

## SEANNA-A

~2.3° spot beam. Assembly with holder.

### SPECIFICATION:

Dimensions	Ø 155.2 mm
Height	82 mm
Fastening	pin, screw
ROHS compliant	yes ⓘ

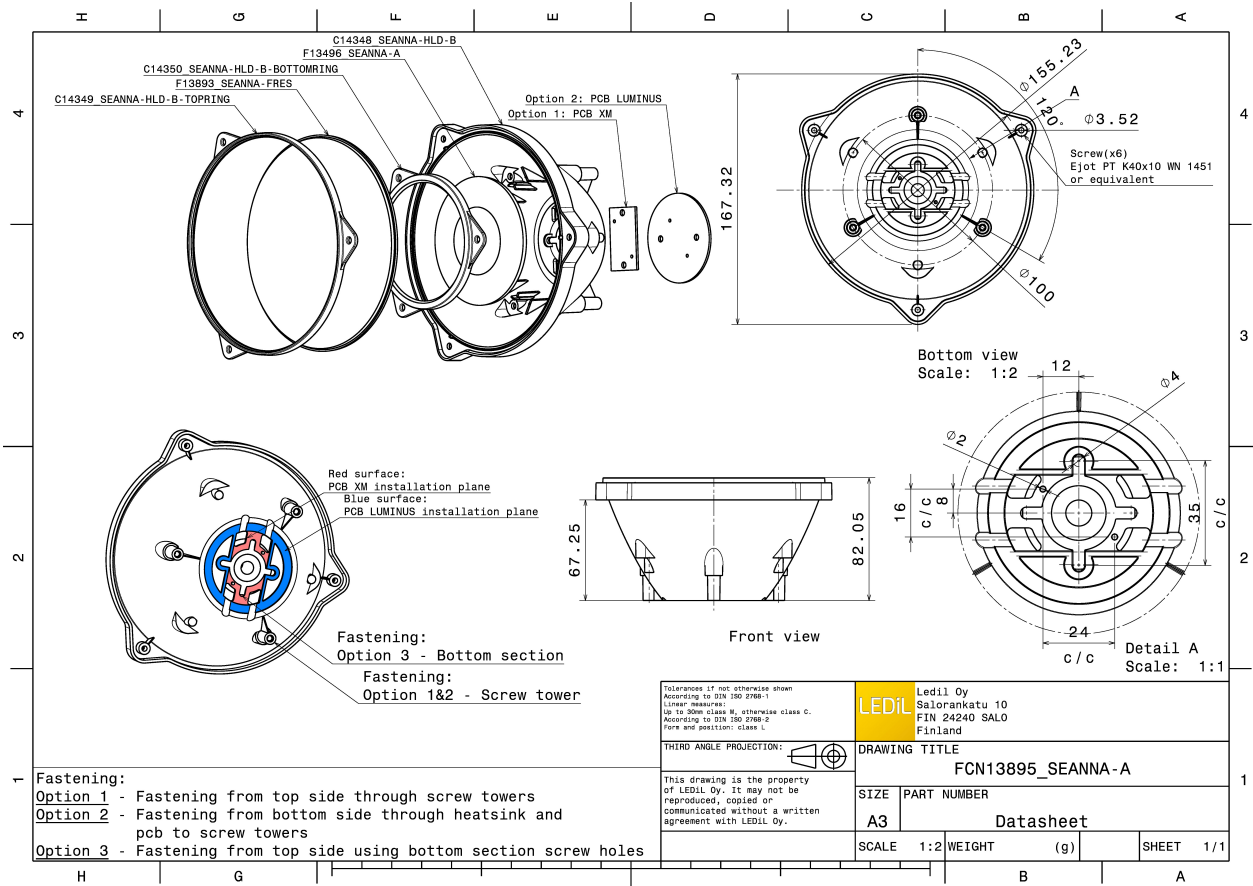
### MATERIALS:

Component	Type	Material	Colour	Finish
SEANNA-FRES	Single lens	PMMA	clear	
SEANNA-A	Single lens	PMMA	clear	
SEANNA-HLD-B-BOTTOMRING	Holder	PA66GF30	black	
SEANNA-HLD-B-TOPRING	Holder	PA66GF30	black	
SEANNA-HLD-B	Holder	PA66GF30	black	
SEANNA-SCREW	Accessory	Stainless steel	clear	




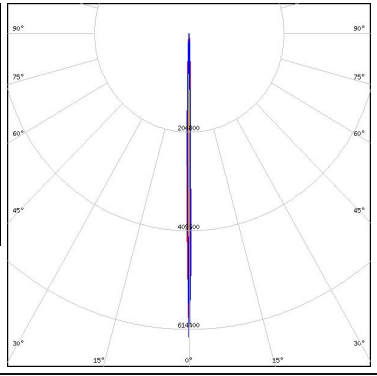

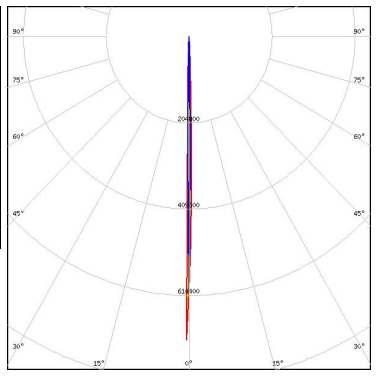

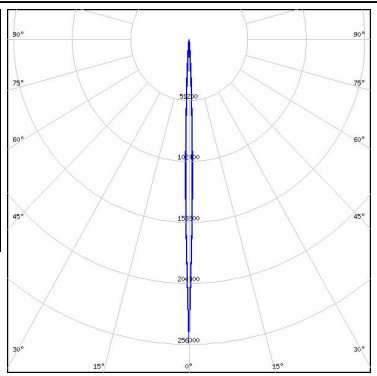
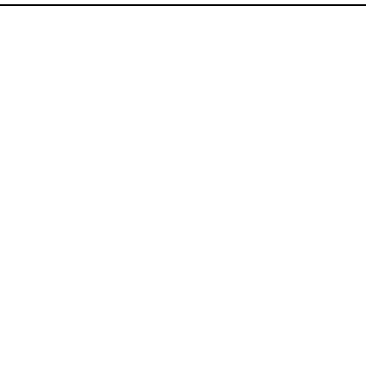
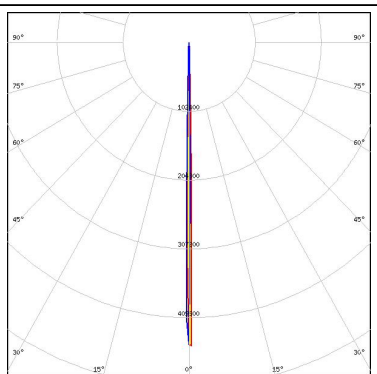
### ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
FCP13895_SEANNA-A	Single lens		20	2	6.5
» Box size:					

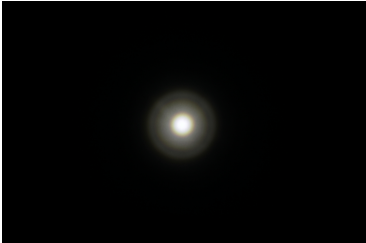
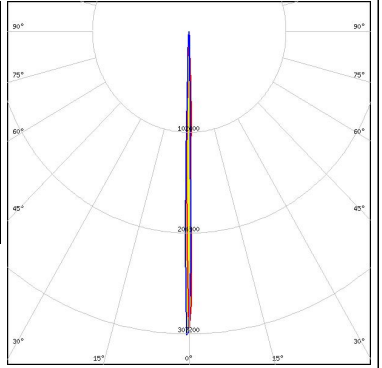
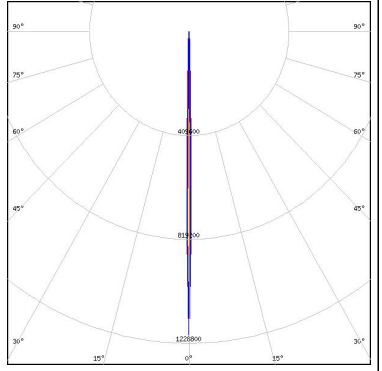
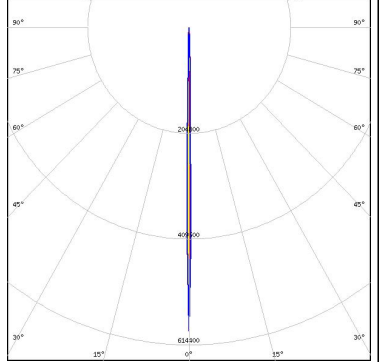


