







Side S.p.A. è un'azienda Italiana che produce apparecchi di illuminazione tecnici per interni ed esterni. Gli uffici operativi e gli stabilimenti sono situati a Lissone, in provincia di Milano, nel cuore pulsante della regione Brianzola. Nata nel 1982, Side ha raggiunto, in soli 25 anni di attività, una posizione di riferimento nel settore illuminazione del mercato italiano e in continua espansione in quello internazionale.

Side produces technical light fixtures for indoor and outdoor applications.

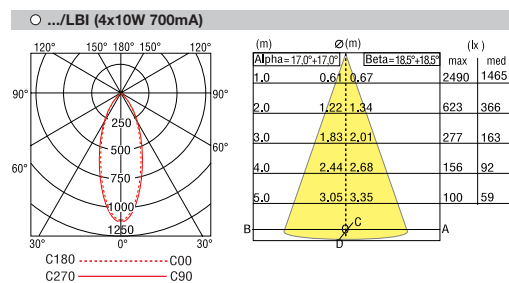
Founded in 1982, with only 20 years history, Side has rapidly become one of the leading companies in its market sector, thanks to the very strong dedication, desire and flexibility of it's employees, the production, technical and commercial organisation.

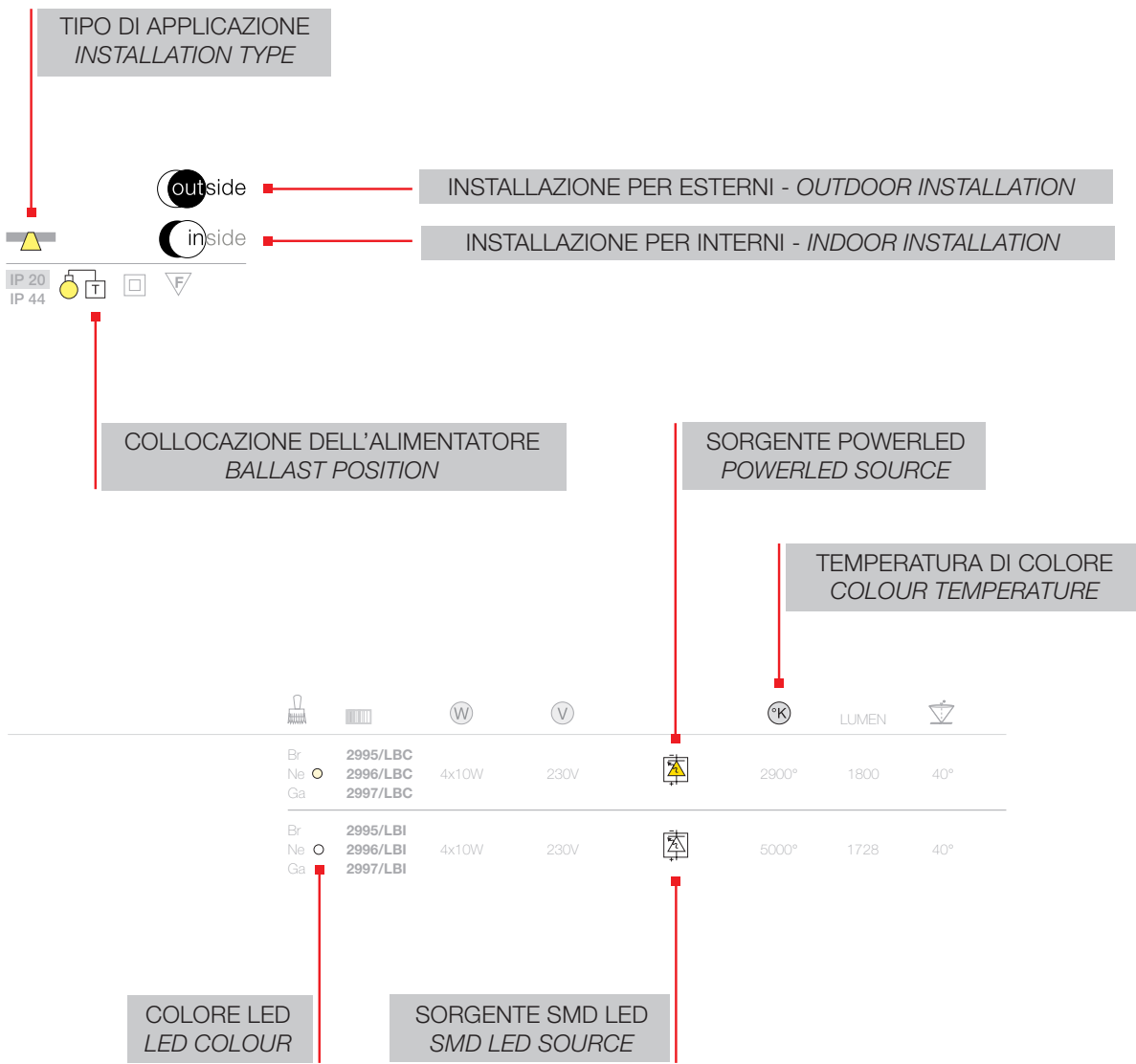
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ATTENTION: for fittings without ballast, see the catalogue in the right section from pag. 236



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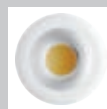
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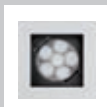
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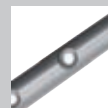
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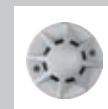
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TECNOLOGIA LED

L'acronimo LED sta per light emitting diode, diodo ad emissione luminosa; si tratta di un diodo a giunzione, cioè un'accoppiamento di due semiconduttori, che nel processo di ricombinazione (cioè lo spostamento di portatori di carica positiva verso la regione di giunzione a maggioranza di carica negativa e viceversa, con successiva transizione di elettroni) elettrone – lacuna emette fotoni, cioè radiazione luminosa.

La lunghezza d'onda di questi fotoni dipende dal materiale semiconduttore utilizzato, dalla differente lunghezza d'onda dipende il colore dell'emissione luminosa.

La caratteristica del semiconduttore permette di raddrizzare la corrente di passaggio e indirizzarlo in una sola direzione.

LED TECHNOLOGY

The acronym LED indicates "light emitting diodes; this is a junction diode, ie a pairing of two semiconductors, which in the recombination process "electron – hole" emits photons, ie light radiation.

The recombination is the movement of positive charge towards the region joining and vice versa, with subsequent transition of electrons.

The wavelength of these photons depends on the used semiconducting material, and the different wavelengths creates the color of the light.

The characteristic of the semiconductor can straighten the current and address it in one direction only.



APPLICAZIONI LIGHTING

Dalla sua prima applicazione industriale sono passati quasi 50 anni; questi dispositivi hanno trovato impiego in diversi settori dell' elettronica consumer/professionale.

Solo recentemente con lo sviluppo del processo di produzione si sono potuti impiegare con successo nel settore illuminotecnico, con prestazioni ed efficienze sempre maggiori; infatti nel settore lighting hanno trovato applicazione dapprima nella segnalazione di aree esterne/interne (decorativi, marker light) si veda ad es. serie Olodum Mini, Green con 25/29 led, successivamente si sono rese possibili applicazioni in progetti di illuminotecnica di qualità con l'introduzione di power led e il progressivo innalzamento da un lato dell'efficienza, dall' altro della resa cromatica si veda ad esempio la serie Net 15 FOR LED , NET 18 LED, ALBERT, MONO-DOUBLE tondo e quadro.

Per il lighting è determinante la continuità di prestazione per il bianco in termini di temp. di colore (limitata variazione cromatica nel tempo) e di emissione.

Attualmente vengono realizzati dispositivi con flusso luminoso di circa 100lm per potenze di 1.2W.

Se comparati con fonti di luce tradizionali abbiamo i seguenti valori:

Incandescenza: 20lm/W

Alogena: 25lm/W

Questi dati evidenziano l' elevatissima efficienza delle fonti a Led nel trasformare la corrente elettrica in luce, con conseguente bassissimo consumo in rapporto alla luce emessa. Se pensiamo che tecnologie estremamente sofisticate di processo nella deposizione degli strati di fosfori (riduzione spessori ed ottimizzazione della quantità utilizzata quali TFFC, Lumiramics, PRC phosfor remote coating), si sono finora rilevate vincenti per il raggiungimento del target di applicazione del led, possiamo dire che i moduli Led saranno il futuro sostituto di tutte le tipologie di lampadine tradizionali.

Inoltre, bisogna tenere conto della continua ricerca dei principali costruttori, spinti anche da esigenze di altri settori trainanti (automotive, street lighting), ad ottenere valori di flussi sempre maggiori; i reparti R&D stanno già sperimentando single die da 160/200lm/W.

APPLICAZIONI LIGHTING

Since its first industrial application 50 years has been nearly passed, these devices have found use in several areas of the consumer / professional electronics.

Only recently with the development of the production process they could have been used successfully in the lighting sector, with increasing performance and efficiency; in the lighting industry they have been applied first in signaling areas outside / inside (decorative, marker light) –for example think about our Olodum Mini, Green with 25/29 leds, afterwards it has been possible new applications in lighting quality projects with the introduction of power LEDs and the gradual increase from one side of efficiency and from the other of color rendering , (for example Net 15 for LED, NET 18 LED, ALBERT, MONO-DOUBLE series).

For a good Lighting is crucial the continuity of provision for white in terms of color temperature (limited color change) and emission. Currently devices are made with luminous flux of 100lm with 1.2W of power.

If compared with conventional light sources we have the following values:

Incandecent 20lm / W

Halogen 25lm / W

These data highlight the high efficiency of LED sources in transforming electricity into light, the result is a very low consumption relative to the light emitted. If we think that highly sophisticated technologies in the process of deposition of phosphors layers (thickness reduction and optimization of the amount used as TFFC, Lumiramics, PRC Phosfor remote coating) have so far found successful to achieve the target of application of LED, we can say that LED modules will be the future replacement of all types of bulbs.

You should also consider of the ongoing research of the leading manufacturers, driven also by the needs of other leading sectors (automotive, street lighting), to obtain values of output increasing, the R & D departments are already experimenting single die of 160/200lm/W.

TIPI DI LED

LED SMD: Surface Mounted Devices - sono generalmente diodi con correnti di alimentazione limitate a 50mA e realizzati per segnalazione con prestazioni di circa 20lm/W Max . Il diodo è inserito in una struttura ceramica che viene incollata sulla superficie del circuito poi immersa in un bagno di saldatura.

LED COB: Chip On Board - il diodo è incollato direttamente sulla superficie del circuito e la connessione elettrica è realizzata con fili di bonding; la luce è diffusa da una copertura del diodo più o meno pronunciata (bubble)

LED di Potenza o a corrente Costante:

Il led è generalmente inserito in una struttura "package" costituita da termoplastico o ultimamente da supporto ceramico (dimensioni da un minimo di 3x3 mm) a sua volta collegato di norma ad un riflettore.

La connessione elettrica di anodo e catodo è realizzata con fili di bonding. Viene aggiunta una parte isolata elettricamente per la dissipazione del calore.

Il diodo viene alimentato in corrente costante con valori decisamente più elevati rispetto al diodo smd a partire da 250mA.

TYPES OF LEDS

LED SMD: Surface Mounted Devices - diodes are generally supply by current limited to 50mA and built for performance reporting about 20lm / W Max. The diode is inserted in a ceramic structure that is glued to the surface of the circuit then immersed in a welding. bath

LED COB: Chip On Board - the diode is glued directly onto the surface of the circuit and the electrical connection is made with wire bonding, the light is emitted from the diode cover (wich can be more or less big "bubble").

Power LED: The LED is usually inserted into a structure "package" consisting of thermoplastic or most recently by ceramic support (from a minimum size of 3x3 mm) normally connected to a reflector.

The electrical connection of the anode and cathode is made of wire bonding. This is added to an isolated part for heat dissipation.

The diode is fed with constant current values substantially higher than the smd diode from 250mA.



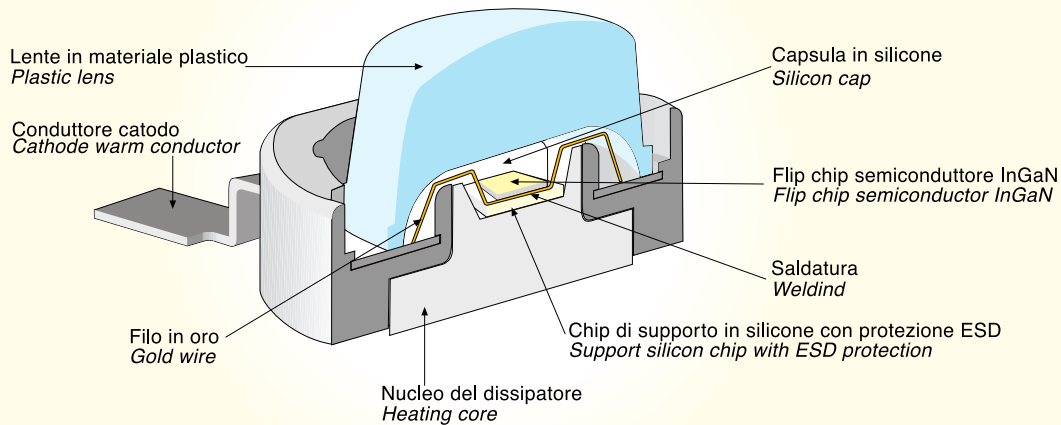
COSTRUZIONE DEL LED

- Deposizione di cristalli di semiconduttore in fogli estremamente sottili (Wafer).
- Selezione in funzione dell' emissione luminosa e della resa (chip).
- Installazione su supporto dissipante metallico. (slug) ed eventuale aggiunta di riflettore o ottica primaria.
- Connessione elettrica di anodo e catodo con fili metallici ricoperti con metalli pregiati (dorati – fili di bonding).
- Inserimento nella struttura (package) che consente la connessione elettrica e la resistenza meccanica/termica del dispositivo.
- Lo slug è isolato elettricamente e consente la dissipazione del calore generato dal Led tramite il contatto sulla scheda (PCB).

LED CONSTRUCTION

- *Deposition of semiconductor crystals in extremely thin sheets (wafers).*
- *Selection in function of the light and emission (chip).*
- *Installation on dissipating metal (slug) and addition of reflector or primary optical.*
- *Electrical connection with anode and cathode wires coated with precious metals (gold - wire bonding).*
- *Inclusion in the structure (package) which allows the electrical connection and mechanical/thermal device.*
- *The slug is electrically insulated and allows the dissipation of heat generated by the LED via the contact board (PCB).*

PHILIPS LUMILEDS – REBEL WHITE / K2



CARATTERISTICHE CROMATICHE

COLORE DELLA LUCE EMESSA DAL LED

La luce è generata da molti raggi di lunghezza d'onda diverse.

Ogni colore di luce è caratterizzato da radiazioni di lunghezza d'onda particolari.

L'occhio umano percepisce uno spettro di radiazioni di colore ben definito compreso tra 380 e 780nm con un picco a 555nm (colore verde) responsabile della percezione della luminosità. In funzione del tipo di semiconduttore utilizzato nel dispositivo, al passaggio della corrente si genera uno spettro limitato di radiazioni luminose. I semiconduttori normalmente utilizzati sono: InGaN - (Nitrato di gallio e indio) emissione colore Bianco, Verde, Blu.

AllnGaP - (Alluminio e fosforo di gallio) emissione colore Rosso, Ambra.

Per definizione la luce emessa dal diodo è MONOCROMATICA e particolarmente pura a differenza di altre fonti di luce con emissione su tutto lo spettro del visibile e continuo su ultravioletto ed infrarosso.

Il led non ha emissione UV e IR.

Sono evidenti i vantaggi di questa fonte luminosa considerate queste ultime caratteristiche.

Contrariamente alle lampadine tradizionali non c'è surriscaldamento degli oggetti illuminati e non c'è deterioramento di oggetti particolarmente sensibili all'irraggiamento con frequenze nel campo infrarosso.

COLOR CHARACTERISTICS

COLOR OF THE LIGHT EMITTED FROM THE LED

The light is generated by many different rays of different length wave.

Each color of light is characterized by different radiation wavelength.

The human eye perceives a color spectrum of radiation well defined between 380 and 780 nm with a peak at 555nm (green) responsible of the perception of brightness. Depending on the type of semiconductor used, the current generates a limited spectrum of light radiation. The semiconductors typically used are: InGaN - (indium gallium nitride) the issue of White, Green, Blue

AllnGaP - (aluminum phosphide and gallium) emission color Red, Amber.

By definition, the light emitted by the diode is monochromatic and very pure compared to other sources of light emission over the entire spectrum of visible and continuous on ultraviolet and infrared.

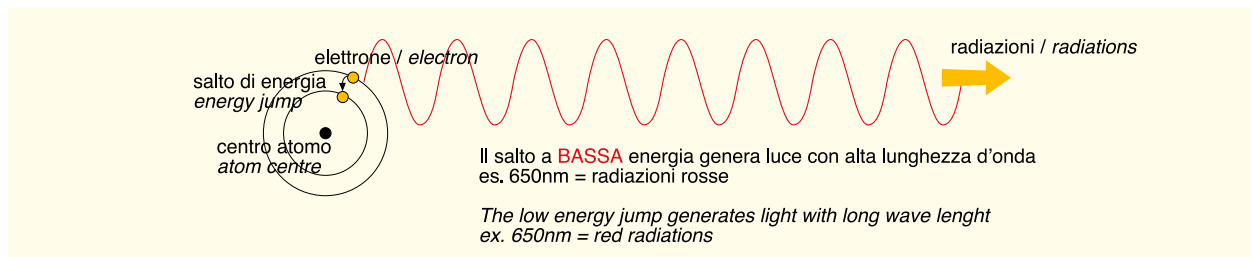
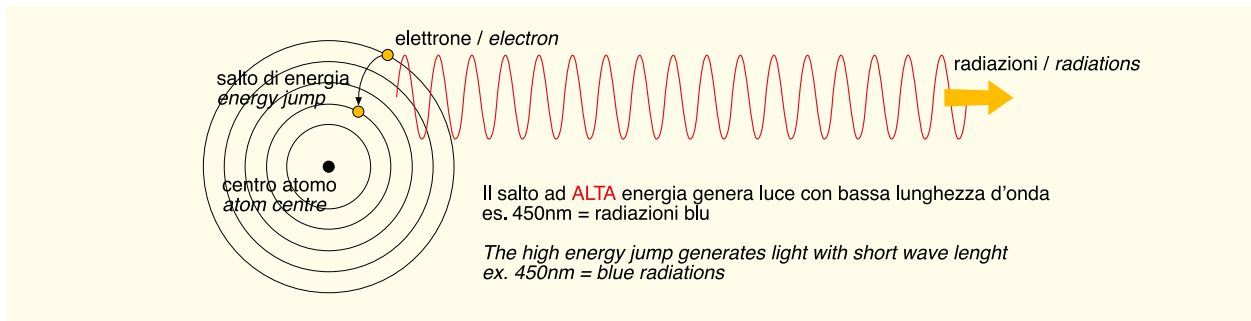
The LEDs do not emit UV and IR.

The advantages of this light source are obvious considered these characteristics.

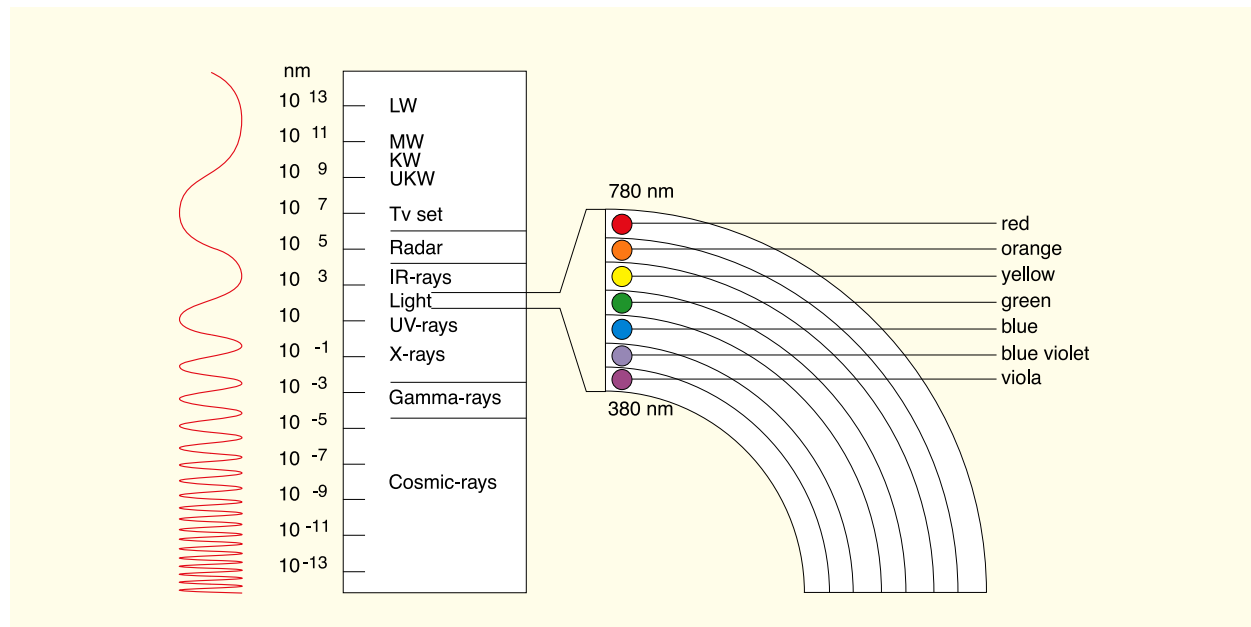
Contrary to conventional lamps there is not overheating of the illuminated objects and there is no deterioration of items particularly sensitive to radiation with frequencies in the infrared range.



IL PRINCIPIO DI ILLUMINAZIONE TRAMITE IL LED / THE CONCEPT OF LIGHTING USING LED



LUNGHEZZA D'ONDA E IRRAGGIAMENTO / WAVELENGTH AND RADIATION



COLORE BIANCO DEL LED

Per ottenere dai diodi luce Bianca (composizione di radiazioni di colori diverse) si estende la lunghezza di radiazione di un led ad esempio di colore BLU.

La conversione si può ottenere con un deposito di fosfori

sul semiconduttore con radiazione Blu; l' emissione di blu e giallo dei fosfori è percepito come luce BIANCA

Si può ottenere altresì con la miscela di radiazioni di 3 o più leds di colori differenti qualsiasi gradazione cromatica compresa quella bianca (sistema RGB).

La luce bianca ottenuta con un dispositivo che miscela la luce colorata permette di generare abbastanza facilmente tutta la gamma di colori nello spettro visibile. Per contro il bianco avrà scarsa resa cromatica.

Recentemente alcuni moduli sfruttano la possibilità di ottenere tonalità differenti con una miscela di array di led; la luce bianca ha così tonalità variabile e resa cromatica più elevata.

TAVOLA NORMATA CIE1931

Per meglio comprendere facciamo riferimento alla tavola normata C.I.E.1931.

E'la rappresentazione grafica di tutte le tinte visibili dall'occhio umano a prescindere dalla luminanza e determinate a partire da tre colori primari.

Il contorno riporta su asse X,Y il colore puro nelle diverse lunghezze d'onda, all'interno di questo sono rappresentati i colori reali mentre le parte centrale identifica la zona acromatica. La BBL (black body locus) o plankiana è la curva sulla quale possiamo identificare le diverse tonalità della luce bianca da 2700K (caldo) a 10000K (freddissimo). I costruttori selezionano la produzione del diodo di colore bianco in base alle coordinate cromatiche rilevate nel processo di lavorazione.

Le forniture sono definite sui cosiddetti Bin aree limitate del diagramma cromatico nei dintorni della BBL.

Ultimamente alcuni costruttori si sono adeguati alla normativa ANSI riducendo le zone di selezione e fornendo dispositivi selezionati all'interno di 3/5 ellissi di McAdam (cioè selezioni omogenee dal punto di vista percettivo o meglio con differenze di temperatura di colore indistinguibili senza l'utilizzo di strumenti di misura).

WHITE COLOUR OF THE LED

To obtain the white light from the diodes (composition of radiation of different colors) we have to extend the length of radiation of the led, for example a blue colour.

The conversion can be achieved with a deposit of phosphors on blue semiconductor radiation; the emission of yellow and blue phosphors is perceived as white light.

You can also obtain the mixture of radiation of 3 or more LEDs of different colors including white color (RGB).

The white light produced by a device that mixes the colored light can easily generate enough selection across the spectrum of colors in the visible spectrum.

By the contrary the white colour will have poor color rendering. Recently some drivers use the possibility to obtain different shades with a mixture of arrays of LEDs, in this way the white light has variable tones and an higher color effect.

NORMATIVE TABLE CIE1931

To better understand we refer to the normative table CIE1931.

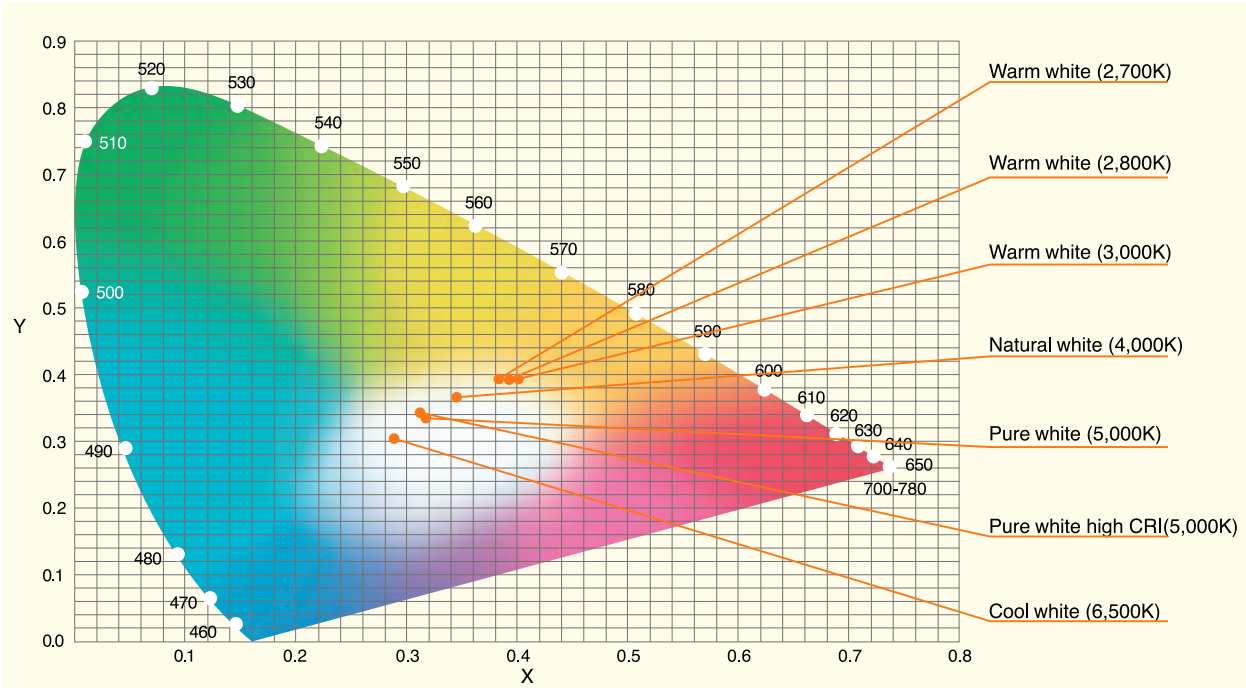
Our perception of all colours starts from the three primary colours. On the frame of the diagram you'll find pure colours, while inside of it you'll find all possibilities without taking into account the luminance. .

The outline shows on axis X/Y the pure color in different wavelengths, within it are represented true colors while the middle part identifies the achromatic area. The BBL (black body locus) or plankiana is the curve on which we can identify different shades of white light from 2700K (warm) to 10000K (very cold). Manufacturers select the production of white LED based on the chromaticity coordinates measured during production process.

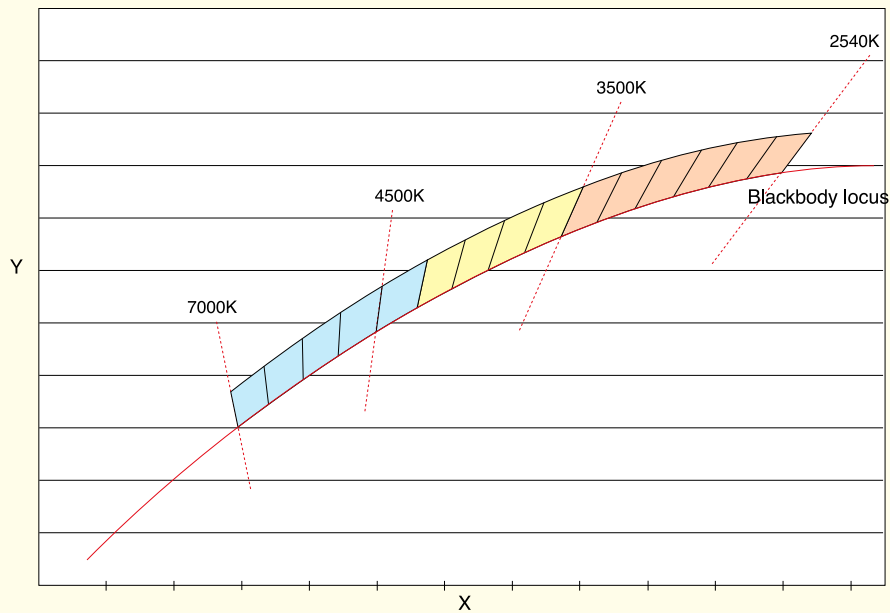
Supplies are defined on so-called Bin, limited areas of the chromaticity diagram near the BBL.

Recently some manufacturers have complied to the ANSI normative by reducing the selection areas and providing devices selected within 3 / 5 Mc Adam ellipses which means ie homogeneous selections in terms of perception, or rather with indistinguishable differences in color temperature without the use of measuring instruments.

TAVOLA NORMATA CIE1931 / NORMATIVE TABLE CIE1931



LUXEON ANSI BIA



RESA CROMATICA DEL LED

Tipicamente il led bianco ha resa cromatica Color Rendering Index (CRI) nell'intorno di 65-80 su una scala 0-100; nelle applicazioni outdoor e in genere dove è richiesta una maggior quantità di luce emessa queste sono le selezioni utilizzate negli apparecchi di illuminazione. Nelle applicazioni dove vi è necessità di creare luce d'accento, troviamo oggi nel mercato, Led con resa cromatica oltre 90. I flussi sono però ridotti nei confronti dei rispettivi diodi con bassa resa cromatica. I progettisti di apparecchi di illuminazione hanno così la possibilità di utilizzare i Led per illuminare e valorizzare oggetti per i quali è imprescindibile una fedele riproduzione dei colori.

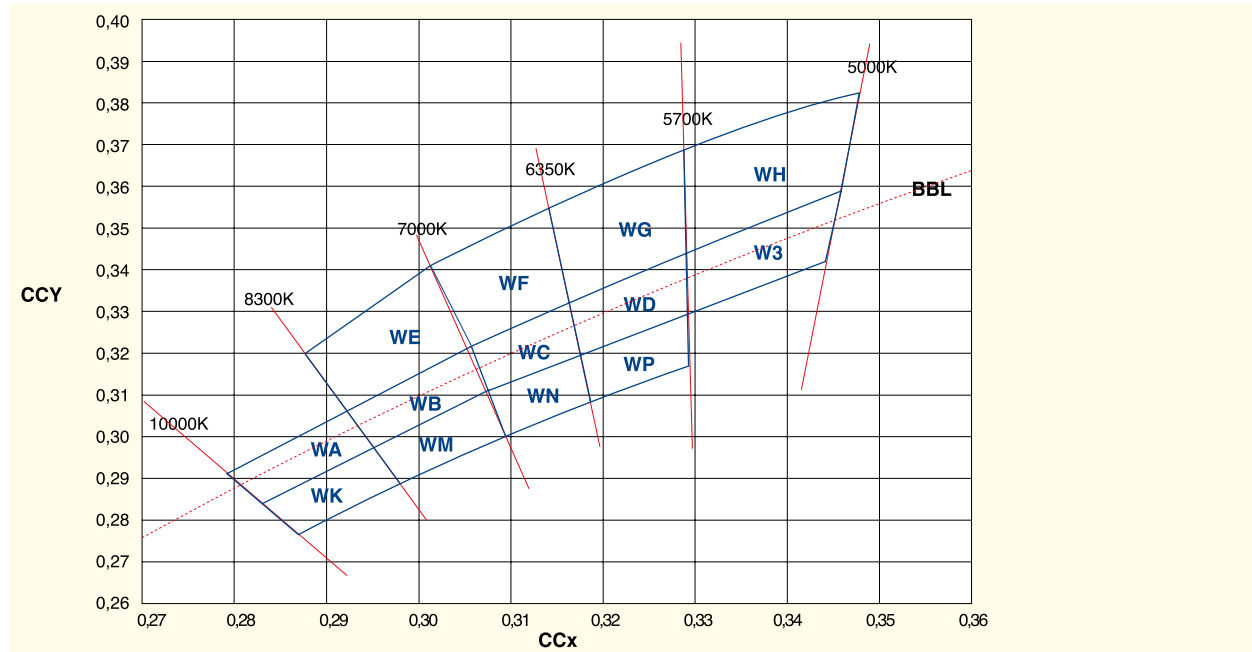
LED COLOR RENDERING

65-80 CRI: used in outdoor applications and generally where a greater amount of light is required
90 CRI: used in accent lighting.

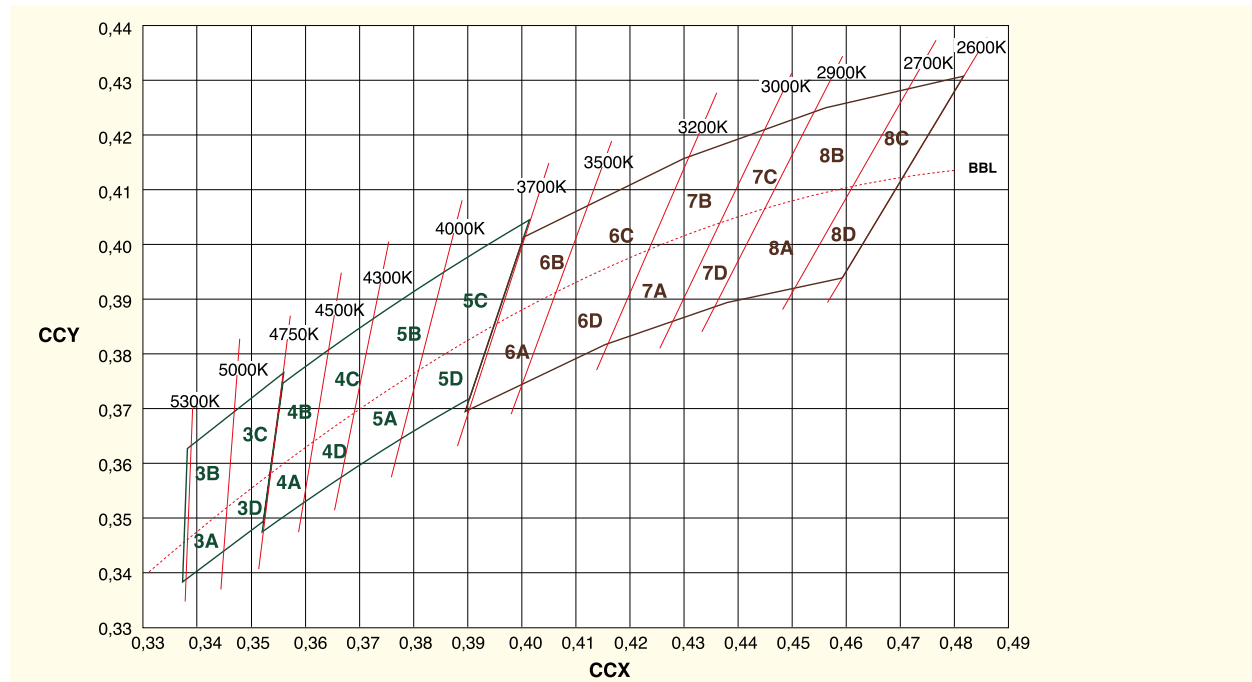
The designers of lighting fixtures have the opportunity to use LED to illuminate and enhance properties for which it is essential to have a faithful colour reproduction, sacrificing slightly the amount of light.



CREE'S STANDARD CHROMATICITY REGIONS PLOTTER ON THE 1931 CIE CURVE



SOURCE CREE



CARATTERISTICHE FOTOMETRICHE

ANGOLO DI EMISSIONE DEL LED

Il Led è una fonte di luce omnidirezionale quindi con emissione di tipo lambertiano.

In fase di montaggio viene inserita una lente o riflettore per convogliare la luce.

Si ottiene così un angolo di emissione variabile a secondo del costruttore da 90° a 120°.

E' importante inserire in funzione dell' applicazione sul prodotto finito, lenti secondarie, solitamente realizzate in materiale termoplastico.

In tal modo si consente una migliore efficienza dell'ottica dell'apparecchio recuperando e convogliando tutta la luce non emessa sull'asse verticale.

Esistono e vengono ampiamente utilizzate sui prodotti SIDE lenti con angolo di emissione da 6° fino a 45°.

PHOTOMETRICAL CHARACTERISTICS

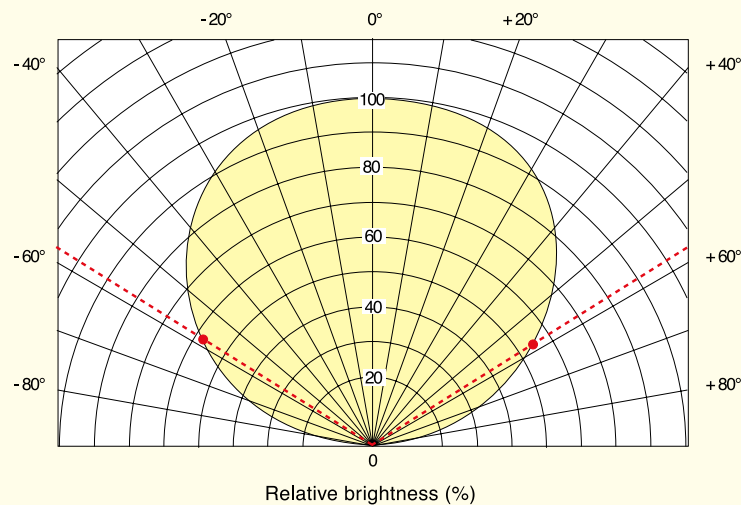
LED EMISSION ANGLE

The LED is an Omni directional light source so it is a Lambertian type, typically 90 ° to 120°.

A lens or reflector is required to direct the light. The 'optical' unit recovering and conveying most of the light not emitted on the vertical axis.

A beam angle from 6° to 45° can be achieved on SIDE products by using secondary lenses, usually made of thermoplastic.

SOURCE SHARP 120° EMISSION AT 50%



CARATTERISTICHE DI FUNZIONAMENTO

ALIMENTAZIONE

- Per led SMD si utilizzano di norma alimentatori elettronici con uscita polarizzata in tensione a 12Vdc o 24Vdc.
- Per led di potenza vengono impiegati di norma alimentatori elettronici con uscita polarizzata in corrente costante stabilizzata ovvero alimentatori con uscita al secondario in tensione abbinati a limitatori di corrente.
- All'accensione il Led raggiunge immediatamente il max flusso di emissione. Per i Led di potenza bisogna tener conto della bassa tensione applicata tra anodo e catodo per evitare di danneggiare la giunzione applicando il carico al trasformatore con quest'ultimo già collegato alla tensione di rete; per lo stesso motivo non sono fattibili interruttori sul secondario.
- Tutti i Led sono dimmerabili con alimentatori elettronici predisposti: 0-10V con potenziometri si applica una tensione al driver per ottenere una variazione della quantità di luce emessa / DALI protocollo di trasmissione di un segnale digitale al driver / DMX protocollo di trasmissione di dati digitale a norma USITT-DMX512-A.

Come descritto i led di potenza sono costituiti da semiconduttori di diverso tipo ed in base a questa caratteristica varia la tensione che viene applicata tra anodo e catodo. I Led di potenza lavorano con tensioni di funzionamento che vanno da 3,3 fino a 3,9 Vdc. I led di potenza sono caratterizzati per il funzionamento con corrente costante a 350mA e possono arrivare a correnti di alimentazione di 1,5 Ampere.

Per la legge di Ohm avremo dunque potenze di
1,2 W – alimentazione 350mA
1,8W – alimentazione 500mA
2,5 W – alimentazione 700mA

Gli alimentatori per power Led erogano correnti costanti e polarizzate, ultimamente alcuni alimentatori hanno la possibilità di erogare correnti diverse sfruttando la possibilità di selezionare diversi valori di resistenze. Infatti posto R_s = resistenza in serie, V_s = tensione applicata, V_f = tensione applicata alla giunzione led ed I_f = corrente di alim. Led avremo:

$$R_s = V_s - V_f / I_f$$

I led hanno bassi valori di tensione inversa e non possono essere alimentati con corrente alternata.

FUNCTION CHARACTERISTICS

POWER

- *Electronic drivers are normally used for 12Vdc or 24Vdc LED (with polarized output voltage).*
- *Electronic drivers are normally used for constant current LEDs (with polarized output combined with current stopper).*
- *When the LED is switched on the driver immediately reaches the max output. To prevent damage, when making connections, or altering connections on the secondary side the transformer must be disconnected from the mains.*
- *All Leds are designed for dimmable drivers with a number or protocols: 0-10V with a potentiometer applies a voltage to the driver to obtain a change in the amount of light emitted DALI transmission protocol of a digital signal to the driver. DMX transmission protocol of digital data in accordance with USITT DMX512-A.*

Power Led work with operating voltages ranging from 3.3 to 3.9 Vdc.

The power LEDs are characterized for operation with constant current 350mA and can supply current of 1.5 amperes.

For Ohm's law we have powers

1.2 W - Power 350mA

1.8 W - Power 500mA

2.5 W - Power 700mA

As mentioned power LED ballasts supply constant and polarized currents, recently some drivers have the possibility to provide different currents by exploiting the possibility of selecting different values of resistors.

Indeed place R_s = series resistance, V_s = voltage applied, V_f = voltage applied to the junction and LED current = I_f aux. LED will:

$$R_s = V_s - V_f / I_f$$

The LEDs have low reverse voltages and can not be used in alternative current.

COLLEGAMENTO SERIE / PARALLELO

Abbiamo visto che i led necessitano di essere pilotati con correnti costanti I_f specificate dal costruttore.

Con il collegamento in serie avremo su tutti i leds collegati al driver la stessa corrente di funzionamento. Al contrario i Leds collegati in parallelo funzioneranno tutti alla tensione del Led caratterizzato con la V_f più bassa.

Come già accennato i leds hanno una variabilità di tensione tra 3,3 fino a 3,9 V a 350mA, suddivisi in almeno 5 categorie e consegnati in rotoli di singola selezione.

I gruppi di led hanno quindi una variabilità di tensione di circa 24mV.

Con una differenza dell' ordine della decina di mV avremo una differenza di corrente dell' ordine dei centinaia di mA, come si può notare dalle curve dei data sheet in figura. A diverse correnti di alimentazione corrispondono anche diversi livelli di luminosità emessa. Differenze marcate di corrente di alimentazione, nel caso di collegamenti in parallelo, hanno quindi come conseguenza livelli di luminosità molto diversi nelle due catenarie e comportano il rischio superare i valori massimi consentiti come correnti di pilotaggio, con conseguente degrado precoce dei led; questo a meno di avere led esattamente identici per valore di tensione applicabile V_f .

CONNECTION IN SERIES OR PARALLEL

We have seen that LEDs need to be driven with constant I_f current specified by the manufacturer.

With the series connection we will have on all leds connected to the driver, the same operating current.

On the contrary the LEDs connected in parallel will work all at the same voltage of the LED characterized with lower V_f .

As already mentioned, the LEDs have a voltage variation between 3.3 to 3.9 V at 350mA, divided into at least 5 categories and delivered rolls single selection.

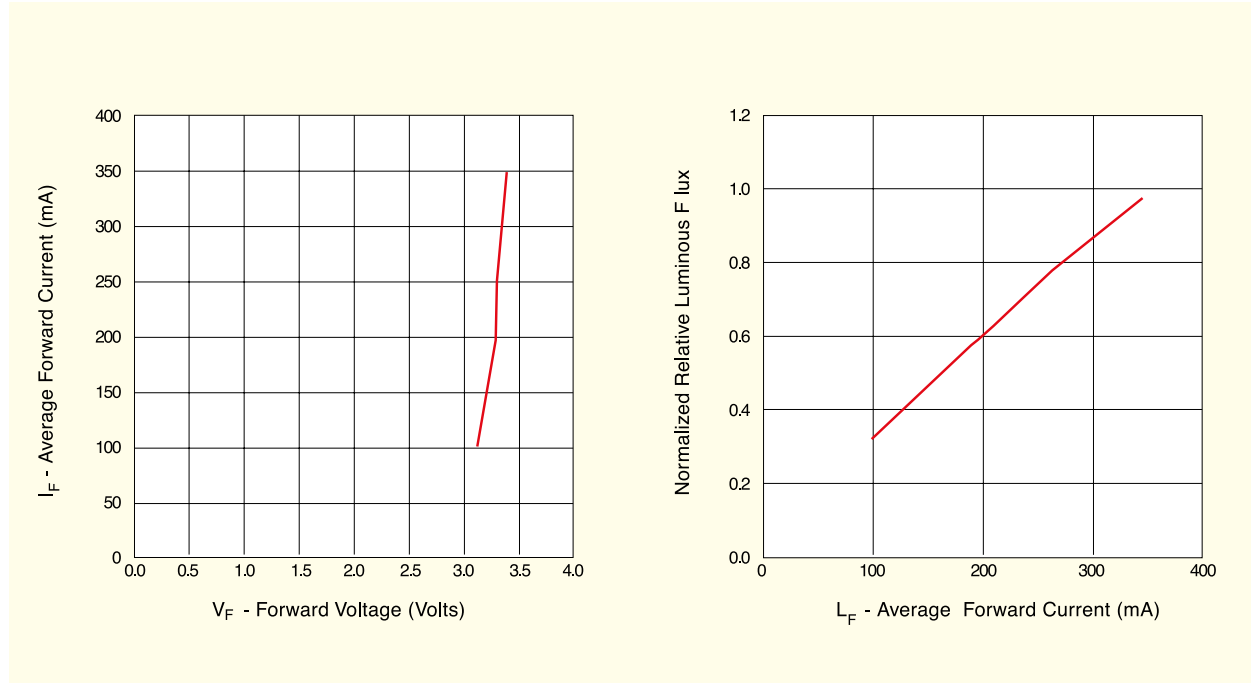
The groups of led have a variation of voltage of about 24mV.

With a difference such as of tens of mV we might have a difference of current of hundreds of mA, as can be seen from the data sheet curves in the figure. A different pattern of power are also different levels of light emitted. Marked differences of power supplies, in case of parallel connection, have like consequence very different levels of brightness.

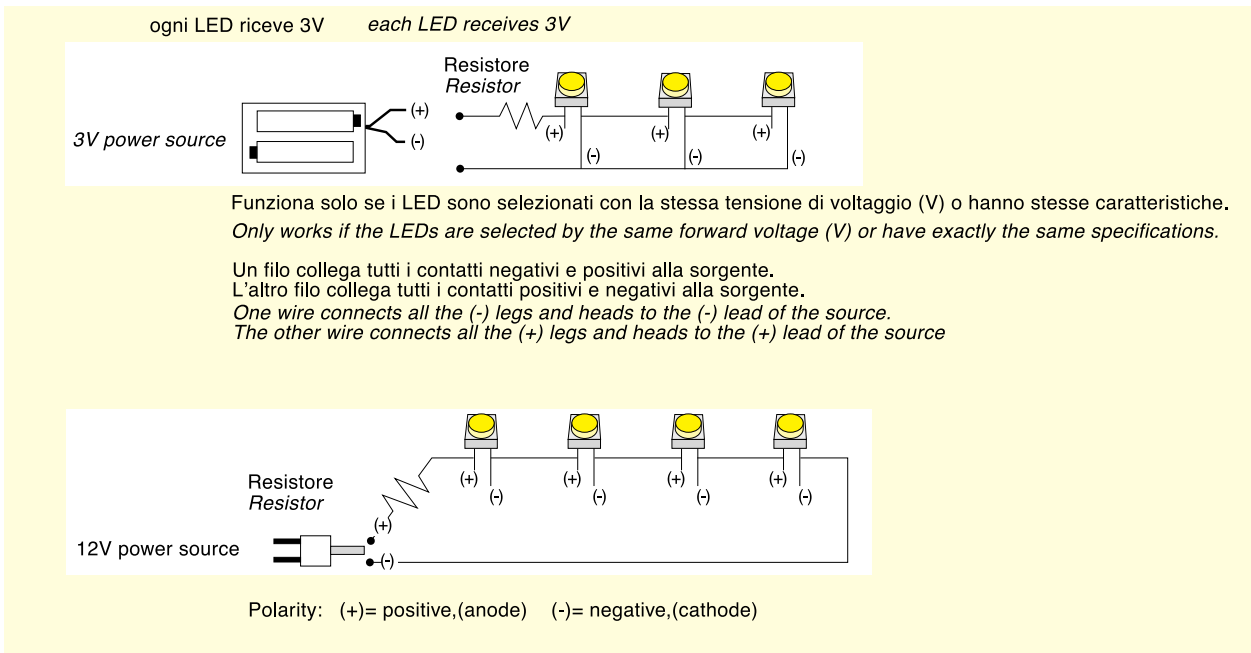
There is a risk than the maximum allowed as driving currents, resulting in premature degradation of the LEDs, unless this have led to exactly the same applied voltage V_f .



SOURCE PHILIPS LUMILEDS



SOURCE SHARP MICROELECTRONICS EUROPE



EFFICIENZA E DURATA DEI LED

I semiconduttori hanno la caratteristica di fornire prestazioni elevate su un periodo di tempo molto lungo. Normalmente la durata di un dispositivo Led si attesta su un valore di 30k ore di funzionamento.

Le stime fatte dai costruttori si basano su prove normative atte a stabilire la rispondenza del dispositivo ad un minimo di ore senza riduzione drastica del flusso luminoso (Energy Star Integral LED lamps lumen Maintenance Criteria) normalmente si assumono come criterio di valutazione tabelle di Lumen maintenance su base 50Kore e 70K ore con decadimento non inferiore del 70%.

La durata ed il flusso emesso sono fortemente influenzate dalla temperatura raggiunta dal Led all'interno dell'apparecchio di illuminazione.

I dati di flusso forniti dal costruttore sono normalmente riferiti (a secondo della famiglia di prodotto) su valori di flusso tipici o minimi a temperatura di 25°C.

E' quindi importante verificare l'efficienza termica del sistema, in modo da non spostarsi sensibilmente dai dati di flusso dichiarati e generare aspettative di rendimenti elevati. Sovralimentazione a correnti di 700 mA e 1A significano aumenti del flusso di emissione da 1,2 fino a 2,5 volte il dato dichiarato a 350mA in base al tipo di Led, ma necessariamente a questi moduli devono essere abbinati sistemi di dissipazione molto efficaci.

EFFICIENCY AND DURABILITY OF LEDS

The semiconductors are characterized to provide high performance over a very long time.

Normally the duration of an LED device, indicates a value of 30k hours.

The estimates made by manufacturers are based on evidence rules to determine the compliance of the device to a minimum of hours without a drastic reduction of the luminous flux

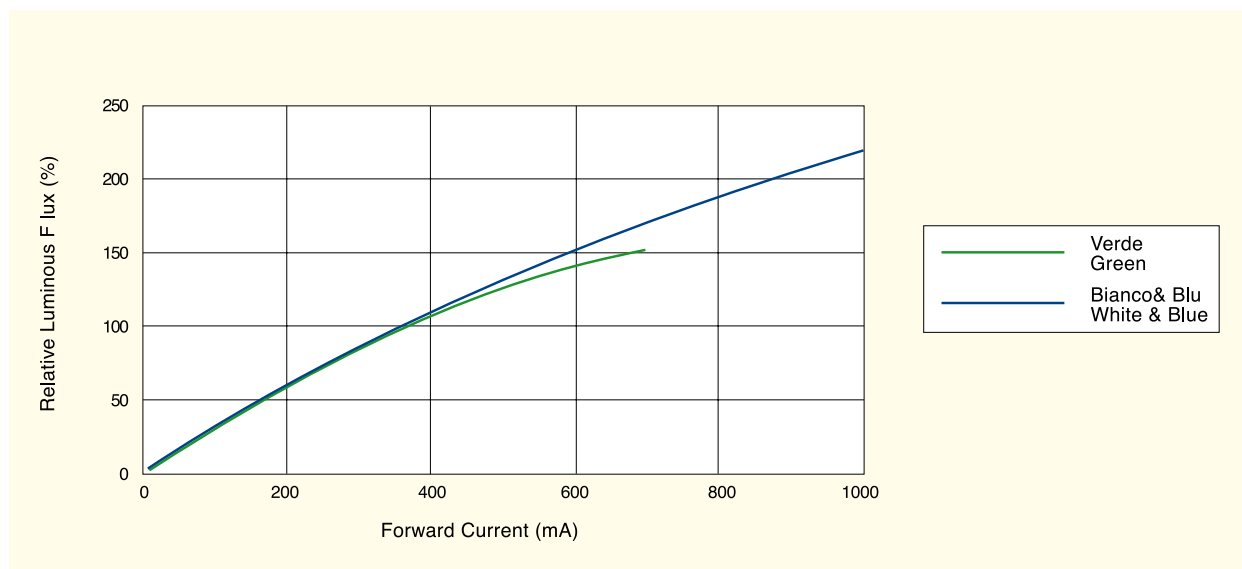
(Energy Star Integral LED lamps lumens Maintenance Criteria) normally take as their criterion for tables based 50K hours Lumen maintenance and decay with 70K hours not less than 70%.

The duration and emitted flux are strongly influenced by the temperature reached by Led to 'internal' s lighting device.

The flow data are normally reported to the manufacturer (depending on product family) on flow values or typical minimum temperature of 25°C.

It is therefore important to check the' thermal efficiency of the system, so as not to shift significantly from the reported flow data and generate expectations of higher emissions. Supercharging current of 700 mA and 1 A means increase in flow emission from 1.2 to 2.5 times the data held to 350mA depending on the type of LEDs, but these forms must necessarily coupled with very effective dissipation systems .

SOURCE CREED



EFFICIENZA TERMICA

La resistenza termica del dispositivo R_t , cioè la sua capacità di eliminare il calore sviluppato durante il passaggio della corrente diventa un valore discriminante nella buona resa del Led . Un rapido decadimento del flusso è in funzione proprio della temperatura, responsabile nel caso del led bianco, del rilascio dello strato luminescente di copertura, con conseguente variazione della temperatura di colore.

Limite di temperatura

Posto ad esempio una tensione V_f 3,3 a 350mA sappiamo che sarà 3,5 a 700mA e 3,7 a 1000mA – es. Cree XR-7090.

Sempre con riferimento alla famiglia Cree XR-7090 il valore di R_{tj-c} è di 8°C/W.

Max temperatura di giunzione dichiarata T_j 150°C

Se il diodo viene pilotato a 350 mA possiamo determinare la temperatura di giunzione a 25°C.

Potenza da dissipare $P_d = V_f \times I_f = 3,3 \times 0,35 = 1,155$ W
o $3,5 \times 0,70 = 2,45$ w o $3,7 \times 1 = 3,7$ W

$$T_j = T_c + T_a + R_{j-c} \times P_d = T_c + 25 + (8 \times 1,155)$$

T_c = valore misurato in prossimità del Led

Poiché la resistenza termica del diodo è una costante, la temperatura di giunzione sarà proporzionale all'aumento della corrente di alimentazione.

Da quanto detto risulta evidente quanto sia importante verificare l'efficienza termica del sistema pbc + dissipatore e tenere conto di questi valori per garantire efficienza luminosa e durata del Led.

Alcuni costruttori forniscono nei loro data sheet il flusso tipico riferito alla temperatura di funzionamento e non alla $T_j=25^\circ\text{C}$

I prodotti Side vengono verificati con adeguate prove termiche in laboratorio per garantire le specifiche di funzionamento dettate dai costruttori.

THERMAL EFFICIENCY

The thermal resistance of the device R_t , namely its ability to remove heat developed during the current flow becomes a value in discriminating good performance of LEDs. A rapid decay of flow is a function of its temperature, which is responsible in the case of white LEDs, of the release of the luminescent layer of covering phosphor, with the result of a different colour temperature.

Temperature limit

Place such as a voltage V_f 3.3 to 350mA know it will be 3.5 at 700mA and to 3.7 at 1000mA - example. Cree XR-7090.

Again with reference to the family Cree XR-7090-RTJ value of c is 8°C /W.

Max junction temperature 150°C T_j declared

If the diode is driven at 350 mA we can determine the junction temperature at 25°C.

