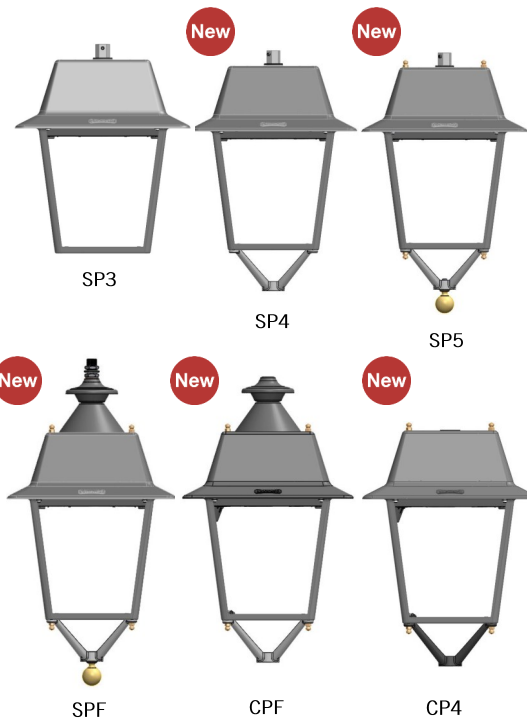


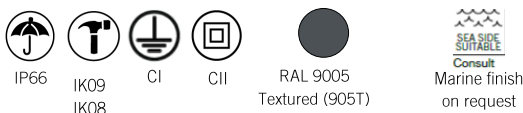
CLAMOD

GEN5



KEY BENEFITS

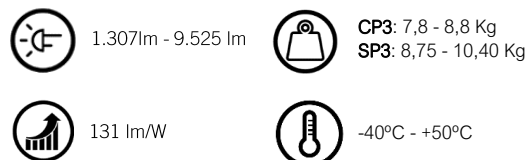
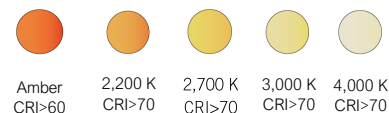
- Up to 7 installation methods.
- Access to driver and PCB from above for easy maintenance
- Sturdiness: IP66+ IK08 / IK09
- Injected aluminium (Cu<0.1%)
- Energy Efficient: 131 lm/W
- Up to 8 photometric distributions
- Smart Ready: Designed to house both interior and exterior communication nodes (According to model).
- Future Proof: Complies with Zhaga standard
- Service life L90B10 100,000 (Ta) 25°C
- Night Friendly: ULR Arrêté du 27 décembre 2018



DESCRIPTION

Clamod Gen5 is Carandini's unique luminaire designed specifically for amenity applications. Contemporary and elegant, lending visual harmony in tune with the environment during the day, while at night it creates a pleasant atmosphere giving a feeling of warmth and security.

Thanks to the mounting options and optical distributions available, it gives shape to the light, taking it where it is needed, thus creating comfortable environments in all manner of urban settings, such as parks, promenades, squares, pedestrian areas, residential areas or historical centres.



STANDARDS / CERTIFICATES

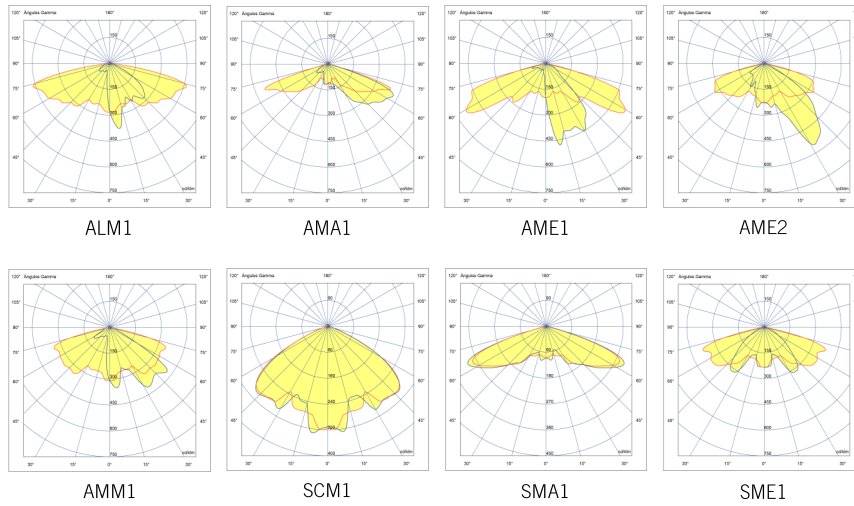
- CE
- RoHS
- UNE-EN 60598-1
- UNE-EN 60598-2-3
- UNE-EN 62471
- UNE-EN 61000-3-2
- UNE-EN 61000-3-3
- UNE-EN 55015
- UNE-EN 61547
- UNE-EN 62031
- UNE-EN 61347-2-13
- UNE-EN 62384
- UNE-EN 13032-4
- UNE-EN ISO 9227 NSS: 2017 (1000 h)

