Mikos S

KEY BENEFITS

- Wide tilt adjustment: ± 90°.
- Tool-free access from the top.
- Flat heat dissipation surface prevents dirt accumulation.
- Durability and sturdiness: IP66 + IK09.
- Injected aluminium (Cu<0.1%).
- Energy Efficient:
  GEN1: 150 lm/W
  GENA:158 lm/W
- Up to 25 optical distributions.
- Smart Ready: Designed to house both indoor and outdoor communication nodes.
- Future Proof: Zhaga-compliant.
- Lifetime L90B10 100.000h (Tª) 25ºC.
- Night Friendly: ULR Arrêté du 27 décembre 2018.
- 5 years warranty.

IP66 IK09 CI CII

RAL 9005 Textured

Marine finish (RAL M9005T)

DESCRIPTION

Mikos' design features organic lines, fitting perfectly into urban environments.

Thanks to its functionality and the wide variety of optical distributions, it is an ideal lighting solution for squares, parks, roundabouts, promenades and urban roads.

		CRI>60		CRI>70	CRI>70	CRI>70	CRI>70
		Amber optic + 4000K	PC amber	2200K	2700K	3000K	4000K
U500	GEN1	<0,2%	<0,25%	<6%	<10%	<15%	< 22%
	GENA	-	-	-	-	12,36%	19,7%

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
- UNE-EN ISO 9227 NSS: 2017 (1000 h)

GEN1:
948lm - 10.413lm
GENA:
1.163 lm - 10.670lm

GEN1:
150 lm/W
GENA:
158 lm/W

Access to gear without tools

6 kg

-40°C - +50°C

0.00% - 0.08% FHS/ULR

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

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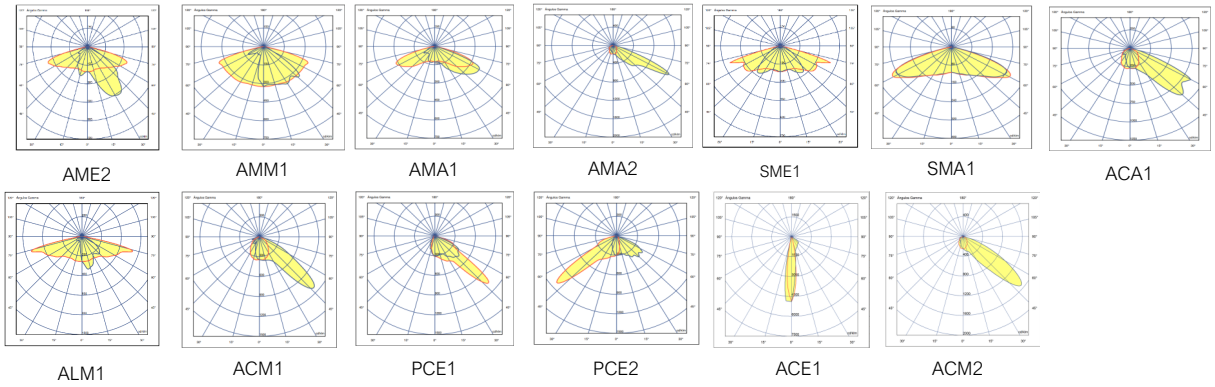
V1: 18/11/2025

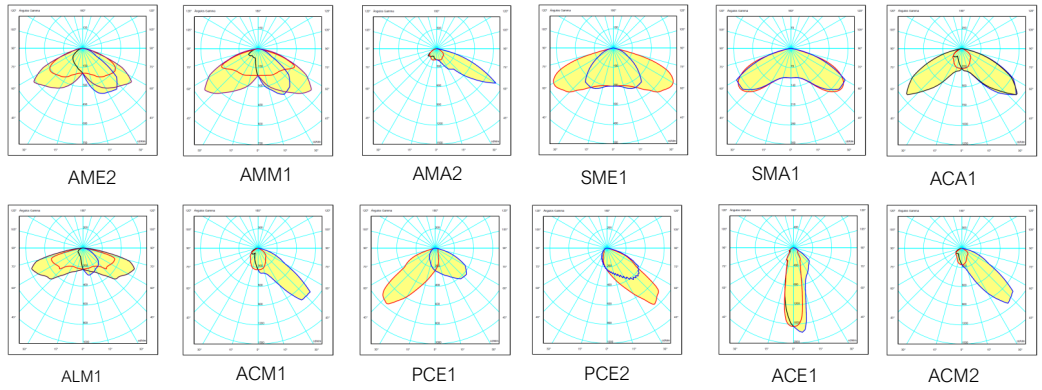
PHOTOMETRIC DISTRIBUTIONS

Provides the 25 photometric distribution patterns suited to the environments in which this luminaire is typically installed, making it adaptable to all requirements.

