

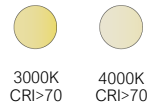
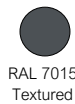
# TPL L

## GEN B



### KEY BENEFITS

- High-performance LED technology.
- High light output with reduced power-consumption.
- Durability and sturdiness: IP66 + IK08.
- Pressure compensation system.
- Energy Efficient: Up to 173 lm/W luminaire.
- Up to 8 optical distributions.
- Future Proof: Zhaga-compliant .
- Lifetime L90B10 100.000h (T<sub>a</sub>) 25°C.
- 5 years warranty



### DESCRIPTION

The TPL family provides solutions for industrial environments thanks to its robustness and power, as well as for sports applications and even urban lighting.

It has a high-efficiency light engine that, together with its wide variety of optical distributions, both extensive and projection, allows us to optimally illuminate any industrial and urban space.

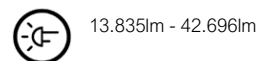
Thanks to the cable and aerial connector included, the installation of TPL is quick and easy. This, together with the high efficiency of the floodlight, allows a quick return on investment.

### STANDARD COMPLIANCE

- CE
- RoHS
- UNE-EN 60598-1
- UNE-EN 60598-2-5
- UNE-EN 62471:2009
- UNE-EN 61000-3-2.
- UNE-EN 61000-3-3.
- UNE-EN 55015.
- UNE-EN 61547.
- UNE-EN 13032-4.
- UNE-EN ISO 9227 NSS:2017 (1000h)

**\*Test reports from independent ENAC accredited laboratories or equivalent**

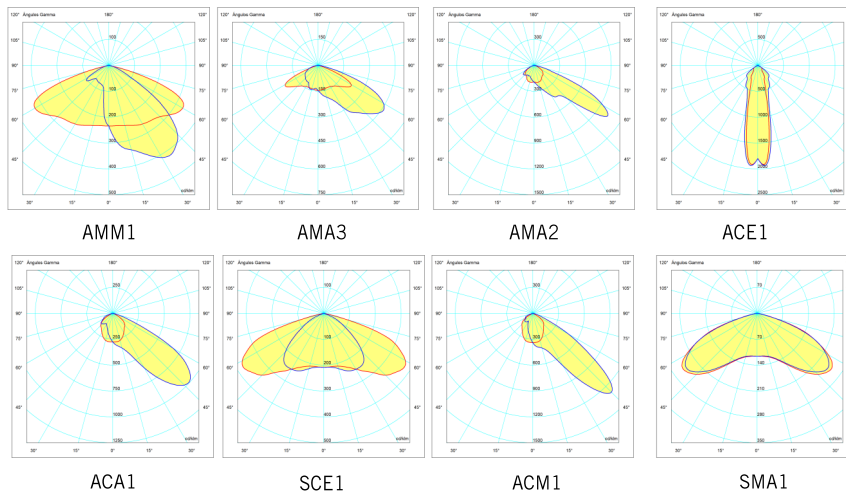
Measurements taken at ISO 17025 approved laboratory.  
Meets the minimum CEI - IDAE requirements.



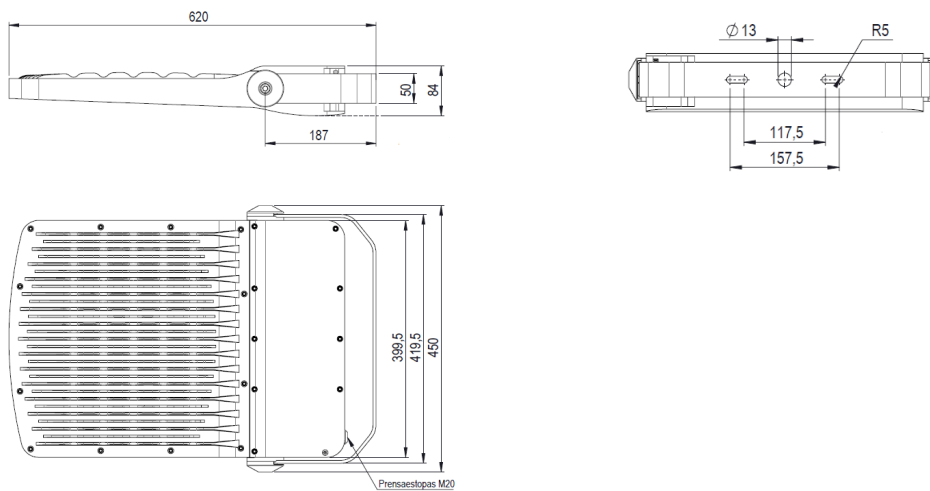
220 - 240V / 100V - 277V  
50-60Hz  
L90B10 100.000h  
Ta 25°C

**PHOTOMETRIC DISTRIBUTIONS**

It has 8 photometric distributions used for the environments in which this type of luminaire is installed, it can be adapted to all needs:



**DIMENSIONS (mm)**



**APPLICATIONS**

Squares, walks, car parks, roundabouts, loading docks and tunnels.



