

## VERONICA-SQ-SE

~190° side emitter beam

### TECHNICAL SPECIFICATIONS:

Dimensions	22.5 x 22.5 mm
Height	11.4 mm
Fastening	tape
ROHS compliant	yes ⓘ

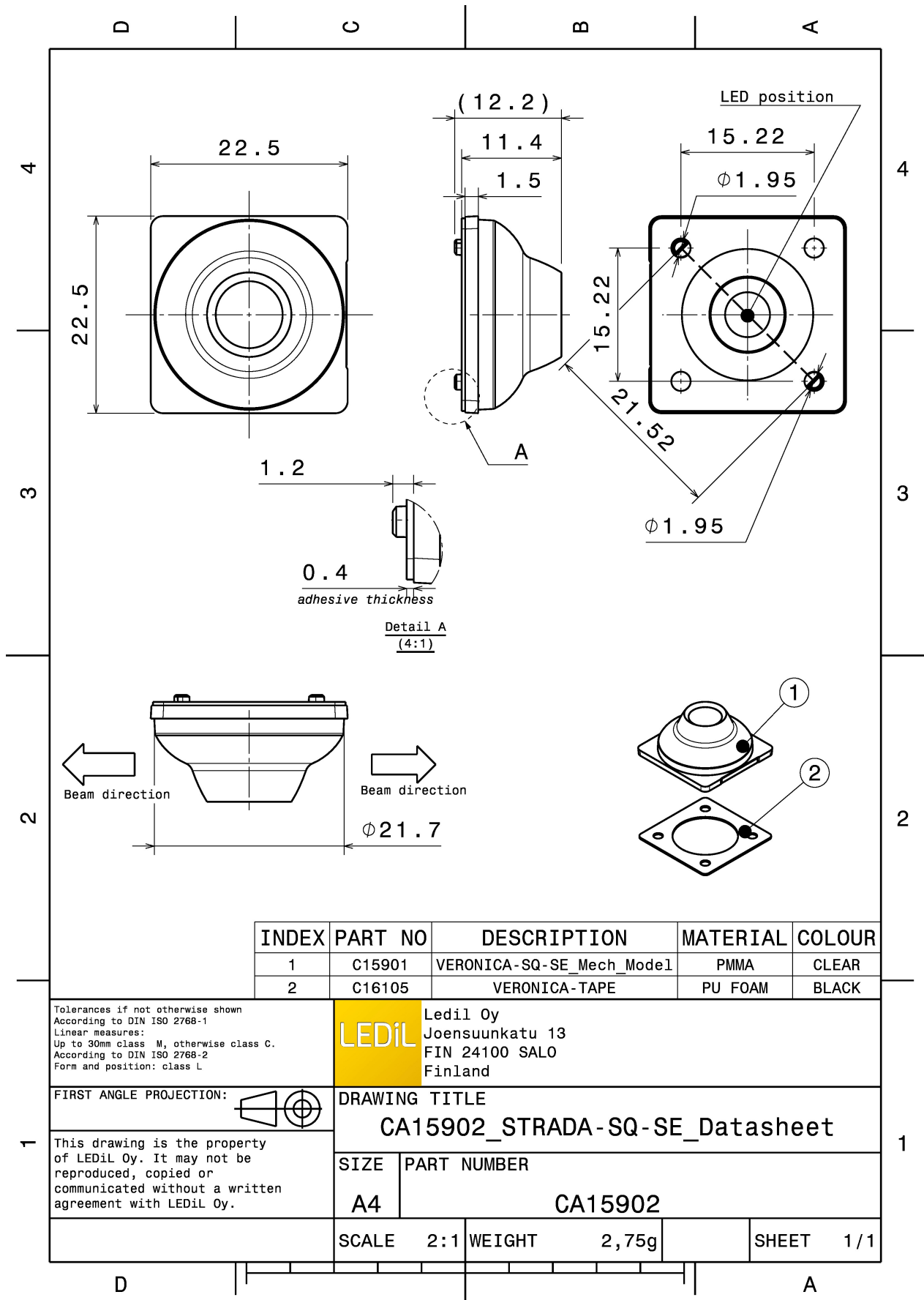
### MATERIAL SPECIFICATIONS:

Component	Type	Material	Colour	Finish
VERONICA-SQ-SE	Single lens	PMMA	clear	
VERONICA-TAPE	Tape		clear	

### ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CA15902_VERONICA-SQ-SE	Single lens	3060	360	180	9.6
» Box size: 480 x 280 x 300 mm					





INDEX	PART NO	DESCRIPTION	MATERIAL	COLOUR
1	C15901	VERONICA-SQ-SE_Mech_Model1	PMMA	CLEAR
2	C16105	VERONICA-TAPE	PU FOAM	BLACK

Tolerances if not otherwise shown  
According to DIN ISO 2768-1  
Linear measures:  
Up to 30mm class M, otherwise class C.  
According to DIN ISO 2768-2  
Form and position: class L

**LEDiL** Ledil Oy  
Joensuunkatu 13  
FIN 24100 SALO  
Finland

FIRST ANGLE PROJECTION:

DRAWING TITLE  
**CA15902\_STRADA-SQ-SE\_Datasheet**

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SIZE	PART NUMBER
A4	CA15902

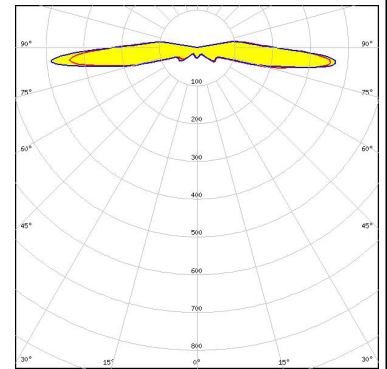
SCALE	2:1	WEIGHT	2,75g	SHEET	1/1
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See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

#### PHOTOMETRIC DATA (MEASURED):

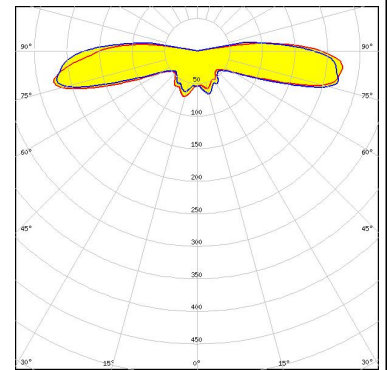
##### CREE LED

LED XHP35 HI  
 FWHM / FWTM 183.0° / 201.0°  
 Efficiency 88 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



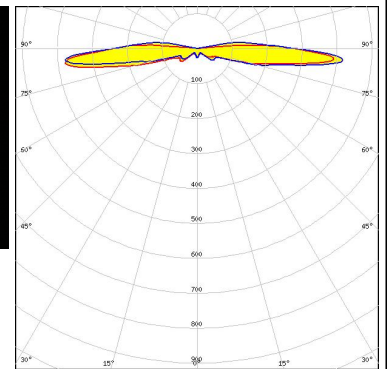
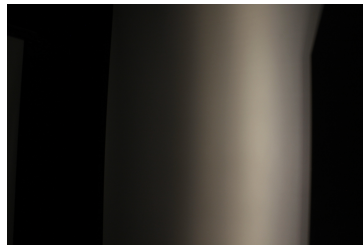
##### CREE LED

LED XHP70.2  
 FWHM / FWTM 194.0° / 220.0°  
 Efficiency 84 %  
 Peak intensity 0.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