GEN1:

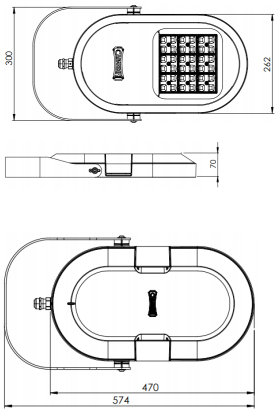


GENA:

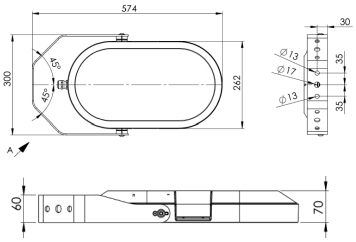


DIMENSIONS

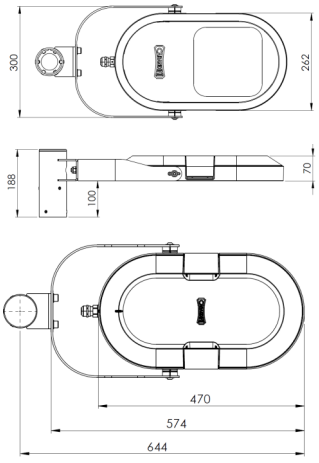
H01: Steel bracket



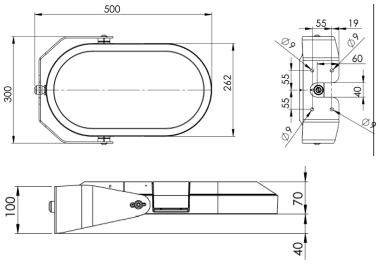
H45: 45º steel bracket



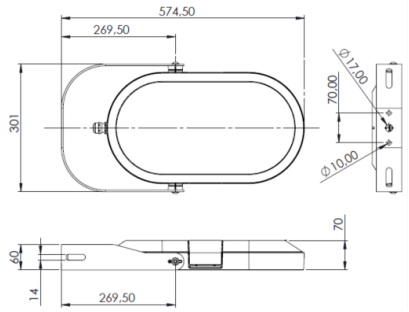
PT2: Vertical steel fixation for 60mm tube.



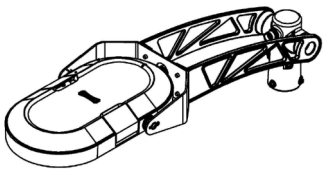
Bracket fixation wall bracket/ HBM/ HBC pole:



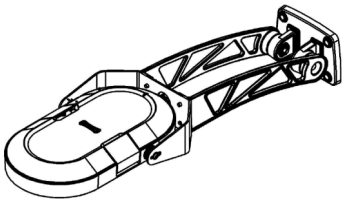
HCL: Steel bracket with slotted holes.



View with HBC arm 321367



View with HBM arm 321366



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MIKOS S CHARACTERISTICS

GENERAL INFORMATION

Sustainability	Valorisation: 99.17% Maximum carbon footprint during use: 0.02072 kg kW/h de CO2.
CE Mark	Yes
ENEC Certificate	Yes
RoHS compliance	Yes
Test standard	LM 79-80 (all laboratory measurements certified in accordance with ISO17025)

GENERAL CHARACTERISTICS

Body	Die-cast aluminium EN AC-44100 with low copper content <0.1%
Closure	Tempered glass 5mm
Nuts outer and bolts	Stainless steel (AISI304).
Watertightness	IP66 (EN 60598-1 and EN 60529)
Degree of protection against impacts	IK09 (EN 62262)
Operating temperature	Ta -40°C to +50°C Depending on luminaire configuration.
Lifetime	L90B10 100,000h at Ta of 25°C. Light maintenance values at 25°C. They are calculated in accordance with 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

