

## SEANNA-A

~2.3° spot beam. Assembly with holder.

### SPECIFICATION:

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

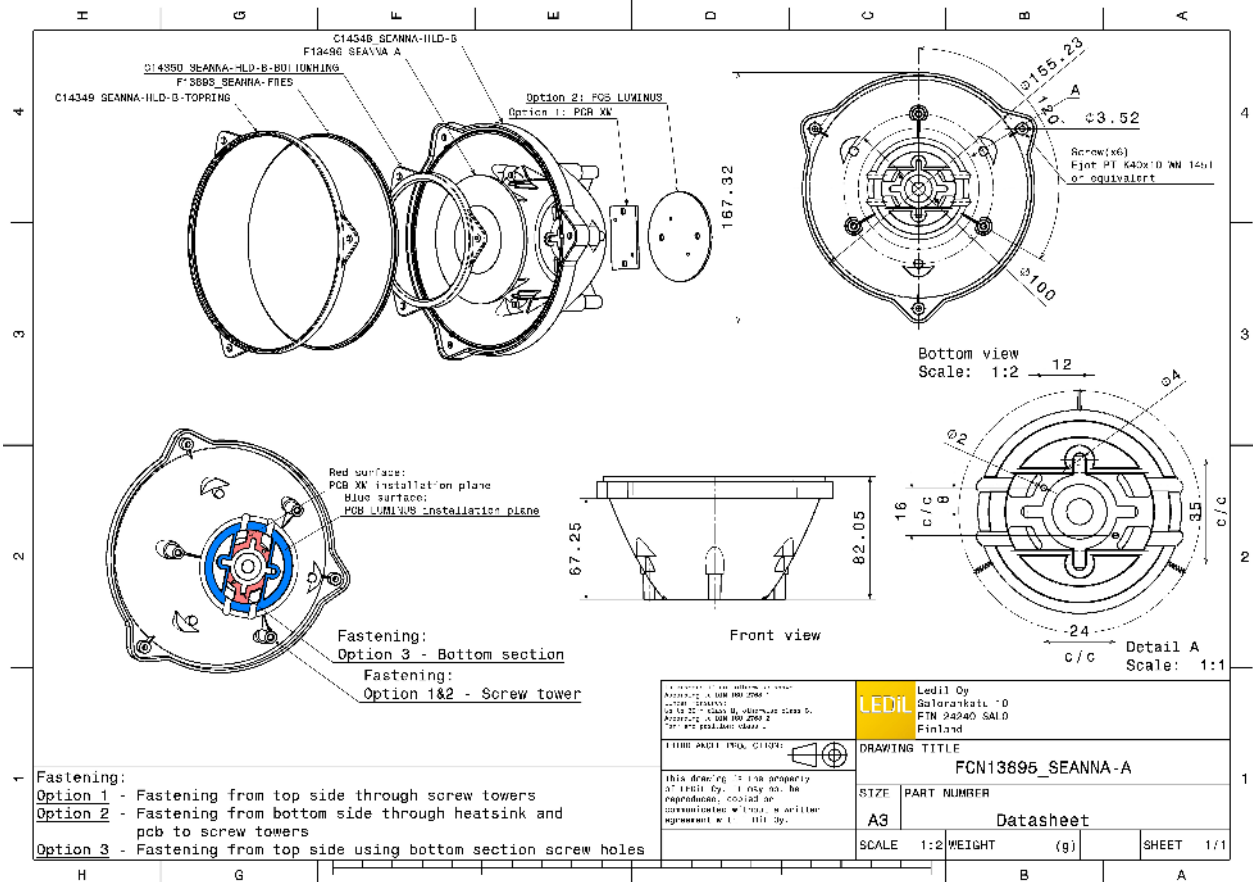
### MATERIALS:

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	



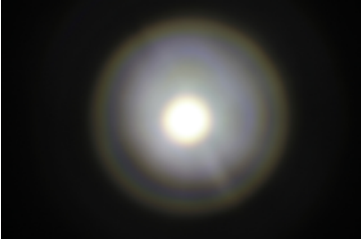
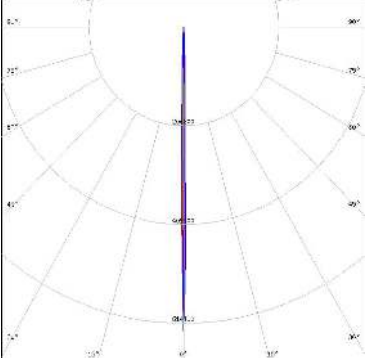

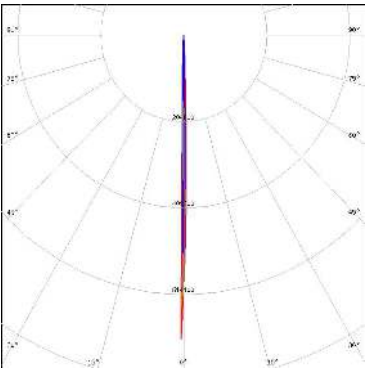

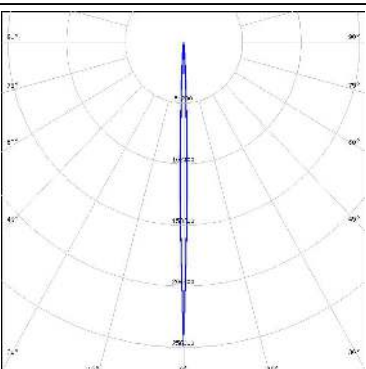
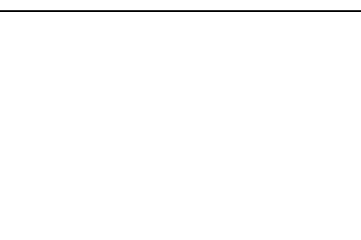
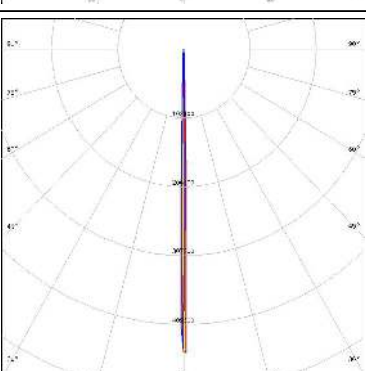
### ORDERING INFORMATION:

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

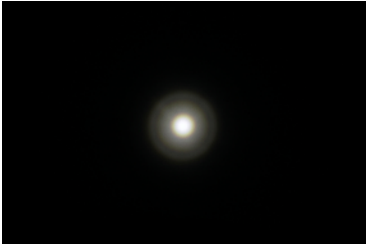
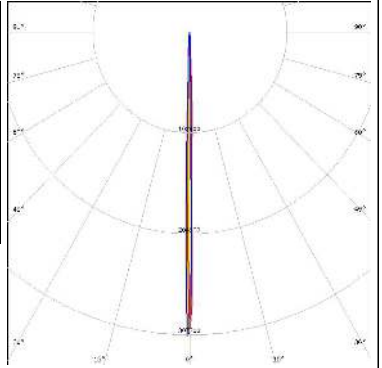
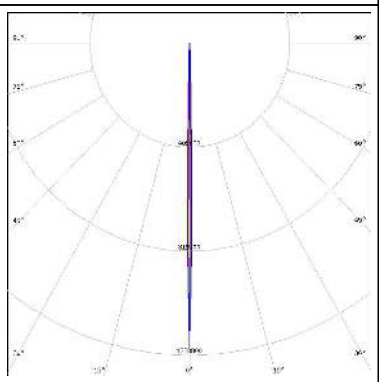
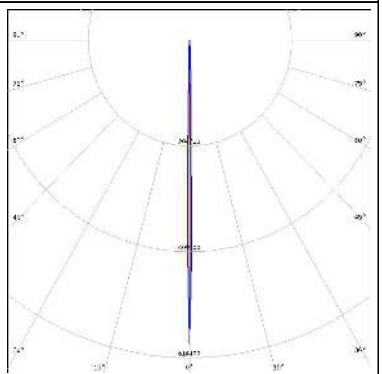


