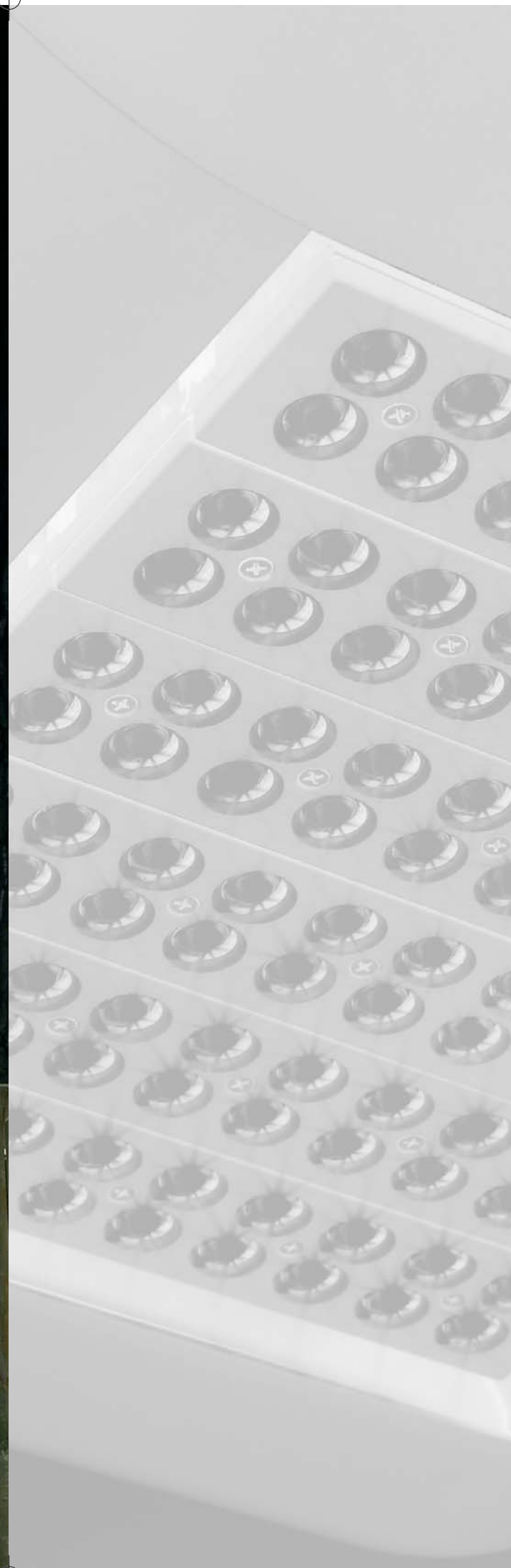


BetaLED. Evolution of the species.



RUUD
LIGHTING



BetaLED. Contemporary design, state-of-the-art technology

The lighting of urban spaces has a new benchmark. BetaLED is the Ruud Lighting division dedicated to researching LED devices that are a fusion of technology, design and functionality. BetaLED started out and specialized in the United States; the skill base was then transferred to Europe where the division now creates state-of-the-art lighting systems renowned for their superior technology and stylish design and which have earned the favour of private and public bodies in situations demanding superior performance, full visibility and reduced energy consumption. BetaLED proposes a perfect combination of the highest performing LEDs, exclusive optics and singular design in each product, to create reliable lighting that guarantees maximum efficiency and reliability over time, as well as decorating the spaces they occupy.

Ruud Lighting evolves at the speed of light

The extraordinary technology of Ruud Lighting LED systems opens up the possibility of unseen prospects and offers solid guarantees. With BetaLED, we have obtained results without precedent in the history of LED lighting, but the research continues, because now our goal is to surpass ourselves.

Our LEDs

The journey of Ruud Lighting products begins with the acquisition of LEDs with a performance of greater than 120lm, from the American company, Cree Inc. Following assembly and tuning, our products are fitted, in the standard version, with LEDs of a colour temperature of 6,000 K (+/- 500 K), but it is possible to request LEDs of different colour temperatures. At present, BetaLED products of 4,300 K and 3,500 K are also available. The colour rendition of our LEDs at 6,000 K is 75. The 4,300 K LEDs have a colour rendition equal to 75, with a lumen emission equal to 87% of the flux emitted by the standard products.

The 3,500 K LEDs have a colour rendition of 80 and emit 80% of the flux emitted by the standard products.

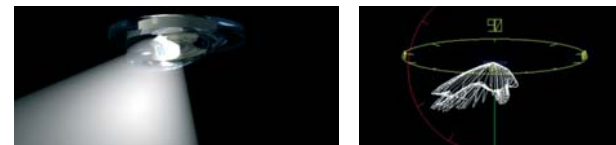
Patent pending NanoOptic™ control

BetaLED products use the innovative technology, NanoOptic™, to control of the luminous flux emitted by the individual diode. Each individual LED is equipped with direct-contact refractor that shapes the beam, optimising performance and obtaining incredibly precise light distributions. Whereas other systems overlap luminous fluxes of different amplitudes, in an attempt to create a more accurate light distribution, the NanoOptic™ optimises the result of the individual LED, reaching optical efficiencies of greater than 90%. The final product, deriving from the overlapping of identical luminous beams, is the result of an actual dedicated optic, and the efficiency of the system, the precision of the beams, and the uniformity produced, are greater than any traditional technology.

Bare LED Package



LED NanoOptic™ Refractor Control



Superior driver performance and control

The exceptional optical rendition and improved thermal management are combined with an LED pilot driver developed especially for Ruud Lighting, with high efficiency and incredible lifetime. The power to the LEDs is provided in direct current through an electronic converter with an input voltage of between 120V and 277V 50Hz/60Hz. The device acts as a voltage stabiliser and sees to it that the internal circuit that powers the diodes is not sensitive to sudden changes or variations of the voltage of the system. The drivers used include protection against over-heating and safeguards the life rating of the product on the whole. If a fault should occur, and the temperature exceeds 85 degrees Celsius, the current to the LEDs is automatically halved, so as not to jeopardise its life. The lifetime tests conducted on our drivers show 0.5% mortality at 150,000 hours of operation at a constant temperature of 25 degrees Celsius. The efficiency of the individual driver is 91%.

Control Systems

The standard driver currents are 350mA and 525mA, but there are luminous flux regulation systems available that allow for varying intensity on two or three pre-defined levels. Depending on the system being implemented, the time of day, and the layout dimensions of the application the system can be optimised by selecting between the various combinations of bi-power or tri-power drive currents. The most common options are 350/175 mA and 525/175 mA (option G). Naturally, in decreasing the pilot current, the temperature of the junction also decreases considerably, contributing to increasing the lifetime of the whole product. Switching from the high mode function to the low mode function is immediate. The multi-level system can be controlled by a clock or a photocell, and is managed through an additional power cable, guaranteeing maximum reliability over time. In addition, LED pilot current could be regulated by an occupancy sensor (option K).

Ruud Lighting now offers new control systems. The Power Line Control system regulates the colour and intensity of light and controls the lighting fixture through a signal carried on the power line (option D). There is also a two-level dimming option: a device calculates virtual midnight automatically and, when programmed during installation, regulates automatically in accordance with the switch on and off times (option S).





Uncompromising advantages

In comparing an LED luminaire with a traditional one, the effective lumens per watt of a fixture should be considered, and not the lumens originating from the source. The effective lumens per watt of any lighting product depend on various factors, such as power leakages, caused by the lack of optical control and those connected to the temperature.

In any luminaire, these losses practically cut the initial effectiveness in half (in lumens per watt) of the High Pressure Sodium or Metal Halide sources. BetaLED is different: by keeping these losses to a minimum, it exceeds in effectiveness any traditional technology. Naturally, a more accurate analysis of these results can be conducted by comparing the photometric data of two or more alternative solutions, with associated calculations on ROI. Even in the case of the LED products, Ruud Lighting uses independent laboratories to measure photometrics measuring of its own products, and voluntarily provides the market with the findings.

Modular systems for uncompromising design

Ruud Lighting is known for the modularity of its lighting systems. In the case of LED products, Ruud Lighting engineers were inspired by this same concept of the modular system, and able to give the user maximum design flexibility. The heart of the whole system is the light bar, a module of 10 or 20 LEDs that can be coupled within the fixture with a maximum number of 12 modules, equal to 240 LEDs. Through an entirely automated process, the 10 or 20 LEDs are positioned on each module with respective NanoReflector™, connected in such a manner that the premature death of an individual LED does not jeopardise the entire module. Moreover, in the case in which an individual LED fails, the module redistributes the current to the remaining LEDs, reducing or even eliminating the possible reduction in flux.

Efficient thermal management

Effective thermal management within LED luminaires is the key to their longevity. BetaLED products, mount each light bar onto heat sinks that allow the diodes to operate at an ideal temperature. Moreover, the exclusive airflow system uses natural and forced ventilation to dissipate heat. The body of the fixture, with IP66 grade protection, is open and fitted with an upper grille allowing the airflow to cool the heat sinks.

The life rating of BetaLED products

The life rating of an LED is expressed according to international standard L70; the number of hours necessary for an LED to reach 70% of the initial luminous flux. Ruud Lighting is able to provide life rating data for its own products at various ambient temperatures.

Exclusive DeltaGuard protection

A luminaire designed for longevity requires an equally resistant finish. The body of BetaLED is die-cast aluminium treated with patented, 15-phase procedure – Colorfast DeltaGuard – creating an impermeable barrier against atmospheric agents and guarantees resistance to:

- ultraviolet rays
- corrosion
- flaking
- maintenance of colour over time.

