FOS lighting

ECLATEC

Exceptional Street and Landscape Illumination.
Assembled and distributed by FOS Lighting.

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ECLATEC products assembled and curated in Australia by FOS Lighting

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*PRM : Approved for access of Persons with Reduced Mobility

LIGHTING SOLUTIONS

ECLATEC's commitment:

Life, Cities, Nature inspire ECLATEC public lighting solutions.

ECLATEC luminaires offer solutions delivering performance and legal compliance through:

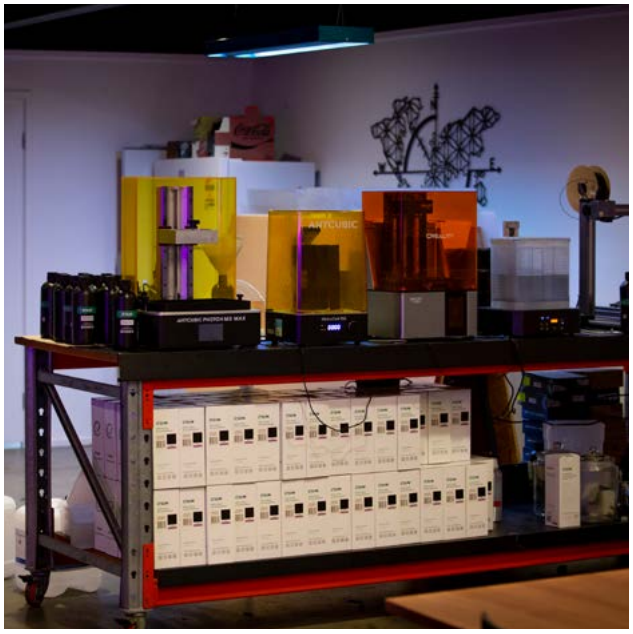
- Optimised LED technology guaranteeing the efficiency and reliability
- Optional lighting control and management functions maximising LED technology use
- Modularity, scalability and ease of maintenance for sustainable use and circular economy

ECLATEC is a market leader with a presence in more than 30 countries worldwide including Australia through is partnership with FOS Lighting.

Market knowledge by its partners allows ECLATEC to provide solutions for local conditions and standards through customized luminaire options, outputs and distributions.

ECLATEC solutions are therefore technically and aesthetically optimised for every project and location, so that their luminaires are perfectly integrated into any public space.

ECLATEC
Life, Cities, Nature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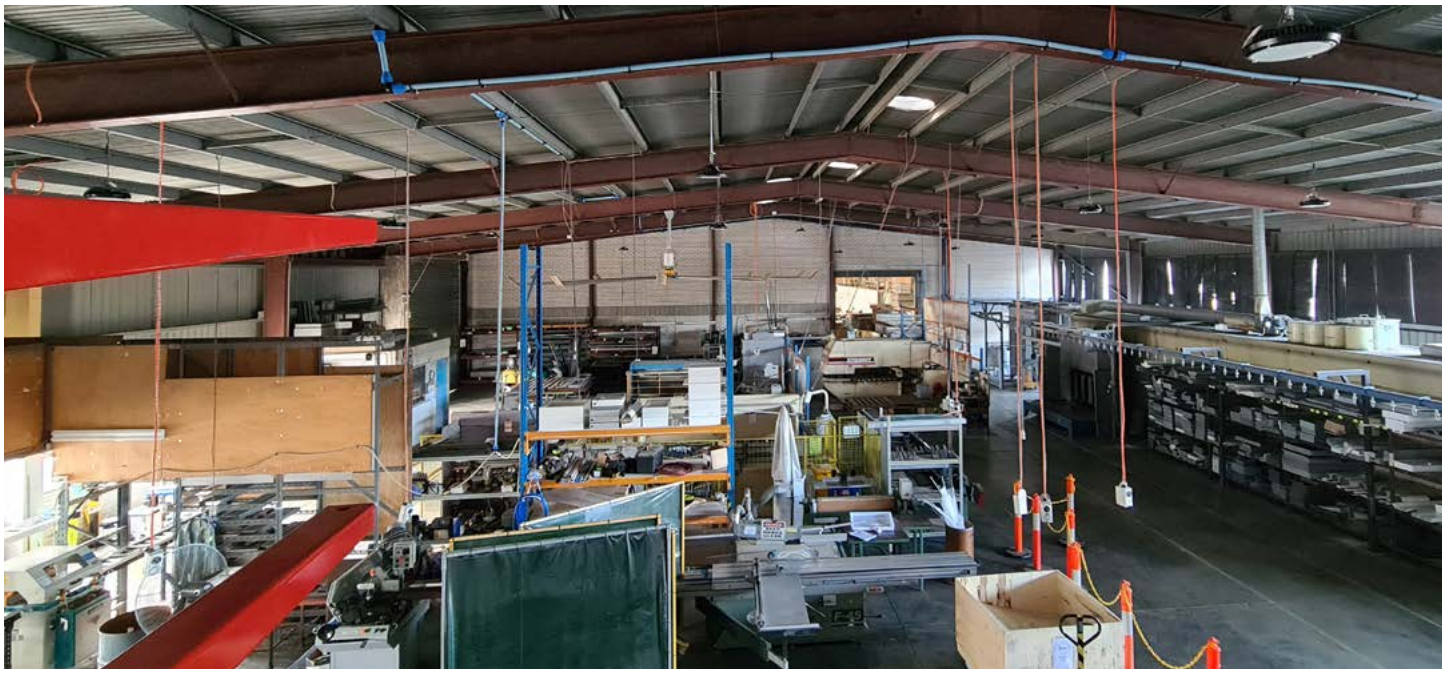



FOS
lighting

DESIGNER & MANUFACTURER

A LEGACY OF EXCELLENCE

ECLATEC is a market leading designer and manufacturer of external light fittings.

For almost a century, ECLATEC has been designing, producing and marketing constantly evolving public lighting solutions. The Company's fully integrated approach is always guided by the same will to "light properly".

All ECLATEC company structures use a "continuous improvement approach" validated by its successful **ISO 9001**, **14001** and **50001** certification.

All its organizational, human, structural and technical resources are focused on that objective.

ECLATEC's eco-responsible approach is their driving force.

To light cities and public spaces effectively, ECLATEC follow societal trends towards lower energy consumption, protection of biodiversity and the creation of urban well-being.

Showroom at the ECLATEC Maxéville headquarters

PREVENTING LIGHT POLUTION

CITIZEN LIGHTING®

Lighting properly means providing optimum lighting conditions without creating light pollution or unwanted optical effects. It also means designing and implementing smart features like time programming, motion detection or remote management. ECLATEC develops exclusive, market-approved solutions in this field.

Citizen Lighting® is an ECLATEC concept, aiming to provide environmentally friendly solutions. The purpose is to prevent, limit and reduce light pollution causing excessive disturbance to people, fauna, flora or ecosystems, and preventing the observation on the night sky. Citizens, the users of public spaces, are at the heart of ECLATEC's "proper lighting" approach.

The goal is to provide the required light optimally, providing a caring, comforting and reassuring visual experience. The right amount of light in an effective manner.

Citizen Lighting® combines suitably designed fittings (appropriate light distributions and colour temperatures), compatibility with local regulations (no upward light pollution), the choice of materials used (RoHS requirements), the recovery, replacement and recycling of components at the end of their service life (circular economy) and local partners and production (improved lead times and customisation).

INTERNATIONAL VISION

LOCAL MARKETS

Beyond their essential principles, ECLATEC values efficiency and adaptability. Their solutions are technically and aesthetically optimised for every project, so that their luminaires are perfectly integrated into the context of each location.

From the 1950s onwards, ECLATEC opened up to the world and began exporting a large share of its luminaires.

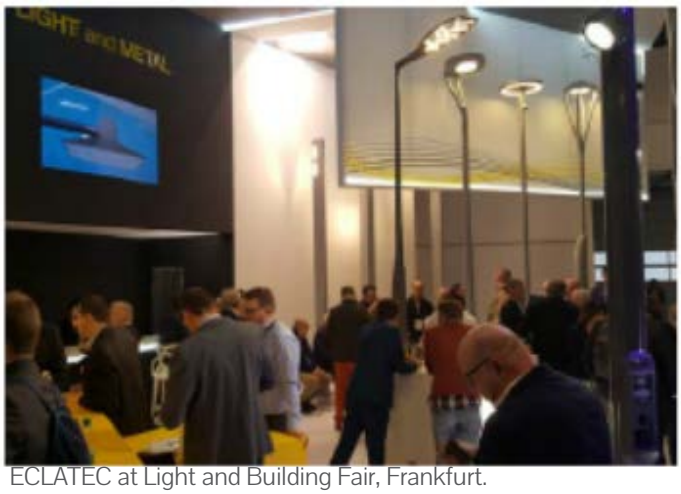
ECLATEC now has a presence in more than 30 countries worldwide and they show their international positioning by offering complete and optimal solutions, thanks to their “product”innovation focused research and their network of partners including Australia and New Zealand through its partnership with FOS Lighting.

Local market knowledge by its partners allows ECLATEC to provide solutions for local conditions and standards through customized luminaire options, outputs and distributions.

ECLATEC strives to create strong links with locally based partners who share their philosophy and values. ECLATEC partners, like FOS Lighting, are specialists and leaders in their respective markets.

This makes it possible for ECLATEC to position themselves in core international markets and better understand the needs of its stakeholders and users.

That is why ECLATEC luminaires will be assembled in Australia under licence by FOS Lighting in their ISO 9001 Brisbane manufacturing facility.



ECLATEC at Light and Building Fair, Frankfurt.

7-TEC BY ECLATEC

7-Tec by Eclatec is a seven stage process ensuring that you; the designer, installer or stakeholder are getting an outdoor lighting product and solution of the highest quality.

1. MECHANICAL OPTIMISATION

Mechanical optimization is a comprehensive approach in engineering that aims to maximize the performance, reliability, and efficiency of mechanical systems.

One crucial aspect of mechanical optimization is designing systems for long-term reliability and maintainability. By considering factors such as component durability and ease of maintenance, engineers ensure that the systems can operate efficiently over an extended period.

Moreover, mechanical optimization focuses on achieving a long economic life for assets. By employing durable materials and robust designs, engineers ensure that the mechanical systems have a prolonged lifespan, reducing the need for frequent replacements and minimizing associated costs.

A modular approach is another key principle of mechanical optimization, aiming to maximize product circularity. By designing systems with interchangeable and reusable components, engineers enhance the system's flexibility, adaptability, and sustainability. This approach allows for efficient maintenance, upgrades, and recycling of components, reducing waste and resource consumption.

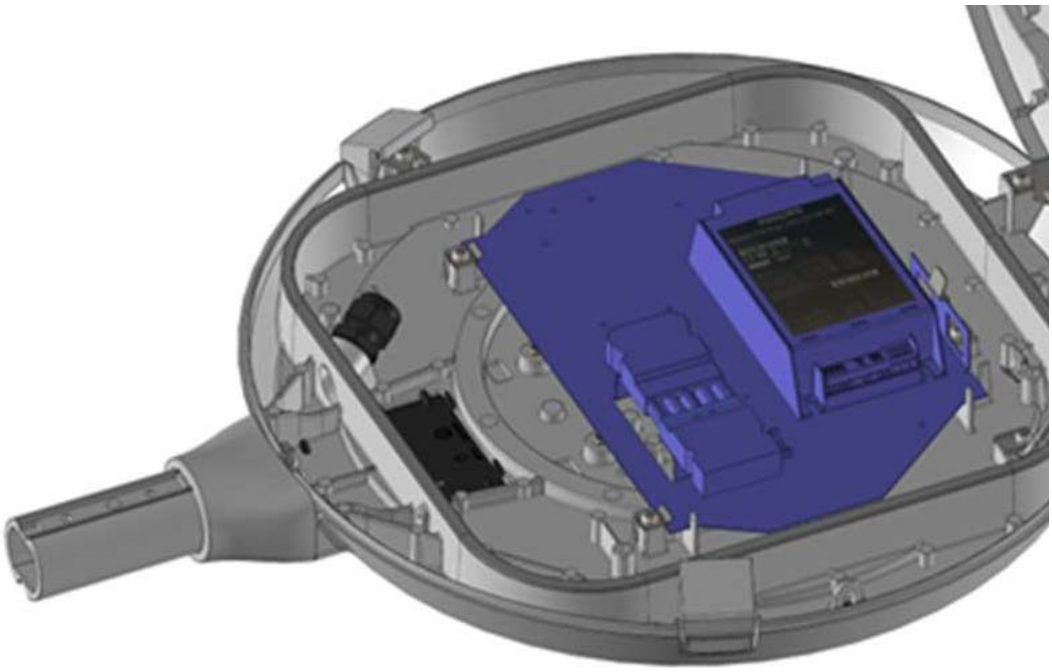
In the pursuit of thermal performance optimization, mechanical systems are designed with housings that never use cooling fins. This design feature ensures that the systems are not affected by the accumulation of dust or debris, maintaining consistent thermal performance over time.

To facilitate maintenance and repair, drivers are only fixed to removable gear-trays rather than the body casting. This design enables quick and easy replacement of faulty components without the need for extensive disassembly, minimizing downtime, shortening maintenance time, hence lifetime cost of ownership and increasing system availability.

An effective breathing system for the gear cavity is incorporated in the housing design, utilizing an activated carbon filter. This filtration mechanism helps to maintain clean and contaminant-free gear cavities, minimising dust buildup and ensuring ensuring optimal performance and prolonging the life of the electronic components by maximising heat dissipation and exchange.

Mechanical optimization also considers the need for a wide range of mechanical interfaces. By providing compatibility with various industry-standard interfaces, the systems can seamlessly integrate with other mechanical and electronic components and control systems, promoting interoperability and ease of use.

All fittings are carefully designed to meet the required European Standards, with IP66 ingress protection via extruded silicon gaskets kept sealed via tooless cantilever-type locking mechanisms being the norm across the majority of the Eclatec family of luminaires. Additionally, the mechanical optimization process takes into account the level of impact resistance required for different fitting types. The impact resistance rating, denoted as IK08, IK09, or IK10, ensures that the systems can withstand external forces and environmental conditions without compromising their functionality.



1. MECHANICAL OPTIMISATION

Summary:
Mechanical optimization encompasses various design principles and considerations to achieve enhanced performance, reliability, and efficiency of mechanical systems.

- long-term reliability,
- economic life,
- modular approaches,
- thermal performance,
- maintainability, and
- compatibility with mechanical interfaces.

Engineers strive to create systems that maximize functionality while minimizing waste and resource consumption.

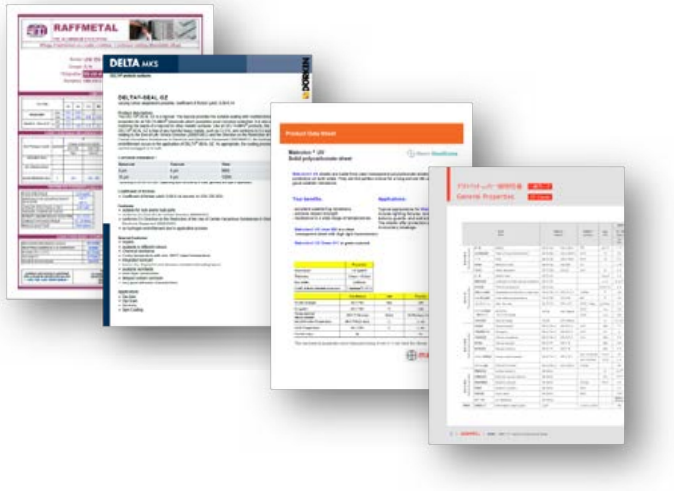
This holistic approach leads to improved system durability, reduced costs, and a more sustainable approach to mechanical engineering.

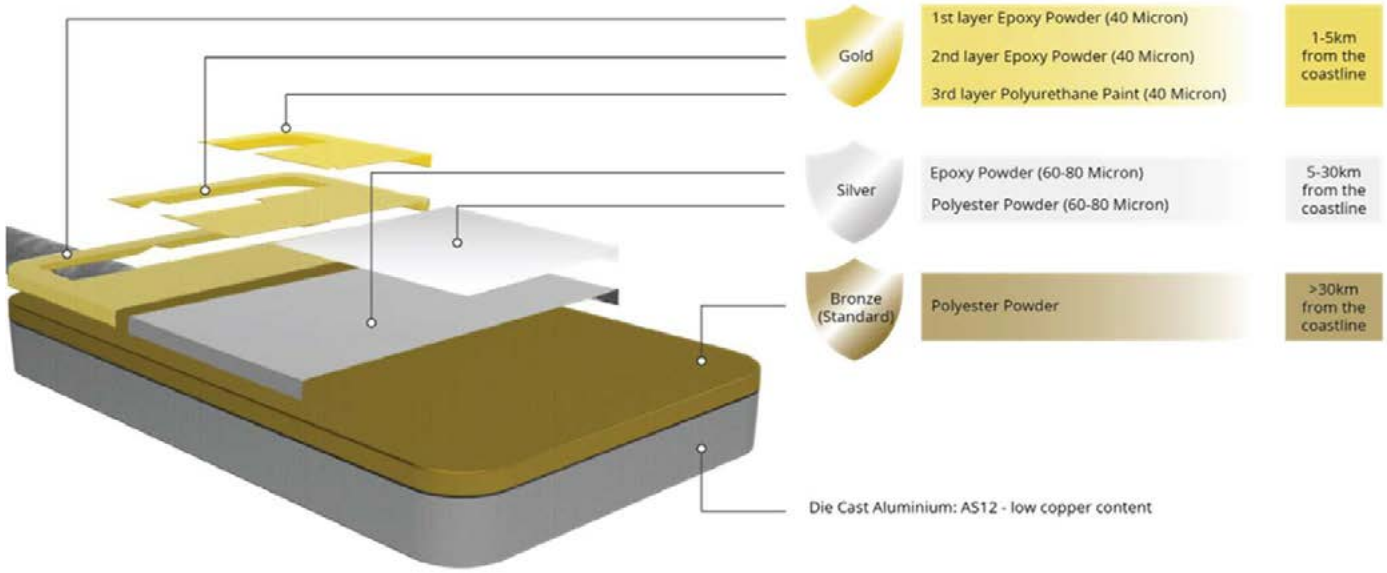
2. MATERIALS & TREATMENT

In the realm of materials and treatment, careful selection and application of various elements contribute to the overall quality and durability of luminaires.

When it comes to cast aluminum housings, low-copper AS12-grade alloys with a copper content of less than 0.08% are utilized. This choice of alloy ensures high corrosion resistance, protecting the housings from the detrimental effects of environmental factors and extending their lifespan.

To prevent galvanic bonding and further enhance corrosion resistance, all external screws undergo the DELTA sealing process. This treatment eliminates the risk of galvanic corrosion and ensures the integrity and accessibility for maintenance of the luminaire over time, ensuring the extended functional life of the fitting.



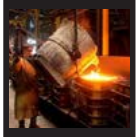


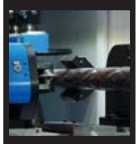
External optics are constructed from thermally-toughened glass or double-UV-stabilized polycarbonate, with the treatment applied to both sides. This provides excellent weathering resistance, ensuring that the optics can withstand harsh environmental conditions without compromising their functionality. In addition, the primary lenses used on individual LED packets are made from UV and temperature-stabilized PMMA, which enhances their durability and ability to maintain optical clarity under varying environmental conditions.

Furthermore, the primary lenses (those that are associated with the individual LED packets) are made from UV and temperature-stabilized PMMA, which enhances their durability and ability to maintain optical clarity under varying environmental conditions.

As was stated in the previous section, the choice of materials also provides high ingress protection and impact resistance, depending on the specific fitting type.

To ensure reliable ingress protection and weathering resistance, long-life extruded silicone gaskets are employed for luminaire housing seals. These gaskets provide effective sealing, safeguarding the internal components from moisture, dust, and other contaminants. With an ingress protection rating of IP66, the luminaire housings are well-equipped to withstand challenging environmental conditions while maintaining their integrity.





Summary:

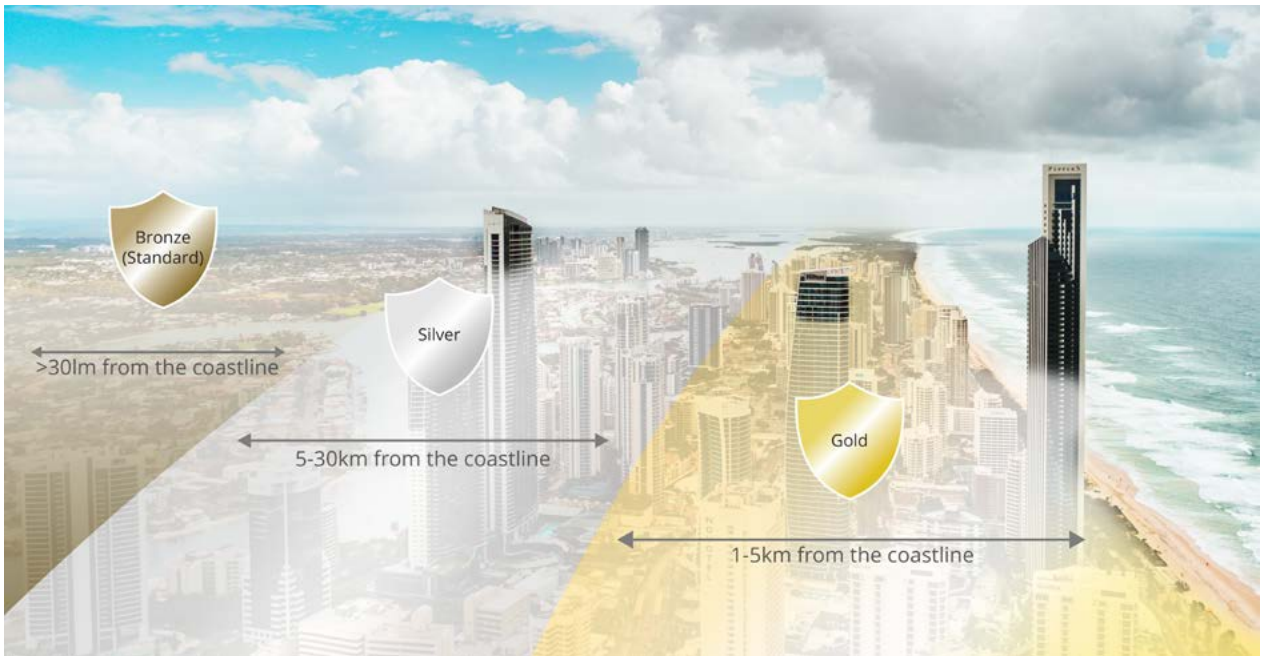
ECLATEC offers three levels of coating protection for their fittings. All luminaire bodies are degreased, rinsed twice and dried at 120°C. Then there are three levels of protection that are applied to the body. These consist of;

BRONZE (Standard)
- Corona polyester powdercoat is applied
- Polymerisation at 200°C
- Protection and Packaging

SILVER
- Application of epoxy powder (60-80 microns)
- Jetification at 150°C
- Corona polyester powdercoat is applied
- Polymerisation at 200°C
- Protection and Packaging

GOLD
- First layer of epoxy powder (40 microns)
- Jetification at 150°C
- Second layer of epoxy powder (40 microns)
- Jetification at 150°C
- Third layer of polyurethane paint (40 microns)
- Fitting is left to dry
- Protection and Packaging

GOLD protection level allows ECLATEC fittings to be used close to seaside and coastal locations.



3. ELECTRONIC QUALITY

LED Selection

Electronic quality is paramount in achieving optimal performance and reliability in LED luminaires. The careful selection of LED chips from specific bins, considering factors such as forward voltage, flux, and colour temperature, allows for the optimization of operating points and efficacy.

Internal laboratory tests verify manufacturer's figures and conduct QC testing, covering a range of parameters, to ensure consistent quality during production. By prioritizing electronic quality, the luminaire can deliver the desired performance and reliability, meeting the expectations of the end-users.

ECLATEC utilise only the best brands for the LED chips. Among these are Osram, Philips Lumileds and Nichia.

PCB Design

PCB design is a critical aspect of ensuring optimal performance, stability, and reliability of electronic systems. In-house production and robotic pick-and-place methods ensure precise assembly.

Design considerations, such as PCB thickness, circuit printing, temperature gradient minimization, manufacturing tolerances, and surface quality, all contribute to the overall quality and performance of the PCBs. Additionally, focus on thermal performance without pastes/mastics and inclusion of an "over-temp" indicator further enhance the reliability and usability of the electronic systems.

By prioritizing these aspects in PCB design, the electronic systems can operate efficiently and reliably, meeting the expectations and requirements of the users.

Driver Selection

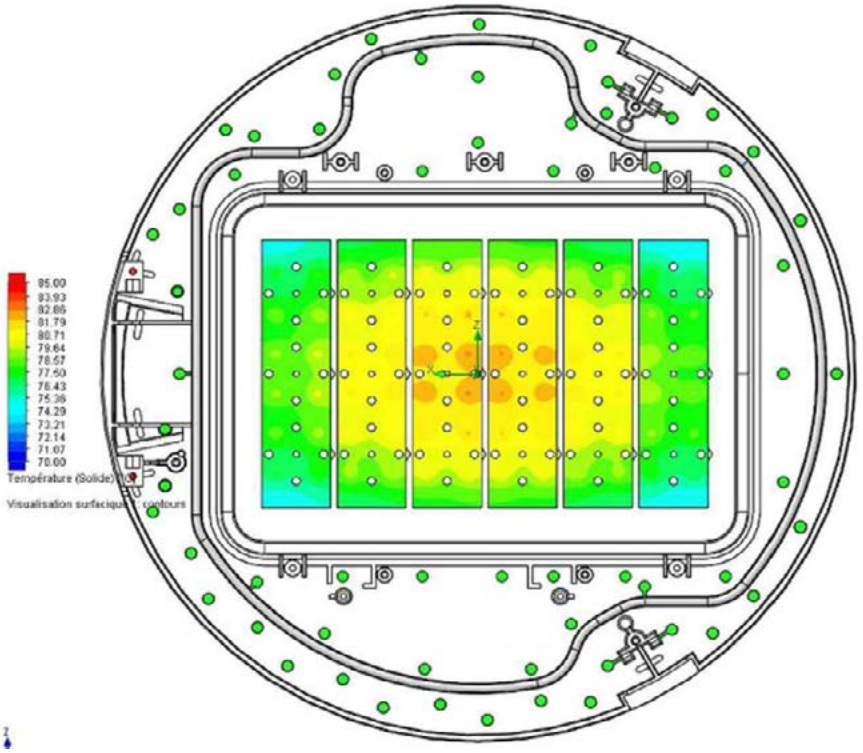
The selection of drivers by ECLATEC emphasizes quality, reliability, and compatibility.

Through extensive internal testing procedures, the best-in-class drivers are chosen Philips and Osram), meeting the stringent standards set for performance and durability. The drivers have a minimum lifetime of 100,000 hours, surge protection capabilities, and continuity of brand and model to facilitate long-term maintenance and spare parts compatibility. By prioritizing these factors, the luminaires can operate efficiently and reliably, minimizing failures, and ensuring optimal performance throughout their lifespan.

Interoperability and Controls

ECLATEC offers a range of solutions for Smart lighting, catering to various requirements and preferences. Stand-alone solutions (pre-programmed, field-adjustable, sensor or Bluetooth wireless), Local Networks (wired or Zigbee) or Cloud-based applications (Zigbee wireless) are some of the options available.

ECLATEC provides a comprehensive range of interfaces, detectors, sensors (PIR and radar) and video through cameras. These components are located within the luminaire housing thus not detracting from the fitting's appearance. NEMA, Zhaga or ZD4i sockets can also be fitted to make the luminaire Smart Lighting ready.



3. ELECTRONIC QUALITY

Summary:

LED Selection:
Binning, determined by factors such as:

- forward voltage,
- flux, and
- colour temperature, allows for the optimization of operating points and efficacy.
- Internal laboratory verification ensures consistent quality during production.

PCB Design:

- Ensures optimal performance, stability, and reliability of electronic systems, robotic pick-and-place methods ensure precise assembly.
- Design considerations, such as PCB thickness, circuit printing, temperature gradient minimization, manufacturing tolerances, and surface quality, all contribute to the overall quality and performance of the PCBs.
- The focus on thermal performance without pastes/mastics and the inclusion of an "over-temp" indicator further enhance the reliability and usability of the electronic systems.

Driver Selection:

- Emphasizes quality, reliability, and compatibility.
- Extensive internal testing identifies best-in-class drivers meeting the stringent standards set for performance and durability.
- Selected drivers have a minimum lifetime of 100,000 hours, surge protection capabilities, and continuity of brand and model to facilitate long-term maintenance and spare parts compatibility.
- By prioritizing these factors, the luminaires can operate efficiently and reliably, minimizing failures, and ensuring optimal performance throughout their lifespan.

linteroperability and Controls:

- Smart lighting solutions achieve these outcomes through the adoption of D4i and Zhaga hardware, ensuring compatibility across different vendors and components.
- Eclatec provides a comprehensive range of solutions, encompassing stand-alone, local network, and cloud-based applications.
- The availability of diverse interfaces, detectors, and sensors further enhances the versatility and adaptability of the lighting systems.
- Through these efforts, Eclatec aims to deliver seamless integration, flexible control options, and innovative sensing capabilities in their smart lighting solutions.

ZHAGA Socket

ZD4i Smart-Ready

Camera

Presence Sensor

4. MAINTENANCE OPTIMISATION

Sustainability Goals
The focus on maintenance optimization is an integral part of the design and functionality of ECLATEC lighting systems, it has become increasingly relevant as clients have begun to introduce sustainability as a critical design requirement. Several features are implemented to simplify and streamline the maintenance process while maximizing circularity and minimizing the need for tools and associated down-time.

Circular Economy
A modular design approach is employed to promote circularity and facilitate maintenance. This design philosophy allows for easy disassembly and replacement of individual components, should they fail, reducing waste and promoting sustainability. In line with this, tool-free maintenance is prioritized to enhance convenience and efficiency.

Maintenance Simplification
To ensure easy and hassle-free maintenance, toolless gear-tray fixing and plug-and-play electrical connections are incorporated into the luminaire. This enables simple replacement of drivers, eliminating the need for complex installation procedures with its attendant risk of error as well as reducing downtime. Similarly, LED PCBs are mechanically fixed to castings, eliminating the use of pastes or adhesives. This design feature simplifies the replacement of LED modules, making it a straightforward process.

Simplified Mechanical Closure
To further facilitate maintenance, the luminaires are equipped with a hinged body. This design allows for a secure enclosure while enabling easy access to the gear cavity for maintenance tasks. The hinged body design strikes a balance between security and convenience, ensuring that maintenance operations can be carried out efficiently.

