

VERONICA-SQ-SE

~190° side emitter beam

SPECIFICATION:

Dimensions	22.5 x 22.5 mm
Height	11.4 mm
Fastening	tape
ROHS compliant	yes ⓘ

MATERIALS:

Component	Type	Material	Colour	Finish	Length (mm)
VERONICA-SQ-SE	Single lens	PMMA	clear		
VERONICA-TAPE	Tape	Acrylic foam	clear		



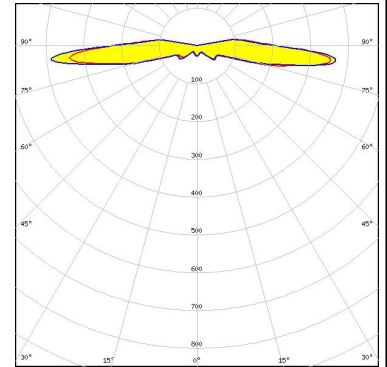
ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CA15902_VERONICA-SQ-SE	Single lens	3060	360	180	9.6
» Box size: 480 x 280 x 300 mm					

OPTICAL RESULTS (MEASURED):



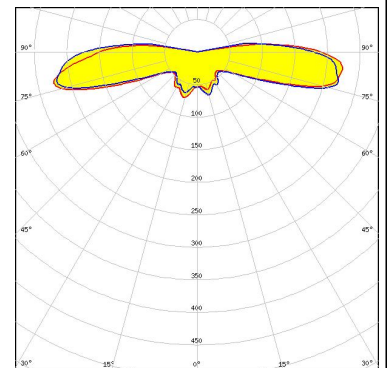
LED XHP35 HI
 FWHM / FWTM 183.0° / 201.0°
 Efficiency 88 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files



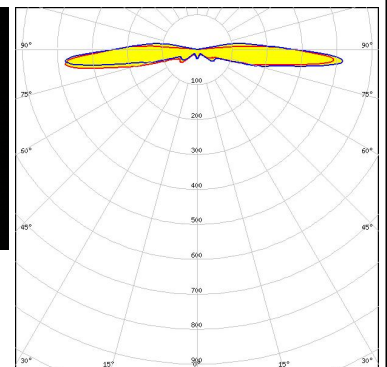
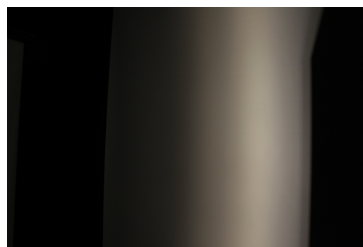
LED XHP70.2
 FWHM / FWTM 194.0° / 220.0°
 Efficiency 84 %
 Peak intensity 0.2 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files



LED XP-G2
 FWHM / FWTM 184.0° / 196.0°
 Efficiency 87 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:

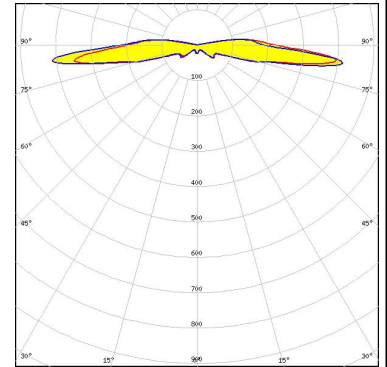


Light distribution files

OPTICAL RESULTS (MEASURED):



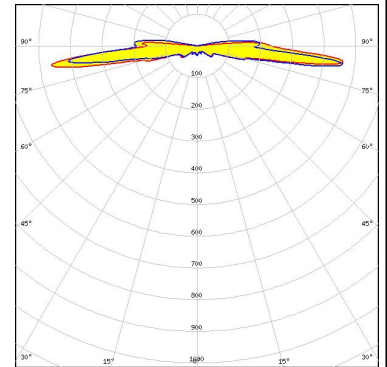
LED XP-L HI
 FWHM / FWTM 184.0° / 210.0°
 Efficiency 87 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files



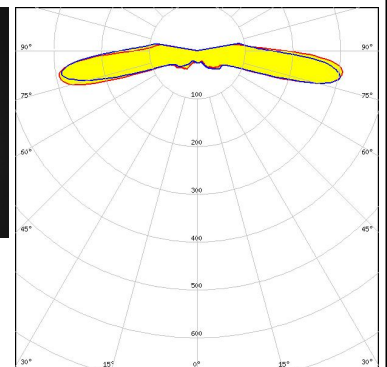
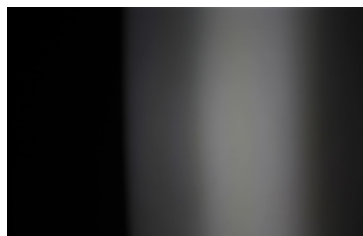
LED XQ-E HI
 FWHM / FWTM 176.0° / 195.0°
 Efficiency 87 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files



LED LUXEON 5050 Round LES
 FWHM / FWTM 180.0° / 200.0°
 Efficiency 87 %
 Peak intensity 0.3 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:

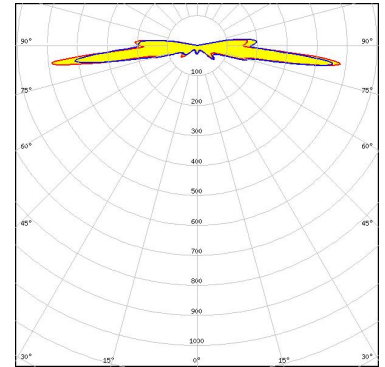


Light distribution files

OPTICAL RESULTS (MEASURED):



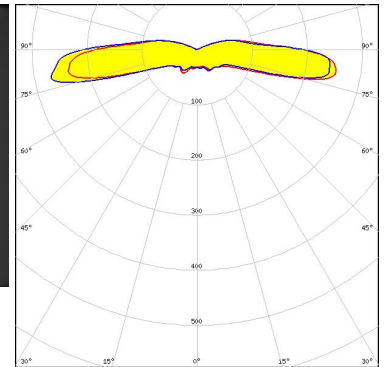
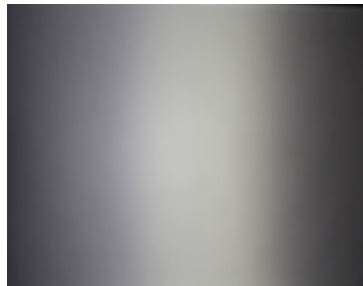
LED LUXEON CZ
FWHM / FWTM 173.0° / 200.0°
Efficiency 90 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



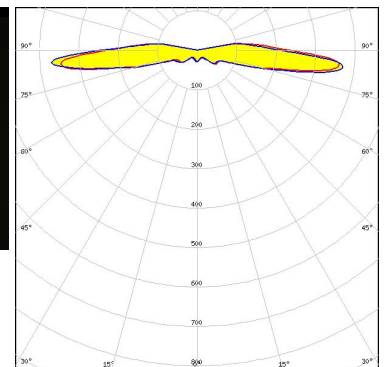
LED LUXEON M/MX
FWHM / FWTM 189.0° / 225.0°
Efficiency 91 %
Peak intensity 2.7 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED LUXEON TX
FWHM / FWTM 185.0° / 201.0°
Efficiency 88 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

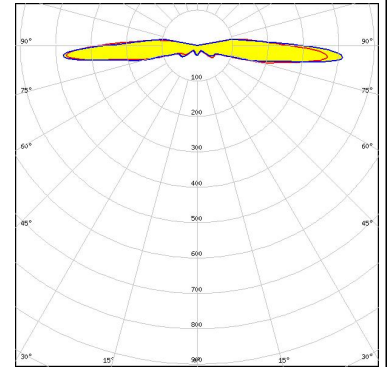


Light distribution files

OPTICAL RESULTS (MEASURED):



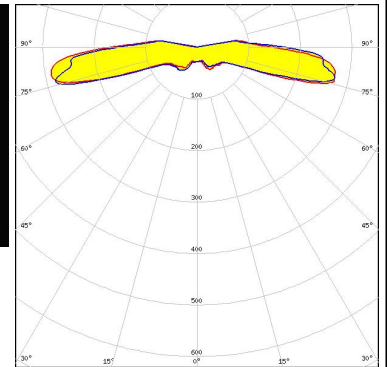
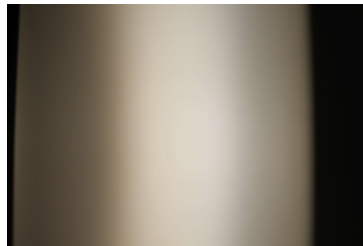
LED NVSW219F
FWHM / FWTM 185.0° / 201.0°
Efficiency 89 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



