

### CRYSTAL-RS

~5.1° spot beam. Assembly with holder.

#### SPECIFICATION:

Dimensions	Ø 49.7
Height	28.7 mm
Fastening	pin, screw
ROHS compliant	yes ⓘ

#### MATERIALS:

Component	Type	Material	Colour	Finish	Length (mm)
CRYSTAL-RS	Single lens	PMMA	clear		
CRYSTAL-HLD	Holder	PC	white		

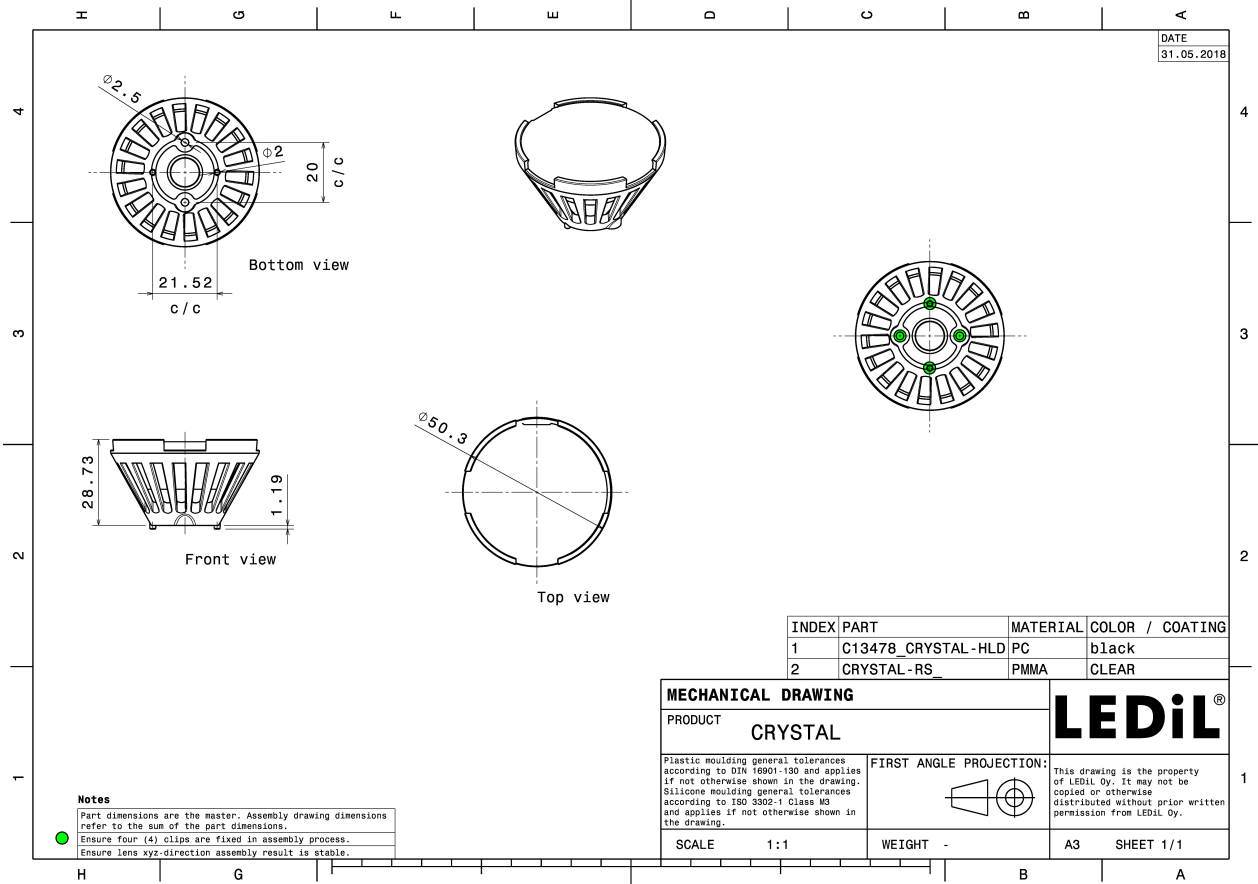


#### ORDERING INFORMATION:

##### Quantities for one set:

Single lens	1
Holder	1

Component		Qty in box	MOQ	MPQ	Box weight (kg)
F12916_CRYSTAL-RS	Single lens	288	64	32	8.6
» Box size: 480 x 280 x 300 mm					
C13478_CRYSTAL-HLD	Holder	1152	64	32	6.1
» Box size: 480 x 280 x 300 mm					

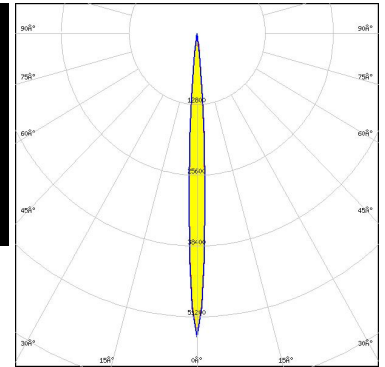
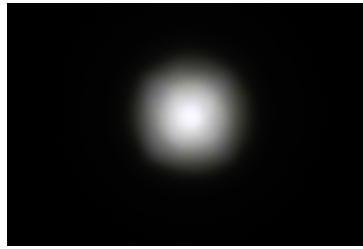


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

### OPTICAL RESULTS (MEASURED):



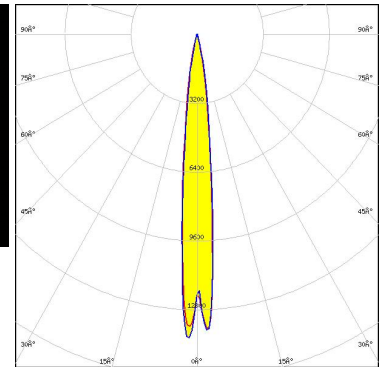
LED XHP35 HI  
 FWHM / FWTM 5.7° / 15.0°  
 Efficiency 89 %  
 Peak intensity 48.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