0,01% - 0,06%
FHS / ULR

220 - 240V / 100V - 277V
50-60Hz
L90B10 100.000h

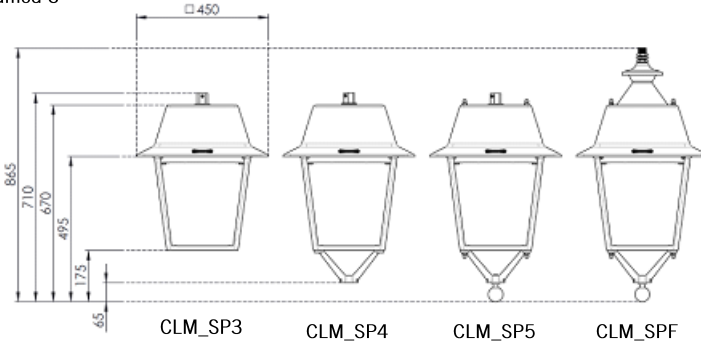
PHOTOMETRIC DISTRIBUTIONS

Provides the 8 photometric distribution patterns suited to the environments in which this luminaire is typically installed, making it adaptable to all requirements:

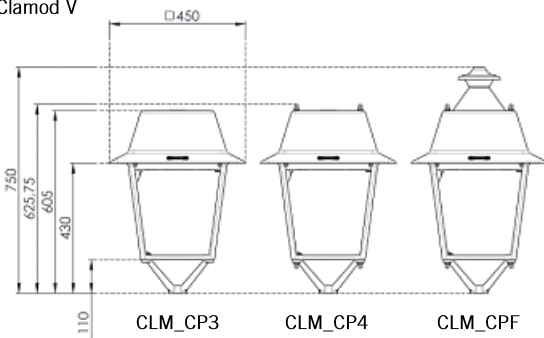


DIMENSIONS (mm)

7 Fixings
Clamod S



Clamod V



CLOSURES

CC
Flat glass



GC
Lenticular glass



OC
Closure with opal diffuser + flat glass



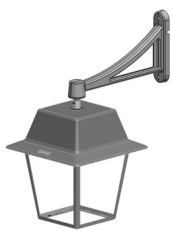
New

DC
Closure with transparent diffuser + flat glass



New

ACCESSORIES



CBSM-530 +
CLM_SP3/ SP4/ SP5



CBSM-530-H +
CLM_SPF



CBVM-530 +
CLM_CP3/ CP4/ CPF



CLI
Intrusive light control



CRS
Top finish



CFV-60
CLM_CP3/ CP4/ CPF

CLAMOD CHARACTERISTICS

GENERAL INFORMATION

| | |
|-------------------|--|
| Sustainability | Recyclability: 99,05% Maximum carbon footprint per use: 0.0212 kg kW/h de CO2 |
| CE mark | Yes |
| ENEC Certificate | Yes |
| RoHS-compliant | Yes |
| Testing standards | LM 79-80 (all measurements at ISO17025 certified laboratory) |