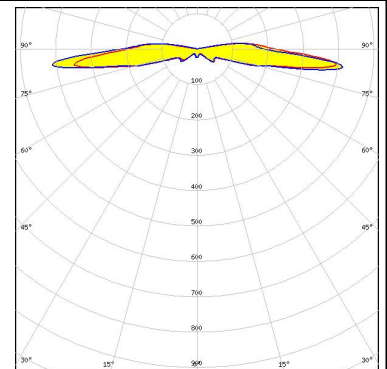
##### CREE LED

LED XP-G2  
 FWHM / FWTM 184.0° / 196.0°  
 Efficiency 87 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

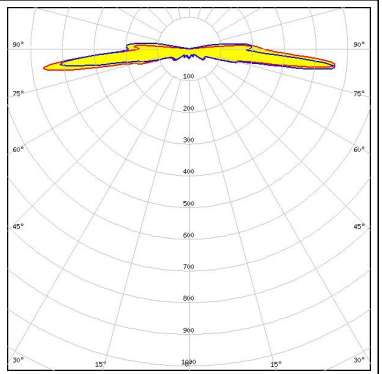

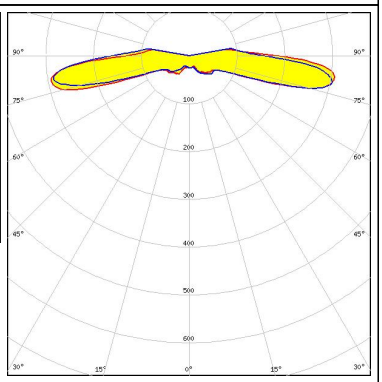
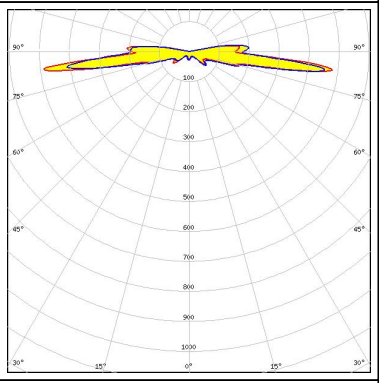

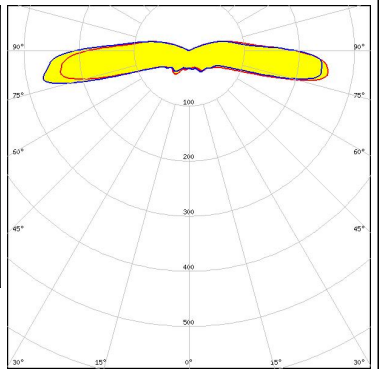


##### CREE LED

LED XP-L HI  
 FWHM / FWTM 184.0° / 210.0°  
 Efficiency 87 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



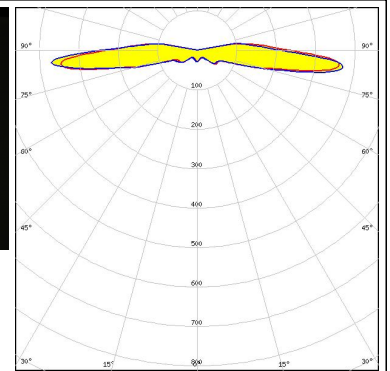
#### PHOTOMETRIC DATA (MEASURED):

<p><b>CREE</b> LED</p> <p>LED XQ-E HI            FWHM / FWTM 176.0° / 195.0°            Efficiency 87 %            Peak intensity 0.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON 5050 Round LES            FWHM / FWTM 180.0° / 200.0°            Efficiency 87 %            Peak intensity 0.3 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CZ            FWHM / FWTM 173.0° / 200.0°            Efficiency 90 %            Peak intensity 0.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON M/MX            FWHM / FWTM 189.0° / 225.0°            Efficiency 91 %            Peak intensity 2.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		

