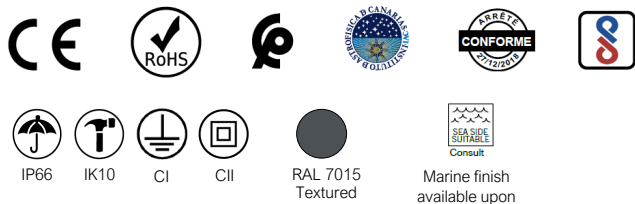


Junior



KEY BENEFITS

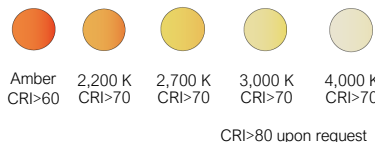
- Tool-free access from the top.
- Durability and sturdiness: IP66 + IK10.
- Die Cast aluminium (Cu<0.1%)
- Up to 20 optical distributions.
- Energy Efficient: Up to 150 lm/W luminaire.
- Smart Ready: Designed to house both indoor and outdoor communication nodes.
- Future Proof: Zhaga-compliant.
- Lifetime L90B10 100.000h (T^a) 25°C.
- Night Friendly: ULR Arrêté du 27/12/ 2018.
- 5 years warranty



DESCRIPTION

Junior model is a luminaire designed and manufactured by Carandini. It adapts perfectly to urban settings such as parks, walkways, pedestrian streets or squares.

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



STANDARDS / CERTIFICATES

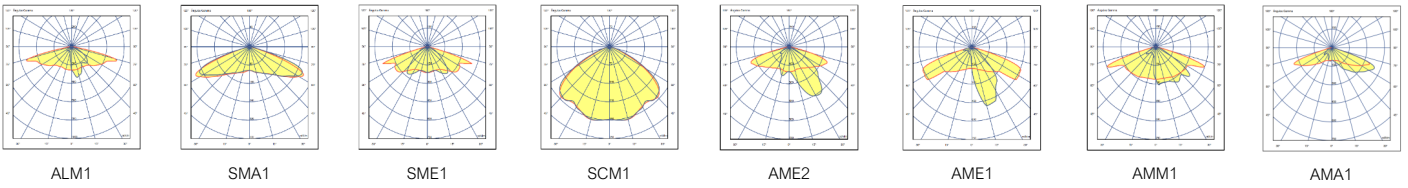
- CE
- RoHS
- UNE-EN 60598-1
- UNE-EN 60598-2-3 or 60598-2-5
- UNE-EN 62471:2009
- UNE-EN 60598
- UNE-EN 62031
- UNE-EN 61347-2-13
- UNE-EN 62384
- UNE-EN 13032-4
- UNE-EN ISO 9227 NSS: 2017 (1,000 h)

	GEN4: 1385 lm - 10.220 lm GENA: 1.132 lm - 11.773 lm		Lateral fixation: 9.7 Kg V bracket fixation: 12 Kg
	GEN4: 150 lm/W GENA: 155 lm/W Luminaire		Lateral fixation: 0.10 m ² V bracket fixation: 0.14 m ²
	Tool-free access from the top		-40°C - +50 °C
			0.00% - 0.09% FHS / ULR
			220 - 240 V / 100 V - 277 V 50-60 Hz L90B10 100,000 h Ta 25 °C

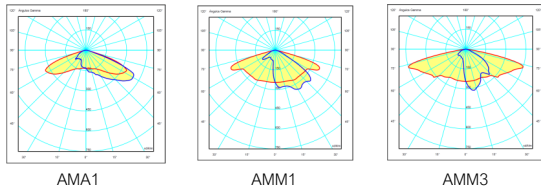
PHOTOMETRIC DISTRIBUTIONS

It has the 20 photometric distributions used for the environments in which this type of luminaire is installed, allows it to adapt to all needs:

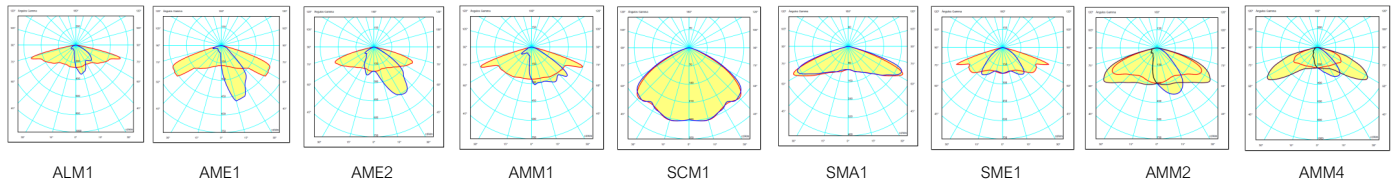
GEN4



AMBER

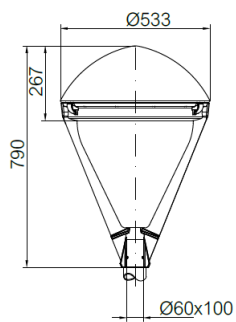


GENA

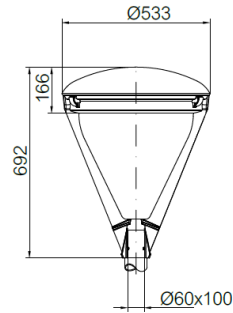


DIMENSIONS (mm)

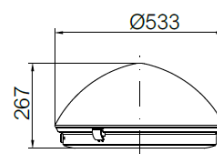
Fixation with V bracket and low dome



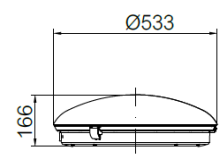
Fixation with V bracket and high dome



Lateral fixation and high dome

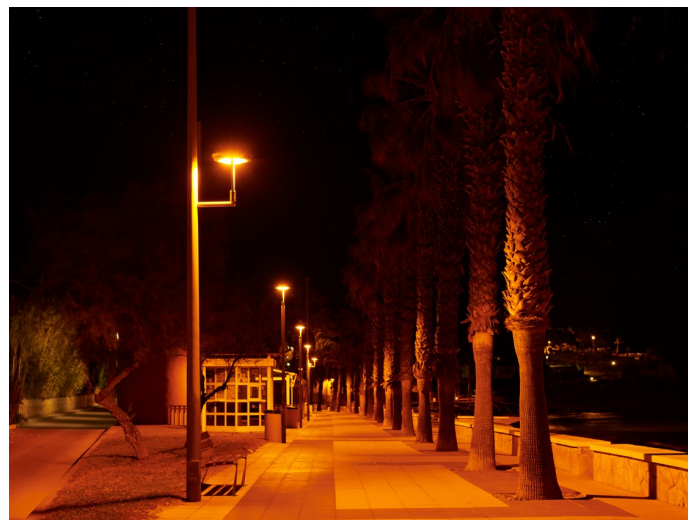


Lateral fixation and low dome



APPLICATIONS

Streets and avenues, shopping areas, parks, squares and gardens, greenways and bike lane, residential and pedestrian areas, train and bus stations.



Distributor: EPK elektro s.r.o.
info@carandini.cz - www.carandini.cz

NOTE: The company reserves the right to make product changes without advanced notice
V1. 28/02/2025

JUNIOR CHARACTERISTICS

GENERAL INFORMATION

Sustainability	Valorisation: 99,07% Maximum carbon footprint per use: 0,022792kg 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	Pressure die-cast aluminium EN AC-44100 low copper content <0.1%.
Dome	Two types of dome available: High dome Low dome Both domes are made from spun aluminium sheet 1050-E S/UNE 38117.
Closure	Toughened flat glass or curved tempered glass of 4 mm.
Nuts outer and bolts	Stainless steel (AISI304).
Watertightness	IP66 (EN 60598-1 and EN 60598-2-3)
Impact protection grade	IK10 (EN 62262)
Operating temperature	Ta -40 °C to +50 °C According to luminaire configuration.
Lifetime	L90B10 100,000 h at 25 °C. Light maintenance values at 25 °C are calculated by TM-21 based on LM-80 data.
Cables	Clase I/II Longitud: De 4 a 13m Sección: 2x1,..5; 3x1,..5; 4x1,..5; 5x1,..5;

ELECTRICAL CHARACTERISTICS

Electrical class	Class I or Class II
Voltage / Frequency	220 V - 240 V / 50 Hz - 60 Hz Optional 100 V- 277V (Upon request)
Power factor	> 0.9
Harmonic distortion	< 10%. Other voltages upon request.
Surge protector	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, 20 kV.

