FL800

Floodlight System

Next Generation LED Technology
with AeroFlow® Cooling System

CU Phosco LIGHTING

FL800 FLOODLIGHT SYSTEM provides an innovative new approach to area lighting.

To build a system, FL800 modules can be grouped as a luminaire in single, double or triple configuration and arranged on a mast with full azimuth rotation and tilt function.

Each module is individually selected with one of five optical distributions and a range of elevation angles to build a combined luminaire photometric output that meets the most challenging scheme.

FL800 module uses AeroFlow® Cooling System to provide exceptional thermal management. Maximised heat dissipation enables compact luminaire design, which can be retrofitted onto existing masts.

LUXEON® M LEDs and AeroFlow® together deliver high lumen output with low lumen depreciation over life. This minimises energy and operating cost by reducing overlighting.

FL800 offers the extremely competitive solution to replace traditional HID sources with performance, versatility and reliability.

FL800-1

FL800-2

FL800-3

APPLICATIONS

- Airports
- Ports
- Sport facilities
- Logistics
- Car parks
- Roads and roundabouts
- Shopping areas

FEATURES

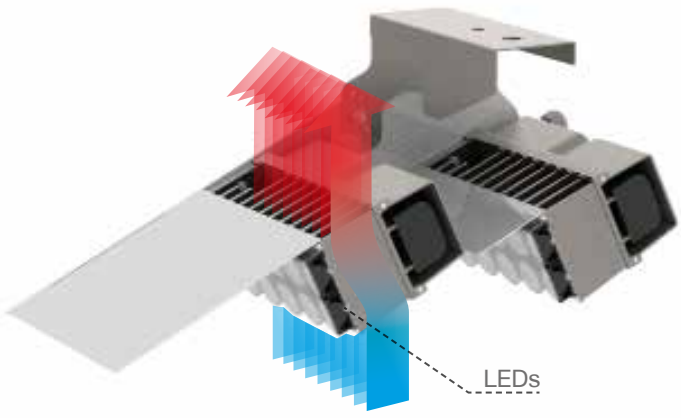
- Philips Lumileds LUXEON® M LED
- Superior luminaire efficacy up to 136 lm / W
- High Colour Rendering Index (CRI > 70)
- Constant Light Output (CLO)
- Instant hot restrike
- AeroFlow® Cooling System
- Demountable driver compartment
- Low wind profile area
- Low maintenance costs
- Full-cut off light distribution
- Flexible and programmable lighting control options (CMS)
- IP66 ingress protection for optical and gear compartments
- 100% recyclable

BENEFITS

- High flux density and efficacy LED
- Reduces energy costs and carbon emissions
- Improved safety and visual performance
- Minimises overlighting, saving energy
- Suitable for high security and safety critical lighting tasks
- L90 > 100,000 hrs (700mA, Ta = 25°C)
- Flexible mounting allowing cost savings
- Allows mounting on existing columns / masts
- Minimises Total Cost of Ownership (TCO)
- Dark sky friendly, no upward light, minimal glare
- Full control and monitoring of each luminaire
- Consistant high performance in aggressive environments
- Fully compliant with WEEE and RoHS regulations

AeroFlow® COOLING SYSTEM

Unique aerodynamic vents created by the vertical fins are designed to accelerate natural convection through the heatsink. Each airway is heated and the rising hot air draws cold air in from the bottom, immediately cooling the LEDs. On leaving the vents, the hot air converges smoothly into a laminar flow, quickly removing heat from the luminaire.