Reduced environmental impact

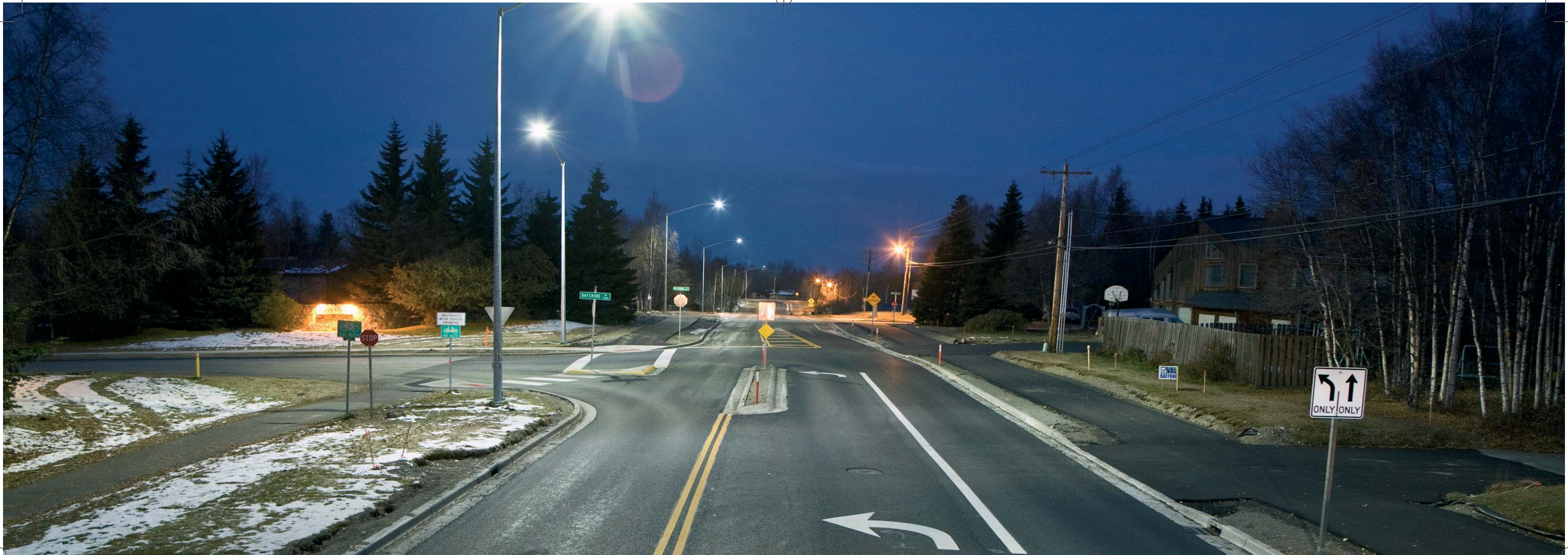
Protection of the environment is a cause Ruud Lighting maintains with consistency. By selecting BetaLED, the quantity of waste admitted to the environment is reduced, due to components of the fixtures lasting longer and the lack of highly toxic heavy metals. In addition, special disposal procedures are not required.

The BetaLED family of products also conforms to the requirements of legislation against light pollution (Dark Sky – IESNA full cutoff) and RoHS directives.

Quality guaranteed over time

The tests carried out on the entire range, the excellent results of the realisations, and the verification of the actual rendering of the product have created the bases for a solid guarantee for BetaLED products. Ruud Lighting guarantees the superior quality of its products by offering a 5 year warranty, on the drivers and LEDs (if greater than three simultaneous LED failures per fixture); and a 10 year warranty on the DeltaGuard™ finish.





LEDWAY ROAD

Ledway Road is the innovative LED lighting system designed by BetaLED. Ledway Road guarantees the maximum reliability over time, more than 50% energy savings and high luminance levels. Ledway Road is particularly recommended for urban and suburban roads lighting. The new tenon mount system (assembly 7) means it can be mounted on an arm or pole top (90°) and tilt adjusted in 5° increments to keep it horizontal with the ground. It can be used both for new installations or retrofits on Ø 60mm supports. The modular Ledway Road system allows for configurations with lightbars of 10 and 20 LEDs to obtain the desired luminous flux. Ledway Road fixtures are available in a variety of increments from 20 to 120 LEDs.

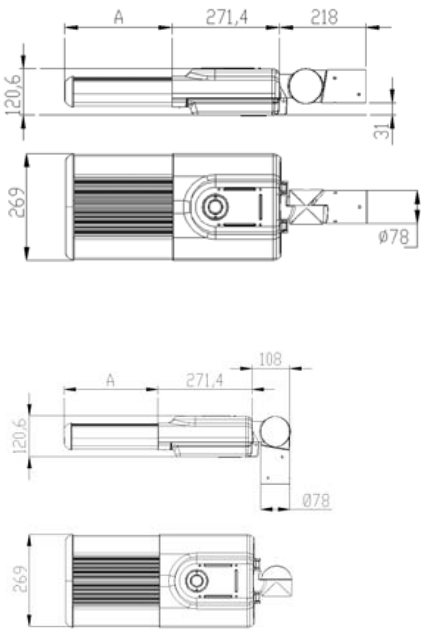


- Street Light
- Modular system
- Die cast and estruded-aluminium housing
- IP66 grade protection
- NanoOptic™ implemented in conformity with Dark Sky (IESNA)
- Designed for mounting on Ruud Lighting poles
- Available optics for streets, parking lots and green areas lighting include: AC,ACB, PR, PRB,TS,TSB,TM,TMB, QVM, QVS
- Available multi-level option (G) for regulation of the luminous flux
- Standard colour temperature: 6.000 K
- Colour temperatures of 3.500 K and 4.300 K are available on request
- Power line control system with dimmable driver (option D)
- Two levels option virtual mid-night (option S)
- Integral dimming system with plants including flux regulators
- Pilot current regulation by occupancy sensor (option K)

Order code for Class II	Order code for Class I	Number of LED	"A" Dimension
LYD##702C*	LXD##702C*	20	156 mm
LYD##703C*	LXD##703C*	30	156 mm
LYD##704C*	LXD##704C*	40	270 mm
LYD##705C*	LXD##705C*	50	270 mm
LYD##706C*	LXD##706C*	60	270 mm
LYD##708C*	LXD##708C*	80	554 mm
LYD##709C*	LXD##709C*	90	554 mm
LYD##710C*	LXD##710C*	100	554 mm
LYD##711C*	LXD##711C*	110	554 mm
LYD##712C*	LXD##712C*	120	554 mm

selected optic (for a description of the available optics, please consult pages 38, 39, 40)

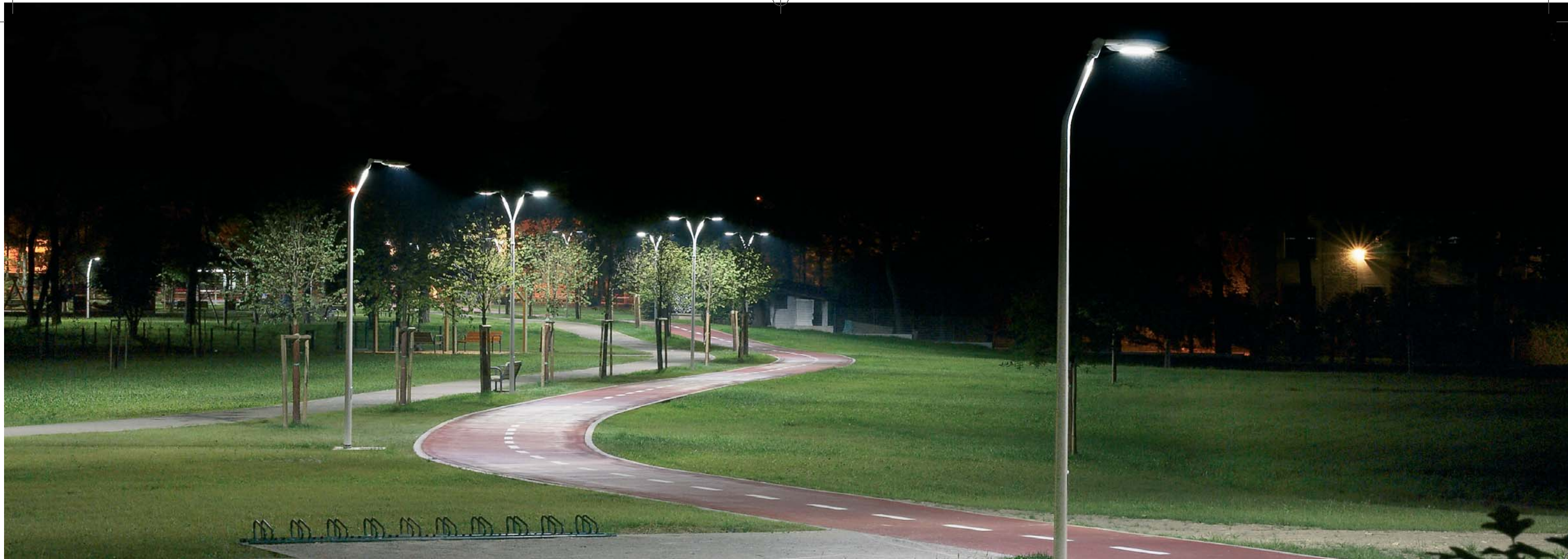
* colour



Mounting 7: adjustable mounting system with 5° increment on the vertical tilting and total flexibility horizontal orientation, for round poles or round spigots/brackets with 60mm outside diameter.



Colours available:  Silver  Black



EDGE STREET

Edge Street is especially designed for street and urban decor lighting. The modular system allows for configuration according to the necessary power, using from 1 to 12 light bars, from 20 to 240 LED. Ruud Lighting's NanoOptic™ system makes it possible to use Edge Street for roadway to parking lots and from squares to green areas, with better performance than traditional sources. Edge Street can also be used for architectural and accent lighting.

The fixtures are available with square (from 100mm to 150mm a side) or cylindrical (from 102mm to 160mm diameter) Ruud Lighting poles.

