

## TINA3-S

~13° spot beam optimized for CREE XP-E.  
Assembly with holder, installation tape and  
location pins.

### SPECIFICATION:

Dimensions	Ø 16.1
Height	11.4 mm
Fastening	tape, pin
ROHS compliant	yes ⓘ

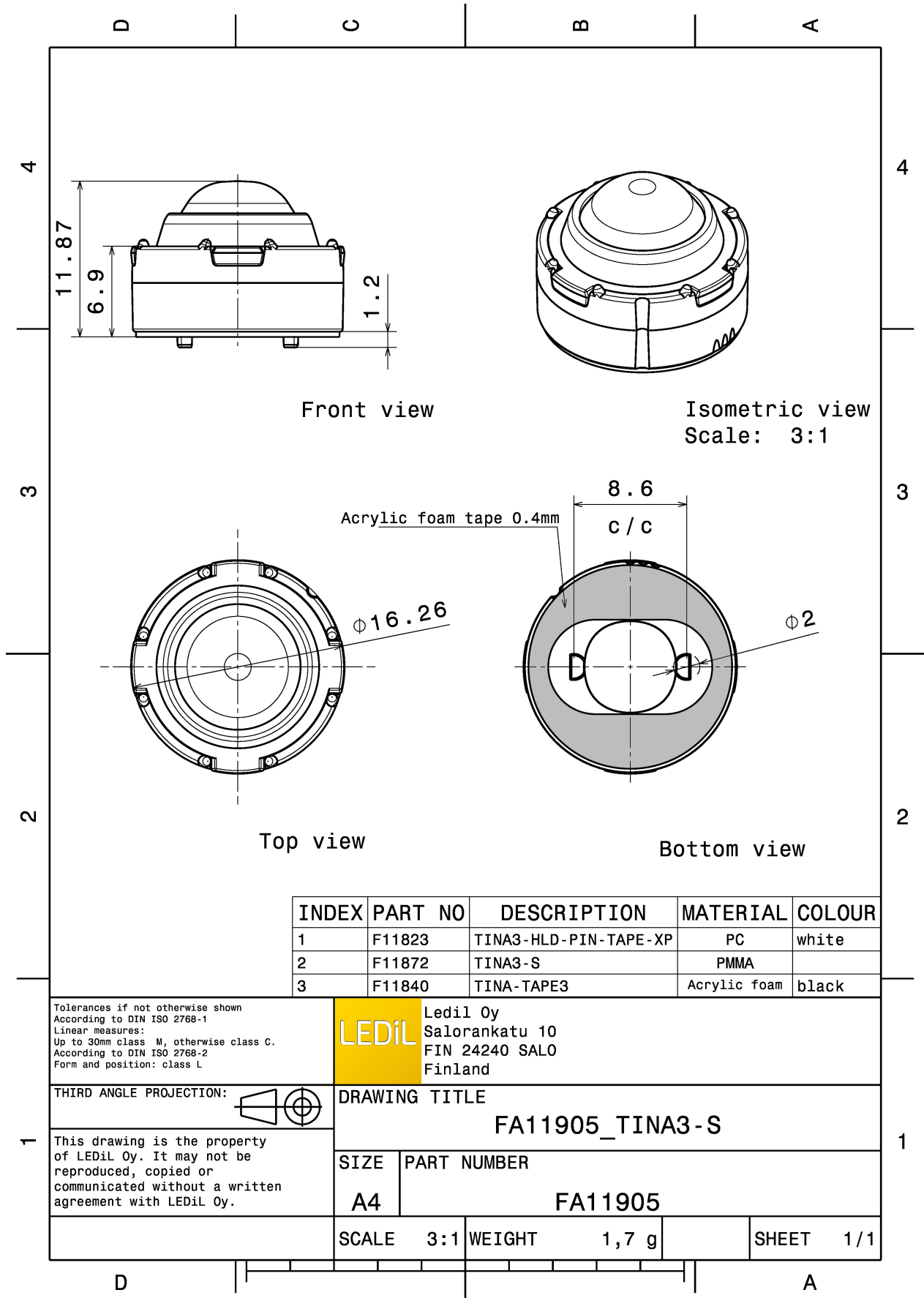


### MATERIALS:

Component	Type	Material	Colour	Finish	Length (mm)
TINA3-S	Single lens	PMMA	clear		
TINA3-HLD-PIN-TAPE-XP	Holder	PC	white		
TINA-TAPE3	Tape	Acryl tape	black		

### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
FA11905_TINA3-S » Box size:	2016	288	288	3.7

