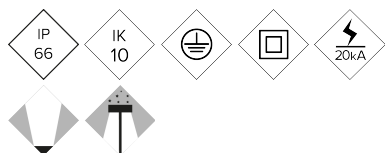
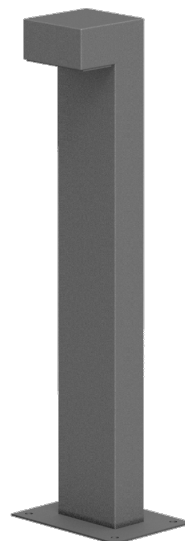


ABLTM

Bollard

# TOMSK



Minimalist design bollard with a rectangular shape and direct light, robust and easy to maintain for lighting and signage applications. Made of S-235-JR steel, galvanised rectangular section. Powder coated in polyester powder paint, electrostatically sprayed and stove-enamelled. Corrosion resistant and finished in sable grey 900 colour. Easy maintenance allowing the replacement of components (PCB, Driver and SPD).

## MAIN FEATURES:

- Double body; optical compartment and complete body for fixing.
- Optical compartment; IP66 toughened glass.
- Direct light beacon with high visual comfort.
- Maximum robustness against vandalism.

## APPLICATIONS:

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

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

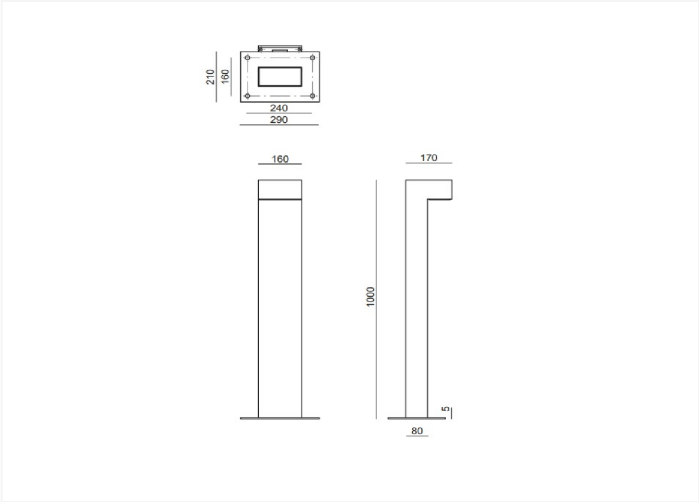
# BENITO

info@benito.com  
tel. 93 852 1000

SPECIFICATIONS :

Housing material:	S-235-JR Steel body with rectangular section.
Diffuser (optic system enclosure):	4 mm tempered safety glass, filters UV.
Fixing elements:	Stainless Steel 18/8 - AISI 304
Housing:	It consists of two parts: the upper body, which houses the BENITO LED module, the Driver and the control electronics that includes the fixing support.
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 anodized aluminum wavy fin radiator. Passive dissipation by convection and ensuring thermal contact of the LED modules through high conductivity thermal transfer material.
Anti-condensation valve:	-
Paint and finishes:	Polyester powder paint coating, electrostatically sprayed and sublimated in the oven. Corrosion resistant.
Colour:	Sable gray 900 and other colors upon request.
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 incorporated inside the bollard, pre-wired on galvanized 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).

DRAWING:



INSTALLATION:



V. 2024-02-23 | 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.

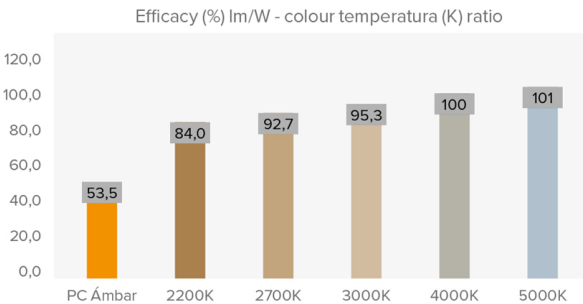
TECHNICAL DATA:

	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 TOMSK	ALBTM	14	12	-	1044	87	1346	112

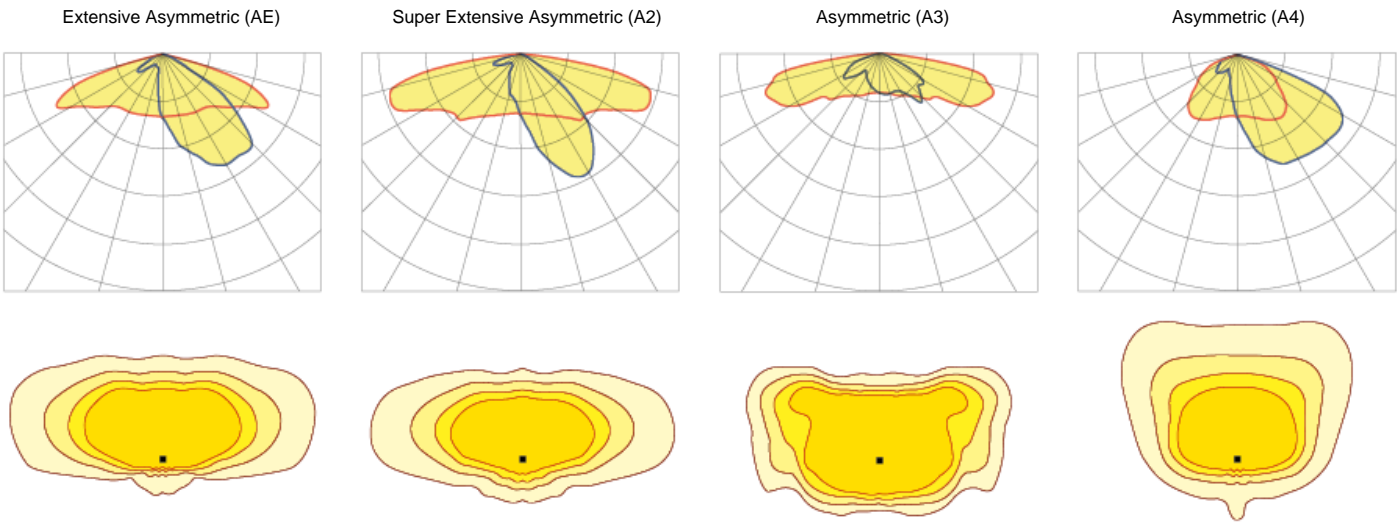
Luminous flux and efficiency at 4000°K and CRI>70.

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 format 4 LEDs. Consult Color Temperatures, CRI and Light Distributions		
Replaceable module:	Yes		
LED:	5050		
Number of LEDs:	4		
PCBs format:	1 Zhaga (Book 15) 2x2		
LED nominal efficacy:	172 lm/W		
Colour temperature:	Amber PC - 1K8, 2K2, 2K7, 3K, 4K		
Colour rendering index CRI:	> 70 (optional >80)		
Average LED useful time L90B10:	L90B10 >100.000 hours		

OPTIC SPECIFICATIONS:

Optic system:	2x2 PMMA lenses		
Light distributions:	18 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	1346	
Initial luminaire efficacy Tj=25°C (up to):	lm/W	112	
Real luminous flux Tj=85°C (UNE EN 13032-4) (up to):	lm	1044	
Real luminaire efficacy Tj=85°C (UNE EN 13032-4) (up to):	lm/W	87	

ELECTRIC SPECIFICATIONS:

Nominal maximum power (LEDs):	W	9
Maximum power consumed (luminaire):	W	12
Power range:	W	12
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, 10kV 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:	>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:	years	5 (optional up to 10)	

PACKAGING DIMENSIONS:

Net weight	kg	13,8
Gross weight	kg	14,3
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



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