

## HB-2X2-RS

~10° spot beam

### SPECIFICATION:

Dimensions	50.0 x 50.0
Height	10 mm
Fastening	screw
ROHS compliant	yes ⓘ

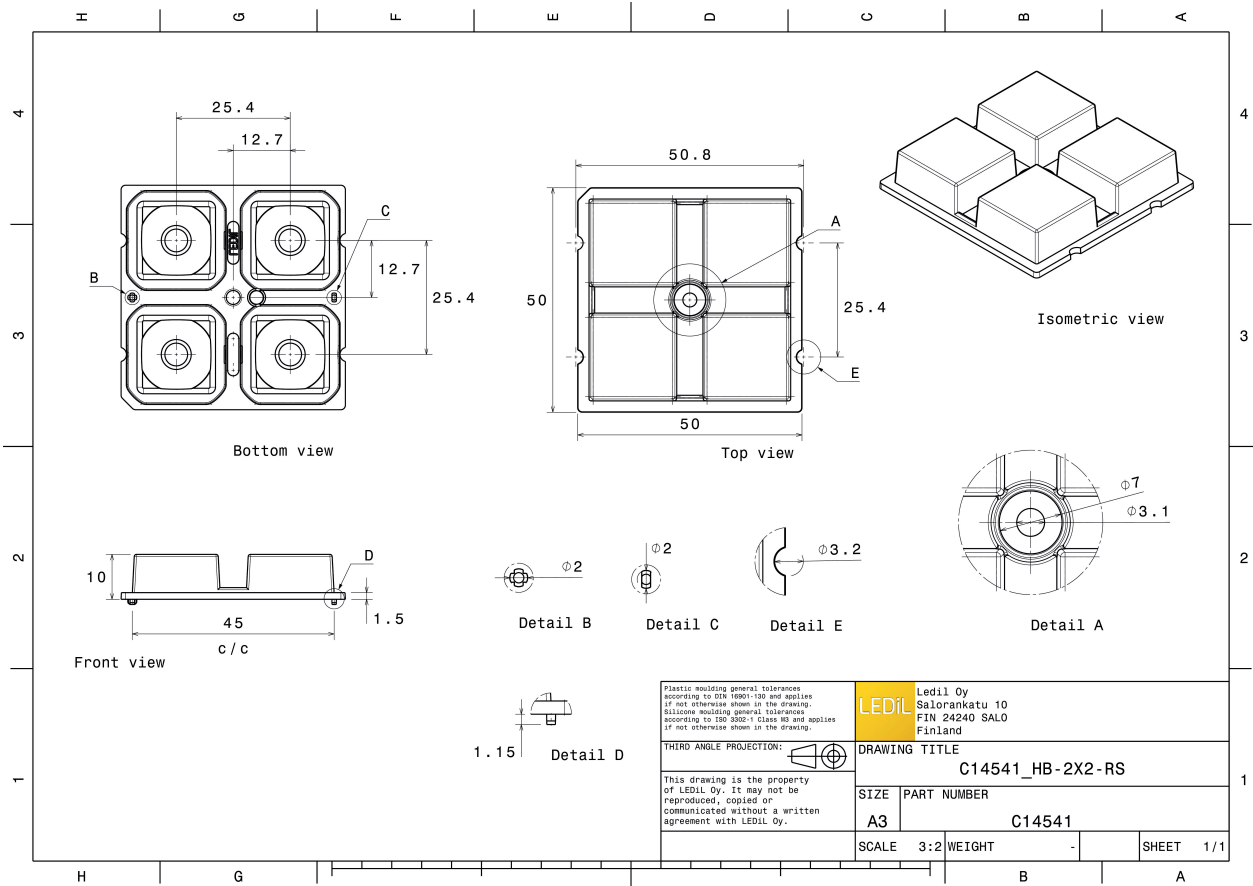
### MATERIALS:

Component	Type	Material	Colour	Finish	Length (mm)
HB-2X2-RS	Multi-lens	PMMA	clear		



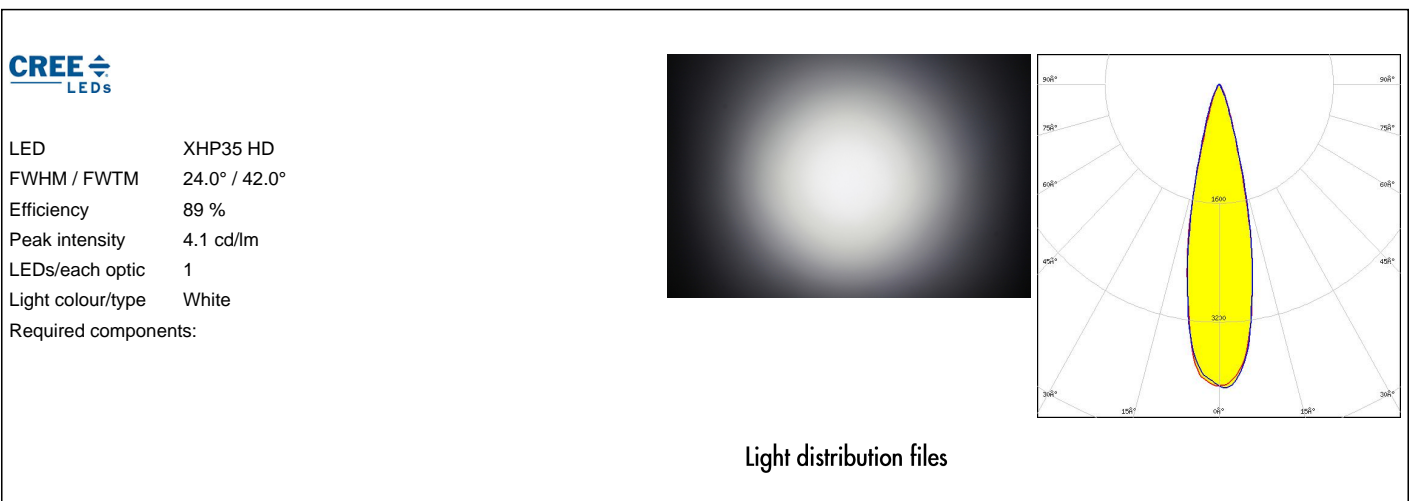
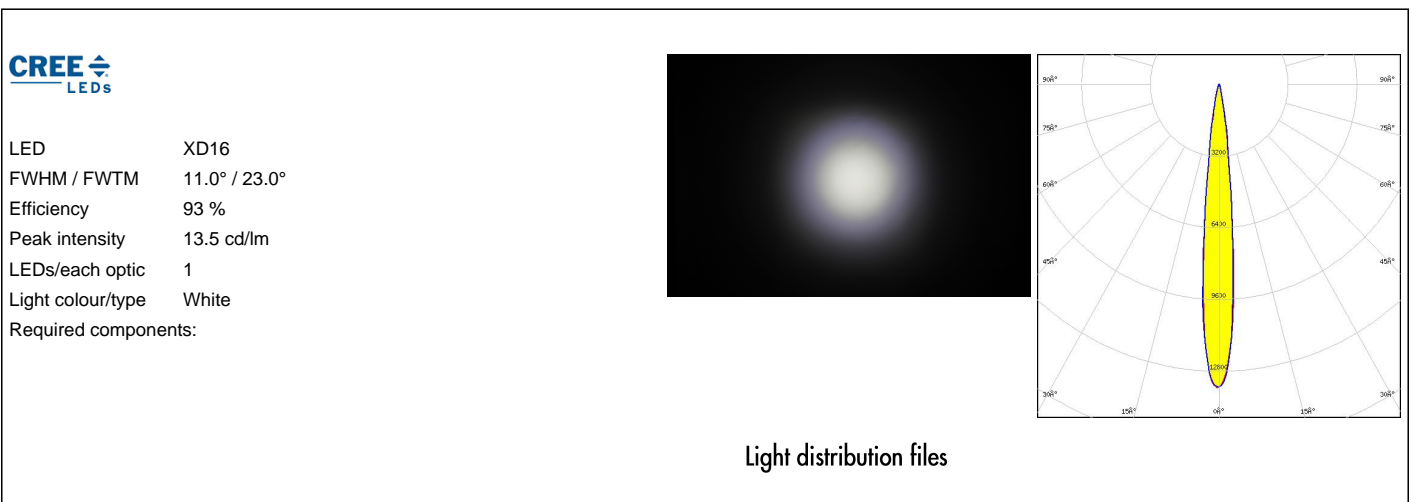
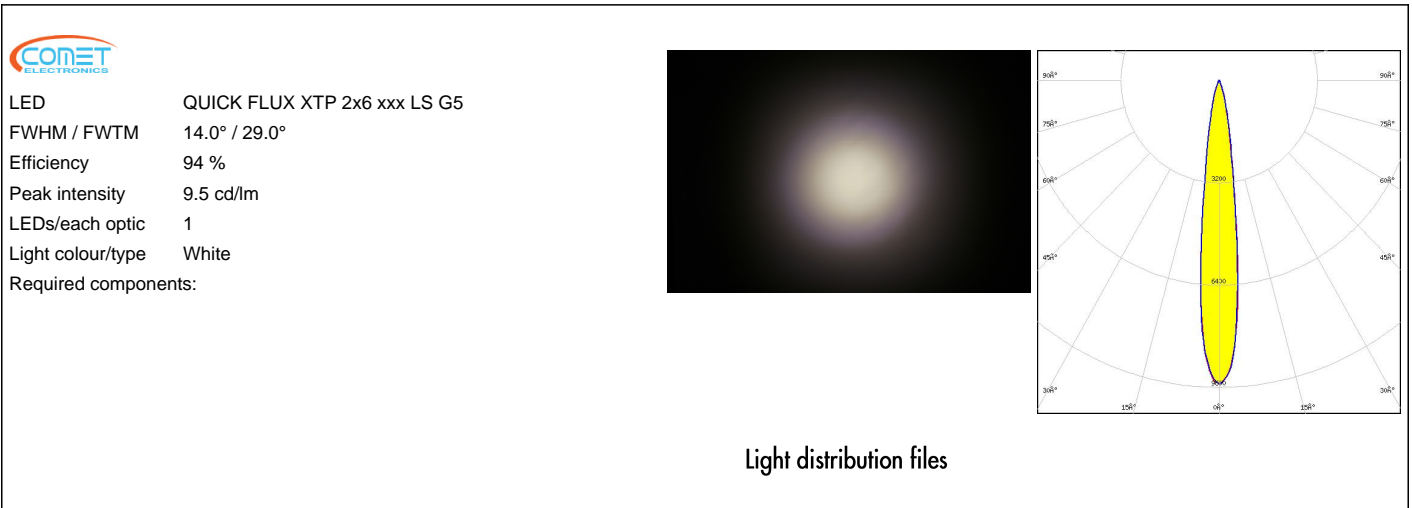
### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
C14541_HB-2X2-RS » Box size: 480 x 280 x 300 mm	800	160	160	10.2



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

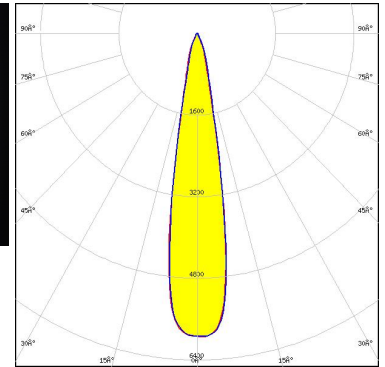
#### OPTICAL RESULTS (MEASURED):



### OPTICAL RESULTS (MEASURED):



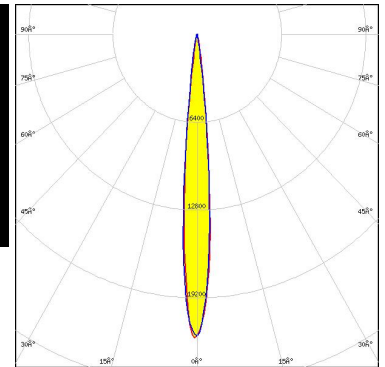
LED XM-L3  
 FWHM / FWTM 20.0° / 36.0°  
 Efficiency 96 %  
 Peak intensity 6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



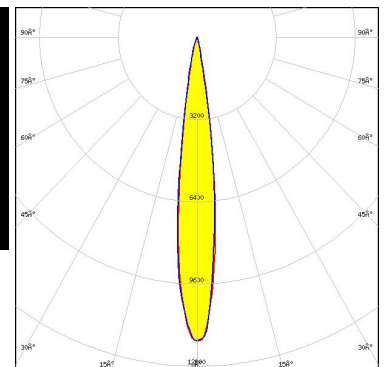
LED XP-E2  
 FWHM / FWTM 10.0° / 18.0°  
 Efficiency 94 %  
 Peak intensity 22.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED XP-G2  
 FWHM / FWTM 14.0° / 25.0°  
 Efficiency 94 %  
 Peak intensity 11.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

