

## EMERALD-A

Asymmetric beam

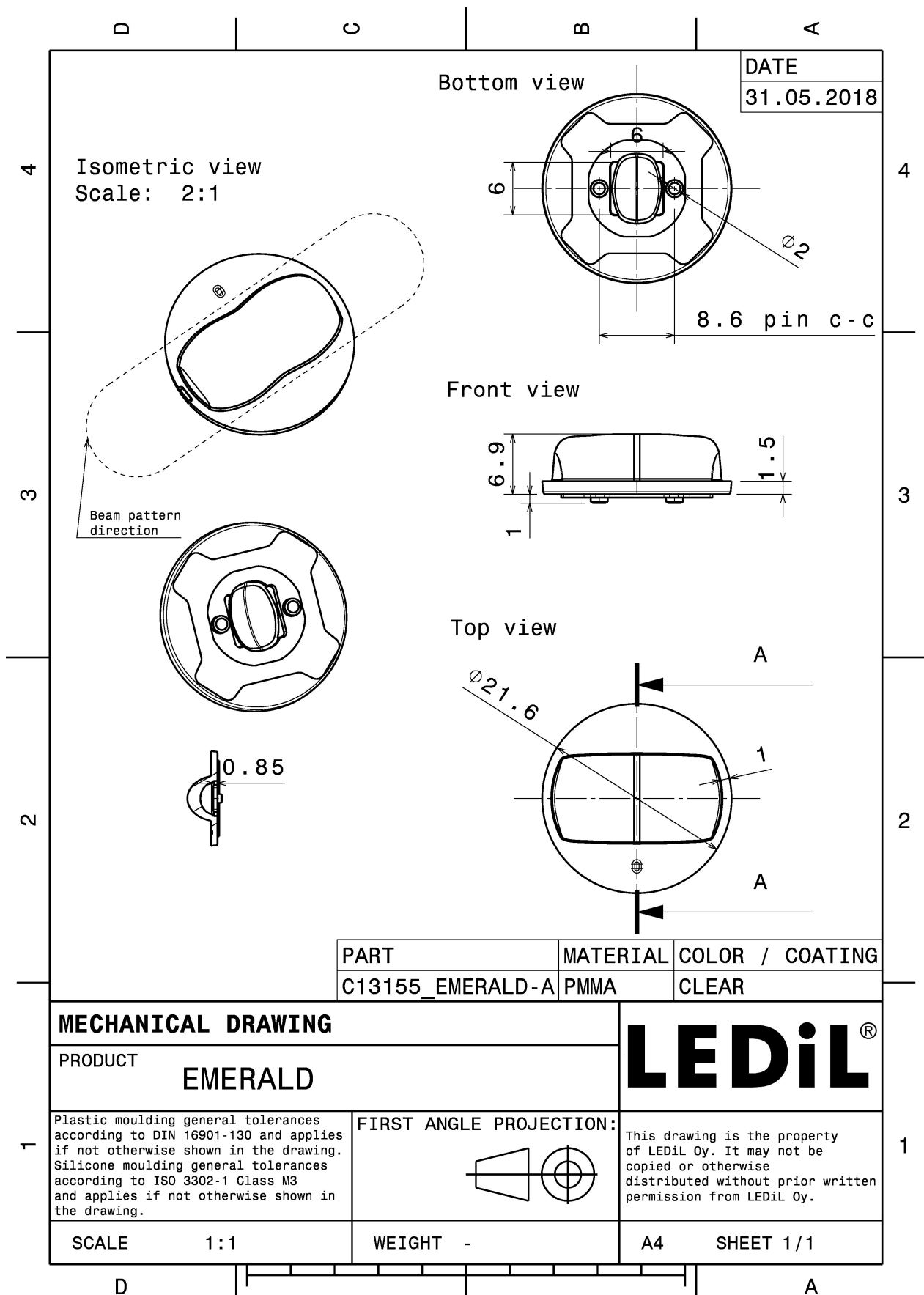
### TECHNICAL SPECIFICATIONS:

