

## HB-2X2-W

~50° wide beam

### SPECIFICATION:

Dimensions	50.0 x 50.0 mm
Height	8.5 mm
Fastening	glue, pin, screw
ROHS compliant	yes ⓘ

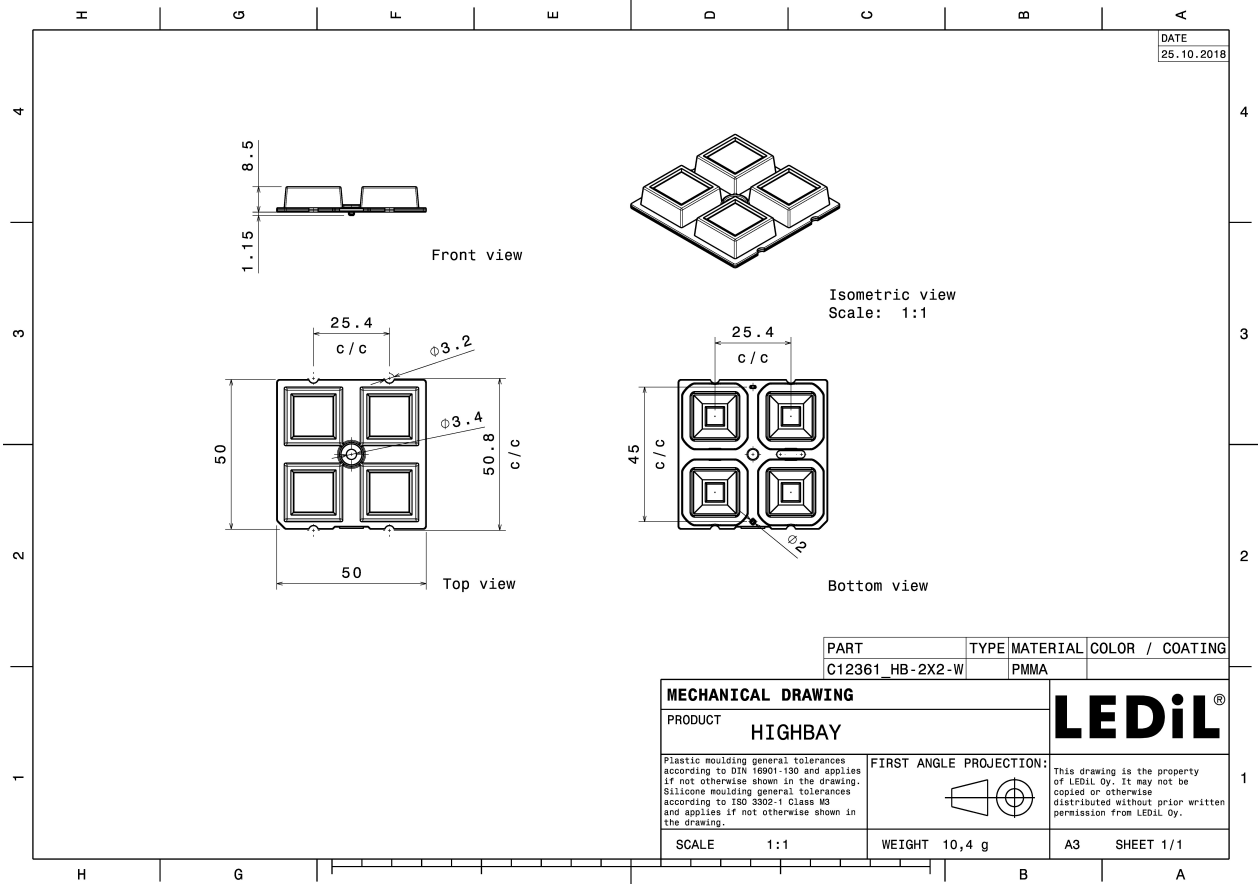


### MATERIALS:

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

### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
C12361_HB-2X2-W » Box size: 480 x 280 x 300 mm	800	160	160	9.1

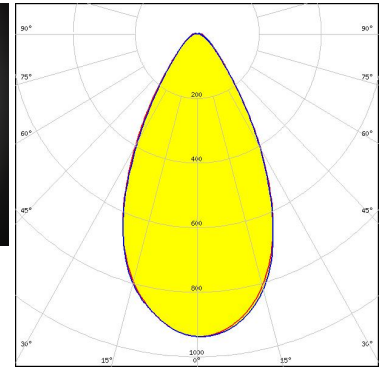
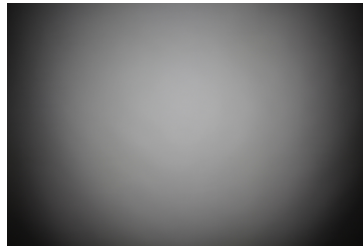


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

#### OPTICAL RESULTS (MEASURED):



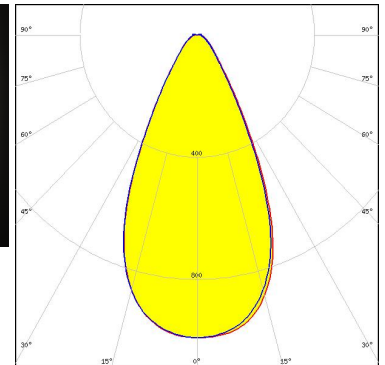
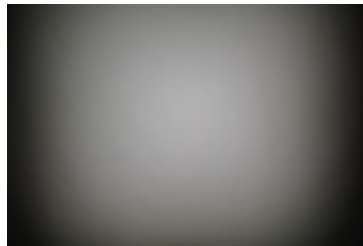
**LED** Bridgelux SMD 5050  
**FWHM / FWTM** 55.0° / 93.0°  
**Efficiency** 94 %  
**Peak intensity** 0.9 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



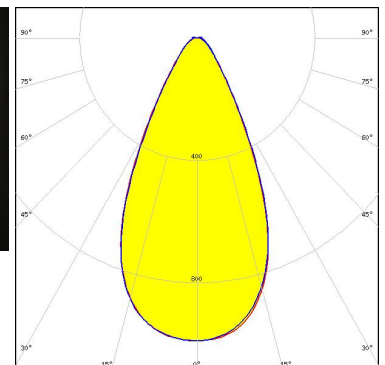
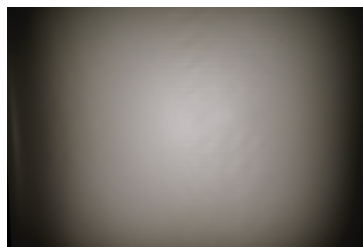
**LED** QUICK FLUX XTP 2x4 xxx LS G5  
**FWHM / FWTM** 52.0° / 85.0°  
**Efficiency** 94 %  
**Peak intensity** 1 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



**LED** QUICK FLUX XTP 2x6 xxx LS G5  
**FWHM / FWTM** 52.0° / 86.0°  
**Efficiency** 94 %  
**Peak intensity** 1 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**

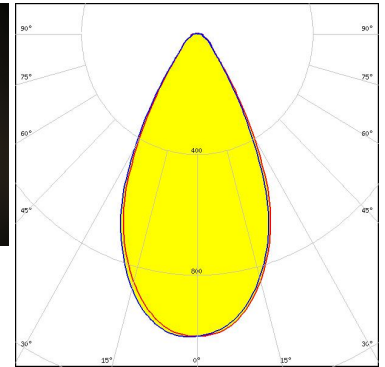
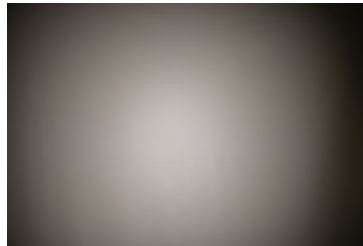


Light distribution files

#### OPTICAL RESULTS (MEASURED):



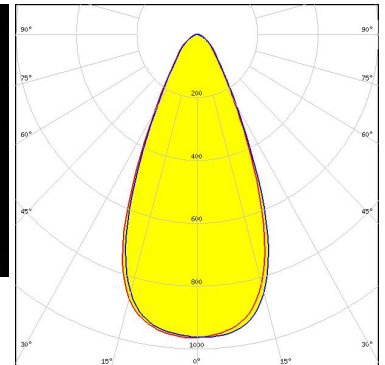
LED J Series 5050C 6V E Class  
 FWHM / FWTM 54.0° / 86.0°  
 Efficiency 94 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



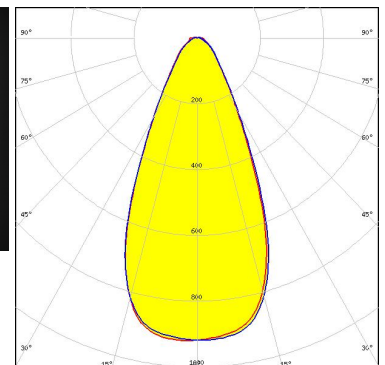
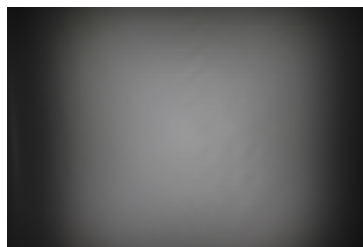
LED XB-D  
 FWHM / FWTM 48.0° / 85.0°  
 Efficiency 86 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED XD16  
 FWHM / FWTM 48.0° / 89.0°  
 Efficiency 91 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

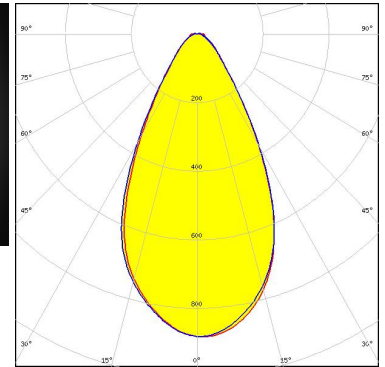
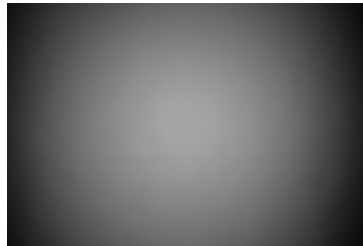


Light distribution files

#### OPTICAL RESULTS (MEASURED):



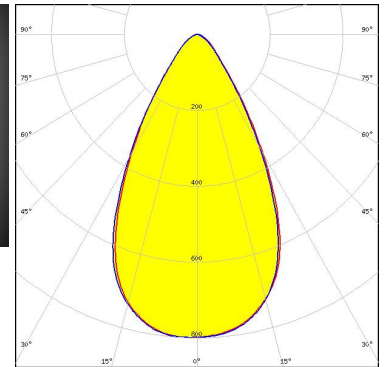
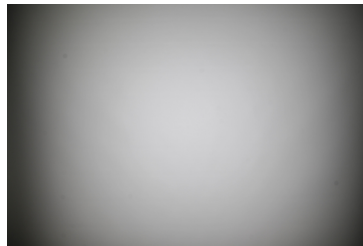
**LED** XD16  
**FWHM / FWTM** 54.0° / 94.0°  
**Efficiency** 91 %  
**Peak intensity** 0.9 cd/lm  
**LEDs/each optic** 4  
**Light colour/type** White  
**Required components:**



Light distribution files



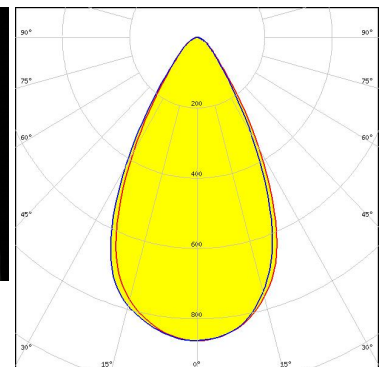
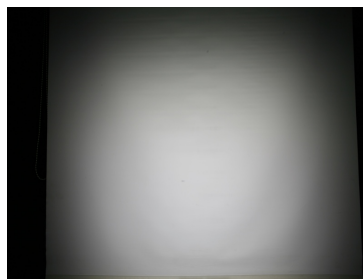
**LED** XHP35 HD  
**FWHM / FWTM** 57.0° / 92.0°  
**Efficiency** 85 %  
**Peak intensity** 0.8 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



**LED** XM-L  
**FWHM / FWTM** 57.0° / 90.0°  
**Efficiency** 89 %  
**Peak intensity** 0.9 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**

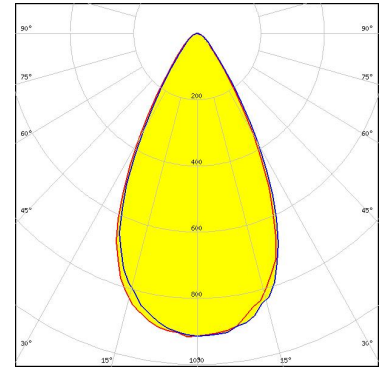


Light distribution files

#### OPTICAL RESULTS (MEASURED):



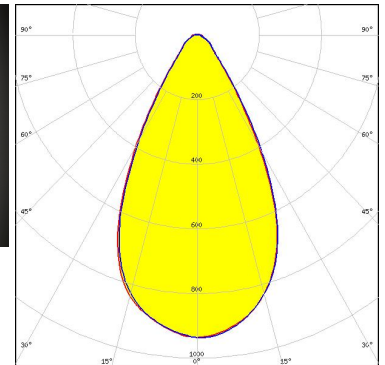
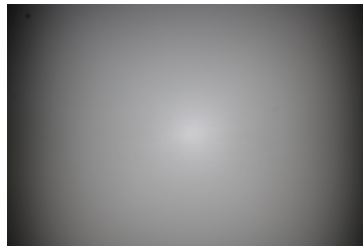
LED XM-L2  
 FWHM / FWTM 56.0° / 85.0°  
 Efficiency 87 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



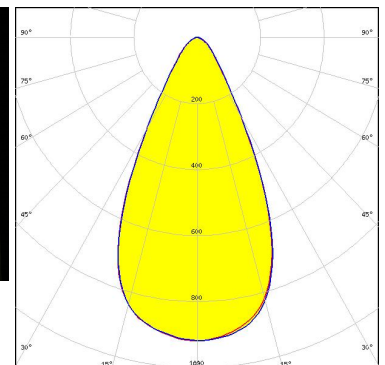
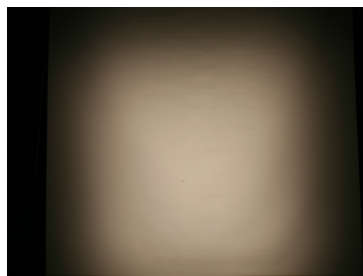
LED XM-L3  
 FWHM / FWTM 56.0° / 87.0°  
 Efficiency 95 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED XP-G  
 FWHM / FWTM 52.0°  
 Efficiency 88 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

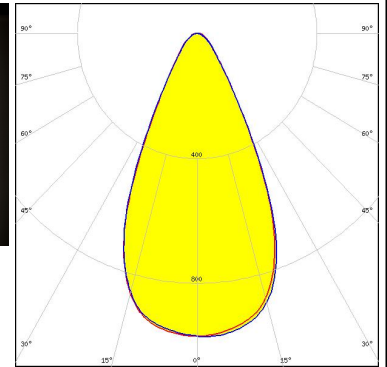


Light distribution files

#### OPTICAL RESULTS (MEASURED):



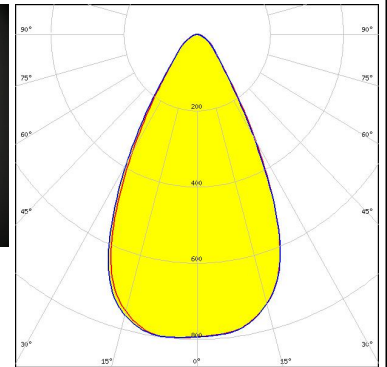
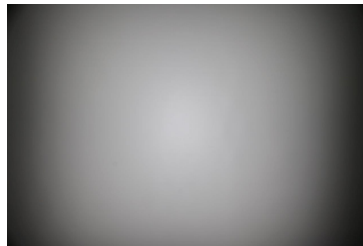
LED XP-G2  
 FWHM / FWTM 51.0° / 84.0°  
 Efficiency 94 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



