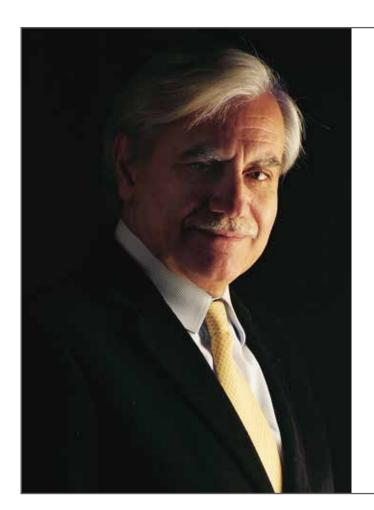
Beghelli



# The Evolution of Control

The high-tech identity of the Beghelli brand value is illustrated once again. New challenges have arisen in the field of control and communication for lighting devices and emergency lighting technologies, driving companies to maximise energy savings and improve people's lives. The Opticom Technology project takes a completely new approach to the concept of lighting

control, giving rise to a revolutionary design which uses smartphone technology. Indeed, modern mobile phones - more or less ubiquitous in this day and age - boast a degree of potential which extends far beyond the collective imagination, and can be used to benefit end users and installers of equipment alike.



In the era of the IOT (Internet of Things), Beghelli has turned its attention to all professionals in the industry, from designers and architects to distributors and installers of electrical equipment. The company offers an extensive range of new technological solutions, with ideas that not only revolutionise the performance and function of products, but also introduce a new way of working, along with systems which integrate increasingly seamlessly into everyday life. These solutions serve to simplify business activities and foster professionalism at work, incorporating products and services for solutions with ever greater added value. This has led to the creation of a new philosophy for Beghelli, founded on the principles of light, and on the ability to communicate, read and change at will. The solutions offered by the company can interact dynamically with users and with other intelligent systems, transferring or absorbing information and creating a dynamic and intelligent network. These cutting-edge technologies are the manifestation of the true spirit of the next technological revolution in the lighting sector, which will be driven by the interaction between systems and users, as well as by developments in terms of LED light sources and domotics (smart driver) technologies. Welcome to the IOT era, welcome to the new world of Beghelli, welcome to OPTICOM.

> **OPTI**cal **COM**munication Technology Light that communicates with light

> > Gian Pietro Beghelli



# Lighting





### beghelli.it new Site

Provides maximum ease of information retrieval, high page loading speeds and ensures total accessibility from any digital device.

Website development is based on responsive web design (RWD), an element that allows automatic graphic adaptability to the device from which pages are displayed (computers with different resolutions, tablets, smartphones).



Smartphone Display



Tablet Screen



Computer Screen

The site can also be viewed as a web app, adding the site icon as if it were an app to the tablet or smartphone home, making it easy and straightforward.

To add the Web App icon to the home of your tablet or smartphone, connect to beghelli.it:



On iOS devices click the button then  $\hfill \Box$  add to "Add to Home"

On Android devices click the button : then on "Aggiungi a Home"



Optical programming technology through Smartphone and dedicated app, for direct control of the devices



Titanium Battery, latest-generation Titanium Dioxide (LTO) batteries, long-lasting and fast recharge, up to 80% in 2 hours



**CIVIL**Fixtures particularly indicated for installations in homes and small commercial premises



#### **ARCHITECTURAL**

Fixtures particularly indicated for installations in luxury Hotels, designer stores, historic buildings, museums, showrooms, management centres



#### **TERTIARY AND INDUSTRIAL**

Fixtures particularly suited for installations in Schools, Hospitals, Public Bodies, hotels and accommodation facilities, offices, industrial facilities



Technologically advanced products, designed with a view to energy saving, recycling at the end of their working life, and reduced wear of parts during use.



Products with extended 4-year guarantee on all parts, battery included. For the application procedures, see the general terms of sale.



Products with extended 4-year guarantee on all parts, battery included. For the application procedures, see the general terms of sale.



Plug & Light Independent Inverter and integrated battery for fast and easy installation in full compliance with safety requirements without affecting the performance of the device



Fixture intended for use with a risk of explosion due to the presence of combustible powders or explosive substances according to the **ATEX Directive** 



Devices equipped with Touch Sensor for switching on Night mode with deactivation / activation Automatic twilight integrated.

# Symbols and approvals



Technologically advanced products, designed specifically with a view to energy saving, recycling at the end of their working life, and reduced periodic wear of parts during use.



GSM transmission of the energy saving data to the Beghelli Services database



Fixture intended for use with a risk of explosion due to the presence of combustible powders or explosive substances according to the ATEX Directive (see facing page)



Transmission protocol to connect to the Web



Car Parks, Autosilos, Garage

Devices with wide Ooptics specially designed to maximize lighting inside underground Car Parks and Garages



Built-in FH-DSSS radio transceiver operating in the band 2.400-2.863 GHz



Devices complying with European Community directives



Fixtures with product integrity ensured according to Standard UNI 9554, DIN 18031-3. Suitable for installation in gymnasiums



European quality mark



Plug & Light Independent Inverter and integrated battery for fast and easy installation in full compliance with safety requirements without affecting the performance of the device

Protection Grade against impact of the fixture complying

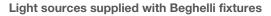


Fixtures with absence of potentially contaminating elements, suitable for use in places subject to HACCP audit (food supply chain).



Protection Grade against external factors (According to CEI EN 60598-1)

with test methods (According to EN 50102)





Beghelli products must be used with light sources complying with the provisions of the most recent laws in terms of energy efficiency and environmental impact. When supplied with the lighting fixtures, the proposed lamps supplied comply with the provisions of the

respective laws (reg 244/09, 245/09 and 1194/2012).



Fixtures with class II insulation level. Fixtures without this symbol are to be considered class I.









The number of hours specified on the product data sheet refers to the most critical product, therefore in conditions of lower power and at a working temperature lower than 25°C a substantial increase of the product performance may be expected.



Fixtures with particular resistance to UV radiation and aggression by mineral oils



perceive with the human eye.



is the standard deviation of the correspondence of colours between two lamps. With a value of 3 SDCM or less, the lamps emit light with a colour that is difficult to

Fixtures characterized by particular resistance to UV radiations

#### Recess









#### Downlight









#### Indoor Louvres









#### **Outdoor Louvres**









#### Building automation lighting & Software



#### Systems, Ceiling and Suspension











#### Industrial Lighting







#### Street Lighting



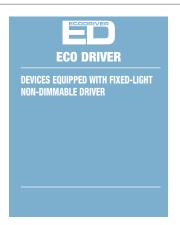




#### Sistems Description and fixtures compatibility













Type of system chosen: Emergency or illumination



"User" screen for sending commands to the lamp

## Smartphone-based optical communications technology for controlling and programming lighting and emergency lighting

Light that communicates with light - this is the operating principle of the new Beghellipatented technology.

Opticom (OPTIcal COMmunication Technology), is an optical communication system which can communicate, read and change the performance and functions of each individual Beghelli lighting device equipped with a Smart Driver intelligent power supply, using the flash and the camera of a simple smartphone.

This advanced technology simplifies and optimises the work of installers, who can programme lighting devices without any additional equipment, using the dedicated app which is available for free for both iOS

and Android systems. This solution also brings significant added value for end users, enabling them to control their lamps via smartphone.

All SmartDriver Beghelli devices equipped with the special intelligent become Opticom photosensor **Technology devices,** which can be used programme the intelligent photosensor in order to manage the autodimming functions. This can be carried out both in natural light compensation mode (Natural Light) with automatic reduction of the power of the device, and in Dynamic Light mode, which senses variations in light due to

movement of people and subsequently increases illuminance. Using the dedicated app, each individual lighting device can still be adjusted to the most suitable power level, with just one click.

Opticom Technology: the multi-functional system that renders Beghelli SD technology even more intelligent, for energy savings of more than 80% (30% more than conventional LED systems), courtesy of the intelligent photosensor Natural Light and Dynamic Light functions.

#### opticom.beghelli.it

The Beghelli website also contains the most up-to-date information about Opticom technology: operating principles, commands and programming, as well as a list of compatible smartphones.

# The Evolution of Control



Command which allows the operator to go to the "programming" section



Indication that the user needs to turn the phone flash towards the device to be controlled



The optical communication between the smartphone flash and the intelligent photosensor, which is integrated into all SmartDriver lighting devices, takes place without the use of any additional external control unit

The "programming" section, which can only be accessed by the installer on insertion of the dedicated username and password















SD BUILDING AUTOMATION MODULES INDIVIDUALLY CONNECTED TO THE BEGHELLI SMARTDRIVER



#### INTELLIGENT PHOTOSENSOR







Device programming and control system

Intelligent driver integrated into the Beghelli SD devices

## All SD devices are equipped with Smart Driver, integrated Photosensor and optional Modules

The integration of the SmartDriver power supply marked a turning point in lighting systems technology, both in terms of the flexibility that this brought and with regard to potential increases in functionality. This new generation electronic power supply enables energy savings of more than 80%. With the integration of the Opticom system, which features as standard on all SmartDriver devices, the primary functions of each device can be programmed via the Opticom app, which operates through the flash on a smartphone. The SD Driver is specifically designed for industrial use (pursuant to EN 61000-6-2), and is resistant to overvoltage surges of  $\leq$  4 Kvolt.

The SmartDriver system also allows the additional intelligent modules to be integrated, and these can be connected to the connector provided and housed inside lighting devices, enabling these to be expanded in order to meet even the most complex requirements.

The light intensity calibration can be adjusted, either via the two autodimmer modes (Natural Light and Dynamic Light) or manually, using Opticom Technology which functions through the flash on a smartphone.



#### **Smart Domotic**

The system enables users to set programmes according to specific lighting scenarios which correspond with everyday situations, or which are specially designed for particular activities. The various lighting scenarios can be activated locally or through Opticom, either via the domotics control unit (via WiFi) or remotely, via the app.



## Inverter Plug&Light: integrated top emergency

Smart Driver allows the new Plug&Light inverter to be connected simply and immediately. This revolutionary system serves to integrate lighting and emergency lighting via a single connector, without compromising the features or compliance of the device on which it is installed.







#### Wireless control

These systems feature all of the key functions of modern lighting systems, so that no additional cables or BUS (e.g. DALI) need to be laid. The modularity of the SmartDriver system enables operators to activate the function simply by connecting to the domotic radio module, equipped with an antenna and programmed to be triggered when it is connected.



# ART DRIVER

# Smart Driver, the light Intelligence



#### Opticom smart photosensor

#### **Autodimmer Natural Light function**

Each SmartDriver device can be equipped with an Autodimmer INTELLIGENT PHOTOSENSOR, which serves to automate the basic functions of the device: the illuminance is managed via the automatic adjustment of the light intensity, in accordance with the light already present in the environment, enabling energy savings which are up to 30% higher that those seen on LED devices with fixed light intensity.

#### **Autodimmer Dynamic Light function**

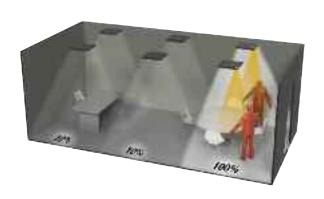
The new OPTICOM INTELLIGENT PHOTOSENSOR Technology, which is included on SmartDriver devices, reacts to the slightest variation in light resulting from the movement of people in the vicinity of the light source. This sudden change in light activates a pre-programmed setting, activating the device at 100% brightness, for example. This status can be set with a programmable delay (of 30 seconds upwards) in line with requirements, before returning to minimum brightness unless new movements are detected. This unique feature allows the system to comply with workplace lighting standard EN 12464-1, as well as enabling additional energy savings of 20% compared to use of the Autodimmer alone, for a total saving of over 85%.

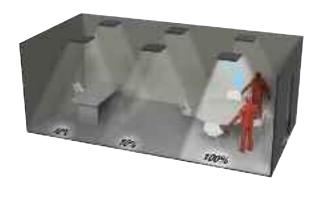
The Dynamic Light Autodimmer function is optimised for mounting at heights of less than 4m.



The Opticom Technology interface for programming and managing lighting devices. The INTELLIGENT PHOTOSENSOR receives and transcodes the light pulses transmitted by the smartphone flash, and transforms these into instructions or commands to set all of the parameters for the device. For example: in an environment with the light level dimmed to 50%, the device can be changed to 100% via the Opticom smartphone controller. Opticom communication









optic@m

## Enhancement of energy savings

Module for collecting energy consumption data, used to provide the necessary information to the accredited energy company (ESCo), in order to obtain Energy Efficiency Credits (or "White Certificates"). Grande ESCo Italia has all the necessary certifications, as well as technology that is compatible with the SmartDriver system.





MODULE

## Full compatibility with Building Automation

The design of the SmartDriver allows information to be exchanged with other communication protocols such as DALI. DALI and 1-10V modules can be used with both the DALI and analogue dimming direct command interface.









# Lens Panel LED multi-lenticular technology just 8mm thick with domotic control becomes biodynamic light

The new LED lighting for the commercial sector really stands out for its elegance and performance. The versatility of the LED Lens Panel is based on its structural simplicity. The body is just 8mm thick, and contains a state-of-the-art monolithic shield with a multi-lenticular optic to maximise illumination on the ground while avoiding any glare effect. The ED version has an extremely compact driver that sits comfortably within the profile, so the overall thickness of the installed luminaire is just 8mm. The SD system, on the other hand, offers all the possibilities of a domotic system for lighting scene management, movement detection and controlled or automatic dimming. Lens Panel is also available in the HCL (Human Centric Lighting) version - the biodynamic lighting system that follows sunlight rhythms and colour temperature to improve efficiency and the well-being of the people in the workplace.













#### GENERAL CHARACTERISTICS

Equivalent Power\* 4x18W

Power supply SD Version: Universal Multy Voltage

93÷265Vac 50÷60Hz 176÷250Vdc

ED Version: 230Vac ±10% 50Hz

Standard EN 60598-1, EN 60598-2-1,

EN 60598-2-22 (fundamental requirements), EN62471 (Photobiological hazard)

Protection grade IP40 partly visible, IP20 partly recessed

Working temp. -20 ÷ +40°C

Installation recessed M600, ceiling, suspension

**Body** galvanised Sheet steel painted with

polyester powders RAL 9003

Optic transparent plexiglass

**UGR** <19

Luminance 65°<3000 cd/mg

Power supply SD version:

Electronic SD (Cos  $\varphi \ge 0, \ge 0, 96$ )

with intelligent dimming

ED version:

Electronic ED (Cos  $\phi \ge 0, \ge 0, 95$ )

MTBF Control gear\*\* 80.000h

**Luminous flux** > 60.000h (L80B20)

maintenance\*\*

Colour tolerance 3 SDCM

- \* Equivalent power for comparison with fluorescent tube fixtures
- \*\* At environmental reference temperature of 25°C

# **Polar Diagram** 15 090-0870 00-C100

#### Efficiency and dimming

The increase in luminous efficacy (Im/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of 50% of the luminous flux, the following results are obtained with the Lens Panel LED:

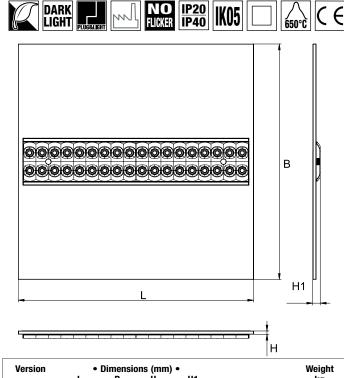
Dimming **SID** 50%

**Device duration** +40% **Luminous efficiency** +15%

#### Lens Panel I FD

Ceiling, Suspension, M600

This product is designed for flush-mounting installation in M600 modules, but its true elegance emerges in ceiling-mounting and suspended installations without an adapter frame. The profile is one of the slimmest on the market (8mm). In the Eco Driver version, the power supply unit is inserted in the lamp profile. Slimmer than a LED panel, but offering a far higher EFFICIENCY level (>130lm/W). Optic created with the multi-lenticular system with high transmittance, to reduce the glare effect (UGR <19) whilst maintaining the same lighting efficiency. HCL version with biodynamic colour temperature: the Opticom system offers the possibility to select the required colour temperature (from 2700K to 6000K), or to automatically follow the natural tones of the sunlight (Human Centric Lighting) during the daytime, thanks to the domotic control centre.



|         |     |          |         |    | ''' |        |
|---------|-----|----------|---------|----|-----|--------|
| Version | •   | Dimensio | ns (mm) | •  |     | Weight |
|         | L   | В        | Ĥ       | H1 |     | kg     |
| 600x600 | 595 | 595      | 8       | 19 |     | 3.5    |
| 600X600 | 595 | 595      | 8       | 19 |     | 3.5    |

Accessories === supplied

Order code Description

15039 INTELLIGENT OPTICOM PHOTOSENSOR

#### Accessories

to be ordered separately

Order code Description 70033 SUSPENSION KIT CEILING FRAME LED PANEL 600X600 20097 (essential for SD versions or when paired with the Plug&Light inverter)

#### Building automation **=** to be ordered separately

| Order code | Description                      |
|------------|----------------------------------|
| 20102      | DOMOTIC CENTER                   |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT |
| 15021      | AUTODIMMER SENSOR                |
| 15022      | BUILDING AUTOMATION RADIO MODULE |
| 15024      | DALI MODULE                      |
| 15034      | 1-10V MODULE                     |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE  |











#### SD BUILDING AUTOMATION MODULES INDIVIDUALLY CONNECTED TO THE BEGHELLI SMARTDRIVER



#### **INTELLIGENT PHOTOSENSOR (SUPPLIED WITH SD VERSIONS)**

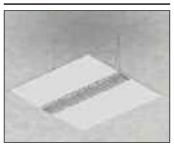
Autodimmer **Natural Light** 





**Smartphone Interface** Device programming and control system

#### SUSPENDED MOUNTING







70033 Suspension Kit

RECESSED MOUNTING



**CEILING MOUNTING** 



20097 Ceiling Frame LED Panel 600x600 SD model only

SPECIAL VARIATIONS: COLOUR RENDERING ≥90, COLOUR TEMPERATURE ON REQUEST Contact the Beghelli sales network





#### Human Centric Lighting (HCL)

The effects of lighting on the biological rhythm of the human body have a direct impact on comfort, productivity and health in indoor environments. The model that should be followed is that dictated by nature with regard to light intensity, colour and direction, in harmony with our internal biological clock.

**MULTI-LENTICULAR OPTIC** 

In order to perform this function, simply incorporate one or more Lens Panel HCL devices into the domotics control unit, which will then manage the dynamic synchronisation of the light variations corresponding with the hours of the solar day with the human biological clock

Similarly, in both commercial and artistic exhibition environments, placing the correct emphasis on the objects on display is essential. In such instances, the colour temperature can be varied in accordance with the type of merchandise on display and the atmosphere that you want to create.

This technology, known in the past as biodynamic lighting, was previously used very little due to the high cost of these solutions. However, courtesy of the SmartDriver system advanced control dynamics and new, high-performance LEDs, this technology is now accessible to everyone, and is available in countless colour temperature and light intensity variants.

### Lens Panel Human Centric Lighting (HCL) - UGR <19



TR AT LG LGFM

#### SmartDriver electronic reactor



| _ | Power* W | Order code | Description              | LED<br>Power W | Colour<br>Temp. K | Colour rendering | Power consumption<br>Max W | N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous<br>efficiency lm/W | Energy<br>Class | Packaging |
|---|----------|------------|--------------------------|----------------|-------------------|------------------|----------------------------|------------|------------------------------|--------------------|-----------------------------|-----------------|-----------|
|   | 4x18     | LP418HCL   | LP HCL 418 M600 UGR19 SD | 32             | 2700/6000         | >80              | 35                         | 36         | 4700                         | 4400               | 125                         | A++             | 1/3       |

#### Lens Panel - UGR < 19





| Power* W | Order code | Description                   | LED<br>Power W | Colour<br>Temp. K | Colour rendering | Power consumption<br>Max W | N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous efficiency lm/W | Energy<br>Class | Packaging |
|----------|------------|-------------------------------|----------------|-------------------|------------------|----------------------------|------------|------------------------------|--------------------|--------------------------|-----------------|-----------|
| 4x18     | LP418SD    | LENS PAN 418 M600 UGR19 SD 4K | 32             | 4000              | >80              | 35                         | 36         | 4700                         | 4400               | 125                      | A++             | 1/3       |

#### Lens Panel - UGR <19





| Power* W | Order code | Description                  | LED<br>Power W | Colour<br>Temp. K | Colour<br>rendering | Power consumption<br>Max W | N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous<br>efficiency lm/W | Energy<br>Class | Packaging |
|----------|------------|------------------------------|----------------|-------------------|---------------------|----------------------------|------------|------------------------------|--------------------|-----------------------------|-----------------|-----------|
| 4x18     | LP418ED    | LENS PAN 418 M600 UGR19 ED4K | 23             | 4000              | >80                 | 25                         | 36         | 3700                         | 3400               | 136                         | A++             | 1/3       |









#### **AUTODIMMER NATURAL LIGHT**

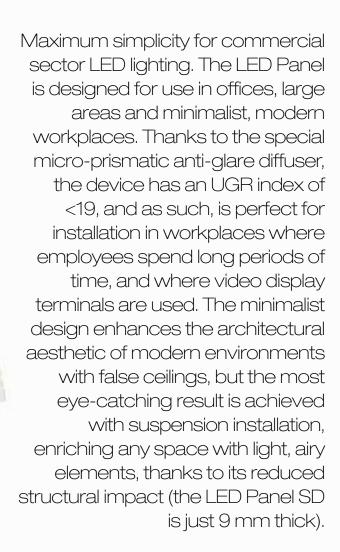
COMPENSATION FOR NATURAL LIGHT IN THE ENVIRONMENT, FOR ENERGY SAVINGS OF OVER 75%

#### **AUTODIMMER DYNAMIC LIGHT**

AUTOMATIC REDUCTION OF LIGHT EMITTED IN THE ABSENCE OF PEOPLE, FOR POTENTIAL FURTHER ENERGY SAVINGS OF MORE THAN 20% - OVERALL EXPECTED SAVINGS OF MORE THAN 85%

# LED Panel SD

UGR <19 for video terminals











#### GENERAL CHARACTERISTICS

Equivalent Power\* 4x18 W

Power supply Universale Multy Voltage 93:265Vac

50÷60Hz 176÷250Vdc

Standard EN60598-1; EN60598-2-22;

EN 62471

Protection grade P40

Working temp.  $-20 \div +40^{\circ}$ C

Installation recessed M600, ceiling, suspension

Body Aluminum, white color

Optic self-extinguishing micro-prismatic screen

stabilised against UV rays, anti-glare

**UGR** <19

Luminance 65° < 3000 cd/mg

Power supply Electronic SD ( $\cos \phi \ge 0, \ge 0, 96$ )

with intelligent dimming

Colour Temperature 4000K

MTBF Control gear\*\* 65,000h

**Luminous flux** >50,000h (L80B20)

maintenance\*\*

Colour tolerance 3 SDCM

\* Equivalent power for comparison with fluorescent tube fixtures

\*\* At a reference working temperature of 25°C

#### LED Panel SD

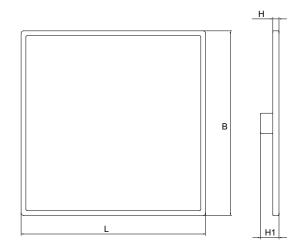
Ceiling, Suspension, M600

Innovative and highly versatile LED source fixture. The highly reduced thickness and the minimal weight permit suspension installation even in prestigious architectural spaces. When recessed in the exposed structure, the particular and innovative profile permits total alignment of the fixture with the ceiling panels.

The extreme high efficiency of the LEDs and the opal micro-prismatic diffuser screen allow this revolutionary fixture to be used in all spaces that are occupied for long periods of time where excellent visual comfort and diffuse lighting is required, such as offices, schools, hotels and shopping malls. Installation is made easier with the exclusive quick fastening system.

The emergency Plug & Light kit is also available, consisting of inverter and battery for activating the device in case of a power failure, either in the AT and LG intelligent versions or with the brand-new Plug & Light instant connection converter.





| Version | • Dimensions (mm) • |     | n) • | Weight |     |
|---------|---------------------|-----|------|--------|-----|
|         | L                   | В   | Н    | H1     | kg  |
| 600x600 | 595                 | 595 | 9    | 41     | 3.5 |



#### Accessories to be ordered separately Order code

SUSPENSION KIT 20094 CEILING ADAPTOR 20097



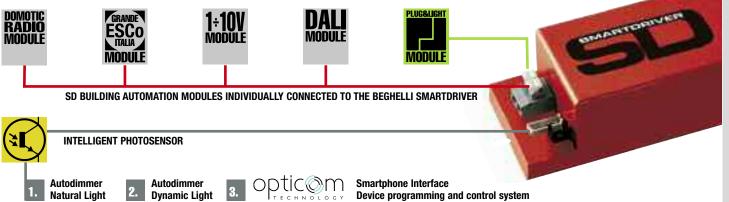
|            | <u> </u>                              |
|------------|---------------------------------------|
| Order code | Description                           |
| 20102      | DOMOTIC CENTER                        |
| 20124      | WIFI BUILDING AUTOMATION CENTRAL UNIT |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT      |
| 15022      | BUILDING AUTOMATION RADIO MODULE      |
| 15024      | DALI MODULE                           |
| 15034      | 1-10V MODULE                          |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE       |
|            |                                       |



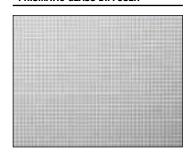


CEILING MOUNTING





#### PRISMATIC GLASS DIFFUSER



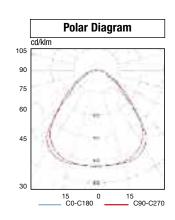
#### Efficiency and dimming

The increase in luminous efficacy (lm/W) Dimming and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of Luminous efficiency 50% of the luminous flux, the following results are obtained with the LED Panel SD:

**50% Device duration** +40% +15%

SPECIAL VARIATIONS: COLOUR TEMPERATURE ON REQUEST, IP65 VERSION Contact the Beghelli sales network





| L | ED Panei | UGK <      | <19                           |                |                   |                     |                            |            | Sma                          | rtDriver e         | electronic rea              | actor           |           |
|---|----------|------------|-------------------------------|----------------|-------------------|---------------------|----------------------------|------------|------------------------------|--------------------|-----------------------------|-----------------|-----------|
|   | Power* W | Order code | Description                   | LED<br>Power W | Colour<br>Temp. K | Colour<br>rendering | Power consumption<br>Max W | N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous<br>efficiency lm/W | Energy<br>Class | Packaging |
|   | 4x18     | 418PSD     | LED PANEL 418 M600 UGR19 SD 4 | K 32           | 4000              | >80                 | 36                         | 270        | 5500                         | 4000               | 111                         | A++             | 1         |







# LED Technology, recessed and ceiling efficiency and comfort

The maximum performance for LED lighting in the tertiary sector.
The structural simplicity of M600 1418 LED is conceived for use in offices or modern and essential workplaces.
This combination of simplicity and

This combination of simplicity and solidity reveals its elegance in the most performing diffuser in its category, designed with direct and indirect emission to obtain a "soft light" effect, appreciably increasing comfort in the environment.









#### GENERAL CHARACTERISTICS

Equivalent Power\* 4x18 W

Power supply SD version: Universale Multy Voltage

93÷265Vac 50÷60Hz

176÷250Vdc

Traditional driver version:

230Vac +10% 50 Hz

Standard EN 60598-1, EN 60598-2-2,

EN 60598-2-22 (requisiti fondamentali),

EN 62471 (Rischio biologico esente)

Protection grade IP20, IP54

Working temp. -20 ÷ +40°C

Mounting incasso, slats, plasterboards, ceiling

Housing Polyester powder coated

sheet steel RAL 9003

Optic sheet metal Dark light type

**UGR** <19

Luminance 65° <1000cd/mg

**Power Supply** SELV electronic SD ( $\cos \varphi \ge 0.96$ )

Electronic with intelligent dimming

MTBF Control gear\*\* 65.000h

**Luminous flux** >70.000h (L80B20)

maintenance\*\*

Colour tolerance 3 SDCM

\* Equivalent power for comparison with fluorescent tube fixtures

\*\* At a reference working temperature of 25°C

SPECIAL VARIATIONS: COLOUR RENDERING ≥90 - COLOUR TEMPERATURE ON REQUEST, SICURO 24 SLGS Contact the Beghelli sales network

#### Accessories 🖘



supplied

Order code

INTELLIGENT OPTICOM PHOTOSENSOR

#### Building automation **=**



to be ordered separately

| Order code | Description                           |
|------------|---------------------------------------|
| 20102      | DOMOTIC CENTER                        |
| 20124      | WiFi BUILDING AUTOMATION CENTRAL UNIT |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT      |
| 15022      | DOMOTIC RADIO MODULE                  |
| 15024      | DALI MODULE                           |
| 15034      | 1-10V MODULE                          |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE       |
|            |                                       |

#### 1418 I FD

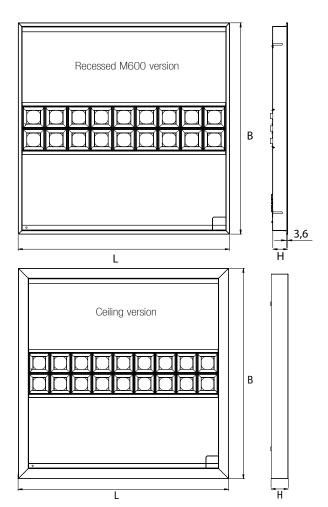
Ceiling, recessed M600, plasterboards, slats

Recessed fixture for mounting in an exposed structure, slats and plasterboard. Also for CEILING mounting with an adaptor. Characterized by excellent Dark Light anti-glare control, its use is particularly indicated in all workplaces with video terminals where employees are exposed to artificial light for long periods.

