ECLATEC

Lighting solutions

2022

LED solution overview

October 2021 values

Constant progress

LED performances change at a rapid pace. The table opposite shows the characteristic values for luminaires valid for October 2021. Consult the ECLATEC website for constantly updated information.

Data and lighting study interpretation

Claimed luminaire efficiency varies depending on certain assumptions: depreciation factor, flux expression (total or outgoing), power expression, outdoor temperature or colour temperature.

Performances can vary up to twofold for the same device depending on the parameters used.

The values given in this table (as well as in the specific data sheets for each device) are based on the following assumptions:

• flux expression: outgoing luminaire flux at commissioning (including thermal and optical outputs for source fluxes) for a given distribution, max. control intensity and ambient temperature of 25°C, in accordance with performance standards IEC 62717 and IEC 62722

• power expression: total consumed power including all electric equipment (including power supply), in accordance with performance standards EN 62717 and EN 62722.

ECLATEC's lighting and layout studies are not based on the flux at commissioning, but take into account the depreciation factor which, for LED projects, generally ranges from 87 to 92%.

ECLATEC

LIGHTING SOLUTIONS,
ECLATEC's commitment

2022 EDITION

Life, Cities, Nature inspire ECLATEC public lighting solutions.

As a forward looking energy transition player, ECLATEC proposes solutions that reconcile performance and legal compliance:

- Optimised design based on LED technology guarantees the efficiency and reliability of ECLATEC luminaires.

- Optional control and management functions maximise LED technology use.

- In its quest for sustainable use, ECLATEC privileges modularity, scalability and easy maintenance for its solutions.

- Finally, for every project, ECLATEC guides and supports its clients, in particular to validate installation compliance with the new rules.

In the interest of its clients, ECLATEC practices continuous improvement of its solutions and optimises their flows and power over time.

ECLATEC,
Life, Cities, Nature

Flashcode

Web

ECLATEC, Life, Cities, Nature
In a fast changing context, the www.ghm-eclatec.com website provides information on the latest updates to ECLATEC products.
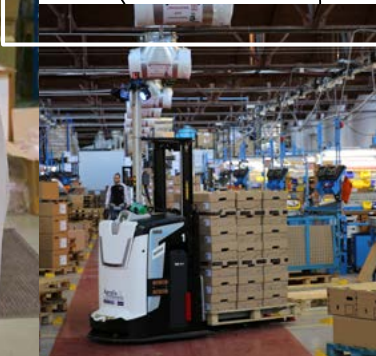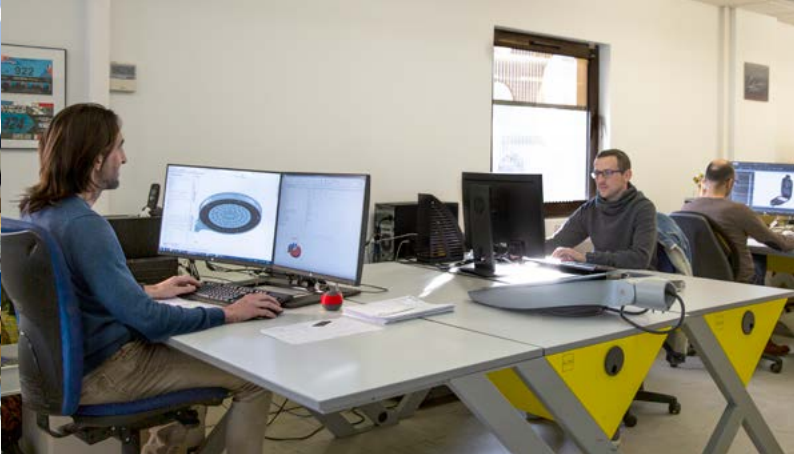The updated information on LED luminaire fluxes and power in particular are featured on the website, together with regular to updates and additions to the ECLATEC range.

Réalité Augmentée

Augmented reality
ECLATEC's mobile app can be used to capture and view the luminaires in 3D.
- Go to the Store for your [Google play] [App Store] smartphone phone and download the app
- Install and launch the app.
- View the products in 3D by filming the images featuring this logo.

ECLATEC

ECLATEC

Designer Manufacturer

CONTENTS

ECLATEC

ECLATEC,
DESIGNER & MANUFACTURER

> **For almost a century, ECLATEC has been designing, producing and marketing constantly evolving public lighting solutions.**

Showroom at our Maxéville headquarters

Maxéville headquarters in 1966

The company's fully integrated approach is always guided by the same will to **"light properly"**.
All its organisational, human, structural and technical resources are focused on that objective.

Our field teams' expertise means we are close to users and their needs, providing the development teams the means to define and design solutions that are perfectly adapted to each individual configuration.

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

ECLATEC is consolidating its industrial organisation supported by the group's production sites, which are all located in its historical territory in North Eastern France.

Characteristically attentive to the market while respecting the idea of continuity, the research and development engineers constantly work on defining tomorrow's ever more innovating, ergonomic, efficient, cost effective and environmentally friendly solutions.

If France is the heart of our story, the world is also our playground. By its many product developments and exceptional references all over the world, **ECLATEC** consistently demonstrates the quality and permanence of its soon-to-be centennial know-how. We are proud of our customers' recognition.

Bolstered by its technological, societal and human values and its energy transition policies, **ECLATEC** naturally joined the French Fab label.

FOCUS on some history

Construction of the Maxéville headquarters, 1962-63

LUDIC, the first LED luminaire in 2005

A new robot for the LED cell in 2018

ECLATEC
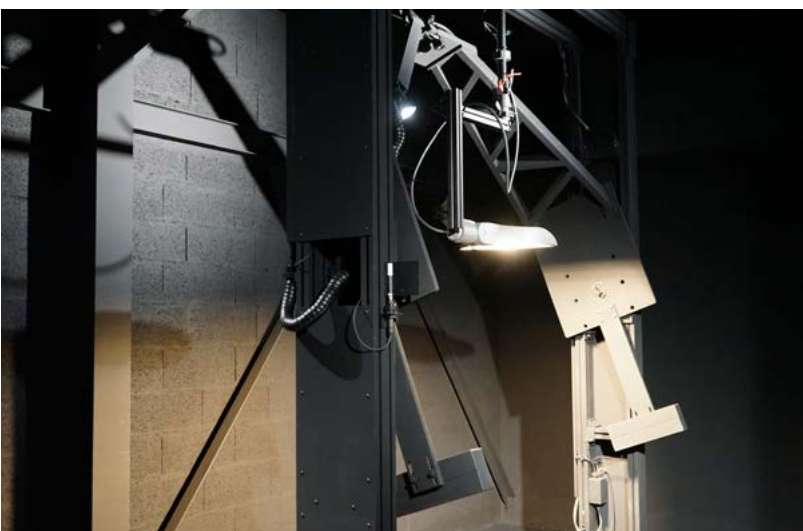
A GLOBAL INTERNATIONAL VISION
FOR LOCAL ACCURACY

" French street lighting market leader also present in over 30 countries worldwide "

French street lighting market leader also present in more than 30 countries worldwide, we show our international positioning by offering complete and optimal solutions, thanks to our "product" innovation focused research and our network of partners.

OUR INTERNATIONAL OUTLOOK

From the 1950s onwards, ECLATEC opened up to the world and began exporting a large share of its luminaires. After winning major contracts and affirming its presence in many European, African and Middle Eastern cities, ECLATEC continues its quest to light public spaces all over the world.

Beyond our values, our keywords are efficiency and adaptability. Our solutions are technically and aesthetically optimised for every project and location, so that our luminaires are perfectly integrated into their context.

GHM-ECLATEC BV team
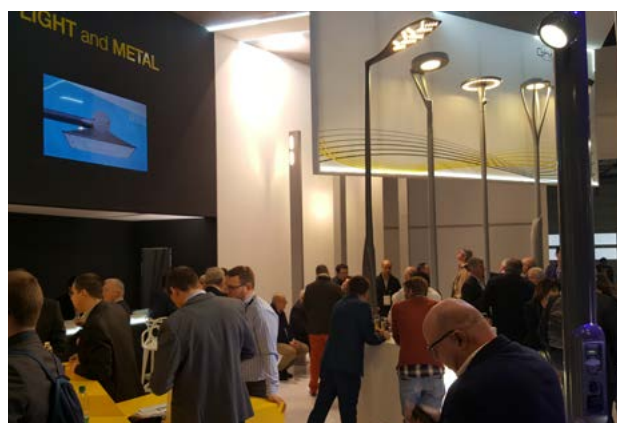
light+building fair

FOCUS on

ECLATEC lights the Dubai Harbour district

With an overall objective of lighting the district's streets and pathways, the new lighting solution provides a sense of safety for both pedestrians and drivers, while creating a warm and inviting ambiance.

Alongside this, there was a need to provide a solution that, during the day, would still deliver an aesthetic visual aspect while the lights were turned off.

As such, GHM-ECLATEC supplied more than 300 of its Strium steel poles. Each pole is fitted with three to seven Xeon-2 projectors - with more than 1,200 projectors installed along the waterfront.

THE GLOBAL ALLIANCE

We strive to create strong links with locally based partners who share our philosophy and values.

Our partners are all specialists and leaders on their respective markets. This makes it possible to position ourselves on core international markets and to better understand the needs of users, while respecting local customs. We have the capacity to provide tailored support.

Our eco-responsible approach is the driving force behind our international growth: every lighting project is designed jointly by our R&D centres and local partners. To light cities reasonably, we follow societal trends towards lower energy consumption, protection of biodiversity and the creation of urban well-being.

ECLATEC

CITIZEN LIGHTING®,
LIGHT POLLUTION

> **Citizen lighting®, an ECLATEC concept, aims to produce environmentally friendly solutions.**

PREVENTION OF LIGHT POLLUTION

The purpose is to prevent, limit and reduce

light pollution causing excessive disturbance to people, fauna, flora or ecosystems, or preventing the observation of the night sky.

In this respect, ECLATEC offers several solutions:

✓ Almost all lighting can be factory-programmed for these requirements

✓ ECLATEC has also designed modules at the base of posts which can be used to programme the curfews directly on site

✓ Similarly, our detection systems cater for the dark sky

✓ Of course, ECLATEC remote management systems are also a solution to these requirements.

Citizen lighting® is based on the type of proposed products, their design and in particular the ULR or colour temperature, compatibility with regulatory requirements in terms of light pollution, the choice of materials used (with the unavoidable RoHS compliance requirement), the selection of respectful partners, location studies, local production favouring short circuits or the recovery of products at the end of their service life.

Lighting properly, means providing optimum lighting without creating light pollution or unwanted optical effects. It also means designing and proposing smart features such as time slot programming, motion detection or remote management.

ECLATEC develops exclusive, market-approved solutions in this field.

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 societal environment is changing, ECLATEC is constantly attentive to its needs and anticipates them by innovating actions.

FOCUS on
Our Ecodesign approach

ECLATEC has set up an ecological approach that aims to reduce the impact of products on the environment throughout their life cycle, while maintaining their quality of use.

ECLATEC is compliant with the RoHs and Weee regulations. Our product design includes components that are free of all hazardous substances.

This eco-design effort avoids the polluting disposal of luminaires at the end of their service life and encourages their recycling in an environmentally friendly manner.

RoHS Weee

ECLATEC

CORPORATE SOCIAL RESPONSIBILITY

" **To innovate and project itself into the modern world, the company must build CSR into its strategy and show it in its products and services.** **"**

Under the leadership of its senior management, **ECLATEC** has voluntarily adopted a CSR policy organised around 4 strategic themes:

✓ Eco-design.

✓ Responsible purchasing.

✓ Virtuous environmental practices.

✓ Social responsibility and living environment.

ECLATEC respects and protects the environment by implementing the necessary actions throughout the product life cycle to reduce their impact. We provide information on every product's carbon footprint.

Life cycle: Design → Raw material and energy extraction → Production → Transport → Use → End of service life sorting
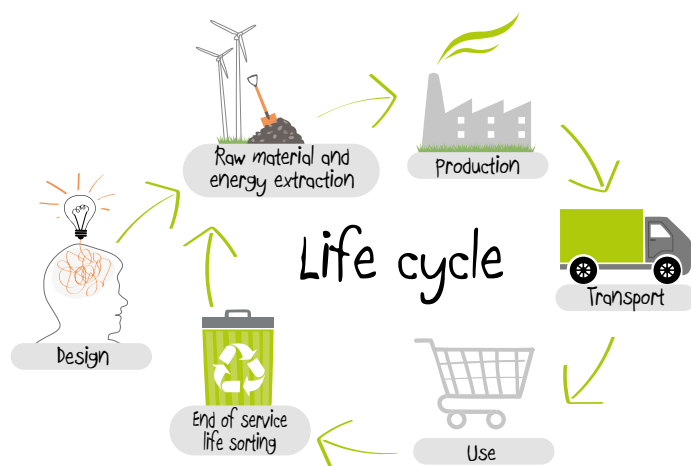
SOCIAL AND SOCIETAL ISSUES

By hosting them and contributing to their training, **ECLATEC** has been working with people in difficulty for many years. (integration, disability,...)

A group ethics charter:
Well-being at work, careful respect of equality and non-discriminatory values.

FOCUS on
Our commitment with the United Nations.

September 2021. **ECLATEC** is now a signatory of the United Nations **GLOBAL COMPACT,** covering social responsibility and sustainable development.

With this strong commitment in line with the organisation's beliefs, the company contributes to making the global market more socially and economically inclusive.

ECLATEC is constantly evolving its practices and processes and is committed to continuous progress in the principles of creating a symbiotic relationship between business and society.

WE SUPPORT
UN GLOBAL COMPACT

OUR CONTRIBUTION TO AN INTERNATIONAL SOCIETAL ACTION

ECLATEC is involved in a project to support education in Africa. For example, we support a humanitarian association in Senegal, we are contributing to the construction of a classroom, its fitting out and the purchase of teaching materials to provide the children with real working and learning conditions
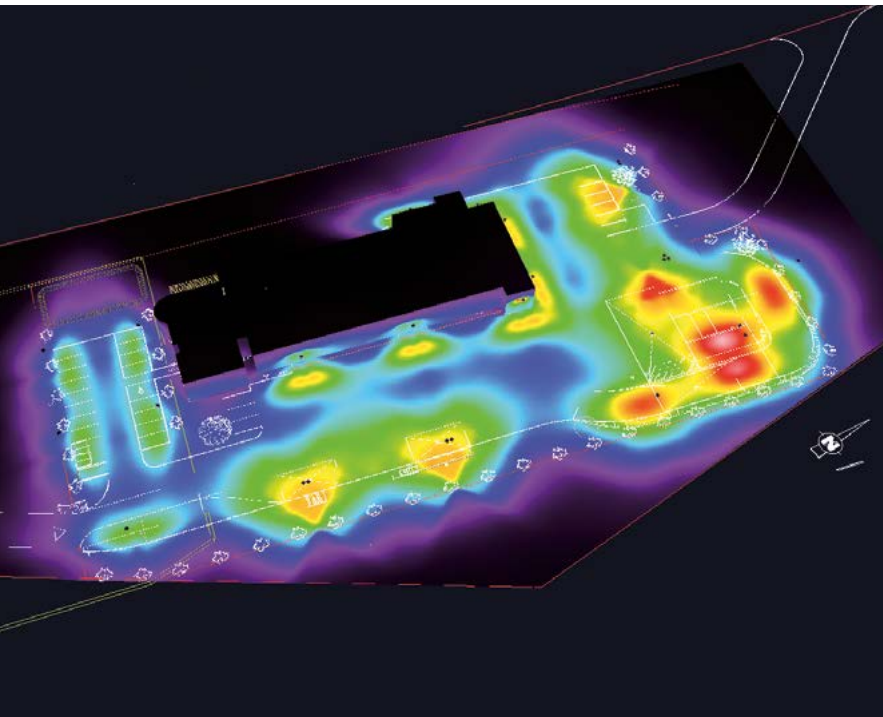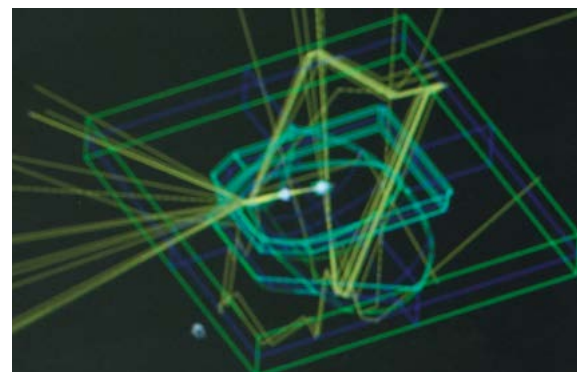

Nianing College

ECLATEC

A PROJECT APPROACH THAT IS AS CLOSE AS POSSIBLE TO YOUR NEEDS

"ECLATEC provides a tailored design, definition and implementation approach adapted to each physical and geographical situation."

Because, regardless of its size, a public or private development project lighting solution cannot be summed up by simply reading a catalogue, **ECLATEC** provides a tailored design, definition and implementation approach adapted to each physical and geographical situation.

Energy savings, compliance with standards and lighting environment quality require lighting solutions of which the specifications are adapted to each location. Careful and tailored implementation condition studies are important sources of energy optimisation, while protecting fauna and flora.

Because every case is unique, **ECLATEC** has developed a specific lighting consultancy service.
Through significant investments in human and technological resources, this service takes charge of each case to fine tune recommended solution definitions.

These essential photometric studies carried out by lighting engineers make it possible to minimise the power of road, urban, sports, architectural or service lighting applications and to define the location, spacing and lighting point settings.

The **ECLATEC** recommendations, supported by the field correspondents, include technical sizing calculations and style proposals for both luminaires and their supports.

This entire approach, focused on the best adaptation of technical responses to local needs, is a value chain that contributes to continuously feeding the **ECLATEC** organisation with information and client needs to be able to imagine and propose exceptional, and even specific, solutions.
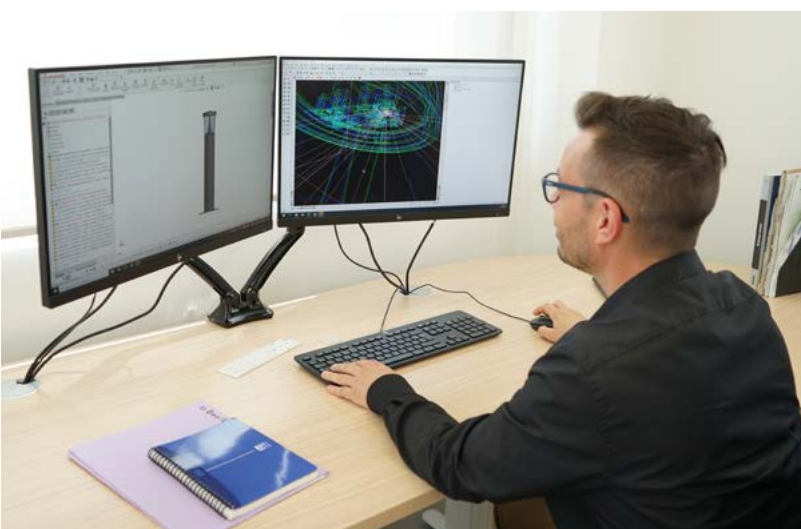
FOCUS on
Our support

ECLATEC advises decision-makers on their projects by following these 4 principles:

1 **Definition of your need**

2 **Photometric study**
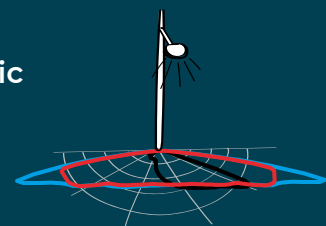
3 **Component sizing for the entire technical unit**

4 **Presentation of your customised solution**

10% 40% 80% 100%

RE
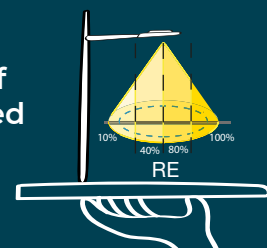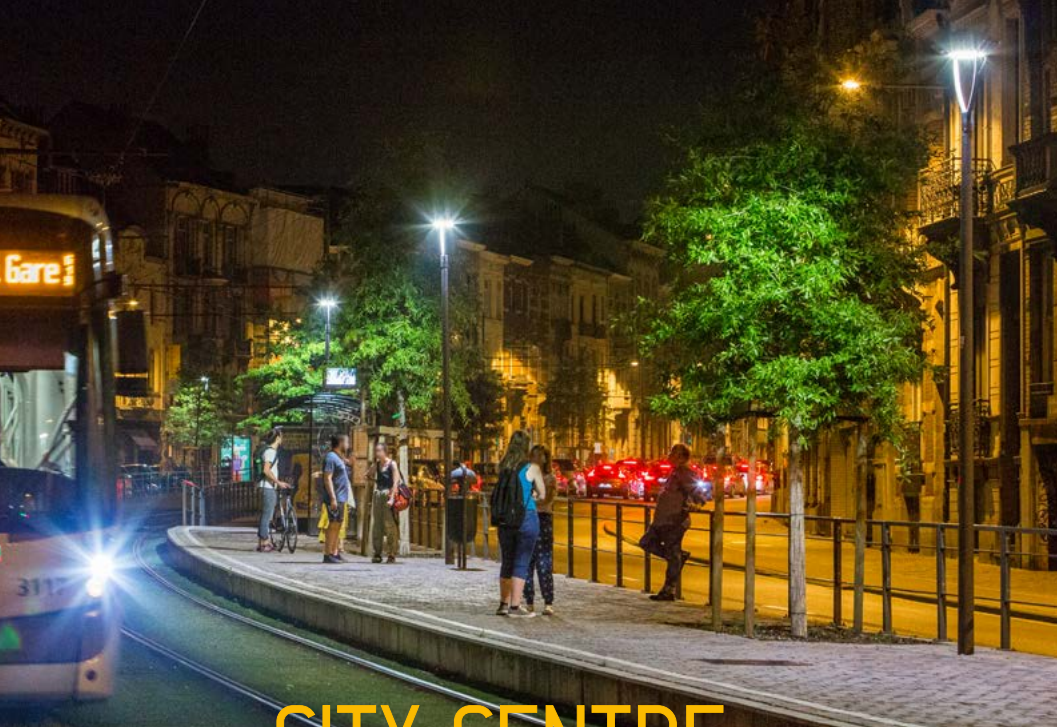
ECLATEC

CITY CENTRE

CAR PARK

SOFT MOBILITY

PARKS & GARDENS

RESIDENTIAL

TERTIARY AREA

ROAD

OUR WORLD

SPORTS LIGHTING

GARDENS

ROADS

TERTIARY SPACES

CAR PARKS

SOFT MOBILITY

CITY CENTRE

RESIDENTIAL

DIGITAL TOOLS AT YOUR SERVICE

> **ECLATEC develops fun, intuitive and immersive tools to help you project yourself.**

AN AUGMENTED REALITY APP

Developed by ECLATEC, this mobile augmented reality app offers a unique user experience.

Once downloaded to your Android or IOS smartphone , the app allows you to capture and view the lighting solutions on your screen in 3D. Fun, but also very practical, it provides an exceptional rendering of the luminaires and delivers a very precise view of the products from every angle.

To use the AR app:

1 Download the "ECLATEC" app from your mobile phone platform

ANDROID APP ON Google play

Download on the App Store

2 Launch the app

3 FILM THE IMAGE from the website or catalogue featuring the augmented reality LOGO. The product appears over the image in 3D. To change the product, change the image.

FOLLOW US ON SOCIAL NETWORKS!

URBAN LIGHTING
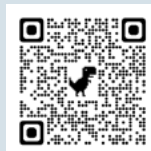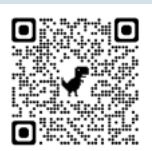
A VIRTUAL VISIT
To digitally explore our worlds.

Because it's important to consider digital tools as a support for the human relationship that we favour, we have developed a new virtual, graphic, pleasant and fun environment.

It has been designed to guide you. This new focus on our products is more than ever adapted to contemporary constraints. Its modernity reflects the constant adaptation of ECLATEC teams to your expectations.

We designed it so that you can discover our products in their environment, online, but always accompanied at a distance by your sales representative who will be able to give you the best advice.

FOCUS on
The graphics generator

This digital 3D assembly tool, which is an **ECLATEC** and GHM exclusivity, makes it possible to configure complete lighting solutions online by fitting a pole with different brackets and luminaires on the screen and then changing the colour of the result.

You have created a configuration and want to place it in a specific geographical location? Switch to Google™ Street-View mode and follow intuitive steps to get the localised panorama.

ECLATEC

LEIZA

Design: Christophe CANADELL

Configuration

LEIZA wall bracket
Red burner option
Outreach 500 mm
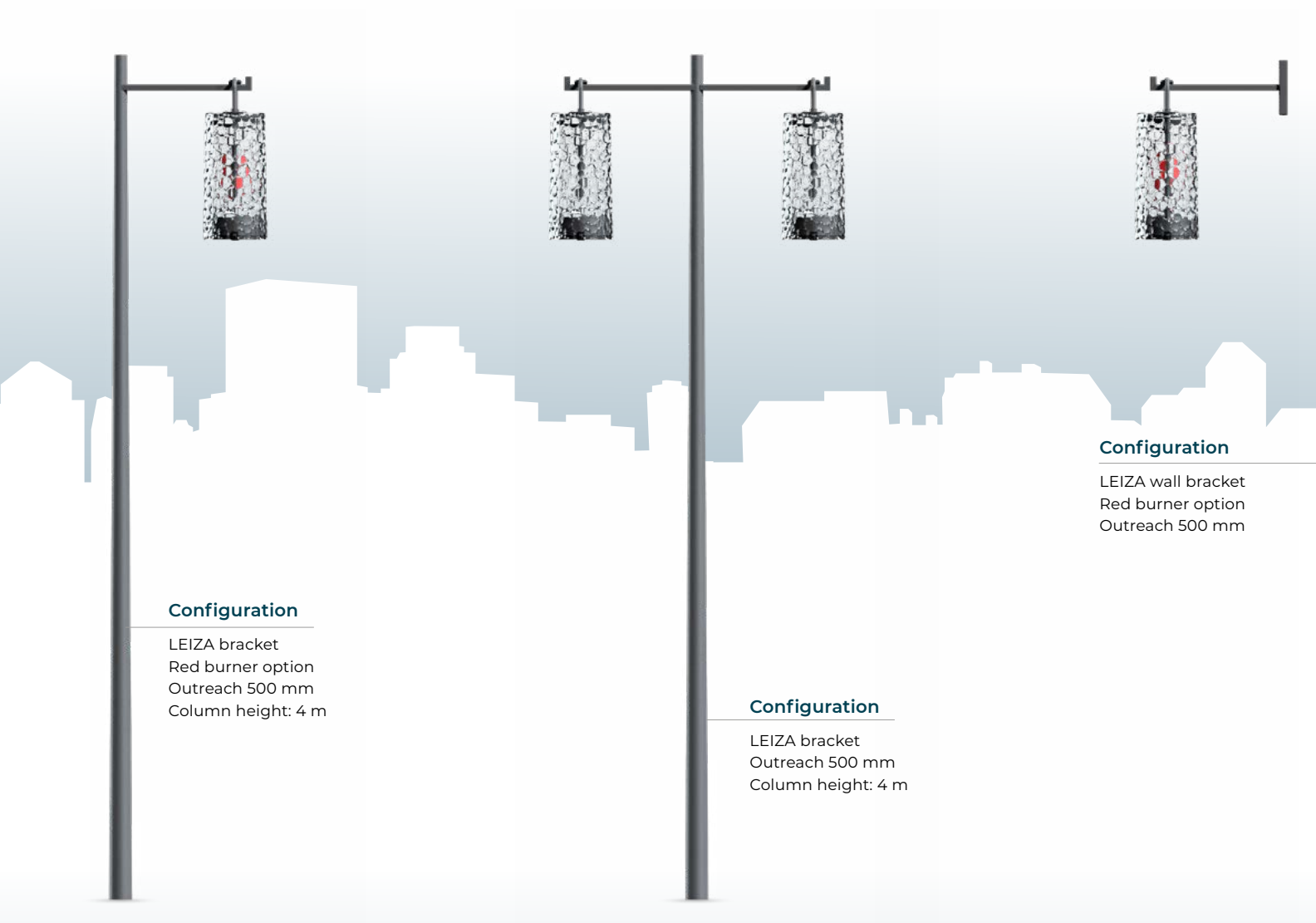
Configuration

LEIZA bracket
Red burner option
Outreach 500 mm
Column height: 4 m

Configuration

LEIZA bracket
Outreach 500 mm
Column height: 4 m

ECLATEC

LEIZA

Design: Christophe CANADELL

LEIZA
With its dedicated bracket and red burner option

DESCRIPTION

Product name	LEIZA
Housing	Injection die cast aluminium LEIZA module
Bowl	Structured in clear polycarbonate
Finish	Polyester powder coating, any colour available
Impact protection	IK 08
Ingress Protection	IP66 Extruded silicone gasket
Dimensions (dia x h)	300 x 600 mm
Weight	7.9kg
Windage area	0.14m²
Materials used	Plastic 46 % Aluminium 22 % Steel 18 % Other 14 %
Electrical class	Class I or II
Wiring	Luminaire pre-wired in the factory

DIMENSIONS

Ø279

600

Ø300
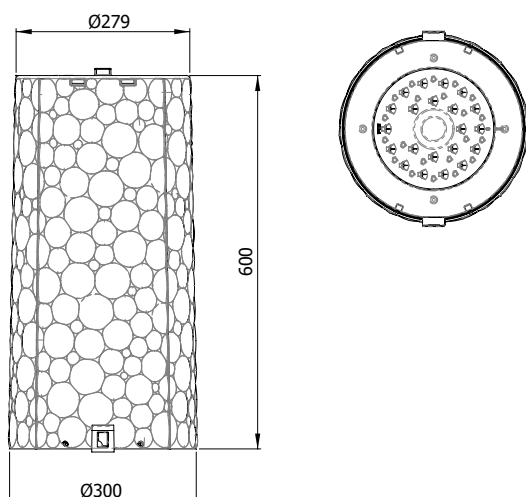
LEIZA
Presented on a wall mount

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	LEIZA
Sources	LEIZA (INDEX type)
	LEIZA backlight
Colour temperature	**LEIZA:** 3000 K or 4000 K, other on request **LEIZA backlight:** 3000 K, other on request
Optical Distribution	**ORALENS:** ECL, 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

LEIZA module
(INDEX type)

MECHANICAL INTERFACES

LEIZA wall fitting with painted, galvanised steel suspension hook, choice of colours

LEIZA dedicated bracket

DECORATIVE OPTION
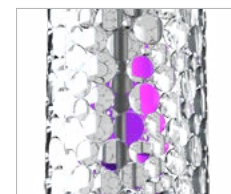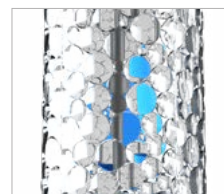
"Red burner" effect with red PMMA accessory, other colours on request

OPTIONS

	LEIZA
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	-
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

Opening and closing	Module removed using the two tabs located at the bottom of the bowl. The module is held by a safety wire.
LED module maintenance	Quick electrical disconnection without tools. Module LED amovible.

ECLATEC

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 LIN
CORTO wall bracket
Outreach 500 mm

Configuration

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

ECLATEC

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
Materials used	Aluminium 85 % Steel 7 % Plastic 6 % Other 2 %
Electrical class	Class I or II
Wiring	Luminaire pre-wired in the factory

DIMENSIONS

CORTO

Ø 415
140

VENGA design

Ø 415
140
744
Ø 403

LIN design

Ø 415
140
744
Ø 403
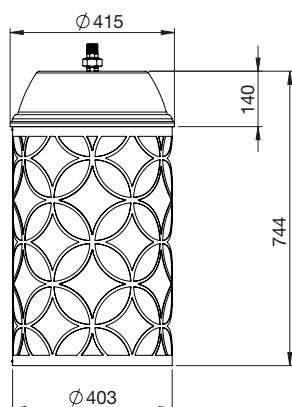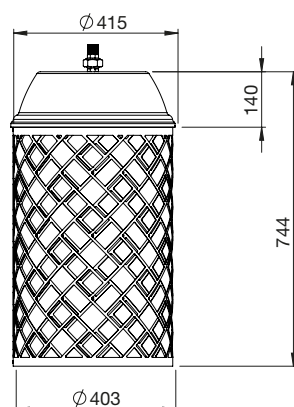
CORTO
With VENGA design

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

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
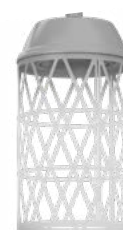
Customised design option
(subject to study)

OPTIONS

	CORTO
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	-
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

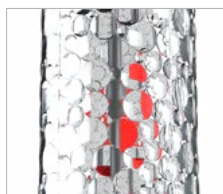| **Electric equipment maintenance**	Separate ZEDLED 1 module, removable once the decorative module is removed.

ECLATEC

ALOA

Design: Jean-Michel WILMOTTE
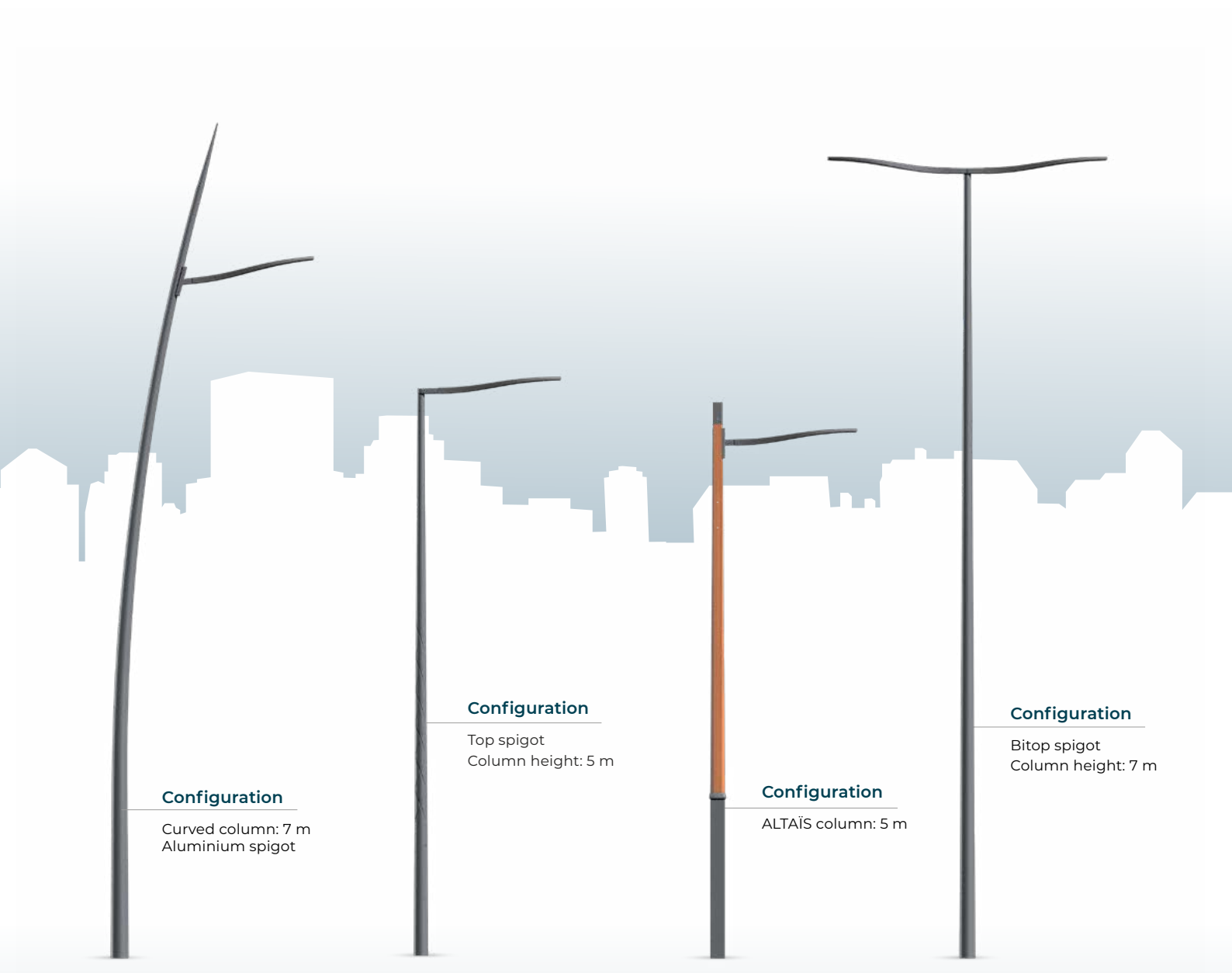
Configuration

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

ECLATEC

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
Materials used	Aluminium 86% Steel 6% Plastic 3% Other 5%
Electrical class	Class I or II
Wiring	Luminaire pre-wired in the factory (6 m)

DIMENSIONS
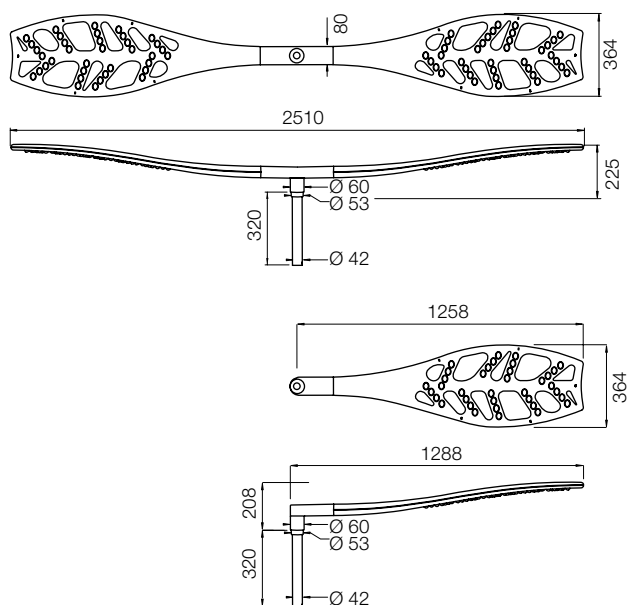
SOURCES & PHOTOMETRIC DISTRIBUTIONS

	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

MECHANICAL INTERFACES

TOP: male bracket fastening for mast Ø 60 / 62 mm (cf p 280 - D)

BITOP: male bracket fastening for mast Ø 60 / 62 mm (cf p 280 - D)

Wall-mounted bracket

Pathway bracket

OPTIONS

	ALOA
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	-
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

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

ECLATEC

ZENDA
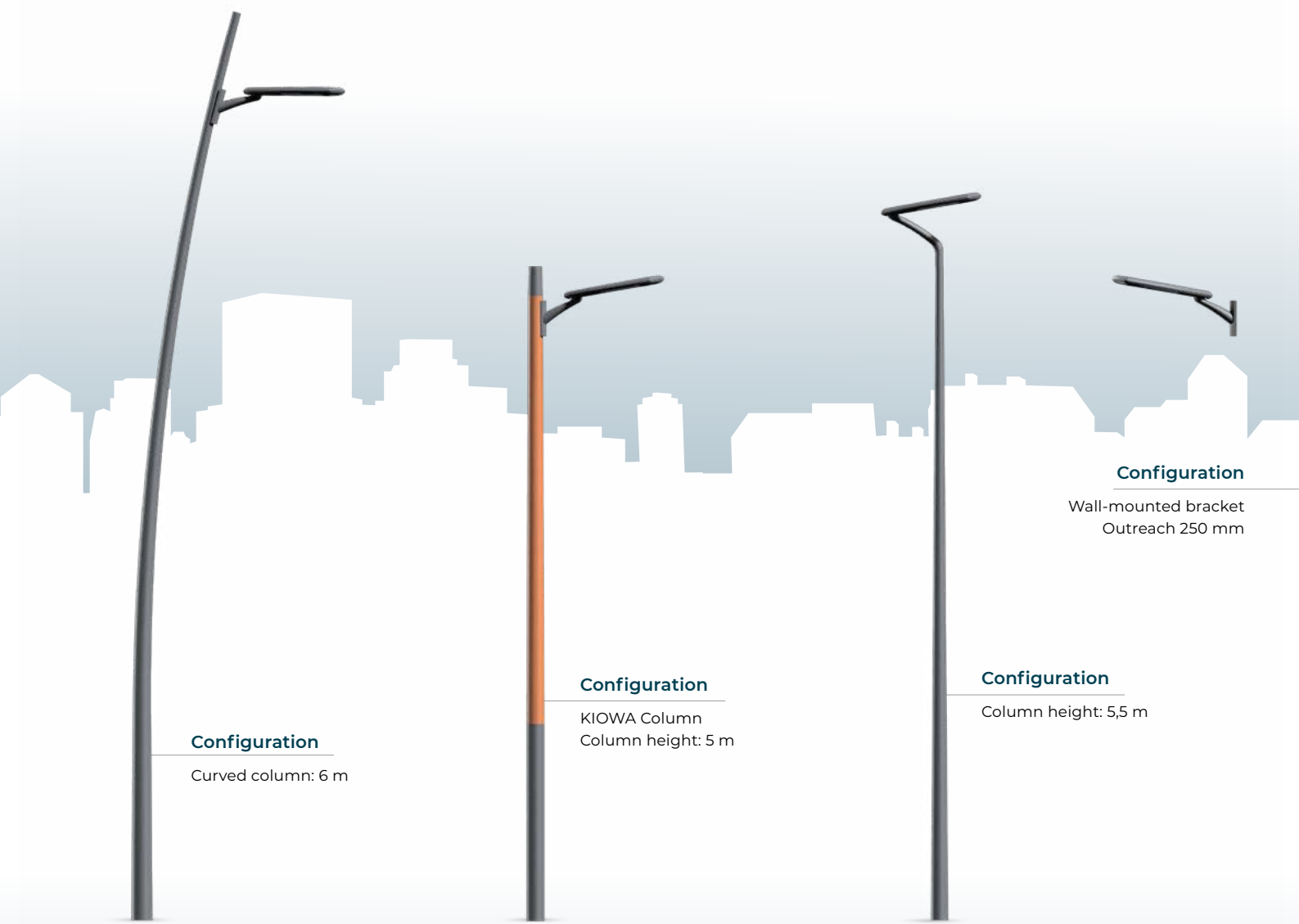
Design: ECLATEC

Configuration

Curved column: 6 m

Configuration

KIOWA Column
Column height: 5 m

Configuration

Column height: 5,5 m

Configuration

Wall-mounted bracket
Outreach 250 mm

ECLATEC

ZENDA

Design: ECLATEC

ZENDA

DESCRIPTION

Product name	ZENDA
Housing	Injection die-cast aluminium body
Bowl	Polycarbonate
Finish	Polyester powder coating, any colour available
Impact protection	IK 10 - 40 joules
Ingress Protection	IP66 Extruded silicone gasket Entry sleeve Breathing system with activated carbon filter
Dimensions (L x l x h)	777 x 798 x 463 mm
Weight	12.3kg
Windage area	0.07m²
Materials used	Aluminium 82% Steel 6% Plastic 7% Other 5%
Electrical class	Class I or II
Wiring	Luminaire pre-wired in the factory

DIMENSIONS

Luminaire
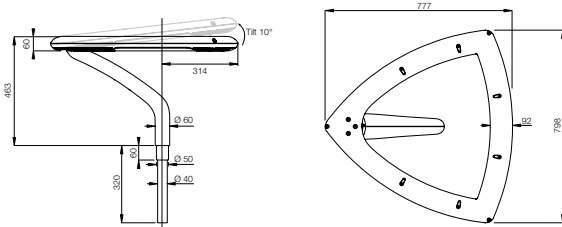
Wall-mounted
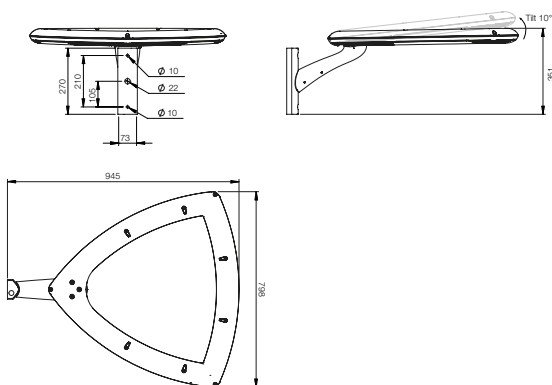
SOURCES & PHOTOMETRIC DISTRIBUTIONS

ZENDA

Sources	ZENDA
Colour temperature	3000 K or 4000 K
Optical Distribution	**UNILENS:** ERE, ERL, ECL
Power supply current	Fixe: 350, 700mA Adjustable up to 700 mA[1]

(1) Optional
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

ZENDA sources

MECHANICAL INTERFACES

Top spigot fixing for pole Ø 60/62 mm (cf p 280 - D)
Luminaire tilted at 0° or 10°

Lateral top spigot fixing for pole Ø 60/62 mm

Pathway bracket with fastening plate

Wall-mounted bracket with fastening plate

OPTIONS

	ZENDA
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	-
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

Opening and closing	Opening by screws
Electric equipment maintenance	Direct access to the gear by removing the canopy
Maintenance of LEDs	Direct access to the Led module by removing the bowls

ECLATEC

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

ECLATEC

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
Materials used	Aluminium 70% Plastic 20% Steel 8% Other 2%
Electrical class	Class I or II
Wiring	Luminaire pre-wired in the factory

Ø 762

Ø 64   Ø 76   82   312
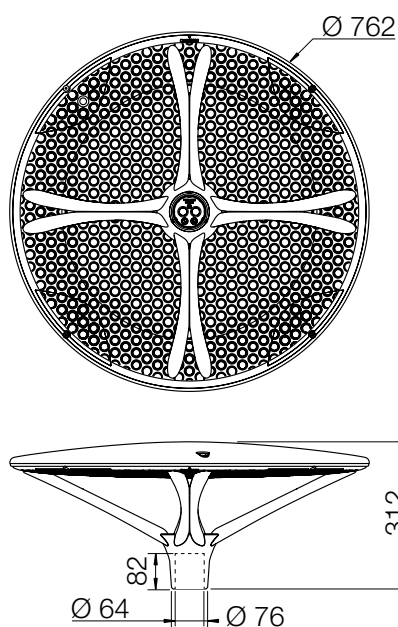
SOURCES & PHOTOMETRIC DISTRIBUTIONS

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

OPTIONS

	KEO
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	-
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

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 (cf p 280)

BACKLIGHTING OPTION

Blue Led backlight · White Led backlight · Red Led backlight

ECLATEC

NISMO

Design: Michel TORTEL

Configuration

Strium HELIX column
ø 76 mm
Column height: 4 m
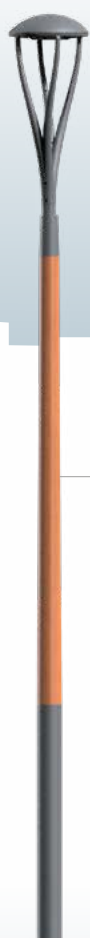
Configuration

KIOWA column
Column height: 4 m

Configuration

NISMO with bowl
Column ø 76 mm
Column height: 5 m

Configuration

INDIGO Wall-mounted
bracket
Outreach 500 mm

ECLATEC

NISMO

Design: Michel TORTEL

NISMO
Presented with ORALED module, without deep bowl

DESCRIPTION

Product name	NISMO
Housing	Injection die-cast aluminium body
Bowl	Option: profonde en polycarbonate
Finish	Polyester powder coating, any colour available
Impact protection	NISMO module (ORALED type): IK 08 NISMO module (ZEDLED 1 type): IK 10 Deep Bowl: IK 10
Ingress Protection	IP66 Extruded silicone gasket Entry sleeve with membrane seal Breathing system with activated carbon filter
Dimensions (dia x h)	443 x 1132 mm
Weight	15kg
Windage area	0.23m² with bowl	0.11m² without bowl
Materials used	With deep bowl: Aluminium 67% Plastic 21% Steel 11% Other 1%	Without deep bowl: Aluminium 82% Steel 13% Plastic 3% Other 2%
Electrical class	Class I or II
Wiring	Luminaire pre-wired in the factory

DIMENSIONS
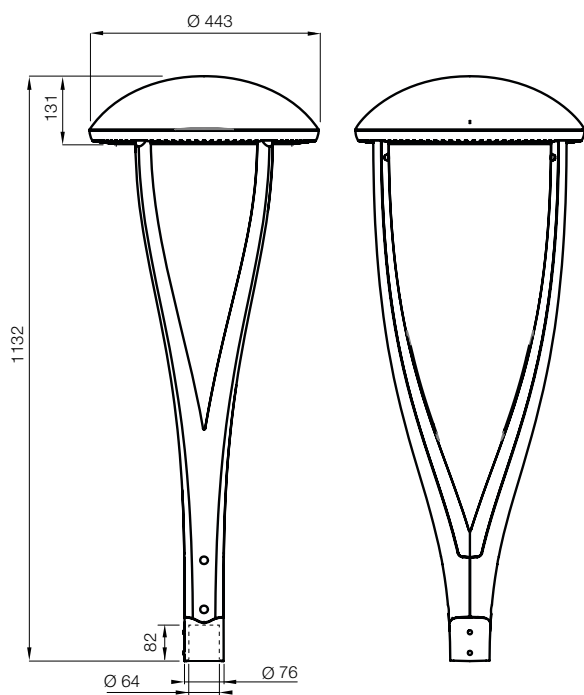
NISMO
Presented with ORALED module and deep bowl

NISMO
Presented with ZEDLED 1 module, without deep bowl

SOURCES & PHOTOMETRIC DISTRIBUTIONS

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

NISMO module
(ORALED type)

NISMO module
(ZEDLED 1 type)

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

MAINTENANCE

NISMO module maintenance

Removable cover fastened by 2 screws.
Quick disconnection of the power supply.
Removable NISMO module

OPTIONS

	NISMO with deep bowl	NISMO without deep bowl
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	-	√*
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	√	√
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

* Only available with NISMO module (ORALED type)
Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

