

## STRADELLA-IP-28-HB-M

~65° wide beam. Variant made from PMMA.

### SPECIFICATION:

Dimensions	100.0 x 100.0 mm
Height	9.5 mm
Fastening	pin, screw
Ingress protection classes	IP66, IP67
ROHS compliant	yes ⓘ

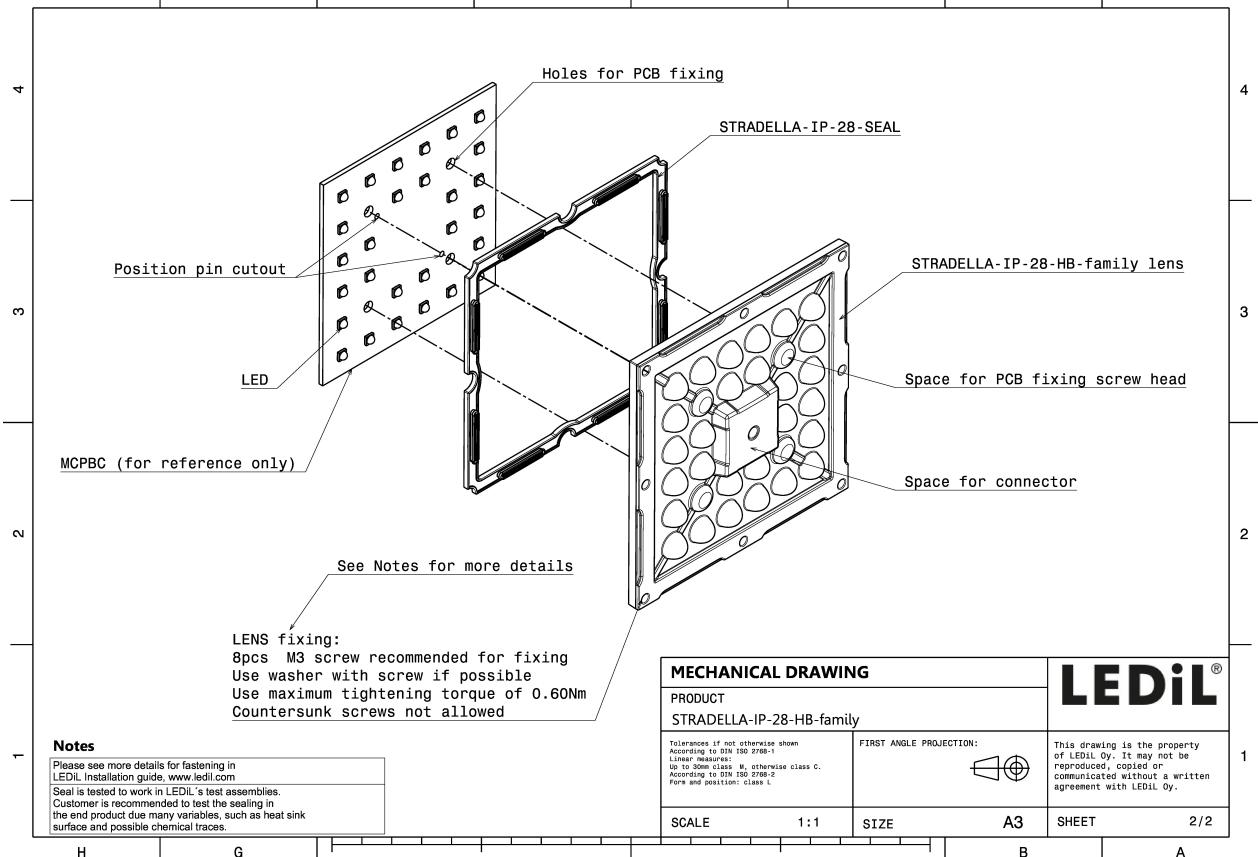
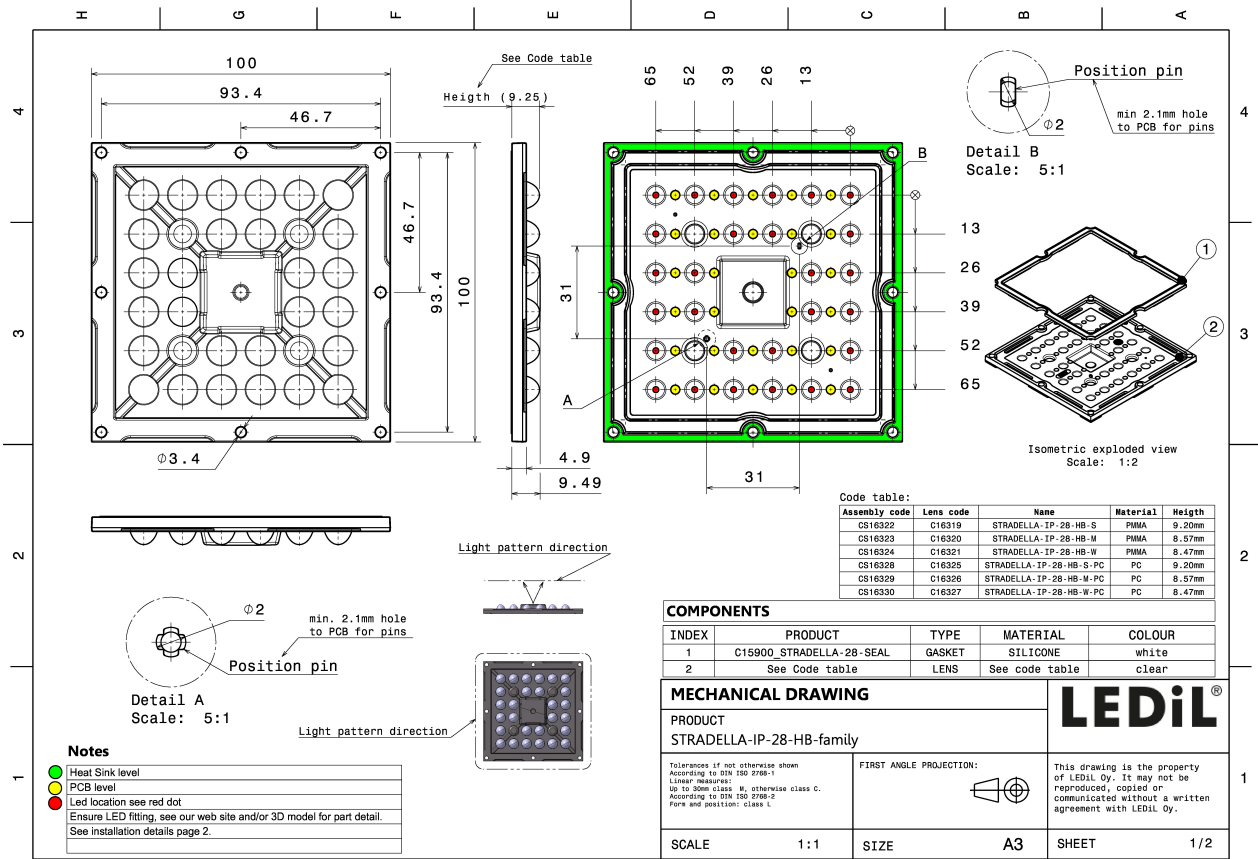
### MATERIALS:

