



# Contents

Introduction and Guidance  
page 1.3

Compact Fluorescent Integrated Lamps  
page 2.1

Compact Fluorescent Non-Integrated & Fluorescent Lamps  
page 3.1

Halogen Lamps  
page 4.1

Incandescent Lamps  
page 5.1

Compact High Intensity Discharge Lamps  
page 6.1

High Intensity Discharge Lamps  
page 7.1

Lamp Control Gear  
page 8.1

Luminaires Indoor  
page 9.1

Luminaires Outdoor  
page 10.1

General Information and Index  
page 11.1

# Product survey

## 2

### Compact Fluorescent Integrated Lamps

#### Energy Saver



Essential

2.2



Genie

2.4



Tornado

2.8



Ambiance

2.10



Ambiance Coloured

2.12

#### Energy Saver Professional



Decotwist

2.14



MASTER ECOTONE  
High Lumen

2.18



MASTER PL Electronic

2.20



PL Electronic U

2.22



PL Electronic Pro Reflector

2.26



SL Electronic

2.28

# Product survey

## Led Candle Light



Imageo

2.30

# 3

## Compact Fluorescent Non-Integrated & Fluorescent Lamps

## Compact Fluorescent Non-Integrated



MASTER PL-S2 Pin

3.2



MASTER PL-S4 Pin

3.6



MASTER PL-C2 Pin

3.10



MASTER PL-C4 Pin

3.14



MASTER PL-T4 Pin

3.18



MASTER PL-L4 Pin

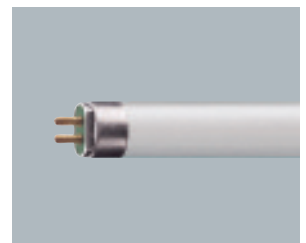
3.22



PL-Q Pro 2 Pin

3.26

## Fluorescent



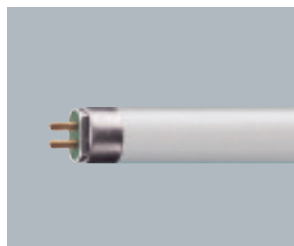
MASTER TL5 High Efficiency Super 80

3.28

1.9

**PHILIPS**

# Product survey



MASTER TL5 High Output Super 80

**3.32**



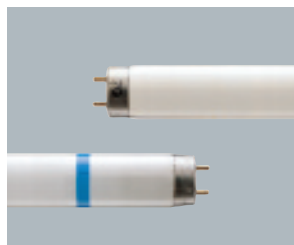
TL5 Circular Super 80 Pro

**3.36**



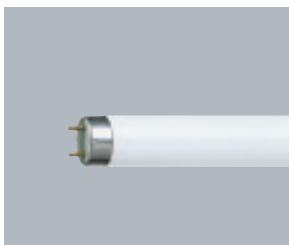
Master TL-D Super 80

**3.38**



Master TL-D Secura Super 80

**3.42**



Master TL-D Reflex Super 80

**3.44**



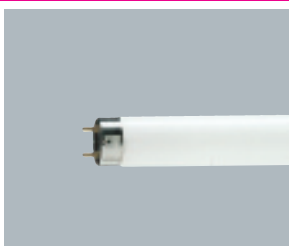
TL-D90 DeLuxe Pro

**3.46**



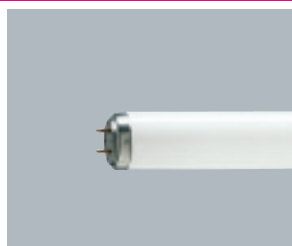
TL-D Snow White

**3.48**



TL-D Standard Colours

**3.50**



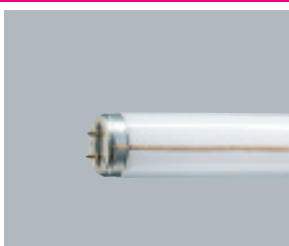
TL Standard Colours

**3.54**



TL Rapid Start Standard Colours

**3.56**



TL-M Rapid Start

**3.58**



TL-X XL

**3.60**

**PHILIPS**

# Product survey

## Induction



TL-E Standard Colours **3.62**



TL Mini Standard Colours **3.64**



MASTER QL **3.66**

## 4

## Halogen Lamps

### LV Halogen



MASTER Line ES **4.2**



Brilliantline Pro (Dichroic) **4.4**



Essential Dichroic MR16 **4.6**



Aluline Pro 111 **4.8**



Diamondline Pro **4.10**

### MV Halogen



Capsuline Pro **4.12**



Capsuline **4.16**



Essential Twistline Alu **4.18**

# Product survey



PAR20 HalogenA Pro **4.20**



PAR30S HalogenA Pro **4.22**



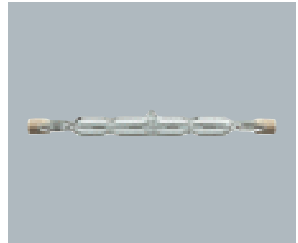
HalogenA Pro 2YR BTT 46 **4.24**



HalogenA Pro Tubular **4.26**



Clickline MV Capsules **4.28**



Plusline (Double Ended) **4.30**

## 5

### Incandescent Lamps

#### Incandescent



Standard (A-shape) **5.2**



Standard Candle (B-shape) **5.6**



Standard Lustre (P-shape) **5.8**



A55 White (A-shape) **5.10**



Krypton Standard (E-shape) **5.12**

# Product survey

## Incandescent specialties



Softone Globe (G-shape) **5.14**



Deco Candle Swan Neck **5.16**



Party Standard (A-shape) **5.18**



Party Lustre (P-shape) **5.20**



Party Tubular **5.22**



Daylight (P-shape) **5.24**



Nightlight P45 (P-shape) **5.26**



Standard Extra Low Voltage (A-shape) **5.28**



Reinforced Construction **5.30**

## Tubular



Anti-insect: Buglezz **5.32**



Philinea **5.34**

## Domestic Appliances



Appliance Oven Tubular **5.36**



# Product survey

## Incandescent Reflector



Appliance Refrigerator Tubular **5.38**



PAR56 **5.40**



PAR38 **5.42**



PAR38 Coloured **5.44**



Reflector R50 **5.46**



Reflector R63 **5.48**



Reflector R80/E80 **5.50**



Reflector Colours **5.52**

# 6

## Compact High Intensity Discharge Lamps

## MASTER Colour CDM



MASTER Colour CDM-T **6.2**



MASTER Colour CDM-TC **6.4**

# Product survey



Mini-MASTER Colour CDM-Tm **6.6**



MASTER Colour CDM-T 250W **6.8**



MASTER Colour CDM-TP **6.10**



MASTER Colour CDM-TD **6.12**



MASTER Colour CDM-R111 **6.14**



MASTER Colour CDM-R PAR20&PAR30L **6.16**

## MASTER SDM White SON



MASTER SDW-TG Mini White SON **6.20**



MASTER SDW-T White SON **6.22**



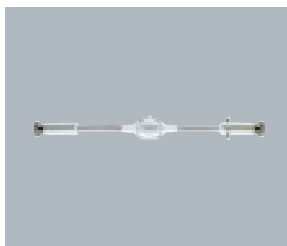
MHN/W-TD **6.24**

## Low Wattage Metal Halide

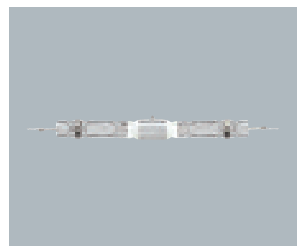
# 7

## High Intensity Discharge Lamps

## MH/HPI Metal Halide



MASTER MHN-SA **7.2**



MASTER MHN-LA **7.4**

# Product survey



MHN-SB Pro

7.6



MASTER HPI-T Plus

7.8



MASTER HPI Plus (Daylight) 7.10

## MASTER City White



Art Colour MH-T Pro

7.12



MASTER City White  
CDO-ET

7.14



MASTER City White  
CDO-TT

7.16

## SON High Pressure Sodium



MASTER SON PIA Plus

7.18



MASTER SON-T PIA Plus

7.20



MASTER SON-T PIA  
Green Power

7.22



SON  
1.16

7.24



SON-T

7.26



SON H Pro

7.28

# Product survey

## SOX Low Pressure Sodium



SOX Pro

7.30

## High Pressure Mercury



HPL-N

7.32



ML

7.34

# 8

## Lamp Control Gear

## Electronic regulating ballasts



HF Regulator II

8.2



HF Regulator

8.4

## Electronic standard ballasts



HF Performer TLD II

8.6



HF Basic II

8.8



e-Kyoto II

8.10

## Electromagnetic ballasts



HF Performer TLS II

8.12



HF Performer PL-T/C

8.14



BTA

8.16

# Product survey

## Starters



For fluorescent lamps **8.18**

## HID electronics



HID-PrimaVision CDM **8.20**

## Basic ballasts



For HPL and HPI (Plus) lamps **8.22**

## Heavy duty ballasts



For HPL and HPI (Plus) **8.24**

## HighPower ballasts



For MH, HPI, HPL, SON **8.26**

## Electronic ignitors



For HID lamp circuits **8.28**

## Electronic Transformer



ET-S Transformer **8.30**

# 9

## Luminaires Indoor

## Recessed luminaires

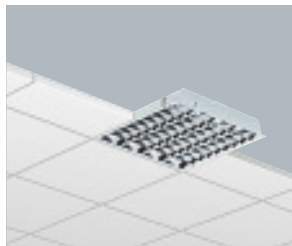


Rotaris **9.4**



TBS235 **9.6**

# Product survey



Impala

9.8



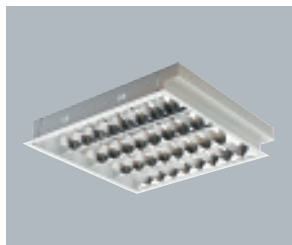
TBS269

9.12



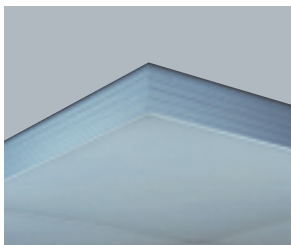
TBS120

9.14



TBS020

9.18



Strato

9.20



Centura

9.22

## Surface-mounted luminaires



Centura square

9.24



TCS097

9.26



Modella

9.28



TCS120

9.30



TCS020

9.32



Gondola

9.34

# Product survey

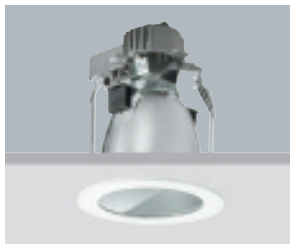
## Downlights



Fugato Compact Accent Lighting **9.38**



MBS205/QBS205 **9.44**



MBS145 **9.46**



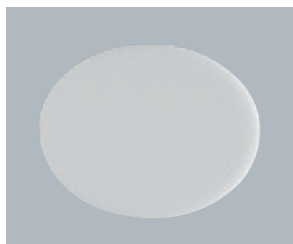
FBH145 **9.48**



FBS145 **9.50**



FCS145/MCS145 **9.52**



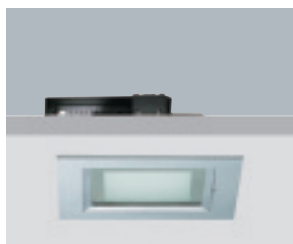
Accessories 145-series **9.54**



FBH059 **9.56**



Europa 2 **9.58**



Latina square **9.62**



Latina **9.64**



QBS105 **9.66**

# Product survey

## Transformers



Zadora Adjustable 9.70



Zadora Fixed 9.72



Transformers 9.74

## Projectors



Monza 9.76

## High-bay luminaires



HDK900 9.78



Cabana 9.80

## Waterproof luminaires



Pacific TCW215 9.82



Pacific TCW216 9.84



Pacific FCW196 9.88

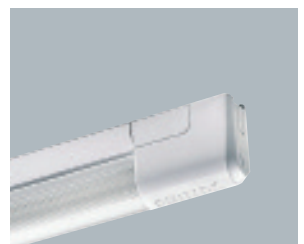
## Battens



TCW097 9.90



TMS012 MARK II 9.92



Pentura Mini 9.96



# Product survey

## 10

### Luminaires Outdoor

#### Urban lighting



BPS740

10.4



Urbana

10.6

#### Road lighting



VivaraZON

10.10



Phenix

10.12



Aurora

10.16



Selenium

10.18



Malaga

10.20



FGS104/FGS105

10.22

#### Architectural flood lighting



LEDflood

10.24



LEDline²

10.26



LEDstep

10.30

# Product survey



LEDuplight

10.32



LEDspot

10.34



Amazon LED

10.36

## Sports and area lighting



ArenaVision

10.40



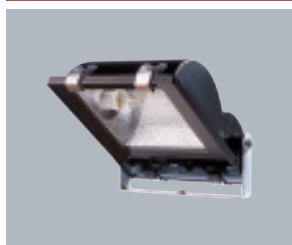
SNF100

10.42



SNF300

10.44



Tempo 1

10.46



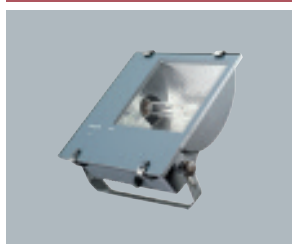
Tempo 2

10.48



Tempo 3

10.50



New Tempo RV251/RVP351

10.52



QVF415/QVF416/QVF417

10.54



Solo

10.56

## Security lighting

# Product survey



SGS113

10.58



FWC110/FWC120/FWC121 10.59



FGC100

10.60



FGC111

10.61





# Introduction

## **Philips – Building our business together**

Philips Lighting International Sales is proud to present you the new Lighting pocket catalogue 2006-2007. It is a very important marketing tool and will support you in increasing your sales.

## **Sense & Simplicity**

The selected products cover the core of our portfolio for the trade channel. The latest trade products and innovations are incorporated.

The catalogue contains several new elements to enable you to quickly find the right products. Photographic product range overviews are included for easy navigation, as well as application reference guides for luminaire products. These guides will help you to define technical and aesthetic solutions for certain applications.

Next to the products mentioned in this catalogue a lot of other Philips products are available, for the purpose of major projects. Please contact your Philips representative for more information.

Let's continue building our business together!

The specifications of Philips Lighting products in this catalogue are correct at the time of printing. Philips Lighting reserves the right to make any changes to the products contained in this catalogue at any time.

For Philips contacts please find the internet URL and addresses of offices in the back of this catalogue.

# Contents

## 1 Introduction and Guidance

General table of contents	1.1
Introduction	1.3
Specific table of contents	1.4
Product survey	1.8
Innovations	1.27

## 2 Compact Fluorescent Integrated Lamps

### Energy Saver

Essential	2.2
Genie	2.4
Tornado	2.8
Ambiance	2.10
Ambiance Coloured	2.12
Decotwist	2.14

### Energy Saver Professional

MASTER ECOTONE High Lumen	2.18
MASTER PL Electronic	2.20
PL Electronic U	2.22
PL Electronic Pro Reflector	2.26
SL Electronic	2.28

### Led Candle Light

Imageo	2.30
--------	------

## 3 Compact Fluorescent Non-Integrated & Fluorescent Lamps

### Compact Fluorescent Non-Integrated

MASTER PL-S 2 Pin	3.2
MASTER PL-S 4 Pin	3.6
MASTER PL-C 2 Pin	3.10
MASTER PL-C 4 Pin	3.14
MASTER PL-T 4 Pin	3.18
MASTER PL-L 4 Pin	3.22
PL-Q Pro 2 Pin	3.26

### Fluorescent

MASTER TL5 High Efficiency Super 80	3.28
MASTER TL5 High Output Super 80	3.32
TL5 Circular Super 80 Pro	3.36
MASTER TL-D Super 80	3.38

MASTER TL-D Secura Super 80	3.42
MASTER TL-D Reflex Super 80	3.44
TL-D 90 De Luxe Pro	3.46
TL-D Snow White	3.48
TL-D Standard Colours	3.50
TL Standard Colours	3.54
TL Rapid Start Standard Colours	3.56
TL-M Rapid Start	3.58
TL-X XL	3.60
TL-E Standard Colours	3.62
TL Mini Standard Colours	3.64

### Induction Lamps

MASTER QL	3.66
-----------	------

## 4 Halogen Lamps

### LV Halogen with Reflector

MASTER Line ES	4.2
Brilliantline Pro (Dichroic)	4.4
Essential Dichroic MR16	4.6
Aluline Pro 111	4.8
Diamondline Pro	4.10

### LV Halogen without Reflector

Capsuline Pro	4.12
Capsuline	4.16

### MV Halogen with Reflector

Essential Twistline Alu	4.18
PAR20 HalogenA Pro	4.20
PAR30S HalogenA Pro	4.22

### MV Halogen without Reflector

HalogenA Pro 2YR BTT46	4.24
HalogenA Pro Tubular	4.26
Clickline MV Capsules	4.28
Plusline (Double Ended)	4.30

## 5 Incandescent Lamps

### Incandescent

Standard (A-shape)	5.2
Standard Candle (B-shape)	5.6
Standard Lustre (P-shape)	5.8
A55 White (A-shape)	5.10

# Contents

Krypton Standard (E-shape)	5.12
Softone Globe (G-shape)	5.14
Deco Candle Swan Neck	5.16

## Incandescent specialties

Party Standard (A-shape)	5.18
Party Lustre (P-shape)	5.20
Party Tubular	5.22
Daylight (P-shape)	5.24
Nightlight P45 (P-shape)	5.26
Standard Extra Low Voltage (A-shape)	5.28
Reinforced Construction	5.30
Anti-insect: Buglezzz	5.32

## Tubular

Philinea	5.34
----------	------

## Domestic Appliances

Appliance Oven Tubular	5.36
Appliance Refrigerator Tubular	5.38

## Incandescent Reflector

PAR56	5.40
PAR38	5.42
PAR38 Coloured	5.44
Reflector R50	5.46
Reflector R63	5.48
Reflector R80/E80	5.50
Reflector Colours	5.52

## 6 Compact High Intensity Discharge Lamps

### MASTER Colour CDM

MASTER Colour CDM-T	6.2
MASTER Colour CDM-TC	6.4
Mini MASTER Colour CDM-Tm	6.6
MASTER Colour CDM-T 250w	6.8
MASTER Colour CDM-TP	6.10
MASTER Colour CDM-TD	6.12
MASTER Colour CDM-R 111	6.14
MASTER Colour CDM-R PAR20&PAR30L	6.16

### MASTER SDW White SON

MASTER SDW-TG Mini White SON	6.20
MASTER SDW-T White SON	6.22

## MHN/W Low Wattage Metal Halide

MHN/ W-TD	6.24
-----------	------

## 7 High Intensity Discharge Lamps

### MH/HPI Metal Halide

MASTER MHN-SA	7.2
MASTER MHN-LA	7.4
MHN-SB Pro	7.6
MASTER HPI-T Plus	7.8
MASTER HPI Plus (Daylight)	7.10
Art Colour MH-T Pro	7.12

### MASTER City White

MASTER City White CDO-ET	7.14
MASTER City White CDO-TT	7.16

### SON High Pressure Sodium

MASTER SON PIA Plus	7.18
MASTER SON-T PIA Plus	7.20
MASTER SON-T PIA Green Power	7.22
SON	7.24
SON-T	7.26
SON H Pro	7.28

### SOX Low Pressure Sodium

SOX Pro	7.30
---------	------

### High Pressure Mercury

HPL-N	7.32
ML	7.34

## 8 Lamp Control Gear

### Electronic regulating ballasts for TL-D

HF Regulator II	8.2
HF Regulator	8.4

### Electronic standard ballasts for TL-D

HF Performer TL-D II	8.6
HF Basic II	8.8
e-Kyoto II	8.10

### Electronic standard ballasts for TL5

HF Performer TL5 II	8.12
---------------------	------



# Contents

<b>Electronic standard ballasts for PL-T/C</b>	
HF Performer PL-T/C	8.14

<b>Electromagnetic ballasts</b>	
BTA	8.16

<b>Starters for fluorescent lamps</b>	
Starters for fluorescent lamps	8.18

<b>HID electronics for CDM lamps</b>	
HID-PrimaVision CDM	8.20

<b>Basic ballasts for HPL and HPI (Plus) lamps</b>	
Basic ballasts for HPL and HPI (Plus) lamps	8.22

<b>HeavyDuty ballasts for HPL and HPI (Plus)</b>	
HeavyDuty ballasts for HPL and HPI (Plus)	8.24

<b>HighPower ballasts for MH, HPI, HPL, SON</b>	
HighPower ballasts for MH, HPI, HPL, SON	8.26

<b>Electronic ignitors for HID lamp circuits</b>	
Electronic ignitors for HID lamp circuits	8.28

<b>Electronic Transformer</b>	
ET-S transformer	8.30

## 9 Luminaires Indoor

Applications reference guide	9.2
------------------------------	-----

<b>Recessed luminaires</b>	
Rotaris	9.4
TBS235	9.6
Impala	9.8
TBS269	9.12
TBS120	9.14
TBS020	9.18

<b>Surface-mounted luminaires</b>	
Strato	9.20
Centura	9.22
Centura square	9.24
TCS097	9.26
Modella	9.28
TCS120	9.30
TCS020	9.32
Gondola	9.34

<b>Downlights</b>	
Fugato Compact Accent lighting	9.38
MBS205/QBS205	9.44
MBS145	9.46
FBH145	9.48
FBS145	9.50
FCS145/MCS145	9.52
Accessories 145-series	9.54
FBH059	9.56
Europa 2	9.58
Latina square	9.62
Latina	9.64
QBS105	9.66
Zadora Adjustable	9.70
Zadora Fixed	9.72

<b>Transformers</b>	
Transformers	9.74

<b>Projectors</b>	
Monza	9.76

<b>High-bay luminaires</b>	
HDK900	9.78
Cabana	9.80

<b>Waterproof luminaires</b>	
Pacific TCW215	9.82
Pacific TCW216	9.84
Pacific FCW196	9.88
TCW097	9.90

<b>Battens</b>	
TMS012 MARK II	9.92
Pentura Mini	9.96

## 10 Luminaires Outdoor

Applications reference guide	10.2
------------------------------	------

<b>Urban lighting</b>	
BPS740	10.4
Urbana	10.6
VivaraZON	10.10

<b>Road lighting</b>	
Phenix	10.12
Aurora	10.16

# Contents

Selenium	10.18
Malaga	10.20
FGS104/FGS105	10.22

## Architectural flood lighting

LEDflood	10.24
LEDline <sup>2</sup>	10.26
LEDstep	10.30
LEDuplight	10.32
LEDspot	10.34
Amazon LED	10.36

## Sports and area lighting

ArenaVision	10.40
SNF100	10.42
SNF300	10.44
Tempo 1	10.46
Tempo 2	10.48
Tempo 3	10.50
New Tempo RV251/RVP351	10.52
QVF415/QVF416/QVF417	10.54

## Security lighting

Solo	10.56
SGS113	10.58
FWC110/FWC120/FWC121	10.59
FGC100	10.60
FGC111	10.61

## 11 General Information and Index

Technical information	11.2
Most used light-technical terms	11.8
Index by type number	11.12
Contact details	11.16



# Shop lighting

Lighting plays a vital role in creating dynamic retail environments from street-front shops to showrooms, from shopping malls to supermarkets. Attractively lit shops, showrooms and shopping centers encourage people to come inside, create a more comfortable environment and encourage people to spend longer in stores.

Compact ceramic base metal halide lamps give shop owners the best of both worlds – even more attractive lighting that stimulates sales as well as reducing lighting costs.



1. Fugato downlights and Fiorenza spotlights are two luminaire families specifically designed to create an appealing and dynamic retail ambience.

2-3. CDM-R111 (2) and Mini Mastercolour lamps (3), both with electronic control gear, are new systems offering low energy-use, low generation of heat and a long lifetime.

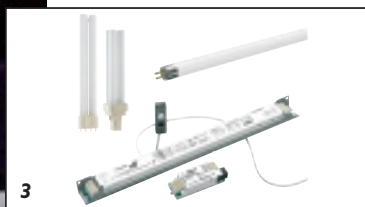
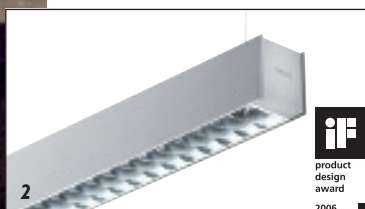


# Office lighting

Office lighting plays a key role in creating a working environment that empowers people to function to the very best of their abilities. Lighting as a discreet presence that integrates seamlessly with the architectural framework to deliver multiple lighting effects that help to bring people's working environment to life.

Dynamic Lighting is an advanced solution that brings the dynamics of daylight into the working environment. Following the rhythm of daylight, Dynamic Lighting creates a stimulating, 'natural' lighting ambience and enables individuals to control the lighting to suit their own personal preferences, mood, needs and working situation.

The products with an iF logo have won an iF award which guarantees the latest design trends. Winning this prestigious award is only possible with products that enhance appreciation for excellent design and help users to recognize different nuances in a complex product world.



1. Savio, featuring Philips' new micro-lens optic technology, offers the ideal combination of stylish design and optimum performance. Savio is available in standard and Dynamic Lighting versions.

2. Celino and Arano: maximum performance, minimalist design.

3. With TL5 lamps and ActiLume controls, energy saving and flexible lighting control has never been easier.



# Road lighting

Roads are generally the responsibility of the town or city in which they are located. In terms of both road safety and security, it is in the interest of each town or city to ensure that its streets are appropriately and adequately lit. Market trends are towards solutions offering energy efficiency and long, reliable service lives, in order to reduce lighting ownership costs. Further miniaturization is another trend driving unobtrusive lighting and exciting new luminaire designs.



1. *CosmoPolis is a complete system featuring new lamp technology specially developed for outdoor lighting, controlled by the latest generation of electronic gear, offering many options and opportunities for energy-savings and miniaturization.*



2. *The MiniMilewide incorporates the Cosmopolis system and offers improved lighting performance thanks to its new optical system (dedicated optic Cosmo-R + new lamp holder),*

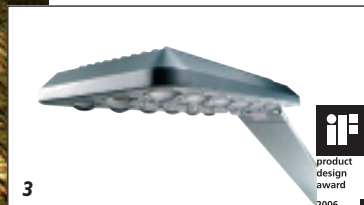




# Architectural outdoor

Urban architectural lighting of buildings, bridges, statues and gardens helps to create a nightscape even more striking than the same area as seen by day. Today's architectural lighting does involve high light levels but brings out architectural features with colour and shade.

High power LED Lighting Systems are making new imaginative lighting applications possible. Saturated colours, perfect beam control, and an unlimited freedom to play with colour dynamics make LED lighting the preferred choice in many applications.



1. LEDline<sup>2</sup>, a complete range of LED-based linear floodlights, is available in mono-colour and RGB-dynamic versions.

2. LEDflood is a distinctive new floodlight for illuminating structures with coloured light.

3. Architectural pedestrian lighting based on LED technology has become a reality with the BPS740.



# LED Components

The rapidly advancing developments in LED technology enables us to create lighting effects that were previously unthinkable. A technology that can be incorporated in almost any object, surface or appliance, to provide dynamic light that changes colour and intensity.



1. The LED string is a unique lighting system (string and driver) that can be directly mounted on the back plate of a sign or other substrate. The LED string is made up of coloured or white LED devices.



2. LED Module and LED Component Systems can be used to create innovative LED-based luminaires, or simply embedded into walls, floors, ceilings or almost any object or surface. This offers high design flexibility for shops and outdoor applications.





# Hospitality

Lighting plays an important role in creating a relaxing and comfortable ambience in people's homes, gardens, bars, hotels and restaurants. Design, shape and colour can greatly influence the total atmosphere of a room or location. An appealing and relaxing ambience creates a pleasant feeling and invites people to come inside. The Imageo and Ambiance Coloured lamps are modern decorative solutions for creating a perfect, attractive ambience.



1. The Imageo is a modern rechargeable induction-based LED Candle, designed for a safe, congenial and relaxing ambience.

2. The Ambiance Coloured lamps are perfectly suited to providing an attractive colourful setting while saving energy at the same time.





Compact  
Fluorescent  
Integrated  
Lamps





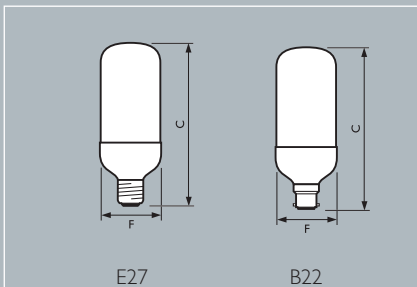
# Energy Saver Professional

SL Electronic



SL-E

Dimensions in mm



## Product Description

- Covered energy saving lamps for professional use

## Product Features

- Professional long-life alternative to incandescent lamps
- Available in two colour temperatures: Warm White and Cool Daylight
- The Philips amalgam technology ensures bright and stable light output (>90%) over recommended temperature range
- Lightweight and improved, the SL Electronic range is available in 11W, 15W, 20W versions, the equivalents of 60W, 75W and 100W incandescent light bulbs.

## Product Benefits

- Prismatic cover designed to give sparkle and reduce glare
- The sturdy, yet graceful design and finishing is ideal for decorative applications
- Long life of 10,000 hours, which equals 6 years at 4.5 hours/day
- The low initial and operating cost of the SL Electronic P give the lamps the best value for money.
- Instant start (< 0.1 sec.) and save up 80% energy compared to the incandescent light
- The lamps operate under a wide voltage range (170-250V), to give you light even in fluctuating Power supply.
- The lamps will start in temperatures as low as -10°C

## Application

- Designed for incandescent lamp replacement in most professional luminaires
- Especially suitable for applications in functional areas where lighting is required for longer periods of time or where lamp replacement is difficult
- Wide range of applications due to small outerdimensions
- Ambient temperature range -20 to +55°C
- Enclosed fixtures are required for outdoor applications
- Not suitable for dimming and electronic devices

Product ID	C	F
SL-E 11W	143	58.4
SL-E 15W	143	58.4
SL-E 20W	158	58.4

# Energy Saver Professional

SL Electronic

## Preferred selection

Product ID	Lamp Wattage (W)	Cap/ Base	Lamp Voltage (V)	Frequency (Hz)	Colour Designation	Colour Temperature (K)
<b>Cool Daylight</b>						
SL Electronic	11W	E27	220-240V	50-60Hz	Cool Daylight	6500
SL Electronic	11W	B22	220-240V	50-60Hz	Cool Daylight	6500
SL Electronic	15W	E27	220-240V	50-60Hz	Cool Daylight	6500
SL Electronic	15W	B22	220-240V	50-60Hz	Cool Daylight	6500
SL Electronic	20W	E27	110-127V	50-60Hz	Cool Daylight	6500
SL Electronic	20W	E27	220-240V	50-60Hz	Cool Daylight	6500
SL Electronic	20W	B22	220-240V	50-60Hz	Cool Daylight	6500
<b>Warm White</b>						
SL Electronic	15W	E27	220-240V	50-60Hz	Warm White	2700
SL Electronic	20W	E27	220-240V	50-60Hz	Warm White	2700
SL Electronic	20W	B22	220-240V	50-60Hz	Warm White	2700

Product ID	Lamp Wattage (W)	Luminous Flux (Lm)	Luminous Efficacy (Lm/W)	Colour Rendering Index (Ra)	Equivalent light of ordinary Incandescent	Box quantity	European Order Code (EOC) 8711500
<b>Cool Daylight</b>							
SL Electronic	11W	570	52	80	60W	12	26655215
SL Electronic	11W	570	52	80	60W	12	26659015
SL Electronic	15W	800	53	80	75W	12	26543215
SL Electronic	15W	800	53	80	75W	12	26661315
SL Electronic	20W	1100	55	80	100W	12	71101515
SL Electronic	20W	1100	55	80	100W	12	26547015
SL Electronic	20W	1100	55	80	100W	12	26663715
<b>Warm White</b>							
SL Electronic	15W	850	53	82	75W	12	26542515
SL Electronic	20W	1150	58	82	100W	12	26546315
SL Electronic	20W	1150	58	82	100W	12	26662015



Essential 18W

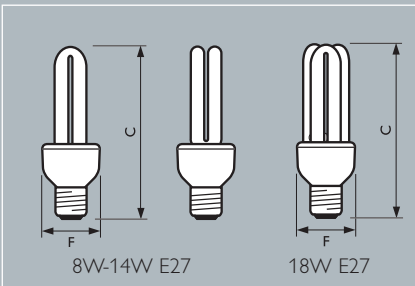


Essential 8W



Essential 14W

Dimensions in mm



## Product Description

- Range of non-covered energy saving lamps

## Product Features

- Lamps are available in Warm White (2700K) and Cool Daylight (6500K)
- Products are available in a broad range, from 8w up to 23W in both High Voltage (220-240) and Low Voltage types (110-127V) with E27 or B22 base
- Safety fuse and instant and flicker free start (under 0.1 seconds)
- Long life time : 6000 hrs

## Product Benefits

- Essential lamps are available in different colour temperatures, allowing a consumer to create different ambiances in home
- The Essential range can replace the full incandescent range from 40W up to 125W, resulting in energy savings of up to 80%
- Essential lamps have a long life, which can last up to 3 years
- The lamps operate under a wide voltage range (170-250V), to give you light even in fluctuating power supply.

## Application

- Designed for incandescent lamp replacement in consumer and semi-professional applications
- Especially suitable for (indoor) applications in functional areas
- Ambient temperature range -5 to +45°C (base-up), +5 to +45°C (base-down)
- Enclosed fixtures are required for outdoor applications
- Not suitable for dimming and electronic devices

Product ID	C	F
	max.	max.
ESSENTIAL 8W	140	44
ESSENTIAL 11W	155	44
ESSENTIAL 14W	170	44
ESSENTIAL 18W	165	52
ESSENTIAL 23W	175	52

## Preferred selection

Product ID	Lamp Wattage (W)	Cap/ Base	Lamp Voltage (V)	Frequency (Hz)	Colour Designation	Colour Temperature (K)
<b>Cool Daylight</b>						
Essential	8W	E27	220-240V	50-60Hz	Cool Daylight	6500
Essential	8W	B22	220-240V	50-60Hz	Cool Daylight	6500
Essential	11W	E27	220-240V	50-60Hz	Cool Daylight	6500
Essential	11W	B22	220-240V	50-60Hz	Cool Daylight	6500
Essential	14W	E27	220-240V	50-60Hz	Cool Daylight	6500
Essential	14W	B22	220-240V	50-60Hz	Cool Daylight	6500
Essential	18W	E27	220-240V	50-60Hz	Cool Daylight	6500
Essential	18W	B22	220-240V	50-60Hz	Cool Daylight	6500
Essential	23W	E27	220-240V	50-60Hz	Cool Daylight	6500
Essential	23W	B22	220-240V	50-60Hz	Cool Daylight	6500

## Warm White

Essential	8W	E27	220-240V	50-60Hz	Warm White	2700
Essential	8W	B22	220-240V	50-60Hz	Warm White	2700
Essential	14W	E27	220-240V	50-60Hz	Warm White	2700
Essential	14W	B22	220-240V	50-60Hz	Warm White	2700
Essential	18W	E27	220-240V	50-60Hz	Warm White	2700
Essential	18W	B22	220-240V	50-60Hz	Warm White	2700
Essential	23W	E27	220-240V	50-60Hz	Warm White	2700
Essential	23W	B22	220-240V	50-60Hz	Warm White	2700

Product ID	Lamp Wattage (W)	Luminous Flux (Lm)	Luminous Efficacy (Lm/W)	Colour Rendering Index (Ra)	Equivalent light of ordinary Incandescent	Box quantity	European Order Code (EOC) 8711500
<b>Cool Daylight</b>							
Essential	8W	430	54	80	40W	12	30281615
Essential	8W	430	54	80	40W	12	30283015
Essential	11W	620	56	80	60W	12	79872515
Essential	11W	620	56	80	60W	12	79873215
Essential	14W	810	58	80	75W	12	30289215
Essential	14W	810	58	80	75W	12	30291515
Essential	18W	1100	61	80	100W	12	30482715
Essential	18W	1100	61	80	100W	12	30484115
Essential	23W	1370	60	80	100W	12	27026912
Essential	23W	1370	60	80	125W	12	27028312

## Warm White

Essential	8W	460	58	82	40W	12	30280915
Essential	8W	460	58	82	40W	12	30282315
Essential	14W	850	61	82	75W	12	30288515
Essential	14W	850	61	82	75W	12	30290815
Essential	18W	1170	65	82	100W	12	30481015
Essential	18W	1170	65	82	100W	12	30483415
Essential	23W	1450	63	82	125W	12	27025212
Essential	23W	1450	63	82	125W	12	27027612



Genie 14W/18W

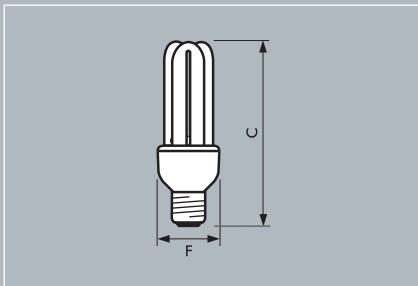


Genie 5W



Genie 8/11W

Dimensions in mm



## Product Description

- The Genie range is a full range of non-covered energy saving lamps, offering a low-weight, long-life alternative to incandescent lamps.

## Product Features

- Genie lamps are the smallest high performance energy savers available on the market.
- Light output after 1 minute 85%
- Available in a broad range from 5w up to 18W
- Safety fuse and instant and flicker free start (under 0.1 seconds)
- Long life alternative to incandescent lamps, lifetime: 6000 hrs
- Recommended ambient temperature range to ensure almost constant light output (>90%): between +10°C and +45°C
- Flawless ignition at -20°C and up.

## Product Benefits

- Due to the compact size (smaller than an incandescent bulb), Genie fits any lamp shade in your home.
- Genie lamps are available in different colour temperatures, allowing a consumer to create different ambiances in home
- The Genie range can replace the full incandescent range from 25w up to 100w, resulting in energy savings of up to 80%
- The lamps operate under a wide voltage range (170-250V), to give you light even in fluctuating power supply.

## Application

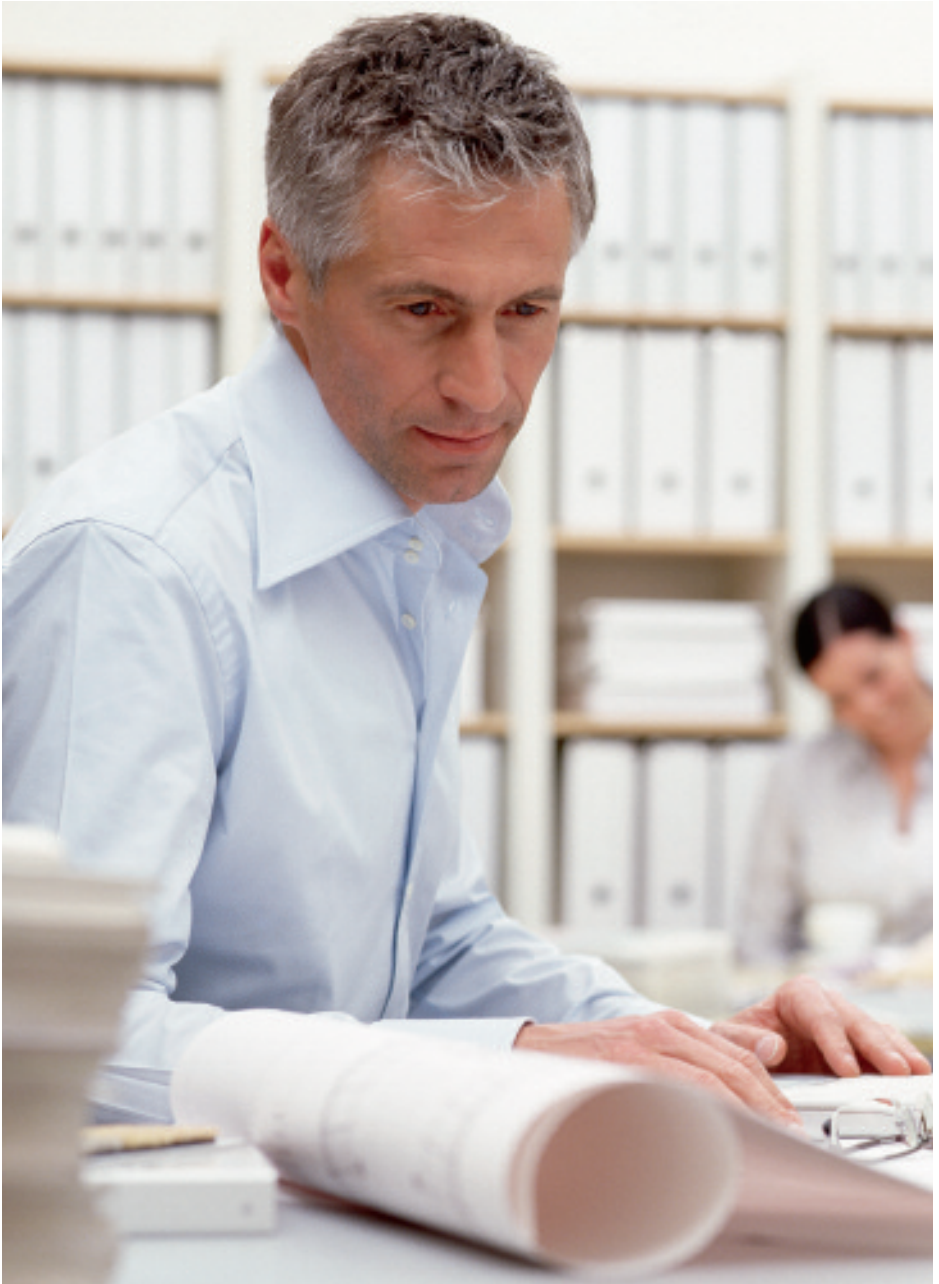
- Designed for incandescent lamp replacement in consumer and semi-professional applications
- Especially suitable for (indoor) applications in functional areas
- Ambient temperature range -5 to +45°C (base-up), +5 to +45°C (base-down)
- Enclosed fixtures are required for outdoor applications
- Not suitable for dimming and electronic devices

Product ID	C	F
Genie E14 5W	107	37
Genie E14 8W	110	44
Genie E27/B22 5W	105	37
Genie E27/B22 8W	105	44
Genie E27/B22 11W	115	44
Genie E27/B22 14W	130	44
Genie E27/B22 18W	133	48

## Preferred selection

Product ID	Lamp Wattage (W)	Cap/ Base	Lamp Voltage (V)	Frequency (Hz)	Colour Designation	Colour Temperature (K)
<b>Cool Daylight</b>						
Genie	5W	E27	110-127V	50-60Hz	Cool Daylight	6500
Genie	5W	E27	220-240V	50-60Hz	Cool Daylight	6500
Genie	5W	E14	220-240V	50-60Hz	Cool Daylight	6500
Genie	5W	B22	220-240V	50-60Hz	Cool Daylight	6500
Genie	8W	E27	110-127V	50-60Hz	Cool Daylight	6500
Genie	8W	E27	220-240V	50-60Hz	Cool Daylight	6500
Genie	8W	E14	220-240V	50-60Hz	Cool Daylight	6500
Genie	8W	B22	220-240V	50-60Hz	Cool Daylight	6500
Genie	11W	E27	110-127V	50-60Hz	Cool Daylight	6500
Genie	11W	E27	220-240V	50-60Hz	Cool Daylight	6500
Genie	11W	B22	220-240V	50-60Hz	Cool Daylight	6500
Genie	14W	E27	110-127V	50-60Hz	Cool Daylight	6500
Genie	14W	E27	220-240V	50-60Hz	Cool Daylight	6500
Genie	14W	B22	220-240V	50-60Hz	Cool Daylight	6500
Genie	18W	E27	220-240V	50-60Hz	Cool Daylight	6500
Genie	18W	B22	220-240V	50-60Hz	Cool Daylight	6500
<b>Warm White</b>						
Genie	5W	E27	110-127V	50-60Hz	Warm White	2700
Genie	5W	E27	220-240V	50-60Hz	Warm White	2700
Genie	5W	E14	220-240V	50-60Hz	Warm White	2700
Genie	5W	B22	220-240V	50-60Hz	Warm White	2700
Genie	8W	E27	110-127V	50-60Hz	Warm White	2700
Genie	8W	E27	220-240V	50-60Hz	Warm White	2700
Genie	8W	E14	220-240V	50-60Hz	Warm White	2700
Genie	8W	B22	220-240V	50-60Hz	Warm White	2700
Genie	11W	E27	110-127V	50-60Hz	Warm White	2700
Genie	11W	E27	220-240V	50-60Hz	Warm White	2700
Genie	11W	B22	220-240V	50-60Hz	Warm White	2700
Genie	14W	E27	110-127V	50-60Hz	Warm White	2700
Genie	14W	E27	220-240V	50-60Hz	Warm White	2700
Genie	14W	B22	220-240V	50-60Hz	Warm White	2700
Genie	18W	E27	220-240V	50-60Hz	Warm White	2700
Genie	18W	B22	220-240V	50-60Hz	Warm White	2700

Product ID	Lamp Wattage (W)	Luminous Flux (Lm)	Luminous Efficacy (Lm/W)	Colour Rendering Index (Ra)	Equivalent light of ordinary Incandescent	Box quantity	European Order Code (EOC) 8711500
<b>Cool Daylight</b>							
Genie	5W	235	47	80	25W	48	31650926
Genie	5W	235	47	80	25W	48	26514226
Genie	5W	235	47	80	25W	48	26537126
Genie	5W	235	47	80	25W	48	26525826
Genie	8W	400	50	80	40W	48	26864826
Genie	8W	400	50	80	40W	48	26518026
Genie	8W	400	50	80	40W	48	26749826
Genie	8W	400	50	80	40W	48	26527226
Genie	11W	570	52	80	60W	48	26866226
Genie	11W	570	52	80	60W	48	26643926
Genie	11W	570	52	80	60W	48	26645326
Genie	14W	760	54	80	75W	48	27020726
Genie	14W	760	54	80	75W	48	26908926
Genie	14W	760	54	80	75W	48	26910226
Genie	18W	1040	58	80	100W	48	31666026
Genie	18W	1040	58	80	100W	48	31668426
<b>Warm White</b>							
Genie	5W	250	50	82	25W	48	31649326
Genie	5W	250	50	82	25W	48	26512826
Genie	5W	250	50	82	25W	48	26536426
Genie	5W	250	50	82	25W	48	26524126
Genie	8W	420	53	82	40W	48	26863126
Genie	8W	420	53	82	40W	48	26516626
Genie	8W	420	53	82	40W	48	26748126
Genie	8W	420	53	82	40W	48	26526526
Genie	11W	600	55	82	60W	48	26865526
Genie	11W	600	55	82	60W	48	26642226
Genie	11W	600	55	82	60W	48	26644626
Genie	14W	810	58	82	75W	48	27019126
Genie	14W	810	58	82	75W	48	26907226
Genie	14W	810	58	82	75W	48	26909626
Genie	18W	1100	61	82	100W	48	31665326
Genie	18W	1100	61	82	100W	48	31667726





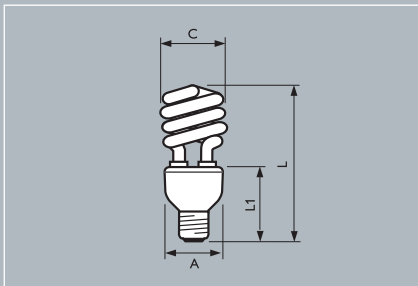


Tornado 23W E27



Tornado 11W E27

Dimensions in mm



## Product Description

- The Tornado range is a full range of twist-shaped compact fluorescent lamps, with optimal light distribution

## Product Features

- Tornado lamps have a compact and decorative shape
- Better light distribution due to their round burner
- Tornado is available in 11W, 15W, 20W and 23W with lumen equivalence of 60W, 75W, 100W and 125W incandescent light bulb.
- Available in two colour temperatures, warm white and cool daylight
- Instant and flicker free start

## Product Benefits

- The Tornado range is widely used to replace incandescent light bulb in all kinds of applications, especially when intensive light output is required.
- They have an attractive decorative shape
- Tornado lamps consumes up to 80% less energy than the incandescent light bulb
- Long lifetime of 6,000 hrs
- The range is not suitable for dimming and electronic devices
- The lamps operate under a wide voltage range (170-250V), to give you light even in fluctuating power supply.

## Application

- Designed for incandescent lamp replacement in consumer and semi-professional applications
- Especially suitable for (indoor) applications in functional areas
- Recommended ambient temperature range to ensure almost constant light output (>90%): between +10°C and +45°C
- Enclosed fixtures are required for outdoor applications
- Not suitable for dimming and electronic devices

Product ID	A	C	L	L1
Tornado 11-15W	44	45	114-126	60
Tornado 20-23W	48	52	133-139	66,5

## Preferred selection

Product ID	Lamp Wattage (W)	Cap/Base	Lamp Voltage (V)	Frequency (Hz)	Colour Designation	Colour Temperature (K)
<b>Cool Daylight</b>						
Tornado	11W	E27	220-240V	50-60Hz	Cool Daylight	6500
Tornado	11W	B22	220-240V	50-60Hz	Cool Daylight	6500
Tornado	15W	E27	220-240V	50-60Hz	Cool Daylight	6500
Tornado	15W	B22	220-240V	50-60Hz	Cool Daylight	6500
Tornado	20W	E27	220-240V	50-60Hz	Cool Daylight	6500
Tornado	20W	B22	220-240V	50-60Hz	Cool Daylight	6500
Tornado	23W	E27	220-240V	50-60Hz	Cool Daylight	6500
Tornado	23W	B22	220-240V	50-60Hz	Cool Daylight	6500

## Warm White

Tornado	11W	E27	220-240V	50-60Hz	Warm White	2700
Tornado	11W	B22	220-240V	50-60Hz	Warm White	2700
Tornado	15W	E27	220-240V	50-60Hz	Warm White	2700
Tornado	15W	B22	220-240V	50-60Hz	Warm White	2700
Tornado	20W	E27	220-240V	50-60Hz	Warm White	2700
Tornado	20W	B22	220-240V	50-60Hz	Warm White	2700
Tornado	23W	E27	220-240V	50-60Hz	Warm White	2700
Tornado	23W	B22	220-240V	50-60Hz	Warm White	2700

Product ID	Lamp Wattage (W)	Luminous Flux (Lm)	Luminous Efficacy (Lm/W)	Colour Rendering Index (Ra)	Equivalent light of ordinary Incandescent	Box quantity	European Order Code (EOC) 8711500
<b>Cool Daylight</b>							
Tornado	11W	660	60	80	60W	12	27036815
Tornado	11W	660	60	80	60W	12	27260715
Tornado	15W	900	60	80	75W	12	27038215
Tornado	15W	900	60	80	75W	12	27045015
Tornado	20W	1250	63	80	100W	12	27040515
Tornado	20W	1250	63	80	100W	12	27047415
Tornado	23W	1450	63	80	125W	12	27042915
Tornado	23W	1450	63	80	125W	12	27049815

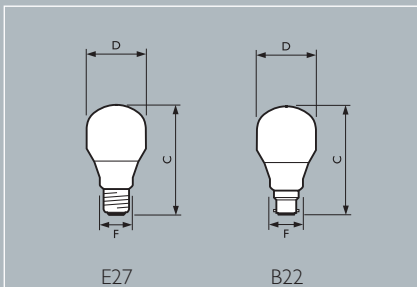
## Warm White

Tornado	11W	700	64	82	60W	12	27035115
Tornado	11W	700	64	82	60W	12	27043615
Tornado	15W	950	63	82	75W	12	27037515
Tornado	15W	950	63	82	75W	12	27261415
Tornado	20W	1350	67	82	100W	12	27039915
Tornado	20W	1350	67	82	100W	12	27046715
Tornado	23W	1550	67	82	125W	12	27041215
Tornado	23W	1550	67	82	125W	12	27048115



Ambiance (T) 8W

Dimensions in mm



## Product Description

- The Ambiance range is decorative covered compact fluorescent lamp, designed for an anti-glare application.

## Product Features

- The Ambiance T-shape is available in 8W and 11W, with lumen equivalence of 40W and 60W incandescent light bulb.
- Available in two colour temperatures: warm white and cool daylight
- Fast run-up: Light output after 1 minute 80%
- Recommended ambient temperature range to ensure almost constant light output (>90%): between +10°C and +45°C
- Flawless ignition at -20°C and up.

## Product Benefits

- The Ambiance range is available in both 220-240V and 120-127V and able to operate under a wide voltage range
- Ambiance Energy Savers consume up to 80% less energy than the incandescent light bulb
- Long life of 6,000 hours

## Application

- Ideal for use in most consumer and semi-professional applications
- Ideal replacement for incandescent lamps in places where lights burn for longer periods and where good light effect is important like in indoor fixtures, downlights and other applications
- Closed fixtures are required for outdoor applications
- Not suitable for dimming and electronic devices

Product ID	C	D	F
Ambiance (T) 8W	112	60.5	44
Ambiance (T) 11W	122	60.5	44

## Preferred selection

Product ID	Lamp Wattage (W)	Cap/ Base	Lamp Voltage (V)	Frequency (Hz)	Colour Designation	Colour Temperature (K)
<b>Cool Daylight</b>						
Ambiance	8W	E27	220-240V	50-60Hz	Cool Daylight	6500
Ambiance	8W	B22	220-240V	50-60Hz	Cool Daylight	6500
Ambiance	11W	E27	220-240V	50-60Hz	Cool Daylight	6500
Ambiance	11W	B22	220-240V	50-60Hz	Cool Daylight	6500
<b>Warm White</b>						
Ambiance	8W	E27	220-240V	50-60Hz	Warm White	2700
Ambiance	8W	B22	220-240V	50-60Hz	Warm White	2700
Ambiance	11W	E27	220-240V	50-60Hz	Warm White	2700
Ambiance	11W	B22	220-240V	50-60Hz	Warm White	2700

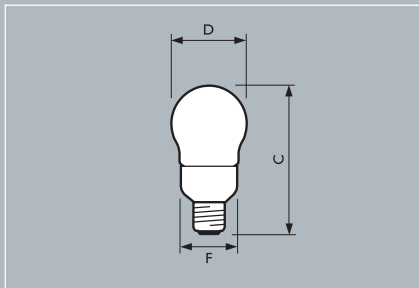
Product ID	Lamp Wattage (W)	Luminous Flux (Lm)	Luminous Efficacy (Lm/W)	Colour Rendering Index (Ra)	Equivalent light of ordinary Incandescent	European Order Code (EOC) 8711500
<b>Cool Daylight</b>						
Ambiance	8W	380	48	80	40W	Available on request
Ambiance	8W	380	48	80	40W	Available on request
Ambiance	11W	540	49	80	60W	Available on request
Ambiance	11W	540	49	80	60W	Available on request
<b>Warm White</b>						
Ambiance	8W	400	50	82	40W	Available on request
Ambiance	8W	400	50	82	40W	Available on request
Ambiance	11W	570	52	82	60W	Available on request
Ambiance	11W	570	52	82	60W	Available on request

## Energy Saver



Ambiance Coloured Red

Dimensions in mm



## Ambiance Coloured

### Product Description

- Coloured covered compact fluorescent lamp lamps with an A60 Shape

### Product Features

- Ambiance Coloured will be available in 11W
- Available in four different colours: red, blue, green, yellow
- Long life time: 6000 hrs

### Product Benefits

- Long life energy saving solution compared to coloured incandescent lamps
- Very attractive and bright colours creating an attractive coloured ambiance

### Application

- All kind of indoor and outdoor decorative lighting and special effects
- Outdoor: streets, facades, shopping centres, amusements parcs, garden, parties
- Indoor: parties, special celebrations and decorative effects
- Not suitable for dimming and electronic devices

Product ID	C	D	F
Ambiance Coloured	124	60	44

# Energy Saver

# Ambiance Coloured



Ambiance Coloured Green



Ambiance Coloured Blue



Ambiance Coloured Yellow

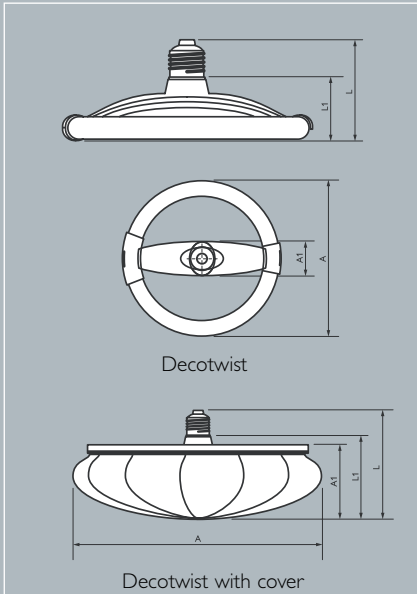
## Preferred selection

Product ID	Lamp Wattage (W)	Cap/ Base	Lamp Voltage (V)	Frequency (Hz)	Bulb Shape	Colour Designation	Order Code
Ambiance Coloured	11W	E27	220-240V	50-60Hz	A60	Red	Available on request
Ambiance Coloured	11W	E27	220-240V	50-60Hz	A60	Blue	Available on request
Ambiance Coloured	11W	E27	220-240V	50-60Hz	A60	Green	Available on request
Ambiance Coloured	11W	E27	220-240V	50-60Hz	A60	Yellow	Available on request



Decotwist

Dimensions in mm



Decotwist

Decotwist with cover

## Product Description

- The Decotwist is a circular-shaped retrofit energy-saving lamp with integrated ballast and T5C burner.
- The Decotwist is designed in two executions:
  - **The Decotwist:** A sleek modern design, as a ready to install lamp
  - **The Decotwist De Luxe:** A version with decorative covers

## Product Features

- The Decotwist is a flat low-weight long-life energy saving alternative to incandescent lamps
- Both executions are available in two colour temperatures warm white and cool daylight
- Versions with cover are available in several designs
- Electronic start, no flickering
- T5C burner with ballast
- High intensity value of light
- Almost constant light output (>80%) over recommended temperature range

## Product Benefits

- Excellent light dispersion characteristics with high luminous flux
- 80 % energy saving compared to standard incandescent lamp
- Reliability over life, long lifetime: 6000 hours
- Stylish modern design for easy direct installation

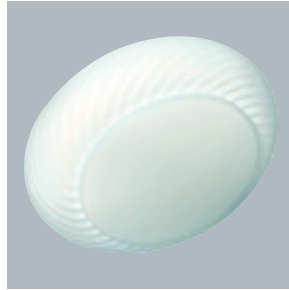
## Application

- Designed for incandescent lamp replacement for general lighting purposes in consumer and (semi-) professional applications – round, slim shape well suited to all shallow lampshades and pendant lamp fittings
- Not suitable for dimming and electronic devices

Product ID	L	L1	A1	A1	Burner dimension
Decotwist	76	46.5	227.2	40.5	17
Decotwist with cover	124	96	290	84	17



Decotwist Blossom



Decotwist Ridge



Decotwist Lux

## Preferred selection

Product ID	Lamp Wattage (W)	Cap/ Base	Lamp Voltage (V)	Frequency (Hz)	Colour Designation	Colour Temperature (K)
<b>Decotwist</b>						
Decotwist	25W	E27	220-240V	50-60Hz	Cool Daylight	6500
Decotwist	25W	B22	220-240V	50-60Hz	Cool Daylight	6500
Decotwist	25W	E27	220-240V	50-60Hz	Warm White	2700
Decotwist	25W	B22	220-240V	50-60Hz	Warm White	2700
<b>Decotwist De Luxe - Cool Daylight</b>						
Decotwist Blossom	25W	E27	220-240V	50-60Hz	Cool Daylight	6500
Decotwist Blossom	25W	B22	220-240V	50-60Hz	Cool Daylight	6500
Decotwist Lux	25W	E27	220-240V	50-60Hz	Cool Daylight	6500
Decotwist Lux	25W	B22	220-240V	50-60Hz	Cool Daylight	6500
Decotwist Ridge	25W	E27	220-240V	50-60Hz	Cool Daylight	6500
Decotwist Ridge	25W	B22	220-240V	50-60Hz	Cool Daylight	6500
<b>Decotwist De Luxe - Warm White</b>						
Decotwist Blossom	25W	E27	220-240V	50-60Hz	Warm White	2700
Decotwist Blossom	25W	B22	220-240V	50-60Hz	Warm White	2700
Decotwist Lux	25W	E27	220-240V	50-60Hz	Warm White	2700
Decotwist Lux	25W	B22	220-240V	50-60Hz	Warm White	2700
Decotwist Ridge	25W	E27	220-240V	50-60Hz	Warm White	2700
Decotwist Ridge	25W	B22	220-240V	50-60Hz	Warm White	2700



Product ID	Lamp Wattage (W)	Luminous Flux (Lm)	Luminous Efficacy (Lm/W)	Colour Rendering Index (Ra)	Burner Type	Box quantity	European Order Code (EOC) 8711500
<b>Decotwist</b>							
Decotwist	25W	1700	68	80	T5C	4	31558845
Decotwist	25W	1700	68	80	T5C	4	31559545
Decotwist	25W	1800	72	82	T5C	4	31556445
Decotwist	25W	1800	72	82	T5C	4	31557145
<b>Decotwist De Luxe - Cool Daylight</b>							
Decotwist Blossom	25W	1100	44	80	T5C	6	31578610
Decotwist Blossom	25W	1100	44	80	T5C	6	31579310
Decotwist Lux	25W	1100	44	80	T5C	6	31574810
Decotwist Lux	25W	1100	44	80	T5C	6	31575510
Decotwist Ridge	25W	1100	44	80	T5C	6	31570010
Decotwist Ridge	25W	1100	44	80	T5C	6	31571710
<b>Decotwist De Luxe - Warm White</b>							
Decotwist Blossom	25W	1150	46	82	T5C	6	31576210
Decotwist Blossom	25W	1150	46	82	T5C	6	31577910
Decotwist Lux	25W	1150	46	82	T5C	6	31572410
Decotwist Lux	25W	1150	46	82	T5C	6	31573110
Decotwist Ridge	25W	1150	46	82	T5C	6	31568710
Decotwist Ridge	25W	1150	46	82	T5C	6	31569410

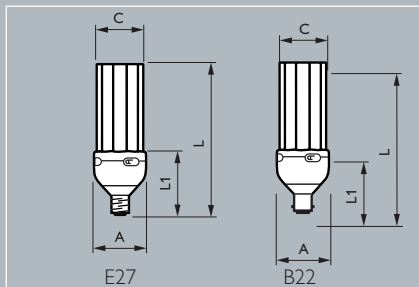


# Energy Saver Professional



High Lumen 45W

Dimensions in mm



# MASTER ECOTONE High Lumen

## Product Description

- Energy saving lamp for professional use, consists of 8 parallel narrow fluorescent tubes bridged together
- Lamps are equipped with a unique heat pump design and integrated ballast

## Product Features

- Professional ultra bright, long life energy saving alternative to HPL and ML lamps
- Available in two colour temperatures: Warm White and Cool Daylight
- The MASTER ECOTONE High Lumen lamps have a long life of 10,000 hours
- The range is available in 45W/65W versions, the equivalents of ML 160W and HPL-N 80W
- Available in three colour temperatures: Warm White, Cool White and Cool Daylight with good colour rendering
- The Philips amalgam technology ensures in all applications bright and stable light is guaranteed, also when the ambient temperature varies

## Product Benefits

- The low operation cost of the ECOTONE High Lumen lamps give the best value for money and can be the perfect alternatives to replace ML or HPL system in the open fixtures
- Instant start instantly (< 0.1 sec.) and saves energy compared with the ML/HPL solutions
- The lamps operate under a wide voltage range (170-250V), to give you light even in fluctuating Power supply
- High Power Factor; fully compliant to IEC/EMC standards

## Application

- Indoor and outdoor general and decorative lighting in professional low and medium- bay environments such as:
  - public buildings
  - shops and shopping centers
  - railway and bus stations
  - residential areas and city centers
- Not suitable for the enclosed fixtures, dimmers, or electronic switchers or remote controls

Product ID	L	A	L1
High Lumen 45W	227	80.2	98
High Lumen 65W	261	80.2	98

# Energy Saver Professional

# MASTER ECOTONE High Lumen



High Lumen 65W

## Preferred selection

Product ID	Lamp Wattage (W)	Cap/ Base	Lamp Voltage (V)	Frequency (Hz)	Colour Designation	Colour Temperature (K)
<b>Cool Daylight</b>						
MASTER ECOTONE High Lumen	45W	E27	220-240V	50-60Hz	Cool Daylight	6500
MASTER ECOTONE High Lumen	45W	B22	220-240V	50-60Hz	Cool Daylight	6500
MASTER ECOTONE High Lumen	65W	E27	220-240V	50-60Hz	Cool Daylight	6500
MASTER ECOTONE High Lumen	65W	B22	220-240V	50-60Hz	Cool Daylight	6500
<b>Cool White</b>						
MASTER ECOTONE High Lumen	45W	E27	220-240V	50-60Hz	Cool White	4000
MASTER ECOTONE High Lumen	45W	B22	220-240V	50-60Hz	Cool White	4000
MASTER ECOTONE High Lumen	65W	E27	220-240V	50-60Hz	Cool White	4000
MASTER ECOTONE High Lumen	65W	B22	220-240V	50-60Hz	Cool White	4000

Product ID	Lamp Wattage (W)	Luminous Flux (Lm)	Luminous Efficacy (Lm/W)	Colour Rendering Index (Ra)	Equivalent light output to	Box quantity	European Order Code (EOC)
<b>Cool Daylight</b>							
MASTER ECOTONE High Lumen	45W	3000	67	80	ML 160W-HPL-N 80W	6	79666010
MASTER ECOTONE High Lumen	45W	3000	67	80	ML 160W-HPL-N 80W	6	79668410
MASTER ECOTONE High Lumen	65W	4200	65	80	ML 160W-HPL-N 80W	6	79670710
MASTER ECOTONE High Lumen	65W	4200	65	80	ML 160W-HPL-N 80W	6	79672110
<b>Cool White</b>							
MASTER ECOTONE High Lumen	45W	3000	67	82	ML 160W-HPL-N 80W	6	79665310
MASTER ECOTONE High Lumen	45W	3000	67	82	ML 160W-HPL-N 80W	6	79667710
MASTER ECOTONE High Lumen	65W	4200	65	82	ML 160W-HPL-N 80W	6	79669110
MASTER ECOTONE High Lumen	65W	4200	65	82	ML 160W-HPL-N 80W	6	79671410

# Energy Saver Professional



MASTER PL Electronic

# MASTER PL Electronic

## Product Description

- Non-covered energy-saving MASTER lamps for professional use

## Product Features

- Superior long-life alternative to incandescent lamps, available in a wide range of wattages and in a variety of colour designations
- European energy efficiency labelling class A
- Very good lumen maintenance throughout the lifetime
- Virtually constant light output (>90%) over recommended temperature range
- Very low mercury content

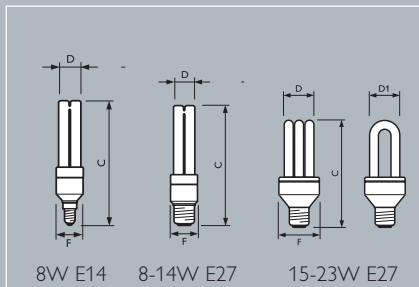
## Product Benefits

- Highest energy efficiency resulting in one-fifth the energy consumption of an incandescent lamp for the same light output
- Smallest dimensions ensuring optimal physical fit
- Highest reliability throughout life which is especially beneficial where lamp replacement is difficult
- Lowest total cost of ownership

## Application

- Designed to replace incandescent lamps in most professional and semi- professional applications
- Especially suitable for use in restaurants, hotels, shops and offices; also suitable for outdoor use
- Suitable for emergency lighting with DC supply
- Enclosed fixtures are required for outdoor applications
- Not suitable for dimming and electronic devices

Dimensions in mm



Product ID	C	D	D1	F
	max.	min.	max.	max.
MASTER PL 8W E14	122.2	28.0		40.3
MASTER PL 8W E27	119.2	28.0		40.3
MASTER PL 11W E27	141.2	28.0		40.3
MASTER PL 14W E27	163.2	28.0		40.3
MASTER PL 15W E27	125.6	39.8	39.6	60.2
MASTER PL 20W E27	144.6	39.8	39.6	60.2
MASTER PL 23W E27	159.6	39.8	39.6	60.2
MASTER PL 27W E27	179.6	39.8	39.6	60.2

# Energy Saver Professional

## MASTER PL Electronic



MASTER PL E 27W E27



MASTER PL E 15W E27



MASTER PL E 8W E14



MASTER PL E 14W E27

### Preferred selection

Product ID	Rated Wattage (W)	Color Code	Cap Base	Voltage (V)	Energy Efficient Label	Colour Rendering Index (Ra)	Colour Designation	Colour Temperature (K)	Luminous Flux (Lm)	European Order Code (EOC)
MASTER PL Electronic	8W	827	E14	230-240V	A	82	Warm White	2700	400	26366725
MASTER PL Electronic	8W	827	E27	230-240V	A	82	Warm White	2700	400	26358225
MASTER PL Electronic	8W	865	E27	230-240V	A	76	Cool Daylight	6500	380	26360525
MASTER PL Electronic	11W	827	E14	230-240V	A	82	Warm White	2700	600	26377325
MASTER PL Electronic	11W	827	E27	230-240V	A	82	Warm White	2700	600	26368125
MASTER PL Electronic	11W	865	E27	230-240V	A	76	Cool Daylight	6500	575	26373525
MASTER PL Electronic	14W	827	E27	230-240V	A	82	Warm White	2700	900	26379725
MASTER PL Electronic	14W	865	E27	230-240V	A	76	Cool Daylight	6500	855	26381025
MASTER PL Electronic	15W	827	E27	230-240V	A	82	Warm White	2700	875	75142310
MASTER PL Electronic	15W	865	E27	230-240V	A	76	Cool Daylight	6500	825	86920310
MASTER PL Electronic	20W	827	E27	230-240V	A	82	Warm White	2700	1200	75143010
MASTER PL Electronic	20W	840	E27	230-240V	A	80	Cool White	4000	1175	87359010
MASTER PL Electronic	20W	865	E27	230-240V	A	76	Cool Daylight	6500	1175	71222610
MASTER PL Electronic	23W	827	E27	230-240V	A	82	Warm White	2700	1485	75144710
MASTER PL Electronic	23W	840	E27	230-240V	A	80	Cool White	4000	1400	87361310
MASTER PL Electronic	23W	865	E27	230-240V	A	76	Cool Daylight	6500	1400	71223310
MASTER PL Electronic	27W	827	E27	230-240V	A	82	Warm White	2700	1800	54385110
MASTER PL Electronic	27W	865	E27	230-240V	A	76	Cool Daylight	6500	1700	54389910

# Energy Saver Professional

## PL Electronic U



### Product Description

- Non-covered energy saving lamps for professional use

### Product Features

- Professional long-life alternative to incandescent lamps
- Available in two colour temperatures: Warm White and Cool Daylight
- The Philips amalgam technology ensures constant bright and stable light output (>80%) over recommended temperature range
- Range is available in 11W, 15W, 20W and 23W versions, the equivalents of 60W, 75W, 100W and 125W incandescent light bulbs.

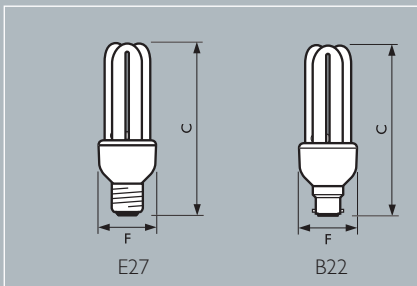
### Product Benefits

- The low initial and operating cost of the PL Electronic U give the lamps the best value for money.
- The lightweight and improved PL Electronic U lamps have a new improved long life of 10,000 hours, which equals 6 years at 4.5 hours/day!
- Instant start (< 0.1 sec.) and save up to 80% energy compared to the incandescent light bulbs
- The lamps operate under a wide voltage range (170-250V), to give you light even in fluctuating power supply
- The lamps will start in temperatures as low as -10°C

### Application

- Replacement of incandescent lamps in most professional and semi-professional applications
- Especially suitable for restaurants, hotels, shops, offices
- Ambient temperature range -10 to +50°C (base-up); +10 to +50°C (base-down)
- Enclosed fixtures required when used outdoors to protect electrical parts against moisture
- Not suitable for dimming and electronic devices

Dimensions in mm



Product ID	C	F
	max.	max.
PLE-U 11W	127.5	48.4
PLE-U 15W	132.7	48.4
PLE-U 20W	150.2	48.4
PLE-U 23W	171.4	48.4

# Energy Saver Professional

PL Electronic U

## Preferred selection

Product ID	Lamp Wattage (W)	Cap/ Base	Lamp Voltage (V)	Frequency (Hz)	Colour Designation	Colour Temperature (K)
<b>Cool Daylight</b>						
PL Electronic U	11W	E27	220-240V	50-60Hz	Cool Daylight	6500
PL Electronic U	11W	B22	220-240V	50-60Hz	Cool Daylight	6500
PL Electronic U	15W	E27	110-127V	50-60Hz	Cool Daylight	6500
PL Electronic U	15W	E27	220-240V	50-60Hz	Cool Daylight	6500
PL Electronic U	15W	B22	220-240V	50-60Hz	Cool Daylight	6500
PL Electronic U	20W	E27	110-127V	50-60Hz	Cool Daylight	6500
PL Electronic U	20W	E27	220-240V	50-60Hz	Cool Daylight	6500
PL Electronic U	20W	B22	220-240V	50-60Hz	Cool Daylight	6500
PL Electronic U	20W	B22	220-240V	50-60Hz	Cool Daylight	6500
PL Electronic U	23W	E27	110-127V	50-60Hz	Cool Daylight	6500
PL Electronic U	23W	E27	220-240V	50-60Hz	Cool Daylight	6500
PL Electronic U	23W	B22	220-240V	50-60Hz	Cool Daylight	6500
<b>Warm White</b>						
PL Electronic U	11W	E27	220-240V	50-60Hz	Warm White	2700
PL Electronic U	11W	B22	220-240V	50-60Hz	Warm White	2700
PL Electronic U	15W	E27	110-127V	50-60Hz	Warm White	2700
PL Electronic U	15W	E27	220-240V	50-60Hz	Warm White	2700
PL Electronic U	15W	B22	220-240V	50-60Hz	Warm White	2700
PL Electronic U	20W	E27	220-240V	50-60Hz	Warm White	2700
PL Electronic U	20W	B22	220-240V	50-60Hz	Warm White	2700
PL Electronic U	23W	E27	110-127V	50-60Hz	Warm White	2700
PL Electronic U	23W	E27	220-240V	50-60Hz	Warm White	2700
PL Electronic U	23W	B22	220-240V	50-60Hz	Warm White	2700



# Energy Saver Professional

PL Electronic U

## Preferred selection

Product ID	Lamp Wattage (W)	Luminous Flux (Lm)	Luminous Efficacy (Lm/W)	Colour Rendering Index (Ra)	Equivalent light of ordinary Incandescent	Box quantity	European Order Code (EOC) 8711500
<b>Cool Daylight</b>							
PL Electronic U	11W	570	52	78	60W	12	26679815
PL Electronic U	11W	570	52	78	60W	12	26838915
PL Electronic U	15W	850	57	78	75W	12	26631615
PL Electronic U	15W	850	57	78	75W	12	30239715
PL Electronic U	15W	850	57	78	75W	12	26623115
PL Electronic U	15W	850	57	78	75W	12	26625515
PL Electronic U	20W	1100	55	78	100W	12	30389915
PL Electronic U	20W	1100	55	78	100W	12	30251915
PL Electronic U	20W	1100	55	78	100W	12	30240315
PL Electronic U	20W	1100	55	78	100W	12	30293915
PL Electronic U	23W	1400	61	78	125W	12	30514515
PL Electronic U	23W	1400	61	78	125W	12	30255715
PL Electronic U	23W	1400	61	78	125W	12	30259515
<b>Warm White</b>							
PL Electronic U	11W	600	55	82	60W	12	26678115
PL Electronic U	11W	600	55	82	60W	12	26837215
PL Electronic U	15W	900	60	82	75W	12	26630915
PL Electronic U	15W	900	60	82	75W	12	26622415
PL Electronic U	15W	900	60	82	75W	12	26624815
PL Electronic U	20W	1200	60	82	100W	12	30249615
PL Electronic U	20W	1200	60	82	100W	12	30295315
PL Electronic U	23W	1500	65	82	125W	12	30513815
PL Electronic U	23W	1500	65	82	125W	12	30253315
PL Electronic U	23W	1500	65	82	125W	12	30257115

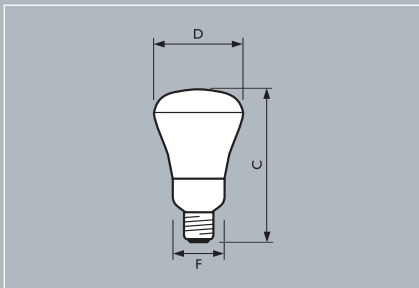


# Energy Saver Professional



PL E Pro Reflector E27

Dimensions in mm



# PL Electronic Pro Reflector

## Product Description

- Energy-saving Pro lamp approximating the shape of an R80 incandescent reflector lamp
- Professional long-life and energy-saving alternative to incandescent lamps

## Product Features

- High light intensity in a specific direction
- 80% of nominal light output reached within 2 minutes of switch-on
- Almost constant light output (>80%) over recommended temperature range (-20 to +55°C), both base-up and base-down
- 10.000 hours lifetime

## Product Benefits

- 50% energy saving compared with standard incandescent lamps
- Direct replacement for R80 reflector lamps in numerous professional applications
- Light quality and distribution similar to opalised incandescent R80 reflector lamps
- High reliability, especially important where lighting is used for longer periods and/or where lamp replacement is difficult
- Lifetime independent of number of on/off switching cycles

## Application

- Direct replacement for R80 reflector lamps in numerous professional applications, e.g. hotels and restaurants
- Dimming or electronic control devices cannot be used

Product ID	C	D	F
PL E Reflector	14.3	81	48.1

# Energy Saver Professional

## PL Electronic Pro Reflector

### Preferred selection

Product ID	Rated Lamp Wattage (W)	Cap/ Base	Voltage (V)	Colour Rendering Index (Ra)	Colour Desig- nation	Colour Tempe- rature (K)	Luminous Flux (lm)	European Order Code (EOC) <b>8711500</b>
PL Electronic Reflector	20W	E27	230-240V	82	Warm White	2700	750	65989710

# LED Candle Light

Imageo



Imageo Candle Light

## Product Description

- Rechargeable induction based LED Candle in a modern decorative design

## Product Features

- A modern design with three frosted glass lights
- The LED Candle is completely sealed in the glass, therefore watertight
- Recharging time on average 10 hours for approximately 24 hours of operating time

## Product Benefits

- The glass lights emit a candle-like ambiance without real flames, therefore very safe and child friendly
- Very easy to use: Simply tumble the candles to switch them on
- Easy to charge: Simply place the glass lights in the induction charger
- No wires, the Imageo can be easily placed at any location indoors and outdoors

## Application

- The Imageo can be easily used in a multitude of locations, in and around the home, like in a live-and dining room or outside in the garden. Also in a professional area, like a restaurant, bar, hotel and café, the Imageo is perfectly suitable

# LED Candle Light

Imageo

## Product specification

Height:	124 mm
Diameter:	55 mm
Operating time:	approximately 24 hours
Recharging time:	approximately 10 hours
Average number of recharges:	500-1000
Battery type:	NiMH

## Preferred selection

Product ID	Content	Remarks	European Order Code (EOC)
Imageo Candle Light	Set: Induction Charger with 3 Candles	Including manual in English & French	8711500 79918036

**IMAGEO**  
Candle Light







Compact  
Fluorescent  
Non-Integrated  
& Fluorescent  
Lamps





# Fluorescent

# TL Mini Standard Colours



TL Mini Standard Colours

## Product Description

- Low-pressure mercury discharge lamps with a tubular 16 mm envelope

## Product Features

- 16 mm diameter tubes with moderate colour rendering

## Product Benefits

- Creates atmospheres from warm white to cool daylight

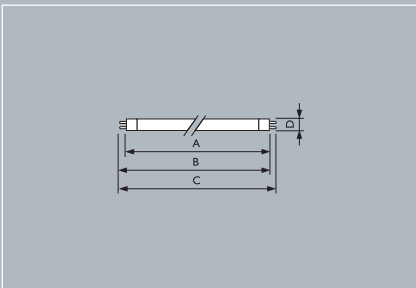
## Application

- Ideal for applications where space is limited and colour rendering is not important
- Orientation lighting
- Emergency lighting

## System

- Possibility for operation on low-voltage DC supply

Dimensions in mm



Product ID	A		B		D
	max.	min.	max.	max.	
TL 6W	212.1	216.8	219.2	226.3	16
TL 8W	288.3	293.0	295.4	302.5	16
TL 13W	516.9	521.6	524.0	531.1	16

# Fluorescent

# TL Mini Standard Colours

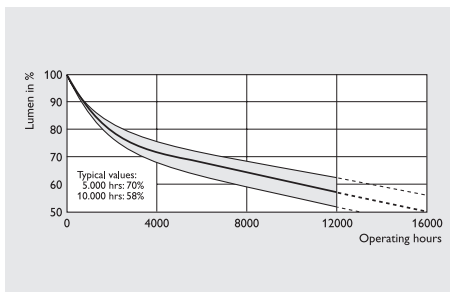
## Preferred selection

Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (R <sub>a</sub> )
TL Mini 6W/33-640 FAM	10X25BOX	21	G5	Cool White	4100	60
TL Mini 6W/54-765 FAM	10X25BOX	22	G5	Cool Daylight	6200	75
TL Mini 8W/33-640 FAM	10X25BOX	29	G5	Cool White	4100	60
TL Mini 8W/54-765 FAM	10X25BOX	29	G5	Cool Daylight	6200	75
TL Mini 13W/33-640 FAM	10X25BOX	45	G5	Cool White	4100	60
TL Mini 13W/54-765 FAM	10X25BOX	45	G5	Cool Daylight	6200	75

FAM: Foam sleeve

Product ID	Lamp Voltage (V)	Lamp Wattage (W)	Lamp Current (A)	Lamp Flux Lamp EM (lm)	Luminous Efficacy Lamp EM (lm/W)	Luminance Average EM (cd/cm <sup>2</sup> )	Energy Efficiency Label	European Order Code (EOC)
TL Mini 6W/33-640 FAM	42	6.0	0.16	260	43	0.85	B	71583827
TL Mini 6W/54-765 FAM	42	6.0	0.16	230	38	0.70	B	71597527
TL Mini 8W/33-640 FAM	56	7.1	0.15	410	51	0.90	B	70473327
TL Mini 8W/54-765 FAM	56	7.1	0.15	340	48	0.75	B	71628627
TL Mini 13W/33-640 FAM	90	13.0	0.17	930	71	1.10	A	70475727
TL Mini 13W/54-765 FAM	90	13.0	0.17	740	57	0.90	B	71671227

FAM: Foam sleeve



Lumen maintenance diagram

# Compact Fluorescent Non-Integrated

## MASTER PL-S 2 Pin



PL-S 9W

### Product Description

- Energy-saving compact fluorescent lamps
- Compact long-arc low-pressure mercury discharge lamp
- Envelope consists of 2 parallel narrow fluorescent tubes

### Product Features

- 2-pin base with a housing incorporating the special instant starter and capacitor
- Lamp characteristics are influenced by operating conditions and control gear used
- The lamps contain only 3 mg of mercury
- Dimming is not possible

### Product Benefits

- Optimal light performance for short or long operation per switch on
- Long life and sustainable light output

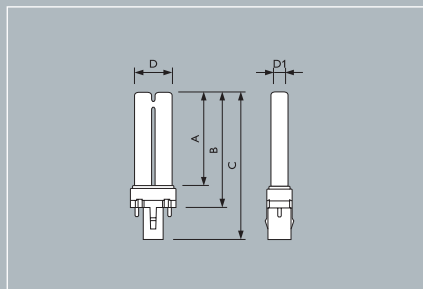
### Application

- Designed for use in hotels, restaurants, theatres and homes
- Suitable for use in signs, corridors, security and orientation lighting

### System

- For use on conventional copper iron ballasts
- Radio interference suppression capacitor is installed

Dimensions in mm



Product ID	A	B	C	D	D1
	max.	min.	max.	max.	max.
PL-S 5W/2P	67	83	105	28	13
PL-S 7W/2P	97	113	135	28	13
PL-S 9W/2P	129	145	167	28	13
PL-S 11W/2P	198	214	236	28	13

# Compact Fluorescent Non-Integrated

MASTER PL-S 2 Pin



PL-S 5W



PL-S 7W



PL-S 11W

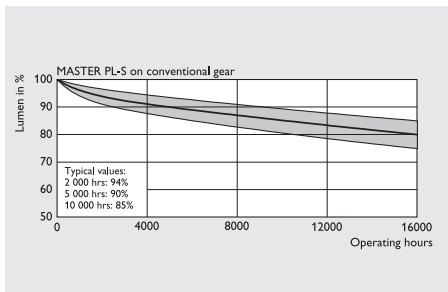
## Preferred selection

Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (Ra)
MASTER PL-S 5W/827/2P 1CT	5X10BOX	30	G23	Incandescent White	2700	82
MASTER PL-S 5W/840/2P 1CT	5X10BOX	30	G23	Cool White	4000	82
MASTER PL-S 7W/827/2P 1CT	5X10BOX	35	G23	Incandescent White	2700	82
MASTER PL-S 7W/830/2P 1CT	5X10BOX	35	G23	Warm White	3000	82
MASTER PL-S 7W/840/2P 1CT	5X10BOX	35	G23	Cool White	4000	82
MASTER PL-S 9W/827/2P 1CT	5X10BOX	41	G23	Incandescent White	2700	82
MASTER PL-S 9W/830/2P 1CT	5X10BOX	41	G23	Warm White	3000	82
MASTER PL-S 9W/840/2P 1CT	5X10BOX	41	G23	Cool White	4000	82
MASTER PL-S 11W/827/2P 1CT	5X10BOX	58	G23	Incandescent White	2700	82
MASTER PL-S 11W/830/2P 1CT	5X10BOX	58	G23	Warm White	3000	82
MASTER PL-S 11W/840/2P 1CT	5X10BOX	58	G23	Cool White	4000	82

# Compact Fluorescent Non-Integrated

## MASTER PL-S 2 Pin

Product ID	Lamp Voltage (V)	Lamp Current EM (A)	Lamp Wattage EM (W)	Luminous Flux Lamp EM (lm)	Luminous Efficacy Lamp EM (lm/W)	Energy Efficiency Label	Dimmable	European Order Code (EOC) 8711500
MASTER PL-S 5W/827/2P 1CT	35	0.180	5.4	250	46	B	No	26045170
MASTER PL-S 5W/840/2P 1CT	35	0.180	5.4	250	46	B	No	26048270
MASTER PL-S 7W/827/2P 1CT	47	0.175	7.1	400	56	B	No	26057470
MASTER PL-S 7W/830/2P 1CT	47	0.175	7.1	400	56	B	No	26062870
MASTER PL-S 7W/840/2P 1CT	47	0.175	7.1	400	56	B	No	26065970
MASTER PL-S 9W/827/2P 1CT	60	0.170	8.7	600	69	B	No	26079670
MASTER PL-S 9W/830/2P 1CT	60	0.170	8.7	600	69	B	No	26084070
MASTER PL-S 9W/840/2P 1CT	60	0.170	8.7	600	69	B	No	26087170
MASTER PL-S 11W/827/2P 1CT	91	0.155	11.8	900	76	B	No	26101470
MASTER PL-S 11W/830/2P 1CT	91	0.155	11.8	900	76	B	No	26106970
MASTER PL-S 11W/840/2P 1CT	91	0.155	11.8	900	76	B	No	26109070



Lumen maintenance diagram

# Compact Fluorescent Non-Integrated

MASTER PL-S 2 Pin



# Compact Fluorescent Non-Integrated

## MASTER PL-S 4 Pin



PL-S 9W

### Product Description

- Energy-saving compact fluorescent lamps
- Compact long-arc low-pressure mercury discharge lamp
- Envelope consists of 2 parallel narrow fluorescent tubes

### Product Features

- 4-pin base without starter and capacitor
- Lamp characteristics are influenced by operating conditions and control gear used
- The lamps contain only 3 mg of mercury

### Product Benefits

- Optimal light performance for short or long operation per switch on
- Long life and sustainable light output

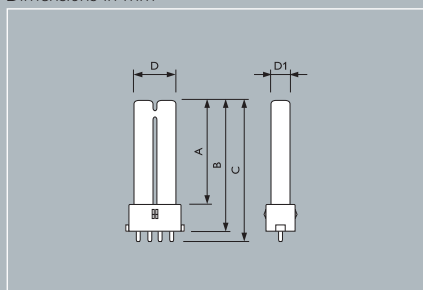
### Application

- Designed for use in hotels, restaurants, theatres and homes
- Suitable for use in signs, corridors, security and orientation lighting

### System

- Suitable for use with electronic gear, enabling dimmable light output, HF operation

Dimensions in mm



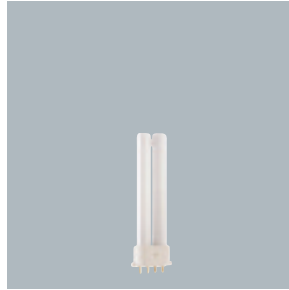
Product ID	A max.	B min.	C max.	D max.	D1 max.
PL-S 5W/4P	66	83	89,1	28	13
PL-S 7W/4P	96	113	119,1	28	13
PL-S 9W/4P	128	145	151,1	28	13
PL-S 11W/4P	196	214	219,9	28	13

# Compact Fluorescent Non-Integrated

MASTER PL-S 4 Pin



PL-S 5W



PL-S 7W



PL-S 11W

## Preferred selection

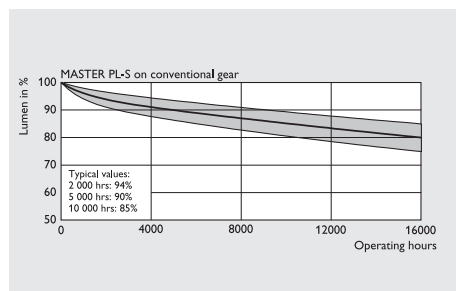
Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (Ra)
MASTER PL-S 5W/827/4P 1CT	5X10BOX	27	2G7	Incandescent White	2700	82
MASTER PL-S 5W/840/4P 1CT	5X10BOX	27	2G7	Cool White	4000	82
MASTER PL-S 7W/827/4P 1CT	5X10BOX	32	2G7	Incandescent White	2700	82
MASTER PL-S 7W/830/4P 1CT	5X10BOX	32	2G7	Warm White	3000	82
MASTER PL-S 7W/840/4P 1CT	5X10BOX	32	2G7	Cool White	4000	82
MASTER PL-S 9W/827/4P 1CT	5X10BOX	38	2G7	Incandescent White	2700	82
MASTER PL-S 9W/830/4P 1CT	5X10BOX	38	2G7	Warm White	3000	82
MASTER PL-S 9W/840/4P 1CT	5X10BOX	38	2G7	Cool White	4000	82
MASTER PL-S 11W/827/4P 1CT	5X10BOX	55	2G7	Incandescent White	2700	82
MASTER PL-S 11W/830/4P 1CT	5X10BOX	55	2G7	Warm White	3000	82
MASTER PL-S 11W/840/4P 1CT	5X10BOX	55	2G7	Cool White	4000	82



# Compact Fluorescent Non-Integrated

## MASTER PL-S 4 Pin

Product ID	Lamp Voltage Electronic (V)	Lamp Current Electronic (A)	Lamp Wattage Electronic (W)	Luminous Flux Lamp Electronic (lm)	Luminous Efficacy Lamp Electronic (lm/W)	Energy Efficiency Label	Dimmable	European Order Code (EOC)
MASTER PL-S 5W/827/4P 1CT	27	0.190	5.0	250	50	B	Yes	26051270
MASTER PL-S 5W/840/4P 1CT	27	0.190	5.0	250	50	B	Yes	26054370
MASTER PL-S 7W/827/4P 1CT	37	0.175	6.5	400	61	B	Yes	26070370
MASTER PL-S 7W/830/4P 1CT	37	0.175	6.5	400	61	B	Yes	26073470
MASTER PL-S 7W/840/4P 1CT	37	0.175	6.5	400	61	B	Yes	26076570
MASTER PL-S 9W/827/4P 1CT	48	0.170	8.0	600	75	B	Yes	26090170
MASTER PL-S 9W/830/4P 1CT	48	0.170	8.0	600	75	B	Yes	26093270
MASTER PL-S 9W/840/4P 1CT	48	0.170	8.0	600	75	B	Yes	26096370
MASTER PL-S 11W/827/4P 1CT	75	0.150	11.0	900	82	B	Yes	26114470
MASTER PL-S 11W/830/4P 1CT	75	0.150	11.0	900	82	B	Yes	26119970
MASTER PL-S 11W/840/4P 1CT	75	0.150	11.0	900	82	B	Yes	26122970



Lumen maintenance diagram

# Compact Fluorescent Non-Integrated

MASTER PL-S 4 Pin



# Compact Fluorescent Non-Integrated

## MASTER PL-C 2 Pin



PL-C 10W

### Product Description

- Energy-saving compact fluorescent lamps
- Compact long-arc low-pressure mercury discharge lamp
- Envelope consists of 4 parallel narrow fluorescent tubes

### Product Features

- 2-pin base with a housing incorporating the special instant starter and capacitor
- Lamp characteristics are influenced by operating conditions and control gear used
- Dimming is not possible

### Product Benefits

- Optimal light performance for short or long operation per switch on
- Long life and sustainable light output

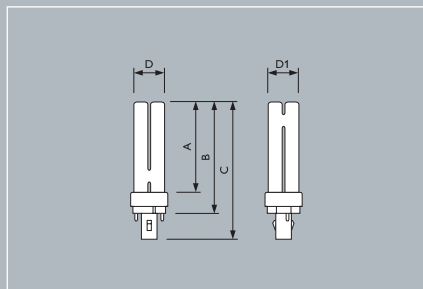
### Application

- Designed for general or supplementary lighting in professional or home environments
- Recessed or surface-mounted downlighters, wall units, table lamps and pendant lamps

### System

- For use on conventional copper iron ballasts
- Radio interference suppression capacitor is installed

Dimensions in mm



Product ID	A max.	B min.	C max.	D max.	D1 max.
PL-C 10W/2P	75.7	94.0	116.4	27.1	27.1
PL-C 13W/2P	97.7	116.0	138.4	27.1	27.1
PL-C 18W/2P	109.7	128.0	150.4	27.1	27.1
PL-C 26W/2P	130.7	149.0	171.4	27.1	27.1

# Compact Fluorescent Non-Integrated

MASTER PL-C 2 Pin



PL-C 13W



PL-C 18W



PL-C 26W

## Preferred selection

Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (R <sub>a</sub> )
MASTER PL-C 10W/827/2P 1CT	5X10BOX	45.0	G24d-1	Incandescent White	2700	82
MASTER PL-C 10W/830/2P 1CT	5X10BOX	45.0	G24d-1	Warm White	3000	82
MASTER PL-C 10W/840/2P 1CT	5X10BOX	45.0	G24d-1	Cool White	4000	82
MASTER PL-C 13W/827/2P 1CT	5X10BOX	53.6	G24d-1	Incandescent White	2700	82
MASTER PL-C 13W/830/2P 1CT	5X10BOX	53.6	G24d-1	Warm White	3000	82
MASTER PL-C 13W/840/2P 1CT	5X10BOX	53.6	G24d-1	Cool White	4000	82
MASTER PL-C 13W/865/2P 1CT	5X10BOX	53.6	G24d-1	Cool Daylight	6500	80
MASTER PL-C 18W/827/2P 1CT	5X10BOX	57.8	G24d-2	Incandescent White	2700	82
MASTER PL-C 18W/830/2P 1CT	5X10BOX	57.8	G24d-2	Warm White	3000	82
MASTER PL-C 18W/835/2P 1CT	5X10BOX	57.8	G24d-2	White	3500	82
MASTER PL-C 18W/840/2P 1CT	5X10BOX	57.8	G24d-2	Cool White	4000	82
MASTER PL-C 18W/865/2P 1CT	5X10BOX	57.8	G24d-2	Cool Daylight	6500	80
MASTER PL-C 26W/827/2P 1CT	5X10BOX	64.3	G24d-3	Incandescent White	2700	82
MASTER PL-C 26W/830/2P 1CT	5X10BOX	64.3	G24d-3	Warm White	3000	82
MASTER PL-C 26W/835/2P 1CT	5X10BOX	64.3	G24d-3	White	3500	82
MASTER PL-C 26W/840/2P 1CT	5X10BOX	64.3	G24d-3	Cool White	4000	82
MASTER PL-C 26W/865/2P 1CT	5X10BOX	64.3	G24d-3	Cool Daylight	6500	80