ECLATEC

ELYXE

Design: Luc DAVY

Configuration

STRIUM Helix column
ø 76 mm
Column height: 4 m

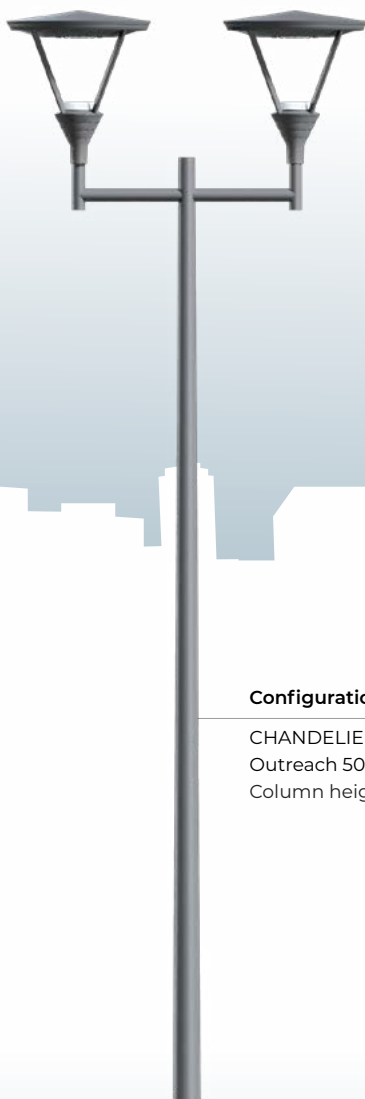**Configuration**

CHANDELIER bracket
Outreach 500 mm
Column height: 4,5 m

Configuration

INDIGO wall-mounted
Outreach 500 mm

ECLATEC

ELYXE

Design: Luc DAVY

ELYXE
Presented with ORALED module

DESCRIPTION

Product name	ELYXE
Housing	Injection die-cast aluminium body Extruded aluminium arms Control gear in the upper luminaire body
Bowl	ORALED: mono lens in PMMA / SEOLED: glass
Finish	Polyester powder coating, any colour available
Impact protection	IK 08
Ingress Protection	IP66 Extruded pneumatic silicone gasket Cable gland with anchoring device Breathing system with activated carbon filter
Dimensions (dia x h)	ELYXE top mounted: 680 x 720 mm ELYXE suspended: 680 x 670 mm
Weight	15.8kg
Windage area	0.08m²
Materials used	Aluminium 89% Steel 4% Plastic 2% Other 5%
Electrical class	Class I or II
Wiring	Luminaire pre-wired in the factory (6m)

DIMENSIONS

Top mounted

Ø 680

720

Ø 64

Suspended

27 PDG

670
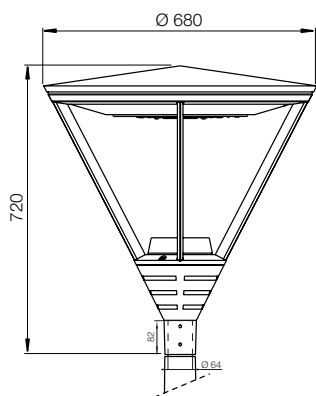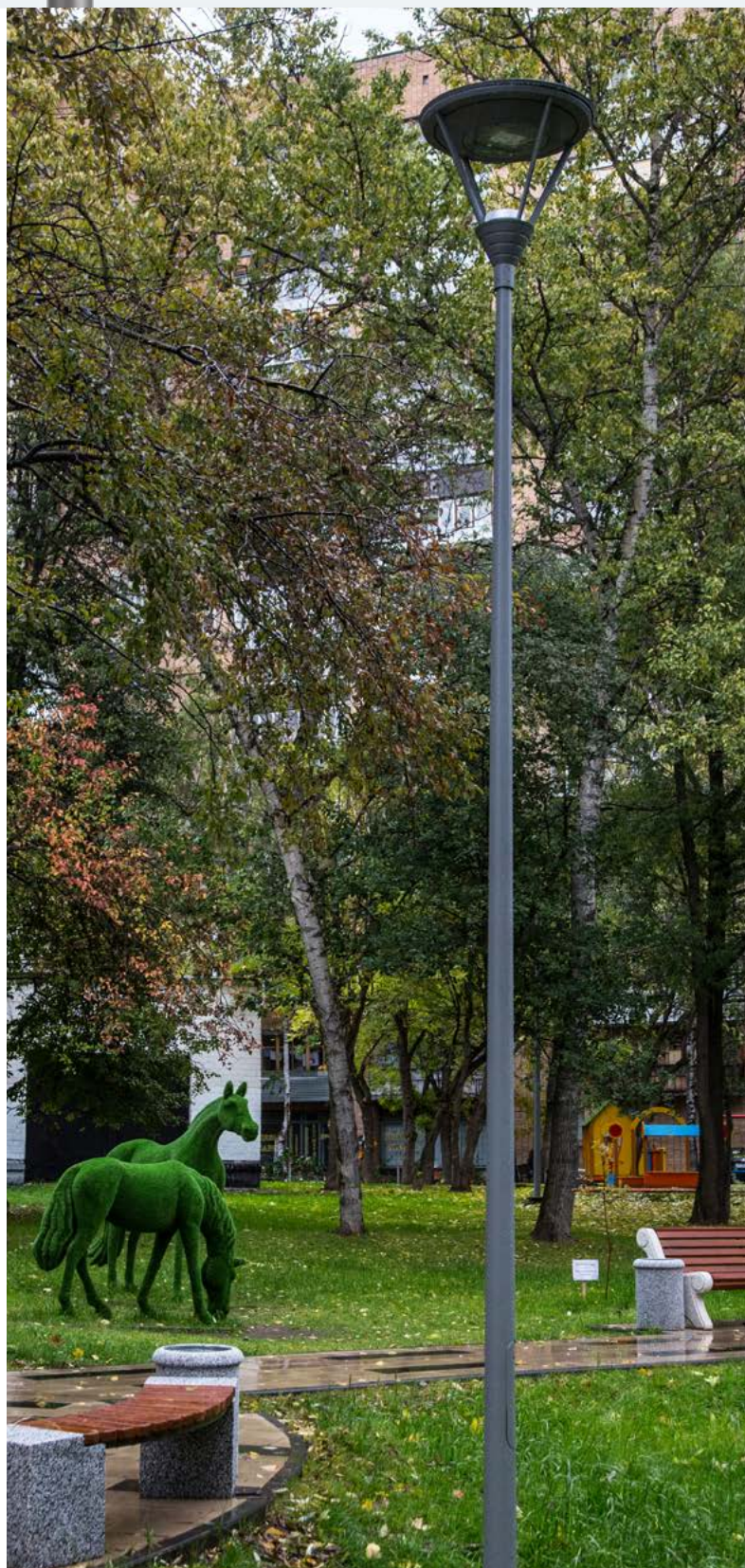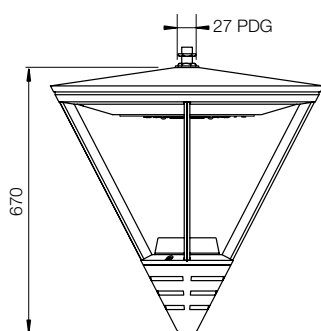
ELYXE
Presented with SEOLED module

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	ELYXE	
Sources	ORALED	SEOLED
Colour temperature	3000 K or 4000 K	Amber*, 2200 K, 2400 K, 2700 K, 3000 K or 4000 K
Module color	Grey 2150 or 2900	
Optical Distribution	ORALENS: ERS, ERL, LRM, ECL	QUADRALENS: ERS, ERL, ERE, LRS, LRL, PFA, EPD, EPG, ETS, ECa
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

Post top fastening on standard pole Ø 60/62 mm

Post top fastening on specific pole Ø 76 mm with spigot Ø 60 mm, L 85 mm
For pole Ø 76 mm top, optional spigot C
(cf p 280)

Top mounted: Indigo wall bracket with integrated connection box

Suspended: Indigo wall bracket with integrated connection box

OPTIONS

	ELYXE
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	√
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

Opening and closing	Open luminaire by removing concealed screw {1} The upper body is held in position by a safety stay {2}
LED module maintenance	Direct access to the module Removable module interchangeable on site

ECLATEC
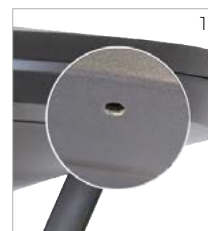
STANZA

Design: Christophe CANADELL

Configuration

STRIUM Helix column
STANZA R bracket
Outreach: 1000 mm
Column height: 7 m

Configuration

Column ø 76 mm
STANZA C bracket
Outreach: 800 mm
Column height: 5 m

Configuration

FESTONE column
Column height: 4 m

ECLATEC

STANZA

Design: Christophe CANADELL

STANZA
Post top with aluminium frame

DESCRIPTION

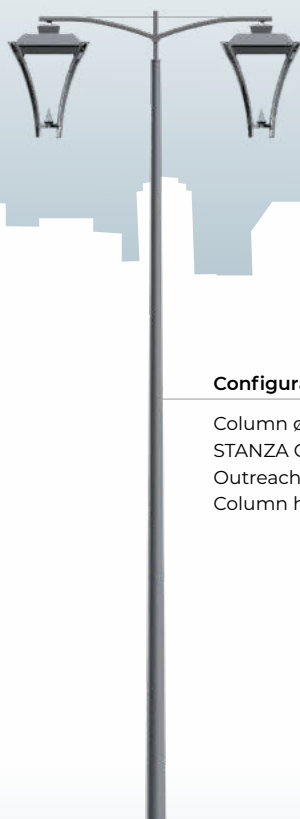| Product name	STANZA post top	STANZA suspended
Housing	Injection die-cast aluminium body Arms in polycarbonate (UV treatment)	
Bowl	Thermally toughened flat glass	
Finish	Polyester powder coating, any colour available	
Impact protection	IK 10	
Ingress Protection	IP66 Extruded silicone gasket - high temperature on the body and glass Breathing system with activated carbon filter	
Dimensions (L x l x h)	540 x 540 x 760 mm	540 x 540 x 745 mm
Weight	18.5kg	without cross brace: 16kg with cross brace: 16kg with alu. frame: 18kg
Windage area	0.15m²	without cross brace: 0.14m² with cross brace: 0.15m² with alu. frame: 0.15m²
Materials used	Aluminium 68% Steel 9% Plastic 12% Glass 7% Other 4%	
Electrical class	Class I or II	
Wiring	Luminaire pre-wired in the factory (6 m) (post top version only)	

DIMENSIONS

Post top
with aluminium frame

540

760
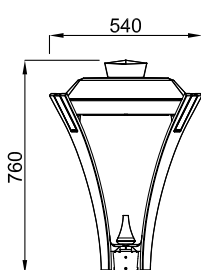
Suspended with
aluminium frame

540

745

Suspended without
cross brace

540

745
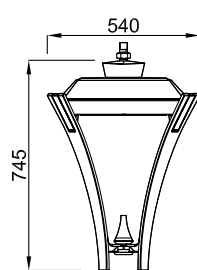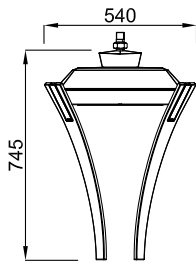
Suspended with
polycarbonate cross brace

540

745

540

540

STANZA
Suspended with cross brace

STANZA
Suspended without cross brace

SOURCES & PHOTOMETRIC DISTRIBUTIONS

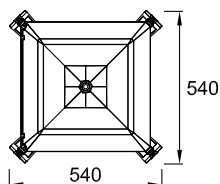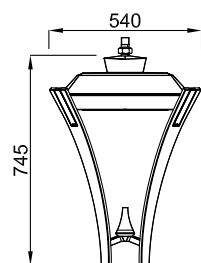|	STANZA
Sources	SOMLED 1
	BLS strips
Colour temperature	SOMLED 1: 3000 K or 4000 K BLS strips: Amber*, 2200 K, 2400 K, 2700 K, 3000 K, 4000 K
Module color	SOMLED 1: Grey 2150 or 2900 REOLED: Grey 2900
Optical Distribution	ORALENS: ECL, ERS, ERL
	QUADRALENS: ERS, ERL,ECa, LRS, LRL
Backlight shield option	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

SOMLED 1 module

BLS strips

MECHANICAL INTERFACES

Post top luminaire:
Fixation on standard pole Ø 60/62 mm
For pole Ø 76 mm top, optional spigot C
Post top mounted, fastened by 8 screws (M8)

Suspended luminaire:
Suspended fixing with gas threaded swivel joint Ø 27

MAINTENANCE

Opening and closing	Unlocking of the cover with a flat screwdriver. {1} Opening of the cover and resting on the safety stay. {2}
Maintenance sources	Direct access to the SOMLED 1 module after opening the cover. {3} Power supply by quick connectors. Removable module.

1

2

3

OPTIONS

	STANZA
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	√
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

ECLATEC

SAGA

Design: Cécile PLANCHAIS

Configuration

Column Ø 76 mm
Column height: 4 m

Configuration

KIOWA column
Column height: 5 m

Configuration

LUXEM column Ø 76 mm
Column height: 5 m

ECLATEC

SAGA

Design: Cécile PLANCHAIS

SAGA
Presented with ORALED module

DESCRIPTION

Product name	SAGA
Housing	Injected die-cast aluminium body, canopy, push-strip and module
Bowl	ORALED: mono lens in PMMA / SEOLED: glass
Finish	Polyester powder coating, any colour available
Impact protection	IK 08
Ingress Protection	IP66 Extruded pneumatic silicone gasket Cable gland with anchoring device Breathing system with activated carbon filter
Dimensions (dia x h)	503 x 710 mm
Weight	13kg
Windage area	0.15m²
Materials used	Aluminium 88% Steel 5% Plastic 2% Other 5%
Electrical class	Class I or II
Wiring	Luminaire pre-wired in the factory

DIMENSIONS

575
Ø 503
111
710
5°
85
Ø 60
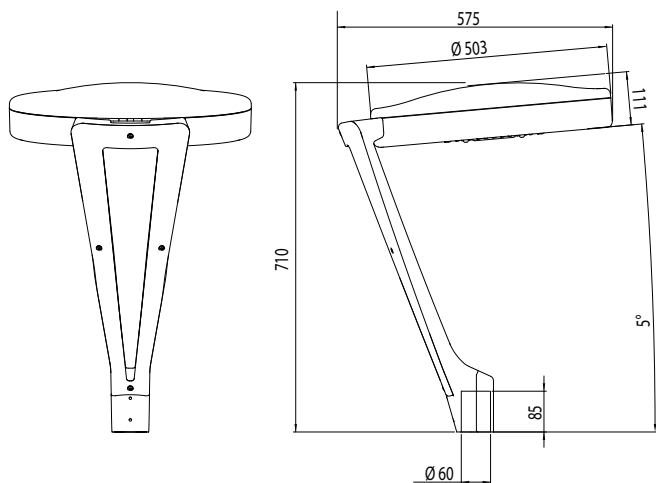
SAGA
Presented with SEOLED module

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	SAGA	
Sources	ORALED	SEOLED
Colour temperature	3000 K or 4000 K	Amber*, 2200 K, 2400 K, 2700 K, 3000 K or 4000 K
Module color	Grey 2150 or 2900	
Optical Distribution	ORALENS: ERS, ERL, LRM, ECL	QUADRALENS: ERS, ERL, ERE, LRS, LRL, PFA, EPD, EPG, ETS, ECa
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

Cover fixing at the top of the Ø 60/62 mm pole

Cover fixing at the top of the Ø 76 mm specific pole with an adaptor Ø 60 mm/l=85 mm, spigot C (cf p 280)

Luminaire pre-set at 5°

MAINTENANCE

Opening and closing	The upper part of the luminaire cover can be opened without tools using the latch The luminaire is held in the open position by a safety stay
LED module maintenance	Direct access to the module Power supply by quick connectors Removable module interchangeable onsite

OPTIONS

	SAGA
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	√
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

ECLATEC

PERLE

Design: Cécile PLANCHAIS

Configuration

CATALINA column
FREGATE bracket
Outreach 1000 mm
Column height: 6 m

Configuration

Strium CAPITAN column
STANZA C bracket
Outreach: 1000 mm
Column height: 7 m

Configuration

VULCAIN column
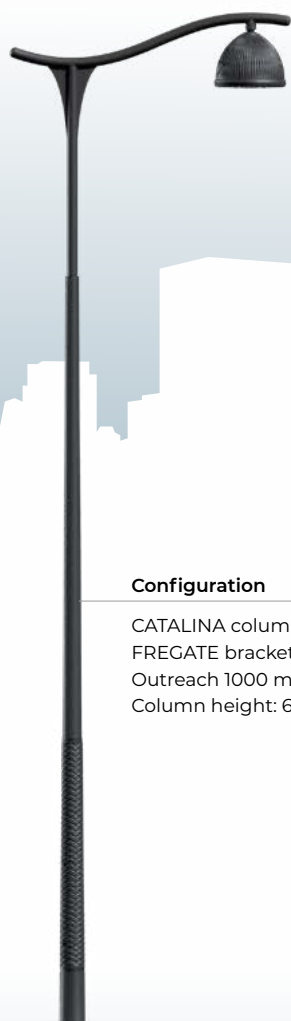Column height: 4 m

ECLATEC

PERLE

Design: Cécile PLANCHAIS

PERLE

DESCRIPTION

Product name	PERLE	PERLE U-bracket
Housing	Injected die cast aluminium body, dome, U-bracket	
Bowl	Polycarbonate conical clear bowl (PTC) (only with bracket) (only in top-mounted version) Polycarbonate short clear bowl (PCC) (only suspended without bracket)	
Finish	Polyester powder coating, any colour available	
Impact protection	IK 08	
Ingress Protection	IP66 Extruded silicone gasket - high temperature on the body and glass Breathing system with activated carbon filter	
Dimensions (dia x h)	415 x 310 mm	490 x 890 mm
Weight	8.8kg	17.5kg
Windage area	0.07m²	0.11m²
Materials used	Aluminium 87% Steel 5% Plastic 3% Other 5%	
Electrical class	Class I or II	

DIMENSIONS

PERLE S
decorative U-bracket

Ø 490
800

PERLE S LED

Ø 415
310

PERLE S PCC

415
410
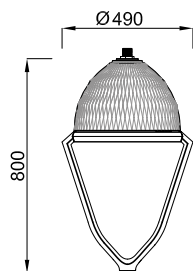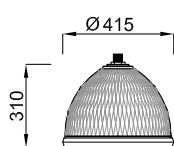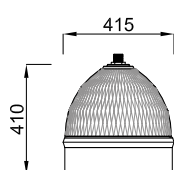
PERLE U-bracket
without trim

Ø 490
890
Ø 60

PERLE PTC
U-bracket with trim

Ø 490
890
Ø 76

PERLE U-bracket
with trim

Ø 490
890
Ø 89
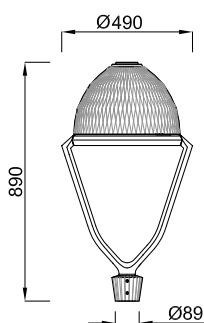
PERLE
U-bracket with trim

SOURCES & PHOTOMETRIC DISTRIBUTIONS

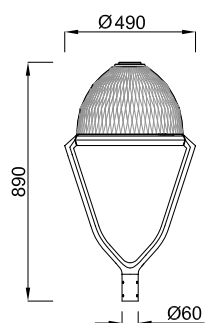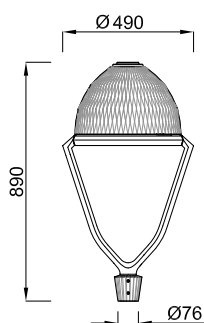|	PERLE
Sources	PERLE (ORALED type)
Colour temperature	3000 K or 4000 K
Module color	Grey 2150 or 2900
Optical Distribution	ORALENS: ECL, ERS, ERL, LRM
Backlight shield option	Medium or strong cut-off
Power supply current	Adjustable up to 700 mA[1]

*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

PERLE module
(ORALED type)

MECHANICAL INTERFACES

Suspended: swivel joint and Ø 34pdg (G1") thread for female boss - Length 35 mm

Top-mounted U-bracket: fastening Ø 42 mm, L 70 mm

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

TRIM OPTION

Ø 76   Ø 89

OPTIONS

	PERLE
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	√
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	-
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

MAINTENANCE

Opening and closing	Opening of the luminaire by push button {1} The luminaire is held in the open position by a safety stay {2}
LED module maintenance	Direct access to the equipment after opening the luminaire
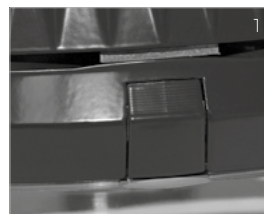
ECLATEC

LINK

Design: ECLATEC

Configuration

Shallow clear
Stanza wall bracket
Outreach 700 mm

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

ECLATEC

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
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
Materials used	Plastic 27% Aluminium 64% Steel 6% Other 3%
Electrical class	Class I or II

DIMENSIONS

LINK short bowl

LINK deep bowl

LINK (PCO)
Shallow opaline

LINK (PHC)
Deep clear

LINK (PHS)
Bowl haute structurée

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 (cf p 280)

DECORATIVE ARMS OPTION

2E, 3E: 2 decorative arms compatible with all bowl options

«Art Déco» Arm

«Millésime» Arm

OPTIONS

3E version (except Opaline bowl):	LINK
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	-
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

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

ECLATEC

GEMME

Design: GHM

Configuration

GEMME (VPS)
GEMME column
Column height: 5 m

Configuration

GEMME (PCC)
GEMME column
Column height: 4 m

Configuration

GEMME (VPS)
Column height: 5 m

ECLATEC

GEMME

Design: GHM

GEMME (VPS)

DESCRIPTION

Product name	GEMME
Housing	Injected die-cast aluminium
Bowl	Polycarbonate shallow clear (PCC) Thermally tempered and screen printed flat glass (VPS)
Finish	Polyester powder coating, any colour available
Impact protection	IK 09
Ingress Protection	IP66 Extruded silicone gasket Breathing system with activated carbon filter
Dimensions (dia x h)	650 x 721 mm
Weight	8.5kg
Windage area	0.13m²
Materials used	Plastic 27% Aluminium 64% Steel 6% Other 3%
Electrical class	Class I or II
Wiring	Luminaire pre-wired in the factory

DIMENSIONS

GEMME PCC

Ø 650
110
721
Ø 76
Ø 60
100

GEMME VPS

GEMME (PCC)

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	GEMME
Sources	GEMME (ORALED 1 type)
Colour temperature	3000 K or 4000 K
Module color	Grey 2150 or 2900
Optical Distribution	ORALENS
Backlight shield option	Medium or strong cut-off
Power supply current	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

GEMME (ORALED 1 type)

MECHANICAL INTERFACES

Top fastening for Ø 60/62 mm pole

For standard Ø 76 mm pole, A end available as an option (cf p 280)

MAINTENANCE

Opening and closing	To access the geartray, remove the captive screws and remove the cover The luminaire is held in the open position by a safety stay
Sources maintenance	Automatic cutting of the power supply when the luminaire is opened by a dedicated ECLATEC connector. Quick electrical disconnection without tools Circuit board removable onsite without tools. Complete LED module removable onsite without tools

OPTIONS

	GEMME
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	√
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

ECLATEC

SCOOP

Design: Michel TORTEL

Configuration

CHANDELIER wall bracket
Outreach: 500 mm

Configuration

Mât Ø 76 mm
Column height: 5 m

Configuration

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

ECLATEC

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
Materials used	Aluminium 77% Plastic 17% Steel 5% Other 1%
Electrical class	Class I or II

DIMENSIONS

Ø 580
75
247
70
Ø 64
Ø 76
Ø 169
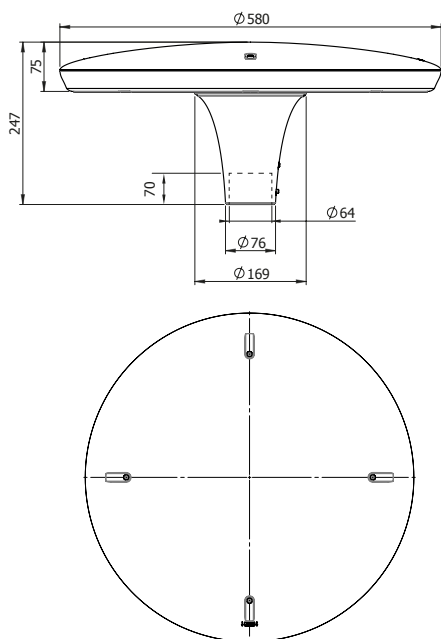
SCOOP KEA

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

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 278) at the top of the Ø 76 mm pole, locked using 2 screws

REDUCED FLUX VERSION WITH TWO PCBs

Only available for level 1E

OPTIONS

3E version:	SCOOP
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	√
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

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
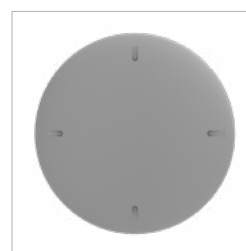
ECLATEC

ZEN

Design: ECLATEC

Configuration

Mât Ø 76 mm
Column height: 3,5 m

Configuration

Mât Ø 60 mm
Strium CAPITAN
Column height: 4 m

Configuration

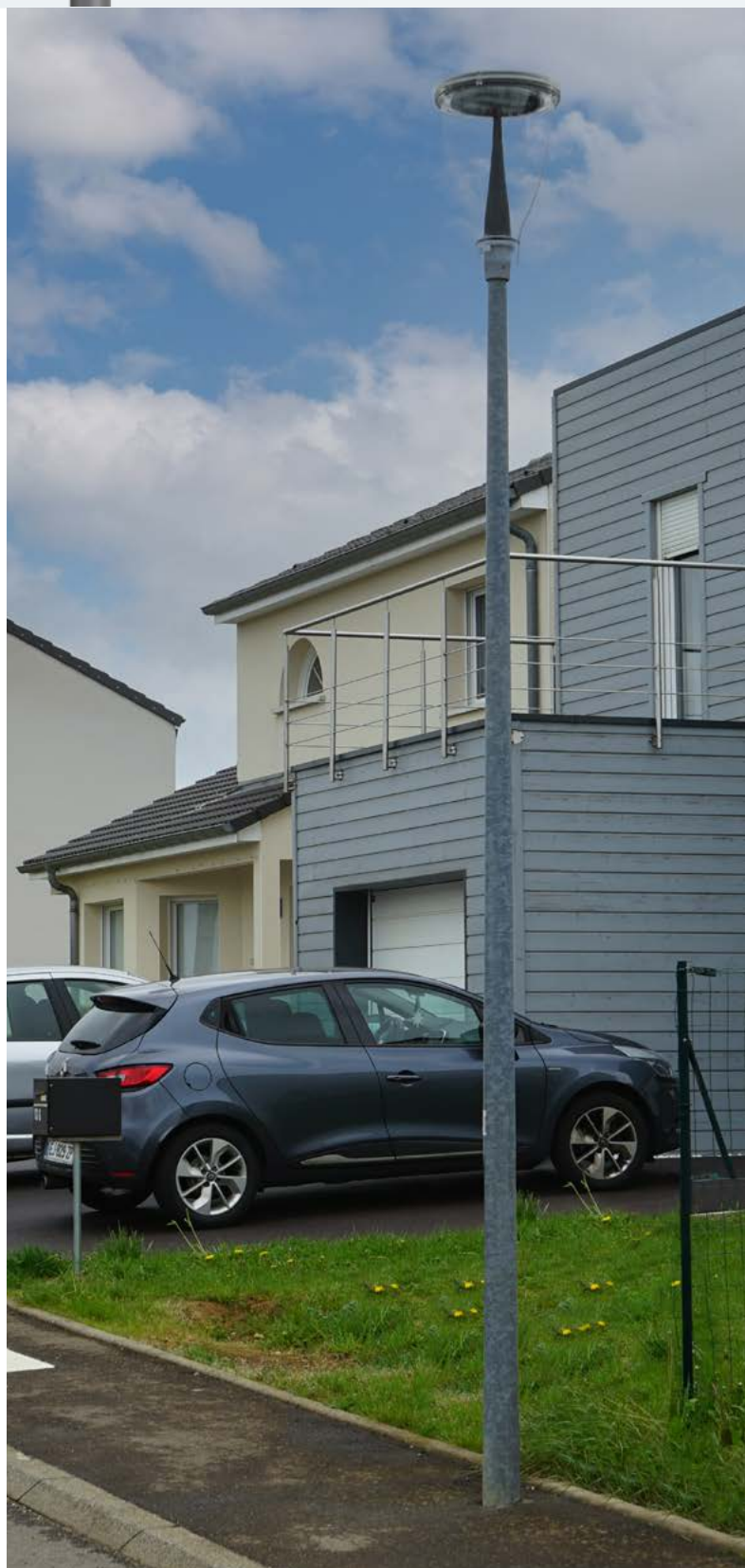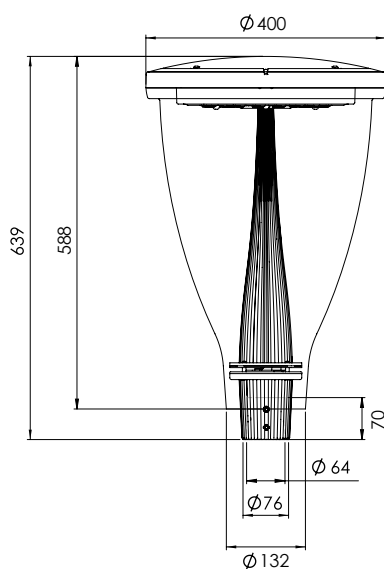CHANDELIER bracket
Outreach: 500 mm
Column height: 5 m

ECLATEC

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	1E: 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 system with activated carbon filter
Dimensions (dia x h)	400 x 639 mm
Weight	8kg
Windage area	0.15m²
Materials used	Plastic 43% Aluminium 36% Steel 10% Other 11%
Electrical class	Class I or II
Wiring	Luminaire pre-wired in the factory

DIMENSIONS

Ø 400

639

588

70

Ø 64

Ø 76

Ø 132

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

MECHANICAL INTERFACES

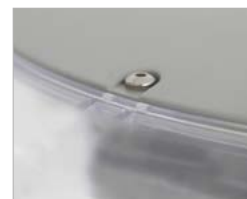Post-top fastening on pole Ø 60/62 mm, with 6 screws

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

MAINTENANCE

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

OPTIONS

	3E version:	**ZEN**
At the lighting point		
Adjustable current (driver or bottom of the pole)		√
Dimming (driver, bottom of the pole or Bluetooth)		√
Built-in detection		-
Remote detection		√
DALI protocol		√
Smart-Ready® configuration (ZD4i)		√
In a local network		
Communicating detection with pilot wire		√
Wireless communication sensing		√
Remote management		
WIZARD CMS system		√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

ECLATEC

BUZZ

Design: ECLATEC

Configuration

Column Ø 76 mm
Column height: 4 m

Configuration

Column Ø 76 mm
Column height: 5 m

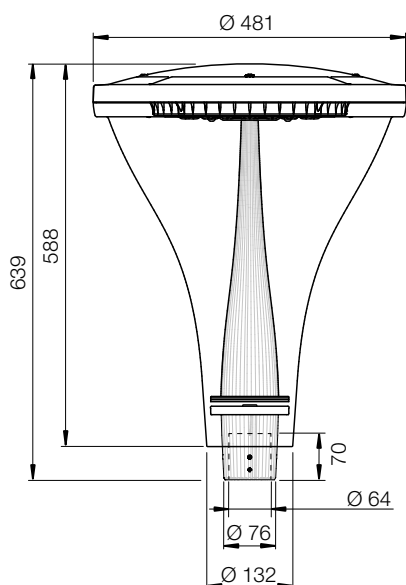**Configuration**

INDIGO wall bracket
Outreach: 600 mm

ECLATEC

BUZZ

Design: ECLATEC

BUZZ
Clear bowl

Product name	BUZZ
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	1E: 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 system with activated carbon filter
Dimensions (dia x h)	481 x 639 mm
Weight	8kg
Windage area	0.15m²
Materials used	Plastic 51% Aluminium 37% Steel 10% Other 2%
Electrical class	Class I or II
Wiring	Luminaire pre-wired in the factory

DIMENSIONS

BUZZ
Structured bowl

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	BUZZ	
	ZEDLED C	BLS strips
Sources	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
	ORALENS	**QUADRALENS**
Optical Distribution	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

MECHANICAL INTERFACES

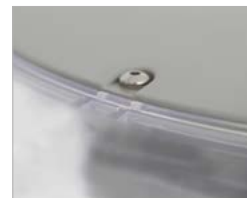Post-top fastening on pole Ø 60/62 mm, with 6 screws

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

MAINTENANCE

Maintenance of the equipment and LEDs — Removal of the cover with 4 concealed screws. The ZEDLED C module can be exchanged after quick disconnection of the power supply.

OPTIONS

	3E version:	BUZZ
At the lighting point		
Adjustable current (driver or bottom of the pole)		√
Dimming (driver, bottom of the pole or Bluetooth)		√
Built-in detection		-
Remote detection		√
DALI protocol		√
Smart-Ready® configuration (ZD4i)		√
In a local network		
Communicating detection with pilot wire		√
Wireless communication sensing		√
Remote management		
WIZARD CMS system		√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

ECLATEC

ORIENTIS
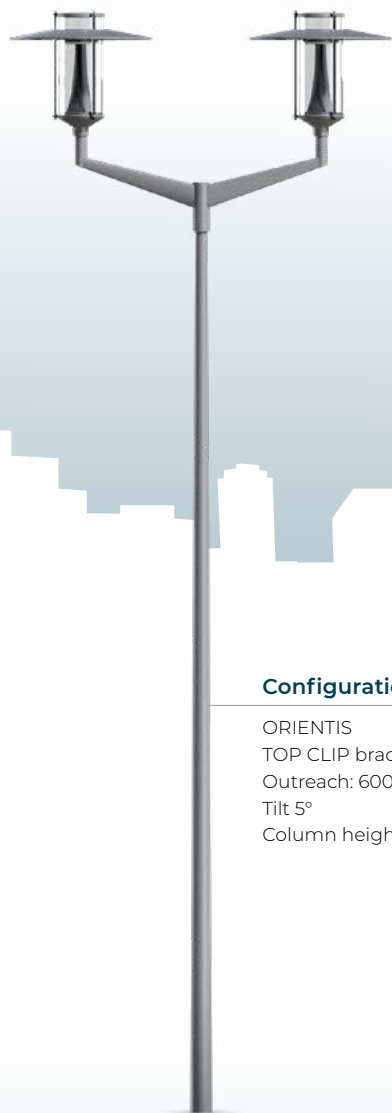
Design: GHM

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

ECLATEC

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	0.15m²
Materials used	Aluminium 82% Steel 6% Plastic 7% Other 5%
Electrical class	Class I or II
Wiring	Luminaire pre-wired in the factory

DIMENSIONS

ORIENTIS
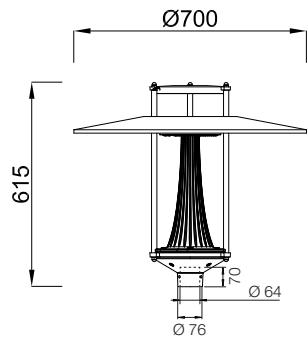
ORIENTIS H
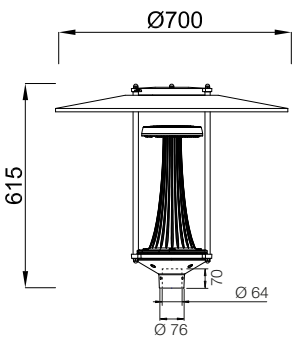
ORIENTIS H

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

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	Opening of 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.

OPTIONS

	ORIENTIS
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	-
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	-

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

ECLATEC

LIKE

Design: ECLATEC

Configuration

Strium Helix column
Ø 76 mm
Column height: 4 m

Configuration

Column Ø 76 mm
Column height: 4 m

Configuration

KC top mounted bracket
Outreach: 300 mm
Column height: 5 m

ECLATEC

LIKE

Design: ECLATEC

LIKE

DESCRIPTION

Product name	LIKE
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
Bowl	Two-material polycarbonate white and clear
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 (L x l x h)	500 x 380 x 185 mm
Weight	4.3kg
Windage area	0.04m²
Materials used	Aluminium 66% Steel 7% Plastic 24% Other 3%
Electrical class	Class I or II

DIMENSIONS
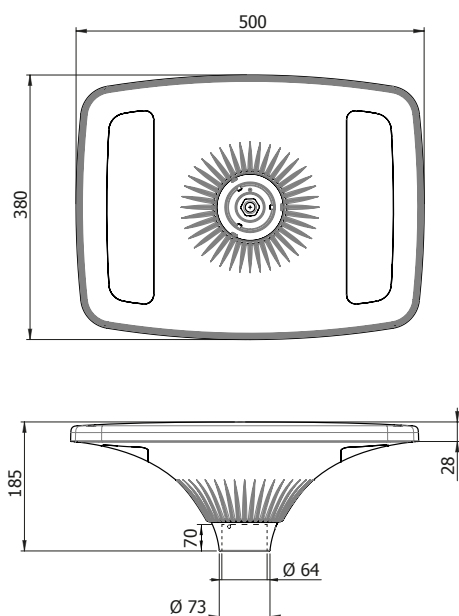
SOURCES & PHOTOMETRIC DISTRIBUTIONS

	LIKE
Sources	LIKE sources
Colour temperature	3000 K, 4000 K
Optical Distribution	Specific lenses
	1E: ERS, ERL 2E, 3E: ECL, ERS, ERL
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

LIKE sources

MECHANICAL INTERFACES

Post-top fixing for pole Ø 60/62 mm, fastened by 3 screws

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

MAINTENANCE

Maintenance of the equipment and LEDs Access to the equipment by unscrewing 4 screws

OPTIONS

3E version:	LIKE
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	-
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

ECLATEC

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
U-bracket

Configuration

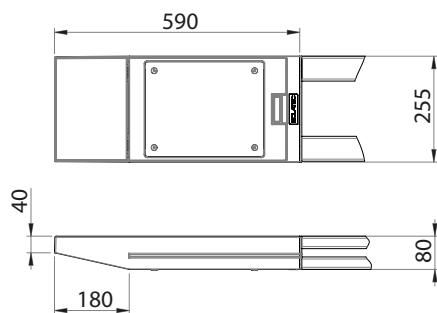LEXIK 2
DICO bracket
Outreach 1000 mm
Column height: 6 m

ECLATEC

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
Materials used	Aluminium 68% Glass 11% Steel 8% Plastic 2% Other 11%	Aluminium 74% Glass 15% Steel 8% Plastic 2% Other 1%
Electrical class	Class I or II	
Wiring	Luminaire pre-wired in the factory	

DIMENSIONS

LEXIK 1

590
255
40
80
180

LEXIK 2

700
300
37,5
80
215
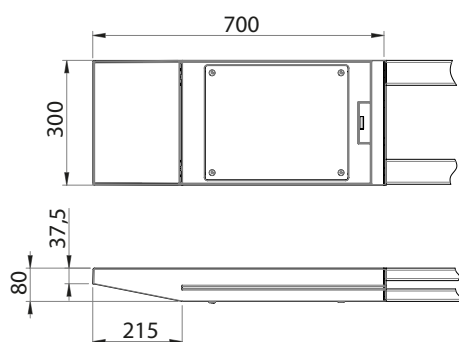
LEXIK 2

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

MECHANICAL INTERFACES

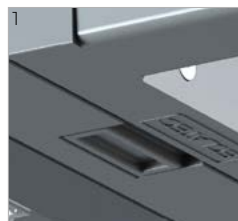|	
	Lateral on dedicated LEXIK bracket
	Lateral on specific penetrating DICO bracket for Ø 60 mm pole, single or double light, as standard. Outreach 1000 mm, 0°, 330 mm rise
	top or bitop spigot, male bracket fastening for Ø 60 mm mast, Outreach 100 mm
	U-bracket

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}

OPTIONS

	LEXIK 1	LEXIK 2
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	-	-
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	√	√
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

ECLATEC

ZESTO

Design: Jean-Marie DUTHILLEUL

Configuration

PICO bracket
Outreach 300 mm
Column height: 4 m

Configuration

ETIA bracket
Outreach 1000 mm
Column height: 6 m

Configuration

CHANTEREINE bracket
Outreach 1000 mm
Column height: 6 m

Configuration

ZESTO bracket
Outreach 1000 mm

ECLATEC

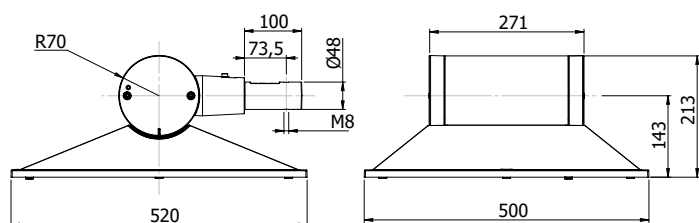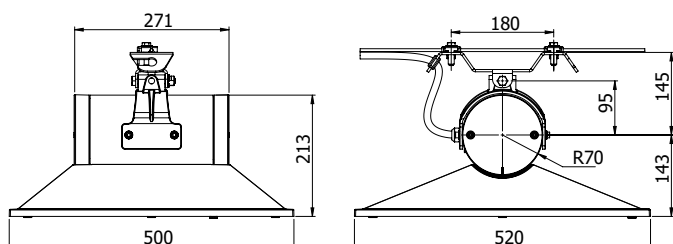# ZESTO

Design: Jean-Marie DUTHILLEUL

ZESTO

DESCRIPTION

Product name	ZESTO
Housing	Die cast aluminum 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 carbon filter
Dimensions (L x l x h)	520 x 500 x 213 mm
Weight	13kg
Windage area	0.26m²
Materials used	Aluminium 66% Glass 24% Steel 5% Other 5%
Electrical class	Class I or II
Wiring	Luminaire pre-wired in the factory

DIMENSIONS

ZESTO - Side entry

ZESTO - Catenary

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	ZESTO
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

*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

MECHANICAL INTERFACES

Catenary version

LL: Smooth side with pass through sleeve for Ø 60 mm arm
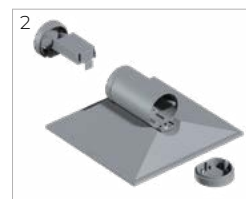Tilts from -15° to +15° in 5° steps
Standard tilt: 0°

MAINTENANCE

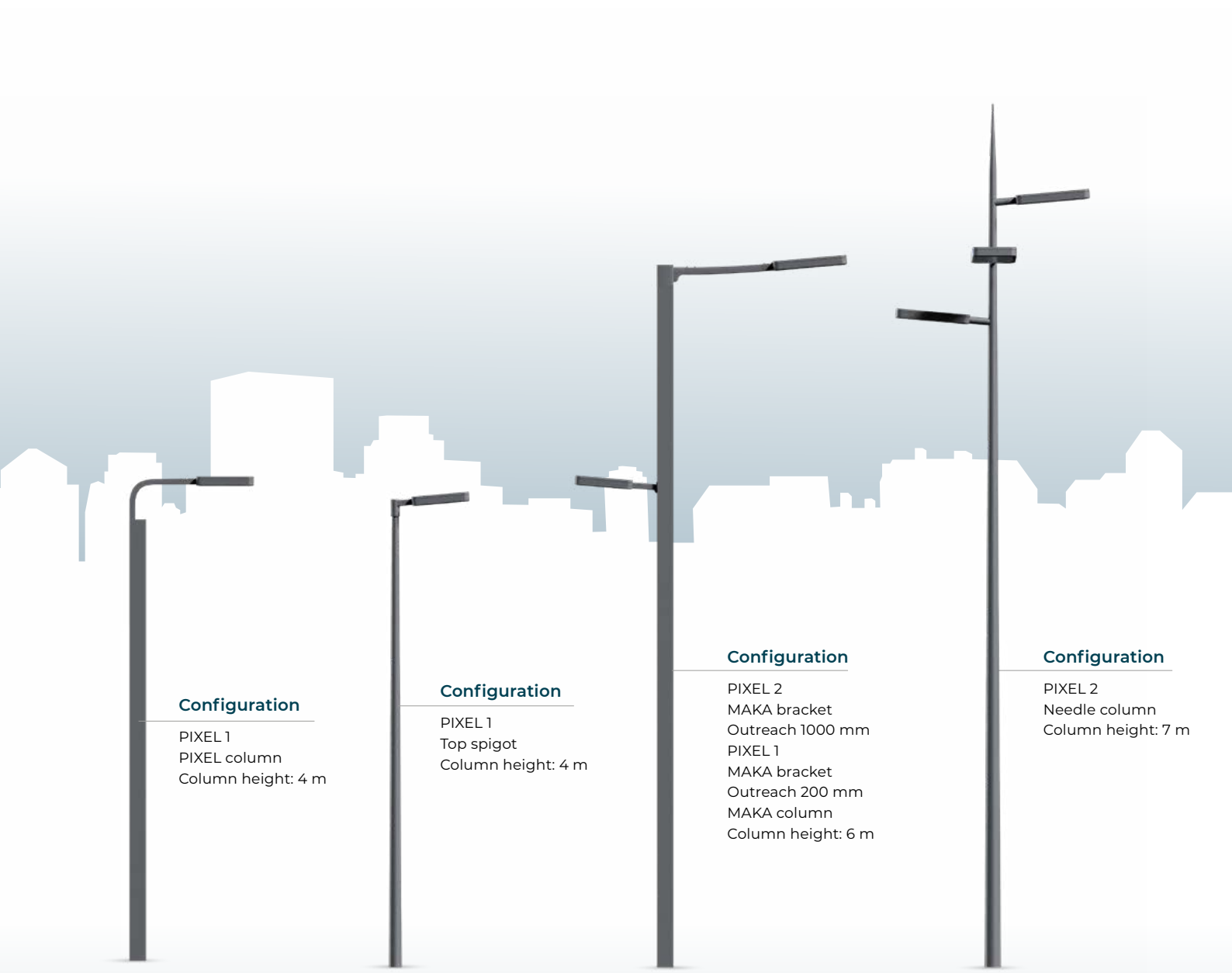|	
Electric equipment maintenance	Opening of the equipment cylindrical cover by 2 concealed screws {1} Electrical disconnection and equipment board removable without tools {2}
Sources maintenance	Access to LED optical module after removal of the bowl with 8 screws (retention line) Quick electrical disconnection without tools. Dismounting of the optical module with 6 screws (eyelet).

OPTIONS

	ZESTO
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	-
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	-
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

ECLATEC

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

ECLATEC

PIXEL

Design: STOA Architecture

PIXEL 1
Presented with moving 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
Materials used	Aluminium 63% Glass 9% Steel 5% Plastic 1% Other 22%	Aluminium 65% Glass 11% Steel 4% Plastic 1% Other 19%
Electrical class	Class I or II	
Wiring	Luminaire pre-wired in the factory (6m)	

DIMENSIONS

PIXEL 1
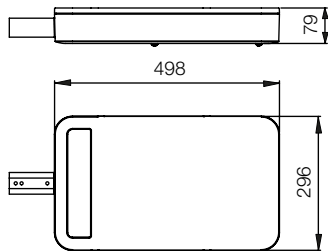
PIXEL 2
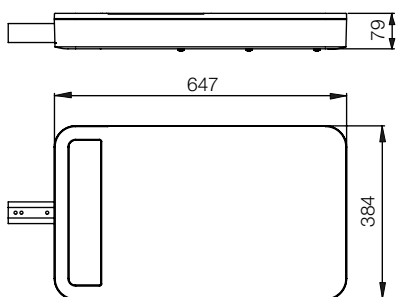
PIXEL 2

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

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 (cf p 280)
Luminaire tilted at 7°

L: side entry coupled with sleeve for tube (Ø 60 mm exterior) (cf p 280 - E, F)

L: side entry for rectangular tube (50x70 mm)(cf p 280 - E, F)

Pathway bracket with fastening plate

Wall-mounted bracket

MAKA bracket, saillie 200 mm

OPTIONS

	PIXEL 1	PIXEL 2
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	√	-
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	√	√
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

| **Opening and closing**	Opens without tools by pressing the paddle on the top cover. {1} Cutting of the power supply when the luminaire is opened. The cover is held open by a safety stay.
Electric 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).