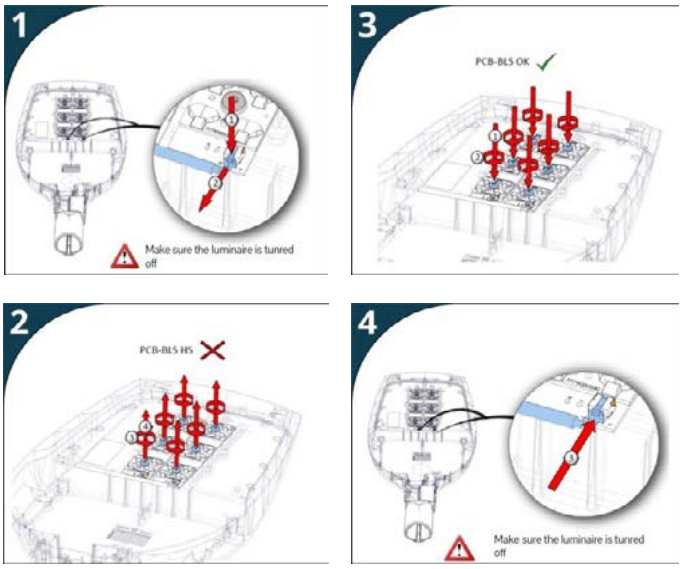
Push-fit gaskets
Extruded silicone gaskets play a vital role in maintaining the integrity of the lighting system. These gaskets are designed to be “push-fit” over sealing ridges, eliminating the need for adhesives or glues. This feature simplifies the installation and replacement of gaskets, reducing the time and effort required for maintenance activities.

Toolless gear-tray fixing and plug-and-play electrical connections
– **simple driver replacement**

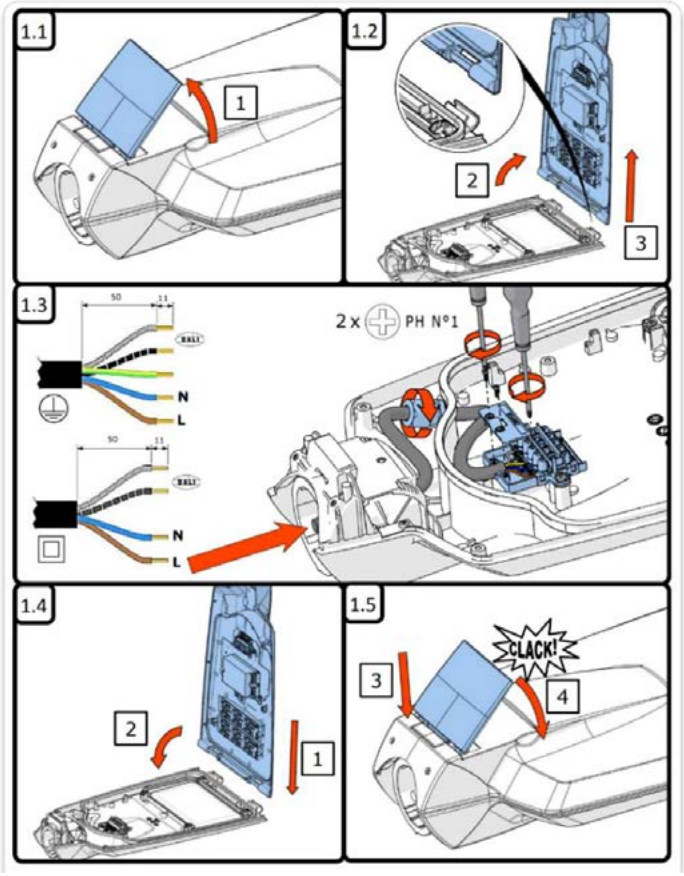
LED PCBs mechanically fixed to castings (no pastes/adhesives)
– **simple LED module replacement**

Hinged body
– **secure, but easy access to gear cavity**

Extruded silicone gaskets ‘push-fit’ over sealing ridges
– **gaskets are never glued.**



BLS mount/dismount with Back Light Shield (strong)



Summary:

- Maintenance Optimization is a key consideration in the design of ECLATEC luminaires.
- The modular design with a tool-free maintenance approach, incorpurating plug-and-play connections simplify the replacement of components.

- Easy and hassle-free maintenance is effected via toolless gear-tray fixing and plug-and-play electrical connections incorporated into the luminaire.
- This enables simple replacement of drivers, reducing downtime.
- Similarly, LED PCBs are mechanically fixed to castings, eliminating the use of pastes or adhesives, which again simplifies and expidites replacement.

- The use of extruded silicone gaskets that are “push-fit” over sealing ridges eliminates the need for adhesives.
- By incorporating these features, the lighting systems are designed to
- maximize circularity,
- minimize maintenance efforts,
- and promote sustainability.

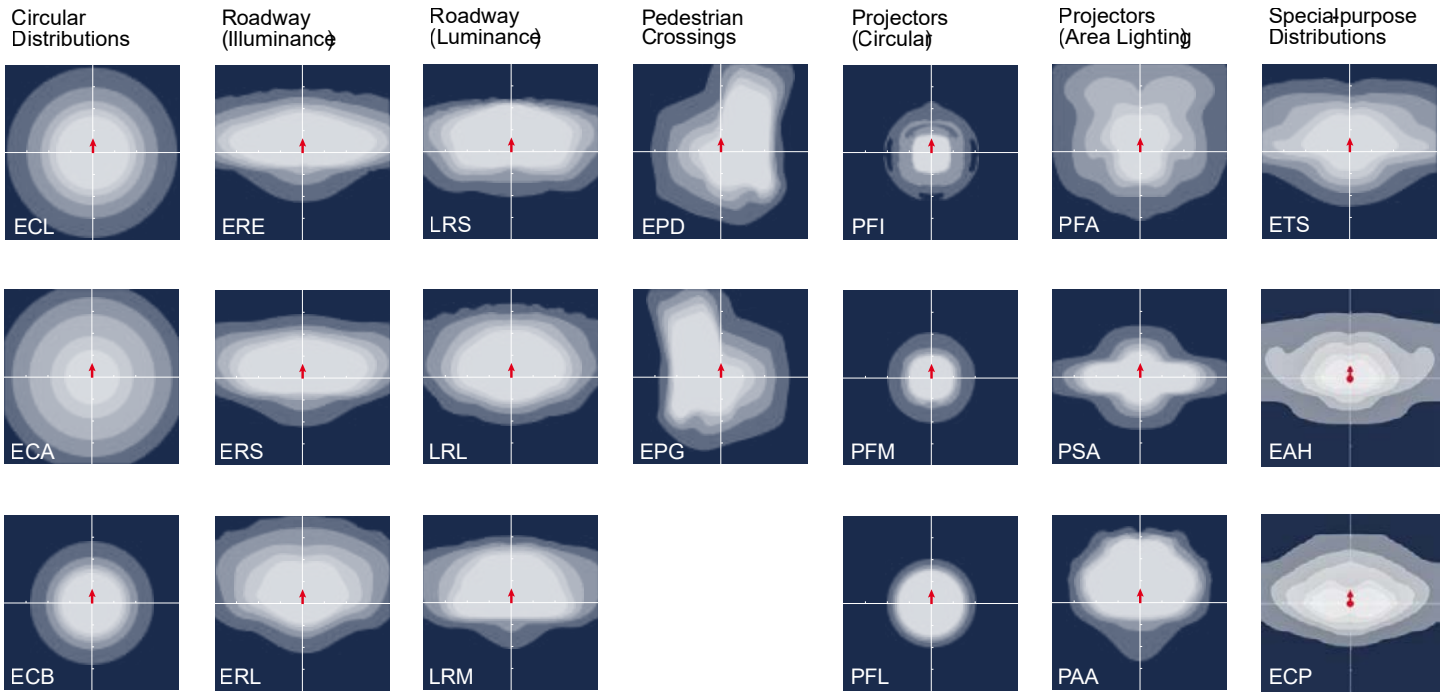
- The modular design approach promotes circularity and facilitates maintenance.
- This design philosophy allows for easy disassembly and replacement of individual components, reducing waste and promoting sustainability.

4. MAINTENANCE OPTIMISATION

5. OPTICAL DISTRIBUTION

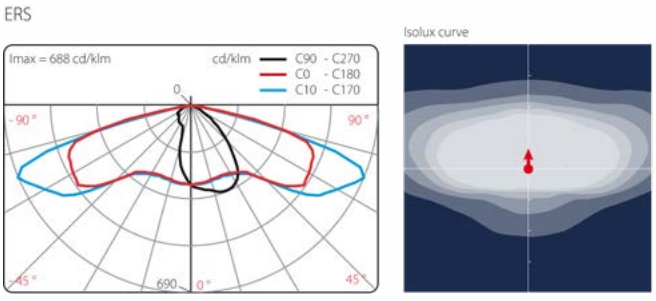
The optical distribution of luminaires plays a crucial role in achieving desired lighting outcomes and meeting specific application requirements as well as meeting the needs of specifiers. At Eclatec, the Optics Engineering team takes the lead in designing optics in-house, ensuring a comprehensive understanding of the optical characteristics and performance of the individual lighting solutions

In addition to the standard distributions, Eclatec offers the possibility of hybrid distributions and CCT (Correlated Colour Temperature) arrangements with the integration of Backlight Shield modules. This flexibility allows for the creation of tailored lighting solutions that can adapt to specific project requirements and desired lighting effects.



The distributions of the optics are optimized for a variety of applications, catering to different lighting needs. Whether it is roadways, pathways, areas, or accent illumination, the optics are carefully designed to provide the desired light distribution and coverage for each specific application while limiting the creation of excess illumination in line with Dark Sky requirements.

To limit light spill and enhance visual comfort, Eclatec has developed unique Backlight Shields. These shields are specifically designed to control and redirect light, ensuring that the illumination is focused precisely where it is intended, minimizing glare and light pollution. The Backlight Shields are available in different options, compatible with BLS and ORALED PCB's and can be easily installed either at the factory or in the field using a clip-on mechanism. The shields are available in white (medium) and black (strong) variants, allowing for flexibility in light control based on the specific requirements of the application.

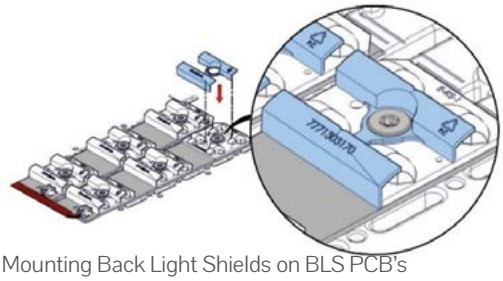


Eclatec maintains an extensive database of customized distributions to suit specific applications worldwide. This database serves as a valuable resource, ensuring that lighting solutions can be tailored to meet the unique needs and regulations of different regions and projects. This level of customization enables optimal lighting performance and compliance with local lighting standards.

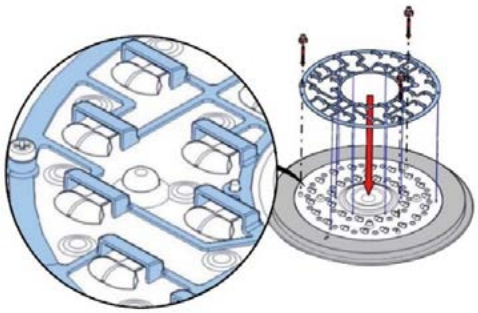
Standard lens (STD)

'Medium' shield (CFM)

'Strong' shield (CFF)



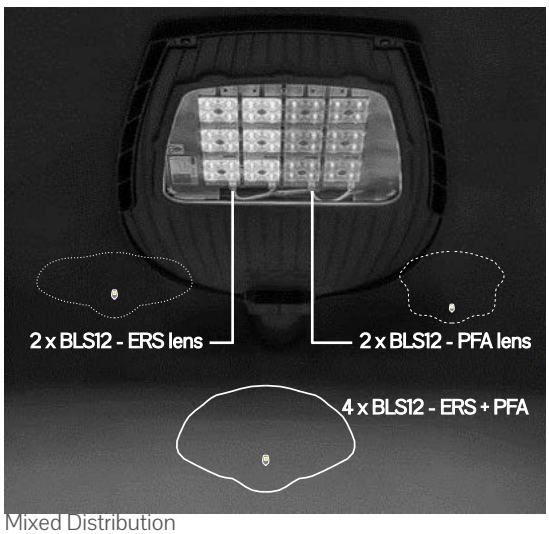
Mounting Back Light Shields on BLS PCB's



Mounting Back Light Shields on ORALENS PCB's

Summary:

- Optical distribution of Eclatec's lighting systems is designed in-house by their Optics Engineering team.
- Carefully designed optics for roadways, pathways, areas, or accent illumination, ensures desired light distribution and coverage for each application while meeting Dark Sky requirements.
- Unique Backlight Shields control light spill and glare, enhancing visual comfort, and directing light precisely where intended, minimizing light pollution. The Shields are available in different options, compatible with BLS and ORALED PCB's, easy to install at the factory or in the field using a clip-on mechanism.
- Shields come in white (medium) and black (strong) variants for flexible light control based on application requirements.
- Customized distributions, flexible hybrid distributions, and CCT arrangements offer tailored lighting solutions for specific project needs.
- Eclatec strives to deliver lighting systems worldwide that optimize light distribution, visual comfort, and efficiency for various applications.



Mixed Distribution

Tunable White

6. TRACEABILITY

Traceability is achieved through comprehensive labelling practices. Traceability is a critical aspect of ensuring transparency and accountability in the production and distribution of lighting systems. To facilitate easy identification and communication, comprehensive labeling is employed throughout the manufacturing and supply chain processes.

The labels include essential information such as the

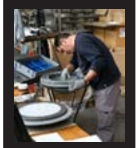
- order code,
- product description,
- program description,
- driver description, and
- gear tray description.

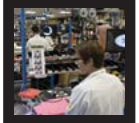
This detailed labeling system allows for accurate identification and tracking of each lighting system, ensuring that the right products are selected and used in the appropriate applications.

Additionally, the program description indicates the specific program or software associated with the lighting system, enabling efficient programming and customization. The driver description provides important information about the driver component, including its compatibility and functionality. Similarly, the gear tray description offers details about the gear tray, aiding in maintenance and replacement activities.

Furthermore, QR codes are incorporated into the labeling system, providing a convenient means of communication between distributors, customers, and the factory. These QR codes can be scanned using smartphones or other devices, enabling efficient and direct communication with relevant stakeholders. This feature promotes effective collaboration, allowing for quick access to product information, technical support, and any necessary follow-up or troubleshooting.

By implementing a robust labeling system that includes order codes, product descriptions, program descriptions, driver descriptions, gear tray descriptions, and QR codes, traceability is enhanced throughout the entire lifecycle of the lighting systems. This level of traceability ensures that accurate information is readily available, promoting efficient inventory management, streamlined communication, and effective customer support.

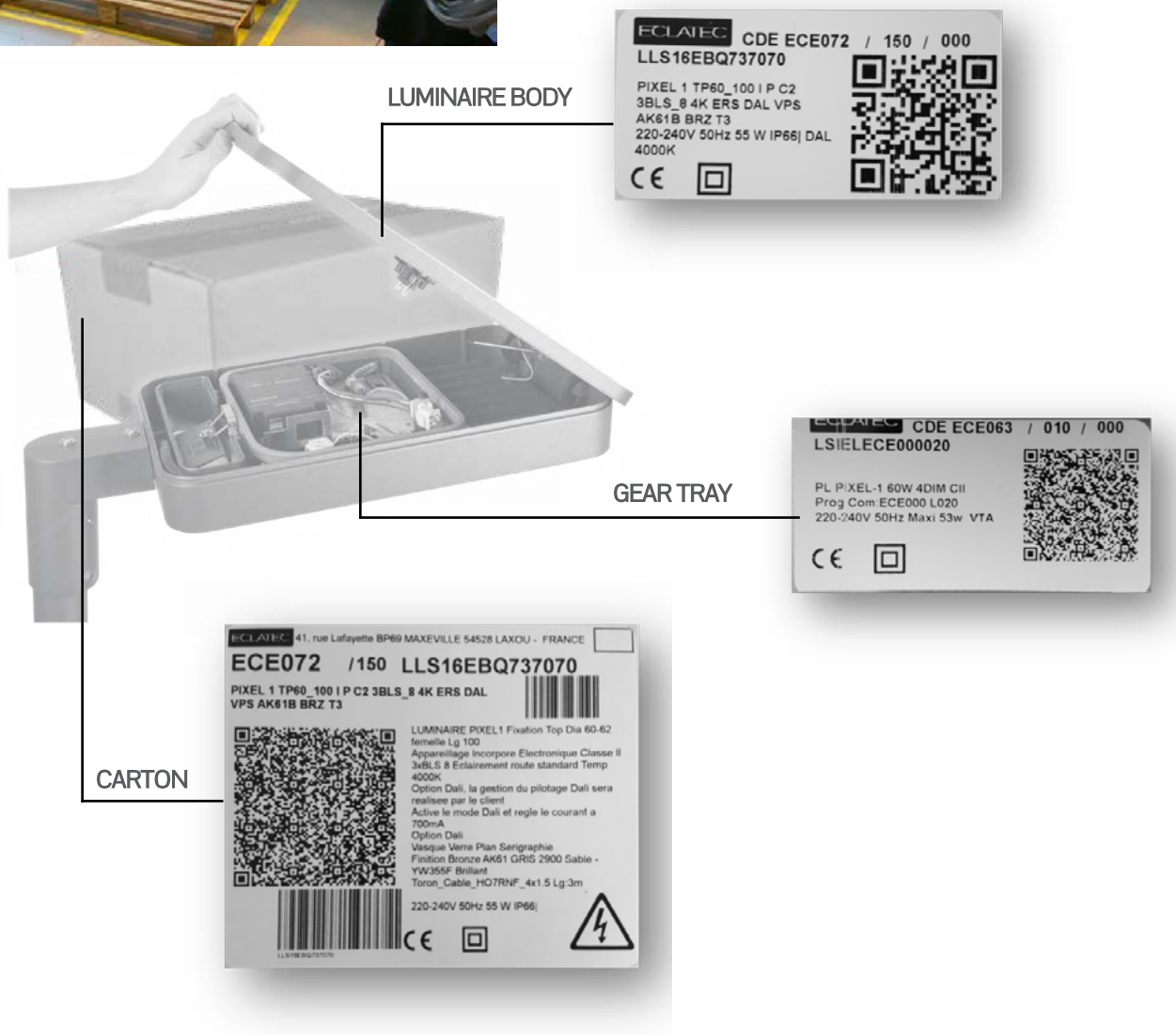




Summary:
Traceability is a function of comprehensive labeling that is implimented from the inception of assembly (robotisized picking) right through to final packaging.

Labelling includes:

- Order Code
- Product description (Componentry)
- Program Description (Software Compatibility)
- Driver Description
- Gear Tray Description
- QR Codes for communications with distributor and factory



7. RELIABILITY

Eclatec's dedication to reliability is further bolstered by their extensive experience in outdoor luminaire design and manufacturing since 1927. With a track record spanning millions of luminaires, their expertise and continuous improvement over the years have led to the development of highly reliable lighting solutions.

Reliability is a fundamental aspect when it comes to quality lighting systems, and Eclatec takes great pride in ensuring the longevity and durability of their luminaires. Rigorous testing and a long-standing track record contribute to ensuring reliability of not only their products but also the testing methodologies employed at every step of the manufacturing cycle of their products.

As a standard practice, all luminaires undergo testing at 40°C to ensure their performance under elevated temperatures, mimicking real-world conditions. This testing procedure guarantees that the luminaires can operate optimally even in demanding environments such as Dubai.

To demonstrate their commitment to reliability, Eclatec offers generous warranties on their luminaires. The mechanical warranty covers a period of 12 years, providing peace of mind regarding the robustness and longevity of the luminaire's construction. The driver warranty extends up to 10 years, highlighting the reliability and durability of the electronic components.

In addition, the LED modules are backed by a warranty that ensures L80 (B10) performance for 100,000 hours. This warranty guarantees that the LED modules will maintain at least 80% of their initial light output while minimizing the chances of early failures.

Through meticulous testing, extended warranties, and a long history of developing successful luminaires, Eclatec demonstrates their commitment to providing reliable lighting solutions. Customers can rely on their luminaires to perform consistently and withstand the test of time, ensuring long-lasting and dependable illumination.

Summary:

All luminaires tested at 40 ° C as standard practice

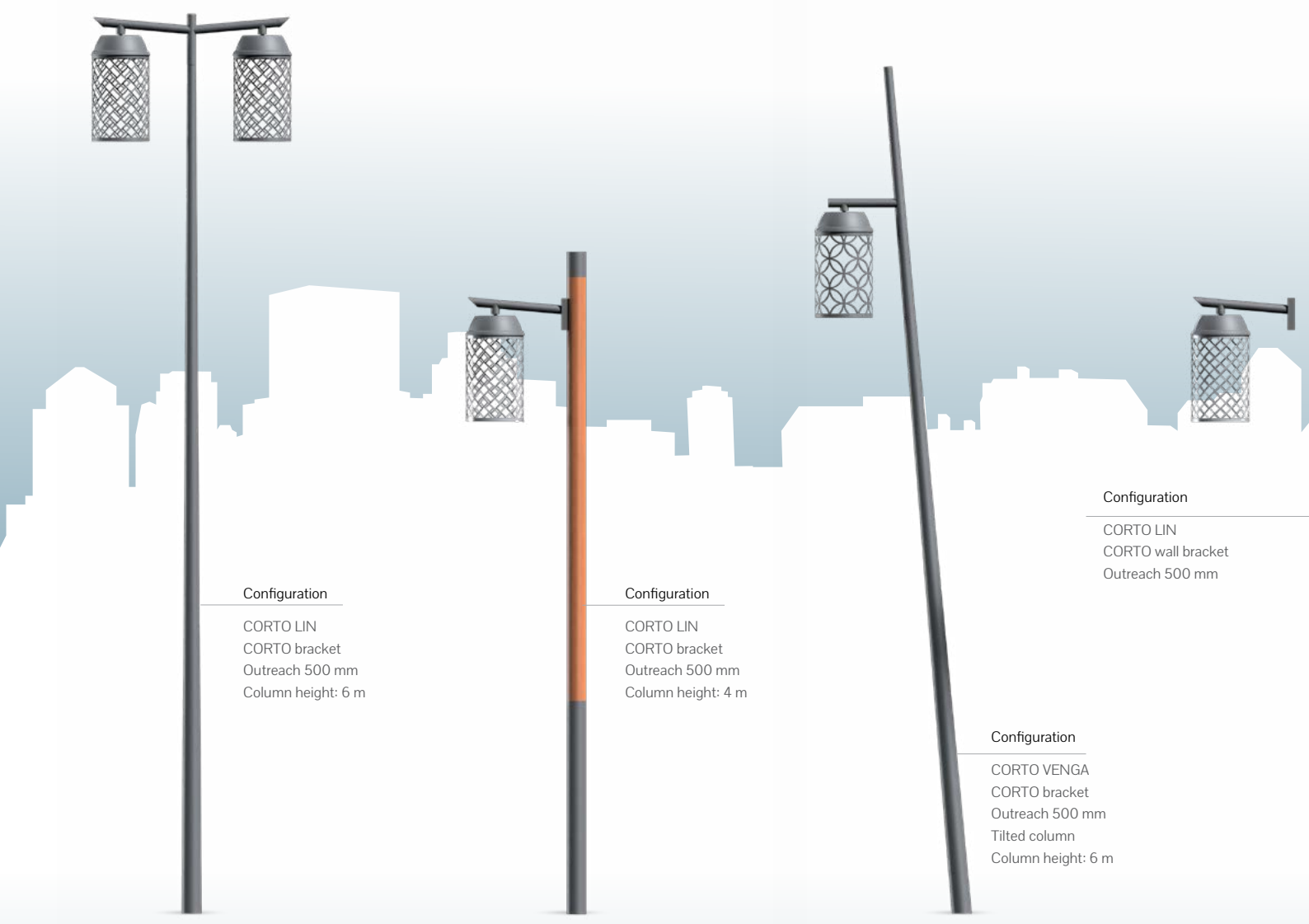
- Mechanical warranty: 12 years
- Driver warranty: Up to 10 years
- LED modules warranty: L80 (B10) @ 100,000 hrs

Outdoor luminaire design and manufacturing since 1927 – track record spans millions of luminaires

Urban luminaires

CORTO

Design: ECLATEC



Configuration

CORTO LIN
CORTO bracket
Outreach 500 mm
Column height: 6 m

Configuration

CORTO LIN
CORTO bracket
Outreach 500 mm
Column height: 4 m

Configuration

CORTO VENGA
CORTO bracket
Outreach 500 mm
Tilted column
Column height: 6 m

Configuration

CORTO LIN
CORTO wall bracket
Outreach 500 mm

CORTO

Design: ECLATEC

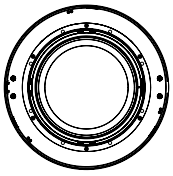
CORTO
Without decorative design

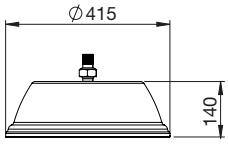
DESCRIPTION

Product name	CORTO
Housing	Spun aluminium
Decorative design	Laser-cut aluminium
Bowl	Polycarbonate
Finish	Polyester powder coating, any colour available
Impact protection	IK 10
Ingress Protection	IP66 Extruded silicone gasket Breathing system with activated carbon filter
Dimensions (dia x h)	415 x 140 mm
Weight	5.9kg
Windage area	0.04m²
Watts/lumens	Click to view

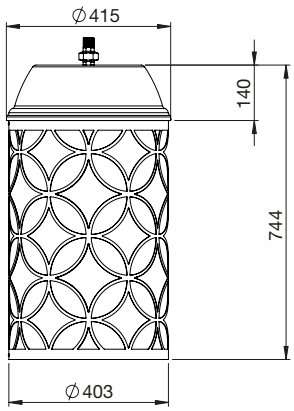
DIMENSIONS

CORTO

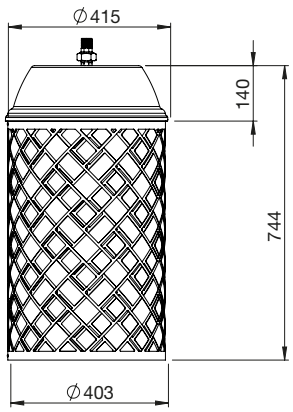




VENGA design



LIN design



CORTO
With VENGA design

CORTO
With LIN design

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	CORTO
Sources	ZEDLED 1
Colour temperature	Amber*, 2200 K, 2400 K, 2700 K, 3000 K or 4000 K
Optical Distribution	QUADRALENS: ERS, ERL, ECA, LRS, LRL, ERE, ETS, PFA, EPD, EPG
Backlight shield option	Medium or strong cut-off
Power supply current	Adjustable up to 700 mA(1)

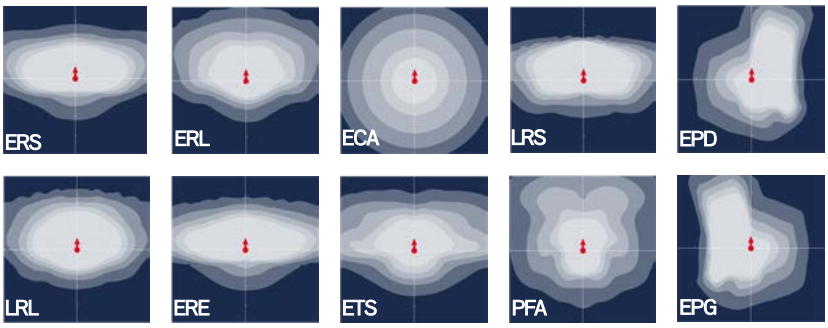
*Approx. 1800K, only on BLS12 as standard (1) I>700mA possible on request
E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing, E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left

ZEDLED 1 module

CONTROL OPTIONS

CORTO by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth. All form factors support remote detection in addition to Smart-Ready(R) configuration (ZD4i). When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

OPTICAL DISTRIBUTION



MECHANICAL INTERFACES

Suspended with Ø 27 PDG swivel joint for female bossing welded to the bracket

CATELUX: SM Ø 27 PDG fixture - Fixture on 5 to 14 mm mechanical cable

SCO: catenary fixture - Fixture on 5 to 14 mm mechanical cable

DECORATIVE OPTION

VENGA design

LIN design

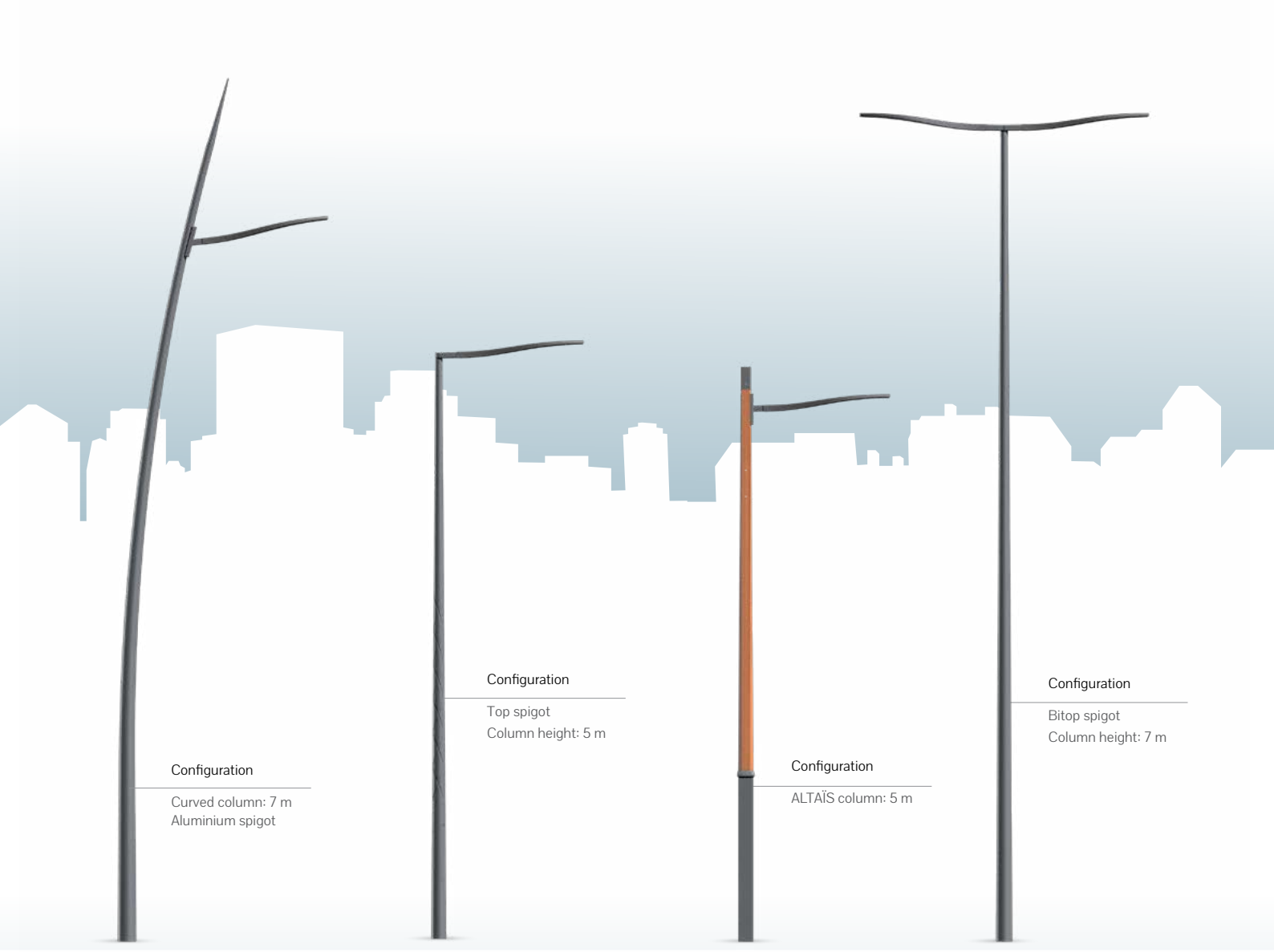
Customised design option
(subject to study)

MAINTENANCE

Electric equipment maintenance	Separate ZEDLED 1 module, removable once the decorative module is removed.