The exact emission of light on the work surface gives precision to the beam of light, the indirect emission that is reflected on the side reflectors considerably increases comfort thanks to an overall result of soft light

Additional accessories are available for integrating emergency lighting: the LED Inverter for lighting up part of the fixture in the event of a black-out, or the LED Module for inserting in the seat provided.





|   | Power *<br>W | • Dim<br>L | ensions (ı<br>B | mm) •<br>H | Installazione | Weight<br>kg |
|---|--------------|------------|-----------------|------------|---------------|--------------|
|   | 4x18         | 595        | 595             | 46         | incasso       | 3.2          |
| _ | 4x18         | 635        | 635             | 54         | ceiling       | 4.5          |
|   | 4x18         | 595        | 595             | 46         | incasso       | 5.6          |
|   | 4x18         | 635        | 635             | 54         | ceiling       | 6.9          |

#### Accessories

to be ordered separately

| rder code | Description |
|-----------|-------------|
|           |             |

1232 CEILING FRAME INC ECO LED 10404 BRACKETS FOR SLATS











#### SD BUILDING AUTOMATION MODULES INDIVIDUALLY CONNECTED TO THE BEGHELLI SMARTDRIVER



10404

#### INTELLIGENT PHOTOSENSOR

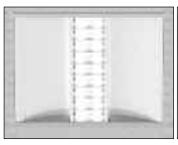






Smartphone Interface Device programming and control system

#### RECESSED MOUNTING ON PLASTERBOARD/SLATS



Bracket for slats



| to be ordered separately |
|--------------------------|

#### CEILING MOUNTING



Efficiency and dimming

The increase in luminous efficacy (Im/W)

and the useful life of the device may vary

significantly according to the degree to which

it is dimmed. Assuming an average level of 50% of the luminous flux, the following results are obtained with the I418 LED



**50%** 

+40%

+15%

**IP54 VERSION** 

Dimming **50** 

**Device duration** 

**Luminous efficiency** 

 1232
 Ceiling adapter
 I418SDPC
 with polycarbonate diffuser

 I418SDVT
 with glass diffuser

#### **EMERGENCY WITH INVERTER ECOLED/LED MODULE**





| 19350 | INVERTER ECOLED SE 1N RM      | to be ordered separately |
|-------|-------------------------------|--------------------------|
| 19341 | MODULE EM LED AT SE 1N        | to be ordered separately |
| 19342 | MODULE EM LED LG SE/SA 1/3H   | to be ordered separately |
| 19343 | MODULE EM LED LGFM SE/SA 1/3H | to be ordered separately |



|        | Polar Diagra | am    |
|--------|--------------|-------|
| 40     |              |       |
| -      |              |       |
| -      | /            | -     |
| -      | /            | 1     |
| e      | (            | ) .   |
| Y      | -            |       |
| color. |              | 7.895 |

SmartDriver electronic reactor

| EMERGENC    | Y WITH LED INVERTER                     | TR AT LG LGFM            |  |  |  |  |
|-------------|---|--------------------------|--|--|--|--|
| 19358       | INVERTER PLUG&LIGHT LED SE/SA 1H 20-60V | to be ordered separately |  |  |  |  |
| 19359       | INVERTER PLUG&LIGHT LED SE/SA 3H 20-60  | to be ordered separately |  |  |  |  |
| 19364       | INV LED IP65 AT/LG 123H                 | to be ordered separately |  |  |  |  |
| 19365       | INV LED IP65 LGFM 123H                  | to be ordered separately |  |  |  |  |
| <b>RA02</b> | AUTORIPARA INVERTER BATTERY 7.2V 1.7Ah  | to be ordered separately |  |  |  |  |

#### 1418 LED

| Potenza* W   | Order code   | Description                       | LED<br>Power W | Colour<br>Temp. K | Colour Pow | ver consumption<br>Max W | N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous<br>efficiency lm/W | Energy<br>Class | Packaging |
|--------------|--------------|-----------------------------------|----------------|-------------------|------------|--------------------------|------------|------------------------------|--------------------|-----------------------------|-----------------|-----------|
|              |              |                                   |                | - ' '             |            |                          |            | (, ,                         |                    |                             |                 | _         |
| <b>4</b> x18 | 1418SD       | INC M600 4X18 LED SD 4000K        | 32             | 4000              | >80        | 36                       | 90         | 4400                         | 4000               | 110                         | A++             | ı         |
| 4x18         | 1418SDPC     | INC M600 4X18 LED SD P IP54 4000K | 32             | 4000              | >80        | 36                       | 90         | 4400                         | 3700               | 100                         | A++             | 1         |
| 4x18         | I418SDVT     | INC M600 4X18 LED SD V IP54 4000K | 32             | 4000              | >80        | 36                       | 90         | 4400                         | 3700               | 100                         | A++             | 1         |
|              |              |                                   |                |                   |            |                          |            |                              |                    |                             |                 |           |
| <b>4x18</b>  | 1418LED **   | INC M600 4X18 LED B 4000K         | 32             | 4000              | >80        | 36                       | 90         | 4400                         | 4000               | 110                         | A++             | 1         |
| 4x18         | 1418TRLED ** | INC M600 4X18 LED TR SD 4000K     | 32             | 4000              | >80        | 36                       | 90         | 4400                         | 4000               | 110                         | A++             | 1         |

<sup>\*\*</sup> Versions with traditional electronic driver









#### **AUTODIMMER NATURAL LIGHT**

COMPENSATION FOR NATURAL LIGHT IN THE ENVIRONMENT, FOR ENERGY SAVINGS OF OVER 75%

#### **AUTODIMMER DYNAMIC LIGHT**

AUTOMATIC REDUCTION OF LIGHT EMITTED IN THE ABSENCE OF PEOPLE, FOR POTENTIAL FURTHER ENERGY SAVINGS OF MORE THAN 20% - OVERALL EXPECTED SAVINGS OF MORE THAN 85%

# ID 18/36/58 LED

Excellent light yield in ceilings made of flat boards

## with no glare



LED ID 18/36/58 is a device designed for relamping in false ceilings made of flat boards. The installation and upper support system minimises assembly times, always ensuring the right positioning of the device on the structure. The visual impact is minimal, even though the advanced optic layout provides a notable degree of lighting. The electronic power supply system, with Smart Driver (SD), not only guarantees energy savings of up to 90% but also permits the integration of components suitable for domotic applications, for interfacing with DALI systems, and for measuring the energy savings obtained.



Equivalent Power\* 18, 36, 58 W

Power supply Universal Multy Voltage

93:265 Vac - 50:60 Hz 176:250 Vdc

Standard EN 60598-1, EN 60598-2-1,

EN 60598-2-22 (requisiti fondamentali),

EN62471 (rischio fotobiologico)

Protection grade IP20

Working temp.  $-20 \div +40^{\circ}$ C

Mounting Flush-mounting for boards

Housing Sheet steel painted with polyester

powders RAL 9003

Optic Opaline PMMA lenses

Optic sheet metal Dark light type

**UGR** <19

Luminance 65° <3000cd/mg

**Power Supply Electronic SD** ( $\cos \phi$  0.96)

Electronic intelligent dimming system

MTBF Control gear\*\* 65.000h

Luminous flux >70.000h (L80B20)

maintenance\*\*

Colour tolerance 3 SDCM

- \* Equivalent power for comparison with metal halide fixtures
- \*\* At a reference working temperature of 25°C

#### ID I FD

#### Flush-mounting for boards

Flush-mounting device for installation in boards - type HD 84R. Featuring excellent glare control (Dark Light), it is especially recommended for all workplaces with computer screens, where workers are subjected to artificial light for long periods. The accurate light beam directs the lighting exactly where it's needed on the work top. Particularly suitable for the relamping of obsolete products mounted in boards with crosspieces of the HD 84R type, with a step of 90mm or 100mm. Minimum installation time. Also available in a 2x version. Can also be used for continuous-row installations thanks to the coupling accessory supplied. Like all the devices of the SD line, there is a Plug&Light inverter for switching it on in the event of a blackout.



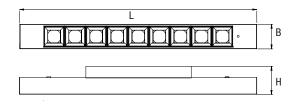












| Power * | • Di | Weight |    |     |
|---------|------|--------|----|-----|
| W       | L    | В      | H  | kg  |
| 1x18    | 680  | 85     | 79 | 1,2 |
| 1x36    | 1290 | 85     | 79 | 1,9 |
| 1x58    | 1590 | 85     | 79 | 2,5 |

#### Accessories 🖘 Order code

supplied

15039 INTELLIGENT OPTICOM PHOTOSENSOR

#### Accessories

supplied

Order code Description

CONTINUOUS ROW BRACKET 1x

#### SPECIAL VARIATIONS:

VERSIONS 2X with 180mm and 200mm spacing, COLOUR RENDERING ≥90, COLOUR TEMPERATURE ON REQUEST: Contact the Beghelli sales network

#### Building automation **=**

to be ordered separately

|            | <u> </u>                              |  |
|------------|---------------------------------------|--|
| Order code | Description                           |  |
| 20102      | DOMOTIC CENTER                        |  |
| 20124      | Wifi Building automation central unit |  |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT      |  |
| 15022      | DOMOTIC RADIO MODULE                  |  |
| 15024      | DALI MODULE                           |  |
| 15034      | 1-10V MODULE                          |  |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE       |  |











#### SD BUILDING AUTOMATION MODULES INDIVIDUALLY CONNECTED TO THE BEGHELLI SMARTDRIVER



#### INTELLIGENT PHOTOSENSOR

Autodimmer Natural Light





Smartphone Interface Device programming and control system

#### **1X VERSION**

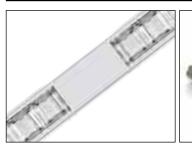
#### 2X VERSION ON REQUEST



The same code is suitable for HD 84R slat installation with spacing of either 90mm or 100mm in ROW formation

Suitable for installation in HD 84R slats. Separate codes are available for 90mm and 100mm spacing

#### **CONTINUOUS ROW MOUNTING**







supplied

#### **DARK LIGHT WIDE OPTIC**

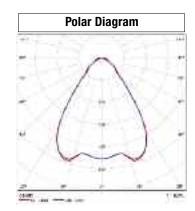


#### Efficiency and dimming

The increase in luminous efficacy (lm/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of 50% of the luminous flux, the following results are obtained with the ID LED:

Dimming 50%
Device duration +40%
Luminous efficiency +15%

|   | EMERGENC    | Y WITH LED INVERTER                     | TR AT LG LGFM            |
|---|-------------|---|--------------------------|
|   | 19358       | INVERTER PLUG&LIGHT LED SE/SA 1H 20-60V | to be ordered separately |
| Ë | 19359       | INVERTER PLUG&LIGHT LED SE/SA 3H 20-60  | to be ordered separately |
|   | 19364       | INV LED IP65 AT/LG 123H                 | to be ordered separately |
| ۲ | 19365       | INV LED IP65 LGFM 123H                  | to be ordered separately |
| Ζ | <b>RA02</b> | AUTORIPARA INVERTER BATTERY 7.2V 1.7Ah  | to be ordered separately |



SmartDriver electronic reactor

#### ID LED

| Potenza* W | Order code | Description       | LED<br>Power W | Colour<br>Temp. K | Colour Prendering | ower consumptio<br>Max W | on N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous<br>efficiency lm/W | Energy<br>Class | Packaging |
|------------|------------|-------------------|----------------|-------------------|-------------------|--------------------------|---------------|------------------------------|--------------------|-----------------------------|-----------------|-----------|
| 18         | ID18SD     | ID LED 1x18 SD 4K | 10             | 4000              | >80               | 12                       | 45            | 1740                         | 1450               | 121                         | A++             | 1/1       |
| 36         | ID36SD     | ID LED 1x36 SD 4K | 18             | 4000              | >80               | 20                       | 90            | 2880                         | 2160               | 120                         | A++             | 1/1       |
| 58         | ID58SD     | ID LED 1x58 SD 4K | 36             | 4000              | >80               | 40                       | 115           | 5760                         | 4320               | 120                         | A++             | 1/1       |







# Rail System LED Aesthetics, versatility and Pre-wired channel speed, for ambient and



A continuous-row LED system that meets every lighting need. Seven different optic systems and the possibility to add decorative lighting on a three-phase binary. This is RAIL System - a pre-wired system that's ideal for both shopping centres and industrial applications. It consists of modules that are quick and easy to install, including the pre-wired channel module with quick connection, on which one of the seven lighting modules (with different optics) is fixed, inserting the three-phase binary module on the same channel to house the floodlights for the decorative effects. The design envisages channels and modules of 1500 or 600mm, coupling elements and articulated joints with 2, 3 and 4 directions, and various suspension or ceiling-mounting systems. Not forgetting the smart modular components like the Plug&Light inverter for emergency integration, the smart photosensor for movement detection, and the selfadjusting or locally commanded (with the Opticom system) dimming function.

# Base components

Rail System LED is an advanced continuous row system with a host of possible variations, rendering it

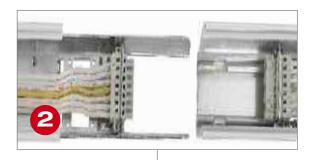




Telectrified tri-phase rail or recessed installation within the supporting profile, can accommodate floodlights of various power levels

### Key elements of the system:

- 1 Suspension and ceiling mounting elements
- 2 Pre-wired supporting profile (0,6m, 1,5m)
- 3 LED SD lighting module (0.6m, 1.5m)
- **4** Electrified tri-phase rail (1,5m)
- 5 Powered head
- 6 End head
- **7** Connection modules: 2, 3, 4 way joints
- 8 opticom Module (0,6 m)





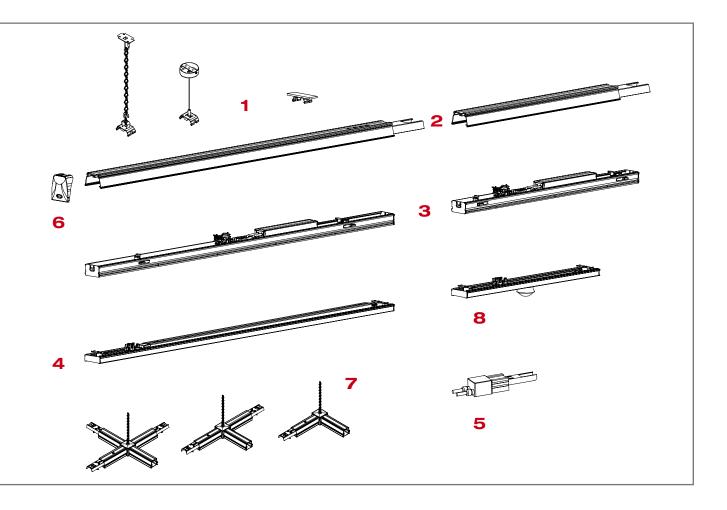
# Pre-wired supporting profile

equipped with a quick-connect system for speedy installation. Mounted before the other components, comprises the supporting structure of the system

# **3** Wired LED SD device

Available with 7 different optics, with a choice of concentrator, diffusor, asymmetrical and symmetrical options.

The quick-locking system is also equipped with an electrical connection





#### GENERAL CHARACTERISTICS

Equivalent Power\* 2x18, 2x80W

Power supply Universale Multy Voltage

93÷265 Vac - 50/60Hz,

176÷250 Vdc

Standard EN 60598-1, EN 60598-2-1,

EN 60598-2-22 (fundamental requirements), EN62471 (Photobiological hazard)

Protection grade P40

Working temp.  $-20 \div +40^{\circ}$ C

**Installation** suspension with steel cable,

suspension with chain, ceiling-mounting with bracket rail on ceiling or bracket rail

with special slats

Body extruded aluminium RAL 9010

Optic transparent plexiglass

**Power supply** Electronic SD ( $\cos \phi$  0.96)

Electronic intelligent dimming system

MTBF Control gear\*\* 80.000h

**Luminous flux** > 60.000h (L80B20)

maintenance\*\*

Colour tolerance 3 SDCM

- \* Equivalent power for comparison with fluorescent tube fixtures
- \*\* At a reference working temperature of 25°C

SPECIAL VARIATIONS: COLOUR RENDERING ≥90, COLOUR TEMPERATURE ON REQUEST, IP54 VERSION ON REQUEST Contact the Beghelli sales network

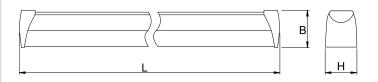
# Rail System LED

Pre-wired supporting profile + SD lighting module

Continuous-row system with pre-wired modular channel. A single supporting channel is the basis for installing both the three-phase binary and the specific lighting device, available with 7 different optics to meet most lighting needs in small and large scale retail, offices and industrial applications. The pre-wiring of the channel uses 7 poles: 3 phases - Neutral - Earth - Emergency lighting - DALI BUS. All the components are made of extruded aluminium with high-precision inserts and mechanical locking. Guaranteeing extremely quick installation, the range allows scope for every level of system complexity and any type of continuous-row routing.

The operation of the Opticom system requires a radio module and smart photosensor, which can work either in auto-dimming mode or directly commanded via a smartphone to adjust the brightness intensity with the exposed device. LED Rail System can also be controlled via WiFi, thanks to the optional domotic control unit that also enables all the operating modes envisaged by the Smart Driver (SD) protocol.





| Power | • Di | Weight |    |     |
|-------|------|--------|----|-----|
| W*    | L    | В      | Н  | kg  |
| 2x80  | 1416 | 73     | 80 | 3,6 |
| 2x18  | 568  | 73     | 80 | 1,7 |

# Building automation to be ordered separately Order code Description to be ordered separately

| Order code | Description                           |
|------------|---------------------------------------|
| 20102      | DOMOTIC CENTER                        |
| 20124      | WIFI BUILDING AUTOMATION CENTRAL UNIT |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT      |
| 15022      | DOMOTIC RADIO MODULE                  |
| 15024      | DALI MODULE                           |
| 15034      | 1-10V MODULE                          |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE       |
| 15035      | OPTICOM AUTODIMMER SENSOR RAIL        |
|            |                                       |















#### INTELLIGENT PHOTOSENSOR







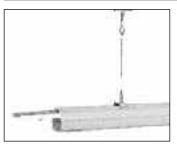
Smartphone Interface Device programming and control system

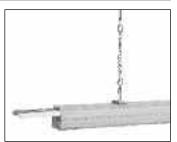
#### **CEILING MOUNTING**



**14537** CEILING RAIL BRACKET to be ordered separately

#### SUSPENDED MOUNTING





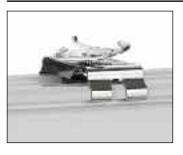
| 14534 | RAIL BRACKET WITH STEEL CABLE 3M | to be ordered separately |
|-------|----------------------------------|--------------------------|
| 14535 | RAIL BRACKET WITH CHAIN 3M       | to be ordered separately |

#### **CLOSURE HEAD**



| 14532 | RAIL HEAD                | to be ordered separately |
|-------|--------------------------|--------------------------|
| 14538 | RAIL HEAD TRI-PHASE RAIL | to be ordered separately |

#### **CEILING MOUNTING**



| 14536 | RAIL BRACKET SPECIAL SLATS | to be ordered separately |
|-------|----------------------------|--------------------------|
|       |                            |                          |

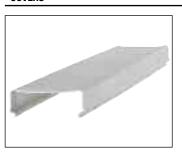
#### 7-POLE ASSEMBLY SYSTEM





14530 RAIL POWER SUPPLY 7 WIRE to be ordered separately

#### COVERS

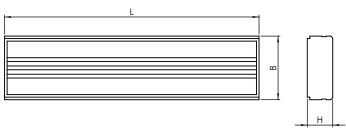


| 14533 | RAIL COVER PC 1500 | to be ordered separately |
|-------|--------------------|--------------------------|
| 14539 | RAIL COVER PC 600  | to be ordered separately |



# SD lighting module

SD wired LED device



| Power • Dimension |      |     | m) • | Weight       |
|-------------------|------|-----|------|--------------|
| W*                | L    | В ` | ´ H  | Weight<br>kg |
| 2x80              | 1416 | 68  | 37   | 1,7          |
| 2x18              | 568  | 68  | 37   | 0,8          |

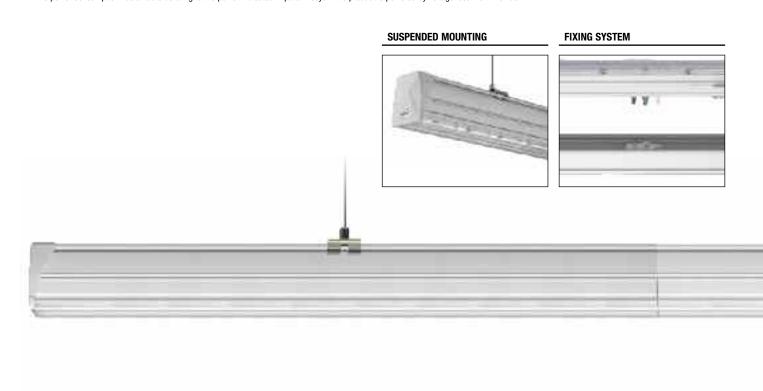
# SD lighting module

SmartDriver electronic reactor



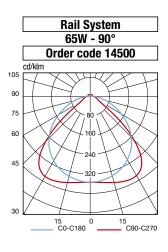
| Power* | Code<br>Order | Description<br>Description  | Optic        | LED<br>Power W | Colour<br>temperature K | Chromatic performance | Absorption<br>max W | N° LED | LED Flux<br>Im (Tj=25°C) | Fixture<br>Flux Im | Luminous<br>efficiency lm/W | Energetic class | Packaging |
|--------|---------------|-----------------------------|--------------|----------------|-------------------------|-----------------------|---------------------|--------|--------------------------|--------------------|-----------------------------|-----------------|-----------|
| 2x80   | 14500         | RAIL LED 2x80 1500 WD SD 4K | Wide (90°)   | 59             | 4000                    | >80                   | 65 (56***)          | 288    | 10000                    | 9000               | 139                         | A++             | 1/10      |
| 2x80   | 14501         | RAIL LED 2x80 1500 SP SD 4K | Sharp (25°)  | 59             | 4000                    | >80                   | 65 (56***)          | 288    | 10000                    | 9000               | 139                         | A++             | 1/10      |
| 2x80   | 14502         | RAIL LED 2x80 1500 NR SD 4K | Narrow (60°) | 59             | 4000                    | >80                   | 65 (56***)          | 288    | 10000                    | 9000               | 139                         | A++             | 1/10      |
| 2x80   | 14503         | RAIL LED 2x80 1500 DS SD 4K | Double Asimm | 59             | 4000                    | >80                   | 65 (56***)          | 288    | 10000                    | 9000               | 139                         | A++             | 1/10      |
| 2x80   | 14504         | RAIL LED 2x80 1500 RS SD 4K | Right Asimm  | 59             | 4000                    | >80                   | 65 (56***)          | 288    | 10000                    | 9000               | 139                         | A++             | 1/10      |
| 2x80   | 14505         | RAIL LED 2x80 1500 LS SD 4K | Left Asimm   | 59             | 4000                    | >80                   | 65 (56***)          | 288    | 10000                    | 9000               | 139                         | A++             | 1/10      |
| 2x80   | 14506         | RAIL LED 2x80 1500 FF SD 4K | Flat (120°)  | 59             | 4000                    | >80                   | 65 (56***)          | 288    | 10000                    | 9000               | 139                         | A++             | 1/10      |
| 2x18   | 14540         | RAIL LED 2x18 600 WD SD 4K  | Wide (90°)   | 23             | 4000                    | >80                   | 26                  | 144    | 4000                     | 3600               | 140                         | A++             | 1/10      |
| 2x18   | 14541         | RAIL LED 2x18 600 SP SD 4K  | Sharp (25°)  | 23             | 4000                    | >80                   | 26                  | 144    | 4000                     | 3600               | 140                         | A++             | 1/10      |
| 2x18   | 14542         | RAIL LED 2x18 600 NR SD 4K  | Narrow (60°) | 23             | 4000                    | >80                   | 26                  | 144    | 4000                     | 3600               | 140                         | A++             | 1/10      |
| 2x18   | 14543         | RAIL LED 2x18 600 DS SD 4K  | Double Asimm | 23             | 4000                    | >80                   | 26                  | 144    | 4000                     | 3600               | 140                         | A++             | 1/10      |
| 2x18   | 14544         | RAIL LED 2x18 600 RS SD 4K  | Right Asimm  | 23             | 4000                    | >80                   | 26                  | 144    | 4000                     | 3600               | 140                         | A++             | 1/10      |
| 2x18   | 14545         | RAIL LED 2x18 600 LS SD 4K  | Left Asimm   | 23             | 4000                    | >80                   | 26                  | 144    | 4000                     | 3600               | 140                         | A++             | 1/10      |
| 2x18   | 14546         | RAIL LED 2x18 600 FF SD 4K  | Flat (120°)  | 23             | 4000                    | >80                   | 26                  | 144    | 4000                     | 3600               | 140                         | A++             | 1/10      |

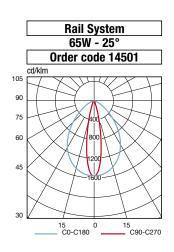
<sup>\*\*\*</sup> The power consumption has an auto derating to the power indicated in parenthesys if the product is powered by voltage less than 110 Vac.

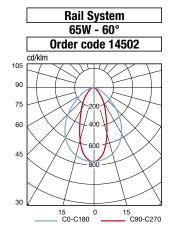


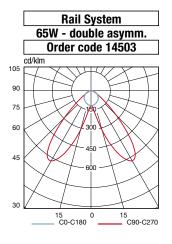
# Rail System 65W - 120° Order code 14506 cd/klm 105 60 15 60 240 45 240 240 25 C90-C270

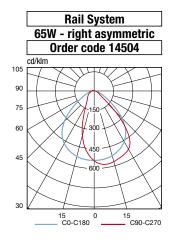
# 7 Optics, 7 different Polar diagrams

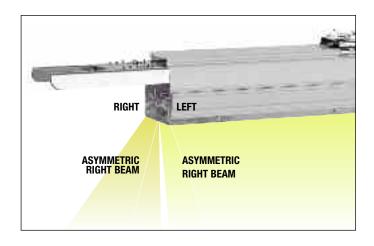


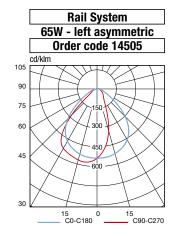












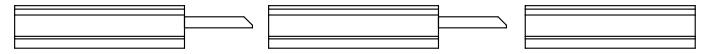


# Pre-wired supporting profile

Structure component

Equipped with a quick connection system for extremely fast installation. Mounted prior to the other components, it forms the supporting structure of the system. Continuous-row installation.

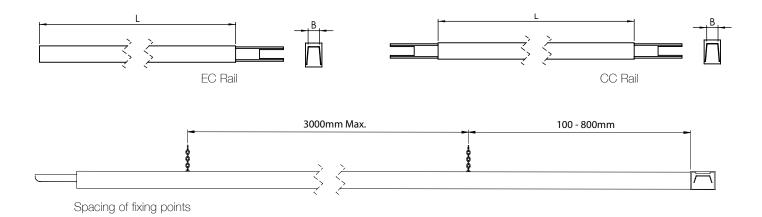
#### Quantity of lamps in a continuous row per phase



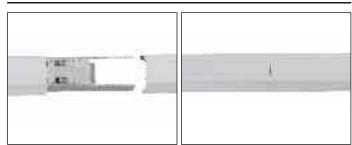
| Power<br>W | Length<br>mm | Cable section<br>mm <sup>2</sup> | Quantity of lamps<br>230 Vac | Quantity of lamps<br>110 Vac | Length of line (mm)<br>230 Vac | Length of line (mm)<br>110 Vac |
|------------|--------------|----------------------------------|------------------------------|------------------------------|--------------------------------|--------------------------------|
| 2x18       | 568          | 2,5                              | 135                          | 67                           | 75                             | 37                             |
| 2x80       | 1416         | 2,5                              | 54                           | 27                           | 75                             | 37                             |

The quantities and lengths indicated are for each phase.

The electrified rail consists of 3 phases + 2 that can be used to power the emergency lighting system or a BUS (Dali or Logica)



#### **CONTINUOUS ROW MOUNTING**



### EC rail - supporting profile with lateral power supply

| Model<br>mm | Code order | Description         | cable section<br>mm <sup>2</sup> | • Dimensions (mm) •<br>L B | Weight Packaging<br>kg |
|-------------|------------|---------------------|----------------------------------|----------------------------|------------------------|
| 600         | 14516      | RAIL 600 7 WIRE EC  | 2,5                              | 568 68,4                   | 0,7 1/10               |
| 1500        | 14510      | RAIL 1500 7 WIRE EC | 2.5                              | 1416 68.4                  | 1.4 1/10               |

# CC rail - supporting profile with central power supply (from above)

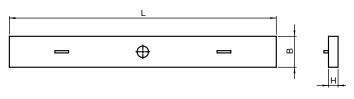
| Model<br>mm | Code order | Description         | cable section<br>mm² | <ul><li>Dimensions (mm) ◆</li><li>L</li><li>B</li></ul> | Weight<br>kg | Packaging |
|-------------|------------|---------------------|----------------------|---|--------------|-----------|
| 1500        | 14511      | RAIL 1500 7 WIRE CC | 2,5                  | 1416 68,4   | 1,4          | 1/10      |



# Electrified binary module

Structure component

For assembling three-phase spotlights of the ZOOM LED or EXPO LED type



| • Di | Weight |    |     |
|------|--------|----|-----|
| L    | В      | Н  | kg  |
| 1416 | 68     | 21 | 1 7 |

# Electrified binary module

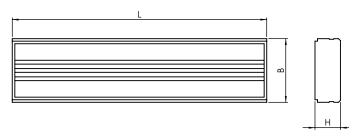
| Order code | Description           | Packaging |  |
|------------|-----------------------|-----------|--|
| 14531      | SPOT RAIL 1500 7 WIRE | 1/10      |  |



# Smart photosensor

Structure component

The smart photosensor module exploits the Opticom, Autodimmer Natural Light and Dynamic Light technologies on all the Rail modules associated with it. These modules must be combined with the domotic radio module (15022).



| • Di | • Dimensions (mm) • |    |              |  |  |  |  |  |
|------|---------------------|----|--------------|--|--|--|--|--|
| L    | В                   | Н  | Weight<br>kg |  |  |  |  |  |
| 568  | 68                  | 21 | 0,7          |  |  |  |  |  |

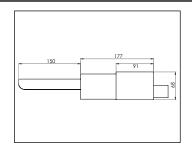
## Smart photosensor

| <br>Order code | Description                 | Packaging |  |
|----------------|-----------------------------|-----------|--|
| 15035          | RAIL AUTODIMMER OPTICOM 600 | 1         |  |

# Rail System head and joint connections

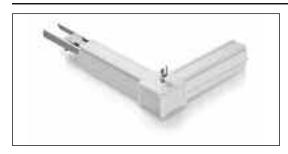
#### **RAIL SYSTEM HEAD**

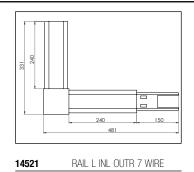


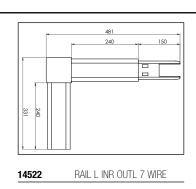


14520 RAIL POWERED HEAD 7 WIRE

#### L JOINT

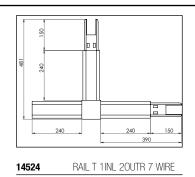


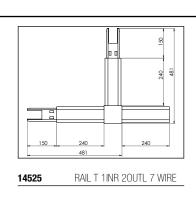




#### T JOINT

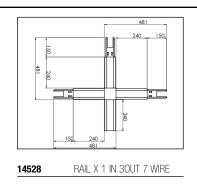


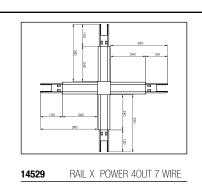


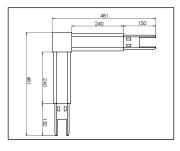


#### X JOINT

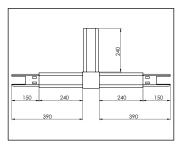




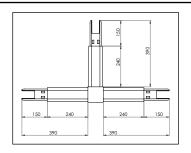




14523 RAIL L POWER 20UT 7 WIRE



**14526** RAIL T 1INC 20UTS 7 WIRE



14527 RAIL T POWER 30UT 7 WIRE







**SAVINGS OF MORE THAN 85%** 

HCL - HUMAN CENTRIC LIGHTING
BIODYNAMIC LIGHTING WITH VARIABLE
INTENSITY AND COLOUR TEMPERATURE

# Lens Panel

# multi-lenticular technology Just 8 mm thick with domotic control becomes biodynamic light



The new LED lighting for the commercial sector really stands out for its elegance and performance. The versatility of the LED Lens Panel is based on its structural simplicity. The body is just 8mm thick, and contains a state-of-theart monolithic shield with a multilenticular optic to maximise illumination on the ground while avoiding any glare effect. The ED version has an extremely compact driver that sits comfortably within the profile, so the overall thickness of the installed luminaire is just 8mm.

The SD system, on the other hand, offers all the possibilities of a domotic system for lighting scene management, movement detection and controlled or automatic dimming. Lens Panel is also available in the HCL (Human Centric Lighting) version - the biodynamic lighting system that follows sunlight rhythms and colour temperature to improve efficiency and the well-being of the people in the workplace.