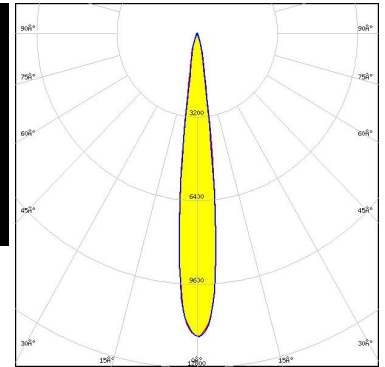


Light distribution files

#### OPTICAL RESULTS (MEASURED):



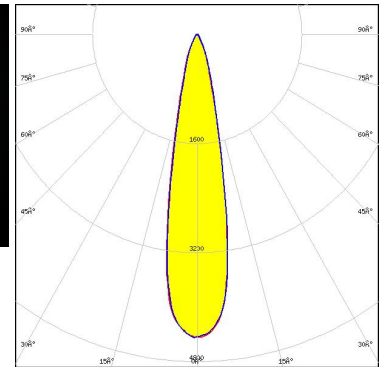
LED XP-L HI  
 FWHM / FWTM 13.0° / 25.0°  
 Efficiency 94 %  
 Peak intensity 11.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



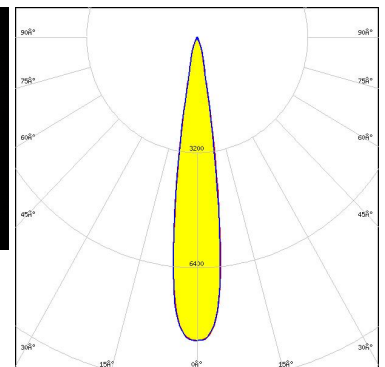
LED XP-L2  
 FWHM / FWTM 21.0° / 43.0°  
 Efficiency 94 %  
 Peak intensity 4.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED PL-BRICK HP 3800 2x8 SSG  
 FWHM / FWTM 16.0° / 28.0°  
 Efficiency 95 %  
 Peak intensity 8.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

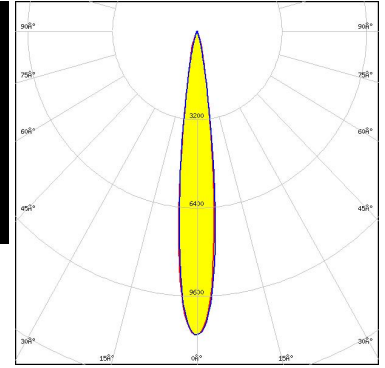
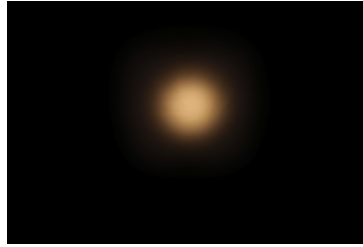


Light distribution files

#### OPTICAL RESULTS (MEASURED):

#### inventronics

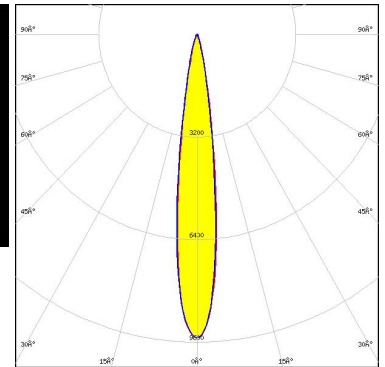
LED PrevaLED Core Z3 LES9  
 FWHM / FWTM 13.5° / 26.0°  
 Efficiency 95 %  
 Peak intensity 11 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

#### LUMILEDS

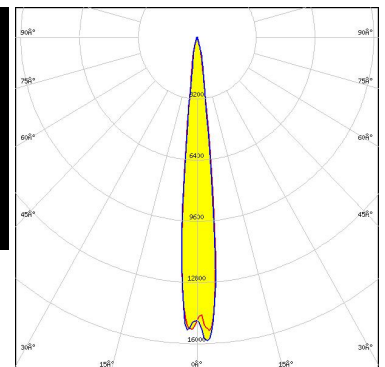
LED LUXEON V2  
 FWHM / FWTM 15.0° / 28.0°  
 Efficiency 94 %  
 Peak intensity 9.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

#### LUMINUS

LED SST-10-B130  
 FWHM / FWTM 12.0° / 21.0°  
 Efficiency 96 %  
 Peak intensity 15.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type Deep Red  
 Required components:

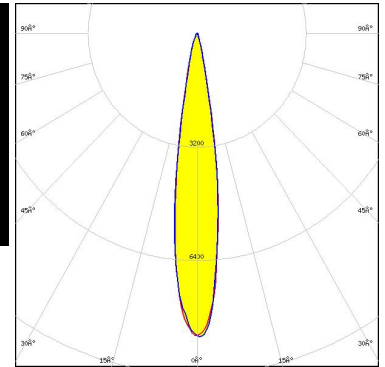


Light distribution files

#### OPTICAL RESULTS (MEASURED):



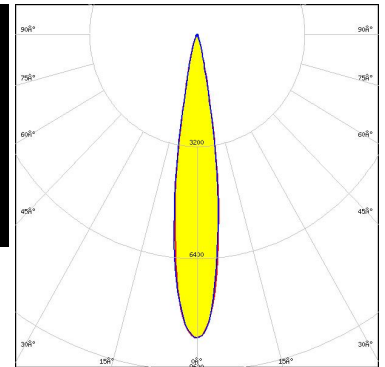
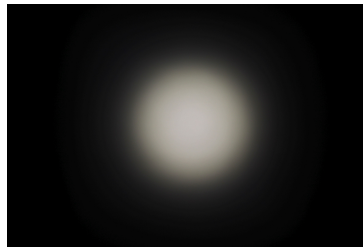
LED NVSW219D  
 FWHM / FWTM 17.0° / 29.0°  
 Efficiency 94 %  
 Peak intensity 8.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



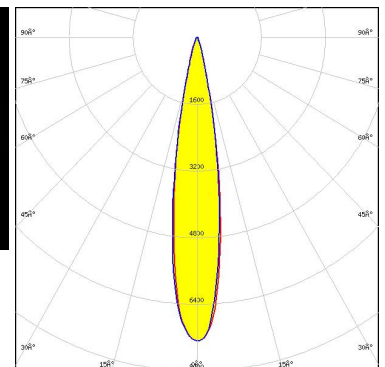
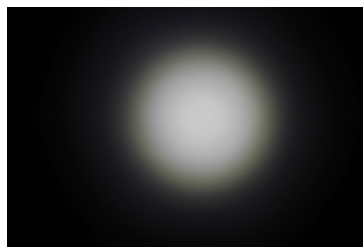
LED NVSW219F  
 FWHM / FWTM 17.0° / 29.0°  
 Efficiency 94 %  
 Peak intensity 8.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED NVSW319B  
 FWHM / FWTM 18.0° / 32.0°  
 Efficiency 94 %  
 Peak intensity 7.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

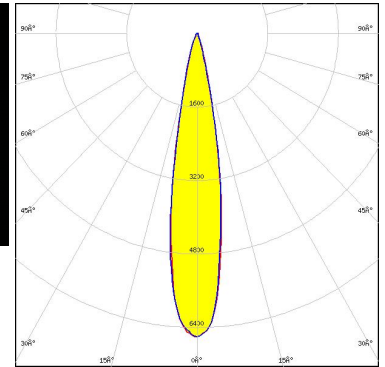


Light distribution files

#### OPTICAL RESULTS (MEASURED):



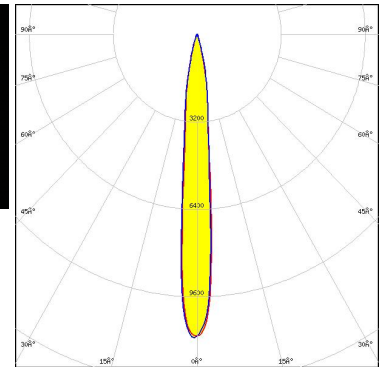
LED NVSW3x9A  
 FWHM / FWTM 19.0° / 33.0°  
 Efficiency 94 %  
 Peak intensity 6.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



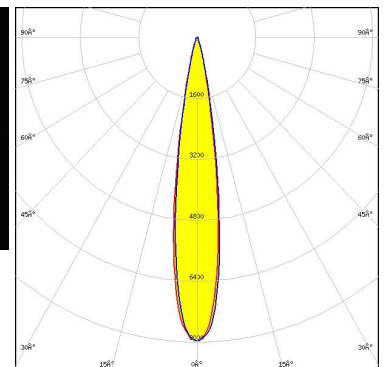
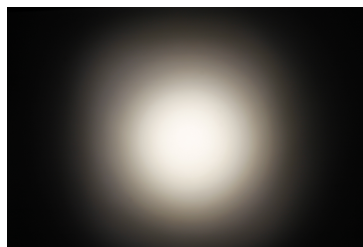
LED NVSxE21A  
 FWHM / FWTM 11.0° / 28.0°  
 Efficiency 89 %  
 Peak intensity 11.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED NVSxx19B/NVSxx19C  
 FWHM / FWTM 17.0° / 30.0°  
 Efficiency 93 %  
 Peak intensity 8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



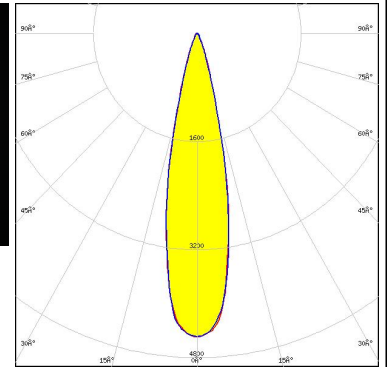
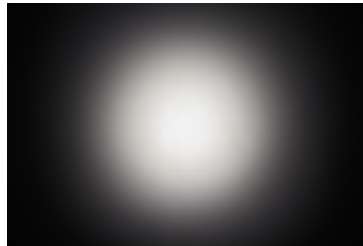
Light distribution files



#### OPTICAL RESULTS (MEASURED):



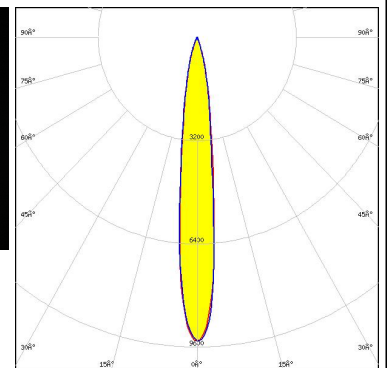
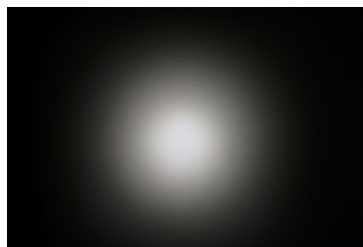
LED NWSx229A  
 FWHM / FWTM 23.0° / 41.0°  
 Efficiency 94 %  
 Peak intensity 4.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



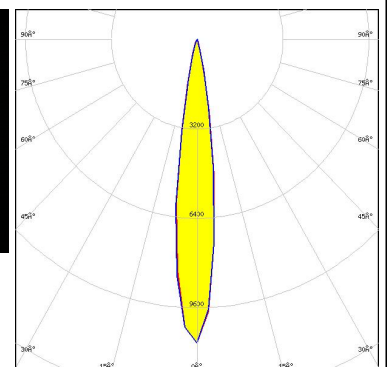
LED OSCONIQ C 3030  
 FWHM / FWTM 13.0° / 31.0°  
 Efficiency 95 %  
 Peak intensity 9.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED OSLON Square CSSRM2/CSSRM3  
 FWHM / FWTM 15.0° / 27.0°  
 Efficiency 90 %  
 Peak intensity 11 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

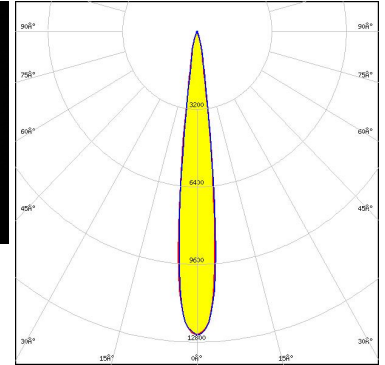


Light distribution files

### OPTICAL RESULTS (MEASURED):

#### PHILIPS

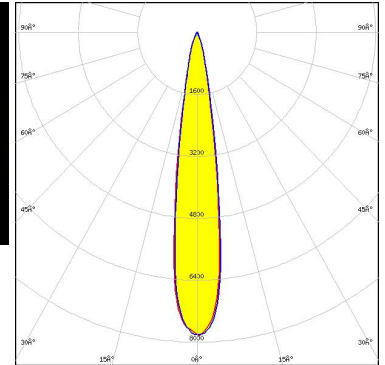
LED Fortimo FastFlex LED 2x8 DA G4  
 FWHM / FWTM 13.0° / 23.0°  
 Efficiency 93 %  
 Peak intensity 12.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