ALOA

Design: Jean-Michel WILMOTTE



Configuration

Curved column: 7 m
Aluminium spigot

Configuration

Top spigot
Column height: 5 m

Configuration

ALTAÏS column: 5 m

Configuration

Bitop spigot
Column height: 7 m

ALOA

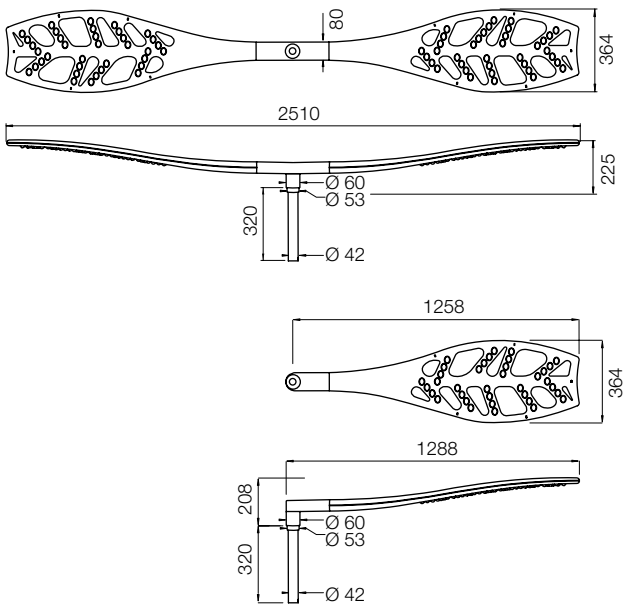
Design: Jean-Michel WILMOTTE

ALOA

DESCRIPTION

Product name	ALOA
Housing	Die-cast aluminium body with lattice shape
Finish	Polyester powder coating, any colour available
Impact protection	IK 09
Ingress Protection	IP66 Extruded silicone gasket Breathing system with activated carbon filter
Dimensions (L x l x h)	1258 x 364 x 208 mm
Weight	8.1kg
Windage area	0.05m²
Watts/lumens	Click to view

DIMENSIONS



SOURCES & PHOTOMETRIC DISTRIBUTIONS

	ALOA
Sources	9 watertight ALOA modules fitted with a specific mono lens
Colour temperature	3000 K or 4000 K
Optical Distribution	MONOLENS: ERS, ERL
Power supply current	Adjustable up to 700 mA(1)

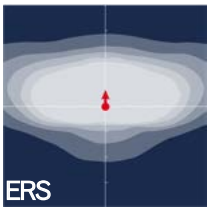
(1) I>700mA possible on request
E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing,
E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left

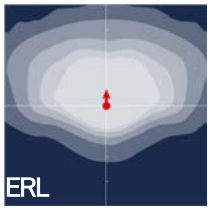
ALOA modules

CONTROL OPTIONS

ALOA by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth. ALOA supports remote detection. Smart-Ready(R) configuration (ZD4i). When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

OPTICAL DISTRIBUTIONS





MECHANICAL INTERFACES

TOP: male bracket fastening for mast Ø 60 / 62 mm

BITOP: male bracket fastening for mast Ø 60 / 62 mm

Wall-mounted bracket

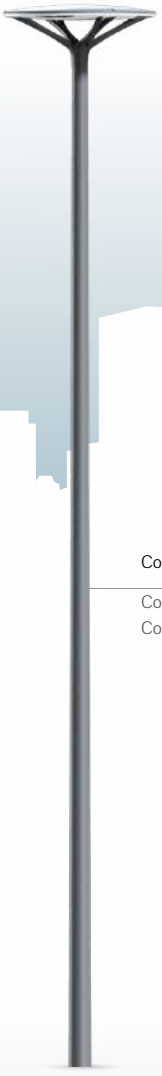
Pathway bracket

MAINTENANCE

Opening and closing:	Opening with screws Direct access to the power supply and ALOA modules

KEO

Design: Michel TORTEL



Configuration

Column Ø 76 mm
Column height: 5 m

Configuration

Column Ø 76 mm
Strium CAPITAN
Column height: 5 m

Configuration

Wall-mounted INDIGO
Outreach 500 mm

KEO

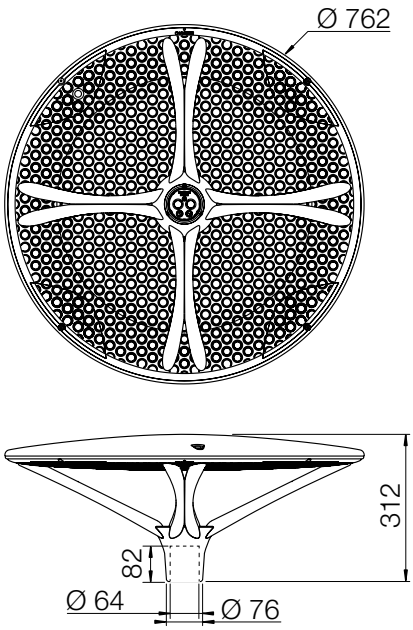
Design: Michel TORTEL

KEO

DESCRIPTION

Product name	KEO
Housing	Injection die-cast aluminium body
Bowl	Two-material polycarbonate opal and clear bowl, with Led backlight as an option: white or other colours on request
Finish	Polyester powder coating, any colour available
Impact protection	IK 10
Ingress Protection	IP66 Extruded silicone gasket Entry sleeve with membrane seal Breathing system with activated carbon filter
Dimensions (dia x h)	762 x 312 mm
Weight	14kg
Windage area	0.08m²
Watts/lumens	Click to view

DIMENSIONS



SOURCES & PHOTOMETRIC DISTRIBUTIONS

	KEO
Sources	KEO Option: Led backlight of the bowl (white, blue or red)
Colour temperature	3000 K or 4000 K
Optical Distribution	UNILENS: ERE, ERL, ECL
Power supply current	Adjustable up to 700 mA

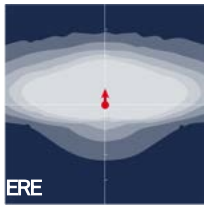
E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing, E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left

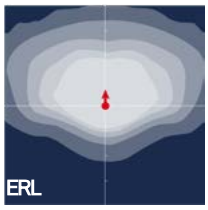
KEO sources

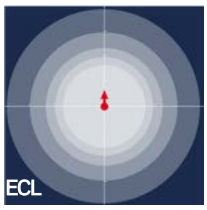
CONTROL OPTIONS

KEO by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth. All form factors support remote detection. Smart-Ready(R) configuration (ZD4i). When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

OPTICAL DISTRIBUTION







MECHANICAL INTERFACES

Post top fastening pole Ø 60/62 mm

Post-top fixing for pole Ø 76 mm with a spigot Ø 60 mm L 85 mm
For pole Ø 76 mm top, optional spigot B

BACKLIGHTING OPTION

Blue Led backlight

White Led backlight

Red Led backlight

LINK

Design: ECLATEC

Configuration

Shallow clear
«Art Déco» Arm
Column Ø 76 mm
Column height: 4 m

Configuration

Shallow clear
Column Ø 76 mm
Column height: 4 m

Configuration

Shallow clear
Sublimated column Ø 76 mm
Column height: 4 m

Configuration

Shallow clear
Stanza wall bracket
Outreach 700 mm

LINK

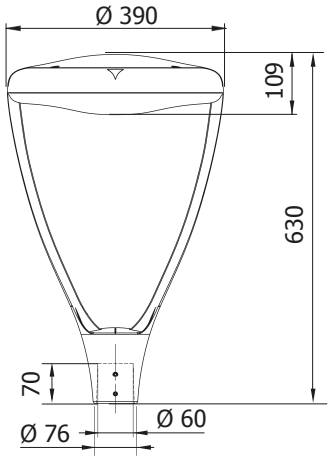
Design: ECLATEC

LINK (PCC)
Shallow clear

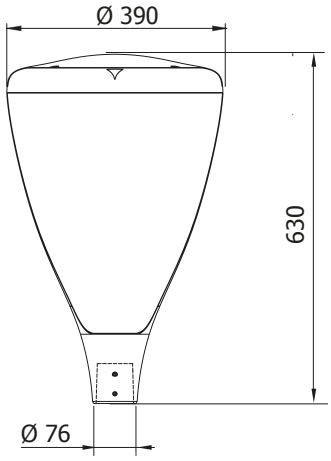
DESCRIPTION

Product name	LINK
Segmentation	Models available in 3 levels: - 1E: Unique version for standard use - 2E A: Fixed settings for night dimming - 2EB: Fixed current setting at 700 mA, without options - 3E: Most efficient and customizable version
Watts/lumens	Click to view
Housing	Base, cover and arm in injected die-cast aluminium
Bowl	4 polycarbonate bowls: deep clear, deep structured, shallow clear and shallow opaline
Finish	1E: 7035 RAL 2E, 3E: Polyester powder coating, any colour available
Impact protection	IK 10 - 50 joules
Ingress Protection	IP66 Extruded silicone gasket Breathing system with activated carbon filter
Dimensions (dia x h)	390 x 630 mm
Weight	8.5kg
Windage area	0.13m²

DIMENSIONS



LINK short bowl



LINK deep bowl

LINK (PCO)
Shallow opaline

LINK (PHC)
Deep clear

LINK (PHS)
Deep structured

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	LINK	
Sources	LINK (ORALED type)	BLS strips
Colour temperature	3000 K or 4000 K	1E: 3000 K, 4000 K 2E, 3E: Amber*, 2200 K, 2400 K, 2700 K, 3000K, 4000 K
Optical Distribution	ORALENS	QUADRALENS
	1E: ERS, ERL 2E, 3E: ECL, ERS, ERL, LRM	1E: ERS, ERL 2E, 3E: ERS, ERL, ECa, ERE, ETS, LRS, LRL
Backlight shield option	Medium or strong cut-off	
Power supply current	1E: 700 mA 2E A / B: A: ANF(2) / B: 700 mA 3E: Up to 700 mA(1)	

*Approx. 1800K, only on BLS12 as standard (1) I>700mA possible on request (2) ANF: Unique program for driver, Fixed Night Dimming: 23 h – 5 h at 350 mA and 700 mA for the remaining time
E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing, E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left

LINK (ORALED type)

BLS strips

MECHANICAL INTERFACES

Top fastening for Ø 60/62 mm pole, fixed with six screws

For standard Ø 76 mm pole, C end available as an option

DECORATIVE ARMS OPTION

Art Déco Arm

Millésime Arm

CONTROL OPTIONS

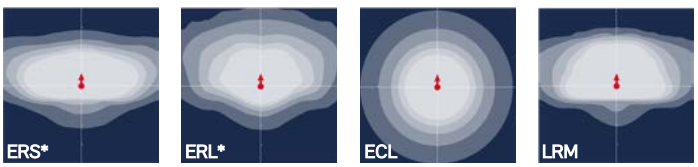
LINK by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth. All form factors support remote detection additionally it supports Smart-Ready(R) configuration (ZD4i). When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

MAINTENANCE

Electric equipment maintenance	To access the geartray, remove the captive screws and remove the cover
Sources maintenance	To access the LED array, remove the 2 retaining screws

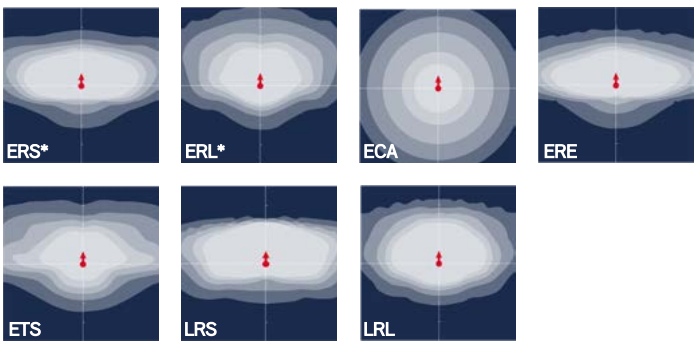
OPTICAL DISTRIBUTION

ORALENS



Model 1E option supports only XXX*; 2E & 3E supports all

QUADRALENS/BLS



Model 1E option supports only XXX*; 2E & 3E supports all

SCOOP

Design: Michel TORTEL

Configuration

Mât Ø 76 mm
Column height: 5 m

Configuration

Stepped column Ø 114-76 mm
Column height: 4 m

Configuration

CHANDELIER wall bracket
Outreach: 500 mm

SCOOP

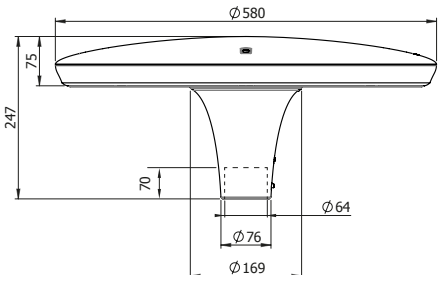
Design: Michel TORTEL

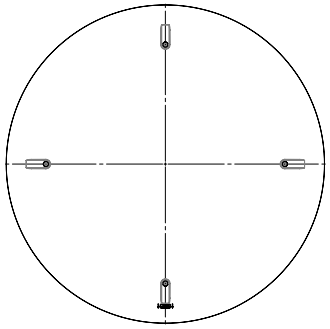
SCOOP

DESCRIPTION

Product name	SCOOP / SCOOP KEA
Segmentation	Models available in 3 levels: - 1E: Unique version for standard use - 2E A: Fixed settings for night dimming - 2EB: Fixed current setting at 700 mA, without options - 3E: Most efficient and customizable version
Housing	Injection die-cast aluminium body
Bowl	SCOOP: Flat polycarbonate transparent bowl SCOOP KEA: Structured polycarbonate transparent bowl
Finish	1E: 7035 RAL 2E, 3E: Polyester powder coating, any colour available
Impact protection	IK 10
Ingress Protection	IP66 Extruded silicone gasket Cable gland with anchoring device Breathing system with activated carbon filter
Dimensions (dia x h)	580 x 247 mm
Weight	8kg
Windage area	0.06m²
Watts/lumens	Click to view

DIMENSIONS





SCOOP KEA

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	SCOOP
Sources	SCOOP
Colour temperature	3000 K or 4000 K
Optical Distribution	Specific lenses
	1E: ERS, ERL 2E, 3E: ERL, ERS, ECL
Power supply current	1E: 700 mA 2E A / B: A: ANF(2) / B: 700 mA 3E: Up to 700 mA (1)

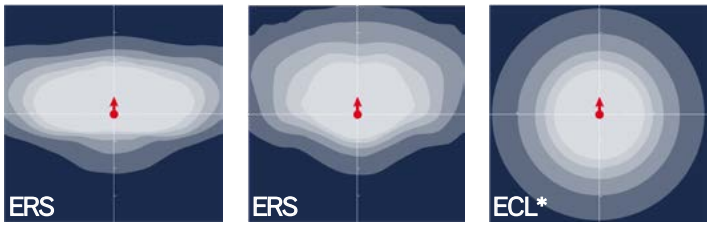
(1) I>700mA possible on request (2) ANF: Unique program for driver, Fixed Night Dimming: 23 h – 5 h at 350 mA and 700 mA for the remaining time
E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing, E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left

Sources SCOOP

CONTROL OPTIONS

SCOOP by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth. The 3E version supports remote detection as well as built in detection. 3E is Smart-Ready(R) compatible with (ZD4i). When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

OPTICAL DISTRIBUTION



XXX* available only in 2E & 3E versions.

MECHANICAL INTERFACES

Top cover fixing at the top of the Ø 60/62 mm pole, locked using 2 screws

Top cover pass through fixing with specific tip at the top of the Ø 60/62 mm pole, locked using 2 screws

Top cover pass through fixing with specific tip (see page 280) at the top of the Ø 76 mm pole, locked using 2 screws

REDUCED FLUX VERSION WITH TWO PCBs

Only available for level 1E

MAINTENANCE

Electric equipment maintenance	Direct access to the luminaire after removing the cover with 4 concealed screws (the cover is held by a safety line)
Maintenance sources	In keeping with the state of the art (initial assembly in dedicated rooms for reasons of cleanliness, static control and waterproofing) it is not recommended to carry out maintenance in the field unless absolutely necessary

ZEN

Design: ECLATEC

Configuration

Column Ø 76 mm
Column height: 3,5 m

Configuration

Column Ø 60 mm
Strium CAPITAN
Column height: 4 m

Configuration

CHANDELIER bracket
Outreach: 500 mm
Column height: 5 m

ZEN

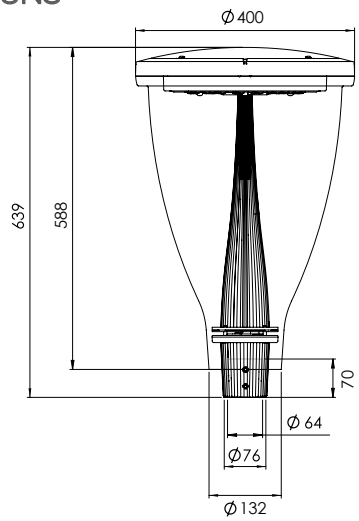
Design: ECLATEC

ZEN
With ZEDLED C module

DESCRIPTION

Product name	ZEN
Segmentation	Models available in 3 levels: -1E: Unique version for standard use -2E A: Fixed settings for night dimming -2EB: Fixed current setting at 700 mA, without options -3E: Most efficient and customizable version
Housing	Injected die cast aluminium bottom and canopy Clear (standard) or grey (option) frame, in polycarbonate
Bowl	Polycarbonate
Finish	E: 7035 RAL 2E, 3E: Polyester powder coating 2150 grey, RAL and other colours on the base and canopy are optional Grey colour central post
Impact protection	IK 10 - 50 joules
Ingress Protection	IP66 Extruded silicone gasket on the base, canopy and lower part Cable gland with anchoring device Breathing sys. with activated carbon filter
Dimensions (dia x h)	400 x 639 mm
Weight	8kg
Windage area	0.15m ²
Watts/lumens	Click to view

DIMENSIONS



ZEN
With BLS strips

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	ZEN	
Sources	ZEDLED C	BLS strips
	1E: ZEDLED C0/C1 2E, 3E: ZEDLED C0/C1/C2	1E: 2BLS12 2E, 3E: 2BLS8, 2BLS12
Colour temperature	3000 K, 4000 K	Amber*, 2200 K, 2400 K, 2700 K, 3000K, 4000 K
Optical Distribution	ORALENS	QUADRALENS
	1E: ERS, ERL 2E, 3E: ECL, ERS, ERL, LRM	1E: ERS, ERL 2E, 3E: ERS, ERL, ECa, ERE, ETS, LRS, LRL
Backlight shield option	Medium or strong cut-off	
Power supply current	1E: 700 mA 2E A / B: A: ANF(2) / B: 700 mA 3E: Up to 700 mA (1)	

*Approx. 1800K, only on BLS12 as standard (1) I>700mA possible on request (2) ANF: Unique program for driver, Fixed Night Dimming: 23 h – 5 h at 350 mA and 700 mA for the remaining time
E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing, E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left

ZEDLED C module

BLS strips

CONTROL OPTIONS

ZEN by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth. All form factors support remote detection. Zen comes with Smart-Ready(R) configuration (ZD4i). When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS.

MECHANICAL INTERFACES

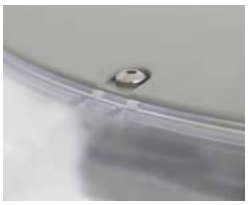
Post-top fastening on pole Ø 60/62 mm, with 6 screws

For pole Ø 76 mm top, optional spigot C

MAINTENANCE

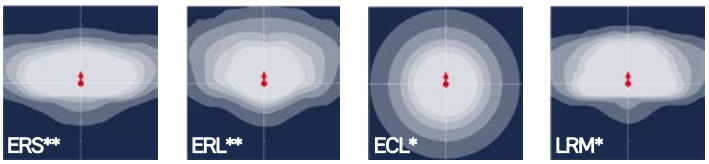
Maintenance of the equipment and LEDs

Removal of the cover with 4 concealed screws. The LED module can be exchanged after quick disconnection of the power supply. Removable LED module



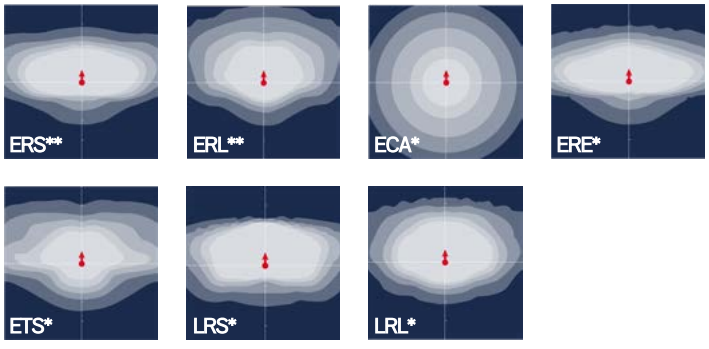
OPTICAL DISTRIBUTION

ORALENS



XXX** 1E Only
XXX* 1E, 2E, 3E

QUADRALENS



XXX** 1E Only
XXX* 1E, 2E, 3E

ORIENTIS

Design: GHM

Configuration

ORIENTIS
Totem column: 4,70 m

Configuration

ORIENTIS
TOP CLIP bracket
Outreach: 600 mm
Tilt 5°
Column height: 5 m

Configuration

ORIENTIS H
LUXEM column
Column height: 4 m

ORIENTIS

Design: GHM

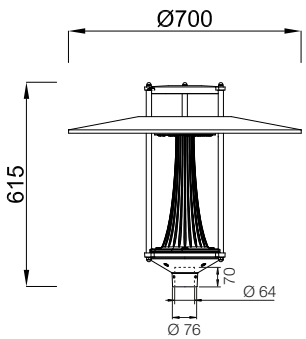
ORIENTIS

DESCRIPTION

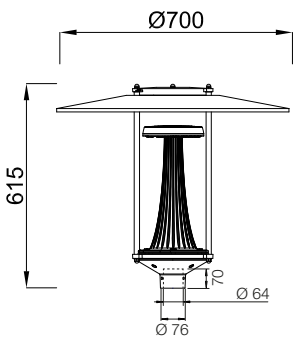
Product name	ORIENTIS
Housing	Injected aluminium bottom and cap Circular conical dome Ø 700 mm in spun aluminium, underside painted in white RAL 9010 - Stainless steel rods High cap version = Orientis H
Bowl	Polycarbonate
Finish	Polyester powder coating, any colour available
Impact protection	IK 08
Ingress Protection	IP66 Extruded silicone gasket Entry sleeve Breathing system with activated carbon filter
Dimensions (dia x h)	700 x 615 mm
Weight	7.1kg
Windage area	0.15m ²
Watts/lumens	Click to view

DIMENSIONS

ORIENTIS



ORIENTIS H



ORIENTIS H

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	ORIENTIS
Sources	ZEDLED B
Colour temperature	3000 K or 4000 K
Optical Distribution	ORALENS: ERS, ERL, ECL
Power supply current	Adjustable up to 700 mA

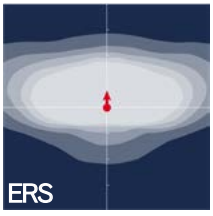
E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing, E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left

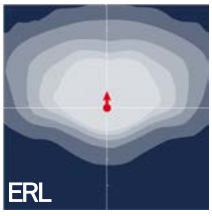
ZEDLED B module

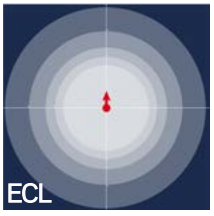
CONTROL OPTIONS

ORIETIS by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth. All form factors support remote detection.
When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

OPTICAL DISTRIBUTION







MECHANICAL INTERFACES

Post-top fastening on pole Ø 60/62 mm, with 6 screws

For pole Ø 76 mm top, optional spigot C (cf p 280)

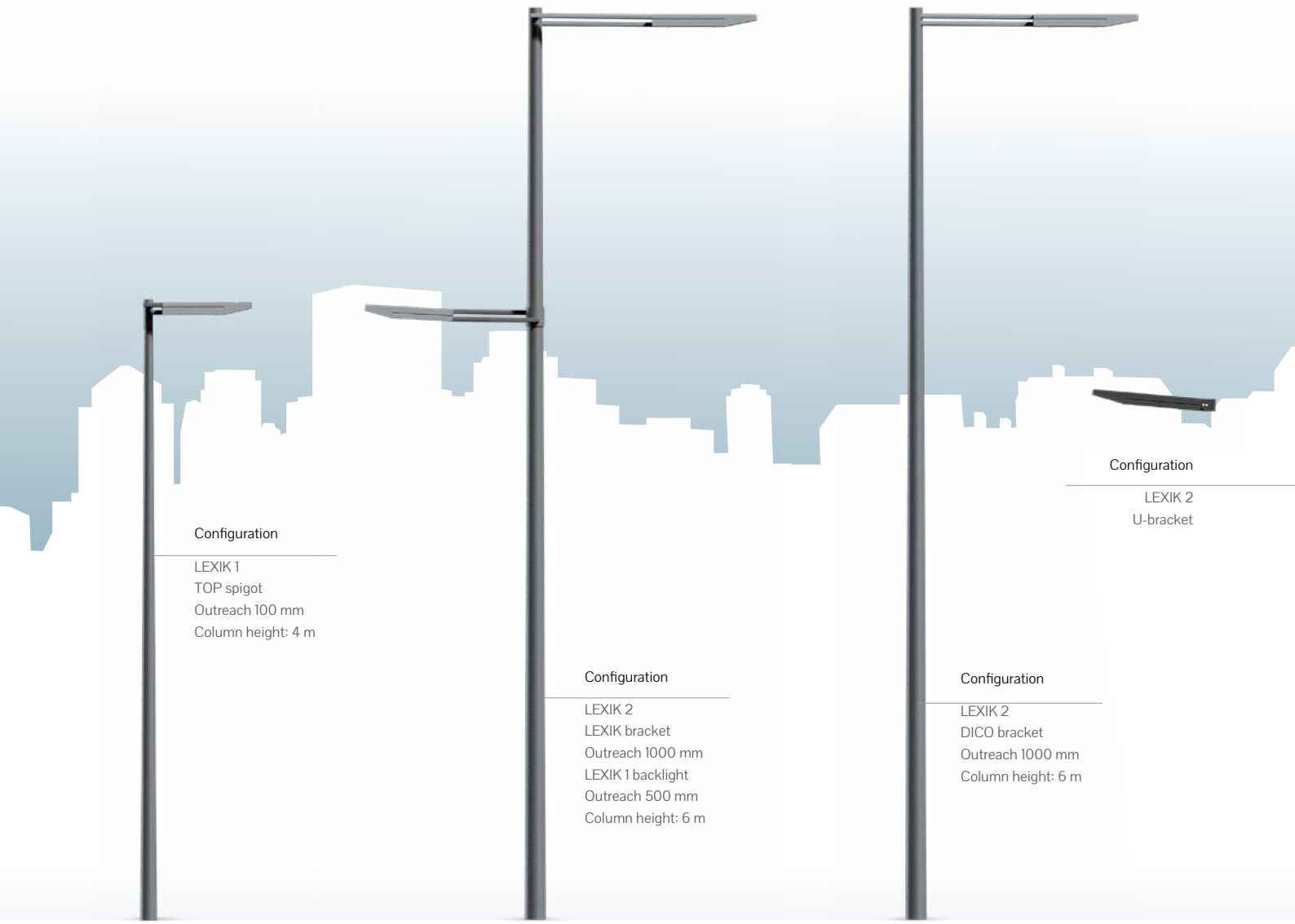
MAINTENANCE

Opening and Closing	Open the luminaire by unlocking and rotating the cover.
Maintenance	Access to the LED module by lifting the diffuser and locking it in the high position with a hook.