ELECTRICAL CHARACTERISTICS

Electrical class	Class I or Class II
Voltage / Frequency	220 V - 240 V/50 Hz - 60 Hz Optional 100 V - 277 V
Power factor	> 0.99
Harmonic distortion	< 10%
Surge protector	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

Package real light	GEN1: 948lm - 10.413lm GENA: 1.163 lm - 10.670lm
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). Optional amber colour temperature.
Index of reproduction chromatic (CRI)	CRI>70. CRI80 upon request.
LEDs	Incorporates 12, 24 and 36 LEDs.
ULR	<0.08%
Optics	PMMA polymethylmethacrylate.
Photometric distributions	**ACA1:** Throw angle 10º spread angle 45º/60º (Type III) **ACE1**: Throw angle 0º spread angle 50º (Type III) **ACM1**: Throw angle 15º spread angle 55º (Type III) **ACM2**: Throw angle 10º spread angle 50º (Type III) **ALM1**: Throw angle 75º spread angle 10º/45º (Type III) **AMA1**: Throw angle 70º spread angle 45º/70º (Type IV) **AMA2**: Throw angle 15º spread angle 60º (Type III) **AME2**: Throw angle 70º spread angle 15º/40º (Type II) **AMM1**: Throw angle 70º spread angle 35º/55º (Type III) **PCE1**: Throw angle 45º spread angle 50º/60º (Type IV) **PCE2**: Throw angle 50º spread angle 55º/65º (Type III) **SMA1**: Throw angle 65º spread angle 65º (Type VS) **SME1**: Throw angle 70º spread angle 40º (Type II)
LED thermal control	Heat dissipation by conduction, radiation and convection via specific design for LED technology.

FINISHES

Predefined luminaire colour

RAL 9005	Polyester powder 9005 intense matt textured black.

Corrosion protection

SEA SIDE SUITABLE	Marine Finish (1.000h)

MIKOS S CHARACTERISTICS

MAINTENANCE AND INSTALLATION

Installation and maintenance	Tool-free access to the driver from above via top panel.
Fixations	**H01:** Steel bracket. **H45:** 45º steel bracket. **HCL:** Steel bracket with slotted holes. **PT2:** Vertical steel fixation for 60mm tube. **HBM:** Cast iron bracket with wall bracket. **HBC:** Cast iron bracket with pole bracket.
Weight	6 kg

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-W:** NEMA 7 pin 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

PHOTOS MIKOS S

Fixation by mounting bracket

Vertical fixation for a Ø60 mm poles

APPLICATIONS

Roundabouts and intersections, logistics centres, parking, shopping areas, facades and monuments, sports areas, residential and pedestrian areas.

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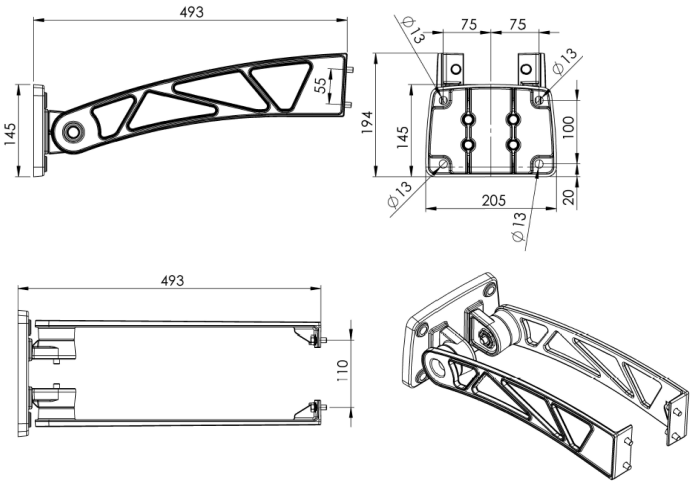
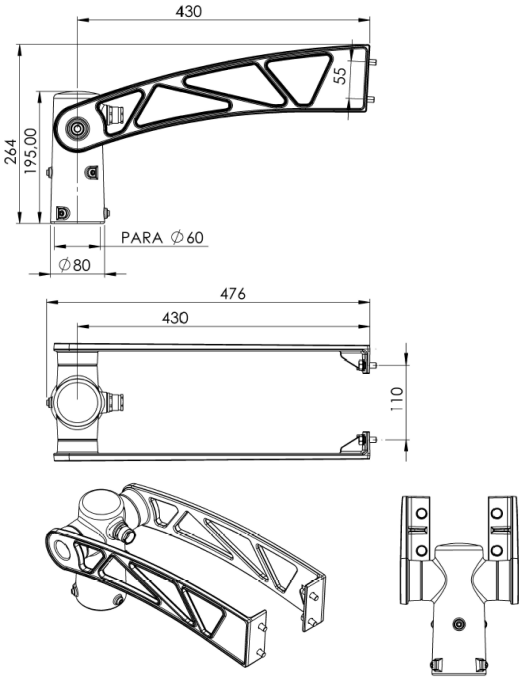
Bracket