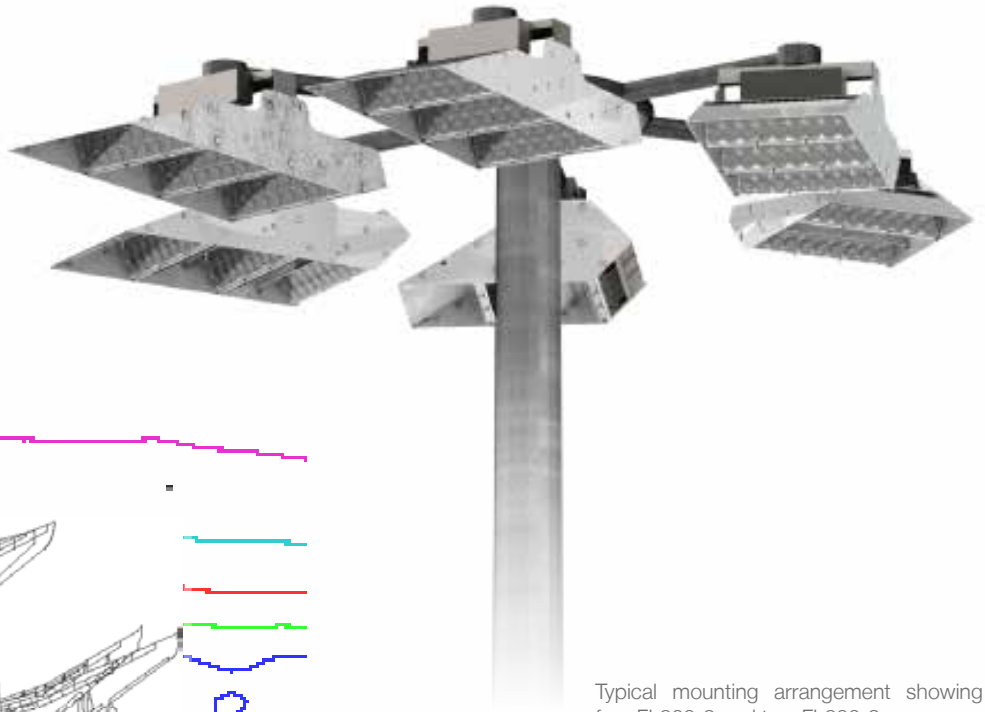


LIGHT CONTROL

FL800 meets the most demanding requirements for area lighting applications such as sports lighting, airports, ports and traffic junctions. Full cut-off distribution and precision optics provide exceptional control minimising obtrusive light, glare and upward light without compromising the lighting performance.

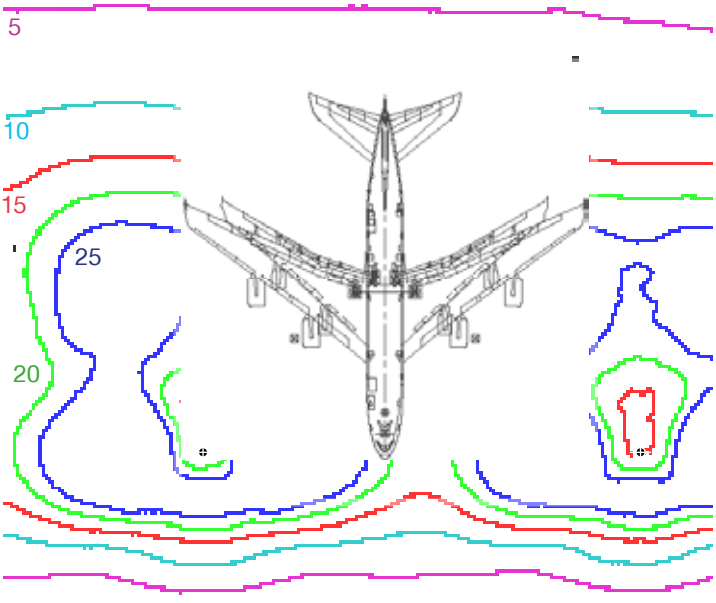
OPTICAL DISTRIBUTIONS

- Spot beam
- Medium beam
- Wide beam
- Extra wide beam
- Oval beam



Typical mounting arrangement showing four FL800-3 and two FL800-2

ENERGY EFFICIENCY



A380 Aircraft Stand 87 x 82m lit to CAP168
Overall MF = 0.80
Mounting height = 20m

The table below shows the energy saving for a typical Airbus A380 aircraft stand.