MAINTENANCE AND ASSEMBLY

Installation and maintenance	Access to the driver from the top through dome with no screws or tools. Independent replacement of component systems sharing optics (model and lens) and auxiliary equipment.
Fixation	Vertical fixation with "VB2" brackets with mounting diameter of Ø60 mm. "SE2" lateral fixation.
Accessories	BHM=> Lateral wall bracket Ø60 mm x 100 mm. BVM=> Vertical wall bracket Ø60 mm x 100 mm. JFVD-60 => Double vertical fixation Ø60 mm x 100 mm. JFVS-60 => Single wall fixation Ø60 mm x 100 mm.
Equipped weight	Lateral fixation=> 9.7 Kg V bracket fixation=> 12 Kg
Pressure compensation valve	Ventilation system to equalise pressure change caused by the temperature difference inside and outside the luminaire. Predicts condensation and voltages caused by temperature changes. (Increases product life).

LIGHTING CHARACTERISTICS

Package real light	GEN4: 1385 lm - 10.220 lm (17 - 73W) GENA: 1.132 lm - 11.773 lm (17 - 73W)
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.
Index of reproduction chromatic (CRI)	CRI>70. CRI80 upon request.
LED	Incorporate from 16, 24, 32 and 48 LED modules.
ULR	<0.09%
Optics	PMMA polymethylmethacrylate.
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) AMBER AMA1 => Throw 65° spread 65° (Type IV) AMM1 => Throw 70° spread 35°/50° (Type III) AMM2 => Throw 60° Spread 35° (Type II)
LED thermal control	Heat dissipation via conduction, radiation and convection based on a design for LED technology.

MANAGEMENT AND CONTROL

Equipment	1N: 1 Level RC: Controller dimmed RD: DALI AF: 1 - 10 V RL: Pulse adjustable LED 2N: 2 Level SR: Smart Ready (D4i)
Autonomous regulation	Regulations programmed from the factory: 56: 50% of the 24: 00h at 6: 00h. 66: 60% of the 24: 00h at 6: 00h. 76: 70% of the 24: 00h at 6: 00h. SC: Programming according to client.
CLO regulation	Flow rate during the life of the product: 7: 70% luminous flux throughout the life of the luminaire. 8: 80% luminous flux throughout the life of the luminaire. 9: 90% luminous flux throughout the life of the luminaire.
Socket connection	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
Sensor	1: Photocell for NEMA 3, 5 and 7 pin socket (20 lux) 2: Photocell for larger Zhaga socket (20 lux)
Node	BS: Controlux Basic IMCU

FINISHES

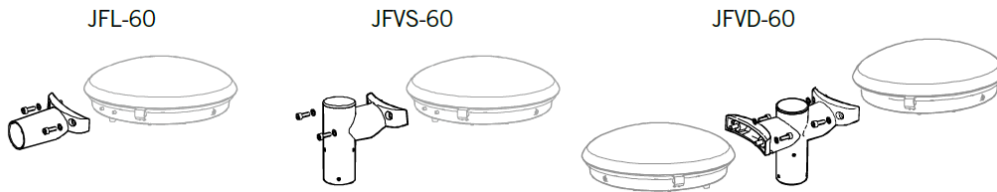
Predefined luminaire colour

RAL 7015	RAL-7015 Slate grey textured
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Corrosion protection

SEA SUITE SUITABLE	Marine Finish (1.000h)
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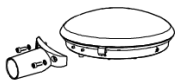
MANDATORY ACCESSORIES



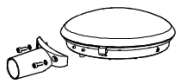
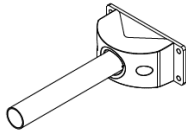
OPTIONAL ACCESSORIES

Wall fixation (consult)

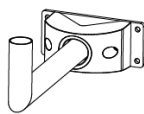
Ref. 301364



Ref. 320259

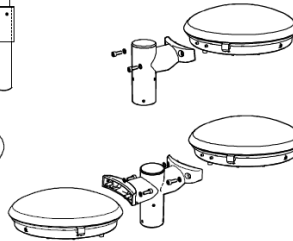
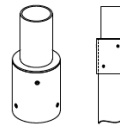


