

# THRU LIGHT





**THRU LIGHT**





## THRU **LIGHT**

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Life starts with light, so does our company history. Over two decades ago, our family run company began its journey of engineering solutions for improving people's lives through light.

Our love for light is so immense that it shows us the way, inspiring us to develop products for efficient lighting. Through our passion for light our presence expanded in time, creating the trade names; HEPER, MOONLIGHT, ALCOPOLE and CITYNODE.



# HIGHLIGHTS

## ROAD LIGHTING

### **046 D-LIGHT V2** - MODULARITY AT ITS BEST

Using Heper's Milestone V2 optical module and its unique assembly system, D-Light V2 is a road lighting luminaire like no other.

## TUNNEL LIGHTING

### **088 GOLEDO** - STATE OF THE ART TUNNEL LIGHTING LUMINAIRE

With dozens of optical distribution options, there is no tunnel out there that our Goledo cannot thrive in.

## CATENARY LUMINARIES

### **104 C-LIGHT** - A NEW WAY TO CATENARY LIGHTING

Modern design is combined with modular system for a unique approach for catenary lighting.

## HIGH/LOW BAY LUMINARIES

### **110 GOLEDO-IN** - AS FLEXIBLE AS IT GETS

With numerous light distribution variations, it is easy to find the best option for a high/bay application.

## AREA LUMINARIES

### **118 REGIO** - THE FLAMBOYANT POWER

Your local fields or your favorite team's stadium can be illuminated with Regio.

## POLE TOP LUMINARIES

### **144 KREIS** - SIMPLY BEAUTIFUL

For general lighting purposes, Kreis luminaire family is as valuable and efficient as it gets.

## LIGHT COLUMNS

### **158 URBAN UNITS** - URBAN LIFE REDEFINED

Modularity and technology combined for endless possibilities.

## BOLLARDS

### **230 DRAGO** - EMBODIED PERFECTION

A simplistic bollard with jaw dropping optics.

## SURFACE - MOUNT LUMINARIES

### **252 DOGO** - THE TINY GIANT

Minimalistic design, small body, jaw dropping optics. This pretty much sums up the Dogo family.

## FLOODLIGHTS

### **296 PUNTO** - PERFECT BEAM CONTROL WITHIN A ROUND BODY

Directing the light twice, obtaining perfect beam and field angles, adding value to the most special exterior projects. This is what Punto family is about.

## RECESSED LUMINARIES

### **318 ZEROX** - THE UNIQUE POWER IN DISGUISE

Zerox family offers different optical solutions in a recessed round body that is second to none when it comes to reliability.



**One of the strongest  
characteristics of genius is the  
power of lighting  
its own fire.\***

**We have a history dedicated to expertise and coexistence.  
We know it takes more than departments to call it specialization.  
Therefore, we have Heper Group of companies with proficient  
functions.**

**\* John W. Foster**



## WHAT WE DO? HOW WE DO?

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**Heper** is our pioneer brand and representative of engineering with its highly energy efficient products. Our Heper product range offers modern and sleek design luminaries to meet contemporary expectations of lighting sector worldwide.

**Moonlight**, our custom production boutique atelier is at your disposal when you search for an option uniquely yours. This is where we can be like you!

**Alcopole** is the manufacturer for our environmentalist aluminum poles. Aluminum is a recyclable material with durable, corrosion resistant, lightweight, low maintenance characteristics.

**Citynode** is our brand new addition for smart city applications. With our new system Citynode, it will be possible to take control of your city via smart nodes through lighting poles and fixtures.

heper<sup>+</sup>

MOONLIGHT<sup>+</sup>

Alcopole<sup>+</sup>

CITYNODE





Our company history is quite parallel to the technological development. I shall remind you, back then a dial up connection was called a novelty. Those days and still today, we keep producing high quality lighting fixtures and investing in research and development.

Our abilities developed as we gained experience along the way. So did our understanding about the importance of lighting and design of light. As engineering branched out as electrical and electronics sub specialties, many technological advancements occurred. The invention of LED (Light Emitting Diode) changed the game. The voluminous conventional components were replaced with micro - sized versions and we had the opportunity to focus on design more freely thus, come up with more sleek luminaries. Beneath all these layers of change, one thing remained the same: our devotion in upbrining the best lighting products possible.

Now, we are looking ahead on our road, which is brightened by the light of the future. Always looking for ways to keep up with the change and lead the sector, never forgetting the importance of the correct light and energy. Energy is an expensive and limited source. Our R&D department is keeping energy aspect always in the formula to bring out products that are as energy efficient as possible. This will even be extended to a further degree with the IoT implementation to our luminaries and poles. Our take on smart city solutions, Citynode will soon be out there in the market.

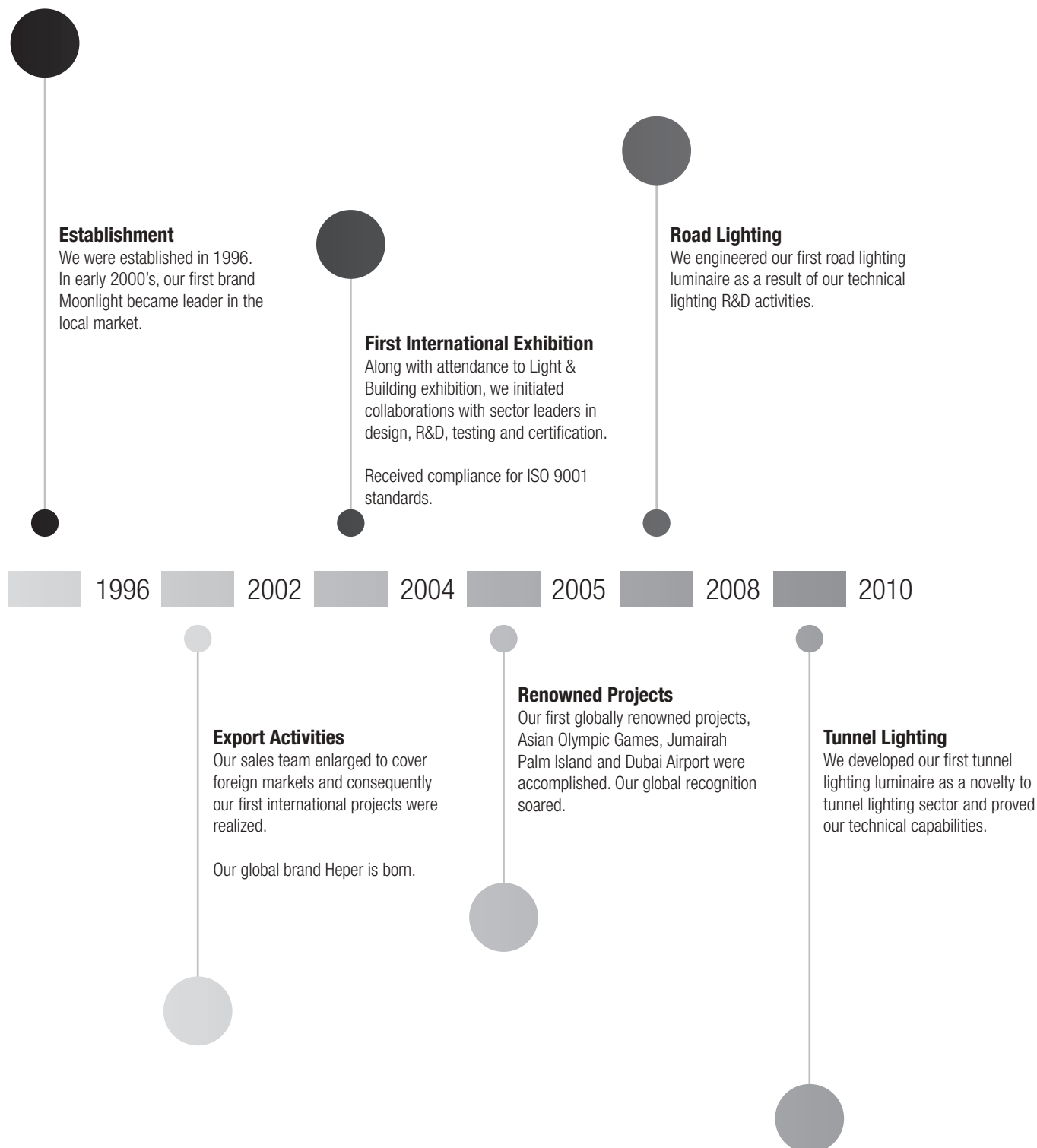
Furthermore, raising public awareness about the importance of light is our duty and it is the foundation of Heper Lighting Academy. We love what we do and we want to keep touching everyone's life, through light.

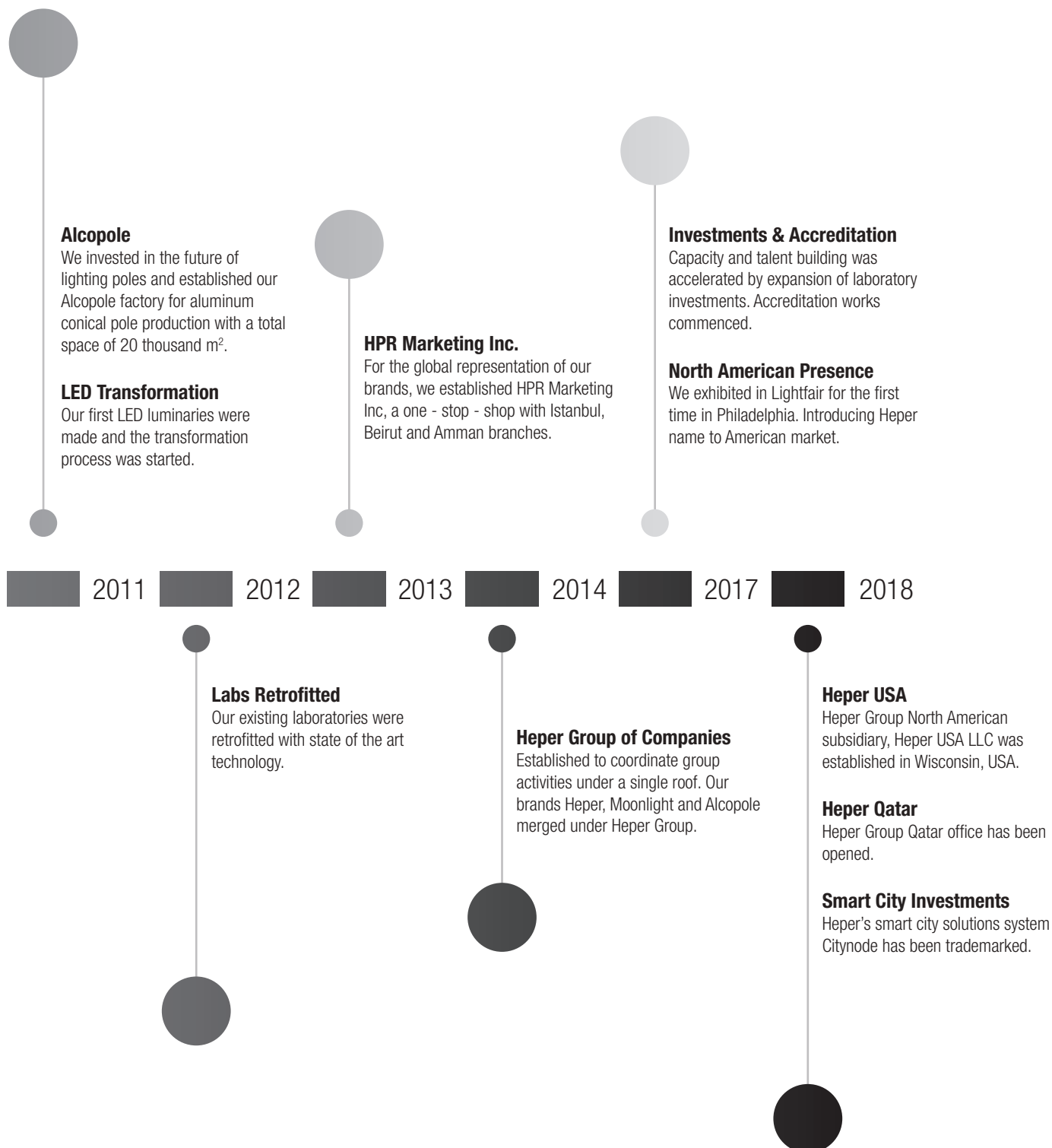
Greetings!

**Bekir Sıtkı HEPER**  
Chairman

## AT A GLANCE

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## “LIGHTING WORD FINDER”

B C Y K U K T X S R B Y R E I  
R E H S A W L L A W Y L E D R  
I L L U M I N A N C E O F E C  
F E C T E L P Y U F V L L R Z  
W O P R O C C W F R P U E I R  
D D O T C A N I M G I M C A L  
G U P T C N C A L T B E T N Q  
E N S I C I X A N U T N A I I  
Q C F D E A R H H I M Y N M J  
X F U N D E N L M W M P C U M  
E M C T C A N D E L A U E L Q  
D Y Q A O J X B L Q D B L H D  
C M A E B F T U O E R U D D M  
U T L H P C F L L I S E J G W  
J N G X Q W W B L C L N E X J

BEAM

FOOTCANDLE

LUMINAIRE

CANDELA

GLARE

LUX

CRI

ILLUMINANCE

REFLECTANCE

CUTOFF

LED

WALLWASHER

EFFICACY

LUMEN

EFFICIENCY

LUMINANCE



**Beam:** A light beam or beam of light is a directional projection of light energy radiating from a light source.

**Candela:** The SI unit of luminous intensity. One candela is the luminous intensity, in a given direction, of a source that emits monochromatic radiation of frequency  $540 \times 10^{12}$  Hz and has a radiant intensity in that direction of  $1 / 683$  watt per steradian.

**Color Rendering Index (CRI):** A metric used to describe how faithfully a light source can render the true colors of objects and spaces, where natural light sources like the sun have a perfect index of 100.

**Cut Off:** The angle from a fixture's vertical axis at which a reflector, louver, or other shielding device cuts off the direct visibility of a lamp. It is the complementary angle of the shielding angle.

**Efficacy:** Luminous efficacy is a measure of how well a light source produces visible light. The luminous efficacy of a source is the product of how well it converts energy to electromagnetic radiation, and how well the emitted radiation is detected by the human eye.

**Foot - Candle (fc):** Measurement unit for illuminance, or lumens per unit of area. One foot - candle is equivalent to one lumen per square foot.

**Glare:** Glare is difficulty seeing in the presence of bright light such as direct or reflected sunlight or artificial light.

**Efficiency:** Conversion ratio between lighting power output and electric power input, measuring both quantities in watts.

**Illuminance:** The luminous flux on a surface, per unit of area. Higher illuminance levels make surfaces appear brighter to the human eye and improve visibility.

**LED:** Acronym for light - emitting diode, a solid - state semiconductor component that emits light when exposed to electric current.

**Lumen:** Unit for the luminous flux used to measure the lighting output of lamps or fixtures.

**Luminance:** The intensity of light emitted from a surface per unit area in a given direction.

**Luminaire:** A complete and functional lighting fixture. A luminaire includes the light source, the ballast or driver, internal wiring, reflectors, lens and any additional components required to deliver light.

**Lux:** Measurement unit for illuminance, or lumens per unit of area. One lux is equivalent to one lumen per square meter.

**Reflectance:** A physical property of surfaces, equivalent to the ratio of reflected light to incident light.

**Wall Washer:** A luminaire performing the lighting effect where a wall is evenly illuminated so that surface irregularities are minimized, it seem smoother. The opposite effect is wall grazing.

## LIGHT & SCIENCE

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The question "What is light?" has been studied since ancient times. The duality of light could only be understood by mid 20th century along with quantum theory. Even though no single answer satisfies the various contexts in which light is studied, we can easily say the light is a power that can be seen. It transmits spatial and temporal information forming the basis of optics and optical communications and a myriad of modern technologies.

In our daily lives at Heper Group, light rhymes with science. Through the sense of sight, light is a key to understanding our environment and communicating within it.

We are proud of our team of engineers and their valuable work. Every day it's a motive for everyone to put a brick in the wall.





heper

Eye-Safe Speed Group Technology  
Innovative Precision Technology

## COLLABORATION

### **LIGHT AND CHARGE PROJECT**

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As Heper Group, we believe success is not a solo act. Lighting is a multidisciplinary sector in which many professionals collaborate. To develop astonishing results, we seek opportunities for collaborations with reputable institutes, universities, and designers all over the world.

Come by and join us to bring the most ambitious projects into life through light. It is always an exciting and fun process to work with our dynamic team and we would love to accommodate your inspiring ideas.

### **‘LIGHT AND CHARGE’ PROJECT**

Light and Charge is a significant step for our future. Codesigned by BMW, Heper's engineers developed an extraordinary lighting fixture. The new generation of electric cars will be able to be charged through sockets on lighting poles as these lighting fixtures are illuminating the streets.





**Quality is everyone's  
responsibility.\***

*\*W. Edwards Deming*

## QUALITY

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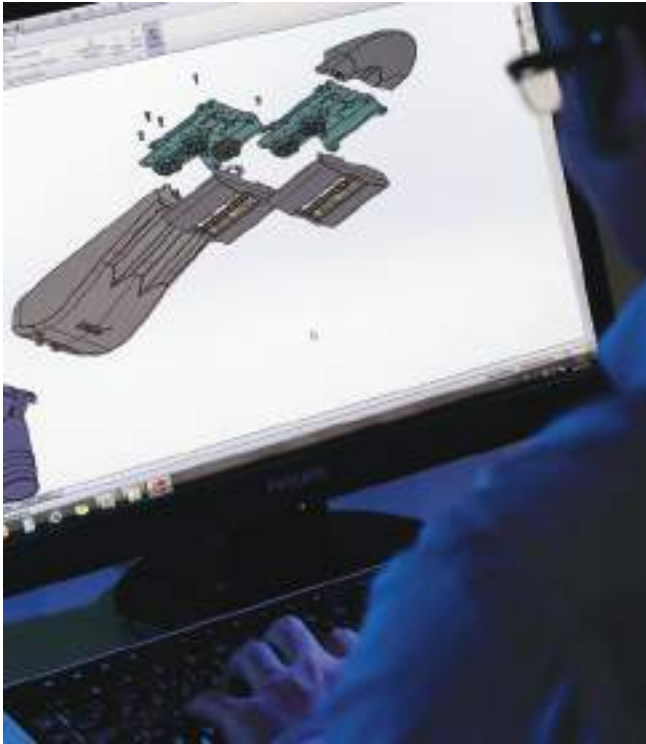
As a leader in the sector, we embrace the new customer - centric approach with the belief that quality is an uncompromisable element in all our processes due to the fact that we live in a rapidly changing and competitive environment.

With the mission "improving people's lives through light", we work hard for our vision every single day; "Engineering solutions beyond lighting for sustainable urban spaces with our passion for excellence, through light."



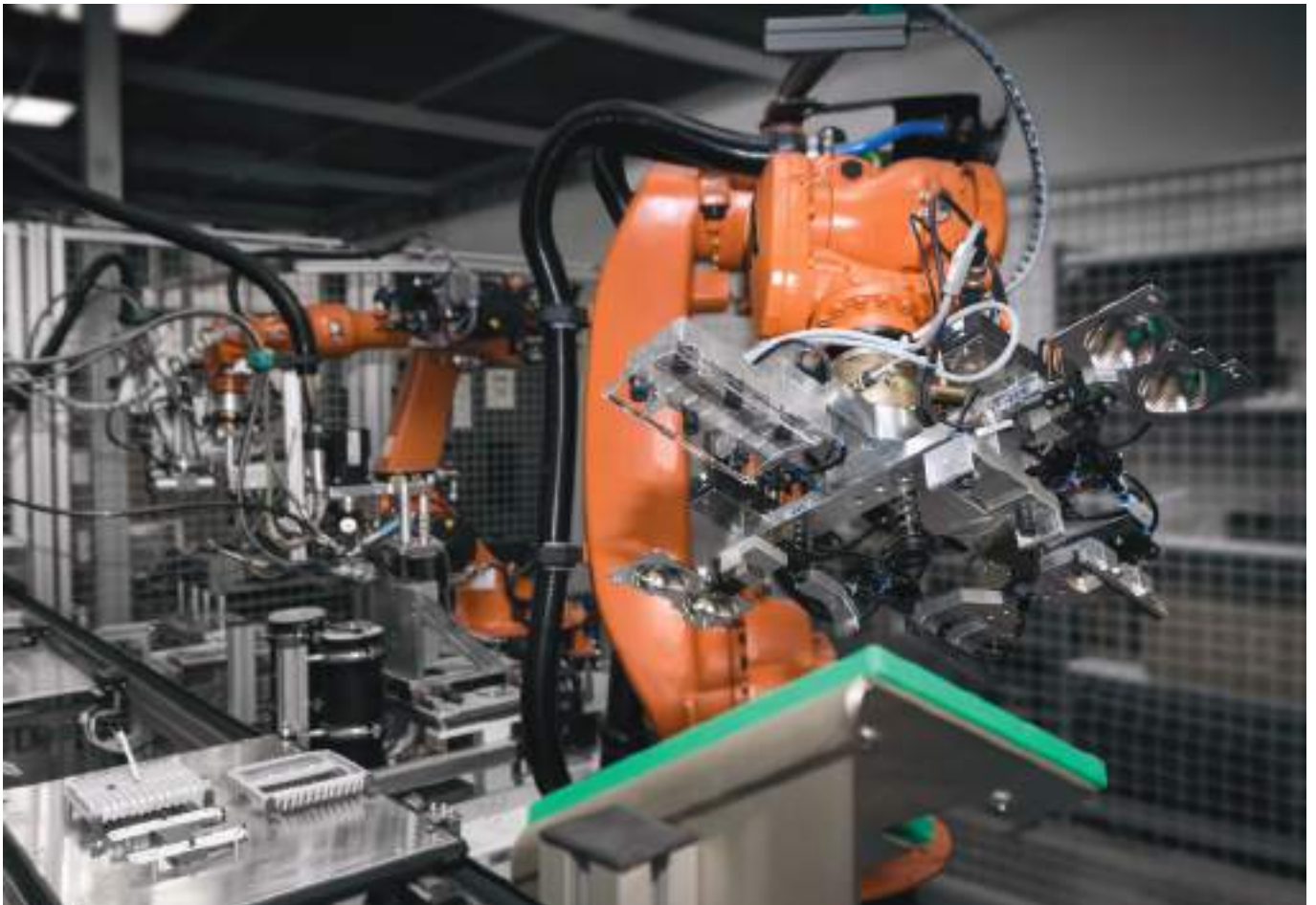
## PERFORMANCE THROUGH LIGHT

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Design and technology are the main elements we use to achieve higher performance. We produce long - lasting products resistant to environmental conditions, physical impacts and chemical factors.

The designed potential is realized into perfection with automated manufacturing techniques and advanced level of performance tests. We are always working hard to achieve the best performance possible in our products.

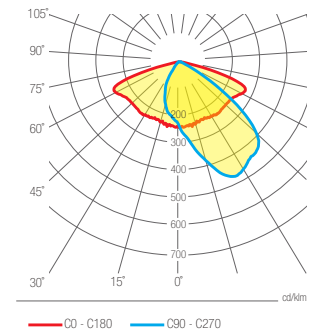




## TECHNOLOGY

### MILESTONE® - OPTIMIZED DISTRIBUTION

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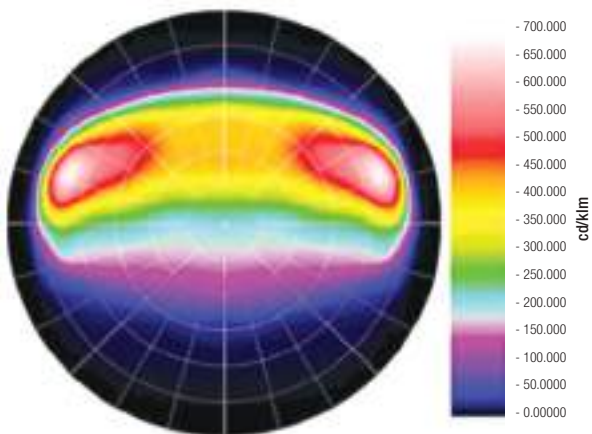
Heper's patented Milestone® LED Module is an outcome of Heper's quest for excellence, incorporating years of multi - disciplinary engineering work. Instead of using the standard PCB+LED chip+lens combination, we wanted to think outside the box to achieve a more optimized light distribution. That led us to align the LED chips upwards resulting with an indirect lighting concept. Light is reflected throughout the reflector. Thus, obtaining a wider bat - wing type of asymmetrical light distribution which is requested for road and street lighting. Light distribution is solely optimized for road lighting in Milestone® LED Module. It means optimum lux and uniformity levels for the required road classification even with the lower number of luminaires used in a project.

Milestone® LED Module is a wet location rated module itself. Hence the fixture is only the housing for the light source. Using different number of modules in a fixture, it becomes possible to cover requirements for different road lighting classifications. Thanks to its modularity along with its optical excellence, Milestone® LED Module is a state of the art light source.

Milestone® LED Module's unique design comes in handy when managing the heat problem as well. The ability to align the chips upwards allowed us to handle the heat management problem from a different perspective. Due to this alignment, thermal management is handled from underneath the luminaire. Being a relatively easier space to manage the heat, the bottom of the luminaire is also easier to access for cleaning when compared to the top. It is not exposed to direct sunlight and dirt wouldn't pile up over the surface. Increasing the heat transfer area, extra cooling ribs on the surface also help manage this problem.

#### Introducing **Milestone® EVO**.

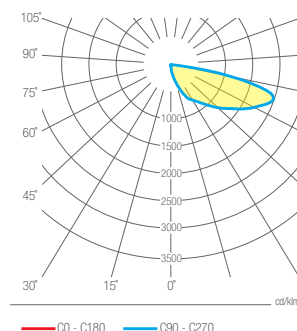
The Milestone technology you knew and loved now comes in a new body. Designed to meet the design characteristics of our architectural luminaires, Milestone® EVO doesn't compromise its optical and thermal excellence. Keep turning pages to see how it stands out!



## TECHNOLOGY

### DYNO - PERFECT LINEAR FORM

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DYNO LED Module; has unique lighting distribution thanks to its complex, multifaceted reflector design including longitudinal glare control, excellent uniformity with the highest consistency of constant illuminance within defined field.

The lighting distribution of the module is very smooth and in linear form without spot effect. Forward throw distribution allows throwing the light 1x distance in the horizontal position and 6x distances in the vertical position.

The light beam is precisely calculated and defined. Moreover, DYNO is more suitable for UV sensitive environments like historical places, monuments, paintings since it does not emit any UV beams.

In addition to excellent uniformity and clarity, surface washing applications with Dyno module results in zero glare for intended purposes due to hidden light source alignment.

**Comparison wallwasher with longitudinal glare control DYNO to conventional system.**

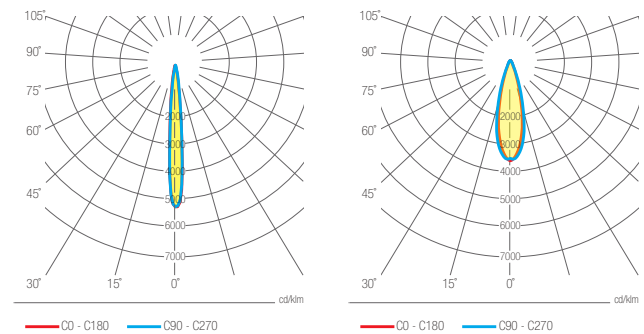


DYNO - Longitudinal Glare Control

Conventional System

## TECHNOLOGY

### HYBRID - PERFECT BEAM

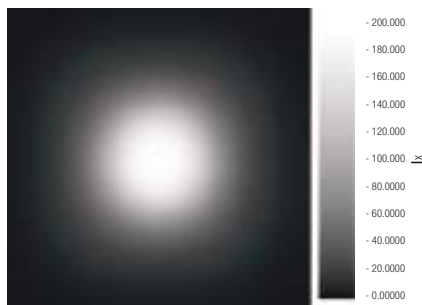


HYBRID is a specially designed optical system that combines the reflector with an additional lens which provides several advantages compared to the classical approach.

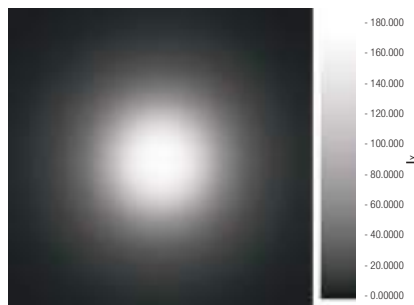
With HYBRID, you can have absolute control over light beam, perfect glare control and high efficiency; all combined in one system.

Narrow (7°) or medium (26°) beam light distribution, increased efficiency by controlling all the light beam and minimized luminance in the cut-off area are just some of the superior features of the Heper's HYBRID system. Redirecting the light twice, Hybrid module achieves to present optimized beam and field angles.

The Hybrid system is excellent for accent lighting, highlighting objects and surface grazing applications.



0% scattering



5% scattering



20% scattering





## TESTING LABORATORY

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Heper Testing Laboratory is equipped to clear the way for the highest quality for a lighting luminaire as well as product safety and performance characteristics. The laboratory is also one of the unique laboratories to adhere to the International Electrotechnical Commission (IEC) standards for the safety and performance testing of lighting luminaires. Heper Testing Laboratory works towards finding high quality, reliable, and cost - effective solutions for high - end lighting luminaires.





**Quality is never  
an accident.  
It is always the result of  
intelligent effort.\***

*\*John Ruskin*



We run tests for various types of materials for their tolerances against heat, cold, aridity and humidity, simulating different world climates.



We test our luminaries for ingress and impact protection, corrosion, earthing and much more.



We run photobiological safety tests to see the blue light hazard in our lighting fixtures.

# CITYNODE





## THE FUTURE WHY AND HOW CAN CITIES BE SMART?

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Smart city is common heard recently but what does it mean for us? Let's say it first; yes you can connect to Wi - Fi to surf through your favorite applications such as Instagram. However, there is more to it. The management of huge metropolitans is being made possible via smart city applications. Actually, it is inevitable because resources are limited. As humankind, we need to find wise solutions to survive. Increasing population pushes us to be more creative. Thus, we had to combine ICT (Information and Communication Technology) and IoT (Internet of Things) technologies to monitor big data and manage the efficient use of resources and energy. Collaterally, this kind of technology uses advanced networking systems which also allows integrating side benefits through applications.

Smart city is your home enlarging to outdoor spaces. It's all about making things possible. As the lighting company, we are truly delighted to introduce you to our take on smart cities. After all, what Superior city infrastructure out there than lighting poles and fixtures to embody this unique technology?

## TECHNICAL

### ROAD LIGHTING LUMINARIES



**D-LIGHT V2**  
046



**LC LUMINAIRE**  
052



**D-LIGHT**  
060



**D-LIGHT L**  
066



**TURA**  
074

### TUNNEL LIGHTING LUMINARIES



**GOLEDO**  
088



**T-LIGHT**  
096

### CATENARY LUMINARIES



**C-LIGHT**  
104

### HIGH/LOW BAY LUMINARIES



**GOLEDO-IN**  
110



**IN-LIGHT**  
114

### AREA LUMINARIES



**REGIO**  
118

## ARCHITECTURAL

### POLE TOP LUMINARIES



**OLIVA**  
128



**SOLE**  
134



**RHINO**  
140



**KREIS**  
144



**TERRA**  
150

**URBAN  
UNITS**  
158



**WINGS**  
166



**TILA**  
172



**TILA S**  
176



**DOMINO**  
184



### LIGHT COLUMNS



**TOLENA**  
192



**PRIFMA**  
196



**VLORA**  
200

BOLLARDS



**VESTA**  
206



**POLSO**  
212



**NORMA**  
216



**DOMINI**  
222



**LENA**  
226



**DRAGO**  
230



**TROLI**  
234



**ORION**  
238



**TRIAN**  
242



**URBAN  
BOLLARD**  
246

SURFACE - MOUNT  
LUMINARIES



**DOGO**  
252



**TROLA**  
258



**DOMI**  
262



**PINA W**  
266



**PUNTO S W**  
270



**VEGA S W**  
274



**OTTO**  
278



**PUNTO C**  
282



**VEGA S C**  
286



**AQSA**  
290

FLOODLIGHTS



**PUNTO**  
296



**VEGA**  
300



**ELIPSO**  
304



**PINA F**  
308



**VEGA OCTA**  
312

RECESSED  
LUMINARIES



**ZEROX**  
318



**WEDGE**  
326



**MINIKA**  
330



**MINIMO**  
334



**ZETA**  
338



**MOLTO**  
342



**HANDRA**  
346



**TECHNICAL**

## WHAT IS TECHNICAL LIGHTING?

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“Technical Lighting” is a discipline which serves directly to the most important factor lighting in general is related to; safety. Lighting is more vital for certain applications and proper lighting greatly reduces the risks those applications bring by nature. A well designed lighting project for a highway application may prevent an accident. Or a proper control system in a tunnel will help the driver adapt to/from daylight to darker zones in tunnels. Moreover, the risk for an occupational accident can be minimized in hazardous work zones by proper lighting.

The importance of technical lighting is acknowledged by guidelines, standards, specifications etc. That is why a manufacturer would have to hold strong engineering expertise to bring products into market that would meet the requirements. As Heper, we are always looking to go one step further. Our technical lighting products are not only designed to meet these requirements, but do it in the most advanced way possible.







# **ROAD LIGHTING**

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## ROAD CLASS TABLES

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| 1 MODULE                             |     |     |     |     |     |     |
|--------------------------------------|-----|-----|-----|-----|-----|-----|
| LIGHTING CLASS (EN13201:2016)        | P1  | P2  | P3  | P4  | P5  | P6  |
| Pole Height = 4m, max pole distance: | 25m | 25m | 25m | 25m | 25m | 25m |
| Pole Height = 6m, max pole distance: | 20m | 31m | 35m | 36m | 36m | 36m |
| Pole Height = 8m, max pole distance: |     | 25m | 33m | 45m | 48m | 48m |
| LIGHTING CLASS (EN13201:2016)        | M1  | M2  | M3  | M4  | M5  | M6  |
| Pole Height = 4m, max pole distance: |     |     |     |     |     | 21m |
| Pole Height = 6m, max pole distance: |     |     | 18m | 25m | 32m | 32m |
| Pole Height = 8m, max pole distance: |     |     |     | 20m | 31m | 42m |
| LIGHTING CLASS (EN13201:2016)        | C0  | C1  | C2  | C3  | C4  | C5  |
| Pole Height = 4m, max pole distance: |     | 16m | 17m | 17m | 17m | 17m |
| Pole Height = 6m, max pole distance: |     |     | 15m | 18m | 18m | 18m |
| Pole Height = 8m, max pole distance: |     |     |     |     | 25m | 25m |

Calculations are valid for below items;

- D-Light V2 1 Module (LL2034.681)
- L&C Luminaire 1 Module (LL2016.661, LL2017.661)
- D-Light 1 Module (LL2023.671)

| 2 MODULE                             |      |     |     |     |    |    |
|--------------------------------------|------|-----|-----|-----|----|----|
| LIGHTING CLASS (EN13201:2016)        | P1   | P2  | P3  | P4  | P5 | P6 |
| Pole Height = 6m, max pole distance: | 35m  |     |     |     |    |    |
| Pole Height = 8m, max pole distance: | 33m* | 45m | 48m |     |    |    |
| LIGHTING CLASS (EN13201:2016)        | M1   | M2  | M3  | M4  | M5 | M6 |
| Pole Height = 6m, max pole distance: |      |     |     |     |    |    |
| Pole Height = 8m, max pole distance: |      | 20m | 31m | 35m |    |    |
| LIGHTING CLASS (EN13201:2016)        | C0   | C1  | C2  | C3  | C4 | C5 |
| Pole Height = 6m, max pole distance: |      |     |     |     |    |    |
| Pole Height = 8m, max pole distance: |      | 20m | 31m | 35m |    |    |

Calculations are valid for below items;

- D-Light V2 2 Module (LL2034.682)
- L&C Luminaire 2 Module (LL2016.662, LL2017.662)
- D-Light 2 Module (LL2023.672)

## ROAD CLASS TABLES

| 3 MODULE                             |     |     |     |     |     |     |
|--------------------------------------|-----|-----|-----|-----|-----|-----|
| LIGHTING CLASS (EN13201:2016)        | P1  | P2  | P3  | P4  | P5  | P6  |
| Pole Height = 6m, max pole distance: | 45m |     |     |     |     |     |
| Pole Height = 8m, max pole distance: | 32m | 50m | 66m |     |     |     |
| LIGHTING CLASS (EN13201:2016)        | M1  | M2  | M3  | M4  | M5  | M6  |
| Pole Height = 6m, max pole distance: | 23m | 31m | 35m |     |     |     |
| Pole Height = 8m, max pole distance: |     |     | 30m | 40m | 60m | 64m |
| LIGHTING CLASS (EN13201:2016)        | C0  | C1  | C2  | C3  | C4  | C5  |
| Pole Height = 6m, max pole distance: |     | 25m |     |     |     |     |
| Pole Height = 8m, max pole distance: |     |     | 24m | 32m | 40m |     |

### Calculations are valid for below items;

- D-Light V2 3 Module (LL2034.683)
- L&C Luminaire 3 Module (LL2016.663, LL2017.663)
- D-Light 3 Module (LL2023.673)

| 4 MODULE                             |     |     |     |     |     |    |
|--------------------------------------|-----|-----|-----|-----|-----|----|
| LIGHTING CLASS (EN13201:2016)        | P1  | P2  | P3  | P4  | P5  | P6 |
| Pole Height = 6m, max pole distance: | 48m |     |     |     |     |    |
| Pole Height = 8m, max pole distance: | 44m | 66m |     |     |     |    |
| LIGHTING CLASS (EN13201:2016)        | M1  | M2  | M3  | M4  | M5  | M6 |
| Pole Height = 6m, max pole distance: | 29m |     |     |     |     |    |
| Pole Height = 8m, max pole distance: |     | 26m | 40m | 52m | 64m |    |
| LIGHTING CLASS (EN13201:2016)        | C0  | C1  | C2  | C3  | C4  | C5 |
| Pole Height = 6m, max pole distance: | 20m | 25m |     |     |     |    |
| Pole Height = 8m, max pole distance: |     | 22m | 32m | 40m |     |    |

### Calculations are valid for below items;

- D-Light V2 4 Module (LL2034.684)
- L&C Luminaire 4 Module (LL2016.663, LL2017.664)
- D-Light 4 Module (LL2023.674)
- D-Light L 4 Module (LL2024.674)

| 6 MODULE                             |     |     |     |    |    |    |
|--------------------------------------|-----|-----|-----|----|----|----|
| LIGHTING CLASS (EN13201:2016)        | P1  | P2  | P3  | P4 | P5 | P6 |
| Pole Height = 6m, max pole distance: |     |     |     |    |    |    |
| Pole Height = 8m, max pole distance: | 66m |     |     |    |    |    |
| LIGHTING CLASS (EN13201:2016)        | M1  | M2  | M3  | M4 | M5 | M6 |
| Pole Height = 6m, max pole distance: | 32m |     |     |    |    |    |
| Pole Height = 8m, max pole distance: | 30  | 40m | 52m |    |    |    |
| LIGHTING CLASS (EN13201:2016)        | C0  | C1  | C2  | C3 | C4 | C5 |
| Pole Height = 6m, max pole distance: | 25m |     |     |    |    |    |
| Pole Height = 8m, max pole distance: | 20m | 32m | 40m |    |    |    |

**Calculations are valid for below item;**

- D-Light L 6 Module (LL2024.676)

| 8 MODULE                             |     |     |    |    |    |    |
|--------------------------------------|-----|-----|----|----|----|----|
| LIGHTING CLASS (EN13201:2016)        | P1  | P2  | P3 | P4 | P5 | P6 |
| Pole Height = 6m, max pole distance: |     |     |    |    |    |    |
| Pole Height = 8m, max pole distance: | 66m |     |    |    |    |    |
| LIGHTING CLASS (EN13201:2016)        | M1  | M2  | M3 | M4 | M5 | M6 |
| Pole Height = 6m, max pole distance: |     |     |    |    |    |    |
| Pole Height = 8m, max pole distance: | 40m | 48m |    |    |    |    |
| LIGHTING CLASS (EN13201:2016)        | C0  | C1  | C2 | C3 | C4 | C5 |
| Pole Height = 6m, max pole distance: |     |     |    |    |    |    |
| Pole Height = 8m, max pole distance: | 26m | 40m |    |    |    |    |

**Calculations are valid for below item;**

- D-Light L 8 Module (LL2024.678)

# D-LIGHT V2

**MODULARITY AT ITS BEST**



Using Heper's Milestone® Evo optical module and its unique assembly system,  
D-Light V2 is a road lighting luminaire like no other.