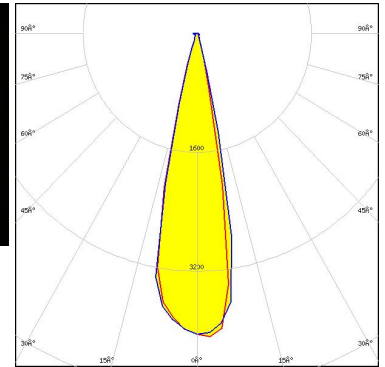


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

### OPTICAL RESULTS (MEASURED):



LED XM-L  
FWHM / FWTM 23.0° / 30.0°  
Efficiency 86 %  
Peak intensity 3.4 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



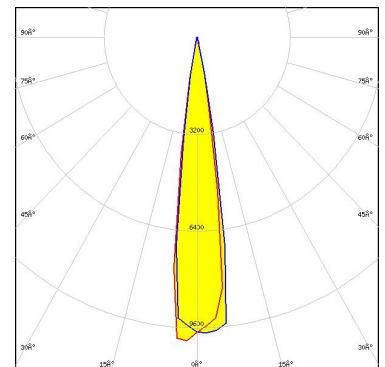
Light distribution files



LED XP-E  
FWHM / FWTM 10.0° / 16.0°  
Efficiency 86 %  
Peak intensity 15.8 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



LED XP-G  
FWHM / FWTM 15.0° / 25.0°  
Efficiency 86 %  
Peak intensity 6.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

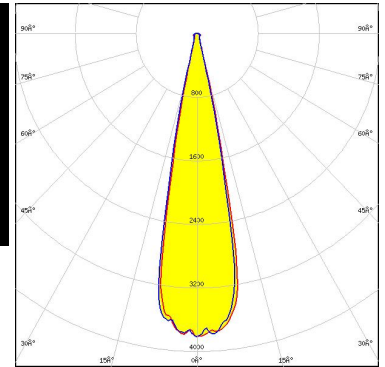
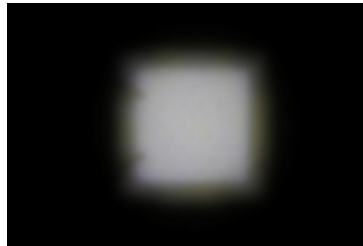


Light distribution files

#### OPTICAL RESULTS (MEASURED):



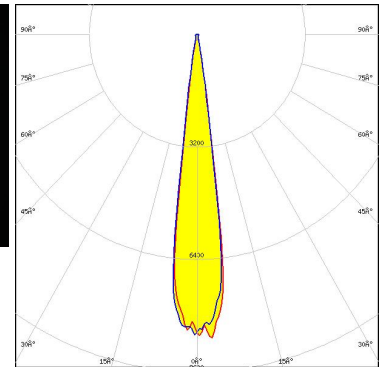
LED XP-L HD  
 FWHM / FWTM 23.0° / 32.0°  
 Efficiency 87 %  
 Peak intensity 3.8 cd/m  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED XP-L HI  
 FWHM / FWTM 15.0° / 22.0°  
 Efficiency 88 %  
 Peak intensity 8.9 cd/m  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED LUXEON A  
 FWHM / FWTM 16.0° / 23.0°  
 Efficiency 83 %  
 Peak intensity 6.7 cd/m  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

### OPTICAL RESULTS (MEASURED):

#### LUMILEDS

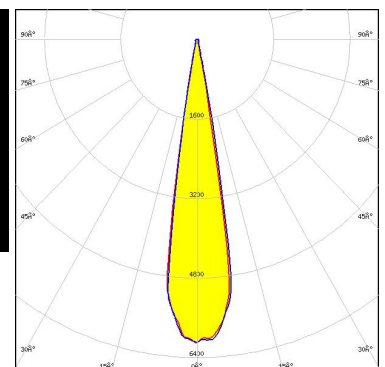
LED LUXEON Rebel  
FWHM / FWTM 11.0° / 18.0°  
Efficiency 83 %  
Peak intensity 12.9 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

#### LUMILEDS

LED LUXEON Rebel ES  
FWHM / FWTM 18.5° / 22.0°  
Efficiency 82 %  
Peak intensity 6.9 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

#### NICHIA

LED NVSW219F  
FWHM / FWTM 18.0° / 24.0°  
Efficiency 85 %  
Peak intensity 6.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