ECLATEC
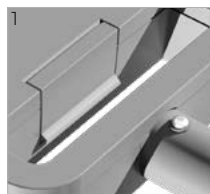
ITEM
Design: STOA Architecture
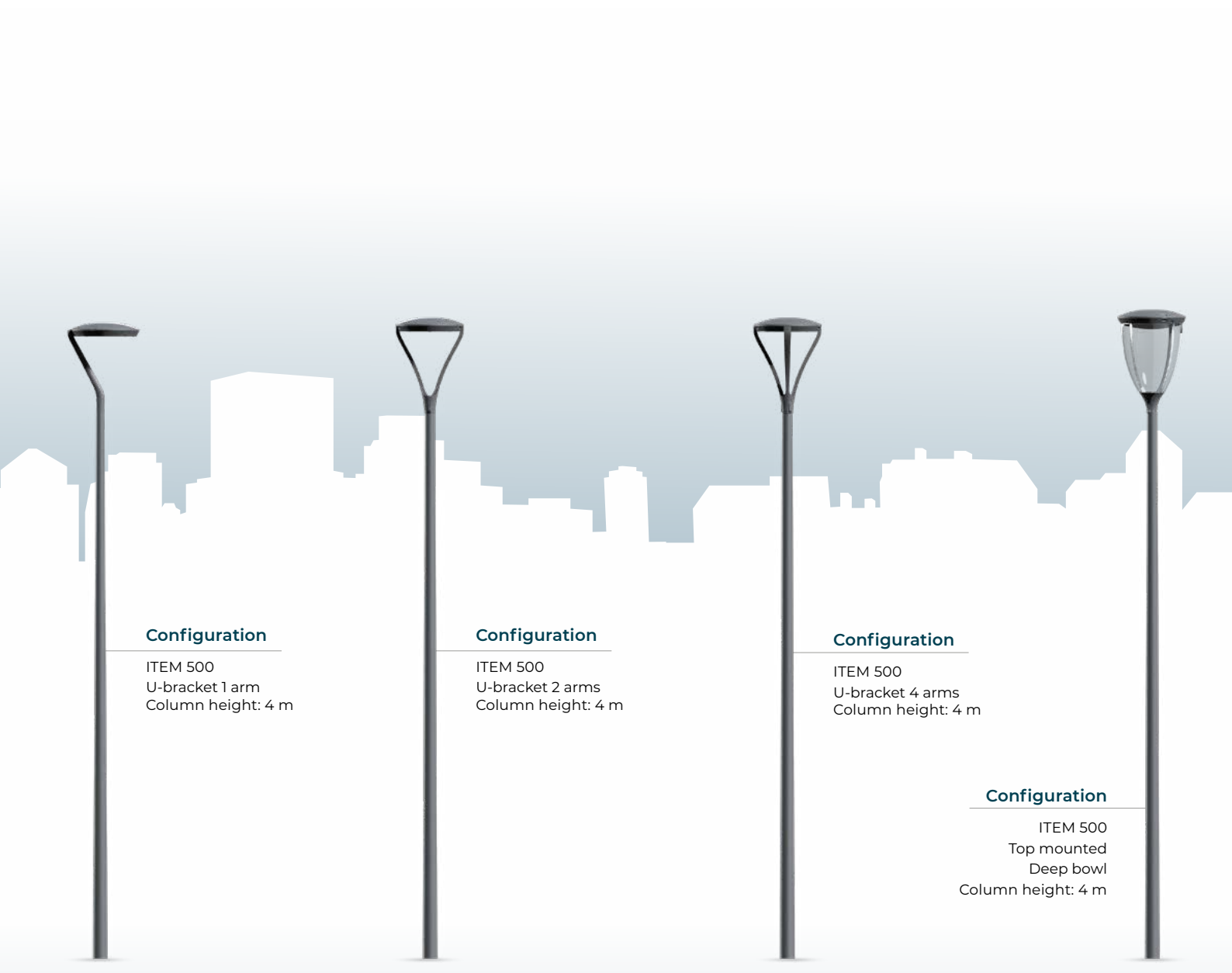
Configuration

ITEM 500
U-bracket 1 arm
Column height: 4 m

Configuration

ITEM 500
U-bracket 2 arms
Column height: 4 m

Configuration

ITEM 500
U-bracket 4 arms
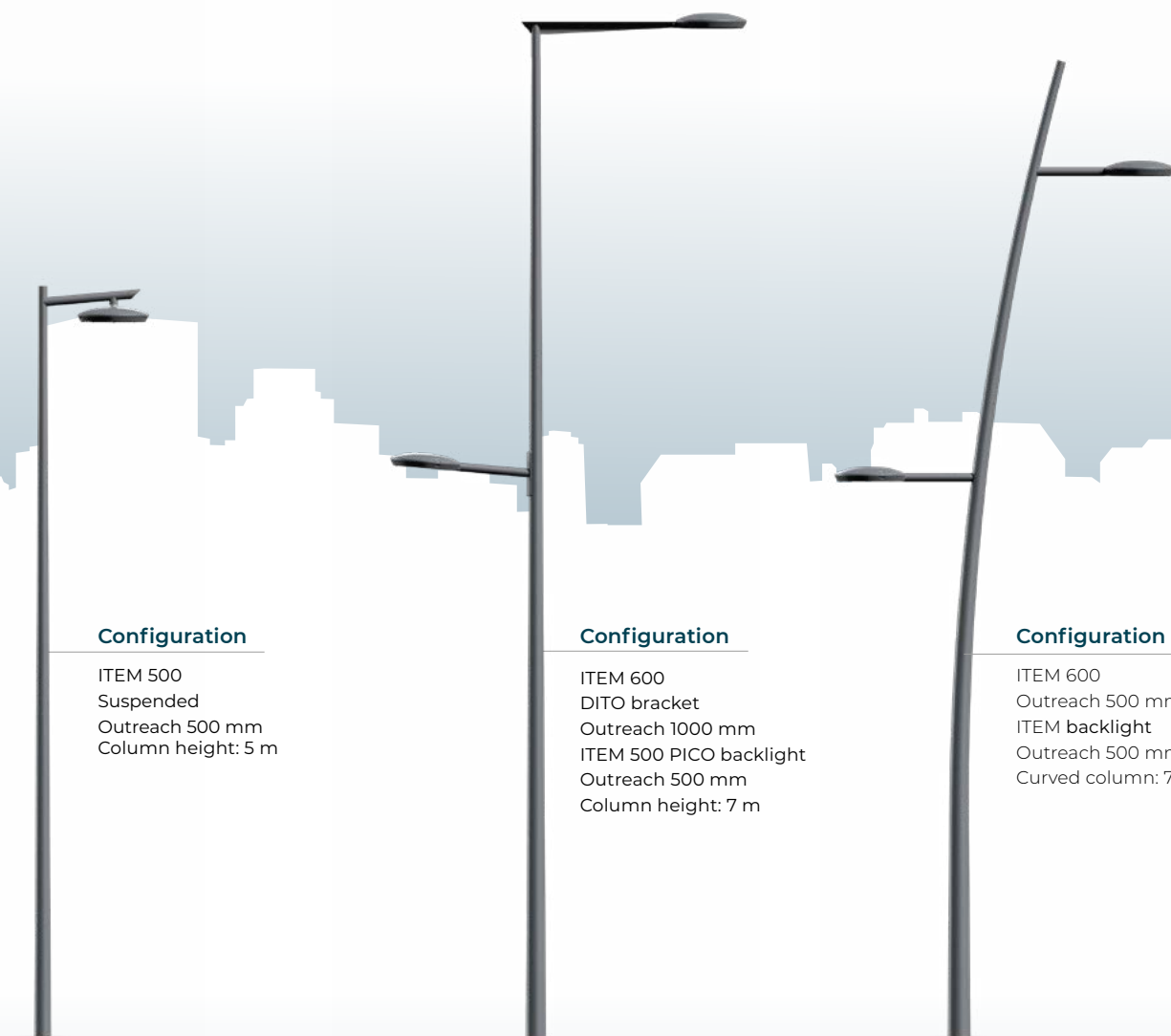Column height: 4 m

Configuration

ITEM 500
Top mounted
Deep bowl
Column height: 4 m

ECLATEC

ITEM

Design: STOA Architecture

ITEM Presented on a bracket ATOS, design STOA Architecture

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

ECLATEC
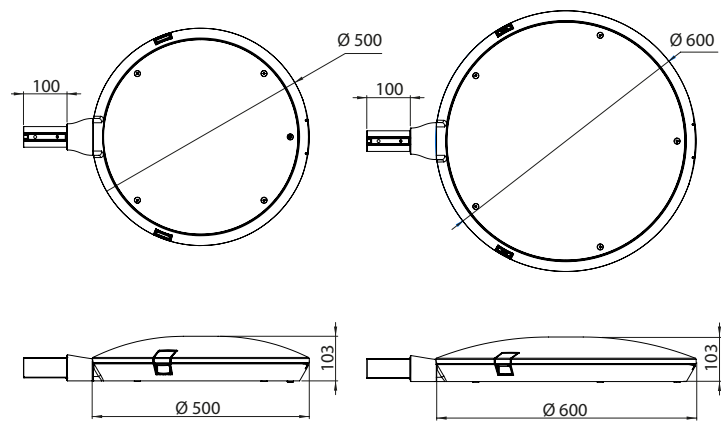
ITEM

Design: STOA Architecture

ITEM 500
Lateral
SMOOTH plate

DESCRIPTION

Product name	ITEM 500	ITEM 600
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)	
Finish	Polyester powder coating, any colour available	
Impact protection	Flat glass (VPC): IK 10	Flat glass (VPC): IK 10
Ingress Protection	IP66 Extruded silicone gasket Cable gland with anchoring device Breathing system with activated carbon filter	
Dimensions (dia x h)	500 x 103 mm	600 x 103 mm
Weight	9.7kg	12.2kg
Windage area	0.04m²	0.05m²
Materials used	Aluminium 61% Glass 20% Steel 8% Plastic 2% Other 9%	Aluminium 59% Glass 24% Steel 7% Plastic 3% Other 7%
Electrical class	Class I or II	

DIMENSIONS

ITEM 500

ITEM 600

Ø 500

100

Ø 600

100

103

Ø 500

103

Ø 600

ITEM 500
Suspended
TRAID plate

ITEM 500
Top
SMOOTH plate

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	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:** 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

Module ITEM
(ORALED type)

BLS strips

MECHANICAL INTERFACES

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

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 (cf p 280 - G)

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

Top or bi-top: fitting for pole Ø 60/62 mm. For pole Ø 76 mm top, optional spigot A (cf p 280)

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 mm 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

OPTIONS

	ITEM 500	ITEM 600
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	√*	-
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	√**	√**
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

* Only available for versions without frame
** Double smart-ready available for versions without frame
Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

Opening and closing	The luminaire cover can be opened without tools using the 2 flaps. The luminaire is held in the open position by a safety stay
Electric equipment maintenance	Quick electrical disconnection without tools Circuit board removable onsite without tools
Sources maintenance	Access to the LED sources after removal of the bowl

PLATES

SMOOTH plate

TRAID plate

HONEYCOMB plate

ECLATEC

ITEM

Design: STOA Architecture

ITEM 500
U-bracket 1 arm
HONEYCOMB plate

ITEM 500
U-bracket 2 arms
SMOOTH plate

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

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%
Electrical class	Class I or II

PLATES

SMOOTH plate

TRAID plate

HONEYCOMB plate

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
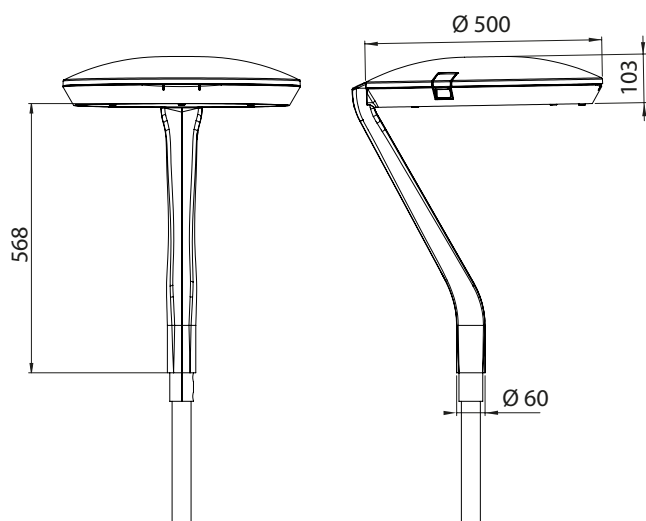
ITEM 500
U-bracket 4 arms
TRAID plate
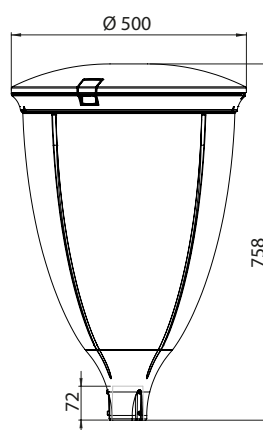
ITEM 500
Post top PHC bowl
SMOOTH plate

ITEM 500
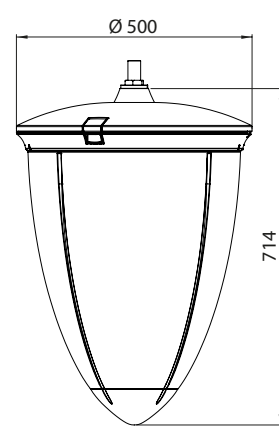Suspended PHC bowl
SMOOTH plate

DIMENSIONS

ITEM U-bracket 1 arm

Ø 500
103
568
Ø 60
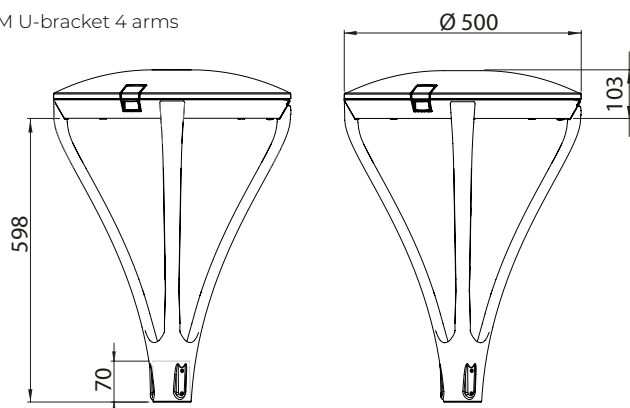
ITEM PHC post top

Ø 500
758
72

ITEM PHC suspended

Ø 500
714

ITEM U-bracket 2 arms

Ø 500
103
598
70
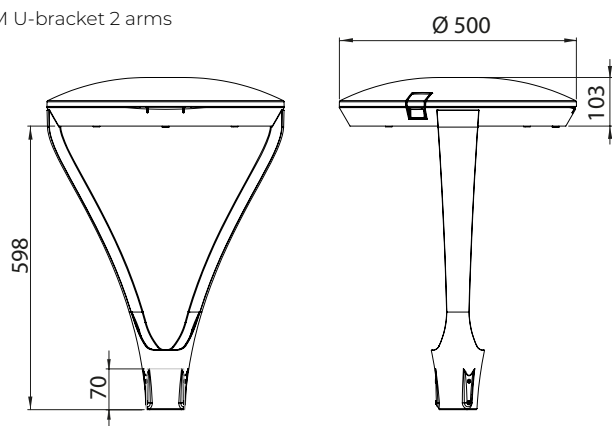
ACCESSORY

Deep clear polycarbonate bowl (PHC) with internal diffuser

ITEM U-bracket 4 arms

Ø 500
103
598
70

ECLATEC

TEO

Design: Jean-Michel WILMOTTE

Configuration

TEO 55
SURF bracket
Outreach 1000 mm
Column height: 7 m

Configuration

TEO 45
U-bracket
Column height: 5 m
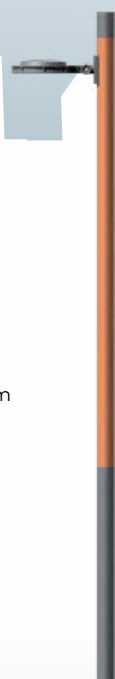
Configuration

TEO 45
TOTEM column
Column height: 4,7 m

Configuration

TEO 45
Curved column
Column height: 6 m

ECLATEC

TEO

Design: Jean-Michel WILMOTTE

TEO 45 S

DESCRIPTION

Product name	TEO 45	TEO 55
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	IK 08
Ingress Protection	IP66 Extruded silicone gasket Cable gland with anchoring device Breathing system with activated carbon filter	
Dimensions (dia x h)	435 x 90 mm	510 x 90 mm
Weight	8.6kg	10.7kg
Windage area	0.10m²	0.13m²
Materials used	Aluminium 59% Steel 8% Glass 20% Other 10% Plastic 3%	Aluminium 60% Steel 7% Glass 22% Other 8% Plastic 3%
Electrical class	Class I or II	

DIMENSIONS

TEO 45

Ø 435

90

TEO 55

Ø 510

90
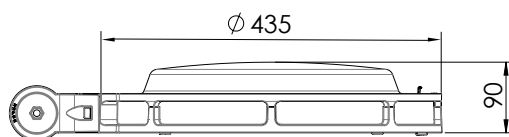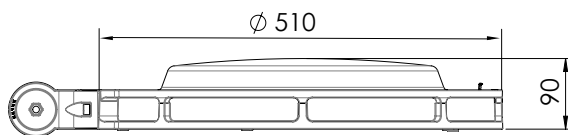
TEO 55 X

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	TEO 45	TEO 55
Sources	TEO 45 (ORALED 1 type)	TEO 55 (ORALED 2 type)
	BLS strips	
Colour temperature	ORALED type: 3000 K or 4000 K BLS: Amber*, 2200 K, 2400 K, 2700 K, 3000K, 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

TEO module   BLS strips

MECHANICAL INTERFACES

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

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

Top: fitting for pole Ø 60/62 mm.
For pole Ø 76 mm top, optional spigot A (cf p 280)
Luminaire tilted at 5°

U-bracket tilt at 5°:
male fastening for pole Ø 60/62 mm x 320 mm, h = 624 mm

Cast aluminium plate (cf p 280 - J)

Wall-mounted bracket

OPTIONS

	TEO 45	TEO 55
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	√	-
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	√	√
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

Electric equipment and source maintenance

Teo 45 S, 55 S {1}:
Direct access to the power supply after removing the cover using 4 captive screws (safety line)
Access to the LED sources after removal of the cover (safety line)
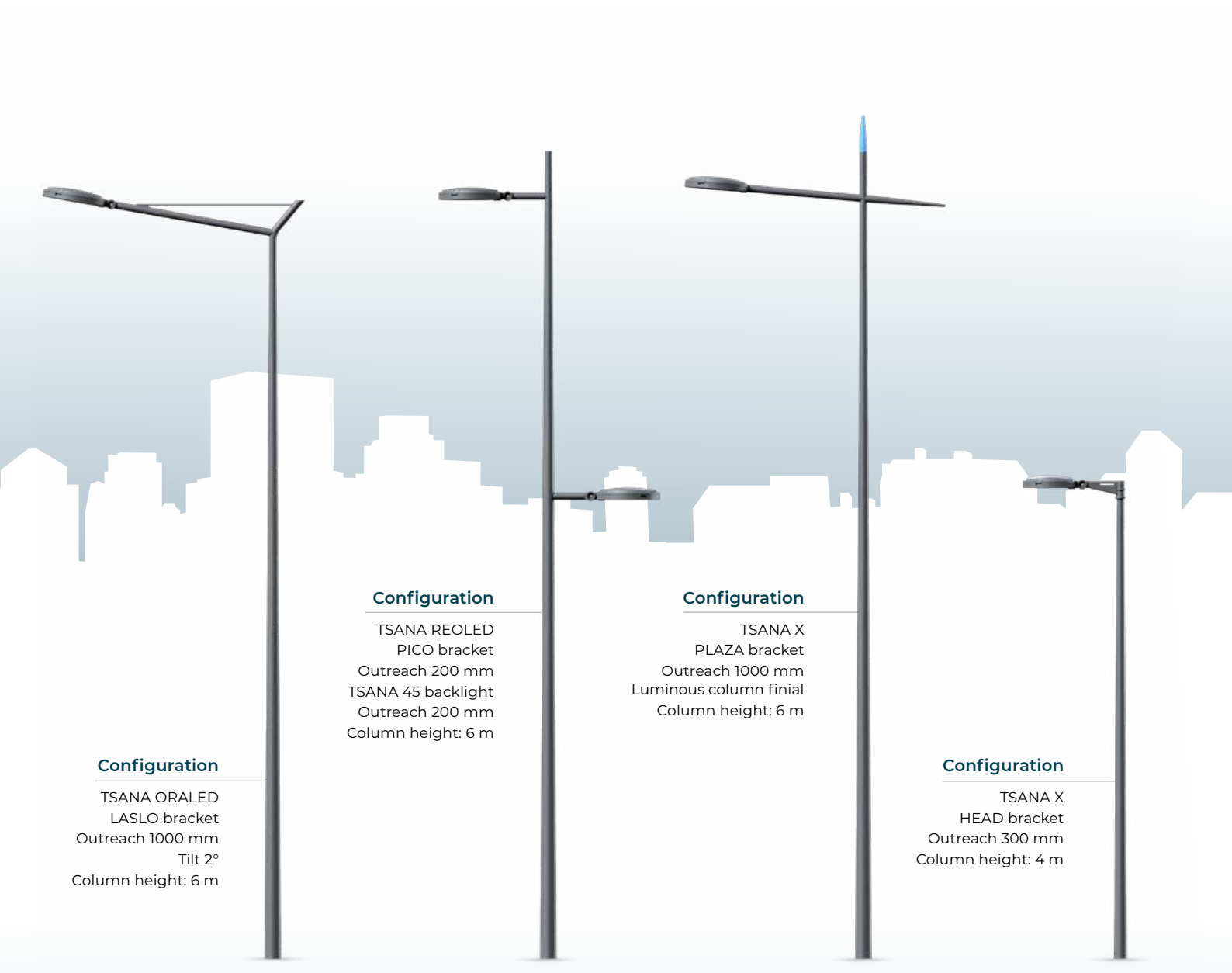
Teo 45 X, 55 X {2}:
The articulated cover opens without tools by pressing the tab: direct access to the power supply
The luminaire is held in the open position by a safety stay.
Quick electrical disconnection without tools.
Equipment circuit board removable onsite without tools
Access to the LED sources after removing the bowl (holding line)

1   2

ECLATEC

TSANA

Design: ECLATEC

Configuration

TSANA REOLED
PICO bracket
Outreach 200 mm
TSANA 45 backlight
Outreach 200 mm
Column height: 6 m

Configuration

TSANA X
PLAZA bracket
Outreach 1000 mm
Luminous column finial
Column height: 6 m

Configuration

TSANA ORALED
LASLO bracket
Outreach 1000 mm
Tilt 2°
Column height: 6 m

Configuration

TSANA X
HEAD bracket
Outreach 300 mm
Column height: 4 m

ECLATEC
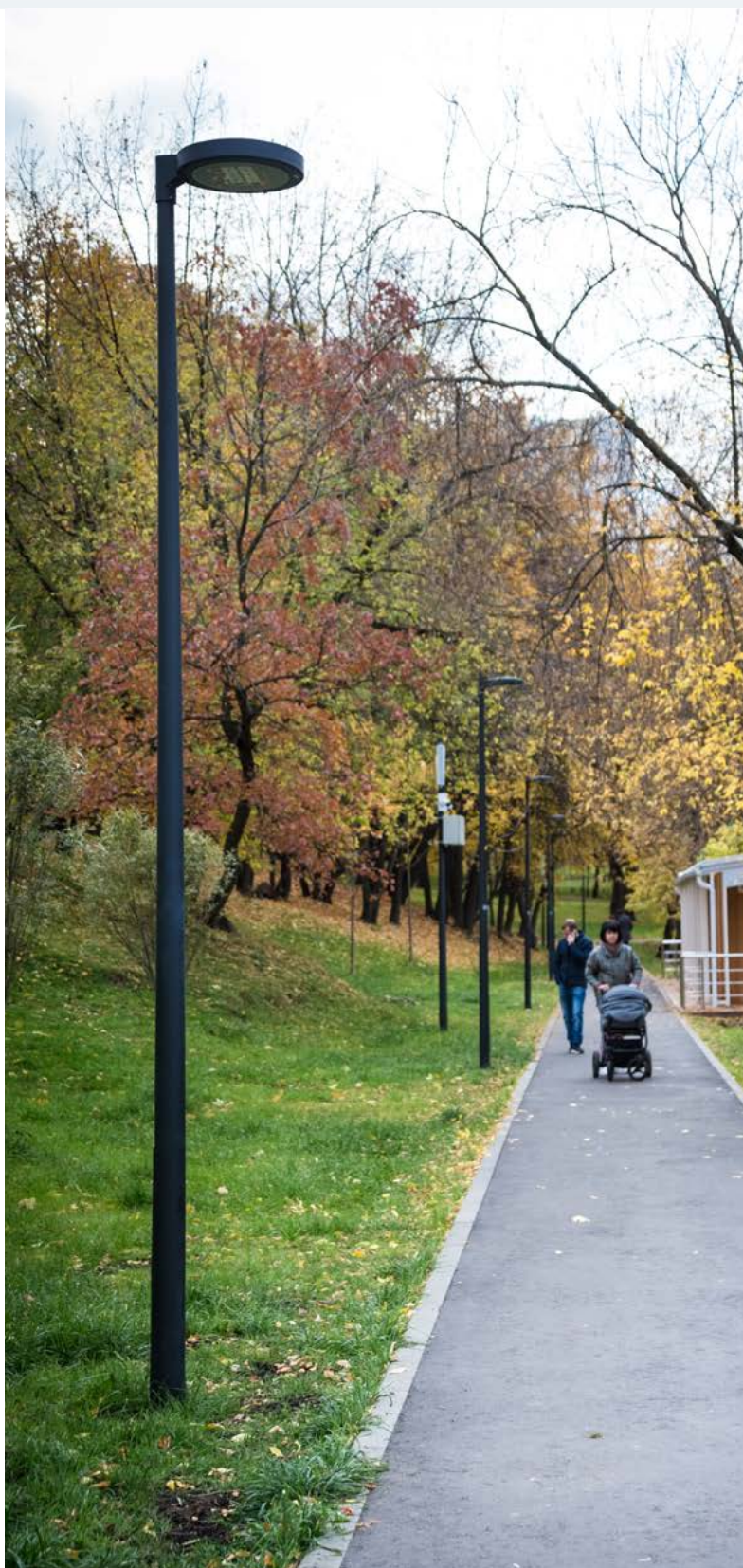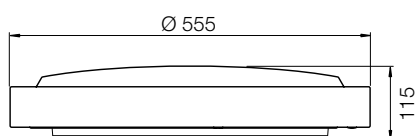
TSANA

Design: ECLATEC

TSANA 45
Presented with ORALED 1

DESCRIPTION

Product name	TSANA 45	TSANA 55
Housing	Body and frame in injected die-cast 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 (dia x h)	455 x 97 mm	555 x 115 mm
Weight	9.9kg	13.7kg
Windage area	0.05m²	0.06m²
Materials used	Aluminium 84% Steel 4% Plastic 3% Other 9%	Aluminium 86% Steel 4% Plastic 3% Other 7%
Electrical class	Class I or II	

DIMENSIONS

TSANA 45 - REOLED 1
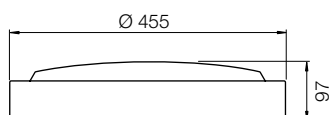
Ø 455

97

TSANA 55 - ORALED 2

Ø 555

115

TSANA 55
Presented with REOLED 2

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	TSANA 45	TSANA 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, 3000K, 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, 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

REOLED module

MECHANICAL INTERFACES

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**

Option: specific trim in die cast aluminium for tube exterior Ø 60 mm

OPTIONS

	TSANA 45	TSANA 55
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	√	-
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	√	√
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

| **Opening and closing**	Opening of the luminaire by 3 quarter-turn screws {1} The module swivels around a hinge in aluminium {2}
LED module maintenance	Direct access to the module Power supply by quick connectors Module removable

ECLATEC
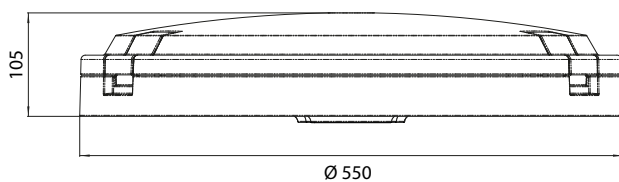
TSANA X

Design: ECLATEC

TSANA 45 X

DESCRIPTION

Product name	TSANA 45 X	TSANA 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 (dia x h)	460 x 105 mm	550 x 105 mm
Weight	9kg	12.5kg
Windage area	0.05m²	0.07m²
Materials used	Aluminium 75% Steel 8% Glass 6% Other 11%	Aluminium 73% Steel 5% Glass 12% Other 10%
Electrical class	Class I or II	

DIMENSIONS

TSANA 45 X

105

Ø 460

TSANA 55 X

105

Ø 550
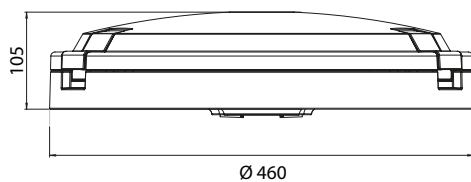
TSANA 55 X

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	TSANA 45 X	TSANA 55 X
Sources	XEOLED 1	XEOLED 2
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	**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

XEOLED module

MECHANICAL INTERFACES

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**

Option: specific trim in die cast aluminium for tube exterior Ø 60 mm

OPTION

	TSANA 45 X	TSANA 55 X
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	-	-
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	√	√
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

| Opening and closing	The luminaire cover can be opened without tools using the 2 flaps {1}. The luminaire is held in the open position by a safety stay {2}
LED module maintenance	Cutting of the power supply when the luminaire is opened by a dedicated ECLATEC connector. Quick electrical disconnection without tools Circuit board removable onsite without tools Complete LED module removable onsite without tools {3,4}

ECLATEC
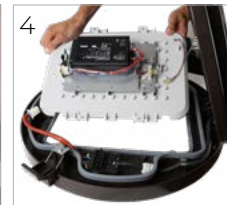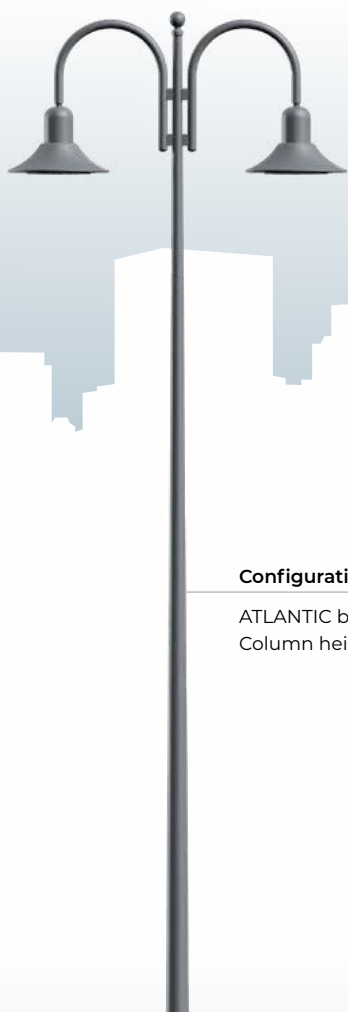
ODELIA

Design: GHM

Configuration

ATLANTIC bracket
Column height: 6 m
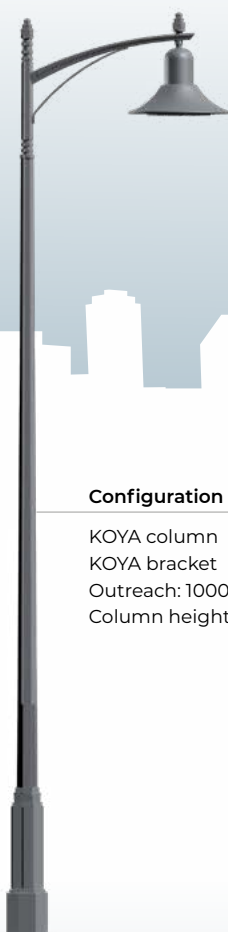
Configuration

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

Configuration

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

ECLATEC

ODELIA

Design: GHM
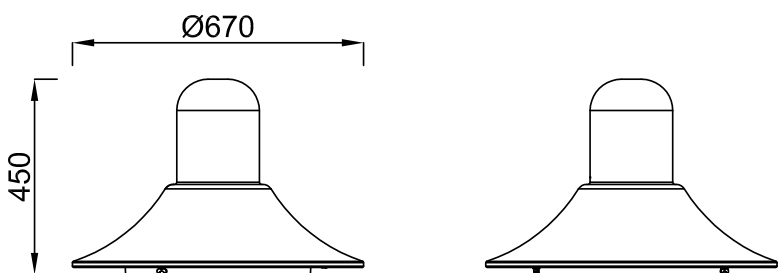

ODELIA 550
Presented with ORALED 1

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
Materials used	Aluminium 71% Steel 24% Plastic 4% Other 1%	Aluminium % Steel % Plastic % Other %
Electrical class	Class I or II	

DIMENSIONS

ODELIA 550

Ø550
350
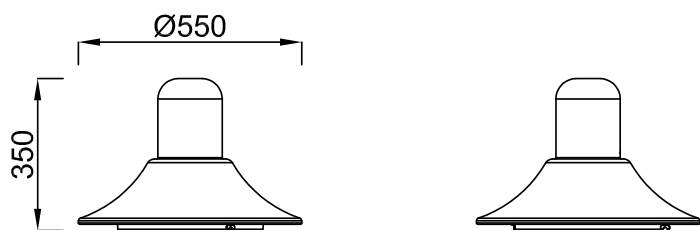
ODELIA 670

Ø670
450

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

OPTIONS

	ODELIA 550	ODELIA 670
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	-	-
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	√	√
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

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.

ECLATEC

LUMINAIRES
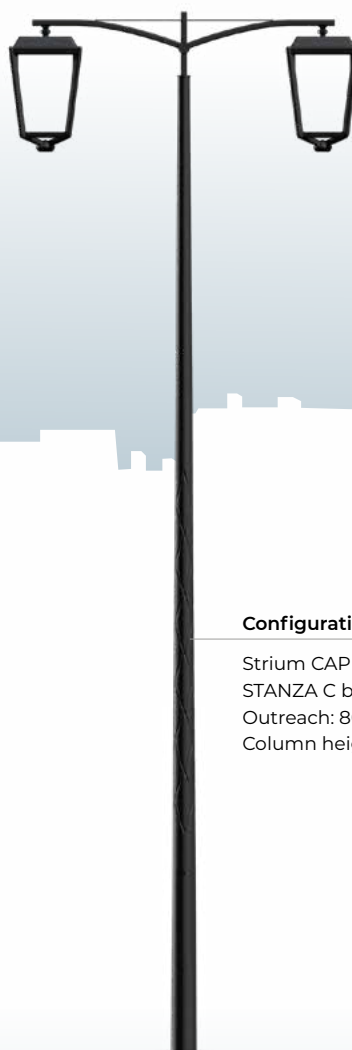
OXYA
Design: Jean-Michel WILMOTTE

Configuration

FESTONE column
Column height: 5 m

Configuration

column
Column height: 5 m

Configuration

Strium CAPITAN column
STANZA C bracket
Outreach: 800 mm
Column height: 6 m

ECLATEC
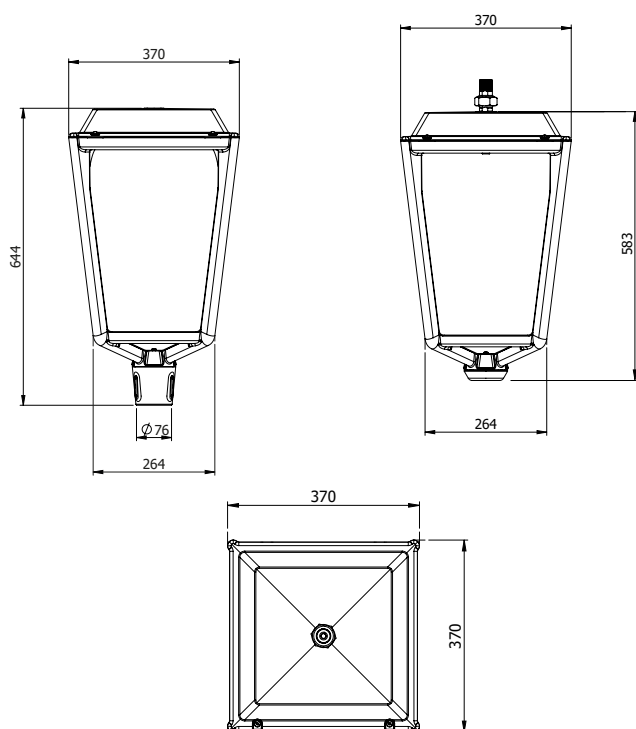
OXYA

Design: Jean-Michel WILMOTTE

OXYA
Post top version

DESCRIPTION

Product name	OXYA
Housing	Injection die-cast aluminium body
Bowl	**PPC:** Polycarbonate Flat **VPS:** Thermally tempered and screen printed flat glass
Finish	Polyester powder coating, any colour available
Impact protection	PPC: IK 10 - VPS: IK 09
Ingress Protection	IP66 Extruded silicone gasket Cable gland with anchoring device Breathing system with activated carbon filter
Dimensions	370 x 370 x 644 mm	370 x 370 x 583 mm
Weight	9.6kg
Windage area	0.14m²
Materials used	OXYA PCC Aluminium 73% Steel 9% Plastic 8% Other 10%	OXYA VPS Aluminium 66% Steel 8% Plastic 3% Other 9% Glass 14%
Electrical class	Class I or II

DIMENSIONS

OXYA top version

370

644

Ø 76

264

370

370

Suspended version

370

583

264

OXYA
Suspended version

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	OXYA
Sources	BLS strips
Colour temperature	2200 K, 2400 K, 2700 K, 3000 K, 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

BLS strips

MECHANICAL INTERFACES

Post top luminaire:
Covering fixture to a standard Ø 60/62 mm pole or to a specific Ø 76 mm pole with Ø 60 mm tip, Len 80 mm
Fixture at the top of the pole, locked using 6 M8 screws

Suspended luminaire:
Fixture using a Ø 27 pdg swivel joint mounted on the luminaire

MAINTENANCE

Opening and closing	Opening and closure using 2 quick-thread screws Cover supported by a safety stand
Sources maintenance	Direct access to the module once the cover is open, removable module Power supply using a quick connection

OPTIONS

	OXYA
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	√
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

ECLATEC

BOLA

Design: ECLATEC

Configuration

SPIRALE BA column
Column height: 6 m
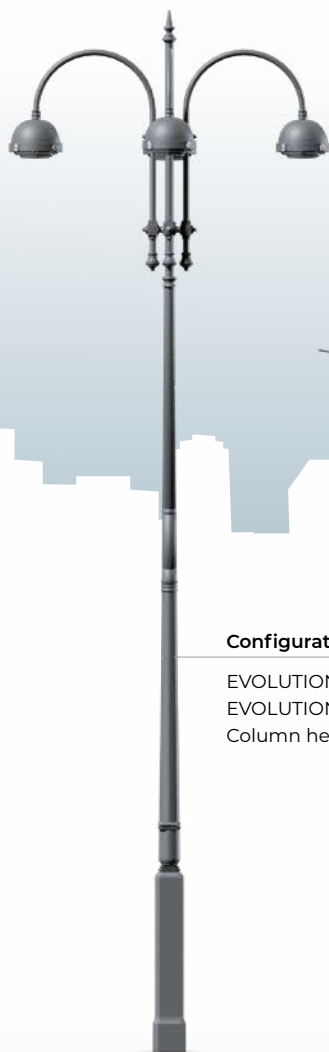
Configuration

EVOLUTION column
EVOLUTION 1 bracket
Column height: 7 m

Configuration

Catenary

ECLATEC

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	0,07 m²	0,13 m²
Materials used	Aluminium 59% Steel 18% Plastic 21% Other 2%	Aluminium 68% Steel 14% Plastic 16% Other 2%
Electrical class	Class I or II	

DIMENSIONS

BOLA 40

Ø 366
245
296
63
Ø 247
Ø 337
Ø 400

BOLA 55

Ø 516
326
392
63
Ø 397
Ø 487
Ø 550
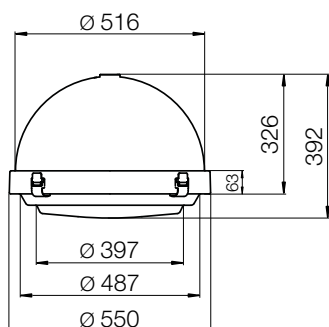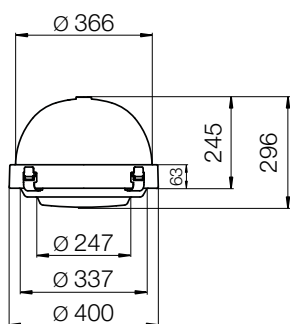
BOLA 55

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

MECHANICAL INTERFACES

SC: Suspended **catenary**

SC: Suspended **catenary with Zhaga connector**

SM: suspended with threaded Nippel Ø 27 pdg

OPTIONS

	BOLA 40	BOLA 55
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	-	-
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	-	-
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

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
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

ECLATEC

BEAUREGARD

Design: GHM

Configuration

ILE DE FRANCE column
Column height: 3.2 m

Configuration

COTTAGE column
Column height: 2.6 m
AZUR bracket
Outreach: 560 mm

Configuration

SPIRAL HA column
Column height: 5.5 m
Decorative bollard (option):
AXIOM
SPIRALE bracket
Outreach: 450 mm

ECLATEC
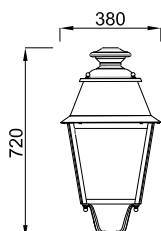
BEAUREGARD

Design: GHM

BEAUREGARD
Suspendu

DESCRIPTION

Product name	BEAUREGARD
Housing	Four-legged holder in injected aluminium Fitting and dome in stainless steel or copper (option)
Bowl	**PPC:** flat clear polycarbonate bowl, only for BLS version **PCC:** shallow clear polycarbonate **PCS:** shallow structured polycarbonate **PHC:** deep clear polycarbonate **PHS:** deep structured polycarbonate **PHO:** deep opaline polycarbonate
Finish	Stainless steel version: Polyester powder coating, standard colour RAL 9005. Other colours on request Copper fitting (option): polyester varnish
Impact protection	IK 10
Ingress Protection	IP 65 waterproofing in accordance with the standard EN 60 529 Extruded silicone gasket - high temperature on the body and glass Breathing system with activated carbon filter
Dimensions (l x h)	380 x 720 mm
Weight	10kg
Windage area	0.13m² (PPC) 0.20m² (PHC)
Materials used	Aluminium 38% Steel 47% Plastic 5% Other 10%
Electrical class	Class I or II

DIMENSIONS

Bowl PCS
Post top

380

720

Bowl PPC
Post top

380

720

Bowl PHC
Post top

380

720
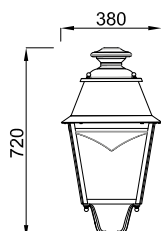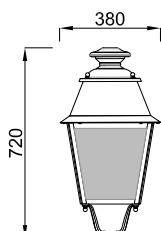
Bowl PCS
Suspended

380

785
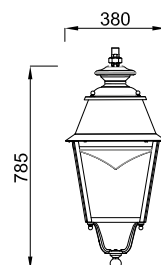
Bowl PPC
Suspended

380

785
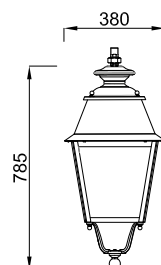
Bowl PHC
Suspended

380

785
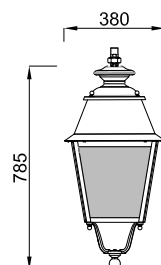
BEAUREGARD
Porté

BEAUREGARD
Cuivre

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	BEAUREGARD
Sources	SOMLED 1
	BLS strips
Colour temperature	SOMLED 1: 3000 K or 4000 K BLS strips: Amber*, 2200 K, 2400 K, 2700 K, 3000 K, 4000 K
Module color	SOMLED 1: Grey 2150 or 2900 REOLED: Grey 2900
Optical Distribution	ORALENS: ECL, ERS, ERL
	QUADRALENS: ERS, ERL,ECa, LRS, LRL
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

SOMLED 1

OPTIONS

	BEAUREGARD
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	√
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

MECHANICAL INTERFACES

Post top luminaire gliding hole for Ø 27 pdg (G3/4")
(see page 278 - K)
Optional post top Ø 27 pdg (G3/4") for Ø 60/62 mm pole

Suspended luminaire: threaded swivel joint Ø 27 pdg (G3/4")
(see page 278 - H)

MAINTENANCE

Opening and closing	Opening of the luminaire by 2 quarter-turn screws. Holding the luminaire cover in the open position, held by a steel cable.
LED module maintenance	Direct access to the LED module after opening the cover. Power supply by quick connectors. Removable module.

ECLATEC

CHENONCEAUX

Design: GHM

Configuration

MONTMARTRE 1 column
Column height: 3.54 m
MANOIR bracket
Outreach: 620 mm

Configuration

NAMUR column
Column height: 4.12 m

Configuration

VENDOME 1 column
Column height: 5.43 m
VENDOME bracket
Outreach: 885 mm
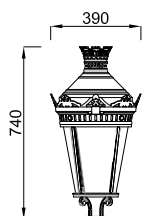
ECLATEC

CHENONCEAUX

Design: GHM

CHENONCEAUX
Bronze/copper

DESCRIPTION

Product name	CHENONCEAUX II	CHENONCEAUX III
Housing	Aluminium or bronze/copper	
Bowl	3 polycarbonate bowls aluminium version: PHC: deep clear polycarbonate bowl PHS: deep structured polycarbonate bowl PHO: deep opaline polycarbonate bowl	
Finish	Polyester powder coating, any colour available on aluminium. Varnish on copper	
Impact protection	IK 09	IK 10
Ingress Protection	IP66 Extruded silicone gasket - high temperature on the body and glass Breathing system with activated carbon filter	
Dimensions (dia x h) Version portée Version suspendue	390 x 740 mm 390 x 770 mm	500 x 920 mm 500 x 975 mm
Weight	7.2kg	15.3kg
Windage area	0.12m²	0.23m²

Materials used	Aluminium version	bronze/copper version	Aluminium version	bronze/copper version
Aluminium	78%	-	79%	-
Steel	6%	-	3%	-
Plastic	14%	15%	11%	15%
Other	2%	11%	7%	11%
Bronze	-	69%	-	69%
Copper	-	5%	-	5%

Electrical class	Class I or II	

DIMENSIONS

CHENONCEAUX II
Post top

390
740

CHENONCEAUX III
Post top

500
920

CHENONCEAUX II
Suspended

390
770
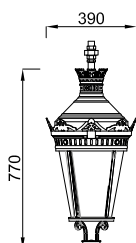
CHENONCEAUX III
Suspended

500
975

CHENONCEAUX
Aluminium

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	CHENONCEAUX II	CHENONCEAUX III
Sources	CHENONCEAUX II	CHENONCEAUX III (ORALED 2 type)
Colour temperature	3000 K or 4000 K	
Module color	Grey 2150 or 2900	
Optical Distribution	ORALENS: ECL, ERS, ERL	ORALENS: ECL, ERS, ERL, LRM
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

CHENONCEAUX III
(ORALED 2 type)

MECHANICAL INTERFACES

Post top: clearance hole for a 27 mm gas thread
(see page 278 - K)

Suspended: standard, with threaded swivel joint Ø 27 pdg
(G3/4") (see page 278 - H)

MAINTENANCE

Opening and closing	Opening of the cover by a screw.
LED module maintenance	Quick connectors to remove the power supply unit. Direct access to the module, removable. Holding the cover open with a prop.