HBM: Wall bracket



HBC: Pole bracket arm



LOGISTICAL INFORMATION

Box size: 590X315X125mm

Box weight: 6Kg

Number of boxes: 52 units

American base: 1200 x 800 x 1830 mm

Stack height: 13 levels

Area occupied: 77,4%

Volume used: 74%

Total gross weight: 322 kg.

LUMINAIRE DIMMING

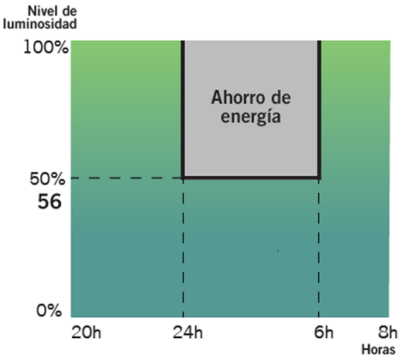
By programming the driver

Smart luminaires drivers can be programmed in the fac-tory 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%.

Hasta un 26% de ahorro



NOTE: Programming the Dynadimmer using the multione scheduling tool is done for wintertime. In summer everything is delayed by an hour.

Using the CLO function

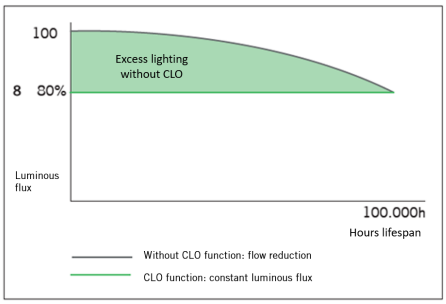
While taking lumen depreciation over the years into account, the driver is programmed so that it starts at a reduced level and gradually increases power over the lifespan of the luminaire. This saves energy and increases the lifespan of the system. Furthermore, the light level in the area where the luminaire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

Constant luminous flux 8

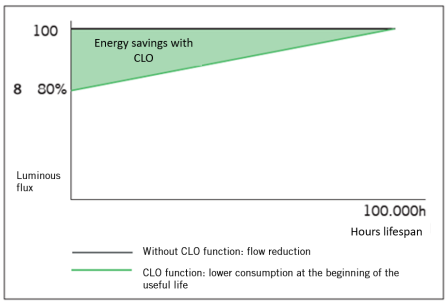
luminous flux from the luminaire at 80% to maintain light levels throughout its lifespan.

Hasta un 10% de ahorro y se incrementa la vida de la luminaria

Luminous flux chart



Consumption graph



By incorporating an additional device

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.

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 - 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.

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

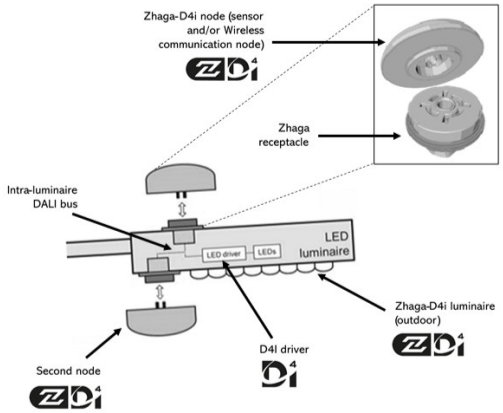
Zhaga-D4i certification covers all essential features, including automatic setting, digital communication, data reporting and power requirements within a single luminaire, ensuring plug-and-play interoperability for luminaires (drivers) and peripherals such as connectivity nodes.

STANDARDISATION AS A MEANS TOWARDS SUSTAINABILITY

The **Mikos S** luminaire has been designed to operate with the latest tried and tested technology available on the market, in accordance with current standards, 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.

This allows us to provide a sustainable product that can be upgraded over time.



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 **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.