#### OPTICAL RESULTS (MEASURED):

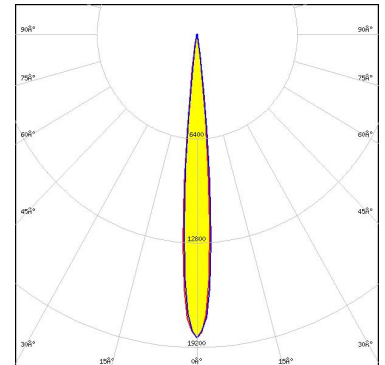


LED NVSxx19A  
FWHM / FWTM 16.5° / 23.0°  
Efficiency 87 %  
Peak intensity 6.8 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



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LED OSLOM SSL 150  
FWHM / FWTM 9.0° / 14.0°  
Efficiency 84 %  
Peak intensity 18.4 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:




Light distribution files




Opto Semiconductors

LED OSLOM SSL 80  
FWHM / FWTM 11.0° / 17.0°  
Efficiency 86 %  
Peak intensity 14 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

## OPTICAL RESULTS (MEASURED):

 SEOL SEMICONDUCTOR	
LED	Z5
FWHM / FWTM	10.0° / 17.0°
Efficiency	80 %
Peak intensity	16.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

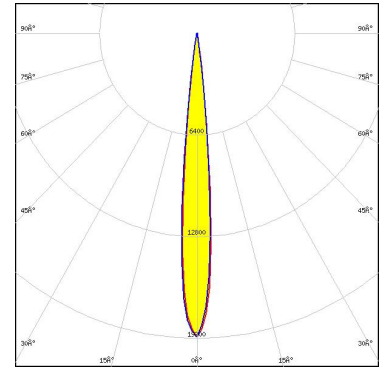


Light distribution files

### OPTICAL RESULTS (SIMULATED):



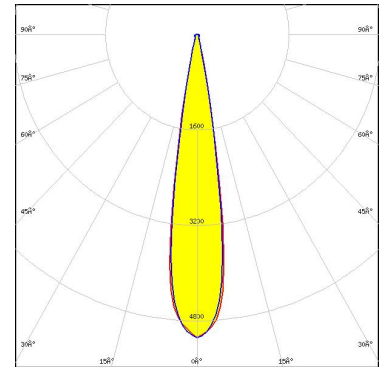
LED XP-E2  
FWHM / FWTM 10.0° / 17.0°  
Efficiency 92 %  
Peak intensity 19.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



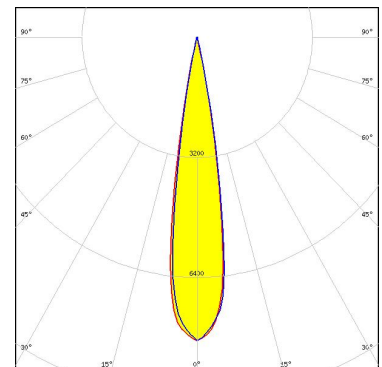
LED XP-G3  
FWHM / FWTM 18.0° / 28.0°  
Efficiency 78 %  
Peak intensity 5.1 cd/lm  
LEDs/each optic 1  
Light colour/type Blue  
Required components:



Light distribution files



LED XP-G4  
FWHM / FWTM 18.0° / 26.0°  
Efficiency 91 %  
Peak intensity 8.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



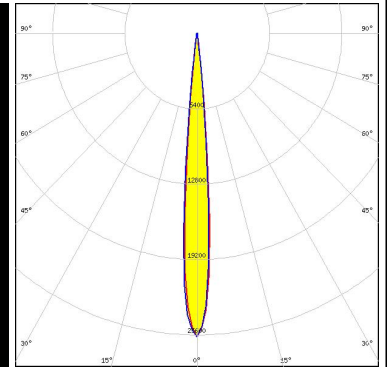
Light distribution files



#### OPTICAL RESULTS (SIMULATED):



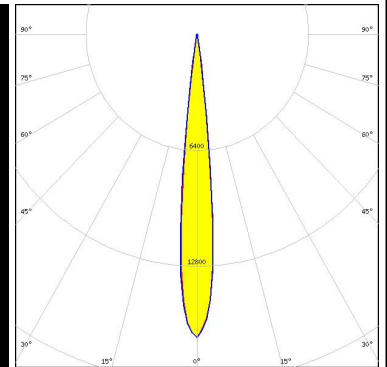
LED XP-GR  
 FWHM / FWTM 9.0° / 14.0°  
 Efficiency 88 %  
 Peak intensity 25.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



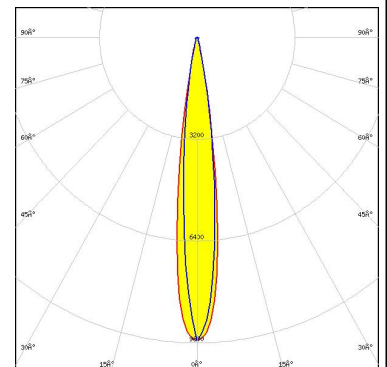
LED XP-LR  
 FWHM / FWTM 12.0° / 18.0°  
 Efficiency 88 %  
 Peak intensity 16.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED LUXEON 2835 Line  
 FWHM / FWTM 13.0° / 25.0°  
 Efficiency 91 %  
 Peak intensity 9.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