#### PHILIPS

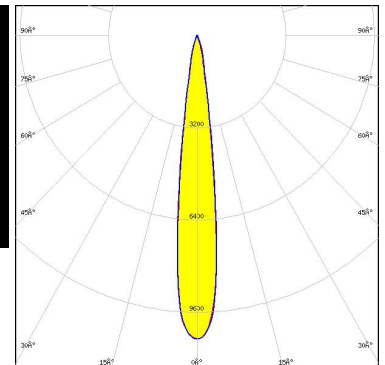
LED Fortimo FastFlex LED 2x8 DA G4+  
 FWHM / FWTM 17.0° / 32.0°  
 Efficiency 96 %  
 Peak intensity 7.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

#### PHILIPS

LED Fortimo FastFlex LED 2x8 DA G5  
 FWHM / FWTM 14.0° / 27.0°  
 Efficiency 96 %  
 Peak intensity 10.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

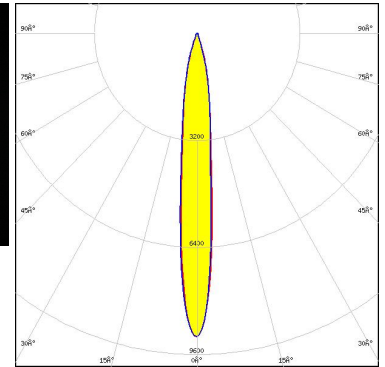


Light distribution files

#### OPTICAL RESULTS (MEASURED):

### SAMSUNG

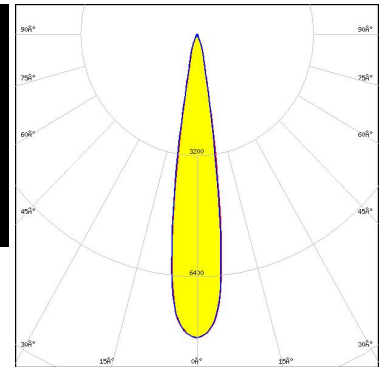
LED HiLOM RC12 Z (LH181B)  
 FWHM / FWTM 12.0° / 33.0°  
 Efficiency 97 %  
 Peak intensity 9.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

### SAMSUNG

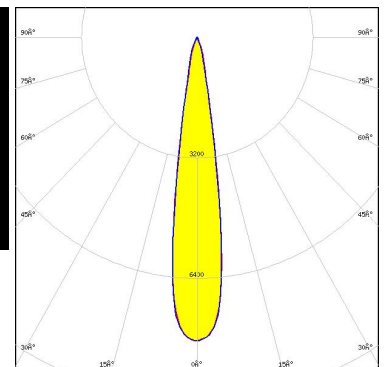
LED HiLOM RH12 Z (LH351C)  
 FWHM / FWTM 17.0° / 29.0°  
 Efficiency 96 %  
 Peak intensity 8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

### SAMSUNG

LED HiLOM RH16 (LH351C)  
 FWHM / FWTM 17.0° / 30.0°  
 Efficiency 94 %  
 Peak intensity 8.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

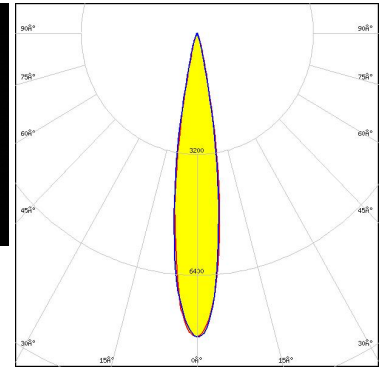


Light distribution files

#### OPTICAL RESULTS (MEASURED):

### SAMSUNG

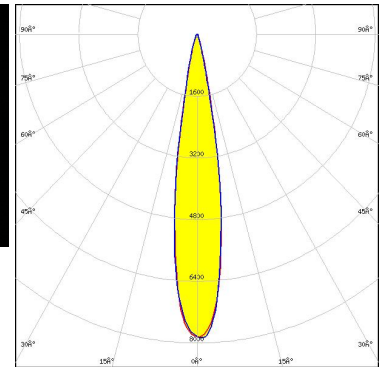
LED LH351B  
 FWHM / FWTM 17.0° / 29.0°  
 Efficiency 89 %  
 Peak intensity 8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

### SAMSUNG

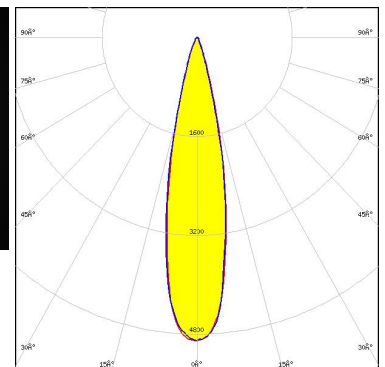
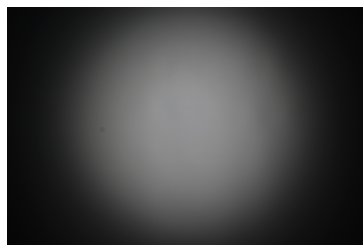
LED LH351C  
 FWHM / FWTM 18.0° / 30.0°  
 Efficiency 94 %  
 Peak intensity 7.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

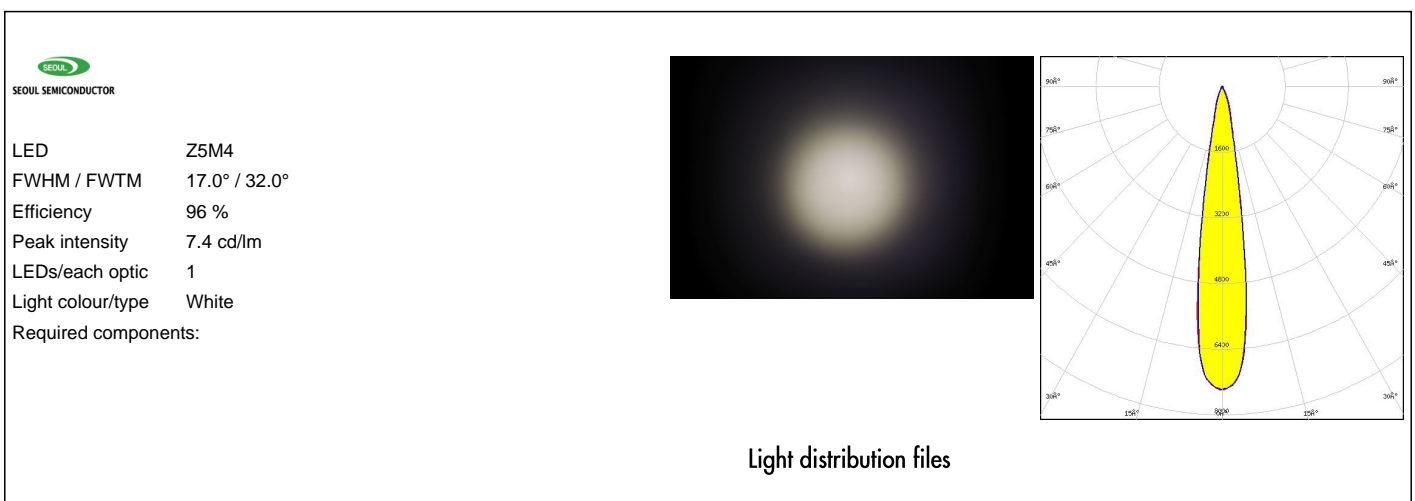
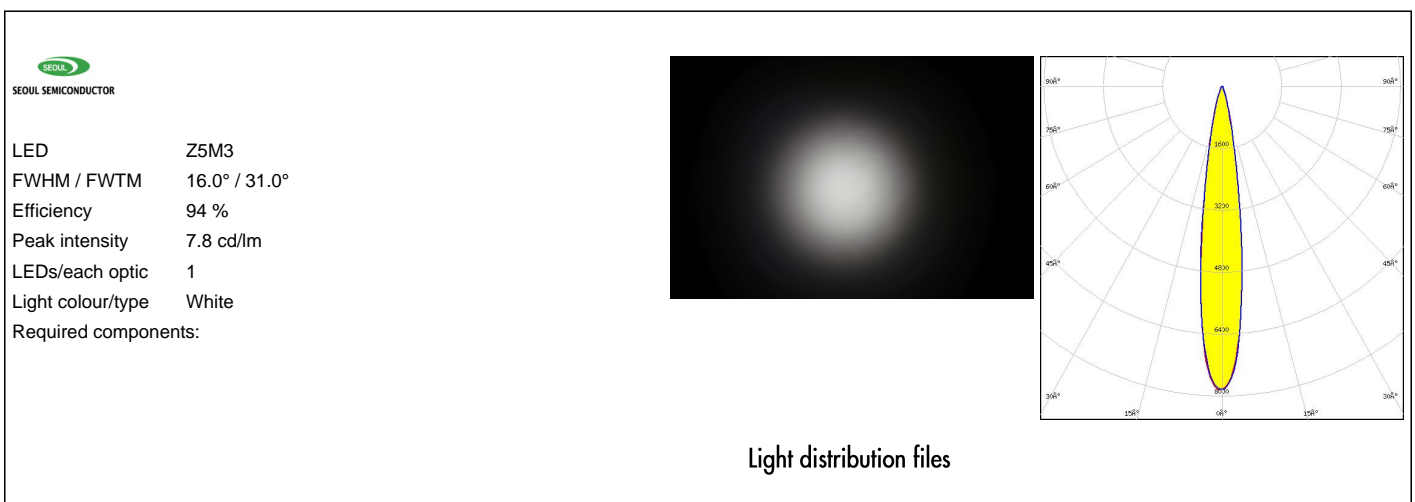
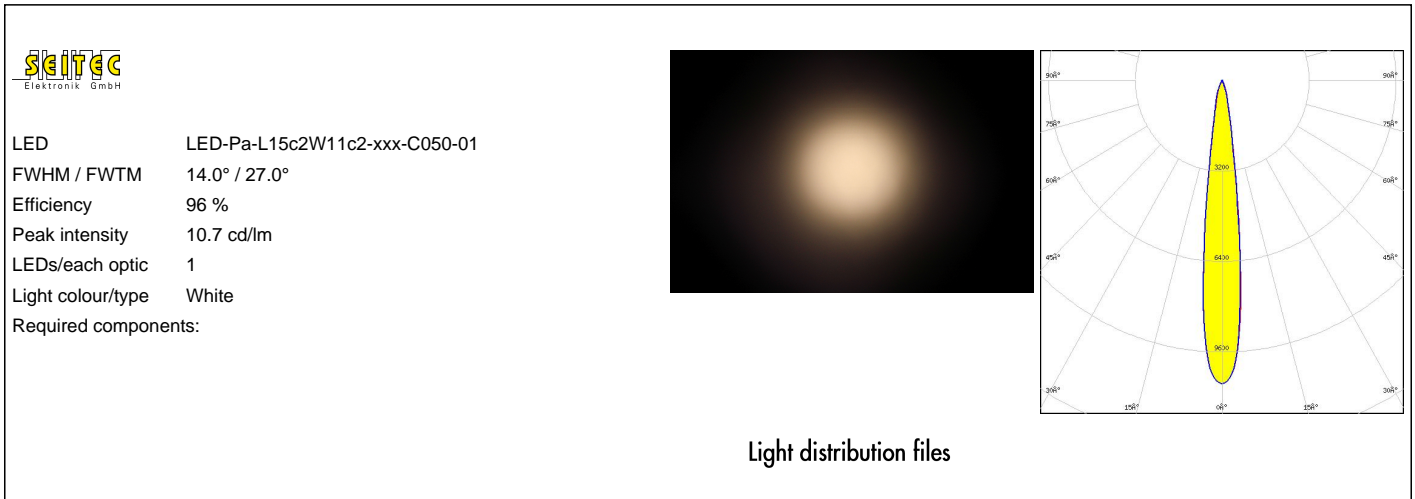
### SAMSUNG

LED LH351D  
 FWHM / FWTM 22.0° / 38.0°  
 Efficiency 94 %  
 Peak intensity 4.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

