

EMMA-360

~170° side emitter

SPECIFICATION:

Dimensions	9.9 x 9.9 mm
Height	5.7 mm
Fastening	glue, pin
ROHS compliant	yes ⓘ

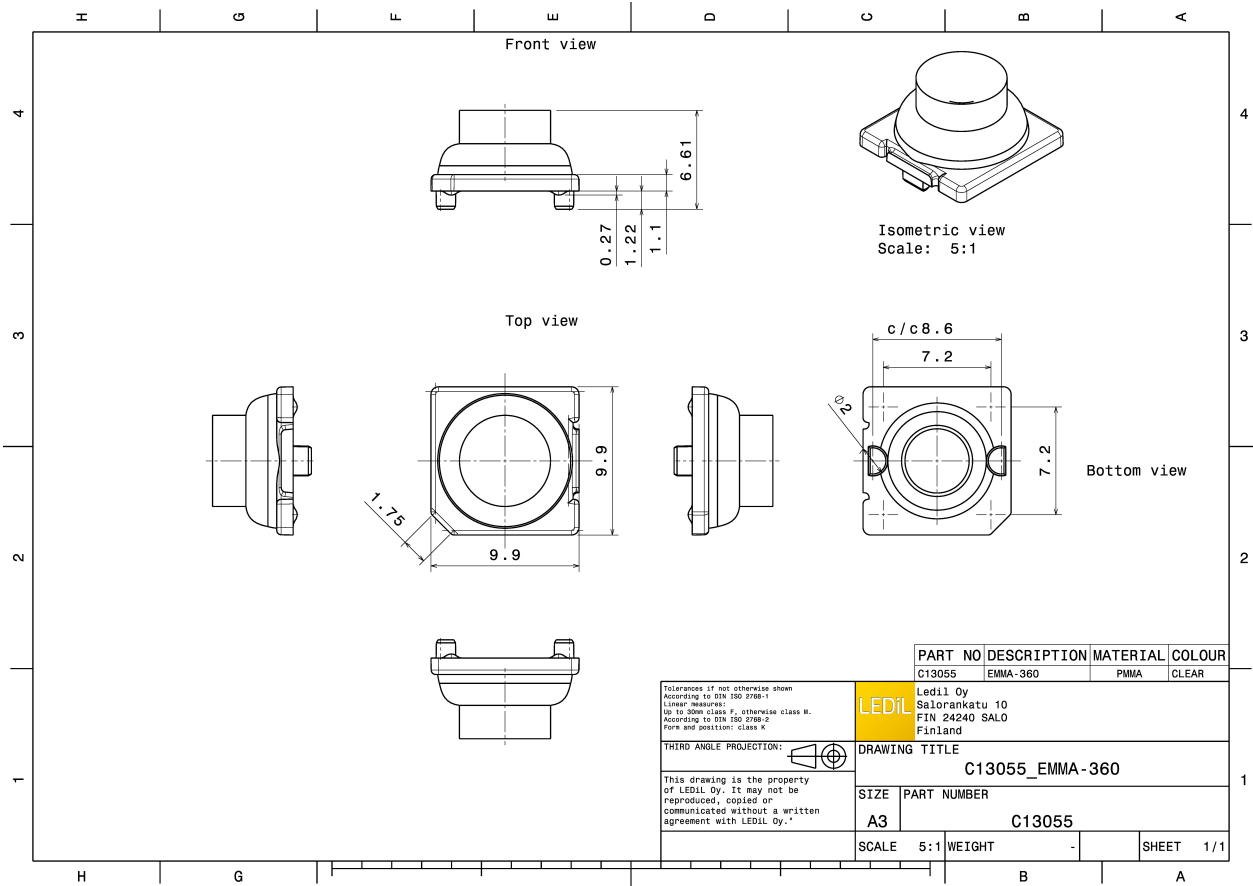


MATERIALS:

Component	Type	Material	Colour	Finish	Length
EMMA-360	Single lens	PMMA	clear		9.9

ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
C13055_EMMA-360 » Box size:	5000	300	100	1.6

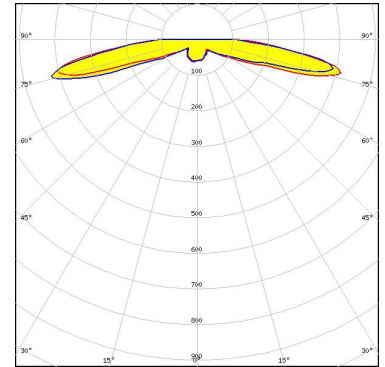


See also our general installation guide: www.ledil.com/installation_guide

OPTICAL RESULTS (MEASURED):