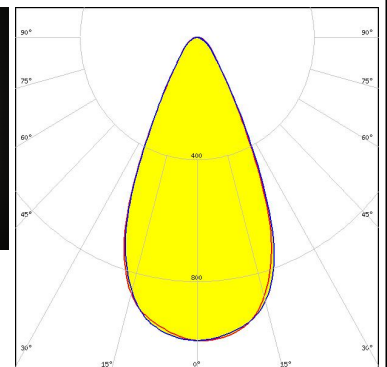
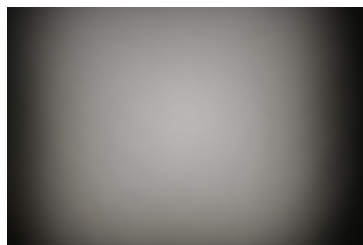
LED XP-L HD  
 FWHM / FWTM 56.0° / 90.0°  
 Efficiency 87 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED XP-L HI  
 FWHM / FWTM 50.0° / 83.0°  
 Efficiency 93 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

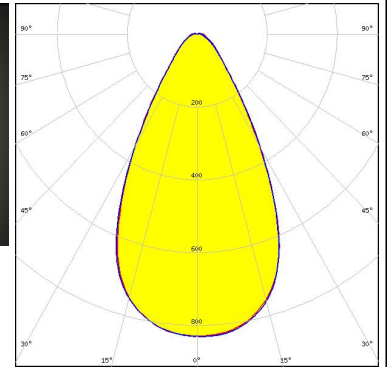


Light distribution files

#### OPTICAL RESULTS (MEASURED):



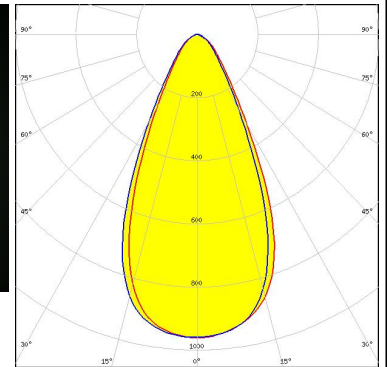
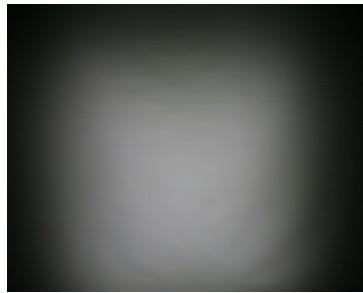
LED XP-L2  
 FWHM / FWTM 56.0° / 96.0°  
 Efficiency 92 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



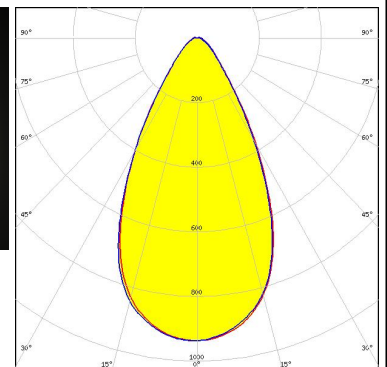
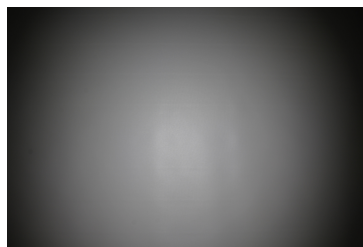
LED XT-E  
 FWHM / FWTM 50.0° / 88.0°  
 Efficiency 87 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED LUXEON 5050 Round LES  
 FWHM / FWTM 55.0° / 91.0°  
 Efficiency 94 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



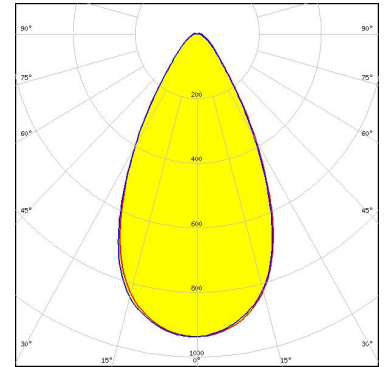
Light distribution files



#### OPTICAL RESULTS (MEASURED):



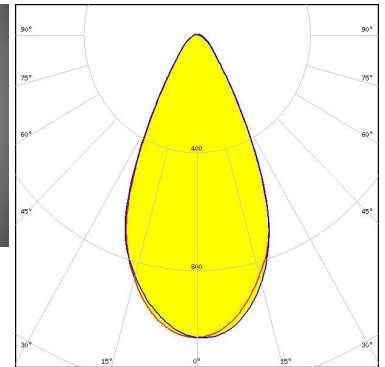
LED LUXEON 5050 Square LES  
 FWHM / FWTM 55.0° / 91.0°  
 Efficiency 94 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



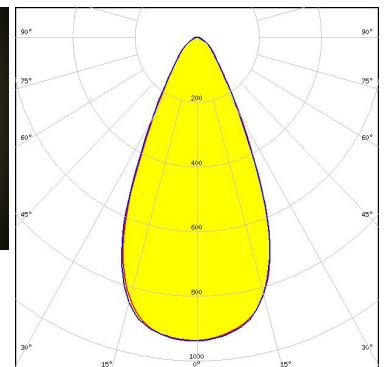
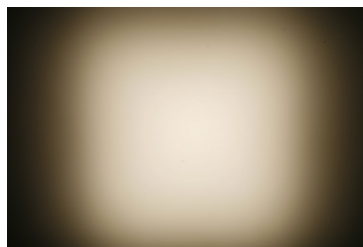
LED LUXEON MZ  
 FWHM / FWTM 53.0° / 86.0°  
 Efficiency 92 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED LUXEON Q  
 FWHM / FWTM 50.0° / 86.0°  
 Efficiency 86 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

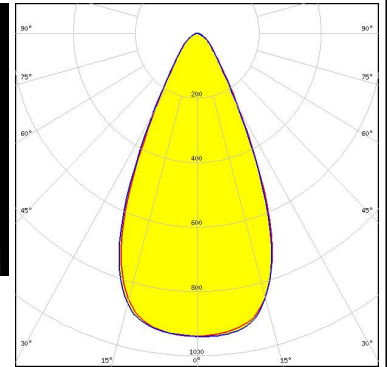


Light distribution files

#### OPTICAL RESULTS (MEASURED):



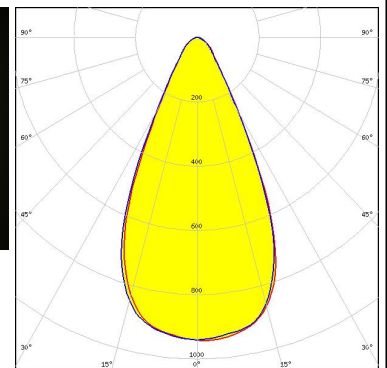
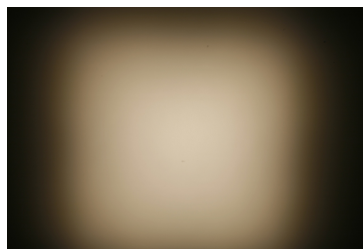
LED LUXEON Rebel ES  
 FWHM / FWTM 51.0° / 82.0°  
 Efficiency 87 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



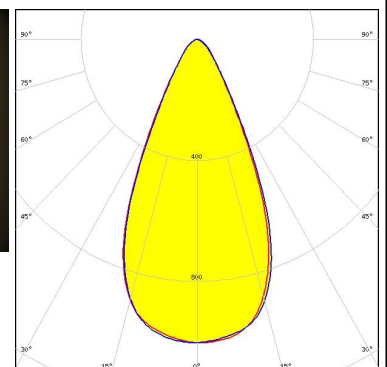
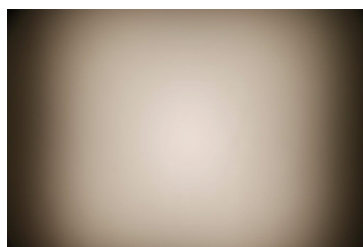
LED LUXEON T  
 FWHM / FWTM 55.0°  
 Efficiency 87 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED LUXEON TX  
 FWHM / FWTM 50.0° / 80.0°  
 Efficiency 88 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

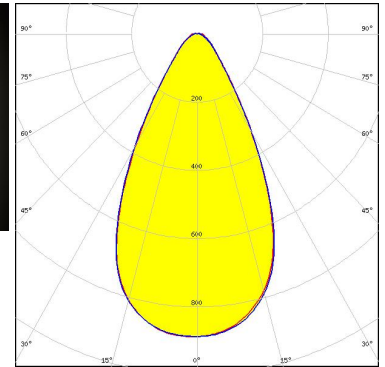
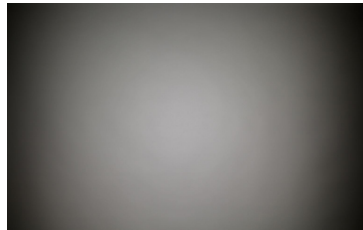


Light distribution files

#### OPTICAL RESULTS (MEASURED):



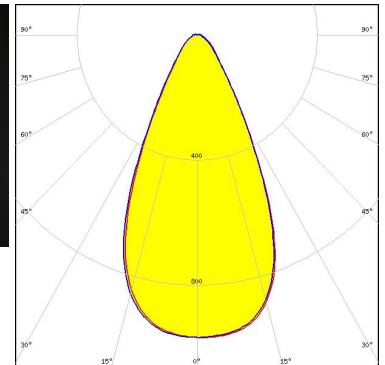
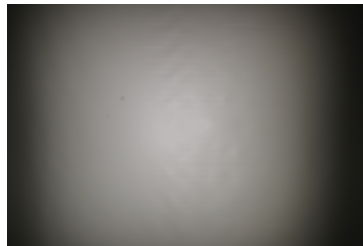
LED LUXEON V  
 FWHM / FWTM 55.0° / 91.0°  
 Efficiency 93 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



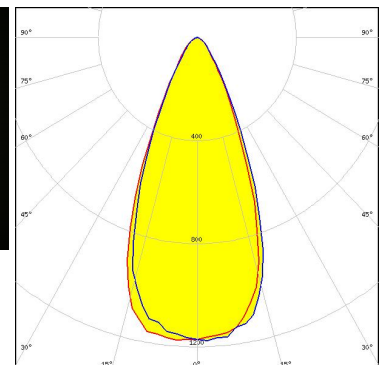
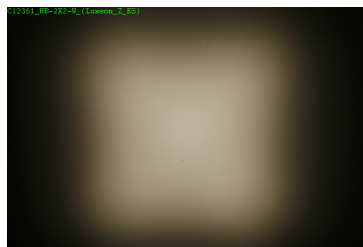
LED LUXEON V2  
 FWHM / FWTM 51.0° / 86.0°  
 Efficiency 94 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED LUXEON Z ES  
 FWHM / FWTM 46.0° / 76.0°  
 Efficiency 87 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

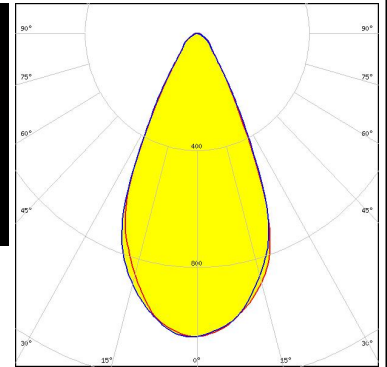


Light distribution files

### OPTICAL RESULTS (MEASURED):



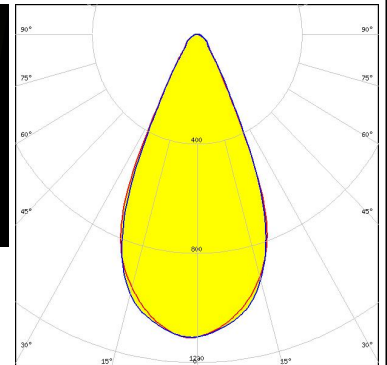
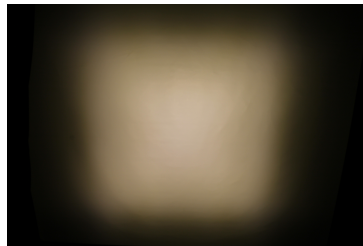
LED SST-10-B130  
FWHM / FWTM 51.0° / 80.0°  
Efficiency 99 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type Deep Red  
Required components:



Light distribution files



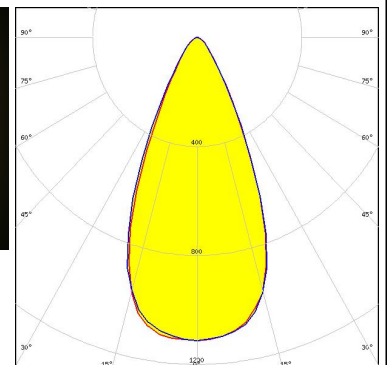
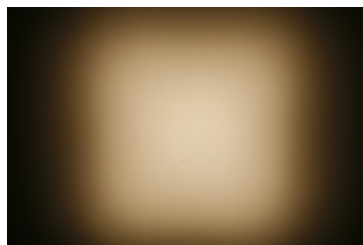
LED RecLED 122x50mm 1900lm 730 2x4 Opt G1  
FWHM / FWTM 50.0° / 75.0°  
Efficiency 98 %  
Peak intensity 1.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED NCSxx19A  
FWHM / FWTM 48.0° / 77.0°  
Efficiency 85 %  
Peak intensity 1.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

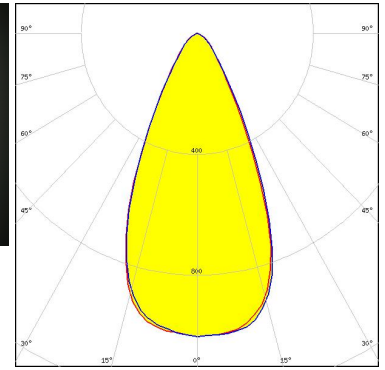


Light distribution files

#### OPTICAL RESULTS (MEASURED):



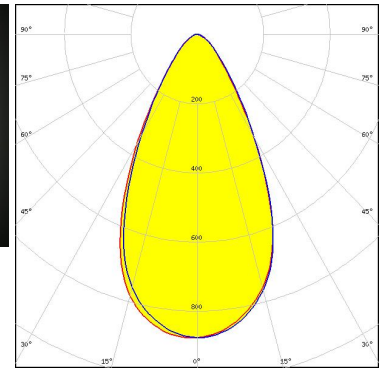
LED NCSxx19B  
 FWHM / FWTM 50.0° / 83.0°  
 Efficiency 85 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



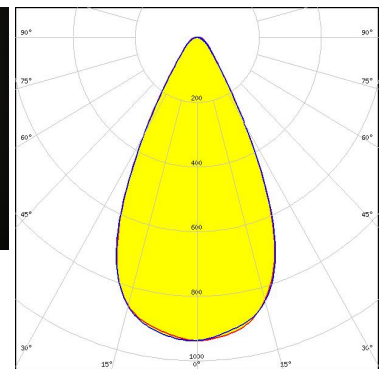
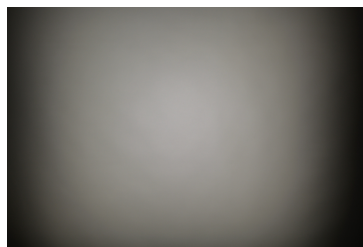
LED NS9x383  
 FWHM / FWTM 54.0° / 93.0°  
 Efficiency 86 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED NVSW219D  
 FWHM / FWTM 53.0° / 83.0°  
 Efficiency 94 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

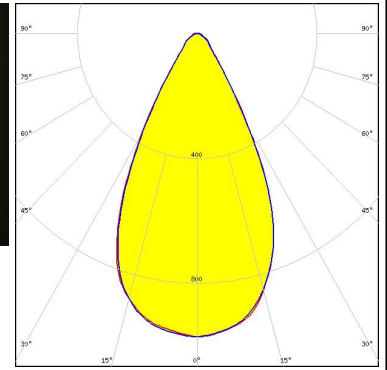


Light distribution files

#### OPTICAL RESULTS (MEASURED):



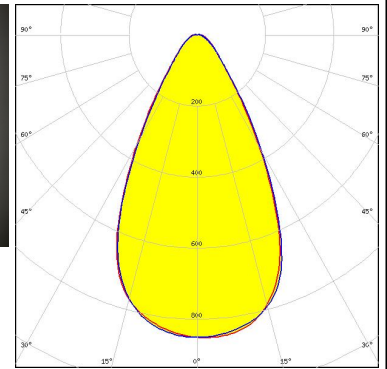
LED NVSW219F  
 FWHM / FWTM 54.0° / 81.0°  
 Efficiency 97 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