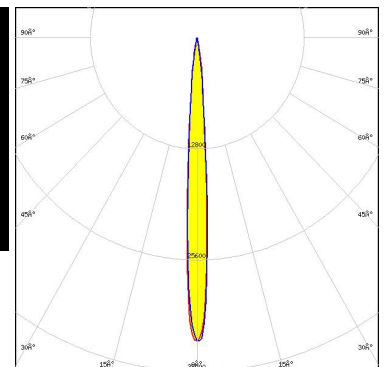
LED XHP50  
 FWHM / FWTM 11.0° / 24.0°  
 Efficiency 93 %  
 Peak intensity 14.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED XM-L  
 FWHM / FWTM 7.0° / 17.0°  
 Efficiency 94 %  
 Peak intensity 34.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

### OPTICAL RESULTS (MEASURED):

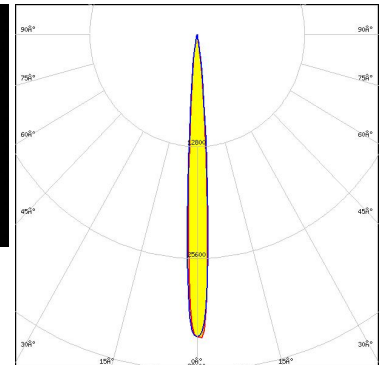


LED XP-G  
 FWHM / FWTM 4.9° / 11.4°  
 Efficiency 89 %  
 Peak intensity 68.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

Light distribution files



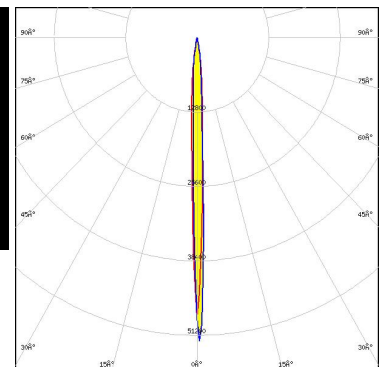
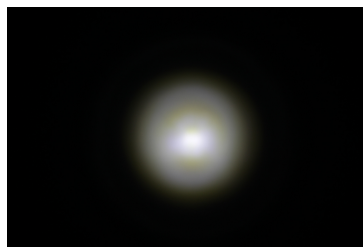
LED XP-L HD  
 FWHM / FWTM 7.0° / 15.0°  
 Efficiency 88 %  
 Peak intensity 34.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED LUXEON 3030 2D (Round LES)  
 FWHM / FWTM 4.0° / 15.0°  
 Efficiency 94 %  
 Peak intensity 52.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

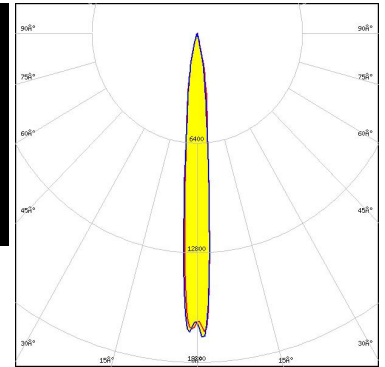
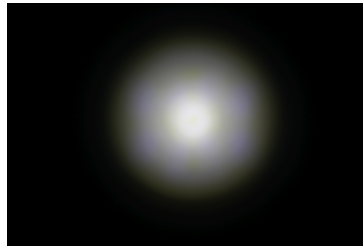


Light distribution files

### OPTICAL RESULTS (MEASURED):



**LED** LUXEON 5050 Round LES  
**FWHM / FWTM** 9.0° / 24.0°  
**Efficiency** 94 %  
**Peak intensity** 17.8 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



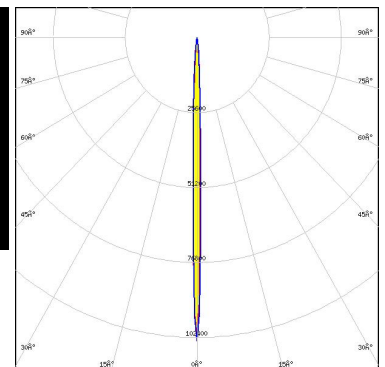
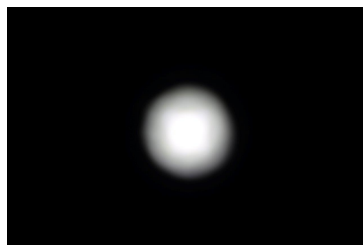
**LED** LUXEON A  
**FWHM / FWTM** 5.1° / 14.0°  
**Efficiency** 89 %  
**Peak intensity** 58.9 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



**LED** LUXEON Z ES  
**FWHM / FWTM** 3.0° / 9.0°  
**Efficiency** 93 %  
**Peak intensity** 103.8 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**

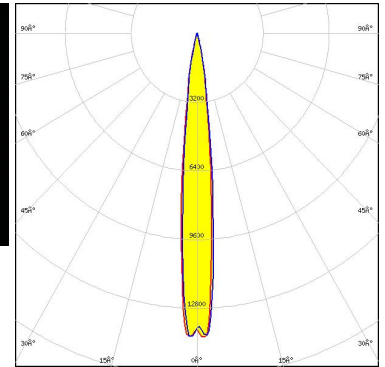
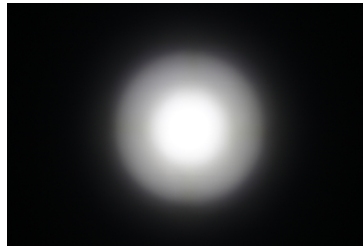


Light distribution files

### OPTICAL RESULTS (MEASURED):



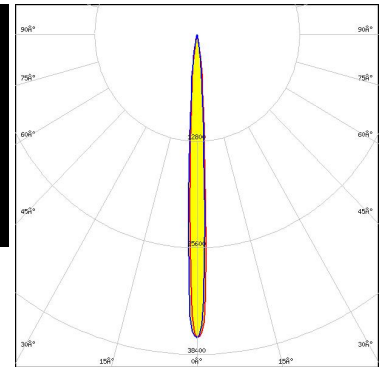
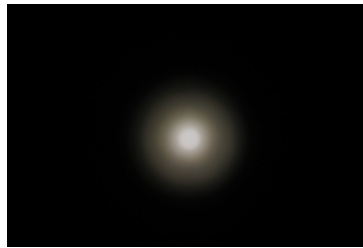
**LED** NV4x144A  
**FWHM / FWTM** 12.0° / 25.0°  
**Efficiency** 92 %  
**Peak intensity** 14.2 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



