

## STELLA-FRESNEL

~25° beam for warehouse and outdoor lighting.  
 Compatible with up to 30 mm LES size COBs.  
 Variant with black frame.

### TECHNICAL SPECIFICATIONS:

Dimensions	Ø 90.0 mm
Height	23 mm
Fastening	screw
Ingress protection classes	IP67
ROHS compliant	yes ⓘ

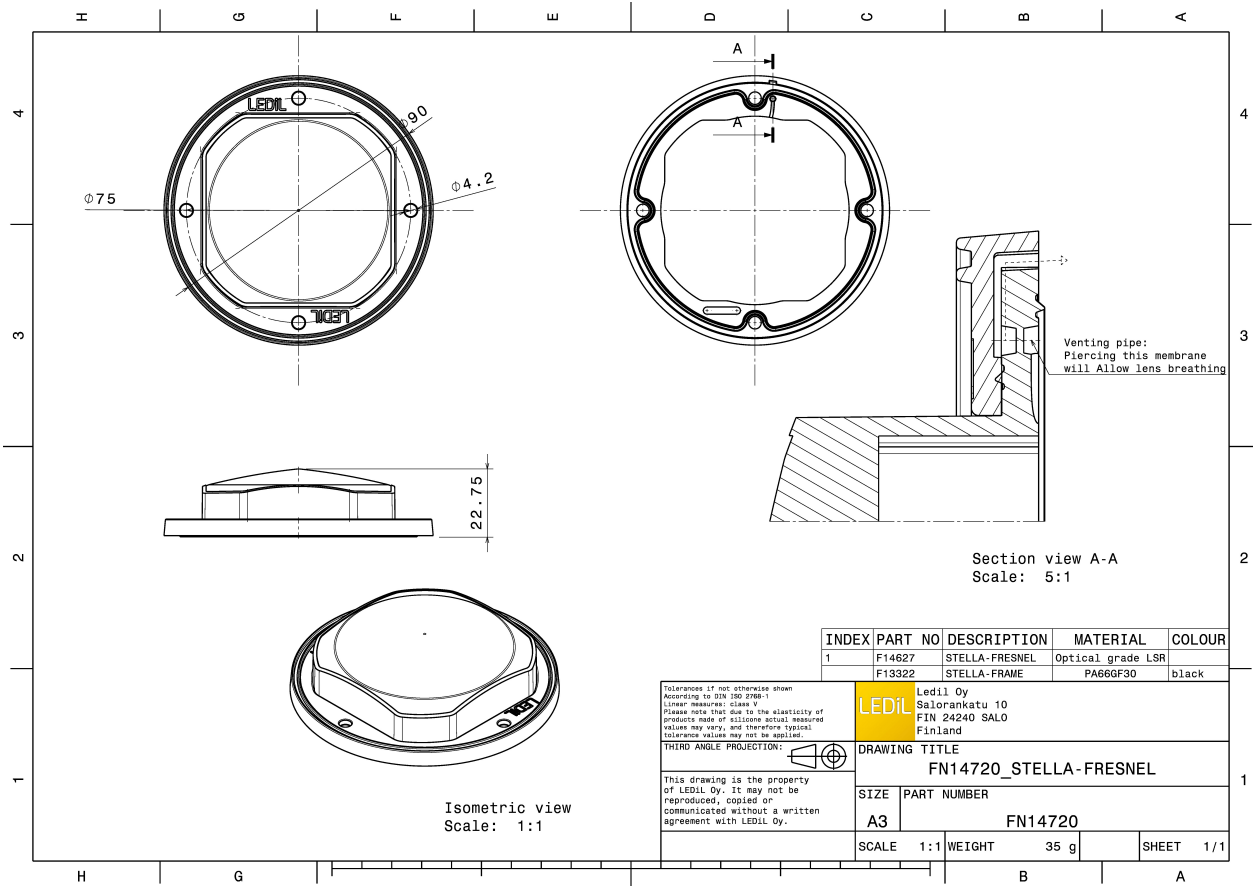


### MATERIAL SPECIFICATIONS:

Component	Type	Material	Colour	Finish
STELLA-FRESNEL	Single lens	Silicone	clear	
STELLA-FRAME	Holder	PA66	black	