Road & multi-use luminaires

LEXIK

Design: ILEX



Configuration

LEXIK 1
TOP spigot
Outreach 100 mm
Column height: 4 m

Configuration

LEXIK 2
LEXIK bracket
Outreach 1000 mm
LEXIK 1 backlight
Outreach 500 mm
Column height: 6 m

Configuration

LEXIK 2
DICO bracket
Outreach 1000 mm
Column height: 6 m

Configuration

LEXIK 2
U-bracket

LEXIK

Design: ILEX

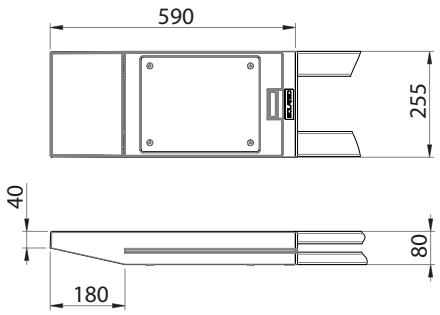
LEXIK 1

DESCRIPTION

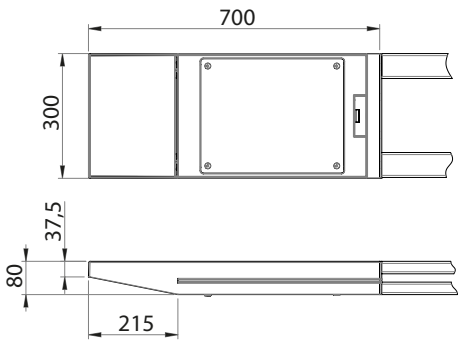
Product name	LEXIK 1	LEXIK 2
Housing	Injection die-cast aluminium body	
Bowl	Thermally tempered and screen printed flat glass	
Finish	Polyester powder coating, any colour available	
Impact protection	IK 09	
Ingress Protection	IP66 Extruded silicone gasket Cable gland with anchoring device Breathing system with activated carbon filter	
Dimensions (L x l x h)	590 x 255 x 80 mm	700 x 300 x 80 mm
Weight	7.3kg	8kg
Windage area	0.06m²	0.08m²
Wiring	Luminaire pre-wired in the factory	
Watts/lumens	Click to view	

DIMENSIONS

LEXIK 1



LEXIK 2



LEXIK 2

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	LEXIK 1	LEXIK 2
Sources	BLS strips	
Colour temperature	Amber*, 2200 K, 2400 K, 2700 K, 3000K, 4000 K	
Optical Distribution	QUADRALENS	
	ERS, ERE, ERL, ECa, LRL, LRS, ETS, PFA, EPD, EPG	
Backlight shield option	Medium or strong cut-off	
Power supply current	Adjustable up to 700 mA(1)	

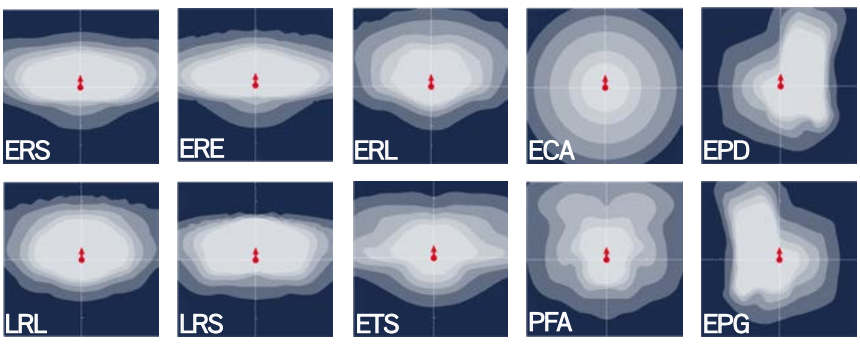
*Approx. 1800K, only on BLS12 as standard (1) I>700mA possible on request
E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing, E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left

BLS strips

CONTROL OPTIONS

LEXIK 1 & 2 by Eclatec represent the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth. Both form factors support remote detection. Smart-Ready(R) configuration (ZD4i). When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

OPTICAL DISTRIBUTION



MOUNTING OPTIONS

Lateral on dedicated LEXIK bracket

Lateral on specific penetrating DICO bracket for Ø 60 mm pole, single or double light, as standard.
Outreach 1000 mm, 0°, 330 mm rise

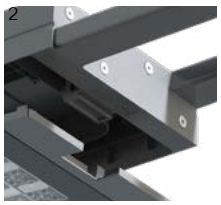
top or bitop spigot,
male bracket fastening for Ø 60 mm mast,
Outreach 100 mm

U-bracket

MAINTENANCE

Opening and closing	Opening/closing by means of a push strip (without tools) {1}
Electric equipment maintenance	Disconnection when the luminaire is opened {2}
Sources maintenance	Removable LED module and control gear, direct access to control gear {3} Access to BLS strips after removing the bowl (4 screws) {4}

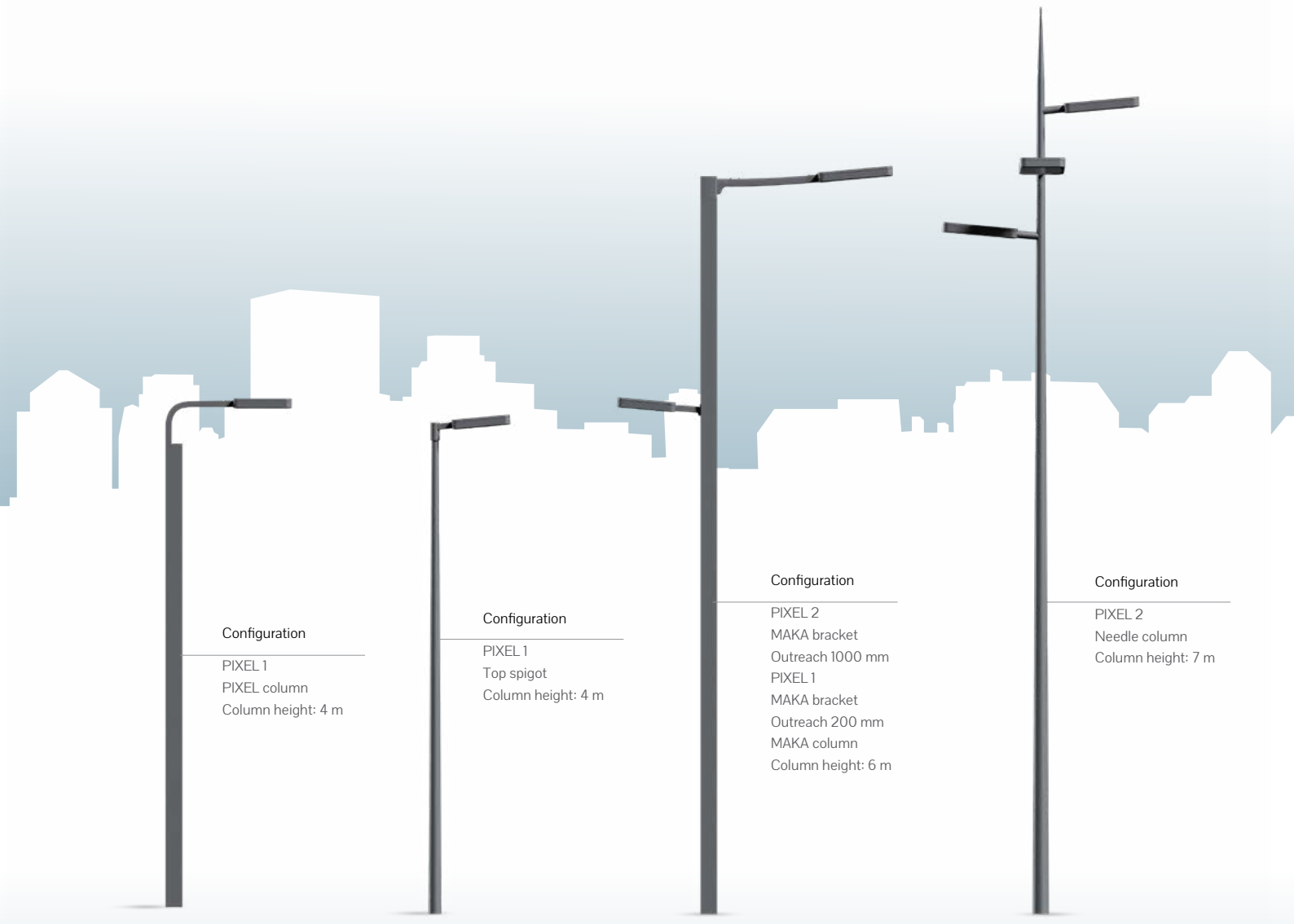
3



4

PIXEL

Design: STOA Architecture



Configuration

PIXEL 1
PIXEL column
Column height: 4 m

Configuration

PIXEL 1
Top spigot
Column height: 4 m

Configuration

PIXEL 2
MAKA bracket
Outreach 1000 mm
PIXEL 1
MAKA bracket
Outreach 200 mm
MAKA column
Column height: 6 m

Configuration

PIXEL 2
Needle column
Column height: 7 m

PIXEL

Design: STOA Architecture

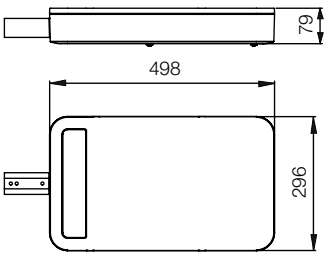
PIXEL 1
Presented with motion sensor

DESCRIPTION

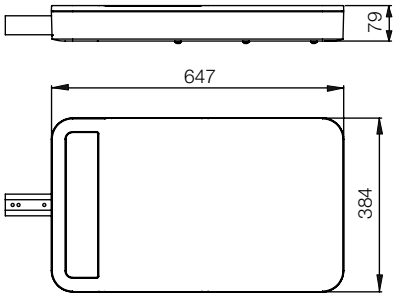
Product name	PIXEL 1	PIXEL 2
Housing	Injection die-cast aluminium body	
Bowl	Thermally tempered and screen printed flat glass	
Finish	Polyester powder coating, any colour available	
Impact Protection	IK 09	
Ingress Protection	IP66 Extruded silicone gasket Cable gland with anchoring device Breathing system with activated carbon filter	
Dimensions (L x l x h)	498 x 296 x 79 mm	647 x 384 x 79 mm
Weight	9kg	12.5kg
Windage area	0.06m²	0.08m²
Watts/lumens	Click to view	

DIMENSIONS

PIXEL 1



PIXEL 2



PIXEL 2

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	PIXEL 1	PIXEL 2
Sources	BLS strips	
Colour temperature	Amber*, 2200 K, 2400 K, 2700 K, 3000K, 4000 K	
Optical Distribution	QUADRALENS	
	ERS, ERE, ERL, ECa, LRL, LRS, ETS, PFA, EPD, EPG	
Backlight shield option	Medium or strong cut-off	
Power supply current	Adjustable up to 700 mA(1)	

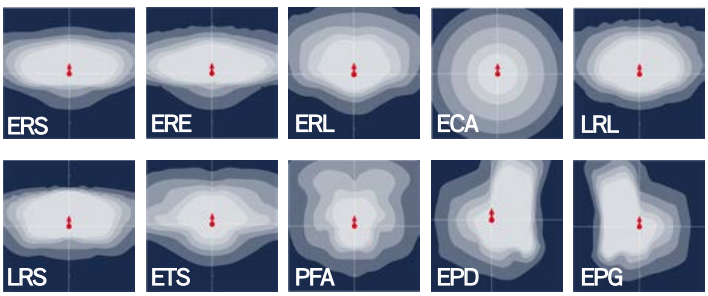
*Approx. 1800K, only on BLS12 as standard (1) I>700mA possible on request
E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing, E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left

BLS strips

CONTROL OPTIONS

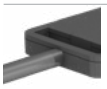
PIXEL by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth. All form factors support remote detection while PIXEL 1 supports built in detection. Both support Smart-Ready(R) configuration (ZD4i). When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

OPTICAL DISTRIBUTION

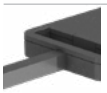


MECHANICAL INTERFACES

Top fixing, male fastening:
- for pole Ø 60 - 62 mm, penetration of 100 mm onto the pole
- for pole Ø 76 mm top, optional spigot A Luminaire tilted at 7°



L: side entry coupled with sleeve for tube (Ø 60 mm exterior)



L: side entry for rectangular tube (50x70 mm)(- E, F)

Pathway bracket with fastening plate

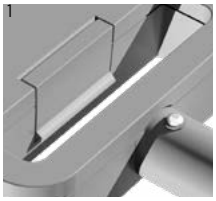
Wall-mounted bracket

MAKA bracket, outreach 200 mm

MAINTENANCE

Opening and closing	Opens tool-free by pressing the paddle on the top cover. {1} Cuts off power supply when the luminaire is opened. Cover is held open by a safety stay.
Electrical equipment maintenance	Direct access to the equipment {2} Quick electrical disconnection without tools. Circuit board removable onsite without tools.
Sources maintenance	Direct access to the BLS LED strips after removal of the bowl (4 or 6 attachment screws).

1



2

ECLATEC

ITEM

Design: STOA Architecture

ITEM 600
lateral, smooth body

DESCRIPTION:

ECLATEC Item is a versatile luminaire that comes as both a low profile street and area light. Via the addition of a range of mounting and functional components and accesories, Item can be adapted to the needs of any project. The contiguous design permits specifiers to establish a unified look and feel throughout a district. Tool-less entry means easy installation and maintenance. Available in a number of colours and three body trim finishes.

Product name	ITEM 500	ITEM 600
Housing	Die cast aluminium	
Body Trim	SMOOTH, HONEYCOMB or TRAID. Body Customised pattern option (depending on study)	
Bowl	Thermally tempered and screen printed flat glass (VPC)	
Finish	Polyester powder coating, any colour available	
Impact protection	IK10	IK08
Ingress Protection	IP66	
Dimensions (dia x height)	500x103 mm	600x103 mm
Weight	9.7kg	12.2kg
Windage area	0.04m^2	0.05m^2
Max Power (W)	56W (ORALED 1)	145W (REOLED)
Max Lumens (lm) @ 3000K	8,819lm (ORALED)	24,221lm (BLS)
Backlight Shield Options	Medium or strong cut-off	
Power Supply Current	Adjustable up to 700 mA(1)	
Watts/lumens	Click to view	

LED Module
(ORALED type)

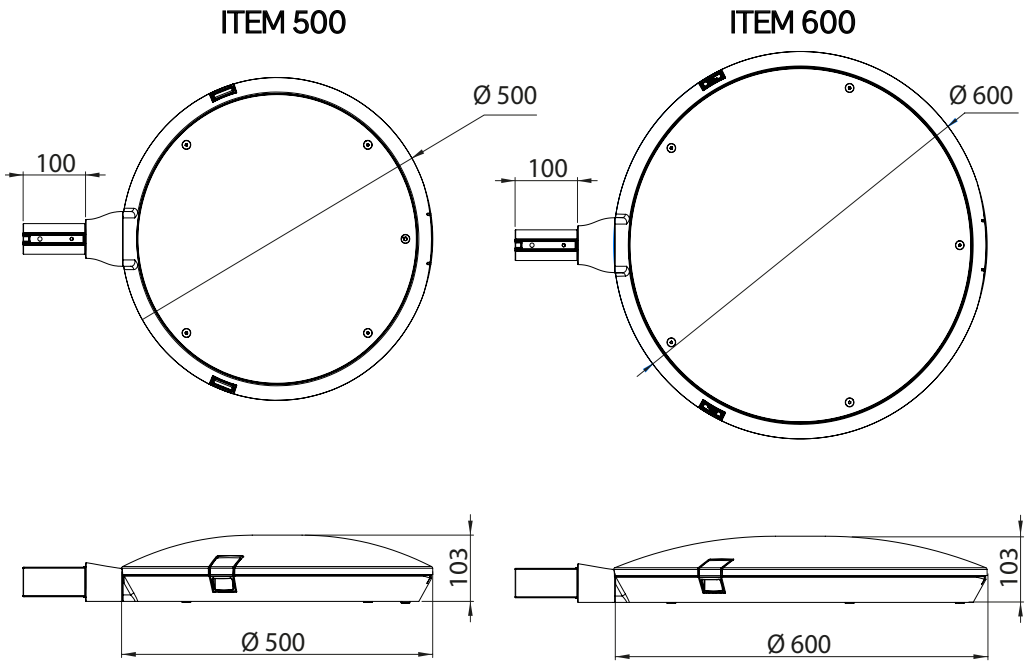
LED Module
BLS strips

CONTROL OPTIONS

ITEM by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth. Both form factors support remote detection while 500 supports built in detection for versions without a frame. Smart-Ready(R) configuration (ZD4i) with double Smart-Ready for versions without a frame. When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

MAINTENANCE

Maintenance is simplified via toolless access to the body and toolless quick electrical disconnection which facilitates circuit board removal on site without tools. Access to the LED sources happens after removal of the bowl.



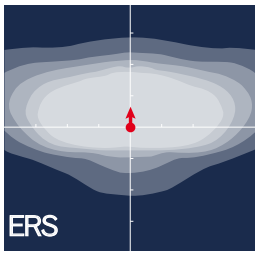
OPTICAL OPTIONS

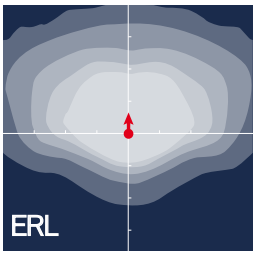
	ITEM 500	ITEM 600
Sources	ITEM (ORALED type)	ITEM (ORALED type)
	BLS strips	
Colour temperature	ORALED: 3000 K or 4000 K QUADRALENS: Amber*, 2200 K, 2400 K, 2700 K, 3000 K or 4000 K	
Optical Distribution	ORALENS: ERS, ERL	ORALENS: ERS, ERL
	QUADRALENS: ERS, ERL, PFA, EPD, EPG, ECL, ECa, ETS	QUADRALENS: ERS, ERL , EPD, EPG
Backlight shield option	Medium or strong cut-off	
Power supply current	Adjustable up to 700 mA(1)	

*Approx. 1800K, only on BLS12 as standard (1) I>700mA possible on request
E/L/P: Lighting/Luminance/Projection
R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing
E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left

ITEM 500 & 600 **ORALENS** OPTICAL DISTRIBUTIONS

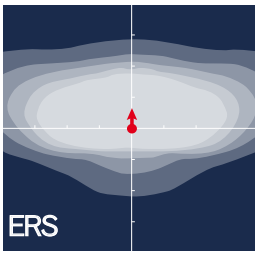
Road type batwing distribution.

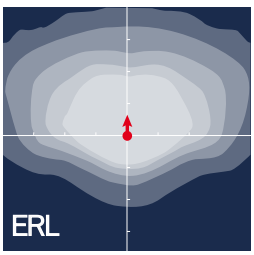




ITEM 500 & 600 **QUADRALENS** DISTRIBUTIONS

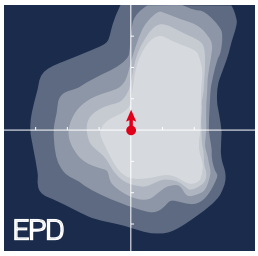
Heavy usage roads, for excellent visual uniformity & user comfort.



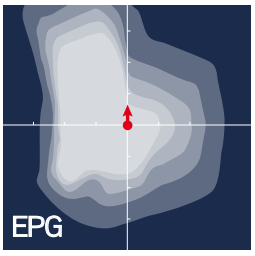


Placed upstream of crossing section, in the moving traffic direction.

For 2 way street

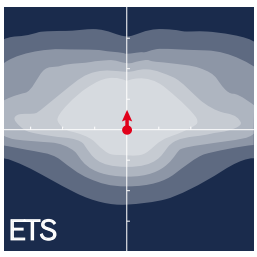


+ EPD covers 1 way

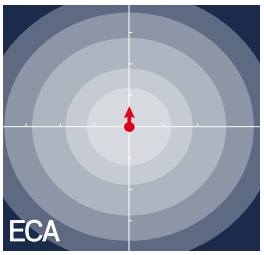


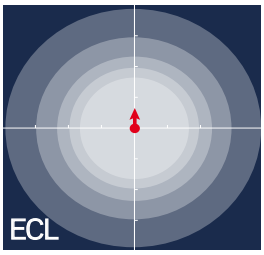
ITEM 500 **QUADRALENS** OPTICAL DISTRIBUTIONS

Standard Sidewalk illuminance



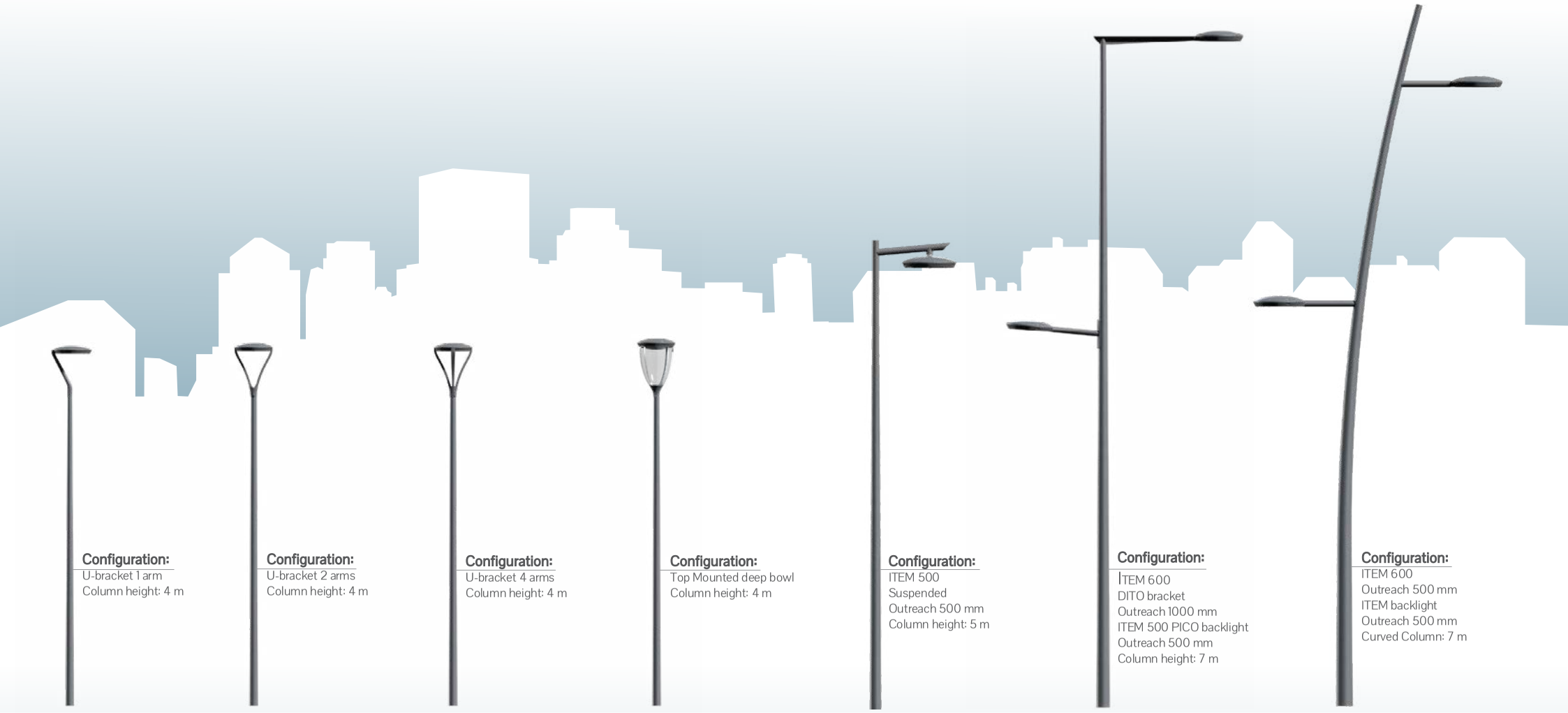
Circular illuminance - car park, park etc.





Projector beam. Asymmetric projection ≈ CImax = 50° / gImax = 65°

OTHER **QUADRALENS** DISTRIBUTIONS AVAILABLE UPON REQUEST



Configuration:
U-bracket 1 arm
Column height: 4 m

Configuration:
U-bracket 2 arms
Column height: 4 m

Configuration:
U-bracket 4 arms
Column height: 4 m

Configuration:
Top Mounted deep bowl
Column height: 4 m

Configuration:
ITEM 500
Suspended
Outreach 500 mm
Column height: 5 m

Configuration:
ITEM 600
DITO bracket
Outreach 1000 mm
ITEM 500 PICO backlight
Outreach 500 mm
Column height: 7 m

Configuration:
ITEM 600
Outreach 500 mm
ITEM backlight
Outreach 500 mm
Curved Column: 7 m

ITEM 500
lateral, smooth body

ITEM STREETLIGHT

MOUNTING BRACKETS

LL: Side entry coupled with sleeve for bracket end with external Ø 60 mm

LLM 60: Smooth lateral with covering sleeve Ø 60 mm

LR: Side entry with swivel joint and Ø ¾" thread for female boss welded onto pole or bracket

LRL: Side entry with plain swivel joint coupled with sleeve for bracket end with external Ø 60 mm

Top or bi-top: fitting for pole Ø 60/62 mm.
For pole Ø 76 mm top, optional spigot A

LTO 60: Directional covering lateral top for Ø 60 mm

SM: Suspended with a threaded Nipple Ø 27 pdg (G3/4") and Ø 34 pdg

Wall mount and pad

DEDICATED BRACKETS

Single or double light bracket, outreach 600 or 1000 mm.
Wall mounted light and backlight, outreach 600 mm.
ATOS bracket tilt 1° - ARTIS and DITO brackets tilt 5°

ATOS
Design: STOA Architecture

ARTIS

DITO

POLE MOUNT ALTERNATIVES

ITEM 500
Suspended
TRAID Body Trim

ITEM 500
Top
SMOOTH Body Trim

ITEM AREA LIGHT

ITEM 500
U-bracket 1 arm
HONEYCOMB body

ITEM 500
U-bracket 2 arms
SMOOTH body

DESCRIPTION

Product name	ITEM 500
Housing	Die cast aluminium
Plate	SMOOTH, HONEYCOMB or TRAID plate Customised pattern option (depending on study)
Bowl	Thermally tempered and screen printed flat glass (VPC) Deep clear polycarbonate bowl (PHC), optional internal diffuser
Finish	Polyester powder coating, any colour available
Impact protection	Flat (VPC): IK 09 / Deep bowl (PHC): IK 10
Ingress Protection	IP66 Extruded silicone gasket Cable gland with anchoring device Breathing system with activated carbon filter
Watts/lumens	Click for Data

Dimensions (dia x h)	
U-bracket 1 arm	500 x 671 mm
U-bracket 2, 4 arms	500 x 701 mm
PHC post top	500 x 758 mm
PHC suspended	500 x 714 mm
Weight	
U-bracket 1 arm	10.3kg
U-bracket 2 arms	12.1kg
U-bracket 4 arms	12.4kg
PHC post top	11kg
PHC suspended	11.1kg
Windage area	
U-bracket 1 arm	0.06m²
U-bracket 2 arms	0.07m²
U-bracket 4 arms	0.10m²
PHC post top	0.19m²
PHC suspended	0.19m²
Materials used	ITEM 500 Bowl PHC Aluminium 58% Steel 9% Plastic 26% Other 7%

BODY-TRIM OPTIONS

SMOOTH Body Trim

TRAID Body Trim

HONEYCOMB Body Trim

MECHANICAL INTERFACES

U-bracket 1 arm: penetrating tip for Ø 60 mm pole

U-bracket 2 arms: post top fastening pole Ø 60/62mm

U-bracket 4 arms: post top fastening pole Ø 60/62mm

PHC: post top fastening pole Ø 60/62mm

SM: suspended with threaded Nippel Ø 27 pdg and Ø 34 pdg

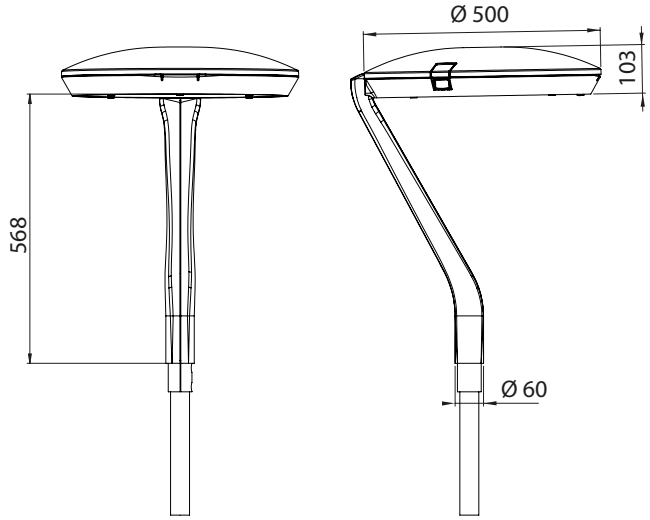
ITEM 500
U-bracket 4 arms
TRIAD body

ITEM 500
Post Top PHC bowl
SMOOTH body

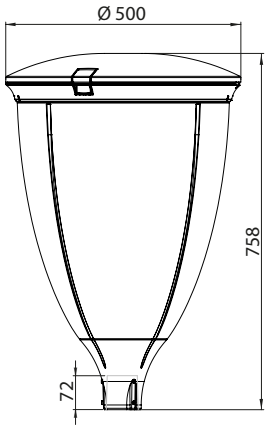
ITEM 500
Post Top PHC bowl
SMOOTH body

DIMENSIONS

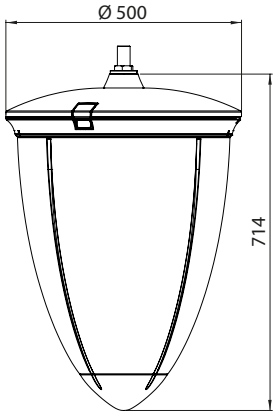
ITEM U-bracket 1 arm



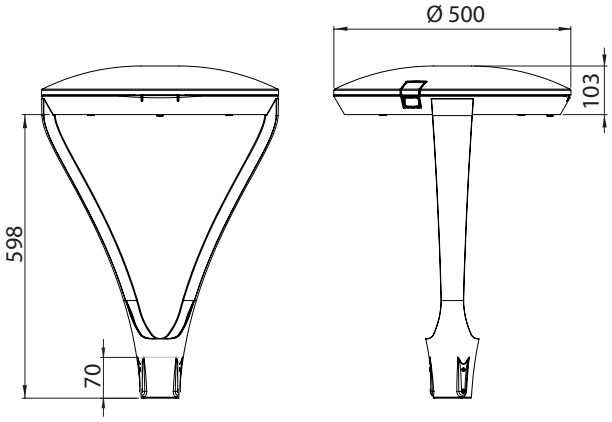
ITEM PHC post top



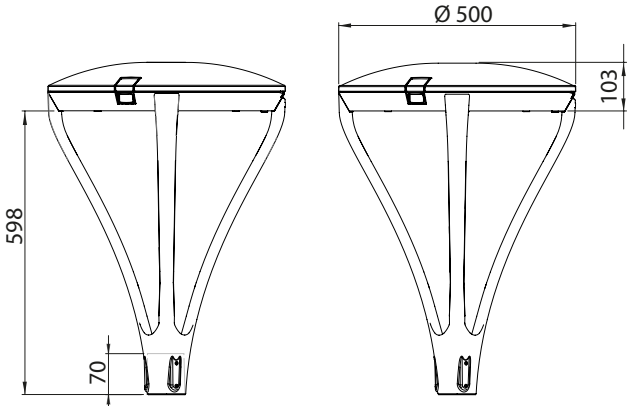
ITEM PHC suspended



ITEM U-bracket 2 arms



ITEM U-bracket 4 arms

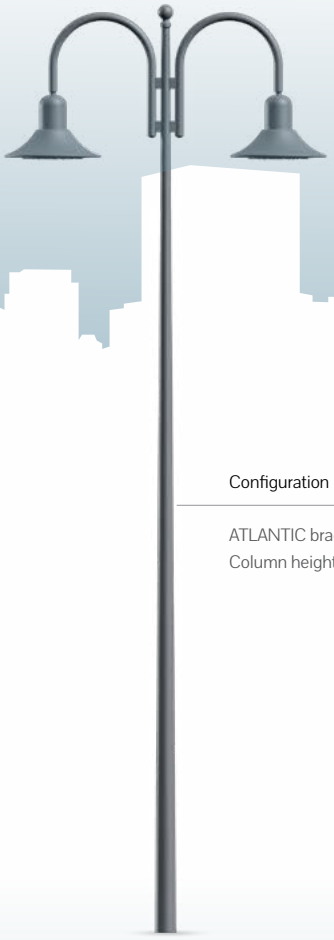


ACCESSORY

Deep clear polycarbonate bowl (PHC) with internal diffuser

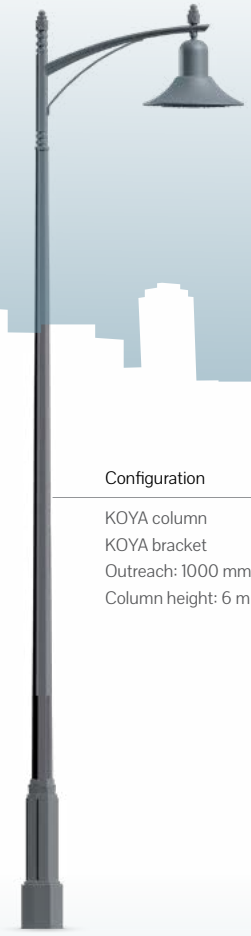
ODELIA

Design: GHM



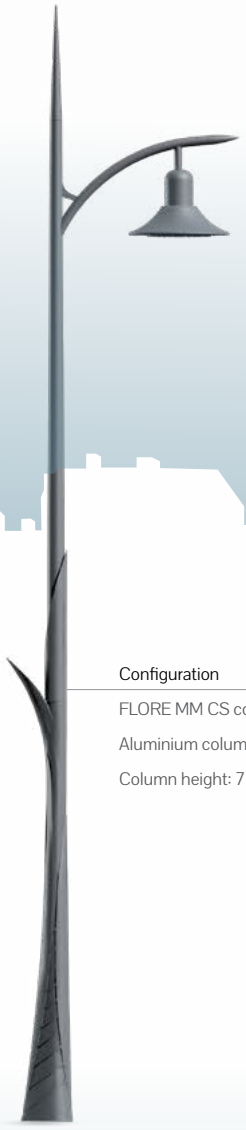
Configuration

ATLANTIC bracket
Column height 6 m



Configuration

KOYA column
KOYA bracket
Outreach: 1000 mm
Column height: 6 m



Configuration

FLORE MM CS column
Aluminium column finial
Column height: 7 m

ODELIA

Design: GHM

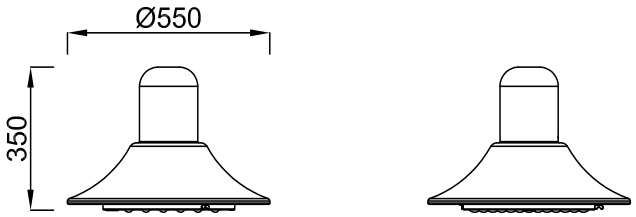
ODELIA 550
Presented with ORALED 1

DESCRIPTION

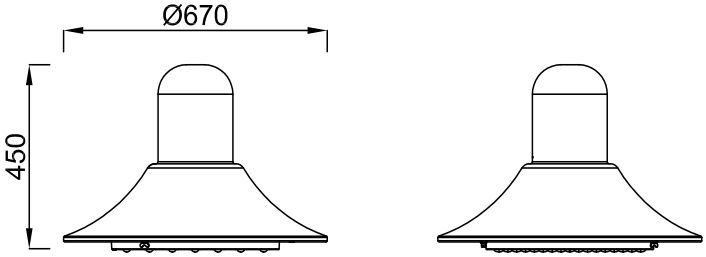
Product name	ODELIA 550	ODELIA 670
Housing	Spun aluminium dome on a cast aluminium frame	
Bowl	ORALED: in PMMA / SEOLED: in glass	
Finish	Polyester powder coating, any colour available	
Impact protection	ORALED: IK 08 - SEOLED: IK 10	
Ingress Protection	IP 65 (optic and equipment) waterproofing in accordance with the standard **EN 60 529** Extruded pneumatic silicone gasket - high temperature	
Dimensions (dia x h)	550 x 350 mm	670 x 450 mm
Weight	7.8kg	8.3kg
Windage area	0.10m²	0.15m²
Watts/lumens	Click to view	

