CEAG Products
Explosion protected floodlights

CROUSE-HINDS SERIES



PXLED - Power Floodlight Series for Hazardous Areas

Explosion-protected LED floodlight series for Zone 1, 2, 21 and 22



EATON
Powering Business Worldwide

Ex-Floodlight PXLED

(Ex-Zone 1, 2, 21 and 22)

Lighting under harsh conditions

The new modular LED floodlight series PXLED is suited for nearly every kind of lighting task in hazardous areas, including applications in On- and Offshore, heavy industrial, chemical, petrochemical, oil and gas, pharmaceuticals, shipyards, dockyards, power generation, paper mills and wastewater treatment indoor and outdoor with potentially explosive areas under harsh conditions like vibrations, dust, moisture or corrosive atmospheres and extreme temperatures. The PXLED comes with a standard U-shaped mounting bracket for ceiling and wall mounting

Replacement of conventional light fittings up to 600 W

With a luminous flux from 5,000 lm up to 32.000 lm this floodlight series can be used to replace nearly every floodlight with conventional light sources with an equivalent power consumption from 70 W up to 600 W.

High efficient LED technology

High efficient power LED module with 110 Lumen/Watt enables up to 70 % energy-cost savings compared to conventional HID lamp.

Safety first

All PXLED multi-module floodlights from size 10L to 30L are equipped with a multichannel LED driver. This driver provides for each LED-module a separate power channel circuit. Even if one circuit fails, all other LED-modules are still working.

Modular design - just use the size you need

Thanks to the modular design of the PXLED series you can exactly choose the lumen output you need. There is no need to over/underdesign your lighting project. Six sizes are available from nominal 5.000 lm to more than 30.000 lm with a stepwide of 5000 lm.

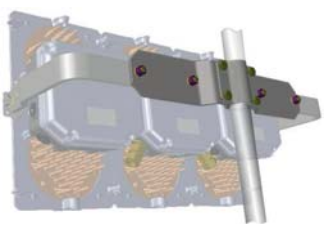
Easy to install

A stainless steel swivel bracket with adjustable setting angle allows an easy alignment of the floodlight. A fixing screw



secures the alignment. The swivel bracket provides up to five Ø13 mm fixing holes for a safe assembly.

Different mounting accessories enable easy and safe mounting whereever required.



Together with two cable gland a large terminal compartment in Ex-e design allows cost saving through-wiring without additional terminal boxes.



The used Ex-e terminals can clamp up to 6 mm² wiring.

Internal and external PE-terminals allows nearly all cabling technique.





5 YEAR WARRANTY

Features

- High efficiency: up to 110 lm/W
- Operating temperature -50 °C up to +55 °C
- Suitable for Explosion Group IIC / IIIC environment
- Broad range of light output from 5,000 lm up to 32,000 lm
- Wide and narrow beam pattern (asymmetric beam on request)
- Long lifetime
- Ex-e compartment for driver & terminal for easy installation and maintenance

Designed for long lifetime

High ambient temperatures can drive the LED chip-temperature into a not permissible range. This would reduce the life-span of the LEDs tremendously. Eaton provides an enclosure design with large cooling pipes and a innovated heat reduction



design.

Tests done under the worst test conditions have shown that the LED-chip temperature is always below critical values. The designed life span for the LED (L80) is more than 60,000 h even at +55°C ambient temperature

The Eaton-LED driver is especially designed for the harsh conditions of hazardous environments. According to EN 61000-4-5 an electronic device must withstand a surge pulse of 1 kV between L- N, our LED driver is designed to withstand 4 kV between L- N and L, N - PE.



All electronic components with self-heating are over dimensioned to ensure a maximum maintenance-free period. The driver has an own Ex-certification "q" and is mounted within the Ex-e compartment.

In the very unlikely cause of an driver failure this unit can be changed separately from the floodlight.

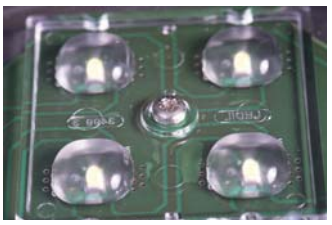
Light distribution for various applications

Beside the various lumen output packages different light distributions can be realized with the PXLED-series.

