

DATASHEET LED FLOODLIGHT

Large area floodlight ALxxxx family

1375 W - Dimmable and Controllable



TYPICAL APPLICATION



The ALxxxx family AAA-LUX LED floodlight luminaires are suitable to illuminate large industrial areas on masts between 12 and 45 meters height. The luminaires can be a retrofit replacement for the current Metal Halide or High Pressure Sodium floodlights.

The ALxxxx family of large industrial area covers 5 series of LED luminaires for the various applications. In this datasheet the AL60series, AL90series and AL180series will be described. The AL360series and AL700series (suited for low mast heights) will be described in a separate datasheet. These luminaires can be controlled via the wireless proprietary AAA-LUX LEDxLINK. This protocol is part of the Lighting Control Management System. This control system is designed to bring the user ease of use, as it will also bring remote management features.

Typical applications for the ALxxxx family are in industrial large areas like:

- Parking places e.g. long term parking at airports
- Port terminals, e.g. coal and container terminals
- Train marshalling yards
- Airport aprons
- Industrial 24/7 plants

Light spill shields are available for harsher light pollution environment. They can be ordered separately. More information can be found on www.AAA-LUX-lighting.com

FEATURES AND BENEFITS

Feature	Benefit
Better light <ul style="list-style-type: none"> • Superior color rendering • Improved light uniformity 	Improved safety Increased productivity
True retrofit <ul style="list-style-type: none"> • Direct connection to 400 VAC • Same size and weight 	Easy replacement <ul style="list-style-type: none"> • Fits on existing masts • No extra installation costs
Wireless Lighting Control Management System <ul style="list-style-type: none"> • Central monitoring and control • Freedom of installation of sensor and luminaires 	Easy to control – Flexible <ul style="list-style-type: none"> • Monitor and adjust power consumption • Plan efficient maintenance
Significant Energy Saving <ul style="list-style-type: none"> • No start-up time needed • Dimming reduces power consumption • No inrush current 	Short ROI <ul style="list-style-type: none"> • Based on power consumption reduction • No relamping costs
Long lifetime	No relamping costs - Increase system up-time
High efficient optics <ul style="list-style-type: none"> • Illuminate what is needed • Increase system efficiency 	Less power needed for same lighting level Reduction of stray light

DESCRIPTION

The AL90series, AL60series and AL180series floodlights are a true retrofit for existing 2.2 kW Metal Halide and High Pressure Sodium fixtures. The AAA-LUX propriety Lighting Control Management System (LCMS) can wireless switch and dim the luminaires. In absence of a LCMS, the luminaires switch on at 100%. The product is equipped with high-quality LED lamps and optics. The 8 light beams are configured, such that the surface is uniformly illuminated. The high quality optics illuminate the surface uniformly and produce very little stray light at the same time. The light is perceived as daylight, which enhances the safety in the area.

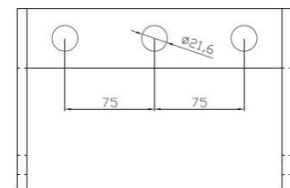
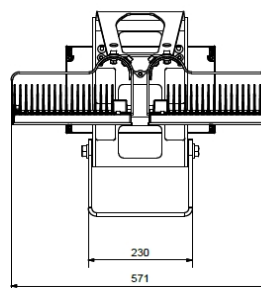
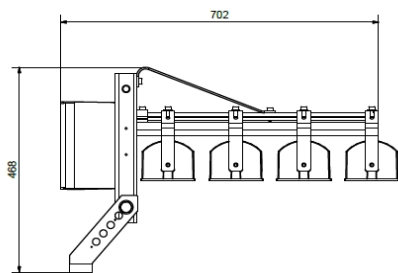
The integrated electronic power supply has a high efficiency (more than 95%), and a power factor (PF) above 0.95.

With the absence of inrush current, the electrical installation can be designed at nominal current, saving significant cabling costs in case of new build installations (EN50525).

All materials used are suitable for outdoor use, even in harsh conditions. The LED luminaire is particularly suitable for container terminals, industrial sites, parking lots, airport terminals and train facilities. The product has a long lifetime and a high reliability. The significant energy reduction cause a short payback period of the investment.

TECHNICAL DATA

Dimensions for reference: 571 x 468 x 702 (in mm)



Connect bracket with M20 bolt

Mechanical – electrical data

Specification	Min	Typ	Max	Unit
Power consumption @100 %		1375	1550	W
Standby power		7.6	8.0	W
Voltage input	370	400	430	VAC
Current		3.5	4.0	A
Power factor	0.95	0.98		
Frequency	45		60	Hz
Colour temperature		5200		K
Colour rendering index	70	80		
Weight, including bracket		28		kg
Ingress protection		IP65		
Electrical insulation class		I		
Frontal surface		0.26 C _w = 1		
Operating Temperature	-20		+40	°C
Expected lifetime @ T _{amb} =25°C		60 000		hrs
Luminous efficacy	98.7	103	130	lm/W

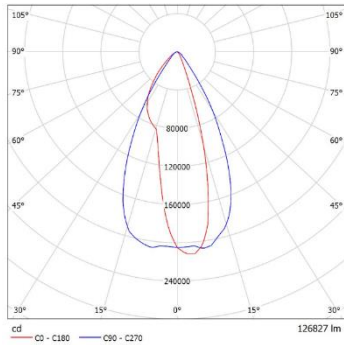
CE marking is applicable
LED luminaire is powder coated with RAL9005
Swivel dimensions incoming supply voltage wire: M25

Extended temperature ranges available - Contact Reseller
Luminous efficacy depends strongly on current through LEDs
Based on LM-790 DEKRA test results Nov 2015

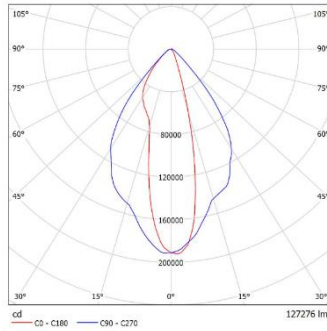
Light technical information: Polar intensity diagram and dimming-power ratios

The ALxxxx family of products are available in narrow (AL6003), medium (AL9003) and wide beam (AL1803) to accommodate for area size and mast height. For light planners, example light plans are available from AAA-LUX upon request.

