

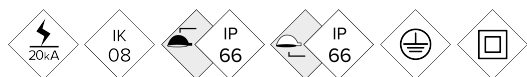
Pole made of laminated steel tube with a 200mm x 100 mm rectangular profile. Height from 4m to 7m. Can include one or two brackets (same or different height). High resistance and durability. Refined and modern style ideal for any urban environment. Includes a BENITO-NOVATILU LEDs module with light distributions from 20W to 120W to cover all applications.

POLE:

ILLIM

Luminaire

ELIUM M



Extra flat luminaire with an excellent relation between efficiency and cost. Available in three sizes with extensive optical and light distributions to cover all applications. Ideal to be installed on 4m to 12m lighting poles.

MAIN FEATURES:

- High efficacy. Up to 142 lm/W net
- 3 different sizes. From 20W to 140W
- Double compartment: driver and LED module
- Easy opening with a screwdriver
- 18 light distribution curves
- Zhaga Standard (Book 15)
- Ready 4IoT. Ready for any intelligent lighting control solution

APPLICATIONS:

- Cycle lanes and ≤ 30 km/h areas
- Urban and residential areas
- Avenues
- Industrial areas and car parks
- Interurban roads and roundabouts
- Motorways and highways

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

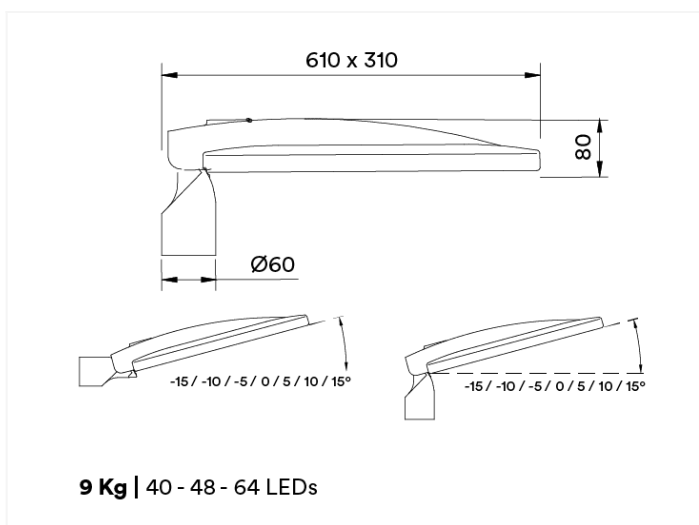
**BENITO
NOVATILU**

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SPECIFICATIONS :

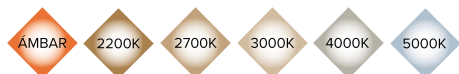
Housing material:	High pressure die-cast aluminium EN AC-43000, EN AC-43100, EN AC-43400, EN AC-44100, EN AC-47100 according to the UNE EN 1706 standard
Diffuser (optic system enclosure):	5mm tempered safety glass. UV filter
Fixing elements:	Stainless steel 18/8 - AISI 304
Housing:	One compartment: driver / LED module
Sealing gaskets:	Silicone foam
IP rating (luminaire):	66
IP rating (optic system):	66
IK rating (impact resistance):	08
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:	
Finish:	Polyester powder paint coating, electrostatically sprayed and sublimated in the oven. Resistant to corrosion
Colour:	RAL 9006. Optional: other colours
Mounting:	Post - Top and Lateral Ø60mm
Tilt range:	From -15° to +15°
Maintenance:	Easy opening with a screwdriver. Modular concept for easy component replacement: LEDs, drivers, SPD
Recommended mounting height:	7 - 12 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:	<ul style="list-style-type: none"> - 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
ELIUM M	ILLIM150	48	100	625	14200	142	16188	162
		64	120	563	16920	141	19289	161
		64	140	657	19740	141	22540	161

LEDs: 5050

Nominal efficacy LED: 172 lm/W.

Maximum LED current: 1000 mA.

