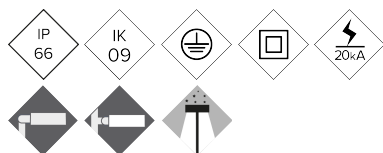


ALCO

Luminaire COSMOS



Innovative urban luminaire with a circular design, featuring an illuminated circle effect through multiple light sources around its perimeter. An ideal solution for urban, pedestrian zones, and high-visibility spaces due to its iconic presence in the urban landscape. With a flat profile and fixation to columns using post-top mounting, it offers power outputs ranging from 40W to 150W, with an optimized optical design for perfect glare control, suitable cut-off for pedestrians, and no upward emission. Ready R4IoT.

MAIN FEATURES:

High efficiency. Up to 145 lm/W actual.
From 40W to 150W.
Double cavity, Driver and Optical Group.
Zhaga Standard (Book 15).
Ready for IoT. Prepared for connectivity.
Iconic Design.

APPLICATIONS:

Urban Roads and Streets
Residential Streets (30 km/h Zones)
Pedestrian Areas
Commercial and Touristic Streets
Squares
Green Areas; Parks and Gardens

[Project sheet](#) | [CAD](#) | [HD image](#)

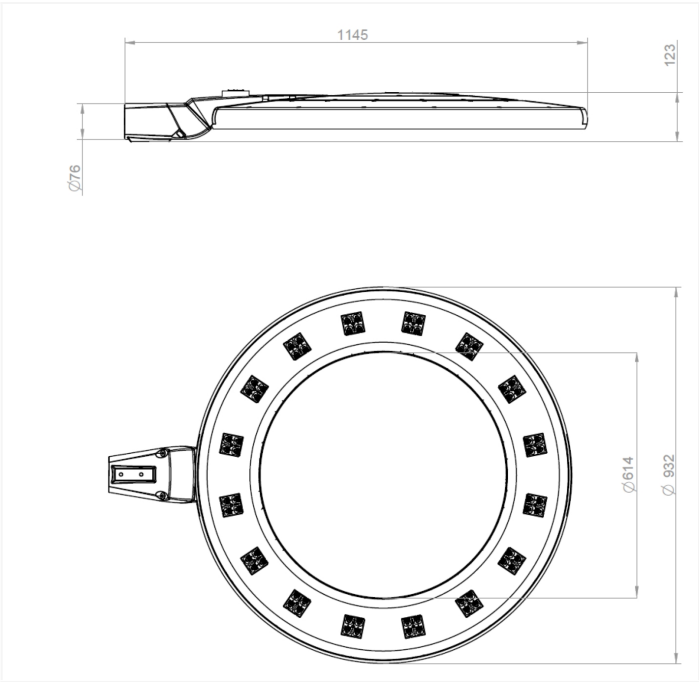
BENITO

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SPECIFICATIONS :

Housing material:	High pressure die-cast aluminium EN AC-43000, EN AC-43100, EN AC-43400, EN AC-44100, EN AC-47100 according to the UNE EN 1706 standard
Diffuser (optic system enclosure):	UV filtering 5mm polycarbonate glass
Fixing elements:	Stainless steel 18/8 - AISI 304
Housing:	Double compartment: driver / LED module
Sealing gaskets:	Silicone foam
IP rating (luminaire):	IP66
IP rating (optic system):	IP66
IK rating (impact resistance):	IK09
LEDs thermal dissipation:	Thermal dissipation through finless luminaire body, without conductive fluids. Passive convection dissipation ensuring thermal contact with the LED modules through a high-conductivity thermal transfer material
Anti-condensation valve:	Pressure-balancing valve to ensure moisture release, avoid condensation and maintain the luminaire IP tightness
Paint and finishes:	Polyester powder paint coating, electrostatically sprayed and sublimated in the oven. Resistant to corrosion
Colour:	Black
Mounting:	Ø76 mm (optional with accessories: Ø60 mm)
Tilt range:	Adjustable luminaire from -5° to 5° inclination.
Maintenance:	Modular concept for easy component replacement: LEDs, drivers, SPD
Recommended mounting height:	6 - 12 m
Driver:	Constant current adjustable and programmable driver on different levels (0-10V, 1-10V, DALI2, NFC). Embedded in the luminaire, pre-wired on a galvanised steel plate.
Flow Reduction:	Double level with control line, autonomous multi-level dimming or virtual midnight, flow reduction at the head-end.
Ready4IOT - Connectivity:	Zhaga Base (Book 18) - D4i. (Optional). NEMA 5,7 Pins Base (Optional). Bottom side Presence Sensor on Zhaga Base (Book 18) - D4i. (Optional).
Surge protection device (SPD):	Type T2+T3, 10kV and 20kA transient surge protector. Series connection with thermofuse, disconnection for a more effective protection at the end of the SPD service life. (Optional SPD Full Permanent Surge Protector >264Vac to <170Vac).