Dimensions	Ø 21.6 mm
Height	6.9 mm
Fastening	glue, pin
Colour	clear
Box size	480 x 280 x 300 mm
Box weight	4.6 kg
Quantity in Box	2016 pcs
ROHS compliant	yes ⓘ



### MATERIAL SPECIFICATIONS:

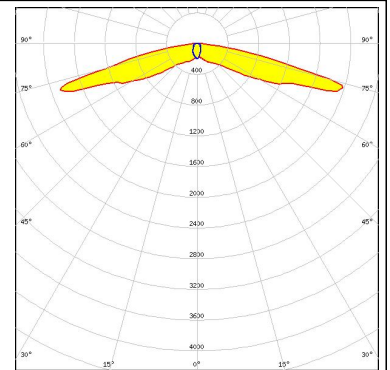
Component	Type	Material	Colour
EMERALD-A	Single lens	PMMA	clear



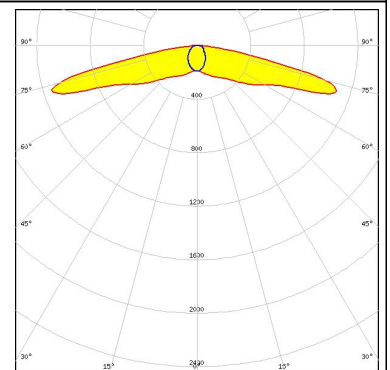
#### PHOTOMETRIC DATA (MEASURED):



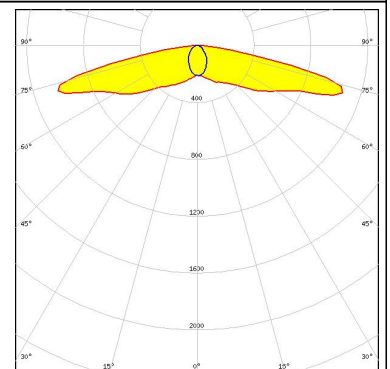
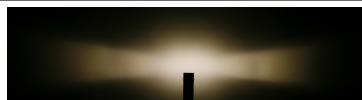
LED XB-D  
FWHM 157.0 + 62.0°  
Efficiency 90 %  
Peak intensity 2.000 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



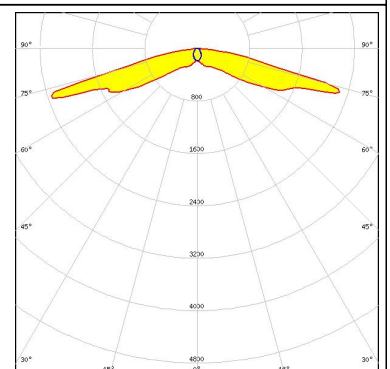
LED XM-L  
FWHM 157.0 + 83.0°  
Efficiency 94 %  
Peak intensity 1.100 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



LED XM-L2  
FWHM 169.0 + 73.0°  
Efficiency 94 %  
Peak intensity 1.100 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



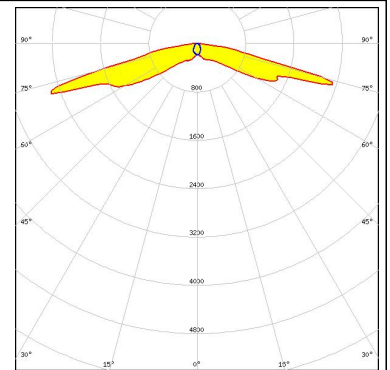
LED XP-E  
FWHM 158.0 + 73.0°  
Efficiency 93 %  
Peak intensity 2.300 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