#### GENERAL CHARACTERISTICS

Equivalent Power\* 2x36, 2x58 W

Power supply SD version: Universale Multy Voltage

93+265Vac 50+60Hz

176÷250Vdc

ED version: 230Vac ±10% 50Hz

Standard EN 60598-1, EN 60598-2-1,

EN 60598-2-22 (fundamental requirements), EN62471 (Photobiological hazard)

Protection grade IP40 partly visible, IP20 partly recessed

Working temp. -20 ÷ +40°C

Installation ceiling, suspended mounting

Body galvanised Sheet steel painted with

polyester powders RAL 9003

Lenses transparent plexiglass

**UGR** <19

Luminance 65° < 3000 cd/mg

Power supply SD version:

Electronic SD (Cos φ≥ 0,96) Electronic intelligent dimming system

ED version:

Electronic ED (Cos  $\phi \ge 0.95$ )

MTBF Control gear\*\* 80.000h

**Luminous flux** > 60.000h (L80B20)

maintenance\*\*

Colour tolerance 3 SDCM

- \* Equivalent power for comparison with fluorescent tube fixtures
- \*\* At a reference working temperature of 25°C

# Polar Diagram 01/8(m) f5 66 200 42 19 090-0070 C0-C100

#### Efficiency and dimming

The increase in luminous efficacy (lm/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of 50% of the luminous flux, the following results are obtained with the Lens Panel LED:

Dimming **50** 50% **Device duration** +40%

**Luminous efficiency** +15%

## Lens Panel I FD

Ceiling, Suspension, M600

This product is designed for flush-mounting installation in M600 modules, but its true elegance emerges in ceiling-mounting and suspended installations without an adapter frame. The profile is one of the slimmest on the market (8mm). In the Eco Driver version, the power supply unit is inserted in the lamp profile. Slimmer than a LED panel, but offering a far higher EFFICIENCY level (>130lm/W). Optic created with the multi-lenticular system with high transmittance, to reduce the glare effect (UGR <19) whilst maintaining the same lighting efficiency. HCL version with biodynamic colour temperature: the Opticom system offers the possibility to select the required colour temperature (from 2700K to 6000K), or to automatically follow the natural tones of the sunlight (Human Centric Lighting) during the daytime, thanks to the domotic control centre.







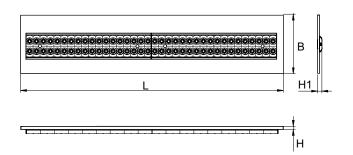












| Version  | • D  | imensio | ns (mr | Weight |     |
|----------|------|---------|--------|--------|-----|
|          | L    | В       | Н      | H1     | kg  |
| 1200x300 | 1196 | 296     | 8      | 19     | 4.9 |

#### Accessories === supplied Order code 15039 INTELLIGENT OPTICOM PHOTOSENSOR

#### Accessories to be ordered separately

| Order code | Description  |
|------------|--|
| 70033      | SUSPENSION KIT   |
| 20100      | CEILING FRAME LED PANEL 300X1200                                   |
|            | (only for SD versions or when paired with the Plug&Light inverter) |

| Buildir    | ng automation 🖘 | to be ordered separately |
|------------|-----------------|--------------------------|
| Order code | Description     |                          |
| 20102      | DOMOTIC CENTER  |                          |

|       | ·                                     |
|-------|---------------------------------------|
| 20102 | DOMOTIC CENTER                        |
| 20124 | WiFi Building Automation Central Unit |
| 20104 | BUILDING AUTOMATION CENTRAL UNIT      |
| 15022 | DOMOTIC RADIO MODULE                  |
| 15024 | DALI MODULE                           |
| 15034 | 1-10V MODULE                          |
| 15025 | GRANDE ESCO ITALIA RADIO MODULE       |













#### **INTELLIGENT PHOTOSENSOR (SUPPLIED WITH SD VERSIONS)**





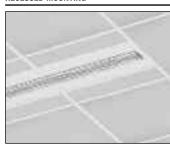


**Smartphone Interface** Device programming and control system

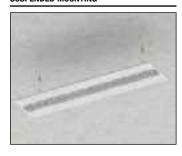
#### **MULTI-LENTICULAR SCREEN**







#### SUSPENDED MOUNTING





70033 SUSPENSION KIT

**20100** CORNICE PLAFONE 300x1200

SPECIAL VARIATIONS: COLOUR RENDERING ≥90, COLOUR TEMPERATURE ON REQUEST

Contact the Beghelli sales network

#### TR AT LG LGFM **EMERGENCY WITH LED INVERTER** 19358 INVERTER PLUG&LIGHT LED SE/SA 1H 20-60V to be ordered separately

| 19359 | INVERTER PLUG&LIGHT LED SE/SA 3H 20-60 | to be ordered separately |
|-------|--|--------------------------|
| 19364 | INV LED IP65 AT/LG 123H                | to be ordered separately |
| 19365 | INV LED IP65 LGFM 123H                 | to be ordered separately |
| RA02  | AUTORIPARA INVERTER BATTERY 7.2V 1.7Ah | to be ordered separately |

#### Human Centric Lighting (HCL)

The effects of lighting on the biological rhythm of the human body have a direct impact on comfort, productivity and health in indoor environments. The model that should be followed is that dictated by nature with regard to light intensity, colour and direction, in harmony with our internal biological clock.

In order to perform this function, simply incorporate one or more Lens Panel HCL devices into the domotics control unit, which will then manage the dynamic synchronisation of the light variations corresponding with the hours of the solar day with the human biological clock

Similarly, in both commercial and artistic exhibition environments, placing the correct emphasis on the objects on display is essential. In such instances, the colour temperature can be varied in accordance with the type of merchandise on display and the atmosphere that you want to create.

This technology, known in the past as biodynamic lighting, was previously used very little due to the high cost of these solutions. However, courtesy of the SmartDriver system advanced control dynamics and new, high-performance LEDs, this technology is now accessible to everyone, and is available in countless colour temperature and light intensity variants.

## Lens Panel Human Centric Lighting (HCL) - UGR <19



#### SmartDriver electronic reactor



| Power* W | Order code | Description                  | LED<br>Power W | Colour<br>Temp. K | Colour rendering | Power consumption<br>Max W | N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of<br>fixture Im | Luminous<br>efficiency lm/W | Energy<br>Class | Packaging |
|----------|------------|------------------------------|----------------|-------------------|------------------|----------------------------|------------|------------------------------|-----------------------|-----------------------------|-----------------|-----------|
| 2x36     | LP236HCL   | LP HCL 236 300x1200 UGR19 SD | 38             | 2700/6000         | >80              | 41                         | 72         | 6100                         | 5300                  | 130                         | A++             | 1/3       |
| 2x58     | LP258HCL   | LP HCL 258 300x1200 UGR19 SD | 50             | 2700/6000         | >80              | 56                         | 72         | 7500                         | 7000                  | 125                         | A++             | 1/3       |

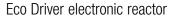
#### Lens Panel - UGR < 19

#### SmartDriver electronic reactor



| Power* W | Order code | Description                      | LED<br>Power W | Colour<br>Temp. K | Colour rendering | Power consumption<br>Max W | N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous efficiency lm/W | Energy<br>Class | Packaging |
|----------|------------|----------------------------------|----------------|-------------------|------------------|----------------------------|------------|------------------------------|--------------------|--------------------------|-----------------|-----------|
| 2x36     | LP236SD    | LENS PAN 236 300x1200 UGR19 SD4F | ⟨ 38           | 4000              | >80              | 41                         | 72         | 6100                         | 5300               | 130                      | A++             | 1/3       |
| 2x58     | LP258SD    | LENS PAN 258 300x1200 UGR19 SD4F | < 50           | 4000              | >80              | 56                         | 72         | 7500                         | 7000               | 125                      | A++             | 1/3       |

#### Lens Panel - UGR <19





| Power* W | Order code | Description                      | LED<br>Power W | Colour<br>Temp. K | Colour<br>rendering | Power consumption<br>Max W | N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous<br>efficiency lm/W | Energy<br>Class | Packaging |
|----------|------------|----------------------------------|----------------|-------------------|---------------------|----------------------------|------------|------------------------------|--------------------|-----------------------------|-----------------|-----------|
| 2x36     | LP236ED    | LENS PAN 236 300x1200 UGR19 ED4k | ( 29           | 4000              | >80                 | 32                         | 72         | 5400                         | 4500               | 140                         | A++             | 1/3       |
| 2x58     | LP258ED    | LENS PAN 258 300x1200 UGR19 ED4k | ( 46           | 4000              | >80                 | 50                         | 72         | 7100                         | 6500               | 130                         | A++             | 1/3       |







# INTEGRATED INTELLIGENT PHOTOSENSOR ON SD VERSIONS

#### **AUTODIMMER NATURAL LIGHT**

COMPENSATION FOR NATURAL LIGHT IN THE ENVIRONMENT, FOR ENERGY SAVINGS OF OVER 75%

#### **AUTODIMMER DYNAMIC LIGHT**

AUTOMATIC REDUCTION OF LIGHT EMITTED IN THE ABSENCE OF PEOPLE, FOR POTENTIAL FURTHER ENERGY SAVINGS OF MORE THAN 20% - OVERALL EXPECTED SAVINGS OF MORE THAN 85%

# SD LED Panel

(the thickness of the SD LED Panel

is only 9 mm).

# JGR <19 for video terminals





Equivalent Power\* 2x36W

Power supply Universale Multy Voltage

93÷265 Vac - 50/60Hz,

176÷250 Vdc

Standard EN60598-1; EN60598-2-22;

EN62471 (Photobiological hazard)

Protection grade IP20 partly visible, IP40 partly recessed

Working temp.  $-20 \div +40^{\circ}C$ 

Installation recessed M600, ceiling, suspension

Frame Aluminum, white color

PMMA diffuser stabilized to UV rays

self-extinguishing, micro prismatic,

anti-glare

**UGR** <19

Luminance 65° <3000 cd/ma)

Colour Temperature 4000K

Power supply Electronic SD ( $\cos \phi$  0.96)

Electronic intelligent dimming system

MTBF Control gear\*\* 80.000h

**Luminous flux** >50.000h (L80B20)

maintenance\*\*

Colour tolerance 3 SDCM

\* Equivalent power for comparison with fluorescent tube fixtures

# LED Panel SD ugr<19

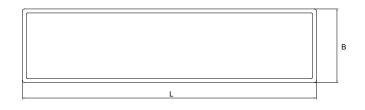
Ceiling, suspension, M600

Innovative and highly versatile LED source device. The highly minimal thickness, and the reduced weight permit suspension installation even in prestigious architectural spaces.

The extremely high efficiency of the LEDS and the opal micro prismatic diffuser screen allow the use of this revolutionary device in all spaces that are occupied for long periods of time and demand excellent visual comfort such as schools, hotels and shopping centers. Installation is easy with the exclusive rapid fixing system.

Also available is an emergency kit that includes an inverter and battery for activation in case of blackouts both in the AT and LG intelligent versions and with the latest Plug&Light immediate-connection inverter.







| Power | • D  | imensio | ns (mr | n) • | Weight |
|-------|------|---------|--------|------|--------|
| W*    | L    | В       | H      | H1   | kg     |
| 2x36  | 1196 | 296     | 9      | 41   | 4.9    |

# Accessories ===

supplied

Order code Description

INTELLIGENT OPTICOM PHOTOSENSOR 15039

#### Accessories to be ordered separately

| Order code | Description     |  |
|------------|-----------------|--|
| 20094      | SUSPENSION KIT  |  |
| 20097      | CEILING ADAPTOR |  |

SPECIAL VARIATIONS: **COLOUR TEMPERATURE ON REQUEST, IP65 VERSION** Contact the Beghelli sales network

# Building automation **50**



to be ordered separately

| Order code | Description                      |
|------------|----------------------------------|
| 20102      | DOMOTIC CENTER                   |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT |
| 15022      | DOMOTIC RADIO MODULE             |
| 15024      | DALI MODULE                      |
| 15034      | 1-10V MODULE                     |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE  |

<sup>\*\*</sup> At a reference working temperature of 25°C













#### INTELLIGENT PHOTOSENSOR



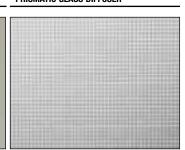




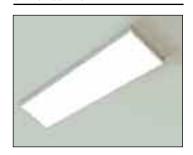
Option Smartphone Interface
Device programming and control system

SUSPENDED MOUNTING

#### PRISMATIC GLASS DIFFUSER



**CEILING MOUNTING** 



20094 SUSPENSION KIT

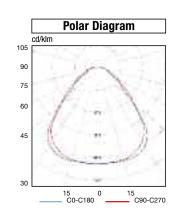
20100 CEILING ADAPTOR

#### Efficiency and dimming

The increase in luminous efficacy (lm/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of 50% of the luminous flux, the following results are obtained with the LED Panel SD:

50% Dimming 50 **Device duration** +40% **Luminous efficiency** +10%

|   | EMERGENC | Y WITH LED INVERTER                    | TR AT LG LGFM            |
|---|----------|--|--------------------------|
| ~ | 19358    | INVERTER PLUG&LIGHT LED SE/SA 1H       | to be ordered separately |
| 5 | 19359    | INVERTER PLUG&LIGHT LED SE/SA 3H       | to be ordered separately |
|   | 19364    | INV LED IP65 AT/LG 123H                | to be ordered separately |
| ۲ | 19365    | INV LED IP65 LGFM 123H                 | to be ordered separately |
| Z | RA02     | AUTORIPARA INVERTER BATTERY 7.2V 1.7Ah | to be ordered separately |



LED Panel UGR <19

SmartDriver electronic reactor



| <br>Power* W | Order code | Description                        | LED<br>Power W | Colour<br>Temp. K | Colour rendering | Power consumption<br>Max W | N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous<br>efficiency lm/W | Energy<br>Class | Packaging |  |
|--------------|------------|------------------------------------|----------------|-------------------|------------------|----------------------------|------------|------------------------------|--------------------|-----------------------------|-----------------|-----------|--|
| 2x36         | 236PLSD    | LED PANEL 236 300x1200 UGR19 SD 4K | 32             | 4000              | >80              | 36                         | 270        | 5500                         | 4000               | 111                         | A++             | 1         |  |









#### **AUTODIMMER NATURAL LIGHT**

COMPENSATION FOR NATURAL LIGHT IN THE ENVIRONMENT, FOR ENERGY SAVINGS OF OVER 75%

#### **AUTODIMMER DYNAMIC LIGHT**

AUTOMATIC REDUCTION OF LIGHT EMITTED IN THE ABSENCE OF PEOPLE, FOR POTENTIAL FURTHER ENERGY SAVINGS OF MORE THAN 20% - OVERALL EXPECTED SAVINGS OF MORE THAN 85%

# P236/258 LED technology, ceiling and suspension efficiency and savind





#### GENERAL CHARACTERISTICS

Equivalent Power\* 2x36, 2x58 W

Power supply Universale Multy Voltage 93:265Vac

50÷60Hz 176÷250Vdc

Standard EN 60598-1, EN 60598-2-2,

EN 60598-2-22 (requisiti fondamentali), EN 62471 (Rischio biologico esente)

Protection grade IP20

Working temp. -20 ÷ +40°C

Mounting ceiling, suspension

Housing polyester powder coated sheet steel

RAL 9003

Optic sheet metal Dark light type

**UGR** <19

Luminance 65° <1000cd/mg

Colour Temperature 4000K

**Power Supply** SELV electronic SD ( $\cos \varphi \ge 0.96$ )

Electronic with intelligent dimming

MTBF Control gear\*\* 65.000h

**Luminous flux** >70.000h (L80B20)

maintenance\*\*

Colour tolerance 3 SDCM

## Accessories ===

supplied

Order code Description

INTELLIGENT OPTICOM PHOTOSENSOR 15039

## Building automation **5**



to be ordered separately

| Order code | Description                      |
|------------|----------------------------------|
| 20102      | DOMOTIC CENTER                   |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT |
| 15021      | AUTODIMMER SENSOR                |
| 15022      | BUILDING AUTOMATION RADIO MODULE |
| 15024      | DALI MODULE                      |
| 15034      | 1-10V MODULE                     |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE  |
|            |                                  |

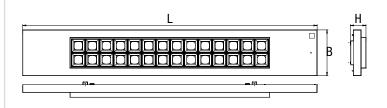
# P236/P258 LED

Ceiling, suspension

Ceiling or suspension fixture for installations in the tertiary sector. Characterized by excellent Dark Light anti-glare control, its use is particularly indicated in all workplaces with video terminals where employees are exposed to artificial light for long periods.

The exact emission of light on the work surface gives high characteristics of comfort and precision of the beam of light. A range of accessories is available for heavy wiring and for mechanical fixing in a continuous row to obtain a civil system of the latest generation. Additional accessories are also available for integrating emergency lighting: the LED Inverter for lighting up part of the fixture in the event of a black-out, or the LED Module for inserting in the seat provided.





| Power | • Dimensions (mm) • |     | Weight |     |
|-------|---------------------|-----|--------|-----|
| W*    | L                   | В   | Н      | kg  |
| 2x36  | 1327                | 206 | 70     | 4.6 |
| 2x58  | 1327                | 206 | 70     | 4.6 |

#### Efficiency and dimming

The increase in luminous efficacy (lm/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of Luminous efficiency 50% of the luminous flux, the following results are obtained with the P236/258 LFD:

Dimming **50 Device duration** 

+40% +15%

50%

#### Accessories

to be ordered separately

| Order code | Description                               |
|------------|---|
| 20080      | P236/58 LED SINGLE SUSPENSION             |
| 20081      | P236/58 LED SUSPENSION+SINGLE MAINS CABLE |
| 20087      | COUPLING+ CONT ROW SUSP CABLE             |
| 20088      | THREE-PHASE THROUGH WIRING                |

SPECIAL VARIATIONS: COLOUR RENDERING ≥90 - COLOUR TEMPERATURE ON REQUEST, SICURO 24 SLGS Contact the Beghelli sales network

<sup>\*</sup> Equivalent power for comparison with fluorescent tube fixtures

<sup>\*\*</sup> At a reference working temperature of 25°C













#### INTELLIGENT PHOTOSENSOR







**Smartphone Interface Device programming and control system** 

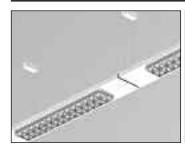
#### SUSPENDED MOUNTING





| <b>20080</b> P236/58 LED SINGLE SUSP | to be ordered separately |
|--------------------------------------|--------------------------|
| 20081P236/58 LED SUSP+SINGLE CABLE   | to be ordered separately |

#### **CONTINUOUS ROW MOUNTING**





| 20088 | THREE-PHASE THROUGH WIRING CEILING         | to be ordered separately |
|-------|--|--------------------------|
| 20087 | COUPLING+3-PHASE THROUGH WIRING SUSPENSION | to be ordered separately |

#### **EMERGENCY WITH INVERTER ECOLED**





| 19350 | INVERTER ECOLED SE 1N RM      | to be ordered separately |
|-------|-------------------------------|--------------------------|
| 19341 | MODULO EM LED AT SE 1N        | to be ordered separately |
| 19342 | MODULO EM LED LG SE/SA 1/3H   | to be ordered separately |
| 19343 | MODULO EM LED LGFM SE/SA 1/3H | to be ordered separately |
| 17467 | MODULO EM LED SLG             | to be ordered separately |

#### TR AT LG LGFM **EMERGENCY WITH LED INVERTER** 19358 INVERTER PLUG&LIGHT LED SE/SA 1H 20-60V to be ordered separately 19359 INVERTER PLUG&LIGHT LED SE/SA 3H 20-60 to be ordered separately 19355 INV LED AT/LG 6W 55V 123H to be ordered separately 19356 INV LED LGFM 6W 55V 123H to be ordered separately

AUTORIPARA INVERTER BATTERY 7.2V 1.7Ah

#### **DARK LIGHT WIDE OPTIC**



|     | Pol | ar diag | ram |      |
|-----|-----|---------|-----|------|
| +   | - 2 | 7       |     |      |
| #   |     | 1       |     |      |
|     | 1   |         | 10  | 7    |
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| are |     | - :     |     | 1:05 |

| P23 | 6 | /258 | LED |
|-----|---|------|-----|
|     |   |      |     |

**RA02** 

| P236/258 LED SmartDriver electronic reac |            |                           |         |         |           |               | eactor | <b>5</b> D   |            |                 |        |           |
|--|------------|---------------------------|---------|---------|-----------|---------------|--------|--------------|------------|-----------------|--------|-----------|
|  |            |                           | LED     | Colour  | Colour F  | ower consumpt | ion N° | Flux of LEDs | Flux of    | Luminous        | Energy | Packaging |
| Potenza* W                               | Order code | Description               | Power W | Temp. K | rendering | Max W         | LEDs   | Im (Tj=25°C) | fixture Im | efficiency lm/W | Class  |           |
| 2x36                                     | P236SD     | CEILING LED 2x36 SD 4000K | 31      | 4000    | >80       | 36            | 140    | 4800         | 4000       | 111             | A++    | 1         |
| 2x58                                     | P258SD     | CEILING LED 2x58 SD 4000K | 42      | 4000    | >80       | 47            | 140    | 6160         | 5100       | 109             | A++    | 1         |

to be ordered separately







# D170/1150 LED adjustable tilting as much as 60°



The best solution for accent lighting without three-phase tracks, with the possibility of connecting the Inverter LED to integrate emergency lighting. The fixture can be fitted with a nocturnal LED lamp with lenticular optic, to be inserted in a special compartment in the housing. Flexibility of use is another focus of the project: the same product has various optional louvres to obtain different angles of the beam of light, varying from 16° to 70°. The whole combined with a system that allows rotation in all directions, with an ample angle of tilting the lighting compartment.



Equivalent Power\* 1x70, 1x150 W

Standard EN 60598-1, EN 60598-2-2,

EN 60598-2-22 (requisiti fondamentali),

Power supply Universale Multy Voltage 93:265Vac

50÷60Hz 176÷250Vdc

Protection grade IP44 optic compartment, IP20 housing

Working temperature -20°C ÷ +40°C

Mountings recessed in false ceilings

Housing Polyester powder coated die-cast

aluminium RAL 9003

Louvre white PC with high reflectance (70°

supplied, 16°, 24° and 40° mirror finished aluminium to be ordered

separately)

Diffuser Toughened glass 3 mm thick

**Electronic gear** SELV electronic SD (Cos  $\eta \ge 0.97$ )

Electronic with intelligent dimming

MTBF Control gear\*\* 65.000h

**Luminous flux** 60.000h (1x150W) (L80B20) maintenance\*\* 70.000h (1x70W) (L80B20)

Colour tolerance 3 SDCM

# Accessories **5**

supplied

Order code

15039 INTELLIGENT OPTICOM PHOTOSENSOR

#### Accessories

to be ordered separately

|            |                        | <br> |
|------------|------------------------|------|
| Order code | Description            |      |
| 1233       | LOUVRE 16° DWL OR      |      |
| 1234       | LOUVRE 24° DWL OR      |      |
| 1235       | LOUVRE 40° DWL OR      |      |
| 14120      | CONTROL GEAR 5 LED     |      |
| 14121      | 1 LED NOCTURNAL MODULE |      |
|            |                        |      |

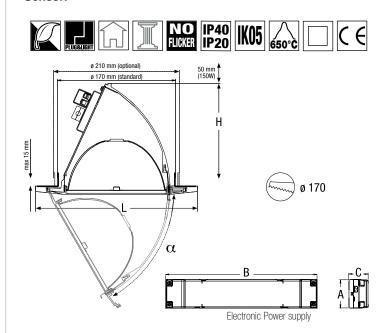
SPECIAL VARIATIONS: COLOUR RENDERING ≥90 - COLOUR TEMPERATURE ON REQUEST Contact the Beghelli sales network

# D170/1150 LED adjustable

#### Downlight

Die-cast aluminium spotlight with high-efficiency LED source, white powder coated. Power supply box separate from the fixture for greater mounting flexibility and better heat dissipation. Quick coupling connection terminal board. White louvre with very high reflectance and complex geometry for a high light output (>97%), with highly transparent toughened glass. Optics adjustable through 345° and tilting with maximum inclination 60°.

An additional accessory is available for lighting the LED source of the device in the event of a black-out and an optional nocturnal lamp with lenticular optic for maximizing lighting on the ground. The adjustable DWL LED has been designed specifically for retail lighting, where it is essential to enhance the items on display. Due to this particular feature it does not offer dimming with an AutoDimmer Sensor.



| Power *<br>W | • I | Dime<br>A | nsions<br>B | (mn | ı) •<br>H | α<br>max | Weight<br>max kg |
|--------------|-----|-----------|-------------|-----|-----------|----------|------------------|
| 1x70         | 233 | 45        | 239         | 31  | 150       | 60°      | 2.3              |
| 1x150        | 233 | 45        | 239         | 31  | 150       | 60°      | 2.3              |

## Building automation **S**



to be ordered separately

| Order code | Description                           |
|------------|---------------------------------------|
| 20102      | DOMOTIC CENTER                        |
| 20124      | Wifi Building automation central unit |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT      |
| 15022      | BUILDING AUTOMATION RADIO MODULE      |
| 15024      | DALI MODULE                           |
| 15034      | 1-10V MODULE                          |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE       |
| 15034      | 1-10V MODULE                          |

|          | EMERGENC    | Y WITH LED INVERTER                     | TR AT LG LGFM            |
|----------|-------------|---|--------------------------|
| ~        | 19358       | INVERTER PLUG&LIGHT LED SE/SA 1H 20-60V | to be ordered separately |
| 监        | 19359       | INVERTER PLUG&LIGHT LED SE/SA 3H 20-60  | to be ordered separately |
| E        | 19364       | INV LED IP65 AT/LG 123H                 | to be ordered separately |
| <b> </b> | 19365       | INV LED IP65 LGFM 123H                  | to be ordered separately |
| =        | <b>RA02</b> | AUTORIPARA INVERTER BATTERY 7.2V 1.7Ah  | to be ordered separately |

<sup>\*</sup> Equivalent power for comparison with metal halide fixtures

<sup>\*\*</sup> At a reference working temperature of 25°C













#### INTELLIGENT PHOTOSENSOR



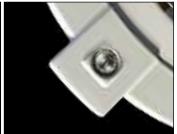




Smartphone Interface Device programming and control system

#### MOUNTING WITH NOCTURNAL/EMERGENCY LAMP





| 14121 | 1 LED NOCTURNAL MODULE | to be ordered separately |
|-------|------------------------|--------------------------|
| 14120 | 5 LED CONTROL GEAR     | to be ordered separately |

#### LOUVRE 16°, 24°, 40°





| 1233 | Louvre 16° DWL OR | to be ordered separately |
|------|-------------------|--------------------------|
| 1234 | Louvre 24° DWL OR | to be ordered separately |
| 1235 | Louvre 40° DWL OR | to be ordered separately |

#### Efficiency and dimming

The increase in luminous efficacy (lm/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed.

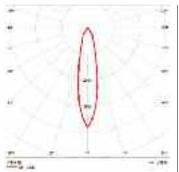
Assuming an average level of 50% of the luminous flux, the following results are obtained with the D170/1150 LED:

Dimming 50%
Device duration +40%
Luminous efficiency +15%

I max 70w\*= 10.100 Cd / I max 150w\*= 18.700 Cd

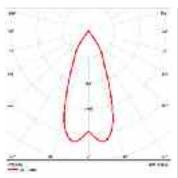
Beam width 16°

| Distance | Diameter                | Luminosity |
|----------|-------------------------|------------|
| 0,5 m    | Ø 0 <mark>,1</mark> 6 m | 40338 lx   |
| 1,0 m    | Ø <mark>0,32</mark> m   | 10084 lx   |
| 1,5 m    | Ø 0,49 m                | 4482 lx    |
| 2,0 m    | <mark>ø 0,65m</mark>    | 2521 lx    |
| 2,5 m    | Ø 0,81 m                | 1614 lx    |
| 3,0 m    | Ø 0,97 m                | 1120 lx    |
|          |                         |            |



I max 70w\*= 10.100 Cd / I max 150w\*= 18.700 Cd

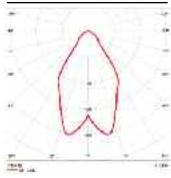
|              | otalli Wiulli 2         | 4          |
|--------------|-------------------------|------------|
| Distance     | Diameter                | Luminosity |
| 0,5 m        | Ø 0 <mark>,2</mark> 0 m | 40846 lx   |
| <u>1,0 m</u> | Ø <mark>0,40</mark> m   | 10212 lx   |
| 1,5 m        | Ø <mark>_0,59 m</mark>  | 4538 lx    |
| 2,0 m        | <mark>ø 0,79m</mark>    | 2553 lx    |
| 2,5 m        | Ø 0,99 m                | 1634 lx    |
| 3,0 m        | Ø 1,19 m                | 1135 lx    |



I max 70w\*= 4.950 Cd / I max150w\*= 9.150 Cd

| Beam width 40° |                        |            |  |  |
|----------------|------------------------|------------|--|--|
| Distance       | Diameter               | Luminosity |  |  |
| 0,5 m          | Ø 0 <mark>,34</mark> m | 19774 lx   |  |  |
| <u>1,0 m</u>   | Ø 0,68 m               | 4944 lx    |  |  |
| 1,5 m          | Ø 1,02 m               | 2197 lx    |  |  |
| 2,0 m          | Ø 1,35 m               | 1236 lx    |  |  |
| 2,5 m          | Ø 1,70 m               | 791 lx     |  |  |
| 3,0 m          | Ø 2,04 m               | 549 lx     |  |  |

#### OPTICS SUPPLIED



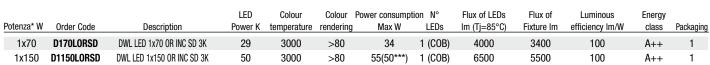
I max 70w\*= 2.200 Cd / I max 150w\*= 4.100 Cd

#### Beam width 70°

| Distance | Diameter              | Luminosity |
|----------|-----------------------|------------|
| 0,5 m    | Ø <mark>0,65</mark> m | 8826 lx    |
| 1,0 m    | Ø 1,30 m              | 2207 lx    |
| 1,5 m    | Ø 1,95 m              | 981 lx     |
| 2,0 m    | Ø 2,60 m              | 552 lx     |
| 2,5 m    | Ø 3,25 m              | 353 lx     |
| 3 0 m    | Ø 3.90 m              | 245 lx     |

# D170/1150 LED adjustable

#### SmartDriver electronic reactor



<sup>\*\*\*</sup> The power consumption has an auto derating to the power indicated in parenthesys if the product is powered by voltage less than 110 Vac.







# D170/1150 - D226 LED the downlights with

recessed and ceiling anti-glare ontics







Equivalent Power\* 1x70, 1x150 W

Power supply Universale Multy Voltage 93:265Vac

50÷60Hz 176÷250Vdc

Standard EN 60598-1, EN 60598-2-2,

EN 60598-2-22 (requisiti fondamentali),

EN 62471

Protection grade IP20

Working temp.  $-20 \div +40^{\circ}$ C

Mounting recessed, ceiling

Housing Die-cast aluminium RAL 9003 metal

Optic sheet metal Dark light type

**UGR** <22

**Power Supply** SELV electronic SD ( $\cos \phi \ge 0.96$ )

Electronic with intelligent dimming

MTBF Control gear\*\* 65.000h

**Luminous flux** >60.000h (L80B20)

maintenance\*\*

Colour tolerance 3 SDCM

- \* Equivalent power for comparison with apparecchi ad alogenuri metallici
- \*\* At a reference working temperature of 25°C

# D170/1150 | FD

# Downlight

This revolutionary Downlight range sprang from the need to optimize lighting on the ground while reducing glare as much possible. The patented optical system consists of a primary louvre with very high reflectance and a secondary louvre for controlling glare, so it is also suitable in the presence of video terminals. The control gear is independent of the fixture and is supplied already wired to the optical compartment, complete with cable ties.

The particular diffusion of the heat of products with LED sources considerably reduces the overheating of the illuminated surfaces, thus ensuring greater environmental comfort and less impact on the illuminated objects. Together with the substantial absence of UV radiation, these features make the product particularly suitable for exhibition areas.

An additional accessory is available for lighting the LED source of the device in the event of a black-out.