Power to dissipate $P_d = V_f \times I_f = 3.3 \times 0.35 = 1.155$ or
 $3.5 \times 0.70 = 2,45$ W $3.7 \times 1 = 3.7$ W

$$T_j = T_a + T_c + R_{j-c} \times P_d = T_c + 25 + (8 \times 1.155)$$

T_c = measured near the LED

Since the thermal resistance of the diode is a constant, junction temperature will be proportional to the power supply.

As written above it is evident how important it is to verify the thermal efficiency of the system PBC + heat sink and consider these values to ensure efficiency and durability of the LED light.

Some manufacturers provide their data sheet flow refers to the typical operating temperature and not at $T_j = 25^\circ\text{C}$.

Side products are tested with appropriate thermal testing laboratory to ensure the operation specifications dictated by manufacturers.

TIPOLOGIE LED

*DIODI SMD dal 2001 marker light/decorativo 20 lm/w.
Gamma: olodum micro – olodum mini – bbtt - longlight
- minilonglight.*

*DIODI DI POTENZA dal 2002 illuminazione/led mutanti
rgb 1/3W max singolo diodo.
Gamma: incassi esterni carrabili calpestabili, proiettori,
arredo urbano, incassi per interni.*

FORNITORI

PHILIPS/LUMILEDS

SINGLE DIE -----K2 TFFC / Rebel
REMOTE PHOSPHOR COATING ---FORTIMO – LEXEL

SEOUL SEMICONDUCTOR

SINGLE DIE -----P4
MULTI DIE ----- P5 II (FULL COLOR RGB)

CREE

SINGLE DIE ----- XR-C , XR-E , XP-E

OSRAM

SINGLE DIE -----DRAGON
LED SMD -----POWER TOPLED

CITIZEN

ARRAY DI LED COB -----CL-L102 , CL-L230 , CL-L 233

LED TYPES

*SMD DIODES from 2001 marker light / decorative 20
lm/w.*

*Range: olodum micro - olodum mini - bbtt - longlight -
minilonglight.*

*POWER DIODES from 2002 lighting / led rgb mutants
1/3W max single diode.*

*Range: outdoor drive on and step on recessed,
projectors, street furniture, indoor recessed.*

SUPPLIERS

PHILIPS/LUMILEDS

SINGLE DIE -----K2 TFFC / Rebel
REMOTE PHOSPHOR COATING ---FORTIMO – LEXEL

SEOUL SEMICONDUCTOR

SINGLE DIE -----P4
MULTI DIE ----- P5 II (FULL COLOR RGB)

CREE

SINGLE DIE ----- XR-C , XR-E , XP-E

OSRAM

SINGLE DIE -----DRAGON
LED SMD -----POWER TOPLED

CITIZEN

ARRAY DI LED COB -----CL-L102 , CL-L230 , CL-L 233



Incassi / *Recessed*

La gamma degli incassi rappresenta la famiglia di prodotto più antica nella produzione Side.

Da sempre al centro dell'attenzione per varie tipologie di clientela, le scelte aziendali hanno continuamente favorito ed incentivato lo sviluppo a livello sia tecnologico che decorativo di questa categoria di apparecchi, che è in grado di soddisfare con una tecnologia semplice ed essenziale le necessità più varie di illuminamento.

The range of collections representing the family of product oldest in the Side production.

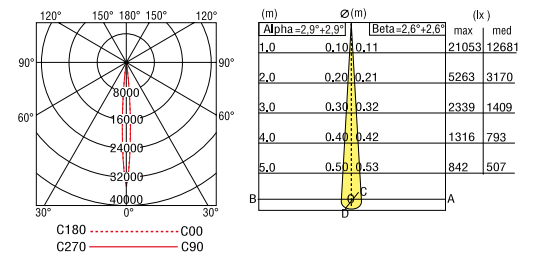
Always at the highest attention for various types of customers, business decisions have continually encouraged and stimulated the development at both technological and decorative in this class of luminaries , which can meet with technology simple and essential needs more various illumination.

Incassi
Recessed

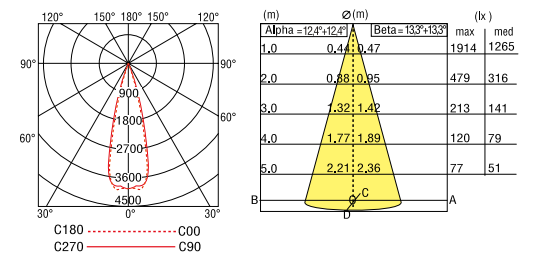
Co-light mini



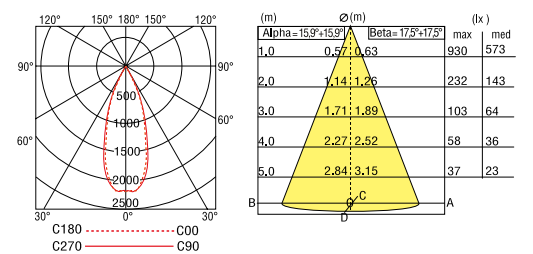
○ .../LBI/10 (3x2,5W 700mA)



○ .../LBI/30 (3x2,5W 700mA)



○ .../LBI/45 (3x2,5W 700mA)

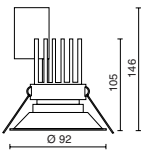


Co-light mini



- Struttura in lamiera verniciata a polvere e molle di fissaggio a filo.
- Sorgente luminosa con n° 3/6 Led di potenza ad alta resa completo di dissipatore in alluminio verniciato

- Painted steel powder coated body and lock spring at flat level.
- High efficiency 3/6 power Led lighting source with painted aluminium dissipator.



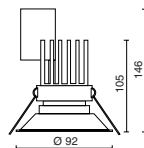
VERSIONE CON 3 LED E DISSIPATORE IN ALLUMINIO / 3 LED VERSION WITH ALUMINIUM DISSIPATOR

Br	2819/LBI/10	2819/LBI/30	2819/LBI/45	3x1,2W	350mA		6300°
Ne	2820/LBI/10	2820/LBI/30	2820/LBI/45	3x2,5W	700mA		
Ga	2821/LBI/10	2821/LBI/30	2821/LBI/45				

Br	2819/LBC/10	2819/LBC/30	2819/LBC/45	3x1,2W	350mA		3200°
Ne	2820/LBC/10	2820/LBC/30	2820/LBC/45	3x2,5W	700mA		
Ga	2821/LBC/10	2821/LBC/30	2821/LBC/45				

Br	2819/LBL/10	2819/LBL/30	2819/LBL/45	3x1,2W	350mA		470nm
Ne	2820/LBL/10	2820/LBL/30	2820/LBL/45	3x2,5W	700mA		
Ga	2821/LBL/10	2821/LBL/30	2821/LBL/45				

Br	2819/RGB/10	2819/RGB/30	2819/RGB/45	3x1W	350mA		
Ne	2820/RGB/10	2820/RGB/30	2820/RGB/45				
Ga	2821/RGB/10	2821/RGB/30	2821/RGB/45				



VERSIONE CON 6 LED E DISSIPATORE IN ALLUMINIO / 6 LED VERSION WITH ALUMINIUM DISSIPATOR

Br	2819/6LBI/10	2819/6LBI/25	2819/6LBI/40	6x1,2W	350mA		6300°
Ne	2820/6LBI/10	2820/6LBI/25	2820/6LBI/40	6x2W	500mA		
Ga	2821/6LBI/10	2821/6LBI/25	2821/6LBI/40				

Br	2819/6LBC/10	2819/6LBC/25	2819/6LBC/40	6x1,2W	350mA		3200°
Ne	2820/6LBC/10	2820/6LBC/25	2820/6LBC/40	6x2W	500mA		
Ga	2821/6LBC/10	2821/6LBC/25	2821/6LBC/40				

Br	2819/6LBL/10	2819/6LBL/25	2819/6LBL/40	6x1,2W	350mA		470nm
Ne	2820/6LBL/10	2820/6LBL/25	2820/6LBL/40	6x2W	500mA		
Ga	2821/6LBL/10	2821/6LBL/25	2821/6LBL/40				



ACC. **644892/1** Kit alimentatore/miscelatore dei colori max cinque apparecchi
Kit remote transformer/color control device for max five fittings

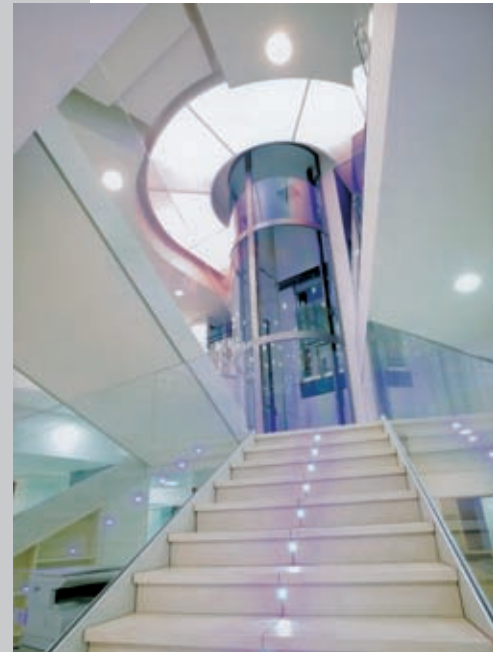


145 Piastra di rinforzo / Reinforcement plate

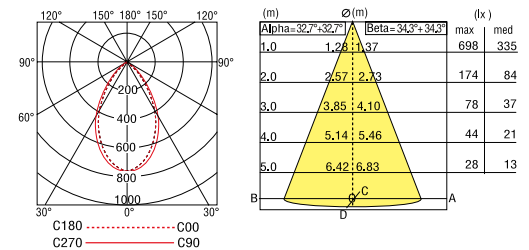
Net 15 For-led

Net 15 for-led non solo segna l'inizio di una nuova era di efficienza energetica ma, grazie all'innovativa tecnologia "remote phosphor" (origine con LED blu con correzione della luce 4000°K mediante membrana remota di fosfori 4000°K), si configura come il primo LED downlight per illuminazione generale (pacchetti di luce potenti 1100/2000 lumen). A prova di futuro e di integrazione totale, Net garantisce, inoltre, una totale stabilità cromatica, ovvero nessuna alterazione di colore nel tempo tra un corpo illuminante e l'altro. Il sistema è composto da un modulo LED collegato ad un controller ed a un dissipatore passivo nella versione 1100 lumen o attivo (con ventola di raffreddamento) nella versione da 2000 lumen.

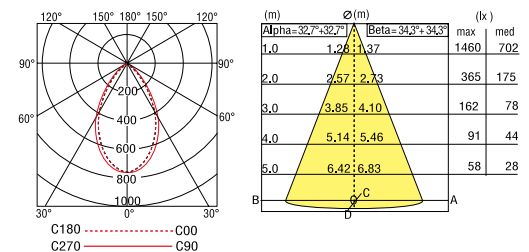
Net 15 for-led not only marks the beginning of a new era of energy efficiency but, using innovative technology "remote phosphor" (originally with blue LED light with correction 4000° K through membrane remote phosphors 4000° K), is as the first LED down light for general lighting (packets of light powerful 1100/2000 lumens). A test of the future and total integration, Net also ensures that full colour stability, and no alteration of colour in the time between a fitting and another. The system consists of an LED module attached to a controller and a passive heat dissipator in the 1100 lumen or active (with fan) as 2.000 lumens.



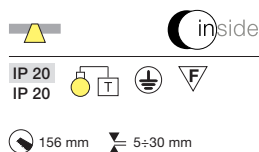
○ .../LBI (18W)



○ .../LBI (32W)



Net 15 For-led



- Anello in acciaio verniciato in polveri.
- Riflettore in alluminio metallizzato in alto vuoto.
- Vetro di protezione temperato trasparente, dissipatore alettato in alluminio.
- Luce bianca 4000°K senza emissione IR o UV; bianco caldo 3000°K.
- Costanza cromatica: < 5 MCE.
- Nella versione RGB possibilità di regolazione temperatura di colore da 2700° a 6500°K tramite DMX.

- Steel ring coated with powders.
- Aluminium reflector metalised in high vacuum.
- Tempered transparent protection glass, aluminium dissipator.
- White light 4000° K without UV or IR emission; warm white 3000°K.
- Chromatic constancy: < 5 MCE.
- RGB version: DMX 2700° - 6500°K color adjustable.

								LUMEN
Dissipatore passivo / Passive dissipator								
Bi		57500/LBC/40	57500/LBC/60	19W	230V		3000°	1100
Ga		57501/LBC/40	57501/LBC/60					
Bi		57500/LBI/40	57500/LBI/60	18W	230V		4000°	1100
Ga		57501/LBI/40	57501/LBI/60					
Dissipatore attivo con ventola di raffreddamento / Active dissipator with cooling fan								
Bi		57510/LBC/40	57510/LBC/60	36W	230V		3000°	2000
Ga		57511/LBC/40	57511/LBC/60					
Bi		57510/LBI/40	57510/LBI/60	32W	230V		4000°	2000
Ga		57511/LBI/40	57511/LBI/60					
Bi		57515/LBI/40	57515/LBI/60	49W	230V		4000°	3000
Ga		57516/LBI/40	57516/LBI/60					
Bi		57510/RGB/40	57510/RGB/60	40W	230V		-	1100
Ga		57511/RGB/40	57511/RGB/60					

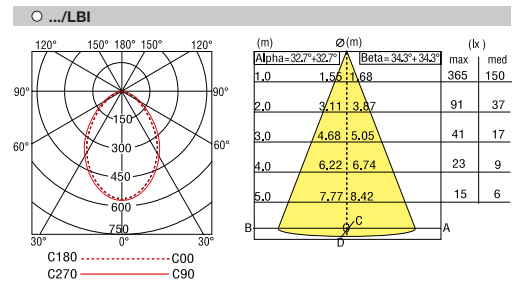
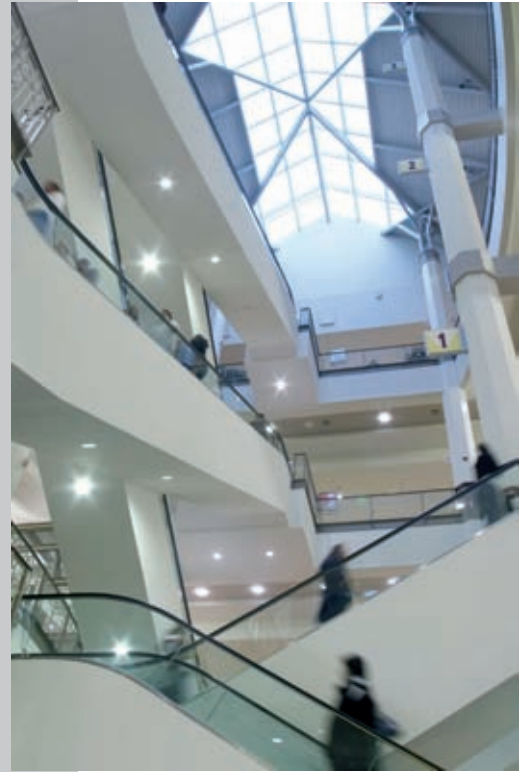
VENTOLA DI RAFFREDDAMENTO - Alimentazione: 12 volt dc - Potenza: 66mA - 0,8 watt - Rumorosità: 22,1 dB (A)
 COOLING FAN - Supply: 12 volt dc - Power: 66mA - 0,8 watt - Noise: 22,1 dB (A)

Centralina di controllo DMX per Led RGB - Nc 645262 con regolazione temperatura di colore da 2700 ÷ 6500 °K
 Central control DMX for Led RGB - Nc 645262 with color temperature regulation from 2700 ÷ 6500 °K

*Versione RGB con ventola esterna
 *RGB version with external fan

OP. A richiesta vano ottico IP44
 On request IP44 optic

Net 18



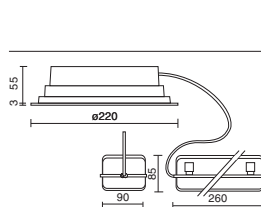
Net 18



IP 20
IP 20

205 mm
5÷30 mm

- Anello in acciaio verniciato in polveri.
- Contenitore schede LED in alluminio verniciato in polveri.
- Vetro di protezione opale temperato.
- Dissipatore schede LED in alluminio.
- Cavo di alimentazione L. 1000 mm.
- *Steel trim powder coated.*
- *Aluminium powder coated LED board box.*
- *Opal tempered protection glass.*
- *Aluminium LED board dissipator.*
- *Feeding wire 1000 mm lenght.*



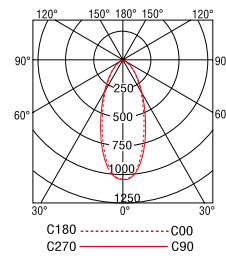
		W	V	Ⓢ	°K	⚡
Br	○ 57080/LBC	15x2W	230V	⚡	3200°	60°
Ga	○ 57081/LBC	15x2W	500mA	⚡	3200°	60°
Br	○ 57080/LBI	15x2W	230V	⚡	6300°	60°
Ga	○ 57081/LBI	15x2W	500mA	⚡	6300°	60°
Br	● 57080/LBL	15x2W	230V	⚡	470nm	60°
Ga	● 57081/LBL	15x2W	500mA	⚡	470nm	60°

OP. A richiesta vano ottico IP44
On request IP44 optic

Highlight 15 For-led

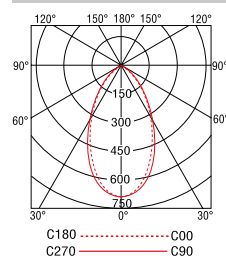


○ HLF275/LBI/40



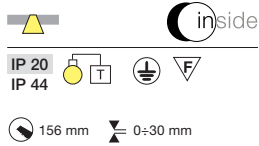
(m)	∅ (m)	(lx)
		max med
1.0	0.77 : 0.84	2035 1148
2.0	1.54 : 1.68	509 287
3.0	2.30 : 2.52	226 128
4.0	3.07 : 3.35	127 72
5.0	3.84 : 4.19	81 46

○ HLF275/LBI/60



(m)	∅ (m)	(lx)
		max med
1.0	1.11 : 1.18	1377 692
2.0	2.22 : 2.36	344 173
3.0	3.33 : 3.54	153 77
4.0	4.43 : 4.72	86 43
5.0	5.54 : 5.90	55 28

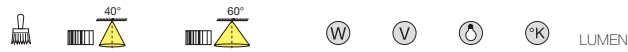
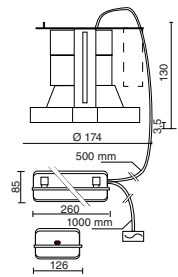
Highlight 15 For-led



- Riflettore in alluminio purissimo.
 - Struttura portante in lamiera..
 - Vetro di protezione temperato trasparente, dissipatore alettato in alluminio.
 - Luce bianca 4000°K senza emissione IR o UV; bianco caldo 3000°K.
 - Costanza cromatica: < 5 MCE.
 - Versione RGB con possibilità di regolazione temperatura colore da 2700-6500°K tramite centraline DMX
- Pure aluminium reflector.*
- Support frame of sheet steel.*
- Tempered transparent protection glass, aluminium dissipator.*
- White light 4000° K without UV or IR emission; warm white 3000°K.*
- Chromatic constancy: < 5 MCE.*
- RGB version with adjustable colour temperature 2700-6500°K through DMX panel.*



CORPO LAMPADA CON GRUPPO DI ALIMENTAZIONE MAIN STRUCTURE WITH CONTROL GEAR

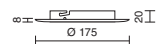


Dissipatore passivo / Passive dissipator							
○	HLF175/LBI/40 HLF175/LBI/60	18W	230V		4000°	1100	
○	HLF175/LBC/40 HLF175/LBC/60	19W	230V		3000°	1100	
Dissipatore attivo con ventola di raffreddamento / Active dissipator with cooling fan							
○	HLF275/LBI/40 HLF275/LBI/60	32W	230V		4000°	2000	
○	HLF275/LBC/40 HLF275/LBC/60	36W	230V		3000°	2000	
○	HLF375/LBI/40 HLF375/LBI/60	49W	230V		4000°	3000	
	HLF275/RGB/40 HLF275/RGB/60	40W	230V		-	1100	

VENTOLA DI RAFFREDDAMENTO - Alimentazione: 12 volt cc - Potenza: 66mA - 0,8 watt - Rumorosità: 22,1 dB (A)
 COOLING FAN - Supply: 12 volt dc - Power: 66mA - 0,8 watt - Noise: 22,1 dB (A)

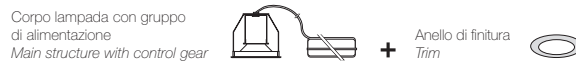
Centralina di controllo DMX per Led RGB - Nc 645262 con regolazione temperatura di colore da 2700 ÷ 6500 °K
 Central control DMX for Led RGB - Nc 645262 with color temperature regulation from 2700 ÷ 6500 °K

ANELLI DI FINITURA / TRIMS



Icon	Code	Description
	HL 17502	
	HL 17503	In pressofusione di alluminio con ghiera antiriflettente / Made of die-cast aluminium with anti-glare ring
	HL 17517	
	HL 17520	Senza vetro / Without glass
	HL 17521	

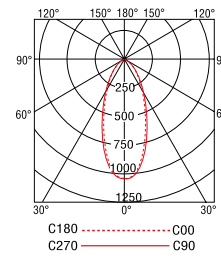
Esempio d'ordinazione / Ordering example



Highlight 18 For-led



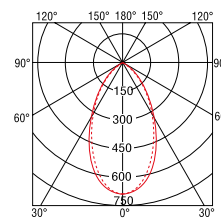
○ 57530/LBI/40



(m)	Ø (m)	(lx)
	Alpha=21.0°+21.0°	Beta=22.7°+22.7°
1,0	0,77; 0,84	max 2035 med 1148
2,0	1,54; 1,68	509 287
3,0	2,30; 2,52	226 128
4,0	3,07; 3,35	127 72
5,0	3,84; 4,19	81 46

C180 C00
C270 C90

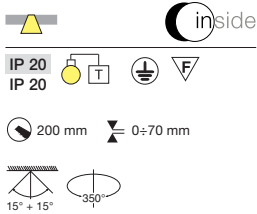
○ 57530/LBI/60



(m)	Ø (m)	(lx)
	Alpha=29.0°+29.0°	Beta=30.5°+30.5°
1,0	1,71; 1,8	max 1377 med 692
2,0	2,22; 2,36	344 173
3,0	3,33; 3,54	153 77
4,0	4,43; 4,72	86 43
5,0	5,54; 5,90	55 28

C180 C00
C270 C90

Highlight 18 For-led

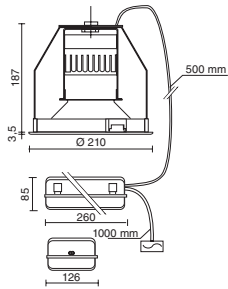


- Riflettore in alluminio metallizzato in alto vuoto.
- Struttura portante in lamiera di acciaio e policarbonato.
- Anello di finitura esterno in pressofusione di alluminio, gruppo ottico estraibile e orientabile.
- Vetro di protezione temperato trasparente, dissipatore alettato in alluminio.
- Luce bianca 4000°K senza emissione IR o UV; bianco caldo 3000°K.
- Costanza cromatica: < 5 MCE.



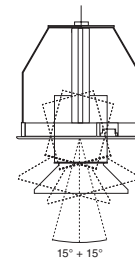
- Aluminium reflector metalised in high vacuum.
- Support frame of sheet steel and polycarbonate.
- External die-cast aluminium, extractable and adjustable optic.
- Tempered transparent protection glass, aluminium dissipator.
- White light 4000° K without UV or IR emission; warm white 3000°K.
- Chromatic constancy: < 5 MCE.

CORPO LAMPADA CON GRUPPO DI ALIMENTAZIONE MAIN STRUCTURE WITH CONTROL GEAR

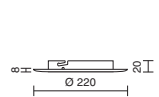


	40°	60°	W	V	°K	LUMEN
Dissipatore passivo / Passive dissipator						
○ 57520/LBI/40	57520/LBI/60		18W	230V	4000°	1100
○ 57522/LBC/40	57522/LBC/60		19W	230V	3000°	1100
Dissipatore attivo con ventola di raffreddamento / Active dissipator with cooling fan						
○ 57530/LBI/40	57530/LBI/60		32W	230V	4000°	2000
○ 57532/LBC/40	57532/LBC/60		36W	230V	3000°	2000
○ 57540/LBI/40	57540/LBI/60		49W	230V	4000°	3000

VENTOLA DI RAFFREDDAMENTO - Alimentazione: 12 volt cc - Potenza: 66mA - 0,8 watt - Rumorosità: 22,1 dB (A)
COOLING FAN - Supply: 12 volt dc - Power: 66mA - 0,8 watt - Noise: 22,1 dB (A)



ANELLI DI FINITURA / TRIMS



	Bi	Ne	Ci	Cr	ORO
HL 22002					
HL 22003					
HL 22017					
HL 22020					
HL 22021					

In pressofusione di alluminio con ghiera antiriflettente /
Made of die-cast aluminium with anti-glare ring

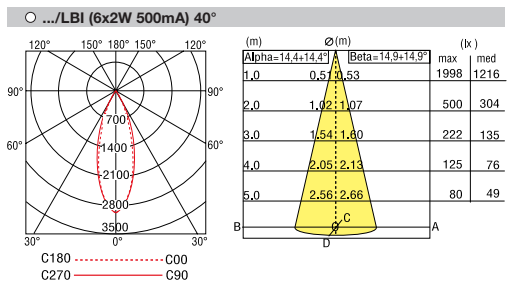
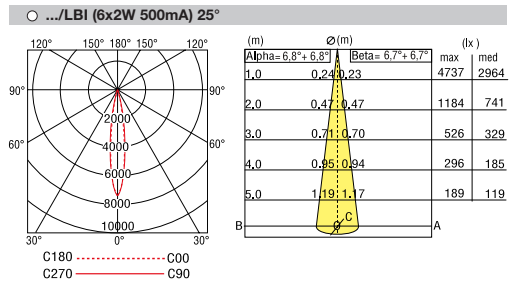
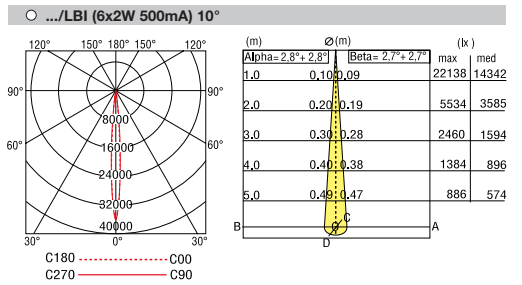
Senza vetro / Without glass

Esempio d'ordinazione / Ordering example

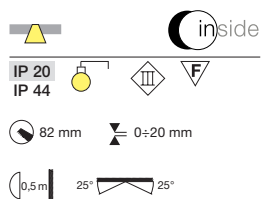
Corpo lampada con gruppo di alimentazione
Main structure with control gear

+ Anello di finitura
Trim

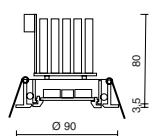
Jocker / Shelf led



Jocker



- Incasso in pressofusione di alluminio verniciato in polveri/trattato galvanicamente.
- 6 power led con lenti.
- Recessed trim of die-cast aluminium powder coated/galvanically treated.
- 6 power-led with lens.

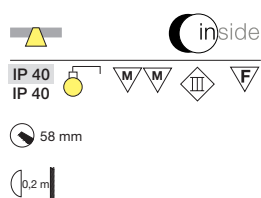


BBTT 6 powered incassi semiorientabili / BBTT 6 powered semi-adjustable recessed downlights

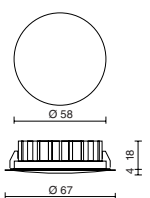
Bi	2825/6LBC	2825/6LBC/25	2825/6LBC/40				
Ne	2826/6LBC	2826/6LBC/25	2826/6LBC/40				
Cr	2827/6LBC	2827/6LBC/25	2827/6LBC/40	6x1,2W	350mA		3200°
Oro	2828/6LBC	2828/6LBC/25	2828/6LBC/40	6x2W	500mA		
Cn	2828/Cn/6LBC	2828/Cn/6LBC/25	2828/Cn/6LBC/40				
Cm	2827/Cm/6LBC	2827/Cm/6LBC/25	2827/Cm/6LBC/40				

Bi	2825/6LBI	2825/6LBI/25	2825/6LBI/40				
Ne	2826/6LBI	2826/6LBI/25	2826/6LBI/40				
Cr	2827/6LBI	2827/6LBI/25	2827/6LBI/40	6x1,2W	350mA		6300°
Oro	2828/6LBI	2828/6LBI/25	2828/6LBI/40	6x2W	500mA		
Cn	2828/Cn/6LBI	2828/Cn/6LBI/25	2828/Cn/6LBI/40				
Cm	2827/Cm/6LBI	2827/Cm/6LBI/25	2827/Cm/6LBI/40				

Bi	2825/6LBL	2825/6LBL/25	2825/6LBL/40				
Ne	2826/6LBL	2826/6LBL/25	2826/6LBL/40				
Cr	2827/6LBL	2827/6LBL/25	2827/6LBL/40	6x1,2W	350mA		470nm
Oro	2828/6LBL	2828/6LBL/25	2828/6LBL/40	6x2W	500mA		
Cn	2828/Cn/6LBL	2828/Cn/6LBL/25	2828/Cn/6LBL/40				
Cm	2827/Cm/6LBL	2827/Cm/6LBL/25	2827/Cm/6LBL/40				



- Incasso per mensola con anello in acciaio verniciato in polveri/trattato galvanicamente.
- Molle di fissaggio e schermo in materiale termoplastico.
- Led bianco caldo. Alimentatore remoto non in dotazione.
- Dissipatore e cavetto lg. 0,3 mt.
- Recessed for shelves with trim made of powder coated/galvanically treated steel.
- Fixing springs and screen made of thermoplastic material.
- Warm white led. Remote ballast not supplied.
- Dissipator and power cables lg. 0,3 mt.

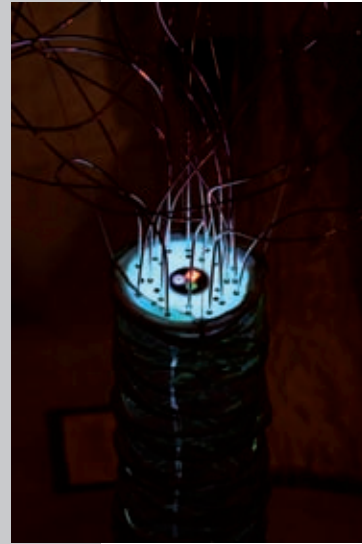


Bi	0021						
Ne	0022	1x1,2W	350mA		3000°	60°	80
Cr	0023	1x2,5W	700mA				121
Oro	0024						

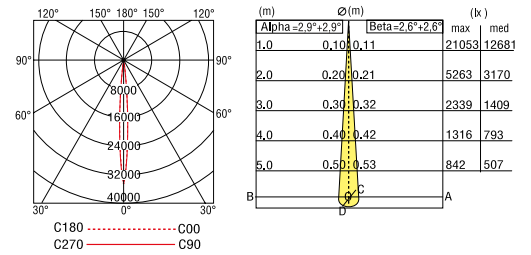


Shelf led

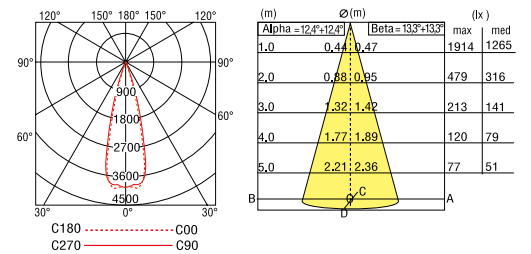
Jocker



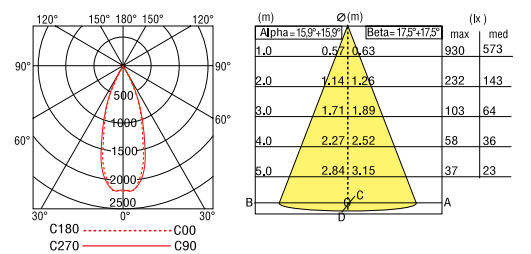
○ .../LBI (3x2,5W 700mA)



○ .../LBI/30 (3x2,5W 700mA)



○ .../LBI/45 (3x2,5W 700mA)





IP 20
IP 44

82 mm 0±20 mm

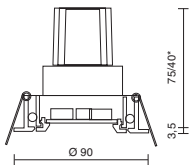
0,5 m 25°

- Incasso in pressofusione di alluminio verniciato in polveri/trattato galvanicamente.
- 3 power led con lenti.
- Recessed trim of die-cast aluminium powder coated/galvanically treated.
- 3 power-led with lens.



BBTT 3 powered incassi semiorientabili / BBTT 3 powered semi-adjustable recessed downlights

Bi	2825/LBC	2825/LBC/30	2825/LBC/45				
Ne	2826/LBC	2826/LBC/30	2826/LBC/45				
Cr	2827/LBC	2827/LBC/30	2827/LBC/45	3x1,2W 350mA		3200°	
Oro	2828/LBC	2828/LBC/30	2828/LBC/45	3x2,5W 700mA			
Cn	2828/Cn/LBC	2828/Cn/LBC/30	2828/Cn/LBC/45				
Cm	2827/Cm/LBC	2827/Cm/LBC/30	2827/Cm/LBC/45				

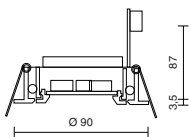


*A richiesta con dissipatore corto h=40 mm alimentatore 350 mA
On request with short dissipator h=40 mm ballast 350 mA

Bi	2825/LBI	2825/LBI/30	2825/LBI/45				
Ne	2826/LBI	2826/LBI/30	2826/LBI/45				
Cr	2827/LBI	2827/LBI/30	2827/LBI/45	3x1,2W 350mA		6300°	
Oro	2828/LBI	2828/LBI/30	2828/LBI/45	3x2,5W 700mA			
Cn	2828/Cn/LBI	2828/Cn/LBI/30	2828/Cn/LBI/45				
Cm	2827/Cm/LBI	2827/Cm/LBI/30	2827/Cm/LBI/45				

Bi	2825/LBL	2825/LBL/30	2825/LBL/45				
Ne	2826/LBL	2826/LBL/30	2826/LBL/45				
Cr	2827/LBL	2827/LBL/30	2827/LBL/45	3x1,2W 350mA		470nm	
Oro	2828/LBL	2828/LBL/30	2828/LBL/45	3x2,5W 700mA			
Cn	2828/Cn/LBL	2828/Cn/LBL/30	2828/Cn/LBL/45				
Cm	2827/Cm/LBL	2827/Cm/LBL/30	2827/Cm/LBL/45				

Bi	2825/RGB/10	2825/RGB/30	2825/RGB/45				
Ne	2826/RGB/10	2826/RGB/30	2826/RGB/45				
Cr	2827/RGB/10	2827/RGB/30	2827/RGB/45	3x1W 350mA			
Oro	2828/RGB/10	2828/RGB/30	2828/RGB/45				
Cn	2828/Cn/RGB/10	2828/Cn/RGB/30	2828/Cn/RGB/45				
Cm	2827/Cm/RGB/10	2827/Cm/RGB/30	2827/Cm/RGB/45				



BBTT led SMD incassi semiorientabili / BBTT led SMD semi-adjustable recessed downlights

○	2825/LBC/SMD					3200°	
○	2825/LBI/SMD			3,9W 230V		4200°	
●	2825/LBL/SMD						

N.B. A richiesta colori: Ne - Cr - Oro - Cn - Cm
N.B. On request colours: Ne - Cr - Oro - Cn - Cm

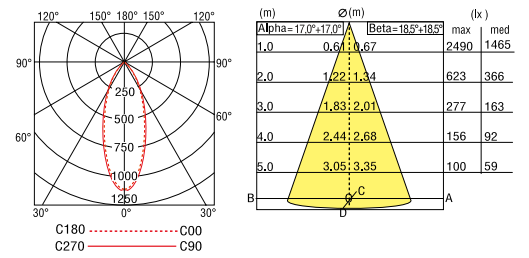


ACC. 644892/1 RGB: kit alimentatore/miscelatore dei colori max cinque apparecchi
RGB: kit remote transformer/color control device for max five fittings

Albert



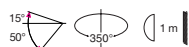
○ .../LBI (4x10W 700mA)





IP 20
IP 44

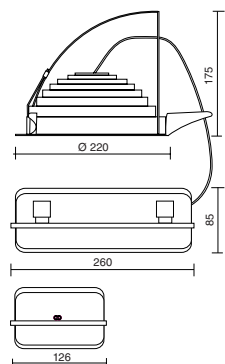
850 °C



205 mm 0+25 mm

- Anello e dissipatore in alluminio verniciato in polveri.
- Molle in acciaio temperato.
- Orientabilità interna ed esterna.
- Vano ottico estraibile e regolabile.
- Riflettore in alluminio purissimo.
- Schermo protezione in policarbonato serigrafato.

- Aluminium ring and dissipator coated with powders.
- Tempered steel springs.
- Interior and exterior adjustable optics.
- Pure aluminium reflector.
- Silk polycarbonate protection screen.



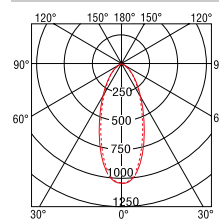
		W	V		°K	LUMEN		Ra
Br	2995/LBC	4x10W	230V		2900°	1800	40°	90
Ne	2996/LBC							
Ga	2997/LBC							
Br	2995/LBI	4x10W	230V		5000°	1728	40°	90
Ne	2996/LBI							
Ga	2997/LBI							



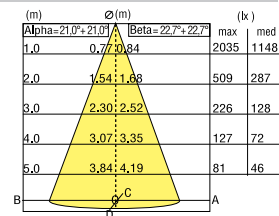
Tor 20 orientabile For-led



○ 2941/LBI/40



C180 C00
C270 C90



Tor 20 orientabile For-led



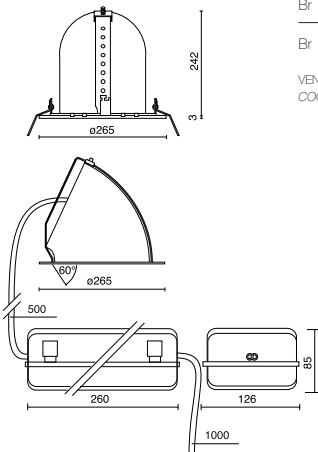
- Corpo e anello in pressofusione di alluminio verniciato in polvere.
- Escursione verticale di 60°, rotazione orizzontale di 355°.
- Riflettore in alluminio purissimo metallizzato in alto vuoto.
- Dissipatore attivo con ventola di raffreddamento.
- Vita media: 50000 ore.
- Luce bianca 4000°K - Bianco caldo 3000°K - Costanza cromatica < 5mce.
- Nessuna emissione di UV o IR.
- A richiesta: molle per spessore controsoffitto da 0÷5 mm.
- Vetro di protezione in borosilicato.

- Housing and ring of die-cast aluminium powder coated.
- Adjustability to 60° on the vertical plane and 355° on the horizontal plane.
- Reflector of very pure aluminium, metallized under high vacuum.
- Active dissipator with cooling fan.
- Average life: 50000 hrs.
- Cold white 4000°K - Warm white 3000°K - Chromatic constancy < 5mce.
- No UV or IR emission.
- On request: springs for false ceiling with a thickness between 0 and 5 mm.
- Borosilicate protection glass.



		W	V	°K	LUMEN	°
Br	2941/LBI/40	32W	230V	4000°	2000	40°
Br	2941/LBC/40	36W	230V	3000°	2000	40°

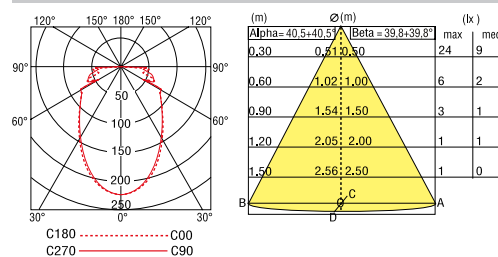
VENTOLA DI RAFFREDDAMENTO - Alimentazione: 12 volt cc - Potenza: 66mA - 0,8 watt - Rumorosità: 22,1 dB (A)
 COOLING FAN - Supply: 12 volt dc - Power: 66mA - 0,8 watt - Noise: 22,1 dB (A)



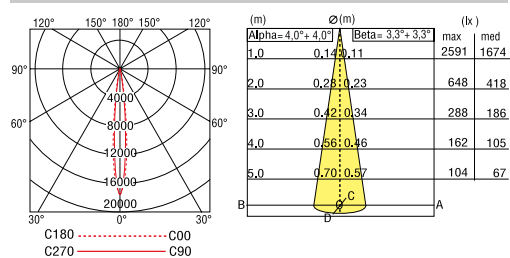
Olodum micro C da incasso



○ .../LBI (1,5W)



○ .../LBI (2,5W)



Olodum micro C da incasso



outside

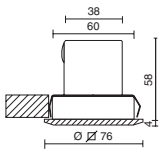
IK 07
IP 67

H05RN-F
H05RN-F

61 mm ± 0.30 mm

- Apparecchi da incasso per controsoffitto.
- Corpo e anello di finitura in acciaio inox (AISI 316)
- Guarnizione in gomma siliconica.
- Vetro di protezione temperato trasparente.
- Pressacavo in ottone nichelato PG7.

- False ceilings recessed downlights.
- Stainless steel (AISI 316) body and finishing trim.
- Silicon rubber gaskets.
- Tempered protection glass.
- PG7 nichel brass cable gland.



Vetro satinato / Satin glass									
○	E8391/LBI/I*	E8391/LBI/Q/I*	TOT. 1,5W	230V	5600°	100°			
●	E8391/LBL/I*	E8391/LBL/Q/I*	9 LED		470nm				
A richiesta diodi a 24 Vcc. / On request 24 Vcc diodes									
○	E8394/LBC/I	E8394/LBC/Q/I	1x1,2W	350mA	3200°	10°			
○	E8394/LBI/I	E8394/LBI/Q/I	1x2,5W	700mA	6300°				
●	E8394/LBL/I	E8394/LBL/Q/I			470nm				
■	E8394/RGB/I	E8394/RGB/Q/I	3,5W	350mA	-	100°			
○	E8395/LBC/I	E8395/LBC/Q/I	3x1,2W	350mA	3200°	10°			
○	E8395/LBI/I	E8395/LBI/Q/I	3x2,5W	700mA	6300°				
●	E8395/LBL/I	E8395/LBL/Q/I			470nm				
A richiesta fascio 25°/40° / On request beam 25°/40°									

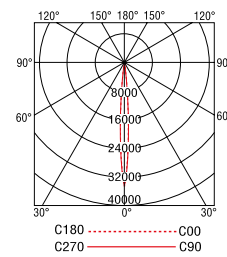
OP. *E.../LGI/I giallo / yellow ● E.../LRO/I rosso / red ● E.../LVE/I verde / green

Disponibile trasformatore in emergenza / Safety transformer available

Olodum mini C da incasso



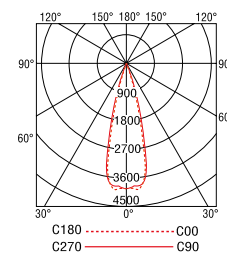
○ .../LBI10



(m)	Ø (m)		(lx)	
	max	med	max	med
1,0	0,10	0,11	21053	12681
2,0	0,20	0,21	5263	3170
3,0	0,30	0,32	2339	1409
4,0	0,40	0,42	1316	793
5,0	0,50	0,53	842	507

C180 C00
C270 C90

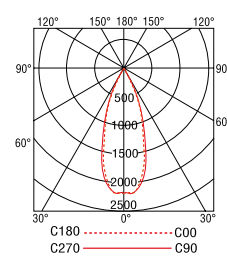
○ .../LBI30



(m)	Ø (m)		(lx)	
	max	med	max	med
1,0	0,44	0,47	1914	1265
2,0	0,88	0,95	479	316
3,0	1,32	1,42	213	141
4,0	1,77	1,89	120	79
5,0	2,21	2,36	77	51

C180 C00
C270 C90

○ .../LBI45



(m)	Ø (m)		(lx)	
	max	med	max	med
1,0	0,57	0,63	930	573
2,0	1,14	1,26	232	143
3,0	1,71	1,89	103	64
4,0	2,27	2,52	58	36
5,0	2,84	3,15	37	23

C180 C00
C270 C90

Olodum mini C da incasso



IK 07
IP 67

H05RN-F
H05RN-F

127 mm \pm 0±20 mm

- Apparecchi da incasso per controsoffitto.
- Corpo in pressofusione di alluminio, verniciato in polveri con pretrattamento speciale per esterni.
- Anello di finitura in acciaio INOX (AISI 316).
- Vetro di protezione temperato trasparente.
- Pressacavo in ottone nichelato PG11.
- *False ceilings recessed downlights.*
- *Spor made of die-cast aluminium, powder, coated with pretreatment for outdoor use.*
- *Stainless steel (AISI 316) frame for glass lock.*
- *Tempered protection glass.*
- *PG11 cable gland of nickel plated brass.*



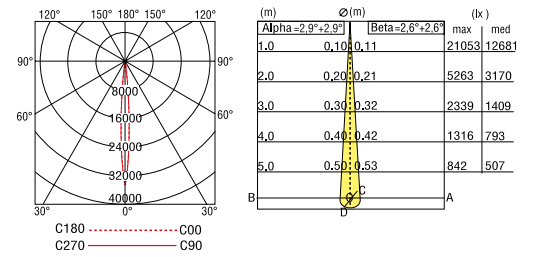
	○	E8185/I/LBC10	3X2,5W	230V		10°
		E8185/I/LBC30		700mA		30°
		E8185/I/LBC45				45°
	○	E8185/I/LBI10	3X2,5W	230V		10°
		E8185/I/LBI30		700mA		30°
		E8185/I/LBI45				45°
		E8185/I/RGB10	3X1,2W	230V		10°
		E8185/I/RGB30		350mA		30°
		E8185/I/RGB45				45°
	○	E8185/I/LBC35	3X1,2W	230V		45°
				350mA		
A richiesta fascio 30°/10° / On request beam 30°/10°						
	○	E8185/I/LBI35	3X1,2W	230V		45°
				350mA		
A richiesta fascio 30°/10° / On request beam 30°/10°						

ACC. **644892/1** Kit alimentatore/miscelatore dei colori max cinque apparecchi
Kit remote transformer/color control device for max five fittings

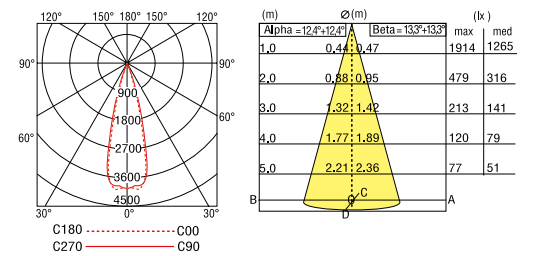
Matrix micro



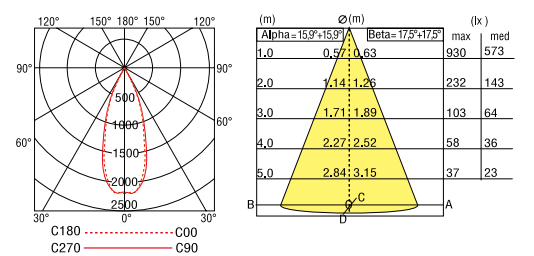
○ .../LBI (3x2,5W 700mA) 10°



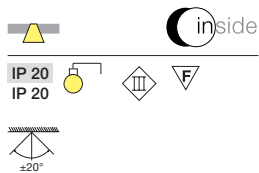
○ .../LBI (3x2,5W 700mA) 30°



○ .../LBI (3x2,5W 700mA) 45°



Matrix micro

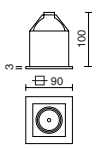


inside

- Corpo in metallo verniciato.
- Gruppo ottico orientabile 0-40°.
- Housing of painted metal.
- 0-40° adjustable optic.



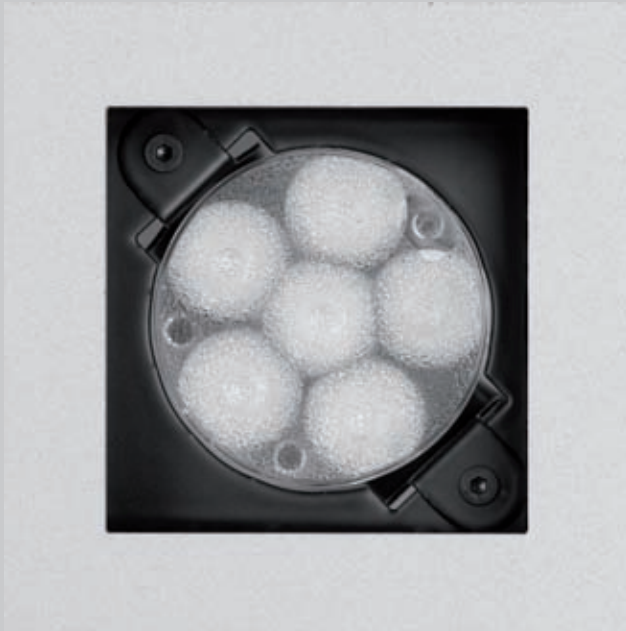
Ga	71105/LBI/10*	3x1,2W	350mA			
Bi	71106/LBI/10*	3x2,5W	700mA		6300°	
Ga	71105/LBC/10*	3x1,2W	350mA		3200°	10°
Bi	71106/LBC/10*	3x2,5W	700mA			
Ga	71105/LBL/10*	3x1,2W	350mA		470nm	
Bi	71106/LBL/10*	3x2,5W	700mA			



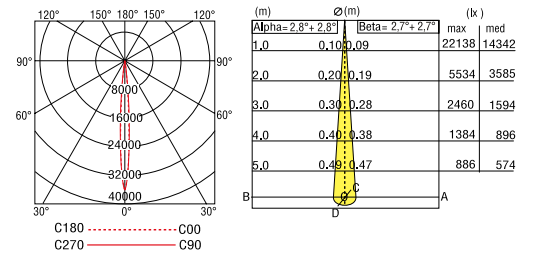
82x82 mm ∇ 0:30 mm

*A richiesta opzione fascio LED 30° .../30 45° .../45
 *On request LED beam option

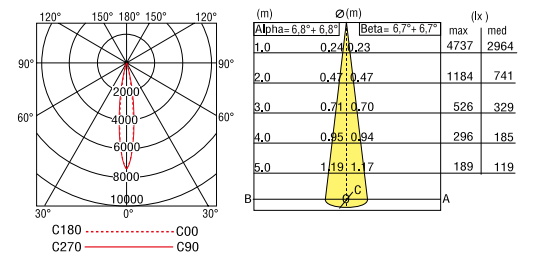
Matrix micro



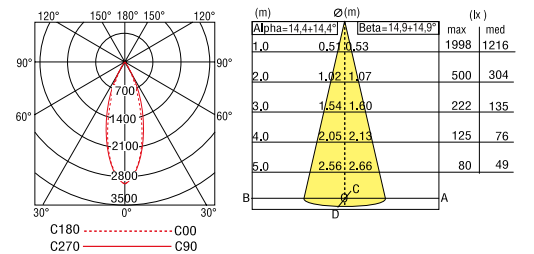
○ .../LBI (6x2W 500mA) 10°



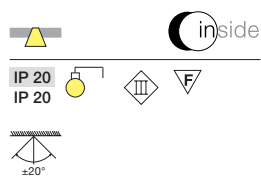
○ .../LBI (6x2W 500mA) 25°



○ .../LBI (6x2W 500mA) 40°



Matrix micro



inside

- Corpo in metallo verniciato.
- Gruppo ottico orientabile 0-40°.
- Housing of painted metal.
- 0-40° adjustable optic.



Ga Bi	71105/6LBI/10* 71106/6LBI/10*	6x1,2W 6x2W	350mA 500mA		6300°	
Ga Bi	71105/6LBC/10* 71106/6LBC/10*	6x1,2W 6x2W	350mA 500mA		3200°	10°
Ga Bi	71105/6LBL/10* 71106/6LBL/10*	6x1,2W 6x2W	350mA 500mA		470nm	

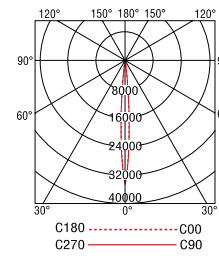
82x82 mm 0:30 mm

*A richiesta opzione fascio LED 25° .../25 40° .../40
*On request LED beam option

Matrix mini

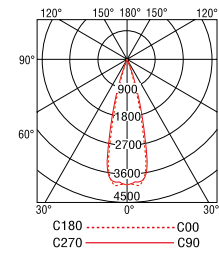


○ .../LBI (3x2,5W 700mA) 10°



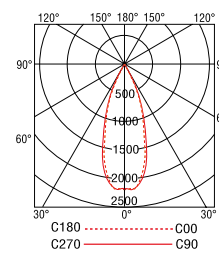
(m)	Ø (m)		(lx)	
			max	med
1.0	0.10	0.11	21053	12681
2.0	0.20	0.21	5263	3170
3.0	0.30	0.32	2339	1409
4.0	0.40	0.42	1316	793
5.0	0.50	0.53	842	507

○ .../LBI (3x2,5W 700mA) 30°



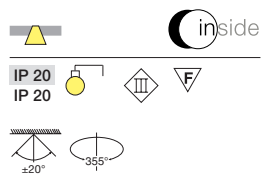
(m)	Ø (m)		(lx)	
			max	med
1.0	0.44	0.47	1914	1265
2.0	0.68	0.95	479	316
3.0	1.02	1.42	213	141
4.0	1.36	1.89	120	79
5.0	1.81	2.36	77	51

○ .../LBI (3x2,5W 700mA) 45°



(m)	Ø (m)		(lx)	
			max	med
1.0	0.57	0.63	930	573
2.0	1.14	1.26	232	143
3.0	1.71	1.89	103	64
4.0	2.27	2.52	58	36
5.0	2.84	3.15	37	23

Matrix mini



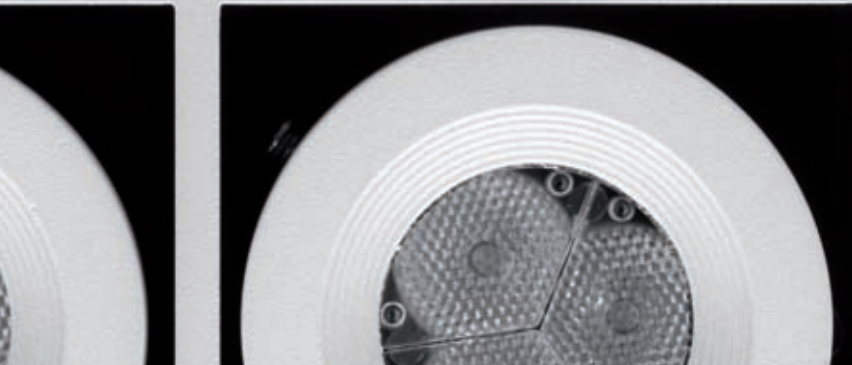
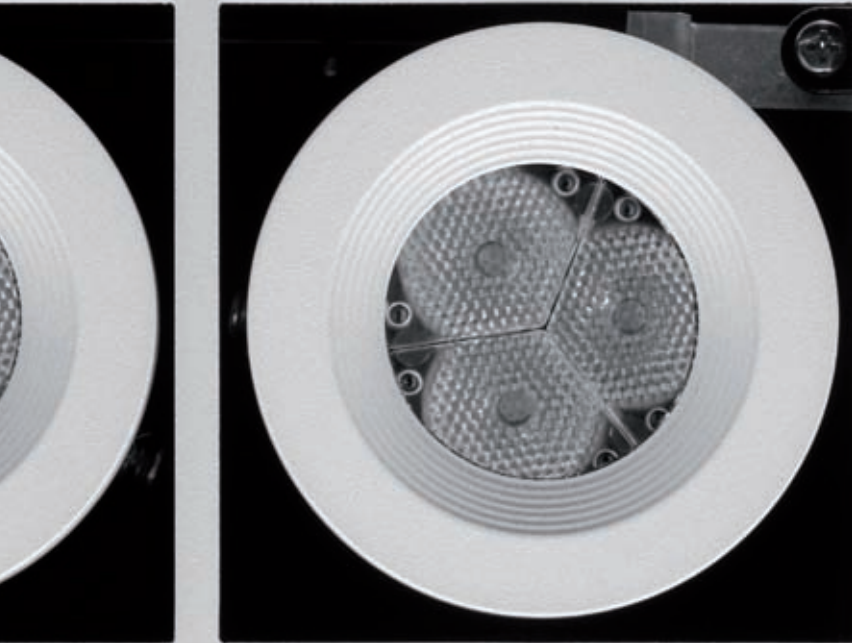
- Corpo in metallo verniciato.
- Gruppo ottico estraibile ed orientabile 0-40°.
- Housing of painted metal.
- 0-40° adjustable and extractable optic.