# D-LIGHT V2

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's patented Milestone® Evo LED module
- Optimized street and road lighting distribution
- Operating Temperature: -40°C / +55°C
- Superior thermal management with upward aligned LED chips
- Easy installation and maintenance with modular structure
- Direct pole or side bracket mountable
- Tilt angle: +15° / -15°
- Spigot diameter: 60mm (optional 76mm)
- Auto on - off switch during maintenance
- In compliance with EN 60598, EN 62722
- UL and ENEC pending

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 350mA (optional), 525mA (optional)
- Optimized PCB - Design; aluminum PCB or FR - 4 PCB with touchdown technology
- Insulation class: CLASS I, CLASS II (optional)
- Energy class: A+
- Power factor: > 0.95
- Input Voltage: 220V - 240V, 120V - 277V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional), DynaDIM (optional), AstroDIM (optional)
- Surge Protection: 10kV (optional)

### OPTICAL PROPERTIES

- Equipped with Heper's patented Milestone® Evo LED Module
- Indirect lighting with reflector technology
- Homogenous lighting distribution through multifaceted reflectors
- Full cut-off wide light distribution
- Superior glare management with hidden light source
- Extreme high power multi LED chips
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 3500lm - 16000lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 118000h
- Photobiological safety: Risk Group 0
- BUG Rating: B2 - U0 - G1
- Efficacy (absolute photometry): 114 lm/W (4000K at 700mA)
- ULOR: 0%

### BODY HOUSING & FINISH

- Corrosion resistant die-cast aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

### EXTRAS

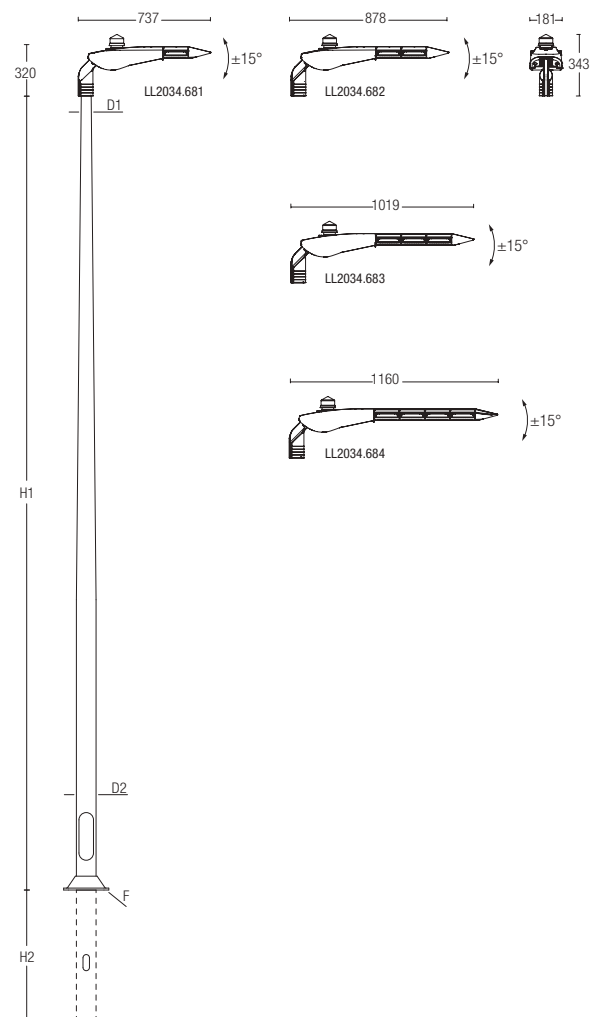
- Nema Socket
- Higher CRI LED Chips
- Constant Light Output (CLO)
- Marine grade body
- Back light shield
- IP rated terminal box

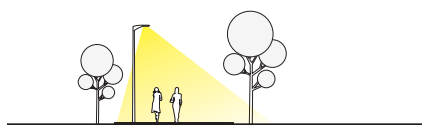
- 7 pin NEMA socket connection adaptable for various sensors



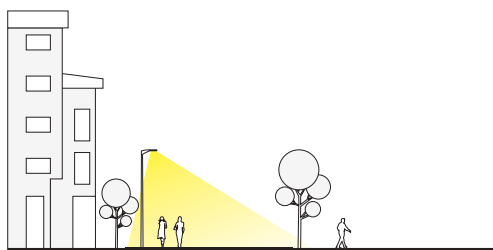


D-LIGHT V2

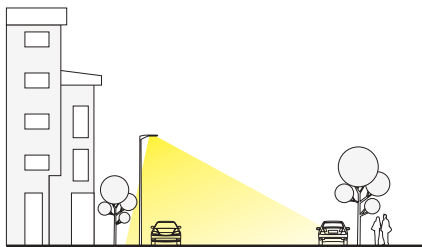




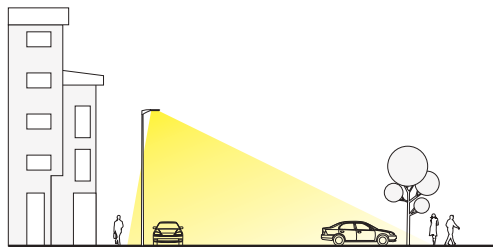
D-Light V2 1 Module



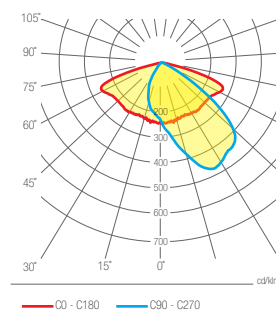
D-Light V2 2 Module



D-Light V2 3 Module



D-Light V2 4 Module



Roads



Streets



Bridges



Parking Lots



Pedestrian Crosses



Urban Areas



| LUMINAIRE  |                     |                |                   |                   |
|------------|---------------------|----------------|-------------------|-------------------|
| CODE       | DESCRIPTION         | POWER (700 mA) | LUMEN             | COLOR TEMPERATURE |
| LL2034.681 | D-Light V2 1 Module | 35W            | 3500lm - 4000lm   | 3000K / 4000K     |
| LL2034.682 | D-Light V2 2 Module | 70W            | 7000lm - 8000lm   | 3000K / 4000K     |
| LL2034.683 | D-Light V2 3 Module | 105W           | 10500lm - 12000lm | 3000K / 4000K     |
| LL2034.684 | D-Light V2 4 Module | 140W           | 14000lm - 16000lm | 3000K / 4000K     |

| POLES     |                               |      |      |     |      |           |              |
|-----------|-------------------------------|------|------|-----|------|-----------|--------------|
| CODE      | DESCRIPTION                   | H1   | H2   | D1  | D2   | ANCHORAGE | FLANGE COVER |
| PAFK.D114 | Aluminum Conical Pole Flanged | 4000 | -    | Ø60 | Ø114 | 90BJ002   | C1C2B        |
| PABK.D114 | Aluminum Conical Pole Buried  | 4000 | 800  | Ø60 | Ø114 | -         | -            |
| PAFK.D122 | Aluminum Conical Pole Flanged | 5000 | -    | Ø60 | Ø122 | 90BJ004   | C1D2B        |
| PABK.D122 | Aluminum Conical Pole Buried  | 5000 | 800  | Ø60 | Ø122 | -         | -            |
| PAFK.D122 | Aluminum Conical Pole Flanged | 6000 | -    | Ø60 | Ø122 | 90BJ004   | C1D2B        |
| PABK.D122 | Aluminum Conical Pole Buried  | 6000 | 1000 | Ø60 | Ø122 | -         | -            |
| PAFK.D148 | Aluminum Conical Pole Flanged | 6000 | -    | Ø60 | Ø148 | 90CJ005   | C1F2C        |
| PABK.D148 | Aluminum Conical Pole Buried  | 6000 | 1000 | Ø60 | Ø148 | -         | -            |
| PAFK.D165 | Aluminum Conical Pole Flanged | 8000 | -    | Ø60 | Ø165 | 90CJ006   | C1G2C        |
| PABK.D165 | Aluminum Conical Pole Buried  | 8000 | 1200 | Ø60 | Ø165 | -         | -            |

Mounting arm options



# L&C LUMINAIRE

**LUMINAIRE THAT SHAPES THE FUTURE**



L&C luminaire complements electrical charging stations while offering optimal light distribution along with unique sensors.



# L&C LUMINAIRE

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's LC LED Module
- Optimized street and road lighting distribution
- Operating Temperature -40°C / +55°C
- Superior thermal management with upward aligned LED chips
- Easy installation and maintenance with modular structure
- Direct pole or side bracket mountable
- IP rated terminal box
- Tilt angle: +15° / -15°
- In compliance with EN 60598, EN 62722
- UL certified, ENEC pending

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 350mA (optional), 525mA (optional)
- Optimized PCB - Design; aluminum PCB or FR - 4 PCB with touchdown technology
- Insulation class: CLASS I, CLASS II (optional)
- Energy class: A+
- Power factor: > 0.95
- Input Voltage: 220V - 240V, 120V - 277V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional)
- Surge Protection: 10kV (optional)

### OPTICAL PROPERTIES

- Equipped with Heper's LC LED Module
- Indirect lighting with reflector technology
- Homogenous lighting distribution through multifaceted reflectors
- Full cut-off wide light distribution
- Superior glare management with hidden light source
- Extreme high power multi LED chips
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 3500lm - 16000lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 118000h
- Photobiological safety: Risk Group 0
- BUG Rating: B2 - U0 - G1
- Efficacy (absolute photometry): 114 lm/W (4000K at 700mA)
- ULOR: 0%

### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating (RAL9006)
- Ingress protection: IP66
- Impact protection: IK08

### EXTRAS

- Nema Socket
- Radar Module
- Higher CRI LED Chips
- Constant Light Output (CLO)
- Marine grade body
- Back light shield

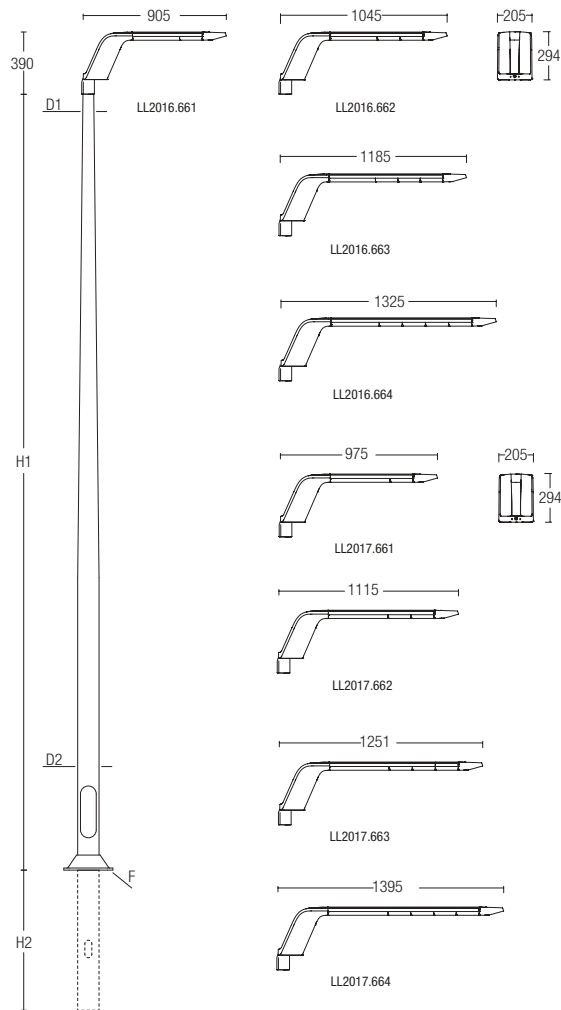
### EXTRAS - SENSORS & CONNECTIVITY

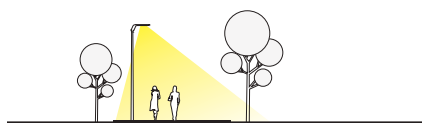
- Motion detection
- Speed detection
- Constant Light Output (CLO)
- LTE connectivity
- Air monitoring
- Park space marking



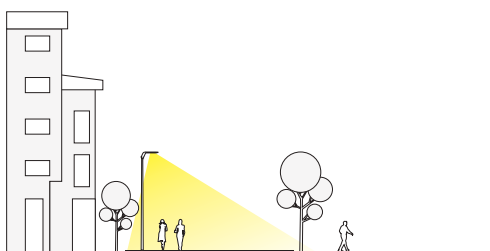


Source: Eluminocity GmbH  
Copyright: BMW Group

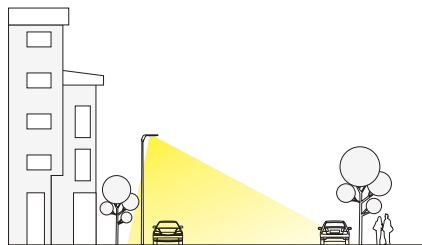
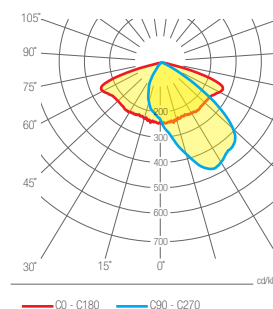




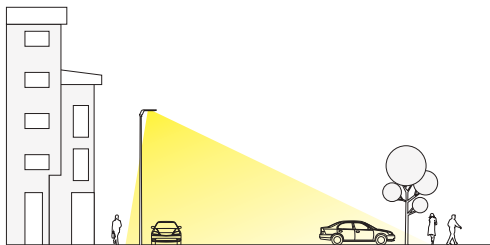
L&C Luminaire 1 Module



L&C Luminaire 2 Module



L&C Luminaire 3 Module



L&C Luminaire 4 Module



| LUMINAIRE  |                        |                |                   |                   |
|------------|------------------------|----------------|-------------------|-------------------|
| CODE       | DESCRIPTION            | POWER (700 mA) | LUMEN             | COLOR TEMPERATURE |
| LL2016.661 | L&C Luminaire 1 Module | 35W            | 3500lm - 4000lm   | 3000K / 4000K     |
| LL2016.662 | L&C Luminaire 2 Module | 70W            | 7000lm - 8000lm   | 3000K / 4000K     |
| LL2016.663 | L&C Luminaire 3 Module | 105W           | 10500lm - 12000lm | 3000K / 4000K     |
| LL2016.664 | L&C Luminaire 4 Module | 140W           | 14000lm - 16000lm | 3000K / 4000K     |

| LUMINAIRE SENSORS & CONNECTIVITY |                        |                |                   |                   |
|----------------------------------|------------------------|----------------|-------------------|-------------------|
| CODE                             | DESCRIPTION            | POWER (700 mA) | LUMEN             | COLOR TEMPERATURE |
| LL2017.661                       | L&C Luminaire 1 Module | 35W            | 3500lm - 4000lm   | 3000K / 4000K     |
| LL2017.662                       | L&C Luminaire 2 Module | 70W            | 7000lm - 8000lm   | 3000K / 4000K     |
| LL2017.663                       | L&C Luminaire 3 Module | 105W           | 10500lm - 12000lm | 3000K / 4000K     |
| LL2017.664                       | L&C Luminaire 4 Module | 140W           | 14000lm - 16000lm | 3000K / 4000K     |

| POLES     |                               |      |      |     |      |           |              |
|-----------|-------------------------------|------|------|-----|------|-----------|--------------|
| CODE      | DESCRIPTION                   | H1   | H2   | D1  | D2   | ANCHORAGE | FLANGE COVER |
| PAFK.D114 | Aluminum Conical Pole Flanged | 4000 | -    | Ø60 | Ø114 | 90BJ002   | C1C2B        |
| PABK.D114 | Aluminum Conical Pole Buried  | 4000 | 800  | Ø60 | Ø114 | -         | -            |
| PAFK.D122 | Aluminum Conical Pole Flanged | 5000 | -    | Ø60 | Ø122 | 90BJ004   | C1D2B        |
| PABK.D122 | Aluminum Conical Pole Buried  | 5000 | 800  | Ø60 | Ø122 | -         | -            |
| PAFK.D122 | Aluminum Conical Pole Flanged | 6000 | -    | Ø60 | Ø122 | 90BJ004   | C1D2B        |
| PABK.D122 | Aluminum Conical Pole Buried  | 6000 | 1000 | Ø60 | Ø122 | -         | -            |
| PAFK.D148 | Aluminum Conical Pole Flanged | 6000 | -    | Ø60 | Ø148 | 90CJ005   | C1F2C        |
| PABK.D148 | Aluminum Conical Pole Buried  | 6000 | 1000 | Ø60 | Ø148 | -         | -            |
| PAFK.D165 | Aluminum Conical Pole Flanged | 8000 | -    | Ø60 | Ø165 | 90CJ006   | C1G2C        |
| PABK.D165 | Aluminum Conical Pole Buried  | 8000 | 1200 | Ø60 | Ø165 | -         | -            |





# D-LIGHT

**MODULARITY AND OPTIMIZED LIGHT DISTRIBUTION**



D-Light reflects Heper's "thinking outside the box" approach that results in the overall best optical characteristics.



# D-LIGHT

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's patented Milestone® LED Module
- Optimized street and road lighting distribution
- Operating temperature: -40°C / +55°C
- Superior thermal management with upward aligned LED chips
- Easy installation and maintenance with modular structure
- Direct pole or side bracket mountable
- Tilt angle: +15° / - 15°
- Tool-less Access to housing
- Spigot diameter: 60mm (optional 76mm)
- Auto on - off switch during maintenance
- In compliance with EN 60598, EN 62722
- ENEC certified
- UL pending

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 350mA (optional), 525mA (optional)
- Optimized PCB - Design; aluminum PCB or FR - 4 PCB technology
- Insulation class: CLASS I, CLASS II (optional)
- Energy class: A+
- Power factor: > 0.95
- Input Voltage: 220V - 240V, 120V - 277V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional), DynaDIM (optional), AstroDIM (optional)
- Surge Protection: 10kV (optional)

### OPTICAL PROPERTIES

- Equipped with Heper's patented Milestone® LED Module
- Indirect lighting with reflector technology
- Homogenous lighting distribution through multifaceted reflectors
- Full cut-off wide light distribution
- Superior glare management with no direct eye contact with light source
- Extreme high power multi LED chips
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 3500 lm - 16000 lm
- Color Temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 118000 h
- Photobiological safety: Risk Group 0
- BUG Rating: B2 - U0 - G1
- Efficacy (absolute photometry): 114 lm/W (4000K at 700mA)
- ULOR: 0%

### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing composed of die-cast and extrusion parts
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

### EXTRAS

- Nema Socket
- Higher CRI LED chips
- Constant Light Output (CLO)
- Marine grade coating
- Back Light Shield
- IP rated terminal box

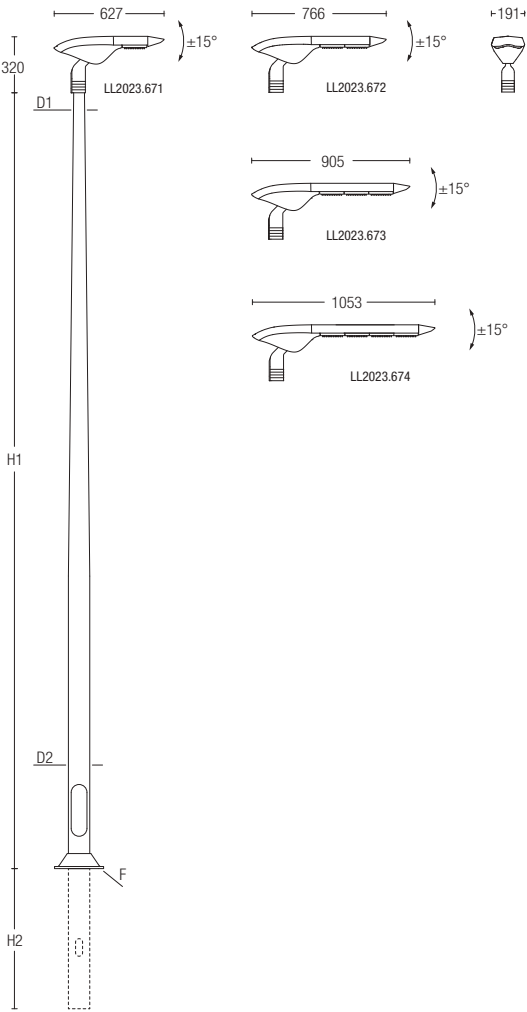


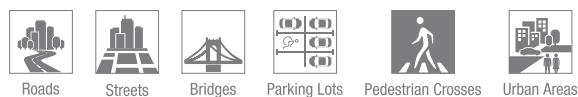
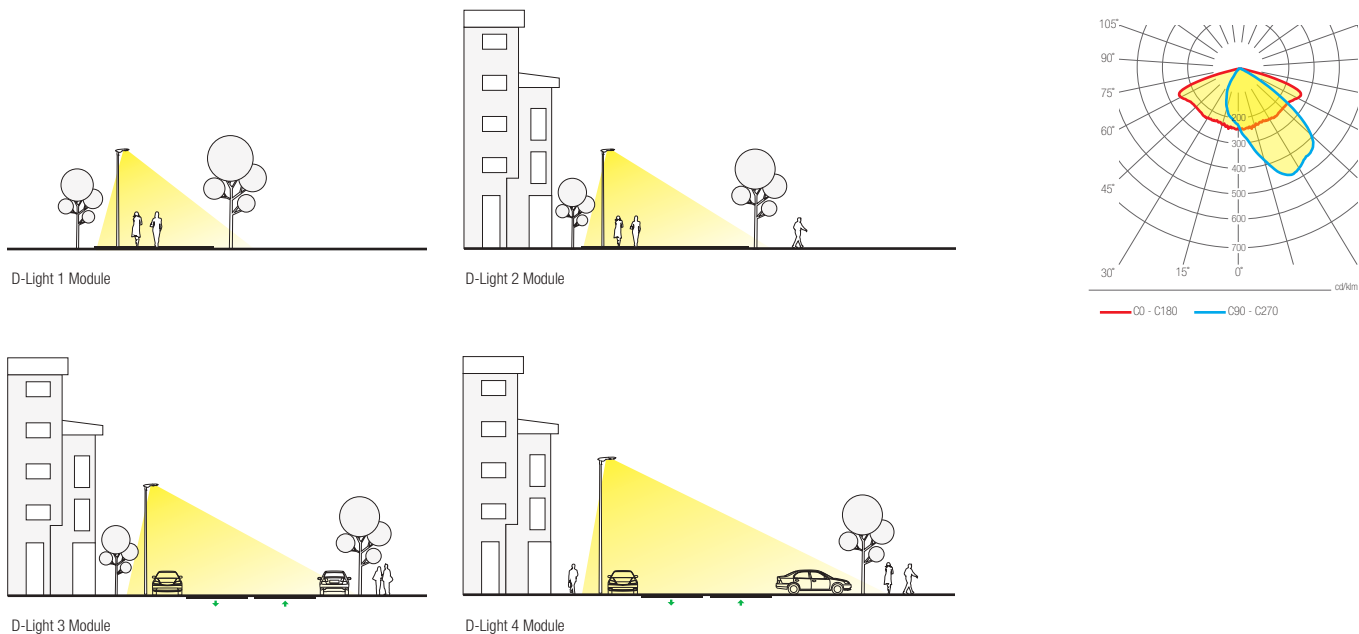


### Module Replacement **Within Seconds**



D-LIGHT





| LUMINAIRE  |                  |                |                   |                   |
|------------|------------------|----------------|-------------------|-------------------|
| CODE       | DESCRIPTION      | POWER (700 mA) | LUMEN             | COLOR TEMPERATURE |
| LL2023.671 | D-Light 1 Module | 35W            | 3500lm - 4000lm   | 3000K / 4000K     |
| LL2023.672 | D-Light 2 Module | 70W            | 7000lm - 8000lm   | 3000K / 4000K     |
| LL2023.673 | D-Light 3 Module | 105W           | 10500lm - 12000lm | 3000K / 4000K     |
| LL2023.674 | D-Light 4 Module | 140W           | 14000lm - 16000lm | 3000K / 4000K     |

| POLES     |                               |      |      |     |      |           |              |
|-----------|-------------------------------|------|------|-----|------|-----------|--------------|
| CODE      | DESCRIPTION                   | H1   | H2   | D1  | D2   | ANCHORAGE | FLANGE COVER |
| PAFK.D114 | Aluminum Conical Pole Flanged | 5000 | -    | Ø60 | Ø114 | 90BJ004   | C1C2B        |
| PABK.D114 | Aluminum Conical Pole Buried  | 5000 | 800  | Ø60 | Ø114 | -         | -            |
| PAFK.D122 | Aluminum Conical Pole Flanged | 6000 | -    | Ø60 | Ø122 | 90BJ004   | C1D2B        |
| PABK.D122 | Aluminum Conical Pole Buried  | 6000 | 1000 | Ø60 | Ø122 | -         | -            |
| PAFK.D148 | Aluminum Conical Pole Flanged | 6000 | -    | Ø60 | Ø148 | 90CJ005   | C1F2C        |
| PABK.D148 | Aluminum Conical Pole Buried  | 6000 | 1000 | Ø60 | Ø148 | -         | -            |
| PAFK.D165 | Aluminum Conical Pole Flanged | 8000 | -    | Ø60 | Ø165 | 90CJ006   | C1G2C        |
| PABK.D165 | Aluminum Conical Pole Buried  | 8000 | 1200 | Ø60 | Ø165 | -         | -            |



# D-LIGHT L

**COALESCENCE OF POWER AND MODULARITY**



D-Light L family promises optimal lighting for high speed roads. Even using less number of poles and fixtures than normal applications.



# D-LIGHT L

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's patented Milestone® LED Module
- Optimized road lighting distribution
- Operating temperature: -40°C / +55°C
- Superior thermal management with upward aligned LED chips
- Easy installation and maintenance with modular structure
- Tilt angle: +15 / - 15
- Direct pole or side bracket mountable
- Tool-less Access to housing
- Spigot diameter: 60mm (optional 76mm)
- Auto on - off switch during maintenance
- In compliance with EN 60598, EN 62722
- ENEC certified
- UL pending

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 350mA (optional), 525mA (optional)
- Optimized PCB - Design; aluminum PCB or FR - 4 PCB technology
- Insulation class: CLASS I, CLASS II (optional)
- Energy class: A+
- Power factor: > 0.95
- Input Voltage: 220V - 240V, 120V - 277V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional), DynaDIM (optional), AstroDIM (optional)
- Surge Protection: 10kV (optional)

### OPTICAL PROPERTIES

- Equipped with Heper's patented Milestone® LED Module
- Indirect lighting with reflector technology
- Homogenous lighting distribution through multifaceted reflectors
- Full cut-off wide light distribution
- Superior glare management with no direct eye contact with light source
- Extreme high power multi LED chips
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 14000 lm - 32000 lm
- Color Temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 118000 h
- Photobiological safety: Risk Group 0
- BUG Rating: B2 - U0 - G1
- Efficacy (absolute photometry): 114 lm/W
- ULOR: 0%

### BODY HOUSING & FINISH

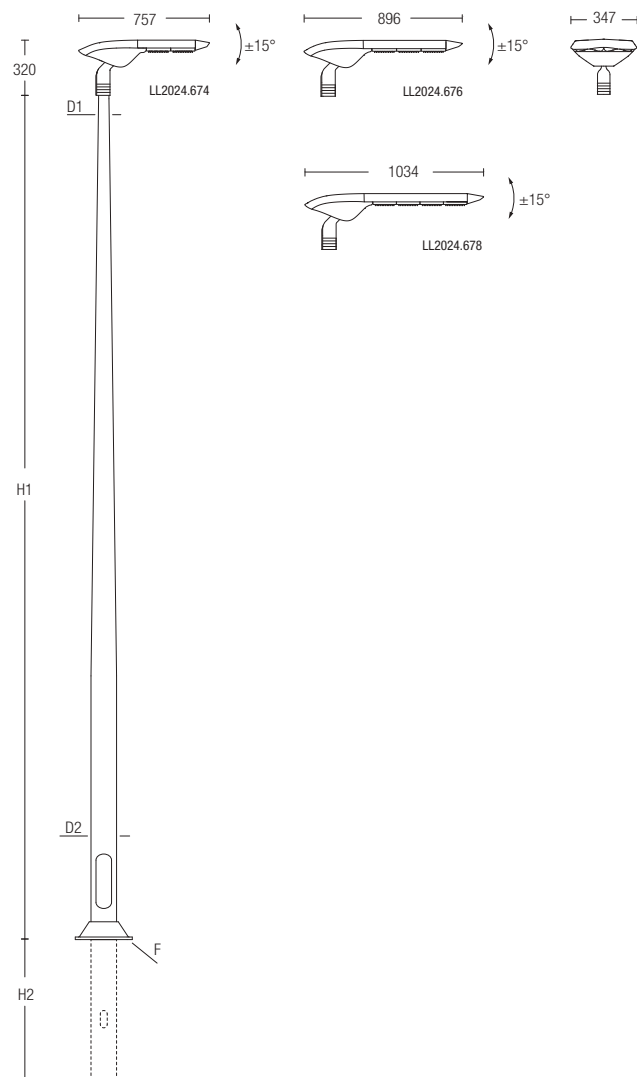
- Corrosion resistant aluminum housing composed of die-cast and extrusion parts
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

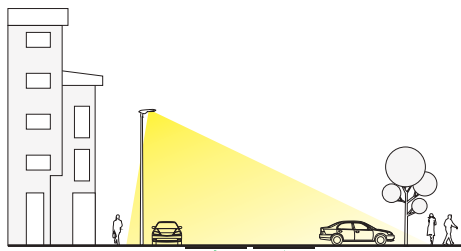
### EXTRAS

- Nema Socket for smart city applications
- Higher CRI LED chips
- Constant Light Output (CLO)
- Marine grade coating
- Back Light Shield
- IP rated terminal box

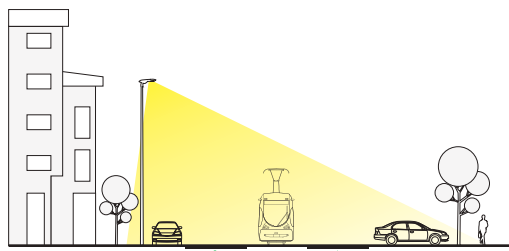


D-LIGHT L

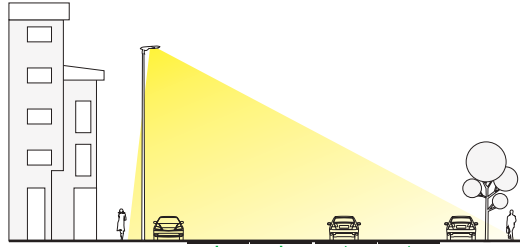
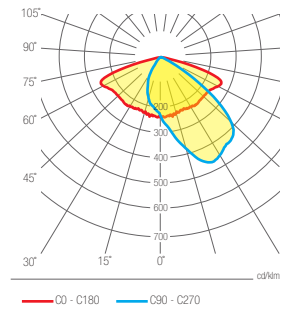




D-Light 4 Module



D-Light 6 Module



D-Light 8 Module



Motorways



Roads



Bridges



Parking Lots



## LUMINAIRE

| CODE              | DESCRIPTION      | POWER (700 mA) | LUMEN             | COLOR TEMPERATURE |
|-------------------|------------------|----------------|-------------------|-------------------|
| <b>LL2024.674</b> | D-Light 4 Module | 140W           | 14000lm - 16000lm | 3000K / 4000K     |
| <b>LL2024.676</b> | D-Light 6 Module | 210W           | 21000lm - 24000lm | 3000K / 4000K     |
| <b>LL2024.678</b> | D-Light 8 Module | 280W           | 28000lm - 32000lm | 3000K / 4000K     |

## POLES

| CODE             | DESCRIPTION                   | H1    | H2   | D1  | D2   | ANCHORAGE | FLANGE COVER |
|------------------|-------------------------------|-------|------|-----|------|-----------|--------------|
| <b>PAFK.D165</b> | Aluminum Conical Pole Flanged | 8000  | -    | Ø60 | Ø165 | 90CJ006   | C1G2C        |
| <b>PABK.D165</b> | Aluminum Conical Pole Buried  | 8000  | 1200 | Ø60 | Ø165 | -         | -            |
| <b>PAFK.D180</b> | Aluminum Conical Pole Flanged | 10000 | -    | Ø60 | Ø180 | 90DJ008   | C1H2D        |
| <b>PABK.D180</b> | Aluminum Conical Pole Buried  | 10000 | 1500 | Ø60 | Ø180 | -         | -            |
| <b>PAFK.D200</b> | Aluminum Conical Pole Flanged | 12000 | -    | Ø60 | Ø200 | 90DJ010   | C1J2D        |
| <b>PABK.D200</b> | Aluminum Conical Pole Buried  | 12000 | 1700 | Ø60 | Ø200 | -         | -            |

Mounting arm options



PTCS



PTCD



PTCT



PTCQ





# TURA

**FLEXIBILITY AT ITS BEST**



Tura offers endless optical variations on a robust and unique design luminaire.



# TURA

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with highly flexible LED optics
- Optimized street and road lighting distribution
- Operating Temperature -40°C / +55°C
- Direct pole or side bracket mountable
- Tilt angle: +15° / -15°
- Spigot diameter: 60mm (optional 76mm)
- Tool-less access to housing
- Auto on - off switch during maintenance
- Lens arrays with special tunneling system for Superior thermal management
- In compliance with EN 60598, EN 62722
- ENEC pending
- UL Listed

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 350mA (optional), 525mA (optional)
- Optimized PCB - Design
- Insulation class: CLASS I, CLASS II (optional)
- Energy class: A+
- Power factor: > 0.95
- Input Voltage: 220V - 240V, 120V - 277V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional)
- Surge Protection: 10kV (optional)

### OPTICAL PROPERTIES

- 8 different light distributions for different project requirements
- Glare management with special lens system
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 3700lm - 16750lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 84700h
- Photobiological safety: Risk Group 1
- BUG Rating: B2 - U0 - G1
- Efficacy (absolute photometry): 122 lm/W (4000K at 700mA)
- ULOR: 0%

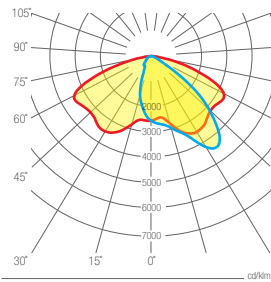
### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

### EXTRAS

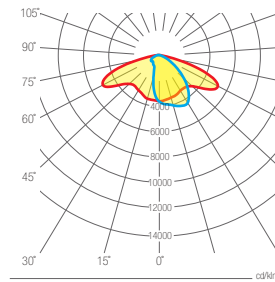
- Nema Socket
- Additional optical varieties
- Higher CRI LED Chips
- Constant Light Output (CLO)
- Marine grade body
- IP rated terminal box





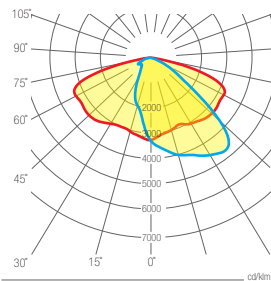
Tura H-DN

Soft wide beam with good illuminance uniformity



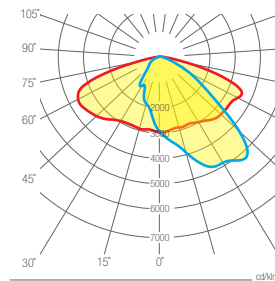
Tura H-DW

Universal road lighting beam with excellent mixed illuminance and luminance uniformity



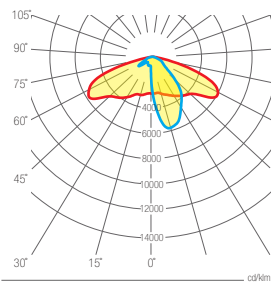
Tura H-M

Beam with excellent longitudinal luminance uniformity for the roads where road width is equal to or less than the pole height



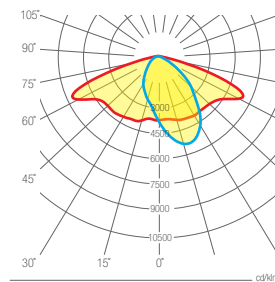
Tura H-MW

Beam with excellent longitudinal luminance uniformity for the roads where road width is equal to or less than the pole height, added house-side backlight



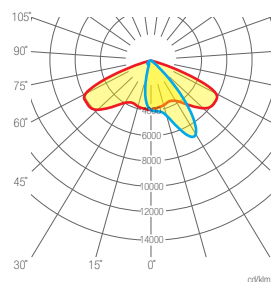
Tura H-T

IESNA Type II (Medium) beam applicable for European P-class standard pedestrian lighting and M-class roads



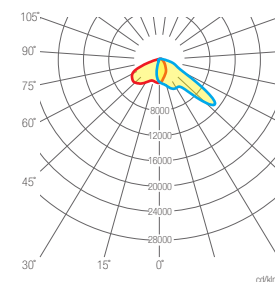
Tura H-TC

IESNA Type II (Medium) beam with added house side backlight. Appropriate for tilted use



Tura H-A

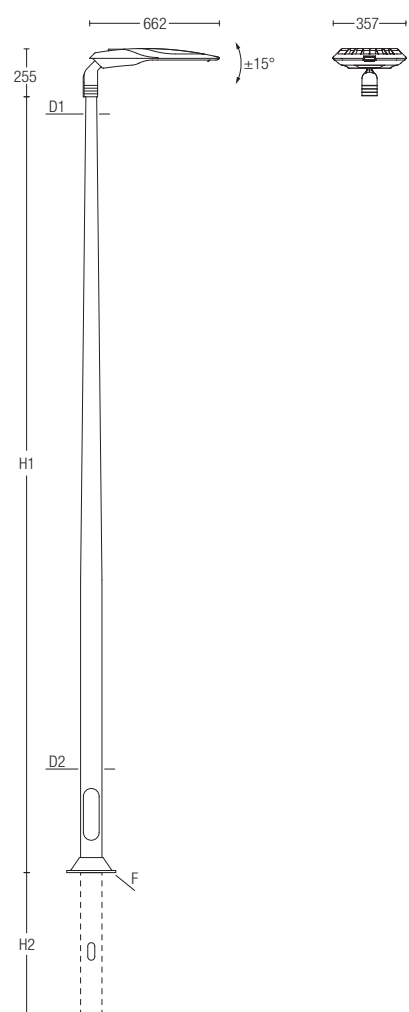
IESNA Type II (Short) beam for narrow roads or high poles with extremely low glare

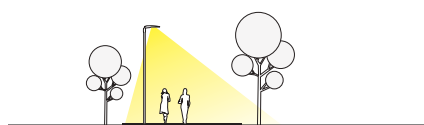


Tura H-P

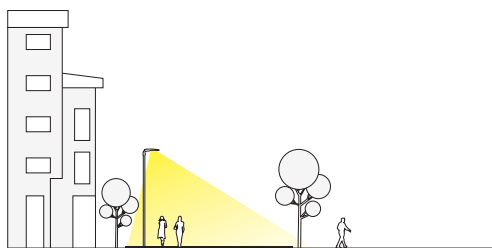
Fully asymmetrical beam designed to highlight pedestrian crossings for right side traffic

# TURA

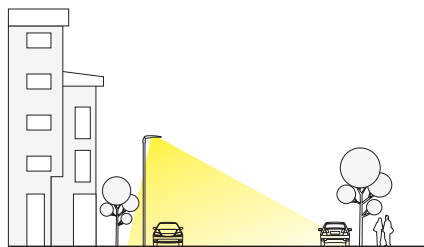




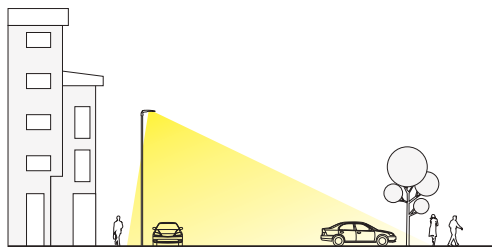
Tura 16 LED



Tura 32 LED



Tura 48 LED



Tura 64 LED



Roads



Streets



Bridges



Parking Lots



Pedestrian Crosses



Urban Areas



## LUMINAIRE

| CODE              | DESCRIPTION   | POWER (700 mA) | LUMEN             | COLOR TEMPERATURE |
|-------------------|---------------|----------------|-------------------|-------------------|
| <b>LL2036.751</b> | Tura 1x12 LED | 26W            | 3000lm - 3500lm   | 3000K - 4000K     |
| <b>LL2036.752</b> | Tura 2x12 LED | 52W            | 6000lm - 7000lm   | 3000K - 4000K     |
| <b>LL2036.753</b> | Tura 3x12 LED | 78W            | 9000lm - 10500lm  | 3000K - 4000K     |
| <b>LL2036.754</b> | Tura 4x12 LED | 103W           | 12000lm - 14000lm | 3000K - 4000K     |

## POLES

| CODE             | DESCRIPTION                   | H1   | H2   | D1  | D2   | ANCHORAGE | FLANGE COVER |
|------------------|-------------------------------|------|------|-----|------|-----------|--------------|
| <b>PAFK.D114</b> | Aluminum Conical Pole Flanged | 4000 | -    | Ø60 | Ø114 | 90BJ002   | C1C2B        |
| <b>PABK.D114</b> | Aluminum Conical Pole Buried  | 4000 | 800  | Ø60 | Ø114 | -         | -            |
| <b>PAFK.D122</b> | Aluminum Conical Pole Flanged | 5000 | -    | Ø60 | Ø122 | 90BJ004   | C1D2B        |
| <b>PABK.D122</b> | Aluminum Conical Pole Buried  | 5000 | 800  | Ø60 | Ø122 | -         | -            |
| <b>PAFK.D122</b> | Aluminum Conical Pole Flanged | 6000 | -    | Ø60 | Ø122 | 90BJ004   | C1D2B        |
| <b>PABK.D122</b> | Aluminum Conical Pole Buried  | 6000 | 1000 | Ø60 | Ø122 | -         | -            |
| <b>PAFK.D148</b> | Aluminum Conical Pole Flanged | 6000 | -    | Ø60 | Ø148 | 90CJ005   | C1F2C        |
| <b>PABK.D148</b> | Aluminum Conical Pole Buried  | 6000 | 1000 | Ø60 | Ø148 | -         | -            |
| <b>PAFK.D165</b> | Aluminum Conical Pole Flanged | 8000 | -    | Ø60 | Ø165 | 90CJ006   | C1G2C        |
| <b>PABK.D165</b> | Aluminum Conical Pole Buried  | 8000 | 1200 | Ø60 | Ø165 | -         | -            |

Mounting arm options



Ordering guide : **Product Code - Light Distribution**  
i.e. LL2036.751 - HDN



# TUNNEL LIGHTING

# TUNNEL LIGHTING PRINCIPLES

## ZONES TYPES

### 1 - Access Zone

The part of the open road in front of the tunnel portal in the approach direction, covering the distance over which an approaching driver is able to see tunnel entrance. The access zone begins at the stopping distance before of the entrance portal and it ends at the tunnel entrance portal.

### 2 - Threshold Zone

The first part of the tunnel, just after the entrance portal. The threshold zone starts either at the beginning of the tunnel or at the beginning of the daylight sunscreens when occurring. The length of the threshold zone is at least equal to the stopping distance.

### 3 - Transition Zone

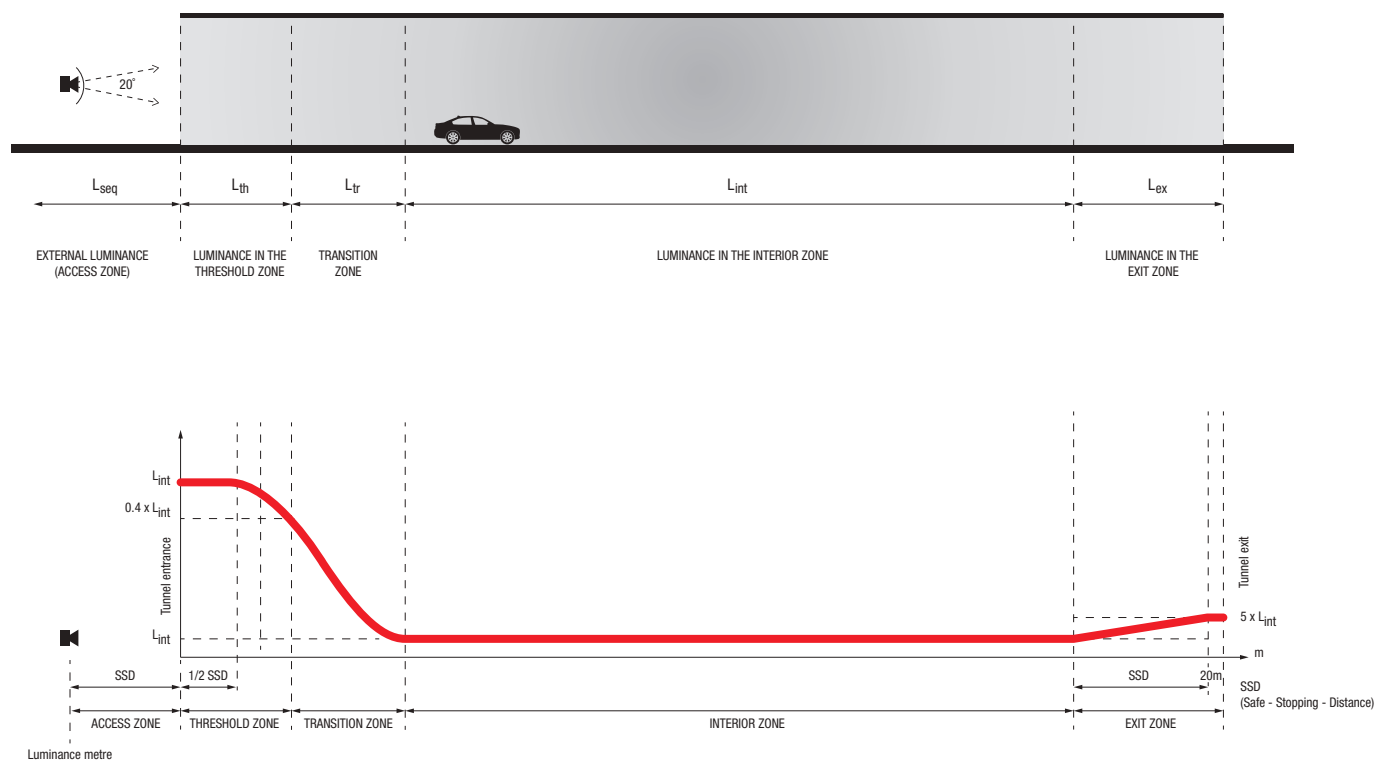
The part of the tunnel starts from just after the threshold zone and ends at the beginning of interior zone. The lighting level in the transition zone is decreasing from the level at the end of the threshold zone to the level of the interior zone. Interior zone: the part of the tunnel after the transition zone till to the beginning of the exit zone.