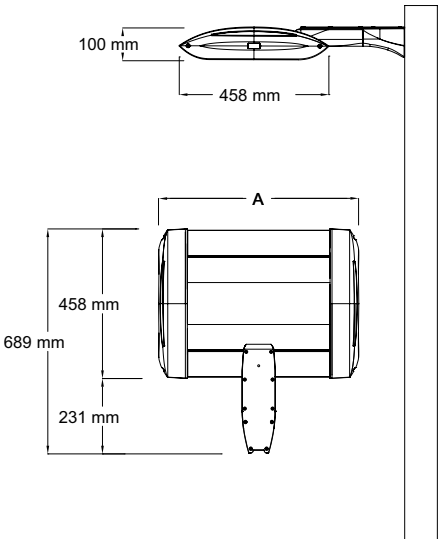


- Modular system
- Die cast and extruded-aluminum housing
- IP66 grade protection
- Designed for mounting on Ruud Lighting poles
- NanoOptic™ implemented in conformity with Dark Sky (IESNA)
- Available optics for streets, parking lots and green areas lighting include: AC, ACB, PR, PRB, TS, TSB, TM, TMB, QVM, QVS
- Architectural and accent lighting optics include: FS, 60, 40, 25, 15, 60D, 40D, 25D, 15D
- Available multi-level option (G) for regulation of the luminous flux for powers up to 120 LED
- Standard colour temperature: 6000 K
- Colour temperatures of 3500 K and 4300 K available on request
- Pilot current regulation by occupancy sensor (K option)
- Power line control system with dimmable driver (option D)
- Two levels option virtual mid-night (option S)
- Integral dimming system with plants including flux regulators

Order code for Class II	Order code for Class I	Number of LED	"A" Dimension
LYS##102C*	LXS##102C*	20	298 mm
LYS##104C*	LXS##104C*	40	298 mm
LYS##106C*	LXS##106C*	60	349 mm
LYS##108C*	LXS##108C*	80	400 mm
LYS##110C*	LXS##110C*	100	450 mm
LYS##112C*	LXS##112C*	120	501 mm
LYS##114C*	LXS##114C*	140	552 mm
LYS##116C*	LXS##116C*	160	603 mm
LYS##118C*	LXS##118C*	180	654 mm
LYS##120C*	LXS##120C*	200	705 mm
LYS##122C*	LXS##122C*	220	756 mm
LYS##124C*	LXS##124C*	240	806 mm

selected optic (for a description of the available optics, please consult pages 38, 39, 40)

* colour



Mounting I: mounting system with the fixed arm for square and cylindrical Ruud Lighting poles

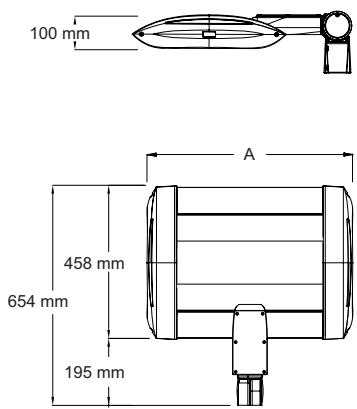


Colours available:  Silver  Black  White



Order code for Class II	Order code for Class I	Number of LED	"A" Dimension
LYS##302C*	LXS##302C*	20	298mm
LYS##304C*	LXS##304C*	40	298mm
LYS##306C*	LXS##306C*	60	349mm
LYS##308C*	LXS##308C*	80	400mm
LYS##310C*	LXS##310C*	100	450mm
LYS##312C*	LXS##312C*	120	501mm
LYS##314C*	LXS##314C*	140	552mm
LYS##316C*	LXS##316C*	160	603mm
LYS##318C*	LXS##318C*	180	654mm
LYS##320C*	LXS##320C*	200	705mm
LYS##322C*	LXS##322C*	220	756mm
LYS##324C*	LXS##324C*	240	806mm

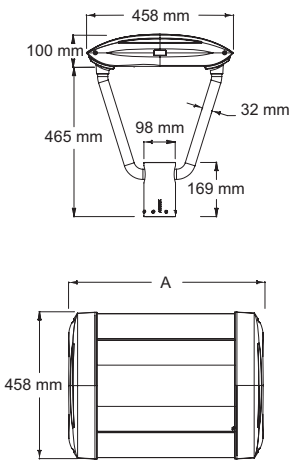
selected optic (for a description of the available optics, please consult pages 38, 39, 40)
* colour



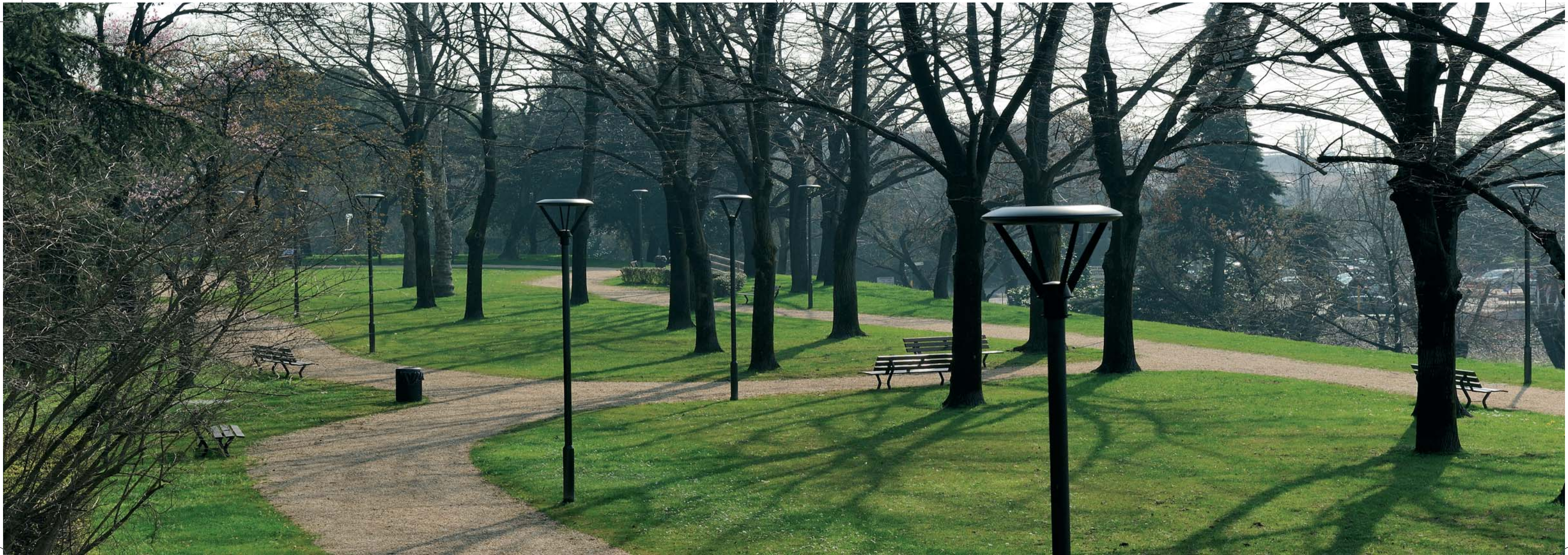
Mounting 3: adjustable mounting system with 2.5° increment on the vertical tilting and total flexibility horizontal orientation, for round poles or round spigots/brackets with 60mm outside diameter.

Order code for Class II	Order code for Class I	Number of LED	"A" Dimension
LYS##F04C*	LXS##F04C*	40	298mm
LYS##F06C*	LXS##F06C*	60	349mm
LYS##F08C*	LXS##F08C*	80	400mm
LYS##F10C*	LXS##F10C*	100	450mm
LYS##F12C*	LXS##F12C*	120	501mm
LYS##F14C*	LXS##F14C*	140	552mm
LYS##F16C*	LXS##F16C*	160	603mm
LYS##F18C*	LXS##F18C*	180	654mm
LYS##F20C*	LXS##F20C*	200	705mm
LYS##F22C*	LXS##F22C*	220	756mm
LYS##F24C*	LXS##F24C*	240	806mm

selected optic (for a description of the available optics, please consult pages 38, 39, 40)
* colour



Mounting F: fixed Post Top mounting with aluminium yoke and cast aluminium hub with 8 hex fixing screws. For poles/spigots with OD 60-76mm.



EDGE ROUND

Edge Round luminaire features a stylish and innovative design. Recommended for various installations, such as streets, parking lots, green areas and pedestrian walkways. The product has a circular shape structure and has two alternatives mounting options: direct mount, and central to the head of the pole. Edge Round is available for powers from 40 to 120 LED. The modular system allows for configuration according to the necessary power, using from 2 to 6 light bars.

The luminaire is supplied only with square (from 100mm to 150mm a side) or cylindrical (from 102mm to 160mm diameter) Ruud Lighting poles.



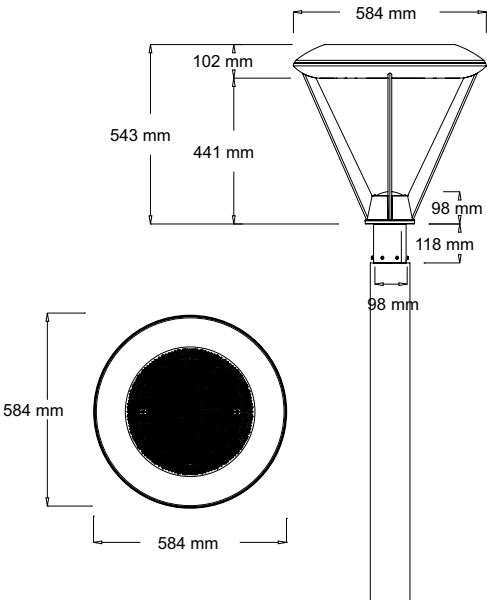
- Modular system
- Die cast and extruded-aluminum housing
- IP66 grade protection
- Designed for mounting on Ruud Lighting poles
- NanoOptic™ implemented in conformity with Dark Sky (IESNA)
- Available optics for streets, parking lots and green areas lighting include: AC, ACB, PR, PRB, TS, TSB, TM, TMB, QVM, QVS
- Available multi-level option (G) for regulation of the luminous flux
- Standard colour temperature: 6000 K
- Colour temperatures of 3500 K and 4300 K available on request
- Power line control system with dimmable driver (option D)
- Integral dimming system with plants including flux regulators



Colours available:  Silver  Black  White

Order code for Class II	Order code for Class I	Number of LED
LYR##F04C*	LXR##F04C*	40
LYR##F06C*	LXR##F06C*	60
LYR##F08C*	LXR##F08C*	80
LYR##F10C*	LXR##F10C*	100
LYR##F12C*	LXR##F12C*	120

selected optic
(for a description of the available optics, please consult pages 38, 39, 40)
* colour

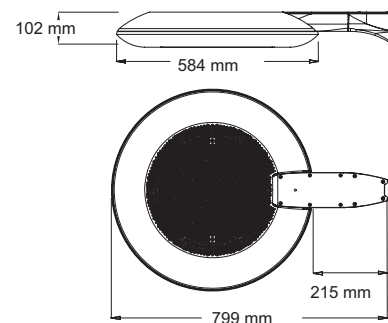


Mounting F: fixed Post Top mounting with aluminium yoke and cast aluminium hub with 8 hex fixing screws.



