

## LISA3-RS-PIN

~15° spot beam with location pin installation

### SPECIFICATION:

Dimensions	Ø 10.0 mm
Height	6.9 mm
Fastening	glue
ROHS compliant	yes ⓘ

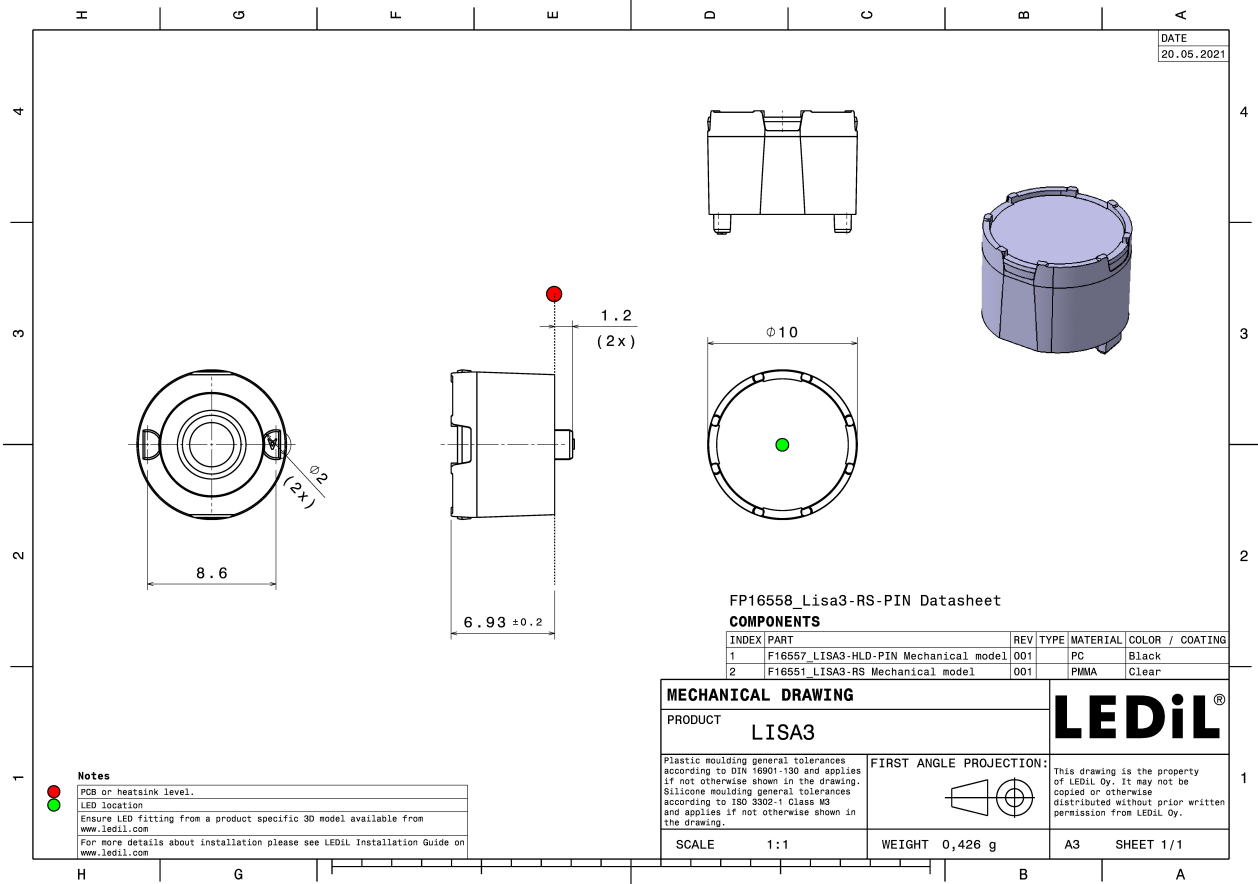
### MATERIALS:

Component	Type	Material	Colour	Finish
LISA3-RS	Single lens	PMMA	clear	
LISA3-HLD-PIN	Holder	PC	black	