DIMENSIONS

ODELIA 550



ODELIA 670



ODELIA 670
Presented with SEOLED 2

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	ODELIA 550	ODELIA 670
Sources	ORALED 1	ORALED 2
	SEOLED 1	SEOLED 2
Colour temperature	ORALED: 3000 K or 4000 K SEOLED: Amber*, 2200 K, 2400 K, 2700 K, 3000 K, 4000 K	
Optical Distribution	ORALENS: ECL, ERS, ERL, LRM	ORALENS: ERS, ERL, LRM, LRE
	QUADRALENS: ERS, ERE, ERL, ECa, LRL, LRS, ETS, PFA, EPD, EPG	QUADRALENS: ERS, ERE, ECa, LRS, LRL, ETS, PFA
Backlight shield option	Medium or strong cut-off	
Power supply current	Adjustable up to 700 mA(1)	

*Approx. 1800K, only on BLS12 as standard (1) I>700mA possible on request
E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing, E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left

ORALED module

SEOLED module

MECHANICAL INTERFACES

ODELIA 550:
suspended with a threaded Nipple Ø 27 pdg (G3/4"), L 30 mm

ODELIA 670:
suspended with a threaded Nipple Ø 34 pdg (G1"), L 30 mm

MAINTENANCE

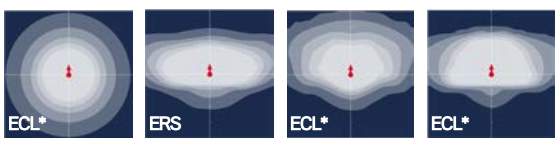
Opening and closing	Opening of the luminaire by 3 quarter-turn screws. The module swivels around a hinge in aluminium.
LED module maintenance	Quick connectors to remove the power supply unit. Direct access to the module, removable.

CONTROL OPTIONS

ODELIA by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth. Both models support DALI protocol. All form factors support remote detection while ODELIA 550 supports built in detection. When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

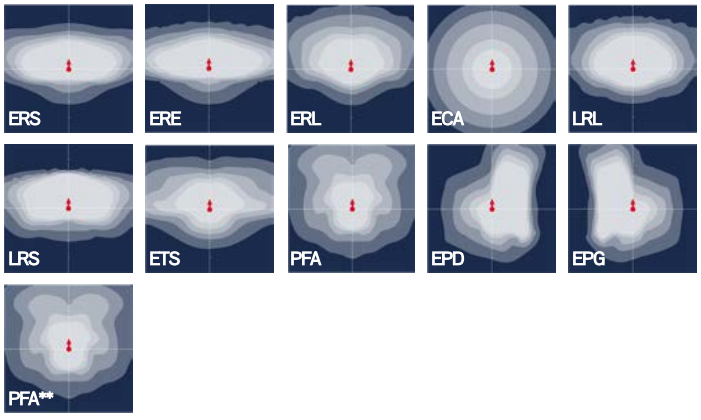
OPTICAL DISTRIBUTION

ORALENS:



XXX* Odelia 550; XXX** Odelia 670

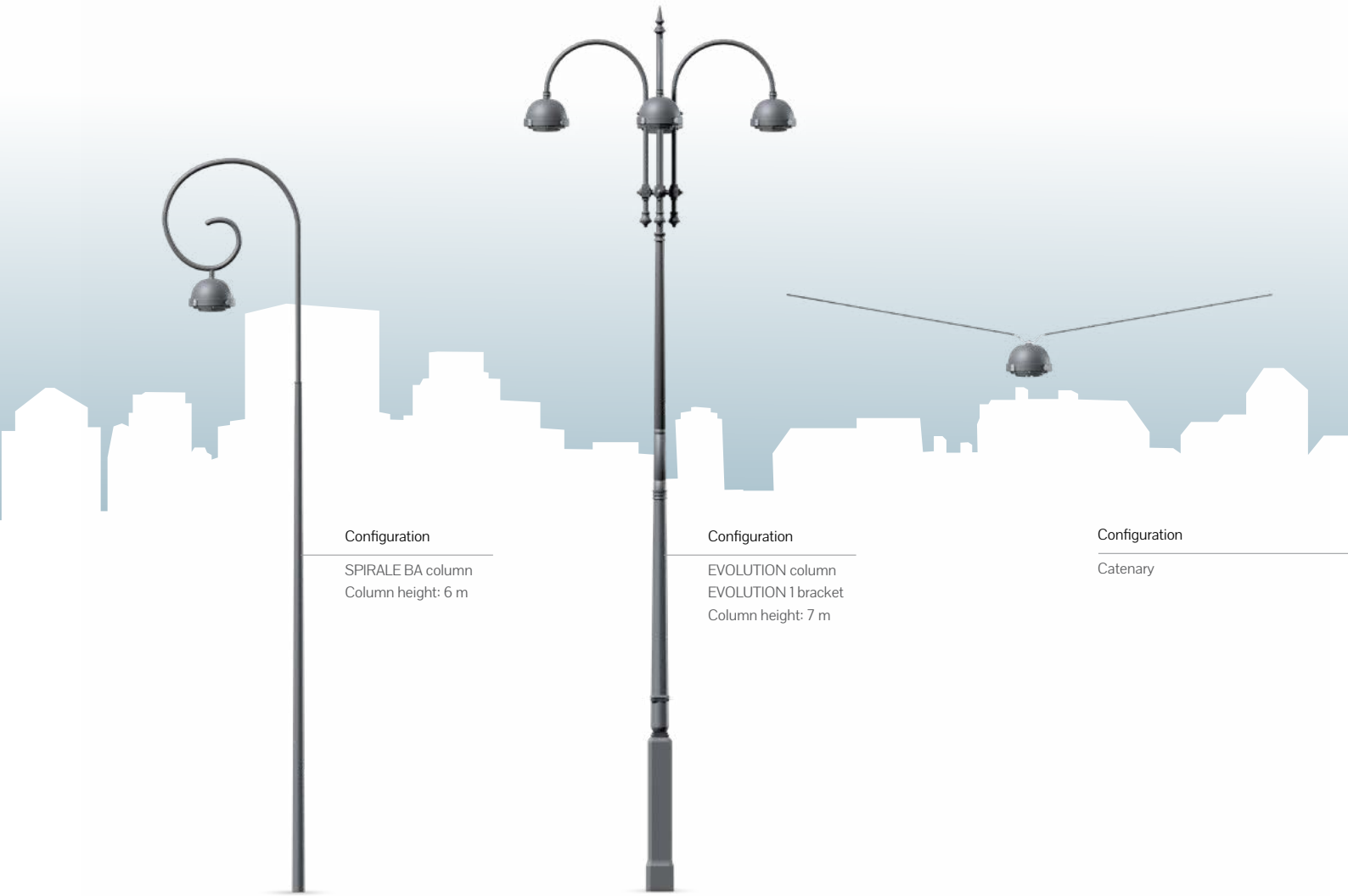
QUADRALENS



XXX* Odelia 550; XXX** Odelia 670

BOLA

Design: ECLATEC



Configuration

SPIRALE BA column
Column height: 6 m

Configuration

EVOLUTION column
EVOLUTION 1 bracket
Column height: 7 m

Configuration

Catenary

BOLA

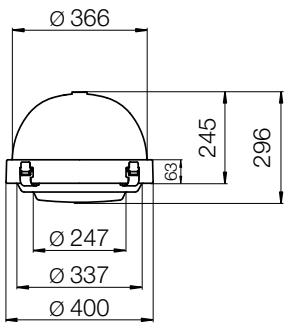
Design: ECLATEC

BOLA 40

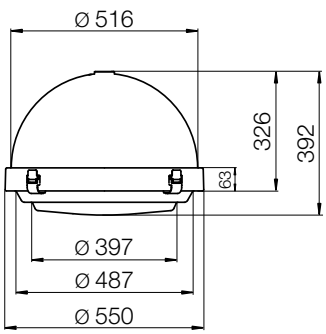
DESCRIPTION

Product name	BOLA 40	BOLA 55
Housing	Frame in injected aluminium Spun aluminium dome	
Bowl	Polycarbonate truncated-cone	
Finish	Polyester powder coating, any colour available	
Impact protection	IK 07	
Ingress Protection	IP66 Extruded silicone gasket Cable gland with anchoring device Breathing system with activated carbon filter	
Dimensions (dia x h)	400 x 296 mm	550 x 392 mm
Weight	7 kg	11 kg
Windage area	0,7 m²	1 m²
Watts/lumens	Click to view	

BOLA 40



BOLA 55



BOLA 55

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	BOLA 40	BOLA 55
Sources	BLS strips	
Colour temperature	Amber*, 2200 K, 2400 K, 2700 K, 3000 K, 4000 K	
Optical Distribution	QUADRALENS : ERS, ERL, ERE, LRS, LRL, PFA, ECa, EPD, EPG	
Backlight shield option	Medium or strong cut-off	
Power supply current	6BLS12 max, up to 750 mA	

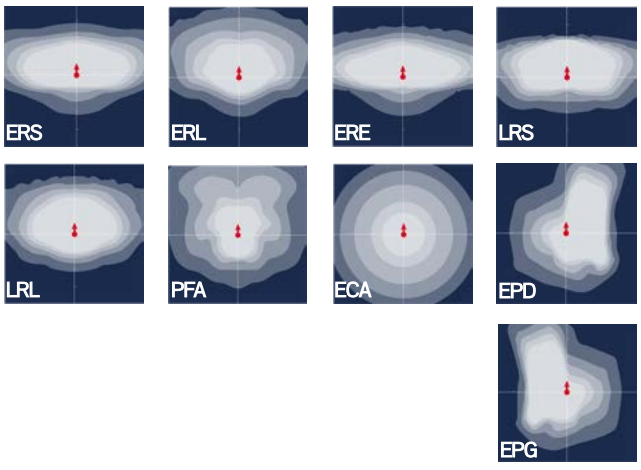
*Approx. 1800K, only on BLS12 as standard
E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing, E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left

BLS strips

CONTROL OPTIONS

BOLA by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth. All form factors support remote detection while. When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

OPTICAL DISTRIBUTION



MECHANICAL INTERFACES

SC: Suspended catenary

SC: Suspended catenary with Zhaga connector

SM: suspended with threaded Nippel Ø 27 pdg

MAINTENANCE

Lighting equipment maintenance	Acces to the equipment board by 1 quarter-turn screw. The module swivels around a hinge. Quick electrical disconnection without tools. Equipment board removable
Opening and closing	The luminaire cover can be opened without tools using the 4 flaps {1}. The luminaire is held in the open position by a safety stay
Source maintenance	Access to the LED sources after removal of the bowl {2}

1

2

ECLATEC

ELIPT

Design: Jean-Michel WILMOTTE

Configuration

ELIPT 55
CHANTEREINE bracket
Outreach 1000 mm
Column height: 5 m

Configuration

ELIPT 55 X
PALAMA bracket
Outreach 750 mm
Column height: 7 m

Configuration

ELIPT 55
STELIO bracket
Outreach 800 mm
Luminous column finials
Column height: 6 m

Configuration

ELIPT 45 X
TOTEM column: 4,7 m

Configuration

ELIPT 45
INDIGO wall bracket
Outreach 800 mm

Typical Mounting Arrangements

ELIPT AREA LIGHT

Design: Jean-Michel WILMOTTE

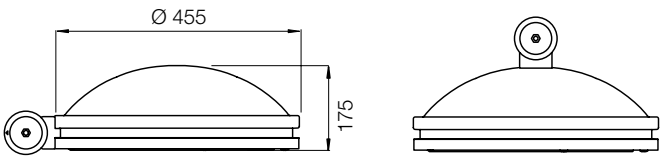
ELIPT 45
Presented with ORALED 1

DESCRIPTION

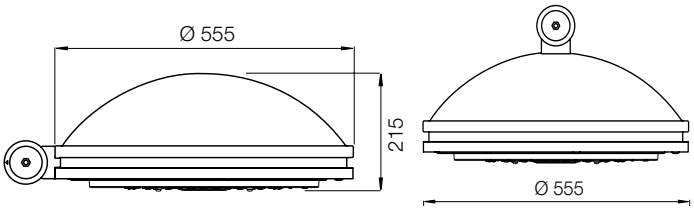
Product name	ELIPT 45	ELIPT 55
Housing	Body and frame in injected aluminium Spun aluminium dome	
Bowl	ORALED: in PMMA / REOLED: in PC	
Finish	Polyester powder coating, any colour available	
Impact protection	ORALED: IK 08 - REOLED: IK 10	
Ingress Protection	IP66 Extruded silicone gasket Cable gland with anchoring device Breathing system with activated carbon filter	
Dimensions	455 x 175 mm	555 x 215 mm
Weight	9.9kg	13.7kg
Windage area	0.07m²	0.09m²
Wattage/lumens	Click to view	
LED module maintenance	Direct access to the module. Power supply by quick connectors. Module removable	

DIMENSIONS

Elipt 45 - REOLED 1



Elipt 55 - ORALED 2



MAINTENANCE

Sources maintenance	Automatic cutting of power supply when the luminaire is opened by a dedicated ECLATEC connector. Quick tool-free electrical disconnection. Circuit board removable onsite without tools.

ELIPT 55
Presented with REOLED 2

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	ELIPT 45	ELIPT 55
Sources	ORALED 1	ORALED 2
	REOLED 1	REOLED 2
Colour temperature	ORALED: 3000 K or 4000 K	
	REOLED: Amber*, 2200 K, 2400 K, 2700 K, 3000 K, 4000 K	
Module color	ORALED: Grey 2150 or 2900	
	REOLED: Grey 2900	
Optical Distribution	ORALENS: ECL, ERS, ERL, LRM	ORALENS: ERS, ERL, LRM, LRE
	QUADRALENS: ERS, ERL,ECa, LRS, LRL, ERE, ETS, PFA, EPD, EPG	QUADRALENS: ERS, ERL, ERE, LRS, LRL, PFA, ECa, EPD, EPG
Backlight shield option	Medium or strong cut-off	
Power supply current	Adjustable up to 700 mA(1)	

*Approx. 1800K, only on BLS12 as standard (1) I>700mA possible on request
E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing, E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left

ORALED module

REOLED module

MOUNTING BRACKETS

LRL: Side entry with plain swivel joint coupled with sleeve for bracket end with external Ø 60 mm (cf p 280 - E, F)

LRM: Smooth Lateral Ball with wrapping sleeve for the end of the cross-arm Ø 60 mm and Ø 42 mm outside

LLM: Side entry coupled with wrapping sleeve for the end of the cross-arm Ø 60 mm et Ø 42 mm outside

LR: Side entry with swivel joint and Ø ¾" thread for female boss welded onto pole or bracket (cf p 280 - G)

Top or bitop: fitting for pole Ø 60/62 mm. For pole Ø 76 mm top, optional spigot A (cf p 280) Luminaire tilted at 0° and 10°

LL: Side entry coupled with sleeve for bracket end with external Ø 60 mm (cf p 280 - E, F)

Cast aluminium plate (cf p 280 - J)

Cast aluminium wall bracket

SR: Suspended with swivel joint(cf p 280 - H)

CATELUX: SM Ø 27 PDG fixture - Fixture on 5 to 14 mm mechanical cable

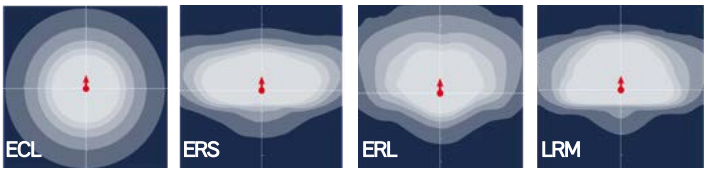
SCO: catenary - Fixture on 5 to 14 mm mechanical cable

CONTROL OPTIONS

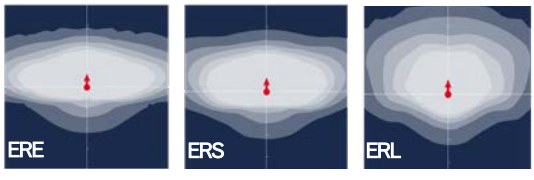
ELIPT by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth. Both form factors support remote detection while 45 supports built in detection. Smart-Ready(R) configuration (ZD4i) with double Smart-Ready for versions without a frame. Both models support DALI protocol. When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

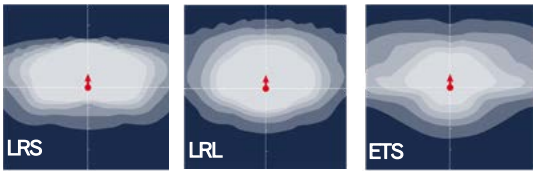
OPTICAL DISTRIBUTIONS

ORALENS



QUADRALENS (BLS)





ELIPT X

Design: Jean-Michel WILMOTTE

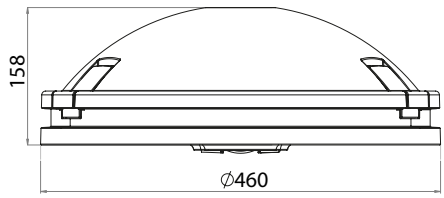
ELIPT 45 X

DESCRIPTION

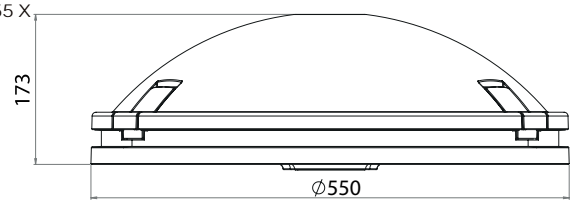
Product name	ELIPT 45 X	ELIPT 55 X
Housing	Injection die-cast aluminium body	
Bowl	Thermally toughened glass	
Finish	Polyester powder coating, any colour available	
Impact protection	IK 10	IK 08
Ingress Protection	IP66 Extruded silicone gasket Cable gland with anchoring device Breathing system with activated carbon filter	
Dimensions	460 x 158 mm	550 x 173 mm
Weight	9.1kg	12.3kg
Windage area	0.07m²	0.09m²
Wattage/lumens	Click to view	

DIMENSIONS

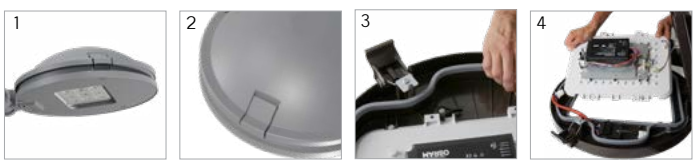
Elipt 45 X



Elipt 55 X



Sources maintenance	Automatic cutting of the power supply when the luminaire is opened by a dedicated ECLATEC connector. Quick tool-free electrical disconnection. Circuit board removable onsite without tools. Complete LED module removable onsite without tools {3, 4}



ELIPT 55 X

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	ELIPT 45 X	ELIPT 55 X
Sources	XEOLED 1	XEOLED 2
Colour temperature	2200 K, 2400 K, 2700 K, 3000K, 4000 K	
Optical Distribution	QUADRALENS: ERS, ERE, ERL, ECa, LRL, LRS, ETS, PFA, EPD, EPG	QUADRALENS: ERS, ERE, ECa, LRS, LRL, ETS, PFA
Backlight shield option	Medium or strong cut-off	
Power supply current	Adjustable up to 700 mA(1)	

(1) I>700mA possible on request
E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing,
E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left

XEOLED module

CONTROL OPTIONS

ELIPT by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth. Both form factors support remote detection while neither supports built in detection. Smart-Ready(R) configuration (ZD4i) with double Smart-Ready for both options. Both models support DALI protocol. When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

MOUNTING BRACKETS


LRL: Side entry with plain swivel joint coupled with sleeve for bracket end with external Ø 60 mm (cf p 280 - E, F)


LRM: Smooth Lateral Ball with wrapping sleeve for the end of the cross-arm Ø 60 mm and Ø 42 mm outside


LLM: Side entry coupled with wrapping sleeve for the end of the cross-arm Ø 60 mm et Ø 42 mm outside


LR: Side entry with swivel joint and Ø ¾" thread for female boss welded onto pole or bracket (cf p 280 - G)


Top ou bitop: fitting for pole Ø 60/62 mm. For pole Ø 76 mm top, optional spigot A (cf p 280) Luminaire tilted at 0° and 10°


LL: Side entry coupled with sleeve for bracket end with external Ø 60 mm (cf p 280 - E, F)


Cast aluminium plate (cf p 280 - J)


Cast aluminium wall bracket

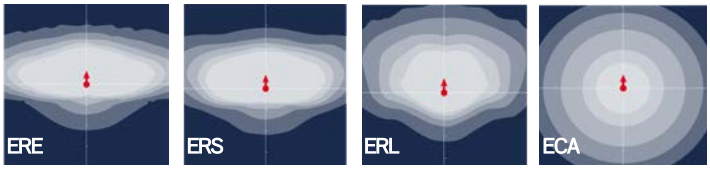

SR: Suspended with swivel joint(cf p 280 - H)

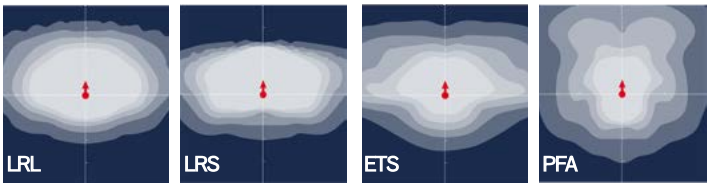

CATELUX: SM Ø 27 PDG fixture - Fixture on 5 to 14 mm mechanical cable


SCO: catenary - Fixture on 5 to 14 mm mechanical cable

OPTICAL DISTRIBUTIONS

QUADRALENS ELIPT 45X & 55X





QUADRALENS ELIPT 45X ONLY

ZELDA

Design: ECLATEC

Configuration

ZELDA 1
Column height: 4 m

Configuration

ZELDA 1
GALA column
Column height: 5 m

Configuration

ZELDA 2
PALAMA bracket
Outreach 1000 mm
Column height: 6 m

Configuration

ZELDA 2
MUSA wall-bracket
Outreach 1000 mm

ZELDA

Design: ECLATEC

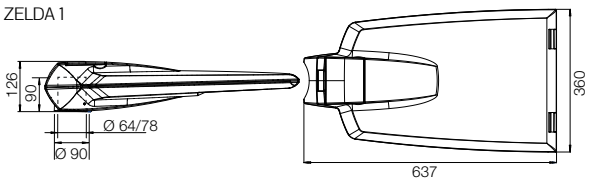
ZELDA 1

DESCRIPTION

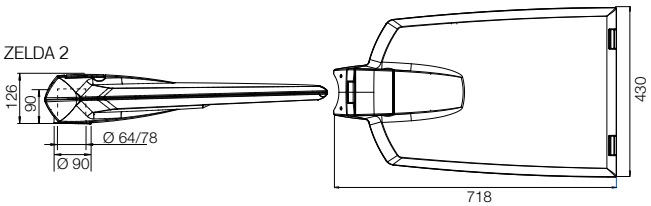
Product name	ZELDA 1	ZELDA 2	ZELDA 3
Housing	Injection die-cast aluminium body		
Bowl	Thermally tempered and screen printed flat glass		
Finish	Polyester powder coating, any colour available		
Impact protection	IK 10		
Ingress Protection	IP66 Extruded silicone gasket Cable gland with anchoring device Breathing system with activated membrane filter		
Dimensions (L x l x h)	637 x 360 x 126 mm	718 x 430 x 126 mm	802 x 470 x 126 mm
Weight	7.5kg	9.5kg	13kg
Windage area	0.06m²	0.08m²	0.08m²
Watts/lumens	Click to view		

DIMENSIONS

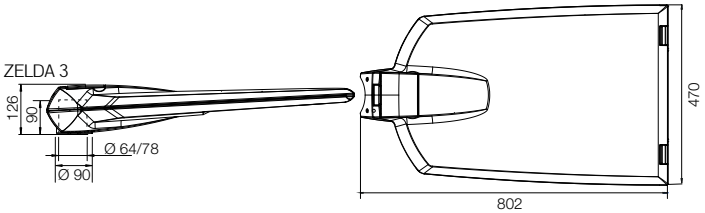
ZELDA 1



ZELDA 2



ZELDA 3



ZELDA 2

ZELDA 3

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	ZELDA 1	ZELDA 2	ZELDA 3
Sources	BLS strips		
	1xBLS8, 2xBLS8, 2xBLS12	3xBLS12 4xBLS12 5xBLS12	4xBLS8+ 4xBLS12 5xBLS8+ 5xBLS12 6xBLS8+ 6xBLS12
Colour temperature	Amber*, 2200 K, 2400 K, 2700 K, 3000K, 4000 K		
Optical Distribution	QUADRALENS		
	ERS, ERE, ERL, ECA, LRL, LRS, ETS, PFA, EPD, EPG	ERS, ERE, ERL, ECa, LRL, LRS, PFA	
Backlight shield	Medium or strong cut-off		
Power supply current	up to 700 mA(1)		
Driver protection	10 kV: 3E version		

*Approx. 1800K, only on BLS12 as standard (1) I>700mA possible on request, E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing, E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left

BLS strips

CONTROL OPTIONS

ZELDA by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth. All form factors support remote detection while ZELDA 1 supports built in detection. Smart-Ready(R) configuration (ZD4i) with double Smart-Ready for X versions. When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

MAINTENANCE

Opening and closing (X version)	The upper part of the luminaire cover can be opened without tools using the latch {1} Cutting of the power supply when the luminaire is opened by a dedicated ECLATEC connector {3}
Sources maintenance	Replacement without tools onsite of the luminaire cover: equipment circuit board (attached with 3 screws) and LED sources {3, 4}

1 

2 

3 

4 

* S version: Opening of the cover after unscrewing 2 screws {2}

MOUNTING OPTIONS

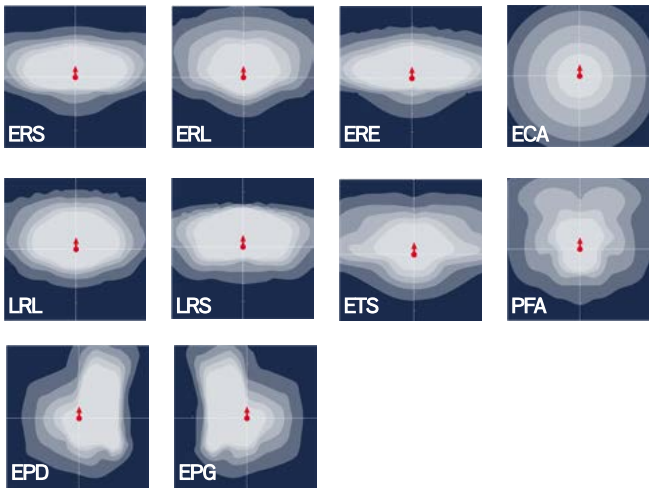
Top rotating arm built into the luminaire
- Top or Side Ø 60 mm
- Top Ø 76 mm in option for 2E and 3E versions