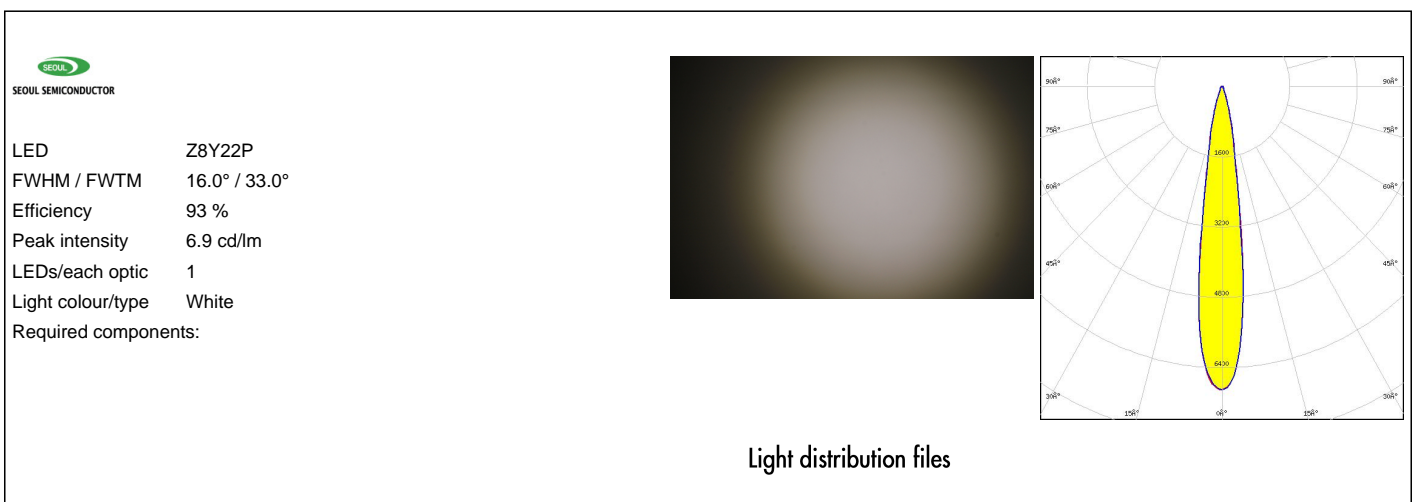
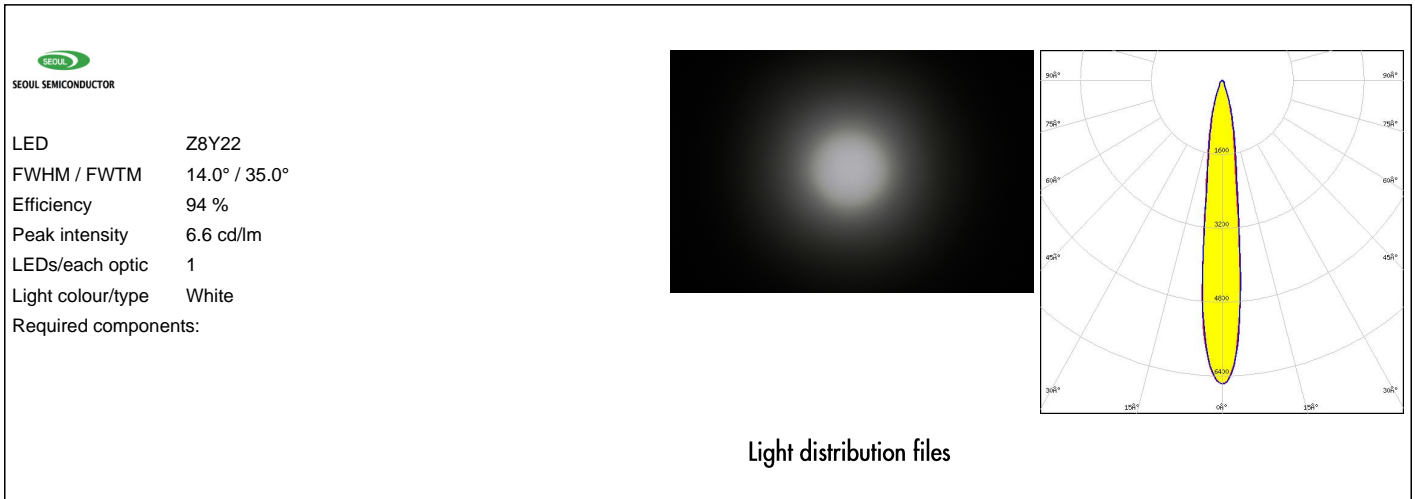


Light distribution files

### OPTICAL RESULTS (MEASURED):



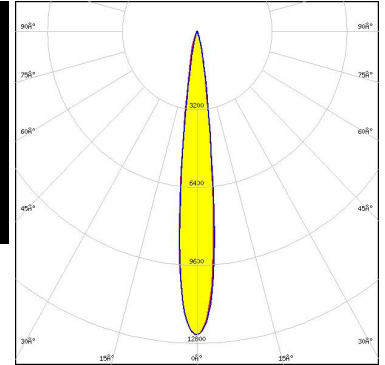
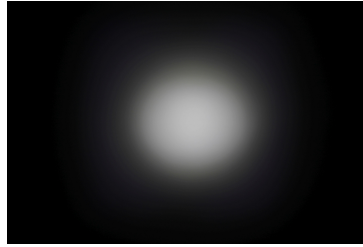
#### OPTICAL RESULTS (MEASURED):



#### OPTICAL RESULTS (MEASURED):

### TRIDONIC

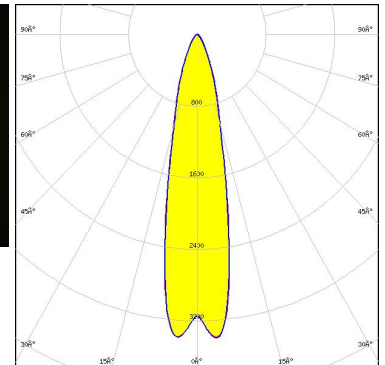
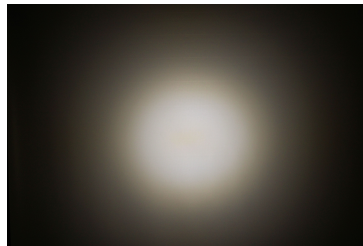
LED RLE 2x8 4000lm HP EXC2 OTD  
 FWHM / FWTM 13.0° / 25.0°  
 Efficiency 94 %  
 Peak intensity 12.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

### TRIDONIC

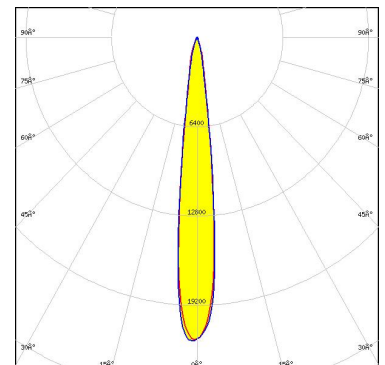
LED RLE 2x8 6000lm HP HE EXC3 OTD  
 FWHM / FWTM 23.0° / 51.0°  
 Efficiency 97 %  
 Peak intensity 3.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

### TRIDONIC

LED RLE G1 49x121mm 2000lm xxx EXC OTD  
 FWHM / FWTM 13.0° / 27.0°  
 Efficiency 94 %  
 Peak intensity 10.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

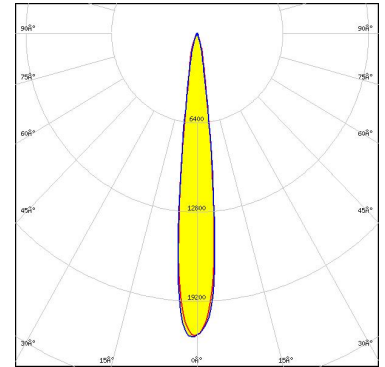


Light distribution files

#### OPTICAL RESULTS (MEASURED):

### TRIDONIC

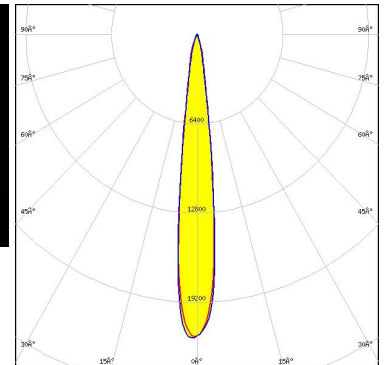
LED RLE G1 49x133mm 2000lm xxx EXC OTD  
 FWHM / FWTM 13.0° / 27.0°  
 Efficiency 94 %  
 Peak intensity 10.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

### TRIDONIC

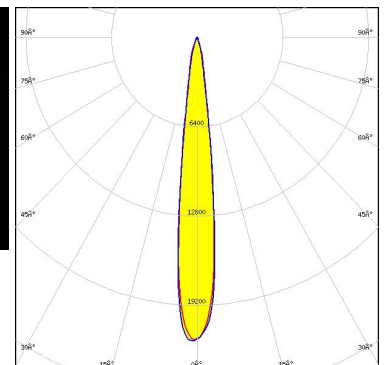
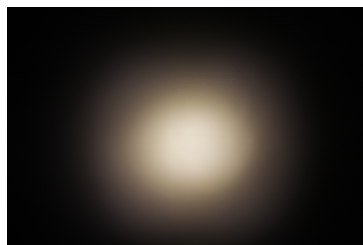
LED RLE G1 49x223mm 4000lm xxx EXC OTD  
 FWHM / FWTM 13.0° / 27.0°  
 Efficiency 94 %  
 Peak intensity 10.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

### TRIDONIC

LED RLE G1 49x245mm 4000lm xxx EXC OTD  
 FWHM / FWTM 13.0° / 27.0°  
 Efficiency 94 %  
 Peak intensity 10.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



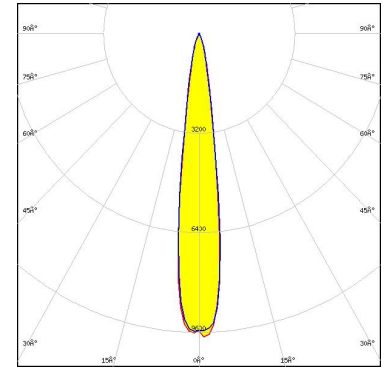
Light distribution files



### OPTICAL RESULTS (SIMULATED):



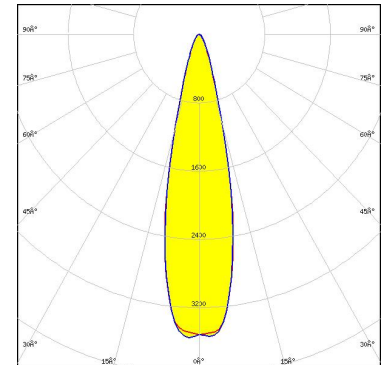
LED XHP35 HI  
 FWHM / FWTM 14.0° / 29.0°  
 Efficiency 93 %  
 Peak intensity 9.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



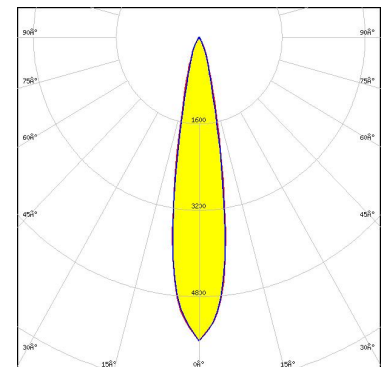
LED XHP35.2 HD  
 FWHM / FWTM 24.0° / 46.0°  
 Efficiency 93 %  
 Peak intensity 3.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED XM-L  
 FWHM / FWTM 19.0° / 38.0°  
 Efficiency 92 %  
 Peak intensity 5.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

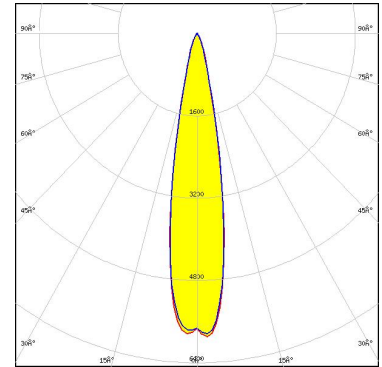


Light distribution files

### OPTICAL RESULTS (SIMULATED):



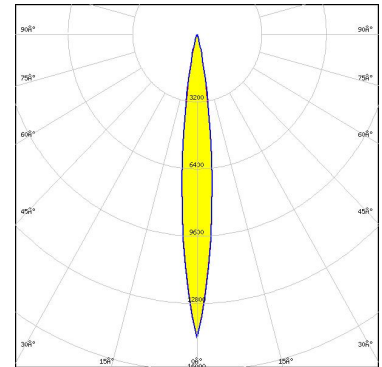
LED XM-L2  
 FWHM / FWTM 18.0° / 34.0°  
 Efficiency 94 %  
 Peak intensity 6.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



