C-LINE
GEN4

KEY ADVANTAGES

- Tool-free access from the top.

- Sturdiness: IP66 + IK10.

- Die-cast aluminium (Cu<0.1%)

- Up to 4 optical distributions.

- Energy Efficient: 131lm/ W.

- Smart Ready: Designed to house both indoor and outdoor communications nodes.

- Future Proof: Zhaga-compliant

- Lifespan L90B10 100,000 h at 25 °C.

LED CE RoHS RETILAP REGLAMENTO TÉCNICO DE ILUMINACIÓN Y ALUMBRADO PÚBLICO. NOM Zhaga ZD¡ Eprotec

IP66 IK10 CI CII RAL 7015 Textured (715T) SEA SIDE SUITABLE Consult Marine finish available upon request

DESCRIPTION

The C-Line series is a luminaire designed and manufactured by Carandini for urban settings such as squares, parks, walkways or residential areas.

It uses latest generation high-performance, efficient LEDs to offer a solution that meets the important requirements of optical performance and energy efficiency.

Amber CRI>60 | 2,200 K CRI>70 | 2,700 K CRI>70 | 3,000 K CRI>70 | 4,000 K CRI>70

CRI>80 upon request

STANDARDS / CERTIFICATES

- CE
- RoHS
- UNE-EN 60598-1
- UNE-EN 60598-2-3 or 60598-2-5
- UNE-EN 62471:2009
- UNE-EN 60598
- 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

1,000 lm - 8,000 lm

131 lm/W Luminaire

Tool-free access to control gear

Connection system without opening the luminaire

7.9 Kg

0.19 m²

-40 ºC - +50 ºC

1%

220 - 240 V / 100V - 277 V
50-60 Hz
L90B10 100,000 h
Ta 25 ºC

*Reports from independent ENAC accredited laboratories or equivalent. Measurements taken at an ISO 17025 approved laboratory Meets the minimum CEI - IDAE requirements.

C LINE

PHOTOMETRIC CONFIGURATIONS

4 photometric configurations are available for use in the various environments where this type of luminaire might be installed, meaning it can be adapted to suit all situations:

AMM1	SMA1	SME1	ALA2

DIMENSIONS (mm)

Ø 565.7

559.5

80.50

Ø 60
Ø 100
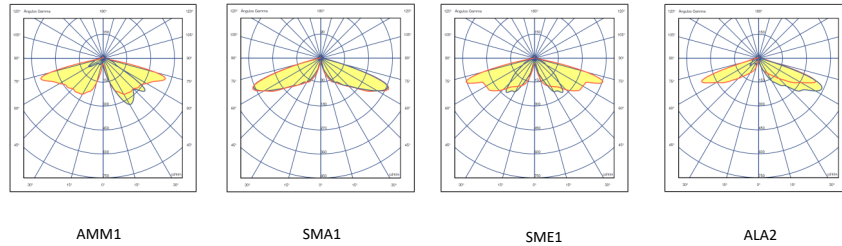
CLI (Ø60 x 80 mm)
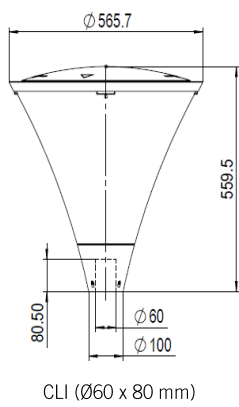
APPLICATIONS

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

C LINE

C-LINE CHARACTERISTICS

GENERAL INFORMATION	
Sustainability	Recyclability: 97,97% Maximum carbon footprint per use: 0.017593 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	
Cover	Reinforced polyamide (UNE-EN ISO 4892-3:2014)
Diffuser	Stabilized UV polycarbonate. (UNE-EN ISO 4892-3:2014)
Mounting	Die-cast aluminium EN AC-44100 (LM6) with low cop-per content <0.1%.
Finish	Grey polyester powder coating RAL 7015
Exterior nuts and bolts	Stainless steel (AISI304).
General ingress protec-	IP66 (EN 60598-1 and EN 60529).
Degree of protection	IK10 (EN 62262).
Operating temperature	Ta -40 ºC a +50 ºC According to luminaire configura-tion.
Estimated life	L90B10 100,000 h at 25 °C. Light maintenance values at 25 ºC are calculated by TM-21 based on LM-80 data.