Order code for Class II	Order code for Class I	Number of LED
LYR##104C*	LXR##104C*	40
LYR##106C*	LXR##106C*	60
LYR##108C*	LXR##108C*	80
LYR##110C*	LXR##110C*	100
LYR##112C*	LXR##112C*	120

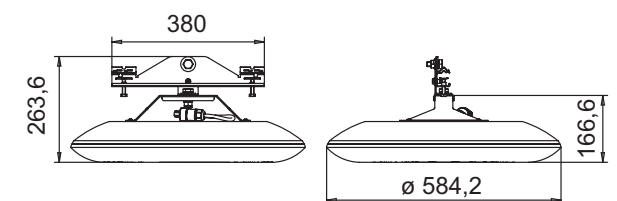
selected optic
(for a description of the available optics, please consult pages 38, 39, 40)
* colour



Mounting I: mounting system with the fixed arm for square and cylindrical Ruud Lighting poles

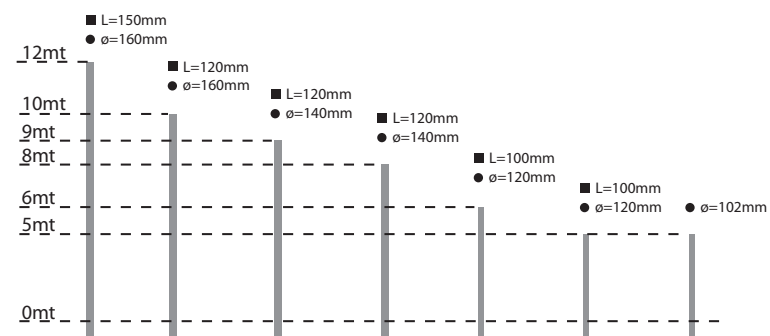
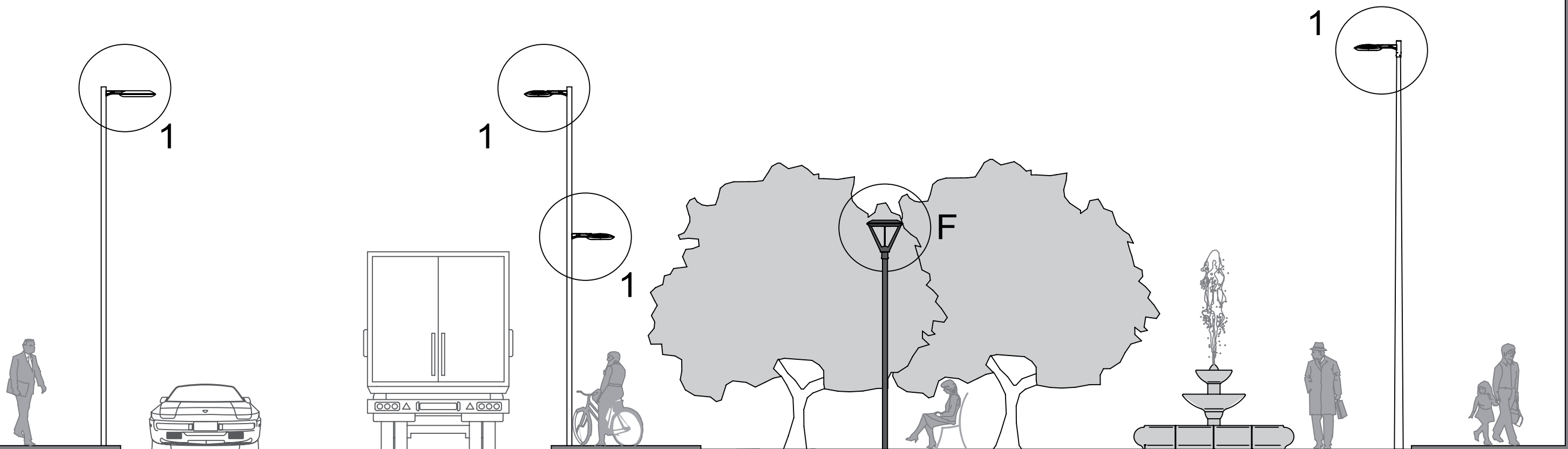
Order code for Class II	Order code for Class I	Number of LED
LYR##L04C*	LXR##L04C*	40
LYR##L06C*	LXR##L06C*	60
LYR##L08C*	LXR##L08C*	80
LYR##L10C*	LXR##L10C*	100
LYR##L12C*	LXR##L12C*	120

selected optic
(for a description of the available optics, please consult pages 38, 39, 40)
* colour



Mounting L: suspension mounting for installation on fixed 12mm-25mm diameter cable (adapters are available for cables of smaller diameters from 8mm to 11mm).

Pole-top configurations



In-ground poles: The Ruud Lighting in-ground poles are supplied with three standard fitting, wire-in lower hand hole, ground plugs and terminal block with hand hole cover. Terminal block and hand hole door to be ordered separately.

Poles with anchoring plate and anchor bolts: Available upon request.

Square poles

	■ L= 150 hft=12mt	■ L= 120 hft=10mt	■ L= 120 hft=9mt	■ L= 120 hft=8mt	■ L= 100 hft=6mt	■ L= 100 hft=5mt
■	PS412/150/S1/*	PS410/120/S1/*	PS409/120/S1/*	PS408/120/S1/*	PS306/100/S1/*	PS305/100/S1/*
■	PS412/150/S2/*	PS410/120/S2/*	PS409/120/S2/*	PS408/120/S2/*	PS306/100/S2/*	PS305/100/S2/*
■	PS412/150/T7/*	PS410/120/T7/*	PS409/120/T7/*	PS408/120/T7/*	PS306/100/T7/*	PS305/100/T7/*

Cylindrical poles

	● ø = 160 hft=12mt	● ø = 160 hft=10mt	● ø = 140 hft=9mt	● ø = 140 hft=8mt	● ø = 120 hft=6mt	● ø = 120 hft=5mt	● ø = 102 hft=5mt
■	PC412/160/L1/*	PC410/160/L1/*	PC409/140/L1/*	PC408/140/L1/*	PC306/120/L1/*	PC305/120/L1/*	PC305/102/L1/*
■	PC412/160/L2/*	PC410/160/L2/*	PC409/140/L2/*	PC408/140/L2/*	PC306/120/L2/*	PC305/120/L2/*	PC305/102/L2/*
■	PC412/160/T7/*	PC410/160/T7/*	PC409/140/T7/*	PC408/140/T7/*	PC306/120/T7/*	PC305/120/T7/*	PC305/102/T7/*

*color

Cover panels and terminal boards

Code	Description
PSMR2/*	Cover panel and terminal board for square poles
PCMRR#/*	Reset flush cover panel and terminal board for round poles



EDGE WALL

Edge Wall luminaire is designed for wall applications and is recommended for perimeter and security applications. The product has a central rectangular shape structure and variable length according to the quantity of light modules used. The modular system allows for configuration to obtain the desired luminous flux. Edge Wall luminaires are available from 20 to 120 LED (from 1 to 6 light bars). The fixtures are supplied with a fixed support wall mounting for rapid installation.



- Modular system
- Die cast and extruded-aluminum housing
- IP66 grade protection
- Designed for wall mounting
- NanoOptic™ implemented in conformity with Dark Sky (IESNA)
- Available Optics: ACB, PRB,TSB,TMB
- Standard colour temperature: 6000 K
- Colour temperatures of 3500 K and 4300 K available on request

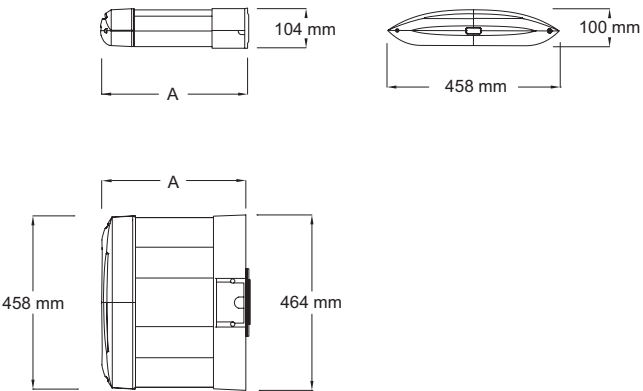


Colours available:  Silver  Black  White

Order code for Class II	Order code for Class I	Number of LED	"A" Dimension
LYW##W02C*	LXW##W02C*	20	298 mm
LYW##W04C*	LXW##W04C*	40	298 mm
LYW##W06C*	LXW##W06C*	60	349 mm
LYW##W08C*	LXW##W08C*	80	400 mm
LYW##W10C*	LXW##W10C*	100	450 mm
LYW##W12C*	LXW##W12C*	120	501 mm

selected optic (for a description of the available optics, please consult pages 38, 39, 40)
* colour

Accessories: - RL-BRDSPK: Bird Spikes



Mounting W: fixed wall mounting with rapid connection



EDGE PARK

Edge Park luminaires are designed to provide greater colour rendition and uniformity than traditional sources, for applications such as covered car parks, vehicular underpasses and pedestrian walkways. The modular system allows for configuration of the fixture to obtain the desired luminous flux, for powers from 40 to 100 LED (from 2 to 5 light bars). Edge Park is available with two mounting versions: mounting 0, with fixed ceiling mounting support, and mounting 9 with suspension mounting support.



