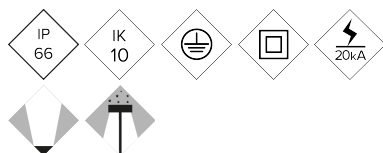


ABMA

Bollard MAR



Elegant bollard with maximum robustness IK10 thanks to its anchoring, which makes it a TOTALLY vandal-proof and low maintenance product for signalling applications. Made of S-235-JR steel, galvanised rectangular section. Electrostatically powder coated polyester powder paint, electrostatically sprayed and oven sublimated. Corrosion resistant and finished in micro-textured black. Easy maintenance by allowing the replacement of its components (PCB LEDs, Driver and SPD).

MAIN FEATURES:

Double body; optical compartment and complete body for fixing.
Tempered glass with silicone sealing gasket for IP66 protection.
Easy maintenance, replaceable elements capacity (PCB, Driver and SPD).

APPLICATIONS:

Historical Centres
Bicycle Lanes and Narrow Roads
Pedestrian Zones
Rural Roads
Squares
Green Areas; Parks and Gardens

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

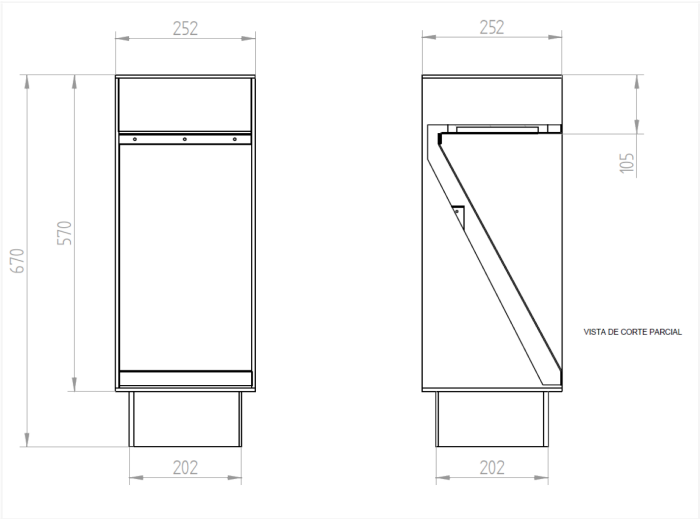
BENITO

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SPECIFICATIONS :

Housing material:	Body in S-235-JR steel with rectangular section.
Diffuser (optic system enclosure):	Tempered glass, 4 mm thick, filters UV rays.
Fixing elements:	Stainless Steel 18/8 - AISI 304
Housing:	It consists of two parts: The upper body, where the BENITO LED module, the driver, and the control electronics are housed including the mounting bracket.
Sealing gaskets:	Silicone foam
IP rating (luminaire):	IP66
IP rating (optic system):	IP66
IK rating (impact resistance):	IK10
LEDs thermal dissipation:	High efficiency heatsink with large dissipation surface, thanks to the anodised aluminium corrugated fin radiator. Passive dissipation by convection and ensuring thermal contact of the LED modules through high conductivity heat transfer material.
Anti-condensation valve:	Pressure compensation valve ensures the evacuation of humidity, preventing condensation and maintaining the IP tightness rating of the LED module.
Paint and finishes:	Polyester powder coating, electrostatically sprayed and oven-baked. Resistant to corrosion.
Colour:	Microtextured black and other colours on request.
Mounting:	Floor mounting using 4 screws (not supplied)
Tilt range:	No
Maintenance:	Easy opening with standard tools. Replaceable LED module, driver, and SPD.
Recommended mounting height:	-
Driver:	Constant current driver built into the beacon, pre-wired on galvanized steel plate.
Flow Reduction:	Adjustable 0-10V driver, programmable in 5 levels, with DALI 2 option. Featuring Wireless, AOC, MTP, DTL characteristics.
Ready4IOT - Connectivity:	-
Surge protection device (SPD):	Transient Surge Protector (SPD) of 10kV and 20kA Type T2+T3. Series connection with thermal fuse, disconnect for more effective protection at the end of the SPD's life. (Optional Full SPD Overvoltage Protector >264Vac to <170Vac)

DRAWING:

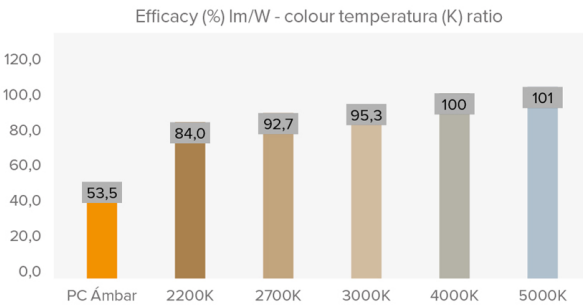


V. 2024-02-19 | The constant improvement and evolution of our products may result in some modifications of the technical specifications and characteristics of the products without prior notice.