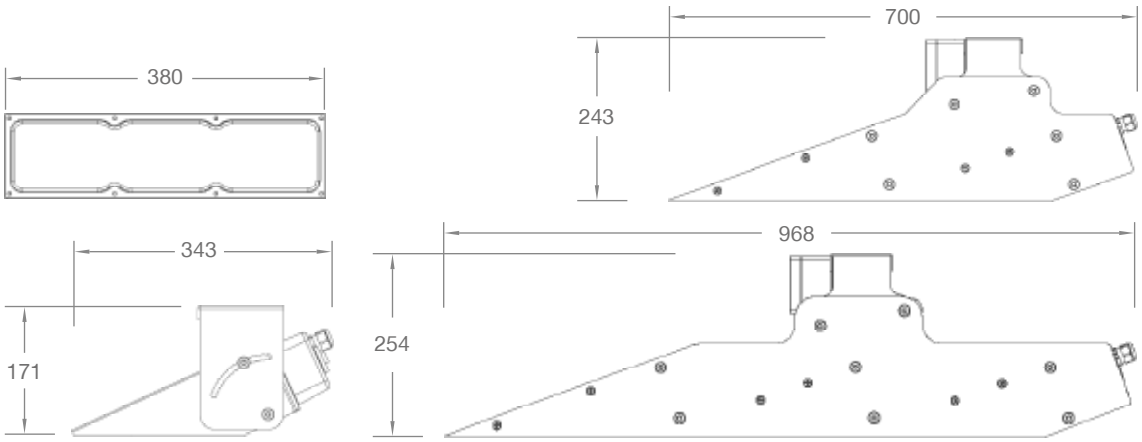
Light Source	Nominal Power	System Power	Number of units	Total System Power	Energy Savings
SON-T	400W	449W*	8	3592W	-
FL800	150W	143W**	18	2582W	28%

* HID Luminaire LOR = 84%. EM driver efficiency with 10% loss
** Average power consumption over life with CLO for lumen depreciation MF = 0.90

FL800 SPECIFICATION

Light Source	Philips Lumileds LUXEON® M LEDs		
Number of LEDs	18 (per module)		
Correlated Colour Temperature	Cool white, 5700K (Standard)		
Glare Management	Full cut-off at 0° Tilt		
Colour Rendering Index	> 70		
Optical Cover	Polycarbonate		
Luminaire Efficacy at full power (Max)	95 lm/W		
Luminaire Efficacy (Max)	136 lm/W		
Electrical Class	I		
Control System Input	1-10V and DALI		
Lumen Maintenance output (TM21)	L90 > 100,000 hours (700mA, Ta = 25°C)		
Driver Current	200mA ~ 700mA (in 50mA steps)		
Surge Protection	Protected to ANSI C62.41.2 high exposure 10kV, 10kA level		
Lighting Regulation (Remote)	Photocell • Time switch • Central Management System		
Dimming Control	1-10V • DALI • Dynadimmer		
Operating Temperature	-40°C to +25°C (700mA, 75,000 hours life)		
	-40°C to +15°C (700mA, 100,000 hours life)		
Installation Height	10 ~ 50m		
Installation	Stirrup mount		
Material	LM6 Aluminium (Module)		
Body finish	Powder coated white • Galvanised stirrup		
Ingress Protection	IP66		
Product configuration	FL800-1	FL800-2	FL800-3
Luminaire luminous flux (Nominal)	13,250 lm	26,500 lm	39,750 lm
Power consumption	44 ~ 150W	88 ~ 300W	132 ~ 450W
Luminaire Tilt	-35° ~ 5°*	-10° ~ 10°	-10° ~ 10°
	in 5° step	in 2.5° step	in 2.5° step
Wind area** (Max)	0.033m²	0.082m²	0.118m²
Weight (Total)	7kg	12kg	18kg

* FL800-1 (0° tilt) gives main beam at 65° elevation from downward vertical.
** Dimensions vary with individual module elevation.
Wind area and dimensions shown are the maximum values for each configuration.



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