DRAWING:



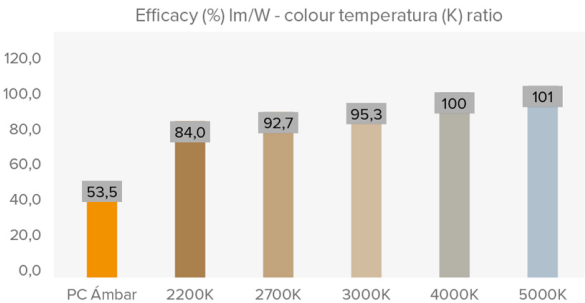
TECHNICAL DATA:

	REF.	N° LEDs	Power W	I Driver mA	Real luminous flux (T) =85°C)		Initial luminous flux (T) =25°C)	
					Flux lm	Efficacy lm/W	Flux lm	Efficacy lm/W
Cosmos	ALCO	64	40	188	5560	139	6338	158
		64	80	375	11040	138	12586	157
		64	100	469	13700	137	15618	156
		64	120	563	16320	136	18605	155
		64	150	703	20250	135	23085	154

Luminous flux and efficiency at 4000°K and CRI>70.

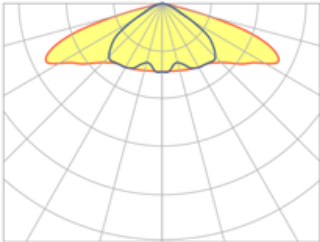
Luminous flux tolerance < +/-3%.

Values may be subject to changes due to LED binning.

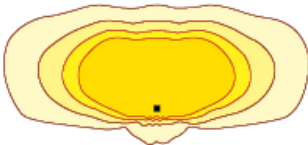
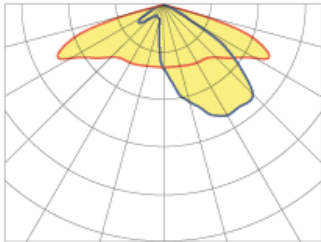


PHOTOMETRY:

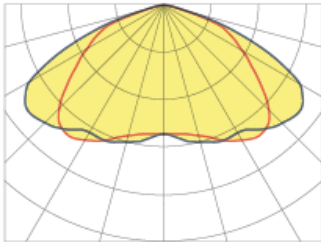
Extensive Rectangular Symmetric (SE)



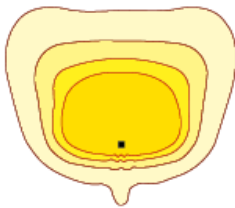
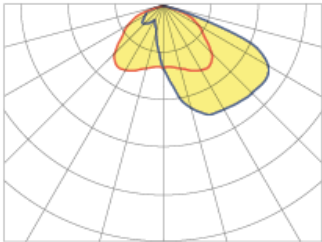
Extensive Asymmetric (AE)



Rectangular Symmetric (S4)



Asimmetric (A4)



*Show 4 recommended lighting distributions. Refer to the 18 typologies.