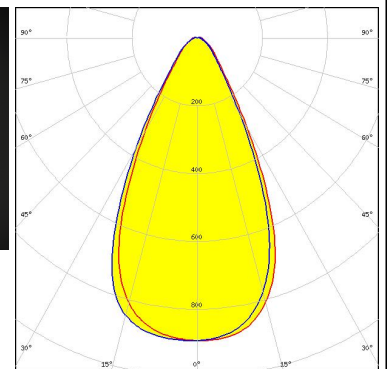
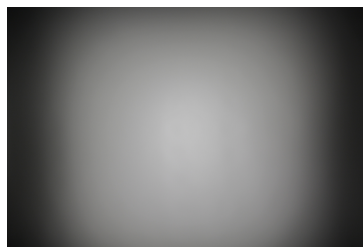
LED NVSW319B  
 FWHM / FWTM 56.0° / 93.0°  
 Efficiency 93 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED NVSW3x9A  
 FWHM / FWTM 53.0° / 88.0°  
 Efficiency 92 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

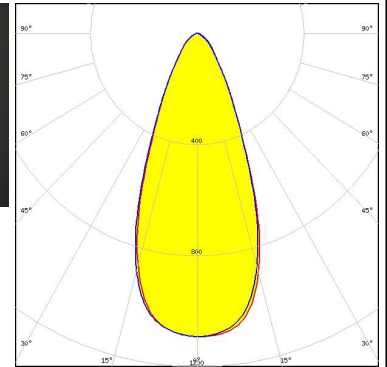
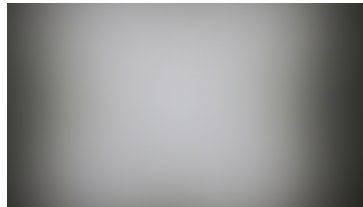


Light distribution files

#### OPTICAL RESULTS (MEASURED):



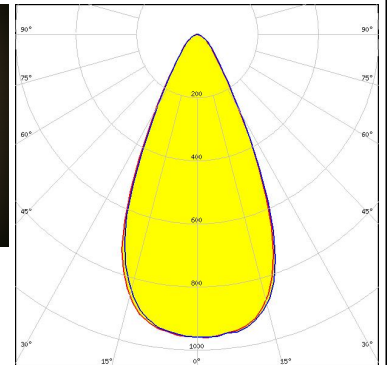
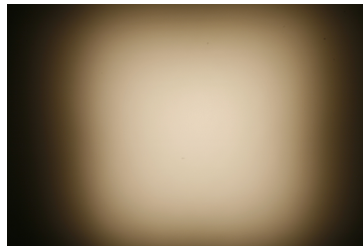
LED NVSxE21A  
 FWHM / FWTM 43.0° / 80.0°  
 Efficiency 86 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



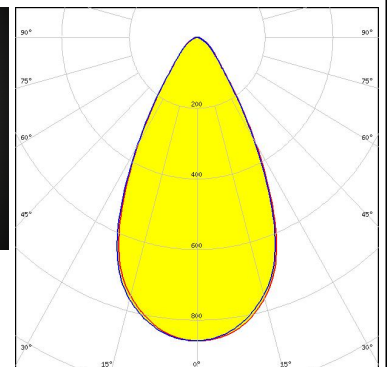
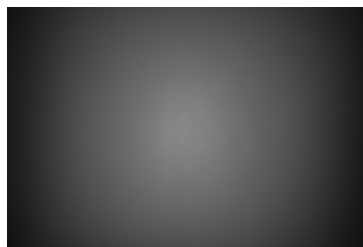
LED NVSxx19B/NVSxx19C  
 FWHM / FWTM 51.0° / 82.0°  
 Efficiency 85 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED NWSx229A  
 FWHM / FWTM 57.0° / 90.0°  
 Efficiency 86 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

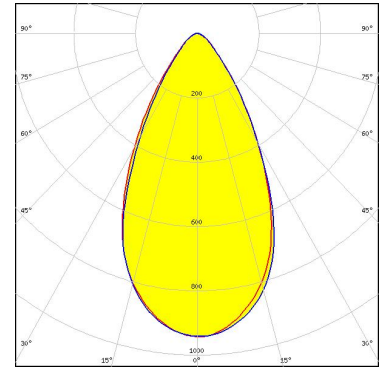


Light distribution files

#### OPTICAL RESULTS (MEASURED):

**OPTOGAN**

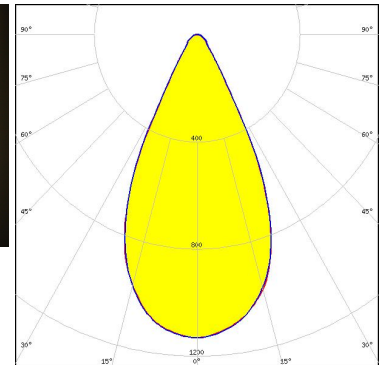
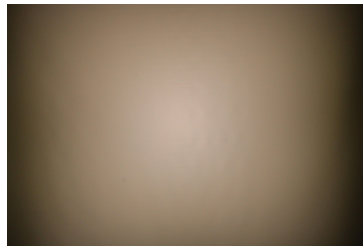
LED OLP-5065F6L-06A  
 FWHM / FWTM 56.0° / 90.0°  
 Efficiency 88 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

**OSRAM**

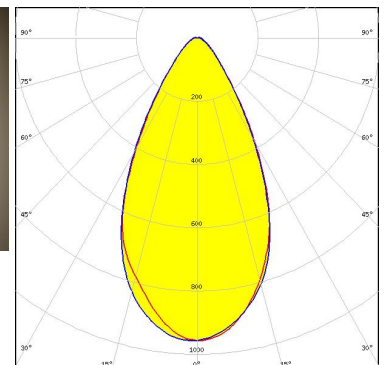
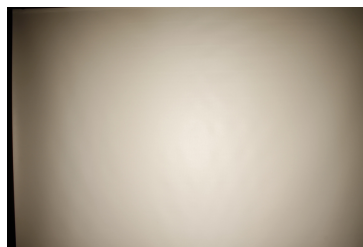
LED PL-BRICK HP 3800 2x8 SSG  
 FWHM / FWTM 52.0° / 75.0°  
 Efficiency 98 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

LED Duris S8  
 FWHM / FWTM 55.0° / 91.0°  
 Efficiency 93 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



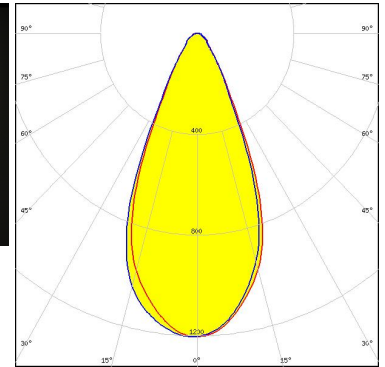
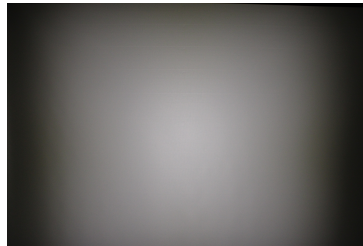
Light distribution files



#### OPTICAL RESULTS (MEASURED):

**OSRAM**  
Opto Semiconductors

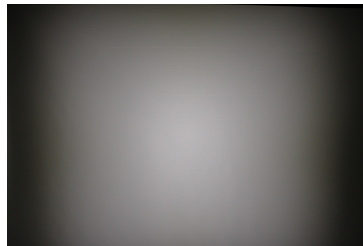
LED OSCONIQ C 3030  
 FWHM / FWTM 47.0° / 76.0°  
 Efficiency 96 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

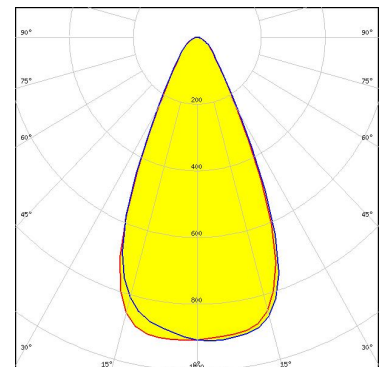
LED OSCONIQ C 3030  
 FWHM / FWTM 47.0° / 76.0°  
 Efficiency 96 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

LED OSLOM Square PC  
 FWHM / FWTM 54.0° / 85.0°  
 Efficiency 87 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

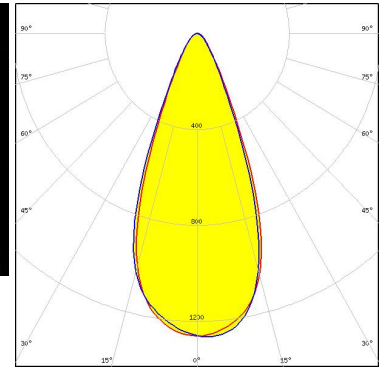


Light distribution files

### OPTICAL RESULTS (MEASURED):

**OSRAM**  
Opto Semiconductors

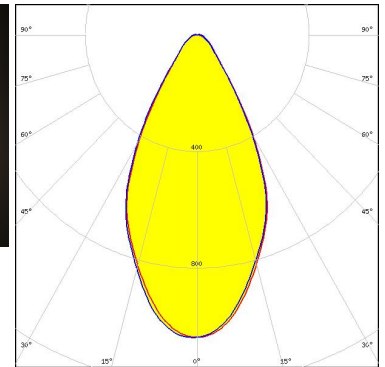
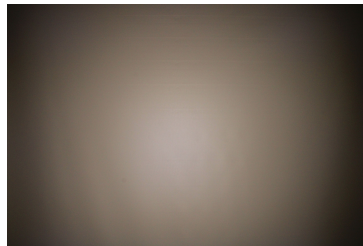
LED OSLON SSL 80  
FWHM / FWTM 43.0° / 70.0°  
Efficiency 89 %  
Peak intensity 1.3 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

**PHILIPS**

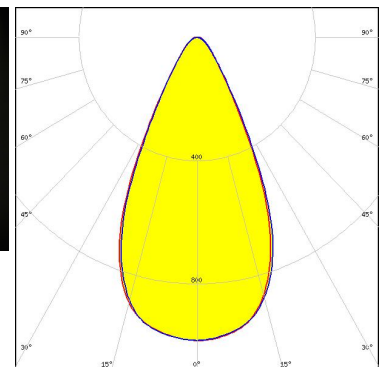
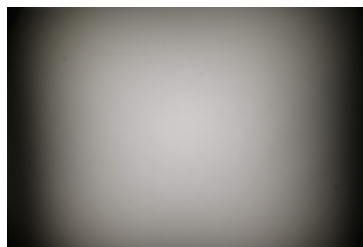
LED Fortimo FastFlex LED 2x8 DA (U)HE  
FWHM / FWTM 54.0° / 87.0°  
Efficiency 97 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

**PHILIPS**

LED Fortimo FastFlex LED 2x8 DA G4  
FWHM / FWTM 52.0° / 82.0°  
Efficiency 94 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

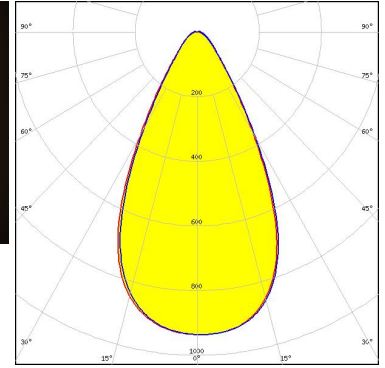
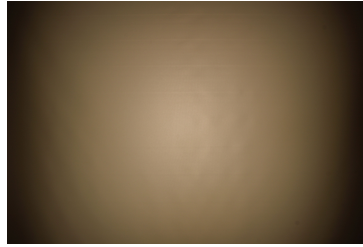


Light distribution files

### OPTICAL RESULTS (MEASURED):

#### PHILIPS

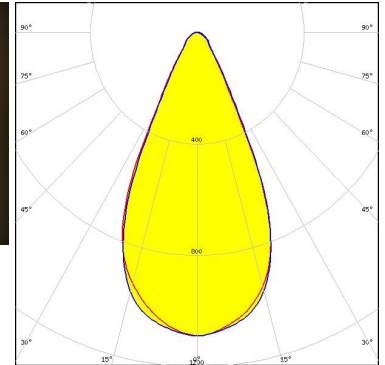
LED Fortimo FastFlex LED 2x8 DA G4+  
FWHM / FWTM 55.0° / 88.0°  
Efficiency 97 %  
Peak intensity 0.9 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

#### PHILIPS

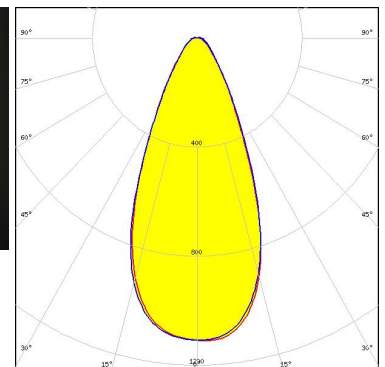
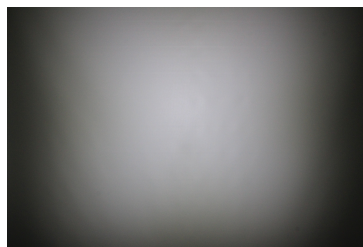
LED Fortimo FastFlex LED 2x8 DA G5  
FWHM / FWTM 50.0° / 77.0°  
Efficiency 97 %  
Peak intensity 1.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

#### SAMSUNG

LED HiLOM RC12 Z (LH181B)  
FWHM / FWTM 46.0° / 84.0°  
Efficiency 97 %  
Peak intensity 1.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

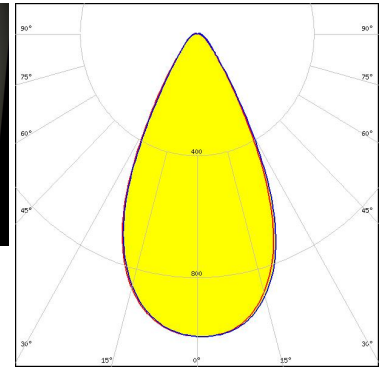


Light distribution files

#### OPTICAL RESULTS (MEASURED):

### SAMSUNG

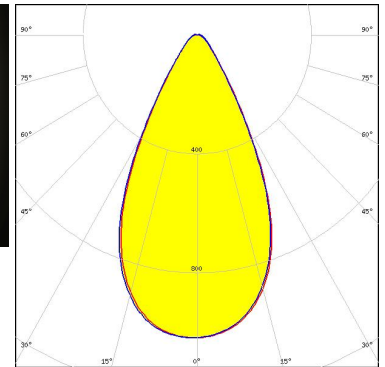
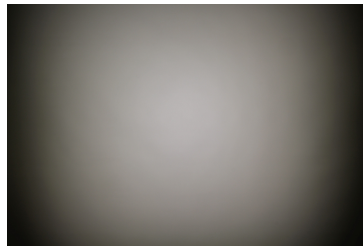
LED HiLOM RH12 Z (LH351C)  
FWHM / FWTM 54.0° / 84.0°  
Efficiency 96 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

### SAMSUNG

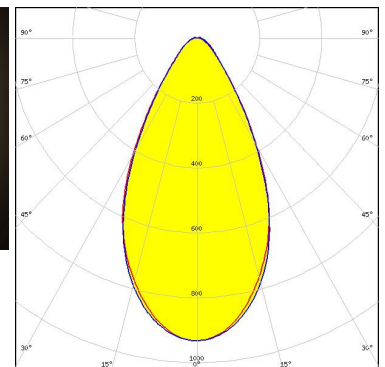
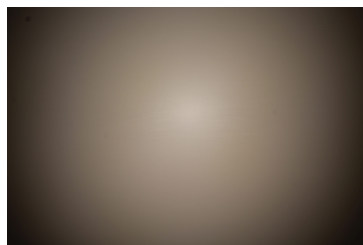
LED HiLOM RH16 (LH351C)  
FWHM / FWTM 53.0° / 83.0°  
Efficiency 94 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