Tilts:
- TOP: 0° ; +5° ; +10° ;+15° ; +20°
- LAT: 0° ; -5° ; -10° ;-15° ; -20°

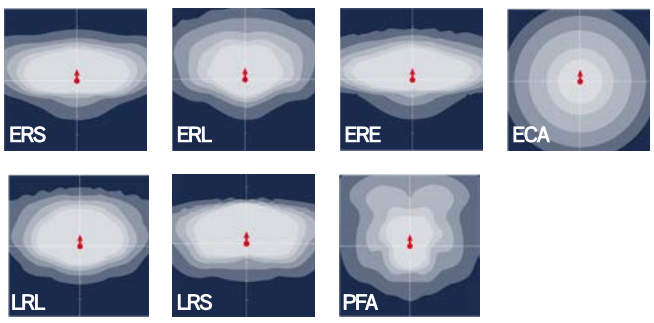
Locking by 2 pressure screws

OPTICAL DISTRIBUTIONS

Zelda 1



Zelda 2 & 3



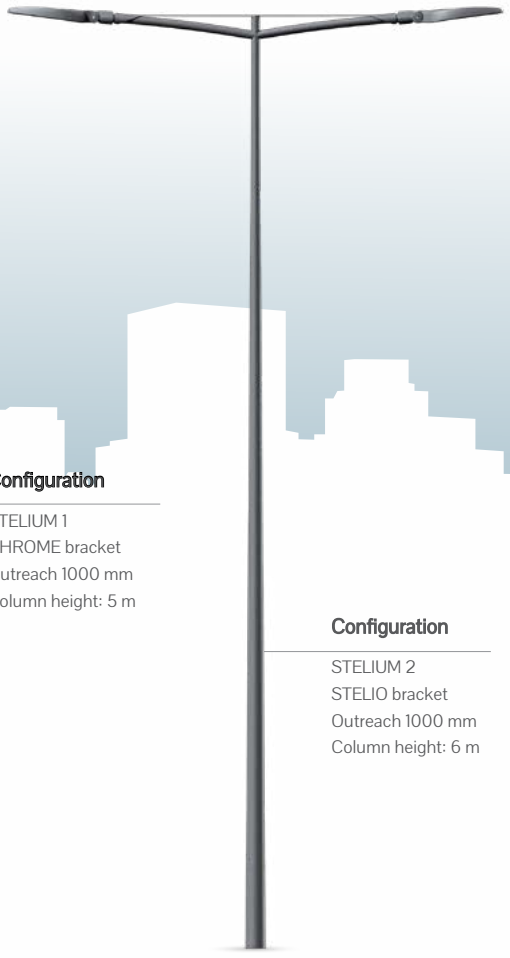
ECLATEC

STELIUM

Design: ECLATEC

Configuration

STELIUM 1
CHROME bracket
Outreach 1000 mm
Column height: 5 m

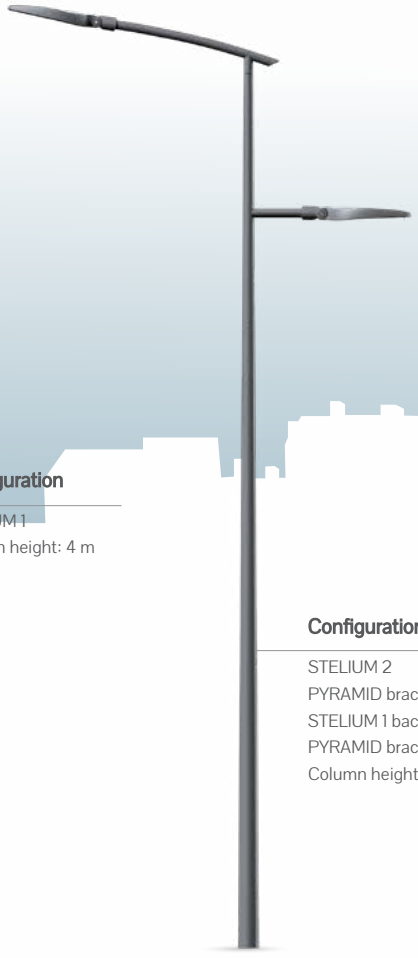


Configuration

STELIUM 2
STELIO bracket
Outreach 1000 mm
Column height: 6 m

Configuration

STELIUM 1
Column height: 4 m



Configuration

STELIUM 2
PYRAMID bracket
STELIUM 1 backlight
PYRAMID bracket
Column height: 6 m

STELIUM

Design: ECLATEC

STELIUM S1

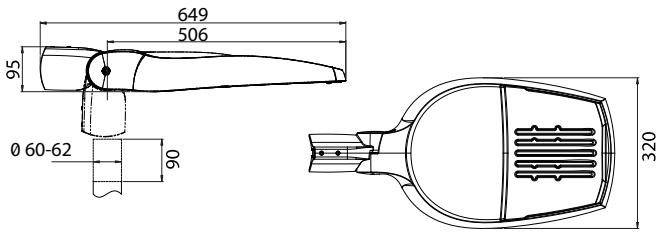
DESCRIPTION

Stelium is a flexible multi use luminaire that can be mounted via pivoting mechanical interfaces to differing pole dimensions. Thanks to the wde range of optical options available Stelium can be used in most applications that call for a cost effective, long lasting and upgradable luminaire. Sophisticated electronics provides compatibility with a range of management systems, both centralised and decentralised.

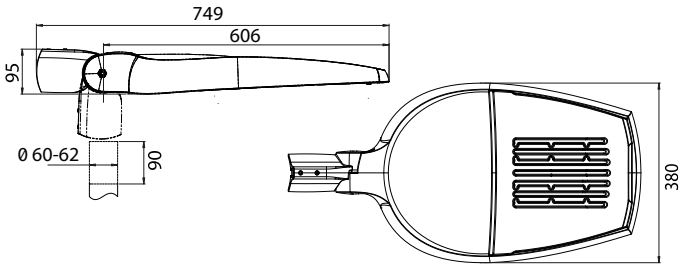
DESCRIPTION

Product name	STELIUM 1	STELIUM 2
Housing	Injection die-cast aluminium body	
Bowl	S version: bottom entry X version: side entry	
Finish	Polyester powder coating, any colour available	
Impact protection	IK 10	
Ingress Protection	IP66 Extruded silicone gasket Cable gland with anchoring device Breathing system with activated carbon filter	
Dimensions (L x l x h)	649 x 320 x 95 mm	749 x 380 x 95 mm
Weight	S1: 4.8kg / X1: 5.8kg	S2: 6.6kg / X2: 7.8kg
Windage area	0.05m²	0.06m²
Watts/lumens	Click to viev	

STELIUM 1



STELIUM 2



STELIUM X2

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	STELIUM 1	STELIUM 2
Sources	BLS strips	
	1xBLS8, 2xBLS8, 2xBLS12, 3xBLS12	2xBLS12, 3xBLS12, 4x BLS12,
Colour temperature	Amber*, 2200 K, 2400 K, 2700 K, 3000K, 4000 K	
Optical Distribution	QUADRALENS	
	ERS, ERE, ERL, ECA, LRL, LRS, ETS, PFA, EPD, EPG	ERS, ERE, ERL, ECa, LRL, LRS, PFA
Backlight shield	Medium or strong cut-off	
Power supply current	3E: up to 700 mA(1)	
Driver protection	10 kV: 3E version	

*Approx. 1800K, only on BLS12 as standard (1) I>700mA possible on request, E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing, E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left

BLS strips

CONTROL OPTIONS

STELIUM by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth. Both form factors support remote detection while Stelium 1 (S1) supports built in detection. Smart-Ready(R) configuration (ZD4i) with double Smart-Ready for X versions. When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

MAINTENANCE

Maintenance of the equipment and LEDs

STELIUM S1, S2: Direct access to the power supply and BLS strips after removal of the bowl. (4 concealed screws). {1} Removable circuit board (retention line) STELIUM X1, X2: Opening without tools of the arch. Direct access to the power supply and BLS strips. Quick electrical disconnection without tools. Circuit board removable onsite without tools. {2}

MOUNTING OPTIONS

Pivoting sleeves: top or Lateral wrapping Ø 60 mm

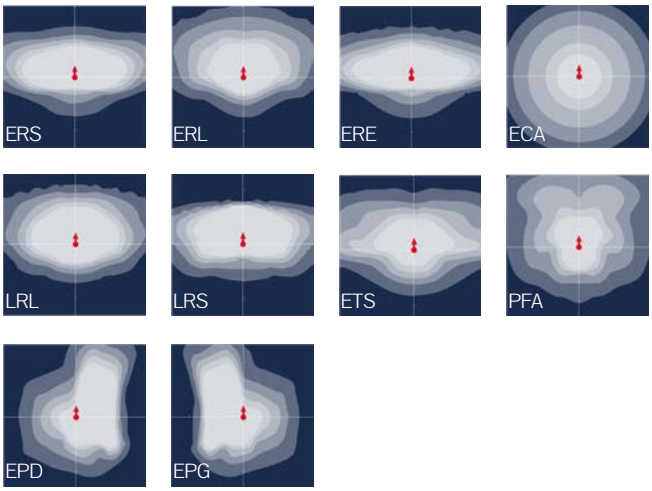
Pivoting sleeves: lateral Penetrating Ø 60 mm

Pivoting sleeves: top wrapping Ø 76 mm

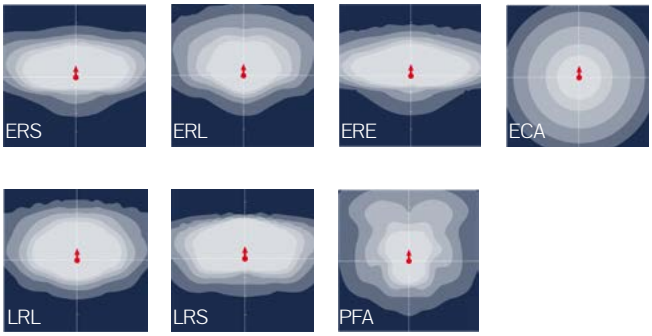
Tilts:
- TOP: 0° ; +5° ; +10° ;+15° ; +20°
- LAT: 0° ; -5° ; -10° ;-15° ; -20°

OPTICAL DISTRIBUTIONS

Stelium 1



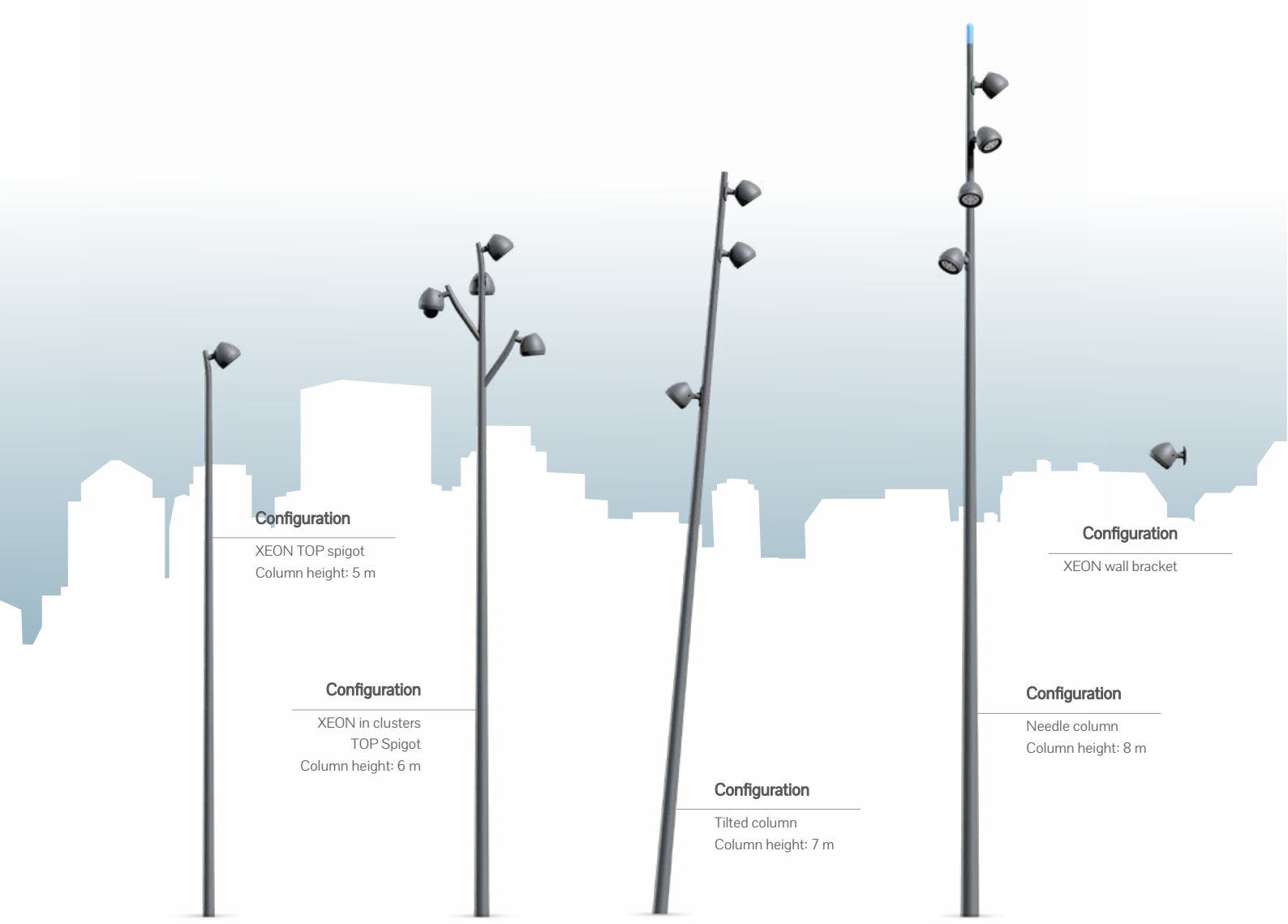
Stelium 2



Floodlights

ECLATEC

XEON



Configuration

XEON TOP spigot
Column height: 5 m

Configuration

XEON in clusters
TOP Spigot
Column height: 6 m

Configuration

Tilted column
Column height: 7 m

Configuration

Needle column
Column height: 8 m

Configuration

XEON wall bracket

XEON FLOODLIGHT

XEON 1
Conical mount

INTRODUCTION:

ECLATEC XEON is a comprehensive floodlight and IoT system that provides the backbone of a SMART city/campus. Via the addition of a range of mounting and functional components and accesories, XEON can be adapted to the needs of any project. The contiguous design permits specifiers to establish a unified look and feel throughout a neighbourhood. Available in a number of colours and mountings to suit different pole designs.

DESCRIPTION

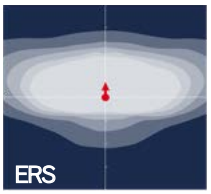
Product name	XEON 1	XEON 2	XEON 3
Housing	Injection die-cast aluminium body		
Bowl	Thermally toughened glass		
Finish	Polyester powder coating, any colour available		
Impact protection	IK 09	IK 10	
Ingress Protection	IP66 Extruded silicone gasket Cable gland with anchoring device Breathing system with activated carbon filter		
Dimensions (dia x h)	200 x 178 mm	240 x 209 mm	300 x 262 mm
Weight	3.3kg	3.9kg	5.5kg
Windage area	0.03m²	0.04m²	0.06m²
Electrical class	Class I or II		
Wiring	Luminaire pre-wired in the factory		

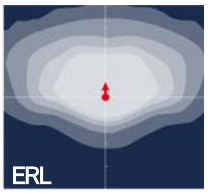
OPTICAL OPTIONS

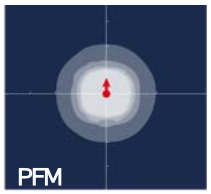
Sources	COB	XEON
Colour temperature	2700 K, 3000 K, 4000 K	
Optical Distribution	UNILENS	ORALENS
	PFI, PFM, PFL	PFI, PFM, PFL, ERS, ERL
Power supply current	Adjustable up to 700 mA	

LED Module (ORALENS type)

LED Module (UNILENS type)

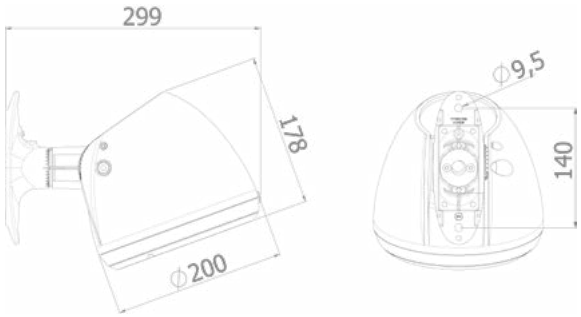




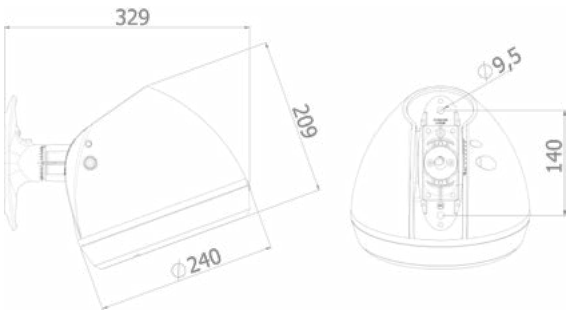


DIMENSIONS

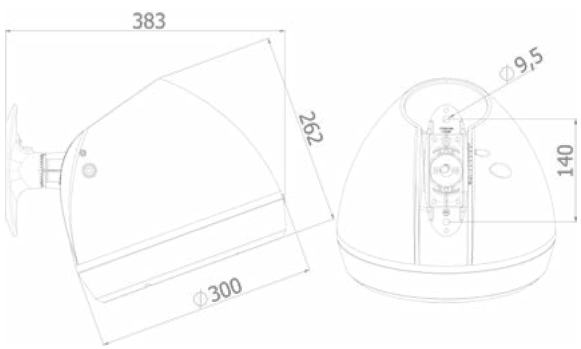
Xeon 1



Xeon 2



Xeon 3



XEON 2
Conical mount

XEON 3
Conical mount

CONTROL OPTIONS

XEON by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth and DALI Protocol. All form factors support remote detection. Smart-Ready(R) configuration (ZD4i). When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system. Details of the funtions available on enquiry.

MAINTENANCE

Projector opening with 3 captive screws (safety wire). Rapid electrical disconnection without tools. Removable LED module on site.

MOUNTING OPTIONS

Mounting for conical or cylindro-conical pole
Tilts:
Position indicators in increments of 5°
- Adjustment on the horizontal plane: -60° to +60° with end stop, screw lock
- Max. adjustment on the vertical plane: 0° to +75°, screw lock

Wall bracket via specific slider
Spacing: 140 mm

Lateral mounting bracket
Tilts:
- Adjustment in the horizontal plane: - 75° to + 75° (illumination upward or downward), ATTENTION graduations range only from -40° to +40° with limit stop, locked by screw

Max adjustment in the vertical plane:
XEON 1: -15° to +60°, locked by screw
XEON 2: -15° to +65°, locked by screw
XEON 3: -15° to +70°, locked by screw

XEON Top penetrating fixing for pole ø60 / ø62 mm x 324mm.
XEON 1: from 5° to 85°, h = 184 to 345 mm
XEON 2: from 5° to 90°, h = 164 to 365 mm
XEON 3: from 5° to 95°, h = 128 to 397 mm

Post top bracket, outreach 515 mm for XEON 1, 538 mm for XEON 2 and 578 mm for XEON 3

ACCESSORIES

Anti-glare grill

Visors

Canon

XEON RGBW
Conical mount

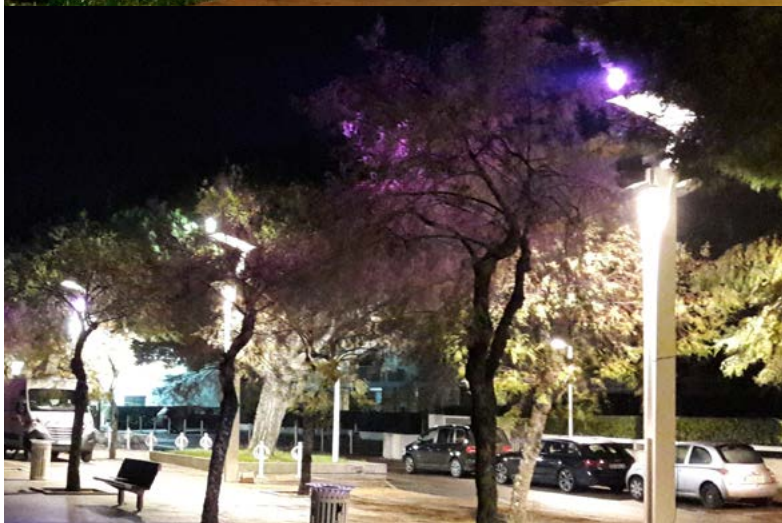
XEON RGBW

Product name	XEON 1	XEON 2	XEON 3
Applications	Heritage building enhancement, illumination, visual accentuation		
Static colours	Monochromatic lights, red, green, blue, white and combinations of these four colours		
Chromatic variations	Chromatic variations		
Control	DMX protocol (DALI protocol on request)		
Programming	Optional programming of the driver, for fixed colours or chromatic variations, using a programming module		
Wiring	Prewiring of DMX in the factory		
Watts/lumens	Click to view		

XEON 1		
Intensity (mA)	700	
Optical Distribution	PFL (Aperture at Imax/2 = 36°) PFM Aperture at Imax/2 = 22°)	
Color	Outgoing flow (lm)	Power (W)
Red	160	10
Green	360	11
Blue	85	11,5
White	590	11

XEON 2		
Intensity (mA)	700	
Optical Distribution	PFI with 10° diffuser or 30° diffuser	
Color	Outgoing flow (lm)	Power (W)
Red	650	15
Green	940	18
Blue	235	18
White	925	18

XEON 3		
Intensity (mA)	700	
Optical Distribution	PFI with 10° diffuser or 30° diffuser	
Color	Outgoing flow (lm)	Power (W)
Red	490	11
Green	710	13,5
Blue	180	13,5
White	700	13,5



XEON IoT OPTIONS

XEON
Fixed camera

XEON
CCTV camera

XEON
Loudspeaker

CCTV CAMERAS

XEON 2 and 3 can integrate CCTV cameras, connected via Web browser, operating day and night.

Product name	XEON 2	XEON 3
Protocol	Compatible with the protocol defined by ONVIF (Open Network Video Interface Forum: open protocol) and therefore compatible with most security systems	
Connection	Internet connection allowing viewing from a control station	
Resolution	Full HD 1920x1080, digital zoom, optimization of image quality	
Recording	Possible on SD card	
Power supply	PoE ou DC	
Functionality	Detection	
Impact protection	IP 66	
Ingress Protection	IK 10	
Working temperature	-20°C to +50°C	
Power	8 to 10W	

Fixed camera
A discreet solution, with a fixed SAMSUNG camera entirely integrated into the projector and three compatible lenses according to the installation height, the field of view and the area of coverage.

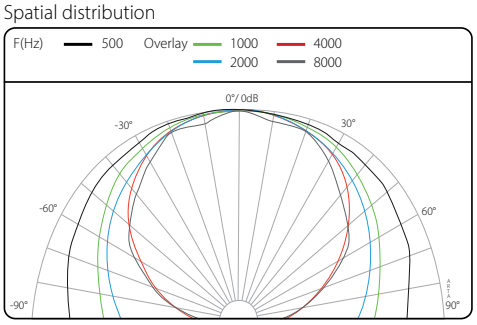
CCTV camera
A dissuasive and visible solution, with an AXIS PTZ camera offering panoramic vision and the possibility of horizontal and vertical movement, allowing objects to be tracked on the move.

PUBLIC ADDRES SYSTEM

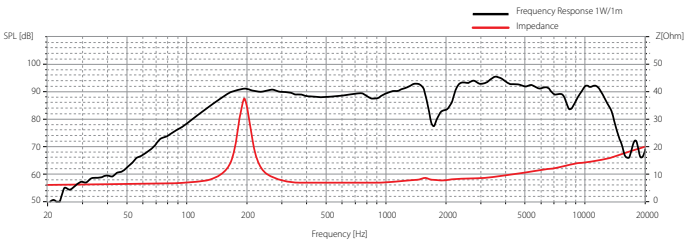
XEON 2 and 3 can integrate a loudspeaker allowing voice messages, information or music to be broadcast. This 100 V analog sound system is connected to an on-site audio amplifier, which provides power directly to the speaker.
The audio amplifier is also connected to the audio source.

Product name	XEON 2	XEON 3
Finitions	Polyester powder coating, any colour available	
Electroacoustic system	- Transformer 50 W - Impedance 8 Ω - Sound pressure level 89 dB (1 W / 1 m) to 17 kHz - Frequency response of 250 Hz to 7000 Hz - Working temperature: -40°C à +120°C	

Spatial distribution



Acoustic pressure (1 W / 1 m)



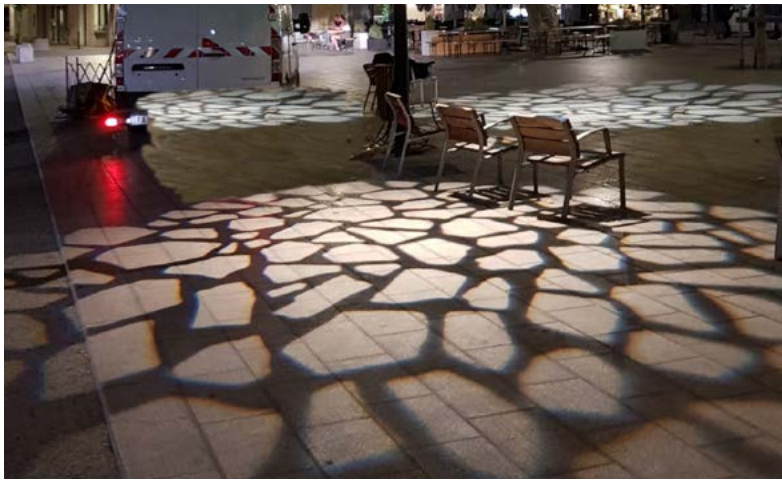
XEON GOBO PROJECTOR

XEON 3
GOBO Projector

GOBO

XEON 3 can integrate a GOBO projector capable of projecting monochrome or multicolored black and white images or messages up to 12 m.
In order to provide maximum resolution, the optics of GOBOs Floodlights are made of dichroic glass, allowing superior flexibility of colours and light effects, including metallic or pastel colours (metallic GOBOs available).
In addition, the 5500K LED source with IRC 80 provides crisp, clear projection with perfect colour rendering, regardless of the surrounding environment.

Product name	XEON 3
Housing	Injection cast aluminium body, module and mechanical interfaces
Bowl	Heat-tempered and screen-printed glass bowl
Finish	In polyester powder coating, in a choice of colours
Power	34 W
Impact protection	IK 10
Ingress Protection	IP 66
Weight	6.8kg
Windage area	0.06m²
Electrical class	Class I only
Wiring	Pre-wired in the factory

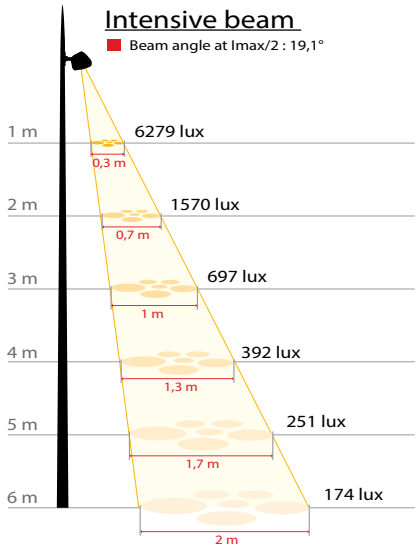


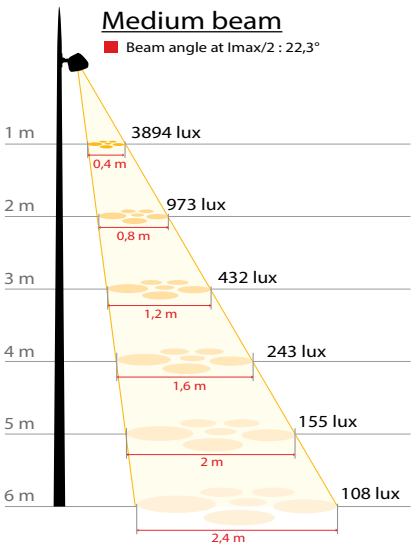
INSTALLING / CHANGING THE GOBO

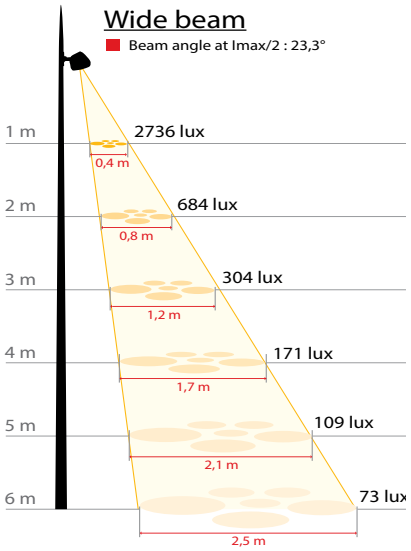
Opening	Open the XEON via the three captive screws on the front panel to access the internal projector
Installation	Easy installation of the GOBO in the projector following instructions
Adjustment	Adjust the focus by turning the lens (by first unscrewing the locking screw, and tightening it after adjustment)

LENS CHOICE

Three lenses allow a great diversity between the size of the projected graphics and the projection distance. In general, for the same projection distance, the larger the angle of opening, the larger the projected area, and the less bright the projected image.







XEON GOBO PROJECTOR

XEON 3
GOBO Projector

RENDERINGS, EFFECTS & PATTERNS

A large library of figurative GOBO patterns such as foliage or clouds, as well as abstract patterns, are available on request. ECLATEC can also create personalized patterns on any theme, or using a photo, as requested by the customer.

IN STEEL

Disk cut to pattern, logo, with text required. This is the least expensive solution for colourless projection.

IN GLASS

The colored GOBOs are formed by superimposing layers of dichroic glass with engraved shapes, to mix the colours necessary for the image by subtraction. These custom glass GOBOs are ultra-thin (1.1mm thick for monochrome and black and white models, and 1.9mm for multicolored models), providing excellent image projection.

