

## EMERALD-A

Asymmetric beam

### SPECIFICATION:

Dimensions	Ø 21.6 mm
Height	6.9 mm
Fastening	glue, pin
ROHS compliant	yes ⓘ

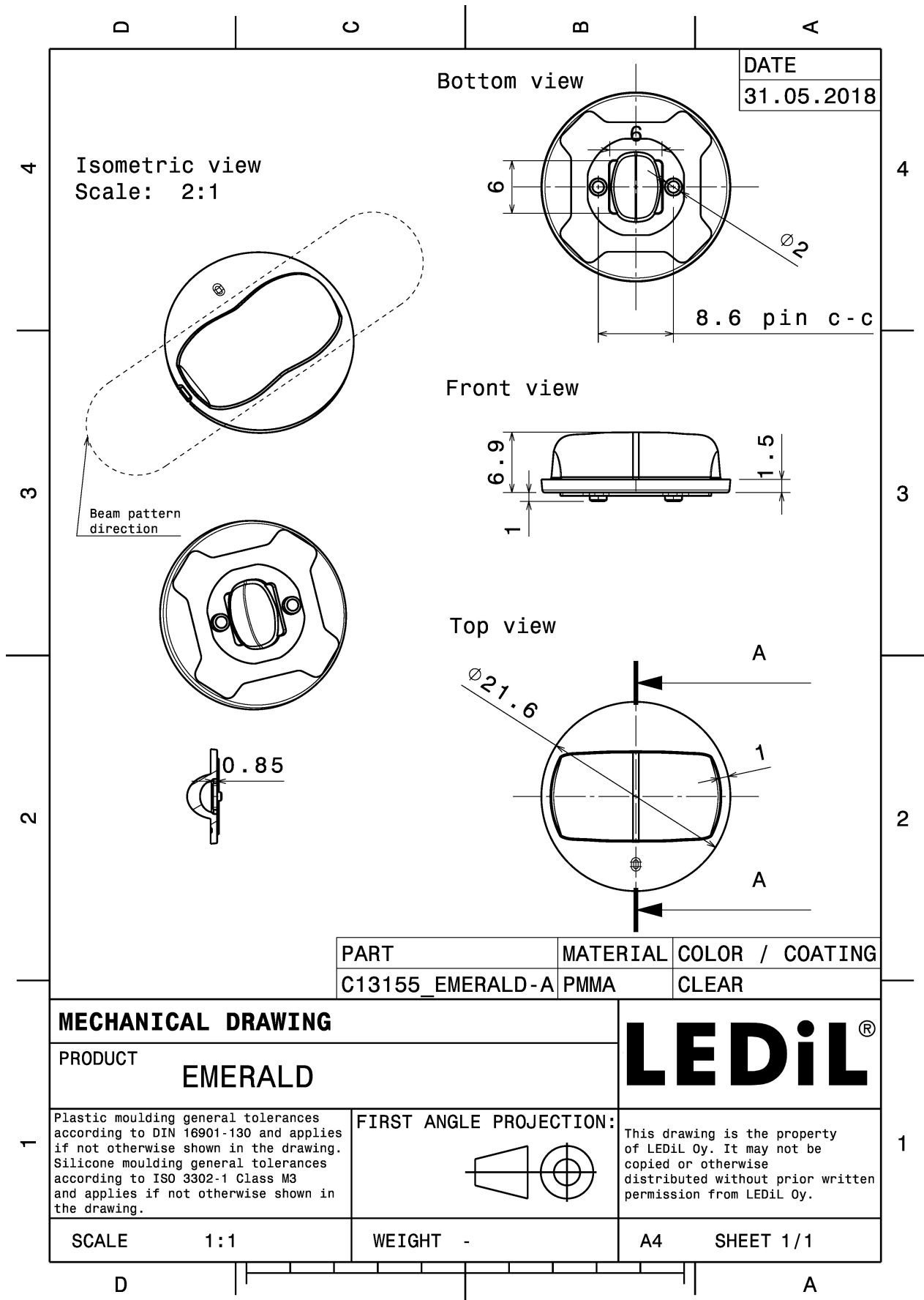
### MATERIALS:

Component	Type	Material	Colour	Finish	Length
EMERALD-A	Single lens	PMMA	clear		21.6

### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
C13155_EMERALD-A » Box size: 480 x 280 x 300 mm	2128	336	112	4.8



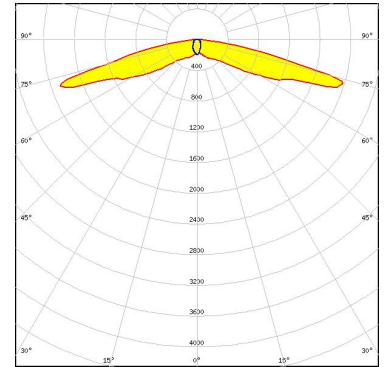


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

### OPTICAL RESULTS (MEASURED):



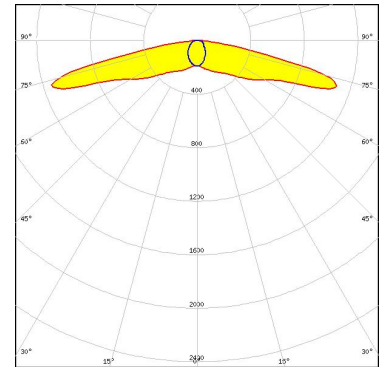
LED XB-D  
 FWHM / FWTM 157.0 + 62.0°  
 Efficiency 90 %  
 Peak intensity 2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



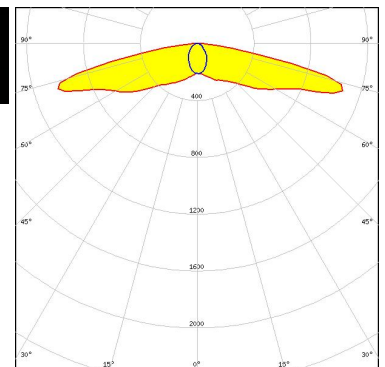
LED XM-L  
 FWHM / FWTM 157.0 + 83.0°  
 Efficiency 94 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED XM-L2  
 FWHM / FWTM 169.0 + 73.0°  
 Efficiency 94 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

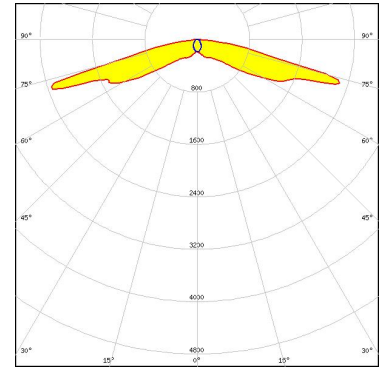


Light distribution files

### OPTICAL RESULTS (MEASURED):



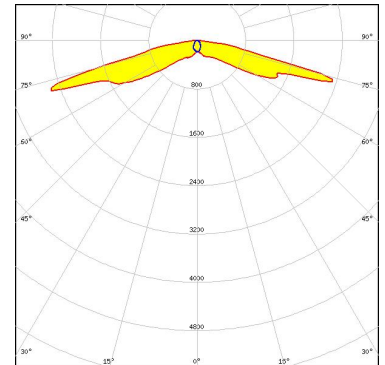
LED XP-E  
FWHM / FWTM 158.0 + 73.0°  
Efficiency 93 %  
Peak intensity 2.3 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



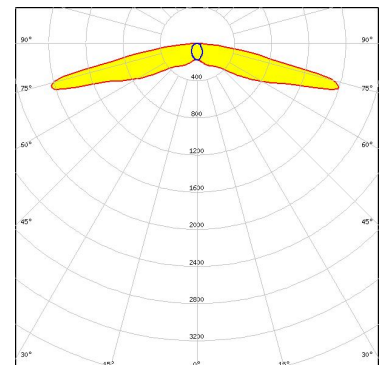
LED XP-E2  
FWHM / FWTM 156.0 + 72.0°  
Efficiency 93 %  
Peak intensity 2.5 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED XP-G  
FWHM / FWTM 159.0 + 79.0°  
Efficiency 89 %  
Peak intensity 1.6 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