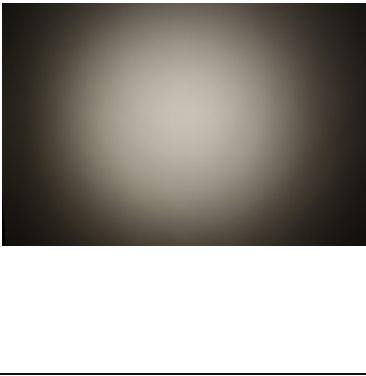
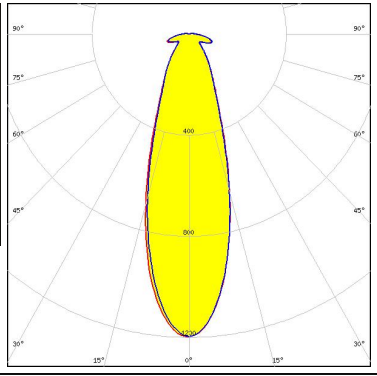


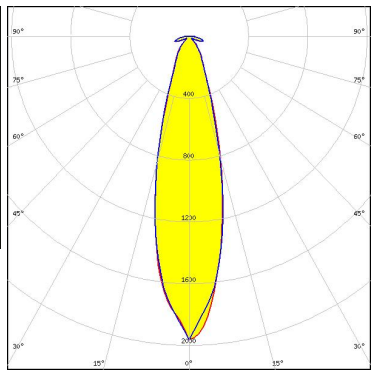


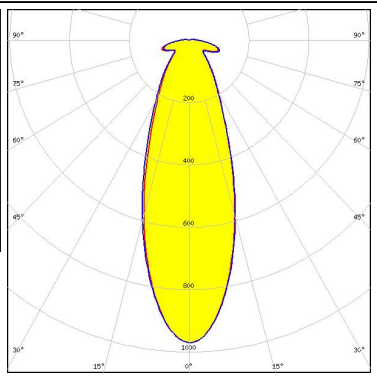

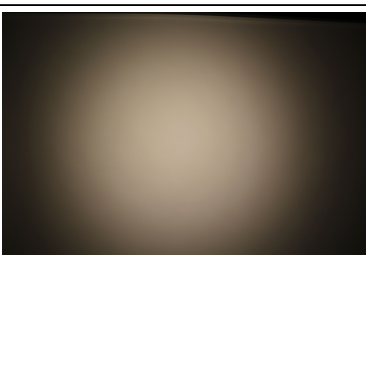
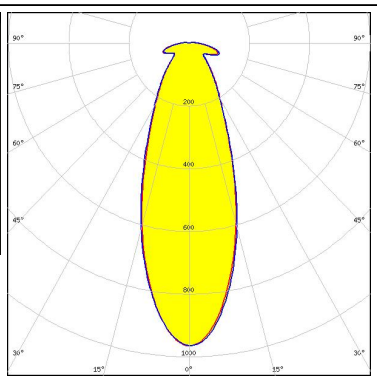
### ORDERING INFORMATION:

Component	Type	Qty in box	MOQ	MPQ	Box weight (kg)
FN14720_STELLA-FRESNEL » Box size: 480 x 280 x 300 mm	Single lens	80	80	10	4.0