GENERAL CHARACTERISTICS

| | |
|--------------------------|--|
| Housing and dome | Die-cast aluminium EN AC-44100 with low copper content <0.1%. |
| Accessories | Die-cast EN AC-44100 aluminium |
| Enclosure | CC: Flat glass. GC: Lenticular glass. DC: Clear diffuser + flat glass. OC: Opal diffuser + flat glass. |
| Finish | Polyester powder paint RAL 9005 textured black (905T). Other finishes, on request. |
| External bolts | Stainless steel (AISI304). |
| General watertightness | IP66 (EN 60598-1 and EN 60529). |
| Impact resistance rating | IK09 (EN 62262). (CC) (DC) (OC) IK08 (EN 62262). (CG) |
| Operating temperature | Ta -40°C to +50°C. Depending on luminaire configuration. |
| Estimated service life | L90B10 100.000 h at Ta of 25°C. Light maintenance values at 25°C are calculated in accordance with TM-21 based on LM-80 data. |
| Wire | 0421: 4 metre wire 2x1.5. 0521: 5 metre wire 2x1.5. 0621: 6 metre wire 2x1.5 0721: 7-metre wire 2x1,5 0821: 8-metre wire 2x1,5 0431: 4-metre wire 3x1,5 0531: 5-metre wire 3x1.5 0631: 6-metre wire 3x1.5 0731: 7-metre wire 3x1.5 0831: 8-metre wire 3x1.5 0441: 4 meters wire 4x1.5 0541: 5-metre wire 4x1.5 0641: 6-metre wire 4x1,5 0741: 7-metre wire 4x1.5 0841: 8-metre wire 4x1.5 0451: 4-metre wire 5x1.5 0551: 5-metre wire 5x1.5 0651: 6-metre wire 5x1,5 0751: 7-metre wire 5x1.5 0851: 8-metre wire 5x1.5 Length per number of wires per section. |

ELECTRICAL CHARACTERISTICS

| | |
|---------------------|--|
| Electrical class | Class I Class II |
| Input voltage | 220 V - 240 V/50 Hz - 60 Hz Optional 100 V - 277 V (On request) |
| Power factor | > 0.9 |
| Harmonic distortion | < 10% Other voltages on request. |
| Surge protection | Surge protection (1.2/50) 10 kV Maximum current (8/20) 10 kA Maximum voltage (L-N) 320 V Maximum voltage (L/N-GND) 400 V Optional surge protection: 20 kA, 20 kV |

LIGHTING CHARACTERISTICS

| | |
|------------------------------|--|
| Real light package | 1,307 lm up to 9,525 lm (12 W - 80 W) |
| LED colour temperature | 4,000 K (Neutral White, nw). 3,000 K (Warm White, ww). 2,700 K (Warm White, ww). 2,200 K (Warm White, ww). Amber colour temperature, please enquire. |
| Colour rendering index (CRI) | CRI>70 CRI80 on request. |
| LEDs | Incorporates various types of modules with 16, 24, 32 and 48 LEDs. |
| FHS / ULR | 0.01% - 0.06% |
| Optics | PAMMA acrylic lenses specially designed for LEDs |
| Photometric distributions | ALM1 => throw angle 75° spread angle 10°/45° (Type II) AMA1 => throw angle 70° spread angle 65° (Type IV) AME1 => throw angle 60°/70° spread angle 10°/30° (Type II) AME2 => throw angle 60°/70° spread angle 35° (Type II) AMM1 => throw angle 70° spread angle 35°/55° (Type III) SCM1 => throw angle 50° spread angle 50° (VS Type) SMA1 => throw angle 65° spread angle 65° Type VS) SME1 => throw angle 70° spread angle 35° (Type II) |
| LED thermal control | Heat dissipation by conduction, radiation and convection designed for LED technology. |