# Compact Fluorescent Non-Integrated

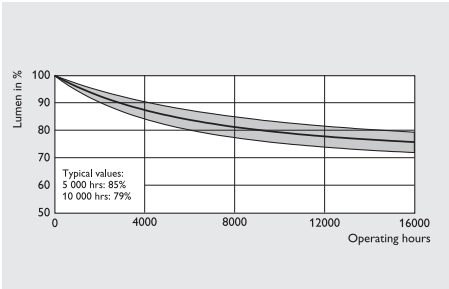
## MASTER PL-C 2 Pin

Product ID	Lamp Voltage (V)	Lamp Current EM (A)	Lamp Wattage EM (W)	Luminous Flux Lamp EM (lm)
MASTER PL-C 10W/827/2P 1CT	64	0.190	10	600
MASTER PL-C 10W/830/2P 1CT	64	0.190	10	600
MASTER PL-C 10W/840/2P 1CT	64	0.190	10	600
MASTER PL-C 13W/827/2P 1CT	91	0.175	13	900
MASTER PL-C 13W/830/2P 1CT	91	0.175	13	900
MASTER PL-C 13W/840/2P 1CT	91	0.175	13	900
MASTER PL-C 13W/865/2P 1CT	91	0.175	13	900
MASTER PL-C 18W/827/2P 1CT	100	0.220	18	1200
MASTER PL-C 18W/830/2P 1CT	100	0.220	18	1200
MASTER PL-C 18W/835/2P 1CT	100	0.220	18	1200
MASTER PL-C 18W/840/2P 1CT	100	0.220	18	1200
MASTER PL-C 18W/865/2P 1CT	100	0.220	18	1200
MASTER PL-C 26W/827/2P 1CT	105	0.325	26	1800
MASTER PL-C 26W/830/2P 1CT	105	0.325	26	1800
MASTER PL-C 26W/835/2P 1CT	105	0.325	26	1800
MASTER PL-C 26W/840/2P 1CT	105	0.325	26	1800
MASTER PL-C 26W/865/2P 1CT	105	0.325	26	1800

Product ID	Luminous Efficacy Lamp EM (lm/W)	Energy Efficiency Label	Dimmable	European Order Code (EOC) 8711500
MASTER PL-C 10W/827/2P 1CT	60	B	No	70681270
MASTER PL-C 10W/830/2P 1CT	60	B	No	70724670
MASTER PL-C 10W/840/2P 1CT	60	B	No	70498670
MASTER PL-C 13W/827/2P 1CT	69	A	No	62081170
MASTER PL-C 13W/830/2P 1CT	69	A	No	62084270
MASTER PL-C 13W/840/2P 1CT	69	A	No	62086670
MASTER PL-C 13W/865/2P 1CT	69	A	No	63523570
MASTER PL-C 18W/827/2P 1CT	67	B	No	62088070
MASTER PL-C 18W/830/2P 1CT	67	B	No	62091070
MASTER PL-C 18W/835/2P 1CT	67	B	No	86646270
MASTER PL-C 18W/840/2P 1CT	67	B	No	62093470
MASTER PL-C 18W/865/2P 1CT	67	B	No	63527370
MASTER PL-C 26W/827/2P 1CT	69	B	No	62095870
MASTER PL-C 26W/830/2P 1CT	69	B	No	62098970
MASTER PL-C 26W/835/2P 1CT	69	B	No	86650970
MASTER PL-C 26W/840/2P 1CT	69	B	No	62100970
MASTER PL-C 26W/865/2P 1CT	69	B	No	63531070

# Compact Fluorescent Non-Integrated

MASTER PL-C 2 Pin



Lumen maintenance diagram



# Compact Fluorescent Non-Integrated

## MASTER PL-C 4 Pin



PL-C 10W

### Product Description

- Energy-saving compact fluorescent lamps
- Compact long-arc low-pressure mercury discharge lamp
- Envelope consists of 4 parallel narrow fluorescent tubes

### Product Features

- 4-pin base without starter and capacitor
- Lamp characteristics are influenced by operating conditions and control gear used
- Dimming is possible

### Product Benefits

- Optimal light performance for short or long operation per switch on
- Long life and sustainable light output

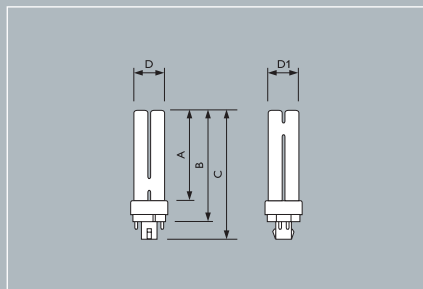
### Application

- Designed for general or supplementary lighting in professional or home environments
- Recessed or surface-mounted downlighters, wall units, table lamps and pendant lamps

### System

- Suitable for use with electronic gear, enabling controllable light output, HF operation and independence from the supply system

Dimensions in mm



Product ID	A max.	B min.	C max.	D max.	D1 max.
PL-S 10W/4P	75.7	94.0	108.9	27.1	27.1
PL-S 13W/4P	97.7	116.0	130.9	27.1	27.1
PL-S 18W/4P	109.7	128.0	142.9	27.1	27.1
PL-S 26W/4P	130.7	149.0	163.9	27.1	27.1

# Compact Fluorescent Non-Integrated

MASTER PL-C 4 Pin



PL-C 13W



PL-C 18W



PL-C 26W

## Preferred selection

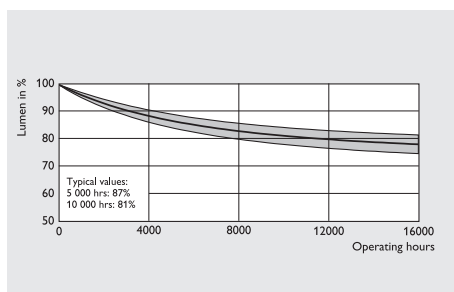
Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (Ra)
MASTER PL-C 10W/827/4P 1CT	5X10BOX	41.4	G24q-1	Incandescent White	2700	82
MASTER PL-C 10W/830/4P 1CT	5X10BOX	41.4	G24q-1	Warm White	3000	82
MASTER PL-C 10W/840/4P 1CT	5X10BOX	41.4	G24q-1	Cool White	4000	82
MASTER PL-C 13W/827/4P 1CT	5X10BOX	49.9	G24q-1	Incandescent White	2700	82
MASTER PL-C 13W/830/4P 1CT	5X10BOX	49.9	G24q-1	Warm White	3000	82
MASTER PL-C 13W/840/4P 1CT	5X10BOX	49.9	G24q-1	Cool White	4000	82
MASTER PL-C 18W/827/4P 1CT	5X10BOX	55.3	G24q-2	Incandescent White	2700	82
MASTER PL-C 18W/830/4P 1CT	5X10BOX	55.3	G24q-2	Warm White	3000	82
MASTER PL-C 18W/840/4P 1CT	5X10BOX	55.3	G24q-2	Cool White	4000	82
MASTER PL-C 26W/827/4P 1CT	5X10BOX	60.4	G24q-3	Incandescent White	2700	82
MASTER PL-C 26W/830/4P 1CT	5X10BOX	60.4	G24q-3	Warm White	3000	82
MASTER PL-C 26W/835/4P 1CT	5X10BOX	60.4	G24q-3	White	3500	82
MASTER PL-C 26W/840/4P 1CT	5X10BOX	60.4	G24q-3	Cool White	4000	82
MASTER PL-C 26W/865/4P 1CT	5X10BOX	60.4	G24q-3	Cool Daylight	6500	80



# Compact Fluorescent Non-Integrated

## MASTER PL-C 4 Pin

Product ID	Lamp Voltage Electronic (V)	Lamp Current Electronic (A)	Lamp Wattage Electronic (W)	Luminous Flux Electronic (lm)	Luminous Efficacy Lamp Electronic (lm/W)	Energy Efficiency Label	Dimmable	European Order Code (EOC) <b>8711500</b>
MASTER PL-C 10W/827/4P 1CT	51	0.190	9.5	600	63	B	Yes	62325670
MASTER PL-C 10W/830/4P 1CT	51	0.190	9.5	600	63	B	Yes	62329470
MASTER PL-C 10W/840/4P 1CT	51	0.190	9.5	600	63	B	Yes	62330070
MASTER PL-C 13W/827/4P 1CT	77	0.165	12.5	900	72	A	Yes	62326370
MASTER PL-C 13W/830/4P 1CT	77	0.165	12.5	900	72	A	Yes	62331770
MASTER PL-C 13W/840/4P 1CT	77	0.165	12.5	900	72	A	Yes	62332470
MASTER PL-C 18W/827/4P 1CT	80	0.210	16.5	1200	73	B	Yes	62327070
MASTER PL-C 18W/830/4P 1CT	80	0.210	16.5	1200	73	B	Yes	62333170
MASTER PL-C 18W/840/4P 1CT	80	0.210	16.5	1200	73	B	Yes	62334870
MASTER PL-C 26W/827/4P 1CT	80	0.300	24.0	1800	75	B	Yes	62328770
MASTER PL-C 26W/830/4P 1CT	80	0.300	24.0	1800	75	B	Yes	62335570
MASTER PL-C 26W/835/4P 1CT	80	0.300	24.0	1800	75	B	Yes	86653070
MASTER PL-C 26W/840/4P 1CT	80	0.300	24.0	1800	75	B	Yes	62336270
MASTER PL-C 26W/865/4P 1CT	80	0.300	24.0	1800	75	B	Yes	64457270



Lumen maintenance diagram

# Compact Fluorescent Non-Integrated

MASTER PL-C 4 Pin



# Compact Fluorescent Non-Integrated

## MASTER PL-T 4 Pin

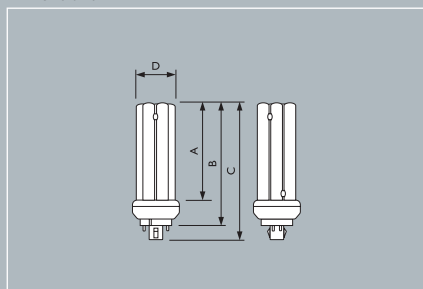


PL-T 42W



PL-T 13W

Dimensions in mm



### Product Description

- Energy saving compact fluorescent lamp
- Compact long-arc low-pressure mercury discharge lamp
- Envelope consists of 6 parallel narrow fluorescent tubes

### Product Features

- 4-pin base without glow switch starter and capacitor
- Fast light run up under all circumstances
- Philips invented bridge technology applied
- Dimming is possible

### Product Benefits

- Optimal light performance for short or long operation per switch on
- More light (about 15% more) per light point than common
- Long life and sustainable light output

### Application

- Designed for general or supplementary lighting in professional and semi-professional environments
- Ideal for use in recessed or surface mounted downlighters, wall units, outdoor lighting
- First choice for short switching cycles, emergency lighting and deep dimming

### System

- For use with HF electronic gear enabling controllable light output and high independence of mains supply variations

Product ID	A max.	B min.	C max.	D max.
PL-T 13W/4P	66.7	91.0	106.7	41.0
PL-T 18W/4P	71.7	96.0	111.7	41.0
PL-T 26W/4P	86.7	111.0	126.7	41.0
PL-T 32W/4P	98.7	123.0	138.7	41.0
PL-T 42W/4P	120.7	145.0	160.7	41.0
PL-T 57W/4P	157.7	182.0	197.7	41.0

# Compact Fluorescent Non-Integrated

MASTER PL-T 4 Pin



PL-T 18W



PL-T 26W



PL-T 32W



PL-T 57W

## Preferred selection

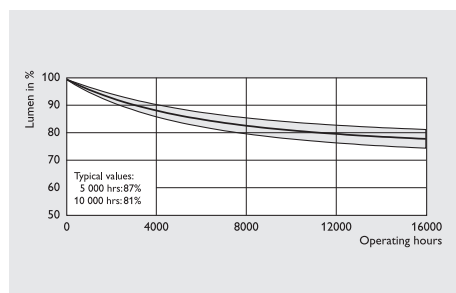
Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (Ra)
MASTER PL-T 13W/830/4P 1CT	5X10BOX	55	GX24q-1	Warm White	3000	82
MASTER PL-T 13W/840/4P 1CT	5X10BOX	55	GX24q-1	Cool White	4000	82
MASTER PL-T 18W/827/4P 1CT	5X10BOX	58	GX24q-2	Incandescent White	2700	82
MASTER PL-T 18W/830/4P 1CT	5X10BOX	58	GX24q-2	Warm White	3000	82
MASTER PL-T 18W/840/4P 1CT	5X10BOX	58	GX24q-2	Cool White	4000	82
MASTER PL-T 26W/827/4P 1CT	5X10BOX	64	GX24q-3	Incandescent White	2700	82
MASTER PL-T 26W/830/4P 1CT	5X10BOX	64	GX24q-3	Warm White	3000	82
MASTER PL-T 26W/840/4P 1CT	5X10BOX	64	GX24q-3	Cool White	4000	82
MASTER PL-T 32W/827/4P 1CT	5X10BOX	70	GX24q-3	Incandescent White	2700	82
MASTER PL-T 32W/830/4P 1CT	5X10BOX	70	GX24q-3	Warm White	3000	82
MASTER PL-T 32W/840/4P 1CT	5X10BOX	70	GX24q-3	Cool White	4000	82
MASTER PL-T 42W/827/4P 1CT	5X10BOX	83	GX24q-4	Incandescent White	2700	82
MASTER PL-T 42W/830/4P 1CT	5X10BOX	83	GX24q-4	Warm White	3000	82
MASTER PL-T 42W/840/4P 1CT	5X10BOX	83	GX24q-4	Cool White	4000	82
MASTER PL-T 57W/827/4P 1CT	5X10BOX	101	GX24q-5	Incandescent White	2700	82
MASTER PL-T 57W/830/4P 1CT	5X10BOX	101	GX24q-5	Warm White	3000	82
MASTER PL-T 57W/840/4P 1CT	5X10BOX	101	GX24q-5	Cool White	4000	82

# Compact Fluorescent Non-Integrated

## MASTER PL-T 4 Pin

Product ID	Lamp Voltage Electronic (V)	Lamp Current Electronic (A)	Lamp Wattage Electronic (W)	Luminous Flux Lamp Electronic (lm)
MASTER PL-T 13W/830/4P 1CT	77	0.165	12.5	900
MASTER PL-T 13W/840/4P 1CT	77	0.165	12.5	900
MASTER PL-T 18W/827/4P 1CT	80	0.210	16.5	1200
MASTER PL-T 18W/830/4P 1CT	80	0.210	16.5	1200
MASTER PL-T 18W/840/4P 1CT	80	0.210	16.5	1200
MASTER PL-T 26W/827/4P 1CT	80	0.300	24.0	1800
MASTER PL-T 26W/830/4P 1CT	80	0.300	24.0	1800
MASTER PL-T 26W/840/4P 1CT	80	0.300	24.0	1800
MASTER PL-T 32W/827/4P 1CT	101	0.320	32.0	2400
MASTER PL-T 32W/830/4P 1CT	101	0.320	32.0	2400
MASTER PL-T 32W/840/4P 1CT	101	0.320	32.0	2400
MASTER PL-T 42W/827/4P 1CT	135	0.320	43.0	3200
MASTER PL-T 42W/830/4P 1CT	135	0.320	43.0	3200
MASTER PL-T 42W/840/4P 1CT	135	0.320	43.0	3200
MASTER PL-T 57W/827/4P 1CT	175	0.320	56.0	4300
MASTER PL-T 57W/830/4P 1CT	175	0.320	56.0	4300
MASTER PL-T 57W/840/4P 1CT	175	0.320	56.0	4300

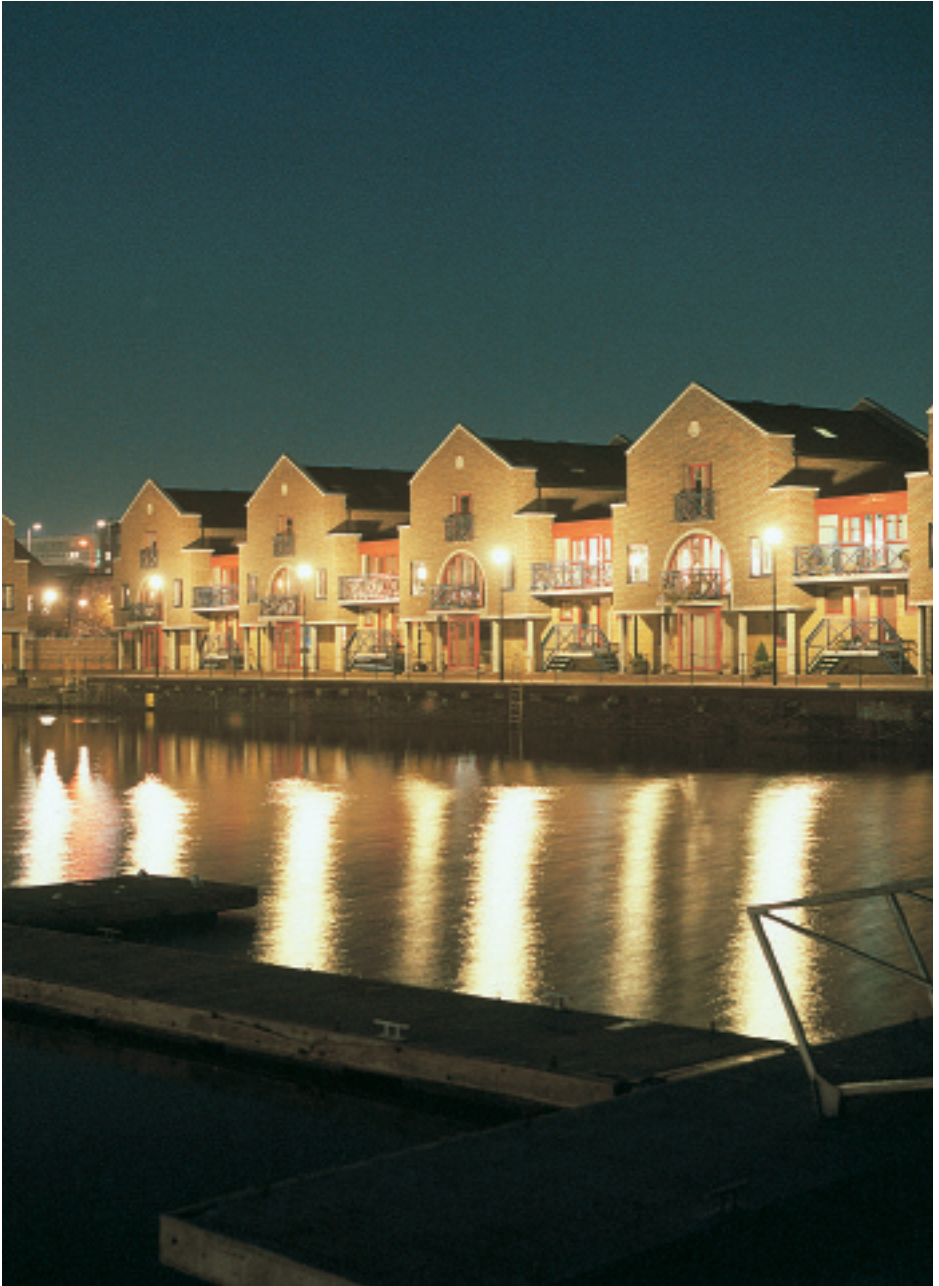
Product ID	Lamp Electronic (lm/W)	Energy Efficiency Label	Dimmable	European Order Code (EOC) 8711500
MASTER PL-T 13W/830/4P 1CT	72	B	Yes	61044770
MASTER PL-T 13W/840/4P 1CT	72	B	Yes	61047870
MASTER PL-T 18W/827/4P 1CT	73	B	Yes	F55982170
MASTER PL-T 18W/830/4P 1CT	73	B	Yes	61076870
MASTER PL-T 18W/840/4P 1CT	73	B	Yes	61099770
MASTER PL-T 26W/827/4P 1CT	75	B	Yes	55993770
MASTER PL-T 26W/830/4P 1CT	75	B	Yes	F61120870
MASTER PL-T 26W/840/4P 1CT	75	B	Yes	61125370
MASTER PL-T 32W/827/4P 1CT	75	B	Yes	55996870
MASTER PL-T 32W/830/4P 1CT	75	B	Yes	61128470
MASTER PL-T 32W/840/4P 1CT	75	B	Yes	61131470
MASTER PL-T 42W/827/4P 1CT	74	B	Yes	56002570
MASTER PL-T 42W/830/4P 1CT	74	B	Yes	61134570
MASTER PL-T 42W/840/4P 1CT	74	B	Yes	61137670
MASTER PL-T 57W/827/4P 1CT	77	B	Yes	56005670
MASTER PL-T 57W/830/4P 1CT	77	B	Yes	61140670
MASTER PL-T 57W/840/4P 1CT	77	B	Yes	61145170



Lumen maintenance diagram

# Compact Fluorescent Non-Integrated

MASTER PL-T 4 Pin

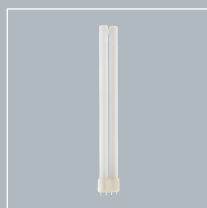


# Compact Fluorescent Non-Integrated

## MASTER PL-L 4 Pin

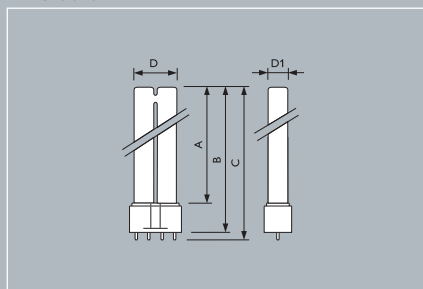


PL-L 18W



PL-L 24W

Dimensions in mm



### Product Description

- Energy-saving compact fluorescent lamps
- Compact long-arc low-pressure mercury discharge lamp
- Envelope consists of 2 parallel fluorescent tubes

### Product Features

- 4-pin base without starter and capacitor
- Lamp characteristics are influenced by operating conditions and control gear used
- Lamp performance is governed by temperature of the coolest spot
- Dimming is possible

### Product Benefits

- Optimal light performance for short or long operation per switch on
- Long life and sustainable light output

### Application

- Designed for general lighting in shops, offices, hotels and specific task lighting, as well as outdoors in residential areas and parks

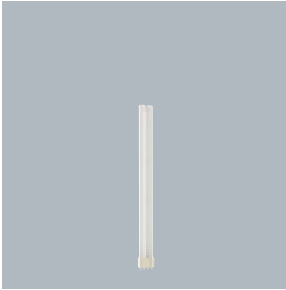
### System

- Separate radio-suppression capacitor required
- Universal application in conventional high-voltage switch-start circuits, low-voltage sequence-start circuits and advanced electronic circuits

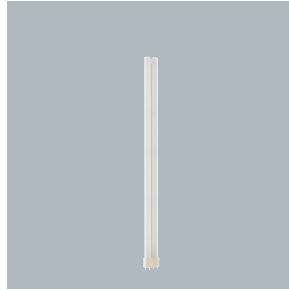
Product ID	A max.	B min.	C max.	D max.	D1 max.
PL-L 18/4P	195	220	227	38	18
PL-L 24/4P	290	315	322	38	18
PL-L 36/4P	385	410	417	38	18
PL-L 40/4P	510	535	542	38	18
PL-L 55/4P	510	535	542	38	18
PL-L 80/4P	540	565	572	38	18

# Compact Fluorescent Non-Integrated

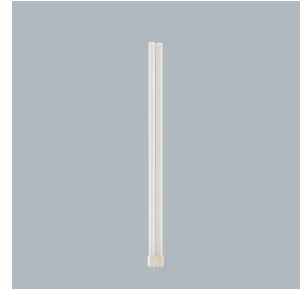
MASTER PL-L 4 Pin



PL-L 36W



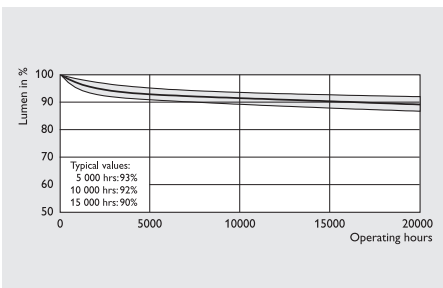
PL-L 55W



PL-L 80W

## Preferred selection

Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (Ra)
MASTER PL-L 18W/827/4P 1CT	25	60.9	2G11	Incandescent White	2700	82
MASTER PL-L 18W/830/4P 1CT	25	60.9	2G11	Warm White	3000	82
MASTER PL-L 18W/840/4P 1CT	25	60.9	2G11	Cool White	4000	82
MASTER PL-L 18W/865/4P 1CT	25	60.9	2G11	Cool Daylight	6500	80
MASTER PL-L 24W/827/4P 1CT	25	92.0	2G11	Incandescent White	2700	82
MASTER PL-L 24W/830/4P 1CT	25	92.0	2G11	Warm White	3000	82
MASTER PL-L 24W/840/4P 1CT	25	92.0	2G11	Cool White	4000	82
MASTER PL-L 24W/865/4P 1CT	25	92.0	2G11	Cool Daylight	6500	80
MASTER PL-L 36W/827/4P 1CT	25	104.2	2G11	Incandescent White	2700	82
MASTER PL-L 36W/830/4P 1CT	25	104.2	2G11	Warm White	3000	82
MASTER PL-L 36W/840/4P 1CT	25	104.2	2G11	Cool White	4000	82
MASTER PL-L 36W/865/4P 1CT	25	104.2	2G11	Cool Daylight	6500	80
MASTER PL-L 40W/830/4P 1CT	25	146.0	2G11	Warm White	3000	82
MASTER PL-L 40W/840/4P 1CT	25	146.0	2G11	Cool White	4000	82
MASTER PL-L 55W/827/4P 1CT	25	146.0	2G11	Incandescent White	2700	82
MASTER PL-L 55W/830/4P 1CT	25	146.0	2G11	Warm White	3000	82
MASTER PL-L 55W/840/4P 1CT	25	146.0	2G11	Cool White	4000	82
MASTER PL-L 55W/865/4P 1CT	25	146.0	2G11	Cool Daylight	6500	80
MASTER PL-L 80W/830/4P 1CT	25	152.0	2G11	Warm White	3000	82
MASTER PL-L 80W/840/4P 1CT	25	152.0	2G11	Cool White	4000	82



Lumen maintenance diagram



# Compact Fluorescent Non-Integrated

MASTER PL-L 4 Pin

## Preferred selection

Product ID	Lamp Voltage Electronic (V)	Lamp Current Electronic (A)	Lamp Wattage Electronic (W)	Luminous Flux Lamp Electronic (lm)	Luminous Efficacy Lamp Electronic (lm/W)	Energy Efficiency Label	Dimmable	European Order Code (EOC)
MASTER PL-L 18W/827/4P 1CT	50	0.320	16	1200	75	B	Yes	70667640
MASTER PL-L 18W/830/4P 1CT	50	0.320	16	1200	75	B	Yes	70668340
MASTER PL-L 18W/840/4P 1CT	50	0.320	16	1200	75	B	Yes	70669040
MASTER PL-L 18W/865/4P 1CT	50	0.320	16	1200	75	B	Yes	63514340
MASTER PL-L 24W/827/4P 1CT	75	0.300	22	1800	82	B	Yes	70670640
MASTER PL-L 24W/830/4P 1CT	75	0.300	22	1800	82	B	Yes	70671340
MASTER PL-L 24W/840/4P 1CT	75	0.300	22	1800	82	B	Yes	70672040
MASTER PL-L 24W/865/4P 1CT	75	0.300	22	1800	82	B	Yes	63517440
MASTER PL-L 36W/827/4P 1CT	90	0.360	32	2900	90	A	Yes	70673740
MASTER PL-L 36W/830/4P 1CT	90	0.360	32	2900	90	A	Yes	70674440
MASTER PL-L 36W/840/4P 1CT	90	0.360	32	2900	90	A	Yes	70675140
MASTER PL-L 36W/865/4P 1CT	90	0.360	32	2900	90	A	Yes	63520440
MASTER PL-L 40W/830/4P 1CT	126	0.320	40	3500	87	A	Yes	61094240
MASTER PL-L 40W/840/4P 1CT	126	0.320	40	3500	87	A	Yes	61097340
MASTER PL-L 55W/827/4P 1CT	101	0.550	55	4800	87	A	Yes	64148940
MASTER PL-L 55W/830/4P 1CT	101	0.550	55	4800	87	A	Yes	61541140
MASTER PL-L 55W/840/4P 1CT	101	0.550	55	4800	87	A	Yes	61542840
MASTER PL-L 55W/865/4P 1CT	101	0.550	55	4500	82	A	Yes	26170040
MASTER PL-L 80W/830/4P 1CT	145	0.555	80	6000	75	B	Yes	86708740
MASTER PL-L 80W/840/4P 1CT	145	0.555	80	6000	75	B	Yes	86712440

# Compact Fluorescent Non-Integrated

MASTER PL-L 4 Pin



# Compact Fluorescent Non-Integrated

PL-Q Pro 2 Pin



PL-Q

## Product Description

- Compact fluorescent lamps with a quadrant-like shape

## Product Features

- Retrofit in already installed 2D luminaires
- Assembled with the same high-quality components as all other Philips CFL-NI lamps

## Product Benefits

- High light quality and optimum lumen output provide increased value for money
- Energy-saving light with good colour rendering
- Long service lifetime
- The Philips Lighting stamp of quality

## Application

- Ideal for applications such as:
  - corridors
  - toilets
  - stairwells
  - reception areas

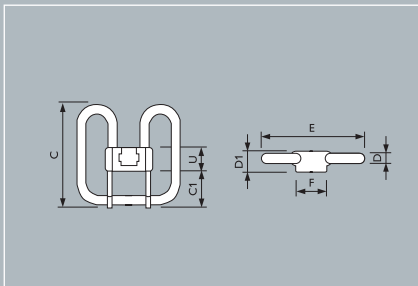
## Luminaires

- Fit both square and round bulkhead luminaires

## System

- Operate on separate control gear

Dimensions in mm



Product ID	C	C1	D	D1	E	F	U
	max.	max.	max.	max.	max.	max.	max.
PL-Q 16W	141	51	15	27.5	138	41	40
PL-Q 28W	207	77	24	33.0	205	41	49

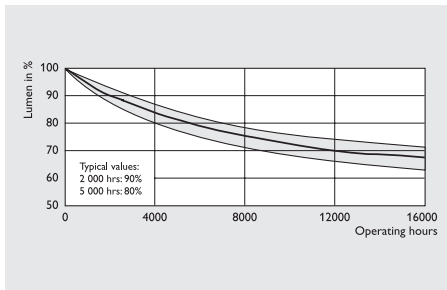
# Compact Fluorescent Non-Integrated

PL-Q Pro 2 Pin

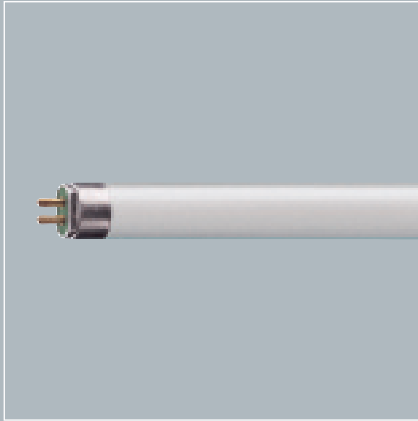
## Preferred selection

Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (Ra)
PL-Q Pro 16W/827/2P 1CT	10BOX	72	GR8	Incandescent White	2700	82
PL-Q Pro 16W/830/2P 1CT	10BOX	72	GR8	Warm White	3000	82
PL-Q Pro 16W/835/2P 1CT	10BOX	72	GR8	White	3500	82
PL-Q Pro 28W/827/2P 1CT	10BOX	129	GR8	Incandescent White	2700	82
PL-Q Pro 28W/830/2P 1CT	10BOX	129	GR8	Warm White	3000	82

Product ID	Lamp Voltage (V)	Lamp Current EM (A)	Lamp Wattage EM (W)	Luminous Flux Lamp EM (lm)	Luminous Efficacy Lamp EM (lm/W)	Energy Efficiency Label	Dimmable	European Order Code (EOC) 8711500
PL-Q Pro 16W/827/2P 1CT	103	0.195	16	1050	65	B	No	26965225
PL-Q Pro 16W/830/2P 1CT	103	0.195	16	1050	65	B	No	26987425
PL-Q Pro 16W/835/2P 1CT	103	0.195	16	1050	65	B	No	26966925
PL-Q Pro 28W/827/2P 1CT	108	0.320	28	2050	73	B	No	27454025
PL-Q Pro 28W/830/2P 1CT	108	0.320	28	2050	73	B	No	27455725

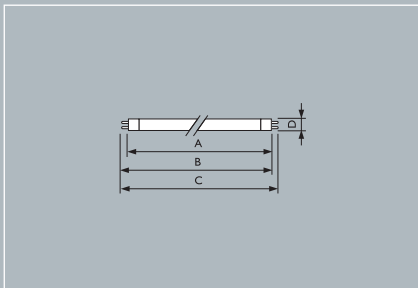


Lumen maintenance diagram



TL5

Dimensions in mm



## Product Description

- Low-pressure mercury discharge lamps with a tubular 16 mm envelope

## Product Features

- 40% thinner than existing TL-D lamps
- High lamp efficacies up to 104 lm/W
- Highly efficient 3-band fluorescent coating in combination with precoating and lamp load
- Low mercury dose
- Specifically designed for operation with electronic gear and well suited for dimming
- Maximum lumen output reached at approx. 35°C in free-burning position if an HF electronic ballast without additional electrode heating is used
- Can be ignited from -15° to +50°C
- End-cap has green bottom plate to identify lamp as recyclable

## Product Benefits

- Allow system miniaturisation and maximum luminaire design freedom, with lamp lengths defined for easy fitting into ceiling module systems
- Offers the highest available efficiencies and energy savings with direct lighting
- Virtually constant lumen level with excellent lumen maintenance
- Good colour rendering Ra >80
- Low striation even at low temperatures compared with TL-D lamps

## Application

- Ideally suited for recessed, surface-mounted and suspended luminaires in applications like offices, shops, schools, public buildings and industry, wherever high-quality, energy-effective lighting is required

Product ID	A		B	C	D
	max.	min.			
TL5 14W	549.0	553.7	556.1	563.2	17
TL5 21W	849.0	853.7	856.1	863.2	17
TL5 28W	1149.0	1153.7	1156.1	1163.2	17
TL5 35W	1449.0	1453.7	1456.1	1463.2	17

## Preferred selection

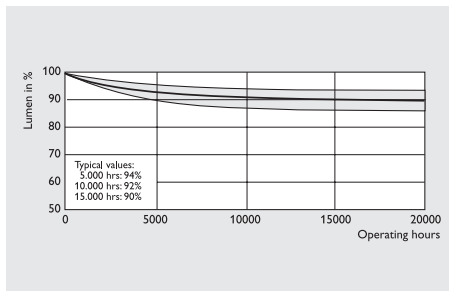
Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (Ra)
MASTER TL5 HE Super 80 14W/827 SLV	40	54	G5	Incandescent White	2700	85
MASTER TL5 HE Super 80 14W/830 SLV	40	54	G5	Warm White	3000	85
MASTER TL5 HE Super 80 14W/840 SLV	40	54	G5	Cool White	4000	85
MASTER TL5 HE Super 80 14W/850 SLV	40	54	G5	Daylight	5000	85
MASTER TL5 HE Super 80 14W/865 SLV	40	54	G5	Cool Daylight	6500	85
MASTER TL5 HE Super 80 21W/827 SLV	40	78	G5	Incandescent White	2700	85
MASTER TL5 HE Super 80 21W/830 SLV	40	78	G5	Warm White	3000	85
MASTER TL5 HE Super 80 21W/840 SLV	40	78	G5	Cool White	4000	85
MASTER TL5 HE Super 80 21W/865 SLV	40	78	G5	Cool Daylight	6500	85
MASTER TL5 HE Super 80 28W/827 SLV	40	105	G5	Incandescent White	2700	85
MASTER TL5 HE Super 80 28W/830 SLV	40	105	G5	Warm White	3000	85
MASTER TL5 HE Super 80 28W/840 SLV	40	105	G5	Cool White	4000	85
MASTER TL5 HE Super 80 28W/850 SLV	40	105	G5	Daylight	5000	85
MASTER TL5 HE Super 80 28W/865 SLV	40	105	G5	Cool Daylight	6500	85
MASTER TL5 HE Super 80 35W/827 SLV	40	132	G5	Incandescent White	2700	85
MASTER TL5 HE Super 80 35W/830 SLV	40	132	G5	Warm White	3000	85
MASTER TL5 HE Super 80 35W/840 SLV	40	132	G5	Cool White	4000	85
MASTER TL5 HE Super 80 35W/865 SLV	40	132	G5	Cool Daylight	6500	85

SLV: Sleeve packaging

Product ID	Lamp Voltage Electronic 25°C (V)	Lamp Current Electronic 25°C (A)	Luminous Flux Lamp Electronic 25°C (lm)	Luminous Efficacy Lamp, Electronic at top 35°C (lm/W)	Luminance Average Electronic 25°C (cd/cm <sup>2</sup> )	Energy Efficiency Label	European Order Code (EOC)  8711500
MASTER TL5 HE Super 80 14W/827 SLV	83	0.17	1200	96	1.5	A	64102155
MASTER TL5 HE Super 80 14W/830 SLV	83	0.17	1200	96	1.5	A	63938755
MASTER TL5 HE Super 80 14W/840 SLV	83	0.17	1200	96	1.5	A	63940055
MASTER TL5 HE Super 80 14W/850 SLV	83	0.17	1100	89	1.4	A	26127455
MASTER TL5 HE Super 80 14W/865 SLV	83	0.17	1100	89	1.4	A	71009355
MASTER TL5 HE Super 80 21W/827 SLV	125	0.17	1900	100	1.5	A	64320955
MASTER TL5 HE Super 80 21W/830 SLV	125	0.17	1900	100	1.5	A	63942455
MASTER TL5 HE Super 80 21W/840 SLV	125	0.17	1900	100	1.5	A	63944855
MASTER TL5 HE Super 80 21W/865 SLV	125	0.17	1750	93	1.4	A	71011655
MASTER TL5 HE Super 80 28W/827 SLV	166	0.17	2600	104	1.5	A	643223 55
MASTER TL5 HE Super 80 28W/830 SLV	166	0.17	2600	104	1.5	A	639462 55
MASTER TL5 HE Super 80 28W/840 SLV	166	0.17	2600	104	1.5	A	639486 55
MASTER TL5 HE Super 80 28W/850 SLV	166	0.17	2400	96	1.4	A	260208 55
MASTER TL5 HE Super 80 28W/865 SLV	166	0.17	2400	96	1.4	A	710154 55
MASTER TL5 HE Super 80 35W/827 SLV	208	0.17	3300	104	1.5	A	643247 55
MASTER TL5 HE Super 80 35W/830 SLV	208	0.17	3300	104	1.5	A	639509 55
MASTER TL5 HE Super 80 35W/840 SLV	208	0.17	3300	104	1.5	A	639523 55
MASTER TL5 HE Super 80 35W/865 SLV	208	0.17	3100	97	1.4	A	710185 55

SLV: Sleeve packaging

Note: Nominal luminous flux, average luminance and electrical specifications defined at an ambient temperature of 25°C in free burning position on reference ballast/Luminous efficacy (lm/W) defined at top of the lumen curve (approx. 35°C).



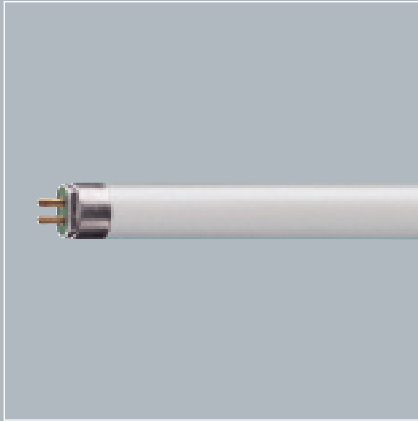
Lumen maintenance diagram

# Fluorescent

MASTER TL5  
High Efficiency Super 80







TL5

## Product Description

- Low-pressure mercury discharge lamps with a tubular 16 mm envelope

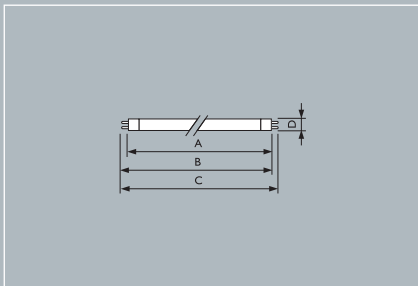
## Product Features

- 40% thinner than TL-D lamps
- Designed for high lumen output and system miniaturization
- Highly efficient 3-band fluorescent coating in combination with precoating
- Low mercury dose  
Specifically designed for operation with electronic gear and well suited for dimming
- Maximum lumen output reached at approx. 35°C in free-burning position if an HF electronic ballast without additional electrode heating is used
- Can be ignited from -15° to +50°C
- End-cap has green bottom plate to identify lamp as recyclable

## Product Benefits

- Allow system miniaturisation and maximum luminaire design freedom
- Lamp lengths enable easy fitting into ceiling module systems
- Optimised for installations which need high luminous flux
- Virtually constant lumen level with excellent lumen maintenance
- Good colour rendering

Dimensions in mm



Product ID	A		B	C	D
	max.	min.			
TL5 24W	549.0	553.7	556.1	563.2	17
TL5 39W	849.0	853.7	856.1	863.2	17
TL5 54W	1149.0	1153.7	1156.1	1163.2	17
TL5 49W/80W	1449.0	1453.7	1456.1	1463.2	17

## Application

- The combination of a compact lamp and high lumen package of the MASTER TL5 HO offers exciting opportunities for architectural lighting and customised solutions
- Offers economic solutions with high-ceiling lighting in shops, industry and department stores
- The high luminous flux gives optimal results in aesthetic pendants and furniture-mounted luminaires in offices, workshops, restaurants and reception areas

## Preferred selection

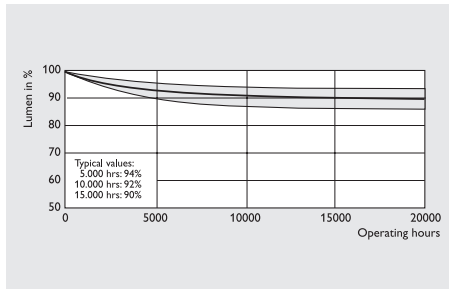
Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (Ra)
MASTER TL5 HO Super 80 24W/827 SLV	40	54	G5	Incandescent White	2700	85
MASTER TL5 HO Super 80 24W/830 SLV	40	54	G5	Warm White	3000	85
MASTER TL5 HO Super 80 24W/840 SLV	40	54	G5	Cool White	4000	85
MASTER TL5 HO Super 80 24W/865 SLV	40	54	G5	Cool Daylight	6500	85
MASTER TL5 HO Super 80 39W/827 SLV	40	78	G5	Incandescent White	2700	85
MASTER TL5 HO Super 80 39W/830 SLV	40	78	G5	Warm White	3000	85
MASTER TL5 HO Super 80 39W/840 SLV	40	78	G5	Cool White	4000	85
MASTER TL5 HO Super 80 39W/865 SLV	40	78	G5	Cool Daylight	6500	85
MASTER TL5 HO Super 80 49W/827 SLV	40	132	G5	Incandescent White	2700	85
MASTER TL5 HO Super 80 49W/830 SLV	40	132	G5	Warm White	3000	85
MASTER TL5 HO Super 80 49W/840 SLV	40	132	G5	Cool White	4000	85
MASTER TL5 HO Super 80 49W/865 SLV	40	132	G5	Cool Daylight	6500	85
MASTER TL5 HO Super 80 54W/827 SLV	40	105	G5	Incandescent White	2700	85
MASTER TL5 HO Super 80 54W/830 SLV	40	105	G5	Warm White	3000	85
MASTER TL5 HO Super 80 54W/840 SLV	40	105	G5	Cool White	4000	85
MASTER TL5 HO Super 80 54W/865 SLV	40	105	G5	Cool Daylight	6500	85
MASTER TL5 HO Super 80 80W/830 SLV	40	132	G5	Warm White	3000	85
MASTER TL5 HO Super 80 80W/840 SLV	40	132	G5	Cool White	4000	85
MASTER TL5 HO Super 80 80W/865 SLV	40	132	G5	Cool Daylight	6500	85

SLV: Sleeve packaging

Product ID	Lamp Voltage	Lamp Current	Luminous Flux Lamp	Luminous Efficacy Lamp, Electronic	Luminance Average	Energy Efficiency	European Order Code
	Electronic 25°C (V)	Electronic 25°C (A)	Electronic 25°C (lm)	at top 35°C (lm/W)	Electronic 25°C (cd/cm <sup>2</sup> )	Label	(EOC)  <b>8711500</b>
MASTER TL5 HO Super 80 24W/827 SLV	80	0.300	1750	89	2.2	B	64308755
MASTER TL5 HO Super 80 24W/830 SLV	80	0.300	1750	89	2.2	B	63958555
MASTER TL5 HO Super 80 24W/840 SLV	80	0.300	1750	89	2.2	B	63960855
MASTER TL5 HO Super 80 24W/865 SLV	80	0.300	1650	84	2.1	B	64393355
MASTER TL5 HO Super 80 39W/827 SLV	119	0.330	3100	92	2.5	B	64310055
MASTER TL5 HO Super 80 39W/830 SLV	119	0.330	3100	92	2.5	B	63962255
MASTER TL5 HO Super 80 39W/840 SLV	119	0.330	3100	92	2.5	B	63964655
MASTER TL5 HO Super 80 39W/865 SLV	119	0.330	2950	87	2.4	B	64387255
MASTER TL5 HO Super 80 49W/827 SLV	195	0.255	4300	99	2.0	B	64312455
MASTER TL5 HO Super 80 49W/830 SLV	195	0.255	4300	99	2.0	B	63954755
MASTER TL5 HO Super 80 49W/840 SLV	195	0.255	4300	99	2.0	B	63956155
MASTER TL5 HO Super 80 49W/865 SLV	195	0.255	4100	94	1.9	B	64389655
MASTER TL5 HO Super 80 54W/827 SLV	118	0.460	4450	93	2.6	B	64314855
MASTER TL5 HO Super 80 54W/830 SLV	118	0.460	4450	93	2.6	B	64316255
MASTER TL5 HO Super 80 54W/840 SLV	118	0.460	4450	93	2.6	B	64318655
MASTER TL5 HO Super 80 54W/865 SLV	118	0.460	4250	89	2.5	B	64391955
MASTER TL5 HO Super 80 80W/830 SLV	151	0.540	6150	88	2.9	B	71040655
MASTER TL5 HO Super 80 80W/840 SLV	130	0.540	6150	88	2.9	B	71045155
MASTER TL5 HO Super 80 80W/865 SLV	151	0.540	5850	83	2.7	B	71047555

SLV: Sleeve packaging

Note: Nominal luminous flux, average luminance and electrical specifications defined at an ambient temperature of 25°C in free burning position on reference ballast/Luminous efficacy (lm/W) defined at top of the lumen curve (approx. 35°C).



Lumen maintenance diagram



# Fluorescent

## TL5 Circular Super 80 Pro



TL5 C

### Product Description

- 16 mm tube diameter circular fluorescent lamps with a choice of diameters ranging from 230 to 380 mm

### Product Features

- Highly efficient 3-band fluorescent coating in combination with precoating
- Specifically designed for operation with electronic gear and well suited for dimming
- Can be ignited from  $-15^{\circ}$  to  $+50^{\circ}\text{C}$

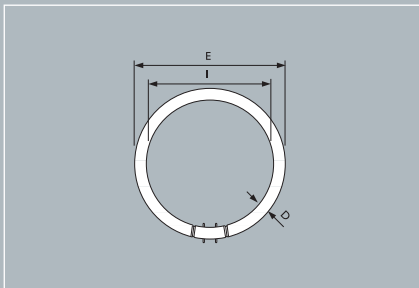
### Product Benefits

- Slim 16 mm tube allows creation of extremely flat luminaires
- Extra design freedom through rotational symmetry allows creation of products which are omnidirectional in both light distribution and design
- High lamp efficacy
- Good colour rendering

### Application

- Brings the benefits of TL5 lighting to an even wider range of attractive applications
- Suitable for a wide range of professional and semi-professional applications
- Ideal for use in shops, offices and public areas with non-traditional lay-outs

Dimensions in mm



Product ID	D		E		I	
	min.	max.	min.	max.	min.	max.
TL5C 22W	14	18	220	230	187	197
TL5C 40W/55W	14	18	293	305	260	272
TL5C 22W	14	18	367	379	334	346

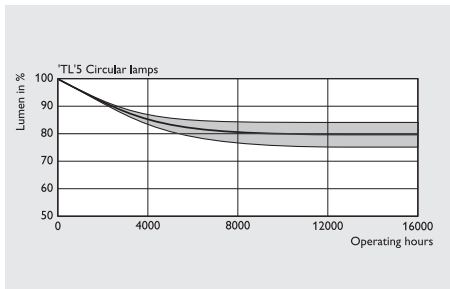
# Fluorescent

# TL5 Circular Super 80 Pro

## Preferred selection

Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (Ra)
TL5 Circular Super 80 Pro 22W/830 1CT	10	74	2GX13	Warm White	3000	85
TL5 Circular Super 80 Pro 22W/840 1CT	10	74	2GX13	Cool White	4000	85
TL5 Circular Super 80 Pro 40W/830 1CT	10	110	2GX13	Warm White	3000	85
TL5 Circular Super 80 Pro 40W/840 1CT	10	110	2GX13	Cool White	4000	85
TL5 Circular Super 80 Pro 55W/830 1CT	10	110	2GX13	Warm White	3000	85
TL5 Circular Super 80 Pro 55W/840 1CT	10	110	2GX13	Cool White	4000	85
TL5 Circular Super 80 Pro 60W/830 1CT	10	145	2GX13	Warm White	3000	85
TL5 Circular Super 80 Pro 60W/840 1CT	10	145	2GX13	Cool White	4000	85

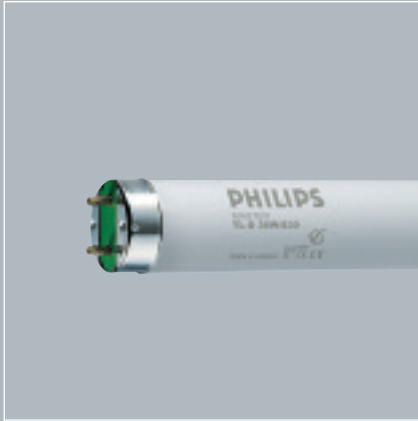
Product ID	Lamp Voltage Electronic (V)	Lamp Current Electronic (A)	Luminous Flux Lamp Electronic (lm)	Luminous Efficacy Lamp Electronic (lm/W)	Luminance Average Electronic (cd/cm <sup>2</sup> )	Energy Efficiency Label	European Order Code (EOC)
TL5 Circular Super 80 Pro 22W/830 1CT	22.3	0.30	1800	82	2.0	A	64095625
TL5 Circular Super 80 Pro 22W/840 1CT	22.3	0.30	1800	82	2.0	A	64221925
TL5 Circular Super 80 Pro 40W/830 1CT	39.9	0.32	3300	83	2.6	A	64097025
TL5 Circular Super 80 Pro 40W/840 1CT	39.9	0.32	3300	83	2.6	A	64223325
TL5 Circular Super 80 Pro 55W/830 1CT	55.0	0.55	4200	76	3.3	B	64279025
TL5 Circular Super 80 Pro 55W/840 1CT	55.0	0.55	4200	76	3.3	B	64251625
TL5 Circular Super 80 Pro 60W/830 1CT	60.0	0.47	5000	83	3.0	B	64259225
TL5 Circular Super 80 Pro 60W/840 1CT	60.0	0.47	5000	83	3.0	B	64261525



Lumen maintenance diagram

# Fluorescent

# MASTER TL-D Super 80



TL-D Super 80

## Product Description

- Low-pressure mercury discharge lamps with a tubular 26 mm envelope

## Product Features

- Highly efficient 3-band fluorescent coating in combination with New Generation pre-coating technology
- High initial lumen output
- Available in varying colour designations
- Low mercury dose (3 mg)
- MASTER TL-D lamps are fully recyclable
- End-cap has green bottom plate to identify lamp as recyclable and sustainable product

## Product Benefits

- Special fluorescent coating gives good colour rendering
- Relatively high efficacy, both initially and during lamp lifetime, with high lumen maintenance
- Create atmospheres from warm white to cool daylight

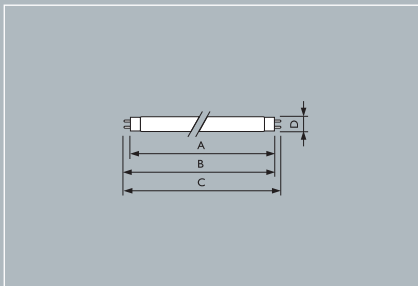
## Application

- Suitable for use in a wide range of luminaires for TL-D fluorescent lamps for 'human' applications such as schools, offices, shops, factory halls etc.

## System

- Can be used with conventional or HF electronic gear
- Higher efficacy is achieved with HF electronic gear

Dimensions in mm



Product ID	A		B	C	D
	max.	min.	max.	max.	max.
TL-D 15W	437.4	442.1	444.5	451.6	28
TL-D 18W	589.8	594.5	596.9	604.0	28
TL-D 23W/1m-36W	970.0	974.7	977.1	984.2	28
TL-D 30W	894.6	899.3	901.7	908.8	28
TL-D 36W	1199.4	1204.1	1206.5	1213.6	28
TL-D 38W	1047.0	1051.7	1054.1	1061.2	28
TL-D 58W	1500.0	1504.7	1507.1	1514.2	28
TL-D 70W	1763.8	1768.5	1770.9	1778.0	28

## Preferred selection

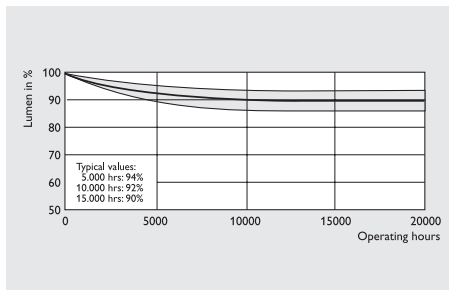
Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Temperature (K)	Colour Rendering Index (Ra)	Colour Designation
MASTER TL-D Super 80 15W/827 SLV	25	76.0	G13	2700	85	Incandescent White
MASTER TL-D Super 80 15W/830 SLV	25	76.0	G13	3000	85	Warm White
MASTER TL-D Super 80 15W/840 SLV	25	76.0	G13	4000	85	Cool White
MASTER TL-D Super 80 18W/827 SLV	25	71.0	G13	2700	85	Incandescent White
MASTER TL-D Super 80 18W/830 SLV	25	71.0	G13	3000	85	Warm White
MASTER TL-D Super 80 18W/835 SLV	25	71.0	G13	3500	85	White
MASTER TL-D Super 80 18W/840 SLV	25	71.0	G13	4000	85	Cool White
MASTER TL-D Super 80 18W/865 SLV	25	71.0	G13	6500	85	Cool Daylight
MASTER TL-D Super 80 23W/830 SLV	25	120.0	G13	3000	85	Warm White
MASTER TL-D Super 80 23W/840 SLV	25	120.0	G13	4000	85	Cool White
MASTER TL-D Super 80 30W/827 SLV	25	113.0	G13	2700	85	Incandescent White
MASTER TL-D Super 80 30W/830 SLV	25	113.0	G13	3000	85	Warm White
MASTER TL-D Super 80 30W/840 SLV	25	113.0	G13	4000	85	Cool White
MASTER TL-D Super 80 30W/865 SLV	25	113.0	G13	6500	85	Cool Daylight
MASTER TL-D Super 80 36W/827 SLV	25	137.5	G13	2700	85	Incandescent White
MASTER TL-D Super 80 36W/830 SLV	25	137.5	G13	3000	85	Warm White
MASTER TL-D Super 80 1m 36W/830 SLV	25	120.0	G13	3000	85	Warm White
MASTER TL-D Super 80 36W/835 SLV	25	137.5	G13	3500	85	White
MASTER TL-D Super 80 36W/840 SLV	25	137.5	G13	4000	85	Cool White
MASTER TL-D Super 80 1m 36W/840 SLV	25	120.0	G13	4000	85	Cool White
MASTER TL-D Super 80 36W/865 SLV	25	137.5	G13	6500	85	Cool Daylight
MASTER TL-D Super 80 38W/830 SLV	25	133.0	G13	3000	85	Warm White
MASTER TL-D Super 80 38W/840 SLV	25	133.0	G13	4000	85	Cool White
MASTER TL-D Super 80 58W/827 SLV	25	186.0	G13	2700	85	Incandescent White
MASTER TL-D Super 80 58W/830 SLV	25	186.0	G13	3000	85	Warm White
MASTER TL-D Super 80 58W/835 SLV	25	186.0	G13	3500	85	White
MASTER TL-D Super 80 58W/840 SLV	25	186.0	G13	4000	85	Cool White
MASTER TL-D Super 80 58W/865 SLV	25	186.0	G13	6500	85	Cool Daylight
MASTER TL-D Super 80 58W/865 SLV	25	186.0	G13	6500	85	Cool Daylight
MASTER TL-D Super 80 70W/830 SLV	25	214.0	G13	3000	85	Warm White
MASTER TL-D Super 80 70W/840 SLV	25	214.0	G13	4000	85	Cool White

SLV: Sleeve packaging



Product ID	Lamp Voltage (V)	Lamp Wattage EM (W)	Lamp Current EM (A)	Luminous Flux Lamp EM (lm)	Luminance Average EM EM (cd/cm <sup>2</sup> )	Energy Efficiency Label	European Order Code (EOC) 8711500
MASTER TL-D Super 80 15W/827 SLV	51	15.0	0.34	1000	1.00	B	70278440
MASTER TL-D Super 80 15W/830 SLV	51	15.0	0.34	1000	1.00	B	70279140
MASTER TL-D Super 80 15W/840 SLV	51	15.0	0.34	1000	1.00	B	70280740
MASTER TL-D Super 80 18W/827 SLV	59	18.0	0.36	1350	1.00	A	63162640
MASTER TL-D Super 80 18W/830 SLV	59	18.0	0.36	1350	1.00	A	63165740
MASTER TL-D Super 80 18W/835 SLV	59	18.0	0.36	1350	0.95	A	63168840
MASTER TL-D Super 80 18W/840 SLV	59	18.0	0.36	1350	1.00	A	63171840
MASTER TL-D Super 80 18W/865 SLV	59	18.0	0.36	1300	0.95	A	63177040
MASTER TL-D Super 80 23W/830 SLV	95	23.0	0.30	2050	0.95	A	55863340
MASTER TL-D Super 80 23W/840 SLV	95	23.0	0.30	2050	0.95	A	55870140
MASTER TL-D Super 80 30W/827 SLV	98	30.0	0.36	2400	1.10	A	63180040
MASTER TL-D Super 80 30W/830 SLV	98	30.0	0.36	2400	1.10	A	63183140
MASTER TL-D Super 80 30W/840 SLV	98	30.0	0.36	2400	1.10	A	63186240
MASTER TL-D Super 80 30W/865 SLV	98	30.0	0.36	2300	1.05	A	63189340
MASTER TL-D Super 80 36W/827 SLV	98	36.0	0.44	3350	1.25	A	63192340
MASTER TL-D Super 80 36W/830 SLV	103	36.0	0.44	3350	1.25	A	63195440
MASTER TL-D Super 80 1m 36W/830 SLV	80	36.0	0.56	3100	1.40	A	55874940
MASTER TL-D Super 80 36W/835 SLV	103	36.0	0.44	3350	0.95	A	63198540
MASTER TL-D Super 80 36W/840 SLV	103	36.0	0.44	3350	1.25	A	63201240
MASTER TL-D Super 80 1m 36W/840 SLV	80	36.0	0.56	3100	1.40	A	55877040
MASTER TL-D Super 80 36W/865 SLV	103	36.0	0.44	3250	1.20	A	63207440
MASTER TL-D Super 80 38W/830 SLV	104	38.0	0.43	3350	1.40	A	55880040
MASTER TL-D Super 80 38W/840 SLV	104	38.0	0.43	3350	1.40	A	55883140
MASTER TL-D Super 80 58W/827 SLV	111	58.5	0.67	5200	1.50	A	63210440
MASTER TL-D Super 80 58W/830 SLV	111	58.5	0.67	5200	1.50	A	63213540
MASTER TL-D Super 80 58W/835 SLV	111	58.5	0.67	5200	0.95	A	63216640
MASTER TL-D Super 80 58W/840 SLV	111	58.5	0.67	5200	1.50	A	63219740
MASTER TL-D Super 80 58W/865 SLV	111	58.5	0.67	5000	1.45	A	63225840
MASTER TL-D Super 80 58W/865 SLV	111	58.5	0.67	5000	1.45	A	63225840
MASTER TL-D Super 80 70W/830 SLV	132	70.0	0.69	6200	1.50	A	61598540
MASTER TL-D Super 80 70W/840 SLV	132	70.0	0.69	6200	1.50	A	61592340

SLV: Sleeve packaging

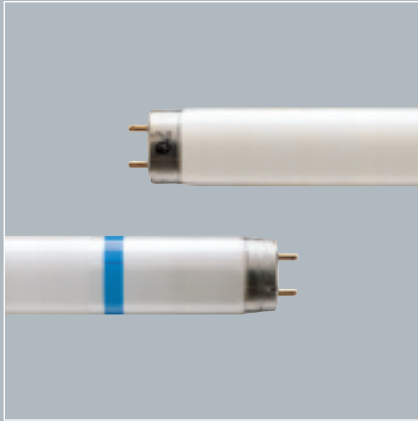


Lumen maintenance diagram



# Fluorescent

## MASTER TL-D Secura Super 80



TL-D Secura

### Product Description

- Low-pressure mercury discharge lamps with a tubular 26 mm envelope

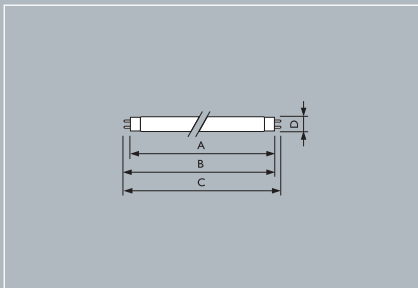
### Product Features

- Protective coating around the entire lamp
- Blue ring around one end
- Direct retrofit for all Standard and Super /80 TL-D lamps operating on conventional or HF gear
- Highly efficient 3-band fluorescent coating in combination with New Generation pre-coating technology
- Available in various colour designations
- Low mercury dose (3 mg)
- Recyclable at end-of-life, including the protective lamp coating
- End-cap has green bottom plate to identify lamp as recyclable

### Product Benefits

- Special protective coating in the lamp-, prevents products from contamination in case of accidental lamp breakage
- Easy identification in audit situations by blue ring at one end
- Special fluorescent coating gives good colour rendering
- Relatively high efficacy, both initially and during lamp lifetime, with high lumen maintenance
- Protects products from discolouring and loss of taste by 90% lower UV emission
- Compliant with HACCP regulations and supports HACCP certification

Dimensions in mm



Product ID	A		B		C	D
	max.	min.	max.	max.	max.	
TL-D 18W	589.8	594.5	596.9	604.0	28	
TL-D 36W	1199.4	1204.1	1206.5	1213.6	28	
TL-D 58W	1500.0	1504.7	1507.1	1514.2	28	

# Fluorescent

# MASTER TL-D Secura Super 80

## Application

- For use where contamination resulting from lamp breakage must be prevented, e.g. in food preparation, health care, pharmaceuticals, cleanrooms etc.
- Suitable for use in environments with increased risk of breakage, e.g. sports halls
- Suitable for use in environments where UV emission should be reduced (museums, libraries, archives, food industry, fashion shops, etc.)

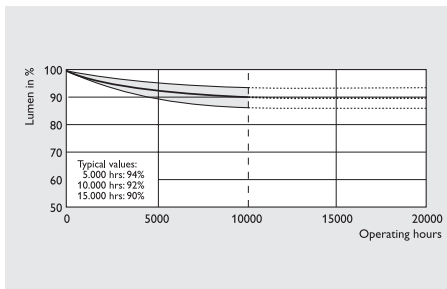
## System

- Use of self-stopping lamp control systems is strongly recommended

## Preferred selection

Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (Ra)
MASTER TL-D Secura Super 80 18W/830 SLV	25	78	G13	Warm White	3000	85
MASTER TL-D Secura Super 80 18W/840 SLV	25	78	G13	Cool White	4000	85
MASTER TL-D Secura Super 80 36W/830 SLV	25	151	G13	Warm White	3000	85
MASTER TL-D Secura Super 80 36W/840 SLV	25	151	G13	Cool White	4000	85
MASTER TL-D Secura Super 80 58W/830 SLV	25	187	G13	Warm White	3000	85
MASTER TL-D Secura Super 80 58W/840 SLV	25	187	G13	Cool White	4000	85

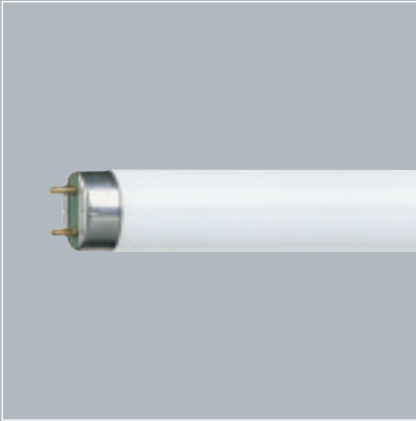
Product ID	Lamp Voltage (V)	Lamp Wattage (W)	Lamp Current (A)	Luminous Flux Lamp (lm)	Luminous Efficacy Lamp (lm/W)	Luminance Average (cd/cm <sup>2</sup> )	Energy Efficiency Label	European Order Code (EOC)
MASTER TL-D Secura Super 80 18W/830 SLV	59	18.0	0.36	1300	72	1.00	A	8711500 64006240
MASTER TL-D Secura Super 80 18W/840 SLV	59	18.0	0.36	1300	72	1.00	A	64010940
MASTER TL-D Secura Super 80 36W/830 SLV	103	36.0	0.44	3200	89	1.25	A	64012340
MASTER TL-D Secura Super 80 36W/840 SLV	103	36.0	0.44	3200	89	1.25	A	64014740
MASTER TL-D Secura Super 80 58W/830 SLV	111	58.5	0.67	5000	85	1.50	A	64016140
MASTER TL-D Secura Super 80 58W/840 SLV	111	58.5	0.67	5000	85	1.50	A	64018540



Lumen maintenance diagram

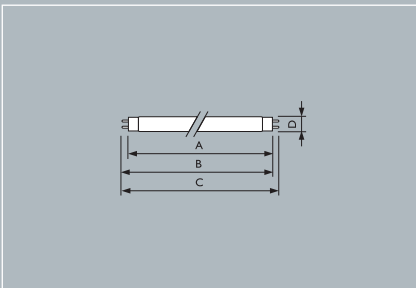
# Fluorescent

## MASTER TL-D Reflex Super 80



TL-D Reflex Super 80

Dimensions in mm



### Product Description

- Low-pressure mercury discharge lamps with a tubular 26 mm envelope

### Product Features

- Partly transparent 200° internal reflector; leaving a 160° 'window'
- Direct retrofit for all Standard and Super /80 TL-D lamps operating on conventional or HF gear
- Highly efficient 3-band fluorescent coating in combination with New Generation pre-coating technology
- Available in various colour designations
- Low mercury dose (3 mg)
- Fully recyclable at end-of-life
- End-cap has green bottom plate to identify lamp as recyclable

### Product Benefits

- Concentrates light there where it is needed, virtually eliminating the need for an external reflector
- Enabling energy savings up to 50% (existing projects with luminaires with no or plain reflectors)
- Enabling substantial lower investments in luminaires without loss of light (new projects)
- Special fluorescent coating gives good colour rendering
- Relatively high efficacy, both initially and during lamp lifetime, with high lumen maintenance
- Upgrades light output (by up to 50%!) of luminaires with poor or hardly any reflector solutions, e.g. waterproof luminaires, bare battens, tube lights, wall washers etc.
- Internal reflector means light output is hardly affected in environments subject to dust accumulation

Product ID	A		B	C	D
	max.	min.	max.	max.	max.
TL-D 18W	589.8	594.5	596.9	604.0	28
TL-D 36W	1199.4	1204.1	1206.5	1213.6	28
TL-D 58W	1500.0	1504.7	1507.1	1514.2	28

# Fluorescent

# MASTER TL-D Reflex Super 80

## Application

- Large halls where qualitative good lighting is required against the lowest possible costs (warehouses, industry halls, parking areas, supermarkets, etc.)

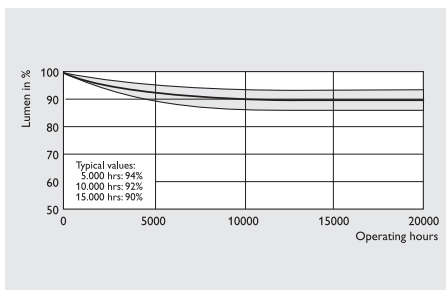
- New projects: Allows use of cost-effective 'TL' battens without reflectors, achieving same light output as expensive luminaires with reflectors, against substantial lower investments
- Perfectly suited for dusty environments

## Preferred selection

Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (Ra)
MASTER TL-D Reflex Super 80 18W/830 SLV	25	71.0	G13	Warm White	3000	85
MASTER TL-D Reflex Super 80 18W/840 SLV	25	71.0	G13	Cool White	4000	85
MASTER TL-D Reflex Super 80 18W/865 SLV	25	71.0	G13	Cool Daylight	6500	85
MASTER TL-D Reflex Super 80 36W/830 SLV	25	137.5	G13	Warm White	3000	85
MASTER TL-D Reflex Super 80 36W/840 SLV	25	137.5	G13	Cool White	4000	85
MASTER TL-D Reflex Super 80 36W/865 SLV	25	137.5	G13	Cool Daylight	6500	85
MASTER TL-D Reflex Super 80 58W/830 SLV	25	186.0	G13	Warm White	3000	85
MASTER TL-D Reflex Super 80 58W/840 SLV	25	186.0	G13	Cool White	4000	85
MASTER TL-D Reflex Super 80 58W/865 SLV	25	186.0	G13	Cool Daylight	6500	85

Product ID	Lamp Voltage (V)	Lamp Wattage EM (W)	Lamp Current EM (A)	Luminous Flux Lamp EM (lm)	Luminous Efficacy Lamp EM (lm/W)	Luminance Average EM (cd/cm <sup>2</sup> )	Energy Efficiency Label	European Order Code (EOC)
MASTER TL-D Reflex Super 80 18W/830 SLV	59	18.0	0.36	1350	75	1.75	A	63644740
MASTER TL-D Reflex Super 80 18W/840 SLV	59	18.0	0.36	1350	75	1.75	A	63647840
MASTER TL-D Reflex Super 80 18W/865 SLV	59	18.0	0.36	1300	72	1.66	A	26029140
MASTER TL-D Reflex Super 80 36W/830 SLV	103	36.0	0.44	3350	93	2.19	A	55949440
MASTER TL-D Reflex Super 80 36W/840 SLV	103	36.0	0.44	3350	93	2.19	A	55953140
MASTER TL-D Reflex Super 80 36W/865 SLV	103	36.0	0.44	3250	90	2.10	A	26031440
MASTER TL-D Reflex Super 80 58W/830 SLV	111	58.5	0.67	5200	89	2.62	A	55957940
MASTER TL-D Reflex Super 80 58W/840 SLV	111	58.5	0.67	5200	89	2.62	A	55962340
MASTER TL-D Reflex Super 80 58W/865 SLV	111	58.5	0.67	5000	85	2.54	A	26033840

SLV: Sleeve packaging



Lumen maintenance diagram

# Fluorescent

# TL-D 90 De Luxe Pro



TL-D 90 De Luxe

## Product Description

- Low-pressure mercury discharge lamps with a tubular 26 mm envelope

## Product Features

- High-quality fluorescent coating
- Available in various colour designations

## Product Benefits

- Very good colour rendering. Making colours appear rich, deep and enhanced as they do in daylight, making products appear more attractive (Pro range: high quality of light!)
- 25% More light than competition
- Enabling customer to switch to 90-colours with (almost) no decrease of light level
- Enabling customers (in certain segments) to respect the new European norm for lighting of indoor workplaces (CEN 12464-1), without investing in new luminaires
- Attractive 10 pcs./box packaging configuration
- Direct retrofit for all Standard and Super /80 TL-D lamps operating on conventional or HF gear
- Possible to create atmospheres from warm white to cool daylight

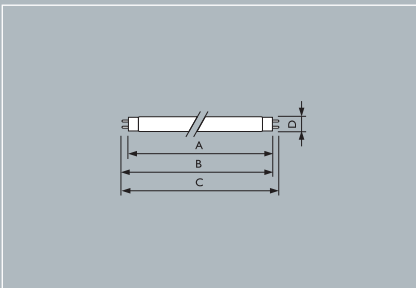
## Application

- Used in applications where good colour rendering is crucial, such as shops (flower, fashion, department, etc.), hairdresser, museums, hospitals, etc.

## System

- Can be used with conventional or HF electronic gear

Dimensions in mm



Product ID	A		B		C		D	
	max.	min.	max.	max.	max.	max.		
TL-D 18W	589.8	594.5	596.9		604.0			28
TL-D 36W	1199.4	1204.1	1206.5		1213.6			28
TL-D 58W	1500.0	1504.	1507.1		1514.2			28

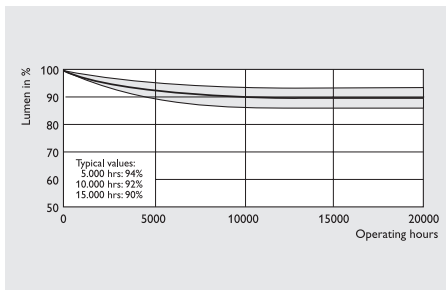
## Preferred selection

Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (Ra)
TL-D 90 De Luxe Pro 18W/930 SLV	10	71.0	G13	Warm White	3000	92
TL-D 90 De Luxe Pro 18W/940 SLV	10	71.0	G13	Cool White	4000	91
TL-D 90 De Luxe Pro 18W/950 SLV	10	71.0	G13	Daylight	5200	93
TL-D 90 De Luxe Pro 18W/965 SLV	10	71.0	G13	Cool Daylight	6800	93
TL-D 90 De Luxe Pro 36W/930 SLV	10	137.5	G13	Warm White	3000	92
TL-D 90 De Luxe Pro 36W/940 SLV	10	137.5	G13	Cool White	4000	91
TL-D 90 De Luxe Pro 36W/950 SLV	10	137.5	G13	Daylight	5200	93
TL-D 90 De Luxe Pro 36W/965 SLV	10	137.5	G13	Cool Daylight	6800	93
TL-D 90 De Luxe Pro 58W/930 SLV	10	186.0	G13	Warm White	3000	92
TL-D 90 De Luxe Pro 58W/940 SLV	10	186.0	G13	Cool White	4000	91
TL-D 90 De Luxe Pro 58W/950 SLV	10	186.0	G13	Daylight	5200	93
TL-D 90 De Luxe Pro 58W/965 SLV	10	186.0	G13	Cool Daylight	6800	93

SLV: Sleeve packaging

Product ID	Lamp Voltage (V)	Lamp Wattage EM (W)	Lamp Current EM (A)	Luminous Flux Lamp EM (lm)	Luminous Efficacy Lamp EM (lm/W)	Luminance Average EM (cd/cm <sup>2</sup> )	Energy Efficiency Label	European Order Code (EOC)
TL-D 90 De Luxe Pro 18W/930 SLV	59	18.0	0.36	1100	61	0.90	B	88837225
TL-D 90 De Luxe Pro 18W/940 SLV	59	18.0	0.36	1200	67	0.90	B	88839625
TL-D 90 De Luxe Pro 18W/950 SLV	59	18.0	0.36	1150	64	0.90	B	88843325
TL-D 90 De Luxe Pro 18W/965 SLV	59	18.0	0.36	1150	64	0.90	B	88846425
TL-D 90 De Luxe Pro 36W/930 SLV	103	36.0	0.44	2700	75	1.00	B	88856325
TL-D 90 De Luxe Pro 36W/940 SLV	103	36.0	0.44	2800	78	1.00	B	88858725
TL-D 90 De Luxe Pro 36W/950 SLV	103	36.0	0.44	2800	78	1.00	B	88860025
TL-D 90 De Luxe Pro 36W/965 SLV	103	36.0	0.44	2800	78	1.00	B	88862425
TL-D 90 De Luxe Pro 58W/930 SLV	111	58.5	0.67	4350	75	1.25	B	88867925
TL-D 90 De Luxe Pro 58W/940 SLV	111	58.5	0.67	4600	79	1.25	B	88869325
TL-D 90 De Luxe Pro 58W/950 SLV	111	58.5	0.67	4550	81	1.25	B	88871625
TL-D 90 De Luxe Pro 58W/965 SLV	111	58.5	0.67	4550	78	1.25	B	88873025

SLV: Sleeve packaging



Lumen maintenance diagram



# Fluorescent

# TL-D Snow White



TL-D Snow White

## Product Description

A low-pressure mercury discharge lamp with a tubular 26mm envelope, available in 18w, 36w and 58w

## Product Features

- Offers a very high colour temperature
- Offers a good colour rendering
- Direct replacement for any TL-D

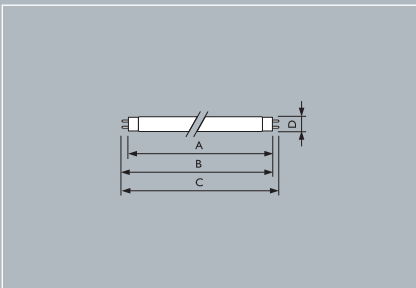
## Product Benefits

- Creates a relaxing and comfortable cool ambiance, especially in very hot and dry climate conditions
- Increases human well-being and contributes very positively to the perceived atmosphere

## Applications:

Suitable in a wide range of luminaries for TL-D Fluorescent lamps, used in applications where cool ambiances are requested like: offices, shops, schools, indoor ski centers, warehouses, industry etc.

Dimensions in mm



Product ID	A		B	C	D
	max.	min.	max.	max.	max.
TL-D 18W	509	595	597	604	28
TL-D 36W	1199	1204	1207	1214	28
TL-D 58W	1500	1505	1507	1514	25

# Fluorescent

# TL-D Snow White



Packaging

### Preferred selection

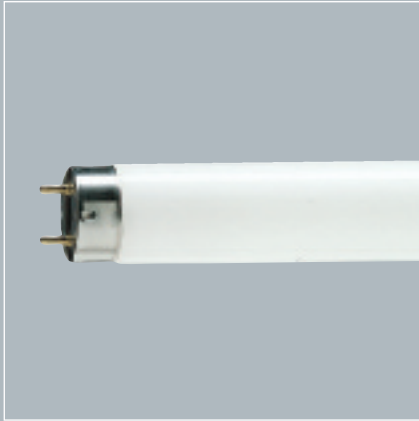
Product ID	Packaging Configuration	Net weight	Lamp cap/Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (Ra)
TL-D 18W Snow White	25	71	G3	Extreme Cool Daylight	12000	78
TL-D 36W Snow White	25	137.5	G3	Extreme Cool Daylight	12000	78
TL-D 58W Snow White	25	186	G3	Extreme Cool Daylight	12000	78

Product ID	Lamp Voltage (V)	Lamp Wattage EM (W)	Lamp Current EM (mA)	Luminous Flux Lamp EM (Lm)	Luminance Average EM (cd/cm <sup>2</sup> )	European Order Code (EOC) 8711500
TL-D 18W Snow White	59	18W	0.36	1050	0.75	089350540
TL-D 36W Snow White	103	36W	0.44	2500	0.95	089352940
TL-D 58W Snow White	111	58W	0.67	4000	1.15	089354340



# Fluorescent

# TL-D Standard Colours



TL-D Standard Colours

### Product Description

- Low-pressure mercury discharge lamps with a tubular 26 mm envelope

### Product Features

- Standard colours with moderate colour rendering
- Available in various colour designations

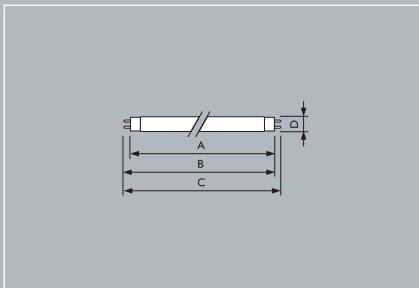
### Product Benefits

- Create atmospheres from warm white to cool daylight

### Application

- Suitable for use in a wide range of luminaires for TL-D fluorescent lamps, used in applications where colour rendering is not an important factor

Dimensions in mm



Product ID	A		B		C		D
	max.	min.	max.	max.	max.		
TL-D 15W	437.4	442.1	444.5	451.6	28		
TL-D 18W	589.8	594.5	596.9	604.0	28		
TL-D 23W	970.0	974.7	977.1	984.2	28		
-1M 36W							
TL-D 30W	894.6	899.3	901.7	908.8	28		
TL-D 36W	1199.4	1204.1	1206.5	1213.6	28		
TL-D 38W	1047.0	1051.7	1054.1	1061.2	28		
TL-D 58W	1500.0	1504.7	1507.1	1514.2	28		
TL-D 70W	1763.8	1768.5	1770.9	1778.0	28		

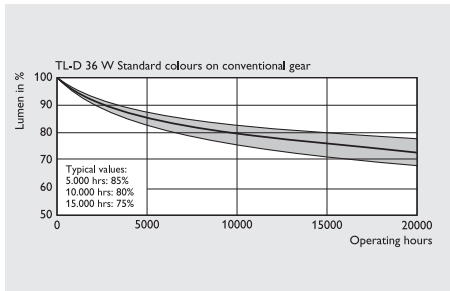
## Preferred selection

Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (Ra)
TL-D 15W/33-640 SLV	25	76.0	G13	Cool White	4100	63
TL-D 15W/54-765 SLV	25	76.0	G13	Cool Daylight	6200	72
TL-D 18W/33-640 SLV	25	71.0	G13	Cool White	4100	63
TL-D 18W/54-765 SLV	25	71.0	G13	Cool Daylight	6200	72
TL-D 23W/33-640 SLV	25	120.0	G13	Cool White	4100	63
TL-D 23W/54-765 SLV	25	120.0	G13	Cool Daylight	6200	72
TL-D 30W/33-640 SLV	25	113.0	G13	Cool White	4100	63
TL-D 30W/54-765 SLV	25	113.0	G13	Cool Daylight	6200	72
TL-D 36W/33-640 SLV	25	137.5	G13	Cool White	4100	63
TL-D 1m 36W/33-640 SLV	25	120.0	G13	Cool White	4100	63
TL-D 36W/54-765 SLV	25	137.5	G13	Cool Daylight	6200	72
TL-D 1m 36W/54-765 SLV	25	120.0	G13	Cool Daylight	6200	72
TL-D 38W/33-640 SLV	25	133.0	G13	Cool White	4100	63
TL-D 58W/33-640 SLV	25	186.0	G13	Cool White	4100	63
TL-D 58W/54-765 SLV	25	186.0	G13	Cool Daylight	6200	72
TL-D 70W/33-640 SLV	25	214.0	G13	Cool White	4100	63

SLV: Sleeve packaging

Product ID	Lamp Voltage (V)	Lamp Wattage EM (W)	Lamp Current EM (A)	Luminous Flux Lamp EM (lm)	Luminance Average EM (cd/cm <sup>2</sup> )	Energy Efficiency Label	European Order Code (EOC) 8711500
TL-D 15W/33-640 SLV	51	15.0	0.34	960	0.95	B	70277740
TL-D 15W/54-765 SLV	51	15.0	0.34	830	0.85	B	72221840
TL-D 18W/33-640 SLV	59	18.0	0.36	1200	0.85	B	70266140
TL-D 18W/54-765 SLV	59	18.0	0.36	1050	0.75	B	70267840
TL-D 23W/33-640 SLV	95	23.0	0.30	1900	0.90	A	72638440
TL-D 23W/54-765 SLV	95	23.0	0.30	1550	0.70	B	72641440
TL-D 30W/33-640 SLV	98	30.0	0.36	2100	1.05	B	70282140
TL-D 30W/54-765 SLV	98	30.0	0.36	1825	0.90	B	72263840
TL-D 36W/33-640 SLV	103	36.0	0.44	2850	1.05	B	70270840
TL-D 1m 36W/33-640 SLV	80	36.0	0.56	2800	1.20	B	70288340
TL-D 36W/54-765 SLV	103	36.0	0.44	2500	0.95	B	70271540
TL-D 1m 36W/54-765 SLV	80	36.0	0.56	2350	1.00	B	72659940
TL-D 38W/33-640 SLV	104	38.0	0.43	3100	1.20	B	72669840
TL-D 58W/33-640 SLV	111	58.5	0.67	4600	1.35	B	70274640
TL-D 58W/54-765 SLV	111	58.5	0.67	4000	1.15	B	70275340
TL-D 70W/33-640 SLV	132	70.0	0.69	5250	1.30	B	61837540

SLV: Sleeve packaging



*Lumen maintenance diagram*



# Fluorescent

# TL Standard Colours



TL Standard Colours

## Product Description

- Low-pressure mercury discharge lamps with a tubular 38 mm envelope

## Product Features

- Standard colours with moderate colour rendering (Ra 60-70)
- Available in varying colour designations

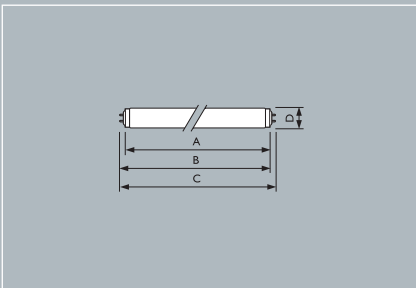
## Product Benefits

- Creating atmospheres from warm white to cool daylight
- Suitable for use in a wide range of luminaires for TL fluorescent lamps

## Application

- Mostly used in applications where colour rendering is not an important factor

Dimensions in mm



Product ID	A		B		C		D	
	max.	min.	max.	min.	max.	min.	max.	min.
TL 20W	589.8	594.5	596.9	604.0	604.0	604.0	40.5	40.5
TL 40W	1199.4	1204.1	1206.5	1213.6	1213.6	1213.6	40.5	40.5
TL 65W	1500.0	1504.7	1507.1	1514.2	1514.2	1514.2	40.5	40.5

# Fluorescent

# TL Standard Colours

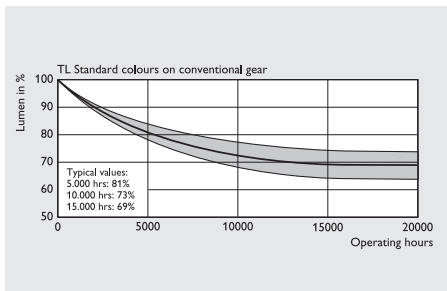
## Preferred selection

Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (Ra)
TL 20W/33-640 SLV	25	118	G13	Cool White	4100	63
TL 20W/54-765 SLV	25	118	G13	Cool Daylight	6200	72
TL 40W/33-640 SLV	25	222	G13	Cool White	4100	63
TL 40W/54-765 SLV	25	222	G13	Cool Daylight	6200	72
TL 65W/33-640 SLV	25	274	G13	Cool White	4100	63
TL 65W/54-765 SLV	25	174	G13	Cool White	4100	63

SLV: Sleeve packaging

Product ID	Lamp Voltage (V)	Lamp Wattage EM (W)	Lamp Current EM (A)	Luminous Flux Lamp EM (lm)	Luminous Efficacy Lamp EM (lm/W)	Luminance Average EM (cd/cm <sup>2</sup> )	Energy Efficiency Label	European Order Code (EOC) <b>8711500</b>
TL 20W/33-640 SLV	57	19.3	0.37	1100	57	0.59	B	71720740
TL 20W/54-765 SLV	57	19.3	0.37	1000	52	0.53	B	71738240
TL 40W/33-640 SLV	107	39.5	0.43	2850	72	0.73	B	71787040
TL 40W/54-765 SLV	107	39.5	0.43	2500	63	0.64	B	71859440
TL 65W/33-640 SLV	110	64.0	0.67	4650	73	0.94	B	71911940
TL 65W/54-765 SLV	110	64.0	0.67	4560	73	0.94	B	71920140

SLV: Sleeve packaging



Lumen maintenance diagram





# Fluorescent

# TL Rapid Start Standard Colours



TL Rapid Start Standard Colours

## Product Description

- Low-pressure mercury discharge lamps with a tubular 38 mm envelope

## Product Features

- RS (Rapid Start) lamps with an external silicon coating
- External ignition strip connected via a high-ohmic resistor to one of the electrodes
- Standard colours with moderate colour rendering (Ra 50-70)
- Available in varying colour designations

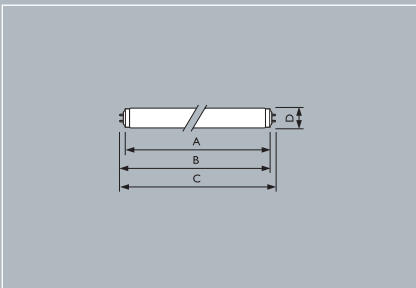
## Product Benefits

- Creating atmospheres from warm white to cool daylight
- Fast, well defined ignition at low temperatures

## Application

- Mostly used in applications where colour rendering is not an important factor

Dimensions in mm



Product ID	A		B		C	D
	max.	min.	max.	max.	max.	max.
TL 20W	589.8	594.5	596.9	604.0	40.5	
TL 40W	1199.4	1204.1	1206.5	1213.6	40.5	
TL 60W	1500.0	1504.7	1507.1	1514.2	40.5	

# Fluorescent

# TL Rapid Start Standard Colours

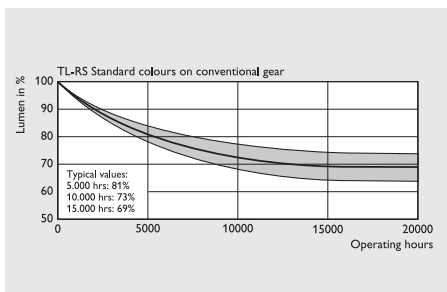
## Preferred selection

Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (R <sub>a</sub> )
TL-RS 20W/33-640 SLV	25	118	G13	Cool White	4100	63
TL-RS 20W/54-765 SLV	25	118	G13	Cool Daylight	6200	72
TL-RS 40W/33-640 SLV	25	222	G13	Cool White	4100	63
TL-RS 40W/54-765 SLV	25	222	G13	Cool Daylight	6200	72
TL-RS 65W/33-640 SLV	25	274	G13	Cool White	4100	63
TL-RS 65W/54-765 SLV	25	274	G13	Cool Daylight	6200	72

SLV: Sleeve packaging

Product ID	Lamp Voltage (V)	Lamp Wattage EM (W)	Lamp Current EM (A)	Luminous Flux Lamp EM (lm)	Luminous Efficacy Lamp EM (lm/W)	Luminance Average EM (cd/cm <sup>2</sup> )	Energy Efficiency Label	European Order Code (EOC)
TL-RS 20W/33-640 SLV	57	19.3	0.37	1100	57	0.59	B	71956040
TL-RS 20W/54-765 SLV	57	19.3	0.37	1000	52	0.53	B	71964540
TL-RS 40W/33-640 SLV	101	39.0	0.43	2850	73	0.73	B	72009240
TL-RS 40W/54-765 SLV	101	39.0	0.43	2500	64	0.64	B	72027640
TL-RS 65W/33-640 SLV	110	64.0	0.67	4650	73	0.94	B	72063440
TL-RS 65W/54-765 SLV	110	64.0	0.67	4100	64	0.83	B	72069640

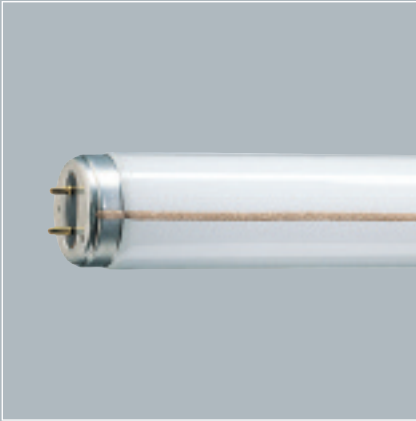
SLV: Sleeve packaging



Lumen maintenance diagram

# Fluorescent

## TL-M Rapid Start



TL-M Rapid Start

### Product Description

- Low-pressure mercury discharge lamps with a tubular 38 mm envelope

### Product Features

- RS (Rapid Start) lamps with an external silicon coating
- External ignition strip connected via a high-ohmic resistor to one of the electrodes
- Available in standard colours and varying colour designations

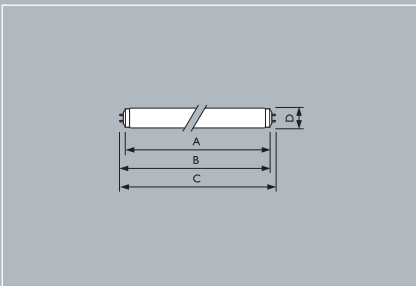
### Product Benefits

- Well defined ignition for fast, easy ignition at low temperatures

### Application

- Standard colours are mostly used in applications where colour rendering is not an important factor

Dimensions in mm



Product ID	A		B		C		D	
	max.	min.	max.	max.	max.	max.	max.	max.
TL 20W	589.8	594.5	596.9	604.0	604.0	40.5		
TL 40W	1199.4	1204.1	1206.5	1213.6	1213.6	40.5		
TL 65W	1500.0	1504.7	1507.1	1514.2	1514.2	40.5		

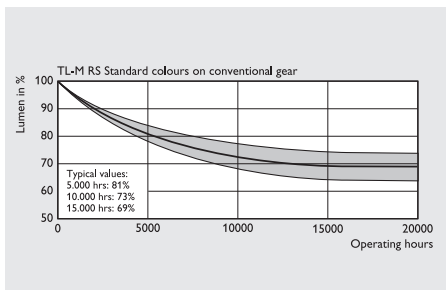
## Preferred selection

Product ID	Packaging Configuration	Net weight per piece (g)	Cap/Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (Ra)
TL-M RS 20W/33-640 SLV	25	118	G13	Cool White	4100	63
TL-M RS 20W/54-765 SLV	25	118	G13	Cool Daylight	6200	72
TL-M RS 40W/33-640 SLV	25	225	G13	Cool White	4100	63
TL-M RS 40W/54-765 SLV	25	222	G13	Cool Daylight	6200	72
TL-M RS 65W/33-640 SLV	25	274	G13	Cool White	4100	63
TL-M RS 65W/54-765 SLV	25	274	G13	Cool Daylight	6200	72
TL-M RS 115W/33-640 SLV	25	292	G13	Cool White	4100	63
TL-M RS 140W/33-765 SLV	25	360	G13	Cool White	4100	63

SLV: Sleeve packaging

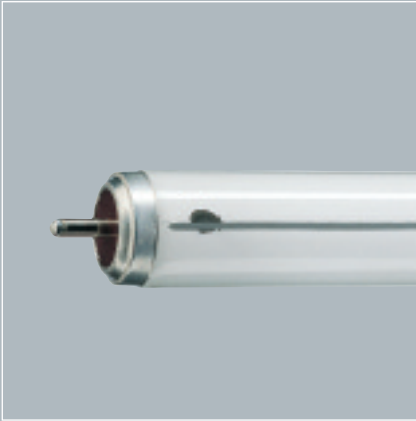
Product ID	Lamp Voltage (V)	Lamp Wattage EM (W)	Lamp Current EM (A)	Luminous Flux Lamp EM (lm)	Luminous Efficacy Lamp EM (lm/W)	Luminance Average EM (cd/cm <sup>2</sup> )	Energy Efficiency Label	European Order Code (EOC)
TL-M RS 20W/33-640 SLV	57	19.3	0.37	1200	62	0.64	B	72372740
TL-M RS 20W/54-765 SLV	57	19.3	0.37	1000	52	0.53	B	72384040
TL-M RS 40W/33-640 SLV	101	39.5	0.43	2850	72	0.73	B	72429840
TL-M RS 40W/54-765 SLV	101	39.5	0.43	2500	63	0.64	B	72441040
TL-M RS 65W/33-640 SLV	110	64.0	0.67	4750	74	0.96	B	72486140
TL-M RS 65W/54-765 SLV	110	64.0	0.67	4100	64	0.83	B	72498440
TL-M RS 115W/33-640 SLV	92	110.0	1.50	6850	59	1.74	B	72537040
TL-M RS 140W/33-765 SLV	114	140.0	1.46	8350	62	1.69	B	72548640

SLV: Sleeve packaging



Lumen maintenance diagram





TL-X XL

## Product Description

- Single-pin low-pressure mercury discharge lamps with a tubular 38 mm envelope

## Product Features

- 40W and 65W lamps with internal ignition strip for instant start, non-preheat, starterless operation

## Product Benefits

- In combination with a special lampholder all possible sparking effects during ignition are eliminated
- Extended lifetime compared with standard TL lamps

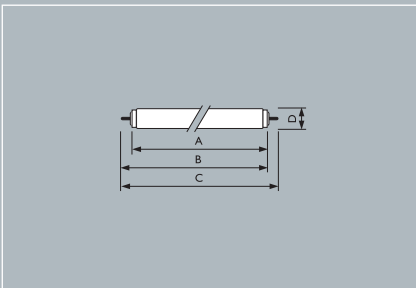
## Application

- Used in flameproof and increased-safety luminaires for both indoor and outdoor applications
- Used in applications like (petro-)chemical industry, offshore, mines and any locations where traces of explosive gases may be found

## Luminaires

- Special Fa6 lamp cap has a long and thick pin, requires a special lampholder

Dimensions in mm



Product ID	A		B		D
	max.	min.	max.	max.	
TL 20W	574.0	589.0	592.5	611.0	40.5
TL 40W	1183.5	1198.5	1202.0	1220.5	40.5
TL 65W	1484.1	1499.1	1502.6	1521.1	40.5

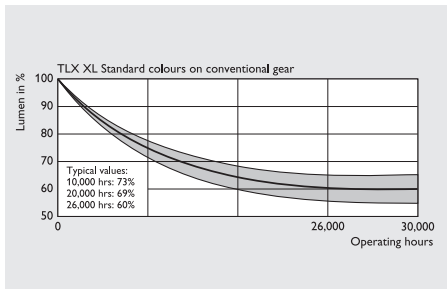
## Preferred selection

Product ID	Packaging Configuration	Net weight per piece (g)	Cap/ Base	Colour Designation	Colour Temperature (K)	Colour Rendering Index (R <sub>a</sub> )
TL-X XL 15W/33-640 SLV	25	109	Fa6	Cool White	4100	63
TL-X XL 20W/33-640 SLV	25	150	Fa6	Cool White	4100	63
TL-X XL 40W/33-640 SLV	25	271	Fa6	Cool White	4100	63
TL-X XL 65W/33-640 SLV	25	325	Fa6	Cool White	4100	63

SLV: Sleeve packaging

Product ID	Lamp Voltage (V)	Lamp Wattage (W)	Lamp Current (A)	Luminous Flux Lamp (lm)	Luminous Efficacy (lm/W)	Luminance Average (cd/cm <sup>2</sup> )	Energy Efficiency Label	European Order Code (EOC)
TL-X XL 15W/33-640 SLV	44	15	0.37	665	44	0.54	B	26133540
TL-X XL 20W/33-640 SLV	58	20	0.38	940	47	0.53	B	26135940
TL-X XL 40W/33-640 SLV	103	39	0.43	2300	58	0.59	B	26137340
TL-X XL 65W/33-640 SLV	110	64	0.67	4400	69	0.93	B	26139740

SLV: Sleeve packaging



Lumen maintenance diagram

# Fluorescent

# TL-E Standard Colours



TL-E Standard Colours

## Product Description

- Low-pressure mercury discharge lamps with a circular 26 mm tube

## Product Features

- Standard colours with moderate colour rendering and varying colour designations

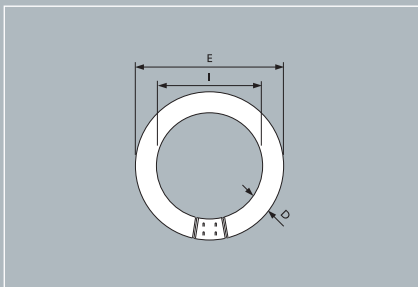
## Product Benefits

- Create atmospheres from warm white to cool daylight
- Symmetrical, omnidirectional light distribution

## Application

- Suitable for use in a wide range of luminaires for various purposes, including many decorative luminaires where colour rendering is not important

Dimensions in mm



Product ID	D		E		I	
	min.	max.	min.	max.	min.	max.
TL-E 22W	26.2	30.9	200.0	219.0	147.6	157.2
TL-E 32W	26.2	30.9	288.9	307.9	236.5	246.1
TL-E 40W	26.2	30.9	390.5	409.5	338.1	347.7

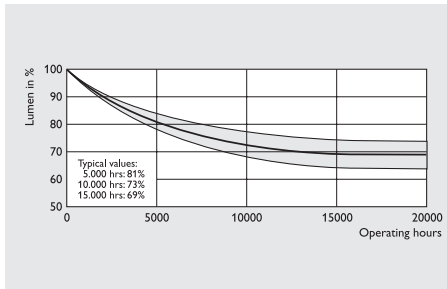
# Fluorescent

# TL-E Standard Colours

## Preferred selection

Product ID	Packaging Configuration	Net weight per piece	Cap/ Base (g)	Colour Designation	Colour Temperature (K)	Colour Rendering Index (R <sub>a</sub> )
TL-E 22W/54-765 1CT	12	156	G10q	Cool Daylight	6200	72
TL-E 32W/54-765 1CT	12	262	G10q	Cool Daylight	6200	72
TL-E 40W/54-765 1CT	12	336	G10q	Cool Daylight	6200	72

Product ID	Lamp Voltage (V)	Lamp Wattage (W)	Lamp Current (A)	Luminous Flux Lamp (lm)	Luminous Efficacy Lamp (lm/W)	Luminance Average (cd/cm <sup>2</sup> )	Energy Efficiency Label	European Order Code (EOC)
TL-E 22W/54-765 1CT	62	22	0.40	1050	48	0.70	B	8711500 63390315
TL-E 32W/54-765 1CT	81	32	0.45	1750	57	0.65	B	63387315
TL-E 40W/54-765 1CT	110	40	0.42	2500	62	0.65	B	55991315



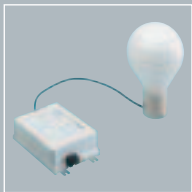
Lumen maintenance diagram





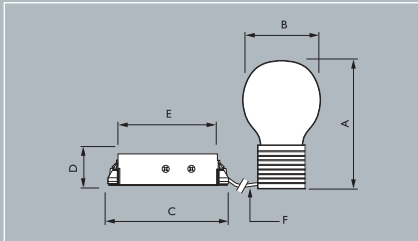


QL 55W and QL 85W

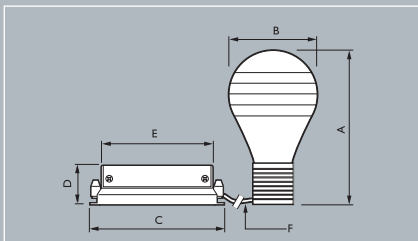


QL 165W

Dimensions in mm



QL 55W, QL 85W



QL 165W

## Definition

Compact, lightweight, high-frequency QL system for fluorescent induction lamps.

