

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 Off-shore, 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 step-wide of 5000 lm.

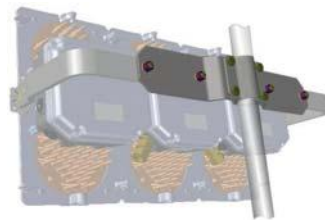
Easy to install

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 wherever 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

Features and Product details

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

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.

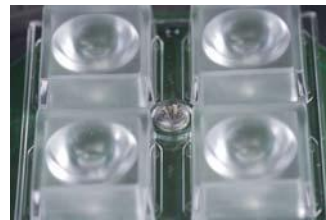
A wide beam pattern as well as a narrow beam pattern is realized by the use of special designed lens caps for the LEDs. In addition, asymmetric light distributions are also available for special applications.

With a light transmission factor of more than 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



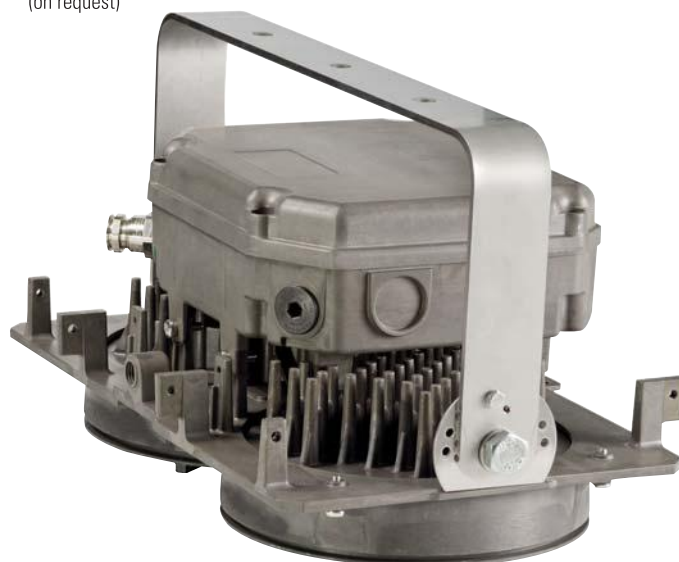
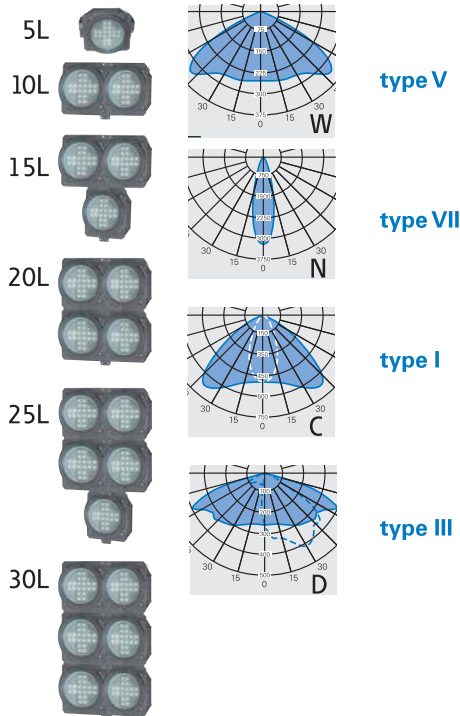
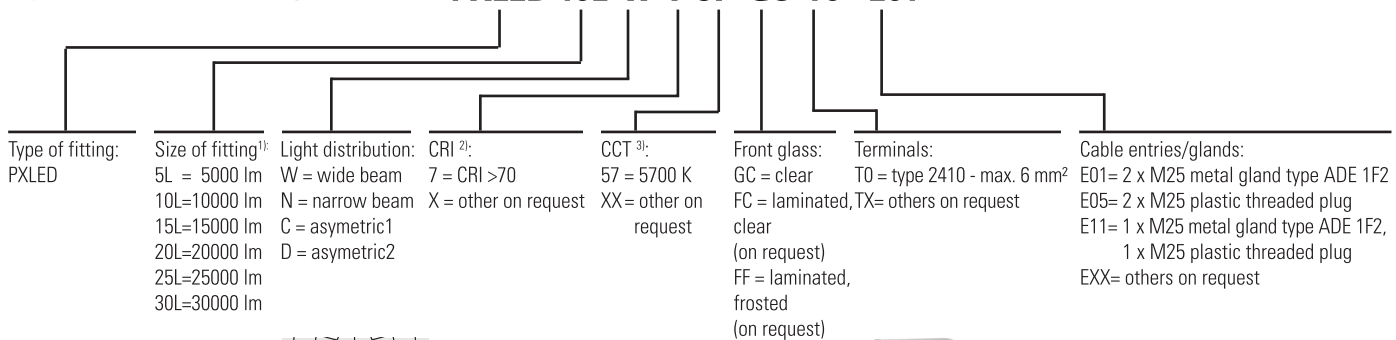
wide beam lens caps