| MAINTENANCE AND INSTALLATION | | MANAGEMENT AND CONTROL | |
|------------------------------|--|------------------------|---|
| Installation and maintenance | Access to the driver from above through the Dome by means of two Ph-head bolts featuring anti-drop protection. | | |
| Mounting | <p>CP3: Vertical Fixing 3/4" GAS_ Stainless Steel Screws. CP4: Vertical Fixing 3/4" GAS_ Brass Screws. CPF: Vertical Fixing 3/4" GAS_ Brass Screws+Remate. SP3: Suspended Fixing 3/4" GAS HMB. SP4: Suspended Fixing 3/4" GAS HMB+ Fixed V. SP5: Suspended Fixing 3/4" GAS HMB + Fixed + Ball. SPF: Suspended fixing 3/4" GAS MCH.*</p> <p>*CPF and SPF fixings, not available with SR equipment and connection bases.</p> | Devices | <p>1N: LED 1N RC: Dimmable LED in head. RD: LED Dimmable DALI Protocol AF: LED Dimmable Protocol 1 - 10 V RL: LED Pulse dimmable 2N: Dual level SR: Smart Ready (D4i)</p> |
| Accessories | <p>Independent of the luminaire: CBSM-530-H: Wall bracket for suspended Clamod, SPF. CBSM-530-M: Wall bracket for suspended Clamod SP3, SP4 and SP5. CBVM-530-M: Wall bracket for vertical Clamod CP3, CP4 and CPF. CFV-60: Coupling to column ø 60mm. CRL: Set of 4 ornaments. CRS: Top finish. CLI: In truder light control. C.SENS: Presence sensor for column*.</p> | Autonomous regulation | <p>Factory programmed settings</p> <p>56: 50% from 12:00 am to 6:00 am. 66: 60% from 12:00 am to 6:00 am. 76: 70% from 12:00 am to 6:00 am. CP: Customised programming.</p> |
| Weight with equipment | <p>SP3 8,75 Kg. SP4 8,90 Kg. SP5 9,70 Kg. SPF 10,40 Kg. CP3 7,80 Kg. CP4 8,50 Kg. CPF 8,80 Kg.</p> | CLO Regulation | <p>Percentage of flux during the service life of the product: 7: 70% luminous flux throughout the service life of the luminaire. 8: 80% luminous flux throughout the service life of the luminaire. 9: 90% luminous flux throughout the service life of the luminaire.</p> |
| | | Sockets | <p>3-U: NEMA 3-pin socket without/with cover IP66 5-V: NEMA 5-pin socket without/with cover IP66 7-V: NEMA 7-pin socket without/with cover IP66 4-X: Zhaga socket without/with IP66 cover</p> |
| | | Photocells | <p>1: Photocell for NEMA 3, 5 and 7 pin socket (20 lux) 2: Photocell for upper Zhaga socket (20 lux)</p> |
| | | Node | <p>ON: Controlux One BS: Controlux Basic</p> |

LOGISTICAL INFORMATION*

CP3 / CP4 / SP4

Box size: 555 x 555 x 825 mm
 Box weight: 9.1 kg.
 Number of boxes: 8 units
 American base: 1200 x 1120 x 1850 mm
 Stack height: 2 levels
 Area occupied: 91.7%
 Volume used: 84,0%.
 Total gross weight: 92 kg.

SP3

Box size: 527 x 527 x 576 mm
 Box weight: 8,95 kg.
 Number of boxes: 12 units
 American base: 1200 x 1060 x 1928 mm
 Stack height: 3 levels
 Area occupied: 87,3%
 Volume used: 83,8%
 Total gross weight: 128 kg.

SP5 / SPF /CPF

Box size: 470 x 470 x 900 mm
 Box weight: 10,4 kg.
 Number of boxes: 8 units
 American base: : 1200 x 1000 x 1950 mm
 Stack height: 2 levels
 Area occupied: 73,6%
 Volume used: 66,3%
 Total gross weight: 103,2 kg.

If the luminaire includes cable, consult box dimensions.