#### PHOTOMETRIC DATA (MEASURED):

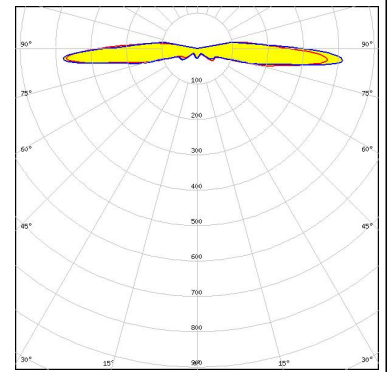
#### LUMILEDS

LED LUXEON TX  
 FWHM / FWTM 185.0° / 201.0°  
 Efficiency 88 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### NICHIA

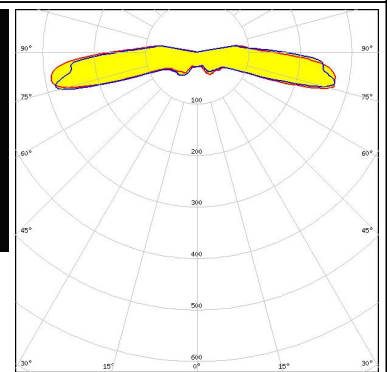
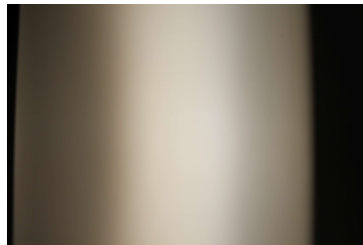
LED NVSW219F  
 FWHM / FWTM 185.0° / 201.0°  
 Efficiency 89 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OSRAM

Opto Semiconductors

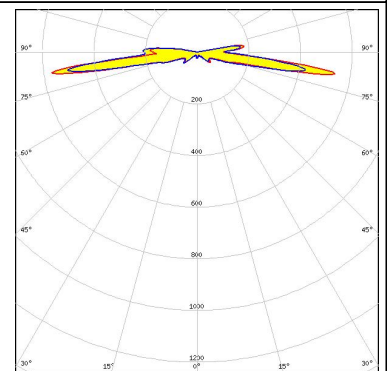
LED Duris S8  
 FWHM / FWTM 182.0° / 201.0°  
 Efficiency 87 %  
 Peak intensity 0.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OSRAM

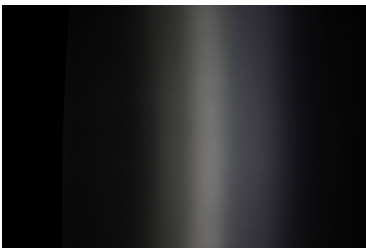
Opto Semiconductors

LED OSLOM Black Flat  
 FWHM / FWTM 170.0° / 210.0°  
 Efficiency 89 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (MEASURED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSLON Square CSSRM2/CSSRM3</p> <p>FWHM / FWTM 186.0° / 220.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSLON Square EC</p> <p>FWHM / FWTM 189.0° / 201.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSLON Square PC</p> <p>FWHM / FWTM 187.0° / 200.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSLON SSL 150</p> <p>FWHM / FWTM 182.0° / 200.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 0.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	

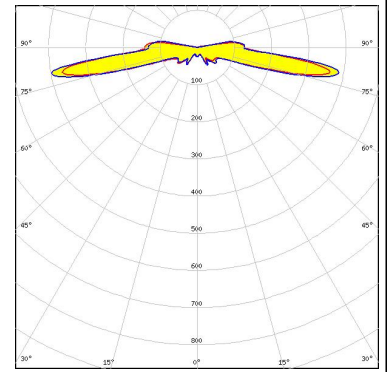




#### PHOTOMETRIC DATA (MEASURED):

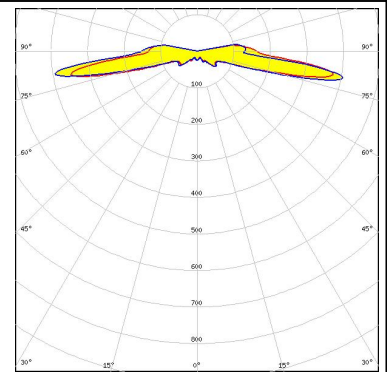
### SAMSUNG

LED LH181A  
 FWHM / FWTM 170.0° / 210.0°  
 Efficiency 91 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