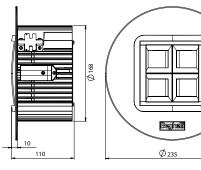


| Power* W | Power* W Mounting  |     |  |  |  |
|----------|--------------------|-----|--|--|--|
| 150/70   | Recessed           | 1.9 |  |  |  |
| 150/70   | Ceiling            | 3.2 |  |  |  |
| 150/70   | Recessed with ring | 2.2 |  |  |  |

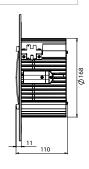




Electronic control gear



recessed version for holes from 170 to 200 mm



recessed version with adapter ring for holes from 200 to 240 mm





ceiling version

# Accessories **50**

supplied

Order code Descrip

INTELLIGENT OPTICOM PHOTOSENSOR

# Accessories

to be ordered separately

| Order code | Description                |
|------------|----------------------------|
| 20090      | ADAPTER RING 240 DWL LED   |
| 20091      | CEILING ACCESSORY DWL LED  |
| 20098      | WIDE DIFFUSER DWL/RL08 LED |
|            |                            |

# Building automation

|--|

to be ordered separately

| Order code | Description                      |
|------------|----------------------------------|
| 20102      | DOMOTIC CENTER                   |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT |
| 15029      | AUTODIMMER BOX SENSOR            |
| 15022      | BUILDING AUTOMATION RADIO MODULE |
| 15024      | DALI MODULE                      |
| 15034      | 1-10V MODULE                     |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE  |
|            |                                  |













#### INTELLIGENT PHOTOSENSOR

Autodimmer **Natural Light** 



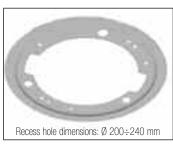


**Smartphone Interface** Device programming and control system

#### **WIDE DIFFUSER**



#### **ADAPTER RING**



**CEILING MOUNTING** 

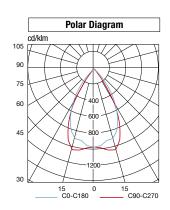


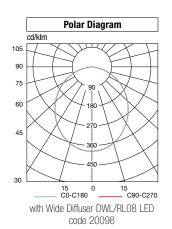
20098 to be ordered separately

20090 to be ordered separately

20091

to be ordered separately





# Efficiency and dimming

The increase in luminous efficacy (Im/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of 50% of the luminous flux, the following results are obtained with the D170/1150 LED.

Dimming **50 50% Device duration** +40% **Luminous efficiency** +20%

| EMERGENC    | Y WITH LED INVERTER                     | TR AT LG LGFM            |
|-------------|---|--------------------------|
| 19358       | INVERTER PLUG&LIGHT LED SE/SA 1H 20-60V | to be ordered separately |
| 19359       | INVERTER PLUG&LIGHT LED SE/SA 3H 20-60  | to be ordered separately |
| 19364       | INV LED IP65 AT/LG 123H                 | to be ordered separately |
| 19365       | INV LED IP65 LGFM 123H                  | to be ordered separately |
| <b>RA02</b> | AUTORIPARA INVERTER BATTERY 7.2V 1.7Ah  | to be ordered separately |

SPECIAL VARIATIONS: COLOUR RENDERING  $\geq 90$  - COLOUR TEMPERATURE ON REQUEST, Contact the Beghelli sales network

# D170/1150 LED



|            |            |                              | LED     | Colour  | Colour P  | ower consumptio | n N° | Flux of LEDs | Flux of    | Luminous        | Energy | Packaging |
|------------|------------|------------------------------|---------|---------|-----------|-----------------|------|--------------|------------|-----------------|--------|-----------|
| Potenza* W | Order code | Description                  | Power W | Temp. K | rendering | Max W           | LEDs | Im (Tj=25°C) | fixture Im | efficiency lm/W | Class  |           |
| 70         | D170SD     | DWL SPOT LED 1x70 INC SD 3K  | 38      | 3000    | >80       | 43              | 48   | 4900         | 4000       | 93              | A++    | 1         |
| 150        | D1150SD    | DWL SPOT LED 1x150 INC SD 3K | 47      | 3000    | >80       | 52              | 24   | 6700         | 5500       | 106             | A++    | 1         |



Equivalent Power\* 2x26 W

**Power supply** 93÷265 Vac - 50/60Hz, 176÷250 Vdc

Standard EN 60598-1, EN 60598-2-2,

EN 60598-2-22 (fundamental requirements), EN 62471

Protection grade IP20

Working temp.  $-20 \div +40^{\circ}$ C

Mounting recessed, ceiling

Housing Die-cast aluminium

Louvre sheet metal parabolic

**Electronic gear** SELV electronic SD ( $\cos \phi \ge 0.96$ )

Electronic with intelligent dimming

MTBF Control gear\*\* 65.000h

**Luminous flux** >70.000h (L80B20)

maintenance\*\*

Colour tolerance 3 SDCM

- \* Equivalent power for comparison with fluorescent tube fixtures
- \*\* At a reference working temperature of 25°C

# D226 I FD

# Downlight

Downlight with very high light output The optical system allows maximized illumination with excellent anti-glare features, so it is also suitable in the presence of video terminals. The control gear is independent of the fixture and is supplied already wired to the optical compartment, complete with cable ties.

The particular diffusion of the heat of products with LED sources considerably reduces the overheating of the illuminated surfaces, thus ensuring greater environmental comfort and less impact on the illuminated objects. Together with the substantial absence of UV radiation, these features make the product particularly suitable for exhibition areas.

An additional accessory is available for lighting the source and the LEDs of the device in the event of a black-out.









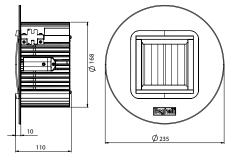


| Power* W | Installation       | Weight kg |
|----------|--------------------|-----------|
| 2x26     | Recessed           | 1.9       |
| 2x26     | Ceiling            | 3.2       |
| 2x26     | Recessed with ring | 2.2       |

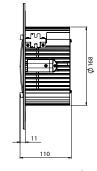




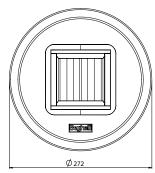
Electronic control gear



recessed version for holes from 170 to 200 mm



recessed version with adapter ring for holes from 200 to 240 mm





### Accessories



supplied

Order code

Description

INTELLIGENT OPTICOM PHOTOSENSOR 15039

# Accessories

to be ordered separately

| Order code | Description                |
|------------|----------------------------|
| 20090      | ADAPTER RING 240 DWL LED   |
| 20091      | CEILING ACCESSORY DWL LED  |
| 20098      | WIDE DIFFUSER DWL/RL08 LED |

# Building automation **50**

Ø 270



to be ordered separately

| Order code | Description                      |
|------------|----------------------------------|
| 20102      | DOMOTIC CENTER                   |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT |
| 15029      | AUTODIMMER BOX SENSOR            |
| 15022      | BUILDING AUTOMATION RADIO MODULE |
| 15024      | DALI MODULE                      |
| 15034      | 1-10V MODULE                     |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE  |













#### INTELLIGENT PHOTOSENSOR







Smartphone Interface Device programming and control system

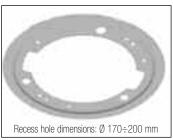
#### WIDE DIFFUSER

20098



to be ordered separately

#### ADAPTER RING

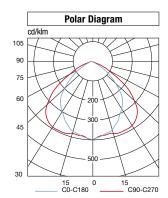


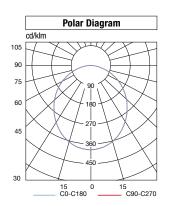
20090 to be ordered separately

#### **CEILING MOUNTING**



20091 to be ordered separately





with wide Louvre DWL/RL08 LED Order code 20098

TD AT LC LCE

# Efficiency and dimming

The increase in luminous efficacy (lm/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of 50% of the luminous flux, the following results are obtained with the D226 LED:

Dimming 50%
Device duration +40%
Luminous efficiency +15%

|   | EMERGENC      | Y WITH LED INVERTER                     | IR AI LG LGFW            |
|---|---------------|---|--------------------------|
|   | 19358         | INVERTER PLUG&LIGHT LED SE/SA 1H 20-60V | to be ordered separately |
| ä | 19359         | INVERTER PLUG&LIGHT LED SE/SA 3H 20-60  | to be ordered separately |
| Ē | 19364         | INV LED IP65 AT/LG 123H                 | to be ordered separately |
| ٥ | 19365         | INV LED IP65 LGFM 123H                  | to be ordered separately |
| Ζ | <b>₹</b> RA02 | AUTORIPARA INVERTER BATTERY 7.2V 1.7Ah  | to be ordered separately |
|   |               |   |                          |

SPECIAL VARIATIONS: COLOUR RENDERING ≥90 - COLOUR TEMPERATURE ON REQUEST, Contact the Beghelli sales network

SmartDriver electronic reactor

# **D226 LED**

| Potenza* W | Order code | Description                 | LED<br>Power W | Colour<br>Temp. K | Colour Pov<br>rendering | ver consumption<br>Max W | N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous<br>efficiency lm/W | Energy<br>Class | Packaging |
|------------|------------|-----------------------------|----------------|-------------------|-------------------------|--------------------------|------------|------------------------------|--------------------|-----------------------------|-----------------|-----------|
| 2x26       | D226SD     | DWL SPOT LED 2x26 INC SD 4K | 16             | 4000              | >80                     | 20                       | 40         | 2200                         | 1860               | 93                          | A++             | 1         |







# WW135/170 LED

# Great uniformity of lighting







Equivalent Power\* 1x35, 1x70 W

Power supply Universale Multy Voltage 93:265Vac

50÷60Hz 176÷250Vdc

Standard EN 60598-1, EN 60598-2-2,

EN 60598-2-22 (requisiti fondamentali),

Protection grade IP42

Working temp. -20 ÷ +40°C

Mounting recessed in false ceilings

Housing Polyester powder coated die-cast

aluminium RAL 9003

Diffuser Toughened glass 3 mm thick

**Electronic gear** SELV electronic SD ( $\cos \phi \ge 0.96$ )

Electronic with intelligent dimming

MTBF Control gear\*\* 65.000h

**Luminous flux** >50.000h (1x150) (L80B20) maintenance\*\* >60.000h (1x70) (L80B20)

Colour tolerance 3 SDCM

Building automation **S** 

Description

# WW135/170 LED

# Downlight - wall washer

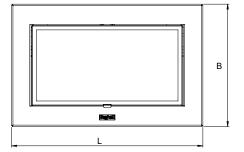
Downlight for vertical surfaces. The optics allow maximized wall illumination while maintaining excellent anti-glare characteristics thanks to the microprismatic diffuser. The louvre can be oriented on an axis. The control gear is independent of the fixture and is supplied already wired to the optical compartment, complete with cable ties. The particular diffusion of the heat of products with LED sources considerably reduces the overheating of the illuminated surfaces, thus ensuring greater environmental comfort and less impact on the illuminated objects. Together with the substantial absence of UV radiation, these features make the product particularly suitable for exhibition areas, both in retail outlets and in museums. Due to this

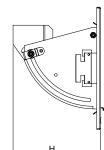
## particular feature it does not offer dimming with an AutoDimmer Sensor.

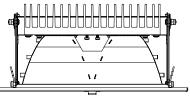
An additional accessory is available for lighting the LED source of the device in the event of a black-out.

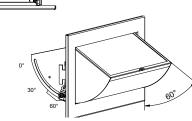
















| Electronic | control | gear |
|------------|---------|------|
|            |         |      |

| 20102 | DOMOTIC CENTER                   | 220                     |
|-------|----------------------------------|-------------------------|
| 20104 | BUILDING AUTOMATION CENTRAL UNIT | 239                     |
| 15022 | BUILDING AUTOMATION RADIO MODULE |                         |
| 15024 | DALI MODULE                      |                         |
| 15034 | 1-10V MODULE                     |                         |
| 15025 | GRANDE ESCO ITALIA RADIO MODULE  | Electronic control gear |
|       |                                  |                         |

to be ordered separately

|   | Power<br>W* | • Dim<br>L | ensions<br>B | (mm) •<br>H | Beam<br>width | Weight<br>max kg |
|---|-------------|------------|--------------|-------------|---------------|------------------|
| _ | 1x35        | 250        | 160          | 114         | 39°           | 1.6              |
|   | 1x70        | 250        | 160          | 114         | 39°           | 1.6              |

Order code

<sup>\*</sup> Equivalent power for comparison with fluorescent tube fixtures

<sup>\*\*</sup> At a reference working temperature of 25°C







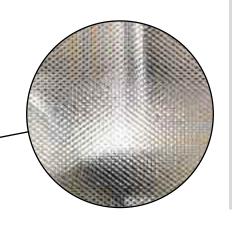






Prismatic diffuser glass with high transmittance allowing the reduction of glare while keeping the lighting efficiency unchanged.





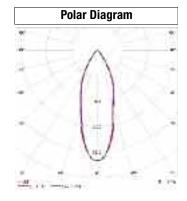
# Efficiency and dimming

The increase in luminous efficacy (Im/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of 50% of the luminous flux, the following results are obtained with the WW135/170 LED.

Dimming 50%
Device duration +40%
Luminous efficiency +15%

SPECIAL VARIATIONS: COLOUR RENDERING  ${\geq}90$  - COLOUR TEMPERATURE ON REQUEST, Contact the Beghelli sales network

|   | EMERGENC    | Y WITH LED INVERTER                     | TR AT LG LGFM            |
|---|-------------|---|--------------------------|
|   | 19358       | INVERTER PLUG&LIGHT LED SE/SA 1H 20-60V | to be ordered separately |
| H | 19359       | INVERTER PLUG&LIGHT LED SE/SA 3H 20-60  | to be ordered separately |
|   | 19364       | INV LED IP65 AT/LG 123H                 | to be ordered separately |
| ٥ | 19365       | INV LED IP65 LGFM 123H                  | to be ordered separately |
| Z | <b>RA02</b> | AUTORIPARA INVERTER BATTERY 7.2V 1.7Ah  | to be ordered separately |



# WW135/170 LED



| Potenza* W | Order code | Description              | LED<br>Power W | Colour<br>Temp. K | Colour rendering | Power consumption<br>Max W | N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous<br>efficiency lm/W | Energy<br>Class | Packaging |
|------------|------------|--------------------------|----------------|-------------------|------------------|----------------------------|------------|------------------------------|--------------------|-----------------------------|-----------------|-----------|
| 1x35       | WW135SD    | WW LED 1x35 OR INC SD 3K | 18             | 3000              | >80              | 23                         | 72         | 2700                         | 2250               | 100                         | A++             | 1         |
| 1x70       | WW170SD    | WW LED 1x70 OR INC SD 3K | 40             | 3000              | >80              | 45                         | 72         | 4900                         | 4000               | 90                          | A++             | 1         |









# **AUTODIMMER NATURAL LIGHT**

COMPENSATION FOR NATURAL LIGHT IN THE ENVIRONMENT, FOR ENERGY SAVINGS OF OVER 75%

# **AUTODIMMER DYNAMIC LIGHT**

AUTOMATIC REDUCTION OF LIGHT EMITTED IN THE ABSENCE OF PEOPLE, FOR POTENTIAL FURTHER ENERGY SAVINGS OF MORE THAN 20% - OVERALL EXPECTED SAVINGS OF MORE THAN 85%

# The revolution does not Polyvalent is not enough just depend on the LEDs



Zoom LED Beghelli is a fixture that overturns the already known schemes of accent lighting. Thanks to a patented microcontrol of the light beam, quite unlike other products on the market until now, this fixture has an unprecedented versatility of use and an efficiency of the light beam that upset the traditional concept of the "accent spotlight".

The light beam control system is structured with a technology similar to that of the most innovative variable focus camera lenses: a micromovement group that, easily and without tools, is able to vary the focal length and therefore the width of the cone of light.

The end result is a unique product that produces a beam of light with a continuously variable angle of emission from 10° to 40°.





Equivalent Power\* 35, 70, 150 W

Power supply Universale Multy Voltage

93÷265 Vac - 50/60Hz

176÷250 Vdc

Standard EN 60598-1, EN 60598-2-1,

EN 60598-2-22 (fundamental

requirements),

EN 62471 (photobiological hazard)

Protection grade IP40

Working temp. -20 ÷ +40°C

Mounting incasso

Housing Polyester powder coated die-cast

aluminium RAL 9010

Optic Zoom LED System

with PMMA transparent lenses

**Electronic Gear** Electronic SD (Cos  $\phi \ge 0.96$ )

with intelligent dimming

MTBF Control gear\*\* 80.000 h

**Luminous flux** >70.000h (170, 1150) (L80B20)

maintenance\*\* >80.000h (135) (L80B20)

Colour tolerance 3 SDCM

\* Equivalent power for comparison with metal halide fixtures

\*\* At a reference working temperature of 25°C



2x version

# Accessories 🖘

supplied

Order code Description

15039 INTELLIGENT OPTICOM PHOTOSENSOR

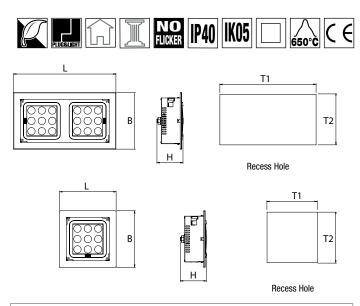
SPECIAL VARIATIONS: COLOUR RENDERING ≥90 - COLOUR TEMPERATURE ON REQUEST, Contact the Beghelli sales network

| EMERGENC | Y WITH LED INVERTER                     | TR AT LG LGFM            |
|----------|---|--------------------------|
| 19358    | INVERTER PLUG&LIGHT LED SE/SA 1H 20-60V | to be ordered separately |
| 19359    | INVERTER PLUG&LIGHT LED SE/SA 3H 20-60  | to be ordered separately |
| 19364    | INV LED IP65 AT/LG 123H                 | to be ordered separately |
| 19365    | INV LED IP65 LGFM 123H                  | to be ordered separately |
| RA02     | AUTORIPARA INVERTER BATTERY 7.2V 1.7Ah  | to be ordered separately |

# Zoom LED

# Cestello

Floodlight with adjustable focus in die-cast aluminium, incorporating nine powerful high-efficiency LEDs. Patented optics, consisting of a PMMA lens system with variable focal length to adjust the light beam to an angle between 10° and 40°. The adjustment is continuous, and can be performed using the rear regulator. The device can be adjusted both horizontally and vertically. Available in 1x and 2x versions. The Cestello Zoom has been specifically designed for accent lighting, in environments where the items on display need to be enhanced. The flexibility of the device renders it extremely versatile in all architectural spaces and with any furnishings, and it can be installed flush with the wall using a special accessory. In the 2x versions, each spotlight can be adjusted independently.



| Version | • Dimensions (mm) • |     |    |     | Weight |                  |
|---------|---------------------|-----|----|-----|--------|------------------|
|         | L                   | В   | Н  | `T1 | T2     | Weight<br>max kg |
| 1x      | 185                 | 185 | 85 | 160 | 160    | 1,5              |
| 2x      | 335                 | 185 | 85 | 310 | 160    | 2,5              |

# Efficiency and dimming

The increase in luminous efficacy (lm/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of 50% of the luminous flux, the following results are obtained with the ZOOM LED:

Dimming **50** 50% **Device duration** +40% **Luminous efficiency** +15%

# Accessories

to be ordered separately

| Order code | Description                                       |
|------------|---|
| 14357      | INSTALLATION FRAME - FLUSH WALL, TO BE TRIMMED 1X |
| 14358      | INSTALLATION FRAME - FLUSH WALL, TO BE TRIMMED 2X |

# Building automation **S**



to be ordered separately

| Order code | Description                           |
|------------|---------------------------------------|
| 20102      | DOMOTIC CENTER                        |
| 20124      | WIFI BUILDING AUTOMATION CENTRAL UNIT |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT      |
| 15022      | BUILDING AUTOMATION RADIO MODULE      |
| 15024      | DALI MODULE                           |
| 15034      | 1-10V MODULE                          |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE       |













#### INTELLIGENT PHOTOSENSOR

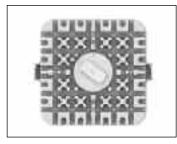






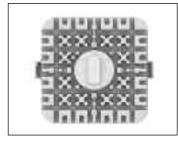
Smartphone Interface Device programming and control system

#### MAXIMUM RANGE OF THE FOCAL LENGTH FOR 40° CONE OF LIGHT

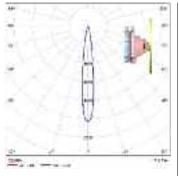




# MINIMUM RANGE OF THE FOCAL LENGTH FOR 10° CONE OF LIGHT

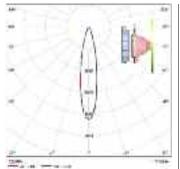






I max 35w\*= 28.800 Cd / I max 70w\*= 47.400 Cd Beam width 10°

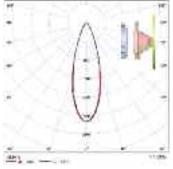
| Distance     | Diameter                | Luminosity |
|--------------|-------------------------|------------|
| 0,5 m        | Ø 0, <mark>1</mark> 1 m | 119379 lx  |
| 1,0 m        | Ø <mark>0,22</mark> m   | 29845 lx   |
| <u>1,5 m</u> | Ø <mark>0,33 m</mark>   | 13264 lx   |
| 2,0 m        | Ø 0,44 m                | 7461 lx    |
| 2,5 m        | Ø 0,55 m                | 4775 lx    |
| 3,0 m        | Ø 0,66 m                | 3316 lx    |



I max 35w\*= 11.900 / I max 70w\*= 19.550 Cd

#### Beam width 20°

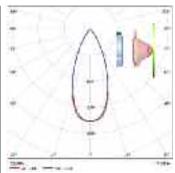
| Distance | Diameter                | Luminosity |
|----------|-------------------------|------------|
| 0,5 m    | Ø 0 <mark>,1</mark> 8 m | 49269 lx   |
| 1,0 m    | Ø <mark>0,36 m</mark>   | 12317 lx   |
| 1,5 m    | Ø 0,53 m                | 5474 lx    |
| 2,0 m    | Ø 0,71 m                | 3079 lx    |
| 2,5 m    | Ø 0,89 m                | 1971 lx    |
| 3,0 m    | Ø 1,07 m                | 1369 lx    |
|          |                         |            |



I max 35w\*= 5.950 Cd / I max 70w\*= 9.800 Cd

#### Beam width 30°

| Distance | Diameter               | Luminosity |
|----------|------------------------|------------|
| 0,5 m    | Ø 0 <mark>,29</mark> m | 24656 lx   |
| 1,0 m    | Ø 0,58 m               | 6164 lx    |
| 1,5 m    | Ø 0,87 m               | 2740 lx    |
| 2,0 m    | Ø 1,15 m               | 1541 lx    |
| 2,5 m    | Ø 1,44 m               | 986 lx     |
| 3,0 m    | Ø 1,73 m               | 685 lx     |
|          |                        |            |



I max 35w\*= 4.000 Cd / I max 70w\*= 6.550 Cd

### Beam width 40°

| Distance | Diameter               | Luminosity |
|----------|------------------------|------------|
| 0,5 m    | Ø_ <mark>0,39</mark> m | 16512 lx   |
| 1,0 m    | Ø 0,78 m               | 4128 lx    |
| 1,5 m    | Ø 1,16 m               | 1835 lx    |
| 2,0 m    | Ø 1,55 m               | 1032 lx    |
| 2,5 m    | Ø 1,94 m               | 660 lx     |
| 3,0 m    | Ø 2,33 m               | 459 lx     |

# Zoom LED Cestello



| Power*  | Order code | Description               | LED<br>Power W | Colour<br>Temp. K | Colour Pow<br>rendering | ver consumption<br>Max W | N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous<br>efficiency lm/W | Energy<br>Class | Packaging |
|---------|------------|---------------------------|----------------|-------------------|-------------------------|--------------------------|------------|------------------------------|--------------------|-----------------------------|-----------------|-----------|
| 1x35    | Z135CSD    | ZOOM LED CEST 1X35 SD 3K  | 13             | 3000              | >80                     | 17                       | 9          | 1750                         | 1400               | 84                          | A++             | 1/1       |
| 1x70    | Z170CSD    | ZOOM LED CEST 1X70 SD 3K  | 29             | 3000              | >80                     | 33                       | 9          | 3200                         | 2500               | 75                          | A++             | 1/1       |
| 1x150   | Z1150CSD   | ZOOM LED CEST 1X150 SD 3K | 47             | 3000              | >80                     | 51                       | 9          | 5000                         | 4000               | 77                          | A++             | 1/1       |
| 2x35    | Z235CSD    | ZOOM LED CEST 2X35 SD 3K  | 26             | 3000              | >80                     | 29                       | 18         | 3500                         | 2800               | 98                          | A++             | 1/1       |
| 2x70    | Z270CSD    | ZOOM LED CEST 2X70 SD 3K  | 55             | 3000              | >80                     | 61                       | 18         | 6400                         | 5000               | 82                          | A++             | 1/1       |
| 2x150 2 | Z2150CSD   | ZOOM LED CEST 2X150 SD 3K | 94             | 3000              | >80                     | 104                      | 18         | 10000                        | 8000               | 77                          | A++             | 1/1       |

<sup>2</sup> Version 2x150 is equipped with dual drivers which require two domotic radio modules to control the device. The two LED sources are managed independently from each other.









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# Expo LED ight output angle Robustness and power



Spotlight for accent lighting with high light output. The focus of the Expo LED design was centred on the powerful light beam, with the ability to adjust the width of the light cone by replacing the high bay. The angle of the optical unit supplied as standard is 24°, and can easily be replaced with optics with an angle of 16° or 40°. The aesthetic impact of this light embodies its technical superiority and robustness, with a large cooling block that ensures that the powerful LEDs continue to function perfectly





Equivalent Power\* 70, 150 W

Power supply SD version: Universale Multy Voltage

93÷265Vac 50÷60Hz - 176÷250Vdc ED version: 230Vac ±10% 50Hz

Standard EN 60598-1, EN 60598-2-1, EN 60598-

2-22 (fundamental requirements), EN62471 (Photobiological hazard)

Protection grade IP40

Working temp. -20 ÷ +40°C

Mounting three-phase and single-phase electrified

track

Diffuser Toughened glass 3 mm thick

Housing Polyester powder coated die-cast

aluminium RAL 9010

Optic mirror finished aluminium (24° supplied,

16° e 40° to be ordered separately)

Power supply SD version:

Electronic SD (Cos φ≥ 0,96) with intelligent dimming

ED version:

Electronic ED (Cos  $\phi \ge 0.95$ )

MTBF Control gear\*\* 80.000 h

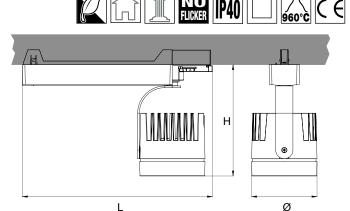
**Luminous flux** >60.000h (1x150) (L80B20) maintenance\*\* >70.000h (1x70) (L80B20)

Colour tolerance 3 SDCM

# Expo LED

Three-phase and single-phase electrified track

Variable beam spotlight for indoor applications, particularly suitable in the retail sector and for exhibitions or shows. Body in die-cast aluminium with large LED source cooling flaps. This device can be installed on either tri-phase or single-phase electrified rail, and the runner is mechanically compatible with the majority of commerciallyavailable systems. The device is equipped with an optic with a beam aperture angle of 24° as standard, but optics with beam angles of 16° and 40° are also available on request.



THREE-PHASE VERSION

|                | <b>†</b>  |   |
|----------------|-----------|---|
|                | н         |   |
| L SINGLE-PHASI | E VEDELON | Ø |

| Version      | • Dimensions (mm) • |     |     | Weight |
|--------------|---------------------|-----|-----|--------|
|              | L                   | Ø   | Н   | kg     |
| THREE-PHASE  | 331                 | 114 | 194 | 1,2    |
| SINGLE-PHASE | 239                 | 114 | 221 | 1,2    |

# Accessories 🖘

supplied

Order code Description

15039 INTELLIGENT OPTICOM PHOTOSENSOR

#### Accessories to be ordered separately

Order code

EXPO LED 16° REFLECTOR 1230 EXPO LED 40° REFLECTOR 1231

# Building automation **50**



to be ordered separately

| Order code | Description                           |
|------------|---------------------------------------|
| 20102      | DOMOTIC CENTER                        |
| 20124      | WiFi BUILDING AUTOMATION CENTRAL UNIT |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT      |
| 15022      | BUILDING AUTOMATION RADIO MODULE      |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE       |

# Expo LED





| P | ower* W | Order code  | Description                 | LED<br>Power W | Colour<br>Temp. K | Colour<br>rendering | Power consumption<br>Max W | n N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous<br>efficiency lm/W | Energy<br>Class | Packaging |
|---|---------|-------------|-----------------------------|----------------|-------------------|---------------------|----------------------------|--------------|------------------------------|--------------------|-----------------------------|-----------------|-----------|
|   |         |             |                             |                |                   |                     |                            |              |                              |                    | THE                         | REE-PHASE       | VERSION   |
|   | 1x70    | R170ED24    | EXPO LED BTRF 1X70 24ED 3K  | 20             | 3000              | ≥80                 | 24                         | 1 COB        | 3300                         | 3000               | 125                         | A++             | 1/1       |
|   | 1x150   | R1150ED24   | EXPO LED BTRF 1X150 24ED 3K | 33             | 3000              | ≥80                 | 37                         | 1 COB        | 5000                         | 4500               | 120                         | A++             | 1/1       |
|   |         |             |                             |                |                   |                     |                            |              |                              |                    | SING                        | LE-PHASE        | VERSION   |
|   | 1x70    | R170MFED24  | EXPO LED BMF 1X70 24ED 3K   | 20             | 3000              | ≥80                 | 24                         | 1 COB        | 3300                         | 3000               | 125                         | A++             | 1/1       |
|   | 1x150   | R1150MFED24 | EXPO LED BMF 1X150 24ED 3K  | 33             | 3000              | ≥80                 | 37                         | 1 COB        | 5000                         | 4500               | 120                         | A++             | 1/1       |

<sup>\*</sup> Equivalent power for comparison with metal halide fixtures

<sup>\*\*</sup> At a reference working temperature of 25°C







#### INTELLIGENT PHOTOSENSOR

Autodimmer **Natural Light** 

Autodimmer **Dynamic Light** 



Smartphone Interface
Device programming and control system

# Efficiency and dimming

The increase in luminous efficacy (lm/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of 50% of the luminous flux, the following results are obtained with the Expo LED:

Dimming **50 50% Device duration** +40% **Luminous efficiency** +15%

#### 16°, 40°REFLECTOR





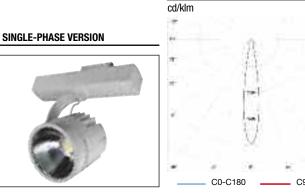
Polar Diagram

1230 EXPO LED 16° REFLECTOR EXPO LED 40° REFLECTOR 1231

Polar Diagram

24°

# Polar Diagram 16°



WITH ORDER CODE 1230

cd/klm SUPPLIED OPTIC

WITH ORDER CODE 1231

SPECIAL VARIATIONS: COLOUR RENDERING ≥90, COLOUR TEMPERATURE ON REQUEST

# Expo LED

SmartDriver electronic reactor

cd/klm



| Order code | Description                 | LED<br>Power W   | Colour<br>Temp. K  | Colour P   | Power consumption Max W  | n N°<br>LEDs   | Flux of LEDs<br>Im (Tj=25°C)   | Flux of fixture Im   | Luminous<br>efficiency lm/W  | Energy<br>Class  | Packaging   |
|------------|-----------------------------|--|--|--|--|--|--|--|--|--|---|
| Oluei Coue | Description                 | LOME! AA   | ieiiip. K  | rendering  | IVIAN VV   | LLDS   | IIII (1j=25 G)   | IIXLUIG IIII   | CHICICHICY IIII/ W   | Ulass  |   |
|            |                             |  |  |  |  |  |  |  | THR  | EE-PHASE   | VERSION   |
| R170SD24   | EXPO LED BTRF 1X70 24SD 3K  | 21   | 3000   | ≥80  | 26   | 1 COB  | 3400   | 3100   | 119  | A++  | 1/1   |
| R1150SD24  | EXPO LED BTRF 1X150 24SD 3K | 38   | 3000   | ≥80  | 43   | 1 COB  | 5500   | 5000   | 116  | A++  | 1/1   |
|            |                             |  |  |  |  |  |  |  | SING   | LE-PHASE   | VERSION   |
| 170MFSD24  | EXPO LED BMF 1X70 24SD 3K   | 21   | 3000   | ≥80  | 26   | 1 COB  | 3400   | 3100   | 119  | A++  | 1/1   |
| 1150MFSD24 | EXPO LED BMF 1X150 24SD 3K  | 38   | 3000   | ≥80  | 43   | 1 COB  | 5500   | 5000   | 116  | A++  | 1/1   |
| R1         | 150SD24<br>70MFSD24         | <b>150SD24</b> EXPO LED BTRF 1X150 24SD 3K <b>70MFSD24</b> EXPO LED BMF 1X70 24SD 3K | <b>150SD24</b> EXPO LED BTRF 1X150 24SD 3K 38 <b>70MFSD24</b> EXPO LED BMF 1X70 24SD 3K 21 | 150SD24       EXPO LED BTRF 1X150 24SD 3K       38       3000         70MFSD24       EXPO LED BMF 1X70 24SD 3K       21       3000 | <b>150SD24</b> EXPO LED BTRF 1X150 24SD 3K 38 3000 ≥80 <b>70MFSD24</b> EXPO LED BMF 1X70 24SD 3K 21 3000 ≥80 | 150SD24       EXPO LED BTRF 1X150 24SD 3K       38       3000       ≥80       43         70MFSD24       EXPO LED BMF 1X70 24SD 3K       21       3000       ≥80       26 | 150SD24       EXPO LED BTRF 1X150 24SD 3K       38       3000       ≥80       43       1 COB         70MFSD24       EXPO LED BMF 1X70 24SD 3K       21       3000       ≥80       26       1 COB | 150SD24       EXPO LED BTRF 1X150 24SD 3K       38       3000       ≥80       43       1 COB       5500         70MFSD24       EXPO LED BMF 1X70 24SD 3K       21       3000       ≥80       26       1 COB       3400 | 150SD24       EXPO LED BTRF 1X150 24SD 3K       38       3000       ≥80       43       1 COB       5500       5000         70MFSD24       EXPO LED BMF 1X70 24SD 3K       21       3000       ≥80       26       1 COB       3400       3100 | 150SD24 EXP0 LED BTRF 1X150 24SD 3K 38 3000 ≥80 43 1 COB 5500 5000 116 SING  70MFSD24 EXP0 LED BMF 1X70 24SD 3K 21 3000 ≥80 26 1 COB 3400 3100 119 | 150SD24 EXPO LED BTRF 1X150 24SD 3K 38 3000 ≥80 43 1 COB 5500 5000 116 A++ SINGLE-PHASE 70MFSD24 EXPO LED BMF 1X70 24SD 3K 21 3000 ≥80 26 1 COB 3400 3100 119 A++ |







# ZOOM LED

# LEDs are not the only Polyvalent is not enough technology at the heart of the lighting revolution



Zoom LED Beghelli is a device that has revolutionised the world of accent lighting design. Thanks to a patented light beam micro-controller, the first of its kind on the market to date, this device offers unprecedented versatility, with a degree of light beam efficacy that turns the traditional concept of "accent spotlighting" on its head.