### 4 - Interior Zone

The part of the tunnel after the transition zone till to the beginning of the exit zone.

### 5 - Exit Zone

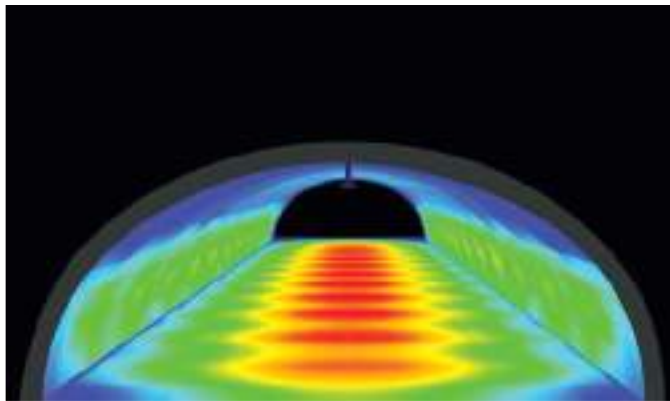
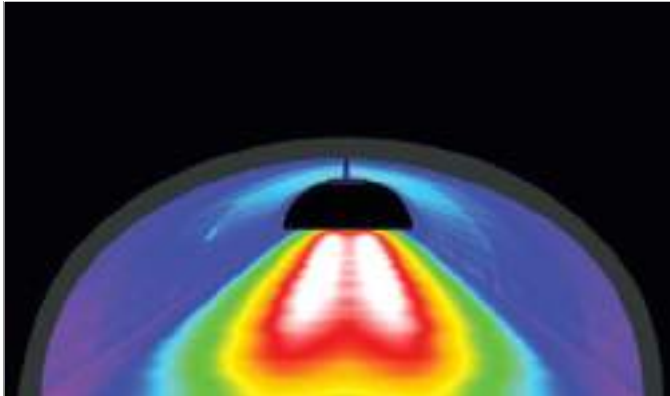
The exit zone begins at the end of the interior zone, ends at the exit portal of the tunnel.



# TUNNEL LIGHTING PRINCIPLES

## DESIGN CRITERIA

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### **Tunnel**

Tunnel is the structure over a roadway that restricts the normal daytime natural illumination of a roadway section such that the driver's visual sensation is diminished. In order to classify changing lighting requirements along with the tunnel length, tunnel is evaluated in the form of sub interior zones: the access zone, the threshold zone, the transition zone, the interior zone, the exit zone and parting zone.

### **Traffic Flow**

The number of vehicles passing a specific point in a stated time in stated direction (s). In tunnel design, peak hour traffic, vehicles per hour per lane, will be used.

### **Design Speed**

The design speed is the speed for which the tunnel is laid out. It is generally accepted that this speed is the maximum speed allowed on the access roads to the tunnel.

### **Reference Point**

The reference point is in principle the point located in the center of the approaching lanes, at a height of 1,5 m and at a distance from the entrance of the tunnel equal to the stopping distance (SD) at the design speed.

### **Stopping Distance**

Stopping distance is the distance necessary to stop the vehicle moving at the speed in question in total safety. It comprises the distance covered during the reaction time and during the braking time.

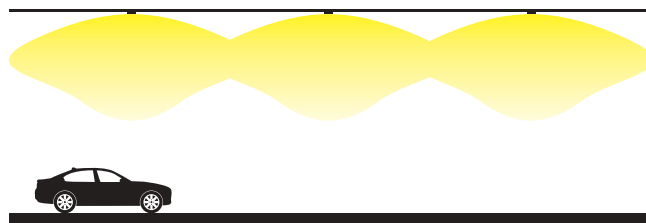
## DESIGN CRITERIA

### TUNNEL LIGHTING DISTRIBUTION TYPES

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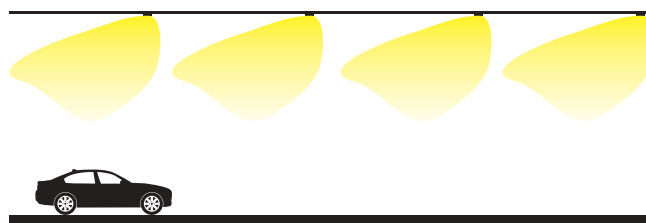
#### Symmetric Lighting

The lighting where the light equally falls on objects in directions with and against the traffic. Symmetric lighting is characterized by using luminaries that show a luminous intensity distribution that is symmetric in relation to the plane normal to the direction of the traffic.



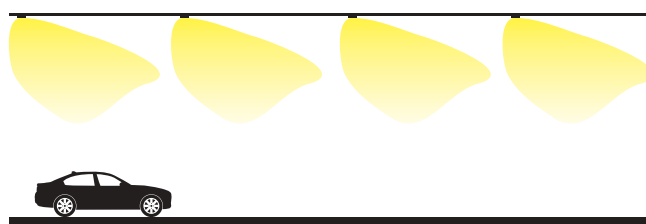
#### Counter-beam Lighting

The lighting where the light falls on objects from an opposite direction to the traffic. Counter - beam lighting is characterized by using luminaries that show a luminous intensity distribution that is asymmetric in relation to the plane normal to the direction of the traffic, where the maximum luminous intensity is aimed against the direction of the traffic. The term refers only to the direction of normal travel.



#### Pro-beam Lighting

The lighting where the light falls on objects in the same direction as the traffic. Pro-beam lighting is characterized by using luminaries that show a luminous intensity distribution that is asymmetric in relation to the 90/270 C - plane (the plane normal to the direction of the traffic), where the maximum luminous intensity is aimed in the same direction as the direction of the traffic.





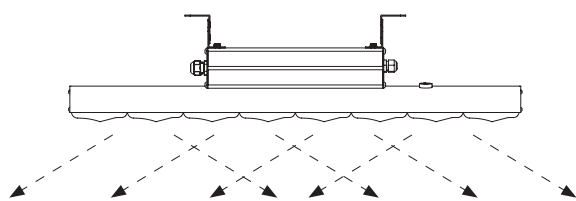
## ADAPTIVE LIGHTING

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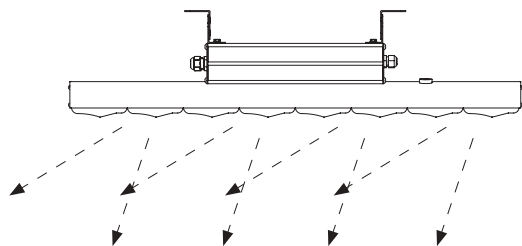
Depending of the design criteria, you would need different light distributions along the tunnel such as Pro-beam, Counter - beam or Symmetrical. Especially in "Transition zone", there is common use of Symmetrical light distribution where the driver would need to see any objects within the stopping distance. In principle, stopping distance is calculated according to traffic flow. But traffic flow is not constant in general, it means there are different times of the day where you'll see high or low traffic.

There are several researches that proves main reason for the accidents in tunnel is not related to seeing any object but the car next to us. When the traffic flow is higher than expected, to be able to see the next car, Pro-beam lighting would be sufficient and even visually more comfortable as the light will only be directed in front of the driver.

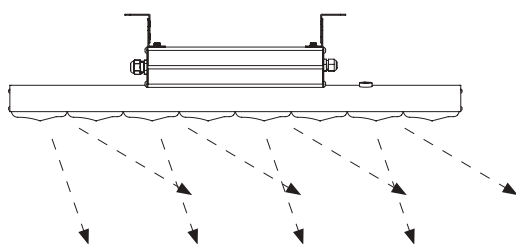
This is where the T-Light concept comes along. T-Light is a unique luminaire that has electronically switchable optical units providing Pro-beam, Counter - beam and Symmetrical light distribution. Thanks to the patented Milestone® technology of Heper, it's possible to control separately two PCB's within the Milestone® module. With a careful planning, it would be possible to have an intelligent approach to the tunnel lighting design. When there is high traffic flow, system can change to Pro-beam light distribution automatically. This means more visual comfort, less accidents.



Symmetrical Light Distribution



Counter-beam Light Distribution



Pro-beam Light Distribution



# GOLEDO

**STATE OF THE ART TUNNEL LIGHTING LUMINAIRE**



With dozens of optical distribution options, there is no tunnel out there that our Goledo cannot thrive in.



# GOLEDO

## TECHNICAL SPECIFICATIONS

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### GENERAL HIGHLIGHTS

- Various optics for different tunnel and underpass applications
- Operating temperature: -40°C / +55°C
- Easy installation and maintenance
- Direct cable tray mountable
- Halogen free cabling
- Silicon gasket
- Unique no-carry mounting and maintenance system
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722
- ENEC and UL certified

### ELECTRICAL PROPERTIES

- Drive current: 350mA, 525mA, 700mA
- Optimized PCB design
- Insulation class: CLASS I, CLASS II
- Energy class: A+
- Power factor > 0.95
- Input Voltage: 220V - 240V / 110V - 120V (optional) at 50Hz /60Hz
- Control Type: 1-10V, DALI, StepDIM, AstroDIM

### OPTICAL PROPERTIES

- Various lens arrangements for different zones and different installation areas
- Homogenous light distribution
- Reduced glare with special lenses with transmission > 95%
- Power Chips
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 7200lm - 21500lm
- Color Temperature: 3000K, 3500K, 4000K
- CRI > 70 (4000K), CRI > 70 (3500K) CRI > 80 (3000K)
- Lumen depreciation: L90B10 > 118000h
- Photobiological safety: Risk Group 1
- Efficacy (absolute photometry): 127 lm/W for 4000K at 700mA

### BODY HOUSING & FINISH

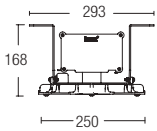
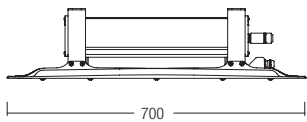
- Corrosion resistant die-cast aluminum housing
- Electrostatic powder coating
- RAL 7035 standard color with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

### EXTRAS

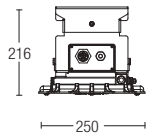
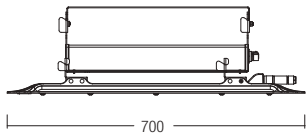
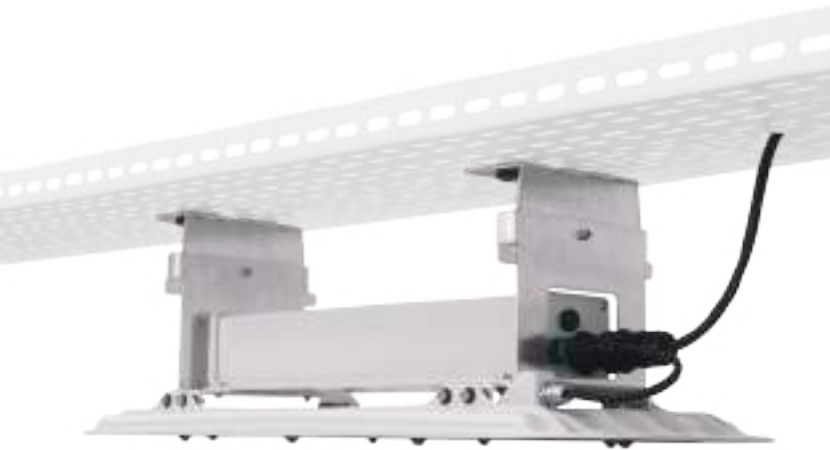
- Constant Light Output
- Programmable driver for different scenarios
- Marine grade coating
- Different light distribution options
- Chromate coating prior to paint



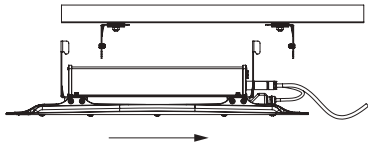
GOLEDO



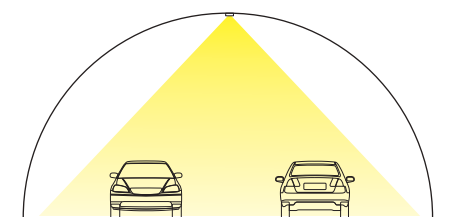
Standard bracket



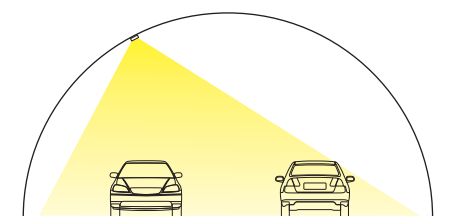
Slide mount bracket



No-carry slide mount system



Goledo Sym



Goledo Asym

### Symmetric Distribution

SYM-XX-(W) – Longitudinal spread 75° and wide symmetric spread 45°

SYM-XX-(M) – Longitudinal spread 75° and wide symmetric spread 50°

### Asymmetric Distribution

ASYM-YY-(W) – Longitudinal spread 75° and narrow transverse spread 30°

ASYM-YY-(M) – Longitudinal spread 75° and wide transverse spread 60°

### Counter Beam Distribution

CB-YY – Asymmetric Throw 50°

CB-182 – Asymmetric Throw 45° and narrow symmetric spread 25°

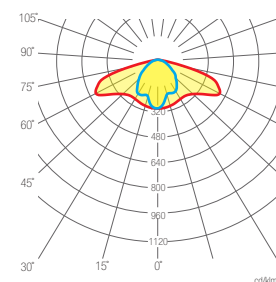
CB-164 – Asymmetric Throw 45° and narrow symmetric spread 30°

### \* Light Distribution options for Goledo Sym and Asym (XX);

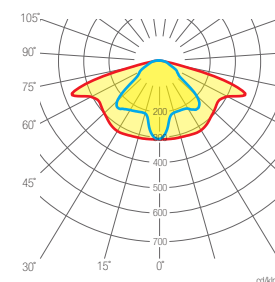
- 44 for 32 LED
- 55 for 40 LED
- 88 for 64 LED
- 1010 for 80 LED

### \* Light Distribution options for Goledo CB (YY);

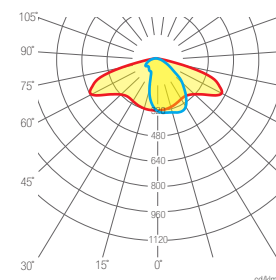
- 80 for 32 LED
- 100 for 40 LED
- 160 for 64 LED
- 200 for 80 LED



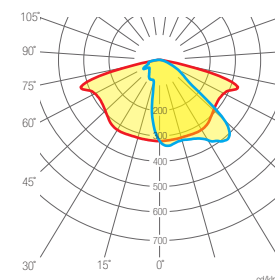
Goledo Sym W



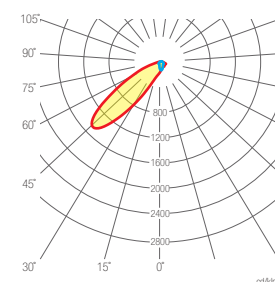
Goledo Sym M



Goledo Asym W



Goledo Asym 80 M



Goledo CB

### Mounting options



Standard bracket



Slide mount bracket



Tunnels



Underpasses



| LUMINAIRE  |                 |                |                             |                       |
|------------|-----------------|----------------|-----------------------------|-----------------------|
| CODE       | DESCRIPTION     | POWER (700 mA) | LUMEN                       | COLOR TEMPERATURE     |
| LT2037.761 | GOLEDO T 32 LED | 70W            | 7200lm - 8000lm - 8500lm    | 3000K - 3500K - 4000K |
| LT2037.765 | GOLEDO T 40 LED | 90W            | 8600lm - 9600lm - 10250lm   | 3000K - 3500K - 4000K |
| LT2037.767 | GOLEDO T 64 LED | 136W           | 14400lm - 16000lm - 17000lm | 3000K - 3500K - 4000K |
| LT2037.766 | GOLEDO T 80 LED | 170W           | 18100lm - 20200lm - 21500lm | 3000K - 3500K - 4000K |

### Mounting options

Standard bracket: 110819035  
Slide mount bracket: 120162103

Ordering guide : **Product Code - Light Distribution - Mounting option**  
i.e. LT2037.765 - CB80 - 120162103





# T-LIGHT

**ALL IN ONE FOR A TUNNEL**



Making it possible to have counterbeam, probeam and symmetrical light distribution  
all in one fixture!



# T-LIGHT

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's patented Milestone® LED Module
- Counterbeam, Probeam and Symmetrical distribution option in one fixture
- Direct cable tray mountable
- Halogen free cabling
- Operating temperature: -40°C / +55°C
- Superior thermal management with upward aligned LED chips
- Easy installation and maintenance with modular structure
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 350 mA, 525mA, 700mA
- Optimized PCB - Design; aluminum PCB or FR - 4 PCB with touchdown technology
- Insulation class: CLASS I, CLASS II (optional)
- Energy class: A+
- Power factor: > 0.95
- Input Voltage: 220V - 240V / 120V - 277V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V, DALI (optional)

### OPTICAL PROPERTIES

- Equipped with Heper's patented Milestone® LED Module
- Indirect lighting with reflector technology
- Homogenous lighting distribution through multifaceted reflectors
- Full cut-off with wide light distribution with no up light
- Superior glare management with no direct eye contact with light source
- Extreme high power multi LED chips
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 3500 lm - 24000 lm
- Color Temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 118000 h
- Photobiological safety: Risk Group 0
- Efficacy (absolute photometry): 114 lm/W (4000K at 700mA)
- ULOR: 0%

### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

### EXTRAS

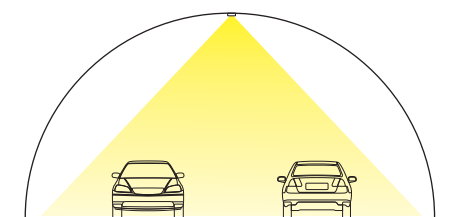
- Constant Light Output
- Programmable driver for different scenarios
- Marine grade coating



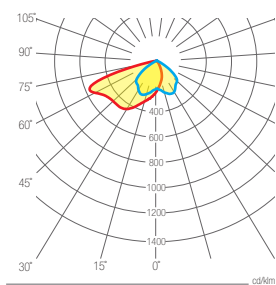
## T-LIGHT

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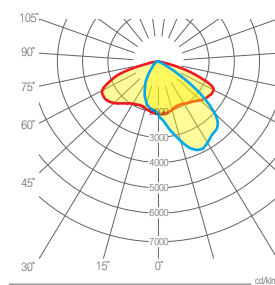




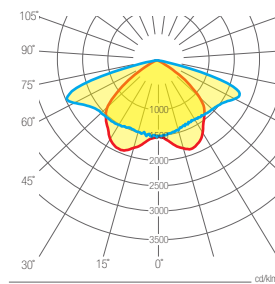
T-Light



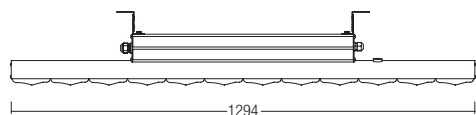
T-Light Counterbeam



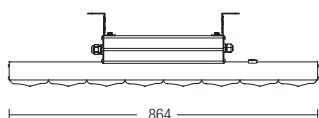
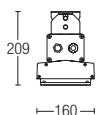
T-Light Asym



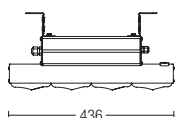
T-Light Sym



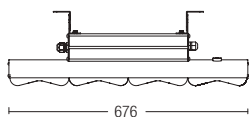
LT2029.653



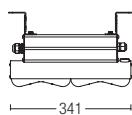
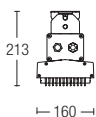
LT2029.652



LT2029.651



LT2029.674  
LT2029.674-Sym



LT2029.672  
LT2029.672-Sym



Tunnels



Underpasses



| LUMINAIRE      |                      |                |                   |                   |
|----------------|----------------------|----------------|-------------------|-------------------|
| CODE           | DESCRIPTION          | POWER (700 mA) | LUMEN             | COLOR TEMPERATURE |
| LT2029.651     | T-Light 4 CB Module  | 70W            | 7000lm - 8000lm   | 3000K / 4000K     |
| LT2029.652     | T-Light 8 CB Module  | 140W           | 14000lm - 16000lm | 3000K / 4000K     |
| LT2029.653     | T-Light 12 CB Module | 210W           | 21000lm - 24000lm | 3000K / 4000K     |
| LT2029.672     | T-Light 2 Module     | 70W            | 7000lm - 8000lm   | 3000K / 4000K     |
| LT2029.672-Sym | T-Light 2 Module Sym | 70W            | 7000lm - 8000lm   | 3000K / 4000K     |
| LT2029.674     | T-Light 4 Module     | 140W           | 14000lm - 16000lm | 3000K / 4000K     |
| LT2029.674-Sym | T-Light 4 Module Sym | 140W           | 14000lm - 16000lm | 3000K / 4000K     |



# **CATENARY LIGHTING**

# C-LIGHT

**A NEW WAY TO CATENARY LIGHTING**



Modern design is combined with modular system for a unique approach for catenary lighting.



# C-LIGHT

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's patented Milestone® LED Module
- Optimized road lighting distribution or symmetrical optimized light distribution
- Operating temperature: -40°C / +55°C
- Superior thermal management with upward aligned LED chips
- Easy installation and maintenance with modular structure
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 350mA (optional)
- Optimized PCB - Design; aluminum PCB or FR - 4 PCB with touchdown technology
- Power factor: > 0.95
- Input Voltage: 220V - 240V, 110V - 120V (optional) at 50Hz / 60Hz
- Control type: 1-10V (optional), DALI (optional), StepDIM (optional), AstroDIM (optional)
- Surge Protection: 10kV (optional)

### OPTICAL PROPERTIES

- Equipped with Heper's patented Milestone® LED Module
- Indirect lighting with reflector technology
- Homogenous lighting distribution through multifaceted reflectors
- Full cut-off wide light distribution
- Superior glare management with hidden light source
- Extreme high power multi LED chips
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 7000lm - 16000lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 118000h
- Photobiological Safety: Risk Group 0
- BUG Rating: B2 - U0 - G1
- Efficacy (absolute photometry): 114 lm/W (4000K at 700mA)
- ULOR: 0%

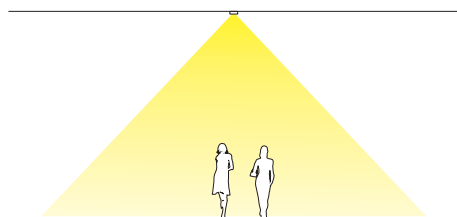
### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

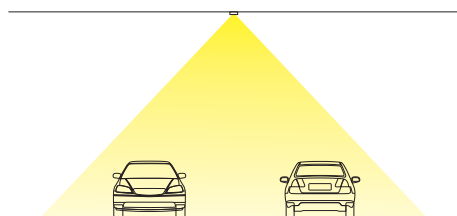
### EXTRAS

- Higher CRI LED Chips
- Constant Light Output (CLO)
- Back light shield

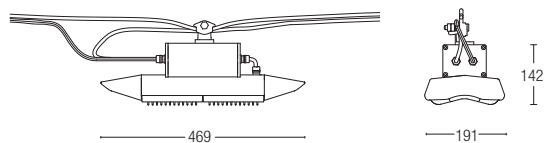
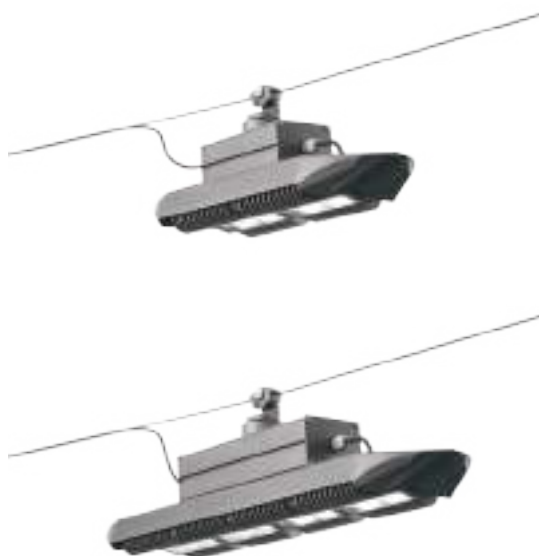
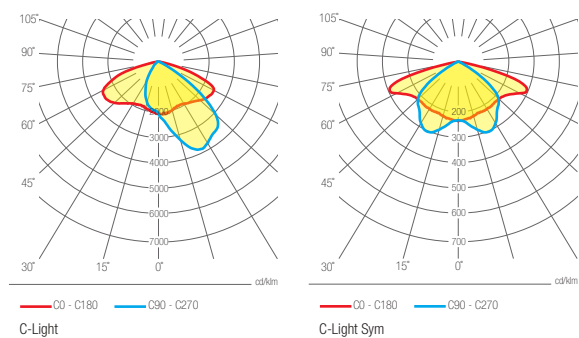




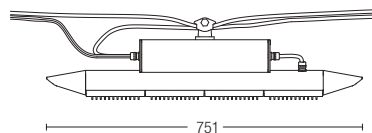
C-Light



C-Light



LC2029.672  
LC2029.672-Sym



LC2029.674  
LC2029.674-Sym



Catenary



| LUMINAIRE      |                      |                |                   |                   |
|----------------|----------------------|----------------|-------------------|-------------------|
| CODE           | DESCRIPTION          | POWER (700 mA) | LUMEN             | COLOR TEMPERATURE |
| LC2029.672     | C-Light 2 Module     | 70W            | 7000lm - 8000lm   | 3000K - 4000K     |
| LC2029.672-Sym | C-Light 2 Module Sym | 70W            | 7000lm - 8000lm   | 3000K - 4000K     |
| LC2029.674     | C-Light 4 Module     | 140W           | 14000lm - 16000lm | 3000K - 4000K     |
| LC2029.674-Sym | C-Light 4 Module Sym | 140W           | 14000lm - 16000lm | 3000K - 4000K     |



# **HIGH / LOW BAY**

---

# GOLEDO-IN

**AS FLEXIBLE AS IT GETS**



With numerous light distribution variations, it is easy to find the best option for a high/low bay application.



# GOLEDO-IN

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Optimized high/low bay lighting distribution or symmetrical optimized light distribution
- Operating Temperature -40°C / +55°C
- Superior thermal management
- Direct cable tray mountable
- Unique no-carry mounting and maintenance system
- In compliance with EN 60598, EN 62722
- ENEC and UL certified

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 350mA (optional)
- Optimized PCB - Design
- Insulation class: CLASS I, CLASS II
- Energy Class: A+
- Power factor: > 0.95
- Input Voltage: 220V - 240V, 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off 1-10V (optional), DALI (optional)

### OPTICAL PROPERTIES

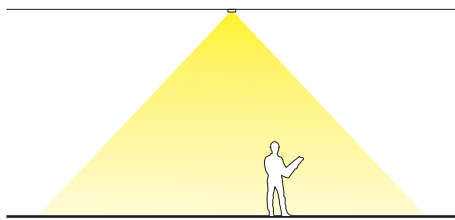
- Various lens arrangements for different installation areas
- Homogenous lighting distribution
- Reduced glare with special lenses with transmission > 95%
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 4050lm - 18100lm
- Color temperature: 3000K, 3500K, 4000K
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 103000h
- Photobiological Safety RG1
- Efficacy (absolute photometry): 127 lm/W (4000K at 700mA)
- ULOR: 0%

### BODY HOUSING & FINISH

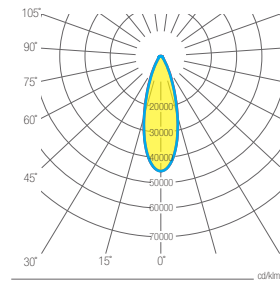
- Corrosion resistant die-cast aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

### EXTRAS

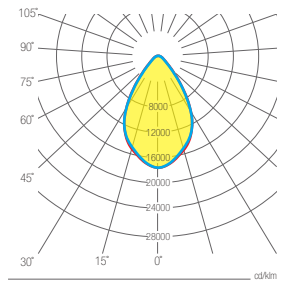
- Higher CRI LED Chips
- Constant Light Output (CLO)
- Different distribution options



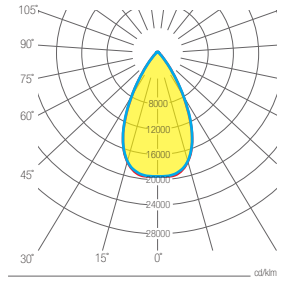
Goledo-In



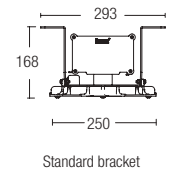
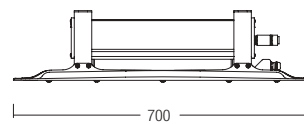
Goledo IN M



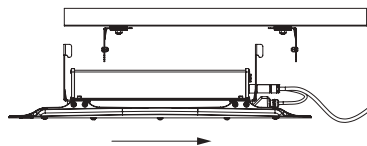
Goledo IN WW



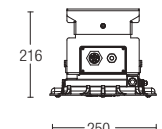
Goledo IN RW



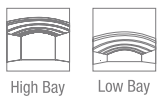
Standard bracket



No-carry slide mount system



Slide mount bracket



| LUMINAIRE  |                  |                |                             |                       |
|------------|------------------|----------------|-----------------------------|-----------------------|
| CODE       | DESCRIPTION      | POWER (700 mA) | LUMEN                       | COLOR TEMPERATURE     |
| LW2037.761 | Goledo-In 32 LED | 70W            | 4050lm - 5550lm - 7150lm    | 3000K / 3500K / 4000K |
| LW2037.765 | Goledo-In 40 LED | 90W            | 4900lm - 6700lm - 9200lm    | 3000K / 3500K / 4000K |
| LW2037.767 | Goledo-In 64 LED | 136W           | 8200lm - 11200lm - 14400lm  | 3000K / 3500K / 4000K |
| LW2037.766 | Goledo-In 80 LED | 170W           | 10300lm - 14000lm - 18100lm | 3000K / 3500K / 4000K |

#### Mounting options

Ordering guide : **Product Code - Light Distribution - Mounting option**  
i.e. LW2037.765 - RW - 120162103



Standard bracket  
110819035



Slide mount bracket  
120162103

# IN-LIGHT

**AS COMFORTABLE AS IT GETS**



With Milestone module, In-Light offers the best visual comfort for high-bay applications.



## IN-LIGHT

### TECHNICAL SPECIFICATIONS

---

#### GENERAL HIGHLIGHTS

- Equipped with Heper's patented Milestone® LED module
- Optimized high/low bay lighting distribution or symmetrical optimized light distribution
- Operating Temperature -40°C / +55°C
- Superior thermal management with upward aligned LED chips
- Easy installation and maintenance with modular structure
- In compliance with EN 60598, EN 62722

#### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 350mA (optional)
- Optimized PCB - Design; aluminum PCB or FR - 4 PCB with touchdown technology
- Power factor: > 0.95
- Input Voltage: 220V - 240V, 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off 1-10V (optional), DALI (optional)

#### OPTICAL PROPERTIES

- Equipped with Heper's patented Milestone® LED Module
- Indirect lighting with reflector technology
- Homogenous lighting distribution through multifaceted reflectors
- Full cut-off wide light distribution
- Superior glare management with hidden light source
- Extreme high power multi LED chips
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 7000lm - 16000lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 103000h
- Photobiological Safety: Risk group 0
- Efficacy (absolute photometry): 115 lm/W (4000K at 700mA)
- ULOR: 0%

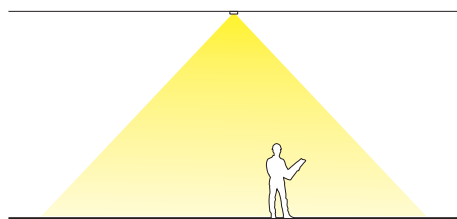
#### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

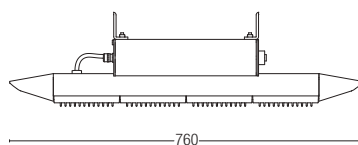
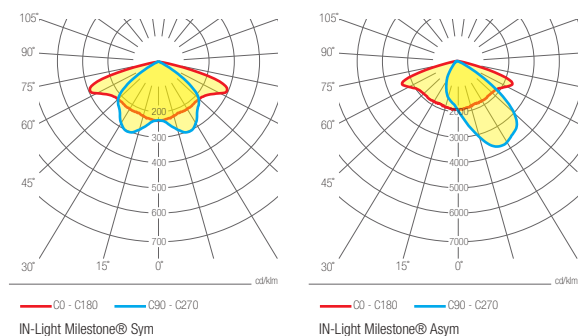
#### EXTRAS

- Higher CRI LED Chips
- Constant Light Output (CLO)

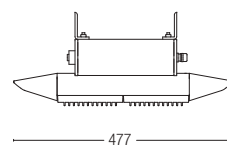




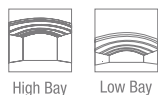
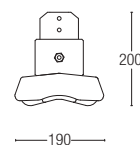
In-Light



LW2029.674



LW2029.672



| LUMINAIRE       |                        |                |                   |                   |
|-----------------|------------------------|----------------|-------------------|-------------------|
| CODE            | DESCRIPTION            | POWER (700 mA) | LUMEN             | COLOR TEMPERATURE |
| LW2029.672-sym  | In-Light 2 Module Sym  | 70W            | 7000lm - 8000lm   | 3000K / 4000K     |
| LW2029.672-asym | In-Light 2 Module Asym | 70W            | 7000lm - 8000lm   | 3000K / 4000K     |
| LW2029.674-sym  | In-Light 4 Module Sym  | 140W           | 14000lm - 16000lm | 3000K / 4000K     |
| LW2029.674-asym | In-Light 4 Module Asym | 140W           | 14000lm - 16000lm | 3000K / 4000K     |

# REGIO

**THE FLAMBOYANT POWER**



High lumen output, variety of optics, broadcast ready control systems and much more... Your local fields or your favorite team's stadium can be illuminated with Regio.



## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Suitable to illuminate arenas, stadiums, fields
- Operating temperature: -40°C / +55°C
- Excellent thermal management with optimized PCB design
- Easy installation
- In compliance with EN 60598
- Tilt angle: +15° / -15° for each head and base
- Fixture integrated driver
- Different mount options
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 350mA - 700mA
- Input Voltage: 220V - 240V / 120V - 277V at 50Hz / 60Hz
- Control type: On/Off, 1-10V, DALI, DMX
- Surge Protection: 10kV (optional)

### OPTICAL PROPERTIES

- 5 different beam angle options
- MacAdam Ellipse 3 chips
- Lumen output (absolute photometry): 145000 lm - 165000 lm
- Color Temperature: 4000K, 5700K
- CRI > 80 (4000K), CRI > 80 (5700K)
- Lumen depreciation: L90B50 > 75600 h
- Efficacy (absolute photometry): 118 lm/W ( for 5700K, 700mA)

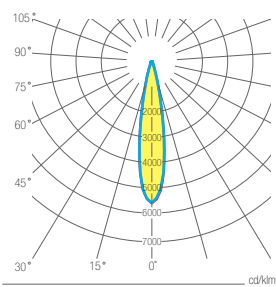
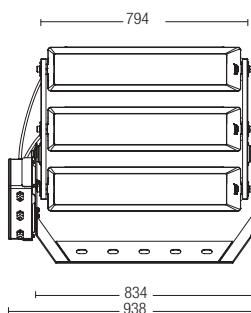
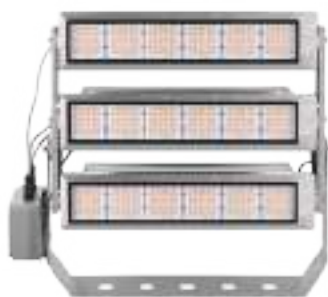
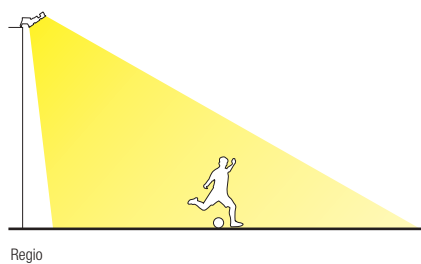
### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

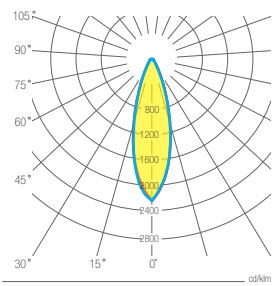
### EXTRAS

- Higher CRI LED options
- Programmable driver for different scenarios
- Different drive currents

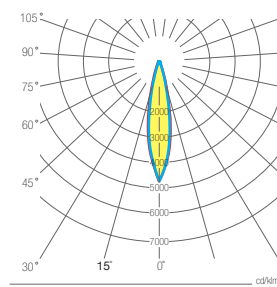




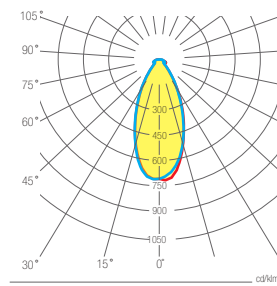
Regio Extra Narrow Beam



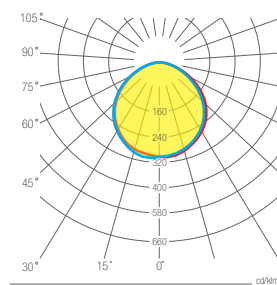
Regio Medium Beam



Regio Narrow Beam



Regio Wide Beam



Regio Extra Wide Beam



Stadiums



| LUMINAIRE  |             |                |                     |                   |
|------------|-------------|----------------|---------------------|-------------------|
| CODE       | DESCRIPTION | POWER (700 mA) | LUMEN               | COLOR TEMPERATURE |
| LF8032.518 | Regio       | 1400W          | 145000lm - 165000lm | 4000K / 5700K     |



**ARCHITECTURAL**

## WHAT IS ARCHITECTURAL LIGHTING?

---

“Architectural Lighting” is the discipline, on the contrary to technical lighting, is not too restricted by regulations. Not meaning that it doesn't hold certain principles with respect to being human centric and environment friendly, architectural lighting is more of a free form and more creative work could be brought upon. At Heper, we think of architectural lighting as a form of art and in our minds, lighting designers are artists. It brings us joy to see an evenly illuminated pathway or a beautifully grazed wall.

Being able to create quality products for architectural lighting design requires having the sense of creativity as a manufacturer as well. Not to mention the technical capability to come up with the best quality of light possible. That is why we always work hand in hand with lighting designers, always looking forward to our next project and next challenge. It is the best feeling for us to be a part of this artistry.







# POLE TOP LUMINARIES

# OLIVA

**GLORIOUS DESIGN FOR PUBLIC SPACES**



Unique design and optimized light distribution makes Oliva a great luminaire to class up urban areas.



## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's patented Milestone® EVO LED Module
- Optimized landscapes and road lighting distribution
- Operating Temperature -40°C / +55°C
- Superior thermal management with upward aligned LED chips
- Easy installation and maintenance with modular structure
- Direct pole or side bracket mountable
- Tilt angle: +15° / -15°
- Spigot diameter: 60mm (optional 76mm)
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 350mA (optional)
- Optimized PCB - Design; aluminum PCB or FR - 4 PCB with touchdown technology
- Power factor: > 0.95
- Input Voltage: 220V - 240V, 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional), DynaDIM AstroDIM (optional)

### OPTICAL PROPERTIES

- Equipped with Heper's patented Milestone® EVO LED Module
- Indirect lighting with reflector technology
- Homogenous lighting distribution through multifaceted reflectors
- Full cut-off wide light distribution
- Superior glare management with hidden light source
- Extreme high power multi LED chips
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 7000lm - 16000lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 118000h
- Photobiological safety: Risk Group 0
- Efficacy (absolute photometry): 114 lm/W (4000K at 700mA)
- BUG Rating: B2 - U0 - G1
- ULOR: 0%

### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

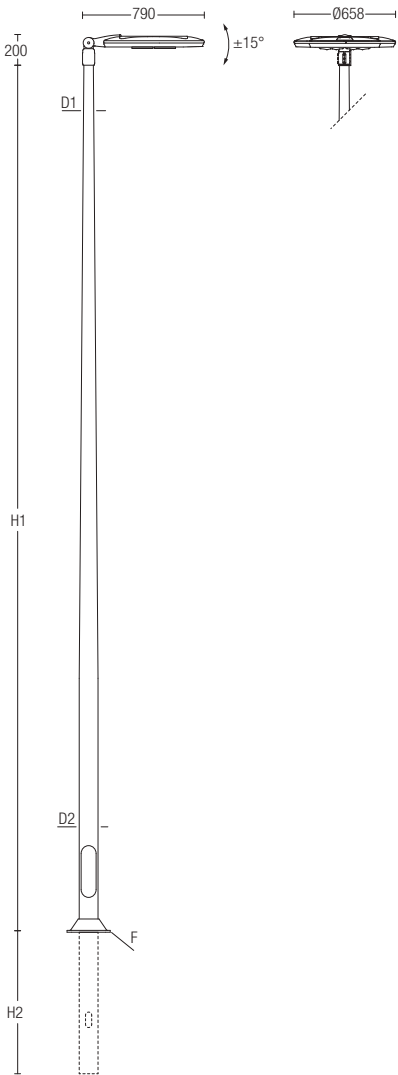
### EXTRAS

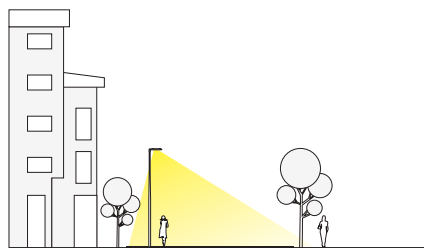
- Higher CRI LED Chips
- Constant Light Output (CLO)
- Marine grade body
- Surge protection: 10kV
- Circular LED strip
- IP rated terminal box



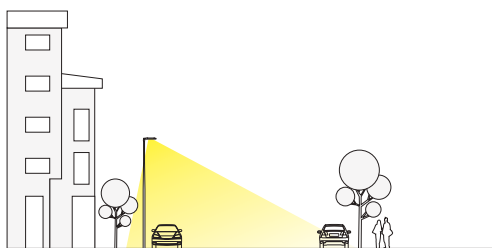


OLIVA

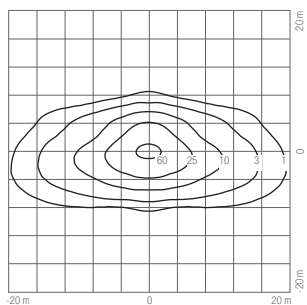
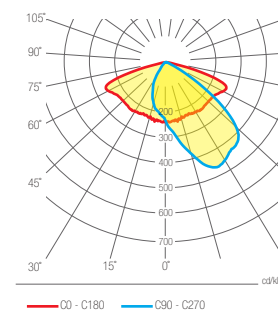




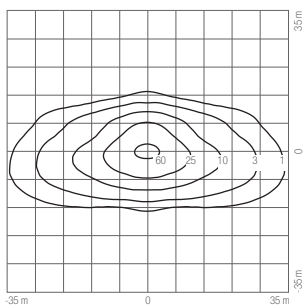
Oliva 2 Module



Oliva 4 Module



Oliva 2 Module



Oliva 4 Module



Roads



Landscape Areas



## LUMINAIRE

| CODE              | DESCRIPTION    | POWER (700mA) | LUMEN             | COLOR TEMPERATURE |
|-------------------|----------------|---------------|-------------------|-------------------|
| <b>LL2002.682</b> | Oliva 2 Module | 70W           | 7000lm - 8000lm   | 3000K / 4000K     |
| <b>LL2002.684</b> | Oliva 4 Module | 140W          | 14000lm - 16000lm | 3000K / 4000K     |

## POLES

| CODE             | DESCRIPTION                   | H1   | H2   | D1  | D2   | ANCHORAGE | FLANGE COVER |
|------------------|-------------------------------|------|------|-----|------|-----------|--------------|
| <b>PAFK.D114</b> | Aluminum Conical Pole Flanged | 4000 | -    | Ø60 | Ø114 | 90BJ002   | C1C2B        |
| <b>PABK.D114</b> | Aluminum Conical Pole Buried  | 4000 | 800  | Ø60 | Ø114 | -         | -            |
| <b>PAFK.D122</b> | Aluminum Conical Pole Flanged | 5000 | -    | Ø60 | Ø122 | 90BJ004   | C1D2B        |
| <b>PABK.D122</b> | Aluminum Conical Pole Buried  | 5000 | 800  | Ø60 | Ø122 | -         | -            |
| <b>PAFK.D122</b> | Aluminum Conical Pole Flanged | 6000 | -    | Ø60 | Ø122 | 90BJ004   | C1D2B        |
| <b>PABK.D122</b> | Aluminum Conical Pole Buried  | 6000 | 1000 | Ø60 | Ø122 | -         | -            |

Mounting arm options



PTCS PTCD

# SOLE

**SIMPLISTIC YET EFFICIENT**



Using Heper's Milestone module, Sole is a luminaire you cannot go wrong with for general lighting applications.



## SOLE

# TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's patented Milestone® EVO LED Module
- Optimized landscapes and road lighting distribution
- Operating Temperature -40°C / +55°C
- Superior thermal management with upward aligned LED chips
- Easy installation and maintenance with modular structure
- Direct pole or side bracket mountable
- Spigot diameter: 60mm (optional 76mm)
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 350mA (optional)
- Optimized PCB - Design; aluminum PCB or FR - 4 PCB with touchdown technology
- Power factor: > 0.95
- Input Voltage: 220V - 240V, 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional)

### OPTICAL PROPERTIES

- Equipped with Heper's patented Milestone® EVO LED Module
- Indirect lighting with reflector technology
- Homogenous lighting distribution through multifaceted reflectors
- Full cut-off wide light distribution
- Superior glare management with hidden light source
- Extreme high power multi LED chips
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 3500lm - 8000lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 118000h
- Photobiological safety: Risk Group 0
- Efficacy (absolute photometry): 114 lm/W (4000K at 700mA)
- BUG Rating: B2 - U0 - G1
- ULOR: 0%

### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

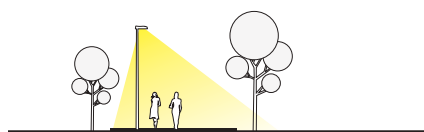
### EXTRAS

- Higher CRI LED Chips
- Marine grade body
- IP rated terminal box

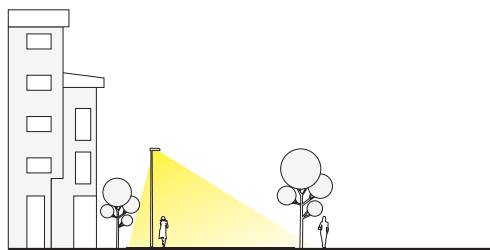


SOLE

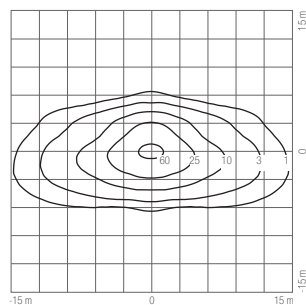
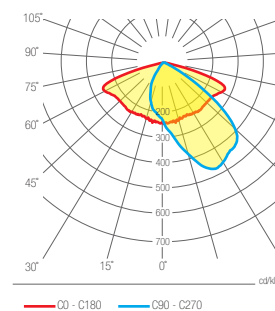




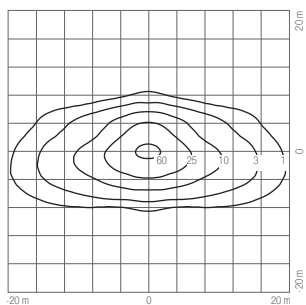
Sole 1 Module



Sole 2 Module



Sole 1 Module



Sole 2 Module



Roads



Landscape Areas



| LUMINAIRE  |               |               |                 |                   |
|------------|---------------|---------------|-----------------|-------------------|
| CODE       | DESCRIPTION   | POWER (700mA) | LUMEN           | COLOR TEMPERATURE |
| LS0002.681 | Sole 1 Module | 35W           | 3500lm - 4000lm | 3000K / 4000K     |
| LS0002.682 | Sole 2 Module | 70W           | 7000lm - 8000lm | 3000K / 4000K     |

| POLES     |                               |      |     |     |      |           |              |  |
|-----------|-------------------------------|------|-----|-----|------|-----------|--------------|--|
| CODE      | DESCRIPTION                   | H1   | H2  | D1  | D2   | ANCHORAGE | FLANGE COVER |  |
| PAFK.D114 | Aluminum Conical Pole Flanged | 3000 | -   | Ø60 | Ø114 | 90BJ001   | C1C2B        |  |
| PABK.D114 | Aluminum Conical Pole Buried  | 3000 | 800 | Ø60 | Ø114 | -         | -            |  |
| PAFK.D114 | Aluminum Conical Pole Flanged | 4000 | -   | Ø60 | Ø114 | 90BJ002   | C1C2B        |  |
| PABK.D114 | Aluminum Conical Pole Buried  | 4000 | 800 | Ø60 | Ø114 | -         | -            |  |
| PAFK.D122 | Aluminum Conical Pole Flanged | 5000 | -   | Ø60 | Ø122 | 90BJ004   | C1D2B        |  |
| PABK.D122 | Aluminum Conical Pole Buried  | 5000 | 800 | Ø60 | Ø122 | -         | -            |  |

Mounting arm options



# RHINO

**BEAUTY IN SIMPLICITY**



Rhino luminaire promises excellent visual comfort and homogenous light distribution.



# RHINO

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's patented Milestone® LED Module
- Optimized landscapes and road lighting distribution
- Operating Temperature -40°C / +55°C
- Superior thermal management with upward aligned LED chips
- Easy installation and maintenance with modular structure
- Direct pole or side bracket mountable
- Tilt angle: +15° / -15°
- Spigot diameter: 60mm (optional 76mm)
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 350mA (optional)
- Optimized PCB - Design; aluminum PCB or FR - 4 PCB with touchdown technology
- Power factor: > 0.95
- Input Voltage: 220V - 240V, 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional)

### OPTICAL PROPERTIES

- Equipped with Heper's patented Milestone® LED module
- Indirect lighting with reflector technology
- Homogenous lighting distribution through multifaceted reflectors
- Full cut-off wide light distribution
- Superior glare management with hidden light source
- Extreme high power multi LED chips
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 3500lm - 4000lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 118000h
- Photobiological safety: Risk Group 0
- Efficacy (absolute photometry): 114 lm/W (4000K at 700mA)
- BUG Rating: B2 - U0 - G1
- ULOR: 0%

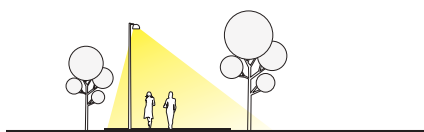
### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

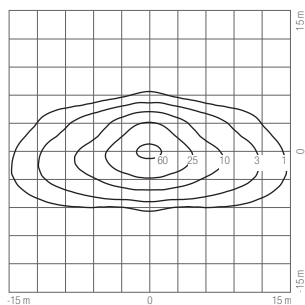
### EXTRAS

- Higher CRI LED Chips
- Constant Light Output (CLO)
- Marine grade body
- IP rated terminal box

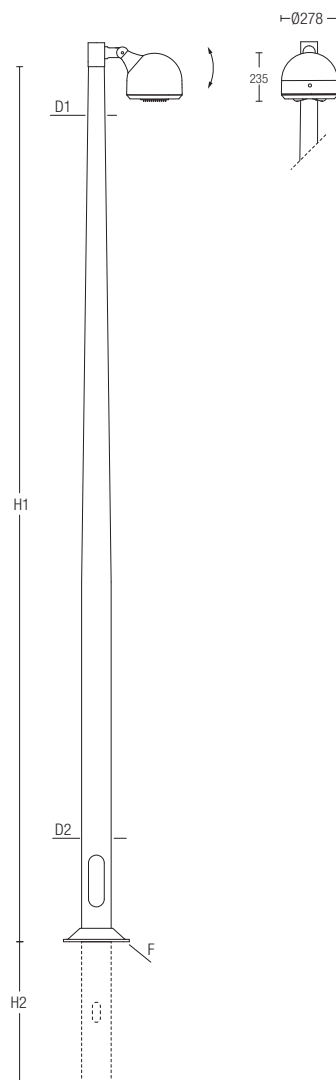
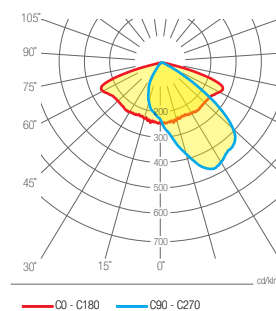




Rhino 1 Module



Rhino 1 Module



Roads



Landscape Areas



| LUMINAIRE  |                |               |                 |                   |
|------------|----------------|---------------|-----------------|-------------------|
| CODE       | DESCRIPTION    | POWER (700mA) | LUMEN           | COLOR TEMPERATURE |
| LL2028.671 | Rhino 1 Module | 35W           | 3500lm - 4000lm | 3000K / 4000K     |

| POLES     |                               |      |     |     |      |           |              |  |
|-----------|-------------------------------|------|-----|-----|------|-----------|--------------|--|
| CODE      | DESCRIPTION                   | H1   | H2  | D1  | D2   | ANCHORAGE | FLANGE COVER |  |
| PAFK.D114 | Aluminum Conical Pole Flanged | 3000 | -   | Ø60 | Ø114 | 90BJ001   | C1C2B        |  |
| PABK.D114 | Aluminum Conical Pole Buried  | 3000 | 800 | Ø60 | Ø114 | -         | -            |  |
| PAFK.D114 | Aluminum Conical Pole Flanged | 4000 | -   | Ø60 | Ø114 | 90BJ002   | C1C2B        |  |
| PABK.D114 | Aluminum Conical Pole Buried  | 4000 | 800 | Ø60 | Ø114 | -         | -            |  |

# KREIS

**SIMPLY BEAUTIFUL**



For general lighting purposes, Kreis luminaire family is as valuable and efficient as it gets.



## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Operating Temperature -40°C / +55°C
- Easy installation and maintenance with modular structure
- Spigot diameter: 60mm (optional 76mm)
- In compliance with EN 60598, EN 62722
- ENEC and UL Certified

### ELECTRICAL PROPERTIES

- Drive current: 1050mA, 700mA (optional), 525mA (optional),
- Optimized PCB - Design
- Energy class: A
- Power factor: > 0.95
- Input Voltage: 220V - 240V, 120V - 270V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional)

### OPTICAL PROPERTIES

- Equipped with high efficiency LED chips
- Optimized symmetrical lighting distribution
- Glare minimizing diffuser
- Quarter bin LED chips
- Lumen output (absolute photometry): 3300lm - 5600lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L70B50 > 60000h
- Photobiological safety: Risk Group 1
- Efficacy (absolute photometry): 90 lm/W (4000K at 1050mA)
- ULOR: 0%

### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

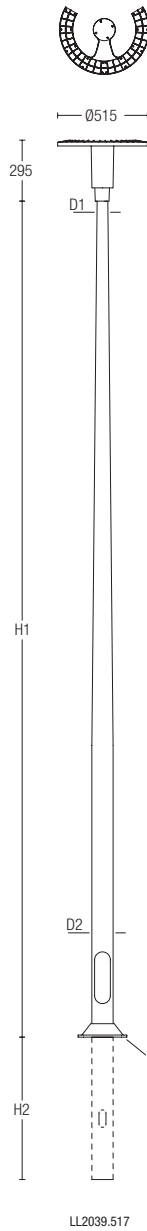
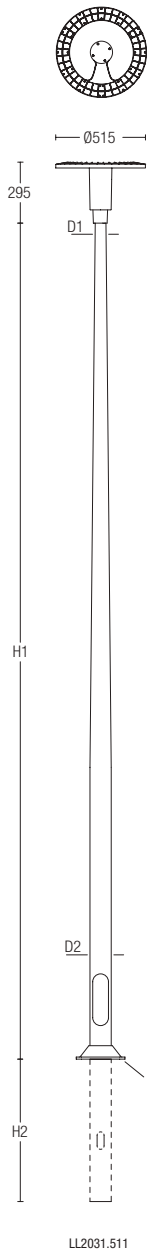
### EXTRAS

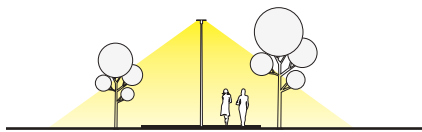
- Higher CRI LED Chips
- Constant Light Output (CLO)
- Marine grade body
- IP rated terminal box



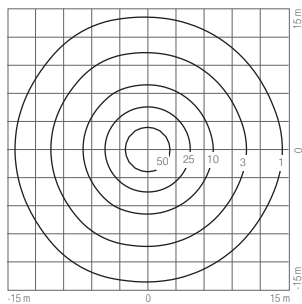
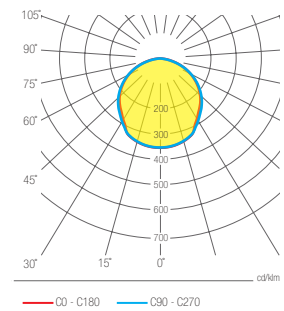


KREIS





Kreis



Kreis



Landscape Areas



| LUMINAIRE  |             |              |                 |                   |
|------------|-------------|--------------|-----------------|-------------------|
| CODE       | DESCRIPTION | POWER        | LUMEN           | COLOR TEMPERATURE |
| LL2031.511 | Kreis       | 60W (1050mA) | 5400lm - 5600lm | 3000K / 4000K     |
| LL2039.517 | Kreis C     | 40W (700mA)  | 3300lm - 3500lm | 3000K / 4000K     |

| POLES     |                               |      |     |     |      |           |              |  |
|-----------|-------------------------------|------|-----|-----|------|-----------|--------------|--|
| CODE      | DESCRIPTION                   | H1   | H2  | D1  | D2   | ANCHORAGE | FLANGE COVER |  |
| PAFK.D114 | Aluminum Conical Pole Flanged | 3000 | -   | Ø60 | Ø114 | 90BJ001   | C1C2B        |  |
| PABK.D114 | Aluminum Conical Pole Buried  | 3000 | 800 | Ø60 | Ø114 | -         | -            |  |
| PAFK.D114 | Aluminum Conical Pole Flanged | 4000 | -   | Ø60 | Ø114 | 90BJ002   | C1C2B        |  |
| PABK.D114 | Aluminum Conical Pole Buried  | 4000 | 800 | Ø60 | Ø114 | -         | -            |  |

# TERRA

**BEAUTY COMING FROM THE ROOTS**



With its traditional design, Terra family will give a character to its project.



# TERRA

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Optimized landscapes lighting distribution
- Operating Temperature -40°C / +55°C
- Superior thermal management
- Spigot diameter: 60mm (optional 76mm)
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 350mA (optional)
- Optimized PCB - Design
- Insulation class: CLASS I
- Power factor: > 0.95
- Input Voltage: 220V - 240V, 120V - 270V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional)

### OPTICAL PROPERTIES

- Homogenous symmetrical or asymmetrical lighting distribution
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 2300lm - 5000lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Efficacy (absolute photometry): 95 lm/W (4000K at 700mA)
- ULOR: 0%

### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK07

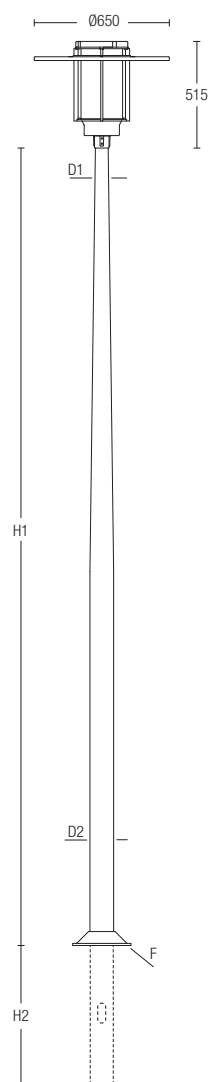
### EXTRAS

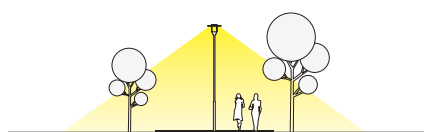
- Higher CRI LED Chips
- Constant Light Output (CLO)
- Marine grade body
- IP rated terminal box



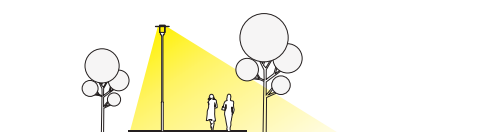
# TERRA

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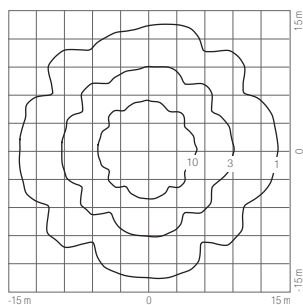




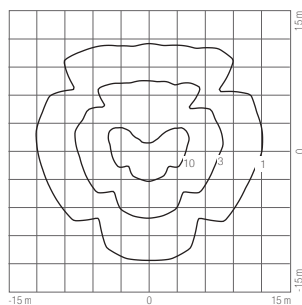
Terra Sym



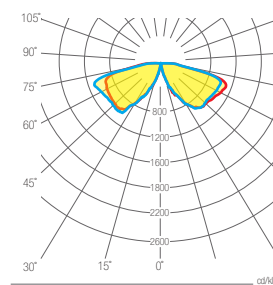
Terra Asym



Terra Sym

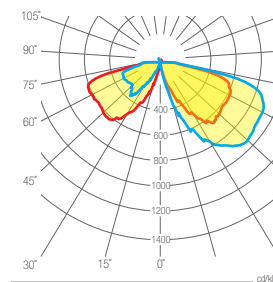


Terra Asym



— C0 - C180 — C90 - C270

Terra Sym



— C0 - C180 — C90 - C270

Terra Asym



Landscape Areas



## LUMINAIRE

| CODE                   | DESCRIPTION | POWER | LUMEN            | COLOR TEMPERATURE |
|------------------------|-------------|-------|------------------|-------------------|
| <b>LP4024.539-Sym</b>  | Terra Sym   | 54W   | 4000lm - 5000 lm | 3000K / 4000K     |
| <b>LP4024.539-Asym</b> | Terra Asym  | 28W   | 2300lm - 2700 lm | 3000K / 4000K     |

## POLES

| CODE             | DESCRIPTION                   | H1   | H2  | D1  | D2   | ANCHORAGE | FLANGE COVER |
|------------------|-------------------------------|------|-----|-----|------|-----------|--------------|
| <b>PAFK.D114</b> | Aluminum Conical Pole Flanged | 3000 | -   | Ø60 | Ø114 | 90BJ001   | C1C2B        |
| <b>PABK.D114</b> | Aluminum Conical Pole Buried  | 3000 | 800 | Ø60 | Ø114 | -         | -            |
| <b>PAFK.D114</b> | Aluminum Conical Pole Flanged | 4000 | -   | Ø60 | Ø114 | 90BJ002   | C1C2B        |
| <b>PABK.D114</b> | Aluminum Conical Pole Buried  | 4000 | 800 | Ø60 | Ø114 | -         | -            |



# LIGHT COLUMNS

# URBAN UNITS

URBAN LIFE REDEFINED



Modularity and technology combined for endless possibilities.



## URBAN UNITS

### TECHNICAL SPECIFICATIONS

---

#### GENERAL HIGHLIGHTS

- Modular structure with mix & match type
- 360° rotatable modules
- Operating Temperature -40°C / +55°C
- Excellent thermal management with optimized PCB design
- Easy installation
- In compliance with EN 60598, EN 62722
- ENEC and UL pending

#### ELECTRICAL PROPERTIES

- Drive current: 700mA, 350mA
- Power factor: > 0.95
- Energy class: A
- Input Voltage: 220V - 240V, 120V - 277V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional)

#### OPTICAL PROPERTIES

- Urban Units equipped with top module, street lighting module and floodlight module
- Top module: Symmetrical area lighting optics
- Floodlight module: Hybrid module Spot or flood optics (7°, 26°) with tiltable base
- Street lighting module: Asymmetrical street light optimized optics
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 2300lm - 7500lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 84700 h

#### BODY HOUSING & FINISH

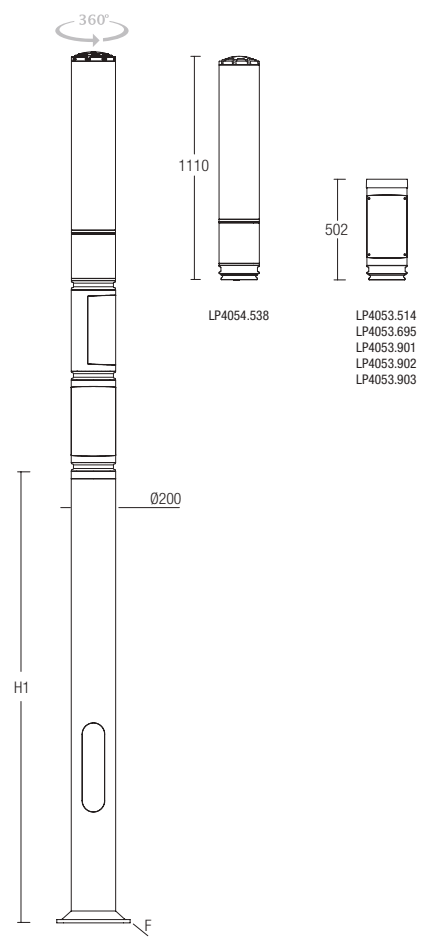
- Corrosion resistant aluminum housing
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK08

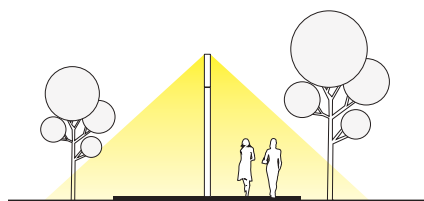
#### EXTRAS

- Wifi, Speaker, CCTV, Sensor Modules
- Higher CRI LED chips
- Programmable driver for different scenarios
- Different drive currents
- DMX control with floodlight module
- IP rated terminal box

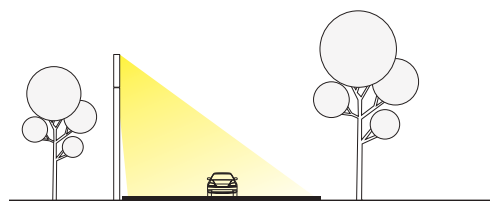


URBAN UNITS

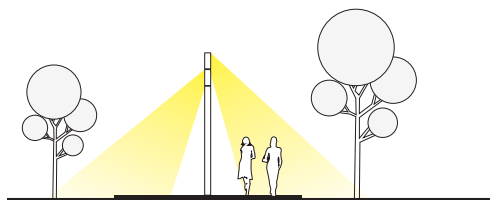




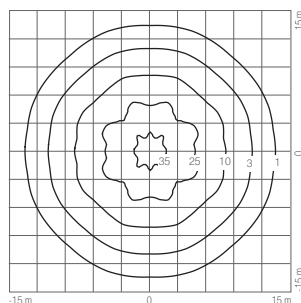
Urban Units Top Module



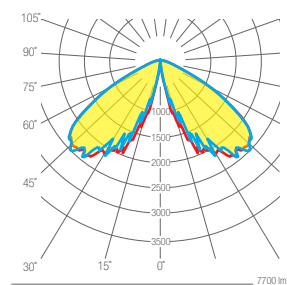
Urban Units Street Lighting Module



Urban Units Floodlight Module

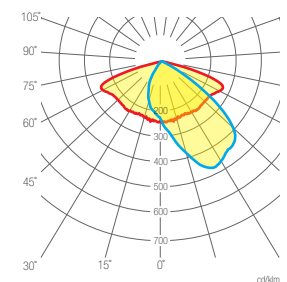


Urban Units Top Module



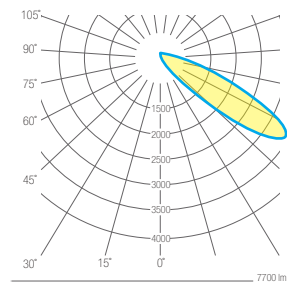
— C0 - C180 — C90 - C270

Urban Units Top Module



— C0 - C180 — C90 - C270

Urban Units Street Lighting Module



— C0 - C180 — C90 - C270

Urban Units Adjustable Floodlight



Landscape Areas



Streets



Architectural Facades



## LUMINAIRE

| CODE       | DESCRIPTION                              | POWER | LUMEN           | COLOR TEMPERATURE |
|------------|--|-------|-----------------|-------------------|
| LP4054.538 | Urban Units Top Module                   | 70W   | 6500lm - 7500lm | 3000K / 4000K     |
| LP4053.514 | Urban Units Street Lighting Module       | 35W   | 2750lm - 3200lm | 3000K / 4000K     |
| LP4053.695 | Urban Units Adjustable Floodlight Module | 38W   | 2300lm - 2600lm | 3000K / 4000K     |
| LP4053.901 | Urban Units Camera Module                | -     | -               | -                 |
| LP4053.902 | Urban Units Speaker Module               | -     | -               | -                 |
| LP4053.903 | Urban Units WiFi Module                  | -     | -               | -                 |

## POLES

| CODE          | DESCRIPTION                       | H1   | H2   | D1   | D2 | ANCHORAGE | FLANGE COVER |
|---------------|-----------------------------------|------|------|------|----|-----------|--------------|
| PAFC.C01.T001 | Aluminum Cylindrical Pole Flanged | 4000 | -    | Ø200 | -  | *         | *            |
| PABC.C01.T001 | Aluminum Cylindrical Pole Buried  | 4000 | 800  | Ø200 | -  | *         | *            |
| PAFC.C01.T001 | Aluminum Cylindrical Pole Flanged | 5000 | -    | Ø200 | -  | *         | *            |
| PABC.C01.T001 | Aluminum Cylindrical Pole Buried  | 5000 | 1000 | Ø200 | -  | *         | *            |



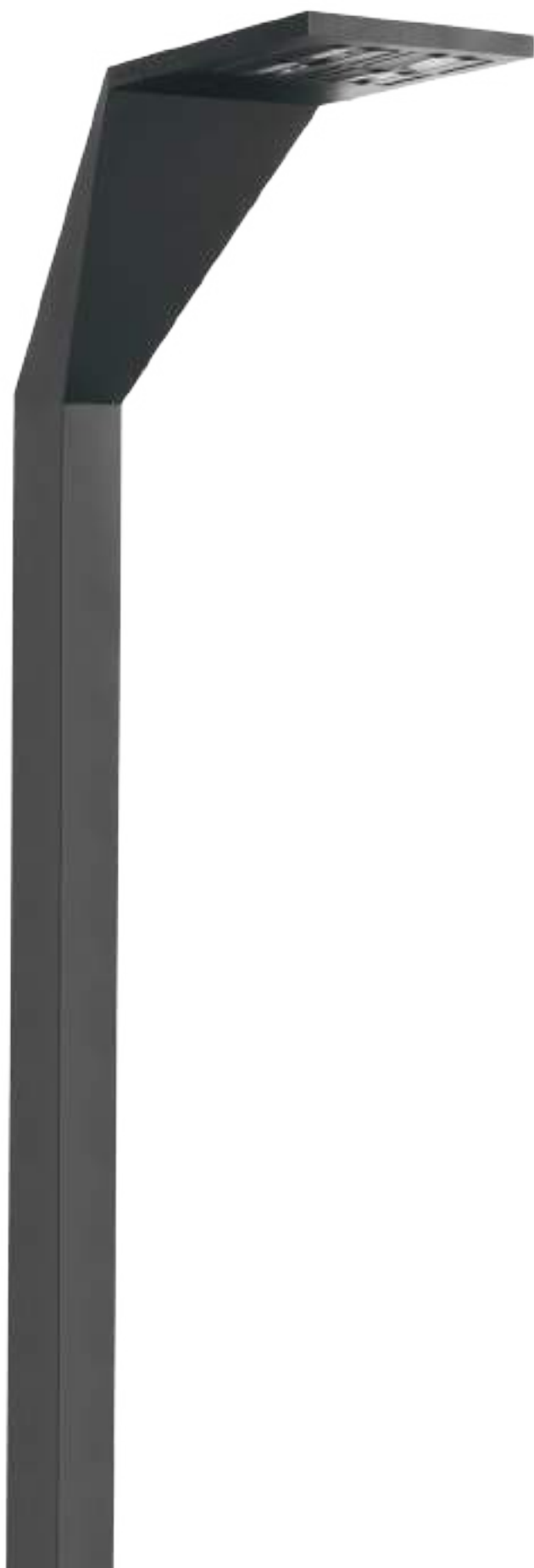


# WINGS

**DESIGN MEETS EXCELLENCE**



High end optics goes hand in hand with award winning design for landscape areas.



### GENERAL HIGHLIGHTS

- Equipped with Heper's patented Milestone® EVO LED Module
- Optimized landscapes and road lighting distribution
- Operating Temperature -40°C / +55°C
- Superior thermal management with upward aligned LED chips
- Easy installation and maintenance with modular structure
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 350mA (optional), 525mA (optional)
- Optimized PCB - Design; aluminum PCB or FR - 4 PCB with touchdown technology
- Energy class: A+
- Power factor: > 0.95
- Input Voltage: 220V - 240V, 120 - 277V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional), DynaDIM (optional), AstroDIM (optional)
- Surge protection: 10kV (optional)

### OPTICAL PROPERTIES

- Equipped with Heper's patented Milestone® EVO LED Module
- Indirect lighting with reflector technology
- Homogenous lighting distribution through multifaceted reflectors
- Full cut-off wide light distribution
- Superior glare management with hidden light source
- MacAdam Ellipse 3
- Extreme high power multi LED chips
- Lumen output (absolute photometry): 7000lm - 16000lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 118000 h
- Photobiological safety: Risk Group 0
- Efficacy (absolute photometry): 114 lm/W (4000K at 700mA)
- BUG Rating: B2 - U0 - G1
- ULOR: 0%

### BODY HOUSING & FINISH

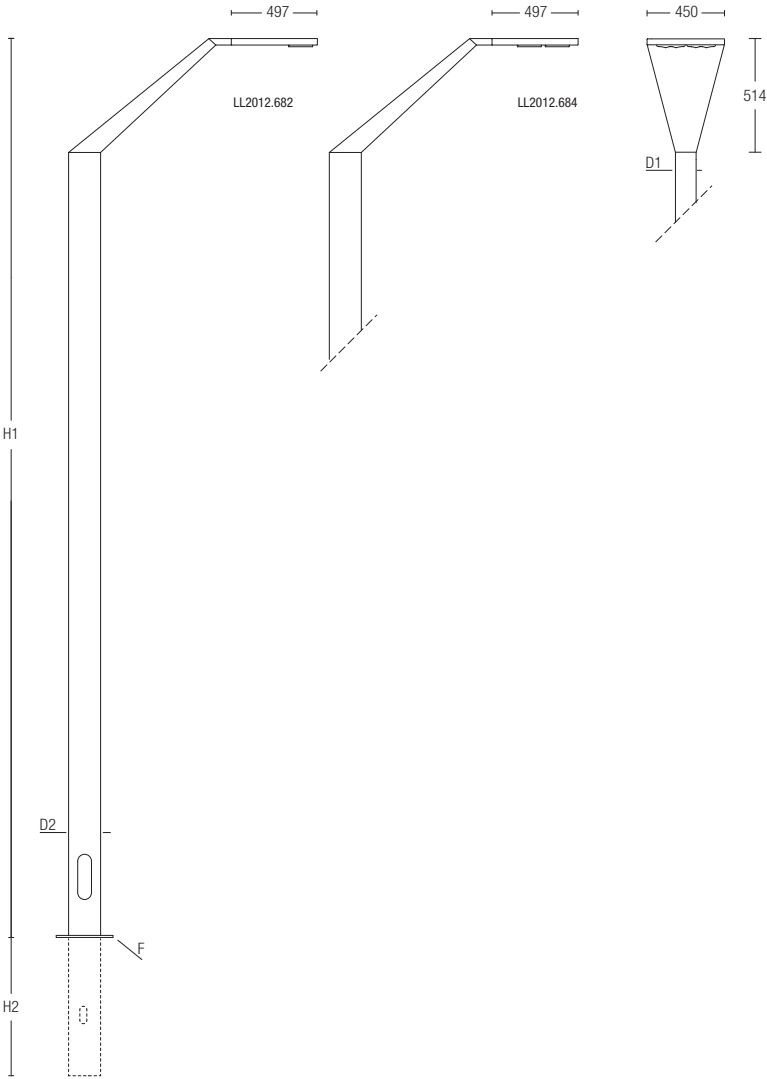
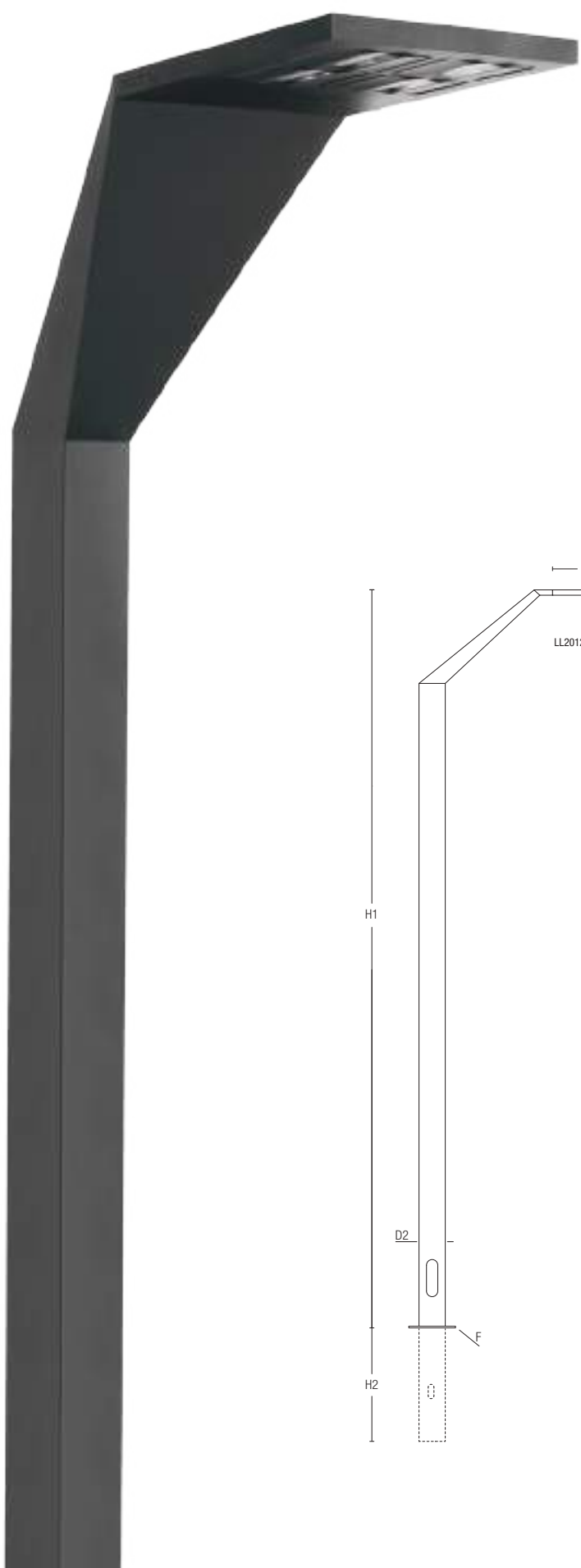
- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

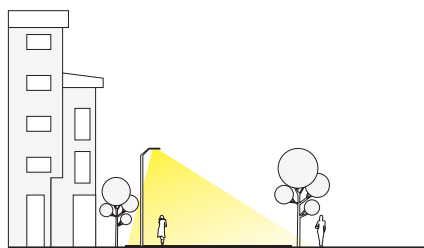
### EXTRAS

- Higher CRI LED chips
- Marine grade coating
- Constant Light Output (CLO)
- IP rated terminal box

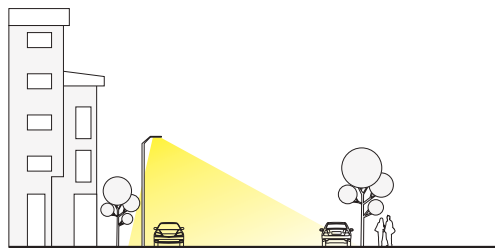


WINGS

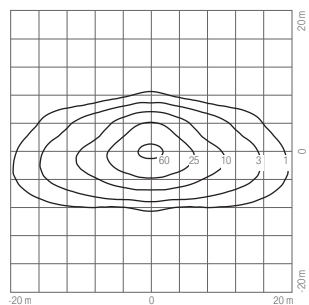
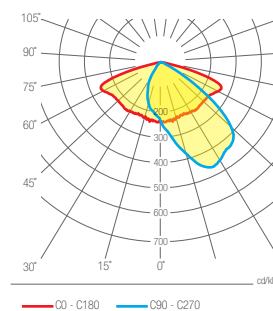




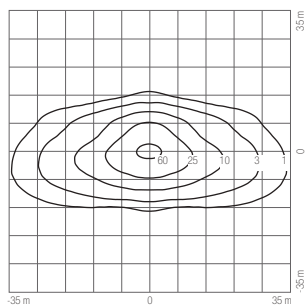
Wings 2 Module



Wings 4 Module



Wings 2 Module



Wings 4 Module



Roads



Landscape Areas



## LUMINAIRE

| CODE              | DESCRIPTION    | POWER (700 mA) | LUMEN             | COLOR TEMPERATURE |
|-------------------|----------------|----------------|-------------------|-------------------|
| <b>LL2012.682</b> | Wings 2 Module | 70W            | 7000lm - 8000lm   | 3000K / 4000K     |
| <b>LL2012.684</b> | Wings 4 Module | 140W           | 14000lm - 16000lm | 3000K / 4000K     |

## POLES

| CODE                 | DESCRIPTION                     | H1   | H2   | D1  | D2  | ANCHORAGE | FLANGE COVER |
|----------------------|---------------------------------|------|------|-----|-----|-----------|--------------|
| <b>PAFD.R01.T002</b> | Aluminum Rectangle Pole Flanged | 4000 | -    | 120 | 186 | 90CJ005   | C3N2C        |
| <b>PABD.R01.T002</b> | Aluminum Rectangle Pole Buried  | 4000 | 800  | 120 | 186 | -         | -            |
| <b>PAFD.R01.T002</b> | Aluminum Rectangle Pole Flanged | 5000 | -    | 120 | 186 | 90CJ005   | C3N2C        |
| <b>PABD.R01.T002</b> | Aluminum Rectangle Pole Buried  | 5000 | 1000 | 120 | 186 | -         | -            |
| <b>PAFD.R01.T002</b> | Aluminum Rectangle Pole Flanged | 6000 | -    | 120 | 186 | 90CJ006   | C3N2C        |
| <b>PABD.R01.T002</b> | Aluminum Rectangle Pole Buried  | 6000 | 1000 | 120 | 186 | -         | -            |

# TILA

**EXCELLENCE IN PLAINNESS**



Simple design and high power of Tila makes it a unique light column for urban spaces.