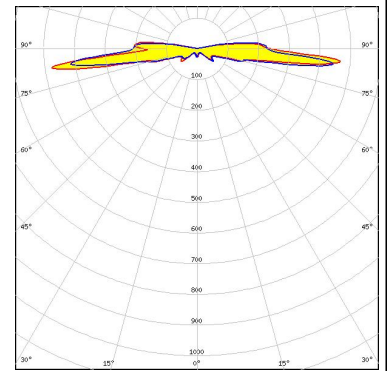
### SAMSUNG

LED LH181B  
 FWHM / FWTM 171.0° / 201.0°  
 Efficiency 88 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



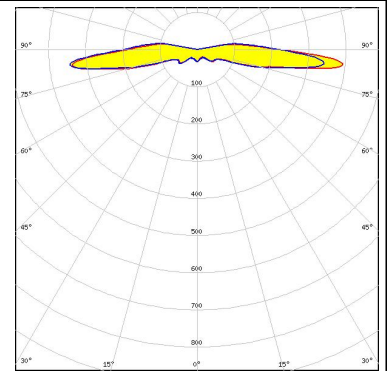
SEOUL SEMICONDUCTOR

LED nPola  
 FWHM / FWTM 181.0° / 200.0°  
 Efficiency 89 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



SEOUL SEMICONDUCTOR

LED Z5M3  
 FWHM / FWTM 184.0° / 201.0°  
 Efficiency 89 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (SIMULATED):

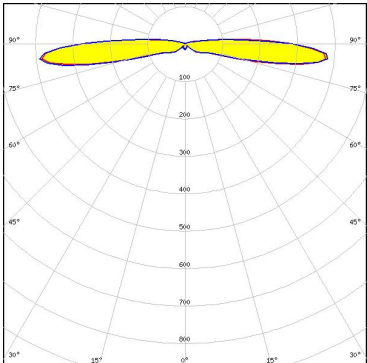
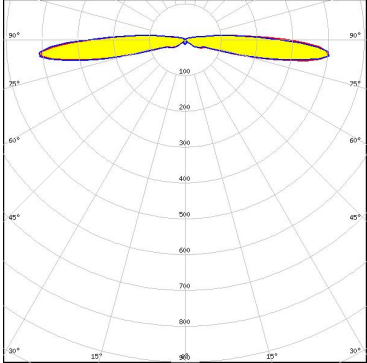

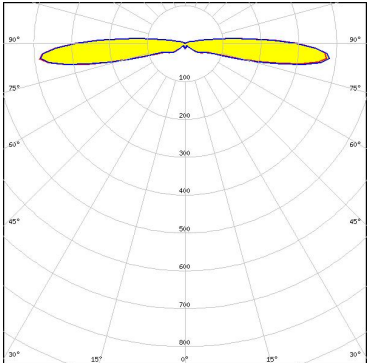
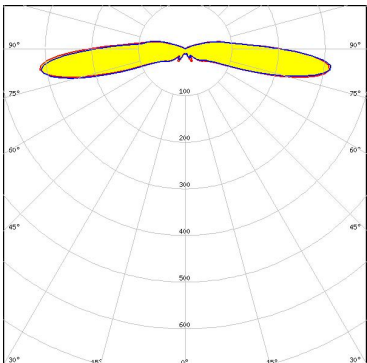
<p><b>CREE</b> → <b>LED</b></p> <p>LED: XHP35 HD            FWHM / FWTM: 194.0° / 216.0°            Efficiency: 94 %            Peak intensity: 0.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> → <b>LED</b></p> <p>LED: XHP70            FWHM / FWTM: 190.0° / 232.0°            Efficiency: 94 %            Peak intensity: 0.3 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> → <b>LED</b></p> <p>LED: XP-E2            FWHM / FWTM: 188.0° / 206.0°            Efficiency: 95 %            Peak intensity: 0.4 cd/lm            LEDs/each optic: 1            Light colour: Red            Required components:</p>	
<p><b>CREE</b> → <b>LED</b></p> <p>LED: XP-E2            FWHM / FWTM: 188.0° / 206.0°            Efficiency: 95 %            Peak intensity: 0.4 cd/lm            LEDs/each optic: 1            Light colour: Red            Required components:</p>	