ELECTRICAL CHARACTERISTICS	
Electrical class	Class I or Class II
Input voltage	220 V - 240 V / 50 Hz - 60 HzOptional 100-277 V
Power factor	> 0.9
Harmonic distortion	< 10%
Overvoltage protection	Overvoltage 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 overvoltage protection: 20 kA, 20 kV.

MAINTENANCE AND ASSEMBLY	
Installation and maintenance	Toolless assembly.
Installation	Installation to column of Ø60 mm.
Accessories	C.SENS=> column mounted presence sensor.
Equipped weight	7.9 Kg

LIGHTING CHARACTERISTICS	
Real	1,000 lm to 8,000 lm (9 - 68 W)
LED colour temperature	4,000 K (Neutral White, nw). 3,000 K (Warm White, nw). 2,700 K (Warm White, nw). 2,200 K (Warm White, nw). Amber colour temperature, upon request.
Colour rendering	CRI>70. CRI80 upon request.
LEDs	12, 16 and 32 LEDs.
ULR	1%
Optics	Acrylic PMMA lenses especially designed for LEDs.
Photometric configurations	AMM1=> Throw 70º Spread 30º/50º (Type III) SMA1=> Throw 70º Spread 70º (Type IV) SME1=> Throw 70º Spread 40º (Type II) ALA2=> Throw 70º Spread 60º (Type IV)
LED thermal manage-ment	Heat dissipation via conduction, radiation and con-vection based on a design for LED technology.

MANAGEMENT AND CONTROL	
Devices	1N: LED 1N RC: Adjustable LED in head RD: Adjustable LED Protocol DALI AF: Adjustable LED Protocol 1 - 10 V RL: Pulse adjustable LED 2N: Dual level SR: Smart Ready (D4i) Other devices, upon request.
Autonomous regulation	Factory-programmable regulation: 56: 50% from 24:00 to 06:00 66: 60% from 24:00 to 06:00 76: 70% from 24:00 to 06:00
CLO regulation	Percentage flow during product lifespan: 7: 70% luminous flux during luminaire lifespan. 8: 80% luminous flux during luminaire lifespan. 9: 90% luminous flux during luminaire lifespan.
Sockets	3-U: NEMA 3 pin socket with/without IP66 cover 5-V: NEMA 5 pin socket with/without IP66 cover 7-V: NEMA 7 pin socket with/without IP66 cover 4-X: Zhaga socket with/without IP66 cover
Photocells	1: Photocell for NEMA 3, 5 and 7 pin socket (20 lux) 2: Photocell for larger Zhaga socket (20 lux)
Node	ON: Controlux One BS: Controlux Basic

ACCESSORIES

C.SENS presence sensor

LOGISTICAL INFORMATION

- Box size: 600 x 600 x 600 mm

- Individual weight: 8.4 kg.

- Number of boxes: 6 units

- American base: 1200 x 800 x 1950 mm

- Stack height: 3 levels

- Area occupied: 75%

- Volume used: 67.5%

- Total weight: 70 kg.

LUMINAIRE ADJUSTMENT
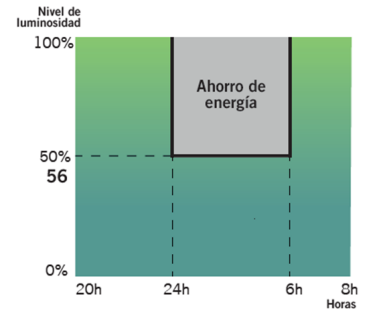
By programming the driver

Programming profile

The driver can be programmed so that luminous flux is reduced from the luminaire during the least busy hours at night while always meeting the required lighting and uniformity levels.

Programming profile 56

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

Hasta un 26% de ahorro

Using the CLO function

While taking lumen depreciation over the years into account, the driver is programmed so that it starts at a reduced level and gradually increases power over the lifespan of the luminaire. This saves energy and increases the lifespan of the system. Furthermore, the light level in the area where the luminaire is installed remains constant over time.
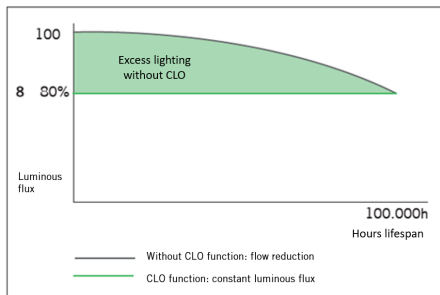
Constant luminous flux 8

luminous flux from the luminaire at 80% to maintain light levels throughout its lifespan.
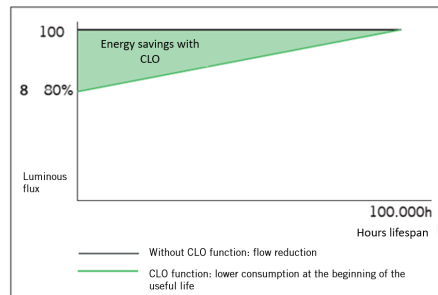
Hasta un 10% de ahorro y se incrementa la vida de la luminaria

Luminous flux chart

Consumption graph

By incorporating an additional device

Presence sensor

By using a presence sensor, lighting can be adjusted according to the level of activity in the area where the luminaire is installed.