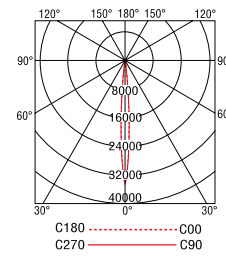
	Ga	71130/LBI/10*	3x1,2W	350mA		
	Bi	71131/LBI/10*	3x2,5W	700mA		6300°
	Ga	71130/LBC/10*	3x1,2W	350mA		3200° 10°
	Bi	71131/LBC/10*	3x2,5W	700mA		3200° 10°
	Ga	71130/LBL/10*	3x1,2W	350mA		470nm
	Bi	71131/LBL/10*	3x2,5W	700mA		470nm
	Ga	71130/RGB/10*	1x3W	350mA		- 10°
	Bi	71131/RGB/10*	1x3W	350mA		- 10°
	Ga	71135/LBI/10	6x1,2W	350mA		6300°
	Bi	71136/LBI/10	6x2,5W	700mA		6300°
	Ga	71135/LBC/10	6x1,2W	350mA		3200° 10°
	Bi	71136/LBC/10	6x2,5W	700mA		3200° 10°
	Ga	71135/LBL/10	6x1,2W	350 mA		470nm
	Bi	71136/LBL/10	6x2,5W	700 mA		470nm
	Ga	71135/RGB/10	2x3W	350mA		- 10°
	Bi	71136/RGB/10	2x3W	350mA		- 10°

*A richiesta opzione fascio LED 30° .../30 45° .../45
 *On request LED beam option

Matrix mini

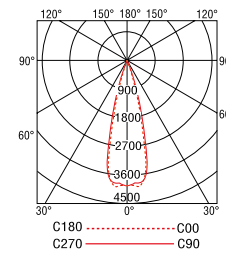


○ .../LBI (3x2,5W 700mA) 10°



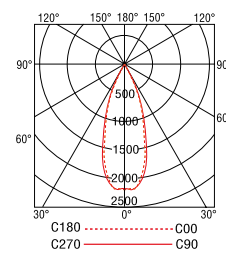
(m)	Ø(m)		(lx)	
	max	med	max	med
1.0	0.10	0.11	21053	12661
2.0	0.20	0.21	5263	3170
3.0	0.30	0.32	2339	1409
4.0	0.40	0.42	1316	793
5.0	0.50	0.53	842	507

○ .../LBI (3x2,5W 700mA) 30°



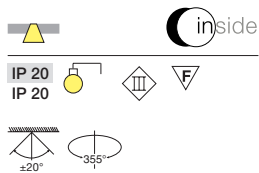
(m)	Ø(m)		(lx)	
	max	med	max	med
1.0	0.44	0.47	1914	1265
2.0	0.88	0.95	479	316
3.0	1.32	1.42	213	141
4.0	1.77	1.89	120	79
5.0	2.21	2.36	77	51

○ .../LBI (3x2,5W 700mA) 45°



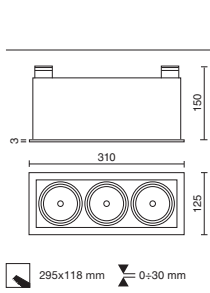
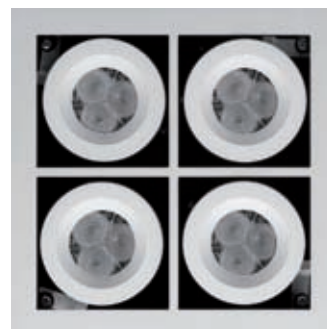
(m)	Ø(m)		(lx)	
	max	med	max	med
1.0	0.57	0.63	930	573
2.0	1.14	1.26	232	143
3.0	1.71	1.89	103	64
4.0	2.27	2.52	58	36
5.0	2.84	3.15	37	23

Matrix mini



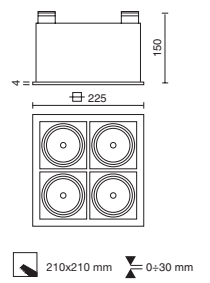
inside

- Corpo in metallo verniciato.
- Gruppo ottico estraibile ed orientabile 0-40°.
- Housing of painted metal.
- 0-40° adjustable and extractable optic.



		W	V	⊕	°K	⚡
Ga	71115/LBI/10*	9x1,2W	350mA		6300°	
Bi	71116/LBI/10*	9x2,5W	700mA		6300°	
Ga	71115/LBC/10*	9x1,2W	350mA	⚡	3200°	10°
Bi	71116/LBC/10*	9x2,5W	700mA	⚡	3200°	10°
Ga	71115/LBL/10*	9x1,2W	350mA		470nm	
Bi	71116/LBL/10*	9x2,5W	700mA		470nm	
Ga	71115/RGB/10*	3x3W	350mA	⚡	-	10°
Bi	71116/RGB/10*	3x3W	350mA	⚡	-	10°

295x118 mm ⚡ 0:30 mm

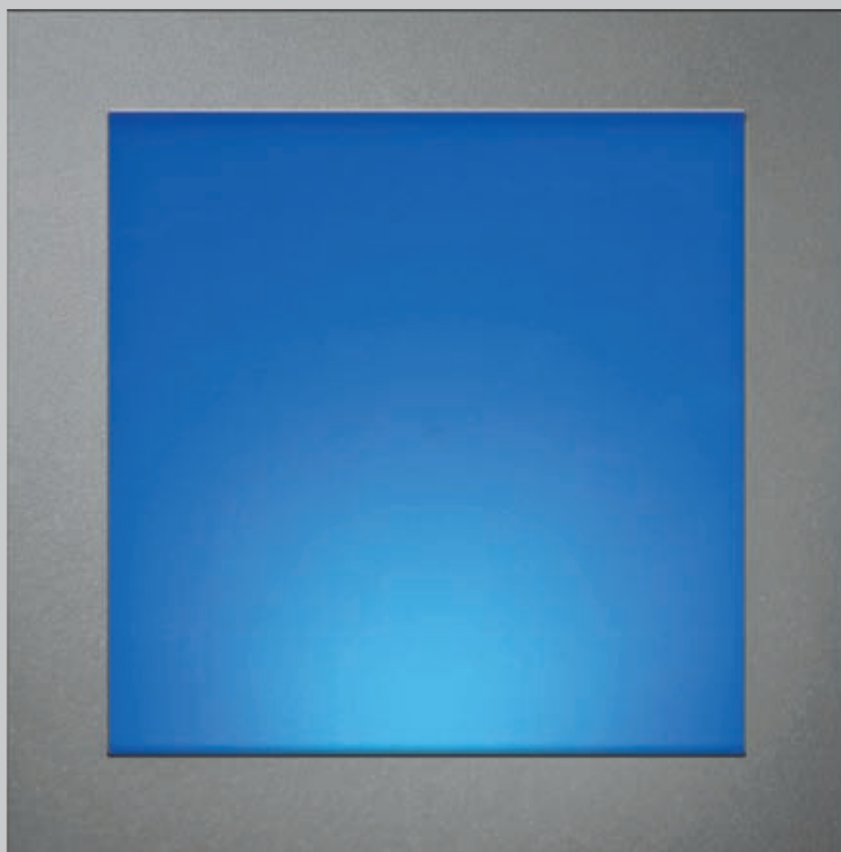


Ga	71120/LBI/10*	12X1,2W	350mA		6300°	
Bi	71121/LBI/10*	12X2,5W	700mA		6300°	
Ga	71120/LBC/10*	12X1,2W	350mA	⚡	3200°	10°
Bi	71121/LBC/10*	12X2,5W	700mA	⚡	3200°	10°
Ga	71120/LBL/10*	12X1,2W	350mA		470nm	
Bi	71121/LBL/10*	12X2,5W	700mA		470nm	
Ga	71120/RGB/10*	4x3W	350mA	⚡	-	10°
Bi	71121/RGB/10*	4x3W	350mA	⚡	-	10°

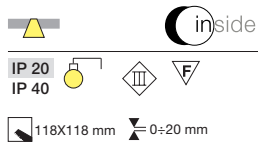
210x210 mm ⚡ 0:30 mm

*A richiesta opzione fascio LED ⚡ 30° .../30 ⚡ 45° .../45
 *On request LED beam option

Matrix mini asimmetrico



Matrix mini asimmetrico



- Corpo in metallo verniciato.
- Schermo di protezione in policarbonato opale.
- Housing of painted metal.
- Opal polycarbonate protection screen.

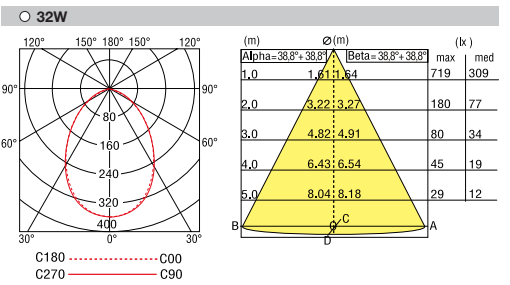


	Ga Bi		71102/LBI 71103/LBI	2W	350mA	
	Ga Bi		71102/LBL 71103/LBL	2W	350mA	
	Ga Bi		71102/RGB 71103/RGB	3,5W	350mA	

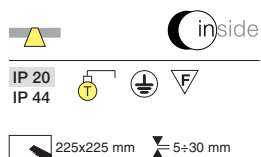
ACC.	644758	Alimentatore / Ballast	4W / 350mA / 100÷240V
	644759	Alimentatore / Ballast	10W / 350mA / 220÷240V
	644892/1	Kit alimentatore/miscelatore dei colori max cinque apparecchi Kit remote transformer/color control device for max five fittings	

OP. **.../LGI** giallo / yellow **.../LRO** rosso / red **.../LVE** verde / green

Domino For-led

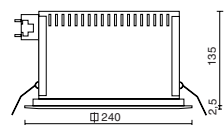


Domino For-led



- Anello e telaio reggivetto in pressofusione di alluminio verniciato in polveri
- Riflettore in alluminio purissimo.
- Vetro di protezione trasparente, dissipatore alettato in alluminio.
- Luce bianca 4000°K senza emissione IR o UV; bianco caldo 3000°K.
- Costanza cromatica: < 5 MCE.
- Versione RGB con possibilità di regolazione temperatura colore da 2700-6500°K tramite centralina DMX.

- *Trim and glass-holder frame made of die-cast aluminium, powder painted*
- *Pure aluminium reflector.*
- *Transparent protection glass, aluminium dissipator.*
- *White light 4000° K without UV or IR emission; warm white 3000°K.*
- *Chromatic constancy: < 5 MCE.*
- *RGB version with adjustable colour temperature 2700-6500°K through DMX panel.*



		W	V	°K	LUMEN	
Dissipatore passivo / Passive dissipator						
Br	○	4192	18W	230V	4000°	1100
Gr	○	4193				
Br	○	4190	19W	230V	3000°	1100
Gr	○	4191				
Dissipatore attivo con ventola di raffreddamento / Active dissipator with cooling fan						
Br	○	4196	32W	230V	4000°	2000
Gr	○	4197				
Br	○	4194	36W	230V	3000°	2000
Gr	○	4195				
Br	○	4198	49W	230V	4000°	3000
Gr	○	4199				
Br	RGB	4190/RGB	40W	230V	-	1100
Gr	RGB	4191/RGB				

VENTOLA DI RAFFREDDAMENTO - Alimentazione: 12 volt cc - Potenza: 66mA - 0,8 watt - Rumorosità: 22,1 dB (A)
 COOLING FAN - Supply: 12 volt dc - Power: 66mA - 0,8 watt - Noise: 22,1 dB (A)

Centralina di controllo DMX per Led RGB - Nc 645262 con regolazione temperatura di colore da 2700 ÷ 6500 °K
 Central control DMX for Led RGB - Nc 645262 with color temperature regulation from 2700 ÷ 6500 °K

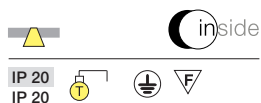
Quadrant RGB

Serie di apparecchi installabile su qualsiasi superficie e dotata di versatilità di applicazione, i Quadrant sono in grado di rispondere ad esigenze di illuminazione scenografica ed architettonica, coniugando giochi di luce, ombra e colore all'utilizzo della tecnologia più avanzata che garantisce alti rendimenti e sicurezza del funzionamento.

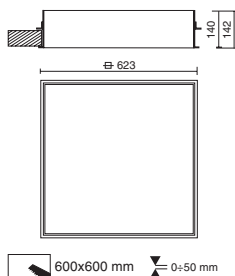
Series of devices installed on any surface with a versatility of application, the Quadrant are able to respond to the needs of scenic and architectural lighting, combining games of light, shadow and colour to use the most advanced technology that guarantees high performance and safety operation.



Quadrant RGB



- Corpo in lamiera verniciata a polvere.
- Vano ottico con pannello RGB con 24 diodi a LED da 1W.
- Schermo con diffusore a filo in policarbonato opale.
- Alimentatore elettronico con centralina di comando RGB integrata.
- Telecomando in dotazione.
- *Housing of painted steel, powder coated.*
- *Optic compartment with RGB panel, 24 LED diodes 1W.*
- *Electronic driver with RGB control on board.*
- *Remote control supplied.*



Incasso per controsoffitti inaccessibili / Recessed for unaccessible false ceilings

Br **QDR/RGB10/I** 24x1W 230V
Gr **QDR/RGB11/I**

Per apparecchio singolo / For single fitting

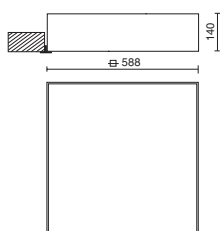
Br **QDR/RGB10M/I** 24x1W 230V
Gr **QDR/RGB11M/I**

PRIMARIO - Per collegamento in cascata max 10 / MASTER - for cascade connection max 10

Br **QDR/RGB10S/I** 24x1W 230V
Gr **QDR/RGB11S/I**

SECONDARIO - Per collegamento in cascata max 10 / SLAVE - for cascade connection max 10

600x600 mm ±0+50 mm



Parete, soffitti e controsoffitti con struttura a vista / Wall, ceiling, false ceiling with visible structure

Br **QDR/RGB10/P** 24x1W 230V
Gr **QDR/RGB11/P**

Per apparecchio singolo / For single fixture

Br **QDR/RGB10M/P** 24x1W 230V
Gr **QDR/RGB11M/P**

PRIMARIO - Per collegamento in cascata max 10 / MASTER - for cascade connection max 10

Br **QDR/RGB10S/P** 24x1W 230V
Gr **QDR/RGB11S/P**

SECONDARIO - Per collegamento in cascata max 10 / SLAVE - for cascade connection max 10

Potenza / Power	Colore emesso / Side emitting color	K° (temp. colore) / K° (colour temp)
1W	Rosso 1W flusso 39,4 lm / Red 1W flux 39,4 lm	635 nm
8x1W	Blu 1W flusso 17,9 lm / Blue 1W flux 17,9 lm	465 nm
	Verde 1W flusso 66,5 lm / Green 1W flux 66,5 lm	535 nm

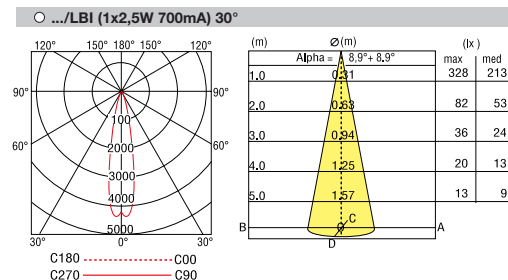
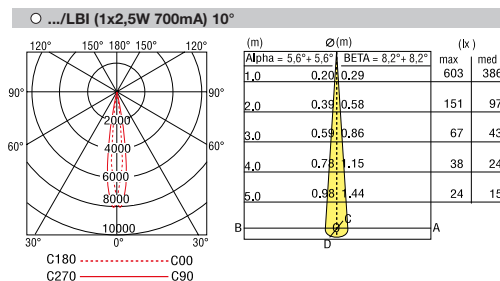
Eyes pro

Barche a vela, a motore, yacht, navi da crociera sono solo alcuni degli ambienti in cui l'installazione della serie Eyes pro 1/3W è particolarmente consigliata.

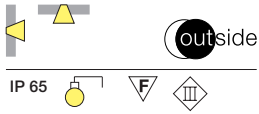
Le loro caratteristiche tecniche consentono di raggiungere livelli di sicurezza ottimali e, al tempo stesso, li rendono utilizzabili per le funzionalità più varie: dall'illuminazione segnaletica a fascio puntiforme di particolari fino alla distribuzione della luce su superfici più ampie quali pedane di passaggio, tavoli, ambienti.

Sailboats, motor yachts, cruise ships are just some of the environments in which the installation of the series Eyes Pro 1 / 3 W is particularly recommended.

The technical characteristics of the fittings allow to reach optimum levels of security and at the same time, make them usable for several features: as beam spot lighting signs to highlight details, up to the distribution of light on broader areas such as walkway boards, tables, environments.



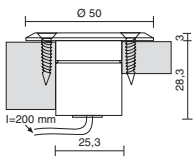
Eyes pro



26 mm

- Incasso in alluminio con led ad alta emissione, lente e vetro di protezione.
- Anello di finitura in acciaio inox (AISI 316) lucido e viti di fissaggio.

- Recessed aluminium fitting provided with high emission diode, lens and protection glass.
- Trim bright finishing made of inox steel (AISI 316) and fixing screws.



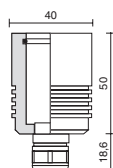
○	E893/LBC		1x1,2W	350mA		3200°	10°
○	E893/LBI		1x2,5W	700mA		6350°	
●	E893/LBL		1x2,5W	700mA		470nm	
○	E898/LBC		1x1,2W	350mA		3200°	30°
○	E898/LBI		1x2,5W	700mA		6350°	
●	E898/LBL		1x2,5W	700mA		470nm	

A richiesta fascio ellissoidale 15°x90° / On request ellipsoidal beam 15°x90°



OP. Disponibile trasformatore in emergenza / Safety transformer available

ACC.



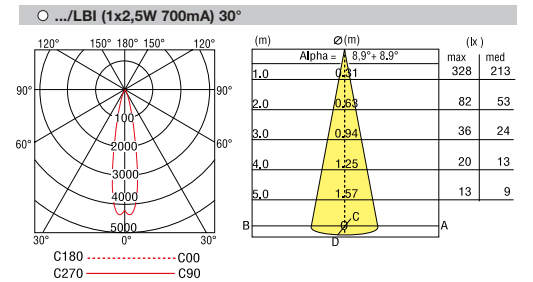
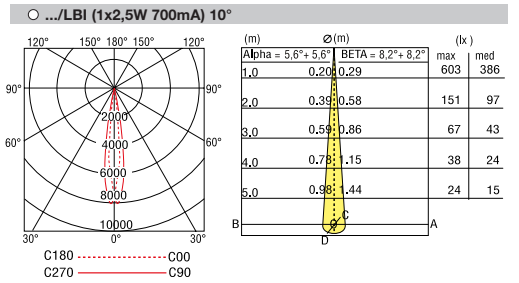
Cassaforma / Housing

189 In alluminio ossidato opaco completo di pressacavo in ottone nichelato tipo PG11
Main body made of satin aluminium complete with nickel coated brass cable gland PG11

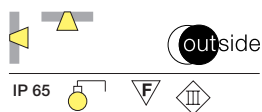
42 mm



Eyes pro-m



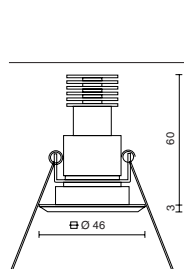
Eyes pro-m



41 mm $\pm 0+25$ mm

- Dissipatore, corpo e ghiera in alluminio anodizzato.
- Anello di finitura in ottone cromato.
- Lente con vetro di protezione.
- Per controsoffitti.

- *Dissipator, housing and trim in anodized aluminium.*
- *Chromed brass finishing trim.*
- *Lens with protection glass.*
- *For false-ceilings.*



○	E893/M/LBC	E893/MQ/LBC			1x1,2W	350mA		3200°	10°
○	E893/M/LBI	E893/MQ/LBI			1x2,5W	700mA		6350°	
●	E893/M/LBL	E893/MQ/LBL			1x2,5W	700mA		470nm	
○	E898/M/LBC	E898/MQ/LBC			1x1,2W	350mA		3200°	30°
○	E898/M/LBI	E898/MQ/LBI			1x2,5W	700mA		6350°	
○	E898/M/LBL	E898/MQ/LBL			1x2,5W	700mA		470nm	

A richiesta fascio ellissoidale 15°x90° / On request ellissoidal beam 15°x90°

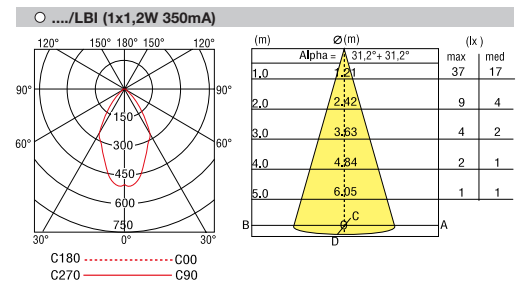


OP. Disponibile trasformatore in emergenza / Safety transformer available

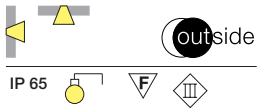
Eyes basic A

Eyes Basic A rappresenta un'evoluzione del concetto di illuminazione d'accento. Progettato e sviluppato in dimensioni particolarmente ridotte, esso richiama i principi del minimalismo e dell'essenzialismo architettonico, ponendo enfasi sulla luce e non sull'apparecchio come elemento decorativo.

Eyes Basic A represents an evolution of the concept of accent lighting. Designed and developed in very small sizes, it recalls the principles of minimalism and essential architecture, placing emphasis on light and not on the fitting as a decorative element.



Eyes basic A



16 mm

- Incasso con anello di finitura in ottone cromato.
- Fissaggio tramite ghiera per controsoffitti accessibili o molla per controsoffitti non accessibili.

- Recessed fitting with trim made of chromed brass.
- Fixing by lock nut for accessible false ceilings or lock spring for inaccessible false ceilings.



	<p>Con ghiera di bloccaggio per controsoffitti accessibili With lock nut for accessible false ceilings</p> <ul style="list-style-type: none"> ○ E900/G/LBC ○ E900/G/LBI 1x1,2W 350mA ● E900/G/LBL 	<p>3200° 6350° 470nm</p>	<p>60°</p>
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	<p>Con molla di bloccaggio per controsoffitti non accessibili With lock spring for inaccessible false ceilings</p> <ul style="list-style-type: none"> ○ E900/M/LBC ○ E900/M/LBI 1x1,2W 350mA ● E900/M/LBL 	<p>3200° 6350° 470nm</p>	<p>60°</p>
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OP. ● **E.../LGI** giallo / yellow ● **E.../LRO** rosso / red ● **E.../LVE** verde / green

Disponibile trasformatore in emergenza / Safety transformer available

ACC. **186/5** Pozzetto per pareti solide per eyes basic A - eyes A1
Concrete walls pit for eyes basic A - eyes A1

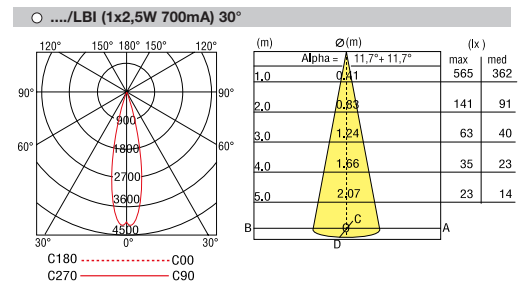
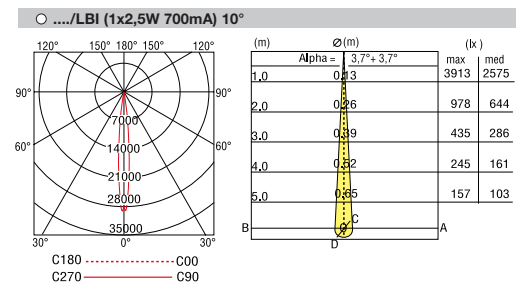
Eyes basic B

Dotato di lenti che consentono di ottenere differenti fasci luminosi, Eyes Basic B nasce con l'intento di soddisfare varie tipologie di esigenze di illuminazione, passando dalla segnaletica di accento fino a giungere ad una luce omogeneamente diffusa nell'ambiente.

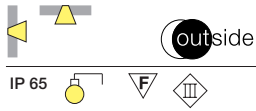
Disponibile in varie colorazioni di luce, all'intento decorativo si integrano le innovazioni tecnologiche più attuali che consentono di ottenere efficienza, potenza, sicurezza e collocano il prodotto fra i più elevati standard qualitativi.

Equipped with lenses that can produce different light beams, Eyes Basic B was designed with the aim to meet the needs for various types of lighting, from accent lighting to evenly distribution of light in the environment.

Available in various colors of light, it integrates the decorative function with the latest technological innovations, providing efficiency, power, security and placing the product to the highest quality standards.



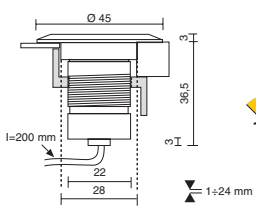
Eyes basic B



outside

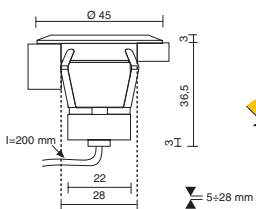
28,5 mm

- Incasso con anello di finitura in ottone cromato.
- Fissaggio tramite ghiera per controsoffitti accessibili o molla per controsoffitti non accessibili.
- Recessed fitting with trim made of chromed brass.
- Fixing by lock nut for accessible false ceilings or lock spring for inaccessible false ceilings.



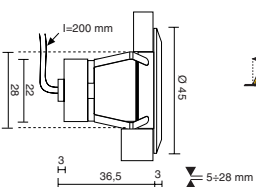
Con ghiera di bloccaggio per controsoffitti accessibili
With lock nut for accessible false ceilings

○	E895/G/LBC	1x1,2W	350mA	3200°	10°
○	E895/G/LBI	1x2,5W	700mA	6350°	
●	E895/G/LBL	1x2,5W	700mA	470nm	
○	E896/G/LBC	1x1,2W	350mA	3200°	30°
○	E896/G/LBI	1x2,5W	700mA	6350°	
●	E896/G/LBL	1x2,5W	700mA	470nm	



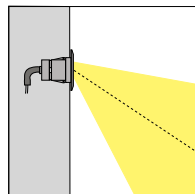
Con molla di bloccaggio per controsoffitti non accessibili
With lock spring for inaccessible false ceilings

○	E895/M/LBC	1x1,2W	350mA	3200°	10°
○	E895/M/LBI	1x2,5W	700mA	6350°	
●	E895/M/LBL	1x2,5W	700mA	470nm	
○	E896/M/LBC	1x1,2W	350mA	3200°	30°
○	E896/M/LBI	1x2,5W	700mA	6350°	
●	E896/M/LBL	1x2,5W	700mA	470nm	

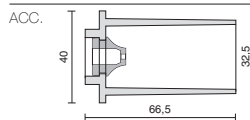


Con molla di bloccaggio per pareti - asimmetrico
With lock spring for walls - asymmetric

○	E895/M/LBCAS	1x1,2W	350mA	3200°
○	E895/M/LBIAS	1x2,5W	700mA	6350°
●	E895/M/LBLAS	1x2,5W	700mA	470nm



OP. ● **E.../LGI** giallo / yellow ● **E.../LRO** rosso / red ● **E.../LVE** verde / green
Disponibile trasformatore in emergenza / Safety transformer available

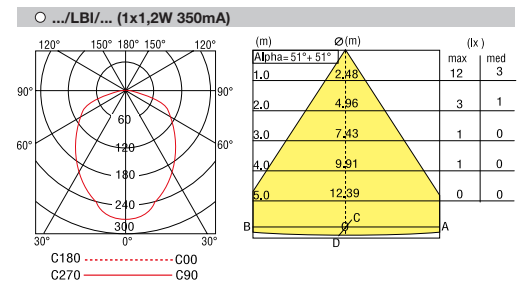


186/3 Pozzetto per pareti solide per eyes basic B eyes B1/B3
Concrete walls pit for eyes basic B eyes B1/B3

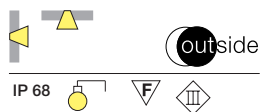
Eyes A-1

L'ampiezza del fascio luminoso dell'Eyes A-1 consente di ottenere una illuminazione diffusa della superficie. Le potenzialità di installazione dell'apparecchio sono molteplici, vista la disponibilità di una versione per controsoffitti accessibili, di una versione per controsoffitti non accessibili, di un inverter per l'emergenza e di un pozzetto per pareti solide.

The width of the light beam of Eyes A-1 allows diffuse illumination of the surfaces. The possibilities of installation are manifold, thanks to the availability of a version for accessible false ceilings, a version for unaccessible false ceilings, an inverter for emergency, and a housing for solid walls.



Eyes A-1



outside

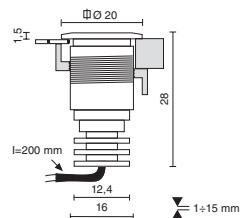
IP 68



17 mm

- Incasso con anello di finitura in ottone cromato.
- Fissaggio tramite ghiera per controsoffitti accessibili o molla per controsoffitti non accessibili.

- Recessed fitting with trim made of chromed brass.
- Fixing by lock nut for accessible false ceilings or lock spring for inaccessible false ceilings.



Con ghiera di bloccaggio per controsoffitti accessibili
With lock nut for accessible false ceilings

- E881/G/LBC/68 E881/GQ/LBC68
- E881/G/LBI/68 E881/GQ/LBI68
- E881/G/LBL/68 E881/GQ/LBL68

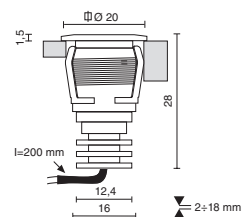
1x1,2W

350mA



3200°
6350°
470nm

90°



Con molla di bloccaggio per controsoffitti non accessibili
With lock spring for inaccessible false ceilings

- E881/M/LBC/68 E881/MQ/LBC68
- E881/M/LBI/68 E881/MQ/LBI68
- E881/M/LBL/68 E881/MQ/LBL68

1x1,2W

350mA



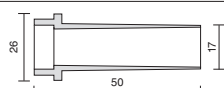
3200°
6350°
470nm

90°

OP. ● E.../LGI/68 giallo / yellow ● E.../LRO/68 rosso / red ● E.../LVE/68 verde / green

Disponibile trasformatore in emergenza / Safety transformer available

ACC.



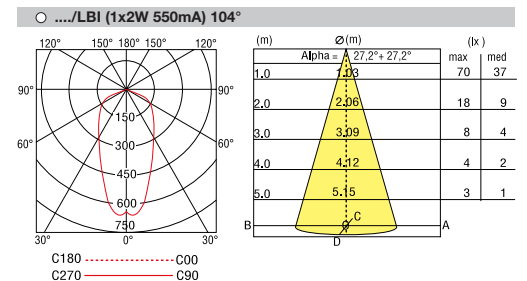
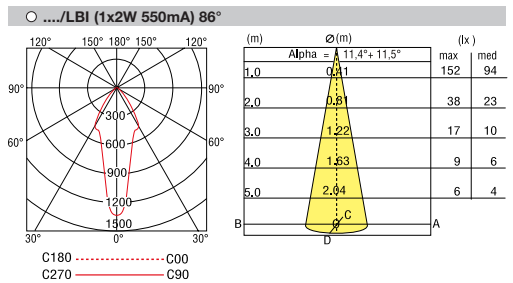
186/5 Pozzetto per pareti solide per eyes basic A - eyes A1
Concrete walls pit for eyes basic A - eyes A1

Eyes B-1

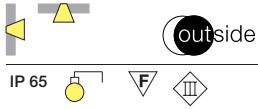
La semplicità del design dell'Eyes B-1 caratterizza il senso estetico del prodotto, evidenziandone le finiture di alto livello e la possibilità di installarlo in vari contesti, dalle abitazioni, agli hotel, fino a giungere ad edifici pubblici.

Il sistema Led nelle sue differenti colorazioni, utilizzato in combinazione con le lenti bombate, consente di ottenere suggestive magie di luce, associandole però all'alta efficienza della tecnologia impiegata.

The simplicity of design of Eyes B-1 characterizes the aesthetic value of the product, highlighting the high level of finishes and the possibility of installation in various contexts, from housing to hotels, up to public buildings. The Led system in its different colors, used in combination with the curved lens, provides evocative magic of light, combined to the high efficiency of the technology used.



Eyes B-1



28 mm

- Incasso con anello di finitura in ottone cromato.
- Fissaggio tramite ghiera per controsoffitti accessibili o molla per controsoffitti non accessibili.
- Recessed fitting with trim made of chromed brass.
- Fixing by lock nut for accessible false ceilings or lock spring for inaccessible false ceilings.



Con ghiera di bloccaggio per controsoffitti accessibili With lock nut for accessible false ceilings								
		E885/G/LBC	E885/G/Q/LBC	1x1,2W	350mA		3200°	86°
		E885/G/LBI	E885/G/Q/LBI	1x2W	550mA		6350°	
		E885/G/LBL	E885/G/Q/LBL	1x2W	550mA		470nm	
		E885/G/RGB	E885/G/Q/RGB	1x3,5W	350mA		-	
		E886/G/LBC	E886/G/Q/LBC	1x1,2W	350mA		3200°	104°
		E886/G/LBI	E886/G/Q/LBI	1x2W	550mA		6350°	
	E886/G/LBL	E886/G/Q/LBL	1x2W	550mA		470nm		
	E886/G/RGB	E886/G/Q/RGB	1x3,5W	350mA		-		
Con molla di bloccaggio per controsoffitti non accessibili With lock spring for unaccessible false ceilings								
		E885/M/LBC	E885/M/Q/LBC	1x1,2W	350mA		3200°	86°
		E885/M/LBI	E885/M/Q/LBI	1x2W	550mA		6350°	
		E885/M/LBL	E885/M/Q/LBL	1x2W	550mA		470nm	
		E885/M/RGB	E885/M/Q/RGB	1x3,5W	350mA		-	
		E886/M/LBC	E886/M/Q/LBC	1x1,2W	350mA		3200°	104°
		E886/M/LBI	E886/M/Q/LBI	1x2W	550mA		6350°	
	E886/M/LBL	E886/M/Q/LBL	1x2W	550mA		470nm		
	E886/M/RGB	E886/M/Q/RGB	1x3,5W	350mA		-		

- Con lente bombata in vetro
With dished glass len
 Con vetro di protezione led
With led protection glass
- OP. **E.../LGI** giallo / yellow
 E.../LRO rosso / red
 E.../LVE verde / green
- Disponibile trasformatore in emergenza / Safety transformer available

ACC.		186/3 Pozzetto per pareti solide per eyes basic B - eyes B1/B3 Concrete walls pit for eyes basic B - eyes B1/B3
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Eyes B-3

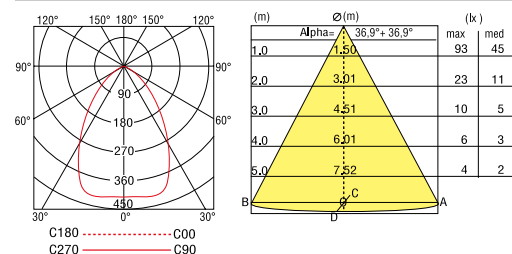
Dotato di 3 Led ad alta emissione e disponibile con due fasci di apertura, l'Eye B-3 è stato studiato sia per un'illuminazione di accento che per ottenere effetti di luce diffusa sulla superficie. La caratteristica principale che lo differenzia dai precedenti consiste nella maggiore potenza del fascio, che suggerisce un utilizzo funzionale dell'apparecchio oltre che decorativo e architettonale.

Fitted with 3 high emission Leds and available with two beam angles, the Eyes B-3 is designed to provide accent lighting and to obtain effects of diffused light on the surfaces as well.

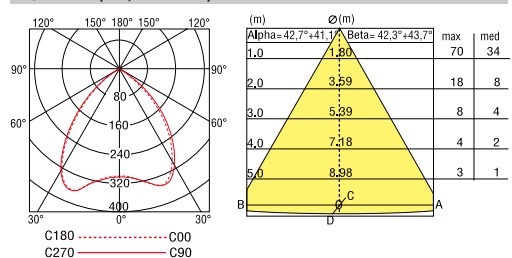
Its main distinguishing feature is the increased power of the beam, suggesting a functional use of the fitting besides the decorative and architectural function.



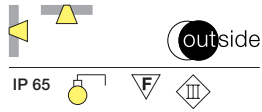
○/LBI (3x1,2W 350mA) 84°



○/LBI (3x1,2W 350mA) 96°



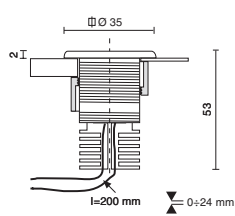
Eyes B-3



outside

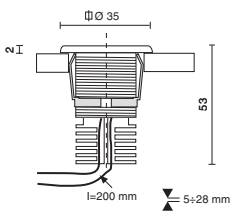
28 mm

- Incasso con anello di finitura in ottone cromato.
- Fissaggio tramite ghiera per controsoffitti accessibili o molla per controsoffitti non accessibili.
- Recessed fitting with trim made of chromed brass.
- Fixing by lock nut for accessible false ceilings or lock spring for inaccessible false ceilings.



Con ghiera di bloccaggio per controsoffitti accessibili
With lock nut for accessible false ceilings

○	E889/G/LBC	E889/G/Q/LBC	3x1,2W	350mA		3200° 6350° 470nm	84°
○	E889/G/LBI	E889/G/Q/LBI					
●	E889/G/LBL	E889/G/Q/LBL					
□	E888/G/LBC	E888/G/Q/LBC	3x1,2W	350mA		3200° 6350° 470nm	96°
○	E888/G/LBI	E888/G/Q/LBI					
●	E888/G/LBL	E888/G/Q/LBL					



Con molla di bloccaggio per controsoffitti non accessibili
With lock spring for unaccessible false ceilings

○	E889/M/LBC	E889/M/Q/LBC	3x1,2W	350mA		3200° 6350° 470nm	84°
○	E889/M/LBI	E889/M/Q/LBI					
●	E889/M/LBL	E889/M/Q/LBL					
□	E888/M/LBC	E888/M/Q/LBC	3x1,2W	350mA		3200° 6350° 470nm	96°
○	E888/M/LBI	E888/M/Q/LBI					
●	E888/M/LBL	E888/M/Q/LBL					

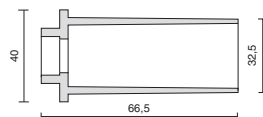
Con lente bombata in vetro
With dished glass lens

Con vetro di protezione led
With led protection glass

OP. ● **E.../LGI** giallo / yellow ● **E.../LRO** rosso / red ● **E.../LVE** verde / green

Disponibile trasformatore in emergenza / Safety transformer available

ACC.

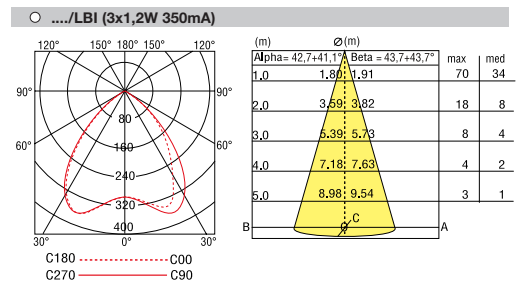
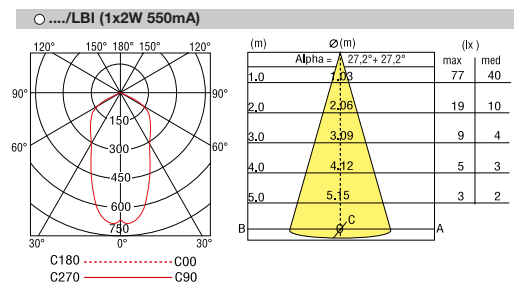


186/3 Pozzetto per pareti solide per eyes basic B - eyes B1/B3
Concrete walls pit for eyes basic B - eyes B1/B3

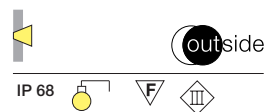
Eyes wall flat

L' Eyes wall flat si presenta esteticamente con anello a filo in acciaio Inox AISI 316.
 Dotato di vetro di protezione, l'apparecchio è disponibile in tre versioni: con un Led (da 1,2W o 2W) o tre Led (da 1,2W l'uno).
 La versatilità dell'incasso ne consente quindi l'adattabilità a molteplici soluzioni illuminotecniche.

*The Eyes Flat Wall main aesthetic feature is a ground level trim in stainless steel AISI 316.
 Equipped with protection glass, the device is available in three versions: with a Led (1.2 W or 2W) and three Leds (1.2 W).
 The versatility of installation makes it suitable to a variety of lighting solutions.*



Eyes wall flat



IP 68

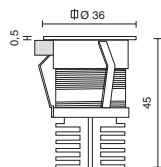


28 mm

- Incasso in ottone cromato con led ad alta emissione.
- Anello di finitura in acciaio inox AISI 316.
- Vetro di protezione.
- Apparecchi da incasso a parete.
- Recessed fitting made of chromed brass provided with high emission led.
- Finishing stainless steel trim (AISI 316).
- Protection glass.
- Wall mounting recessed fixture.

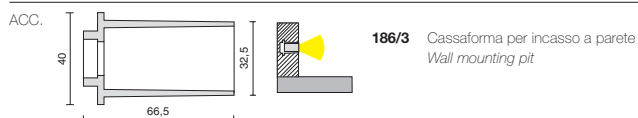


Per incasso in superfici solide / Suitable for concrete surfaces									
○	E871/M/LBC	E871/M/Q/LBC						3200°	
○	E871/M/LBI	E871/M/Q/LBI	1x1,2W	350mA			6350°		104°
●	E871/M/LBL	E871/M/Q/LBL	1x2W	550mA			470nm		
<hr/>									
○	E872/M/LBC	E872/M/Q/LBC						3200°	
○	E872/M/LBI	E872/M/Q/LBI	3x1,2W	350mA			6350°		96°
●	E872/M/LBL	E872/M/Q/LBL					470nm		



OP. **E..../LGI** giallo / yellow **E..../LRO** rosso / red **E..../LVE** verde / green

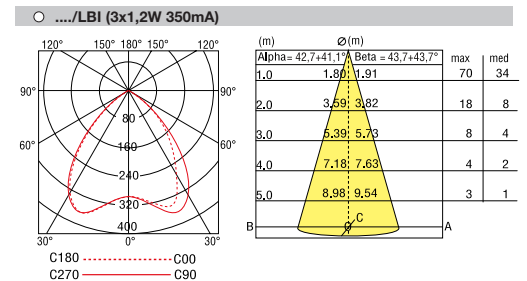
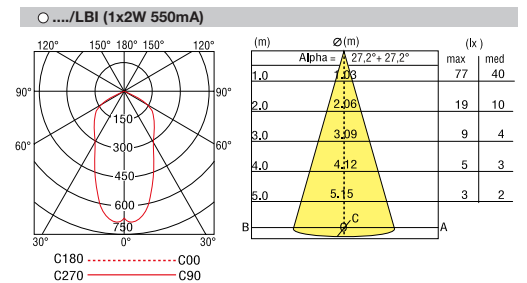
Disponibile trasformatore in emergenza / Safety transformer available



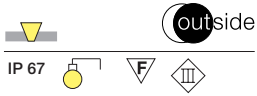
Eyes ground

L' Eyes Ground nasce e si sviluppa come apparecchio da incasso a pavimento, fornito di 3 specifiche cassaforme in alternativa (standard da interrare, con alimentazione remota o per solette in calcestruzzo). Adatto ad impieghi di natura tecnica , ad esempio per segnalare vie di uscita, d'ingresso o camminamenti, vista l'ampiezza del fascio luminoso esso può essere utilizzato anche per l'illuminazione di superfici più estese o per mettere in risalto strutture architettoniche di modesta altezza.

The Eyes ground is designed as ground luminaire, supplied with 3-specific housings as an alternative (standard for use in ground, with remote power or for concrete slabs). Suitable for use of a technical nature, for example, to signal routes of exit, entry or walkways, given the scale of the light beam it can be used also to illuminate larger areas or to highlight architectural structures of reduced height.



Eyes ground

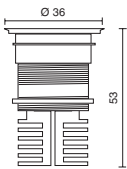


28 mm

Carico statico 500 kg
Static load 500 kg

- Incasso in ottone cromato con led ad alta emissione.
- Anello di finitura in acciaio inox AISI 316.
- Vetro di protezione.

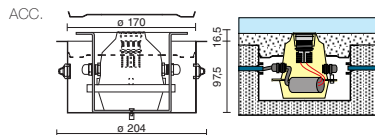
- Recessed fitting made of chromed brass provided with high emission led.
- Stainless steel ring (AISI 316).
- Protection glass.



Per incasso in superfici solide / Suitable for concrete surfaces									
○ E883/LBC				3200°	*64°				
○ E883/LBI	1x1,2W*	350mA		6350°	*64°		•	-	104°
● E883/LBL	1x2W	550mA		470nm	*59°				
<hr/>									
○ E887/LBC				3200°	73°				
○ E887/LBI	3x1,2W	350mA		6350°	73°		•	-	96°
● E887/LBL				470nm	62°				

OP. ● **E..../LGI** giallo / yellow ● **E..../LRO** rosso / red ● **E..../LVE** verde / green

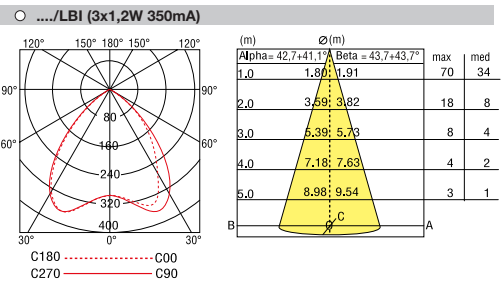
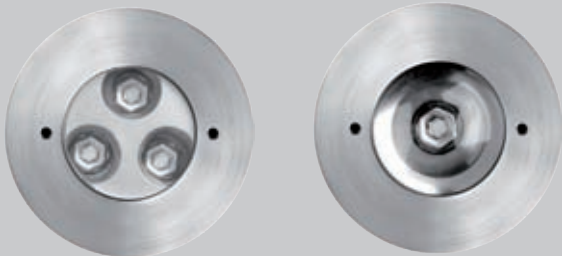
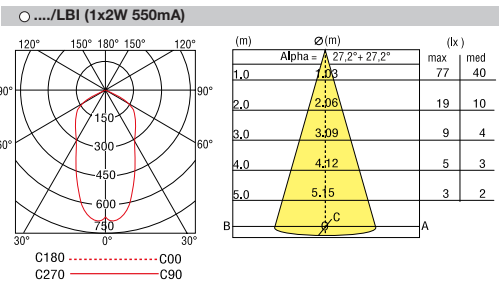
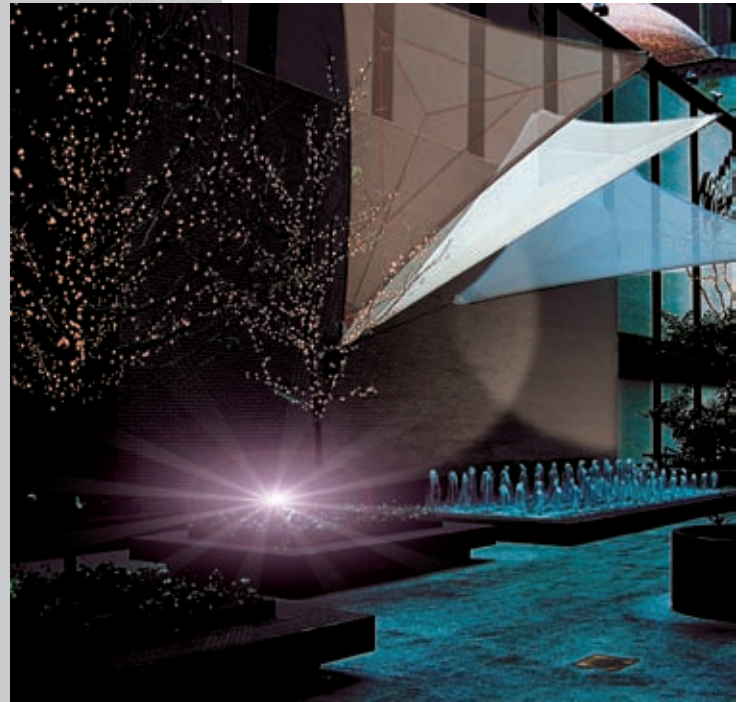
Disponibile trasformatore in emergenza / Safety transformer available



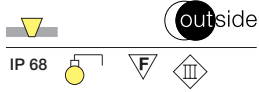
186/2 Cassaforma per solette in calcestruzzo
Container for concrete constructions

Nota: art. 186 incluso - Trasformatore escluso
Note: art. 186 included - Without transformer

Eyes ground IP68



Eyes ground IP68



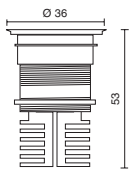
outside

28 mm

Carico statico 500 kg
Static load 500 kg

- Incasso in ottone cromato con led ad alta emissione.
- Anello di finitura in acciaio inox AISI 316.
- Vetro di protezione.

- Recessed fitting made of chromed brass provided with high emission led.
- Stainless steel ring (AISI 316).
- Protection glass.

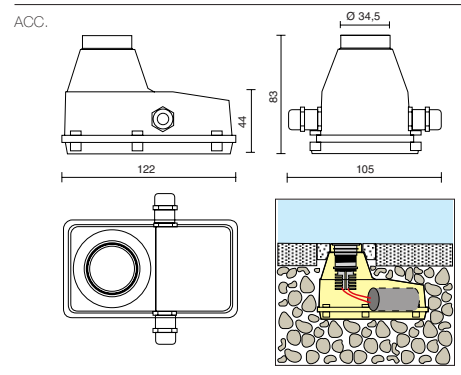


Per incasso in superfici solide / Suitable for concrete surfaces

○	E883/N/LBC								
○	E883/N/LBI	1x1,2W*	350mA		3200°	*64°			
●	E883/N/LBL	1x2W	550mA		6350°	*64°	•	-	104°
					470nm	*59°			
○	E887/N/LBC								
○	E887/N/LBI	3x1,2W	350mA		3200°	73°	•	-	96°
●	E887/N/LBL				6350°	73°			
					470nm	62°			

OP. ● **E.../LGI** giallo / yellow ● **E.../LRO** rosso / red ● **E.../LVE** verde / green

Disponibile trasformatore in emergenza / Safety transformer available



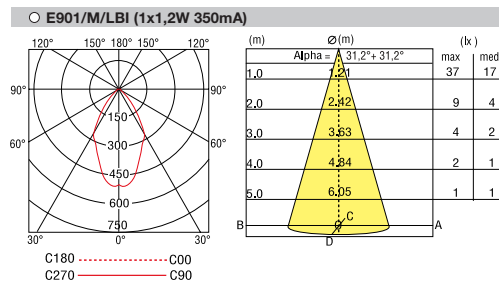
186/6 Cassaforma da interrare senza trasformatore con doppio pressacavo PG7 per cavi da 3-6mm tipo H05RN-F2G 0,75mm
Housing to bury without ballast with double PG7 cable gland for 3-6mm cable type H05RN-F2G 0,75mm

usare trasformatori / use ballasts:
644760/1 (350mA)
644760/5 (550mA)

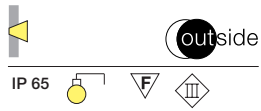
Eyes basic corrimano - Eyes A-9

Destinati per lo più alla progettazione illuminotecnica di studi di architettura e design, l'Eyes Basic Corrimano e L'Eyes A-9 Led 3,5 si sviluppano con l'intento di combinare esigenze di illuminazione a funzionalità puramente decorative ed estetiche. Se ne suggerisce l'utilizzo sia in ambienti pubblici quali hotel, uffici, strutture residenziali, sia in abitazioni private contraddistinte da un'impronta minimalista e tecnologicamente innovativa.

Intended mainly to fulfill the lighting design issues of the architectural and design firms, the Eyes basic handrail and the Eyes A-9 Led 3.5 W were developed with the intent to combine lighting requirements with purely decorative and aesthetic functions. It is suitable in both public environments such as hotels, offices, residential facilities, and in private homes marked with a footprint technologically innovative and minimalist.



Eyes basic corrimano



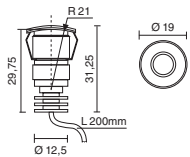
IP 65



- Incasso in acciaio Inox AISI 316L.
- Aggancio a molla.

16 mm

- Recessed fitting *Inox steel AISI 316L*.
- *Spring locking.*



Versione corrimano / *Handrails version*

○ **E901/M/LBC**

○ **E901/M/LBI** 1x1,2W 350mA

● **E901/M/LBL**

Nota: trasformatore remoto / *Note: remote transformer*

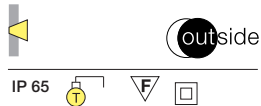


3200°

6350°

470nm

60°

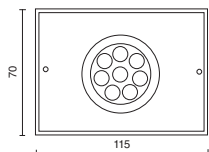


IP 65



- Modulo da incasso a muro per scatole elettriche tipo 503.
- Finitura piastra: alluminio anodizzato.
- Alimentatore integrato nell'apparecchio.

- *Recessed wall light fixtures for electrical boxes type 503.*
- *External finishing: anodized aluminium.*
- *Internal control gear.*



○ **E882/LBI**

● **E882/LBL** TOT. 1,5W 230V

A Richiesta: apparecchio con alimentazione a 24 Vdc remoto

On request: fitting with remote supplied power unit 24 Vdc main voltager



5600°

100°

OP. ● **E.../LGI** giallo / yellow ● **E.../LRO** rosso / red ● **E.../LVE** verde / green

Disponibile trasformatore in emergenza / *Safety transformer available*

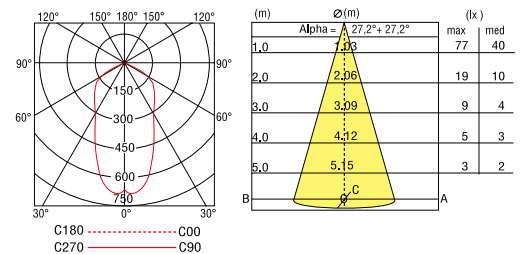
Eyes C

Nato appositamente per un'illuminazione d'accento, l'Eyes Orientabile da incasso è specificatamente indicato per il posizionamento in vetrine di oggettistica, gioiellerie, accessori di abbigliamento o comunque per la segnalazione di particolari in esposizione. Disponibile anche in versione RGB, se ne sottolinea l'utilizzo quale sistema di illuminazione ad effetto scenografico e decorativo, in grado di creare atmosfere suggestive e giochi di luce di notevole impatto.

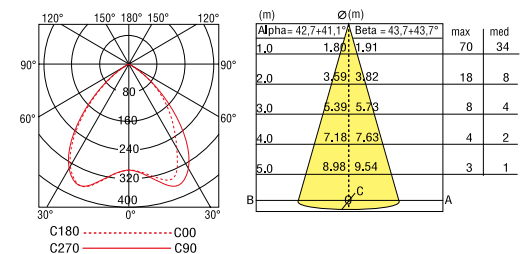
Designed specially for accent lighting, the Eyes Adjustable recessed is specifically suitable for placement in showcases of objects, jewelry, clothing accessories to highlight details on display. Also available in the RGB version, it is recommended for use as a lighting system for decorative and scenic effect, able to create evocative atmospheres and games of light of considerable impact.



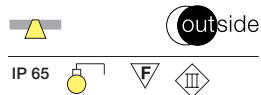
○/LBI (1x2W 550mA)



○/LBI (3x1,2W 350mA)



Eyes C



outside

43 mm

- Corpo e componenti in alluminio anodizzato orientabile.
- Anello di finitura in alluminio anodizzato.
- Aggancio a molla.
- Adjustable body and mechanical elements made of anodized aluminium.
- Trim made of anodized aluminium.
- Spring locking.



