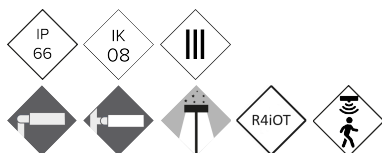


ALMPV

Luminaire

MILAN M SOLAR



Aerodynamically shaped, flat, low wind resistance Solar Luminaire integrating solar panel, battery and control system in a single body. Available in two sizes offering a power range from 10 to 50W with exceptional autonomy thanks to the LiFePo4 technology in its batteries. Remote control capability, presence sensor and programmable charge controller offer intelligent lighting management. Its compact and elegant design fuses performance and technology to transform your outdoor spaces with minimal visual impact.

MAIN FEATURES:

High efficiency. Up to 162 lm/W real
All-in-One compact aerodynamic design
Battery with LiFePo4 technology
MPPT Charge Controller - Programmable 6 levels
2 Sizes (30W - 538Wh) - (50W - 922Wh)
Ready 4IoT. Ready for connectivity - Presence sensor

APPLICATIONS:

Roundabouts
Residential Streets (Zones 30)
Pedestrian Crossings
Bicycle Lanes and Narrow Roads
Rural Roads
Car Parks

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

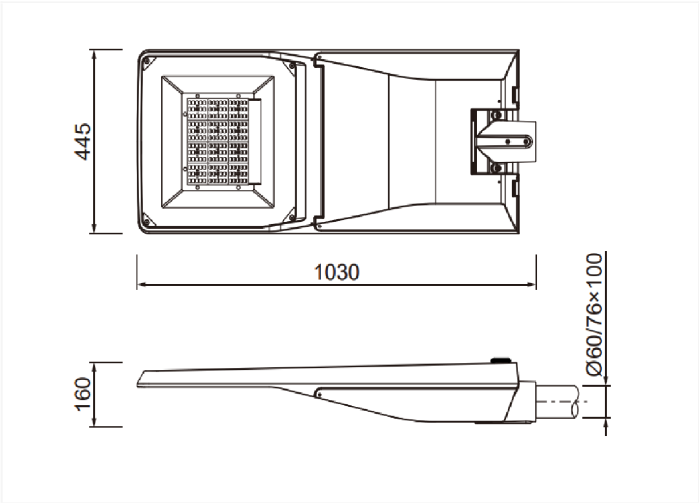
BENITO

info@benito.com
tel. 93 852 1000

SPECIFICATIONS :

Housing material:	High pressure die-cast aluminium EN AC-43000, EN AC-43100, EN AC-43400, EN AC-44100, EN AC-47100 according to the UNE EN 1706 standard
Diffuser (optic system enclosure):	5mm tempered safety glass, UV filter. Optionally in polycarbonate.
Fixing elements:	Stainless steel 18/8 - AISI 304
Housing:	Die-cast aluminium. Tempered glass.
Sealing gaskets:	Silicone foam
IP rating (luminaire):	IP66
IP rating (optic system):	IP66
IK rating (impact resistance):	IK08
LEDs thermal dissipation:	Thermal dissipation through the luminaire body, without external fins or conductive fluids. Passive dissipation by convection and ensuring thermal contact of the LED modules through highly conductive heat transfer material.
Anti-condensation valve:	Pressure compensation valve that ensures the evacuation of humidity, preventing condensation and maintaining the IP tightness level of the luminaire.
Paint and finishes:	Polyester powder paint coating, electrostatically sprayed and sublimated in the oven. Resistant to corrosion
Colour:	RAL 9022. Optional: other colours
Mounting:	Post-Top Ø76 mm (Optional; Ø60 mm)
Tilt range:	From -15° to +15°
Maintenance:	Replaceable modules: LEDs and Drivers.
Recommended mounting height:	5 - 8 m
Controller:	MPPT charge controller. Different timed levels
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).
Battery:	LiFePo4. 9228 Wh / 12.8 Vdc / 72 Ah. BMS protection
Photovoltaic panel:	Policristaline. 75 Wp / 18 Vdc.

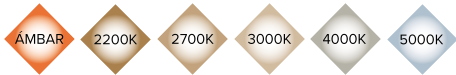
DRAWING:



INSTALLATION:



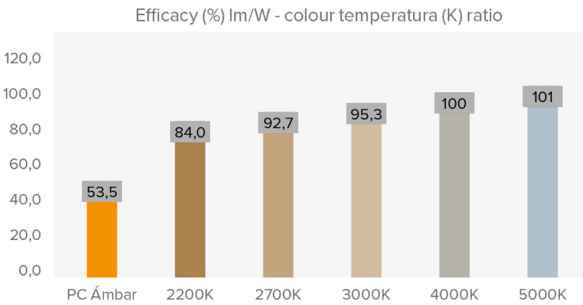
V. 2024-04-19 | The constant improvement and evolution of our products may result in some modifications of the technical specifications and characteristics of the products without prior notice.



