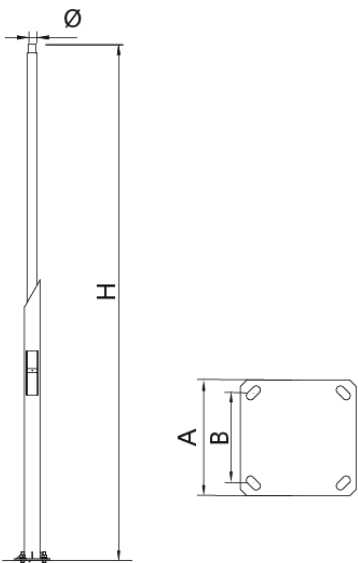




Pole made of S-235-JR galvanised steel.
Painted in two colours, black oxiron base and grey RAL 9006 pole.
Thickness (base, shaft): 4,5mm, 3mm [ICBAM40: 3mm, 3mm].



POLE:

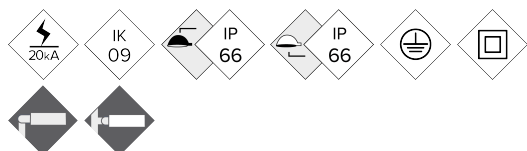


Ref.	H	H1	H2	C	D	Ø	A	B		
ICBAM40	4000	-	-	-	-	60	300	200	M18x500	

ALIB

Luminaire

INNOVA B



Flat environmental luminaire with an innovative design ideal for urban residential areas (roads, squares, green spaces...). Ball joint mounting system. Power from 20W up to 100W thanks to its high dissipation capacity. Ready for any intelligent lighting control solutions.

MAIN FEATURES:

- High efficacy. Up to 145 lm/W net
- Adaptable by means of a joint ball system, bracket or suspended
- Double compartment: driver and LED module
- Tool-less opening
- 18 light distribution curves
- Zhaga Standard (Book 15)
- Ready 4IoT. Ready for any intelligent lighting control solution

APPLICATIONS:

- Residential areas
- Squares and green spaces
- Cycle lanes and $\leq 30\text{km/h}$ areas

DETAILS:



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

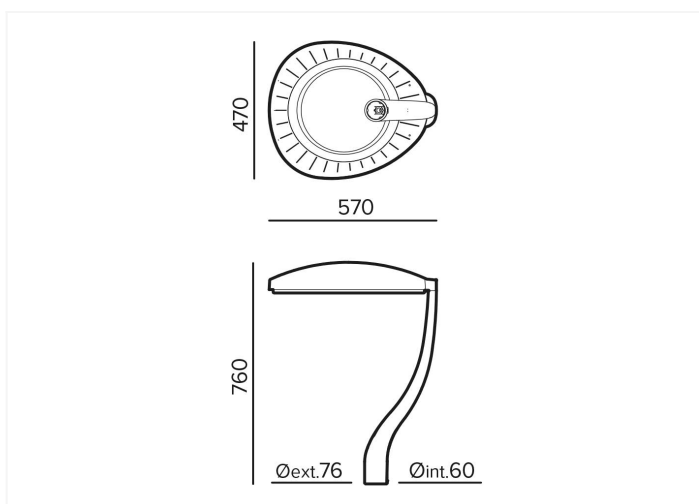
BENITO
NOVATILU

info@benito.com
tel. +34 93 852 1000 / +34 961 401 000

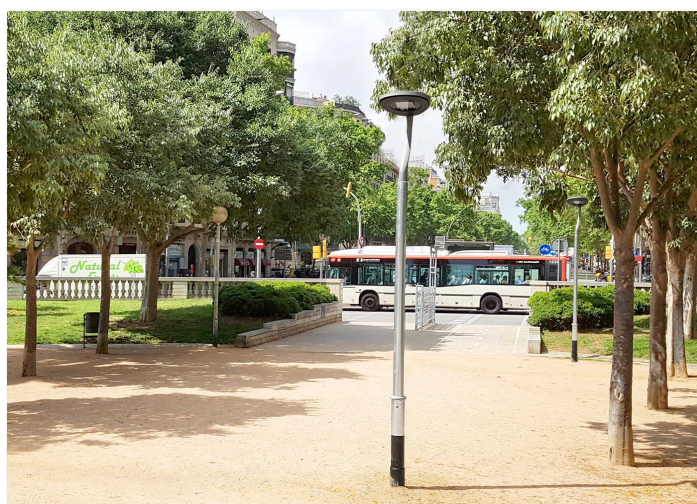
SPECIFICATIONS :

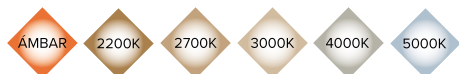
Housing material:	High pressure die-cast aluminium EN AC-43000, EN AC-43100, EN AC-43400, EN AC-44100, EN AC-47100 according to the UNE EN 1706 standard
Diffuser (optic system enclosure):	5mm tempered safety glass. UV filter
Fixing elements:	Stainless steel 18/8 - AISI 304
Housing:	Double compartment: driver / LED module
Sealing gaskets:	Silicone foam
IP rating (luminaire):	IP66
IP rating (optic system):	IP66
IK rating (impact resistance):	IK09
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
Finish:	Polyester powder paint coating, electrostatically sprayed and sublimated in the oven. Resistant to corrosion
Colour:	RAL 9022 and 7043. Optional: other colours
Mounting:	Post - Top Ø60mm
Tilt range:	From -90° to +90°
Maintenance:	Easy, tool-less opening. Modular concept for easy component replacement: LEDs, drivers, SPD
Recommended mounting height:	4 - 6 m
Driver:	Constant current adjustable and programmable driver. Embedded in the luminaire, pre-wired on a galvanised steel plate
Driver control:	Dimmable driver 0-10V. Programmable on 5 levels. Optional: DALI 2. Includes the characteristics of Wireless, AOC, MTP, DTL
Dimming options:	- 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 disconnecter for a more effective protection at the end of its service life

DRAWING:



INSTALLATION:





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
INNOVA B	ALIB	24	20	250	2842	142	3240	162
		24	40	500	5642	141	6432	161
		24	60	750	8443	141	9625	160
		36	80	667	11193	140	12760	160
		36	100	833	14066	141	16035	160

LEDs: 5050

Nominal efficacy LED: 172 lm/W.