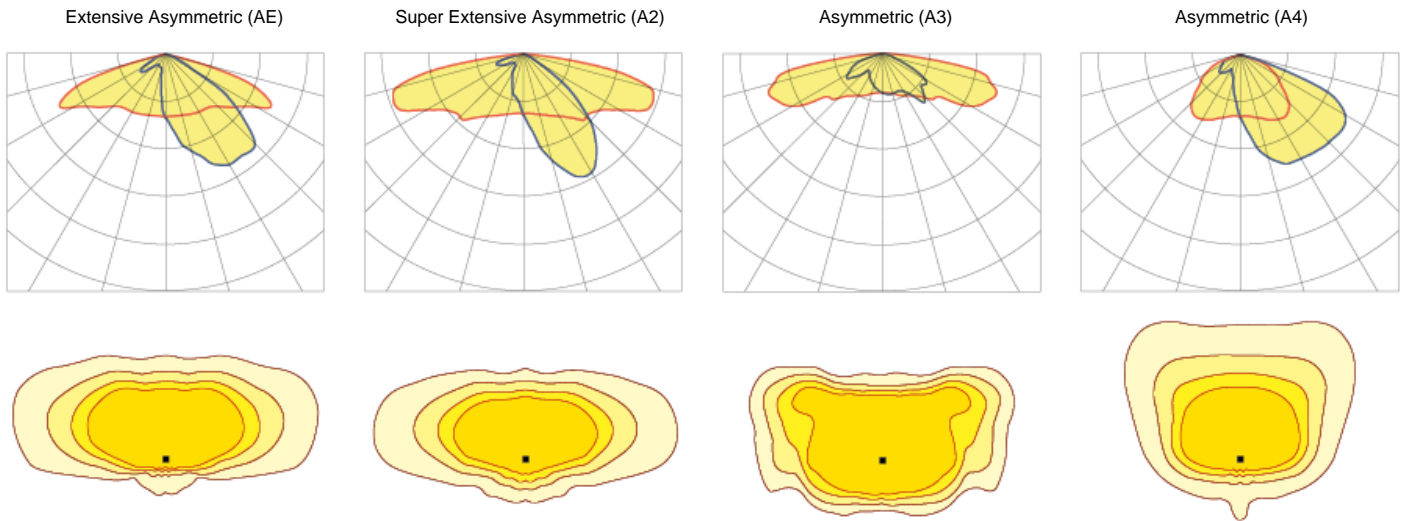
TECHNICAL DATA:

	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
BALIZA MAR	ABMA	10	8	375	700	70	800	80
		20	8	750	1400	70	1600	80
		30	16	563	2100	70	2400	80
		40	16	750	2800	70	3200	80

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:



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

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LEDs MODULE:

LEDs module:	BENITO Zhaga 8 LED format. Please consult Color Temperatures, CRI, and Light Distributions.		
Replaceable module:	Yes		
LED:	5050		
Number of LEDs:	8 - 16		
PCBs format:	1 o 2 Zhaga (Book 15) 2x4		
LED nominal efficacy:	194 lm/W		
Colour temperature:	PC Amber - 1K8, 2K2, 2K7, 3K, 4K		
Colour rendering index CRI:	>70 (optional >80)		
Average LED useful time L90B10:	L90B10 >100.000 horas		

OPTIC SPECIFICATIONS:

Optic system:	2x2 PMMA lenses		
Light distributions:	18 available light distributions		
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% (Please consult the 18 available light distributions).		
Photobiological safety:	RG0 (risk-free)		
Initial luminous flux Tj=25°C (up to):	lm	2800	
Initial luminaire efficacy Tj=25°C (up to):	lm/W	70	
Real luminous flux Tj=85°C (UNE EN 13032-4) (up to):	lm	3200	
Real luminaire efficacy Tj=85°C (UNE EN 13032-4) (up to):	lm/W	80	

ELECTRIC SPECIFICATIONS:

Nominal maximum power (LEDs):	W	36
Maximum power consumed (luminaire):	W	40
Power range:	W	10 - 40 W
Maximum current of LED:	mA	<470 (LED Current = 50% Driver Current).
Power supply protection classes IEC:	Class I and II	
Surge protection device (SPD):	Transient Surge Protector (SPD) of 10kV and 20kA T2 + T3. Series connection with disconnect thermal fuse for more effective protection at the end of the SPD's life.	
Common and differential mode protection (SPD) Udc:	10	
Max current (8/20) (SPD):	20	
Thermal phase disconnection (SPD):	Yes	
Input voltage:	220-240	
Input voltage (max rate):	198-264	
Input frequency:	47-63	
Starting current:	<65	
Duration of the starting voltage peak:	<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:	<0,4	
Energy class:	C (According to EU Regulation 2019/2015 EPREL) - A++ IPEA>1.15	

OPERATING CONDITIONS:

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

PACKAGING DIMENSIONS:

Net weight	kg	29,5
Gross weight	kg	30,0
Luminaire dimensions (LxWxH)	mm	670x250x250
Packaging dimensions (LxWxH)	mm	-
Pieces per box		1
Quantity per container 20ft		-
Quantity per container 40ft		-

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:	EN 13032-4 / ISO 9001 / ISO 50001 / ISO 14001 / ISO 45001

Company Certifications

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