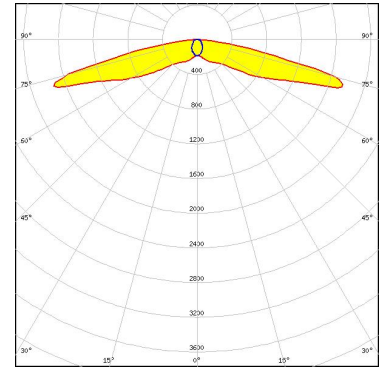


Light distribution files

### OPTICAL RESULTS (MEASURED):



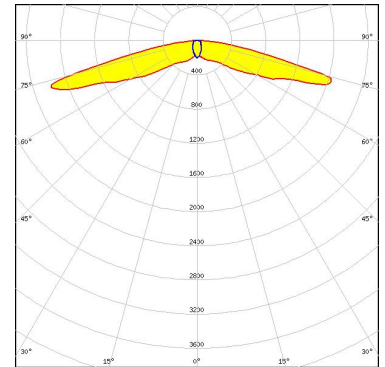
LED XP-G2  
FWHM / FWTM 158.0 + 79.0°  
Efficiency 94 %  
Peak intensity 1.8 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



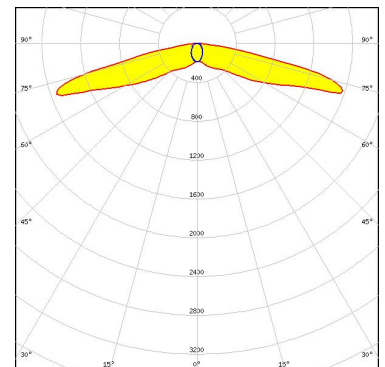
LED XT-E  
FWHM / FWTM 157.0 + 61.0°  
Efficiency 89 %  
Peak intensity 1.8 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED LUXEON A  
FWHM / FWTM 156.0 + 75.0°  
Efficiency 92 %  
Peak intensity 1.6 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

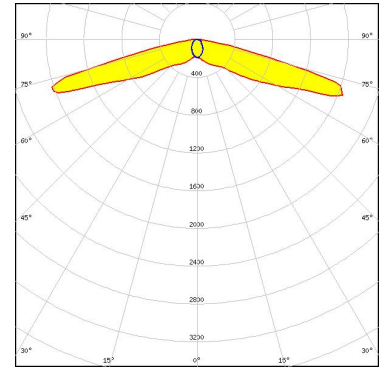


Light distribution files

### OPTICAL RESULTS (MEASURED):



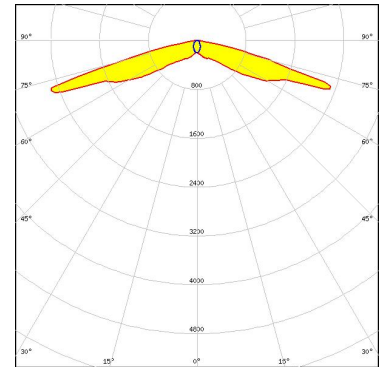
LED LUXEON R  
 FWHM / FWTM 153.0 + 73.0°  
 Efficiency 92 %  
 Peak intensity 1.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



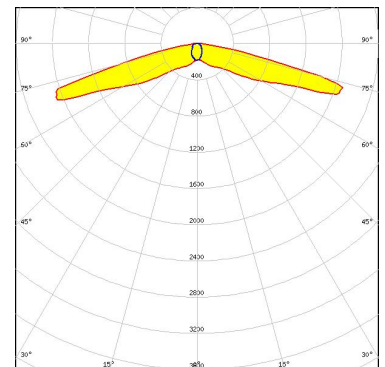
LED LUXEON Rebel  
 FWHM / FWTM 152.0 + 67.0°  
 Efficiency 92 %  
 Peak intensity 2.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED LUXEON Rebel ES  
 FWHM / FWTM 153.0 + 74.0°  
 Efficiency 90 %  
 Peak intensity 1.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