## TECHNICAL SPECIFICATIONS

### GENERAL HIGHLIGHTS

- Equipped with Heper's patented Milestone® EVO LED Module
- Optimized landscapes and road lighting distribution
- Operating Temperature -40°C / +55°C
- Superior thermal management with upward aligned LED chips
- Easy installation and maintenance with modular structure
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 350mA (optional), 525mA (optional)
- Optimized PCB - Design; aluminum PCB or FR - 4 PCB with touchdown technology
- Energy class: A+
- Power factor: > 0.95
- Input Voltage: 220V - 240V, 120 - 277V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional), DynaDIM (optional), AstroDIM (optional)
- Surge protection: 10kV (optional)

### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

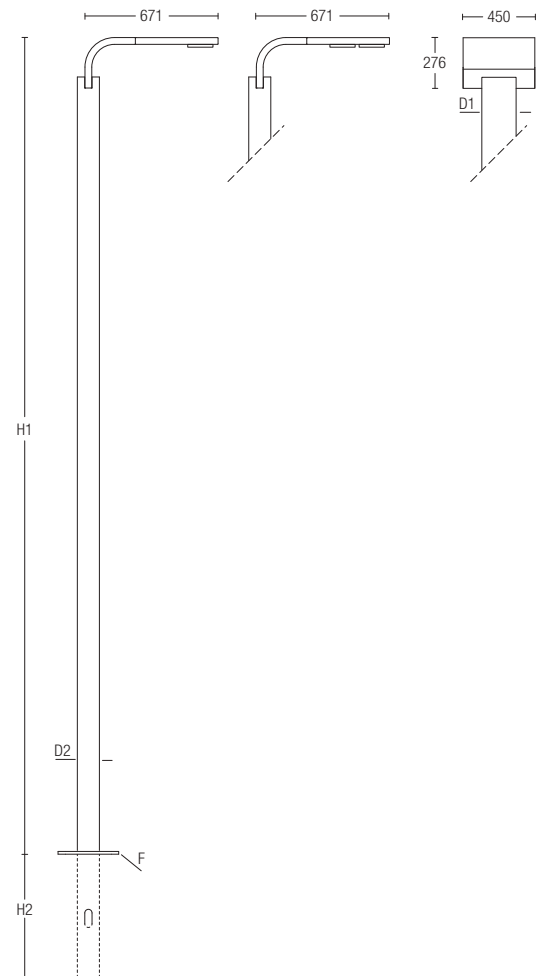


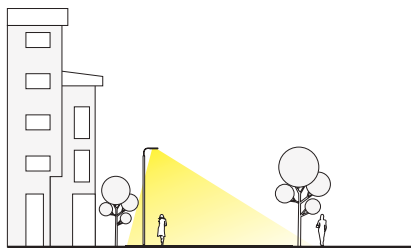
### OPTICAL PROPERTIES

- Equipped with Heper's patented Milestone® EVO LED Module
- Indirect lighting with reflector technology
- Homogenous lighting distribution through multifaceted reflectors
- Full cut-off wide light distribution
- Superior glare management with hidden light source
- MacAdam Ellipse 3
- Extreme high power multi LED chips
- Lumen output (absolute photometry): 7000lm - 16000lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 118000 h
- Photobiological safety: Risk Group 0
- Efficacy (absolute photometry): 114 lm/W (4000K at 700mA)
- BUG Rating: B2 - U0 - G1
- ULOR: 0%

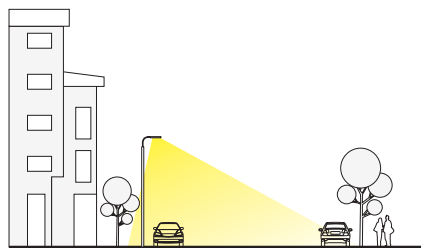
### EXTRAS

- Higher CRI LED chips
- Marine grade coating
- Constant Light Output (CLO)
- IP rated terminal box

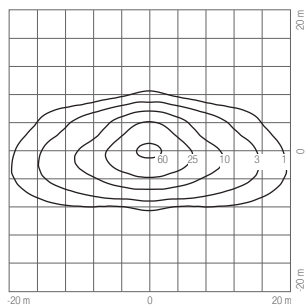
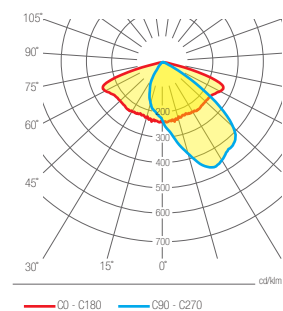




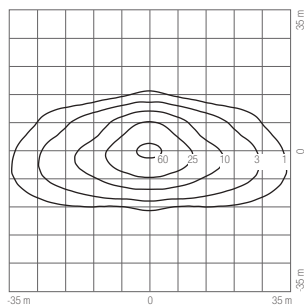
Tila 2 Module



Tila 4 Module



Tila 2 Module



Tila 4 Module



Roads



Landscape Areas



## LUMINAIRE

| CODE              | DESCRIPTION   | POWER (700 mA) | LUMEN             | COLOR TEMPERATURE |
|-------------------|---------------|----------------|-------------------|-------------------|
| <b>LL2013.682</b> | Tila 2 Module | 70W            | 7000lm - 8000lm   | 3000K / 4000K     |
| <b>LL2013.684</b> | Tila 4 Module | 140W           | 14000lm - 16000lm | 3000K / 4000K     |

## POLES

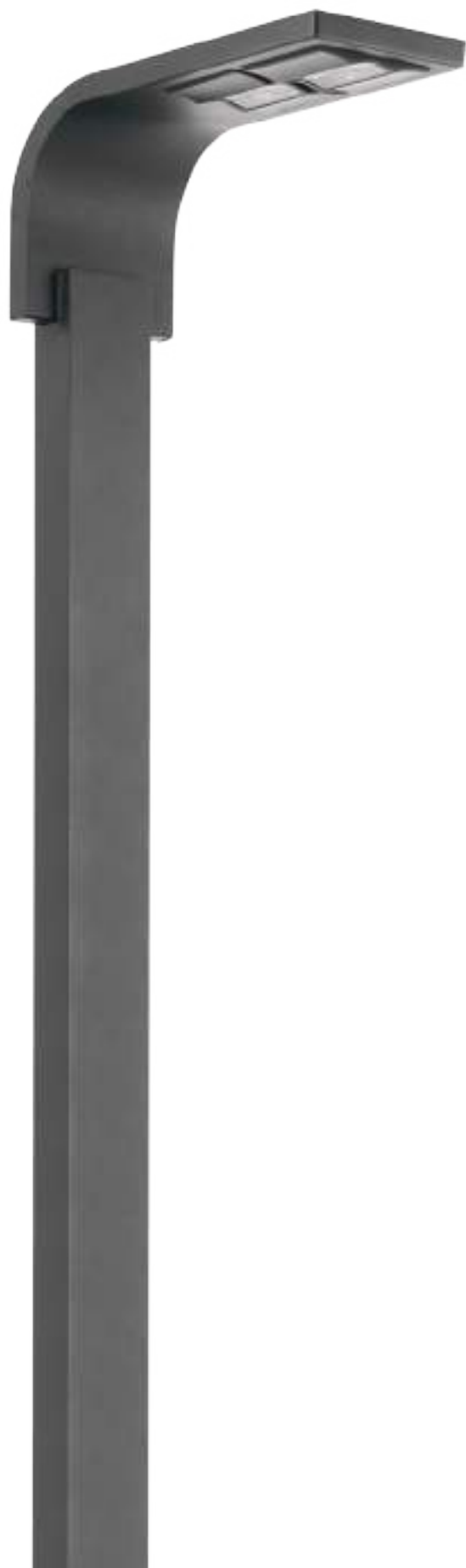
| CODE                 | DESCRIPTION                     | H1   | H2   | D1  | D2  | ANCHORAGE | FLANGE COVER |
|----------------------|---------------------------------|------|------|-----|-----|-----------|--------------|
| <b>PAFD.R01.T001</b> | Aluminum Rectangle Pole Flanged | 4000 | -    | 186 | 120 | 90CJ005   | C3N2C        |
| <b>PABD.R01.T001</b> | Aluminum Rectangle Pole Buried  | 4000 | 800  | 186 | 120 | -         | -            |
| <b>PAFD.R01.T001</b> | Aluminum Rectangle Pole Flanged | 5000 | -    | 186 | 120 | 90CJ005   | C3N2C        |
| <b>PABD.R01.T001</b> | Aluminum Rectangle Pole Buried  | 5000 | 800  | 186 | 120 | -         | -            |
| <b>PAFD.R01.T001</b> | Aluminum Rectangle Pole Flanged | 6000 | -    | 186 | 120 | 90CJ006   | C3N2C        |
| <b>PABD.R01.T001</b> | Aluminum Rectangle Pole Buried  | 6000 | 1000 | 186 | 120 | -         | -            |

# TILA S

**MODULARITY MEETS PLAINNESS**



With its modular system and slim design, Tila S will complement the most beautiful landscape projects.



# TILA S

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's patented Milestone® EVO LED Module
- Optimized landscapes and road lighting distribution
- Operating Temperature -40°C / +55°C
- Superior thermal management with upward aligned LED chips
- Easy installation and maintenance with modular structure
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 350mA (optional), 525mA (optional)
- Optimized PCB - Design; aluminum PCB or FR - 4 PCB with touchdown technology
- Energy class: A+
- Power factor: > 0.95
- Input Voltage: 220V - 240V, 120 - 277V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional), DynaDIM (optional), AstroDIM (optional)
- Surge protection: 10kV (optional)

### OPTICAL PROPERTIES

- Equipped with Heper's patented Milestone® EVO LED Module
- Indirect lighting with reflector technology
- Homogenous lighting distribution through multifaceted reflectors
- Full cut-off wide light distribution
- Superior glare management with hidden light source
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 3500lm - 12000lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 118000 h
- Photobiological safety: Risk Group 0
- Efficacy (absolute photometry): 114 lm/W (4000K at 700mA)
- BUG Rating: B2 - U0 - G1
- ULOR: 0%

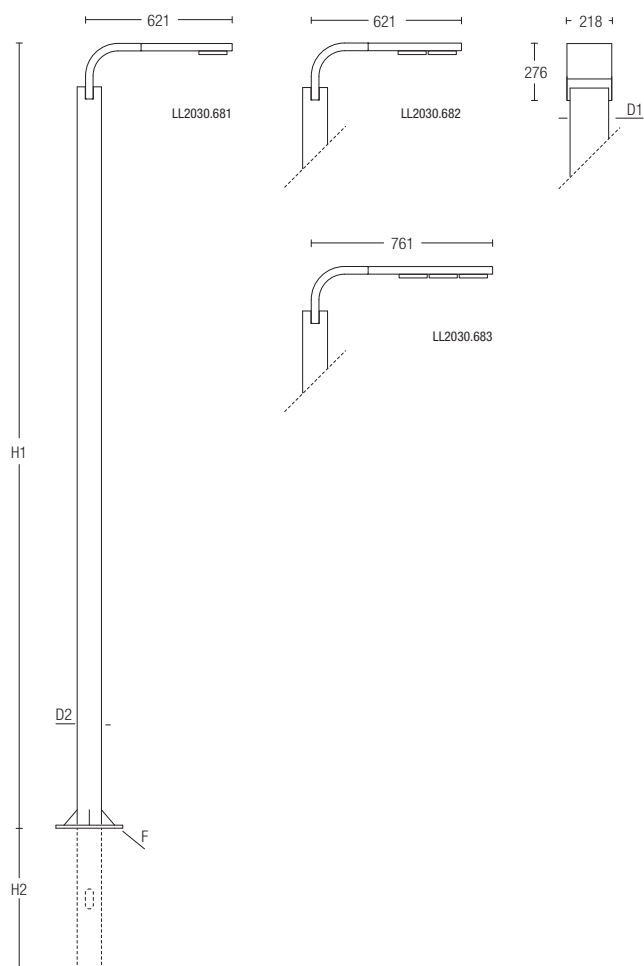
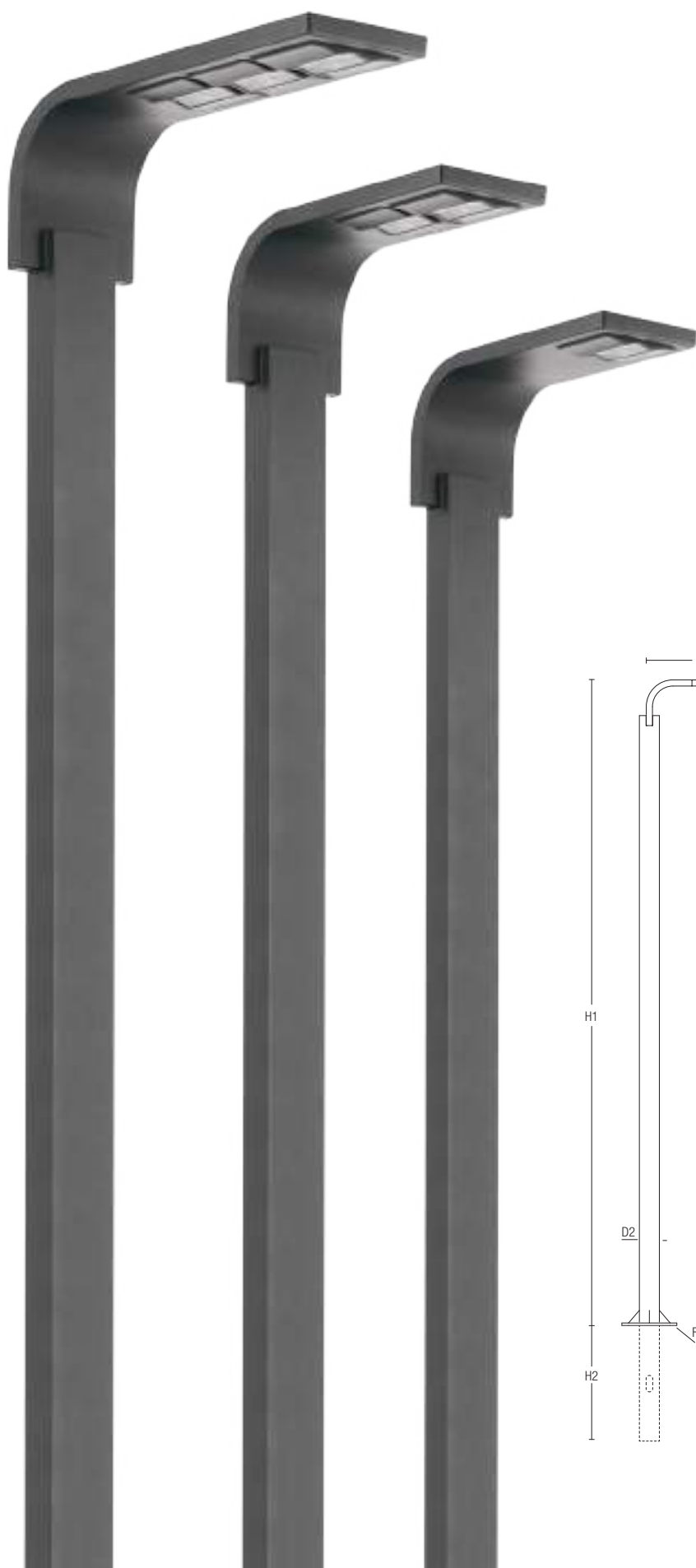
### BODY HOUSING & FINISH

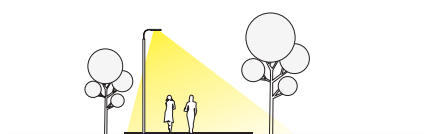
- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

### EXTRAS

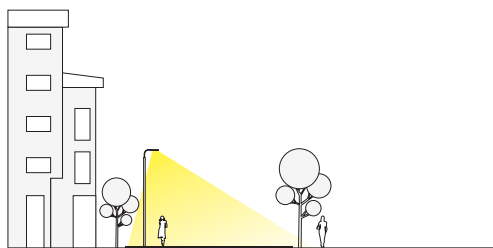
- Higher CRI LED chips
- Marine grade coating
- Constant Light Output (CLO)
- IP rated terminal box



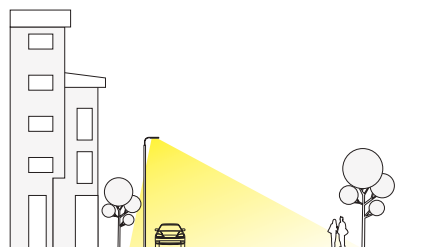
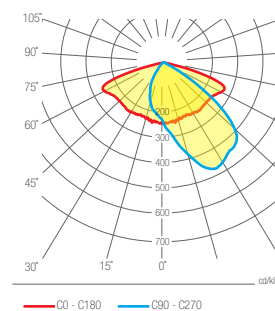




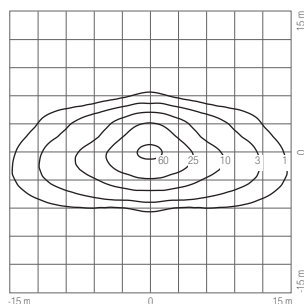
Tila S 1 Module



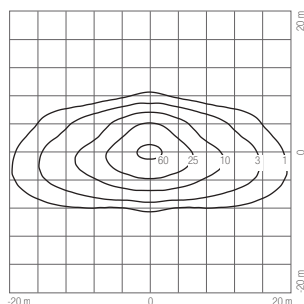
Tila S 2 Module



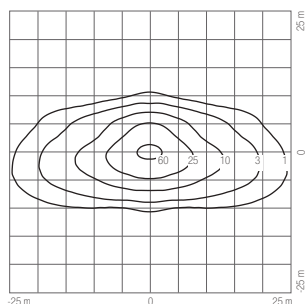
Tila S 3 Module



Tila S 1 Module



Tila S 2 Module



Tila S 3 Module



Roads



Landscape Areas



## LUMINAIRE

| CODE              | DESCRIPTION     | POWER (700 mA) | LUMEN             | COLOR TEMPERATURE |
|-------------------|-----------------|----------------|-------------------|-------------------|
| <b>LL2030.681</b> | Tila S 1 Module | 35W            | 3500lm - 4000lm   | 3000K / 4000K     |
| <b>LL2030.682</b> | Tila S 2 Module | 70W            | 7000lm - 8000lm   | 3000K / 4000K     |
| <b>LL2030.683</b> | Tila S 3 Module | 105W           | 10500lm - 12000lm | 3000K / 4000K     |

## POLES

| CODE                 | DESCRIPTION                     | H1   | H2  | D1  | D2 | ANCHORAGE | FLANGE COVER |
|----------------------|---------------------------------|------|-----|-----|----|-----------|--------------|
| <b>PAFD.R02.T001</b> | Aluminum Rectangle Pole Flanged | 3000 | -   | 120 | 80 | 90BJ002   | C3P2B        |
| <b>PABD.R02.T001</b> | Aluminum Rectangle Pole Buried  | 3000 | 800 | 120 | 80 | -         | -            |
| <b>PAFD.R02.T001</b> | Aluminum Rectangle Pole Flanged | 4000 | -   | 120 | 80 | 90BJ002   | C3P2B        |
| <b>PABD.R02.T001</b> | Aluminum Rectangle Pole Buried  | 4000 | 800 | 120 | 80 | -         | -            |





# DOMINO

**ROBUST AND MODULAR**



Strong characteristic and modular structure makes Domino a great choice for contemporary projects.



# DOMINO

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's patented Milestone® EVO LED Module
- Optimized landscapes and road lighting distribution
- Operating Temperature -40°C / +55°C
- Superior thermal management with upward aligned LED chips
- Easy installation and maintenance with modular structure
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 350mA (optional), 525mA (optional)
- Optimized PCB - Design; aluminum PCB or FR - 4 PCB with touchdown technology
- Energy class: A+
- Power factor: > 0.95
- Input Voltage: 220V - 240V, 120 - 277V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional), DynaDIM (optional), AstroDIM (optional)
- Surge protection: 10kV (optional)

### OPTICAL PROPERTIES

- Equipped with Heper's patented Milestone® EVO LED Module
- Indirect lighting with reflector technology
- Homogenous lighting distribution through multifaceted reflectors
- Full cut-off wide light distribution
- Superior glare management with hidden light source
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 3500lm - 12000lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 118000 h
- Photobiological safety: Risk Group 0
- Efficacy (absolute photometry): 114 lm/W (4000K at 700mA)
- BUG Rating: B2 - U0 - G1
- ULOR: 0%

### BODY HOUSING & FINISH

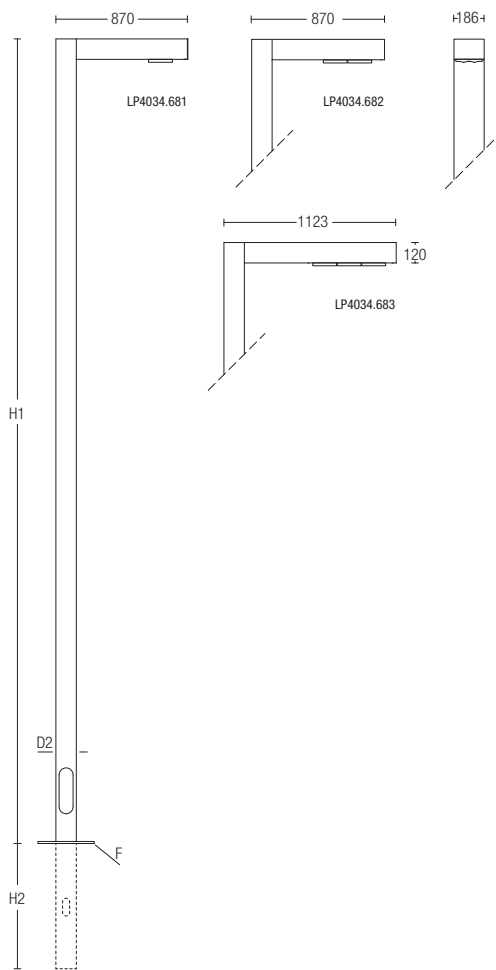
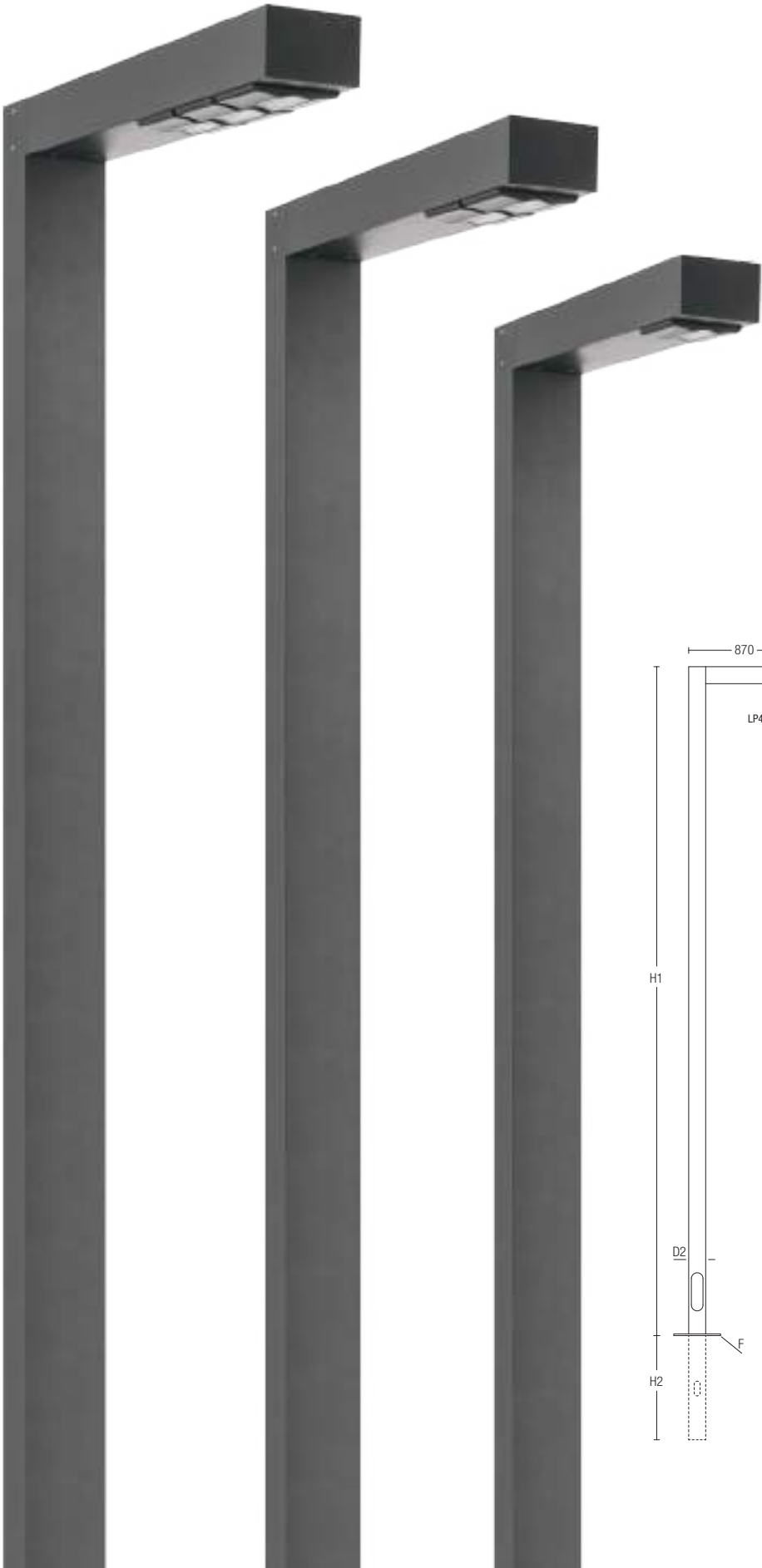
- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

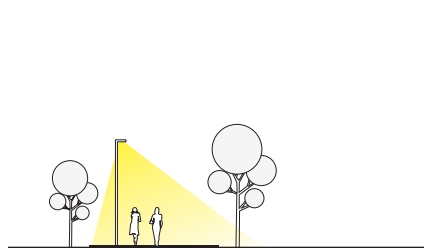
### EXTRAS

- Higher CRI LED chips
- Marine grade coating
- Constant Light Output (CLO)
- IP rated terminal box

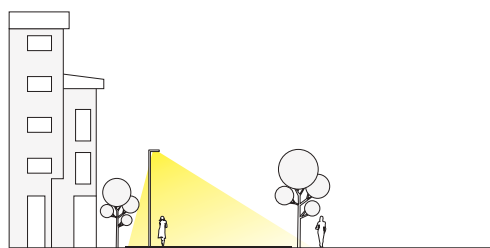


DOMINO

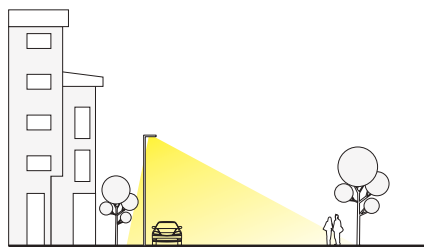
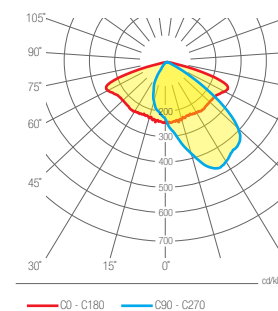




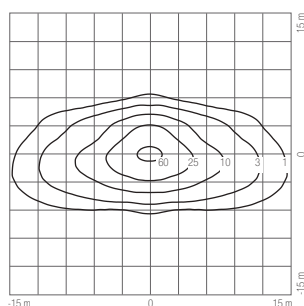
Domino 1 Module



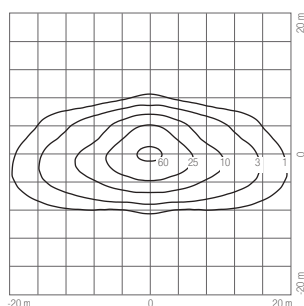
Domino 2 Module



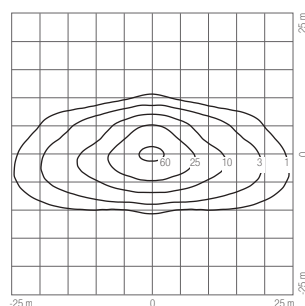
Domino 3 Module



Domino 1 Module



Domino 2 Module



Domino 3 Module



Roads



Landscape Areas



## LUMINAIRE

| CODE       | DESCRIPTION     | POWER (700 mA) | LUMEN             | COLOR TEMPERATURE |
|------------|-----------------|----------------|-------------------|-------------------|
| LP4034.681 | Domino 1 Module | 35W            | 3500lm - 4000lm   | 3000K / 4000K     |
| LP4034.682 | Domino 2 Module | 70W            | 7000lm - 8000lm   | 3000K / 4000K     |
| LP4034.683 | Domino 3 Module | 105W           | 10500lm - 12000lm | 3000K / 4000K     |

## POLES

| CODE          | DESCRIPTION                     | H1   | H2   | D1  | D2  | ANCHORAGE | FLANGE COVER |
|---------------|---------------------------------|------|------|-----|-----|-----------|--------------|
| PAFD.R01.T003 | Aluminum Rectangle Pole Flanged | 3000 | -    | 186 | 120 | 90CJ005   | C3N2C        |
| PABD.R01.T003 | Aluminum Rectangle Pole Buried  | 3000 | 800  | 186 | 120 | -         | -            |
| PAFD.R01.T003 | Aluminum Rectangle Pole Flanged | 4000 | -    | 186 | 120 | 90CJ005   | C3N2C        |
| PABD.R01.T003 | Aluminum Rectangle Pole Buried  | 4000 | 800  | 186 | 120 | -         | -            |
| PAFD.R01.T003 | Aluminum Rectangle Pole Flanged | 5000 | -    | 186 | 120 | 90CJ005   | C3N2C        |
| PABD.R01.T003 | Aluminum Rectangle Pole Buried  | 5000 | 1000 | 186 | 120 | -         | -            |
| PAFD.R01.T003 | Aluminum Rectangle Pole Flanged | 6000 | -    | 186 | 120 | 90CJ006   | C3N2C        |
| PABD.R01.T003 | Aluminum Rectangle Pole Buried  | 6000 | 1000 | 186 | 120 | -         | -            |



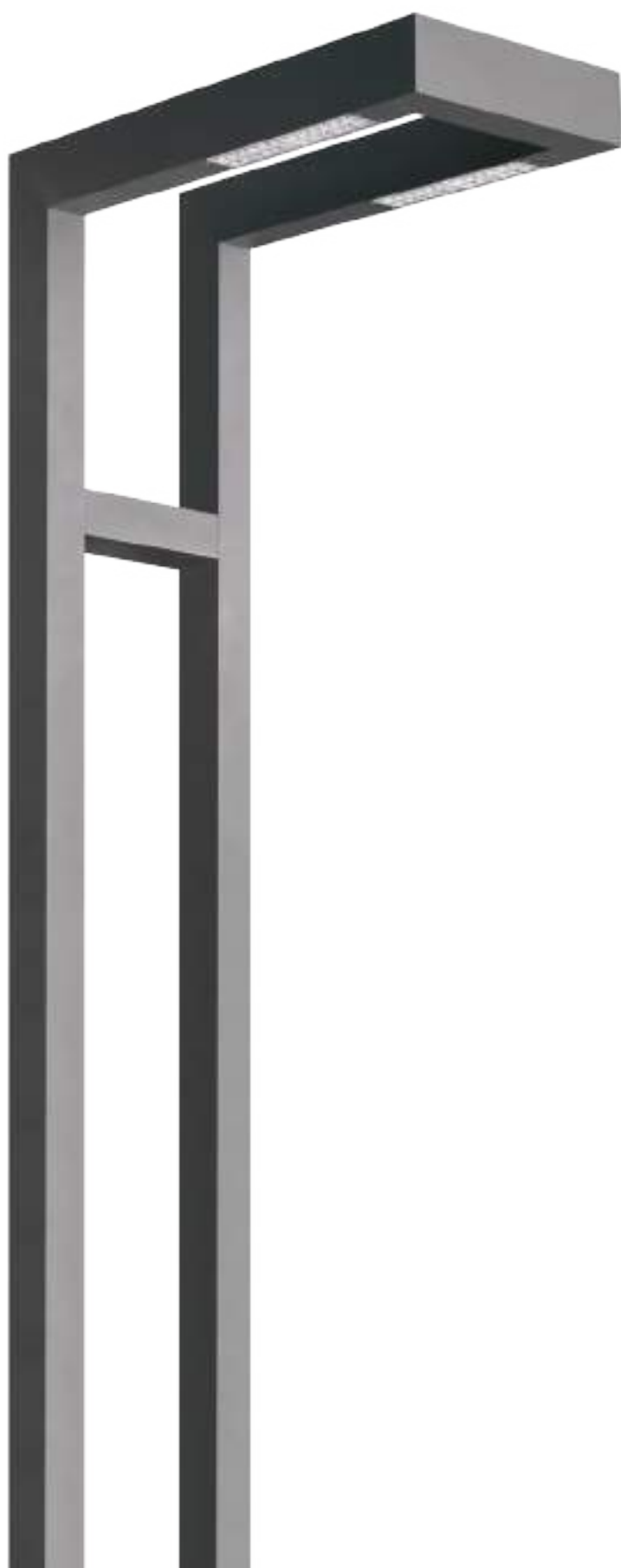


# TOLENA

**ARTISTRY IN DISGUISE**



Unique design and optical flexibility of Tolena makes it a great choice along with its complementary bollard Lena.



# TOLENA

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Optimized landscapes areas light distribution
- Operating Temperature -40°C / +55°C
- Superior thermal management
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 350mA
- Optimized PCB Design
- Energy class: A
- Power factor: > 0.90
- Input Voltage: 220V - 240V, 120V - 277V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional), DynaDIM (optional)
- Surge protection: 10kV (optional)

### OPTICAL PROPERTIES

- Equipped with high efficiency LED chips
- Optimized symmetrical lighting distribution
- Glare minimizing diffusor
- Quarter bin LED chips
- Lumen output (absolute photometry): 4800lm - 5200lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Photobiological safety: Risk Group 1
- Efficacy (absolute photometry): 95 lm/W (4000K at 350mA)
- ULOR: 0%

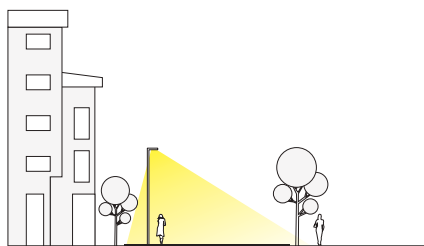
### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK05

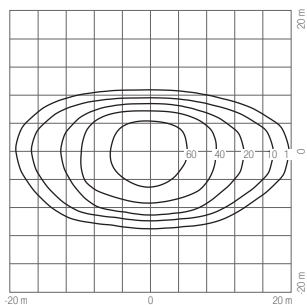
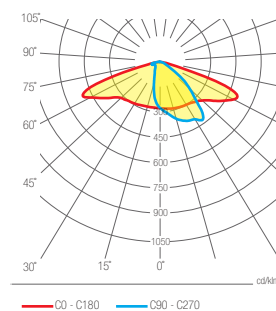
### EXTRAS

- Higher CRI LED chips
- Marine grade body
- IP rated terminal box

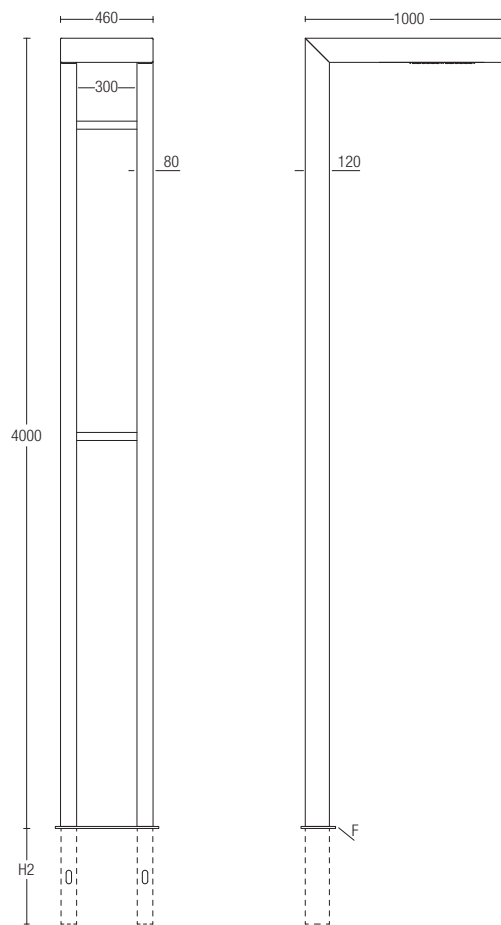




Tolena



Tolena



Landscape Areas



| LUMINAIRE  |             |                |                 |                   |
|------------|-------------|----------------|-----------------|-------------------|
| CODE       | DESCRIPTION | POWER (350 mA) | LUMEN           | COLOR TEMPERATURE |
| LP4071.554 | Tolena      | 54W            | 4800lm - 5200lm | 3000K / 4000K     |

| POLES         |  |      |      |    |     |           |              |  |
|---------------|--|------|------|----|-----|-----------|--------------|--|
| CODE          | DESCRIPTION                            | H1   | H2   | D1 | D2  | ANCHORAGE | FLANGE COVER |  |
| PABD.R02.T002 | Aluminum Double Rectangle Pole Buried  | 4000 | -    | 80 | 120 | -         | -            |  |
| PAFD.R02.T002 | Aluminum Double Rectangle Pole Flanged | 4000 | 1000 | 80 | 120 | 627J016   | C5C2U        |  |

# PRIFMA

**ATTRACTION OF THE STRONG**



Named after the strong characteristic of a prism, Prifma is a light column that remunerates its name.



# PRIFMA

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's patented Milestone® EVO LED Module
- Optimized landscapes and road lighting distribution
- Operating Temperature -40°C / +55°C
- Superior thermal management with upward aligned LED chips
- Easy installation and maintenance with modular structure
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 350mA (optional)
- Optimized PCB - Design; aluminum PCB or FR - 4 PCB with touchdown technology
- Power factor: > 0.95
- Input Voltage: 220V - 240V, 120V - 277V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional)

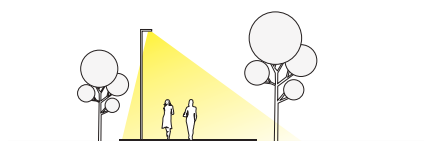
### OPTICAL PROPERTIES

- Equipped with Heper's patented Milestone® EVO LED Module
- Indirect lighting with reflector technology
- Homogenous lighting distribution through multifaceted reflectors
- Full cut-off wide light distribution
- Superior glare management with hidden light source
- Extreme high power multi LED chips
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 3500lm - 8000lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 118000h
- Photobiological safety: Risk Group 0
- Efficacy (absolute photometry): 114 lm/W (4000K at 700mA)
- BUG Rating: B2 - U0 - G1
- ULOR: 0%

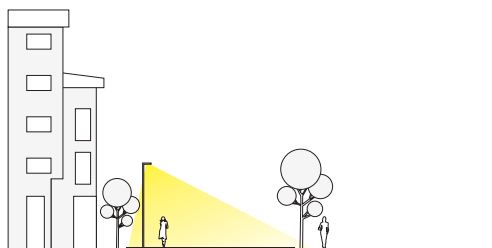
### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

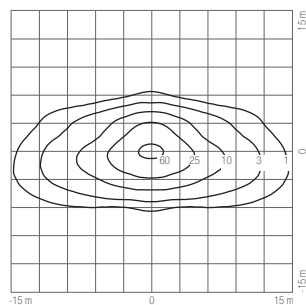
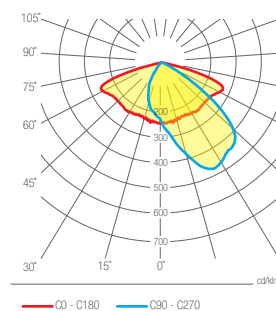




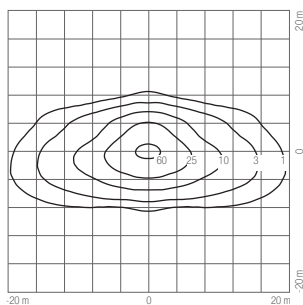
Prifma 1 Module



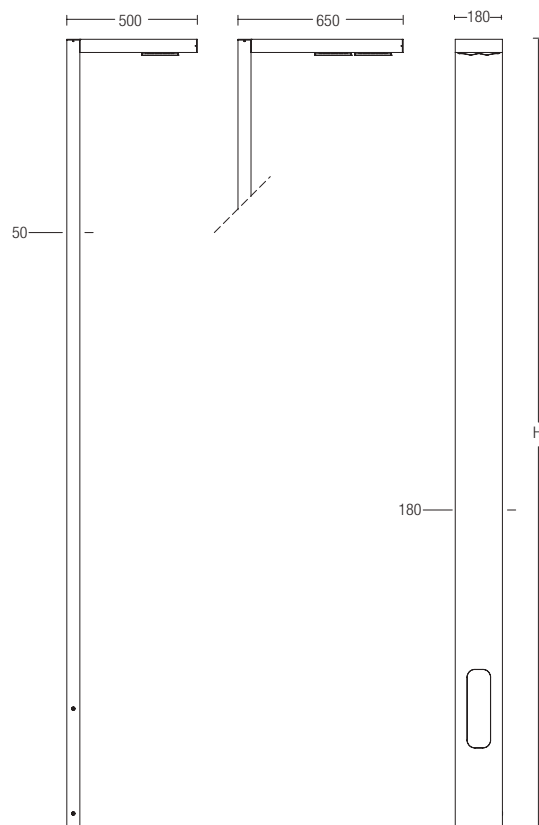
Prifma 2 Module



Prifma 1 Module



Prifma 2 Module



Roads



Landscape Areas



## LUMINAIRE

| CODE       | DESCRIPTION     | POWER (700 mA) | LUMEN           | COLOR TEMPERATURE |
|------------|-----------------|----------------|-----------------|-------------------|
| LL2042.681 | Prifma 1 Module | 35W            | 3500lm - 4000lm | 3000K / 4000K     |
| LL2042.682 | Prifma 2 Module | 70W            | 7000lm - 8000lm | 3000K / 4000K     |

## POLES

| CODE          | DESCRIPTION                     | H1   | H2 | D1 | D2  | ANCHORAGE | FLANGE COVER |
|---------------|---------------------------------|------|----|----|-----|-----------|--------------|
| PAFD.R03.T001 | Aluminum Rectangle Pole Flanged | 3000 | -  | 50 | 180 | 90BJ001   | -            |
| PAFD.R03.T001 | Aluminum Rectangle Pole Flanged | 4000 | -  | 50 | 180 | 90BJ001   | -            |

# VLORA

**COMBINATION OF TRADITION AND TECHNOLOGY**



Vlora combines the traditional design with high-end optics making it a one of a kind luminaire.