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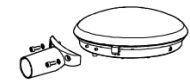
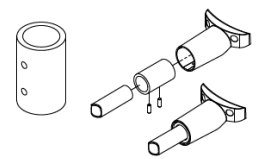


Amplifiers and reducers

Ref. 319677 / 319978



Ref. 111861



LOGISTICAL INFORMATION*

	Vertical fixation	Lateral fixation
Box size:	555 x 555 x 825 mm	555 x 555 x 330 mm
Individual weight:	12 kg	9.7 kg
Number of boxes:	8 units	24 units
American base:	1200 x 1100 x 1800 mm	1200 x 1100 x 2130 mm
Stack height:	2 levels	6 levels
Area occupied:	95.2%	92.5%
Volume used:	76.3%	91.3%
Total weight:	116 kg	253 kg

LUMINAIRE DIMMING

By programming the driver

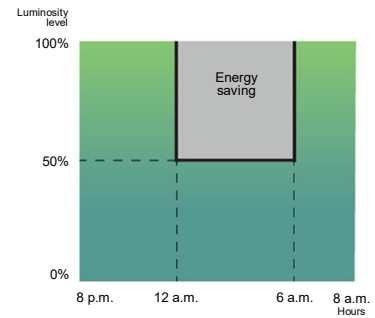
Smart luminaires drivers can be programmed in the factory without needing a control system, additional wiring or maintenance costs. A schedule is pre-programmed for light flow to be automatically reduced at quieter times of the night while respecting light levels and uniformity.

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

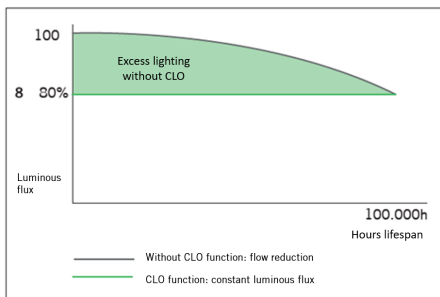
Taking into account lighting depreciation over the years, the driver is programmed to start at a reduced level and gradually increase power over the lifetime of the luminaire, which saves energy and increases the service life of the system. In addition, the level of illumination of the area in which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

Constant luminous flux 8

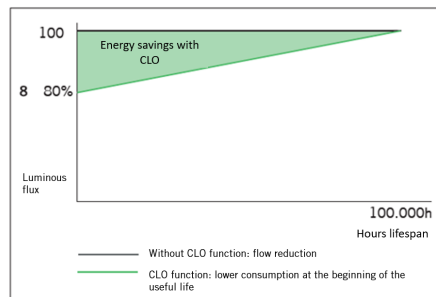
Luminaire luminous flux at 80% to maintain light levels throughout its service life.

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:



INNOVATIVE AND UPDATABLE OVER TIME (Zhaga/ ZD4i)

All luminaires incorporating Nema Bases or Zhaga Bases, where the control system is not the responsibility of Carandini, must always incorporate IP 66 covers in order to ensure the correct safety and operation of the product.

The sale of luminaires with Nema or Zhaga Bases without the IP 66 cover will only be permitted upon receipt of a written assurance from the customer that the control system using NEMA or ZHAGA Nodes will be installed by the customer at the same time as the luminaires".

Zhaga

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

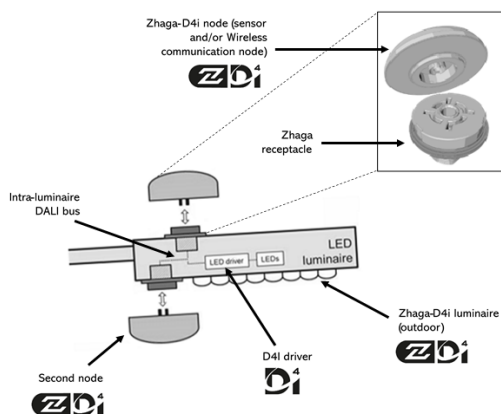
Zhaga-D4i certification covers all essential features, including automatic setting, digital communication, data reporting and power requirements within a single luminaire, ensuring plug-and-play interoperability for luminaires (drivers) and peripherals such as connectivity nodes.

STANDARDISATION AS A MEANS TO ACHIEVE SUSTAINABILITY

The Junior 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 2 W and 1 W.

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.