### SAMSUNG

LED HiLOM RM12 Z (LH502C)  
FWHM / FWTM 55.0° / 94.0°  
Efficiency 94 %  
Peak intensity 0.9 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

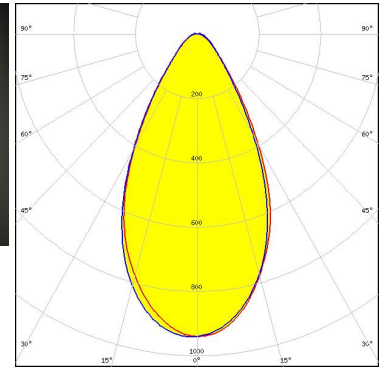
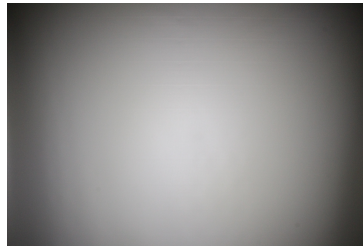


Light distribution files

#### OPTICAL RESULTS (MEASURED):

### SAMSUNG

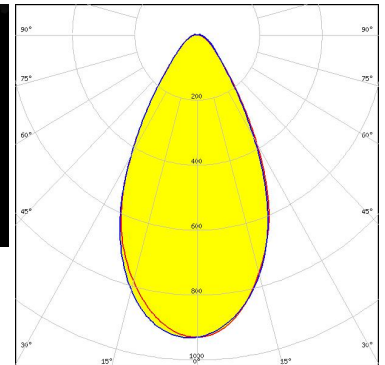
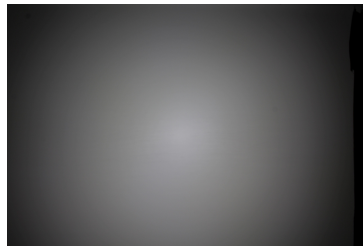
LED HiLOM RM16 Z (LH502C)  
 FWHM / FWTM 55.0° / 95.0°  
 Efficiency 96 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

### SAMSUNG

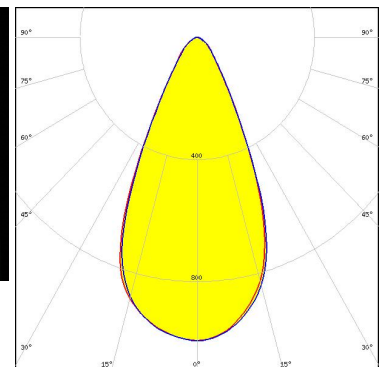
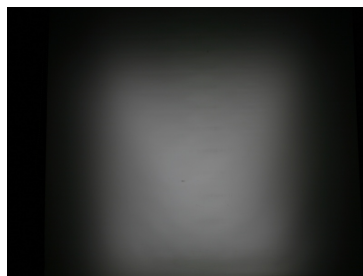
LED HiLOM RM8 Z (LH502C)  
 FWHM / FWTM 56.0° / 95.0°  
 Efficiency 96 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

### SAMSUNG

LED LH351A  
 FWHM / FWTM 49.0° / 81.0°  
 Efficiency 89 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

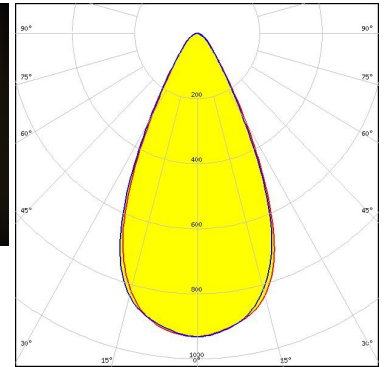
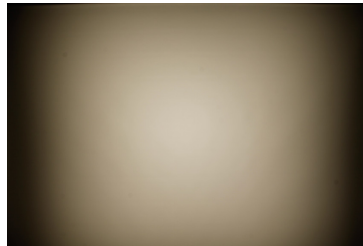


Light distribution files

#### OPTICAL RESULTS (MEASURED):

### SAMSUNG

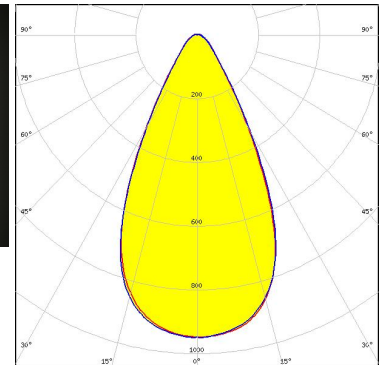
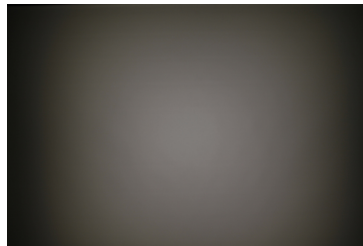
LED LH351B  
FWHM / FWTM 55.0° / 85.0°  
Efficiency 86 %  
Peak intensity 0.9 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

### SAMSUNG

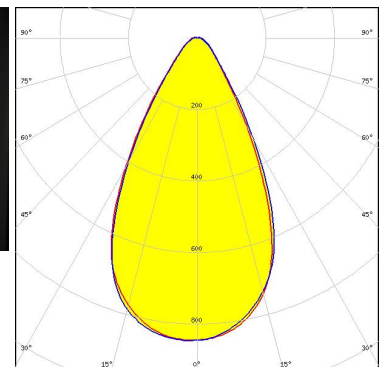
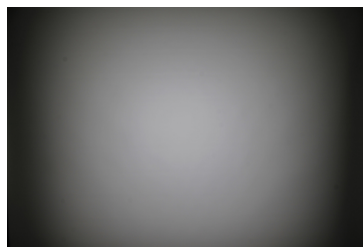
LED LH351C  
FWHM / FWTM 53.0° / 85.0°  
Efficiency 93 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

### SAMSUNG

LED LH351D  
FWHM / FWTM 56.0° / 90.0°  
Efficiency 91 %  
Peak intensity 0.9 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

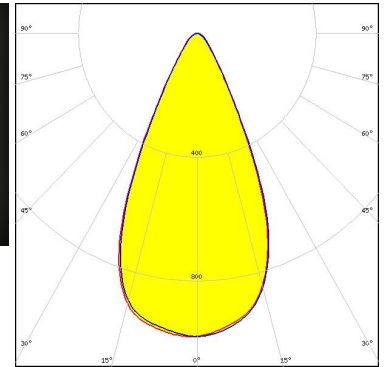


Light distribution files

#### OPTICAL RESULTS (MEASURED):

### SAMSUNG

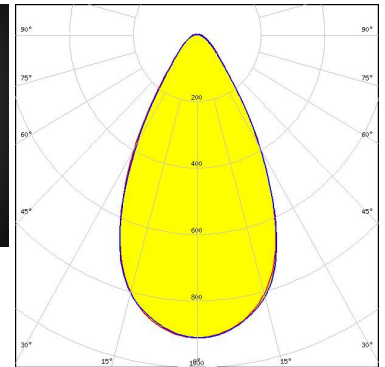
LED LH351Z  
 FWHM / FWTM 50.0° / 77.0°  
 Efficiency 87 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

### SAMSUNG

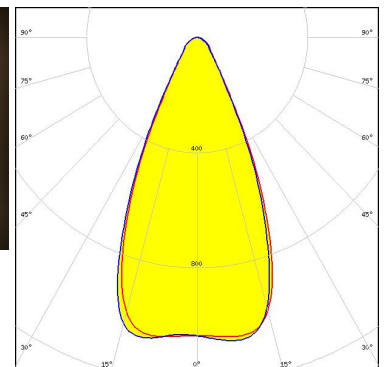
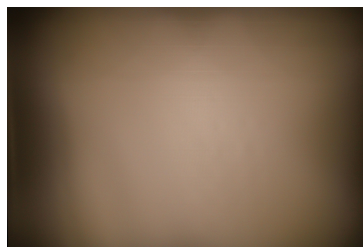
LED LH508A  
 FWHM / FWTM 56.0° / 92.0°  
 Efficiency 93 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

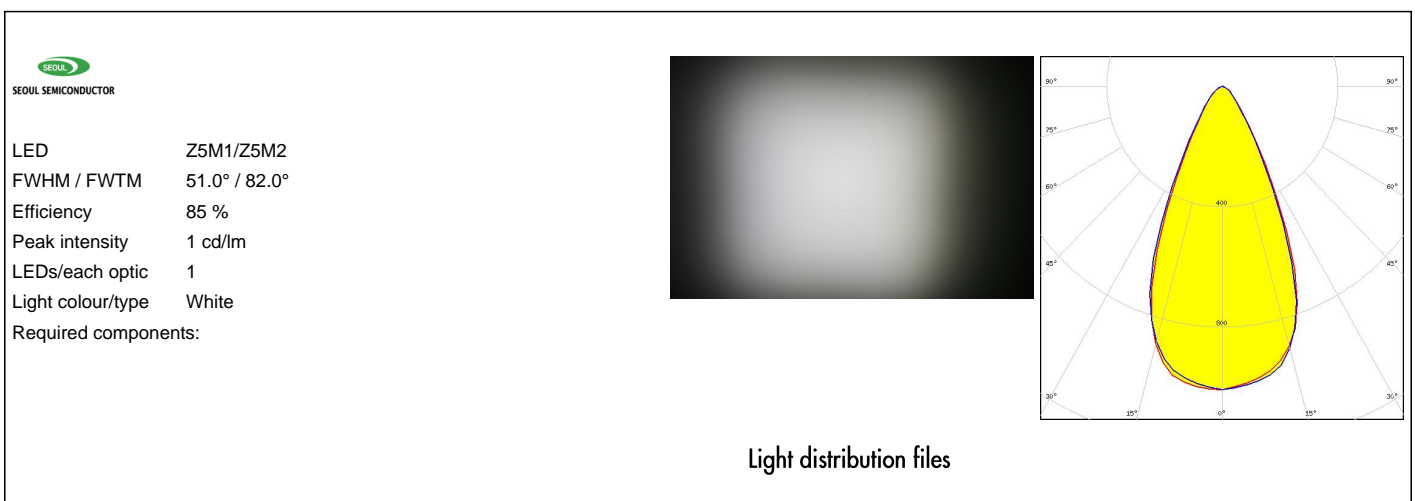
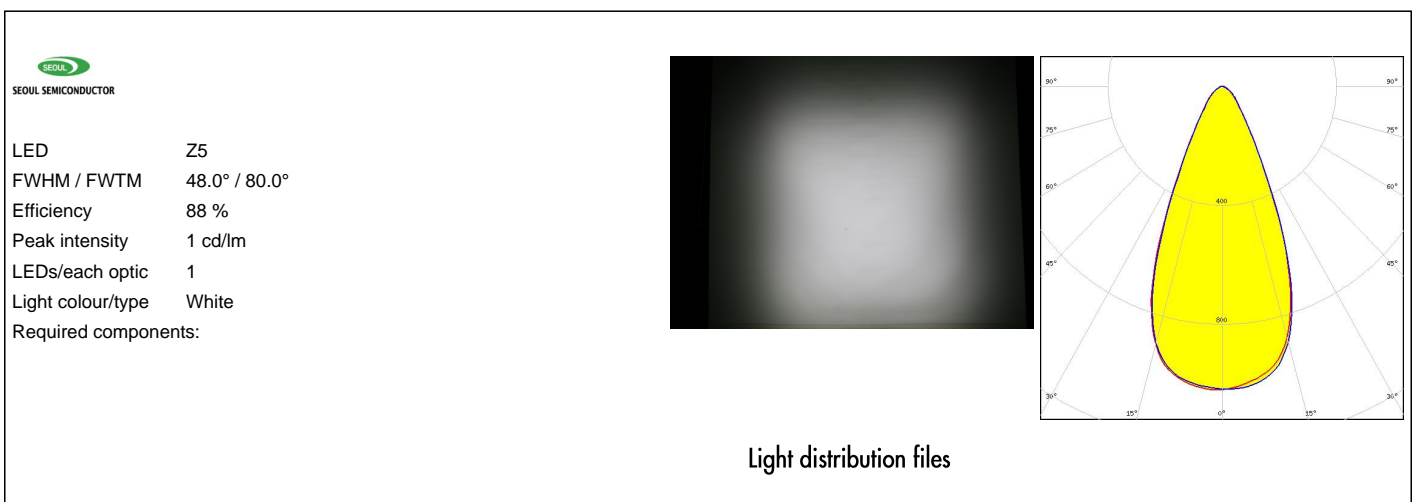
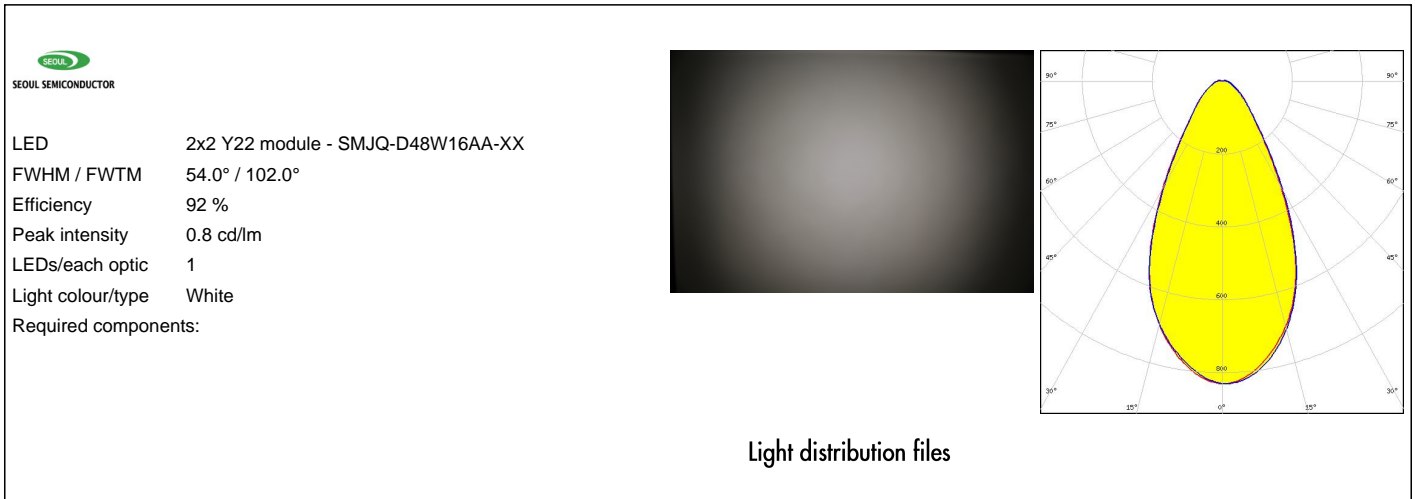


LED LED-Pa-L15c2W11c2-xxx-C050-01  
 FWHM / FWTM 50.0° / 78.0°  
 Efficiency 96 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