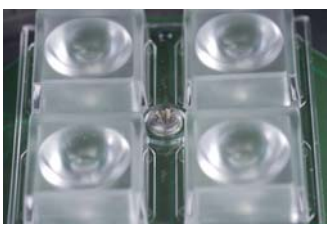
A wide beam pattern as well as a narrow beam pattern is realized by the use of special designed lens caps for the LEDs. In addition, asymmetric light distributions are also available for special applications.

With a light transmission factor of more that 90 % we are able to offer a system efficiency of more than 110 lm/W.

The laminated glass version with external plastic foil, either in clear or frosted version, prevents any glass splitters from falling, allowing safe use in critical application such as food & beverage, chemical and pharmaceutical Industries



wide beam lens caps

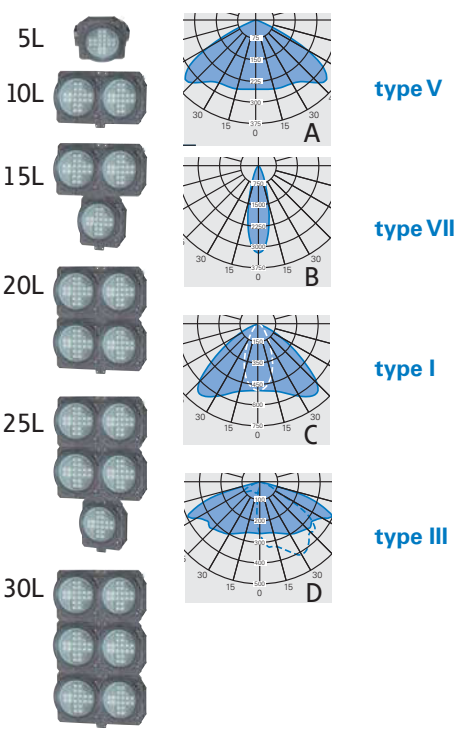


narrow beam lens caps

Type key for PXLED floodlight series

PXLED 10L W 7 57 GC T0 E01

Type of fitting:	Size of fitting[1]:	Light distribution:	CRI [2]:	CCT [3]:	Front glass:	Terminals:	Cable entries/glands:
PXLED	5L = 5000 lm 10L=10000 lm 15L=15000 lm 20L=20000 lm 25L=25000 lm 30L=30000 lm	W = wide beam N = narrow beam C = asymetric1 D = asymetric2	7 = CRI >70 X = other on request	57 = 5700 K XX = other on request	GC = clear FC = laminated, clear (on request) FF = laminated, frosted (on request)	T0 = type 2410 - max. 6 mm² TX= others on request	E01= 2 x M25 metal gland type ADE 1F2 E05= 2 x M25 plastic threaded plug E11= 1 x M25 metal gland type ADE 1F2, 1 x M25 plastic threaded plug EXX= others on request

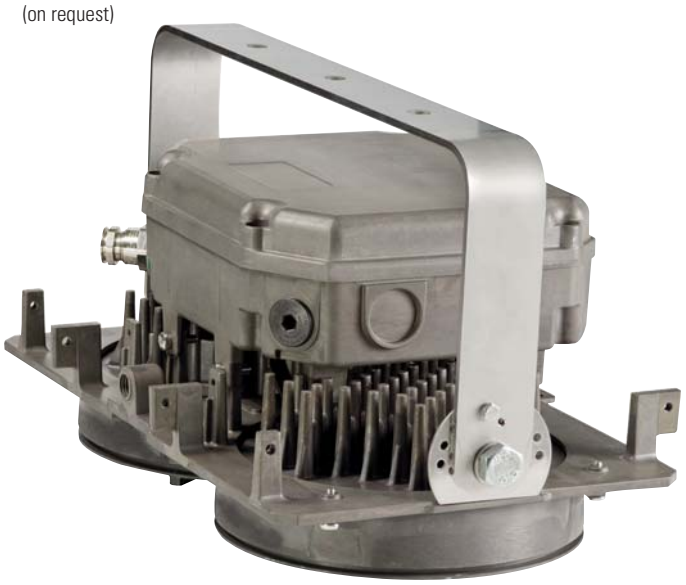


type V

type VII

type I

type III



1) the lumen value is a design value and will not show the actual lumen output
2) CRI = Colour Rendering Index
3) CCT= Correlated Colour Temperature

