

## VERONICA-SQ-MINI-O

~15° + 50° oval beam

### SPECIFICATION:

Dimensions	13.9 x 13.9 mm
Height	8.9 mm
Fastening	tape, pin
ROHS compliant	yes ⓘ

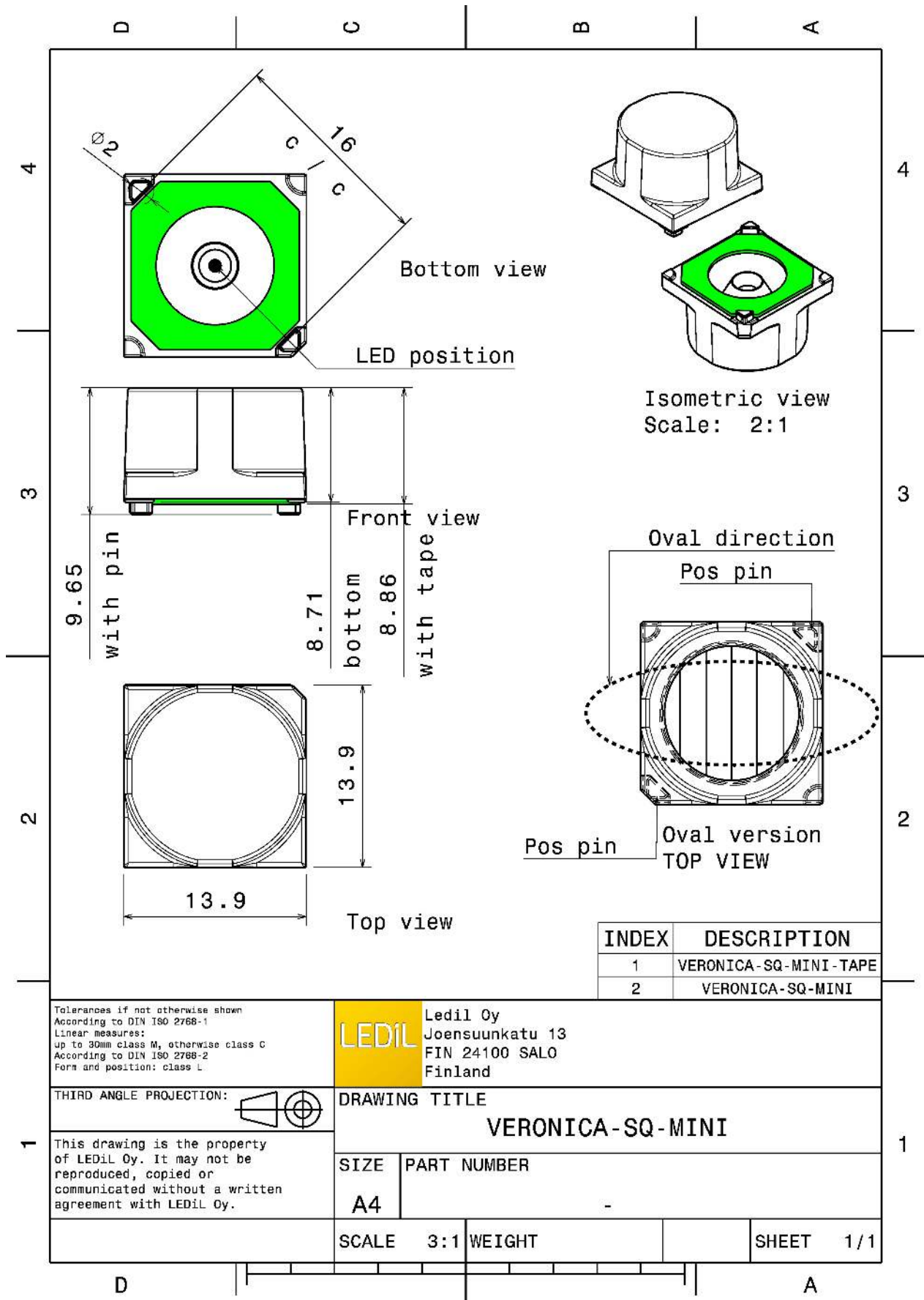
### MATERIALS:

Component	Type	Material	Colour	Finish
VERONICA-SQ-MINI-O	Single lens	PMMA	clear	
VERONICA-SQ-MINI-TAPE	Tape	Acrylic foam	clear	



### ORDERING INFORMATION:

Component	Type	Qty in box	MOQ	MPQ	Box weight (kg)
CA14602_VERONICA-SQ-MINI-O » Box size: 480 x 280 x 300 mm	Single lens	5544	252	252	7.8

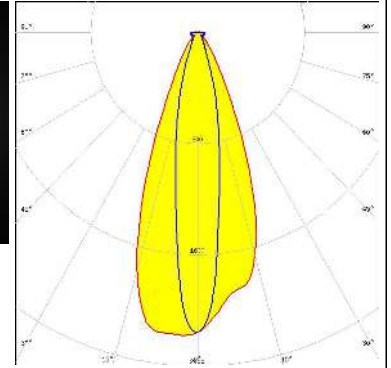


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

#### OPTICAL RESULTS (MEASURED):

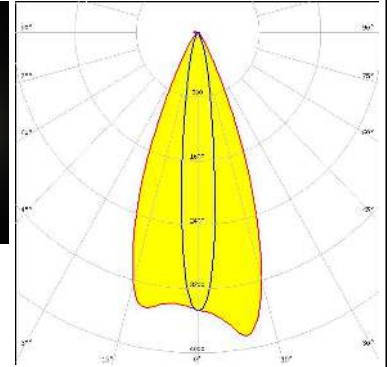
##### CREE LED

LED XD16  
 FWHM / FWTM 41.0 + 18.0° / 68.0 + 43.0°  
 Efficiency 89 %  
 Peak intensity 2.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



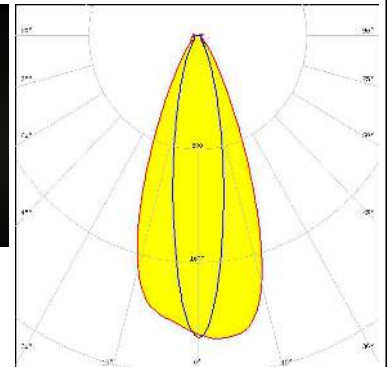
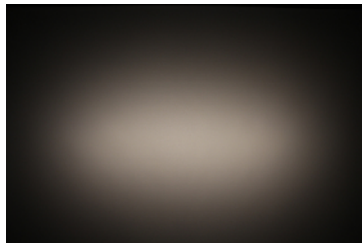
##### CREE LED

LED XP-E2  
 FWHM / FWTM 42.0 + 14.0° / 61.0 + 34.0°  
 Efficiency 92 %  
 Peak intensity 3.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



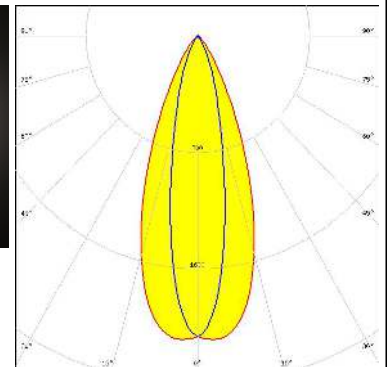
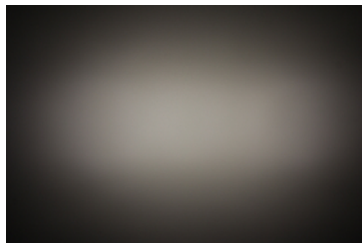
##### LUMILEDS

LED LUXEON Rebel  
 FWHM / FWTM 42.0 + 20.0° / 71.0 + 50.0°  
 Efficiency 90 %  
 Peak intensity 2.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:


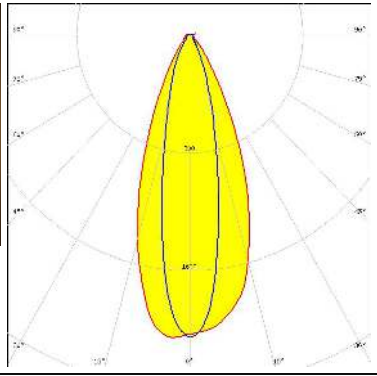

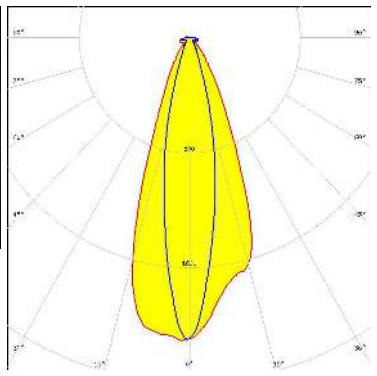

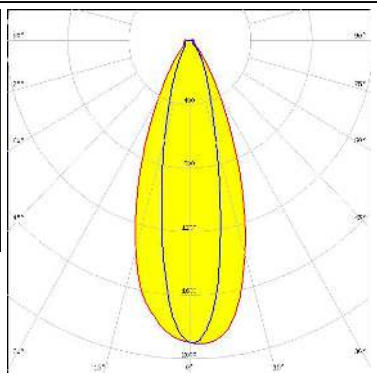

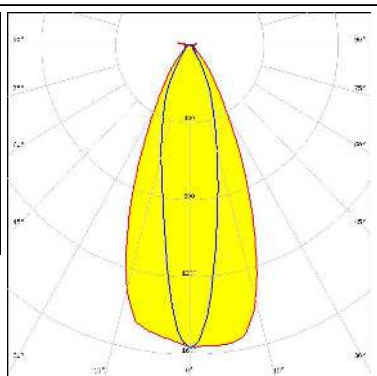


##### LUMILEDS

LED LUXEON Rebel ES  
 FWHM / FWTM 50.0 + 23.0° / 71.0 + 51.0°  
 Efficiency 80 %  
 Peak intensity 2.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (MEASURED):

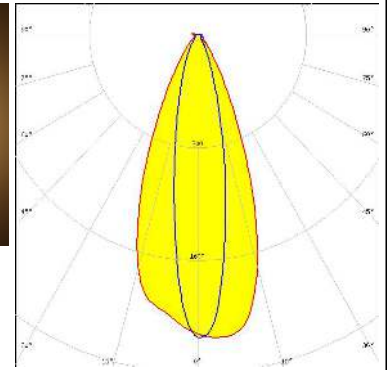
<p><b>LUMILEDS</b></p> <p>LED LUXEON TX</p> <p>FWHM / FWTM 42.0 + 22.0° / 73.0 + 54.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 2.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>NICHIA</b></p> <p>LED NCSxE17A</p> <p>FWHM / FWTM 40.0 + 20.0° / 69.0 + 44.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 2.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>NICHIA</b></p> <p>LED NVSxx19B/NVSxx19C</p> <p>FWHM / FWTM 41.0 + 23.0° / 74.0 + 56.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 1.9 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 Duris S5 (2 chip)</p> <p>FWHM / FWTM 76.0 + 22.0° / 79.0 + 61.0°</p> <p>Efficiency 74 %</p> <p>Peak intensity 1.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

#### OPTICAL RESULTS (MEASURED):

##### OSRAM

Opto Semiconductors

LED OSLON Square EC  
 FWHM / FWTM 42.0 + 20.0° / 72.0 + 49.0°  
 Efficiency 89 %  
 Peak intensity 2.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



##### OSRAM

Opto Semiconductors

LED SFH 4170S  
 FWHM / FWTM 40.0 + 12.0° / 60.0 + 33.0°  
 Efficiency %  
 LEDs/each optic 1  
 Light colour IR  
 Required components:

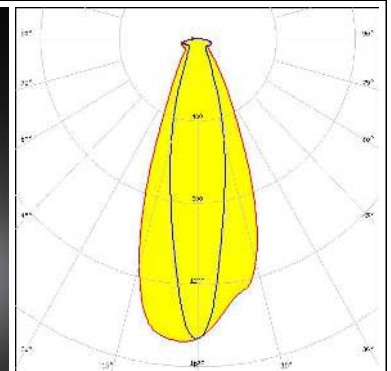
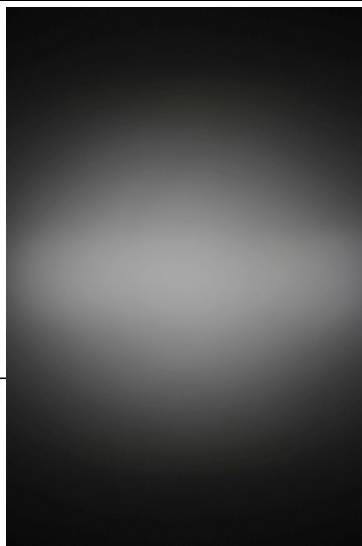
##### OSRAM

