APAM

APOLO M

Flat floodlight especially designed for stadium lighting. Comprehensive range available in three sizes with extensive optical and light distributions from 500W up to 1500W to cover all applications. Can be tilted in all directions thanks to its fixing bracket. Ready for any intelligent lighting control solutions. Includes a telescopic sight to direct the floodlights precisely.

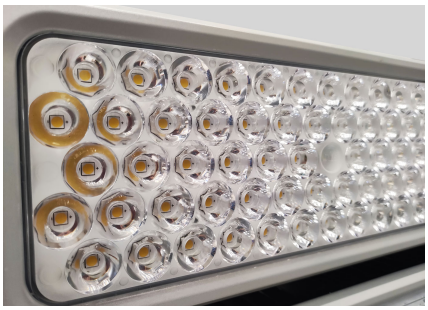
MAIN FEATURES:

High efficiency. Up to 154 lm/W net
3 different sizes. From 50W to 1500W
IP ultralight compact driver
Regulation of independent modules
Great thermal dissipation capacity
DALI & DMX control
High resistance to 5G vibrations
Housing made of an aluminium and magnesium alloy to reduce weight and improve thermal transfer
Centralised connection box with waterproof connectors for an easy installation

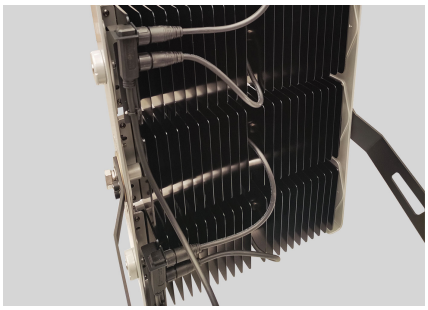
APPLICATIONS:

Large Area Sports Facilities; Football, Rugby, Athletics
Large Infrastructures; Airports and Ports

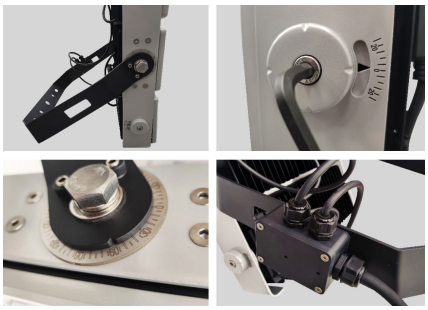
DETAILS:



High efficiency LED module >180lm/W with sealed optics. Real efficiency 154Lm/W.



Generous dissipation surface in extruded aluminium with high thermal transmission and low weight.



Easy installation. With steel rod. Graduated axis of rotation. Possibility of regulating each of the modules. Centralised junction box.

Project sheet | CAD | HD image

BENITO

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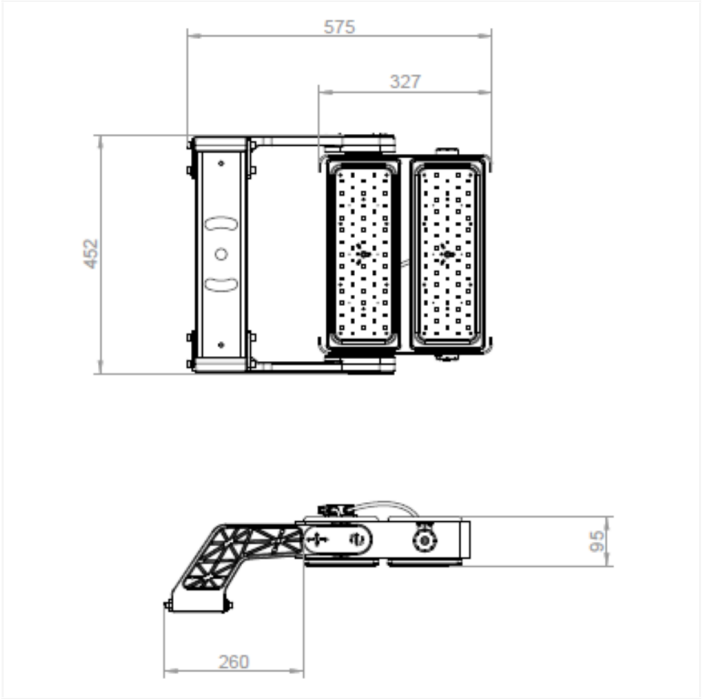
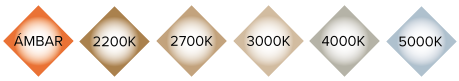
SPECIFICATIONS :

Housing material:	Injected aluminium and magnesium alloy casting EN AC-43000, EN AC-43100, EN AC-43400, EN AC-44100, EN AC-47100 according to the UNE EN 1706 standard. Modules made of extruded aluminium
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 LEDs module. 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:	RAL 9022. Optional: other colours
Mounting:	Fixing bracket reinforced with a U-profile
Tilt range:	From -180º to +180º
Maintenance:	Modular concept for easy component replacement: LEDs, drivers, SPD. Drivers module easily detachable by means of IP67 waterproof connectors.
Recommended mounting height:	18 - 40 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, DALI, DMX.
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. Optional FULL PROTECTOR

DRAWING:



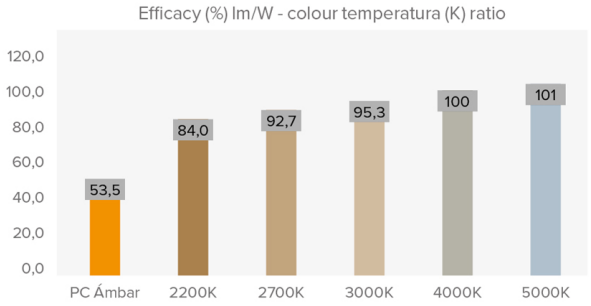
INSTALLATION:



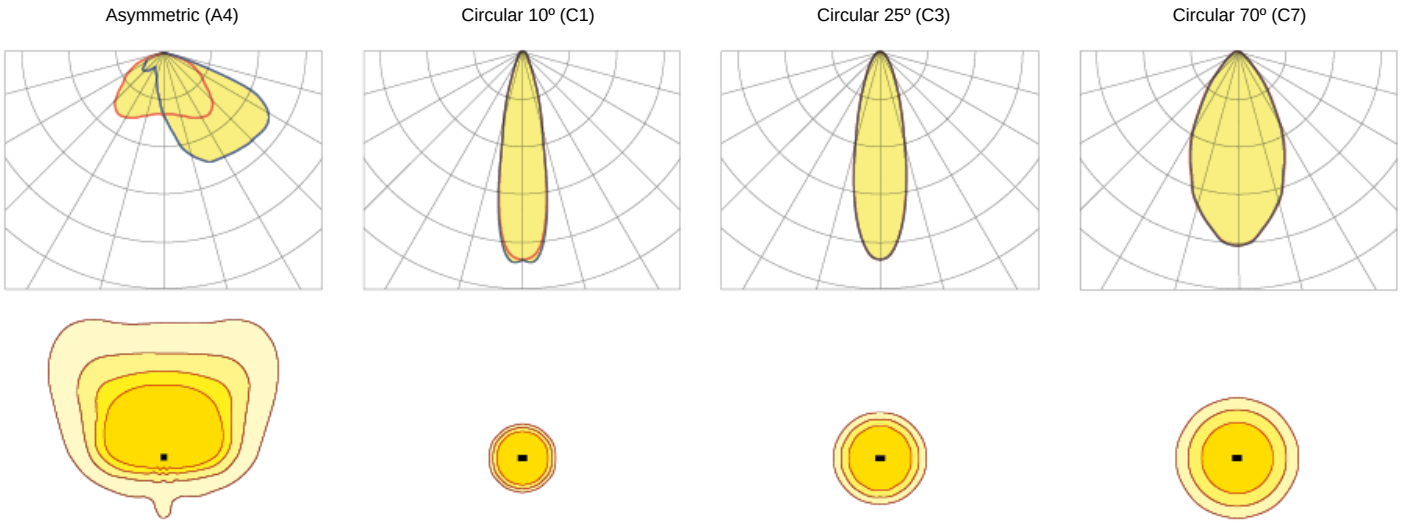
TECHNICAL DATA:

	REF.	Nº LEDs	Power W	I Driver mA	Real luminous flux (T) =85ºC)		Initial luminous flux (T) =25ºC)	
					Flux lm	Efficacy lm/W	Flux lm	Efficacy lm/W
APOLO M	APAM	132	500	800	83650	167	91000	182

Luminous flux and efficiency at 4000ºK 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.

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:	7070
Number of LEDs:	84
PCBs format:	
LED nominal efficacy:	182
Colour temperature:	
Colour rendering index CRI:	
Average LED useful time L90B10:	L90B10 >100.000 horas

OPTIC SPECIFICATIONS:

Optic system:		PMMA lenses
Light distributions:		7 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	109200
Initial luminaire efficacy Tj=25ºC (up to):	lm/W	182
Real luminous flux Tj=85ºC (UNE EN 13032-4) (up to):	lm	100380
Real luminaire efficacy Tj=85ºC (UNE EN 13032-4) (up to):	lm/W	167

ELECTRIC SPECIFICATIONS:

Nominal maximum power (LEDs):	W	540
Maximum power consumed (luminaire):	W	600
Power range:	W	400 - 600W
Maximum current of LED:	mA	<400 (<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. Optional FULL PROTECTOR
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 frecquency:	Hz	47-63
Starting current:	A	<65
Duration of the starting voltage peak:	ms	<0,3
Driver efficacy:		>95%
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):		72.167
Ambient temperature (Ta):	ºC	de -35°C a +50°C
Aerodynamic resistance (CxS):	m2	0,445
Vibration test (15Hz 3 axis):		
Guarantee:		5 (extensible up to 10 years)

PACKAGING DIMENSIONS:

Net weight	kg	12 (driver 3)
Gross weight	kg	13 (driver 3,5)
Luminaire dimensions (LxWxH)	mm	575x452x95
Packaging dimensions (LxWxH)	mm	630x750x130
Pieces per box		1
Quantity per container 20ft		
Quantity per container 40ft		

CERTIFICATES:

Security certificates:	EN 60598-1 / EN 60598-2-5 / EN 62493 / IEC 62473
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