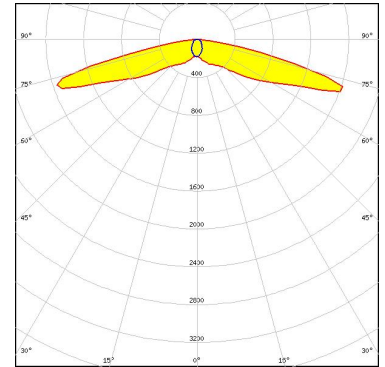


Light distribution files

### OPTICAL RESULTS (MEASURED):



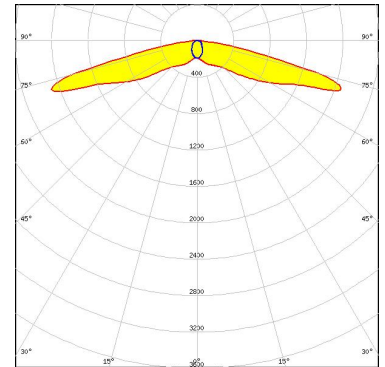
LED LUXEON T  
FWHM / FWTM 155.0 + 76.0°  
Efficiency 93 %  
Peak intensity 2.3 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



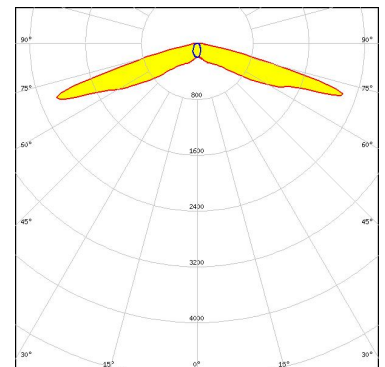
LED LUXEON TX  
FWHM / FWTM 156.0 + 73.0°  
Efficiency 94 %  
Peak intensity 1.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED NCSxx19A  
FWHM / FWTM 151.0 + 65.0°  
Efficiency 92 %  
Peak intensity 2.2 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

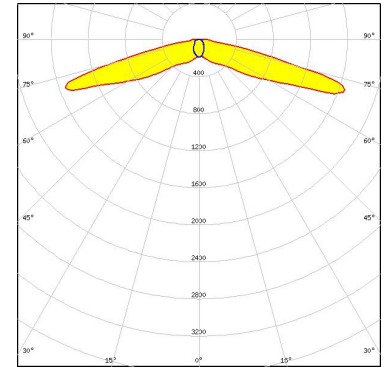


Light distribution files

### OPTICAL RESULTS (MEASURED):



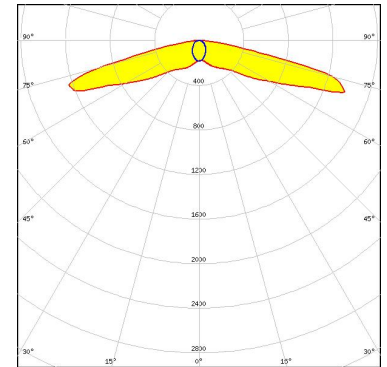
LED NVSxx19A  
FWHM / FWTM 153.0 + 71.0°  
Efficiency 91 %  
Peak intensity 1.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



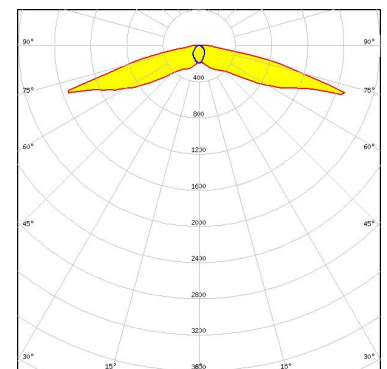
LED NVSxx19B/NVSxx19C  
FWHM / FWTM 155.0 + 80.0° / 168.0 + 158.0°  
Efficiency 92 %  
Peak intensity 1.4 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED OSLOM Square EC  
FWHM / FWTM 156.0 + 80.0°  
Efficiency 93 %  
Peak intensity 1.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