Component	Type	Material	Colour	Finish	Length (mm)
STRADELLA-IP-28-HB-M	Multi-lens	PMMA	clear		
STRADELLA-28-SEAL	Seal	Silicone	white		



### ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CS16323_STRADELLA-IP-28-HB-M	Multi-lens	156	78	78	5.8
» Box size: 476 x 273 x 247 mm					

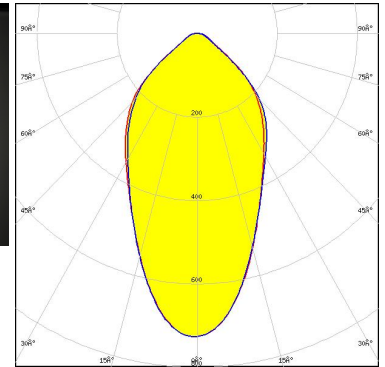


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

#### OPTICAL RESULTS (MEASURED):



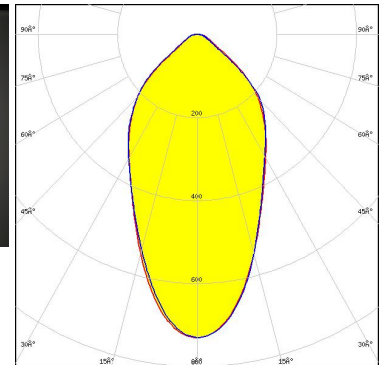
LED HiQLED STR28 CR JE2835 4x7 xxx  
FWHM / FWTM 56.0° / 113.0°  
Efficiency 92 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



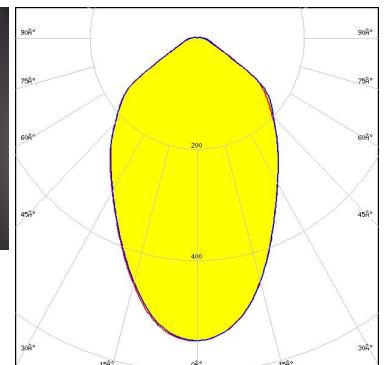
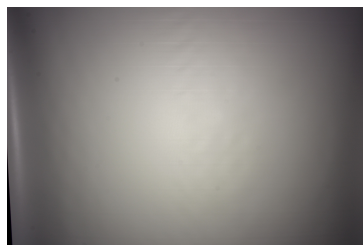
LED HiQLED STR28 CR JK3030 4x7 xxx  
FWHM / FWTM 55.0° / 112.0°  
Efficiency 92 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED QUICK FLUX STR28 XD2x14 xxx G8  
FWHM / FWTM 71.0° / 126.0°  
Efficiency 92 %  
Peak intensity 0.5 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

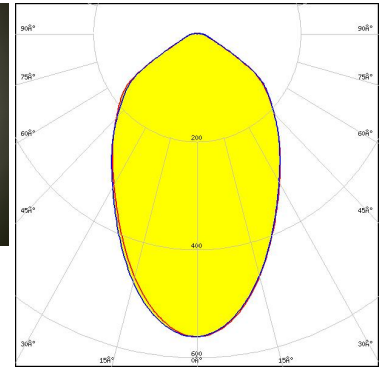
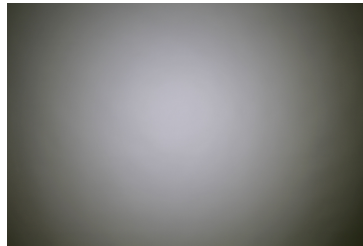


Light distribution files

#### OPTICAL RESULTS (MEASURED):



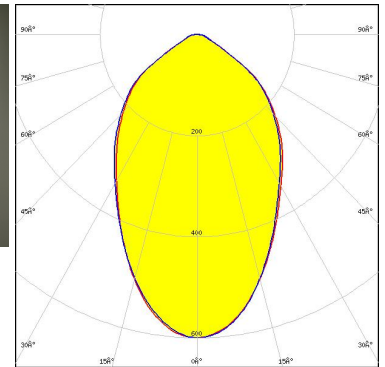
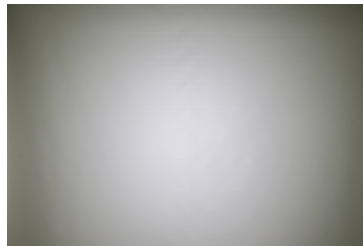
**LED** QUICK FLUX STR28 XP2x14 xxx G7  
**FWHM / FWTM** 71.0° / 127.0°  
**Efficiency** 94 %  
**Peak intensity** 0.6 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



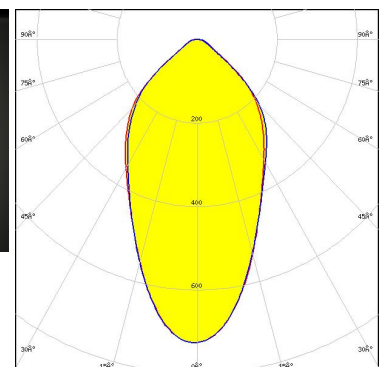
**LED** QUICK FLUX STR28 XT2x14 xxx G5  
**FWHM / FWTM** 70.0° / 126.0°  
**Efficiency** 94 %  
**Peak intensity** 0.6 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



**LED** J Series 2835  
**FWHM / FWTM** 56.0° / 113.0°  
**Efficiency** 92 %  
**Peak intensity** 0.7 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**