Ordering details

PXLED, PXLED LV for Ex-Zone 1, 2, 21 and 22

Ordering details PXLED

	Type	Lamp / illuminant	Light distribution *)	Description / Power	Cable glands	Order No..
	PXLED 5L W 757 C E01	LED system 5.386 lm	narrow beam	LED floodlight with swivel bracket 49 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	**1 3042 110 001**
	PXLED 5L W 757 C E05				2 x M25 plastic threaded plug	**1 3042 110 005**
	PXLED 5L A 757 C E01	LED system 5.207 lm	wide beam	LED floodlight with swivel bracket 49 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	**1 3042 111 001**
	PXLED 5L A 757 C E05				2 x M25 plastic threaded plug	**1 3042 111 005**
	PXLED 10L W 757 C E01	2 LED systems 10.772 lm	narrow beam	LED floodlight with swivel bracket 98 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	**1 3042 210 001**
	PXLED 10L W 757 C E05				2 x M25 plastic threaded plug	**1 3042 210 005**
	PXLED 10L A 757 C E01	2 LED systems 10.414 lm	wide beam	LED floodlight with swivel bracket 98 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	**1 3042 211 001**
	PXLED 10L A 757 C E05				2 x M25 plastic threaded plug	**1 3042 211 005**
	PXLED 15L W 757 C E01	3 LED systems 16.158 lm	narrow beam	LED floodlight with swivel bracket 147 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	**1 3042 310 001**
	PXLED 15L W 757 C E05				2 x M25 plastic threaded plug	**1 3042 310 005**
	PXLED 15L A 757 C E01	3 LED systems 15.621 lm	wide beam	LED floodlight with swivel bracket 147 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	**1 3042 311 001**
	PXLED 15L A 757 C E05				2 x M25 plastic threaded plug	**1 3042 311 005**
	PXLED 20L W 757 C E01	4 LED systems 21.544 lm	narrow beam	LED floodlight with swivel bracket 196 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	**1 3042 410 001**
	PXLED 20L W 757 C E05				2 x M25 plastic threaded plug	**1 3042 410 005**
	PXLED 20L A 757 C E01	4 LED systems 20.828 lm	wide beam	LED floodlight with swivel bracket 196 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	**1 3042 411 001**
	PXLED 20L A 757 C E05				2 x M25 plastic threaded plug	**1 3042 411 005**
	PXLED 25L W 757 C E01	5 LED systems 26.930 lm	narrow beam	LED floodlight with swivel bracket 245 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	**1 3042 510 001**
	PXLED 25L W 757 C E05				2 x M25 plastic threaded plug	**1 3042 510 005**
	PXLED 25L A 757 C E01	5 LED systems 26.035 lm	wide beam	LED floodlight with swivel bracket 245 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	**1 3042 511 001**
	PXLED 25L A 757 C E05				2 x M25 plastic threaded plug	**1 3042 511 005**
	PXLED 30L W 757 C E01	6 LED systems 32316 lm	narrow beam	LED floodlight with swivel bracket 294 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	**1 3042 610 001**
	PXLED 30L W 757 C E05				2 x M25 plastic threaded plug	**1 3042 610 005**
	PXLED 30L A 757 C E01	6 LED systems 31242 lm	wide beam	LED floodlight with swivel bracket 294 W	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	**1 3042 611 001**
	PXLED 30L A 757 C E05				2 x M25 plastic threaded plug	**1 3042 611 005**

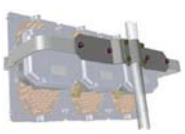
*) Asymmetric light distribution on request

Ordering details PXLED LV (Low Voltage)



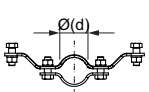
Type	Lamp / illuminant	Light distribution *)	Description / Power	Cable glands	Order No..
PXLED 5L A 757 C T0 E01 LV	LED system 5.000 lm	wide beam	LED floodlight with swivel bracket 49 W low voltage	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	**1 3046 111 001**
PXLED 5L A 757 C T0 E05 LV	LED system 5.000 lm	wide beam	LED floodlight with swivel bracket 49 W low voltage	2 x M25 plastic screw plug	**1 3046 111 005**
PXLED 5L A 757 C T0 E15 LV	LED system 5.000 lm	wide beam	LED floodlight with swivel bracket 49 W low voltage	1 x M25 plastic trompet shaped cable gland, 1 x plastic blanking plug	**1 3046 111 015**
PXLED 5L W 757 C T0 E01 LV	LED system 5.000 lm	narrow beam	LED floodlight with swivel bracket 49 W low voltage	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	**1 3046 110 001**
PXLED 5L W 757 C T0 E05 LV	LED system 5.000 lm	narrow beam	LED floodlight with swivel bracket 49 W low voltage	2 x M25 plastic screw plug	**1 3046 110 005**