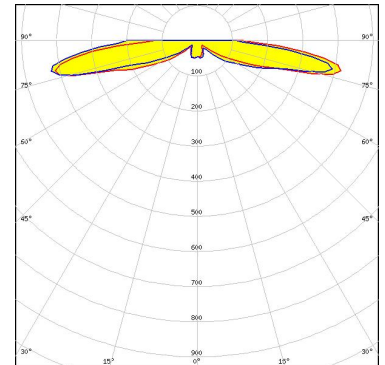
LED XB-D
FWHM / FWTM 170.0°
Efficiency 93 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



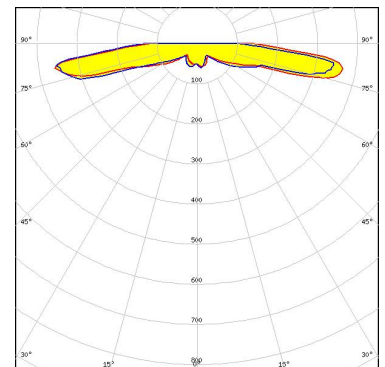
LED XP-E2
FWHM / FWTM 172.0°
Efficiency 94 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED XP-G
FWHM / FWTM 173.0°
Efficiency 88 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

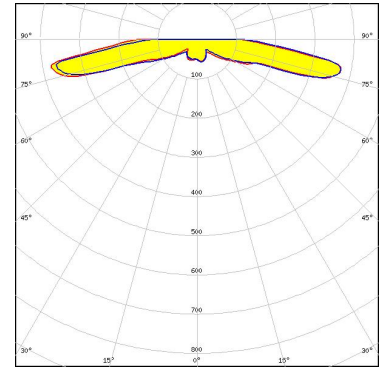


Light distribution files

OPTICAL RESULTS (MEASURED):



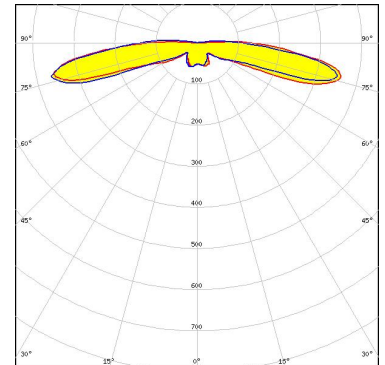
LED XP-G2
FWHM / FWTM 172.0°
Efficiency 90 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



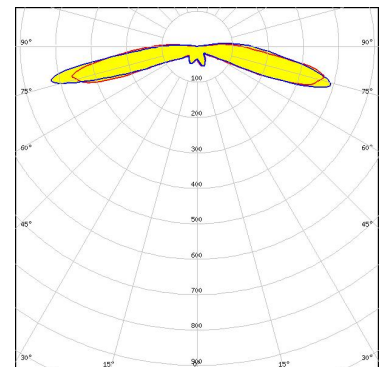
LED XT-E
FWHM / FWTM 174.0° / 188.0°
Efficiency 94 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED LUXEON 3535 2D
FWHM / FWTM 170.0°
Efficiency 94 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

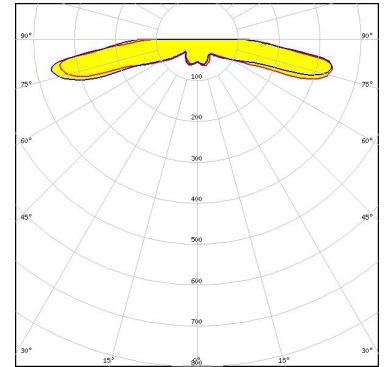


Light distribution files

OPTICAL RESULTS (MEASURED):



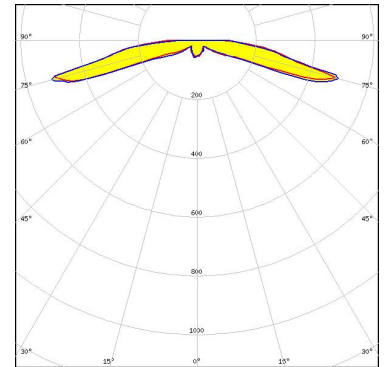
LED LUXEON A
FWHM / FWTM 173.0°
Efficiency 92 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