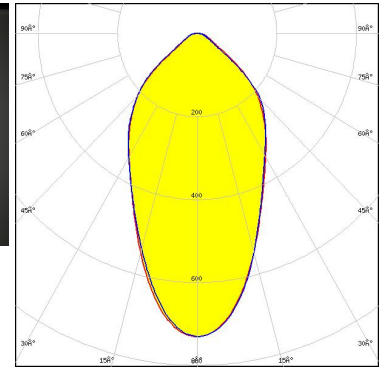


Light distribution files

#### OPTICAL RESULTS (MEASURED):



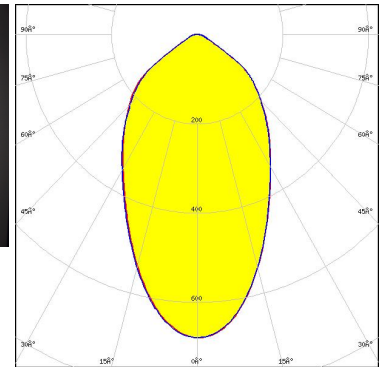
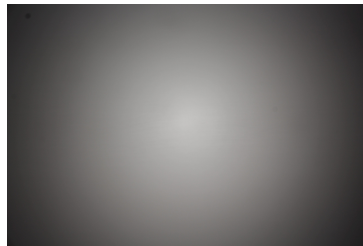
LED J Series 3030  
 FWHM / FWTM 55.0° / 112.0°  
 Efficiency 92 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



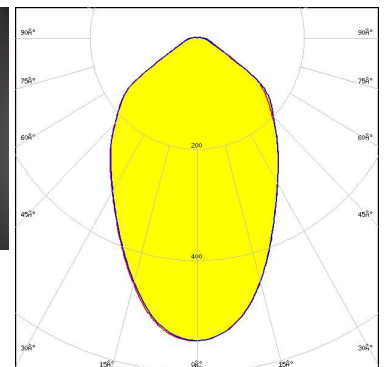
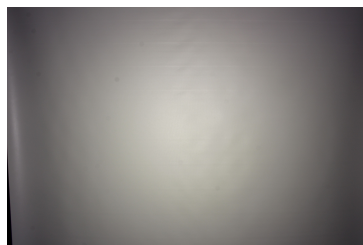
LED J Series 3030  
 FWHM / FWTM 61.0° / 119.0°  
 Efficiency 95 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED XD16  
 FWHM / FWTM 71.0° / 126.0°  
 Efficiency 92 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

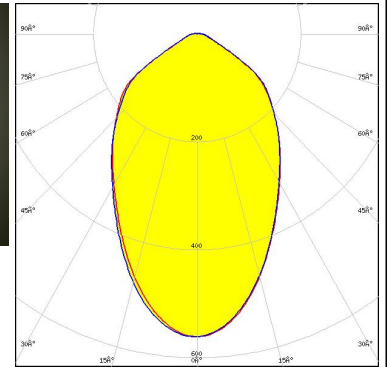


Light distribution files

#### OPTICAL RESULTS (MEASURED):



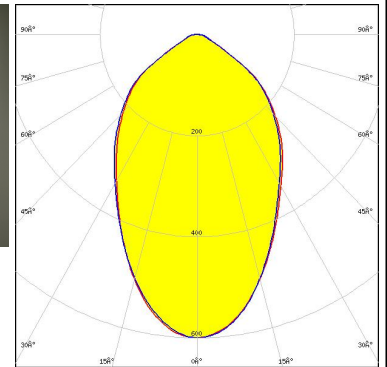
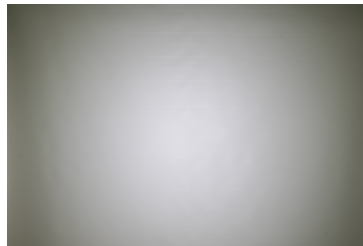
**LED** XP-G3  
**FWHM / FWTM** 71.0° / 127.0°  
**Efficiency** 94 %  
**Peak intensity** 0.6 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



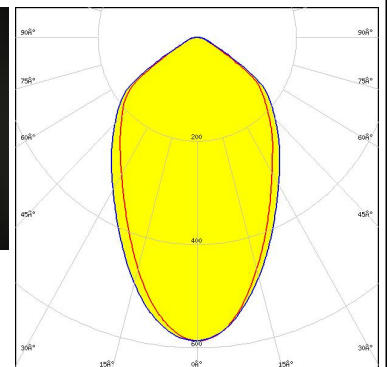
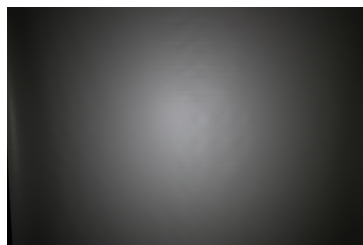
**LED** XT-E  
**FWHM / FWTM** 70.0° / 126.0°  
**Efficiency** 94 %  
**Peak intensity** 0.6 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



**LED** NF2W585AR  
**FWHM / FWTM** 67.0° / 125.0°  
**Efficiency** 93 %  
**Peak intensity** 0.6 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**

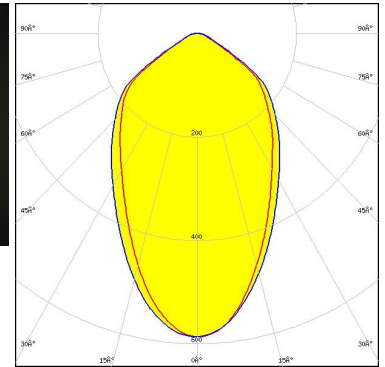
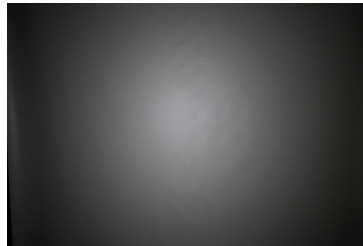


Light distribution files

#### OPTICAL RESULTS (MEASURED):



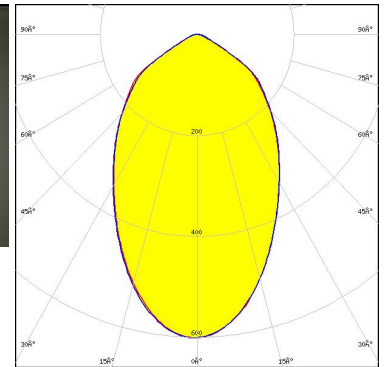
LED NF2W585AR  
 FWHM / FWTM 68.0° / 126.0°  
 Efficiency 93 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