Ordering details Accessories

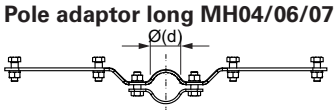
	Type	Description	PXLED		Pole diameter (d)	Order No.
	MH03	Pole adapter	5L-20L	1 1/2"	47-51mm	**2 3042 000 003**
	MH04		25L-30L	1 1/2"	47-51mm	**2 3042 000 004**
	MH05		5L-20L	2"	56-60mm	**2 3042 000 005**
	MH06		25L-30L	2"	56-60mm	**2 3042 000 006**
	MH07		5L-20L	2 1/2"	70mm	**2 3042 000 007**
	MH08		25L-30L	2 1/2"	70mm	**2 3042 000 008**
	WH01	Angle adapter	5L-20L			**2 3042 000 009**
	WH02		25L-30L			**2 3042 000 010**

Dimension drawing PXLED mounting accessories

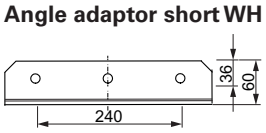
Pole adaptor short MH03/05/07



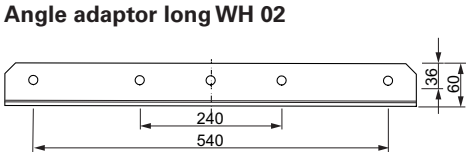
Pole adaptor long MH04/06/07



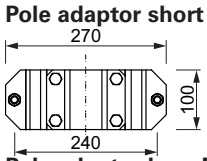
Angle adaptor short WH 01



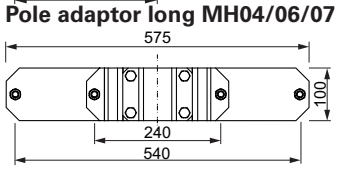
Angle adaptor long WH 02



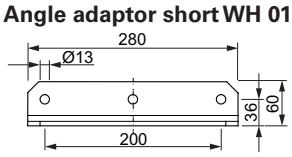
Pole adaptor short MH03/05/07



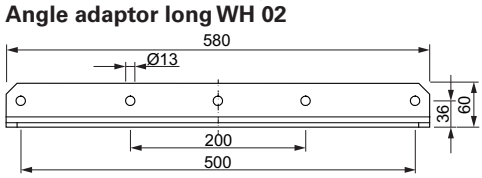