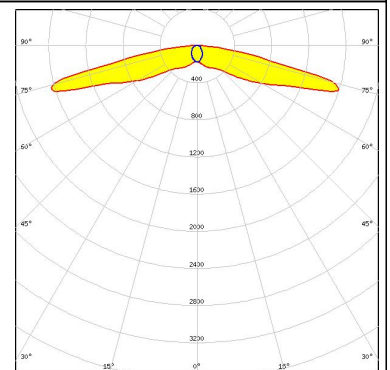
### PHOTOMETRIC DATA (MEASURED):



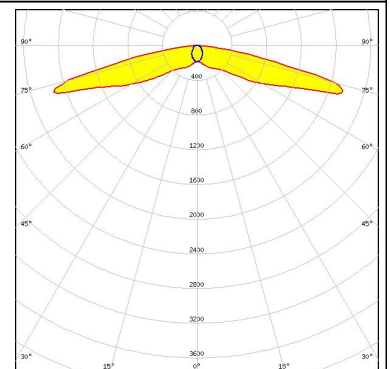
LED XP-E2  
FWHM 156.0 + 72.0°  
Efficiency 93 %  
Peak intensity 2.500 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



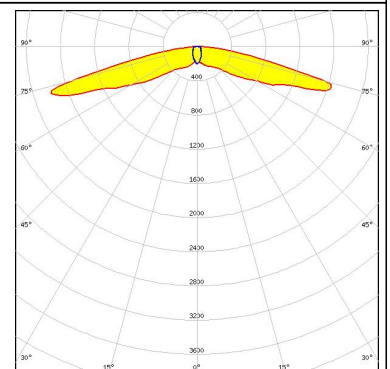
LED XP-G  
FWHM 159.0 + 79.0°  
Efficiency 89 %  
Peak intensity 1.600 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



LED XP-G2  
FWHM 158.0 + 79.0°  
Efficiency 94 %  
Peak intensity 1.800 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



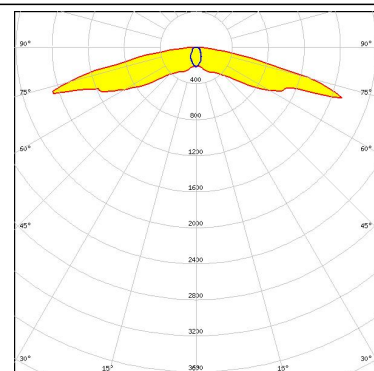
LED XT-E  
FWHM 157.0 + 61.0°  
Efficiency 89 %  
Peak intensity 1.800 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



### PHOTOMETRIC DATA (MEASURED):

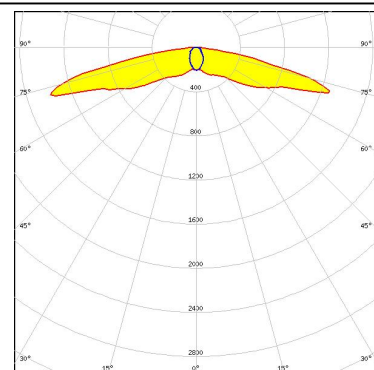
#### LG Innotek

LED H35B0 (LEMWA32)  
FWHM 160.0 + 66.0°  
Efficiency 94 %  
Peak intensity 1.700 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



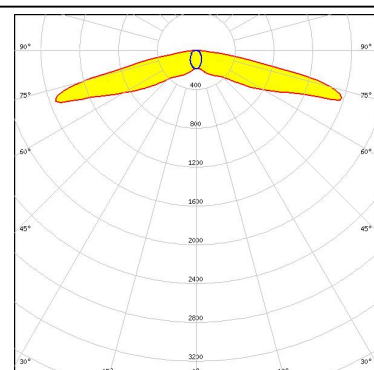
#### LG Innotek

LED H35C0 (LEMWA33)  
FWHM 159.0 + 72.0°  
Efficiency 91 %  
Peak intensity 1.400 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