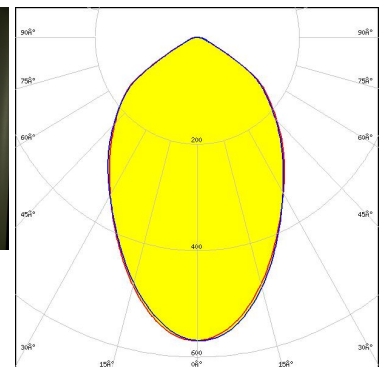
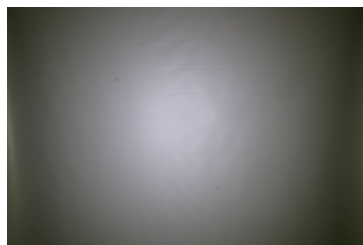
LED NVSW219F  
 FWHM / FWTM 69.0° / 125.0°  
 Efficiency 94 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED NVSW319B  
 FWHM / FWTM 74.0° / 126.0°  
 Efficiency 94 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

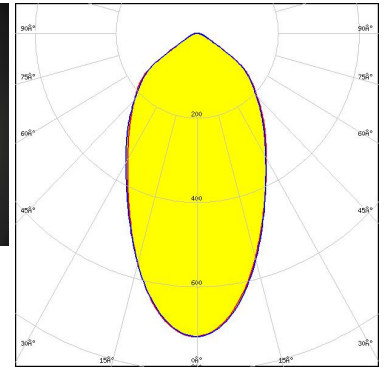
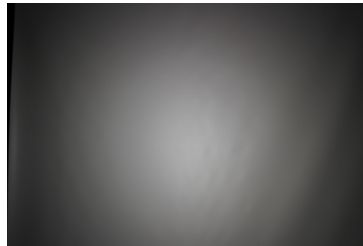


Light distribution files

#### OPTICAL RESULTS (MEASURED):

**OSRAM**  
Opto Semiconductors

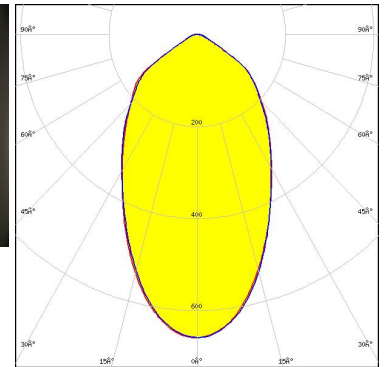
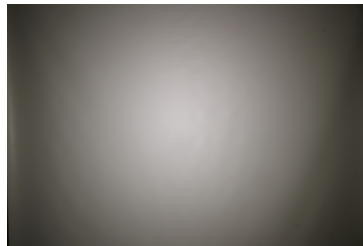
LED OSCONIQ S 3030 (QSLR31)  
FWHM / FWTM 57.0° / 118.0°  
Efficiency 94 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

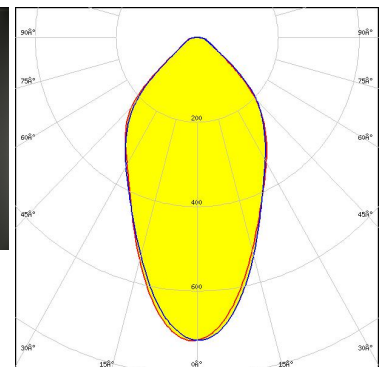
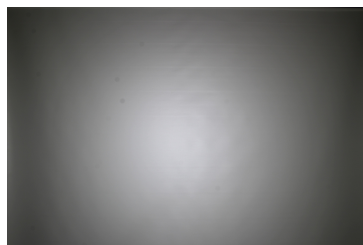
LED OSLOM Square CSSRM2/CSSRM3  
FWHM / FWTM 62.0° / 122.0°  
Efficiency 94 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

**SAMSUNG**

LED HiLOM SC28 (LH181B)  
FWHM / FWTM 57.0° / 111.0°  
Efficiency 91 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



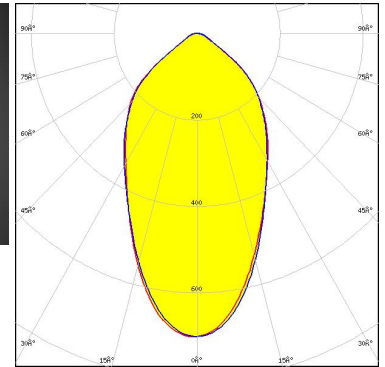
Light distribution files



#### OPTICAL RESULTS (MEASURED):

### SAMSUNG

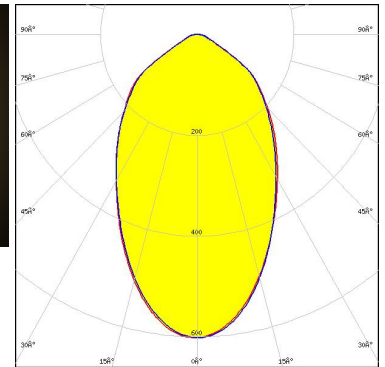
LED HiLOM SM28 (LM301B)  
FWHM / FWTM 58.0° / 115.0°  
Efficiency 93 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED Z5M3  
FWHM / FWTM 67.0° / 125.0°  
Efficiency 94 %  
Peak intensity 0.6 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

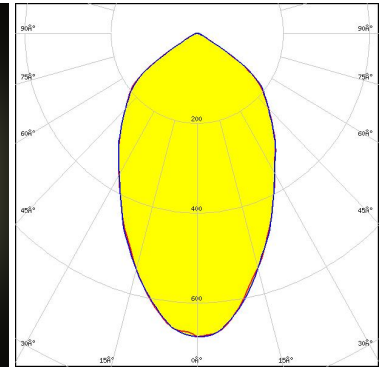


Light distribution files

#### OPTICAL RESULTS (SIMULATED):



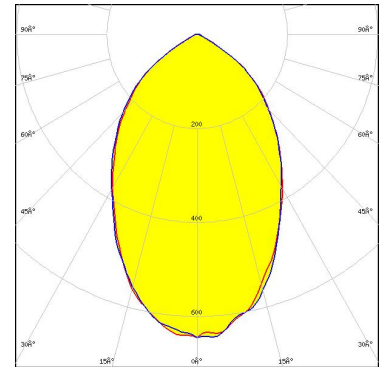
LED J Series 3030C  
 FWHM / FWTM 64.0° / 118.0°  
 Efficiency 96 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



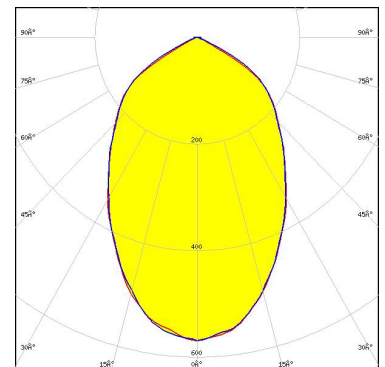
LED J Series 5050 Round LES  
 FWHM / FWTM 70.0° / 120.0°  
 Efficiency 95 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED XP-G2 HE  
 FWHM / FWTM 74.0° / 126.0°  
 Efficiency 95 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