## Description

- Ultra-long life up to 15 years based on 4000 burning hours / year
- Low energy consumption
- Constant light, independent of mains voltage fluctuations
- Automatic stop circuit is activated within 5 seconds in case of lamp failure (safety stop)
- Flicker-free start, ideal for areas with high switching frequency

## Applications

Typical areas of application include:

- Indoor, general lighting. Especially for places with much traffic from passengers like arrival halls in airports, railway stations and also parking garages.
- Industry, petrochemical industry, off-shore. QL is often used in explosion-proof luminaires
- Cold-storage rooms
- City lighting
- Illumination of road way signs and advertisement boards

## Philips quality




This implies optimum quality regarding:

- Ultra-long life.  
As supplier of the QL system, Philips ensures that, from the earliest development stage, optimum lamp/ HF generator performance is maintained.
- International standards.  
Philips QL systems comply with all relevant international rules and regulations.

Product ID	A	B	C (l x w)	D	E	F
QL 55W	141	85	154 × 76	41	128	450
QL 85W	181	111	154 × 76	41	128	450
QL 165W	210	131	190 × 112	50	161	450

## Compliances and approvals

- RFI < 30 MHz EN 55015
- RFI > 30 MHz EN 55022
- Harmonics EN 61000-3-2
- Immunity EN 61547
- Safety EN 61347
- EN 60928
- Performance EN 60929
- Vibration & bump tests
  - IEC 68-2-6-Fc
  - IEC 68-2-29-Eb
- Quality standards:
  - ISO 9001
- Environmental standard
  - ISO 14001
- Approval marks:
 




- CE marking

## Preferred selection

QL system	System Power	Lamp Efficacy	Lumen*	Colour rendering index	Average luminance	Lumen maintenance 60.000hrs
	W	lm/W	lm		cd/cm <sup>2</sup>	%
QL 55W 200-277V or 100-120V	55	65	3500	80	5.0	75
QL 85W 200-277V or 100-120V	85	70	6000	80	5.0	75
QL 165W 200-277V	165	70	12000	80	7.5	70

Note: \*Typical values for /827, /830 and /840

## Typical voltage and current values for QL lamp system

	V <sub>nom</sub> (V)	Inrush current 1/2 value time at typical mains impedance		
		I <sub>nom</sub> (mA)	I <sub>max</sub> (A <sub>peak</sub> )	τ (μs)
QL 55W 200-277V	230	260	12	170
QL 55W 100-120V	120	460	16	170
QL 85W 200-277V	230	400	12	170
QL 85W 100-120V	120	730	16	170
QL 165W S/01	230	700	45	550

## Preferred selection

Product ID	Bulk packing				European Ordering Code (EOC) <b>8711500</b>		
	Qty.	Dimensions l x w x h cm	Volume m3	Weight Gross kg			
<b>Lamp</b>							
MASTER QL	55W/827 Twist Base SLV/6	2700K	6	41x29.5x23	0.0278	1.3	20524710
MASTER QL	55W/830 Twist Base SLV/6	3000K	6	41x29.5x23	0.0278	1.3	20526110
MASTER QL	55W/840 Twist Base SLV/6	4000K	6	41x29.5x23	0.0278	1.3	20528510
MASTER QL	85W/827 Twist Base SLV/6	2700K	6	41x29.5x23	0.0278	1.7	20530810
MASTER QL	85W/830 Twist Base SLV/6	3000K	6	41x29.5x23	0.0278	1.7	20532210
MASTER QL	85W/840 Twist Base SLV/6	4000K	6	41x29.5x23	0.0278	1.7	20534610
MASTER QL	165W/827 Twist Base SLV/6	2700K	6	47.5x34x23.5	0.0378	2.2	20464610
MASTER QL	165W/830 Twist Base SLV/6	3000K	6	47.5x34x23.5	0.0378	2.2	20102710
MASTER QL	165W/840 Twist Base SLV/6	4000K	6	47.5x34x23.5	0.0378	2.2	20104110
<b>Power coupler</b>							
Power Coupler QL	55W Twist base SLV/6		6	29.5x25x23	0.0170	1.9	20563610
Power Coupler QL	85W Twist base SLV/6		6	29.5x25x23	0.0170	2.1	20567410
Power Coupler QL	165W Twist base SLV/6		6	29.5x25x23	0.0170	2.3	20091410
<b>HF generator</b>							
HF-Generator QL	55W 200-277V UNP/6	180-305Vac	6	29.5x20x9.5	0.0056	3.8	20557510
HF-Generator QL	55W 100-120V UNP/6	90-140Vac	6	29.5x20x9.5	0.0056	3.8	20555110
HF-Generator QL	85W 200-277V UNP/6	180-305Vac	6	29.5x20x9.5	0.0056	3.8	20561210
HF-Generator QL	85W 100-120V UNP/6	90-140Vac	6	29.5x20x9.5	0.0056	3.8	20559910
HF-Generator QL	165W S/01.UNP/6	184-294Vac	6	35.5x25x13	0.0115	3.4	53670930









Halogen lamps



# MV Halogen without Reflector

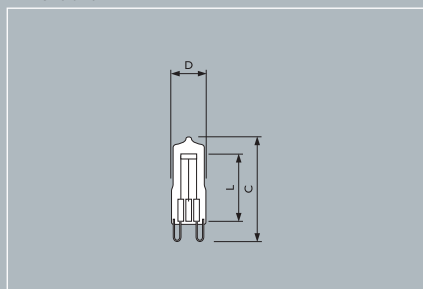


Clickline Clear



Clickline Frosted

Dimensions in mm



## Clickline MV Capsules

### Product Description

- Single-ended mains-voltage capsule

### Product Features

- UV block quartz glass
- G9 base for easy insertion and replacement

### Product Benefits

- The most compact capsule in its range
- Mains voltage so no transformer needed
- Available in a clear and a Frosted version for softer light effects
- Easily dimmable

### Application

- Accent and general lighting in homes, hotels, bars and restaurants

### Luminaires

- Ideal for use in small, lightweight, open luminaires
- A covered luminaire is not required according to IEC 357 and 432-2

Product ID	C max.	D max.	L nom.
Clickline	44.6	12.75	21.7

# MV Halogen without Reflector

Clickline MV Capsules

## Preferred selection

Product ID	Voltage (V)	Wattage (W)	Cap/base	Finish	Luminous intensity (cd)	Average life (h)	European Order Code (EOC) <b>8711500</b>
Clickline	240V	25W	G9	Clear	290	2000	42975950
Clickline	230V	40W	G9	Clear	490	2000	42957550
Clickline	230V	40W	G9	Frosted	460	2000	42960550
Clickline	240V	40W	G9	Clear	490	2000	42984150
Clickline	230V	60W	G9	Clear	820	2000	42963650
Clickline	230V	60W	G9	Frosted	790	2000	42966750
Clickline	240V	60W	G9	Clear	820	2000	42987250





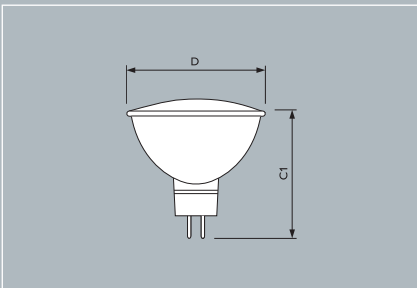
# LV Halogen with Reflector

# MASTER Line ES



MASTER Line ES

Dimensions in mm



## Product Description

- Energy saving, low voltage halogen reflector lamp of the MASTER collection, with dichroic reflector and infra red coated double ended burner

## Product Features

- Unique Philips patented Infra red coated double ended burner with the highest possible efficiency (40% better than standard products )
- Heat-reflecting coating on the inner lamp burner reflects waste heat back to the filament so less energy is needed to operate the lamp
- Revolutionary compact and precision-shaped double-ended burner enables the infrared reflecting coating to perform to its maximum potential
- Bright, sparkling white halogen light
- Excellent colour rendering
- Extreme long average rated life
- GU5.3 base for extra retention in luminaire
- Complex reflector design for excellent beam performance
- Range of energy saving wattages designed to replace the higher standard wattages

## Product Benefits

- Lowest possible energy and maintenance costs while maintaining light levels. Lowest possible heat production
- Designed to replace standard and high end dichroic reflector lamps leading to savings in energy costs of up to 40% compared to standard dichroics
- Increased comfort and (where applicable) lower cooling costs because of up to 40% lower heat transmission
- Up to 66% more lifetime compared to standard conventional halogen dichroics (5000 hours)
- Lowest UV output for a dichroic lamp reduces fading risks to absolute minimum

## Product ID

MASTER Line ES

C	D
max.	max.

50.5

51

# LV Halogen with Reflector

MASTER Line ES

## Application

- Accent and general lighting applications in homes, shops, hotels and restaurants, where energy efficiency and low maintenance are important and especially in art galleries, museums and exhibitions

## Luminaires

- Can be used in luminaires without front glass in accordance with IEC 598

## Preferred selection

Product ID	Voltage (V)	Wattage (W)	Beam angle	Cap/ base	Luminous intensity (cd)	Average life (h)	European Order Code (EOC) <b>8711500</b>
MASTER Line ES	12V	20W	8D	GU5.3	6500	5000	41364271
MASTER Line ES	12V	20W	36D	GU5.3	1000	5000	41367371
MASTER Line ES	12V	30W	8D	GU5.3	11000	5000	41370371
MASTER Line ES	12V	30W	24D	GU5.3	3350	5000	41375871
MASTER Line ES	12V	30W	36D	GU5.3	1600	5000	41378971
MASTER Line ES	12V	30W	60D	GU5.3	750	5000	41382671
MASTER Line ES	12V	35W	8D	GU5.3	14000	5000	41387171
MASTER Line ES	12V	35W	24D	GU5.3	4400	5000	41397071
MASTER Line ES	12V	35W	36D	GU5.3	2200	5000	42432771
MASTER Line ES	12V	35W	60D	GU5.3	1050	5000	42435871
MASTER Line ES	12V	45W	8D	GU5.3	16000	5000	42438971
MASTER Line ES	12V	45W	24D	GU5.3	5450	5000	42441971
MASTER Line ES	12V	45W	36D	GU5.3	2850	5000	42444071
MASTER Line ES	12V	45W	60D	GU5.3	1300	5000	42447171

## LV Halogen with Reflector

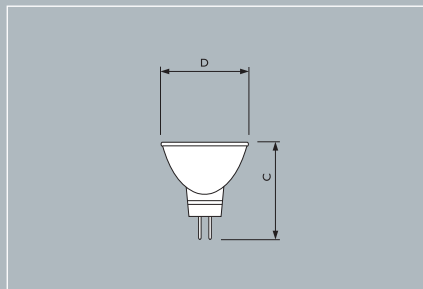


Dichro GU5.3 24D



Dichro GU5.3 36D

Dimensions in mm



## Brilliantline Pro (Dichroic)

### Product Description

- Low-voltage, xenon gas-filled halogen burner with axial filament optically positioned in a dichroic coated glass reflector

### Product Features

- High-intensity beam with a clearly defined beam spread
- Reflector has a light-reflecting, light-transmitting hard dichroic coating
- Constant high quality and aesthetics maintained over lifetime
- Wide range of 35mm and 50 mm types
- UV-Block front glass
- Excellent colour rendering
- GU5.3 or GU4 base for extra retention in luminaire

### Product Benefits

- Cool beam as a large part of the heat generated is transmitted backwards through the back glass

### Application

- Ideally suited for accent, task and decorative lighting in shops, stores, hotels, restaurants etc.

### Luminaires

- Can be used in luminaires without a front glass in accordance with IEC 598

Product ID	C	D
	max.	max.
Brilliantline GU4	40	35.3
Brilliantline GU5.3	46	50.8

# LV Halogen with Reflector

Brilliantline Pro  
(Dichroic)



Dichro GU4 10D



Dichro GU4 30D

## Preferred selection

Product ID	Voltage (V)	Wattage (W)	Beam angle	Cap/base	Luminous intensity (cd)	Average life (h)	European Order Code (EOC)
							<b>8711500</b>
Brilliantline Pro	12V	20W	10D	GU4	4800	4000	42537960
Brilliantline Pro	12V	20W	10D	GU5.3	5000	4000	42454960
Brilliantline Pro	12V	20W	24D	GU5.3	1800	4000	42471660
Brilliantline Pro	12V	20W	30D	GU5.3	780	4000	42484660
Brilliantline Pro	12V	20W	60D	GU5.3	350	4000	42487760
Brilliantline Pro	12V	35W	10D	GU4	7000	4000	42543060
Brilliantline Pro	12V	35W	30D	GU4	1300	4000	42546160
Brilliantline Pro	12V	35W	24D	GU5.3	3100	4000	42493860
Brilliantline Pro	12V	35W	36D	GU5.3	1500	4000	42504160
Brilliantline Pro	12V	35W	60D	GU5.3	700	4000	42507260
Brilliantline Pro	12V	35W	10D	GU5.3	13000	4000	42510260
Brilliantline Pro	12V	50W	24D	GU5.3	4400	4000	42513360
Brilliantline Pro	12V	50W	36D	GU5.3	2200	4000	42516460
Brilliantline Pro	12V	50W	60D	GU5.3	1100	4000	42519560



## LV Halogen with Reflector



## Essential Dichroic MR16

### Product Description

Halogen reflector lamp consisting of an extra-low voltage halogen burner, optically positioned in a glass reflector:

### Product Features

- The dichroic reflector coating transmits the heat towards the back and reflects the visible light towards the front of the lamp
- UV-Block burner
- Excellent colour rendering
- GU5.3 base for extra retention in luminaire

### Product Benefits

- Good light quality with cool beam halogen crisp, white light
- professional lifetime
- dimmable

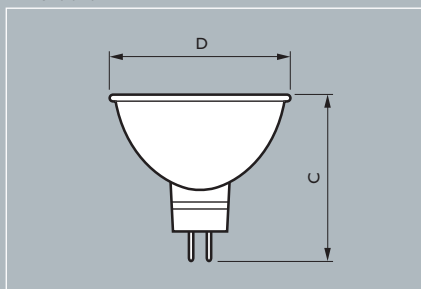
### Application

- Accent, task lighting and decorative applications in homes, shops, hotels and restaurants

### Luminaires

- Can be used in luminaires without a front glass in accordance with IEC 598

Dimensions in mm



Product ID

MR16 GU5.3

C

46

D

50

# LV Halogen with Reflector

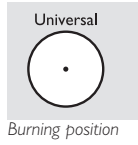
## Essential Dichroic MR16

### Preferred selection

Product ID	Voltage (V)	Wattage (W)	Cap/ base	Half Intensity Beam angle (degrees)	Luminous Intensity (cd)	Average life (h)	Colour Temperature (K)	European Order Code (EOC) <b>8711500</b>
ESS MR16	12	20	GU5.3	36	400	2000	2900	88592065
ESS MR16	12	35	GU5.3	36	800	2000	2900	88593760
ESS MR16	12	50	GU5.3	36	1200	2000	2900	88594465

### Maximum permissible temperatures

Reflector	250°
Reflector rim	240°
Pinch	350°
Contacts	300°



# LV Halogen with Reflector

## Aluline Pro 111



ALU

### Product Description

- Low-voltage halogen reflector lamp with high-purity aluminium reflector of 111 mm

### Product Features

- Metal cap to shield filament to reduce glare and improve beam shape
- G53 socket and screw or tab terminals allowing for direct wire connection with imating eyelet or receptacle
- UV-block quartz glass

### Product Benefits

- Glare free, well defined accent lighting with minimum amount of direct glare from the lamp

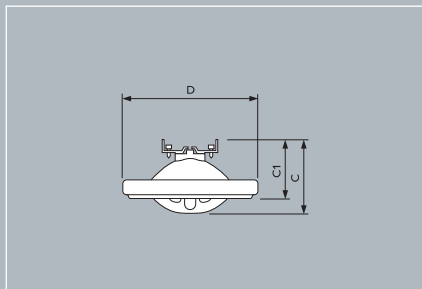
### Application

- Excellent light source for general lighting and especially creative accent lighting in shops, restaurants, hotels, galleries, exhibitions and museums

### Luminaires

- For use in open luminaires

Dimensions in mm



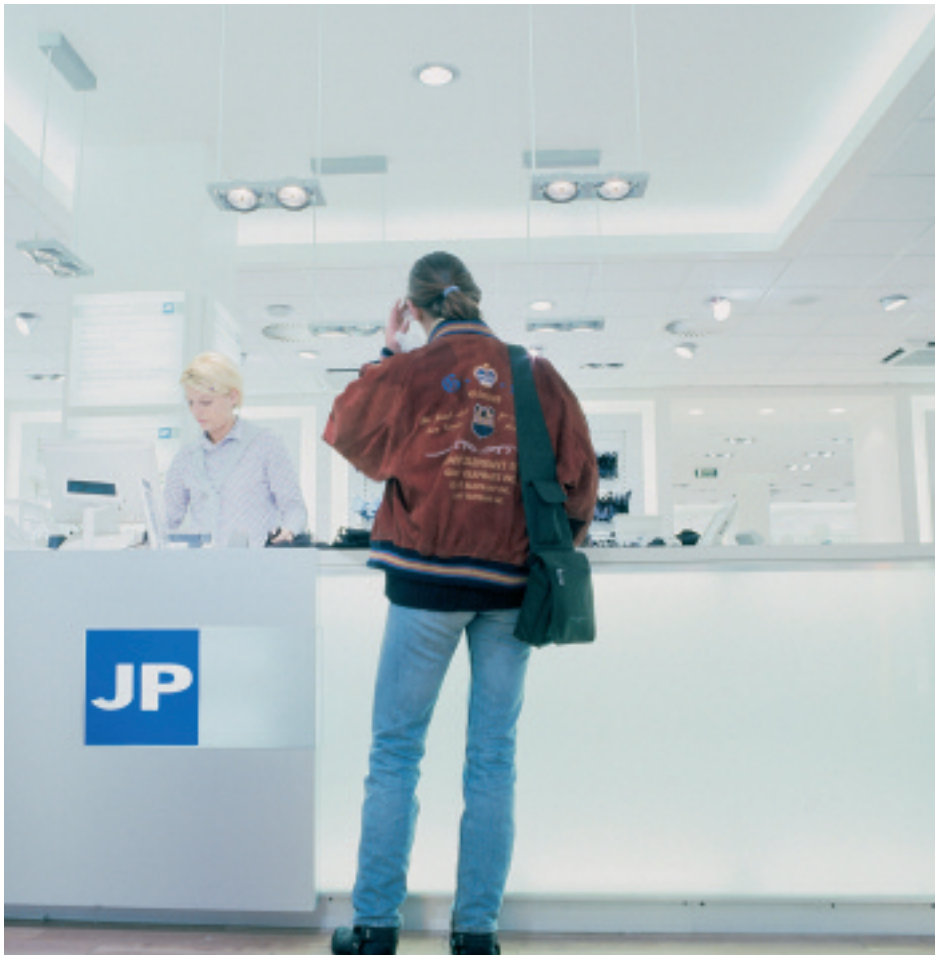
Product ID	C max.	C1 max.	D max.
Aluline 111	61	50	111

# LV Halogen with Reflector

Aluline Pro 111

## Preferred selection

Product ID	Voltage (V)	Wattage (W)	Beam angle	Cap/base	Luminous intensity (cd)	Average life (h)	European Order Code (EOC) 8711500
Aluline Pro 111	12V	50W	8°	G53	23000	3000	42652933
Aluline Pro 111	12V	50W	24°	G53	4000	3000	42655033
Aluline Pro 111	12V	75W	8°	G53	30000	3000	42698733
Aluline Pro 111	12V	75W	24°	G53	5300	3000	42700733
Aluline Pro 111	12V	75W	45°	G53	-	3000	42702133
Aluline Pro 111	12V	100W	8°	G53	48000	3000	42704533
Aluline Pro 111	12V	100W	24°	G53	8500	3000	42706933
Aluline Pro 111	12V	100W	45°	G53	-	3000	42708333





# LV Halogen with Reflector



DL 24D

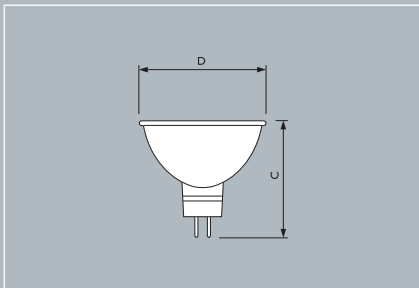


DL 10D/17D



DL 36D

Dimensions in mm



## Product Description

- Low-voltage, high-pressure xenon gas-filled cool day light halogen burner with axial filament optically aligned in a glass reflector
- Low voltage reflector lamp of the Pro family, designed especially for jewelry shops

## Product Features

- Reflector has a heat-transmitting, light-reflecting hard dichroic coating
- Constant high quality and aesthetics maintained over lifetime
- Range of 35W and 50W 50 mm types
- Cool day light colour appearance
- Excellent colour rendering
- GU5.3 base for extra retention in luminaire

## Product Benefits

- Cool day light appearance of beam with a clearly defined beam spread
- Enhanced attractiveness of especially jewelry making diamonds and crystal sparkle and bringing a natural shine to silver and porcelain

## Application

- Accent, task lighting and decorative applications, especially in jewelry shops (sparkling diamonds, silver, gold, crystal)

Product ID	C1 max.	D max.
Diamondline	46	51

# LV Halogen with Reflector

Diamondline Pro

## Preferred selection

Product ID	Voltage (V)	Wattage (W)	Beam angle	Cap/base	Luminous intensity (cd)	Average life (h)	European Order Code (EOC) <b>8711500</b>
Diamondline Pro	12V	35W	10D	GU5.3	5400	4000	42881360
Diamondline Pro	12V	35W	24D	GU5.3	1700	4000	42884460
Diamondline Pro	12V	35W	36D	GU5.3	1000	4000	42887560
Diamondline Pro	12V	50W	10D	GU5.3	6400	4000	42890560
Diamondline Pro	12V	50W	24D	GU5.3	2700	4000	42893660
Diamondline Pro	12V	50W	36D	GU5.3	1200	4000	42896760



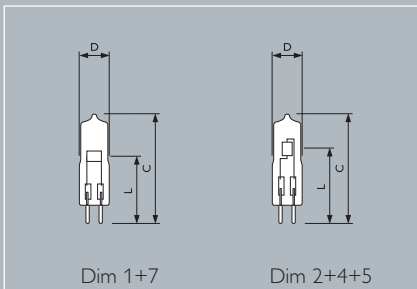
# LV Halogen without Reflector

# Capsuleline Pro



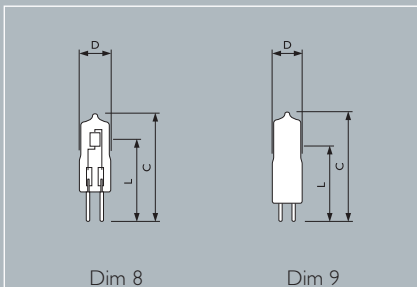
CAP ST G4

Dimensions in mm



Dim 1+7

Dim 2+4+5



Dim 8

Dim 9

## Product Description

- Single-ended low-voltage halogen capsule lamp giving crisp white halogen light of professional quality

## Product Features

- LOW-PRESSURE SUPER with UV-Block glass (IEC 357):
  - gas-filled ( $\leq 2.5$  bar) lamps can be used in luminaires without a front glass in accordance with IEC 598
  - axial filament for high centre-beam intensities
  - available with clear or frosted glass
- LOW-PRESSURE STANDARD with UV-Block glass:
  - 5W lamp with transversal (bow) filament
- UV-Block with quartz glass for considerably reduced UV output:
  - 24V lamp with axial filament
- Axial filament for higher light output in combination with luminaires and a uniform beam
- Excellent colour rendering
- Strongly reduced pinch temperatures

## Product Benefits

- Task lighting and decorative applications in homes, shops, hotels and restaurants

## Application

- Low-pressure technology allows use in luminaires without front glass

## Luminaires

- Allows design of compact luminaires for a variety of systems and applications

Dim. nr.	C max.	D max.	L nom.
1	32	9	22
2	31	9	22
4	31	9	22,2
5	22	9	22
7	32	9	24
8	44	12	30
9	44	12	30

# LV Halogen without Reflector

Capsuleline Pro



CAPSL PRO SI G4



CAPSL PRO SI GY6.35



CAPSL PRO ST G4



CAPSL ST G4



CAP PRO SU G4



CAPSL PRO SU GY6.35

# LV Halogen without Reflector

## Capsuleline Pro

### Preferred selection

Product ID	Voltage (V)	Wattage (W)	Cap/ base	Luminous intensity (cd)	Average life (h)	Dim no.	Finish	European Order Code (EOC)
								<b>8711500</b>
Capsuleline Pro	12V	5W	G4	60	4000	1	Clear	40969050
Capsuleline Pro	12V	10W	G4	140	4000	2	Clear	40970650
Capsuleline Pro	12V	20W	G4	320	4000	4	Clear	40210350
Capsuleline Pro	12V	20W	G4	315	4000	5	Frosted	40446650
Capsuleline Pro	12V	20W	GY6.35	300	4000	7	Clear	40219650
Capsuleline Pro	12V	20W	GY6.35	300	4000	8	Frosted	40245550
Capsuleline Pro	12V	35W	GY6.35	600	4000	7	Clear	40218950
Capsuleline Pro	12V	50W	GY6.35	950	4000	7	Clear	40217250
Capsuleline Pro	12V	50W	GY6.35	950	4000	8	Frosted	40243150
Capsuleline Pro	24V	50W	GY6.35	850	3000	7	Clear	40963850
Capsuleline Pro	12V	75W	GY6.35	1575	4000	7	Clear	40216550
Capsuleline Pro	12V	100W	GY6.35	2550	4000	9	Clear	40213450
Capsuleline Pro	24V	100W	GY6.35	2200	3000	7	Clear	40964550

# LV Halogen without Reflector

Capsuleline Pro

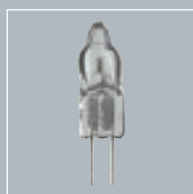


# LV Halogen without Reflector

Capsuleline

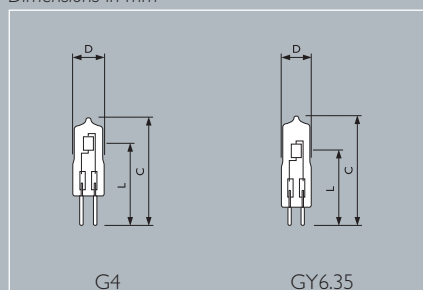


CAP LS GY6.35



CAP LS G4

Dimensions in mm



G4

GY6.35

## Product Description

- Single-ended low-voltage halogen capsule giving crisp white halogen light

## Product Features

- Sturdy, low-pressure lamps with UV-Block glass (IEC 357)
- Gas-filled ( $\leq 2.5$  bar) lamps can be used in luminaires without a front glass in accordance with IEC 598
- Axial filament for higher light output in combination with luminaires and a uniform beam
- Excellent colour rendering
- Universal burning position

## Product Benefits

- Low-pressure technology allows use in luminaires without front glass

## Application

- Task lighting and decorative applications in homes, shops, hotels and restaurants

Product ID	C	D	L
	max.	max.	nom.
CAP G4 10W	31	9	22
CAP G4 80W	32	9	22
CAP GY6.35 50W	44	12	30

# LV Halogen without Reflector

Capsuleline

## Preferred selection

Product ID	Voltage (V)	Wattage (W)	Cap/ base	Luminous intensity (cd)	Average life (h)	European Order Code (EOC)
Capsuleline	12V	10W	G4	120	2000	8711500 41298050
Capsuleline	12V	20W	G4	300	2000	41233150
Capsuleline	12V	50W	GY6.35	800	2000	42839446



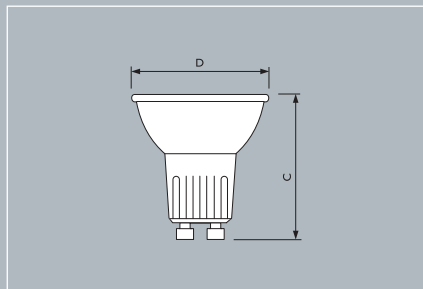


# MV Halogen with Reflector



TWIST Alu GU10

Dimensions in mm



# Essential Twistline Alu

## Product Description

- Mains-voltage 50 mm diameter reflector lamp with aluminium reflector

## Product Features

- Quartz burner with filament optically positioned in an aluminium-coated reflector
- Aluminium-coated version (GU10 lamp base) directs most of its heat to the front
- No light goes to the back of the reflector
- Clear front glass protects against touching the burner and against dust/moisture
- Distinct MR16 look
- High and stable light output throughout lifetime
- GU10 bases ensure good retention in the luminaire and easy, 'twist and take out' insertion and replacement
- Built-in double fuses for additional safety at end-of-life

## Product Benefits

- Lamp can be connected directly to the mains supply, so no transformers are needed
- UV-Block lamp so no additional front glass or UV filter required
- Twistline dichroic and aluminium versions are the most compact lamps of their kind available

## Application

- Typically used for accent lighting in homes
- Also used in accent and general lighting in shops, hotels, restaurants, bars etc.

## Luminaires

- Conforms to IEC 598 for use in open luminaires
- The luminaire must carry instructions about which lamp should be used (GU10/aluminium)

## Product ID

Twistline Alu GU10

## C

max.

51

## D

max.

51

# MV Halogen with Reflector

Essential Twistline Alu

## Preferred selection

Product ID	Voltage (V)	Wattage (W)	Beam angle	Cap/ base	Luminous intensity (cd)	Average life (h)	Order Code
Essential Twistline Alu	230V	35W	40D	GU10	250	2000	9247 134 44282
Essential Twistline Alu	230V	50W	40D	GU10	400	2000	9247 827 44282
Essential Twistline Alu	240V	50W	40D	GU10	400	2000	9247 827 45582

# MV Halogen with Reflector

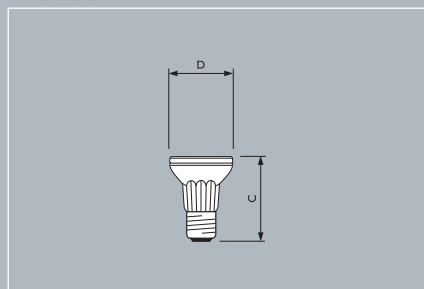


PAR20 10D



PAR20 25D

Dimensions in mm



# PAR20 HalogenA Pro

## Product Description

- Mains-voltage 63 mm diameter reflector lamp

## Product Features

- Hard-glass halogen burner optically positioned in a parabolic, aluminium-coated pressed-glass reflector (PAR) with new optical pressing design
- Excellent colour rendering
- White, crisp sparkling halogen light
- Long life (2.5 times the lifetime of a normal incandescent lamp)
- Spot versions have slightly stippled front glass to emphasize the sparkling reflector
- Flood versions have a faceted front glass to prevent glare and ensure a homogeneous beam distribution
- Front glass protects the lamp for safety and prevents touching and dust deposits

## Product Benefits

- Bright, sparkling halogen light
- Convenient halogen solutions that fit in standard, existing luminaires
- Retrofit halogen replacement for R60/R63 incandescent reflector lamps

## Application

- Typically used for accent and display lighting in shops, especially for premium goods
- Also used as accent and task lighting in the home

## Luminaires

- Can be used in any luminaire in which R60/R63 incandescent lamps can be used
- For outdoor use, the lamp should be protected from direct water contact
- The luminaire must have a waterproof connection between the reflector and the luminaire

Product ID	C1 max.	D max.
PAR20 25D	91	64.5
PAR20 10D	105	64.5

# MV Halogen with Reflector

## PAR20 HalogenA Pro

### Preferred selection

Product ID	Voltage (V)	Wattage (W)	Beam angle	Cap/ base	Luminous intensity (cd)	Average life (h)	European Order Code (EOC)
PAR20 HalogenA Pro	230V	50W	10D	E27	3000	2000	49487020
PAR20 HalogenA Pro	230V	50W	25D	E27	850	2000	49489420
PAR20 HalogenA Pro	240V	50W	10D	E27	2550	2000	49488720
PAR20 HalogenA Pro	240V	50W	25D	E27	850	2000	49490020

# MV Halogen with Reflector

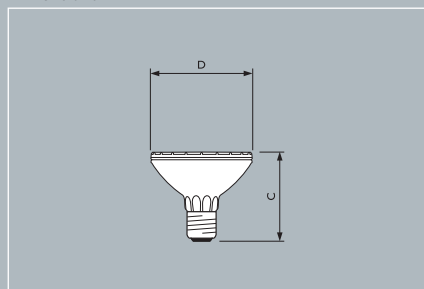


PAR30S 30D



PAR30S 10D

Dimensions in mm



# PAR30S HalogenA Pro

## Product Description

- Mains-voltage 97 mm diameter reflector lamp

## Product Features

- Hard-glass halogen burner (linear filament) optically positioned in a parabolic, aluminium-coated pressed-glass reflector (PAR)
- Natural colour rendering
- Sparkling, crisp white halogen light
- Good luminous efficacy
- Long life (3 times the lifetime of a normal incandescent lamp)
- Spot versions have slightly stippled front glass to emphasize the sparkling reflector
- Flood versions have a faceted front glass to prevent glare and ensure a homogeneous beam distribution
- Front glass protects the lamp for safety and prevents touching and dust deposits

## Product Benefits

- Bright, sparkling halogen light
- Convenient halogen solutions that fit in standard, existing luminaires

## Application

- Typically used for accent and display lighting in shops, especially for premium goods
- Also used as general lighting in hotels, theaters and lobby areas

## Luminaires

- For outdoor use, the lamp should be protected from direct water contact
- The luminaire must have a waterproof connection between the reflector and the luminaire

Product ID	C	D
	max.	max.
PAR30S	90.5	97

# MV Halogen with Reflector

## PAR30S HalogenA Pro

### Preferred selection

Product ID	Voltage (V)	Wattage (W)	Beam angle	Cap/ base	Luminous intensity (cd)	Average life (h)	European Order Code (EOC) <b>8711500</b>
PAR30S HalogenA Pro	230V	75W	10D	E27	5525	2000	50441820
PAR30S HalogenA Pro	230V	75W	30D	E27	1700	2000	50439520
PAR30S HalogenA Pro	240V	75W	10D	E27	5525	2000	50442520
PAR30S HalogenA Pro	240V	75W	30D	E27	1700	2000	50440120
PAR30S HalogenA Pro	230V	100W	10D	E27	9000	2500	51880420
PAR30S HalogenA Pro	230V	100W	30D	E27	3000	2500	51881120



# MV Halogen without Reflector

## HalogenA Pro 2YR BTT46

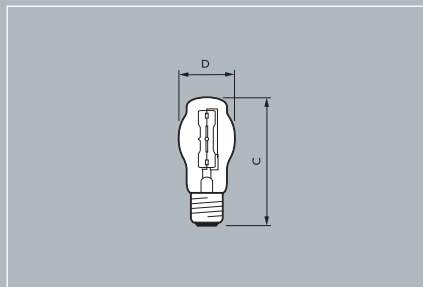


BTT46 CL



BTT46 Opal

Dimensions in mm



### Product Description

- Mains-voltage high-wattage double-envelope giving a white halogen light

### Product Features

- Electrically fused mains-voltage coiled-coil linear filament
- Built-in arc-preventing fuses
- Tube located axially in a single-ended normal glass outer envelope filled with an inert gas mixture
- Offers the universal applicability of standard incandescent lamps and matches standard GLS bulb dimensions
- Wide choice of wattages
- Fully interchangeable with incandescent lamps of the same wattage
- Cap temperature same as the corresponding GLS lamps
- Excellent colour rendering
- Crisp, white halogen light
- Constant light output during life

### Product Benefits

- Creating a classic high class ambiance
- Can be installed with bare hands, unlike most other halogen types

### Application

- Homes, offices, shops, hotels, restaurants and bars, museums etc. as a replacement for incandescent lamps

### Luminaires

- Open luminaires are permitted indoors, but a protective front cover glass and a water-resistant luminaire are required for outdoor use

Product ID

BTT46

C

109

D

47

# MV Halogen without Reflector

HalogenA Pro  
2YR BTT46

## Preferred selection

Product ID	Voltage (V)	Wattage (W)	Cap/ base	Bulb shape	Finish	Lumen output (lm)	Lamp life 50% (h)	European Order Code (EOC) <b>8711500</b>
HalogenA 2YR	230	60	E27	BTT46	Clear	840	2000	51132425
HalogenA 2YR	230	60	E27	BTT46	Opal	800	2000	51133125
HalogenA 2YR	230	100	E27	BTT46	Opal	1480	2000	02069725
HalogenA 2YR	240	100	E27	BTT46	Clear	1550	2000	05475325
HalogenA 2YR	230	150	E27	BTT46	Opal	2380	2000	02066625
HalogenA 2YR	240	150	E27	BTT46	Clear	2550	2000	05493725



## MV Halogen without Reflector

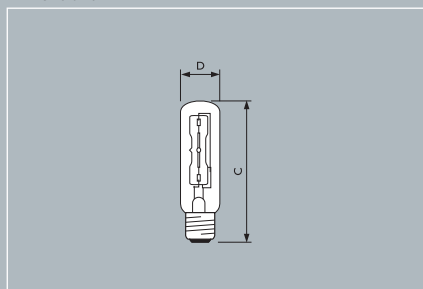


HalA-TT32 CL



HalA-T T32 FR

Dimensions in mm



## HalogenA Pro Tubular

### Product Description

- Mains-voltage high-wattage double-envelope giving a white halogen light

### Product Features

- Electrically fused mains-voltage coiled-coil linear filament
- Built-in arc-preventing fuses
- Tube located axially in a single-ended normal glass outer envelope filled with an inert gas mixture
- Offers the universal applicability of standard incandescent lamps and matches standard GLS bulb dimensions
- Wide choice of wattages
- Fully interchangeable with incandescent lamps of the same wattage
- Cap temperature same as the corresponding GLS lamps
- Excellent colour rendering
- Crisp, white halogen light
- Constant light output during life

### Product Benefits

- Can be installed with bare hands, unlike most other halogen types

### Application

- Homes, offices, shops, hotels, restaurants and bars, museums etc. as a replacement for incandescent lamps

### Luminaires

- Open luminaires are permitted indoors, but a protective front cover glass and a water-resistant luminaire are required for outdoor use

### Product ID

	C max.	D max.
HalogenA T32	103	32.8
HalogenA T25	105	26

# MV Halogen without Reflector

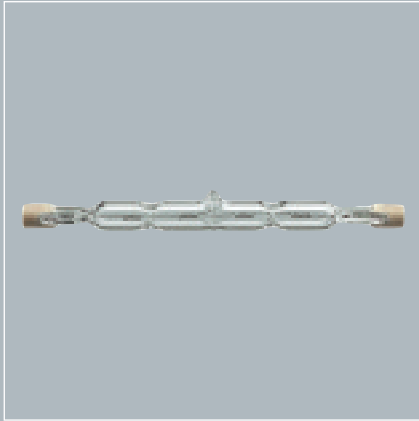
## HalogenA Pro Tubular

### Preferred selection

Product ID	Voltage (V)	Wattage (W)	Cap/base	Bulb-shape	Luminous intensity (cd)	Average life (h)	European Order Code (EOC) 8711500
HalogenA Pro	230V	60W	E27	T32	840	2000	50661025
HalogenA Pro	230V	60W	E27	T32	840	2000	50663425
HalogenA Pro	230V	100W	E27	T32	1550	2000	50666525
HalogenA Pro	230V	100W	E27	T32	1550	2000	50668925
HalogenA Pro	230V	150W	E27	T32	2550	2000	50671925
HalogenA Pro	240V	150W	E27	T32	2550	2000	50672625
HalogenA Pro	230V	40W	E14	T25	480	2000	50444925

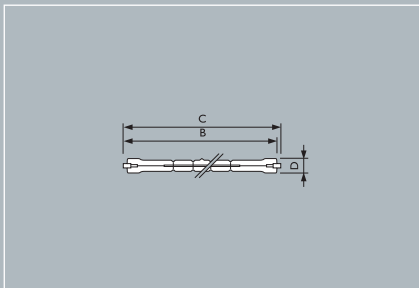


# MV Halogen without Reflector



Plusline Small R7S

Dimensions in mm



# Plusline (Double Ended)

## Product Description

- Mains-voltage linear with a coiled-coil filament, giving white halogen light, available in various wattages

## Product Features

- Double-ended high-efficacy lamps
- Clear tubular UV block quartz bulb
- Reinforced filament supports for maximum safety and shock resistance resulting in longer lifetime
- Two arc-preventing fuses for greater safety
- Excellent colour rendering
- Constant light output during life

## Product Benefits

- 20% more light than ordinary double-ended
- Long lifetime
- Bright halogen light

## Application

- Typically used in shop lighting applications
- Indoor: homes, offices, shops and museums
- Outdoor: billboards, car parks, security lighting and construction sites

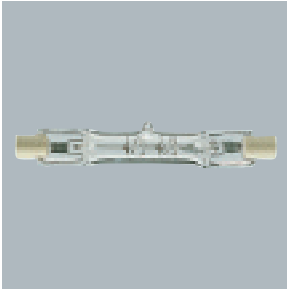
## Luminaires

- Must be used in luminaires with a front cover glass

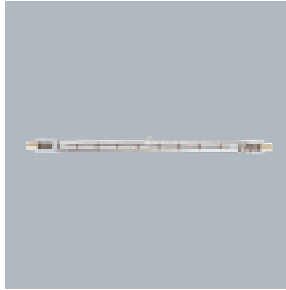
Product ID	B	C	D
	nom.	max.	max.
Plusline Small	114.2	117.6	12
Plusline Compact	74.9	78.3	12
Plusline Large 1000W	185.7	189.1	11
Plusline Large 1500W	250.7	254.1	11

# MV Halogen without Reflector

## Plusline (Double Ended)



Plusline Compact R7S



Plusline Large R7S

### Preferred selection

Product ID	Voltage (V)	Wattage (W)	Cap/Base	Luminous (Lm)	Average lifetime (hrs)	Colour Temperature (K)	Packaging	Order Code
PlusLine Compact	230	60	R7s	810	1500	2900	blisbox	871150088545650
PlusLine Compact	230	100	R7s	1550	2000	2900	blisbox	9239 200 43282
PlusLine Compact	230	150	R7s	2400	2000	2900	blisbox	9239 199 43282
PlusLine Compact	240	100	R7s	1550	2000	2900	blisbox	871150088535750
PlusLine Compact	240	150	R7s	2400	2000	2900	blisbox	871150088536450
PlusLine Compact	120	100	R7s	1600	2000	2900	blisbox	871150088541850
PlusLine Small	230	200	R7s	3000	2000	2900	blisbox	9247 357 44292
PlusLine Small	230	300	R7s	5114	2000	2900	blisbox	9247 354 44292
PlusLine Small	230	500	R7s	9660	2000	2900	blisbox	9247 355 44292
PlusLine Small	240	200	R7s	3000	2000	2900	blisbox	9247 357 45581
PlusLine Small	240	300	R7s	5114	2000	2900	blisbox	9247 354 45581
PlusLine Small	240	500	R7s	9660	2000	2900	blisbox	9247 355 45581
PlusLine Small	120	500	R7s	9500	2000	2900	blisbox	9247 353 34580
Plusline Large	230	1000	R7s	21500	2000	2900	etui	9239 321 43220
Plusline Large	240	1000	R7s	21500	2000	2900	etui	9239 321 45781
Plusline Large	240	1500	R7s	32250	2000	2900	etui	9239 322 45781
Plusline Large	120	1000	R7s	21500	2000	2900	etui	9239 321 34520





## Incandescent Lamps



# Incandescent Reflector

# Reflector R80/E80

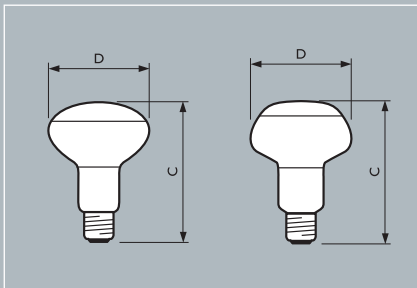


Reflector E80



Reflector R80

Dimensions in mm



E80

NR80

## Product Description

- Normal incandescent lamps with an internal ring-shaped parabolic aluminium mirror behind the filament

## Product Features

- Blown glass bulb with frosted front
- Wide choice of diameters and wattages
- Lamp is designed to achieve brilliant indoor lighting effects

## Product Benefits

- Beam spread and luminous intensity make these lamps especially suitable wherever space is limited and in small luminaires

## Application

- Homes, shops, shop windows and displays, restaurants, hotels, exhibitions, bars and night clubs

Product ID	C max.	D max.
E80	113	80
NR80	115	80

# Incandescent Reflector

# Reflector R80/E80

## Preferred selection

Product ID	Lamp Wattage (W)	Lamp Voltage (V)	Cap/ Base	Bulb Shape	Beam Angle (degrees)	Finish	Luminous Intensity (cd)	Avg Lifetime (hrs)	Operating position	Packaging Type	European Order Code (EOC)
<b>Reflector E80</b>											
Reflector E80	40W	230V	E27	E80	50D	Frosted	370	1000	any	1CT	02860078
Reflector E80	60W	125-130V	E27	E80	80D	Frosted	270	1000	any	1CT	04654378
Reflector E80	60W	230V	E27	E80	50D	Frosted	580	1000	any	1CT	02861778
Reflector E80	60W	230V	E27	E80	80D	Frosted	270	1000	any	1CT	01245678
Reflector E80	60W	240V	E27	E80	80D	Frosted	270	1000	any	1CT	37990078
Reflector E80	75W	230V	E27	E80	50D	Frosted	770	1000	any	1CT	02863140
Reflector E80	75W	230V	E27	E80	80D	Frosted	360	1000	any	1CT	01247078
Reflector E80	75W	240V	E27	E80	80D	Frosted	360	1000	any	1CT	37991778
Reflector E80	75W	240V	E27	E80	80D	Frosted	360	1000	any	1CT	05378740
Reflector E80	100W	125-130V	E27	E80	80D	Frosted	530	1000	any	1CT	04659878
Reflector E80	100W	125-130V	E27	E80	80D	Frosted	530	1000	any	1CT	04659840
Reflector E80	100W	230V	E27	E80	50D	Frosted	1050	1000	any	1CT	02865578
Reflector E80	100W	230V	E27	E80	80D	Frosted	530	1000	any	1CT	01250078
Reflector E80	100W	240V	E27	E80	80D	Frosted	530	1000	any	1CT	37992478
<b>Reflector R80</b>											
Reflector R80	60W	230V	E27	NR80	25D	Frosted	1000	1000	any	1CT	06581078
Reflector R80	60W	240V	E27	NR80	25D	Frosted	1000	1000	any	1CT	37983278
Reflector R80	75W	230V	E27	NR80	25D	Frosted	1600	1000	any	1CT	06401178
Reflector R80	75W	240V	E27	NR80	25D	Frosted	1600	1000	any	1CT	37984978
Reflector R80	100W	230V	E27	NR80	25D	Frosted	2000	1000	any	1CT	06404278
Reflector R80	100W	240V	E27	NR80	25D	Frosted	2000	1000	any	1CT	37985678



# Incandescent

## Standard (A-shape)

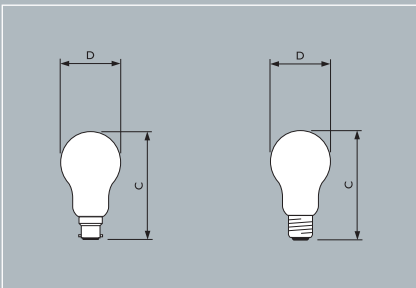


A55 E27 Clear



A55 E27 Frosted

Dimensions in mm



A55 B22

A55 E27

### Product Description

- Conventional pear-shaped incandescent lamps

### Product Features

- Vacuum-filled (15W) or gas-filled (25W and above)

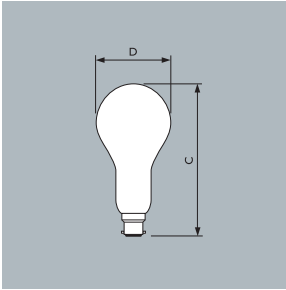
### Application

- Frosted lamps give low glare and diffused lighting for universal applicability
- Clear lamps are ideal for indirect lighting in closed luminaires, and where brilliance and sparkling effects are more important than reduction of glare

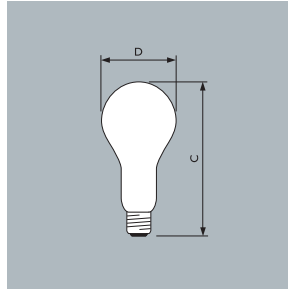
Product ID	C (mm)	D (mm)
A55 B22	93	55
A55 E27	96	55
A65 E27	122	65
A65 B22	121	65
A80 E27	176	88
A80 B22	143	80

# Incandescent

# Standard (A-shape)



A80 B27



A80 E27

## Preferred selection

Product ID	Lamp Voltage (V)	Bulb Shape	Cap/ Base	Finish	Luminous Flux Lamp (Lm)	Avg Lifetime (hrs)	Packaging Configuration	Packaging Type	European Order Code (EOC)
<b>CLEAR</b>									
STANDARD A55 25W	230V	A55	E27	CL	220	1000	120	1CT	07563184
STANDARD A55 25W	230V	A55	B22	CL	220	1000	120	1CT	07558784
STANDARD A55 40W	230V	A55	E27	CL	415	1000	120	1CT	07564884
STANDARD A55 40W	230V	A55	B22	CL	415	1000	120	1CT	07559484
STANDARD A55 60W	230V	A55	E27	CL	710	1000	120	1CT	07565584
STANDARD A55 60W	230V	A55	B22	CL	710	1000	120	1CT	07560084
STANDARD A55 75W	230V	A55	E27	CL	930	1000	120	1CT	07566284
STANDARD A55 75W	230V	A55	B22	CL	930	1000	120	1CT	07561784
STANDARD A55 100W	230V	A55	E27	CL	1340	1000	120	1CT	07562484
STANDARD A55 100W	230V	A55	B22	CL	1340	1000	120	1CT	07557084
STANDARD A55 25W	240V	A55	E27	CL	215	1000	120	1CT	07572384
STANDARD A55 25W	240V	A55	B22	CL	215	1000	120	1CT	07568684
STANDARD A55 40W	240V	A55	E27	CL	410	1000	120	1CT	07573084
STANDARD A55 40W	240V	A55	B22	CL	410	1000	120	1CT	07569384
STANDARD A55 60W	240V	A55	E27	CL	700	1000	120	1CT	07574784
STANDARD A55 60W	240V	A55	B22	CL	700	1000	120	1CT	07570984
STANDARD A55 75W	240V	A55	E27	CL	920	1000	120	1CT	07575484
STANDARD A55 100W	240V	A55	E27	CL	1330	1000	120	1CT	07571684
STANDARD A55 100W	240V	A55	B22	CL	1330	1000	120	1CT	07567984
STANDARD A55 25W	125-130V	A55	E27	CL	260	1000	120	1CT	07553284
STANDARD A55 40W	125-130V	A55	E27	CL	490	1000	120	1CT	07554984
STANDARD A55 40W	125-130V	A55	B22	CL	490	1000	120	1CT	07550184
STANDARD A55 60W	125-130V	A55	E27	CL	820	1000	120	1CT	07555684
STANDARD A55 60W	125-130V	A55	B22	CL	820	1000	120	1CT	07551884
STANDARD A55 75W	125-130V	A55	E27	CL	1070	1000	120	1CT	07556384
STANDARD A55 100W	125-130V	A55	E27	CL	1560	1000	120	1CT	07552584
STANDARD A55 100W	125-130V	A55	B22	CL	1560	1000	120	1CT	07549584

# Incandescent

## Standard (A-shape)

Product ID	Lamp Voltage (V)	Bulb Shape	Cap/ Base	Finish	Luminous Flux Lamp (Lm)	Avg Lifetime (hrs)	Packaging Configuration	Packaging Type	European Order Code (EOC) 8710163
<b>FROSTED</b>									
STANDARD A55 15W	230V	A55	E27	FR	220	1000	120	1CT	07534184
STANDARD A55 25W	230V	A55	E27	FR	220	1000	120	1CT	07535884
STANDARD A55 25W	230V	A55	B22	FR	220	1000	120	1CT	07529784
STANDARD A55 40W	230V	A55	E27	FR	415	1000	120	1CT	07536584
STANDARD A55 40W	230V	A55	B22	FR	415	1000	120	1CT	07530384
STANDARD A55 60W	230V	A55	E27	FR	710	1000	120	1CT	07537284
STANDARD A55 60W	230V	A55	B22	FR	710	1000	120	1CT	07531084
STANDARD A55 75W	230V	A55	E27	FR	930	1000	120	1CT	07538984
STANDARD A55 75W	230V	A55	B22	FR	930	1000	120	1CT	07532784
STANDARD A55 100W	230V	A55	E27	FR	1340	1000	120	1CT	07533484
STANDARD A55 100W	230V	A55	B22	FR	1340	1000	120	1CT	07528084
STANDARD A55 25W	240V	A55	E27	FR	215	1000	120	1CT	07545784
STANDARD A55 25W	240V	A55	B22	FR	215	1000	120	1CT	07540284
STANDARD A55 40W	240V	A55	E27	FR	410	1000	120	1CT	07546484
STANDARD A55 40W	240V	A55	B22	FR	410	1000	120	1CT	07541984
STANDARD A55 60W	240V	A55	E27	FR	700	1000	120	1CT	07547184
STANDARD A55 60W	240V	A55	B22	FR	700	1000	120	1CT	07542684
STANDARD A55 75W	240V	A55	E27	FR	920	1000	120	1CT	07548884
STANDARD A55 75W	240V	A55	B22	FR	920	1000	120	1CT	07543384
STANDARD A55 100W	240V	A55	E27	FR	1330	1000	120	1CT	07544084
STANDARD A55 100W	240V	A55	B22	FR	1330	1000	120	1CT	07539684
STANDARD A55 25W	125-130V	A55	E27	FR	260	1000	120	1CT	07524284
STANDARD A55 40W	125-130V	A55	E27	FR	490	1000	120	1CT	07525984
STANDARD A55 40W	125-130V	A55	B22	FR	490	1000	120	1CT	07521184
STANDARD A55 60W	125-130V	A55	E27	FR	820	1000	120	1CT	07526684
STANDARD A55 60W	125-130V	A55	B22	FR	820	1000	120	1CT	07522884
STANDARD A55 75W	125-130V	A55	E27	FR	1070	1000	120	1CT	07527384
STANDARD A55 100W	125-130V	A55	E27	FR	1560	1000	120	1CT	07523584
STANDARD A55 100W	125-130V	A55	B22	FR	1560	1000	120	1CT	07520484
<b>8711500</b>									
STANDARD A65 150W	230V	A65	E27	FR	2160	1000	20	1CT	09049205
STANDARD A65 150W	230V	A65	E27	CL	2160	1000	20	1CT	05603005
STANDARD A65 150W	240V	A65	E27	FR	2140	1000	20	1CT	04893605
STANDARD A65 150W	240V	A65	B22	FR	2140	1000	20	1CT	04637605
STANDARD A80 200W	230V	A80	E27	CL	3040	1000	20	1CT	02476305
STANDARD A80 200W	240V	A80	E27	FR	2990	1000	20	1CT	09060705
STANDARD A80 200W	240V	A80	B22	FR	2990	1000	20	1CT	06866805

Universal



burning position



# Incandescent

## Standard Candle (B-shape)

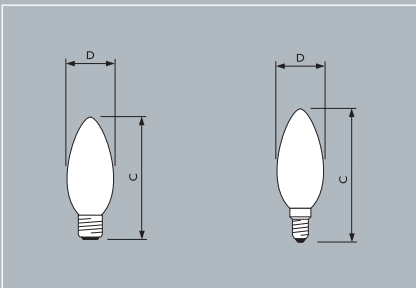


B35 Clear



B35 Frosted

Dimensions in mm



E27

E14

### Product Description

- Flame-shaped bulb with clear glass and vacuum- or gas-filled bulb with B- or E-base

### Product Features

- The slender, crystal-clear lamps are designed for sparkling highlights, they create a classic sparkling atmosphere
- The slender, frosted lamps creates a low glare atmosphere

### Product Benefits

- The clear types are at their best in decorative glass chandeliers and wall brackets with clear or textured glass bowls. Their brilliant, visible filament adds small points of brightness for an enriched lighting effect
- The frosted types are graceful lamps that enhance the elegance of classical chandeliers, candelabras, wall brackets etc. They set the scene for cosiness and comfort, used with or without lampshades

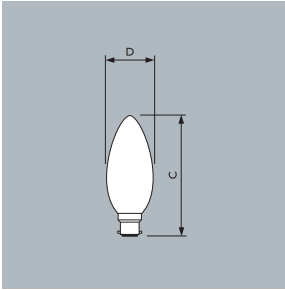
### Application

- Home use in living and dining rooms, bedrooms, halls and studies
- Hotel lounges, restaurants, bedrooms, halls, conference rooms and foyers
- Clubs and social areas
- Ballrooms
- Shops and boutiques
- Churches

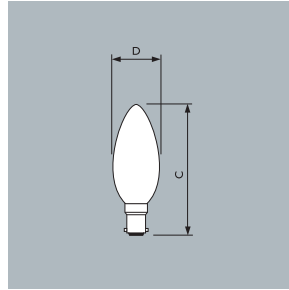
Product ID	C (mm)	D (mm)
Candle B15	97	35
Candle B22	94	35
Candle E14	99	35
Candle E27	95	35

# Incandescent

## Standard Candle (B-shape)



B22



B15



Universal  
burning position

### Preferred selection

Product ID	Lamp Voltage (V)	Bulb Shape	Cap/Base	Finish	Luminous Flux Lamp (Lm)	Avg Lifetime (hrs)	Packaging Configuration	Packaging Type	European Order Code (EOC) 8710163
<b>CLEAR</b>									
CANDLE B35 15W	230V	B35	E14	CL	115	1000	100	1CT	07579250
CANDLE B35 25W	230V	B35	E14	CL	210	1000	100	1CT	07580850
CANDLE B35 40W	230V	B35	E14	CL	410	1000	100	1CT	07581550
CANDLE B35 40W	230V	B35	E27	CL	410	1000	100	1CT	07583950
CANDLE B35 60W	230V	B35	E14	CL	690	1000	100	1CT	07582250
CANDLE B35 25W	240V	B35	E14	CL	210	1000	100	1CT	07584650
CANDLE B35 40W	240V	B35	E14	CL	405	1000	100	1CT	07585350
CANDLE B35 40W	240V	B35	E27	CL	405	1000	100	1CT	07587750
CANDLE B35 60W	240V	B35	E14	CL	670	1000	100	1CT	07586050
CANDLE B35 25W	125-130V	B35	E14	CL	255	1000	100	1CT	07576150
CANDLE B35 40W	125-130V	B35	E14	CL	480	1000	100	1CT	07577850
CANDLE B35 60W	125-130V	B35	E14	CL	710	1000	100	1CT	07578550
<b>FROSTED</b>									
CANDLE B35 15W	230V	B35	E14	FR	115	1000	100	1CT	07591450
CANDLE B35 25W	230V	B35	E14	FR	215	1000	100	1CT	07592150
CANDLE B35 25W	230V	B35	E27	FR	215	1000	100	1CT	07595250
CANDLE B35 40W	230V	B35	B22	FR	410	1000	100	1CT	07505150
CANDLE B35 40W	230V	B35	E14	FR	410	1000	100	1CT	07593850
CANDLE B35 40W	230V	B35	E27	FR	410	1000	100	1CT	07596950
CANDLE B35 60W	230V	B35	E14	FR	670	1000	100	1CT	07594550
CANDLE B35 25W	240V	B35	E14	FR	210	1000	100	1CT	07598350
CANDLE B35 40W	240V	B35	B15	FR	405	1000	100	1CT	07597650
CANDLE B35 40W	240V	B35	E14	FR	405	1000	100	1CT	07599050
CANDLE B35 40W	240V	B35	E27	FR	405	1000	100	1CT	07601050
CANDLE B35 60W	240V	B35	E14	FR	670	1000	100	1CT	07600350
CANDLE B35 60W	240V	B35	E27	FR	670	1000	100	1CT	07602750
CANDLE B35 25W	125-130V	B35	E14	FR	255	1000	100	1CT	07588450
CANDLE B35 40W	125-130V	B35	E14	FR	480	1000	100	1CT	07589150
CANDLE B35 60W	125-130V	B35	E14	FR	710	1000	100	1CT	07590750

# Incandescent

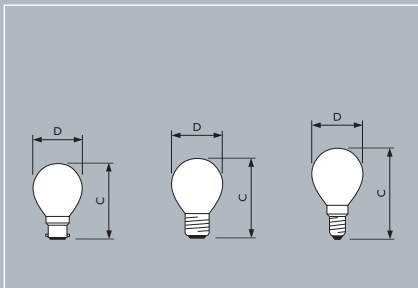


P45 E14 Clear



P45 E14 Frosted

Dimensions in mm



B22

E22

E14

# Standard Lustre (P-shape)

## Product Description

- Spherical vacuum- or gas-filled incandescent lamps with a clear glass bulb and E- or B-base

## Product Features

- Lamps with reduced size and neat shape
- The small, crystal-clear lamps are designed for sparkling highlights. They are at their best in decorative small luminaires such as table models and wall brackets with clear glass bowls where they create a sparkling atmosphere
- The frosted versions are extremely popular for use around mirrors or in chandeliers, candelabras, floor lamps and wall brackets, fitted with small, decorative shades
- They create a pleasant low glare atmosphere

## Product Benefits

- The clear versions with their brilliant, visible filament add small points of brightness for an enriched lighting effect
- The frosted types create softly diffused light to set the scene for cosiness and comfort, and meet both aesthetic and functional requirements

## Application

- Home use in living and dining rooms, bedrooms, halls and studies
- Hotel lounges, restaurants, bedrooms, halls, conference rooms and foyers
- Clubs and social areas
- Shops, boutiques and department stores
- Other similar areas

Product ID	C (mm)	D (mm)
Lustre B22	70	45
Lustre E14	77	45
Lustre E27	72	45

# Incandescent

# Standard Lustre (P-shape)

## Preferred selection

Product ID	Lamp Voltage (V)	Bulb Shape	Cap/ Base	Finish	Luminous Flux Lamp (Lm)	Avg Lifetime (hrs)	Packaging Configuration	Packaging Type	European Order Code (EOC)
<b>CLEAR</b>									
LUSTRE P45 15W	230V	P45	E27	CL	115	1000	100	1CT	8710163 07614050
LUSTRE P45 25W	230V	P45	B22	CL	205	1000	100	1CT	07609650
LUSTRE P45 25W	230V	P45	E14	CL	205	1000	100	1CT	07611950
LUSTRE P45 25W	230V	P45	E27	CL	205	1000	100	1CT	07615750
LUSTRE P45 40W	230V	P45	B22	CL	405	1000	100	1CT	07610250
LUSTRE P45 40W	230V	P45	E14	CL	405	1000	100	1CT	07612650
LUSTRE P45 40W	230V	P45	E27	CL	405	1000	100	1CT	07616450
LUSTRE P45 60W	230V	P45	E14	CL	650	1000	100	1CT	07613350
LUSTRE P45 60W	230V	P45	E27	CL	650	1000	100	1CT	07617150
LUSTRE P45 25W	240V	P45	E14	CL	210	1000	100	1CT	07618850
LUSTRE P45 25W	240V	P45	E27	CL	210	1000	100	1CT	07620150
LUSTRE P45 40W	240V	P45	E14	CL	400	1000	100	1CT	07619550
LUSTRE P45 40W	240V	P45	E27	CL	400	1000	100	1CT	07621850
LUSTRE P45 25W	125-130V	P45	E14	CL	255	1000	100	1CT	07603450
LUSTRE P45 25W	125-130V	P45	E27	CL	255	1000	100	1CT	07606550
LUSTRE P45 40W	125-130V	P45	E14	CL	480	1000	100	1CT	07604150
LUSTRE P45 40W	125-130V	P45	E27	CL	480	1000	100	1CT	07607250
LUSTRE P45 60W	125-130V	P45	E14	CL	710	1000	100	1CT	07605850
LUSTRE P45 60W	125-130V	P45	E27	CL	710	1000	100	1CT	07608950
<b>FROSTED</b>									
LUSTRE P45 15W	230V	P45	E14	FR	120	1000	100	1CT	07630050
LUSTRE P45 15W	230V	P45	E27	FR	120	1000	100	1CT	07634850
LUSTRE P45 25W	230V	P45	B22	FR	215	1000	100	1CT	07627050
LUSTRE P45 25W	230V	P45	E14	FR	215	1000	100	1CT	07631750
LUSTRE P45 25W	230V	P45	E27	FR	215	1000	100	1CT	07635550
LUSTRE P45 40W	230V	P45	B22	FR	405	1000	100	1CT	07628750
LUSTRE P45 40W	230V	P45	E14	FR	405	1000	100	1CT	07632450
LUSTRE P45 40W	230V	P45	E27	FR	405	1000	100	1CT	07636250
LUSTRE P45 60W	230V	P45	B22	FR	650	1000	100	1CT	07629450
LUSTRE P45 60W	230V	P45	E14	FR	650	1000	100	1CT	07633150
LUSTRE P45 60W	230V	P45	E27	FR	650	1000	100	1CT	07637950
LUSTRE P45 25W	240V	P45	E14	FR	210	1000	100	1CT	07638650
LUSTRE P45 25W	240V	P45	E27	FR	210	1000	100	1CT	07640950
LUSTRE P45 40W	240V	P45	E14	FR	400	1000	100	1CT	07639350
LUSTRE P45 40W	240V	P45	E27	FR	400	1000	100	1CT	07641650
LUSTRE P45 25W	125-130V	P45	E14	FR	255	1000	100	1CT	07622550
LUSTRE P45 25W	125-130V	P45	E27	FR	255	1000	100	1CT	07624950
LUSTRE P45 40W	125-130V	P45	E14	FR	480	1000	100	1CT	07623250
LUSTRE P45 40W	125-130V	P45	E27	FR	480	1000	100	1CT	07625650
LUSTRE P45 60W	125-130V	P45	E27	FR	725	1000	100	1CT	07626350

Universal



burning position



# Incandescent

## A55 White (A-shape)



A55 White E27

### Product Description

- Conventional pear-shaped incandescent lamps

### Product Features

- Gas-filled (25W and above) lamps with a modern white coating

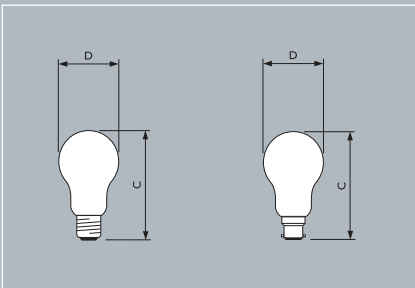
### Product Benefits

- Creates a comfortable, relaxed atmosphere with a high degree of visual comfort
- Provides a glare-free light in a subtle modern white colour
- Enhances colours in the home

### Application

- Living and dining rooms
- Hotels
- Restaurants
- Bedrooms
- Halls

Dimensions in mm



E27

B22

Product ID	C (mm)	D (mm)
A55 E27	96	55
A55 B22	93	55

# Incandescent

# A55 White (A-shape)



## Preferred selection

Product ID	Lamp Voltage (V)	Bulb Shape	Lamp Base	Bulb Finish	Light Output (Lm)	Lifetime (hrs)	Packaging Configuration (Pcs)	Packaging Type	European Order Code (EOC) 8711500
A55 White 25W	240V	A55	B22	White	190	1000	120	Carton	38259784
A55 White 25W	240V	A55	E27	White	190	1000	120	Carton	38264184
A55 White 40W	240V	A55	B22	White	385	1000	120	Carton	38260384
A55 White 40W	240V	A55	E27	White	385	1000	120	Carton	38265884
A55 White 60W	240V	A55	B22	White	680	1000	120	Carton	38261084
A55 White 60W	240V	A55	E27	White	680	1000	120	Carton	38266584
A55 White 75W	240V	A55	B22	White	895	1000	120	Carton	38262784
A55 White 75W	240V	A55	E27	White	895	1000	120	Carton	38267284
A55 White 100W	240V	A55	B22	White	1300	1000	120	Carton	38263484
A55 White 100W	240V	A55	E27	White	1300	1000	120	Carton	38268984
A55 White 40W	230V	A55	B22	White	395	1000	120	Carton	38269684
A55 White 40W	230V	A55	E27	White	395	1000	120	Carton	38272684
A55 White 60W	230V	A55	B22	White	690	1000	120	Carton	38270284
A55 White 60W	230V	A55	E27	White	690	1000	120	Carton	38273384
A55 White 100W	230V	A55	B22	White	1310	1000	120	Carton	38271984
A55 White 100W	230V	A55	E27	White	1310	1000	120	Carton	38274084
A55 White 40W	125-130V	A55	B22	White	460	1000	120	Carton	38275784
A55 White 40W	125-130V	A55	E27	White	460	1000	120	Carton	38278884
A55 White 60W	125-130V	A55	B22	White	790	1000	120	Carton	38276484
A55 White 60W	125-130V	A55	E27	White	790	1000	120	Carton	38279584
A55 White 100W	125-130V	A55	B22	White	1530	1000	120	Carton	38277184
A55 White 100W	125-130V	A55	E27	White	1530	1000	120	Carton	38280184

# Incandescent

## Krypton Standard (E-shape)



Krypton

### Product Description

- Incandescent lamps with a mushroom-shaped Krypton gas-filled bulb for a higher light output

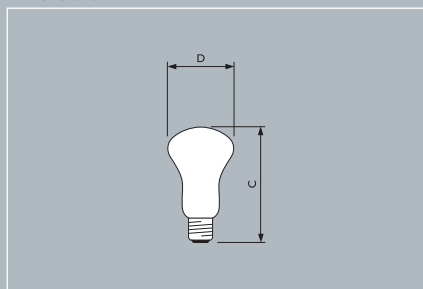
### Product Features

- Krypton gas filling allows a higher filament temperature giving a whiter light and a higher light output than standard incandescent lamps

### Application

- Decorative and main lighting in the home, e.g. in living and dining rooms, bedrooms, halls and studies, in many different types of luminaires
- Hotel lounges, restaurants, bedrooms, halls, conference rooms and foyers

Dimensions in mm



Product ID	C (mm)	D (mm)
Krypton E50	90	50
Krypton E60	103	60
Krypton E75	124	75

# Incandescent

## Krypton Standard (E-shape)

### Preferred selection

Product ID	Lamp Voltage (V)	Bulb Shape	Cap/ Base	Finish	Luminous Flux Lamp (Lm)	Avg Lifetime (hrs)	Packaging Configuration	Packaging Type	European Order Code (EOC) <b>8711500</b>
KRYPTON 40W	230V	E50	E27	Soft White	410	1000	100	1CT	01207484
KRYPTON 60W	230V	E50	E27	Soft White	690	1000	100	1CT	34070284
KRYPTON 100W	230V	E60	E27	Soft White	1280	1000	100	1CT	01210484

Universal



burning position

# Incandescent

## Softone Globe (G-shape)



Softone Globe

### Product Description

- Normal gas-filled incandescent lamps with a spherical (G-shape) glass bulb and B- or E-base

### Product Features

- Bulb internally coated with an opal layer; creating a soft, diffused, glare free light
- Diffused light without harsh shadows

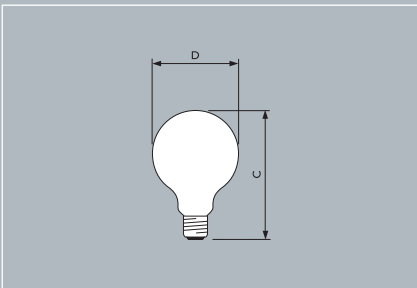
### Product Benefits

- Gives a delicate, glare-free light in a subtle white colour
- Enhances colours in the home and adds a new dimension to interior decoration
- Creates a pleasant, relaxed atmosphere with a high degree of visual comfort

### Application

- Home use in living and dining rooms, halls and studies
- Hotel lounges, restaurants, bedrooms, foyers
- Clubs, social areas and public areas
- Shops and boutiques
- Other similar areas

Dimensions in mm



Product ID	C	D
Softone G80	124	80
Softone G95	146	95
Softone G120	171	122

# Incandescent

## Softone Globe (G-shape)

### Preferred selection

Product ID	Lamp Voltage (V)	Bulb Shape	Cap/ Base	Finish	Luminous Flux Lamp (Lm)	Avg Lifetime (hrs)	Packaging Configuration	Packaging Type	European Order Code (EOC)
Softone Globe 40W	230V	G95	E27	Soft White	390	1000	10	1CT	<b>8711500</b> 03454025
Softone Globe 60W	230V	G80	E27	Soft White	630	1000	10	1CT	03440325
Softone Globe 60W	230V	G95	E27	Soft White	630	1000	10	1CT	03455725
Softone Globe 100W	230V	G95	E27	Soft White	1200	1000	10	1CT	03484725
Softone Globe 100W	230V	G120	E27	Soft White	1200	1000	10	1CT	03464925
Softone Globe 150W	230V	G120	E27	Soft White	1750	1000	10	1CT	07387725

Universal



burning position

# Incandescent

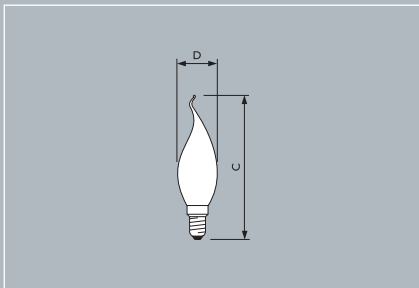


Swan-Neck Clear



Swan-Neck Frosted

Dimensions in mm



# Deco Candle Swan-Neck

## Product Description

- Special decorative flame-shaped bulb available with clear glass, with amber or with inside frosted glass

## Product Features

- Choice of bulb finishes

## Product Benefits

- The clear types with their brilliant, visible filament adds small points of brightness for an enriched lighting effect.
- The amber and frosted types give a softly diffused light for cosiness and comfort.

## Application

- Suitable for a wide variety of decorative lighting solutions
- Home use in living and dining rooms, studies and halls
- Hotel lounges, restaurants, bedrooms, halls, conference rooms and foyers
- Clubs and social areas
- Ballrooms
- Shops and boutiques

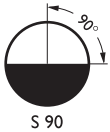
Product ID	C (mm)	D (mm)
Deco BxS35	114	35

# Incandescent

# Deco Candle Swan-Neck

## Preferred selection

Product ID	Lamp Voltage (V)	Bulb Shape	Cap/ Base	Finish	Luminous Flux Lamp (Lm)	Avg Lifetime (hrs)	Packaging Configuration	Packaging Type	European Order Code (EOC)
Deco Swan-Neck 15W 230V	230V	BXS35	E14	clear	80	1000	20	1CT	17578638
Deco Swan-Neck 15W 230V	230V	BXS35	E14	amber	70	1000	20	1CT	32915840
Deco Swan-Neck 15W 230V	230V	BXS35	E14	frosted	80	1000	20	1CT	17577938
Deco Swan-Neck 25W 230V	230V	BXS35	E14	clear	180	1000	20	1CT	17579338
Deco Swan-Neck 25W 230V	230V	BXS35	E14	amber	170	1000	20	1CT	32919638
Deco Swan-Neck 25W 230V	230V	BXS35	E14	frosted	180	1000	20	1CT	17534238
Deco Swan-Neck 40W 230V	230V	BXS35	E14	clear	370	1000	20	1CT	17580938
Deco Swan-Neck 40W 230V	230V	BXS35	E14	amber	360	1000	20	1CT	32919638
Deco Swan-Neck 40W 230V	230V	BXS35	E14	frosted	370	1000	20	1CT	17535938



burning position

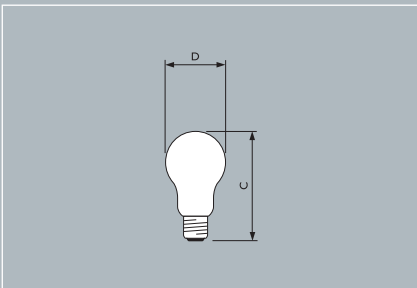


# Incandescent Specialties



E27 RED

Dimensions in mm



## Party Standard (A-shape)

### Product Description

- Coloured incandescent lamp with A60 shape and superior ESC coating

### Product Features

- Choice of attractive colours
- Superior quality thanks to the Electro Static Coated (ESC) internal coating (instead of the conventional wet-flushed inside paint process)

### Product Benefits

- Environment-friendly due to ESC coating and cadmium-free lamp
- Energy savings thanks to much higher colour brilliance and lumen output than conventional coloured lamps with higher wattages
- Weather-resistant bulbs are perfectly suitable for outdoor use

### Application

- All kinds of indoor and outdoor decorative lighting and special effects
- Outdoor: streets, facades, shopping centres, amusement parks, garden parties, carnivals, restaurants, bars, beaches, Christmas and other decorations
- Indoor: parties, special celebrations and decorative effects
- Multi-colour versions and printing of special graphics available on project basis

Product ID	C (mm)	D (mm)
Party 15W	107,5	60

# Incandescent Specialties

Party Standard (A-shape)



E27 BLUE



E27 GREEN



E27 ORANGE



E27 YELLOW

## Preferred selection

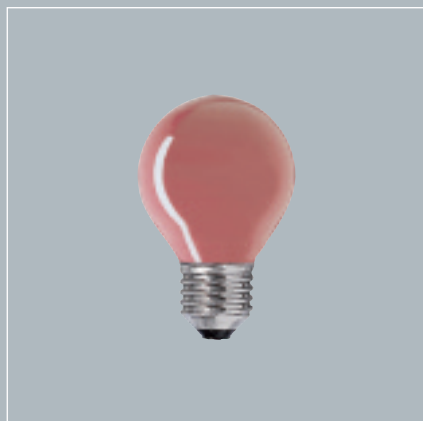
Product ID	Lamp Voltage (V)	Bulb Shape	Cap/ Base	Finish	Avg Lifetime (hrs)	Packaging Configuration	Packaging Type	European Order Code (EOC) <b>8711500</b>
Party 15W	220-240V	A60	E27	Blue	1000	20	1CT	33901005
Party 15W	220-240V	A60	E27	Green	1000	20	1CT	33845705
Party 15W	220-240V	A60	E27	Orange	1000	20	1CT	33947805
Party 15W	220-240V	A60	E27	Red	1000	20	1CT	33912605
Party 15W	220-240V	A60	E27	Yellow	1000	20	1CT	33907205

Universal



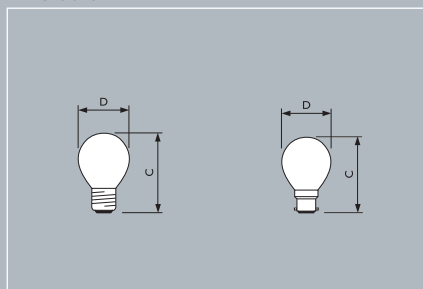
burning position

# Incandescent Specialties



E27 RED

Dimensions in mm



## Party Lustre (P-shape)

### Product Description

- Coloured incandescent lamp with P45 shape and superior ESC coating

### Product Features

- Choice of attractive colours
- Superior quality thanks to the Electro Static Coated (ESC) internal coating (instead of the conventional wet-flushed inside paint process)

### Product Benefits

- Environment-friendly due to ESC coating and cadmium-free lamp
- Energy savings thanks to much higher colour brilliance and lumen output than conventional coloured lamps with higher wattages
- Weather-resistant bulbs are perfectly suitable for outdoor use

### Application

- All kinds of indoor and outdoor decorative lighting and special effects
- Outdoor: streets, facades, shopping centres, amusement parks, garden parties, carnivals, restaurants, bars, beaches, Christmas and other decorations
- Indoor: parties, special celebrations and decorative effects
- Multi-colour versions and printing of special graphics available on project basis

Product ID	C (mm)	D (mm)
Party P45 E27	76,5	45
Party P45 B22	76,5	45

# Incandescent Specialties

## Party Lustre (P-shape)



E27 BLUE



E27 GREEN



E27 ORANGE



E27 YELLOW

### Preferred selection

Product ID	Lamp Voltage (V)	Bulb Shape	Cap/ Base	Finish	Avg Lifetime (hrs)	Packaging Configuration	Packaging Type	European Order Code (EOC) 8711500
Party 15W	220-240V	P45	E27	Blue	1000	10X10F	1CT	17747650
Party 15W	220-240V	P45	E27	Green	1000	10X10F	1CT	32690450
Party 15W	220-240V	P45	E27	Orange	1000	10X10F	1CT	32692850
Party 15W	220-240V	P45	E27	Red	1000	10X10F	1CT	17743805
Party 15W	220-240V	P45	E27	Yellow	1000	10X10F	1CT	17745250
Party 15W	220-240V	P45	B22	Blue	1000	10X10F	1CT	17312650
Party 15W	220-240V	P45	B22	Green	1000	10X10F	1CT	17309650
Party 15W	220-240V	P45	B22	Orange	1000	10X10F	1CT	32686750
Party 15W	220-240V	P45	B22	Red	1000	10X10F	1CT	17306550
Party 15W	220-240V	P45	B22	Yellow	1000	10X10F	1CT	17315750

Universal



burning position

# Incandescent Specialties

## Party Tubular



TUBULAR RED

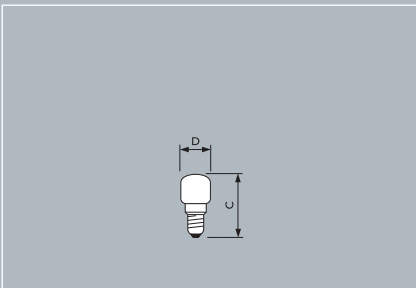


TUBULAR BLUE



TUBULAR GREEN

Dimensions in mm



### Product Description

- Decorative tubular lamps with internally colour-coated bulb

### Product Features

- Choice of attractive colours
- Superior quality thanks to the Electro Static Coated (ESC) internal coating (instead of the conventional wet-flushed inside paint process)

### Product Benefits

- All coloured types are cadmium-free

### Application

- Ideal for indoor use (gas-filled types) or both outdoor and indoor use (vacuum-filled types)
- Indoor: shop windows, theatres, public buildings, restaurants, discotheques and similar applications
- Outdoor: streets, facades, Christmas and other decorations, carnivals and fairs

Product ID	C (mm)	D (mm)
Tubulator 15W	57	25

# Incandescent Specialties

Party Tubular



TUBULAR YELLOW



TUBULAR ROSE



TUBULAR ORANGE

## Preferred selection

Product ID	Lamp Voltage (V)	Bulb Shape	Cap/ Base	Finish	Luminous Flux Lamp (Lm)	Avg Lifetime (hrs)	Packaging Configuration	Packaging Type	European Order Code (EOC)
Party 15W	230V	T25	E14	Blue	4	1000	10X10F	1CT	24982150
Party 15W	230V	T25	E14	Green	13	1000	10X10F	1CT	24984550
Party 15W	230V	T25	E14	Red	10	1000	10X10F	1CT	24986950
Party 15W	230V	T25	E14	Yellow	50	1000	10X10F	1CT	24983850
Party 15W	230V	T25	E14	Rose	53	1000	10	1CT	24989025
Party 15W	230-240V	T25	E14	Orange	58	1000	10X10F	1CT	24978450



# Incandescent Specialties

## Daylight (P-shape)



DAYBLUE E14 P45

### Product Description

- Daylight Incandescent lamp with transparent blue glass bulb

### Product Features

- Colour rendering close to that of daylight
- Coiled coil filament
- Natural blue-tinted transparent glass bulb to filter out the excess red light characteristic of normal incandescent lamps

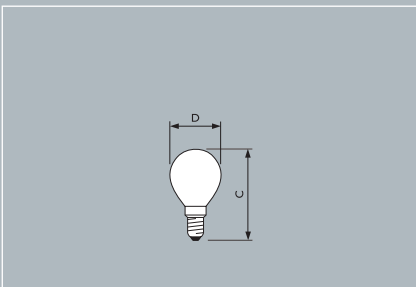
### Product Benefits

- Colour rendering closer to daylight than standard incandescent
- Bright light keeps people attention

### Application

- Activities which require good colour rendering: matching yarns and textiles, selecting paints, advertising, etc.