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

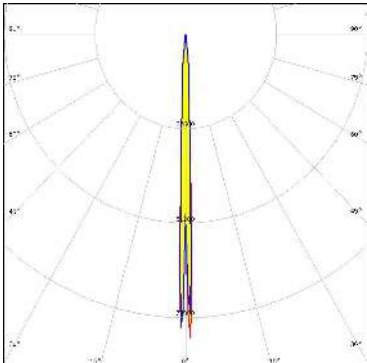
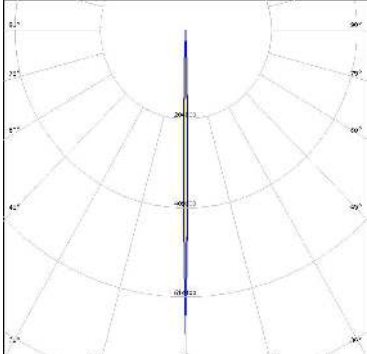

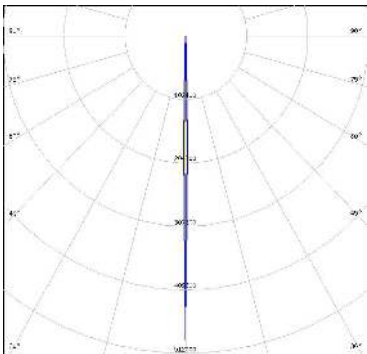
#### OPTICAL RESULTS (MEASURED):

<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 OSLON Black Flat            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 OSLON 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> → <b>LED</b></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> → <b>LED</b></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> → <b>LED</b></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> → <b>LED</b></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> ⇄ <b>LED</b></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> ⇄ <b>LED</b></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> ⇄ <b>LED</b></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> ⇄ <b>LED</b></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><b>CREE</b> → <b>LED</b></p> <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><b>CREE</b> → <b>LED</b></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><b>CREE</b> → <b>LED</b></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><b>CREE</b> → <b>LED</b></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>	

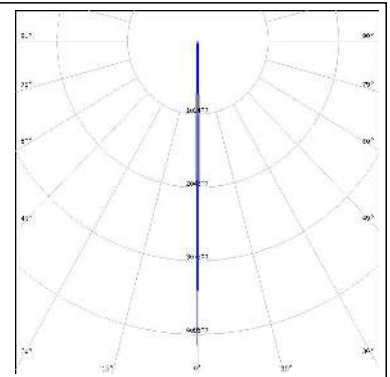
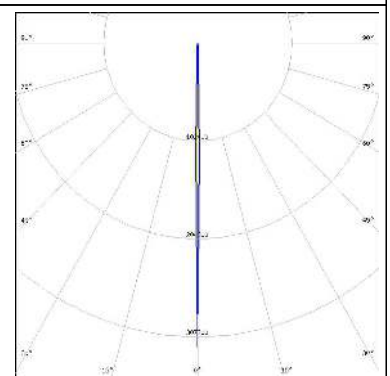
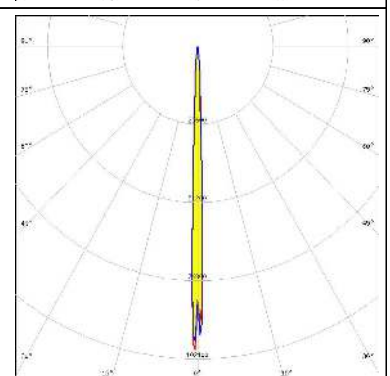
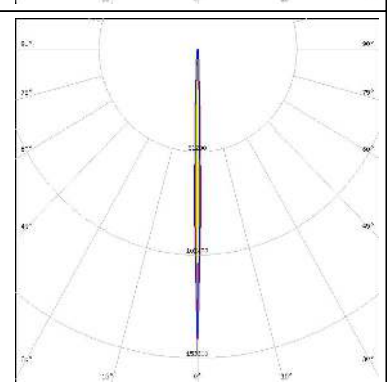
#### OPTICAL RESULTS (SIMULATED):