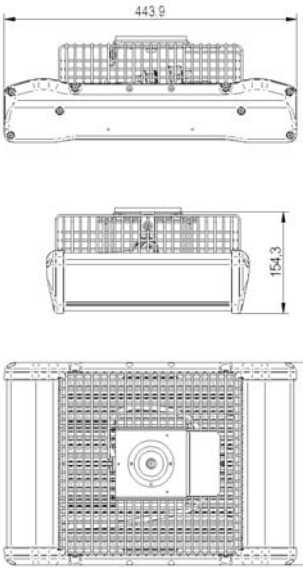
- Modular system
- Die cast and extruded-aluminum housing
- IP66 grade protection
- Designed for ceiling mounting
- NanoOptic™ implemented in conformity with Dark Sky (IESNA)
- Available optics include: AC,ACB, PR, PRB,TS,TSB,TM,TMB, QVM, QVS
- Available multi-level option (G) for regulation of the luminous flux
- Standard colour temperature: 6000 K
- Colour temperatures of 3500 K and 4300 K available on request
- Pilot current regulation by occupancy sensor (K option)
- Power line control system with dimmable driver (option D)
- Integral dimming system with plants including flux regulators



Colours available:  Silver  Black  White

Order code for Class II	Order code for Class I	Number of LED
LYP##004C*	LXP##004C*	40
LYP##006C*	LXP##006C*	60
LYP##008C*	LXP##008C*	80
LYP##010C*	LXP##010C*	100

selected optic
(for a description of the available optics, please consult pages 38, 39, 40)
* colour



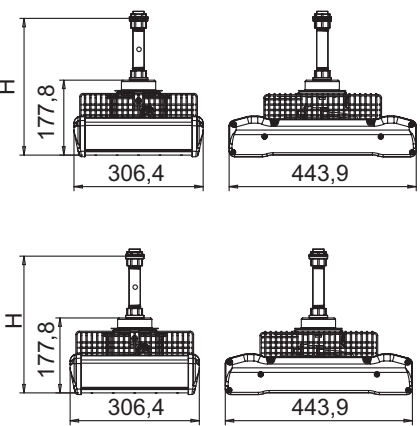
Mounting 0: fixed ceiling/canopy mounting option



Order code for Class II	Order code for Class I	Number of LED
LYP##904C*	LXP##904C*	40
LYP##906C*	LXP##906C*	60
LYP##908C*	LXP##908C*	80
LYP##910C*	LXP##910C*	100

selected optic
(for a description of the available optics, please consult pages 38, 39, 40)
* colour

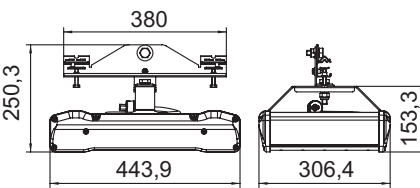
- Accessories:**
- RL-CL12KIT: Sospension kit H=305mm
 - RL-CL18KIT: Sospension kit H=457mm
 - RL-CL22KIT: Sospension kit H=559mm
 - RL-PSFTG: Pendant fitting
 - RL-PNDTLVL: Leveler (for 0-13° slopes)



Mounting 9: Fixed suspension mounting to be combined with variable length fixed tige.

Order code for Class II	Order code for Class I	Number of LED
LYP##L04C*	LXP##L04C*	40
LYP##L06C*	LXP##L06C*	60
LYP##L08C*	LXP##L08C*	80
LYP##L10C*	LXP##L10C*	100

selected optic
(for a description of the available optics, please consult pages 38, 39, 40)
* colour



Mounting L: suspension mounting for installation on fixed 12mm-25mm diameter cable (adapters are available for cables of smaller diameters from 8mm to 11mm).



EDGE CANOPY

Edge Canopy luminaries are ideal for lighting of shelters, gyms, sheds and for general ceiling applications. The modularity of the system allows configuration of the fixture according to the necessary power, using from 2 to 12 light bars, for powers from 40 to 240 LED. Edge Canopy luminaries are available with two mounting options: mounting 0, with fixed ceiling mounting support, and mounting 9 with suspension mounting support.



- Modular system
- Die cast and extruded-aluminum housing
- IP66 grade protection
- Designed for ceiling mounting
- NanoOptic™ implemented in conformity with Dark Sky (IESNA)
- Available optics: QVM, QVS, FS
- Available multi-level option (G) for regulation of the luminous flux
- Standard colour temperature: 6000 K
- Colour temperatures of 3500 K and 4300 K available on request
- Pilot current regulation by occupancy sensor (K option)
- Power line control system with dimmable driver (option D)
- Two levels option virtual mid-night (option S)
- Integral dimming system with plants including flux regulators

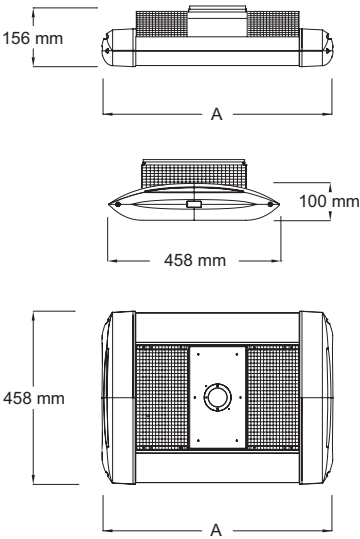


Colours available:  Silver  Black  White

Order code for Class II	Order code for Class I	Number of LED	"A" Dimension
LYC##004C*	LXC##004C*	40	400 mm
LYC##006C*	LXC##006C*	60	450 mm
LYC##008C*	LXC##008C*	80	400 mm
LYC##010C*	LXC##010C*	100	450 mm
LYC##012C*	LXC##012C*	120	501 mm
LYC##014C*	LXC##014C*	140	552 mm
LYC##016C*	LXC##016C*	160	603 mm
LYC##018C*	LXC##018C*	180	654 mm
LYC##020C*	LXC##020C*	200	705 mm
LYC##022C*	LXC##022C*	220	756 mm
LYC##024C*	LXC##024C*	240	806 mm

selected optic (for a description of the available optics, please consult pages 38, 39, 40)
* colour

- Accessories:
- RL-BRDSPK: Bird Spikes
 - RL-CL12KIT: Suspension kit H=305mm
 - RL-CL18KIT: Suspension kit H=457mm
 - RL-PNDTLVL: Leveler (for 0-13° slopes)



Mounting 0: fixed ceiling/canopy mounting option.

For line drawings and order codes for mounting 9 products, please refer to the specification sheets available on www.ruudled.net.




EDGE PARK/R

LED lighting systems represent the most innovative technological solution for petrol station lighting. Edge Park/R is the BetaLED product most suited for under canopy lighting applications. The electronic system allows for “smart” management of power consumption and light output. Each fixture can be controlled by integrated and remote sensors to regulate luminous flux according to traffic or time. Moreover, the modular system gives users the opportunity to choose the fixtures that best match with project requirements, with options from 40 to 100 LED (from 2 to 5 light bars).



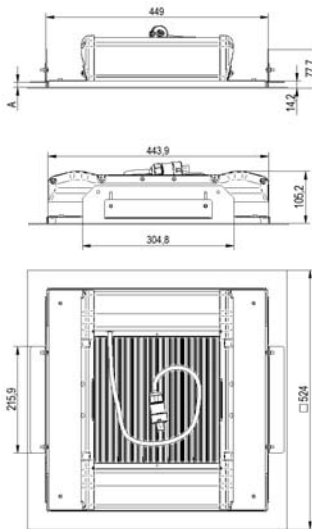
- Modular system
- Full die cast and extruded-aluminium housing
- IP66 grade protection
- Designed for recessed mounting
- NanoOptic™ implemented in conformity with Dark Sky (IESNA)
- Available optics: QVM, QVS, FS
- Available multi-level option (G) for regulation of the luminous flux
- Standard colour temperature: 6.000 K
- Colour temperatures of 3.500 K and 4.300 K are available on request
- Pilot current regulation by occupancy sensor (K option)
- Power line control system with dimmable driver (option D)
- Integral dimming system with plants including flux regulators



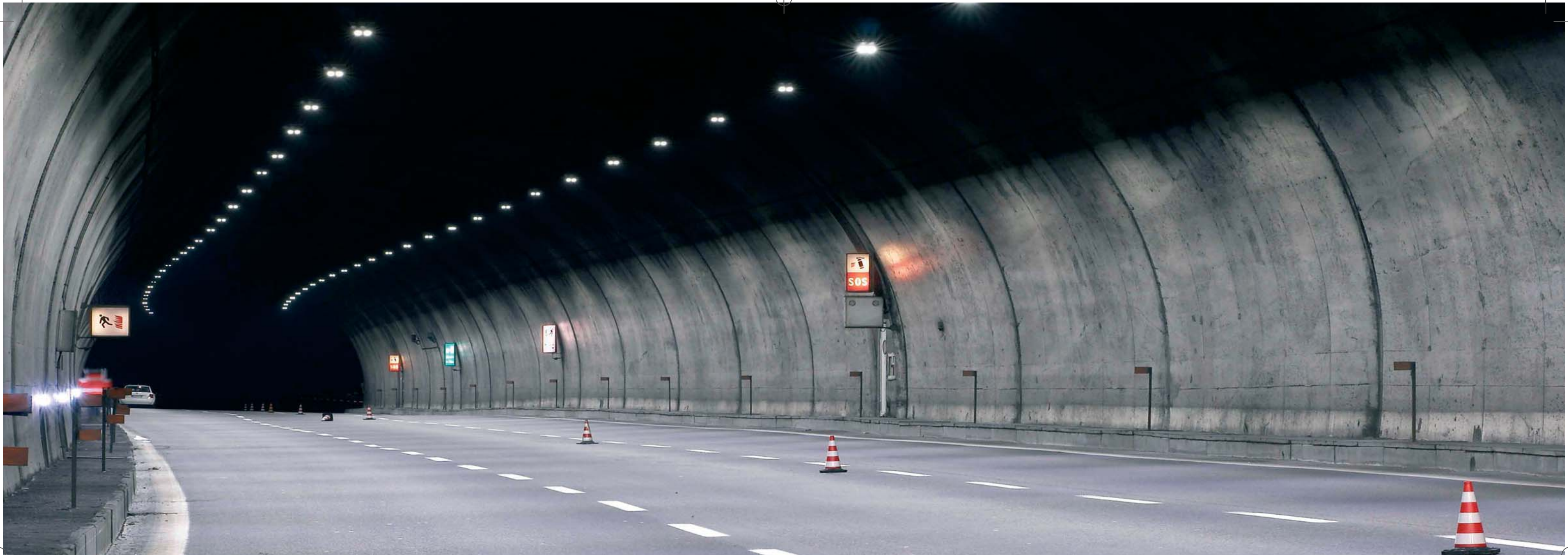
Colours available:  Silver

Order code for Class II	Order code for Class I	Number of LED
LYP##R04C*	LXP##R04C*	40
LYP##R06C*	LXP##R06C*	60
LYP##R08C*	LXP##R08C*	80
LYP##R10C*	LXP##R10C*	100

selected optic
(for a description of the available optics, please consult pages 38, 39, 40)
* colour



Mounting R: recessed mounting option



EDGE TUNNEL


Edge Tunnel luminaires can be used for applications such as tunnels and vehicular underpasses. The product has a rectangular shape structure and its modular system allows configuration to obtain the desired luminous flux. Edge Tunnel luminaries are available from 40 to 60 LED (from 2 to 3 light bars). Our NanoOptic™ system makes it possible to use Edge Tunnel for tunnels and underpasses, for both monofilar and bifilar installations.