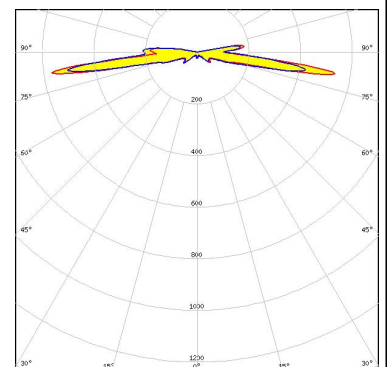
LED Duris S8
FWHM / FWTM 182.0° / 201.0°
Efficiency 87 %
Peak intensity 0.3 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED OSLO Black Flat (LUW HWQP)
FWHM / FWTM 170.0° / 210.0°
Efficiency 89 %
Peak intensity 0.6 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

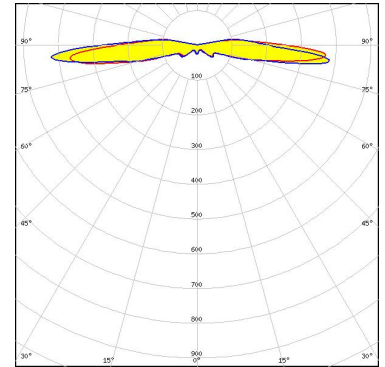


Light distribution files

OPTICAL RESULTS (MEASURED):

OSRAM
Opto Semiconductors

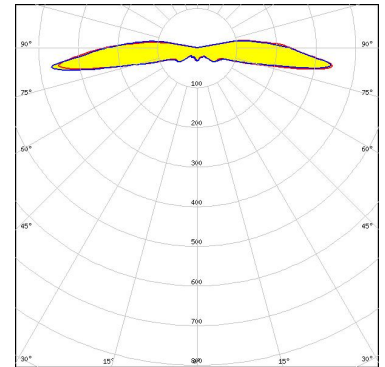
LED OSLON Square CSSRM2/CSSRM3
FWHM / FWTM 186.0° / 220.0°
Efficiency 88 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

OSRAM
Opto Semiconductors

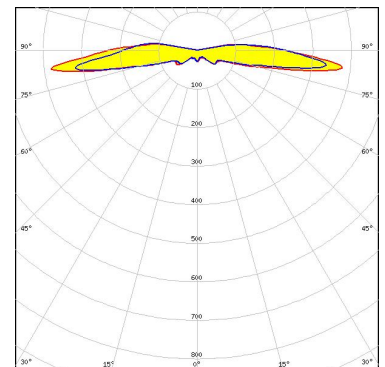
LED OSLON Square EC
FWHM / FWTM 189.0° / 201.0°
Efficiency 88 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

OSRAM
Opto Semiconductors

LED OSLON Square PC
FWHM / FWTM 187.0° / 200.0°
Efficiency 88 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

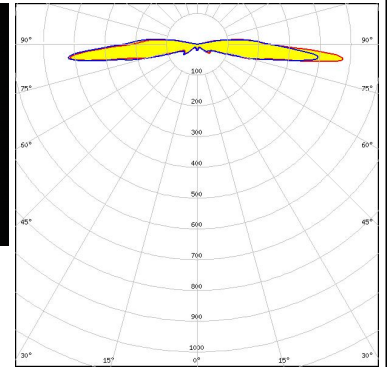
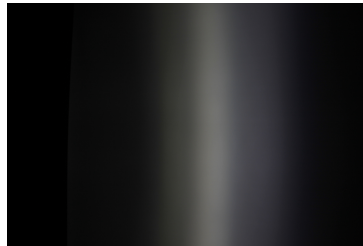


Light distribution files

OPTICAL RESULTS (MEASURED):

OSRAM
Opto Semiconductors

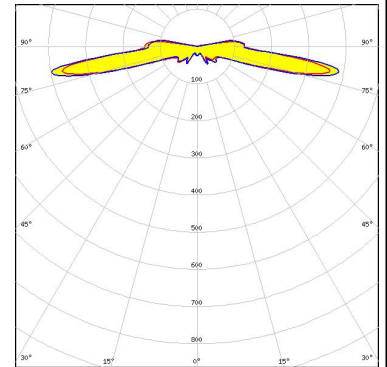
LED OSLON SSL 150
FWHM / FWTM 182.0° / 200.0°
Efficiency 89 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

SAMSUNG

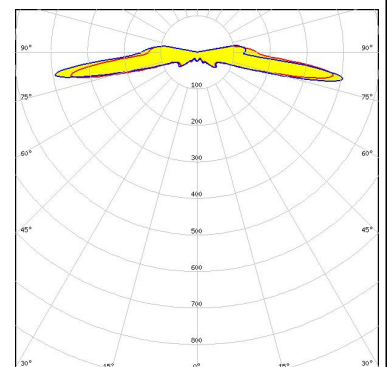
LED LH181A
FWHM / FWTM 170.0° / 210.0°
Efficiency 91 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

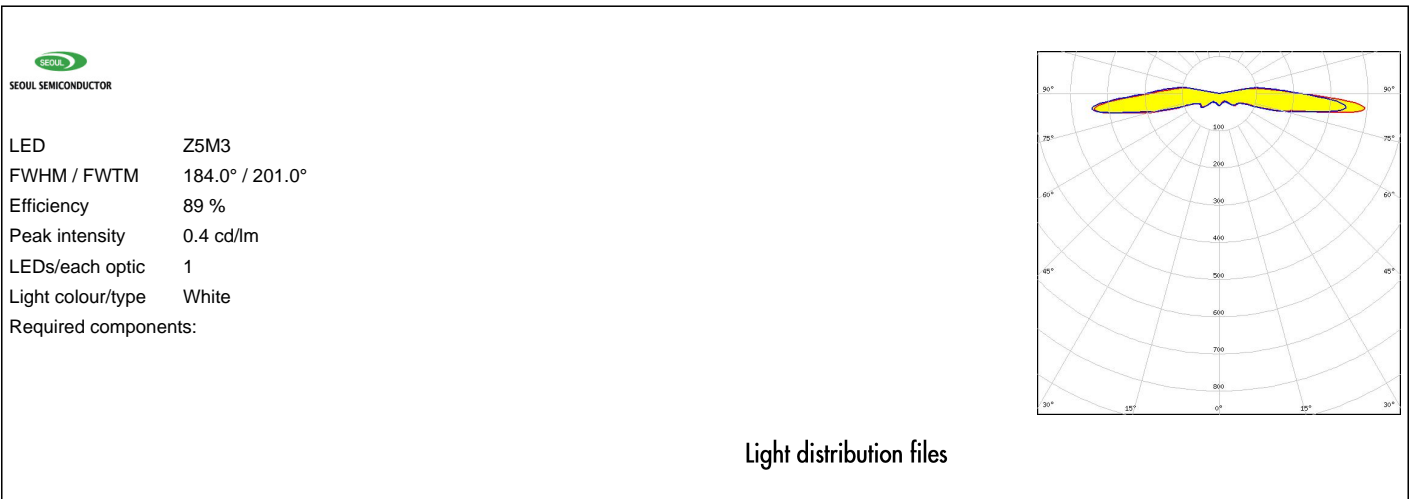
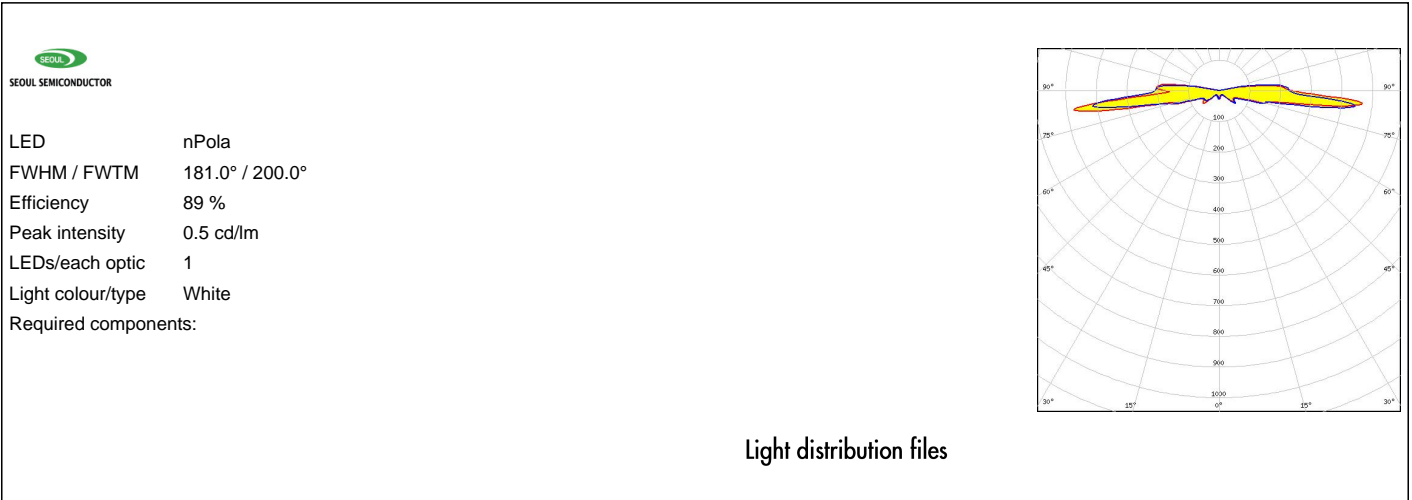
SAMSUNG