<p><b>CREE</b> → <b>LED</b></p> <p>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:</p>	
<p><b>CREE</b> → <b>LED</b></p> <p>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:</p>	
<p><b>CREE</b> → <b>LED</b></p> <p>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:</p>	
<p><b>LED ENGIN</b></p> <p>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:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CZ</p> <p>FWHM / FWTM 1.2° / 3.3°</p> <p>Efficiency 94 %</p> <p>Peak intensity 564 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 CZ</p> <p>FWHM / FWTM 1.6° / 3.8°</p> <p>Efficiency 93 %</p> <p>Peak intensity 371 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 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 CZ</p> <p>FWHM / FWTM 1.7° / 3.9°</p> <p>Efficiency 93 %</p> <p>Peak intensity 346 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 CZ</p> <p>FWHM / FWTM: 1.4° / 3.7°</p> <p>Efficiency: 94 %</p> <p>Peak intensity: 424 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 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>	

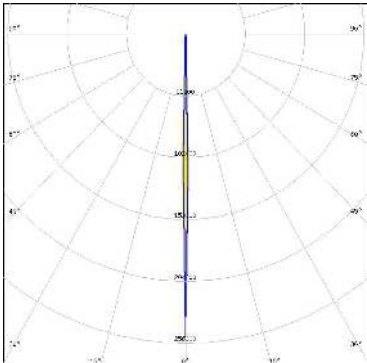
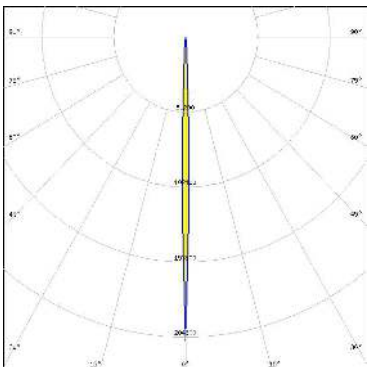
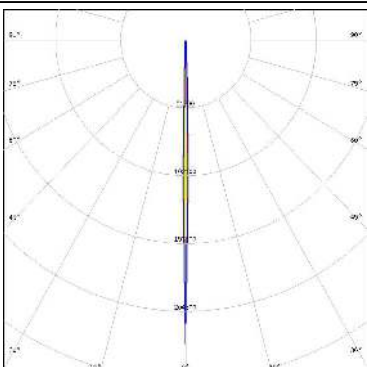
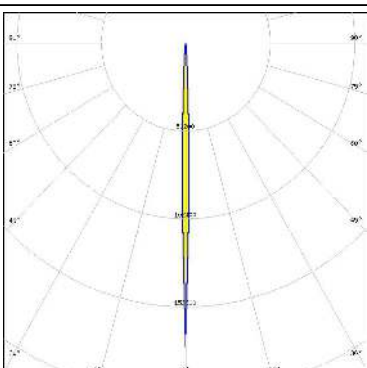
#### OPTICAL RESULTS (SIMULATED):

<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):