The light beam control system uses technology similar to that employed in the most innovative variable focus photographic optics: a unit which makes tiny movements in order to vary the focus and thus the width of the light cone with ease - no extra tools required.

The end result is a unique product that

The end result is a unique product that produces a light beam with a continuously variable angle of 10° to 40°.











Equivalent Power\* 35, 70, 150 W

Power supply SD version: Universale Multy Voltage

93÷265Vac 50÷60Hz

176÷250Vdc

ED version: 230Vac ±10% 50Hz

Standard EN 60598-1, EN 60598-2-1,

EN 60598-2-22 (fundamental

requirements),

EN 62471 (photobiological hazard)

Protection grade IP40

Working temp. -20 ÷ +40°C

Mounting Three-phase electrified track

Housing Die-cast aluminium, white RAL 9010

Optic Zoom LED System (PMMA lenses)

Power supply SD version:

Electronic SD (Cos φ≥ 0,96) Electronic with intelligent dimming

ED version:

Electronic ED (Cos  $\phi \ge 0.95$ )

MTBF Control gear\*\* 65.000h

**Luminous flux** >70.000h (1x70, 1x150) (L80B20) maintenance\*\* >80.000h (1x35) (L80B20)

Colour tolerance 3 SDCM

\* Equivalent power for comparison with metal halide fixtures

\*\* At a reference working temperature of 25°C

#### Accessories === supplied

Order code Description

INTELLIGENT OPTICOM PHOTOSENSOR 15039

#### Building automation **=** to be ordered separately

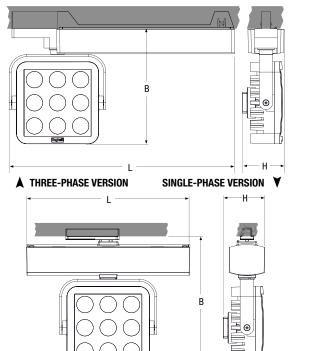
| Order code | Description                           |
|------------|---------------------------------------|
| 20102      | DOMOTIC CENTER                        |
| 20124      | Wifi Building automation central unit |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT      |
| 15022      | BUILDING AUTOMATION RADIO MODULE      |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE       |

# Zoom LED

# Three-phase electrified track

Adjustable focus projector made of die-cast aluminium which integrates the power of 9 high-efficiency LEDs. Patented optics, consisting of a system of variable focus PMMA lenses to adjust the beam of light with an angle between 10° and 40°. Adjustment is continuous and is obtained by a regulator on the rear. The fixture can be oriented on both the horizontal and the vertical axis. The Zoom Led system envisages the used of a vast range of accessories for the creation of a three-phase electrified track; The adaptor supplied allows the spotlight to be used on most of the three-phase electrified tracks available on the market. The Zoom Led range has been designed specifically for accent lighting, where it is essential to enhance the items on display.





| Version      | • Dim | nensions | (mm) • | Weight |
|--------------|-------|----------|--------|--------|
|              | L     | В        | Н      | max kg |
| single-phase | 330   | 170      | 53     | 1.4    |
| three-phase  | 239   | 194      | 61     | 1.4    |

### Efficiency and dimming

The increase in luminous efficacy (lm/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of 50% of the luminous flux, the following results are obtained with the ZOOM LED:

Dimming 50 **50%** +40% **Device duration Luminous efficiency** +15%

# Zoom LED electrified track

Eco Driver electronic reactor



| Power* W | Order code | Description               | LED<br>Power W | Colour<br>Temp. K | Colour rendering | Power consumption<br>Max W | n N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous<br>efficiency lm/W | Energy<br>Class | Packaging |
|----------|------------|---------------------------|----------------|-------------------|------------------|----------------------------|--------------|------------------------------|--------------------|-----------------------------|-----------------|-----------|
|          |            |                           |                |                   |                  |                            |              |                              |                    | THR                         | EE-PHASE        | VERSION   |
| 1x70     | Z170ED     | ZOOM LED BTRF 1X70 ED 3K  | 29             | 3000              | ≥80              | 33                         | 9            | 3200                         | 2500               | 76                          | A++             | 1/1       |
| 1x150    | Z1150ED    | ZOOM LED BTRF 1X150 ED 3K | 47             | 3000              | ≥80              | 52                         | 9            | 5000                         | 4000               | 77                          | A++             | 1/1       |
|          |            |                           |                |                   |                  |                            |              |                              |                    | SING                        | LE-PHASE        | VERSION   |
| 1x70     | Z170MFED   | ZOOM LED BMF 1X70 ED 3K   | 29             | 3000              | ≥80              | 33                         | 9            | 3200                         | 2500               | 76                          | A++             | 1/1       |
| 1x150    | Z1150MFED  | ZOOM LED BMF 1X150 ED 3K  | 47             | 3000              | ≥80              | 52                         | 9            | 5000                         | 4000               | 77                          | A++             | 1/1       |







#### INTELLIGENT PHOTOSENSOR



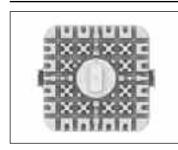


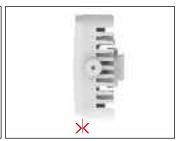


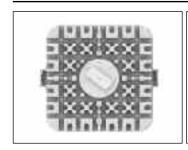
Option Smartphone Interface Device programming and control system

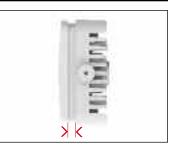
MAXIMUM RANGE OF THE FOCAL LENGTH FOR 40° CONE OF LIGHT

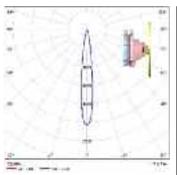
### MINIMUM RANGE OF THE FOCAL LENGTH FOR 10° CONE OF LIGHT





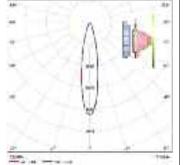






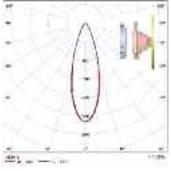
|      | 04711114 |     | _ |
|------|----------|-----|---|
| Ream | width    | 10° |   |

| Distance     | Diameter                | Luminosity |
|--------------|-------------------------|------------|
| 0,5 m        | Ø 0 <mark>,1</mark> 1 m | 119379 lx  |
| 1,0 m        | Ø 0 <mark>,22</mark> m  | 29845 lx   |
| <u>1,5 m</u> | Ø 0,33 m                | 13264 lx   |
| 2,0 m        | Ø 0,44 m                | 7461 lx    |
| 2,5 m        | Ø 0,55 m                | 4775 lx    |
| 3,0 m        | Ø 0,66 m                | 3316 lx    |



I max 35w\*= 11.900 / I max 70w\*= 19.550 Cd

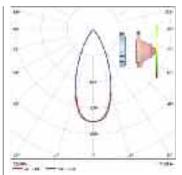
| Distance | Diameter                | Luminosity |
|----------|-------------------------|------------|
| 0,5 m    | Ø 0 <mark>,1</mark> 8 m | 49269 lx   |
| 1,0 m    | Ø <mark>0,36 m</mark>   | 12317 lx   |
| 1,5 m    | Ø 0,53 m                | 5474 lx    |
| 2,0 m    | Ø 0,71 m                | 3079 lx    |
| 2,5 m    | Ø 0,89 m                | 1971 lx    |
| 3,0 m    | Ø 1,07 m                | 1369 lx    |



I max 35w\*= 5.950 Cd / I max 70w\*= 9.800 Cd

#### Beam width 30°

| Distance     | Diameter               | Luminosity |
|--------------|------------------------|------------|
| 0,5 m        | Ø 0 <mark>,29</mark> m | 24656 lx   |
| 1,0 m        | Ø 0,58 m               | 6164 lx    |
| <u>1,5 m</u> | Ø 0,87 m               | 2740 lx    |
| 2,0 m        | Ø 1,15 m               | 1541 lx    |
| 2,5 m        | Ø 1,44 m               | 986 lx     |
| 3,0 m        | Ø 1,73 m               | 685 lx     |



I max 35w\*= 4.000 Cd / I max 70w\*= 6.550 Cd

#### Beam width 40°

| Distance | Diameter              | Luminosity |
|----------|-----------------------|------------|
|          | A                     | Lummoonly  |
| 0,5 m    | Ø <mark>0,39</mark> m | 16512 lx   |
| 1,0 m    | Ø 0,78 m              | 4128 lx    |
| 1,5 m    | Ø 1,16 m              | 1835 lx    |
| 2,0 m    | Ø 1,55 m              | 1032 lx    |
| 2,5 m    | Ø 1,94 m              | 660 lx     |
| 3.0 m    | Ø 2.33 m              | 459 lx     |

SPECIAL VARIATIONS: COLOUR RENDERING  $\geq$ 90, COLOUR TEMPERATURE ON REQUEST Contact the Beghelli sales network

# Zoom LED electrified track



| 20011 222 diodamod adore |            |                           |                |                   |                     |                            | Citian Eliver Glock of the Teacter |                              |                    |                             |                 |           |
|--------------------------|------------|---------------------------|----------------|-------------------|---------------------|----------------------------|------------------------------------|------------------------------|--------------------|-----------------------------|-----------------|-----------|
| Power* W                 | Order code | Description               | LED<br>Power W | Colour<br>Temp. K | Colour<br>rendering | Power consumption<br>Max W | n N°<br>LEDs                       | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous<br>efficiency lm/W | Energy<br>Class | Packaging |
|                          |            |                           |                |                   |                     |                            |                                    |                              |                    | THE                         | EE-PHASE        | VERSION   |
| 1x35                     | Z135SD     | ZOOM LED BTRF 1X35 SD 3K  | 13             | 3000              | ≥80                 | 17                         | 9                                  | 1750                         | 1400               | 84                          | A++             | 1/1       |
| 1x70                     | Z170SD     | ZOOM LED BTRF 1X70 SD 3K  | 29             | 3000              | ≥80                 | 33(30***)                  | 9                                  | 3200                         | 2500               | 76                          | A++             | 1/1       |
| 1x150                    | Z1150SD    | ZOOM LED BTRF 1X150 SD 3K | 47             | 3000              | ≥80                 | 52(45***)                  | 9                                  | 5000                         | 4000               | 77                          | A++             | 1/1       |
|                          |            |                           |                |                   |                     |                            |                                    |                              |                    | SING                        | LE-PHASE        | VERSION   |
| 1x35                     | Z135MFSD   | ZOOM LED BMF 1X35 SD 3K   | 13             | 3000              | ≥80                 | 17                         | 9                                  | 1750                         | 1400               | 84                          | A++             | 1/1       |
| 1x70                     | Z170MFSD   | ZOOM LED BMF 1X70 SD 3K   | 29             | 3000              | ≥80                 | 33(30***)                  | 9                                  | 3200                         | 2500               | 76                          | A++             | 1/1       |
| 1x150                    | Z1150MFSD  | ZOOM LED BMF 1X150 SD 3K  | 47             | 3000              | ≥80                 | 52(45***)                  | 9                                  | 5000                         | 4000               | 77                          | A++             | 1/1       |

<sup>\*\*\*</sup> The power consumption has an auto derating to the power indicated in parenthesys if the product is powered by voltage less than 110 Vac.





Equivalent Power\* 35, 70, 150 W

Power supply Universale Multy Voltage 93:265Vac

50÷60Hz 176÷250Vdc

Standard EN 60598-1, EN 60598-2-1,

EN 60598-2-22 (fundamental

requirements),

EN 62471 (photobiological hazard)

Protection grade IP40

Working temp.  $-20 \div +40^{\circ}C$ 

Mounting wall, ceiling

Housing Die-cast aluminium, white RAL 9010

Optic Zoom LED System (PMMA lenses)

**Power supply** Electronic SD (Cos  $\phi \ge 0.96$ )

Electronic with intelligent dimming

MTBF Control gear\*\* 65.000h

**Luminous flux** >70.000h (1x70, 1x150) (L80B20) maintenance\*\* >80.000h (1x35) (L80B20)

Colour tolerance 3 SDCM

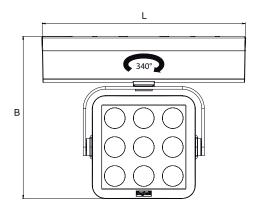
# Zoom LED

# Mounting on ceiling, wall

Adjustable focus projector made of die-cast aluminium which integrates the power of 9 high-efficiency LEDs. Patented optics, consisting of a system of variable focus PMMA lenses to adjust the beam of light with an angle between 10° and 40°. Adjustment is continuous and is obtained by a regulator on the rear. The fixture can be oriented on both the horizontal and the vertical axis. With the bracket supplied it can be mounted on the wall or on the ceiling. The Zoom Led range has been designed specifically for accent lighting, where it is essential to enhance the items on display.









| Version       | • Din | nensions | Weight |        |  |
|---------------|-------|----------|--------|--------|--|
|               | L     | В        | Н      | max kg |  |
| 35, 70, 150 W | 240   | 195      | 53     | 1.4    |  |

# Accessories **5**

supplied

Order code

15039 INTELLIGENT OPTICOM PHOTOSENSOR

# Building automation **50**



to be ordered separately

|            |                                       | <br> |
|------------|---------------------------------------|------|
| Order code | Description                           |      |
| 20102      | DOMOTIC CENTER                        |      |
| 20124      | WIFI BUILDING AUTOMATION CENTRAL UNIT |      |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT      |      |
| 15022      | BUILDING AUTOMATION RADIO MODULE      |      |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE       |      |

#### Efficiency and dimming

The increase in luminous efficacy (Im/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of 50% of the luminous flux, the following results are obtained with the ZOOM LED:

Dimming **50 Device duration Luminous efficiency** 

50% +40% +15%

SPECIAL VARIATIONS: COLOUR RENDERING ≥90, COLOUR TEMPERATURE ON REQUEST Contact the Beghelli sales network

<sup>\*</sup> Equivalent power for comparison with metal halide fixtures

<sup>\*\*</sup> At a reference working temperature of 25°C







#### INTELLIGENT PHOTOSENSOR



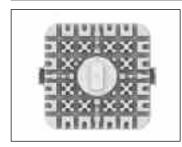




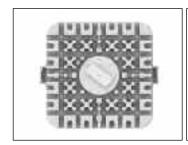
Option Smartphone Interface
Device programming and control system

MAXIMUM RANGE OF THE FOCAL LENGTH FOR 40° CONE OF LIGHT

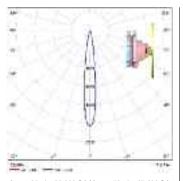
### MINIMUM RANGE OF THE FOCAL LENGTH FOR 10° CONE OF LIGHT





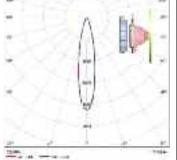






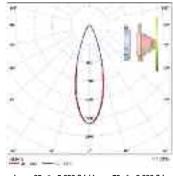
I max 35w\*= 28.800 Cd / I max 70w\*= 47.400 Cd Beam width 10°

| Dealii Width 10 |                         |            |  |  |  |  |  |
|-----------------|-------------------------|------------|--|--|--|--|--|
| Distance        | Diameter                | Luminosity |  |  |  |  |  |
| 0,5 m           | Ø 0 <mark>,1</mark> 1 m | 119379 lx  |  |  |  |  |  |
| 1,0 m           | Ø <mark>0,22</mark> m   | 29845 lx   |  |  |  |  |  |
| 1,5 m           | Ø <mark>0,33 m</mark>   | 13264 lx   |  |  |  |  |  |
| 2,0 m           | Ø 0,44 m                | 7461 lx    |  |  |  |  |  |
| 2,5 m           | Ø 0,55 m                | 4775 lx    |  |  |  |  |  |
| 3,0 m           | Ø 0,66 m                | 3316 lx    |  |  |  |  |  |



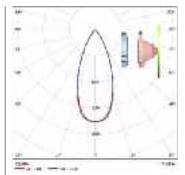
I max 35w\*= 11.900 / I max 70w\*= 19.550 Cd Beam width 20°

| Distance | Diameter                | Luminosity |
|----------|-------------------------|------------|
| 0,5 m    | Ø 0 <mark>,1</mark> 8 m | 49269 lx   |
| 1,0 m    | Ø <mark>_0,36</mark> m  | 12317 lx   |
| 1,5 m    | Ø 0,53 m                | 5474 lx    |
| 2,0 m    | Ø 0,71 m                | 3079 lx    |
| 2,5 m    | Ø 0,89 m                | 1971 lx    |
| 3,0 m    | Ø 1,07 m                | 1369 lx    |



I max 35w\*= 5.950 Cd / I max 70w\*= 9.800 Cd Beam width 30°

| Distance | Diameter               | Luminosity |
|----------|------------------------|------------|
| 0,5 m    | Ø 0 <mark>,29</mark> m | 24656 lx   |
| 1,0 m    | Ø 0,58 m               | 6164 lx    |
| 1,5 m    | Ø 0,87 m               | 2740 lx    |
| 2,0 m    | Ø 1,15 m               | 1541 lx    |
| 2,5 m    | Ø 1,44 m               | 986 lx     |
| 3,0 m    | Ø 1,73 m               | 685 lx     |



I max 35w\*= 4.000 Cd / I max 70w\*= 6.550 Cd

| Beam width 40° |                       |            |  |  |  |  |  |  |
|----------------|-----------------------|------------|--|--|--|--|--|--|
| Distance       | Diameter              | Luminosity |  |  |  |  |  |  |
| 0,5 m          | Ø <mark>0,39</mark> m | 16512 lx   |  |  |  |  |  |  |
| 1,0 m          | Ø 0,78 m              | 4128 lx    |  |  |  |  |  |  |
| 1,5 m          | Ø 1,16 m              | 1835 lx    |  |  |  |  |  |  |
| 2,0 m          | Ø 1,55 m              | 1032 lx    |  |  |  |  |  |  |
| 2,5 m          | Ø 1,94 m              | 660 lx     |  |  |  |  |  |  |
| 3.0 m          | Ø 2.33 m              | 459 lx     |  |  |  |  |  |  |

# Zoom LED



|       |       |            |                         | LED     | Colour  | Colour P  | ower consumption | on N° | Flux of LEDs | Flux of    | Luminous        | Energy | Packaging |
|-------|-------|------------|-------------------------|---------|---------|-----------|------------------|-------|--------------|------------|-----------------|--------|-----------|
| Power | r* W  | Order code | Description             | Power W | Temp. K | rendering | Max W            | LEDs  | Im (Tj=25°C) | fixture Im | efficiency lm/W | Class  |           |
| -     | 1x35  | Z135ASD    | ZOOM LED AP 1X35 SD 3K  | 13      | 3000    | ≥80       | 17               | 9     | 1750         | 1400       | 84              | A++    | 1         |
|       | 1x70  | Z170ASD    | ZOOM LED AP 1X70 SD 3K  | 29      | 3000    | ≥80       | 33               | 9     | 3200         | 2500       | 76              | A++    | 1         |
|       | 1x150 | Z1150ASD   | Z00M LED AP 1X150 SD 3K | 47      | 3000    | ≥80       | 52(50***)        | 9     | 5000         | 4000       | 77              | A++    | 1         |

<sup>\*\*\*</sup> The power consumption has an auto derating to the power indicated in parenthesys if the product is powered by voltage less than 110 Vac.







### Zoom 1x LED Continuous light output Polyvalent is not enough angle from 10° to 40°

1x Zoom LED Beghelli is a device that has revolutionised the world of accent lighting design. The 1x version creates an extraordinary visual impact, whether installed on a wall or on the ceiling. Thanks to a patented light beam microcontroller, the first of its kind on the market to date, this device offers unprecedented versatility, with excellent light beam efficacy. The light beam control system uses technology similar to that employed in the most innovative variable focus photographic optics: a unit which makes tiny movements in order to vary the focus and thus the width of the light cone with ease - no extra tools required - for a beam with a continuously variable angle of 10° to 40°.





#### GENERAL CHARACTERISTICS

Equivalent Power\* 20, 50 W

Standard EN 60598-1, EN 60598-2-1,

EN 60598-2-22 (requisiti fondamentali), EN62471 (rischio fotobiologico esente)

Power supply 198÷264Vac/Vdc

Protection grade IP40

Working temp. -20°C ÷ +40°C

Mounting ceiling, parete

Housing Alluminio pressofuso verniciato alle

polveri di poliestere, bianco RAL 9010

Optic Sistema Zoom LED

con lenti in PMMA trasparente

Power supply Electronic ED (Cos  $\phi \ge 0.95$ )

MTBF Control gear\*\* 50.000h

**Luminous flux** >60.000h (1x50W) (L80B20) **maintenance\*\*** >70.000h (1x20W) (L80B20)

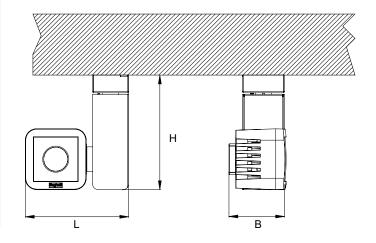
Colour tolerance 3 SDCM

#### Zoom 1x LED

#### Indoor floodlight

Projector with adjustable focus and die-cast aluminium head, incorporating a powerful high-efficiency LED light. Patented optics, consisting of a PMMA lens system with variable focal length to adjust the light beam to an angle of between 10° and 40°. The adjustment is continuous, and can be performed using the rear regulator. The device can be adjusted both horizontally and vertically. The mounting bracket allows for wall or ceiling installation.





| Power * | • Dimensions (mm) • |    | α   | Weight |        |
|---------|---------------------|----|-----|--------|--------|
| W       | L                   | В  | Н   | max    | max kg |
| 20      | 105                 | 56 | 116 | 40°    | 0,5    |
| 50      | 105                 | 56 | 116 | 40°    | 0,5    |

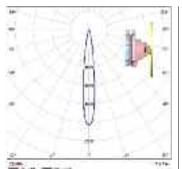
SPECIAL VARIATIONS: COLOUR RENDERING  $\ge 90$  - COLOUR TEMPERATURE ON REQUEST Contact the Beghelli sales network

<sup>\*</sup> Equivalent power for comparison with metal halide fixtures

<sup>\*\*</sup> At environmental reference temperature of 25°C

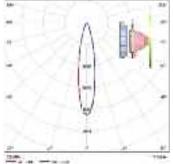


Rear adjuster for adjusting the light beam from 10° to 40°



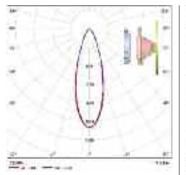
#### Beam width 10° 50W version \*

| Distance | Diameter                | Luminosity |
|----------|-------------------------|------------|
| 0,5 m    | Ø 0 <mark>,1</mark> 0 m | 40331 lx   |
| 1,0 m    | Ø 0 <mark>,19</mark> m  | 10083 lx   |
| 1,5 m    | Ø <mark>0,29 m</mark>   | 4481 lx    |
| 2,0 m    | Ø 0,39m                 | 2521 lx    |
| 2,5 m    | Ø 0,48 m                | 1613 lx    |
| 2 0 m    | Ø 0.58 m                | 1120 lv    |



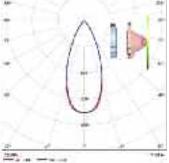
| Beam width 20° 50W version * |                        |            |  |  |  |  |
|------------------------------|------------------------|------------|--|--|--|--|
| Distance                     | Diameter               | Luminosity |  |  |  |  |
| 0,5 m                        | Ø 0 <mark>,17</mark> m | 14011 lx   |  |  |  |  |
| 1,0 m                        | Ø <mark>0,35 m</mark>  | 3503 lx    |  |  |  |  |

| 0,5 m | Ø 0 <mark>,17</mark> m | 14011 lx |
|-------|------------------------|----------|
| 1,0 m | Ø <mark>0,35 m</mark>  | 3503 lx  |
| 1,5 m | Ø 0,52 m               | 1557 lx  |
| 2,0 m | Ø 0,70 m               | 876 lx   |
| 2,5 m | Ø 0,87 m               | 560 lx   |
| 3,0 m | Ø 1,05 m               | 389 lx   |
|       |                        |          |



#### Beam width 30° 50W version \*

| Distance     | Diameter               | Luminosity |
|--------------|------------------------|------------|
| 0,5 m        | Ø 0 <mark>,27</mark> m | 7172 lx    |
| <u>1,0 m</u> | Ø 0,55 m               | 1793 lx    |
| 1,5 m        | Ø 0,82 m               | 797 lx     |
| 2,0 m        | Ø 1,09 m               | 448 lx     |
| 2,5 m        | Ø 1,37 m               | 287 lx     |
| 3,0 m        | Ø 1,64 m               | 199 lx     |



#### Beam width 40° 50W version \*

| Distance | Diameter              | Luminosity |
|----------|-----------------------|------------|
| 0,5 m    | Ø <mark>0,36</mark> m | 5424 b     |
| 1,0 m    | Ø 0,72 m              | 1356 lx    |
| 1,5 m    | Ø 1,07 m              | 603 lx     |
| 2,0 m    | Ø 1,43 m              | 339 lx     |
| 2,5 m    | Ø 1,79 m              | 217 b      |
| 2 0 m    | Ø 2.15 m              | 151 ly     |

#### Zoom 1x LED

Eco Driver electronic reactor



| Potenza* W | Order code | Description        | LED<br>Power W | Colour<br>Temp. K | Colour Porendering | ower consumptio<br>Max W | on N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous efficiency lm/W | Energy<br>Class | Packaging |
|------------|------------|--------------------|----------------|-------------------|--------------------|--------------------------|---------------|------------------------------|--------------------|--------------------------|-----------------|-----------|
| 1x20       | Z120A      | ZOOM 1x20 APPLIQUE | 3              | 3000              | >80                | 4                        | 1             | 500                          | 350                | 84                       | A++             | 1/1       |
| 1x50       | Z150A      | ZOOM 1x50 APPLIQUE | 7,5            | 3000              | >80                | 9                        | 1             | 1000                         | 720                | 80                       | A++             | 1/1       |



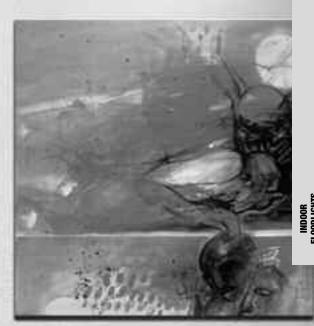




Installation in an art gallery. Courtesy of the adjustable light beam, this spotlight can be combined with existing structures that produce a more diffuse light, enhancing the illuminance on the works on display











#### **AUTODIMMER NATURAL LIGHT**

COMPENSATION FOR NATURAL LIGHT IN THE **ENVIRONMENT, FOR ENERGY SAVINGS OF OVER 75%** 

AUTODIMMER DYNAMIC LIGHT
AUTOMATIC REDUCTION OF LIGHT EMITTED IN THE
ABSENCE OF PEOPLE, FOR POTENTIAL FURTHER ENERGY
SAVINGS OF MORE THAN 20% - OVERALL EXPECTED
SAVINGS OF MORE THAN 85%

## BS100 SD LED

Anti-glare micro-structured Luminous flux at the top of its class



On the surface it appears to be a simple receptacle, in reality it is the fruit of a project that goes well beyond appearance. The excellent mechanical characteristics are those of a revolutionary product, both in terms of luminosity and multi-functionality of use. The 8500 lm luminous flux is just the first example of the technology enclosed in this device that with Smart Driver technology can be enhanced to become a Smart Lighting optic already partially present in the base products equipped with an Autodimmer system. In addition, the innovative anti-glare

In addition, the innovative anti-glare micro-structured screen significantly reduces flare without affecting the luminous flux. The special Parking version has been designed to adapt to underground conditions that demand extensive illumination over a large ground-level area but with highly reduced height availability.











#### GENERAL CHARACTERISTICS

Potenza equivalente\* 1x18, 2x18, 1x36, 2x36, 1x58, 2x58, 2x80 W

**Power supply SD version**: Universale Multy Voltage

93÷265Vac 50÷60Hz

176÷250Vdc **ED version**: 230Vac ±10% 50Hz

Standard EN 60598-1, EN 60598-2-1,

EN 60598-2-22 (fundamental requirements),EN 62471 (Photobiological hazard)

Protection grade P65

Working temp. -20 ÷ +40°C

Mounting ceiling, suspension, electrified track

Housing Polycarbonate, RAL 7035

Optic white reflective powder coated steel

Louvre Micro-structured finished

high transmission polycarbonate

Power supply SD version:

SELV electronic SD (Cos  $\phi \ge$  0,96)

with intelligent dimming

ED version:

SELV electronic ED (Cos  $\phi \ge$  0,95)

MTBF Control gear\*\* 80.000h

**Luminous flux** >60.000h (L80B20)

maintenance\*\*

Colour tolerance 3 SDCM

\* Equivalent power for comparison with florescent tube device

\*\* At environmental reference temperature of 25°C

#### BS100 LED

#### Ceiling light

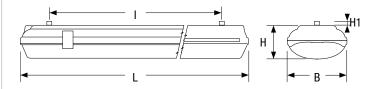
#### Autodimmer

Professional device with elevated luminous flux and anti-glare system. Functions in emergency situations due to the Plug&Light LED Inverter, to be ordered separately.