The fixtures come standard with a mounting support complete with a plate and four fasteners for rapid coupling to a cable channels.



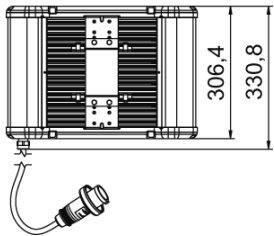
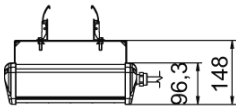
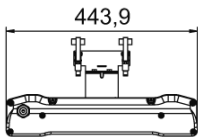
- Modular system
- Die cast and extruded-aluminum housing
- IP66 grade protection
- Designed for mounting on cable channels
- NanoOptic™ implemented in conformity with Dark Sky (IESNA)
- Available optics for tunnels and underpasses lighting include: AC,ACB, PR, RB,TS,TSB,TM,TMB
- Available multi-level option (G) for regulation of the luminous flux
- Standard colour temperature: 6000 K
- Colour temperatures of 3500 K and 4300 K available on request
- Power line control system with dimmable driver (option D)
- Integral dimming system with plants including flux regulators



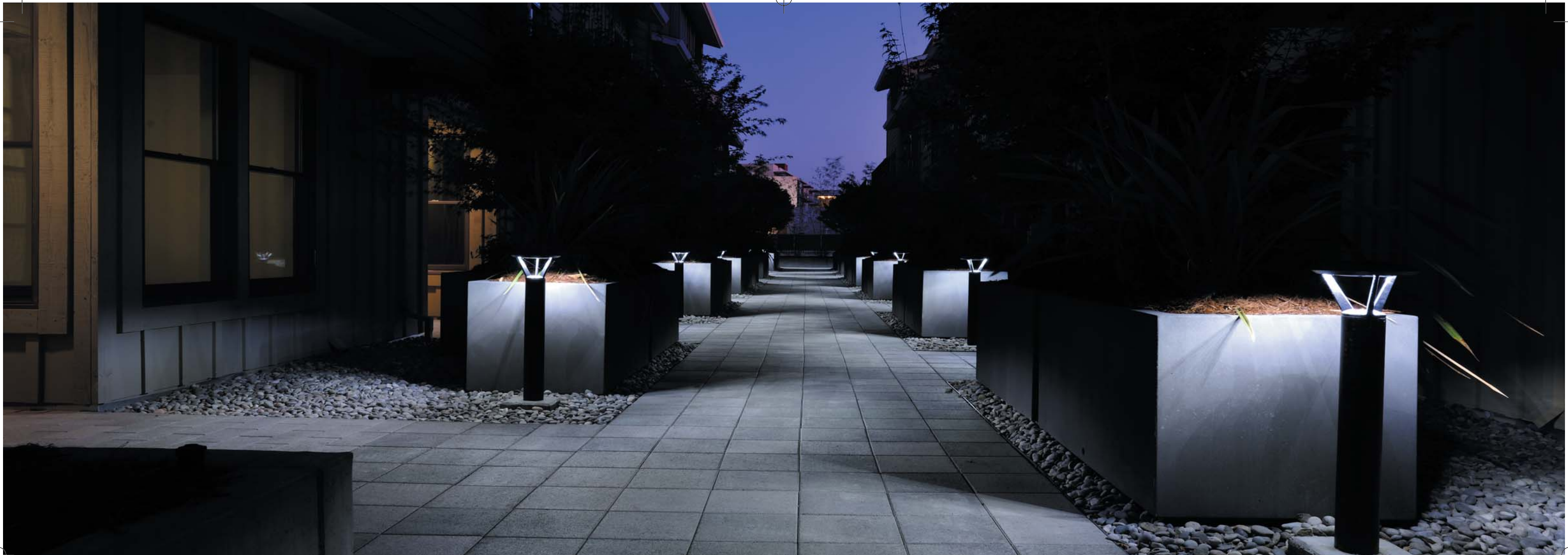
Colours available:  Silver

Order code for Class II	Order code for Class I	Number of LED
LYT##T04CSV	LXT##T04CSV	40
LYT##T06CSV	LXT##T06CSV	60

selected optic
(for a description of the available optics, please consult pages 38, 39, 40)
* colour



Mounting T: Mounting assembly made of plate and n.4 laches for a fast coupling to a cable channels.



PATHWAY

Pathway luminaries are the latest solution of the BetaLED family for pedestrian pathways, access and perimeter roads of any building. Its design blends with any architectural style and, thanks to the three expected configurations, permits extreme flexibility in design and in the lighting design.



- Rugged aluminum housing with heavy gauge steel frame
- IP66 grade protection
- NanoOptic™ implemented in conformity with dark Sky (IESNA)
- Available optics include: QVM, QVS
- Available multi-level option (G) for regulation of the luminous flux
- Standard colour temperature: 6000 K
- Colour temperatures of 3500 K and 4300 K available on request
- Three different height options: 45 centimetres
90 centimetres
2.4 metres

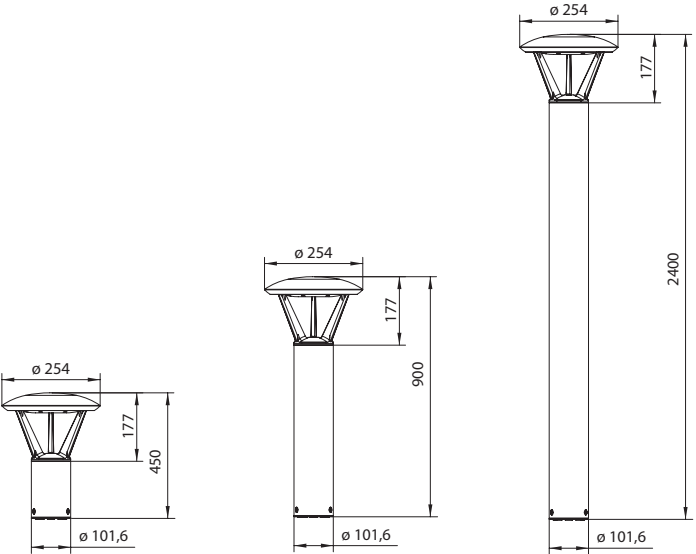


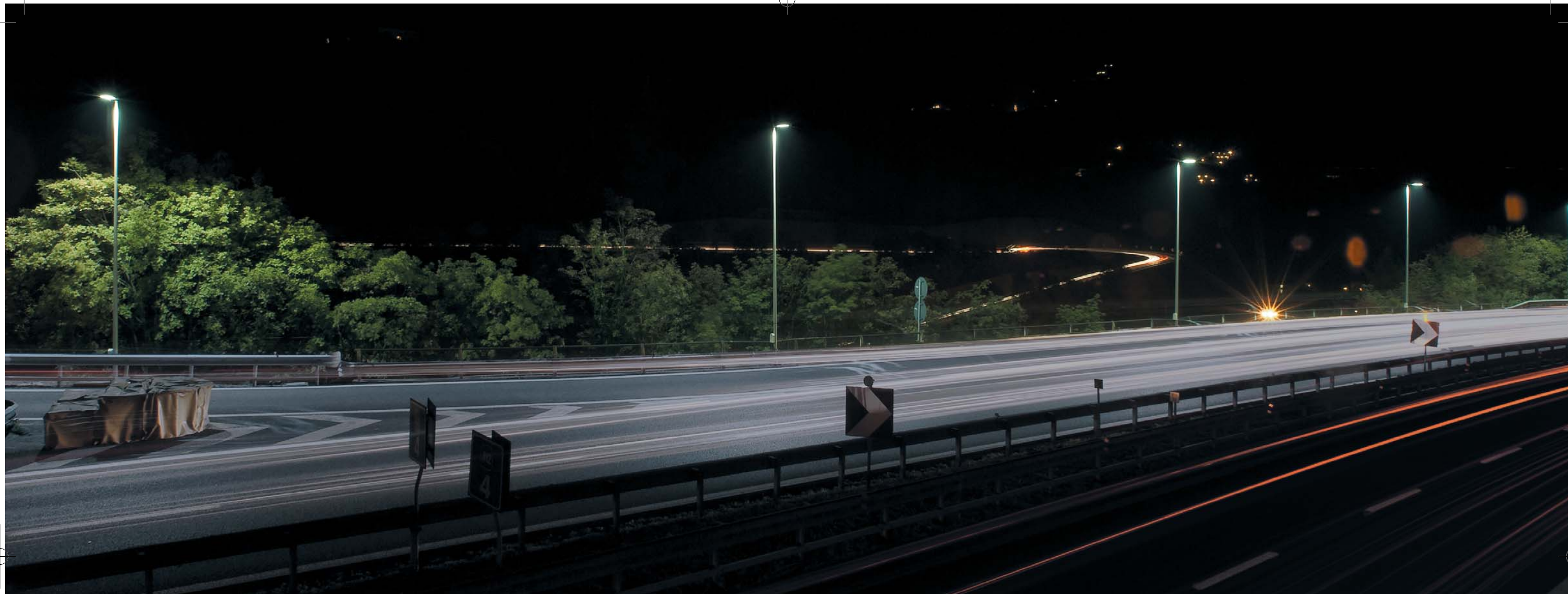
Colours available:  Silver  Black  White