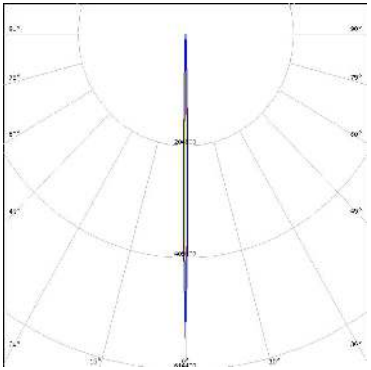
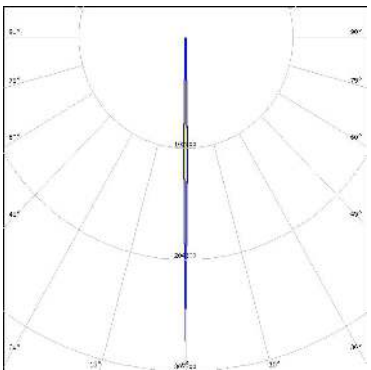
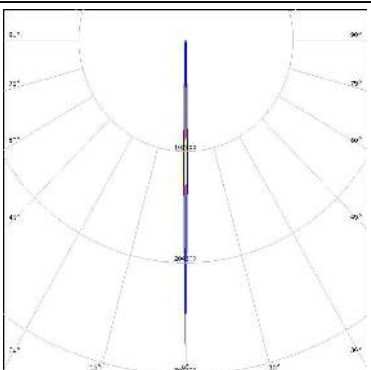
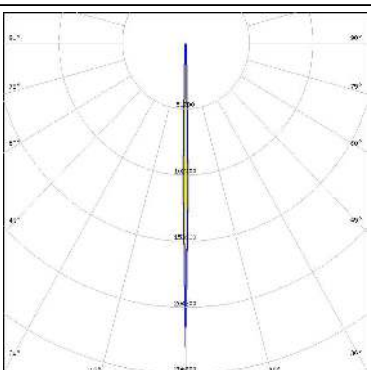
<p><b>NICHIA</b></p> <p>LED NVSW519A            FWHM / FWTM 2.0° / 4.0°            Efficiency 89 %            Peak intensity 251.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED NVSW719AC            FWHM / FWTM 2.0° / 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 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:</p>	
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED KW CULPM1.TG            FWHM / FWTM 2.0° / 6.0°            Efficiency 92 %            Peak intensity 176.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	




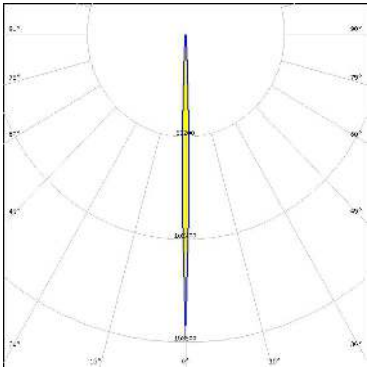

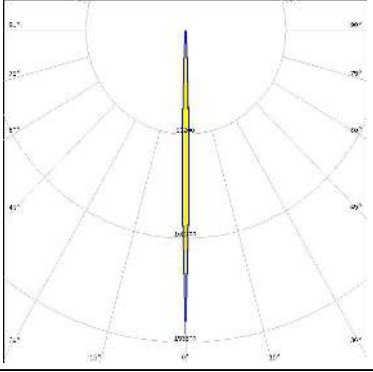

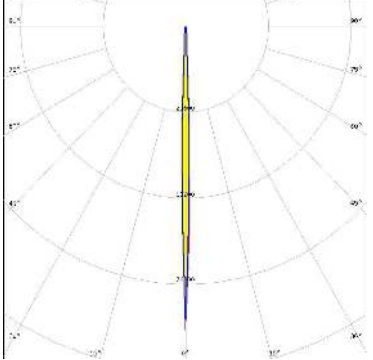
#### OPTICAL RESULTS (SIMULATED):

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

#### OPTICAL RESULTS (SIMULATED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSLON Square PC            FWHM / FWTM 1.5° / 3.6°            Efficiency 89 %            Peak intensity 550 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>SAMSUNG</b></p> <p>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:</p>	
<p><b>SAMSUNG</b></p> <p>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:</p>	
<p><b>SAMSUNG</b></p> <p>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:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p> SEOUL 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> SEOUL 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> SEOUL 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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#### LEDiL Oy

Joensuunkatu 13  
FI-24240 SALO  
Finland

#### LEDiL Inc.

228 West Page Street  
Suite D  
Sycamore IL 60178  
USA

#### Ledil Optics Technology (Shenzhen) Co., Ltd.

# 405 , Block B  
Casic Motor Building  
Shenzhen 518057  
P.R.CHINA

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