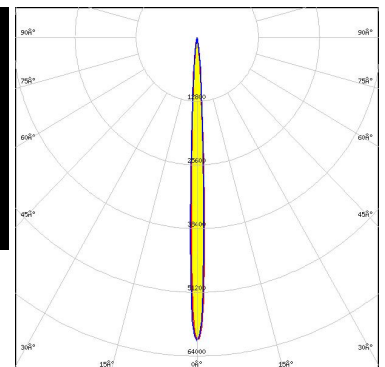
**LED** NVSW3x9A  
**FWHM / FWTM** 6.0° / 16.0°  
**Efficiency** 89 %  
**Peak intensity** 36.5 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



**LED** NVSW719AC  
**FWHM / FWTM** 5.0° / 12.0°  
**Efficiency** 93 %  
**Peak intensity** 61 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**

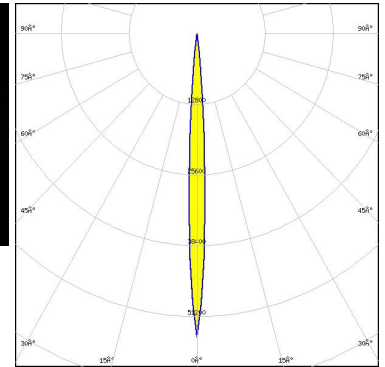
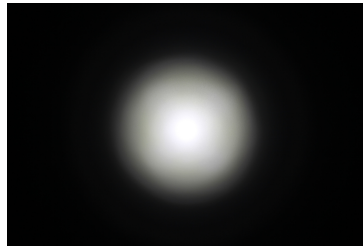


Light distribution files

### OPTICAL RESULTS (MEASURED):



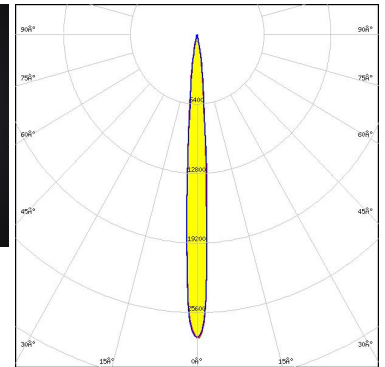
LED NVSxx19B/NVSxx19C  
 FWHM / FWTM 5.3° / 17.0°  
 Efficiency 89 %  
 Peak intensity 42.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



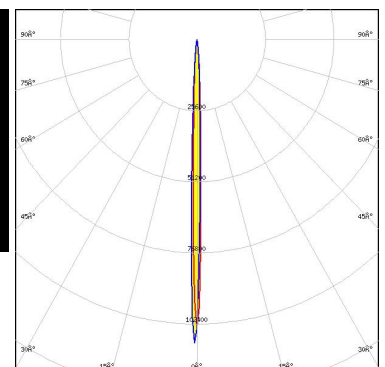
LED NWSx229A  
 FWHM / FWTM 8.0° / 18.0°  
 Efficiency 92 %  
 Peak intensity 27.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED OSLON SSL 150  
 FWHM / FWTM 3.0° / 9.0°  
 Efficiency 94 %  
 Peak intensity 108.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



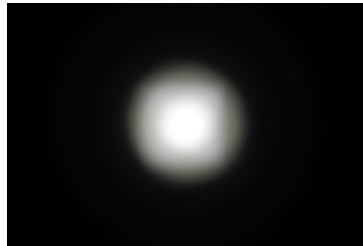
Light distribution files



### OPTICAL RESULTS (MEASURED):

#### SAMSUNG

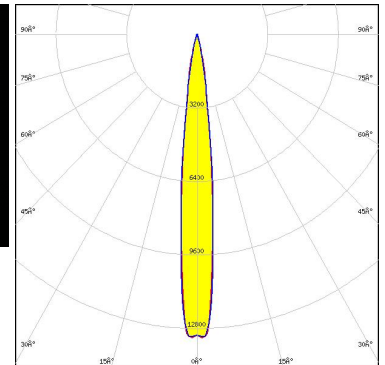
LED LH351Z  
 FWHM / FWTM 4.4° / 12.0°  
 Efficiency 90 %  
 Peak intensity 77 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



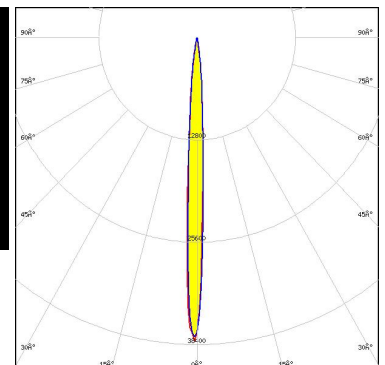
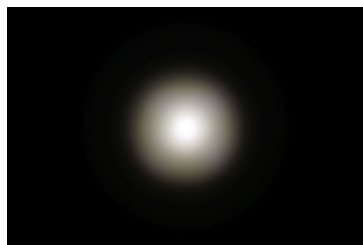
LED WICOP 5050  
 FWHM / FWTM 12.0° / 25.0°  
 Efficiency 92 %  
 Peak intensity 13.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED Z5M3  
 FWHM / FWTM 6.0° / 16.0°  
 Efficiency 94 %  
 Peak intensity 3.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

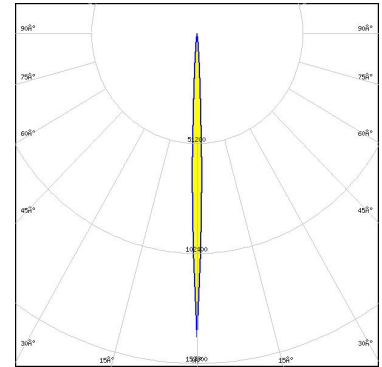


Light distribution files

### OPTICAL RESULTS (SIMULATED):



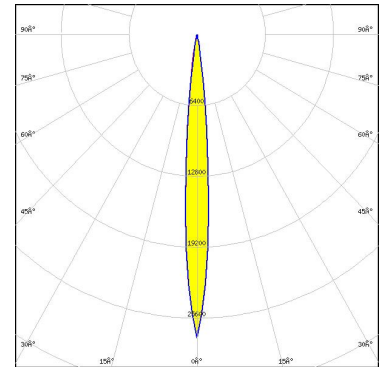
LED XE-G  
 FWHM / FWTM 4.0° / 8.0°  
 Efficiency 94 %  
 Peak intensity 141.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