Examples of existing patterns:

Examples of existing patterns:

APPLICATIONS:

Projection of patterns on the ground

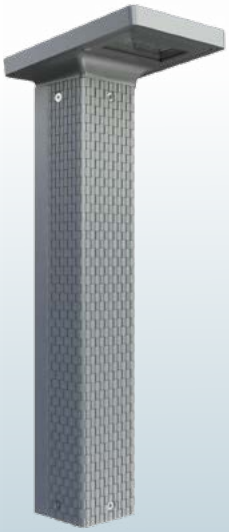
Projection of messages on buildings


KLUBB.com

Bollards

LIGHTING
BOLLARDS

Design: ECLATEC



PIXEL (PRM*)

VENGO (PRM*)

VENGA (PRM*)

TREK (PRM*)

TAIGA (PRM*)

TEAM (PRM*)

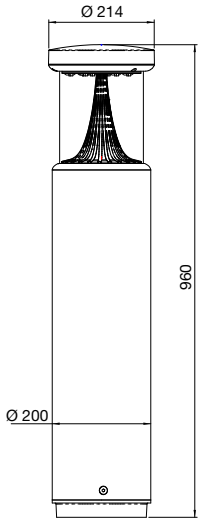
TEO (PRM*)

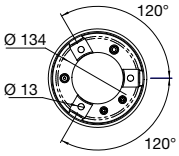
*PRM : Approved for access of Persons with Reduced Mobility

TEAM

Design: ECLATEC

Note: Only the Team Bollard is currently assembled in Australia





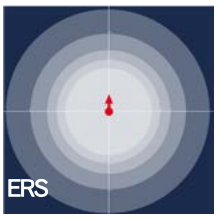
DESCRIPTION

Product name	TEAM
Housing	Aluminium profile 200 mm tube Die-cast aluminium cap
Bowl	Polycarbonate
Finish	Polyester powder coating, any colour available
Impact protection	IK 10 - 60 Joules
Ingress Protection	IP 66 Module
Dimensions (dia x h)	214 x 960 mm
Weight	14.2kg
Watts/lumens	Click to View

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	TEAM
Sources	TEAM
Colour temperature	3000 K, 4000 K
Optical Distribution	ORALENS: EAH, ECL
Power supply current	Adjustable up to 700 mA(1)

(1) I>700mA possible on request
E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing,
E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left



INSTALLATION

Cast iron base
Internal fixing using 3 anchor rods, Ø 12 mm on Ø 134 mm

MAINTENANCE

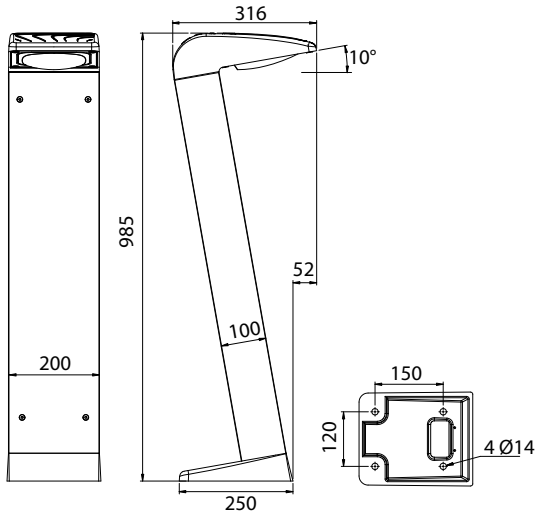
Opening and closing	Access to the LED module and equipment by removal of the profiled tube

CONTROL OPTIONS

TEAM bollard by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth.
The bollard supports remote and built in detection. Smart-Ready(R) configuration (ZD4i) . Team also supports DALI protocol. When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

TREK

Design: ECLATEC



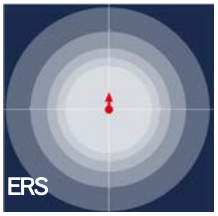
DESCRIPTION

Product name	TREK
Housing	Lighting head and module in die-cast aluminium Aluminium profile 200 x 100 mm tube
Bowl	Polycarbonate
Finish	Polyester powder coating, any colour available
Impact protection	IK 10
Ingress Protection	IP 66 Module
Dimensions (L x l x h)	200 x 316 x 985 mm
Weight	23kg
Watts/lumens	Click to View

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	TREK
Sources	BLS 8
Colour temperature	2400 K, 2700 K, 3000 K, 4000 K
Optical Distribution	QUADRALENS: EAH, ERS
Backlight shield option	Medium or strong cut-off
Power supply current	Adjustable up to 700 mA(1)

(1) I>700mA possible on request
E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing,
E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left



INSTALLATION

Cast iron base
Internal fixing using 4 anchor rods, Ø 12 mm

MAINTENANCE

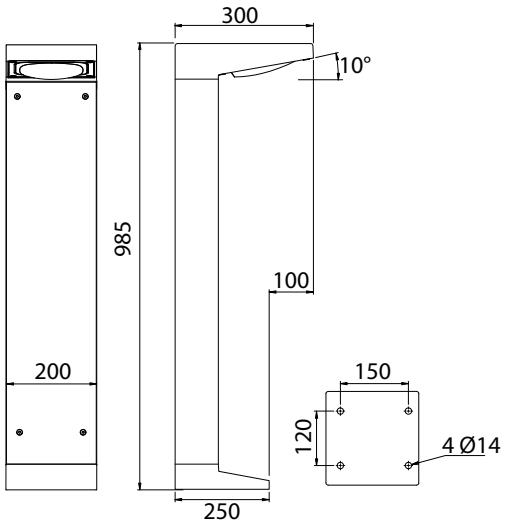
Opening and closing	Removable lighting head Access to the equipment after removal of the profiled tube

CONTROL OPTIONS

TREK bollard by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth.
The bollard supports remote and built in detection. Smart-Ready(R) configuration (ZD4i) . TREK also supports DALI protocol. When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

TAIGA

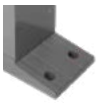
Design: ECLATEC



DESCRIPTION

Product name	TAÏGA
Housing	Lighting head and module in die-cast aluminium Aluminium profile 200 x 100 mm tube
Bowl	Polycarbonate
Finish	Polyester powder coating, any colour available
Impact protection	IK 10
Ingress Protection	IP 66 Module
Dimensions (dia x h)	200 x 316 x 985 mm
Weight	23kg
Watts/lumens	Click to View

INSTALLATION



Cast iron base
Internal fixing using 4 anchor rods, Ø 12 mm

MAINTENANCE

Opening and closing	Removable lighting head Access to the equipment after removal of the profiled tube

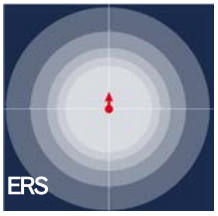
CONTROL OPTIONS

TAIGA bollard by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth.
The bollard supports remote and built in detection. Smart-Ready(R) configuration (ZD4i) . TAIGA also supports DALI protocol. When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

SOURCES & PHOTOMETRIC DISTRIBUTIONS

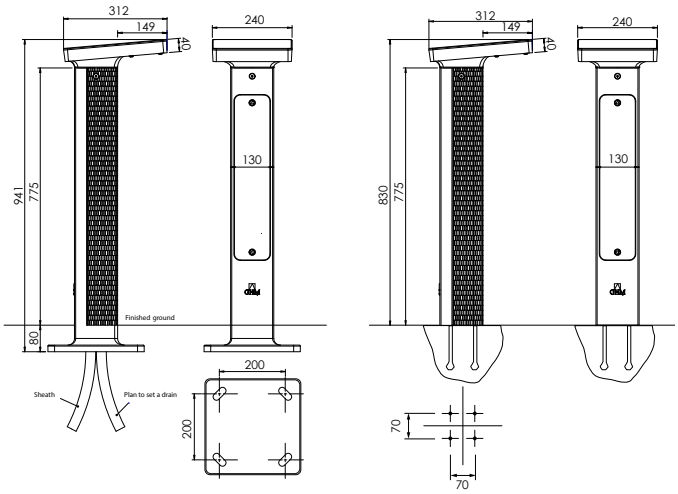
	TAÏGA
Sources	BLS 8
Colour temperature	2400 K, 2700 K, 3000 K, 4000 K
Optical Distribution	QUADRALENS: EAH, ERS
Backlight shield option	Medium or strong cut-off
Power supply current	Adjustable up to 700 mA (1)

(1) I>700mA possible on request
E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing,
E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left



PIXEL

Design: Stoa Architecture



DESCRIPTION

Product name	PIXEL
Housing	Lighting head and module in die-cast aluminium Metalized cast iron bollard
Bowl	Polycarbonate
Finish	Polyester powder coating, any colour available
Impact protection	IK 10
Ingress Protection	IP 66 Module
Dimensions (dia x h)	312 x 240 x 941 mm
Weight	41kg with base
Watts/lumens	Click to View

INSTALLATION

Cast iron base plate with center distance 200 x 200mm, or center distance 70 x 70mm with chemical compound

MAINTENANCE

Opening and closing	The LED module can be accessed by removing the bowl. Access to the equipment is through the inspection hatch.

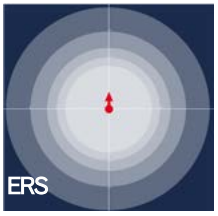
CONTROL OPTIONS

PIXEL bollard by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth.
The bollard supports remote detection. PIXEL also supports DALI protocol. When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

SOURCES & PHOTOMETRIC DISTRIBUTIONS

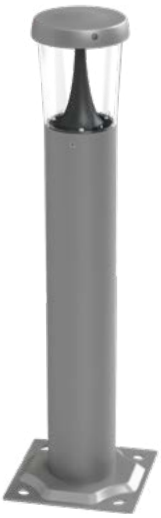
	PIXEL
Sources	BLS 8
Colour temperature	**2400 K, 2700 K, 3000 K, 4000 K**
Optical Distribution	QUADRALENS: EAH, ERS
Backlight shield option	**Medium or strong cut-off**
Power supply current	**Adjustable up to 700 mA(1)**

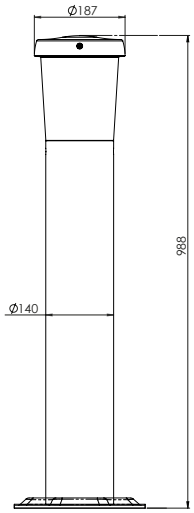
(1) I>700mA possible on request
E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing,
E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left

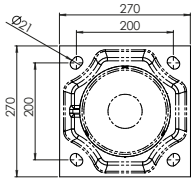


TEO

Design: ECLATEC







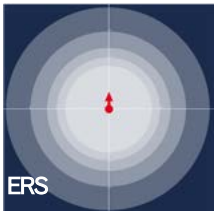
DESCRIPTION

Product name	TEO
Housing	Lighting head in die-cast aluminium Assembly mechanically welded in galvanised steel
Bowl	Polycarbonate
Finish	Polyester powder coating, any colour available
Impact protection	IK 10
Ingress Protection	Module IP 66
Dimensions (diam.x h)	187 x 988 mm
Weight	19kg
Watts/lumens	Click to View

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	TEO
Sources	BLS 8
Colour temperature	2200 K, 2400 K, 2700 K, 3000 K, 4000 K
Optical Distribution	QUADRALENS: EAH, ERS
Backlight shield option	Medium or strong cut-off
Power supply current	Adjustable up to 700 mA

E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing, E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left



INSTALLATION

Cast iron base
Internal fixing using 3 anchor rods, Ø 18 mm

MAINTENANCE

Opening and closing	Removable lighting head Delivered pre-wired Optional leak tight connector

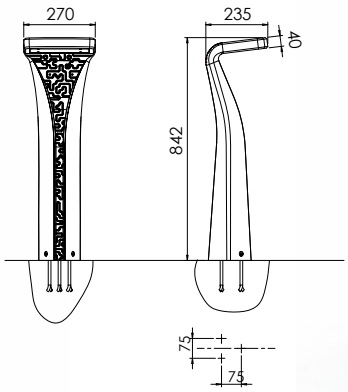
CONTROL OPTIONS

TEO bollard by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth.
The bollard supports remote and built in detection. Smart-Ready(R) configuration (ZD4i) . TEO also supports DALI protocol. When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

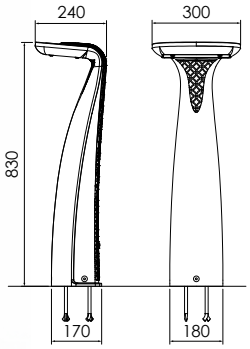
VENGO
VENGA

Design: GHM

VENGO



VENGA



DESCRIPTION

Product name	VENGO	VENGA
Housing	Lighting head and module in die-cast aluminium Metalized cast iron bollard	
Bowl	Polycarbonate	
Finish	Polyester powder coating, any colour available	
Impact protection	IK 10	
Ingress Protection	IP 66 Module	
Dimensions (dia x h)	235 x 270 x 842 mm	240 x 300 x 830 mm
Weight	31kg with base 35kg without base	37kg with base 41kg without base
Watts/lumens	Click to View	

INSTALLATION

Internal fixing using 3 anchor rods, M10
Possibility on base plate with center distance 200 x 200 mm

MAINTENANCE

Opening and closing	The LED module can be accessed by removing the bowl. Access to the equipment is through the inspection hatch.

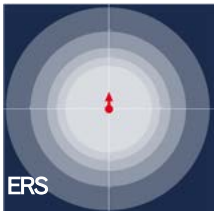
CONTROL OPTIONS

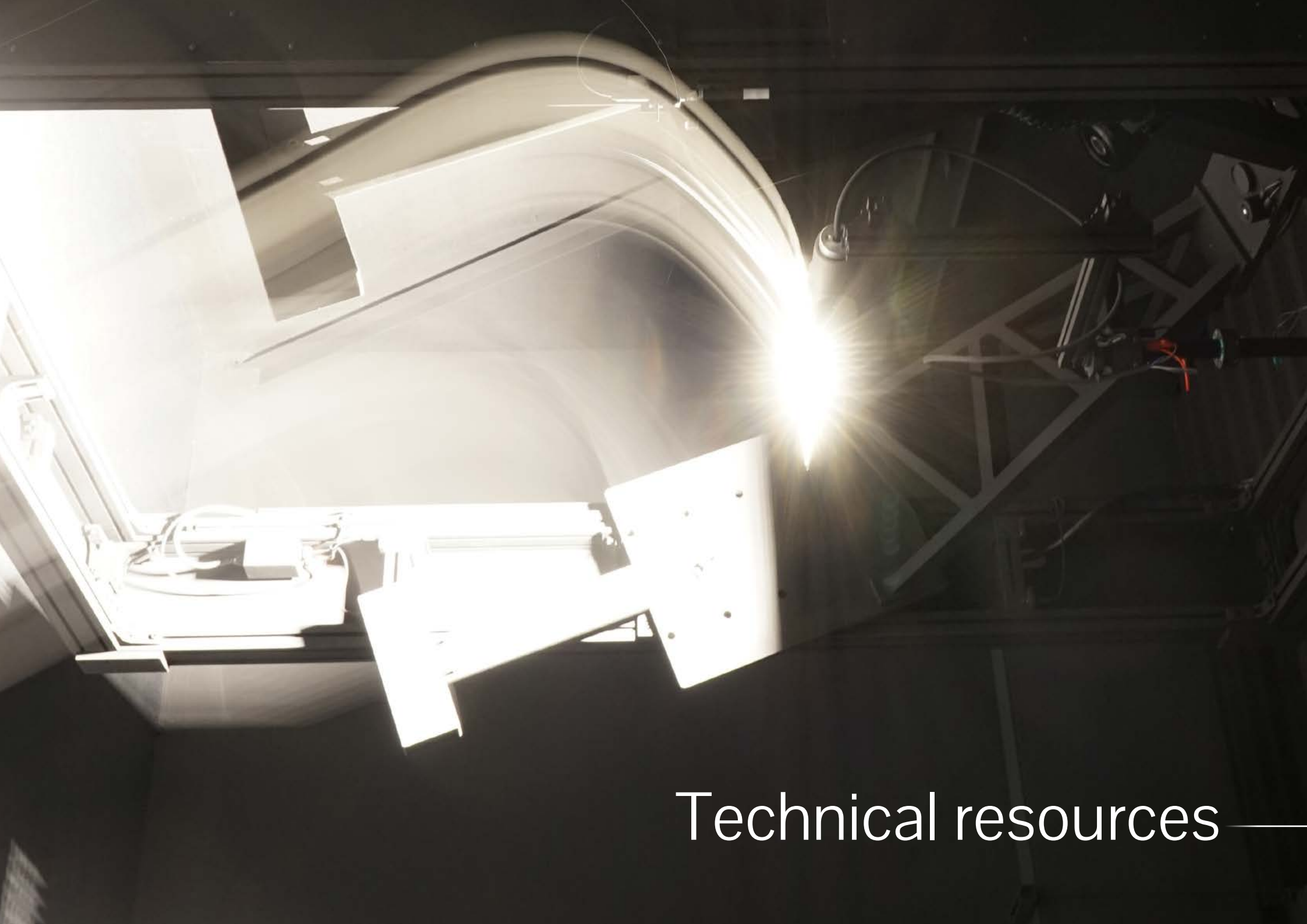
VENGO/VENGA bollard by Eclatec represents the latest in control systems, both centralised and decentralised. Adjustable current on the driver or at the bottom of the pole. Dimming as above as well as via bluetooth.
The bollard supports remote detection. VENGO/VENGA also supports DALI protocol. When used with a local network, communication can be detected with a pilot wire and/or wireless communication sensing. Remote management via WIZARD CMS system.

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	VENGO / VENGA
Sources	BLS 8
Colour temperature	2200 K, 2400 K, 2700 K, 3000 K, 4000 K
Optical Distribution	QUADRALENS: EAH, ERS
Backlight shield option	**Medium or strong cut-off**
Power supply current	**Adjustable up to 700 mA(1)**

E/L/P: Lighting/Luminance/Projection, R/C/T/F/P: Road/Circular/Pavement/Beam/Zebra crossing,
E/S/L/A/D/G: Narrow/Standard/Wide/Asymmetrical/Right/Left





Technical resources

LED sources

BLS STANDARD LED STRIP

A design that prefers the use of standardised components and modules common to several models in order to keep solutions open to development and allow the continuity of maintenance in coming years.

BLS strips are the combination of PCBs and their optical systems. They make up the basic building blocks shared by several modules and luminaires. They are available in two sizes (BLS 8 - 8 LEDs and BLS 12 - 12 LEDs)

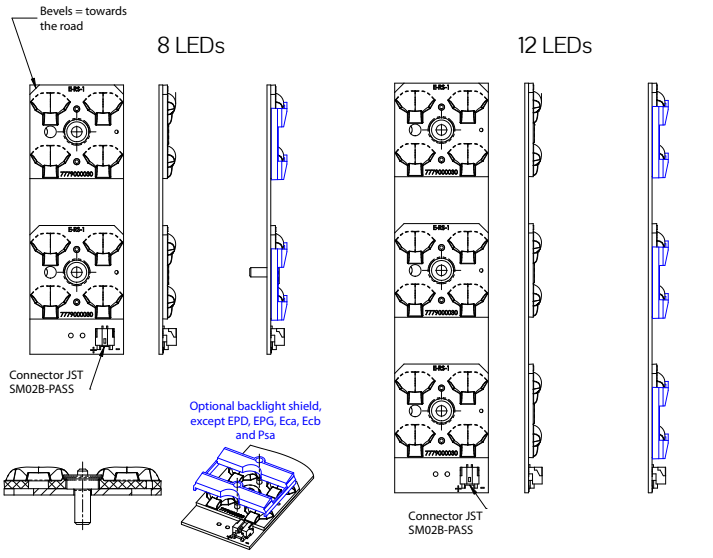
DESCRIPTION

Product name	BLS8 (8LEDs)	BLS12 (12LEDs)
Conception	Optimised for effective thermal management with an adjustable current supply and no effect on the life span when used along with a correctly rated heat sink	
Connecteur	Quick power supply connector to make it easy to put into use.	

Luminaires:
STELIUM S1/X1, S2/X2, ZELDA S1/X1, S2/X2 & S3/X3, LINK, PIXEL 1 & 2, BORNE TAÏGA, BORNE TREK, BORNE ZESTO, LEXIK, AND NUMEROUS OTHERS

- BLS strips are made up of PCBs combined with lenses (2 or 3 QUADRALENS lenses) to address all public lighting applications.
- These sources offer high flexibility.

DIMENSIONS



ECLATEC MODULES

ECLATEC offers a large range of standard LED modules that can be adapted to different luminaires.

ORALED

ORALED 1: LINK, ELIPT 45.
ORALED 2: ELIPT 55.

REOLED

REOLED 1: ELIPT 45.
REOLED 2: ELIPT 55.

XEOLED

XEOLED 1: ELIPT 45 X, CHORUS 45 X, TSANA 45 X
XEOLED 2: ELIPT 55 X, CHORUS 55 X, TSANA 55 X

ZEDLED

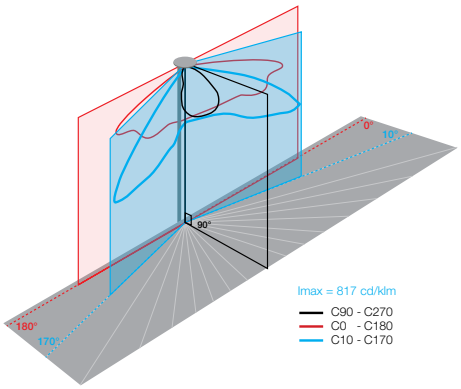
ZEDLED B: IDYLLE, ORIENTIS

ZEDLED C: TEXTO, BUZZ, ZEN

ZEDLED 1: CORTO, NISMO

Photometric curves

INTERPRETATION OF PHOTOMETRIC CURVES



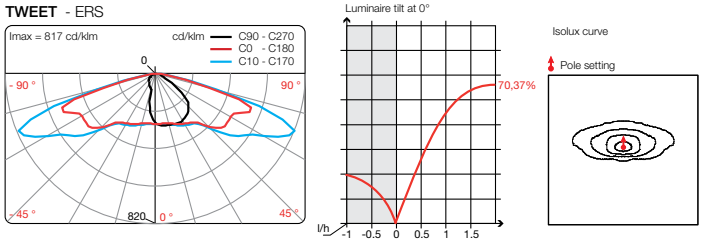
The intensity curves describe the light distribution of the luminaire. The light intensity is the quantity of light emitted in one direction. It is expressed in candela. By convention these curves are rounded to a flux of 1000 lumens.

The utilisation factor is defined as the ratio of the flux received by a surface of reference to the flux emitted by the light sources allocated to light this surface.

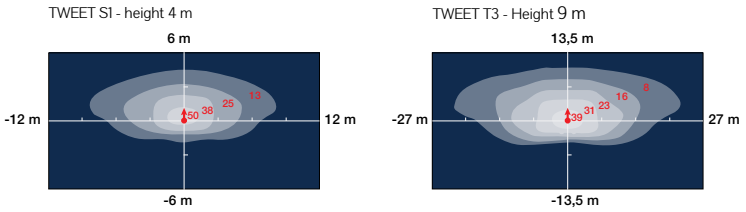
The utilisation factor curves presented allow the utilisation factor to be read for a section of the roadway (right part of the curve) or the pavement (left side of the curve).

EXAMPLE WITH ERS CURVE

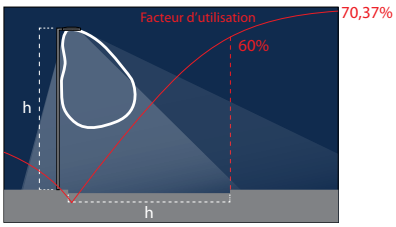
TWEET - ERS

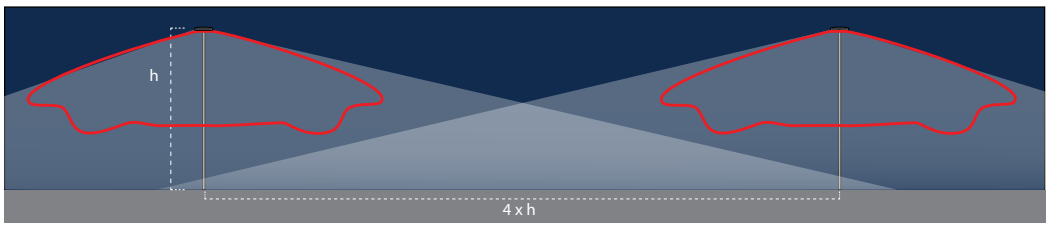


Example of ground illumination



$$0{,}8 < \frac{\text{width}}{\text{height}} < 1{,}2 \qquad 4 < \frac{\text{spacing}}{\text{height}} < 5{,}5$$





CAUTION: These curves can be used in an initial approach as a criteria for selecting an appliance. However, the conformity of a solution requires a comprehensive check by the ECLATEC Lighting Consultancy department.

BACKLIGHT SHIELD

The BLS, ORALED and TABLED modules have two types of optional back shields to limit the light emitted behind the luminaire:

- So-called medium backlight shields (CFM), white in colour
- So-called strong backlight shields (CFF), black in colour, with a higher blackout power than the CFMs.


Without backlight shield


Medium backlight shield - CFM


Strong backlight shield - CFF

	Flux losses at w/h = 2 compared to the version without a backlight shield	Flux losses at w/h = -1 compared to the version without a backlight shield
CFM	0%	-26%
CFF	-7%	-43%

Width over height ratio (w/h) = 2: we see what is happening at a distance of 2 times the light height at the front of the pole.
Width over height ratio (w/h) = -1: we see what is happening at a distance of 1 times the light height at the back of the pole.

Optics & optical distributions

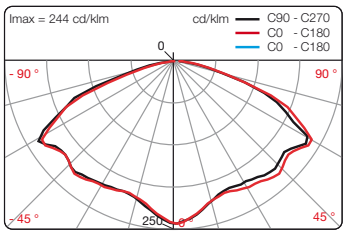
A large choice of optical distributions, each targeted for a different use, makes LED solutions even more efficient. Backlight shields available for BLS distributions, except on EPD, EPG, ECa, ECb and PSa. The photometric distributions offered cover the following uses:

«EC»

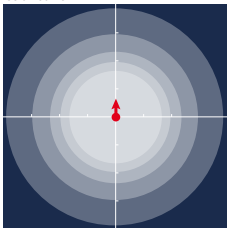
Circular uniform illuminance distribution, particularly suitable if the luminaire is in the centre of the area to be lit (car park, park, ...)

ECL	Large Circular illuminance
ECa	Circular illuminance version «a» Imax ≈ 2x60°
ECb	Circular illuminance version «b» Imax ≈ 2x14°

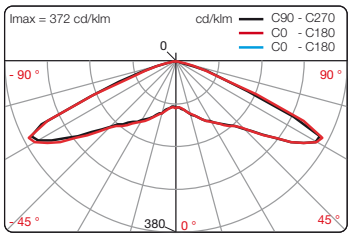
ECL



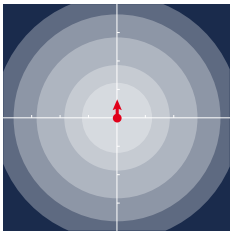
Isolux curve



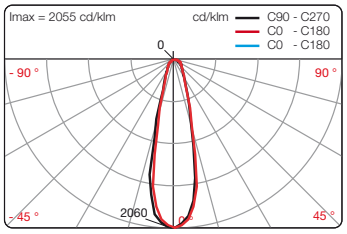
ECa



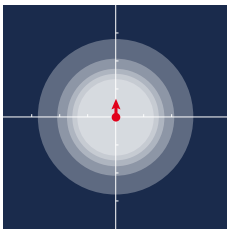
Isolux curve



ECb



Isolux curve

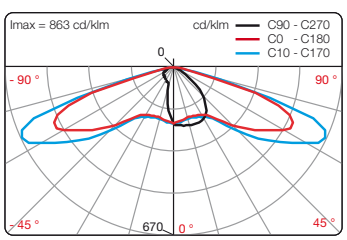


«ER»

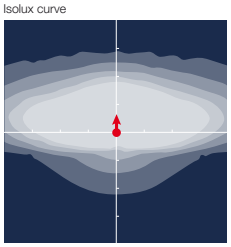
Road-type spatial distribution for narrow to wide roads, (batwing distribution) particularly suited to «C and P Class» type projects under EN 13201, designed to optimize illuminance criteria
ER-type distributions mean that the poles can be spaced further apart, whilst still providing good uniformity of illuminance.

ERE	Narrow Road illuminance
ERS	Standard Road illuminance
ERL	Wide Road illuminance

ERE



Isolux curve



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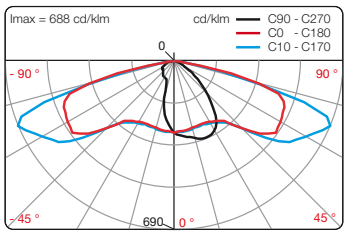

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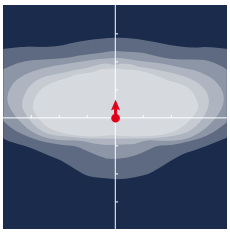
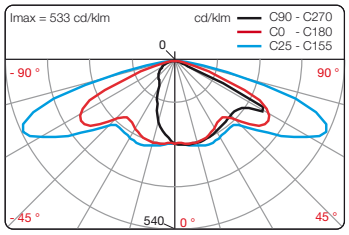


ERL



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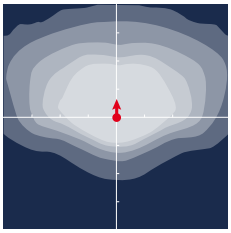
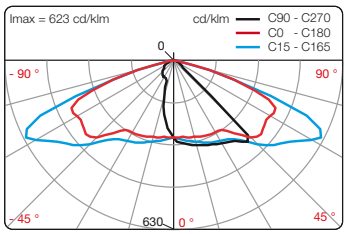


«LR»

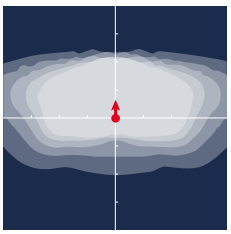
Road-type spatial distribution for narrow to wide roads, particularly suited to «M Class» type projects under EN 13201. Designed to optimize luminance criteria
This class concerns roads subject to sustained vehicle traffic.
LR-type distributions provide excellent visual uniformity, as well as a high level of user comfort.