Order code for Class II	Order code for Class I	Number of LED	"A" Dimension
LYH##018C04*	LXH##018C04*	18	450 mm
LYH##018C09*	LXH##018C09*	18	900 mm
LYH##018C24*	LXH##018C24*	18	2.400 mm

selected optic (for a description of the available optics, please consult pages 38, 39, 40)

* colour





Control systems: news

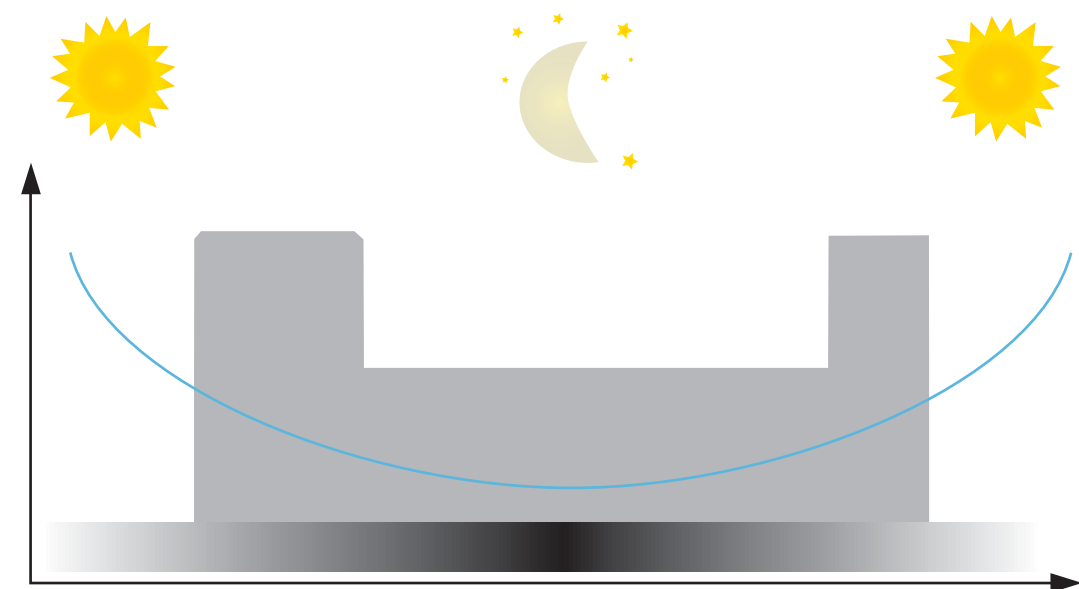
Dimmer Device For Two Levels Of Led Power Ratings

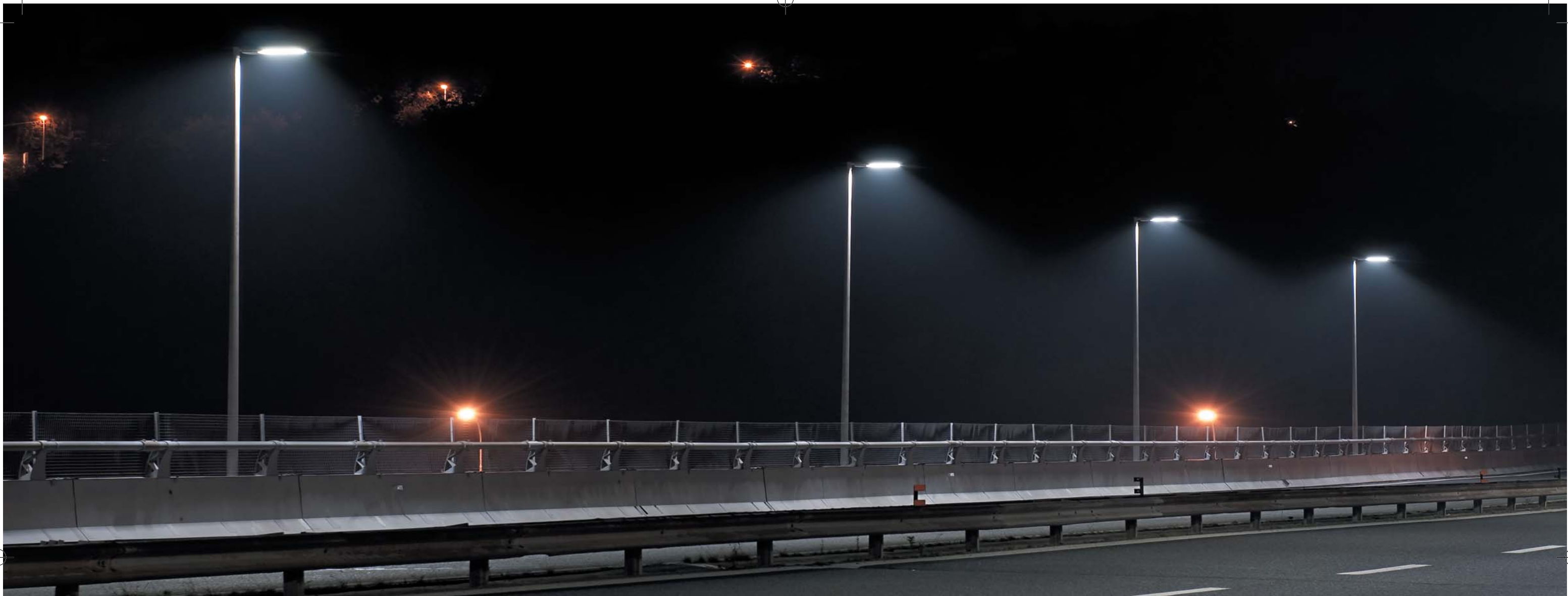
Each BetaLED product may be provided with a dimmer device of two power levels that may be directly set by Ruud Lighting and subsequently programmed by the installer or the end client. The device is based on calculation of so-called virtual midnight.

Once programmed at installation, the device automatically self regulates based upon the "on" and "off" schedule. The adjustable power levels are 175 mA / 525 mA, 175 mA / 350 mA, 350 mA / 525 mA.

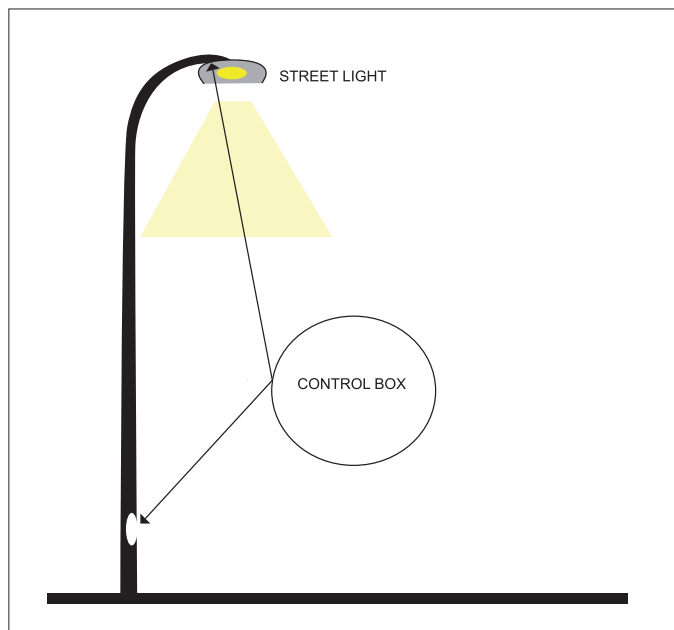
The average between the "on" period (sunset) and "off" period (sunrise) of the lighting systems is the device reference point, and is indicated as natural midnight.

A microprocessor calculates the desired switch-overtime starting from the reference point. The factory settings are 3 hours before (around 10 p.m.) and 4 hours after (around 5 a.m.) natural midnight. The duration can be easily changed by the end user at any time. The device used (Tridonic Atco ZRM U6M A001) allows switching times to be programmed to suit end user requirements. The device can be reprogrammed by switching power on and off.





Power line communication (PLC)



Ruud Lighting uses power line technology for management of luminous flux of dimmable LED luminaires. The system works through superimposing over the current transport a high frequency signal. Dimming is produced using a 1-10V analog signal from a minimum of about 75mA to a maximum of 525 mA.

The fittings are used as dimmable electronic drivers to which are added a control module called Control Box. The module has the task of communicating directly with the driver; both to receive information regarding status and operation thereof, and to regulate the drivers feed current and, therefore, the luminous flux intensity of the luminaire. It may be placed, depending on the product, inside the fixture or within the post, without any limitation due to distance. Additionally, all apparatus may be controlled through a central CU (Collecting Unit) for collecting data on the functioning of the driver and send the Control Box the dimmer value operating the driver. The system is programmed by proprietary software that permits the creation of various dimmer profiles. The single CU may

control up to 380 CB, permit monitoring of up to 13,000 scheduled events, and creation of up to 5 dimming profiles.

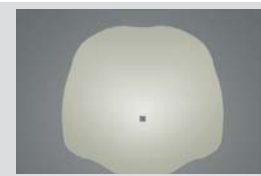
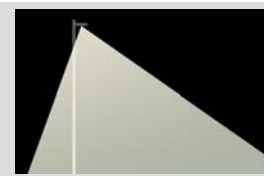
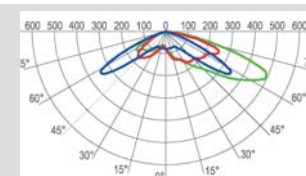
In the event that the CB is used without obtaining the CU, the driver will be set to operate at maximum output (the same occurs if communication fails due to a problem during the "on" stage). In the event of malfunctions, the software is also programmed to notify the facility's responsible entity via SMS.