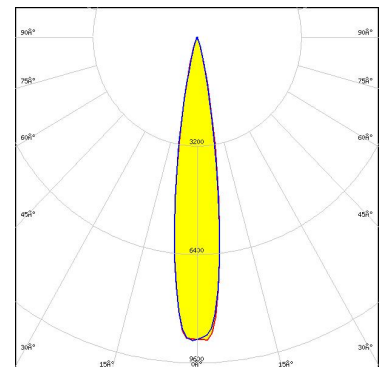
LED XHP50.3 HI  
 FWHM / FWTM 10.0 + 8.0° / 18.0°  
 Efficiency 97 %  
 Peak intensity 27.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED XHP70.2  
 FWHM / FWTM 16.0° / 30.0°  
 Efficiency 95 %  
 Peak intensity 9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

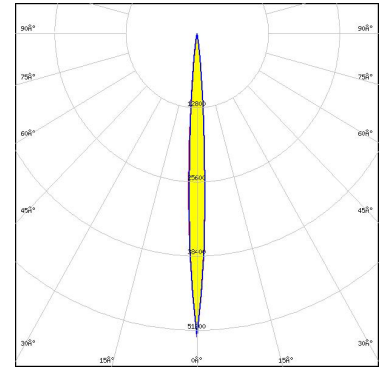


Light distribution files

### OPTICAL RESULTS (SIMULATED):



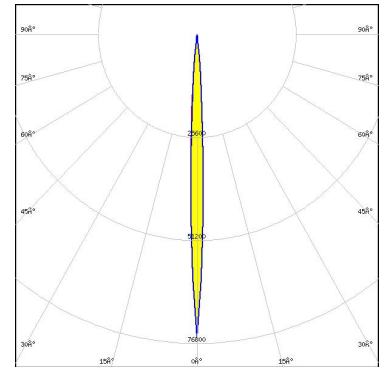
LED XP-G3  
 FWHM / FWTM 6.0° / 14.0°  
 Efficiency 95 %  
 Peak intensity 52.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



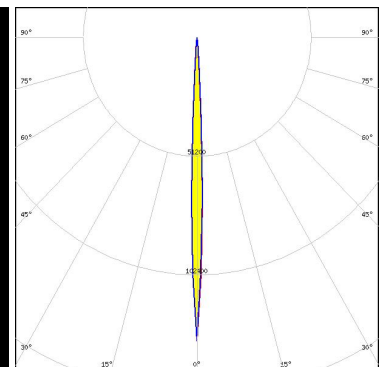
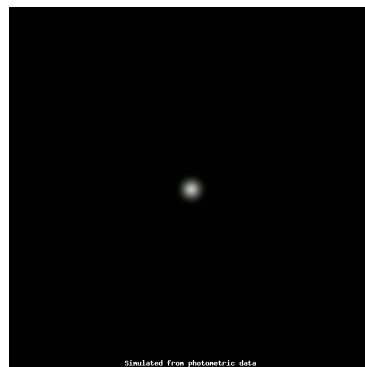
LED XP-G4 HI  
 FWHM / FWTM 6.0° / 12.0°  
 Efficiency 96 %  
 Peak intensity 75.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED XP-GR  
 FWHM / FWTM 4.0° / 8.0°  
 Efficiency 94 %  
 Peak intensity 130.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

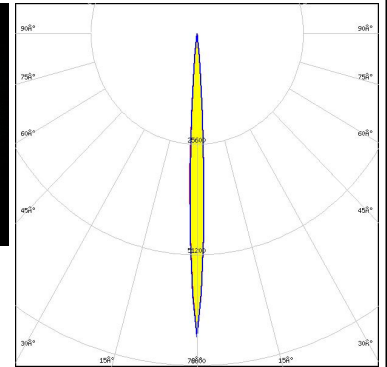


Light distribution files

### OPTICAL RESULTS (SIMULATED):



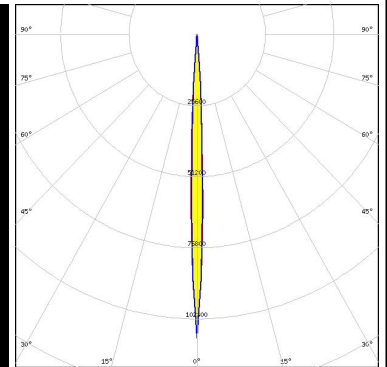
LED XP-L HI  
 FWHM / FWTM 5.6° / 12.0°  
 Efficiency 94 %  
 Peak intensity 70.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



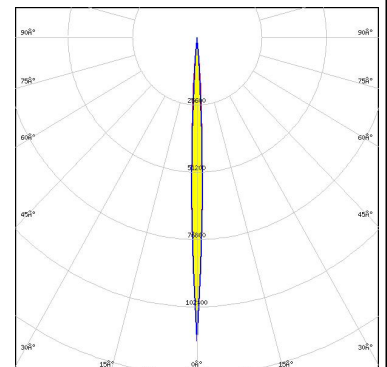
LED XP-LR  
 FWHM / FWTM 4.0° / 10.0°  
 Efficiency 95 %  
 Peak intensity 109.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED XP-P  
 FWHM / FWTM 4.0° / 10.0°  
 Efficiency 95 %  
 Peak intensity 115.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

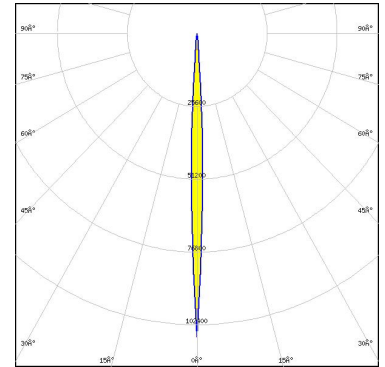


Light distribution files

### OPTICAL RESULTS (SIMULATED):



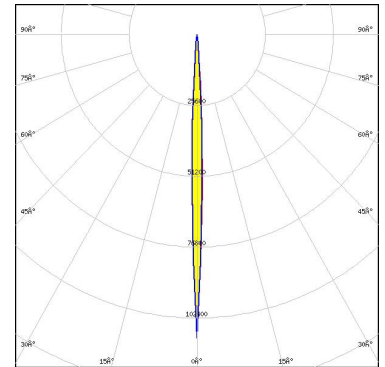
LED XQ-E HI  
 FWHM / FWTM 4.5° / 10.0°  
 Efficiency 95 %  
 Peak intensity 106.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