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED           XD16            FWHM / FWTM   1.0° / 3.0°            Efficiency       91 %            Peak intensity   629 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   1.0° / 3.0°            Efficiency       %            Peak intensity   718 cd/lm            LEDs/each optic   1            Light colour     White            Required components:</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED           XP-L HD            FWHM / FWTM   2.4° / 5.3°            Efficiency       94 %            Peak intensity   255 cd/lm            LEDs/each optic   1            Light colour     White            Required components:</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED           XP-L HI            FWHM / FWTM   1.6° / 3.2°            Efficiency       94 %            Peak intensity   492 cd/lm            LEDs/each optic   1            Light colour     White            Required components:</p>		

#### OPTICAL RESULTS (MEASURED):

<p><b>NICHIA</b></p> <p>LED NVSW3x9A            FWHM / FWTM 1.9° / 4.1°            Efficiency 92 %            Peak intensity 310 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED OSOLON Black Flat (LUW HWQP)            FWHM / FWTM 1.2° / 2.3°            Efficiency 94 %            Peak intensity 1196 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED OSOLON Square CSSRM2/CSSRM3            FWHM / FWTM 1.5° / 3.3°            Efficiency 94 %            Peak intensity 587 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		

#### OPTICAL RESULTS (SIMULATED):

<p><b>CREE</b> → <b>LED</b></p> <p>LED: MK-R            FWHM / FWTM: 4.0° / 10.4°            Efficiency: 91 %            Peak intensity: 82 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> → <b>LED</b></p> <p>LED: XB-D            FWHM / FWTM: 1.3° / 3.2°            Efficiency: 87 %            Peak intensity: 698 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> → <b>LED</b></p> <p>LED: XHP35 HD            FWHM / FWTM: 2.4° / 4.2°            Efficiency: 89 %            Peak intensity: 257 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> → <b>LED</b></p> <p>LED: XHP35 HI            FWHM / FWTM: 1.6° / 3.6°            Efficiency: 83 %            Peak intensity: 496 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	