COLOURS

PREDEFINED COLOUR OF THE LUMINAIRE

| | |
|----------|--|
| RAL 9005 | Polyester Powder 9005 Intense Black Textured Matt. |
|----------|--|

FINISHES *
Range of standard colours

| | |
|----------|--|
| RAL 7015 | Polyester Powder 7015 Slate Grey Textured Matt |
| RAL 7022 | Polyester Powder 7022 Shadow Grey Smooth Glossy. |
| RAL 7040 | Window Grey Smooth Glossy. |
| RAL 9006 | Polyester Powder 9006 Aluminium White Smooth White Gloss. |
| RAL 9007 | Polyester Powder 9007 Aluminium Grey Smooth Glossy. |
| RAL 9016 | Polyester Powdered Polyester 9016 Traffic White Smooth Glossy. |

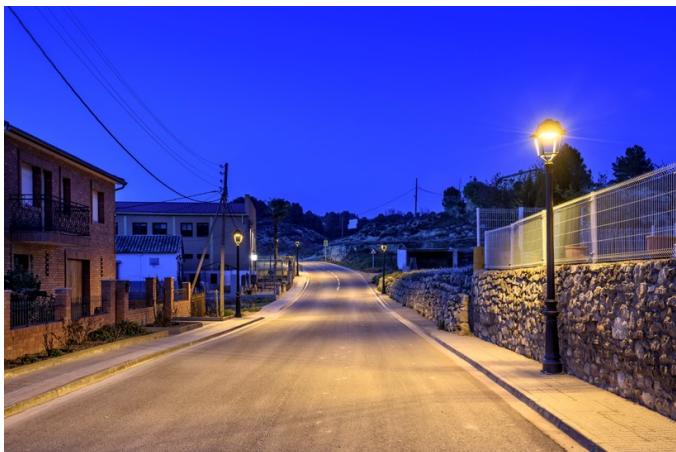
FINISHES *
Other colours available



* These colours can be painted as long as the parts allow it.
*For orders equal to or greater than 100 luminaires no price increase will be applied.

APPLICATIONS

Residential areas, parks and gardens, squares, cycle lanes and pedestrian areas.



LUMINAIRE CONTROL

By programming the driver

Programming profile

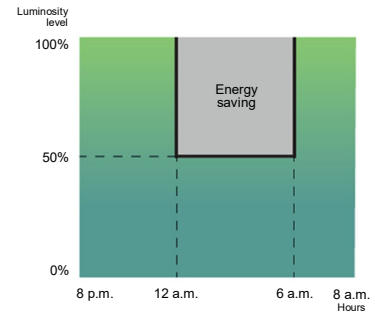
The driver can be programmed in such a way that, during less busy hours of the night, the luminaire reduces the luminous flux, while remaining in compliance with the required lighting and uniformity levels.

Programming profile 56

Between midnight and 6 am, the brightness of the luminaire is reduced by 50%.

Up to

26%
savings



Via 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

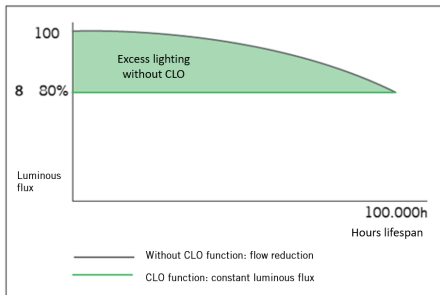
Luminaire luminous flux at 80% to maintain light levels throughout its service life.

Up to

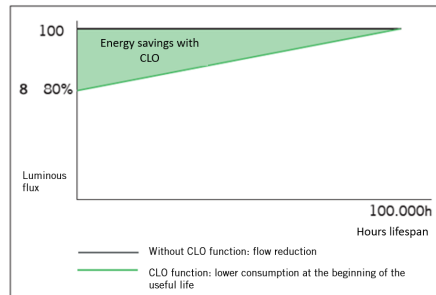
10%
savings

and increase in luminaire service life

Luminous flux chart



Consumption graph



By adding an extra element

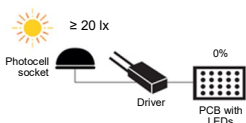
Photocell

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

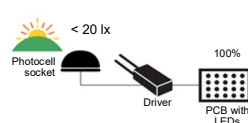
This is very useful, to avoid having luminaires on at times when there is still enough natural light.