	Ottiche flood / Flood beam						
		E931/LBC				3200°	
		E931/LBI	3x1,2W	350mA		6350°	100°
		E931/LBL				470nm	
		E933/LBC				3200°	
		E933/LBI	1x2W	550mA		6350°	100°
		E933/LBL				470nm	
		E933/RGB	3,5W	350mA		-	100°
	Ottiche spot / Spot beam						
		E934/LBC				3200°	
		E934/LBI	1x2W	550mA		6350°	10°
		E934/LBL				470nm	
		E935/LBC				3200°	
		E935/LBI	1x2W	550mA		6350°	30°
		E935/LBL				470nm	



OP. **E.../LGI** giallo / yellow **E.../LRO** rosso / red **E.../LVE** verde / green
Disponibile trasformatore in emergenza / Safety transformer available

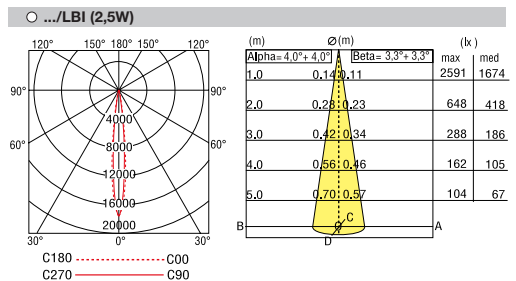
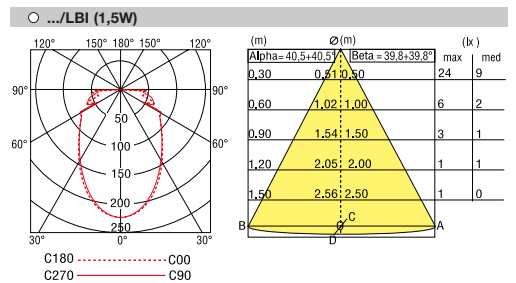
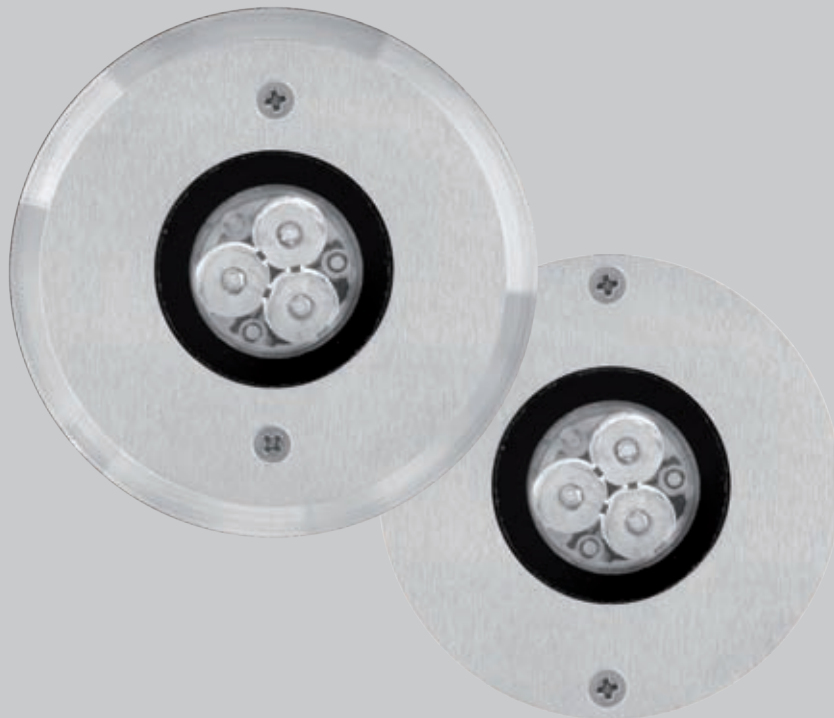
ACC. **644892/1** Kit alimentatore/miscelatori + telecomando solo per versione RGB
Power supply and color mixer kit + remote controller only for RGB version

Olodum micro tondo

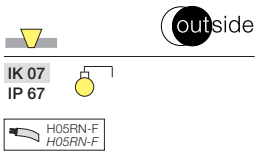
La versione Micro si adatta alla perfezione a qualsiasi esigenza di illuminamento: dalla segnalazione prettamente scenica di passaggi e percorsi, all'illuminazione di potenza su strade e viali.

Utilizzando infatti la tecnologia Led più attuale, si è creata una gamma di apparecchi in grado di adattarsi contemporaneamente ad esigenze puramente decorative e necessità tecniche e progettuali di illuminazione.

The Micro version is perfectly suited to any need for illumination from the stage of merely reporting steps and pathways, lighting, power on the streets and avenues. Actually, using the latest LED technology, has created a range of devices that can adapt to needs at once purely decorative and technical design and lighting.



Olodum micro tondo



IK 07
IP 67



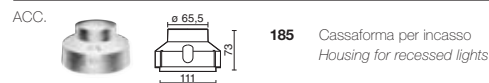
Carico statico 500 kg
Static load 500 kg

- Corpo in acciaio inox (AISI 316L).
- Guarnizioni in gomma silicicola.
- Vetro di protezione temperato.
- Anello di finitura e viti in acciaio inox (AISI 316L).
- Cassaforma di contenimento in PA (da ordinare a parte).
- Pressacavo in ottone nichelato PG7 (diametro cavi utilizzabili 5 ÷ 7 mm).

- Housing of stainless steel (AISI 316L).
- Silicon rubber gaskets.
- Tempered protection glass.
- Stainless steel (AISI 316L) trim and screws.
- External housing made of PA (to be ordered separately).
- PG7 nichel brass cable gland (use cables with diameter 5÷7 mm).



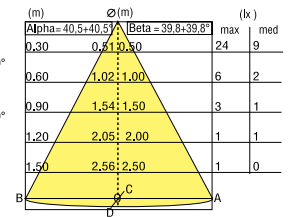
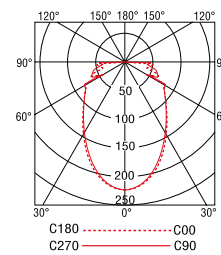
		Vetro sabbato / Satin glass										
		E8391/LBI*	E8391/LBL*	TOT. 1,5W 9 led	230V		5600°	36°	•	-	100°	
		E8394/LBC	E8394/LBI	E8394/LBL	1x1,2W 350mA	3200° 6350° 470nm	43°	•	-	10°		
			E8394/RGB	1x3,5W 350mA		-	43°	•	-	100°		
		E8395/LBC	E8395/LBI	E8395/LBL	3x1,2W 350mA	3200° 6350° 470nm	50°	•	-	10°		
A richiesta fascio 25°/40° / On request beam 25°/40°												
		Vetro sabbato / Satin glass										
		E8391/LBI/SM*	E8391/LBL/SM*	TOT. 1,5W 9 led	230V		5600°	36°	•	-	100°	
		E8394/LBC/SM	E8394/LBI/SM	E8394/LBL/SM	1x1,2W 350mA	3200° 6350° 470nm	43°	•	-	10°		
			E8394/RGB/SM	1x3,5W 350mA		-	43°	•	-	100°		
		E8395/LBC/SM	E8395/LBI/SM	E8395/LBL/SM	3x1,2W 350mA	3200° 6350° 470nm	50°	•	-	10°		
A richiesta fascio 25°/40° / On request beam 25°/40°												
OP. E.../LGI giallo / yellow E.../LRO rosso / red E.../LVE verde / green												
Disponibile trasformatore in emergenza / Safety transformer available												
.../TSC TORX Viti di sicurezza / Safety screws												



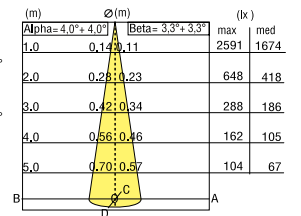
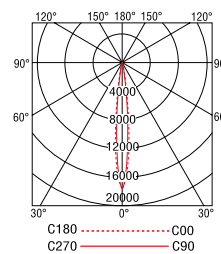
Olodum micro quadro



○ .../LBI (1,5W)



○ .../LBI (2,5W)



Olodum micro quadro



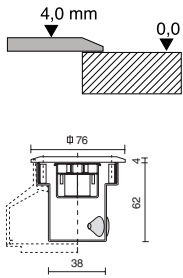
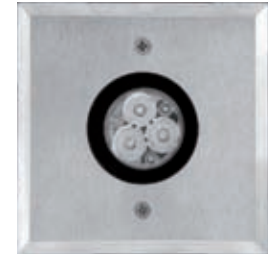
IK 07
IP 67

H05RN-F
H05RN-F

Carico statico 500 kg
Static load 500 kg

- Corpo in acciaio inox (AISI 316L).
- Guarnizioni in gomma siliconica.
- Vetro di protezione temperato.
- Anello di finitura e viti in acciaio inox (AISI 316L).
- Versione con anello sporgente smussato.
- Cassaforma di contenimento in PA (da ordinare a parte).
- Pressacavo in ottone cromato PG7 (diametro cavi utilizzabili 5 ÷ 7mm).

- *Housing made of stainless steel (AISI 316L).*
- *Silicon rubber gaskets.*
- *Tempered protection glass.*
- *Stainless steel (AISI 316L) trim and screws.*
- *Trim ring versions.*
- *External housing made of PA to be ordered separately.*
- *PG7 nichel brass cable gland (use cables with diameter 5÷7 mm).*



 	Vetro sabbiato / <i>Satin glass</i>									
	 E8391/LBI/SMQ E8391/LBL/SMQ	TOT. 1,5W 9 led	230V		5600° -	36°	•	-	100°	
 ± 5°	 E8394/LBC/SMQ E8394/LBI/SMQ E8394/LBL/SMQ	1x1,2W 1x2,5W	350mA 700mA		3200° 6350° 470nm	43°	•	-	10°	
	 E8394/RGB/SMQ	1x3,5W	350mA		-	43°	•	-	100°	
	 E8395/LBC/SMQ E8395/LBI/SMQ E8395/LBL/SMQ	3x1,2W	350mA		3200° 6350° 470nm	50°	•	-	10°	

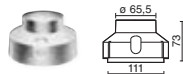
A richiesta fascio 25°/40° / On request beam 25°/40°

OP. **E.../LGI** giallo / yellow **E.../LRO** rosso / red **E.../LVE** verde / green

Disponibile trasformatore in emergenza / Safety transformer available

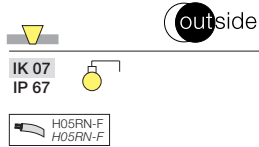
.../TSC TORX Viti di sicurezza / Safety screws

ACC.



185 Cassaforma per incasso
Housing for recessed lights

Olodum multimicro tondo

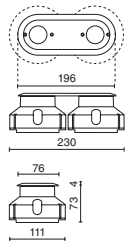


Carico statico 500 kg
Static load 500 kg

- Corpo in acciaio inox (AISI 316L).
- Guarnizioni in gomma siliconica.
- Vetro di protezione temperato.
- Piastre di finitura in acciaio inox (AISI 316L).
- Cassaforma di contenimento in PA.
- Fornito precablato con cavo in uscita 1 mt.

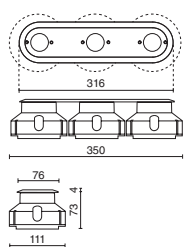
- Housing made of stainless steel (AISI 316L).
- Silicon rubber gaskets.
- Tempered protection glass.
- Stainless steel (AISI 316L) trim and screws.
- External housing made of PA.
- Pre-wired cable 1 mt.

MULTIMICRO 2



Icon	Model	TOT. 3W 18 led	230V	5600°	36°	•	-	100°
○	E8391/2TLBI							
●	E8391/2TLBL			-				
○	E8394/2TLBC	2x1,2W	350mA	3200°	47°	•	-	10°
○	E8394/2TLBI	2x2,5W	700mA	6350°				
●	E8394/2TLBL			470nm				

MULTIMICRO 3



Icon	Model	TOT. 4,5W 27 led	230V	5600°	36°	•	-	100°
○	E8391/3TLBI							
●	E8391/3TLBL			-				
○	E8394/3TLBC	3x1,2W	350mA	3200°	47°	•	-	10°
○	E8394/3TLBI	3x2,5W	700mA	6350°				
●	E8394/3TLBL			470nm				

OP: **E.../LGI** giallo / yellow **E.../LRO** rosso / red **E.../LVE** verde / green

A richiesta: versioni con scheda minitrio powered / On request: minitrio powered version

Disponibile trasformatore in emergenza / Safety transformer available

.../TSC TORX Viti di sicurezza / Safety screws



Olodum multimicro quadro



IK 07
IP 67

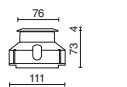
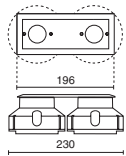
H05RN-F
H05RN-F

Carico statico 500 kg
Static load 500 kg

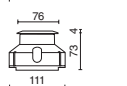
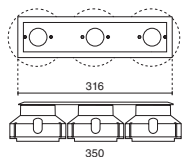
- Corpo in acciaio inox (AISI 316L).
- Guarnizioni in gomma siliconica.
- Vetro di protezione temperato.
- Piastre di finitura in acciaio inox (AISI 316L).
- Cassaforma di contenimento in PA.
- Fornito precablato con cavo in uscita 1 mt.

- *Housing made of stainless steel (AISI 316L).*
- *Silicon rubber gaskets.*
- *Tempered protection glass.*
- *Stainless steel (AISI 316L) trim and screws.*
- *External housing made of PA.*
- *Pre-wired cable 1 mt.*

MULTIMICRO 2



MULTIMICRO 3



			E8391/2QLBI E8391/2QLBL	TOT. 3W 15 led	230V		5600° -	36°	• - 100°
			E8394/2QLBC E8394/2QLBI E8394/2QLBL	2x1,2W 2x2,5W	350mA 700mA		3200° 6350° 470nm	47°	• - 10°

			E8391/3QLBI E8391/3QLBL	TOT. 4,5W 27 led	230V		5600° -	36°	• - 100°
			E8394/3QLBC E8394/3QLBI E8394/3QLBL	3x1,2W 3x2,5W	350mA 700mA		3200° 6350° 470nm	47°	• - 10°

OP: **E.../LGI** giallo / yellow **E.../LRO** rosso / red **E.../LVE** verde / green

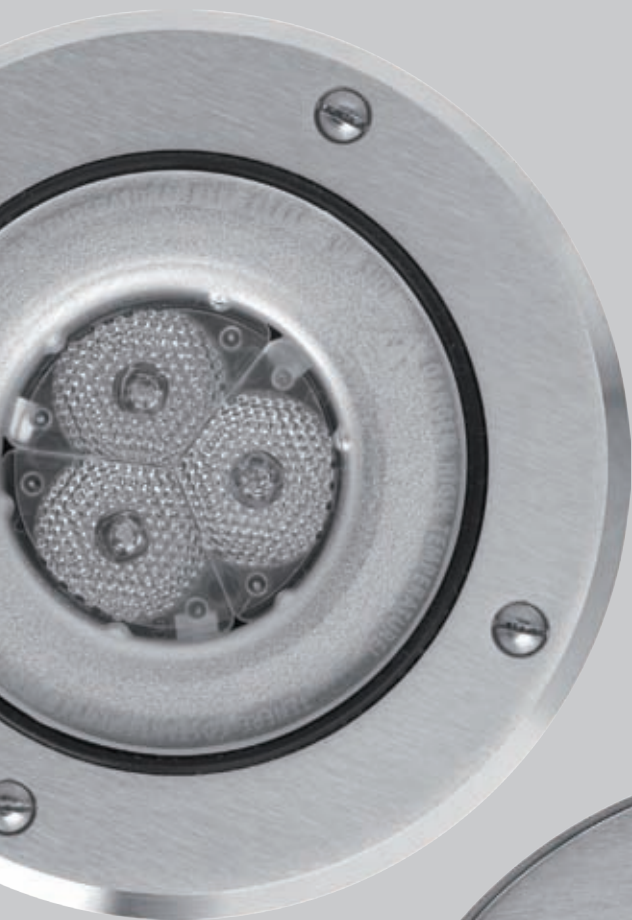
A richiesta: versioni con scheda minitrio powered / On request: minitrio powered version

Disponibile trasformatore in emergenza / Safety transformer available

.../TSC TORX Viti di sicurezza / Safety screws



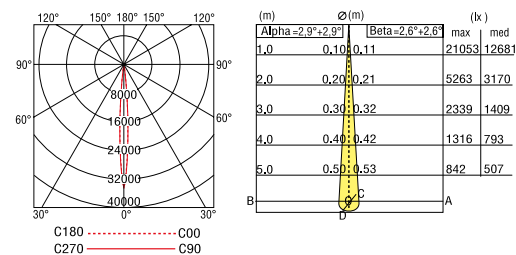
Olodum mini tondo



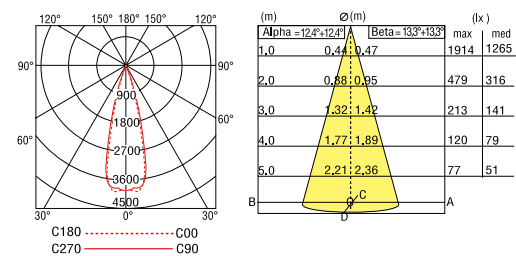
Musée d'Orsay - Statues des 6 Continents (SIDE France)



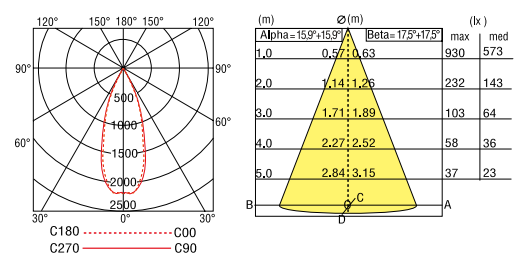
○ .../LBI (3x2,5W 700mA) 10°



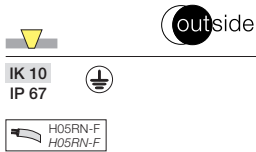
○ .../LBI (3x2,5W 700mA) 30°



○ .../LBI (3x2,5W 700mA) 45°



Olodum mini tondo



IK 10
IP 67

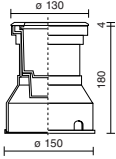
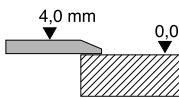


H05RN-F
H05RN-F

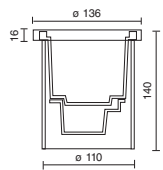
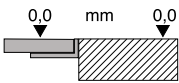
Carico statico 2000 kg
Static load 2000 kg

Velocità max carrabilità 20 km/h
Drive-over max speed 20 km/h

- Corpo in pressofusione di alluminio, verniciato in polveri con pretrattamento speciale per esterni.
- Anello di finitura in acciaio INOX (AISI 316).
- Pressacavo in ottone nichelato PG11.
- Vetro temperato di spessore 10 mm.
- Spot made of die-cast aluminium, powder, coated with pretreatment for outdoor use.
- Stainless steel (AISI 316) frame for glass lock.
- PG11 cable gland of nickel plated brass.
- Tempered protection glass, 10 mm thick.



Vetro trasparente / Transparent glass							
○ E8180/LBI/230* ● E8180/LBL/230*	TOT. 3W 25 led	230V		5600°	45°	•	•
Vetro satinato / Satin glass							
○ E8179/LBI/230* ● E8179/LBL/230*	TOT. 3W 25 led	230V		5600°	45°	•	•
○ E8184/LBC ○ E8184/LBI ● E8184/LBL	3x2,5W	700mA		3200° 6350° 470nm	55°	•	• 45°
A richiesta fascio 30°/10° / On request beam 30°/10°							
○ E8184/LBC35 ○ E8184/LBI35 ● E8184/LBL35	3x1,2W	350mA		3200° 6350° 470nm	55°	•	• 45°
A richiesta fascio 30°/10° / On request beam 30°/10°							



Vetro trasparente / Transparent glass							
○ E8380/T/LBI/23* ● E8380/T/LBL/23*	TOT. 3W 25 led	230V		5600°	45°	•	•
Vetro satinato / Satin glass							
○ E8379/T/LBI/23* ● E8379/T/LBL/23*	TOT. 3W 25 led	230V		5600°	45°	•	•
○ E8384/T/LBC ○ E8384/T/LBI ● E8384/T/LBL	3x2,5W	700mA		3200° 6350° 470nm	52°	•	• 45°
A richiesta fascio 30°/10° / On request beam 30°/10°							
○ E8384/T/LBC35 ○ E8384/T/LBI35 ● E8384/T/LBL35	3x1,2W	350mA		3200° 6350° 470nm	52°	•	• 45°
A richiesta fascio 30°/10° / On request beam 30°/10°							

OP. * E.../LGI/230 giallo / yellow E.../LRO/230 rosso / red E.../LVE/230 verde / green

.../TSC TORX Viti di sicurezza / Safety screws

ACC. e 7,5 2000 **645229** Cavo di alimentazione collegato 2,00 m
Power cable 2,00 m length

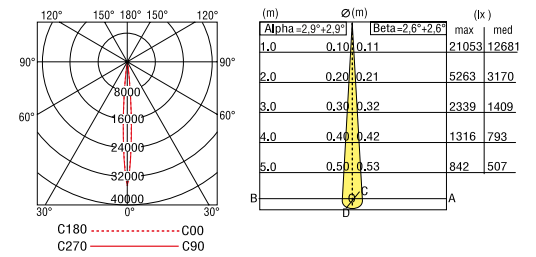
645230 Connettore IP68 / IP68 Socket

E960 Ventosa / Glass remover

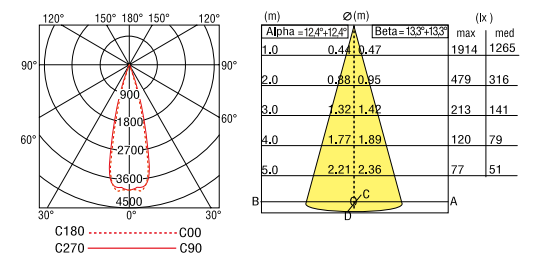
Olodum mini quadro



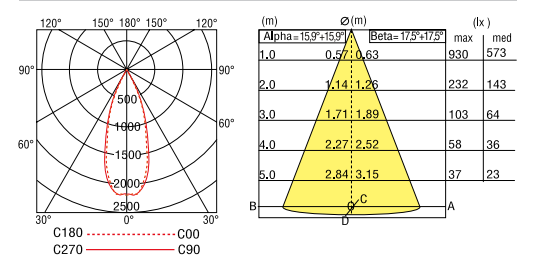
○ .../LBI (3x2,5W 700mA) 10°



○ .../LBI (3x2,5W 700mA) 30°



○ .../LBI (3x2,5W 700mA) 45°



Olodum mini quadro

outside

IK 10
IP 67

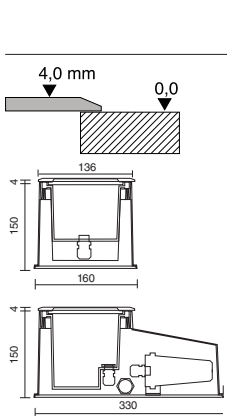
H07RN-F
H07RN-F

Carico statico 2000 kg
Static load 2000 kg

Velocità max carrabilità 20 km/h
Drive-over max speed 20 km/h

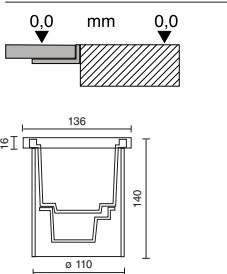
- Corpo in pressofusione di alluminio, verniciato in polveri con pretrattamento speciale per esterni.
- Anello di bloccaggio del vetro in acciaio inox AISI 316.
- Vetro in cristallo temperato e trasparente di spessore 10 mm.
- Completo di pozzetto in materiale termoplastico completo di guarnizione in silicone.
- Pressacavo in ottone nichelato PG 11.

- Spot made of die-cast aluminium, powder coated with pretreatment for outdoor use.
- Trim of satin finished stainless steel (AISI 316).
- External housing of thermoplastic material.
- Finishing tempered glass 10 mm thick.
- Gasket of glass and cover in silicone rubber.
- Cable gland of nickel plated brass with predisposition for through-wiring PG 11.



		W	V		°K				
○ E7120/LBC/10	3x2,5W	230V	700mA	3200°	6350°	45°	•	•	10°
○ E7120/LBI/10				470nm					
● E7120/LBL/10									
○ E7120/LBC/30	3x2,5W	230V	700mA	3200°	6350°	45°	•	•	30°
○ E7120/LBI/30				470nm					
● E7120/LBL/30									
○ E7120/LBC/45	3x2,5W	230V	700mA	3200°	6350°	45°	•	•	45°
○ E7120/LBI/45				470nm					
● E7120/LBL/45									
○ E7120/RGB/10	3x1,2W	230V	350mA	-	-	45°	•	•	10°
○ E7120/RGB/30									30°
○ E7120/RGB/45									45°

Kit di alimentazione remoto in dotazione / Remote power unit kit supplied



Vetro trasparente / Transparent glass									
○ E8380/LBI/230*	3W	230V	25 led	5600°	-	45°	•	•	
● E8380/LBL/230*									
Vetro satinato / Satin glass									
○ E8379/LBI/230*	3W	230V	25 led	5600°	-	45°	•	•	
● E8379/LBL/230*									
○ E8384/LBC	3x2,5W	700mA		3200°	6350°	52°	•	•	45°
○ E8384/LBI				470nm					
● E8384/LBL									

A richiesta fascio 30°/10° / On request beam 30°/10°

○ E8384/LBC35	3x1,2W	230V	350mA	3200°	6350°	52°	•	•	45°
○ E8384/LBI35				470nm					
● E8384/LBL35									

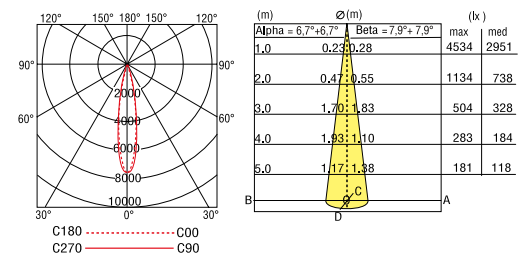
A richiesta fascio 30°/10° / On request beam 30°/10°

- ACC. **645229** Cavo di alimentazione collegato 2,00 m / Power cable 2,00 m length
- OP. **..../TSC TORX** Viti di sicurezza / Safety screws
- 645230** Connettore IP68 / IP68 Socket
- E960** Ventosa / Glass remover

Olodum midi tondo



○ .../LBI (7X2,5W 350mA)



Olodum midi tondo

outside

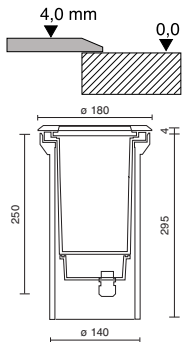
IK 10
IP 67

H07RN-F
H07RN-F

Carico statico 2000 kg
Static load 2000 kg

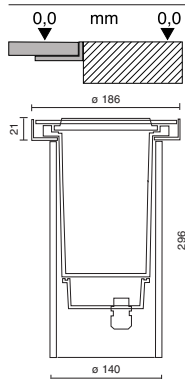
Velocità max carrabilità 20 km/h
Drive-over max speed 20 km/h

- Corpo in pressofusione di alluminio, verniciato in polveri con pretrattamento speciale per esterni.
- Anello di finitura in acciaio INOX (AISI 316).
- Pressacavo in ottone nichelato PG13,5.
- Vetro temperato di spessore 10 mm.
- Spot made of die-cast aluminium, powder, coated with pretreatment for outdoor use.
- Stainless steel (AISI 316) frame for glass lock.
- PG13,5 cable gland of nickel plated brass.
- Tempered protection glass, 10 mm thick.



Model	Power	Voltage	Beam Angle	Temperature	IP	Mounting	Adjustment
○ E8251/LBC	7x2,5W	110÷250V	3200°	6350°	55°	•	•
○ E8251/LBI	7x2,5W	110÷250V	3200°	6350°	55°	•	•
● E8251/LBL	7x2,5W	110÷250V	3200°	6350°	55°	•	•

Con miscelatore e telecomando remoti - With colour control device and remote control



Model	Power	Voltage	Beam Angle	Temperature	IP	Mounting	Adjustment
○ E8251/T/LBC	7x2,5W	110÷250V	3200°	6350°	55°	•	•
○ E8251/T/LBI	7x2,5W	110÷250V	3200°	6350°	55°	•	•
● E8251/T/LBL	7x2,5W	110÷250V	3200°	6350°	55°	•	•

Con miscelatore e telecomando remoti - With colour control device and remote control

OP./TSC TORX Viti di sicurezza / Safety screws

ACC. e 75 2000 **645229** Cavo di alimentazione collegato 2,00 m
Power cable 2,00 m length

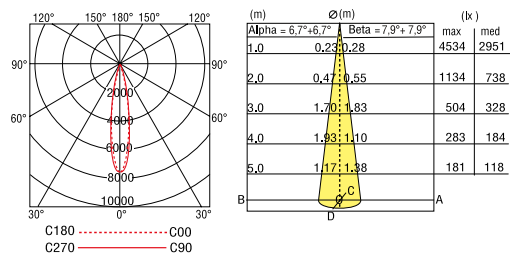
645230 Connettore IP68 / IP68 Socket

E960 Ventosa / Glass remover

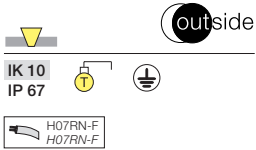
Olodum midi quadro



○ .../LBI (7X2,5W 700mA)



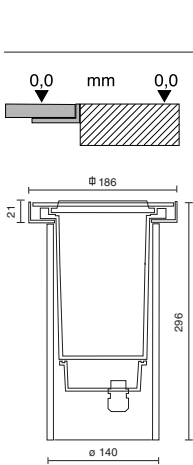
Olodum midi quadro



Carico statico 2000 kg
Static load 2000 kg

Velocità max carrabilità 20 km/h
Drive-over max speed 20 km/h

- Corpo in pressofusione di alluminio, verniciato in polveri con pretrattamento speciale per esterni.
- Anello di finitura a filo terreno in acciaio inox (AISI 316L).
- Pressacavo in ottone nichelato PG13,5.
- Vetro temperato di spessore 10 mm.
- Spot made of die-cast aluminium, powder, coated with pretreatment for outdoor use.
- Finish ring to thread land stainless steel (AISI 316L).
- Cable gland PG13,5 of nickel plated brass.
- Tempered protection glass, 10 mm thick.



Icona	Modello	Consumo	Tensione	Corrente	Angolo	Temperatura	Altezza	Altezza	Altezza
○	E8252/LBC	7x2,5W	110÷250V	700mA	3200°	6350°	55°	•	•
○	E8252/LBI				470nm				15°
●	E8252/LBL								
■	E8252/RGB	5x3,6W	230V	350mA	-	55°	•	•	

Con miscelatore e telecomando remoti - With colour control device and remote control

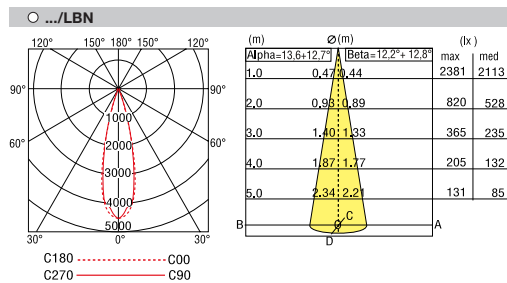
OP:/TSC TORX Viti di sicurezza / Safety screws

ACC. Ø 7,5 2000 **645229** Cavo di alimentazione collegato 2,00 m
Power cable 2,00 m length

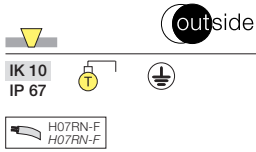
645230 Connettore IP68 / IP68 Socket

E960 Ventosa / Glass remover

Olodum standard tondo



Olodum standard tondo



Carico statico 2000 kg
 Static load 2000 kg
 Velocità max carrabilità 20 km/h
 Drive-over max speed 20 km/h

- Corpo in pressofusione di alluminio, verniciato in polveri con pretrattamento speciale per esterni.
- Anello di finitura in acciaio INOX (AISI 316).
- Pressacavo in ottone nichelato PG13,5.
- Vetro temperato di spessore 10 mm.
- Spot made of die-cast aluminium, powder, coated with pretreatment for outdoor use.
- Stainless steel (AISI 316) frame for glass lock.
- PG13,5 cable gland of nickel plated brass.
- Tempered protection glass, 10 mm thick.



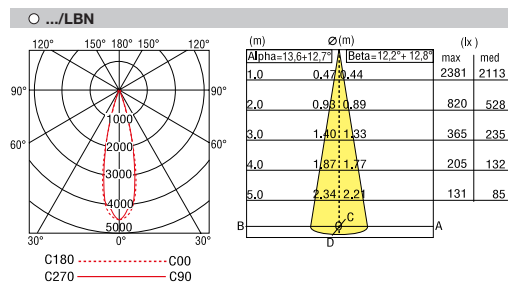
○	E8123/LBN	7x2,5W	230V 700mA		4200°	55°	•	•	30°
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○	E8123/T/LBN	7x2,5W	230V 700mA		4200°	55°	•	•	30°
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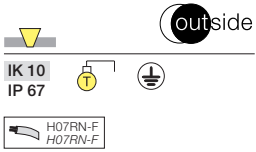
OP./TSC TORX Viti di sicurezza / Safety screws

- ACC. **645229** Cavo di alimentazione collegato 2,00 m
 Power cable 2,00 m length
- 645230** Connettore IP68 / IP68 Socket
- E960** Ventosa / Glass remover

Olodum standard quadro

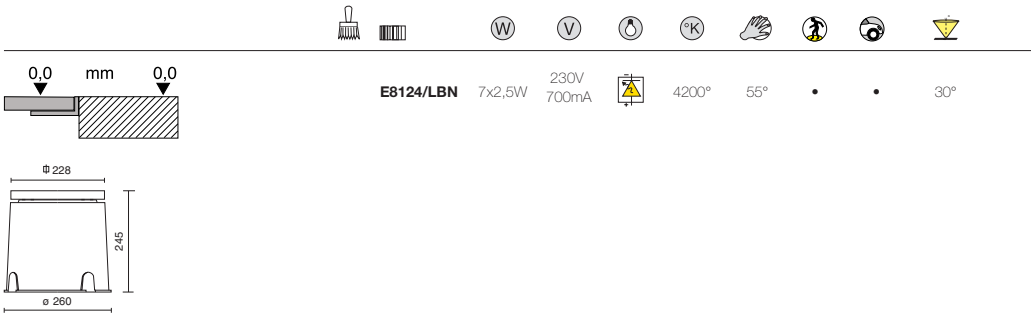


Olodum standard quadro



Carico statico 2000 kg
 Static load 2000 kg
 Velocità max carrabilità 20 km/h
 Drive-over max speed 20 km/h

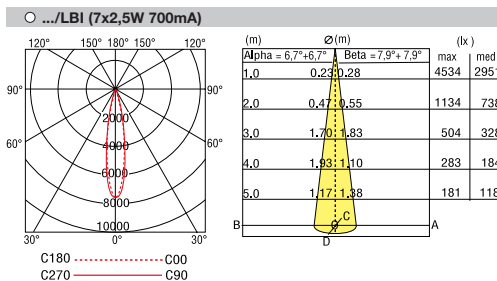
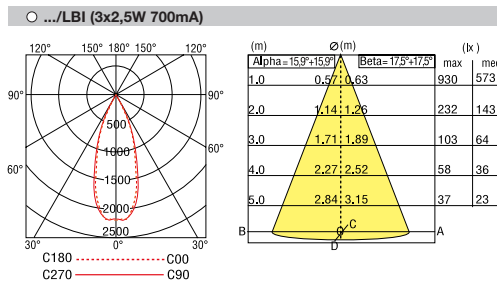
- Corpo in pressofusione di alluminio, verniciato in polveri con pretrattamento speciale per esterni.
- Anello di finitura a filo terreno in acciaio inox (AISI 316L).
- Pressacavo in ottone nichelato PG13,5.
- Vetro temperato di spessore 10 mm.
- Spot made of die-cast aluminium, powder, coated with pretreatment for outdoor use.
- Finish ring to thread land stainless steel (AISI 316L).
- Cable gland PG13,5 of nickel plated brass.
- Tempered protection glass, 10 mm thick.



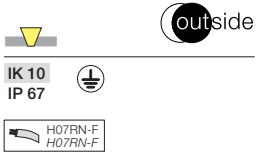
OP./TSC TORX Viti di sicurezza / Safety screws

ACC. ϕ 7,5 2000 **645229** Cavo di alimentazione collegato 2,00 m
 Power cable 2,00 m length
645230 Connettore IP68 / IP68 Socket
E960 Ventosa / Glass remover

Olodum mini/midi full glass



Olodum mini/midi full glass



Carico statico 1000 kg
Static load 1000 kg

- Corpo in pressofusione di alluminio, verniciato in polveri con pretrattamento speciale per esterni.
- Vetro in cristallo extrachiario temperato di spessore 10 mm completo di guarnizione in silicone.
- Completo di pozzetto in materiale termoplastico con cornice in acciaio inox AISI 316.
- Pressacavi per il collegamento in cascata in ottone nichelato PG11.
- Spot made of die-cast aluminium, powder coated with pretreatment for outdoor use
- Finishing tempered glass 10 mm thick and gasket of glass and cover in silicone rubber
- External housing of thermoplastic material and stainless steel AISI 316 trim both supplied together with the light fitting.
- Cable gland PG11 of nickel plated brass with predisposition for through-wiring



VERSIONE MINI / MINI VERSION

○	E8380/TV/LBI230*	TOT. 3W 230V	5600°	45°	•	-	-
●	E8380/TV/LBL230*	25 led	-	-	-	-	-
○	E8384/TV/LBC	3x2,5W 700mA	3200°	52°	•	-	45°
○	E8384/TV/LBI		6350°	52°	•	-	45°
●	E8384/TV/LBL		470nm				

VERSIONE MIDI / MIDI VERSION

○	E8251/TV/LBC	110+250V	3200°				
○	E82517TV/LBI	7x2,5W 700mA	6350°	55°	•	-	15°
●	E8251/TV/LBL		470nm				

OP. **E.../TV/LGI/230** giallo / yellow glass **E.../TV/LRO/230** verde / green
E.../TV/LVE/230 blu / blue

ACC. **645229** Cavo di alimentazione collegato 2,00 m
Power cable 2,00 m length

645230 Connettore IP68 / IP68 Socket

E960 Ventosa / Glass remover

Olodum micro cover - micro pass

La prerogativa della versione "Cover" è rappresentata dall'emissione di luce radiale indiretta, grazie alla presenza di una calotta in grado di generare suggestivi giochi di luce e ombre.

The prerogative of "Cover" version of is the radial indirect light, thanks to the presence of a cap can generate impressive play of lights and shadows.



Olodum micro cover - micro pass



IK 07
IP 67

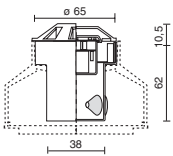


MICRO COVER
Carico statico 1000 kg
Static load 1000 kg

MICRO PASS
Carico statico 500 kg
Static load 500 kg

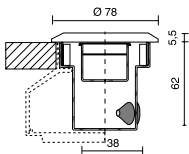
- Corpo in acciaio inox.
- Viterie in acciaio inox.
- Guarnizioni in gomma siliconica.
- Schermo diffusore in metacrilato (Micro pass)
- Calotta per diffusione radiale in pressofusione di alluminio a 8 cave (Micro cover).
- Copertura in acciaio inox lucidata (Micro pass)
- Doppia verniciatura in polveri con pretrattamento speciale per esterni.
- Cassaforma di contenimento in PA (da ordinare a parte).
- Pressacavo in ottone nichelato PG7 (diametro cavi utilizzabili 5÷7mm).

- Housing of stainless steel.
- Stainless steel screws.
- Silicon rubber gaskets.
- Methacrylate diffuser (Micro pass)
- Die-cast aluminium canopy for radial diffusion, with 8 openings (Micro cover).
- Inox steel canopy (Micro pass).
- Double painted powder coated with outdoor special treatment.
- External housing made of PA to be ordered separately.
- PG7 nichel brass cable gland (use cables with diameter 5÷7 mm).



Micro cover: versione border con led a luce radente / Led razing light version

Gr	○ E8392/LBI	1,5W	230V		5600°	36°	•	-
Gr	● E8392/LBL	8 led			-			



Micro pass: versione incasso da segnalazione / Recessed version for signal

●	E8394/VD/LRO	1x1,2W	350mA		-	36°	•	-
○	E8394/VD/LBI	1x2,5W	700mA		-			
●	E8394/VD/LBL	1x2,5W	700mA		-			
	E8394/VD/RGB	1x3,5W	350mA		-	36°	•	-



OP. Solo per Micro Cover / only for Micro Cover

● E.../LGI giallo / yellow ● E.../LRO rosso / red ● E.../LVE verde / green

.../TSC TORX Viti di sicurezza / Safety screws

A richiesta apparecchio con alimentazione a 24V / On request power supply 24V

ACC.

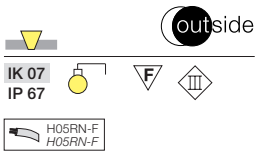


185 Cassaforma per incasso (solo per Micro Cover)
Housing for recessed lights (only for Micro Cover)

Olodum micro cover AL



Olodum micro cover AL



Carico statico 2000 kg
 Static load 2000 kg
 Velocità max carrabilità 5 km/h
 Drive-over max speed 5 km/h

- Corpo Inox aisi 316L.
- Calotta in alluminio pressofuso.
- Doppia verniciatura in polveri poliestere.
- Diffusore in policarbonato anti-UV.
- Cassaforma di contenimento in PA (da ordinare a parte).
- Pressacavo in ottone nichelato PG7 (diametro cavi utilizzabili 5 ÷ 7mm).
- Viti in acciaio INOX.

- *Inox aisi 316L.*
- *Die-cast aluminium cover.*
- *Double powder coated painting.*
- *Anti-UV polycarbonate diffuser.*
- *Housing made of PA (not included).*
- *PG7 nichel brass cable gland (use cables with diameter 5÷7 mm).*
- *Inox steel screws.*



Versione radiale con powered / Powered radial version

Gr ○	E8399/LBI	1x1,2W	350mA		6350°		
Gr ●	E8399/LBL				470nm	•	•



Versione mono emissione con powered / Powered mono emission version

Gr ○	E8399/1/LBI	1x1,2W	350mA		6350°		
Gr ●	E8399/1/LBL				470nm	•	•



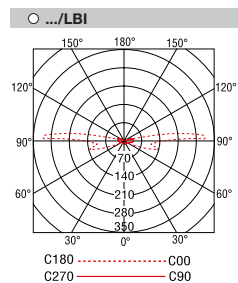
OP.TSC TORX Viti di sicurezza / Safety screws

ACC. **185** Cassaforma per incasso
 Housing for recessed lights

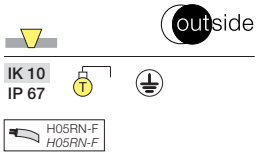
Olodum mini cover

Dotato di calotta in acciaio Inox Aisi 316L, che ne garantisce la protezione contro gli eventi atmosferici e la corrosione, l'Olodum Mini Cover rappresenta il punto di incontro tra caratteristiche di robustezza, sicurezza, affidabilità e senso estetico. L'apparecchio è infatti in grado di generare atmosfere scenografiche di notevole impatto grazie all'intensità dell'emissione dei raggi luminosi sulla superficie circostante.

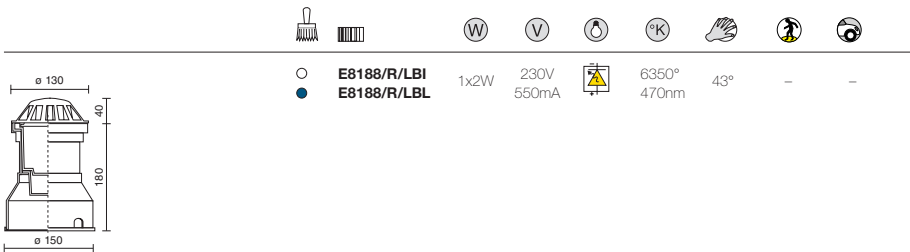
Equipped with cap in Aisa 316L Stainless steel, which guarantees protection against weathering and corrosion, Olodum Mini Cover is the meeting point between the characteristics of robustness, security, reliability and aesthetic sense. The device is capable of generating scenic atmosphere of considerable impact because of the intensity of the light rays on the surrounding area.



Olodum mini cover



- Corpo in pressofusione di alluminio, verniciato in polveri con pretrattamento speciale per esterni.
- Calotta a 12 cave in acciaio INOX AISI 316 per emissione radiale.
- Lente circolare per la diffusione radente del fascio luminoso.
- Pressacavo in ottone nichelato PG11.
- Spot made of die-cast aluminium, powder coated with pretreatment for outdoor use.
- Steel cover with 12 openings, made of stainless steel AISI 316, for radial emission.
- Circular lens for the diffusion of the light beam.
- PG11 cable gland of nickel plated brass.

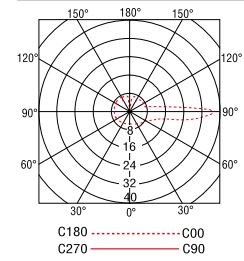


OP. **E.../LGI** giallo / yellow **E.../LRO** rosso / red **E.../LVE** verde / green
Disponibile trasformatore in emergenza / Safety transformer available

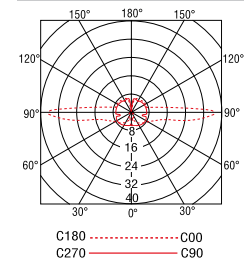
Olodum mini cover AL



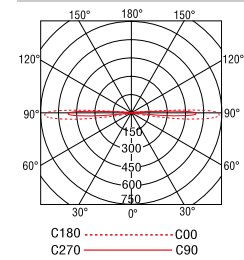
○ E8396/LBI



○ E8397/LBI



○ E8398/LBI



Olodum mini cover AL



IK 10
IP 67

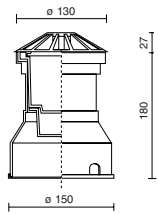
H07RN-F
H07RN-F

Carico statico 2000 kg
Static load 2000 kg

Velocità max carrabilità 5 km/h
Drive-over max speed 5 km/h

- Corpo e calotta in pressofusione di alluminio.
- Doppia verniciatura in polveri poliestere con pretrattamento speciale per esterni.
- Uscita luce mono-bi-radiale.
- Diffusore in vetro stampato.
- Cassaforma di contenimento in PA.
- Pressacavo in ottone nichelato PG11.

- *Body and cover made of die-cast aluminium.*
- *Double powder coated painting with outdoor special treatment.*
- *Mono-bi-radial light diffusion.*
- *Printed glass diffuser.*
- *Housing made of PA.*
- *PG11 cable gland of nickel plated brass.*

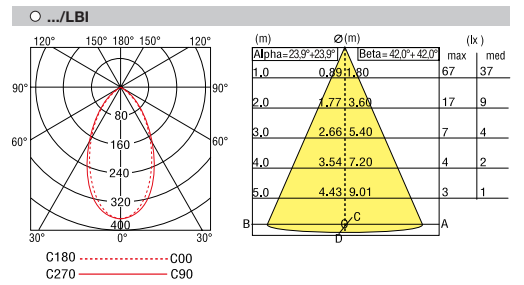
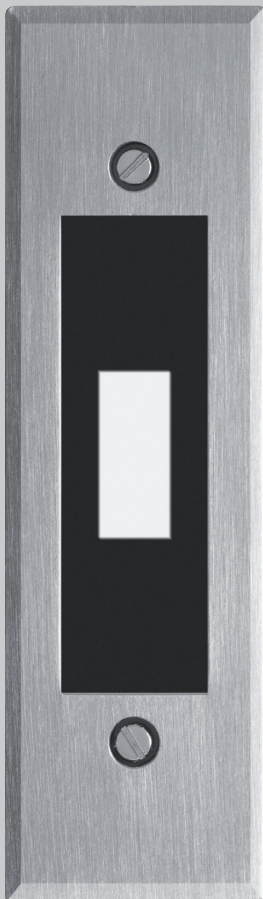


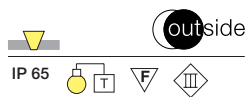
	Versione mono emissione con powered / Powered mono emission version							
Gr ○	E8396/LBI	1x2W	230V		6350°	•	•	
Gr ●	E8396/LBL		500mA		470nm			
	Versione doppia emissione con powered / Powered double emission version							
Gr ○	E8397/LBI	1x2W	230V		6350°	•	•	
Gr ●	E8397/LBL		500mA		470nm			
	Versione radiale con powered / Powered radial version							
Gr ○	E8398/LBI	1x2W	230V		6350°	•	•	
Gr ●	E8398/LBL		500mA		470nm			



OP. .../TSC TORX Viti di sicurezza / Safety screws

Li-led





IP 65



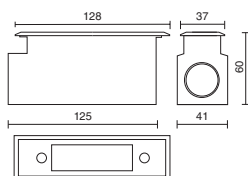
Carico statico 500 kg
Static load 500 kg

- Corpo in estruso di alluminio anodizzato.
- Viti in acciaio inox.
- Guarnizioni in gomma siliconica.
- Vetro di protezione trasparente serigrafato spessore 8 mm.
- Cavo di alimentazione 2x0,75 lunghezza 1 m.
- Pressacavo in ottone nichelato PG7.

- Extruded aluminium body anodized.
- Inox screws.
- O RING in silicone.
- Transparent glass protection with serigraphy thickness 8mm.
- Cable 2X0,75 length 1 m supplied.
- Cable gland of nickel plated brass PG7.



○	○	○	○	○	○	○	○	○	○
●	●	●	●	●	●	●	●	●	●
E9053/LBC	E9053/LBI	1x3W	230V		3500°	57°	•	-	45°
E9053/LBL	E9053/LBL		350mA		5000°				
					470nm				
A richiesta fascio 25° - On request beam 25°									
Alimentatore remoto in dotazione (Nc 644758) - Remote control gear included (Nc 644758)									



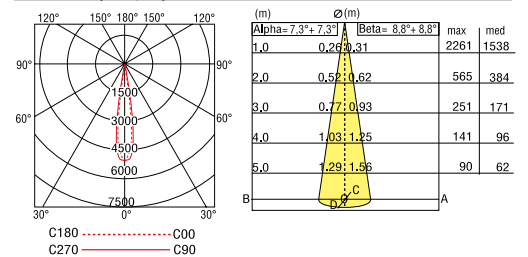
Mini longlight

Serie di incassi calpestabili per esterni con finitura in acciaio INOX e sorgenti luminose LED da 6 e 12W PowerLed e 1,5-3W SMD o tipo RGB da 3,5-7W. Ideale per illuminazioni architettoniche e di segnalazione in ambito sia interno che esterno.

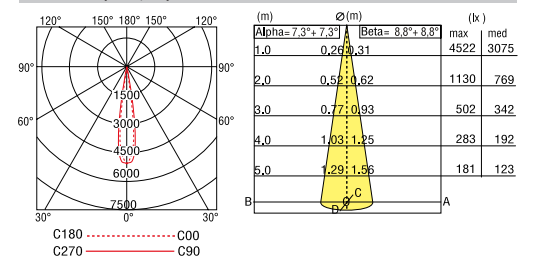
*Range of buried outdoor fixture with finishes in stainless steel.
LED technologies of 6 and 12W Power Led and 1.5 – 3W SMD or RGB of 3.5-7W. Suitable for architectural and sign light to be used both for outdoor and indoor.*



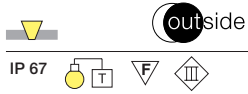
○ .../LBI (12x1,2W)



○ .../LBI (24x1,2W)



Mini longlight



H05SS-F
H05SS-F

Carico statico 500 kg
Static load 500 kg

- Corpo in estruso di alluminio, cassaforma in acciaio inox, cornice in acciaio inox aisi 316 satinato.
- Cassaforma in acciaio inox.
- Vano ottico: recuperatore di flusso in alluminio.
- Equipaggiamento: vetro di protezione temperato, spessore 6mm, cavo di alimentazione lunghezza 1mt, pressacavo in ottone nichelato PG7.

- Body: aluminium extrusion.
- Ground /wall housing in inox.
- Optic: satin aluminium reflector.
- Equipment: transparent protection 6mm glass, thickness feed cable 1 m length, cable gland: PG7 nickel brass.



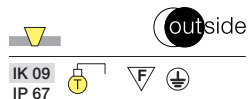
VERSIONE CORTA <i>SHORT VERSION</i>										
	VS	○ ●	E9051/LBI* E9051/LBL*	TOT. 1,5W 15 led	230/24V		5600° -	30°	•	-
	VT	○ ●	E9050/LBI* E9050/LBL*	TOT. 6W 60 led	230V 350mA		5400° -	45°	•	-
	VT	○ ○ ●	E9052/LBC E9052/LBI E9052/LBL	12x1,2W	230/24V		3200° 6350° 470nm	-	-	•
A richiesta con lente con fascio ellittico 6°x25° - On request with elliptical beam lens 6°x25°										
	VS		E9051/RGB	TOT. 3,5W 15 led	230/24V		-	35°	•	-
Con miscelatore e telecomando remoti - With colour control device and remote control										
VERSIONE LUNGA <i>LONG VERSION</i>										
	VS	○ ●	E9061/LBI* E9061/LBL*	TOT. 3W 30 led	230/24V		5600° -	35°	•	-
	VT	○ ●	E9060/LBI* E9060/LBL*	TOT. 12W 120 led	230V 350mA		5400° -	45°	•	-
	VT	○ ○ ●	E9062/LBC E9062/LBI E9062/LBL	24x1,2W	230/24V		3200° 6350° 470nm	-	-	•
A richiesta con lente con fascio ellittico 6°x25° - On request with elliptical beam lens 6°x25°										
	VS		E9061/RGB	TOT. 7W 30 led	230/24V		-	40°	•	-
Con miscelatore e telecomando remoti - With colour control device and remote control										
VS Vetro sabbiato - <i>Frosted Glass</i> VT Vetro trasparente - <i>Transparent Glass</i> OP. * ● E.../LGI giallo / yellow ● E.../LRO rosso / red ● E.../LVE verde / green										

ACC. Kit alimentatore/miscelatori + telecomando solo per versione RGB vedi sezione ALIMENTATORI
Power supply and color mixer kit + remote controller only for RGB version see POWER SUPPLIES section

Longlight



Longlight



Carico statico 500 kg
Static load 500 kg

- Corpo in estruso di alluminio anodizzato.
- Cornice in acciaio inox AISI 316 satinato, cassaforme in acciaio inox AISI 316.
- Guarnizioni in gomma siliconica.
- Testate in alluminio pressofuso fosfocromate e verniciate.
- Vetro temperato di spessore 10 mm, sabbato.
- Cavo di alimentazione lg 1 mt. collegato all'apparecchio.

- Extruded aluminium body anodized.
- Frame in inox AISI 316 brushed, ground /wall housing in inox AISI 316.
- Silicon rubber gasket.
- End caps of die-cast aluminium, painted with phosphorchrome treatment.
- Tempered glass, 10 mm. thick, frosted.
- Power cable 1 mt. lg. connected to the fitting.