# VLORA

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's hybrid module
- Optimized light distribution with secondary reflector technology
- Operating Temperature -40°C / +55°C
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 350mA (optional)
- Optimized PCB Design
- Insulation class: CLASS I
- Power factor: > 0.95
- Input Voltage: 220V - 240V at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional)

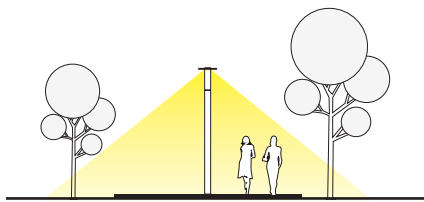
### OPTICAL PROPERTIES

- Optimized light distribution with secondary reflector technology
- Homogenous lighting distribution through multifaceted reflectors
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 3000lm - 3400lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Efficacy (absolute photometry): 80 lm/W (4000K at 700mA)

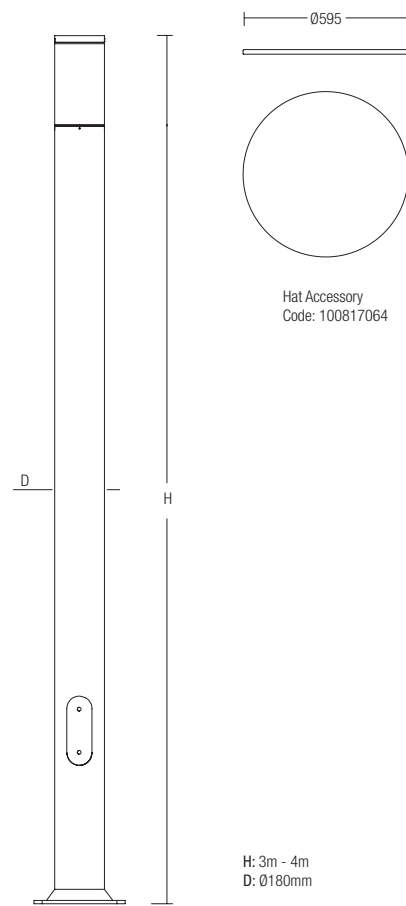
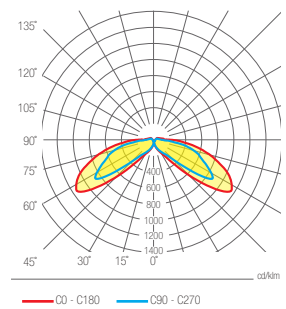
### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK07
- IP rated terminal box





Viora



Landscape Areas



| LUMINAIRE  |             |                |                 |                   |
|------------|-------------|----------------|-----------------|-------------------|
| CODE       | DESCRIPTION | POWER (700 mA) | LUMEN           | COLOR TEMPERATURE |
| LB6058.694 | Viora       | 40W            | 2800lm - 3200lm | 3000K / 4000K     |

Ordering guide : **Product Code - Accessory Code**  
i.e. LB6058.694 - 100817064



# BOLLARDS

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# VESTA

**ONE OF A KIND BOLLARD**



With different sizes and optics, Vesta is the perfect bollard for adding value to accent lighting applications.



# VESTA

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Ideal solution for landscape areas
- Structured with LED light source
- Operating Temperature -40°C / +55°C
- Exceptional thermal characteristics
- In compliance with EN 60598 and EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 350mA
- Optimized PCB Design
- Energy class: A
- Power factor: > 0.90
- Input Voltage: 220V - 240V at 50Hz / 60Hz
- Control type: On/Off

### OPTICAL PROPERTIES

- Glare minimizing diffusor
- MacAdam Elipse 3
- Lumen output (absolute photometry): 370lm - 800lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)

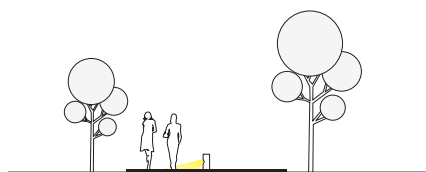
### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact Protection: IK05

### EXTRAS

- Higher CRI LED chips
- Marine grade body

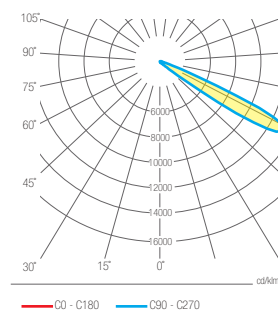




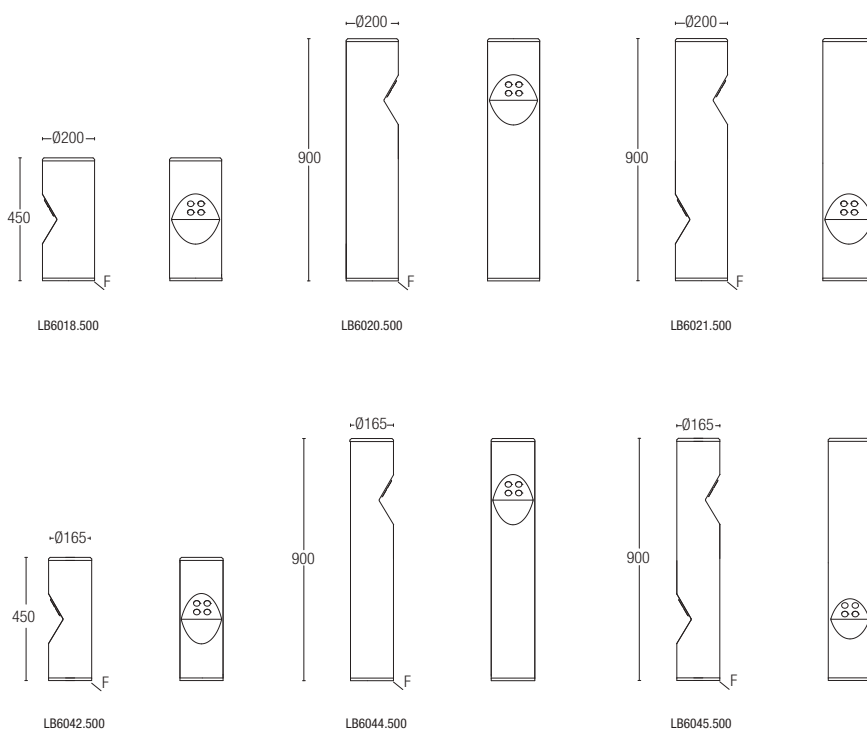
Vesta S 4 LED



Vesta 4 LED



Vesta 8 LED



Landscape Areas



Walkways



| LUMINAIRE         |                 |                |               |                   |           |
|-------------------|-----------------|----------------|---------------|-------------------|-----------|
| CODE              | DESCRIPTION     | POWER (350 mA) | LUMEN         | COLOR TEMPERATURE | ANCHORAGE |
| <b>LB6018.500</b> | Vesta 4 LED     | 6W             | 370lm - 400lm | 3000K / 4000K     | 623J014   |
| <b>LB6020.500</b> | Vesta L 4 LED   | 6W             | 370lm - 400lm | 3000K / 4000K     | 623J014   |
| <b>LB6021.500</b> | Vesta L 8 LED   | 10W            | 740lm - 800lm | 3000K / 4000K     | 623J014   |
| <b>LB6042.500</b> | Vesta S 4 LED   | 6W             | 370lm - 400lm | 3000K / 4000K     | 629J014   |
| <b>LB6044.500</b> | Vesta S L 4 LED | 6W             | 370lm - 400lm | 3000K / 4000K     | 629J014   |
| <b>LB6045.500</b> | Vesta S L 8 LED | 10W            | 740lm - 800lm | 3000K / 4000K     | 629J014   |





# POLSO

**A BOLLARD FAMILY FOR THE AGES**



Bollards of the Polso family complement each other with different sizes and reliable optics.



## POLSO

### TECHNICAL SPECIFICATIONS

---

#### GENERAL HIGHLIGHTS

- Equipped with LED light source
- Operating Temperature -40°C / +55°C
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722

#### ELECTRICAL PROPERTIES

- Optimized PCB design
- Energy class: A
- Power factor: > 0.90
- Input Voltage: 220V - 240V, 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional)

#### OPTICAL PROPERTIES

- Equipped with LED light source
- Glare minimizing diffusor
- MacAdam Elipse 3
- Photobiological safety: Risk group 1
- Lumen output (absolute photometry): 300lm - 2600lm
- Color temperature: 2700K, 3000K, 4000K
- CRI > 70 (4000K), CRI > 80 (3000K)
- ULOR: 0

#### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK07

#### EXTRAS

- Higher CRI LED chips
- Marine grade body

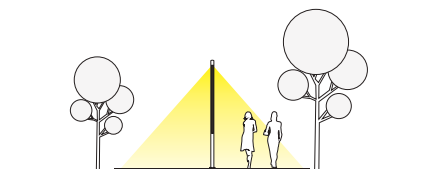




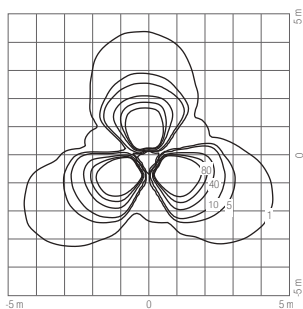
Polso S



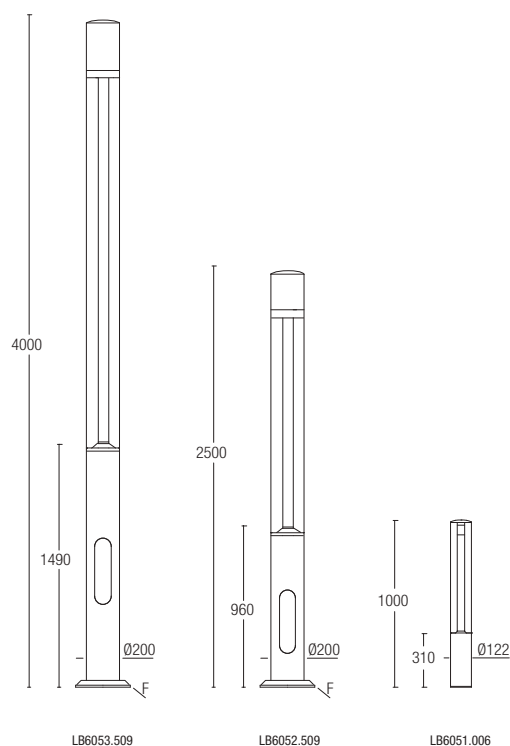
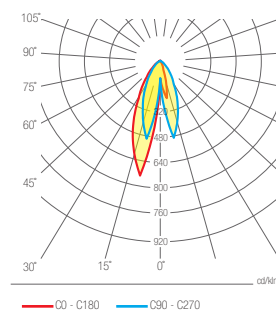
Polso



Polso L



Polso



Landscape Areas Walkways



| LUMINAIRE  |             |       |                 |                       |           |
|------------|-------------|-------|-----------------|-----------------------|-----------|
| CODE       | DESCRIPTION | POWER | LUMEN           | COLOR TEMPERATURE     | ANCHORAGE |
| LB6051.006 | Polso S     | 7.5W  | 300lm - 400lm   | 2700K / 3000K / 4000K | -         |
| LB6052.509 | Polso       | 28W   | 1600lm - 1900lm | 3000K / 4000K         | 90CJ001   |
| LB6053.509 | Polso L     | 40W   | 2300lm - 2600lm | 3000K / 4000K         | 90CJ003   |

# NORMA

**AN ATTRACTIVE BOLLARD FAMILY**



Bollards of the Norma family stands out with robust frames, elegant design and admirable optics.



## NORMA

### TECHNICAL SPECIFICATIONS

---

#### GENERAL HIGHLIGHTS

- Equipped with LED light source
- Operating Temperature -40°C / +55°C
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722

#### ELECTRICAL PROPERTIES

- Optimized PCB design
- Energy class: A
- Power factor: > 0.90
- Input Voltage: 220V - 240V, 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional)

#### OPTICAL PROPERTIES

- Equipped with LED light source
- Glare minimizing diffusor
- MacAdam Elipse 3
- Photobiological safety: Risk group 1
- Lumen output (absolute photometry): 300lm - 3300lm
- Color temperature: 2700K, 3000K, 4000K
- CRI > 70 (4000K), CRI > 80 (3000K)
- ULOR: 0

#### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK07

#### EXTRAS

- Higher CRI LED chips
- Marine grade body

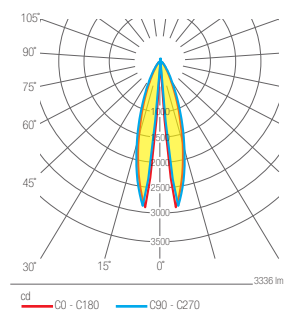




Norma S



Norma





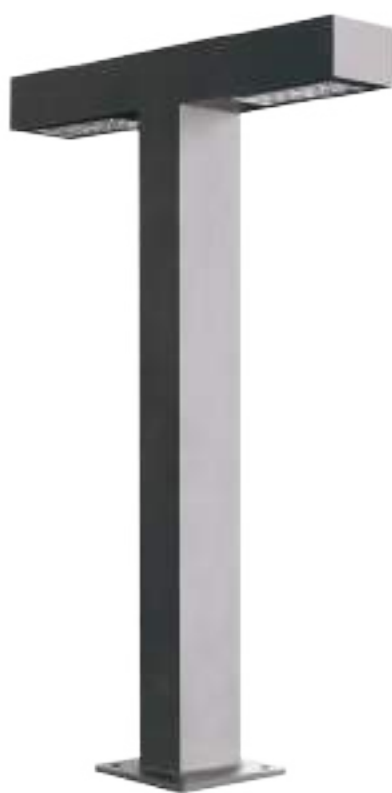


# DOMINI

**A CONTEMPORARY BOLLARD**



Complementing its light column Domino, Domini is an exquisite bollard for modern landscape projects.



## DOMINI

### TECHNICAL SPECIFICATIONS

---

#### GENERAL HIGHLIGHTS

- Ideal solution for landscape areas
- Structured with LED light source
- Operating Temperature -40°C / +55°C
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722

#### ELECTRICAL PROPERTIES

- Drive current: 350mA
- Optimized PCB Design
- Energy class: A
- Input Voltage: 220V - 240V at 50Hz / 60Hz
- Control type: On/Off
- Power factor: > 0.90

#### OPTICAL PROPERTIES

- Equipped with high efficiency LED chips
- No glare with intended use
- High power, undomed LED chips
- Quarter bin LED chips
- MacAdam Elipse 3
- Photobiological safety: Risk group 1
- Lumen output (absolute photometry): 1300lm - 2700lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- ULOR: 0

#### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK05

#### EXTRAS

- Higher CRI LED chips
- Marine grade body

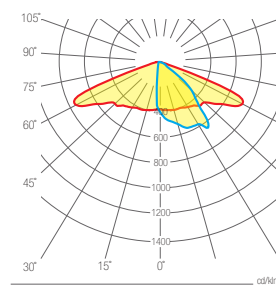




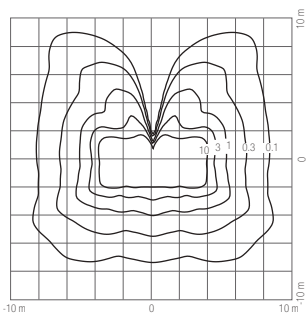
Domini 12 LED



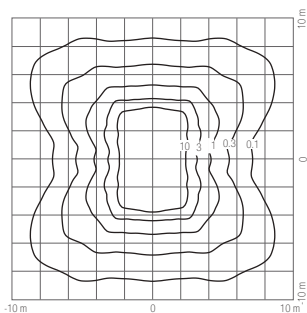
Domini 24 LED



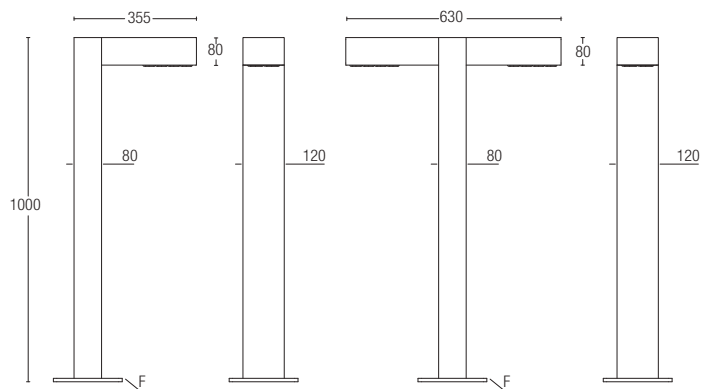
Domini 12 LED



Domini 12 LED



Domini 24 LED



LB6047.551

LB6047.552



Landscape Areas



Walkways



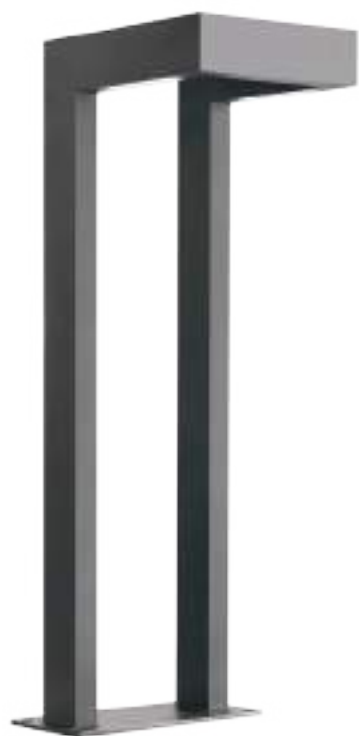
| LUMINAIRE  |               |                |                 |                   |           |
|------------|---------------|----------------|-----------------|-------------------|-----------|
| CODE       | DESCRIPTION   | POWER (350 mA) | LUMEN           | COLOR TEMPERATURE | ANCHORAGE |
| LB6047.551 | Domini 12 LED | 14W            | 1300lm - 1350lm | 3000K / 4000K     | 90AJ001   |
| LB6047.552 | Domini 24 LED | 28W            | 2600lm - 2700lm | 3000K / 4000K     | 90AJ001   |

# LENA

**AN ARTISTIC BOLLARD**



Unique design and optical flexibility of Lena makes it a great choice along with its complementary column Tolena.



# LENA

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Structured with LED light source
- Operating Temperature: -40°C / +55°C
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 350mA
- Optimized PCB Design
- Energy class: A
- Power factor: > 0.90
- Input Voltage: 220V - 240V at 50Hz / 60Hz
- Control type: On/Off

### OPTICAL PROPERTIES

- Equipped with high efficiency LED chips
- Optimized symmetrical lighting distribution
- Glare minimizing diffusor
- No glare with intended use
- High power, undomed LED chips
- Quarter bin LED chips
- MacAdam Elipse 3
- Lumen output (absolute photometry): 850lm - 1000lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 103000h
- Photobiological safety: Risk Group 1
- ULOR: 0

### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK05

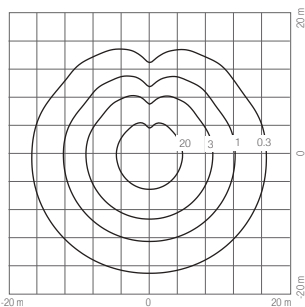
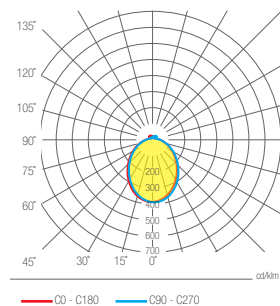
### EXTRAS

- Higher power and lumen output (45W, 2800lm)
- Higher CRI LED chips
- Marine grade coating

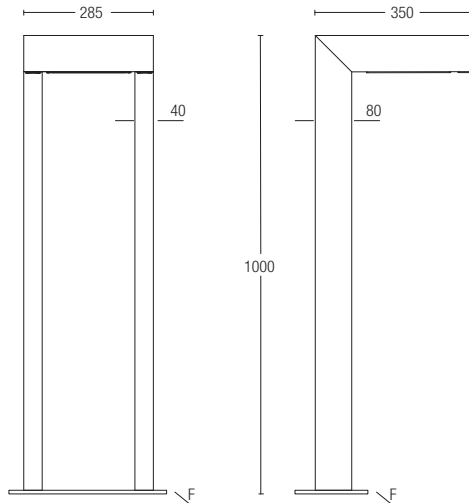




Lena



Lena



Landscape Areas



Walkways



| LUMINAIRE  |             |                |                |                   |           |
|------------|-------------|----------------|----------------|-------------------|-----------|
| CODE       | DESCRIPTION | POWER (350 mA) | LUMEN          | COLOR TEMPERATURE | ANCHORAGE |
| LB6049.563 | Lena        | 15W            | 850lm - 1000lm | 3000K / 4000K     | 626J014   |

# DRAGO

**EMBODIED PERFECTION**



A simplistic bollard with jaw dropping optics.



# DRAGO

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's Dyno LED Module
- Optimized linear forward or Side light distribution
- Operating temperature: -40°C / +55°C
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722
- ENEC and UL pending

### ELECTRICAL PROPERTIES

- Drive current: 350mA
- Optimized PCB - Design for Superior heat management
- Insulation class: CLASS II
- Energy class: A
- Input Voltage: 220V - 240V, 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off

### OPTICAL PROPERTIES

- Equipped with Heper's Dyno LED Module
- Indirect lighting with reflector technology
- Linear form asymmetrical light distribution
- No glare with intended use
- High power, undomed LED chips
- MacAdam Elipse 3
- Lumen output (absolute photometry): 180lm - 725lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 60000h
- Photobiological safety: Risk Group 0

### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK08

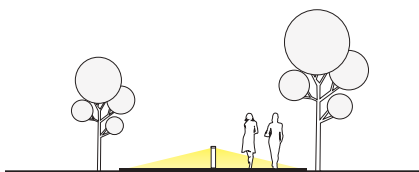
### EXTRAS

- Higher CRI LED chips
- Marine grade body

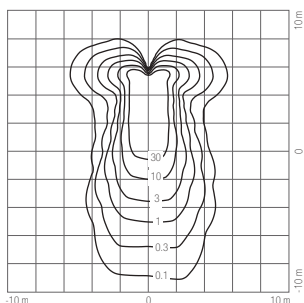
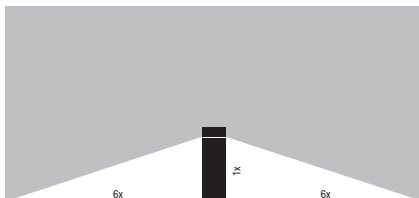
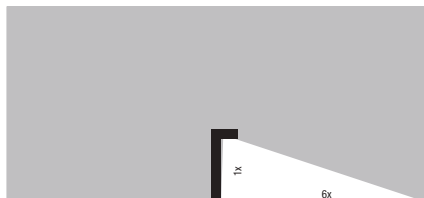




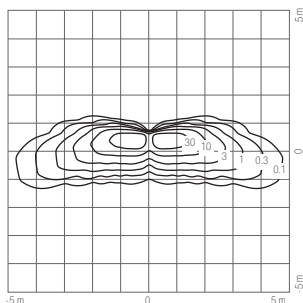
Drago Forward



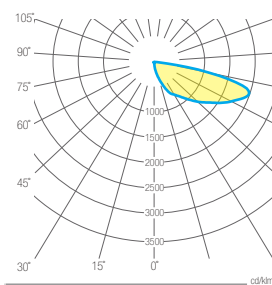
Drago Side



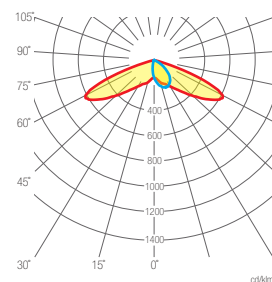
Drago Forward



Drago Side



Drago Forward



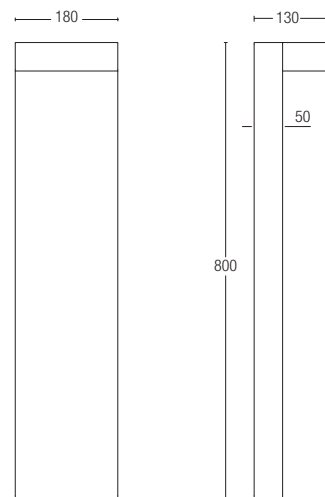
Drago Side



LB6048.575



LB6048.585



Landscape Areas



Walkways



## LUMINAIRE

| CODE       | DESCRIPTION   | POWER (350 mA) | LUMEN         | COLOR TEMPERATURE | ANCHORAGE |
|------------|---------------|----------------|---------------|-------------------|-----------|
| LB6048.575 | Drago Forward | 10W            | 550lm - 725lm | 3000K / 4000K     | -         |
| LB6048.585 | Drago Side    | 5W             | 180lm - 250lm | 3000K / 4000K     | -         |

# TROLI

**BOLLARD FAMILY WITH A UNIQUE APPROACH**



Using indirect lighting concept, Troli is a durable bollard offering visual comfort.



# TROLI

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's Hybrid LED Module and secondary reflector
- Operating Temperature  $-40^{\circ}\text{C}$  /  $+55^{\circ}\text{C}$
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 350mA (optional)
- Optimized PCB Design
- Power factor:  $> 0.90$
- Input Voltage: 220V - 240V, 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off

### OPTICAL PROPERTIES

- Equipped with Heper's Hybrid LED Module
- MacAdam Elipse 3
- Lumen output (absolute photometry): 300lm - 450lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI  $> 70$  (4000K), CRI  $> 80$  (3000K)
- Photobiological safety: Risk group 0
- Lifetime: L90B50  $> 118000\text{h}$

### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK05

### EXTRAS

- Higher CRI LED chips
- Marine grade body

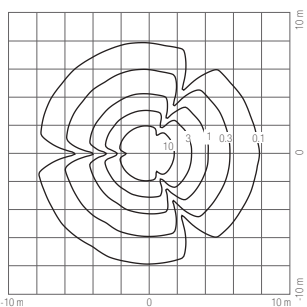
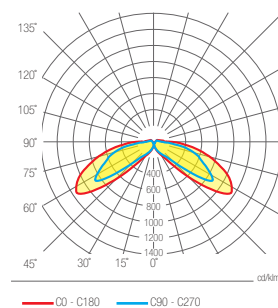




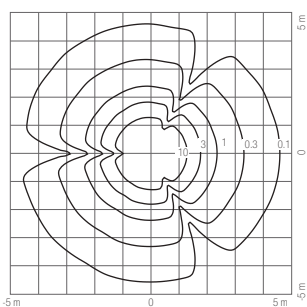
Troli



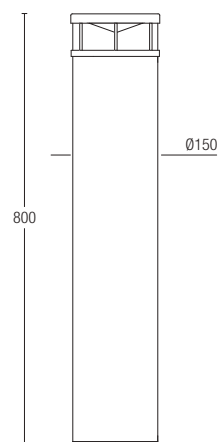
Troli S



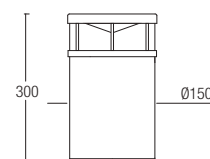
Troli



Troli S



LB6009.693



LB7032.693



Landscape Areas



Walkways



| LUMINAIRE  |             |                |               |                   |           |
|------------|-------------|----------------|---------------|-------------------|-----------|
| CODE       | DESCRIPTION | POWER (700 mA) | LUMEN         | COLOR TEMPERATURE | ANCHORAGE |
| LB6009.693 | Troli       | 9W             | 300lm - 450lm | 3000K / 4000K     | 612J014   |
| LB7032.693 | Troli S     | 9W             | 300lm - 450lm | 3000K / 4000K     | 612J014   |

# ORION

TRADITIONAL BEAUTY



Orion is a one for all bollard combining traditional design with advanced optics.



# ORION

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Structured with LED light source
- Operating Temperature  $-40^{\circ}\text{C}$  /  $+55^{\circ}\text{C}$
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 350mA
- Optimized PCB Design
- Power factor:  $> 0.90$
- Input Voltage: 220V - 240V, 110V - 277V (optional) at 50Hz / 60Hz
- Control type: On/Off

### OPTICAL PROPERTIES

- Homogenous symmetrical or asymmetrical lighting distribution
- MacAdam Elipse 3
- Lumen output (absolute photometry): 550lm-1900lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI  $> 70$  (4000K), CRI  $> 80$  (3000K)
- ULOR: 0
- Photobiological safety: Risk group 1
- Lifetime: L90B50  $> 118000\text{h}$

### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK07

### EXTRAS

- Higher CRI LED chips
- Marine grade body

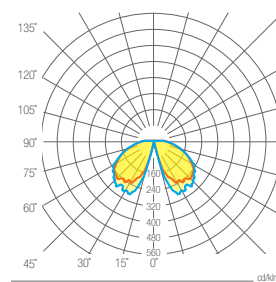




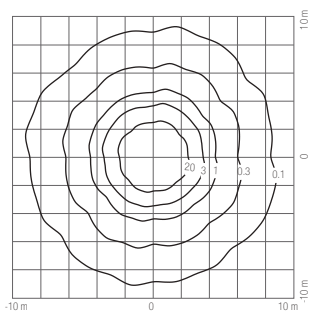
Orion Sym



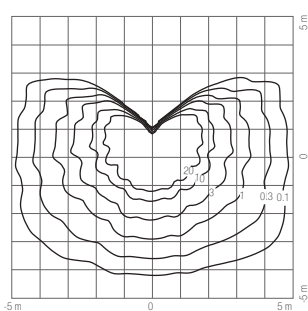
Orion Asym



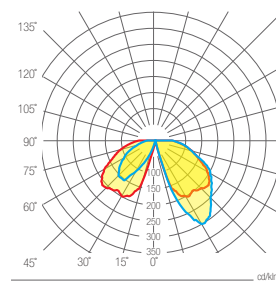
Orion Sym



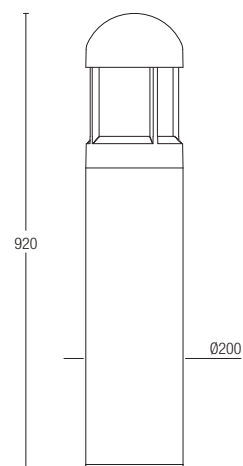
Orion Sym



Orion Asym



Orion Asym



Landscape Areas



Walkways



| LUMINAIRE       |             |                |                 |                   |           |
|-----------------|-------------|----------------|-----------------|-------------------|-----------|
| CODE            | DESCRIPTION | POWER (350 mA) | LUMEN           | COLOR TEMPERATURE | ANCHORAGE |
| LB6011.513-Sym  | Orion Sym   | 20W            | 1500lm - 1900lm | 3000K / 4000K     | 623J014   |
| LB6011.513-Asym | Orion Asym  | 10W            | 550lm - 700lm   | 3000K / 4000K     | 623J014   |

# TRIAN

**THE ACCENT THAT SPEAKS**



Trian comes with elegant design and spotless optics, making it ready to beautify the most special landscapes.



# TRIAN

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's Dyno S LED Module
- Operating Temperature  $-40^{\circ}\text{C}$  /  $+55^{\circ}\text{C}$
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 350mA
- Optimized PCB design
- Power factor:  $> 0.90$
- Input Voltage: 220V - 240V, 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off, DALI (optional)

### OPTICAL PROPERTIES

- Equipped with Heper's Dyno S LED Module
- Spotless light distribution
- MacAdam Elipse 3
- Lumen output (absolute photometry): 200lm - 250lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI  $> 70$  (4000K), CRI  $> 80$  (3000K)
- ULOR: 0

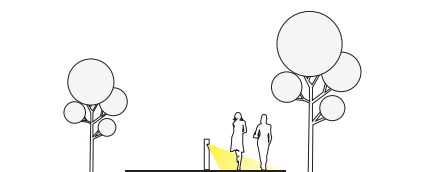
### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK05

### EXTRAS

- Higher CRI LED chips
- Marine grade body

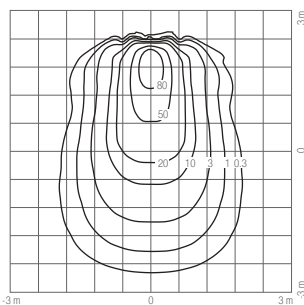
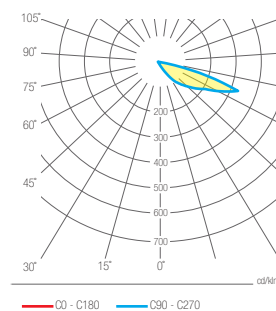




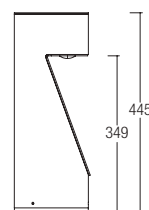
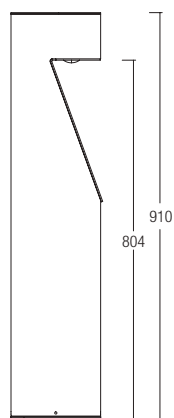
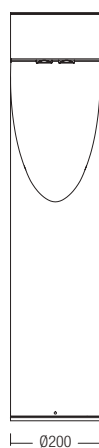
Trian



Trian S



Trian



Landscape Areas



Walkways



## LUMINAIRE

| CODE              | DESCRIPTION | POWER (350 mA) | LUMEN         | COLOR TEMPERATURE | ANCHORAGE |
|-------------------|-------------|----------------|---------------|-------------------|-----------|
| <b>LB6020.546</b> | Trian       | 4W             | 200lm - 250lm | 3000K / 4000K     | 629J014   |
| <b>LB6042.545</b> | Trian S     | 2W             | 100lm - 125lm | 3000K / 4000K     | 629J014   |

# URBAN BOLLARD

**OPTICAL BRILLIANCE**



Endless infrastructural opportunities is combined with exquisite illumination. Urban Bollard will easily harmonize itself to your daily life.



# URBAN BOLLARD

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's Dyno S LED Module
- Operating temperature: -40°C / +55°C
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722
- Powerline outlet
- Water outlet (optional)

### ELECTRICAL PROPERTIES

- Drive current: 350mA
- Optimized PCB Design for Superior heat management
- Energy class: A
- Input Voltage: 220V - 240V, 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off, DALI (optional)

### OPTICAL PROPERTIES

- Equipped with Heper's Dyno S LED Module
- Indirect lighting with reflector technology
- Spotless light distribution
- No glare with intended use
- MacAdam Elipse 3
- Lumen output (absolute photometry): 1600lm - 1770lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 60000h
- Photobiological safety: Risk Group 0

### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK07

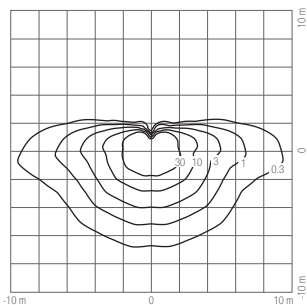
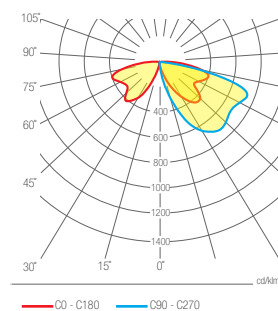
### EXTRAS

- Higher CRI LED chips
- Marine grade body





Urban Bollard



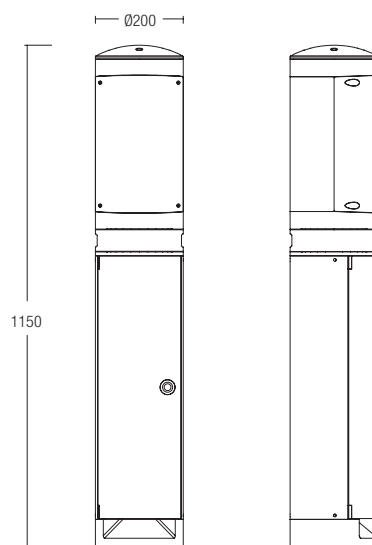
Urban Bollard



LB6060.547



LB6061.547



Landscape Areas



Walkways



| LUMINAIRE  |                  |                |                 |                   |           |
|------------|------------------|----------------|-----------------|-------------------|-----------|
| CODE       | DESCRIPTION      | POWER (350 mA) | LUMEN           | COLOR TEMPERATURE | ANCHORAGE |
| LB6060.547 | Urban Bollard    | 15W            | 1600lm - 1700lm | 3000K / 4000K     | *         |
| LB6061.547 | Urban Bollard Ch | 15W            | 1600lm - 1700lm | 3000K / 4000K     | *         |



# **SURFACE MOUNT**

# DOGO

**THE TINY GIANT**



Minimalistic design, Small body, jaw dropping optics. This pretty much sums up the Dogo family.



DOGO

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's Dyno LED Module
- Optimized linear forward or Side light distribution
- Operating temperature: -40°C / +55°C
- Exceptional thermal characteristics
- Surface mount installation with integrated driver
- In compliance with EN 60598, EN 62722
- ENEC pending
- UL Listed

### ELECTRICAL PROPERTIES

- Drive current: 350mA
- Optimized PCB - Design for Superior heat management
- Insulation class: CLASS II
- Energy class: A
- Input Voltage: 220V - 240V, 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off, DALI (optional)

### OPTICAL PROPERTIES

- Equipped with Heper's Dyno LED Module
- Indirect lighting with reflector technology
- Linear form asymmetrical light distribution
- High power, undomed LED chips
- MacAdam Elipse 3
- Lumen output (absolute photometry): 200lm - 750lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 60000h
- Photobiological safety: Risk Group 0

### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK08

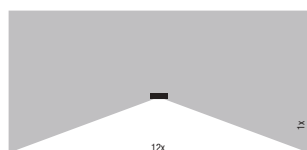
### EXTRAS

- Higher CRI LED chips
- Higher lumen output
- DALI driver housing with angle setting mechanism  $\pm 15^\circ$

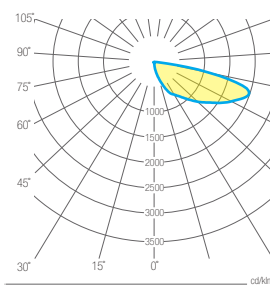




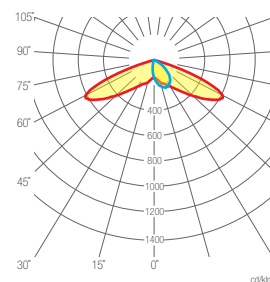
Dogo Forward



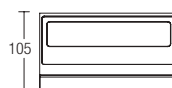
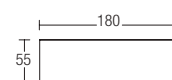
Dogo Side



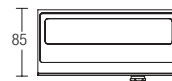
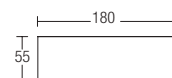
Dogo Forward



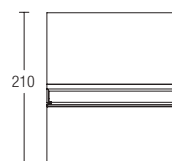
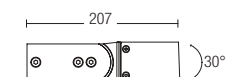
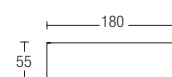
Dogo Side



LW6048.575  
LW6048.585  
Hidden Cable Gland



LW6048.575  
LW6048.585  
Visible Cable Gland



Dogo Ex: Angle Setting Mechanism  
LW7035.575  
LW7035.585



Architectural Facades



Walls



Smooth Surfaces



Accent Lighting



| LUMINAIRE  |                 |                |               |                   |
|------------|-----------------|----------------|---------------|-------------------|
| CODE       | DESCRIPTION     | POWER (350 mA) | LUMEN         | COLOR TEMPERATURE |
| LW6048.575 | Dogo Forward    | 10W            | 550lm - 750lm | 3000K / 4000K     |
| LW6048.585 | Dogo Side       | 5W             | 200lm - 270lm | 3000K / 4000K     |
| LW7035.575 | Dogo Ex Forward | 10W            | 550lm - 750lm | 3000K / 4000K     |
| LW7035.585 | Dogo Ex Side    | 5W             | 200lm - 270lm | 3000K / 4000K     |





# TROLA

A UNIQUE TOUCH



Trola uses indirect lighting concept to highlight its surroundings beautifully.



TROLA

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's Hybrid LED Module and secondary reflector
- Operating Temperature  $-40^{\circ}\text{C}$  /  $+55^{\circ}\text{C}$
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 700mA
- Optimized PCB - Design; aluminum PCB or FR - 4 PCB with touchdown technology
- Power factor:  $> 0.90$
- Input Voltage: 220V - 240V, 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off

### OPTICAL PROPERTIES

- Equipped with Heper's Hybrid LED Module and secondary reflector
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 300lm - 450lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI  $> 70$  (4000K), CRI  $> 80$  (3000K)

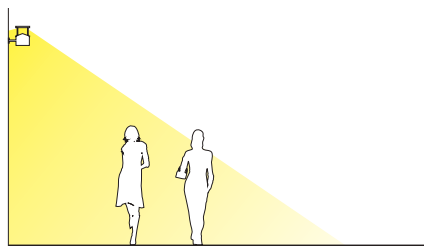
### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK05

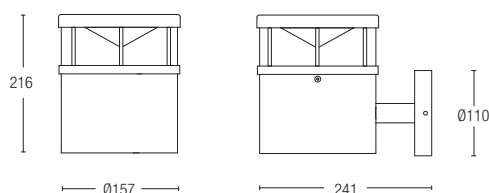
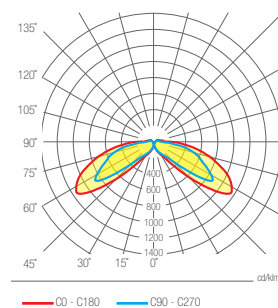
### EXTRAS

- Higher CRI LED chips





Trola



Architectural Facades



Urban Areas



| LUMINAIRE  |             |                |               |                   |
|------------|-------------|----------------|---------------|-------------------|
| CODE       | DESCRIPTION | POWER (700 mA) | LUMEN         | COLOR TEMPERATURE |
| LW7032.693 | Trola       | 9W             | 300lm - 450lm | 3000K / 4000K     |

# DOMI

**STRONG AND ADAPTABLE**



High output and modular system in Domi makes it a great product for general illuminating purposes.



## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's patented Milestone® EVO LED Module
- Optimized asymmetrical light distribution
- Operating temperature: -40°C / +55°C
- Superior thermal management with upward aligned LED chips
- Surface mount installation with integrated driver
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 350mA (optional)
- Optimized PCB - Design; aluminum PCB or FR - 4 PCB with touchdown technology
- Energy class: A+
- Input Voltage: 220V – 240V, 120V – 277V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), AstroDIM (optional)
- Power factor: > 0.95

### OPTICAL PROPERTIES

- Equipped with Heper's patented Milestone® EVO LED module
- Indirect lighting with reflector technology
- Homogenous lighting distribution through multifaceted reflectors
- Full cut-off wide light distribution
- Superior glare management with hidden light source
- Extreme high power LED chips
- MacAdam Elipse 3
- Lumen output (absolute photometry): 3500lm - 8000lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 118000h
- Photobiological safety: Risk Group 0
- ULOR: 0

### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP66
- Impact protection: IK08

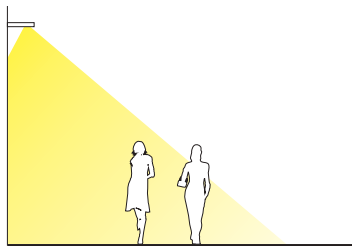
### EXTRAS

- Higher CRI LED chips
- Back light shield

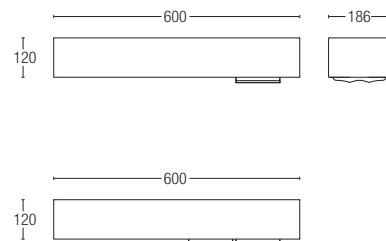
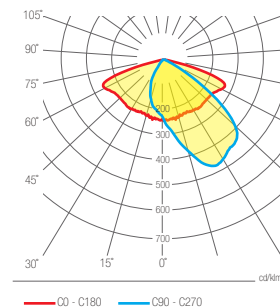




Domi 1 Module



Domi 2 Module



Architectural Facades



Urban Areas



## LUMINAIRE

| CODE              | DESCRIPTION   | POWER (700 mA) | LUMEN           | COLOR TEMPERATURE |
|-------------------|---------------|----------------|-----------------|-------------------|
| <b>LW7031.681</b> | Domi 1 Module | 35W            | 3500lm - 4000lm | 3000K / 4000K     |
| <b>LW7031.682</b> | Domi 2 Module | 70W            | 7000lm - 8000lm | 3000K / 4000K     |

# PINA W

**A CONTEMPORARY SCONCE**



Pina W is an upstanding wall luminaire with top material quality and reliable optics.