Dimensions in mm



Product ID	C (mm)	D (mm)
Daylight 40W	78	45

# Incandescent Specialties

Daylight (P-shape)

## Preferred selection

Product ID	Lamp Voltage (V)	Bulb Shape	Cap/ Base	Finish	Luminous Flux Lamp (Lm)	Avg Lifetime (hrs)	Packaging Configuration	Packaging Type	European Order Code (EOC) 8711500
Daylight 40W	230V	P45	E14	Daylight-Blue	160	1000	10X10F	1CT	67098



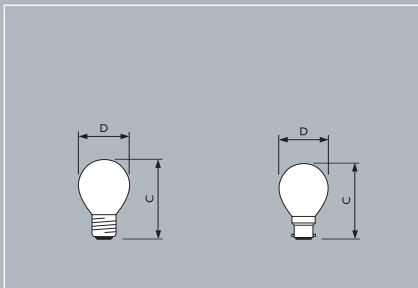


# Incandescent Specialties



NIGHTLIG E14 P45 FR

Dimensions in mm



## Nightlight P45 (P-shape)

### Product Description

- Incandescent lamp applied as night light

### Product Features

- Extra strong single-coil filament
- In low wattages available
- Suitable for operation between 220V and 250 V

### Product Benefits

- Subdued light with low energy consumption
- Long service life (2500 - 6000 hrs) makes these lamps ideal for orientation lighting with many burning hours

### Application

- As orientation lighting in corridors and staircases, service areas in homes, hotels, offices, public buildings, outdoor illumination for Xmas trees

Product ID	C (mm)	D (mm)
Nightlife E27	73	45
Nightlife B22	71,5	45

# Incandescent Specialties

## Nightlight P45 (P-shape)



NIGHTLIG E27 P45 CL



NIGHTLIG E27 P45 CL



NIGHTLIG B22 P45 CL



NIGHTLIG B22 P45 FR

### Preferred selection

Product ID	Lamp Voltage (V)	Bulb Shape	Cap/ Base	Finish	Luminous Flux Lamp (Lm)	Avg Lifetime (hrs)	Packaging Configuration	Packaging Type	European Order Code (EOC)
Nightlight 5/8W	220-250V	P45	E27	Clear	70	1000	10X10F	1CT	<b>8711500</b> 06713550
Nightlight 5/8W	220-250V	P45	E27	Frosted	70	1000	10X10F	1CT	01412250
Nightlight 5/8W	220-250V	P45	B22	Clear	70	1000	10X10F	1CT	06712850
Nightlight 5/8W	220-250V	P45	B22	Frosted	70	1000	10X10F	1CT	06710450

# Incandescent Specialties

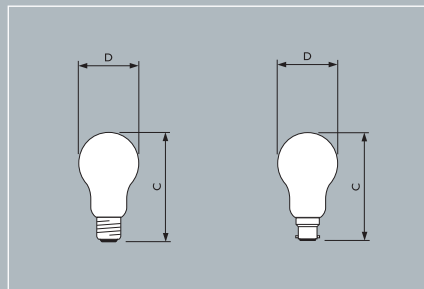


E27 A60 CL



B22 A60 CL

Dimensions in mm



## Standard Extra Low Voltage (A-shape)

### Product Description

- Clear lamp (A-bulb) for operation on voltages of 12, 24, 42 and 50V

### Product Features

- Types till 42V are safer in combination with a mains power supply transformer

### Application

- Rural and isolated areas where mains power supplies are not available
- Emergency lighting installations

Product ID	C (mm)	D (mm)
ELV E27	107,5	60
ELV B22	106,5	60

# Incandescent Specialties

## Standard Extra Low Voltage (A-shape)

### Preferred selection

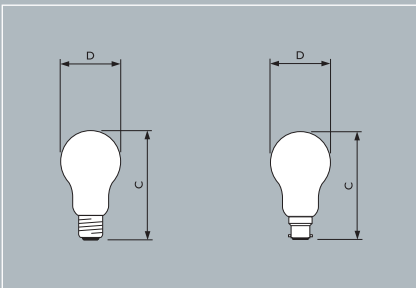
Product ID	Lamp Voltage (V)	Bulb Shape	Cap/ Base	Finish	Luminous Flux Lamp (Lm)	Avg Lifetime (hrs)	Packaging Configuration	Packaging Type	European Order Code (EOC)
Standard ELV 40W	24V	A60	E27	Clear	640	1000	10X10F	1CT	02293650
Standard ELV 60W	12V	A60	E27	Clear	990	1000	20	1CT	09017105
Standard ELV 60W	24V	A60	E27	Clear	970	1000	20	1CT	09018805
Standard ELV 60W	42V	A60	E27	Clear	920	1000	12X10F	1CT	09020184
Standard ELV 100W	24V	A60	E27	Clear	1860	1000	12X10F	1CT	09023284

# Incandescent Specialties



ReinfC E27 A65 FR

Dimensions in mm



E27/E14

B22

## Reinforced Construction

### Product Description

- Reinforced Incandescent lamp with A-shape for heavy duty applications

### Product Features

- Reinforced construction lamp with exceptionally strong filament to withstand mechanical shocks and vibrations

### Product Benefits

- Longer lifetime (>2000 hrs) when used in heavy duty applications as compared to standard incandescent lamps

### Application

- Where longer lifetime is required in combination with shock-resistant needs
- Hand-held inspection lights
- Task lights in maintenance and automotive service shops

Product ID	C (mm)	D (mm)
P45 B22	70	45
P45 E14	77	45
P45 E27	72	45

# Incandescent Specialties

## Reinforced Construction

### Preferred selection

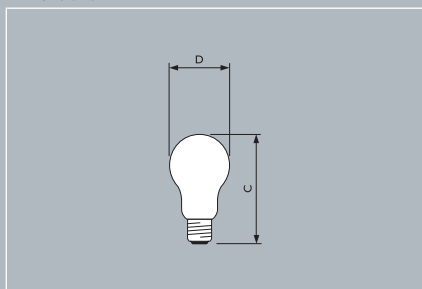
Product ID	Lamp Voltage (V)	Bulb Shape	Cap/ Base	Finish	Luminous Flux Lamp (Lm)	Avg Lifetime (hrs)	Packaging Configuration	Packaging Type	European Order Code (EOC)
Reinforced Construction 25W	230V	E27	A60	CL	200	2000	20	1CT	<b>8711500</b> 10076405
Reinforced Construction 25W	230V	E27	A60	FR	200	2000	20	1CT	09029405
Reinforced Construction 40W	230V	E27	A60	FR	340	2000	20	1CT	09032405
Reinforced Construction 60W	230V	B22	A60	FR	515	2000	20	1CT	06881105
Reinforced Construction 60W	230V	E27	A60	CL	515	2000	20	1CT	09033105
Reinforced Construction 60W	230V	E27	A60	FR	515	2000	20	1CT	09019505
Reinforced Construction 100W	230V	E27	A65	FR	990	2000	20	1CT	09037905

## Incandescent Specialties



A60 E27

Dimensions in mm



## Anti-insect: Buglezzz

### Product Description

- Incandescent lamps which light is significantly less attractive to insects than that of standard lamps

### Product Features

- Gas-filled, coloured outer bulb
- Buglezzz and other Philips coloured lamps are cadmium-free

### Product Benefits

- Offers an easy way to limiting insect nuisance
- Used in conjunction with a standard incandescent lamp or residential lighting at a distance of at least 4 m (13 ft.)
- Scientific research shows that up to 50% less insects are attracted by the Buglezzz lamp

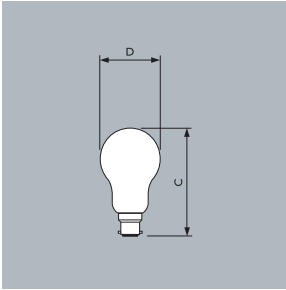
### Application

- Gardens
- Outdoor festivities
- Camping sites
- Road stands
- Service stations
- Terraces and balconies
- Waterfront sites

Product ID	C mm	D mm
B22	105	60
E27	105	60

# Incandescent Specialties

Anti-insect: Buglezzz



## Preferred selection

Product ID	Lamp Voltage (V)	Bulb Shape	Cap/ Base	Finish	Luminous Flux Lamp (Lm)	Avg Lifetime (hrs)	Packaging Configuration	Packaging Type	European Order Code (EOC)
Buglezzz 60W	230V	E27	A60	yellow	550	1000	20	1CT	33812905
Buglezzz 60W	230V	B22	A60	yellow	480	1000	20	1CT	33818105

Universal



burning position





LINEAR S14s T30 WH

## Product Description

- Decorative linear incandescent lamps with Softone coating

## Product Features

- White-enamelled finish
- Slender shape and high luminous intensity

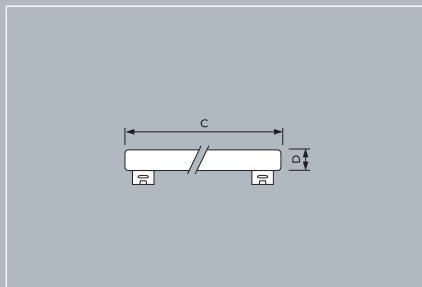
## Product Benefits

- White-enamelled versions provide softly diffused lighting
- Specially positioned lamp bases allowing installation in continuous strips of light

## Application

- Aquariums
- Pictures
- Mirrors
- Kitchen cabinets
- Other similar objects

Dimensions in mm



Product ID	C (mm)	D (mm)
Philinea 35W	300	30
Philinea 60W	500	30
Philinea 120W	1000	30

## Preferred selection

Product ID	Lamp Voltage (V)	Bulb Shape	Cap/ Base	Finish	Luminous Flux Lamp (Lm)	Avg Lifetime (hrs)	Packaging Configuration	Packaging Type	European Order Code (EOC) <b>8711500</b>
Philinea 35W	240V	T30	S14s	White	270	1000	25	1CT	05690040
Philinea 35W	125-130V	T30	S14s	White	270	1000	25	1CT	13786940
Philinea 60W	230V	T30	S14s	White	420	1000	10	1CT	01356925
Philinea 60W	240V	T30	S14s	White	420	1000	25	1CT	05693140
Philinea 60W	125-130V	T30	S14s	White	420	1000	25	1CT	13788340
Philinea 120W	230V	T30	S14s	White	840	1000	16	1CT	01977643



APP E14 T25 CL

### Product Description

- Tubular vacuum lamps with clear glass (T-bulb)
- Manufactured with heat-resistant solder, getter and lamp-base cement

### Product Features

- Coiled-coil filament
- Manufactured with heat-resistant solder, getter and lamp-base cement

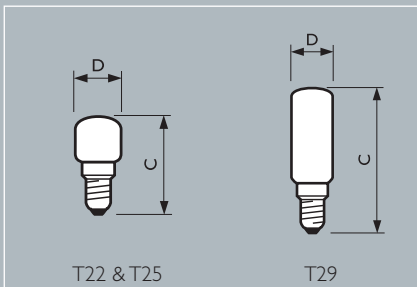
### Product Benefits

- Reliable operation when used in special lampholders at high oven temperatures (up to 300°C)

### Application

- Electrical and standard ovens, rotisseries and similar places subject to high operating temperatures
- Available for specific oven luminaires fitted in different positions such as downlighter, side-light and backlight

Dimensions in mm



T22 & T25

T29

### Product ID

### C max.

T22	49
T25	57
T29	76



APP E14 T22 CL



APP E14 T25L CL



APP E14 T29 CL

### Preferred selection

Product ID	Packaging configuration	Luminous Flux Lamp (lm)	Average Lifetime (h)	European Order Code (EOC) <b>8711500</b>
Appliance 15W E14 125-130V T22 CL	300	90	1000	24962334
Appliance 15W E14 230-240V T22 CL	300	90	1000	24965434
Appliance 15W E14 240-250V T22 CL	300	90	1000	24966134
Appliance 25W E14 125-130V T25 CL	250	172	1000	25031528
Appliance 25W E14 230-240V T25 CL	250	172	1000	25033928
Appliance 25W E14 240-250V T25 CL	250	172	1000	25215928
Appliance 40W E14 230-240V T29 CL	200	400	1000	25056838

# Domestic Appliances

# Appliance Refrigerator Tubular



APP E14 T25 CL

## Product Description

- Tubular lamp with clear glass bulb
- Long useful life in refrigerators and freezers

## Product Features

- Reinforced filament
- T-CLICK design with integrated lampholder reduces integral costs of refrigerator lighting

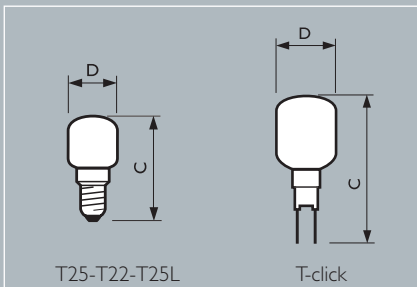
## Product Benefits

- Long useful life in refrigerators and freezers

## Application

- Refrigerators and freezers

Dimensions in mm



Product ID	C max.	D max.
T25	57	25
T22	49	22
T-click 25W	70	25
T25L	86	25

# Domestic Appliances

# Appliance Refrigerator Tubular



APP E14 T22 CL



APP T-click T25



APP E14 T25 FR



APP E14 T25L CL

## Preferred selection

Product ID	Packaging configuration	Luminous Flux Lamp (lm)	Average Lifetime (h)	European Order Code (EOC) <b>8711500</b>
Appliance 10W E14 230-240V T25 CL	250	35	1000	25043828
Appliance 12W E14 230-240V T25 CL	250	70	1000	24976028
Appliance 15W E14 230-240V T25 CL	250	110	1000	24991328
Appliance 15W E14 230-240V T22 CL	300	90	1000	25106034
Appliance 15W E14 240-250V T25 CL	250	110	1000	25001828
Appliance 15W T-CL 230-240V T25 CL	200	110	1000	25047638
Appliance 25W E14 230-240V T25 CL	250	172	1000	25206728
Appliance 25W E14 230-240V T25 FR	250	172	1000	25320028
Appliance 25W E14 230-240V T25L CL	150	217	1000	25281437

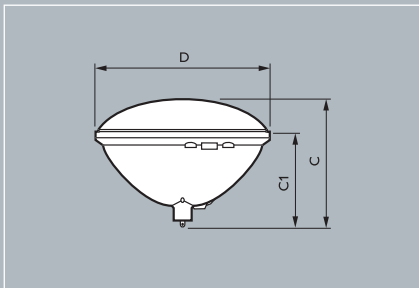


PAR56 GX16d FLOOD



PAR56 GX16d SPOT

Dimensions in mm



## Product Description

- Extremely powerful pressed-glass 179 mm diameter reflector lamps

## Product Features

- Made of heat-resistant glass
- Special sturdy, shock-resistant 12V version available for underwater applications
- 12V lamp has screw terminals for secure connection because of the high running current (25A)

## Product Benefits

- For indoor and outdoor use wherever high illuminance levels are required

## Application

- Spot versions are designed for long-distance beaming
- Flood and Wide Flood versions are mainly used for high mounting applications
- Displays, museums, public and commercial buildings, towers, churches, high-roofed halls, sports halls, garden lighting, exhibitions
- PAR56 Underwater: swimming pools and fountains, or wherever extra-low-voltage lamps are required for safety

## Luminaires

- For outdoor use, lamps should be protected from water splashes by a glass-covered, well gasketed housing

Product ID	C max.	C1 max.	D max.
PAR56	1236	98	179

# Incandescent Reflector

PAR56

## Preferred selection

Product ID	Lamp Wattage (W)	Cap Base	Lamp Voltage (V)	Beam Description	Beam Angle (°)	Bulb	Operating Position	Average Lifetime (hrs)	Luminous Intensity (cd)	European Code (EOC)	Order Code (EOC) 8711500
PAR56	300W	GX16d	230V	FL	25D	PAR56	any	2000	22000		15961810
PAR56	300W	GX16d	230V	SP	12D	PAR56	any	2000	40000		15957110
PAR56	300W	GX16d	230V	WFL	40D	PAR56	any	2000	9000		15965610
PAR56	300W	GX16d	240V	FL	25D	PAR56	any	2000	22000		40074110
PAR56	300W	GX16d	240V	SP	12D	PAR56	any	2000	40000		15959510
PAR56	300W	GX16d	240V	WFL	40D	PAR56	any	2000	9000		40077210



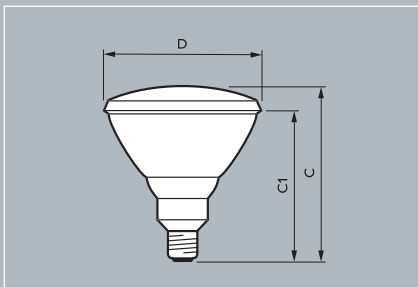


PAR38 E27 FLOOD



PAR38 E27 SPOT

Dimensions in mm



## Product Description

- Pressed-glass 121 mm diameter reflector lamps of high luminous intensity

## Product Features

- Spot versions have a stippled front reflector producing a narrow, homogeneous beam
- Flood versions have a front refractor composed of prismatic elements
- PAR38 lamps have a lifetime of 2000 hours

## Product Benefits

- Produces the same useful light as conventional PAR lamps at 20% lower energy

## Application

- Can be used indoors and outdoors, or wherever blown-bulb reflector lamps would be too vulnerable
- Indoors: shops, window displays, homes, hotels, restaurants, theatres, museums, exhibitions and buildings
- Outdoors: floodlighting, advertising signs, buildings, statues, podiums, sports grounds, parks and gardens
- Can be installed outdoors without any protection, provided they are used in a watertight lampholder
- For outdoor use, a heat-resistant rubber ring must be fitted between the lamp and the lampholder

Product ID	C max.	C1 max.	D max.
PAR38	135	123	121

# Incandescent Reflector

PAR38

## Preferred selection

Product ID	Lamp Voltage (V)	Beam Description	Beam Angle (degrees)	Bulb shape	Cap/ Base	Luminous Intensity (cd)	Avg Lifetime (hrs)	Packaging Type	European Order Code (EOC) <b>8711500</b>
PAR38 80W	230V	Spot	12D	PAR38	E27	4700	2000	1CT	60037092
PAR38 80W	240V	Spot	12D	PAR38	E27	4700	2000	1CT	01857197
PAR38 80W	230V	Flood	30D	PAR38	E27	1800	2000	1CT	90003620
PAR38 80W	240V	Flood	30D	PAR38	E27	1800	2000	1CT	01856497
PAR38 120W	220-240V	Spot	12D	PAR38	E27	8200	2000	1CT	60038792
PAR38 120W	240V	Spot	12D	PAR38	E27	8200	2000	1CT	02136697
PAR38 120W	220-240V	Flood	30D	PAR38	E27	3100	2000	1CT	60041792
PAR38 120W	240V	Flood	30D	PAR38	E27	3100	2000	1CT	02135997

# Incandescent Reflector

## PAR38 Coloured



PAR38 Green

### Product Description

- Coloured pressed-glass 121 mm diameter reflector lamp

### Product Features

- Weatherproof coloured coating on the refractor face in a choice of colours
- Flood beam width

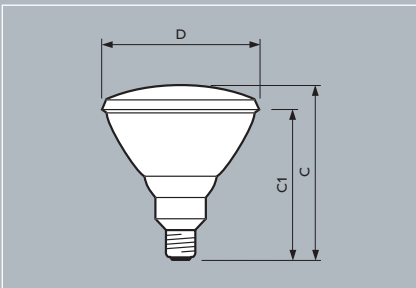
### Product Benefits

- Gives striking decorative effects, both indoors and outdoors
- 20% lower power consumption compared with conventional coloured PAR lamps

### Application

- Parks, public and private gardens
- Festive illumination
- Restaurants, bars, dance halls, discotheques
- Show-window displays, fountains and 'Son et Lumi' spectacles
- Can be installed outdoors without any protection, provided they are used in a watertight lampholder
- For outdoor use, a heat-resistant rubber ring must be fitted between the lamp and the lampholder

Dimensions in mm



Product ID	C max.	C1 max.	D max.
PAR38 Coloured	135	123	121

# Incandescent Reflector

# PAR38 Coloured



PAR38 Red



PAR38 Yellow



PAR38 Blue

## Preferred selection

Product ID	Lamp Voltage (V)	Bulb Shape	Cap/ Base	Finish	Avg Lifetime (hrs)	Packaging Type	European Order Code (EOC) 8711500
PAR38 Coloured	230V	PAR38	E27	Blue	2000	1CT	33994220
PAR38 Coloured	240V	PAR38	E27	Blue	2000	1CT	04508997
PAR38 Coloured	230V	PAR38	E27	Yellow	2000	1CT	33996620
PAR38 Coloured	240V	PAR38	E27	Yellow	2000	1CT	04509697
PAR38 Coloured	230V	PAR38	E27	Green	2000	1CT	33998020
PAR38 Coloured	240V	PAR38	E27	Green	2000	1CT	04510297
PAR38 Coloured	230V	PAR38	E27	Red	2000	1CT	34000920
PAR38 Coloured	240V	PAR38	E27	Red	2000	1CT	04511997

# Incandescent Reflector

# Reflector R50



Reflector R50

## Product Description

- Reflector lamps based on advanced spotlighting technology

## Product Features

- Optic gives double reflection of part of the light emitted by the filament
- Beam spread and luminous intensity make these lamps especially suitable wherever space is limited and in small luminaires
- Direct replacement for conventional reflector lamps of all kinds
- Easy fitting and removal thanks to tapered profile

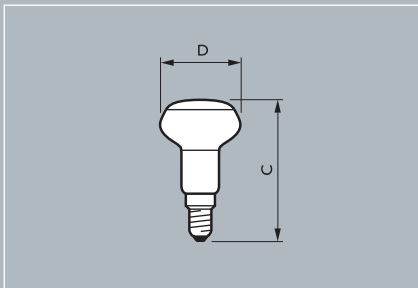
## Product Benefits

- Centre-beam intensities up to 100% higher than with conventional reflector lamps

## Application

- All the benefits of high-performance, high-efficiency spotlighting, simply by replacing conventional reflector lamps with ring mirror lamps of the same size and wattage
- Display lighting in shops, hotels, restaurants and homes

Dimensions in mm



Product ID	C max.	D max.
NR50	85	50

# Incandescent Reflector

## Reflector R50

### Preferred selection

Product ID	Lamp Wattage (W)	Lamp Voltage (V)	Cap/ Base	Bulb Shape	Beam Angle (degrees)	Finish	Luminous Intensity (cd)	Avg Lifetime (hrs)	Operating position	Packaging Type	European Order Code (EOC)
Reflector R50	25W	230V	E14	NR50	30D	Frosted	210	1000	any	1CT	8711500 05412878
Reflector R50	40W	125-130V	E14	NR50	30D	Frosted	400	1000	any	1CT	14985578
Reflector R50	40W	230V	E14	NR50	30D	Frosted	400	1000	any	1CT	05415978
Reflector R50	40W	240V	E14	NR50	30D	Frosted	400	1000	any	1CT	37986378

# Incandescent Reflector

# Reflector R63



Reflector R63

## Product Description

- Reflector lamps based on advanced spotlighting technology

## Product Features

- Optic gives double reflection of part of the light emitted by the filament
- Beam spread and luminous intensity make these lamps especially suitable wherever space is limited and in small luminaires
- Direct replacement for conventional reflector lamps of all kinds
- Easy fitting and removal thanks to tapered profile

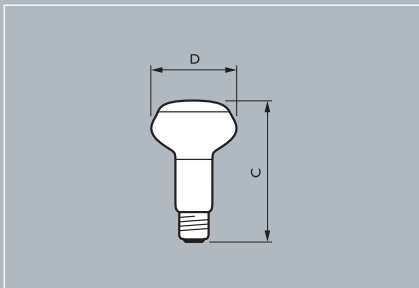
## Product Benefits

- Centre-beam intensities up to 100% higher than with conventional reflector lamps

## Application

- All the benefits of high-performance, high-efficiency spotlighting, simply by replacing conventional reflector lamps with ring mirror lamps of the same size and wattage
- Display lighting in shops, hotels, restaurants and homes

Dimensions in mm



Product ID	C max.	D max.
NR63	103	63

# Incandescent Reflector

# Reflector R63

## Preferred selection

Product ID	Lamp Wattage (W)	Lamp Voltage (V)	Cap/ Base	Bulb Shape	Beam Angle (degrees)	Finish	Luminous Intensity (cd)	Avg Lifetime (hrs)	Operating position	Packaging Type	European Order Code (EOC)
Reflector R63	25W	230V	E27	NR63	30D	Frosted	230	1000	any	1CT	8711500 04356678
Reflector R63	40W	230V	E27	NR63	30D	Frosted	420	1000	any	1CT	04360378
Reflector R63	40W	240V	E27	NR63	30D	Frosted	420	1000	any	1CT	04361078
Reflector R63	60W	125-130V	E27	NR63	30D	Frosted	750	1000	any	1CT	04365878
Reflector R63	60W	230V	E27	NR63	30D	Frosted	750	1000	any	1CT	04366578
Reflector R63	60W	240V	E27	NR63	30D	Frosted	750	1000	any	1CT	37988778



# Incandescent Reflector

# Reflector Colours



NR80 Green

## Product Description

- Externally lacquered reflector lamps in various colours for striking indoor lighting effects

## Product Features

- More concentrated beam with less stray light, providing a high degree of visual comfort
- Significantly improved beam light distribution, with no black spots
- Modern appearance with distinctive flatter-top shape and recessed neck
- Produced with cadmium-free lacquer

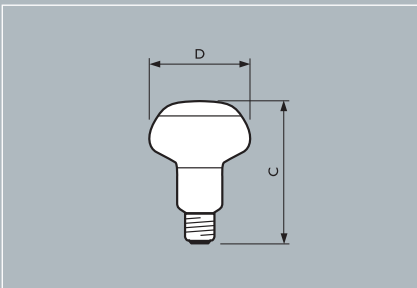
## Product Benefits

- 25% more light in the centre of the beam (NR50 and NR63 versions) than standard coloured reflector lamps
- NR50 and NR63 versions are small lamps producing low illuminance levels for subdued lighting

## Application

- Homes children's bedrooms and in-house bars
- Social areas, bars, night clubs, dance halls, theatres
- Show windows

Dimensions in mm



Product ID	C max.	D max.
NR80 Colours	114	80

# Incandescent Reflector

# Reflector Colours



NR80 Red



NR80 Yellow



NR80 Blue

## Preferred selection

Product ID	Lamp Wattage (W)	Lamp Voltage (V)	Cap/ Base	Bulb Shape	Beam Angle (degrees)	Finish	Luminous Intensity (cd)	Avg Lifetime (hrs)	Operating position	Packaging Type	European Order Code (EOC)
Reflector Colours	60W	230V	E27	NR80	30D	Clear-Green	270	1000	any	1CT	06653415
Reflector Colours	60W	230V	E27	NR80	30D	Clear-Red	100	1000	any	1CT	06654115
Reflector Colours	60W	230V	E27	NR80	30D	Clear-Yellow	450	1000	any	1CT	06655815
Reflector Colours	60W	230V	E27	NR80	30D	Clear-Blue	180	1000	any	1CT	06652715

# HEREN VERZOR



ARJANI

ARJANI

ARJANI

ARJANI

ARJANI

ARJANI

ARJANI

ARJANI

ARJANI



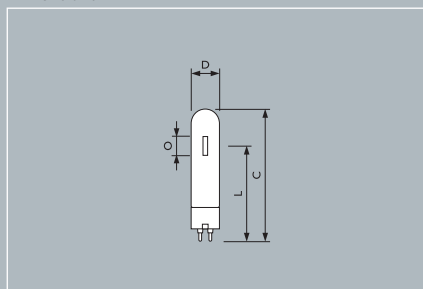
Compact High  
Intensity  
Discharge  
Lamps

# MASTER SDW White SON



SDW-T 100W PG12-1

Dimensions in mm



# MASTER SDW-T White SON

## Product Description

- Range of high-efficiency, discharge lamps with warm colour to be used in open luminaires

## Product Features

- Warm white colour impression, very good colour rendering, especially superb red rendition
- Lamp design is well-suited to be used in luminaires for power-spots (high intensity) and high-bay general lighting

## Product Benefits

- Exceptional brightness and colour rendering especially of warm colours, e.g. red and gold
- High lamp efficacy results in low operating costs and low heat generation
- Long lamp life compared with incandescent and halogen lamps

## Application

- Shop lighting (create cosy atmosphere e.g. in furniture shops), excellent display of fresh goods (at butchers, bakeries, flower-shops) and decorative outdoor lighting (gas-lantern imitation)

## System

- Must be used in combination with a ballast and a special Philips colour control unit (CSLS) to avoid colour shift. Not designed to be used in combination with electronic gear
- A high-current protection device (thermo-switch) in the gear is mandatory (IEC 61167)

Product ID	C	D	L	O
	max.	max.	nom.	nom.
SDW-T 35W	149	32	91	13
SDW-T 50W	149	32	91	16
SDW-T 100W	149	32	91	19

# MASTER SDW White SON

# MASTER SDW-T White SON

## Preferred selection

Product ID	European Order Code (EOC) 8711500	Cap/ Base	Packing configuration	Luminous Flux Lamp EM (lm)	Colour Temperature (K)	Operating position	Colour Rendering Index (Ra)	Lamp Voltage (V)
MASTER SDW-T 35W/825 PG12-1 SLV	734020 15	PG12-1	12	1300	2500	ANY	83	96
MASTER SDW-T 50W/825 PG12-1 SLV	734037 15	PG12-1	12	2300	2500	ANY	83	92
MASTER SDW-T 100W/825 PG12-1 SLV	734044 15	PG12-1	12	5000	2550	ANY	83	98

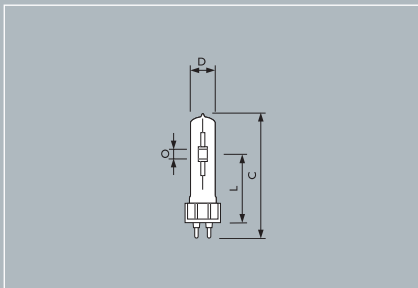
Product ID	Dimmable	Lamp Current EM (A)	Lamp Wattage EM (W)	Recommended ballast	Ignition Peak Voltage	Colour Designation
MASTER SDW-T 35W/825 PG12-1 SLV	No	0.48	33	BSL35L40	5000	Golden White
MASTER SDW-T 50W/825 PG12-1 SLV	No	0.76	53	BSL50L40	5000	Golden White
MASTER SDW-T 100W/825 PG12-1 SLV	No	1.31	97	BSL100L40	5000	Golden White

Product ID	Bulb finish	Luminous Efficacy Lamp EM (lm/W)	Net Weight Product (g)
MASTER SDW-T 35W/825 PG12-1 SLV	Clear	40	53
MASTER SDW-T 50W/825 PG12-1 SLV	Clear	44	53
MASTER SDW-T 100W/825 PG12-1 SLV	Clear	52	53



CDM-T 70W G12

Dimensions in mm



## Product Description

- Range of single-ended, compact, high-efficiency, discharge lamps with a stable colour over lifetime and a crisp, sparkling light

## Product Features

- Warm or cool white colour impression
- Colour rendering good to excellent
- Allows small-size luminaires designs that give high beam intensities

## Product Benefits

- Stable colour impression over lifetime
- High lamp efficacy results in low operating costs and low heat generation
- Long lamp life compared with incandescent and halogen lamps
- Relatively low heat output enhances comfort for shoppers and staff
- All types are UV-Block for reduced fading risks

## Application

- Shops and shop windows, offices and public buildings
- Decorative outdoor: floodlighting and pedestrian areas
- Must be used in closed luminaires with a proper cover (IEC 61167 and 60598)
- Must be used in combination with a ballast and an ignitor, or electrical gear
- A high-current protection device (thermo-switch) in the gear is mandatory (IEC 61167)
- If there is a constant voltage deviation of more than 3% of the rated voltage, a different ballast rating/tap must be used
- Electronic gear can be used, and increases lamp-life, improves system efficacy, and eliminates visible flicker

Product ID	C	D	L	O
	max.	max.	nom.	nom.
CDM-T 35W/830	103	20	56	5
CDM-T 70W/830	103	20	56	7
CDM-T 70W/942	103	20	56	6
CDM-T 150W/830	110	20	56	9
CDM-T 150W/942	110	20	56	8

# MASTER Colour CDM

# MASTER Colour CDM-T

## Preferred selection

Product ID	European Order Code (EOC)	Cap/Base	Packing configuration	Luminous Flux Lamp EM (lm)	Colour Temperature (K)	Operating position	Colour Rendering Index (Ra)
<b>8711500</b>							
MASTER Colour CDM-T 35W/830 G12	19697215	G12	12	3300	3000	ANY	81
MASTER Colour CDM-T 70W/830 G12	19699615	G12	12	6600	3000	ANY	81
MASTER Colour CDM-T 70W/942 G12	19927015	G12	12	6600	4200	ANY	92
MASTER Colour CDM-T 150W/830 G12	19780115	G12	12	14000	3000	ANY	85
MASTER Colour CDM-T 150W/942 G12	20005115	G12	12	12700	4200	ANY	96

	Lamp Voltage (V)	Dimmable	Lamp Current EM (A)	Lamp Wattage EM (W)	Recommended ballast	Net weight per piece (g)	Ignition Supply Voltage min. (V)
MASTER Colour CDM-T 35W/830 G12	88	No	0.53	38	HID-PC035/...	27	198
MASTER Colour CDM-T 70W/830 G12	88	No	0.98	71	HID-PV070/...	29	198
MASTER Colour CDM-T 70W/942 G12	88	No	0.98	72	HID-PC070/...	29	198
MASTER Colour CDM-T 150W/830 G12	96	No	1.80	147	HID-PC150/...	33	198
MASTER Colour CDM-T 150W/942 G12	90	No	1.90	145	HID-PC150/...	33	198

	Ignition Time max. (sec.)	Colour Designation	Bulb finish	Luminous Efficacy Lamp EM (lm/W)	Pinch Temp. max. (°C)
MASTER Colour CDM-T 35W/830 G12	30	Warm White	Clear	87	350
MASTER Colour CDM-T 70W/830 G12	30	Warm White	Clear	93	350
MASTER Colour CDM-T 70W/942 G12	30	Cool White	Clear	92	350
MASTER Colour CDM-T 150W/830 G12	30	Warm White	Clear	95	350
MASTER Colour CDM-T 150W/942 G12	30	Cool White	Clear	88	350





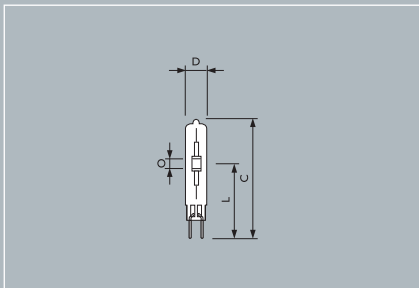
# MASTER Colour CDM

# MASTER Colour CDM-TC



CDM-TC 70W

Dimensions in mm



## Product Description

- Range of single-ended, very compact, high-efficiency, discharge lamps with a stable colour over lifetime and a crisp, sparkling light

## Product Features

- Warm or cool white colour impression with good colour rendering
- Allows very small-size luminaires designs that give high beam intensities

## Product Benefits

- Long lamp life compared with incandescent and halogen lamps
- UV-Block quartz outer bulb for reduced fading risks
- Stable colour impression over lifetime
- High lamp efficacy results in low operating costs and low heat generation (which enhances comfort for shoppers and staff)

## Application

- Accent lighting display lighting with sparkling effect
- General and decorative lighting

## Luminaires

- Must be used in closed luminaires with a proper cover (IEC 61167 and 60598)

## System

- Preferably used with electronic gear, which offers minimum system volume, increases lamp-life, improves system efficacy, and offers flicker-free operation
- A high-current protection device (thermo-switch) in the gear is mandatory (IEC 61167)

Product ID	C max.	D max.	L nom.	O nom.
CDM-TC 35W	85	15	52	5
CDM-TC 70W	85	15	52	7

## Preferred selection

Product ID	European Order Code (EOC) 8711500	Cap/ Base	Packing configuration	Luminous Flux Lamp Electronic (lm)	Colour Temperature (k)	Operating position
MASTER Colour CDM-TC 35W/830 G8.5	20000615	G8.5	12	3300	3000	ANY
MASTER Colour CDM-TC 70W/830 G8.5	20167615	G8.5	12	6400	3000	ANY

Product ID	Colour Rendering Index (Ra)	Lamp Voltage (V)	Lamp Current Electronic (A)	Lamp Wattage Electronic (W)	Dimmable	Recommended ballast per piece	Net weight (g)
MASTER Colour CDM-TC 35W/830 G8.5	81	88	0.53	39	No	HID-PR 035/...	10
MASTER Colour CDM-TC 70W/830 G8.5	83	83	0.98	73	No	HID-PR 070/...	10

Product ID	Ignition Supply Voltage min. (V)	Ignition Time max. (sec.)	Colour Designation	Bulb finish	Luminous Efficacy Lamp Electronic (lm/W)	Pinch Temperature
MASTER Colour CDM-TC 35W/830 G8.5	198	30	Warm White	Clear	87	300
MASTER Colour CDM-TC 70W/830 G8.5	198	30	Warm White	Clear	87	300

# MASTER Colour CDM

## Mini MASTER Colour CDM-Tm



CDM-Tm 20W

### Product Description

- Miniature, single-ended ceramic metal halide lamp
- Crisp, sparkling light for a comfortable atmosphere

### Product Features

- Warm white colour impression
- Good colour rendering
- Easy replacement due to robust twist-lock socket
- Universal burning position

### Product Benefits

- Stable colour impression over lifetime
- High efficacy for low operating costs and low heat generation
- Long life compared with halogen lamps
- Relatively low heat output enhances comfort for shoppers and staff
- Mechanical retrofit in halogen capsule (GY6.35) luminaires (same light centre length). For full retrofit, also gear and lampholder need to be exchanged
- UV Block for reduced fading risk of merchandise

### Application

- Accent and display lighting with a sparkling effect
- Decorative outdoor floodlighting

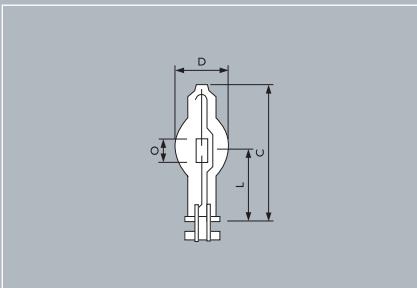
### Luminaires

- Must be used in closed luminaires with a proper cover (IEC 61167 and 60598)

### System

- Must be used in combination with Philips electronic gear

Dimensions in mm



Product ID	C max.	D max.	L nom.	O nom.
CDM-Tm 20W	52	17	22.6	3

# MASTER Colour CDM

# Mini MASTER Colour CDM-Tm

## Preferred selection

Product ID	European Order Code (EOC) 8711500	Cap/Base	Add. Information	Packing configuration	Luminous Flux Lamp Electronic (lm)	Colour Temperature (k)	Operating position
MASTER Colour CDM-Tm 20W/830 Lamp Kit	207661 15		Lamp Kit*	12			
MASTER Colour CDM-Tm 20W/830 PGJ5	207517 15	PGJ5		12	1650	3000	ANY

Product ID	Colour Rendering Index (Ra)	Lamp Voltage (V)	Bulb Temperature max. (° C)	Lamp Current Electronic (A)	Lamp Wattage Electronic (W)	Dimmable	Net weight per piece (g)
MASTER Colour CDM-Tm 20W/830 Lamp Kit							13
MASTER Colour CDM-Tm 20W/830 PGJ5	86	100	350	0.22	22	No	6

Product ID	Ignition Peak Voltage max. (V)	Ignition Time max. (sec.)	Colour Designation	Bulb finish	Luminous Efficacy Lamp Electronic (lm/W)	Pinch Temperature max. (° C)
MASTER Colour CDM-Tm 20W/830 Lamp Kit	1250	30	Warm White			
MASTER Colour CDM-Tm 20W/830 PGJ5	1250	30	Warm White	Clear	75	250

\* lamp kit consists of 12 lamps (MASTER Colour CDM-Tm 20W/830 PGJ5) plus 12 separate lamp holders.



# MASTER Colour CDM

# MASTER Colour CDM-T 250W

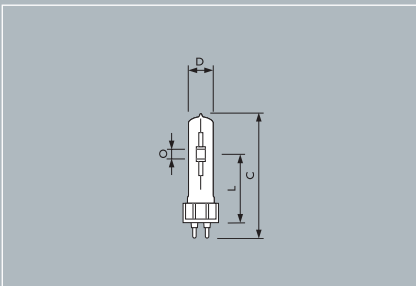


CDM-T 250W



HID PV 250W S

Dimensions in mm



## Product Description

- Compact Medium wattage MASTER Colour lamp.
- Available with Philips Electronic Gear PrimaVision 250W CDM.
- Available with conventional Philips gear system BSN250 L407-ITS along with SND 58 ignitor, capacitor and filter coil.

## Product features

- CDM-T range extension with G12 cap.
- Light output 23 000 lm.
- Operates on electromagnetic and electronic gear.

## Product Benefits

- Extends the MASTER Colour range
  - Natural sparkling colours;
  - lively atmosphere.
- Greater design freedom due to miniaturisation.
- Fulfills new colour rendering recommendations for industrial lighting.

## Applications

- Outdoor lighting of city centres, parks, squares, shopping areas and floodlighting.
- Shops including car showrooms, furniture shops, supermarkets, and white good stores.
- Industrial lighting in manufacturing halls.
- Public spaces such as entrance halls, train platforms, libraries and airports.

## Product ID

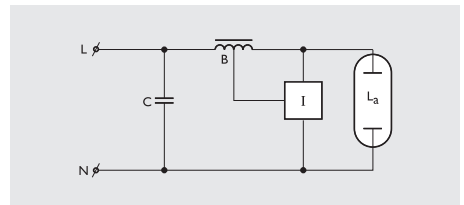
	C	D	L	O
	max	max	nom	nom
CDM-T 250W	131.5	22.5	73	11

# MASTER Colour CDM

# MASTER Colour CDM-T 250W

## Preferred selection

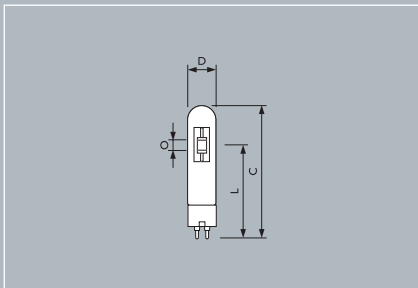
Product ID	European Order Code (EOC) 8711500	Cap/ Base	Packing configuration	Luminous Flux Lamp EM (lm)	Colour Temperature (k)
MASTER Colour CDM-T 250W	20801915	G12	12	23000	3000
Product ID	Operating position	Colour Rendering Index (Ra)	Lamp Voltage (V)	Dimmable	Lamp Current EM (A)
MASTER Colour CDM-T 250W	Universal	89	95	700	3
Product ID	Lamp Wattage EM (W)	Recommended ballast	Net weight per piece (g)	Ignition Supply Voltage min. (V)	Ignition Time max. (sec.)
MASTER Colour CDM-T 250W	245	No	39 (9)	3500	30
Product ID	Colour Designation Lamp EM (lm/W)	Bulb finish	Luminous Efficacy	Pinch Temperature max. (°C)	
MASTER Colour CDM-T 250W	Warm White	Clear	94	350	





CDM-TP PGX12-2

Dimensions in mm



## Product Description

- Range of protected, high-efficiency, discharge lamps with a stable colour over lifetime and a crisp, sparkling light to be used in open luminaires

## Product Features

- Warm or cool white colour impression
- Colour rendering good to excellent
- Lamp design is well-suited to be used in luminaires for power-spots (high intensity) and high-bay general lighting
- Double UV-Block quartz sleeves and a hard-glass outer bulb

## Product Benefits

- High lamp efficacy results in low operating costs and low heat generation
- Stable colour impression over lifetime
- Long lamp life compared with incandescent and halogen lamps
- Relatively low heat output enhances comfort for shoppers and staff
- All types have UV-Block filtering for reduced fading risks

## Application

- Shops and shop windows, offices and public buildings
- Decorative outdoor: floodlighting and pedestrian areas

## Luminaires

- Suitable for use in open luminaires

## System

- Must be used in combination with a ballast and ignitor or electrical gear
- A high-current protection device (thermo-switch) in the gear is mandatory (IEC 61167)
- If there is a constant voltage deviation of more than 3% of the rated voltage, a different ballast rating/tap must be used
- Electronic gear can be used to increase lamp-life, improve system efficacy, and offer flicker-free operation

Product ID	C	D	L	O
	max.	max.	nom.	nom.
CDM-TP 70W/830	149	32	91	7
CDM-TP 70W/942	149	32	91	6
CDM-TP 150W/830	149	32	91	9
CDM-TP 150W/942	149	32	91	8

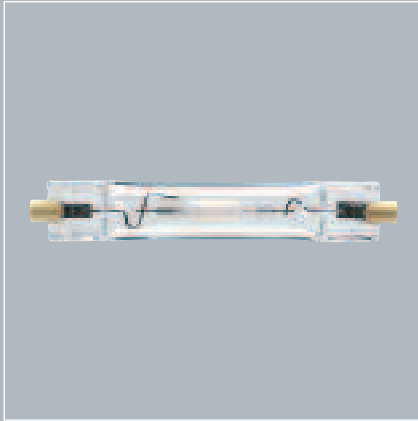
## Preferred selection

Product ID	European Order Code (EOC) 8711500	Cap/Base	Packing configuration	Luminous Flux Lamp EM (lm)	Colour Temperature (k)	Operating position	Colour Rendering Index (Ra)
MASTER Colour CDM-TP 70W/830 PG12-2	20127015	PG12-2	12	6000	3000	ANY	81
MASTER Colour CDM-TP 70W/942 PG12-2	20113315	PG12-2	12	5800	4200	ANY	90
MASTER Colour CDM-TP 150W/830 PGX12-2	20125615	PGX12-2	12	13000	3000	ANY	85
MASTER Colour CDM-TP 150W/942 PGX12-2	20111915	PGX12-2	12	12000	4200	ANY	95

Product ID	Lamp Voltage (V)	Dimmable	Lamp Current EM (A)	Lamp Wattage EM (W)	Recommended ballast	Net weight per piece (g)
MASTER Colour CDM-TP 70W/830 PG12-2	90	No	0.98	73	HID-PV 070/...	73
MASTER Colour CDM-TP 70W/942 PG12-2	90	No	0.98	74	HID-PV 070/...	73
MASTER Colour CDM-TP 150W/830 PGX12-2	98	No	1.80	149	HID-PV 150/...	77
MASTER Colour CDM-TP 150W/942 PGX12-2	96	No	1.80	148	HID-PV 150/...	77

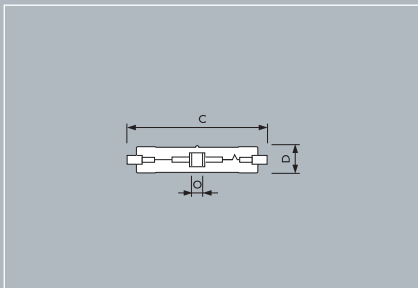
Product ID	Ignition Supply Voltage min. (V)	Ignition Time max. (sec.)	Colour Designation	Bulb finish	Luminous Efficacy Lamp EM (lm/W)
MASTER Colour CDM-TP 70W/830 PG12-2	198	30	Warm White	Clear	82
MASTER Colour CDM-TP 70W/942 PG12-2	198	30	Cool White	Clear	78
MASTER Colour CDM-TP 150W/830 PGX12-2	198	30	Warm White	Clear	87
MASTER Colour CDM-TP 150W/942 PGX12-2	198	30	Cool White	Clear	81





CDM-TD 70W

Dimensions in mm



## Product Description

- Range of double-ended, compact, high-efficiency, discharge lamps with a stable colour over lifetime and a crisp, sparkling light

## Product Features

- Warm or cool white colour impression
- Colour rendering good to excellent
- Retrofit in double-ended luminaires for quartz metal halide lamps (MHN/W-TD), thereby allowing to reduce operating costs and improve colour quality
- Burning position horizontal  $\pm 45^\circ$

## Product Benefits

- Stable colour impression over lifetime
- High lamp efficacy results in low operating costs and low heat generation. Provides better operating costs and improved light quality versus standard quartz metal halide (MHN/W-TD)
- Long lamp life compared with incandescent, halogen and quartz metal halide (MHN/W-TD) lamps
- Relatively low heat output enhances comfort for shoppers and staff
- All types are UV-Block for reduced fading risks

## Application

- Shops and shop windows, offices and public buildings
- Decorative outdoor: floodlighting of facades, statues and monuments

## Luminaires

- Must be used in closed luminaires with a proper cover (IEC 61167 and 60598)

## System

- Must be used in combination with a ballast and ignitor or electronic gear
- A high-current protection device (thermo-switch) in the gear is mandatory (IEC 61167)
- If there is a constant voltage deviation of more than 3% of the rated voltage, a different ballast rating/tap must be used
- Electronic gear can be used, and increases lamp-life, improves system efficacy, and eliminates visible flicker

Product ID	C	D	O
	max.	max.	nom.
CDM-TD 70W/830	119.63	22	8
CDM-TD 70W/942	119.63	22	6.85
CDM-TD 150W	137.43	25	10.00

## Preferred selection

Product ID	European Order Code (EOC) 8711500	Cap/Base	Packing configuration	Luminous Flux Lamp EM (lm)	Colour Temperature (k)	Operating position	Colour Rendering Index (Ra)
MASTER Colour CDM-TD 70W/830	19782515	RX7s	12	6500	3000	P45	82
MASTER Colour CDM-TD 70W/942	20002015	RX7s	12	6000	4200	P45	92
MASTER Colour CDM-TD 150W/830	19784915	RX7s	12	13250	3000	P45	88
MASTER Colour CDM-TD 150W/942	20025915	RX7s	12	14200	4200	P45	96

Product ID	Lamp Voltage (V)	Dimmable	Lamp Current EM (A)	Lamp Wattage EM (W)	Recommended ballast	Net weight per piece (g)	Ignition Supply Voltage min. (V)
MASTER Colour CDM-TD 70W/830	92	No	0.97	71	HID-PV 070/...	21	198
MASTER Colour CDM-TD 70W/942	89	No	0.99	71	HID-PV 070/...	21	198
MASTER Colour CDM-TD 150W/830	96	No	1.80	145	HID-PV 150/...	30	198
MASTER Colour CDM-TD 150W/942	100	No	1.82	149	HID-PV 150/...	30	198

Product ID	Ignition Time max. (sec.)	Colour Designation Lamp EM (lm/W)	Bulb finish	Luminous Efficacy	Pinch Temperature max. (°C)
MASTER Colour CDM-TD 70W/830	30	Warm White	Clear	78	280
MASTER Colour CDM-TD 70W/942	30	Cool White	Clear	72	280
MASTER Colour CDM-TD 150W/830	30	Warm White	Clear	78	300
MASTER Colour CDM-TD 150W/942	30	Cool White	Clear	84	300

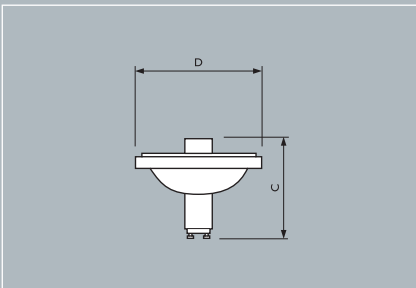
# MASTER Colour CDM

# MASTER Colour CDM-R111



CDM-R111

Dimensions in mm



## Product Description

- The MASTER Colour CDM-R111 combines the trendy look of 111mm aluminium reflector halogen lamps with the long life, high energy efficiency and crisp white light of MASTER Colour CDM

## Product Features

- High lamp efficacy
- Long lamp life time compared to incandescent and halogen lamps
- The ceramic discharge tube is optimally positioned in the reflector
- Twist & Lock system
- UV-Block burner capsule
- Anti-glare cap design

## Product Benefits

- Low operating costs
- Easy installation
- Relatively low heat output
- Less glare, comfort for shoppers and staff
- Reduced fading risks

## Application

- Accent and decorative lighting: display lighting with sparkling, theatrical effects, even in surroundings with very high background ambient light levels like shops windows
- General lighting: in downlighters, a warm, comfortable atmosphere can be created

## Luminaires

- Standard 111mm reflector design increases flexibility in application and allows CDM-R111 to be easily fixed into the many existing 111 luminaires
- Simplified luminaire design because CDM-R111 lamps can be used in open luminaires
- GX8.5 lamp connector used must be suitable for ignition peaks up to 5kV

Product ID	C		D	
	max.	min.		max.
CDM-R111	95	110.4		111

## Preferred selection

Product ID	European Order Code (EOC)	Cap/Base	Packing configuration	Luminous Intensity (cd)	Colour Temperature (K)	Operating position	Net weight per piece (g)
<b>8711500</b>							
MASTER Colour CDM-R111 35W/830 10D 1CT	20448610	GX8.5	6	35000	3000	ANY	96
MASTER Colour CDM-R111 35W/830 24D 1CT	20450910	GX8.5	6	8500	3000	ANY	96
MASTER Colour CDM-R111 35W/830 40D 1CT	20452310	GX8.5	6	4000	3000	ANY	96
MASTER Colour CDM-R111 70W/830 10D 1CT	20719710	GX8.5	6	50000	3000	ANY	96
MASTER Colour CDM-R111 70W/830 24D 1CT	20721010	GX8.5	6	15000	3000	ANY	96
MASTER Colour CDM-R111 70W/830 40D 1CT	20723410	GX8.5	6	9000	3000	ANY	96

Product ID	Colour Rendering Index (Ra)	Lamp Voltage (V)	Lamp Current EM/EL (A)	Lamp Wattage EM/EL (W)	Ignition Time max. (sec.)	Colour Designation	Bulb finish
MASTER Colour CDM-R111 35W/830 10D 1CT	81	88	0.53	38	30	Warm White	Reflector
MASTER Colour CDM-R111 35W/830 24D 1CT	81	88	0.53	38	30	Warm White	Reflector
MASTER Colour CDM-R111 35W/830 40D 1CT	81	88	0.53	38	30	Warm White	Reflector
MASTER Colour CDM-R111 70W/830 10D 1CT	84	83	0.88	73	30	Warm White	Reflector
MASTER Colour CDM-R111 70W/830 24D 1CT	84	83	0.88	73	30	Warm White	Reflector
MASTER Colour CDM-R111 70W/830 40D 1CT	84	83	0.88	73	30	Warm White	Reflector

Product ID	Beam Angle Description	Beam Angle Technical min. (°)
MASTER Colour CDM-R111 35W/830 10D 1CT	Spot	9
MASTER Colour CDM-R111 35W/830 24D 1CT	Narrow Flood	22
MASTER Colour CDM-R111 35W/830 40D 1CT	Flood	36
MASTER Colour CDM-R111 70W/830 10D 1CT	Spot	9
MASTER Colour CDM-R111 70W/830 24D 1CT	Narrow Flood	22
MASTER Colour CDM-R111 70W/830 40D 1CT	Flood	36



# MASTER Colour CDM

# MASTER Colour CDM-R PAR20&30L

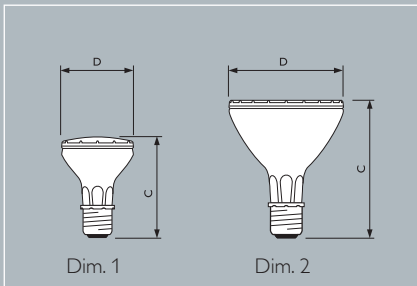


CDM-R PAR20 10D



CDM-R PAR20 30D

Dimensions in mm



## Product Description

- Range of compact, high-efficiency, discharge reflector lamps with a stable colour over lifetime and a crisp, sparkling light

## Product Features

- Warm or cool white colour impression with good colour rendering
- High beam intensities are achieved very easy and efficiently from these compact reflector lamps

## Product Benefits

- High lamp efficacy results in low operating costs and low heat generation
- Long lamp life compared with incandescent and halogen lamps
- Stable colour impression over lifetime
- Unique DESIGN increases flexibility in application and allows powerful accents from small, unobtrusive luminaires
- Simplified luminaire design because CDM-R lamps can be used in open luminaires
- Relatively low heat output enhances comfort for shoppers and staff
- Integrated UV-Block shield reduces fading risks

## Application

- Shops and shop windows, offices and public buildings
- Decorative outdoor: floodlighting and pedestrian areas

## Luminaires

- E27 lampholders used must be suitable for ignition peaks up to 5 kV
- Suitable for use in open luminaires

## System

- Must be used in combination with a ballast and ignitor or electronic gear
- If there is a constant voltage deviation of more than 3% of the rated voltage, a different ballast rating/tap must be used
- A high-current protection device (thermo-switch) in the gear is mandatory (IEC 61167)
- Electronic gear can be used and increases lamp-life, improves system efficacy and eliminates visible flicker
- /942 models can achieve optimal performance only with electronic ballast

Product ID	C nom.	D nom.
CDM-R PAR20	92	64
CDM-R PAR30L	120	95

# MASTER Colour CDM

# MASTER Colour CDM-R PAR20&30L



CDM-R PAR30L 10D



CDM-R PAR30L 30D



CDM-R PAR30L 40D

## Preferred selection

Product ID	European Order Code (EOC) 8711500	Packing configuration	Luminous Intensity (cd)	Colour Temperature (K)	Operating position
MASTER Colour CDM-R 35W/830 E27 PAR20 10D 1CT	19808215	12	23000	3000	ANY
MASTER Colour CDM-R 35W/830 E27 PAR20 30D 1CT	19810515	12	5000	3000	ANY
MASTER Colour CDM-R 35W/830 E27 PAR30L 10D 1CT	19701610	6	44000	3000	ANY
MASTER Colour CDM-R 35W/830 E27 PAR30L 30D 1CT	19703010	6	7400	3000	ANY
MASTER Colour CDM-R 70W/830 E27 PAR30L 10D 1CT	19705410	6	68000	3000	ANY
MASTER Colour CDM-R 70W/830 E27 PAR30L 30D 1CT	20731910	6	13500	3000	ANY
MASTER Colour CDM-R 70W/830 E27 PAR30L 40D 1CT	19707810	6	10000	3000	ANY

Product ID	Colour Rendering Index (Ra)	Lamp Voltage (V)	Lamp Current EM (A)	Lamp Wattage EM (W)	Lamp Wattage Electronic (W)
MASTER Colour CDM-R 35W/830 E27 PAR20 10D 1CT	81	88	0.53	38	39
MASTER Colour CDM-R 35W/830 E27 PAR20 30D 1CT	81	88	0.53	38	39
MASTER Colour CDM-R 35W/830 E27 PAR30L 10D 1CT	81	88	0.53	38	39
MASTER Colour CDM-R 35W/830 E27 PAR30L 30D 1CT	81	88	0.53	38	39
MASTER Colour CDM-R 70W/830 E27 PAR30L 10D 1CT	83	90	0.97	73	73
MASTER Colour CDM-R 70W/830 E27 PAR30L 30D 1CT	83	90	0.97	73	73
MASTER Colour CDM-R 70W/830 E27 PAR30L 40D 1CT	83	90	0.97	73	73

## Preferred selection

Product ID	Dimmable	Re-ignition Time max. (min)	Run-up Time 90% max. (min.)
MASTER Colour CDM-R 35W/830 E27 PAR20 10D 1CT	No	15	3
MASTER Colour CDM-R 35W/830 E27 PAR20 30D 1CT	No	15	3
MASTER Colour CDM-R 35W/830 E27 PAR30L 10D 1CT	No	15	3
MASTER Colour CDM-R 35W/830 E27 PAR30L 30D 1CT	No	15	3
MASTER Colour CDM-R 70W/830 E27 PAR30L 10D 1CT	No	15	3
MASTER Colour CDM-R 70W/830 E27 PAR30L 30D 1CT	No	15	3
MASTER Colour CDM-R 70W/830 E27 PAR30L 40D 1CT	No	15	3

Product ID	Recommended ballast max. (sec.)	Ignition Time	Colour Designation
MASTER Colour CDM-R 35W/830 E27 PAR20 10D 1CT	HID-PV 035/...	30	Warm White
MASTER Colour CDM-R 35W/830 E27 PAR20 30D 1CT	HID-PV 035/...	30	Warm White
MASTER Colour CDM-R 35W/830 E27 PAR30L 10D 1CT	HID-PV 035/...	30	Warm White
MASTER Colour CDM-R 35W/830 E27 PAR30L 30D 1CT	HID-PV 035/...	30	Warm White
MASTER Colour CDM-R 70W/830 E27 PAR30L 10D 1CT	HID-PV 070/...	30	Warm White
MASTER Colour CDM-R 70W/830 E27 PAR30L 30D 1CT	HID-PV 070/...	30	Warm White
MASTER Colour CDM-R 70W/830 E27 PAR30L 40D 1CT	HID-PV 070/...	30	Warm White

Product ID	Bulb shape	Beam Angle Description	Nett Weight Product (g)
MASTER Colour CDM-R 35W/830 E27 PAR20 10D 1CT	PAR20	Spot	121
MASTER Colour CDM-R 35W/830 E27 PAR20 30D 1CT	PAR20	narrow Flood	121
MASTER Colour CDM-R 35W/830 E27 PAR30L 10D 1CT	PAR30L	Spot	225
MASTER Colour CDM-R 35W/830 E27 PAR30L 30D 1CT	PAR30L	narrow Flood	225
MASTER Colour CDM-R 70W/830 E27 PAR30L 10D 1CT	PAR30L	Spot	225
MASTER Colour CDM-R 70W/830 E27 PAR30L 30D 1CT	PAR30L	narrow Flood	225
MASTER Colour CDM-R 70W/830 E27 PAR30L 40D 1CT	PAR30L	Flood	225



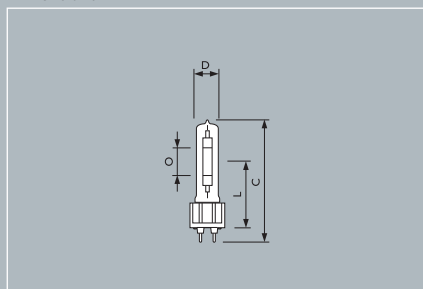


# MASTER SDW White SON



SDW-TG 50W GX12-1

Dimensions in mm



# MASTER SDW-TG Mini White SON

## Product Description

- Range of high-efficiency, discharge lamps with warm colour to be used in small, open luminaires designed around MASTER Colour CDM-T lamps

## Product Features

- Warm white colour impression, very good colour rendering, especially superb red rendition
- Lamp design is well-suited to be used in luminaires for MASTER Colour CDM-T power-spots
- UV-block for reducing fading risks

## Product Benefits

- Exceptional brightness and colour rendering especially of warm colours, e.g. red and gold
- High lamp efficacy results in low operating costs and low heat generation
- Long lamp life compared with incandescent and halogen lamps

## Application

- Shop lighting (create cosy atmosphere e.g. in furniture shops), excellent display of fresh goods (at butchers, bakeries, flower-shops)

## System

- Must be used in combination special Philips electronic gear to avoid colour shift. Not designed to be used in combination with ballast and colour control (CSLS) unit

Product ID	C max.	D max.	L nom.	O nom.
SDW-TG 50W	103	20	56	14
SDW-TG 100W	110	20	56	18

# MASTER SDW White SON

# MASTER SDW-TG Mini White SON

## Preferred selection

Product ID	European Order Code (EOC) 8711500	Cap/ Base	Packing configuration	Luminous Flux Lamp Electronic EM (lm)	Colour Temperature (K)	Operating position
MASTER SDW-TG 50W/825 GX12-1 1CT	20323615	GX12-1	12	2400	2550	ANY
MASTER SDW-TG 100W/825 GX12-1 1CT	20233815	GX12-1	12	4900	2550	ANY

Product ID	Colour Rendering Index (Ra)	Lamp Voltage (V)	Lamp Current Electronic (A)	Lamp Wattage Electronic (W)	Ignition Peak Voltage max. (V)	Ignition Time max. (sec.)	Colour Designation
MASTER SDW-TG 50W/825 GX12-1 1CT	81	85	0.65	54	4000	60	Golden White
MASTER SDW-TG 100W/825 GX12-1 1CT	83	91	1.10	99	4000	60	Golden White

Product ID	Bulb finish	Luminous Efficacy Lamp Electronic (lm/W)	Nett Weight Product (g)	Pinch Temperature max. (°C)
MASTER SDW-TG 50W/825 GX12-1 1CT	Clear	44	28	350
MASTER SDW-TG 100W/825 GX12-1 1CT	Clear	50	35	350

# MHN/W Low Wattage Metal Halide

MHN/W-TD

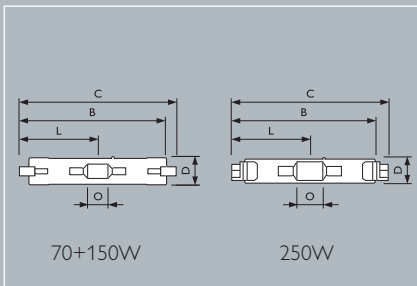


MHW-TD RX7s



MHN-TD FC2

Dimensions in mm



## Product Description

- Double-ended quartz Metal halide discharge lamp

## Product Features

- Available in 3 colours: warm white (3000K), neutral white (4200K) and cool white (5200K), with good colour quality
- No UV output due to UV-block quartz of outer bulb
- Burning position horizontal +/-45°

## Product Benefits

- All types are UV-Block for reduced health and fading risks

## Application

- Indoors - accent lighting, general lighting in downlighters, e.g. in shops and malls
- Downlighters, uplighters and wall-washers, e.g. in shops and malls
- Outdoors - floodlighting monuments, facades and billboards

## Luminaires

- These lamps must be used in a luminaire with a proper cover to (IEC 61167 and 60598)

Product ID	A	C	D	L	O
	max.	max.	max.	nom.	nom.
MHN/W 70W	117.6	119.63	21	57.1	7
MHN/W 150W	135.4	137.43	24	66	18
MHN/W 250W	135.4	161.6	27.5	69.5	27

# MHN/W Low Wattage Metal Halide

MHN/W-TD

## Preferred selection

Product ID	European Order Code (EOC) 8711500	Cap/ Base	Packing configuration	Luminous Flux Lamp Electronic EM (lm)	Colour Temperature (K)	Operating position
MHW-TD 70W/730 RX7s 1CT	20271015	RX7s	12	6200	3000	P45
MHW-TD 70W/842 RX7s 1CT	73398615	RX7s	12	5700	4200	P45
MHW-TD 150W/730 RX7s 1CT	20269715	RX7s	12	13800	3000	P45
MHN-TD 150W/842 RX7s 1CT	73399315	RX7s	12	12900	4200	P45
MHN-TD 150W/852 RX7s 1CT	20915315	RX7s	12	11000	5200	P45
MHN-TD 250W/842 FC2 1CT	73400615	FC2	12	20000	4200	P45

Product ID	Colour Rendering Index (Ra)	Lamp Voltage (V)	Bulb Temperature max. (° C)	Lamp Current Run-up max. (A)	Dimmable	Lamp Current EM (A)
MHW-TD 70W/730 RX7s 1CT	75	90	500	1.35	No	1.0
MHW-TD 70W/842 RX7s 1CT	80	90	500	1.35	No	1.0
MHW-TD 150W/730 RX7s 1CT	80	96	650	2.40	No	1.8
MHN-TD 150W/842 RX7s 1CT	85	98	650	2.40	No	1.8
MHN-TD 150W/852 RX7s 1CT	85	98	650	2.40	No	1.8
MHN-TD 250W/842 FC2 1CT	85	100	650	4.50	No	3.0

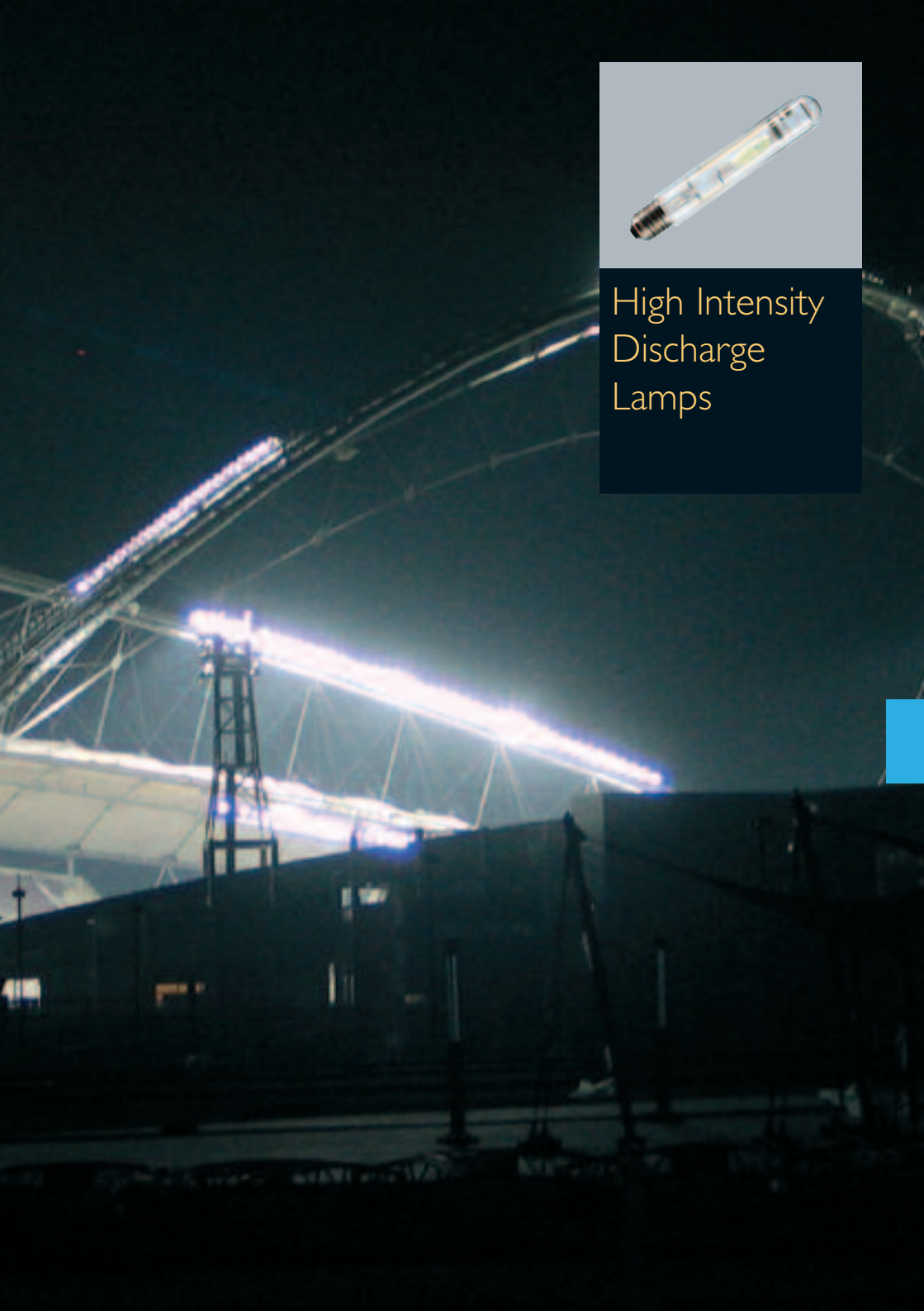
Product ID	Lamp Wattage EM (W)	Recommended ballast	Ignition Peak Voltage max. (V)	Colour Designation
MHW-TD 70W/730 RX7s 1CT	75	HID-PV 070/...	5000	Warm White
MHW-TD 70W/842 RX7s 1CT	75	HID-PV 070/...	5000	Neutral White
MHW-TD 150W/730 RX7s 1CT	150	HID-PV 150/...	5000	Warm White
MHN-TD 150W/842 RX7s 1CT	150	HID-PV 150/...	5000	Neutral White
MHN-TD 150W/852 RX7s 1CT	150	BSN150L30	5000	Cool White
MHN-TD 250W/842 FC2 1CT	252	BSN250L33	3500	Neutral White

Product ID	Bulb finish	Luminous Efficacy Lamp Electronic (lm/W)	Nett Weight Product (g)
MHW-TD 70W/730 RX7s 1CT	Clear	83	22
MHW-TD 70W/842 RX7s 1CT	Clear	76	22
MHW-TD 150W/730 RX7s 1CT	Clear	92	30
MHN-TD 150W/842 RX7s 1CT	Clear	86	30
MHN-TD 150W/852 RX7s 1CT	Clear	73	30
MHN-TD 250W/842 FC2 1CT	Clear	80	61





## High Intensity Discharge Lamps



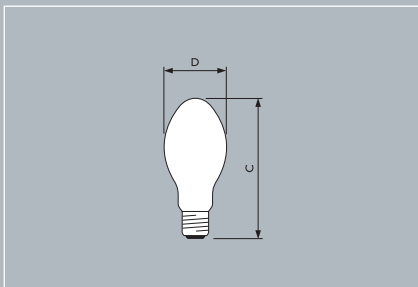


HPL E40



HPL E27

Dimensions in mm



## Product Description

- Standard High Pressure Mercury lamp

## Product Features

- Equipped with 1 electrode to ensure quick and reliable ignition
- Single-ended gas-filled glass bulb (HG-SG) with a quartz mercury vapour discharge tube
- Internally coated ovoid outer bulb, providing a cool, bluish white light with reasonable colour qualities

## Product Benefits

- Good economic solution

## Application

- All outdoor applications, factories, transport sector and industrial area lighting

Product ID	C max.	D max.
HPL-N 50W	129	55
HPL-N 80W	154	70
HPL-N 125W	172	75
HPL-N 250W	227	90
HPL-N 400W	289	121

# High Pressure Mercury

HPL-N

## Preferred selection

Product ID	Order Code	Cap/ Base	Packing configuration	Colour Rendering Index (Ra)	Colour Temperature (K)	Luminous Flux Lamp EM (lm)	Operating position
HPL-N 50W/542	9280 505 07396	E27	24	49	4200	1800	ANY
HPL-N 80W/542	9280 510 07396	E27	24	48	4200	3700	ANY
HPL-N 125W/542	9280 520 07396	E27	24	46	4100	6200	ANY
HPL-N 250W/542	9280 530 07396	E40	12	45	4100	12700	ANY
HPL-N 400W/542	9280 535 07396	E40	6	45	3900	22000	ANY

Product ID	Lamp Voltage (V)	Bulb finish	Lamp Current EM (A)	Luminous Efficacy Lamp EM (lm/W)	Lamp Wattage EM (W)
HPL-N 50W/542	95	Coated	0.61	36.0	50
HPL-N 80W/542	115	Coated	0.80	44.5	84
HPL-N 125W/542	125	Coated	1.15	50.0	125
HPL-N 250W/542	135	Coated	2.10	51.0	250
HPL-N 400W/542	140	Coated	3.25	55.0	400

Product ID	Recommended ballast	Net weight per piece (g)	Colour Designation
HPL-N 50W/542	BHL50L202	45	Cool White
HPL-N 80W/542	BHL80L202	57	Cool White
HPL-N 125W/542	BHL125L202	63	Cool White
HPL-N 250W/542	BHL250L02	184	Cool White
HPL-N 400W/542	BHL400L202	260	Cool White

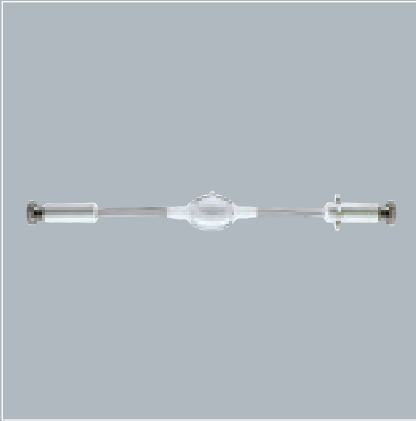
## Operational position



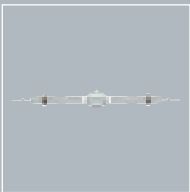
Universal





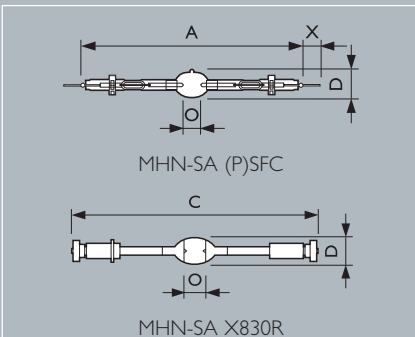


MHN-SA (P)SFC



MHN-SA X830R

Dimensions in mm



## Product Description

- Compact quartz metal halide lamps with double-pinch

## Product Features

- Very compact source (Short Arc) with high luminous efficacy and superior colour rendering
- Double-pinch concept results in long lifetime
- Natural white colour appearance, high colour rendering and good colour stability
- Daylight colour temperature eases transition from daylight to artificial lighting

## Product Benefits

- Allows compact and very efficient luminaire systems with high precision optics for good beam control and minimal spill light
- Very good colour rendering creates a pleasant ambience with high visual comfort for players and spectators
- Continuous spectral distribution offers a superior solution for (semi-) professional stadiums with regular TV coverage

## Application

- Professional sports lighting and floodlighting

## Luminaires

- MHN-SA lamps require UV-absorbing and protective front glass and correct thermal behaviour for optimal lamp performance

Product ID	A	C	D	O	X
	nom.	max.	max.	nom.	nom.
MHN-SA (P)SFC	318		41	25	25
MHN-SA X830R		364	41	25	

## Preferred selection

Product ID	European Order Code (EOC) 8711500	Cap/Base	Packing configuration	Colour Rendering Index (Ra)	Colour Temperature (K)
MASTER MHN-SA 1800W/856 X830R 230V	20268000	X830R	1	85	5600
MASTER MHN-SA 1800W/956 (P)SFC 230V	20075400	(P)SFC	1	90	5600
MASTER MHN-SA 1800W/956 X830R 230V	20106500	X830R	1	90	5600
MASTER MHN-SA 1800W/956 (P)SFC 400V	20076100	(P)SFC	1	90	5600
MASTER MHN-SA 2000W/956 X830R 400V	20079200	X830R	1	90	5600

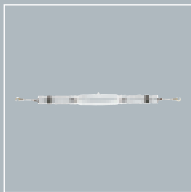
Product ID	Luminous Flux Lamp EM (lm)	Operating position	Mains Voltage (V)	Lamp Voltage (V)	Bulb finish
MASTER MHN-SA 1800W/856 X830R 230V	170000	P15	230	120	Clear
MASTER MHN-SA 1800W/956 (P)SFC 230V	155000	P15	230	120	Clear
MASTER MHN-SA 1800W/956 X830R 230V	155000	P15	230	120	Clear
MASTER MHN-SA 1800W/956 (P)SFC 400V	160000	P15	400	205	Clear
MASTER MHN-SA 2000W/956 X830R 400V	200000	P15	400	205	Clear

Product ID	Bulb Temperature max. (° C)	Pinch Temperature max. (° C)	Lamp Current EM (A)	Luminous Efficacy Lamp EM (lm/W)	Lamp Wattage EM (W)
MASTER MHN-SA 1800W/856 X830R 230V	980	300	17.3	95	1800
MASTER MHN-SA 1800W/956 (P)SFC 230V	980	300	17.3	86	1800
MASTER MHN-SA 1800W/956 X830R 230V	980	300	17.3	86	1800
MASTER MHN-SA 1800W/956 (P)SFC 400V	980	300	10.5	86	1850
MASTER MHN-SA 2000W/956 X830R 400V	980	300	11.3	98	2040

Product ID	Recommended ballast	Ignition Supply Voltage min. (V)	Colour Designation
MASTER MHN-SA 1800W/856 X830R 230V	BMH1800L78	198	Daylight
MASTER MHN-SA 1800W/956 (P)SFC 230V	BMH1800L78	198	Daylight
MASTER MHN-SA 1800W/956 X830R 230V	BMH1800L78	198	Daylight
MASTER MHN-SA 1800W/956 (P)SFC 400V	BHD2000L76	342	Daylight
MASTER MHN-SA 2000W/956 X830R 400V	BHD2000L76	360	Daylight

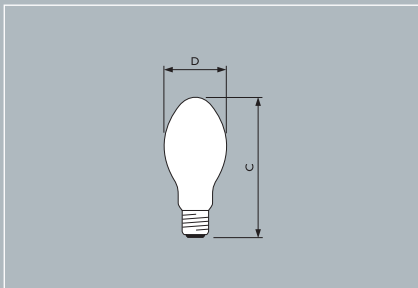


MHN-LA 1000W



MHN-LA 2000W

Dimensions in mm



## Product Description

- Compact quartz metal halide lamps with double-pinch

## Product Features

- Compact source (Long Arc) with high luminous efficacy
- Double-pinch concept results in long lifetime
- Natural white colour appearance, high colour rendering and good colour stability
- Daylight colour temperature eases transition from daylight to artificial lighting

## Product Benefits

- Allows compact and efficient luminaire systems with precision optics for good beam control and minimal spill light
- Good colour rendering creates a pleasant ambience with high visual comfort for players and spectators
- Continuous spectral distribution offers options for semi-professional stadiums and for professional stadiums with regular TV coverage

## Application

- Professional and semi-professional sports lighting and floodlighting

## Luminaires

- MHN-LA lamps require UV-absorbing and protective front glass and correct thermal behaviour for optimal lamp performance

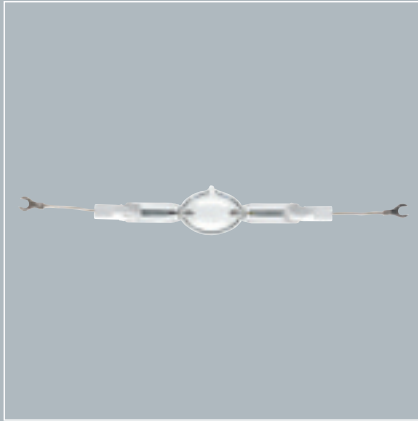
Product ID	A	D	O	X
	nom.	max.	nom.	nom.
MHN-LA 230V	294	40	405	35
MHN-LA 240V	364	40	108	58

## Preferred selection

Product ID	European Order Code (EOC) 8711500	Cap/ Base	Packing configuration	Colour Rendering Index (Ra)	Colour Temperature (K)	Luminous Flux Lamp EM (lm)	Operating position
MASTER MHN-LA 1000W/842 230V	20078500	Cable	1	80	4200	100000	P5
MASTER MHN-LA 1000W/956 230V	20077800	Cable	1	90	5600	90000	P5
MASTER MHN-LA 2000W/842 400V	20074700	Cable	1	80	4200	220000	P5
MASTER MHN-LA 2000W/956 400V	20073000	Cable	1	90	5600	190000	P5

Product ID	Mains Voltage (V)	Lamp Voltage (V)	Bulb finish	Bulb Temperature max. (° C)	Pinch Temperature max. (° C)	Lamp Current EM (A)
MASTER MHN-LA 1000W/842 230V	230	125	Clear	920	350	9.3
MASTER MHN-LA 1000W/956 230V	230	125	Clear	920	350	9.3
MASTER MHN-LA 2000W/842 400V	400	235	Clear	920	350	9.6
MASTER MHN-LA 2000W/956 400V	400	225	Clear	920	350	10.3

Product ID	Luminous Efficacy Lamp EM (lm/W)	Lamp Wattage EM (W)	Recommended ballast	Net weight per piece (g)	Ignition Supply Voltage min. (V)	Colour Designation
MASTER MHN-LA 1000W/842 230V	96.2	1040	BSN1000L78	141	198	Cool White
MASTER MHN-LA 1000W/956 230V	86.5	1040	BSN1000L78	137	198	Daylight
MASTER MHN-LA 2000W/842 400V	108.0	2040	BHD2000L76	172	342	Cool White
MASTER MHN-LA 2000W/956 400V	93.0	2040	BHD2000L76	168	342	Daylight



MHN-SB

## Product Description

- Compact quartz metal halide lamp with single pinch

## Product Features

- Compact source (Short Base lamp dimensions) with short electrode distance and high luminous efficacy
- Single pinch concept with long lifetime
- Natural white colour appearance, good colour rendering and stability
- Daylight colour temperature eases transition from daylight to artificial lighting

## Product Benefits

- Allows compact and efficient luminaire systems with precision optics for good beam control and minimal light spill
- Long lifetime and high reliability in Short Base outer dimensions to minimise service needs and maintenance costs
- Good colour rendering for a pleasant ambience with high visual comfort

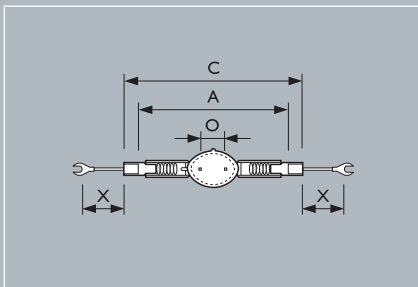
## Application

- Professional and semi-professional sports, area and floodlighting

## Luminaires

- Requires UV-absorbing and protective front glass
- Correct thermal conditions are required for optimal lamp performance

Dimensions in mm



Product ID	A nom.	C max.	D max.	O nom.	X nom.
MHN-SB	157	187	41	25	50

## Preferred selection

Product ID	European Order Code (EOC) 8711500	Cap/ Base	Packing configuration	Colour Rendering Index (Ra)	Colour Temperature (K)	Luminous Flux Lamp EM (lm)	Operating position
MHN-SB Pro 2000W/956 Cable 400V	20673200	Cable	1	90	5600	200000	P15

Product ID	Mains Voltage (V)	Lamp Voltage (V)	Bulb finish	Bulb Temperature max. (° C)	Pinch Temperature max. (° C)	Lamp Current EM (A)
MHN-SB Pro 2000W/956 Cable 400V	400	205	Clear	950	420	11.3

Product ID	Luminous Efficacy Lamp EM (lm/W)	Lamp Wattage EM (W)	Recommended ballast	Net weight per piece (g)	Ignition Supply Voltage min. (V)	Colour Designation
MHN-SB Pro 2000W/956 Cable 400V	98	2040	BHD2000L76	110	360	Daylight





HPI-T

## Product Description

- Quartz metal halide lamps with clear outer bulb

## Product Features

- Clear tubular outer bulb
- Unique 3-band technology resulting in high luminous efficacy, both initially and over long lifetime
- Renders a natural white colour appearance and good colour stability

## Product Benefits

- High safety and comfort level, maintained over life
- Minimal maintenance cost
- Initial investment saving options with "Plus"-concept

## Application

- Sports lighting, floodlighting of buildings and monuments, area lighting e.g. harbours and building sites, canopy lighting e.g. petrol stations, horticultural lighting

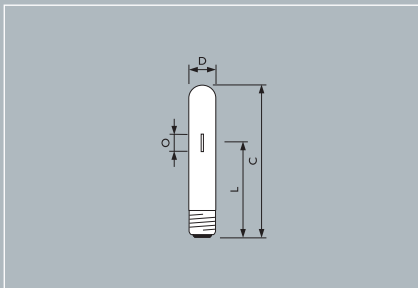
## Luminaires

- HPI-T Plus lamps require a protective front glass

## System

- Can be run on HPI-gear as well as on SON-gear ("Plus"-concept). The results in both light output and colour temperature are different

Dimensions in mm



Product ID	C	D	L	O
	max.	max.	nom.	nom.
HPI-T Plus 250W	257	47	158	29
HPI-T Plus 400W	286	47	172	40

## Preferred selection

Product ID	European Order Code (EOC) 87111500	Cap/ Base	Packing configuration	Colour Rendering Index (Ra)	Colour Temp. (K)	Luminous Flux Lamp EM (lm)	Operating position
MASTER HPI-T Plus 250W/645 E40	17989015	E40	12	65	4500	19000	P20
MASTER HPI-T Plus 250W/645 E40	17989043	E40	77	65	4500	19000	P20

Product ID	Mains Voltage (V)	Lamp Voltage (V)	Bulb finish	Lamp Current EM (A)	Luminous Efficacy Lamp EM (lm/W)	Lamp Wattage EM (W)
MASTER HPI-T Plus 250W/645 E40	198	128	Clear	2.15	76	250
MASTER HPI-T Plus 250W/645 E40	198	128	Clear	2.15	76	250

Product ID	Recommended ballast	Net weight per piece (g)	Ignition Supply Coordinate min. (V)	Colour Designation
MASTER HPI-T Plus 250W/645 E40	BHL250L307	178	198	Cool White
MASTER HPI-T Plus 250W/645 E40	BHL250L307	178	198	Cool White



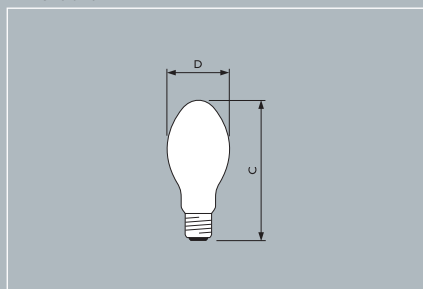
# MH/HPI Metal Halide

# MASTER HPI Plus (Daylight)



HPI

Dimensions in mm



## Product Description

- Quartz metal halide lamps with opalized outer bulb

## Product Features

- Ovoid, internally white coated outer bulb
- Unique 3-band technology resulting in high luminous efficacy, both initially and over long lifetime
- Available in cool white and daylight
- Colour appearance demonstrating good colour stability
- "S"-type for direct retrofit for HPL lamps
- "P"-type for use without protective front shield

## Product Benefits

- High safety and comfort level, maintained over life
- Minimal maintenance cost
- Initial investment saving options with "Plus"-concept and "S" and "P"-types
- Adjustable atmosphere creation by using appropriate colour temperature

## Application

- High bay lighting, e.g. industrial workshops, exhibition halls, hypermarkets, shopping malls, DIY stores, churches, airports and train stations

## Luminaires

- HPI Plus BU-P and BUS-P suitable for use in open luminaires
- For other HPI Plus lamps a protective front glass is required

## System

- Can be run on HPI-gear as well as on SON-gear ("Plus"-concept). The results in both light output and colour temperature are different
- HPI Plus BUS and BUS-P types require an HPL-ballast and no ignitor

Product ID	C	D
	max.	max.
HPI BU/BU-P 250W	262	91
HPI BU/BU-P 400W	284	122
HPI BUS/BUS-P 400W	290	122

# MH/HPI Metal Halide

# MASTER HPI Plus (Daylight)

## Preferred selection

Product ID	European Order Code (EOC) 8711500	Cap/ Base	Packing configuration	Colour Rendering Index (R <sub>a</sub> )	Colour Temp. (K)	Luminous Flux Lamp EM (lm)	Operating position
MASTER HPI Plus 250W/743 BU E40	18114515	E40	12	69	4300	18000	H15
MASTER HPI Plus 250W/767 BU E40	20739515	E40	12	69	6700	18000	H15
MASTER HPI Plus 250W/743 BU-P E40	20206215	E40	12	69	4300	18000	H15
MASTER HPI Plus 400W/743 BU E40	18252410	E40	6	69	4300	32500	H15
MASTER HPI Plus 400W/767 BU E40	20737110	E40	6	69	6700	32500	H15
MASTER HPI Plus 400W/743 BU-P E40	19482410	E40	6	69	4300	32500	H15
MASTER HPI Plus 400W/743 BUS E40	18111410	E40	6	69	4300	32500	H15
MASTER HPI Plus 400W/743 BUS-P E40	19317910	E40	6	69	4300	32500	H15

Product ID	Mains Voltage (V)	Lamp Voltage (V)	Bulb finish	Lamp Current EM (A)	Luminous Efficacy Lamp EM (lm/W)	Lamp Wattage EM (W)
MASTER HPI Plus 250W/743 BU E40	198	128	Coated	2.2	72	253
MASTER HPI Plus 250W/767 BU E40	198	125	Coated	2.2	72	253
MASTER HPI Plus 250W/743 BU-P E40	198	128	Coated	2.2	72	253
MASTER HPI Plus 400W/743 BU E40	198	125	Coated	3.4	82	395
MASTER HPI Plus 400W/767 BU E40	198	125	Coated	3.4	82	395
MASTER HPI Plus 400W/743 BU-P E40	198	125	Coated	3.4	82	395
MASTER HPI Plus 400W/743 BUS E40	198	125	Coated	3.4	82	395
MASTER HPI Plus 400W/743 BUS-P E40	198	125	Coated	3.4	82	395

Product ID	Recommended ballast	Net weight per piece (g)	Ignition Supply Voltage min. (V)	Colour Designation
MASTER HPI Plus 250W/743 BU E40	BHL250 L302 ITS	182	198	Cool White
MASTER HPI Plus 250W/767 BU E40	BHL250 L302 ITS	192	198	Daylight
MASTER HPI Plus 250W/743 BU-P E40	BHL250 L302 ITS	190	198	Cool White
MASTER HPI Plus 400W/743 BU E40	BHL400 L302 ITS	250	198	Cool White
MASTER HPI Plus 400W/767 BU E40	BHL400 L302 ITS	250	198	Daylight
MASTER HPI Plus 400W/743 BU-P E40	BHL400 L302 ITS	260	198	Cool White
MASTER HPI Plus 400W/743 BUS E40	BHL400 L302 IE	247	198	Cool White
MASTER HPI Plus 400W/743 BUS-P E40	BHL400 L302 ITS	240	198	Cool White



MH-T

## Product Description

- Quartz metal halide lamps rendering coloured light

## Product Features

- Single-ended lamp with clear tubular outer bulb
- Available in three colours: blue, green and violet
- Suitable for direct replacement from regular white HPI-T illumination to coloured flood lighting

## Product Benefits

- Brings colourful light on any floodlit object and instant change of atmosphere
- High luminous output in comparison with white metal halide lamps using an additional colour filter
- Eliminates the need for expensive and fragile colour filters

## Application

- Decorative lighting of buildings, landmarks, statues, monuments, parks, resorts and attractions
- Multi-functional lighting for promotional, seasonal and festive purposes, at special events etc.

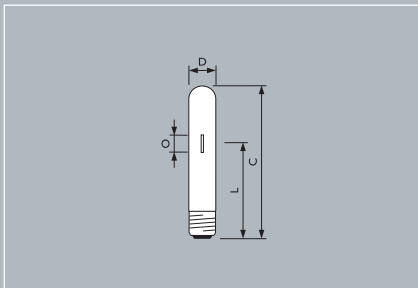
## Luminaires

- Must be used in a closed luminaire

## System

- ArtColour runs on HPI-gear only

Dimensions in mm



Product ID	C	D	L	O
	max.	max.	nom.	nom.
MH-T 400W	282	46	168	44,5

## Preferred selection

Product ID	European Order Code (EOC) 8711500	Cap/ Base	Packing configuration	Luminous Flux lamp EM (lm)	Operation position	Lamp Voltage (V)
Artcolour MH-T Pro 400W Blue E40	20159110	E40	6	10000	P20	120
Artcolour MH-T Pro 400W Green E40	20163810	E40	6	29000	P20	120
Artcolour MH-T Pro 400W Violet E40	20165210	E40	6	10000	P20	120

Product ID	Bulb finish	Lamp Current EM (A)	Lamp Wattage EM (W)	Net weight per piece (g)
Artcolour MH-T Pro 400W Blue E40	Clear	3.4	380	201
Artcolour MH-T Pro 400W Green E40	Clear	3.4	380	201
Artcolour MH-T Pro 400W Violet E40	Clear	3.4	380	209

# MASTER City White

# MASTER City White CDO-ET

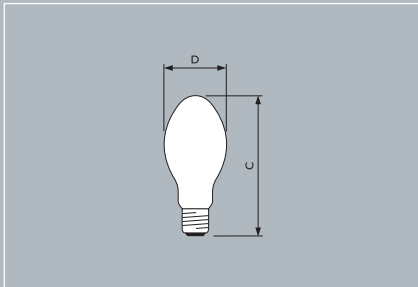


CDO-ET 100W E40



CDO-ET 70W E27

Dimensions in mm



## Product Description

- Ceramic metal halide Outdoor with opalized void outer bulb

## Product Features

- Robust lamp with long lifetime
- Directly retrofit on HPS (SON) installations for upgrade from yellow to white light
- Good colour rendering and harmonized warm white colour temperature

## Product Benefits

- Reduced cost of ownership compared to predecessor MASTER Colour City CDM-ET
- Comfortable warm colour impression with stable colour over lifetime
- Flexible light levels and reduced energy consumption possible via dimming option
- Upgrade for existing HPL installations with gear exchange

## Application

- City centres, shopping centres and pedestrian areas, residential areas, road lighting and floodlighting

## Luminaires

- A closed luminaire is required
- In the highly unlikely event of lamp breakage by incorrect use, vandalism or end of life effects, the housing luminaire should be able to contain heated glass, ceramic and metal particles.

## System

- Must be used with a SON ballast and SON ignitor
- Warm restart time can be up to 15 minutes. T15 ignitors are therefore advised
- Dimming only possible with electronic gear; DynaVision 1-10V
- Achieves optimal performance on Philips PrimaVision electronic gear

Product ID	C	D
	max.	max.
CDO-ET 70W	156	71
CDO-ET 100W	186	75
CDO-ET 150W	230	91

# MASTER City White

# MASTER City White CDO-ET

## Preferred selection

Product ID	European Order Code (EOC) 8711500	Cap/Base	Packing configuration	Colour Rendering Index (R <sub>a</sub> )	Colour Temperature (K)	Luminous Flux Lamp EM (lm)	Operating position
MASTER City White CDO-ET 70W/828	20544530	E27	24	78	2820	5600	ANY
MASTER City White CDO-ET 100W/828	20679430	E40	24	80	2800	8300	ANY
MASTER City White CDO-ET 150W/828	20548315	E40	12	82	2800	12500	ANY

Product ID	Lamp Voltage (V)	Bulb shape	Bulb finish	Lamp Current EM (A)	Lamp Current Run-up max. (A)	Luminous Efficacy Lamp EM (lm/W)	Lamp Wattage EM(W)
MASTER City White CDO-ET 70W/828	87	B70	Coated	0.98	1.96	79	71
MASTER City White CDO-ET 100W/828	90	B75	Coated	1.20		87	95
MASTER City White CDO-ET 150W/828	93	BD90	Coated	1.80	3.00	86	145

Product ID	Net weight per piece (g)	Ignition Supply Voltage min. (V)	Ignition Peak Voltage min. (V)	Colour Designation
MASTER City White CDO-ET 70W/828	52	198	2500	Warm White
MASTER City White CDO-ET 100W/828	128	198	5000	Warm White
MASTER City White CDO-ET 150W/828	160	198	5000	Warm White

# MASTER City White

# MASTER City White CDO-TT

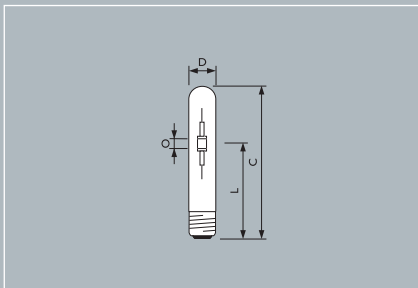


CDO-TT 150W E40



CDO-TT 70W E27

Dimensions in mm



## Product Description

- Ceramic metal halide Outdoor with clear tubular outer bulb

## Product Features

- Robust lamp with long lifetime
- Directly retrofit on HPS (SON) installations for upgrade from yellow to white light
- Good colour rendering and harmonized warm white colour temperature

## Product Benefits

- Reduced cost of ownership compared to predecessor MASTER Colour City CDM-TT
- Comfortable warm colour impression with stable colour over lifetime
- Flexible light levels and reduced energy consumption possible via dimming option
- Upgrade for existing HPL installations with gear exchange

## Application

- City centres, shopping centres and pedestrian areas, residential areas, road lighting and floodlighting

## Luminaires

- A closed luminaire is required
- In the highly unlikely event of lamp breakage by incorrect use, vandalism or end of life effects, the housing luminaire should be able to contain heated glass, ceramic and metal particles.