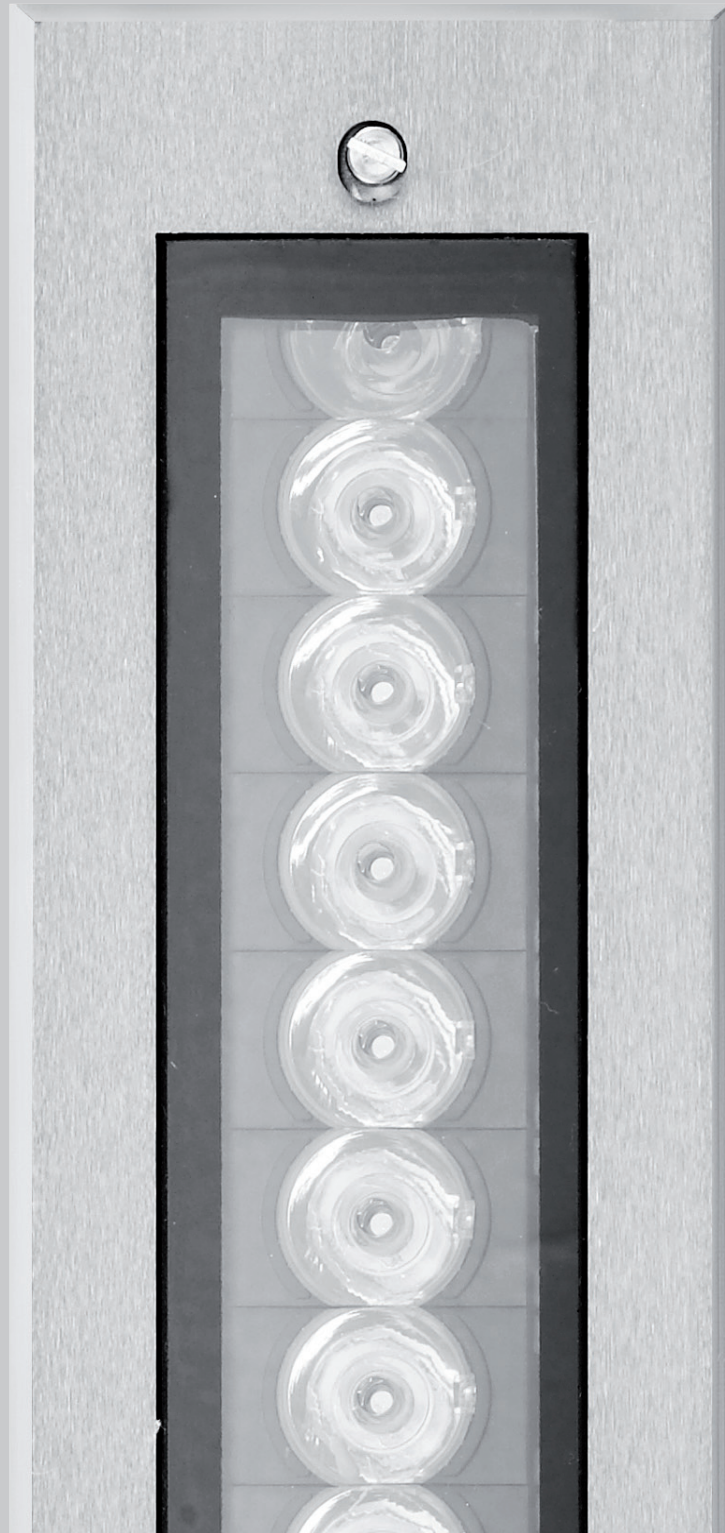


			L (mm)								
 STANDARD Con telaio di finitura in battuta With smooth finishing frame 105, 85, 108, 110	○	E8900/LBI	375	TOT. 1,5W	230/24V		5600°	32°	•	-	
	●	E8900/LBL		15 led			-				
	○	E8910/LBI	375	TOT. 3W	230/24V		5600°	35°	•	-	
	●	E8910/LBL		30 led			-				
 FLAT Con telaio di finitura a filo With flush finishing frame 103, 108, 110, 57	○	E8920/LBI	935	TOT. 6W	230/24V		5600°	38°	•	-	
	●	E8920/LBL		60 led			-				
	○	E8930/LBI	935	TOT. 12W	230/24V		5600°	42°	•	-	
	●	E8930/LBL		120 led			-				
 FLAT Con telaio di finitura a filo With flush finishing frame 103, 108, 110, 57	○	E8905/LBI	380	TOT. 1,5W	230/24V		5600°	32°	•	-	
	●	E8905/LBL		15 led			-				
	○	E8915/LBI	380	TOT. 3W	230/24V		5600°	35°	•	-	
	●	E8915/LBL		30 led			-				
 FLAT Con telaio di finitura a filo With flush finishing frame 103, 108, 110, 57	○	E8925/LBI	940	TOT. 6W	230/24V		5600°	38°	•	-	
	●	E8925/LBL		60 led			-				
	○	E8935/LBI	940	TOT. 12W	230/24V		5600°	42°	•	-	
	●	E8935/LBL		120 led			-				

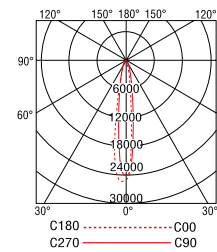
OP. **E..../LGI** giallo / yellow **E..../LRO** rosso / red **E..../LVE** verde / green

ACC. **645230** Connettore IP68
IP68 connector

Longlight

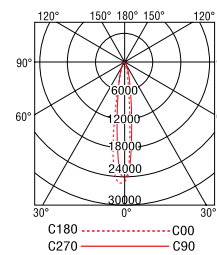


○ .../LBI (12x1,2W)



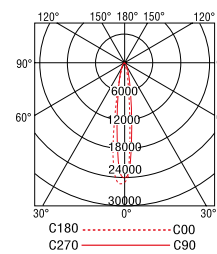
(m)	Ø(m)	(lx)	
		max	med
1.0	0.16; 0.16	10380	7010
2.0	0.38; 0.32	2595	1753
3.0	0.49; 0.48	1153	779
4.0	0.66; 0.63	649	438
5.0	0.82; 0.79	415	280

○ .../LBI (36x1,2W)



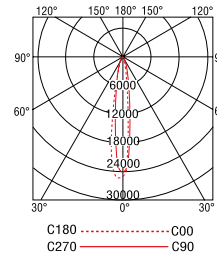
(m)	Ø(m)	(lx)	
		max	med
1.0	0.16; 0.16	31.142	21032
2.0	0.38; 0.32	7785	5258
3.0	0.49; 0.48	3460	2337
4.0	0.66; 0.63	1946	1314
5.0	0.82; 0.79	1246	841

○ .../LBI (48x1,2W)



(m)	Ø(m)	(lx)	
		max	med
1.0	0.16; 0.16	41.522	28042
2.0	0.38; 0.32	10380	7010
3.0	0.49; 0.48	4614	3116
4.0	0.66; 0.63	2595	1753
5.0	0.82; 0.79	1661	1122

○ .../LBI (60x1,2W)



(m)	Ø(m)	(lx)	
		max	med
1.0	0.16; 0.16	51.903	35053
2.0	0.38; 0.32	12976	8763
3.0	0.49; 0.48	5767	3895
4.0	0.66; 0.63	3244	2191
5.0	0.82; 0.79	2076	1402



IK 09
IP 67

Carico statico 500 kg
Static load 500 kg

- Corpo in estruso di alluminio anodizzato.
- Cornice in acciaio inox AISI 316 satinato, cassaforme in acciaio inox AISI 316.
- Guarnizioni in gomma siliconica.
- Testate in alluminio pressofuso fosfocromatate e verniciate.
- Vetro temperato di spessore 10 mm, trasparente.
- Cavo di alimentazione lg. 1 mt. collegato all'apparecchio.

- *Extruded aluminium body anodized.*
- *Frame in inox AISI 316 brushed, ground / wall housing in inox AISI 316.*
- *Silicon rubber gasket.*
- *End caps of die-cast aluminium, painted with phosphochrome treatment.*
- *Tempered glass, 10 mm. thick, transparent.*
- *Power cable 1 mt. lg. connected to the fitting.*



			L (mm)								
 STANDARD Con telaio di finitura in battuta With smooth finishing frame	<input type="radio"/>	<input type="radio"/>	375	12x1,2W	24V		3200° 6350° 470nm	38°	•	-	10°
	<input type="radio"/>	<input type="radio"/>									
	<input type="radio"/>	<input type="radio"/>									
 STANDARD Con telaio di finitura in battuta With smooth finishing frame	<input type="radio"/>	<input type="radio"/>	935	36x1,2W	24V		3200° 6350° 470nm	42°	•	-	10°
	<input type="radio"/>	<input type="radio"/>									
	<input type="radio"/>	<input type="radio"/>									
 STANDARD Con telaio di finitura in battuta With smooth finishing frame	<input type="radio"/>	<input type="radio"/>	1236	48x1,2W	24V		3200° 6350° 470nm	42°	•	-	10°
	<input type="radio"/>	<input type="radio"/>									
	<input type="radio"/>	<input type="radio"/>									
 STANDARD Con telaio di finitura in battuta With smooth finishing frame	<input type="radio"/>	<input type="radio"/>	1536	60x1,2W	24V		3200° 6350° 470nm	42°	•	-	10°
	<input type="radio"/>	<input type="radio"/>									
	<input type="radio"/>	<input type="radio"/>									
 FLAT Con telaio di finitura a filo With flush finishing frame	<input type="radio"/>	<input type="radio"/>	380	12x1,2W	24V		3200° 6350° 470nm	38°	•	-	10°
	<input type="radio"/>	<input type="radio"/>									
	<input type="radio"/>	<input type="radio"/>									
 FLAT Con telaio di finitura a filo With flush finishing frame	<input type="radio"/>	<input type="radio"/>	940	36x1,2W	24V		3200° 6350° 470nm	42°	•	-	10°
	<input type="radio"/>	<input type="radio"/>									
	<input type="radio"/>	<input type="radio"/>									
 FLAT Con telaio di finitura a filo With flush finishing frame	<input type="radio"/>	<input type="radio"/>	1240	48x1,2W	24V		3200° 6350° 470nm	42°	•	-	10°
	<input type="radio"/>	<input type="radio"/>									
	<input type="radio"/>	<input type="radio"/>									
 FLAT Con telaio di finitura a filo With flush finishing frame	<input type="radio"/>	<input type="radio"/>	1540	60x1,2W	24V		3200° 6350° 470nm	42°	•	-	10°
	<input type="radio"/>	<input type="radio"/>									
	<input type="radio"/>	<input type="radio"/>									

OP. A richiesta fascio ellittico 12°x50° / On request elliptical beam 12°x50°

ACC. **645230** Connettore IP68
IP68 connector

Subwater 140

Subwater trova la sua naturale collocazione per l'illuminazione di vasche, fontane e piscine; è un prodotto da incasso a pavimento o a parete predisposto per le fonti luminose a LED.

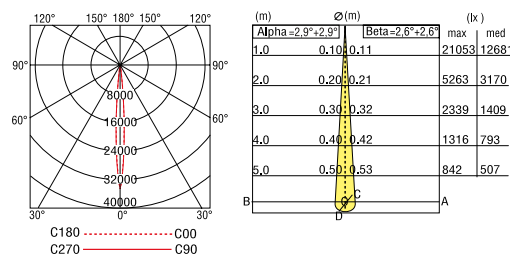
Subwater è dotato di tutti gli accorgimenti costruttivi atti al conferimento del grado di protezione IP68, inoltre i materiali costruttivi impiegati garantiscono una lunga vita del prodotto anche in immersione.

The Subwater finds its natural placing for pools, fountains and swimming pools lighting. It is a wall or ground recessed light, made for LED light sources.

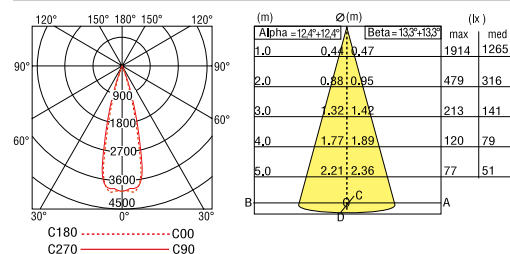
Subwater is provided with all components to be an IP68 and the materials also guarantee a long life to the product in immersion too.



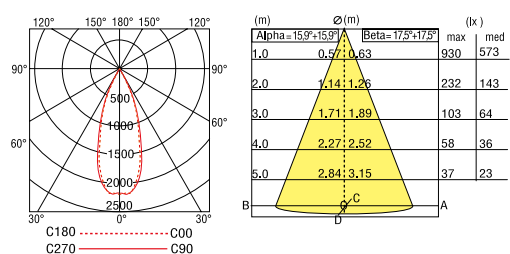
○ .../LBI (3x2,5W 700mA) 10°



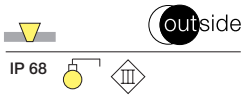
○ .../LBI (3x2,5W 700mA) 30°



○ .../LBI (3x2,5W 700mA) 45°

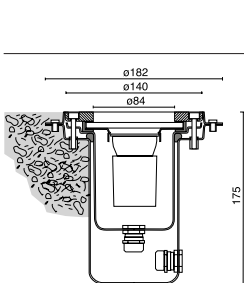


Subwater 140



- Adatto per illuminazione di vasche, fontane, piscine.
- Profondità d'installazione 3 mt. max.
- Cavo di alimentazione lg. 5 mt. collegato.
- Manutenzione senza svuotamento della vasca.
- Corpo e cassaforma in acciaio INOX anticorrosione (AISI 316) satinato e rivestito con layer di protezione contro l'ossidazione.
- Vetro temperato ad alto spessore.
- N.B. L'apparecchio non è adatto all'immersione in acqua marina o contenente additivi chimici.

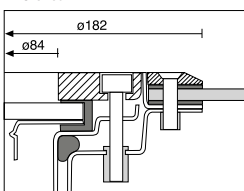
- Suitable for pools, fountain, tanks.
- Installation depth max 3 mt.
- Power cable lg. 5 mt. connected.
- Maintenance without emptying the water.
- Body and housing made of satin finished corrosion resistant stainless steel (AISI 316) and coated with a protective layer to prevent corrosion by oxidation.
- Extra thick, tempered glass.
- N.B. The floodlight is not suitable for immersion in sea water or in water with chemical agents.



○	E8253/LBC	3x1,2W	350mA		3200°		
○	E8253/LBI	3x2,5W	700mA		6350°		45°
●	E8253/LBL				470nm		

A richiesta fascio 10° / 30° e versione RGB - On request 10° / 30° beam and RGB version

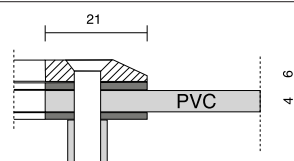
Es. di installazione in vasche con guaina in PVC
Ex. of installation in tanks with PVC sheath



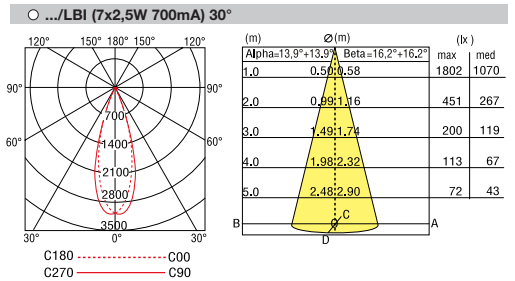
Adatto per installazioni in acqua fino a 3 m. di profondità
Suitable for underwater applications max deep 3 mt

OP./G Apparecchio con griglia di protezione
Light fitting with protection grid

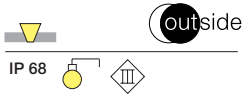
ACC. **E8261** Flangia per vasche con guaina in PVC
Flange for tanks with PVC sheath



Subwater 175



Subwater 175

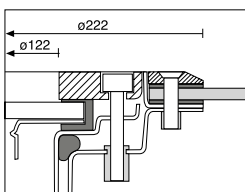


- Adatto per illuminazione di vasche, fontane, piscine.
 - Profondità d'installazione 3 mt. max.
 - Cavo di alimentazione lg. 5 mt. collegato.
 - Manutenzione senza svuotamento della vasca.
 - Corpo e cassaforma in acciaio INOX anticorrosione (AISI 316) satinato e rivestito con layer di protezione contro l'ossidazione.
 - Vetro temperato ad alto spessore.
 - N.B. L'apparecchio non è adatto all'immersione in acqua marina o contenente additivi chimici.
-
- Suitable for pools, fountain, tanks.
 - Installation depth max 3 mt.
 - Power cable lg. 5 mt. connected.
 - Maintenance without emptying the water.
 - Body and housing made of satin finished corrosion resistant stainless steel (AISI 316) and coated with a protective layer to prevent corrosion by oxidation.
 - Extra thick, tempered glass.
 - N.B. The floodlight is not suitable for immersion in sea water or in water with chemical agents.



○	E8254/LBC				3200°		
○	E8254/LBI	7x2,5W	700mA		6350°	-	30°
●	E8254/LBL				470nm		
	E8254/RGB	5x3,6W	350mA		-	-	45°

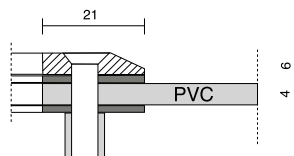
Es. di installazione in vasche con guaina in PVC
 Ex. of installation in tanks with PVC sheath



Adatto per installazioni in acqua fino a 3 m. di profondità
 Suitable for underwater applications max deep 3 mt

OP./G Apparecchio con griglia di protezione
 Light fitting with protection grid

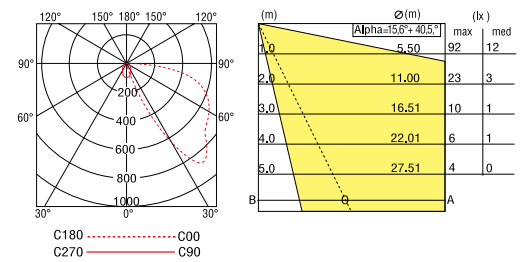
ACC. **E8262** Flangia per vasche con guaina in PVC
 Flange for tanks with PVC sheath



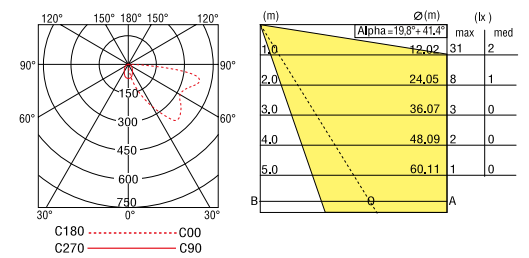
Incavo

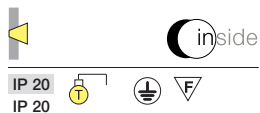


○ 43021/LBI (6x1,2W 350mA)



○ 43001/LBI (3W 350mA)





- Corpo in lamiera di acciaio verniciata.
- Cassaforma di alloggiamento inclusa.
- Modello .../SC per installazioni su cartongesso.
- Diffusore in alluminio purissimo.
- Vetro di protezione.
- Ottica basculante 0 - 30°.
- *Painted steel body.*
- *Housing included.*
- *.../SC model for soft wall.*
- *Pure aluminium reflector.*
- *Protection glass.*
- *Adjustable optic 0 - 30°.*



			Mod. SC	L (mm)					
<p>Mod SC 90x290 mm</p>	Br ○	43001/LBC	43001/LBC/SC	100	3W	230V 350mA		3500° 5000° 470nm	45°
	Br ○	43001/LBI	43001/LBI/SC						
	Br ●	43001/LBL	43001/LBL/SC						
<i>A richiesta apertura fascio 25° / On request light beam 25°</i>									
<p>Mod SC 90x290 mm</p>	Ga ○	43002/LBC	43002/LBC/SC	100	3W	230V 350mA		3500° 5000° 470nm	45°
	Ga ○	43002/LBI	43002/LBI/SC						
	Ga ●	43002/LBL	43002/LBL/SC						
<i>A richiesta apertura fascio 25° / On request light beam 25°</i>									
<p>Mod SC 290x290 mm</p>	Br ○	43020/LBC	43020/LBC/SC	300	6x1,2W	230V 350mA		3200° 6300° 470nm	10°
	Br ○	43020/LBI	43020/LBI/SC						
	Br ●	43020/LBL	43020/LBL/SC						
<p>Mod SC 290x290 mm</p>	Ga ○	43021/LBC	43021/LBC/SC	300	6x1,2W	230V 350mA		3200° 6300° 470nm	10°
	Ga ○	43021/LBI	43021/LBI/SC						
	Ga ●	43021/LBL	43021/LBL/SC						

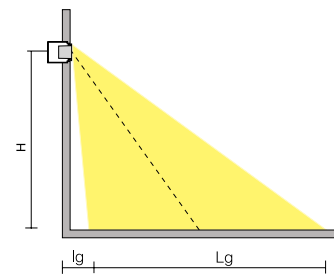
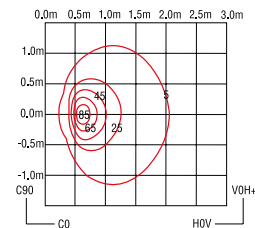
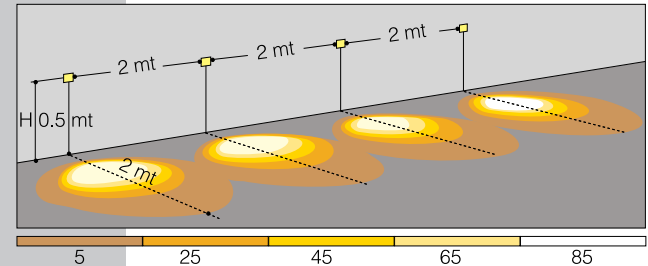
Mod. SC: Modello con telaio per installazione in superfici di cartongesso / Housing for soft wall

Riquadro micro

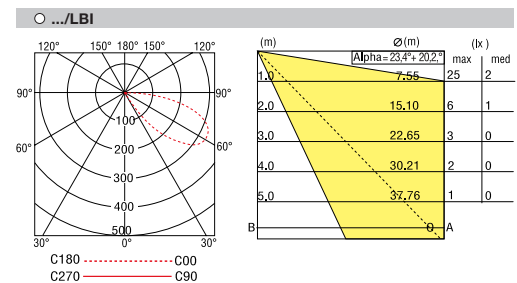
Incasso da parete dalle piccole dimensioni, progettato per sfruttare al meglio la nuova tecnologia LED, grazie all'inclinazione della lente studiata in modo da far confluire tutto il flusso luminoso verso l'area di interesse è l'ideale per illuminare i camminamenti senza abbagliare.

L'installazione è facilitata dall'utilizzo di cassette da incasso standard tipo 503, e dall'alimentatore integrato a bordo apparecchio.

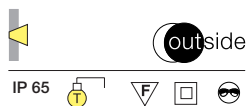
Recessed fittings with reduced dimensions, designed to exploit the new LED technology. Thanks to the inclination of the lens, designed to bring together all the luminous flux to the area of interest, it is ideal for illuminating walkways without dazzling. The installation is facilitated by the use of the standard housing type 503 and by the built-in ballast included.



H mm	Lux Max	Lg mm	lg mm
250	130	1400	100
500	85	1750	250



Riquadro micro



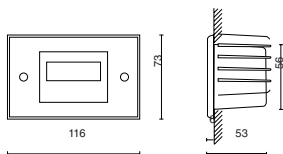
- Modulo da incasso a muro per scatola elettrica tipo 503 in dotazione.
- Corpo e piastra in alluminio pressofuso.
- Verniciatura in polveri poliestere previo trattamento speciale per esterni.
- Viti in acciaio inox.
- Cavo di alimentazione lg. 0,2 mt collegato all'apparecchio.
- Guarnizioni e pressacavo in gomma siliconica.
- Vetro di protezione.

- Wall recessed fitting for supplied electrical boxes type 503.
- Die-cast aluminium body and upper plate.
- Powder coated with pretreatment for outdoor use.
- Inox steel screws.
- Connected power cable lg. 0,2 mt.
- Gasket and cable gland made of silicon rubber.
- Protection glass.

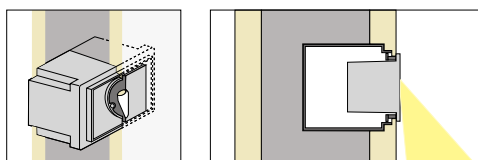


								LUMEN
Gr ○ E908/LBC						3200°		
Gr ○ E908/LBI			1x4,5W	230V		5000°	40°	300
Gr ● E908/LBL						470nm		

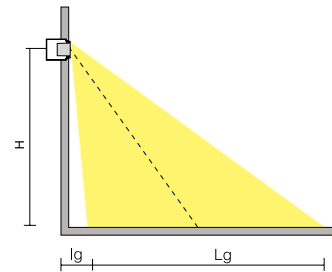
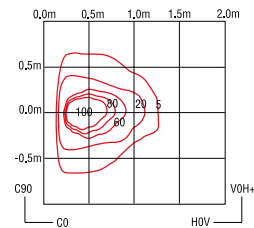
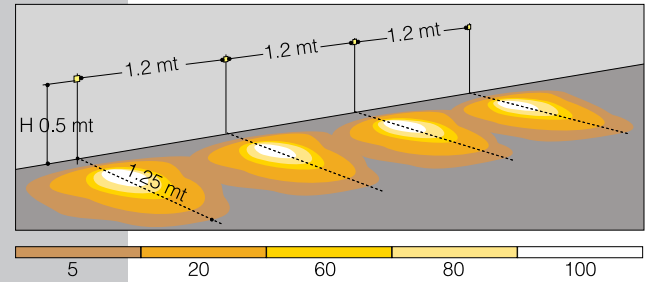
A richiesta colorazioni piastra secondo tabella RAL
Plate colour on request according to RAL table



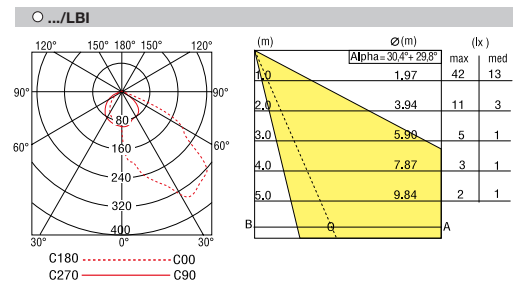
Scatola da immurare tipo 503 in dotazione
Wall box type 503 included



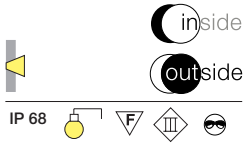
Small square



H mm	Lux Max	Lg mm	lg mm
250	140	850	50
500	100	1150	100



Small square



- Modulo da incasso a muro per scatola elettrica tipo 503 in dotazione.
- Corpo in alluminio pressofuso.
- Verniciatura in polveri poliestere previo trattamento speciale per esterni.
- Viti in acciaio inox.
- Corpo e dissipatore interno in ottone nichelato.
- Lente in metacrilato.
- Guarnizioni in gomma siliconica.
- Scatola elettrica tipo 503 inclusa.
- Cavo di alimentazione 0,200mt in dotazione.

- *Wall recessed fitting for supplied electrical boxes type 503.*
- *Die-cast aluminium body.*
- *Powder coated with pretreatment for outdoor use.*
- *Inox steel screws.*
- *Body and internal dissipator made of nichel brass.*
- *Metacrylate len.*
- *Gasket gand made of silicon rubber.*
- *Electrical box type 503 included.*
- *Power cable 0,200mt long.*



Versione alloggiamento a pressione / Pressure fixing version

Gr ○	E909/Q/LBC				3200°
Gr ○	E909/Q/LBI	1x2W	500mA		6350°
Gr ●	E909/Q/LBL				470nm

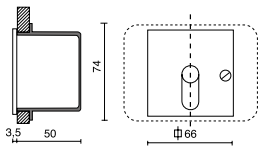
A richiesta colorazioni piastra secondo tabella RAL
Plate colour on request according to RAL table



Versione alloggiamento con viti / Screws fixing version

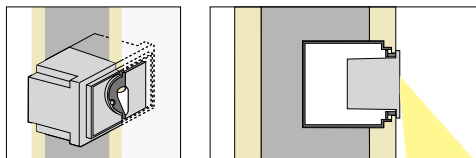
Gr ○	E909/Q/LBC/V				3200°
Gr ○	E909/Q/LBI/V	1x2W	500mA		6350°
Gr ●	E909/Q/LBL/V				470nm

A richiesta colorazioni piastra secondo tabella RAL
Plate colour on request according to RAL table

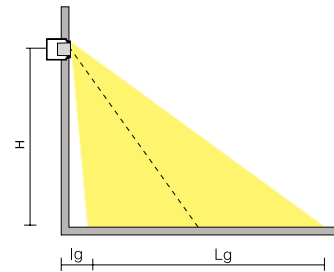
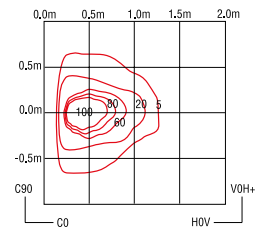
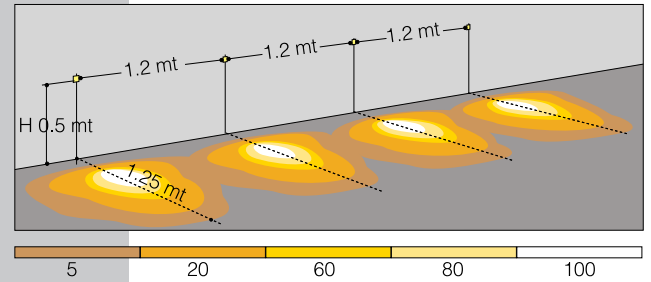


OP. ● **E.../LGI** giallo / yellow ● **E.../LRO** rosso / red ● **E.../LVE** verde / green

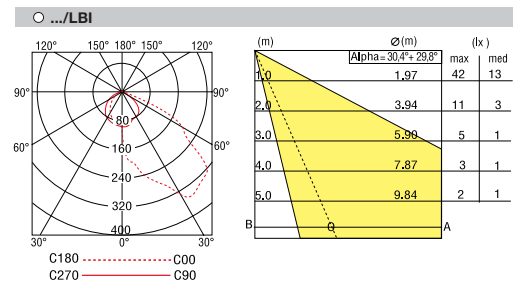
Scatola da immurare tipo 503 in dotazione
Wall box type 503 included



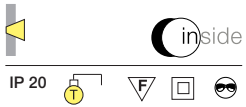
Small square long



H mm	Lux Max	Lg mm	lg mm
250	140	850	50
500	100	1150	100

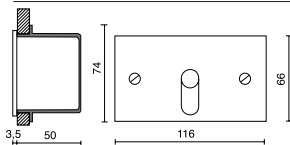


Small square long



- Modulo da incasso a muro per scatola elettrica tipo 503 in dotazione.
- Corpo in alluminio pressofuso.
- Verniciatura in polveri poliestere previo trattamento speciale per esterni.
- Viti in acciaio inox.
- Corpo e dissipatore interno in ottone nichelato.
- Lente in metacrilato.
- Guarnizioni in gomma siliconica.
- Scatola elettrica tipo 503 inclusa.
- Cavo di alimentazione 0,200mt in dotazione.

- *Wall recessed fitting for supplied electrical boxes type 503.*
- *Die-cast aluminium body.*
- *Powder coated with pretreatment for outdoor use.*
- *Inox steel screws.*
- *Body and internal dissipator made of nichel brass.*
- *Metacrylate len.*
- *Gasket gand made of silicon rubber.*
- *Electrical box type 503 included.*
- *Power cable 0,200mt long.*



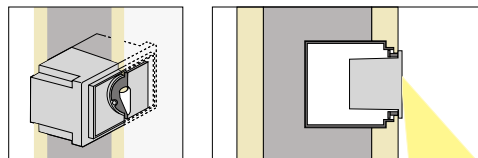
Versione fissaggio con viti / Screws fixing version

Gr ○	E909/L/LBC				3200°	
Gr ○	E909/L/LBI	1x2W	230V		6350°	
Gr ●	E909/L/LBL				470nm	

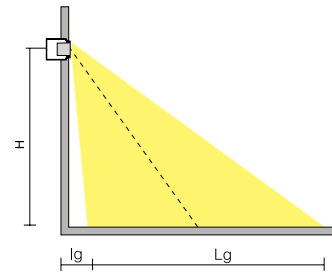
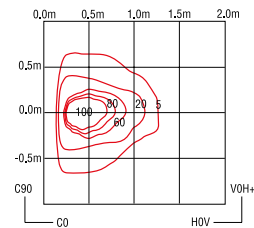
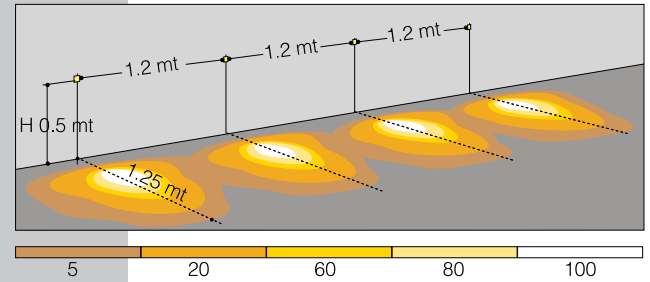
A richiesta colorazioni piastra secondo tabella RAL
Plate colour on request according to RAL table

OP. ● **E.../LGI** giallo / yellow ● **E.../LRO** rosso / red ● **E.../LVE** verde / green

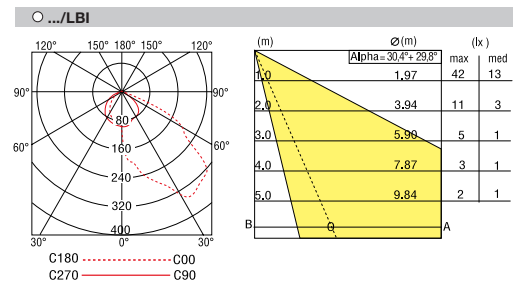
Scatola da immergere tipo 503 in dotazione
Wall box type 503 included



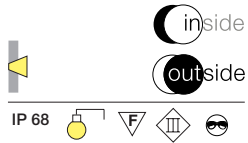
Small round



H mm	Lux Max	Lg mm	lg mm
250	140	850	50
500	100	1150	100



Small round



inside
outside

- Modulo da incasso a muro per scatola elettrica tipo 503 in dotazione.
- Corpo in alluminio pressofuso.
- Verniciatura in polveri poliestere previo trattamento speciale per esterni.
- Viti in acciaio inox.
- Corpo e dissipatore interno in ottone nichelato.
- Lente in metacrilato.
- Guarnizioni in gomma siliconica.
- Scatola elettrica tipo 503 inclusa.
- Cavo di alimentazione 0,200mt in dotazione.

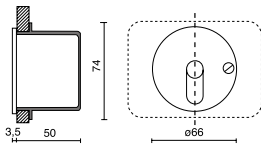
- Wall recessed fitting for supplied electrical boxes type 503.
- Die-cast aluminium body.
- Powder coated with pretreatment for outdoor use.
- Inox steel screws.
- Body and internal dissipator made of nichel brass.
- Metacrylate len.
- Gasket gand made of silicon rubber.
- Electrical box type 503 included.
- Power cable 0,200mt long.



Versione alloggiamento a pressione / Pressure fixing version

Gr ○	E909/LBC				3200°	
Gr ○	E909/LBI	1x2W	500mA		6350°	
Gr ●	E909/LBL				470nm	

A richiesta colorazioni piastra secondo tabella RAL
Plate colour on request according to RAL table



Versione alloggiamento con viti / Screws fixing version

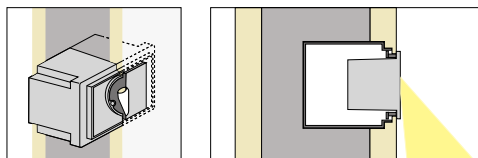
Gr ○	E909/LBC/V				3200°	
Gr ○	E909/LBI/V	1x2W	500mA		6350°	
Gr ●	E909/LBL/V				470nm	

A richiesta colorazioni piastra secondo tabella RAL
Plate colour on request according to RAL table



OP. ● **E.../LGI** giallo / yellow ● **E.../LRO** rosso / red ● **E.../LVE** verde / green

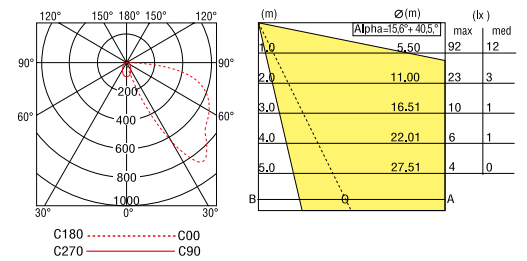
Scatola da immergere tipo 503 in dotazione
Wall box type 503 included



Riquadro



○ 43021/LBI (6x1,2W 350mA)



Riquadro



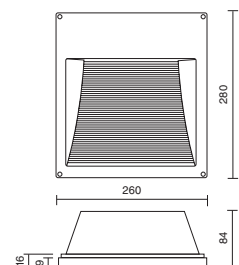
IP 65



H07RN-F
H07RN-F

- Corpo in pressofusione di alluminio.
- Verniciatura in polveri con pre-trattamento speciale per esterni.
- Vetro di protezione temperato.
- Viteria in acciaio Inox.
- Guarnizioni in gomma siliconica.
- Cassaforma di alloggiamento inclusa.

- *Die-cast aluminium body.*
- *Powder coated with pretreatment for outdoor use.*
- *Tempered protection glass.*
- *INOX steel screws.*
- *Gasket in silicone rubber.*
- *Container for recessed wall light included.*

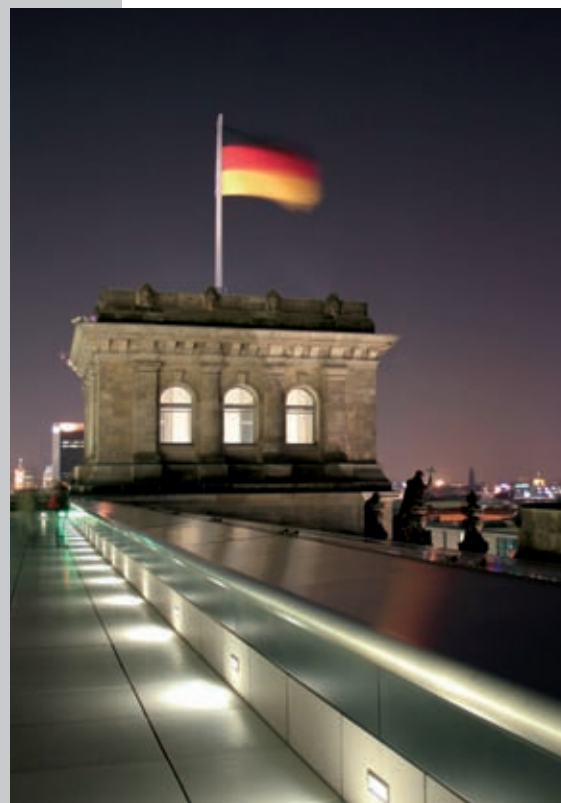


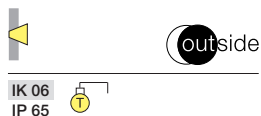
Br	E5345/LBI					
Ne	E5346/LBI				6350°	-
Gr	E5347/LBI					
Br	E5345/LBC	6x1,2W	230V			
Ne	E5346/LBC		350mA		3200°	-
Gr	E5347/LBC					

Minigreen

Il sistema di incassi per esterni MINIGREEN è un'ulteriore soluzione all'illuminazione di zone di passaggio pedonale e scale, per giardini privati o parchi pubblici. Gli incassi sono dotati di schermature in vetro satinato per contenere la luminosità che può essere prodotta, spesso eccessiva in queste aree dove invece la luce dovrebbe essere morbida e fornire il giusto orientamento alle persone. Il fatto che siano incassati fa spesso preferire a delle applique perché scompaiono nel muro, rimanendo evidente solo il loro effetto luminoso ma senza interferire nella visione complessiva dell'ambiente specie di giorno, quando cioè gli apparecchi non funzionano e possono risultare invadenti.

The recessed light fittings MINIGREEN offer further solutions for the lighting of walkways, stairs, private gardens or public parks. The recessed light fittings come with frosted glass as to contain the luminosity, which is often excessive in these areas where the light should be soft and serve mainly as orientation light. Preference is often given to recessed light fittings rather than surface mounted light fittings, because they are hidden inside the wall and only their light effect will remain evident, but without interfering in the overall vision of the surroundings, especially during the day when the light fittings are switched off and otherwise could be considered too invading.





- Apparecchio in pressofusione di alluminio, vernice in polveri poliesteri con pretrattamento speciale per esterni.
- Vetro di protezione opalino.
- Viti in acciaio Inox.
- N.B. A richiesta schermo di protezione in policarbonato antivandalo
Colore bianco - Br a richiesta / Colore grigio - Gr a richiesta.
- Die-cast aluminium light fitting, polyester powder coated with special pretreatment for outdoor use.
- Opal protection glass.
- Inox steel screws.
- N.B. On request: Polycarbonate cover for protection against vandalism
White color - Br / Grey color - Gr.



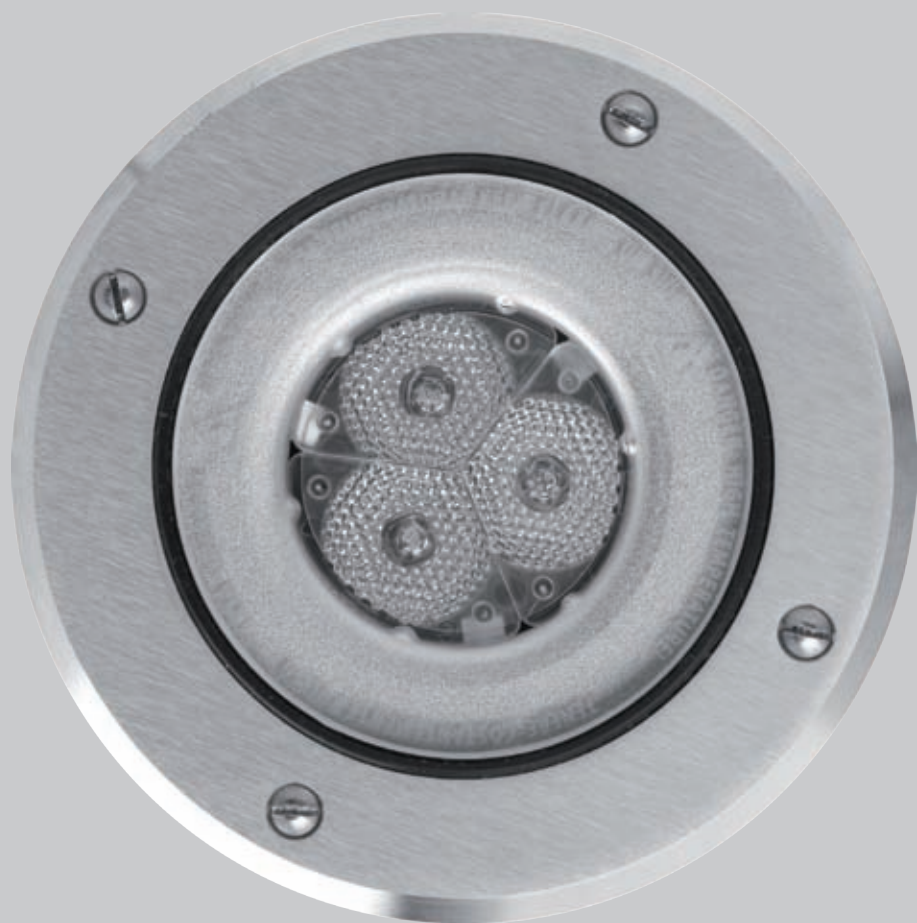
	Br	○	E8087/BI*	-	-	-	-	
	Br	●	E8087/BU*	-	-	-	-	
	Ne	○	E8088/BI*	TOT. 3,1W	230V/24V		-	
	Ne	●	E8088/BU*	29 led	-	-	-	
	Gr	○	E8089/BI*	-	-	-	-	
	Gr	●	E8089/BU*	-	-	-	-	
	Br	○	E8083/LBC	-	-	3100°	-	
	Br	○	E8083/LBI	-	-	6000°	-	
	Ne	○	E8084/LBC	6x1,2W	230V		3100°	-
	Ne	○	E8084/LBI	350mA	-	-	6000°	-
	Gr	○	E8085/LBC	-	-	-	3100°	-
	Gr	○	E8085/LBI	-	-	-	6000°	-

OP. *E.../GI giallo / yellow *E.../RO rosso / red *E.../VE verde / green

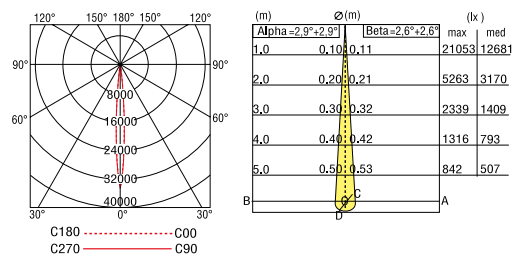
ACC. **325900** Scatola da immurare
Container for recessed wall light

260 90 81

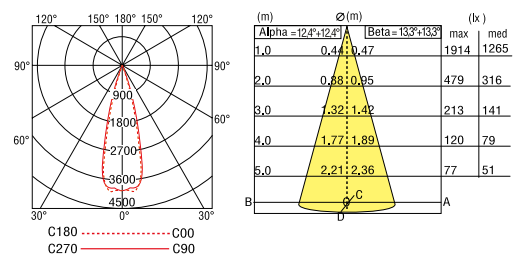
Olodum mini parete



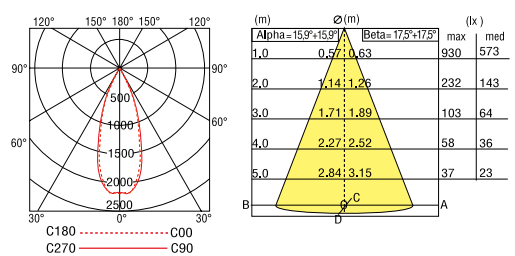
○ .../LBI (3x2,5W 700mA) 10°



○ .../LBI (3x2,5W 700mA) 30°



○ .../LBI (3x2,5W 700mA) 45°



Olodum mini parete



IK 10
IP 67

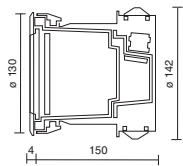
H05RN-F
H05RN-F

- Corpo in pressofusione di alluminio, verniciato in polveri con pretrattamento speciale per esterni.
- Anello di finitura in acciaio INOX (AISI 316).
- Pressacavo in ottone nichelato PG11.
- Vetro temperato di spessore 10 mm.
- Spot made of die-cast aluminium, powder, coated with pretreatment for outdoor use.
- Stainless steel (AISI 316) frame for glass lock.
- PG11 cable gland of nickel plated brass.
- Tempered protection glass, 10 mm thick.



Vetro trasparente / <i>Transparent glass</i>	
○ E8180/LBI/P23*	TOT. 3W 230V
● E8180/LBL/P23*	25 led
○	5600°
●	-
Vetro satinato / <i>Satin glass</i>	
○ E8179/LBI/P23*	TOT. 3W 230V
● E8179/LBL/P23*	25 led
○	5600°
●	-
○	3x2,5W 700mA
○	3x1,2W 350mA
●	470nm

A richiesta fascio 30°/10° / On request beam 30°/10°



OP. * E.../LGI/P23 giallo / yellow ● E.../LRO/P23 rosso / red ● E.../LVE/P23 verde / green

.../TSC TORX Viti di sicurezza / Safety screws

- ACC. $\phi 7.5$ 2000 **645229** Cavo di alimentazione collegato 2,00 m
Power cable 2,00 m length
- 645230** Connettore IP68 / IP68 Socket
- E960** Ventosa / Glass remover

Proiettori/ *Projectors*

La gamma Proiettori comprende svariate tipologie di apparecchi, dotati di ottiche, lampade ed accessori differenti in funzione delle esigenze di illuminamento riscontrate.

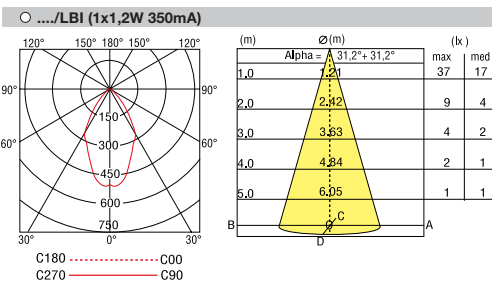
Si passa quindi da fasci luminosi concentrati a fasci diffusi, con versioni a binario, a basetta, a parete e differenti tipi di sorgenti LED a seconda degli effetti di illuminamento che si vogliono ottenere.

This range includes several types of Projectors fittings, equipped with optical, lamps and accessories different depending on the needs of illumination found.

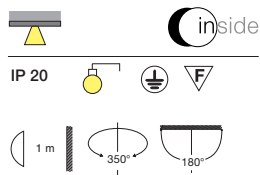
It then passes by light beams focused beam spread, with versions to track, board, wall and different types of LED sources depending on the lighting effects you want to achieve.

Proiettori
Projectors

Spot 1 binario

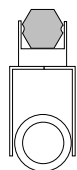
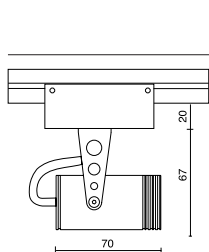











Spot 1 binario



- Corpo, staffa e basette in alluminio verniciato.
- Ghiera frontale e posteriore in alluminio ossidato opaco.
- Corrente di alimentazione: 350mA costante.
- Flusso luminoso: lm 95 a 350mA led bianco.
- Versione per binario a bassa tensione "Minirail"

- Housing and adjustable bracket made of painted aluminium.
- Front and rear trim made of opaque oxidied aluminium.
- Supply current: 350mA constant.
- Luminous flux: lm 95 at 350mA white led.
- Version for low voltage "Minirail" track.



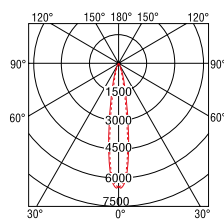
							
Br ○	17263/LBI					6350°	
Br ○	17263/LBC	1x1,2W	24V/350mA		3250°	470nm	10°
Br ●	17263/LBL					470nm	
Ne ○	17264/LBI					6350°	
Ne ○	17264/LBC	1x1,2W	24V/350mA		3250°	470nm	10°
Ne ●	17264/LBL					470nm	

OP.  A richiesta: apertura fascio 30° / On request: Light beam 30°

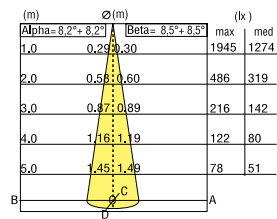
Spot 4 binario



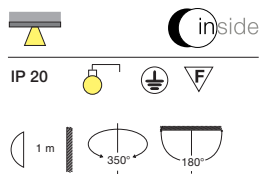
○ .../LBI



C180 C00
C270 C90

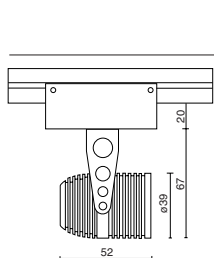


Spot 4 binario



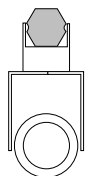
- Staffa in acciaio verniciato.
- Corpo in alluminio verniciato.
- Vetro di protezione.
- Guarnizioni in gomma siliconica.
- Versione per binario a bassa tensione "Minirail"

- Painted steel bracket.
- Painted aluminium housing.
- Protection glass.
- Silicon rubber gaskets.
- Version for low voltage "Minirail" track



Br ○	17265/LBI						
Br ○	17265/LBC	4x1,2W	24V/350mA		6350°	10°	
Br ●	17265/LBL				3250°		
					470nm		
Ne ○	17266/LBI						
Ne ○	17266/LBC	4x1,2W	24V/350mA		6350°	10°	
Ne ●	17266/LBL				3250°		
					470nm		

A richiesta colore Cr / On request colour Cr

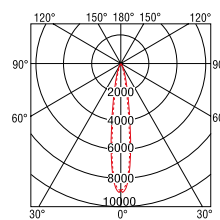


OP. A richiesta: apertura fascio 25° - 40° / On request: light beam 25° - 40°

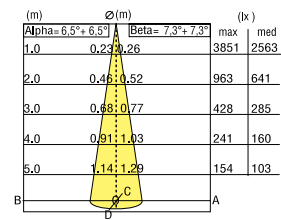
Spot 7 binario



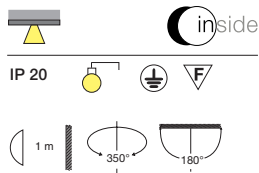
○ .../LBI



C180 C00
C270 C90

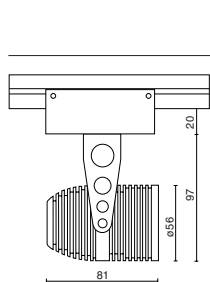


Spot 7 binario



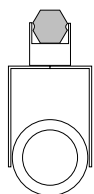
- Staffa in acciaio verniciato.
- Corpo in alluminio verniciato.
- Vetro di protezione.
- Guarnizioni in gomma siliconica.
- Versione per binario a bassa tensione "Minirail".

- Painted steel bracket.
- Painted aluminium housing.
- Protection glass.
- Silicon rubber gaskets.
- Version for low voltage "Minirail" track.



Br ○	17270/LBI					6350°	
Br ○	17270/LBC	7x1,2W	24V/350mA		3250°		10°
Br ●	17270/LBL				470nm		
Ne ○	17271/LBI					6350°	
Ne ○	17271/LBC	7x1,2W	24V/350mA		3250°		10°
Ne ●	17271/LBL				470nm		

A richiesta colore Cr / On request colour Cr

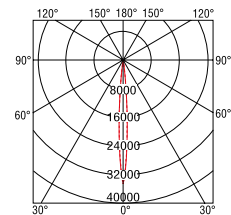


OP. A richiesta: apertura fascio 25° - 40° / On request: light beam 25° - 40°

Junior plus

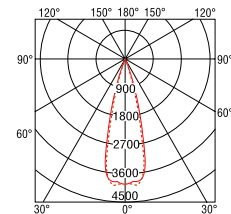


○ .../LBI/10



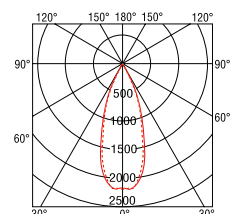
(m)	Ø (m)		(lx)	
	Alpha = 2.9° + 2.9°	Beta = 2.6° + 2.6°	max	med
1.0	0.10	0.11	21053	12681
2.0	0.20	0.21	5263	3170
3.0	0.30	0.32	2339	1409
4.0	0.40	0.42	1316	793
5.0	0.50	0.53	842	507

○ .../LBI/30



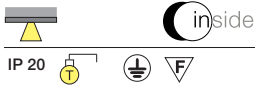
(m)	Ø (m)		(lx)	
	Alpha = 12.4° + 12.4°	Beta = 13.3° + 13.3°	max	med
1.0	0.44	0.47	1914	1265
2.0	0.88	0.95	479	316
3.0	1.32	1.42	213	141
4.0	1.77	1.89	120	79
5.0	2.21	2.36	77	51

○ .../LBI/45

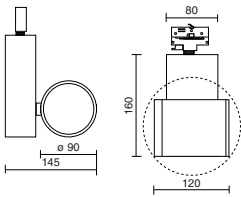


(m)	Ø (m)		(lx)	
	Alpha = 15.9° + 15.9°	Beta = 17.5° + 17.5°	max	med
1.0	0.57	0.63	930	573
2.0	1.14	1.26	232	143
3.0	1.71	1.89	103	64
4.0	2.27	2.52	58	36
5.0	2.84	3.15	37	23

Junior plus



- Corpo in pressofusione di alluminio verniciato in polveri.
- Adattatore elettrico trifase.
- Housing of die-cast aluminium powder coated.
- Electrical adapter three phase.

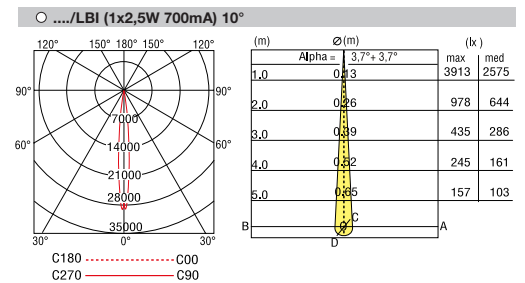


Versione 3 LED / 3 LED version									
Br	67720/LBI/10	67720/LBI/30	67720/LBI/45	67720/LBI/30	67720/LBI/45	3x2,5W	700mA		6350°
Ne	○ 67721/LBI/10	67721/LBI/30	67721/LBI/45	67721/LBI/30	67721/LBI/45				
Gr	67722/LBI/10	67722/LBI/30	67722/LBI/45	67722/LBI/30	67722/LBI/45				
Br	67720/LBC/10	67720/LBC/30	67720/LBC/45	67720/LBC/30	67720/LBC/45	3x2,5W	700mA		3200°
Ne	○ 67721/LBC/10	67721/LBC/30	67721/LBC/45	67721/LBC/30	67721/LBC/45				
Gr	67722/LBC/10	67722/LBC/30	67722/LBC/45	67722/LBC/30	67722/LBC/45				
Br	67720/LBL/10	67720/LBL/30	67720/LBL/45	67720/LBL/30	67720/LBL/45	3x2,5W	700mA		470nm
Ne	● 67721/LBL/10	67721/LBL/30	67721/LBL/45	67721/LBL/30	67721/LBL/45				
Gr	67722/LBL/10	67722/LBL/30	67722/LBL/45	67722/LBL/30	67722/LBL/45				
Versione 6 LED / 6 LED version									
Br	67720/6LBI/10	67720/6LBI/25	67720/6LBI/40	67720/6LBI/25	67720/6LBI/40	6x1,2W	350mA		6350°
Ne	○ 67721/6LBI/10	67721/6LBI/25	67721/6LBI/40	67721/6LBI/25	67721/6LBI/40				
Gr	67722/6LBI/10	67722/6LBI/25	67722/6LBI/40	67722/6LBI/25	67722/6LBI/40				
Br	67720/6LBC/10	67720/6LBC/25	67720/6LBC/40	67720/6LBC/25	67720/6LBC/40	6x1,2W	350mA		3200°
Ne	○ 67721/6LBC/10	67721/6LBC/25	67721/6LBC/40	67721/6LBC/25	67721/6LBC/40				
Gr	67722/6LBC/10	67722/6LBC/25	67722/6LBC/40	67722/6LBC/25	67722/6LBC/40				
Br	67720/6LBL/10	67720/6LBL/25	67720/6LBL/40	67720/6LBL/25	67720/6LBL/40	6x1,2W	350mA		470nm
Ne	● 67721/6LBL/10	67721/6LBL/25	67721/6LBL/40	67721/6LBL/25	67721/6LBL/40				
Gr	67722/6LBL/10	67722/6LBL/25	67722/6LBL/40	67722/6LBL/25	67722/6LBL/40				

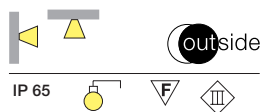
Spot 1

L'Eyes spot è un micro proiettore per esterni sviluppato per ottenere una illuminazione d'accento e segnalazione su piccoli particolari nelle versioni da 1, 4, 7 LED. E' un prodotto sviluppato in base ai principi dell'essenzialità e della semplicità delle forme. Inoltre la gamma Eyes spot risponde ai criteri di sicurezza più elevati e ad esigenze di velocità di installazione e praticità di manutenzione.

The Eyes Spot is a micro outdoor projector made in 1,4,7 LED versions to illuminate small details. It's a product made following the essential and simplicity shape criterions. Moreover the Eyes Spot Led range has the highest security, it is fast to install and it allows a practical maintenance.