### ORDERING INFORMATION:


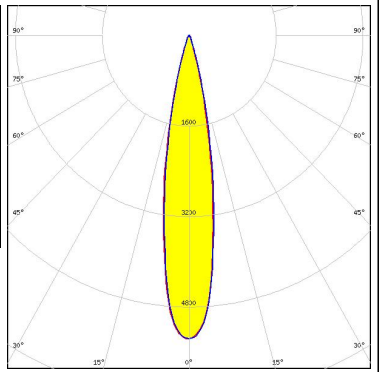

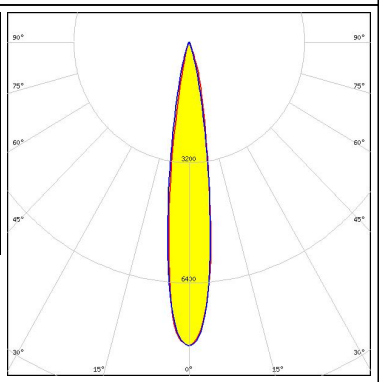

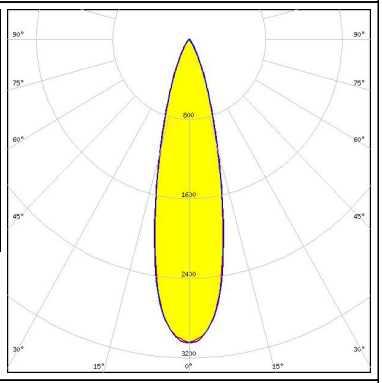

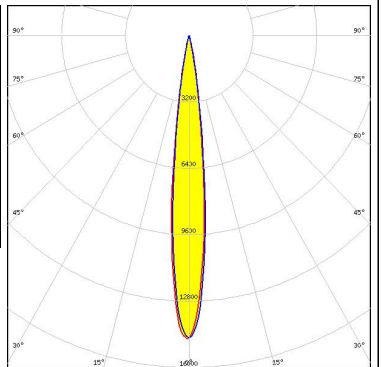
Component		Qty in box	MOQ	MPQ	Box weight (kg)
FP16558_LISA3-RS-PIN	Single lens	2000	300	100	1.3
» Box size: 310 x 230 x 60 mm					



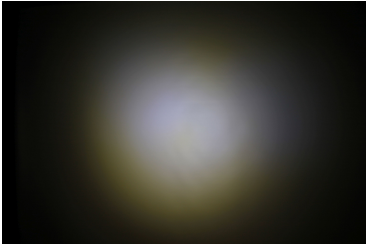
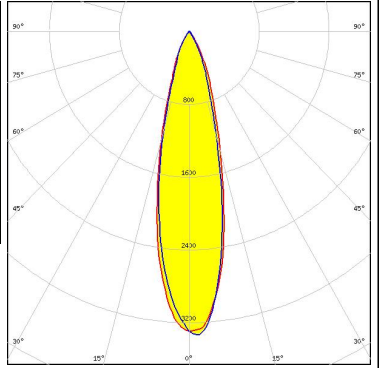