OPTIONS

CHENONCEAUX	II	III
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	-	-
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	√	√
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

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
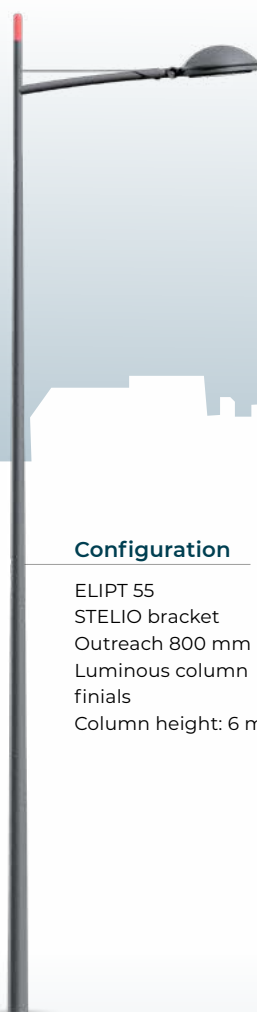
Configuration

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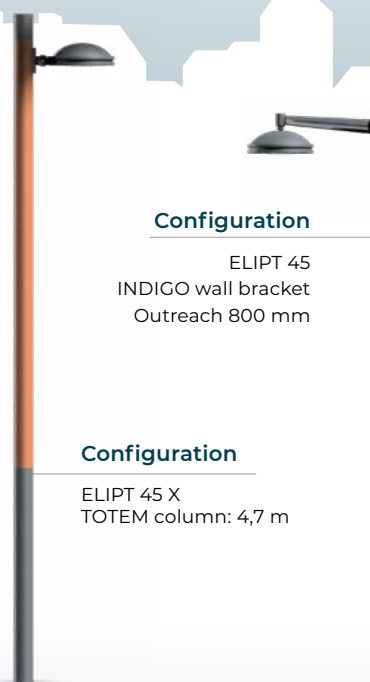
Configuration

ELIPT 45
INDIGO wall bracket
Outreach 800 mm

Configuration

ELIPT 45 X
TOTEM column: 4,7 m

ECLATEC

ELIPT

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
Materials used	Aluminium 84% Steel 4% Plastic 3% Other 9%	Aluminium 86% Steel 4% Plastic 3% Other 7%
Electrical class	Class I or II	

DIMENSIONS

Elipt 45 - REOLED 1
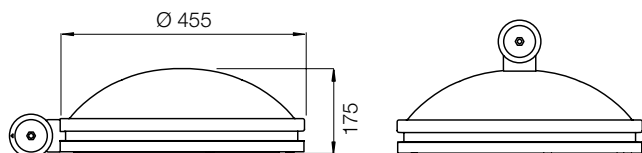
Ø 455

175

Elipt 55 - ORALED 2

Ø 555

215
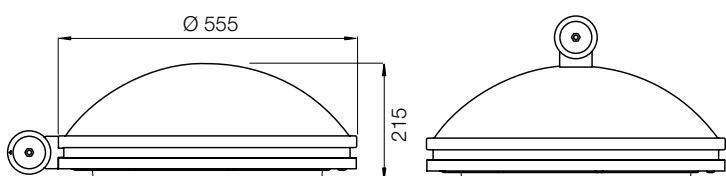
ELIPT 55
Presented with REOLED 2

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

MECHANICAL INTERFACES

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: Suspendue Rotule (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

OPTIONS

	ELIPT 45	ELIPT 55
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	√	-
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	√	√
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

Opening and closing	Opening of the luminaire by 3 quarter-turn screws The module swivels around a hinge in aluminium
LED module maintenance	Direct access to the module. Power supply by quick connectors. Module removable

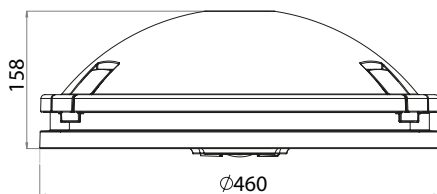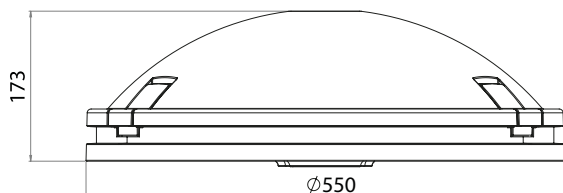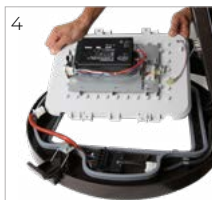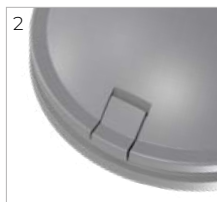ECLATEC

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
Materials used	Aluminium 75% Steel 8% Glass 6% Other 11%	Aluminium 73% Steel 5% Glass 12% Other 10%
Electrical class	Class I or II	

DIMENSIONS

Elipt 45 X

158

Ø460

Elipt 55 X

173

Ø550

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

MECHANICAL INTERFACES

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: Suspendue Rotule (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

OPTIONS

	ELIPT 45 X	ELIPT 55 X
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	-	-
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	√*	√*
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

* Double Smart-ready available
Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

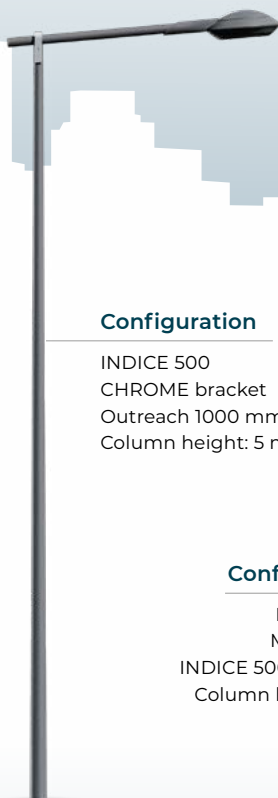| Opening and closing	The luminaire cover can be opened without tools using the 2 flaps. The luminaire is held in the open position by a safety stay {1 and 2}
Sources maintenance	Automatic cutting of the power supply when the luminaire is opened by a dedicated ECLATEC connector. Quick electrical disconnection without tools. Circuit board removable onsite without tools. Complete LED module removable onsite without tools {3, 4}

ECLATEC

INDICE

Design: ECLATEC

Configuration

INDICE 620
PARA wall bracket
Outreach 800 mm

Configuration

INDICE 500
CHROME bracket
Outreach 1000 mm
Column height: 5 m

Configuration
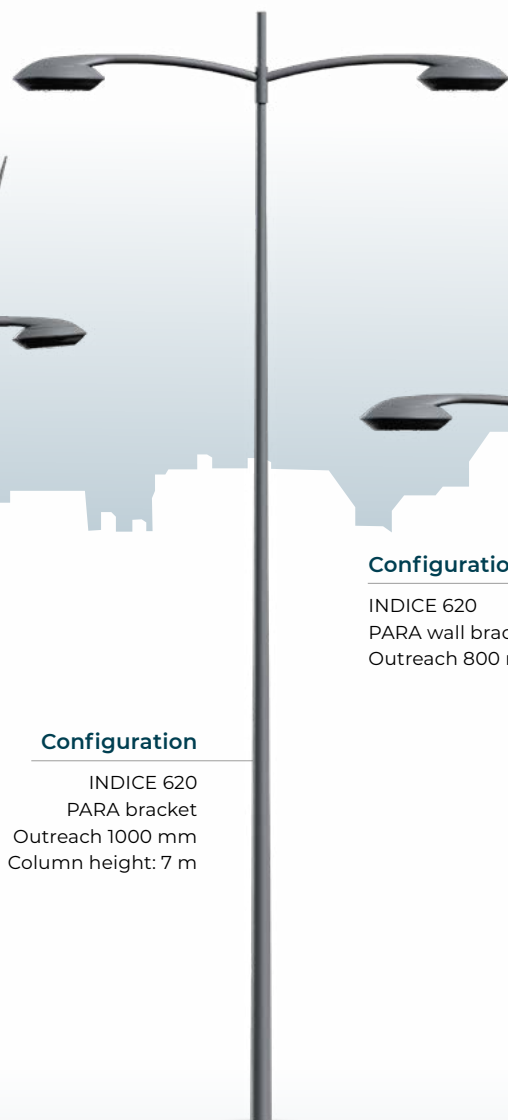
INDICE 620
PARA bracket
Outreach 1000 mm
Column height: 7 m

Configuration

INDICE 500
U-bracket
Column height: 5 m

Configuration

INDICE 620
Mât CINTRE
INDICE 500 backlight
Column height: 6 m

ECLATEC

INDICE

Design: ECLATEC

INDICE U-bracket 500
Presented with SEOLED 1

DESCRIPTION

Product name	INDICE 500	INDICE 620
Housing	Body and frame in injected die-cast aluminium Aluminium domes: Graphic and Spiral	
Bowl	ORALED: in PMMA / SEOLED: in glass	
Finish	Polyester powder coating, any colour available	
Impact protection	ORALED: IK 08 / SEOLED: IK 10	
Ingress Protection	IP66 Pneumatic silicone gasket Cable gland with anchoring device Breathing system with activated carbon filter	
Dimensions (dia x h)	500 x 195 mm	620 x 235 mm
Weight	6.6kg	9.3kg
Windage area	0.06m²	0.09m²
Materials used	Aluminium 86%, Plastic 6% Steel 1% Other 7%	Aluminium 87% Plastic 6% Steel 1% Other 6%
Electrical class	Class I or II	
Wiring	Luminaire pre-wired in the factory	

DIMENSIONS

GRAPHIC dome
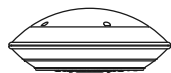
INDICE 500
Ø 500
195
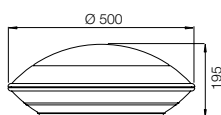
INDICE 620
Ø 620
235
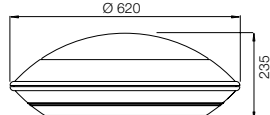
SPIRAL dome

U-bracket 500
Ø 500
748
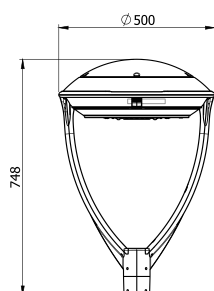
U-bracket 620
Ø 620
913
100
Ø 64
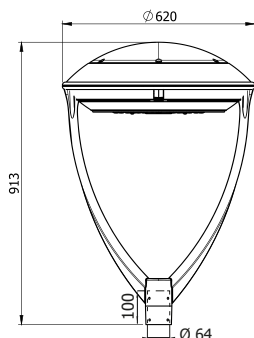
INDICE 620
Presented with ORALED 2

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	INDICE 500	INDICE 620
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

SC: Suspended spoon coupled with sleeve to suit Ø 60 mm bracket arm (Graphic dome) (cf p 280 - E, F)

L: Side entry fitting for bracket end with external Ø 60 mm (any dome)(cf p 280 - E, F)

Top: Top fitting for pole Ø 60/62 mm (any dome)(cf p 280 -D)

LL: Lateral U-bracket (any dome) (cf p 280 - E, F)

SL: Lateral suspended for bracket end with external Ø 60 mm (Graphic dome)

LP: Top mounted U-bracket Ø 60 mm/ l=100 mm (any dome) (cf p 280 - A)

SM: Suspended with Ø ¾" thread (any dome) (cf p 280 - H)

SRL: Suspended with swivel joint (any dome) (cf p 280 - E, F)

CATELUX: Ø ¾" thread fixing. Fixation on 5 to 14 mm diameter mechanical cable

OPTIONS

	INDICE 500	INDICE 620
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	-	-
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	√	√
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

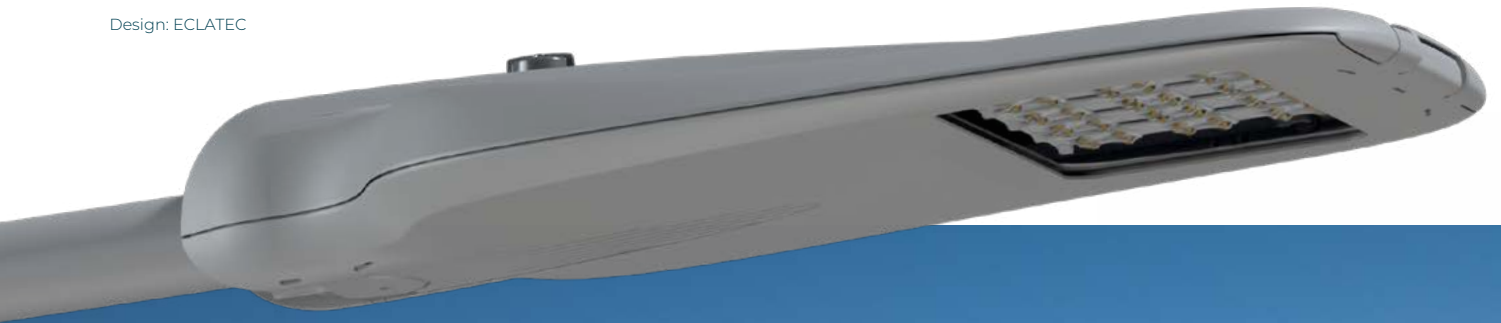| **Opening and closing**	Opening of the luminaire without tools by pressing the button incorporated into the luminaire body {1} The luminaire is held in the open position by a safety stay {2}
Maintenance du module LED	Direct access to the module Power supply by quick connectors Module removable

1

2

ECLATEC

NOA

Design: ECLATEC

Configuration

NOA 1
Column height: 4 m

Configuration

NOA 1
PICO bracket
Outreach 150 mm
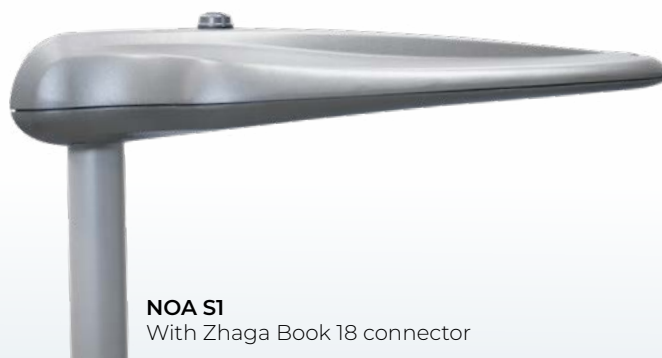NOA X1 backlight
Column height: 5 m

Configuration

NOA 2
AVEO bracket
Outreach 1000 mm
Column height: 7 m

Configuration

NOA 2
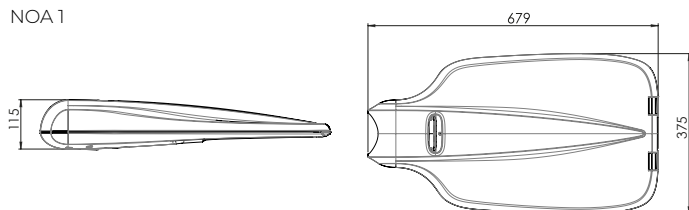PICO bracket
Outreach 1000 mm
Column height: 6 m

ECLATEC

NOA

Design: ECLATEC
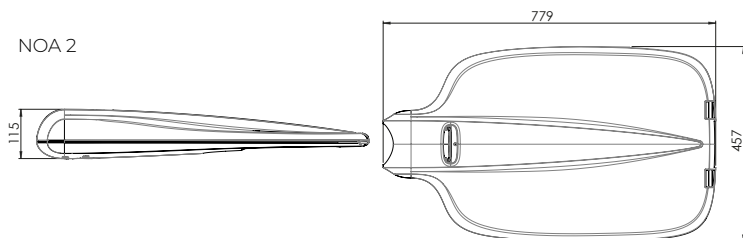
NOA S1
With Zhaga Book 18 connector

DESCRIPTION

Product name	NOA 1	NOA 2
Segmentation	Models available in 3 levels: - 1E: Unique version for standard use - 2E A: Fixed settings for night dimming - 2E B: Fixed current setting at 700 mA, without options - 3E: Most efficient and customizable version	
Smart-ready®	Luminaire fitted with Zhaga book 18 connector (3E version), allowing the direct connection of "smart" modules. Luminaire without connector available upon request.	
Housing	Injection die-cast aluminium body	
Bowl	Thermally toughened glass	
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 (L x l x h)	679 x 375 x 115 mm	779 x 457 x 115 mm
Weight	8.1kg	10.2kg
Windage area	0.07m²	0.08m²
Materials used	Aluminium 72% Glass 8% Steel 6% Plastic 1% Other 13%	
Electrical class	Class I or II	
Wiring	Optional for 2E and 3E versions	

DIMENSIONS

NOA 1

115

679

375

NOA 2

115

779

457

NOA X2
With Zhaga Book 18 connector

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	NOA 1	NOA 2
Sources	BLS strips	
	1E: 2 BLS12, 3 BLS12 2E: 2 BLS8, 2 BLS12, 3 BLS12 3E: 1 BLS8, 2 BLS8, 2 BLS12, 3 BLS12	3 BLS12, 4 BLS12, 5 BLS12, 6 BLS12
Colour temperature	Amber*, 2200 K, 2400 K, 2700 K, 3000K, 4000 K	
Optical Distribution	**QUADRALENS**	
	1E: ERS, ERL 2E/ 3E: ERS, ERE, ERL, ECa, LRL, LRS, ETS, PFA, EPD, EPG	1E: ERS, ERL 2E/ 3E: ERS, ERE, ERL, ECa, LRL, LRS, PFA
Backlight shield option	Medium or strong cut-off	
Power supply current	**1E/2EB:** 700mA , **2EA:** ANF[1], **3E:** up to 700 mA[2]	
Driver protection	10 kV: 3E version 8 kV: version 2E A/B 4 kV: 1E version only NOA 1	

*Approx. 1800K, only on BLS12 as standard   **(1) ANF:** Unique program for driver, Fixed Night Dimming: 23 h – 5 h at 350 mA and 700 mA for the remaining time, **(2)** 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

OPTIONS

3E version:	NOA 1	NOA 2
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	√	-
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	√*	√*
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

* Double Smart-ready only available for X versions
Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MECHANICAL INTERFACES

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

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}

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

ECLATEC

ZELDA

Design: ECLATEC

Configuration
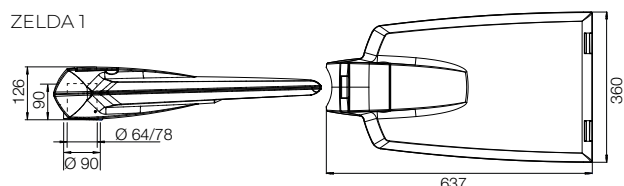
ZELDA 1
GALA column
Column height: 5 m

Configuration

ZELDA 2
MUSA wall-bracket
Outreach 1000 mm

Configuration

ZELDA 1
Column height: 4 m

Configuration

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

ECLATEC

ZELDA

Design: ECLATEC

ZELDA 1

DESCRIPTION

Product name	ZELDA 1	ZELDA 2	ZELDA 3
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	Thermally tempered and screen printed flat glass		
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 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
Materials used	Aluminium 69% Glass 9% Steel 5%, Plastic 1% Other 16%	Aluminium 66% Glass 11% Steel 4%, Plastic 2% Other 17%	Aluminium 67% Glass 12% Steel 2% Plastic 1% Other 18%
Electrical class	Class I or II		
Wiring	In option for 2E and 3E versions		

DIMENSIONS

ZELDA 1

126 90 Ø 64/78 Ø 90 360 637

ZELDA 2

126 90 Ø 64/78 Ø 90 430 718

ZELDA 3

126 90 Ø 64/78 Ø 90 470 802
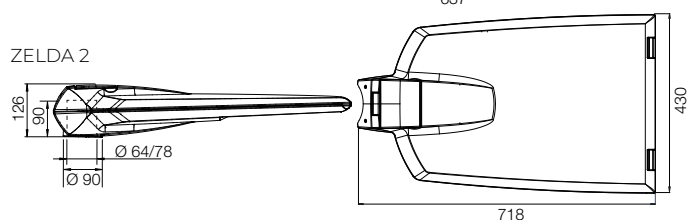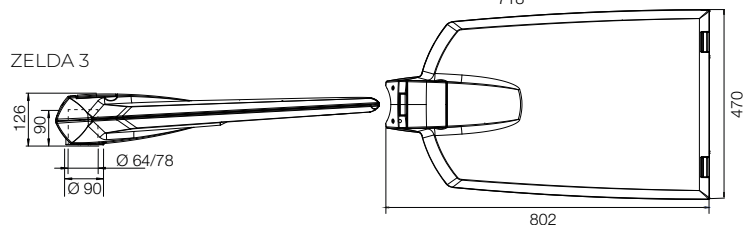
ZELDA 2

ZELDA 3

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	ZELDA 1	ZELDA 2	ZELDA 3
Sources	BLS strips **1E:** 2 BLS12 **2E:** 2 BLS8, 2 BLS12 **3E:** 1 BLS8, 2 BLS8, 2 BLS12	3 BLS12 4 BLS12 5 BLS12	4 BLS8+ 4 BLS12 5 BLS8+ 5 BLS12 6 BLS8+ 6 BLS12
Colour temperature	Amber*, 2200 K, 2400 K, 2700 K, 3000K, 4000 K		
Optical Distribution	**QUADRALENS** **1E:** ERS, ERL **2E/ 3E:** ERS, ERE, ERL, ECa, LRL, LRS, ETS, PFA, EPD, EPG	**1E:** ERS, ERL **2E/ 3E:** ERS, ERE, ERL, ECa, LRL, LRS, PFA	
Backlight shield option	Medium or strong cut-off		
Power supply current	**1E/2EB:** 700mA , **2EA:** ANF[1], **3E:** up to 700 mA[2]		
Driver protection	10 kV: 3E version 8 kV: version 2E A/B 4 kV: 1E version only ZELDA 1		

*Approx. 1800K, only on BLS12 as standard **(1)** ANF: Unique program for driver, Fixed Night Dimming: 23 h – 5 h at 350 mA and 700 mA for the remaining time, **(2)** 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

OPTIONS

3E version:	ZELDA 1	ZELDA 2	ZELDA 3
At the lighting point			
Adjustable current (driver or bottom of the pole)	√	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√	√
Built-in detection	√	-	-
Remote detection	√	√	√
DALI protocol	√	√	√
Smart-Ready® configuration (ZD4i)	√*	√*	√*
In a local network			
Communicating detection with pilot wire	√	√	√
Wireless communication sensing	√	√	√
Remote management			
WIZARD CMS system	√	√	√

* Double Smart-ready only available for X versions
Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MECHANICAL INTERFACES

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

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}

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

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
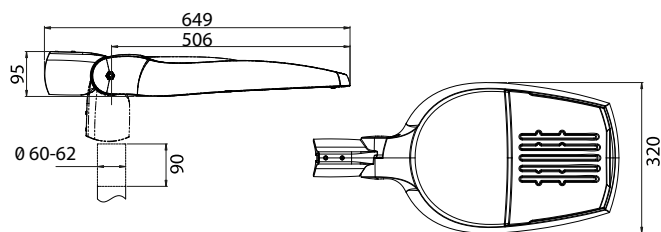STELIUM 1 backlight
PYRAMID bracket
Column height: 6 m

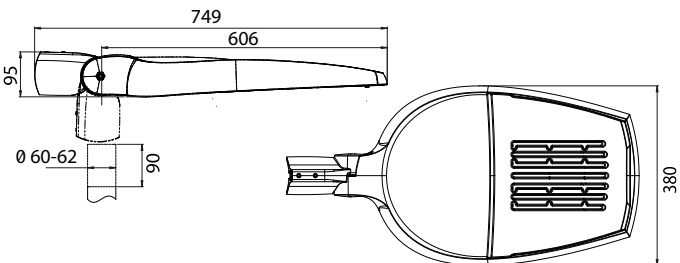ECLATEC

STELIUM

Design: ECLATEC

STELIUM S1

DESCRIPTION

Product name	STELIUM 1		STELIUM 2	
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	S version: bi-material grey and transparent bowl in PC X version: thermally toughened glass			
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 (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	
Materials used	S version	X version	S version	X version
Aluminium Plastic Steel Other Glass	70% 11% 9% 10% -	72% 1% 9% 10% 8%	64% 13% 8% 15% -	68% 1% 8% 13% 10%
Electrical class	Class I or II			
Wiring	Optional for 2E and 3E versions			

DIMENSIONS

STELIUM 1

STELIUM 2

STELIUM X2

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	STELIUM 1	STELIUM 2
Sources	BLS strips	
	1E: 2 BLS12, 3 BLS12 2E: 2 BLS8, 2 BLS12, 3 BLS12 3E: 1 BLS8, 2 BLS8, 2 BLS12, 3 BLS12	2 BLS12, 3 BLS12, 4 BLS12,
Colour temperature	Amber*, 2200 K, 2400 K, 2700 K, 3000K, 4000 K	
Optical Distribution	**QUADRALENS**	
	1E: ERS, ERL 2E/ 3E: ERS, ERE, ERL, ECa, LRL, LRS, ETS, PFA, EPD, EPG	1E: ERS, ERL 2E/ 3E: ERS, ERE, ERL, ECa, LRL, LRS, PFA
Backlight shield option	Medium or strong cut-off	
Power supply current	**1E/2EB:** 700mA , **2EA:** ANF[1], **3E:** up to 700 mA[2]	
Driver protection	10 kV: 3E version 8 kV: 1E and 2E versions [A/B] 4 kV: 1E version only STELIUM 1	

*Approx. 1800K, only on BLS12 as standard   **(1) ANF:** Unique program for driver, Fixed Night Dimming: 23 h – 5 h at 350 mA and 700 mA for the remaining time, **(2)** 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

OPTIONS

3E version:	STELIUM 1	STELIUM 2
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	√*	-
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	√**	√**
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

* Only available for S1 version   ** Double Smart-ready only available for X versions
Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MECHANICAL INTERFACES

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°

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.
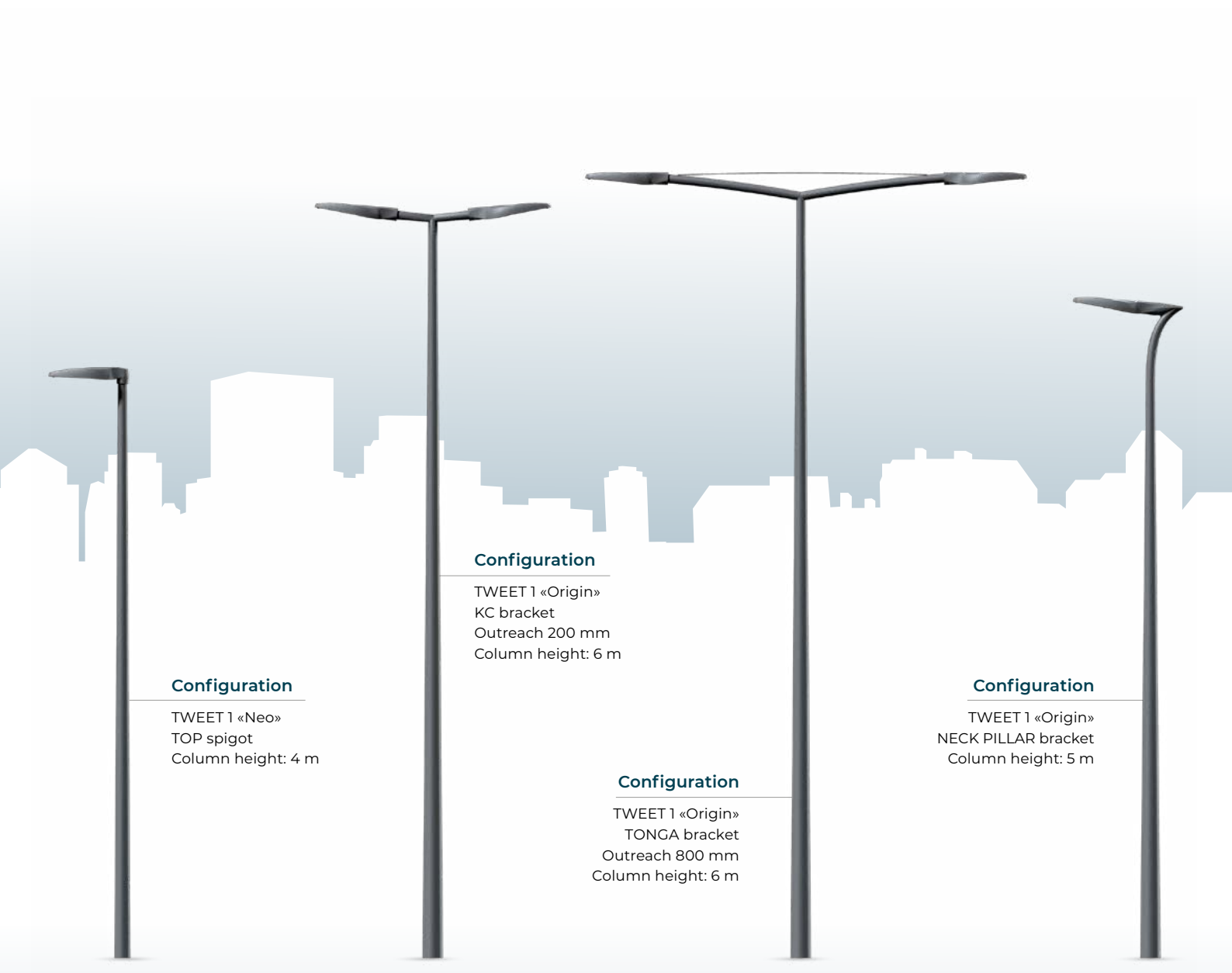Quick electrical disconnection without tools. Circuit board removable onsite without tools. {2}

ECLATEC

TWEET

Design: ECLATEC

Configuration

TWEET 1 «Origin»
KC bracket
Outreach 200 mm
Column height: 6 m

Configuration

TWEET 1 «Neo»
TOP spigot
Column height: 4 m

Configuration

TWEET 1 «Origin»
NECK PILLAR bracket
Column height: 5 m

Configuration

TWEET 1 «Origin»
TONGA bracket
Outreach 800 mm
Column height: 6 m

ECLATEC

TWEET «Neo»

Design: ECLATEC

TWEET S1 «Neo»
Top version

DESCRIPTION

Product name	TWEET 1 «Neo»	TWEET 2 «Neo»
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	S version: bi-material grey and transparent bowl in PC X version: thermally toughened glass	
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 (L x l x h)	572 x 320 x 92 mm	673 x 380 x 92 mm
Weight	S1: 4.8kg / X1: 5.8kg	S2: 6.6kg / X2: 7.8kg
Windage area	0.05m²	0.06m²

Materials used	S version	X version	S version	X version
Aluminium	70%	72%	64%	68%
Plastic	11%	1%	13%	1%
Steel	9%	9%	8%	8%
Other	10%	10%	15%	10%
Glass	-	8%	-	13%

Electrical class	Class I or II	
Wiring	Optional for 2E and 3E versions	

DIMENSIONS

TWEET 1 «Neo»

572
92
100
Ø 64
320

TWEET 2 «Neo»

673
92
100
Ø 64
380
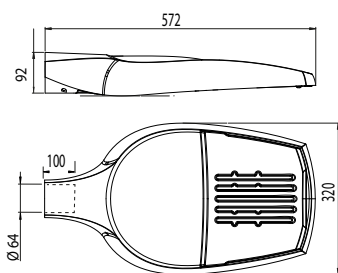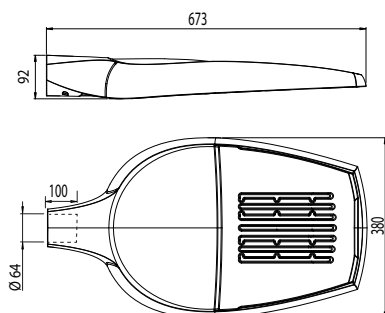
TWEET X2 «Neo»

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	TWEET 1 «Neo»	TWEET 2 «Neo»
Sources	BLS strips	
	1E: 2 BLS12, 3 BLS12 **2E:** 2 BLS8, 2 BLS12, 3 BLS12 **3E:** 1 BLS8, 2 BLS8, 2 BLS12, 3 BLS12	2 BLS12 3 BLS12 4 BLS12
Colour temperature	Amber*, 2200 K, 2400 K, 2700 K, 3000K, 4000 K	
Optical Distribution	**QUADRALENS**	
	1E: ERS, ERL **2E/ 3E:** ERS, ERE, ERL, ECa, LRL, LRS, ETS, PFA, EPD, EPG	**1E:** ERS, ERL **2E/ 3E:** ERS, ERE, ERL, ECa, LRL, LRS, PFA
Backlight shield option	Medium or strong cut-off	
Power supply current	**1E/2EB:** 700mA , **2EA:** ANF[1], **3E:** up to 700 mA[2]	
Driver protection	10 kV: 3E version 8 kV: 1E and 2E versions [A/B]	

*Approx. 1800K, only on BLS12 as standard   **(1) ANF:** Unique program for driver, Fixed Night Dimming: 23 h – 5 h at 350 mA and 700 mA for the remaining time, **(2)** 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

OPTIONS

3E version:	TWEET 1	TWEET 2
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	√*	-
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	√	√
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

* Only available for S1 version
Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MECHANICAL INTERFACES

S1/X1 Top: post top for pole Ø 60/Ø 62 mm x 70 mm and pole Ø 76 mm x 90 mm

S1/X1, S2/X2, S3/X3 side entry: side female sleeve for Ø 60/Ø 62 mm x 100 mm (2) (fastener kit available as an option)

S2/X2, S3/X3 post top bracket tilt 5°: female fastening for pole Ø 60/62 mm x 100 mm (3), Ø 42 mm and Ø 49 mm
For pole Ø 76 mm top, optional spigot A (see page 278)

Neck pillar bracket tilt 5°: male fastening for pole Ø 60/62 mm x 320 mm (cf p 280 - D).
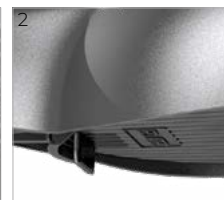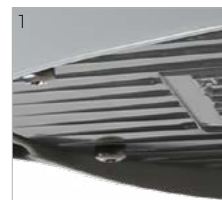
Luminaire tilt at 2°

MAINTENANCE

Maintenance of the equipment and LEDs

TWEET «Neo» S1, S2:
Direct access to the power supply and BLS strips after removal of the bowl. (4 concealed screws). Removable circuit board (retention line) {1}

TWEET «Neo» 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}
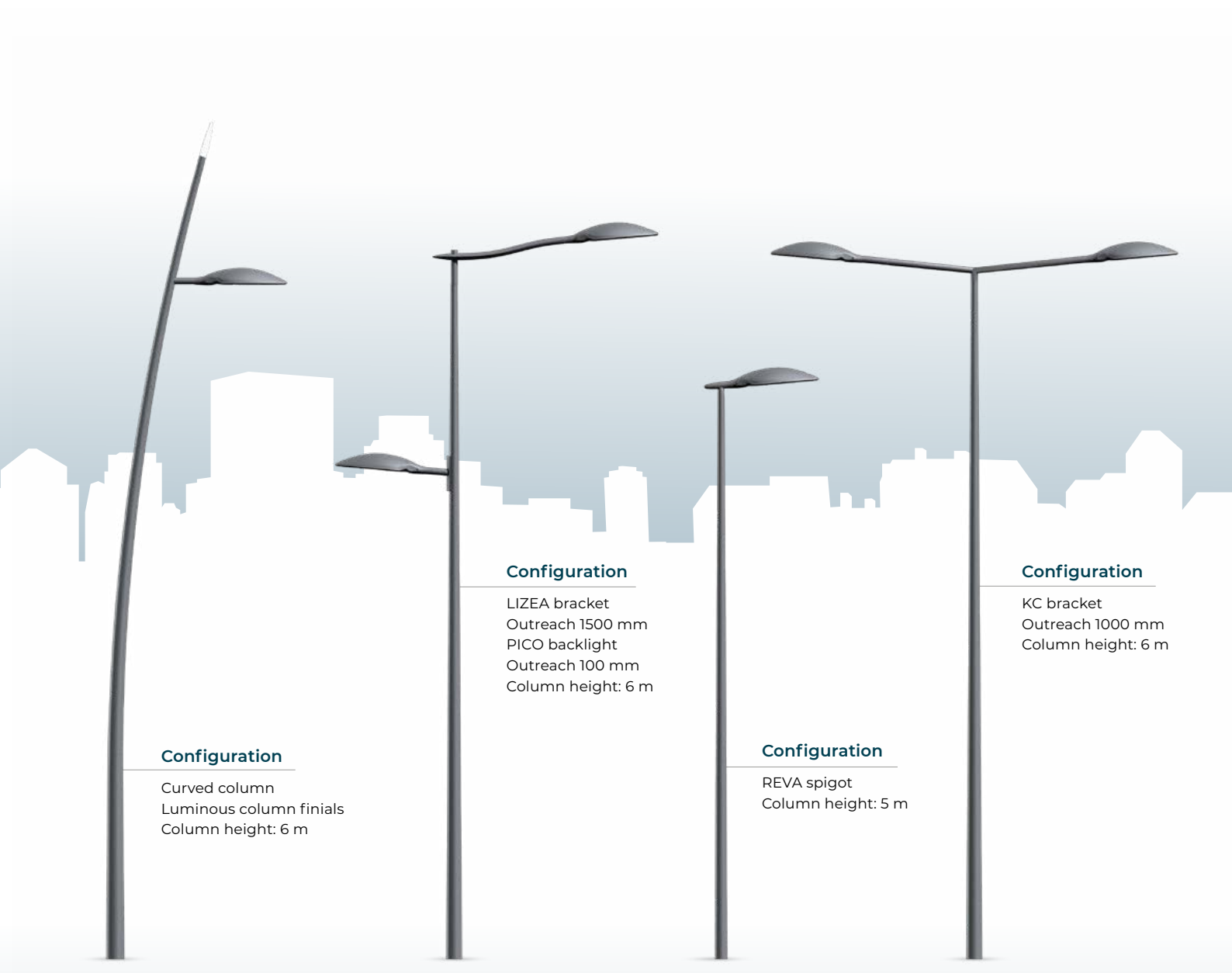

ECLATEC

MOANA
Design: ECLATEC

Configuration

LIZEA bracket
Outreach 1500 mm
PICO backlight
Outreach 100 mm
Column height: 6 m

Configuration

KC bracket
Outreach 1000 mm
Column height: 6 m

Configuration

Curved column
Luminous column finials
Column height: 6 m

Configuration

REVA spigot
Column height: 5 m

ECLATEC

MOANA

Design: ECLATEC

MOANA

DESCRIPTION

Product name	MOANA
Housing	Injection die-cast aluminium body Control gear integrated on a removable tray, disconnectable without tools
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 carbon filter
Dimensions (L x l x h)	823 x 311 x 153 mm
Weight	6.8kg
Windage area	0.07m²
Materials used	Aluminium 75% Glass 12% Steel 7% Plastic 4% Other 2%
Electrical class	Class I or II

DIMENSIONS

Ø 60

311

823

153
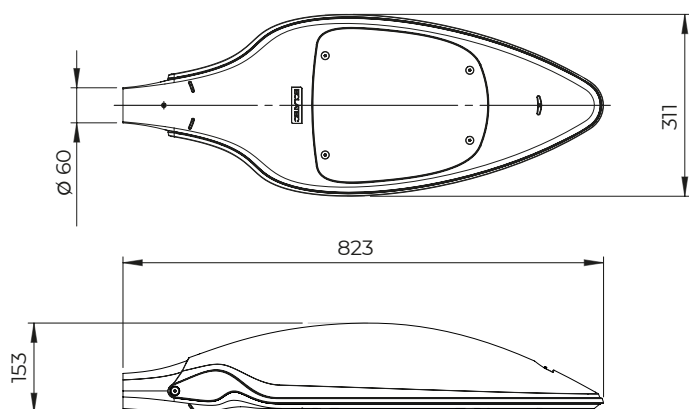
SOURCES & PHOTOMETRIC DISTRIBUTIONS

	MOANA
Sources	BLS strips
Colour temperature	Amber*, 2200 K, 2400 K, 2700 K, 3000K, 4000 K
Optical Distribution	**QUADRALENS**
	ERS, ERL, ERE, LRS, LRL, PFA, EPD, EPG, ETS, ECa
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

MECHANICAL INTERFACES

D48: side female for exterior Ø 48 mm bracket

LL54: side male mounting for Ø 60 mm steel bracket (1)
(cf p 280 - F)

LL48: side male mounting for Ø 60 mm aluminium bracket (2)
(cf p 280 - E)

Top or bitop fixing, Reva male top fastening for pole Ø 60/62 mm (cf p 280 - D)

OPTIONS

	MOANA
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	-
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

Opening and closing	Ergonomic opening handle, easily accessible and manoeuvrable at the front of the luminaire {1}. The upper cover is held in the open position by a safety stay {2}. Cutting of the power supply when the luminaire is opened
BLS maintenance	Direct access to the equipment once the cover is opened. Access to BLS after removal of the bowl attached with 4 screws

ECLATEC

SONATA
Design: ECLATEC

Configuration

SONATA
Strium HELIX column
Column height: 4 m

Configuration
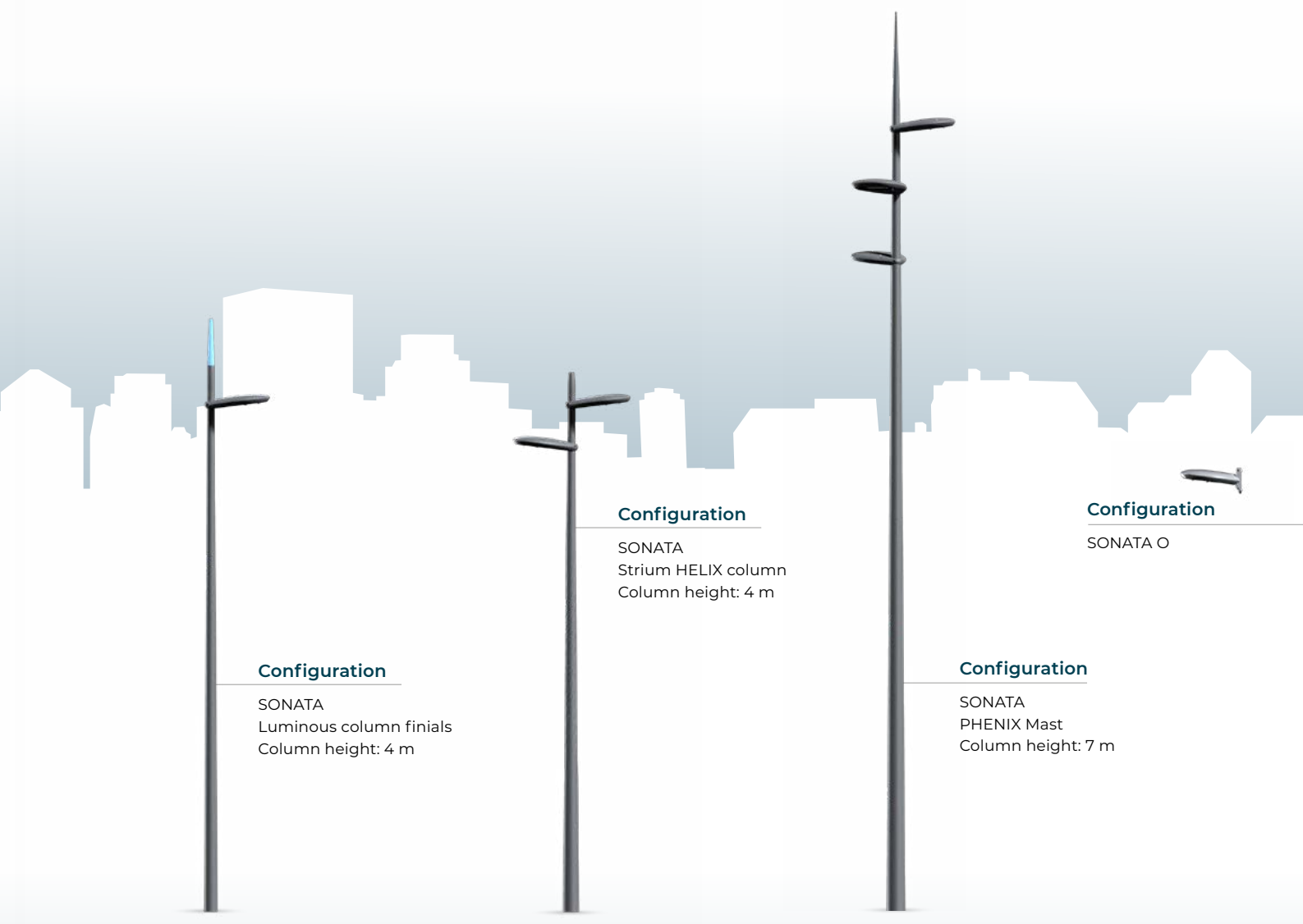
SONATA O

Configuration

SONATA
Luminous column finials
Column height: 4 m

Configuration

SONATA
PHENIX Mast
Column height: 7 m

ECLATEC

SONATA

Design: ECLATEC

SONATA
Wall-bracket

DESCRIPTION

Product name	SONATA	SONATA O
Housing	Body, canopy and plate made of injected die-cast aluminium Convertible wall-mounted plate for guiding cable from above or from the underside	
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 2 anchored cable glands (through wiring possible) Breathing system with activated carbon filter	
Dimensions (L x l x h)	446 x 428 x 83 mm	446 x 428 x 95 mm
Weight	7.5kg	
Windage area	0.05m²	
Materials used	Aluminium 65%, Glass 10%, Steel 8%, Plastic 1%, Other 16%	
Electrical class	Class I or II	
Option	Protective device against overcurrent and short circuits and / or integrated fuse holder in the luminaire	

DIMENSIONS

SONATA wall-mounted

Tilt adjustment from 0° till 10°

SONATA Top

SONATA O

Tilt adjustment from 0° till 10°
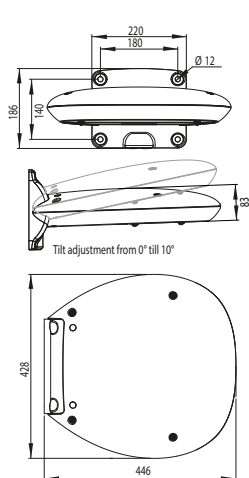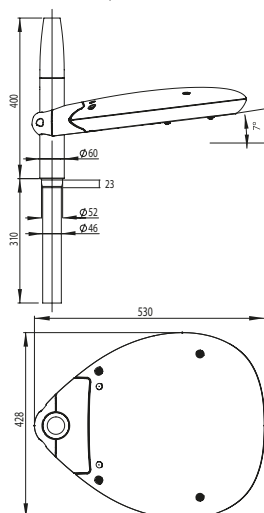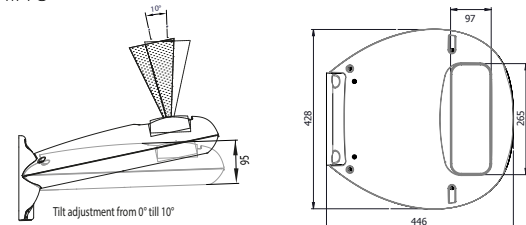
SONATA O

SONATA
Post top

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	SONATA	SONATA O
Sources	BLS strips	BLS strips + RGBW LED adjustable backlighting
Colour temperature	Amber*, 2200 K, 2400 K, 2700 K, 3000K, 4000 K	
Optical Distribution	**QUADRALENS**	
	ERS, ERL, ECa, ERE, LRS, LRL, PFA, EPD, EPG, ETS	ERS, ERL, ECa, ERE, LRS, LRL, PFA, EPD, EPG, ETS **backlighting:** PFI, PFM, PFL
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/Stand**ard/Wide/Asymmetrical/Right/Left

BLS strips

Backlighting

BACKLIGHTING (O VERSION)

Module	op-mounted RGBW LED in the luminaire cover, adjustable from 0° to 10° with external setting.
Bowl	In polycarbonate
Bean	Narrow, medium or wide
Optic	Externally adjustable optical unit for more precise adjustment
Control	DMX control (through wiring with 2 extra dedicated cable glands), multitude of colours and variations
Power supply current	Dedicated power supply: backlighting switched off programmatically (cf. decree of 25 January 2013 relating to the night lighting of non-residential buildings)

MECHANICAL INTERFACES

Wall-mounted bracket:
4 holes Ø 12 space between centers 180 mm x 140 mm
- Tilt 0°, 2.5°, 5°, 7.5° and 10°
- Luminaire tilted at 2°

Post top version with 1 to 3 arms: male bracket fastening
Ø 60/Ø 62 mm
- Tilt 7°

OPTIONS

	SONATA	SONATA O
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	√	-
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	√*	√
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

* Double Smart-ready disponible
Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

Lighting equipment maintenance	Direct access to the gear by removing the canopy fixed with 4 high-helix lead screws
Source maintenance	Access to BLS strips and lenses after removal of the glass bowl attached with 4 screws.
RGBW retro-lighting module maintenance	Quick electrical disconnection of the LED module without tools. Removable LED module (2 screws).

ECLATEC
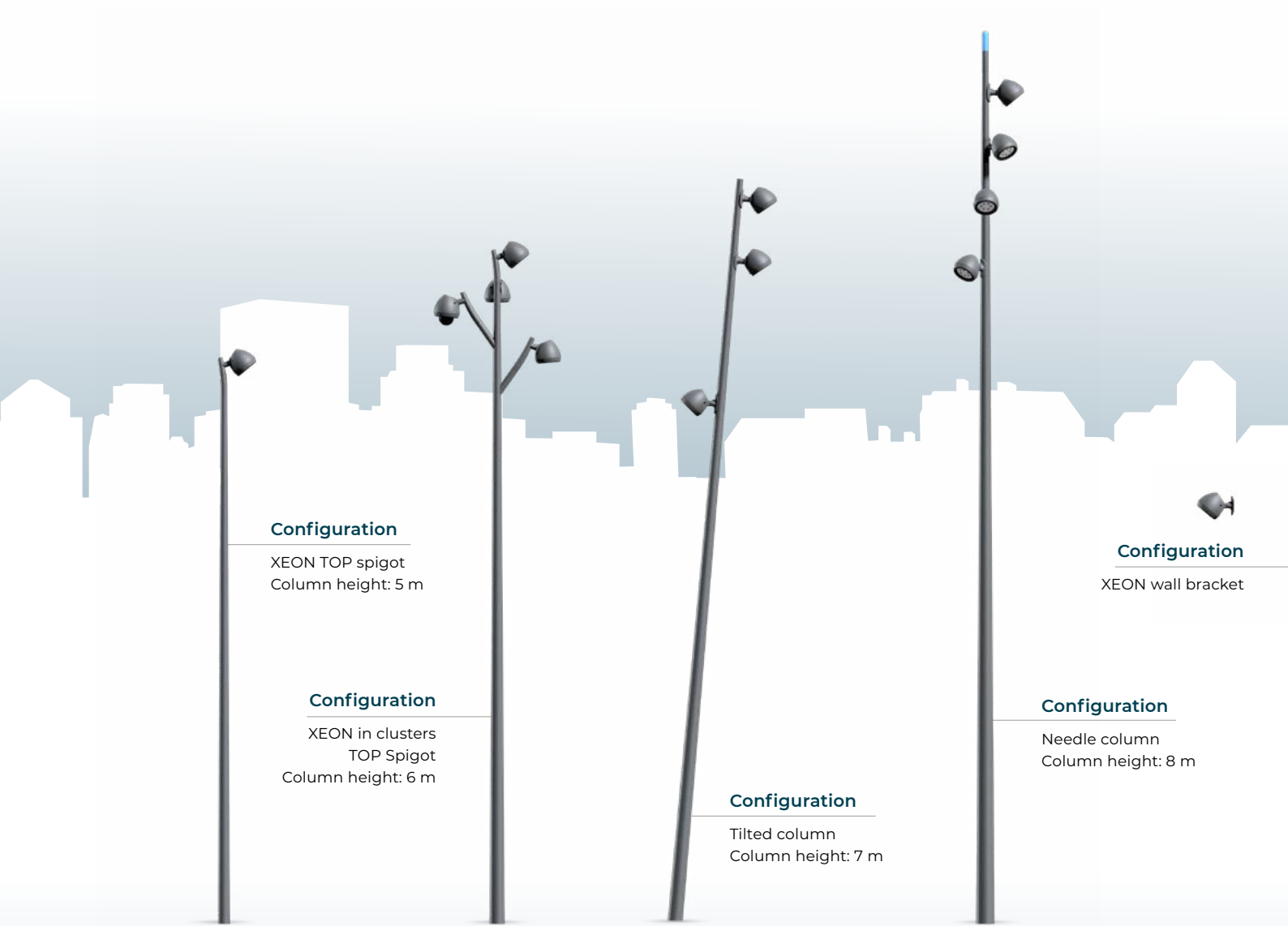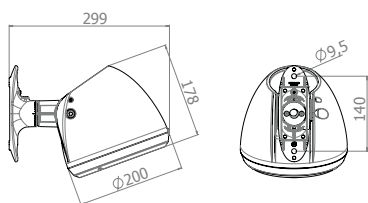
XEON

Design: ECLATEC

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

ECLATEC

XEON

Design: ECLATEC

XEON 1

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
Materials used	Aluminium 71% Steel 10% Glass 6%, Plastic 2% Other 11%	Aluminium 72% Glass 8% Steel 2%, Plastic 2% Other 16%	Aluminium 74% Glass 10% Steel 2% Plastic 2% Other 12%
Electrical class	Class I or II		
Wiring	Luminaire pre-wired in the factory		

DIMENSIONS

XEON 1

XEON 2
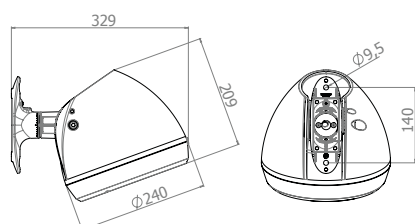
XEON 3
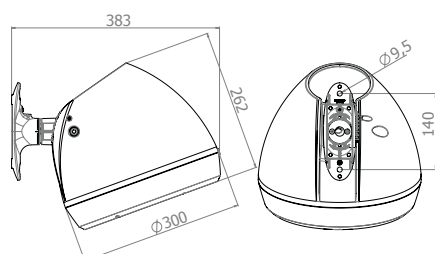
XEON 2

XEON 3

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	XEON 1	XEON 2	XEON 3
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		

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

XEON Modules

OPTIONS

	XEON 1	XEON 2	XEON 3
At the lighting point			
Adjustable current (driver or bottom of the pole)	√	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√	√
Built-in detection	-	-	-
Remote detection	√	√	√
DALI protocol	√	√	√
Smart-Ready® configuration (ZD4i)	-	√	√
In a local network			
Communicating detection with pilot wire	√	√	√
Wireless communication sensing	√	√	√
Remote management			
WIZARD CMS system	√	√	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

ACCESSORIES

Visor options, canon, anti-glare grill and diffusing glass

Anti-glare grill

Visor

Canon

MECHANICAL INTERFACES

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 bracket mounting
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

MAINTENANCE

Maintenance of the equipment and LEDs

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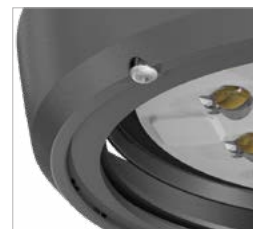
ECLATEC

XEON

Design: ECLATEC

XEON
RGBW

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)		
Programmation	Optional programming of the driver, for fixed colours or chromatic variations, using a programming module		
Wiring	Prewiring of DMX in the factory		

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

PF/I-M-L: Beam projection/ Intensive-Medium-Large
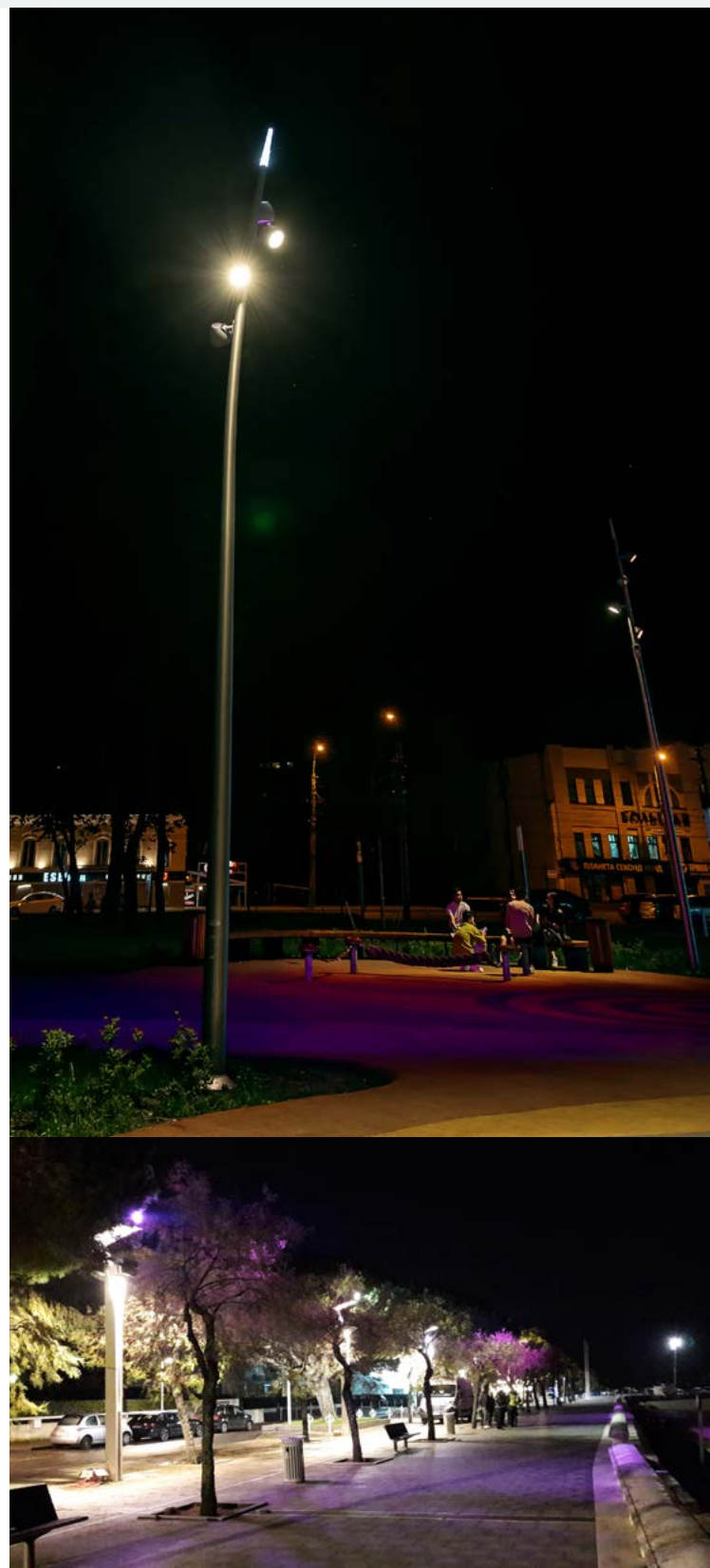
XEON
Fixed camera

XEON
CCTV camera

XEON
Loudspeaker

CCTV

XEON 2 and 3 can integrate **CCTV** cameras, connected by Web browser, which operate day and night.