LED LH181B
FWHM / FWTM 171.0° / 201.0°
Efficiency 88 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

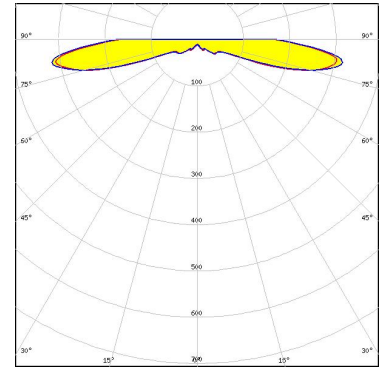
OPTICAL RESULTS (MEASURED):



OPTICAL RESULTS (SIMULATED):



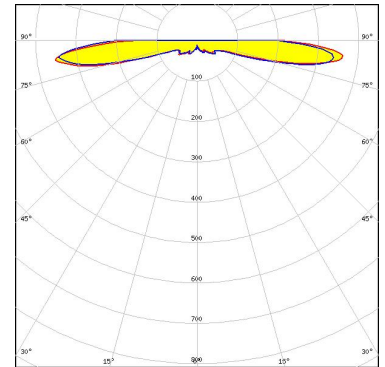
LED J Series 5050 Round LES
FWHM / FWTM 180.0° / 182.0°
Efficiency 75 %
Peak intensity 0.3 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



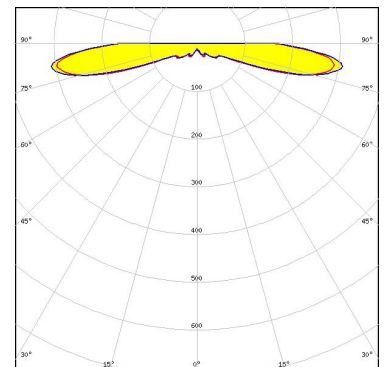
LED J Series 5050B 30V K Class
FWHM / FWTM 180.0° / 182.0°
Efficiency 75 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED J Series 5050B 6V K Class
FWHM / FWTM 180.0° / 182.0°
Efficiency 75 %
Peak intensity 0.3 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

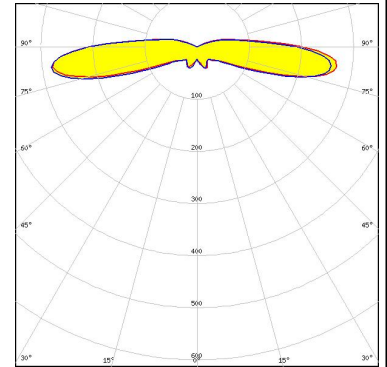


Light distribution files

OPTICAL RESULTS (SIMULATED):



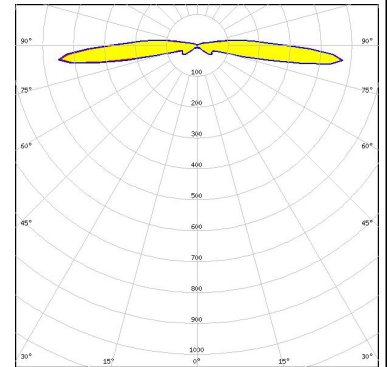
LED XD16
FWHM / FWTM 188.0° / 223.0°
Efficiency 94 %
Peak intensity 0.3 cd/lm
LEDs/each optic 7
Light colour/type White
Required components:



Light distribution files



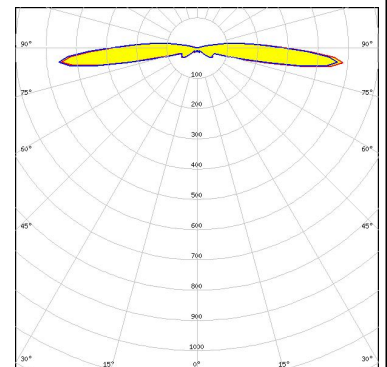
LED XE-G
FWHM / FWTM 184.0° / 204.0°
Efficiency 96 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour/type Blue
Required components:



Light distribution files



LED XE-G
FWHM / FWTM 184.0° / 200.0°
Efficiency 94 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour/type Green
Required components:

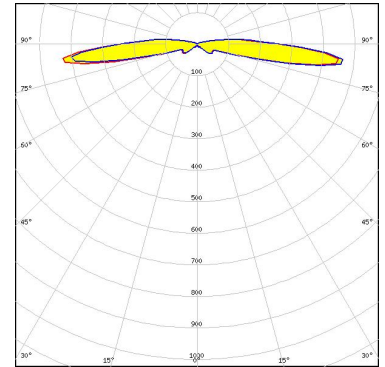


Light distribution files

OPTICAL RESULTS (SIMULATED):



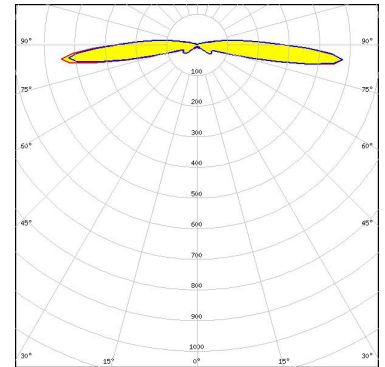
LED XE-G
 FWHM / FWTM 180.0° / 204.0°
 Efficiency 96 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour/type Red
 Required components:



Light distribution files



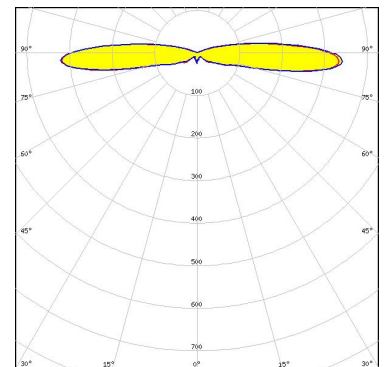
LED XE-G
 FWHM / FWTM 182.0° / 204.0°
 Efficiency 96 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files



LED XHP35 HD
 FWHM / FWTM 194.0° / 216.0°
 Efficiency 94 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:

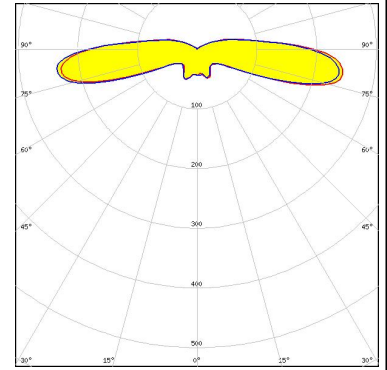


Light distribution files

OPTICAL RESULTS (SIMULATED):