Integral dimming system with plants including flux regulators

The BetaLED luminaires by Ruud Lighting may be mounted on existing plants that include a flux regulator commonly used to dim conventional HPS lamps. The regulator performs a check on the plant power supply bringing the nominal value of 230 Vac to a value that fluctuates between 170 and 180 Vac. The fixture has one or two 1-10V dimmable drivers and an interface module that "translates" the change in voltage in an analog signal, allowing the driver to adjust the LED driver current and, consequently, the luminous flux.

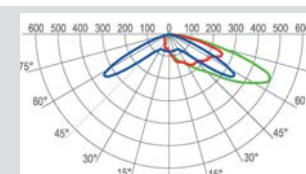


BetaLED NanoOptic™ System



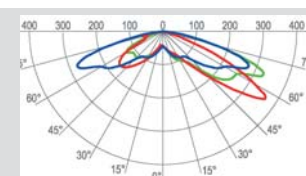
AC

Asymmetric optic (type IV Medium) for street lighting and parking area applications



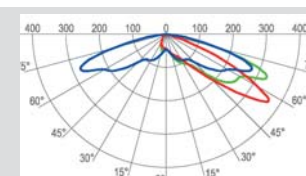
ACB

Asymmetric optic lacking retroflex (type IV Medium) for street lighting and parking area applications



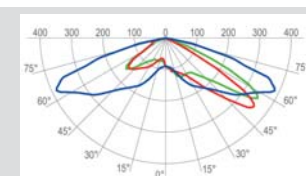
PR

Asymmetric optic (type III) for street lighting and parking area applications



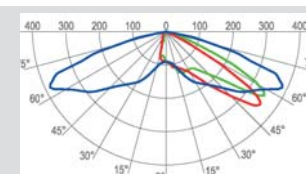
PRB

Asymmetric optic lacking retroflex (type III) for street lighting and parking area applications



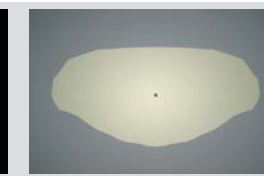
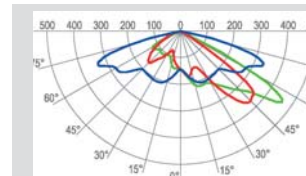
TM

Asymmetric optic (type II Medium) for street lighting, cycle tracks, pedestrian walkways



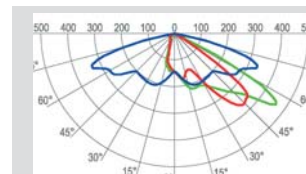
TMB

Asymmetric optic lacking retroflex (type II Medium) for street lighting, cycle tracks, pedestrian walkways



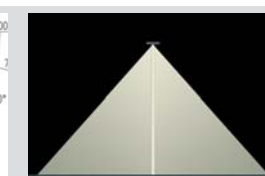
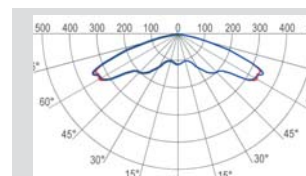
TS

Asymmetric optic (type II Short) for street lighting



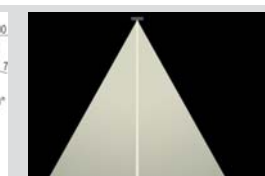
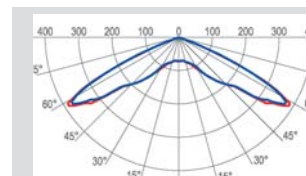
TSB

Asymmetric optic lacking retroflex (type II Short) for street lighting



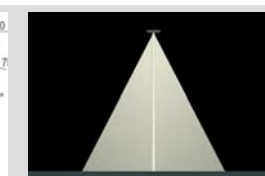
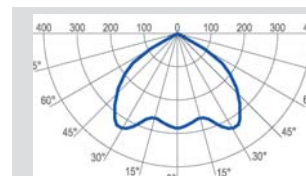
QVM

Quadrate symmetric optic (Type V Medium) for street lighting and parking area applications



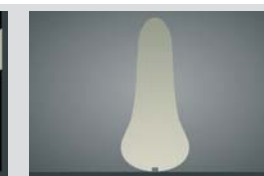
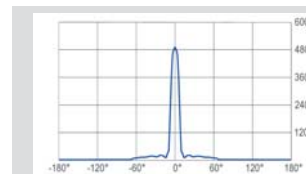
QVS

Quadrate symmetric optic (Type V Short) for street lighting and parking area applications



FS

Flood symmetric for canopy installation



I5

Narrow spot 15° symmetric

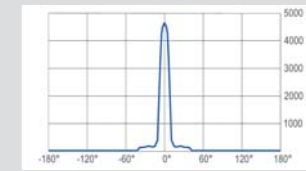


How to read product code

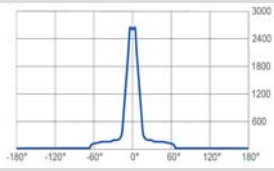
Example:

LY STS I 06 B G BK

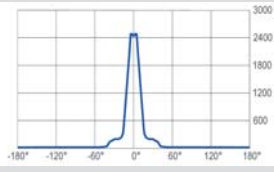
L	Y	S	TS	I	06	C	G	BK
Product:	Insulation Class:	Type:	Optic:	Mounting:	Number of LEDs:	LED Class:	Options:	Colour:
L= Edge LEDway	X=class I Y=class II	S= street D= road R= round W= wall C= canopy P= park T= tunnel H= pathway	AC PR TS TM QVM QVS ACB PRB TSB TMB FS 60 60D 40 40D 25 25D 15 15D	0= direct mount 1= fixed arm for square and cylindrical poles 3= adjustable fitter 8= without mounting 9= pendant mount F= cylindrical pole top bracket R= recessed ceiling mount L=suspension mount 7= adjustable fitter for Ledway Road W= direct mount for Edge Wall	01=10 02= 20 03=30 04=40 05=50 06=60 08=80 09=90 10=100 11=110 12=120 14=140 16=160 18=180 20=200 22=220 24=240	C= 6000 ±500°K	G= Multi-level K= Occupancy sensor 35= 3.500K 43= 4.300K RE = dimmable with flux regulator DC = dimmable control box PO DR = dimmable control box Rev. S1 = bipower with virtual midnight 175 mA / 525 mA S2= bipower with virtual midnight 350 mA / 525 mA S3= bipower with virtual midnight 175 mA / 350 mA I3= fixed power 350 mA	BK= Black SV= Silver WH= White



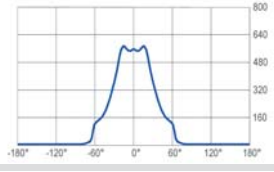
15D
Narrow spot 15° symmetric



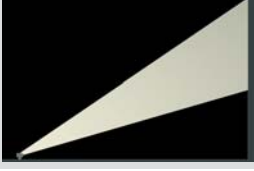
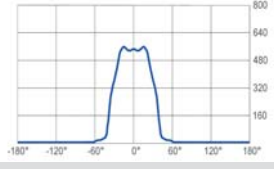
25
Medium spot 25° symmetric



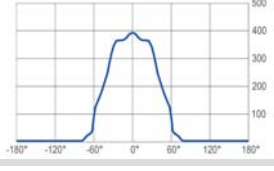
25D
Medium spot 25° symmetric



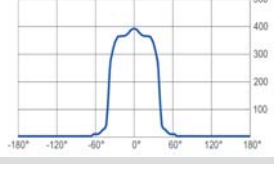
40
Wide spot 40° symmetric



40D
Wide spot 40° symmetric

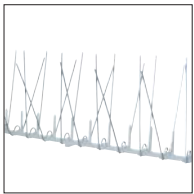


60
Wide spot 60° symmetric



60D
Wide spot 60° symmetric

Accessories



BRDSPK
Bird Spikes



RL-##12KIT
Pendant Kit H305



RL-##18KIT
Pendant Kit H457



RL-##22KIT
Pendant Kit H559



RL-PNDTLVL
Leveler (for 0-13° slopes)



RL-PSFTG
Pendant fittings

RUUD LIGHTING EUROPE S.R.L. A S.U.

Via dei Giunchi 52 - 54
50145 Firenze
Italia
Phone: +39 055 343081
Fax: +39 055 34308200
e-mail: info@ruudlighting.net
www.ruudlighting.net

RUUD LIGHTING INC.

9201 Washington Avenue
Racine, WI 53406
U.S.A.
Phone: +1 800 236 7000
Fax: +1 800 236 7500
e-mail: sales@betaled.com
www.ruudlighting.com
www.betaled.com

RUUD LIGHTING CANADA

6889 Rexwood Road, Unit 3
Mississauga, Ontario L4V 1R2
Canada
Phone: +1 800 473 1234
Fax: +1 800 890 7507
email: info@ruud.ca
www.ruud.ca

ADVANCED LIGHTING TECHNOLOGIES LTD

8 Boeing Place, Mount Maunganui
P O Box 11, Tauranga New Zealand
Phone: +64 7 579 0163
Fax: +64 7 579 0164
e-mail: light@adlt.co.nz

ADVANCED LIGHTING TECHNOLOGIES, INC.

110 Lewis Road
Wantirna South, Victoria 3152
Australia
Phone: +61 03 9800 5600
Fax: +61 03 9800 5533
e-mail: sales@advancelighting.com.au
www.advancelighting.com.au

ADVANCED LIGHTING TECHNOLOGIES ASIA PTE LTD

Block 4008, Ang Mo Kio Avenue 10
#04-06, Techplace I, Singapore 569625
Phone: +65 6844 2338
Fax: +65 6844 2339
e-mail: francis_lee@adlt.com

RUUD LIGHTING ARABIA (L.L.C.)

P.O.Box 74616
Dubai
U.A.E.
Phone: +971 4 398 0997
Fax: +971 4 398 2644
e-mail: info@ruudlightingarabia.com



CAT-LEDGENI0/EN



RUUD
LIGHTING