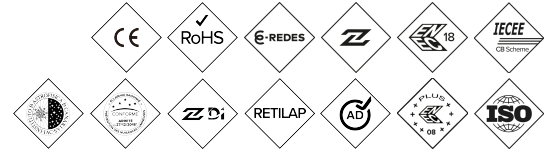
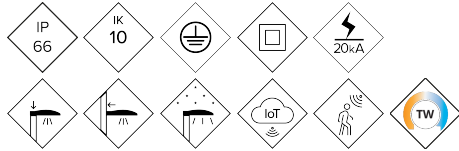


ALMSE60

Luminaire

MILAN EVO S



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:

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

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

BENITO

info@benito.com
tel. 93 852 1000

SPECIFICATIONS :

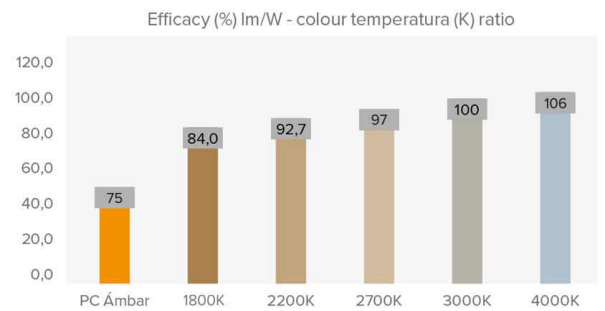
Housing material:	Die-cast aluminum of type EN AC-43000, EN AC-43100, EN AC-43400, EN AC-44100, EN AC-47100 according to standard UNE EN 1706
Diffuser (optic system enclosure):	5mm tempered glass, filters UV rays. Optionally available in polycarbonate.
Fixing elements:	18/8 Stainless Steel - AISI 304
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 -15° to 15° inclination
Maintenance:	Easy to open without special tools. Replaceable modules: LEDs, Drivers, SPD.
Recommended mounting height:	6 - 9 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	

INSTALLATION:



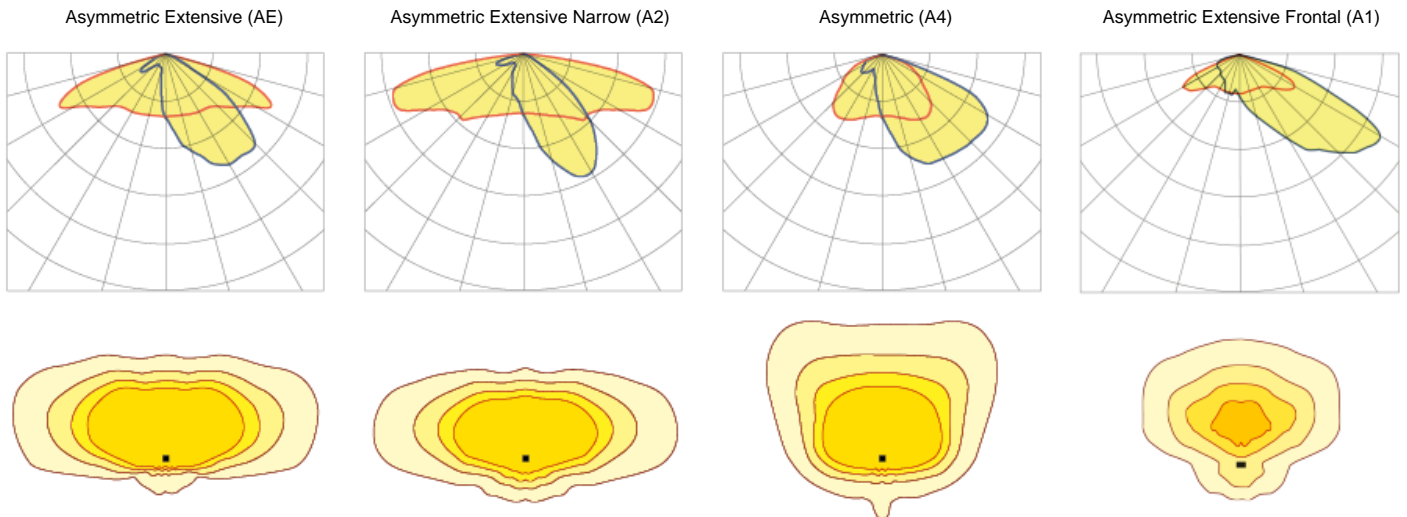
TECHNICAL DATA:

Milan Evo S	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
		12	30	750	4242	141	4836	161
		24	40	500	5680	142	6475	162
		24	50	625	7090	142	8083	162
		24	60	750	8443	141	9625	160



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

PHOTOMETRY:



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

LEDs MODULE:

LEDs module:	BENITO Zhaga format with 8 and 12 LEDs. Consult for Color Temperatures, CRI and Light Distributions. (Optional NTC temperature probe).		
Replaceable module:	Yeah		
LED:	5050		
Number of LEDs:	16 - 24		
PCBs format:	3 Zhaga (Book 15) 2x4 or 2 Zhaga (Book 15) 2x6		
LED nominal efficacy:	172		
Colour temperature:	Amber PC - 1K8, 2K2, 2K7, 3K, 4K, 5K		
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		
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% (See 18 Light Distributions).		
Photobiological safety:	RG0 (risk-free)		
Initial luminous flux Tj=25°C (up to):	lm	9625	
Initial luminaire efficacy Tj=25°C (up to):	lm/W	162	
Real luminous flux Tj=85°C (UNE EN 13032-4) (up to):	lm	8493	
Real luminaire efficacy Tj=85°C (UNE EN 13032-4) (up to):	lm/W	142	

ELECTRIC SPECIFICATIONS:

Nominal maximum power (LEDs):	W	54	
Maximum power consumed (luminaire):	W	60	
Power range:	W	30W - 60W	
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 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 (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 <70°C:	hours	100,000
Average luminaire useful life L90B10 (TM-21):	hours	72,167
Ambient temperature (Ta):	°C	From -35°C to +50°C
Aerodynamic resistance (CxS):	m2	0.042
Vibration test (15Hz 3 axis):		
Guarantee:	years	5 (extensible up to 10 years)

PACKAGING DIMENSIONS:

Net weight	kg	3.8
Gross weight	kg	4.2
Luminaire dimensions (LxWxH)	mm	525x250x80
Packaging dimensions (LxWxH)	mm	585x280x150
Pieces per box	1	
Quantity per container 20ft	1200	
Quantity per container 40ft	2310	

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

info@benito.com
tel. 93 852 1000