

Century



KEY ADVANTAGES

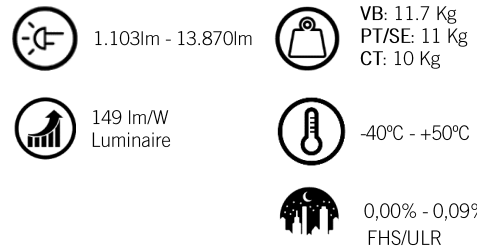
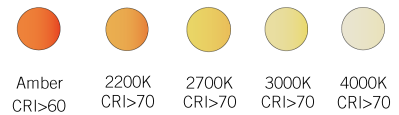
- Up to 4 installation methods
- Tool-free access from the top
- Sturdiness: IP66 + IK10
- Die-cast aluminium (Cu<0,1%)
- Energy Efficient: 149 lm/W
- Up to 10 photometric distributions
- Smart Ready: Designed to house both indoor and outdoor communications nodes
- Future Proof: Zhaga-compliant
- Life span L90B10 100.000h (Ta) 25°C
- Night Friendly: ULR Arrêté du 27 décembre 2018



DESCRIPTION

Century is the latest luminaire from Carandini for amenity applications with a unique design. It offers an elegant, contemporary look to bring visual harmony with its surroundings by day while creating a pleasant atmosphere by night to offer people a feeling of warmth and safety

Thanks to the versatility of brackets and optic distributions, it shapes the light and takes it to where it is required, thus creating comfortable environments in all types of urban spaces such as parks, promenades, squares, pedestrian areas, residential areas or historical centres.



STANDARDS / CERTIFICATES

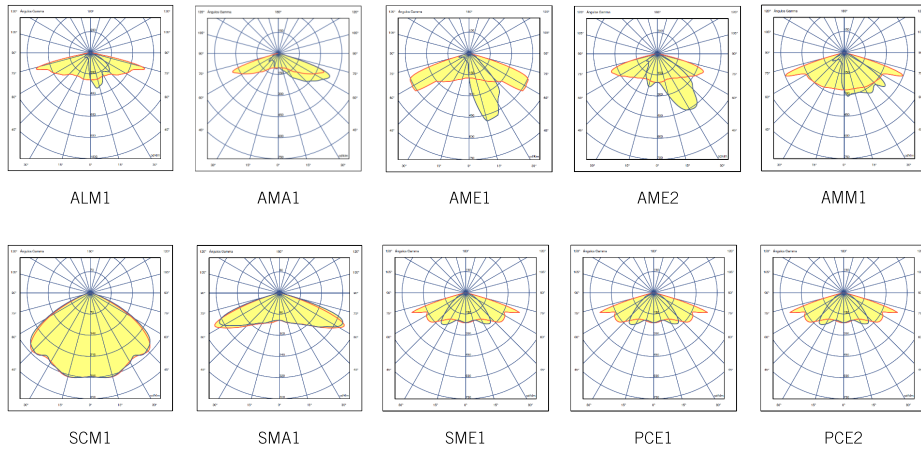
- CE
- RoHS
- UNE-EN 60598-1
- UNE-EN 60598-2-3
- UNE-EN 62471
- UNE-EN 61000-3-2
- UNE-EN 61000-3-3
- UNE-EN 55015
- UNE-EN 61547
- UNE-EN 62031
- UNE-EN 61347-2-13
- UNE-EN 62384
- UNE-EN 13032-4
- UNE-EN ISO 9227 NSS: 2017 (1000h)

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

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

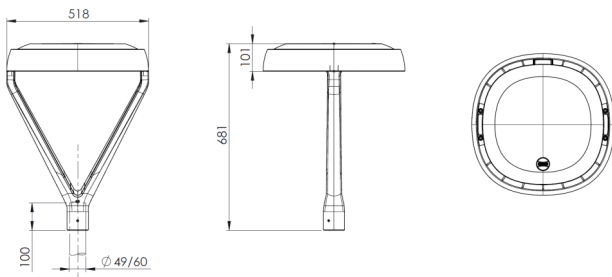
PHOTOMETRIC DISTRIBUTIONS

10 photometric distributions 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:

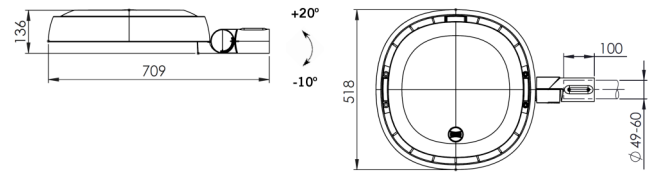


DIMENSIONS (mm)

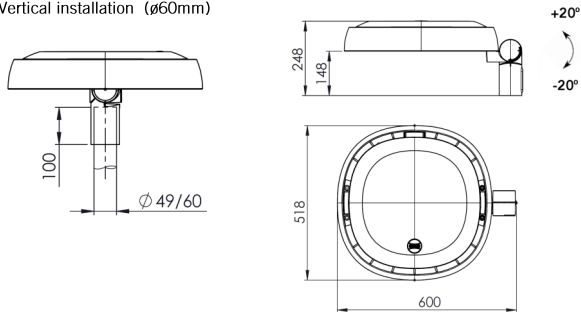
Double arm installation (ø60mm)



