ALS

Luminaire

SIENA

Residential luminaire with a modern design that reminds the one of 4-sided classic luminaires (19th-century or Villa). Ideal for residential urban areas (roads, squares, green spaces...). Power up to 100W thanks to its high dissipation capacity. High resistance and reliability. Ready for any intelligent lighting control solutions.

MAIN FEATURES:

High efficiency. Up to 145 lm/W net
Double compartment: driver and LED module
Adaptable to Ø60mm or Ø76mm
18 light distribution curves
Perimeter layout of LEDs to minimise shadows
Zhaga Standard (Book 15)
Ready 4IoT. Ready for any intelligent lighting control solution

APPLICATIONS:

Historical Centres
Residential Streets (Zones 30)
Pedestrian Zones
Commercial and Tourist Streets
Squares
Green Areas; Parks and Gardens

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

BENITO

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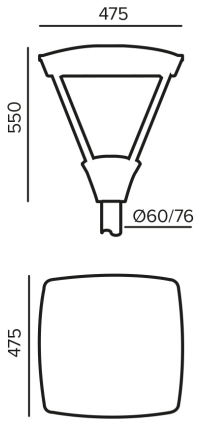
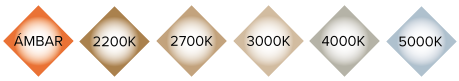
SPECIFICATIONS :

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
Fixing elements:	Stainless steel 18/8 - AISI 304
Housing:	Double compartment: driver / LED module
Sealing gaskets:	Silicone foam
IP rating (luminaire):	66
IP rating (optic system):	66
IK rating (impact resistance):	10
LEDs thermal dissipation:	Thermal dissipation through finless luminaire body, without conductive fluids. Passive convection dissipation ensuring thermal contact with the LED modules through a high-conductivity thermal transfer material
Anti-condensation valve:	Pressure-balancing valve to ensure moisture release, avoid condensation and maintain the luminaire IP tightness
Paint and finishes:	Polyester powder paint coating, electrostatically sprayed and sublimated in the oven. Resistant to corrosion
Colour:	Matte black. Optional: other colours
Mounting:	Top Ø60mm and Ø76mm
Tilt range:	
Maintenance:	Top opening. Modular concept for easy component replacement: LEDs, drivers, SPD
Recommended mounting height:	3 - 6 m
Driver:	Constant current adjustable and programmable driver. Embedded in the luminaire, pre-wired on a galvanised steel plate
Flow Reduction:	Dimmable driver 0-10V. Programmable on 5 levels. Optional: DALI 2. Includes the characteristics of Wireless, AOC, MTP, DTL
Ready4IOT - Connectivity:	- Autonomous multiple-level dimming or virtual midnight - Ready4IoT - Dimming by main voltage - Line switch
Surge protection device (SPD):	Type 2, 10kV and 20kA transient surge protector. Series connection with thermofuse disconnector for a more effective protection at the end of its service life

DRAWING:



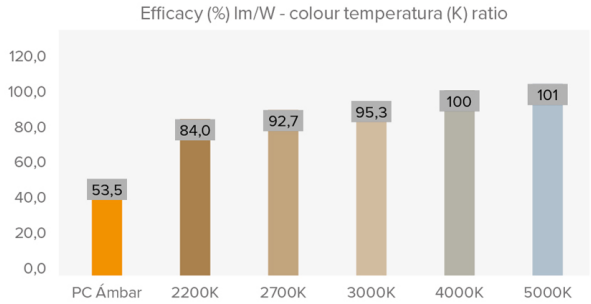
INSTALLATION:



TECHNICAL DATA:

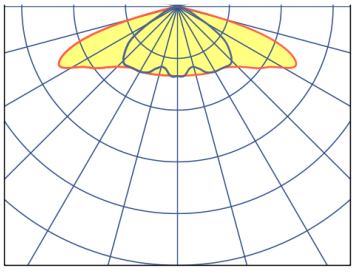
	REF.	Nº LEDs	Power W	I Driver mA	Real luminous flux (T) =85ºC) Flux lm	Real luminous flux (T) =85ºC) Efficacy lm/W	Initial luminous flux (T) =25ºC) Flux lm	Initial luminous flux (T) =25ºC) Efficacy lm/W
		32	20	188	2842	142	3240	162
		32	40	375	5642	141	6432	161
SIENA	ALS	32	60	563	8443	141	9625	160
		48	80	500	11193	140	12760	160
		48	100	625	13900	139	15846	158

Luminous flux and efficiency at 4000ºK and CRI>70.
Luminous flux tolerance < +/-3%.
Values may be subject to changes due to LED binning.

