

Veka N



KEY ADVANTAGES

- Up to 5 installation methods
- Tool-free access from the top
- Sturdiness: IP66 + IK10
- Die-cast aluminium (Cu<0.1%)
- Energy Efficient:
GEN1: 150 lm/W.
GENA: 156 lm/W.
- Up to 9 optical 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
- Can incorporate presence sensor in luminaire.
- Optional pre- or post-installation shielding for these luminaires
- 5 years guarantee.



Dark-Sky Association certification

≤ 3.000K not available for 4.000K.

Mechanical adjustment: max. + or- 15 degrees to allow leveling in the field.

DESCRIPTION

Veka is the new luminaire family for public street lighting by Carandini. Its elegant design, latest generation LED technology and optical distributions make it a quality solution for urban streets, secondary roads, residential streets, car parks and bike lanes.



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 (1,000 h)

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



GEN1:
622lm - 10.232lm
GENA:
794m - 11.200lm



PT: 0.08m²
SE: 0.09m²
FM: 0.08m²



GEN1:150lm /W
GENA: 156lm/W
Luminaire



-40°C -
+55°C



5.3 Kg



0.00% - 0.33%
FHS/ULR

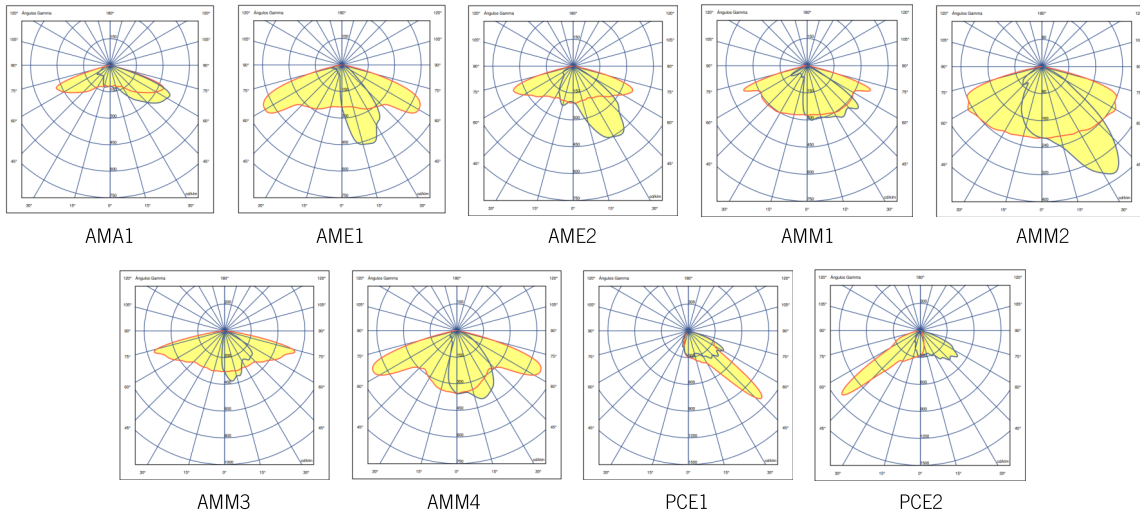


Tool-less
access to
control gear

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

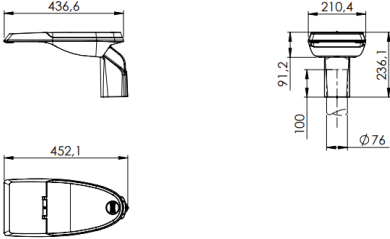
PHOTOMETRIC CONFIGURATIONS

9 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

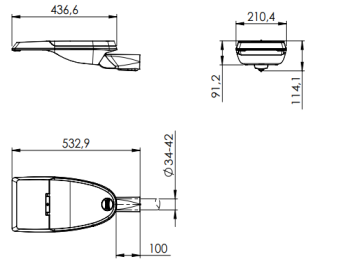


DIMENSIONS

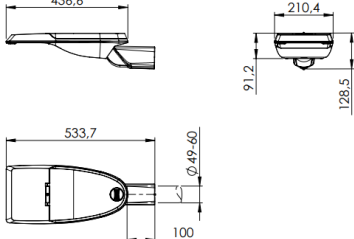
Vertical installation $\varnothing 76$ mm (PT1)