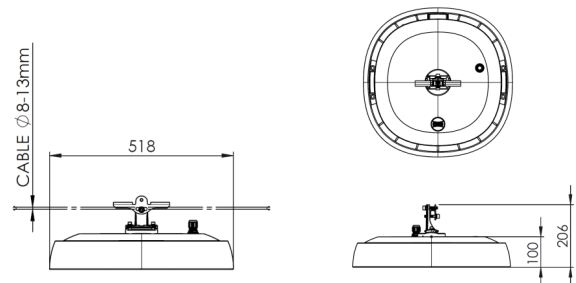
Lateral installation (ø60mm)



Vertical installation (ø60mm)



Installation on overhead cables (ø8-13mm)



APPLICATIONS

Urban streets, parks, squares, residential streets, pedestrian pathways and even cycle lanes.



TECHNICAL CHARACTERISTICS OF CENTURY

GENERAL INFORMATION	
Sustainability	Recyclability: 95.79% Maximum carbon footprint per use: 0.024823 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	
Body and mounts	Pressure die-cast aluminium EN AC-44100 (LM6) with low copper content <0.1%.
Finish	Grey polyester powder coat paint RAL 7015 Textured (715T). Other finishes, upon request.
Light enclosure	5mm toughened flat glass.
Exterior nuts and bolts	Stainless steel (AISI304).
General ingress protection	IP66 (EN 60598-1 y EN 60529)
Degree of protection against impacts	IK10 (EN 62262)
Operating temperature	Ta -40°C to +50°C According to luminaire configuration.
Estimated life	L90B10 100,000h at Ta 25°C. Light maintenance values at 25°C. Calculated by TM-21 based on LM-80 data.

ELECTRICAL CHARACTERISTICS	
Electrical class	Class I Class II
Input voltage	220V - 240V / 50Hz - 60Hz Optional 100V - 277V
Power factor	> 0.9
Harmonic distortion	< 10%
Overvoltage protection	Overvoltage protection (1.2/50) 10 kV. Maximum current (8/20) 10kA. Maximum voltage (L-N) 320 V. Maximum voltage (L/N-GND) 400 V. Optional overvoltage protection: 20 kA, 20kV

LIGHTING CHARACTERISTICS	
Real light flux	1,103 lm up to 13,870 lm (9W - 103W)
LED colour temperature	4,000K (Neutral White, nw). 3,000K (Warm White, ww). 2,700K (Warm White, ww). 2,200K (Warm White, ww). Amber, upon request.
Colour rendering index (CRI)	CRI>70. CRI80 upon request.
LEDs	Includes various types of 12, 24, 36 and 48 LED modules
FHS/ULR	<0.09%
Optics	Acrylic PMMA lenses especially designed for LEDs.
Photometric distributions	ALM1=> Throw 75° Spread 10°/50° (Type III) AMA1=> Throw 70° Spread 65° (Type IV) AME1=> Throw 60° Spread 20° (Type II) AME2=> Throw 70° Spread 15°/35° (Type II) AMM1=> Throw 70° Spread 30°/50° (Type II) SCM1=> Throw 50° Spread 50° (Type VS) SMA1=> Throw 65° Spread 65° (Type VS) SME1=> Throw 70° Spread 35° (Type II) PCE1=> Throw 50° Spread 55°/60° (Type III) PCE2=> Throw 50° Spread 45°/55° (Type II)
LED thermal management	Heat dissipation via conduction, radiation and convection based on a design for LED technology.

TECHNICAL CHARACTERISTICS OF CENTURY

MAINTENANCE AND ASSEMBLY	
Installation and maintenance	Tool-free luminaire access system designed by Carandini. Access to the driver from the top-
Installation	Double arm installation VB2=> ø 60 mm. Lateral installation SE2=> ø 60 mm. Vertical installation PT2=> ø 60 mm. Installation on overhead cables CT1=> ø 8-13 mm.
Mechanical adjustment	The vertical PT installation offers an angle of inclination range from -10° to +20°. The lateral SE installation offers an angle of inclination range from -20° to +20°. The angle of inclination can be seen from the exterior because it is marked on the mounts.
Accessories	C.SENS => column mounted presence sensor. Anti-glare device: upon request.
Equipped weight	Double arm (VB): 11.7 Kg Vertical/lateral (PT/SE): 11 Kg Overhead cable (CT): 10 Kg
Pressure equalisation valve	The luminaire is fitted with a valve that compensates any interior pressure to prevent the build-up of condensation, thereby extending the lifespan of the components.