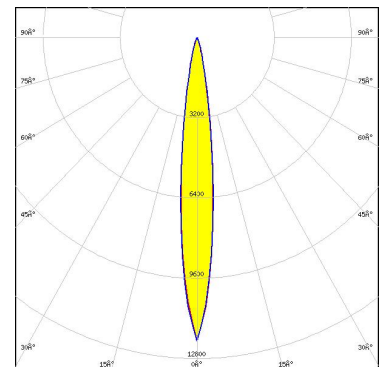
LED XP-E2  
 FWHM / FWTM 12.0° / 26.0°  
 Efficiency 95 %  
 Peak intensity 14.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type Red  
 Required components:



Light distribution files



LED XP-G  
 FWHM / FWTM 13.0° / 27.0°  
 Efficiency 93 %  
 Peak intensity 12.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

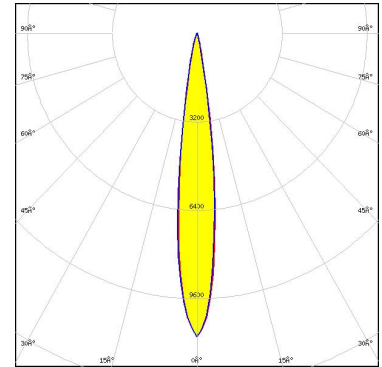
### OPTICAL RESULTS (SIMULATED):



LED XP-G2  
 FWHM / FWTM 14.0° / 26.0°  
 Efficiency 89 %  
 Peak intensity 11 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

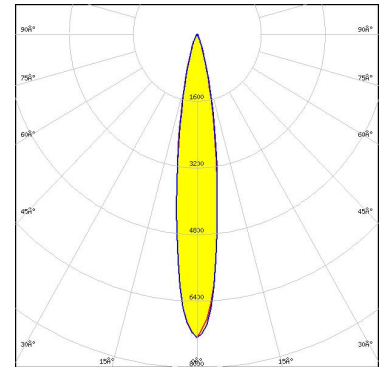
Protective plate, glass

Light distribution files



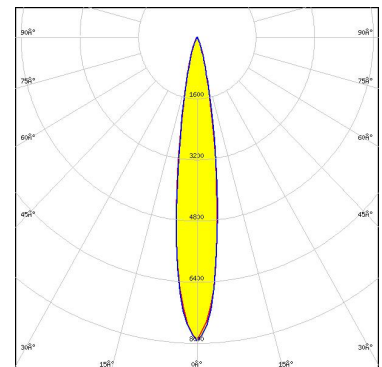
LED XP-G2 HE  
 FWHM / FWTM 16.0° / 34.0°  
 Efficiency 94 %  
 Peak intensity 7.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

Light distribution files



LED XP-G3  
 FWHM / FWTM 16.0° / 33.0°  
 Efficiency 94 %  
 Peak intensity 7.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

Light distribution files



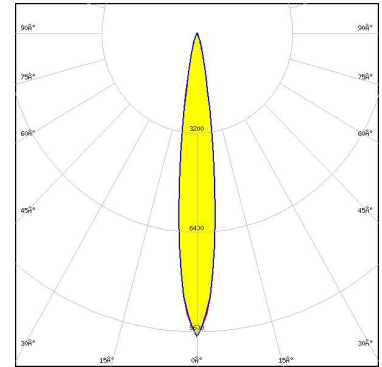
#### OPTICAL RESULTS (SIMULATED):



LED XP-G4  
 FWHM / FWTM 14.0° / 28.0°  
 Efficiency 88 %  
 Peak intensity 9.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

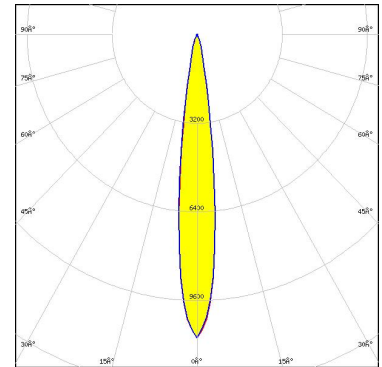
Protective plate, glass

Light distribution files

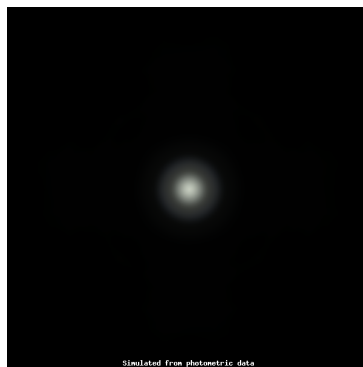


LED XP-G4  
 FWHM / FWTM 14.0° / 26.0°  
 Efficiency 95 %  
 Peak intensity 11 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

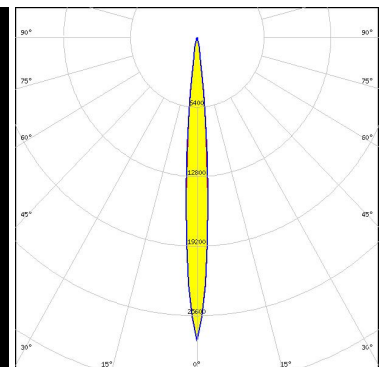
Light distribution files



LED XP-GR  
 FWHM / FWTM 8.0° / 18.0°  
 Efficiency 95 %  
 Peak intensity 27.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



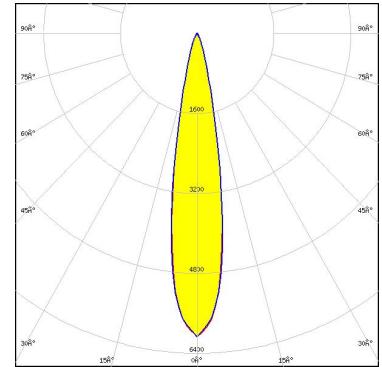
#### OPTICAL RESULTS (SIMULATED):



LED XP-L HD  
 FWHM / FWTM 18.0° / 34.0°  
 Efficiency 90 %  
 Peak intensity 6.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

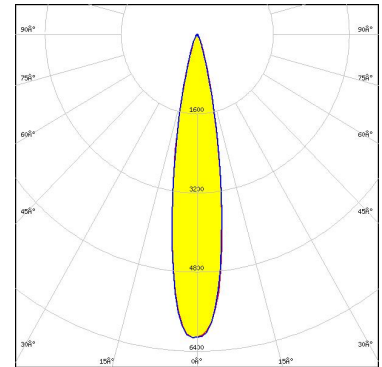
Protective plate, glass

Light distribution files



LED XP-L HD  
 FWHM / FWTM 19.0° / 35.0°  
 Efficiency 94 %  
 Peak intensity 6.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

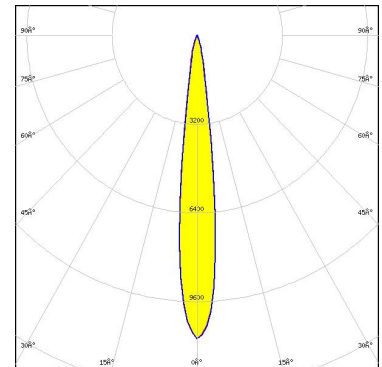
Light distribution files



LED XP-L HI  
 FWHM / FWTM 13.0° / 25.0°  
 Efficiency 89 %  
 Peak intensity 10.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

Protective plate, glass

Light distribution files



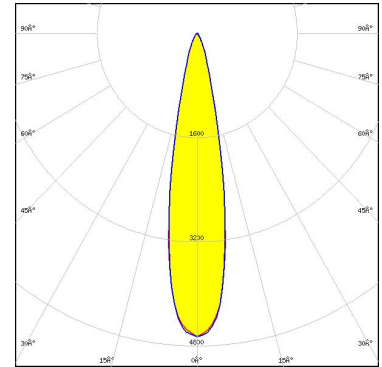
### OPTICAL RESULTS (SIMULATED):



LED XP-L2  
 FWHM / FWTM 20.0° / 40.0°  
 Efficiency 89 %  
 Peak intensity 4.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

Protective plate, glass

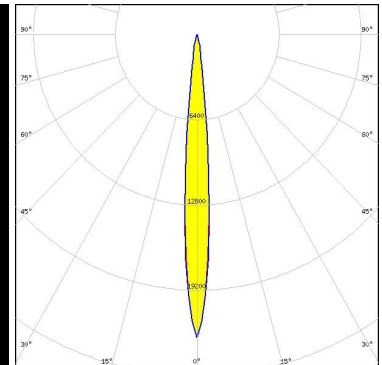
Light distribution files



LED XP-LR  
 FWHM / FWTM 10.0° / 18.0°  
 Efficiency 95 %  
 Peak intensity 22.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

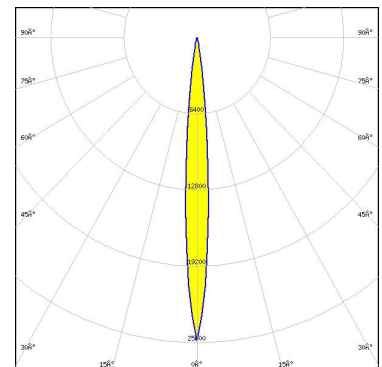


Light distribution files



LED XP-P  
 FWHM / FWTM 8.0° / 18.0°  
 Efficiency 95 %  
 Peak intensity 25.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

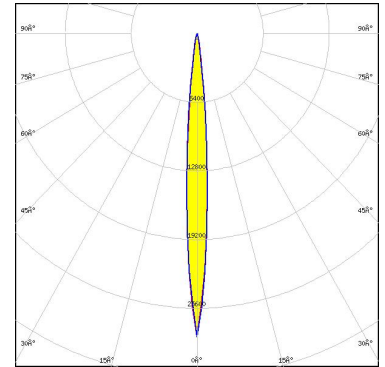
Light distribution files



### OPTICAL RESULTS (SIMULATED):



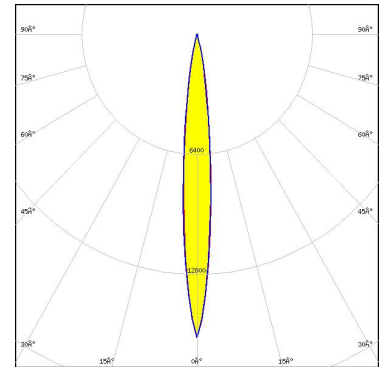
LED XQ-E HI  
FWHM / FWTM 8.0° / 18.0°  
Efficiency 94 %  
Peak intensity 28.3 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



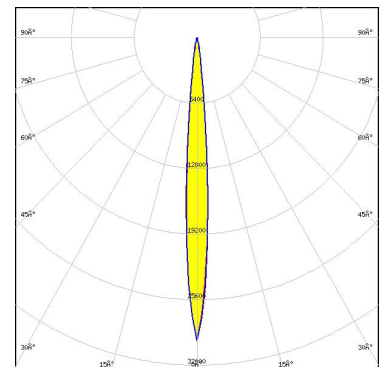
LED LUXEON C  
FWHM / FWTM 11.0° / 24.0°  
Efficiency 94 %  
Peak intensity 16.2 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED LUXEON CZ  
FWHM / FWTM 8.0° / 16.0°  
Efficiency 93 %  
Peak intensity 29.6 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

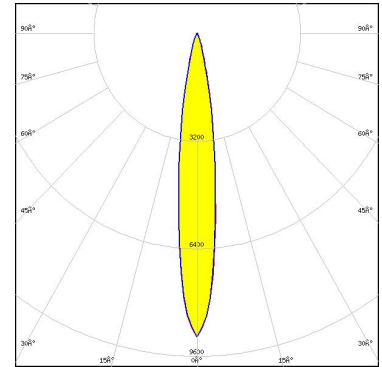


Light distribution files

#### OPTICAL RESULTS (SIMULATED):



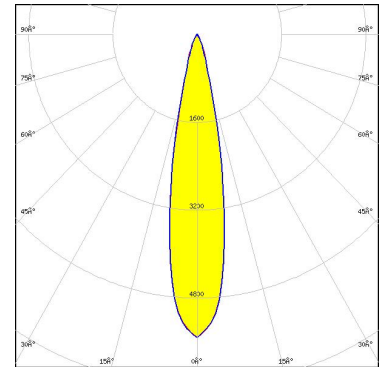
LED LUXEON HL2X  
 FWHM / FWTM 14.0° / 30.0°  
 Efficiency 95 %  
 Peak intensity 9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