## CHARACTERISTICS TPL L

### GENERAL INFORMATION

|                 |  |
|-----------------|--|
| Sustainability  | Valorisation: 98,25%<br>Maximum carbon footprint per use: 0,07124 kg kW/h de CO2 |
| CE marking      | Yes  |
| RoHS compliance | Yes  |
| Test standard   | LM 79-80 (all measurements in the laboratory certified according to ISO17025)    |

### GENERAL CHARACTERISTICS

|                         |  |
|-------------------------|--|
| Housing                 | Made of die-cast aluminium   |
| Closure                 | Tempered glass 4mm thick.<br>It incorporates silicone gasket.                                |
| Nuts outer and bolts    | Stainless steel (AISI304).   |
| Watertightness          | IP66 (EN 60529).   |
| Impact protection grade | IK08 (EN 62262).   |
| Operating temperature   | Ta -40°C a +50°C<br>According to luminaire configuration                                     |
| Lifetime                | L90B10 100.000 h.<br>Light maintenance values at 25°C calculated by TM-21 in LM-80 database. |

### ELECTRICAL CHARACTERISTICS

|                     |  |
|---------------------|--|
| Electrical class    | Class I or Class II  |
| Voltage / Frequency | 220V - 240V / 50Hz - 60Hz<br>100V - 277V (consult)   |
| Power factor        | > 0,9  |
| Harmonic distortion | < 10%  |
| Surge protector     | Includes a surge protection system that safeguards the luminaire's electronic components up to 10 kV/kA.<br>Optional 20kA, 20kV. |

### MANTENIMIENTO Y MONTAJE

|  |  |
|--|--|
| Installation and maintenance                 | As standard, it incorporates cable and connector IP68 watertight prepared for the on-site connection of the luminaire. This way it is not necessary to open and the installation tasks are carried out more quickly.   |
| Fixation                                     | Fixing by bracket that allow a regulation of -90° and +90°   |
| Weight                                       | 13,2 Kg  |
| Wind area (SCX)                              | 0,28 m <sup>2</sup>  |
| Cable gland with pressure compensation valve | The luminaire has a cable gland that incorporates a pressure compensation valve that compensates for the internal / external pressure of the system. The integration of the valve prolongs the projected life of the joints and internal parts reducing the pressure placed on them and prevents moisture from entering inside which can cause condensation. |

### LIGHT CHARACTERISTICS

|                              |  |
|------------------------------|--|
| Real lumen package           | 13.835lm to 42.696 lm (88 - 274W)  |
| LED color temperature        | 4.000K (Neutral white, nw).<br>3.000K (Warm white, ww).<br>Other colour temperatures on request.   |
| Colour rendering index (CRI) | CRI>70.  |
| LEDs                         | 96 and 128 Leds.   |
| ULR                          | 0,00%<br>According to luminaire configuration.   |
| Optics                       | PMMA polymethylmethacrylate  |
| Photometric distributions    | <b>AMM1</b> => Throw angle 70° ap. spread angle 30°/45° (Type II)<br><b>AMA2</b> => Throw angle 15° ap. spread angle 60° (Type III)<br><b>AMA3</b> => Throw angle 70° ap. spread angle 60° (Type IV)<br><b>ACE1</b> => Throw angle 5° ap. spread angle 5° (Type I)<br><b>SCE1</b> => Throw angle 55°/70° ap. spread angle 40° (Type IV)<br><b>SMA1</b> => Throw angle 60° ap. spread angle 60° (Type VS)<br><b>ACA1</b> => Throw angle 10° ap. spread angle 45°/60° (Type III)<br><b>ACM1</b> => Throw angle 20° ap. spread angle 50° (Type III) |
| LED thermal control          | The LED modules and the driver are mounted in direct contact with the armature, to dissipate heat by conduction, by convection, extending the life of all the electronic components of the luminaire. Luminaire ready to incorporate an NTC sensor for temperature control; this must be specified at the time of ordering.  |