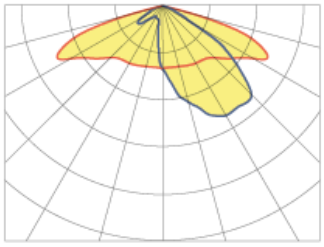


PHOTOMETRY:

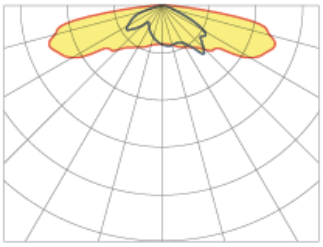
Extensive Symmetric (SE)



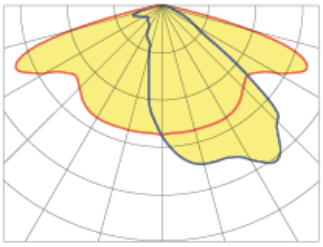
Super-Extensive Asymmetric (AE)

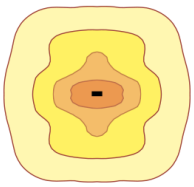


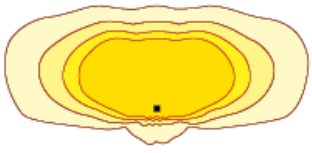
Extensive Asymmetric (A3)

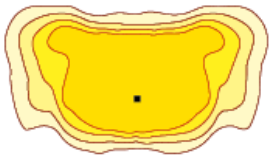


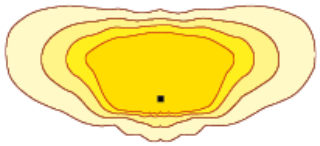
Extensive Asymmetric (AM)











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

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LEDs MODULE:

LEDs module:	BENITO-NOVATILU Zhaga standard for 8 and 16 LEDs. Check colour temperature, CRI and light distributions
Replaceable module:	Yes
LED:	5050
Number of LEDs:	32 - 48
PCBs format:	4 Zhaga (Book 15) 2x4 or 4 Zhaga (Book 15) 2x6
LED nominal efficacy:	172
Colour temperature:	PC Amber, 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 nº3:		>95%
Photobiological safety:		RG0 (exempt of risk)
Initial luminous flux Tj=25ºC (up to):	lm	15846
Initial luminaire efficacy Tj=25ºC (up to):	lm/W	162
Real luminous flux Tj=85ºC (UNE EN 13032-4) (up to):	lm	13900
Real luminaire efficacy Tj=85ºC (UNE EN 13032-4) (up to):	lm/W	142

ELECTRIC SPECIFICATIONS:

Nominal maximum power (LEDs):		90
Maximum power consumed (luminaire):	W	100
Power range:	W	20-100W
Maximum current of LED:	mA	<312 (<50% Imax)
Power supply protection classes IEC:		Class I and II
Surge protection device (SPD):		Type 2, 10kV and 20kA transient surge protector. Series connection with thermofuse disconnector for a more effective protection at the end of its service life
Common and differential mode protection (SPD) Udc:	kV	10 and optional NTC
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:		A++ IPEA>1.15

OPERATING CONDITIONS:

Average LED useful time L90B10:		>100,000
Average driver useful life to Tp <70ºC:		100,000
Average luminaire useful life L90B10 (TM-21):		
Ambient temperature (Ta):	ºC	From -35°C to +50°C
Aerodynamic resistance (CxS):	m2	0.070
Vibration test (15Hz 3 axis):		
Guarantee:	years	5 years (extensible up to 10 years)

PACKAGING DIMENSIONS:

Net weight	kg	12
Gross weight	kg	13.5
Luminaire dimensions (LxWxH)	mm	475x475x520
Packaging dimensions (LxWxH)	mm	490x490x550
Pieces per box		1
Quantity per container 20ft		176
Quantity per container 40ft		384

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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