#### PHOTOMETRIC DATA (SIMULATED):

<p><b>CREE</b> → <b>LED</b></p> <p>LED: XP-G2 HE            FWHM / FWTM: 191.0° / 212.0°            Efficiency: 95 %            Peak intensity: 0.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> → <b>LED</b></p> <p>LED: XP-G3            FWHM / FWTM: 186.0° / 211.0°            Efficiency: 94 %            Peak intensity: 0.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> → <b>LED</b></p> <p>LED: XQ-E HI            FWHM / FWTM: 183.0° / 221.0°            Efficiency: 94 %            Peak intensity: 0.3 cd/lm            LEDs/each optic: 4            Light colour: White            Required components:</p>	
<p><b>CREE</b> → <b>LED</b></p> <p>LED: XT-E            FWHM / FWTM: 184.0° / 212.0°            Efficiency: 95 %            Peak intensity: 0.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	

#### PHOTOMETRIC DATA (SIMULATED):

<p><b>LUMILEDS</b></p> <p>LED: LUXEON C            FWHM / FWTM: 184.0° / 204.0°            Efficiency: 91 %            Peak intensity: 0.4 cd/lm            LEDs/each optic: 1            Light colour: Red            Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON C            FWHM / FWTM: 183.0° / 201.0°            Efficiency: 92 %            Peak intensity: 0.5 cd/lm            LEDs/each optic: 1            Light colour: Green            Required components:</p>	 
<p><b>LUMILEDS</b></p> <p>LED: LUXEON C            FWHM / FWTM: 188.0° / 204.0°            Efficiency: 93 %            Peak intensity: 0.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON IR Compact            FWHM / FWTM: 183.4° / 217.0°            Efficiency: 94 %            Peak intensity: 0.3 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	

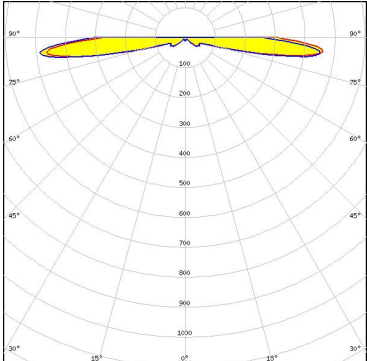
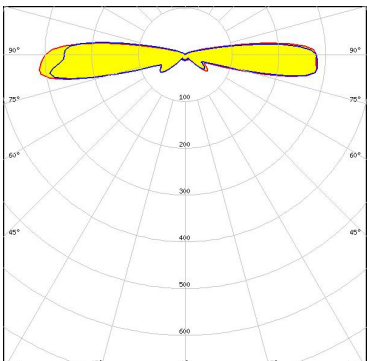
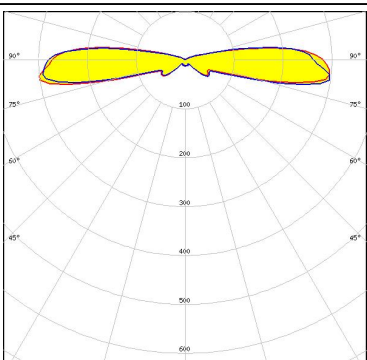
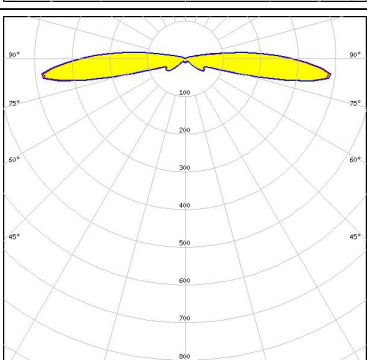
#### PHOTOMETRIC DATA (SIMULATED):