### MANAGEMENT AND CONTROL

|                       |  |
|-----------------------|--|
| Equipment             | <b>1N</b> : LED ON/OFF<br><b>RC</b> : Controller dimmed<br><b>RD</b> : LED Adjustable DALI Protocol<br><b>RL</b> : Adjustable by line  |
| Autonomous regulation | Regulations programmed from the factory:<br><b>SC</b> : Programming according to client.   |
| CLO regulation        | Flow rate during the life of the product:<br>7: 70% luminous flux throughout the life of the luminaire<br>8: 80% luminous flux throughout the life of the luminaire<br>9: 90% luminous flux throughout the life of the luminaire |

### FINISHES

#### Predefined luminaire colour

|  |                              |
|--|------------------------------|
|  RAL 7015 | RAL-7015 Slate grey textured |
|--|------------------------------|

#### Corrosion protection

|   |                        |
|---|------------------------|
|  SEA SIDE SOFTABLE | Marine Finish (1.000h) |
|---|------------------------|

### LOGISTICAL INFORMATION

| European pallet    |                     |
|--------------------|---------------------|
| Box dimensions     | 660 x 490 x 150 mm  |
| Box weight         | 15,2 kg             |
| Number of boxes    | 16 units            |
| Total dimension    | 1200x 800 x 1350 mm |
| Number of levels   | 8 levels            |
| Total gross weight | 254,6 kg            |

## LUMINAIRE DIMMING

### By programming the driver

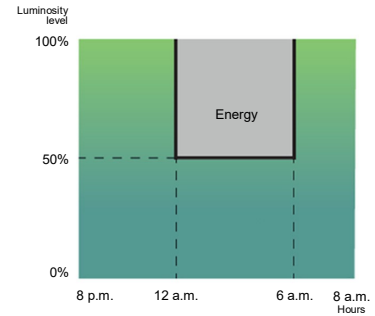
Smart luminaires drivers can be programmed in the factory without needing a control system, additional wiring or maintenance costs. A schedule is pre-programmed for light flow to be automatically reduced at quieter times of the night while respecting light levels and uniformity.

#### Programming profile 56

From 00:00 to 06:00 the luminaire reduces its initial intensity by 50%.

Up to  
**26%**  
savings

NOTE: Programming the Dynadimmer using the multitone scheduling tool is done for wintertime. In summer everything is delayed by an hour.



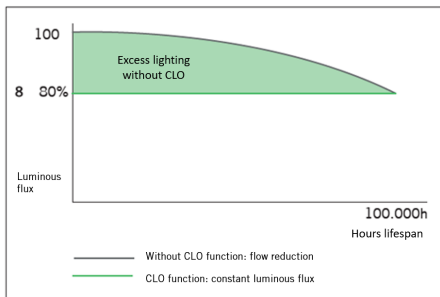
### Using the CLO function

Taking into account lighting depreciation over the years, the driver is programmed to start at a reduced level and gradually increase power over the lifetime of the luminaire, which saves energy and increases the service life of the system. In addition, the level of illumination of the area in which it is located is always kept constant.

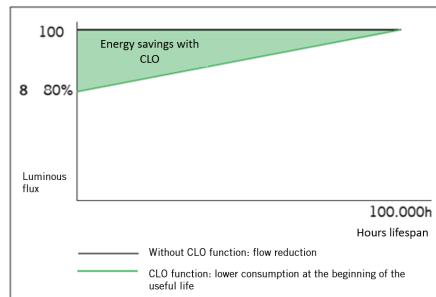
#### Constant luminous flux 8

Luminaire luminous flux at 80% to maintain light levels throughout its service life.

Luminous flux chart



Consumption graph



Up to  
**10%**  
savings  
and increase in luminaire  
service life

### By adding an extra element

#### Photocell

The photocell allows the luminaire to be switched on or off depending on the intensity of the sunlight it captures.

This is very useful, to avoid having luminaires on at times when there is still enough natural light.

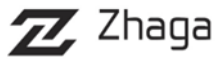
Example with 20 lx photocell:



## ZHAGA

The TPL luminaire has been upgraded to operate with the latest proven technology available on the market, always based on standards. This ensures compliance with Carandini's sustainability values while making it a product designed for future maintenance with the highest guarantees, respecting both the environment and society.

TPL features a **"Future-Proof"** design: the electrical compartment includes additional space and fixtures to integrate any driver that complies with the "Book 13" Zhaga standard, based on the dimensions required for drivers on the market. This allows for brand changes as long as the driver is Zhaga-certified.



The NEW Zhaga - Smart standards.  
Smarter lighting

Drivers (Book 13)

Future-proof base

Connectors (Book 18)