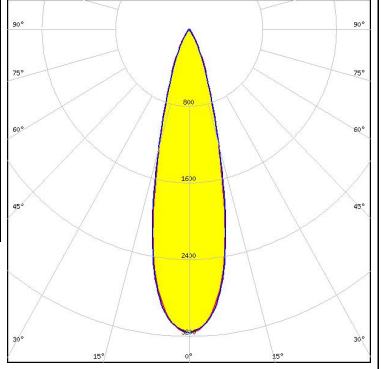

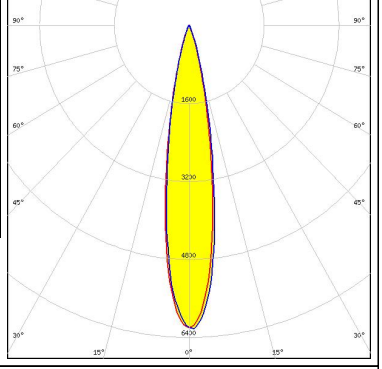

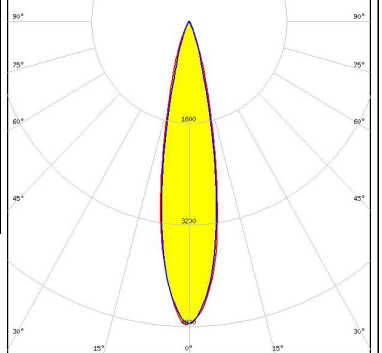


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> → <b>LED</b></p> <p>LED           XD16            FWHM / FWTM   19.0° / 34.0°            Efficiency       78 %            Peak intensity   5.4 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   16.0° / 31.0°            Efficiency       90 %            Peak intensity   8.1 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   26.0° / 51.0°            Efficiency       84 %            Peak intensity   3.1 cd/lm            LEDs/each optic   1            Light colour     White            Required components:</p>		
<p><b>LUMILEDS</b></p> <p>LED           LUXEON CZ            FWHM / FWTM   12.0° / 23.0°            Efficiency       89 %            Peak intensity   14.6 cd/lm            LEDs/each optic   1            Light colour     White            Required components:</p>		

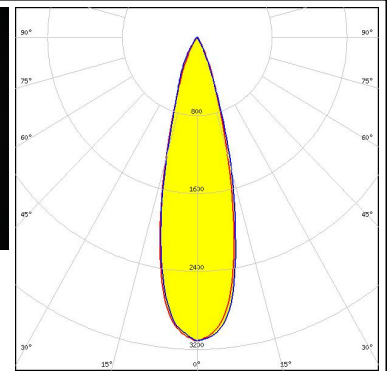
#### OPTICAL RESULTS (MEASURED):

<p><b>NICHIA</b></p> <p>LED NF2x757G            FWHM / FWTM 25.0° / 52.0°            Efficiency 88 %            Peak intensity 3.3 cd/m            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>NICHIA</b></p> <p>LED NVSW219F            FWHM / FWTM 26.0° / 52.0°            Efficiency 90 %            Peak intensity 3.2 cd/m            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED OSCONIQ C 2424            FWHM / FWTM 18.0° / 35.0°            Efficiency 88 %            Peak intensity 6.3 cd/m            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED OSLON Square CSSRM2/CSSRM3            FWHM / FWTM 21.0° / 40.0°            Efficiency 88 %            Peak intensity 4.8 cd/m            LEDs/each optic 1            Light colour White            Required components:</p>		

#### OPTICAL RESULTS (MEASURED):

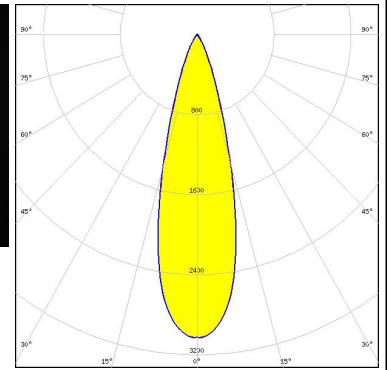
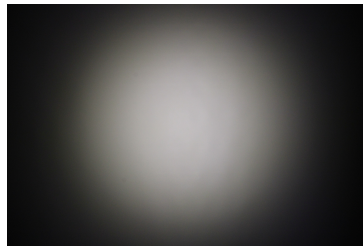
### SAMSUNG

LED LH351C  
 FWHM / FWTM 28.0° / 51.0°  
 Efficiency 90 %  
 Peak intensity 3.1 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:

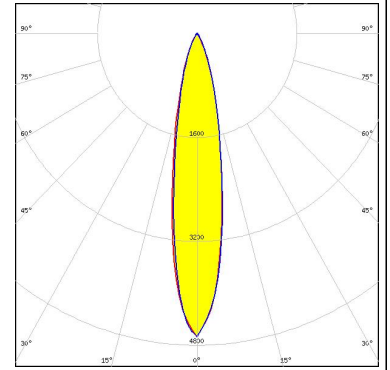
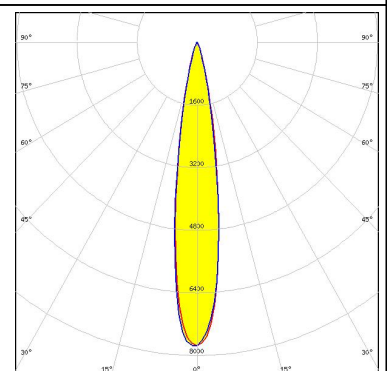
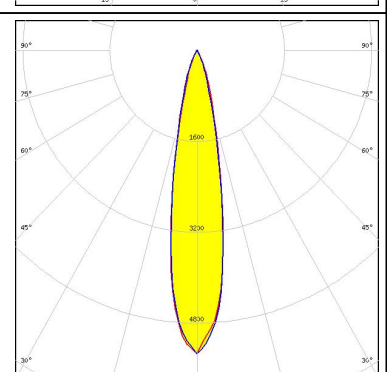
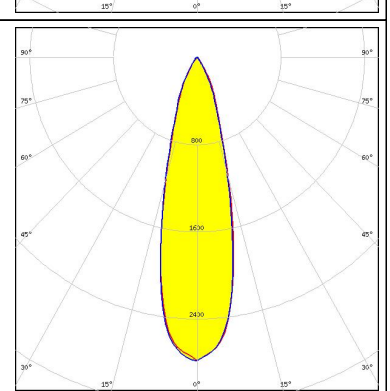


SEOUL SEMICONDUCTOR

LED Z5M4  
 FWHM / FWTM 29.0° / 51.0°  
 Efficiency 89 %  
 Peak intensity 3.1 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:



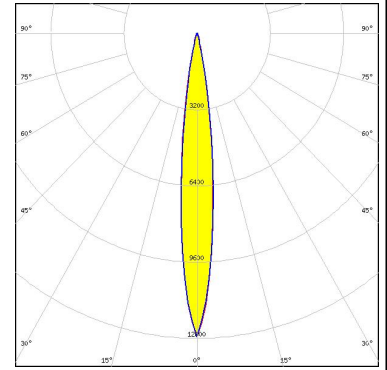
#### OPTICAL RESULTS (SIMULATED):

<p><b>CREE LED</b></p> <p>LED J Series 2835            FWHM / FWTM 19.0° / 44.0°            Efficiency 88 %            Peak intensity 4.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>CREE LED</b></p> <p>LED XP-E            FWHM / FWTM 16.0° / 32.0°            Efficiency 91 %            Peak intensity 7.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>CREE LED</b></p> <p>LED XP-G2            FWHM / FWTM 20.0° / 40.0°            Efficiency 89 %            Peak intensity 5.3 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>CREE LED</b></p> <p>LED XP-G2 HE            FWHM / FWTM 27.0° / 57.0°            Efficiency 86 %            Peak intensity 2.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	

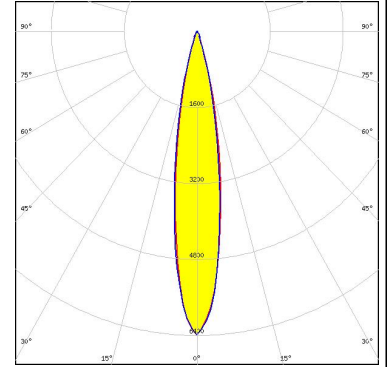
#### OPTICAL RESULTS (SIMULATED):



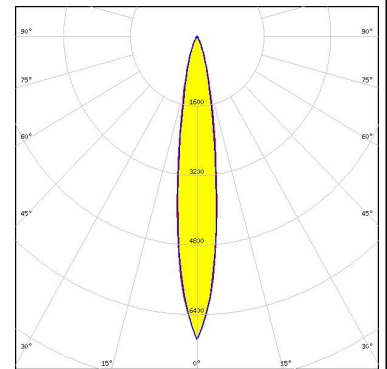
LED XP-P  
 FWHM / FWTM 12.0° / 26.0°  
 Efficiency 97 %  
 Peak intensity 12.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