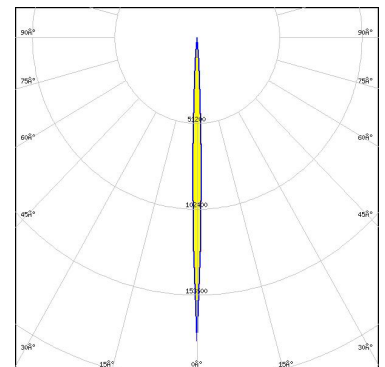
LED LUXEON C  
 FWHM / FWTM 4.0° / 10.0°  
 Efficiency 91 %  
 Peak intensity 109.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED LUXEON CZ  
 FWHM / FWTM 4.0° / 8.0°  
 Efficiency 93 %  
 Peak intensity 181 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

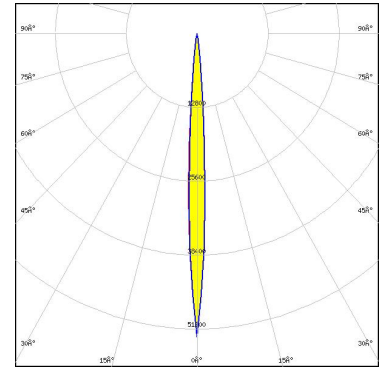


Light distribution files

### OPTICAL RESULTS (SIMULATED):



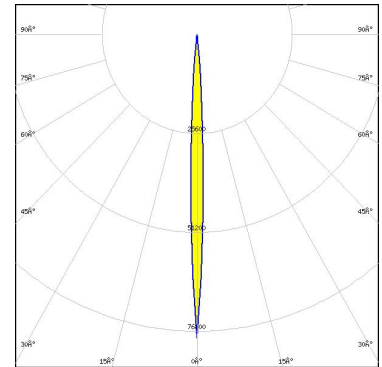
LED LUXEON HL2X  
 FWHM / FWTM 6.0° / 14.0°  
 Efficiency 95 %  
 Peak intensity 52.6 cd/m  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



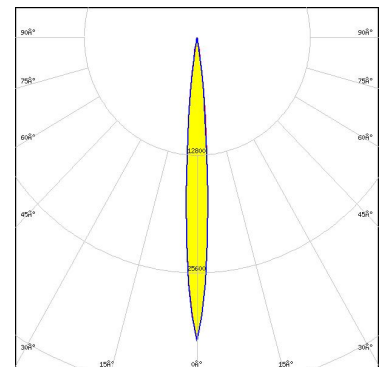
LED LUXEON HL2Z  
 FWHM / FWTM 4.0° / 12.0°  
 Efficiency 96 %  
 Peak intensity 78.5 cd/m  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED LUXEON HL4X  
 FWHM / FWTM 8.0° / 16.0°  
 Efficiency 97 %  
 Peak intensity 33 cd/m  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

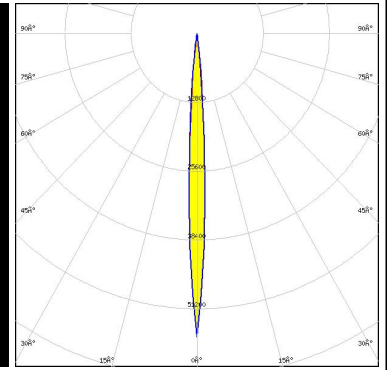


Light distribution files

### OPTICAL RESULTS (SIMULATED):



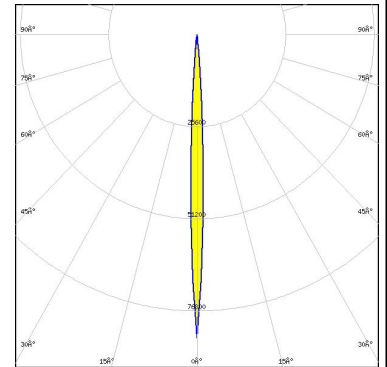
LED LUXEON HL4Z  
 FWHM / FWTM 6.0° / 14.0 + 13.0°  
 Efficiency 96 %  
 Peak intensity 56.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



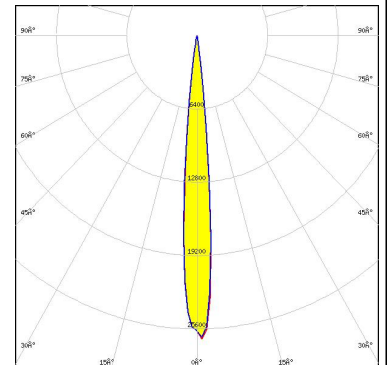
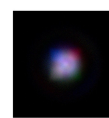
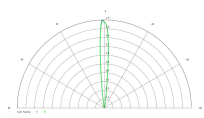
LED LUXEON Rebel Plus  
 FWHM / FWTM 6.0° / 10.0°  
 Efficiency 95 %  
 Peak intensity 84.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED LUXEON Rubix  
 FWHM / FWTM 10.0° / 17.0°  
 Efficiency 97 %  
 Peak intensity 26.8 cd/lm  
 LEDs/each optic 4  
 Light colour/type RGBW  
 Required components:

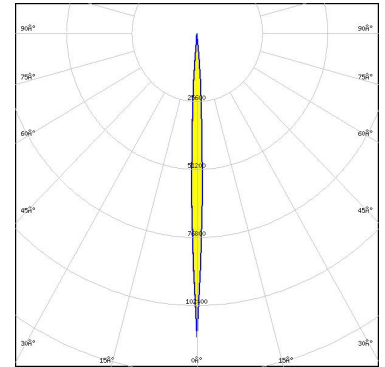


Light distribution files

### OPTICAL RESULTS (SIMULATED):



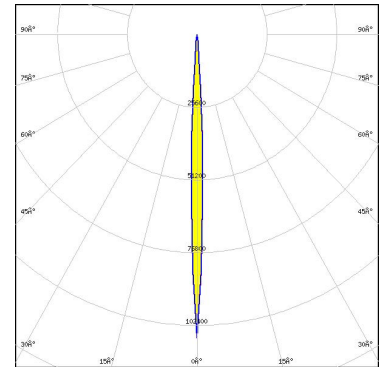
LED LUXEON Rubix  
FWHM / FWTM 4.0° / 10.0°  
Efficiency 95 %  
Peak intensity 114.3 cd/lm  
LEDs/each optic 1  
Light colour/type Green  
Required components:



Light distribution files



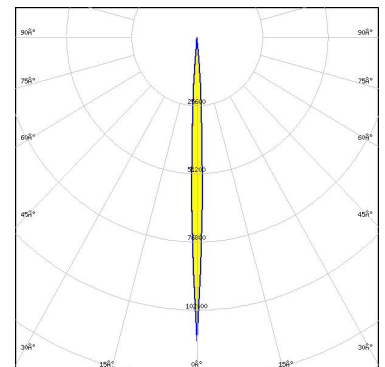
LED LUXEON Rubix  
FWHM / FWTM 4.0° / 10.0°  
Efficiency 95 %  
Peak intensity 106.8 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED LUXEON Rubix  
FWHM / FWTM 4.0° / 10.0°  
Efficiency 95 %  
Peak intensity 114 cd/lm  
LEDs/each optic 1  
Light colour/type Blue  
Required components:



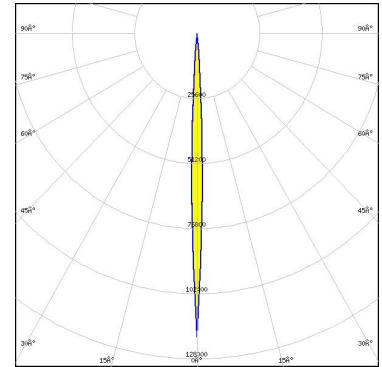
Light distribution files



### OPTICAL RESULTS (SIMULATED):



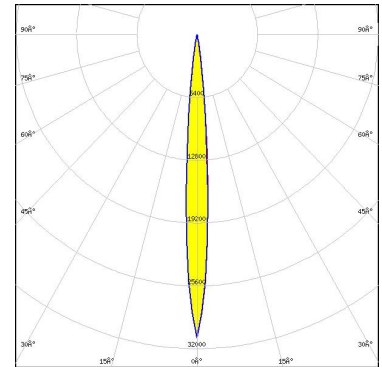
LED LUXEON Rubix  
 FWHM / FWTM 4.0° / 10.0°  
 Efficiency 95 %  
 Peak intensity 119.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type Red  
 Required components:



Light distribution files



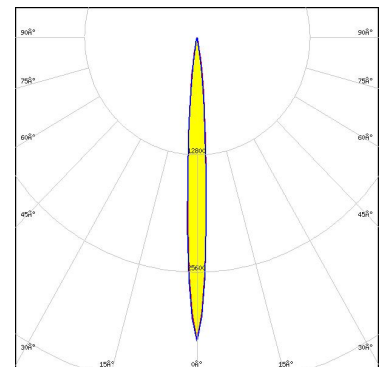
LED LUXEON V  
 FWHM / FWTM 8.0° / 17.0°  
 Efficiency 95 %  
 Peak intensity 30.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED SBT-90  
 FWHM / FWTM 8.0° / 18.0°  
 Efficiency 97 %  
 Peak intensity 33.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

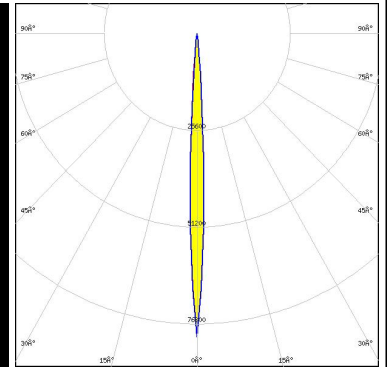
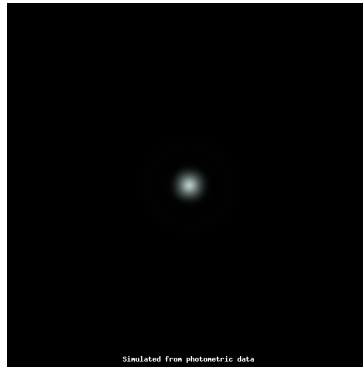


Light distribution files

### OPTICAL RESULTS (SIMULATED):



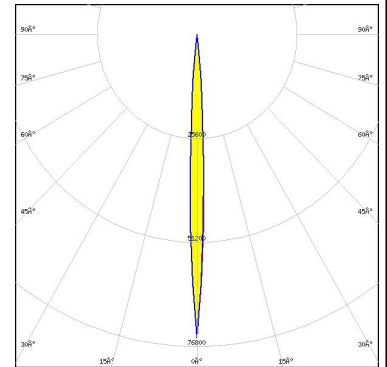
**LED** SFT-40 Gen2  
**FWHM / FWTM** 6.0° / 12.0 + 10.0°  
**Efficiency** 96 %  
**Peak intensity** 80.2 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



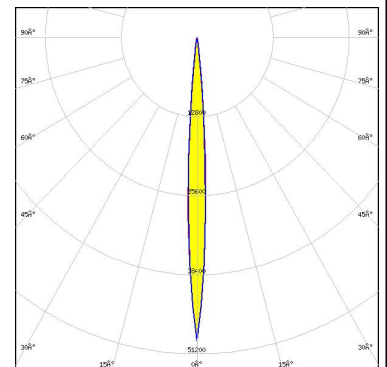
**LED** SFT-40-WCS  
**FWHM / FWTM** 6.0° / 12.0°  
**Efficiency** 96 %  
**Peak intensity** 74.7 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



**LED** SFT-70X-WCS  
**FWHM / FWTM** 6.0° / 14.0°  
**Efficiency** 97 %  
**Peak intensity** 49.1 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**