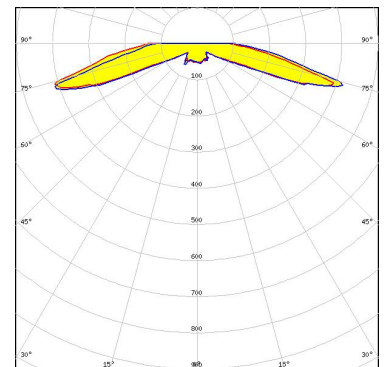
LED LUXEON Rebel
FWHM / FWTM 165.0°
Efficiency 93 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED NCSxx19A
FWHM / FWTM 165.0°
Efficiency 90 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

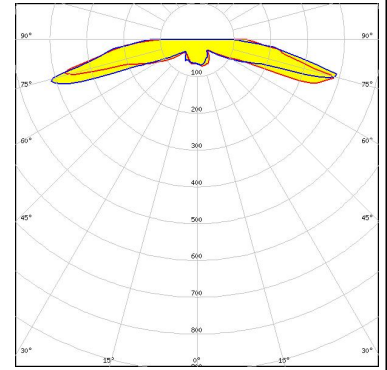


Light distribution files

OPTICAL RESULTS (MEASURED):

OSRAM
Opto Semiconductors

LED	OSLON Square EC
FWHM / FWTM	170.0°
Efficiency	92 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

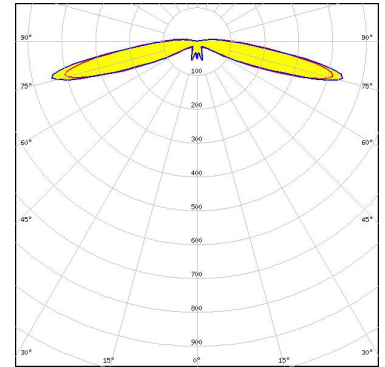


Light distribution files

OPTICAL RESULTS (SIMULATED):



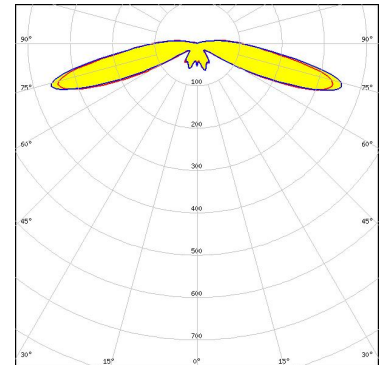
LED J Series 2835
FWHM / FWTM 167.0° / 194.0°
Efficiency 96 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



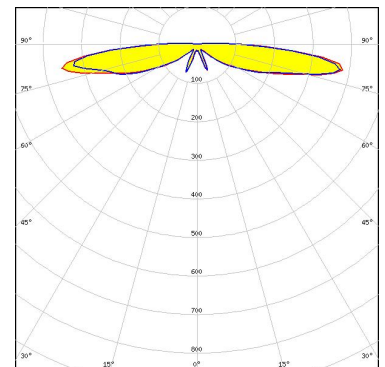
LED J Series 3030
FWHM / FWTM 167.0° / 198.0°
Efficiency 96 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED XE-G
FWHM / FWTM 175.0° / 188.0°
Efficiency 96 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

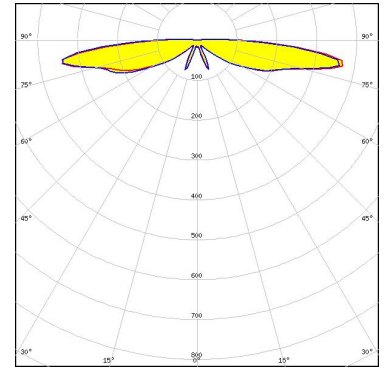


Light distribution files

OPTICAL RESULTS (SIMULATED):



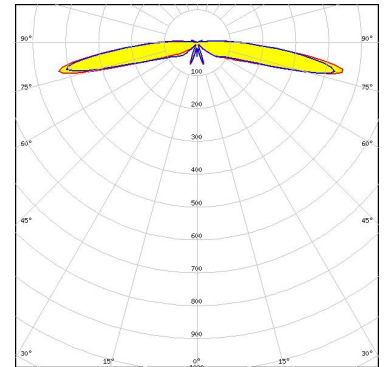
LED XE-G
 FWHM / FWTM 176.0° / 188.0°
 Efficiency 96 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type Green
 Required components:



Light distribution files



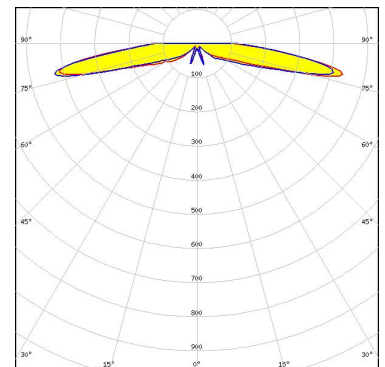
LED XQ-E HD
 FWHM / FWTM 172.0° / 189.0°
 Efficiency 97 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour/type Red
 Required components:



Light distribution files



LED XQ-E HD
 FWHM / FWTM 170.0° / 182.0°
 Efficiency 89 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type PC Amber
 Required components:

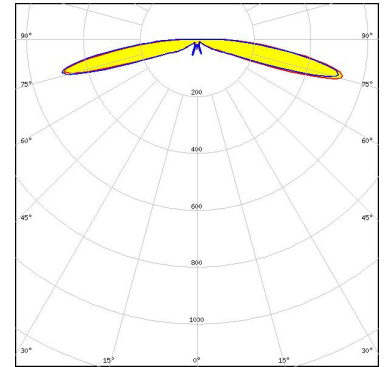


Light distribution files

OPTICAL RESULTS (SIMULATED):



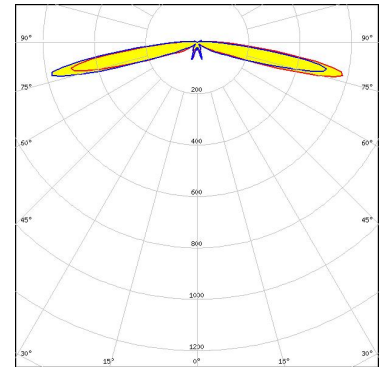
LED XQ-E HD
FWHM / FWTM 164.0° / 174.0°
Efficiency 92 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



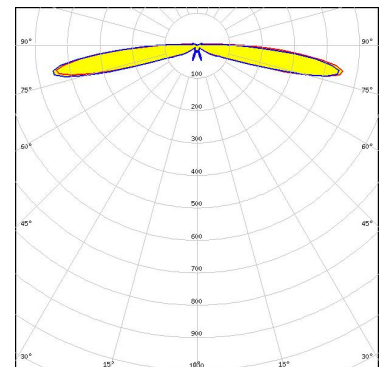
LED XQ-E HI
FWHM / FWTM 166.0° / 181.0°
Efficiency 97 %
Peak intensity 0.6 cd/lm
LEDs/each optic 1
Light colour/type Red
Required components:



Light distribution files



LED LUXEON C
FWHM / FWTM 175.0° / 188.0°
Efficiency 95 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour/type Green
Required components:

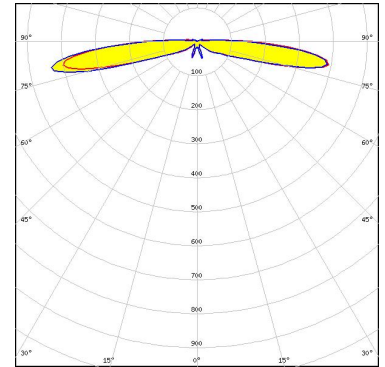


Light distribution files

OPTICAL RESULTS (SIMULATED):



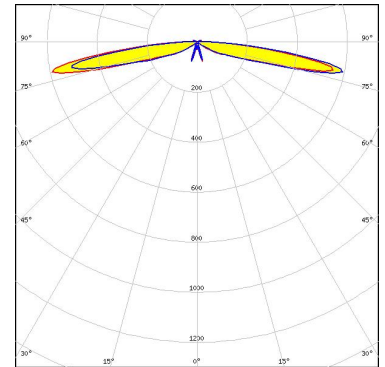
LED LUXEON C
FWHM / FWTM 177.0° / 192.0°
Efficiency 95 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour/type Red
Required components:



Light distribution files



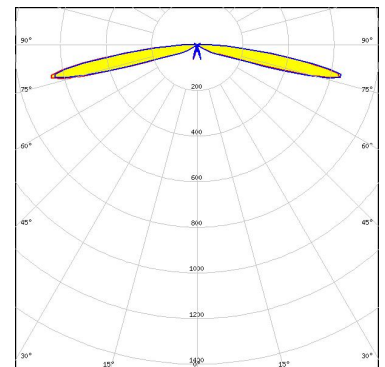
LED LUXEON CZ
FWHM / FWTM 168.0° / 179.0°
Efficiency 97 %
Peak intensity 0.6 cd/lm
LEDs/each optic 1
Light colour/type Red
Required components:



Light distribution files



LED LUXEON CZ
FWHM / FWTM 166.0° / 178.0°
Efficiency 97 %
Peak intensity 0.7 cd/lm
LEDs/each optic 1
Light colour/type Blue
Required components:

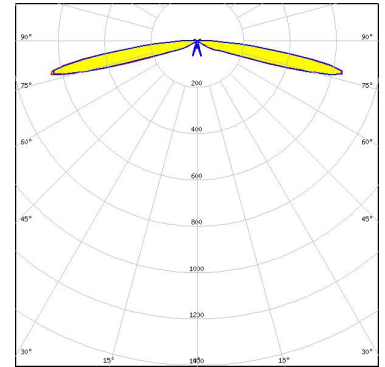


Light distribution files

OPTICAL RESULTS (SIMULATED):



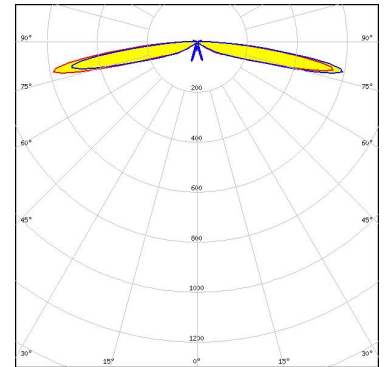
LED LUXEON CZ
FWHM / FWTM 166.0° / 178.0°
Efficiency 97 %
Peak intensity 0.7 cd/lm
LEDs/each optic 1
Light colour/type Green
Required components:



Light distribution files



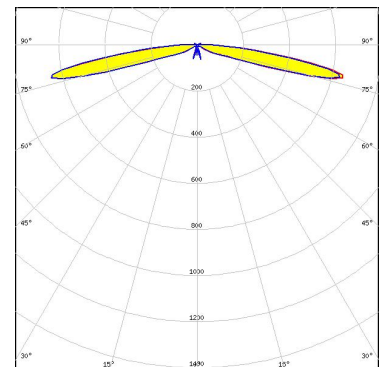
LED LUXEON CZ
FWHM / FWTM 168.0° / 179.0°
Efficiency 97 %
Peak intensity 0.6 cd/lm
LEDs/each optic 1
Light colour/type Amber
Required components:



Light distribution files

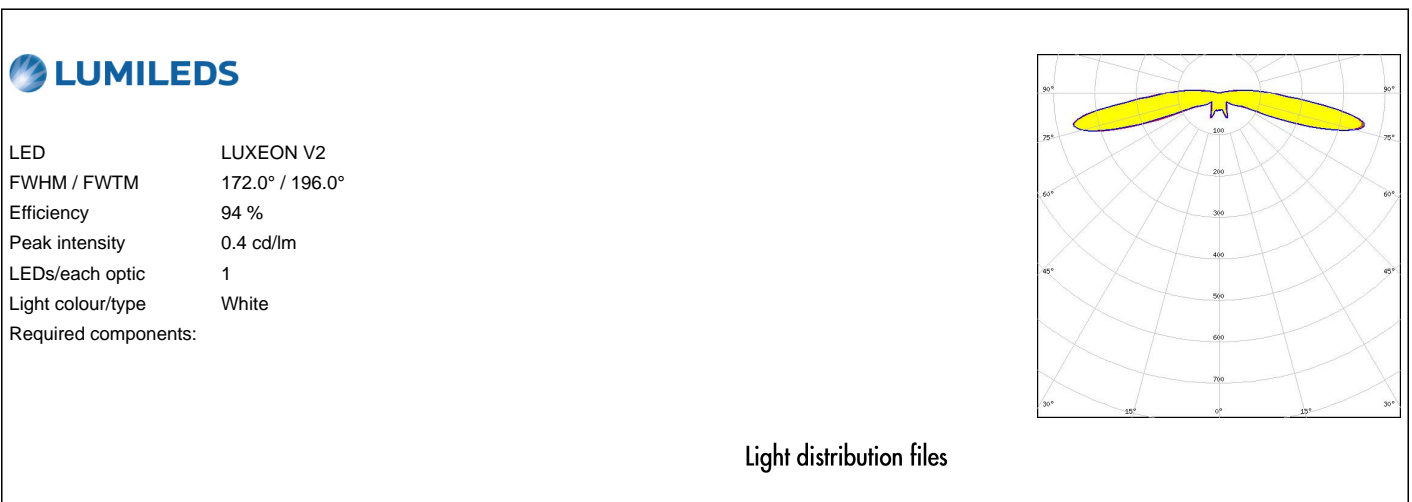
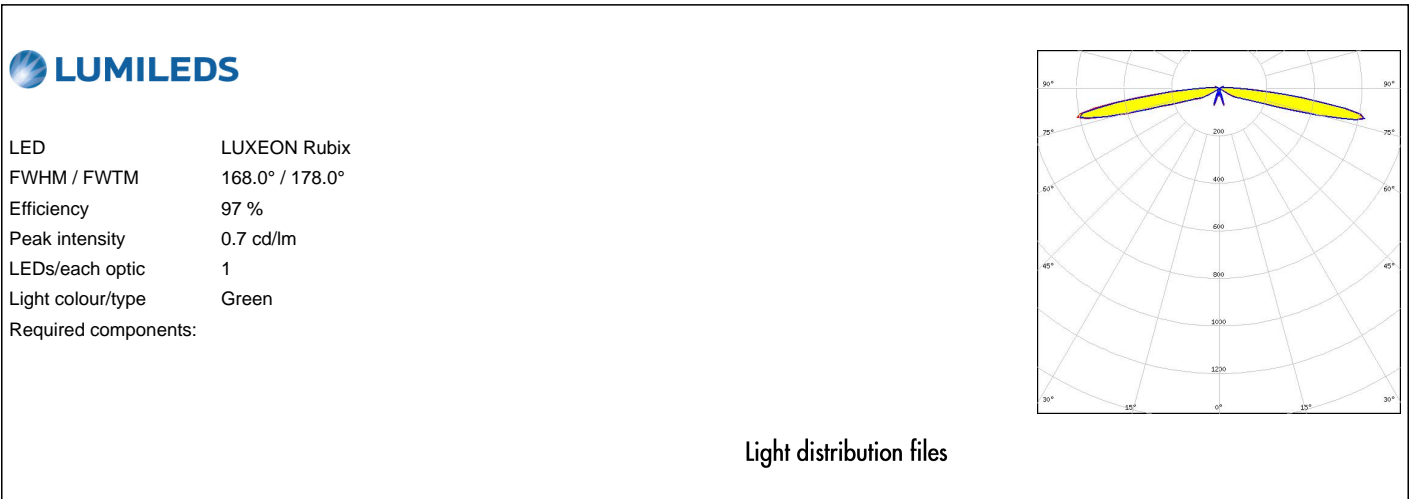