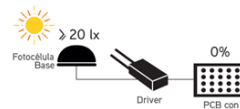The light level is raised when a pedestrian or vehicle is detected in the area.

Photocell

A photocell enables the luminaire to be switched on or off based on the solar light intensity detected.
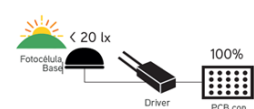
This is extremely useful so the luminaires are not switched on during the day when there is still sufficient natural light.

C LINE

NOTE: The company reserves the right to make product changes without advanced notice
V1. 14/09/2021

INNOVATIVE AND UPDATABLE OVER TIME (Zhaga/ ZD4i)

Zhaga — "Future Proof"

Zhaga is an industrial consortium that seeks to standardise the specifications used for interfaces between LED luminaires and light sources. The goal is to achieve interchangeability between products made by different manufacturers. Zhaga defines the testing procedures for light sources from luminaires and LEDs so that the luminaires accept the LED source.

Zhaga D4i — "Sensor Ready"

The Zhaga consortium merged with DiiA to create one single Zhaga-D4i certificate that combines the specifications for outdoor connectivity from Version 2 of Zhaga Book 18 with the D4i specifications of Dii4 for intra-luminaire DALI.

"BOOKS" PER APPLICATION. A PROFITABLE SOLUTION.

The specifications indicating that a component is Zhaga can be found in a series of books that are only available to consortium members and enable designs to be produced according to the marked standard. The advantages for society are clear given that, besides reducing the consumption of resources, luminaire re-use is increased with a focus on achieving a circular economy.

CERTIFICATION PROGRAMME

Zhaga-D4i certification covers all the essential characteristics, including automatic adjustment, digital communication, data reporting and power requirements in any single luminaire, ensuring plug-and-play interoperability for luminaires (drivers) and peripherals, such as connectivity nodes.

STANDARDISATION AS A MEANS TO ACHIEVE SUSTAINABILITY

The Conus GEN4 luminaire has been designed to function with the latest available market-proven technology based on standards. This also enables it to meet the CARANDINI sustainability requirements and become a product ready for maintenance in the future under better guarantees while respecting the environment and society.

The luminaires marked as Zhaga are a "Future Proof" design, meaning it is based on and designed around standard Zhaga components. These components are mainly the LED modules and the drivers. The electric compartment and dissipation area for LED modules has space and additional mountings to include any driver compliant with Zhaga "Book 13" based on market driver dimensions, or any LED module compliant with Zhaga "Book 15" based on LED controller interface specifications.

This makes it possible to have a sustainable product that can be updated over time.
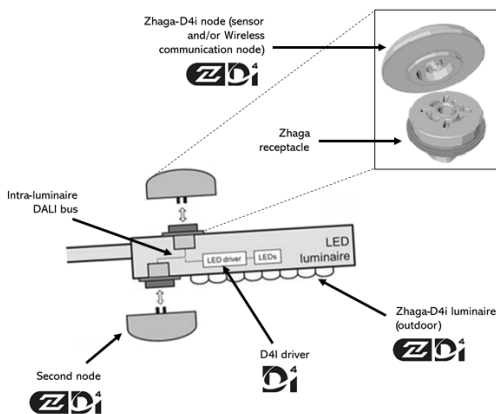
CONNECTIVITY

D4i specifications take the best of the standard DALI2 protocol and adapt it to an interconnected lighting environment, but with certain limitations. Only the control devices installed in the luminaires can be combined with a Zhaga-D4i luminaire. According to the specifications, the control devices are respectively limited to an average power consumption of 2W and 1W.

SMART CITY

Luminaires marked ZD4i are a "Smart Ready" design, which means they are designed to house both indoor and outdoor communication nodes through connection bases compliant with the Zhaga "Book 18" & Zhaga-D4i standard on sensor and communication node interoperability.

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V1. 14/09/2021
6