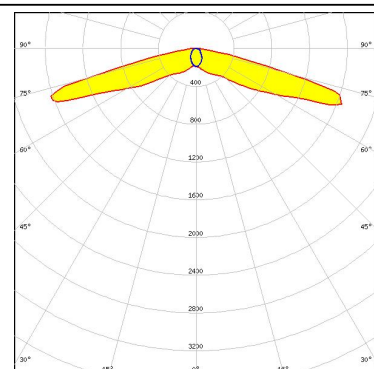
#### LUMILEDS

LED LUXEON A  
FWHM 156.0 + 75.0°  
Efficiency 92 %  
Peak intensity 1.600 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



#### LUMILEDS

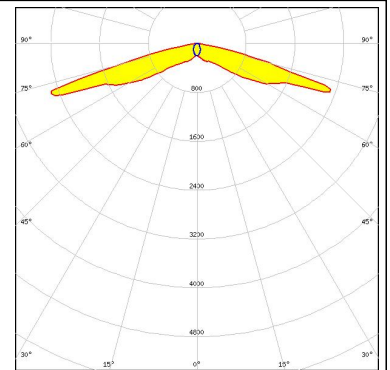
LED LUXEON R  
FWHM 153.0 + 73.0°  
Efficiency 92 %  
Peak intensity 1.650 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



### PHOTOMETRIC DATA (MEASURED):

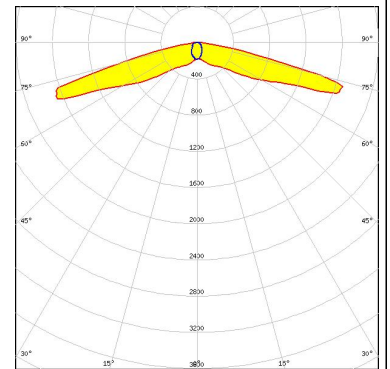
#### LUMILEDS

LED LUXEON Rebel  
FWHM 152.0 + 67.0°  
Efficiency 92 %  
Peak intensity 2.500 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



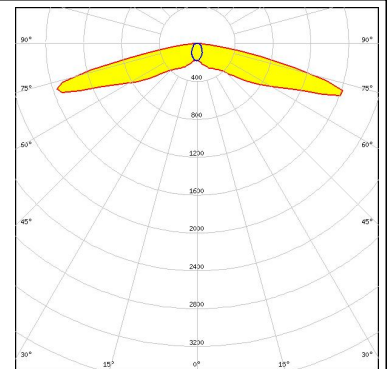
#### LUMILEDS

LED LUXEON Rebel ES  
FWHM 153.0 + 74.0°  
Efficiency 90 %  
Peak intensity 1.700 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



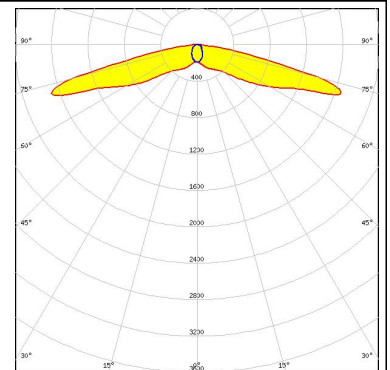
#### LUMILEDS

LED LUXEON T  
FWHM 155.0 + 76.0°  
Efficiency 93 %  
Peak intensity 2.300 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



#### LUMILEDS

LED LUXEON TX  
FWHM 156.0 + 73.0°  
Efficiency 94 %  
Peak intensity 1.690 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:

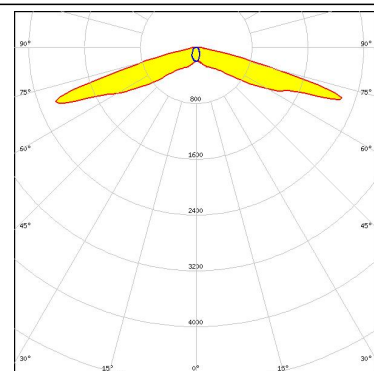




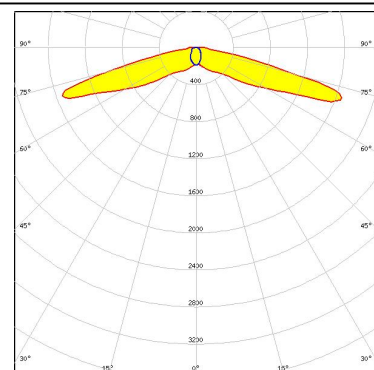
### PHOTOMETRIC DATA (MEASURED):



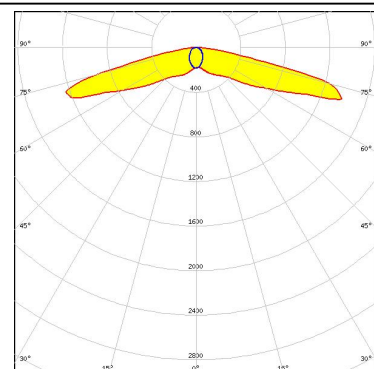
LED NCSxx19A  
FWHM 151.0 + 65.0°  
Efficiency 92 %  
Peak intensity 2.200 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



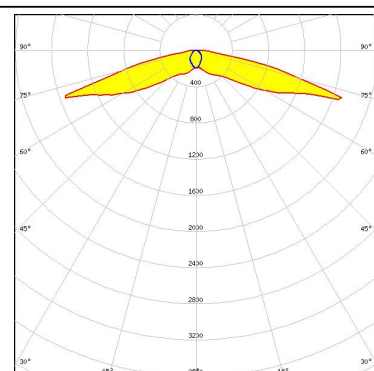
LED NVSxx19A  
FWHM 153.0 + 71.0°  
Efficiency 91 %  
Peak intensity 1.700 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



LED NVSxx19B/NVSxx19C  
FWHM 155.0 + 80.0°  
Efficiency 92 %  
Peak intensity 1.400 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



LED OSLOM Square EC  
FWHM 156.0 + 80.0°  
Efficiency 93 %  
Peak intensity 1.700 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:

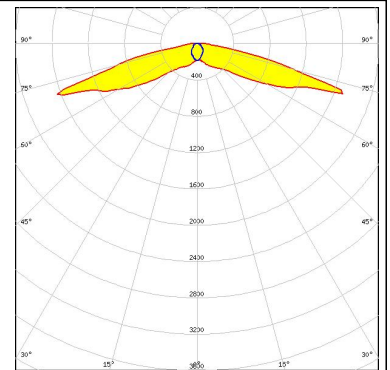


### PHOTOMETRIC DATA (MEASURED):

#### OSRAM

Opto Semiconductors

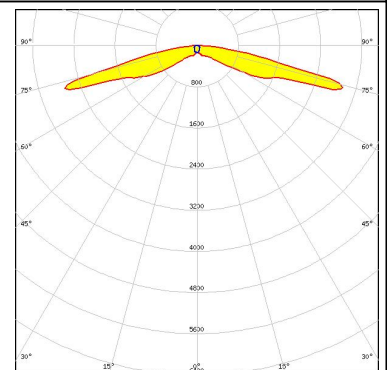
LED OSLON Square PC  
FWHM 156.0 + 83.0°  
Efficiency 93 %  
Peak intensity 1.700 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



#### OSRAM

Opto Semiconductors

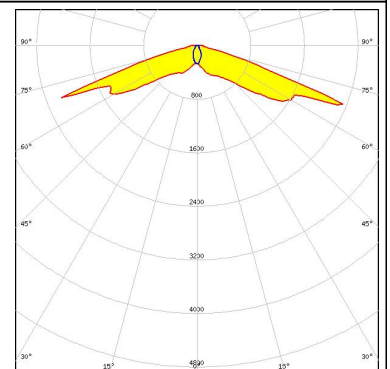
LED OSLON SSL 150  
FWHM 157.0 + 86.0°  
Efficiency 92 %  
Peak intensity 2.900 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