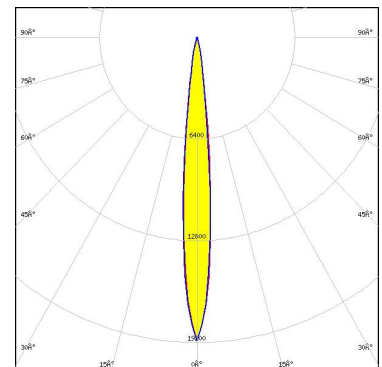
LED LUXEON HL4X  
 FWHM / FWTM 20.0° / 38.0°  
 Efficiency 95 %  
 Peak intensity 5.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



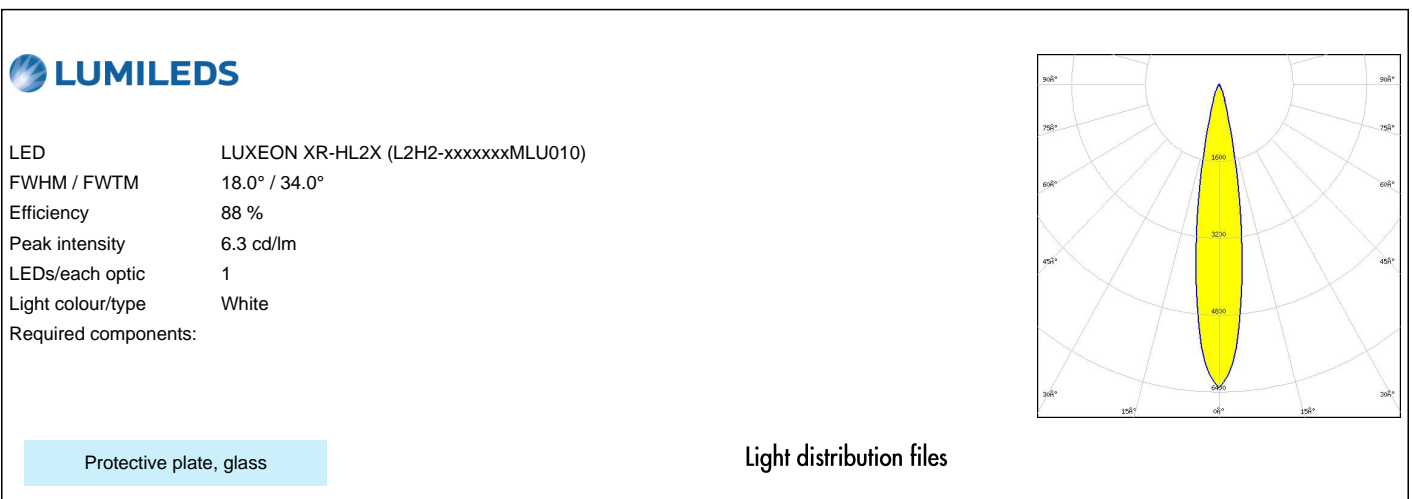
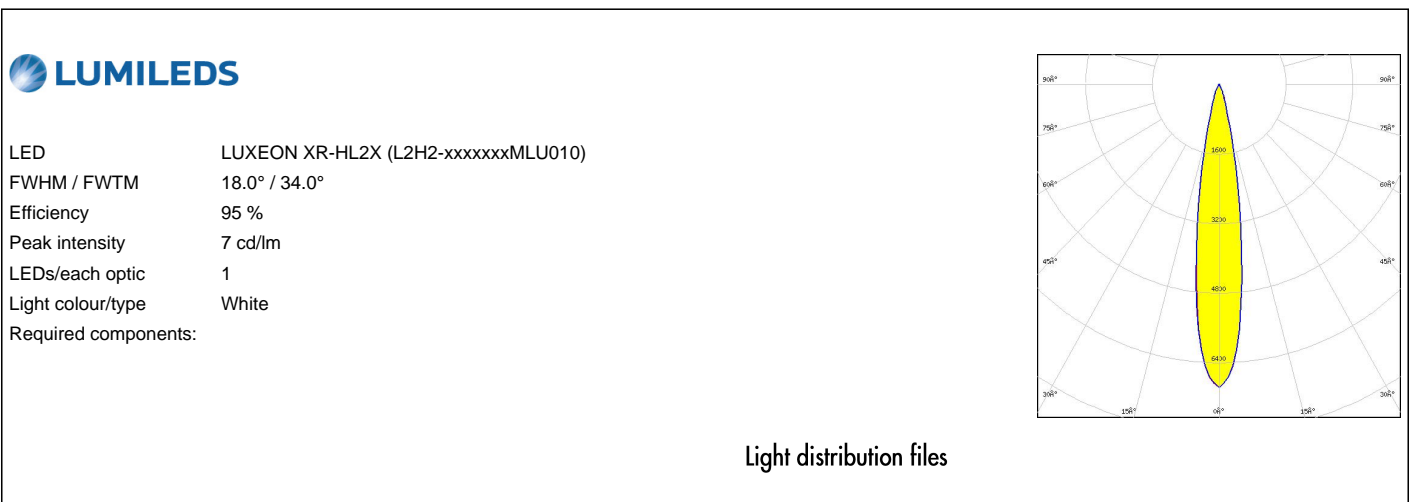
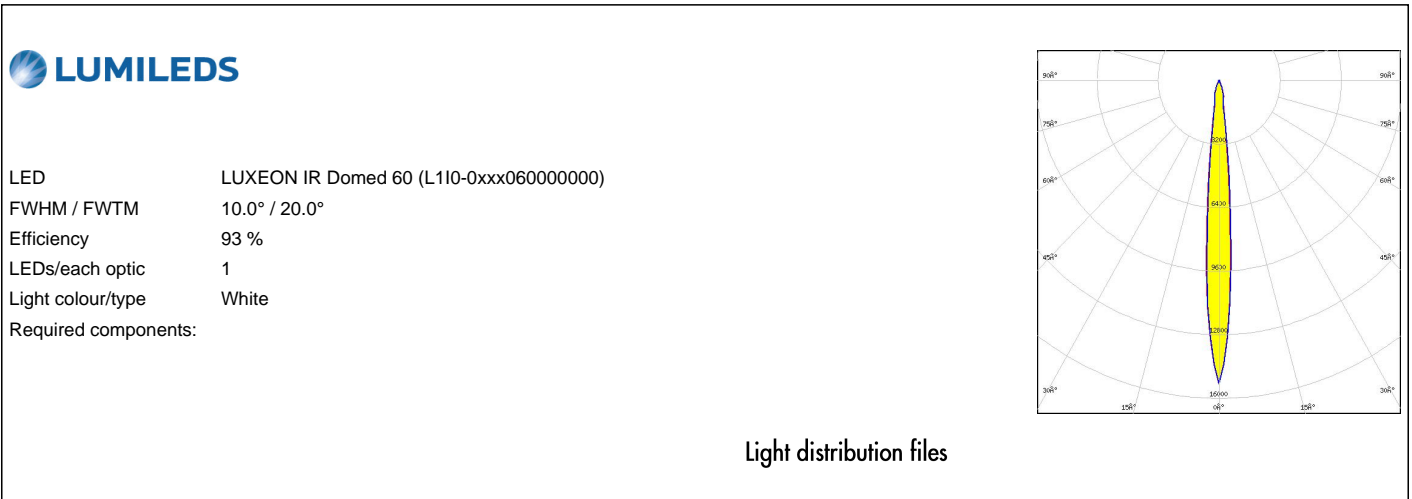
LED LUXEON IR Domed 150 (L110-0xxx150000000)  
 FWHM / FWTM 11.0° / 21.0°  
 Efficiency 94 %  
 Peak intensity 19.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



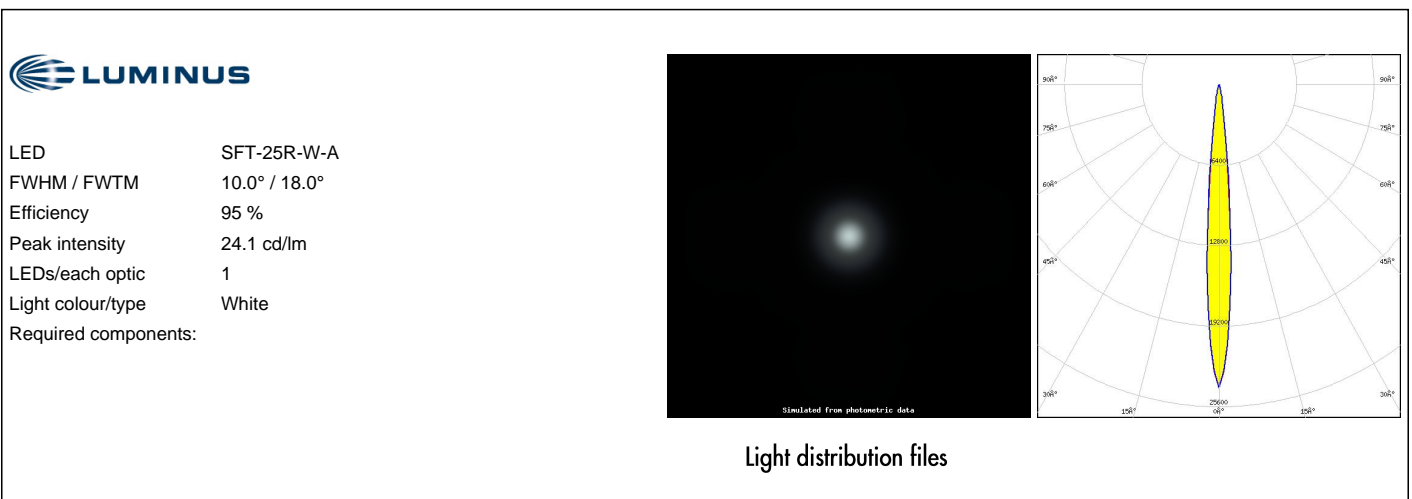
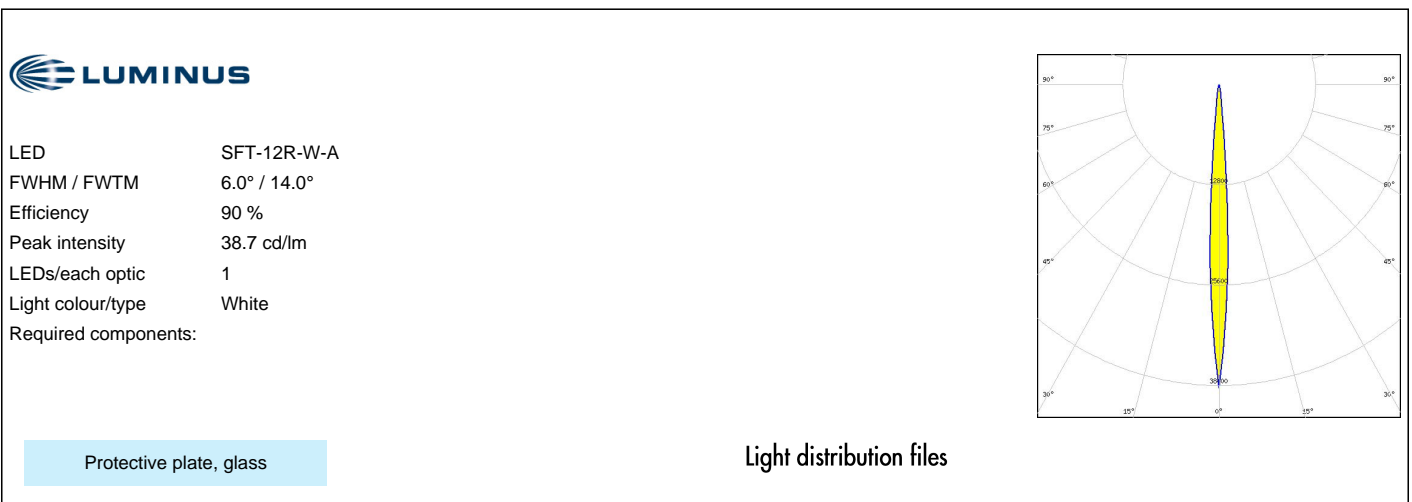
Light distribution files