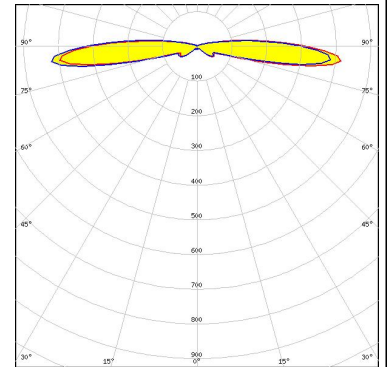
LED XHP70
FWHM / FWTM 190.0° / 232.0°
Efficiency 94 %
Peak intensity 0.3 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



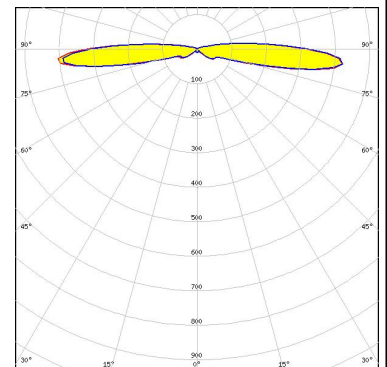
LED XP-E
FWHM / FWTM 188.0° / 208.0°
Efficiency 95 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED XP-E2
FWHM / FWTM 188.0° / 206.0°
Efficiency 95 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type Red
Required components:

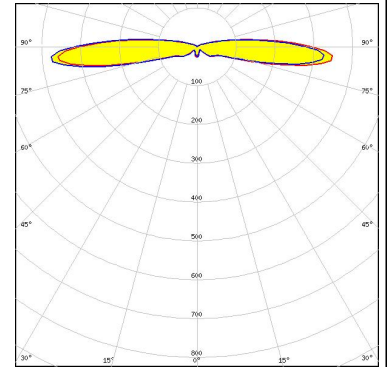


Light distribution files

OPTICAL RESULTS (SIMULATED):



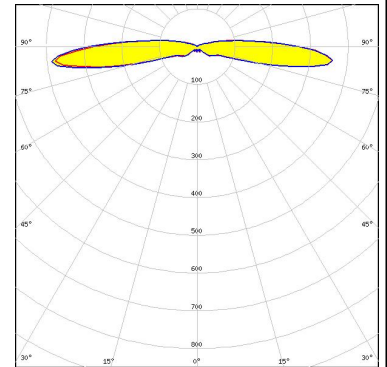
LED XP-G2 HE
FWHM / FWTM 191.0° / 212.0°
Efficiency 95 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



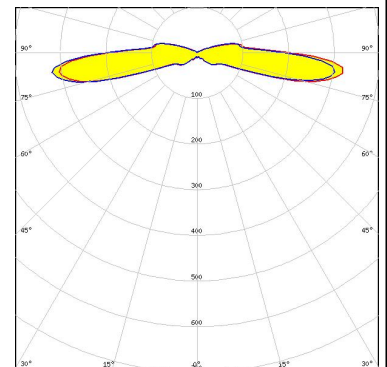
LED XP-G3
FWHM / FWTM 186.0° / 211.0°
Efficiency 94 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED XQ-E HI
FWHM / FWTM 183.0° / 221.0°
Efficiency 94 %
Peak intensity 0.3 cd/lm
LEDs/each optic 4
Light colour/type White
Required components:

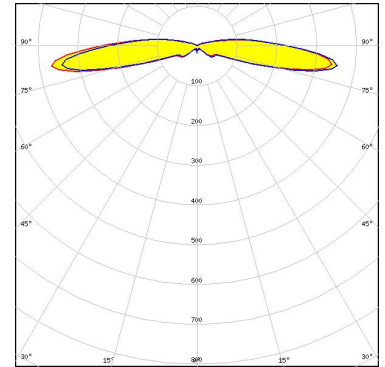


Light distribution files

OPTICAL RESULTS (SIMULATED):



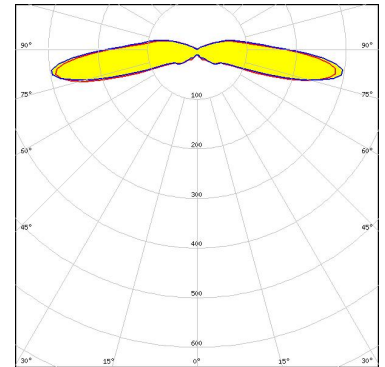
LED XT-E
FWHM / FWTM 184.0° / 212.0°
Efficiency 95 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



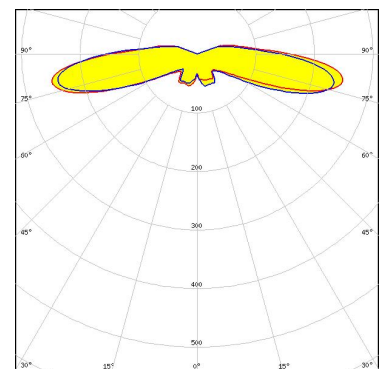
LED LUXEON 5050 Round LES
FWHM / FWTM 184.0° / 226.0°
Efficiency 95 %
Peak intensity 0.3 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