<p><b>LUMILEDS</b></p> <p>LED: LUXEON Rebel            FWHM / FWTM: 180.0° / 182.0°            Efficiency: 75 %            Peak intensity: 0.4 cd/lm            LEDs/each optic: 1            Light colour: Red            Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON Z            FWHM / FWTM: 183.4° / 218.0°            Efficiency: 89 %            Peak intensity: 0.3 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED: NCSxE17A            FWHM / FWTM: 180.0° / 226.0°            Efficiency: 96 %            Peak intensity: 0.3 cd/lm            LEDs/each optic: 7            Light colour: White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED: NCSxE17A            FWHM / FWTM: 173.0° / 208.0°            Efficiency: 96 %            Peak intensity: 0.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	

#### PHOTOMETRIC DATA (SIMULATED):

<p><b>NICHIA</b></p> <p>LED: NCSxE17A            FWHM / FWTM: 179.0° / 228.0°            Efficiency: 96 %            Peak intensity: 0.3 cd/lm            LEDs/each optic: 7            Light colour: White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED: NV4WB35AM            FWHM / FWTM: 184.0° / 220.0°            Efficiency: 95 %            Peak intensity: 0.3 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED: OSCONIQ P 3030            FWHM / FWTM: 181.0° / 208.0°            Efficiency: 95 %            Peak intensity: 0.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED: OSCONIQ P 7070            FWHM / FWTM: 192.0° / 226.0°            Efficiency: 95 %            LEDs/each optic: 1            Light colour: White            Required components:</p>	

#### PHOTOMETRIC DATA (SIMULATED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: OSLON SSL 150</p> <p>FWHM / FWTM: 180.0° / 182.0°</p> <p>Efficiency: 78 %</p> <p>Peak intensity: 0.5 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: Red</p> <p>Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: OSLON SSL 80</p> <p>FWHM / FWTM: 197.0° / 215.0°</p> <p>Efficiency: 96 %</p> <p>Peak intensity: 0.3 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: Red</p> <p>Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: OSLON SSL 80</p> <p>FWHM / FWTM: 198.0° / 216.0°</p> <p>Efficiency: 94 %</p> <p>Peak intensity: 0.3 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: Blue</p> <p>Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: OSTAR Projection Compact (Kx.CSLNM1.xx)</p> <p>FWHM / FWTM: 188.0° / 208.0°</p> <p>Efficiency: 96 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: Red</p> <p>Required components:</p>	

#### PHOTOMETRIC DATA (SIMULATED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED SFH 4170S</p> <p>FWHM / FWTM 188.0° / 208.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour IR</p> <p>Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED SFH 4715AS</p> <p>FWHM / FWTM 202.0° / 221.0°</p> <p>Efficiency 95 %</p> <p>Peak intensity 0.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour IR</p> <p>Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED SFH 4715S</p> <p>FWHM / FWTM 196.0° / 216.0°</p> <p>Efficiency 95 %</p> <p>Peak intensity 0.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour IR</p> <p>Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED SFH 4716AS</p> <p>FWHM / FWTM 184.0° / 207.0°</p> <p>Efficiency 95 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour IR</p> <p>Required components:</p>	