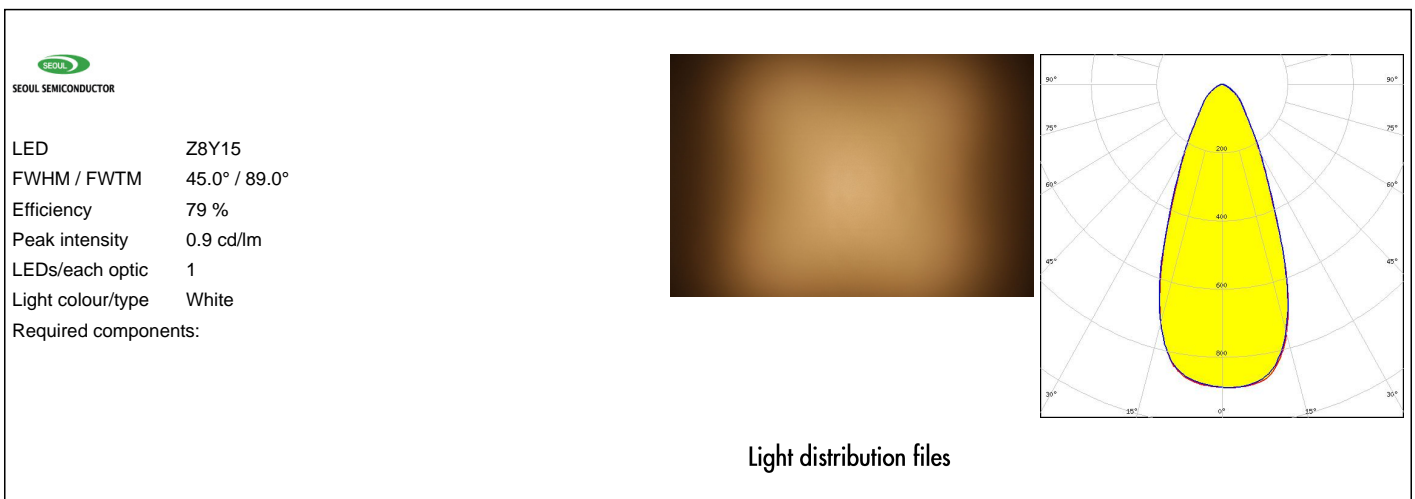
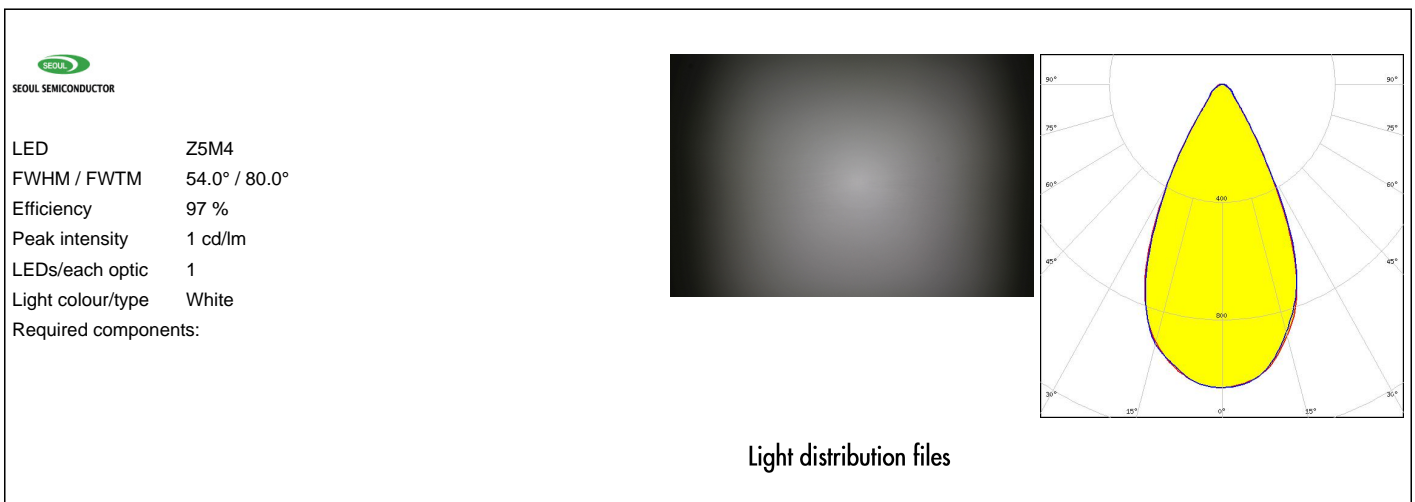
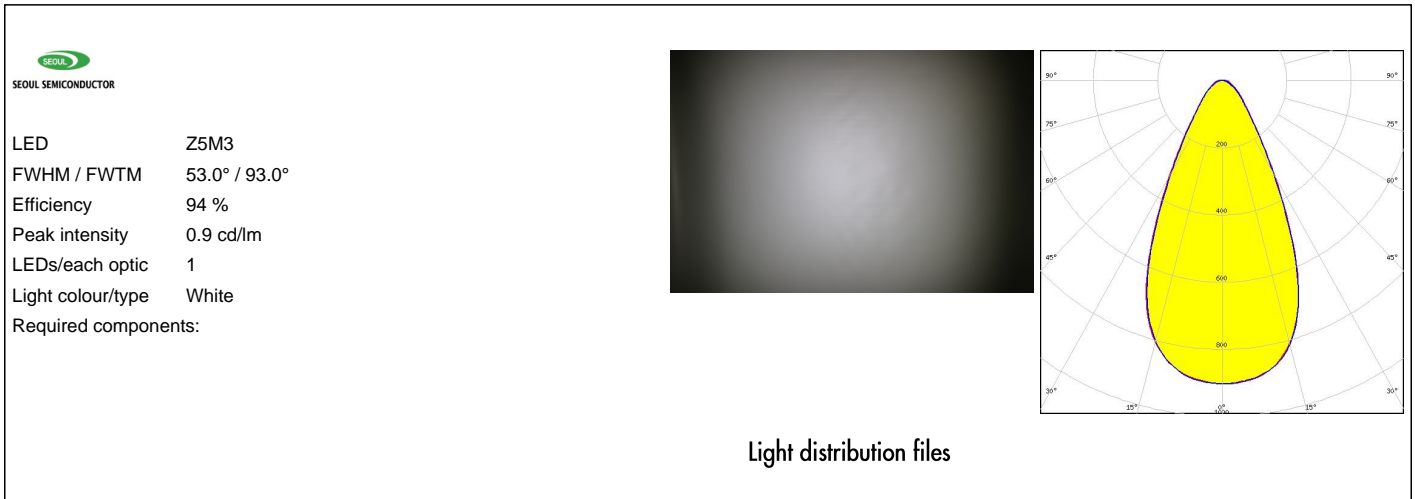
Light distribution files

#### OPTICAL RESULTS (MEASURED):

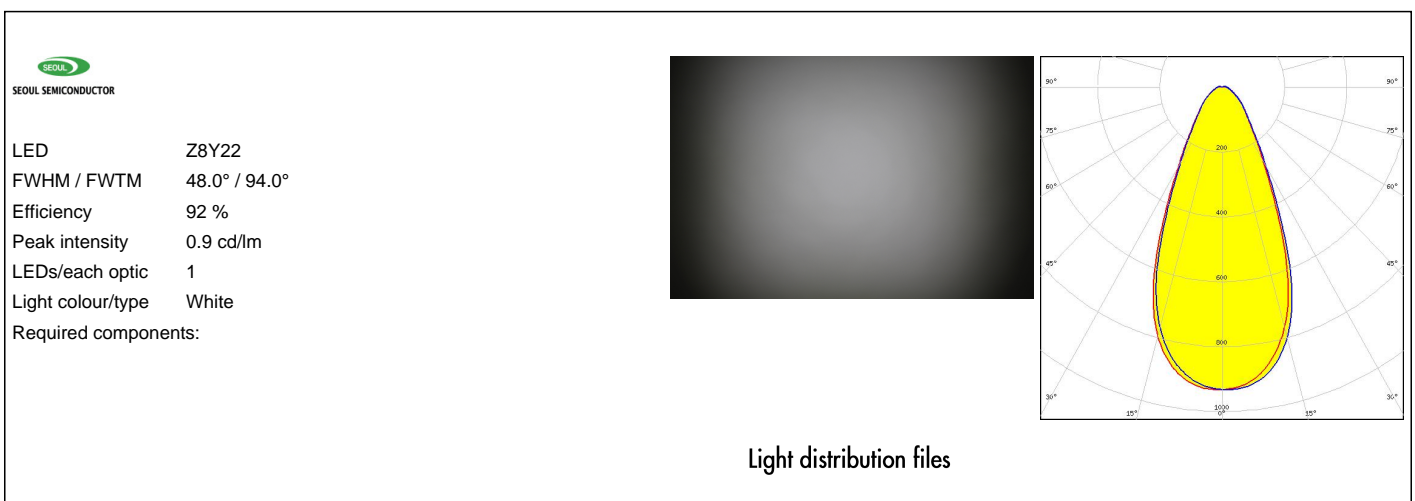
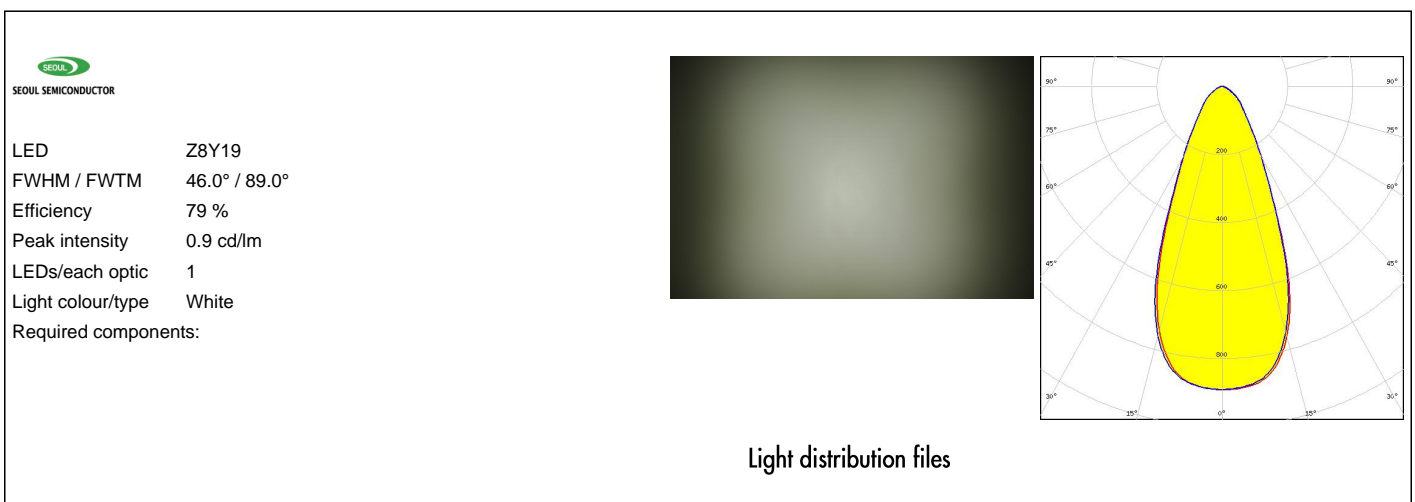
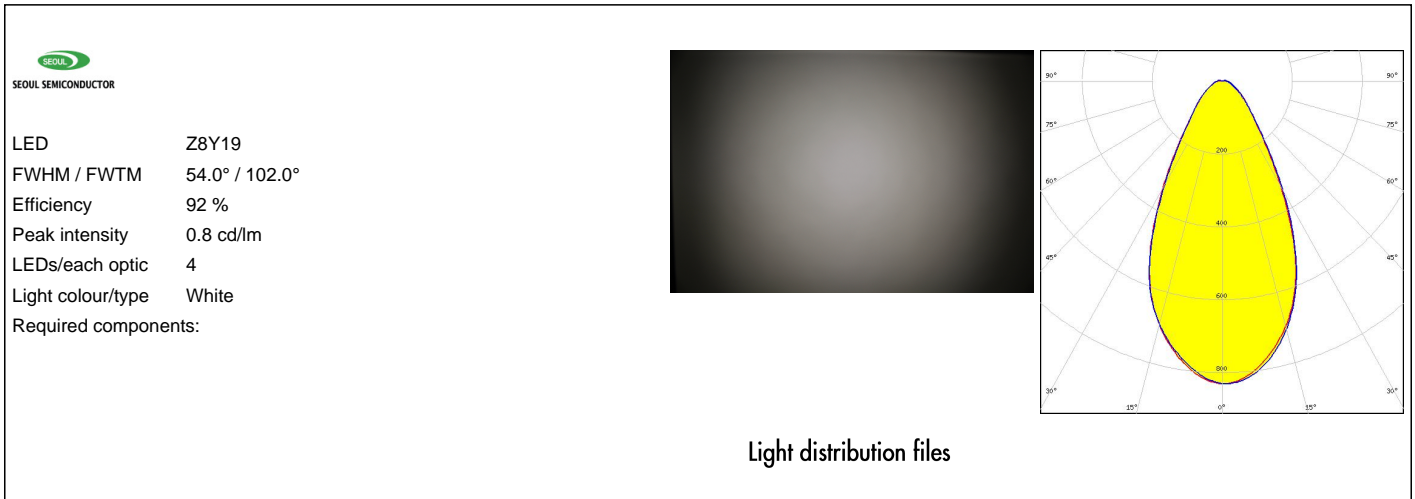




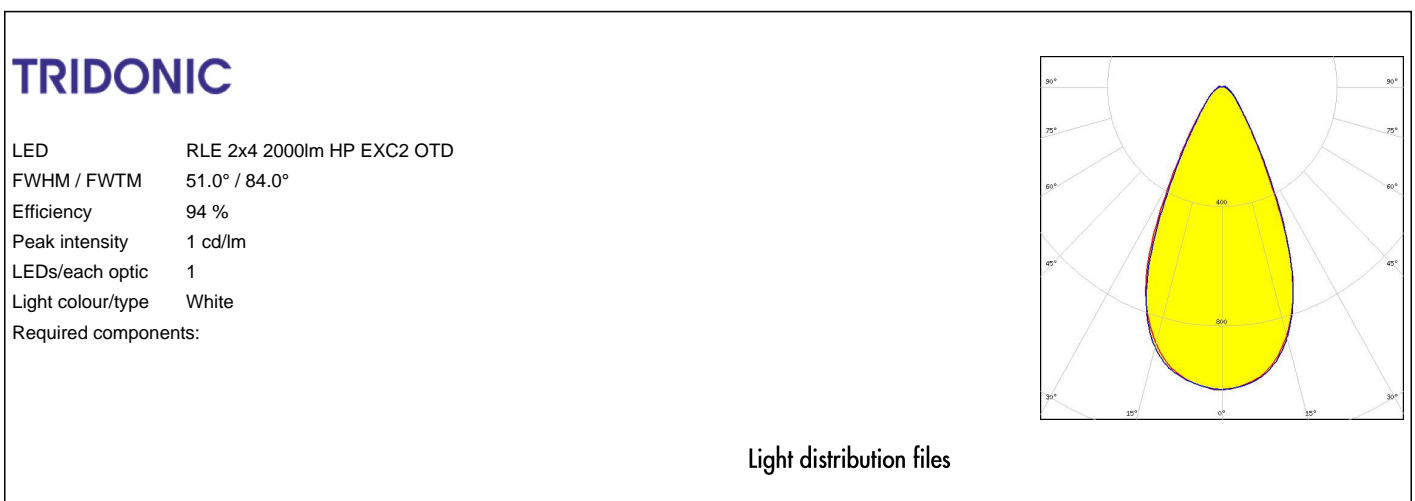
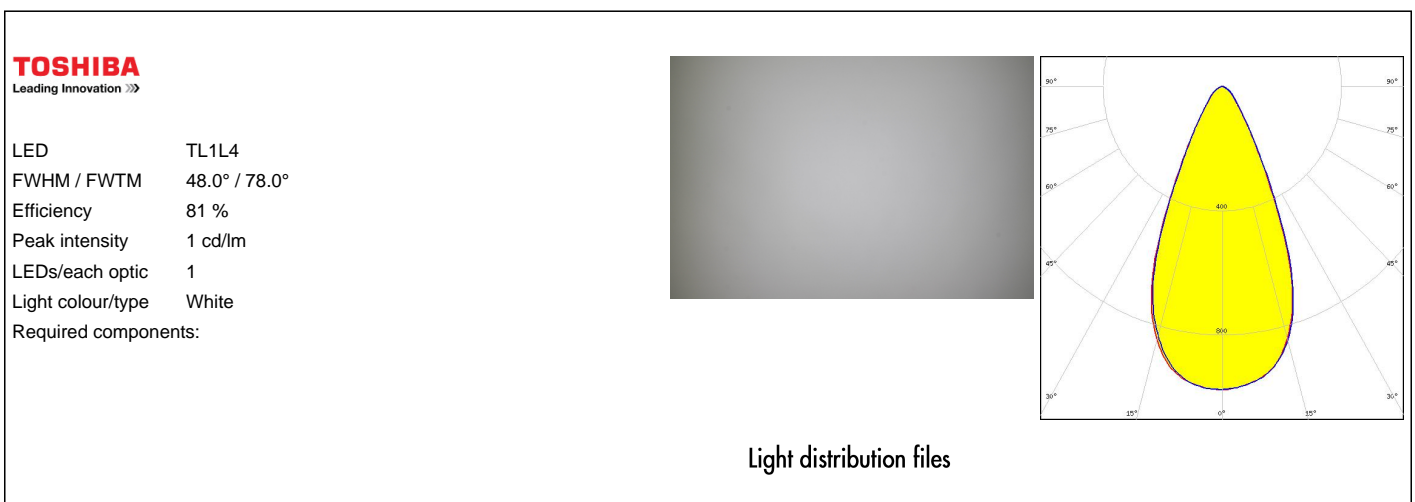
#### OPTICAL RESULTS (MEASURED):