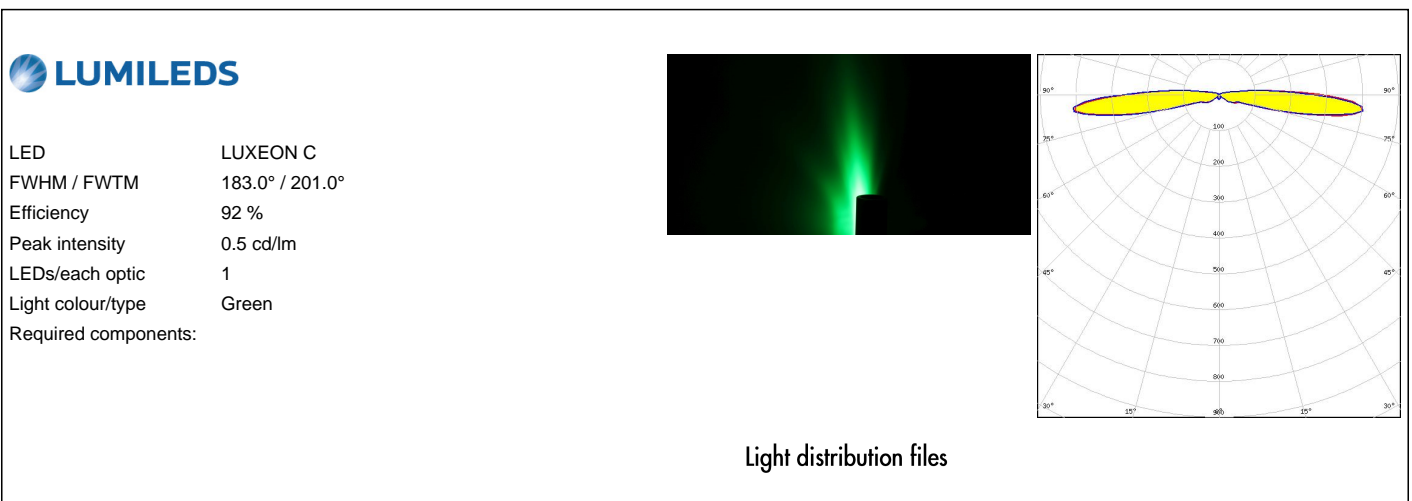
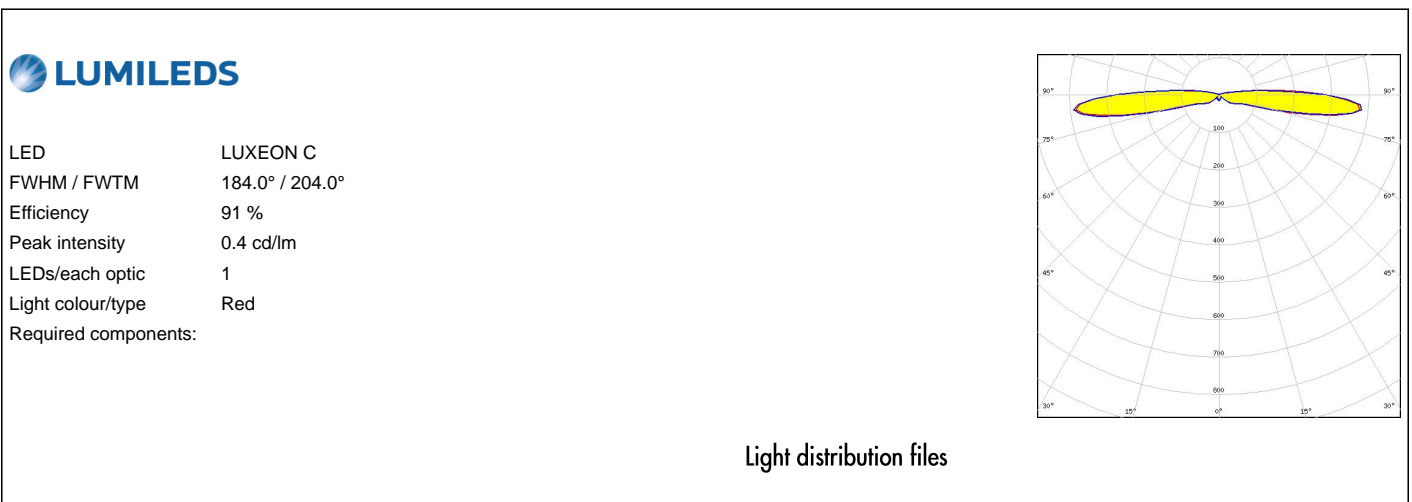
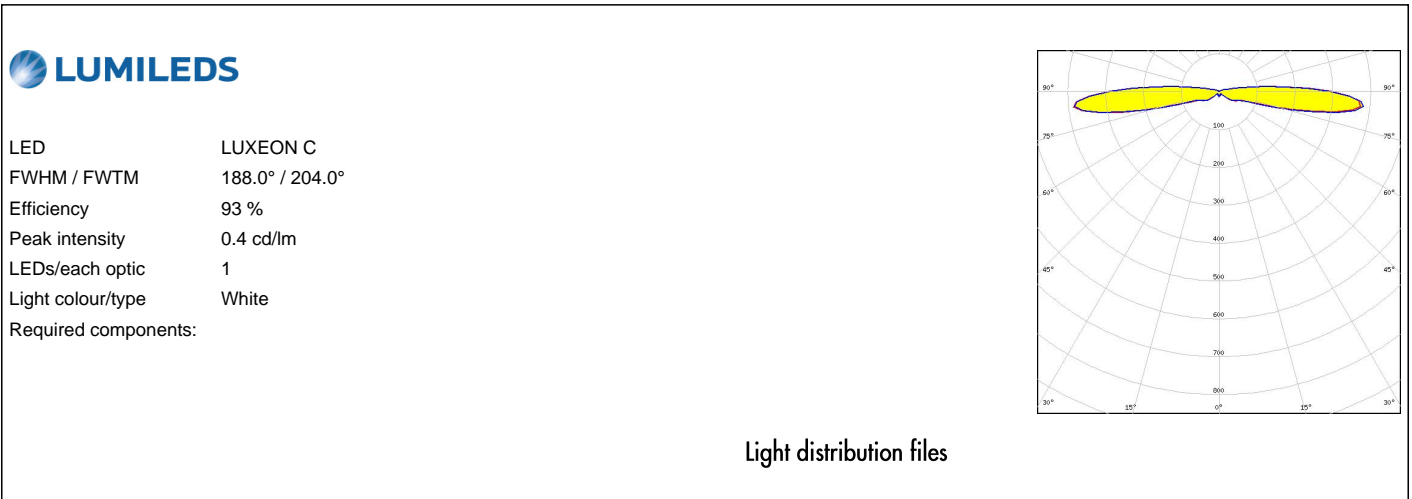


LED LUXEON 7070
FWHM / FWTM 185.0° / 220.0°
Efficiency 96 %
Peak intensity 0.3 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

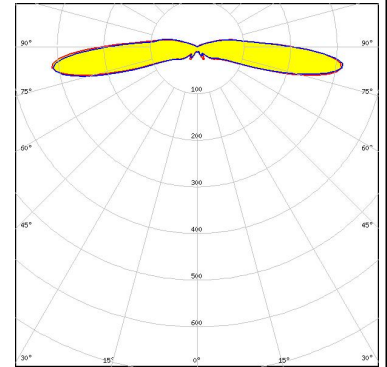
OPTICAL RESULTS (SIMULATED):



OPTICAL RESULTS (SIMULATED):



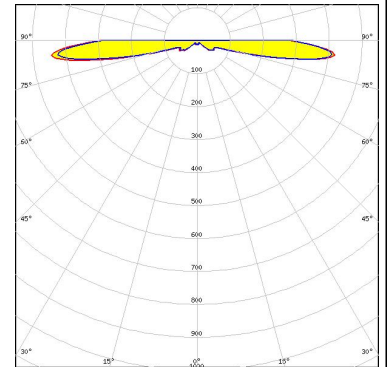
LED LUXEON IR Compact
FWHM / FWTM 183.4° / 217.0°
Efficiency 94 %
Peak intensity 0.3 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



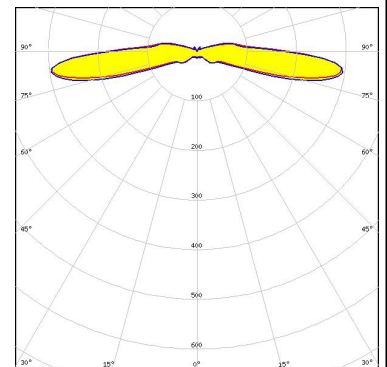
LED LUXEON Rebel
FWHM / FWTM 180.0° / 182.0°
Efficiency 75 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type Red
Required components:



Light distribution files

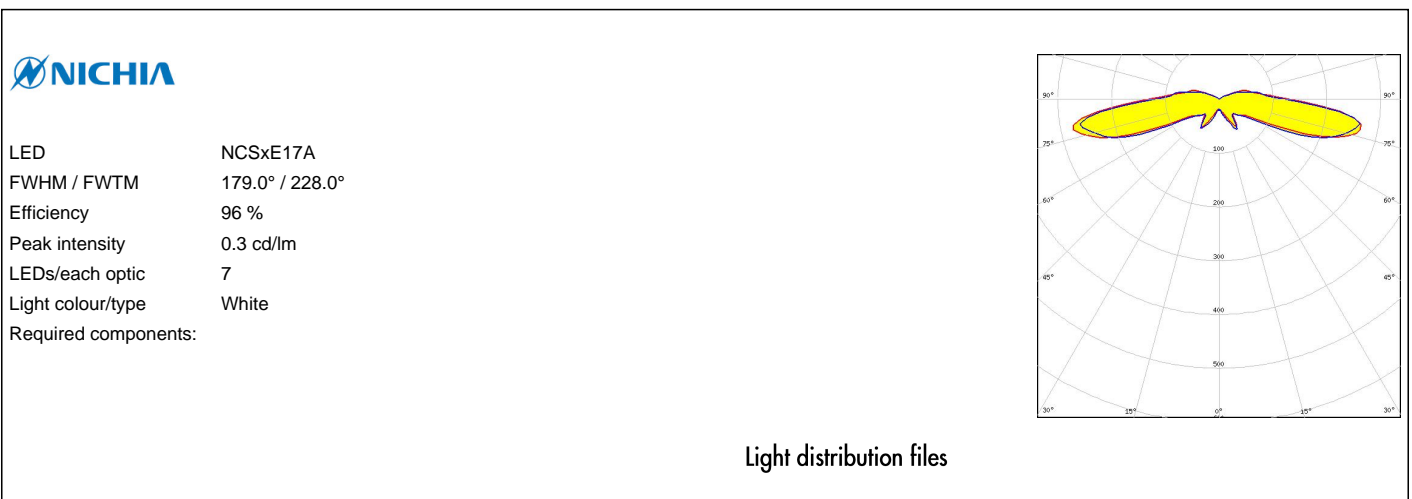
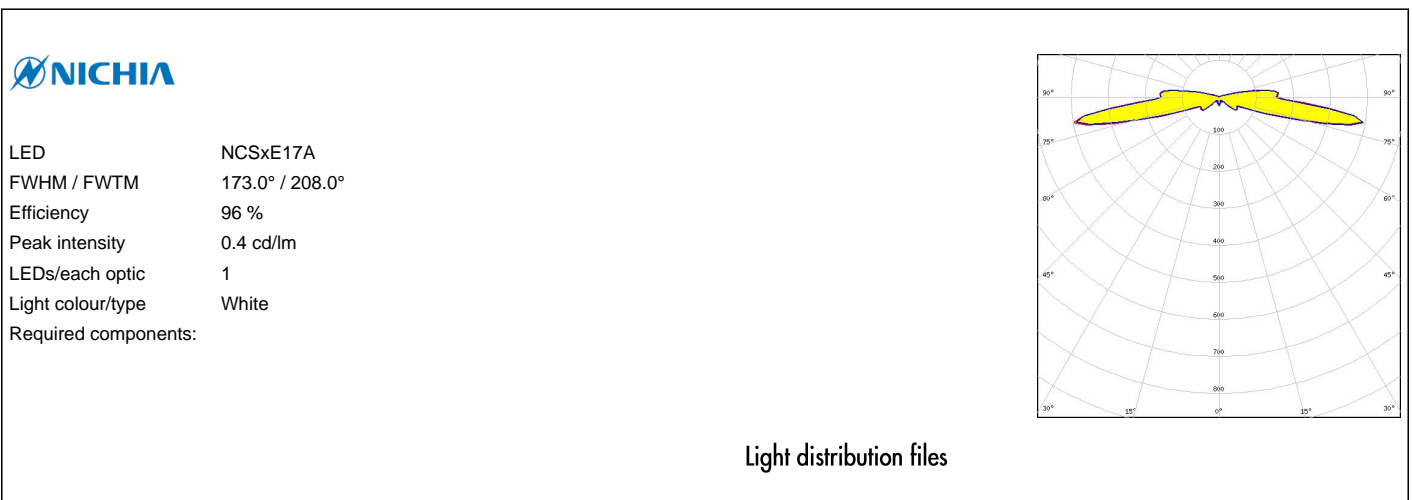
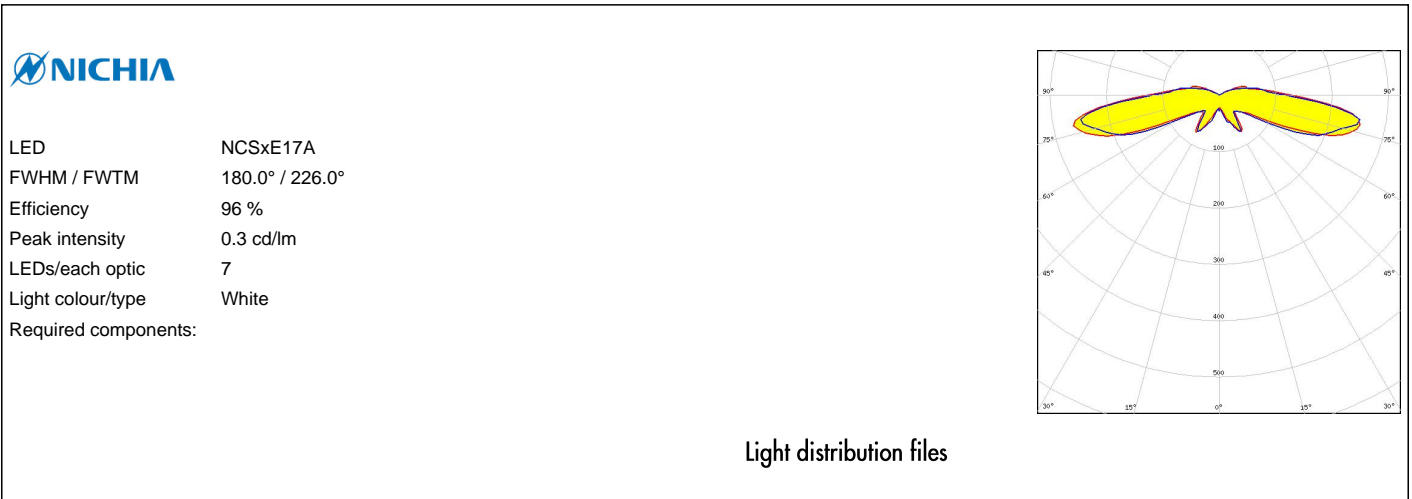


LED LUXEON Z
FWHM / FWTM 183.4° / 218.0°
Efficiency 89 %
Peak intensity 0.3 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

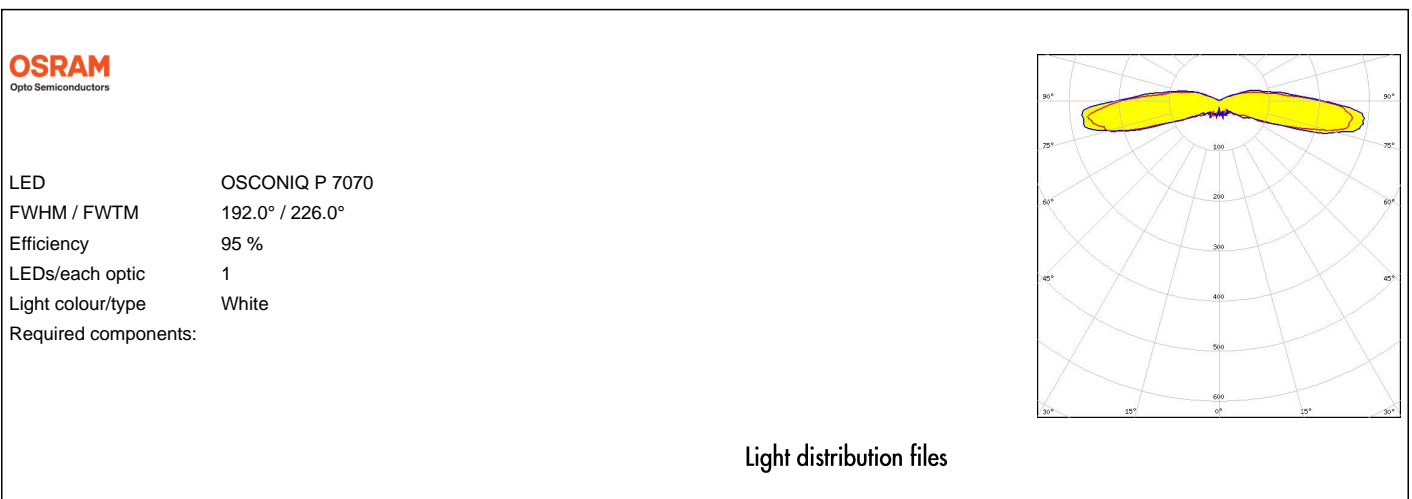
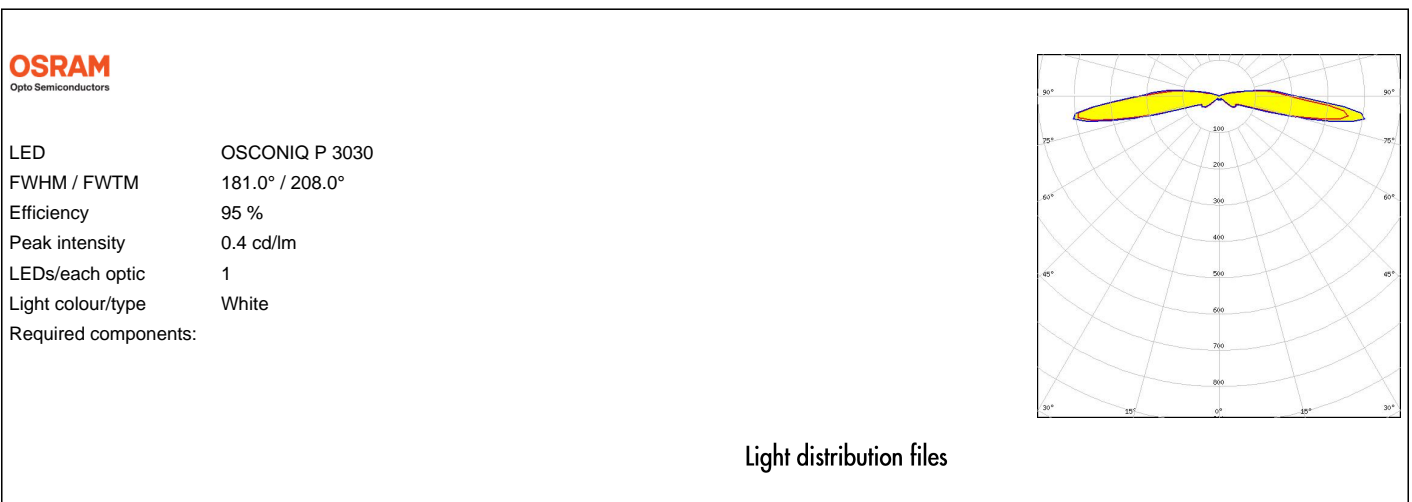
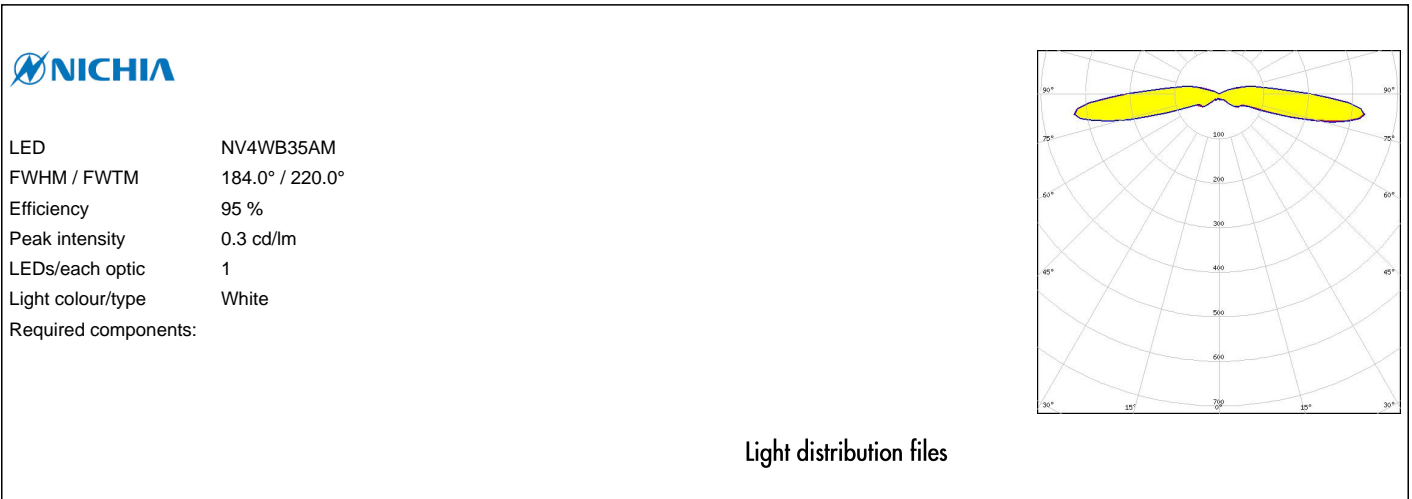