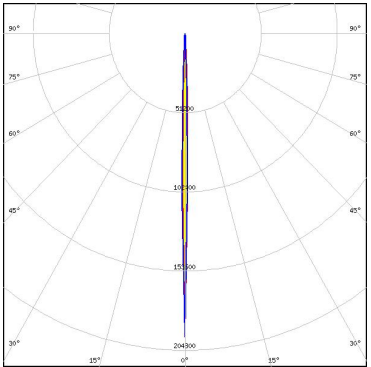

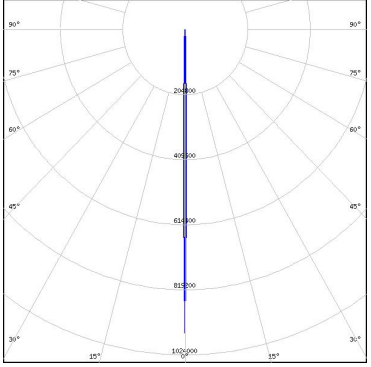

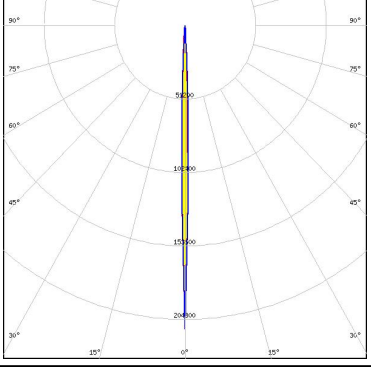

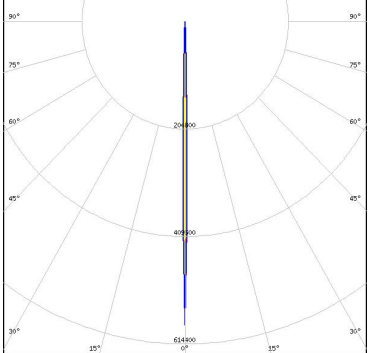
#### OPTICAL RESULTS (SIMULATED):

<p><b>CREE</b> LED</p> <p>LED: XHP35.2 HD            FWHM / FWTM: 2.0° / 6.0°            Efficiency: 89 %            Peak intensity: 161.9 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LED</p> <p>LED: XHP35.2 HI            FWHM / FWTM: 2.0° / 4.0°            Efficiency: 89 %            Peak intensity: 161 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LED</p> <p>LED: XHP50            FWHM / FWTM: 3.3° / 6.7°            Efficiency: 87 %            Peak intensity: 122 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LED</p> <p>LED: XHP50.2            FWHM / FWTM: 2.7° / 6.8°            Efficiency: 84 %            Peak intensity: 128.7 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):


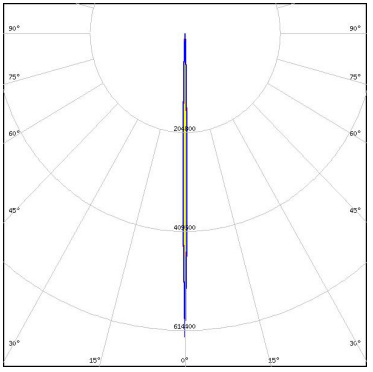

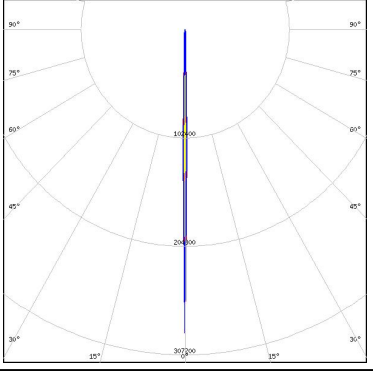

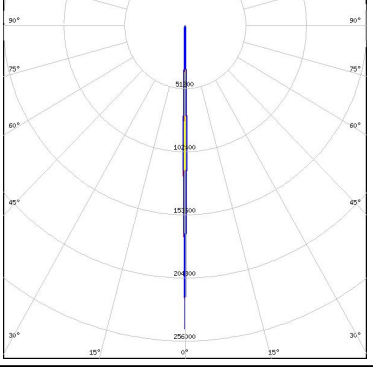

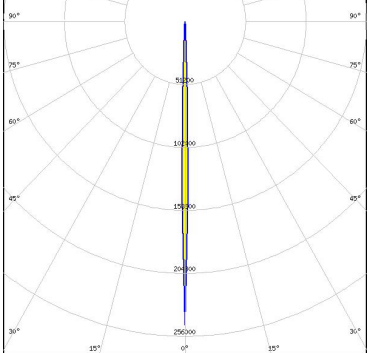
<p><b>CREE</b> LED</p> <p>LED: XHP70            FWHM / FWTM: 4.3° / 10.4°            Efficiency: 81 %            Peak intensity: 69.9 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LED</p> <p>LED: XHP70.2            FWHM / FWTM: 4.5° / 10.1°            Efficiency: 83 %            Peak intensity: 71.6 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LED</p> <p>LED: XM-L            FWHM / FWTM: 2.4°            Efficiency: %            Peak intensity: 272 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LED</p> <p>LED: XM-L2            FWHM / FWTM: 2.0° / 3.9°            Efficiency: 85 %            Peak intensity: 275 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