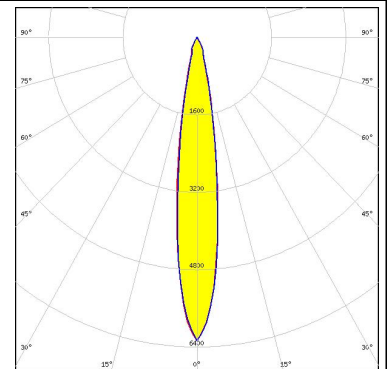
LED XQ-E HI  
 FWHM / FWTM 18.0° / 34.0°  
 Efficiency 82 %  
 Peak intensity 6.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED LUXEON 2835 Line  
 FWHM / FWTM 16.0° / 36.0°  
 Efficiency 89 %  
 Peak intensity 7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED LUXEON C  
 FWHM / FWTM 16.0° / 32.0°  
 Efficiency 78 %  
 Peak intensity 6.3 cd/lm  
 LEDs/each optic 1  
 Light colour Red  
 Required components:

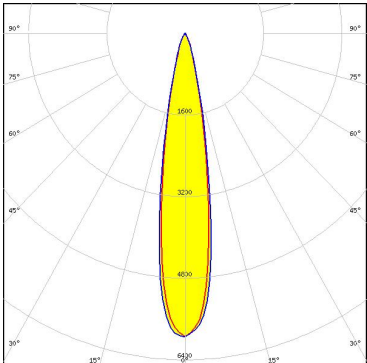
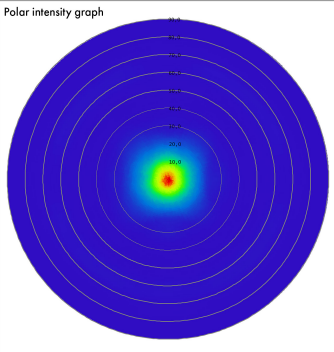
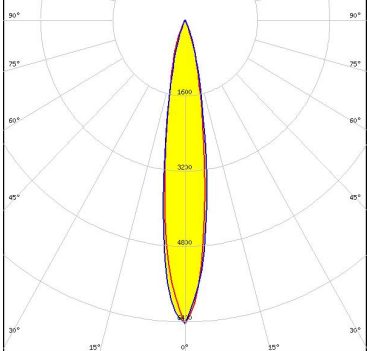
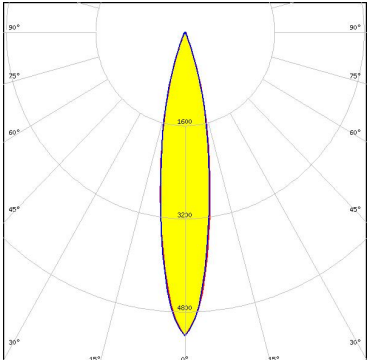
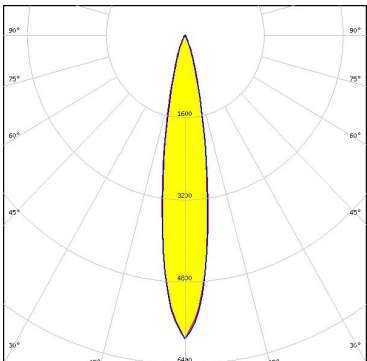