#### OPTICAL RESULTS (MEASURED):



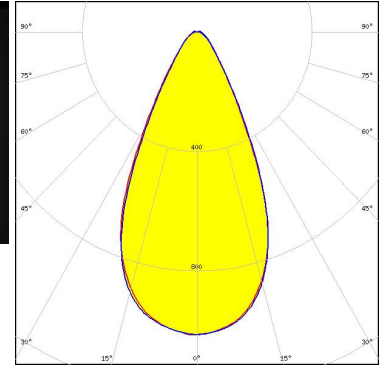
#### OPTICAL RESULTS (MEASURED):



### OPTICAL RESULTS (MEASURED):

#### TRIDONIC

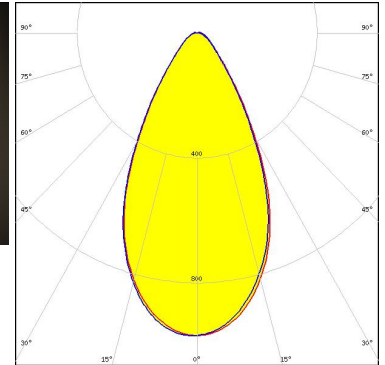
LED RLE 2x8 4000lm HP EXC2 OTD  
FWHM / FWTM 51.0° / 84.0°  
Efficiency 94 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

#### TRIDONIC

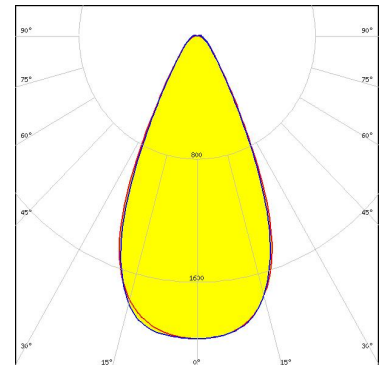
LED RLE 2x8 6000lm HP HE EXC3 OTD  
FWHM / FWTM 54.0° / 92.0°  
Efficiency 95 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

#### TRIDONIC

LED RLE G1 49x121mm 2000lm xxx EXC OTD  
FWHM / FWTM 52.0° / 83.0°  
Efficiency 94 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

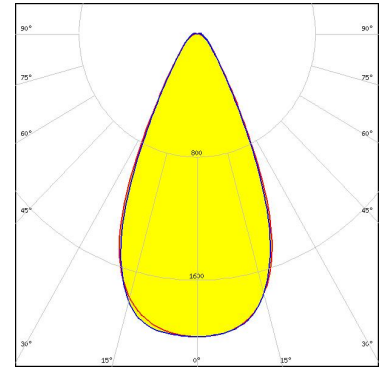


Light distribution files

#### OPTICAL RESULTS (MEASURED):

### TRIDONIC

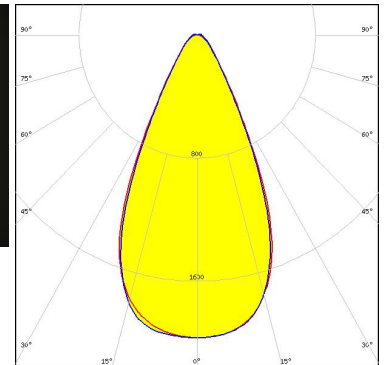
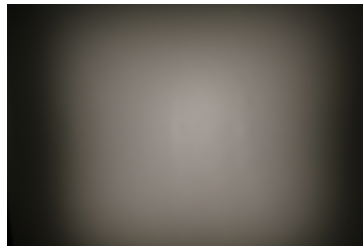
LED RLE G1 49x133mm 2000lm xxx EXC OTD  
FWHM / FWTM 52.0° / 83.0°  
Efficiency 94 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

### TRIDONIC

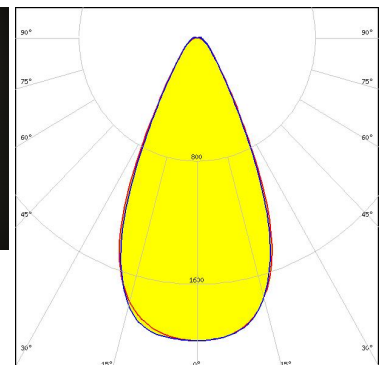
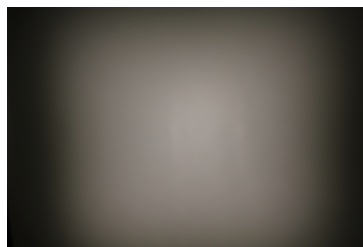
LED RLE G1 49x223mm 4000lm xxx EXC OTD  
FWHM / FWTM 52.0° / 83.0°  
Efficiency 94 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

### TRIDONIC

LED RLE G1 49x245mm 4000lm xxx EXC OTD  
FWHM / FWTM 52.0° / 83.0°  
Efficiency 94 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

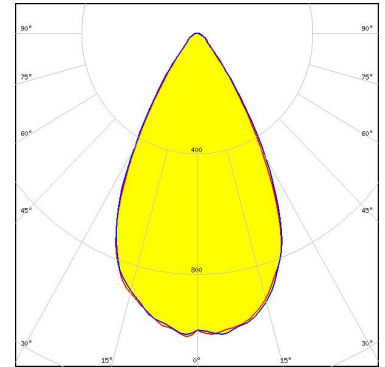


Light distribution files

#### OPTICAL RESULTS (SIMULATED):



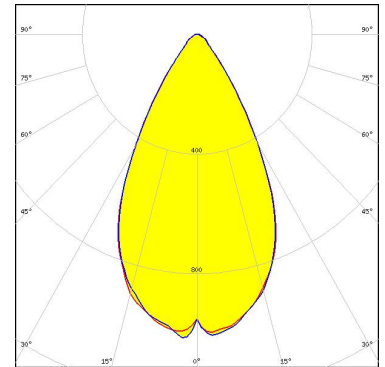
LED J Series 5050 Round LES  
 FWHM / FWTM 57.0° / 84.0°  
 Efficiency 94 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



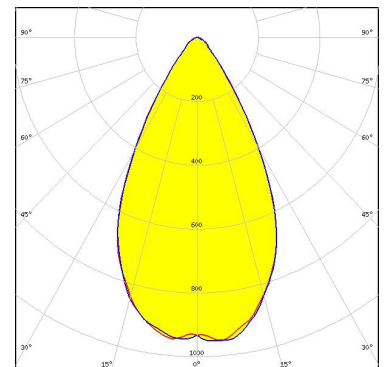
LED J Series 5050B 6V K Class  
 FWHM / FWTM 56.0° / 85.0°  
 Efficiency 94 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED J Series 5050B 6V K Class  
 FWHM / FWTM 56.0° / 86.0°  
 Efficiency 89 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



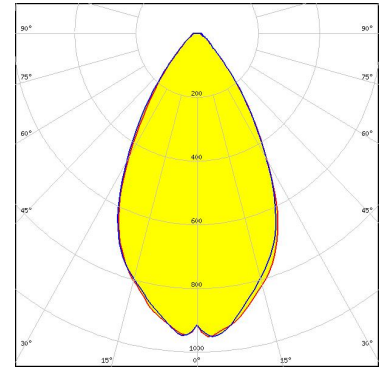
Protective plate, glass

Light distribution files

#### OPTICAL RESULTS (SIMULATED):



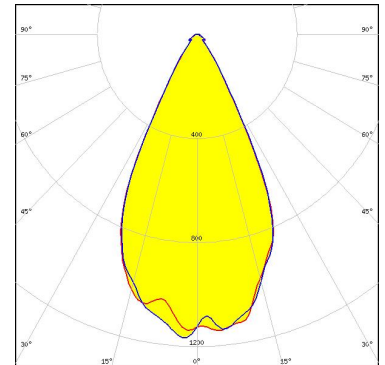
**LED** MHB-A/B  
**FWHM / FWTM** 58.0° / 93.0°  
**Efficiency** 94 %  
**Peak intensity** 1 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



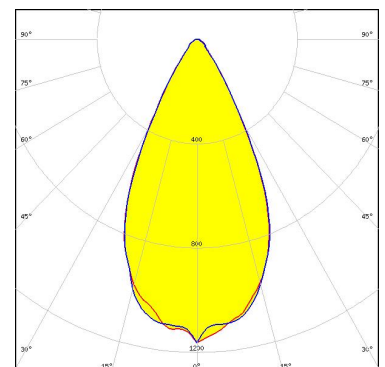
**LED** XHP35 HI  
**FWHM / FWTM** 52.0° / 73.0°  
**Efficiency** 93 %  
**Peak intensity** 1.2 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**



Light distribution files



**LED** XM-L RGBW (XMLDCL HI)  
**FWHM / FWTM** 52.0° / 78.0°  
**Efficiency** 95 %  
**Peak intensity** 1.2 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** RGBW  
**Required components:**

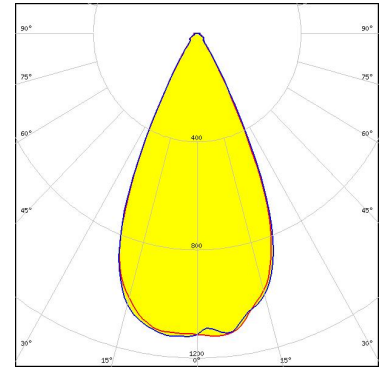


Light distribution files

#### OPTICAL RESULTS (SIMULATED):



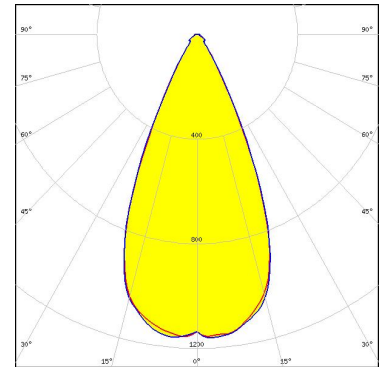
LED XP-E  
 FWHM / FWTM 50.0° / 68.0°  
 Efficiency 94 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



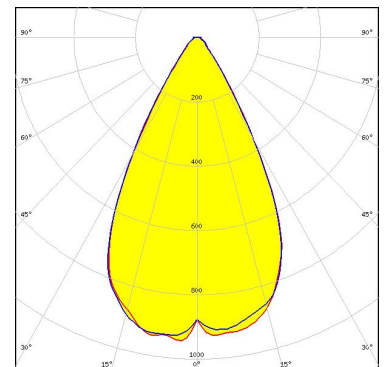
LED XP-E2  
 FWHM / FWTM 48.0° / 70.0°  
 Efficiency 96 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED XP-G2 HE  
 FWHM / FWTM 57.0° / 82.0°  
 Efficiency 95 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



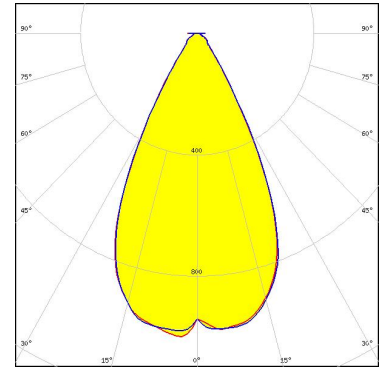
Light distribution files



#### OPTICAL RESULTS (SIMULATED):



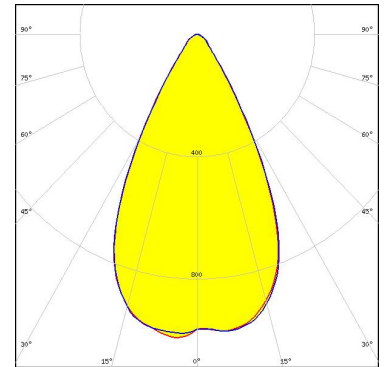
LED XP-G3  
FWHM / FWTM 54.0° / 79.0°  
Efficiency 94 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED XP-G3  
FWHM / FWTM 55.0° / 81.0°  
Efficiency 88 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

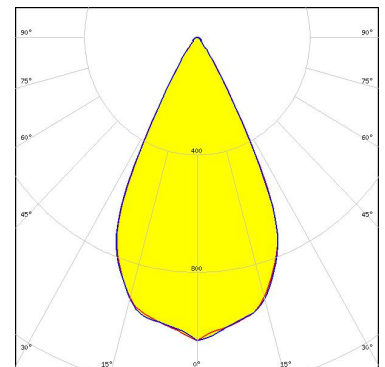


Protective plate, glass

Light distribution files



LED XP-G4  
FWHM / FWTM 54.0° / 70.0°  
Efficiency 88 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



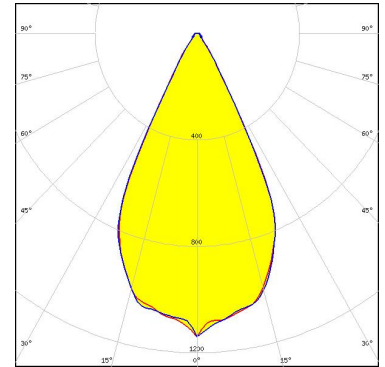
Protective plate, glass

Light distribution files

#### OPTICAL RESULTS (SIMULATED):



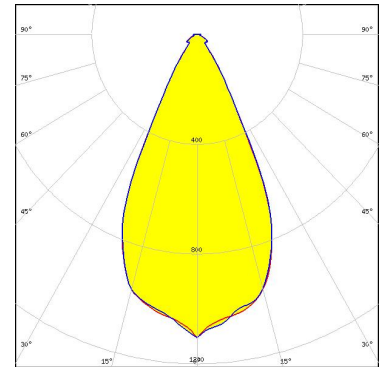
LED XP-G4  
FWHM / FWTM 52.0° / 69.0°  
Efficiency 96 %  
Peak intensity 1.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



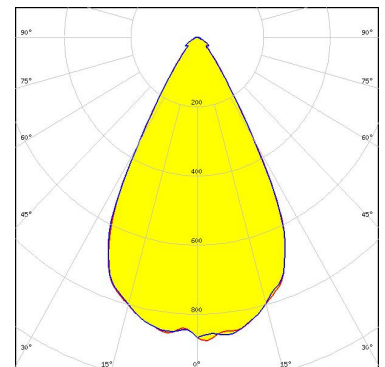
LED XP-G4 HI  
FWHM / FWTM 52.0° / 72.0°  
Efficiency 96 %  
Peak intensity 1.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED XP-L HD  
FWHM / FWTM 58.0° / 80.0°  
Efficiency 87 %  
Peak intensity 0.9 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



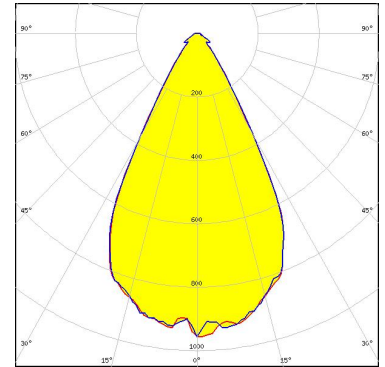
Protective plate, glass

Light distribution files

#### OPTICAL RESULTS (SIMULATED):



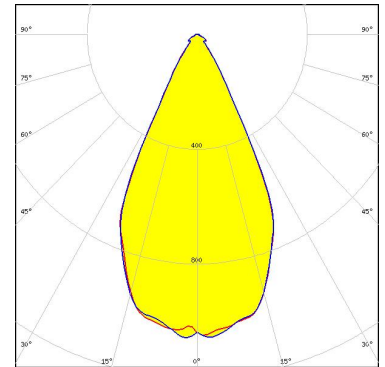
LED XP-L HD  
 FWHM / FWTM 56.0° / 79.0°  
 Efficiency 95 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED XP-L HI  
 FWHM / FWTM 52.0° / 72.0°  
 Efficiency 88 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