narrow beam lens caps

Type key for PXLED floodlight series

PXLED 10L W 7 57 GC T0 E01



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 N 757 GC E01	LED system	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 N 757 GC E05				5.386 lm	2 x M25 plastic threaded plug
	PXLED 5L W 757 GC E01	LED system	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 W 757 GC E05				5.207 lm	2 x M25 plastic threaded plug
	PXLED 10L N 757 GC E01	2 LED systems	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 N 757 GC E05				10.772 lm	2 x M25 plastic threaded plug
	PXLED 10L W 757 GC E01	2 LED systems	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 W 757 GC E05				10.414 lm	2 x M25 plastic threaded plug
	PXLED 15L N 757 GC E01	3 LED systems	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 N 757 GC E05				16.158 lm	2 x M25 plastic threaded plug
	PXLED 15L W 757 GC E01	3 LED systems	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 W 757 GC E05				15.621 lm	2 x M25 plastic threaded plug
	PXLED 20L N 757 GC E01	4 LED systems	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 N 757 GC E05				21.544 lm	2 x M25 plastic threaded plug
	PXLED 20L W 757 GC E01	4 LED systems	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 W 757 GC E05				20.828 lm	2 x M25 plastic threaded plug
	PXLED 25L N 757 GC E01	5 LED systems	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 N 757 GC E05				26.930 lm	2 x M25 plastic threaded plug
	PXLED 25L W 757 GC E01	5 LED systems	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 W 757 GC E05				26.035 lm	2 x M25 plastic threaded plug
	PXLED 30L N 757 GC E01	6 LED systems	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 N 757 GC E05				32316 lm	2 x M25 plastic threaded plug
	PXLED 30L W 757 GC E01	6 LED systems	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 W 757 GC E05				31242 lm	2 x M25 plastic threaded plug

*) Asymmetric light distribution on request



Ordering details / dimension drawing

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

Ordering details PXLED LV (Low Voltage)

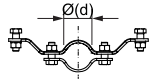
Type	Lamp / illuminant	Light distribution *)	Description / Power	Cable glands	Order No..
	PXLED 5L W 757 GC TO E01 LV	LED system 5.000 lm	wide beam LED floodlight with swivel bracket 49 W low voltage	2 x M25 metal cable gland ADE 1F2 for Ø 10 - 17 mm	1 3046 111 001
	PXLED 5L W 757 GC TO E05 LV	LED system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

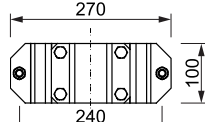
Type	Description	PXLED	Pole diameter (d)	Order No.		
	MH03	5L-20L	1 1/2"	47-51mm	2 3042 000 003	
	MH04	25L-30L	1 1/2"	47-51mm	2 3042 000 004	
	MH05	Pole adapter	5L-20L	2"	56-60mm	2 3042 000 005
	MH06		25L-30L	2"	56-60mm	2 3042 000 006
	MH07	5L-20L	2 1/2"	70mm	2 3042 000 007	
	MH08	25L-30L	2 1/2"	70mm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

