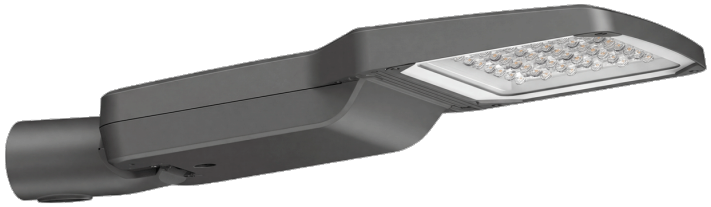
ALME

Luminaire

MILAN EVO M



Aerodynamic and flat LED luminaire with low wind resistance. Comprehensive range available in five sizes with extensive optical and light distributions from 20W up to 200W to cover all road applications. High efficiency, reliability and quality, allowing quick return on investment. Ready for any intelligent lighting control solutions.

MAIN FEATURES:

High efficiency. Up to 145 lm/W actual.
5 different sizes. From 20W to 200W
Dual cavity, driver and optical group
Easy opening without tools
18 Different light distributions
Zhaga Standard (Book 15)
Ready for IoT. Ready for connectivity

APPLICATIONS:

Urban Roads and Streets
Pedestrian crossing
Cycle Lane and Narrow Tracks
Rural Roads
Parking

Project sheet | CAD | Mounting instructions | BIM | HD image

BENITO

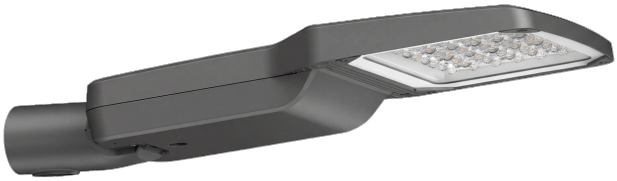
info@benito.com
tel. 93 852 1000

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SPECIFICATIONS :

Housing material:	Die-cast aluminum casting of type EN AC-43000, EN AC-43100, EN AC-43400, EN AC-44100, EN AC-47100 according to standard UNE EN 1706.
Diffuser (optic system enclosure):	5mm tempered glass, filters UV rays. Optionally available in polycarbonate.
Fixing elements:	18/8 Stainless Steel - AISI 304
Housing:	Dual Cavity: LED Driver / Module
Sealing gaskets:	Silicone Foam
IP rating (luminaire):	IP66
IP rating (optic system):	IP66
IK rating (impact resistance):	IK09 - IK10
LEDs thermal dissipation:	Heat dissipation through the luminaire body, without external fins or conductive fluids. Passive convection heat dissipation, ensuring thermal contact of the LED modules through high-conductivity heat transfer material.
Anti-condensation valve:	Pressure compensation valve that ensures the evacuation of moisture, preventing condensation, maintaining the IP rating of the luminaire.
Paint and finishes:	Polyester powder coating, electrostatically sprayed and oven-cured. Corrosion resistant. (Optional marine environment treatment).
Colour:	Color RAL 9022, and other colors available upon request.
Mounting:	Post-Top Fixing Ø60mm (Optional; Ø76 mm and via accessories Ø48 mm)
Tilt range:	Adjustable luminaire from -15º to 15º inclination
Maintenance:	Easy to open without special tools. Replaceable modules: LEDs, Drivers, SPD.
Recommended mounting height:	7 -10 m
Driver:	Adjustable and programmable constant current driver with multiple levels (0-10V, 1-10V, DALI2, NFC). Integrated within the luminaire, pre-wired on a steel plate. .
Flow Reduction:	Dual level with command line, different timed levels or virtual midnight, flow reduction at the head.
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, 10-20kV 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	The mount is pre-installed at 90 deg post top orientation, or 0 deg lateral mount orientation and non-adjustable.

INSTALLATION:



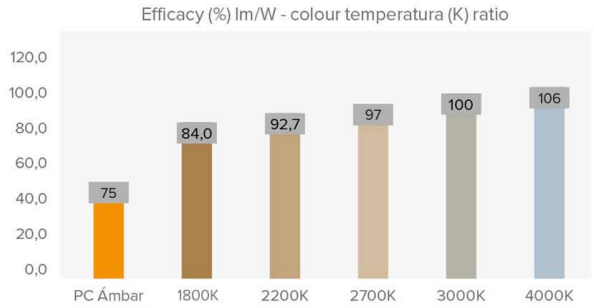
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Ámbar 2200 K 2700 K 3000 K 4000 K 5000 K

lm/€ TRIPLE PROTECTION

TECHNICAL DATA:

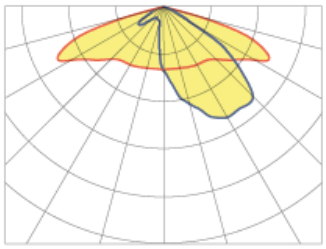
	REF.	Nº LEDs	Power W	I Driver mA	Real luminous flux (T) =85ºC)		Initial luminous flux (T) =25ºC)	
					Flux lm	Efficacy lm/W	Flux lm	Efficacy lm/W
Milan Evo M	ALME80	32	60	563	8520	142	9713	162
		32	80	750	11193	140	12760	160
	ALME100	48	100	625	14066	141	16035	160

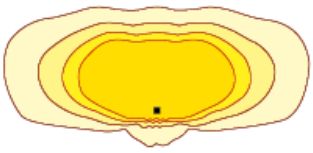


Luminous flux and efficiency at 3000K and CRI>70 – Tolerance ± 3%
Approved by DarkSky at 3000K or lower

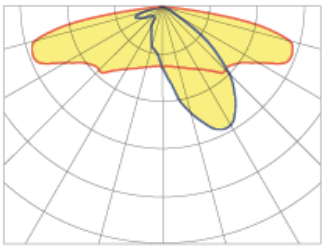
PHOTOMETRY:

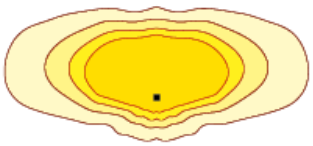
Asymmetric Extensive (AE)



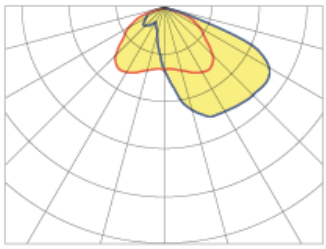


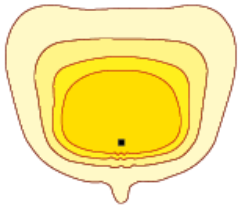
Asymmetric Extensive Narrow (A2)



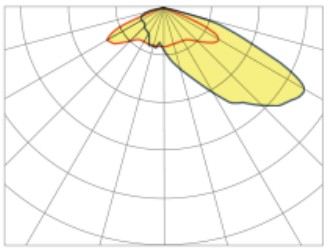


Asymmetric (A4)





Asymmetric Extensive Frontal (A1)





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

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LEDs MODULE:

LEDs module:	BENITO Zhaga format with 8, 12, and 16 LEDs. Consult for Color Temperatures, CRI, and Light Distributions. (Optional NTC temperature probe).
Replaceable module:	Yeah
LED:	5050
Number of LEDs:	36
PCBs format:	2 or 3 Zhaga (Book 15) 2x8
LED nominal efficacy:	172
Colour temperature:	PC Amber - 1K8, 2K2, 2K7, 3K, 4K, 5K, TW - Tunable White. DarkSky Approved with 3000K or lower.
Colour rendering index CRI:	>70 (optional >80)
Average LED useful time L90B10:	L90B10 >100,000 hours

OPTIC SPECIFICATIONS:

Optic system:		PMMA lenses 2x2
Light distributions:		18 light distribution curves. A1, A2, A4 and AE distributions are DarkSky Approved
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 nº3:		>95% (See 18 Light Distributions).
Photobiological safety:		RG0 (risk-free)
Initial luminous flux Tj=25ºC (up to):	lm	16035
Initial luminaire efficacy Tj=25ºC (up to):	lm/W	162
Real luminous flux Tj=85ºC (UNE EN 13032-4) (up to):	lm	14066
Real luminaire efficacy Tj=85ºC (UNE EN 13032-4) (up to):	lm/W	142

ELECTRIC SPECIFICATIONS:

Nominal maximum power (LEDs):	W	90
Maximum power consumed (luminaire):	W	100
Power range:	W	60W - 100W
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:	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 frecquency:	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 (According to EU Regulation 2019/2015 EPREL) - A++ IPEA>1.15

OPERATING CONDITIONS:

Average LED useful time L90B10:	hours	>100,000
Average driver useful life to Tp <70ºC:	hours	100,000
Average luminaire useful life L90B10 (TM-21):	hours	>100,000
Ambient temperature (Ta):	ºC	From -35°C to +50°C
Aerodynamic resistance (CxS):	m2	0.059
Vibration test (15Hz 3 axis):		
Guarantee:	years	5 (extensible up to 10 years)

PACKAGING DIMENSIONS:

Net weight	kg	4.6
Gross weight	kg	5
Luminaire dimensions (LxWxH)	mm	625x290x95
Packaging dimensions (LxWxH)	mm	695x315x150
Pieces per box		1
Quantity per container 20ft		885
Quantity per container 40ft		1845

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

ISO 9001 ISO 50001 ISO 14001 ISO 45001

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