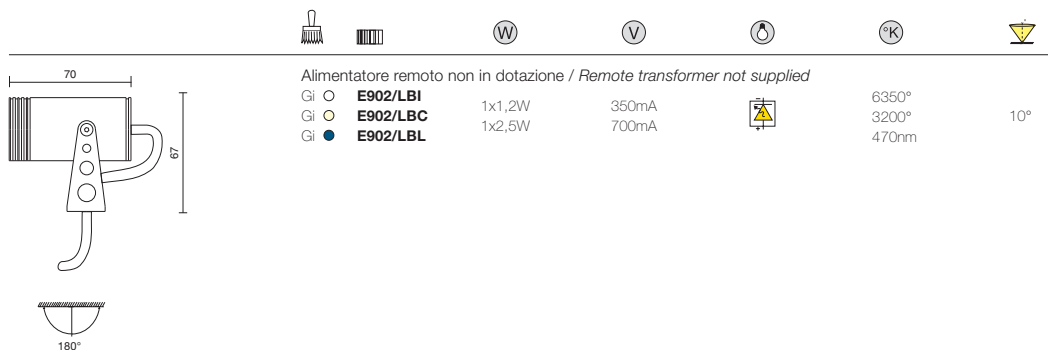


Spot 1

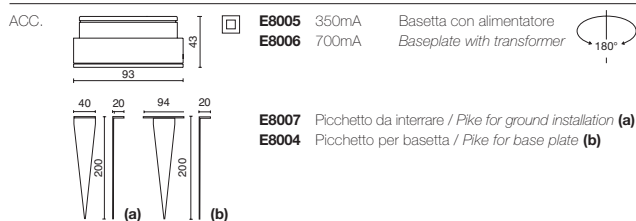


- Corpo, staffa e basette in alluminio verniciato.
- Ghiera frontale e posteriore in alluminio ossidato opaco.
- Corrente di alimentazione: 350-700mA costante.
- Flusso luminoso: Im 95 a 350mA led bianco (LBI) - Im 170 a 700mA led bianco (LBI).
- Cavo di alimentazione lg. 0,20 mt.

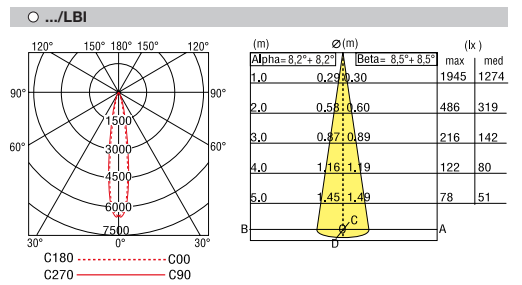
- Housing and adjustable bracket made of painted aluminium.
- Front and rear trim made of opaque oxidied aluminium.
- Supply current: 350-700mA constant.
- Luminous flux: Im 95 at 350mA white led (LBI) - Im 170 at 700mA white led (LBI).
- Power cable 0,20 mt long.



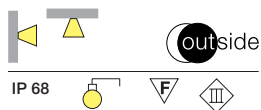
OP. A richiesta: apertura fascio 30° / On request: Light beam 30°



Spot 4

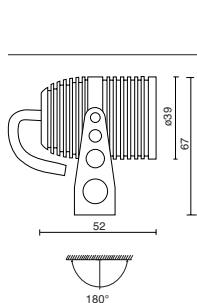


Spot 4



- Staffa in acciaio inox.
- Corpo in ottone verniciato.
- Vetro di protezione.
- Guarnizioni in gomma siliconica.
- Cavo di alimentazione lg 0,25 mt.
- Flusso luminoso: 400 lm (led bianco LBI)

- Steel inox bracket.
- Painted brass housing.
- Protection glass.
- Silicon rubber gaskets.
- Power supply cable 0,25 mt long.
- Luminous flux: 400 lm (white led LBI)



Alimentatore remoto non in dotazione / Remote transformer not supplied

Gi ○	E920/LBI				6350°	
Gi ●	E920/LBC	4x1,2W	350mA		3200°	10°
Gi ●	E920/LBL				470nm	

A richiesta colori Cr-Br-Ne / On request colours Cr-Br-Ne

OP. A richiesta: apertura fascio 25° - 40° / On request: light beam 25° - 40°

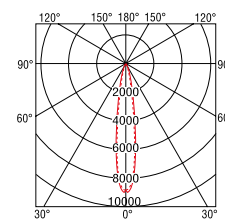
ACC. **IP 65** Gi **E8005** 350mA Basetta con alimentatore
Base plate with transformer
A richiesta colori Cr-Br-Ne / On request colours Cr-Br-Ne

E8007 Picchetto da interrare / Pike for ground installation (a)
E8004 Picchetto per basetta / Pike for base plate (b)

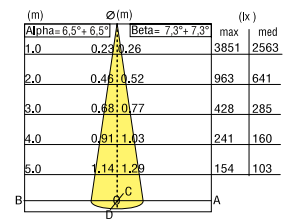
Spot 7



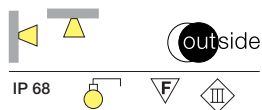
○ .../LBI



C180 C00
C270 C90

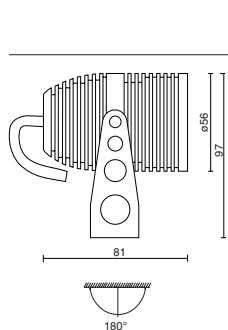


Spot 7



- Staffa in acciaio inox.
- Corpo in ottone verniciato.
- Vetro di protezione.
- Guarnizioni in gomma siliconica.
- Cavo di alimentazione lg 0,25 mt.
- Flusso luminoso: 700 lm (led bianco LBI)

- Steel inox bracket.
- Painted brass housing.
- Protection glass.
- Silicon rubber gaskets.
- Power supply cable 0,25 mt long.
- Luminous flux: 700 lm (white led LBI)



Alimentatore remoto non in dotazione / Remote transformer not supplied

Gi ○	E921/LBI				6350°	
Gi ●	E921/LBC	7x1,2W	350mA		3200°	10°
Gi ●	E921/LBL				470nm	

A richiesta colori Cr-Br-Ne / On request colours Cr-Br-Ne

OP. A richiesta: apertura fascio 25° - 40° / On request: light beam 25° - 40°

ACC. **IP 65** Gi **E8008** 350mA Basetta con alimentatore
Base plate with transformer

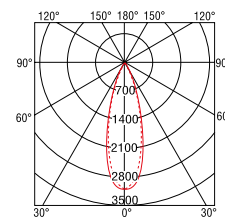
A richiesta colori Cr-Br-Ne / On request colours Cr-Br-Ne

E8007 Picchetto da interrare / Pike for ground installation (a)
E8004 Picchetto per basetta / Pike for base plate (b)

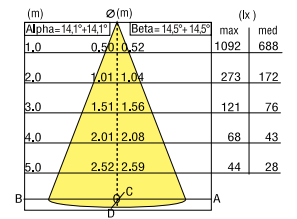
Mini Reef



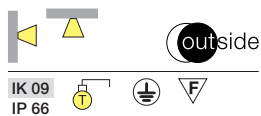
○ .../LBI (9x1,2W 350mA)



C180 - - - - - C00
C270 - - - - - C90

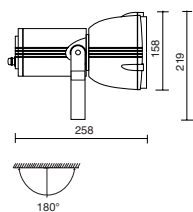


Mini Reef



- Corpo orientabile in pressofusione di alluminio.
- Staffa regolabile verniciata.
- Verniciatura in poliestere con pre-trattamento speciale per esterni.
- Vetro in borosilicato trasparente.
- Bloccacavo in ottone nichelato PG11.
- Guarnizioni in silicone resistente ad alte temperature.
- Cavo di alimentazione lunghezza 2 mt.

- Adjustable body made of die cast aluminium.
- Adjustable bracket painted.
- Polyester painted with pre-treatment for outdoor use.
- Borosilicate transparent glass.
- Cable gland of nickel plated brass PG11.
- O RING in silicone high temperature resistant.
- Cable supplied, length 2 m.

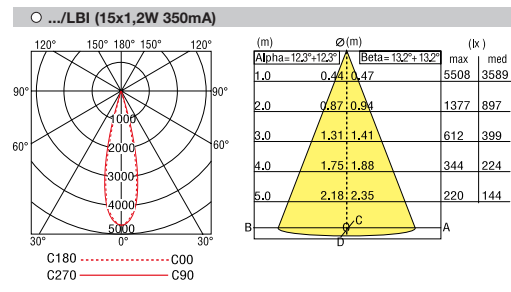


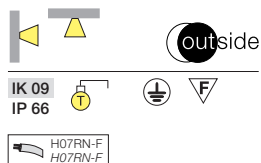
Br	E1064/LBC						
Ne	E1065/LBC	9x1,2W	230V		3000°	40°	
Gr	E1066/LBC		350mA				
Br	E1064/LBI						
Ne	E1065/LBI	9x1,2W	230V		6500°	40°	
Gr	E1066/LBI		350mA				
Br	E1064/LBL						
Ne	E1065/LBL	9x1,2W	230V		470nm	40°	
Gr	E1066/LBL		350mA				

A richiesta versione led con fascio 10°-25° / On request led version with 10°-25° light beam

ACC.	Br	E1067		Br	E1070
	Ne	E1068	Palpebra / Eyelid	Ne	E1071
	Gr	E1069		Gr	E1072
		E1030	Picchetto Inox / Inox pike		

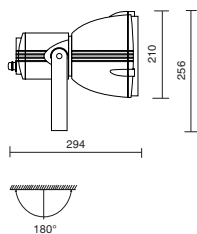
Reef





- Corpo orientabile in pressofusione di alluminio.
- Staffa regolabile verniciata.
- Verniciatura in poliestere con pre-trattamento speciale per esterni.
- Vetro in borosilicato trasparente.
- Bloccacavo in ottone nichelato PG13,5.
- Guarnizioni in silicone resistente ad alte temperature.
- Cavo di alimentazione lunghezza 2 mt.

- Adjustable body made of die cast aluminium.
- Adjustable bracket painted.
- Polyester painted with pre-treatment for outdoor use.
- Borosilicate transparent glass.
- Cable gland of nickel plated brass PG13,5.
- O RING in silicone high temperature resistant.
- Cable supplied, length 2 m.



Ne ○ E1010/LBC						3200°	
Ne ○ E1010/LBI			15x1,2W	230V 350mA		6350°	30°
Ne ● E1010/LBL						470nm	
Gr ○ E1011/LBC						3200°	
Gr ○ E1011/LBI			15x1,2W	230V 350mA		6350°	30°
Gr ● E1011/LBL						470nm	

ACC. Ne E1020	Palpebra / Eyelid	Ne E1025	Aletta singola max 4 / Single flap max 4
Gr E1021		Gr E1026	
E1030	Picchetto inox / Inox pike		

Azimuth

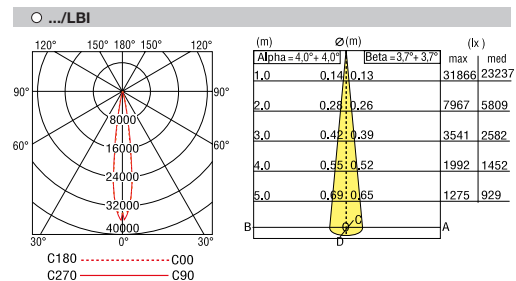


Proiettore per esterni dotato di un corpo orientabile e disponibile in versione simmetrica ed asimmetrica.

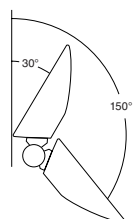
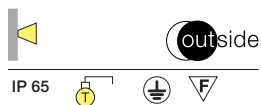
Presenta la possibilità di utilizzare diverse sorgenti luminose in funzione delle esigenze di illuminamento.

Risulta particolarmente adatto per distribuire il fascio luminoso su ampie superfici esterne come pareti, viali, aree pubbliche e private di giardini e parchi.

Floodlight for outdoor with an adjustable body is available in symmetric and asymmetric version. It gives the possibility to use different light sources depending from what has to be lit. It is suitable in particular to spread the light beam on wide external surfaces, like walls, avenues, public areas and private gardens and parks.

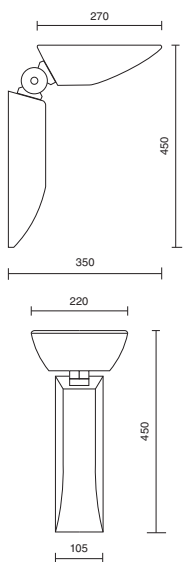


Azimuth



- Proiettore in pressofusione di alluminio.
- Vetro di protezione extrachiaro temperato.
- Orientamento corpo proiettore 30+150°.
- Cavo di alimentazione lg. 0,3 mt.

- Spot made of die cast aluminium.
- Extra transparent glass tempered
- Adjustable body 30+150°.
- Power cable 0,3 mt long.



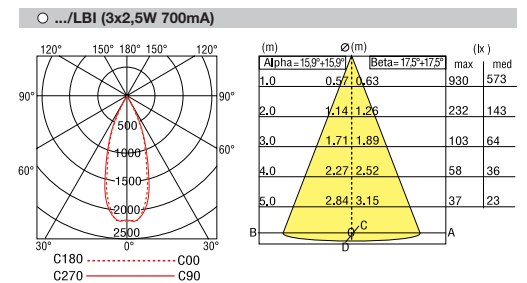
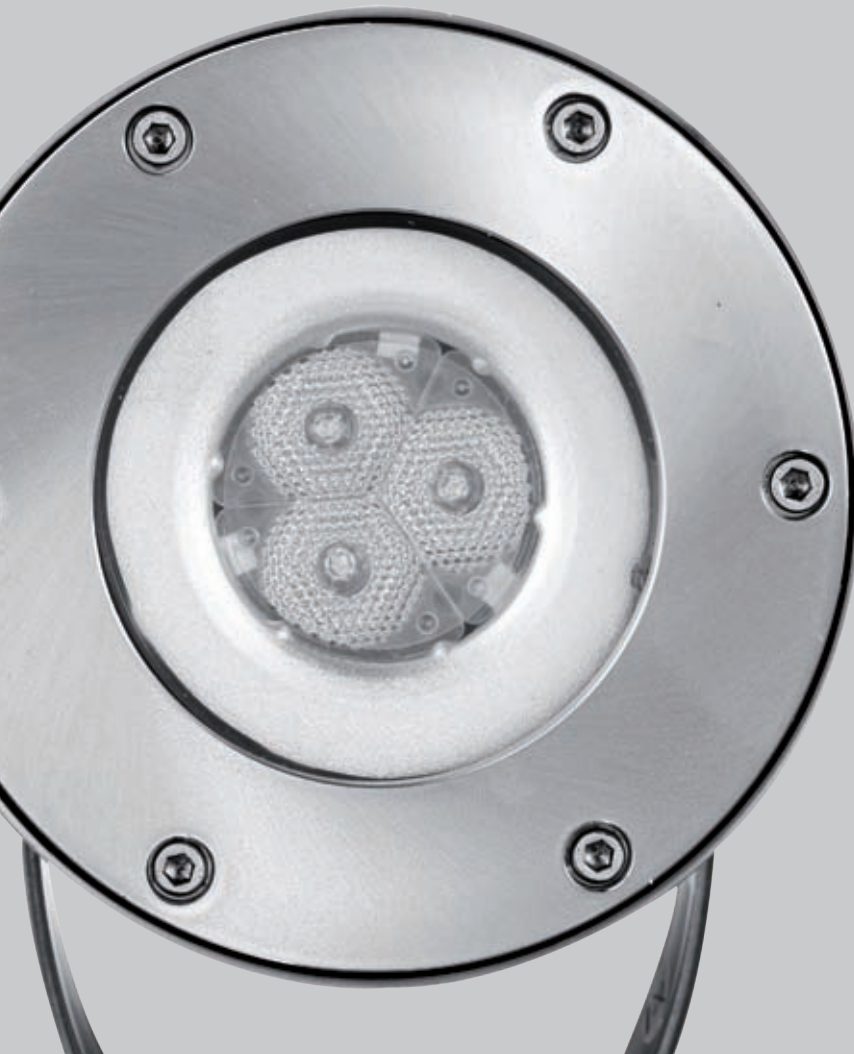
Br	E1115/LBI						
Ne	E1116/LBI		12x2,5W	230V 700mA		6350°	10°
Gr	E1117/LBI						
Br	E1115/LBC						
Ne	E1116/LBC		12x2,5W	230V 700mA		3250°	10°
Gr	E1117/LBC						
Br	E1115/LBL						
Ne	E1116/LBL		12x2,5W	230V 700mA		470nm	10°
Gr	E1117/LBL						
Br	E1115/RGB						
Ne	E1116/RGB		12x1,2W	230V 350mA		-	10°
Gr	E1117/RGB						

Con alimentatore integrato/miscelatore/telecomando remoti / With built-in ballast remote colour mixers and remote

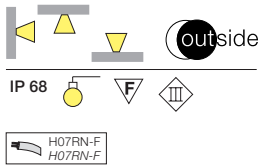
Submariner 140

Proiettori subacquei in acciaio INOX per immersione fino a 1m. Adatti ad impiego in impianti pubblici o privati per illuminare bacini idrici, fontane, piscine e giochi d'acqua. Possono essere impiegati anche fuori acqua riducendo le potenze come indicato.

Underwater floodlights made of stainless steel, for immersion with a maximum depth of 1m. Suitable for use in public or private lighting installations of water-basins, fountains, swimming pools and water plays. Can be used also for other applications, not under water, but the wattages have to be reduced as indicated.



Submariner 140



- Proiettori a tenuta stagna.
- Corpo e staffa regolabile in acciaio INOX anticorrosione (AISI 316) satinato e rivestito con layer di protezione contro l'aggressione della salsedine.
- Vetro temperato ad alto spessore.
- N.B. L'apparecchio non è adatto all'immersione in acqua marina o contenente additivi chimici.

- *Waterproof floodlights.*
- *Housing and adjustable bracket made of satin finished corrosion resistant stainless steel (AISI 316) and coated with a protective layer to prevent corrosion by salt in the air.*
- *Extra thick, tempered glass.*
- *N.B. The floodlight is not suitable for immersion in sea water or in water with chemical agents.*



		○ E8246/LBI	3x1,2W	350mA		6350°	45°
		● E8246/LBL	3x2,5W	700mA		470nm	

Adatto anche per installazioni in acqua fino a 1 m di profondità
Suitable also for underwater applications max deep 1 mt

OP. Apparecchi forniti completi di vetro satinato
Fittings supplied complete with frosted glass

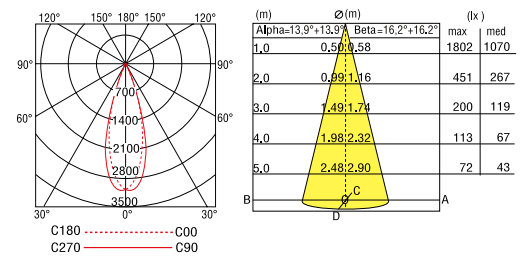
○ **E...../A** vetro satinato / frosted glass

...../G Apparecchio con griglia di protezione
Light fitting with protection grid

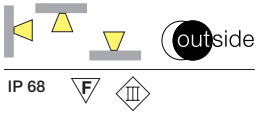
Submariner 175



○ .../LBI (7x2,5W 700mA)



Submariner 175

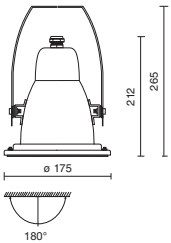


- Proiettori a tenuta stagna.
- Corpo e staffa in acciaio INOX anticorrosione (AISI 316) satinato e rivestito con layer di protezione contro l'aggressione della salsedine.
- Vetro temperato ad alto spessore.
- N.B. L'apparecchio non è adatto all'immersione in acqua marina o contenente additivi chimici.
- *Waterproof floodlights.*
- *Housing and bracket made of satin finished corrosion resistant stainless steel (AISI 316) and coated with a protective layer to prevent corrosion by salt in the air.*
- *Extra thick, tempered glass.*
- *N.B. The floodlight is not suitable for immersion in sea water or in water with chemical agents.*



		W	V	A	°K	°	
<ul style="list-style-type: none"> ○ E8242/LBC ○ E8242/LBI ● E8242/LBL 		7X2,5W	700mA		3200°	30°	
					6350°		
					470nm		
		E8242/RGB	5X3,6W	230V 350mA		-	45°

Kit di alimentazione remoto in dotazione / Remote power unit kit supplied



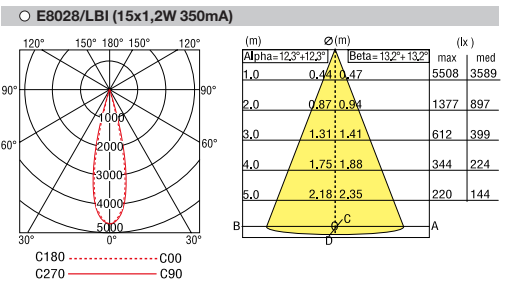
Adatto anche per installazioni in acqua fino a 1 m di profondità
Suitable also for underwater applications max deep 1 mt

OP. Apparecchi forniti completi di vetro satinato
Fittings supplied complete with frosted glass

○ E...../A vetro satinato / frosted glass

...../G Apparecchio con griglia di protezione
Light fitting with protection grid

Eti 20





IP 55

H07RN-F
H07RN-F

- Corpo in pressofusione di alluminio, verniciato in polvere poliesteri con pretrattamento speciale per esterni.

- Regolazione: 355° anche dopo l'installazione.

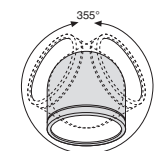
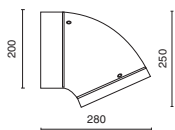
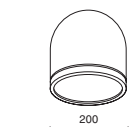
- Housing of die-cast aluminium, polyester powder coated with special pre-treatment for outdoor use.

- 355° rotation, also after installation.



Ne	○	E8028/LBC							
Ne	○	E8028/LBI	15X1,2W	230V	350mA		3200°		
Ne	●	E8028/LBL					6350°		470nm

A richiesta colori RAL - On request RAL colours

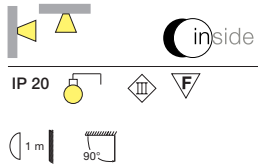


Rotazione orizzontale
Adjustability on horizontal plane

Led joint
















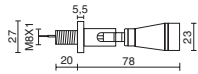
Led joint



- Corpo e ghiera in alluminio verniciato.
- Power led 1W 350mA - 2W 550mA.
- Fascio di apertura luminosa 15°.
- A richiesta fasci di apertura (30°).
- Painted aluminium body and trim.
- 1W Power led with 350mA - 2W with 550mA.
- Light beam 15°.
- On request lens with 30° light beam width.

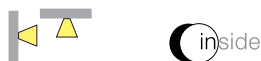


			L (mm)					
Alimentatore remoto / Remote ballast								
Bi	<input type="radio"/>	LFX102/SDN/LBI	300	1x1,2W	350mA		6350°	15°
	<input checked="" type="radio"/>	LFX102/SDN/LBL		1x2W	550mA		470nm	
Ne	<input type="radio"/>	LFX103/SDN/LBI	300	1x1,2W	350mA		6350°	15°
	<input checked="" type="radio"/>	LFX103/SDN/LBL		1x2W	550mA		470nm	
Ga	<input type="radio"/>	LFX119/SDN/LBI	300	1x1,2W	350mA		6350°	15°
	<input checked="" type="radio"/>	LFX119/SDN/LBL		1x2W	550mA		470nm	



Ledflex





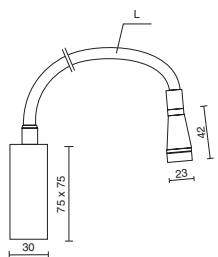
IP 20



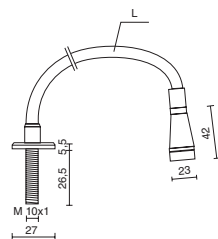
- Corpo e ghiera in alluminio verniciato.
- Power led 1W 350mA - 2W 550mA.
- Fascio di apertura luminosa 15°.
- A richiesta fasci di apertura (30°).
- Completamente snodabile.

- Painted aluminium body and trim.
- 1W Power led with 350mA - 2W 550mA.
- Light beam 15°.
- On request lens with 30° light beam width.
- Completely adjustable.

			L (mm)					
Alimentatore incorporato e interruttore on/off / Built-in ballast and on/off switch								
Bi	<input type="radio"/>	<input type="radio"/>	300	1x1,2W	230V	350mA		6350° 470nm
	<input checked="" type="radio"/>	<input checked="" type="radio"/>						
● LFX202/300/LBI								
● LFX202/300/LBL								
Ne	<input type="radio"/>	<input type="radio"/>	300	1x1,2W	230V	350mA		6350° 470nm
	<input checked="" type="radio"/>	<input checked="" type="radio"/>						
● LFX203/300/LBI								
● LFX203/300/LBL								
Ga	<input type="radio"/>	<input type="radio"/>	300	1x1,2W	230V	350mA		6350° 470nm
	<input checked="" type="radio"/>	<input checked="" type="radio"/>						
● LFX219/300/LBI								
● LFX219/300/LBL								
Bi	<input type="radio"/>	<input type="radio"/>	500	1x1,2W	230V	350mA		6350° 470nm
	<input checked="" type="radio"/>	<input checked="" type="radio"/>						
● LFX202/500/LBI								
● LFX202/500/LBL								
Ne	<input type="radio"/>	<input type="radio"/>	500	1x1,2W	230V	350mA		6350° 470nm
	<input checked="" type="radio"/>	<input checked="" type="radio"/>						
● LFX203/500/LBI								
● LFX203/500/LBL								
Ga	<input type="radio"/>	<input type="radio"/>	500	1x1,2W	230V	350mA		6350° 470nm
	<input checked="" type="radio"/>	<input checked="" type="radio"/>						
● LFX219/500/LBI								
● LFX219/500/LBL								



			L (mm)					
Alimentatore remoto non in dotazione / Remote ballast not included								
Bi	<input type="radio"/>	<input type="radio"/>	300	1x1,2W	350mA	550mA		6350° 470nm
	<input checked="" type="radio"/>	<input checked="" type="radio"/>						
● LFX102/300/LBI								
● LFX102/300/LBL								
Ne	<input type="radio"/>	<input type="radio"/>	300	1x1,2W	350mA	550mA		6350° 470nm
	<input checked="" type="radio"/>	<input checked="" type="radio"/>						
● LFX103/300/LBI								
● LFX103/300/LBL								
Ga	<input type="radio"/>	<input type="radio"/>	300	1x1,2W	350mA	550mA		6350° 470nm
	<input checked="" type="radio"/>	<input checked="" type="radio"/>						
● LFX119/300/LBI								
● LFX119/300/LBL								
Bi	<input type="radio"/>	<input type="radio"/>	500	1x1,2W	350mA	550mA		6350° 470nm
	<input checked="" type="radio"/>	<input checked="" type="radio"/>						
● LFX102/500/LBI								
● LFX102/500/LBL								
Ne	<input type="radio"/>	<input type="radio"/>	500	1x1,2W	350mA	550mA		6350° 470nm
	<input checked="" type="radio"/>	<input checked="" type="radio"/>						
● LFX103/500/LBI								
● LFX103/500/LBL								
Ga	<input type="radio"/>	<input type="radio"/>	500	1x1,2W	350mA	550mA		6350° 470nm
	<input checked="" type="radio"/>	<input checked="" type="radio"/>						
● LFX119/500/LBI								
● LFX119/500/LBL								

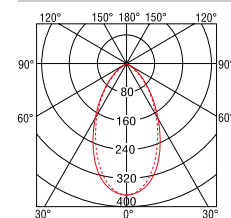


ACC. 644758 4W max / 350 mA Alimentatore remoto / Remote ballast

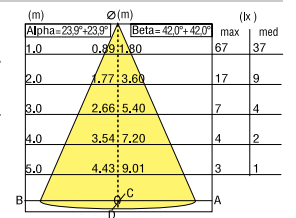
Li-led ST



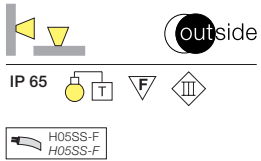
○ .../LBI



C180 C00
C270 C90



Li-led ST



- Corpo in estruso di alluminio anodizzato nero.
- Viti in acciaio inox.
- Guarnizioni in gomma siliconica.
- Lente in pmma.
- Vetro di protezione trasparente serigrafato spessore 8 mm.
- Cavo di alimentazione 2x0,75 lunghezza 1 m.
- Pressacavo in ottone nichelato PG7.

- *Extruded aluminium body anodized black.*
- *Inox screws.*
- *O RING in silicone.*
- *Lens in pmma.*
- *Transparent glass protection with serigraphy thickness 8mm.*
- *Cable 2X0,75 length 1 m supplied.*
- *Cable gland of nickel plated brass PG7.*



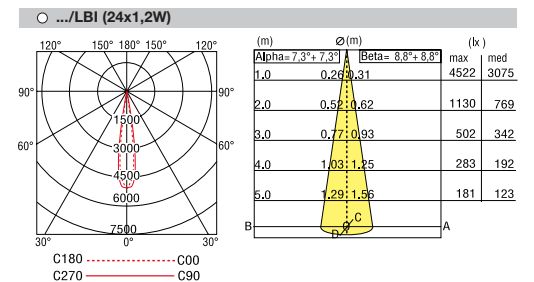
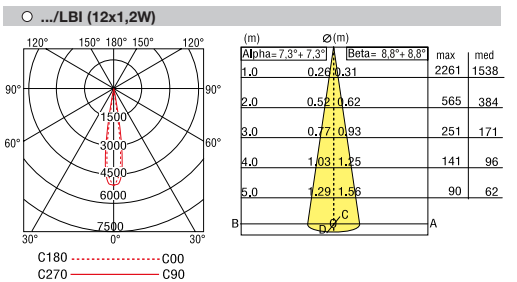
	○							
	○		1x3W	230V		3500°		
	●			350mA		5000°	57°	45°
						470nm		
	A richiesta fascio 25° / On request beam 25°							
	Alimentatore remoto in dotazione (Nc 644758) Remote control gear included (Nc 644758)							

Mini longlight ST

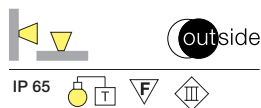
Serie di apparecchi per esterni con finitura in acciaio INOX e sorgenti luminose LED da 6 e 12W PowerLed e 1,5-3W SMD o tipo RGB da 3,5-7W. Ideale per illuminazioni architettonali e di segnalazione in ambito sia interno che esterno.

Outdoor device fixture with finishes in stainless steel.

LED technologies of 6 and 12W Power Led and 1.5-3W SMD or RGB of 3.5-7W. Suitable for architectural and sign light to be used both for outdoor and indoor.



Mini longlight ST

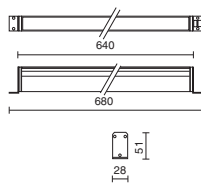
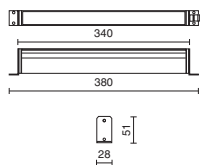


- Corpo in estruso di alluminio anodizzato.
- Vano ottico: recuperatore di flusso in alluminio satinato.
- Equipaggiamento: vetro di protezione trasparente temperato spessore 6mm. cavo di alimentazione H05SS-F lg.1mt, pressacavo in ottone nichelato PG7.

- *Body made of anodized aluminium extrusion.*
- *Optic: satin aluminium reflector.*
- *Equipment: transparent tempered glass of 6mm. thickness feed cable H05SS-F 1 m length - cable gland: PG7 nickel brass.*



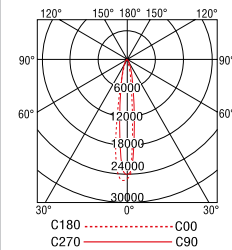
<i>Versione corta - Short version</i>								
VS	○	E9051/P/LBI*	TOT. 1,5W	230/24V		5600°		30°
	●	E9051/P/LBL*	15 led			-		
VT	○	E9050/P/LBI	TOT. 6W	230V		5400°		45°
	●	E9050/P/LBL	60 led	350mA		-		
VT	○	E9052/P/LBC				3200°		
	○	E9052/P/LBI	12x1,2W	230/24V		6350°		10°
	●	E9052/P/LBL				470nm		
<i>A richiesta con lente con fascio ellittico 6°x25° - On request with elliptical beam lens 6°x25°</i>								
VS		E9051/P/RGB	TOT. 3,5W	230/24V		-		35°
<i>Con miscelatore e telecomando remoti - With colour control device and remote control</i>								
<i>Versione lunga - Long version</i>								
VS	○	E9061/P/LBI*	TOT. 3W	230/24V		5600°		35°
	●	E9061/P/LBL*	30 led			-		
VT	○	E9060/P/LBI	TOT. 12W	230V		5400°		45°
	●	E9060/P/LBL	120 led	350mA		-		
VT	○	E9062/P/LBC				3200°		
	○	E9062/P/LBI	24x1,2W	230/24V		6350°		10°
	●	E9062/P/LBL				470nm		
<i>A richiesta con lente con fascio ellittico 6°x25° - On request with elliptical beam lens 6°x25°</i>								
VS		E9061/P/RGB	TOT. 7W	230/24V		-		40°
<i>Con miscelatore e telecomando remoti - With colour control device and remote control</i>								
VS	Vetro sabbiato - <i>Frosted Glass</i>							
VT	Vetro trasparente - <i>Transparent Glass</i>							
OP.	*		E.../LGI giallo / <i>yellow</i>		E.../LRO rosso / <i>red</i>		E.../LVE verde / <i>green</i>	
ACC.		Kit alimentatore/miscelatori + telecomando solo per versione RGB vedi ALIMENTATORI <i>Power supply and color mixer kit + remote controller only for RGB version see POWER SUPPLIES</i>						



Longlight ST

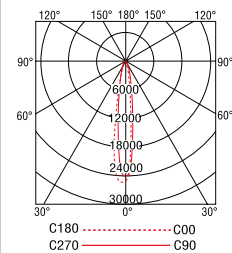


○ .../LBI (12x1,2W)



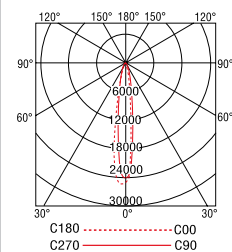
(m)	Ø(m)	(lx)	
			max med
1.0	0.16 0.16	10380 7010	
2.0	0.32 0.32	2595 1753	
3.0	0.48 0.48	1153 779	
4.0	0.63 0.63	649 438	
5.0	0.82 0.79	415 280	

○ .../LBI (36x1,2W)



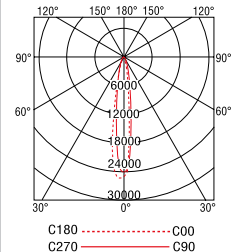
(m)	Ø(m)	(lx)	
			max med
1.0	0.16 0.16	31.142 21032	
2.0	0.32 0.32	7785 5258	
3.0	0.48 0.48	3460 2337	
4.0	0.66 0.63	1946 1314	
5.0	0.82 0.79	1246 841	

○ .../LBI (48x1,2W)



(m)	Ø(m)	(lx)	
			max med
1.0	0.16 0.16	41.522 28042	
2.0	0.32 0.32	10380 7010	
3.0	0.48 0.48	4614 3116	
4.0	0.66 0.63	2595 1753	
5.0	0.82 0.79	1661 1122	

○ .../LBI (60x1,2W)



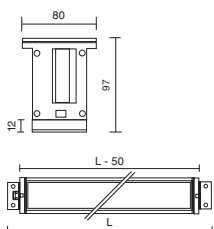
(m)	Ø(m)	(lx)	
			max med
1.0	0.16 0.16	51.903 35053	
2.0	0.32 0.32	12976 8763	
3.0	0.48 0.48	5767 3895	
4.0	0.66 0.63	3244 2191	
5.0	0.82 0.79	2076 1402	

Longlight ST



- Corpo in alluminio estruso con verniciatura previo trattamento speciale per esterni
- Guarnizioni in gomma siliconica.
- Testate in alluminio pressofuso fosforocromate e verniciate.
- Vetro temperato trasparente di spessore 8 mm.
- Pressacavo PG9.
- Installazione e cablaggio senza apertura del vano ottico.
- Cavo di alimentazione lg. 1 mt.

- Housing of aluminium extrusion painted with previous special treatment for outdoor use.
- Silicon rubber gasket.
- End caps of die-cast aluminium, painted with phosphorochrome treatment.
- Transparent tempered glass, 8 mm. thick.
- PG9 cable gland.
- Installation and connection without opening the optics.
- Power cable 1 mt. long.



			L (mm)						
○	E8900/PS/LBI*		395	TOT. 1,5W	230/24V		5600°		32°
●	E8900/PS/LBL*			15 led			-		
○	E8910/PS/LBI*		395	TOT. 3W	230/24V		5600°		35°
●	E8910/PS/LBL*			30 led			-		
○	E8920/PS/LBI*		956	TOT. 6W	230/24V		5600°		38°
●	E8920/PS/LBL*			60 led			-		
○	E8930/PS/LBI*		956	TOT. 12W	230/24V		5600°		42°
●	E8930/PS/LBL*			120 led			-		
○	E8941/PS/LBC		395	12x1,2W	24V		3200°		10°
○	E8941/PS/LBI						6350°	38°	
●	E8941/PS/LBL						470nm		
○	E8951/P/LBC		956	36x1,2W	24V		3200°		10°
○	E8951/P/LBI						6350°	42°	
●	E8951/P/LBL						470nm		
○	E8957/PS/LBC		1250	48x1,2W	24V		3200°		10°
○	E8957/PS/LBI						6350°	42°	
●	E8957/PS/LBL						470nm		
○	E8958/PS/LBC		1550	60X1,2W	24V		3200°		10°
○	E8958/PS/LBI						6350°	42°	
●	E8958/PS/LBL						470nm		

Nota: a richiesta fascio 12°x50° per power led AE
 Note: on request blind 12°x50° for power led AE

OP. * **E..../LGI** giallo / yellow **E..../LRO** rosso / red **E..../LVE** verde / green

Longlight wall

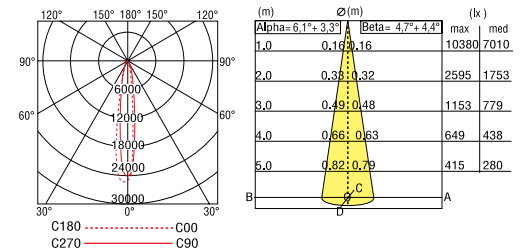
Proiettore da parete per esterni dotato di staffe orientabili, esso è particolarmente indicato per l'illuminazione di edifici, monumenti, facciate, strutture architettoniche, ma anche di accento per insegne, cartelli stradali, segnalazione di percorsi. Disponibile nei 5 colori LED base, che ne consentono l'impiego sia per esigenze estetico - decorative che per ottenere effetti di luce ad alta intensità.

Projector wall outside with adjustable brackets, it is particularly suitable for the lighting of buildings, monuments, facades, architectural structures, but also to focus on signs, road signs, signaling pathways.

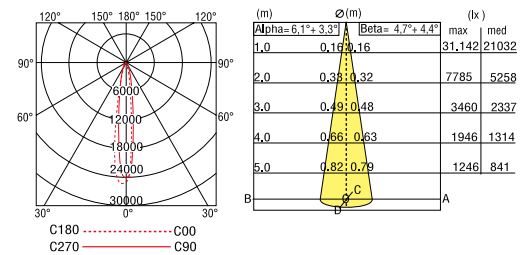
Available with Led diodes in 5 colours, which will enable their use for both aesthetic needs - for decorative lighting effects-intensive.



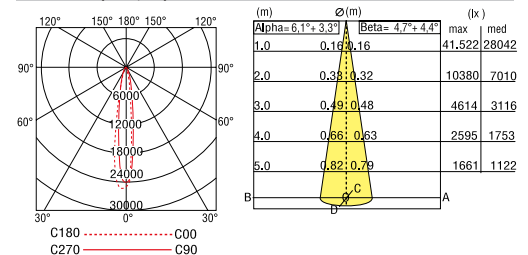
○ .../LBI (12x1,2W)



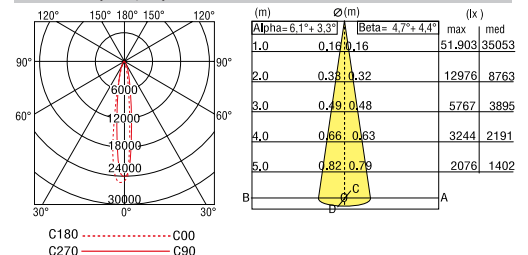
○ .../LBI (36x1,2W)



○ .../LBI (48x1,2W)



○ .../LBI (60x1,2W)



Longlight wall



IP 65



H05SS-F
H05SS-F

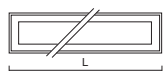
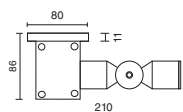
- Corpo in alluminio estruso con verniciatura per esterni previo trattamento di fosfocromatazione.
- Guarnizioni in gomma siliconica.
- Testate in alluminio pressofuso, fosfocromatate e verniciate.
- Vetro temperato trasparente di spessore 8mm.
- Installazione senza apertura del vano ottico.
- Possibilità di installazione a soffitto o parete.

- *Body in extruded aluminium with painting for outdoor, phosphochromated.*
- *Silicone gum gaskets.*
- *Heads in die-casting aluminium painted and phosphochromated.*
- *Transparent tempered glass with 8 mm thickness.*
- *Installation and wiring without opening the optical parts.*
- *Possibility to be installed in the wall or in the ceiling.*



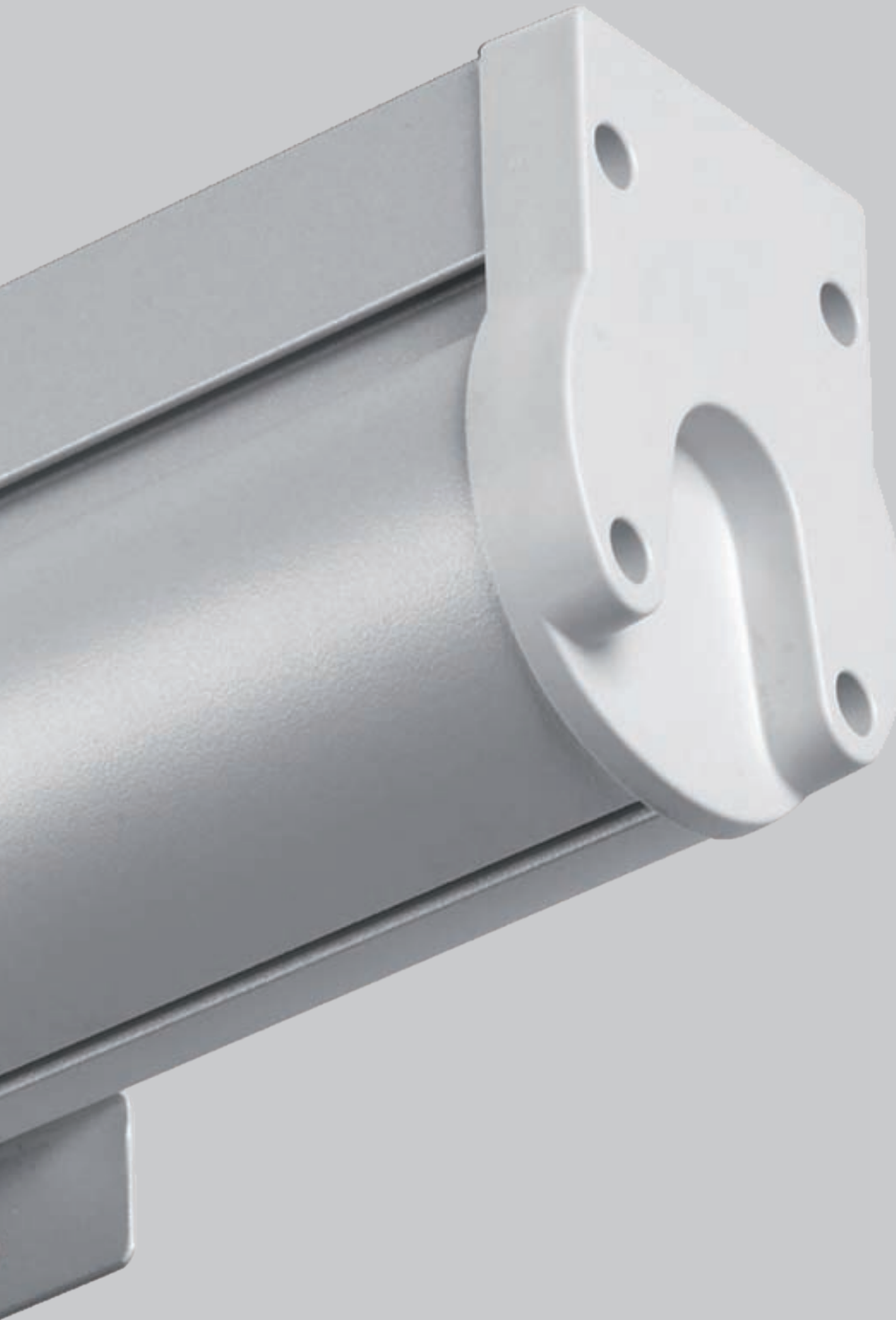
		L (mm)	W	V	°K	Hand	Arrow
○	E8900/P/LBI*	380	TOT. 1,5W	230/24V	5600°		32°
●	E8900/P/LBL*		15 led		-		
○	E8910/P/LBI*	380	TOT. 3W	230/24V	5600°		35°
●	E8910/P/LBL*		30 led		-		
○	E8920/P/LBI*	940	TOT. 6W	230/24V	5600°		38°
●	E8920/P/LBL*		60 led		-		
○	E8930/P/LBI*	940	TOT. 12W	230/24V	5600°		42°
●	E8930/P/LBL*		120 led		-		
○	E8941/P/LBC	380	12x1,2W	24V	3200°		10°
○	E8941/P/LBI				6350°		
●	E8941/P/LBL				470nm		
○	E8951/P/LBC	940	36x1,2W	24V	3200°		10°
○	E8951/P/LBI				6350°		
●	E8951/P/LBL				470nm		
○	E8957/P/LBC	1240	48x1,2W	24V	3200°		10°
○	E8957/P/LBI				6350°		
●	E8957/P/LBL				470nm		
○	E8958/P/LBC	1540	60x1,2W	24V	3200°		10°
○	E8958/P/LBI				6350°		
●	E8958/P/LBL				470nm		

Nota: a richiesta fascio 12°x50° per power led AE
Note: on request blind 12°x50° for power led AE



OP. * **E..../LGI** giallo / yellow **E..../LRO** rosso / red **E..../LVE** verde / green

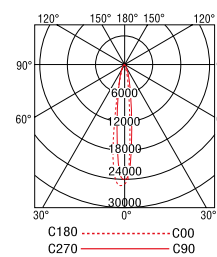
New activa



Proiettore Power Led per installazioni in esterni ed interni. Design semplice e versatile, indicato per essere installato in posizioni di minimo ingombro. Possibilità di fissaggio diretto su superfici orizzontali o verticali o mediante staffe di prolunga per applicazioni in cui si richiedano ulteriori possibilità di orientamento.

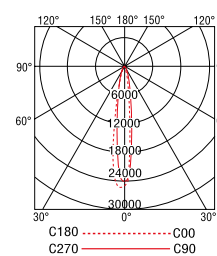
Projector for Power Led for external and internal installations. Simple and versatile design, suitable for installations in positions of small overall dimensions. Suitable for direct fixing on horizontal or vertical surfaces or through extension brackets for application in which further orientation possibilities are required.

○ .../LBI (36x1,2W)



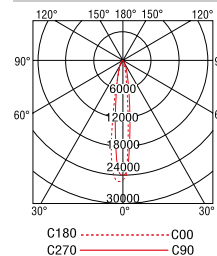
(m)	Ø (m)		(lx)	
	max	med		
1.0	0.16	0.16	31.142	21032
2.0	0.33	0.32	7785	5258
3.0	0.49	0.48	3460	2337
4.0	0.66	0.63	1946	1314
5.0	0.82	0.79	1246	841

○ .../LBI (48x1,2W)



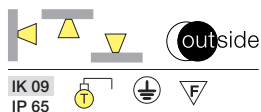
(m)	Ø (m)		(lx)	
	max	med		
1.0	0.16	0.16	41.522	28042
2.0	0.33	0.32	10380	7010
3.0	0.49	0.48	4614	3116
4.0	0.66	0.63	2595	1753
5.0	0.82	0.79	1661	1122

○ .../LBI (60x1,2W)



(m)	Ø (m)		(lx)	
	max	med		
1.0	0.16	0.16	51.903	35053
2.0	0.33	0.32	12976	8763
3.0	0.49	0.48	5767	3895
4.0	0.66	0.63	3244	2191
5.0	0.82	0.79	2076	1402

New activa

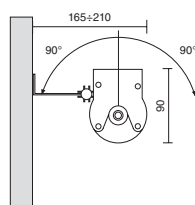
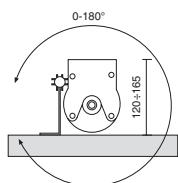
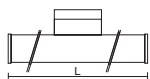
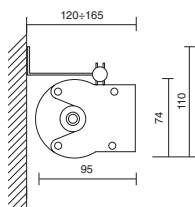


- Corpo in alluminio estruso.
 - Predisposto per utilizzo di lampade T5 e Power Led.
 - Staffe di fissaggio a muro regolabile.
 - Cavo di alimentazione incluso da 1 mt.
 - Schermo di protezione in vetro extrachiaro temperato.
 - Installazione a parete e plafone.
 - Viti in acciaio Inox.
- *Extruded aluminium body.*
 - *Preset for usage of T5 High Efficiency lamps and Power Led.*
 - *Fixing adjustable brackets.*
 - *Cable 1 mt. lenght supplied.*
 - *Extra transparent tempered glass.*
 - *Inox screws.*



	L (mm)	W	V	⊙	°K	☞	☹
E9020/LBI	606	24x1,2W				38°	
E9021/LBI	906	36x1,2W	230/24V	☹	6350°	42°	10°
E9022/LBI	1206	48x1,2W				42°	
E9023/LBI	1506	60x1,2W				42°	

A richiesta versioni ...LBC .../LBI



Parete - Plafone - Sospensioni / *Wall - Ceiling - Suspensions*

Studiati per il montaggio a parete in aree esterne, gli apparecchi sono particolarmente indicati per l'illuminazione di facciate, pilastri, strutture architettoniche, così come zone residenziali, viali, percorsi pedonali in parchi e giardini. Le ottimali condizioni di sicurezza contro l'azione di agenti atmosferici e lo sviluppo progettuale del prodotto in accordo alla normativa relativa all'inquinamento luminoso li pongono in una posizione di avanguardia a livello europeo, ed in particolar modo nell'impiego in aree pubbliche di vasta estensione. Essi sono presenti in varie versioni, per sorgenti luminose di generi differenti, a luce diretta o indiretta, mono e bi-emissione, fissi o orientabili, ecc.

Designed for mounting a wall in outdoor areas are particularly suited for the lighting of facades, pillars, architectural structures, as well as residential areas, roads, walking trails in parks and gardens. The optimal security conditions against the action of weathering and the design development of the product according to the legislation on light pollution put them in an advanced position at the European level, especially in the use of vast public areas extension. They are present in several versions, for light sources of different kinds a direct or indirect light, mono and bi-emission, fixed or adjustable, and so on.

Parete - Plafone - Sospensioni
Wall - Ceiling - Suspensions

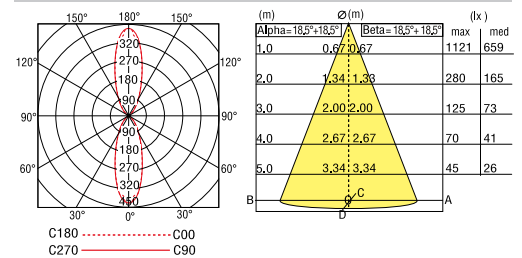
Mini double tondo

Nuova gamma di applique esclusivamente a LED nella versione tondo.

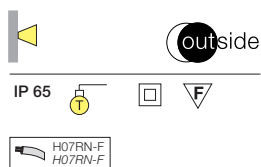
La tecnologia a LED ha permesso la miniaturizzazione di questi prodotti con il risultato di avere una altissima resa luminosa in piccole dimensioni.

New range of exclusively LED Applique in version ROUND. Thanks to the LED technology they are miniaturized, with a very high luminous effect in small dimensions.

○ .../LBI

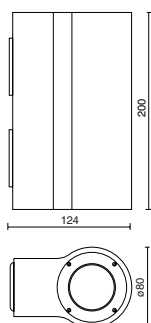


Mini double tondo



- Corpo in alluminio.
- Verniciatura in polveri con pre-trattamento speciale per esterni.
- Vetro di sicurezza temperato.
- Anello di finitura in acciaio inox AISI 316.
- Viteria in acciaio inox.
- Ottiche in alluminio purissimo.
- Guarnizioni e pressacavo di tenuta in gomma siliconica.

- *Body made of aluminium.*
- *Powder coated with pretreatment for outdoor use.*
- *Tempered protection glass.*
- *AISI 316 steel finishing trim.*
- *Inox steel screws.*
- *Very pure aluminium optics.*
- *Silicon rubber gaskets and cable gland.*



Br	E4900/LBC					
Ne	E4901/LBC	2x13W	230V		2900°	40°
Gr	E4902/LBC		700mA			
Br	E4900/LBI					
Ne	E4901/LBI	2x13W	230V		5000°	40°
Gr	E4902/LBI		700mA			

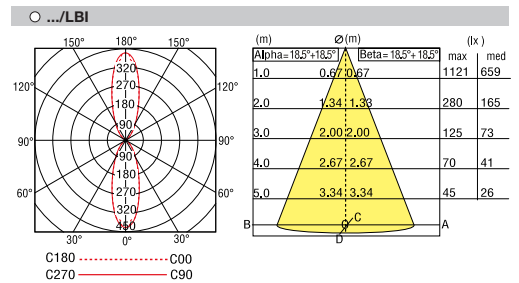
A richiesta versione con 1 o 2 lame di luce / On request 1 or 2 blade light version

Mini double quadro

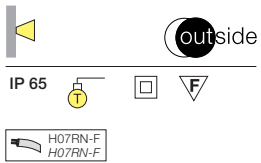
Nuova gamma di applique esclusivamente a LED nella versione quadro.

La tecnologia a LED ha permesso la miniaturizzazione di questi prodotti con il risultato di avere una altissima resa luminosa in piccole dimensioni.

New range of exclusively LED Applique in version square. Thanks to the LED technology they are miniaturized, with a very high luminous effect in small dimensions.


















Mini double quadro



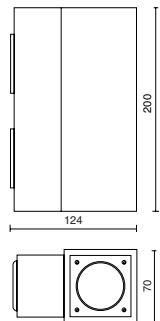
- Corpo in alluminio pressofuso.
- Verniciatura in polveri con pre-trattamento speciale per esterni.
- Vetro di sicurezza temperato.
- Anello di finitura in acciaio inox AISI 316.
- Viteria in acciaio inox.
- Ottiche in alluminio purissimo.
- Guarnizioni e pressacavo di tenuta in gomma siliconica.