Product name	XEON 2	XEON 3
Protocol	Compatible with the protocol defined by ONVIF (open protocol: Open Network Video Interface Forum) 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	
Fonctionnality	Detection	
Impact protection	IP 66	
Ingress Protection	IK 10	
Working temperature	-20°C to +50°C	
Power	8 to 10W	
Dimensions and mechanical interfaces	Refer to chapter LIGHTING	

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.

SOUND

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	
Dimensions and mechanical interfaces	Refer to chapter LIGHTING	

Spatial distribution
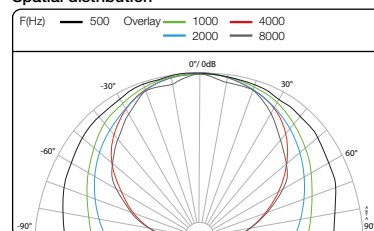
Acoustic pressure (1 W / 1 m)
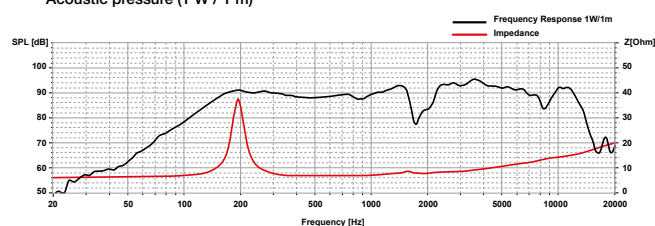
ECLATEC

XEON

Design: ECLATEC

XEON 3
GOBO

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
Dimensions et interfaces	Refer to chapter LIGHTING
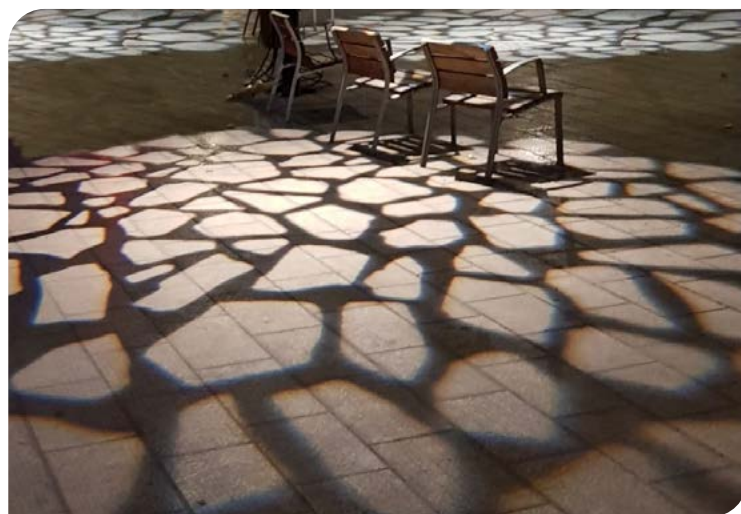
INSTALLING/ CHANGING THE GOBO

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)

CHOICE OF LENS

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.

Intensive beam
■ Beam angle at Imax/2 : 19,1°

1 m	6279 lux	0,3 m
2 m	1570 lux	0,7 m
3 m	697 lux	1 m
4 m	392 lux	1,3 m
5 m	251 lux	1,7 m
6 m	174 lux	2 m

Medium beam
■ Beam angle at Imax/2 : 22,3°

1 m	3894 lux	0,4 m
2 m	973 lux	0,8 m
3 m	432 lux	1,2 m
4 m	243 lux	1,6 m
5 m	155 lux	2 m
6 m	108 lux	2,4 m

Wide beam
■ Beam angle at Imax/2 : 23,3°

1 m	2736 lux	0,4 m
2 m	684 lux	0,8 m
3 m	304 lux	1,2 m
4 m	171 lux	1,7 m
5 m	109 lux	2,1 m
6 m	73 lux	2,5 m
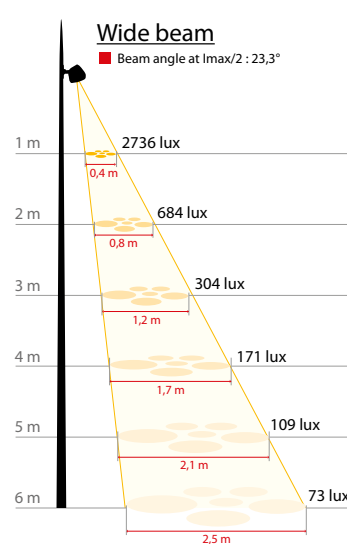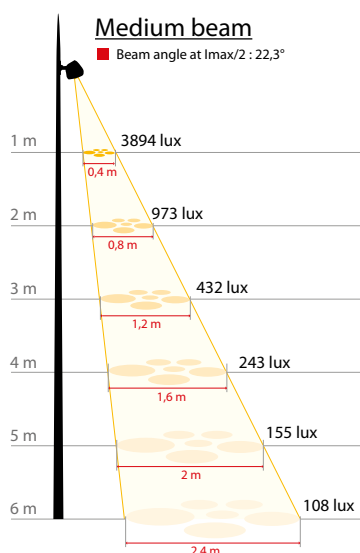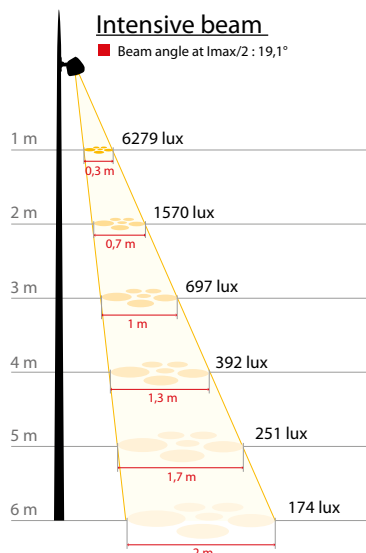
The illumination data are only indicative and not contractual.

RENDERINGS, EFFECTS AND 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:

The pattern to be projected must be provided in a vector format, in order to be transcribed on the GOBO. ECLATEC can convert your computer files into this format.

EXEMPLES OF USES

Projection of patterns on the ground

Projection of messages on buildings

ECLATEC

IXIS

Design: ECLATEC

Configuration

IXIS 2
PICO bracket
Outreach 500 mm
Column height: 6 m

Configuration

IXIS 2
CHROME bracket
Outreach 1000 mm
Column height: 6 m

Configuration

IXIS 2
Traverse
Column height: 7 m

Configuration

IXIS 1
PICO wall bracket
Outreach 200 mm

ECLATEC

IXIS

Design: ECLATEC

IXIS 1
With moving sensor

DESCRIPTION

Product name	IXIS 1	IXIS 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 10	
Ingress Protection	IP66 Extruded silicone gasket Cable gland with anchoring device Breathing system with activated carbon filter	
Dimensions (L x l x h)	428 x 316 x 130 mm	496 x 418 x 162 mm
Weight	8kg	12kg
Windage area	0.06m²	0.08m²
Materials used	Aluminium 77% Glass 8% Steel 8% Plastic 4% Other 3%	Aluminium 76% Glass 9% Steel 6% Plastic 5% Other 4%
Electrical class	Class I or II	
Wiring	Pre-wired in the factory	

DIMENSIONS

IXIS 1
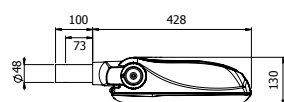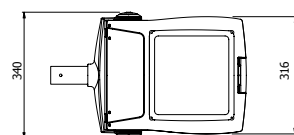
IXIS 2

IXIS 1 - Decorative U-bracket in aluminium

IXIS 2 - Decorative U-bracket in aluminium
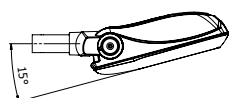
IXIS 1 AND 2 - Decorative U-bracket adjustement
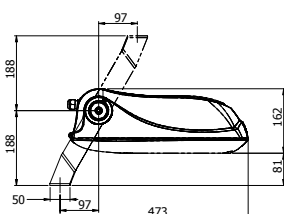
IXIS 1 - Galvanised steel stirrup bracket

IXIS 2 - Galvanised steel stirrup bracket
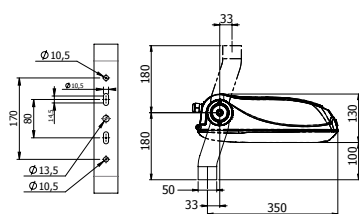
IXIS 2

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	IXIS 1	IXIS 2
Sources	BLS strips	
Colour temperature	Amber*, 2200 K, 2400 K, 2700 K, 3000 K, 4000 K	
Optical Distribution	**QUADRALENS**	
	PFA, EPG, EPD, ETS, ECa, ECb, PSa, PAa, ERE, ERS, ERL, LRS, LRL	
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

MECHANICAL INTERFACES

Fitting for mounting on bracket end with external Ø 60 mm (cf p 280 - E, F)

Stirrup mounting bracket made of steel, suspended or top mounted on adjustable brackets

Angles marking system

OPTIONS

	IXIS 1	IXIS 2
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	√	-
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	√	√
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

Opening and closing	Opens without tools by pressing the paddle on the top cover. Cutting of the power supply when the luminaire is opened. Closure of the luminaire with a security screw as an option.
Lighting equipment maintenance	Quick electrical disconnection without tools. Circuit board removable onsite without tools.
Source maintenance	Access to LED strips and lenses after removal of the glass bowl attached with 4 screws

ECLATEC

KERIS

Design: ECLATEC

Configuration

2 KERIS 2 floodlights
Straight bracket

Also available in:
- Arm
- Batten

Our supports are made from hot-dip galvanised steel and can be adapted to all medium height poles.
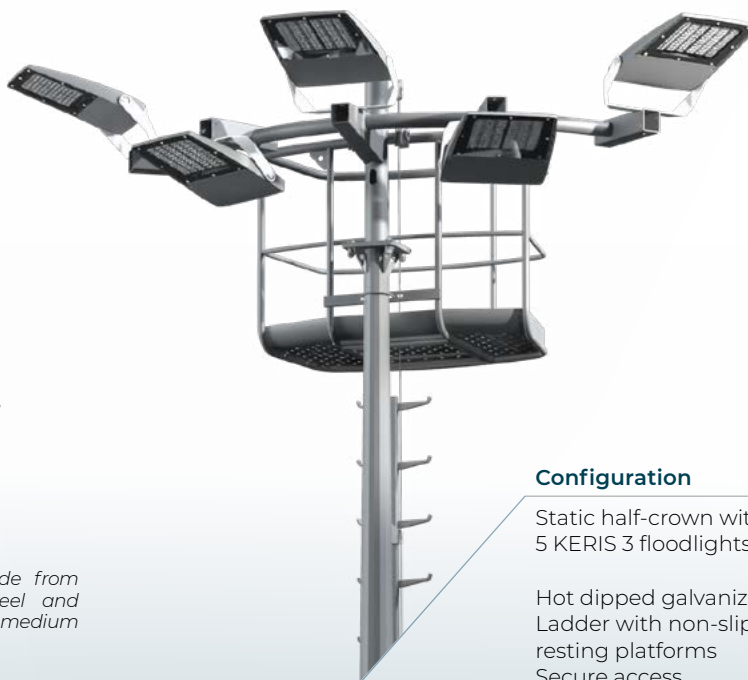
Configuration

Static half-crown with catwalk
5 KERIS 3 floodlights

Hot dipped galvanized catwalk
Ladder with non-slip rungs and resting platforms
Secure access
Lifeline

Approved assembly compliant with NF EN 353-1 and NF EN 363 standard requirements

Configuration

Single mobile crown
6 KERIS 6 floodlights

Rail-guided mobile batten
Static motor-winch at the foot of the pole
Control using a remote control box
Fall-prevention safety
Permanent electric connection

Configuration

2 KERIS 5 floodlights
Straight bracket

ECLATEC

KERIS 2 & 3

Design: ECLATEC

KERIS 2

DESCRIPTION

Product name	KERIS 2	KERIS 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 09	
Ingress Protection	IP66 Extruded silicone gasket Cable gland with anchoring device Breathing system with activated carbon filter	
Dimensions (L x l x h)	489 x 449 x 85 mm	659 x 545 x 78 mm
Weight	11kg	16kg
Windage area	0.04m²	0.07m²
Materials used	Aluminium 37%, Steel 29% Glass 20% Other 14%	Aluminium 47% Steel 25% Glass 14% Other 14%
Electrical class	Class I or II	

DIMENSIONS

KERIS 2

489
449
219
85

KERIS 3

659
545
219
78
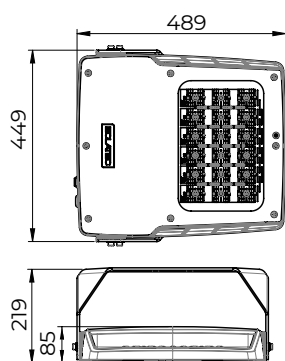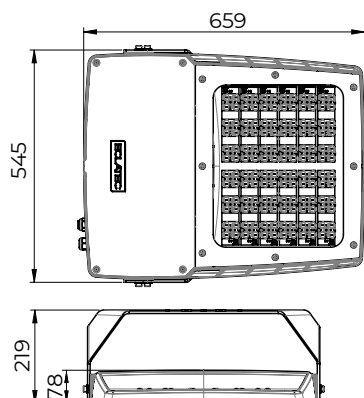
KERIS 3

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	KERIS 2	KERIS 3
Sources	BLS strips	
Colour temperature	Amber*, 2200 K, 2400 K, 2700 K, 3000 K, 4000 K	
Optical Distribution	**QUADRALENS**	
	PFA, EPG, EPD, ETS, ECa, ECb, PSa, PAa, ERE, ERS, ERL, LRS, LRL	
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

MECHANICAL INTERFACES

U bracket, painted as an option: post top or suspended fastening
Projector pre-tilted at 2 °

Tilts:

Suspended 0°

Post top 0°

Suspended 20° Max.

Post top 90°

Vertical or wall mounted
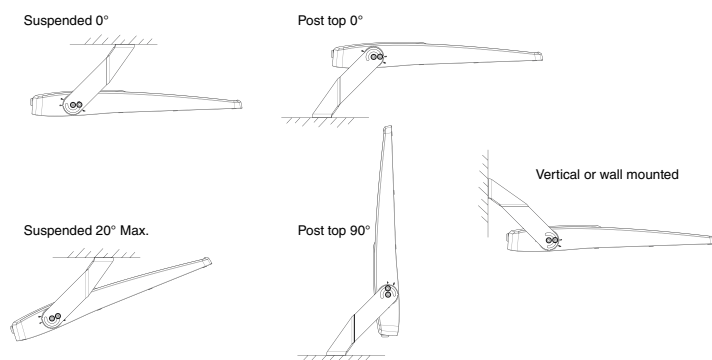
OPTIONS

	KERIS 2	KERIS 3
At the lighting point		
Adjustable current (driver or bottom of the pole)	√	√
Dimming (driver, bottom of the pole or Bluetooth)	√	√
Built-in detection	√	-
Remote detection	√	√
DALI protocol	√	√
Smart-Ready® configuration (ZD4i)	√*	√
In a local network		
Communicating detection with pilot wire	√	√
Wireless communication sensing	√	√
Remote management		
WIZARD CMS system	√	√

* Double Smart-ready disponible
Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on
the front cover

MAINTENANCE

Maintenance of Keris 2 control gear and sources	Direct access to the power supply and BLS strips after removing the bowl held by 8 screws (safety cord)Removable tray
Maintenance of Keris 3 control gear	Direct access to the power supplies after removing the lower cover held by four captive screws. Removable tray
Maintenance of Keris 3 sources	Direct access to BLS strips after removing the bowl held by 8 screws.

ECLATEC

KERIS 5 & 6

Design: ECLATEC

KERIS 5

DESCRIPTION

Product name	KERIS 5	KERIS 6
Housing	Bracket, module interfaces, radiators and electric connexion box in die cast aluminium	
Bowl	In thermally tempered non-reflective glass	
Finish	LED modules in standard grey 2150. Fixation bracket and module interface: aluminium	
Impact protection	IK 08	
Ingress Protection	IP66 Extruded silicone gasket Cable gland with anchoring device Breathing system with activated membrane filter	
Dimensions (L x l x h) With power supply Without power supply	670 x 783 x 350 mm 670 x 597 x 350 mm	670 x 893 x 350 mm 670 x 667 x 350 mm
Weight With power supply Without power supply	26kg 19.5kg	32.5kg 26kg

Windage area	With power supply	Without power supply	With power supply	Without power supply
0°	0.19m²	0.11m²	0.19m²	0.11m²
10°	0.24m²	0.16m²	0.26m²	0.19m²
20°	0.25m²	0.19m²	0.29m²	0.25m²
30°	0.28m²	0.23m²	0.32m²	0.31m²
40°	0.30m²	0.27m²	0.37m²	0.37m²
50°	0.32m²	0.31m²	0.41m²	0.41m²
60°	0.34m²	0.33m²	0.45m²	0.45m²
70°	0.36m²	0.34m²	0.48m²	0.48m²

Materials used	Aluminium 80% Glass 8% Steel 9%, Plastic 2,7% Other 0,3%	Aluminium 82% Glass 9% Steel 5% Plastic 3% Other 1%
Electrical class	Class I	

DIMENSIONS

KERIS 5
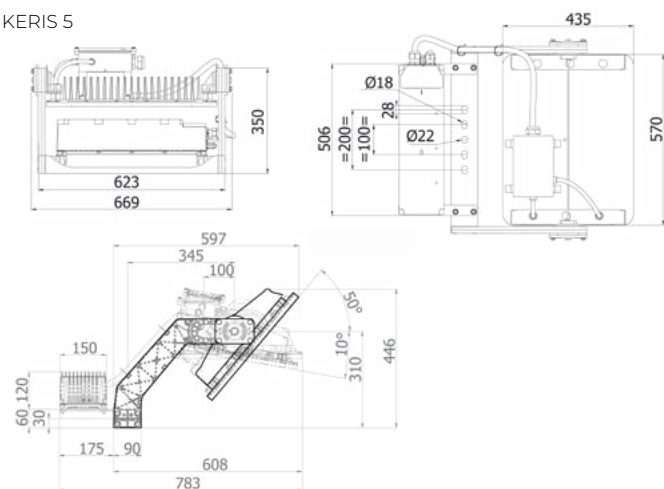
KERIS 6
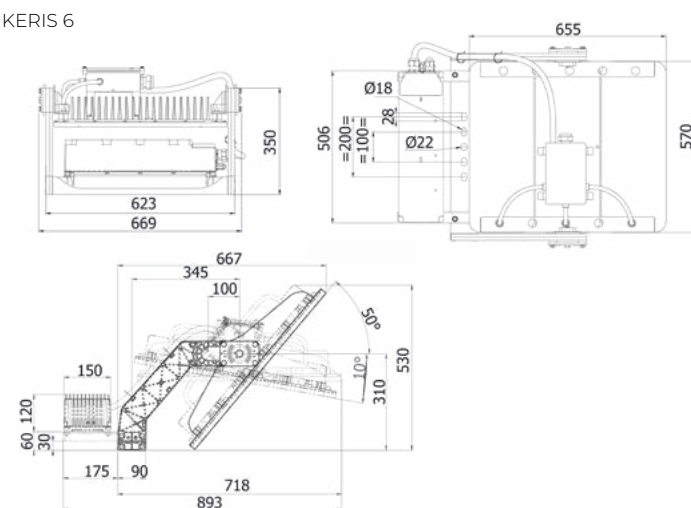
MECHANICAL INTERFACES

U-bracket: free tilting in any configuration (top or suspended) from -10° to + 70°, 5° incrementation

Settings: Red dot telescop. Fix position at 90° from modules. On floodlight side.

MAINTENANCE

Lighting equipment and LED sources — Removable LED and power supply modules

KERIS 6

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	KERIS 5	KERIS 6
Sources	KERIS 5 and 6	
Colour temperature	3000 K, 4000 K , 5700 K (others upon request)	
Optical Distribution	Specifics	
	ASY30-N, ASY30-M, ASY30-W, ASY40-M, PFI, PFM	

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

KERIS 5 and 6

POWER SUPPLY

	KERIS 5	KERIS 6
Adjustable power	Up to 1074 W	Up to 1628 W
Protocoles	DALI or DMX	
Power supply voltage	230/400 V	
Protection	10 kV, in differential and common mode	
Leak tightness rating	IP 66	
RAL	charcoal grey 7016	
Dimensions (L x l x h)	500 mm x 150 mm x 120 mm	
Weight	6,5kg	
Location	Mounted on the U-bracket floodlight Remoted up to 200 m in an electrical cabinet	
Lifetime	Nominal service life, at maximum load and 45 ° C ambient: 70,000h	
Compliance	Electromagnetic compatibility EN 55015, EN 55032, EN 61547, EN 61000-(3-2;3-3; 4-2;4-3;4-4;4-5;4-6;4-11)	

LIGHTING MANAGEMENT

	ECLATEC control box
Description	Full or half stadium lighting
	4 programs to adjust power including 2 presets of 100% and 0%
	Forced mode or timing mode
Configuration	Configurations mode protect with a key
Protocol	DALI
Max distance / drivers	300 m, No limit in floodlights number
Dimensions (L x l x h)	430 x 330 x 200 mm
Interfaces	4 x fixing legs
Tension nominale	230 V
Control	Wireless control system or smartlighting upon request

STANDARDS / MARKING / CERTIFICATIONS

| Compliance	**CE, mandatory marking:** - Directive 2014/35/EU, Low voltage Directive - Directive 2014/130/EU Electromagnetic Compatibility - Directive 2011/65/EU Restriction of Hazardous substances (RoHS) - Directive 2009/125/EC Ecodesign requirements
NF EN 60598-1	Luminaires
NF EN 60598-2-5	Floodlights
FFF	Pitch and sports facility lighting regulations
REACH	Products conformity regulatory management of chemicals
WEEE	(Waste Electrical and Electronic Equipment) Manufacturer involvement)

ECLATEC

KERIS 5 & 6

Design: ECLATEC

Application examples - In accordance with the FFF lighting regulations for sports grounds and facilities of 2021

	Football pitch E4 105 x 68 m, 400 lux	Football pitch E5 105 x 68 m, 250 lux	Football pitch E6 105 x 68 m, 150 lux	Football pitch E7 105 x 68 m, 75 lux
Number of floodlights	32 KERIS 6	20 KERIS 6	12 KERIS 6	8 KERIS 6
Colour temperature (K)	5700 K	5700 K	5700 K	5700 K
Power per floodlight	1380 W	1380 W	1461 W	1380 W
LED flow per floodlight	189160 lm	189160lm	197090 lm	189160 lm
Number of poles	4	4	4	4
Floodlights per pole	8	5	3	2
Average installation height	20 m	20 m	18 m	18 m
Pole distance from the goal line	16.5 m	16.5 m	16.5 m	16.5 m
Pole distance from the sideline	8 m	8 m	4 m	4 m
Average lighting	456 lux	278 lux	169 lux	104 lux
Uniformity Min lighting / Average lighting: Min lighting / Maximum lighting:	0.79 0.53	0.76 0.53	0.82 0.70	0.68 0.43
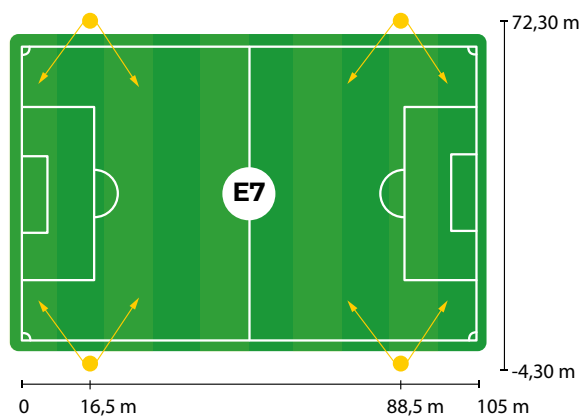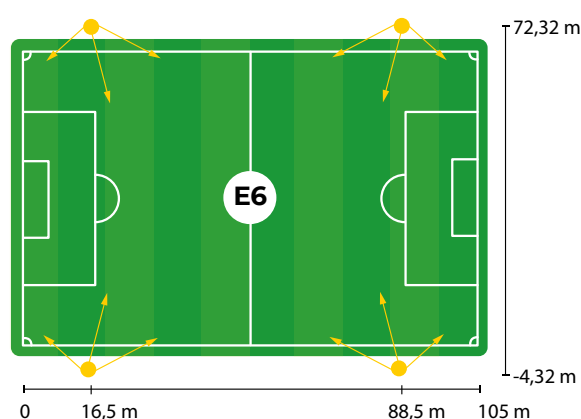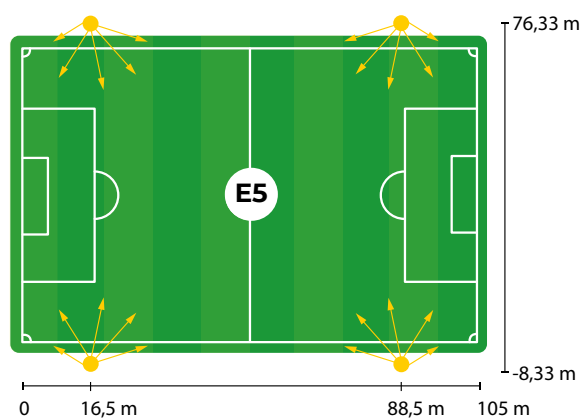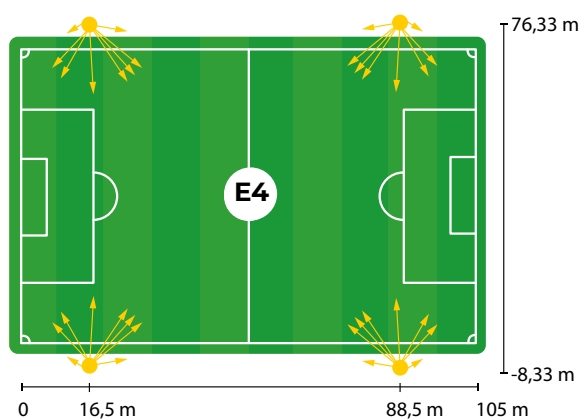
FFT CONFIGURATIONS

Application examples - In accordance with the FFT lighting regulations for sports grounds and facilities of 2021

	Simple 4 masts - h = 9 m	Simple 2 masts - h = 9 m	Simple 2 masts - h = 10 m	Simple 2 masts - h = 11 m	Paired 4 masts - h = 10 m	Paired 4 masts - h = 11 m
Number of floodlights	4 KERIS 5	2 KERIS 5	2 KERIS 5	2 KERIS 5	4 KERIS 5	4 KERIS 5
Colour temperature (K)	5700 K	5700 K	5700 K	5700 K	5700 K	5700 K
Power per floodlight	327 W	833 W	933 W	933 W	933 W	933 W
LED flow per floodlight	51371 lm	111726 lm	121857 lm	121857 lm	121857 lm	121857 lm
Number of poles	4	2	2	2	4	4
Floodlights per pole	1	1	1	1	1	1
Average installation height	9 m	9 m	10 m	11 m	10 m	11 m
Average lighting	324 lux	317 lux	328 lux	323 lux	331 lux	324 lux
Uniformity Min lighting / Average lighting:	0.83	0.77	0.77	0.74	0.78	0.75

Simple - 4 masts - h = 9 m
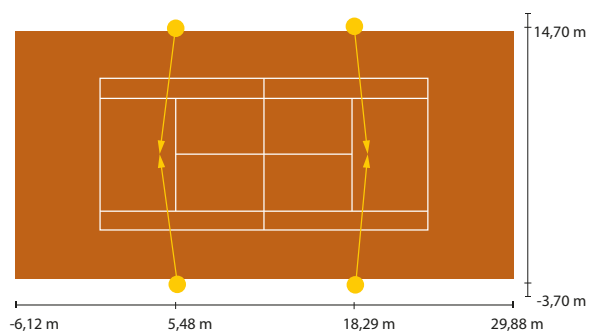
Paired - 4 masts - h = 10 m / 11 m
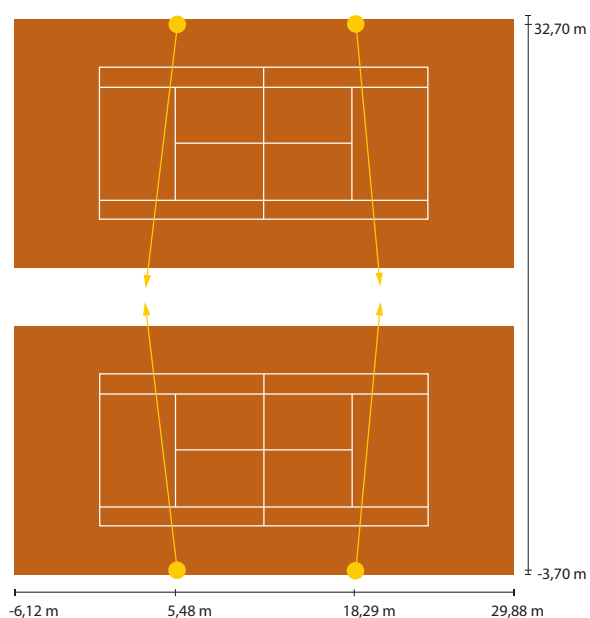
Simple - 2 masts - h = 9 m / 10 m / 11 m
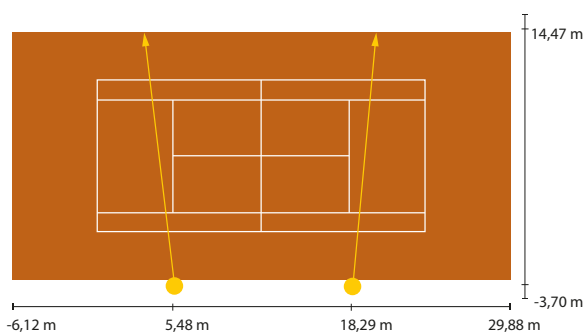
ECLATEC

LIGHTING
BOLLARDS

Design: ECLATEC

TREK (PRM*)   TEO (PRM*)   TEAM (PRM*)   ZESTO (PRM*)

*PRM : Approuved for access of Persons with Reduced Mobility
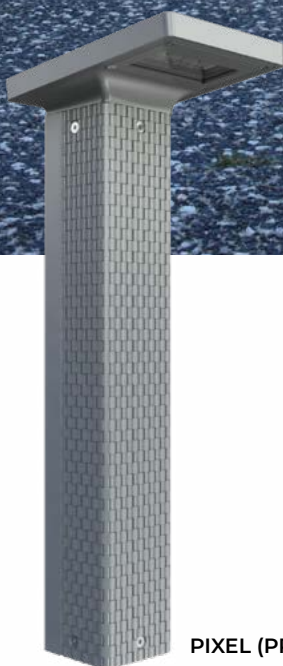
PIXEL (PRM*)

VENGO (PRM*)

VENGA (PRM*)

ECLATEC

TREK

Design: ECLATEC
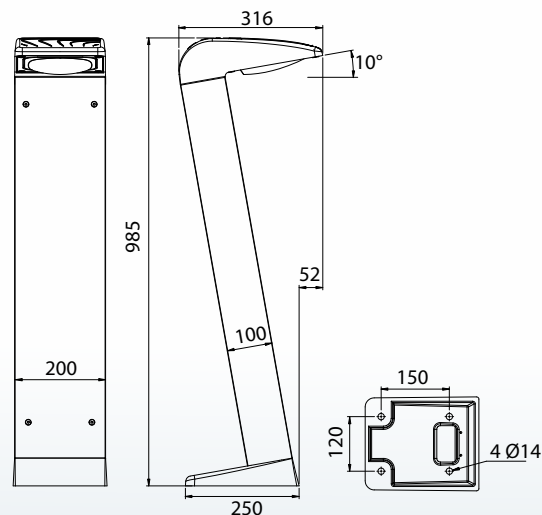
DESCRIPTION

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
Materials used	Steel 56%, Aluminium 39%, Plastic 2%, Other 3%
Electrical class	Class I or II

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

OPTIONS

	TREK
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	√
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system (MCD module)	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

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

TAIGA

Design: ECLATEC

Dimensions (mm):
300
10°
985
100
200
150
120
4 Ø14
250
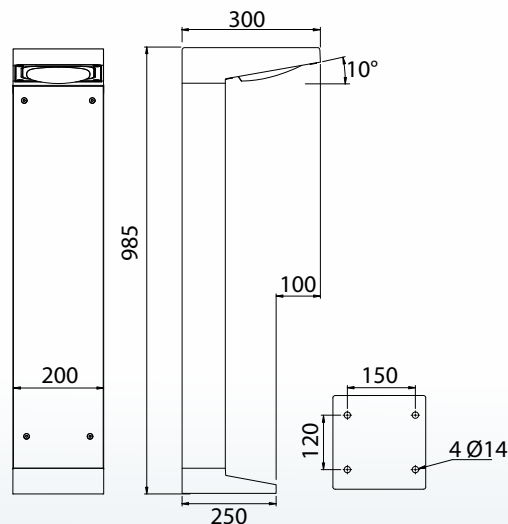
DESCRIPTION

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 (L x l x h)	200 x 316 x 985 mm
Weight	23kg
Materials used	Steel 56%, Aluminium 39%, Plastic 2%, Other 3%
Electrical class	Class I or II

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

OPTIONS

	TAÏGA
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	√
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system (MCD module)	√

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

ECLATEC

TEAM

Design: ECLATEC

Ø 214

960

Ø 200

120°
Ø 134
Ø 13
120°

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
Materials used	Aluminium 60%, Steel 28%, Plastic 7%, Other 5%
Electrical class	Class I or II

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

OPTIONS

	TEAM
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	√
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system (MCD module)	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

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

BOLLARDS | LIGHTING

TEO

Design: ECLATEC
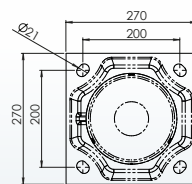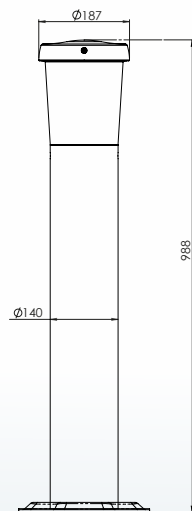
DESCRIPTION

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
Materials used	Steel 87%, Aluminium 4%, Plastic 7%, Other 2%
Electrical class	Class I or II

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

OPTIONS

	TEO
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	-
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system (MCD module)	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover
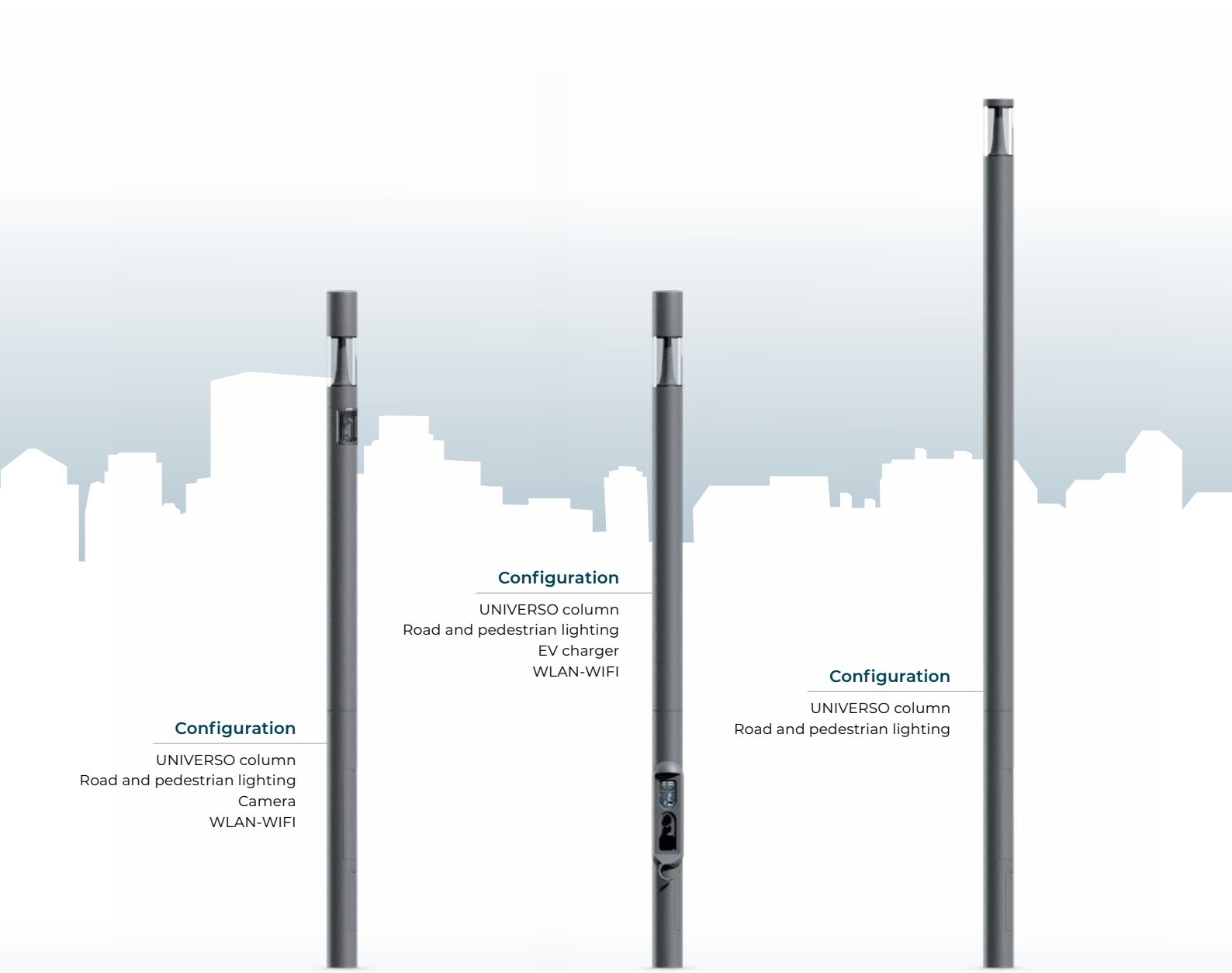
SOURCES & PHOTOMETRIC DISTRIBUTIONS

	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

ECLATEC

PIXEL

Design: Stoa Architecture

DESCRIPTION

Product name	PIXEL
Housing	Lighting head and module in die-cast aluminium Metalized cast iron bollard
Bowl	Glass
Finish	Polyester powder coating, any colour available
Impact protection	IK 10
Ingress Protection	IP 66 Module
Dimensions (L x l x h)	312 x 240 x 941 mm
Weight	41kg with base
Materials used	Fonte 85%, Aluminium 12%, Steel 2%, Plastic 1%
Electrical class	Class I or II

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.

OPTIONS

	PIXEL
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	-
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system (MCD module)	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

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

VENGO
VENGA

Design: ECLATEC

VENGO
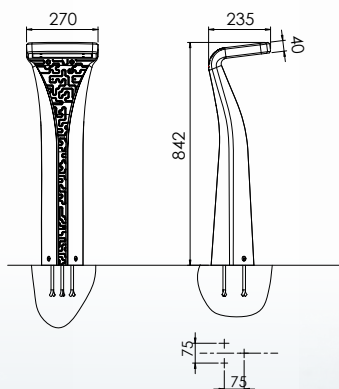
VENGA
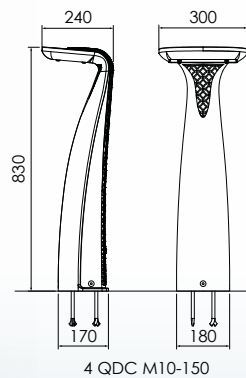
4 QDC M10-150

DESCRIPTION

Product name	VENGO	VENGA
Housing	Made of painted metallised cast iron	
Bowl	Polycarbonate	
Finish	Polyester powder coating, any colour available	
Impact protection	IK 10	
Ingress Protection	IP 66 Module	
Dimensions (L x l 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
Materials used	Fonte 95%, Plastic 2%, Other 3%	
Electrical class	Class I or II	

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.

OPTIONS

	VENGO / VENGA
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	-
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system (MCD module)	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

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

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

ECLATEC

UNIVERSO
Multifunction column

Design: ECLATEC

Configuration

UNIVERSO column
Road and pedestrian lighting
EV charger
WLAN-WIFI

Configuration

UNIVERSO column
Road and pedestrian lighting

Configuration

UNIVERSO column
Road and pedestrian lighting
Camera
WLAN-WIFI

ECLATEC

UNIVERSO
Multifunction column

Design: ECLATEC

UNIVERSO COLUMN

DESCRIPTION

Product name	UNIVERSO column
Housing	In aluminium
Modules	1 to 5 modules: all module can be oriented 360° in 30° steps on mounting (adding module on site is not possible) Top WiFi or SMART CONTROL modules in light gray, choice of colours in option
Finish	Polyester powder coating, any colour available
Dimensions (diam.x h)	Diameter 200 mm, height from 2.7 to 6 m
Electrical class	Class 1

MECHANICAL INTERFACES

Foot in hot galvanised cast iron (400 x 400 mm, bolt centres 300 x 300 mm, 4 JT-M18*400 mm), black paint as an option

Base: Aluminium, diameter 200 mm, finish polyester thermos-lacquer, choice of colours

The base plate is painted in the same colour as the column

Insulating sleeve — — Aluminium shell

Burying area —

Patented SG cast iron base plate

CONNECTIVITY AND INTERACTIVITY

WLAN-WIFI	WLAN network (local wireless) with shared Internet and WIFI protocol High speed 100 Mbps Range approx.. 100 m Divisible passband for usage dedicated to the public and one for the town.

USB (WLAN-WIFI)

Connector	Double USB connector Removable guard cap with articulated automatic return
Ingress Protection	IP 65 connector
Consumption	Max. for the two connectors: 5 W (5 V, 500 mA per connector
Reloading	All types of telephone, tablet and other USB devices
Position	Min. height 1400 mm (see table of configurations)

PREVENTION, PROTECTION & SECURITY

Video monitoring	by Web browser, day and night, discrete design
Module	Dedicated with transparent bowl in polycarbonate, IP 66, IK 10
Camera	SNB-6010B Samsung camera compatible with Open Network viddeo interface forum protocol and then compatible with major security systems
SAMSUNG module	Wired to the camera, located at the bottom of the column, to connect to the Internet.
Resolution	Full HD resolution 1920x1080, digital zoom, image quality optimisation
Viewing	From a control station: PC with Internet connectivity to display videos via the cloud on the Samsung software
Functions	Movement detection: in a selected area, with traffic direction (vehicles). Face detection. Onsite recording possible (on SD cards). Alarms: when an event occurs, an image is sent to the registered e-mail address or stored on the SD micro card, or a signal is sent to the alarm (audio output).
Tilt	Onsite adjustment of the inclination

COMMUNICATION & INFORMATION

100 V public address system	If an audio amplifier located on the site makes it possible to directly supply power to a speaker. Compatible with analogue technology
IP public address system	Playing of a recorded sound triggered by a dry contact or a camera alarm. Possibility, from a control station, to play a message, information or music.

Road & pedestrian lighting

Lateral mechanical interface for additional lighting

WLAN-WIFI

Loudspeaker

Road, pedestrian & projector lighting

SMART CONTROL module

Camera

USB connector

EV charger & USB connector

MOBILITY: RECHARGE STATION

Position	Integrated in the column basement
Connector	European type 2 socket
Mode 3 recharge stations	16 A: 4 kW recharge power in single phase or 11 kW in 3-phase 32 A: 7 kW recharge power in single phase or 22 kW in 3-phase
Centralised management	Access conditions with RFID card identification and 3G cloud connection, energy measurement as an option Payment: authentication with personal RFID card, followed by transfer of information to the invoicing operator defined by the customer
Compatibility	Only compatible with Lighting modules.

LIGHTING

	UNIVERSO COLUMN	
Module	Road & pedestrian lighting	Road, pedestrian & projector lighting
module housing	Injection die-cast aluminium	
Bowl	In transparent polycarbonate ; IK 10	
Ingress Protection	IP 66	
Sources	UNIVERSO module	UNIVERSO projection
Colour temperature	3000 K, 4000 K	
Optical Distribution	**ORALENS**	**Specific**
	ERS, ERL, ECL	PFI, PFM, PFL
Settings	-	Onsite adjustment of the inclination angle
Additional lighting	Lateral attachment diameter 60mm for the addition of a luminaire for all lighting types.	
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

WIRING & COMMISSIONING

The wiring for the different column modules is installed when ECLATEC assembles it and all connections are taken to boxes at the column base that can be accessed through one or two inspection hatches depending on the configuration.

For each project, customers will provide for a study and commissioning of the installation by a design office accompanied by the ECLATEC study sheet which includes the technical data sheets and operating manuals for the various available electronic equipment.

Study and implementation of the IP network is customers responsability. Eclatec can supply the full documentation to allow the study

OPTIONS

	UNIVERSO
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	√
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

UNIVERSO
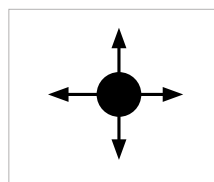## Multifunction column

MODULES POSITIONING

The table below specifies the positioning possibilities of the different modules on the column (E for base, 1 corresponds to position 1 out of 5 etc.)