Maximum LED current: 1000 mA.

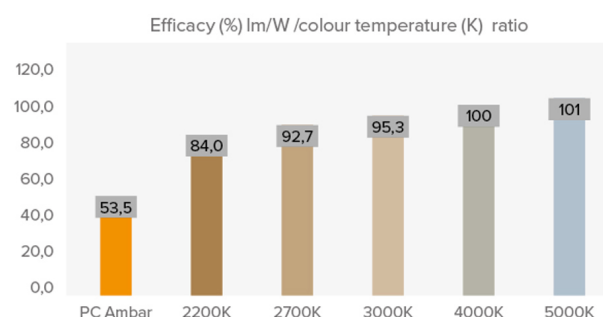
LED current = Driver current/2

Lifetime L90B10: >100,000 hours.

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

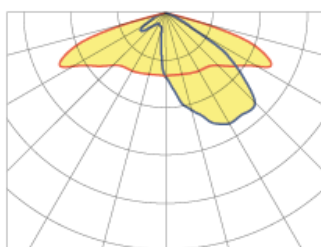
Luminous flux tolerance < +/-3%.

Values may be subject to change due to LED binning.

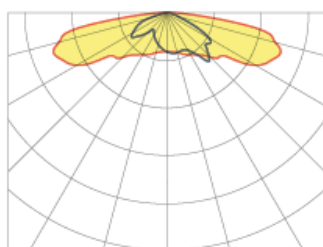


PHOTOMETRY:

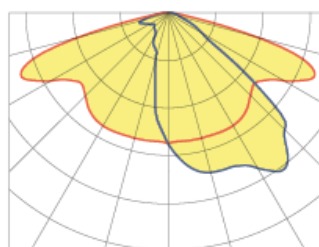
Super-Extensive Asymmetric (AE)



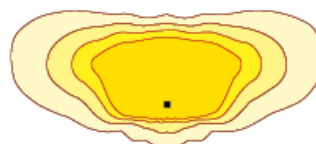
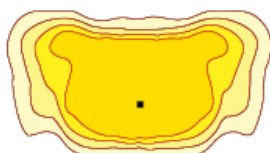
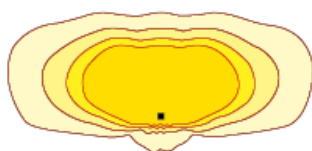
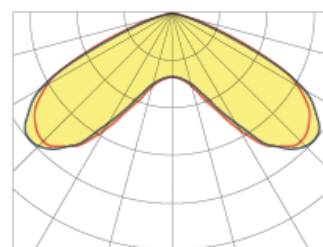
Extensive Asymmetric (A3)



Extensive Asymmetric (AM)



Super-Extensive Circular Symmetric (SE)



*Check the other available light distribution curves

LEDs MODULE:		
LEDs module:	BENITO-NOVATILU Zhaga standard for 8, 12 and 16 LEDs. Check colour temperature, CRI and light distributions	
Replaceable module:	Yes	
LED:	5050	
Number of LEDs:	24-36	
PCBs format:	2 or 3 Zhaga (Book 15) 2x4	
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 n°3:	>95%	
Photobiological safety:	RG0 (exempt of risk)	
Initial luminous flux Tj=25°C (up to):	lm	16035
Initial luminaire efficacy Tj=25°C (up to):	lm/W	160
Real luminous flux Tj=85°C (UNE EN 13032-4) (up to):	lm	14066
Real luminaire efficacy Tj=85°C (UNE EN 13032-4) (up to):	lm/W	141

ELECTRIC SPECIFICATIONS:		
Nominal maximum power (LEDs):	90	
Maximum power consumed (luminaire):	W	100
Power range:	W	20-100W
Maximum current of LED:	mA	<450 (<50% I _{max})
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 disconnecter 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 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:	A++ IPEA>1.15	

OPERATING CONDITIONS:		
Average LED useful time L90B10:	>100,000	
Average driver useful life to T _p <70°C:	100,000	
Average luminaire useful life L80B10 (TM-21):		
Ambient temperature (T _a):	°C	From -35°C to +50°C
Aerodynamic resistance (C _x S):	m ²	0.111
Vibration test (15Hz 3 axis):		
Wind load test:		
Guarantee:	years	5 years (extensible up to 10 years)

PACKAGING DIMENSIONS:		
Net weight	kg	9
Gross weight	kg	10.5
Luminaire dimensions (LxWxH)	mm	570x470x760
Packaging dimensions (LxWxH)	mm	570x510x155
Pieces per box	1	
Quantity per container 20ft		
Quantity per container 40ft		

CERTIFICATES:		
Security certificates:	EMC certificates:	Other certifications:
EN 60598-1 / EN 60598-2-3 EN 62493 / IEC 62471	EN 55015 / EN 61547 / EN 61000-3-2 / EN 61000-3-3 EN 61347-2-13 / EN 61347-1 / EN 62384	IEC 62262 / EN 13032-4 / EN 62717 / EN 6272-1 EN 6272-2-1 / EN 61643-11