#### OPTICAL RESULTS (SIMULATED):

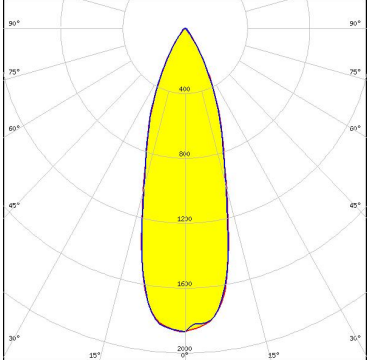
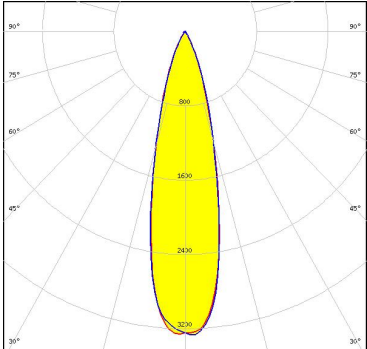
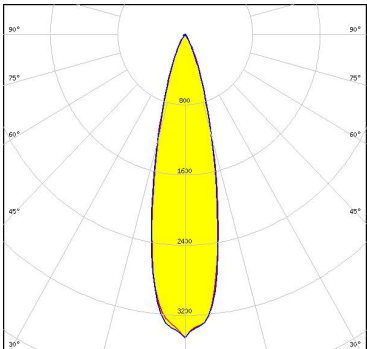
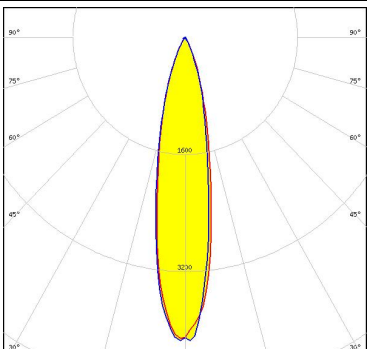
<p><b>LUMILEDS</b></p> <p>LED: LUXEON CZ</p> <p>FWHM / FWTM: 12.0° / 25.0°</p> <p>Efficiency: 90 %</p> <p>Peak intensity: 13.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: Red</p> <p>Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON V2</p> <p>FWHM / FWTM: 22.0° / 51.0°</p> <p>Efficiency: 90 %</p> <p>Peak intensity: 3.8 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON Z</p> <p>FWHM / FWTM: 12.0° / 23.0°</p> <p>Efficiency: 87 %</p> <p>Peak intensity: 13.2 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON Z ES</p> <p>FWHM / FWTM: 15.0° / 30.0°</p> <p>Efficiency: 88 %</p> <p>Peak intensity: 9 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	



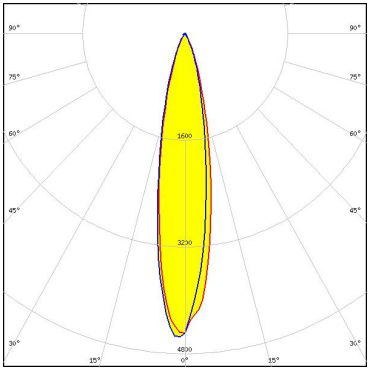
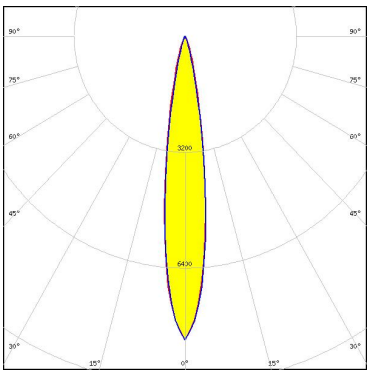
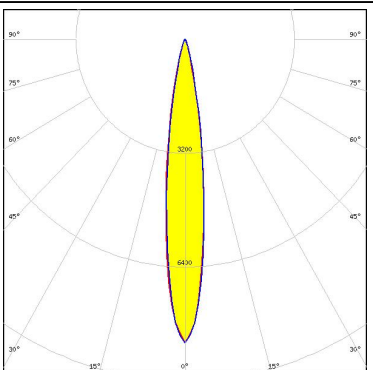
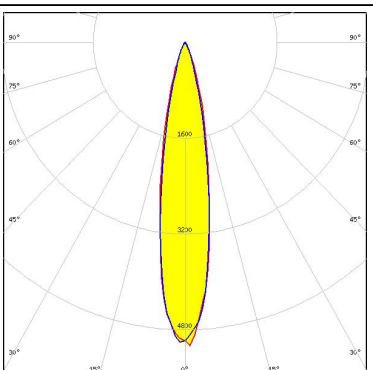
#### OPTICAL RESULTS (SIMULATED):