		E	1	2	3	4	5
SMARTCONTROL	SMART CONTROL module	-	-	-	-	-	√
WIFI	Wlan-WIFI	-	-	-	-	-	√
LIGHTING	Road and pedestrian lighting	-	-	-		√	√
LIGHTING	Road, pedestrian and projector lighting	-	-	-	-	√	√
LIGHTING	Lateral mechanical interface	-	√	√	√	√	-
FUNCTIONALITIES OTHER THAN LIGHTING	Camera	-	√	√	√	√	-
FUNCTIONALITIES OTHER THAN LIGHTING	Loudspeaker	-	√	√	√	√	-
FUNCTIONALITIES OTHER THAN LIGHTING	USB connector	-	√	-	-	-	-
FUNCTIONALITIES OTHER THAN LIGHTING	EV charger	√*	-	-	-	-	-
MODULARITY	Rotating module	Adjustment in 30° steps (during factory assembly, not appliable on site)					

Glossary: √ integrable module   - non integrable module   * Only compatible with the lighting modules.
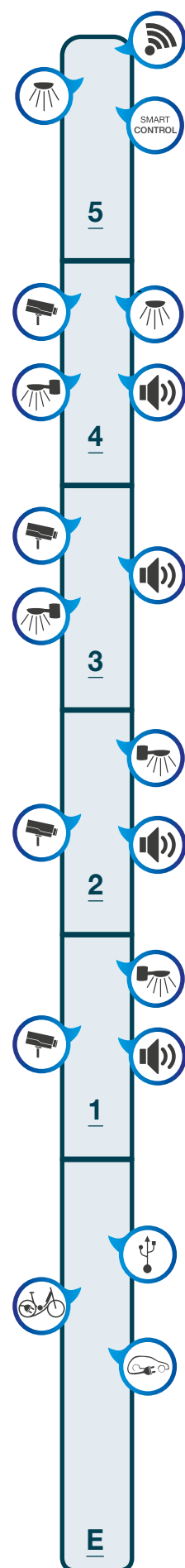
ECLATEC

AXEL
Design: ECLATEC
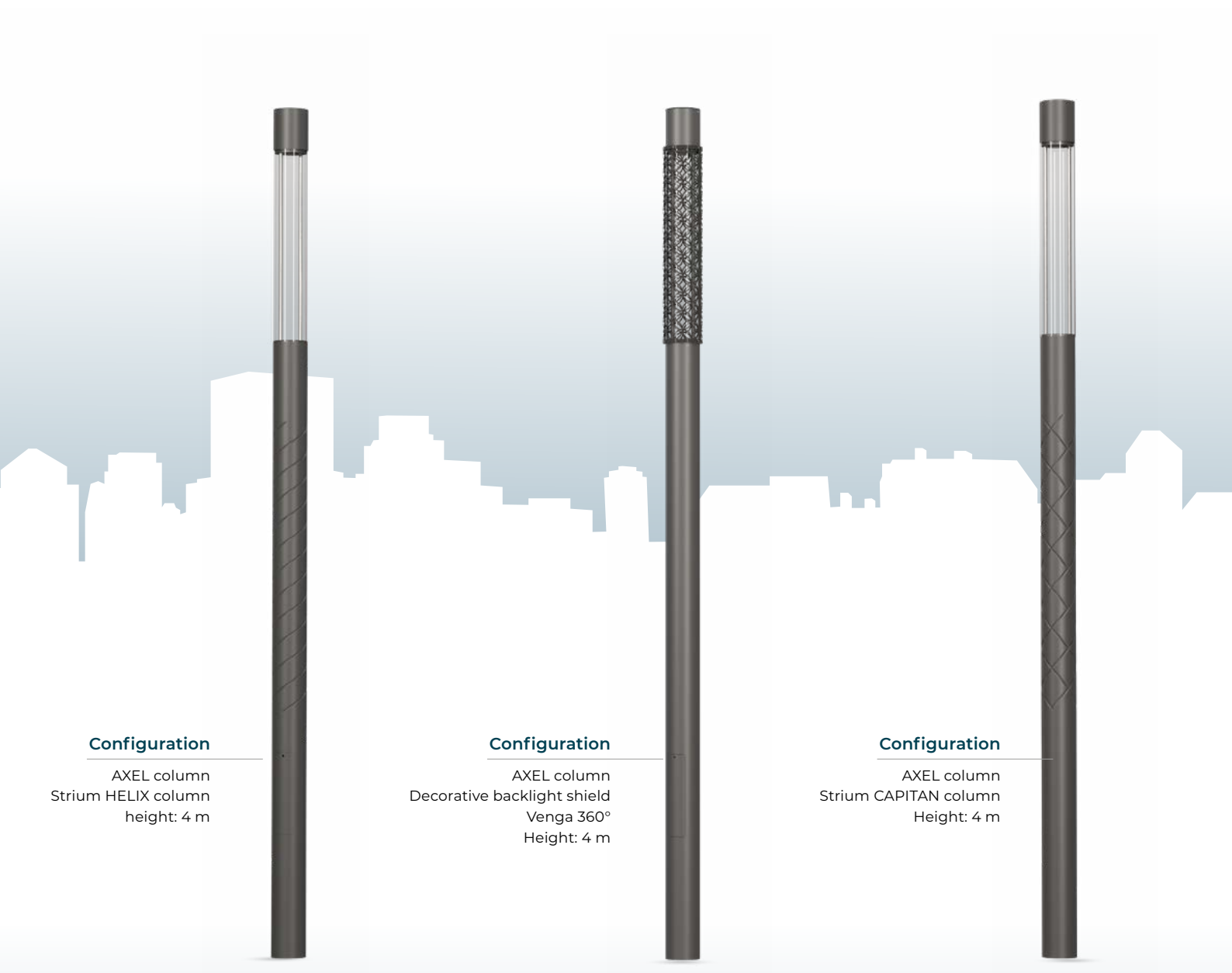
Configuration

AXEL column
Strium HELIX column
height: 4 m

Configuration

AXEL column
Decorative backlight shield
Venga 360°
Height: 4 m

Configuration

AXEL column
Strium CAPITAN column
Height: 4 m

ECLATEC

AXEL

Design: ECLATEC

AXEL

DESCRIPTION

Product name	AXEL
Housing	Cylindrical steel pole 3 m (total height 4 m) Die cast aluminium bottom
Bowl	Polycarbonate clear tube, Ø 170 mm
Finish	Polyester powder coating, any colour available
Impact protection	IK 10
Ingress Protection	IP66 Extruded pneumatic silicone gasket
Dimensions (dia x h)	170 x 1147 mm
Weight	75kg
Windage area	0.56m²
Materials used (3 m column)	Steel 92% Aluminium 3% Plastic 4% Other 1%
Electrical class	Class I or II
Wiring	Column pre-wired in the factory

DIMENSIONS

Ø 170

940

1147

Ø 168

400

100

600
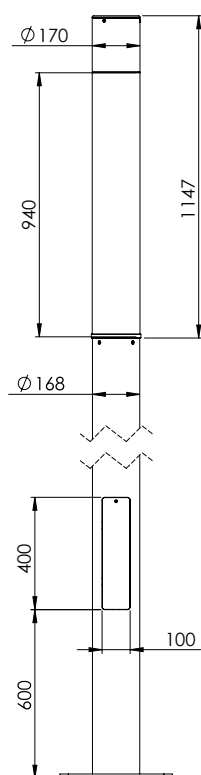
SOURCES & PHOTOMETRIC DISTRIBUTIONS

AXEL	
Sources	AXEL
Control gear	Integrated on removable tray, placed at the top of the luminaire
Colour temperature	2200K, 2700K, 3000K (other upon request)
Optical Distribution	**QUADRALENS**
	ERS, ERL, LRS, LRL, ERE, ETS, ECa, PFA, EPD, EPG
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

AXEL Sources

MECHANICAL INTERFACES

Male bracket fastening luminaire for top fixing

Tubular pole Ø 170 mm with flange plate 300 x 300 mm

BACKLIGHT SHIELD OPTION

Cross pattern blackout   Decorative Venga design

180° or 360° back shield option depending on study

OPTIONS

	AXEL
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	-
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

Lighting equipment maintenance	Access the equipment by removal of the upper cap from the light head. Quick electrical disconnection without tools. Removal the circuit board by 2 screws
Sources maintenance	Luminous head with removable AXEL module

ECLATEC

AMARANTE

Design: ECLATEC

AMARANTE

Design: ECLATEC

AMARANTE

DESCRIPTION

Product name	AMARANTE
Housing	Die cast aluminium bottom Cylindrical steel pole 3 m (total height 4 m)
Bowl	Polycarbonate or PMMA clear tube, Ø 168 mm
Finish	Polyester powder coating, any colour available
Impact protection	PMMA: IK 06, Polycarbonate: IK 10
Ingress Protection	IP66 Silicone gasket on the base
Dimensions (dia x h)	180 x 923 mm
Weight	72kg
Windage area	0.56m²
Materials used	Aluminium 57% Steel 24% Plastic 18% Other 1%
Electrical class	Class I or II

DIMENSIONS
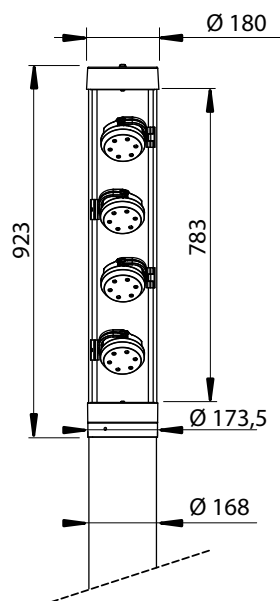
SOURCES & PHOTOMETRIC DISTRIBUTIONS

	AMARANTE
Sources	4 KIDLED
Module color	RAL 2900 only
Colour temperature	3000K, 4000 K
Optical Distribution	**ORALENS:** ERS, PFI, PFM
Power supply current	Constant: 350 mA and 700 mA Adjustable up to 700 mA in option

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

KIDLED module

MAINTENANCE

Lighting equipment maintenance	Removing the luminous head with a set screw and quarter-turn system
Sources maintenance	Luminous head with removable KIDLED modules

MODULES ORIENTATION

KIDLED orientation on exit from factory
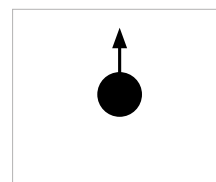
Configuration 1 Configuration 2 Configuration 3

OPTIONS

	AMARANTE
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	-
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

MECHANICAL INTERFACES

Male bracket fastening luminaire for top fixing
Tubular pole Ø 168 mm with flange plate 300 x 300 mm

Configuration

Column height: 4 m

ECLATEC

MAMBA

Design: ECLATEC

MAMBA

Design: ECLATEC

MAMBA

DESCRIPTION

Product name	MAMBA
Housing	Pole/luminaire made of hot dipped galvanised rectangular section steel, bent 6 section 180 x 80 mm
Finish	Polyester, matt, textured powder coating (RAL colours on request only)
Impact protection	IK 07
Ingress Protection	IP66 Waterproof molded silicone gaskets and connections
Dimensions section height	180 x 80 mm 4515 mm
Weight	98kg
Windage area	1,13 m²
Materials used	Steel 99% Other 1%
Electrical class	Class I or II
Wiring	Pole / luminaire pre-wired in the factory

DIMENSIONS
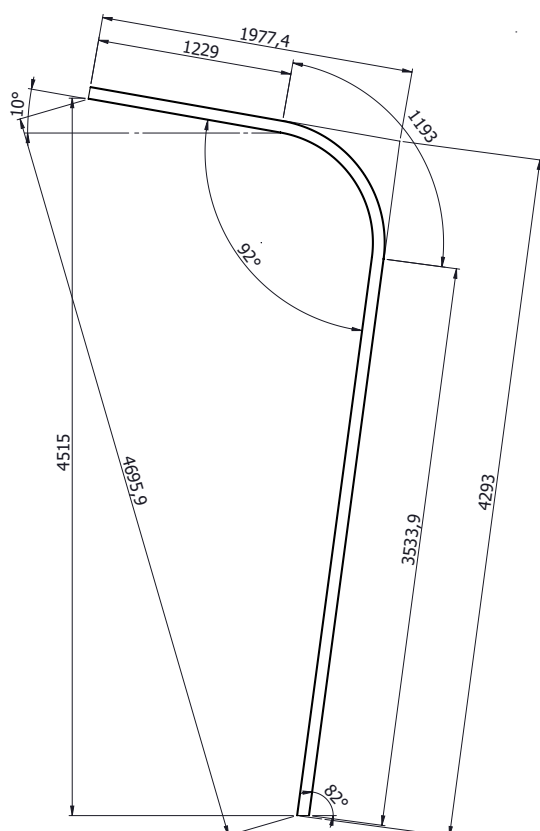
SOURCES & PHOTOMETRIC DISTRIBUTIONS

	MAMBA
Sources	5 KIDLED
Module color	RAL 2900 only
Colour temperature	3000K, 4000 K
Optical Distribution	**ORALENS:** ERS
Power supply current	Constant: 350 mA and 700 mA Adjustable up to 700 mA in option

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

KIDLED module

OPTIONS

	MAMBA
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	-
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MECHANICAL INTERFACES

Flange place fixing centers 200 x 200 mm
4 anchor bolts JT 16/14 x 300 (supplied)

MAINTENANCE

Lighting equipment maintenance

LED and power supply modules can be changed after removing one screw and unplugging the fast connector
Connection box accessible via the door at the bottom of the pole

Configuration

Height: 4,5 m

ECLATEC

TAIGA 2.1

Design: ECLATEC

Configuration

TAÏGA
Outreach 1500 mm
TAÏGA backlight
Outreach 1000 mm
Height: 6 m

Configuration

TAÏGA
Outreach 1000 mm
Height: 5 m

Configuration

TAÏGA
Outreach 1000 mm
Height: 6 m

ECLATEC

TAIGA 2.1

Design: ECLATEC

TAIGA

DESCRIPTION

Product name	TAIGA
Housing	Pole/luminaire made of hot dipped galvanised square section steel
Bowl	Clear polycarbonate
Finish	Polyester powder coating, any colour available
Impact protection	IK 10
Ingress Protection	Luminaire part: IP66 Silicone gasket

Dimensions (L x l x h)	4 m	5 m	6 m	7 m	8 m
	Section: 180 x 180 mm				

Weight	155kg	182kg	214kg	263kg	295kg
	(Outreach 1000 mm without module)			(Outreach 1500 mm without module)	

Materials used	Steel 99% Other 1%
Electrical class	Class I or II

DIMENSIONS
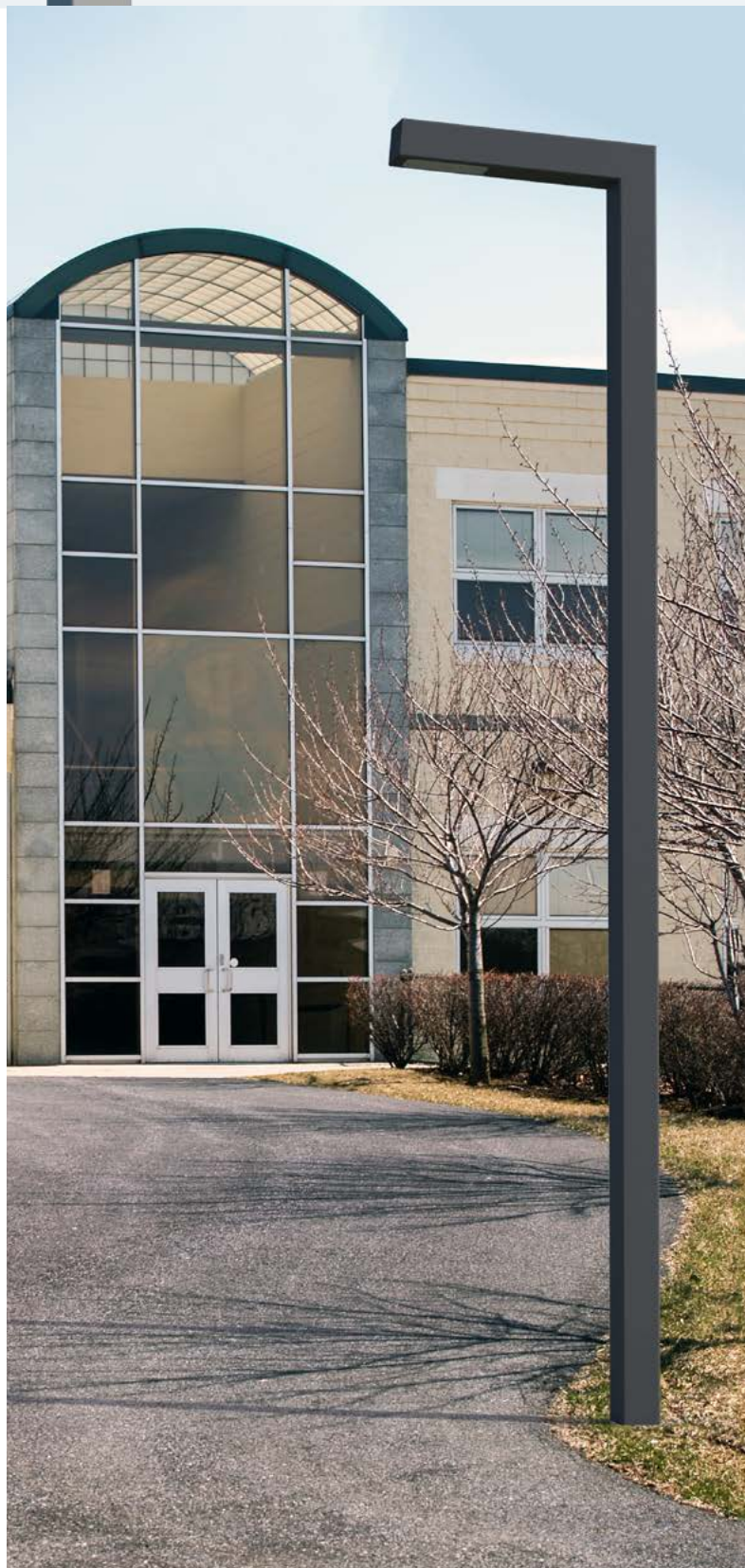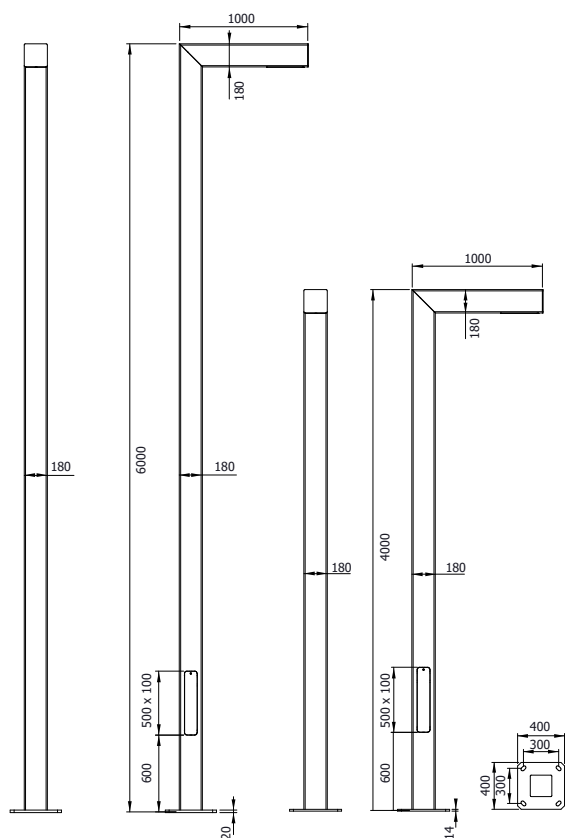
SOURCES & PHOTOMETRIC DISTRIBUTIONS

	TAIGA
Sources	NIXEA
Weight	2,9kg
Colour temperature	2200 K, 2400 K, 2700 K, 3000K, 4000 K
Optical Distribution	**QUADRALENS**
	ECa, ERS, ERL, ERE, LRS, LRL, EPD, EPG, PFA, ETS
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

NIXEA module

MECHANICAL INTERFACES

Wall bracket
Outreach 1000 mm ; weight: 32kg, without module
Outreach 1500 mm ; weight: 47kg, without module

MAINTENANCE

Module maintenance	Changing the module after removing 2 screws.

OPTIONS

	TAIGA
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	-
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	-
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

ECLATEC

SUNPOLE range

Design: ECLATEC

ECLATEC

SUNPOLE range

Design: ECLATEC

Configuration

SUNPOLE Style
TEO luminaire
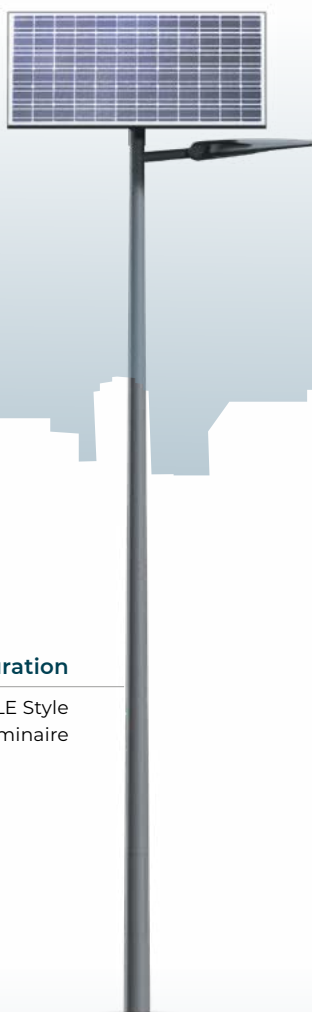
Configuration

SUNPOLE Style
NOA luminaire

Configuration

SUNPOLE Lite

SUNPOLE range

Design: ECLATEC

SOLAR PANEL

Panel	Single-crystal silicon, 72 cells
Peak power	200 Wc
Dimensions	1580 mm x 125 mm x 35 mm
Weight	15 kg
Orientation	360°
Static pitch	60° for Continental France, 15° French overseas territories
Structure	Anodised aluminium , rust-proof rigid frame
Operating temperature	-40°C to +85°C
Power guarantee	25 years at 85% of the rated power, 10 years at 93% of the rated power
Recyclability	As per European Directive 2002/96/EC

SUPERPACK BATTERY

Location	Battery built into the luminaire
Technology	Lithium ion LiFePO4 (or LFP)
Capacity	60 Ah /768 Wh or 100 Ah / 1280 Wh
Energy efficiency	92% (for a 100 % to 0 % discharge cycle and return to 100 % charged)
Security	Built in BMS (overload, under-voltage and cell overheat protection)
Weight	60 Ah / 9.5 kg; 100 Ah / 14 kg
Operating temperature	**Charge** (solar energy storage during the day): **+0 °C to +45 °C** **Discharge** (solar energy distribution to luminaire during the night): **-20 °C to +50 °C**
Service life at 25°	5000 cycles / 50% DoD 3000 cycles / 70% DoD 2500 cycles / 80% DoD DoD: depth of discharge ratio for the full battery capacity.

SMART LIGHTING MANAGEMENT

Energy Management Module	Lighting guaranteed every night of the year by automatically adjusting the power to the battery charge level
Bluetooth SmartSolar controller	**MPPT ultra-fast charge controller** built into the luminaire. Panel voltage and intensity regulation to optimise battery charge **Built-in Smart Bluetooth:** On-site configuration of power levels and night-time dimming profiles. On study, possibility of modifying the night-time profiles.
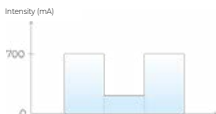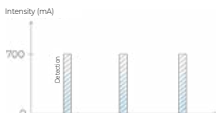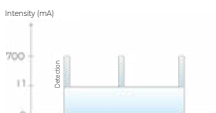
POLES AND EXTENSIONS

Poles	89 mm diameter galvanised steel cylindrical-conical without door, choice of colours
Standard height	4, 5 or 6 m
Certification	EN40
Extensions	Galvanised steel, choice of colours
Extension weight	Panel extension: 8 kg Luminaire extension: 10.5 kg

ACCESSIBILITY

Maintenance	Access to the battery and charge controller after removing the cover held by 2 screws LED module removed by 4 screws on the underside

OPTIONS

	Visual	Configuration description
Fixed power		(1)** All night lighting depending on dusk and dawn (9) Lighting at fixed times
Dimming		(2)** Lighting and dimming depending on dusk and dawn (3) Lighting depending on dusk and dawn and dimming at fixed times (6) Lighting and dimming at fixed times
Detections*		(4) Luminaire off with detection between dawn and dusk (7) Luminaire off with detection during a set time range
		(10) Luminaire on at a low level and detection with switch to high level between dawn and dusk (11) Luminaire on at a low level and detection with switch to high level during a set time range
Dimming with detection*		(5) Lighting depending on dusk and dawn, dimming at fixed times, detection during the dimming period (8) Lighting and dimming at fixed times, detection during the dimming period

* depending on the luminaire.
** Parameters can be modified on-site using Bluetooth

STANDARDS, MARKINGS AND CERTIFICATION

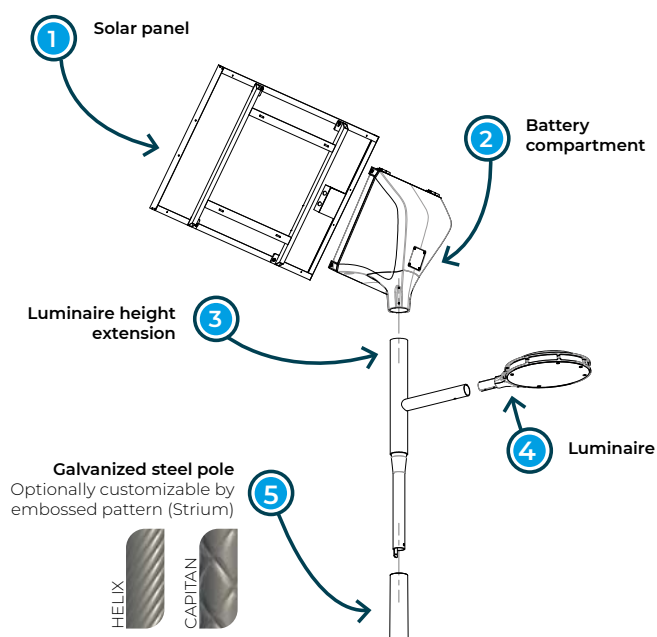|	
Luminaire	**CE, mandatory marking:** - Directive 2014/35/EU, Low voltage Directive - Directive 2014/130/EU Electromagnetic Compatibility - Directive 2011/65/EU Restriction of Hazardous substances (RoHS) - Directive 2009/125/EC Ecodesign requirements Compatibility with the French 'limitation of light pollution' order of 27 December 2018 **Substances (RoHS)**- Directive 2009/125/EC Ecodesign requirements **NF EN 13201** Relative to supplied lighting studies Luminaire certificates and photometric study Qualification for energy saving certificates, E.E.C. sheets: RES-EC-103, RES-EC 104 **REACH:** Compliance of products and their manufacturing method with the Chemical Substance Management Regulatory framework **WEEE (Waste electric and electronic equipment):** ECLATEC involvement **RECYLUM:** ECLATEC is a founding member
Battery	**EMC Directive** 2014/30/EU: EN 61000-6-3:2007/A1:2011/ AC:2012 and EN 61000-6-2:2005/AC:2005 **Low Voltage Directive** 2014/35/EU: EN 60950-1:2006/ AC:2011 Cells and secondary batteries for the storage of renewable energy - General requirements and test methods - Part 1: Off-grid photovoltaic application: IEC 61427-1:2013 Safety data declarations **CE**
Solar panel	IEC 61215 and IEC 61730, CE, made in Germany

ECLATEC

SUNPOLE Style

Design: ECLATEC

SUNPOLE Style

DESCRIPTION

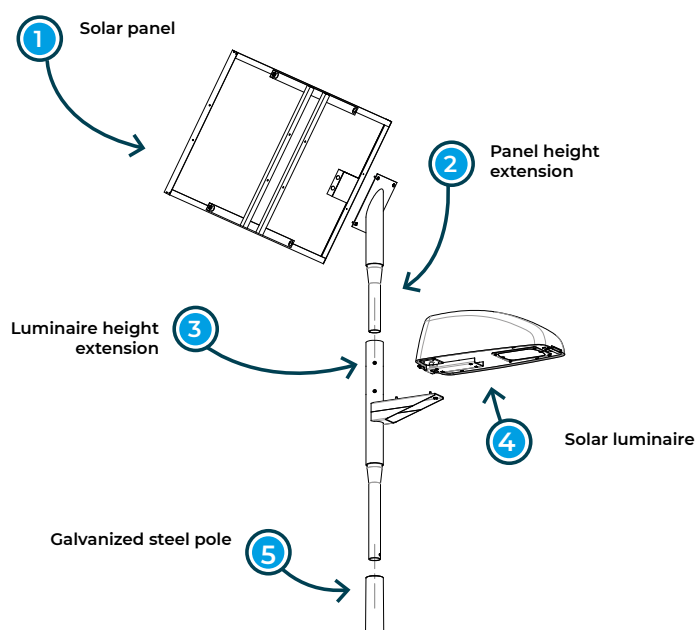Stand-alone light solar solution for recommended installation heights of 4 m, 5 m or 6 m. Details:

1. Solar panel
2. Battery compartment
3. Luminaire height extension
4. Luminaire
5. Galvanized steel pole
   Optionally customizable by embossed pattern (Strium)
   HELIX   CAPITAN

Product name	SUNPOLE Style
Luminaire	Wide choice of high performance LED luminaires
Impact protection	Refer to the technical pages of the chosen luminaire.
Ingress Protection	IP 66
Module Ingress Protection	IP66 Extruded silicone gasket Cable gland with anchoring device Breathing system with activated membrane filter
Materials used	With a 5 m mast: Steel 80% Aluminium 1% Plastic 1% Autre 16%
Electrical class	Class III

DIMENSIONS

1580

355 173

808

1273

285

4000 / 5000 / 6000

Sol fini

100
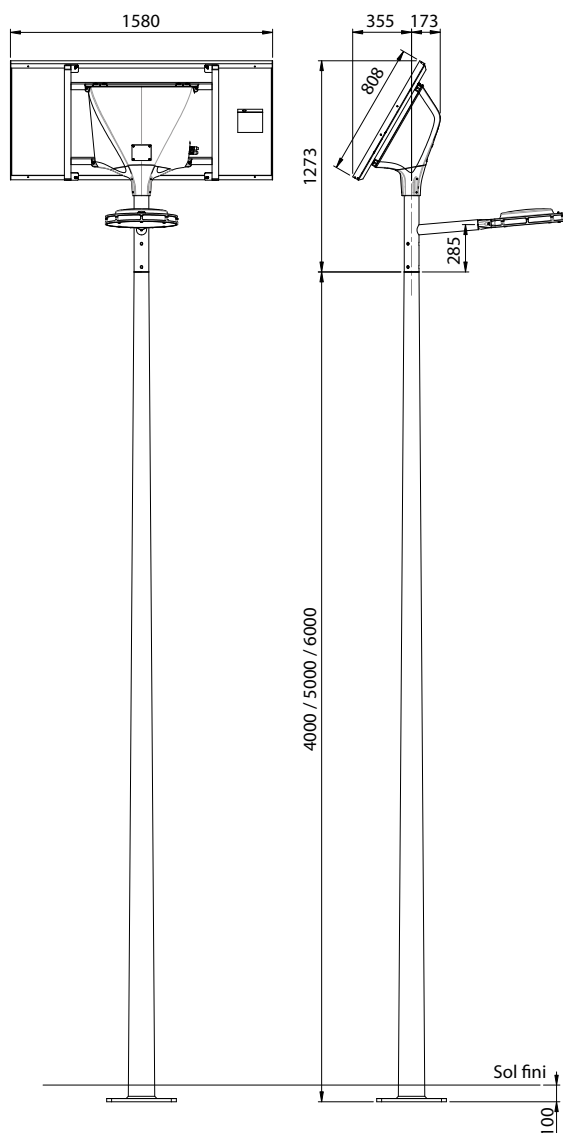
EXAMPLES OF COMPATIBLE LUMINAIRES

TEO

ELIPT

PIXEL

TSANA

ZELDA

STELIUM

CHORUS X

MOANA

SOURCES & PHOTOMETRIC DISTRIBUTIONS

Refer to the technical pages of the chosen luminaire.

BACKLIGHT SHIELD OPTION

Refer to the technical pages of the chosen luminaire.

ECLATEC

SUNPOLE Lite

Design: ECLATEC

SUNPOLE Lite

DESCRIPTION

Stand-alone light solar solution for recommended installation heights of 4 m, 5 m or 6 m. Details:

1. **Solar panel**
2. **Panel height extension**
3. **Luminaire height extension**
4. **Solar luminaire**
5. **Galvanized steel pole**

Product name	SUNPOLE Lite Luminaire with the LED lighting module, the battery and the charge controller
Housing	Polymer cover sand blasted RAL 2900 Aluminium underside, other colours on request
Impact protection	Module IK 10
Luminaire Ingress Protection	IP 65
Module Ingress Protection	IP 66 waterproofing in accordance with standard EN 60 529 Extruded silicone gasket Cable gland with anchoring device Breathing system with activated membrane filter
Materials used	With a 5 m pole: Steel 80% Aluminium 1% Plastic 1% Other 16%
Electrical class	Class III

DIMENSIONS

1580

271 843

808

1362

353

340

4000 / 5000 / 6000

Sol fini

100
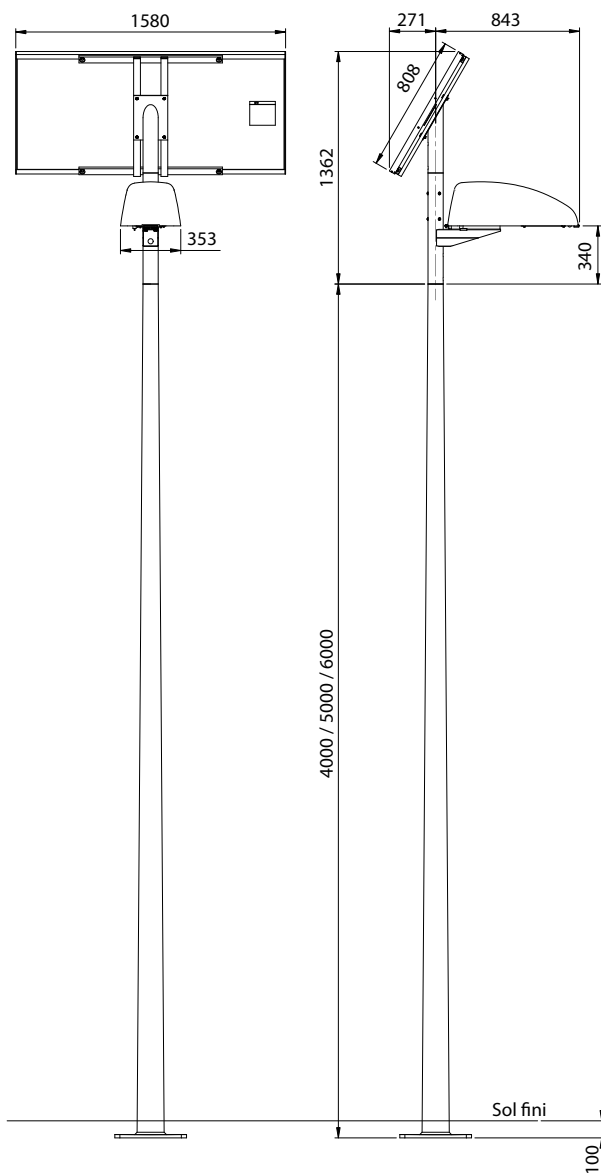
SOURCES & PHOTOMETRIC DISTRIBUTIONS

	SUNPOLE Lite
Sources	BLS strips
Colour temperature	2200 K, 2400 K, 2700 K, 3000 K ou 4000 K
Optical Distribution	**QUADRALENS:** ERS, ERL,ECa, LRS, LRL, ERE, ETS, PFA, EPD, EPG
Backlight shield	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

BLS Strips

ECLATEC

PRIORILED
PEDESTRIAN CROSSING

PRIORILED
PEDESTRIAN CROSSING

ELIPT 55
Presented with PRIORILED module

DESCRIPTION

Product name	PRIORILED ELIPT
Housing	Injection die-cast aluminium Spun aluminium dome
Finish	Polyester powder coating, any colour available
Impact protection	IK 08
Ingress Protection	IP66 Extruded pneumatic silicone gasket Cable gland with anchoring device Breathing system with activated carbon filter
Dimensions (dia x h)	555 x 215 mm
Weight	13,7kg
Windage area	0.09m²
Materials used	Aluminium 86% Steel 4% Polymères 3% Other 7%
Electrical class	Class I or II

MECHANICAL INTERFACES ELIPT

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

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 fixing - on 5 to 14 mm diameter mechanical cable

TSANA 55
Presented with PRIORILED module

INDICE 620
Presented with PRIORILED module

INDICE CONIC
Presented with PRIORILED module

SOURCES & PHOTOMETRIC DISTRIBUTIONS

	PRIORILED
Sources	PRIORILED
Colour temperature	3000 K or 6500 K
Module color	RAL 2900 or 2150
Optical Distribution	ORALENS: EPD, EPG
Power supply current	Constant at 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

PRIORILED module

EPD: pedestrian crossing lighting Right
Luminaire placed upstream of the crossing section, in the moving traffic direction, for a two-way street application
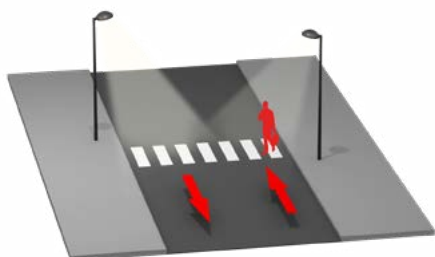
EPG: pedestrian crossing lighting Left
Luminaire in addition to EPD, placed upstream of the crossing section, for wide one-way street application

OPTIONS

	PRIORILED
At the lighting point	
Adjustable current (driver or bottom of the pole)	√
Dimming (driver, bottom of the pole or Bluetooth)	√
Built-in detection	-
Remote detection	√
DALI protocol	√
Smart-Ready® configuration (ZD4i)	√
In a local network	
Communicating detection with pilot wire	√
Wireless communication sensing	√
Remote management	
WIZARD CMS system	√

Details of the functions available on pages 272 to 279 and in the LED synopsis located on under the flap on the front cover

MAINTENANCE

Opening and closing	Opening of the luminaire by 3 quarter-turn screws The Prioriled module swivels around a hinge in aluminium
Maintenance PRIORILED	Direct access to the prioriled module Power supply by quick connectors Removable Prioriled module

LUMINOUS
column finials

DESCRIPTION

Product name	Point 600, point 500, rounded, bevelled
Housing	Aluminium alloy body
Finish	Polyester powder coating, any colour available
Ingress Protection	IP 66 O-ring Cable gland with anchoring device
Source	1 LED power 1W at 350 mA (white, blue, red, green)
Power supply	230 V
Wiring	Wired with cable HO7RNF - 3G 1,5² - 13 m

DIMENSIONS

Ø 60

386,5

215

Ø 60
Ø 53
Ø 48
Ø 44

Ø 60

287

Ø 60
Ø 53
Ø 48
Ø 44

Ø 60

187

Ø 60
Ø 53
Ø 48
Ø 44

Ø 60

186,5

Ø 60
Ø 53
Ø 48
Ø 44
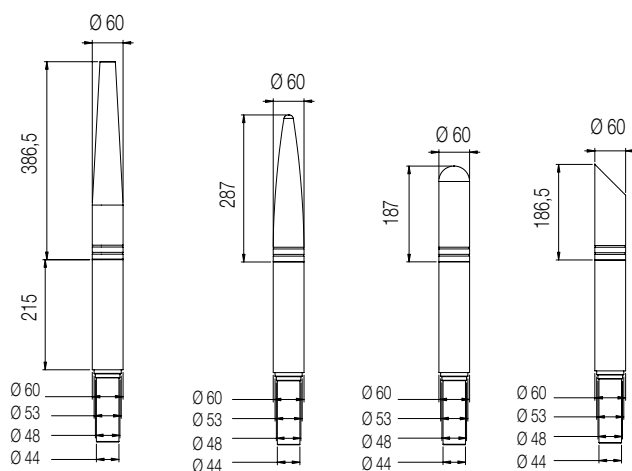
MAINTENANCE

Maintenance   Unscrew the translucid tip
Access to the LED

MECHANICAL INTERFACES

Fixation on pole Ø 60/62 mm and Ø 89mm

Ø 80
Ø 89

Ø 60
Ø 53
Ø 48
Ø 44
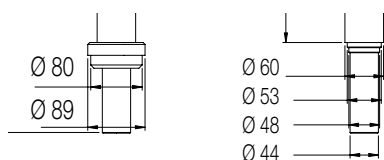
ALUMINIUM
column finials

DESCRIPTION

Product type	4 sizes available
Housing	Cast aluminium body
Finish	Polyester powder coating
Fastening	Male bracket fastening Fastened by stainless steel screws depending on mounting specifications

DIMENSIONS

Ø 60
Ø 40
600
150

Ø 60
Ø 42
750
150

Ø 76
Ø 66
800
152
200

Ø 89
Ø 66
800
152
200

ECLATEC
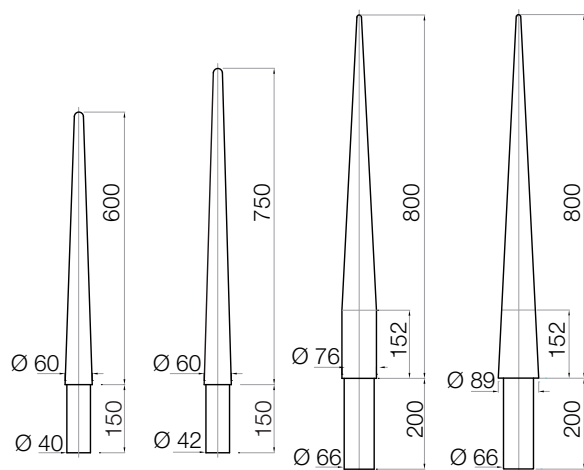
FASTENING PLATES
for concrete poles

PREFIX   SUFFIX

PREFIX

Description	Luminaire holder with integrated control gear for concrete poles drilled Ø 18mm or wall-mounting
Housing	Galvanised steel fitting
Outreach	800 mm, 1000 mm and 1200 mm
Tilts	5 and 10°
Montage	For side entry mounting
Fixation	Plate fastening: 2 holes Ø 16 mm, distance between centres 280 mm and tie-rods Ø 14 mm

SUFFIX

Description	Luminaire holder with integrated control gear for concrete poles drilled Ø 18 mm or wall-mounting
Housing	Galvanised steel fitting
Outreach	800 mm, 1000 mm and 1200 mm
Tilts	5 and 10°
Montage	For side entry mounting
Fixation	Plate fastening: 2 holes Ø 16 mm, distance between centres 350 mm

UNIFIX   GOLF   APPLIFIX

UNIFIX

Description	For all public lighting luminaires, adapting bracket for all types of poles, wood, concrete, walls etc
Housing	Bracket in galvanised steel Ø 49 mm and Ø 60 mm
Outreach	500 mm and 1000 mm
Tilts	5° / Azimuth angle marking
Montage	For side entry mounting
Fixation	Two attachments Ø 49 mm and Ø 60 mm in galvanised steel for the EP console including 1 with cabinet
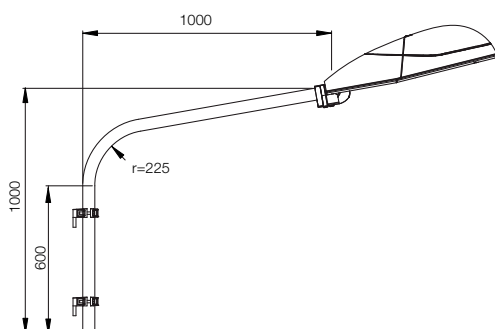
APPLIFIX

Description	Integrated bracket-fastening plate
Housing	Galvanised steel fitting Ø 49 mm and Ø 60 mm
Outreach	500 mm and 1000 mm
Tilts	5°
Montage	For side entry mounting
Fixation	Plate fastening: 2 holes Ø 16 mm, distance between centres 140 mm, or by sheet
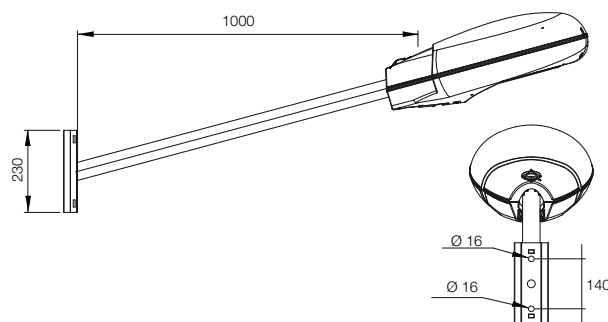
GOLF

Product name	Luminaire holder with integrated control gear for concrete poles drilled Ø 18 mm or wall-mounting
Housing	Galvanised steel fitting
Outreach	500 mm, 800 mm, 1000 mm and 1500 mm
Tilts	5°
Montage	For side entry mounting
Fixation	Plate fastening: 2 holes Ø 16mm, distance between centres 630mm and tie-rods Ø 14 mm
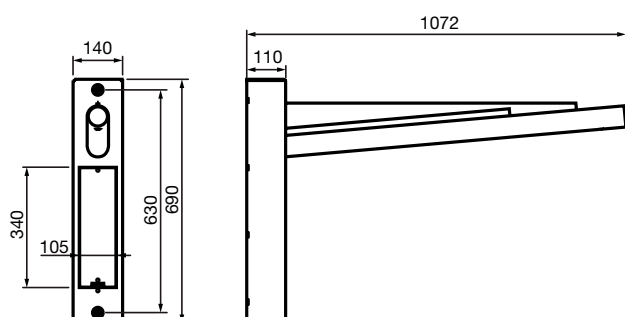
ECLATEC

TIMBER columns

The ECLATEC timber concept, a modern, environmentally friendly concept for lighting.
A combination of aesthetic and mechanical qualities, timber is a durable and renewable material the use of which is a relevant solution to protect nature.

ECLATEC uses larch from managed forests.
The species is specially adapted to producing glue-laminated poles.

OUR TIMBER SOLUTIONS

Environmental advantages

Glue-laminated timber is made using species from cultivated European forests. Its rational use guarantees the renewal of forest resources. The growth of 1 kg of wood in a growing forest absorbs 1.5 kg of CO2 and produces 1 kg of oxygen.
The environmental impact of the use of adhesives is controlled by the use of biological settling and treatment techniques.

Standardisation

The species used are perfectly suited to creating glue-laminated assemblies. Class 3 strength as per the EN 335 standard
Removal of defects, knots, sapwood as per the EN 518 - EN 519 standards

Fungicide treatment

ACERBOIS GLULAM certification:
- Strength class as per the EN 386 and EN 1194 standards
- Use class as per the EN 350 standard
- Termite protection treatment
- Adhesive used as per the EN 301 - EN 302 standards
- Use of timber from sustainably managed forests

ACERBOIS-GLULAM

Steel base ECLATEC timber assemblies are compliant with the EN 40 standard

FINISHES

Willow   Pine   Chestnut   Walnut   Rosewood

KIOWA

ALTAÏS

TOTEM

STUFF

Sublimation & Strium

SUBLIMATION

Sublimation is used to very accurately apply an image or illustration on smooth media.
After the mechanical and or chemical preparation of the steel and aluminium supports
Application of a polyester powder coating paint according to the required pattern; Polymerisation
Sublimation by hot ink transfer
Many wood shades available: for other patterns, contact us.

Surface finishes: Gloss, satin, smooth and rough
Patterns applicable on tubes, cross sections, squares, rectangles
Poles up to 16 m

Note: The soles are not sublimed. They are painted in the base colour.

Rough Douglas-DG18N01

Walnut-DG07B01

Douglas-DG08G01

Dark walnut-DG07AB5
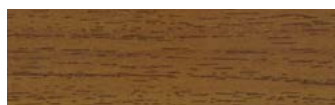
Rough acacia-DG17A01

Rough oak-DG18P01
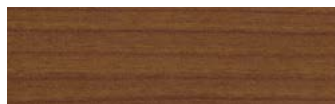
Rough wild cherry-DG17G01
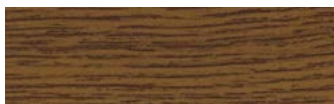
Rough oak-DG17F01

Burl-DG07D01

Golden oak-DG08AB1

Beech-DG08AB6

Mahogany-DG02AB5

STRIUM

The STRIUM process is resolutely innovating.

Associated with an extensive furniture range, **STRIUM** offers a brand new decorative and resolutely contemporary dimension to city life. Thus, **STRIUM** makes it easy to integrate furniture into urban spaces.

The STRIUM process is applied in the GHM workshops on exit from the production line.

It is applied to steel and stainless steel cylindrical and conic-cylindrical poles, columns, bollards and posts.
Up to six shapes are available depending on the product type.

Of, course, **STRIUM** does not alter the products' strength.
It is also an elegant and long-lasting solution to graffiti and fly posting.

CAPITAN

HELIX

TRAID

ECLATEC

Prevention of light pollution
Order published in the French Journal Officiel of 28 December 2018

This order identifies several installation contexts, then indicates the limits applicable to the different uses in each context (including in increased limitation zones such as parks and nature reserves, zones near public river or sea domains, etc.).

An application text expected in 2019 should provide further clarifications, but their general meaning should not change the main points explained below.

Outside specific restriction zones, all new street and car park lighting installations (case a) and e) of the order) must comply with the following limitations as of 1st January 2020:

ULR: THE PERCENTAGE OF LIGHT EMITTED FROM THE LUMINAIRE ABOVE THE HORIZONTAL.

ULR

Surrounding area — Roads and streets — Surrounding area
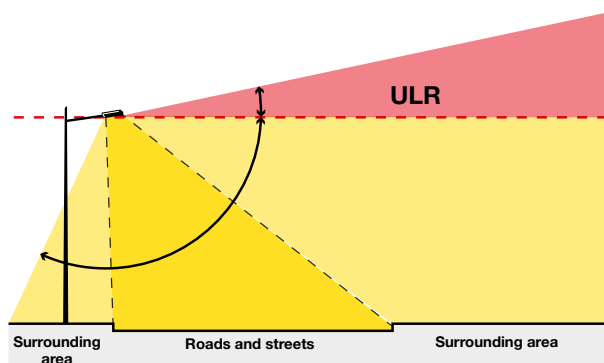
The luminaire's ULR must be less than 1% (or nil, depending on the case) and the value for the installation less than 4 % (or nil depending on the case).