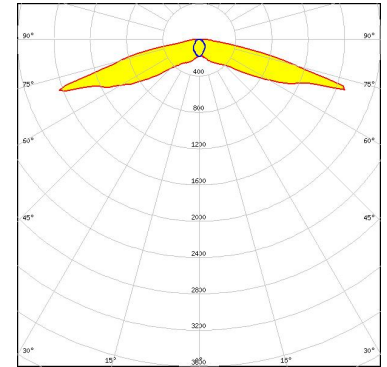
Light distribution files



### OPTICAL RESULTS (MEASURED):

**OSRAM**  
Opto Semiconductors

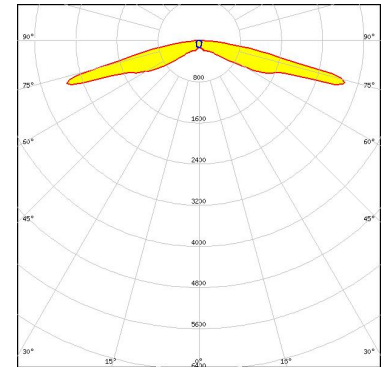
LED OSLON Square PC  
FWHM / FWTM 156.0 + 83.0°  
Efficiency 93 %  
Peak intensity 1.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

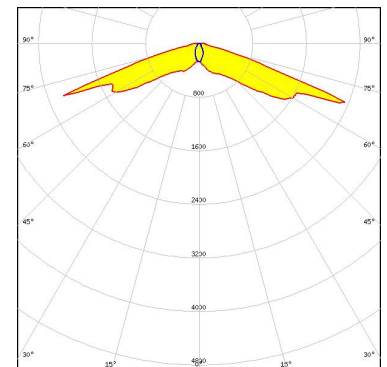
LED OSLON SSL 150  
FWHM / FWTM 157.0 + 86.0°  
Efficiency 92 %  
Peak intensity 2.9 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

LED OSLON SSL 80  
FWHM / FWTM 147.0 + 52.0°  
Efficiency 89 %  
Peak intensity 1.9 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

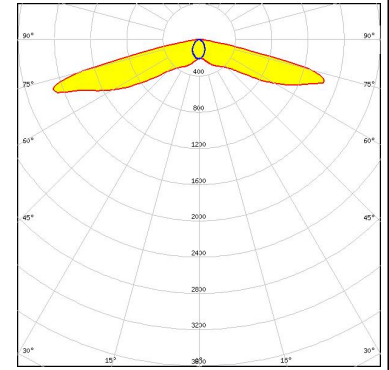


Light distribution files

### OPTICAL RESULTS (MEASURED):

#### SAMSUNG

LED LH351Z  
FWHM / FWTM 154.0 + 76.0°  
Efficiency 94 %  
Peak intensity 1.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

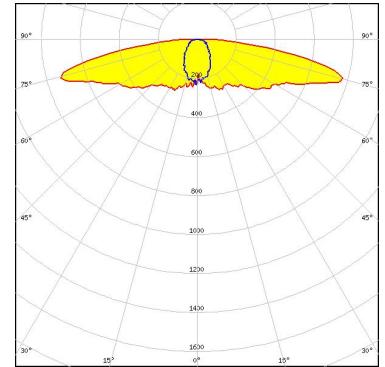


Light distribution files

### OPTICAL RESULTS (SIMULATED):



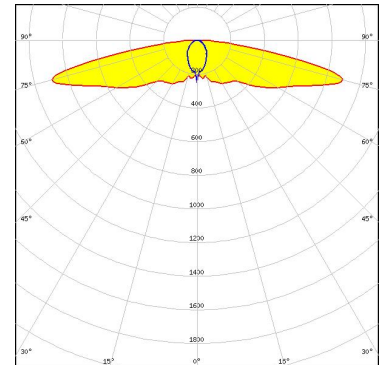
**LED** XHP35 HD  
**FWHM / FWTM** 164.0 + 68.0°  
**Efficiency** 91 %  
**Peak intensity** 0.8 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



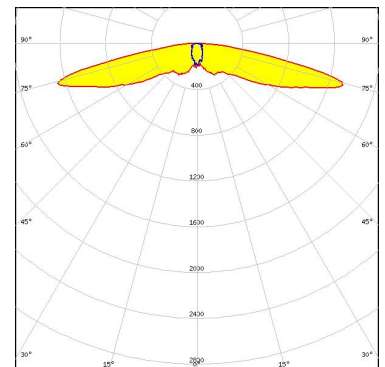
**LED** XHP35 HI  
**FWHM / FWTM** 162.0 + 51.0° / 176.0 + 146.0°  
**Efficiency** 90 %  
**Peak intensity** 0.9 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