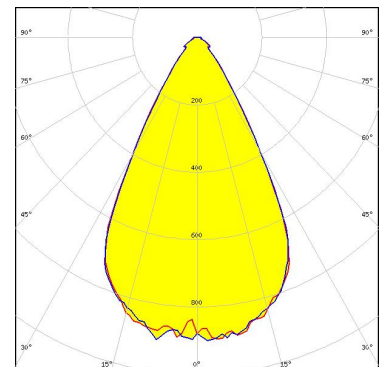


Protective plate, glass

Light distribution files



LED XP-L2  
 FWHM / FWTM 58.0° / 84.0°  
 Efficiency 95 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

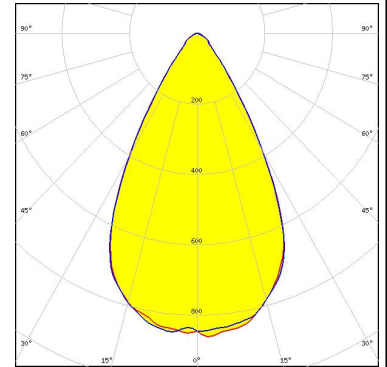
#### OPTICAL RESULTS (SIMULATED):



LED XP-L2  
 FWHM / FWTM 58.0° / 86.0°  
 Efficiency 89 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

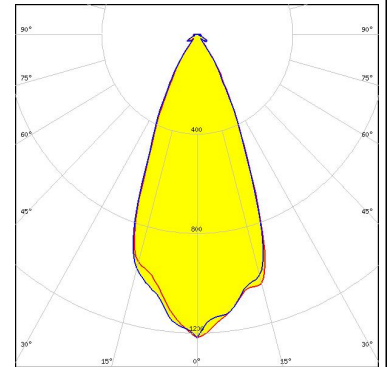
Protective plate, glass

Light distribution files



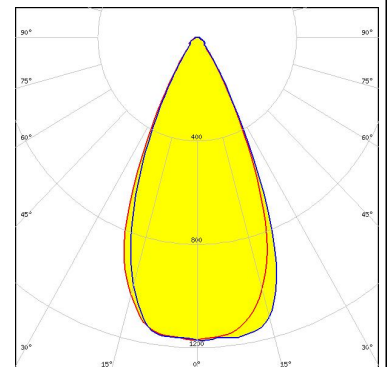
LED XQ-E HI  
 FWHM / FWTM 42.0° / 68.0°  
 Efficiency 93 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

Light distribution files



LED LUXEON 3030 2D (Round LES)  
 FWHM / FWTM 49.0° / 73.0°  
 Efficiency 94 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

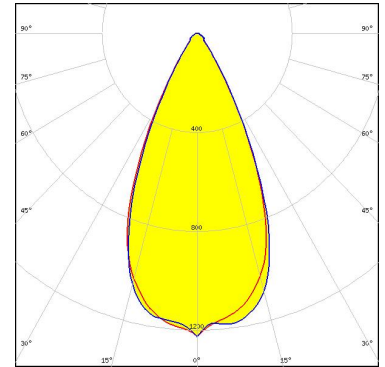
Light distribution files



### OPTICAL RESULTS (SIMULATED):



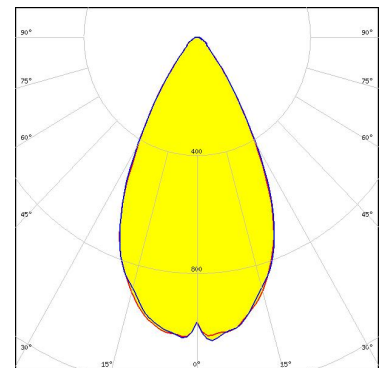
LED LUXEON 3535L  
FWHM / FWTM 49.0° / 73.0°  
Efficiency 94 %  
Peak intensity 1.2 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



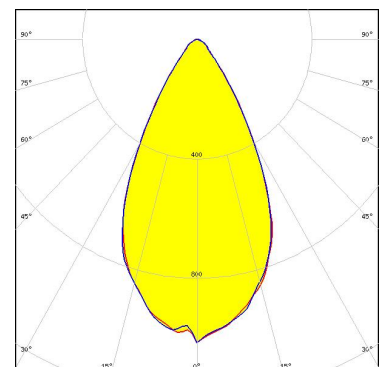
LED LUXEON 5050 HE  
FWHM / FWTM 56.0° / 84.0°  
Efficiency 94 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED LUXEON 5050 HE  
FWHM / FWTM 54.0° / 84.0°  
Efficiency 89 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Protective plate, glass

Light distribution files

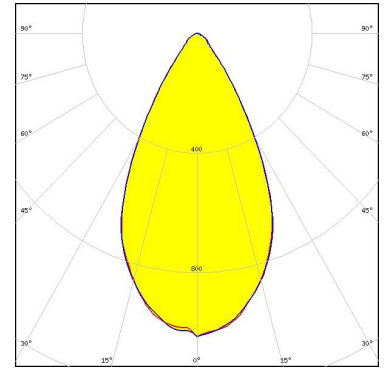
#### OPTICAL RESULTS (SIMULATED):



LED LUXEON 5050 Square LES  
FWHM / FWTM 54.0° / 84.0°  
Efficiency 89 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

Protective plate, glass

Light distribution files



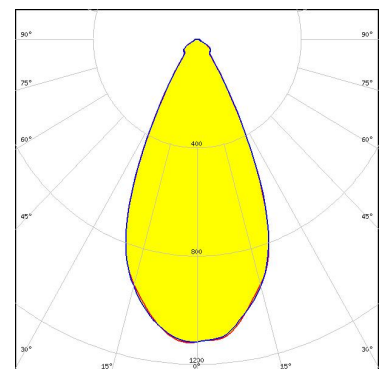
LED LUXEON A  
FWHM / FWTM 52.0°  
Efficiency %  
LEDs/each optic 1  
Light colour/type White  
Required components:

Light distribution files



LED LUXEON C  
FWHM / FWTM 50.0° / 75.0°  
Efficiency 94 %  
Peak intensity 1.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

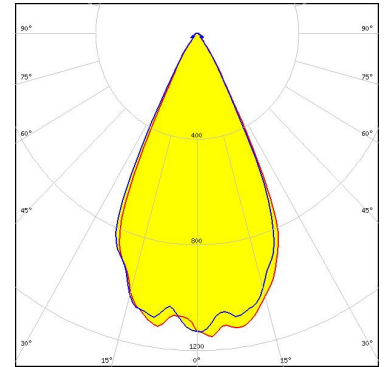
Light distribution files



### OPTICAL RESULTS (SIMULATED):



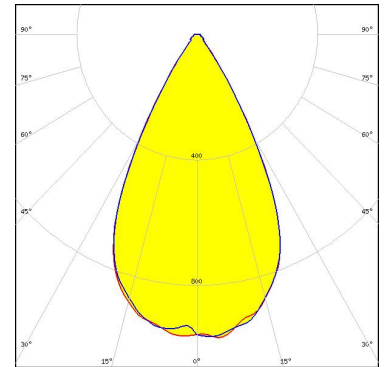
LED LUXEON H50-2  
FWHM / FWTM 52.0° / 68.0°  
Efficiency 91 %  
Peak intensity 4.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



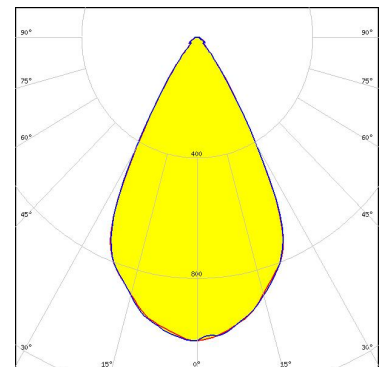
LED LUXEON HL2X  
FWHM / FWTM 56.0° / 76.0°  
Efficiency 93 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED LUXEON HL2X-D  
FWHM / FWTM 58.0° / 78.0°  
Efficiency 96 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

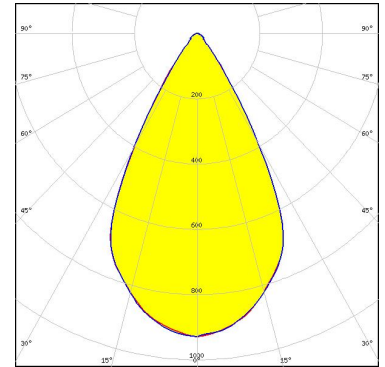
### OPTICAL RESULTS (SIMULATED):



LED LUXEON HL2X-D  
FWHM / FWTM 58.0° / 80.0°  
Efficiency 88 %  
Peak intensity 0.9 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

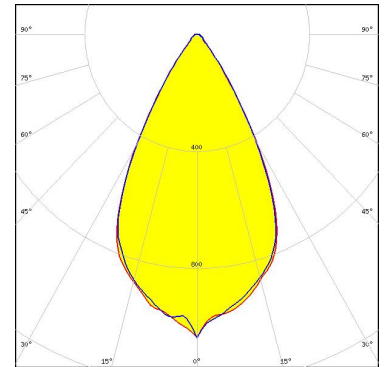
Protective plate, glass

Light distribution files



LED LUXEON HL2X-P  
FWHM / FWTM 56.0° / 80.0°  
Efficiency 95 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

Light distribution files



LED LUXEON Rebel  
FWHM / FWTM 52.0°  
Efficiency %  
LEDs/each optic 1  
Light colour/type White  
Required components:

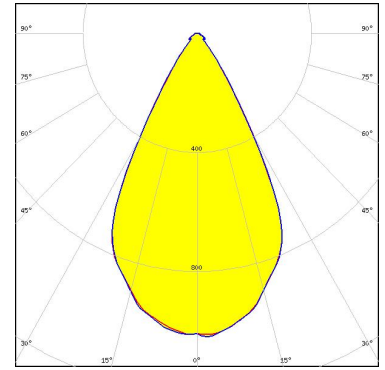
Light distribution files



#### OPTICAL RESULTS (SIMULATED):



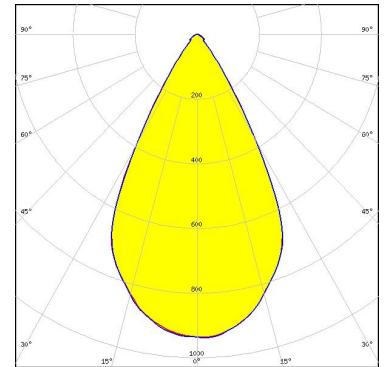
LED LUXEON XR-HL2X (L2H2-xxxxxxxMLU010)  
 FWHM / FWTM 56.0° / 77.0°  
 Efficiency 96 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED LUXEON XR-HL2X (L2H2-xxxxxxxMLU010)  
 FWHM / FWTM 57.0 + 56.0° / 78.0°  
 Efficiency 87 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

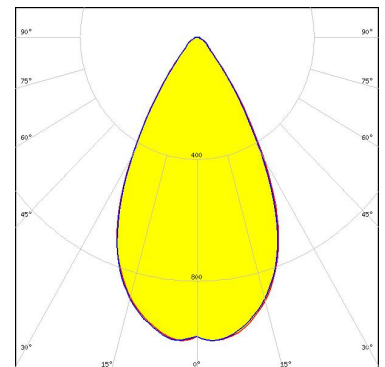


Protective plate, glass

Light distribution files

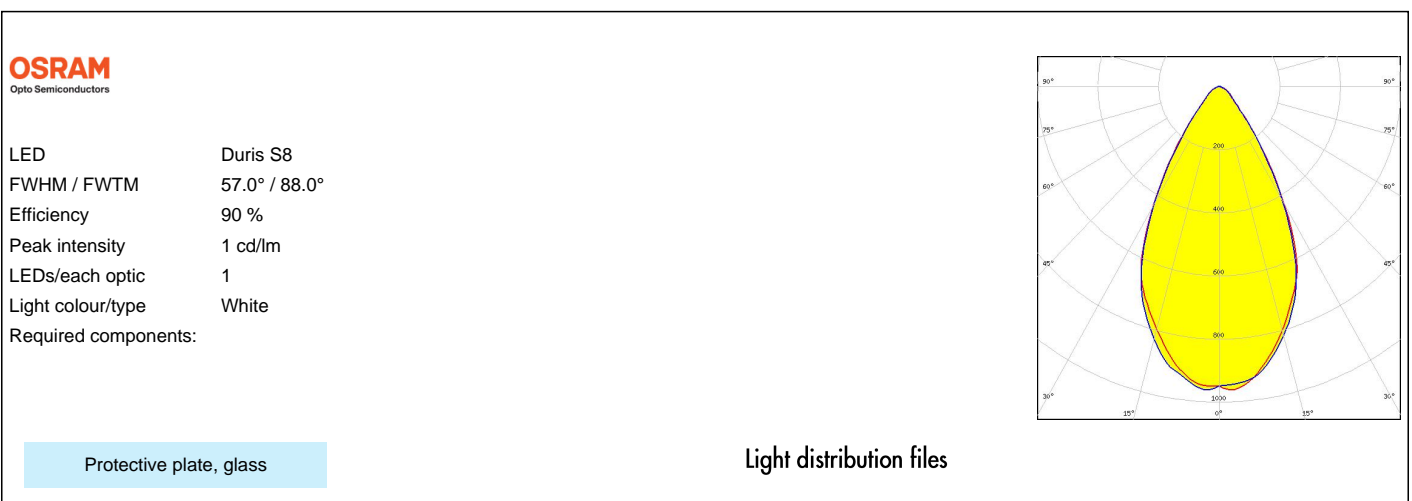
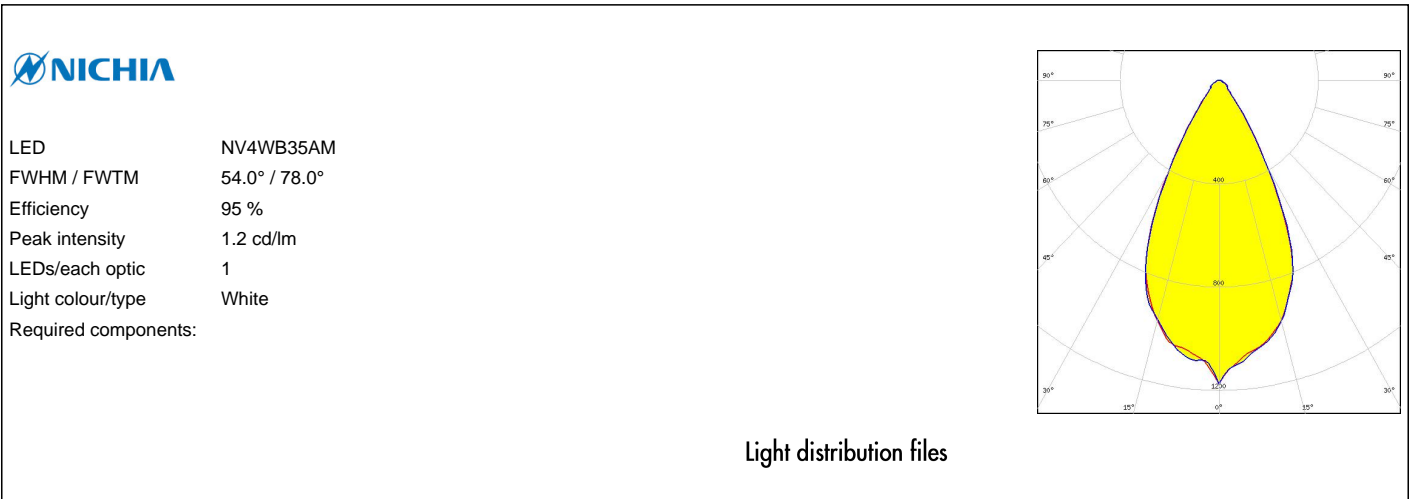


LED NFMW48xA  
 FWHM / FWTM 57.0° / 86.0°  
 Efficiency 94 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

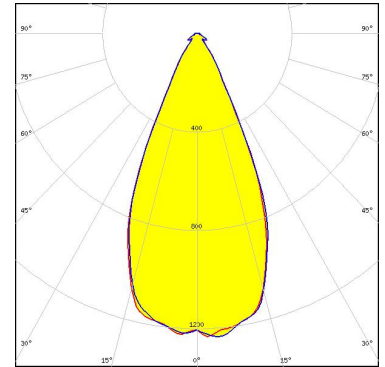
#### OPTICAL RESULTS (SIMULATED):