PINA W

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with GU10 LED light source
- Operating Temperature -30°C / +40°C
- Symmetrical medium or wide beam distribution
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Input Voltage: 220V - 240V at 50Hz / 60Hz
- Control type: On/Off
- Power factor: > 0.80

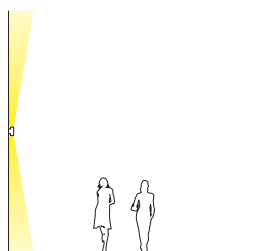
### OPTICAL PROPERTIES

- Equipped with high quality GU10 LED module
- Symmetrical medium or wide beam distribution
- 36° for 3000K, 4000K - 60° for 2700K
- MacAdam Ellipse 5
- Lumen output (absolute photometry): 350lm - 800lm
- Color temperature: 2700K, 3000K, 4000K
- CRI > 80
- Lifetime > 25000h

### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK07

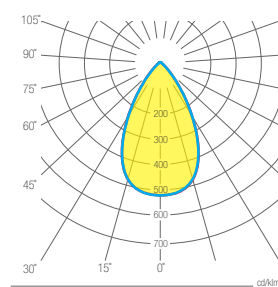




Pina Duo W

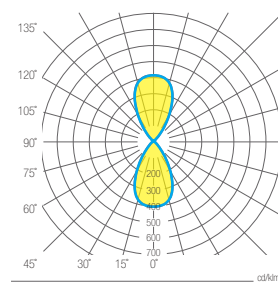


Pina W



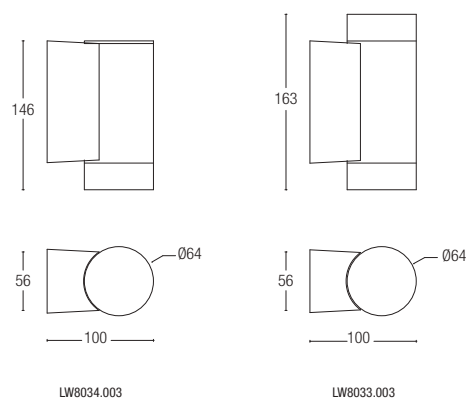
— C0 - C180 — C90 - C270

Pina W



— C0 - C180 — C90 - C270

Pina Duo W



| LUMINAIRE  |             |        |               |                       |
|------------|-------------|--------|---------------|-----------------------|
| CODE       | DESCRIPTION | POWER  | LUMEN         | COLOR TEMPERATURE     |
| LW8034.003 | Pina W      | 7.2W   | 350lm - 400lm | 2700K / 3000K / 4000K |
| LW8033.003 | Pina Duo W  | 2x7.2W | 700lm - 800lm | 2700K / 3000K / 4000K |

# PUNTO S W

PERFECT BEAM SCENCE



With its round body form, Punto S W uses high - tech optics to achieve a dazzling surface illuminating effect.



## PUNTO S W

### TECHNICAL SPECIFICATIONS

---

#### GENERAL HIGHLIGHTS

- Equipped with Heper's Hybrid LED Module
- Operating temperature: -40°C / +55°C
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722

#### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 350mA (optional)
- Optimized PCB Design
- Energy class: A+
- Power factor: > 0.95
- Input Voltage: 220V - 240V / 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off 1-10V (optional), DALI (optional), DMX (optional)

#### OPTICAL PROPERTIES

- Equipped with Heper's Hybrid LED Module
- Well - defined beam angles with reflector and lens combined
- Narrow spot or medium beam angle options
- No scattering of light
- MacAdam Elipse 3
- Lumen output (absolute photometry): 500lm - 1600lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- RGBW (optional)
- Photobiological safety: Risk group 0
- Lumen depreciation: L90B50 > 118000h

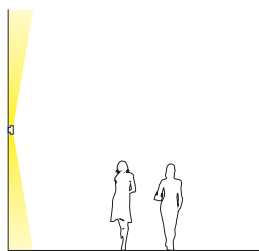
#### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact Protection: IK08

#### EXTRAS

- Higher CRI LED chips
- Visor accessory

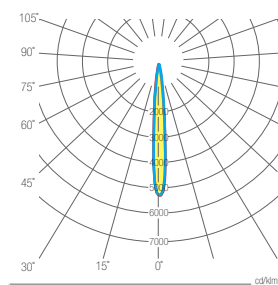




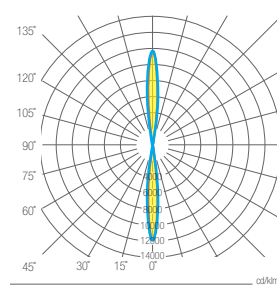
Punto S Duo W



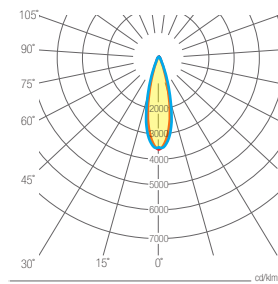
Punto S W



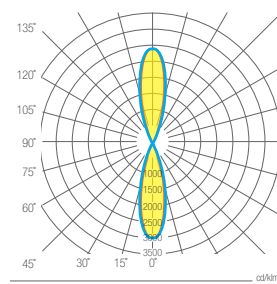
Punto S W 7°



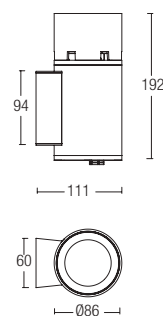
Punto S Duo W 7°



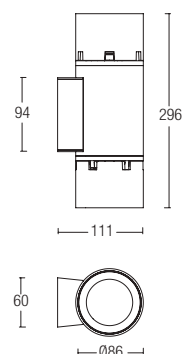
Punto S W 26°



Punto S Duo W 26°



LW8017.693



LW7036.519



Architectural Facades



Urban Areas



Columns



RGBW



| LUMINAIRE  |                  |                |                 |                   |
|------------|------------------|----------------|-----------------|-------------------|
| CODE       | DESCRIPTION      | POWER (700 mA) | LUMEN           | COLOR TEMPERATURE |
| LW8017.693 | Punto S Wall     | 9W             | 500lm - 800lm   | 3000K / 4000K     |
| LW7036.519 | Punto S Duo Wall | 18W            | 1000lm - 1600lm | 3000K / 4000K     |

Distribution options

Visor accessory

Ordering guide : **Product Code - Distribution option - Accessory Code 1**  
i.e. LW8017.693 - M - 100139013

N: narrow - 7°  
M: medium - 26°  
R: RGBW



Code: 100139013

# VEGA S W

**PERFECT BEAM SCONCE**



With its square body form, Vega S W uses high - tech optics to achieve a dazzling surface illuminating effect.



## VEGA S W

### TECHNICAL SPECIFICATIONS

---

#### GENERAL HIGHLIGHTS

- Equipped with Heper's Hybrid LED Module
- Operating temperature: -40°C / +55°C
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722

#### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 350mA (optional)
- Optimized PCB Design
- Energy class: A+
- Power factor: > 0.95
- Input Voltage: 220V - 240V / 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off 1-10V (optional), DALI (optional), DMX (optional)

#### OPTICAL PROPERTIES

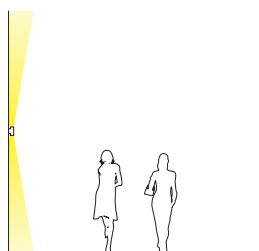
- Equipped with Heper's Hybrid LED Module
- Well - defined beam angles with reflector and lens combined
- Narrow spot or medium beam angle options
- No scattering of light
- MacAdam Elipse 3
- Lumen output (absolute photometry): 500lm - 1600lm (at 700mA)
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- RGBW (optional)
- Photobiological safety: Risk group 0
- Lumen depreciation: L90B50 > 118000h

#### BODY HOUSING & FINISH

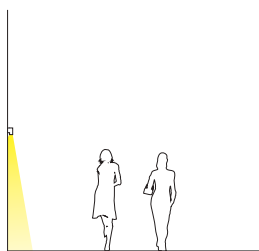
- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact Protection: IK08

#### EXTRAS

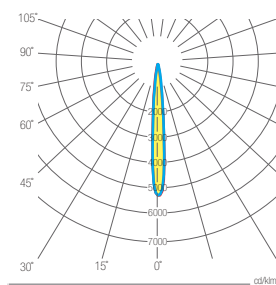
- Higher CRI LED chips
- Visor accessory



Vega S Duo Wall

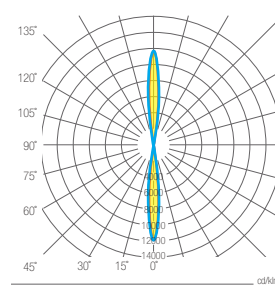


Vega S Wall



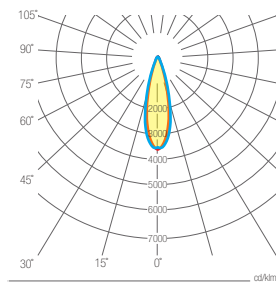
— C0 - C180 — C90 - C270

Vega S W 7°



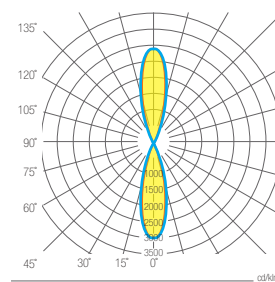
— C0 - C180 — C90 - C270

Vega S Duo W 7°



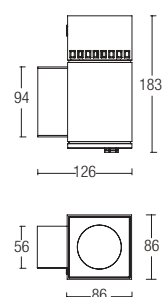
— C0 - C180 — C90 - C270

Vega S W 26°

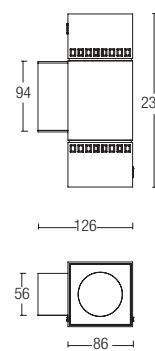


— C0 - C180 — C90 - C270

Vega S Duo W 26°



LW8020.693



LW7037.519



Architectural Facades



Urban Areas



Columns



| LUMINAIRE         |                 |                |                 |                   |
|-------------------|-----------------|----------------|-----------------|-------------------|
| CODE              | DESCRIPTION     | POWER (700 mA) | LUMEN           | COLOR TEMPERATURE |
| <b>LW8020.693</b> | Vega S Wall     | 9W             | 500lm - 800lm   | 3000K / 4000K     |
| <b>LW7037.519</b> | Vega S Duo Wall | 18W            | 1000lm - 1600lm | 3000K / 4000K     |

Distribution options

N: narrow - 7°  
M: medium - 26°  
R: RGBW

Visor accessory



Code: 100708016

Ordering guide : **Product Code - Distribution option - Accessory Code 1**  
i.e. LW8020.693 - M - 100708016

# OTTO

**A CONTEMPORARY DOWNLIGHT**



Otto is an upstanding ceiling luminaire with top material quality and reliable optics.



OTTO

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with PAR30 LED light source
- Operating Temperature -40°C / +55°C
- Symmetrical medium beam distribution
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Input Voltage: 220V - 240V at 50Hz / 60Hz
- Control type: On/Off
- Power factor: > 0.80

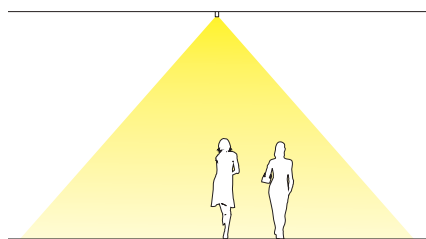
### OPTICAL PROPERTIES

- Equipped with high quality PAR30 LED module
- Symmetrical medium beam distribution (25°)
- MacAdam Elipse 5
- Lumen output (absolute photometry): 480lm - 960lm
- Color temperature: 2700K
- CRI > 80
- Lifetime > 25000h

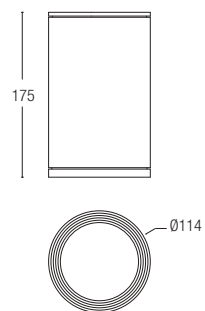
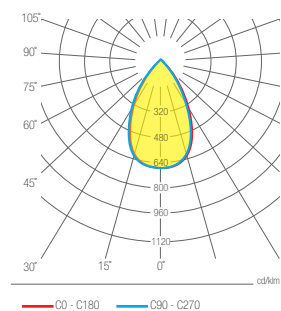
### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing composed
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK07





Otto



Architectural Facades



Urban Areas



| LUMINAIRE   |             |       |       |                   |
|-------------|-------------|-------|-------|-------------------|
| CODE        | DESCRIPTION | POWER | LUMEN | COLOR TEMPERATURE |
| LW80206.003 | Otto        | 9.5W  | 650lm | 2700K             |

# PUNTO C

**PERFECT BEAM DOWNLIGHT**



With its round body form, Punto C uses high - tech optics to achieve a well - defined beam angle with reduced glare.



## PUNTO C

### TECHNICAL SPECIFICATIONS

---

#### GENERAL HIGHLIGHTS

- Equipped with Heper's Hybrid LED Module
- Operating temperature: -40°C / +55°C
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722

#### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 350mA (optional)
- Optimized PCB Design
- Energy class: A+
- Power factor: > 0.95
- Input Voltage: 220V - 240V / 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off 1-10V (optional), DALI (optional), DMX (optional)

#### OPTICAL PROPERTIES

- Equipped with Heper's Hybrid LED Module
- Well - defined beam angles with reflector and lens combined
- Narrow spot or medium beam angle options
- No scattering of light
- MacAdam Elipse 3
- Lumen output (absolute photometry): 500lm - 5800lm
- RGBW (optional)
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Photobiological safety: Risk group 0
- Lumen depreciation: L90B50 > 118000h

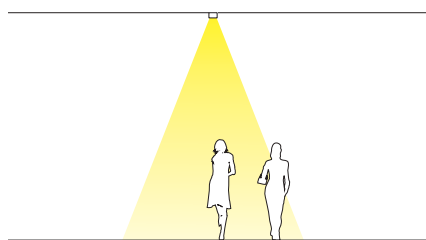
#### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact Protection: IK08

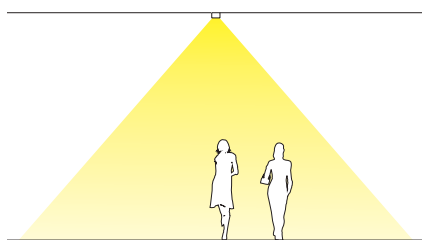
#### EXTRAS

- Higher CRI LED chips
- Visor accessory

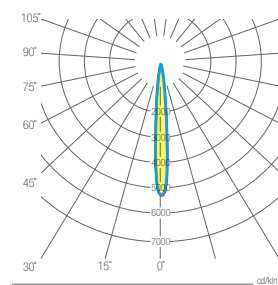




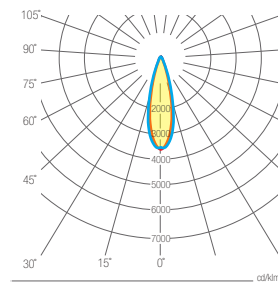
Punto C 7°



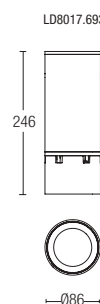
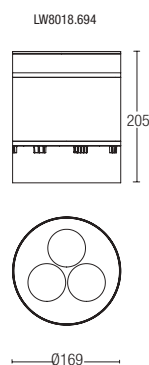
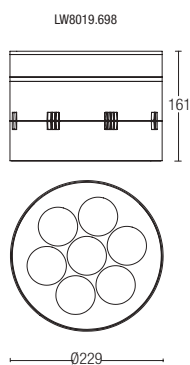
Punto C 26°



Punto C 7°



Punto C 26°



| LUMINAIRE  |             |                |                 |                   |
|------------|-------------|----------------|-----------------|-------------------|
| CODE       | DESCRIPTION | POWER (700 mA) | LUMEN           | COLOR TEMPERATURE |
| LD8017.693 | Punto S C   | 9W             | 500lm - 800lm   | 3000K / 4000K     |
| LD8018.694 | Punto M C   | 26W            | 2300lm - 2700lm | 3000K / 4000K     |
| LD8019.698 | Punto L C   | 58W            | 4200lm - 5800lm | 3000K / 4000K     |

**Distribution options**  
 N: narrow - 7°  
 M: medium - 26°  
 R: RGBW

**Visor accessory**  
  
 Code: 100139013  
 (for Punto S)

Ordering guide : **Product Code - Distribution option - Accessory Code 1**  
 i.e. LD8017.693 - M - 100139013

# VEGA S C

**PERFECT BEAM DOWNLIGHT**



With its square body form, Vega S C uses high - tech optics to achieve a well - defined beam angle with reduced glare.



# VEGA S C

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's Hybrid LED Module
- Operating temperature: -40°C / +55°C
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 350mA (optional)
- Optimized PCB Design
- Energy class: A+
- Power factor: > 0.95
- Input Voltage: 220V - 240V / 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off 1-10V (optional), DALI (optional), DMX (optional)

### OPTICAL PROPERTIES

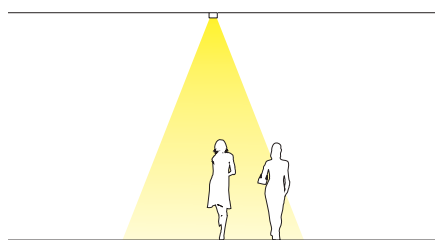
- Equipped with Heper's Hybrid LED Module
- Well - defined beam angles with reflector and lens combined
- Narrow spot or medium beam angle options
- No scattering of light
- MacAdam Elipse 3
- Lumen output (absolute photometry): 500lm - 800lm
- RGBW (optional)
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Photobiological safety: Risk group 0
- Lumen depreciation: L90B50 > 118000h

### BODY HOUSING & FINISH

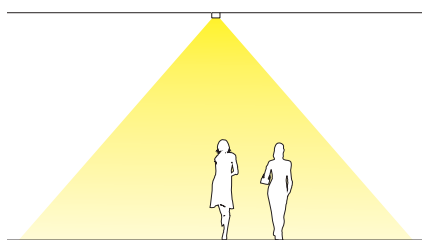
- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact Protection: IK08

### EXTRAS

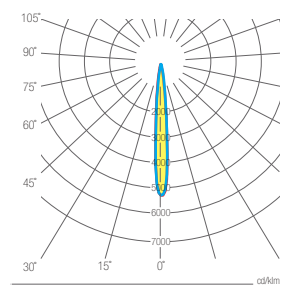
- Higher CRI LED chips
- Visor accessory



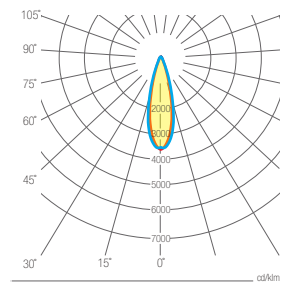
Vega S C 7°



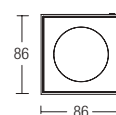
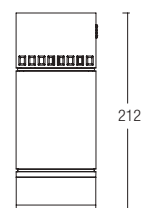
Vega S C 26°



Vega S C 7°



Vega S C 26°



Architectural Facades



Urban Areas



| LUMINAIRE  |                |                |               |                   |
|------------|----------------|----------------|---------------|-------------------|
| CODE       | DESCRIPTION    | POWER (700 mA) | LUMEN         | COLOR TEMPERATURE |
| LD8020.693 | Vega S Ceiling | 9W             | 500lm - 800lm | 3000K / 4000K     |

Distribution options

N: narrow - 7°  
M: medium - 26°  
R: RGBW

Visor accessory



Code: 100708016

Ordering guide : **Product Code - Distribution option - Accessory Code 1**  
i.e. LD8020.693 - M - 100708016

# AQSA

**ESCALADING TO PERFECTION, LINEARLY**



Linear form, countless optics and control options.



## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Operating temperature: -40°C / +55°C
- Optimized thermal design
- Easy installation and maintenance with modular structure
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 325mA (optional)
- Optimized PCB Design
- Input Voltage: 220V - 240V / 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off 1-10V (optional), DALI (optional), DMX (optional)

### OPTICAL PROPERTIES

- Equipped with high efficiency LED chips
- Optimized symmetrical lighting distribution
- Glare minimizing diffuser
- Lumen output (absolute photometry): 2300lm - 2500lm (at 700mA)
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- RGBW (optional)
- Photobiological safety: Risk group 0
- Lifetime: L90B50 > 118000h

### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK08

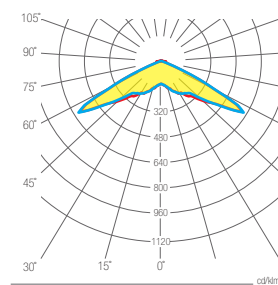
### EXTRAS

- Higher CRI LED chips
- Different beam angles

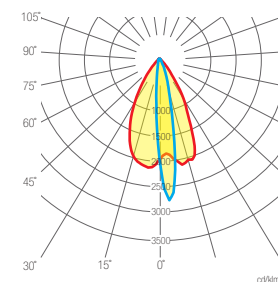




Aqsa



Aqsa 110°

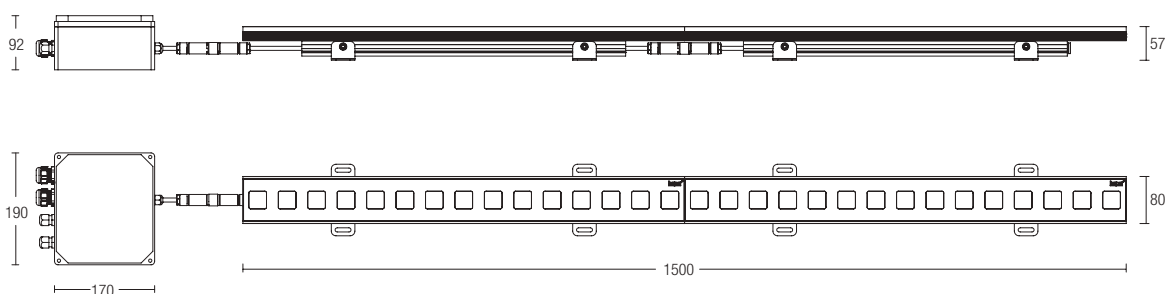
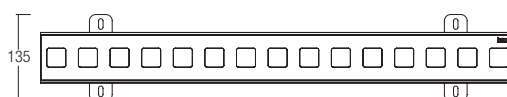
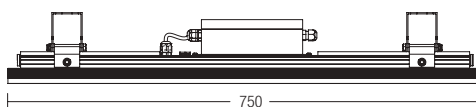


Aqsa 10x30°

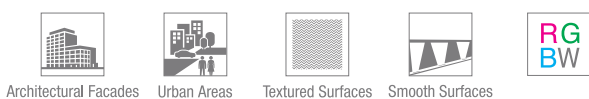
## Mounting Options



\* External driver box for long bracket use



\* External driver box dual fixture use



| LUMINAIRE  |             |                |                 |                   |
|------------|-------------|----------------|-----------------|-------------------|
| CODE       | DESCRIPTION | POWER (700 mA) | LUMEN           | COLOR TEMPERATURE |
| LW7034.516 | Aqsa        | 35W            | 2300lm - 2500lm | 3000K / 4000K     |

**Mounting options**  
Standard bracket: 120104020  
Long bracket: 120104017  
Angle setting bracket: 120104021

**Distribution options**  
110°: 110  
10x30°: 1030

Ordering guide : **Product Code - Distribution option - Mounting option**  
i.e. LT2037.765 - 110 - 120104020



# FLOODLIGHT

---

# PUNTO

**PERFECT BEAM CONTROL WITHIN A ROUND BODY**



Directing the light twice, obtaining perfect beam and field angles, adding value to the most special exterior projects. This is what Punto family is about.



## PUNTO

### TECHNICAL SPECIFICATIONS

---

#### GENERAL HIGHLIGHTS

- Equipped with Heper's Hybrid LED Module
- Optimized beam angles for narrow and medium
- Operating Temperature -40°C / +55°C
- Accessories for adaptable use
- Continuous angle setting mechanism
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722
- ENEC pending
- UL Listed

#### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 325mA (optional)
- Optimized PCB Design
- Energy class: A+
- Power factor: > 0.95
- Input Voltage: 220V - 240V / 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional), DMX (optional)

#### OPTICAL PROPERTIES

- Equipped with Heper's Hybrid LED Module
- Well - defined beam angles with reflector and lens combined
- Narrow spot or medium beam angle options
- No scattering of light
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 500lm - 5800lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- RGBW (optional)
- Lumen depreciation: L90B50 > 118000h
- Photobiological safety: Risk group 0

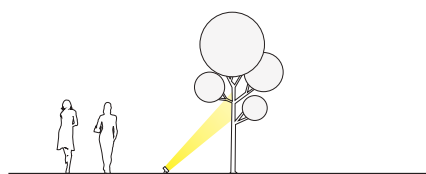
#### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact Protection: IK08

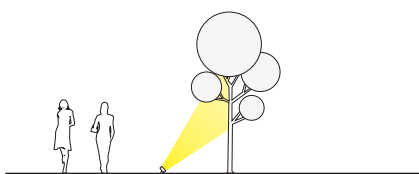
#### EXTRAS

- Higher CRI LED chips
- Standard bracket mount, spike mount or special driver housing mount options

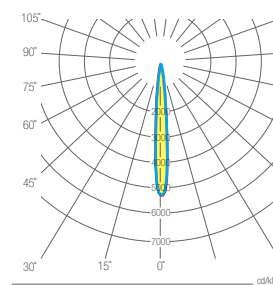




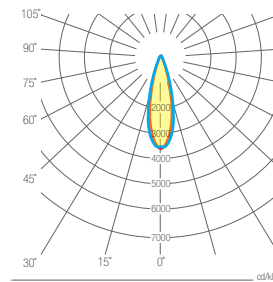
Punto 7°



Punto 26°



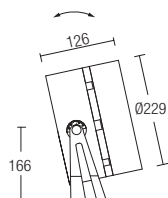
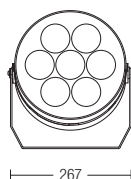
Punto 7°



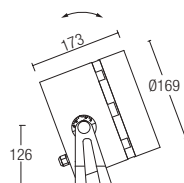
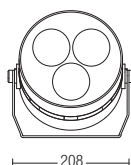
Punto 26°



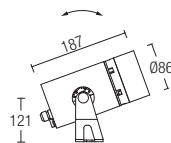
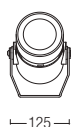
LF8019.698



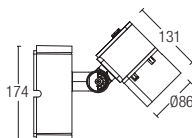
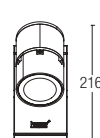
LF8018.694



LF8017.693



LF8030.693



Architectural Facades



Monuments



Trees



RGBW



## LUMINAIRE

| CODE       | DESCRIPTION | POWER (700 mA) | LUMEN           | COLOR TEMPERATURE |
|------------|-------------|----------------|-----------------|-------------------|
| LF8017.693 | Punto S     | 9W             | 500lm - 800lm   | 3000K / 4000K     |
| LF8030.693 | Punto S Ex  | 9W             | 500lm - 800lm   | 3000K / 4000K     |
| LF8018.694 | Punto       | 26W            | 2300lm - 2700lm | 3000K / 4000K     |
| LF8019.698 | Punto L     | 58W            | 4200lm - 5800lm | 3000K / 4000K     |

### Distribution options

N: narrow - 7°  
M: medium - 26°  
R: RGBW

### Visor accessory



Code: 100139013  
(for Punto S)

### Spike accessory



Code: 100992017

Ordering guide : **Product Code - Distribution option - Accessory Code 1 - Accessory code 2**  
i.e. LF8017.693 - M - 100139013 - 100992017

# VEGA

**PERFECT BEAM CONTROL WITHIN A SQUARE BODY**



Directing the light twice, obtaining perfect beam and field angles, adding value to the most special exterior projects. This is what Vega family is about.



# VEGA

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's Hybrid LED Module
- Optimized beam angles for narrow and medium
- Operating Temperature -40°C / +55°C
- Accessories for adaptable use
- Continuous angle setting mechanism
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722
- ENEC pending
- UL Listed

### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 325mA (optional)
- Optimized PCB Design
- Energy class: A+
- Power factor: > 0.95
- Input Voltage: 220V - 240V / 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional), DMX (optional)

### OPTICAL PROPERTIES

- Equipped with Heper's Hybrid LED Module
- Well - defined beam angles with reflector and lens combined
- Narrow spot or medium beam angle options
- No scattering of light
- MacAdam Elipse 3
- Lumen output (absolute photometry): 500lm - 2800lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- RGBW (optional)
- Lumen depreciation: L90B50 > 118000h
- Photobiological safety: Risk group 0

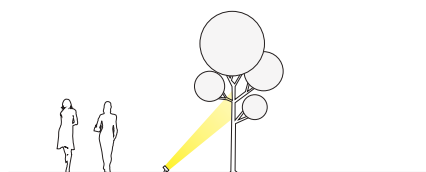
### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact Protection: IK08

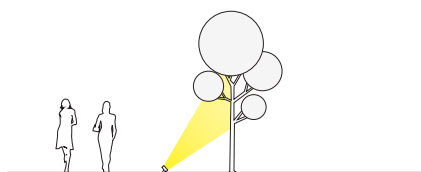
### EXTRAS

- Higher CRI LED chips
- Standard bracket mount, spike mount or special driver housing mount options

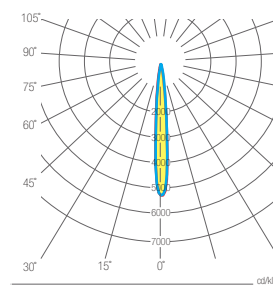




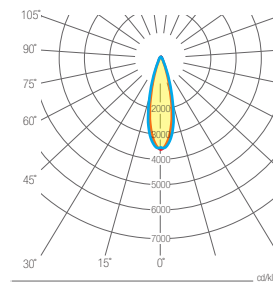
Vega 7°



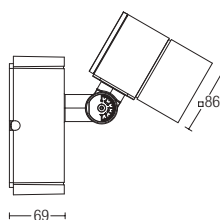
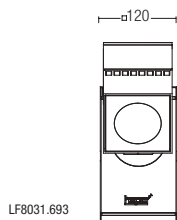
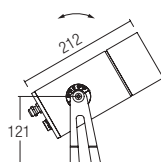
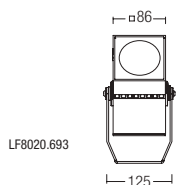
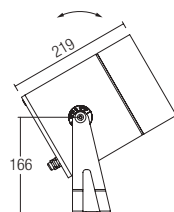
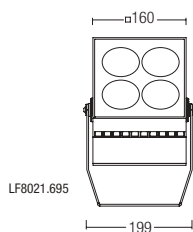
Vega 26°



Vega 7°



Vega 26°



Architectural Facades



Monuments



Trees



RGBW



| LUMINAIRE  |             |                |                 |                   |
|------------|-------------|----------------|-----------------|-------------------|
| CODE       | DESCRIPTION | POWER (700 mA) | LUMEN           | COLOR TEMPERATURE |
| LF8020.693 | Vega S      | 9W             | 500lm - 800lm   | 3000K / 4000K     |
| LF8021.695 | Vega        | 35W            | 2000lm - 2800lm | 3000K / 4000K     |
| LF8031.693 | Vega S Ex   | 9W             | 500lm - 800lm   | 3000K / 4000K     |

#### Distribution options

N: narrow - 7°  
M: medium - 26°  
R: RGBW

#### Visor accessory



Code: 100708016  
(for Vega S)

#### Visor accessory



Code: 100708017  
(for Vega)

#### Spike accessory



Code: 100992017

Ordering guide : **Product Code - Distribution option - Accessory Code 1 - Accessory code 2**  
i.e. LF8020.693 - M - 100708016 - 100708017

# ELIPSO

**A RELIABLE FLOODLIGHT**



Elipso, with variety of optics, is an upstanding floodlight for various applications.



# ELIPSO

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Ideal solution for landscape areas and architectural facades
- Operating temperature: -40°C / +55°C
- Accessories for adaptable use
- Continuous angle setting mechanism
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 350mA
- Optimized PCB Design
- Input Voltage: 220V - 240V at 50Hz / 60Hz
- Control type: On/Off
- Power usage: 11W
- Power factor: > 0.90

### OPTICAL PROPERTIES

- Equipped with LED light source
- Various beam angle options
- MacAdam Elipse 3
- Lumen output (absolute photometry): 500lm - 600lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Lumen depreciation: L90B50 > 118000h
- Photobiological safety: Risk group 1

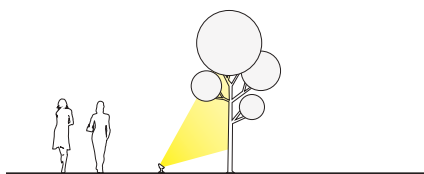
### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK07

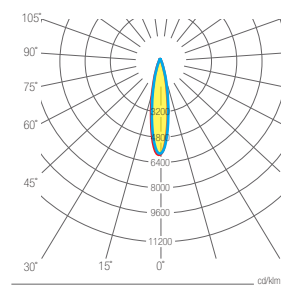
### EXTRAS

- Higher CRI LED chips
- Spike accessory

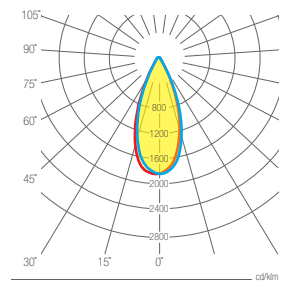




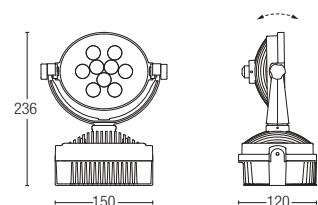
Elipso



Elipso 9 LED MB



Elipso 9 LED WB



Landscape Areas



Architectural Facades



Monuments



Trees



| LUMINAIRE  |             |                |               |                   |
|------------|-------------|----------------|---------------|-------------------|
| CODE       | DESCRIPTION | POWER (350 mA) | LUMEN         | COLOR TEMPERATURE |
| LF8008.504 | Elipso      | 11W            | 500lm - 600lm | 3000K / 4000K     |

#### Beam angles

N: narrow - 10°  
M: medium - 25°  
W: wide - 40°  
EW: extra wide - 60°

#### Spike accessory



Code: 100992017

Ordering guide : **Product Code - Beam Angle - Accessory Code 1**  
i.e. LF8008.504 - M - 100992017

# PINA F

**A CONTEMPORARY FLOODLIGHT**



Pina F is an upstanding floodlight with top material quality  
with reliable optics.



PINA F

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with GU10 LED light source
- Operating temperature: -40°C / +45°C
- Accessories for adaptable use
- Continuous angle setting mechanism
- Symmetrical wide beam distribution
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Input Voltage: 220V - 240V at 50Hz / 60Hz
- Control type: On/Off
- Power usage: 7.2W
- Power factor: > 0.80

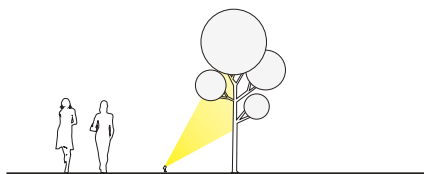
### OPTICAL PROPERTIES

- Equipped with high quality GU10 LED light source
- Symmetrical wide beam distribution
- MacAdam Elipse 5
- Lumen output (absolute photometry): 480lm
- Color temperature: 2700K
- CRI > 80
- Lifetime > 25000h

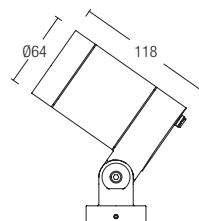
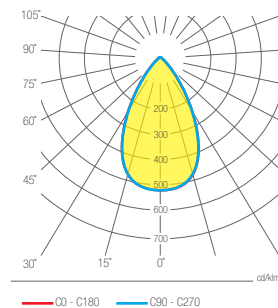
### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK07
- Surface direct peg mount or spike mount options





Pina F



Landscape Areas



| LUMINAIRE  |             |       |               |                   |
|------------|-------------|-------|---------------|-------------------|
| CODE       | DESCRIPTION | POWER | LUMEN         | COLOR TEMPERATURE |
| LF8033.003 | Pina Flood  | 7.5W  | 400lm - 500lm | 2700K             |

Beam angles

M: medium - 30°  
W: wide - 60°

Spike accessory



Code: 100992106

Ordering guide : **Product Code - Beam Angle - Accessory Code 1**  
i.e. LF8033.003 - W - 100992017

# VEGA OCTA

**THE BOOMING SHINE**



Perfectly defined narrow and medium beam angles, coming from a linear body.



## VEGA OCTA

### TECHNICAL SPECIFICATIONS

---

#### GENERAL HIGHLIGHTS

- Equipped with Heper's Hybrid LED Module
- Optimized beam angles for narrow and medium
- Operating Temperature -40°C / +55°C
- Continuous angle setting mechanism
- Exceptional thermal characteristics
- In compliance with EN 60598, EN 62722

#### ELECTRICAL PROPERTIES

- Drive current: 700mA, 525mA (optional), 325mA (optional)
- Optimized PCB Design
- Energy class: A+
- Power factor: > 0.95
- Input Voltage: 220V - 240V / 110V - 120V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional), DMX (optional)

#### OPTICAL PROPERTIES

- Equipped with Heper's Hybrid LED Module
- Well - defined beam angles with reflector and lens combined
- Narrow spot or medium beam angle options
- No scattering of light
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 6000lm - 7000lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- RGBW (optional)
- Lumen depreciation: L90B50 > 118000h
- Photobiological safety: Risk group 0

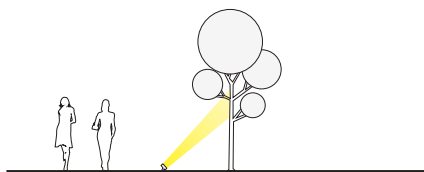
#### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact Protection: IK08

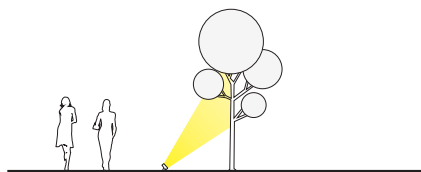
#### EXTRAS

- Higher CRI LED chips

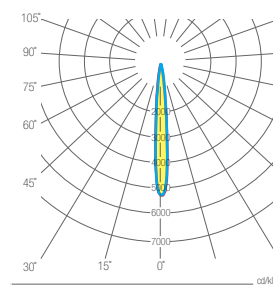




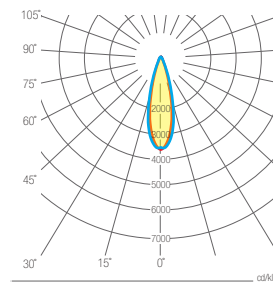
Vega Octa 7°



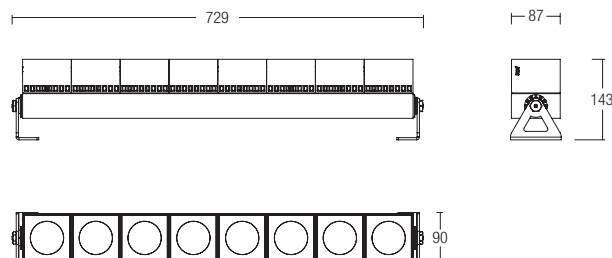
Vega Octa 26°



Vega 7°



Vega 26°



Landscape Areas



Architectural Facades



| LUMINAIRE  |             |                |                 |                   |
|------------|-------------|----------------|-----------------|-------------------|
| CODE       | DESCRIPTION | POWER (700 mA) | LUMEN           | COLOR TEMPERATURE |
| LF8033.693 | Vega Octa   | 72W            | 6000lm - 7000lm | 3000K / 4000K     |

#### Distribution options

N: narrow - 7°  
M: medium - 26°  
R: RGBW

Ordering guide : **Product Code - Distribution option**  
i.e. LF8033.693 - M



**RECESSED**

# ZEROX

**THE UNIQUE POWER IN DISGUISE**



Zerox family offers different optical solutions in a recessed round body that is second to none when it comes to reliability.