- *Body and in die-cast aluminium.*
- *Powder coated with pretreatment for outdoor use.*
- *Tempered protection glass.*
- *AISI 316 steel finishing trim.*
- *Inox steel screws.*
- *Very pure aluminium optics.*
- *Silicon rubber gaskets and cable gland.*

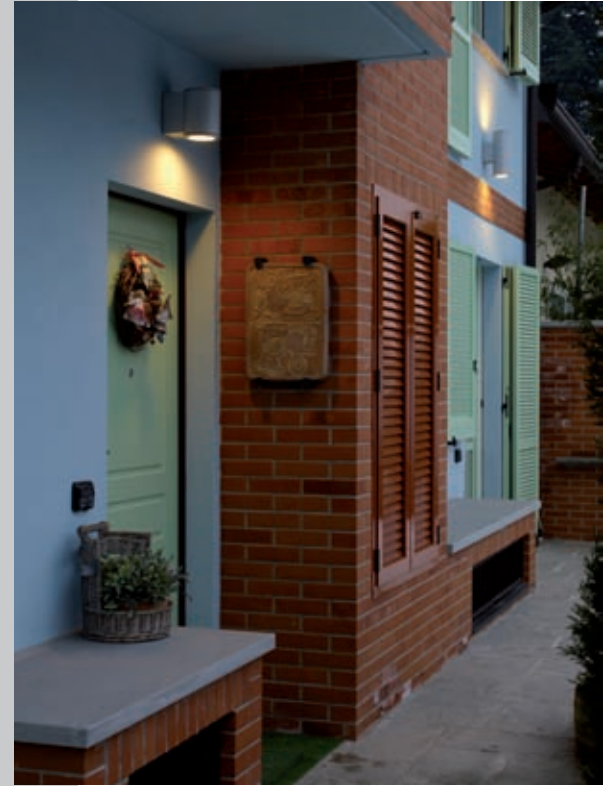


							
 Br  Ne  Gr	E4910/LBC	2x13W	230V	700mA		2900°	40°
	E4911/LBC						
	E4912/LBC						
 Br  Ne  Gr	E4910/LBI	2x13W	230V	700mA		5000°	40°
	E4911/LBI						
	E4912/LBI						

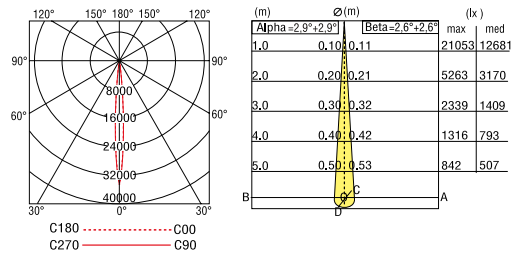
A richiesta versione con 1 o 2 lame di luce / On request 1 or 2 blade light version



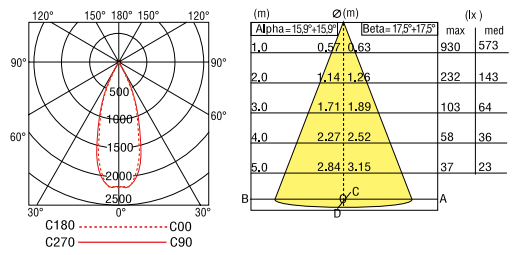
Monolight 105



○ .../LBI (3x2W 500mA) 10°



○ .../LBI/45 (3x2W 500mA) 45°



Monolight 105



IP 65

H07RN-F
H07RN-F

- Corpo e staffa di ancoraggio in alluminio pressofuso.
- Verniciatura in polveri con pre-trattamento speciale per esterni.
- Vetro di sicurezza temperato.
- Viteria in acciaio inox.
- Guarnizioni e pressacavo di tenuta in gomma siliconica.
- *Body and hanging bracket in die-cast aluminium.*
- *Powder coated with pretreatment for outdoor use.*
- *Security glass tempered.*
- *INOX steel screws.*
- *Silicon rubber gaskets and cable gland.*

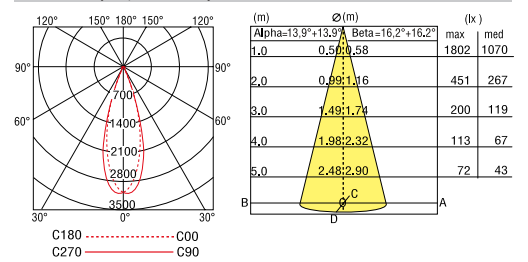
 192 156 180 105 63	Br	○	E5550/LBI			6350°	
	Br	●	E5550/LBL			470nm	
	Ne	○	E5551/LBI	3x2W	230V 500mA		6350°
	Ne	●	E5551/LBL				470nm
	Gr	○	E5552/LBI			6350°	
	Gr	●	E5552/LBL			470nm	
	A richiesta apertura fascio 10° / On request light beam 10°						
	Br		E5550/RGB/10		230V		10°
Br		E5550/RGB/30	3x1,2W	350mA		30°	
Br		E5550/RGB/45				45°	
	Ne		E5551/RGB/10	3x1,2W	230V 350mA		10°
	Ne		E5551/RGB/30				30°
	Ne		E5551/RGB/45				45°
	Gr		E5552/RGB/10	3x1,2W	230V 350mA		10°
	Gr		E5552/RGB/30				30°
	Gr		E5552/RGB/45				45°

OP. **E.../ 600178** Versione con vetro di sicurezza a filo anello / Flat protection glass version

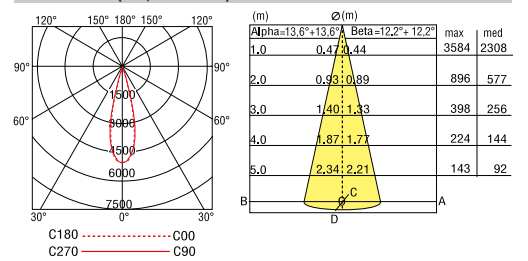
ACC. **644892/1** Kit alimentatore/miscelatore dei colori max cinque apparecchi
Kit remote transformer/color control device for max five fittings



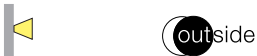
○ .../LBI (7x2,5W 700mA)



○ .../LBN30 (7x2,5W 700mA)



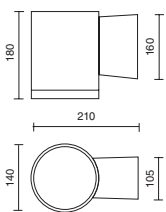
Monolight 140-175



IP 65   

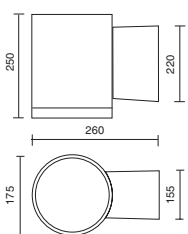
 H07RN-F
H07RN-F

- Corpo e staffa di ancoraggio in alluminio pressofuso.
- Verniciatura in polveri con pre-trattamento speciale per esterni.
- Vetro di sicurezza temperato.
- Viteria in acciaio inox.
- Guarnizioni e pressacavo di tenuta in gomma siliconica.
- *Body and hanging bracket in die-cast aluminium.*
- *Powder coated with pretreatment for outdoor use.*
- *Security glass tempered.*
- *INOX steel screws.*
- *Silicon rubber gaskets and cable gland.*



	MONOLIGHT 140					
Br	○ E5559/LBI					6350°
Br	● E5559/LBL					470nm
Ne	○ E5560/LBI	7x2,5W	230V 700mA			6350°
Ne	● E5560/LBL					
Gr	○ E5561/LBI					6350°
Gr	● E5561/LBL					470nm

OP. **E..../ 600179** Versione con vetro di sicurezza a filo anello / *Flat protection glass version*



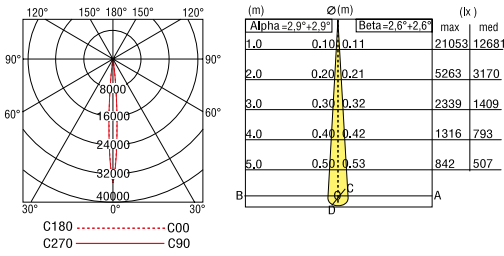
	MONOLIGHT 175					
Br	○ E5574/LBN30					4200°
Ne	○ E5575/LBN30	7x2,5W	230V 700mA			30°
Gr	○ E5576/LBN30					

OP. **E..../ 600180** Versione con vetro di sicurezza a filo anello / *Flat protection glass version*

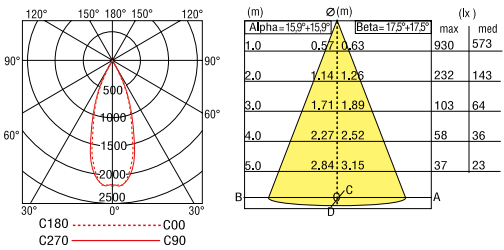
Doublelight 105



○ .../LBI (3x2W 500mA) 10°



○ .../LBI (3x2W 500mA) 45°



Doublelight 105





























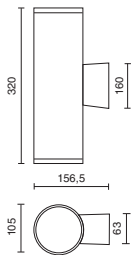
IP 65  

 H07RN-F
H07RN-F

- Corpo e staffa di ancoraggio in alluminio pressofuso.
- Verniciatura in polveri con pre-trattamento speciale per esterni.
- Vetro di sicurezza temperato.
- Viteria in acciaio inox.
- Guarnizioni e pressacavo di tenuta in gomma siliconica.
- *Body and hanging bracket in die-cast aluminium.*
- *Powder coated with pretreatment for outdoor use.*
- *Security glass tempered.*
- *INOX steel screws.*
- *Silicon rubber gaskets and cable gland.*



							
	Br ○ E5553/LBI					6350°	
	Br ● E5553/LBL					470nm	
	Ne ○ E5554/LBI	3x2W	230V		6350°		45°
	Ne ● E5554/LBL	n° 2	500mA		470nm		
	Gr ○ E5555/LBI				6350°		
	Gr ● E5555/LBL				470nm		
<i>A richiesta apertura fascio 10° / On request light beam 10°</i>							
	Br  E5553/RGB/10	3x1,2W	230V				10°
	Br  E5553/RGB/30	n° 2	350mA				30°
	Br  E5553/RGB/45						45°
	Ne  E5554/RGB/10	3x1,2W	230V				10°
	Ne  E5554/RGB/30	n° 2	350mA				30°
	Ne  E5554/RGB/45						45°
	Gr  E5555/RGB/10	3x1,2W	230V				10°
	Gr  E5555/RGB/30	n° 2	350mA				30°
	Gr  E5555/RGB/45						45°

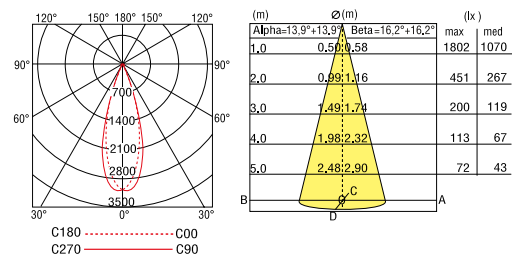


OP. **E..../ 600178** Versione con vetro di sicurezza a filo anello / Flat protection glass version

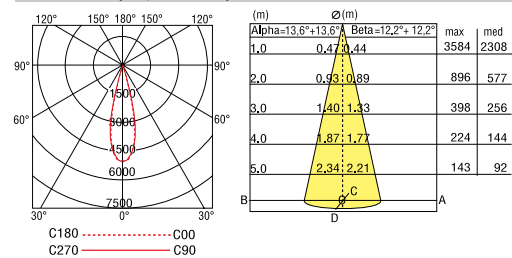
ACC. **644892/1** Kit alimentatore/miscelatore dei colori max cinque apparecchi
Kit remote transformer/color control device for max five fittings



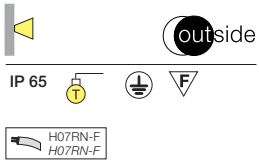
○ .../LBI (7x2,5W 700mA)



○ .../LBN30 (7x2,5W 700mA)



Doublelight 140-175



- Corpo e staffa di ancoraggio in alluminio pressofuso.
- Verniciatura in polveri con pre-trattamento speciale per esterni.
- Vetro di sicurezza temperato.
- Viteria in acciaio inox.
- Guarnizioni e pressacavo di tenuta in gomma silconica.
- *Body and hanging bracket in die-cast aluminium.*
- *Powder coated with pretreatment for outdoor use.*
- *Security glass tempered.*
- *INOX steel screws.*
- *Silicon rubber gaskets and cable gland.*



	DOUBLELIGHT 140					
Br ○	E5562/LBI				6350°	
Br ●	E5562/LBI				470nm	
Ne ○	E5563/LBI	7x2,5W	230V		6350°	
Ne ●	E5563/LBI	n° 2	700mA		470nm	35°
Gr ○	E5564/LBI				6350°	
Gr ●	E5564/LBI				470nm	

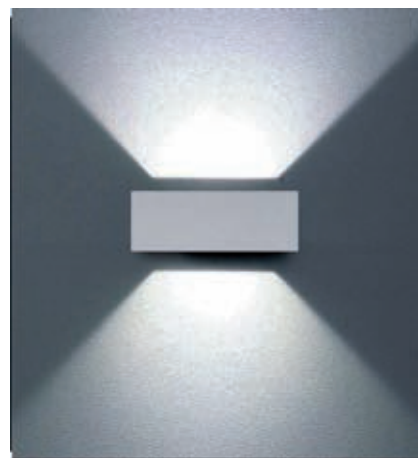
A richiesta apertura fascio 30° / On request light beam 30°

OP. **E..../ 600179** Versione con vetro di sicurezza a filo anello / *Flat protection glass version*

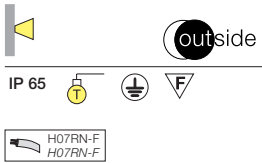
	DOUBLELIGHT 175					
Br ○	E5577/LBN30				4200°	
Ne ○	E5578/LBN30	7x2,5W	230V		4200°	30°
Ne ●	E5578/LBN30	n° 2	700mA			
Gr ○	E5579/LBN30					

OP. **E..../ 600180** Versione con vetro di sicurezza a filo anello / *Flat protection glass version*

Mini Variant

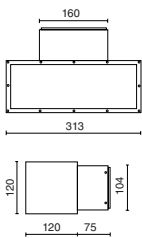


Mini Variant



- Corpo interamente in alluminio.
- Verniciatura in polveri con pretrattamento speciale per esterni.
- Vetro di protezione.
- Guarnizioni di tenuta in gomma siliconica.
- Pressacavo in gomma siliconica.
- Viteria in acciaio inox.

- Housing made of die-cast aluminium.
- Powder coated with pretreatment for outdoor use.
- Protection glass.
- Gasket in silicone rubber.
- Cable gland in silicone rubber.
- Inox steel screws.

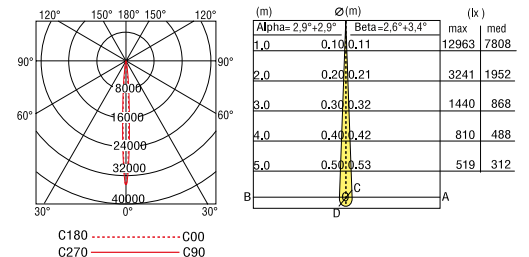


		W	V	A	°K	°
	Monoemissione / Monoemission					
	Br	E5810/LBI				
	Ne	○ E5811/LBI	6x1,2W	230V 350mA		6350°
Gr	E5812/LBI					
	Biemissione / Biemission					
	Br	E5830/LBI				
	Ne	○ E5831/LBI	12x1,2W	230V 350mA		6350°
Gr	E5832/LBI					
	Biemissione / Biemission					
	Br	E5830/LBC				
	Ne	○ E5831/LBC	12x1,2W	230V 350mA		3200°
Gr	E5832/LBC					
	Biemissione / Biemission					
	Br	E5830/LBL				
	Ne	● E5831/LBL	12x1,2W	230V 350mA		470nm
Gr	E5832/LBL					

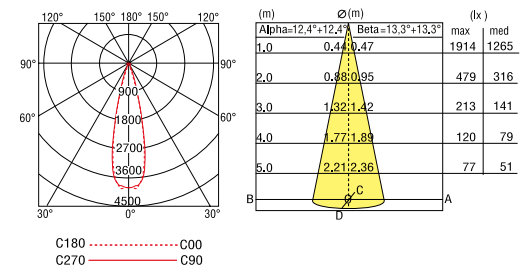
Cubik



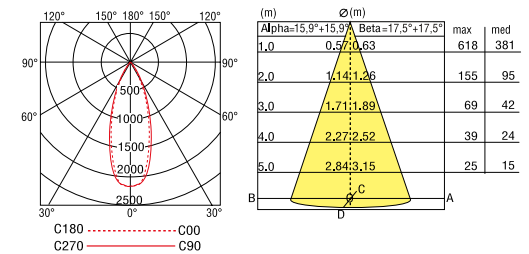
○ .../LBI/10 (3x1,2W)



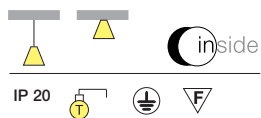
○ .../LBI/30 (3x1,2W)



○ .../LBI/45 (3x1,2W)

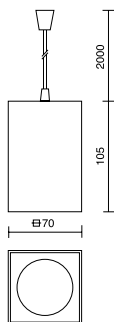


Cubik



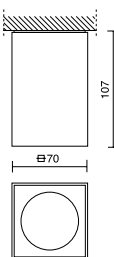
- Corpo in estruso di alluminio.
- Verniciatura in polveri.
- Piastra di aggancio a soffitto in lamiera verniciata.

- Body made of extruded die-cast aluminium.
- Powder coated.
- Ceiling fixing plate made of painted sheet.



VERSIONE A SOSPENSIONE / SUSPENSION VERSION

Bi	57165/LBC/10	57165/LBC/30	57165/LBC/45				
Ne	57166/LBC/10	57166/LBC/30	57166/LBC/45	3x1,2W	230V		3200°
Ga	57167/LBC/10	57167/LBC/30	57167/LBC/45				
Bi	57165/LBI/10	57165/LBI/30	57165/LBI/45				
Ne	57166/LBI/10	57166/LBI/30	57166/LBI/45	3x1,2W	230V		6300°
Ga	57167/LBI/10	57167/LBI/30	57167/LBI/45				
Bi	57165/LBL/10	57165/LBL/30	57165/LBL/45				
Ne	57166/LBL/10	57166/LBL/30	57166/LBL/45	3x1,2W	230V		470nm
Ga	57167/LBL/10	57167/LBL/30	57167/LBL/45				



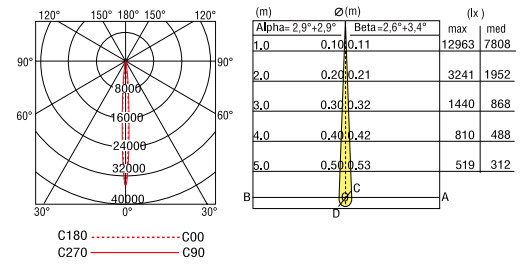
VERSIONE A PLAFONE / CEILING VERSION

Bi	57168/LBC/10	57168/LBC/30	57168/LBC/45				
Ne	57169/LBC/10	57169/LBC/30	57169/LBC/45	3x1,2W	230V		3200°
Ga	57170/LBC/10	57170/LBC/30	57170/LBC/45				
Bi	57168/LBI/10	57168/LBI/30	57168/LBI/45				
Ne	57169/LBI/10	57169/LBI/30	57169/LBI/45	3x1,2W	230V		6300°
Ga	57170/LBI/10	57170/LBI/30	57170/LBI/45				
Bi	57168/LBL/10	57168/LBL/30	57168/LBL/45				
Ne	57169/LBL/10	57169/LBL/30	57169/LBL/45	3x1,2W	230V		470nm
Ga	57170/LBL/10	57170/LBL/30	57170/LBL/45				

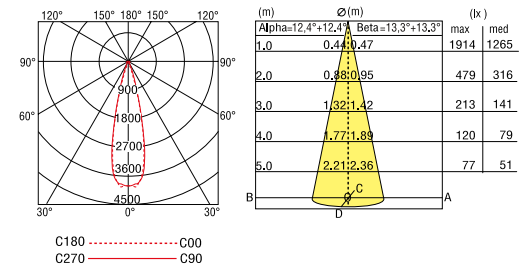
Cubik



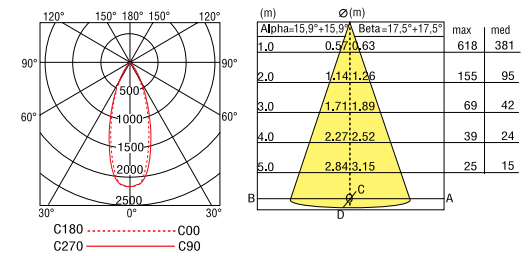
○ .../LBI/10 (3x1,2W)



○ .../LBI/30 (3x1,2W)



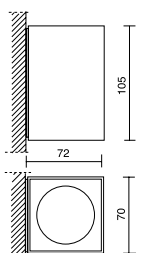
○ .../LBI/45 (3x1,2W)





- Corpo in estruso di alluminio.
- Verniciatura in polveri.
- Piastra di aggancio a muro in lamiera verniciata.

- Body made of extruded die-cast aluminium.
- Powder coated.
- Wall fixing plate made of painted sheet.



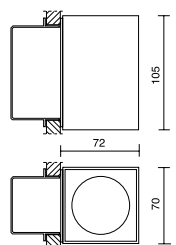
VERSIONE A PARETE MONOEMISSIONE / MONOEMISSION WALL VERSION

Bi	57171/LBC/10	57171/LBC/30	57171/LBC/45				
Ne	57172/LBC/10	57172/LBC/30	57172/LBC/45	3x1,2W	230V		3200°
Ga	57173/LBC/10	57173/LBC/30	57173/LBC/45				



Bi	57171/LBI/10	57171/LBI/30	57171/LBI/45				
Ne	57172/LBI/10	57172/LBI/30	57172/LBI/45	3x1,2W	230V		6300°
Ga	57173/LBI/10	57173/LBI/30	57173/LBI/45				

Bi	57171/LBL/10	57171/LBL/30	57171/LBL/45				
Ne	57172/LBL/10	57172/LBL/30	57172/LBL/45	3x1,2W	230V		470nm
Ga	57173/LBL/10	57173/LBL/30	57173/LBL/45				



VERSIONE A PARETE BIEMISSIONE / BIEMISSION WALL VERSION

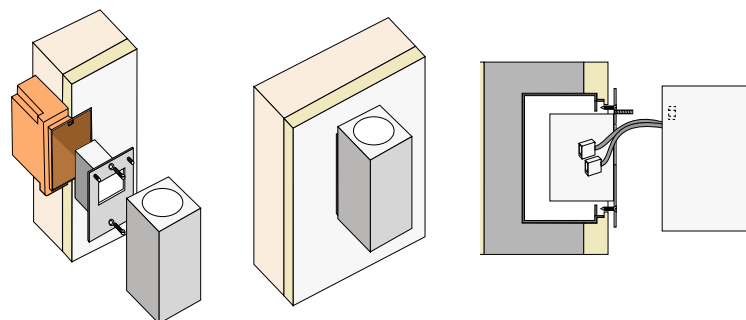


Bi	57174/LBC/10	57174/LBC/30	57174/LBC/45				
Ne	57175/LBC/10	57175/LBC/30	57175/LBC/45	6x1,2W	230V		3200°
Ga	57176/LBC/10	57176/LBC/30	57176/LBC/45				

Bi	57174/LBI/10	57174/LBI/30	57174/LBI/45				
Ne	57175/LBI/10	57175/LBI/30	57175/LBI/45	6x1,2W	230V		6300°
Ga	57176/LBI/10	57176/LBI/30	57176/LBI/45				

Bi	57174/LBL/10	57174/LBL/30	57174/LBL/45				
Ne	57175/LBL/10	57175/LBL/30	57175/LBL/45	6x1,2W	230V		470nm
Ga	57176/LBL/10	57176/LBL/30	57176/LBL/45				

Schema di montaggio a parete per versione biemissione (scatola elettrica tipo 503 in dotazione con l'apparecchio)
Wall fixing scheme for biemission version (electrical box type 503 supplied with the fitting)



Quadrant RGB

Serie di apparecchi installabile su qualsiasi superficie e dotata di versatilità di applicazione, i Quadrant sono in grado di rispondere ad esigenze di illuminazione scenografica ed architettonica, coniugando giochi di luce, ombra e colore all'utilizzo della tecnologia più avanzata che garantisce alti rendimenti e sicurezza del funzionamento.

Series of devices installed on any surface with a versatility of application, the Quadrant are able to respond to the needs of scenic and architectural lighting, combining games of light, shadow and colour to use the most advanced technology that guarantees high performance and safety operation.



Quadrant RGB



- Corpo in amiera verniciata a polvere.
- Vano ottico con pannello RGB con 24 diodi a LED da 1W.
- Schermo con diffusore a filo in policarbonato opale.
- Alimentatore elettronico con centralina di comando RGB integrata.
- Telecomando in dotazione.
- Powder coated painted metal body.
- RGB optic with 24 LED 1W.
- Opal polycarbonate diffuser.
- Electronic driver with RGB control on board.
- Remote control included.



	Parete, soffitti e controsoffitti con struttura a vista / Wall, ceiling, false ceiling with visible structure Er QDR/RGB10/P 24x1W 230V Gr QDR/RGB11/P Per apparecchio singolo / For single fixture
MASTER	Er QDR/RGB10M/P 24x1W 230V Gr QDR/RGB11M/P PRIMARIO - Per collegamento in cascata max 10 / MASTER - for cascade connection max 10
SLAVE	Er QDR/RGB10S/P 24x1W 230V Gr QDR/RGB11S/P

Side emitting color

K° (temp. colore)

Rosso / Red 1W flusso 39,4 lm

635 nm

Blu / Blue 1W flusso 17,9 lm

465 nm

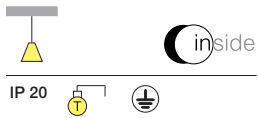
Verde / Green 1W flusso 66,5 lm

535 nm

Quadrant RGB



Quadrant RGB



- Corpo in lamiera verniciata a polvere.
- Vano ottico con pannello RGB con 24 led da 1W
- Schermo con diffusore a filo in policarbonato opale.
- Alimentatore elettronico con centralina di comando RGB integrata.
- Telecomando in dotazione.
- Completo di kit di sospensione L 2mt. con sistema di regolazione e cavo di alimentazione.


- *Body of painted metal, powder coated.*
- *RGB optic with 24 led 1W*
- *Opal polycarbonate reflector.*
- *Built-in electronic ballast with RGB control.*
- *Remote control included.*
- *Suit of kit of suspension L 2 mt. with adjustable system and feeding cable.*



Per apparecchio singolo / For single fitting

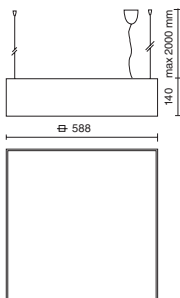
Br **QDR/RGB10/S** 24x1W 230V 
Gr **QDR/RGB11/S**

PRIMARIO - Per collegamento in cascata max 10 / MASTER - for cascade connection max 10

Br **QDR/RGB10M/S** 24x1W 230V 
Gr **QDR/RGB11M/S**

SECONDARIO / SLAVE

Br **QDR/RGB10S/S** 24x1W 230V 
Gr **QDR/RGB11S/S**



Side emitting color

K° (temp. colore)

Rosso / Red 1W flusso 39,4 lm

635nm

Blu / Blue 1W flusso 17,9 lm

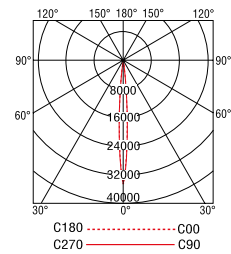
465 nm

Verde / Green 1W flusso 66,5 lm

535 nm

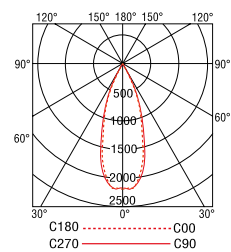


○ .../LBI (3x2W 500mA) 10°



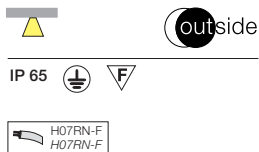
(m)	Ø(m)		(lx)	
	Alpha = 2,9°+2,9°	Beta = 2,6°+2,6°	max	med
1,0	0,10	0,11	21053	12681
2,0	0,20	0,21	5263	3170
3,0	0,30	0,32	2339	1409
4,0	0,40	0,42	1316	793
5,0	0,50	0,53	842	507

○ .../LBI (3x2W 500mA) 45°



(m)	Ø(m)		(lx)	
	Alpha = 15,9°+15,9°	Beta = 17,5°+17,5°	max	med
1,0	0,5	0,63	930	573
2,0	1,14	1,26	232	143
3,0	1,71	1,89	103	64
4,0	2,27	2,52	58	36
5,0	2,84	3,15	37	23

Ceiling 105



- Contropiastra di fissaggio a plafone per aggancio apparecchio.
- Corpo e staffa di ancoraggio in fusione di alluminio.
- Verniciatura in polveri con pre-trattamento speciale per esterni.
- Vetro di sicurezza temperato e viteria in acciaio inox.
- Guarnizioni in gomma silconica.
- Ceiling counterplate for appliance fixture
- Body and hanging bracket in die-cast aluminium.
- Powder coating with special treatment for outdoor use.
- Tempered safety glass and stainless steel screws.
- Silicon rubber seals.



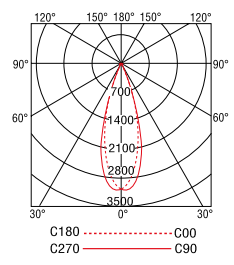
							Br ○ E5556/LBI	6350°				
							Br ● E5556/LBL	470nm				
						Ne ○ E5557/LBI	3x2W	230V		6350°	45°	
						Ne ● E5557/LBL						500mA
						Gr ○ E5558/LBI		6350°				
						Gr ● E5558/LBL		470nm				
A richiesta apertura fascio 10° / On request light beam 10°												
						Br E5556/RGB/10	3x1,2W	230V		-	10°	
						Ne E5557/RGB/10						350mA
						Gr E5558/RGB/10						
						Br E5556/RGB/30	3x1,2W	230V		-	30°	
						Ne E5557/RGB/30						350mA
						Gr E5558/RGB/30						
						Br E5556/RGB/45	3x1,2W	230V		-	45°	
						Ne E5557/RGB/45						350mA
						Gr E5558/RGB/45						

OP. **E..../ 600178** Versione con vetro di sicurezza a filo anello / Flat protection glass version

ACC. **644892/1** Kit alimentatore/miscelatore dei colori max cinque apparecchi
Kit remote transformer/color control device for max five fittings

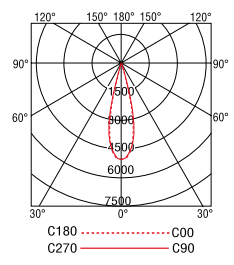


○ .../LBI (7x2,5W 700mA)



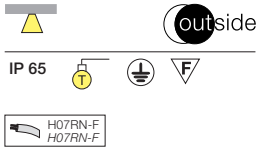
(m)	Ø (m)	(lx)	max	med
1,0	0,50; 0,58		1802	1070
2,0	0,99; 1,16		451	267
3,0	1,49; 1,74		200	119
4,0	1,98; 2,32		113	67
5,0	2,48; 2,90		72	43

○ .../LBN30 (7x2,5W 700mA)



(m)	Ø (m)	(lx)	max	med
1,0	0,47; 0,44		3584	2308
2,0	0,93; 0,89		896	577
3,0	1,40; 1,33		398	256
4,0	1,87; 1,77		224	144
5,0	2,34; 2,21		143	92

Ceiling 140-175



- Contropiastra di fissaggio a plafone per aggancio apparecchio.
- Corpo e staffa di ancoraggio in fusione di alluminio.
- Verniciatura in polveri con pre-trattamento speciale per esterni.
- Vetro di sicurezza temperato e viteria in acciaio inox.
- Guarnizioni in gomma siliconica.
- Ceiling counterplate for appliance fixture.
- Body and hanging bracket in die-cast aluminium.
- Powder coating with special treatment for outdoor use.
- Tempered safety glass and stainless steel screws.
- Silicon rubber seals.



		CEILING 140				
		Br ○ E5565/LBI				6350°
		Br ● E5565/LBL			470nm	
		Ne ○ E5566/LBI	7x2,5W	230V		6350°
		Ne ● E5566/LBL				
		Gr ○ E5567/LBI				6350°
		Gr ● E5567/LBL				470nm

A richiesta apertura fascio 30° / On request light beam 30°

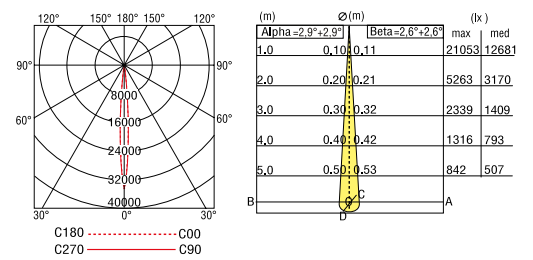
OP. **E..../ 600179** Versione con vetro di sicurezza a filo anello / Flat protection glass version

		CEILING 175				
		Br ○ E5571/LBN30				4200°
		Ne ○ E5572/LBN30	7x2,5W	230V		4200°
		Gr ○ E5573/LBN30				

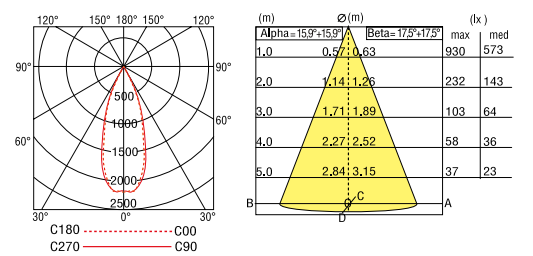
OP. **E..../ 600180** Versione con vetro di sicurezza a filo anello / Flat protection glass version



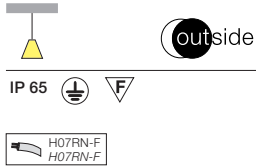
○ .../LBI (3x2W 500mA) 10°



○ .../LBI (3x2W 500mA) 45°



Ceiling S 105



- Corpo in fusione di alluminio.
- Verniciatura in polveri con pretrattamento speciale per esterni.
- Vetro di sicurezza temperato.
- Viteria in acciaio inox.
- Guarnizioni e pressacavo di tenuta in gomma siliconica.
- Kit di sospensione con cavi in acciaio e cavo di alimentazione lunghi. 2 m con rosone.
- *Body made in die-cast aluminium.*
- *Powder coating with special treatment for outdoor use.*
- *Tempered safety glass.*
- *Stainless steel screws.*
- *Seals and cable gland in silicon rubber.*
- *Complete with power and suspension cables 2m. long with baseplate.*



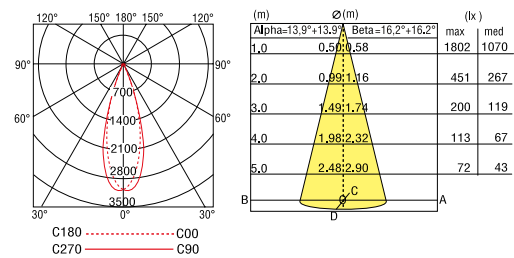
 MAX 2000 mm 214 105	Br ○	E5556/LBI/S					6350°
	Br ●	E5556/LBL/S					470nm
	Ne ○	E5557/LBI/S	3x2W	230V			6350°
	Ne ●	E5557/LBL/S		500mA			470nm 45°
	Gr ○	E5558/LBI/S					6350°
	Gr ●	E5558/LBL/S					470nm
A richiesta apertura fascio 10° / On request light beam 10°							
	Br	E5556/RGB/10/S		230V			- 10°
	Ne	E5557/RGB/10/S	3x1,2W	350mA			
	Gr	E5558/RGB/10/S					
	Br	E5556/RGB/30/S	3x1,2W	230V			- 30°
	Ne	E5557/RGB/30/S		350mA			
	Gr	E5558/RGB/30/S					
	Br	E5556/RGB/45/S	3x1,2W	230V			- 45°
	Ne	E5557/RGB/45/S		350mA			
	Gr	E5558/RGB/45/S					

OP. **E..../ 600178** Versione con vetro di sicurezza a filo anello / Flat protection glass version

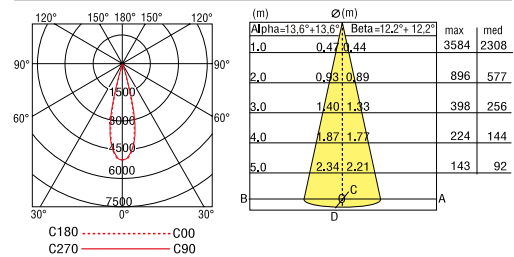
ACC. **644892/1** Kit alimentatore/miscelatore dei colori max cinque apparecchi
 Kit remote transformer/color control device for max five fittings



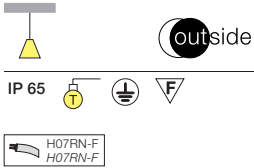
○ .../LBI (7x2,5W 700mA)



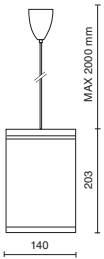
○ .../LBN30 (7x2,5W 700mA)



Ceiling S 140-175

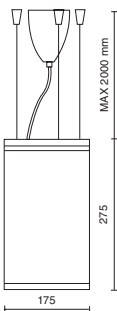


- Corpo in fusione di alluminio.
- Verniciatura in polveri con pretrattamento speciale per esterni.
- Vetro di sicurezza temperato.
- Viteria in acciaio inox.
- Guarnizioni e pressacavo di tenuta in gomma siliconica.
- Kit di sospensione con cavi in acciaio e cavo di alimentazione lunghi 2 m con rosone.
- *Body made in die-cast aluminium.*
- *Powder coating with special treatment for outdoor use.*
- *Tempered safety glass.*
- *Stainless steel screws.*
- *Seals and cable gland in silicon rubber.*
- *Complete with power and suspension cables 2m. Long with baseplate.*



CEILING S 140						
Br	○	E5565/LBI/S				6350°
Br	●	E5565/LBL/S				470nm
Ne	○	E5566/LBI/S	7x2,5W	230V		6350°
Ne	●	E5566/LBL/S		700mA		470nm
Gr	○	E5567/LBI/S				6350°
Gr	●	E5567/LBL/S				470nm

OP. **E..../ 600179** Versione con vetro di sicurezza a filo anello / *Flat protection glass version*

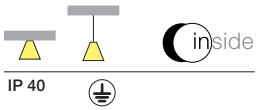


CEILING S 175						
Br	○	E5568/LBN30				
Ne	○	E5569/LBN30	7X2,5W	230V		4200°
Gr	○	E5570/LBN30		700mA		30°

OP. **E..../ 600180** Versione con vetro di sicurezza a filo anello / *Flat protection glass version*

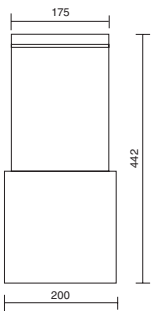


Ceiling deco / deco S



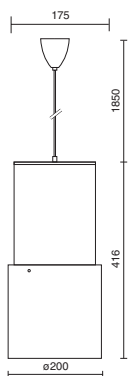
- Versione decorativa del prodotto CEILING per installazioni in ambienti interni.
- Corpo e staffa di ancoraggio in fusione di alluminio.
- Vetro di protezione temperato.
- Diffusore in policarbonato opale.

- *Decorative version of CEILING product for indoor applications.*
- *Body and hanging bracket in die-cast aluminium.*
- *Tempered protection glass.*
- *Opal finished diffuser.*



VERSIONE PLAFONE / CEILING VERSION

Bi	67510/LBN30					
Ne	67511/LBN30	7x2,5W	230V		4200°	30°
Gr	67512/LBN30		700mA			



VERSIONE SOSPENSIONE / SUSPENSION VERSION

Bi	67513/LBN30					
Ne	67514/LBN30	7x2,5W	230V		4200°	30°
Gr	67515/LBN30		700mA			



Ledline

La versatilità dell'applicazione e l'ingombro ridotto dell'apparecchio sono determinati da un corpo in estruso di alluminio satinato, disponibile in varie lunghezze e installabile sia a parete che a soffitto.

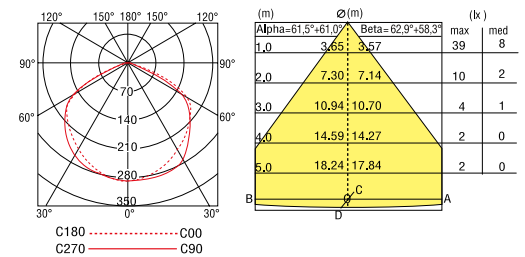
La gamma di versioni comprende non solo strip led di passo differente, bensì anche la possibilità di ottenere fasci di luce di varie aperture e temperatura di colore.

Installabile come apparecchio fisso o orientabile, esso consente di adempiere a qualsiasi esigenza di illuminamento da esterno, partendo da pianerottoli, atri, ingressi di aziende pubbliche e aree commerciali, per arrivare fino a locali privati, condomini, complessi residenziali.

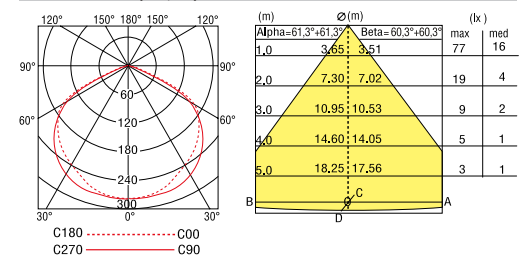
The versatility of the application and the reduced dimensions are due to an aluminium satined body available in different lengths which can be installed both on wall and on ceiling. To the range belong not only led strips with different distances between the leds, but also the possibility to get light beams with different openings and colour temperatures. It can be installed as fix or adjustable fitting and it covers any kind of need concerning the external lighting, such as landings, entrances of public companies and commercial areas, but also private rooms, blocks and residential complexes.



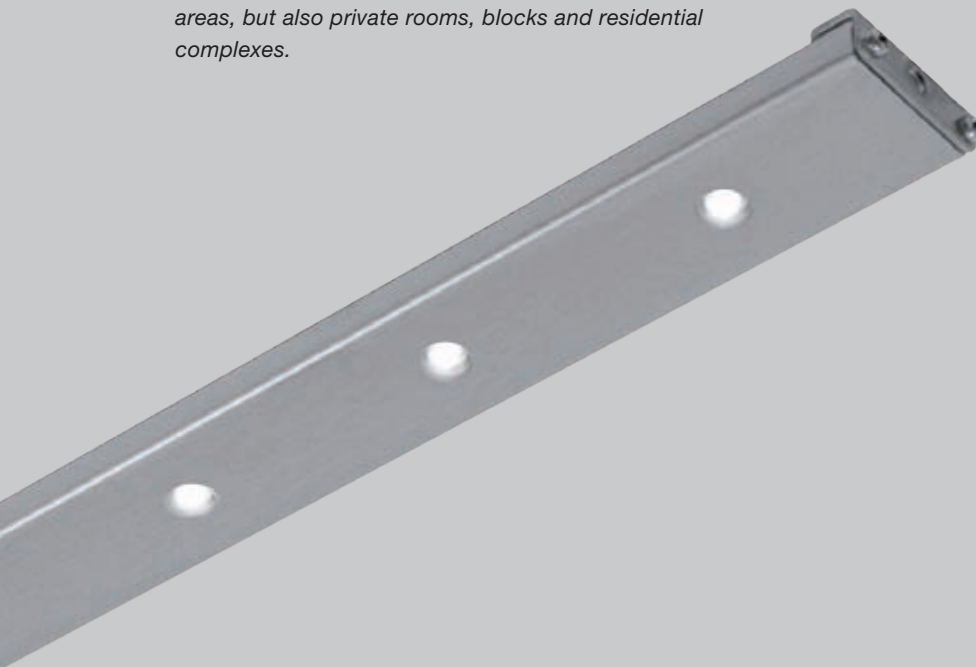
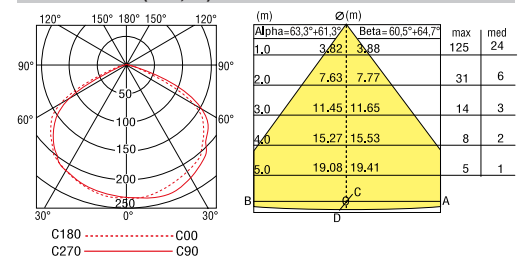
○ E903/BI (3x1,2W)

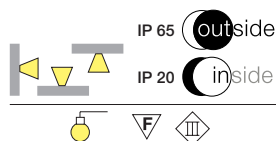


○ E903/60/BI (6x1,2W)



○ E903/120/BI (12x1,2W)

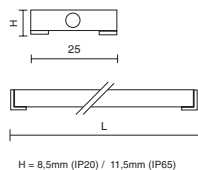




- Corpo in alluminio estruso anodizzato. Piastrina in alluminio per chiusura posteriore siliconata al corpo. Guarnizione in silicone tra corpo estruso e diodi.
- Testate inox di fissaggio.
- Scheda con power Led 1W nei colori Bianco (6350°K) e Blu.
- Alimentazione scheda con trasformatore elettronico per Led 230/12V 10W o 40W o 70W fornito come accessorio.
- *Extruded and anodized aluminium body.*
- *Inox fixing heads.*
- *1W Power led strip available in white (6350°K) and blu colour.*
- *Power supply is with electronic transformer 230/12V, 10W or 40W or 70W supplied as accessory.*



			L (mm)	PASSO (mm) STEP (mm)					
Ledline fisso - Fixed ledline									
○	E904/BI	E903/BI	350	100	3x1,2W	12V		6350°	120°
●	E904/BL	E903/BL		470nm					
○	E907/BI	E906/BI	350	50	6x1,2W	12V		6350°	120°
●	E907/BL	E906/BL		470nm					
○	E904/60/BI	E903/60/BI	650	100	6x1,2W	12V		6350°	120°
●	E904/60/BL	E903/60/BL		470nm					
○	E907/60/BI	E906/60/BI	650	50	12x1,2W	12V		6350°	120°
●	E907/60/BL	E906/60/BL		470nm					
○	E904/90/BI	E903/90/BI	950	100	9x1,2W	12V		6350°	120°
●	E904/90/BL	E903/90/BL		470nm					
○	E907/90/BI	E906/90/BI	950	50	18x1,2W	12V		6350°	120°
●	E907/90/BL	E906/90/BL		470nm					
○	E904/120/BI	E903/120/BI	1250	100	12x1,2W	12V		6350°	120°
●	E904/120/BL	E903/120/BL		470nm					
○	E907/120/BI	E906/120/BI	1250	50	24x1,2W	12V		6350°	120°
●	E907/120/BL	E906/120/BL		470nm					

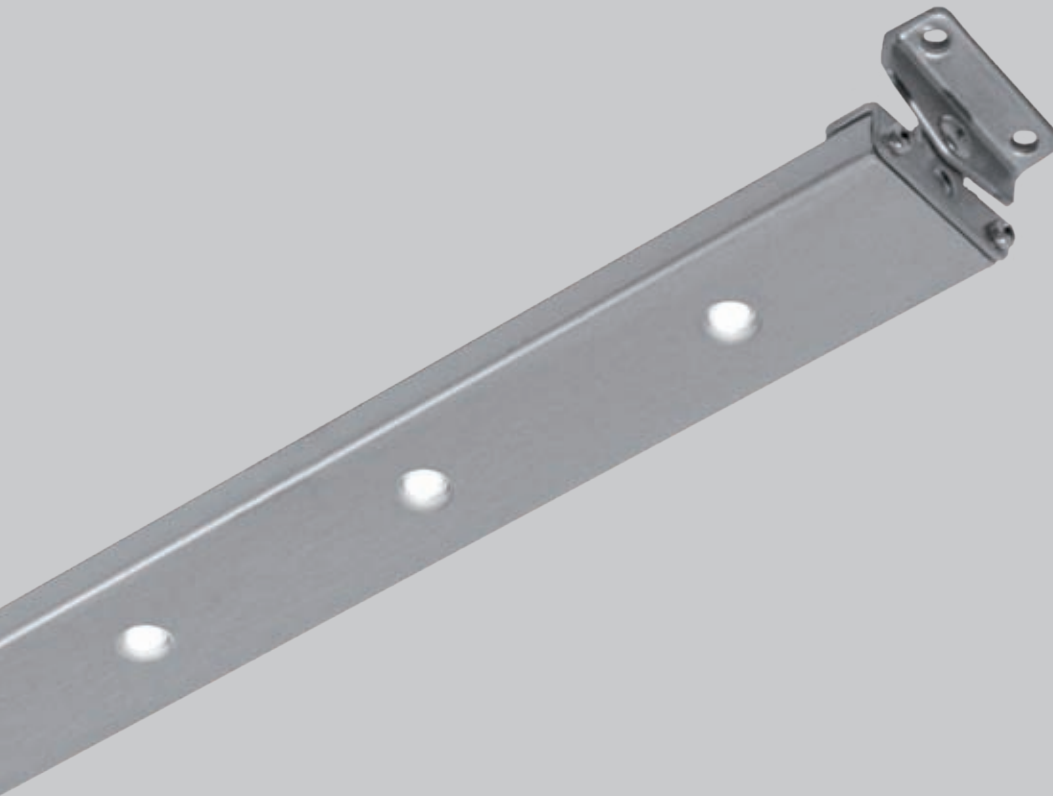


OP. .../LBC A richiesta: colore bianco caldo 3200°K / On request: warm white 3200°K

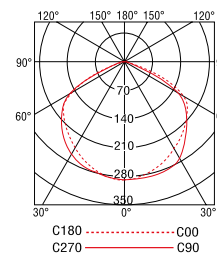
ACC. Alimentatori remoti / Remote power supply

- 644888** max 10W Alimentatore per LED PTDC/10 - 230/12V. Utilizzare fino a 6x1W
Power supply for LED PTDC/10 - 230/12V. To be used up to 6x1W
- 644889** max 40W Alimentatore per 230V/12V - 50/60Hz. Utilizzare da 9x1W a 24x1W
Power supply for 230V/12V - 50/60Hz. To be used up to 9x1W a 24x1W
- 645176** max 70W Alimentatore per 230V/12V - 50/60Hz. Utilizzare da 9x1W a 24x1W
Power supply for 230V/12V - 50/60Hz. To be used up to 9x1W a 24x1W

Ledline ST

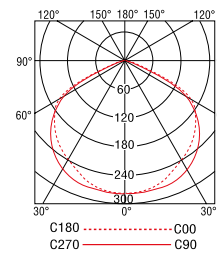


○ E913/BI (3x1,2W)



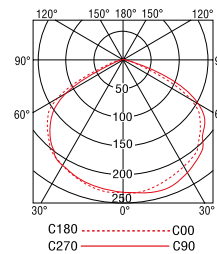
(m)	Ø(m)	(lx)	
		max	med
1,0	3,65 ; 3,57	39	8
2,0	7,30 ; 7,14	10	2
3,0	10,94 ; 10,70	4	1
4,0	14,59 ; 14,27	2	0
5,0	18,24 ; 17,84	2	0

○ E913/60/BI (6x1,2W)



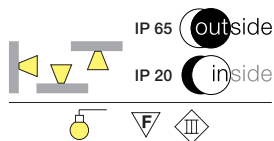
(m)	Ø(m)	(lx)	
		max	med
1,0	3,65 ; 3,51	77	16
2,0	7,30 ; 7,02	19	4
3,0	10,95 ; 10,53	9	2
4,0	14,60 ; 14,05	5	1
5,0	18,25 ; 17,56	3	1

○ E913/120/BI (12x1,2W)

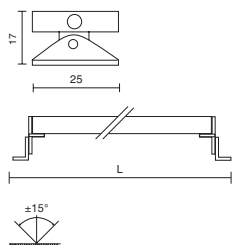


(m)	Ø(m)	(lx)	
		max	med
1,0	3,62 ; 3,88	125	24
2,0	7,63 ; 7,77	31	6
3,0	11,45 ; 11,65	14	3
4,0	15,27 ; 15,53	8	2
5,0	19,08 ; 19,41	5	1

Ledline ST



- Corpo in alluminio estruso anodizzato. Piastrina in alluminio per chiusura posteriore siliconata al corpo. Guarnizione in silicone tra corpo estruso e diodi.
- Testate inox di fissaggio con versione basculante.
- Scheda con power Led 1W nei colori Bianco (6350°K) e Blu.
- Alimentazione scheda con trasformatore elettronico per Led 230/12V 10W o 40W o 70W fornito come accessorio.
- *Extruded and anodized aluminium body.*
- *Inox fixing heads. Available also adjustable brackets.*
- *1W Power led strip available in white (6350°K) and blu colour.*
- *Power supply is with electronic transformer 230/12V, 10W or 40W or 70W supplied as accessory.*



			L (mm)	PASSO (mm) STEP (mm)					
Ledline orientabili - Adjustable Ledline									
○	E914/BI	E913/BI	350	100	3x1,2W	12V		6350°	120°
●	E914/BL	E913/BL		50	6x1,2W			470nm	
○	E917/BI	E916/BI	650	100	6x1,2W	12V		6350°	120°
●	E917/BL	E916/BL		50	12x1,2W			470nm	
○	E914/90/BI	E913/90/BI	950	100	9x1,2W	12V		6350°	120°
●	E914/90/BL	E913/90/BL		50	18x1,2W			470nm	
○	E917/90/BI	E916/90/BI	1250	100	12x1,2W	12V		6350°	120°
●	E917/90/BL	E916/90/BL		50	24x1,2W			470nm	



OP. ...LBC A richiesta: colore bianco caldo 3200°K / On request: warm white 3200°K

ACC. Alimentatori remoti / Remote power supply

644888 max 10W Alimentatore per LED PTDC/10 - 230/12V. Utilizzare fino a 6x1W
Power supply for LED PTDC/10 - 230/12V. To be used up to 6x1W

644889 max 40W Alimentatore per 230V/12V - 50/60Hz. Utilizzare da 9x1W a 24x1W
Power supply for 230V/12V - 50/60Hz. To be used up to 9x1W a 24x1W

645176 max 70W Alimentatore per 230V/12V - 50/60Hz. Utilizzare da 9x1W a 24x1W
Power supply for 230V/12V - 50/60Hz. To be used up to 9x1W a 24x1W

Border

La gamma Border nasce appositamente per l'illuminazione di aree esterne quali giardini, viali, camminamenti, ecc. Dotati originariamente di una tecnologia di prodotto essenziale, rappresentano oggi invece un punto di riferimento per le innovazioni e gli studi illuminotecnici. Adatti sia all'illuminazione di aree private che pubbliche, essi sono disponibili con varie ottiche e versioni, al fine di ottenere fasci luminosi diffusi o concentrati a seconda delle esigenze contingenti.

The Border range was created specifically for lighting of outdoor areas such as gardens, paths, walkways, etc. Originally equipped with a technology product essential, are today a benchmark for innovations and studies lighting. Suitable for lighting of both private and public areas, they are available with various optical versions, in order to obtain light beams widespread or concentrated depending on needs.

Border

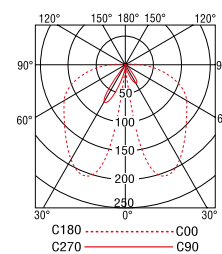
Navy



Border per esterni in versioni da 3 o 6 led, il Navy risulta indicato per l'installazione in vari contesti, da parchi e giardini fino a viali, camminamenti, passaggi pedonali ma anche zone residenziali pubbliche e private. Il design semplice e le ridotte dimensioni che caratterizzano l'apparecchio lo rendono adatto all'utilizzo in tutte quelle situazioni in cui siano richiesti ingombri minimi, visibilità ed al tempo stesso discrezione delle forme strutturali.

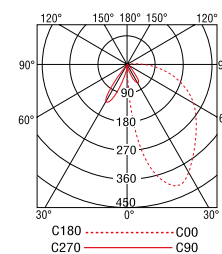
Border outdoor versions from 3 to 6 LEDs, the Navy appears suitable for installation in different contexts, from parks and gardens to boulevards, walkways, pedestrian crossings, but also residential areas, public and private. The simple design and small size that characterize the device make it suitable for use in all situations in which space is required minimum visibility and at the same time the discretion of structural forms.

○ .../LBI (6X3W 350mA)

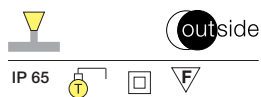


(m)	Ø (m)	(lx)	max	med
1.0	2.43	234	51	
2.0	4.85	59	13	
3.0	7.28	26	6	
4.0	9.71	15	3	
5.0	12.14	9	2	

○ .../LBI (3X3W 350mA)



(m)	Ø (m)	(lx)	max	med
1.0	2.43	234	51	
2.0	4.85	59	13	
3.0	7.28	26	6	
4.0	9.71	15	3	
5.0	12.14	9	2	

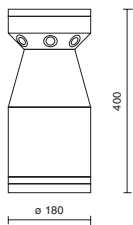


- Corpo in elementi in pressofusione di alluminio, verniciatura in polveri con pretrattamento per esterni.
- Guarnizioni in gomma siliconica.
- Viteria in acciaio inox.
- Campo illuminante a 180° o 360°.
- Cavo di alimentazione lg. 1,5 mt.

- *Body in aluminium, painting with special pre-treatment for outdoor USE.*
- *Gasket silicone rubber.*
- *Inox screw.*
- *Lighting area 180° or 360°.*
- *Power cable 1,5 mt. long.*



 Ottica radiale - <i>Radial Optic</i>	Bi ○ E5785/LBC					3200°	
	Bi ○ E5785/LBI	6x3W	230V/350mA			6350°	10°
	Bi ● E5785/LBL					470nm	
 Ne ○ E5786/LBC Ne ○ E5786/LBI Ne ● E5786/LBL	Ne ○ E5786/LBC					3200°	
	Ne ○ E5786/LBI	6x3W	230V/350mA			6350°	10°
	Ne ● E5786/LBL					470nm	
 Gr ○ E5787/LBC Gr ○ E5787/LBI Gr ● E5787/LBL	Gr ○ E5787/LBC					3200°	
	Gr ○ E5787/LBI	6x3W	230V/350mA			6350°	10°
	Gr ● E5787/LBL					470nm	
 Ottica monodirezionale - <i>Monodirectional optic</i>	Bi ○ E5788/LBC					3200°	
	Bi ○ E5788/LBI	3x3W	230V/350mA			6350°	10°
	Bi ● E5788/LBL					470nm	
 Ne ○ E5789/LBC Ne ○ E5789/LBI Ne ● E5789/LBL	Ne ○ E5789/LBC					3200°	
	Ne ○ E5789/LBI	3x3W	230V/350mA			6350°	10°
	Ne ● E5789/LBL					470nm	
 Gr ○ E5790/LBC Gr ○ E5790/LBI Gr ● E5790/LBL	Gr ○ E5790/LBC					3200°	
	Gr ○ E5790/LBI	3x3W	230V/350mA			6350°	10°
	Gr ● E5790/LBL					470nm	



OP. **.../MG** Versione marmo / *Marble version*

ACC. **899** Pozzetto da interrare in PE-AD per il fissaggio del corpo
PE-AD housing for buried installation

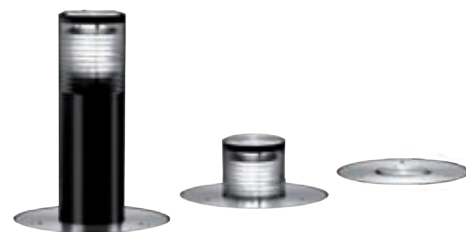


Lift

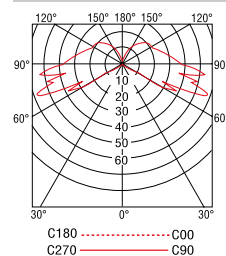


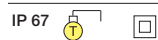
Palina luminosa con estrazione motorizzata per illuminazione diffusa di aree residenziali private o pubbliche, di percorsi, di aree verdi o parcheggi. Un corpo illuminante a scomparsa che rende più facile la manutenzione delle aree verdi, non costituisce ostacolo permanente od ingombro visivo nell'utilizzo degli spazi.