#### OSRAM

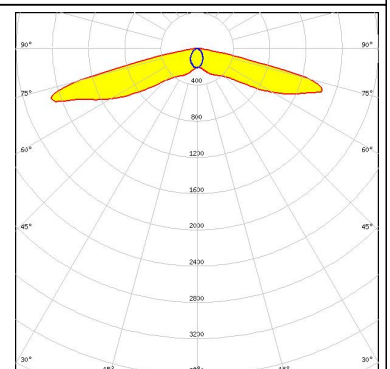
Opto Semiconductors

LED OSLON SSL 80  
FWHM 147.0 + 52.0°  
Efficiency 89 %  
Peak intensity 1.900 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



#### SAMSUNG

LED LH351Z  
FWHM 154.0 + 76.0°  
Efficiency 94 %  
Peak intensity 1.700 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:

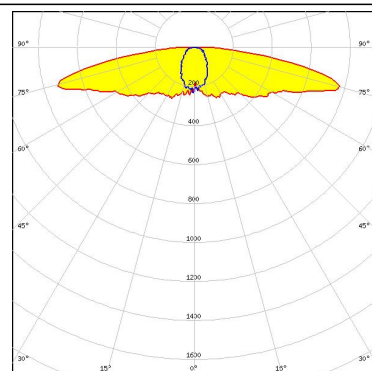




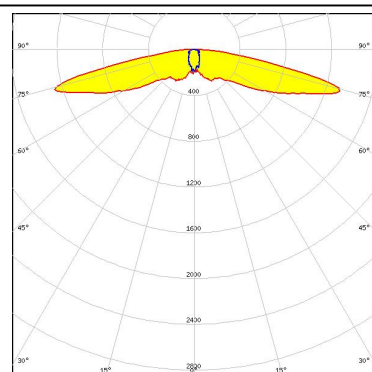
### PHOTOMETRIC DATA (SIMULATED):



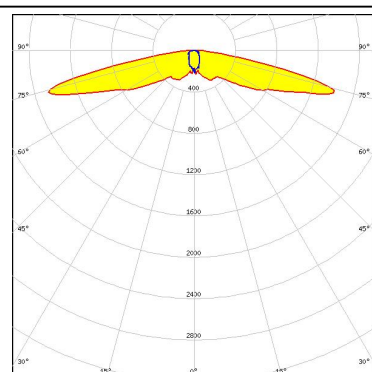
LED XHP35 HD  
FWHM 164.0 + 68.0°  
Efficiency 91 %  
Peak intensity 0.770 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



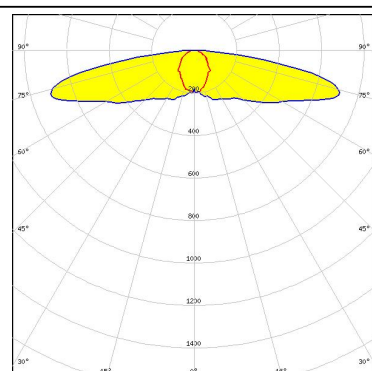
LED XP-L HI  
FWHM 159.0°  
Efficiency 89 %  
Peak intensity 1.300 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



LED OSLOM Square CSSRM2/CSSRM3  
FWHM 158.0 + 70.0°  
Efficiency 93 %  
Peak intensity 1.500 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



LED LH351D  
FWHM 86.0 + 164.0°  
Efficiency 91 %  
Peak intensity 0.714 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



### GENERAL INFORMATION:

NOTE: The typical beam angle will be changed by different color, chip size and chip position tolerance. The typical total beam angle is the full angle measured where the luminous intensity is half of the peak value.

### MATERIALS:

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