Example with 20 lx photocell:

If the photocell detects more than 20 lx it will not switch on the luminaire.



It is when the luminance levels begin to fall that the photocell detects 20 lx and switches on the luminaire.



INNOVATIVE AND UPDATABLE OVER TIME (Zhaga/ ZD4i)



Zhaga - Future Proof

Zhaga is an industry-wide consortium that aims to standardise specifications for interfaces between LED luminaires and light sources. The aim is to achieve interchangeability between products made by different manufacturers. Zhaga defines test procedures for luminaire and LED light sources so that the luminaire can receive the LED source.



Zhaga D4i - Sensor Ready

The Zhaga consortium joined up with DiiA to create a unique Zhaga-D4i certification that combines Zhaga's Book 18 version 2 outdoor connectivity specifications with Dii4's D4i specifications for intra-luminaire DALI.

BOOKS PER APPLICATION. A COST-EFFECTIVE SOLUTION.

| Z H A G A Consortium | | Book 1-25 Overview by application | | | |
|----------------------------------|-------------------|-----------------------------------|------------|-----------|--|
| | Office & Industry | Retail & Hospitality | | Outdoor | |
| Integrated LED light engines | 14, 2,8 | 17 | 16 | | |
| LED modules (non-integrated) | 7, 21, 14 | 12 | 9, 5, 3,10 | 4, 15, 19 | |
| Drivers | 13 | LED set 22,23 | | 24,25 | |
| Sensor and communication modules | | 20 | | 18 | |

The specifications that mark a component as Zhaga-compliant are contained in a series of books, available only to consortium members, that allow you to design to the marked standard. The benefits for society are evident since, apart from reducing the consumption of materials, it favours the reuse of luminaires, aiming towards a circular economy.

CERTIFICATION PROGRAMME

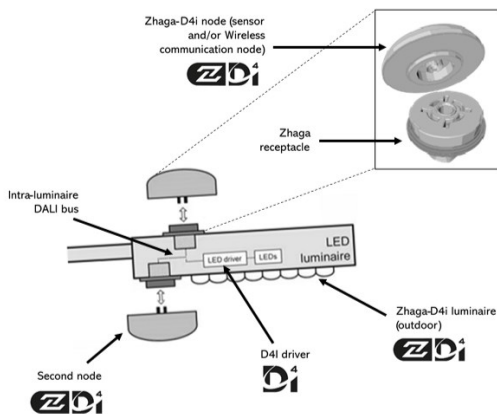
Zhaga-D4i certification covers all essential features, including automatic setting, digital communication, data reporting and power requirements within a single luminaire, ensuring plug-and-play interoperability for luminaires (drivers) and peripherals such as connectivity nodes.

STANDARDISATION AS A MEANS TOWARDS SUSTAINABILITY

The **Clamod GEN5** luminaire has been designed to operate with the latest tried and tested technology available on the market, in accordance with current standards, which allows it to meet CARANDINI's values of sustainability, making it a product that conforms to CARANDINI's values of sustainability and that can guarantee future maintenance while respecting society and the environment.

Luminaires marked as **Zhaga** feature **Future Proof** design, meaning that they are based on and designed around Zhaga standard components. These components are mainly LED modules and drivers. The electrical compartment and dissipation area for the LED modules have additional space and mountings to integrate any driver that complies with Zhaga standard Book 13, based on the required dimensions for drivers on the market or any LED module that complies with Zhaga Book 15, based on the LED driver interface specifications.

Eso permite tener un producto sostenible y actualizable en el tiempo.



CONNECTIVITY

The D4i specification takes the best of the standard protocol and adapts it to an intra-luminaire environment, but it has certain limitations. Only the control devices installed within the luminaires can be combined with a Zhaga-D4i luminaire. In accordance with the specification, the control devices are limited to an average power consumption of 2W and 1W respectively.

SMART CITY

Luminaires marked as **ZD4i** are a **Smart Ready** design, meaning they are designed to accommodate both interior and exterior communication nodes through docking stations which comply with Zhaga & Zhaga-D4i standard Book 18 on interoperability of sensors and communication nodes.