MANAGEMENT AND CONTROL	
Devices	1N: LED 1N RC: Adjustable LED in head RD: Adjustable LED Protocol DALI AF: Adjustable LED Protocol 1 - 10V RL: Pulse adjustable LED 2N: Dual level SR: Smart Ready D4i Other devices, upon request
Autonomous dimming	Factory-programmable dimming: 56: 50% from 24:00 to 06:00. 66: 60% from 24:00 to 06:00. 76: 70% from 24:00 to 6:00h. SC: As requested by the client.
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-W: 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 column mounted presence sensor



PHOTOGRAPHS OF CENTURY



LOGISTICAL INFORMATION

CENTURY VB

Box size: 630 x 530 x 250 mm

Box weight: 11.7 kg.

Number of boxes: 14 units

American base: 1200 x 800 x 1950 mm

Stack height: 7 levels

Area occupied: 69.6%

Volume used: 67.6%

Total gross weight: 184 kg.

CENTURY PT

Box size: 618 x 536 x 292 mm

Box weight: 11 kg.

Number of boxes: 12 units

American base: 1200 x 800 x 1952mm

Stack height: 6 levels

Area occupied: 69%

Volume used: 60,5%

Total gross weight: 152 kg.

CENTURY SE

Box size: 727 x 536 x 180 mm

Box weight: 11 kg.

Number of boxes: 16 units

American base: 1200 x 800 x 1640 mm

Stack height: 8 levels

Area occupied: 81,2%

Volume used: 77,4%

Total gross weight: 196 kg.

CENTURY CT1

Box size: 536 x 536 x 251 mm

Box weight: 10 kg.

Number of boxes: 12 units

American base: 1200 x 800 x 1706 mm

Stack height: 6 levels

Area occupied: 59,9%

Volume used: 58,4%

Total gross weight: 140 kg.

LUMINAIRE DIMMING

By programming the driver

Programming profile

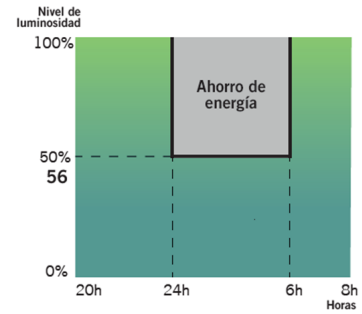
The driver can be programmed so that luminous flux is reduced from the luminaire during the least busy hours at night while always meeting the required lighting and uniformity levels.

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

Gráfico de flujo luminoso

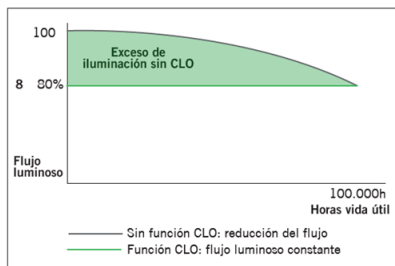
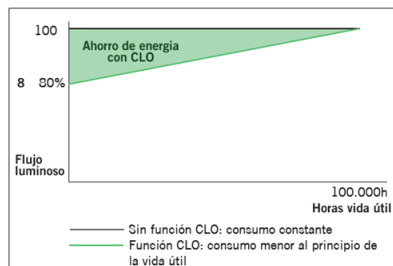


Gráfico de consumo



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.



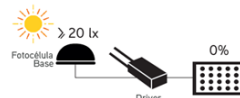
Photocell

A photocell enables the luminaire to be switched on or off based on the solar light intensity detected.

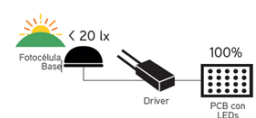
This is very useful to avoid having luminaires on at times of the day when there is still enough natural light.

Ejemplo con fotocélula de 20 lx:

Si la fotocélula detecta más de 20 lx no activará el encendido de la luminaria.



Es cuando los niveles luminicos empiezan a bajar que la fotocélula detecta 20 lx y activa el encendido de la luminaria.





INNOVATIVE AND UPDATABLE OVER TIME (Zhaga/ ZD4i)

Zhaga

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.

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 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

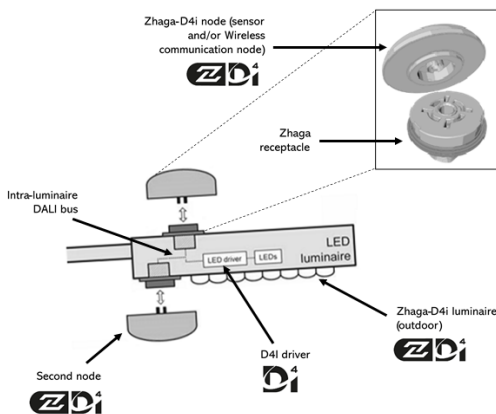
Zhaga-D4i certification covers all the essential characteristics, including automatic adjustment, digital communication, data reporting and power requirements in any single luminaire, ensuring plug-and-play interoperability for luminaires (drivers) and peripherals, such as connectivity nodes.

STANDARDISATION AS A MEANS TO ACHIEVE SUSTAINABILITY

The Century 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.

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.