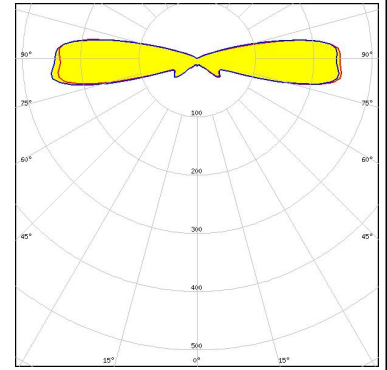


#### PHOTOMETRIC DATA (SIMULATED):

#### OSRAM

Opto Semiconductors

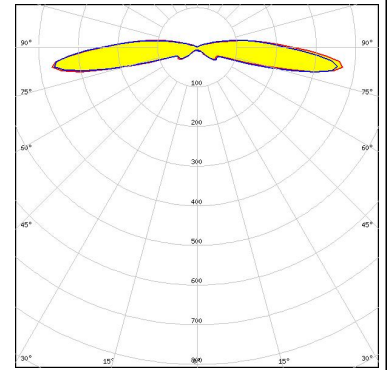
LED SFH 4717AS  
 FWHM / FWTM 207.0° / 224.0°  
 Efficiency 95 %  
 Peak intensity 0.3 cd/lm  
 LEDs/each optic 1  
 Light colour IR  
 Required components:



#### OSRAM

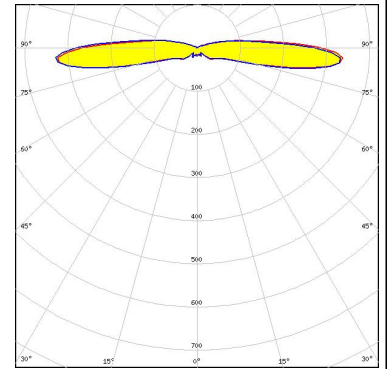
Opto Semiconductors

LED SFH 4770S  
 FWHM / FWTM 185.0° / 212.0°  
 Efficiency 95 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour IR  
 Required components:



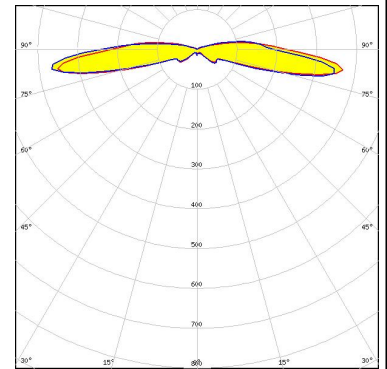
#### SAMSUNG

LED LH351D  
 FWHM / FWTM 190.0° / 216.0°  
 Efficiency 94 %  
 Peak intensity 0.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:


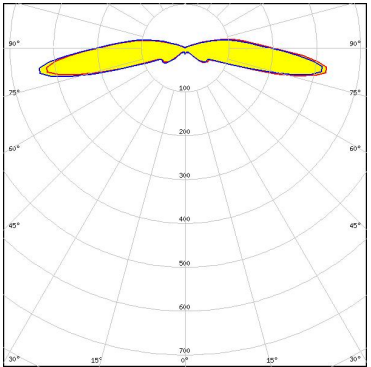

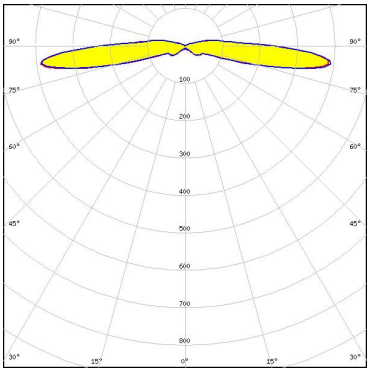


SEOUL SEMICONDUCTOR

LED MJT 3030  
 FWHM / FWTM 184.0° / 212.0°  
 Efficiency 95 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (SIMULATED):

 SEOUL SEMICONDUCTOR		
LED	Z5M4	
FWHM / FWTM	184.0° / 216.0°	
Efficiency	95 %	
Peak intensity	0.3 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
 SEOUL SEMICONDUCTOR		
LED	Z8Y22P	
FWHM / FWTM	181.4° / 210.6°	
Efficiency	94 %	
Peak intensity	0.4 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		

### GENERAL INFORMATION:

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

### MATERIALS:

As part of our continuous research and improvement processes, and to ensure the best possible quality and availability of our products, LEDiL reserves the right to change material grades without notice.

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