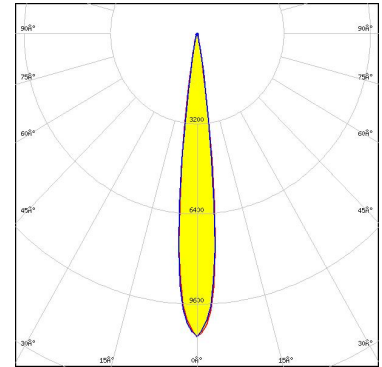


Light distribution files

### OPTICAL RESULTS (SIMULATED):



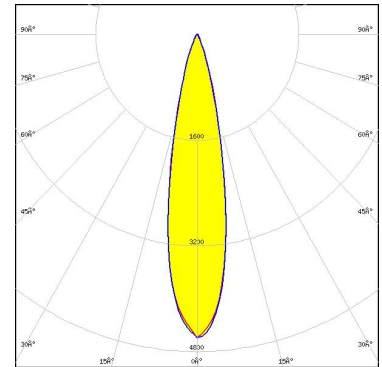
LED SST-20 Gen1  
FWHM / FWTM 12.0° / 22.0°  
Efficiency 86 %  
Peak intensity 10.8 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



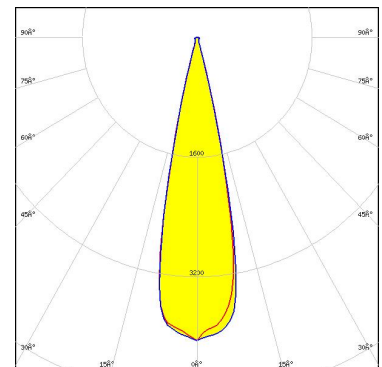
LED NV4WB35AM  
FWHM / FWTM 22.0° / 41.0°  
Efficiency 90 %  
Peak intensity 4.6 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

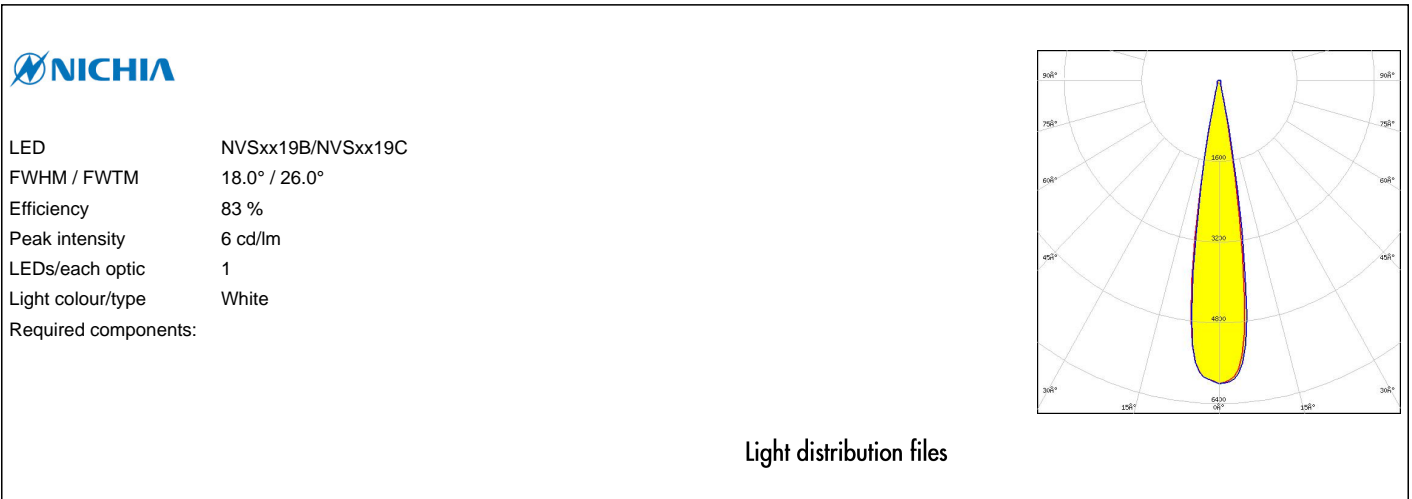


LED NVSW519A  
FWHM / FWTM 24.0° / 32.0°  
Efficiency 82 %  
Peak intensity 4.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