	<p>LED XM-L3            FWHM / FWTM 2.0° / 6.0°            Efficiency 90 %            Peak intensity 196.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
	<p>LED XP-E            FWHM / FWTM 1.2° / 2.9°            Efficiency 92 %            Peak intensity 955 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
	<p>LED XP-E2            FWHM / FWTM 2.0° / 6.0°            Efficiency 85 %            Peak intensity 211.5 cd/lm            LEDs/each optic 1            Light colour Blue            Required components:</p>	
	<p>LED XP-G            FWHM / FWTM 1.4° / 3.4°            Efficiency 90 %            Peak intensity 578 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	



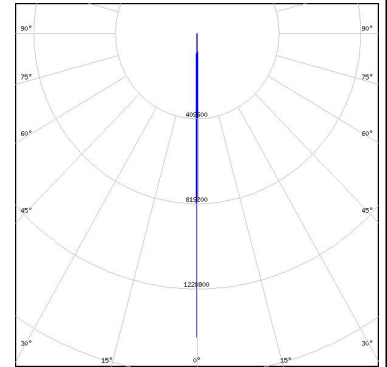
#### OPTICAL RESULTS (SIMULATED):

<p><b>CREE</b>  <b>LED</b></p> <p>LED: XP-G2            FWHM / FWTM: 1.4° / 3.2°            Efficiency: 91 %            Peak intensity: 628 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b>  <b>LED</b></p> <p>LED: XP-G2 HE            FWHM / FWTM: 2.0° / 4.0°            Efficiency: 89 %            Peak intensity: 286.5 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: 2.0° / 4.0°            Efficiency: 88 %            Peak intensity: 246.2 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b>  <b>LED</b></p> <p>LED: XP-P            FWHM / FWTM: 2.0° / 6.0°            Efficiency: 84 %            Peak intensity: 246.8 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):



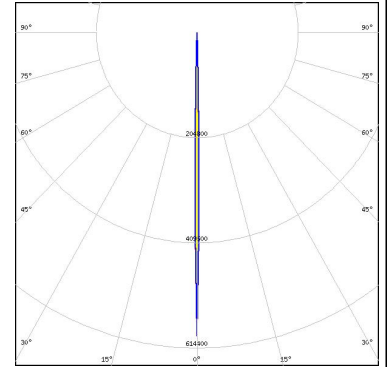
LED XQ-E HD  
 FWHM / FWTM 1.1° / 2.5°  
 Efficiency 92 %  
 Peak intensity 1460 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



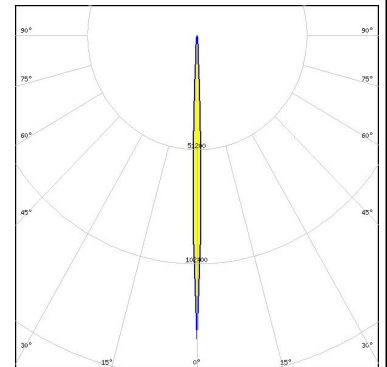
LED XQ-E HI  
 FWHM / FWTM 1.2° / 2.0°  
 Efficiency 90 %  
 Peak intensity 1300 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED XT-E  
 FWHM / FWTM 1.4° / 3.5°  
 Efficiency 88 %  
 Peak intensity 519 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



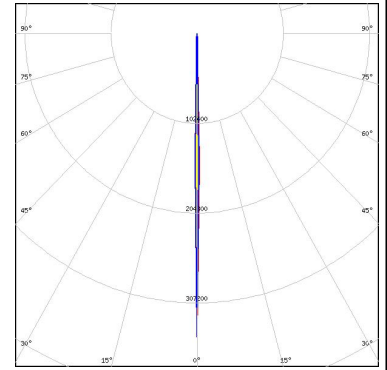
LED LZ4 (00xW00)  
 FWHM / FWTM 3.3° / 8.2°  
 Efficiency 91 %  
 Peak intensity 136 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (SIMULATED):