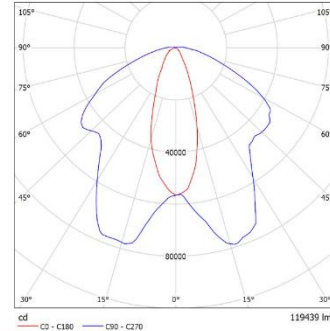
Below polar intensities are based on ies-files: v5.01 – December 2015.



Polar intensity AL6003



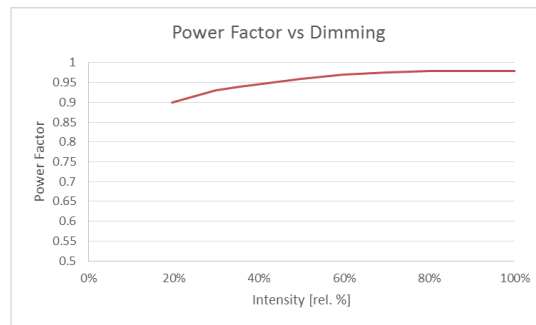
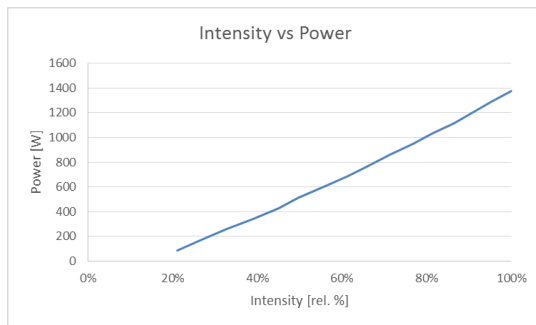
Polar intensity AL9003



Polar intensity AL1803

TYPE	FLUX [LM]
AL6003	135718
AL9003	135718
AL1803	131839
AL3603	131839
AL7003	65919
AL7103	67471
AL7203	65919

Luminous flux at 1550W per lamp type based on DEKRA LM-79 measurement



Power consumption versus dimming ratio and Power Factor vs Dimming

ACCESSORIES

Light spill shield	These shields can be used to further reduce light pollution. They can be placed on the individual light beams of the LED luminaire
Aiming visor	The use of the aiming visor is as a tool for the installation of the LED luminaire
All LCMS components like Touchscreen, Control Box, Switchbox, Interface Box, etc	

ORDERING CODES

Typenumber	Description
AL6003	Standard AL60series LED luminaire
AL6003LLH2	AL60series LED luminaire with 1 Light spill shield on each of the outer light beams
AL9003	Standard AL90series LED luminaire
AL9003LLH2	AL90series LED luminaire with 1 Light spill shield on each of the outer light beams
AL1803	Standard AL180series LED luminaire
AL1803LLH2	AL180series LED luminaire with 1 Light spill shield on each of the outer light beams

SAFETY

Before installation read the installation manual carefully.

Installation is only authorized to trained professionals.

Make sure that everyone working with the product during installation is known with the content of the installation manual.

PROTECTIONS – TEMPERATURE and VOLTAGE

The LED luminaires contain a sophisticated over-temperature protection. In case of a high ambient temperature and/or sunlight the luminaire automatically dims to a lower light output.

With a supply voltage higher than 440 Vac the LED luminaire will switch.

With a supply voltage lower than 360 Vac the LED luminaire will switch of completely.

MAINTENANCE

Maintenance is not needed throughout the lifetime of the product, except cleaning and safety inspection of the product.

400V ELECTRICAL VOLTAGE

During installation the 400V is connected and disconnected via a connection box, with connections for PE (protective earth) and 2-phases.

See Installers Manual for more details.

The product contains an electronic switch mode power supply.

In case of a non-functioning product, high voltages can still be on the power supply even after being disconnected from mains.

Also a, by software, fully dimmed product will not emit any light and still can be connected to 400V.

400V is considered as life threatening voltage and opening of the electronic driver box is only allowed at an AAA-LUX certified repair center. All other situations voids warranty and can cause life threatening situations.

PATENTS

The product is protected by European patent(s)

COMPLIANCY TO STANDARDS**Safety**

- IEC 62031:2008 (1st edition) (LED Modules Safety Specifications)
- EN 60598-1 and EN 60598-2-1 (Luminaire safety)

EMC

- EN61000-6-4, EN55011:1998 (Generic Emission)
- EN61000-3-2: 2000 (Harmonics)
- EN61000-6-2: 2001 (Generic standard immunity)

Corrosion

- DIN 50021 NSS
- DIN 50018 SWF 2.0
- NFT 30.055 2 liter SO2

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The information might be subject to change without prior warning.

Made in the Netherlands**AAA-LUX**

Eindhoven, The Netherlands

Tel: +31 40 237 7528

Website: www.AAA-LUX-lighting.com

E-mail: info@AAA-LUX-lighting.com