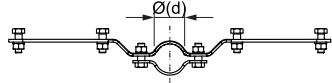
Pole adaptor short MH03/05/07



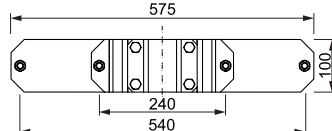
Pole adaptor short MH03/05/07



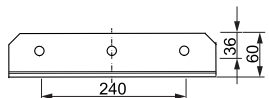
Pole adaptor long MH04/06/07



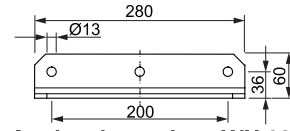
Pole adaptor long MH04/06/07



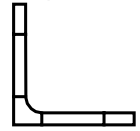
Angle adaptor short WH 01



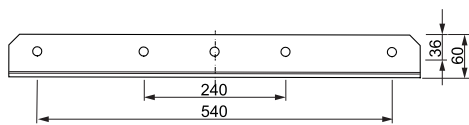
Angle adaptor short WH 01



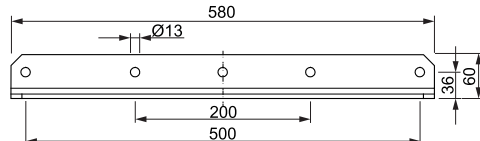
Angle adaptor short WH 01



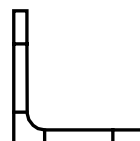
Angle adaptor long WH 02



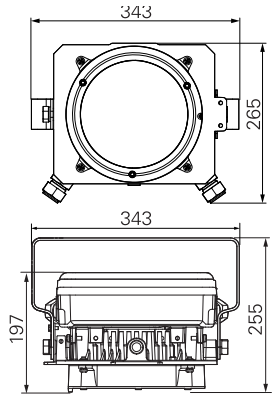
Angle adaptor long WH 02



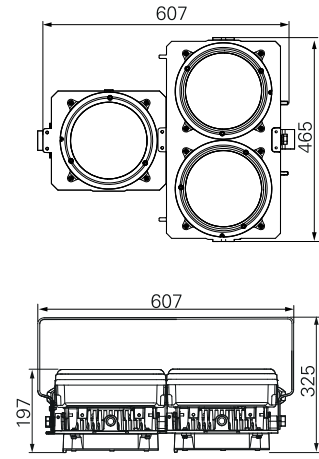
Angle adaptor long WH 02



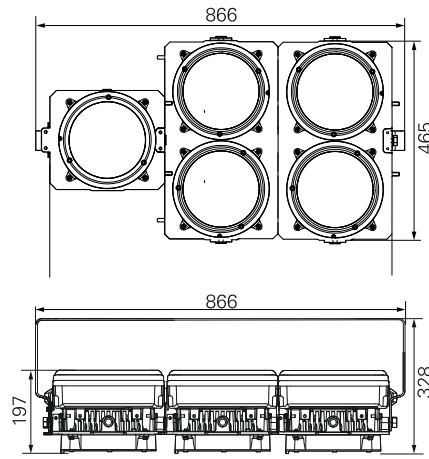
PXLED 5L



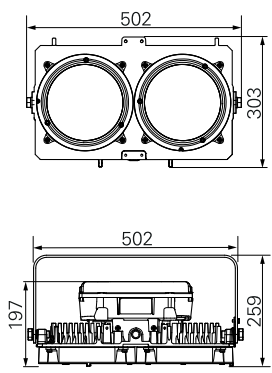
PXLED 15L



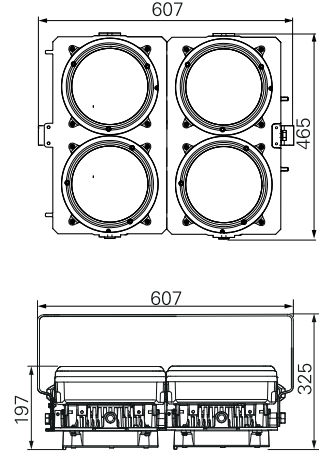
PXLED 25L



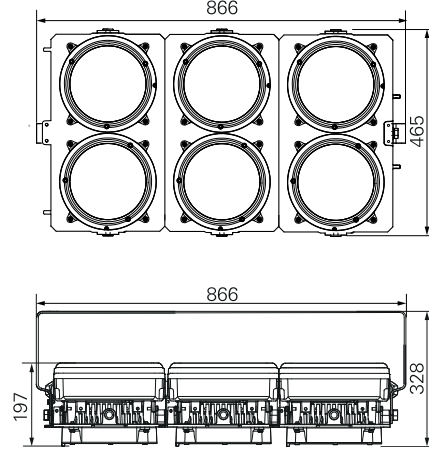
PXLED 10L



PXLED 20L

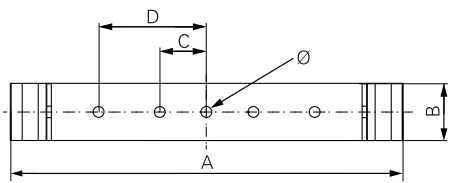


PXLED 30L



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	Ⓔ II 2 G Ex db eb op is q IIC T4 Gb/ Ⓔ 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 mm ² / 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	AlSi 316L stainless steel						

¹⁾ Please ask our sales service for the special Order No.

²⁾ Typical value at 230 VAC

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

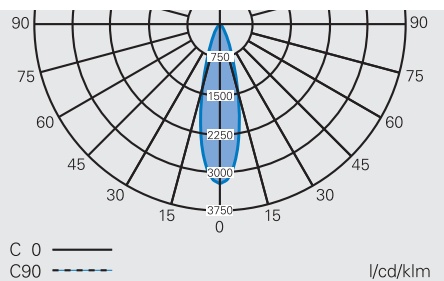
³⁾ Value at 48 VDC = 1.1 A / 24 VDC = 2.3 A / 48 VAC = 1.85 A / 24 VAC = 3.5 A

⁵⁾ Value at 24 VDC = 0; 48 VDC = 0; 24 VAC = 120 % ; 48 VAC = 175 %

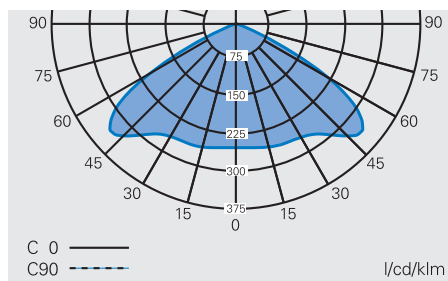
⁶⁾ Value at 24 VDC = 1; 48 VDC = 1; 24 VAC = >0.6 ; 48 VAC = >0.48

Polar curve

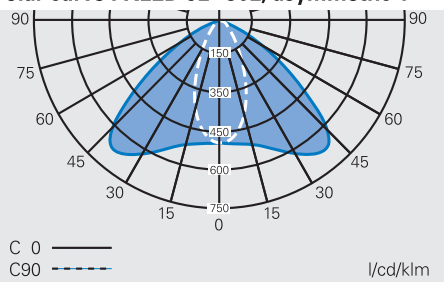
Polar curve PXLED 5L - 30L, narrow beam



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



Polar curve PXLED 5L - 30L, asymmetric 1



Polar curve PXLED 5L - 30L, asymmetric 2