<p><b>LUMINUS</b></p> <p>LED SST-10-B130            FWHM / FWTM 19.0° / 36.0°            Efficiency 89 %            Peak intensity 6 cd/lm            LEDs/each optic 1            Light colour Deep Red            Required components:</p>	
<p><b>LUMINUS</b></p> <p>LED SST-10-IR-B90            FWHM / FWTM 17.0° / 38.0°            Efficiency 87 %            LEDs/each optic 1            Light colour IR            Required components:</p>	<p>Polar intensity graph</p>  
<p><b>LUMINUS</b></p> <p>LED SST-20            FWHM / FWTM 20.0° / 40.0°            Efficiency 86 %            Peak intensity 5.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED NCSxx19B            FWHM / FWTM 18.0° / 37.0°            Efficiency 84 %            Peak intensity 5.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>NICHIA</b></p> <p>LED NV4WB35AM            FWHM / FWTM 32.0° / 65.0°            Efficiency 84 %            Peak intensity 1.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED NVSxx19B/NVSxx19C            FWHM / FWTM 26.0° / 50.0°            Efficiency 85 %            Peak intensity 3.3 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED NVSxx19B/NVSxx19C            FWHM / FWTM 25.0° / 50.0°            Efficiency 85 %            Peak intensity 3.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED Duris S5 (2 chip)            FWHM / FWTM 20.0° / 44.0°            Efficiency 87 %            Peak intensity 7.1 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Duris S5 (Single chip)</p> <p>FWHM / FWTM 20.0° / 43.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 4.5 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 KW CULPM1.TG</p> <p>FWHM / FWTM 16.0° / 32.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 8.4 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 OSCONIQ P 3030</p> <p>FWHM / FWTM 14.0° / 30.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 8.5 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 OSCONIQ P 3737 (2W version)</p> <p>FWHM / FWTM 20.0° / 40.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 5.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSCONIQ P 3737 (3W version)</p> <p>FWHM / FWTM 29.0° / 58.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 2.5 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 Signal</p> <p>FWHM / FWTM 14.0° / 29.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 9.9 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 Flat</p> <p>FWHM / FWTM 16.0° / 33.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 7.5 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 120</p> <p>FWHM / FWTM 16.0° / 29.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour Hyper Red</p> <p>Required components:</p>	

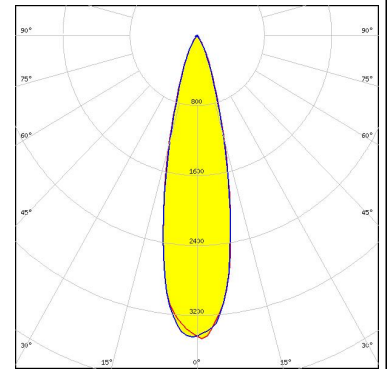
#### OPTICAL RESULTS (SIMULATED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: OSLOM SSL 150</p> <p>FWHM / FWTM: 14.5° / 29.0°</p> <p>Efficiency: 88 %</p> <p>Peak intensity: 8.7 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: OSLOM SSL 80</p> <p>FWHM / FWTM: 15.0° / 31.0°</p> <p>Efficiency: 87 %</p> <p>Peak intensity: 7.6 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: Synios P2720 1 mm</p> <p>FWHM / FWTM: 12.0° / 24.0°</p> <p>Efficiency: 88 %</p> <p>Peak intensity: 13.6 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: SYNIOS S2222</p> <p>FWHM / FWTM: 16.0° / 34.0 + 32.0°</p> <p>Efficiency: 97 %</p> <p>Peak intensity: 8.1 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

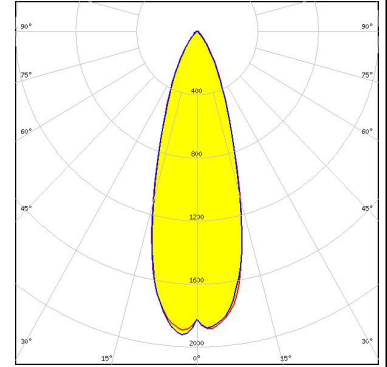
### SAMSUNG

LED LH351B  
 FWHM / FWTM 26.0° / 49.0°  
 Efficiency 88 %  
 Peak intensity 3.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