LRS	Standard Road Luminance
LRL	Wide Road Luminance
LRM	Mixed Road Luminance

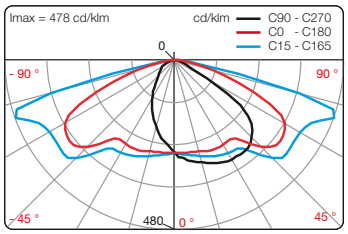
LRS



Isolux curve



LRL



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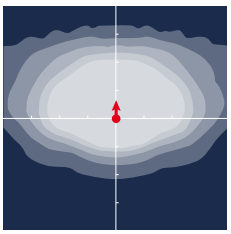
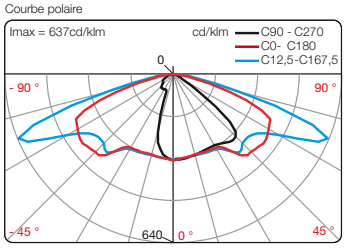
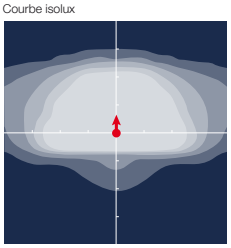


LRM

Courbe polaire



Courbe isolux



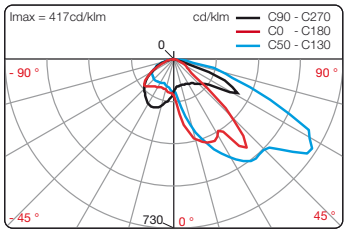
Optics & optical distributions

«EP»

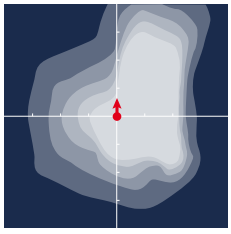
Luminaire placed upstream of the crossing section, in the moving traffic direction.

EPD	Pedestrian crossing illuminance Right, designed for a two-way street application.
EPG	Pedestrian crossing illuminance Left, in addition to EPD, placed upstream of the crossing section, for wide one-way street application

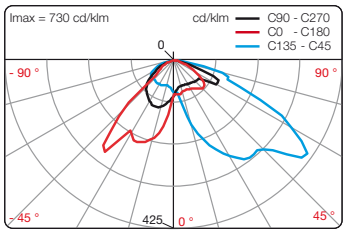
EPD



Isolux curve



EPG



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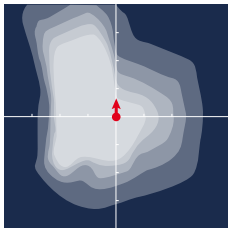
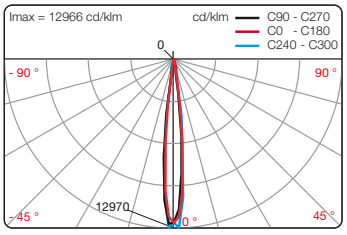


«P»

Projector beam applications.

PFI	Circular Intensive beam spread ≈ 2x6°
PFM	Circular Medium beam spread ≈ 2x10°
PFL	Circular Large beam spread ≈ 2x15°
PFA	Asymmetric projection ≈ CImax = 50° / gImax = 65°
PSa	Asymmetric projection ≈ CImax = 75° / gImax = 50°
PAa	Elliptic projection ≈ CImax = 0° / gImax = 25°

PFI



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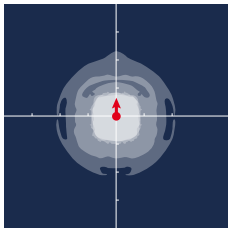
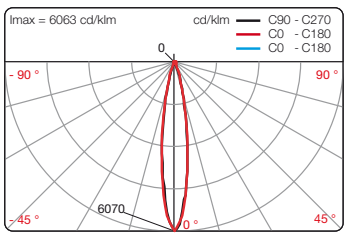


PFM



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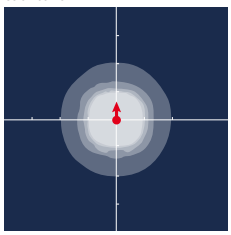
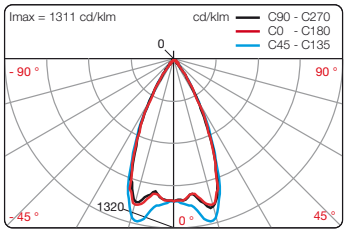


PFL



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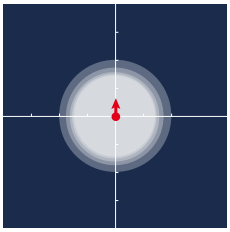

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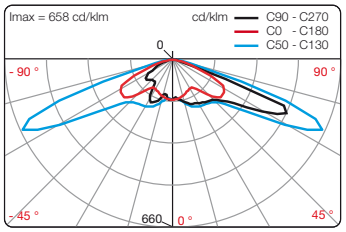

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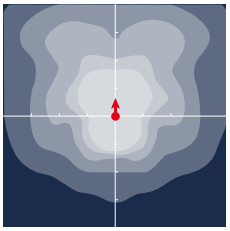
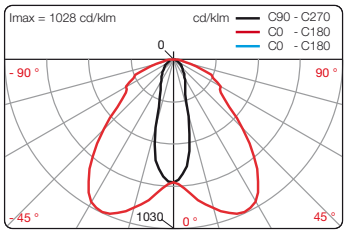
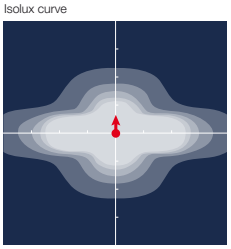


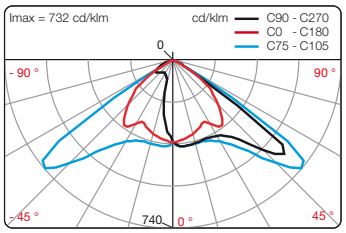
PSA



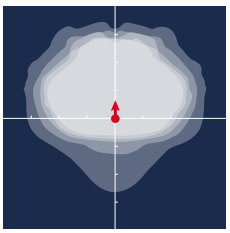
Isolux curve



PAa



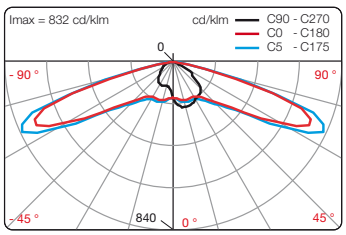
Isolux curve



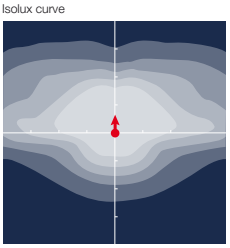
ETS

ETS	Standard Sidewalk illuminance

ETS



Isolux curve



EAH

EAH	Dedicated LED module for accessibility of disabled persons (PRM)

ECP

ECP	Pathway illuminance

Tunable white

2200K colour temperature

3000K colour temperature

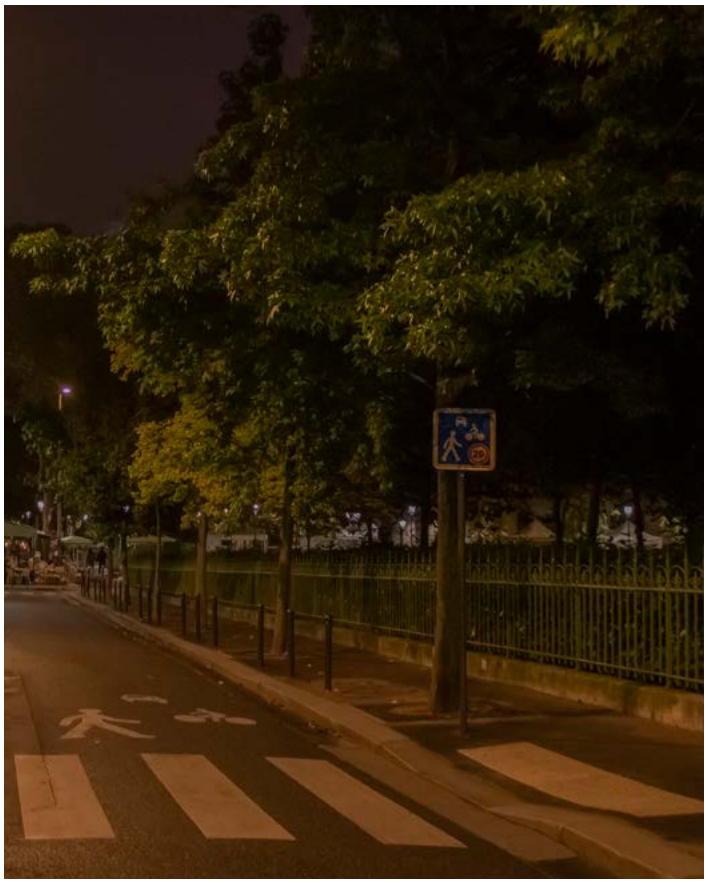
Our beliefs and our global conception of public lighting make us place the User at the centre of our complete strategy.

Natural light is not constant throughout the day and differs greatly depending on the season. These variations strongly influence human behaviour, which can change depending on the quantity and quality of light during the 24 hours of the day, this is the so-called circadian rhythm.

Tunable white is technology that allows our lighting solutions to create an environment that accompanies citizens in public spaces when the luminaires are in operation, respecting their biological rhythm. The best natural conditions are thus created to promote well-being.

User comfort is greatly enhanced by the smart variation of light colour temperature in the entire lighting scene throughout the lighting cycle. To do that, scenarios are studied and developed by our specialist engineers, who support you, every geographical location and configuration requiring a specific study.

CHORUS X VDP luminaires installed in Place Adolphe Chérioux, 15th arrondissement, Paris, France:

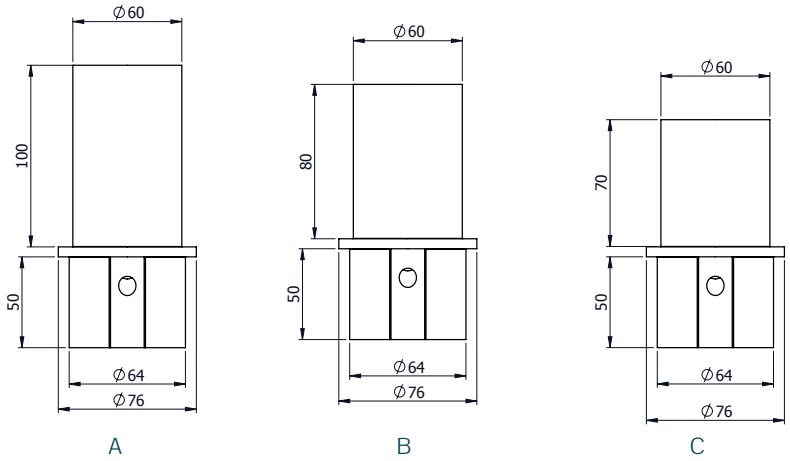


2200K colour temperature

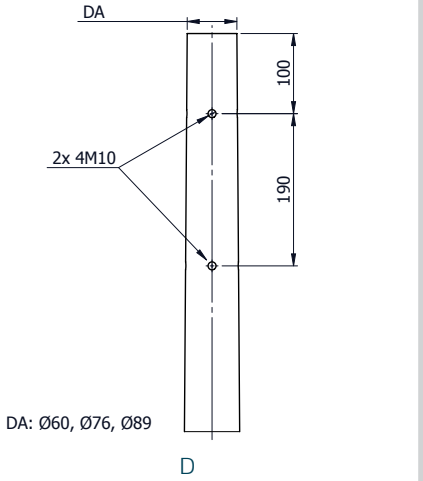
3000K colour temperature

Spigot & fixations - ECLATEC's standard

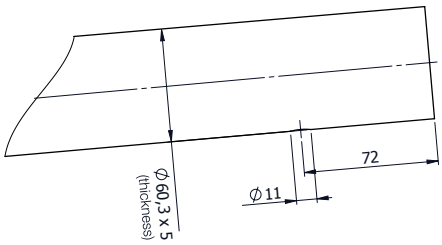
Spigot for pole Ø 76 mm



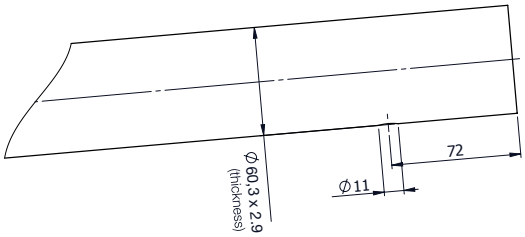
Standard pole for male fixation Ø 60 mm, Ø 76 mm, Ø 89 mm



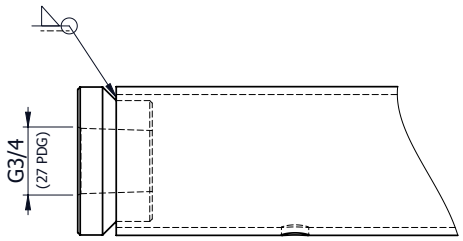
Machining for aluminium bracket – Eclatec's standard



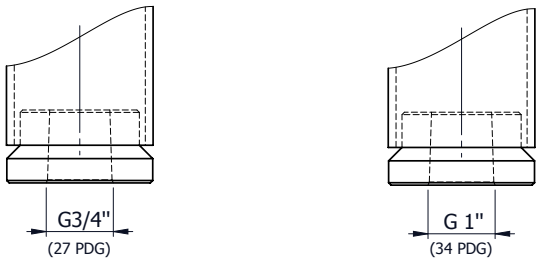
Machining for steel bracket - Eclatec's standard



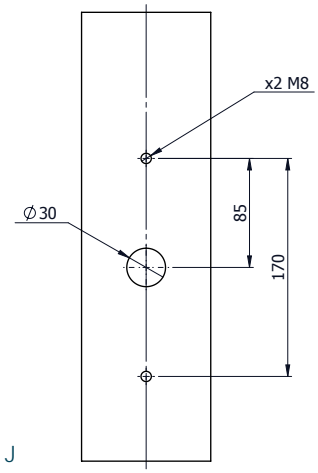
Welded female boss for bracket



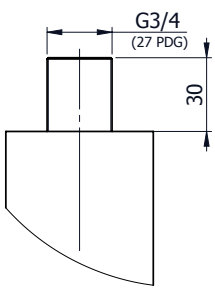
Welded female boss for suspended fixation



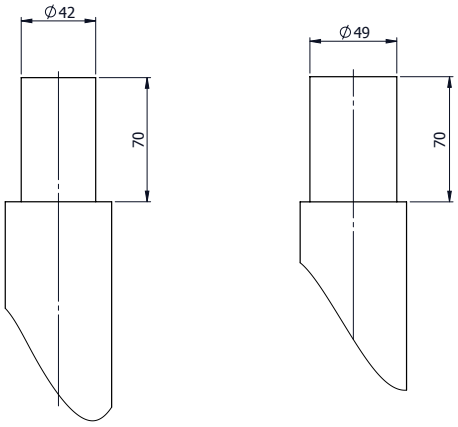
Pole machining for rear fixation plate



Post-Top Ø ¾"



Welded spigot for U-bracket



Luminaire electric & mechanical specifications

Electric classes - Protection from electric shocks

Class	Symbol	Protection
Class I Luminaires		Functional insulation used to connect the accessible metal parts to a protection conductor (earth)
Class II Luminaires		Live parts insulated by a strengthened double insulation. These devices do not have a protection conductor (earth)

IPXX protection rating: as per the NF EN 60529 standard

1st digit Entry of solid bodies		2nd digit Water penetration	
	IP 0X Not protected		IP X0 Not protected
	IP 1X Protected from solid bodies larger than 50 mm		IP X1 Protected from the vertical falling of water drops
	IP 2X Protected from solid bodies larger than 12 mm		IP X2 Protected from falling water for a maximum pitch of 15°
	IP 3X Protected from solid bodies larger than 2.5 mm		IP X3 Protected from rain water for a maximum pitch of 60°
	IP 4X Protected from solid bodies larger than 1 mm		IP X4 Protected from water spray
	IP 5X Protected from dust		IP X5 Protected from water hoses
	IP 5X Leak tight to dust		IP X6 Protected from waves
			IP X7 Protected from the effects of immersion

Mechanical strength IK Code: as per the NF EN 62262 standard

Code	IK 06	IK 07	IK 08	IK 09	IK 10
Energy	1 joule	2 joules	5 joules	10 joules	20 joules
Weight	0.5 kg	0.5 kg	1.7 kg	5 kg	5 kg
Fall height	200 mm	400 mm	295 mm	200 mm	400 mm

Public lighting corrosion

Public lighting furniture, which is exposed to variable climatic and environment constraints depending on where it is located, suffers a natural corrosion phenomenon of which the effects can have an impact on product safety and appearance. The extent of this corrosion depends on environmental parameters such as temperature, humidity or chemical content such as sulphur dioxide or chlorides.

Corrosion zone classification

The ISO9223:2012 standard defines 6 increasing corrosion zones, from C1 to C5, zone CX being an exceptional corrosion zone.

Strengthened protection (luminaires & floodlights)

There are three treatment levels:

- the BRONZE version is the standard treatment
- the SILVER and GOLD applications are recommended for specific exposures

Protection level	Installation zone	Corrosiveness class	Application type	Process	Thickness
BRONZE (standard)	more than 30 km from the coast	C1-C2-C3	polyester single coat	powder	60 µm
SILVER	5 to 30 km from the coast Heavy industry site	C4	epoxy primer + polyester coat	powder	60 µm + 60 µm
GOLD	1-5 km from the coast (coast and estuary)	C5	epoxy primer + polyester coat + varnish	powder	60 µm + 60 µm + 40 µm

General information concerning LED

INTERFERENCE AND POWER SURGE PHENOMENA

Outdoor lighting systems are exposed to weather and electrical disturbance.

Weather conditions have an obvious effect on electrical installations.

In cloudy conditions a difference in electrical potential between the clouds and the earth builds up and electrostatic charges are likely to surround the luminaires.
These must be neutralised without transiting via the electrical circuits in the appliances and the earthing continuity is therefore very important when mounting the lighting column (see previous page).
A bolt of lighting characterised by a sudden, brief power surge directly striking a luminaire would of course cause irreversible damage to the appliance, regardless of the earthing system.

The damage caused by a lighting strike near to an installation is variable, whatever the type of luminaire (standard source or LED) or the protection used. With regard to ECLATEC LED luminaires, LED and drivers have their own protection, which is not infallible however.
As an additional precaution, which however remains relative, a centralised surge arrestor box should be installed on the cabinet of each outgoing line

Some disturbances may be due to the quality of the network or the method of connection:

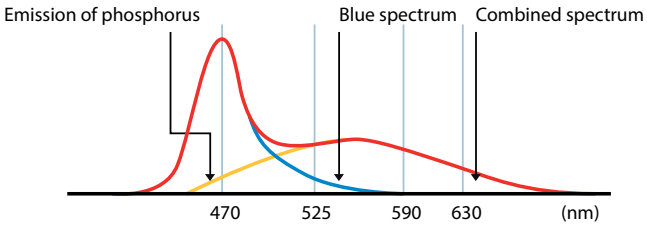
- a network on which overvoltages are due to neutral breakdowns or the presence of other poorly-insulated appliances on the same line create unfavourable conditions.

- in the same way, it is not advisable to couple LED luminaires on the same outgoing line as standard luminaires with ferromagnetic ballasts, due to the high voltages generated by the latter when they are switched on and especially switched off.

LED & LIGHT COLOUR

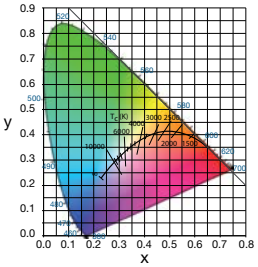
The most frequently used method to obtain white light from an LED consists in modifying the natural spectrum (blue) by using a phosphorus film (yellow):

Blue LED + phosphorus:



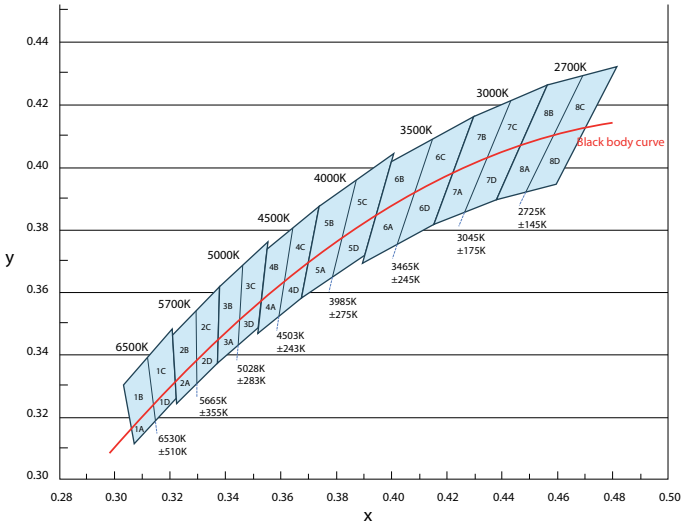
LED & COLOUR TEMPERATURE

CIE chromaticity diagram



Within the CIE chromaticity diagram, manufacturers define zones allowing the various LED to be sorted according to their colorimetric characteristics (x, y coordinates). Until the standard EN62707-1 concerning sorting of LED is published, the zones are specific to each manufacturers.

Example of BIN colour temperature ranking (source: Lumiled)

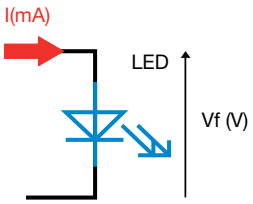


Three main areas of white light are visible, these being subdivided into three groups:

- Hot white (2670 K to 3500 K)
- Neutral white (3500 K to 4500 K)
- Cold white (4500 K to 10,000 K)

General information concerning LED

POWER SUPPLY OF AN LED



The parameters to be taken into consideration to power an LED are the current (I) and the reverse voltage (Vf).
An LED is always powered by current and the voltage is an intrinsic parameter of the component.

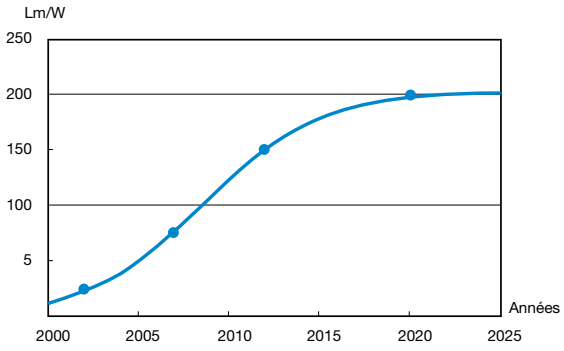
Caution: the reverse voltage Vf is an important factor as it has a direct effect on the performance of the LED.

OUTLOOK OF THE LED

Over the last few years, the luminous efficacy of LED has significantly improved as shown by this graph. There is still some margin for progress which should materialise in the next few years.

LUMINOUS EFFICACY OF AN LED

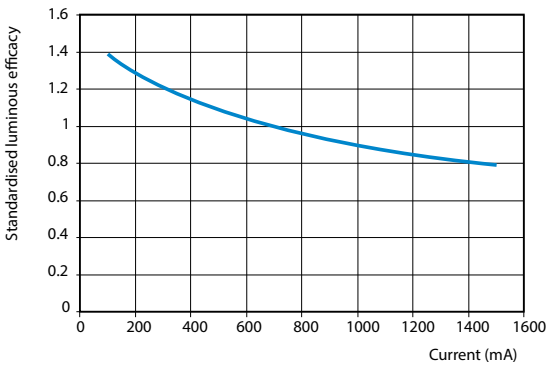
The luminous efficacy of the LED is expressed in lumens per watt (lm/w). The flux, expressed in lumens, is the total quantity of light emitted by the LED. The power, expressed in watts, is the electrical energy consumed by the LED.



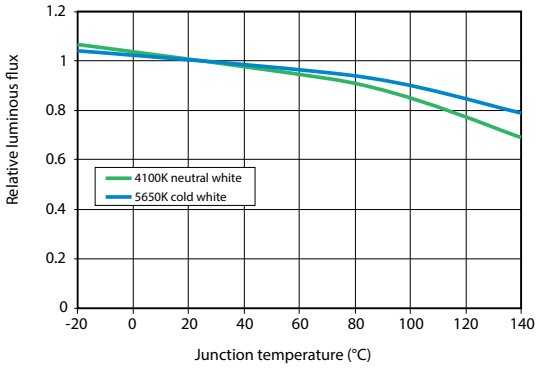
Luminous efficacy of white LED seen by the OIDA in 2002

The luminous efficacy of an LED is impacted by many parameters:

- The technology / the supplier of the LED
- The colour temperature
- The colour-rendering index
- The supply current (1)
- The junction temperature (2)



Variation of the flux of the LED according to the current



Variation of the flux of the LED according to the junction temperature

The 2 curves illustrate the impact of the current and the temperature on the efficacy of LED.

LUMINOUS EFFICACY OF AN LED LUMINAIRE

Three major factors linked to its design determine the luminous efficiency of a LED luminaire:

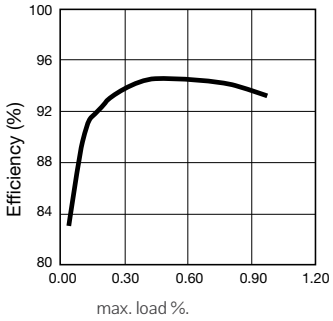
1. The conversion of mains voltage to LED power supply current

This is the conversion of mains voltage (230 V AC) into direct current (350 mA, 500 mA, 700 mA, etc.).

Several possibilities maybe considered:

- supply the LED directly with DC voltage (not recommended)
- convert the mains voltage to DC voltage and then to direct current (yield of approximately 80 %)
- convert the mains voltage directly to direct current (yield of approximately 90 %, Eclatec solution)

Caution. All power supplies have a nominal operating point corresponding to the optimum yield. If the load is not adapted to the supply model, the yield is no longer guaranteed by the manufacturer.
(see curve 3 showing efficiency according to load).



Curve 3: Variation of the efficiency according to load.

2. The conversion of electric power to light (light efficiency specific to the LED)

(See the section on LED efficiency on this subject)

General information concerning LED

3. The conversion of the flux output by the LED in optimised photometric distribution.

The presence of a secondary reflector with the LEDs has two purposes:

- the first is to direct the light to the required areas (utilisation factor)
- the second aims to protect the LED from external elements (water, dust, impacts, etc.)

When applicable, a bowl gives the source further protection. This bowl absorbs a reduced part of the flux; however, the use of appropriate lenses maximises the flux use (utilance coefficient) and compensates the absorption.

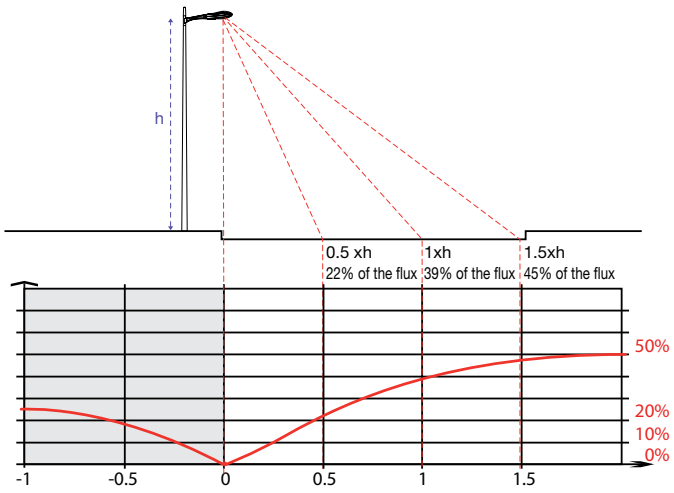
- Utilisation factor

The utilisation factor UF is defined as the ratio of the flux received by a surface of reference to the flux emitted by the light sources allocated to light this surface.

The relevance of an LED lighting solution depends on the luminaire and the photometric project. It is therefore not only linked to the intrinsic performances of the LED technology, but also to many factors linked to the optical, thermal and electrical design for the luminaire and the photometric study for the installation.

Utilisation factor

$$E\,[lux] = \frac{\Phi_{work}\,[lm]}{S\,[m^2]} = \frac{\Phi_{lamp}\,[lm]*FU}{S\,[m^2]}$$

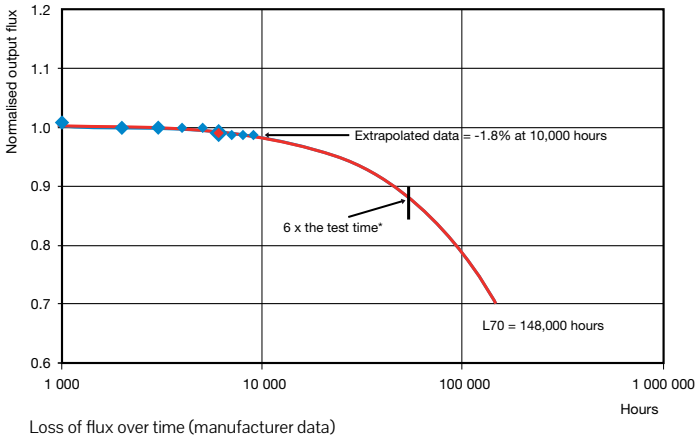


Several factors have an impact on LED service life, in particular:

- the junction temperature,
- the LED control current,
- electrostatic discharges,
- mechanical deterioration of the lens or the luminaire body.

Flux depreciation factor projection for a LUXEON REBEL LED > 3500K in the following conditions:

- Ambient temperature (At) = 85°
- Intensity = 0.35 A
- LED junction temperature (Jt) ≅ 98°C



Loss of flux over time (manufacturer data)
* An extrapolation of the service life beyond six times the initial test time is not usable.

Beyond these factors, the LED implementation conditions are also essential; these mainly cover the quality of power and control circuit manufacture:

- soldering,
- routing design,
- quality of the substrate used,
- compliance with the re-melting furnace thermal cycles,
- thermal shock management, etc.

These factors result in implementing adapted production systems and procedures (anti-static, clean room, etc.)

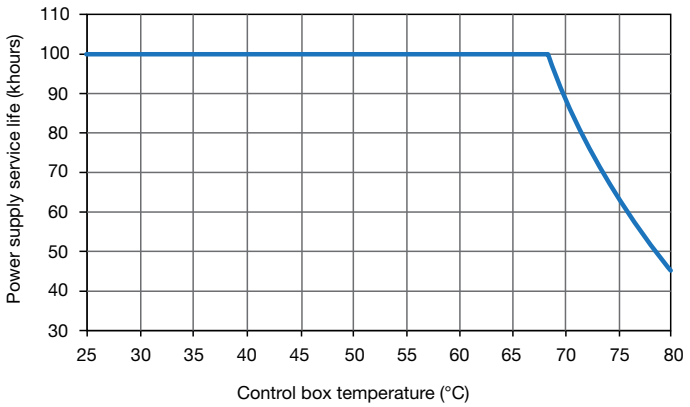
POWER SUPPLY SERVICE LIFE

It is the average power supply service life in given conditions. It is usually given with a survivor percentage.

The graph below is given for an operational power supply percentage of 90% at the end of service life.

The service life of a LED is therefore the result of the combination of all the factors mentioned above.

Service life example for a power supply depending on the box temperature



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