Light distribution files

OPTICAL RESULTS (SIMULATED):



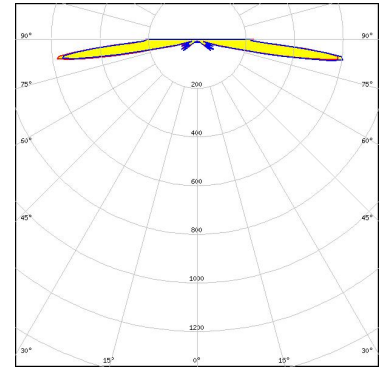
OPTICAL RESULTS (SIMULATED):



OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

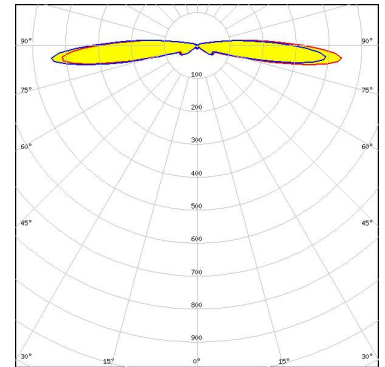
LED OSLON Pure 1414
 FWHM / FWTM 174.0 + 173.0° / 182.0°
 Efficiency 76 %
 Peak intensity 0.6 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files

OSRAM
Opto Semiconductors

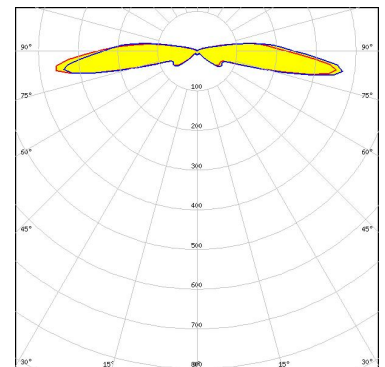
LED OSLON Signal
 FWHM / FWTM 186.0° / 203.0°
 Efficiency 95 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour/type Red
 Required components:



Light distribution files

OSRAM
Opto Semiconductors

LED OSLON SSL 120
 FWHM / FWTM 188.0° / 212.0°
 Efficiency 95 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:

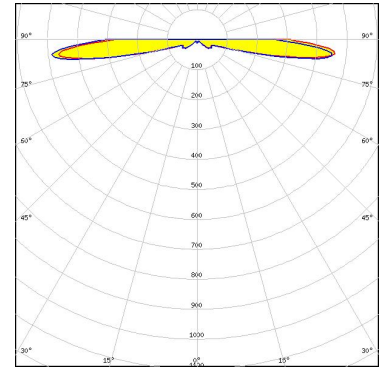


Light distribution files

OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

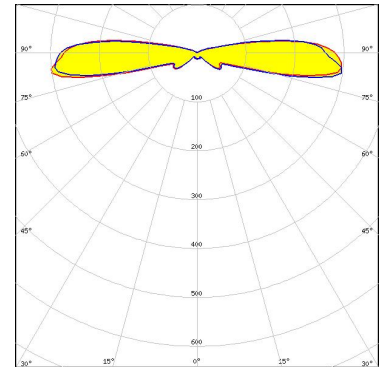
LED OSLON SSL 150
FWHM / FWTM 180.0° / 182.0°
Efficiency 78 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour/type Red
Required components:



Light distribution files

OSRAM
Opto Semiconductors

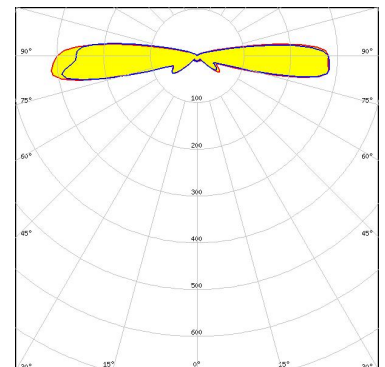
LED OSLON SSL 80
FWHM / FWTM 198.0° / 216.0°
Efficiency 94 %
Peak intensity 0.3 cd/lm
LEDs/each optic 1
Light colour/type Blue
Required components:



Light distribution files

OSRAM
Opto Semiconductors

LED OSLON SSL 80
FWHM / FWTM 197.0° / 215.0°
Efficiency 96 %
Peak intensity 0.3 cd/lm
LEDs/each optic 1
Light colour/type Red
Required components:

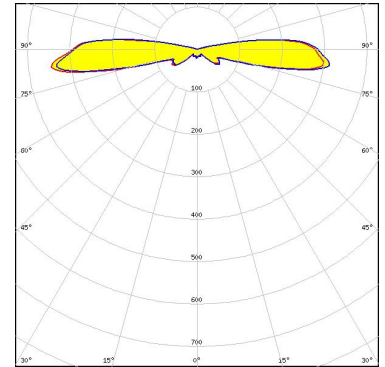


Light distribution files

OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

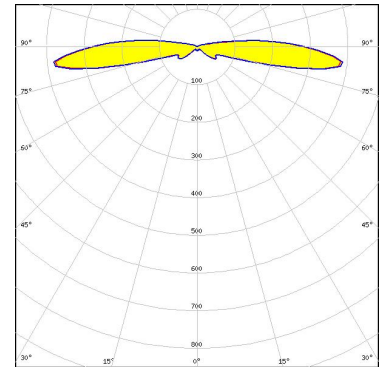
LED OSLON SSL 80
FWHM / FWTM 195.0° / 206.0°
Efficiency 93 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