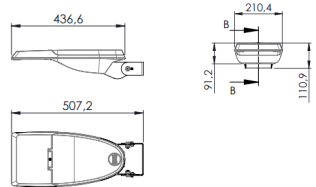
Lateral installation $\varnothing 34/42$ mm (SE1)



Lateral installation $\varnothing 49/60$ mm (SE2)



Wall installation. Fork included (FM1)



APPLICATIONS

Public streets, secondary roads, residential streets, car parks and bike lanes.



VEKA N CHARACTERISTICS

GENERAL INFORMATION

Sustainability	Recyclability: 99,38% Carbon footprint per use: 0,020461 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 mounting	Pressure die-cast aluminium EN AC-44100 (LM6) with low copper content <0.1%.
Light enclosure	5mm toughened flat glass
Exterior nuts and bolts	Stainless steel (AISI304).
General ingress protec-	IP66 (EN 60598-1 and EN 60529)
Degree of protection against impacts	IK10 (EN 62262)
Operating temperature	Ta -40 °C a +50 °C According to luminaire configuration.
Estimated life	L90B10 100,000 h at 25°C. Light maintenance values at 25 °C. Calculated by TM-21 based on LM-80 data.
Cable	Class I/II Cable from 4 to 8 metres Cross-section: 2x1.5 ; 3x1.5 ; 4x1.5 ; 5x1.5; 2x2.5; 3x2.5

ELECTRICAL CHARACTERISTICS

Electrical class	Class I or Class II
Input voltage	220V - 240V / 50Hz - 60Hz Optional 100 V- 277 V
Power factor	> 0.99
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: 20kA, 20kV

LIGHTING CHARACTERISTICS


Real light package	GEN1: 785 lm to 10.232 lm (12 - 112W) 150lm/W GENA: 800lm to 11.200lm (12 - 112W) 156lm/W
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 8, 16 and 24 LED modules.
FHS/ULR	Between 0.00% and 0.33%
Optics	Acrylic PMMA lenses especially designed for LEDs.
Photometric configurations	AMA1=> Throw 70° Spread 65° (Type IV) AME1=> Throw 65° Spread 15° (Type I) AME2=> Throw 70° Spread 35° (Type II) AMM1=> Throw 70° Spread 35°/50° (Type III) AMM2=> Throw 60° Spread 35° (Type II) AMM3=> Throw 75° Spread 5°/20° (Type III) AMM4=> Throw 65° Spread 20° (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.

FINISHES

PREDEFINED COLOUR OF THE LUMINAIRE

 RAL 9006	Grey polyester powder coat paint RAL 9006 Smooth Gloss (9006B).
--	---

Corrosion protection

 SEA SIDE SUITABLE	Marine Finish (1.000h)
---	------------------------

VEKA N PHOTOGRAPHS

MAINTENANCE AND ASSEMBLY

Installation and maintenance	Tool-free luminaire access system designed by Carandini. Access to the driver from the top.
Installation	PT1: Vertical installation \varnothing 76mm.* SE1: Lateral installation \varnothing 34/42mm. SE2: Lateral installation \varnothing 49/60mm. FM1: Wall installation. Includes fork for direct installation on wall. * The PT1 fixing shall be supplied horizontally mounted with SE for sustainability.
Mechanical adjustment	Vertical and lateral installations offers an angle of inclination range of $\pm 10^\circ$ every 2.5° . The fork for wall installation offers a range of inclination of $\pm 40^\circ$ every 2.5° .
Equipped weight	PT1: 5.3 Kg SE1: 4.8 Kg / SE2: 5.1 Kg FM1: 5 Kg
Wind Surf.	PT: 0.08m ² SE: 0.09m ² FM: 0.08m ²
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 1 level 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
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 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: Larger Zhaga socket with/without IP66 cover. O-Y: Smaller Zhaga socket with/without IP66 cover. P-Q: Smaller/larger 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) 3: Motion sensor for smaller Zhaga socket. 4: Photocell for larger Zhaga socket (20 lux) and motion sensor for smaller Zhaga socket.
Node	BS: Controlux Basic

ACCESSORIES

Optional pre- or post-installation shielding for these luminaires



VEKA N PHOTOGRAPHS



LOGISTICAL INFORMATION

VEKA N PT

Box size: 470 x 229 x 279 mm

Box weight: 5.3 kg.