Smart Driver System for the highest level of flexibility of use due to the various additional modules. The Autodimmer Sensor is supplied as standard in the base product. The self-extinguishing polycarbonate body is stabilized to UV rays. The screen has a micro-structured antiglare surface finish specifically designed to disseminate the LED light in the most effective manner.

The device is strong and long-lasting with an age-resistant expanded polyurethane seal and concealed closure hooks made from polyester based technopolymer.





| Power*     | • Dimensions (mm) • |     |     |    |     | Weight |
|------------|---------------------|-----|-----|----|-----|--------|
| W          | L                   | В   | H ` | H1 | ı   | max kg |
| 1x18, 2x18 | 671                 | 170 | 95  | 10 | 475 | 1.4    |
| 1x36, 2x36 | 1280                | 170 | 95  | 10 | 660 | 2.3    |
| 1x58, 2x58 | 1581                | 170 | 95  | 10 | 900 | 2.0    |
| 2x80       | 1581                | 170 | 95  | 10 | 900 | 2.7    |

#### Efficiency and dimming

The increase in luminous efficacy (lm/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of 50% of the luminous flux, the following results are obtained with the BS100 SD LFD:

Dimming 50%

Device duration +40%

Luminous efficiency +15%

Accessories **5** 

supplied

Order code Description

15039 INTELLIGENT OPTICOM PHOTOSENSOR

#### Accessories to be ordered separately

| Order code | Description                       |
|------------|-----------------------------------|
| 3905       | PROTECTIVE GRID 18W               |
| 8066       | PROTECTIVE GRID 36W               |
| 8067       | PROTECTIVE GRID 58W/80W           |
| 3504       | BRACKET WALL INSTALLATIONS        |
| 3505       | HOOK STAINLESS STEEL INOX 18W     |
| 3506       | HOOK STAINLESS STEEL INOX 36W     |
| 3507       | HOOK STAINLESS STEEL INOX 58W/80W |
| 8010       | KIT WIRING THROUGH 58W/80W        |
| 8012       | KIT WIRING THROUGH 36W            |
|            |                                   |

#### Building automation

| _ |  |
|---|--|
|   |  |

to be ordered separately

| Order code | Description                           |
|------------|---------------------------------------|
| 20102      | DOMOTIC CENTER                        |
| 20124      | WiFi BUILDING AUTOMATION CENTRAL UNIT |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT      |
| 15022      | DOMOTIC RADIO MODULE                  |
| 15024      | DALI MODULE                           |
| 15034      | 1-10V MODULE                          |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE       |
|            |                                       |











SD BUILDING AUTOMATION MODULES INDIVIDUALLY CONNECTED TO THE BEGHELLI SMARTDRIVER



236PSD

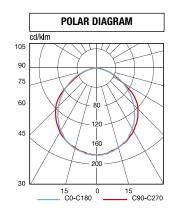
#### INTELLIGENT PHOTOSENSOR (SUPPLIED WITH SD VERSIONS)

Autodimmer **Natural Light**  Autodimmer **Dynamic Light** 



Option Smartphone Interface
Device programming and control system

## **SPECIAL PARKING VERSION** POLAR DIAGRAM



| EMERGENC      | Y WITH LED INVERTER                     | TR AT LG LGFM   |
|---------------|---|---|
| 19358         | INVERTER PLUG&LIGHT LED SE/SA 1H 20-60V | to be ordered separately  |
| 19359         | INVERTER PLUG&LIGHT LED SE/SA 3H 20-60  | to be ordered separately  |
| 19355         | INV LED AT/LG 6W 55V 123H               | to be ordered separately  |
| 19356         | INV LED LGFM 6W 55V 123H                | to be ordered separately  |
| <b>₹</b> RA02 | AUTORIPARA INVERTER BATTERY 7.2V 1.7Ah  | to be ordered separately  |
|               | 19358<br>19359<br>19355<br>19356        | 19359 INVERTER PLUG&LIGHT LED SE/SA 3H 20-60 19355 INV LED AT/LG 6W 55V 123H 19356 INV LED LGFM 6W 55V 123H |

SPECIAL VARIATIONS: COLOUR TEMPERATURE ON REQUEST, COLOUR RENDERING ≥90, FOOD APPLICATIONS VERSION Contact the Beghelli sales network

#### BS100 LED PARKING

BS100 LED PARKING 2x36 W

#### SmartDriver electronic reactor

| <br>Dooleaging |  |
|----------------|--|

| Power* W | Order code | Description               | LED<br>Power W | Colour<br>Temp. K | Colour rendering | Power consumption Max W | on N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous<br>efficiency lm/W | Energy P<br>Class | ackaging |
|----------|------------|---------------------------|----------------|-------------------|------------------|-------------------------|---------------|------------------------------|--------------------|-----------------------------|-------------------|----------|
| 2x36     | 236PSD     | BS100 LED PARKING 2X36 SD | 4000K 48       | 4000              | >80              | 52                      | 144           | 7750                         | 5500               | 106                         | A++               | 1        |

#### BS100 LED

#### SmartDriver electronic reactor



| Power* W | Order code      | Description            | LED<br>Power W | Colour<br>Temp. K | Colour<br>rendering | Power consumption<br>Max W | l N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of<br>fixture lm | Luminous<br>efficiency lm/W | Energy H<br>Class | 'ackaging |
|----------|-----------------|------------------------|----------------|-------------------|---------------------|----------------------------|--------------|------------------------------|-----------------------|-----------------------------|-------------------|-----------|
| 1x18     | 118SD BS        | S100 LED 1X18 SD 4000K | 9              | 4000              | >80                 | 11                         | 72           | 1900                         | 1525                  | 133                         | A++               | 1         |
| 2x18     | <b>218SD</b> BS | S100 LED 2X18 SD 4000K | 19             | 4000              | >80                 | 22                         | 72           | 3300                         | 2750                  | 127                         | A++               | 1         |
| 1x36     | 136SD BS        | S100 LED 1X36 SD 4000K | 21             | 4000              | >80                 | 23                         | 144          | 4000                         | 3100                  | 135                         | A++               | 1         |
| 2x36     | <b>236SD</b> BS | S100 LED 2X36 SD 4000K | 42             | 4000              | >80                 | 46                         | 144          | 7000                         | 5500                  | 121                         | A++               | 1         |
| 1x58     | <b>158SD</b> BS | S100 LED 1X58 SD 4000K | 29             | 4000              | >80                 | 32                         | 180          | 5000                         | 4100                  | 129                         | A++               | 1         |
| 2x58     | <b>258SD</b> BS | S100 LED 2X58 SD 4000K | 59             | 4000              | >80                 | 64 (56***)                 | 180          | 9250                         | 7500                  | 117                         | A++               | 1         |
| 2x80     | <b>280SD</b> BS | S100 LED 2X80 SD 4000K | 68             | 4000              | >80                 | 74 (56***)                 | 180          | 11000                        | 8500                  | 116                         | A++               | 1         |

#### BS100 LED

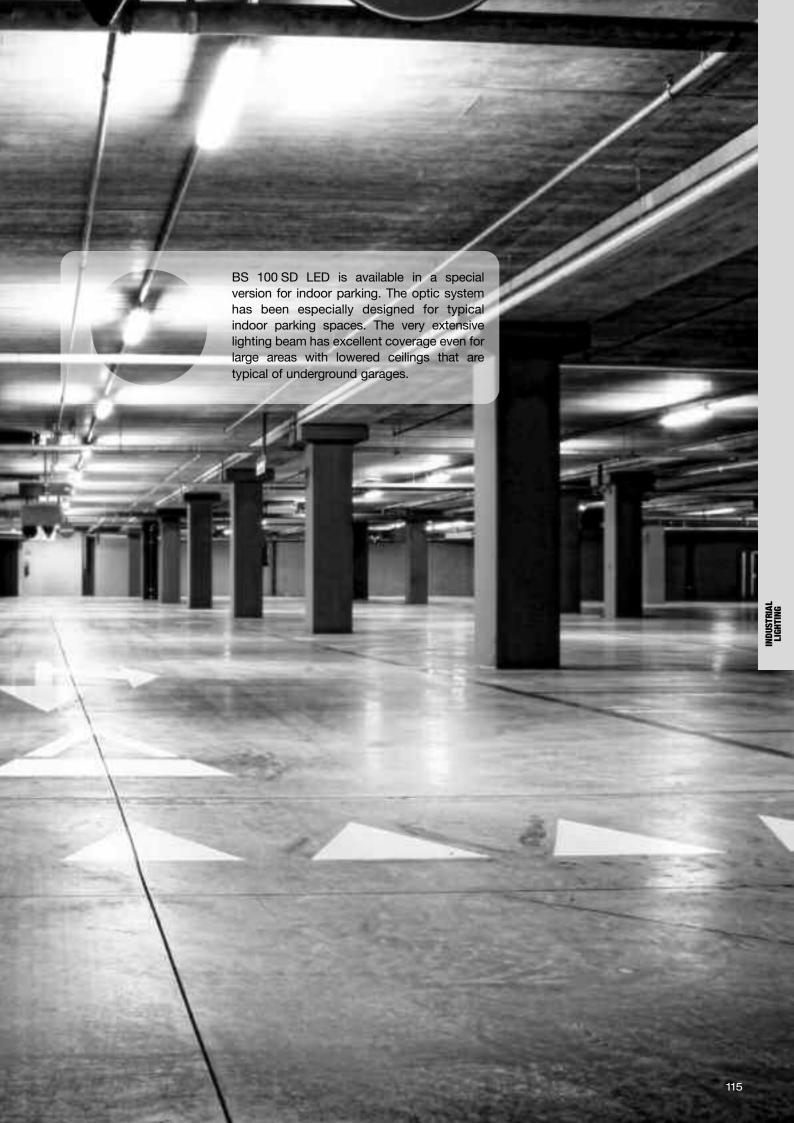
#### EcoDriver electronic reactor



| <br>Power* W | Order code      | Description            | LED<br>Power W | Colour<br>Temp. K | Colour rendering | Power consumption<br>Max W | n N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous<br>efficiency lm/W | Energy F<br>Class | Packaging |
|--------------|-----------------|------------------------|----------------|-------------------|------------------|----------------------------|--------------|------------------------------|--------------------|-----------------------------|-------------------|-----------|
| 2x18         | <b>218ED</b> BS | S100 LED 2X18 ED 4000K | 18             | 4000              | >80              | 20                         | 72           | 2900                         | 2600               | 132                         | A++               | 1         |
| 2x36         | <b>236ED</b> BS | S100 LED 2X36 ED 4000K | 36             | 4000              | >80              | 40                         | 144          | 5800                         | 5200               | 132                         | A++               | 1         |
| 2x58         | <b>258ED</b> BS | S100 LED 2X58 ED 4000K | 47             | 4000              | >80              | 51                         | 192          | 7700                         | 6800               | 132                         | A++               | 1         |

<sup>\*\*\*</sup> The power consumption has an auto derating to the power indicated in parenthesys if the product is powered by voltage less than 110 Vac.







### Acciaio LED

## sturdy and intelligent



Excellent performance for LED lighting in the tertiary and industrial sector. The structural simplicity of Acciaio LED, combined with technical materials such as splined technopolymers and toughened glass, make it a product suitable for installation in particularly demanding conditions, thanks to protection grades IP66 and IK09. The whole allows the projection, through the microprismatic crystal, of a highly technological louvre specially designed for high-efficiency LEDs, to ensure the maximum of light output without glare. The innovative head with screw cap allows easy installation and easy connection with specific accessories such as the intelligent light sensor or the LED emergency module with built-in source and inverter.



#### GENERAL CHARACTERISTICS

**Equivalent Power\*** 1x36, 2x36, 1x58, 2x58, 2x80W (TOP, ATEX)

Power supply SD version: Universal Multy Voltage

93÷265 Vac - 50/60Hz 176÷250 Vdc **ED version**: 230Vac ±10% 50 Hz

Standard EN 60598-1, EN 60598-2-1,

EN 60598-2-22 (fundamental requirements), UNI9554:1989, DIN 18032-3:1997-04, EN 62471

(Photobiological hazard), ATEX 2014/34/UE

Protection grade IP66, IK09

Working temp. -20 ÷ +40°C

Mounting ceiling, suspension, electrified track

Housing Polyester powder coated

sheet steel RAL 7035

Head Caps Technopolymer PC+PBT

Louvre Wide anti-glare aluminium

Power supply SD version:

SELV electronic SD (Cos  $\phi \ge 0.96$ )

with intelligent dimming

ED version:

electronic ED (Cos  $\phi \ge 0.95$ )

MTBF Control gear\*\* 80.000h

Luminous flux >60.000h (versioni 2x) (L80B20) maintenance\*\* >70.000h (versioni 1x) (L80B20)

Colour tolerance 3 SDCM

#### Acciaio Fco I FD

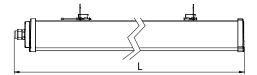
#### Waterproof ceiling fitting

Acciaio Eco LED is the reply to the request for products with a high technological content for particularly demanding applications in highrisk areas. The steel housing and glass diffuser present both excellent mechanical resistance (IKO9) and resistance to aggressive chemical agents. In the industrial field, it is ideally used in installations in environments with an explosive atmosphere, caused either by alterations of a gaseous type or by the presence of combustible powders suspended in the air (according to Standard ATEX 94/9/EC for zones 02 and 22).

The optic system is composed of a diffuser subdivided into 12 cells for optimal light distribution, and a special microprismatic glass with very high light transmittance for greater visual comfort.

Acciaio Eco LED is suitable for heavy-duty use even in outdoor environments directly exposed to inclement weather: it is designed to resist mechanical vibrations and electromagnetic disturbances typical of industrial environments.







| Power* | • Di | mensions (mr | n) • | Weight |
|--------|------|--------------|------|--------|
| W      | L    | В            | Н    | max kg |
| 1x36   | 1225 | 108          | 90   | 3.2    |
| 2x36   | 1225 | 108          | 90   | 3.2    |
| 1x58   | 1225 | 108          | 90   | 3.2    |
| 2x58   | 1225 | 108          | 90   | 3.2    |
| 2x80   | 1565 | 108          | 90   | 3.9    |
|        |      |              |      |        |

| <u>Acces</u> | sories <b>50</b> | supplied |
|--------------|------------------|----------|
| Order code   | Description      |          |

INTELLIGENT OPTICOM PHOTOSENSOR ACCIAIO 15040

#### Accessories

#### to be ordered separately

| Order code | Description                                       |
|------------|---|
| 20107      | WIDE ACC DIFFUSER 1200                            |
| 15019      | INPUT DOUBLE COUPLING M20                         |
| 15018      | KIT ATEX ACCIAIO ECO (supplied with 2x80 version) |
| 20122      | ORIENTABLE BRACKET                                |
| 20082      | MOD EM ACC LED/T5 TR SE1NRM                       |
| 20085      | MOD EM ACC LED/T5 AT/LG SE1/3H                    |
| 20086      | MOD EM ACC LED/T5 LGFM SE 1/3H                    |
|            |   |

#### Building automation **50**



to be ordered separately

| Order code | Description                      |
|------------|----------------------------------|
| 20102      | DOMOTIC CENTER                   |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT |
| 15020      | ACCIAIO AUTODIMMER SENSOR        |
| 15022      | BUILDING AUTOMATION RADIO MODULE |
| 15024      | DALI MODULE                      |
| 15034      | 1-10V MODULE                     |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE  |

SPECIAL VARIATIONS: COLOUR RENDERING ≥90 - COLOUR TEMPERATURE ON REQUEST - WITH THREE-PHASE THROUGH WIRING - WITH POLYCARBONATE DIFFUSER (HACCP) -SICURO 24 (SLGS) Contact the Beghelli sales network

<sup>\*</sup> Equivalent power for comparison with florescent tube device

<sup>\*\*</sup> At environmental reference temperature of 25°C











SD BUILDING AUTOMATION MODULES INDIVIDUALLY CONNECTED TO THE BEGHELLI SMARTDRIVER



#### INTELLIGENT PHOTOSENSOR (SUPPLIED WITH SD VERSIONS)

Autodimmer **Natural Light** 





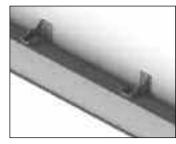
Smartphone Interface Device programming and control system

#### MODULE FOR EMERGENCY LIGHTING



| 20082 | to be ordered separately |
|-------|--------------------------|
| 20085 | to be ordered separately |
| 20086 | to be ordered separately |

#### **WALL BRACKET**



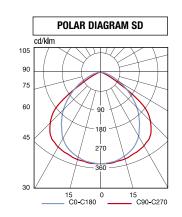
20122 to be ordered separately

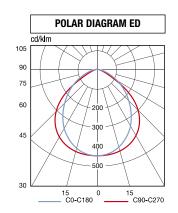
#### Efficiency and dimming

The increase in luminous efficacy (Im/W) Dimming SD and the useful life of the device may vary significantly according to the degree of dimming . Assuming an average level of Luminous efficiency 50% of the luminous flux, the following results are obtained with the Acciaio Eco

**50% Device duration** +40% +10%

| EMERGENCY     | Y WITH LED INVERTER                      | TR AT LG LGFM                              |
|---------------|--|--|
| 19358         | INVERTER PLUG&LIGHT LED SE/SA 1H 20-60V  | to be ordered separately (version SD only) |
| 19359         | INVERTER PLUG&LIGHT LED SE/SA 3H 20-60   | to be ordered separately (version SD only) |
| 19367         | INVERTER PLUG&LIGHT LED SE/SA 1H 60-120V | to be ordered separately (version ED only) |
| 19355         | INV LED AT/LG 6W 55V 123H                | to be ordered separately                   |
| 19356         | INV LED LGFM 6W 55V 123H                 | to be ordered separately                   |
| <b>₹</b> RA02 | AUTORIPARA INVERTER BATTERY 7.2V 1.7Ah   | to be ordered separately                   |





#### Acciaio Eco LED

#### SmartDriver electronic reactor

| F        | ower* W | Order code | Description                 | LED<br>Power W | Colour<br>Temp. K | Colour Por<br>rendering | ower consumption<br>Max W | N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous<br>efficiency lm/W | Energy<br>Class | Packaging |
|----------|---------|------------|-----------------------------|----------------|-------------------|-------------------------|---------------------------|------------|------------------------------|--------------------|-----------------------------|-----------------|-----------|
| <b></b>  | 1x36    | A136ESD    | ACCIAIO E LED 1X36 SD 4000K | 15             | 4000              | >80                     | 20                        | 48         | 3150                         | 2700               | A++                         | 135             | 1         |
| <b></b>  | 2x36    | A236ESD    | ACCIAIO E LED 2X36 SD 4000K | 30             | 4000              | >80                     | 35                        | 96         | 5570                         | 4700               | A++                         | 135             | 1         |
| <b></b>  | 1x58    | A158ESD    | ACCIAIO E LED 1X58 SD 4000K | 23             | 4000              | >80                     | 29                        | 72         | 4400                         | 3800               | A++                         | 131             | 1         |
| <b></b>  | 2x58    | A258ESD    | ACCIAIO E LED 2X58 SD 4000K | 46             | 4000              | >80                     | 52                        | 144        | 8350                         | 7000               | A++                         | 135             | 1         |
| <b></b>  | 2x80    | A280ESD    | ACCIAIO TOP LED 2X80 SD 4K  | € 68           | 4000              | >80                     | 74(56***)                 | 180        | 11800                        | 9900               | A++                         | 135             | 1         |
|          |         |            |                             |                |                   |                         |                           |            |                              |                    |                             |                 |           |
| <b>3</b> | 1x36    | A136E **   | ACCIAIO E LED 1X36 D 4000K  | 17             | 4000              | >80                     | 22                        | 48         | 3150                         | 2700               | A++                         | 120             | 1         |
| <b></b>  | 2x36    | A236E**    | ACCIAIO E LED 2X36 D 4000K  | 35             | 4000              | >80                     | 40                        | 96         | 5570                         | 4700               | A++                         | 120             | 1         |
| <b></b>  | 1x58    | A158E**    | ACCIAIO E LED 1X58 D 4000K  | 26             | 4000              | >80                     | 32                        | 72         | 4400                         | 3800               | A++                         | 120             | 1         |
| <b>3</b> | 2x58    | A258E **   | ACCIAIO E LED 2X58 D 4000K  | 52             | 4000              | >80                     | 58                        | 144        | 8350                         | 7000               | A++                         | 120             | 1         |

#### Acciaio Eco LED

#### Eco Driver electronic reactor

|   | ECODRIVER |   |
|---|-----------|---|
| - |           | _ |

| Power* W | Order code | Description               | LED<br>Power W | Colour<br>Temp. K | Colour Pow<br>rendering | ver consumption<br>Max W | N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of<br>fixture Im | Luminous<br>efficiency lm/W | Energy<br>Class | Packaging |
|----------|------------|---------------------------|----------------|-------------------|-------------------------|--------------------------|------------|------------------------------|-----------------------|-----------------------------|-----------------|-----------|
| 2x36     | A236ED     | ACCIAIO ED LED 2x36 4000K | 34             | 4000              | >80                     | 36                       | 96         | 5400                         | 4400                  | A++                         | 124             | 1         |
| 2x58     | A258ED     | ACCIAIO ED LED 2x58 4000K | 50             | 4000              | >80                     | 52                       | 144        | 8050                         | 6400                  | A++                         | 122             | 1         |

version with electronic Driver with traditional technology

<sup>\*\*\*</sup> The power consumption has an auto derating to the power indicated in parenthesys if the product is powered by voltage less than 150 Vac. LED power, LED Flux and output Flux from the device will be reduced in proportion to the power derating.







# H250/400 LED Aluminium, steel and glass; Minimum bulk ceiling suspension and completely recyclanic



A louvre that combines versatility, sturdiness and superlative technical lighting features, conceived for large structures with elevated installation heights. The triple possibility of light diffusion makes this a complete product in an industrial setting, solving the most varied lighting problems thanks to optics of the latest generation that focus on efficiency and glare control. The small dimensions of the housing allow the easy passage of overhead cranes or other internal moving stuctures: there are no mounting limits.









GENERAL CHARACTERISTICS

Equivalent Power\* 250, 400 W

Standard EN 60598-1, EN 60598-2-1,

EN 60598-2-22 (fundamental requirements), EN 62471 (Photobiological hazard)

Power supply Universal Multy Voltage

93÷265 Vac - 50/60Hz

176÷250 Vdc

Protection grade IP66 with ventilation valve, IK09

Working temp.  $-20 \div +40^{\circ}$ C

Mounting ceiling, suspension, electrified track

Housing Die-cast aluminium RAL 7040

Optic Sheet metal with parabolic development

in anti-iridescent, mirror finished, anodised aluminium, Wide, Concentrating, Ellipsoid

Louvre Prismatic toughened glass 4mm

Power supply SELV electronic SD (Cos  $\phi \geq$  0.97)

Electronic with intelligent dimming

MTBF Control gear\*\* 100.000h

**Luminous flux** >60.000h (1x400) (L80B20) **maintenance\*\*** >70.000h (1x250) (L80B20)

Colour tolerance 3 SDCM

\* Equivalent power for comparison with metal halide fixtures

\*\* At a reference working temperature of 25°C

#### Accessories supplied

| 10000001100 |                    |  |
|-------------|--------------------|--|
| Order code  | Description        |  |
| -           | ANTI-VANDAL SCREWS |  |

CABLE GLAND M20 WITH VENTILATION VALVE

#### Building automation **5** to be ordered separately Order code Description DOMOTIC CENTER 20102 20104 **BUILDING AUTOMATION CENTRAL UNIT** 15020 ACCIAIO AUTODIMMER SENSOR 15022 **BUILDING AUTOMATION RADIO MODULE** DALI MODULE 15024 15034 1-10V MODULE GRANDE ESCO ITALIA RADIO MODULE 15025

#### H250/400 LFD

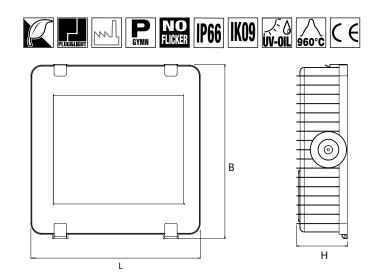
#### Louvre

The H250/400 LED is a fixture of the latest generation able to combine the advantages of the LED light source with state-of-the-art optic systems, as regards both performance and flexibility of application. The LED sources used, with very high efficiency, produce unprecedented lighting on the ground and allow mounting at heights of more than 12 metres. The diffuser has an ample and uniform area of emission, allowing very low luminosity and therefore reduced glare with high visual comfort. The excellent mechanical characteristics (IP66-IK09) allow installation even in heavy-duty industrial environments. The fixture is available with three different optic modes: concentrating, wide and elliptical beam.

Unlike traditional industrial louvre fixtures, the H250/400 LED is characterized by very compact dimensions, especially the height, which make it the ideal solution for sheds where there are overhead cranes or other moving structures. The fixture is designed to resist magnetic disturbances typical of industrial environments (EN 61000-6-2). In the versions with dimming, to ensure maximum energy saving, self-adapting technology is used on the sensor integrated in the fixture, to automatically adjust the emission of light according to the reading of the natural light present on the work surface.

A LED INVERTER is also available which transforms the fixture into an emergency maintained fixture, to light a section of the LED source in the event of a black-out.

The versions with intelligent dimming are enabled in the "Grande ESCo Italia" project.



| Power * | • Di | imensions (mi | m) • | Weight           |
|---------|------|---------------|------|------------------|
| W       | L    | В             | Н    | Weight<br>max kg |
| 250     | 425  | 413           | 121  | 7.7              |
| 400     | 425  | 413           | 121  | 7.7              |

SPECIAL VARIATIONS: COLOUR TEMPERATURE ON REQUEST, Contact the Beghelli sales network

#### Accessories ===

supplied

Order code Description

15039 INTELLIGENT OPTICOM PHOTOSENSOR

#### Accessories

to be ordered separately

| Order code | Description                |
|------------|----------------------------|
| 12658      | PROTECTIVE GRID            |
| 12659      | ELECTRIFIED TRACK BRACKET  |
| 12664      | CEILING BRACKET            |
| 12663      | HIGH BAY SUSPENSION CABLES |





SD BUILDING AUTOMATION MODULES INDIVIDUALLY CONNECTED TO THE BEGHELLI SMARTDRIVER



12659

#### INTELLIGENT PHOTOSENSOR

to be ordered separately

Autodimmer **Natural Light** 



Autodimmer **Dynamic Light** 



optic@m

**Smartphone Interface Device programming and control system** 

#### ELECTRIFIED TRACK MOUNTING BRACKET CEILING MOUNTING BRACKET





12664 to be ordered separately

#### SUSPENDED MOUNTING



12663 to be ordered separately

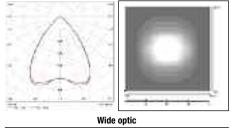
|   | EMERGENC | Y WITH LED INVERTER                          | TR AT LG LGFM            |
|---|----------|--|--------------------------|
|   | 19368    | INVERTER PLUG&LIGHT LED SE/SA 1H 20-60V IP65 | to be ordered separately |
| H | 19364    | INV LED IP65 AT/LG 123H                      | to be ordered separately |
| E | 19365    | INV LED IP65 LGFM 123H                       | to be ordered separately |
| ₹ | RA02     | AUTORIPARA INVERTER BATTERY 7.2V 1.7Ah       | to be ordered separately |

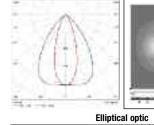
#### Efficiency and dimming

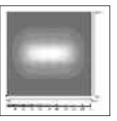
The increase in luminous efficacy (lm/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of 50% of the luminous flux, the following results are obtained with the H250/400 LFD:

Dimming **50 Device duration** +40% **Luminous efficiency** +10%

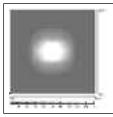
**50%** 







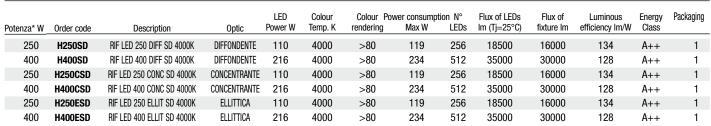




**Concentrating optic** 

#### H250/400 LED

#### SmartDriver electronic reactor









# F30/50/70 LED Aluminium, steel and glass; sturdy Wall or ground outdoors and completely recyclable





A fixture of extreme simplicity with compact dimensions, characterized by great multifunctionality. Useful either as a projector or a louvre, always combining design, sturdiness and superlative technical lighting features. In the same product it is possible to obtain both symmetrical and asymmetrical diffusion of light, achieved thanks to a louvre with divisible modules that also offers excellent anti-glare features and control of the light beam. An innovative optical project based on efficiency and glare control, where the small dimensions of the housing contrast with the depth of the beam of light. Moreover, installing the Building automation radio receiver interface allows access to all the building automation possibilities that are not usual for fixtures of this type.





CODRIVER

#### GENERAL CHARACTERISTICS

Equivalent Power\* 30, 50, 70 W

Standard EN 60598-1, EN 60598-2-1,

EN 60598-2-22 (fundamental requirements), EN 62471 (Photobiological hazard)

Power supply 230Vac ±10% 50 Hz

Protection grade IP66, IK09

Working temp.  $-20 \div +40^{\circ}$ C

Mounting on ground, wall

Housing Die-cast aluminium RAL 7040

Louvre Sheet metal with parabolic development

in anti-iridescent, mirror finished, anodised aluminium. Symmetrical

Asymmetrical

**Diffuser** Prismatic toughened glass 4mm

**Power supply** SELV electronic ED (Cos  $\phi \ge 0.90$ )

MTBF Control gear\*\* 65.000h

**Luminous flux** >50.000h (F70) (L80B20) **maintenance**\*\* >60.000h (F30-F50) (L80B20)

Colour tolerance 3 SDCM

\* Equivalent power for comparison with metal halide fixtures

#### F30/50/70 LED

#### Louvres

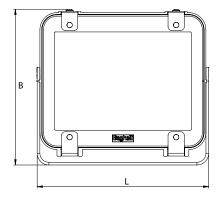
The F30/50/70 LED is a fixture of the latest generation able to combine the advantages of the LED light source with state-of-the-art optic systems, as regards both performance and flexibility of application. The LED sources used, with very high efficiency, produce unprecedented lighting that allows the illumination of building façades or hardstands, even at considerable distance. The diffuser has an ample and uniform area of emission, allowing very low luminosity and therefore reduced glare with high visual comfort. The excellent mechanical characteristics (IP66-IK09) allow installation in outdoor environments even in extreme conditions.

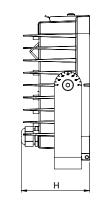
A LED INVERTER is also available which transforms the fixture into an emergency maintained fixture, to light a section of the LED source in the event of a black-out.

Louvre with a controlled beam to optimize the management of the light emitted. Symmetrical and asymmetrical optics in a single fixture: the beam of light changes from asymmetrical to symmetrical by simply removing part of the optic.