## System

- Must be used with a SON ballast and SON ignitor
- Warm restart time can be up to 15 minutes. T15 ignitors are therefore advised
- Dimming only possible with electronic gear; DynaVision 1-10V
- Achieves optimal performance on Philips PrimaVision electronic gear

Product ID	C	D	L	O
	max.	max.	nom.	nom.
CDO-TT 70W	156		102	7
CDO-TT 100W	209	46	132	7
CDO-TT 150W	211	47	132	9
CDO-TT 250W	257	47	158	11

# MASTER City White

# MASTER City White CDO-TT

## Preferred selection

Product ID	European Order Code (EOC) 8711500	Cap/ Base	Packing configuration	Colour Rendering Index (R <sub>a</sub> )	Colour Temperature (K)	Luminous Flux Lamp EM (lm)	Operating position
MASTER City White CDO-TT 70W/828	20546915	E27	12	83	2800	6300	ANY
MASTER City White CDO-TT 100W/828	20681715	E40	12	83	2800	8800	ANY
MASTER City White CDO-TT 150W/828	20536015	E40	12	85	2800	13500	ANY
MASTER City White CDO-TT 250W/828	20905415	E40	12	85	2800	22500	ANY

Product ID	Lamp Voltage (V)	Bulb shape	Bulb finish	Lamp Current EM (A)	Luminous Efficacy Lamp EM (lm/W)	Lamp Wattage EM (W)	Net weight per piece (g)
MASTER City White CDO-TT 70W/828	90	T31	Clear	1.0	88	72	47
MASTER City White CDO-TT 100W/828	95	T46	Clear	1.2	91	95	137
MASTER City White CDO-TT 150W/828	100	T46	Clear	1.8	92	147	135
MASTER City White CDO-TT 250W/828	100	T46	Clear	3	90	250	161

Product ID	Ignition Supply Voltage min. (V)	Ignition Peak Voltage min. (V)	Colour Designation
MASTER City White CDO-TT 70W/828	198	2500	Warm White
MASTER City White CDO-TT 100W/828	198	5000	Warm White
MASTER City White CDO-TT 150W/828	198	5000	Warm White
MASTER City White CDO-TT 250W/828	198	5000	Warm White



# SON High Pressure Sodium

# MASTER SON PIA Plus

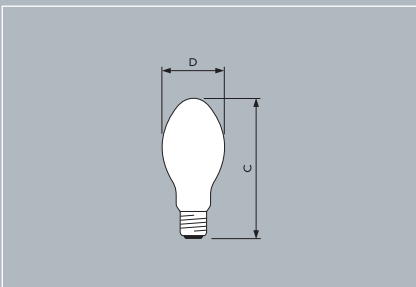


SON PIA Plus E40



SON PIA E27

Dimensions in mm



## Product Description

- High Pressure Sodium lamp with opalized outer bulb, high output and long reliable lifetime

## Product Features

- Ovoid, internally white coated outer bulb
- Ceramic discharge tube with Philips Integrated Antenna (PIA) for a long and reliable lifetime
- Robust construction with few welding points is highly vibration- and shock-resistant, further reducing early failures and extending lamp life
- ZrAl getter ensures high lumen maintenance and few early failures
- "Plus" concept with high efficacy translated into high light output
- Completely lead-free lamps

## Product Benefits

- Superior technology results in a long and reliable lifetime, high lumen maintenance and a reliable ignition over lifetime
- High energy efficacy and absence of lead (Pb) makes this a sound environmental offer
- High luminous efficacy makes this the most energy efficient HPS lamp

## Application

- Road and residential lighting
- Industrial lighting both indoor and outdoor
- Recreational sports facilities Outdoor and Indoor

Product ID	C	D
	max.	max.
SON Plus 70W	152	71
SON Plus 100W	186	76
SON Plus 150/250W	227	91
SON Plus 400W	290	122

# SON High Pressure Sodium

## MASTER SON PIA Plus

### Preferred selection

Product ID	European Order Code (EOC) 8711500	Ignitor kind	Cap/ Base	Packing configuration	Colour Rendering Index (R <sub>a</sub> )	Colour Temperature (K)	Luminous Flux Lamp EM (lm)	Operating position
MASTER SON PIA Plus 70W	20426430	I	E27	24	20	1900	5900	ANY
MASTER SON PIA Plus 100W	18225815	E	E40	12	25	2000	10200	ANY
MASTER SON PIA Plus 150W	18228915	E	E40	12	25	2000	17000	ANY
MASTER SON PIA Plus 250W	19344515	E	E40	12	25	2000	31100	ANY
MASTER SON PIA Plus 400W	19345215	E	E40	12	25	2000	55500	ANY

Product ID	Lamp Voltage (V)	Bulb shape	Bulb finish	Dimmable	Lamp Current EM (A)	Luminous Efficacy Lamp EM (lm/W)
MASTER SON PIA Plus 70W	92	B70	Coated		0.98	82
MASTER SON PIA Plus 100W	100	B75	Coated	Yes	1.20	107
MASTER SON PIA Plus 150W	100	BD90	Coated	Yes	1.80	114
MASTER SON PIA Plus 250W	105	BD90	Coated	Yes	2.85	120
MASTER SON PIA Plus 400W	105	BD120	Coated	Yes	4.50	135

Product ID	Lamp Wattage EM (W)	Recommended ballast	Net weight per piece (g)	System Description	Luminance Average EM (cd/cm <sup>2</sup> )	Ignition Supply Voltage min. (V)
MASTER SON PIA Plus 70W	71.5		55	Internal Ignitor	3	198
MASTER SON PIA Plus 100W	100.0	BSN100L33 TS	95	External ignitor	15	198
MASTER SON PIA Plus 150W	154.0	BSN150L33 TS	180	External ignitor	11	198
MASTER SON PIA Plus 250W	260.0	BSN250L33 TS	180	External ignitor	22	198
MASTER SON PIA Plus 400W	400.0	BSN400L33 TS	228	External ignitor	27	198

# SON High Pressure Sodium

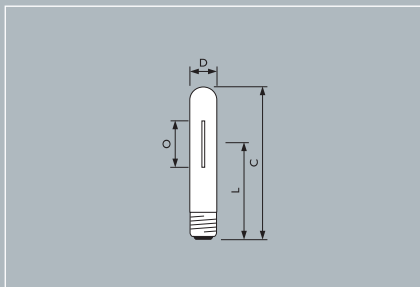


SON-T Plus E40



SON-T Plus E27

Dimensions in mm



# MASTER SON-T PIA Plus

## Product Description

- High Pressure Sodium lamp with clear outer bulb, high output and long reliable lifetime

## Product Features

- Clear tubular outer bulb
- Ceramic discharge tube with Philips Integrated Antenna (PIA) for a long and reliable lifetime
- Robust construction with few welding points is highly vibration- and shock-resistant, further reducing early failures and extending lamp life
- ZrAl getter ensures high lumen maintenance and few early failures
- "Plus" concept with high efficacy translated into high light output
- Completely lead-free lamps

## Product Benefits

- Superior technology results in a long and reliable lifetime, high lumen maintenance and a reliable ignition over lifetime
- High energy efficacy and absence of lead (Pb) makes this a sound environmental offer
- High luminous efficacy makes this the most energy efficient HPS lamp

## Application

- Road and residential lighting
- Decorative floodlighting, illumination
- Industrial area lighting
- Recreational sports facilities Outdoor and Indoor
- Horticultural lighting

Product ID	C	D	L	O
	max.	max.	nom.	nom.
SON-T Plus 50W	156	32	102	35
SON-T Plus 70W	156	32	102	42
SON-T Plus 100W	211	47	132	47
SON-T Plus 150W	211	47	132	61
SON-T Plus 250W	257	47	158	64
SON-T Plus 400W	283	47	175	83
SON-T Plus 600W	283	47	174.2	126

# SON High Pressure Sodium

## MASTER SON-T PIA Plus

### Preferred selection

Product ID	European Order Code (EOC)	Ignitor kind	Cap/ Base	Packing configuration	Colour Rendering Index (Ra)	Colour Temperature (K)	Luminous Flux Lamp EM (lm)	Operating position
MASTER SON-T PIA Plus 50W	19265315	E	E27	SLV	25	2000	4400	ANY
MASTER SON-T PIA Plus 70W	19266015	E	E27	SLV	25	2000	6600	ANY
MASTER SON-T PIA Plus 100W	19230115	E	E40	SLV	25	2000	10700	ANY
MASTER SON-T PIA Plus 150W	19229515	E	E40	SLV	25	2000	17500	ANY
MASTER SON-T PIA Plus 250W	17987615	E	E40	SLV	25	2000	33200	ANY
MASTER SON-T PIA Plus 400W	17988315	E	E40	SLV	25	2000	56500	ANY
MASTER SON-T PIA Plus 600W	19742915	E	E40	SLV	25	2000	90000	ANY

Product ID	Lamp Voltage (V)	Bulb shape	Bulb finish	Dimmable	Lamp. Current EM (A)	Luminous Efficacy Lamp EM (lm/W)
MASTER SON-T PIA Plus 50W	91	T31	Clear	Yes	0.75	88
MASTER SON-T PIA Plus 70W	90	T31	Clear	Yes	1.00	91
MASTER SON-T PIA Plus 100W	100	T46	Clear	Yes	1.20	107
MASTER SON-T PIA Plus 150W	100	T46	Clear	Yes	1.80	110
MASTER SON-T PIA Plus 250W	100	T46	Clear	Yes	3.00	128
MASTER SON-T PIA Plus 400W	100	T46	Clear	Yes	4.50	138
MASTER SON-T PIA Plus 600W	115	T46	Clear	No	5.80	150

Product ID	Lamp Wattage EM (W)	Recommended ballast	Net weight per piece (g)	System Description	Luminance Average EM (cd/cm <sup>2</sup> )
MASTER SON-T PIA Plus 50W	50	BSN50L33 TS	45	External ignitor	310
MASTER SON-T PIA Plus 70W	70	BSN70L33 TS	46	External ignitor	310
MASTER SON-T PIA Plus 100W	100	BSN100L33 TS	128	External ignitor	400
MASTER SON-T PIA Plus 150W	150	BSN150L33 TS	131	External ignitor	340
MASTER SON-T PIA Plus 250W	250	BSN250L33 TS	170	External ignitor	470
MASTER SON-T PIA Plus 400W	400	BSN400L33 TS	190	External ignitor	680
MASTER SON-T PIA Plus 600W	600	BSN600L302 I	177	External ignitor	ST-600-H/S-E40-48/292



# SON High Pressure Sodium

# MASTER SON-T PIA Green Power



SON-T Green Power E40

## Product Description

- High Pressure Sodium lamp with clear outer bulb, high lumen maintenance and optimised micromol output

## Product Features

- Clear tubular outer bulb
- Ceramic discharge tube with Philips Integrated Antenna (PIA) for a long and reliable lifetime
- ZrAl getter ensures high lumen maintenance and few early failures
- "Green Power" concept with optimised micromol output (growth light)
- "Plus" concept with high efficacy translated into high light output

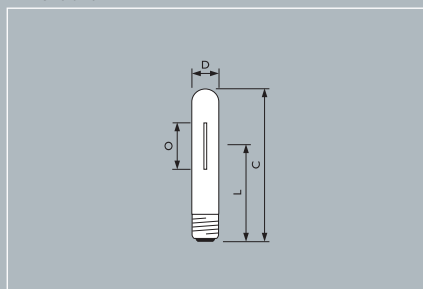
## Product Benefits

- Optimised performance for horticultural applications
- High lumen maintenance safeguards a constant crop quality and quantity over life

## Application

- Horticultural applications, plant irradiation

Dimensions in mm



Product ID	C	D	L	O
	max.	max.	nom.	nom.
SON-T GP 400W	275	46	175	83
SON-T GP 600W	275	46	166	102

# SON High Pressure Sodium

# MASTER SON-T PIA Green Power

## Preferred selection

Product ID	European Order Code (EOC) 87111500	Cap/ Base	Packing configuration	Colour Rendering Index (Ra)	Luminous Flux Lamp EM (lm)	Operating position
MASTER SON-T PIA Green Power 400W E	20196615	E40	12	20	58500	ANY
MASTER SON-T PIA Green Power 600W E	20202415	E40	12	26	88000	ANY

Product ID	Lamp Voltage (V)	Bulb shape	Bulb finish	Lamp. Current EM (A)	Luminous Efficacy Lamp EM (lm/W)
MASTER SON-T PIA Green Power 400W E	113	T46	Clear	4.23	140
MASTER SON-T PIA Green Power 600W E	107	T46	Clear	6.30	147

Product ID	Lamp Wattage EM (W)	Net weight per piece (g)	System Description	Ignition Supply Voltage min. (V)
MASTER SON-T PIA Green Power 400W E	420	180	External ignitor	198
MASTER SON-T PIA Green Power 600W E	605	182	External ignitor	220

# SON High Pressure Sodium

SON



SON E27

## Product Description

- High Pressure Sodium lamp with opalized outer bulb

## Product Features

- Ovoid, internally white coated outer bulb
- High luminous efficacy
- Robust construction is vibration- and shock-resistant leading to a reliable life
- Dimming possible with dedicated gear

## Product Benefits

- SON Pro is a cost-efficient and reliable solution in High Pressure Sodium, offering good value for money

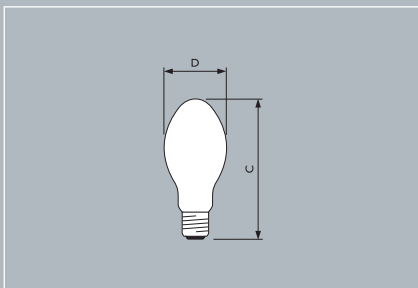
## Application

- Road and residential lighting
- Decorative floodlighting
- Commercial and industrial applications

## System

- Require a ballast and ignitor; except for SON 70W I lamps which have an internal ignitor

Dimensions in mm



Product ID	C max.	D max.
SON 70W	156	71
SON 150W/250W	227	91
SON 400W	290	122

# SON High Pressure Sodium

SON

## Preferred selection

Product ID	Order Code	Ignitor kind	Cap/Base	Packing configuration	Colour Rendering Index (Ra)	Colour Temperature (K)	Luminous Flux Lamp EM (lm)	Operating position
SON 70W	9281 518 08897	E	E27	24	25	2000	5600	ANY
SON 70W	9284 806 00092	I	E27	24	25	2000	5600	ANY
SON 150W	9281 503 09897	E	E40	12	25	2000	14500	ANY
SON 250W	9281 510 09897	E	E40	12	25	2000	27000	ANY
SON 400W	9281 520 09897	E	E40	12	25	2000	48000	ANY

## Preferred selection

Product ID	Lamp Voltage (V)	Bulb shape	Bulb finish	Dimmable	Lamp. Current EM (A)	Luminous Efficacy Lamp EM(lm/W)
SON 70W	90	B70	Coated	Yes	0.98	80
SON 70W	90	B70	Coated	Yes	0.98	80
SON 150W	100	BD90	Coated	Yes	1.80	99
SON 250W	100	BD90	Coated	Yes	3.00	108
SON 400W	105	BD120	Coated	Yes	4.45	120

Product ID	Lamp Wattage EM (W)	Recommended ballast	Net weight per piece (g)	System Description	Luminance Average EM (cd/cm2)	Ignition Supply Voltage min. (V)
SON 70W	70	BSN70L33 TS	52	External ignitor	6.6	198
SON 70W	70	BSN70L33 TS	57	Internal ignitor	6.6	198
SON 150W	147	BSN150L33 TS	180	External ignitor	-	198
SON 250W	250	BSN250L33 TS	175	External ignitor	19.0	198
SON 400W	400	BSN400L33 TS	240	External ignitor	24.0	198



# SON High Pressure Sodium

SON-T

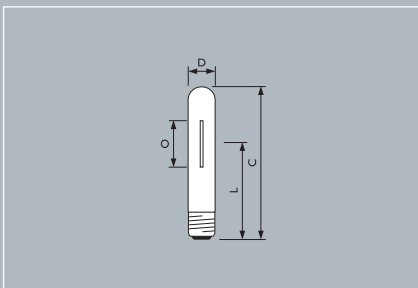


SON-T E40



SON-T E27

Dimensions in mm



## Product Description

- High Pressure Sodium lamp with clear outer bulb

## Product Features

- Clear tubular outer bulb
- High luminous efficacy
- Robust construction is vibration- and shock-resistant leading to a reliable life
- Dimming possible with dedicated gear

## Product Benefits

- SON-T Pro is a cost-efficient and reliable solution in High Pressure Sodium, offering good value for money

## Application

- Road and residential lighting
- Decorative floodlighting
- Commercial and industrial applications
- Recreational sports facilities Outdoor and Indoor

Product ID	C	D	L	O
	max.	max.	nom.	nom.
SON-T 70W	156	37	102	42
SON-T 100W	210	46	132	44
SON-T 150W	211	47	132	61
SON-T 250W	257	47	158	70
SON-T 400W	283	47	175	87
SON-T 1000W	390	66	240	153

# SON High Pressure Sodium

SON-T

## Preferred selection

Product ID	Order Code	Ignitor kind	Cap/ Base	Packing configuration	Colour Rendering Index (Ra)	Colour Temperature (K)	Luminous Flux Lamp EM (lm)	Operating position
SON-T 70W	9281 528 00097	E	E27	12	25	2000	6000	ANY
SON-T 100W	9284 815 00091	E	E40	12	25	2000	9000	ANY
SON-T 150W	9281 504 09297	E	E40	12	25	2000	15000	ANY
SON-T 250W	9281 515 09297	E	E40	12	25	2000	28000	ANY
SON-T 400W	9281 445 09297	E	E40	12	25	2000	45000	ANY
SON-T 1000W	9284 545 09297	E	E40	4	25	2000	130000	ANY

Product ID	Lamp Voltage (V)	Bulb shape	Bulb finish	Dimmable	Lamp. Current EM (A)	Luminous Efficacy Lamp EM (lm/W)
SON-T 70W	90	T31	Clear	Yes	0.98	86
SON-T 100W	100	T46	Clear	-	1.20	90
SON-T 150W	100	T46	Clear	Yes	1.80	100
SON-T 250W	100	T46	Clear	Yes	3.00	112
SON-T 400W	100	T46	Clear	Yes	4.60	120
SON-T 1000W	105	T65	Clear	Yes	10.60	130

Product ID	Lamp Wattage EM (W)	Recommended ballast	Net weight per piece (g)	System Description	Luminance Average EM (cd/cm <sup>2</sup> )
SON-T 70W	70	BSN70L33 TS	45	External ignitor	270
SON-T 100W	100	-	134	External ignitor	-
SON-T 150W	150	BSN150L33 TS	136	External ignitor	300
SON-T 250W	250	BSN250L33 TS	170	External ignitor	400
SON-T 400W	392	BSN400L33 TS	175	External ignitor	550
SON-T 1000W	1000	BSN1000L78	404	External ignitor	650



# SON High Pressure Sodium

SON H Pro

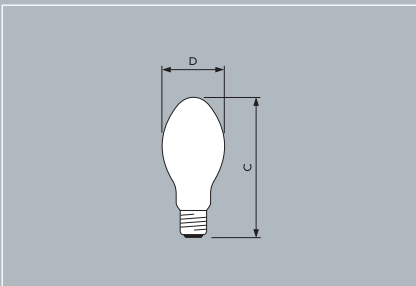


SON H E40



SON H E27

Dimensions in mm



## Product Description

- High Pressure Sodium lamp with opalized outer bulb, high output and long reliable lifetime

## Product Features

- Ovoid, internally white coated outer bulb
- Ceramic discharge tube with Philips Integrated Antenna (PIA) for a long and reliable lifetime
- Robust construction with few welding points is highly vibration- and shock-resistant, further reducing early failures and extending lamp life
- ZrAl getter ensures high lumen maintenance and few early failures
- "Plus" concept with high efficacy translated into high light output
- Completely lead-free lamps

## Product Benefits

- Superior technology results in a long and reliable lifetime, high lumen maintenance and a reliable ignition over lifetime
- High energy efficacy and absence of lead (Pb) makes this a sound environmental offer
- High luminous efficacy makes this the most energy efficient HPS lamp

## Application

- Road and residential lighting
- Industrial lighting both indoor and outdoor
- Recreational sports facilities Outdoor and Indoor

Product ID	C	D
	max.	max.
SON-H 110W	169	71
SON-H 220W	227	91
SON-H 350W	290	122

# SON High Pressure Sodium

SON H Pro

## Preferred selection

Product ID	European Order Code (EOC) 87111500	Cap/ Base	Packing configuration	Colour Rendering Index (Ra)	Colour Temperature (K)	Luminous Flux Lamp EM (lm)	Operating position
SON H Pro 110W	20186730	E27	24	25	2000	10400	ANY
SON H Pro 220W	18207415	E40	12	25	2000	20000	ANY
SON H Pro 350W	18213515	E40	12	25	2000	34000	ANY

Product ID	Lamp Voltage (V)	Bulb shape	Bulb finish	Dimmable	Lamp. Current EM (A)	Luminous Efficacy Lamp EM (lm/W)
SON H Pro 110W	117	B70	Coated	No	1.22	92
SON H Pro 220W	120	BD90	Coated	No	2.20	91
SON H Pro 350W	117	BD120	Coated	No	3.60	97

Product ID	Lamp Wattage EM (W)	Recommended ballast	Net weight per piece (g)	Luminance Average EM (cd/cm2)
SON H Pro 110W	113	BHL125L202	60	-
SON H Pro 220W	220	BHL250L202	170	15
SON H Pro 350W	350	BHL350L202	236	18

# SOX Low Pressure Sodium

SOX Pro



SOX

## Product Description

- Low Pressure Sodium lamp

## Product Features

- Uniform sodium distribution in the discharge tube by means of dimples for a more stable discharge, higher efficacy and better lumen maintenance and lamp life
- Monochromatic yellow colour with non-existent colour rendering

## Product Benefits

- High luminous efficacy leads to low energy consumption

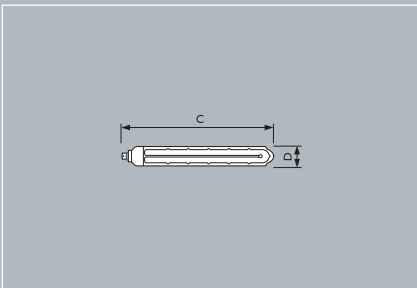
## Application

- Road lighting, railway marshalling yards and crossings, airports, harbours and docks, quarries, foundries and rolling mills
- Security and orientation lighting

## System

- On HF electronic gear SOX have even higher efficacy, saving up to 40% (system) energy

Dimensions in mm



Product ID	C	D
	max.	max.
SOX 35W	311	52
SOX 55W	425	52
SOX 90W	528	66
SOX 135W	775	66
SOX 180W	1120	66

# SOX Low Pressure Sodium

SOX Pro

## Preferred selection

Product ID	European Order Code (EOC) 87111500	Cap/ Base	Packing configuration	Luminous Flux Lamp EM (lm)	Operating position	Lamp Voltage (V)	Lamp Current (A)	Bulb shape
SOX Pro 35W	17973915	BY22d	12	4550	H110	70	0.60	T50
SOX Pro 55W	17975315	BY22d	12	7800	H110	109	0.59	T50
SOX Pro 90W	17977715	BY22d	12	14300	P20	112	0.92	T50
SOX Pro 135W	17979115	BY22d	12	22600	P20	164	0.95	T65
SOX Pro 180W	17981437	BY22d	9	32000	P20	240	0.91	T65

Product ID	Dimmable	Luminous Efficacy Lamp EM (lm/W)	Lamp Wattage EM (W)	Recommended ballast	Net weight per piece (g)	Luminance Average EM (cd/cm <sup>2</sup> )
SOX Pro 35W	No	123	38	BSX35L40	216	9
SOX Pro 55W	No	140	56	BSX55H26	300	9
SOX Pro 90W	No	154	91	BSX90H26	483	9
SOX Pro 135W	No	167	135	BSX135H96	708	9
SOX Pro 180W	No	176	180	BSX180H96	1033	9

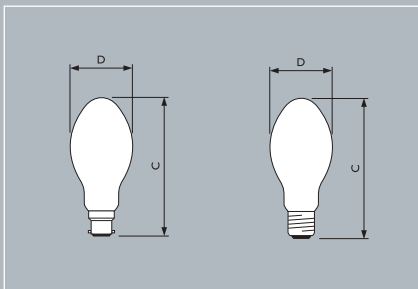


ML E27



ML B22

Dimensions in mm



ML B22

ML E27/E40

## Product Description

- Mixed Light lamps

## Product Features

- High-pressure mercury tube in series with a tungsten filament
- Runs on mains voltage without additional gear
- Combines a continuous spectrum from the incandescent source and a line spectrum from the high-pressure mercury source

## Product Benefits

- Direct retrofit for incandescent lamps
- Higher efficacy and lifetime than incandescent

## Application

- Public outdoor lighting, car parks, workshops, garages and shops

## Luminaires

- It is recommended to protect ML against water splashes
- ML lamps are not dimmable

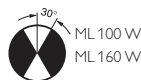
Product ID	C max.	D max.
160W B22	165	75
100W E27	154	70
160W E27	172	75
250W E27	216	90
250W E40	226	90
500W E40	289	120

## Preferred selection

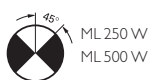
Product ID	Order Code	lamp Base	Packaging Configuration	Soft Glass/ Hard glass	Colour Rendering Index (Ra)	Colour Temperatur (K)	Luminous flux lamp EM (lm)
ML100W	9280 900 57296	E27	24	SG	72	3300	1100
ML160W	9286 010 11401	B22	24	SG	65	3600	3150
ML160W	9286 010 08988	E27	24	SG	65	3600	3150
ML250W	9280 960 56898	E27	12	SG	65	3400	5400
ML250W	9280 962 57296	E40	12	HG	65	3400	5400
ML250W	9286 010 09288	E40	12	SG	65	3400	5400
ML500W	9280 970 57796	E40	6	HG	48	3700	13000
ML500W	9280 970 56897	E40	6	HG	48	3700	13000

Product ID	Voltage	Bulb Finish	Lamp Current EM (A)	Luminous Efficacy lamp EM (Lm/W)	Net weight per piece (g)	Ignition Supply Voltage min. (V)
ML100W	220-230V	coated	0.46	10.5	52	180
ML160W	220-230V	coated	0.76	19	64	180
ML160W	220-230V	coated	0.76	19	61	180
ML250W	225-235V	coated	1.2	21	184	180
ML250W	220-230V	coated	1.2	21	184	180
ML250W	220-230V	coated	1.2	21	184	180
ML500W	220-230V	coated	2.3	26	230	180
ML500W	225-235V	coated	2.3	26	230	180

## Operational position



Burning positions



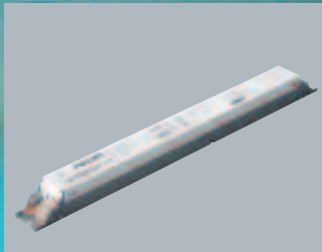
Burning positions



Universal







## Lamp Control Gear

# Electronic ignitors for HID lamp circuits



SN 57/58, SI 51/52



SN 56/59, SI 54



SU 405

## Definition

Electronic ignitors for (ceramic discharge) metal halide, low-pressure and high-pressure sodium lamps.

## Description

- Impulser (semi-parallel), superimposed pulse (series) and parallel versions available
- Ignitors ensure reliable and smooth starting behaviour
- Ignitors standard equipped with screw terminal blocks
- Compact dimensions and light in weight
- Simple screw or click-fit mounting, or stud mounting for rapid assembly.

## Applications

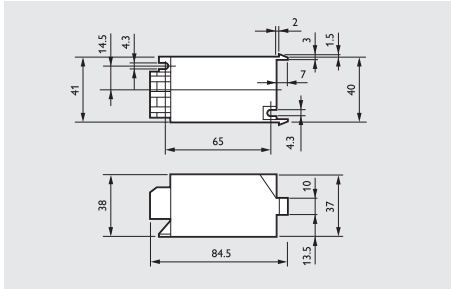
The applications will be similar to those of the related lamps and ballasts.

## Compliances and approvals

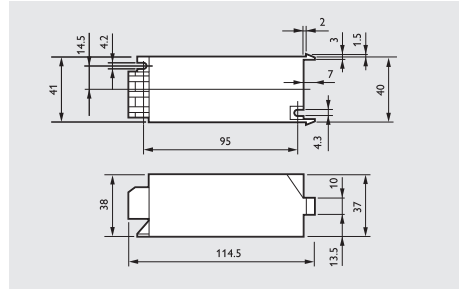
- RFI EN 55015
- Harmonics EN 61000-3-2
- Safety EN 60926
- Performance EN 60927
- Quality standard ISO 9001
- Environmental standard ISO 14001
- Approval marks ENEC
- CE Marking.

# Electronic ignitors for HID lamp circuits

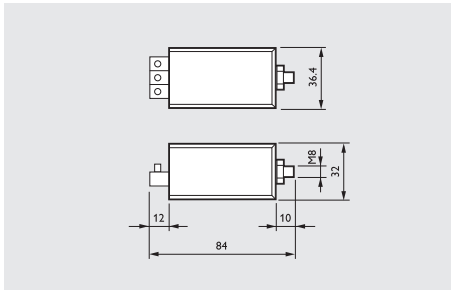
Dimensions in mm



SN 57/58, SI 51/52



SN 56/59, SI 54



SU 40S

## Specification

Product ID	For lamp	Mains		Peak voltage	Max lamp current			Losses time	Switch-off Max. load. capac.* typ. value	Pulse per cycle	European Order Code (EOC)
		Volt V	Freq. Hz		kV	A	W				
<b>Semi-parallel (Impulser) IMP</b>											
SN 56	MHN/SON	220/230/240	50/60	2.8-5.0	-	1.0	-	4..10nF	2	915603	
SN 57	SON	220/230/240	50/60	1.8-2.8	-	0.2	-	0..4nF	2	915559	
SN 58	SON/HPA	220/230/240	50/60	2.8-5.0	-	0.2	-	0..2nF	2	915566	
SN 59	SON/MHN	220/230/240	50/60	2.8-5.0	-	1.0	-	0..2nF	2	915573	
<b>Superimposed pulse (Series) SIP</b>											
SU 40S	SON/MH	220/230/240	50/60	4.0-5.0	4.6	<3.0	-	20..100 pF	? 6	537911	
<b>Parallel PAR</b>											
SI 51	HPI	220/230/240	50/60	0.56-0.75	-	<1.0	-	150 nF	1	915535	
SI 52	HPI	220/230/240	50/60	0.56-0.75	-	<1.0	-	35 nF	1	915542	
SI 54	HPI	380/400/415	50/60	0.9-1.5	-	<2.0	-	120 nF	1	915481	

\*For maximum load capacity of the combination ballast/ignitor, please consult the relevant ballast data.

# Electronic regulating ballasts for TL-D

## HF-REGULATOR II



HF-REGULATOR II

### Definition

Flat, lightweight high-frequency electronic regulating ballast for TL-D fluorescent lamps.

### Description

- The lamp power can be regulated down to 1%
- Striation-free operation
- 1-10 V control input (European standard)
- Programmed start: flicker-free warm start, ideal for areas with a high switching frequency
- Up to 50% longer lamp life than with conventional ballasts
- Up to 60% reduction in energy consumption can be achieved by using automatic lighting control systems.

### Applications

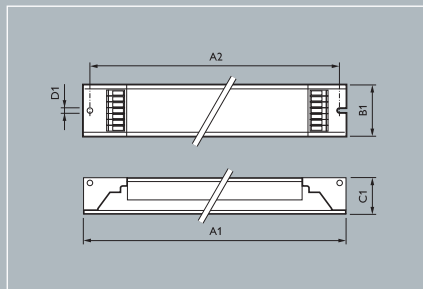
Typical areas of application include:

- 1-10 V installations with daylight linking and/or movement detection (energy saving)
- 1-10 V installations with remote control systems (comfort)
- Installations with emergency back-up, according to VDE 0108

### Examples:

- Office buildings: insurance companies, banks, government ministries
- Corridors
- Department stores, shops, supermarkets
- Hotels
- Hospitals
- Cinemas.

Dimensions in mm



HF-REGULATOR II

	A1	A2	B1	C1	D1
1 Lamp	360	350	30	21	4.2
2 Lamp	360	350	30	21	4.2

# Electronic regulating ballasts for TL-D


## HF-REGULATOR II

### Philips quality

This implies optimum quality with respect to:

- System supplier  
As manufacturer of lamps, electronic control gear and lighting control equipment, Philips ensures that, from the earliest development stage, optimum performance is maintained
- International standards  
Philips HF electronic regulating ballasts comply with all relevant international rules and regulations.

### Compliances and approvals

- RFI < 30 MHz: EN 55015
- RFI > 30 MHz: EN 55022 A
- Harmonics: EN 61000-3-2
- Immunity: EN 61547
- Safety: EN 61347-2-3
- Performance: EN 60929
- Vibration & bump tests: IEC 68-2-6 FC  
IEC 68-2-29Eb
- Quality standard: ISO 9000-2000
- Environmental standard: ISO 14001
- Approval marks: ENEC
- CE marking.
- Temperature declared thermally protected: IEC 61347-1 

### Ordering and packing data

Ballast	1 piece		Bulk packing					EAN code	European Order Code (EOC)
	EAN code	Weight	Qty.	Dimensions	Volume	Weight gross			
		kg	pcs	l x w x h cm	m <sup>3</sup>	kg			
HF-R 136 TLD II	8711500 910134	0.27	12	40.8 x 20 x 7.6	0.0065	3.4	8711500 910141	91013430	
HF-R 236 TLD II	8711500 910158	0.30	12	40.8 x 20 x 7.6	0.0065	3.9	8711500 910165	91015830	
HF-R 158 TLD II	8711500 910172	0.27	12	40.8 x 20 x 7.6	0.0065	3.4	8711500 910189	91017230	
HF-R 258 TLD II	8711500 910196	0.31	12	40.8 x 20 x 7.6	0.0065	4.0	8711500 910202	91019630	

# Electronic regulating ballasts for TL-D

# HF REGULATOR



HF REGULATOR

## Definition

Compact, lightweight high-frequency electronic regulating ballast for TL-D fluorescent lamps.

## Description

- The lamp power can be regulated down to 3%
- Striation-free operation
- 1-10 V control input (European standard)
- Programmed start: flicker-free warm start, ideal for areas with a high switching frequency
- Up to 50% longer lamp life than with conventional ballasts
- Up to 60% reduction in energy consumption can be achieved by using automatic lighting control systems.

## Applications

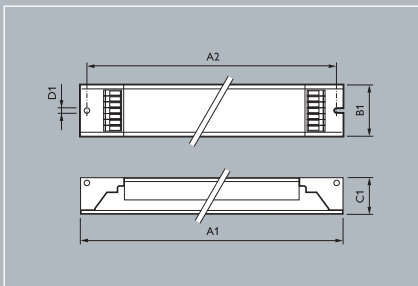
Typical areas of application include:

- 1-10 V installations with daylight linking and/or movement detection (energy saving)
- 1-10 V installations with remote control systems (comfort)
- Installations with emergency back-up, according to VDE 0108

## Examples:

- Office buildings: insurance companies, banks, government ministries
- Corridors
- Department stores, shops, supermarkets
- Hotels
- Hospitals
- Cinemas.

Dimensions in mm



HF REGULATOR

	A1	A2	B1	C1	D1
1 Lamp	335	325	39	28	4.2
2 Lamp	425	415	39	28	4.2
3/4 Lamp	425	415	39	28	4.2

# Electronic regulating ballasts for TL-D

## HF REGULATOR

### Philips quality

This implies optimum quality with respect to:

- System supplier  
As manufacturer of lamps, electronic control gear and lighting control equipment, Philips ensures that, from the earliest development stage, optimum performance is maintained
- International standards  
Philips HF electronic regulating ballasts comply with all relevant international rules and regulations.

### Compliances and approvals

- RFI < 30 MHz: EN 55015
- RFI > 30 MHz: EN 55022 A
- Harmonics: EN 61000-3-2
- Immunity: EN 61547
- Safety: EN 61347-2-3
- Performance: EN 60929
- Vibration & bump tests: IEC 68-2-6 FC  
IEC 68-2-29Eb  
ISO 9000-2000
- Quality standard: ISO 9000-2000
- Environmental standard: ISO 14001
- Approval marks: ENEC
- CE marking.

### Ordering and packing data

Ballast	1 piece		Bulk packing					EAN code	European Order Code (EOC)
	EAN code	Weight	Qty.	Dimensions l x w x h cm	Volume m <sup>3</sup>	Weight gross kg			
HF-R 118 TL-D	8711500 739681	0.35	10	38 x 21 x 8	0.006	3.7	8711500 739698	73968130	
HF-R 218 TL-D	8711500 740045	0.49	10	48 x 23 x 8	0.009	5.3	8711500 740052	74004530	
HF-R 3/418 TL-D	8711500 747457	0.50	10	48 x 23 x 8	0.009	5.3	8711500 747464	74745730	



# Electronic standard ballasts for TL-D

# HF PERFORMER TLD II



HF PERFORMER TLD II

## Definition

Slim, lightweight high-frequency electronic ballast for TL-D fluorescent lamps.

## Description

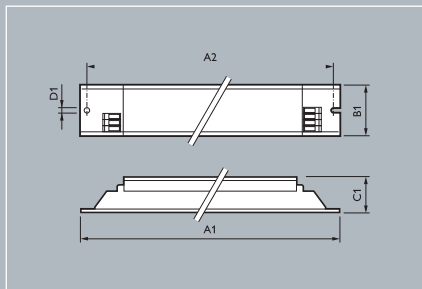
- Programmed start: warm start circuit preheating the lamp electrodes; this enables the lamps to be switched on and off without reducing useful life
- Up to 50% longer lamp life than with conventional ballasts
- Up to 25% reduction in energy consumption at constant luminous flux compared with conventional gear
- Smart power: constant light independent of mains voltage fluctuations
- Unit is protected against excessive mains voltages and incorrect connections
- Automatic stop circuit is activated within five seconds in case of lamp failure (safety stop); once the lamp has been replaced, the ballast resets automatically.
- Equipped with terminations suitable for automatic wiring machines
- Most energy-efficient ballast on the market

## Applications

Typical areas of application include:

- Department stores, shops, supermarkets
- Suitable for use with infrared remote control systems
- Airports, railway stations
- Outdoor lighting
- Office buildings, for example, insurance companies, banks, government ministries
- Hospitals
- Hotels
- Industrial premises
- Emergency installations with VDE 0108 with re-ignition < 0.5 s

Dimensions in mm



HF PERFORMER TLD II

	A1	A2	B1	C1	D1
HF-P 118/136/158/170 TL-D EII	280	265	30	28	4.2
HF-P 218/236/258/270 TL-D EII	280	265	30	28	4.2
HF-P 3/418 TL-D EII	280	265	39	28	4.2

# Electronic standard ballasts for TL-D


HF PERFORMER  
TLD II

## Philips quality

This implies optimum quality regarding:

- System supplier  
As manufacturers of lamps and electronic control gear, Philips ensures that, from the earliest development stage, optimum lamp/ballast performance is maintained
- International standards  
Philips HF electronic ballasts comply with all relevant international rules and regulations.

## Compliances and approvals

- RFI < 30 MHz EN 55015
- RFI > 30 MHz EN 55022
- Harmonics EN 61000-3-2
- Immunity EN 61547
- Safety EN 61347-2-3
- Performance EN 60929
- Vibration & bump tests IEC 68-2-6 FC  
IEC 68-2-29 Eb
- Quality standard ISO 9000-2000
- Environmental standard ISO 14001
- Approval marks ENEC  
VDE-EMV
- CE marking.
- Temperature declared thermally protected: IEC 61347-1 

## Ordering and packing data

Ballast	1 piece		Bulk packing					EAN code	European Order Code (EOC)
	EAN code	Weight	Qty.	Dimensions l x w x h cm	Volume m <sup>3</sup>	Weight gross kg			
HF-P 118 TL-D EII	8711500934086	0.22	12	32.8 × 20.6 × 8.7	0.006	2.9	8711500934093	93408630	
HF-P 218 TL-D EII	8711500934130	0.25	12	32.8 × 20.6 × 8.7	0.006	3.2	8711500934154	93413030	
HF-P 3/418 TL-D EII	8711500931641	0.29	10	32.8 × 22.1 × 8.7	0.006	3.1	8711500931658	93164130	
HF-P 136 TL-D EII	8711500931467	0.23	12	32.8 × 20.6 × 8.7	0.006	3.0	8711500931474	93146730	
HF-P 236 TL-D EII	8711500931504	0.23	12	32.8 × 20.6 × 8.7	0.006	3.0	8711500931511	93150430	
HF-P 158 TL-D EII	8711500931481	0.25	12	32.8 × 20.6 × 8.7	0.006	3.2	8711500931498	93148130	
HF-P 258 TL-D EII	8711500931528	0.25	12	32.8 × 20.6 × 8.7	0.006	3.3	8711500931535	93152830	

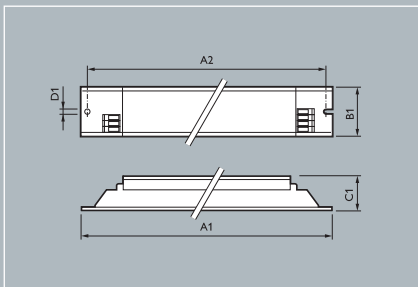
# Electronic standard ballasts for TL-D

## HF-BASIC II



HF-BASIC II

Dimensions in mm



HF-BASIC II

### Definition

Compact, lightweight, high-frequency electronic standard ballasts for TL-D and PL-L fluorescent lamps, for applications with low switching frequency.

### Description

- Flicker-free instant start, ideal for areas with low switching frequency (maximum 3 times a day)
- Up to 25% reduction in energy consumption at equal luminous flux compared with conventional gear
- Smart power: constant light independent of mains voltage fluctuations.

### Applications

Typical areas of application include:

- Department stores, shops, supermarkets with long lamp burning hours
- Industrial premises with long lamp burning hours
- Airports, railway stations
- Offices with low switching frequency
- Corridors with low switching frequency
- Outdoor lighting; in general suitable for class I applications
- Suitable for installations with emergency back-up, according to VDE 0108, with re-ignition <0.5s

### Philips quality

This implies optimum quality regarding:


- System supplier  
As manufacturers of lamps and electronic control gear, Philips ensures that, from the earliest development stage, optimum lamp/ballast performance is maintained
- International standards  
Philips HF electronic ballasts comply with all relevant international rules and regulations.

	A1	A2	B1	C1	D1
HF-B 136 TL-D/PL-L EII	280	265	30	28	4.2
HF-B 236 TL-D/PL-L EII	280	265	30	28	4.2
HF-B 158 TL-D/PL-L EII	280	265	30	28	4.2
HF-B 258 TL-D/PL-L EII	280	265	30	28	4.2

# Electronic standard ballasts for TL-D

HF-BASIC II

## Compliances and approvals

- RFI < 30 Mhz: EN 55015
- RFI > 30 Mhz: EN 55022 A
- Harmonics: EN 61000-3-2
- Immunity: EN 61547
- Safety: EN 61347-2-3
- Performance: EN 60929
- Vibration & bump tests: IEC 68-2-6 FC  
IEC 68-2-29 Eb
- Quality standard: ISO 9000-2000
- Environmental standard: ISO 14001
- Approval marks: ENEC  
VDE-EMV
- CE marking.
- Temperature declared thermally protected: IEC 61347-1 

## Ordering and packing data

Ballast	1 piece		Bulk packing		Dimensions l x w x h cm	Volume gross m <sup>3</sup>	Weight kg	EAN code	European Order Code (EOC)
	EAN code	Weight kg	Qty.						
HF-B 136 TL-D EII	8711500931542	0.21	12		32.8 × 20.6 × 8.7	0.006	2.8	8711500931559	93154230
HF-B 236 TL-D EII	8711500931580	0.23	12		32.8 × 20.6 × 8.7	0.006	3.0	8711500931597	93158030
HF-B 158 TL-D EII	8711500931566	0.21	12		32.8 × 20.6 × 8.7	0.006	2.8	8711500931573	93156630
HF-B 258 TL-D EII	8711500931603	0.24	12		32.8 × 20.6 × 8.7	0.006	3.1	8711500931610	93160330

# Electronic standard ballasts for TL-D

e-Kyoto II



e-Kyoto II

## Definition

Compact, lightweight, electronic standard ballasts for TL-D fluorescent lamps.

## Description

- Flicker-free instant start, ideal for areas with low switching frequency
- Up to 25% reduction in energy consumption at equal luminous flux compared with conventional gear:

## Applications

Typical areas of application include:

- Shops, supermarkets
- Factories with single working shift
- Schools
- Offices.

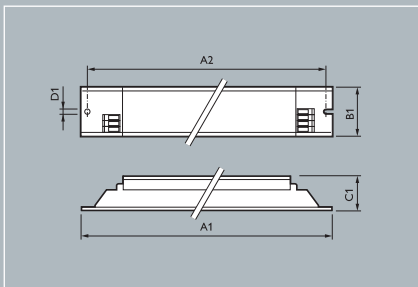
For optimum lamp lifetime, it is not advisable to use e-Kyoto ballasts in combination with movement/presence detection.

## Philips quality

This implies optimum quality regarding:

- System supplier  
As manufacturers of lamps and electronic control gear, Philips ensures that, from the earliest development stage, optimum lamp/ballast performance is maintained
- International standards  
Philips electronic ballasts comply with all relevant international rules and regulations.

Dimensions in mm




e-Kyoto II

	A1	A2	B1	C1	D1
e-Kyoto II 136 TL-D	280	265	39	28	4.2
e-Kyoto II 236 TL-D	280	265	39	28	4.2
e-Kyoto II 158 TL-D	280	265	39	28	4.2
e-Kyoto II 258 TL-D	280	265	39	28	4.2
e-Kyoto II 418 TL-D	280	265	39	28	4.2

# Electronic standard ballasts for TL-D

e-Kyoto II

## Compliances and approvals

- RFI < 30 MHz: EN 55015
- RFI > 30 MHz: EN 55022 A
- Harmonics: EN 61000-3-2
- Immunity: EN 61547
- Safety: EN 61347-2-3
- Performance: EN 60929
- Vibration & bump tests: IEC 68-2-6 FC  
IEC 68-2-29 Eb
- Quality standard: ISO 9000-2000
- Environmental standard: ISO 14001
- Approval marks: ENEC
- CE marking.
- Temperature declared thermally protected: IEC 61347-1 

## Ordering and packing data

Ballast	1 piece	Weight	Bulk packing Qty.	Dimensions l x w x h cm	Volume m <sup>3</sup>	Weight gross kg	EAN code	European Order Code (EOC)
	EAN code							
e-Kyoto II 136 TL-D	8711500907639	0.27	25	31.3 x 22.5 x 21.4	0.015	7.3	8711500907653	90763930
e-Kyoto II 236 TL-D	8711500907684	0.27	25	31.3 x 22.5 x 21.4	0.015	7.3	8711500907707	90768430
e-Kyoto II 158 TL-D	8711500907660	0.27	25	31.3 x 22.5 x 21.4	0.015	7.3	8711500907677	90766030
e-Kyoto II 258 TL-D	8711500907714	0.27	25	31.3 x 22.5 x 21.4	0.015	7.3	8711500907721	90771430
e-Kyoto II 418 TL-D	8711500907738	0.27	25	31.3 x 22.5 x 21.4	0.015	7.3	8711500907745	90773830

# Electronic standard ballasts for TL5

# HF PERFORMER TL5 II



HF PERFORMER TL5 II

## Definition

Lightweight high-frequency electronic ballast for TL5 fluorescent lamps.

## Description

- The combination HF-PERFORMER and TL5 lamps offers opportunities for miniaturisation and reduced cost of ownership, thanks to the limited dimensions and the high system efficacy
- Programmed start: warm start circuit preheating the lamp electrodes; this enables the lamps to be switched on and off without reducing useful life
- Low energy consumption
- Smart power: constant light independent of mains voltage fluctuations
- Unit is protected against excessive mains voltages and incorrect connections
- Automatic stop circuit is activated within five seconds in case of lamp failure (safety stop); once the lamp has been replaced, the ballast resets automatically.

## Applications

Typical areas of application include:

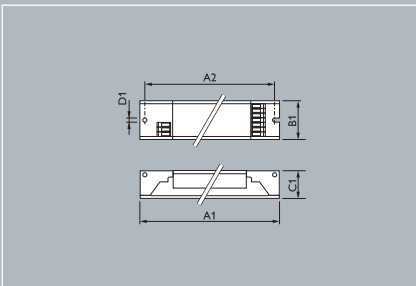
- Department stores, shops, supermarkets
- Suitable for use with infrared remote control systems
- Airports, railway stations
- Office buildings, for example, insurance companies, banks, government ministries
- Hospitals
- Hotels
- Emergency installations with VDE 0108 with re-ignition < 0.5 s

## Philips quality

This implies optimum quality regarding:

- System supplier  
As manufacturers of lamps and electronic control gear, Philips ensures that, from the earliest development stage, optimum lamp/ballast performance is maintained
- International standards  
Philips HF electronic ballasts comply with all relevant international rules and regulations.

Dimensions in mm




HF PERFORMER TL5 II

	A1	A2	B1	C1	D1
Remaining	360	350	30	21	4.2
2 Lamp 80	425	415	30	21	4.2

# Electronic standard ballasts for TL5

HF PERFORMER  
TL5 II

## Compliances and approvals

- RFI < 30 MHz EN 55015
- RFI > 30 MHz EN 55022 A
- Harmonics EN 61000-3-2
- Immunity EN 61547
- Safety EN 61347-2-3
- Performance EN 60929
- Vibration & bump tests IEC 68-2-6 FC  
IEC 68-2-29 E6
- Quality standard ISO 9000-2000
- Environmental standard ISO 14001
- Approval marks ENEC  
VDE-EMV
- CE marking.
- Temperature declared thermally protected: IEC 61347-1 

## Ordering and packaging data

Ballast	1 piece		Bulk packaging				EAN code	European Order Code (EOC)
	EAN code	Weight	Qty.	Dimensions	Volume	Weight gross		
		kg	pcs	l x w x h cm	m <sup>3</sup>	kg		
HF-P 1 14-35 TL5 II	8711500 928559	0.25	12	40.8x20.8x8.7	0.0074	3.3	8711500 928566	92855930
HF-P 2 14-35 TL5 II	8711500 910233	0.25	12	40.8x20.8x8.7	0.0074	3.3	8711500 910240	91023330
HF-P 3/4 14 TL5 II	8711500 059840	0.265	12	40.8x20.8x8.7	0.0074	3.5	8711500 059857	05984030
HF-P 1 24-39 TL5 II	8711500 928573	0.25	12	40.8x20.8x8.7	0.0074	3.3	8711500 928580	92857330
HF-P 2 24-39 TL5 II	8711500 910257	0.25	12	40.8x20.8x8.7	0.0074	3.3	8711500 910264	91025730
HF-P 3/4 24 TL5 II	8711500 907752	0.288	12	40.8x20.8x8.7	0.0074	3.8	8711500 907769	90775230
HF-P 149 TL5 II	8711500 928597	0.25	12	40.8x20.8x8.7	0.0074	3.3	8711500 928603	92859730
HF-P 249 TL5 II	8711500 910271	0.25	12	40.8x20.8x8.7	0.0074	3.3	8711500 910288	91027130
HF-P 154 TL5 II	8711500 928610	0.25	12	40.8x20.8x8.7	0.0074	3.3	8711500 928627	92861030
HF-P 254 TL5 II	8711500 910295	0.25	12	40.8x20.8x8.7	0.0074	3.3	8711500 910301	91029530
HF-P 180 TL5 II	8711500 002398	0.330	12	40.8x20.8x8.7	0.0074	4.9	8711500 002204	00219830
HF-P 280 TL5 II	8711500 060167	0.380	12	46.2x20.8x8.7	0.0090	4.9	8711500 907561	06016730



# Electronic standard ballasts for PL-T/C



HF-PERFORMER PL-T/C

# HF-PERFORMER PL-T/C

## Product Description

Compact, lightweight, High Frequency electronic ballasts for PL-T, PL-C compact fluorescent lamps

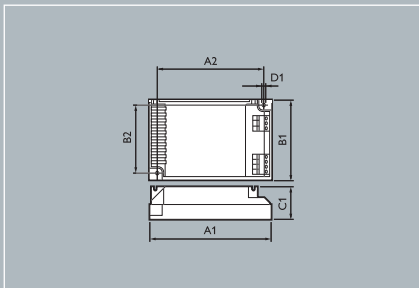
## Features and Benefits

- Multi-wattage output designs
- Programmed start: flicker free, warm start circuit preheats the lamp electrodes; lamps can be switched on and off without reducing useful life
- Up to 50% longer lamp life than with conventional ballasts
- Up to 25% reduction in energy consumption at constant luminous flux compared with conventional gear
- Smart power: constant light independent of mains voltage fluctuations
- Unit is protected against excessive mains voltages and incorrect connections
- Automatic stop circuit is activated within 5 seconds in case of lamp failure (safety stop); ballast resets automatically after lamp replacement

## Applications

- Ideal for applications with high switching frequency, typical applications areas include:
  - Use with infrared remote control systems (e.g. movement detection)
  - Department stores, shops, supermarkets, hotels hospitals, office buildings
  - Airports, railway stations
  - Outdoor lighting and downlighting

Dimensions in mm



HF-PERFORMER PL-T/C

	A1	A2	B1	B2	C1	D1
HF-P 113 PL-T/C	103	93,5	67	57,5	30	4,5
HF-P 118 PL-T/C	103	93,5	67	57,5	30	4,5
HF-P 1 26-42 PL-T/C	103	93,5	67	57,5	30	4,5
HF-P 213 PL-T/C	123	111	79	67	33	4,5
HF-P 218 PL-T/C	123	111	79	67	33	4,5
HF-P 2 26-42 PL-T/C	123	111	79	67	33	4,5

# Electronic standard ballasts for PL-T/C

## HF-PERFORMER PL-T/C

### Compliances and approvals

- RFI < 30 MHz EN 55015\*
- Harmonics EN 61000-3-2
- Immunity EN 61547
- Safety EN 61347-2-3
- Performance EN 60929-1E
- Vibration & bump tests IEC 68-2-6 FC  
IEC 68-2-29 Eb
- Quality standard ISO 9000-2000
- Environmental standard ISO 14001
- Approval marks ENEC-VDE-EMV
- CE marking
- Temperature declared thermally protected IEC 61347-1

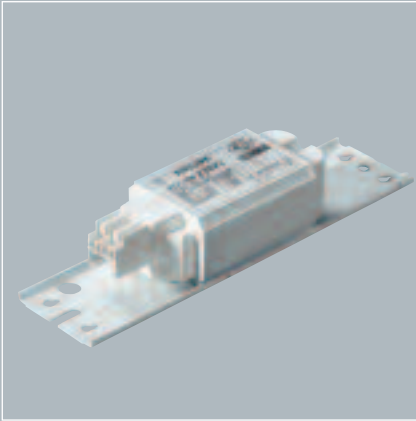
\* Tested with ballast functional ground connected to earth

### Ordering and packing data

Ballast	1 piece		Bulk packing					
	EAN code	Weight	Qty.	Dimensions l x w x h cm	Volume m <sup>3</sup>	Weight gross kg	EAN code	European Order Code (EOC)
HF-P 113 PL-T/C	8711500 749451	0.15	36	21.5x21.0x21.5	0.01	5.5	8711500 749468	74945130
HF-P 118 PL-T/C	8711500 060280	0.13	12	22.1x21.7x 8.8	0.01	1.8	8711500 060174	06028030
HF-P 1 26-42 PL-T/C	8711500 060310	0.13	12	22.1x21.7x 8.8	0.01	1.8	8711500 060198	06031030
HF-P 213 PL-T/C	8711500 749413	0.22	36	22.4x22.4x22.0	0.01	7.9	8711500 749420	74941330
HF-P 218 PL-T/C	8711500 749680	0.19	36	25.5x24.5x22.5	0.01	6.8	8711500 749697	74968030
HF-P 2 26-42 PL-T/C	8711500 933997	0.22	12	25.5x24.5x 8.2	0.01	2.9	8711500 002181	93399730

# Electromagnetic ballasts

BTA



Energy Efficiency Index = B2 and C

## Definition

All 'BTA' ballasts to be applied in circuits for TL, 'TL'D, PL-C, PL-T OR PL-L fluorescent lamps and operating on nominal mains supply as indicated.

## Energy Efficiency Index > EEI

BTA are ballasts divided in the next groups:

**EEI=B1** > Highest classification of energy saving for electromagnetic ballasts.

**EEI=B2** > Improved energy saving suitable for most luminaires.

**EEI=C** > banned in EU from November 2005.

## Benefits

- Reliable electrical and mechanical performance
- Long life
- Compact dimensions
- Quick and easy wiring, Re-wiring possibility.
- Optimum lamp performance under optimum temperature conditions.

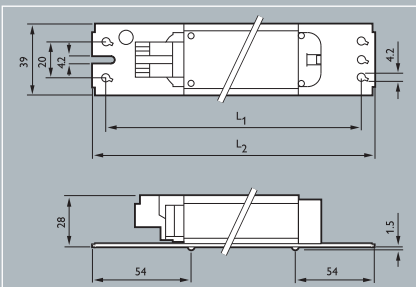
## Features

- ENEC approved, complies with IEC 60920/921
- Tw marking 130°C (Average life time of 10 years of continuous operation)
- Fully approved by major authorities
- Double Insert contacts for solid core wire  
0,5-1,0mm  
Strip length 9mm +/- 1mm, insulation diameter max. 2,6mm
- Prepared for automatic wiring.
- Embossed mounting plate for noise reduction.

## Description

This ballast range features a balanced compromise of essential characteristics, thus allowing for a wide range of application.

Dimensions in mm



Energy Efficiency Index = B2 and C

# Electromagnetic ballasts

BTA

## Electrical characteristics of high power factor and duo circuits - HPF anti-stroboscopic $\cos \mu$ 0.90

Product ID	Number of lamps each ballast	Mains current	Power factor	P.F. Compensation							Starter
				Parallel Cap. 250V AC			Duo (Series) Cap. 450VAC				
				Cap.	Diagr.	Mains	Cap.	Mains	Diagr.		
				$\mu$ F	Fig.	Current	$\mu$ F	current	Fig.		
BTA 18W	1x TLD(U) 18W	0.37A	0.41	4.5	1	0.14A	2.7	0.27A	4	S2	
	1x TL 20W	0.37A	0.41								
BTA 36W	2x TLD 18W / TL 20W	0.37A	0.50	4.5	3	0.23A	3.4	0.43A	2	S2	
	1x TLD 36W / TL 40W	0.43A	0.48		1				4	S10	
	1x TLD 38W	0.43A	0.47		1				4	S10	
BTA 58W	1x TLD 58W	0.67A	0.50	6.5	1	0.36A	5.3	0.68A	4	S10	
	1x TL 65W	0.67A	0.50		1				4	S10	

## Ordering and packing data

New Type number		Weight kg	Box packing			European Order Code (EOC) Ext. 40=Bulk Ext. 30=Box
			Qty.	Dimensions		
				l x w x h cm*	Weight kg	
BTA 18W 220V	C	0.48	32	35x18x13.5	15	919113
BTA 36W 220V	C	0.48	32	35x18x13.5	15	920799
BTA 18W 230V	C	0.48	32	35x18x13.5	15	919120
BTA 36W 230V	C	0.48	32	35x18x13.5	15	919175
BTA 36W 230V	C65	0.48	32	35x18x13.5	15	538680
BTA 58W 230V	B2	0.92	24	27x22x13.5	22	919229
BTA 18W 240V	C	0.48	32	35x18x13.5	15	915313
BTA 36W 240V	C	0.48	32	35x18x13.5	15	915450
BTA 58W 240V	B2	0.92	24	27x22x13.5	22	915139

\*) Volume is 0.009m<sup>3</sup> dim. 35x18x13.5, Volume is 0.008m<sup>3</sup> dim. 27x22x13.5

# Starters for fluorescent lamps



Starters S2/S10

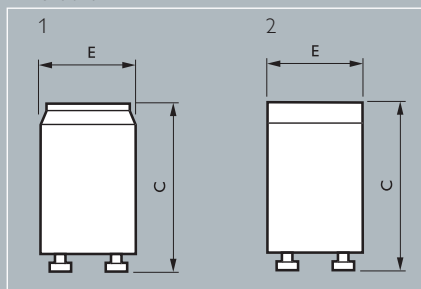


Starters S2-E/S10-E



Starter SIS 10

Dimensions in mm



## Definition

- Range of premium quality glow switches, used to ignite fluorescent lamps on electromagnetic control gear

## Features

- 2-pin ignitor in plastic (flame-retardant polycarbonate) canister with radio-interference suppression capacitor
- S2 starters for ignition of low-voltage fluorescent TL lamps and serie/single application in high voltage for lower wattages (4-22W)
- S10 starters for ignition of high-voltage fluorescent TL-lamps for higher wattages (4-65W)
- S2-E starters for ignition of low-voltage (single) and high-voltage (serie) fluorescent TL lamps
- S10-E starters for ignition of high-voltage fluorescent TL-lamps for higher wattages (18-65W)
- SIS 10 with safety switch-off for ignition of high-voltage fluorescent TL-lamps for higher wattages (30-65W)

## Benefits

### Starters S2/S10

- 3 x longer lifetime compared to low quality and non-IEC compliant competitors (> 12 000 switches guaranteed)
- Controlled preheating of the lamp filaments and sufficient Pulse Voltage resulting in longer lamp life (>25% compared to cheap starters)
- The only starters that completely eliminated the usage of radioactive material and lead substances avoiding hazardous substances (RoHS compliant & in accordance with current European legislation).
- Flame-retardant components and UV-resistant canister for additional safety
- Improved recognition of genuine Philips starters through patented shape.

Product ID	C	E
	max.	max.
1. Starters S2/S10	40.3	21.5
2. Starters S2-E/S10-E/SIS 10	40.3	21.5

# Starters for fluorescent lamps

## Starters S2-E/S10-E

- Totally smooth, flicker-free, fast starting resulting in more than 30% extended lamp life compared to non-IEC compliant starters
- Constant circuit safety provided through thermal monitoring avoids irritation, useless electricity consumption and unsafe overheating by cutting flickering of lamps at end of life
- RoHS compliant through elimination of hazardous substances
- Flame-retardant components and UV-resistant canister for additional safety

## Starters SiS 10

- 3 x longer lifetime compared to low quality and non-IEC compliant competitors (> 12 000 switches guaranteed)

- Constant circuit safety provided through thermal monitoring avoids irritation, useless electricity consumption and unsafe overheating by cutting flickering of lamps at end of life
- Reset-function for re-use of the starter (3 times)

## Application

- Starters are used in conventional electromagnetic fluorescent lamp systems using TLD (T8), TL (T12), TL mini, PLS and PLL lamps.
- When replacing the fluorescent lamps it is recommended to also replace the starter
- For 220/240V~, 18W Single-application, Philips recommend S2 for optimal performance
- For 220/240V~, 13W Single-application, the S10 starter needs to be used



## Technical data

Product ID	Circuit	Mains voltage range V	Wattage range W	Lamp range
S2	single	110-130	4-22	4, 6, 8, 14-16, 15, 18, 20, 22
S2	single	220-240	4, 6, 8, 15, 18, 22	4, 6, 8, 14-16, 15, 18, 20, 22
S2	series	220-240	4-22	4, 6, 8, 14-16, 15, 18, 20, 22
S10	single	220-240	4-65	4, 6, 8, 13, 14-16, 15, 16, 18, 20, 22, 23, 30, 32, 36, 38, 40, 58, 60, 65
S2-E	single	110-130	18-22	18, 20, 22
S2-E	series	220-240	18-22	18, 20, 22
S10-E	single	220-240	18-65	18, 20, 22, 30, 32, 36, 38, 40, 58, 65
SiS 10	single	220-240	30-65	30, 32, 36, 38, 40, 58, 65
S12	single	220-240	115-140	115, 140, 80, 100, 140
			80-100-140 W Suntanning	
S16	single	240	70-125	70, 75, 85

## Ordering and packing data

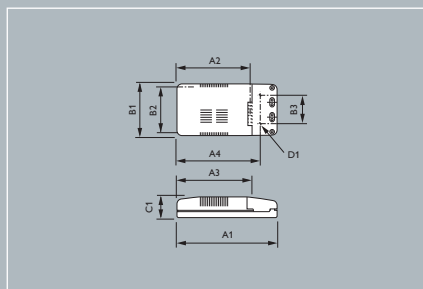
Product ID	Box packing quantity pcs	Dimensions in cm			Weight gross kg	EAN code	European Order Code (EOC)
		L	B	H			
S2 blue	12x25	23,0	23,0	13,5	2,298	8711500697523	928390610103
	1000	40,0	30,0	19,3	7,735	8711500697523	928390610155
S10 blue	12x25	23,0	23,0	13,5	2,298	8711500697554	928392110103
	1000	40,0	30,0	19,3	7,735	8711500697554	928392110155
S2-E	20x25	23,0	23,0	22,5	4,900	8711500764980	926000192603
S10-E	20x25	23,0	23,0	22,5	4,800	8711500764973	926000192703
SiS 10	20x10	22,5	13,0	17,5	2,100	8711500765178	928391000020
S12	20x25	23,0	23,0	22,5	3,975	8711500765055	926000190303
S16	1000	40,0	30,0	18,8	7,500	8711500750105	928390900055

# HID electronics for CDM lamps



HID-PrimaVision CDM

Dimensions in mm



HID-PrimaVision CDM

# HID-PrimaVision CDM

## Product Description

Compact, lightweight, one-piece electronic ballast (Standard, Independent version).

## Features and Benefits

- Elimination of all visible lamp flicker
- Reduction in colour differences from lamp and initial lumen spread
- No hum
- Independent of mains-voltage 206-254V
- Increase life of CDM lamps up to 30%
- Simple installation and cabling, cage clamp terminals

## Applications

- 20W, 35W and 70W: Accent and decorative, shops and retail, indoor public spaces, lobbies and offices
- Climatic suitability: restricted to built-in situations where relative humidity is limited
- 150W/250W: as 35W and 70W for higher ceilings, also indoor theatre/stage
- 250W: also fit for outdoor applications due to plastic housing and potting

## Compliances and approvals

HID-electronics

Safety	EN61347-2-1/2-3/2-9
Performance	EN60927 / EN60929
RFI	EN55015 / EN55022
Harmonic current emissions	EN61000-3-2
EMC immunity	EN61547
Approval marking	KEMA/VDE
CE-marking	
Environmental standard	ISO 14001

**A1 A2 A3 A4 B1 B2 B3 C1 D1**

HID-PVC035/I and 070/I CDM 150 99 114 127 80 64 50 35 4.5  
dimensions other types tbf

# HID electronics for CDM lamps

HID-PrimaVision CDM

## Ordering and packing data

Ballast	1 piece EAN code	Weight	Bulk packing			Volume	Weight gross	EAN code	European Order Code (EOC)
			Qty.	Dimensions l x w x h cm	pcs				
HID-PVm 020I CDMm	tbf	tbf	12	tbf	tbf	tbf	tbf	90981730	
HID-PVC 035I CDM	8711500 930125	0.210	12	31.1 x 17.1 x 13.7	0.0007	2.8	8711500 930125	93012530	
HID-PVC 235I CDM	8711500 933300	0.340	12	35.5 x 16.3 x 12.3	0.0007	4.4	8711500 933300	93330030	
HID-PVC 070I CDM	8711500 930163	0.210	12	31.1 x 17.1 x 13.7	0.0007	2.8	8711500 930163	93016330	
HID-PVC 150S CDM	tbf	tbf	tbf	tbf	tbf	tbf	tbf	tbf	
HID-PV 250S CDM	tbf	tbf	tbf	tbf	tbf	tbf	tbf	tbf	



# Basic ballasts for HPL and HPI(Plus) lamps



HID-Basic

## Definition

HID-Basic are impregnated electromagnetic ballasts, of copper/iron construction, for use with HPL mercury fluorescent and HPI metal halide lamps.

## Description

- Orthocyclic winding process results in limited ballast coil volume and reduced weight, with minimum watt losses
- Ballasts standard equipped with screw terminal blocks; insert contacts on request
- Earthing-while-mounting facility
- Simple installation and cabling.

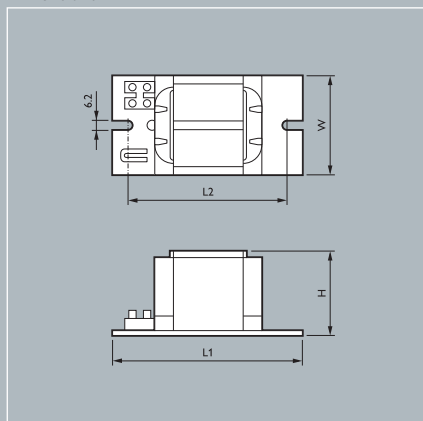
## Applications

The applications will be similar to those of the related lamps; HID-Basic ballasts should be restricted to built-in situations where relative humidity is limited.

## Compliances and approvals

- RFI EN 55015
- Harmonics EN 61000-3-2
- Safety EN 60922
- Performance EN 60923
- Quality standard ISO 9001
- Environmental standard ISO 14001
- Approval marks ENEC
- CE marking.

Dimensions in mm



HID-Basic

Type	A (L1)	B (L2)	C (W)	D (H)
BHL 80, BHL 125	117	98	61	52
BHL 250	133	117	75	65
BHL 400	159	138	75	65

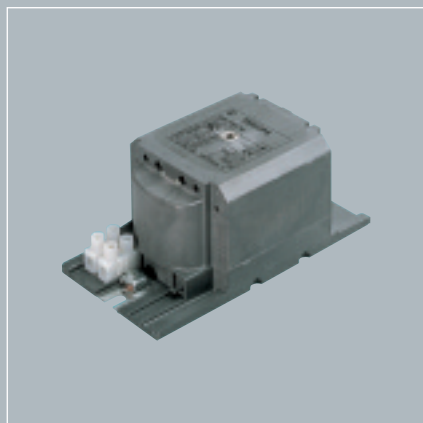
# Basic ballasts for HPL and HPI(Plus) lamps

## Data valid for typical lamps (may vary per type)

Product ID	For lamps	Ignitor	Mains voltage/freq. V/Hz	PF Cap. uF/V	Ballast losses W	Current nominal A	Current max. A	Max. cable length m	Tw=130 dT °C	European Order Code (EOC)
BHL 80 L202	HPL 80W	-	230/50	8/250	10.4	0.45	0.65	-	60	945433
BHL 125 L202	HPL 125W	-	230/50	10/250	14	0.7	1.1	-	70	919434
BHL 250 L202	HPL 250W	-	230/50	18/250	18	1.35	2.2	-	75	738165
	HPI(Plus) 250W	SI 51	230/50	18/250	18	1.35	2.2	1500	70	
BHL 250 L307	HPL 250W	-	230,240/50	18/250	18.5/19.5	1.35	2.2	-	75	737229
	HPI(Plus) 250W	SI 51	230,240/50	18/250	18.5/19.5	1.35	2.2	1500	75	
BHL 400 L202	HPL 400W	-	230/50	25/250	19.7	2.15	3.9	-	75	739209
	HPI(Plus) 400W	SI 51	230/50	25/250	20	2.15	3.9	1500	80	
BHL 400 L307	HPL 400W	-	230,240/50	25/250	23.3/24.5	2.15	3.9	-	75	737250
	HPI(Plus) 400W	SI 51	230,240/50	25/250	23.3/24.5	2.15	3.9	1500	75	

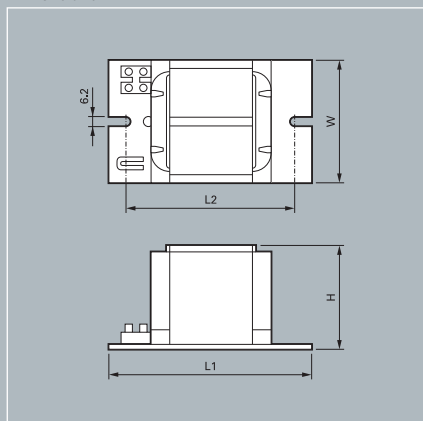
1) Other voltages and frequencies available on request

# HeavyDuty ballasts for HPL and HPI(Plus)



HID-HeavyDuty

Dimensions in mm



HID-HeavyDuty

## Definition

HID-HeavyDuty are encapsulated electromagnetic ballasts, of copper/iron construction, for use in combination with or without an external ignitor; for HPL mercury fluorescent and HPI (Plus) metal halide lamps.

## Description

- Orthocyclic winding process results in limited ballast coil volume and reduced weight, with minimum watt losses
- Ballasts standard equipped with screw terminal blocks; insert contacts on request
- Earthing-while-mounting facility
- Simple installation and cabling.

## Applications

The applications will be similar to those of the related lamps.

HID-HeavyDuty ballasts are suitable for application in luminaires or poles under normal humid conditions (not dripproof).

## Compliances and approvals

- RFI EN 55015
- Harmonics EN 61000-3-2
- Safety EN 60922
- Performance EN 60923
- Quality standard ISO 9001
- Environmental standard ISO 14001
- Approval marks ENEC
- CE marking.

Type	A (L1)	B (L2)	C (W)	D (H)
BHL 50, BHL 80, BHL 125	117	102	64	52
BHL 250	133	117	75	65
BHL 400	159	138	75	65

# HeavyDuty ballasts for HPL and HPI(Plus)

## Data valid for typical lamps (may vary per type)

Product ID	For lamps	Ignitor	Mains voltage/freq. V/Hz	PF Cap. uF/V	Ballast losses W	Current nominal A	Current max. A	Max. cable length m	Tw=130 dT °C	European Order Code (EOC)
BHL 80 L32	HPL 80W	-	240/50	8/250	10.5	0.45	0.65	-	60	919373
BHL 125 L40	HPL 125W	-	230/50	10/250	12.7	0.7	1.1	-	60	915146
BHL 125 L32	HPL 125W	-	240/50	10/250	13.2	0.7	1.1	-	60	919441
BHL 250 L40	HPL 250W	-	230/50	18/250	19.5	1.35	2.2	-	80	919502
	HPI(Plus) 250W	SI 51	230/50	18/250	19.5	1.35	2.2	1500	80	
BHL 250 L32	HPL 250W	-	240/50	18/250	20.5	1.35	2.2	-	80	944894
	HPI(Plus) 250W	SI 51	240/50	18/250	20.5	1.35	2.2	1500	80	
BHL 400 L40	HPL 400W	-	230/50	25/250	22.0	2.15	3.9	-	75	919533
	HPI(Plus) 400W	SI 51	230/50	25/250	22.0	2.15	3.9	1500	75	
BHL 400 L32	HPL 400W	-	240/50	25/250	23.0	2.15	3.9	-	75	919557
	HPI(Plus) 400W	SI 51	240/50	25/250	23.0	2.15	3.9	1500	75	

1) Other voltages and frequencies available on request

# HighPower ballasts for MH, HPI, HPL, SON



HID-HighPower

## Definition

HID-HighPower are encapsulated electromagnetic ballasts, of copper/iron construction, for use in combination with an external ignitor for MH, HPI and SON lamps.

## Description

- Orthocyclic winding process results in limited ballast coil volume and reduced weight, with minimum watt losses
- Ballasts standard equipped with screw terminal blocks
- Simple installation and cabling.

## Applications

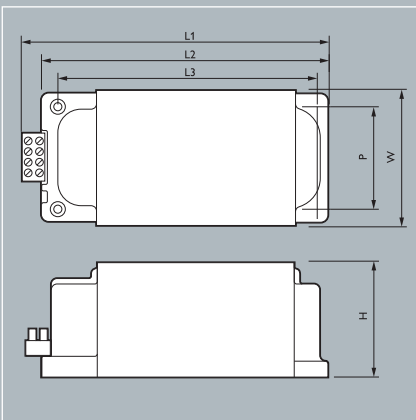
The applications will be similar to those of the related lamps.

HID-HighPower ballasts are suitable for application in luminaires or poles under normal humid conditions (not class II).

## Compliances and approvals

- RFI EN 55015
- Harmonics EN 61000-3-2
- Safety EN 60922
- Performance EN 60923
- Quality standard ISO 9001
- Environmental standard ISO 14001
- Approval marks ENEC
- CE marking.

Dimensions in mm



HID-HighPower

Type	A (L1)	B (L2)	C (L3)	D (W)	E (P)	F (H)
BHL 1000 L02	207	196	172	116	88	102
BHL 1000 L78	207	196	172	116	88	102
BSN 1000 L78	257	246	222	116	88	102
BHL 2000 L50	257	246	222	116	88	102
BMH 1800 L78	317	306	282	116	88	102

# HighPower ballasts for MH, HPI, HPL, SON

Data valid for typical lamps (may vary per type)

Product ID	For lamps	Ignitor	Mains voltage/freq. V/Hz	PF Cap. uF/V	Ballast losses W	Current nominal A	Current max. A	Max. cable length m	Tw=130 dT °C	European Order Code (EOC)
BHL 1000 L02	HPL-N 1000W	-	220/50	60/250	38	5.3	8.3	350	65	062314
	HPI-T 1000W	SI 52	220/50	60/250	56	5.3	8.7	350	65	
BHL 1000 L02 (2x)	HPI-T 2000W (230)	SI 52	220/50	125/250	75	10.6	17.4	350	70	062314
BHL 1000 L78	HPL-N 1000W	-	230,240/50	65/250	40	5.3	8.3	350	65	062376
	HPI-T 1000W	SI 52	230,240/50	65/250	56	5.3	8.7	350	65	
	MHN-LA 1000W	SN 56, SN 59, SN 61	230,240/50	100/250	56	6.0	8.0	100/40/60	60	
BSN 1000 L78	SON-T 1000W	SN 56, SN 59, SN 61	230,240/50	100/250	56	5.4	7.3	100/40/60	60	062369
BHL 2000 L50	HPI-T 2000W (400)	SI 54	380,400/50	35/450	74	6.0	10.9	1200	70	062291
BMH 1800 L78	MHN-SA 1800W (230)	SN 56, SN 59, SN 61	230,240/50	200/250	85	10.0	12.0	100/40/60	80	059901



ET-S transformer

## Product description

A high frequency electronic transformer for operation with 12V halogen lamps. The ET-STANDARD range comes in 70W, 105W and 150W versions. It is fully IEC compliant and uniquely compact and lightweight. It is also dimmable with Philips approved Leading and Trailing Edge dimmers.

## Features and benefits

The ET-STANDARD range has the following advantages over conventional gear:

## Safe Operation

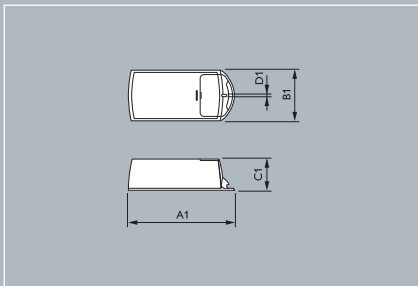
- **Short circuit**-In the case of a short circuit either in the lamp or its housing the ET-STANDARD has built in self-resetting short-circuit protection.
- **Thermal switch**-The thermal switch interrupts overloads and will switch the transformer off if there is excess current.
- **Temperature protection**- If the housing or ambient temperature becomes high the protection circuit will reduce the output voltage.

## Constant output voltage

In the event of mains voltage variations the ET-STANDARD guarantees a continual secondary voltage of 12V, ensuring long lamp life and constant light level.

- Compact and lightweight
- Inaudible during operation
- Long lamp life
- Tool free cable grip

Dimensions in mm



ET-S transformer

Dim.	A1	B1	C1	D1
no.	max.	max.	max.	max.
ET-S 70	110	52	34	4.2
ET-S 105	110	52	33.5	4.2
ET-S 150	140	52	36	4.2

# Electronic regulating ballasts for TL-D

ET-S transformer

## Philips Quality

This represents optimum quality with regards to:

- System supplier:  
As a manufacturer of lamps and electronic control gear; Philips ensures that, from the earliest development stage, maximum lamp life performance is maintained
- International standards;  
The ET-STANDARD complies with the relevant international rules and regulations.

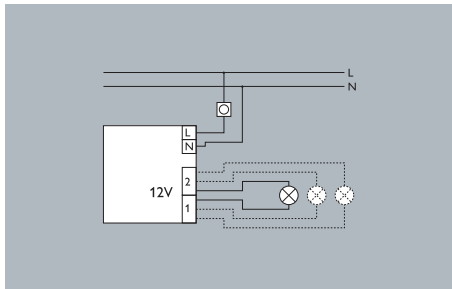
## Compliances and approvals

- RFI < 30MHz: EN 55015
- Harmonics: EN 61000-3-2
- Immunity: EN 61547
- Safety: IEC 61347-2-2
- Performance: IEC 61047
- Environmental standard: ISO 14001
- CE marking  05

[www.lampsandgear.philips.com](http://www.lampsandgear.philips.com)

## Preferred selection

Product ID	1 piece		Weight kg	Bulk packing			Weight gross kg	EAN code	European Order Code (EOC)
	EAN code			Qty. pcs	Dimensions lxwxh cm	Volume m <sup>3</sup>			
ET-S 70	8711 500 00221130		0.115	50	22.4x23.4x19	0.00126	6.90	8711 500 002228	00221130
ET-S 105	8711 500 93128330		0.135	50	22.4x23.4x19	0.00126	7.05	8711 500 931290	93128330
ET-S 150	8711 500 93126930		0.189	50	30x29.4x20	0.00176	9.80	8711 500 931276	93126930

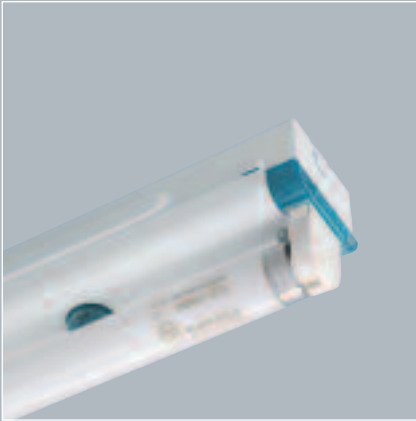








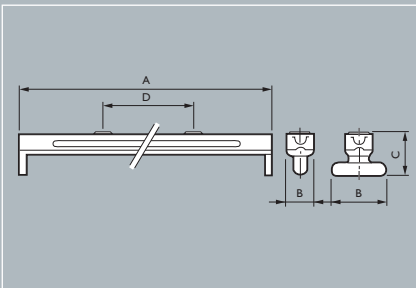
Luminaire  
indoor



TMS012 1xTL-D



Dimensions in mm



## TMS012 MARK II

High quality basic batten in single and twin-lamp versions for TL-D and standard TL fluorescent lamps. Its quality complies with I.E.C. 598 and fire safety regulations (VDE710).

The batten consists of an U-shaped ceiling rail in which the electrical equipment is mounted. A cover-plate is secured to the rail by means of two captive screws. The specially designed lamp holders are of the rotor-lock type, which prevents the lamp from falling out and guarantees proper electrical connection, since they cover for tolerances in lamp lengths. The lamp holders are slid on to the end of the ceiling rail. Twin lamp holders are fitted with an integrated starter holder.

## Applications

- Industrial areas
- Commercial areas
- Residential areas

## Technical description

- Gear/power supply: conventional I or IC, 230V or 240V/50Hz, 127V or 220V/60Hz
- Lamps: 1x or 2xTL-D fluorescent (18W, 36W, 58W). Also suited for standard TL lamps (26mm)
- Material: rail and cover plate 0.5mm sheet-steel, white stove enamelled after phosphating
- Longitudinal sides of the ceiling rail reinforced by moulding
- Prepared for trough-wiring

Product ID	A	B	C	D
TMS 012 1 x 18W	614	50	78.5	515
TMS 012 1 x 36W	1224	50	78.5	820
TMS 012 1 x 58W	1524	50	78.5	515
TMS 012 2 x 18W	614	103	85.5	515
TMS 012 2 x 36W	1224	103	85.5	820
TMS 012 2 x 58W	1524	103	85.5	820

A. For surface mounting diam. hole 10 mm

C. For suspension mounting diam. hole 16.5 mm

## Installation

- Mounting directly on the surface or suspended with tubes (max. diameter 16mm)
- Mounting bosses around the keyhole slots and under the ballast allow for extra safety distance from batten and ballast to the mounting surface.
- Terminal block, mounted on the ceiling rail, accepts 2.5mm square wire.
- Easy through-wiring

## Accessories

- Industrial reflectors, symmetrical or asymmetrical
- Prismatic diffusers



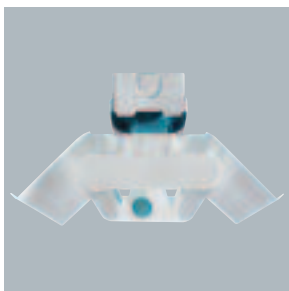
TMS 012 2x36W

## Preferred selection

Product ID	For Lamps	Order code
<b>For 230V/50Hz</b>		
TMS012/118 I MARK II 230/50 IND.	1xTL-D18W	9199 182 11833
TMS012/118 IC MARK II 230/50 COMP.	1xTL-D18W	9199 182 11853
TMS012/136 I MARK II 230/50 IND.	1xTL-D36W	9199 182 13633
TMS012/136 IC MARK II 230/50 COMP.	1xTL-D36W	9199 182 13653
TMS012/158 I MARK II 230/50 IND.	1xTL-D58W	9199 182 15833
TMS012/158 IC MARK II 230/50 COMP.	1xTL-D58W	9199 182 15853
TMS012/218 I MARK II 230/50 IND.	2xTL-D18W	9199 182 21833
TMS012/236 I MARK II 230/50 IND.	2xTL-D36W	9199 182 23633
TMS012/258 I MARK II 230/50 IND.	2xTL-D58W	9199 182 25833
<b>For 240V/50Hz</b>		
TMS012/118 I MARK II 240/50 IND.	1xTL-D18W	9199 182 11834
TMS012/118 IC MARK II 240/50 COMP.	1xTL-D18W	9199 182 11854
TMS012/136 I MARK II 240/50 IND.	1xTL-D36W	9199 182 13634
TMS012/136 IC MARK II 240/50 COMP.	1xTL-D36W	9199 182 13654
TMS012/158 I MARK II 240/50 IND.	1xTL-D58W	9199 182 15834
TMS012/158 IC MARK II 240/50 COMP.	1xTL-D58W	9199 182 15854
TMS012/218 I MARK II 240/50 IND.	2xTL-D18W	9199 182 21834
TMS012/218 IC MARK II 240/50 COMP.	2xTL-D18W	9199 182 21854
TMS012/236 I MARK II 240/50 IND.	2xTL-D36W	9199 182 23634
TMS012/236 IC MARK II 240/50 COMP.	2xTL-D36W	9199 182 23654
TMS012/258 I MARK II 240/50 IND.	2xTL-D58W	9199 182 25834
<b>For 127V/60Hz</b>		
TMS012/118 I MARK II 127/60 IND.	1xTL-D18W	9199 182 11827
TMS012/136 I MARK II 127/60 IND.	1xTL-D36W	9199 182 13627
TMS012/236 I MARK II 127/60 IND.	2xTL-D36W	9199 182 23627
<b>For 220V/60Hz</b>		
TMS012/118 I MARK II 220/60 IND.	1xTL-D18W	9199 182 11836
TMS012/136 I MARK II 220/60 IND.	1xTL-D36W	9199 182 13636
TMS012/236 I MARK II 220/60 IND.	2xTL-D36W	9199 182 23636



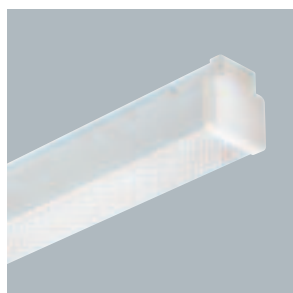
GMS012 R 1-lamp



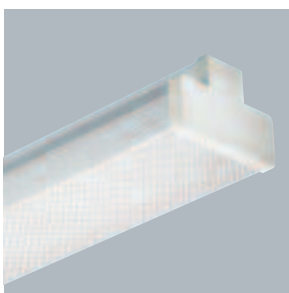
GMS012 R 2-lamps



GMS012 RA



GMS012 P 1-lamp



GMS012 P 2-lamps

## Accessories

### Symmetrical reflector (high gloss aluminium)

	Order Code
GMS012 118 RC	9199 186 55030
GMS012 136 RC	9199 186 55130
GMS012 218 RC	9199 186 55330
GMS012 236 RC	9199 186 55430

### Symmetrical reflector (white painted steel)

GMS012 118 R	9199 186 50030
GMS012 136 R	9199 186 50130
GMS012 158 R	9199 186 50230
GMS012 218 R	9199 186 50330
GMS012 236 R	9199 186 50430
GMS012 258 R	9199 186 50530

### Asymmetrical reflector\* (white painted steel)

GMS012 118 RA	9199 186 50630
GMS012 136 RA	9199 186 50730
GMS012 158 RA	9199 186 50830

\* Available only on single lamp version.

### Prismatic diffuser






















GMS012 118 P	9199 186 56030
GMS012 136 P	9199 186 56130
GMS012 218 P	9199 186 56330
GMS012 236 P	9199 186 56430



# Applications reference guide

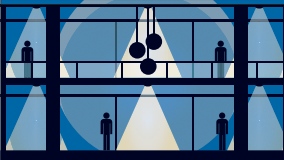
## To help start the selection process

The table below shows which luminaire families provide technical and aesthetic solutions for certain applications. There are, of course, many other combinations not shown here, so please do not restrict yourself to the suggestions. They are produced only as an indication of what is possible, and to help you start the selection process. An even more extended luminaire portfolio is available on request.

Office lighting	Shop lighting	Industry lighting
		
<p>General and accent lighting for task areas, meeting rooms, and corridors.</p>	<p>Accent, general, and decorative lighting for a wide variety of shops.</p>	<p>Functional lighting for production areas, warehouses, etc.</p>
<p>Recessed TL  page 9.4-9.19</p>	<p>Downlights HID-CFL  page 9.38-9.65</p>	<p>High-bay  page 9.78-9.81</p>
<p>Surface mounted TL  page 9.20-9.37</p>	<p>Downlights halogen  page 9.66-9.75</p>	<p>Waterproof TL  page 9.82-9.91</p>
<p>Downlights HID-CFL  page 9.38-9.65</p>	<p>Projectors  page 9.76-9.77</p>	<p>Battens TL  page 9.92-9.97</p>
<p>Downlights halogen  page 9.66-9.75</p>	<p>Recessed TL  page 9.4-9.19</p>	<p>Surface mounted TL  page 9.20-9.37</p>
<p>Surface mounted TL  page 10.30-10.39</p>	<p>Battens TL  page 9.92-9.97</p>	<p>Recessed TL  page 9.4-9.19</p>
<p>Battens TL  page 9.92-9.97</p>	<p>Marker lights  page 10.30-10.39</p>	<p>Security lighting  page 10.56-10.61</p>


# Applications reference guide

## Public area lighting




Lighting for shopping malls, atriums, car parks, and other large public areas.

High-bay  page 9.78-9.81

Recessed TL  page 9.4-9.19

Surface mounted TL  page 9.20-9.37

Downlights HID-CFL  page 9.38-9.65

Water-proof TL  page 9.82-9.91

Battens TL  page 9.92-9.97

Marker lights  page 10.30-10.39


## Home lighting



Decorative and functional lighting for the living room, kitchen, etc.

Downlights halogen  page 9.66-9.75

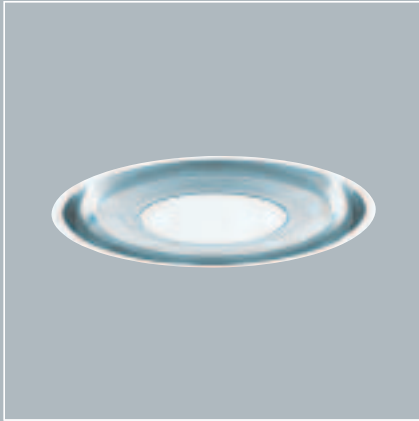
Battens TL  page 9.92-9.97

Water-proof TL  page 9.82-9.91

Marker lights  page 10.30-10.39

Security lighting  page 10.56-10.61

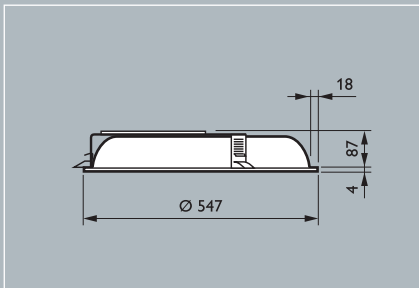




TBS740 TL5C 60W



Dimensions in mm



## Rotaris TBS740

The defining visual characteristic of the Rotaris product range, which is based on the innovative TL5 Circular 60 W lamp, is its concentric circles. The semi-high-gloss aluminium centrepiece (available in its pure form (ALU) or with a white coated finish (WH)) is surrounded by an opal (O) or clear (P) lamp cover; the inside of which has a prismatic structure, again in concentric circles. The outer rim of the luminaire, which forms one piece with the optic, interfaces with the ceiling, ensuring the smooth visual integration of Rotaris in the space.

The issue of glare control is addressed in all viewing directions by the OLC-technology (Omnidirectional Luminance Control). The lamp is shielded by a mirror and a lamp cover is added to create a pleasing, balanced brightness. The full range complies with current office lighting norms (EN12464-1,  $L_m < 1000 \text{ cd/m}^2$  at  $\gamma \geq 65^\circ$ ).

Within the Rotaris product family, a complete range of surface-mounted and suspended luminaires is also available.

## Applications

- Office spaces
- Department stores, fashion shops

## Technical description

- Gear: HF: 220 V – 240 V
- Lamp: 1x TL5 Circular 60 W fluorescent
- Connection: Wieland GST 18 for mains, BST 14 for control signal (0V-10V or DALI)
- Materials: semi-high-gloss anodised aluminium reflector; polycarbonate components, mounted on a steel frame

## Installation

- Mounting: individual. For plasterboard ceilings.
- Cut-out diameter 516 mm.
- Thickness of false ceiling 1 - 42 mm.
- Method: clips.

## Accessories

- Blue inlay sheet to give the lamp cover an azure hue.



Opal prismatic lamp cover with enlarged centrepiece (option IPL)



Integrated adjustable downlight (Fugato range)



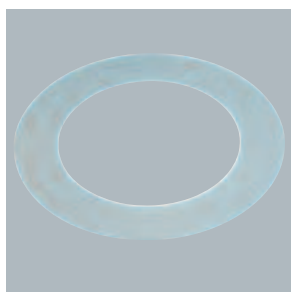
Clear prismatic lamp cover with white centrepiece and sensors for presence detection and daylight regulation (Omnisense)

## Preferred selection

Product ID	Weight (kg)	Light Output Ratio (LOR)	European Order Code (EOC)
TBS740 1xTL5C60W/840 HFP P IP WH	3,0	0,60	63556900
TBS740 1xTL5C60W/830 HFP O IP WH	3,0	0,60	63490600

## Short optics description

- O Opal prismatic polycarbonate lamp cover
- P Clear prismatic polycarbonate lamp cover



## ZBS740 F-BL

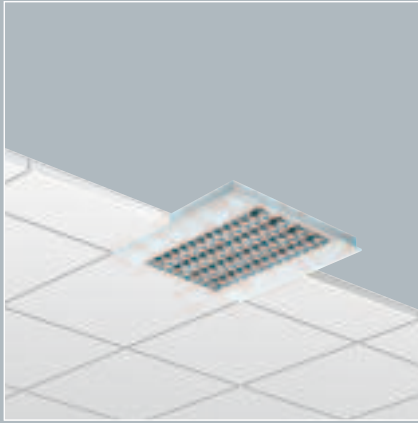
Blue inlay sheet.

### Accessory

ZBS740 F-BL

### European Order Code (EOC)

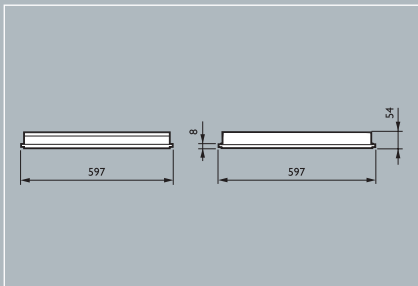
63314500



TBS235 4xTL5 C6



Dimensions in mm



## TBS235

Miniature luminaire with a build-in height of only 54 mm for TL5 fluorescent lamps with a choice of 3 optics (C6, D6 and M6). Two in-fill panels along the side of housing surrounding the optics. Lamps and optics supplied with the luminaire. The luminaires provide outstanding lighting efficiency and glare control, fully compliant to European office lighting norms (EN12464-1,  $L_m < 1000 \text{cd/m}^2$  at  $\gamma \geq 65^\circ$ )

## Applications

- Office spaces
- Recreational areas
- Public buildings, schools, and hospitals
- Small independent food/ non-food shops
- Department stores, fashion shops

## Technical description

- Gear/power supply: HF: 220 V - 240 V
- Lamps: 3 and 4 TL5 (16 mm) fluorescent
- Connection: quick-connection: push-in block outside the luminaire
- Housing: white sheet steel with white painted solid in-fill plates

## Installation

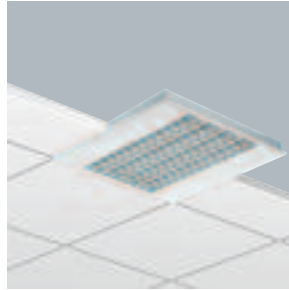
- Mounting: individual.
- For standard 600 mm modular exposed ceiling grids.
- Method: lay-in without removing lamps and optic.

