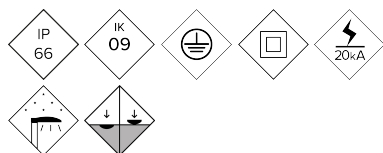


ABLTMA

Bollard

TOMSK ALU



Rectangular, minimalist design bollard with direct light, robust and easy to maintain for lighting and signage applications. Made of 4mm thick die-cast aluminium alloy, oven-fire painted and finished in black micro-textured with high resistance to atmospheric agents and UV rays. Easy maintenance allowing the replacement of components (PCB, Driver and SPD).

MAIN FEATURES:

Double body; composed of optical body and fixing base.
Optical block enclosure; IP66 tempered glass.
Easy maintenance (replaceable PCB, Driver and SPD).
Direct light beacon with high visual comfort.

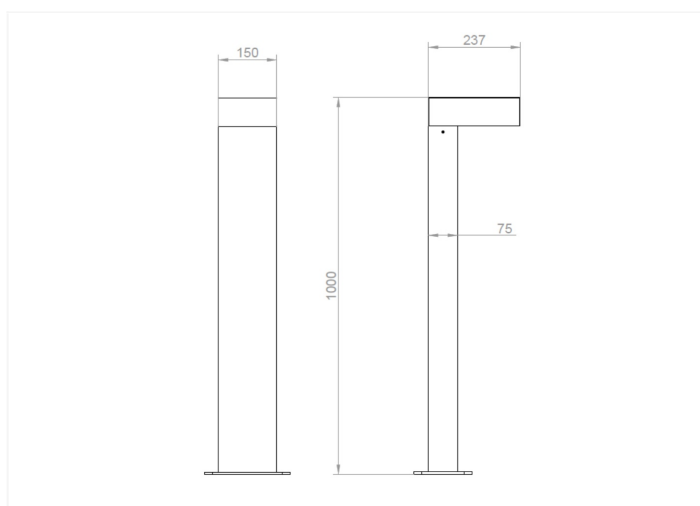
APPLICATIONS:

Historic Centers
Cycle Lane and Narrow Tracks
Pedestrian Zones
Rural Roads
Squares
Green Areas; Parks and Gardens

SPECIFICATIONS :

Housing material:	High-strength injection-molded aluminium body of type EN AC-43000, EN AC-43100, EN AC-43400, EN AC-44100, EN AC-47100 according to UNE EN 1706.
Diffuser (optic system enclosure):	4mm Tempered Glass Filters UV.
Fixing elements:	18/8 Stainless Steel - AISI 304
Housing:	It consists of two parts: The upper body, which houses the BENITO LED module, the Driver and the control electronics, and the fixing support.
Sealing gaskets:	Silicone foam
IP rating (luminaire):	IP66
IP rating (optic system):	IP66
IK rating (impact resistance):	IK09
LEDs thermal dissipation:	Heat dissipation through the luminaire body, without external fins or conductive fluids. Passive heat dissipation through convection, ensuring thermal contact between the LED modules through highly conductive heat transfer material.
Anti-condensation valve:	Pressure compensation valve that ensures moisture evacuation, preventing condensation and maintaining the Beacon's IP rating.
Paint and finishes:	Polyester powder coating, electrostatically sprayed and oven-sublimated. Corrosion-resistant.
Colour:	Microtextured black
Mounting:	Floor by means of 4 screws (not supplied)
Tilt range:	No
Maintenance:	Easy to open with standard tools. Replaceable LED module, driver, and SPD.
Recommended mounting height:	-
Driver:	Constant current driver built into the Beacon, pre-wired on a steel plate.
Flow Reduction:	Non-adjustable driver
Ready4IOT - Connectivity:	-
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).
DarkSky Approved	

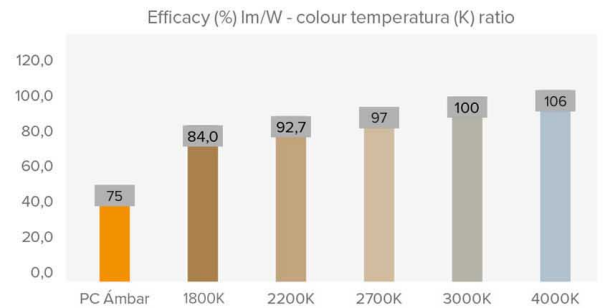
DRAWING:



TECHNICAL DATA:

	REF.	Nº LEDs	Power W	I Driver mA
BALIZA TOMSK ALU	ALBTMA	14	12	-

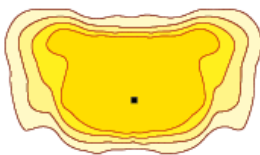
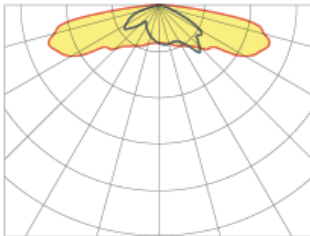
Real luminous flux (T) =85°C		Initial luminous flux (T) =25°C	
Flux lm	Efficacy lm/W	Flux lm	Efficacy lm/W
1320	110	1560	130



Luminous flux and efficiencies at 3000K and CRI>70 – Tolerance ± 3%

PHOTOMETRY:

Asymmetric Extensive Wide (A3)



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

LEDs MODULE:

LEDs module:	BENITO 14-LED format. Consult color temperatures, CRI, and light distributions.
Replaceable module:	Yeah
LED:	3030
Number of LEDs:	14
PCBs format:	-
LED nominal efficacy:	194 lm/W
Colour temperature:	3000K
Colour rendering index CRI:	>70 (optional >80)
Average LED useful time L90B10:	L90B10 >75,000 hours

OPTIC SPECIFICATIONS:

Optic system:	PMMA 2x2 lenses
Light distributions:	5 Lighting Distributions available
Upward light output ratio ULOR:	0%
Downward light output ratio DLOR:	100%
Glare index:	Between D5 and D6 (depends on light distribution)
Luminous intensity category:	Between G*4 and G*6 (depends on light distribution)
Luminous flux CIE n°3:	>95% (See 18 Light distributions)
Photobiological safety:	RG0 (risk-free)
Initial luminous flux Tj=25°C (up to):	lm 1560
Initial luminaire efficacy Tj=25°C (up to):	lm/W 130
Real luminous flux Tj=85°C (UNE EN 13032-4) (up to):	lm 1320
Real luminaire efficacy Tj=85°C (UNE EN 13032-4) (up to):	lm/W 110

ELECTRIC SPECIFICATIONS:

Nominal maximum power (LEDs):	W 9
Maximum power consumed (luminaire):	W 12
Power range:	W 12W
Maximum current of LED:	mA <470 (LED Current = 50% Driver Current).
Power supply protection classes IEC:	Class I and II
Surge protection device (SPD):	Type 2 and Type 3, 10-20kV and 20kA transient surge protector. Series connection with thermal fuse disconnector for a more effective protection at the end of its service 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:	hours >75.000
Average driver useful life to Tp <70°C:	hours >50.000
Average luminaire useful life L90B10 (TM-21):	hours >50.000
Ambient temperature (Ta):	°C de -35°C a +50°C
Aerodynamic resistance (CxS):	m2 -
Vibration test (15Hz 3 axis):	-
Guarantee:	years 5

PACKAGING DIMENSIONS:

Net weight	kg 7,2
Gross weight	kg 7,8
Luminaire dimensions (LxWxH)	mm 1000x237x150
Packaging dimensions (LxWxH)	mm 1045x285x185
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



BENITO

info@benito.com
tel. 93 852 1000