BUILDING AUTOMATION RADIO RECEIVER INTERFACE accessory available for remote switching on/off via radio.







| Power * | • <b>D</b> i | <ul><li>Dimensions (mm) •</li></ul> |      |        |  |  |  |
|---------|--------------|-------------------------------------|------|--------|--|--|--|
| W       | L            | В                                   | Н    | max kg |  |  |  |
| 30      | 190          | 173                                 | 75.5 | 1.2    |  |  |  |
| 50      | 190          | 173                                 | 75.5 | 1.2    |  |  |  |
| 70      | 190          | 173                                 | 75.5 | 1.2    |  |  |  |

#### SPECIAL VARIATIONS:

COLOUR TEMPERATURE ON REQUEST, COLOUR RENDERING  $\geq$ 90 Contact the Beghelli sales network

| Acces      | sories              | supplied |
|------------|---------------------|----------|
| Order code | Description         |          |
| -          | ANTI-VANDAL SCREWS  |          |
| -          | GONIOMETRIC BRACKET |          |

CABLE GLAND M20 WITH VENTILATION VALVE

#### Accessories

to be ordered separately

| Order code Descrip |
|--------------------|
|--------------------|

20108 BUILDING AUTOMATION RADIO RECEIVER INTERFACE

<sup>\*\*</sup> At a reference working temperature of 25°C

#### **GROUND MOUNTING**

#### WALL MOUNTING

#### **GONIOMETRIC BRACKET**







supplied

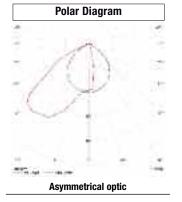
| EMERGENC      | Y WITH LED INVERTER                          | TR AT LG LGFM            |  |  |  |
|---------------|--|--------------------------|--|--|--|
| 19368         | INVERTER PLUG&LIGHT LED SE/SA 1H 20-60V IP65 | to be ordered separately |  |  |  |
| 19364         | INV LED IP65 AT/LG 123H                      | to be ordered separately |  |  |  |
| 19365         | INV LED IP65 LGFM 123H                       | to be ordered separately |  |  |  |
| <b>₹</b> RA02 | AUTORIPARA INVERTER BATTERY 7.2V 1.7Ah       | to be ordered separately |  |  |  |
| 1             |  |                          |  |  |  |

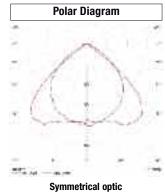
#### **VERSION WITH ASYMMETRICAL OPTIC**



#### Louvre with divisible modules

The optic system has been created so as to obtain both a symmetrical and an asymmetrical beam. The light source can operate in symmetrical mode by removing part of the louvre.





#### F30/50/70 LED

Eco Driver electronic reactor



|            |            |                  |            | LED     | Colour  | Colour Pov | ver consumpt | ion N° | Flux of LEDs | Flux of    | Luminous        | Energy F | Packaging |
|------------|------------|------------------|------------|---------|---------|------------|--------------|--------|--------------|------------|-----------------|----------|-----------|
| Potenza* W | Order code | Description      | Optic      | Power W | Temp. K | rendering  | Max W        | LEDs   | lm (Tj=25°C) | fixture Im | efficiency Im/W | Class    |           |
|            |            |                  |            |         |         |            |              |        |              |            |                 |          |           |
| 30         | F30LED     | PRO LED 1x30W 4K | SYM / ASYM | 15      | 4000    | >80        | 17           | 33     | 2100         | 1800       | 110             | A++      | 1/8       |
| 50         | F50LED     | PRO LED 1x50W 4K | SYM / ASYM | 23      | 4000    | >80        | 26           | 66     | 3500         | 3000       | 110             | A++      | 1/8       |
| 70         | F70LED     | PRO LED 1x70W 4K | SYM / ASYM | 33      | 4000    | >80        | 37           | 99     | 4600         | 4000       | 110             | A++      | 1/8       |







## FH 70/150 LED

## Aluminium, steel and glass: sturdy Wall or ground outdoors and completely recyclable



A single polyvalent fixture for use either as a projector or a louvre, combining design, sturdiness and superlative technical lighting features. The dual possibility of symmetrical and asymmetrical light diffusion is embodied in the same product and is achieved thanks to a louvre with divisible modules. A single fixture to achieve total coverage in outdoor lighting, solving the most varied technical lighting problems thanks to an innovative optical project based on efficiency and glare control. The small dimensions of the housing contrast with the depth of the beam of light which has no limits of use.











Equivalent Power\* 70, 150, 200 W

Standard EN 60598-1, EN 60598-2-1,

EN 60598-2-22 (fundamental requirements), EN 62471 (Photobiological hazard)

Power supply Universal Multy Voltage

93÷265 Vac - 50/60Hz 176÷250 Vdc

Protection grade IP66 with ventilation valve, IK09

Working temp.  $-20 \div +40^{\circ}$ C

Mounting on the ground, wall, spotlight towers,

suspension, ceiling

Housing Polyester powder coated die-cast

aluminium RAL 7040

Optic Sheet metal with parabolic development

in anti-iridescent, mirror finished, anodised aluminium. Symmetrical

Asymmetrical

Louvre Prismatic toughened glass 4mm

**Electronic gear** SELV electronic SD (Cos  $\eta \ge 0.97$ )

with intelligent dimming

MTBF Control gear\*\* 100.000h

**Luminous flux** 60.000h (1x200) (L80B20) maintenance\*\* 70.000h (1x150) (L80B20)

80.000h (1x70) (L80B20)

Colour tolerance 3 SDCM

\* Equivalent power for comparison with metal halide fixtures

\*\* At a reference working temperature of 25°C

Accessories supplied

|            |  | 04,00.04 |
|------------|--|----------|
| Order code | Description                            |          |
| -          | ANTI-VANDAL SCREWS                     |          |
| -          | GONIOMETRIC BRACKET                    |          |
| -          | CABLE GLAND M20 WITH VENTILATION VALVE |          |

#### Accessories

to be ordered separately

| Order code | Description                     |
|------------|---------------------------------|
| 12659      | ELECTRIFIED RAIL FIXING BRACKET |
| 12664      | CEILING FIXING BRACKET          |
| 12661      | POST HEAD 2X 60-76              |
| 12662      | POST HEAD 4X 60-76              |
| 12663      | LOUVRE SUSPENSION CABLE         |
| 12657      | PROTECTIVE GRID                 |

#### FH70/150/200 LED

#### Projectors / Louvres

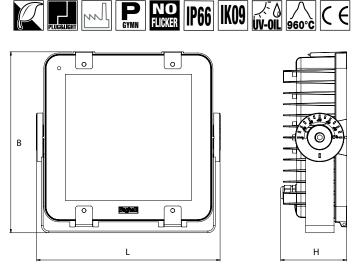
FH70, FH150 e FH200 LED are fixtures of the latest generation able to combine the advantages of the LED light source with state-of-theart optic systems, as regards both performance and flexibility of application. The LED sources used, with very high efficiency, produce unprecedented lighting that allows the illumination of building façades or hardstands, even at considerable distance. The diffuser has an ample and uniform area of emission, allowing very low luminosity and therefore reduced glare with high visual comfort. The excellent mechanical characteristics (IP66-IK09) allow installation in outdoor settings even in extreme conditions, while the possibility of versions with a symmetrical or asymmetrical beam makes the fixture particularly versatile.

The "square cut" design of the FH 70/150/200 LED allows movements through 360°, on the axis of rotation of the goniometric bracket, thus enabling great flexibility of movement and mounting.

Thanks to the "Autodimmer Sensor" accessory, the fixture works with intelligent dimming. To ensure maximum energy saving, self-adapting technology is used on the sensor integrated in the fixture, to automatically adjust the emission of light according to the reading of the natural light present on the work surface.

A LED INVERTER is also available which transforms the fixture into an emergency maintained fixture, to light a section of the LED source in the event of a black-out.

Louvre with a controlled beam to optimize the management of the light emitted. Symmetrical and asymmetrical optics in a single fixture: the beam of light changes from asymmetrical to symmetrical by simply removing part of the optic.



| Power *      | • D | Weight |     |        |  |
|--------------|-----|--------|-----|--------|--|
| W            | L   | В      | Н   | max kg |  |
| 70, 150, 200 | 323 | 319    | 116 | 4      |  |

Accessories 🖘 supplied

15039 INTELLIGENT OPTICOM PHOTOSENSOR

#### Building automation **50**



to be ordered separately

| Order code | Description                           |
|------------|---------------------------------------|
| 20102      | DOMOTIC CENTER                        |
| 20124      | WiFi BUILDING AUTOMATION CENTRAL UNIT |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT      |
| 15022      | BUILDING AUTOMATION RADIO MODULE      |
| 15024      | DALI MODULE                           |
| 15034      | 1-10V MODULE                          |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE       |











SD BUILDING AUTOMATION MODULES INDIVIDUALLY CONNECTED TO THE BEGHELLI SMARTDRIVER



#### INTELLIGENT PHOTOSENSOR







**Smartphone Interface** Device programming and control system

#### **GROUND MOUNTING**



#### WALL MOUNTING



#### SUSPENDED MOUNTING







12663 LOUVRE SUSPENSION CABLE

#### **VERSION WITH ASYMMETRICAL OPTIC**



#### Louvre with divisible modules

The optic system has been created so as to obtain both a symmetrical and an asymmetrical beam. The light source can operate in symmetrical mode by removing part of the louvre.

SPECIAL VARIATIONS: COLOUR TEMPERATURE ON REQUEST Contact the Beghelli sales network

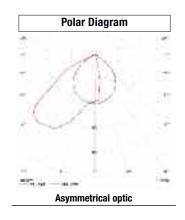
#### Efficiency and dimming

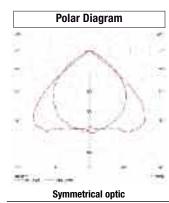
The increase in luminous efficacy (Im/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of 50% of the luminous flux, the following results are obtained with the FH70/150/200 LED:

Dimming **50 Device duration Luminous efficiency** 

**50%** +40% +10%

#### **EMERGENCY WITH LED INVERTER** 19368 INVERTER PLUG&LIGHT LED SE/SA 1H 20-60V IP65 to be ordered separately 19364 INV LED IP65 AT/LG 123H to be ordered separately 19365 INV LED IP65 LGFM 123H to be ordered separately **RA02** AUTORIPARA INVERTER BATTERY 7.2V 1.7Ah to be ordered separately





#### FH70/150/200 LED

#### SmartDriver electronic reactor



| Potenza* W | Order code | Description             | Optic      | LED<br>Power W | Colour<br>Temp. K | Colour Po | ower consumption | on N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous<br>efficiency lm/W | Energy<br>Class | Packaging |
|------------|------------|-------------------------|------------|----------------|-------------------|-----------|------------------|---------------|------------------------------|--------------------|-----------------------------|-----------------|-----------|
| 70         | FH70SD     | PRO/RIF LED 1x70 SD 4K  | SIM / ASIM | 39             | 4000              | >80       | 45               | 108           | 7000                         | 6300               | 140                         | A++             | 1         |
| 150        | FH150SD    | PRO/RIF LED 1x150 SD 4K | SIM / ASIM | 68             | 4000              | >80       | 74 (56***)       | 180           | 12000                        | 10000              | 137                         | A++             | 1         |
| 200        | FH200SD    | PRO/RIF LED 1x200 SD 4K | SIM / ASIM | 86             | 4000              | >80       | 98               | 192           | 16350                        | 13000              | 132                         | A++             | 1         |







AUTODIMMER DYNAMIC LIGHT
AUTOMATIC REDUCTION OF LIGHT EMITTED IN THE
ABSENCE OF PEOPLE, FOR POTENTIAL FURTHER ENERGY
SAVINGS OF MORE THAN 20% - OVERALL EXPECTED
SAVINGS OF MORE THAN 85%

# Aluminium, steel and glass; sturdy Wall or ground outdoors and completely recyclable



A projector that combines design, sturdiness and superlative technical lighting features, conceived for illuminating large outdoor areas. The dual possibility of light diffusion offers total coverage in outdoor lighting, solving the most complex lighting problems thanks to optics of the latest generation that focus on efficiency and glare control. The small dimensions of the housing contrast with the depth of the beam of light which has no limits of use.







23000

GENERAL CHARACTERISTICS

Equivalent Power\* 350 W

Standard EN 60598-1, EN 60598-2-1,

EN 60598-2-22 (fundamental requirements), EN 62471 (Photobiological hazard), EN61493

Power supply Universal Multy Voltage

93:265 Vac - 50/60Hz 176:250 Vdc

Protection grade IP66 with ventilation valve, IK09

Working temp.  $-20 \div +40^{\circ}$ C

Mounting on the ground, wall, spotlight towers

suspension

Housing Die-cast aluminium RAL 7040

Louvre Sheet metal with parabolic development

in anti-iridescent, mirror finished, anodised aluminium. Symmetrical

Asymmetrical

**Diffuser** Prismatic toughened glass 4mm

**Electronic gear** SELV electronic SD (Cos  $\phi \ge 0.97$ )

Electronic with intelligent dimming

MTBF Control gear\*\* 100.000h

**Luminous flux** >70.000h (L80B20)

maintenance\*\*

Colour tolerance 3 SDCM

\* Equivalent power for comparison with metal halide fixtures

\*\* At a reference working temperature of 25°C

# FH350 LED

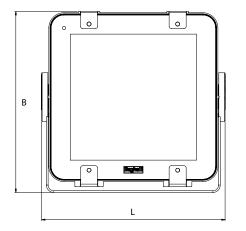
# Louvres

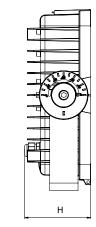
FH 350 LED is a fixture of the latest generation able to combine the advantages of the LED light source with state-of-the-art optic systems, as regards both performance and flexibility of application. The LED sources used, with very high efficiency, produce unprecedented lighting that allows the illumination of building façades or hardstands, even at considerable distance. The diffuser has an ample and uniform area of emission, allowing very low luminosity and therefore reduced glare with high visual comfort. The excellent mechanical characteristics (IP66-IK09) allow installation in outdoor settings even in extreme conditions, while the possibility of versions with a symmetrical or asymmetrical beam makes the fixture particularly versatile.

The "square cut" design of the FH350 LED allows movements through 360°, on the axis of rotation of the goniometric bracket, thus enabling great flexibility of movement and mounting.

In the versions with intelligent dimming, to ensure maximum energy saving, self-adapting technology is used on the sensor integrated in the fixture, to automatically adjust the emission of light according to the reading of the natural light present on the work surface.







| Power * | • Di | Weight |     |        |
|---------|------|--------|-----|--------|
| W       | L    | В      | Н   | max kg |
| 350     | 438  | 434    | 121 | 8,8    |

# Accessories supplied

Order code Description ANTI-VANDAL SCREWS GONIOMETRIC BRACKET CABLE GLAND M20 WITH VENTILATION VALVE

| Ruilding  | automation |
|-----------|------------|
| Dullulliq | automation |



# to be ordered separately

| Order code | Description                           |
|------------|---------------------------------------|
| 20102      | DOMOTIC CENTER                        |
| 20124      | WIFI BUILDING AUTOMATION CENTRAL UNIT |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT      |
| 15022      | BUILDING AUTOMATION RADIO MODULE      |
| 15024      | DALI MODULE                           |
| 15034      | 1-10V MODULE                          |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE       |
|            |                                       |

# Accessories 🖘

supplied

Order code

15039 INTELLIGENT OPTICOM PHOTOSENSOR

# Accessories

to be ordered separately

| Order code | Description                     |
|------------|---------------------------------|
| 12659      | ELECTRIFIED RAIL FIXING BRACKET |
| 12664      | CEILING FIXING BRACKET          |
| 12661      | POST HEAD 2X 60-76              |
| 12662      | POST HEAD 4X 60-76              |
| 12663      | LOUVRE SUSPENSION CABLE         |
| 12658      | PROTECTIVE GRID                 |









SD BUILDING AUTOMATION MODULES INDIVIDUALLY CONNECTED TO THE BEGHELLI SMARTDRIVER



# INTELLIGENT PHOTOSENSOR







Smartphone Interface Device programming and control system

# **GROUND MOUNTING**



# **WALL MOUNTING**



# SUSPENDED MOUNTING



12663

to be ordered separately

# PROTECTIVE GRID



12658

PROTECTIVE GRID

# **GONIOMETRIC BRACKET**



# Efficiency and dimming

The increase in luminous efficacy (lm/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of 50% of the luminous flux, the following results are obtained with the FH350 LED:

Dimming **50 Device duration** 

**50%** +40%

**Luminous efficiency** +10%

SPECIAL VARIATIONS:

COLOUR TEMPERATURE ON REQUEST,, COLOUR RENDERING ≥90 Contact the Beghelli sales network



| EMERGENC | Y WITH LED INVERTER                          | TR AT LG LGFM            |
|----------|--|--------------------------|
| 19368    | INVERTER PLUG&LIGHT LED SE/SA 1H 20-60V IP65 | to be ordered separately |
| 19364    | INV LED IP65 AT/LG 123H                      | to be ordered separately |
| 19365    | INV LED IP65 LGFM 123H                       | to be ordered separately |
| RA02     | AUTORIPARA INVERTER BATTERY 7.2V 1.7Ah       | to be ordered separately |

# Polar Diagram Wide symmetrical optics

# FH350 LED



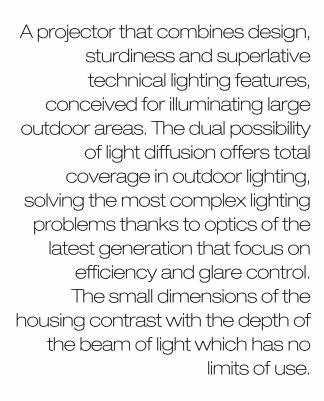
|            |            |                       |         | LED     | Colour  | Colour Pov | wer consumpt | tion N° | Flux of LEDs | Flux of    | Luminous        | Energy | Packaging |
|------------|------------|-----------------------|---------|---------|---------|------------|--------------|---------|--------------|------------|-----------------|--------|-----------|
| Potenza* W | Order code | Description           | Optic   | Power W | Temp. K | rendering  | Max W        | LEDs    | lm (Tj=25°C) | fixture Im | efficiency Im/W | Class  |           |
| 350        | FH350SD    | PRO/RIF LED 350 SD 4K | DIF/SIM | 157     | 4000    | >80        | 175          | 384     | 27800        | 23000      | 131             | A++    | 1         |







F250/400 LED
Aluminium, steel and glass: sturdy
Industrial lighting,
and completely recyclable
but street lighting too











Equivalent Power\* 250, 400 W

Standard EN 60598-1, EN 60598-2-1,

EN 60598-2-22 (fundamental requirements), EN 62471 (Photobiological hazard)

Power supply Universal Multy Voltage

93÷265 Vac - 50/60Hz 176÷250 Vdc

Protection grade IP66 with ventilation valve, IK09

Working temp.  $-20 \div +40^{\circ}C$ 

Mounting on the ground, wall, spotlight towers

Housing Die-cast aluminium RAL 7040

Louvre Sheet metal with parabolic development

in anti-iridescent, mirror finished, anodised aluminium. Symmetrical

Asymmetrical

**Diffuser** Prismatic toughened glass 4mm

**Electronic gear** SELV electronic SD (Cos  $\phi \ge 0.97$ )

Electronic with intelligent dimming

MTBF Control gear\*\* 100.000h

**Luminous flux** >60.000h (1x400W) (L80B20) **maintenance\*\*** >70.000h (1x250W) (L80B20)

Colour tolerance 3 SDCM

# Accessories supplied

| 1000001100 |  | оаррпоа |
|------------|--|---------|
| Order code | Description                            |         |
| -          | ANTI-VANDAL SCREWS                     |         |
| -          | GONIOMETRIC BRACKET                    |         |
| -          | CABLE GLAND M20 WITH VENTILATION VALVE |         |

# Building automation to be ordered separately

| Order code | Description                           |
|------------|---------------------------------------|
| 20102      | DOMOTIC CENTER                        |
| 20124      | WIFI BUILDING AUTOMATION CENTRAL UNIT |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT      |
| 15022      | BUILDING AUTOMATION RADIO MODULE      |
| 15024      | DALI MODULE                           |
| 15034      | 1-10V MODULE                          |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE       |
|            |                                       |

# F250/400 LED

# Louvres

The F250/F400 LED is a fixture of the latest generation able to combine the advantages of the LED light source with state-of-the-art optic systems, as regards both performance and flexibility of application. The LED sources used, with very high efficiency, produce unprecedented lighting that allows the illumination of building façades or hardstands, even at considerable distance. The diffuser has an ample and uniform area of emission, allowing very low luminosity and therefore reduced glare with high visual comfort. The excellent mechanical characteristics (IP66-IK09) allow installation in outdoor settings even in extreme conditions, while the possibility of versions with a symmetrical or asymmetrical beam makes the fixture particularly versatile.

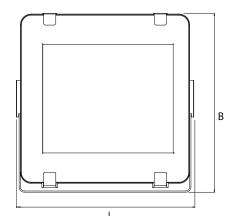
The "square cut" design of the FH350 LED allows movements through 360°, on the axis of rotation of the goniometric bracket, thus enabling great flexibility of movement and mounting.

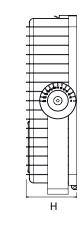
In the versions with intelligent dimming, to ensure maximum energy saving, self-adapting technology is used on the sensor integrated in the fixture, to automatically adjust the emission of light according to the reading of the natural light present on the work surface.

A LED INVERTER is also available which transforms the fixture into an emergency maintained fixture, to light a section of the LED source in the event of a black-out.

The versions with intelligent dimming are enabled in the "Grande ESCo Italia" project.







| Power * | • D | Weight |     |        |
|---------|-----|--------|-----|--------|
| W       | L   | В      | H   | max kg |
| 250     | 438 | 434    | 121 | 8.8    |
| 400     | 438 | 434    | 121 | 8.8    |

# Accessories **5**

supplied

Order code Description

15039 INTELLIGENT OPTICOM PHOTOSENSOR

# <u>Accessories</u>

to be ordered separately

| Order code | Description        |  |
|------------|--------------------|--|
| 12661      | POST HEAD 2x 60-76 |  |
| 12662      | POST HEAD 4x 60-76 |  |
| 12658      | PROTECTIVE GRID    |  |
|            |                    |  |

<sup>\*</sup> Equivalent power for comparison with metal halide fixtures

<sup>\*\*</sup> At a reference working temperature of 25°C



OMOTIC GRANDE ADIO ESC ODULE ITALIA MODUI

1÷10V MODULE **DALI** Module

SD BUILDING AUTOMATION MODULES INDIVIDUALLY CONNECTED TO THE BEGHELLI SMARTDRIVER



# INTELLIGENT PHOTOSENSOR

Autodimmer Natural Light 2. Autodimmer Dynamic Light



Smartphone Interface Device programming and control system

# **GROUND MOUNTING**



# **WALL MOUNTING**



# PROTECTIVE GRID







12658 PROTECTIVE GRID

## SPECIAL VARIATIONS:

COLOUR TEMPERATURE ON REQUEST,, COLOUR RENDERING ≥90 Contact the Beghelli sales network

# Efficiency and dimming

The increase in luminous efficacy (lm/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of 50% of the luminous flux, the following results are obtained with the F250/400 LED:

Dimming 50 50%

Device duration +40%

Luminous efficiency +10%

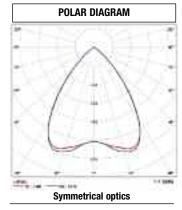
# POST MOUNTING

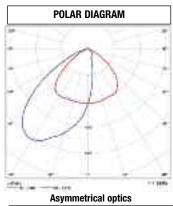




| 12661 | POST HEAD 2x 60-76 | to be ordered separately |
|-------|--------------------|--------------------------|
| 12662 | POST HEAD 4x 60-76 | to be ordered separately |

# EMERGENCY WITH LED INVERTER 19368 INVERTER PLUG&LIGHT LED SE/SA 1H 20-60V IP65 to be ordered separately 19364 INV LED IP65 AT/LG 123H to be ordered separately 19365 INV LED IP65 LGFM 123H to be ordered separately RA02 AUTORIPARA INVERTER BATTERY 7.2V 1.7Ah to be ordered separately





# F250/400 LED

| S | I | ) |  |
|---|---|---|--|
|   |   |   |  |

| Potenza* W _ | Order code | Description             | Optic       | LED<br>Power W | Colour<br>Temp. K | Colour Pow<br>rendering | ver consumpt<br>Max W | ion N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous<br>efficiency lm/W | Energy<br>Class | Packaging |
|--------------|------------|-------------------------|-------------|----------------|-------------------|-------------------------|-----------------------|----------------|------------------------------|--------------------|-----------------------------|-----------------|-----------|
| 250          | F250SSD    | PRO LED 250 SM SD 4000K | SIMMETRICA  | 110            | 4000              | >80                     | 119                   | 256            | 18500                        | 16000              | 134                         | A++             | 1         |
| 400          | F400SSD    | PRO LED 400 SM SD 4000K | SIMMETRICA  | 216            | 4000              | >80                     | 234                   | 512            | 35000                        | 30000              | 128                         | A++             | 1         |
| 250          | F250ASD    | PRO LED 250 AS SD 4000K | ASIMMETRICA | 110            | 4000              | >80                     | 119                   | 256            | 18500                        | 16000              | 134                         | A++             | 1         |
| 400          | F400ASD    | PRO LED 400 AS SD 4000K | ASIMMETRICA | 216            | 4000              | >80                     | 234                   | 512            | 35000                        | 30000              | 128                         | A++             | 1         |







# Strada LED

Aluminum, steel and glass: The street device strength and complete

for smart cities.



High-performance street lighting fixture with a double optic system for maximum lighting uniformity. Features geometrical designs that are very elegant as well as technically superior. The models are perfect for both city and non-city areas with intense traffic and for the lighting of cycle-walking paths and nature areas. SmartDriver accessories complete the high-technology profile that can be perfectly adapted to the requirements of Smart City architecture.



**Equivalent Power\*** 70, 100, 150, 250 W

Standard EN 60598-1, EN 60598-2-3,

EN 60598-2-22, EN 62471 (Photobiological hazard), EN55015; EN 61547, EN 61003-2, EN 61003-2

**Power supply** 93÷265 Vac - 50/60Hz

176÷250 Vdc

Protezione 10 Kv (SPD integrato)

sovratensioni

Protection grade IP66 with ventilation valve, IK09

Working temp. -20 ÷ +40°C

Inclinazione 0-20°

Mounting Pole head or arm Ø60 -76mm

Housing Polyester powder coated die-cast

aluminium RAL 7040

Louvre Sheet metal with parabolic development

in anti-iridescent, mirror finished,

anodised aluminium.

urban roads and extraurban roads (ME2,ME3A, ME3B, ME4A, ME4B, ME5, ME6), footpaths and cycle tracks

(CE, S)

Diffuser Toughened glass 5mm thick

**Electronic gear** Electronic SD (Cos  $\phi \ge 0.95$ ) with

intelligent dimming

LED current adjustable (max 700mA)

MTBF Control gear\*\* 80.000h

Luminous flux >70.000h (S70, S100, S150) (L80B20)

maintenance\*\* >75.000h (S30, S50) (L80B20)

Colour tolerance 3 SDCM

\* Equivalent power for comparison with metal halide fixtures

\*\* At a reference working temperature of 25°C

# Accessories supplied Order code Description - M20 CABLE GLAND WITH VENTILATION VALVE

SPECIAL VARIATIONS: COLOUR TEMPERATURE ON REQUEST Contact the Beghelli sales network

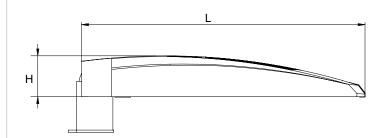
# Strada LED

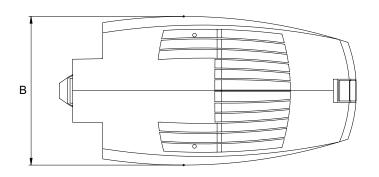
# Street lamp

The Strada LED combines architectural lighting requirements with the Smart necessities of the new smart cities. The range includes fixtures of the latest generation able to combine the advantages of the low luminosity LED source with state-of-the-art optic systems, as regards both performance and flexibility of application. The optic system used has a geometry studied to obtain low luminosity and therefore reduced glare and high visual comfort.

The excellent mechanical characteristics (IP66-IK09) offered by the innovative housing in die-cast aluminium and toughened glass ensure long live in outdoor environments even in extreme conditions. The SmartDriver, installed on the whole S series, allows integration with the various Smart modules in the system, making it possible to use the Street Lamp in a SmartCities setting.







| Power * | • D | imensions (mr | n) • | Weight |
|---------|-----|---------------|------|--------|
| W       | L   | В             | Н    | max kg |
| 70      | 611 | 320           | 88   | 5.5    |
| 100     | 611 | 320           | 88   | 5.5    |
| 150     | 611 | 320           | 88   | 5.7    |
| 250     | 611 | 320           | 88   | 5.7    |

# Building automation to be ordered separately

| Order code | Description                      |
|------------|----------------------------------|
| 20102      | DOMOTIC CENTER                   |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT |
| 15022      | BUILDING AUTOMATION RADIO MODULE |
| 15024      | DALI MODULE                      |
| 15034      | 1-10V MODULE                     |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE  |









# SD BUILDING AUTOMATION MODULES INDIVIDUALLY CONNECTED TO THE BEGHELLI SMARTDRIVER

# Efficiency and dimming

The increase in luminous efficacy (lm/W) and the useful life of the device may vary significantly according to the degree to which it is dimmed. Assuming an average level of 50% of the luminous flux, the following results are obtained with the Strada LED:

**50%** Dimming **50 Device duration** +40% **Luminous efficiency** +10%



# **POST HEAD MOUNTING Ø60**



# **ARM MOUNTING Ø60**

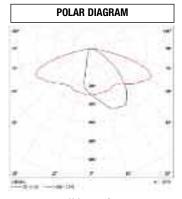


**FAST WIRING CONNECTOR** 

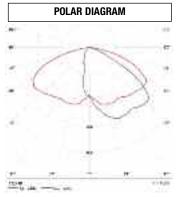


**DOUBLE POWER SUPPLY** 

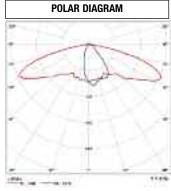




**Urban optic** 



Long beam city/non-city optic



Cycle/pedestrian city/parking optic

# Strada LED



|          |                    |            |                                |                            | LED     | Colour  | Colour Po | wer consumption |      | Flux of LEDs | Flux of    | Luminous        | Energy | Packaging |
|----------|--------------------|------------|--------------------------------|----------------------------|---------|---------|-----------|-----------------|------|--------------|------------|-----------------|--------|-----------|
|          | Potenza* W_        | Order code | Description                    | Optic                      | Power W | Temp. K | rendering | Max W           | LEDs | Im (Tj=25°C) | fixture Im | efficiency lm/W | Class  |           |
| <b>3</b> | 1x50               | S50EXSD    | STRA LED EX 1x50 SD 4K         | Extrurban Street           | 32      | 4000    | >70       | 34              | 24   | 4800         | 4000       | 115             | A++    | 1/1       |
| <b></b>  | 1x70               | S70EXSD    | STRA LED EX 1x70 SD 4K         | Extrurban Street           | 47      | 4000    | >70       | 51              | 24   | 6700         | 5600       | 110             | A++    | 1/1       |
| <b></b>  | 1x100              | S100EXSD   | STRA LED EX 1x100 SD 4K        | Extrurban Street           | 66      | 4000    | >70       | 72(56***)       | 48   | 10000        | 8000       | 112             | A++    | 1/1       |
| <b></b>  | 1x150 <sup>2</sup> | S150EXSD   | STRA LED EX 1x150 SD 4K        | Extrurban Street           | 94      | 4000    | >70       | 103             | 48   | 13500        | 11500      | 105             | A++    | 1/1       |
| <b>Æ</b> | 1x250 <sup>2</sup> | S250EXSD   | STRA LED EX 1x250 SD 4K        | Extrurban Street           | 120     | 4000    | >70       | 130(113***)     | 48   | 17000        | 14000      | 110             | A++    | 1/1       |
| <b></b>  | 1x50               | S50EXLSD   | STRA LED EX LONG 1x50 SD 4K $$ | Extrurban Wide Street      | 32      | 4000    | >70       | 34              | 24   | 4800         | 4000       | 115             | A++    | 1/1       |
| <b>3</b> | 1x70               | S70EXLSD   | STRA LED EX LONG 1x70 SD 4K    | Extrurban Wide Street      | 47      | 4000    | >70       | 51              | 24   | 6700         | 5600       | 110             | A++    | 1/1       |
| <b>3</b> | 1x100              | S100EXLSD  | STRA LED EX LONG 1x100 SD 4K   | Extrurban Wide Street      | 66      | 4000    | >70       | 72(56***)       | 48   | 10000        | 8000       | 112             | A++    | 1/1       |
| <b>3</b> | 1x150 <sup>2</sup> | S150EXLSD  | STRA LED EX LONG 1x150 SD 4K   | Extrurban Wide Street      | 94      | 4000    | >70       | 103             | 48   | 13500        | 11500      | 105             | A++    | 1/1       |
| <b>W</b> | 1x250 <sup>2</sup> | S250EXLSD  | STRA LED EX LONG 1x250 SD 4K   | Extrurban Wide Streeto     | 120     | 4000    | >70       | 130(113***)     | 48   | 17000        | 14000      | 109             | A++    | 1/1       |
| <b>W</b> | 1x30               | S30UCSD    | STRA LED UC 1x30 SD 4K         | Jrb. Cycle-ped. Street/ Pa | ark 22  | 4000    | >70       | 24              | 16   | 3400         | 2900       | 120             | A++    | 1/1       |
| <b>3</b> | 1x50               | S50UCSD    | STRA LED UC 1x50 SD 4K U       | Jrb. Cycle-ped. Street/ Pa | ark 31  | 4000    | >70       | 34              | 16   | 4500         | 3900       | 115             | A++    | 1/1       |
| <b>3</b> | 1x70               | S70UCSD    | STRA LED UC 1x70 SD 4K U       | Jrb. Cycle-ped. Street/ Pa | ark 44  | 4000    | >70       | 48              | 32   | 6700         | 5300       | 110             | A++    | 1/1       |
| <b>Æ</b> | 1x100 P            | S100UCSD   | STRA LED UC 1x100 SD 4K U      | Jrb. Cycle-ped. Street/ Pa | ark 60  | 4000    | >70       | 66(56***)       | 32   | 9400         | 7200       | 109             | A++    | 1/1       |

P Specific fixture for outdoor Parking Areas (to determine Area Dimensions contact Beghelli Sales Network)

<sup>\*\*\*</sup> The power consumption has an auto derating to the power indicated in parenthesys if the product is powered by voltage less than 110 Vac.