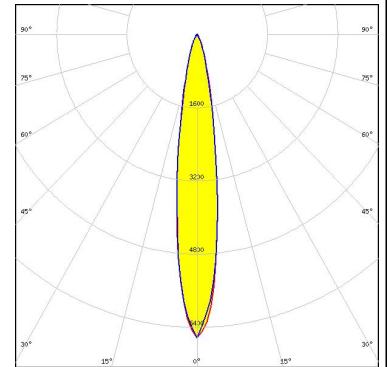
### SAMSUNG

LED LH351D  
 FWHM / FWTM 34.0° / 66.0°  
 Efficiency 85 %  
 Peak intensity 1.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



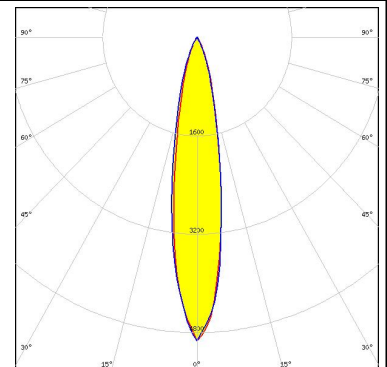
### SAMSUNG

LED LM301A  
 FWHM / FWTM 14.5° / 33.0°  
 Efficiency 87 %  
 Peak intensity 7.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:


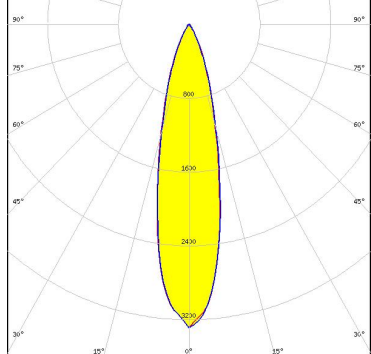

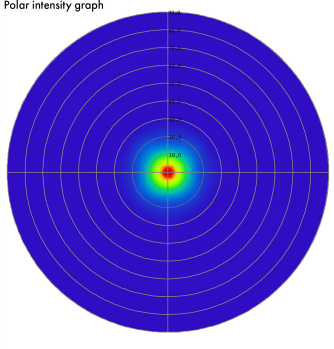
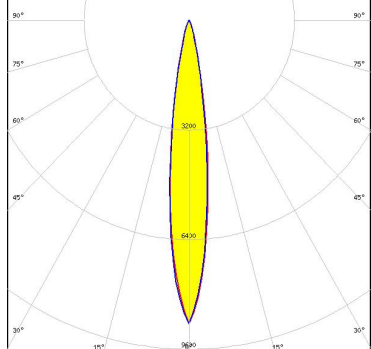

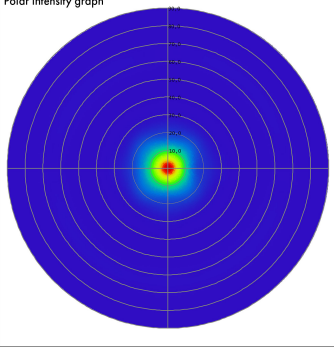
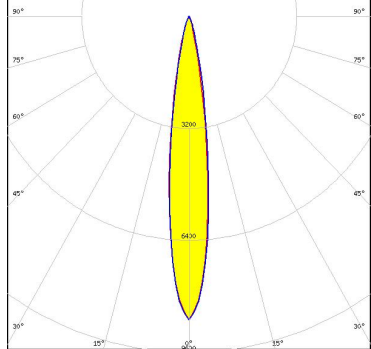


### SAMSUNG

LED LM302A  
 FWHM / FWTM 16.0° / 40.0°  
 Efficiency 87 %  
 Peak intensity 5.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (SIMULATED):

<p> SEOL SEMICONDUCTOR</p> <p>LED: Z5M3            FWHM / FWTM: 24.0° / 51.0°            Efficiency: 86 %            Peak intensity: 3.3 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>		
<p> STANLEY</p> <p>LED: MGN1108MS            FWHM / FWTM: 15.0° / 30.0°            Efficiency: 89 %            LEDs/each optic: 1            Light colour: IR            Required components:</p>	<p>Polar intensity graph</p> 	
<p> STANLEY</p> <p>LED: MJN1108MS            FWHM / FWTM: 15.0° / 31.0°            Efficiency: 90 %            LEDs/each optic: 1            Light colour: IR            Required components:</p>	<p>Polar intensity graph</p> 	

### 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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