OSRAM
Opto Semiconductors

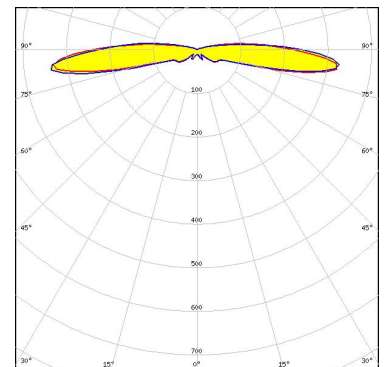
LED OSTAR Projection Compact (KW.CSLNM1.TG)
FWHM / FWTM 188.0° / 208.0°
Efficiency 96 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type Red
Required components:



Light distribution files

OSRAM
Opto Semiconductors

LED SFH 4170S
FWHM / FWTM 188.0° / 208.0°
Efficiency 87 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type IR
Required components:

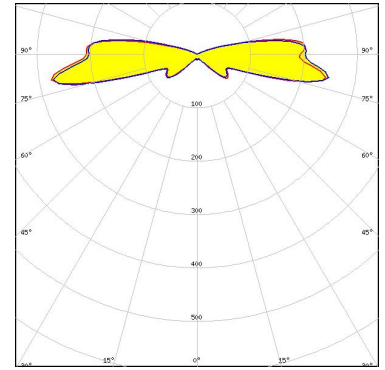


Light distribution files

OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

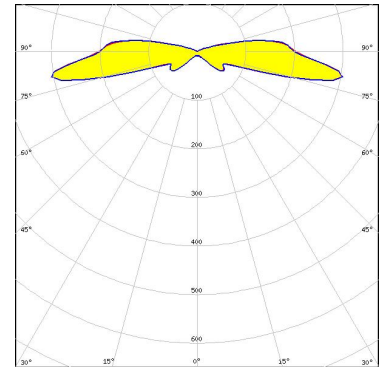
LED SFH 4715AS
FWHM / FWTM 202.0° / 221.0°
Efficiency 95 %
Peak intensity 0.3 cd/lm
LEDs/each optic 1
Light colour/type IR
Required components:



Light distribution files

OSRAM
Opto Semiconductors

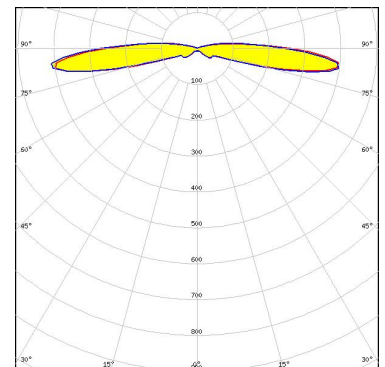
LED SFH 4715S
FWHM / FWTM 196.0° / 216.0°
Efficiency 95 %
Peak intensity 0.3 cd/lm
LEDs/each optic 1
Light colour/type IR
Required components:



Light distribution files

OSRAM
Opto Semiconductors

LED SFH 4716AS
FWHM / FWTM 184.0° / 207.0°
Efficiency 95 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type IR
Required components:

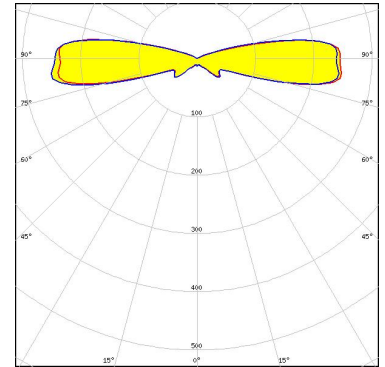


Light distribution files

OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

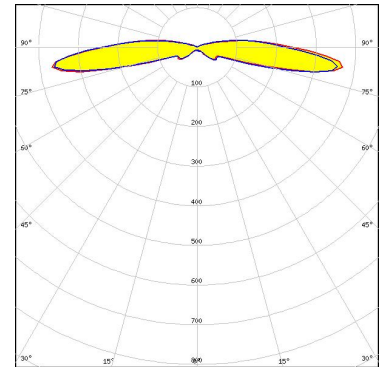
LED SFH 4717AS
FWHM / FWTM 207.0° / 224.0°
Efficiency 95 %
Peak intensity 0.3 cd/lm
LEDs/each optic 1
Light colour/type IR
Required components:



Light distribution files

OSRAM
Opto Semiconductors

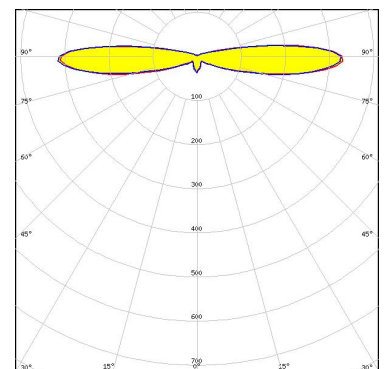
LED SFH 4770S
FWHM / FWTM 185.0° / 212.0°
Efficiency 95 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type IR
Required components:



Light distribution files

SAMSUNG

LED LH351C
FWHM / FWTM 196.0° / 215.0°
Efficiency 96 %
Peak intensity 0.3 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

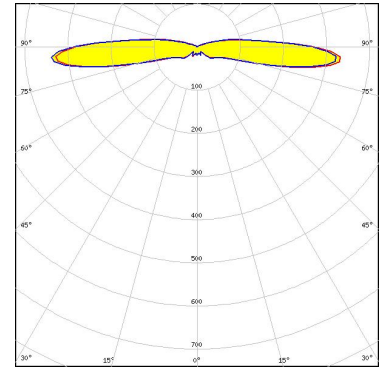


Light distribution files

OPTICAL RESULTS (SIMULATED):

SAMSUNG

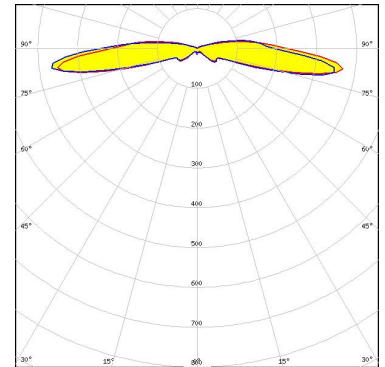
LED LH351D
FWHM / FWTM 190.0° / 216.0°
Efficiency 94 %
Peak intensity 0.3 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



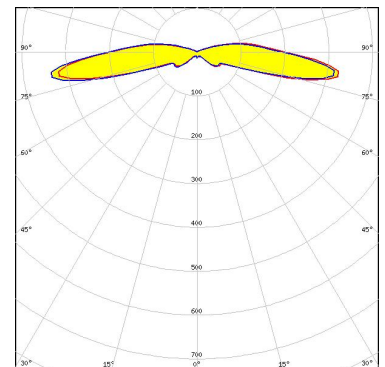
LED MJT 3030
FWHM / FWTM 184.0° / 212.0°
Efficiency 95 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files




LED Z5M4
FWHM / FWTM 184.0° / 216.0°
Efficiency 95 %
Peak intensity 0.3 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

OPTICAL RESULTS (SIMULATED):

 SEUL SEMICONDUCTOR	
LED	Z8Y22P
FWHM / FWTM	181.4° / 210.6°
Efficiency	94 %
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.

LEDiL Oy assumes neither warranty, nor guarantee nor any other liability of any kind for the contents and correctness of the provided data. The provided data has been generated with highest diligence but the provided data may in reality not represent the complete possible variation range of all intrinsic parameters. Therefore, in certain cases a deviation from the provided data could occur.

LEDiL Oy reserves the right to undertake technical changes of its products without further notification which could lead to changes in the provided data. LEDiL Oy assumes no liability of any kind for the possible deviation from any provided data or any other damage resulting from the usage of the provided data.

The user agrees to this disclaimer and user agreement with the download or usage of the provided files.

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

[www.ledil.com/
where_to_buy](http://www.ledil.com/where_to_buy)

Shipping locations

Poznan, Poland
Hong Kong, China

Distribution Partners

[www.ledil.com/
where_to_buy](http://www.ledil.com/where_to_buy)