<sup>2</sup> Versions 150 and 200 are equipped with dual drivers which require two domotic radio modules to control the device. The two LED sources are managed independently from each other.







# Centrostrada 50/70 LED

The street lighting device

for smart cities.







Equivalent Power\* 50, 70 W

Standard EN 60598-1, EN 60598-2-3,

EN 60598-2-22, EN 62471

(Photobiological hazard), EN55015; EN 61547, EN 61003-2, EN 61003-2

Power supply Universal Multy Voltage

93÷265 Vac - 50/60Hz 176÷250 Vdc

Protection grade IP66 with ventilation valve, IK09

Working temp.  $-20 \div +40^{\circ}$ C Inclinazione  $-20^{\circ} \div +20^{\circ}$ 

Mounting suspended on tensioned cable

Housing Painted die-cast aluminium with

polyester powder coating RAL 7040

Optic Sheet metal with parabolic development

in anti-iridescent, mirror finished,

anodised aluminium.

Louvre Tempered glass 4mm thick

**Power supply** SELV electronic SD (Cos  $\phi \ge 0.95$ )

with intelligent dimming

MTBF Control gear\*\* 80.000h

**Luminous flux** 80.000h (L80B20)

maintenance\*\*

Colour tolerance 3 SDCM

# Centrostrada 50/70 LED

Street lamp

Suspended street lighting combines architectural lighting requirements with the needs of the new smart cities. The range includes a number of latest-generation devices that combine the advantages of low luminance LED light sources with state-of-the-art optical systems, offering excellent performance and superb flexibility across a host of applications. The optical system used is designed with a geometry created to obtain very low luminance, for minimal glare and high visual comfort.

The excellent mechanical properties (IP66-IK09) of the innovative diecast aluminium and tempered glass body ensure the longevity of the device in outdoor environments, even in extreme conditions.







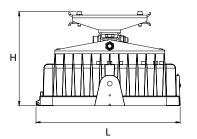


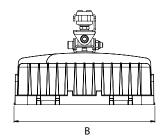












| Power * | • D | imensions (m | m) • | Weight           |
|---------|-----|--------------|------|------------------|
| W       | L   | В            | H    | Weight<br>max kg |
| 50      | 309 | 302          | 201  | 5.5              |
| 70      | 309 | 302          | 201  | 5.5              |

SPECIAL VARIATIONS: COLOUR TEMPERATURE ON REQUEST., COLOUR RENDERING ≥90 Contact the Beghelli sales network

# Accessories

supplied

| Order code | Description  |  |
|------------|--|--|
| -          | M20 CABLE GLAND WITH VENTILATION VALVE             |  |
| -          | ADJUSTABLE BRACKET FOR TENSIONED CABLE (-20° +20°) |  |

# Accessories

to be ordered separately

| Order code | Description     |
|------------|-----------------|
| 12657      | PROTECTIVE GRID |

# Building automation **50**



to be ordered separately

| Order code | Description                           |
|------------|---------------------------------------|
| 20102      | DOMOTIC CENTER                        |
| 20124      | BUILDING AUTOMATION WIFI CONTROL UNIT |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT      |
| 5022       | BUILDING AUTOMATION RADIO MODULE      |
| 15024      | DALI MODULE                           |
| 15034      | 1-10V MODULE                          |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE       |
| 15021      | AUTODIMMER SENSOR                     |

<sup>\*</sup> Equivalent power for comparison with metal halide fixtures

<sup>\*\*</sup> At a reference working temperature of 25°C









SD BUILDING AUTOMATION MODULES INDIVIDUALLY CONNECTED TO THE BEGHELLI SMARTDRIVER

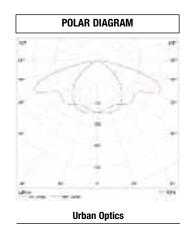


# ADJUSTABLE BRACKET FOR TENSIONED CABLE



ADJUSTABLE BRACKET FOR TENSIONED CABLE

supplied



# Centrostrada 50/70 LED



|             |            |                             |       | LED     | Colour  |           | ver consumption |      | Flux of LEDs | Flux of    | Luminous        | Energy | Packaging |
|-------------|------------|-----------------------------|-------|---------|---------|-----------|-----------------|------|--------------|------------|-----------------|--------|-----------|
| Potenza* W_ | Order code | Description                 | Optic | Power W | Temp. K | rendering | Max W           | LEDs | lm (Tj=25°C) | fixture Im | efficiency lm/W | Class  |           |
| 1x50        | CS50SD     | CENTROSTRADA LED 1x50 SD 4K | 32    | 4000    | >80     | 35        | 24              | 530  | 00           | 4400       | 126             | A++    | 1/1       |
| 1x70        | CS70SD     | CENTROSTRADA LED 1x70 SD 4K | 45    | 4000    | >80     | 50        | 24              | 760  | 00           | 6200       | 124             | A++    | 1/1       |



# Centrostrada 100/150/250 | FD

Aluminium steel and class: The street lighting device robust and fully recyclable for smart cities



This device completes the range of street lighting. Suspended mounting on cables or pull-cords, for installation where poles cannot be used, such as in the middle of roads or in historical city centres. With a simple, geometric design, this device is both elegant and technically advanced. The SmartDriver accessories provided serve to further enhance the technological features of the device, enabling it to adapt so that it can be seamlessly integrated into Smart City technologies.



Equivalent Power\* 100, 150, 250 W

Standard EN 60598-1, EN 60598-2-3,

EN 60598-2-22, EN 62471 (Photobiological hazard), EN55015; EN 61547, EN 61003-2, EN 61003-2

Power supply Universal Multy Voltage

93÷265 Vac - 50/60Hz

176÷250 Vdc

Protection grade IP66 with ventilation valve, IK09

Working temp. -20 ÷ +40°C

Inclinazione  $-20^{\circ} \div +20^{\circ}$ 

Mounting suspended on tensioned cable

Housing Polyester powder coated die-cast

aluminium RAL 7040

Louvre Sheet metal with parabolic development

in anti-iridescent, mirror finished,

anodised aluminium.

Diffuser Toughened glass 4mm thick

**Electronic gear** Electronic SD (Cos  $\phi \ge 0.95$ ) with

intelligent dimming

MTBF Control gear\*\* 100.000h

Luminous flux 80.000h (L80B20)

maintenance\*\*

Colour tolerance 3 SDCM

- \* Equivalent power for comparison with metal halide fixtures
- \*\* At a reference working temperature of 25°C

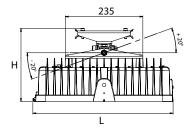
# Centrostrada 100/150/250 LED

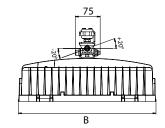
Street lamp

Suspended street lighting combines architectural lighting requirements with the needs of the new smart cities. The range includes a number of latest-generation devices that combine the advantages of low luminance LED light sources with state-of-the-art optical systems, offering excellent performance and superb flexibility across a host of applications. The optical system used is designed with a geometry created to obtain very low luminance, for minimal glare and high visual comfort.

The excellent mechanical properties (IP66-IK09) of the innovative diecast aluminium and tempered glass body ensure the longevity of the device in outdoor environments, even in extreme conditions.







| Power * | Power * • Dimensions (mm) • |     | Packaging | Weight |        |
|---------|-----------------------------|-----|-----------|--------|--------|
| W       | L                           | В   | Н         |        | max kg |
| 100     | 425                         | 417 | 221       | 1      | 7.7    |
| 150     | 425                         | 417 | 221       | 1      | 7.7    |
| 250     | 425                         | 417 | 221       | 1      | 7.7    |

SPECIAL VARIATIONS:

COLOUR TEMPERATURE ON REQUEST,, COLOUR RENDERING ≥90 Contact the Beghelli sales network

# Accessories

supplied

M20 CABLE GLAND WITH VENTILATION VALVE

ADJUSTABLE BRACKET FOR TENSIONED CABLE (-20° +20°)

# Accessories

to be ordered separately

| Order code | Description     |
|------------|-----------------|
| 12658      | PROTECTIVE GRID |

# Building automation **50**



to be ordered separately

| Order code | Description                           |
|------------|---------------------------------------|
| 20102      | DOMOTIC CENTER                        |
| 20124      | BUILDING AUTOMATION WIFI CONTROL UNIT |
| 20104      | BUILDING AUTOMATION CENTRAL UNIT      |
| 15022      | BUILDING AUTOMATION RADIO MODULE      |
| 15024      | DALI MODULE                           |
| 15034      | 1-10V MODULE                          |
| 15025      | GRANDE ESCO ITALIA RADIO MODULE       |









SD BUILDING AUTOMATION MODULES INDIVIDUALLY CONNECTED TO THE BEGHELLI SMARTDRIVER

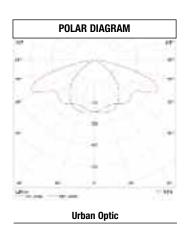


# ADJUSTABLE BRACKET FOR TENSIONED CABLE



ADJUSTABLE BRACKET FOR TENSIONED CABLE

supplied



# Centrostrada 100/150/250 LED



| Potenza* W | Order code | Description                  | LED<br>Power W | Colour<br>Temp. K | Colour rendering | Power consumption<br>Max W | N°<br>LEDs | Flux of LEDs<br>Im (Tj=25°C) | Flux of fixture Im | Luminous efficiency lm/W | Energy<br>Class | Packaging |
|------------|------------|------------------------------|----------------|-------------------|------------------|----------------------------|------------|------------------------------|--------------------|--------------------------|-----------------|-----------|
| 1x100      | CS100SD    | CENTROSTRADA LED 1x100 SD 4K | 64             | 4000              | >80              | 70                         | 48         | 10400                        | 8600               | 124                      | A++             | 1/1       |
| 1x150      | CS150SD    | CENTROSTRADA LED 1x150 SD 4K | 92             | 4000              | >80              | 100                        | 48         | 14500                        | 12000              | 120                      | A++             | 1/1       |
| 1x250      | CS250SD    | CENTROSTRADA LED 1x250 SD 4K | 120            | 4000              | >80              | 130                        | 48         | 18500                        | 15000              | 115                      | A++             | 1/1       |







# CONTROL

# Controls Systems

# Control units, devices and software



# Building automation control Unit

Enables domotic control of all SD devices with radio module: scenarios can be programmed according to specific timings within the astronomical calendar year, both locally via WiFi or remotely using a PC, via the Software SD Manager, included



# Building Automation Radio Transmitter Interface

Radio module for activating scenarios on SD devices equipped with radio modules. Switching ED devices equipped with domotic radio receiver interface on and off



STRALE COMPACE OF

60196

# Building Automation Radio receiver Interface

Receiver module for switching ED devices on and off via radio, using the domotic radio transmitter interface or control unit



# Building automation radio module

When inserted into the SmartDriver, it activates the radio connection with the control unit or domotic radio receiver interface. Control and programming via PC with SD Manager



# **DALI Module**

Module for communicating with the DALI communication protocol



# 1/10V Module

Module for interfacing for direct command analogue dimming



# Grande ESCo Italia radio Module

Module for collecting energy consumption data, used to provide the necessary information to the accredited energy company (ESCo)



# Intelligent Opticom Photosensor

The intelligent eye of the SD system. Enables the Autodimmer with natural light compensation (Natural Light) and Autodimmer with movement detector (Dynamic Light). Opticom also receives commands from the flash on a smartphone





Protection grade IP20

Working temp.  $-20 \div +40^{\circ}$ C

Mounting on 9 module DIN bar

Fixtures managed up to 992 including lighting and

emergency

Local transmission Spread Spectrum radio system SFH

DSSS in 16 channels

Remote transmission GSM, can be connected to a Beghelli

Services databases, Interfaceable with BMS (Building Management Systems) by RS-485 interface, MODBUS protocol

Functions Complete control of operation of the lighting system, in particular:

- Switching up to 256 groups on and off
- setting the dimmer level
- Defining the operating mode (fixed luminosity at the set value or automatic adjustment of luminosity)
- Diagnostics
- Measurement of the energy consumed and saved
- Creation of lighting scenarios
- Timed switching on/off of groups of lamps
- Configuration of the lighting system
- Management of all the functions of the emergency system
- Synchronization and timing of the test functions
- Inhibition/enabling of the emergency
- Detailed management of errors
- Alternate tests on 50% of the system

# Building automation control unit

Building automation lighting

Control unit for light fixtures and emergency lighting with radio control equipped with the Beghelli Spread Spectrum transceiver integrated in the Electronic Driver with intelligent dimming.

The control unit sends the light fixtures the necessary commands to regulate their operation and receives information from the fixtures on their status, diagnostics and energy consumption data.

The control unit is able to control each different light fixture in the system individually.

The control unit coordinates operation of the network of communication that allows the control of the light fixtures even in large buildings, by the automatic routing of information packages through the network consisting of the lighting and emergency fixtures.

The control unit also includes a GSM communicator that allows remote control of the system.



| Power supply<br>V-Hz | • Dime<br>L | nsions<br>B | (mm) •<br>H | Protection grade | Weight<br>kg |  |
|----------------------|-------------|-------------|-------------|------------------|--------------|--|
| 230-50               | 160         | 75          | 90          | IP20             | 0.6          |  |



## Building automation **=** supplied Order code 20109 **BUILDING AUTOMATION PC SOFTWARE** CABLE RS485/USB (IN CODE 20102) CONVERTER RS485/WIFI - ETHERNET (in code 20103)

# Building automation control unit

| Order code | Description         | Packaging |
|------------|---------------------|-----------|
| 20102      | DOMOTIC CENTER USB  | 1         |
| 20103      | DOMOTIC CENTER WIFI | 1         |



# Building Automation Radio Transmitter Interface

Building automation lighting

The transmitter is a radio interface device, supplied at 230Vac, with an input at 230V able to send radio commands to the light fixtures or to appropriate receivers with relay actuators.

The device, with approximate dimensions 46x49x24mm, has 3 screw terminals, two for the power supply (N and P) and one input (I) which reads the voltage present shared with the neutral terminal (N).

The device has a built-in antenna and can be fitted in any type of unshielded container; if used in a 503 box it occupies the internal space of a single socket.

The functions that can be associated with the transmitter are the following:

- Transmission of a timed command (button or movement sensor);
- Status transmission (switch on/off)

The commands sent by the transmitter are associated with a single light fixture or with groups of fixtures.



| Order code | Description                      |   | Packaging |
|------------|----------------------------------|---|-----------|
| 20104      | BUILDING AUTOMATION CENTRAL UNIT | 1 |           |



# Building automation radio receiver interface

Building automation lighting

The Receiver is a radio interface device, supplied at 230Vac, which integrates a relay able to control light fixtures and other electric loads.

With approximate dimensions 46x49x24mm, has 4 screw terminals, two for the power supply (N and P) and two for the 230V output (N and Pout).

The antenna is built-in and can be fitted in any type of unshielded container; if used in a 503 box it occupies the internal space of a single socket.

The relay is able to switch a maximum current of 10A to 230Vac. The receiver also has a built-in power meter and a counter for the electric energy distributed at the output. The counter data are read by radio messages and it is enabled in the "Grande ESCo Italia" project.

The device is associated with one or more radio transmitters and activates the corresponding commands.



| Order code | Description                                  | Packaging |
|------------|--|-----------|
| 20108      | BUILDING AUTOMATION RADIO RECEIVER INTERFACE | 1         |



# Building automation radio module

Building automation lighting

Spread Spectrum radio transceiver operating in the band 2.400-2.483 GHz according to Beghelli FH-DSSS protocol. The device enables the LED Control gear (SmartDriver) of the light fixture in which it is inserted for remote control and wireless control. The building automation radio module is fed by the SmartDriver and allows the following functions:

- Receiving and actuating radio commands
- Possibility of performing automatic functions of regulating luminosity by radio messages
- Calculation of the energy consumed by the light fixture, and for this it is enabled in the "Grande ESCo Italia" project
- Tele-diagnostics of the light fixture



| Order code | Description                      | Packaging |
|------------|----------------------------------|-----------|
| 15022      | BUILDING AUTOMATION RADIO MODULE | 1         |



# DALI/1-10V module

Building automation lighting

The device enables the LED Control gear (SmartDriver) to control the light fixture by the DALI interface or 1-10V analogue interface.



| Order code | Description  | P | ackaging |
|------------|--------------|---|----------|
| 15024      | DALI MODULE  |   | 1        |
| 15034      | 1-10V MODULE |   | 1        |



# Grande ESCo ITALIA radio module

Building automation lighting

Spread Spectrum radio transceiver operating in the band 2.400-2.483 GHz according to Beghelli FH-DSSS protocol. The device enables the LED Control gear (SmartDriver) of the light fixture in which it is inserted to monitor the energy consumed for the calculation of energy saving. The ESCO radio module is fed by the SmartDriver and allows the following functions:

- Calculation of the energy consumed by the light fixture;
- Tele-diagnostics of the light fixture



| Order code | Description                     | Packaging |
|------------|---------------------------------|-----------|
| 15025      | GRANDE ESCO ITALIA RADIO MODULE | 1         |



# Intelligent Opticom Photosensor

Building automation lighting

Sensor consisting of a SMD phototransistor that can be connected to the SmartDriver electronic Driver, to which it communicates the instantaneous reading of the contribution of natural light to the environmental lighting. This information allows the SmartDriver to calibrate the LED supply power correctly in order to keep the lighting constant and uniform on the work surfaces.

The Autodimmer sensor allows an average consumption saving of 30% for the fixtures on which it is installed.

Each SD device equipped with the new OPTICOM INTELLIGENT PHOTOSENSOR Technology acquires innovative Autodimmer Dynamic Light and Opticom Technology functions, in addition to Autodimmer Natural Light functions.



| Order code | Description                     | Packaging |
|------------|---------------------------------|-----------|
| 15039      | INTELLIGENT OPTICOM PHOTOSENSOR | 1         |

# General terms of sale

# 1. ORDERS - COMPLETION OF AGREEMENTS

Product purchase orders must be provided in writing. The placing of an order is final All collaboration schemes, orders, commissions and agreements are considered to be completed when verbal or written confirmation is received from the Seller or once the billing and/or delivery of the ordered products has taken place.

## 2. CHANGES AND VARIATIONS

Once the order has been completed, any change or addition to the contents and conditions thereof will only be considered valid (and therefore become effective) once the Seller has sent the Buyer confirmation of this change. The text of the confirmation or the confirmation of change received from the Seller will prevail over any other document.

Where the Buyer does not wish to accept the updated terms regarding their order, they must declare this within 20 (twenty) days from the date of confirmation. Failure to do so will result in the confirmation of change being deemed to be accepted in full.

## 3. ACCEPTANCE

The Seller may not be held liable for any non-acceptance of an order, or for failure or delay in the delivery of goods that constitute the order in question. The acceptance and completion of the order are specifically subject to the availability of the products ordered, and to the absence of any circumstance that could have an impact on the availability of these products, and on the prompt delivery thereof.

## 4. TERMS OF DELIVERY

The delivery terms communicated by the Seller are purely indicative.

Delivery dates expressed in days usually refer to working days.

Any changes in the terms of delivery requested by the Buyer must be accepted in writing by the Seller. Delay, disruption and/or total or partial suspension of the delivery, even if not as a result of force majeure and/or unforeseeable circumstances, does not entitle the Buyer to compensation for damages and/or reimbursement of any kind or to repayment of any interest due. In such situations, the Buyer may only cancel the order, having provided the Seller with formal notice of this at least thirty days from the day of receipt of the registered letter sent by the Buyer.

# 5. FORCE MAJEURE

For indicative and illustrative purposes only, the following are considered to be cases of force maieure:

strikes, lockouts, riots, labour disputes, fire, natural disasters, inability to supply products, interruptions or difficulties in shipping, transport delays, lack of raw materials, government acts, measures introduced by the authorities, any supplier failings or shortcomings and, more generally, any other unpredictable event that is outside of the reasonable control of the Seller (this list is not exhaustive). In all such cases, as well as in the event of other unforeseeable circumstances, the Seller reserves the right to suspend and/or delay the delivery of products and also to cancel orders (including those already confirmed), without this entitling the Buyer to demand compensation for damages and/or reimbursement of any kind from the Seller. This includes direct, indirect and consequential damages.

# 6. DELIVERY - TRANSPORTATION

Goods always travel at the Buyer's risk, even if sent via prepaid freight and/or in a vehicle owned by the Seller, and accordingly, the Seller will not accept any claims relating to breakages and/or tampering with products.

Products are delivered to the Seller premises in Monteveglio - Valsamoggia (Bologna) or to depositories that belong to third parties, with whom the Seller has entered into agreements relating to this matter ("Ex works" condition - Incoterms 2010).

The transport costs are borne by the Buyer. The Seller does not accept return packages.

# 7. COMPLAINTS - REPLACEMENT OF GOODS

With regard to replacements and complaints, the safeguards stipulated by the laws and regulations regarding the specific type of customer, consumer or professional operator shall apply. On receipt of the goods, the Buyer must check the condition of these, as well as ensuring that the amount of products supplied corresponds with the delivery note. Any complaints regarding the quality, quantity or type of product must be made in writing within 8 (eight) days from the date of receipt of goods. After that date, and subject to the various warranty conditions laid down for individual products, no claim can be submitted regarding either the substance, quality or general condition of the goods. The Buyer may not return the goods under any circumstances without the prior written consent of the Seller, and similarly, may not delay and/or suspend payment of invoices in full or in part, even in cases where the product in question is the subject of a complaint. Should the complaint be deemed to be founded in the opinion of the Seller, and has been brought within the warranty terms contained in the illustrative booklets that accompany each product, the obligation of the Seller is limited to the simple substitution of the non-compliant product, which shall be

delivered in the same way as the original product supplied. As such, the Buyer does not have the right to cancel the order or to obtain any form of compensation for expenses and/or damages related thereto. The right to replacement of the product that is the subject of a complaint no longer applies in all cases in which the product is not carefully stored, rendered available to the Seller, and immediately returned to the place specified by the latter.

# 8. APPLICATION OF THE WARRANTY

The warranty only applies to product defects and/or non-conformity where this falls under the terms and conditions indicated in the technical specifications stated and/or agreed, or following the premature breakage of a component of the product.

The period of validity of the above-mentioned warranty is 4 years for products marked 4G (on all parts, including batteries), 3 years for products market 3G (on all parts, except bulbs) and, in general, for the number of years indicated alongside the letter G (e.g. 10 years for products marked 10G).

For products not marked 4G or 3G, the normal legal requirements apply.

The warranty does not apply to products which have been tampered with, or to defects caused by accidental damage of any kind, including during transport and installation, or to damage caused by improper use or by failure to comply with the product specifications. Similarly, the warranty does not apply to defects caused by negligent use and maintenance, by incorrect installation or connection, or by installation of a product by someone other than a qualified professional, or not carried out in accordance with the highest professional standards.

Unless otherwise required by applicable law, the warranty is limited to the replacement/repair of the non-compliant product or parts thereof. The new or repaired product shall be delivered in the same way as the original product supplied.

Warranty operations carried out by the Seller are subject to compliance with the terms of payment by the Buyer.

# 9. PRICES

The prices indicated in the Seller's price lists are not binding, and as such, the Seller reserves the right to modify these up to the time of delivery of the products. The prices are net of VAT and any other taxes.

# 10. PAYMENTS

All payments must be made in accordance with the terms and in the manner indicated by the Seller at the headquarters of the latter located at Monteveglio - Valsamoggia (Bologna), or to the person specified by the Seller, who is in possession of written authorisation from the latter. In case of delayed payment, the Buyer shall pay the Seller default interest, running from the expiry of the contractual period until final payment. This default interest will be charged in accordance with the rates stipulated by Legislative Decree 231/2002, except in the case of reimbursement for major damages suffered. Any failure to meet the terms of payment by the Buyer will entitle the Seller to terminate the supply contract with immediate effect, as well as granting the latter the right to suspend delivery of all products on order, with no obligation to communicate this to the Buyer. Furthermore, the Seller reserves the right to demand immediate payment of the entire outstanding balance, and to take steps to recover any damages.

In case of non-payment and/or the worsening of the financial conditions of the Buyer that could negatively affect the collection of the balance due by the Seller, and/or in the case of long delays in payment and/or high total outstanding debts (which may relate to amounts owed for previous purchases) by the Buyer, the Seller reserves the right to apply the provisions of Article 1460 and 1461 of the Italian Civil Code, to take appropriate precautionary measures, and to resort to all other permitted forms of self-preservation; It is further agreed that in such cases, the Seller may suspend any and all future deliveries of products to the Buyer.

# 11. LIEN AGREEMENT

A lien agreement applies to all products sold; as such, products shall remain the property of the Seller until payment for these is made in full.

Accordingly, the Buyer agrees to inform third parties of the existence and validity of this lien agreement, and to safeguard the rights of the Seller arising therefrom.

# 12. PROTECTION AND SAFEGUARDING - DISPUTES AND COURT OF JURISDICTION

The invalidity or unenforceability of any provision contained within these General Terms and Conditions shall not prejudice or detract from the validity and enforceability of the other provisions; both the Seller and the Buyer hereby undertake to replace any clause declared ineffective and/or null and void or impracticable with another provision with similar effect. Any controversy or dispute relating to the interpretation, validity and completion of an order, or to the agreements covered by these Terms and conditions, will be governed by Italian law. The sole court of jurisdiction is the Court of Bologna.

# Product safety and European Standards

## PRODUCTS SAFETY AND EUROPEAN STANDARDS

Beghelli products are constructed in accordance with the highest safety and quality standards, and no compromise is made with regard to foreseeable overload conditions or to the safety of persons, domestic animals or property, provided that all devices are installed and used for the purpose for which they are intended, under the environmental conditions provided, and are fitted correctly and maintained properly by qualified personnel.

Where applicable, products are manufactured in compliance with the requirements of Community directives 2014/35/EU, 2014/30/EU, 2014/53/EU, 2014/30/EU, 2009/125/EC and 2001/65/EC.

The CE marking affixed to the product and/or packaging and/or any instructions for use which accompany the product certify compliance with the above Directives. Beghelli keeps its own Technical Archive containing the documentation which demonstrates that the product in question has been examined to assess compliance with these Directives. The documentation in the Technical Archive is available for inspection by the competent authorities.

Products that do not fall within the scope of the EC Directives referred to above nonetheless comply with the quality standards set out in the various regulations currently in force, as well as those contained in Directive 2001/95/EC ("the General Product Safety Directive"), implemented by Legislative Decree no. 172/2004.

The information contained in the Beghelli catalogues may be subject to change without notice. All instructions, measurements, drawings and photographs of products and components are provided for information purposes only, and are subject to change without prior notice. This information should not be considered to be pre-contractual information. All products that are to be connected to mains power must be fitted in accordance with the electrical installation rules in force in the country of destination, and with the information contained in the product catalogues and/or the instructions included with the product itself.

The product catalogues are available on the Beghelli website at www.beghelli.it at the following link, or can be requested from :

Beghelli S.p.A. Sales Management - Via Mozzeghine, 13/15 Loc. Monteveglio - 40053 Valsamoggia, Bologna

# Environmental protection

## WEEE 2012/19/EU DIRECTIVE

The amount of waste directly connected to electrical and electronic equipment (WEEE) is rapidly increasing, with much of this attributable to light sources.

The directive is primarily designed to prevent WEEE from being thrown into landfill or incinerators at end of life, causing a further serious impact on the environment.

Accordingly, Directive 2012/19/EU was introduced in order to implement a monitoring mechanism which includes the controlled management of devices at end of life, promoting the reuse or recycling of these. Furthermore, the legislative mechanism promotes design and production concepts which facilitate the disposal of products, both with regard to disassembly and materials.

Industry players from every stage of the marketing chain are called upon to make a contribution - some of these contributions are financial, whereas others involve actions designed to respect and support the spirit of the Directive (as well as to protect the environment).

In Italy, the Directive has been implemented through Legislative Decree No. 49 of 14 March 2014

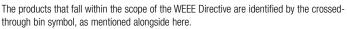
# THE MAIN OBLIGATIONS ARE AS FOLLOWS

The manufacturer (to be understood in the broadest sense, essentially entailing companies affixing their brand to a given good or goods, and all those importing from third countries) is responsible for the costs relating to the end-of-life disposal of their products.

The consumer is asked to ensure that he/she takes an intelligent approach to managing the product in question at the end of its life, delivering it to a suitably equipped facility or point of sale, or following any other instructions provided by the manufacturer.

Beghelli has always been extremely sensitive to environmental issues, and is a founding member of the ECOLIGHT consortium.

Choosing products from companies that participate in voluntary waste recovery and recycling initiatives is a responsible and environmentally-sound choice, and helps to protect the environment and our future.







# **DIRETTIVA ROHS 2011/65/UE**

In order to facilitate the recovery and recycling of electrical equipment and to prevent dangerous substances from accumulating in the environment, the European Community has published the ROHS (Restriction of Hazardous Substances) Directive. Essentially, this states that:

Without prejudice to Annex 3, it is prohibited to place electrical and electronic equipment falling under the categories identified in Annex 1 on the market, namely those containing lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ether (PBDE) in amounts higher than those provided for in Annex 2.

In Italy, the Directive has been implemented through Legislative Decree No. 27 of 4 March 2014





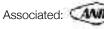


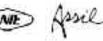


Dealer IMQ mark















Partner DIALux