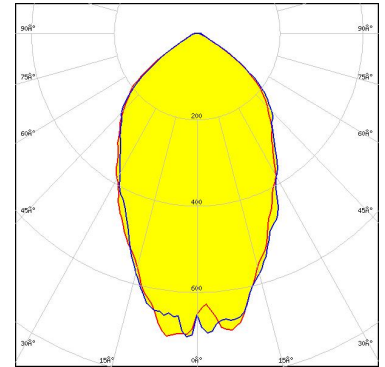


Light distribution files

#### OPTICAL RESULTS (SIMULATED):



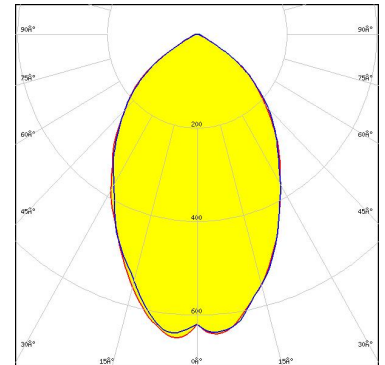
LED LUXEON 3030 2D (Round LES)  
FWHM / FWTM 58.0° / 118.0°  
Efficiency 92 %  
Peak intensity 0.8 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



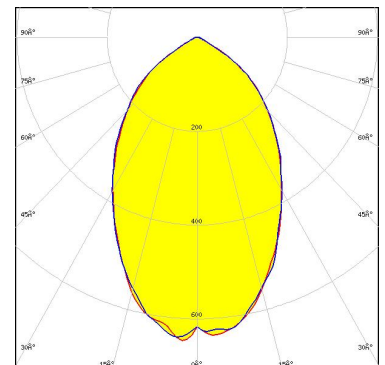
LED LUXEON 5050 Round LES  
FWHM / FWTM 69.0° / 120.0°  
Efficiency 94 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED LUXEON 5050 Square LES  
FWHM / FWTM 70.0° / 120.0°  
Efficiency 95 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

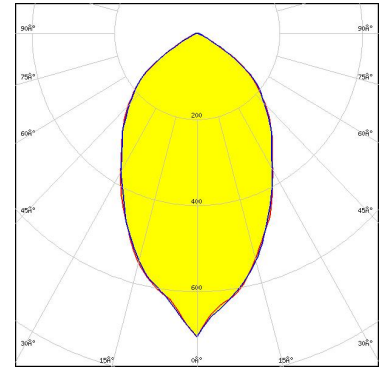


Light distribution files

#### OPTICAL RESULTS (SIMULATED):



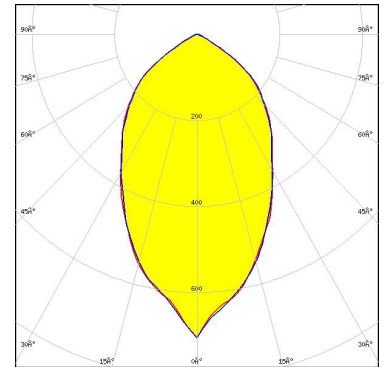
LED NF2x757G  
FWHM / FWTM 63.0° / 119.0°  
Efficiency 94 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



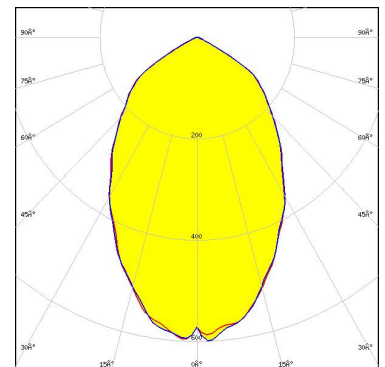
LED NF2x757G  
FWHM / FWTM 63.0° / 119.0°  
Efficiency 94 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED NVSW219F  
FWHM / FWTM 72.0° / 124.0°  
Efficiency 95 %  
Peak intensity 0.6 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

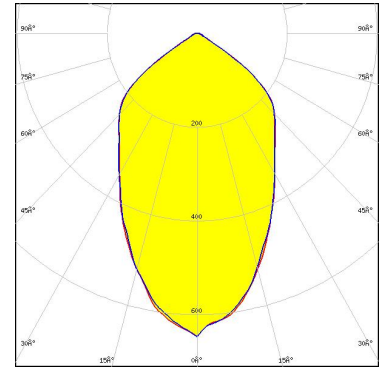


Light distribution files

#### OPTICAL RESULTS (SIMULATED):



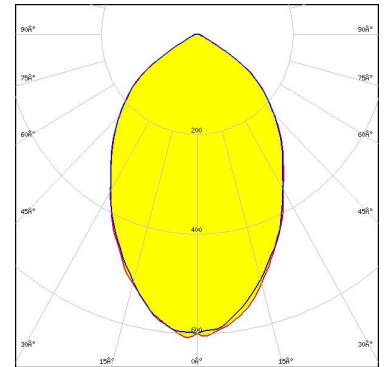
LED NVSxE21A  
FWHM / FWTM 65.0° / 118.0°  
Efficiency 93 %  
Peak intensity 0.6 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



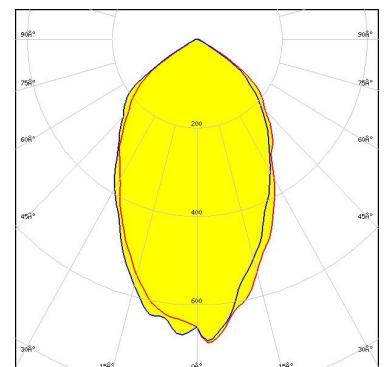
LED NVSxx19B/NVSxx19C  
FWHM / FWTM 73.0° / 122.0°  
Efficiency 95 %  
Peak intensity 0.6 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED Duris S5 (2 chip)  
FWHM / FWTM 64.0° / 119.0°  
Efficiency 94 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