Pole adaptor long MH04/06/07



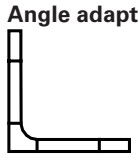
Angle adaptor short WH 01



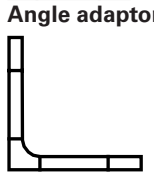
Angle adaptor long WH 02



Angle adaptor short WH 01

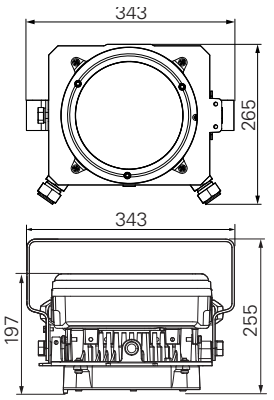


Angle adaptor long WH 02

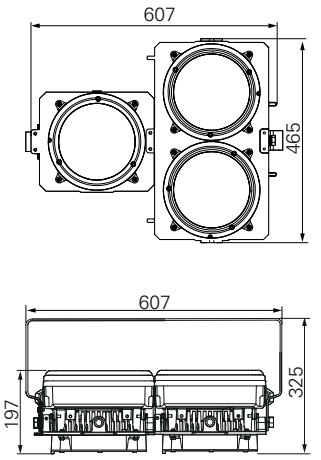


Dimension drawing

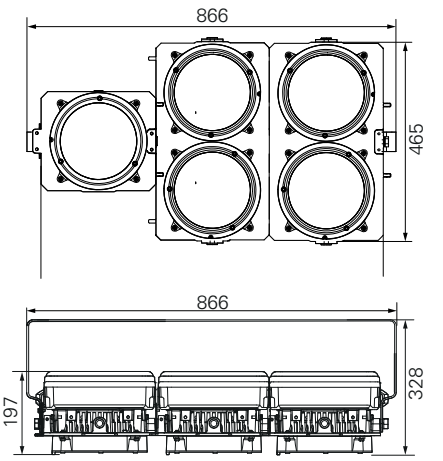
PXLED 5L



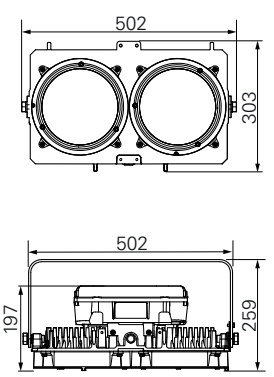
PXLED 15L



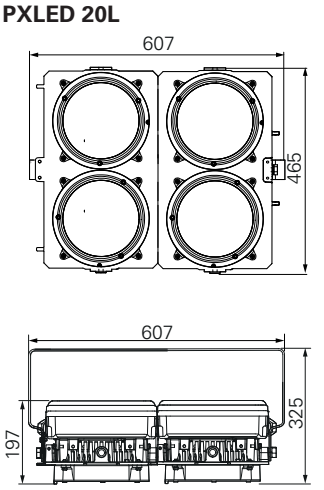
PXLED 25L



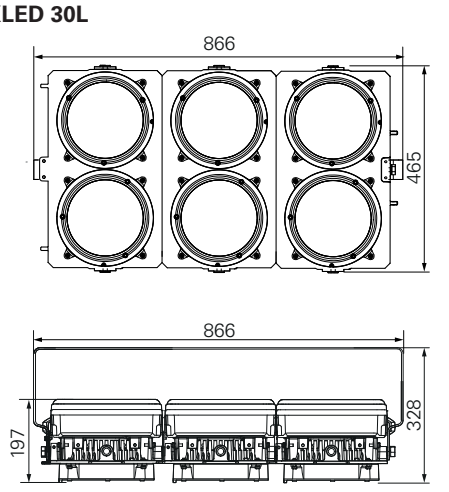
PXLED 10L



PXLED 20L

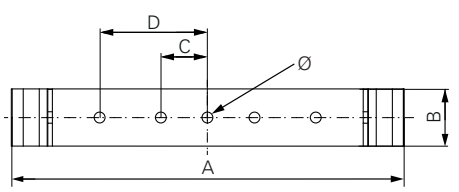


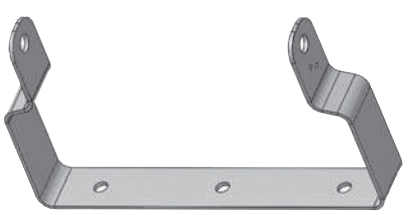
PXLED 30L



Dimensions in mm

Swivel bracket





Swivel bracket for PXLED - Dimensions

Dimensions in mm	A	B	C	D	Ø
PXLED 05	343	50	120	-	13
PXLED 10	476	50	120	-	13
PXLED 15	606	50	120	-	13
PXLED 20	606	50	120	-	13
PXLED 25	858	50	120	270	13
PXLED 30	858	50	120	270	13