### OPTICAL RESULTS (SIMULATED):



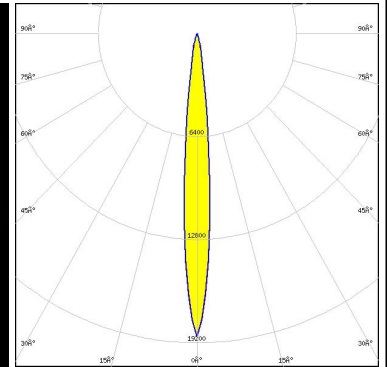
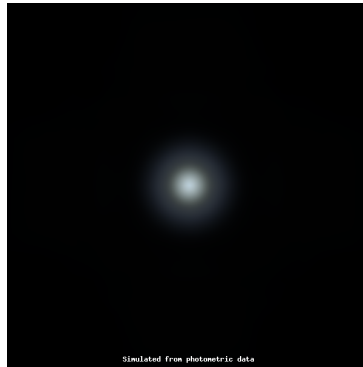
#### OPTICAL RESULTS (SIMULATED):



#### OPTICAL RESULTS (SIMULATED):



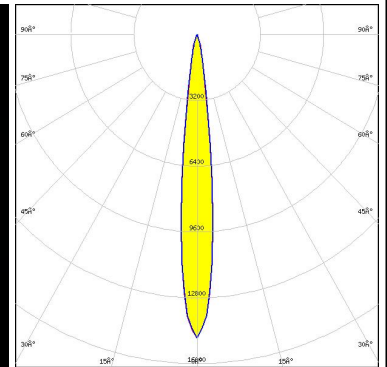
**LED** SST-12 Gen2  
**FWHM / FWTM** 10.0° / 20.0°  
**Efficiency** 95 %  
**Peak intensity** 18.8 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



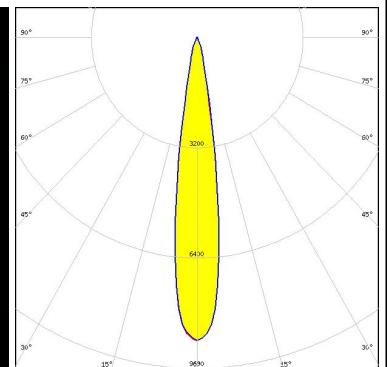
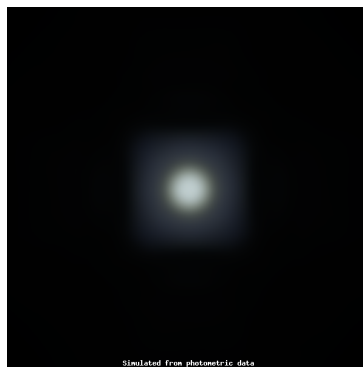
**LED** SST-20 Gen2  
**FWHM / FWTM** 12.0° / 22.0°  
**Efficiency** 96 %  
**Peak intensity** 14.7 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



**LED** SST-20F-W  
**FWHM / FWTM** 16.0° / 28.0°  
**Efficiency** 96 %  
**Peak intensity** 8.8 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**

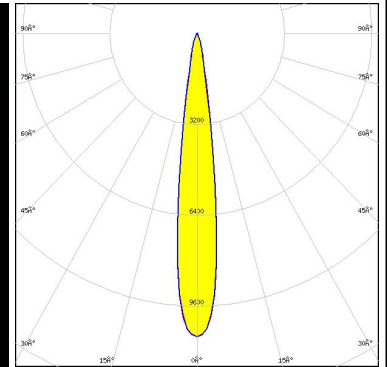
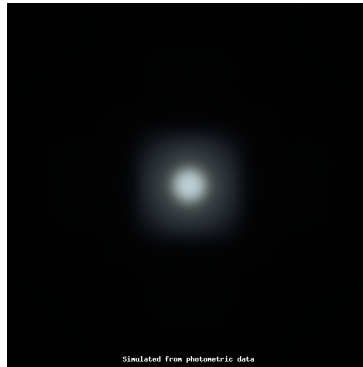


Light distribution files

### OPTICAL RESULTS (SIMULATED):



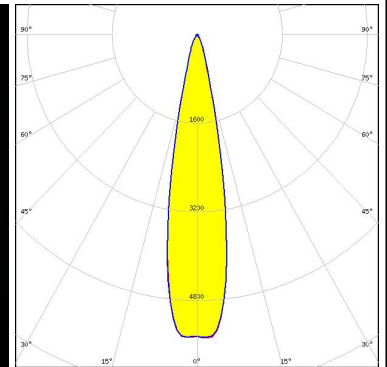
LED SST-25-W  
 FWHM / FWTM 14.0° / 26.0°  
 Efficiency 96 %  
 Peak intensity 10.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



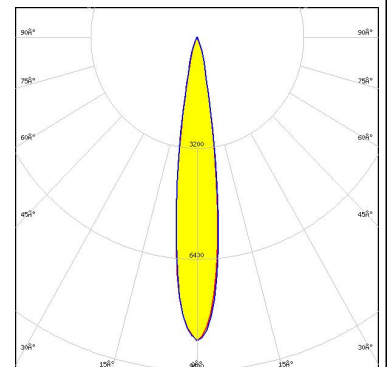
LED SST-36F-W  
 FWHM / FWTM 22.0° / 36.0°  
 Efficiency 96 %  
 Peak intensity 5.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED NVSxx19B/NVSxx19C  
 FWHM / FWTM 16.0° / 30.0°  
 Efficiency 94 %  
 Peak intensity 8.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

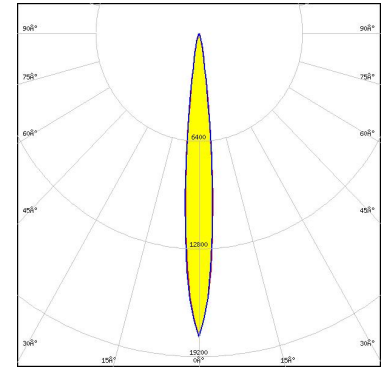


Light distribution files

#### OPTICAL RESULTS (SIMULATED):

**OSRAM**  
Opto Semiconductors

LED OSCONIQ C 2424  
 FWHM / FWTM 10.0° / 20.0 + 21.0°  
 Efficiency 96 %  
 Peak intensity 18 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

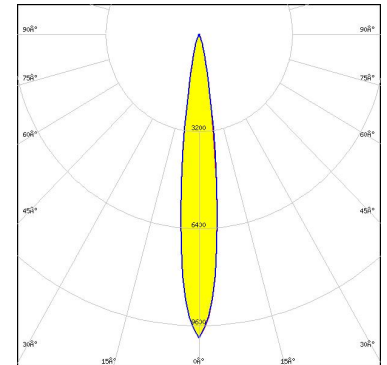


Light distribution files

**OSRAM**  
Opto Semiconductors

LED OSCONIQ C 3030  
 FWHM / FWTM 14.0° / 28.0°  
 Efficiency 88 %  
 Peak intensity 10 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

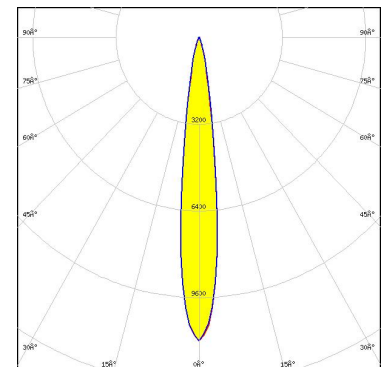
Protective plate, glass



Light distribution files

**OSRAM**  
Opto Semiconductors

LED OSCONIQ C 3030  
 FWHM / FWTM 14.0° / 27.0 + 28.0°  
 Efficiency 96 %  
 Peak intensity 11.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

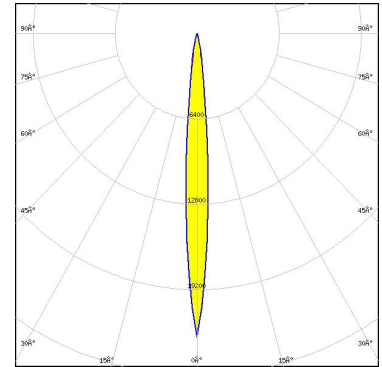


Light distribution files

### OPTICAL RESULTS (SIMULATED):

**OSRAM**  
Opto Semiconductors

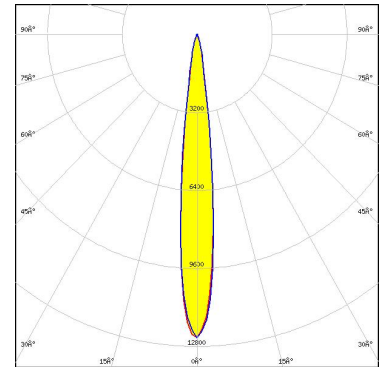
LED OSCONIQ P 3030  
FWHM / FWTM 8.0° / 20.0°  
Efficiency 95 %  
Peak intensity 22.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

LED OSCONIQ P 3737 (2W version)  
FWHM / FWTM 12.0° / 24.0°  
Efficiency 90 %  
Peak intensity 12.5 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

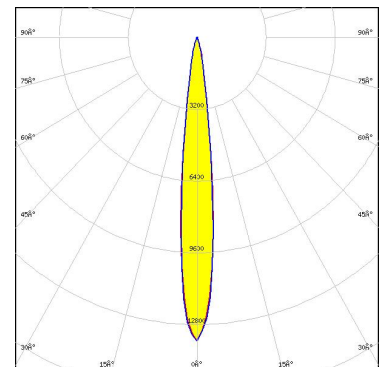


Protective plate, glass

Light distribution files

**OSRAM**  
Opto Semiconductors

LED OSCONIQ P 3737 (2W version)  
FWHM / FWTM 12.0° / 24.0°  
Efficiency 95 %  
Peak intensity 13.5 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

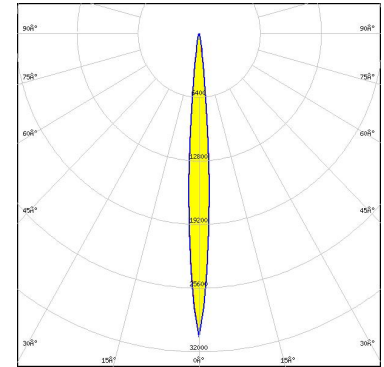


Light distribution files

#### OPTICAL RESULTS (SIMULATED):

**OSRAM**  
Opto Semiconductors

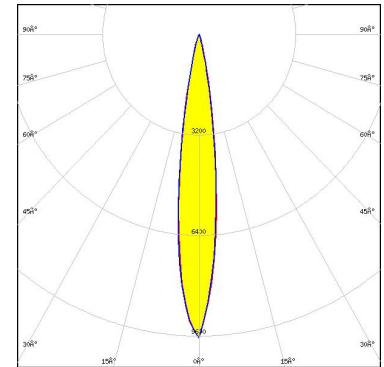
LED OSLON Pure 1414  
 FWHM / FWTM 8.0° / 16.0°  
 Efficiency 95 %  
 Peak intensity 30.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

LED OSLON Square CSSRM2/CSSRM3  
 FWHM / FWTM 15.0° / 27.0°  
 Efficiency 81 %  
 Peak intensity 9.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

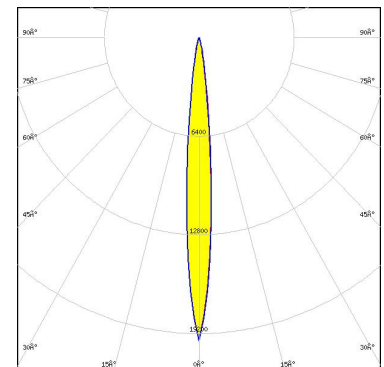


Protective plate, glass

Light distribution files

**OSRAM**  
Opto Semiconductors

LED OSLON Square Flat  
 FWHM / FWTM 10.0° / 20.0°  
 Efficiency 96 %  
 Peak intensity 19.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

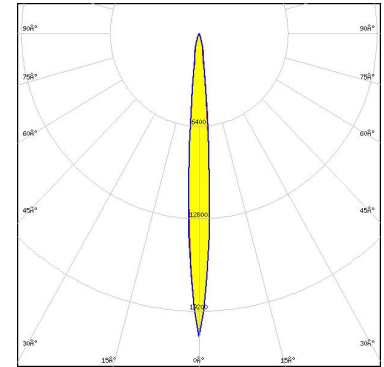


Light distribution files

### OPTICAL RESULTS (SIMULATED):

**OSRAM**  
Opto Semiconductors

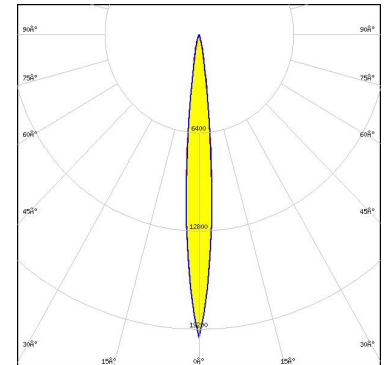
LED OSLON SSL 80  
FWHM / FWTM 8.2° / 18.8°  
Efficiency 94 %  
Peak intensity 21 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