**LED** XP-L HI  
**FWHM / FWTM** 159.0°  
**Efficiency** 89 %  
**Peak intensity** 1.3 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**

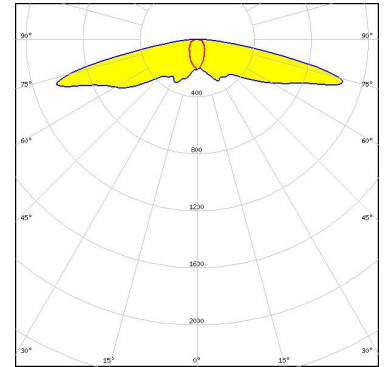


Light distribution files

### OPTICAL RESULTS (SIMULATED):



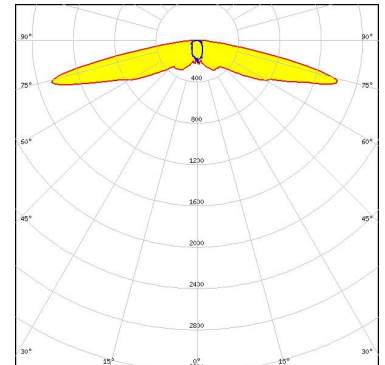
LED NF2W757G-MT (Tunable White)  
FWHM / FWTM 159.0 + 59.0° / 172.0 + 158.0°  
Efficiency 94 %  
Peak intensity 1.1 cd/lm  
LEDs/each optic 1  
Light colour/type Tunable White  
Required components:



Light distribution files



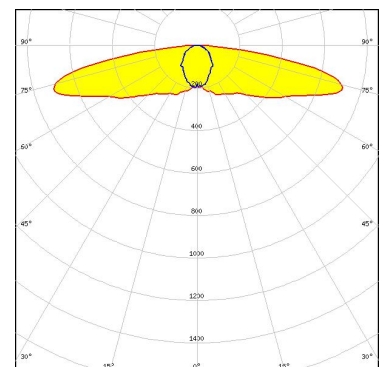
LED OSOLON Square CSSRM2/CSSRM3  
FWHM / FWTM 158.0 + 70.0°  
Efficiency 93 %  
Peak intensity 1.5 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



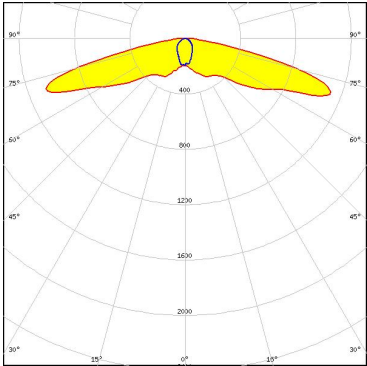
LED LH351D  
FWHM / FWTM 86.0 + 164.0° / 166.0 + 176.0°  
Efficiency 91 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

### OPTICAL RESULTS (SIMULATED):

 SEUL SEMICONDUCTOR	
LED	Z5M4
FWHM / FWTM	154.0 + 66.0° / 168.0 + 144.0°
Efficiency	91 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

### 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:

As part of our continuous research and improvement processes, and to ensure the best possible quality and availability of our products, LEDiL reserves the right to change material grades without notice.

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The measured data in the provided downloadable LEDiL Product Datasheets and Mechanical 2D-Drawings is rounded and provided as reference for planning. LEDiL Oy's optical specifications have been verified by conducting performance testing of the products in accordance with the company's quality system. The reported data are averaged results of multiple measurements with typical variation. LEDiL Oy reserves the right to without prior notification make changes and improvements to its products.

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#### LEDiL Oy

Joensuunkatu 13  
FI-24240 SALO  
Finland

#### LEDiL Inc.

228 West Page Street  
Suite D  
Sycamore IL 60178  
USA

#### Ledil Optics Technology (Shenzhen) Co., Ltd.

# 405 , Block B  
Casic Motor Building  
Shenzhen 518057  
P.R.CHINA

#### Local sales and technical support

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