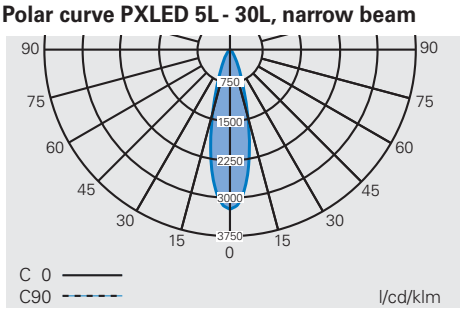
Technical data

	PXLED 5L	PXLED 10L	PXLED 15L	PXLED 20L	PXLED 25L	PXLED 30L	PXLED 5L LV
Type Examination Certificate	BVS 17 ATEX E 013 X						
IECEx Certificate of conformity	IECEx BVS 17.0004 X						
Marking accd. 2014/34/EU	Ⓔx II 2 G Ex db eb op is q IIC T4 Gb/ Ⓔx II 2 D Ex tb op is IIIC T100°C Db						
Marking accd. to IECEx	Ex db eb op is q IIC T4 Gb/ Ex tb op is IIIC T100°C Db						
Salt water resistance test acc. to EN 60068-2-52	Level IV						
Vibration test acc. to EN 60068-2-6	4,26 G						
Certification accd. to TR CU 012/2011 EAC [1]	RU C-DE.AA87.B.00780 (-55 °C certified)						
IK-class according to IEC/EN 62262	IK 10 ≙ 20 J						
Permissible ambient temperature	-50 °C up to +55 °C						
LED lifetime	L90 / L80 >100,000 h @ 25 °C / 60,000 h @ +55 °C						
Driver lifetime	C10 >100,000 h @ 25 °C / 60,000 h @ +55 °C						
Rated voltage	110 - 277 V AC / 127 - 270 V DC						24 - 48 V AC/DC
Frequency	0/50 - 60 Hz						
Rated current	0.24 A [2]	0.48 A [2]	0.72 A [2]	0.96 A [2]	1.20 A [2]	1.44 A [2]	1.1 A [3]
Inrush current	20 A/50 µs	20 A/50 µs	20 A/100 µs	20 A/100 µs	20 A/150 µs	20 A/150 µs	4 A/10 ms [4]
THD	<10 %	<10 %	<10 %	<10 %	<10 %	<10 %	0 [5]
Power factor cos φ [1]	≥ 0.93	≥ 0.95	≥ 0.95	≥ 0.95	≥ 0.95	≥ 0.95	1 [6]
Circuit	Electronic driver						
Protection class	I						
Light distribution	Wide beam and narrow beam (asymmetric beam on request)						
Light colour / CRI	5700 K / R_a >70 (other colours on request)						
Enclosure colour	Dark grey						
Connecting terminals	6 poles standard (L, L1, L2, L3, N, PE / up to 6 mm² / others on request)						
Enclosure material	Anodized copper-free Aluminium						
Weight	9,9 kg	14,4 kg	24,3 kg	28,7 kg	38,5 kg	41,1 kg	9,9 kg
Cable glands / gland plates / enclosure drilling	2 x M25 metal thread nickel plated (E01) or 2 x M25 threaded plug (E05) (others on request)						
Degree of protection accd. to EN 60529	IP66/67						
Protective cover / protective bowl	Toughened glass, clear						
Swivel bracket	AiSi 316L stainless steel						

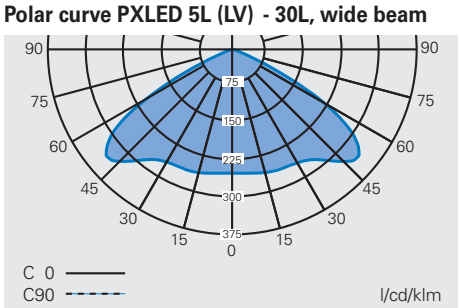
[1]) Please ask our sales service for the special Order No.
[2]) Typical value at 230 VAC
[3]) Value at 48 VDC = 1.1 A / 24 VDC = 2.3 A / 48 VAC = 1.85 A / 24 VAC = 3.5 A
[4]) Value at 24 VDC = 4 A/10 ms; 48 VDC = 8 A/10ms; 24 VAC = 8 A/5 ms; 48 VAC = 20 A/ 5 ms
[5]) Value at 24 VDC = 0; 48 VDC = 0; 24 VAC = 120 % ; 48 VAC = 175 %
[6]) Value at 24 VDC = 1; 48 VDC = 1; 24 VAC = >0.6 ; 48 VAC = >0.48

Polar curve

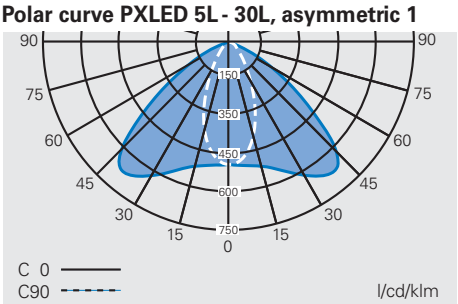
Polar curve PXLED 5L - 30L, narrow beam



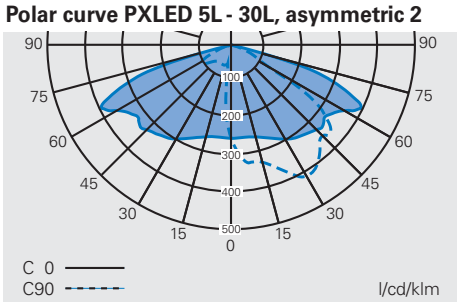
Polar curve PXLED 5L (LV) - 30L, wide beam



Polar curve PXLED 5L - 30L, asymmetric 1



Polar curve PXLED 5L - 30L, asymmetric 2



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