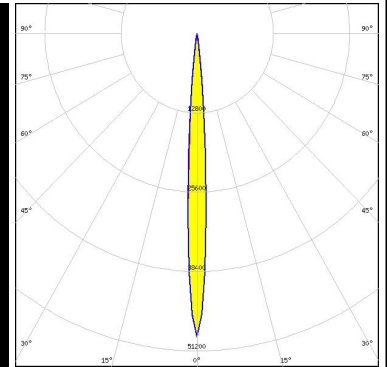
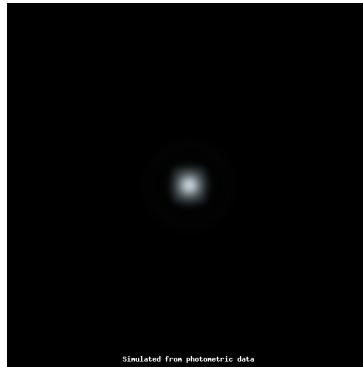


Light distribution files

### OPTICAL RESULTS (SIMULATED):



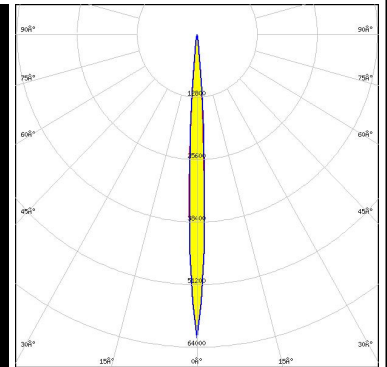
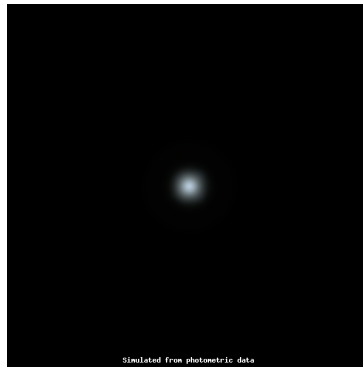
LED SFT-70X-WES-Gen2  
 FWHM / FWTM 6.0 + 7.0° / 14.0°  
 Efficiency 97 %  
 Peak intensity 49 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



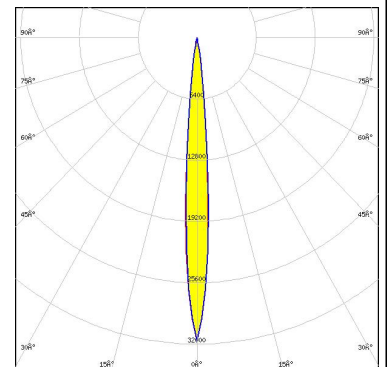
LED SST-25-W  
 FWHM / FWTM 6.0° / 12.0°  
 Efficiency 96 %  
 Peak intensity 62.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED SST-40  
 FWHM / FWTM 8.0° / 16.0°  
 Efficiency 97 %  
 Peak intensity 31.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

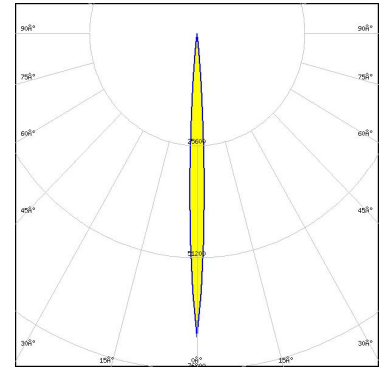


Light distribution files

### OPTICAL RESULTS (SIMULATED):



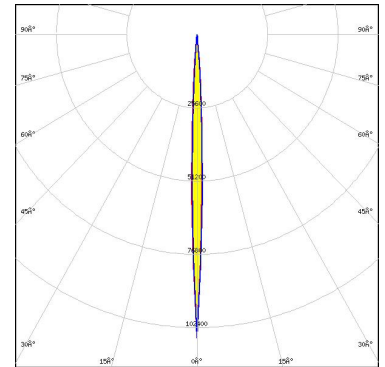
LED NVSW719AC  
FWHM / FWTM 6.0° / 12.0°  
Efficiency 96 %  
Peak intensity 69.3 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



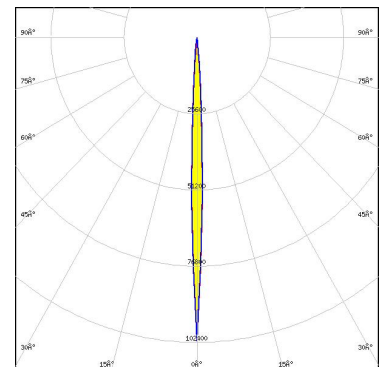
LED Duris S5 (Single chip)  
FWHM / FWTM 4.0° / 10.0°  
Efficiency 95 %  
Peak intensity 106 cd/lm  
LEDs/each optic 1  
Light colour/type Red  
Required components:



Light distribution files



LED Duris S5 (Single chip)  
FWHM / FWTM 4.0° / 10.0°  
Efficiency 95 %  
Peak intensity 101.9 cd/lm  
LEDs/each optic 1  
Light colour/type Green  
Required components:

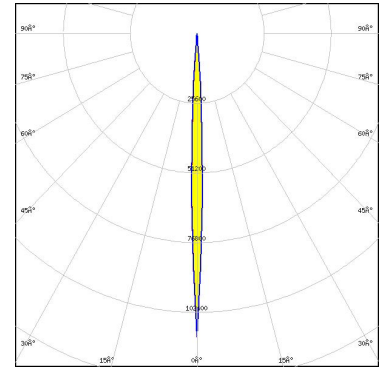


Light distribution files

### OPTICAL RESULTS (SIMULATED):

**OSRAM**  
Opto Semiconductors

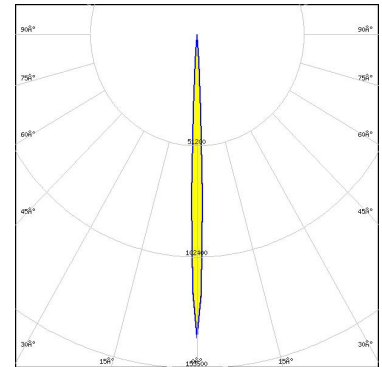
LED OSLON Pure 1414  
 FWHM / FWTM 4.0° / 10.0°  
 Efficiency 95 %  
 Peak intensity 111.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