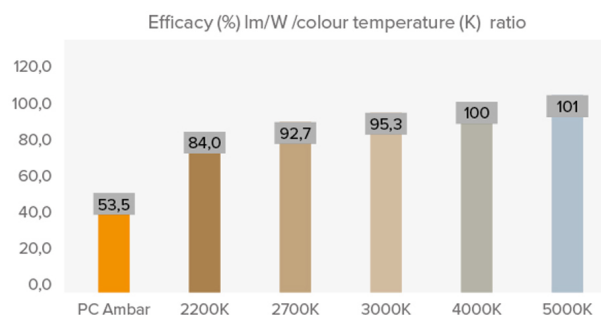
LED current = Driver current/2

Lifetime L90B10: >100,000 hours.

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

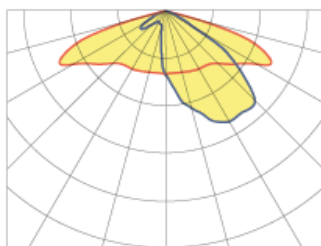
Luminous flux tolerance < +/-3%.

Values may be subject to change due to LED binning.

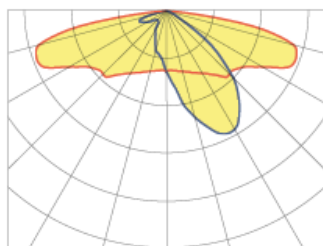


PHOTOMETRY:

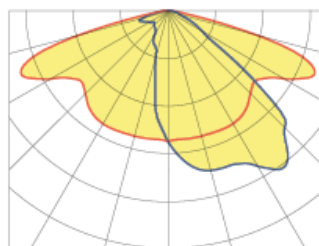
Super-Extensive Asymmetric (AE)



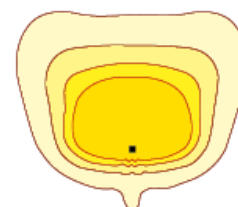
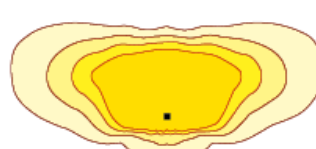
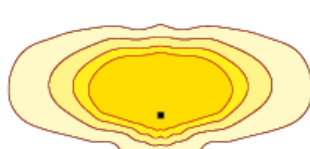
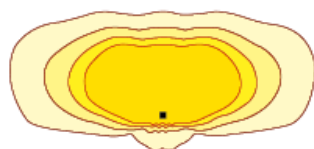
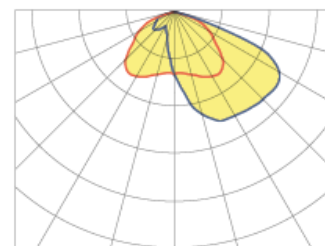
Super-Extensive Asymmetric (A2)



Asymmetric Extensive (AM)



Asymmetric (A4)



*Check the other available light distribution curves

LEDs MODULE:		
LEDs module:	BENITO-NOVATILU Zhaga standard for 16 LEDs. Check colour temperature, CRI and light distributions	
Replaceable module:	Yes	
LED:	5050	
Number of LEDs:	48 - 64	
PCBs format:	3 or 4 Zhaga (Book 15) 2x8	
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	24111
Initial luminaire efficacy Tj=25°C (up to):	lm/W	162
Real luminous flux Tj=85°C (UNE EN 13032-4) (up to):	lm	21150
Real luminaire efficacy Tj=85°C (UNE EN 13032-4) (up to):	lm/W	142

ELECTRIC SPECIFICATIONS:		
Nominal maximum power (LEDs):	W	132
Maximum power consumed (luminaire):	W	140
Power range:	W	100 - 140W
Maximum current of LED:	mA	<400 (<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 Tp <70°C:	100,000	
Average luminaire useful life L80B10 (TM-21):	72,167	
Ambient temperature (Ta):	°C	From -35°C to +50°C
Aerodynamic resistance (CxS):	m2	0.049
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
Luminaire dimensions (LxWxH)	mm	610x310x80
Packaging dimensions (LxWxH)	mm	720x330x120
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 EN62031 / EN 16474 / ISO 9227 / EN 60068-2-11 / ISO 10289 / EN 61643-11