## Optional

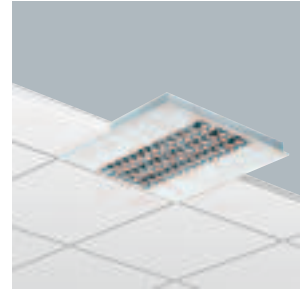
- Connection: quick connection Wieland GST 18/3
- Use of dimmable gear
- Lighting Controls: Luxsense or Omnisense
- Emergency lighting: 1- or 3 hours



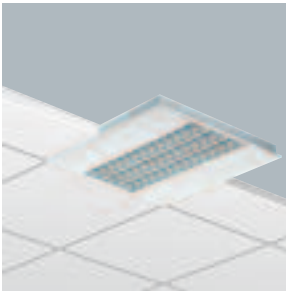
TBS235 4xTL5 D6



TBS235 4xTL5 M6



TBS235 3xTL5 C6



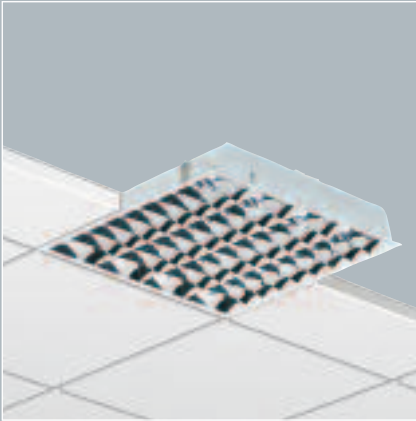
TBS235 3xTL5 M6

## Preferred selection

Product ID	Weight (kg)	Light Output Ratio (LOR)	European Order Code (EOC)
TBS235 4xTL5-14W/840 HFP C6 PI FL	4,5	0,76	13040800
TBS235 4xTL5-14W/840 HFP D6 PI FL	4,5	0,76	13042200
TBS235 4xTL5-14W/840 HFP M6 PI FL	4,5	0,71	13044600
TBS235 3xTL5-14W/840 HFP C6 PI FL	4,5	0,76	13046000
TBS235 3xTL5-14W/840 HFP D6 PI FL	4,5	0,76	13048400
TBS235 3xTL5-14W/840 HFP M6 PI FL	4,5	0,71	13050700

## Short optics description

- C6 High-gloss aluminium optic with 3-dimensional lamellae
- D6 Semi-high-gloss aluminium optic with 3-dimensional lamellae
- M6 Matt aluminium optic with 3-dimensional lamellae



TBS160 4x18W C6-60



IP 20

IK 07

950°C



IP 40

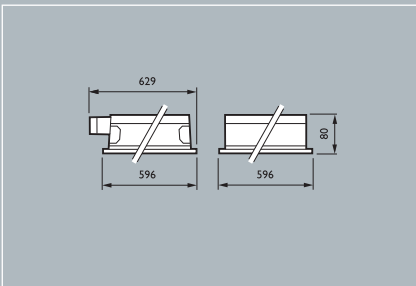
IK 08

850°C

for P-optic



Dimensions in mm



TBS160 3x/4x 18W

## Impala TBS160

Functional, economical luminaire for TL-D fluorescent lamps with a wide range of optics and prismatic plate. The optic or plate is supplied with the luminaire. Fixation of the optics/plate to the housing by innovative clip, to facilitate installation and maintenance. Mains connection can be made without opening the luminaire, due to a smart external connection system. The luminaire fits standard in visible profile ceilings and it fits also, by using accessories, in concealed and plaster ceilings. Choice of different versions available (optional):

- versions 3/4 x 18 W, 2/3/4 x 36 W (TL-D)
- lamps installed and protection foil (ready-to-install luminaires)
- plug-in connector GST 18/3
- emergency lighting 1- or 3-hours

## Applications

- Office spaces
- Department stores, fashion shops
- Recreational areas
- Discount stores, hyper-/ supermarkets, do-it-yourself shops
- Normal industries

## Technical description

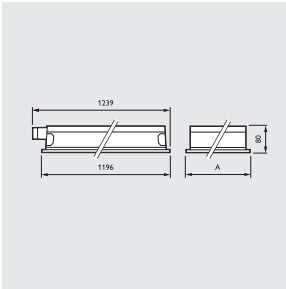
- Gear/power supply: HF: 220 V - 240 V (HFR, HFR, EI\*) conventional: 230 V or 240 V
- Lamps: 2, 3 and 4 TL-D/TL5 (16 mm) fluorescent
- Connection: push-in connection block
- Housing: pre-lacquered white steel
- \* Electronic Included

## Installation

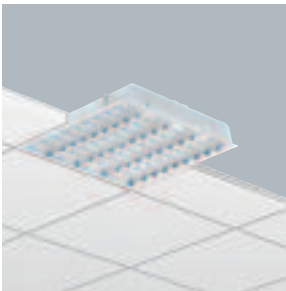
- Mounting: individual
- Modules: 600 x 600, 300 x 1 200, 600 x 1 200 mm
- Ceilings: visible ceiling types profile 15 or 24 mm, with accessories in concealed or plaster ceilings
- Connection to mains can be made by an external connection
- In each corner of the housing, holes are available for safety chain or thread rod
- Optic fixation by innovative clip

## Accessories

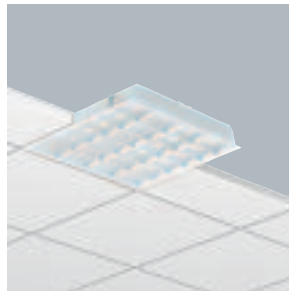
- Suspension brackets
- Plaster clips (for 18W versions only)



Product ID	A
TBS160 2x36W	296
TBS160 3x36W/4x36W	596



TBS160 4x18W M6



TBS160 4x18W M2



TBS160 4x18W P

### Preferred selection

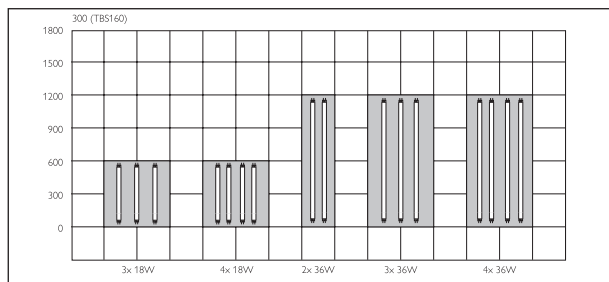
Product ID	Weight (kg)	Light Output Ratio (LOR)	European Order Code (EOC)
TBS160 4xTL-D18W HFP C6-60 PI	3,7	0,66	29791000
TBS160 4xTL-D18W IC C6-60 PI	4,4	0,66	29842900
TBS160 4xTL-D18W IC M6 PI	4,4	0,62	29850400
TBS160 4xTL-D18W IC M2 PI	3,9	0,66	29849800
TBS160 4xTL-D18W IC 240V M2 SI	3,9	0,66	30918700
TBS160 4xTL-D18W IC L1 PI	4,6	0,67	29633300
TBS160 4xTL-D18W IC P PI	4,7	0,58	29821400
TBS160 2xTL-D36W IC C6-60 PI	4,4	0,64	29665400
TBS160 2xTL-D36W IC M2 PI	4,3	0,61	29667800

IC versions equipped with 230V/50Hz gear unless specified otherwise. Other voltages/frequencies available on request

### Short optics description

- C6-60 High-gloss aluminium optic with 3-dimensional lamellae
- M6 Matt aluminium optic with 3-dimensional lamellae
- M2 Matt aluminium optic with concave profiled aluminium lamellae
- L1 White prelacquered louvre with concave lamellae
- P Polycarbonate prismatic cover

## Module



### ZBS160 MB

Suspension bracket set for recessed mounting in false ceilings with concealed profile.



### ZBS160 PLA

Set of plaster clips for recessed mounting in plaster ceilings and only for the 3 and 4 x 18 W versions.

## Accessory

ZBS160 MB (4PCS)  
ZBS160 PLA (40PCS)

## Weight (kg)

0.17  
0.12

## European Order Code (EOC)

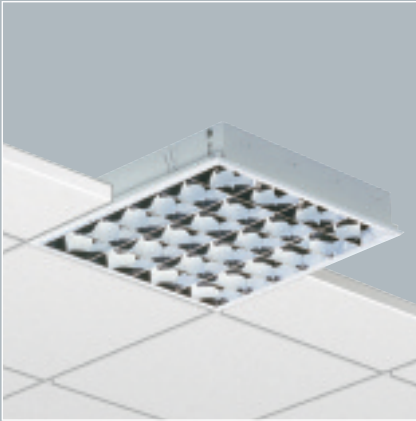
29960099  
29966299





# Recessed luminaires

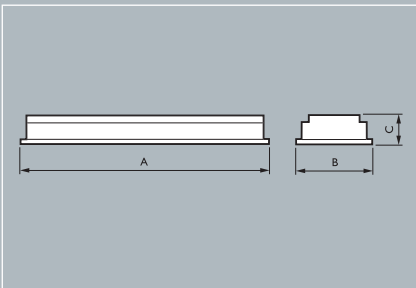
TBS269



TBS269 4x18W



Dimensions in mm



## TBS269

Functional modular luminaire for 4xTL-D fluorescent 18W lamps (2xTL-D36W on request) and an optional 3-hour emergency lighting circuit for 1 lamp. Housing can be accommodated to different ceiling systems including "Dampa" & Armstrong ceilings. Meets LG3 Cat II glare norms ( $L_m \leq 200 \text{cd/m}^2$ ). Ease in mounting and installation with pleasing aesthetics.

## Applications

- Individual offices
- General open offices
- Service areas
- Corridors & Staircases
- Recreational areas
- Department stores, Fashion shops etc.

## Technical description

- Gear/power supply:  
HF 220V-240V/50-60Hz  
Conventional: I, IC, 230V or 240V/50Hz, 127V or 220V/60Hz
- Housing: 0.6mm sheet steel with epoxy white powder coating
- Double Parabolic mirror made of bright, pre-anodized high purity aluminum of 99.9%. Cat II glare norms achieved.
- Class I
- LOR > 60 %

## Installation

- Resting on T-bar
- With mounting brackets for concealed ceilings
- Suspension via hooks or chains.

## Accessories

- Mounting bracket set ZGN269

Type	A max.	B max.	C max.
TBS269 4x18W	597	597	110
TBS269 2x36W	1197	297	110

## Preferred selection

Product ID	Order Code
TBS269 4XTLD18W HFP C5 SI WH	9129 001 43971
TBS269 4XTLD18W EI C5 SI WH	9129 001 51971
TBS269 4XTLD18W 230V IC C5 SI WH	9129 001 54971
TBS269 4XTLD18W 240V IC C5 SI WH	9129 001 41971

Other voltages/frequencies available on request

## Short optics description

C5 High-gloss aluminium optic with V-shape lamellae

Accessory	Description	Order Code
ZGN269	Mounting bracket set	9129 001 47971

# Recessed luminaires

TBS120

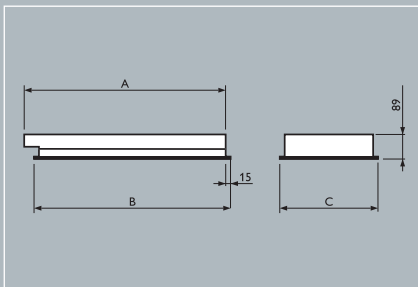


TBS120 4x18W C5

  with P-cover

 with P-cover on request

Dimensions in mm



## TBS120

Economical general-purpose recessed TL-D luminaire. A wide variety of optics, gear, and lamps is available to have the perfect fit for many applications. The sturdy and durable luminaire (0.6mm sheet steel housing) meets Philips' high standards and ensure reliable and high quality performance for many years. The installation is straight-forward and doesn't require any special tools. Surface mounted types are also available (TCS120).

TBS120 will enhance the appearance of any ceiling!

## Applications

- Office
- Discount shops
- Department store
- Light industries
- Dust protected areas

## Technical description

- Lamps: 2x36W or 4x18W TL-D fluorescent
- Gear/power supply:  
HFP and EI\*, 220-240V/50-60Hz, conventional:  
I, IC, 230V or 240V/50Hz, 127V or 220V/60Hz
- Housing: 0.6mm sheet steel with epoxy white powder coating
- Optics: High-gloss (C5), Matt (M2) or Prismatic acrylic cover (P)
- Emergency lighting (3 hours) optional for 1 lamp
- IP44 versions with prismatic cover available on request

\* EI = Electronic Included

## Installation

- Electrical connection: screw connector
- Lay-in or with mounting brackets for concealed profiles

## Accessories

- Mounting bracket set ZGN120

Product ID	A	B	C
TBS120 4x18W	613	595	595
TBS120 2x36W	1223	1195	295

# Recessed luminaires

TBS120



TBS120 2x36W M2



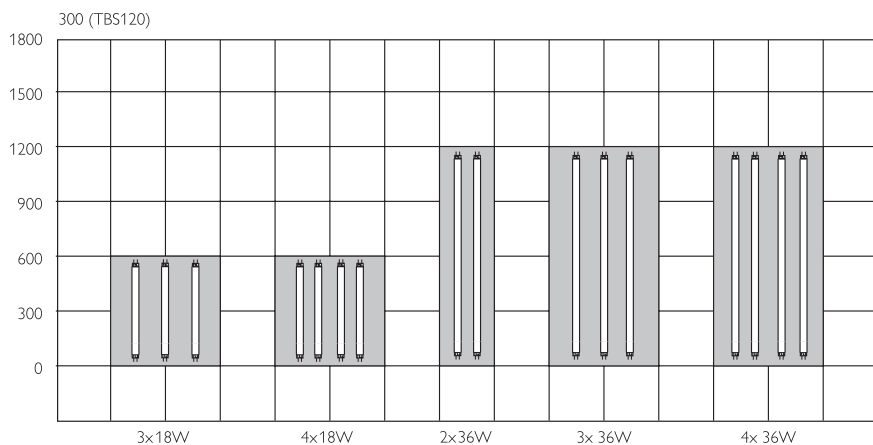
TBS120 2x36W P



TBS120 4x18W P



TBS120 optional with emergency pack (3 hours)



## Preferred selection

Product ID	Order Code
TBS120 4XTLD18W HFP C5 SI WH	9129 011 56971
TBS120 4XTLD18W HFP M2 SI WH	9129 027 92971
TBS120 4XTLD18W HFP P SI WH	9129 011 57971
TBS120 4XTLD18W EI C5 SI WH	9129 011 93971
TBS120 4XTLD18W EI M2 SI WH	9129 006 76971
TBS120 4XTLD18W EI P SI WH	9129 006 79971
TBS120 4XTLD18W 230V IC C5 SI WH	9129 016 36971
TBS120 4XTLD18W 230V IC M2 SI WH	9129 015 91971
TBS120 4XTLD18W 230V IC P SI WH	9129 015 83971
TBS120 4XTLD18W 240V IC C5 SI WH	9129 011 54971
TBS120 4XTLD18W 240V IC M2 SI WH	9129 007 92971
TBS120 4XTLD18W 240V IC P SI WH	9129 007 84971
TBS120 4XTLD18W 230V I M2 SI WH	9129 006 92971
TBS120 2XTLD36W HFP C5 SI WH	9129 006 66971
TBS120 2XTLD36W EI C5 SI WH	9129 013 59971
TBS120 2XTLD36W EI M2 SI WH	9129 006 77971
TBS120 2XTLD36W EI P SI WH	9129 013 47971
TBS120 2XTLD36W 230V IC C5 SI WH	9129 013 89971
TBS120 2XTLD36W 230V IC M2 SI WH	9129 015 93971
TBS120 2XTLD36W 230V IC P SI WH	9129 015 85971
TBS120 2XTLD36W 240V IC C5 SI WH	9129 011 60971
TBS120 2XTLD36W 240V IC M2 SI WH	9129 007 94971
TBS120 2XTLD36W 240V IC P SI WH	9129 007 86971

Other voltages/frequencies available on request

## Short optics description

- C5 High-gloss aluminium optic with V-shape lamellae
- M2 High-gloss aluminium optic with matt profiled aluminium lamellae
- P Prismatic cover (acrylic) sealed in white extruded aluminium frame



## ZGN120

Suspension bracket set for recessed mounting in false ceilings with concealed profile.

## Accessory

ZGN120

## Description

Mounting bracket set

## Order Code

9129 006 86971

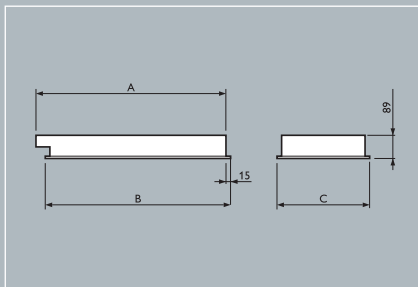




TBS020 4x18W M2



Dimensions in mm



## TBS020

Attractive low-cost recessed TL-D luminaire.

A limited range of optics, gear, and lamps is available to have the perfect fit for many applications. The sturdy and durable luminaire (0.6mm sheet steel housing) meets Philips' high standards and ensure reliable and high quality performance for many years. The installation is straight-forward and doesn't require any special tools. Surface mounted types are also available (TCS020).

The TBS020 range offers an economical and attractive lighting solution.

## Applications

- Office
- Discount shops
- Department store
- Light industries

## Technical description

- Lamps: 2x36W or 4x18W TL-D fluorescent
- Gear/power supply:
  - Conventional: I, 230V or 240V/50Hz, 127V or 220V/60Hz
  - IC, EI, HFP available on request
- Housing: 0.6mm sheet steel with epoxy white powder coating
- Optics: Matt (M) or Prismatic polystyrene cover (P)
- Emergency lighting (3 hours) optional for 1 lamp

## Installation

- Electrical connection: screw connector
- Lay-in or with mounting brackets for concealed profiles

## Accessories

- Mounting bracket set ZGN020

Product ID	A	B	C
TBS020 4x18W	613	595	595
TBS020 2x36W	1223	1195	295



TBS020 2x36W P



TBS020 4x18W P



Reliable provision for suspension springs

## Preferred selection

Product ID	Order Code
TBS020 4XTLD18W 230V I M SI WH	9129 015 27971
TBS020 4XTLD18W 230V I P SI WH	9129 015 15971
TBS020 4XTLD18W 240V I M SI WH	9129 007 28971
TBS020 4XTLD18W 240V I P SI WH	9129 007 16971
TBS020 4XTLD18W 220V I M SI WH	9129 010 00971
TBS020 4XTLD18W 220V I P SI WH	9129 009 88971
TBS020 4XTLD18W 127V I M SI WH	9129 008 64971
TBS020 4XTLD18W 127V I P SI WH	9129 008 52971
TBS020 2XTLD36W 230V I M SI WH	9129 015 29971
TBS020 2XTLD36W 230V I P SI WH	9129 015 17971
TBS020 2XTLD36W 240V I M SI WH	9129 007 30971
TBS020 2XTLD36W 240V I P SI WH	9129 007 18971
TBS020 2XTLD36W 220V I M SI WH	9129 010 02971
TBS020 2XTLD36W 220V I P SI WH	9129 009 90971
TBS020 2XTLD36W 127V I M SI WH	9129 008 66971
TBS020 2XTLD36W 127V I P SI WH	9129 008 54971

Other voltages/frequencies available on request

## Short optics description

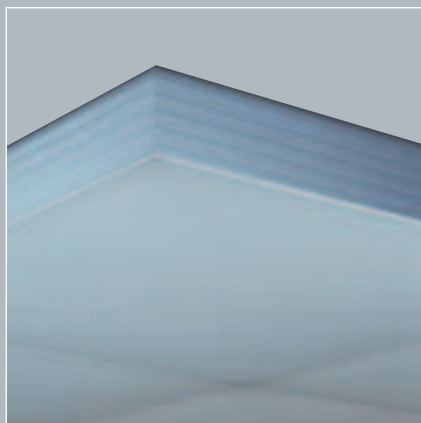
- M Aluminium optic with matt profiled aluminium lamellae
- P Prismatic cover (polystyrene)

Accessory	Description	Order Code
ZGN020	Mounting bracket set	9129 014 98971



# Surface-mounted luminaires

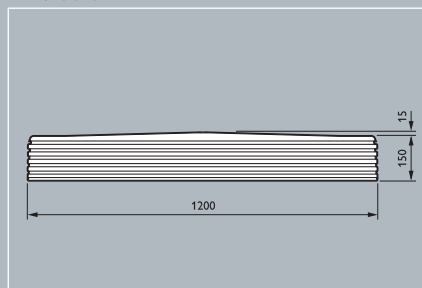
Strato



TPH710



Dimensions in mm



## Strato

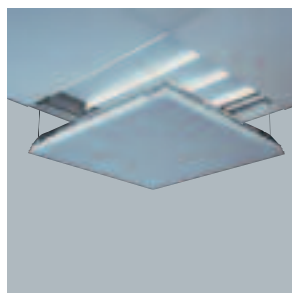
Strato is a modular light system. It's self-supporting housing is made of extruded aluminium and features trapezoidal slots for connecting the luminaire modules to one another. Into the housing is inserted a translucent PMMA cover with an integrated patented diffuser to create a homogeneous luminous surface. The cover can be suspended via a damped spring locking system to facilitate maintenance. The luminaire can be suspended or wall mounted.

### Technical description Strato Sky:

- Gear/power supply: HF-Regulator 1-10 V or Dali (on request)
- Weight per module: approx. 30 kg
- Lamps: 4x2xTL5-28W; lightcolours: 827 and 865 for colour mixing
- Power consumption: max. approx. 250 W per module
- LOR: approx. 0,5
- For Lighting controls customised solutions can be created with Philips standard components.

### Technical description Strato Rainbow:

- Gear/power supply: HF-Regulator 1-10V or Dali (on request)
- Weight per module: approx. 30 kg
- Lamps: 4x3xTL5-28W; lightcolours: red, green and blue for colour mixing
- Power consumption: max. approx. 380 W per module
- LOR: approx. 0,5
- For Lighting controls customised solutions can be created with Philips standard components.



# Surface-mounted luminaires

Strato

## Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
TPH710 8xTL5-28W/827/865 HFR	30.0	21354200
TPH710 12xTL5-28W/RGB HFR	30.0	21352800



# Surface-mounted luminaires

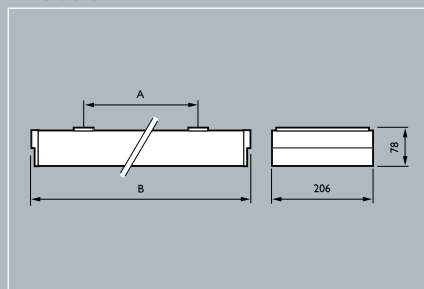
Centura



TCS098 2x TL-D L



Dimensions in mm



## Centura TCS098

Basic luminaire for TL-D fluorescent lamp(s) in 2 x 18 W, 1/2 x 36 W, 1/2 x 58 W executions with choice of 4 optics (L, C3, ML, A). Fixation of the optics to the housing by innovative clips, to facilitate installation and maintenance. Dedicated Class II versions are also available. Optics supplied with the luminaire.

## Applications

- Office spaces
- Recreational areas
- Public buildings, hospitals and schools
- Discount stores, hyper-/ supermarkets, do-it-yourself shops
- Department stores, fashion shops
- Normal industries

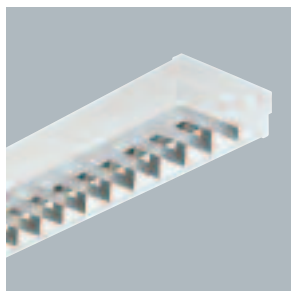
## Technical description

- Gear/power supply:  
HF: 220 V - 240 V (HFP, EI\*)  
conventional: 230 V or 240 V (optional)
  - Lamps: 1 and 2 TL-D fluorescent
  - Housing: white pre-lacquered steel with PC/ABS end-caps
  - Optional: emergency lighting
- \* Electronic Included

Product ID	A	B
TCS098 2x18W	450	641
TCS098 1x36W/2x36W	900	1251
TCS098 1x58W/2x58W	1200	1551

# Surface-mounted luminaires

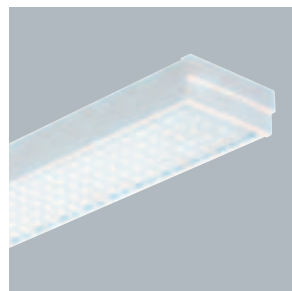
Centura



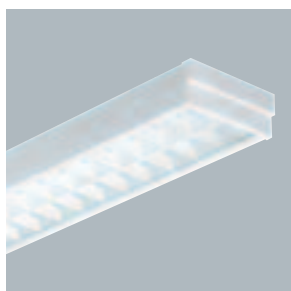
TCS098 1xTL-D36W C3



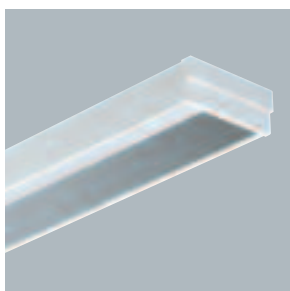
TCS098 2xTL-D36W C3



TCS098 2xTL-D36W ML



TCS098 1xTL-D36W L



TCS098 1xTL-D36W A

## Preferred selection

Product ID	Weight (kg)	Light Output Ratio (LOR)	European Order Code (EOC)
TCS098 1xTL-D36W EI C3	2.4	0.68	30072600
TCS098 1xTL-D36W EI L	2.7	0.69	30073300
TCS098 1xTL-D36W I C3	3.0	0.68	10910700
TCS098 1xTL-D36W I L	3.3	0.69	10909100
TCS098 1xTL-D36W I A	3.2	0.70	10911400
TCS098 1xTL-D36W IC C3	3.0	0.68	10896400
TCS098 1xTL-D36W IC L	3.3	0.69	10895700
TCS098 1xTL-D36W IC A	3.2	0.70	10897100
TCS098 2xTL-D36W EI C3	2.7	0.56	30078800
TCS098 2xTL-D36W EI L	2.6	0.55	30080100
TCS098 2xTL-D36W IC C3	3.8	0.56	10899500
TCS098 2xTL-D36W IC L	4.1	0.55	10898800
TCS098 2xTL-D36W IC ML	4.2	0.49	10900800

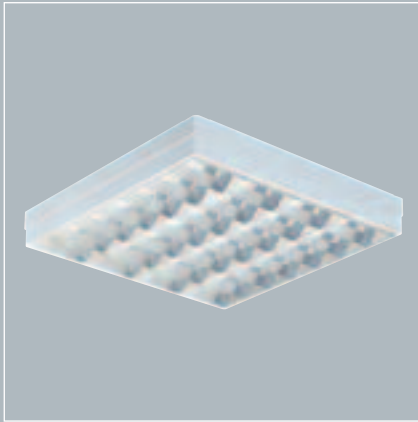
I and IC versions equipped with 230V/50Hz gear unless specified otherwise. Other voltages/frequencies available on request

## Short optics description

- C3 High-gloss aluminium optic with matt lamellae
- L White prelacquered optic
- ML Mesh-louvre
- A Aluminium asymmetrical reflector

# Surface-mounted luminaires

## Centura square



TC098 4x18W C3

### Centura TCS098 square

Basic luminaire for 4 TL-D fluorescent lamps with choice of 3 optics (C3, L, ML).  
Dedicated optics supplied with the luminaire.

### Applications

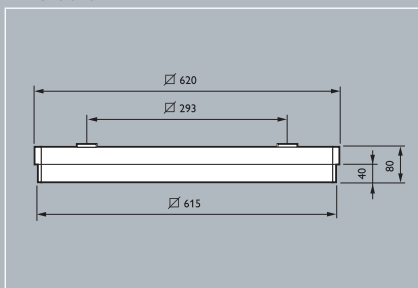
- Office spaces
- Recreational areas
- Public buildings, hospitals and schools
- Discount stores, hyper-/ supermarkets, do-it-yourself shops
- Department stores, fashion shops
- Normal industries

### Technical description

- Gear/power supply:  
HF: 220 V - 240 V  
conventional: 230 V or 240 V
- Lamps: 4 TL-D fluorescent
- Housing: white lacquered steel

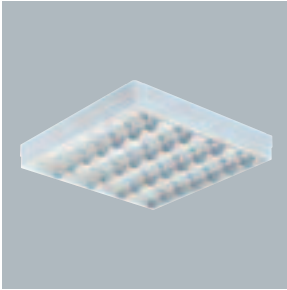


Dimensions in mm

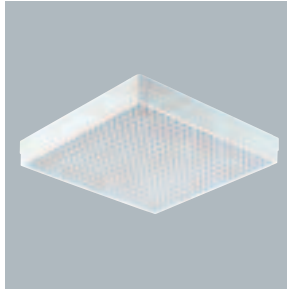


# Surface-mounted luminaires

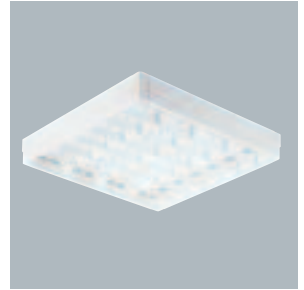
Centura square



TCS098 4xTL-D18W C3



TCS098 4xTL-D18W ML



TCS098 4xTL-D18W L

## Preferred selection

Product ID	Weight (kg)	Light Output Ratio (LOR)	European Order Code (EOC)
TCS098 4xTL-D18W HFP C3	4.9	0.68	29264900
TCS098 4xTL-D18W IC C3	5.5	0.68	11068400
TCS098 4xTL-D18W IC L	4.9	0.63	11067700
TCS098 4xTL-D18W IC ML	4.6	0.50	11069100

IC versions equipped with 230V/50Hz gear unless specified otherwise. Other voltages/frequencies available on request

## Short optics description

- C3 High-gloss aluminium optic with matt lamellae
- L White prelacquered optic
- ML Mesh-louvre

# Surface-mounted luminaires

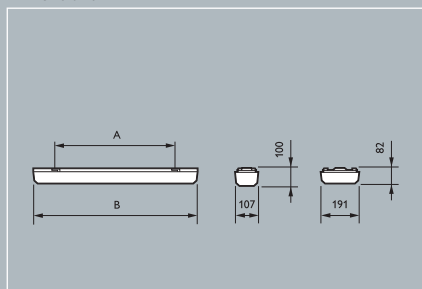
TCS097



TCS097 2x TL-D P



Dimensions in mm



## TCS097

Basic luminaire for TL-D fluorescent lamp(s) with choice of 2 covers (O = opal and P = prismatic). Covers are supplied with the luminaire.

## Applications

- Recreational areas
- Public buildings, hospitals and schools
- Dust protected areas

## Technical description

- Gear/power supply:  
HF(optional): 220 V - 240 V (HFP, EI\*)  
conventional: 230 V or 240 V
- Lamps: 1 and 2 TL-D fluorescent
- Housing: base plate in white sheet steel with plastic end-caps for perfect finishing
- Covers: in PMMA, modern design
- \* Electronic Included

## Installation

- Mounting: individual.
- Method: traditional key holes for (wood) screw fixing.

Product ID	A	B
TCS097 1x18W/2x18W	450	650
TCS097 1x36W/2x36W	900	1256
TCS097 1x58W/2x58W	1200	1556

# Surface-mounted luminaires

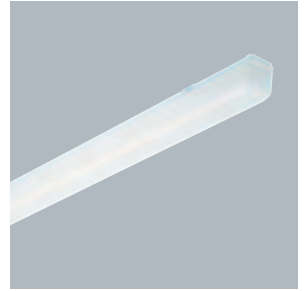
TCS097



TCS097 2xTL-D O



TCS097 1xTL-D P



TCS097 1xTL-D O

## Preferred selection

Product ID	Weight (kg)	Light Output Ratio (LOR)	European Order Code (EOC)
TCS097 1xTL-D18W I O	1.4	0.72	10644100
TCS097 1xTL-D18W I P	1.4	0.80	10645800
TCS097 1xTL-D18W IC 240V O FU	1.4	0.72	10754700
TCS097 1xTL-D18W IC 240V P FU	1.4	0.80	10755400
TCS097 1xTL-D36W EI O	1.7	0.74	12125300
TCS097 1xTL-D36W EI P	1.7	0.74	12126000
TCS097 1xTL-D36W IC O	2.1	0.74	10631100
TCS097 1xTL-D36W IC P	2.1	0.82	10632800
TCS097 1xTL-D36W IC 240V O FU	2.1	0.74	10675500
TCS097 1xTL-D36W IC 240V P FU	2.1	0.82	10676200
TCS097 1xTL-D36W I O	2.1	0.74	10648900
TCS097 1xTL-D36W I P	2.1	0.82	10649600
TCS097 2xTL-D18W I O	1.9	0.74	10646500
TCS097 2xTL-D18W I P	1.9	0.84	10647200
TCS097 2xTL-D18W IC 240V O FU	1.9	0.74	10673100
TCS097 2xTL-D18W IC 240V P FU	1.9	0.84	10674800
TCS097 2xTL-D36W EI O	3.0	0.64	12127700
TCS097 2xTL-D36W EI P	3.0	0.72	12128400
TCS097 2xTL-D36W IC O	3.3	0.64	10633500
TCS097 2xTL-D36W IC P	3.3	0.72	10634200
TCS097 2xTL-D36W IC 240V O FU	3.3	0.64	10677900
TCS097 2xTL-D36W IC 240V P FU	3.3	0.72	10678600
TCS097 2xTL-D36W I O	3.3	0.64	12368400
TCS097 2xTL-D36W I P	3.3	0.72	12369100

I and IC versions equipped with 230V/50Hz gear unless specified otherwise. Other voltages/frequencies available on request

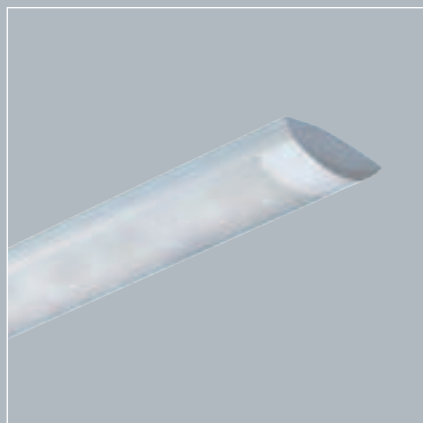
## Short optics description

- O Opal cover (acrylic)
- P Prismatic cover (acrylic)



# Surface-mounted luminaires

Modella



TCS125 P

## Modella TCS125

Luminaire for TL-D linear fluorescent lamps with aesthetic, unique design which perfectly harmonizes with interiors. Choice of smooth, easy to clean, opal or prisma covers. Covers suspendable on the endcaps allow easy lamp replacement without tools.

### Applications

- Normal industries
- Corridors, staircases
- Office spaces
- Recreational areas (restaurants, cafeterias)
- Discount stores, Hypermarkets, Do-it-yourself shops

### Technical description

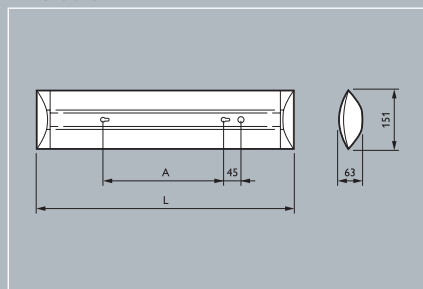
- Gear/power supply:
  - Conventional: 230 V (I of IC gear)
  - Electronic: 230-240 V (EI, Electronics included)
  - Lamps: 2 TL-D linear fluorescent
- Housing: white, powder painted steel with plastic end-caps, and opal or prismatic cover internally ribbed.

### Installation

Luminaire easy to install and maintenance friendly. Surface mounted, can be suspended.



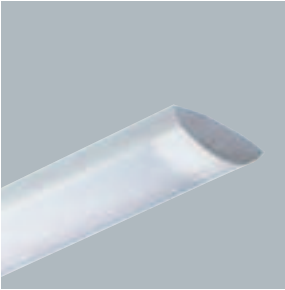
Dimensions in mm



Product ID	A	L
TCS125 2x18W	320	680
TCS125 2x36W	930	1292
TCS125 2x58W	1230	1592

# Surface-mounted luminaires

Modella



TCS125 O

## Preferred selection

Product ID	Weight (kg)	Light Output Ratio (LOR)	European Order Code (EOC)
TCS125 2xTL-D18W I P	1.6	0.61	12337000
TCS125 2xTL-D18W I O	1.6	0.52	12338700
TCS125 2xTL-D36W I P	3.1	0.63	12339400
TCS125 2xTL-D36W I O	3.1	0.54	12340000
TCS125 2xTL-D58W I P	4.3	0.62	12341700
TCS125 2xTL-D58W I O	4.3	0.53	12342400
TCS125 2xTL-D18W IC P	1.7	0.61	12327100
TCS125 2xTL-D18W IC O	1.7	0.52	12328800
TCS125 2xTL-D36W IC P	3.1	0.63	12329500
TCS125 2xTL-D36W IC O	3.1	0.54	12330100
TCS125 2xTL-D58W IC P	4.3	0.62	12331800
TCS125 2xTL-D58W IC O	4.3	0.53	12332500
TCS125 2xTL-D36W EI P	2.2	0.63	12333200
TCS125 2xTL-D36W EI O	2.2	0.54	12334900
TCS125 2xTL-D58W EI P	2.6	0.62	12335600
TCS125 2xTL-D58W EI O	2.6	0.53	12336300

I and IC versions equipped with 230V/50Hz gear. EI versions 230-240V/50-60HZ

## Short optics description

- O Opal cover (acrylic)
- P Prismatic cover (acrylic)

# Surface-mounted luminaires

TCS120



TCS120 4x18W C5



IP 20

IP 40

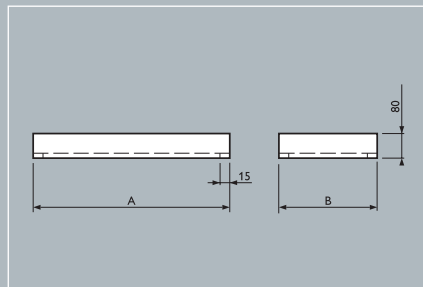
with P-cover



IP 44

with P-cover on request

Dimensions in mm



## TCS120

Economical general-purpose surface-mounted TL-D luminaire. A wide variety of optics, gear, and lamps is available to have the perfect fit for many applications. The sturdy and durable luminaire (0.6mm sheet steel housing) meets Philips' high standards and ensure reliable and high quality performance for many years. The installation is straight-forward and doesn't require any special tools. Recessed types are also available (TBS120).

TCS120 will enhance the appearance of any ceiling!

## Applications

- Offices
- Discount shops
- Department stores
- Light industries
- Dust protected areas

## Technical description

- Lamps: 2x36W, 4x18W or 4x36W TL-D fluorescent
  - Gear/power supply: HFP and EI\*, 220-240V/50-60Hz, conventional: I, IC, 230V or 240V/50Hz, 127V or 220V/60Hz
  - Housing: 0.6mm sheet steel with epoxy white powder coating
  - Optics: High-gloss (C5), Matt (M2) or Prismatic acrylic cover (P)
  - Emergency lighting (3 hours) optional for 1 lamp
  - IP44 versions with prismatic cover available on request
- \* EI = Electronic Included

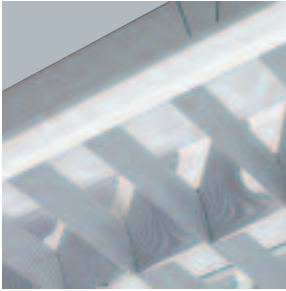
## Installation

- Electrical connection: screw connector
- Fixation with screws in pre-positioned holes

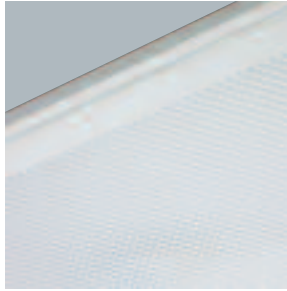
Product ID	A	B
TCS120 4x18W	612	595
TCS120 2x36W	1222	300
TCS120 4x36W	1222	595

# Surface-mounted luminaires

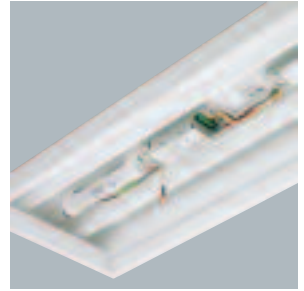
TCS120



Optic M2; efficient lamellae for wide beam



Prismatic cover (P) for functional wide spread of light



TCS120 available with emergency-pack

## Preferred selection

Product ID	Order Code
TCS120 4XTLD18W HFP C5 SI WH	9129 016 78971
TCS120 4XTLD18W EI C5 SI WH	9129 016 77971
TCS120 4XTLD18W EI M2 SI WH	9129 028 37971
TCS120 4XTLD18W EI P SI WH	9129 003 36971
TCS120 4XTLD18W 230V IC C5 SI WH	9129 016 38971
TCS120 4XTLD18W 230V IC M2 SI WH	9129 016 23971
TCS120 4XTLD18W 230V IC P SI WH	9129 016 15971
TCS120 4XTLD18W 240V IC C5 SI WH	9129 011 65971
TCS120 4XTLD18W 240V IC M2 SI WH	9129 008 24971
TCS120 4XTLD18W 240V IC P SI WH	9129 008 16971
TCS120 4XTLD18W 230V I M2 SI WH	9129 004 65971
TCS120 2XTLD36W HFP C5 SI WH	9129 011 75971
TCS120 2XTLD36W HFP P SI WH	9129 011 74971
TCS120 2XTLD36W EI P SI WH IP	9129 016 82971
TCS120 2XTLD36W EI P SI WH IP40	9129 004 69971
TCS120 2XTLD36W 230V IC C5 SI WH	9129 016 48971
TCS120 2XTLD36W 230V IC M2 SI WH	9129 016 25971
TCS120 2XTLD36W 230V IC P SI WH	9129 016 17971
TCS120 2XTLD36W 240V IC C5 SI WH	9129 011 76971
TCS120 2XTLD36W 240V IC M2 SI WH	9129 008 26971
TCS120 2XTLD36W 240V IC P SI WH	9129 008 18971
TCS120 2XTLD36W 230V I M SI WH	9129 011 70971
TCS120 2XTLD36W 230V I M2 SI WH	9129 004 63971
TCS120 4XTLD36W 230V IC C5 SI WH	9129 028 35971
TCS120 4XTLD36W 230V IC M2 SI WH	9129 016 27971
TCS120 4XTLD36W 230V IC P SI WH	9129 016 19971
TCS120 4XTLD36W 240V IC M2 SI WH	9129 008 28971
TCS120 4XTLD36W 240V IC P SI WH	9129 008 20971
TCS120 4XTLD36W 230V I M2 SI WH	9129 004 66971

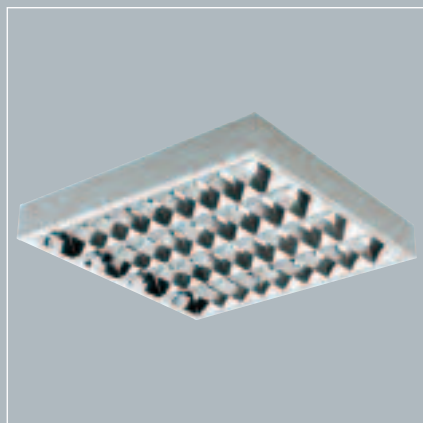
Other voltages/frequencies available on request

## Short optics description

- C5 High-gloss aluminium optic with V-shape lamellae
- M2 High-gloss aluminium optic with matt profiled aluminium lamellae
- P Prismatic cover (acrylic) sealed in white extruded aluminium frame

# Surface-mounted luminaires

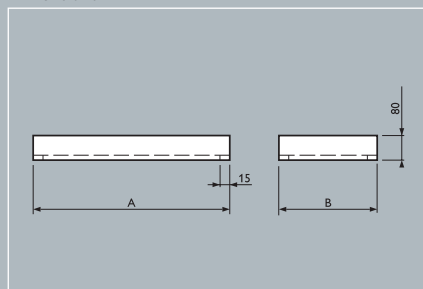
TCS020



TCS020 4x18W M



Dimensions in mm



## TCS020

Attractive low-cost surface-mounted TL-D luminaire. A limited range of optics, gear, and lamps is available to have the perfect fit for many applications.

The sturdy and durable luminaire (0.6mm sheet steel housing) meets Philips' high standards and ensure reliable and high quality performance for many years. The installation is straight-forward and doesn't require any special tools. Recessed types are also available (TBS020).

The TCS020 range offers an economical and attractive lighting solution.

## Applications

- Offices
- Discount shops
- Department stores
- Light industries

## Technical description

- Lamps: 2x36W or 4x18W TL-D fluorescent
- Gear/power supply:  
Conventional: I, 230V or 240V/50Hz, 127V or 220V/60Hz. IC, EI, HFP available on request
- Housing: 0.6mm sheet steel with epoxy white powder coating
- Optics: Matt (M) or Prismatic polystyrene cover (P)
- Emergency lighting (3 hours) optional for 1 lamp

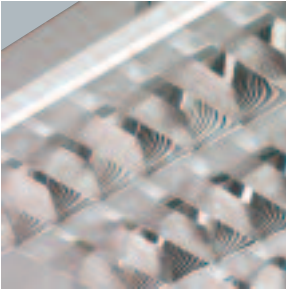
## Installation

- Electrical connection: screw connector
- Fixation with screws in pre-positioned holes

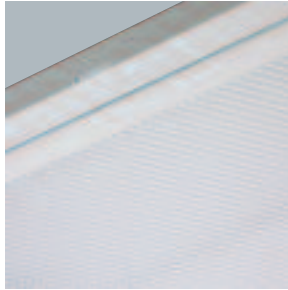
Product ID	A	B
TCS020 4x18W	612	595
TCS020 2x36W	1222	300

# Surface-mounted luminaires

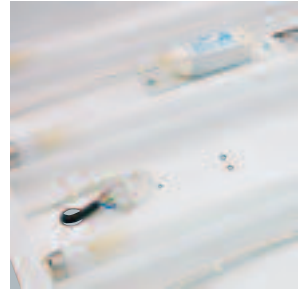
TCS020



Matt aluminium optic (M)



Prismatic cover (P)



TCS020 includes reknown Philips ballasts

## Preferred selection

### Product ID

### Order Code

TCS020 4XTLD18W 230V I M SI WH	9129 015 59971
TCS020 4XTLD18W 230V I P SI WH	9129 015 51971
TCS020 4XTLD18W 240V I M SI WH	9129 007 60971
TCS020 4XTLD18W 240V I P SI WH	9129 007 52971
TCS020 4XTLD18W 220V I M SI WH	9129 010 32971
TCS020 4XTLD18W 220V I P SI WH	9129 010 24971
TCS020 4XTLD18W 127V I M SI WH	9129 008 96971
TCS020 4XTLD18W 127V I P SI WH	9129 008 88971
TCS020 2XTLD36W 230V I M SI WH	9129 015 61971
TCS020 2XTLD36W 230V I P SI WH	9129 015 53971
TCS020 2XTLD36W 240V I M SI WH	9129 007 62971
TCS020 2XTLD36W 240V I P SI WH	9129 007 54971
TCS020 2XTLD36W 220V I M SI WH	9129 010 34971
TCS020 2XTLD36W 220V I P SI WH	9129 010 26971
TCS020 2XTLD36W 127V I M SI WH	9129 008 98971
TCS020 2XTLD36W 127V I P SI WH	9129 008 90971

Other voltages/frequencies available on request

### Short optics description

- M Aluminium optic with matt profiled aluminium lamellae
- P Prismatic cover (polystyrene)

# Surface-mounted luminaires

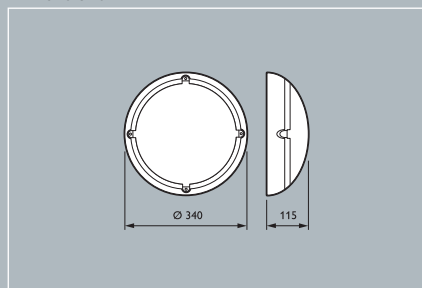
## Gondola



FWG200/QWG200 ALU



Dimensions in mm



### Gondola

Wall/ceiling mounted luminaires for incandescent and/or compact fluorescent lamps (PL-C and PL-S), ranging from waterproof/vandal resistant versions to purely decorative.

### Applications

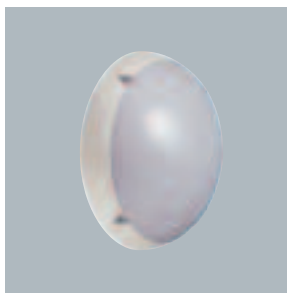
- Public buildings, hospitals and schools.

### Technical description

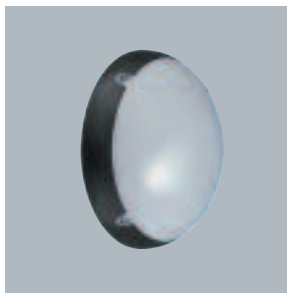
- Power supply: 230 V
- Material: base in thermoplastic reinforced with fiber glass, diffuser in opal polycarbonate, aluminium reflector.
- Colours: base in white, black or metal grey
- Lamp socket:  
E27: QWG-types  
G24d-2, G24d-3, G23 or G24q2: FWG-types

### Installation

- Method: with 2 - 4 steel screws.
- Maintenance: lamp access after removing the polycarbonate cover:



FWG200/QWG200 WH

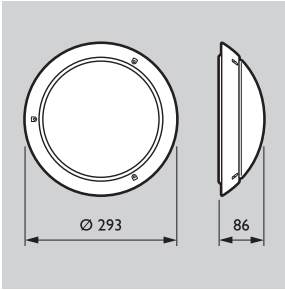


FWG200/QWG200 BK

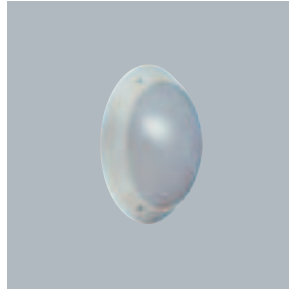
# Surface-mounted luminaires

Gondola

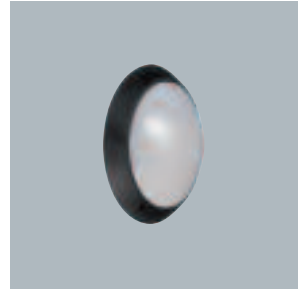
Dimensions in mm



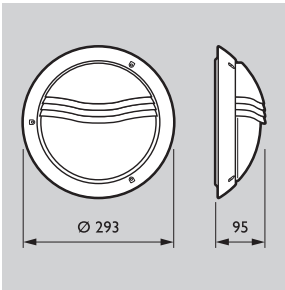
FWG210



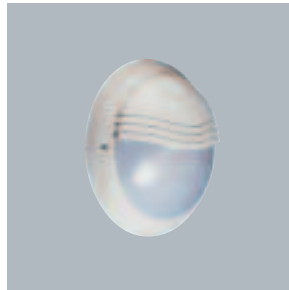
FWG210 WH



FWG210 BK



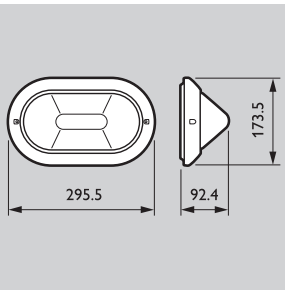
FWG220



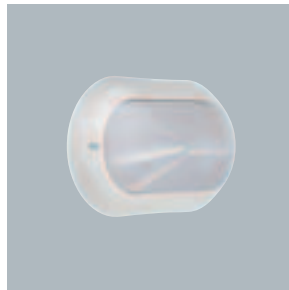
FWG220 WH



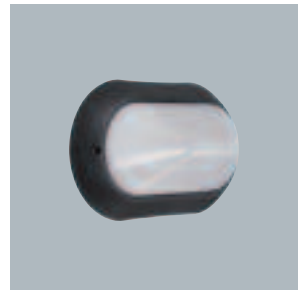
FWG220 BK



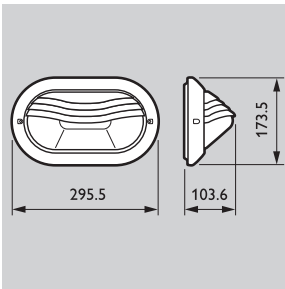
FWG230



FWG230 WH



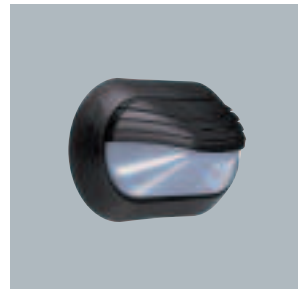
FWG230 BK



FWG240



FWG240 WH



FWG240 BK

**PHILIPS**

LUMINAIRES INDOOR

**9.35**



# Surface-mounted luminaires

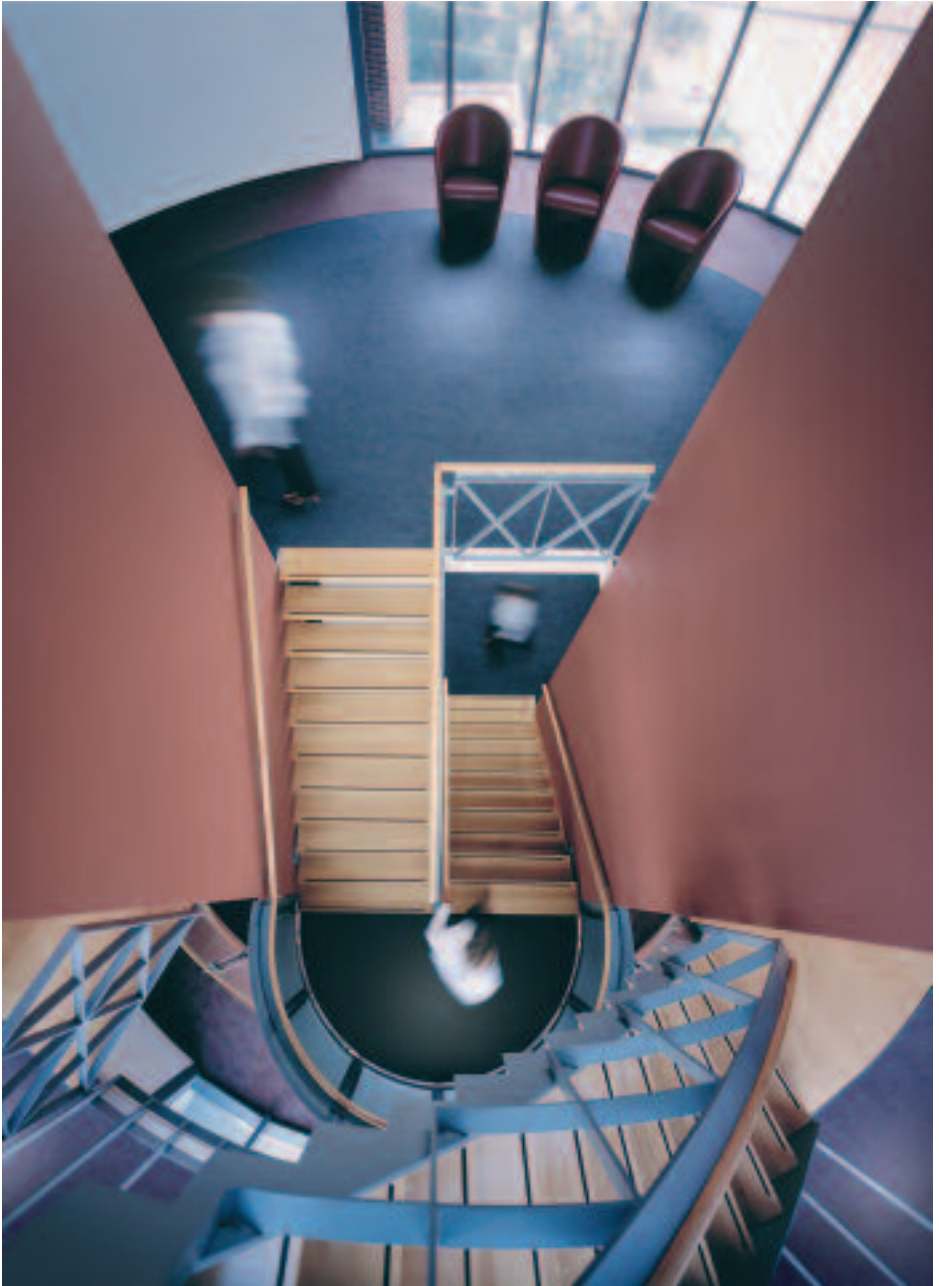
Gondola

## Preferred selection

Product ID	Colour ALU = Aluminium, BK = Black, WH = White	Weight (kg)	European Order Code (EOC)
FWG200 1xPL-C/4P18W I EL1 ALU	ALU	1.50	65668700
FWG200 1xPL-C/4P18W I EL1 BK	BK	1.50	65667000
FWG200 1xPL-C/4P18W I EL1 WH	WH	1.50	65666300
FWG200 2xPL-C/2P18W I ALU	ALU	2.50	65665600
FWG200 2xPL-C/2P18W I BK	BK	2.50	65664900
FWG200 2xPL-C/2P18W I WH	WH	2.30	65663200
FWG210 1xPL-C/2P18W I BK	BK	1.00	65670000
FWG210 1xPL-C/2P18W I WH	WH	1.00	65669400
FWG210 1xPL-C/2P26W I BK	BK	1.20	65672400
FWG210 1xPL-C/2P26W I WH	WH	1.20	65671700
FWG220 1xPL-C/2P18W I BK	BK	1.10	65674800
FWG220 1xPL-C/2P18W I WH	WH	1.10	65673100
FWG230 2xPL-S/2P9W I BK	BK	0.80	65678600
FWG230 2xPL-S/2P9W I WH	WH	0.80	65677900
FWG240 2xPL-S/2P9W I BK	BK	0.90	65680900
FWG240 2xPL-S/2P9W I WH	WH	0.90	65679300
QWG200 A60-100W CLII ALU	ALU	1.40	65662500
QWG200 A60-100W CLII BK	BK	1.50	65661800
QWG200 A60-100W CLII WH	WH	1.50	65660100
QWG210 A60-75W CLII BK	BK	0.70	82439000
QWG210 A60-75W CLII WH	WH	0.70	82438300

# Surface-mounted luminaires

Gondola



## Downlights

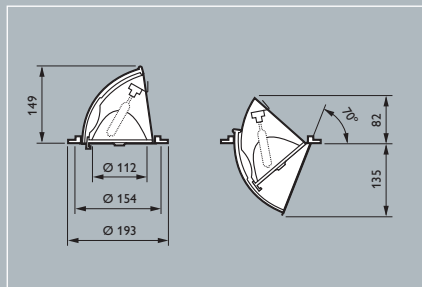
## Fugato Compact Accent lighting



MBS262 GR



Dimensions in mm



### Fugato Compact – MBS260 / 262 / 264

Family of miniaturised recessed downlights for compact HID lamps (halogen versions available on request). Fixed (MBS260), cardanic (MBS264) and fully adjustable (MBS262) versions are available to provide accent lighting in retail applications. Cutout diameter is 175 mm. Optical variation is offered by means of Fugato's 'dual optic' concept. The top optic is made of high-gloss aluminium and ensures 12°, 24° or 36° beam control. There is a seamless transition from the lower optic (matt and white) to the rim. The fixed version is offered with a flood optic (60°) for general lighting. Furthermore, gold optics (24° and 36°) are available in the adjustable and cardanic versions, especially for food applications, to make the merchandise look even fresher. Lamp, gear and accessories are delivered with the luminaire. The Fugato family also includes even smaller versions (cut-out 125mm) and a full range suited for CFL lamps.

### Applications

- Recreational areas
- Small independent food/non-food shops
- High-end fashion shops, boutiques
- Department stores, fashion shops

### Technical description

- Lamps: Full range of CDM-T, SDW-T, SDW-TG, and CDM-R lamps available.
- Gear/power supply: 230V-240V, conventional (IC) or electronic ballast (EB)
- Gearbox remote from luminaire; connection between gearbox and luminaire with 3-pole Wieland connector
- Lamp position: vertical (base-up)
- Materials: die-cast aluminium housing, stainless steel mounting frame, silver/gold aluminium reflector
- Colour: white (RAL 9010) for fixed versions and white (RAL 9010), grey and other RAL colours for adjustable and cardanic versions
- Many options available. Contact your Philips representative for more information.

# Downlights

## Fugato Compact Accent lighting

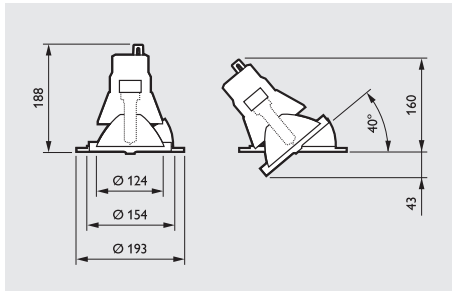
### Installation

- Cutout:  $\varnothing$  175 mm.
- Mounting: install mounting frame, make electrical connection and place optical unit into mounting frame. Luminaire including lamp and accessory can be installed directly into the ceiling.
- Thickness of false ceiling: 1 - 24 mm.

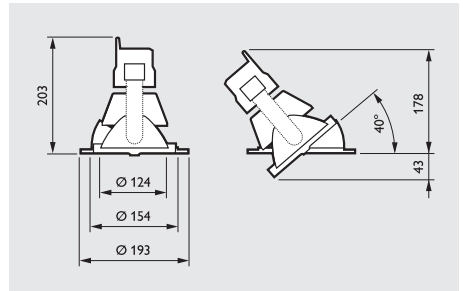
- Maintenance: remove front to replace the lamp (CDM-T/CDM-Tc); others have direct access.

### Accessories

- Colour, protection and UV filters. See next page for a full overview.



MBS264 CDM-T/SDW-TG/CDM-R111



MBS264 CDM-R30/SDW-T



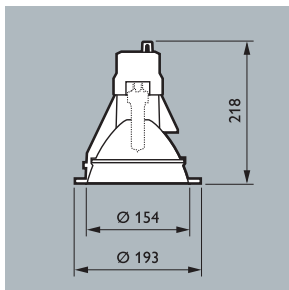
MBS264 R111 WH



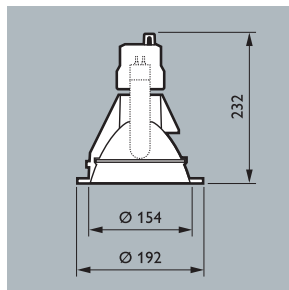
MBS264 R30 WH



MBS260 GR



MBS260 CDM-T/SDW-TG



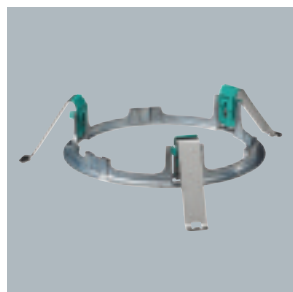
MBS260 SDW-T

# Downlights

## Fugato Compact Accent lighting

### Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
MBS260 1xCDM-T150W/830 EB 36 PI WH	1,3	94340400
MBS260 1xCDM-T150W/830 IC/230V 36 PI WH	3,6	71238300
MBS260 1xCDM-T150W/830 IC/230V 36 PI GR	3,6	94339800
MBS260 1xCDM-T70W/830 IC/230V 36 PI WH	3,1	94156100
MBS260 1xCDM-T70W/830 IC/230V 24 PI WH	3,1	94159200
MBS260 1xCDM-T35W/830 IC/230V 36 PI WH	2,3	94154700
MBS260 1xCDM-T35W/830 IC/230V 24 PI WH	2,3	94157800
MBS262 1xCDM-T70W/830 EB 36 PI WH	2,1	71073000
MBS262 1xCDM-T70W/830 EB 24 PI WH	2,1	71253600
MBS262 1xCDM-TC70W/830 EB 24 PI GR	2,1	71260400
MBS262 1xCDM-T70W/830 IC/230V 36 PI GR	3,5	94326800
MBS262 1xCDM-T35W/830 IC/230V 24 PI WH	3,5	94134900
MBS262 1xCDM-TC35W/830 EB 12 PI GR	1,6	71254300
MBS264 1xCDM-T70W/830 IC/230V 36 PI WH	3,4	94152300
MBS264 1xCDM-T70W/830 IC/230V 24 PI WH	3,4	94151600
MBS264 1xCDM-T70W/830 IC/230V 24 PI GR	3,4	71269700
MBS264 1xCDM-T70W/830 IC/240V 36 PI WH	3,4	94242100
MBS264 1xCDM-T70W/830 IC/240V 24 PI WH	3,4	94241400
MBS264 1xCDM-R111-24-70W/830 EB PIWH	1,9	78410600
MBS264 1xSDW-TG50W K EB 24 PI WH	1,9	94250600
MBS264 1xSDW-T50W K IC/230V 24 PI WH	3,3	94147900
MBS264 1xSDW-T35W K IC/230V 24 PI WH	3,3	77924900



The installation of the mounting frame that comes with Fugato downlights is a common step to take. One of the advantages of the frame is that both fixed and adjustable downlights within one size make use of the same frame, in that way they can even be exchanged in a project after they have been installed.



For MASTER Colour 35 W and 70 W lamps a new miniature independent electronic ballast will be offered with push-in connection. This makes the total system extremely compact and more easy to use.



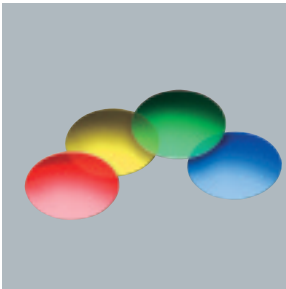
Standard push-in connection block with two contacts per pole for all connections, such as mains and controls on the gearbox.

# Downlights

# Fugato Compact Accent lighting

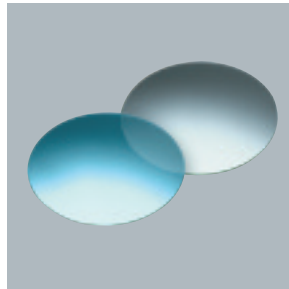


Universal, 3 pole, plug-in connector (Wieland GST18/3) for fast connection from outside the housing.



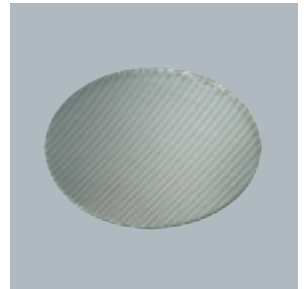
**Colour filter**  
**ZBS262 DF-RD/GN/BL/YE**  
**ZBS264 DF-RD/GN/BL/YE**

High-efficiency dichroic filters in saturated red (RD), green (GN), blue (BL), and yellow (YE).



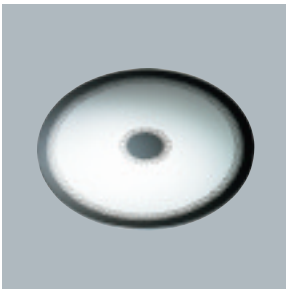
**Meat filter**  
**ZBS262 DF-MT**  
**ZBS264 DF-MT**

Filter to enhance red rendition in the light for food applications.



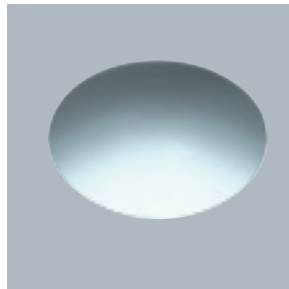
**Sculptural lens**  
**ZBS262 LS**  
**ZBS264 LS**  
**ZBS260 LS**

To elongate the beam in one direction.



**Anti-glare filter**  
**ZBS262 GCG**  
**ZBS264 GCG**  
**ZBS260 GCG**

To reduce glare, ensuring that displays are easy on the eye.



**Anti UV filter (UV-A)**  
**ZBS262 UV**  
**ZBS264 UV**  
**ZBS260 UV**

UV filter to prevent yellowing of merchandise on display.



**Protection glass (IP 44)**  
**ZBS262 PG**  
**ZBS264 PG**  
**ZBS260 PG**

Protection glass which provides IP 44 protection.

<b>Accessory</b>	<b>Used with:</b>	<b>European Order Code (EOC)</b>
ZBS262 DF-RD	Compact adjustable	71001300
ZBS264 DF-RD	Compact cardanic	71002000
ZBS262 DF-GN	Compact adjustable	71004400
ZBS264 DF-GN	Compact cardanic	71005100
ZBS262 DF-BL	Compact adjustable	71007500
ZBS264 DF-BL	Compact cardanic	71008200
ZBS262 DF-YE	Compact adjustable	71010500
ZBS264 DF-YE	Compact cardanic	71011200
ZBS262 DF-MT	Compact adjustable	71012900
ZBS264 DF-MT	Compact cardanic	71013600
ZBS262 UV	Compact adjustable	71034100
ZBS264 UV	Compact cardanic	71035800
ZBS260 UV	Compact fixed	71036500
ZBS262 LS	Compact adjustable	71016700
ZBS264 LS	Compact cardanic	71017400
ZBS260 LS	Compact fixed	71018100
ZBS262 GCG	Compact adjustable	71021100
ZBS264 GCG	Compact cardanic	71022800
ZBS260 GCG	Compact fixed	71023500
ZBS262 PG	Compact adjustable	71039600
ZBS264 PG	Compact cardanic	71040200
ZBS260 PG	Compact fixed	71041900



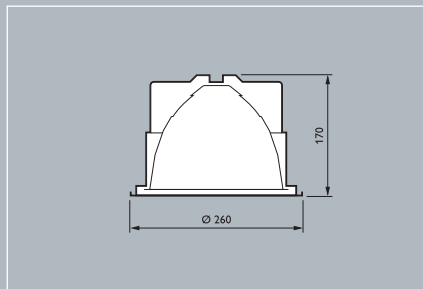




MBS205 1xCDM-TD 70W



Dimensions in mm



## MBS205/QBS205

Professional range of recessed technical downlights with an internal diameter of 205 mm. Assembled with a highly efficient aluminium reflector for double ended metal halide and double ended halogen lamps. All versions are including the aesthetical white impact resistant polycarbonate ceiling ring, protection front glass and pre-wired separate galvanised sheet steel box for conventional and electronic control gear:

## Applications

- Reception and public service areas
- Corridors and staircases
- Recreational areas
- Department stores

## Technical description

- Power supply: 230 or 240V/50Hz, 220V/60Hz
- Ballast types :
  - Conventional compensated (IC)
  - Electronic (EB) for CDM-TD 70-150W
- Lamps:
  - CDM-TD 70-150W
  - MHN-TD 250W
  - Double-ended halogen 300W R7s
- Connection:
  - Screw-in connection block
- Material:
  - Die cast aluminium body, galvanised sheet steel control gear box, polycarbonate ceiling ring, clear tempered front glass, aluminium reflector.

## Features

- Separate pre-wired gear box with ventilation slots
- High purity and high output aluminium reflector
- Die-cast aluminium housing with sturdy construction
- Double ring concept; aesthetical white impact resistant polycarbonate ceiling ring mounted with bayonet catch on an inner die cast aluminium frame
- Adjustable swing out metal clips for easy integration into various ceiling systems
- Straight forward maintenance by direct lamp access from below.

## Installation

- Ceiling cut-out diameter: 245 mm
- Suitable for ceiling thickness 1-40 mm by positioning fasteners using screw metal clips according to the thickness of the false ceiling after removing the reflector:
- Safety distance: 0.8 -1.2 m above luminaire.

## Accessories

- UV filter glass.

# Downlights

MBS205/QBS205



MBS205 1xCDM-TD 70W



Galvanised sheet steel control gear box  
(L 260 mm x W 165 mm x H 75 mm)



Mounting clips

## Preferred selection

Product ID	Mains	Order Code
MBS205 D 1XCDM-TD70W 240V IC SI	240V / 50Hz	9129 006 14971
MBS205 D 1XCDM-TD70W 230V IC SI	230V / 50Hz	9129 006 11971
MBS205 D 1XCDM-TD70W 220V IC SI	220V / 60Hz	9129 006 17971
MBS205 D 1XCDM-TD150W 240V IC SI	240V / 50Hz	9129 006 15971
MBS205 D 1XCDM-TD150W 230V IC SI	230V / 50Hz	9129 006 12971
MBS205 D 1XCDM-TD150W 220V IC SI	220V / 60Hz	9129 006 18971
MBS205 D 1XMHN-TD250W 240V IC SI	240V / 50Hz	9129 006 16971
MBS205 D 1XMHN-TD250W 230V IC SI	230V / 50Hz	9129 006 13971
MBS205 D 1XMHN-TD250W 220V IC SI	220V / 60Hz	9129 006 19971
QBS205 D 1XHAL300W R7S SI	-	9129 006 30971

## Accessory

		Order Code
ZBS205	UV glass filter	available on request



MBS145 1xCDM-TD

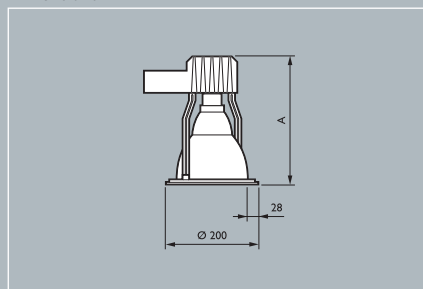


IP 40

IP 44

on request

Dimensions in mm



## MBS145

Professional, recessed technical downlights with an internal diameter of 145 mm. Assembled with a highly efficient silver aluminium reflector with satin surface finish for incandescent, single ended and double-ended metal halide Master colour lamps. All versions are including the aesthetical white impact resistant polycarbonate ceiling ring, protection front glass for Master colour tubular lamp types and pre-wired separate galvanised sheet steel box for conventional and electronic control gear:

## Applications

- Atriums, corridors and lobbies
- Shopping centers
- Department stores
- Fashion shops and boutiques
- Restaurants, cafeterias and hotels
- Museum, public buildings and waiting areas
- Airport terminal and interchanges

## Technical description

- Power supply:  
240V / 50Hz, 230V / 50Hz, 220V / 60Hz
- Ballast types:  
Conventional; inductive (I) or compensated (IC)  
Electronic
- Lamps:  
CDM-T 70-150W, CDM-TD 70-150W
- Connection: Screw-in connection block
- Material  
Die-cast aluminium body, galvanised sheet steel control gear box, polycarbonate ceiling ring, clear tempered front glass (when applicable), aluminium reflector:

Product ID	A
MBS145 1xCDM-T	215
MBS145 1xCDM-TD	250

## Features

- Modular concept; same cut out diameter allows a consistent appearance and interchangeable accessories and components
- Separate sheet steel pre-wired gear box with air ventilation slots
- Die-cast aluminium housing creates a compact and sturdy architecture to interface with the different accessories
- Double ring concept; aesthetical white impact resistant polycarbonate ceiling ring mounted with bayonet catch on an inner die-cast aluminium frame
- Adjustable swing out metal clips for easy integration into various ceiling systems
- Straightforward maintenance by direct lamp access from below.

## Installation

- Ceiling cut-out diameter: 185 mm, suitable for ceiling thickness 1-40 mm by positioning the fasteners using screw metal clips according to the thickness for the ceiling boards.
- Safety distance: 0.8 m.

## Accessories

- Various decorative glass accessories, tempered front glass and UV-filter: (see separate section 'Accessories 145-Series')



MBS145 1xCDM-TD 70W



Galvanised sheet steel gear compartment (L 260 mm x W 165 mm x H 75 mm)



MBS 145 metal clip

## Preferred selection

Product ID		Order Code
MBS145 D 1XCDM-T070W 240V IC SI	240V / 50Hz	9129 005 84971
MBS145 D 1XCDM-T070W 230V IC SI	230V / 50Hz	9129 005 80971
MBS145 D 1XCDM-T070W 220V IC SI	220V / 60Hz	9129 005 88971
MBS145 D 1XCDM-T150W 240V IC SI	240V / 50Hz	9129 005 85971
MBS145 D 1XCDM-T150W 230V IC SI	230V / 50Hz	9129 005 81971
MBS145 D 1XCDM-T150W 220V IC SI	220V / 60Hz	9129 005 89971
MBS145 D 1XCDM-TD070W 240V IC SI	240V / 50Hz	9129 005 86971
MBS145 D 1XCDM-TD070W 230V IC SI	230V / 50Hz	9129 005 82971
MBS145 D 1XCDM-TD070W 220V IC SI	220V / 60Hz	9129 005 90971
MBS145 D 1XCDM-TD150W 240V IC SI	240V / 50Hz	9129 005 87971
MBS145 D 1XCDM-TD150W 230V IC SI	230V / 50Hz	9129 005 83971
MBS145 D 1XCDM-TD150W 220V IC SI	220V / 60Hz	9129 005 91971



FBH145 2xPLC 18W



IP 20



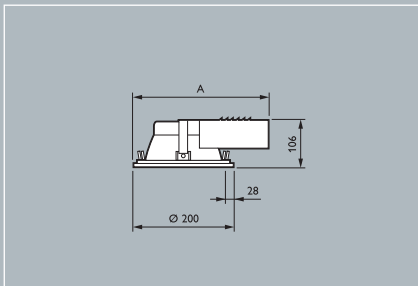
IP 40

versions with front glass



IP44 on request

Dimensions in mm



## FBH145

Professional, low height recessed downlights for CFL lamps with an internal diameter of 145 mm. Assembled with a highly efficient aluminium reflector. Designed for single or twin compact fluorescent lamp configurations. All versions are including the aesthetical white impact resistant polycarbonate ceiling ring. The FBH145 range is compatible with all available accessories of the 145-product family.

## Applications

- Atriums, corridors and lobbies
- Shopping centers
- Department stores
- Fashion shops and boutiques
- Restaurants, cafeterias and hotels
- Museum, public buildings and waiting areas
- Airport terminal and interchanges
- Small offices and conference rooms

## Technical description

- Power supply:  
230 or 240V / 50Hz, 127 or 220V / 60Hz
- Ballast:  
Conventional: inductive (I) or compensated (IC)  
Electronic: HFR, HFR
- Lamps:  
1 or 2 x PL-C (13W, 18W, 26W) compact fluorescent horizontal mounted
- Connection: Screw-in connection block
- Material: Die-cast aluminium body, deep drawn galvanised sheet steel (integrated) control gear box, polycarbonate ceiling ring, aluminium reflector:

## Features

- Low height of 106 mm
- Modular concept; same cut out diameter allows a consistent appearance and interchangeable accessories and components
- Integrated pre-wired gear box
- Die-cast aluminium housing creates a compact and sturdy architecture to interface with the different accessories

## Product ID

Product ID	A
FBH145 1x/2xPL-C 13 / 18 W I(C)	247
FBH145 1x/2xPL-C 13 / 18 W HF	320
FBH145 1x/2xPL-C 26 W IC HF	320

- Double ring concept; aesthetical white impact resistant polycarbonate ceiling ring mounted with bayonet catch on an inner die-cast aluminium frame
- Adjustable swing out metal clips for easy integration into various ceiling systems
- Straightforward maintenance by direct lamp access from below.

## Installation

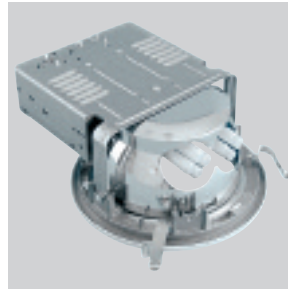
- Ceiling cut-out diameter: 185 mm, suitable for ceiling thickness 1-28 mm by positioning the quick release metal clip according to the thickness of the ceiling boards.
- Safety distance: 0.5 m.

## Accessories

- Various decorative glass accessories, tempered front glass and UV filter; opal and prismatic covers and high gloss cross reflector: (see separate section 'Accessories 145-Series')



Adjustable fixation brackets



FBH145 gear compartment

## Preferred selection

Product ID	Mains	Order Code
FBH145 D 1XPLC13W 240V I SI	240V / 50Hz	9129 005 06971
FBH145 D 1XPLC13W 230V I SI	230V / 50Hz	9129 005 00971
FBH145 D 1XPLC13W 220V I SI	220V / 60Hz	9129 005 12971
FBH145 D 1XPLC13W 127V I SI	127V / 60Hz	9129 005 18971
FBH145 D 1XPLC18W 240V I SI	240V / 50Hz	9129 005 07971
FBH145 D 1XPLC18W 230V I SI	230V / 50Hz	9129 005 01971
FBH145 D 1XPLC18W 220V I SI	220V / 60Hz	9129 005 13971
FBH145 D 1XPLC18W 127V I SI	127V / 60Hz	9129 005 19971
FBH145 D 1XPLC26W 240V IC SI	240V / 50Hz	9129 005 08971
FBH145 D 1XPLC26W 230V IC SI	230V / 50Hz	9129 005 02971
FBH145 D 1XPLC26W 220V IC SI	220V / 60Hz	9129 005 14971
FBH145 D 2XPLC13W 240V IC SI	240V / 50Hz	9129 005 09971
FBH145 D 2XPLC13W 230V IC SI	230V / 50Hz	9129 005 03971
FBH145 D 2XPLC13W 220V IC SI	220V / 60Hz	9129 005 15971
FBH145 D 2XPLC13W 127V IC SI	127V / 60Hz	9129 005 21971
FBH145 D 2XPLC18W 240V IC SI	240V / 50Hz	9129 005 10971
FBH145 D 2XPLC18W 230V IC SI	230V / 50Hz	9129 005 04971
FBH145 D 2XPLC18W 220V IC SI	220V / 60Hz	9129 005 16971
FBH145 D 2XPLC18W 127V IC SI	127V / 60Hz	9129 005 22971
FBH145 D 2XPLC26W 240V IC SI	240V / 50Hz	9129 005 11971
FBH145 D 2XPLC26W 230V IC SI	230V / 50Hz	9129 005 05971
FBH145 D 2XPLC26W 220V IC SI	220V / 60Hz	9129 005 17971



FBS145 1xPL-C 26W

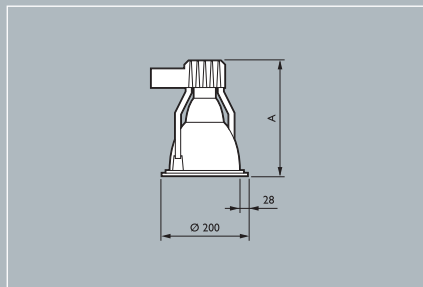


versions with frontglass



on request

Dimensions in mm



Professional, recessed downlights with an internal diameter of 145 mm. Assembled with a highly efficient aluminium reflector for single compact fluorescent lamp configurations. All versions are including the aesthetical white impact resistant polycarbonate ceiling ring.

The FBS145 range is compatible with all available accessories of the 145-product family.

## Applications

- Atriums, corridors and lobbies
- Shopping centers
- Department stores
- Fashion shops and boutiques
- Restaurants, cafeterias and hotels
- Museum, public buildings and waiting areas
- Airport terminal and interchanges
- Small offices and conference rooms

## Technical description

- Power supply:  
240V /50Hz  
230V /50Hz  
220V /60Hz  
127V /60Hz
- Ballast types:  
Conventional; inductive or compensated  
HFP and HFR
- Lamps:  
Vertical mounted compact fluorescent; 1 x PL-C  
13W, 18W or 26W
- Connection:  
Screw-in connection block
- Material:  
Die-cast aluminium body, polyamide control gear box, polycarbonate ceiling ring, aluminium reflector.

Type	A
FBS145 1xPL-C 13 W (HF)	210
FBS145 1xPL-C 18 W (HF)	210
FBS145 1xPL-C 26 W (HF)	250

## Features

- Modular concept; same cut out diameter allows a consistent appearance and interchangeable accessories and components.
- Separate pre-wired polyamide control gear box
- Die-cast aluminium housing creates a compact and sturdy architecture to interface with the different accessories.
- Double ring concept; aesthetical white impact resistant polycarbonate ceiling ring mounted with bayonet catch on an inner die-cast aluminium frame.
- Adjustable swing out metal clips for easy integration into various ceiling systems.
- Straightforward maintenance by direct lamp access from below.

## Installation

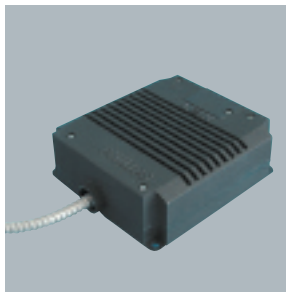
- Ceiling cut-out diameter: 185 mm, suitable for ceiling thickness 1-28 mm by positioning the quick release metal clip according to the thickness of the ceiling boards.
- Safety distance: 0.5 m.

## Accessories

- Various decorative glass accessories, opal and prismatic covers.  
(see separate section 'Accessories 145-Series')



Adjustable fixation brackets



FBS145 separate gear compartment

## Preferred selection

Product ID	Mains	Order Code
FBS145 D 1XPL-C13W 240V I SI	240V/50Hz	9129 005 54971
FBS145 D 1XPL-C13W 230V I SI	230V/50Hz	9129 005 51971
FBS145 D 1XPL-C13W 220V I SI	220V/60Hz	9129 005 57971
FBS145 D 1XPL-C13W 127V I SI	127V/60Hz	9129 005 60971
FBS145 D 1XPL-C18W 240V I SI	240V/50Hz	9129 005 55971
FBS145 D 1XPL-C18W 230V I SI	230V/50Hz	9129 005 52971
FBS145 D 1XPL-C18W 220V I SI	220V/60Hz	9129 005 58971
FBS145 D 1XPL-C18W 127V I SI	127V/60Hz	9129 005 61971
FBS145 D 1XPL-C26W 240V IC SI	240V/50Hz	9129 005 56971
FBS145 D 1XPL-C26W 230V IC SI	230V/50Hz	9129 005 53971
FBS145 D 1XPL-C26W 220V IC SI	220V/60Hz	9129 005 59971
FBS145 D 1XPL-C26W 127V IC SI	127V/60Hz	9129 005 62971



# Downlights

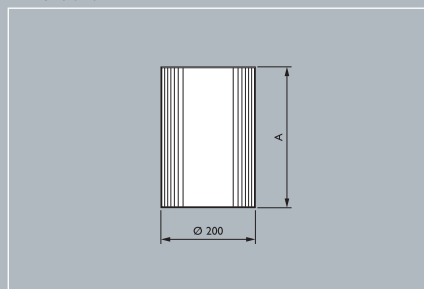
FCS145/MCS145



FCS145/MCS145



Dimensions in mm



## FCS145/MCS145

Surface mounted technical downlights with highly efficient 145 mm internal diameter (frosted) silver reflector.

MCS145 for single and double ended Mastercolour metal halide 150W or 70W lamp.

FCS145 for 1 x PL-C 26W or 2 x PL-C 26W lamp.

White decorative ring, protection glass and control gear are supplied together with downlight.

## Main applications

- Representative offices
- Reception and public service areas
- Corridors and staircases
- Recreational areas (sport halls, restaurants, cafeterias)
- Department stores, Fashion shops
- Small independent food/non-food shops

## Technical description

- Power supply:
  - MCS 145: 240V/50Hz, 230V/50Hz or 220V/60Hz
  - FCS 145: 240V/50HZ, 230V/50Hz, 220V/60Hz or 127V/60HzThey are all equipped with through-wiring designed connector
- Gear: Control gear unit is supplied together with the luminaire
- Material: Aluminium extrusion case and die-casting ring, silver (frosted) aluminium reflector.

## Installation

- Direct mounting to the ceiling by using the base plate and then counter clockwise to turn the luminaire onto the base plate. Open the side maintenance door to connect electrical power and tighten the safety screw.
- Safety: 0.5 – 0.8 m.
- Maintenance: direct lamp access (by removing the decorative ring with protection glass).

## Accessories

- Decorative glasses and UV filtering glass.  
(See separate section 'Accessories 145-series')

Product ID	A
FCS 145	250
MCS 145	300



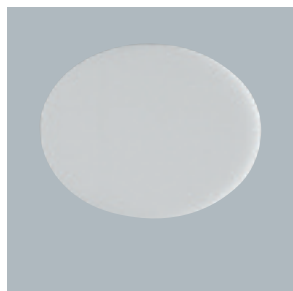
Mounting plate



Maintenance side door

## Preferred selection

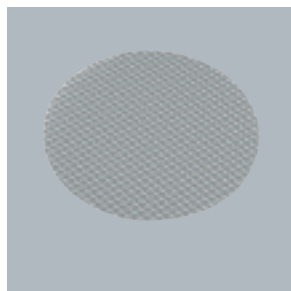
Product ID	Mains	Order Code
FCS145 D 1XPL-C26W 240V IC SI	240V / 50Hz	9129 017 02971
FCS145 D 1XPL-C26W 230V IC SI	230V / 50Hz	9129 017 01971
FCS145 D 1XPL-C26W 220V IC SI	220V / 60Hz	9129 017 03971
FCS145 D 1XPL-C26W 127V IC SI	127V / 60Hz	9129 017 04971
FCS145 D 2XPL-C26W 240V IC SI	240V / 50Hz	9129 017 06971
FCS145 D 2XPL-C26W 230V IC SI	230V / 50Hz	9129 017 05971
FCS145 D 2XPL-C26W 220V IC SI	220V / 60Hz	9129 017 07971
FCS145 D 2XPL-C26W 127V IC SI	127V / 60Hz	9129 017 08971
MCS145 1XCDCM-T70W 240V IC SI	240V / 50Hz	9129 017 22971
MCS145 1XCDCM-T70W 230V IC SI	230V / 50Hz	9129 017 21971
MCS145 1XCDCM-T70W 220V IC SI	220V / 60Hz	9129 017 23971
MCS145 1XCDCM-T150W 240V IC SI	240V / 50Hz	9129 017 25971
MCS145 1XCDCM-T150W 230V IC SI	230V / 50Hz	9129 017 24971
MCS145 1XCDCM-T150W 220V IC SI	220V / 60Hz	9129 017 26971
MCS145 1XCDCM-TD70W 240V IC SI	240V / 50Hz	9129 017 28971
MCS145 1XCDCM-TD70W 230V IC SI	230V / 50Hz	9129 017 27971
MCS145 1XCDCM-TD70W 220V IC SI	220V / 60Hz	9129 017 29971
MCS145 1XCDCM-TD150W 240V IC SI	240V / 50Hz	9129 017 31971
MCS145 1XCDCM-TD150W 230V IC SI	230V / 50Hz	9129 017 30971
MCS145 1XCDCM-TD150W 220V IC SI	220V / 60Hz	9129 017 32971



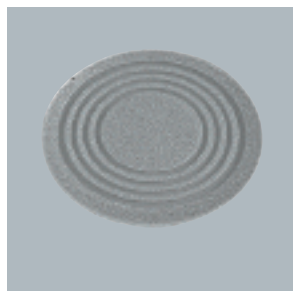
GBS145 O opal cover



ZZG145 GT 50 frosted glass



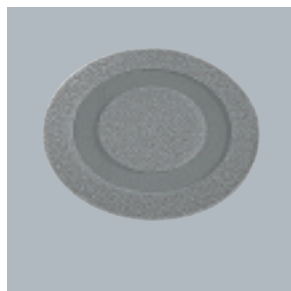
GBS145 P prismatic cover



ZZG145 DG 12



ZZG145 DG 13



ZZG145 DG 14



ZZG145 DG 22



ZZG145 DG 23



ZZG145 DG 24



FBH145 with GBS145 C

<b>Accessory</b>	<b>Order code</b>
ZZG145 D DG 12	9129 013 21971
ZZG145 D DG 13	9129 013 22971
ZZG145 D DG 14	9129 013 23971
ZZG145 D DG 22	9129 013 24971
ZZG145 D DG 23	9129 013 25971
ZZG145 D DG 24	9129 013 26971
ZZG145 D GT 50 FROSTED GLASS	9129 013 27971
ZZG145 D GT 51 PROTECTION GLASS	9129 013 28971
ZZG145 D GT 52 UV FILTER	9129 013 29971
GBS145 C D HIGH GLOSS REFLECTOR*	9129 013 31971
GBS145 D OPAL COVER**	9129 013 32971
GBS145 D PRISMATIC COVER**	9129 013 33971

\* Only for FBH 145

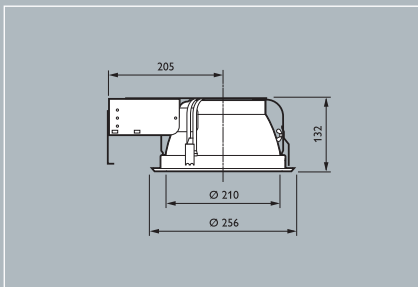
\*\* Only for FBS/FBH 145 series



FBH059



Dimensions in mm



## FBH 059

Recessed downlight with frosted reflector and polished strip faceted surface for the upper section designed for 2 x PL-C18W/26W compact fluorescent lamp. A standard ballast is integrated with luminaires.

## Applications

- Atriums, corridors and lobbies in buildings
- Mixed use shopping centres-corridors and lobbies
- Department stores-general lighting
- High-end fashion shops and boutiques
- Restaurants, cafeterias and hotels
- Museum displays, public buildings and waiting areas
- Transport buildings eg airport terminal and interchanges
- Small offices and conference room.

## Technical description

- Power supply: 240V / 50Hz, 230V / 50Hz, 220V / 60Hz, 127V / 60Hz
- Ballast types: Conventional; compensated
- Lamps: Horizontal mounted compact fluorescent; 2 x PL-C 18W or 26W
- Material: Steel made body and powdered finish. Frosted aluminium reflector.

## Features

- FBH059 low height of 132 mm depth.
- Adjustable swing out metal clip integrates easily into various ceiling systems
- Maintenance is simplified with direct lamp access from below.

## Installation

- Ceiling cut-out diameter: 230-245 mm, suitable for ceiling thickness 1-28 mm by positioning the quick release metal clip according to the thickness of the ceiling boards.
- Safety distance: 0.5 m.
- Maintenance: direct lamp access below.

# Downlights

FBH059



FBH 059

## Preferred selection

Product ID	Mains	Order code
FBH059 D 2XPLC18W 240V IC SI	240 / 50Hz	9129 013 03971
FBH059 D 2XPLC18W 230V IC SI	230 / 50Hz	9129 013 01971
FBH059 D 2XPLC18W 220V IC SI	220 / 60Hz	9129 013 05971
FBH059 D 2XPLC18W 127V IC SI	127 / 60Hz	9129 013 07971
FBH059 D 2XPLC26W 240V IC SI	240 / 50Hz	9129 013 04971
FBH059 D 2XPLC26W 230V IC SI	230 / 50Hz	9129 013 02971
FBH059 D 2XPLC26W 220V IC SI	220 / 60Hz	9129 013 06971
FBH059 D 2XPLC26W 127V IC SI	127 / 60Hz	9129 013 08971



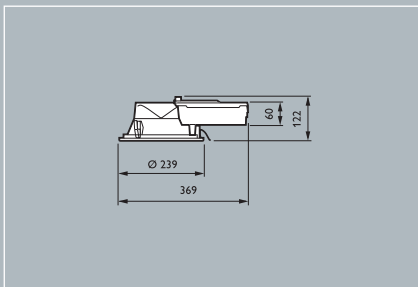
FBS120 P



IP 20 IP 44 for opal diffuser/clear front panel versions



Dimensions in mm



FBS120

## Europa 2

Fixed recessed downlights for compact fluorescent PL-C lamps with automatic fixing clips ensuring quick and easy installation and highly efficient improved optics. Available in three formats: FBS120, FBS120 HF and FBS122. Equipped with either a prismatic light control panel (P), an opal cover (O), a clear front panel (G) or a glare control louvre (L). Available in a ready-to-install kit version, with premounted lamps and a preconnected cable with a Wieland "quick connector".

## Applications

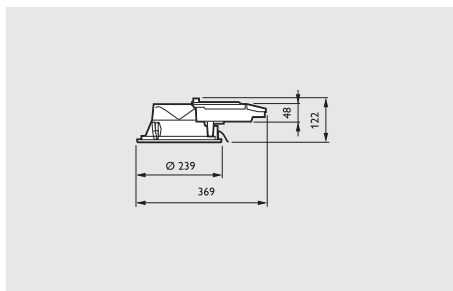
- Recreational areas
- Public buildings, hospitals and schools
- Discount stores, hyper-/ supermarkets, do-it-yourself shops
- Department stores, fashion shops

## Technical description

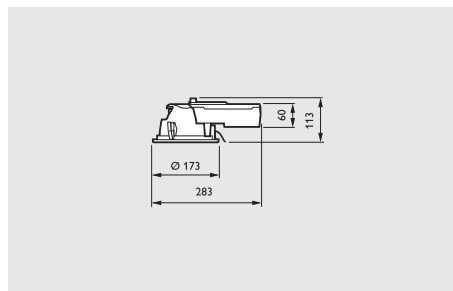
- Gear/power supply:  
HF: 220 V - 240 V/50 Hz  
conventional: 230 or 240V/50 Hz, I or IC
- Lamp position: horizontal
- Lamps: 1x or 2x 13 W, 18W, 26W
- Material: polyester gearbox (gear cover polypropylene), high brilliant faceted metallised reflector

## Installation

- Cut-out:  $\varnothing$  223 mm FBS120,  $\varnothing$  158 mm FBS122
- Thickness of false ceiling: 3 - 24 mm (improved mounting for soft ceilings by means of easily adjustable clips).
- Method: by means of a fast-clip system.
- Safety distance: 0.5 m.
- Through-wiring possibility for FBS120 with conventional gear.