PROPORTION OF THE OUTPUT FLUX IN A HALF ANGLE CONE OF 75.5° (OR CIE FLUX CODE N°3):

Source

75,5°
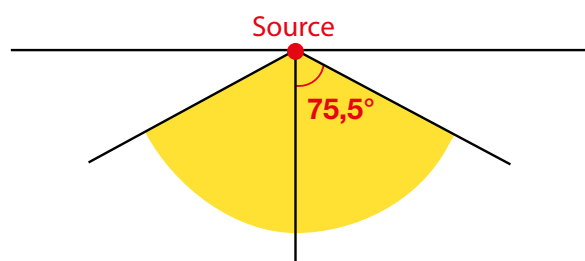
The text indicates that 95 % of the luminaire's flux emitted below horizontal must be inside a 75.5 ° half angle cone.

COLOUR TEMPERATURE

This notion defines the light "warmth": Depending on the context, the maximum authorised colour temperatures are 3000 K, 2700K or 2400 K.

2400 K | 2700 K | 3000 K | 3500K | 4000 K | 5000 K

ALLOWABLE ILLUMINATION LEVELS
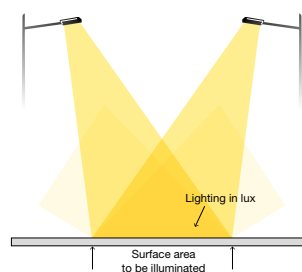
The "Source flux" is taken into account.

This total flux is compared to the "surface area to be lit"; it is therefore expressed in lm/m².

Lighting in lux

Surface area to be illuminated

$$\text{Installed light flux density (lm/m}^2\text{)} = \frac{\text{Source flux (lm)}}{\text{Surface area to be illuminated (m}^2\text{)}}$$

LIGHT INTRUSION

The text indicates that lighting installations must not generate excessive light intrusion in dwellings.
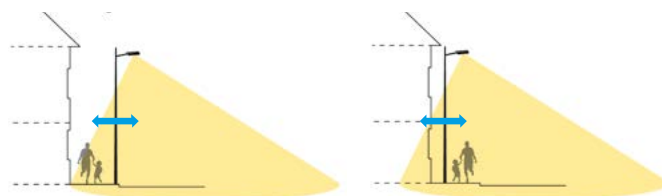
LIGHTING INSTALLATION DATA RECORDING

The managers of all lighting installations must be able to produce the technical data for each lighting point they manage.

There are other provisions such as the elimination of all luminaires with a ULR higher than 50 % before 1st January 2025.

It is essential to be aware of the installation context which will determine the limits assigned to each lighting point; your ECLATEC contacts can provide you with their interpretation of these provisions.

For further explanations on this order, you can download the full text from the website:

www.eclatec.com/fr/documentation

Vincent Van Gogh: The starry night, in 1888
Paris, musée d'Orsay

The order differentiates between the different uses for exterior lighting:

▸ highlighting heritage sites or parks and garden lighting (case b) of the order): for these applications, luminaire design remains relatively without constraints

▸ road and car park lighting (case a) and e) of the order): on the other hand, in this context, the limits to equipment and its installation are more restrictive: some models are compatible without alterations; a few versions of luminaires cannot be used, and finally, others require adaptations: such modifications, for example, concern mechanical components (shapes and colours), the addition of accessories, lens design, the choice of materials or a combination of those solutions.
To simplify, ECLATEC has grouped these adaptations, which differ depending on the models, under a single generic name: ZENIUM.

So, to sum up, the ZENIUM protocol version for each luminaire meets the limits defined for case a) and e) of the order.

▸ other installation contexts are identified: they have their own limitations (parks, reserves, astronomical observation zones, lighting near bodies of water, rivers and the sea): each case must be looked at separately.

ZENIUM protocol; compliance with ULRs, CIE flow code n°3 and colour temperatures:

The ZENIUM protocol version of each luminaire groups together the required

modification to adapt the product to a street, road and car park lighting use (case a) and e) the order).
Other uses (highlighting heritage sites, parks and gardens) do not require this ZENIUM finish.

Surface density:

On communication of the project data (surface area to illuminate, site and location, special requirements), ECLATEC design offices will be able to confirm that the corresponding limits have been respected following analysis.

Partial curfew, detection:

In some cases, the text imposes a curfew during defined time slots; several solutions are proposed:

• Almost all lighting currently supplied by ECLATEC can be factory-programmed for these requirements

• ECLATEC has also designed modules at the base of posts which can be used to programme the curfews on site

• Similarly, the detection systems proposed by ECLATEC cater for some of the situations mentioned in the order

• Of course, ECLATEC remote management systems are also a solution to these requirements.

Light intrusion, Public river and sea domain lighting:

Backlight shield devices are available and can be adapted to most luminaires. For light intrusion, it is not usually possible to determine it remotely; which is why ECLATEC will provide installation recommendations intended to define light intrusion according to the lighting point positions.

Backlight shield adaptation

| ORALED rear backlight shield | BLS rear backlight shield | TABLED 1 rear backlight shield | TABLED 2 rear backlight shield |
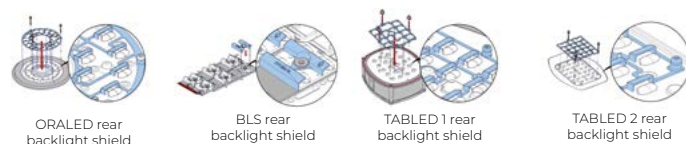
Register and communication of luminaire specifications:

Since 1st April 2019, ECLATEC provides data specific to supplied lighting, both on the acknowledgements of receipt of orders but also on two flashcode stickers (the first attached to the luminaire, the second one to be placed at the foot of the pole or on the register).
ECLATEC will supply a model register to record this information on request.

Context study:

The ECLATEC design offices and your regional contacts are available to look at your project's specificities.

Flashcode

Website

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, TWEET «NÉO» S1/X1, S2/X2, TWEET «ORIGIN» S1/X1, S2/X2, S3/X3, ZELDA S1/X1, S2/X2 & S3/X3, LINK, SONATA, PIXEL 1 & 2, IXIS 1 & 2, ENZA, ZESTO, BORNE TAÏGA, BORNE TREK, BORNE ZESTO, MOANA, MURENA, KERIS 2 & 3, LEXIK, TEO 45S/55S, TEO 45X/55X, NOA S1/X1, NOA S2/X2

▸ **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

Bevels = towards the road

8 LEDs

12 LEDs

Connector JST SM02B-PASS

Optional backlight shield, except EPD, EPG, Eca, Ecb and Psa

Connector JST SM02B-PASS
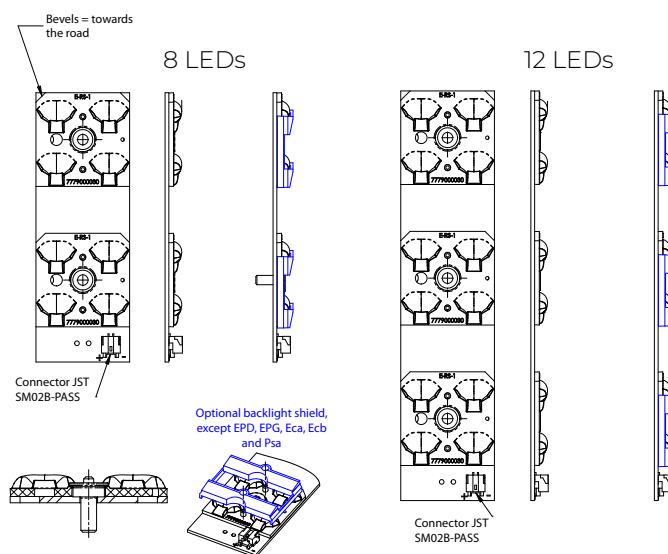
ECLATEC MODULES

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

ORALED

ORALED 1: NISMO, ELYXE, LINK, SAGA, REFLEX, TEO 45, ELIPT 45, CHORUS 45, METRO 45, TSANA 45, INDICE 500
ORALED 2: TEO 55, ELIPT 55, CHORUS 55, METRO 55, TSANA 55, INDICE 620

REOLED

REOLED 1: ELIPT 45, CHORUS 45, TSANA 45
REOLED 2: ELIPT 55, CHORUS 55, TSANA 55

SEOLED

SEOLED 1: METRO 45, INDICE 500, ELYXE, REFLEX, SAGA
SEOLED 2: METRO 55, INDICE 620

XEOLED

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

NIXEA

NIXEA: TAÏGA

KIDLED

KIDLED: MAMBA, AMARANTE, CADIX

TABLED

TABLED 2: MOANA, CLIP, MURENA, PALEO, ECLAT

ZEDLED

ZEDLED B: IDYLLE, ORIENTIS

ZEDLED C: TEXTO, BUZZ, ZEN

ZEDLED D: UNIVERSO

ZEDLED 1: CORTO, NISMO

Photometric curves

INTERPRETATION OF PHOTOMETRIC CURVES

Imax = 817 cd/klm
— C90 - C270
— C0 - C180
— C10 - C170
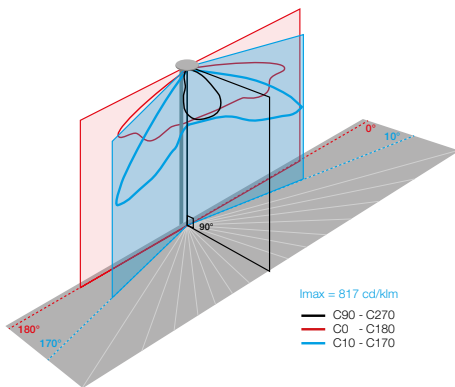
The intensity curves describe the light distribution of the luminaire. The light intensity is the quantity of light emitted in one direction. It is expressed in candela. By convention these curves are rounded to a flux of 1000 lumens.

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

Imax = 817 cd/klm   cd/klm — C90 - C270
— C0 - C180
— C10 - C170

Luminaire tilt at 0°

Isolux curve

Pole setting

70,37%

Example of ground illumination

TWEET S1 - height 4 m

TWEET T3 - Height 9 m
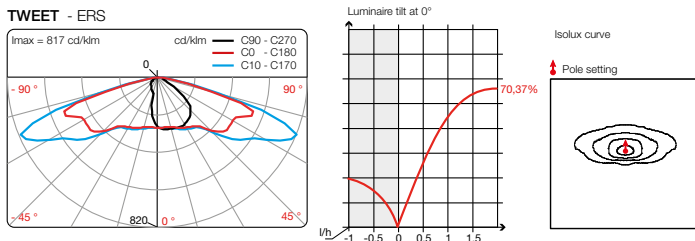
$$0,8 < \frac{width}{height} < 1,2$$

$$4 < \frac{spacing}{height} < 5,5$$

Facteur d'utilisation   70,37%
60%

h

h

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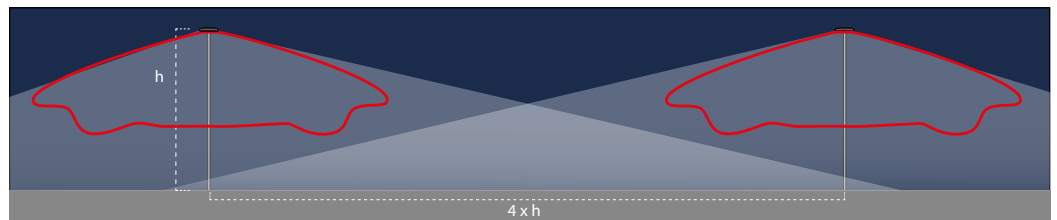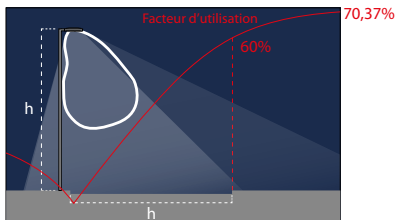
CAUTION: These curves can be used in an initial approach as a criteria for selecting an appliance. However, the conformity of a solution requires a comprehensive check by the ECLATEC Lighting Consultancy department.

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.

ECLATEC

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

Imax = 244 cd/klm

ECa

Imax = 372 cd/klm

ECb

Imax = 2055 cd/klm
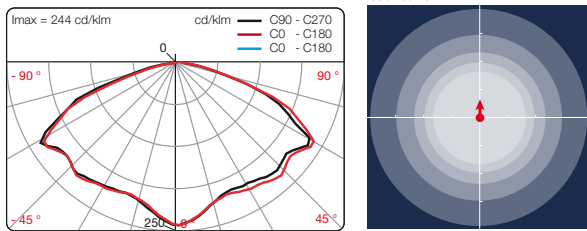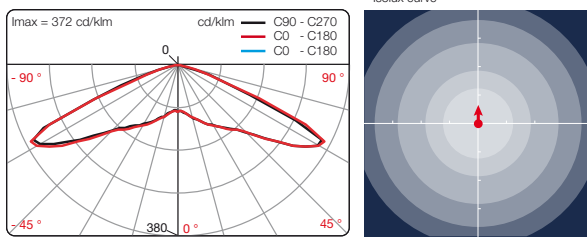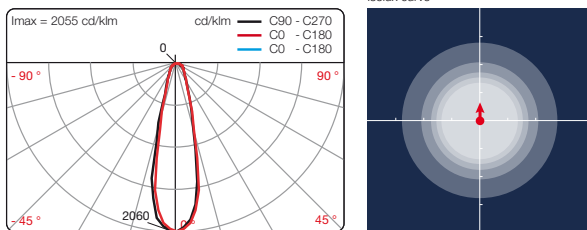
«ER»

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

Imax = 863 cd/klm

ERS

Imax = 688 cd/klm

ERL

Imax = 533 cd/klm
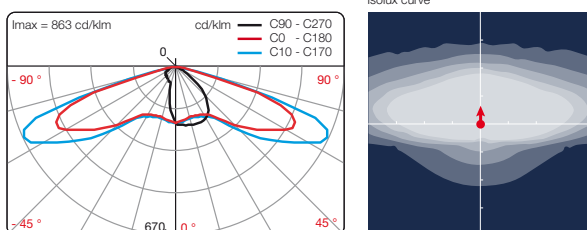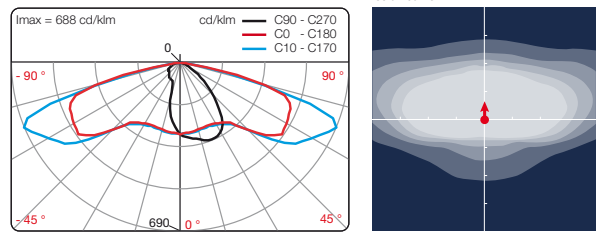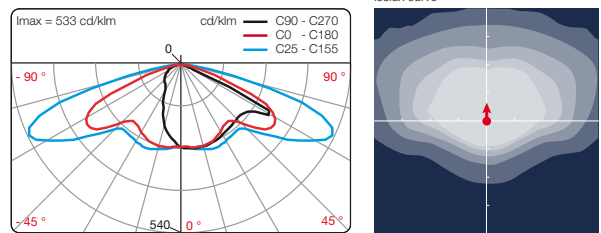
«LR»

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

Imax = 623 cd/klm

LRL

Imax = 478 cd/klm

LRM

Courbe polaire
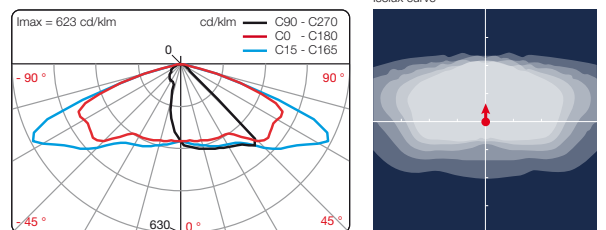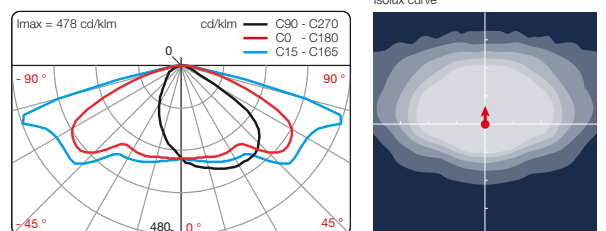
Imax = 637cd/klm
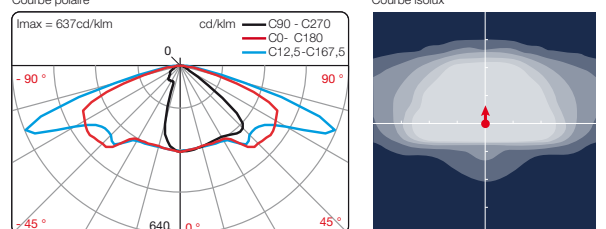
«EP»

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

Imax = 417cd/klm   cd/klm   C90 - C270 / C0 - C180 / C50 - C130

Isolux curve

EPG

Imax = 730 cd/klm   cd/klm   C90 - C270 / C0 - C180 / C135 - C45
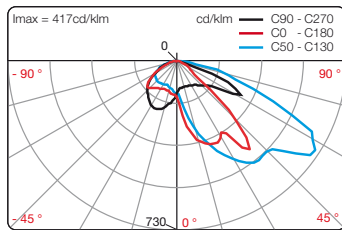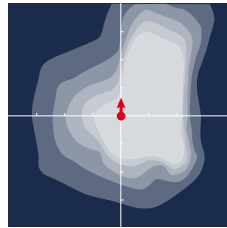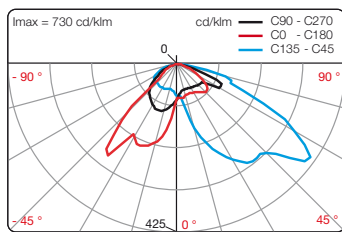
Isolux curve
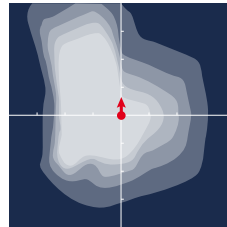
«P»

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
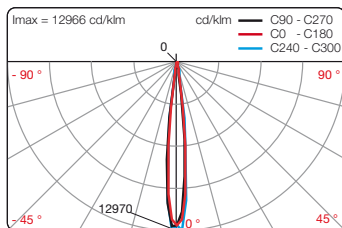
Imax = 12966 cd/klm   cd/klm   C90 - C270 / C0 - C180 / C240 - C300

Isolux curve

PFM

Imax = 6063 cd/klm   cd/klm   C90 - C270 / C0 - C180 / C0 - C180

Isolux curve

PFL

Imax = 1311 cd/klm   cd/klm   C90 - C270 / C0 - C180 / C45 - C135

Isolux curve

PFA

Imax = 658 cd/klm   cd/klm   C90 - C270 / C0 - C180 / C50 - C130

Isolux curve

PSA

Imax = 1028 cd/klm   cd/klm   C90 - C270 / C0 - C180 / C0 - C180

Isolux curve

PAa

Imax = 732 cd/klm   cd/klm   C90 - C270 / C0 - C180 / C75 - C105
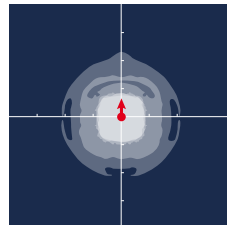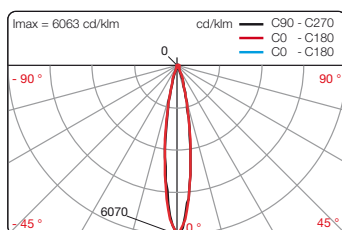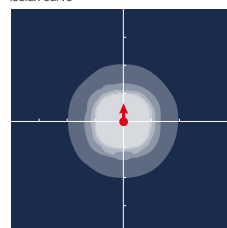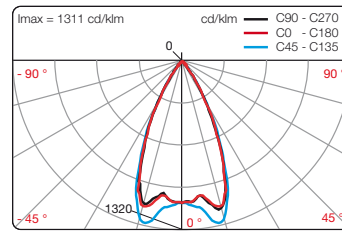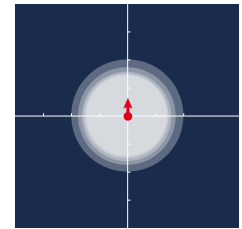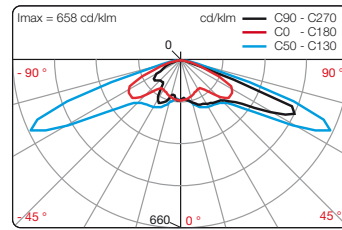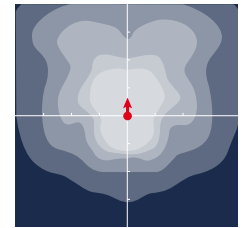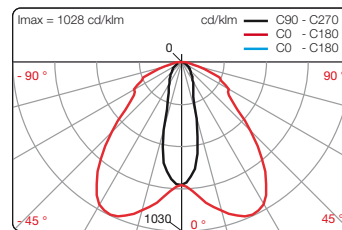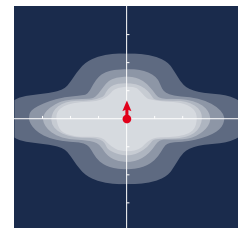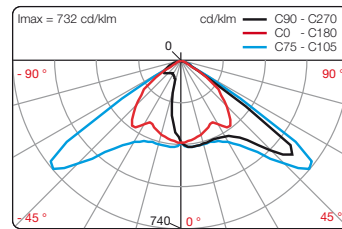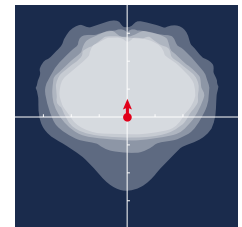
Isolux curve

ETS

ETS	Standard Sidewalk illuminance

ETS

Imax = 832 cd/klm   cd/klm   C90 - C270 / C0 - C180 / C5 - C175
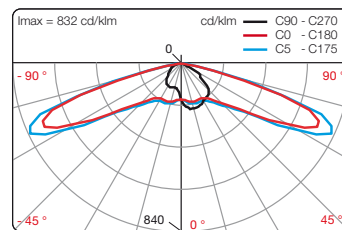
Isolux curve
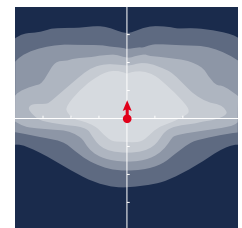
EAH

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

ECP

ECP	Pathway illuminance

ECLATEC

ECLATEC LED modules

1 EXISTING LUMINAIRE RETROFIT

2 SPECIFIC APPLICATIONS

Wall bracket

pedestrian light
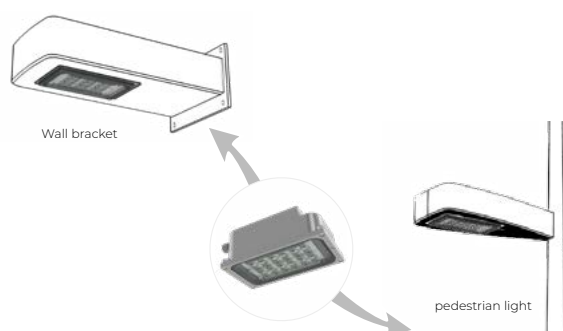
APPLICATION

Existing modules can cater to different applications:

▸ assembly in ECLATEC or GHM luminaires is the simplest case.

▸ to install those modules in other luminaire configurations, the approach considers the criteria and specifications indicated in the summary table on page 329.

▸ other assemblies are intended to be included in mechanically-welded elements or building elements; there is a vast choice to light differently.

Example of a wall mount for a NIXEA module

CRITERIA

Depending on the case being considered, the choice is guided by certain essential criteria:
▸
▸ the required flux
▸ the colour temperature
▸ the required distribution
▸ the available volume
▸ the ease of creating simple adapter parts when necessary
▸ the "IP" for the housing structure
▸ the elements that are used to anticipate thermal dissipation
▸ the required shape factor
▸ the electrical class
   compliance with applicable standards and legislation

INSTALLATION AND ADVICE

Outside certain luminaires, in particular those of the ECLATEC and GHM ranges, adapter parts may be required.

These may be intermediate ogees or fixing parts that are fitted to the module fixing points (ogee, brackets, etc.)
ECLATEC can guide you for these adaptations, or even produce them in certain conditions.

TABLED 1 LUMINAIRE

DESCRIPTION

Module housing	Housing and cup in aluminium AS12 Driver integrated in the module
Finish	Polyester powder coating Grey 2150
Impact protection	IK 08
Ingress Protection	IP 66 (optic) Cable gland with anchoring device
Weight	1,9kg
Electrical class	Class I or II
Source	TABLENS monolens in PMMA
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Backlight shield option	Optional, adaptable to LED sources

▶ **TABLED 1** is a luminaire with **independent** LED module and **IP 66** ; it incorporates a **programmable power supply**.

▶ **TABLED 1** suitable for a large number of luminaires (especially style) and applications

ZEDLED 1 LUMINAIRE

DESCRIPTION

Module housing	Housing and cup in aluminium AS12 Driver integrated in the module
Finish	Polyester powder coating Grey 2900
Impact protection	IK 10
Ingress Protection	IP 66 (optic) Cable gland with anchoring device
Weight	2,6kg
Electrical class	Class I or II
Source	BLS strips with QUADRALENS lenses
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Backlight shield option	Optional, adaptable to LED sources

▶ **ZEDLED 1** is a luminaire with **independent** LED module and **IP 66** ; it incorporates a **programmable power supply**.

▶ **ZEDLED 1** suitable for a large number of luminaires (especially round) and applications

ECLATEC

ECLATEC LED modules

NIXEA LUMINAIRE

4 R4

117

~23   290,4   160,4

180   76

M8   M8
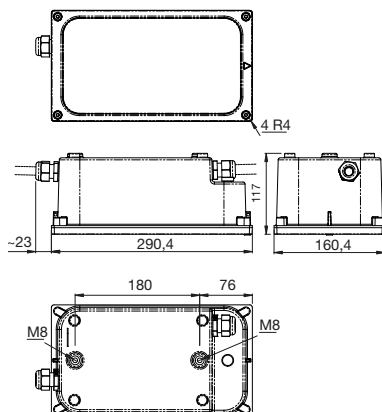
▸ **NIXEA** is a luminaire with **independent** LED module and **IP 66** ; it incorporates a **programmable power supply**.

▸ **NIXEA** suitable for a large number of luminaires and applications

DESCRIPTION

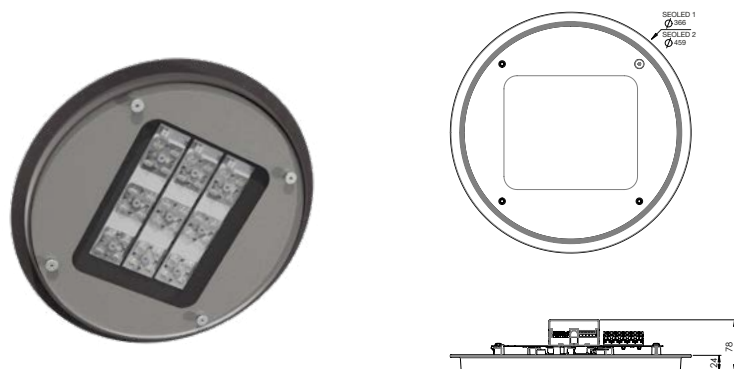|	
Module housing	AS12 aluminium body Driver integrated in the module
Finish	Polyester powder coating Grey 2150
Impact protection	IK 10
Ingress Protection	IP 66 Cable gland with anchoring device
Weight	2,9kg
Electrical class	Class I or II
Source	BLS strips with QUADRALENS lenses
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Backlight shield option	Optional, adaptable to LED sources

KRF TAIGA LUMINAIRE

260

19   229,5

152,5   175

Ø 7

88,5
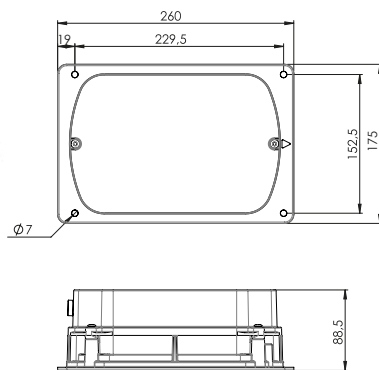
▸ **KRF TAIGA** is a luminaire with **independent** LED module and **IP 66** ; it incorporates a **programmable power supply**.

▸ **KRF TAIGA** suitable for a large number of luminaires and applications

DESCRIPTION

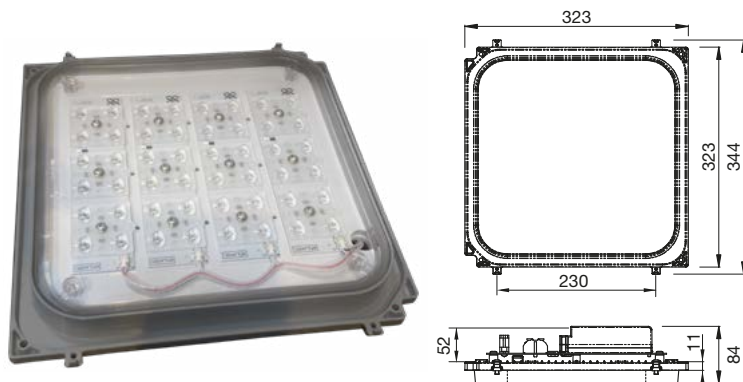|	
Module housing	AS12 aluminium body Polycarbonate cover
Finish	Polyester powder coating, any colour available
Impact protection	IK 10
Ingress Protection	IP 66 / Cable gland with anchoring device Breathing system with activated membrane filter
Weight	2kg
Electrical class	Class I or II
Source	BLS strips with QUADRALENS lenses
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Backlight shield option	Optional, adaptable to LED sources

IXEA LUMINAIRE

Zenium version

5   49,5

553   582   556   606

89,3   24 + câble
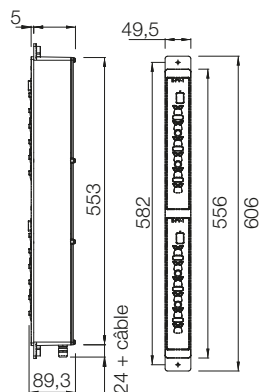
▸ **IXEA** is a luminaire with **independent** LED module and **IP 66 .**

▸ **IXEA** is specifically adapted to vertical and slightly tilted (35°) lighting.

DESCRIPTION

Module housing	AS12 aluminium body
Finish	Polyester powder coating Grey 2900 or 2150
Impact protection	IK 07
Ingress Protection	IP 66 / Cable gland with anchoring device
Weight	3,3kg
Electrical class	Class I or II
Source	IXEA with specific lenses in PMMA
Power supply current	Adjustable power (adjustable current)
Driver	**Incorporated:** fixed currents of 700mA or 350mA / **Remote:** Maximum distance box / IXEA module: 2 m possible installation in a box: AQUAPAK type (H 290 x W 88 x D101 mm) Programmable current from 100 to 700 mA, Protocols: DALI, 1-10 V
Driver protection	Up to 10 kV
Backlight shield option	Optional, adaptable to LED sources

ORALED MODULES

ORALED

ORALED 1 Ø 366
ORALED 2 Ø 459

90

DESCRIPTION

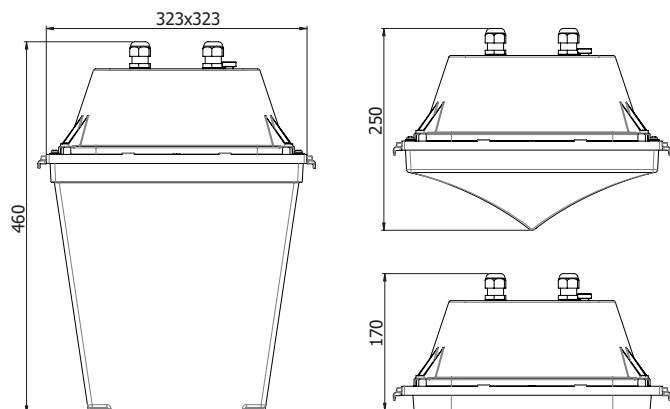|	
Module housing	AS12 Aluminium ogee/radiator Driver integrated in the module
Finish	Polyester powder coating Grey 2900 or 2150
Impact protection	IK 08
Ingress Protection	IP 66 (optic)
Weight	ORALED 1: 4,5kg / ORALED 2: 5,2kg
Electrical class	Class I or II
Source	Mono lens ORALENS in PMMA
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Backlight shield option	Optional, adaptable to LED sources

▸ **ORALED** is **available in two sizes.** The **ORALED** module must be included in a structure that has at least IP 65 leak tightness. Its programmable power supply is fixed on the radiator.

▸ **ORALED** is suitable for a large number of luminaires (round in particular) and structures.

REOLED MODULES

REOLED 1 Ø 435
REOLED 2 Ø 535

84

DESCRIPTION

Module housing	AS12 Aluminium ogee/radiator Driver integrated in the module
Finish	Polyester powder coating Grey 2900
Impact protection	IK 10
Ingress Protection	IP 66 (optic)
Weight	REOLED 1: 3,1kg / REOLED 2: 5kg
Electrical class	Class I or II
Source	BLS strips with QUADRALENS lenses
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Backlight shield option	Optional, adaptable to LED sources

▸ **REOLED** is **available in two sizes.** The **REOLED** module must be included in a structure that has at least IP 65 leak tightness. Its programmable power supply is fixed on the radiator.

▸ **REOLED** is suitable for a large number of luminaires (round in particular) and structures.

SEOLED MODULES

SEOLED 1 Ø 366
SEOLED 2 Ø 459

78
24

DESCRIPTION

Module housing	AS12 Aluminium ogee/radiator Driver integrated in the module
Finish	Polyester powder coating Grey 2900 or 2150
Impact protection	IK 08
Ingress Protection	IP 66 (optic)
Weight	SEOLED 1: 3.8kg / SEOLED 2: 6kg
Electrical class	Class I or II
Source	Mono lens ORALENS in PMMA
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Backlight shield option	Optional, adaptable to LED sources

▸ **SEOLED** is **available in two sizes.** The **SEOLED** module must be included in a structure that has at least IP 65 leak tightness. Its programmable power supply is fixed on the radiator.

▸ **SEOLED** is suitable for a large number of luminaires (round in particular) and structures.

ECLATEC

ECLATEC LED modules

XEOLED MODULES


XEOLED 1   XEOLED 2

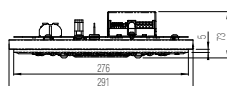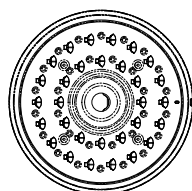| DESCRIPTION	
Module housing	AS12 aluminium body Driver integrated in the module
Finish	Polyester powder coating RAL 9003
Impact protection	IK 10 for XEOLED 1 / IK 08 for XEOLED 2
Weight	XEOLED 1: 2kg / XEOLED 2: 3kg
Electrical class	Class I or II
Source	BLS strips with QUADRALENS lenses
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Backlight shield option	Optional, adaptable to LED sources
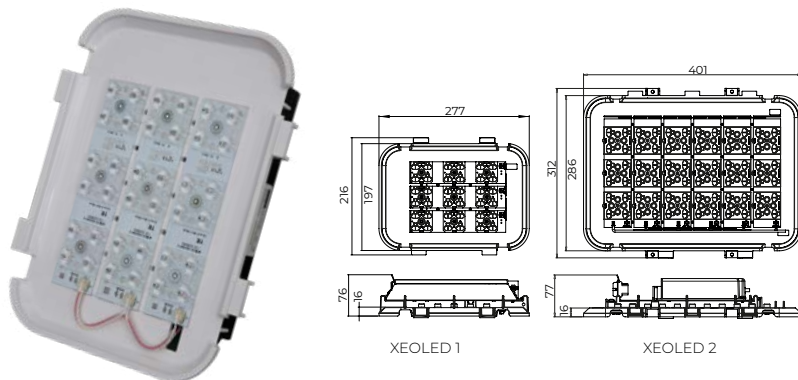
▶ **XEOLED** is **available in two sizes.** The **XEOLED** module must be included in a structure that has at least IP 65 leak tightness. Its programmable power supply is fixed on the radiator.

▶ **XEOLED** is suitable for a large number of luminaires (round in particular) and structures.

SOMLED 1 & BLS MODULES

DESCRIPTION	
Module housing	AS12 aluminium body Driver integrated on the module
Finish	Polyester powder coating RAL 9003 for BLS
Impact protection	IK 10 for BLS / IK 08 for SOMLED 1
Weight	5kg
Electrical class	Class I or II
Source	BLS strips with QUADRALENS lenses
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Backlight shield option	Optional, adaptable to LED sources

▶ The **SOMLED 1** and **BLS** modules must be included in a structure that has at least IP 65 leak tightness. The **programmable power supplies** are fixed on the radiator.

▶ They are suitable suitable for a large number of luminaires (style in particular) and structures.

SOMLED BLS LUMINAIRES

DESCRIPTION	
Module housing	AS12 aluminium body Driver integrated on the module
Finish	Polyester powder coating RAL 9003 for BLS
Impact protection	IK 10 for BLS / IK 08 for SOMLED 1
Weight	5kg
Electrical class	Class I or II
Source	BLS strips with QUADRALENS lenses
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Backlight shield option	Optional, adaptable to LED sources

▶ SOMLED BLS are luminaires with **independent** LED module and **IP 66** ; it incorporates a **programmable power supply**.

▶ 3 adaptable bowls

ECLATEC LED modules

TABLED 2 MODULE

310
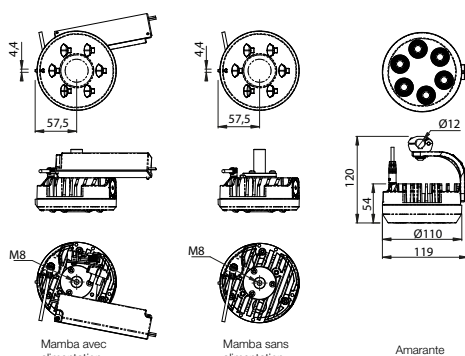246
50
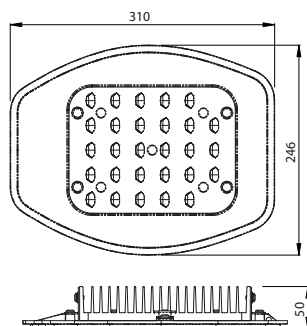
Dimensions avec doucine spécifique
au luminaire Murena

▶ The **TABLED 2** module must be included in a structure that has at least IP 65 leak tightness. Its **programmable power supply** is fixed on a **separate bearing plate**.

▶ **TABLED 2** is suitable for a large number of luminaires (functional in particular) and structures.

DESCRIPTION

Module housing	Black anodised extruded aluminium radiator AS12 aluminium ogee
Finish	Polyester powder coating, any colour available
Impact protection	IK 07
Weight	2,8kg
Electrical class	Class I or II
Source	Mono lens TABLENS in PMMA
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Backlight shield option	Optional, adaptable to LED sources

ZEDLED B MODULE

Ø 183
390
184
Ø 210
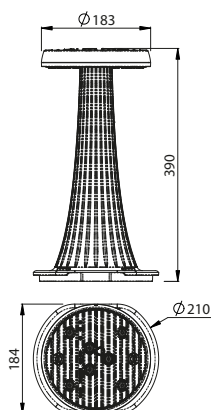
▶ **ZEDLED B** is fitted on the Durenne GHM range of luminaires as well as certain ECLATEC residential luminaires.

▶ **ZEDLED B** module must be included in a structure that has at least IP 65 leak tightness.

▶ It incorporates a **programmable power supply**

DESCRIPTION

Module housing	AS12 aluminium radiator and cable cache drum Driver integrated in the module
Finish	Polyester powder coating grey 2150
Impact protection	IK 07
Weight	2kg
Electrical class	Class I or II
Source	Mono lens ORALENS in PMMA
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV

ZEDLED C MODULE

5
73
276
291

▶ **ZEDLED C** is fitted on certain ECLATEC residential luminaires.

▶ **ZEDLED C** must be included in a structure that has at least IP 65 leak tightness.

▶ It incorporates a **programmable power supply**

DESCRIPTION

Module housing	AS12 aluminium radiator and Polycarbonate, 2150 light grey cable cache drum Driver integrated on the module
Finish	Polyester powder coating Grey 2900 or 2150
Impact protection	IK 07
Weight	2kg
Electrical class	Class I or II
Source	Mono lens ORALENS in PMMA
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Backlight shield option	Optional, adaptable to LED sources

ECLATEC

ECLATEC LED modules

INDEX MODULE

Module housing	AS12 Aluminium ogee/radiator Driver integrated on the module or remote
Finish	Polyester powder coating
Impact protection	IK 08
Ingress Protection	IP 66 (optic)
Weight	2kg
Electrical class	Class I or II
Source	Mono lens ORALENS in PMMA
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
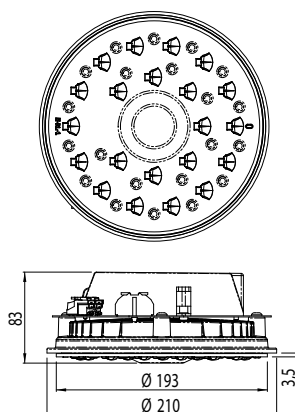
▸ The **INDEX** module must be included in a structure that has at least IP 65 leak tightness. Its **programmable power supply** is fixed on the radiator.

▸ **INDEX** module is suitable suitable for a large number of luminaires (style in particular) and structures.

KIDLED MODULE

Mamba avec alimentation   Mamba sans alimentation   Amarante

DESCRIPTION

Module housing	AS12 Aluminium ogee/radiator Driver integrated ou remote
Finish	Polyester powder coating Grey 2900
Impact protection	IK 07
Ingress Protection	IP 66 (optic)
Weight	0,7kg
Electrical class	Class I or II
Source	Mono lens ORALENS in PMMA
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV

▸ The **KIDLED** module has a fastening system that makes it possible to **direct the flux in all directions** at will.

▸ The **KIDLED** module must be included in a structure that has at least IP 65 leak tightness.

TREK MODULE

DESCRIPTION

Module housing	AS12 Aluminium injected ogee/radiator Driver integrated on the module
Finish	Polyester powder coating Grey 2150
Impact protection	IK 10
Weight	2kg
Electrical class	Class I or II
Source	QUADRALENS BLS strips with polycarbonate bowl
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Backlight shield option	Optional, adaptable to LED sources

▸ The **TREK** module must be included in a structure that has at least IP 65 leak tightness. Its **programmable power supply** is fixed on a separate bearing plate.

▸ The **TREK** module is suitable for a large number of luminaires, bollards and structures.

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

ECLATEC

Options
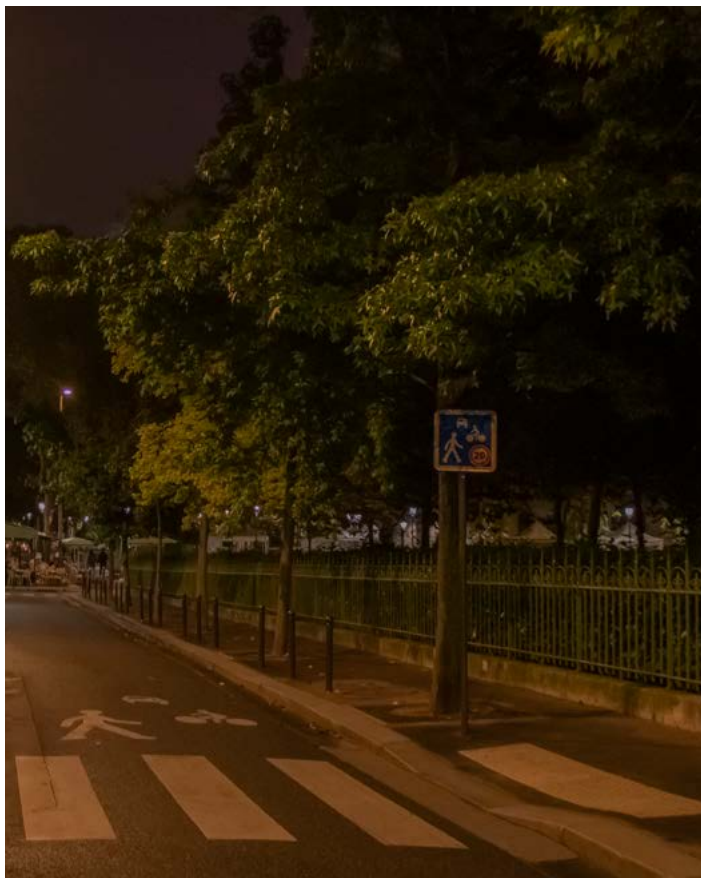
The solutions developed by ECLATEC are compliant with the French "light pollution limitation" order of 27 December 2018, in particular in terms of dimming and detection during certain time slots in specific cases.

Initial factory settings (standard)

For all the luminaires in the ECLATEC range, the current setting is adjusted prior to shipping by pre-programming in the factory.

Pre-programming Procedure:

- When the order contains precise indications or a prior photometric study has been done, the corresponding power settings are applied.
- By default, in the absence of such in indications or a prior photometric study, the setting corresponds to the maximum power supply.

Options

ECLATEC offers up to seven different options depending on the type of luminaire; however, four important points should be kept in mind:

- not all the options can be combined with each other, (See compatibility table within CLO option,
- some options may be unavailable, depending on the luminaire type. See the compatibility details on the table shown in the inside cover,
- some options require factory pre-setting, others can be adjusted on site,
- finally, once an option has been chosen, all the characteristics must be specified when placing the order (high and low setpoints, lighting/dimming times, etc.).

SOLUTIONS AT THE LIGHTING POINT

FIXED & AJUSTABLE CURRENT

▶ Adjustable current (POLEDRIVE)

This option allows the LED supply current to be adjusted.
The factory-set power can be **modified on-site** after installation of the luminaires.

This operation can be carried out by an electrically-qualified operator by adjusting a rotating switch on a module fitted in the foot of the mast without switching off the power supply.

This module communicates with the luminaire via a DALI protocol. It is therefore possible to subsequently upgrade easily to a remote management system using the same protocol.

OPTIONS	SETTINGS	CLO COMPATIBILITY
Standard version	Presets	YES
REP	Modified on-site	
CA2P	Modified on-site	
CA5	Presets	YES
DE	Presets	
DEDP	Modified on-site	
DEP	Modified on-site	
DE+CA5	Presets	YES
DALI	Construction	YES
SMART-READY® by Eclatec	Construction	

▶ Constant Lumen Output option (CLO)

The CLO option compensates for the depreciation of the luminaire by progressively increasing the supply current of the LED, autonomously and based on the number of operating hours. The luminaire's luminous flux is therefore kept constant throughout its operating life, always providing the optimum quantity of light required.

The CLO function only concerns certain luminaires (See the tabel of led solutions overview) ; it can be activated without any other options, but it is also compatible with the Dimming 5 and Motion 5 options

operating hours x 1000 (h)

In the example the depreciation factor used is 80% over the duration in question.

DIMMING

▶ Dimming 5 calculator

The Dimming 5 calculator allows a certain level of illuminance to be allocated to different times of day (from 2 to 5 slots).

Based on the daily operating time of the luminaire, a microprocessor in the power unit is able to determine the «middle of the night»; the dimming periods are adjusted around the «middle of the night» as so defined.

The times and dimming levels are **pre-programmed in the factory.**
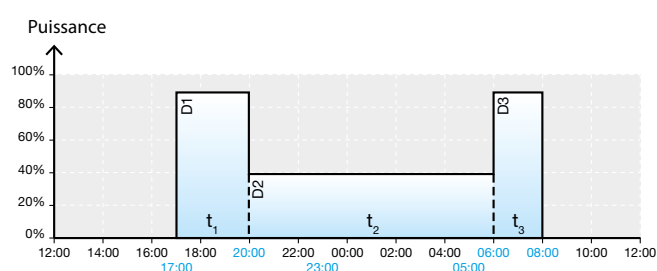
2 lighting levels
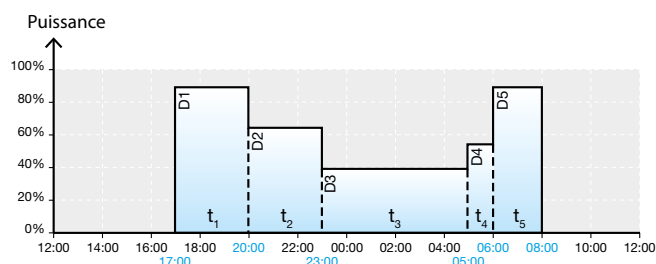
5 lighting levels

▶ POLEDRIVE dimming calculator

Power adjustable on site from 10% to 100%

This module to be installed at pole base will enable:

• Either modify constant LED current setting, Adjustable Current

• Or apply dimming scenario, Dimming Controller

This option allows a reduced power range to be selected from predefined scenarios, with two thresholds at the start and end of the night. A lighting level is allocated to this with high and low set-points.

The parameters are factory-set and can be modified on-site after installation.
This operation can be carried out by an electrically-qualified operator by adjusting rotating switches on a module fitted in the foot of the mast without switching off the power supply.

This module communicates with the luminaire via a DALI protocol. It is therefore possible to subsequently upgrade easily to a remote management system using the same protocol.

▶ CA2P Bluetooth

The CA2P Bluetooth module in installed on GHM ECLATEC luminaires and communicates with the **D4i driver.**

It allow:

To control the luminaire:

• Either by defining up to **6 reduced power ranges** and configuring their time slots.

• Or by **configuring a set power** all night.

Real time luminaire control and monitoring:

• Turning on, off, variation of power configurable from 0 to 100%.

• Reading of **consumption** data (number of operating hours, consumed energy, power and voltage).

• Luminaire operating status.

Making maintenance easier with optimum traceability:

• By listing all the luminaire specifications (driver reference, LED module, ...)

All the settings are **factory pre-set and modifiable on site** using Bluetooth, at the lighting point or by group of luminaires, without needing an elevator platform or an internet connection. The application developed by ECLATEC is secured using a customisable password.