## ZEROX HYBRID

### TECHNICAL SPECIFICATIONS

---

#### GENERAL HIGHLIGHTS

- Operating temperature: -40°C / +55°C
- Easy installation with in - ground housing and IP rated connectors
- Inclusive plastic housing, IP68 junction box and case removing vacuum
- In compliance with EN 60598, EN 62722
- ENEC and UL pending

#### ELECTRICAL PROPERTIES

- Drive current: 700mA
- Excellent thermal management with optimized PCB design
- Input Voltage: 220V - 240V, 120V - 277V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional), DMX (optional)
- Power factor > 0.95

#### OPTICAL PROPERTIES

- Structured with Heper's Hybrid LED Module
- Zerox Hybrid: Symmetric spot or flood optics (7°, 26°)
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 550lm - 2750lm
- RGBW (optional)
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Photobiological safety: Risk group 0
- Lifetime: L90B50 > 118000h

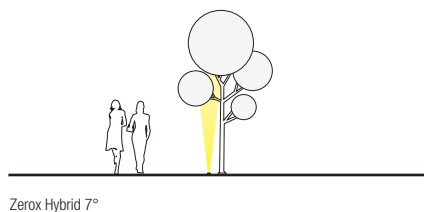
#### BODY HOUSING & FINISH

- Corrosion resistant stainless steel housing
- Plastic sleeve
- Ingress protection: IP67
- Impact protection: IK09

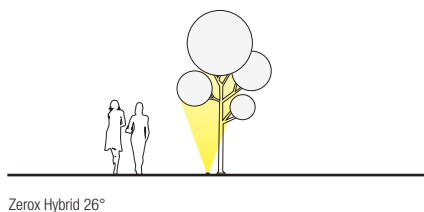
#### EXTRAS

- Higher CRI LED chips
- Different drive currents
- Programmable driver for different scenarios

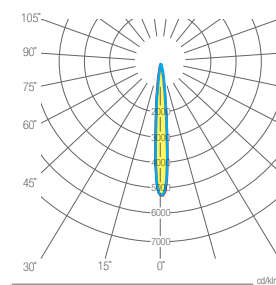




Zerox Hybrid 7°

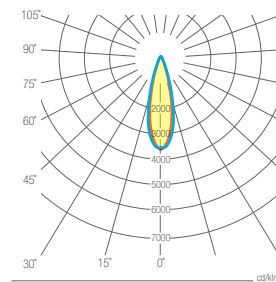


Zerox Hybrid 26°



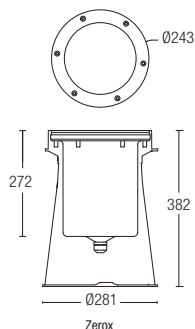
— C0 - C180 — C90 - C270

Zerox Hybrid 7°

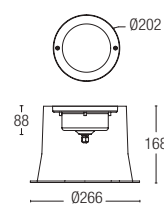


— C0 - C180 — C90 - C270

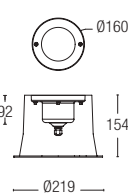
Zerox Hybrid 26°



Zerox



Zerox M



Zerox S



#### Inclusive Accessories



Plastic sleeve



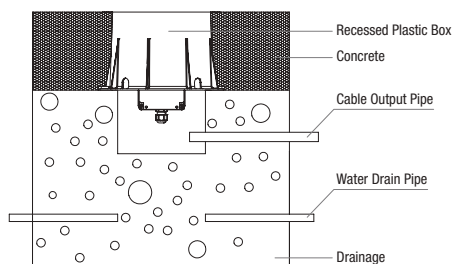
IP68 Junction box



IP68 Connector



Case removing vacuum



Landscape Areas



Architectural Facades



Textured Surfaces



Trees



| LUMINAIRE  |                |                |                 |                   |
|------------|----------------|----------------|-----------------|-------------------|
| CODE       | DESCRIPTION    | POWER (700 mA) | LUMEN           | COLOR TEMPERATURE |
| LR9016.693 | Zerox S Hybrid | 8W             | 550lm - 625lm   | 3000K / 4000K     |
| LR9017.690 | Zerox M Hybrid | 16W            | 1150lm - 1300lm | 3000K / 4000K     |
| LR9005.695 | Zerox Hybrid   | 35W            | 2000lm - 2750lm | 3000K / 4000K     |

#### Distribution options

Ordering guide : **Product Code - Distribution option**  
i.e. LR9005.695 - M

N: narrow - 7°  
M: medium - 26°  
R: RGBW

## ZEROX DYNO

### TECHNICAL SPECIFICATIONS

---

#### GENERAL HIGHLIGHTS

- Operating temperature: -40°C / +55°C
- Easy installation with in - ground housing and IP rated connectors
- Inclusive plastic housing, IP68 junction box and case removing vacuum
- In compliance with EN 60598, EN 62722
- ENEC and UL pending

#### ELECTRICAL PROPERTIES

- Drive current: 350mA
- Excellent thermal management with optimized PCB design
- Input Voltage: 220V - 240V, 120V - 277V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional)
- Power factor > 0.95

#### OPTICAL PROPERTIES

- Structured with Heper's DynoLED Module
- Wall - washing optics
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 225lm - 950lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Photobiological safety: Risk group 0
- Lifetime: L90B50 > 118000h

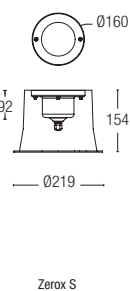
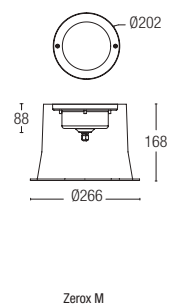
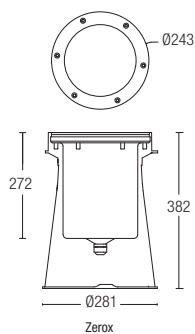
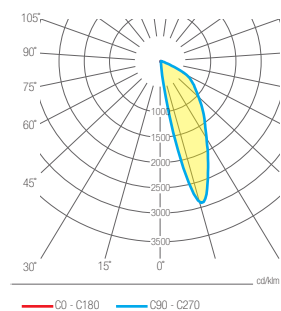
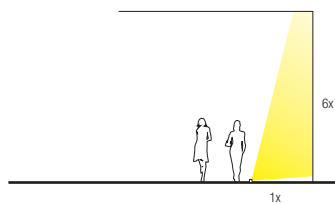
#### BODY HOUSING & FINISH

- Corrosion resistant stainless steel housing
- Plastic sleeve
- Ingress protection: IP67
- Impact protection: IK09

#### EXTRAS

- Higher CRI LED chips
- Different drive currents
- Programmable driver for different scenarios





#### Inclusive Accessories



Plastic sleeve



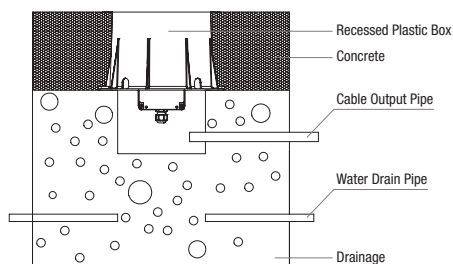
IP68 Junction box



IP68 Connector



Case removing vacuum



Landscape Areas



Architectural Facades



Smooth Surfaces



#### LUMINAIRE

| CODE       | DESCRIPTION  | POWER (350 mA) | LUMEN         | COLOR TEMPERATURE |
|------------|--------------|----------------|---------------|-------------------|
| LR9016.521 | Zerox S Dyno | 4W             | 225lm - 240lm | 3000K / 4000K     |
| LR9017.522 | Zerox M Dyno | 8W             | 440lm - 475lm | 3000K / 4000K     |
| LR9005.524 | Zerox Dyno   | 18W            | 885lm - 950lm | 3000K / 4000K     |





# WEDGE

**RELIABLE AND FLEXIBLE**



Wedge offers various beam angle options in a highly durable body.



## WEDGE

### TECHNICAL SPECIFICATIONS

---

#### GENERAL HIGHLIGHTS

- Operating temperature: -40°C / +55°C
- Easy installation with in - ground housing and IP rated connectors
- In compliance with EN 60598, EN 62722

#### ELECTRICAL PROPERTIES

- Drive current: 350mA
- Excellent thermal management with optimized PCB design
- Energy class: A
- Input Voltage: 220V - 240V
- Control type: On/Off, 1-10V (optional)
- Power factor > 0.95

#### OPTICAL PROPERTIES

- Structured with Heper's LED Module
- MacAdam Ellipse 3
- Spot or asymmetrical distribution options
- Lumen output (absolute photometry): 180lm - 650lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)
- Photobiological safety: Risk group 0
- Beam options: 10, 25, 40 and 60°

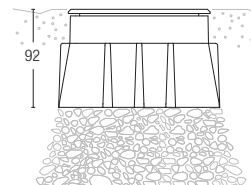
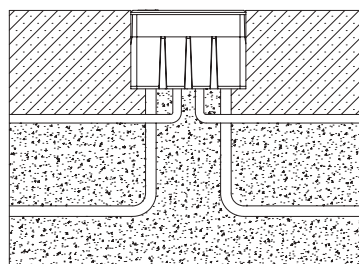
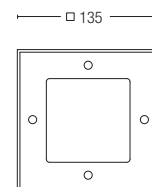
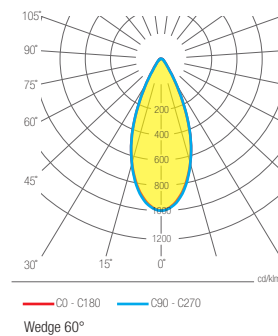
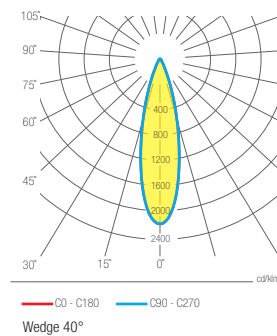
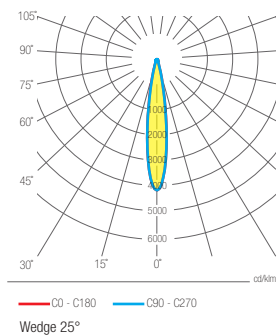
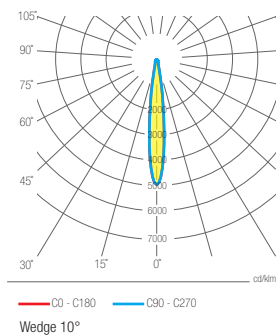
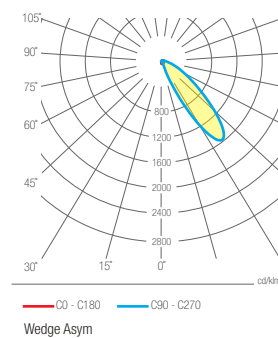
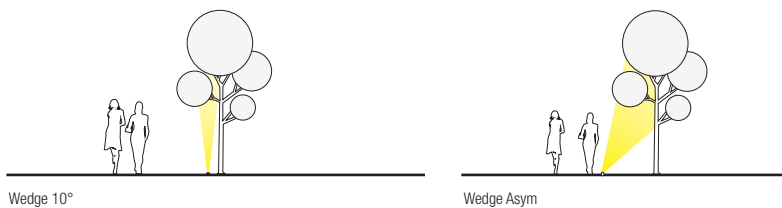
#### BODY HOUSING & FINISH

- Corrosion resistant stainless steel housing
- Plastic sleeve
- Ingress protection: IP67
- Impact protection: IK08

#### EXTRAS

- Higher CRI LED chips
- Other beam angle options





| LUMINAIRE  |             |                |               |                   |
|------------|-------------|----------------|---------------|-------------------|
| CODE       | DESCRIPTION | POWER (350 mA) | LUMEN         | COLOR TEMPERATURE |
| LR9003.530 | Wedge Asym  | 6W             | 550lm - 650lm | 3000K / 4000K     |
| LR9003.531 | Wedge Sym   | 6W             | 180lm - 200lm | 3000K / 4000K     |

# MINIKA

**SIMPLE, SMALL AND FUN!**



Minika is a great choice for accent lighting applications within exterior spaces.



# MINIKA

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Operating temperature: -40°C / +55°C
- Easy installation with in - ground housing and IP rated connectors
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

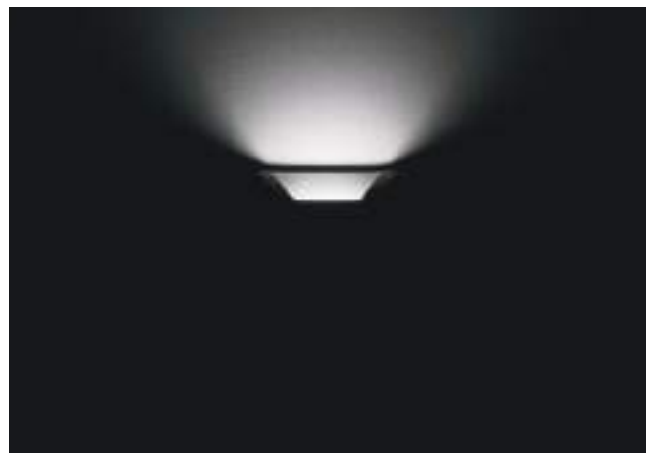
- Drive current: 350mA
- Excellent thermal management with optimized PCB design
- Energy class: A
- Input Voltage: 220V - 240V
- Control type: On/Off, 1-10V (optional)
- Power factor > 0.95

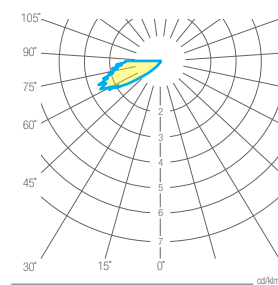
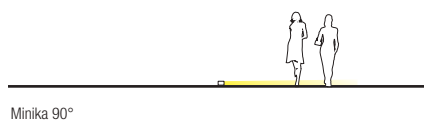
### OPTICAL PROPERTIES

- Structured with LED light source
- MacAdam Elipse 3
- Suitable for accent lighting applications
- Lumen output (absolute photometry): 5lm - 11lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)

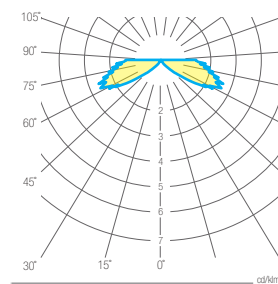
### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Ingress protection: IP67
- Impact protection: IK08

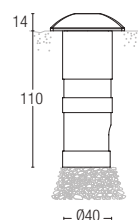
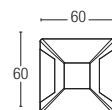
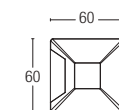
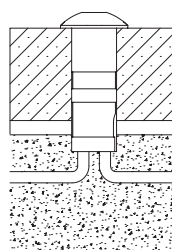




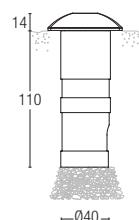
Minika 90°



Minika 2x90°



LR9014.515-90



LR9014.515-2x90



Landscape Areas



Accent Lighting



| LUMINAIRE       |              |                |             |                   |
|-----------------|--------------|----------------|-------------|-------------------|
| CODE            | DESCRIPTION  | POWER (700 mA) | LUMEN       | COLOR TEMPERATURE |
| LR9014.515-90   | Minika 90°   | 2W             | 5lm - 6lm   | 3000K / 4000K     |
| LR9014.515-2x90 | Minika 2x90° | 2W             | 10lm - 11lm | 3000K / 4000K     |

# MINIMO

A PERSONAL TOUCH



Minimo offers several body options with different accent lighting optics, adding a layer to exterior spaces.



## MINIMO

### TECHNICAL SPECIFICATIONS

---

#### GENERAL HIGHLIGHTS

- Operating temperature: -40°C / +55°C
- Easy installation with in - ground housing and IP rated connectors
- In compliance with EN 60598, EN 62722

#### ELECTRICAL PROPERTIES

- Drive current: 350mA
- Excellent thermal management with optimized PCB design
- Energy class: A
- Input Voltage: 220V - 240V
- Control type: On/Off, 1-10V (optional)
- Power factor > 0.95

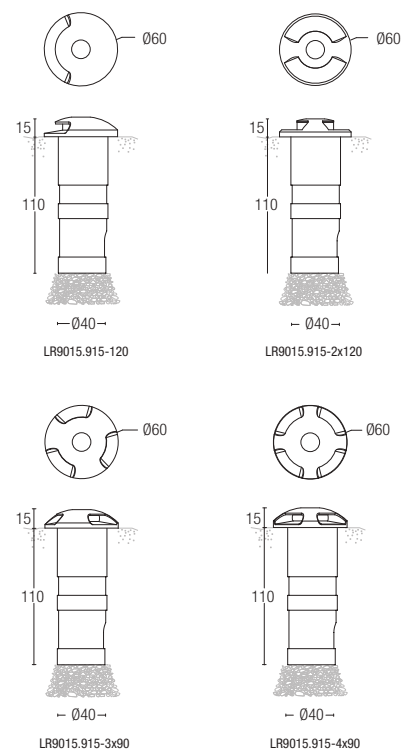
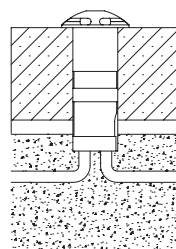
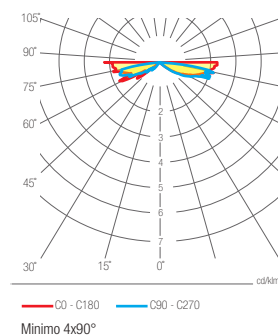
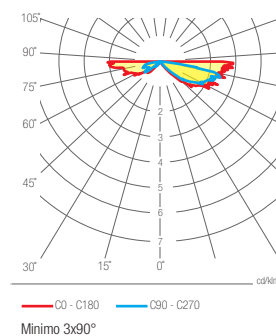
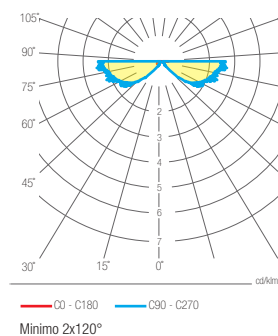
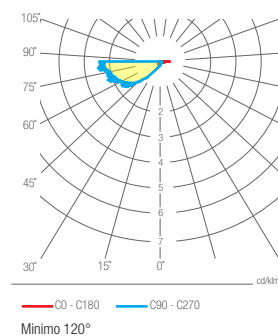
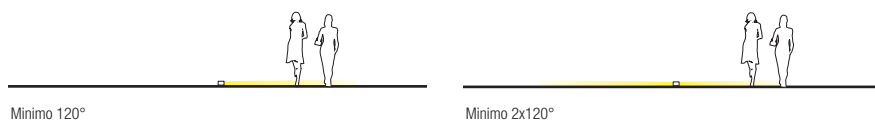
#### OPTICAL PROPERTIES

- Structured with LED light source
- MacAdam Elipse 3
- Suitable for accent lighting applications
- Lumen output (absolute photometry): 5lm - 13lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)

#### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Ingress protection: IP67
- Impact protection: IK08





Landscape Areas



Accent Lighting



| LUMINAIRE        |               |                |             |                   |
|------------------|---------------|----------------|-------------|-------------------|
| CODE             | DESCRIPTION   | POWER (700 mA) | LUMEN       | COLOR TEMPERATURE |
| LR9015.515-120   | Minimo 120°   | 2W             | 5lm - 6lm   | 3000K / 4000K     |
| LR9015.515-2x120 | Minimo 2x120° | 2W             | 10lm - 11lm | 3000K / 4000K     |
| LR9015.515-3x90  | Minimo 3x90°  | 2W             | 12lm - 13lm | 3000K / 4000K     |
| LR9015.515-4x90  | Minimo 4x90°  | 2W             | 10lm - 11lm | 3000K / 4000K     |

# ZETA

**THE HIDDEN GEM**



With absolute zero glare, exquisite optics and durable body, Zeta is the perfect wall - washer for the top lighting design projects.



## ZETA

### TECHNICAL SPECIFICATIONS

---

#### GENERAL HIGHLIGHTS

- Operating temperature: -40°C / +55°C
- Easy installation with in - ground housing and IP rated connectors
- In compliance with EN 60598, EN 62722
- ENEC and UL pending

#### ELECTRICAL PROPERTIES

- Drive current: 350mA
- Excellent thermal management with optimized PCB design
- Energy class: A
- Input Voltage: 220V - 240V, 120V - 277V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional), DMX (optional)
- Power factor > 0.95

#### OPTICAL PROPERTIES

- Structured with Heper's Dyno LED Module
- Zero glare wall - washing optics
- Ground level illumination
- MacAdam Elipse 3
- Lumen output (absolute photometry): 550lm - 2400lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)

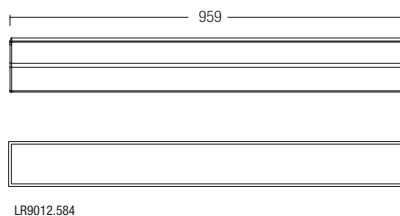
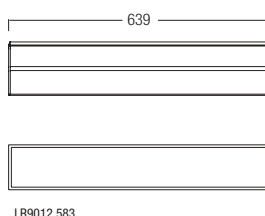
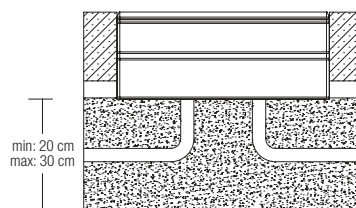
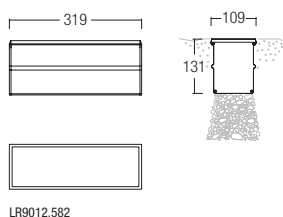
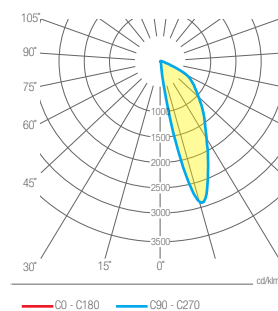
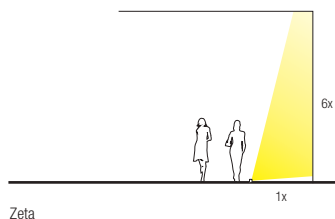
#### BODY HOUSING & FINISH

- Corrosion resistant stainless steel housing
- Extruded aluminum sleeve
- Ingress protection: IP67
- Impact protection: IK08

#### EXTRAS

- Higher CRI LED chips
- Different drive currents





#### Inclusive Accessories



Aluminum sleeve



IP68 Junction box



IP68 Connector



Case removing vacuum



Walls



Architectural Facades



Smooth Surfaces



| LUMINAIRE  |              |                |                 |                   |
|------------|--------------|----------------|-----------------|-------------------|
| CODE       | DESCRIPTION  | POWER (700 mA) | LUMEN           | COLOR TEMPERATURE |
| LR9012.582 | Zeta 4 Dyno  | 10W            | 550lm - 800lm   | 3000K / 4000K     |
| LR9012.583 | Zeta 8 Dyno  | 20W            | 1100lm - 1600lm | 3000K / 4000K     |
| LR9012.584 | Zeta 12 Dyno | 30W            | 1650lm - 2400lm | 3000K / 4000K     |

# MOLTO

**HARMONY OF POWER AND SENSITIVITY**



Bursting optics with glare control, along with best quality materials, makes Molto the perfect luminaire for wall - grazing applications.



# MOLTO

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Operating temperature: -40°C / +55°C
- Easy installation with in - ground housing and IP rated connectors
- In compliance with EN 60598, EN 62722
- ENEC and UL pending

### ELECTRICAL PROPERTIES

- Drive current: 700mA
- Insulation class: CLASS II
- Excellent thermal management with optimized PCB design
- Energy class: A
- Input Voltage: 220V - 240V, 120V - 277V (optional) at 50Hz / 60Hz
- Control type: On/Off, 1-10V (optional), DALI (optional), DMX (optional)
- Power factor > 0.95

### OPTICAL PROPERTIES

- Structured with Heper's Hybrid LED Module
- Symmetric spot or flood beam angles (7°, 26°)
- Wall-graze optics
- MacAdam Ellipse 3
- Lumen output (absolute photometry): 900lm - 4900lm
- RGBW options
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)

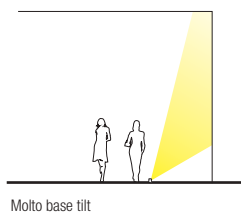
### BODY HOUSING & FINISH

- Corrosion resistant stainless steel housing
- Extruded aluminum sleeve
- Ingress protection: IP67
- Impact protection: IK08

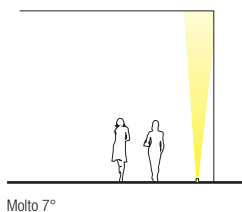
### EXTRAS

- Higher CRI LED chips
- Different drive currents
- Base tilt (10°)

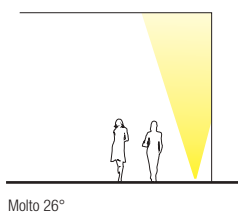




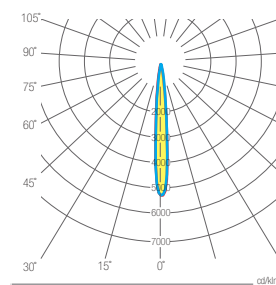
Molto base tilt



Molto 7°

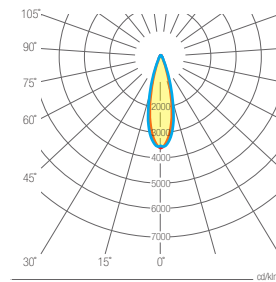


Molto 26°



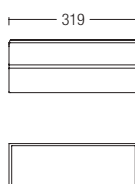
— C0 - C180 — C90 - C270

Molto 7°

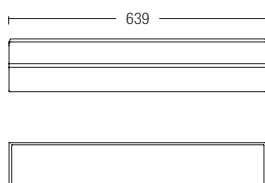
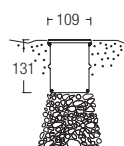


— C0 - C180 — C90 - C270

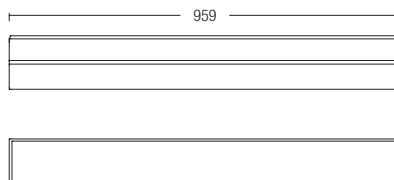
Molto 26°



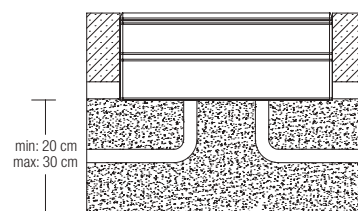
LR9012.690



LR9012.695



LR9012.697



#### Inclusive Accessories



Aluminum sleeve



IP68 Junction box



IP68 Connector



Case removing vacuum



Walls



Textured Surfaces



Architectural Facades



RGBW



CE



IK 08



IP 67



EN 60598

| LUMINAIRE  |                |                |                 |                   |
|------------|----------------|----------------|-----------------|-------------------|
| CODE       | DESCRIPTION    | POWER (700 mA) | LUMEN           | COLOR TEMPERATURE |
| LR9012.690 | Molto 2 Hybrid | 17W            | 900lm - 1250lm  | 3000K / 4000K     |
| LR9012.695 | Molto 4 Hybrid | 35W            | 1800lm - 2450lm | 3000K / 4000K     |
| LR9012.697 | Molto 6 Hybrid | 52W            | 3600lm - 4900lm | 3000K / 4000K     |

#### Distribution options

N: narrow - 7°  
M: medium - 26°  
R: RGBW

#### Base tilt option

0: No tilt  
10: 10° tilt

Ordering guide : **Product Code - Distribution option - Base tilt option**  
i.e. LR9012.695 - M - 0

# HANDRA

**THE EFFORTLESS UNIQUENESS**



Easy installation, lock - down mechanism and homogenous optics makes Handra a great choice for handrail lighting applications.



# HANDRA

## TECHNICAL SPECIFICATIONS

---

### GENERAL HIGHLIGHTS

- Equipped with Heper's Dyno S LED Module
- Optimized linear forward or Side light distribution
- Operating Temperature -40°C / +55°C
- In compliance with EN 60598, EN 62722

### ELECTRICAL PROPERTIES

- Drive current: 350mA
- Optimized PCB - Design for Superior heat management
- Insulation class: CLASS II
- Input Voltage: 220V - 240V, 120V - 270V (optional) at 50Hz / 60Hz
- Control type: On/Off, DALI (optional)

### OPTICAL PROPERTIES

- Equipped with Heper's Dyno S LED Module
- Indirect lighting with reflector technology
- Linear form asymmetrical light distribution
- No glare with intended use
- Spotless light distribution
- MacAdam Elipse 3
- Lumen output (absolute photometry): 100lm - 125lm
- Color temperature: 3000K, 4000K, 2700K (optional)
- CRI > 70 (4000K), CRI > 80 (3000K)

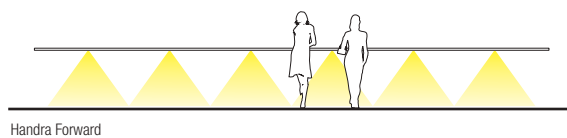
### BODY HOUSING & FINISH

- Corrosion resistant aluminum housing
- Electrostatic powder coating
- HM1 to HM6 standard colors with optional RAL codes
- Ingress protection: IP65
- Impact protection: IK10

### EXTRAS

- Higher CRI LED chips
- Different color temperatures

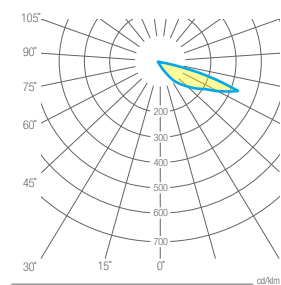




Handra Forward

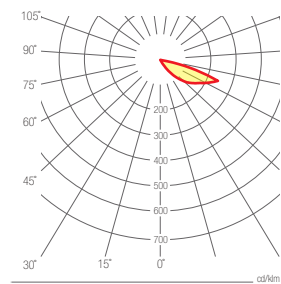


Handra Side



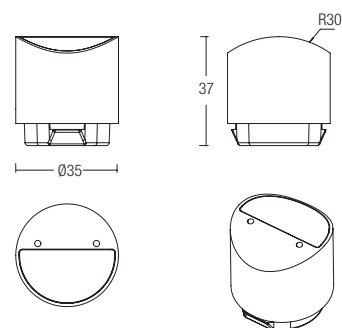
— C0 - C180 — C90 - C270

Handra Forward



— C0 - C180 — C90 - C270

Handra Side



Landscape Areas

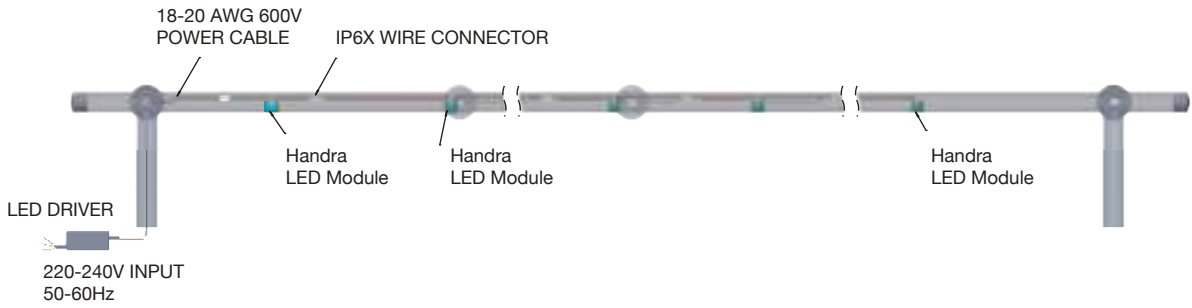


Walkways

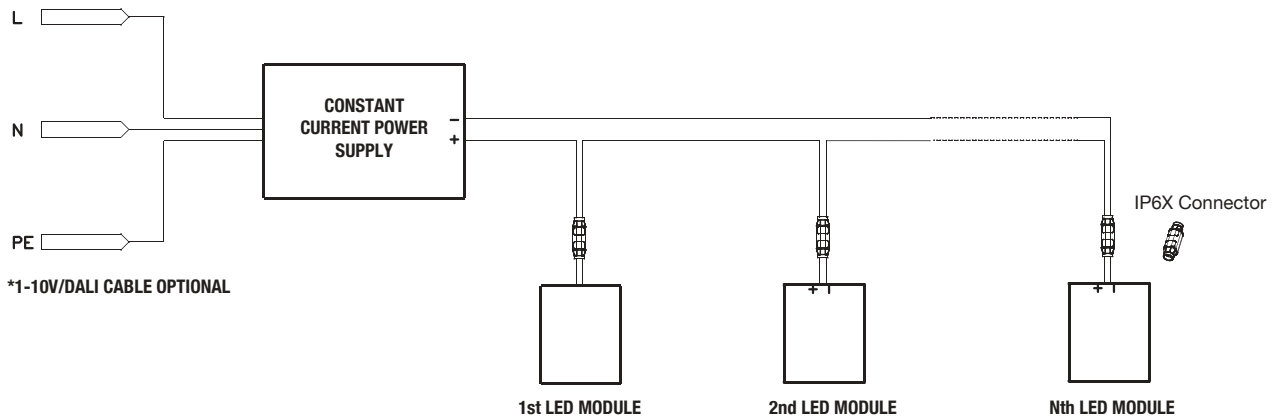
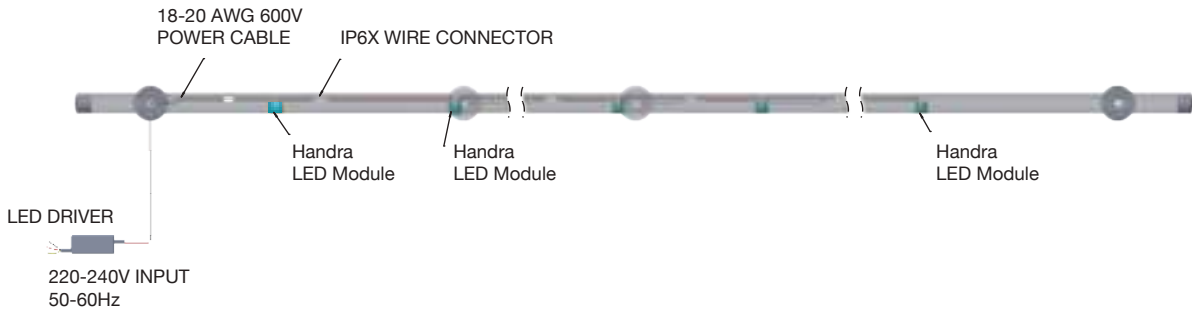


| LUMINAIRE  |                |                |               |                   |
|------------|----------------|----------------|---------------|-------------------|
| CODE       | DESCRIPTION    | POWER (350 mA) | LUMEN         | COLOR TEMPERATURE |
| LH5002.595 | Handra Forward | 2W             | 118lm - 125lm | 3000K / 4000K     |
| LH5003.595 | Handra Side    | 2W             | 100lm - 105lm | 3000K / 4000K     |

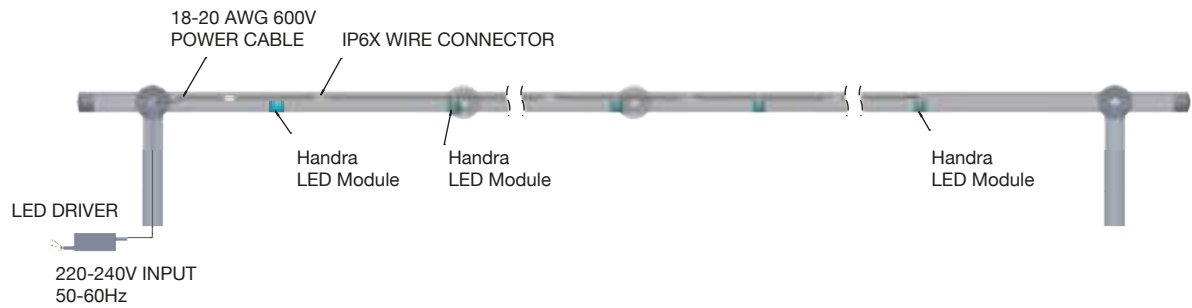
# POST MOUNT SERIES CONNECTION WIRING DIAGRAM



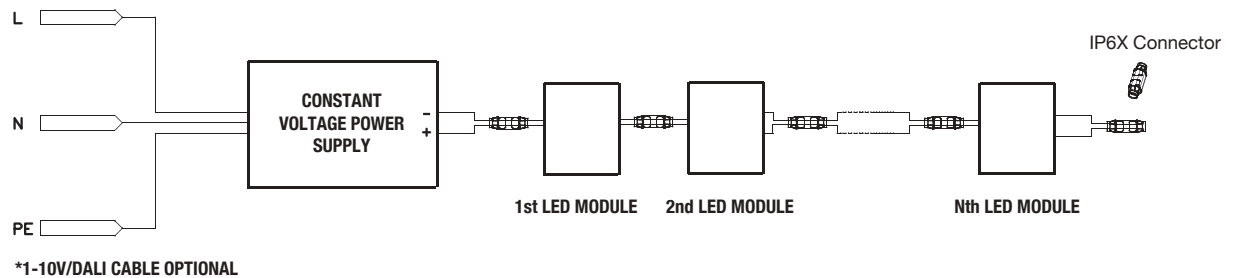
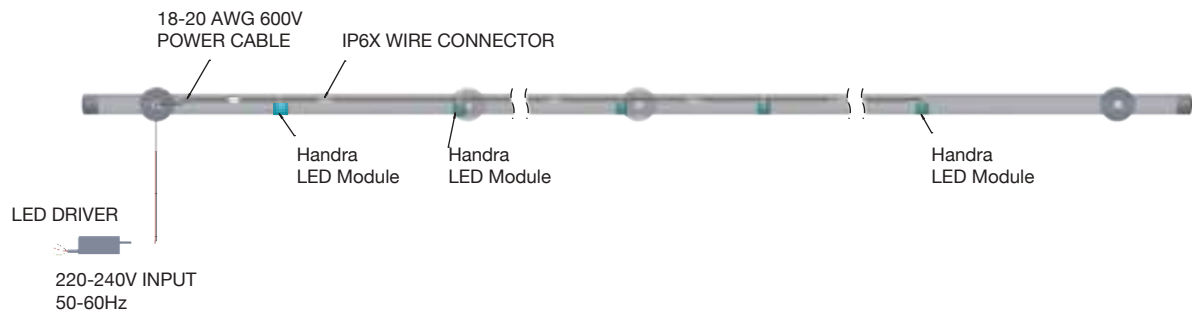
# WALL MOUNT SERIES CONNECTION WIRING DIAGRAM



## POST MOUNT PARALLEL CONNECTION WIRING DIAGRAM



## WALL MOUNT PARALLEL CONNECTION WIRING DIAGRAM





# CATALOGUE GUIDE

| LEVEL | SOLIDS (FIRST NUMBER)  | LIQUIDS (SECOND NUMBER)  |
|-------|--|--|
| 1     | Protected against solid objects over 50mm<br>(example: hands)            | Protected against vertically falling drops of water  |
| 2     | Protected against solid objects over 12mm<br>(example: fingers)          | Protected against direct sprays of water up to 15 degrees from the vertical  |
| 3     | Protected against solid objects over 2.5mm<br>(example: tools and wires) | Protected against direct sprays of water up to 60 degrees from the vertical  |
| 4     | Protected against solid objects over 1mm<br>(example: small wires)       | Protected against water sprayed from all directions  |
| 5     | Dust protected — limited ingress of dust permitted                       | Protected against jets of water from all directions  |
| 6     | Dust-tight — no ingress of dust permitted                                | Protected against powerful jets of water from all directions   |
| 7     | /  | Protected against the effects of immersion in water - between 15 cm (5.9 inches) and 1 meter (3.3 feet) for up to 30 minutes |
| 8     | /  | Protected against the effects of long periods of immersion in water under pressure   |



Luminaire in compliance with governing European directives.



Specifies general requirements for luminaires, incorporating electric light sources for operation from supply voltages up to 1000 V.



Certification indicates conformity with the relevant European standards on safety and functionality.



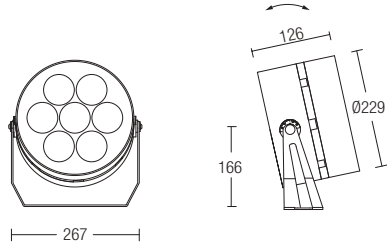
Certification indicates conformity with the relevant North America standards on safety and functionality.



Mechanical impact strength classification.

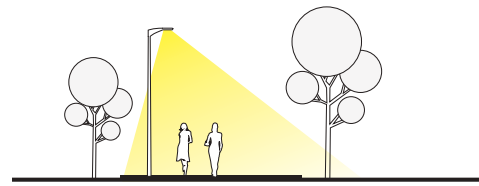


Ingress protection classification.



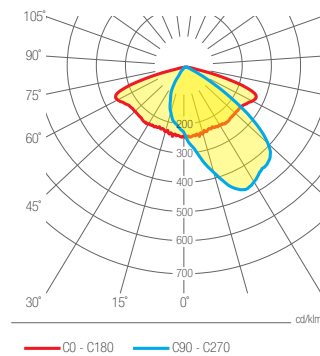
### Technical Drawing

Technical drawings inclusive of basic dimensioning are given to assist designer to check dimensional suitability.



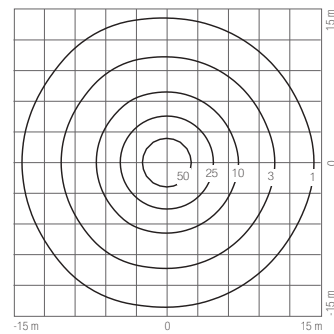
### Reflection & Proportion

The figure to indicate a basic light forwarding direction to help designers to select suitable luminaire for specific application.



### Photometric Diagram

The photometric polar diagram is to provide a general idea about the light distribution of a particular luminaire. The diagram is shown in C plane quadrants.



### Isoillumination Plot

The plot to give the designer an insight about basic illumination characteristics of a luminaire.

## APPLICATION AREAS



Accent Lighting



High Bay



Pedestrian Crosses



Tunnels



Parking Lots



Columns



Smooth Surfaces



Architectural Facades



Highways



Roads



Trees



Textured Surfaces



Floors



Streets



Bridges



Landscape Areas



Roundabouts



Urban Areas



Walkways



Monuments



Walls



Catenary



Low Bay



Parks



Underpasses



Stadiums



Motorways



Gardens

# EN13201:2016 Road Illumination Standard

## EXPLANATION

### M Road Class

The lighting classes M are intended for drivers of motorized vehicles on traffic routes, and in some countries also on residential roads, allowing moderate to high driving speeds. The application of these classes depends on the geometry of the relevant area and on the traffic and time dependent circumstances. The appropriate lighting class has to be selected according to the function of the road, the design speed, the overall layout, the traffic volume, traffic composition, and the environmental conditions.

### P Road Class

The lighting classes P are intended predominantly for pedestrians and cyclists for use on footways and cycle ways, and drivers of motorized vehicles at low speed on residential road, shoulder or parking lanes, and other road areas lying separately or along a carriageway of a traffic route or a residential road, etc.

### C Road Class

The lighting classes C are intended for use on conflict areas on traffic routes where the traffic composition is mainly motorized. Conflict areas occur wherever vehicle streams intersect each other or run into areas frequented by pedestrians, cyclists, or other road users.

The number associated with the classes are determined by other factors such as traffic density. Normally the required luminance levels decrease from 1 to 6.

| 3 MODULE                             |     |     |     |     |     |     |
|--------------------------------------|-----|-----|-----|-----|-----|-----|
| LIGHTING CLASS (EN13201:2016)        | P1  | P2  | P3  | P4  | P5  | P6  |
| Pole Height = 6m, max pole distance: | 45m |     |     |     |     |     |
| Pole Height = 8m, max pole distance: | 32m | 50m | 66m |     |     |     |
| LIGHTING CLASS (EN13201:2016)        | M1  | M2  | M3  | M4  | M5  | M6  |
| Pole Height = 6m, max pole distance: | 23m | 31m | 35m |     |     |     |
| Pole Height = 8m, max pole distance: |     |     | 30m | 40m | 60m | 64m |
| LIGHTING CLASS (EN13201:2016)        | C0  | C1  | C2  | C3  | C4  | C5  |
| Pole Height = 6m, max pole distance: |     | 25m |     |     |     |     |
| Pole Height = 8m, max pole distance: |     |     | 24m | 32m | 40m |     |

#### Calculations are valid for below items;

- D-Light V2 3 Module (LL2034.683)
- L&C Luminaire 3 Module (LL2016.663, LL2017.663)
- D-Light 3 Module (LL2023.673)

# Network

## Europe

Turkey  
Austria  
Albania  
Belarus  
Belgium  
Bosnia  
Bulgaria  
Canary Islands  
Croatia  
Czech Republic  
Denmark  
Estonia  
Finland  
France  
Germany  
Greece  
Holland  
Hungary  
Iceland  
Ireland  
Italy  
Kosovo  
Latvia  
Lithuania  
Luxembourg  
Macedonia  
Malta  
Moldova  
N. Ireland  
Norway  
Poland  
Portugal  
Romania  
Serbia  
Slovakia  
Slovenia  
Spain  
Sweden  
Switzerland  
TRNC  
UK  
Ukraine

## Middle East

Qatar  
Lebanon  
U.A.E.  
Bahrain  
Iraq  
Jordan  
Kuwait  
Oman  
Saudi Arabia  
Yemen

## Asia

Azerbaijan  
Brunei  
Georgia  
Hong Kong  
India  
Indonesia  
Kazakhstan  
Korea  
Macau  
Malaysia  
Philippines  
Russia  
Singapore

## Africa

Algeria  
Egypt  
Ghana  
Kenya  
Libya  
Morocco  
Nigeria  
Senegal  
South Africa  
Sudan

## Americas

U.S.A.  
Canada  
Chile  
Peru

## Ocenia

Australia  
New Zealand





TURKEY • BMW SHOWROOM



NORWAY • SYKEHJEM HOSPITAL



TURKEY • SABUNCUBELI TUNNEL



THE NETHERLANDS • CORENDON HOTEL



NIGERIA • EKO ATLANTIC CITY



SULTANATE OF OMAN • MUSCAT INTERNATIONAL AIRPORT



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