Opto Semiconductors

LED SFH 4180S  
 FWHM / FWTM 38.0 + 11.0° / 58.0 + 31.0°  
 Efficiency %  
 LEDs/each optic 1  
 Light colour IR  
 Required components:

##### SAMSUNG

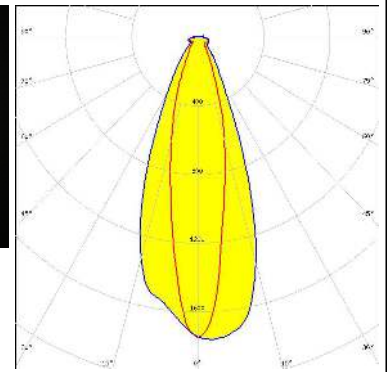
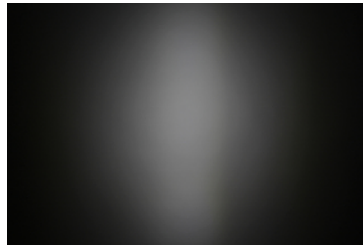
LED LH181A  
 FWHM / FWTM 42.0 + 22.0° / 77.0 + 54.0°  
 Efficiency 88 %  
 Peak intensity 1.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



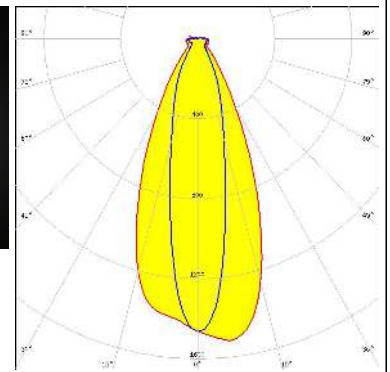
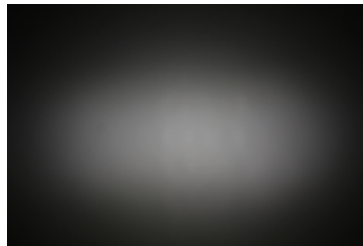
#### OPTICAL RESULTS (MEASURED):

### SAMSUNG

LED LH181B  
 FWHM / FWTM 22.0 + 41.0° / 54.0 + 75.0°  
 Efficiency 91 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



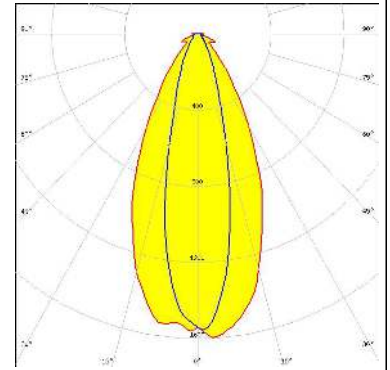
LED Z8Y22P  
 FWHM / FWTM 46.0 + 23.0° / 80.0 + 62.0°  
 Efficiency 90 %  
 Peak intensity 1.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (SIMULATED):

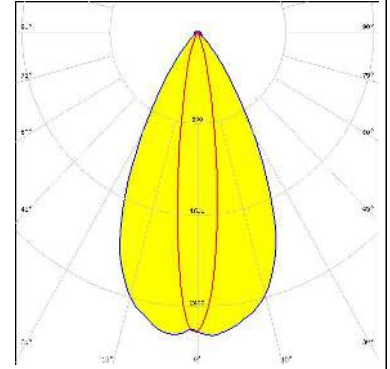
##### CREE LED

LED XP-G2 HE  
 FWHM / FWTM 50.0 + 26.0° / 88.0 + 59.0°  
 Efficiency 90 %  
 Peak intensity 1.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