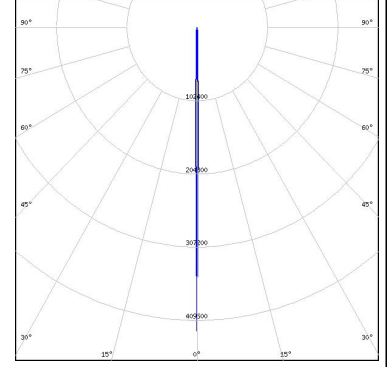
##### LUMILEDS

LED LUXEON CZ  
 FWHM / FWTM 1.7° / 3.9°  
 Efficiency 93 %  
 Peak intensity 346 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



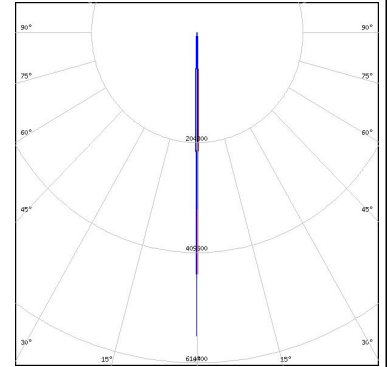
##### LUMILEDS

LED LUXEON CZ  
 FWHM / FWTM 1.4° / 3.7°  
 Efficiency 94 %  
 Peak intensity 424 cd/lm  
 LEDs/each optic 1  
 Light colour Green  
 Required components:



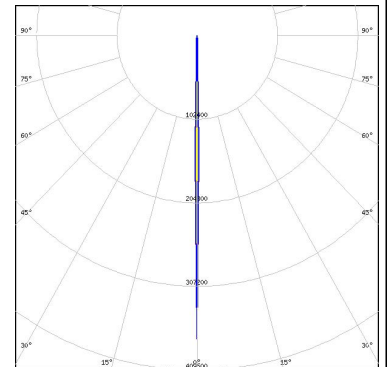
##### LUMILEDS

LED LUXEON CZ  
 FWHM / FWTM 1.2° / 3.3°  
 Efficiency 94 %  
 Peak intensity 564 cd/lm  
 LEDs/each optic 1  
 Light colour Red  
 Required components:



##### LUMILEDS

LED LUXEON CZ  
 FWHM / FWTM 1.6° / 3.8°  
 Efficiency 93 %  
 Peak intensity 371 cd/lm  
 LEDs/each optic 1  
 Light colour Blue  
 Required components:



#### OPTICAL RESULTS (SIMULATED):

<p><b>LUMILEDS</b></p> <p>LED: LUXEON CZ</p> <p>FWHM / FWTM: 1.3° / 3.4°</p> <p>Efficiency: 94 %</p> <p>Peak intensity: 564 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: PC Amber</p> <p>Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON HL2X</p> <p>FWHM / FWTM: 2.0° / 4.0°</p> <p>Efficiency: 89 %</p> <p>Peak intensity: 317.8 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 M/MX</p> <p>FWHM / FWTM: 3.6° / 9.0°</p> <p>Efficiency: 89 %</p> <p>Peak intensity: 99 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 MZ</p> <p>FWHM / FWTM: 2.2° / 6.0°</p> <p>Efficiency: 84 %</p> <p>Peak intensity: 151 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>LUMILEDS</b></p> <p>LED: LUXEON Rebel</p> <p>FWHM / FWTM: 1.3° / 3.2°</p> <p>Efficiency: 90 %</p> <p>Peak intensity: 704 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 Rebel ES</p> <p>FWHM / FWTM: 1.6° / 3.6°</p> <p>Efficiency: 90 %</p> <p>Peak intensity: 530 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 Rubix</p> <p>FWHM / FWTM: 2.0° / 4.0°</p> <p>Efficiency: 88 %</p> <p>Peak intensity: 290.2 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 Rubix</p> <p>FWHM / FWTM: 2.0° / 6.0°</p> <p>Efficiency: 85 %</p> <p>Peak intensity: 196.2 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: Red</p> <p>Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>LUMILEDS</b></p> <p>LED: LUXEON Rubix</p> <p>FWHM / FWTM: 2.0° / 6.0°</p> <p>Efficiency: 83 %</p> <p>Peak intensity: 157.7 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: Green</p> <p>Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON Rubix</p> <p>FWHM / FWTM: 2.0° / 6.0°</p> <p>Efficiency: 83 %</p> <p>Peak intensity: 141.9 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: Blue</p> <p>Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON S1000</p> <p>FWHM / FWTM: 3.8° / 8.0°</p> <p>Efficiency: 88 %</p> <p>Peak intensity: 100 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 V2</p> <p>FWHM / FWTM: 2.0° / 4.0°</p> <p>Efficiency: 88 %</p> <p>Peak intensity: 250.1 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: SBT-90            FWHM / FWTM: 2.0° / 6.0°            Efficiency: 76 %            Peak intensity: 175.9 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>LUMINUS</b></p> <p>LED: SBT-90            FWHM / FWTM: 2.3° / 4.8°            Efficiency: 90 %            Peak intensity: 253 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED: NV4WB35AM            FWHM / FWTM: 2.0° / 4.0°            Efficiency: 90 %            Peak intensity: 185.5 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED: NVSW219F            FWHM / FWTM: 2.0° / 4.0°            Efficiency: 89 %            Peak intensity: 296 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>NICHIA</b></p> <p>LED: NVSW519A            FWHM / FWTM: 2.0° / 4.0°            Efficiency: 89 %            Peak intensity: 251.6 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED: NVSW719AC            FWHM / FWTM: 2.0° / 6.0°            Efficiency: 85 %            Peak intensity: 207.3 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED: OSCONIQ C 2424            FWHM / FWTM: 2.0° / 4.0°            Efficiency: 90 %            Peak intensity: 241.6 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 3737 (2W version)            FWHM / FWTM: 2.0° / 4.0°            Efficiency: 89 %            Peak intensity: 258.2 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	



#### OPTICAL RESULTS (SIMULATED):

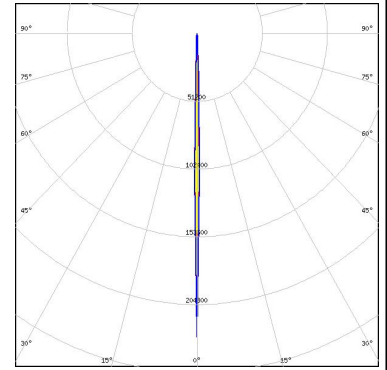
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSCONIQ P 3737 (3W version)</p> <p>FWHM / FWTM 2.0° / 4.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 232.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSCONIQ P 7070</p> <p>FWHM / FWTM 3.5° / 7.1°</p> <p>Efficiency 91 %</p> <p>Peak intensity 122.2 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 OSOLON Boost HX (KW CULPM1.TG)</p> <p>FWHM / FWTM 2.0° / 6.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 176.8 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 OSOLON Square PC</p> <p>FWHM / FWTM 1.5° / 3.6°</p> <p>Efficiency 89 %</p> <p>Peak intensity 550 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

#### OSRAM

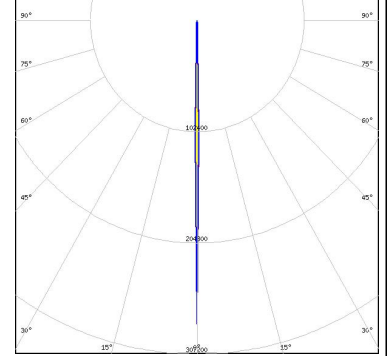
Opto Semiconductors

LED OSRAM OSTAR Projection Compact (KW CSLPM1.TG)  
 FWHM / FWTM 2.0° / 4.0°  
 Efficiency 90 %  
 Peak intensity 229.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