LED LUXEON CZ
FWHM / FWTM 166.0° / 178.0°
Efficiency 97 %
Peak intensity 0.7 cd/lm
LEDs/each optic 1
Light colour/type Royal Blue
Required components:

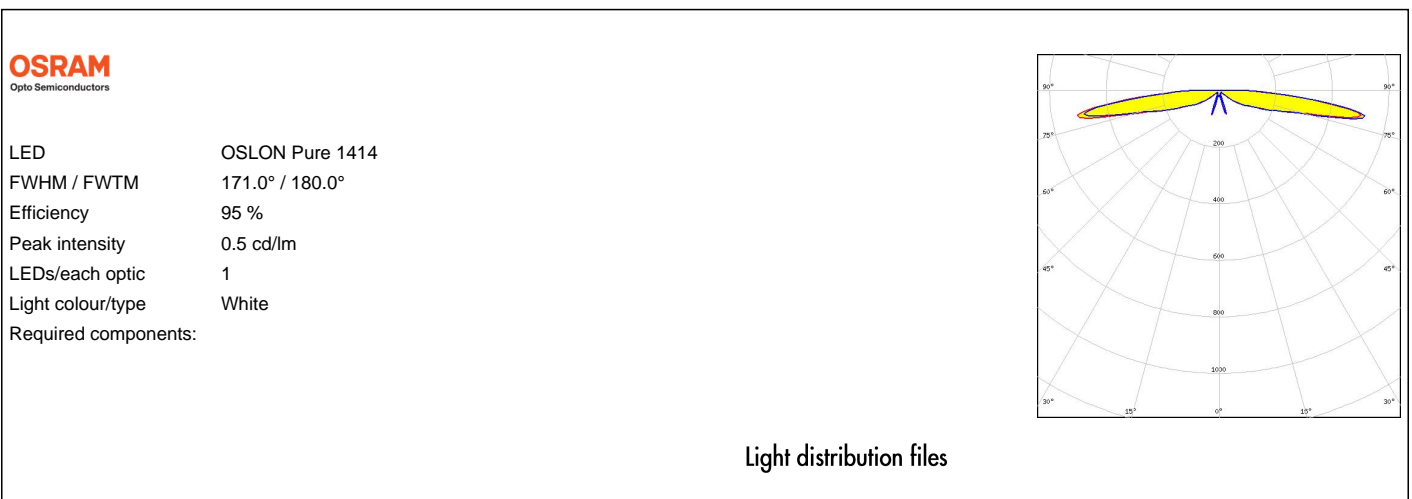
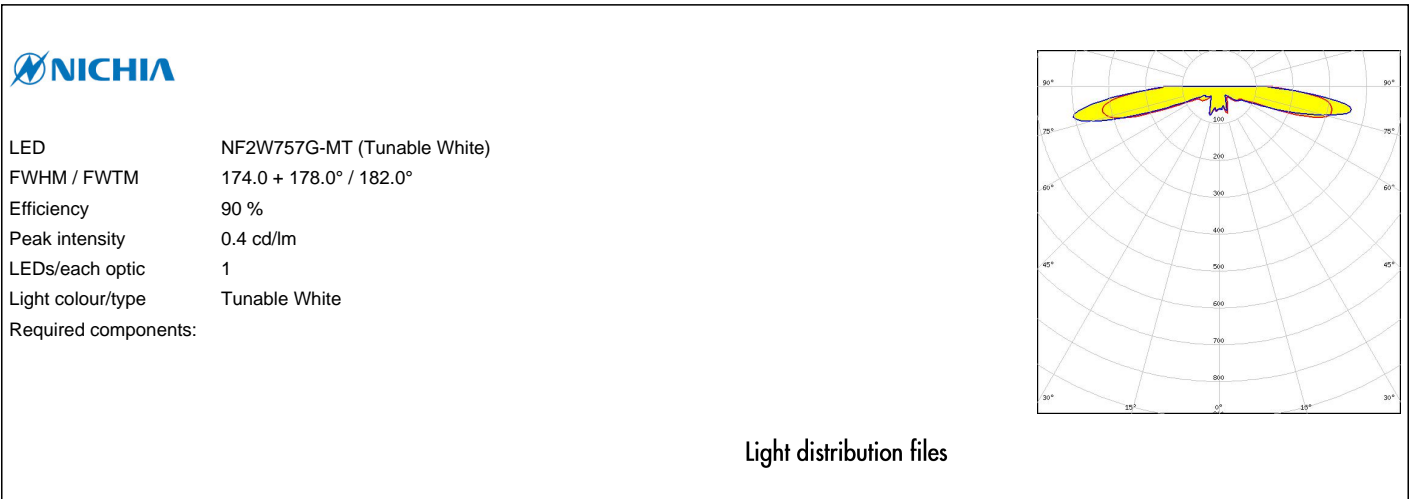


Light distribution files

OPTICAL RESULTS (SIMULATED):



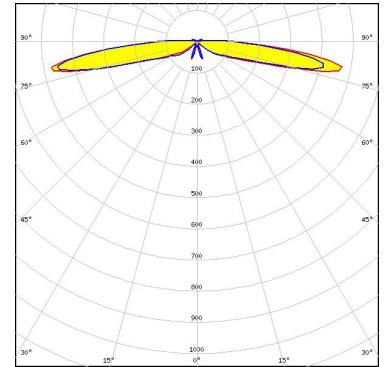
OPTICAL RESULTS (SIMULATED):



OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

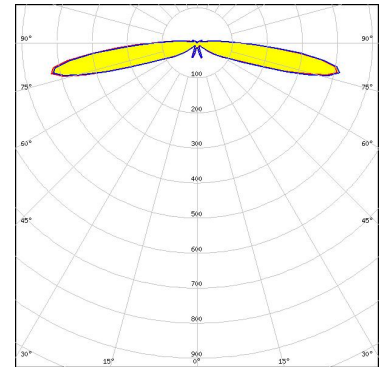
LED OSLON Signal
 FWHM / FWTM 172.0° / 188.0°
 Efficiency 97 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour/type Red
 Required components:



Light distribution files

OSRAM
Opto Semiconductors

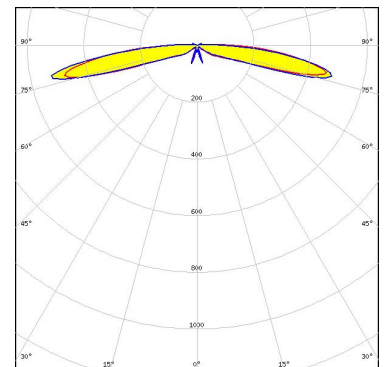
LED OSLON Signal
 FWHM / FWTM 172.0° / 192.0°
 Efficiency 97 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files

OSRAM
Opto Semiconductors

LED OSLON SSL 150
 FWHM / FWTM 171.0° / 187.0°
 Efficiency 97 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour/type Red
 Required components:

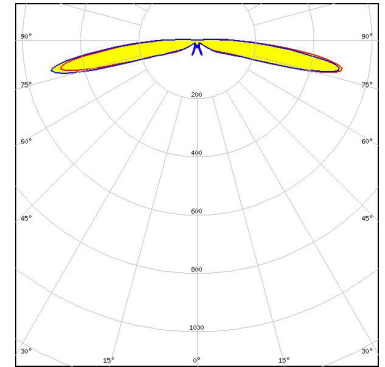


Light distribution files

OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

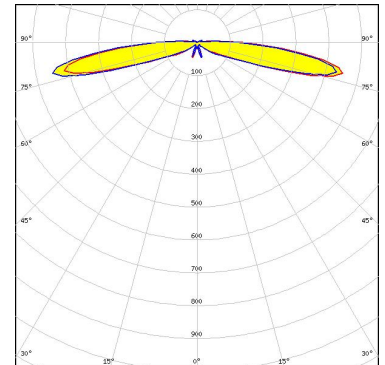
LED OSLON SSL 150
FWHM / FWTM 172.0° / 186.0°
Efficiency 95 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

OSRAM
Opto Semiconductors

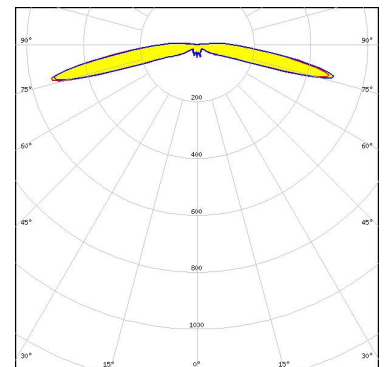
LED OSLON SSL 150
FWHM / FWTM 172.0° / 188.0°
Efficiency 97 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

OSRAM
Opto Semiconductors

LED OSLON SSL 80
FWHM / FWTM 168.0° / 188.0°
Efficiency 93 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

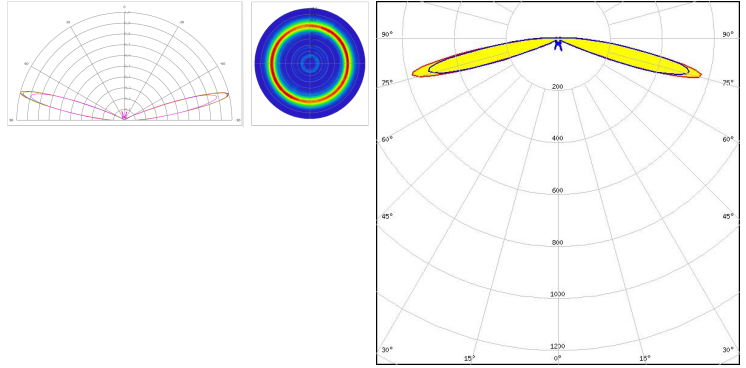


Light distribution files

OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

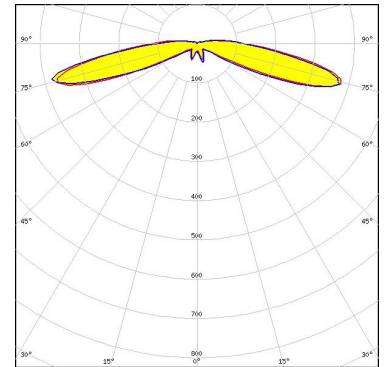
LED SFH 4716AS
FWHM / FWTM 164.0° / 180.0°
Efficiency 96 %
LEDs/each optic 1
Light colour/type IR
Required components:



Light distribution files

SAMSUNG

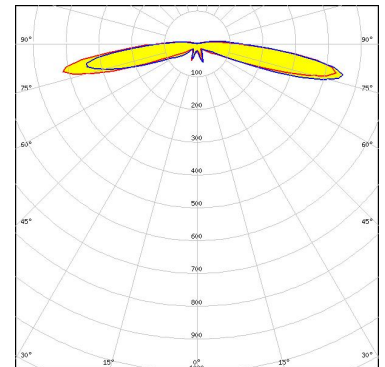
LED LM28xB Series
FWHM / FWTM 169.0° / 199.0°
Efficiency 97 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files


SEMI
SEOUL SEMICONDUCTOR

LED MJT 3030
FWHM / FWTM 172.0° / 194.0°
Efficiency 95 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

OPTICAL RESULTS (SIMULATED):

 SEUL SEMICONDUCTOR	
LED	Z8Y22P
FWHM / FWTM	152.0°
Efficiency	87 %
Peak intensity	0.4 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.

PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

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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