FBS120 HF



FBS122



FBS120 O



FBS120 G



FBS120 L



## Preferred selection

Product ID	Weight (kg)	Light Output Ratio (LOR)	European Order Code (EOC)
FBS120 1xPL-C/2P18W/840 I 230V O W2	1.45	0.40	66202200
FBS120 1xPL-C/2P18W/840 I 230V P W2	1.45	0.62	66018900
FBS120 1xPL-C/2P18W/840 I 230V G W2	1.45	0.59	66205300
FBS120 1xPL-C/2P26W/840 I 230/240V O W2	1.45	-	66214500
FBS120 1xPL-C/2P26W/840 I 230/240V P W2	1.45	0.63	66030100
FBS120 1xPL-C/2P26W/840 I 230/240V G W2	1.45	0.55	66033200
FBS120 2xPL-C/2P18W/840 I 230V L W2	1.45	0.56	66024000
FBS120 2xPL-C/2P18W/840 I 230V O W2	1.45	0.33	66021900
FBS120 2xPL-C/2P18W/840 I 230V P W2	1.02	0.58	66020200
FBS120 2xPL-C/2P18W/840 I 230V G W2	1.45	0.48	66023300
FBS120 2xPL-C/2P26W/840 I 230/240V L W2	1.45	0.55	66035600
FBS120 2xPL-C/2P26W/840 I 230/240V P W2	1.45	0.56	66032500
FBS120 2xPL-C/2P26W/840 I 230/240V G W2	1.45	0.42	66034900
FBS120 2xPL-C/4P18W/840 HF 230/240V L W2	0.80	0.56	66054700
FBS120 2xPL-C/4P18W/840 HF 230/240V O W2	0.80	0.33	66208400
FBS120 2xPL-C/4P18W/840 HF 230/240V P W2	0.80	0.58	66207700
FBS120 2xPL-C/4P18W/840 HF G W2	0.80	0.48	66222000
FBS120 2xPL-C/4P26W/840 HF 230/240V L W2	0.80	0.55	66231200
FBS120 2xPL-C/4P26W/840 HF 230/240V P W2	0.80	0.56	66055400
FBS120 2xPL-C/4P26W/840 HF G W2	0.80	0.42	66233600
FBS122 1xPL-C/2P13W/840 I 230V O W2	1.35	0.34	66243500
FBS122 1xPL-C/2P13W/840 I 230V P W2	1.35	0.58	66065300
FBS122 1xPL-C/2P13W/840 I 230V G W2	1.35	0.58	66246600
FBS122 2xPL-C/2P13W/840 I 230V O W2	1.35	0.32	66067700
FBS122 2xPL-C/2P13W/840 I 230V P W2	1.35	0.55	66066000
FBS122 2xPL-C/2P13W/840 I 230V G W2	1.35	0.54	66069100
FBS122 2xPL-C/2P13W/840 I 240V P W2	1.35	0.55	66076900
FBS122 2xPL-C/2P13W/840 I 240V G W2	1.35	0.54	66077600

## Short optics description

- O Opal cover (polycarbonate)
- P Prismatic cover (polycarbonate)
- G Clear front panel (polycarbonate)
- L Glare control louvre

Accessory for FBS120	Accessory for FBS122	Description	FBS120 European Order Code (EOC)	FBS122 European Order Code (EOC)
GBS120 RG	GBS122 RG small	Decorative glass	66631000	66448400
ZBS120 DR ALU	ZBS122 DR ALU small	Decorative ring aluminium	66632700	66449100
ZBS120 DR GO	ZBS122 DR GO small	Decorative ring gold	66633400	66630300



# Downlights

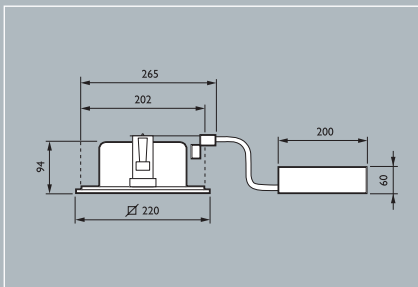
# Latina square



FBH022



Dimensions in mm



## Latina square

Recessed square downlight for 2 x 18W and 2 x 26W compact fluorescent PL-C lamps with spring fasteners for easy and quick installation. Available in ready-to-install kit versions with pre-mounted lamps and pre-connected separate gearbox.

## Applications

- Recreational areas
- Public buildings, hospitals and schools
- Discount stores, hyper-/supermarkets, do-it-yourself shops
- Department stores, fashion shops

## Technical description

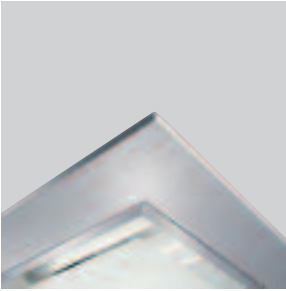
- Power supply: 230V (240V available on request)
- Gear: conventional (I or IC) ballasts in a separate box wired to the fitting
- Lamp position: horizontal
- Lamps: 2 x 18W or 2x26W PL-C/2P
- Material: metal body and gear box; high gloss anodised metal reflector; decorative glass plate (included with the luminaire)

## Installation

- Cut-out:  $\varnothing 205$  mm
- Thickness of false ceiling: 2-24 mm
- Method: position spring fasteners
- Safety distance: 800 mm
- Through-wiring possible

# Downlights

Latina square



Decorative cover glass (delivered with the luminaire) fits seamlessly in the square metal rim.



Separate pre-connected metal gear unit.

## Preferred selection

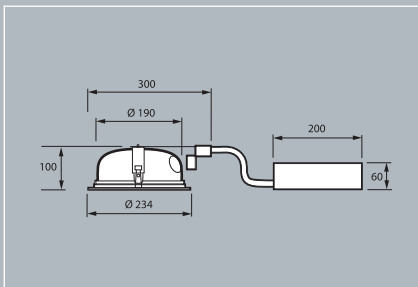
Product ID	European Order Code (EOC)
FBH022 2xPL-C/2P18W/840 K I 230V	14858800
FBH022 2xPL-C/2P18W/840 K IC 230V	14862500
FBH022 2xPL-C/2P26W/840 K I 230V	14860100
FBH022 2xPL-C/2P26W840 K IC 230V	14864900



FBH020



Dimensions in mm



## Latina

Recessed downlight for 2 x 18 W and 2 x 26 W compact fluorescent PL-C lamps with spring fasteners for easy and quick installation. Available in ready-to-install kit versions with pre-mounted lamps and pre-connected separate gearbox.

## Applications

- Recreational areas
- Public buildings, hospitals and schools
- Discount stores, hyper-/supermarkets, do-it-yourself shops
- Department stores, fashion shops

## Technical description

- Power supply: 230 V (240 V available on request)
- Gear: conventional ballasts (I or IC) in a separate box wired to the fitting
- Lamp position: horizontal
- Lamps: 2 x 18 W or 2 x 26 W PL-C/2P
- Material: metal body and gear box; high gloss anodized metal reflector.

## Installation

- Cut-out:  $\varnothing$  190 mm
- Thickness of false ceiling: 2-24 mm
- Method: position spring fasteners
- Safety distance: 800 mm
- Through-wiring possible

## Accessories

- Frosted glass cover (GBH020 FRG)
- Clear decorative glass cover (GBH020 RG)



### FBH020

Separate pre-connected metal gear unit

### Preferred selection

Product ID	Weight	European Order Code (EOC)
FBH020 2xPL-C/2P18W/840 K I 230V LIS	0.9	available on request
FBH020 2xPL-C/2P18W/840 K IC 230V LIS	0.9	available on request
FBH020 2xPL-C/2P26W/840 K I 230V LIS	0.9	available on request
FBH020 2xPL-C/2P26W/840 K IC 230V LIS	0.9	available on request

Lamps included. 230V/50Hz. 240V versions available on request



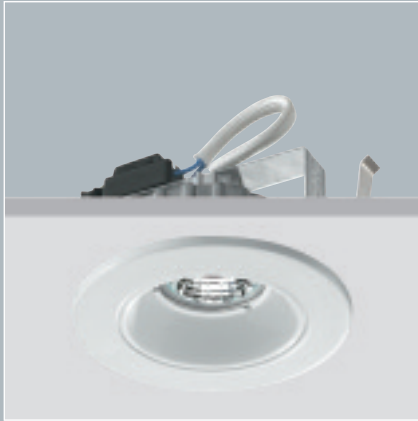
GBH020 FRG  
frosted glass cover



GBH020 RG  
clear decorative glass cover

### Accessory

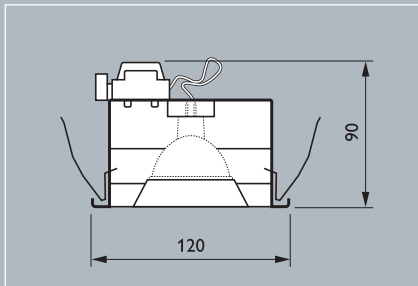
		European Order Code (EOC)
GBH020 FRG 5 pcs	Frosted glass cover; 5 pcs per box	available on request
GBH020 RG 5 pcs	Clear decorative glass cover; 5 pcs per box	available on request



QBS105-1



Dimensions in mm



## QBS105

Standard professional recessed extra-low voltage downlight for dichroic halogen lamps.

### Main application

- Representative offices
- Conference rooms
- Small offices
- General open plan offices
- Recreation areas (sport halls, restaurants, cafeterias)
- Department stores, fashion shops
- Small independent food/non-food shops
- High-end fashion shops, boutiques

### Technical description

- Power supply: 12V.  
Transformer to be ordered separately
- Lamp position: Vertical downward
- Material: Aluminium casting body, steel painted decorative ring and reflector.

### Installation and mounting

- Cut-out diameter: 105-110 mm
- Thickness of ceiling: 1-32 mm
- Method: position the spring fastener according to thickness of the false ceiling
- Safety: 0.5 m
- Maintenance: direct lamp access by removing the front cap.

### Accessories

- Lamp driver: electronic transformer EHC 250/350.

### Options

Reflector:

- 01- white painted (fixed)
- 02- polished silver (fixed)
- 03- satin silver (fixed)
- 04- black anti-glare louver (fixed)
- 05- pin spot (fixed)
- 06- slit (adjustable vert=30°, horz=360° rot.)
- 07- eyeball (adjustable vert=25°, horz=360° rot.)
- 08- inner adjustable device (vert=35°, horz=360°).

### Colour and finishes

- Outer ring available in white powder coated finish and chrome metallic finish.

# Downlights

QBS105



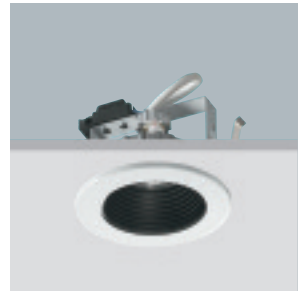
QBS105-1



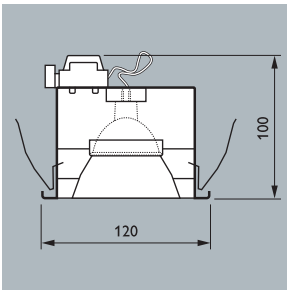
QBS105-2



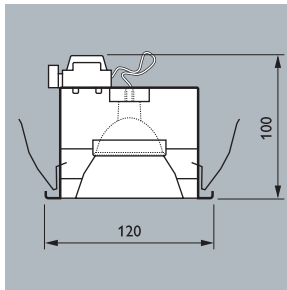
QBS105-3



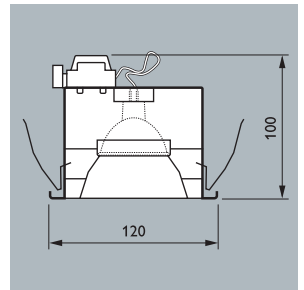
QBS105-4



QBS105-2



QBS105-3



QBS105-4





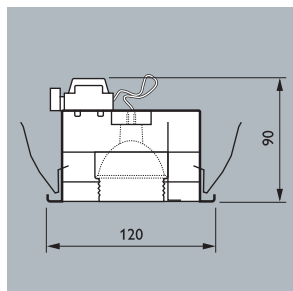
QBS105-5



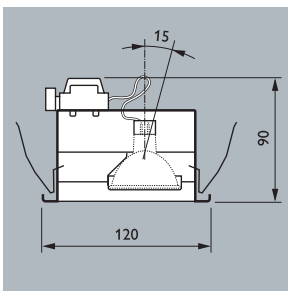
QBS105-6



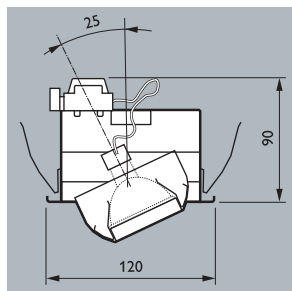
QBS105-7



QBS105-5



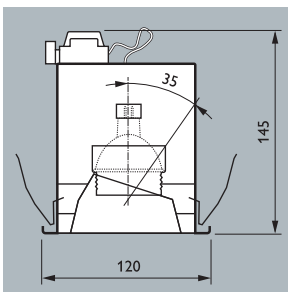
QBS105-6



QBS105-7



QBS105-8



QBS105-8

## Preferred selection

### Product ID

QBS105 D 1XHAL-PR50-50W-GU-5.3 Type 01  
 QBS105 D 1XHAL-PR50-50W-GU-5.3 Type 02  
 QBS105 D 1XHAL-PR50-50W-GU-5.3 Type 03  
 QBS105 D 1XHAL-PR50-50W-GU-5.3 Type 04  
 QBS105 D 1XHAL-PR50-50W-GU-5.3 Type 05  
 QBS105 D 1XHAL-PR50-50W-GU-5.3 Type 06  
 QBS105 D 1XHAL-PR50-50W-GU-5.3 Type 07  
 QBS105 D 1XHAL-PR50-50W-GU-5.3 Type 08

### Order Code

9129 006 31971  
 9129 006 32971  
 9129 006 33971  
 9129 006 34971  
 9129 006 35971  
 9129 006 36971  
 9129 006 37971  
 9129 006 38971



# Downlights

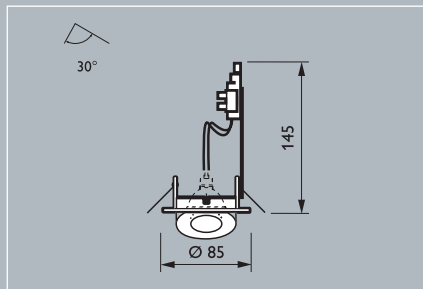
# Zadora Adjustable



QBD570 ALU



Dimensions in mm



## Zadora Adjustable

Recessed adjustable lamps for MASTER Line dichroic halogen lamp with beams of 8°, 24°, 36° and 60° and Twistline Alu lamps. Available in white, chrome, gold, brushed aluminium, black, matt satin, metal grey, and black nickel.

Ready-to-install kit versions (downlight, lamp, transformer) available.

## Applications

- Office spaces
- Small independent food/non-food shops
- High-end fashion shops, boutiques

## Technical description

- Power supply: 12 V or 230 V (Twistline Alu)
- Lamp position: vertical
- Orientation from vertical: 30°
- Lamp socket:  
GU5.3: MASTER Line  
GZ10: Twistline Alu

## Installation

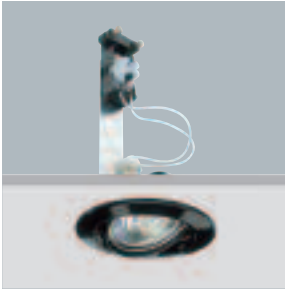
- Cut-out:  $\varnothing$  75
- Thickness of false-ceiling: 1 - 25 mm.
- Method: springs.
- Safety distance: 0.5 m.
- Maintenance: direct lamp access (front clip).



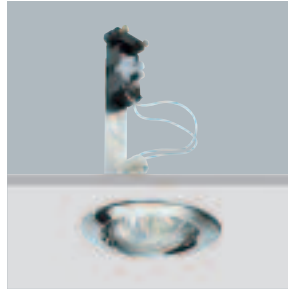
QBD570 WH

# Downlights

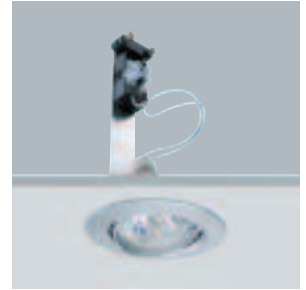
# Zadora Adjustable



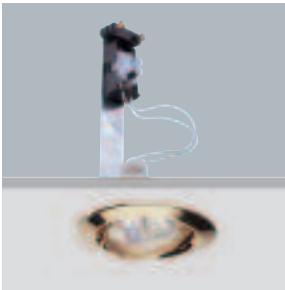
QBD570 BK



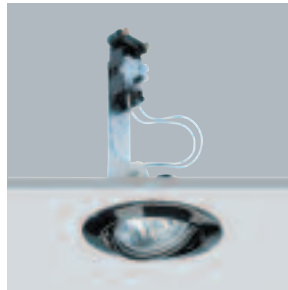
QBD570 CR



QBD570 MAT



QBD570 GO



QBD570 ANT



QBD570 GR

## Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
<b>12V versions. Without lamp and transformer</b>		
QBD570 1xHAL-MR50-45W 12V BR ALU	0,2	57331199
QBD570 1xHAL-MR50-45W 12V BR ANT	0,2	57335999
QBD570 1xHAL-MR50-45W 12V BR BK	0,2	57332899
QBD570 1xHAL-MR50-45W 12V BR CR	0,2	57329899
QBD570 1xHAL-MR50-45W 12V BR GO	0,2	57330499
QBD570 1xHAL-MR50-45W 12V BR GR	0,2	57334299
QBD570 1xHAL-MR50-45W 12V BR MAT	0,2	57333599
QBD570 1xHAL-MR50-45W 12V BR WH	0,2	57328199
<b>HF 230-240V/12V versions. Lamp (50W/36°) and electronic gear included</b>		
QBD570 1xHAL-FR50-50W K ET 230/12V ALU	0,3	57435600
QBD570 1xHAL-FR50-50W K ET 230/12V CR	0,3	57433200
QBD570 1xHAL-FR50-50W K ET 230/12V GO	0,3	57434900
QBD570 1xHAL-FR50-50W K ET 230/12V WH	0,3	57432500
<b>Twistline 230V versions. Lamp (40W/40° dichroic) included</b>		
QBD570 1xHAL-TR40-50WGZ10 K 230V II WH	0,3	57312000
QBD570 1xHAL-TR40-50WGZ10 K 230V II GO	0,3	57314400
QBD570 1xHAL-TR40-50WGZ10 K 230V II CR	0,3	57313700
QBD570 1xHAL-TR40-50WGZ10 K 230V II ALU	0,3	57315100

ALU = Aluminium GO = Gold  
 ANT = Anthracite GR = Grey  
 BK = Black MAT = Matt satin  
 CR = Chrome WH = White

# Downlights

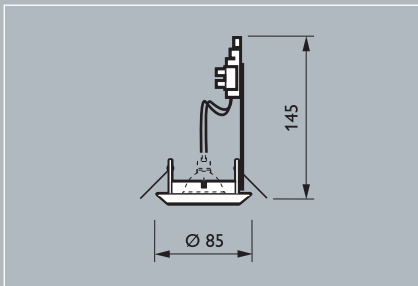
## Zadora Fixed



QBS570 WH



Dimensions in mm



### Zadora Fixed

Recessed fixed downlights for MASTER Line dichroic halogen lamps with beams of 8°, 24°, 36° and 60°, and Twistline Alu lamps. Available in white, chrome, gold, brushed aluminium, black, matt satin, metal grey and black nickel. Ready-to-install kit versions (downlight, lamp, transformer) available.

### Applications

- Office spaces
- Small independent food/non-food shops
- High-end fashion shops, boutiques

### Technical description

- Power supply: 12 V or 230 V (Twistline Alu)
- Lamp position: vertical
- Lamp socket:
  - GU5.3: MASTER Line
  - GZ10: Twistline Alu
- Material: die-cast aluminium

### Installation

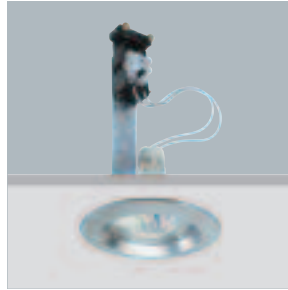
- Cut-out:
    - Ø 64 mm QBS570
  - Thickness of false-ceiling: 1-18 mm
  - Method: springs.
  - Safety distance: 0.5 m.
- Maintenance: direct lamp access (front clip).



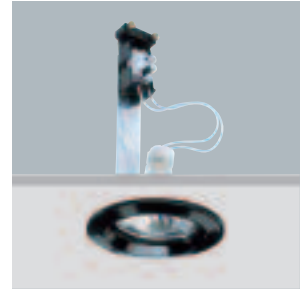
QBS570 ALU



QBS570 CR



QBS570 MAT



QBS570 BK



QBS570 ANT



QBS570 GR



QBS570 GO

## Preferred selection

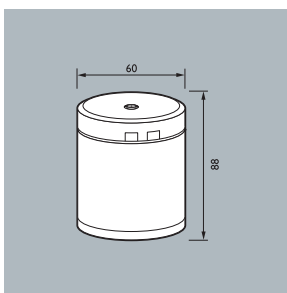
Product ID	Colour (see below)	Weight (kg)	European Order Code (EOC)
<b>12V versions. Without lamp and transformer</b>			
QBS570 1xHAL-MR50-45W 12V BR	WH	0,14	57320599
QBS570 1xHAL-MR50-45W 12V BR	MAT	0,14	57325099
QBS570 1xHAL-MR50-45W 12V BR	GR	0,14	57326799
QBS570 1xHAL-MR50-45W 12V BR	GO	0,14	57322999
QBS570 1xHAL-MR50-45W 12V BR	CR	0,14	57321299
QBS570 1xHAL-MR50-45W 12V BR	BK	0,14	57324399
QBS570 1xHAL-MR50-45W 12V BR	ANT	0,14	57327499
QBS570 1xHAL-MR50-45W 12V BR	ALU	0,14	57323699
<b>HF 230-240V/12V versions. Lamp (50W/36°) and electronic gear included</b>			
QBS570 1xHAL-FR50-50W K ET 230/12V	WH	0,2	57424000
QBS570 1xHAL-FR50-50W K ET 230/12V	GO	0,2	57426400
QBS570 1xHAL-FR50-50W K ET 230/12V	CR	0,2	57425700
QBS570 1xHAL-FR50-50W K ET 230/12V	ALU	0,2	57427100
<b>Twistline 230V versions. Lamp (40W/40° dichroic) included</b>			
QBS570 1xHAL-TR40-50WGZ10 K 230V II	ALU	0,2	57307600
QBS570 1xHAL-TR40-50WGZ10 K 230V II	CR	0,2	57305200
QBS570 1xHAL-TR40-50WGZ10 K 230V II	GO	0,2	57306900
QBS570 1xHAL-TR40-50WGZ10 K 230V II	WH	0,2	57304500

ALU = Aluminium    GO = Gold  
 ANT = Anthracite    GR = Grey  
 BK = Black    MAT = Matt satin  
 CR = Chrome    WH = White

# Transformers



ZKL560 50VA WH



Dimensions in mm

Product ID	Colour	Weight (kg)	EOC
ZKL560 50VA WH	White	0.63	14333000

## ZKL560 50VA WH

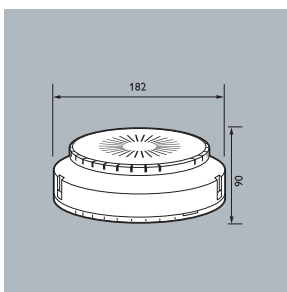
Very low voltage 50 VA toroidal transformer.  
230 V - 12 V - 50/60 Hz.  
Protected against overheating, overloads and short-circuits.

### Installation

Ready to use - quick to install.  
Opening cap.  
Automatic cable holder.  
Automatic secondary connection.  
Self-screwable base.  
Unlockable baseplate.  
Minimum charge 20 W.



ZKL560 310VA WH



Dimensions in mm

Product ID	Colour	Weight (kg)	EOC
ZKL560 310VA WH	White	3.00	14334700

## ZKL560 310VA WH

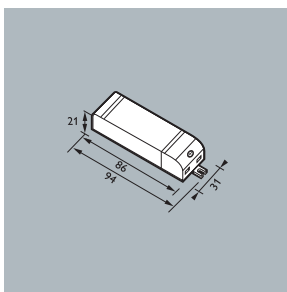
Very low voltage 310 VA toroidal transformer.  
230 V - 12 V - 50/60 Hz.  
Protected against overheating, overloads and short-circuits.

### Installation

Ready to use - quick to install.  
Single terminal block on the 230 V primary circuit.  
Triple terminal block on the 12 V secondary circuit.  
Self-screwable base.  
Unlockable baseplate.  
Minimum charge 20 W.



ZKL920 60VA HF WH



Dimensions in mm

Product ID	Colour	Weight (kg)	EOC
ZKL920 60VA HF WH	White	0.08	14335499

## ZKL920 60VA HF WH

Very low voltage 60 VA dimmable electronic transformer.  
230 V - 240 V - 12 V - 50/60 Hz.  
Very compact size. Trailing edge-leading edge dimming.  
Protected against overheating, overloads and short-circuits.

### Installation

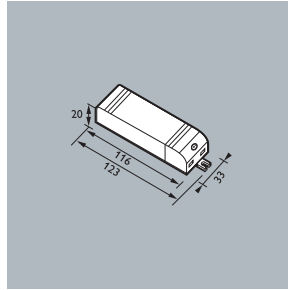
Ready to use - quick to install.  
Min./ Max. charge 10 W/60 W.  
Maximum distance to the lamp 2 m.



# Transformers



ZKL920 105VA HF WH



Dimensions in mm

## ZKL920 105VA HF WH

Very low voltage 105 VA dimmable electronic transformer: 230 V - 240 V - 12 V - 50/60 Hz. Very compact size. Trailing edge-leading edge dimming. Protected against overheating, overloads and short-circuits.

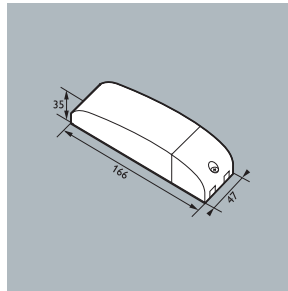
### Installation

Ready to use - quick to install. Min./ Max. charge 35 W/105 W. Maximum distance to the lamp 2 m.

Product ID	Colour	Weight (kg)	EOC
ZKL920 105VA HF WH	White	0.10	14336199



ZKL920 105VA HF WH



Dimensions in mm

## ZKL920 150VA HF WH

Very low voltage 150 VA dimmable electronic transformer: 230/240 V - 12 V - 50/60 Hz. Very compact size. Trailing edge-leading edge dimming. Protected against overheating, overloads and short-circuits.

### Installation

Ready to use - quick to install. Double terminal block on the 230 V primary circuit. Triple terminal block on the 12 V secondary circuit. Min/max charge 30 W/150 W. Maximum distance to the lamp 2 m.

Product ID	Colour	Weight (kg)	EOC
ZKL920 105VA HF WH	White	0.13	14337899



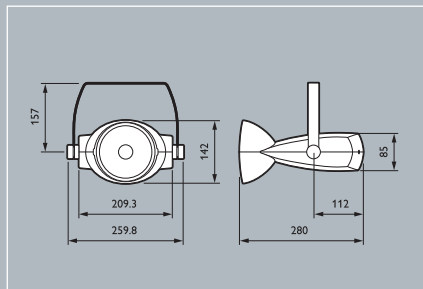




MCS440/MCS450 WH



Dimensions in mm



MCS410/440/450

## Monza

Adjustable projectors with aluminium reflector for halogen Plusline or (with integrated control gear) for White SON SDW-T and MASTER Colour CDM-T and CDM-TD lamps. Halogen and MASTER Colour versions are equipped with protection glass. UV filter available as accessory. For direct mounting on base plate or 2- or 3-circuit universal tracks.

## Applications

- Small independent food/non-food shops
- Discount stores, hyper-/supermarkets, do-it-yourself shops
- Department stores, fashion shops

## Technical description

- Power supply: 230 V or 240 V
- Gear: integrated (for discharge versions)
- Lamp socket: R7s: Plusline, PG12-1: SDW-T, G12: CDM-T, Rx7s: CDM-TD
- Orientation: 350° horizontal and 2 × 75° vertical
- Material: die-cast aluminium
- Colours: white (RAL 9010) and metallic grey

## Installation

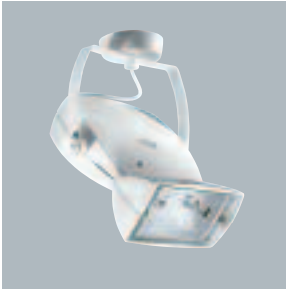
- Mounting:
  - direct on ceiling with base plate (BA).
  - versions for installation on universal 3-circuit Euro-DIN tracks, available on request.
- Safety distance: 1 m for halogen, 0.8 m for discharge lamps.
- Maintenance: lamp access after removing front glass.

## Accessories

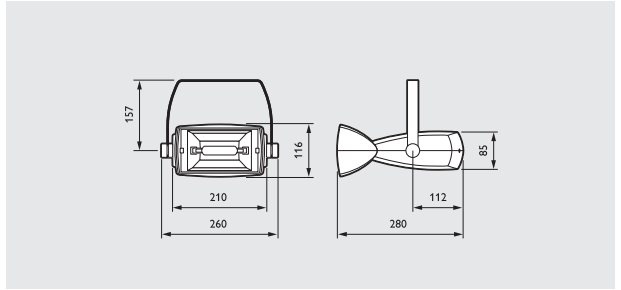
- Barndoors and UV filter. (available on request)



MCS440/MCS450 GR



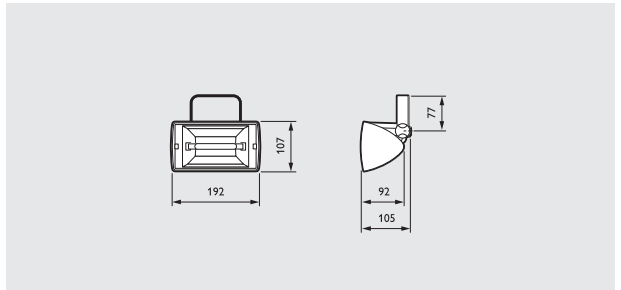
MCS420/MCS430 WH



MCS420/430



QCS400 WH



QCS400

## Preferred selection

Product ID	Colour GR = Grey WH = White	Weight (kg)	European Order Code (EOC)
MCS410 1xSDW-T100W IC 230V BA GR	GR	3.70	82281500
MCS410 1xSDW-T100W IC 230V BA WH	WH	3.70	82280800
MCS420 1xCDM-TD70W IC 230V BA GR	GR	3.40	82257000
MCS420 1xCDM-TD70W IC 230V BA WH	WH	3.40	82256300
MCS430 1xCDM-TD150W IC 230V BA GR	GR	4.30	82263100
MCS430 1xCDM-TD150W IC 230V BA WH	WH	4.23	82262400
MCS440 1xCDM-T70W IC 230V BA GR	GR	3.23	82269300
MCS440 1xCDM-T70W IC 230V BA WH	WH	3.30	82268600
MCS450 1xCDM-T150W IC 230V BA GR	GR	4.20	82275400
MCS450 1xCDM-T150W IC 230V BA WH	WH	4.20	82274700
QCS400 1xHAL-TDS300W BA GR	GR	1.00	82251800
QCS400 1xHAL-TDS300W BA WH	WH	1.00	82250100



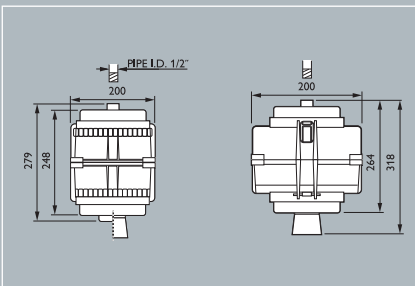
HDK900



IP65

gear compartment

Dimensions in mm



## HDK900

A sturdy long lasting quality electrical gear housing of compact and elegant design, suitable to give together with a range of reflector types and attachments, the right solution for low and high bay lighting requirement.

## Main applications

- Industrial areas
- Sports halls
- Commercial areas or other large halls requiring luminaires, suitable for high mounting ceiling.

## Features

- The gear housing can be combined with standard Philips aluminium reflectors.
- For use with any of the following HID lamps: 150W/250W or 400W – HPL-N, SON or HPI BU (S) lamps.
- The aluminium material is of heat, corrosion and UV resistant type.
- The luminaire is delivered standard in unpainted version. Painted versions are available upon request.
- IP65 ingress protection rating in the gear housing is secured through the use of a neoprene gasket between the housing.
- The gear box uses Philips standard ballasts and is using silicone cable to improve resistance against the heat inside the housing.
- The luminaire is suitable for indoor and outdoor use at an ambient temperature of max 45°C.
- Luminaires in combination with narrow beam reflectors are ideal for lighting in very high halls, or halls with high obstacles and or high machines.
- Luminaires in combination with wide beam reflectors are suited for relatively low halls and areas where vertical illuminance is required.
- Each reflector can be fitted with a glass dust-cover for applications in industry and humid areas.

## Materials and finish

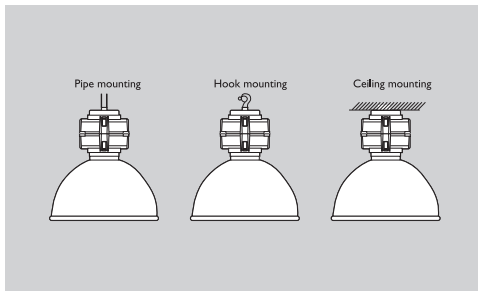
- The range consists of an aluminium gear housing, mounting cups and a mounting plate.
- The compact and sturdy luminaire is made of high grade die cast aluminium (very low cu content).
- The gear housing is closed with stainless steel clips.

## Installation and mounting

- The luminaire can be mounted by hook, pipe, tanchion or directly to the ceiling.
- Mains cable entry is made through the mounting system.

## Accessories

- Narrow and wide beam reflectors.
- Glass cover for reflectors (HPI-T lamps).
- Mounting hook for HDK 900



## Preferred selection

Product ID	Order Code
HDK900 SON150W 230V 50Hz	9145 223 30232
HDK900 SON250W 230V 50Hz	9145 223 30132
HDK900 SON400W 230V 50Hz	9145 223 30032
HDK900 SON150W 240V 50Hz	9145 223 30235
HDK900 SON250W 240V 50Hz	9145 223 30135
HDK900 SON400W 240V 50Hz	9145 223 30035
HDK900 HPL-N250W 230V 50Hz	9145 223 30532
HDK900 HPL-N250W 240V 50Hz	9145 223 30535
HDK900 HPI-P250W-BU 230V 50Hz	9145 223 30432
HDK900 HPI-P250W-BU 240V 50Hz	9145 223 30435
HDK900 HPL-N400W/HPI-P400W-BUS 230V 50Hz	9145 223 30332
HDK900 HPL-N400W/HPI-P400W-BUS 240V 50Hz	9145 223 30335

Other voltages/frequencies available on request

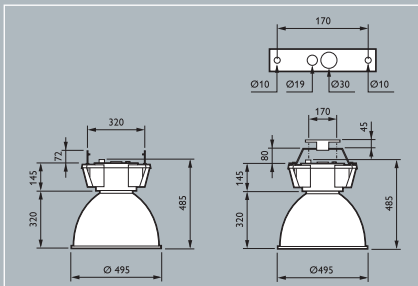
Reflectors and accessories	Description	Order Code
ZDK007 NB	Narrow beam reflector, matt finish	9145 223 40431
ZDK009 VVB	Wide beam reflector, matt finish	9145 223 40531
ZDK004	Glass cover for ZDK009 WB, temper glass 4 mm.	9145 223 40131
ZDK005	Glass cover for ZDK007 NB, temper glass 4 mm.	9145 223 40231
MOUNTING HOOK HDK900		4416 101 17480



HPK150



Dimensions in mm



## Cabana

Functional high bay indoor luminaire for high-intensity discharge lamps; supplied with reflector. The reflector can be attached to the unit without screws by means of an ingenious bayonet construction. The innovative external beam regulator enables easy lamp adjustment (narrow or wide beam) on the installation site. The external connector allows electrical connection without opening the unit. Two pigtail hooks are delivered with the product for either one- or two-point suspension. A protective cover is supplied with the HPI-P lamp versions and can be ordered separately for other versions. Two standard versions are available:

- Compact version with unit and reflector in one box;
- KIT version with unit, reflector and lamp installed.

## Applications

- Normal industries
- Dust- and moisture-protected (IP65 version)

## Technical description

- Gear/power supply: conventional: 230 V or 240 V
- Lamp: 1x HPI-Plus, SON or HPL
- Material: housing of cast aluminium and polycarbonate, reflector of anodised aluminium, glass cover of thermally hardened glass

## Installation

- Mounting: individual
- Two hooks delivered with the product for one- or two-point suspension with cable or chain. Bracket available for installation with tube or threaded rod.
- Reflector attached to the unit without screws by means of ingenious bayonet construction.
- External connector allows connection to mains without opening the unit.

## Accessories

- Mounting bracket for installation to ceiling, cable duct, threaded rod.
- Glass cover with four clips, seal and retaining cable.

## Preferred selection

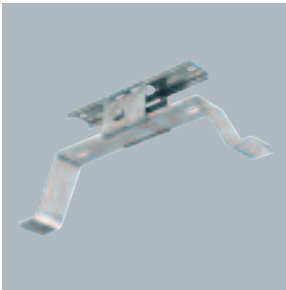
Product ID	Weight (kg)	European Order Code (EOC)
HPK150 1xHPI-P400W-BU K IC IP65 KIT	9,5	14232600
HPK150 1xHPI-P400W-BU K IC 240V IP65 KIT	9,5	14286900
HPK150 1xHPI-P250W-BU K IC IP65 KIT MB	8,5	14257900
HPK150 1xHPL-N250W K IC IP23 KIT MB	8,4	14273900
HPK150 1xSON400W K IC IP65 KIT MB	11,1	14260900
HPK150 1xSON400W K IC 240V IP65 KIT	11,1	14288300

IC versions equipped with 230V/50Hz gear unless specified otherwise. Other voltages/frequencies available on request

## Legend

MB Mounting bracket included

IP65 Includes glass cover



### ZPK150 MB

Mounting bracket for installation to ceiling, cable duct, threaded rod.



### ZPK150 GC

Glass cover with four clips, seal and retaining cable.

## Accessories

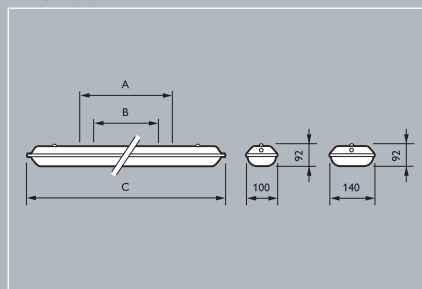
Product ID		European Order Code (EOC)
ZPK150 MB	mounting bracket	14303300
ZPK150 GC	glass cover	14301900



TCW215 2x 36W/58W



Dimensions in mm



## Pacific TCW215

Functional dust-, and jetproof luminaire for TL-D fluorescent lamps. Fixation of the cover to the housing without additional lockers, but by innovative concept with integrated fixation points. Gear tray, 2 stainless steel ceiling fixation clips and cable entries (membranes) supplied with the luminaire. Lamps included with 240 V versions.

Choice of different standard versions available:

- versions 1/2 x 18 W, 1/2 x 36 W, 1/2 x 58 W (TL-D),
- ready-to-install, including lamp(s) and Waterproof External Connector (WEC),
- equipped with through-wiring 5 x 2.5 mm<sup>2</sup>.

## Applications

- Dust and moisture protected

## Technical description

- Gear/power supply:  
HF: 220 V - 240 V (HFP, HFR, EI\*)  
conventional: 230 V or 240 V
  - Lamps: 1 and 2 TL-D fluorescent
  - Connection: fused connection block optional
  - Material: grey fibre glass reinforced polyester housing and acrylic cover
- \* Electronic Included

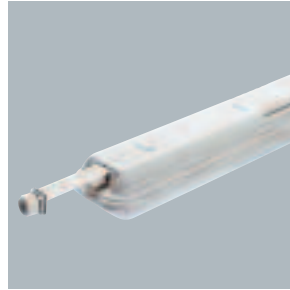
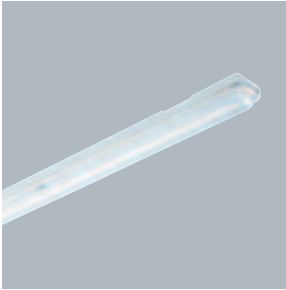
## Installation

- Quick installation. Mounting: individual or in-line.
- Separate access to ceiling clips possible via hatch in the packaging.
- Easy 'click' installation by 2 stainless steel ceiling fixation clips.
- Flexibility: variable fixation centres and different cable entries possible.
- Pre-mounted cable entry.
- Easy electrical connection due to solid gear tray suspension or KIT version with Waterproof External Connector (WEC).

## Accessories

Suspension hooks, through-wiring sets.

Product ID	A	A	A	B	C
	Nom	Min	Max		
TCW215 18W	425	350	500	320	690
TCW215 36W	850	775	925	600	1300
TCW215 58W	850	775	925	600	1600



TCW215 1x 36W/58W

*KIT version with lamps installed and Waterproof External Connector (WEC) for easy installation.*

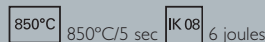
## Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
TCW215 1xTL-D18W HFP PI	1,1	29171000
TCW215 1xTL-D18W IC PI	1,4	29131400
TCW215 1xTL-D18W/35 IC 240V SI	1,7	29231100
TCW215 1xTL-D18W I PI	1,3	29137600
TCW215 1xTL-D36W HFP PI	1,8	29173400
TCW215 1xTL-D36W EI PI	1,7	30001600
TCW215 1xTL-D36W IC PI	2,1	29133800
TCW215 1xTL-D36W/35 IC 240V SI	2,4	29233500
TCW215 1xTL-D36W I PI	2,0	29139000
TCW215 1xTL-D58W IC PI	2,8	29135200
TCW215 1xTL-D58W/35 IC 240V SI	3,1	29235900
TCW215 1xTL-D58W I PI	2,8	29141300
TCW215 2xTL-D18W HFP PI	1,5	29172700
TCW215 2xTL-D18W IC PI	1,7	29132100
TCW215 2xTL-D18W/35 IC 240V SI	2,3	29232800
TCW215 2xTL-D18W I PI	1,6	29138300
TCW215 2xTL-D36W HFP PI	2,3	29174100
TCW215 2xTL-D36W EI PI	2,3	30009200
TCW215 2xTL-D36W IC PI	3,0	29134500
TCW215 2xTL-D36W/35 IC 240V SI	3,5	29234200
TCW215 2xTL-D36W I PI	3,0	29140600
TCW215 2xTL-D58W IC PI	4,2	29136900
TCW215 2xTL-D58W/35 IC 240V SI	4,8	29236600
TCW215 2xTL-D58W I PI	4,1	29142000

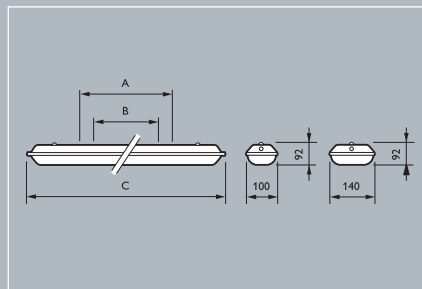




TCW216 2x 36W/58W



Dimensions in mm



## Pacific TCW216

Functional shock-, vandal-, dust-, and jetproof luminaire for TL-D and TL5 fluorescent lamps. Fibre-glass reinforced polyester housing with a polycarbonate prismatic clear cover. Fixation of the cover to the housing without additional lockers, but by innovative concept with integrated fixation points. Gear tray, 2 stainless steel ceiling fixation clips and cable entries (membranes) supplied with the luminaire.

Lamps included with 240V versions.

Choice of different standard versions available:

- versions 1/2 x 18 W, 1/2 x 36 W, 1/2 x 58 W (TL-D) and 1/2 x 49 W (TL5),
- emergency lighting, 1- or 3-hours,
- ready-to-install, including lamp(s) and Waterproof External Connector (WEC),
- equipped with through-wiring 5 x 2.5 mm<sup>2</sup>.

## Applications

- Dust and moisture protected
- Impact protected

## Technical description

- Gear/power supply:  
HF: 220 V - 240 V (HFR, HFR, EI\*)  
conventional: 230 V or 240 V
- Lamps: 1 and 2 TL-D or TL5 (16 mm) fluorescent
- Connection: fused connection block optional
- Material: grey fibre glass reinforced polyester housing and polycarbonate cover

\* Electronic Included

Note: sheet moulding compound (which is fibre-glass reinforced polyester) materials can be recycled.

Product ID	A			B	C
	Nom	Min	Max		
TCW216 TL-D 18W	425	350	500	320	690
TCW216 TL-D 36W	775	850	925	600	1300
TCW216 TL5 49W/TL-D 58W	775	850	925	600	1600

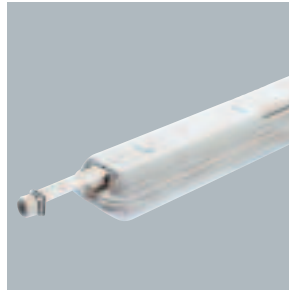
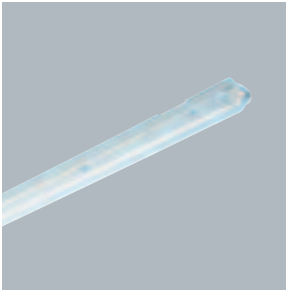
## Installation

- Quick installation.
- Mounting: individual or in-line.
- Separate access to ceiling clips possible via hatch in the packaging.
- Easy 'click' installation by 2 stainless steel ceiling fixation clips.
- Flexibility: variable fixation centres and different cable entries possible.

- Pre-mounted cable entry.
- Easy electrical connection due to solid gear tray suspension, or KIT version with Waterproof External Connector (WEC).

## Accessories

- Suspension hooks
- Vandal-resistant lockers
- Through-wiring sets



TCW216 1x 36W/58W

*KIT version with lamps installed and Waterproof External Connector (WEC) for easy installation.*

## Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
TCW216 1xTL-D18W IC PI	1,5	29143700
TCW216 1xTL-D18W/35 IC 240V SI	1,7	29237300
TCW216 1xTL-D18W I PI	1,4	29149900
TCW216 1xTL-D36W HFP PI	1,8	29185700
TCW216 1xTL-D36W EI PI	1,8	29972300
TCW216 1xTL-D36W IC PI	2,1	29145100
TCW216 1xTL-D36W/840 IC PI KIT	2,3	30997200
TCW216 1xTL-D36W/35 IC 240V SI	2,3	29239700
TCW216 1xTL-D36W I PI	2,1	29151200
TCW216 1xTL-D58W IC PI	2,9	29147500
TCW216 1xTL-D58W/35 IC 240V SI	3,1	29241000
TCW216 1xTL-D58W I PI	2,8	29153600
TCW216 2xTL-D18W IC PI	1,7	29144400
TCW216 2xTL-D18W/35 IC 240V SI	2,1	29238000
TCW216 2xTL-D18W I PI	1,6	29150500
TCW216 2xTL-D36W HFP PI	2,4	10347100
TCW216 2xTL-D36W EI PI	2,4	29986000
TCW216 2xTL-D36W IC PI	3,1	29146800
TCW216 2xTL-D36W/840 IC PI KIT	3,5	68200600
TCW216 2xTL-D36W/35 IC 240V EL3 SI	4,6	29336300
TCW216 2xTL-D36W/35 IC 240V SI	3,5	29240300
TCW216 2xTL-D36W I PI	3,1	29152900
TCW216 2xTL-D58W IC PI	4,3	29148200
TCW216 2xTL-D58W/35 IC 240V SI	4,8	29242700
TCW216 2xTL-D58W I PI	4,2	29154300

## Accessories for TCW215 and TCW216



**ZCW216 TW**

Through-wiring set.



**ZCW216 LOC-VP**

Vandal-resistant lockers (6 pcs).



**ZCW216 HS**

Bag of 20 suspension hooks.

### Accessories for

### TCW215 and TCW216

	Weight (kg)	European Order Code (EOC)
ZCW216 18 TW1-HF 16A CLI	0.07	29411799
ZCW216 18 TW3-HF 16A CLI	0.10	29413199
ZCW216 36 TW1-HF 16A CLI	0.13	29415599
ZCW216 36 TW3-HF 16A CLI	0.21	29417999
ZCW216 58 TW1-HF 16A CLI	0.15	29419399
ZCW216 58 TW3-HF 16A CLI	0.25	29421699
ZCW216 HS (20PCS)	0.03	29397499
ZCW216 LOC-VP (6PCS)	0.03	29395099

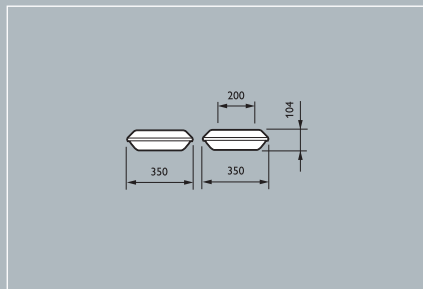




FCW196 O (opal cover)



Dimensions in mm



## Pacific FCW196

Functional shock-, vandal-, dust- and jetproof luminaire for PL-L compact fluorescent lamps.

With opal or pearled cover:

4 internal clips (opal cover) or 4 corner screws and internal clips (pearled cover) are supplied with the luminaire. Also available as kombipack including lamps.

## Applications

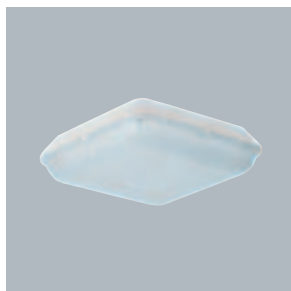
- Dust and moisture protected
- Impact protected

## Technical description

- Gear/power supply: conventional: 230 V or 240 V
- Lamps: 2 x 18 W PL-L compact fluorescent
- Housing: grey polycarbonate

## Installation

- Mounting: individual.
- Method: holes for screw fixing. Closure of the luminaire by 4 internal clips (opal cover) or 4 corner screws plus internal clips (pearled cover).



FCW196 P (pearled cover)

## Preferred selection

Product ID	Weight (kg)	Light Output Ratio (LOR)	European Order Code (EOC)
FCW196 2xPL-L18W I O	2.10	0.57	18383100
FCW196 2xPL-L18W/840 IC O	2.10	0.57	18609200
FCW196 2xPL-L18W/840 IC 240V O	2.10	0.57	18560600
FCW196 2xPL-L18W I P	2.10	0.65	18384800
FCW196 2xPL-L18W/840 IC P	2.10	0.65	18610800
FCW196 2xPL-L18W/840 IC 240V P	2.10	0.65	18561300

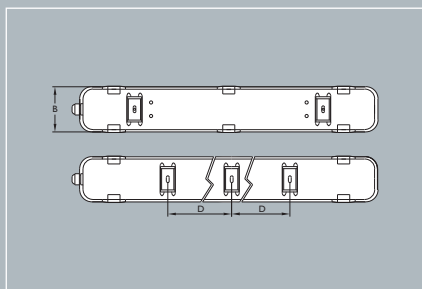
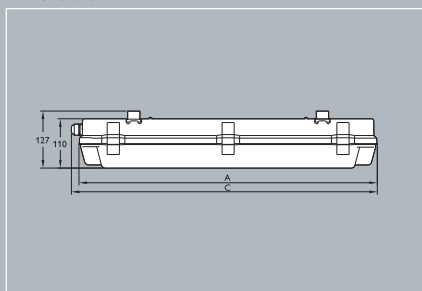




TCW097



Dimensions in mm



## TCW097

Economical and functional shock-, dust- and waterproof luminaire for TLD and TL5 fluorescent lamps. The housing and the cover are made of high quality polycarbonate, which make the TCW097 a waterproof luminaire of outstanding quality. Luminaire is completely sealed by stainless steel clips that don't fall off in case of maintenance.

### Product Features

- Shockproof, dustproof and waterproof

### Product Benefits

- Ingress Protection 65 (IP65)
- Gear tray and cover suspension system
- Fixed stainless steel clips
- Durable polycarbonate housing and cover
- Excellent water and dust protection
- Easy installation and maintenance
- Optimum light distribution and performance

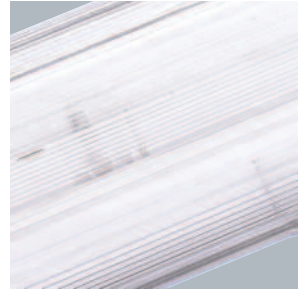
Product ID	A	B	C	D
TCW097 1x18W	660	100	676	417
TCW097 1x36W	1270	100	1276	880
TCW097 1x58W	1570	100	1586	590
TCW097 2x18W	660	150	676	417
TCW097 2x36W	1270	150	1276	880
TCW097 2x58W	1570	150	1586	590



*Excellent water and dust protection*



*Easy installation and maintenance*

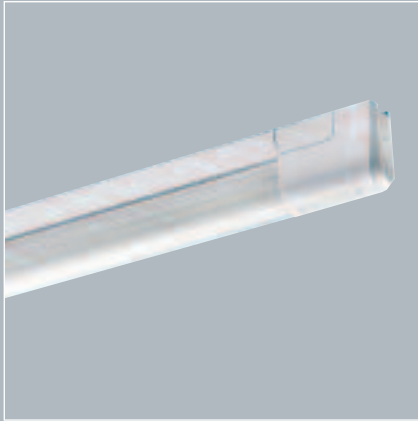


*Optimum light distribution and performance*

## Preferred selection

Product ID	Weight	Order Code
TCW097 1x18W IC 220V IP65	2,07	8241 064 23080
TCW097 1x18W IC 230V IP65	2,07	8241 064 23180
TCW097 1x18W IC 240V IP65	2,07	8241 064 23280
TCW097 2x18W IC 220V IP65	2,32	8241 064 23380
TCW097 2x18W IC 230V IP65	2,32	8241 064 23480
TCW097 2x18W IC 240V IP65	2,32	8241 064 23580
TCW097 1x36W IC 220V IP65	3,04	8241 064 23680
TCW097 1x36W IC 230V IP65	3,04	8241 064 23780
TCW097 1x36W IC 240V IP65	3,04	8241 064 23880
TCW097 2x36W IC 220V IP65	4,07	8241 064 23980
TCW097 2x36W IC 230V IP65	4,07	8241 064 24080
TCW097 2x36W IC 240V IP65	4,07	8241 064 24180
TCW097 1x58W IC 220V IP65	4,80	8241 064 24280
TCW097 1x58W IC 230V IP65	4,80	8241 064 24380
TCW097 1x58W IC 240V IP65	4,80	8241 064 24480
TCW097 2x58W IC 220V IP65	7,83	8241 064 24580
TCW097 2x58W IC 230V IP65	7,83	8241 064 24680
TCW097 2x58W IC 240V IP65	7,83	8241 064 24780

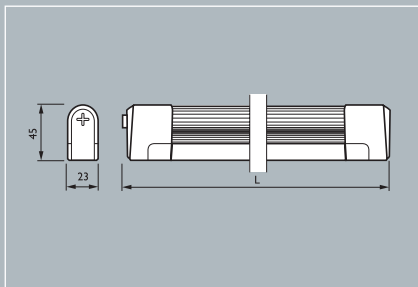




TCH128



Dimensions in mm



## Pentura Mini

The ultra-slim bright TL5 batten is easy to install, even where space is limited. Pentura Mini can easily be connected to create elegant light lines. The slim batten offers all the benefits of TL5 technology – bright light, natural colours, small diameter, and energy saving. The combination of the TL5 lamp (included in the batten) and electronic gear saves up to 40% on energy compared to conventional tubes. In short, a highly cost-effective solution. A complete choice of lamp wattages and lamp colours is available.

## Applications

- Kitchens, bathrooms
- Cove lighting
- Under-shelf lighting

## Technical description

- Gear/power supply: HF 220-240V, 50-60Hz
- Lamps: 1xTL-5 (16mm) fluorescent. 14W, 21W, 28W
- Lamp colours: Cool white (840) or Cool daylight (865)
- Polycarbonate housing and end caps
- Acrylic cover
- 10.000 hours maintenance-free operation of lamp and gear
- Class II

## Installation

- Lamp and cover are included
- Mounting accessories for ceiling / wall-mounting, or suspension are included
- Electrical connection by push-in connector; accessible via removable end-cap
- Through-wiring possibilities included

Product ID		L
TCH128	1 x 14W	623
TCH128	1 x 21W	923
TCH128	1 x 28W	1223

## Preferred selection

Product ID	Lamp colour	Weight (kg)	European Order Code (EOC)
TCH128 1xTL5-14W/840 HF	Cool white	0.47	15324799
TCH128 1xTL5-14W/865 HF	Cool daylight	0.47	15325499
TCH128 1xTL5-21W/840 HF	Cool white	0.58	15326199
TCH128 1xTL5-21W/865 HF	Cool daylight	0.58	15327899
TCH128 1xTL5-28W/840 HF	Cool white	0.68	15328599
TCH128 1xTL5-28W/865 HF	Cool daylight	0.68	15329299

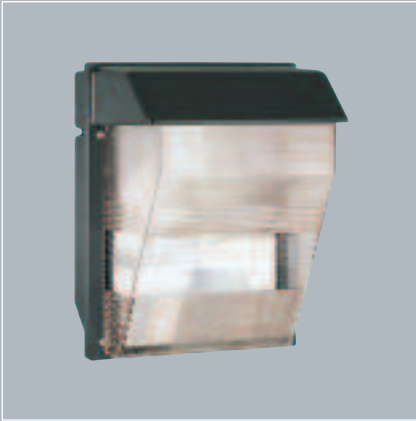






## Luminaires Outdoor

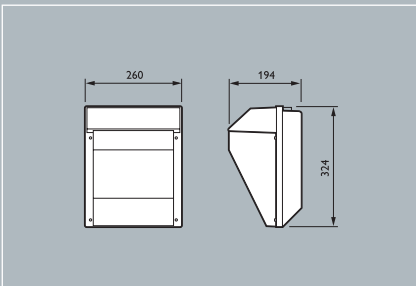




SGS113



Dimensions in mm



## SGS113

Low-energy security luminaires, with a choice of long-life lamps for good-quality light and low maintenance costs, and pre-wired integral control gear, for all-night security and amenity lighting. Supplied ready for installation as kombipack.

### Main applications

- Car parks
- Underpasses
- Industrial areas
- Security

### Suitable lamp types

- SON-E 70W
- SON-I 70W
- SON-T 70W
- SDW-T 50W

Luminaires are available as standard in kombipack format (K), complete with relevant lamp type.

### Features

- Easy-to-install kombipack, complete with gear and lamp. Exchangeable gear unit for easy maintenance
- High optical performance of mirror and refractor bowl produces excellent light distribution for low-level lighting of walls, corridors and surroundings
- Corrosion-proof and vandal-resistant for long service. Dustproof and jetproof to IP54
- Photocell versions (P) for local unattended switching

### Materials and finish

- Non-corrosive, die-cast aluminium housing
- Polycarbonate refractor bowl
- Anodised aluminium reflector
- Finishing housing in black

### Installation

Direct wall or ceiling mounting. Cable entries on all sides allow through-wiring. Supplied with all necessary mounting parts.

### Preferred selection

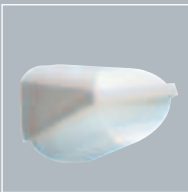
Product ID	Weight (kg)	European Order Code (EOC)
SGS113 SON-I-70W K 230V	4,3	92649000
SGS113 SON-I-70W K 230V P	4,3	92684100
SGS113 SON-I-70W K 240V	4,3	92795400
SGS113 SON-T70W K 230V	4,3	92689600
SGS113 SON-E70W 230V K	4,3	92650600

# Security lighting

# FWC110/FWC120/FWC121



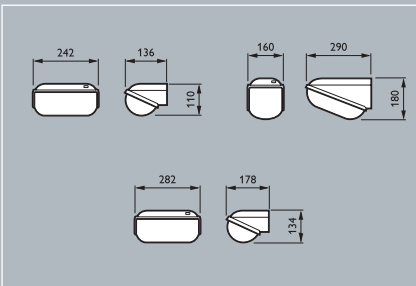
FWC110/120



FWC121



Dimensions in mm



## FWC110/FWC120/FWC121

Attractive wall mounted, low-energy security luminaires for all-night security and amenity lighting. Supplied ready for installation as kombipack.

### Main applications

- Residential areas, industrial areas, security

### Suitable lamp types

- PL-S 9 W, PL-C 18 W, SOX-E 18 W

Luminaires are available as standard in kombipack format (K), complete with relevant lamp type.

### Features

- Easy-to-install kombipack, for wall-mounting
- High-reflectance white unit plate and translucent bowl with prismatic control produce excellent light distribution for low-level lighting of walls, corridors and surroundings
- Corrosion-proof and vandal-resistant for long service. Easy to clean. Dustproof and jetproof to IP54.
- Photocell versions (P) for local unattended switching

### Materials and finish

- Non-corrosive, injection-moulded ASA housing
- Translucent polycarbonate bowl
- Polycarbonate unit plate

### Installation

Direct wall mounting (FWC/XWC121 models). Cable entries on all sides allow through-wiring. Supplied with all necessary mounting parts.

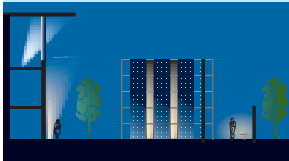















### Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
FWC110 PL-S/2P9W/827 230V II	0,9	00000899
FWC110 PL-S/2P9W/827 230V II P	0,9	00014599
FWC120 PL-C/2P18W/827 230V II	1,3	00098599
FWC120 PL-C/2P18W/827 230V II P	1,3	00112899
FWC120 PL-C/2P18W/827 240V II	1,3	00168599
FWC121 PL-C/2P18W/827 230V II	1,3	00126599
XWC120 SOX-E18W K 230V II	1,7	00238599
XWC121 SOX-E18W K 240V II	1,7	00336899

# Applications reference guide

## To help start the selection process

The table below shows which luminaire families provide technical and aesthetic solutions for certain applications. There are, of course, many other combinations not shown here, so please do not restrict yourself to the suggestions. They are produced only as an indication of what is possible, and to help you start the selection process. An even more extended luminaire portfolio is available on request.

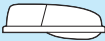
Architectural lighting	Guidance lighting	Pedestrian lighting
		
<p>Floodlight luminaires with optical performance, compactness, modularity and user friendliness for architecture lighting.</p>	<p>Marker lights and bollards to provide guidance, enhance the appearance at night, and increase safety</p>	<p>Human scale luminaires designed with both daytime appearance and ambient night-time lighting effects for pedestrian lighting. Average mounting height: 3-5 m.</p>
<p>LEDflood  page 10.24-10.25</p>	<p>LEDstep  page 10.30-10.31</p>	<p>BPS740  page 10.4-10.5</p>
<p>LEDline<sup>2</sup>  page 10.26-10.27</p>	<p>LED uplight  page 10.32-10.33</p>	<p>Urbana  page 10.6-10.9</p>
<p>LEDspot  page 10.34-10.35</p>	<p>Amazon LED  page 10.36-10.39</p>	<p>VivaraZON  page 10.10-10.11</p>
<p>ArenaVision (up)  page 10.40-10.41</p>	<p>VivaraZON  page 10.10-10.11</p>	
<p>SNF100/300  page 10.42-10.45</p>		
<p>Tempo  page 10.46-10.53</p>		

# Applications reference guide


## Road lighting





Technical luminaires, economical, general-purpose with optical performance for road lighting. Average mounting height: 6-12 m.

Phenix  page 10.12-10.15

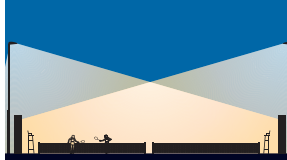
Aurora  page 10.16-10.17

Selenium  page 10.18-10.19

Malaga  page 10.20-10.21

FGS104/105  page 10.22-10.23

## Sports lighting



Complete range of floodlighting and other luminaires with optical performance for recreational sports lighting.

ArenaVision  page 10.40-10.41

SNF100/300  page 10.42-10.45

Tempo  page 10.46-10.53

## Area and security lighting



Complete range of floodlighting and other luminaires with optical performance for sports lighting.

SNF100/300  page 10.42-10.45

Tempo  page 10.46-10.53

QVF415/416/417  page 10.45-10.55

Security lighting  page 10.56-10.61





BPS740



IP 66

optical modules



IP 43

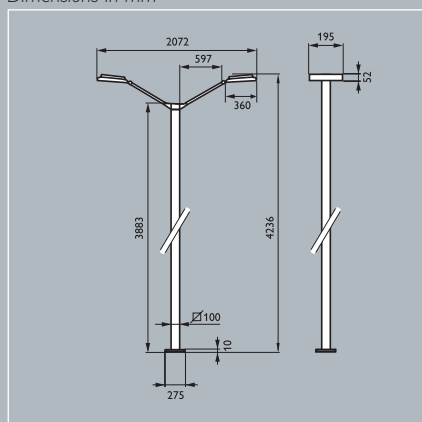
gear compartment

850°C



product  
design  
award  
2006

Dimensions in mm



## BPS740

The distinctive contemporary design, combining pure and fluid new shapes, is the main characteristic of this state-of-the-art solution. The uniform illuminance on the ground is provided by the new high efficiency collimating optics. A mix of white and amber Luxeon™ LEDs ensures a perfect warm white colour from 2 700 K up to 4 000 K.

This range (BPS740) consists of two optical modules, 2 brackets, a mast interface and a driver. A square mast is available separately (ZPS740).

## Main applications

- Pathways, squares
- Shopping areas
- Parks / Pedestrian zones

## Suitable lamp types

per optical module = 6 x Luxeon™ III white + 12 Luxeon™ I amber

3 pre-setting white colour: 2 700 K or 3 200 K or 4 000 K

## Features

- Extensive rotational symmetrical high efficiency collimating lenses – cut off 60°
- Integrated driver in the mast
- Electronic gear 220 – 240 V AC, 50/60 Hz
- Optical modules supplied with flexible cable; length 1.5 m to be connected to the driver
- The driver (electronic gear integrated in a plastic box) supplied with flexible; length 3 m for the connection to the mains
- Electrical power less than 85 W
- Operating temperature from –20 °C up to +35 °C outdoor
- Long life time of 50 000 hours; –30% flux depreciation
- Equinox optical modules sealed for life

## Materials and finish

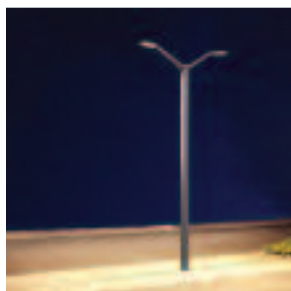
- High quality finish housing, die-cast aluminium housing ensures a robust, solid construction
- Brackets and mast made of extruded aluminium profiling
- Frosted stainless steel optics frames, which display the Philips brand name
- No visible screws made of stainless steel
- Lenses are made in PMMA
- Standard painting anodic grey (closest RAL 9006); other colours available on request

## Preferred selection

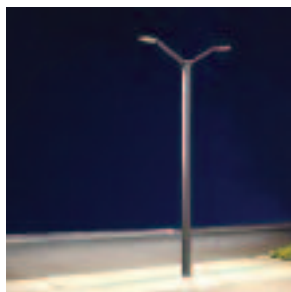
Product ID	Light colour	European Order code (EOC)
BPS740 LED-LXN/WH-27 EB I S GR	2 700K	85227000
BPS740 LED-LXN/WH-32 EB I S GR	3 200K	85228700
BPS740 LED-LXN/WH-40 EB I S GR	4 000K	85229400

## Accessory

Accessory	Description	European Order Code (EOC)
ZPS740 GR L3800 MAST	Square mast, grey, 3,8 meter	14797000



**Warm light** 2 700 K



**Neutral light** 3 200 K



**Cool light** 4 000 K

**PHILIPS**

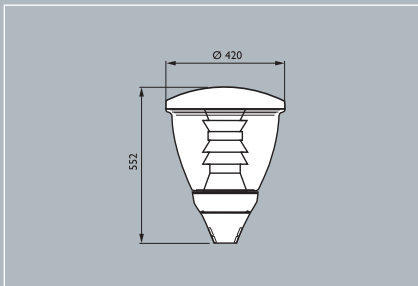




Tropic



Dimensions in mm



## Urbana GPS300

Comprising eight different decorative models, the Urbana range can be deployed in a wide variety of urban applications. At the same time, a distinct family design aesthetic is maintained thanks to the use of a single standard pole mount across the entire range. Whatever the application, Urbana's combination of excellent lighting performance and attractive both day-time and night-time appearance adds to the ambience and human appeal of the surroundings. The luminaires with Forest, Arctic and Tropic top covers address the issue of obtrusive light by means of dedicated bowls with top covers that prevent upward emission of light. The light pollution bowl Luner features a black coating on its upper hemisphere, to prevent upward light distribution. The opal Polar and clear Cristal bowls offer a choice of soft, diffuse lighting and bright, direct illumination respectively.

## Main applications

- Station yards
- Residential areas
- Footpaths / Pedestrian areas / Promenades
- Squares (a.o. inner-city)
- Parks
- Commercial (shopping) centres
- Shopping areas
- Business centres
- Urban areas

## Suitable lamp types

### GPS301/302/307

- SON 70/100/150 W
- SON-I 70 W
- CDO-ET 70/100/150 W
- HPL-N 80/125 W
- PL-T/4P 42 W
- PL E-T 23 W
- E27 Incandescent max. 100 W

### GPS303/304/306/308/309

- SON 70/100 W
- SON-I 70 W
- SON-T 70/100/150 W
- CDO-ET 70/100 W
- HPL-N 80/125 W
- PL-T/4P 42 W
- PL E-T 23 W
- E27 Incandescent max. 100 W

## Features

- Choice of clear and opal bowls
- Universal pole mount and modular concept
- Excellent light control

## Materials and finish

- UV stabilized, impact resistant bowls and top covers. Top covers are painted inside white and outside black colours

- Glass fiber reinforced polyamide pole mount and gear cover in black colour
- Sandblasted die-cat aluminium louvre and pre-galvanized steel heat shield

### Installation

- Single standard pole mount across the entire range suitable for post-top 60 mm outside diameters poles.



Luner



Polar 400



Polar 500



Arctic



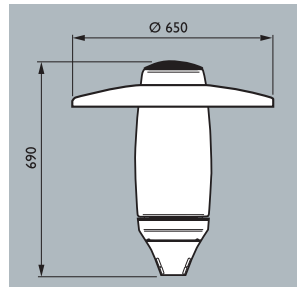
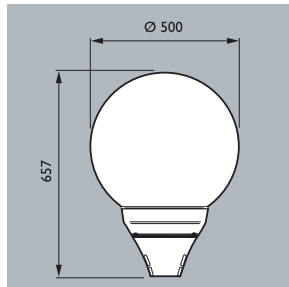
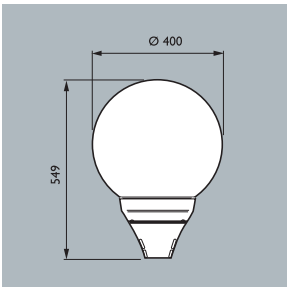
Cristal 400



Cristal 500



Forest



Dimensions in mm

## Preferred selection

Product ID		Weight (kg)	European Order Code (EOC)
<b>Bowls</b>			
Polar 400	GPS301 PCO-D400	1.40	14684300
Polar 500	GPS302 PCO-D500	2.20	14685000
Cristal 400	GPS303 PCC-D400	1.40	14686700
Cristal 500	GPS304 PCC-D500	2.20	14687400
Luner	GPS306 PCC-R-D500	2.20	14689800
Arctic	GPS307 PCO-R	2.30	12642500
Forest	GPS308 PCC-R	2.30	12641800
Tropic	GPS309 PCC-R	1.40	14692800



Heat shield (HSH)



Direct/indirect reflector (LO-D/I)



Direct reflector (LO)

Product ID		Weight (kg)	European Order Code (EOC)
<b>Pole mounts</b>			
EPS300 E27 MAX100W HSH		1.20	12643200
EPS300 E27 MAX100W LO		1.90	12644900
EPS300 E27 MAX100W LO-D/I		1.90	12645600
EPS300 SON-T70W IC 230V HSH		2.50	12611100
EPS300 SON-T70W IC 230V LO		3.20	12612800
EPS300 SON-T70W IC 230V LO-D/I		3.20	12613500
EPS300 SON-T100W IC 230V HSH		3.00	12626500
EPS300 SON-T100W IC 230V LO		3.70	12627200
EPS300 SON-T100W IC 230V LO-D/I		3.70	12628900
EPS300 SON-T150W IC 230V HSH		3.60	12629600
EPS300 SON-T150W IC 230V LO		4.40	12630200
EPS300 SON-T150W IC 230V LO-D/I		4.40	12631900
EPS300 SON-I-70W IC 230V HSH		2.40	12620300
EPS300 SON-I-70W IC 230V LO		3.20	12621000
EPS300 SON-I-70W IC 230V LO-D/I		3.20	12622700
EPS300 HPL-N80W IC 230V HSH		2.70	12614200
EPS300 HPL-N80W IC 230V LO		3.40	12615900
EPS300 HPL-N80W IC 230V LO-D/I		3.40	12616600
EPS300 HPL-N125W IC 230V HSH		2.70	12617300
EPS300 HPL-N125W IC 230V LO		3.40	12618000
EPS300 HPL-N125W IC 230V LO-D/I		3.40	12619700
EPS300 PL-T/4P42W HFP220-240V HSH		1.30	12623400
EPS300 PL-T/4P42W HFP 220-240V LO		2.00	12624100
EPS300 PL-T/4P42W HFP 220-240V LO-D/I		2.00	12625800





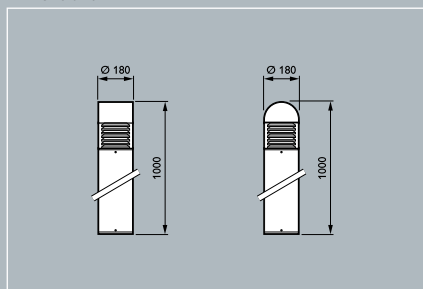
HCP171 PCP



HCP170 PCC



Dimensions in mm



HCP171

HCP170

## VivaraZON HCP170/171

Aluminium bollard range for ground-mounted applications. Choice of two distinctive designs suitable for discharge and incandescent lamps: round top with clear cover (HCP170) and flat top with ZON diffuser (HCP171). Highly reflective aluminium internal louvre ensures glare-free light distribution. Easy to install, and vandal-resistant construction. Discharge-lamp versions supplied ready for installation with integral control gear.

### Main applications

- Footpaths / Pedestrian areas / Promenades
- Squares (a.o. inner-city)
- Parks

### Suitable lamp types

- HPL-N 80 W
- SON 70 W/CDM-ET 70 W
- E27 incandescent max. 100 W

### Features

- Choice of two decorative bollards on a common interface
- Thermally protected ballast giving a choice of tapped voltage 230-240 V
- Exclusive innovative new prismatic optic which features Philips' unique ZON (Zone Optimised leNs) technology for safety and security (HCP171)
- All products have a glare-control louvre
- Strong aluminium material for vandal resistance

### Materials and finish

- Black powder-baked aluminium mast
- Polycarbonate diffuser
- Steel anchor bolts

### Installation

Bollards are fixed on a dedicated mounting flange with anchor bolts (to be cast in a concrete base). All necessary fixations part are included.

### Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
<b>Round top with clear cover</b>		
HCP170 E27 MAX100W LO PCC	6.60	14037700
HCP170 HPL-N80W 230-240V LO PCC	7.80	14035300
HCP170 SON70W 230-240V LO PCC	7.80	14036000
<b>Flat top with ZON diffuser</b>		
HCP171 E27 MAX100W LO PCP	7.00	14040700
HCP171 HPL-N80W LO PCP	8.20	14038400
HCP171 SON70W 230-240V LO PCP	8.20	14039100







SGP 551 GB (glass bowl)



SGP 551 FG (flat glass)



gear compartment

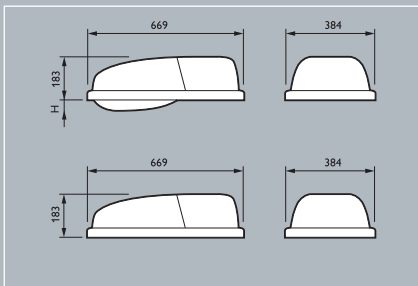


optical modules



6 Joule

Dimensions in mm



## Phenix

Dedicated road lighting luminaire in contemporary style offering excellent lighting performance, enabling safe traffic and comfortable driving. Due to the high ingress protection (IP 66) of the high-pressure die-cast aluminium housing in combination with the tempered glass covers, the Phenix guarantees optimal functioning over time. Reliability even under the most severe conditions, withstanding burden of dust, temperature and humidity.

The Phenix with its modular state of the art reflector is suitable for an extensive choice of high-pressure mercury and high-pressure sodium lamps all incorporated in only one luminaire.

## Main applications

- Motorways for heavy and high speed traffic
- Major roads and carriageways with motorised traffic
- Approach roads with mixed traffic in urban areas
- Collector roads in residential or shopping centres.

## Suitable lamp types

- SON (-T) 150 / 250 / 400 / 600 W
- HPL (-N) 250 / 400 W

## Features

- Choice of two different tempered optical covers; flat glass (FG) or shallow glass bowl (GB)
- Power supply: 230V or 240V/50Hz, 127V or 220V/60Hz
- Cut off and semi-cut off optical configurations for comfortable visual shielding
- Factory-set lamp positions ensures optimal lighting performance
- One luminaire suitable for a wide range of lamps
- Rapid and straightforward maintenance without the need for tools
- Easy accessibility of lamp and gear compartment
- Lamp replacement from above (canopy) or optionally by opening the bowl (hinge-version, BH)
- Available with or without integrated gear.
- Luminaire concept conform EN60598, IEC598 and ULND1672

## Materials and finish

- High pressure die-cast aluminium housing
- Hardened flat glass and bowl
- High purity anodised aluminium reflector
- Stainless steel clips
- Die-cast aluminium mounting spigot
- High grade grey lacquer: (RAL 7038, light grey)

## Installation

- Pole top or side entry mounting by means of 2 standard (stainless steel) M10 hexagon head screws
- Suitable for poles with a section diameter between 42 and 60 mm
- Spigot entry depth 70 mm for post top and 120 mm for side entry configuration.



Glass bowl with hinge



Easy maintenance



Die-cast aluminium

## Preferred selection

Product ID	Lamp type	Order Code
SGP551 SONT150 230 TE40P4GB SP Z60 GR	Suitable for SONT150 230V	9129 002 23...
SGP551 SONT250 230 TE40P2GB SP Z60 GR	Suitable for SONT250 230V	9129 002 24...
SGP551 SONT400 230 TE40P1GB SP Z60 GR	Suitable for SONT400 230V	9129 002 25...
SGP551 SONT600 230 TE40P1GB SP Z60 GR	Suitable for SONT600 230V	9129 002 26...
SGP551 SONT150 230 TE40P4FG SP Z60 GR	Suitable for SONT150 230V	9129 002 27...
SGP551 SONT250 230 TE40P2FG SP Z60 GR	Suitable for SONT250 230V	9129 002 28...
SGP551 SONT400 230 TE40P1FG SP Z60 GR	Suitable for SONT400 230V	9129 002 29...
SGP551 SONT600 230 TE40P1FG SP Z60 GR	Suitable for SONT600 230V	9129 002 30...
SGP551 SONT150 230 TE40P4BH SP Z60 GR	Suitable for SONT150 230V	9129 002 31...
SGP551 SONT250 230 TE40P2BH SP Z60 GR	Suitable for SONT250 230V	9129 002 32...
SGP551 SONT400 230 TE40P1BH SP Z60 GR	Suitable for SONT400 230V	9129 002 33...
SGP551 SONT600 230 TE40P1BH SP Z60 GR	Suitable for SONT600 230V	9129 002 34...
SGP551 HPLN125 230 TE27P7BH Z60 GR	Suitable for HPLN 125 230V	9129 002 35...
SGP551 HPLN250 230 TE40P3BH Z60 GR	Suitable for HPLN 250 230V	9129 002 36...
SGP551 HPLN400 230 TE40P0BH Z60 GR	Suitable for HPLN 400 230V	9129 002 37...
SGP551 SONT150 240 TE40P4GB SP Z60 GR	Suitable for SONT150 240V	9129 002 38...
SGP551 SONT250 240 TE40P2GB SP Z60 GR	Suitable for SONT250 240V	9129 002 39...
SGP551 SONT400 240 TE40P1GB SP Z60 GR	Suitable for SONT400 240V	9129 002 40...
SGP551 SONT600 240 TE40P1GB SP Z60 GR	Suitable for SONT600 240V	9129 002 41...
SGP551 SONT150 240 TE40P4FG SP Z60 GR	Suitable for SONT150 240V	9129 002 42...
SGP551 SONT250 240 TE40P2FG SP Z60 GR	Suitable for SONT250 240V	9129 002 43...
SGP551 SONT400 240 TE40P1FG SP Z60 GR	Suitable for SONT400 240V	9129 002 44...
SGP551 SONT600 240 TE40P1FG SP Z60 GR	Suitable for SONT600 240V	9129 002 45...
SGP551 SONT150 240 TE40P4BH SP Z60 GR	Suitable for SONT150 230V	9129 002 46...
SGP551 SONT250 240 TE40P2BH SP Z60 GR	Suitable for SONT250 230V	9129 002 47...
SGP551 SONT400 240 TE40P1BH SP Z60 GR	Suitable for SONT400 230V	9129 002 48...
SGP551 SONT600 240 TE40P1BH SP Z60 GR	Suitable for SONT600 230V	9129 002 49...
SGP551 HPLN125 240 TE27P7BH Z60 GR	Suitable for HPLN 125 230V	9129 002 50...
SGP551 HPLN250 240 TE40P3BH Z60 GR	Suitable for HPLN 250 230V	9129 002 51...
SGP551 HPLN400 240 TE40P0BH Z60 GR	Suitable for HPLN 400 230V	9129 002 52...

## Short optics description

- FG: flat glass
- GB: glass bowl
- BH: glass bowl with hinge





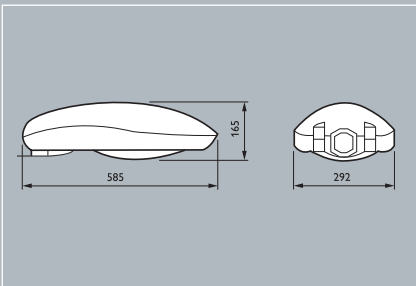
SPP202



IP65

optics and gear compartment

Dimensions in mm



## Aurora

Universal range of aluminium road lighting luminaires. Its sleek design and compact size make a significant contribution to a pleasant and more comfortable environment while keeping costs to a minimum. The highly efficient aluminium T-POT reflector with its precise beam control ensures a wide light distribution, so fewer luminaires are required. With its sturdy die-cast aluminium housing and intelligent design for easy maintenance, the Aurora range ensures long lasting light performance.

## Main applications

- Local roads
- Industrial areas
- Residential areas

## Suitable lamp types

- SON-T 70W, 100W, 150W, 250W
- HPI-T 250W
- CDM-T 70W, 150W
- PL-C 26W

## Features

- Facetted T-POT reflector for high efficiency, good uniformity, and low glare on the eyes
- Maintenance from the top with self-locking supporter: safe, easy, and quick.
- Tool-free maintenance and lamp replacement
- Removable gear tray
- Various colours available on request

## Materials and finish

- Die-cast aluminium housing (IP65)
- Toughened curved glass cover
- Stainless steel clips



### Easy to maintain

Stainless-steel clips and a removable gear tray not only make maintenance tool-free but easy and quick as well.



### Good light efficiency and uniformity

Aurora's superior T-POT reflector ensures good light efficiency and uniformity. We offer you the choice: toughened flat or curved glass cover.



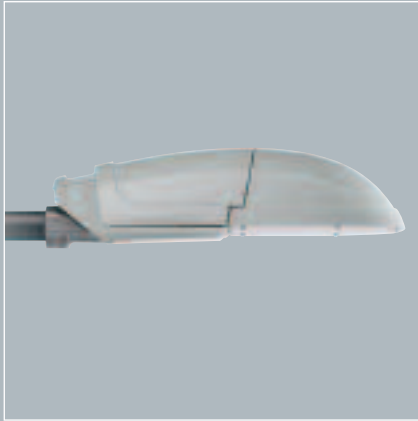
### Safe to install

The luminaire cover has a self-locking supporter, which ensures added safety during lamp replacement.

### Preferred selection

Product ID	Colour	Order code
SPP202 HPI-T250W 220V BG SI	Silver RAL9023	9104 016 99380
SPP202 SON-T250W 220V BG SI	Silver RAL9023	9104 016 97880
SPP202 SON-T100W 220V BG ALU	Natural alu	9104 016 97580
SPP202 SON-T150W 220V BG ALU	Natural alu	9104 016 97680
SPP202 SON-T150W 220V BG SI	Natural alu	9104 016 98880
SPP202 SON-T250W 220V BG ALU	Natural alu	9104 016 97480
SPP202 SON-T70W 220V BG ALU	Natural alu	9104 016 97780

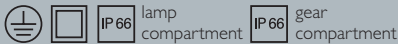
Other voltages/frequencies and lamp types available on request



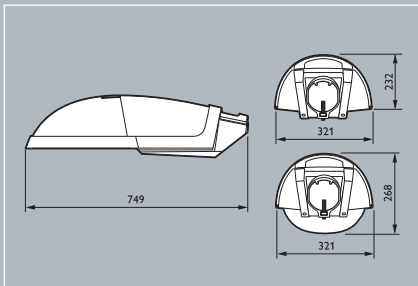
SGP340 FG



SGP340 PC



Dimensions in mm



## Selenium SGP340

Sound, efficient and ergonomic luminaire that combines a high-resistance aluminium housing with the optical performance of the T-POT reflector. Its simple design helps it to integrate into every kind of environment.

### Main applications

- Motorways
- Major and minor roads
- Rural roads
- Crossings, roundabouts
- Industrial estates

### Suitable lamp types

- SON-T 50/70/100/150/250/400 W
- SON-E 50/70/100 W
- HPL-N 50/80/125 W

Luminaires are available as standard in kombipack format (K), complete with relevant lamp type.

### Features

- Timeless design, round modern shape for reduced daytime visual impact
- Completely made of aluminium, impact-resistant and designed to last
- High-strength, sealed construction, IP66 for the optic and the gear compartment
- Easy maintenance from above, tool-less lamp exchange
- Well-known T-POT optic optimised for high-pressure sodium lamps, with five different lamp settings
- Energy savings by dimming with switch or stand-alone Chronosense system (without pilot cable)
- Three tilt angles for optimal installation on mast or bracket (0°, 5°, 15°)
- Choice of semi-parallel or series ignitors
- Options for photocell switching including Nema sockets or integrated minicell
- Options for knife connector and fuse

### Materials and finish

- Canopy and frame: die-cast aluminium
- Standard colour: grey RAL 7035, other RAL colours on request
- Mounting module: die-cast aluminium
- Bowls: vandal-resistant polycarbonate bowl (PC) or toughened flat glass (FG)
- Reflector: high-purity aluminium
- Closing clip: stainless steel

## Installation

- Reversible mounting module for post-top 60 mm and side-entry 48 - 60 mm
- Extra spigots available for 34 mm side-entry or 76 mm post-top mounting
- The spigot is delivered mounted on the luminaire

## Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
<b>Polycarbonate bowl</b>		
SGP340 SON-T70W I PC SP 48/60	10,2	12838200
SGP340 SON-T150W I PC SP 48/60	11,6	12840500
SGP340 SON-T250W I PC SP 48/60	12,3	12869600
SGP340 E27 II PC 48/60	9,6	12769900
SGP340 E40 II PC 48/60	9,8	12770500
<b>Flat glass</b>		
SGP340 SON-T150W II FG SP 48/60	12,4	12847400
SGP340 SON-T250W I FG ST 48/60	12,8	12743900
SGP340 SON-T400W K I FG SP 48/60	13,8	13220400
SGP340 E27 II FG 48/60	9,9	12767500
SGP340 E40 II FG 48/60	10,1	12768200

230V/50Hz gear. Other types, voltages/frequencies available on request

SP = Ignitor semi-parallel. ST = Ignitor semi-parallel self-stopping



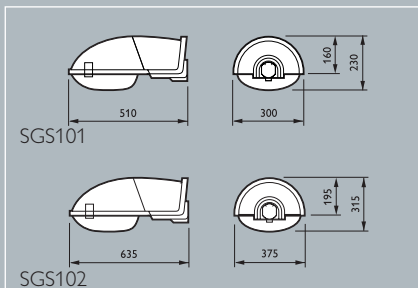




SGS101 post-top mounting



Dimensions in mm



## Malaga SGS101/SGS102

Versatile road lighting luminaire in modern style. Quality lighting for safe and comfortable driving, and for area illumination, with low investment and maintenance costs. Vandal-resistant.

### Main applications

- Industrial areas
- Residential areas
- Rural roads
- Minor roads
- Car parks

### Suitable lamp types SGS101

- SON-I 50/70 W
- SON-E 50/70 W
- SON-T 50/70 W
- HPL-N 80/125 W

### Suitable lamp types SGS102

- HPL-N 250 W
- SON-T 100/150/250 W
- SON-E 100/150 W

### Features

- Optical system designed for good beam control and light output. Optimal illuminance and good uniformity when the mounting height approximately equals the road width and the mast spacing is approximately 3.5 times the road width
- Moveable reflector (MR) to create various beam shapes to fit the application needs
- Reknown Philips T-pot optic available on request for even better beam control
- Flexible mounting capability
- Wall-mounting bracket available
- Vandal-resistant polycarbonate bowl
- Models with self-stopping ignitor and/or NEMA socket for photocell switching available on request
- Sturdy construction resistant to water and dust. Class II insulation provides extra safety and requires only a 2-wire cable for the electrical connection
- Easy installation. Hinged bowl with quick-release clips and removable rear canopy allow swift, safe maintenance

## Materials and finish

- Canopy: glass-fibre-reinforced UV-stabilised polypropylene in restful light grey
- Standard colour: grey RAL 7035
- Bowl: polycarbonate
- Mounting module: non-corrosive, die-cast aluminium
- Gear carrier: glass-fibre-reinforced polycarbonate

## Installation

Malaga is delivered together with the spigot adapter 42 - 60 mm, suitable either for post-top or for side entry.

## Accessories

Flexible spigot for side entry 34 - 42 mm and flexible spigot for post-top 76 mm.



SGS101  
side entry mounting



SGS102  
post-top mounting



SGS102  
side entry mounting

## Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
SGS101 K SON-T50W II MR AS SI	4,7	26903000
SGS101 K SON-T70W II MR AS SI	4,7	26915300
SGS101 K SON-T70W II MR AS ST	4,7	26804000
SGS102 K SON-T100W II MR AS SI	6,9	27101900
SGS102 K SON-T100W II MR AS ST	6,9	27109500
SGS102 K SON-T150W II MR AS SI	7,2	27102600
SGS102 K SON-T250W II MR AS SI	8,2	27103300
SGS102 K SON-T250W II MR AS ST	8,2	27111800
SGS102 K MAX250WE40 II MR AS	5,5	27098200

230V/50Hz gear, Series (SI) or Semi-parallel self stopping (ST). Other lamp types, voltages/frequencies available on request

AS = Allen screw

SI = Ignitor series

ST = Ignitor semi-parallel self-stopping



FGS104



FGS105



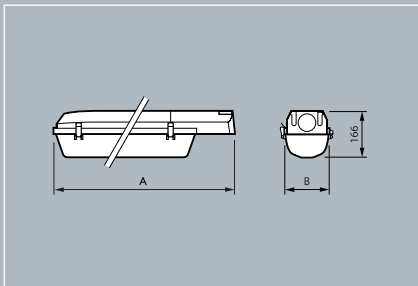
IP43 gear compartment



IP65 lamp compartment



Dimensions in mm



## FGS104/FGS105

The FGS104/FGS105 are general-purpose road-lighting luminaires, available in two different lengths. They are economical and service-friendly with low energy and maintenance costs. Vandal-resistant.

### Main applications

- Industrial areas
- Residential areas
- Local roads
- Car parks

### Suitable lamp types

- SOX(-E) 36-55-66 W
- PL-L 36-40-55 W
- TL-D 18 W

Luminaires are available as standard in kombipack format (K), complete with relevant lamp type.

### Features

- High-strength construction, resistant to water and dust for low maintenance costs
- Flexible mounting: side-entry mounting on 42 - 60 mm spigots; or a special version for post-top mounting on 76 mm spigots
- UV-resistant polycarbonate refractor bowl for efficient, uniform lighting
- Easy installation. Hinged bowl with quick-release clips allows swift, safe maintenance
- NEMA socket for photocell switching, on request
- Easily removed gear tray

### Materials and finish

- Canopy: white, glass-fibre-reinforced, UV-stabilised polyester
- Bowl: polycarbonate bowl with stainless-steel clips
- Mounting module: in non-corrosive, die-cast aluminium
- White lacquered gear plate

### Installation

Fix to 42 - 60 mm side-entry spigot or 60 - 76 mm post-top spigot.

Product ID	A	B
FGS104	665	180
FGS105	865	180

## Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
FGS104 PL-L36W HFP 42/60	3,7	92846300
FGS104 PL-L36W IC 230V 42/60	4,0	92844900
FGS104 PL-L36W IC 240V 42/60	4,0	15066600
FGS104 E 42/60	3,1	92347500
FGS104 SOX-E36W 230V 42/60	5,1	92842500
FGS104 SOX55W 230V 42/60	5,1	92843200
FGS105 1xPL-L55W HFP 42/60	4,8	92853100

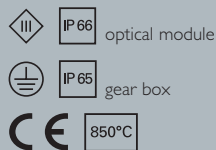
Other voltages/frequencies and lamp types available on request



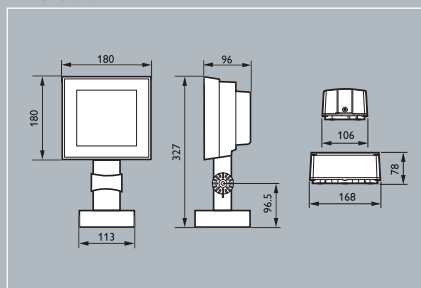
# Architectural flood lighting



BCP730



Dimensions in mm



# LEDflood

## LEDflood

Philips' LEDflood – a new flood light concept for illuminating and enhancing structures with coloured light - expands the creative palette.

The new LEDflood for front and accent lighting integrates state-of-the-art-technologies, such as high-power LEDs and a lighting control system. Its high visual quality, combined with its innovative and long-life light source and high-efficiency collimating optics, provides a new and advanced lighting solution for outdoor flood lighting applications.

## Main applications

- Parks/gardens
- Classical and modern buildings
- Bridges and structures

## Suitable lamp types

Luxeon™ I (1 W) Red or Amber  
Luxeon™ III (2.4 W) Blue, Green or White  
RGB dynamic Versions available on request.

## Optical system: Zoom spot

High-efficiency collimating optics fit all coloured LEDs, ensuring precise light distribution and uniform illuminance. In combination with the revolutionary new, patented system called Zoom spot, the beam can be continuously adjusted from  $2 \times 3^\circ$  to  $2 \times 15^\circ$  within one flood light.

Spill light is then perfectly controlled without any screening accessory.

## Features

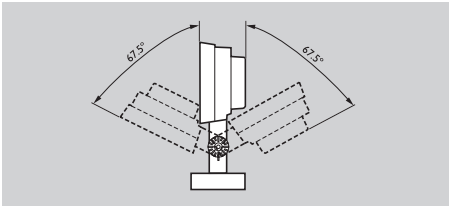
- With its remote gear; LEDflood features a smooth, clean product design
- Electronic gear 220 – 240 V AC, 50/60 Hz
- LEDflood optical module is supplied with a cable length 3 m to be connected to the remote gear
- For dimming, two protocols are available: DALI and 1 - 10V
- Consumption inferior to 36 W
- Operating temperature from  $-20^\circ\text{C}$  up to  $35^\circ\text{C}$  outdoor
- Long life time of 50 000 hours;  $-30\%$  flux depreciation
- LEDflood optical module sealed for life

# Architectural flood lighting

LEDflood

## Materials and finish

- High-quality finish housing, die-cast aluminium housing ensures a robust, solid construction. Accordingly, LEDflood is able to withstand harsh outdoor environments (IP66)
- Tempered glass with a silver screen print and transparent optical window
- Frosted stainless steel frame displays the Philips brand name
- Primary and secondary optics are made in PMMA
- Standard painting anodic grey (closest RAL 9006); other colours available on request



Adjustment possibilities.

## Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
BCP730 LED-LXN/WH EB I 6-30 GR D10 C3000	5,2	85075700
BCP730 LED-LXN/BL EB I 6-30 GR D10 C3000	5,2	85076400
BCP730 LED-LXN/GN EB I 6-30 GR D10 C3000	5,2	85077100
BCP730 LED-LXN/AM EB I 6-30 GR D10 C3000	5,2	85078800
BCP730 LED-LXN/RD EB I 6-30 GR D10 C3000	5,2	85079500

Other types available on request



# Architectural flood lighting

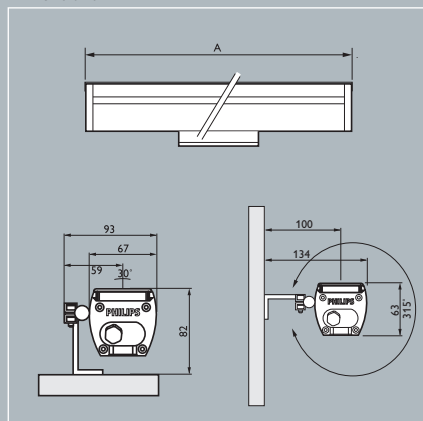
LEDline<sup>2</sup>



LEDline<sup>2</sup>



Dimensions in mm



## LEDline<sup>2</sup>

Linear surface-mounted or recessed LED floodlights.

### Main applications

- Parks/pathways/gardens
- Classical and modern buildings
- Bridges and structures

### Suitable lamp types

- LEDs Luxeon™ High-power light-emitting diodes (approximately 1 W)
  - Blue, Amber, Green, Red, White
  - 12 LED's (BCS713, 300 mm)
  - 24 LED's (BCS716, 600 mm)
  - 48 LED's (BCS722, 1200 mm)
- RGB dynamic versions available on request.

### Features

- Collimating lens is designed to fit exactly on the top of each LED, whatever the colour. It's function is to focus the beam and to limit the spill light ( $2 \times 3^\circ$ )
- The secondary optic widens and smoothes the beam in the horizontal plane ( $2 \times 27^\circ$ )
- The optical units are fixed close to the surface to be lit by means of a universal bracket
- Operating temperature from  $-20^\circ\text{C}$  up to  $35^\circ\text{C}$  outdoor
- Long lifetime: 50 000 hours; less than 30% flux depreciation
- Optical module sealed for life
- Recessed versions available on request.

### Product ID

Product ID	A
BCS713	304
BCS716	594
BCS722	1174

# Architectural flood lighting

LEDline<sup>2</sup>

## Electrical features

- Integrated mains supply (electronic gear): 230 - 240 V AC, 50/60 Hz
- The optical unit is supplied with 1 m length cable:
- For dimming, two protocols are available: DALI and 1 - 10 V DC
- Consumption: 65 W per m (typical)

## Materials and finish

- All modules and the bracket are made of anodised extruded aluminium
- Mid-grey polycarbonate end caps display the Philips brand name
- Flush and clear front cover made of PMMA
- All screws made of electro-zinc-plate steel

## Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
BCS713 12xLED-LXN/WH EB 230-240V I NB6	1,5	71414100
BCS713 12xLED-LXN/BL EB 230-240V I NB6	1,5	71420200
BCS713 12xLED-LXN/RD EB 230-240V I NB6	1,5	71426400
BCS713 12xLED-LXN/GN EB 230-240V I NB6	1,5	71432500
BCS713 12xLED-LXN/AM EB 230-240V I NB6	1,5	71438700
BCS713 12xLED-LXN/WH EB 230-240V I WB60	1,5	71417200
BCS713 12xLED-LXN/RD EB 230-240V I WB60	1,5	71429500
BCS713 12xLED-LXN/AM EB 230-240V I WB60	1,5	71441700
BCS716 24LED-LXN WH EB 230-240V I NB6	2,2	71444800
BCS722 48xLED-LXN/WH EB 230-240V I NB6	3,8	71474500
BCS722 48xLED-LXN/RD EB 230-240V I NB6	3,8	71486800

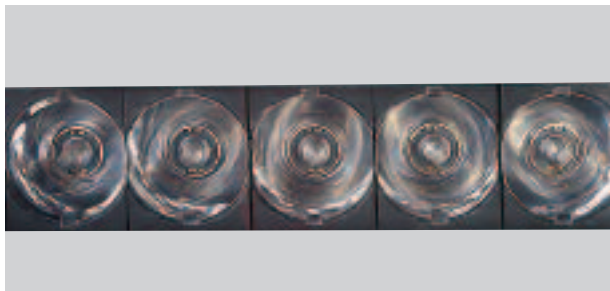
Other types available on request





# Architectural flood lighting

LEDline<sup>2</sup>



## Narrow beam

- $2 \times 3^\circ$
- Collimating lenses
- 40 LEDs per meter



## Wide beam

- $2 \times 27^\circ$  horizontal plane
- Collimating lenses and complementary secondary optic
- 40 LEDs per meter

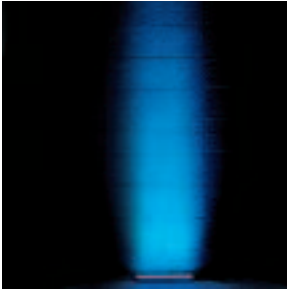


## Wide beam Balustrade

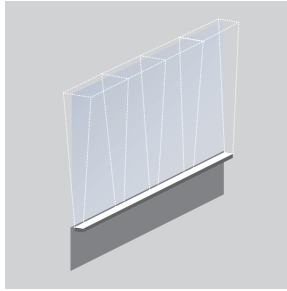
- $2 \times 27^\circ$  horizontal plane
- Collimating lenses and complementary secondary optic
- 10 LEDs per meter

# Architectural flood lighting

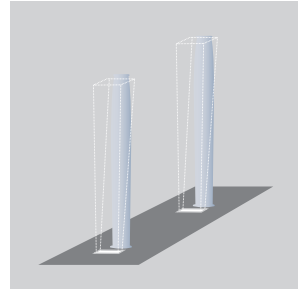
LEDline<sup>2</sup>



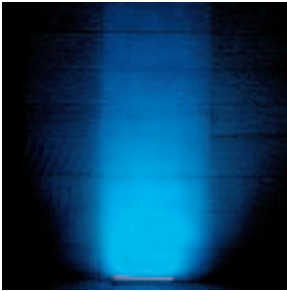
**Narrow beam**



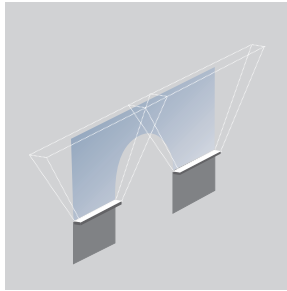
- Facade (surface)
- Wash of light covering more than 9 m height



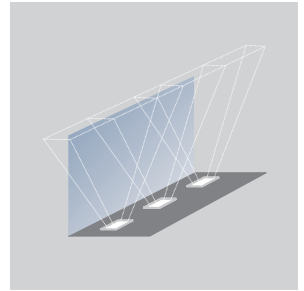
- Column (recessed)
- Wash of light covering more than 9 m height



**Wide beam**



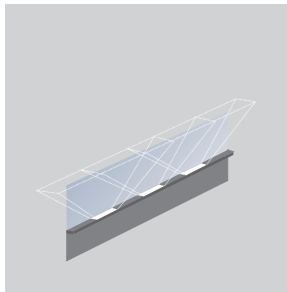
- Facade (surface)
- Wash of light covering 4 to 5 m height



- Facade (recessed)
- Wash of light covering 4 to 5 m height



**Wide beam Balustrade**



- Balustrade lighting
- Soft wash of light covering 1 to 2 m height

# Architectural flood lighting

LEDstep



BBS420

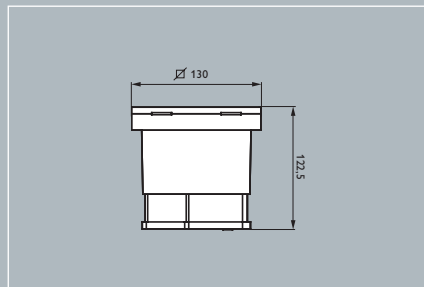


IP67

850°C



Dimensions in mm



## LEDstep

A square marker light for enhancing landscapes and commercial environments. Available in 5 vivid colours: white, red, amber, green, and blue.

Dynamic colour changing versions are available on request. LEDstep is designed to create uniform, smooth, and brilliant colours without showing any lamp image.

## Main applications

- For indoor and outdoor use
- Landscapes, parks, gardens
- Foot paths
- Shopping promenades

## Lamp types

Coloured: 10x Superflux LED (0.2W per LED)

White: 2x Luxeon™ High power LED  
(1W per LED)

## Features

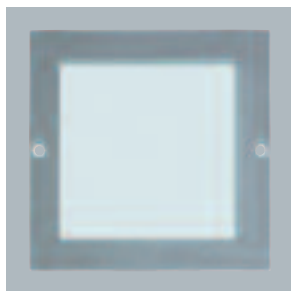
- Integrated driver and power supply (220-240V, 50-60Hz)
- Operating temperature  $-20^{\circ}\text{C}$  to  $40^{\circ}\text{C}$
- Available for in-ground or recessed wall mounting
- Static load: 1000kg

## Materials and finish

- Robust design, reliable operation over time
- Housing: die-cast aluminium
- Cover: frosted tempered glass with opal diffuser
- Cover frame: die-cast aluminium
- Recessed box: PVC (available as accessory)

# Architectural flood lighting

LEDstep



Square marker light with opal diffuser:

## Preferred selection

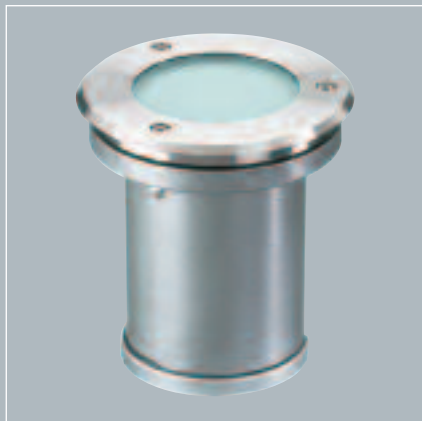
Product ID	Weight (kg)	European Order Code (EOC)
BBS420 10xLED-HB/AM EB 220-240V FG-FR I	1,7	14805200
BBS420 10xLED-HB/BL EB 220-240V FG-FR I	1,7	14806900
BBS420 10xLED-HB/GN EB 220-240V FG-FR I	1,7	14807600
BBS420 10xLED-HB/RD EB 220-240V FG-FR I	1,7	14808300
BBS420 2xLED-LXN/WH EB 220-240V FG-FR I	1,7	14809000

Accessory	Description	European Order Code (EOC)
ZBS421 RMB	Recessed box	14817500



# Architectural flood lighting

LEDuplight



BBS400

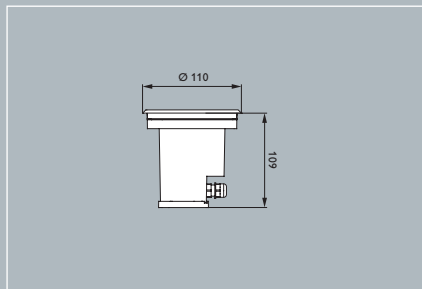


IP67

850°C



Dimensions in mm



## LEDuplight

A round marker light for enhancing landscapes and commercial environments. Available in 5 vivid colours: white, red, amber, green, and blue.

Dynamic colour changing versions are available on request. LEDuplight is designed to create uniform, smooth, and brilliant colours without showing any lamp image.

## Main applications

- For indoor and outdoor use
- Landscapes, parks, gardens
- Foot paths
- Shopping promenades

## Lamp types

Coloured: 5x Superflux LED (0.2W per LED)

White: 1x Luxeon™ High power LED (1W per LED)

## Features

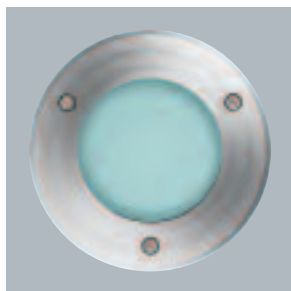
- Integrated driver and power supply (220-240V, 50-60Hz)
- Operating temperature  $-20^{\circ}\text{C}$  to  $40^{\circ}\text{C}$
- Available for in-ground or recessed wall mounting
- Static load: 2000kg

## Materials and finish

- Robust design, reliable operation over time
- Housing: die-cast aluminium
- Cover: frosted tempered glass with opal diffuser
- Cover frame: stainless steel
- Recessed box: PVC (available as accessory)

# Architectural flood lighting

LEDuplight



LEDuplight is available in five different colours.



## Preferred selection

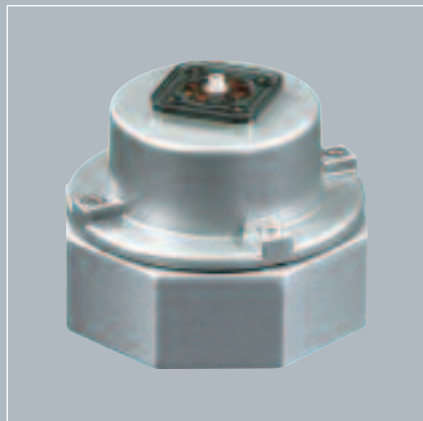
Product ID	Weight (kg)	European Order Code (EOC)
BBS400 1xLED-LXN/WH EB 220-240V FG-FR I	1,0	14800700
BBS400 5xLED-HB/AM EB 220-240V FG-FR I	1,0	14801400
BBS400 5xLED-HB/BL EB 220-240V FG-FR I	1,0	14802100
BBS400 5xLED-HB/GN EB 220-240V FG-FR I	1,0	14803800
BBS400 5xLED-HB/RD EB 220-240V FG-FR I	1,0	14804500

Accessory	Description	European Order Code (EOC)
ZBS402 RMB	Recessed box	14816800



# Architectural flood lighting

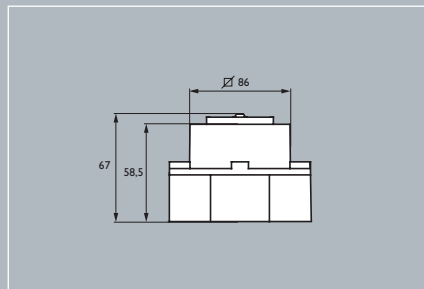
LEDspot



BCS430



Dimensions in mm



## LEDspot

The LEDspot luminaire makes it possible to create a sparkling ambience outdoors with a hidden light source. Thanks to its robustness and maintenance-free concept it can be applied in the most inaccessible places. The spot can also be used to draw attention to architectural elements.

## Main applications

- Building contours
- Roof tops
- Building facades

## Lamp types

1x Luxeon™ High power LED (1W per LED)  
Available in red, green, blue, amber; or white

## Features

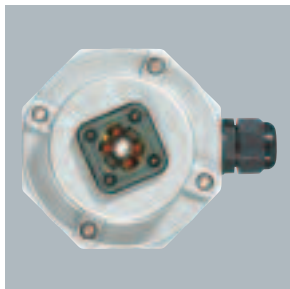
- Integrated driver and power supply (220-240V, 50-60Hz)
- Electronics, placed in IP65 die-cast aluminium housing are sealed in epoxy for complete water-resistance
- Operating temperature  $-20^{\circ}\text{C}$  to  $40^{\circ}\text{C}$
- Maximum power: 2.5-3.2W

## Materials and finish

- Robust design, reliable operation over time
- Housing: die-cast aluminium
- Cover: silicone-embedded LED

# Architectural flood lighting

LEDspot



Silicone-embedded LED

## Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
BCS430 1xLED-LXN/AM EB 220-240V I	0.5	14810600
BCS430 1xLED-LXN/BL EB 220-240V I	0.5	14811300
BCS430 1xLED-LXN/GN EB 220-240V I	0.5	14812000
BCS430 1xLED-LXN/RD EB 220-240V I	0.5	14813700
BCS430 1xLED-LXN/WH EB 220-240V I	0.5	14814400





# Architectural flood lighting

Amazon LED



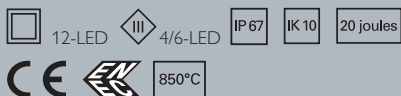
BBC204



BBC206



BBC212



## Amazon LED

The Amazon LED is made of robust, high-quality materials, ensuring a solution that will deliver lasting value. Can withstand weights up to 1 ton. The Amazon LED has IP67 protection, making it ideally suited to outdoor applications as well as indoor:

### Main applications

- Residential areas, squares
- Parks/pathways/gardens
- Indoor marker lights

### Features

- Pre-wired, reducing installation time to a minimum
- Five different colours available: yellow, red, blue, green and white (colour temperature 5 600 K – 6 500 K)
- Extra long maintenance-free operation

### Additional features

- **BBC204**
  - Available as individual unit or multi-pack of 10
  - Multi-packs include a 230 V/24 V transformer
  - Power consumption: 0.5 W (per piece)
- **BBC214**
  - Only available in handy multi-pack of 10
  - Includes a 230 V/24 V transformer
  - Power consumption: 0.5 W (per piece)
  - Flat surface for fully recessed installation
- **BBC206**
  - Including two M20 glands for through-wiring
  - Power consumption: 0.5 W
- **BBC212**
  - Including two M20 glands for through-wiring
  - Integrated 230 V/24 V transformer and a technopolymer outer sleeve for maximum ease of installation, especially in concrete
  - Power consumption: 0.8 W

### Materials and finish

- **BBC204 and BBC214**
  - Aluminium housing
  - Frosted polycarbonate cover, enclosed within the housing
- **BBC206 and BBC212**
  - Technopolymer housing
  - Frosted glass cover encased in an attractive stainless-steel ring

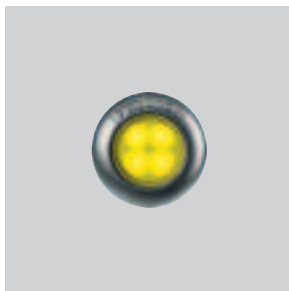
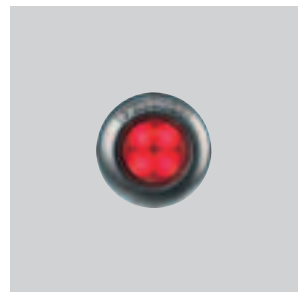
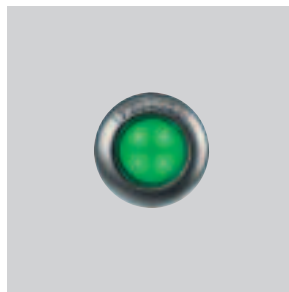
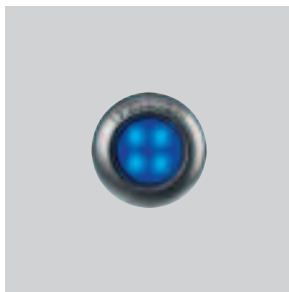
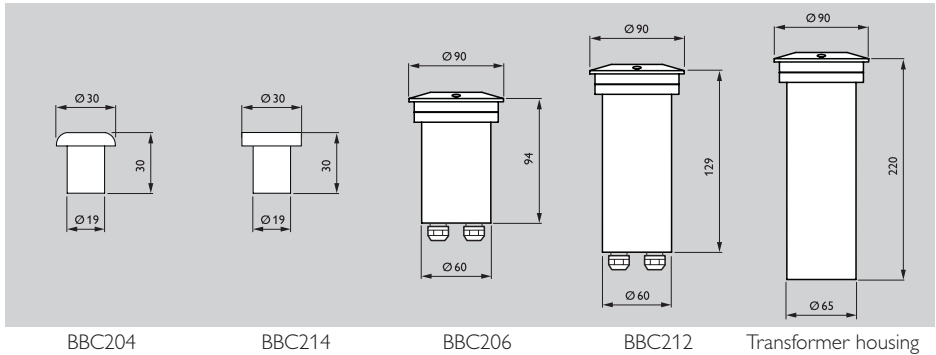
# Architectural flood lighting

Amazon LED

## Accessories

- Aluminium decorative ring, ZBC206 DR ALU.
- Luminaire tube, ZBC206 TUBE for installing 6-LED in concrete.
- Ceiling fixation clips, ZBC206 CFC for mounting 6- or and 12-LED in the ceiling.
- Transformer covers in aluminium, ZBC206 TRC ALU and in stainless steel, ZBC206 TRC IX.
- Additionally a 230 V/24 V transformer with its own housing is available separately, on request, to drive up to ten 6-LED.

Dimensions in mm



## Amazon multi-pack

Includes 10 LED units and a 230V/24V transformer.

# Architectural flood lighting

Amazon LED

## Preferred selection

Product ID	Colour	European Order Code (EOC)
<b>AMAZON 4 LED (order transformer separately)</b>		
BBC204 4xLED-HB/VWH 24V	White	14354500
BBC204 4xLED-HB/BL 24V	Blue	14355200
BBC204 4xLED-HB/GN 24V	Green	14356900
BBC204 4xLED-HB/RD 24V	Red	14357600
BBC204 4xLED-HB/YE 24V	Yellow	14358300
<b>AMAZON 4 LED multi-pack (transformer included)</b>		
BBC204 4xLED-HB/VWH 24V 10 PCS	Multi / White	14359000
BBC204 4xLED-HB/BL 24V 10 PCS	Multi / Blue	14360600
BBC204 4xLED-HB/GN 24V 10 PCS	Multi / Green	14361300
BBC204 4xLED-HB/RD 24V 10 PCS	Multi / Red	14362000
BBC204 4xLED-HB/YE 24V 10 PCS	Multi / Yellow	14363700
BBC214 4xLED-HB/VWH 24V SET 10 PCS	Multi / White	14819900
BBC214 4xLED-HB/BL 24V SET 10 PCS	Multi / Blue	14820500
BBC214 4xLED-HB/GN 24V SET 10 PCS	Multi / Green	14821200
BBC214 4xLED-HB/RD 24V SET 10 PCS	Multi / Red	14822900
BBC214 4xLED-HB/YE 24V SET 10 PCS	Multi / Yellow	14823600
<b>AMAZON 6 LED (order transformer separately)</b>		
BBC206 6xLED-HB/VWH 24V	White	14349100
BBC206 6xLED-HB/BL 24V	Blue	14350700
BBC206 6xLED-HB/GN 24V	Green	14351400
BBC206 6xLED-HB/RD 24V	Red	14352100
BBC206 6xLED-HB/YE 24V	Yellow	14353800
<b>AMAZON 12 LED (build-in transformer)</b>		
BBC212 12xLED-HB/VWH 230V	White	14582200
BBC212 12xLED-HB/BL 230V	Blue	14583900
BBC212 12xLED-HB/GN 230V	Green	14341500
BBC212 12xLED-HB/RD 230V	Red	14342200
BBC212 12xLED-HB/YE 230V	Yellow	14343900

Accessory	Description	European Order Code (EOC)
EBC206 ETR 230/24V	Electronic transformer (230V/24V) and housing for max 10 Amazon units	14580800

# Architectural flood lighting

Amazon LED



# Sports and area lighting

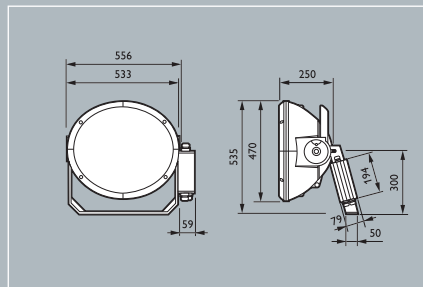
ArenaVision



MVF403



Dimensions in mm



## ArenaVision MVF403

The ArenaVision MVF403 takes this world-famous sports floodlighting luminaire to new heights of performance. The world-class design offers increased light output, optical efficiency, ease of installation, reliability and flexibility. The MVF403, like its well-known brother MVF401, is the first sports lighting system specially designed to increase dramatically the theatrical and emotional values of sports for TV-audiences, spectators and players alike.

## Main applications

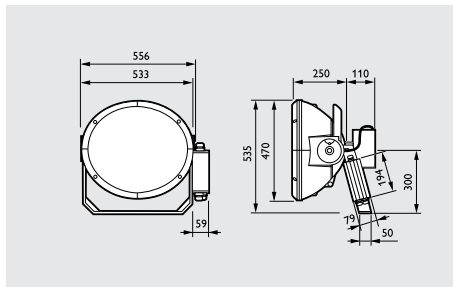
- Outdoor sports lighting
- Architectural floodlighting

## Suitable lamp types

- MHN-LA 1000 W 842 or 956 X528/CABLE, 220-240 V
  - MHN-SA 1800 W 956 X830 ROD, 220-240 V
  - MHN-SA 2000 W 956 X830 ROD, 380-415 V
- Luminaires are available as standard in kombipack format (K), complete with relevant lamp type.

## Luminaire features

- Together with the unique oval optics, the new MHN-SA 2 000 W lamp guarantees the highest possible system efficiency, low glare and best-ever lighting levels on the field
- Built-in reflector reduces spill light and glare even further
- Rear opening access for easy lamp-(re)placement
- Housing dustproof and jetproof to IP65; no internal cleaning required
- 380/415 V versions equipped as standard with series ignitor and terminal block in an aluminium connection box on the bracket



Hot restrike version

## Sports and area lighting

- 220/240 V versions equipped with aluminium connection box; semi-parallel ignitor installed on a separate gear tray
- Wire mesh to prevent large pieces of glass falling out
- Optional safety switch to cut off current when luminaire is opened (requires additional contactor – supplied by others)
- Hot re-strike versions available for all lamp types, enabling immediate restoration of lighting after power supply failure
- Uplighting versions available (220/240 V MHN-LA 1 000 W and MHN-SA 1 800 W) for architectural lighting
- Integrated system of optics, gear and transverse MHN-SA 1 800 W, MHN-SA 2 000 W or MHN-LA 1 000 W lamp in a single housing, ensuring high efficiency and low glare

### Materials and finish

- Non-corrosive, high-pressure die-cast aluminium housing and hinged rear cover
- Anodised and brightened 99.98% aluminium reflector
- Chemically toughened 1.6 mm-thick glass, for downlighting versions, and 4 mm-thick ceramic glass for the uplighting versions
- Stainless-steel clips for direct access to the lamp
- Hot-dipped galvanised steel mounting bracket painted in black

### Gear tray

Pre-wired gear trays are available on request. Gear trays must be ordered separately.

### Installation

- The MVF403 has precision aiming facilities at both the top and bottom of the housing.
- Horizontal adjustment of the floodlight is possible to allow close group arrangements.
- Ambient temperature: 35 °C outdoor (25 °C indoor) for 1 800/2 000 W version and 45 °C (indoor and outdoor) for 1 000 W version.
- Projected area under 70° = 0.20 m<sup>2</sup>, Drag factor C<sub>x</sub> = 0.93.

### Optics for all occasions

With ArenaVision MVF403, Philips offers a choice of seven optical systems, indicated by A1 to A7. This is achieved by using separate rear housings with permanently attached reflector units. The same main housing can thus play host to all seven optical systems. ArenaVision's MVF403 sharp cut-off characteristics ensure accurate, correct delivery to target of every lumen package.

**A complete range of ArenaVision luminaires is available on request**



Kalifa stadium, Qatar

# Sports and area lighting

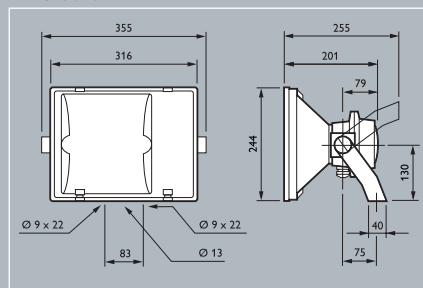
SNF100



SNF100 MHN-TD



Dimensions in mm



## SNF100

Compact, sturdy and economical general-purpose wide-beam floodlight complete with lamp and integral gear. Particularly suited to small-scale area lighting. All-weather construction designed for easy aiming, simple cleaning and speedy servicing.

### Main applications

- Parks
- Architectural floodlighting
- Industrial areas
- Sculptures
- Security

### Suitable lamp types

- SON-T 100-150 W E40
- MHN-TD 150 W RX7s
- SDW-T 100 W PG12

Luminaires are available as standard in kombipack format (K), complete with relevant lamp type.

### Features

- Wall, ceiling and surface mountings with wide ranges of adjustment offer versatile directionality for both down- and uplighting. Protractor scale and daylight aiming sight for easy pre-alignment
- Double insulation (class II); no earth is required
- Quick, easy lamp replacement through front window without affecting beam adjustment. Easy rear access for mains connection
- Heat-resistant silicone gaskets render joints dustproof and jetproof to IP55, no internal cleaning required

### Materials and finish

- Non-corrosive, injection-moulded, heat- and UV-stabilised body (polycarbonate housing and polycarbonate and ABS rear cover)
- 99.8% hammered aluminium reflector; brightened and anodised
- Thermally hardened 4 mm-thick glass
- Stainless-steel snap-on hinge clips, protractor and fixings
- Hot-dipped galvanised steel mounting bracket
- Finishing of the housing in black, and red plastic mounting caps

# Sports and area lighting

SNF100

## Installation

- Universal mounting bracket allows ceiling, wall or surface mounting.
- Cable entry via PG13.5 cable gland.
- Integrated aiming sight for pre-adjustment.
- Front glass with quick-release hinge clips for in-position lamp replacement.
- Projected area under  $70^\circ = 0.08 \text{ m}^2$ .
- Drag factor  $C_x = 1.18$ .

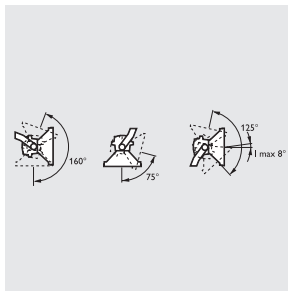
## Accessories

Set of two matt black silicon lacquered barndoors; horizontal, ZNF100 BD-L, and vertical, ZNF100 BD-S. Adjustment range  $-20^\circ$  to  $+45^\circ$  (when both sets are used together; one of them can be adjusted only between  $0^\circ$  and  $45^\circ$ ).

## Preferred selection

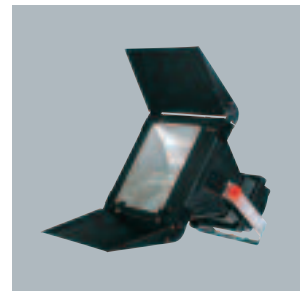
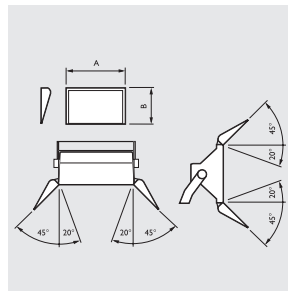
Product ID	Weight (kg)	European Order Code (EOC)
SNF100 MHN-TD70W K 230V II	4,7	01219300
SNF100 MHN-TD150W K 230V II	5,4	00703800
SNF100 SON-T100W 230V II SP	5,0	01303900
SNF100 SON-T100W K 230V II SP	5,0	01317600
SNF100 SON-T150W 230V II SP	5,7	00507200
SNF100 SON-T150W K 230V II SP	5,7	27213900
SNF100 MHN-TD70W K 240V II	4,7	01927700
SNF100 MHN-TD150W K 240V II	5,4	00283500
SNF100 SON-T100W K 240V II SP	5,0	00268200
SNF100 SON-T150W K 240V II SP	5,7	00282800

Other voltages/frequencies available on request



Adjustment possibilities

Dimensions in mm



SNF100 + ZNF100 BD-L

Product ID		A	B
ZNF100 BD-L	Horizontal barndoor	320	150
ZNF100 BD-S	Vertical barndoor	247	150

## Accessory

Accessory	Weight (kg)	European Order Code (EOC)
ZNF100 BD-L	0.70	26706700
ZNF100 BD-S	0.60	26708100



# Sports and area lighting

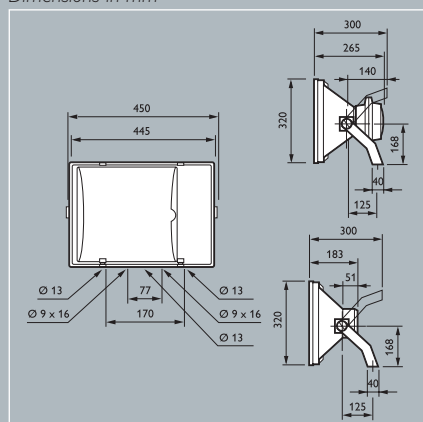
SNF300



SNF300 HPI-TP



Dimensions in mm



## SNF300

Compact, sturdy, general-purpose floodlight complete with lamp and integral gear, particularly suited to medium-scale area lighting using metal-halide or high-pressure sodium lamps. All-weather construction designed for easy aiming, simple cleaning and speedy servicing. Also available without gear and/or without lamp.

## Main applications

- Car parks
- Parks
- Architectural floodlighting
- Sport facilities
- Industrial areas
- Security

## Suitable lamp types

- SON-T 250-400 W E40
- HPI-T 250-400 W E40

Luminaires are available as standard in kombipack format (K), complete with relevant lamp type.

## Features

- Wall, ceiling and surface mountings with wide ranges of adjustment offer versatile directionality for both down- and uplighting. Protractor scale and daylight aiming sight for easy pre-alignment
- Double insulation (class II); no earth is required
- Compensated electrical control gear ensures constant performance
- Without-gear version available with E40 lamp holder
- Quick, easy lamp replacement through front window without affecting beam adjustment. Easy rear access for maintenance
- Heat-resistant silicone gaskets render joints dustproof and jetproof to IP55, no internal cleaning required

## Materials and finish

- Non-corrosive, injection-moulded, heat- and UV-stabilised body (polycarbonate housing and rear cover; glass-fibre-reinforced polyamide gear box) In the SNF300/E40 version the rear cover is made of polycarbonate and ABS
- 99.8% hammered aluminium reflector; brightened and anodised
- Thermally hardened 4 mm-thick glass
- Stainless-steel snap-on hinge clips, protractor and fixings
- Hot-dipped galvanised steel mounting bracket
- Finishing of the housing in black, and red plastic mounting caps

# Sports and area lighting

SNF300

## Installation

- Universal mounting bracket allows ceiling, wall or surface mounting.
- Cable entry via PG13.5 cable gland.
- Integrated aiming sight for pre-adjustment.
- Front glass with quick-release hinge clips for in-position lamp replacement.
- Projected area under 70° = 0.14 m<sup>2</sup>.
- Drag factor Cx = 1.18.

## Accessories

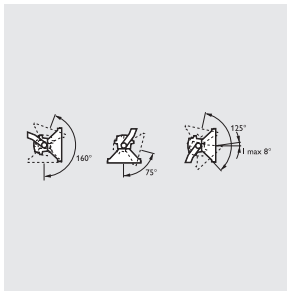
Set of two matt black silicon lacquered barndoors; horizontal, ZNF300 BD-L, and vertical, ZNF300 BD-S. Adjustment range -20° to +45° (when both sets are used together; one of them can be adjusted only between 0° and 45°).

## Preferred selection

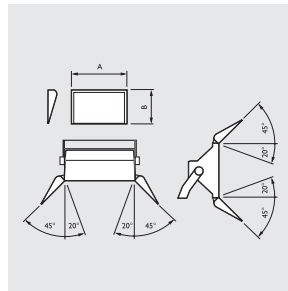
Product ID	Weight (kg)	European Order Code (EOC)
SNF300 MAX400W-E40 II	6,0	01611500
SNF300 SON-T250W 230V II SP	8,7	01027400
SNF300 SON-T250W K 230V II SP	9,0	01041000
SNF300 SON-T250W K 240V II SP	9,0	00310800
SNF300 HPI-TP250W K 230V II	8,0	01387900
SNF300 HPI-TP250W K 240V II	8,0	00324500
SNF300 HPI-TP400W K 230V II	9,0	01485200
SNF300 HPI-TP400W K 240V II	9,0	00352800
SNF300 SON-T400W 230V II SP	9,8	01499900
SNF300 SON-T400W K 230V II SP	10,1	01513200
SNF300 SON-T400W K 240V II SP	10,1	00338200
SNF300 SON-T400W K 220V 60Hz II SP	10,1	72394500

Other voltages/frequencies available on request

Dimensions in mm



Adjustment possibilities



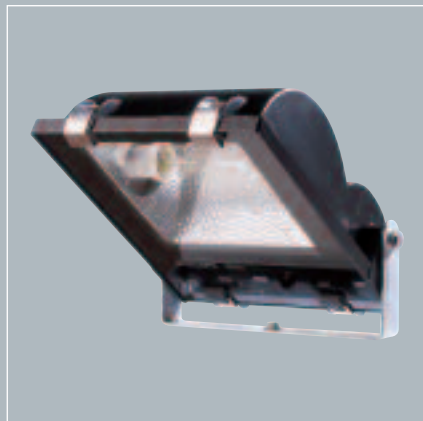
SNF300 + ZNF300 BD-L

Product ID		A	B
ZNF300 BD-L	Horizontal barndoor	445	200
ZNF300 BD-S	Vertical barndoor	323	200

Accessory	Weight (kg)	European Order Code (EOC)
ZNF300 BD-L	1.10	26709800
ZNF300 BD-S	0.80	26710400

# Sports and area lighting

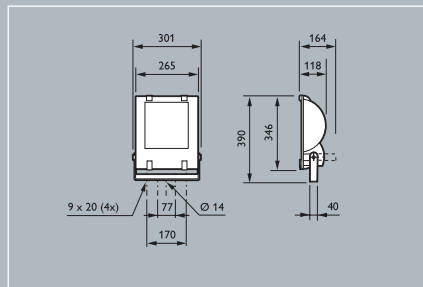
## Tempo 1



MWF130



Dimensions in mm



### Tempo 1

Compact, sturdy, general-purpose floodlight complete with lamp and integral gear, particularly suited to small-scale area or surface lighting. All-weather construction designed for simple cleaning and speedy servicing.

### Main applications

- Industrial areas
- Architectural flood lighting
- Car parks
- Parks/pathways/gardens
- Security

### Suitable lamp types

- SON-I 70 W
  - CDM-TD 70 W
  - SON-T 70 W
  - MHN-TD 70-150 W
- Luminaires are available as standard in kombipack format (K), complete with relevant lamp type.

### Features

- High-grade symmetrical (S) reflector projects a highly efficient light beam
- Wall, ceiling and surface mountings with wide ranges of adjustment for both down- and uplighting
- Rugged, corrosion-resistant housing with integral gear box
- Compensated electrical control gear ensures constant performance
- Quick, easy access to lamp and gear; without affecting beam adjustment, through hinged front window with quick-release clips
- Rubber gasket bonded to housing renders the luminaire dustproof and waterproof to IP65
- Also suitable for indoor use in ambient temperatures up to 25 °C
- SON control gear controlled by a thermal protected ballast

### Materials and finish

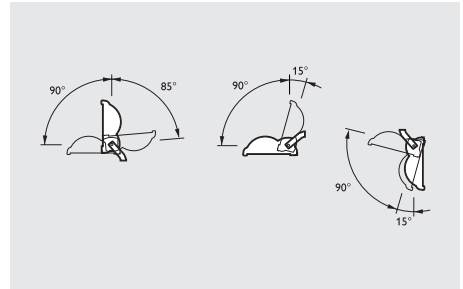
- Non-corrosive, high-pressure die-cast aluminium housing with low copper content
- Pre-anodised (2 micron) high-purity aluminium reflector with hammered rear surface and smooth side surfaces
- Toughened 4 mm-thick glass, with rubber seal
- Hot-dipped galvanised steel mounting bracket
- All external fixings in stainless steel
- Finishing in high-grade black polyester

# Sports and area lighting

Tempo 1

## Installation

- Universal mounting bracket allows ceiling-, wall- or surface mounting.
- Cable entry via M20 cable gland.
- Front glass with quick-release hinge clips for in-position lamp replacement.
- Housing dustproof and waterproof IP65; no internal cleaning required.



Adjustment possibilities

## Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
MWF130 1xMHN-TD70W K S	4,9	93342900
SWF130 1xSON-I-70W K S	4,9	93341200
SWF130 SON-T70W K S	4,9	93343600

Equipped with 230V/50Hz gear. Other voltages/frequencies available on request



# Sports and area lighting

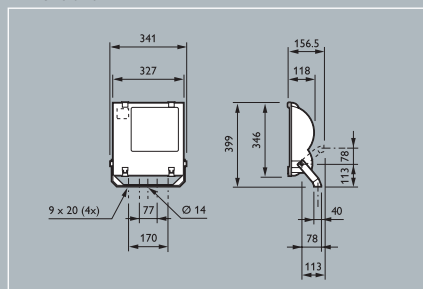
## Tempo 2



MWF230



Dimensions in mm



### Tempo 2

Compact, sturdy, general-purpose floodlight complete with lamp and integral gear, particularly suited to small-scale area or surface lighting. All-weather construction designed for simple cleaning and speedy servicing.

### Main applications

- Industrial areas
- Architectural flood lighting
- Car parks
- Parks/pathways/gardens
- Security

### Suitable lamp types

- SON-T 100 W
- MHN-TD 150 W
- SON-T 150 W

Luminaires are available as standard in kombipack format (K), complete with relevant lamp type.

### Features

- High-grade symmetrical (S) or asymmetrical (A) reflector projects a highly efficient light beam
- Wall, ceiling and surface mountings with wide ranges of adjustment for both down- and uplighting
- Rugged, corrosion-resistant housing with integral gear box
- Compensated electrical control gear ensures constant performance
- Quick, easy access to lamp and gear, without affecting beam adjustment, through hinged front window with quick-release clips
- Silicone or Neoprene bonded to housing renders the luminaire dustproof and waterproof to IP65
- Also suitable for indoor use in ambient temperatures up to 25 °C
- SON control gear controlled by a thermal protected ballast

### Materials and finish

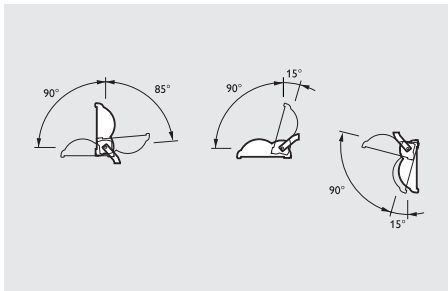
- Non-corrosive, high-pressure die-cast aluminium housing with low copper content
- Pre-anodised (2 micron) high-purity aluminium reflector with hammered rear surface and smooth side surfaces
- Toughened 4 mm-thick glass, with silicone or neoprene seal
- Hot-dipped galvanised steel mounting bracket
- All external fixings in stainless steel
- Finishing in high-grade black polyester; white finishing available on request

# Sports and area lighting

Tempo 2

## Installation

- Universal mounting bracket allows ceiling, wall or surface mounting.
- Cable entry via M20 cable gland.
- Front glass with quick-release hinge clips for in-position lamp replacement.
- Housing dustproof and waterproof to IP65; no internal cleaning required.



Adjustment possibilities

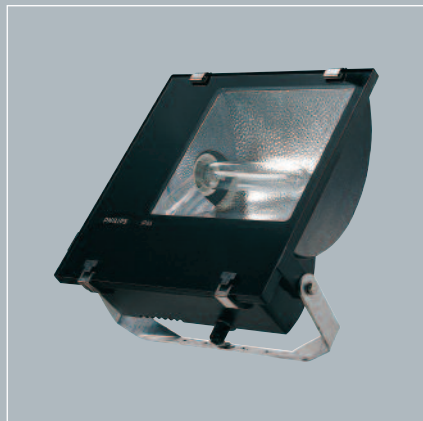
## Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
SWF230 SON-T150W K 230V A	6,7	93134000
SWF230 SON-T150W K 230V A	6,9	92941500
SWF230 SON-T150W K 230V S	6,9	92935400
SWF230 SON-T150W K 240V A	6,9	92929300
SWF230 SON-T150W K 240V S	6,9	92923100
SWF230 SON-TP100W K 230V A	6,9	92940800
MWF230 MHN-TD150W 230V A	6,7	93135700
MWF230 MHN-TD150W 230V S	6,7	93133300
MWF230 MHN-TD150W K 230V A	6,9	92943900
MWF230 MHN-TD150W K 230V S	6,9	92937800
MWF230 MHN-TD150W K 240V S	6,9	92925500
MWF230 MHN-TD150W K 240V A	6,9	92931600

Other voltages/frequencies available on request

# Sports and area lighting

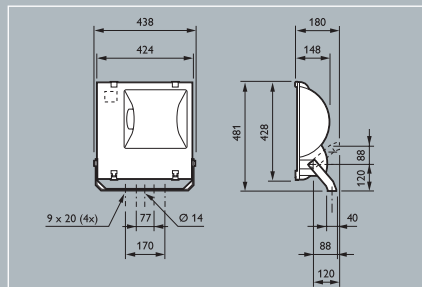
Tempo 3



MWF330 S



Dimensions in mm



## Tempo 3

Compact, sturdy, general-purpose floodlight complete with lamp and integral gear, particularly suited to medium-scale area or surface lighting. All-weather construction designed for simple cleaning and speedy servicing.

### Main applications

- Industrial areas
- Architectural flood lighting
- Car parks
- Parks/pathways/gardens
- Security

### Suitable lamp types

- SON-T 250-400 W
- HPI-T 250-400 W

Luminaires are available as standard in kombipack format (K), complete with relevant lamp type.

### Features

- High-grade symmetrical (S) or asymmetrical (A, available on request) reflector projects a highly efficient light beam
- Wall, ceiling and surface mountings with wide ranges of adjustment offer versatile directionality for both down- and uplighting
- Rugged, corrosion-resistant housing with integral gear box
- Compensated electrical control gear ensures constant performance
- Quick, easy access to lamp and gear; without affecting beam adjustment, through hinged front window with quick-release clips
- Heat-resistant silicone gasket bonded to housing renders the luminaire dustproof and waterproof to IP65
- Also suitable for indoor use in ambient temperatures up to 25 °C (except 400 W asymmetrical versions in ceiling-mounted 'gear up' position)

### Materials and finish

- Non-corrosive, high-pressure die-cast aluminium housing with low copper content
- Pre-anodised (2 micron) high-purity aluminium reflector with hammered rear surface and smooth side surfaces
- Toughened 4 mm-thick glass, with rubber seal
- Hot-dipped galvanised steel mounting bracket
- All external fixings in stainless steel
- Finishing in high-grade black polyester

# Sports and area lighting

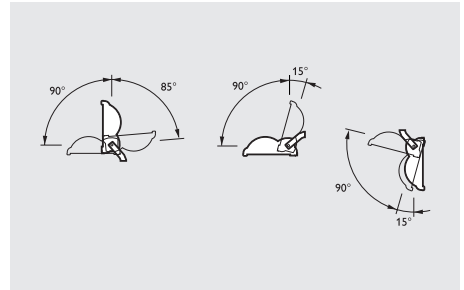
Tempo 3

## Installation

- Universal mounting bracket allows ceiling, wall or surface mounting.
- Cable entry via M20 cable gland.
- Front glass with quick-release hinge clips for in-position lamp replacement.
- Housing dustproof and waterproof to IP65; no internal cleaning required.



Integrated gear unit.



Adjustment possibilities

## Preferred selection

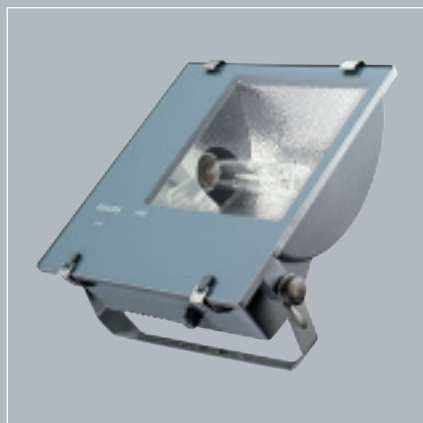
Product ID	Weight (kg)	Order Code
MWF330 D HPIT250WK 230V S	9,2	9129 014 00971
MWF330 D HPIT250WK 240V S	9,2	9129 014 08971
MWF330 D HPIT400WK 230V S	10,1	9129 014 01971
MWF330 D HPIT400WK 240V S	10,1	9129 014 09971
SWF330 D SONT250WK 230V S	10,0	9129 014 02971
SWF330 D SONT250WK 240V S	10,0	9129 014 10971
SWF330 D SONT400WK 230V S	11,8	9129 014 03971
SWF330 D SONT400WK 240V S	11,9	9129 014 11971

Other voltages/frequencies available on request

Asymmetric optics available on request



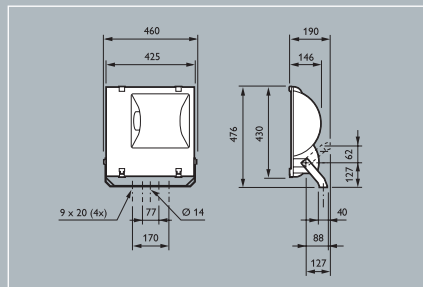
## Sports and area lighting



RVP351



Dimensions in mm



RVP351

## New Tempo RV251/ RVP351

### New Tempo RVP251 / RVP351

Versatile and affordable multipurpose floodlight. Created to provide the highest levels of lighting efficiency and reliability. Compact and elegant with its trendy grey metallic powder-coating and colour-matching bracket and grommet. The New Tempo luminaire is designed to blend into its surroundings with minimum visual disturbance. The all-weather construction is designed for simple cleaning and speedy servicing. As such, it is ideally suited to a variety of outdoor applications.

### Main applications

- Facade lighting
- Billboard lighting
- Area lighting

### Lamp types

- RVP251
  - SON-T 70W-150W
  - MHN-TD 70W-150W
- RVP351
  - SON-T 250W-400W
  - HPI-TP 250W-400W

All luminaires are delivered complete with lamp as a kombi-pack (K).

### Features

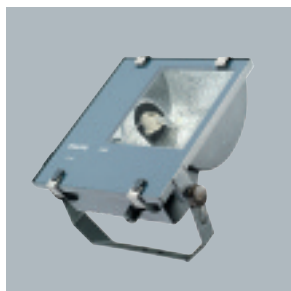
- Sturdy, impact resistant die-cast aluminium housing and high quality components meeting the highest quality standards.
- Anodised aluminium reflector for efficient symmetric (S) or asymmetric (A) lighting
- Certified dust and water Ingress Protection (IP65)
- Breather holes in housing and gasket allow temperature balance and assure IP protection
- Integral energy saving copper iron ballast, electronic semi-parallel ignitor and capacitor
- Ergonomic installation and maintenance mechanism with a goniometric aiming scale
- Suitable for both up and down wards beaming

### Materials and finish

- Die-cast aluminium housing with corrosion resistant powder coating (grey metallic finish)
- Colour matched bracket, grommet, and hinges
- Embossed Philips work mark on the housing
- Hinged toughened glass cover for easy operation
- Premium bonded silicon gasket

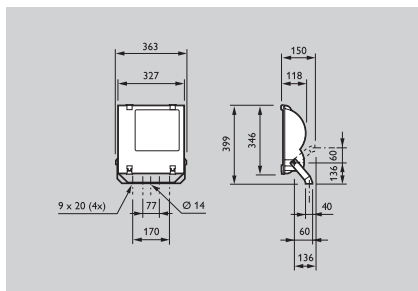
# Sports and area lighting

## New Tempo RV251/ RVP351



RV251

Dimensions in mm



RV251



### Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
RVP251 MHN-TD 150W K A	6,0	14960800
RVP251 MHN-TD 150W K S	6,0	14961500
RVP251 MHN-TD 70W K A	5,2	14962200
RVP251 MHN-TD 70W K S	5,2	14963900
RVP251 SON-T 150W K A	6,0	14966000
RVP251 SON-T 150W K S	6,0	14967700
RVP251 SON-T 70W K A	5,2	14968400
RVP251 SON-T 70W K S	5,2	14969100
RVP351 HPI-TP 250W K A	7,7	14970700
RVP351 HPI-TP 250W K S	7,7	14971400
RVP351 HPI-TP 400W K A	8,8	14972100
RVP351 HPI-TP 400W K S	8,8	14973800
RVP351 SON-T 250W K A	8,6	14974500
RVP351 SON-T 250W K S	8,6	14975200
RVP351 SON-T 400W K A	10,4	14976900
RVP351 SON-T 400W K S	10,4	14977600

230V/50Hz gear. Other voltages/frequencies available on request

Lamp included

## Sports and area lighting



QVF415



QVF416



QVF417



## QVF415/QVF416/QVF417

### QVF415/QVF416/QVF417

Compact, sturdy and economical general-purpose floodlights, using halogen lamps.

All-weather construction designed for simple cleaning and speedy servicing.

### Main applications

- Shopping areas
- Industrial areas
- Parks/pathways/  
gardens
- Architectural flood lighting
- Security

### Suitable lamp types

- Halogen 300/500 W for QVF415
- Halogen 750/1 000 W for QVF416
- Halogen 1 500 W for QVF417

### Features

- High-grade aluminium reflectors provide an efficient beam for either down- or uplighting
- Adjustable over 80° up and down
- Rugged, lightweight, corrosion-proof housing
- Quick, easy lamp replacement through front window without affecting beam adjustment. Easy rear access for mains connection.
- Heat-resistant silicone gaskets, waterproof and dustproof IP55
- Lamp holders outside the reflector compartment as a precaution against high temperatures, in conformity with EU regulations

### Materials and finish

- Non-corrosive, die-cast aluminium housing
- Injection-moulded, heat resistant polyamide connection block
- Thermally hardened 5 mm-thick glass in a die-cast aluminium frame
- Electrophoretic steel mounting bracket
- Corrosion-resistant stainless-steel screws
- Finishing complete luminaire in black (BK)

### Installation

- Universal mounting bracket allows wall or surface mounting.
- Cable entry via PG11 cable gland.
- Front glass hinged for in-position lamp replacement.
- Housing dustproof and waterproof to IP55.
- Ambient temperature 25 °C.

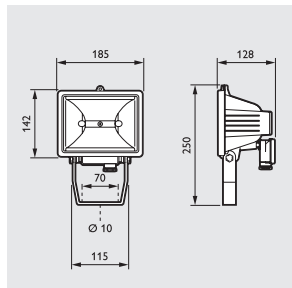
# Sports and area lighting

QVF415/QVF416/QVF417

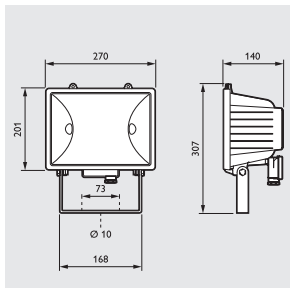
## Accessories

Matt black barndoor sets and black vertical louvre available on request.

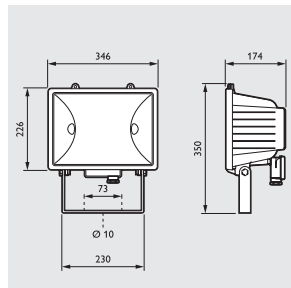
Dimensions in mm



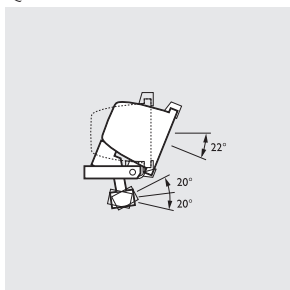
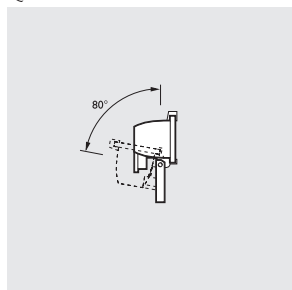
QVF415



QVF416



QVF417



Adjustment possibilities

## Preferred selection

Product ID

Weight  
(kg)

European Order  
Code (EOC)

QVF415 HAL-TDS500W BK

0.97

24383299

QVF416 HAL-TDL1000W BK

1.67

27621200

QVF417 HAL-TDL1500W BK

2.33

27691500



QVF415 + ZVF415 BD



QVF415 + ZVF415 L



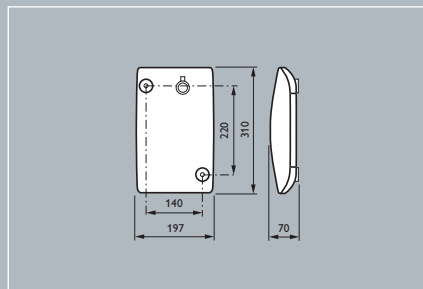
QVF417 + ZVF417 BD



FVW035



Dimensions in mm



## Solo

Decorative, waterproof low-energy luminaires for indoor and outdoor orientation, security or information lighting. The luminaire is made of polycarbonate, which makes it vandal/impact resistant. Versions for emergency lighting, supplied with pictograms, are available as well. For wall or ceiling mounting.

## Main applications

- Outdoor security lighting
- General lighting in bathrooms, corridors, and circulation areas
- Evacuation lighting on walls, corridors, staircases, halls

## Lamp types

- 1x or 2x PL-S 9W
- 1x or 2x PL-S 11W
- PL-Q 16W

## Features

- Available with HF matchbox (220-240V/50-60Hz) or conventional I gear
- Smooth cover for easy cleaning
- Emergency lighting (3 hours) optional
  - NM: non maintained
  - M: maintained
- Supplied ready for installation with lamp(s) and gear included.
- Complete KIT version including grommet, rubber seal for screw fixing, and washers for easy mounting

## Materials and finish

- Polycarbonate housing
- UV stabilized opal polycarbonate cover



## FWH035

Emergency lighting versions include pictograms.

### Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
FWW035 1xPL-S/4P11W/840 HFM	0,7	13284699
FWW035 2xPL-S/2P11W/840 I	1,3	13288499
FWW035 1xPL-S/2P7W/840 I	0,9	13280899
FWW035 1xPL-S/2P11W/840 I	1,0	13282299
FWW035 1xPL-Q/2P16W/835 I	1,0	13286099
FWH035 1xPL-S/4P11W/840 I EL3-NM	1,1	13290799
FWH035 1xPL-S/4P11W/840 I EL3-M	1,4	13292199

HFM gear: 220-240V/50-60Hz, I gear: 230V/50Hz

Lamp included in all types

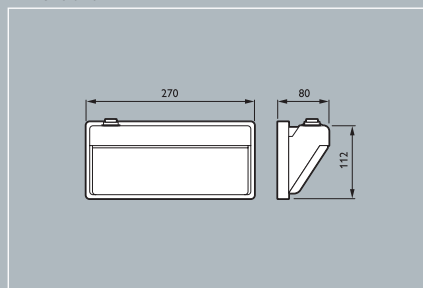




FGC100



Dimensions in mm



## FGC100

Decorative, slim-line, low-energy luminaires for indoor or outdoor orientation, security or information lighting. Wall or ceiling mounting. Supplied ready for installation as kombipack with gear and lamp.

### Main applications

- Residential areas
- Industrial areas
- Security

### Suitable lamp type

- PL-S 9 W

Luminaires are available as standard in kombipack format (K), complete with relevant lamp type.

### Features

- Easy-to-install kombipack, for wall or ceiling mounting
- White reflector plate and opal diffuser bowl produce excellent light distribution for low-level lighting of walls, corridors and surroundings
- Corrosion-proof and vandal-resistant for long service. Easy to clean. Dustproof and jetproof to IP54
- Good colour rendering and warm appearance of the PL lamp enhance the decorative effect. Gear also suitable for PL 7 W lamps

### Materials and finish

- Non-corrosive, injection-moulded polyester housing
- UV-stabilized polycarbonate cover incorporating an opal diffuser
- Galvanized reflector
- Heat-resistant silicone rubber sealing gasket
- Finishing housing in black, reflector in lacquered white

### Installation

Direct wall or ceiling surface mounting. Cable entries at rear end. Supplied with all necessary mounting parts.

### Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
FGC100 PL-S/2P9W/827 220/230V	1.2	01943799
FGC100 PL-S/2P9W/827 240V	1.2	01950599

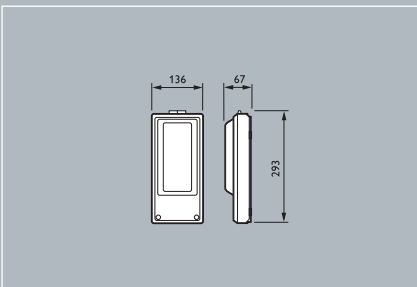
Lamp included for all types



FGC111



Dimensions in mm



## FGC111

Decorative, low-energy luminaires for indoor or outdoor orientation and security lighting. Wall mounting. Supplied ready for installation as kombipack with gear; lamp and optional photocell.

### Main applications

- Residential areas
- Industrial areas

### Suitable lamp type

- PL-S 11 W

Luminaires are available as standard in kombipack format (K), complete with relevant lamp type.

### Features

- Easy-to-install kombipack, for wall mounting
- Opal diffuser produces mainly downward light distribution for low-level lighting of walls, corridors and surroundings
- Corrosion-proof and vandal-resistant for long service. Easy to clean. Rainproof to IP23
- Strong Galvatite gear tray complete with gear and lamp holder allows easy installation and maintenance. Lamp support and cable anchorage ensure firm support
- Good colour rendering and warm appearance from the PL-S 11 W lamp enhance the decorative effect. Gear also suitable for PL-S 7 W and PL-S 9 W lamps
- Version available with one-piece mini photocell (P) with integral control unit for unattended local switching

### Materials and finish

- Non-corrosive, injection-moulded ASA housing
- Translucent polycarbonate bowl
- Polycarbonate unit plate
- Finishing housing in black, reflector in lacquered white

### Installation

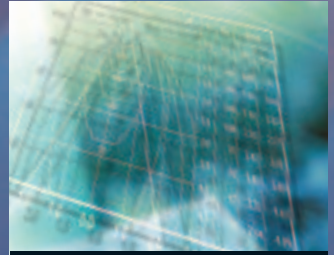
Direct surface (wall) mounting. Cable entry at the rear. Supplied with all necessary mounting parts.

### Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
FGC111 PL-S/2P11W/827 230V	4.0	92375899
Lamp included		







## General Information and Index

# Technical Information

## Lamps

### Colour characteristics of lamps

Lamps do not all emit light of the same colour. There is, for example, a striking difference between the pronounced amber light from standard sodium lamps, and the white light from most other lamps. Even then, one white light is not the same as another. To select the proper light source for their colour characteristics, two parameters are important: the colour temperature of the emitted light and the colour rendering.

### Colour temperature

The colour of the light has an important influence on the colour impression of the area, the colour temperature of the light source plays an essential role. Light is popularly termed 'cool' or 'warm'. However, to enable an objective comparison of the colour impressions from various sources, subjective impressions such as these are inadequate. A precise scale is required, and this is given by the term 'correlated colour temperature'; the colour gradation of the light is compared with the light emitted by an intensely heated iron bar of which the temperature is known. In this way, the light colour can be specified by a value in Kelvin (K).

Four categories, as a practical guideline, are:  
2500 - 2800 K. Warm/Cosy.

The colour from incandescent lamps, the fluorescent and compact fluorescent lamps in the colours /827 and /927 and the SDW-T White SON lamp. Generally used for intimate and cosy environments where the emphasis is on a peaceful relaxing ambience.

2800 - 3500 K. Warm/Neutral.

The colour from halogen lamps, colour /830 and /930 fluorescent lamps and MASTER Colour /830 lamps. Used in places where people are active, requiring a welcoming comfortable ambience.

3500 - 5000 K. Neutral/Cool.

The light colour from /840 and /940 fluorescent lamps as well as MASTER Colour /942 and MHN metal halide lamps. Usually applied in commercial areas and offices where a look of cool efficiency is desired.

5000 K and above. Daylight.

Daylight and cool daylight. The light colour that best matches natural daylight, such as fluorescent colours /850, /865, /950 and /965.

### Colour rendering

It is often assumed that once a colour temperature has been chosen, the colour impression is determined. This is not the case. The colour impression is not solely determined by the colour temperature of the light source, but also by the colour rendering properties.

Moreover, colour temperature and colour rendering are completely separate parameters. Cool daylight and incandescent lamps have fully natural colour rendering properties. The same is true for halogen lamps. The reason for this is the continuous spectrum of the sources.

On the other hand, most gas discharge sources have an interrupted or line spectrum. This has an influence on the quality of their colour rendering properties, which varies from very poor (with SOX low-pressure sodium gas discharge lamps) to excellent (with the colour /90 series fluorescent lamps and mastercolour /942 lamps).

Colour impression		
Light colour	Colour temperature	Type of lamp or lamp colour
Daylight Cool white	6000 K 5000 K	/865 /850, /950 HPI Plus, MHN
Neutral white	4000 K	/840, /940, CDM/942,
"Crisp" warm white	3000 K	Halogen Low Voltage Halogen, CDM/830/930, 230 V-Halogen Incandescent, /827/927
"Cosy" warm white	2500 K	SDW-T SON Comfort SON Plus
Very warm white	2000 K	

Colour rendering		
Indoor applications	CRI	Type of lamp or lamp colour
Excellent	100	Incandescent, 230 V-Halogen Halogen Low-Voltage /927, /930, /940, /950, /965 CDM/942
	90	/827, /830, /840, /850, /865, CDM /830, SDW-T, MHN HPI Plus, /54 SON Comfort
Good	80	
	70	
Moderate	60	/33
	50	/35
Insufficient		
	< 40	SON Plus
Poor		

# Technical Information

## Lamps

In selecting a particular lamp type, a clear understanding of the colour rendering properties is essential. A fair indication is given by the colour rendering index (CRI), which is a standardized scale with 100 as maximum value. Colours are best shown under a light source with the highest colour rendering index. Incidentally, it is only worthwhile to compare CRI values of lamps with similar colour temperature.

### In practice, three categories are normally found.

CRI between Ra 90 and 100.

Excellent colour rendering properties.

Applications: mainly where correct colour appraisal is a critical task.

Lamp positioning on $T_c$ and CRI					
Indoor general lighting					
CRI	"functional" yeBowish $T_c < 2400K$	"cozy" warm white $2400 < T_c < 2800$	"crisp" warm white $2800 < T_c < 3500$	"fresh / active" neutral-cool white $3500 < T_c < 5100$	"daylight" daylight $T_c > 5000K$
90-100		Halogen HV Incandescent * /927	Halogen LV * /930	CDM /942 * /940	* /950, * /965
80-90		* /827 SDVU-T	* /830	* /835, * /840	* /850, * /865
70-80					* /54
60-70	SON(T) Comfort			HPL(T) (Plus) * /33	
40-60			* /29, * /35 ML, HPL Comfort	HPL-N	
20-40	SON(T) (Plus)				
< 20	SOX(E)				

\* for fluorescent lamps like TL5, TL-D, PL-L, PL-C, PL-T, PL-S, LL. Not all fluorescent lamps are available in all colours mentioned in the table.

Proper use of fluorescent lamps		Optimal solution												Eventually suitable				
		Warm white				Neutral white				Cool daylight								
Shop lighting		79	827	927	830	930	33	840	940	54	850	950	865	965				
CIE Colour rendering group		1A	1 B	1 A	1 B	1 A	2 B	1 B	1 A	2 A	1 B	1 A	1 B	1 A				
<b>Sales areas</b>																		
Groceries																		
Meat																		
Textiles, leather																		
Furniture, carpets																		
Sports, games, stationery																		
Photo, clocks and jewellery																		
Cosmetics, hairdressing																		
Flowers																		
Bookshops																		
<b>Industry</b>																		
Workshops																		
Elektro., mechanical assembly																		
Textile manufacture																		
Printing, graphical trades																		
Colour testing																		
Paintshops																		
Stores																		
Plant growers																		
<b>Offices, schools</b>																		
Office areas																		
Conference rooms																		
Teaching areas																		
Lobby, corridor																		
<b>Others</b>																		
Dwellings																		
Restaurants																		
Museums																		
Sport, multipurpose areas																		
Hospital bedrooms																		
Treatment rooms																		

# Technical Information

## Lamps

CRI between Ra 80 and 90.

Good colour rendering properties.

Applications: in areas where critical colour appraisal is not the primary consideration but where good rendition of colours is essential.

CRI below Ra 80.

Moderate to poor colour rendering properties.

Applications: in areas where the quality of colour rendering is of minor importance.

This classification is of course dependent upon the demands that a particular application makes on a lamp. For example, an Ra of 60 is inadequate for shop lighting, but is good for functional road lighting.

### **Colour temperature and colour rendering**

Correct light colours and correct reproduction of colours assists us in recognising our surroundings.

The colour climate of an artificially-lit space is determined by the light colour and the colour rendering.

Room furnishings of wood and fabrics in warm or pastel colours require warm lighting in the colour /827 or /927.

The more business-like the interior are, the cooler the light can be. Furniture using chromium, glass and marble, or in black and white, are emphasised by the cool light colours /840 and /940.





# Technical information

## Luminaires

### Protection against electric shocks

Luminaires are classified as being of insulation class I or II according to how much protection is provided against accidental touching of live parts. Insulation class I: all metal parts that the user may come into contact with during operation or servicing are connected to the earth conductor.

Insulation class II: additional insulation provides double protection against high voltage live parts.

Protection against electrical shock		
Safety class	Symbol	Protection
0		Basic insulation only (not recommended)
I		Basic insulation plus protective earth connector
II		Double or reinforced insulation, no provision for protective earthing
III		Supply of safety extra-low voltage

### Protection against mechanical shock

The impact resistance of a luminaire defines the protection of the luminaire against mechanical shock. The European norm EN 50102 defines the degrees of protection against external mechanical impact (IK code) and the method of testing. The luminaire housing should withstand the defined energy of the mechanical shock without losing its electrical and mechanical safety, or the basic luminaire function. Translated into a more practical implementation, this means that after withstanding the shock, deformation of the mirror and housing is allowed, although broken lamps, an unsafe electrical situation and failure to meet the specified IP classifications are not permitted.

The impact resistance is expressed as a group numeral, for instance IK06, which is related to the impact energy in joule.

All types of luminaires of Philips Lighting have a minimum impact resistance of 0.2 J. The table shows the ten IK classifications and the defined shock energy in joule.

Note that vandal-proof luminaires are not available: vandal-protected and vandal-resistant are the best achievable classifications.

Protection against mechanical shock			
IK code	Shock energy (Joule)	Description	Example
IK00	–		
IK01	0.15		
IK02	0.2	Standard	Standard open luminaire, closed luminaire with acrylic cover
IK03	0.3		
IK04	0.5	Standard plus	Open luminaire with reinforced optical system
IK05	0.7		
IK06	1		
IK07	2	Reinforced	
IK08	5	Vandal-protected	Closed luminaire with polycarbonate or hardened glass cover
IK09	10		
IK10	20	Vandal-resistant	Closed

# Technical information

## Luminaires

### Protection against ingress of solid bodies, dust and moisture

The Ingress Protection system (IP) EN 60529, 1991 defines various degrees of protection against the ingress of foreign bodies, dust and moisture. The term 'foreign bodies' includes things like fingers and tools coming into contact with the electrical live parts of the luminaire. Both safety aspects (contact with live parts) and harmful effects on the function of the luminaire are defined. Note that the conditions during testing might differ from the specific conditions in an application. The designation to indicate the degree of protection consists of the characteristic letters IP followed by 2 digits indicating conformity with the conditions stated in the two tables. All Philips Lighting luminaires fulfil the minimum classification: IP 20 (protected against finger contact with live parts), however a selection of luminaires, especially those for industrial applications, meet a higher IP classification. It is important to realise that the specification and safety of luminaires are only secured if the necessary maintenance according to the instructions of the manufacturer is carried out in time. The most common applications of the IP classifications for luminaires are:

#### IP 20

Luminaires which can be applied indoors only if no specific pollution rates are expected. Offices, dry, heated industrial halls, shops, shopping malls and theatres are typical application segments.

#### IP 21/22

Luminaires which can be applied in unheated (industrial) halls and under canopies as the luminaires are drip-and condensation-water-protected.

#### IP 23

Luminaires which can be applied in unheated industrial halls or outdoors.

#### IP 43/44

Luminaires and bollards for outdoor street lighting and street lanterns. Bollards mounted at a low height are protected against small solid objects and against rain and splash.

A common combination within an industrial high-bay luminaire or street lantern is IP 43 for the electrical

part of the luminaire, to secure safety, and IP 54/65, for the optical part of the luminaire, to prevent pollution of reflector and lamp.

#### IP 50

Luminaires which are applied in dusty environments, to prevent rapid pollution of the luminaire. The exterior of IP 50 luminaires can be cleaned easily. In the food industry, closed luminaires are specified to prevent glass particles from accidentally broken lamps entering the production area and contaminating the products under preparation.

#### IP 54

The traditional water-protected classification. Luminaires can be cleaned with water without any harmful effect. This classification is often specified in the food processing industry, for industries where dust and moisture are generated in the hall, and for use under canopies.

#### IP 60

Luminaires which are completely sealed against dust accumulation, and are used in very dusty environments (wood and textile industry, stone carving) and in the food industry as explained above. IP 60 luminaires are rarely applied; IP 65/IP 66 is usually applied instead.

#### IP 65/66

Jet-proof luminaires which are applicable where the surroundings are hosed down frequently by water jets, or where luminaires are applied in a dusty environment. Although the luminaires are not fully watertight, the potential ingress of moisture will not have any harmful effect on the luminaire function. IP 65/66 luminaires are often available in impact-protected versions.

#### IP 67/68









Luminaires complying with this classification are suitable for immersion in water.

Typical application areas are underwater lighting of swimming pools and fountain lighting. Deck lighting on ships should also meet this classification.

The test method does not imply that IP 67/68 luminaires meet the IP 65/66 classifications as well.

# Technical information

## Luminaires

Protection against ingress of dust, solid objects and moisture					
First number:			Second number:		
Degree of protection against accidental contact/contact with external elements			Degree of protection against ingress of moisture		
First number			Second number		
Description		Explanation	Description		Explanation
0	Non-protected	Not protected	0	Non-protected	Not protected against moisture
1	Hand-protected	Protected against solid objects exceeding 50 mm in diameter	1	Drip-proof against vertical water drops 	Water drips falling vertically shall have no harmful effect
2	Finger-protected	Protected against finger contact with live parts; and solid objects exceeding 12 mm in diameter	2	Drip-proof when tilted at angles up to 15°	Water drips shall have no harmful effect
3	Tool-protected	Protected against contact with live parts by tools, wire or similar objects over 2.5 mm and penetration of solid objects exceeding 2.5 mm	3	Rain-/spray-proof 	Water falling at an angle of up to 60° shall have no harmful effect
4	Wire-protected	Protected against contact with live parts by tools, wire or similar objects over 1 mm thick; and penetration of solid objects exceeding 1 mm in diameter	4	Splash-proof 	Splashing water from any direction shall have no harmful effect
5	Dust-accumulation-protected 	Complete protection against contact with live parts and harmful accumulation of dust; some dust may enter but not to the extent that operation is impaired	5	Jet-proof 	Water projected by a nozzle from any direction shall have no harmful effect. (Nozzle diameter 6.3 mm, pressure 30 kPa)
6	Dust-penetration-protected 	Complete protection against contact with live parts and against penetration of dust	6	Jet-proof	Water projected by a nozzle from any direction shall have no harmful effect. (Nozzle diameter 12.5 mm, pressure 100 kPa)
			7	Watertight 	Watertight; temporary immersion in water under specified conditions of pressure and time possible without ingress of water in harmful quantities
			8	Pressure watertight 	Pressure watertight; continuous submersion in water under specified conditions of pressure and time without ingress of water in harmful quantities



# Most used light-technical terms

## **Average illuminance**

Illuminance averages over a specified surface.

Unit: lux (lx) = lm/m<sup>2</sup>

Symbol  $E_{av}$

## **Ballast**

Device used with discharge lamps for stabilising the current in the discharge.

## **Beam spread**

The angle in the plane through the beam axis over which the luminous intensity drops to a stated percentage (e.g. 50%) of its peak intensity.

## **Brightness**

Attribute of visual sensation according to which an area appears to emit more or less light. Brightness according to the definition is also an attribute of colour. In British recommendations the term "Brightness" is now reserved for descriptions of colour. Luminosity should be used in other instances.

## **Candela**

The standard unit of light intensity, abbreviated as "cd", being one lumen per steradian.

## **Colour change**

The ability to change the colour temperature of a lighting installation makes it possible to create either a more comfortable working environment or introduce dynamic lighting effects.

## **Colour rendering**

The ability of a light source to render colours naturally, without distorting the hues seen under a black full spectrum radiator (like daylight or incandescent lamps). The colour-rendering index CRI ranges from 0 to 100. For further details see 'Specification data lamps'.

## **Colour rendering index CRI**

See colour rendering.

## **Colour temperature**

The temperature in kelvin of a full spectrum radiator most closely approximate to the colour appearance of a light source at the same brightness. For further details of Philips lamps see under 'Specification data lamps'.

## **DALI**

Digital Addressable Lighting Interface, a standardised communication interface to regulate lighting levels and to switch electronic HFD ballasts on and off.

## **Daylight linking**

Natural light is energy saving and beneficial to

individual users. Daylight linking is a technique that regulates light output according to daylight conditions, maintaining a constant level of indoor lighting and ensuring comfort at all times.

## **Direct lighting**

Lighting by means of luminaires with a light distribution such that 90 – 100% of the emitted luminous flux reaches the working plane directly, assuming that this plane is unbounded.

## **Disability glare**

Glare that impairs vision.

## **Discomfort glare**

Glare that causes discomfort without necessarily impairing vision.

## **Dust-proof luminaire**

Luminaire constructed so that dust of specified nature and fineness cannot enter it when it is used in a dust-laden atmosphere.

## **Glare**

See disability glare and discomfort glare, and the chapter 'Information - Lighting technique'.

## **Halogen lamp**

Incandescent lamp in which the inclusion of halogens in the gas filling and a high-temperature quartz envelope promote the tungsten halogen cycle, permitting higher filament temperature. The result is a higher colour temperature and a significantly extended life. Halogen lamps are often applied to create sparkling lighting effects.

## **Halogen HV**

High-voltage (230 V) halogen lamp

## **Halogen LV**

Low (safety) voltage (6 V, 12 V or 24 V) halogen lamp. Operating low voltage halogen lamps requires an electronic or electromagnetic transformer, which is often integrated in the specific luminaire.

## **HFD**

Electronic dimmable ballast by which dimming is possible. Ballast functions according to the DALI protocol.

## **HFP**

Electronic ballast for various fluorescent lamp types with warm-start principle. See also 'Specification data luminaires'.

## **HFR-T**

Electronic ballast for TL5 and TL-D lamps. With this new-style electronic ballast, standard buttons can be used to dim the light output to as little as 3%. The

# Most used light-technical terms

lamp can also be switched on or off using the push-button control.

## **HFR**

Electronic ballast for various fluorescent lamp types by which lighting regulation is possible. The main ranges of HF-R ballast allow 'step-less dimming down to 3%. See also 'Specification data luminaires'.

## **HPI Plus**

Metal-halide high-intensity discharge lamp combining high luminous efficacy with white light of moderate colour rendering. Main indoor applications are big industrial halls and lighting of discount stores, hyper-/supermarkets and DIY shops. Indoors, HPI Plus lamps are applied in high-bay luminaires.

## **Illuminance**

The luminous flux density at the surface being lit. The unit is lux, being one lumen per square metre. The illuminance in the full summer sun is approx. 100.000 lux. Recommended illuminances for work places range from 200 lux for rough work to 2000 lux for detailed critical work.

*Unit: lux (lx) = lm/m<sup>2</sup>*

*Symbol: E*

## **Indirect lighting**

Lighting by means of luminaires with a light distribution such that not more than 10 per cent of the emitted luminous flux reaches the working plane directly, assuming that this plane is unbounded.

## **Induction lighting QL**

Electrode-less induction lighting system characterised by good light quality, high luminous efficacy and a phenomenal life (60.000 hours).

## **Jet-proof luminaires**

Luminaire constructed to withstand a direct jet of water from any direction.

## **Light output ratio (L.O.R.)**

The ratio of the total light emitted by a luminaire to the total light out-put of the lamp(s) it contains. The light output ratio is always less than 1.

## **Lumen depreciation**

Decline of light output of a light source during its lifetime.

## **Luminaire**

Equipment that distributes, filters or transforms the light given by a lamp or lamps, and which contains all the necessary items for fixing and protecting the lamps and connecting them to a power supply.

## **Luminance**

The light intensity per square metre of apparent area of the light source, luminaire or illuminated surface (cd/m<sup>2</sup>). Where surfaces are lit, the luminance is dependent upon both the lighting level and the reflection characteristics of the surface itself.

*Unit: cd/m<sup>2</sup>*

*Symbol: L*

## **Luminous efficacy**

The quantity of light a light source emits per watt of electrical power of energy consumed. Note that both the lamp luminous efficacy and the system (lamp and ballast) luminous efficacy can be specified. The system luminous efficacy is always lower than the lamp luminous efficacy.

## **Luminous flux**

The total light output emitted by a light source. Also the total light falling on a surface. Light output of a light source is measured in lumen.

*Unit: lumen*

*Symbol: Φ*

## **Luminous intensity**

The luminous flux in a given direction (e.g. from a floodlight, projector).

*Unit: candela (cd) = one lumen per steradian*

*Symbol: I*

## **Lux**

The standard unit of illuminance of a surface being lit. One lux is one lumen per square metre.

## **Maintained emergency lighting**

Emergency lighting where the lamps are in operation from the normal supply during standard conditions.

In an emergency situation the emergency lamp (usually one lamp in luminaires of two or more lamps) remains in operation.

## **Maintained illuminance**

Value below which the average illuminance on the specified surface is not allowed to fall. The maintained illuminance is specified at the end of the maintenance cycle, taking into consideration the maintenance factor.

It is one of the main specification elements for the lighting designer. In the various norms, the maintained illuminance is specified for various activities.

*Unit: lux*

*Symbol: E<sub>m</sub>*

# Most used light-technical terms

## **Maintenance factor**

Correction factor used in lighting design to compensate for the rate of lumen depreciation, caused by lamp ageing (lumen depreciation and lamp failures) and dirt accumulation (luminaire and environment). It determines the maintenance cycle needed to ensure that illuminance does not fall below the maintained value.

## **MASTER Colour CDM**

Series of metal-halide discharge lamps with excellent colour rendering and a warm or neutral colour impression. MASTER Colour lamps are applied in projectors and downlights in shop and office applications.

## **Mercury lamps**

High-intensity discharge lamps for use in industry and large public spaces. Better light characteristics are obtained by applying metal-halide lamps.

## **Metal-halide lamps**

Single- or double-ended discharge lamps for use in industry, public spaces and shops. Metal-halide lamps combine a natural white colour with a pleasant light and a high luminous intensity.

## **Movement detection**

To control lighting in a specific area, sensing of occupancy by movement detection ensures lights are activated only when needed.

## **Non-maintained emergency lighting**

Emergency lighting where the emergency lighting lamps come into operation only when the power supply to normal lighting fails.

## **OLC**

Omnidirectional Luminance Control, a Philips-patented series of optics for TL5 and TL-D lamps offering optimal lighting efficiency in combination with excellent glare and luminance control all around the luminaire.

## **PL**

Single-ended fluorescent lamp in which the discharge tube is folded to two, four or six limbs. PL lamps are characterised by unusually high light output for length. PL lamps are to be applied in compact luminaires for professional and domestic use.

## **Power factor**

The ratio of the circuit power in watts to the product of the root-mean-square values of voltage and current. For sinusoidal waveforms, it is equal to

the cosine of the angle of phase difference between voltage and current. For electronic ballasts the power factor is 0.95; no extra compensation is required.

## **QL**

See Induction lighting.

## **SDW-T**

White SON or SDW-T lamps offer a high luminous efficacy in combination with a warm white light. The colour rendering is excellent. SDW-T lamps are applied in shops and public spaces where the atmosphere should be warm and cosy.

## **Sodium lamps SON**

High-pressure discharge lamps with a yellowish colour appearance and an extremely high efficiency. SON and SON Comfort lamps are mainly applied in high-bay industrial applications.

## **Starter**

Device for starting a discharge lamp (in particular a fluorescent lamp) that provides the necessary preheating of the electrodes and/or causes a voltage surge in combination with the series ballast.

## **Switching and dimming control**

As more and more light sources can be economically dimmed, lighting controls need to provide both switching and dimming capabilities.

## **TL5**

Linear double-ended fluorescent lamp with a diameter of only 16 mm. In combination with OLC optics and high-frequency ballasts, the TL5 system offers a superb performance, both light-technically and in terms of energy consumption.

## **TL-D**

Linear standard double-ended fluorescent lamp with a diameter of 26 mm.

## **Uniformity ratio**

The ratio between the minimum and the average illuminance over an area ( $E_{\min}/E_{\text{ave}}$ ). If so defined, the uniformity ratio is the ratio between the minimum and the maximum illuminance over a specified surface ( $E_{\min}/E_{\text{max}}$ ).

## **Utilisation Factor**

The Utilisation Factor (UF) of a lighting installation represents the percentage of the luminous flux of the lamp(s), that reaches the defined working plane. The UF can be seen as the efficiency of the lighting installation. The UF is used to calculate the number of luminaires required.

# Most used light-technical terms

## **Visual guidance**

The sum of the measures taken to give the user of a space an unambiguous and immediately recognisable picture of the course of the path ahead. Visual guidance is important in shops and public buildings. The lighting designer takes the demands for visual guidance into consideration.

# Index by type number

TYPE/SORT	PAGE	TYPE/SORT	PAGE
<b>A</b>			
A55 White (A-shape)	5.10	Clickline MV Capsules	4.28
Aluline 111	4.8	<b>D</b>	
Amazon LED	10.36	Daylight (P-shape)	5.24
Ambiance	2.10	Deco Candle Swan-Neck	5.16
Ambiance Coloured	2.12	Decotwist	2.14
Anti-insect: Buglezzz	5.32	Diamondline	4.10
Appliance Oven Tubular	5.36	<b>E</b>	
Appliance Refrigerator Tubular	5.38	EBC206	10.38
ArenaVision	10.40	ECOTONE High Lumen	2.18
Artcolour MH-T	7.12	e-Kyoto II	8.10
Aurora	10.16	Electromagnetic ballasts	8.16
<b>B</b>		Electronic ignitors for HID lamp circuits	8.28
Basic ballasts for HPL and HPI (Plus) lamps	8.22	Electronic regulating ballasts for TL-D	8.2, 8.4
BBC204	10.36	Electronic standard ballasts for PL-T/C	8.14
BBC206	10.36	Electronic standard ballasts for TL5	8.12
BBC212	10.36	Electronic standard ballasts for TL-D	8.6, 8.8, 8.10
BBC214	10.36	EPS300	10.8
BBS400	10.32	Essential	2.2
BBS420	10.30	Essential Dichroic MR16	4.6
BCP730	10.24	Essential Twistline Alu	4.18
BCS430	10.34	ET-S transformer	8.30
BCS713	10.26	Europa 2	9.58
BCS716	10.26	<b>F</b>	
BCS722	10.26	FBH020	9.64
BPS740	10.4	FBH022	9.62
Brilliantline (Dichroic)	4.4	FBH059	9.56
BTA	8.16	FBH145	9.48
<b>C</b>		FBS120	9.58
Cabana	9.80	FBS122	9.58
Capsuleline	4.16	FBS145	9.50
Capsuleline Pro	4.12	FCS145	9.52
CDM-R 111	6.14	FCW196	9.88
CDM-R PAR20&PAR30L	6.16	FGC100	10.60
CDM-T	6.2	FGC111	10.61
CDM-T 250w	6.8	FGS104	10.22
CDM-T Mini	6.6	FGS105	10.22
CDM-TC	6.4	Fugato	9.38
CDM-TD	6.12	FWC110	10.59
CDM-TP	6.10	FWC120	10.59
Centura	9.22	FWC121	10.59
Centura square	9.24	FWG200	9.34
City White CDO-ET	7.14	FWG210	9.35
City White CDO-TT	7.16	FWG220	9.35

# Index by type number

TYPE/SORT	PAGE	TYPE/SORT	PAGE
FWG230	9.35	<b>I</b>	
FWG240	9.35	Imageo	2.30
FWH035	10.57	Impala	9.8
FWW035	10.56		
<b>G</b>		<b>K</b>	
GBH020	9.64	Krypton Standard E-shape	5.12
GBS120	9.60		
GBS122	9.60	<b>L</b>	
GBS145	9.54	Latina	9.64
Genie	2.4	Latina square	9.62
GMS012	9.94	LEDflood	10.24
Gondola	9.34	LEDline <sup>2</sup>	10.26
GPS300	10.6	LEDspot	10.34
GPS301	10.6	LEDstep	10.30
GPS302	10.6	LEDuplight	10.32
GPS303	10.6		
GPS304	10.6	<b>M</b>	
GPS305	10.6	Malaga	10.20
GPS306	10.6	MASTER Line ES	4.2
GPS307	10.6	MBS145	9.46
GPS308	10.6	MBS205	9.44
GPS309	10.6	MBS260	9.38
		MBS262	9.38
		MBS264	9.38
		MCS145	9.52
<b>H</b>		MCS410	9.76
HalogenA 2YR BTT46	4.24	MCS420	9.77
HalogenA Tubular	4.26	MCS430	9.77
HCP170	10.10	MCS440	9.76
HCP171	10.10	MCS450	9.76
HDK900	9.78	MHN/W-TD	6.24
HeavyDuty ballasts for HPL and HPI (Plus)	8.24	MHN-LA	7.4
HF Basic II	8.8	MHN-SA	7.2
HF Performer PL-T/C	8.14	MHN-SB	7.6
HF Performer TL5 II	8.12	ML	7.34
HF Performer TLD II	8.6	Modella	9.28
HF Regulator	8.4	Monza	9.76
HF Regulator II	8.2	MVF403	10.40
HID electronics for CDM lamps	8.20	MWF130	10.46
HID-PrimaVision CDM	8.20	MWF230	10.48
HighPower ballasts for MH, HPI, HPL, SON	8.26	MWF330	10.50
HPI Plus (Daylight)	7.10	New Tempo	10.52
HPI-T Plus	7.8		
HPK150	9.80	<b>N</b>	
HPL-N	7.32	Nightlight (P-shape)	5.26

# Index by type number

TYPE/SORT	PAGE	TYPE/SORT	PAGE
<b>P</b>			
Pacific	9.82, 9.84, 9.88	RVP351	10.52
PAR20 HalogenA	4.20	<b>S</b>	
PAR30S HalogenA	4.22	SDW-T White SON	6.22
PAR38	5.42	SDW-TG Mini White SON	6.20
PAR38 Coloured	5.44	Selenium	10.18
PAR56	5.40	SGP340	10.18
Party Lustre (P-shape)	5.20	SGP551	10.12
Party Standard (A-shape)	5.18	SGS101	10.20
Party Tubular	5.22	SGS102	10.20
Pentura Mini	9.96	SGS113	10.58
Phenix	10.12	SL Electronic	2.28
Philinea	5.34	SNF100	10.42
PL Electronic	2.20	SNF300	10.44
PL Electronic Reflector	2.26	Softone Globe (G-shape)	5.14
PL Electronic U	2.22	Solo	10.56
PL-C 2 Pin	3.10	SON	7.24
PL-C 4 Pin	3.14	SON H Pro	7.28
PL-L 4 Pin	3.22	SON PIA Plus	7.18
PL-Q 2 Pin	3.26	SON-T	7.26
PL-S 2 Pin	3.2	SON-T PIA Green Power	7.22
PL-S 4 Pin	3.6	SON-T PIA Plus	7.20
PL-T 4 Pin	3.18	SOX Pro	7.30
Plusline (Double Ended)	4.30	SPP202	10.16
<b>Q</b>			
QBD570	9.70	Standard (A-shape)	5.2
QBS105	9.66	Standard Candle (B-shape)	5.6
QBS205	9.44	Standard Extra Low Voltage (A-shape)	5.28
QBS570	9.72	Standard Lustre (P-shape)	5.8
QCS400	9.77	Starters for fluorescent lamps	8.18
QL	3.66	Strato	9.20
QVF415	10.54	SWF130	10.47
QVF416	10.54	SWF230	10.49
QVF417	10.54	SWF330	10.51
QWG200	9.34	<b>T</b>	
QWG210	9.36	TBS020	9.18
<b>R</b>			
Reflector Colours	5.52	TBS120	9.14
Reflector R50	5.46	TBS160	9.8
Reflector R63	5.48	TBS235	9.6
Reflector R80/E80	5.50	TBS269	9.12
Reinforced Construction A-shape	5.30	TBS740	9.4
Rotaris	9.4	TCH128	9.96
RVP251	10.52	TCS020	9.32
		TCS097	9.26
		TCS098	9.22
		TCS098	9.24

# Index by type number

TYPE/SORT	PAGE	TYPE/SORT	PAGE
TCS120	9.30	ZBS262	9.41
TCS125	9.28	ZBS264	9.41
TCW097	9.90	ZBS402	10.33
TCW215	9.82	ZBS421	10.31
TCW216	9.84	ZBS740	9.5
Tempo 1	10.46	ZCW216	9.86
Tempo 2	10.48	ZDK004	9.79
Tempo 3	10.50	ZDK005	9.79
TL Mini Standard Colours	3.64	ZDK007	9.79
TL Rapid Start Standard Colours	3.56	ZDK009	9.79
TL Standard Colours	3.54	ZGN020	9.18
TL5 Circular Super 80	3.36	ZGN120	9.14
TL5 High Efficiency Super 80	3.28	ZGN269	9.13
TL5 High Output Super 80	3.32	ZKL560	9.74
TL-D 90 De Luxe	3.46	ZKL920	9.74
TL-D Reflex Super 80	3.44	ZNF100	10.43
TL-D Secura Super 80	3.42	ZNF300	10.45
TL-D Snow White	3.48	ZPK150	9.81
TL-D Standard Colours	3.50	ZPS740	10.4
TL-D Super 80	3.38	ZVF215	10.55
TL-E Standard Colours	3.62	ZVF217	10.55
TL-M Rapid Start	3.58	ZZG145	9.54
TL-X XL	3.60		
TMS012 MARK II	9.92		
Tornado	2.8		
TPH710	9.20		
Transformers	9.74		
<b>U</b>			
Urbana	10.6		
<b>V</b>			
VivaraZON	10.10		
<b>X</b>			
XWC120	10.59		
XWC121	10.59		
<b>Z</b>			
Zadora Adjustable	9.70		
Zadora Fixed	9.72		
ZBS120	9.60		
ZBS122	9.60		
ZBS160	9.10		
ZBS205	9.45		
ZBS260	9.41		



# Contact details for your local Philips Lighting office

## Philips Lighting International Sales

### Head office

Building EEE-p  
P.O. Box 80020  
5600 JM Eindhoven  
The Netherlands

### Contact

Patricia.Beks@philips.com  
Tel: +31 40 27 58894  
Fax: +31 40 27 55453

## Philips Lighting Middle East

Gulf Towers Floors 4 & 5  
Oud Metha Road - PO Box 7785  
Dubai, UAE

### Contact

DP.Smedema@philips.com  
Tel: +97 14 309 5267  
Fax: +97 14 309 5110

## Philips Lighting Southern Africa

195 Main Road, Building A  
Martindale 2029, Johannesburg  
South Africa

P.O. Box 58088  
Newville 2114  
South Africa

### Contact

Luc.Escoute\_2@philips.com  
Tel: +27 11 471 5078  
Fax: +27 11 471 5069

[www.lighting.philips.com/me\\_a](http://www.lighting.philips.com/me_a)

# Contact details for your local Philips Lighting office

## Philips Lighting France

9, rue Pierre Rigaud  
94856 Ivry Sur Seine  
France

### Contact

Olivier.Nouveau@philips.com  
Tel: +33 14 987 65 95  
Fax: +33 14 987 65 96

## Philips Lighting Egypt

20 Aisha Al Taymouria Street, 7th floor,  
Garden City  
Cairo, Egypt

### Contact

Tamer.Abolghar@philips.com  
Tel: +20 279 60969  
Fax: +20 279 62432

## Philips Lighting Morocco

304, Bd MED V  
Casablanca, Morocco

### Contacts

Bernard.Jolly@philips.com  
Marouane.Chami@philips.com  
Tel: +212 22 30 2992  
Fax: +212 22 30 3192

## Philips Lighting Tunisia

Rue De La Chimie – B.P. No 25  
2038 Ben Arous  
Tunisia

### Contact

Adel.Bouziri@philips.com  
Tel: +216 71 382 166  
Fax: +216 71 380 108

[www.lighting.philips.com/me\\_a](http://www.lighting.philips.com/me_a)