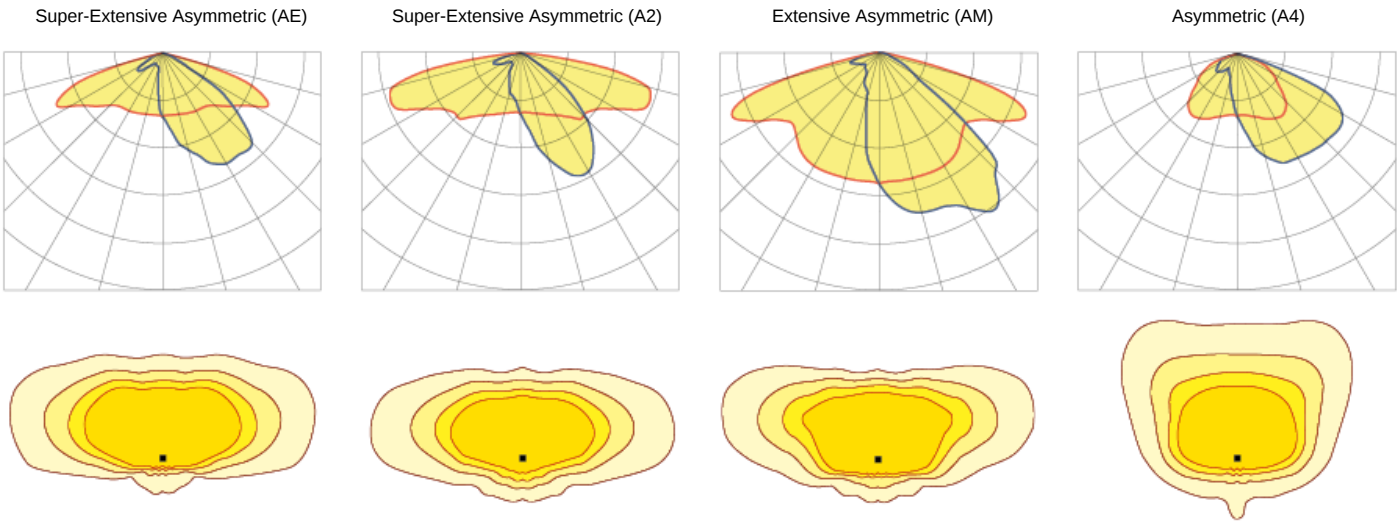
TECHNICAL DATA:

	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
Milan M Solar	ALMPV	168	30	-	4860	161	5460	182
		168	40	-	6440	161	7240	181
		168	50	-	8000	160	9000	180

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 Format 126 LEDs. Check colour temperature, CRI and light distributions (Optional NTC).		
Replaceable module:	Yes		
LED:	3030		
Number of LEDs:	168		
PCBs format:	-		
LED nominal efficacy:	197		
Colour temperature:	3K (Optional PC Amber - 1K8, 2K2, 2K7, 4K, 5K)		
Colour rendering index CRI:	>70 (optional >80)		
Average LED useful time L90B10:	L90B10 >75.000 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 (exempt of risk)		
Initial luminous flux Tj=25°C (up to):	lm	9000	
Initial luminaire efficacy Tj=25°C (up to):	lm/W	180	
Real luminous flux Tj=85°C (UNE EN 13032-4) (up to):	lm	8000	
Real luminaire efficacy Tj=85°C (UNE EN 13032-4) (up to):	lm/W	160	

ELECTRIC SPECIFICATIONS:

Nominal maximum power (LEDs):	W	45
Power range:	W	50
Power range:	W	10W - 50W
Maximum current of LED:	mA	<470
Power supply protection classes IEC:	Class III	
Battery:	LiFePo4 - 922 Wh / 12.8 Vdc / 72 Ah	
Depth of discharge:	>80%	
Battery Recharge Time:	h	3 - 4
Photovoltaic Panel:	Policristaline - 75 Wp 18 Vdc	
Charge controller:	MPPT	
Double discharge protection:	BMS protector in battery and minimum level controller	
Flow reduction:	6 levels	
Remote control:	Optional through App (WiFi)	
Autonomy without prevention sensor:	Up to 3 nights	
Driver efficacy:	>90% (MPPT)	
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	-
Average luminaire useful life L90B10 (TM-21):	hours	>50.000
Ambient temperature (Ta):	°C	from -35°C to +50°C
Aerodynamic resistance (CxS):	m2	0,039
Vibration test (15Hz 3 axis):		
Guarantee:	years	5

PACKAGING DIMENSIONS:

Net weight	kg	-	
Gross weight	kg	-	
Luminaire dimensions (LxWxH)	mm	1030x445x160	
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:	IEC 62262 / EN 13032-4 / EN 62717 / EN 6272-1 / EN 6272-2-1 / EN 61643-11		

Company Certifications



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