Number of boxes: 42 units

American base: 1200 x 800 x 1875 mm

Stack height: 6 levels

Area occupied: 78.5%

Volume used: 73%

Total gross weight: 242 kg

NOTE: By sustainability reasons PT1 & PT2 fixing accessories will be supplied assembled by side entry (SE) .

VEKA N SE

Box size: 552 x 229 x 147 mm

Box weight: 5.1 kg.

Number of boxes: 84 units

American base: 1200 x 800 x 1750 mm

Stack height: 12 levels

Area occupied: 92,2%

Volume used: 90,3%

Total gross weight: 449 kg.

LUMINAIRE ADJUSTMENT

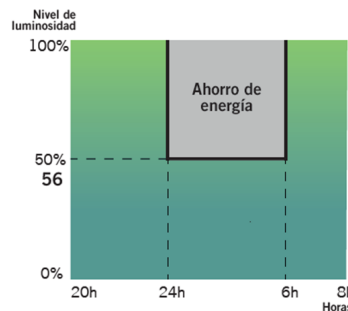
By programming the driver

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

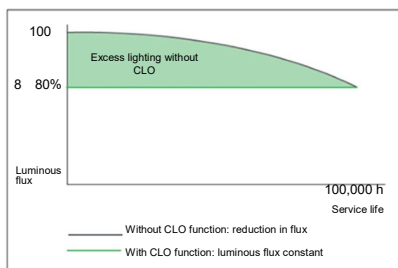
luminous flux from the luminaire at 80% to maintain light levels throughout its lifespan.

Hasta un

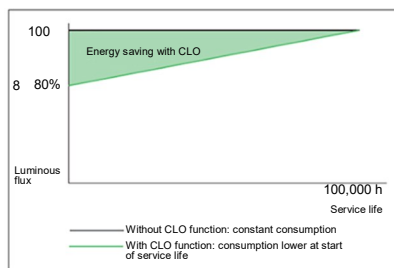
10%
de ahorro

y se incrementa la vida de la luminaria

Graph: Luminous flux



Graph: Consumption



By incorporating an additional device

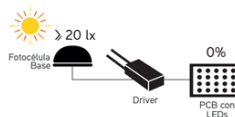
Photocell

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

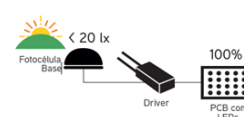
This is extremely useful so the luminaires are not switched on during the day when there is still sufficient natural light.

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.



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



INNOVATIVE AND UPDATABLE OVER TIME (Zhaga/ ZD4i)

"All luminaires incorporating Nema Sockets or Zhaga Sockets, 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 Sockets 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 - 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.



	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

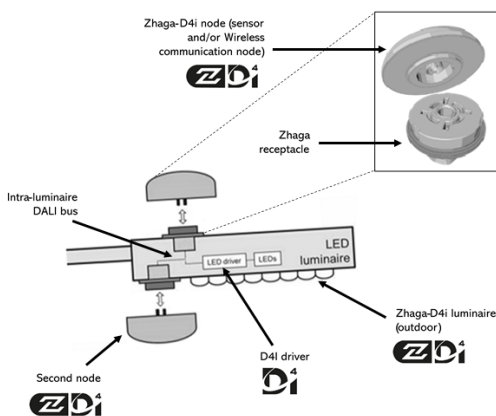
Zhaga-D4i certification covers all the essential characteristics, including automatic adjustment, digital communication, data reporting and power requirements in any single luminaire, ensuring plug-and-play interoperability for luminaires (drivers) and peripherals, such as connectivity nodes.

STANDARDISATION AS A MEANS TO ACHIEVE SUSTAINABILITY

The Veka N 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.