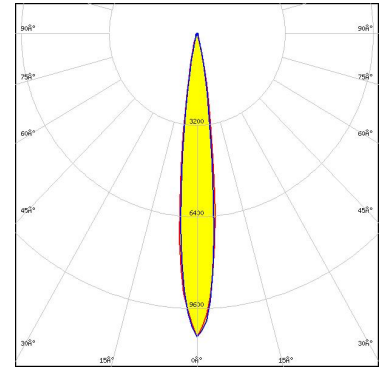
#### OPTICAL RESULTS (SIMULATED):



### OPTICAL RESULTS (SIMULATED):

**OSRAM**  
Opto Semiconductors

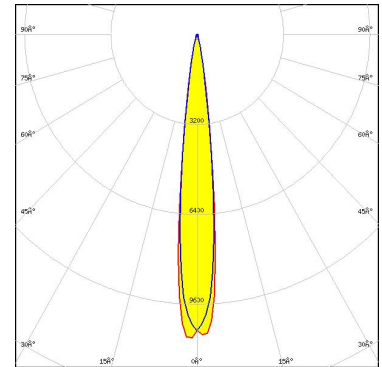
LED SFH 4715AS  
FWHM / FWTM 13.0° / 25.0°  
Efficiency 88 %  
LEDs/each optic 1  
Light colour/type IR  
Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

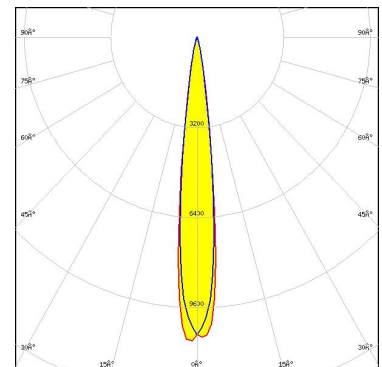
LED SFH 4715S  
FWHM / FWTM 13.0° / 24.0°  
Efficiency 87 %  
LEDs/each optic 1  
Light colour/type IR  
Required components:



Light distribution files

**OSRAM**  
Opto Semiconductors

LED SFH 4725S  
FWHM / FWTM 13.0° / 24.0°  
Efficiency 87 %  
LEDs/each optic 1  
Light colour/type IR  
Required components:

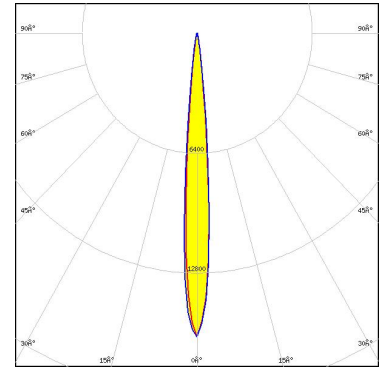


Light distribution files

### OPTICAL RESULTS (SIMULATED):

**OSRAM**  
Opto Semiconductors

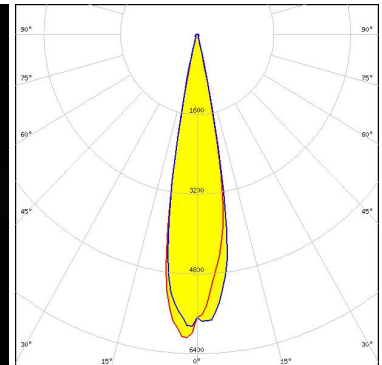
LED SFH 4726S  
FWHM / FWTM 9.0° / 17.0°  
Efficiency 84 %  
LEDs/each optic 1  
Light colour/type IR  
Required components:



Light distribution files

**SEOL**  
SEOUL SEMICONDUCTOR

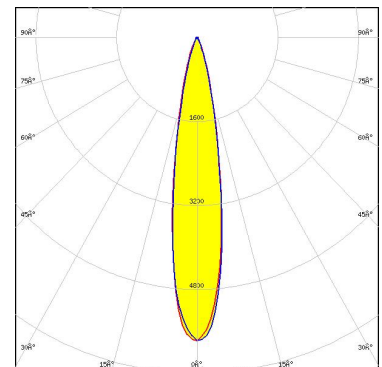
LED Z5M4-E1  
FWHM / FWTM 20.0° / 28.0°  
Efficiency 89 %  
Peak intensity 6.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

**SEOL**  
SEOUL SEMICONDUCTOR

LED Z8Y22  
FWHM / FWTM 15.0° / 29.0°  
Efficiency 80 %  
Peak intensity 5.4 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files

### GENERAL INFORMATION:

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

### MATERIALS:

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