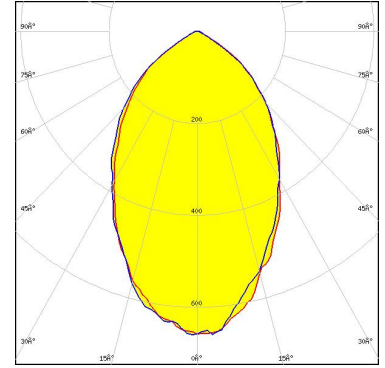


Light distribution files

#### OPTICAL RESULTS (SIMULATED):

**OSRAM**  
Opto Semiconductors

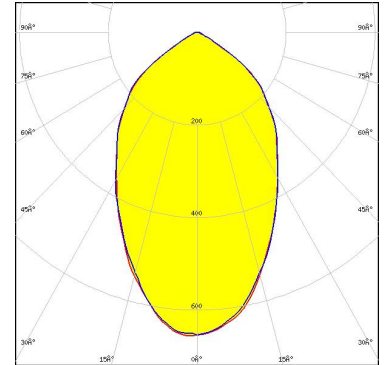
LED Duris S8  
FWHM / FWTM 67.0° / 118.0°  
Efficiency 94 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

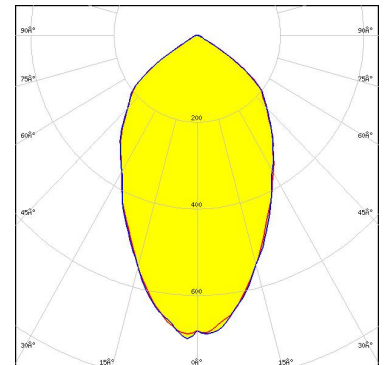
LED OSCONIQ C 2424  
FWHM / FWTM 68.0° / 118.0°  
Efficiency 95 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

LED OSCONIQ C 3030  
FWHM / FWTM 64.0 + 62.0° / 118.0°  
Efficiency 96 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

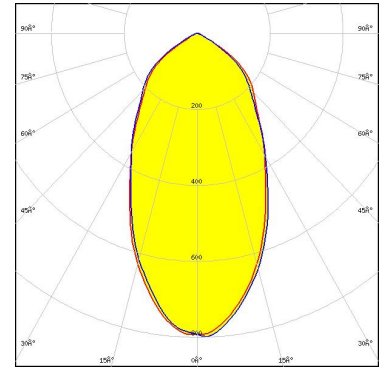


Light distribution files

#### OPTICAL RESULTS (SIMULATED):

**OSRAM**  
Opto Semiconductors

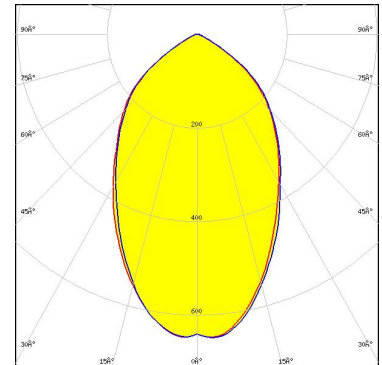
LED OSCONIQ P 3030  
 FWHM / FWTM 56.0° / 119.0°  
 Efficiency 96 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

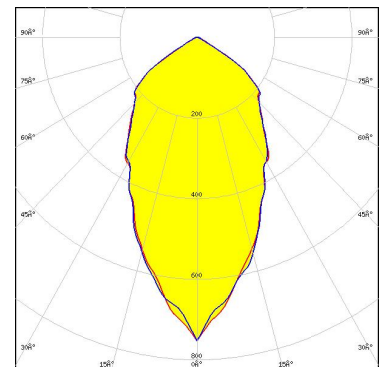
LED OSCONIQ P 3737 (2W version)  
 FWHM / FWTM 68.0° / 121.0°  
 Efficiency 94 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

LED OSOLON Pure 1414  
 FWHM / FWTM 54.0° / 118.0°  
 Efficiency 96 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

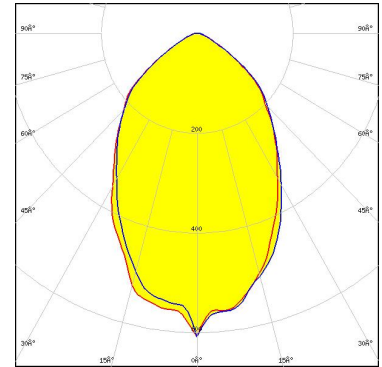


Light distribution files

#### OPTICAL RESULTS (SIMULATED):

**OSRAM**  
Opto Semiconductors

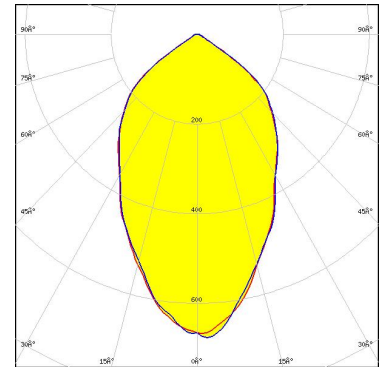
LED OSLON Square CSSRM2/CSSRM3  
FWHM / FWTM 68.0° / 123.0°  
Efficiency 93 %  
Peak intensity 0.6 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

**SAMSUNG**

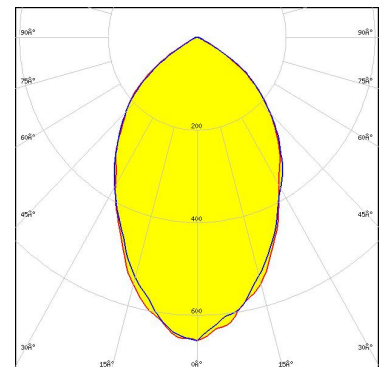
LED LH181B  
FWHM / FWTM 65.0° / 117.0°  
Efficiency 94 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

**SAMSUNG**

LED LH351B  
FWHM / FWTM 71.0° / 119.0°  
Efficiency 94 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



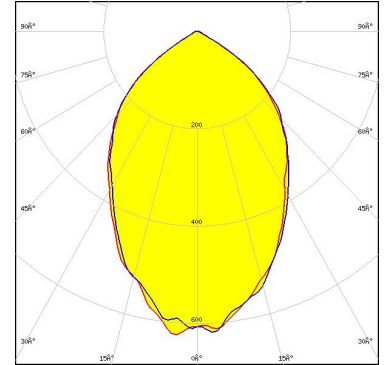
Light distribution files



#### OPTICAL RESULTS (SIMULATED):

### SAMSUNG

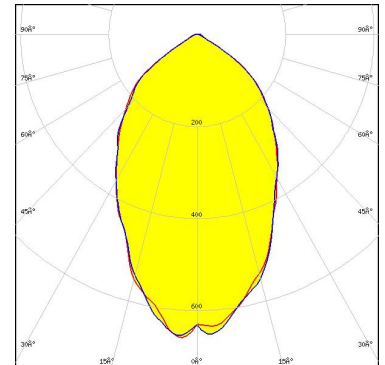
LED LH351C  
FWHM / FWTM 75.0° / 119.0°  
Efficiency 94 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