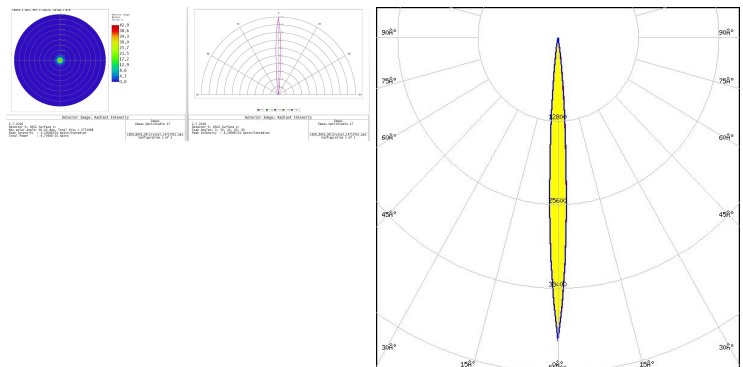
LED OSTAR Projection Compact (KW.CSLNM1.TG)  
 FWHM / FWTM 4.0° / 8.0°  
 Efficiency 94 %  
 Peak intensity 139.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

LED SFH 4717AS  
 FWHM / FWTM 6.7° / 14.5°  
 Efficiency 94 %  
 Peak intensity 46.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

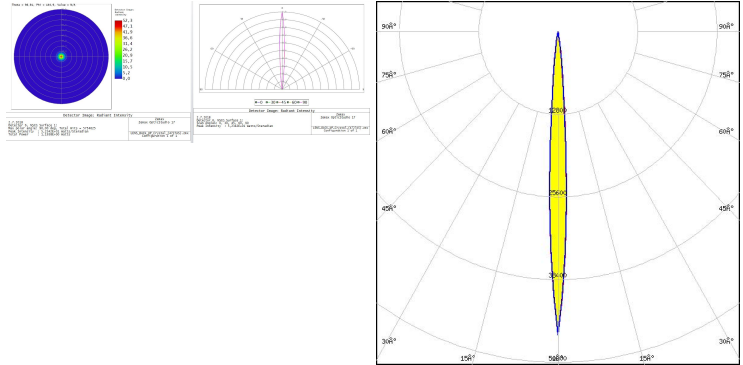


Light distribution files

## OPTICAL RESULTS (SIMULATED):

**OSRAM**  
Opto Semiconductors

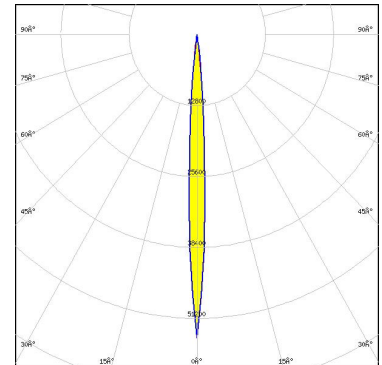
LED SFH 4727AS  
FWHM / FWTM 6.7° / 14.5°  
Efficiency 94 %  
Peak intensity 47 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

**SAMSUNG**

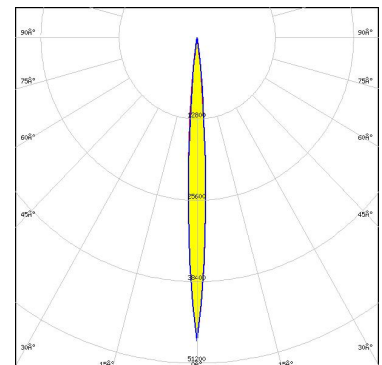
LED LH351B  
FWHM / FWTM 6.0° / 14.0°  
Efficiency 96 %  
Peak intensity 54.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

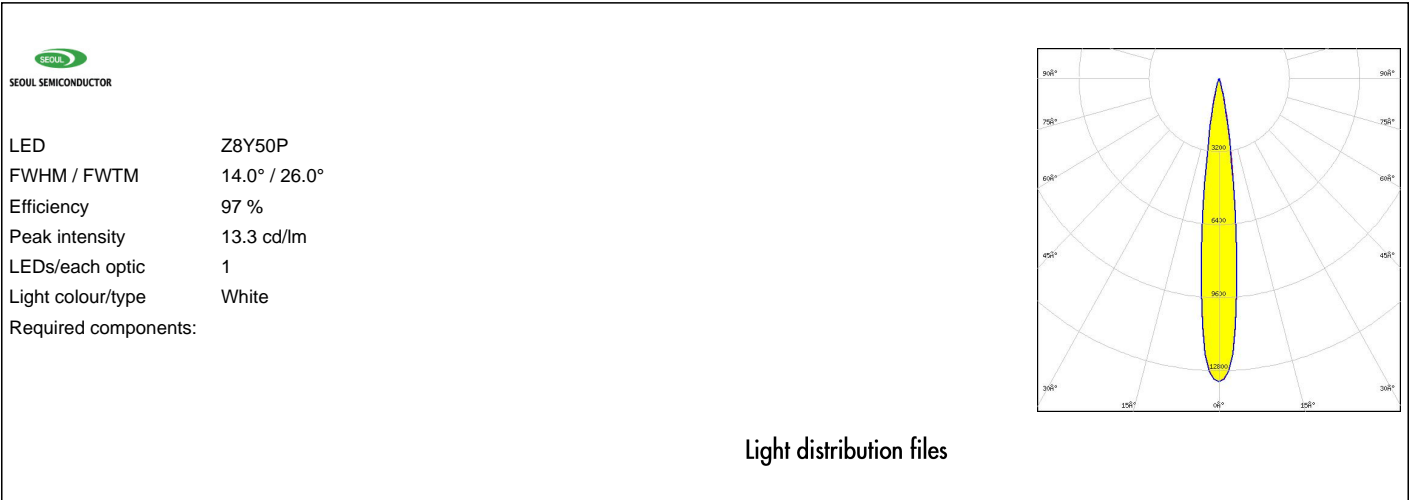
**SAMSUNG**

LED LH351C  
FWHM / FWTM 6.0° / 14.0°  
Efficiency 96 %  
Peak intensity 47.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

### OPTICAL RESULTS (SIMULATED):



### GENERAL INFORMATION:

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

### MATERIALS:

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