ECLATEC

DETECTIONS

▶ Integrated detector (Motion)
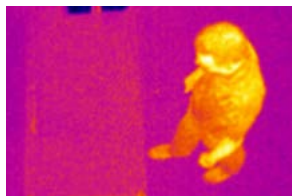
The proposed infra-red type detector uses temperature differences to operate
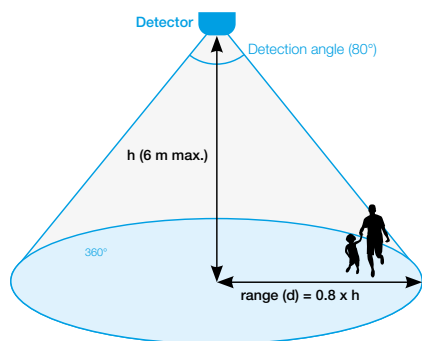
It adapts to a maximum height of 6 m and covers a detection angle of approximately 80°
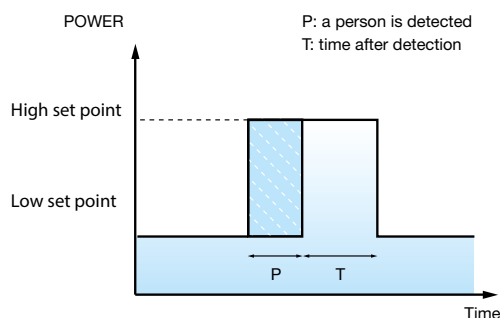
The presence detector is used to set two lighting levels and the time the light remains on after the person detected has left the area. Switching on the light can also be set according to the level of ambient light.

All these parameters are **factory-set and can be modified on-site** after installation by adjustments on the luminaire.

▶ Motion sensor and dimming calculator

Combining a motion sensor with a dimming calculator gives the cumulated advantages of the two options.
The detection function allows full lighting to be switched on for a given time, including during the dimming periods.

The times and dimming levels are **pre-programmed in the factory** by computer.
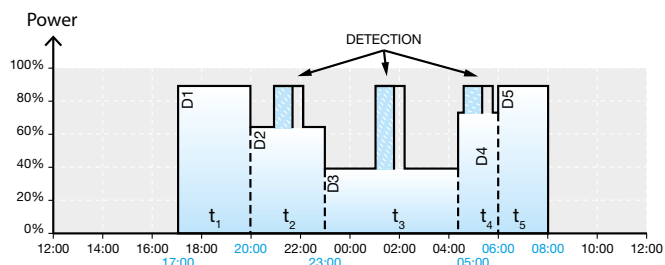
▶ Remote detector (Motion P)
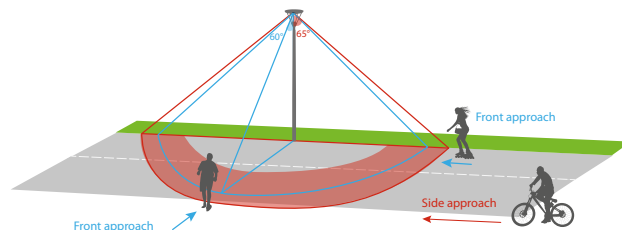
The Motion P option is composed of:

• a detection box with an infrared type detector operating on the measured temperature changes when pedestrians pass or cyclists pass at moderate speed.This detection module, which is available in two shades of grey, is fixed up to 6m on the pole.

• of a DALI control module which is installed at the foot of the pole.

Detection box

DALI control module
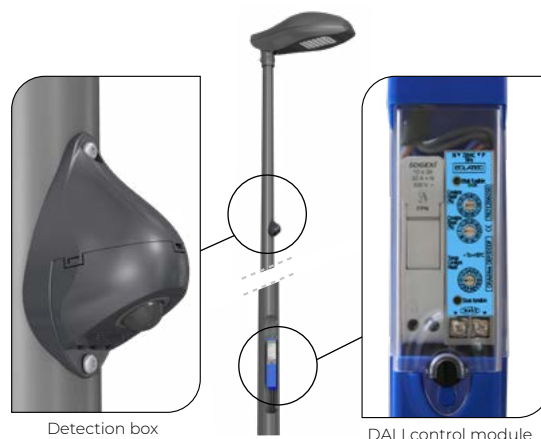
• The Motion P sleeve, which is built into the detection box, allows a top mounting on Ø 60 mm pole.

Standalone moving sensor

The Motion P option allows to configure:

• two lighting levels: a low level when persons have not been detected, and a high level when a person is detected

• The high level time after the detected person has left the zone

T h e

High set point (Power variable from 10% to 100%)

Low set point (Power variable from 0% to 90%)

High level time after detection (1, 2, 3 or 5 mins.)
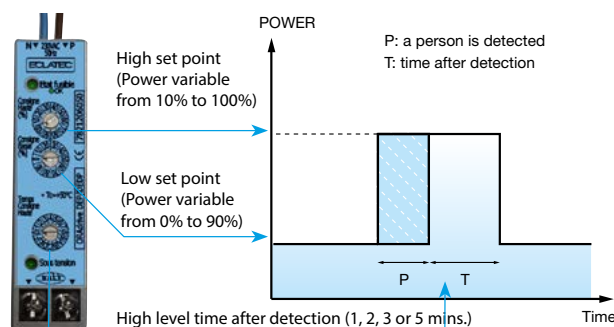
settings are pre-set in the factory by default and can be

changed on site after installation. This work can be carried out by configuring rotating switches on the module housed in the foot of the pole, without cutting the power supply, by an operator who has an electricity qualification.

Moving sensor combined with dimming calculator

Offset detection also allows to combine the presence detection to a dimming calculator by configuring a rotating switch.
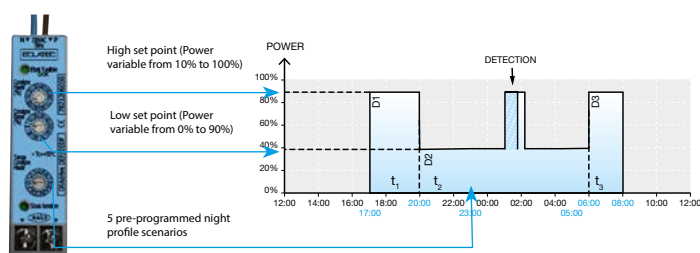
The settings are factory-set by default and can be modified on-site after installation.This operation can be carried out by an electrically-qualified operator by adjusting rotating switches on a module fitted in the foot of the pole without cutting the power supply.

This module communicates with the luminaire via a DALI protocol. It is therefore possible to subsequently upgrade easily to a remote management system using the same protocol.

▶ Integrated detector DALI (Motion DALI)

Detector

DALI control module

The Motion DALI option consists of:

• an infrared detector fully integrated into the luminaire, operating on the temperature change measured during the movement of pedestrians and cyclists at moderate speed. It is suitable for a maximum height of 6 m.

• a DALI control module, which is installed at the foot of the pole.

Like the Motion P option, this Motion DALI option allows:

• detection alone, raising the lighting level when a pedestrian is detected,

• detection associated with a lowering calculator, defining a reduced power range associated with detection.

This action can be performed by adjusting rotary switches on the module located **at the foot of the pole**, without cutting the power, by a qualified electrician.

▶ Double remote DALI detector (MD)

The MD module is composed of:

• Of a control box with two infra-red type detectors. The control box is available in RAL 7022 grey only and is fixed vertically up to a height of 6m.

• From the same DALI control module as the DEDP function at the foot of the pole.

It has the same sole detection functions or detection functions combined with a dimming calculator.

DALI PROTOCOL

The luminaire is compatible with the majority of control modules using the DALI protocol.

DALI is a two-way data exchange protocol. Firstly, it allows each luminaire identified by its address to be accurately controlled and secondly, it is able to transfer data relating to its operation.

The DALI protocol requires two extra wires connected to the network.

THE SMART-READY® PRE-CONFIGURATION

In many situations it is important for specifiers to have street lights that are preconfigured to house the different communicating systems available on the market, without requiring any major adaptations.

This is especially the case when the street lights are to house systems specific to the installer or resulting from choices made by network operators.

It is also the case when the street lights are installed before the remote operations solution which may be postponed for various reasons (financial arbitration, ongoing selection process for the most suitable management mode, etc.).

This is why ECLATEC designs street lights on which the IP 66 rated equipment compartments have enough free space to house additional electronic components.

Furthermore, ECLATEC proposes many models of street lights that can have a **"Smart-Ready®"** pre-configuration, making it possible to connect communicating systems to a base that is **ZHAGA** standard compliant.

ECLATEC

BUNDLED SOLUTIONS ON A LOCAL NETWORK

Cluster solutions can switch a set of LED streetlights from a low power level to a high set point if an infrared sensor detects a pedestrian or a cyclist.

Other detection modes are also possible such as radars, cameras, magnetic loops or basic push buttons controlling a high set point for a cluster of street lights. In those cases, each project is the subject of a specific study.

THE ZIGBEE 3.0 COMMUNICATION PROTOCOL

ZigBee®

The ZIGBEE 3.0 communication protocol used to communicate between street lights is open, thereby making it possible to use all sensors compatible with the protocol.

All parameters can be set and updated on site, without requiring the use of an elevator platform. These adjustments are made using the management software from a computer or a mobile device and a temporary gateway. Considering the variety of solutions, each case must be the subject of a specific study.

COMMUNICATING DETECTION

▸ Pilote wire

This feature makes it possible to control all the LED street lights connected by a single pilot wire. This solution is preferred for new or complete refurbishment projects.

Application example: service stations fitted with IXIS 2 LED floodlights connected to motion detectors for pedestrians and vehicle detection radars using a pilot wire.

▸Communicating detection

This configuration couples the signal received by a detector to the control of a cluster of LED street lights which are separate from each other using radio-frequency transmission.

Different lighting and lighting level configurations can therefore be set up to provide optimum comfort levels that can be compared to a "light wave", and that also generate significant energy savings.

All the parameters in the system can be set on site using a wireless PC.

▸ Motion + COM

The luminaires fully integrate the Motion detector

Integrated Motion detector

▸ Motion DALI + COM

In this configuration, The motion DALI detector is integrated in luminaires

Integrated Motion DALI detector

▸ (Motion P, MD or MCD) + COM

MCD or MD modules
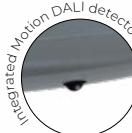
Remote detector Motion P

The detectors are offset from the luminaire:

• Motion P detector, detection box with a detector
• MD module, detection box with 2 detectors
• MCD module, detection box with 2 detectors and a built-in communication aerial
  (see specific section on page 279)
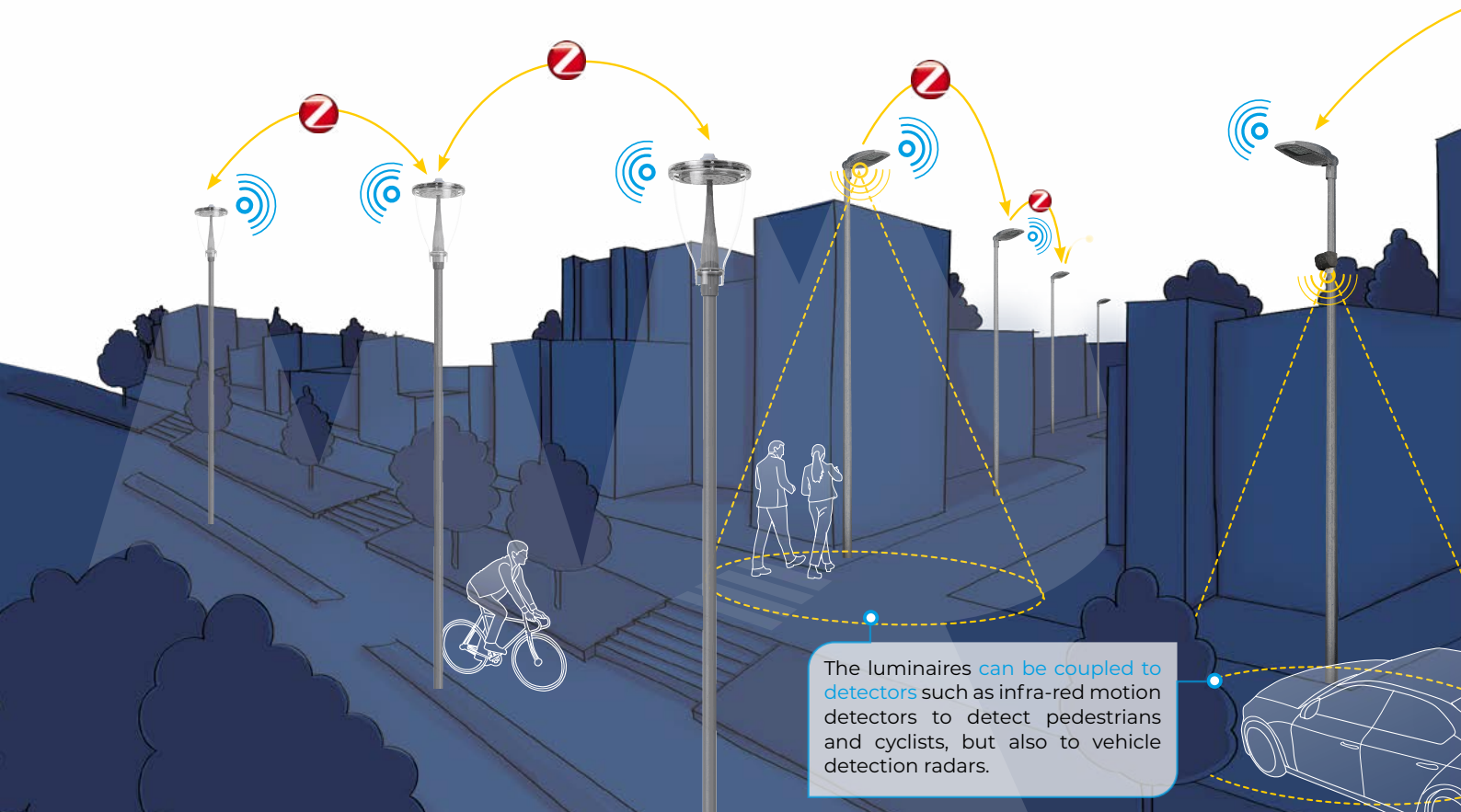
The luminaires can be coupled to detectors such as infra-red motion detectors to detect pedestrians and cyclists, but also to vehicle detection radars.

WIZARD BY ECLATEC, PUBLIC LIGHTING MANAGEMENT

The WIZARD CMS system system is based on standard, open technology. The luminaires fitted with an antenna communicate with each other using a permanent gateway connected to the internet, generally placed in a cubicle.

The luminaires communicate with each other by radio-frequency using the open and certified ZigBee 3.0 protocol. The gateway uses the GSM or Ethernet network to receive and send data to the cloud.

A global solution

This solution's two-way communication makes it possible to:

• configure and control the lighting network in real time.

• have immediate reports on failures, electricity consumption and the other luminaire operating parameters.

• The luminaires can be coupled to detectors and sensors such as pedestrian, cyclist and vehicle detection.

The gateway, which is generally located in a cubicle, communicates via the Cloud using open supervision software.

CLOUD

ECLATEC
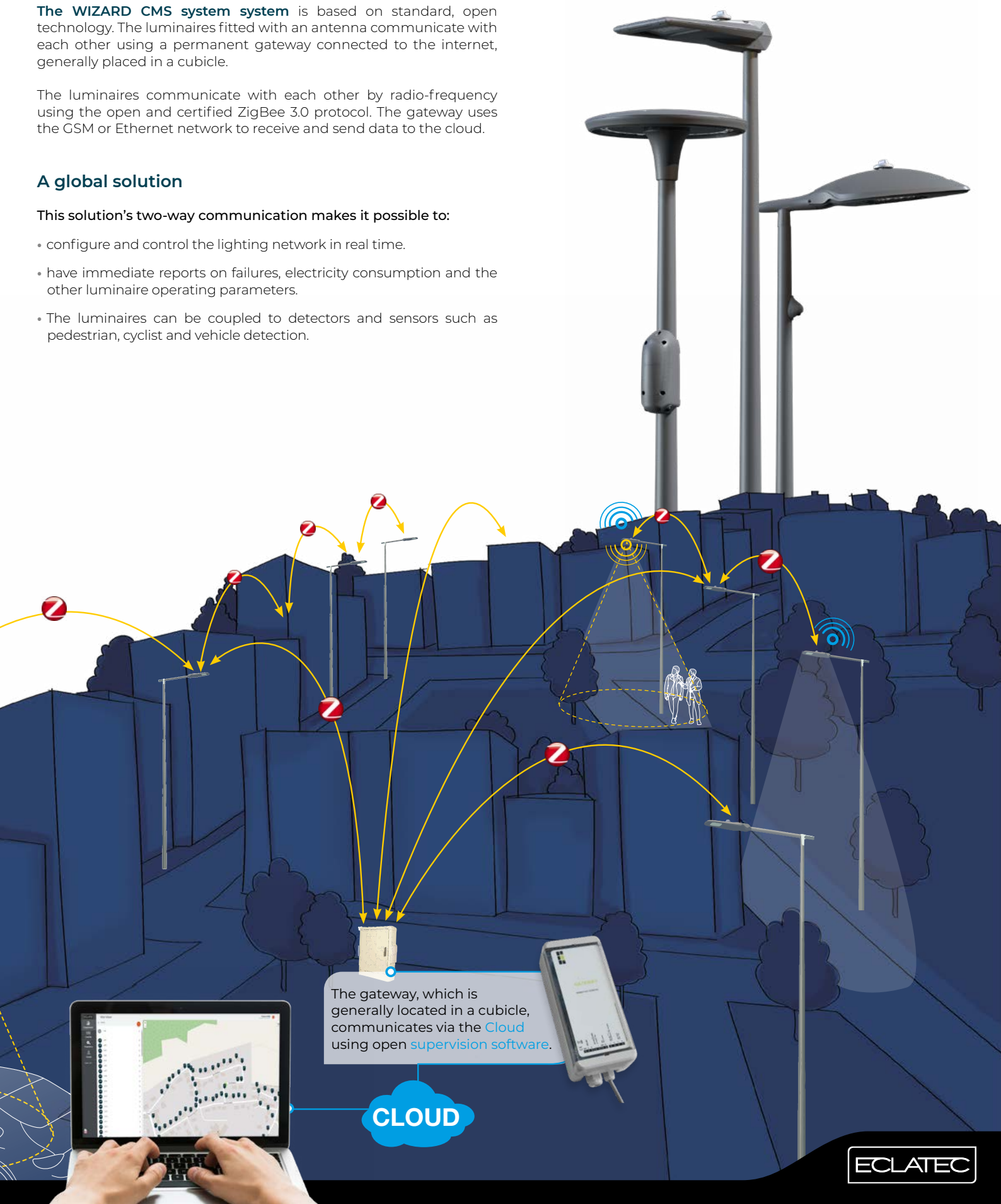
▶ WIZARD, simple and standardised architecture

The WIZARD CMS system system provides management and remote control of all your public lighting network street lights.

WIZARD antenna

ZHAGA connector & A **D4i** power supply

Specific **WIZARD** by ECLATEC solution

A **gateway**

The WIZARD antenna is fitted directly to the luminaires using a standardised **ZHAGA connector** with a **D4i power supply**.

The luminaires communicate with a gateway, which communicates using the **Cloud** using supervision software.

The 230 V gateway, which is usually placed in a cabinet, uses the GSM network or Ethernet to send the data to the cloud. A long range protocol (Lora or SigFox) is available on request.
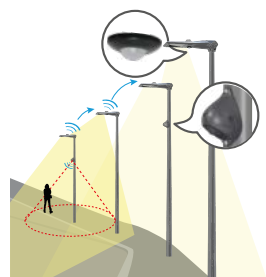
The street lights can be coupled to detectors, such as infrared motion detectors to detect pedestrians and cyclists, but also to vehicle detection radars.

Every WIZARD antenna has a built-in GPS chip allowing for the precise geolocation of each street light when they are commissioned as well as for remote configuration.

User accounts with different privileges can be assigned. This data can be hosted on the manager's private server or in external data centres.

When necessary, studies will determine if WIZARD is compatible with other remote management or CAMM systems.

Every street light fitted with the WIZARD system can run a night time dimming programme with 10 time slots associated with variable lighting intensities plus calendar management or suitable agenda profiles.
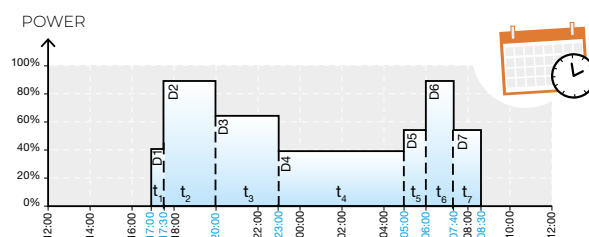
The WIZARD system can be used to control the power to other functions such as light panels or Christmas decorations in order to best manage their use and their installation.

The WIZARD solution reports data about possible malfunctions or failures on the installation.
Maintenance is thus made easier by supervision, optimum management and traceability of servicing and public lighting network repair operations.

Completely autonomous

The WIZARD solution gives you the keys to simply manage your lighting network

ECLATEC is by your side to help you set up a customised and effective solution. You can manage your lighting freely or we can offer you our expertise.

▶ MCD module, the solution for existing lighting

The MCD Remote Communication Module lets you connect all your existing on site DALI luminaires to a remotely managed network.

The module includes a WIZARD antenna
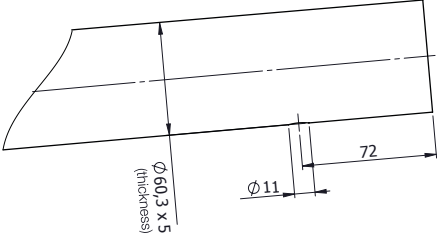
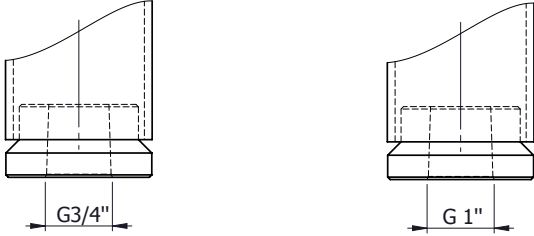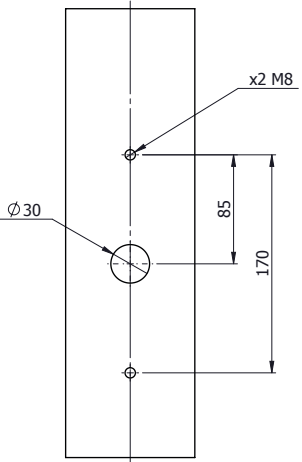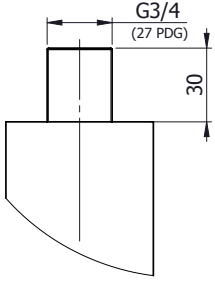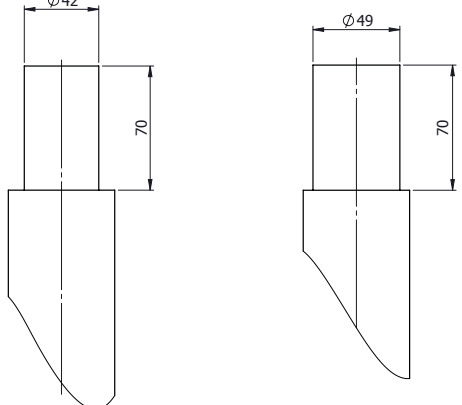In order to make the following compatible:
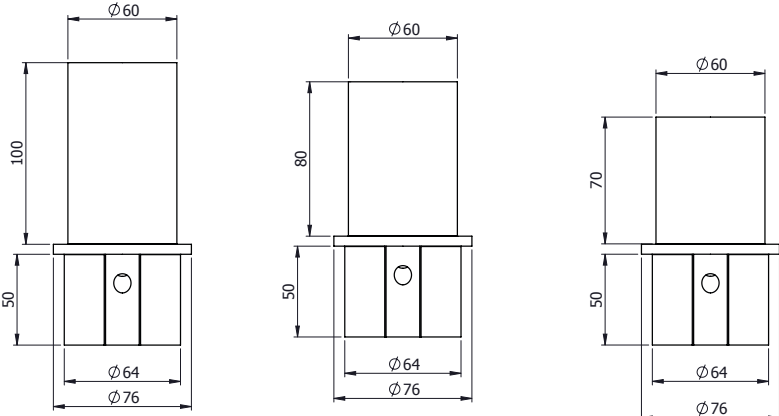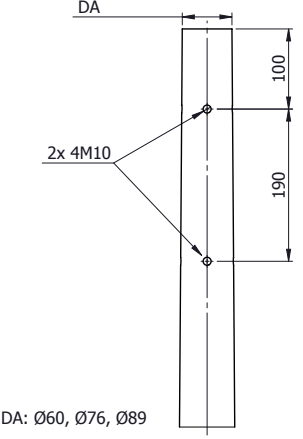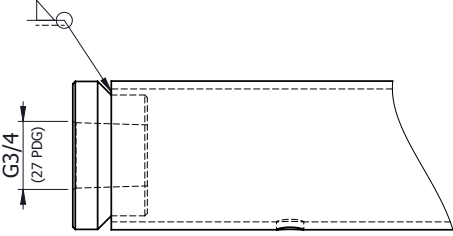
- **The luminaires already installed** on site with a cabled electronic DALI power supply (LED or conventional)

- **The luminaires fitted with a D4i power supply** that do not have the standardised ZHAGA connector

The module can be fitted with a detection system

- **2 infra-red detectors** react to passing pedestrians and/or cyclists moving at moderate speeds.

- **Adhesive covers** are available as an option to reduce detection zones and limit unexpected triggering.

CLOUD
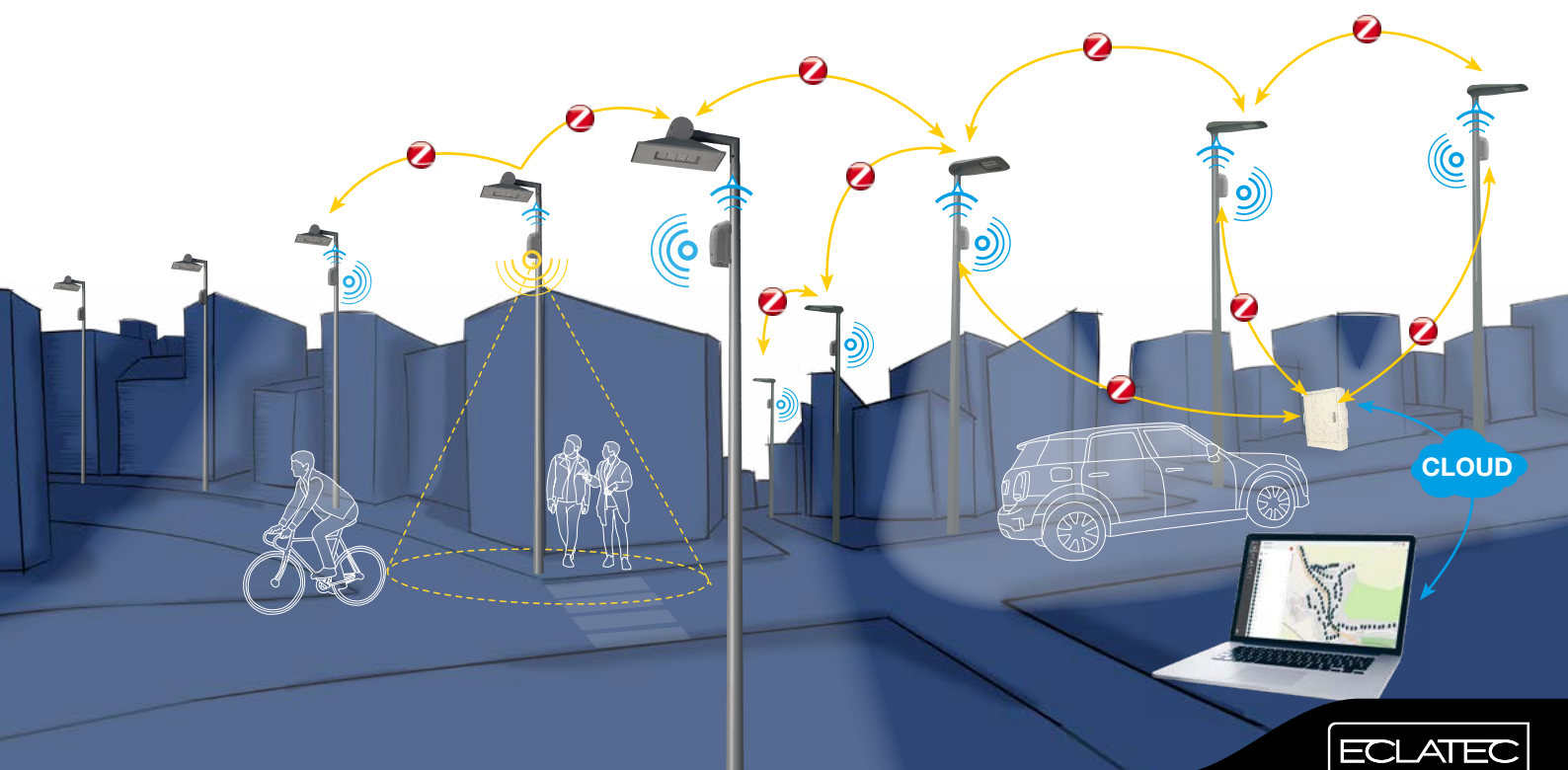
ECLATEC

Spigot & fixations – ECLATEC's standard

Spigot for pole Ø 76 mm

A

B

C

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

DA

2x 4M10

DA: Ø60, Ø76, Ø89

D

Machining for aluminium bracket – Eclatec's standard

Ø 60,3 x 5 (thickness)

Ø 11

72

E

Machining for steel bracket - Eclatec's standard

Ø 60,3 x 2,9 (thickness)

Ø 11

72

F

Welded female boss for bracket

G3/4 (27 PDG)

G

Welded female boss for suspended fixation

G3/4" (27 PDG)

H

G 1" (34 PDG)

I

Pole machining for rear fixation plate

x2 M8

Ø 30

85

170

J

Post-Top Ø ¾"

G3/4 (27 PDG)

30

K

Welded spigot for U-bracket

Ø 42

70

L

Ø 49

70

M

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

ECLATEC

13201 standards

When applicable, the ECLATEC photometric studies follow the EN 13201 standard recommendations.

EN 13201 STANDARD & PHOTOMETRIC STUDIES

This standard is a coherent set of 5 parts:

- Part 1: Lighting class selection
- Part 2: Performance requirements
- Part 3: Performance calculations
- Part 4: Photometric performance measurement methods
- Part 5: Energy performance indicators

DEFINITION: IMPOSED NEEDS & PERFORMANCES

The road category dictates the photometric performance required in quantitative terms (average illuminance, average brightness) and qualitative terms (uniformity, dazzle).

The different lighting classes are split as follows:

- For the drivers of motorised vehicles driving on roads allowing average or high speeds:
  - M classes, of which the performances are optimised for illuminance,
  - C classes of which the performances are optimised for lighting,
- For pedestrians and cyclists: P classes.

M type categories (Table 1) correspond mainly to roads intended for medium to high speed vehicle traffic. The reflector system on the luminaire and its location should provide results in terms of:

- average luminance,
- general luminance uniformity,
- longitudinal luminance uniformity,
- dazzle control (fTI),
- surround ratio (REI).

Class	Road illuminance for a dry road			Incapacitating dazzle	Vicinity lighting
	Average L [minimum maintained] cd/m²	Uo [minimum]	Ull [minimum]	f_{TI} [maximum] %	R_{EI} [minimum]
M1	2.00	0.40	0.70	10	0.35
M2	1.50	0.40	0.70	10	0.35
M3	1.00	0.40	0.60	15	0.30
M4	0.75	0.40	0.60	15	0.30
M5	0.50	0.35	0.40	15	0.30
M6	0.30	0.35	0.40	20	0.30

Table 1: M classes are for the drivers of motorised vehicles driving on roads allowing average or high speeds.

Requirements relating to conflict zones: class C

Type C categories (Table 2) are intended for the drivers of motorised vehicles and other road users in conflict zones such as shopping streets, crossroads, roundabouts, etc. for which road illuminance calculation conventions do not apply or are technically unusable. The performances to be achieved are expressed in terms of average lighting and general illuminance uniformity.

Class	Horizontal lighting	
	Average lighting [minimum maintained] lx	Uo [minimum]
C0	50	0.40
C1	30	0.40
C2	20	0.40
C3	15	0.40
C4	10	0.40
C5	7.5	0.40

Table 2: C classes are for the drivers of motorised vehicles and other road users in conflict zones such as shopping streets, crossroads of a certain complexity, roundabouts, queues, etc. C classes can also be applied to spaces used by pedestrians and cyclists, for example underpasses.

P type categories (table 3) are intended for pedestrians and cyclists on walkways, cycling paths, hard shoulders, etc. The performances to achieve are expressed in average and minimum horizontal lighting, but also vertical and semi-cylindrical lighting, making it possible to assess facial recognition.

Requirements relating to pedestrians and cyclists: P class

Class	Horizontal lighting		Additional requirement if facial recognition is required	
	Average lighting [minimum maintained] lx	Lmin [maintained] lx	Lv,min [maintained] lx	Lsc,min [maintained] lx
P1	15.0	3.00	5.0	5.0
P2	10.0	2.00	3.0	2.0
P3	7.5	1.50	2.5	1.5
P4	5.00	1.00	1.5	1.0
P5	3.00	0.60	1.0	0.6
P6	2.00	0.40	0.6	0.2

Table 3: P classes are for pedestrians and cyclists on pedestrian paths, cycling paths, hard shoulders and other road zones that are located separately or along the road, as well as to residential streets, pedestrian streets, parking areas, school playgrounds, etc.

The diverse nature of situations has prompted ECLATEC to develop a range of suitable optical systems to cater to all situations. Example:

Curve 1: photometry adapted to ME type roads

Curve 2: photometry adapted to CE type roads
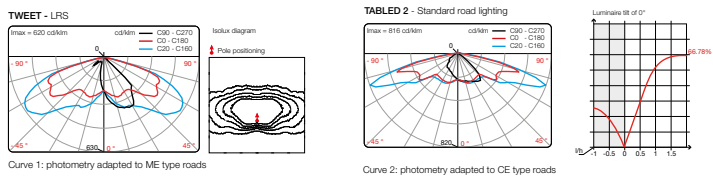
THE MAINTENANCE COEFFICIENT

The maintenance coefficient expresses the loss of maximum luminous flux when the installation is being operated. It depends in particular on the technical DESCRIPTIONS of the luminaire (IP, bowl material), the choice of lamp (type, supplier, electricity supply, etc.) and the maintenance frequency.
This coefficient must be taken into account to guarantee long term performance.

ENEC, ENEC+, ZD4i & EN40 standards

ENEC, ENEC+

ENEC is an European Mark for electrical products and demonstrates compliance with European standards and signifies that the product is safe in accordance with the appropriate European directive.

ENEC Plus is a full certification scheme about performance for LED luminaires

ZD4i

Zhaga-D4i is a joint certification program from the DALI Alliance and the Zhaga Consortium. (see page 275 for more information).

DARK SKY

ZELDA luminaire certified as being Dark Sky Friendly, meaning that it minimize glare while reducing light trespass and skyglow. All our luminaires can be IDA certified on request.

EN40 & WIND ZONES

The European EN 40 standard imposing CE marking on lighting covers:

• straight luminaire support poles up to a height of 20 m,

• poles with luminaire support brackets up to a height of 18 m,

• straight floodlight support poles of a height of less than 15 m.

ECLATEC is certified by the CTICM (www.cticm.com) and is therefore authorised to apply the CE marking to:

• Straight steel poles: certificate N° 1166 - CPD - 0059

• Steel poles with brackets: certificate N° 1166 - CPD - 0060

ECLATEC is authorised to size its poles and supports using a strength calculation compliant with the EN 40 standard:

Important: indicate the wind zone and land category in requests for proposals and on purchase orders (1 coast and other exposed zones - 2 agricultural land) or the town or city in which the units will be installed.

Without any other indications, the calculations for poles with directional brackets use the most unfavourable case, i.e. with the inspection door located on the side.

Note: we can carry out the calculations with the door in a favourable position, i.e. under or behind the bracket, on request.

Overloads

ECLATEC calculates the lighting columns to withstand a load indicated in the installation conditions on the purchase order. Any structural changes or the addition of kakemonos, decorative lights, floral supports or any other accessories on the pole must imperatively be the subject of a prior check by ECLATEC.

Authorised surface areas and conventional declared values

Conventional declared values are support specifications calculated using conventional parameters. The value is indicative. It cannot be used to check the proper strength of a unit on a given site.
The use limits are defined by the authorised surface areas at the top of the pole depending on the wind zones and the land categories. They take the configuration of the product to be installed into account.
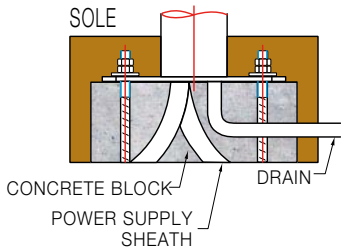
Unit CE markings

As part of the creation of its structure, the contracting authority must make sure the products it receives are certified and bear CE markings. The assembly of CE products of different origins (pole, bracket) can never be considered as a CE assembly.
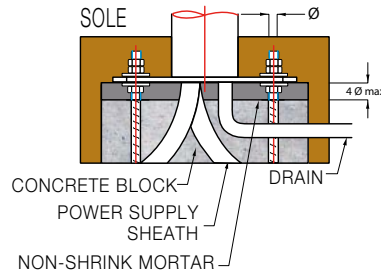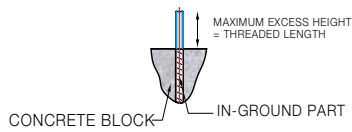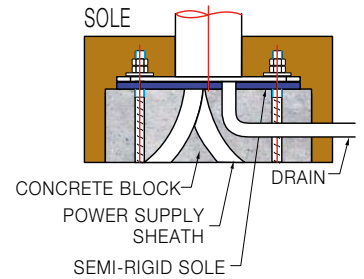
WIND ZONES	REFERENCE SPEEDS
1	22 m/s
2	24 m/s
3	26 m/s
4	28 m/s
5	> 28 m/s

ECLATEC

Recommendations for pole assembly

Standard assembly

SOLE

CONCRETE BLOCK
POWER SUPPLY SHEATH
DRAIN

MAXIMUM EXCESS HEIGHT = THREADED LENGTH

CONCRETE BLOCK
IN-GROUND PART

Assembly on piles

SOLE

Ø

4 Ø max

CONCRETE BLOCK
POWER SUPPLY SHEATH
NON-SHRINK MORTAR
DRAIN

Semi-rigid system

SOLE

CONCRETE BLOCK
POWER SUPPLY SHEATH
SEMI-RIGID SOLE
DRAIN

EARTHING

Classes and earthing:

Luminaires can have different electric structures and have Class I or Class II wiring.
In both configurations, the luminaires must be compliant with the NF EN 60598 standard

- For Class I, user protection from electric shocks is based on the insulation of the live parts and the earthing of the accessible parts of the luminaire. The earth must be connected to the installation wiring and to the pole supporting the luminaire, it is therefore considered as a protection/safety earth. If the insulation fails, all voltage that is dangerous to Man will be evacuated to the earth.

- For Class II, user protection from electric shocks is based on the
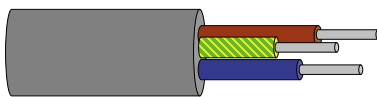
Safety earthing symbol

addition of an extra layer of insulation of the live parts, making it possible to prevent them from coming into contact with the accessible parts of the luminaire. Contrary to Class I, the luminaire does not have wiring for earth protection.

Class II
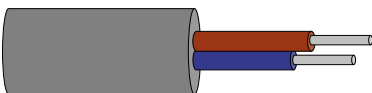
- Earth connection, all lighting columns must be connected to the earth, regardless of the equipment class they are fitted with, in compliance with the NF C 17-200 standard.

GENERAL
INFORMATION
CONCERNING
LED

General information concerning LED

285
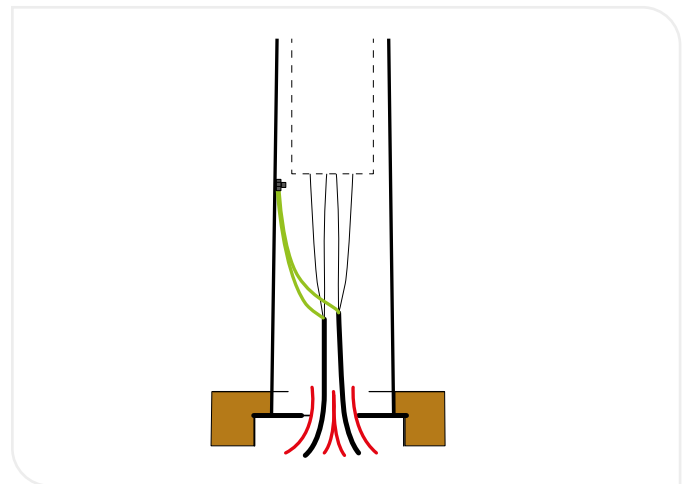
INTERFERENCE AND POWER SURGE PHENOMENA

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.
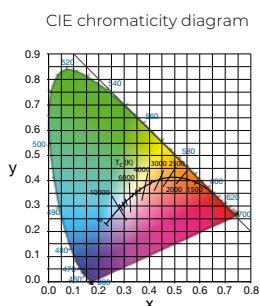
LED & LIGHT COLOUR

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):
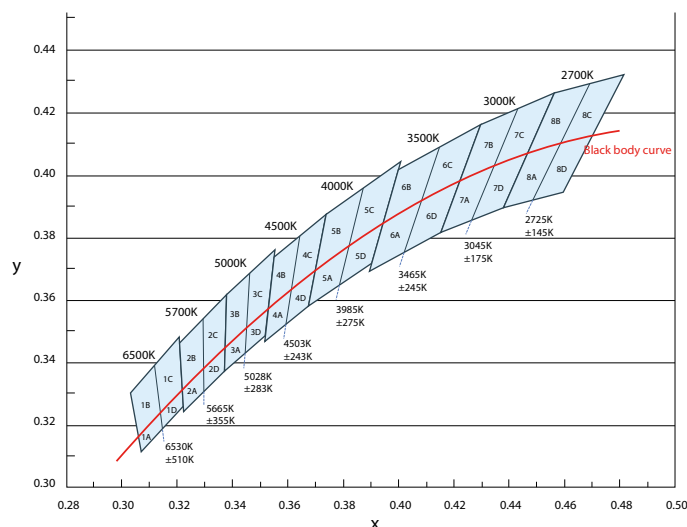
Blue LED + phosphorus:

Emission of phosphorus   Blue spectrum   Combined spectrum

470   525   590   630   (nm)

LED & COLOUR TEMPERATURE
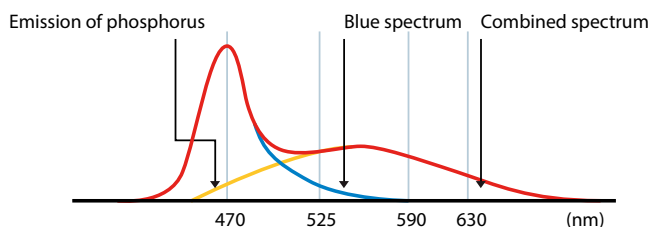
CIE chromaticity diagram

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)

2700K
3000K
3500K
4000K
4500K
5000K
5700K
6500K

Black body curve

2725K ±145K
3045K ±175K
3465K ±245K
3985K ±275K
4503K ±243K
5028K ±283K
5665K ±355K
6530K ±510K

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)

ECLATEC

General information concerning LED

POWER SUPPLY OF AN LED

I(mA)

LED

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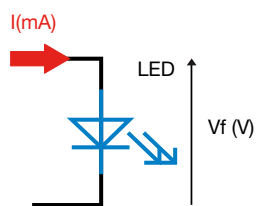
The parameters to be taken into consideration to power an LED are the current (I) and the reverse voltage (Vf). An LED is always powered by current and the voltage is an intrinsic parameter of the component.

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.
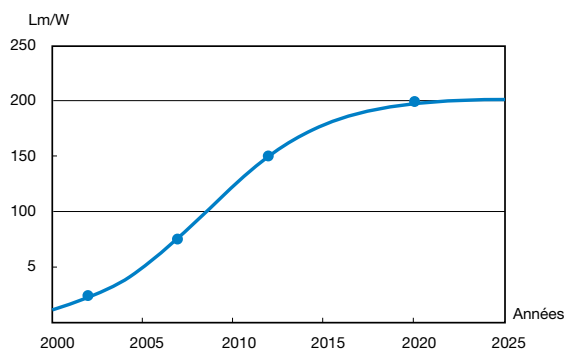
Luminous efficacy of white LED seen by the OIDA in 2002

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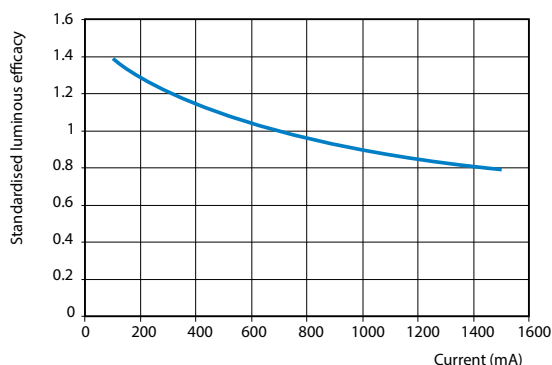
Variation of the flux of the LED according to the current
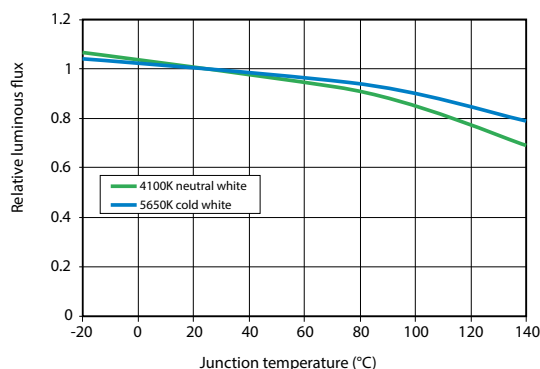
Variation of the flux of the LED according to the junction temperature

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).
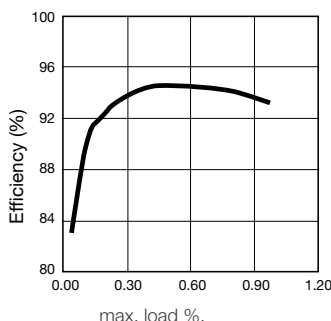
Curve 3: Variation of the efficiency according to load.

max. 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

General information concerning LED

287

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

$$E \text{ [lux]} = \frac{\Phi_{work} \text{ [lm]}}{S \text{ [m}^2\text{]}} = \frac{\Phi_{lamp} \text{ [lm]} * FU}{S \text{ [m}^2\text{]}}$$
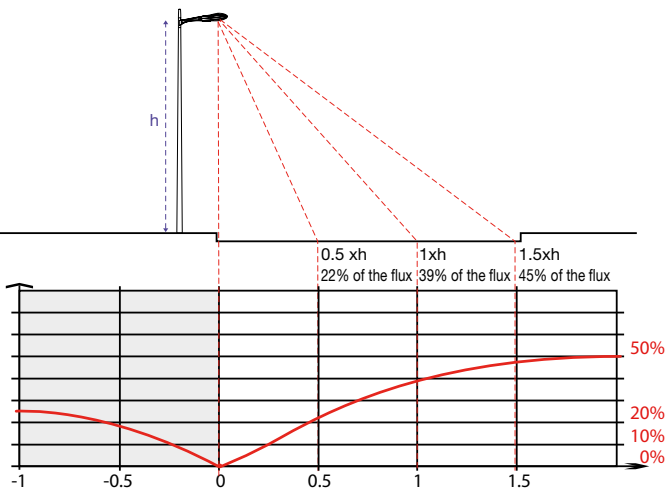
Several factors have an impact on LED service life, in particular:

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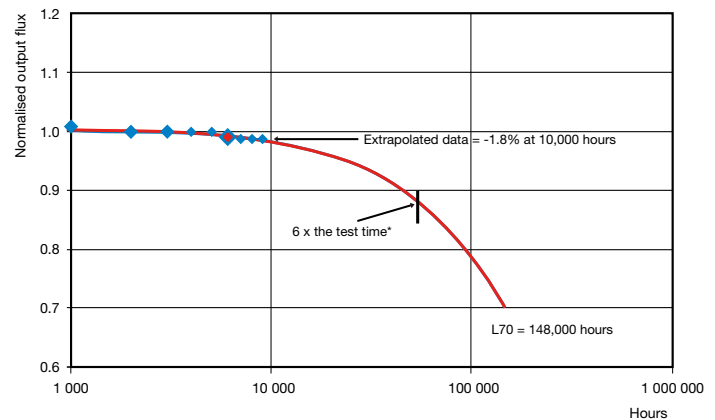
Loss of flux over time (manufacturer data)
* An extrapolation of the service life beyond six times the initial test time is not usable.

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,
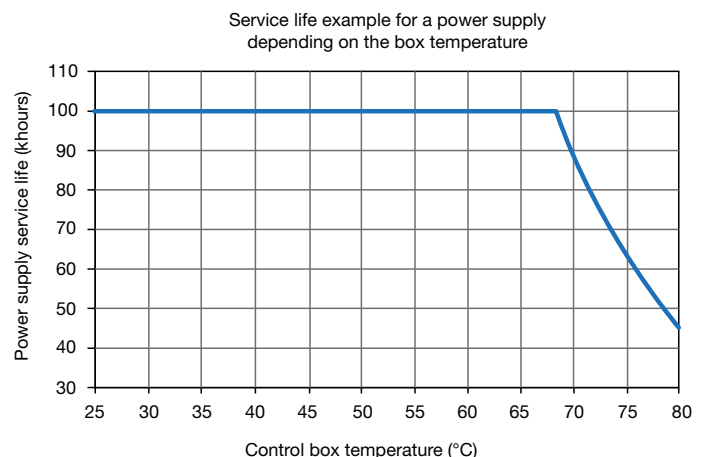
• thermal shock management, etc.

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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