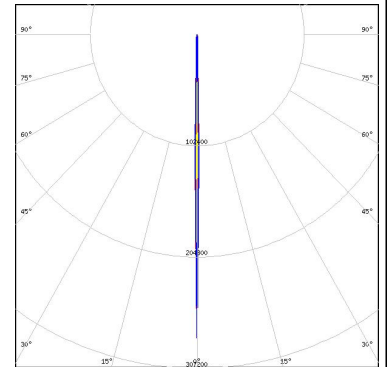
#### SAMSUNG

LED LH351B  
 FWHM / FWTM 2.0° / 4.0°  
 Efficiency 90 %  
 Peak intensity 279.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



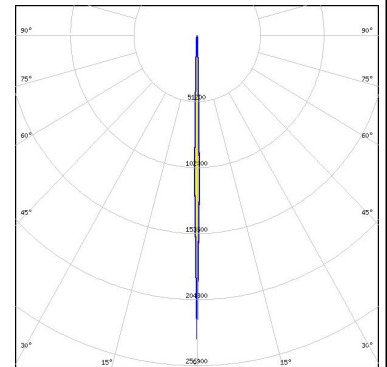
#### SAMSUNG

LED LH351C  
 FWHM / FWTM 2.0° / 4.0°  
 Efficiency 91 %  
 Peak intensity 279.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:


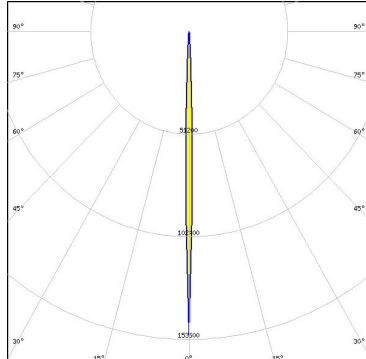

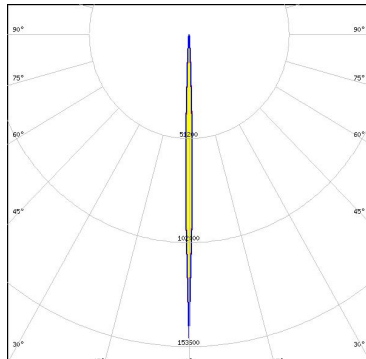

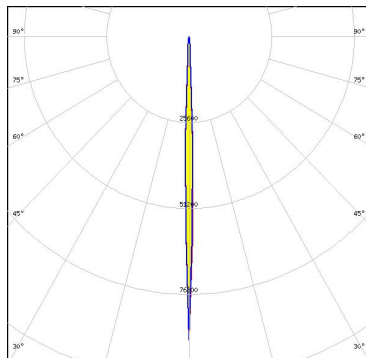


#### SAMSUNG

LED LH351D  
 FWHM / FWTM 2.0° / 4.0°  
 Efficiency 91 %  
 Peak intensity 235.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (SIMULATED):

<p> SEOL SEMICONDUCTOR</p> <p>LED: Z5M3</p> <p>FWHM / FWTM: 1.4° / 3.3°</p> <p>Efficiency: 94 %</p> <p>Peak intensity: 151.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p> SEOL SEMICONDUCTOR</p> <p>LED: Z5M4</p> <p>FWHM / FWTM: 1.7° / 3.5°</p> <p>Efficiency: 96 %</p> <p>Peak intensity: 149.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p> SEOL SEMICONDUCTOR</p> <p>LED: Z8Y50P</p> <p>FWHM / FWTM: 3.0° / 7.0°</p> <p>Efficiency: 79 %</p> <p>Peak intensity: 90.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</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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