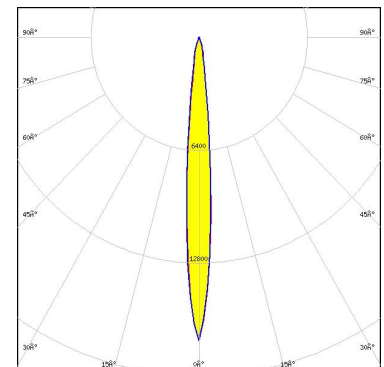
LED OSTAR Projection Compact (KW.CSLNM1.TG)  
FWHM / FWTM 10.0° / 20.0°  
Efficiency 96 %  
Peak intensity 19.8 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

LED SFH 4715AS  
FWHM / FWTM 9.2° / 21.0°  
Efficiency %  
LEDs/each optic 1  
Light colour/type IR  
Required components:



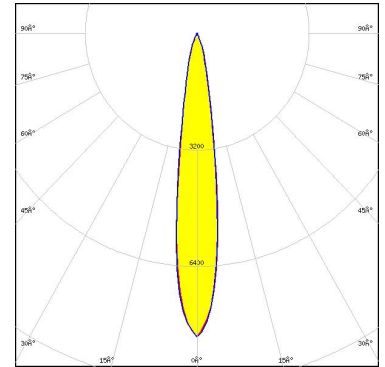
Light distribution files



### OPTICAL RESULTS (SIMULATED):

#### SAMSUNG

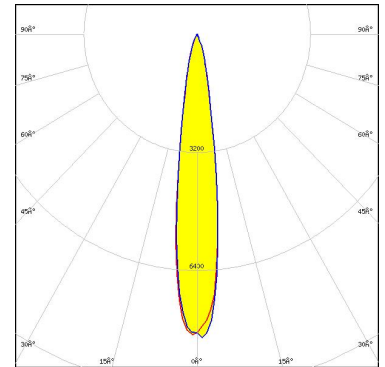
LED LH231B  
FWHM / FWTM 16.0° / 32.0°  
Efficiency 95 %  
Peak intensity 8.4 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

#### SAMSUNG

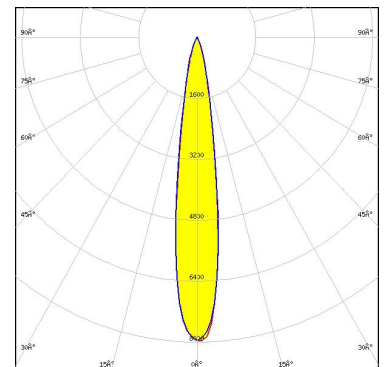
LED LH231B  
FWHM / FWTM 16.0° / 32.0°  
Efficiency 95 %  
Peak intensity 8.3 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

#### SAMSUNG

LED LH231B  
FWHM / FWTM 16.0° / 34.0°  
Efficiency 94 %  
Peak intensity 8 cd/lm  
LEDs/each optic 4  
Light colour/type White  
Required components:

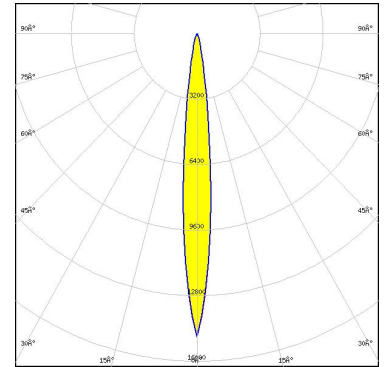


Light distribution files

#### OPTICAL RESULTS (SIMULATED):

### SAMSUNG

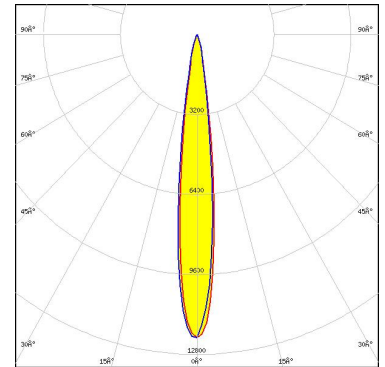
LED LM301B  
 FWHM / FWTM 10.0° / 24.0°  
 Efficiency 94 %  
 Peak intensity 14.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



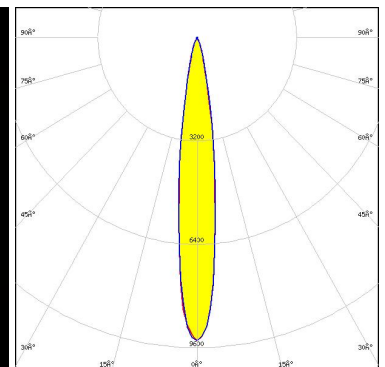
LED Z5M1/Z5M2  
 FWHM / FWTM 13.0° / 26.0°  
 Efficiency 92 %  
 Peak intensity 12.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

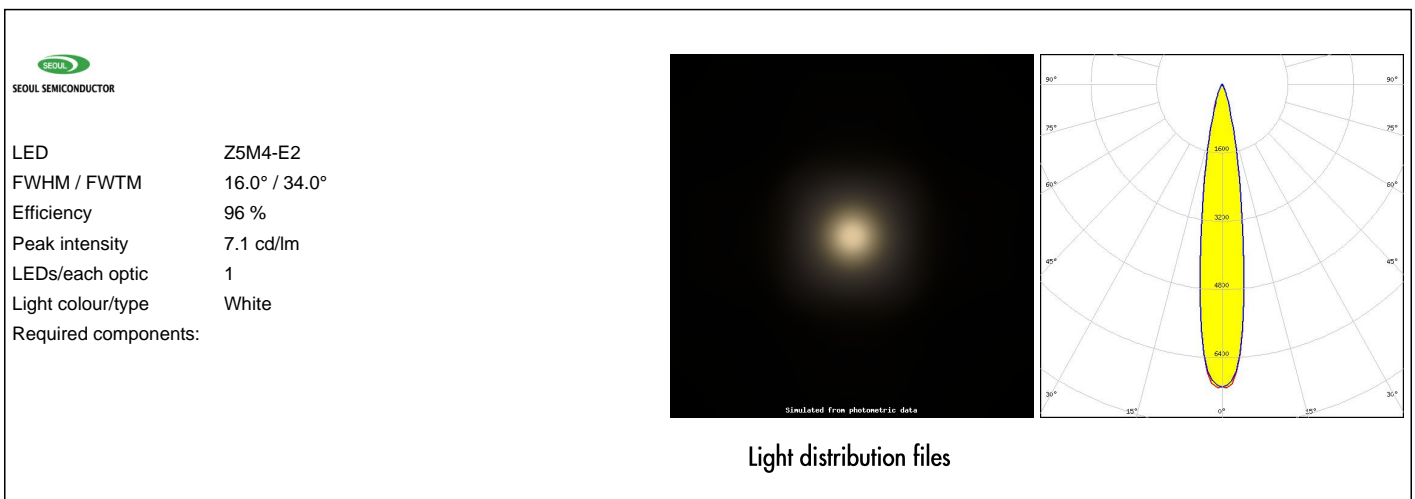
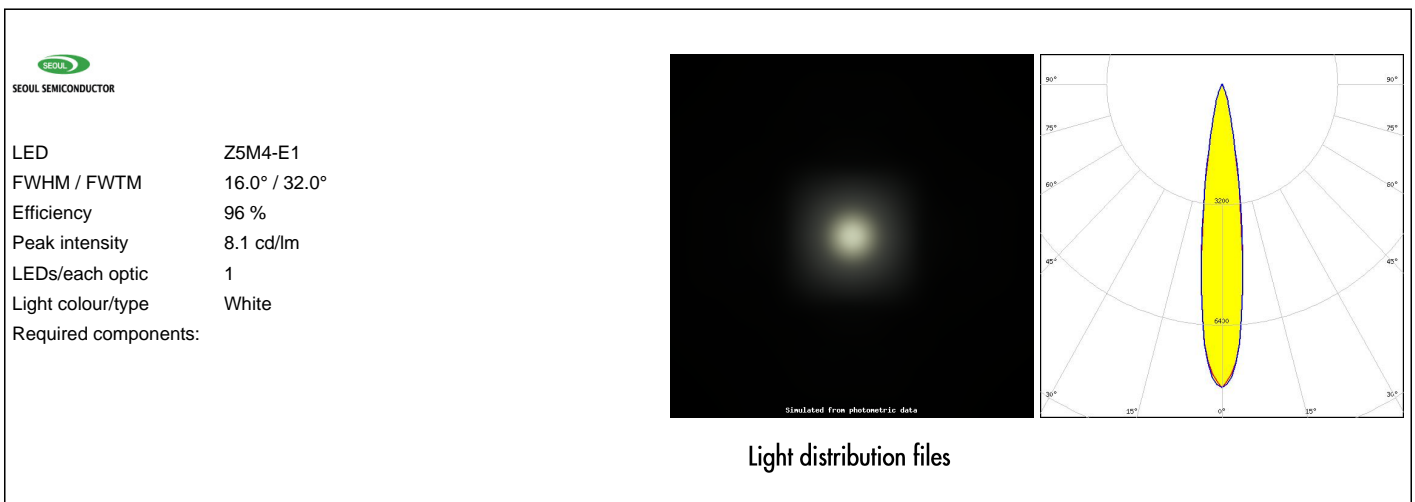
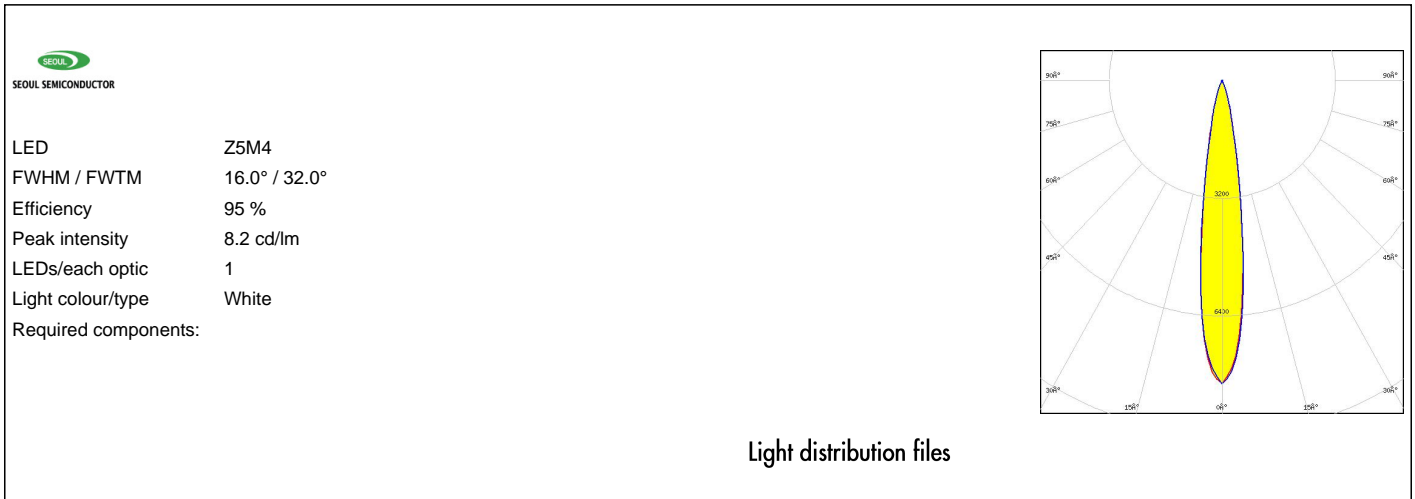


LED Z5M3-E1  
 FWHM / FWTM 14.0° / 30.0°  
 Efficiency 96 %  
 Peak intensity 9.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:




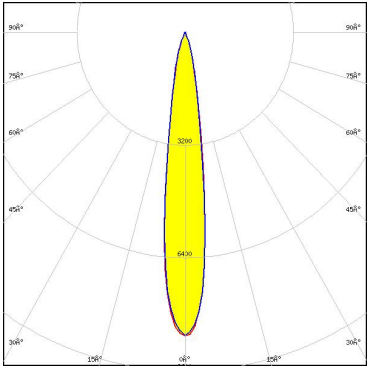
Light distribution files

### OPTICAL RESULTS (SIMULATED):



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 SEOUL SEMICONDUCTOR	
LED	Z8Y22T
FWHM / FWTM	15.0° / 32.0°
Efficiency	94 %
Peak intensity	8.6 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



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### 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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