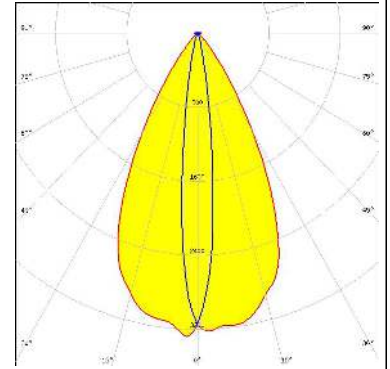
##### CREE LED

LED XQ-E HD  
 FWHM / FWTM 54.0 + 16.0° / 80.0 + 34.0°  
 Efficiency 90 %  
 Peak intensity 2.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



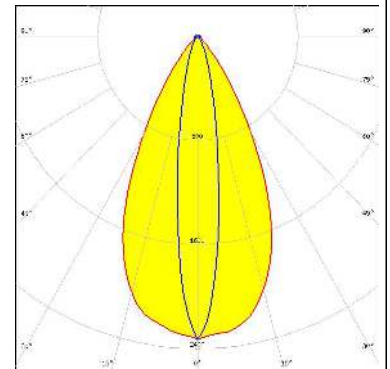
##### CREE LED

LED XQ-E HI  
 FWHM / FWTM 54.0 + 12.0° / 78.0 + 26.0°  
 Efficiency 89 %  
 Peak intensity 3.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

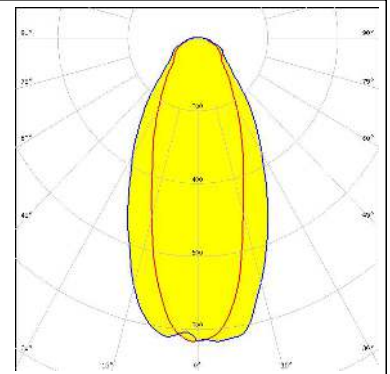
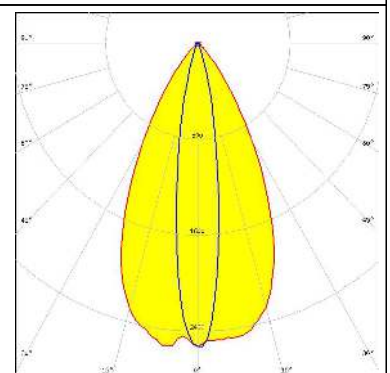
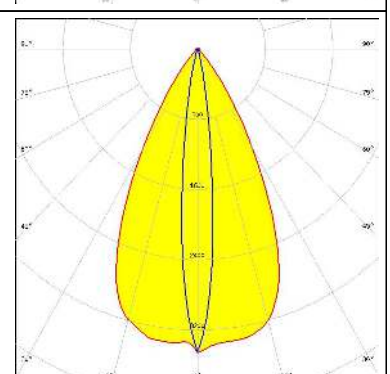
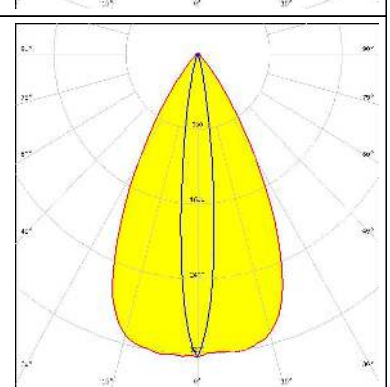


##### LUMILEDS

LED LUXEON 2835 Line  
 FWHM / FWTM 54.0 + 16.0° / 80.0 + 41.0°  
 Efficiency 86 %  
 Peak intensity 2.3 cd/lm  
 LEDs/each optic 1  
 Light colour PC Amber  
 Required components:

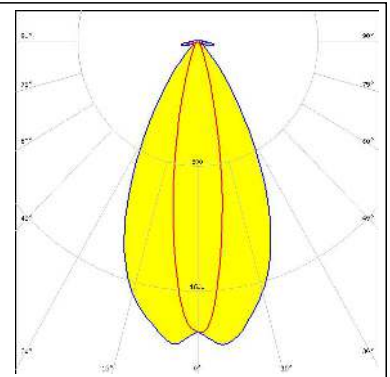
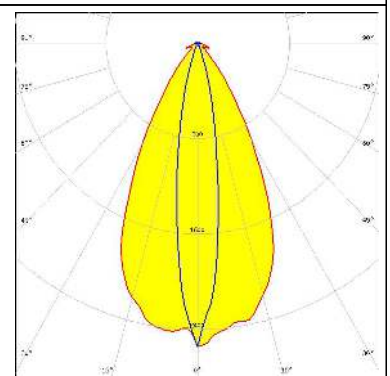
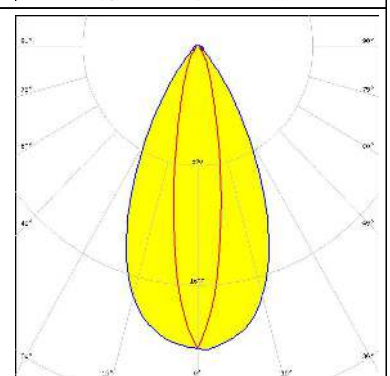
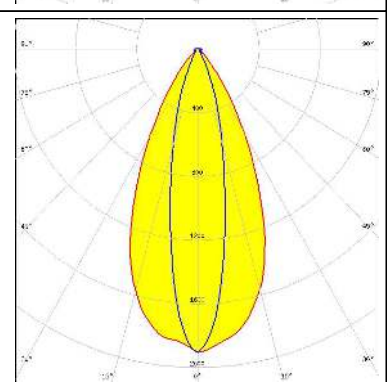


#### OPTICAL RESULTS (SIMULATED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON 5050 Round LES</p> <p>FWHM / FWTM 54.0 + 36.0° / 118.0 + 106.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 0.8 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 C</p> <p>FWHM / FWTM 53.0 + 17.0° / 81.0 + 34.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 2.6 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 CZ</p> <p>FWHM / FWTM 54.0 + 12.0° / 78.0 + 25.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 3.5 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 56.0 + 13.0° / 79.0 + 26.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 3.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour PC Amber</p> <p>Required components:</p>	



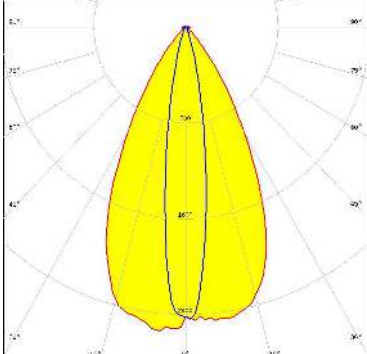
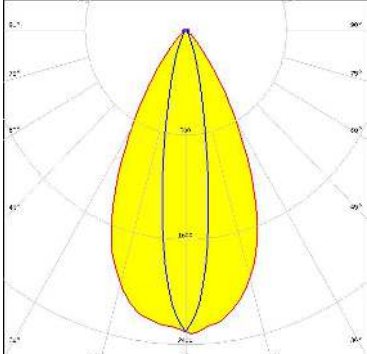
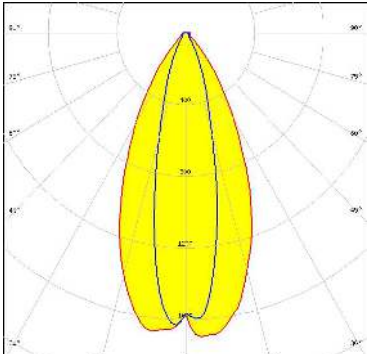
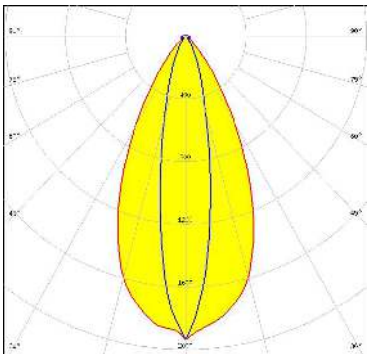
#### OPTICAL RESULTS (SIMULATED):

<p><b>LUMILEDS</b></p> <p>LED: LUXEON HL1Z</p> <p>FWHM / FWTM: 20.0 + 53.0° / 40.0 + 82.0°</p> <p>Efficiency: 90 %</p> <p>Peak intensity: 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: 53.0 + 16.0° / 82.0 + 35.0°</p> <p>Efficiency: 92 %</p> <p>Peak intensity: 2.6 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: Duris E 2835</p> <p>FWHM / FWTM: 18.0 + 52.0° / 48.0 + 82.0°</p> <p>Efficiency: 88 %</p> <p>Peak intensity: 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: OSCONIQ P 3737 (2W version)</p> <p>FWHM / FWTM: 49.0 + 22.0° / 80.0 + 49.0°</p> <p>Efficiency: 83 %</p> <p>Peak intensity: 1.9 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	