LEDs MODULE:

LEDs module:	BENITO Zhaga standard with 4 LEDs. Check colour temperatures, CRI and Luminous distributions (Optional NTC temperature probe).	
Replaceable module:	Yes	
LED:	5050	
Number of LEDs:	64	
PCBs format:	16 Zhaga (Book 15) 2x2	
LED nominal efficacy:	172	
Colour temperature:	PC Amber - 1K8, 2K2, 2K7, 3K, 4K, 5K, TW - Tunable White	
Colour rendering index CRI:	>70 (optional >80)	
Average LED useful time L90B10:	L90B10 >100.000 horas	

OPTIC SPECIFICATIONS:

Optic system:	PMMA lenses 2x2	
Light distributions:	3 light distribution curves	
Upward light output ratio ULOR:	0%	
Downward light output ratio DLOR:	100%	
Glare index:	Between D5 and D6 (depending on the light distribution)	
Luminous intensity category:	Between G*4 and G*6 (depending on the light distribution)	
Luminous flux CIE n°3:	>95% (Consultar las 18 Distribuciones lumínicas).	
Photobiological safety:	RG0 (exempt of risk)	
Initial luminous flux Tj=25°C (up to):	lm	23085
Initial luminaire efficacy Tj=25°C (up to):	lm/W	158
Real luminous flux Tj=85°C (UNE EN 13032-4) (up to):	lm	20250
Real luminaire efficacy Tj=85°C (UNE EN 13032-4) (up to):	lm/W	139

ELECTRIC SPECIFICATIONS:

Nominal maximum power (LEDs):	W	135
Maximum power consumed (luminaire):	W	150
Power range:	W	40W - 150W
Maximum current of LED:	mA	<470 (Corriente LED = 50% Corriente del Driver).
Power supply protection classes IEC:	Class I and II	
Surge protection device (SPD):	Type 2 and Type 3, 10kV and 20kA transient surge protector. Series connection with thermal fuse disconnecter for a more effective protection at the end of its service life.	
Common and differential mode protection (SPD) Udc:	kV	10
Max current (8/20) (SPD):	kA	20
Thermal phase disconnection (SPD):	Yes	
Input voltage:	Vac	220-240
Input voltage (max rate):	Vac	198-264
Input frequency:	Hz	47-63
Starting current:	A	<65
Duration of the starting voltage peak:	ms	<0,3
Driver efficacy:	>90%	
Power factor 100% consumption:	>0,98	
Power factor 50% consumption:	>0,95	
Total harmonic distortion (THD):	<10	
Power consumption on standby mode:	W	<0,4
Energy class:	C (Según Reglamento UE 2019/2015 EPREL) - A++ IPEA>1,15	

OPERATING CONDITIONS:

Average LED useful time L90B10:	hours	>100.000
Average driver useful life to Tp <70°C:	hours	100.000
Average luminaire useful life L90B10 (TM-21):	hours	100.000
Ambient temperature (Ta):	°C	de -35°C a +50°C
Aerodynamic resistance (CxS):	m2	0,083
Vibration test (15Hz 3 axis):		
Guarantee:	years	5 (extensible up to 10 years)

PACKAGING DIMENSIONS:

Net weight	kg	15,5
Gross weight	kg	17,5
Luminaire dimensions (LxWxH)	mm	1010x1010x120
Packaging dimensions (LxWxH)	mm	1010x1010x120
Pieces per box		1
Quantity per container 20ft		170
Quantity per container 40ft		380

CERTIFICATES:

Security certificates:	EN 60598-1 / EN 60598-2-3 / EN 62493 / IEC 62471
EMC certificates:	EN 55015 / EN 61547 / EN 61000-3-2 / EN 61000-3-3 / EN 61347-2-13 / EN 61347-1 / EN 62384
Other certifications:	IEC 62262 / EN 13032-4 / EN 62717 / EN 6272-1 / EN 6272-2-1 / EN 61643-11

Company Certifications



BENITO

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