Luminous stake with motorized extraction suitable for diffused lighting of public and private residential areas, walking ways, green areas and parkings. A lighting body which makes green areas maintenance easier and is not a visual permanent obstacle.



○ .../LBI





Carico statico 500 kg
Static load 500 kg

Velocità max carrabilità 15 km/h
Drive-over max speed 15 km/h

- Apparecchio da incasso con estrazione motorizzata gestita elettronicamente.
- Pozzetto di alloggiamento da interrare in PVC con controanello in acciaio INOX predisposto per l'alloggiamento del corpo lampada a filo terreno.
- Corpo lampada composto da contenitore in PVC con anello di finitura in acciaio INOX AISI 316 e vano ottico cilindrico estraibile in policarbonato stabilizzato ai raggi UV.
- Gruppo motore, alimentazione, corpo lampada e rifrattori lamellari inseriti nel vano ottico a tenuta stagna.
- Fornito pre-cablato con pressacavo PG13,5 in ottone nichelato e cavo in uscita tipo H07RN-F 3x1,5 mm² di lunghezza 3 m.
- Recessed fitting with electronic controlled motorized extraction.
- PVC housing with INOX steel ring suitable for the installation of the fitting at the ground level.
- Fitting's body made of PVC housing with INOX AISI 316 steel ring and extractable cylindrical optic opening of UV rays stabilized polycarbonate.
- Mechanical components, power, lamp body and lamellar refractors in the proof optical space.
- Supplied cabled with cable gland PG13,5 in nickel brass and cable H07RN-F 3x1,5 mm² 3 m long.



Black out - L'apparecchio ricorda il movimento di fuoriuscita o di rientro dopo il black out.

Black out - The movement of the fitting resembles the one of the outlet or the re-entry after a black out.

Light on - L'apparecchio non permette l'accensione della sorgente se il vano attico non è fuori terra.

Light on - The fitting doesn't allow the lighting up of the source if the optic part is not out of the ground.



Accessori / Accessories

- 644898** Trasmettitore di segnale EASY da abbinare a:
- TELECOMANDO 2 CANALI 644901 + RICEVITORE 644900 (per comandare massimo due gruppi fino a dieci apparecchi ciascuno)
 - RICEVITORE 644900 (per comandare massimo quattro gruppi con fino dieci apparecchi ciascuno)
- Signal Transmitter to be used with:
- 2 CHANNELS remote control 644901 + RECEIVER 644900 (to control 2 groups with ten fittings each maximum)
 - 644900 RECEIVER (to control 4 groups with ten fittings each maximum)

- 644899** Pulsantiera da interni da abbinare a:
- TELECOMANDO 2 CANALI 644901 + RICEVITORE 644900 (per comandare massimo due gruppi fino a dieci apparecchi ciascuno)
 - RICEVITORE 644900 (per comandare massimo quattro gruppi con fino dieci apparecchi ciascuno)
- Signal Transmitter to be used with:
- 2 CHANNELS remote control 644901 + RECEIVER 644900 (to control 2 groups with ten fittings each maximum)
 - 644900 RECEIVER (to control 4 groups with ten fittings each maximum)

- 644897** TELECOMANDO 24 CANALI da utilizzare con il ricevitore di segnale 644900, per il controllo remoto della salita/discesa del vano ottico (massimo 24 gruppi fino a 10 apparecchi ciascuno).
Distanza massima di funzionamento telecomando/ricevitore 100 mt.

24 CHANNELS REMOTE CONTROL to be used with signal receiver 644900 to control the movement of fitting. (24 groups with 10 fittings each maximum). The max distance between fitting and receiver is 100 mt.

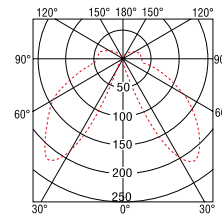
- 644901** TELECOMANDO 2 CANALI da utilizzare con il ricevitore di segnale 644900, per il controllo remoto della salita/discesa del vano ottico (massimo 2 gruppi fino a 10 apparecchi ciascuno). Distanza massima di funzionamento telecomando/ricevitore 100 mt.
- 2 CHANNELS REMOTE CONTROL to be used with signal receiver 644900 to control the movement of fitting. (2 groups with 10 fittings each maximum). Max distance remote control/receiver 100 mt.

- 644900** Ricevitore di segnale da abbinare a:
- TELECOMANDO 2 o 24 canali
 - TELECOMANDO 2 canali + TRASMETTITORE EASY - TELECOMANDO 2 canali + PULSANTIERA a 4 canali - TRASMETTITORE EASY - PULSANTIERA a 4 canali
- Signal receiver to be used with: REMOTE CONTROL 2 or 24 channels
- REMOTE CONTROL 2 or 24 channel + EASY TRANSMITTER CARD
 - REMOTE CONTROL 2 or 24 channel + 4 channels CONTROL PANEL
 - EASY TRANSMITTER CARD - 4 CHANNELS CONTROL PANEL

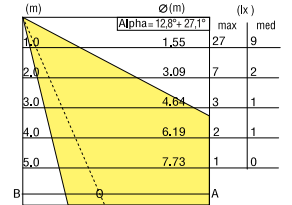
NB: Il ricevitore deve essere contenuto in un BOX IP67 - Distanza massima di funzionamento telecomando/ricevitore 100mt.
Note: The receiver must be installed into a IP67 BOX - Max distance remote control/receiver 100 mt.

Park

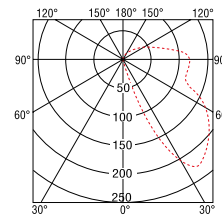
○ .../LBI (Bidirezionale)



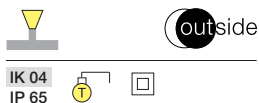
C180 C00
C270 ——— C90



○ .../LBI (Monodirezionale)

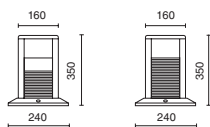


C180 C00
C270 ——— C90




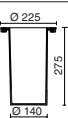
- Struttura in alluminio.
- Viteria in acciaio inox.
- Verniciatura in polveri poliestere con pretrattamento speciale per esterni.
- Guarnizioni in silicone.
- Piastra di ancoraggio per fissaggio a terra in acciaio inox AISI 316.
- Schermo di protezione in metacrilato trasparente per versioni con riflettore asimmetrico.
- Schermo diffusore in policarbonato rigato per versioni a luce diffusa.
- Cavo di alimentazione lg. 0,3 mt.

- Aluminium structure.
- Inox steel screws.
- Powder coated with pretreatment for outdoor use.
- Silicon gaskets.
- Stainless steel (AISI 316) plate for ground fixing.
- Clear metacrylate protection screen for versions with asymmetric reflector.
- Riffled polycarbonate screen for versions with flood light.
- Power cable 0,3 mt long.



Ne	○	E5645/LBI					
Gr	●	E5646/LBI	7x1,2W	230V/350mA		6350°	
Ne	○	E5645/LBL				470nm	
Gr	●	E5646/LBL					
Ne	○	E5650/LBI				6350°	
Gr	●	E5651/LBI	7x1,2W	230V/350mA		470nm	
Ne	○	E5650/LBL					
Gr	●	E5651/LBL					

ACC.  **898** Pozzetto per fissaggio interrato
Pit for ground attachment



645230 Connettore IP68 / IP68 Socket

Foodlighting

Illuminare uno stesso prodotto - ad esempio carne e pesce - con la stessa luce può avere in molti casi conseguenze assai controproducenti, soprattutto in un mercato in cui la clientela ha sempre più la possibilità di scegliere. Una illuminazione sbagliata può far apparire oggetti esposti poco freschi o addirittura vecchi e stantii.

Al contrario merce correttamente illuminata trasmette stimolanti messaggi alla percezione umana anticipandone ulteriori sensazioni (profumi, sapori che ci sembra di poter cogliere alla sola vista di un alimento); l'uomo raccoglie attraverso la vista circa l'ottanta per cento delle informazioni di ciò che lo circonda. Il colore ha grande rilevanza nel manifestare le caratteristiche di un prodotto; la luce è dunque un forte elemento stimolante alla scelta. Una giusta illuminazione della merce esposta è, quindi, sinonimo di incremento delle vendite.

Grazie ad appositi filtri e trattamenti delle ottiche in grado di selezionare la banda di colore della luce prodotta, è possibile individuare le tonalità di luce ideale per ogni alimento specifico. È necessario, quindi, far comprendere ai nostri interlocutori l'importanza dell'impiego di apparecchi di illuminazione per generi alimentari: non si tratta di alterare le caratteristiche cromatiche dei prodotti, ma di esaltarne la percezione pur mantenendo la corretta resa dei colori; questo presuppone la conoscenza delle caratteristiche principali delle fonti luminose impiegate.

Lighting food - for example meat and fish with the same light source in many cases can be counter productive, especially in a market, in which the client has always more possibilities of choice. Incorrect lighting can make displayed produce look less fresh and even old. On the contrary, food correctly illuminated gives positive stimuli to the human perception; these are then anticipated by the other senses. (Smell and taste can be anticipated with only one look of a product).

People take in through sight, eighty per cent of their surroundings. Colour has great relevance in the list of characteristics of a product. Light therefore is a strong element in stimulating choice.

The right lighting of displayed produce is therefore directly linked with how well the produce sells.

Thanks to filters and technical modifications we are able to select the type of colour that a light produces, it is then possible to produce the ideal light for the product.

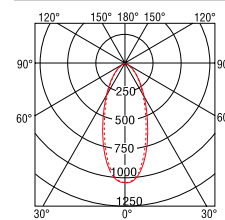
It is necessary therefore for our Technicians/Designers to understand the effect of light fittings on all types of food, so as not to alter the natural colour characteristics of the product but to maintain the true colour. This presumes that the principals of the effects of light sources are known.

Foodlighting

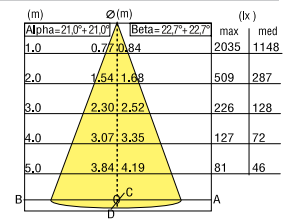
Net 15 For-led food



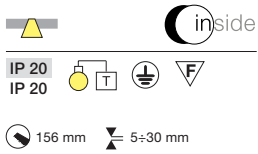
○ 57511/FOOD/4K



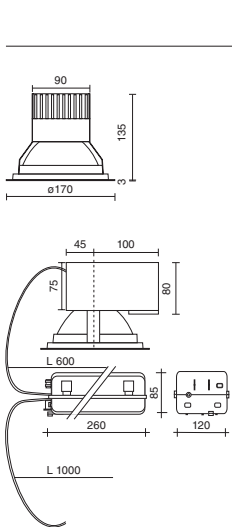
C180 C00
C270 C90



Net 15 For-led food



- Anello in acciaio verniciato in polveri.
- Riflettore in alluminio metallizzato in alto vuoto.
- Vetro di protezione temperato trasparente, dissipatore alettato in alluminio.
- Costanza cromatica: < 5 MCE.
- Completo di alimentatore esterno, predisposto per future evoluzioni.
- Dissipatore attivo con ventola di raffreddamento.
- *Steel ring coated with powders.*
- *Aluminium reflector metallized in high vacuum.*
- *Tempered transparent protection glass, aluminium dissipator.*
- *Chromatic constancy: < 5 MCE.*
- *External control gear supplied, ready for future developments.*
- *Active dissipator with cooling fan.*



Bi **57510/FOOD/3K** 50W 230V 3000°K 40° 1800
 Ga **57511/FOOD/3K**

Panetteria e fresco, carne e crostacei, ortofrutta /
 Bread and fresh, ham and prawns, fruit and vegetables



Bi **57510/FOOD/4K** 50W 230V 4000°K 40° 2000
 Ga **57511/FOOD/4K**

Pesce / Fish



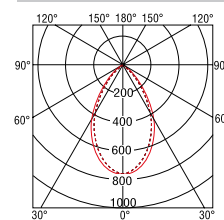
VENTOLA DI RAFFREDDAMENTO - Alimentazione: 12 volt dc - Potenza: 66mA - 0,8 watt - Rumorosità: 22,1 dB (A)
 COOLING FAN - Supply: 12 volt dc - Power: 66mA - 0,8 watt - Noise: 22,1 dB (A)

OP. A richiesta: apertura fascio 60° / On request: Light beam 60°
 Vano ottico IP44 - Optic tray IP44

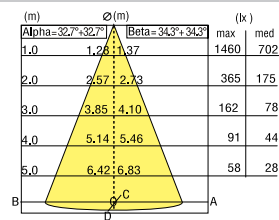
Ufo 2 For-led food



○ .../4K



C180 C00
C270 C90



Ufo 2 For-led food



- Corpo in lamiera di alluminio verniciata in polveri epossipoliestere.
- Riflettore in alluminio purissimo, metallizzato in alto vuoto.
- Vetro di protezione.
- Costanza cromatica: < 5 MCE.
- Cavo di alimentazione lg. 2 mt.

- Sheet aluminum body in epoxy polyester powder coated.
- Pure aluminium reflector metallized under high vacuum.
- Chromatic constancy: < 5 MCE.
- Protection glass.
- Power cable lg. 2 mt.



Ga **5583/3K**
 Ve ○ **5584/3K** 50W 230V  3000°K 70° 1800
 Bi **5585/3K**

Panetteria e fresco, carne e crostacei, ortofrutta /
 Bread and fresh, ham and prawns, fruit and vegetables

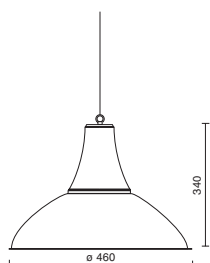


Ga **5583/4K**
 Ve ○ **5584/4K** 50W 230V  4000°K 70° 2000
 Bi **5585/4K**

Pesce / Fish



VENTOLA DI RAFFREDDAMENTO - Alimentazione: 12 volt cc - Potenza: 66mA - 0,8 watt - Rumorosità: 22,1 dB (A)
 COOLING FAN - Supply: 12 volt dc - Power: 66mA - 0,8 watt - Noise: 22,1 dB (A)



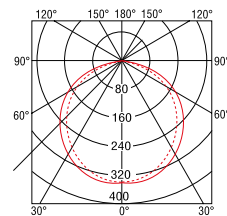
OP. A richiesta: trattamento di ramatura / On request: copper plating treatment

A.C.C.  Ga **171**
 Ve **172** Rosone con fune acciaio mt. 2
 Bi **173** Base plate with 2mt. steel cable

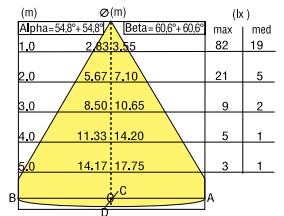
LED strip



○ STRIP LED 12V 100 CM



C180 C00
C270 C90



LED strip



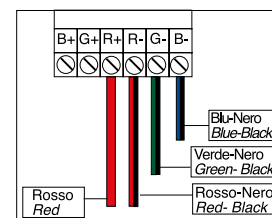
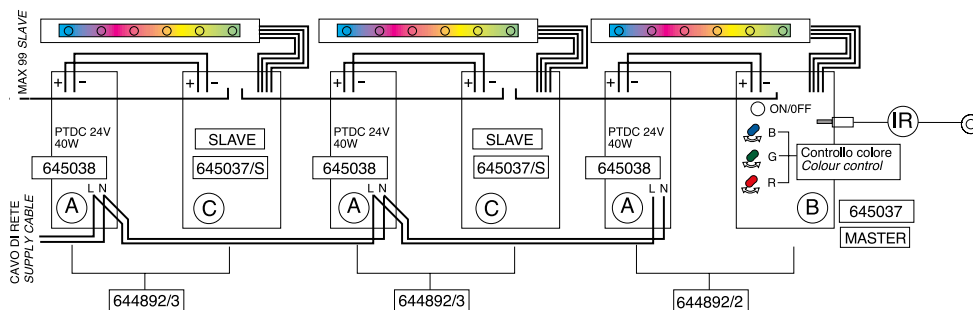
		L (mt)	cut (mm)	volt	K°	watt/mt	wide (mm)	n. led		alimentatore/ballast
IP20	645256/1	5	50	12	6500	4,8	8	300		644888 (10W/230/12V for max 2,5mt) 644889 (40W/230/12V for max 5mt)
	645256/2	5	50	12	470 nm	4,8	8	300		
	645256/BC	5	50	12	3500	4,8	8	300		
	645256/RGB	5	125	24	-	4	12	300	**644892/2 (for max 3 mt)	
IP68	645256/1/IP	5	50	12	6500	4,8	10	300		644888 (10W/230/12V for max 2,5mt) 644889 (40W/230/12V for max 5mt)
	645256/2/IP	5	50	12	470 nm	4,8	10	300		
	645256/BC/IP	5	50	12	3500	4,8	10	300		
	645256/RGB/IP	5	100	12	-	2,4	12	150	**645283 (for max 3 mt)	

* **644892/2**: kit composto da trasformatore 230/24V 40W (codice 645038) + controllo colore (codice 645037) + telecomando (codice 645044)
kit composed of ballast 230/24V 40W (code 645038) + colour control (code 645037) + remote (code 645044)

Per lunghezze superiori a mt. 3 utilizzare in aggiunta questo kit: **644892/3** (miscelatore SLAVE 645037/S + trasformatore 645038 230/24V 40W)
For length above 3 mt. use in addition this kit: 644892/3 (mixing SLAVE 645037/S + ballast 645038 230/24V 40W)

** **645283**: kit composto da trasformatore 230/12V 40W (codice 644889) + controllo colore (codice 645282/M) + telecomando (codice 645044)
kit composed of ballast 230/12V 40W (code 644889) + colour control (code 645282/M) + remote (code 645044)

Per lunghezze superiori a mt. 3 utilizzare in aggiunta questo kit: **645283/1** (miscelatore SLAVE 645282/S + trasformatore 644889 230/12V 40W)
For length above 3 mt. use in addition this kit: 645283/1 (mixing SLAVE 645282/S + ballast 644889 230/12V 40W)



Alimentatori / Ballasts



ALIMENTATORI REMOTI PER POWER LED REMOTE BALLASTS FOR POWER LED

							Corrente Aliment. Output Voltage
 $t_a = -20^{\circ} + 50^{\circ}$ $t_c = 65^{\circ}$		644758	6W	IP 20	max 4 LED	100±240V 50/60hz	350mA
 $t_a = -15^{\circ} + 40^{\circ}$ $t_c = 80^{\circ}$		644759	15W	IP 20	max 12 LED	220±240V 50/60hz	350mA
 $t_a = -15^{\circ} + 40^{\circ}$ $t_c = 80^{\circ}$		J350/68/LED	15W	IP 68	max 12 LED	220±240V 50/60hz	350mA
 $t_a = +40^{\circ}$ $t_c = 70^{\circ}$		645086	20W	IP 40	max 9 LED	190±250V 50/60hz	500mA
 $t_a = -20^{\circ} + 50^{\circ}$ $t_c = 70^{\circ}$		644758/5	6W	IP 20	max 2 LED	100±240V 50/60hz	500mA
 $t_a = +40^{\circ}$ $t_c = 60^{\circ}$		644940	10W	IP 40	max 3 LED	190±250V 50/60hz	700mA
 $t_a = -25^{\circ} + 50^{\circ}$ $t_c = 90^{\circ}$		644940/67	10W	IP 67	max 3 LED	100±240V 50/60hz	700mA
 $t_a = 40^{\circ}$ $t_c = 70^{\circ}$		644936	25W	IP 40	max 7 LED	190±250V 50/60hz	700mA
 $t_a = 40^{\circ}$ $t_c = 70^{\circ}$		644936/67	25W	IP 67	max 7 LED	190±250V 50/60hz	700mA
 $t_a = 40^{\circ}$ $t_c = 60^{\circ}$		J700/68/LED	10W	IP 68	max 3 LED	190±250V 50/60hz	700mA



ALIMENTATORI REMOTI PER POWER LED
REMOTE BALLASTS FOR POWER LED

								Corrente Aliment. Output Voltage
 $t_a = -10^{\circ} + 45^{\circ}$ $t_c = 75^{\circ}$	 NB. Pulsante a rilascio max 10 alimentatori <i>NB. Release button max 10 ballast</i>	644973	27W	IP 40	max 24 LED	190÷260V 50/60hz	350mA	
 $t_a = 40^{\circ}$ $t_c = 75^{\circ}$		644973/1	17W	IP 40	max 6 LED	110÷250V 50/60hz	700mA	
 $t_a = -20^{\circ} + 50^{\circ}$ $t_c = 75^{\circ}$		644757	15W 22W 25W 8W 10W 20W	IP 20	max 12 LED max 11 LED max 9 LED - - -	220÷240V 50/60hz 220÷240V 50/60hz 220÷240V 50/60hz - - -	350mA 500mA 700mA 10V 12V 24V	
 $t_a = -20^{\circ} + 45^{\circ}$ $t_c = 75^{\circ}$	 ACC. Cavetto 645384/1 per sincronizzare max 10 alimentatori in serie <i>ACC. 645384/1 cable to sync max 10 ballast</i>	645384	50W 40W 25W 34W 50W	IP 20	max 18 LED max 20 LED max 20 LED - -	110÷240V 50/60hz 110÷240V 50/60hz 110÷240V 50/60hz 110÷240V 50/60hz 110÷240V 50/60hz	700mA 350mA 500mA 24V 48V	
 $t_c = 80^{\circ}$		645379	40W	IP 40	2x9 LED 9 led per canale	220÷240V 50/60hz	2x700mA	

Alimentatori / Ballasts



ALIMENTATORI REMOTI PER LED DI LUMINANZA REMOTE BALLASTS FOR LUMINANCE LED

				IP	n° LED		Corrente Aliment. Output Voltage
		644599	10W	IP 20	-	95±240V 50/60hz	24Vcc
		645178	70W	IP 20	-	230±240V 50/60hz	24Vcc
		645179	130W	IP 20	-	230±240V 50/60hz	24Vcc
		645177	150W	IP 67	-	230±240V 50/60hz	24Vcc
 ta = 40°÷45° tc =70°		645038	50W	IP 20	-	220±240V 50/60hz	24Vcc
 		645216	100W	IP 67	-	100±240V 50/60hz	24Vcc



ALIMENTATORI REMOTI PER LEDLINE
REMOTE BALLASTS FOR LEDLINE

				IP	n° LED		Corrente Aliment. Output Voltage
		644888	10W	IP 20	-	230V 50hz	12Vcc
 ta = 40°÷45° tc =70°		644889	50W	IP 20	-	220÷240V 50/60hz	12Vcc
		645176	70W	IP 67	-	230÷240V 50/60hz	12Vcc





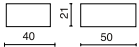

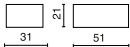

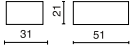



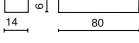


TRASFORMATORE REMOTO DI EMERGENZA
REMOTE SAFETY TRANSFORMER

				IP	n° LED		Corrente Aliment. Output Voltage
		INV1051	3W	IP 20	max 4 LED	230V 50hz	350mA

Alimentatori / Ballasts

CONVERTITORI CONVERTERS

				IP		Corrente Aliment. Output Voltage
 $t_a = 60^\circ$ $t_c = 85^\circ$		645062	7W	IP 20	Vdc = 9÷24 Vac = 9÷18 Hz = 0÷60	350mA
 $t_a = -20^\circ + 55^\circ$ $t_c = 70^\circ$		645382	15W	IP 20	3 a 12V 6 a 24V	500mA
 $t_a = -20^\circ + 45^\circ$ $t_c = 70^\circ$		645383	20W	IP 20	2 a 12V 5 a 24V	700mA
 $t_a = -40^\circ + 50^\circ$		645399	22W	IP 20	12V (3 per canale) 24V (6 per canale)	3x350mA
 $t_a = -15^\circ + 60^\circ$		645217	15W	IP 20	24V (6 per canale) 24V	2x350mA



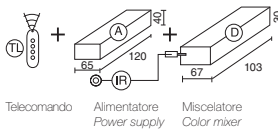
KIT ALIMENTATORI/MISCELATORI RGB - POWER LED
POWER SUPPLY AND COLOR MIXER KIT



IP



Corrente Alimentazione
Output Voltage



POWER LED 350mA

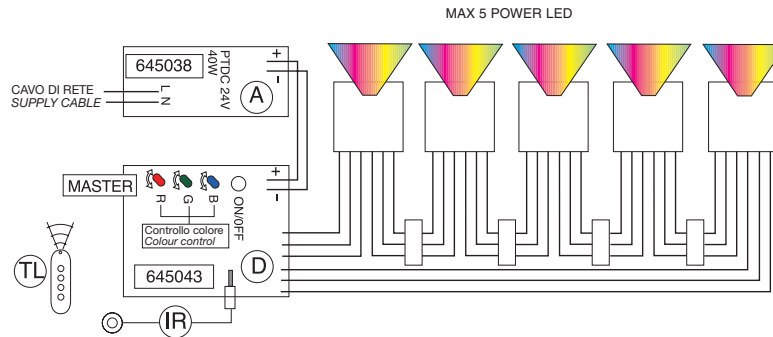
644892/1

IP 20

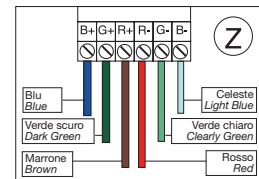
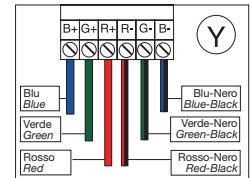
max 5 sorgenti RGB

230V - 50Hz

350 mA
per canale / for channel



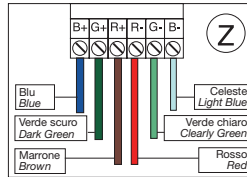
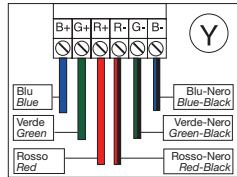
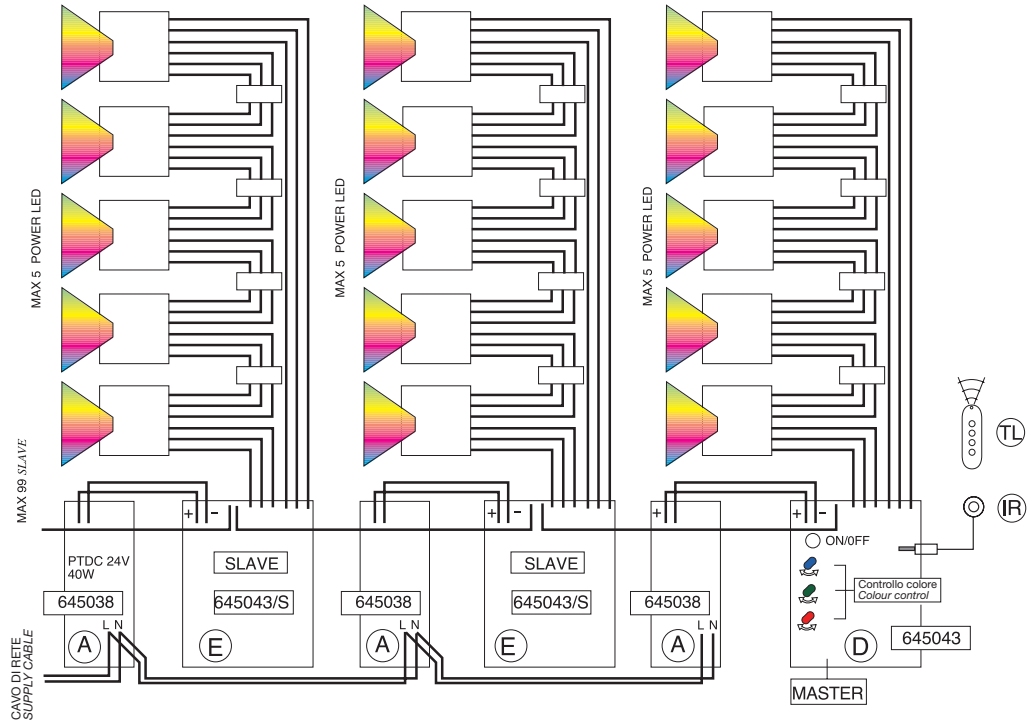
COLLEGAMENTO ELETTRICO



LEGENDA SCHEMA COLLEGAMENTO ELETTRICO

Y	Art 2825/RGB Art E7120/RGB Art E5556/RGB Art E5556/RGB/S Art E5553/RGB	Art E5550/RGB Art E8185/I/RGB
Z	Art E993/RGB Art E8394/RGB	
X	Art E9051/RGB Art E9061/RGB	

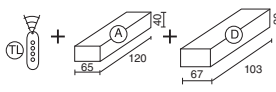
COLLEGAMENTO IN CASCATA / DAISYCHAIN WIRING





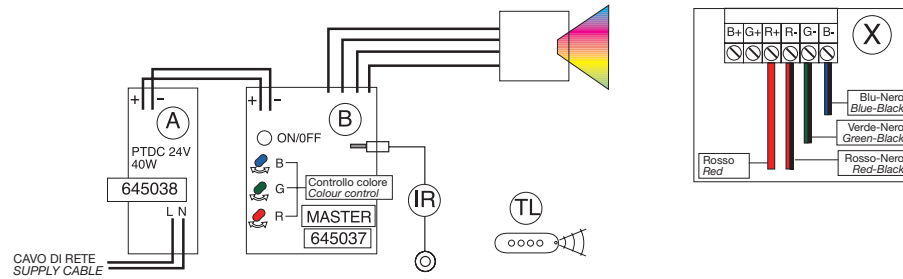
KIT ALIMENTATORI/MISCELATORI RGB - LED SDM
POWER SUPPLY AND COLOR MIXER KIT

LED 24Voc IP n° LED?? V Corrente Alimentazione
Output Voltage



644892/2 IP 20 15W MAX per canale / for channel 230V - 50Hz 24 VCC - 625mA 15W per canale / for channel

Telecomando Alimentatore Power supply Miscelatore Color mixer



LEGENDA

(A)	ALIMENTATORE - CONTROL GEAR	645038	(TL)	TELECOMANDO - REMOTE CONTROL
(B)	MASTER -	645037	(IR)	SENSORE - SENSOR
(C)	SLAVE -	645037/S		
(D)	MASTER -	645043		
(E)	SLAVE -	645043/S		



SCHEMI DI COLLEGAMENTO PER APPARECCHI CON LED DI POTENZA (POWER LED) E LED DI LUMINANZA (SMD) RGB CABLAGE SCHEME FOR POWER LED AND LUMINANCE LED FIXTURES

Il prodotto SIDE codice 645258 è un' interfaccia tra un generatore di segnale DMX e il segnale PWM per controllare moduli Slave a codice SIDE 645037/S - 645043/S.

L' interfaccia consente di realizzare il controllo dei moduli RGB collegati creando scenari di colore completamente programmabili.

Lo schema di collegamento evidenzia l' utilizzo di una centralina di controllo in protocollo DMX da utilizzare in combinazione con l' interfaccia; in tal modo quest' ultima può ricevere tramite linea bus informazioni relative agli indirizzi e ai valori dei canali DMX attivi.

Ogni interfaccia usa 3 canali DMX per generare 3 segnali di controllo colore (rosso,verde,blu) che vengono inviati al modulo slave per il controllo colore.

L' interfaccia dispone di 10 dip-switches di cui 9 per impostare l' indirizzo dei canali DMX in codice binario e il 10° per una routine di controllo del funzionamento dei tre led di ogni singolo modulo. L'indirizzo "X" del primo canale DMX porta il segnale per il controllo del colore rosso.

Quindi l'indirizzo "X+1" è il canale DMX per il segnale di controllo del colore verde. Infine l' indirizzo "X+2" è il canale DMX per il segnale di controllo del colore blu.

Con l'utilizzo della centralina di controllo si possono attivare i canali DMX sugli indirizzi descritti e attribuire valori da 0 a 255 di saturazione colore per ottenere diverse sfumature / tonalità. Si possono collegare in parallelo fino a 20 interfacce cod. 645258 senza necessità di rigenerare il segnale DMX ma prestando attenzione a non utilizzare gli stessi canali impostati sulla precedente interfaccia. Ogni interfaccia può pilotare fino a 99 slave 645037/S connessi tra loro con il cavetto in dotazione (Slave In-Slave Out). Vedere gli schemi di collegamento per il numero Max di apparecchi collegabili al singolo Slave. E' possibile gestire apparecchi dotati di power led alimentati in corrente costante e led di luminanza alimentati a 24V a secondo del tipo di Slave utilizzato (v. schemi di collegamento).

Ogni Slave va alimentato con tensione 24Vdc e in parallelo va alimentata l' interfaccia 645258 che assorbe circa 1W (corrente max 40mA).

Come descritto il sistema va integrato con una centralina di controllo. Side propone un modello da incasso in grado di generare quattro programmi da impostazione di fabbrica e di programmare altri scenari gestendo ora di start ciclo e tempo di intervento, saturazione del colore, dissolvenza tra una tonalità e la successiva (richiedere informazioni al Ns. Ufficio tecnico).

Inoltre l' interfaccia può ricevere il segnale DMX da una derivazione USB/DMX collegata ad un PC che utilizza un appropriato software di programmazione RGB.

In alternativa esiste una derivazione USB/DMX dotata di memoria sulla quale caricare le impostazioni create da software su Pc e lanciare il segnale alla interfaccia DMXPWM

Side item 645258 is a interface between a DMX signal generator and the PWM signal to control the Slave Side items 645037/S - 645043/S.

The interface gives the possibility to control the connected RGB modules, by creating colour scenes which can be completely programmed.

The electrical wiring diagram shows the use of a DMX control gearcase which has to be used together with the interface; in this way the interface can get information regarding the DMX active channels through a bus line.

Each interface uses 3 DMX channels to create 3 signals to control the colour (red, green, blue) which are sent to the slave module to control the colour.

The interface has 10 dip-switches. 9 of them are used to set up the DMX channels according the binary system and the last one to check that the three leds of each module work properly. The X address of the first channels brings the signal to control the red colour. As a consequence the address "X+1" is the DMX channel to control the green colour. The address "X+2" then is the DMX channel to control the blue colour.

By using the control gearcase it is possible to make the DMX channels work on the a.m. address and give values from 0 to 255 of colour saturation in order to get different shadings/tones. It's possible to get a parallel connection between max. 20 interfaces (item 645258) without regenerating the DMX signal, but paying a great attention not to use the same channels programmed on the previous interface. Each interface can control till 99 slaves 645037/S interconnected with a little cable supplied (Slave In-Slave Out). See the electrical wiring diagrams for the max. number of fittings that can be connected to the single Slave. Such devices are used for fittings with power led fed by continuous current and for power leds 24V according to which Slave is used (see the electrical wiring diagrams).

Each Slave has to be fed by 24Vdc tension and in parallel it has to be fed the interface 645258 that absorbs around 1W (max. current 40mA).

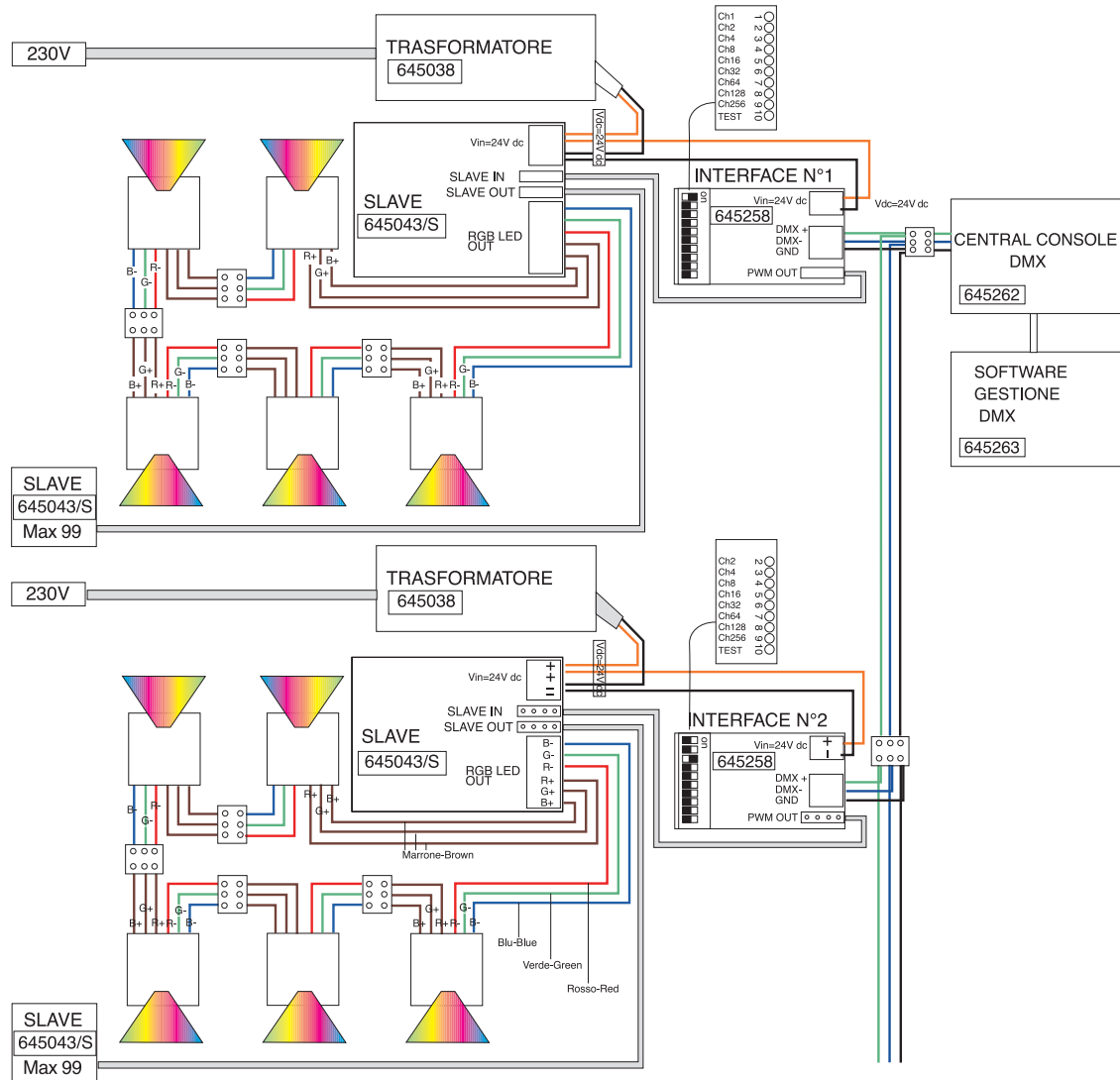
As already described a control gearcase has to be added to the system. Side proposes a recessed model which can generate four programs already set by the supplier and to program the other scenes by planning the beginning of the cycle and the operating time, the colour saturation, the fading between a tone and the following one (information have to be asked to our technical department).

The interface then can get the DMX signal from an USB/DMX shunt connected with a PC that uses a proper RGB programming software.

As alternative there is a USB/DMX shunt with memory where the information created by the software with the PC have to be loaded and where the signal of the USB/DMX interface has to be launched.



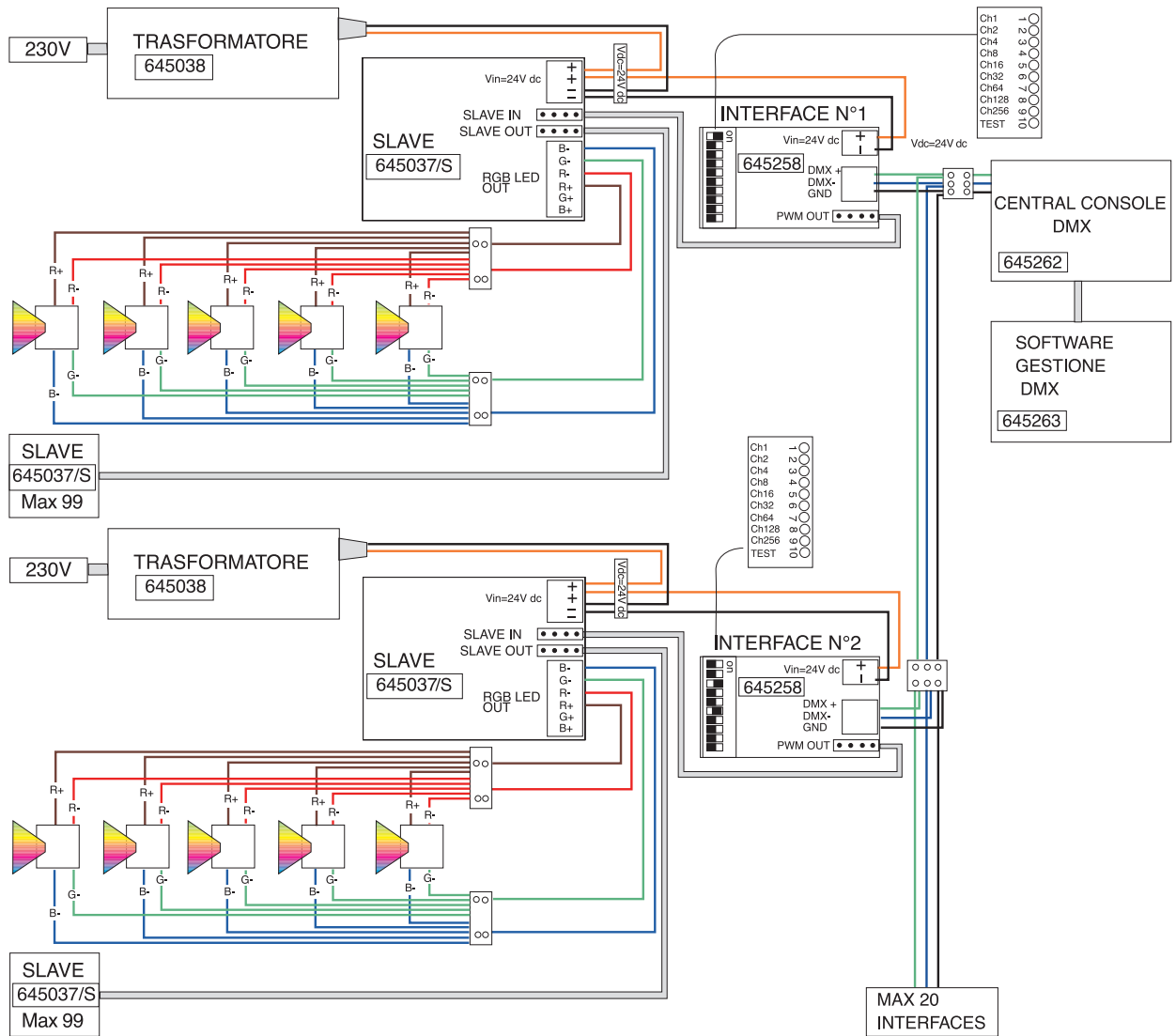
SCHEMA PER POWERLED (LED DI POTENZA) /
POWERLED SCHEME



Alimentatori / Power suppliers



SCHEMA PER LED DI LUMINANZA (SMD) /
LUMINANCE LED SCHEME



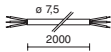
ACCESSORI / ACCESSORIES



Ø mm



E960 Ventosa / Glass remover



645229 Cavo di alimentazione collegato 2,00 m
Power cable 2,00 m length



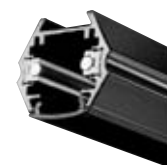
645230 Connettore IP68
IP68 Socket










Minirail 12V - Minirail binario elettrificato a bassa tensione - monoaccensione

- Il binario elettrificato a 1 accensione è costituito da un profilo di alluminio estruso verniciato in polveri epossidiche.

- *The electrified 1-phase low voltage track is made of extruded aluminium profile, powder coated.*



		
BINARIO ELETTRIFICATO <i>ELECTRIFIED TRACK</i>		Completo di testata di chiusura e copri binario) Lunghezza 1 mt 25A / <i>Complete with dead end and track cover) Length 1 mt 25A</i> Bi 17011 Ne 17012 1mt - 0,531 Kg Bi 17013 Ne 17014 2mt - 1,062 Kg
TESTATA DI ALIMENTAZIONE / LIVE-END		Bi 17020 Ne 17021 25A - 0,022 Kg
TESTATA DI CHIUSURA / DEAD-END		Bi 17022 Ne 17023
SUPPORTO BINARIO <i>TRACK SUPPORT</i>		Bi 17024 Ne 17025 0,003 Kg
GIUNTO DIRITTO <i>STRAIGHT CONNECTOR</i>		Bi 17026 Ne 17027 25A - 0,009 Kg
CURVA FLESSIBILE <i>FLEXIBLE CURVE</i>		Bi 17028 Ne 17029 25A

		
ADATTATORE / ADAPTOR		Bi 17030 Ne 17031 25A
COPRIBINARIO / TRACK COVER		Bi 17032 Ne 17033 25A - 0,022 Kg
ISOLATORE / INSULATION COUPLER		Bi 17034 Ne 17035
TRASFORMATORE <i>TRANSFORMER</i>		Trasformatore di sicurezza doppio isolamento <i>Safety transformer double insulated</i> Bi 26011 160W Bi 26012 210W Bi 26013 310W
TRASFORMATORE <i>TRANSFORMER</i>		Bi 17050 250W - 230/12V - 0,5 Kg Ne 17050/1 250W - 230/12V - 0,5 Kg Bi 17050/2 150W - 230/12V - 0,5 Kg Ne 17050/3 150W - 230/12V - 0,5 Kg
SOSPENSIONE A FILO <i>WIRE SUSPENSION KIT</i>		Bi 17042 Ne 17043 lg. 1500 mm - 0,38 Kg

N.B.: Cavetto acciaio - Sez. 0,87 mm² - portata max 25 Kg. Carico di rottura 135 Kg.
NOTE: Steel cable - section 0,87 mm² maximum capacity of 25 Kg. Actual breaking load 135 Kg.

Simbologia / Symbols

TIPO DI APPLICAZIONE / USE WAY

						
Incastro <i>Recessed</i>	Soffitto e parete <i>Ceiling and wall</i>	Binario <i>Track</i>	Sospensione <i>Suspension</i>	Terra <i>Floor lamps</i>	Soffitto <i>Ceiling</i>	Parete <i>Wall</i>




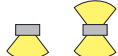
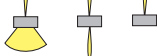
	Codice apparecchio / <i>Light fitting code</i>
---	--

	Rotazione su asse verticale / <i>Vertical axis rotation</i>
---	---

	Rotazione-basculanza su asse orizzontale / <i>Horizontal axis rotation-adjustability</i>
---	--

	Apertura fasci / <i>Light beam</i>
---	------------------------------------

TIPI DI EMISSIONE DI LUCE

				
Simmetrico <i>Symmetrical</i>	Asimmetrico <i>Asymmetrical</i>	Basculante <i>Adjustable</i>	Mono - bidirezionale <i>Mono - bidirectional</i>	Con lama di luce <i>With blade of light</i>

	Dimensioni cave di installazione in mm. / <i>Cut-out dimensions in mm.</i>
---	--

	Distanza minima tra lampada ed oggetto illuminato / <i>Minimum distance between lamp and lighted object</i>
--	---

	Colore apparecchio-sorgente / <i>Source-fitting colour</i>
---	--

 x:y mm	Spessore controsoffitto / <i>Thickness of false ceiling</i>
--	---

	Tensione nominale di alimentazione / <i>Nominal supply voltage</i>
---	--

	Potenza max di lampada installabile / <i>Max lamp rating</i>
---	--

	Sorgente luminosa POWER LED / <i>POWER LED lighting source</i>
---	--

	Sorgente luminosa SMD LED / <i>SMD LED lighting source</i>
---	--


	Tipo di lampadina / <i>Lamp type</i>
---	--------------------------------------

	Temperatura sul vetro / <i>Surface temperature</i>
---	--

	• Calpestabile / <i>Walk-over</i> – Non calpestabile / <i>No walk-over</i>
---	--



	• Carrabile / <i>Drive-over</i> – Non carrabile / <i>No drive-over</i>
---	--

	Contro l'inquinamento luminoso / <i>Against lighting pollution</i>
---	--

	Anticorrosione per tutti gli apparecchi da esterni (1000 ore in nebbia salina secondo norma CEI EN 60068-2-11) <i>Anti-corrosion for all outside fittings (1000 hours in salt spray according to law CEI EN 60068-2-11)</i>
---	--











	Prestare attenzione nel toccare apparecchi led sensibili alla elettrostaticità <i>Attention when handling led electrostatic sensitive devices</i>
---	--

Simbologia / Symbols








	Classe di isolamento / <i>Isolating class</i>
	Flusso luminoso / <i>Luminous flux</i>
	Intensità luminosa / <i>Luminous intensity</i>
	Temperatura di colore / <i>Color temperature</i>
	Apparecchio di classe I con morsetto o terminale di terra / <i>Class I luminaire with earth terminal block</i>
	Apparecchio di classe II / <i>Class II luminaire</i>
	Apparecchio di classe III / <i>Class III luminaire</i>
	Apparecchio idoneo al montaggio su superfici infiammabili / <i>Luminaires which can be mounted on normally inflammable surfaces</i>
	Alimentatore protetto termicamente (max 100°C) / <i>Thermal protected ballast (max 100°C)</i>
	Alimentatore installabile su piani in legno / <i>Ballast can be installed on wood surfaces</i>
	Alimentatore installabile senza involucro supplementare / <i>Ballast can be installed without optional housing</i>
	Alimentatore protetto contro i corto circuiti / <i>Ballast protected against short circuit</i>
	Apparecchio fornito senza sorgente luminosa, senza alimentatore / <i>Supplied without lighting source, without ballast</i>
	Apparecchio fornito con sorgente luminosa, senza alimentatore / <i>Supplied with lighting source, without ballast</i>
	Apparecchio fornito senza sorgente luminosa, con alimentatore remoto / <i>Supplied without lighting source, with remote ballast</i>
	Apparecchio fornito con sorgente luminosa, con alimentatore remoto / <i>Supplied with lighting source, with remote ballast</i>
	Apparecchio fornito senza sorgente luminosa, con alimentatore integrato / <i>Supplied without lighting source, with built-in ballast</i>
	Apparecchio fornito con sorgente luminosa, con alimentatore integrato / <i>Supplied with lighting source, with built-in ballast</i>
	Accessorio / <i>Accessory</i>
	Opzionale / <i>Optional</i>
Se	Sempre acceso / <i>Always on</i>
Sa	Solo in emergenza / <i>Emergency only</i>
	Alimentazione in emergenza / <i>Emergency equipped</i>
	Cavo di alimentazione da usare per il collegamento elettrico / <i>Power cable for electrical connection</i>
	Impiego di un cavo di alimentazione resistente al calore / <i>Use of heat resistant supply cables, interconnecting cables external wiring</i>
CE	Apparecchi conformi alle direttive ce 89/336 cee - 93/68 conformità elettromagnetica e 73/23 cee bassa tensione / <i>Products in conformity with the following norms: ce 89/336 - cee - 93/68 cee electromagnetic conformity and 73/23 cee low voltage</i>
	Marchi di qualità / <i>Approval marks</i>

Codifica colori / Color coding

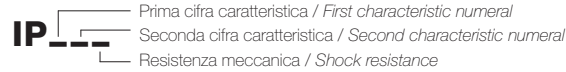
COLORI SORGENTI LUMINOSE - VETRI - FILTRI / LIGHT SOURCES COLOURS - GLASSES - FILTERS









	BI/LBI	Bianco freddo / Cool white (6000° K)
	BC/LBC	Bianco caldo / Warm white (3500° K)
	LBN	Bianco neutro / Neutral white (4000° K)
	RGB	Multicolore / Multicolor
	LBL	Blu / Blue
	RO/LRO	Rosso / Red
	VE/LVE	Verde / Green
	GI/LGI	Giallo / Yellow
	VT	Vetro trasparente / Transparent Glass
	AVS	Vetro satinato / Frosted Glass

COLORI STRUTTURE / FINISHING COLOURS

	Bi	Bianco RAL 9010 / Matt White RAL 9010
	Br	Bianco raggrinzante per esterni e interni RAL9010 / Outdoor and indoor white rough RAL 9010
	Ne	Nero / Black
	Gr/Ga	Grigio raggrinzante / Rough grey
	Als	Alluminio satinato / Matt aluminium
	Al	Alluminio / Aluminium
	St	Acciaio inossidabile

GRADO DI PROTEZIONE
PROTECTION DEGREE



Protezione contro la penetrazione di corpi solidi <i>Protection against penetration of solid objects</i>			Protezione contro la penetrazione di corpi liquidi <i>Protection against penetration of water</i>			Resistenza agli urti meccanici <i>Shock resistance</i>		
1ª CIFRA / 1 ST NUMERAL			2ª CIFRA / 2 ST NUMERAL					
0		Non protetto - <i>Non protected</i>	0	-	Non protetto / <i>Non protected</i>	0	Non protetto / <i>Non protected</i>	
1	-	Protetto contro corpi solidi sup. a 50 mm / <i>Protected against solid objects greater than 50 mm</i>	1		Protetto contro la caduta verticale di gocce d'acqua / <i>Protected against dripping water</i>	1	Energia d'urto / <i>Shock resistance</i>	0,025 150 g joule 15 cm
2	-	Protetto contro corpi solidi sup. a 12 mm / <i>Protected against solid objects greater than 12 mm</i>	2	-	Protetto contro la caduta di gocce d'acqua con involucro inclinato max di 15° / <i>Protected against dripping water when tilted up to 15°</i>	2		
3	-	A prova di penetrazione di sonda con Ø 2,5 mm / <i>Protected against solid objects with Ø 2,5 mm</i>	3		Protetto contro la pioggia / <i>Protected against spraying water</i>	3	Energia d'urto / <i>Shock resistance</i>	0,5 250 g joule 15 cm
4	-	A prova di penetrazione di sonda con Ø 1 mm / <i>Protected against solid objects with Ø 1 mm</i>	4		Protetto contro spruzzi d'acqua / <i>Protected against splashing</i>	4		
5		Protetto contro la polvere / <i>Dust-protected</i>	5		Protetto contro i getti d'acqua / <i>Protected against water jets</i>	5	Energia d'urto / <i>Shock resistance</i>	2 500 g joule 40 cm
6		Stagno alla polvere / <i>Dust-tight</i>	6	-	Protetto contro le ondate / <i>Protected against heavy seas</i>	6		
			7		Stagno all'immersione / <i>Protected against the effects of immersion</i>	7	Energia d'urto / <i>Shock resistance</i>	6 1500 g joule 40 cm
			8		Stagno alla sommersione / <i>Protected against submersion</i>	8		
						9	Energia d'urto / <i>Shock resistance</i>	20 5000 g joule 40 cm

Grado di protezione degli involucri per apparecchiature elettriche contro impatti meccanici esterni (codice ik)
Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (ik code)

Relazione tra il codice ik e l'energia d'impatto / *Relation between ik code and impact energy*

Codice IK / IK Code	IK00	IK01	IK02	IK03	IK04	IK05	IK06	IK07	IK08	IK09	IK10
Energia di impatto in joule / <i>Impact energy joule</i>	*	0,15	0,2	0,35	0,5	0,7	1	2	5	10	20

* Non protetto secondo la presente norma / *Not perfect according to this standard*

Altezza di caduta / *Height of fall*

Energia / <i>Energy</i>	J	0,14	0,2	(0,3)	0,35	(0,4)	0,5	0,7	1	2	5	10	20	50		
Massa equivalente / <i>Equivalent mass</i>	Kg	0,25	(0,2)	0,25	(0,2)	0,25	(0,2)	0,25	0,25	0,25	0,5	1,7	5	10		
Altezza di caduta / <i>Height of fall</i>	mm + 1%	56	(100)	80	(150)	140	(200)	(250)	200	280	400	400	300	200	400	500

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0023	34	17271/LBL	147	2820/LBI/45	25	2825/LBL	37
0024	34	185	85	2820/LBL/10	25	2825/LBL/30	37
17011	249	186/2	77	2820/LBL/30	25	2825/LBL/45	37
17012	249	186/3	67	2820/LBL/45	25	2825/LBI/SMD	37
17013	249	186/5	65	2820/RGB/10	25	2825/RGB/10	37
17014	249	186/6	79	2820/RGB/30	25	2825/RGB/30	37
17020	249	189	61	2820/RGB/45	25	2825/RGB/45	37
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17265/LBI	145	2820/6LBI/25	25	2825/6LBL/25	35	2827/6LBL/25	35
17265/LBL	145	2820/6LBI/40	25	2825/6LBL/40	35	2827/6LBL/40	35
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