### SAMSUNG

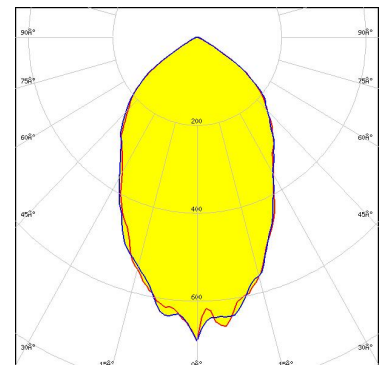
LED LM28xB Series  
FWHM / FWTM 66.0° / 119.0°  
Efficiency 94 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

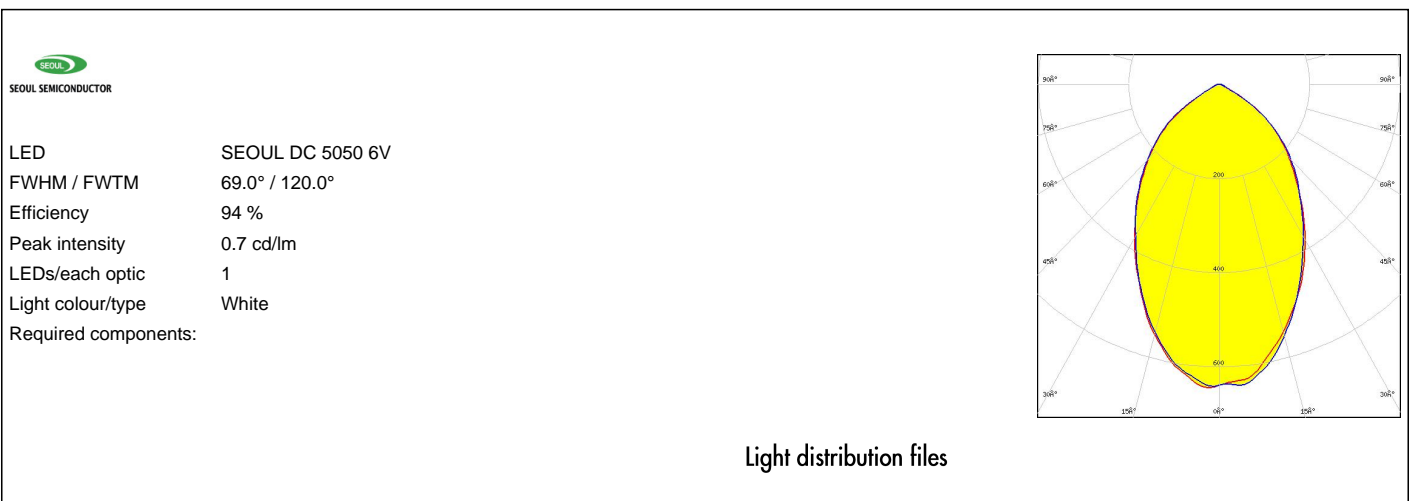
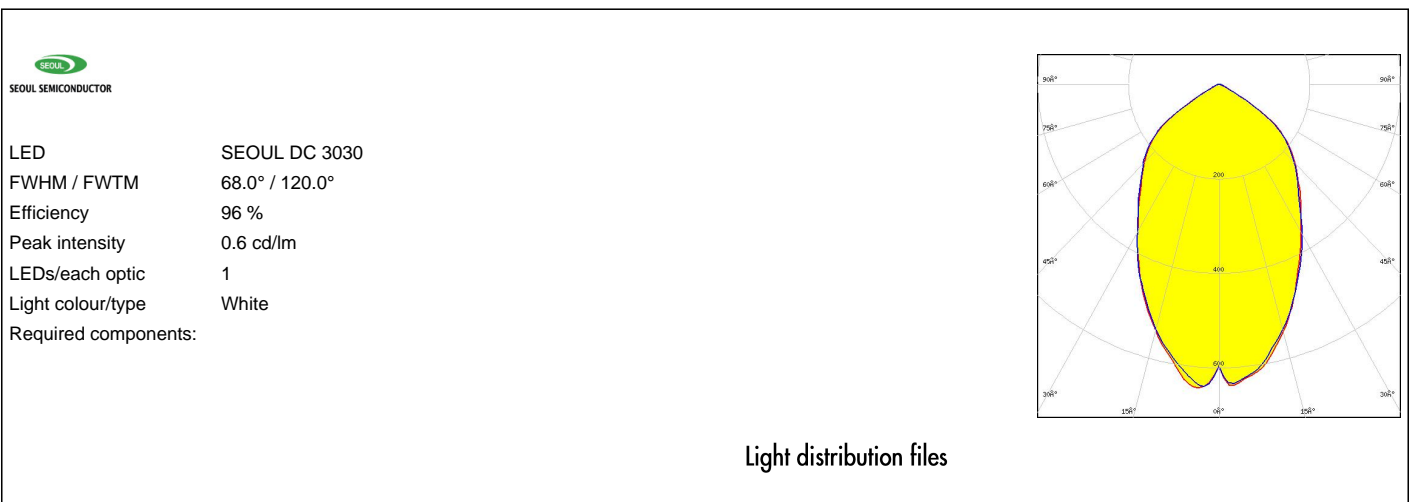
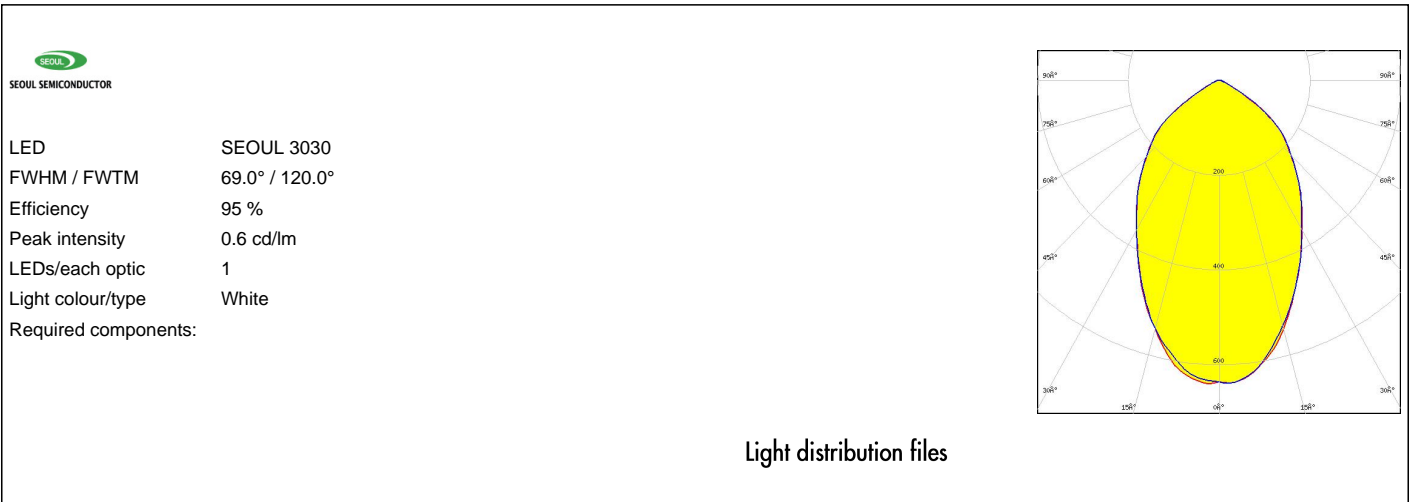
### SAMSUNG