#### OPTICAL RESULTS (SIMULATED):

**OSRAM**  
Opto Semiconductors

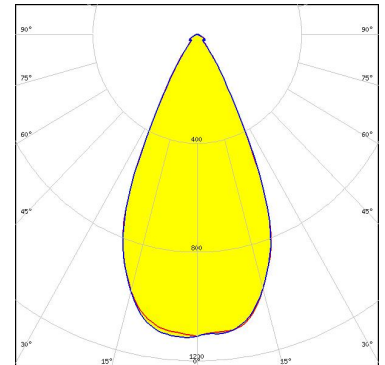
LED OSCONIQ C 2424  
 FWHM / FWTM 48.0° / 70.0°  
 Efficiency 96 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

LED OSCONIQ C 3030  
 FWHM / FWTM 50.0° / 72.0°  
 Efficiency 88 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

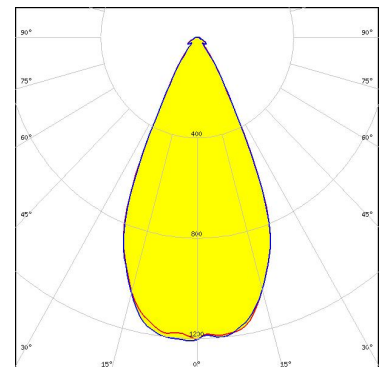


Protective plate, glass

Light distribution files

**OSRAM**  
Opto Semiconductors

LED OSCONIQ C 3030  
 FWHM / FWTM 50.0° / 71.0°  
 Efficiency 96 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

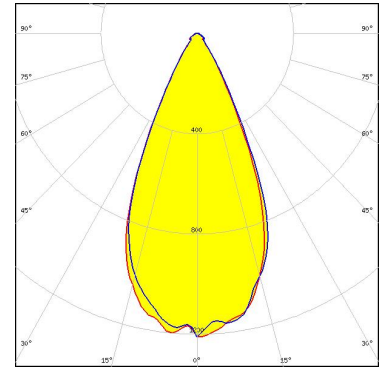


Light distribution files

#### OPTICAL RESULTS (SIMULATED):

**OSRAM**  
Opto Semiconductors

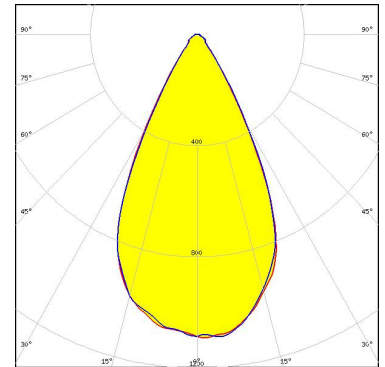
LED OSCONIQ P 3737 (2W version)  
FWHM / FWTM 48.0° / 70.0°  
Efficiency 93 %  
Peak intensity 1.2 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

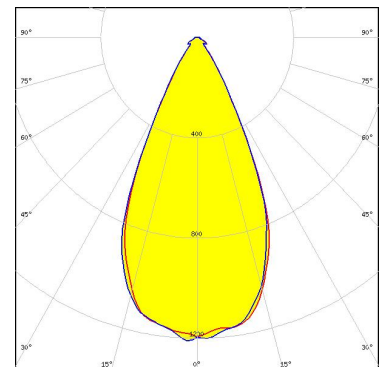
LED OSCONIQ P 3737 (3W version)  
FWHM / FWTM 54.0° / 77.0°  
Efficiency 94 %  
Peak intensity 1.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

LED OSCONIQ P 3737 Flat  
FWHM / FWTM 50.0° / 73.0°  
Efficiency 96 %  
Peak intensity 1.2 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

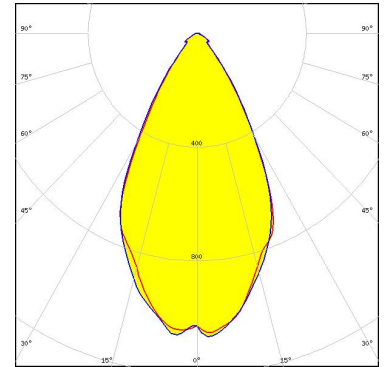


Light distribution files

#### OPTICAL RESULTS (SIMULATED):

**OSRAM**  
Opto Semiconductors

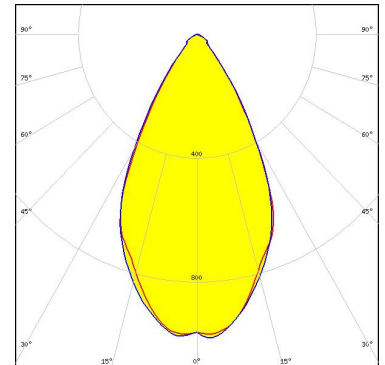
LED OSCONIQ S 5050  
 FWHM / FWTM 56.0° / 83.0°  
 Efficiency 95 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

LED OSCONIQ S 5050  
 FWHM / FWTM 56.0° / 84.0°  
 Efficiency 87 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

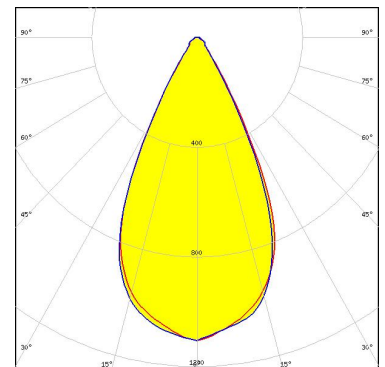


Protective plate, glass

Light distribution files

**OSRAM**  
Opto Semiconductors

LED OSLOM Square CSSRM2/CSSRM3  
 FWHM / FWTM 52.0° / 74.0°  
 Efficiency 96 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

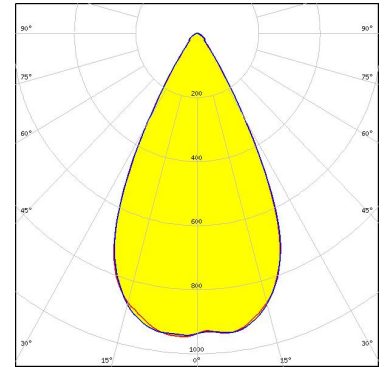
#### OPTICAL RESULTS (SIMULATED):

**OSRAM**  
Opto Semiconductors

LED OSLON Square CSSRM2/CSSRM3  
 FWHM / FWTM 54.0° / 76.0°  
 Efficiency 87 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

Protective plate, glass

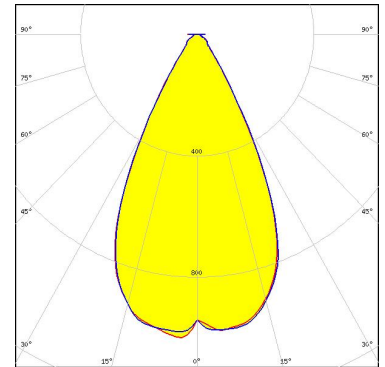
Light distribution files



**PHILIPS**

LED Fortimo FastFlex LED 2x8 DAX G4  
 FWHM / FWTM 54.0° / 79.0°  
 Efficiency 94 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

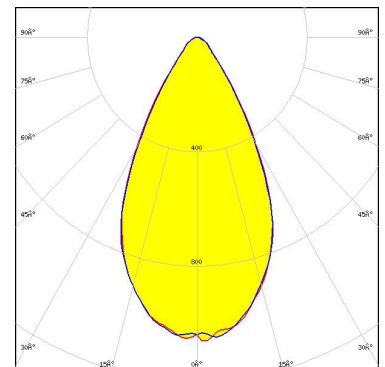
Light distribution files



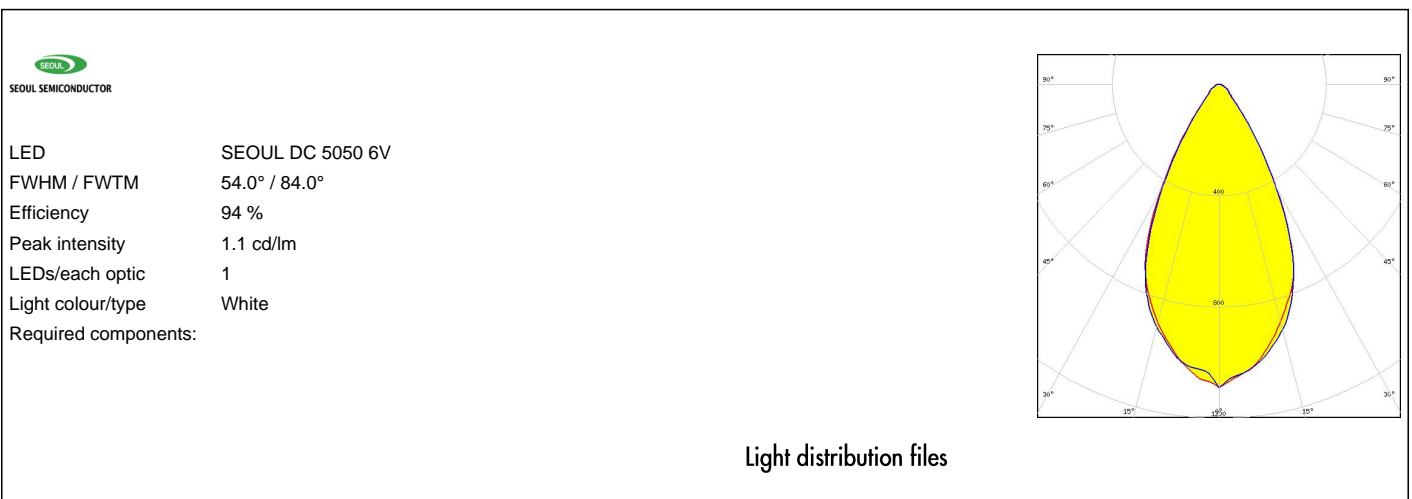
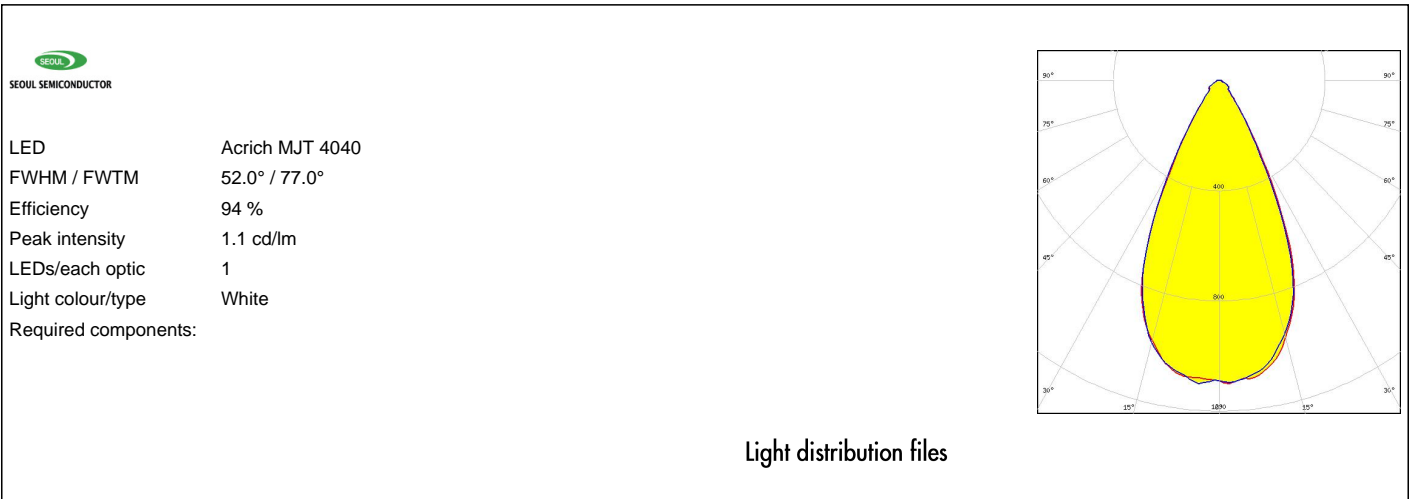
**SAMSUNG**

LED LH502D  
 FWHM / FWTM 55.0° / 86.0°  
 Efficiency 97 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:


Light distribution files



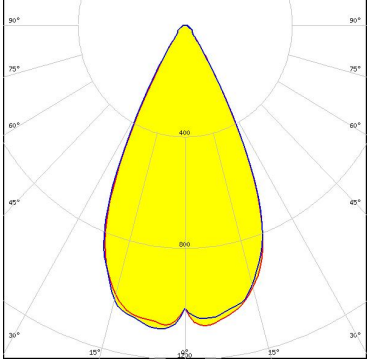
#### OPTICAL RESULTS (SIMULATED):




#### OPTICAL RESULTS (SIMULATED):

  
SEOUL SEMICONDUCTOR

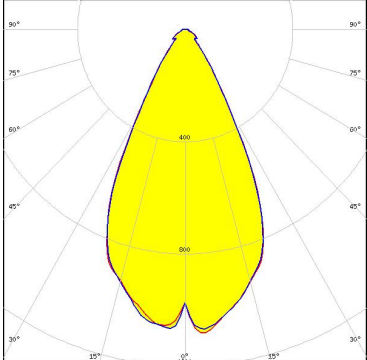
LED	Z5M1/Z5M2
FWHM / FWTM	52.0° / 73.0°
Efficiency	94 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	




Light distribution files

  
SEOUL SEMICONDUCTOR

LED	Z5M5
FWHM / FWTM	54.0° / 78.0°
Efficiency	95 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

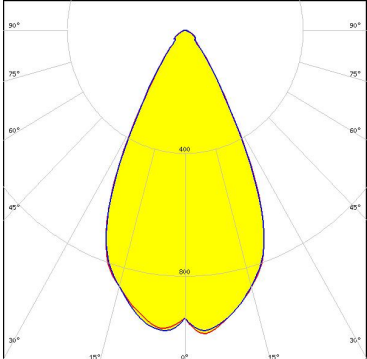


Light distribution files

  
SEOUL SEMICONDUCTOR

LED	Z5M5
FWHM / FWTM	54.0° / 80.0°
Efficiency	87 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

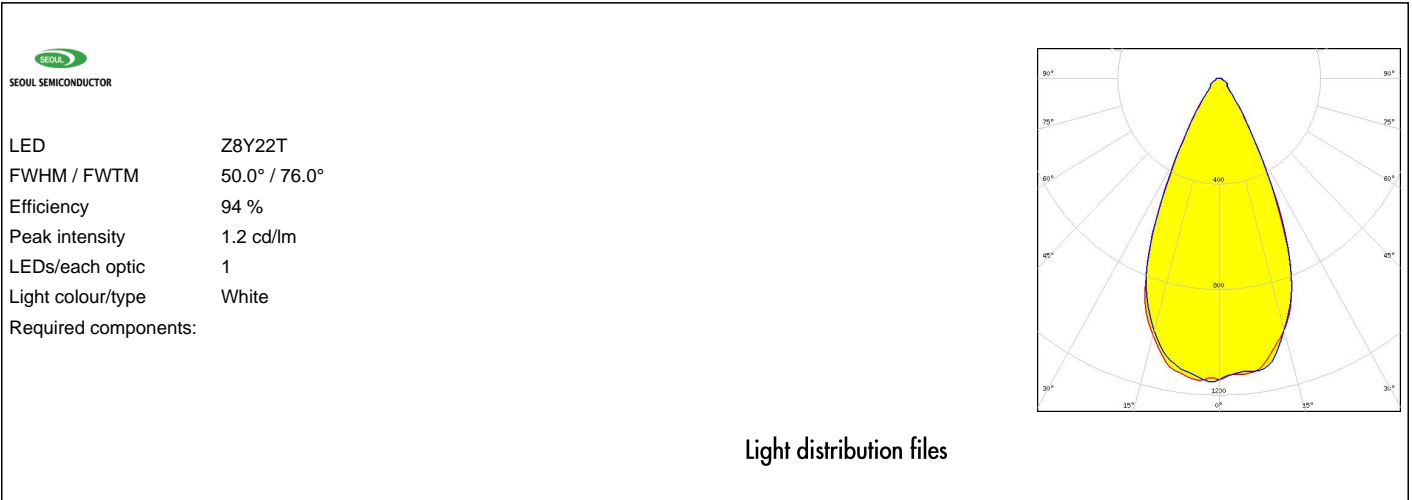
Protective plate, glass



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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