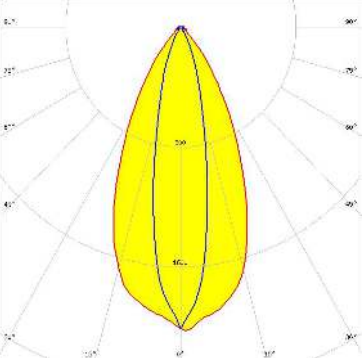

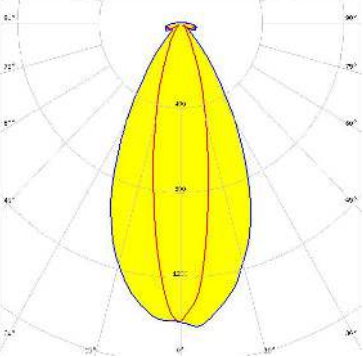

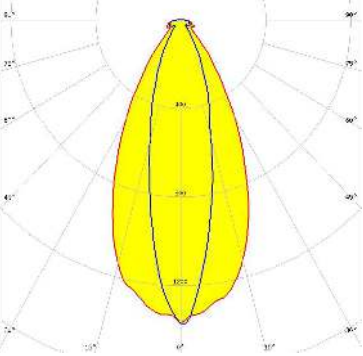
#### OPTICAL RESULTS (SIMULATED):

<b>OSRAM</b> <small>Opto Semiconductors</small>	<p>LED OSCONIQ P 3737 (3W version)</p> <p>FWHM / FWTM 24.0 + 48.0° / 48.0 + 80.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 1.3 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 OSLON Square CSSRM2/CSSRM3</p> <p>FWHM / FWTM 48.0 + 20.0° / 82.0 + 44.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 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 OSLON SSL 150</p> <p>FWHM / FWTM 53.0 + 16.0° / 80.0 + 30.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 2.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour Red</p> <p>Required components:</p>	
<b>OSRAM</b> <small>Opto Semiconductors</small>	<p>LED OSLON SSL 150</p> <p>FWHM / FWTM 54.0 + 15.0° / 80.0 + 30.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 2.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour Green</p> <p>Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSLOM SSL 150</p> <p>FWHM / FWTM 55.0 + 16.0° / 82.0 + 34.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 2.6 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 OSLOM SSL 80</p> <p>FWHM / FWTM 53.0 + 18.0° / 80.0 + 40.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 2.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p><b>SAMSUNG</b></p> <p>LED LH351B</p> <p>FWHM / FWTM 49.0 + 24.0° / 83.0 + 53.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 1.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p><b>SEOL</b> SEOUL SEMICONDUCTOR</p> <p>LED MJT 3030</p> <p>FWHM / FWTM 50.0 + 20.0° / 82.0 + 48.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 1.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p> SEOUIL SEMICONDUCTOR</p> <p>LED Z5M1/Z5M2</p> <p>FWHM / FWTM 50.0 + 22.0° / 82.0 + 48.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p> SEOUIL SEMICONDUCTOR</p> <p>LED Z8Y19</p> <p>FWHM / FWTM 22.0 + 52.0° / 51.0 + 84.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 1.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p> SEOUIL SEMICONDUCTOR</p> <p>LED Z8Y22T</p> <p>FWHM / FWTM 51.0 + 25.0° / 87.0 + 61.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 1.4 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:

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.

#### PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

The measured data in the provided downloadable LEDiL Product Datasheets and Mechanical 2D-Drawings is rounded and provided as reference for planning. LEDiL Oy's optical specifications have been verified by conducting performance testing of the products in accordance with the company's quality system. The reported data are averaged results of multiple measurements with typical variation. LEDiL Oy reserves the right to without prior notification make changes and improvements to its products.

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#### LEDiL Oy

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Shenzhen 518057  
P.R.CHINA

#### Local sales and technical support

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#### Shipping locations

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Hong Kong, China

#### Distribution Partners

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