LED LM301B  
FWHM / FWTM 63.0° / 118.0°  
Efficiency 94 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

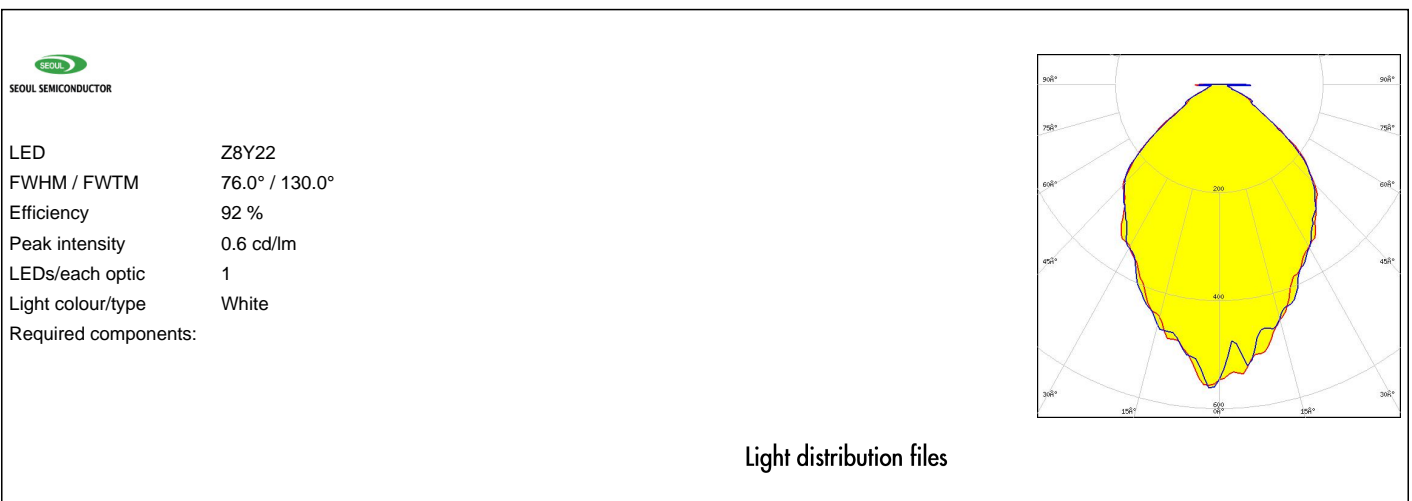
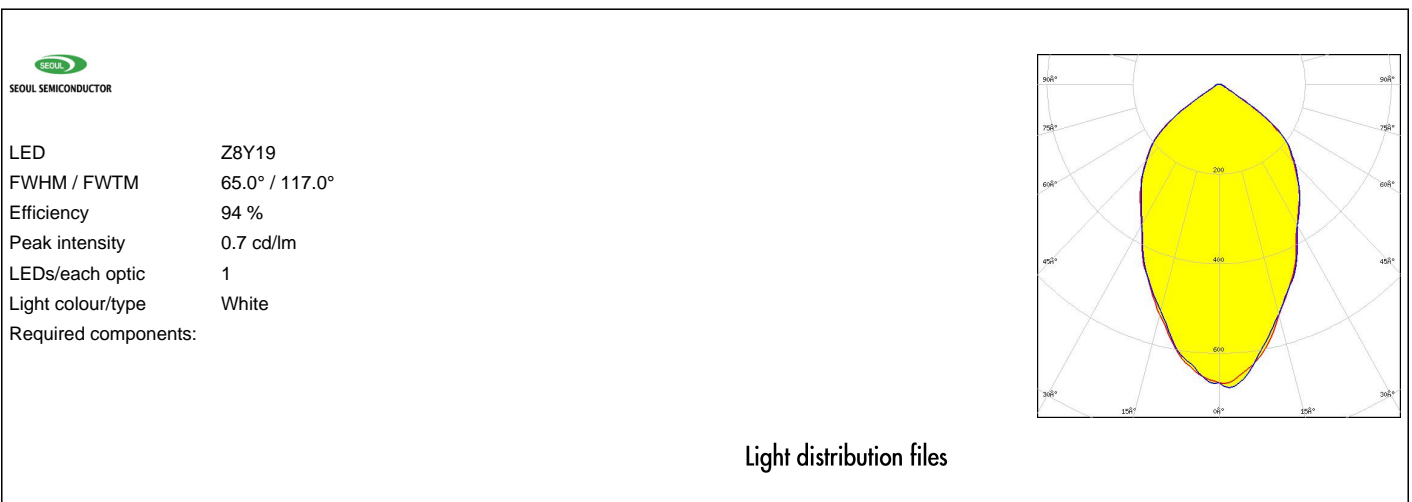


Light distribution files


#### OPTICAL RESULTS (SIMULATED):

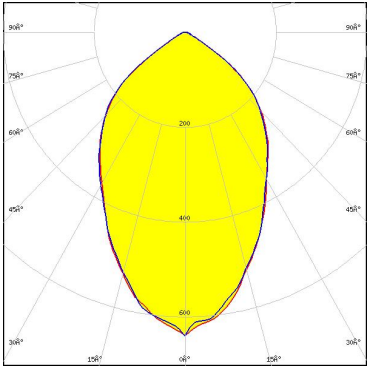


#### OPTICAL RESULTS (SIMULATED):



#### OPTICAL RESULTS (SIMULATED):

 SEUL SEMICONDUCTOR	
LED	Z8Y22T
FWHM / FWTM	69.0° / 118.0°
Efficiency	94 %
Peak intensity	0.6 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:

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