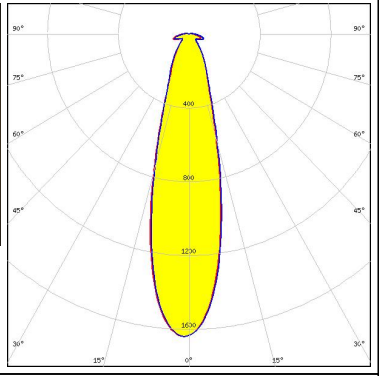
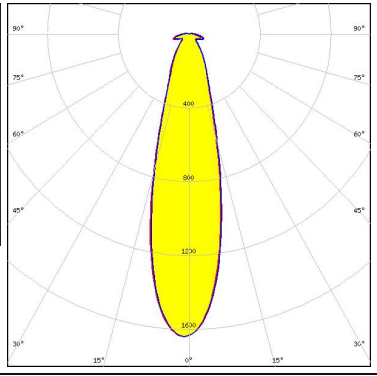
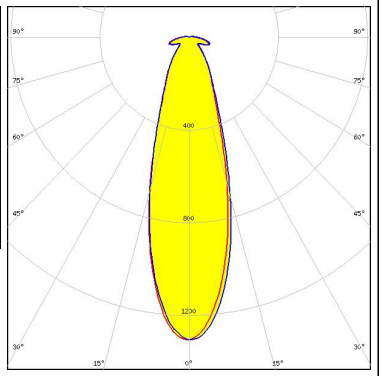

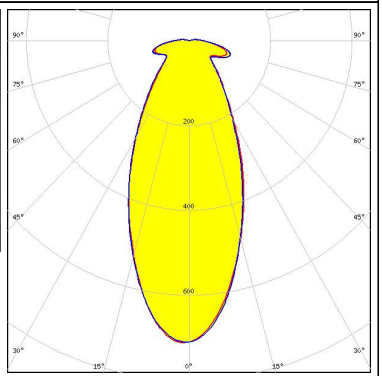

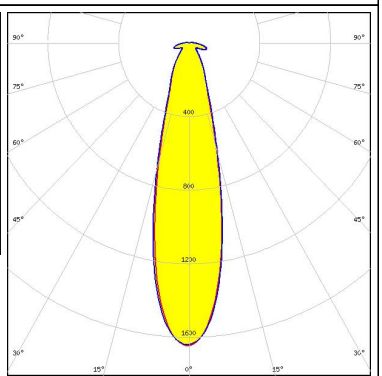


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)



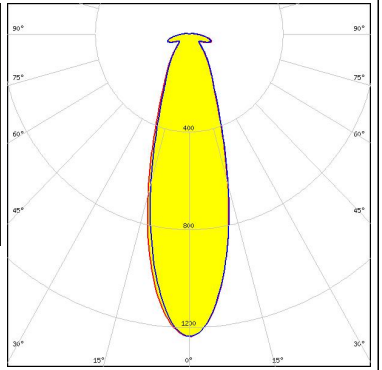

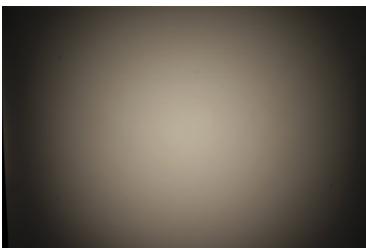
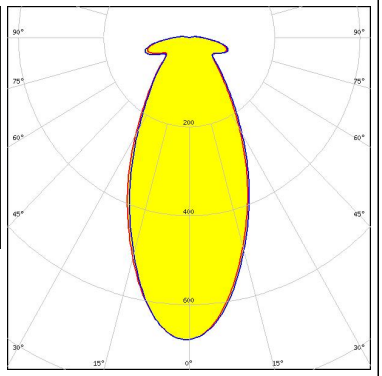

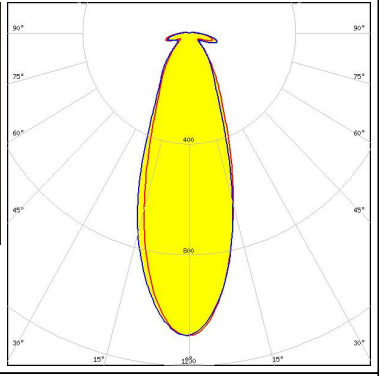

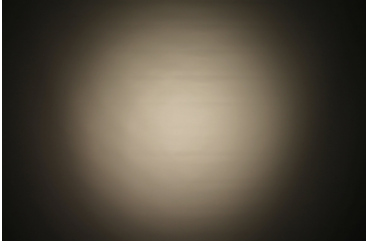
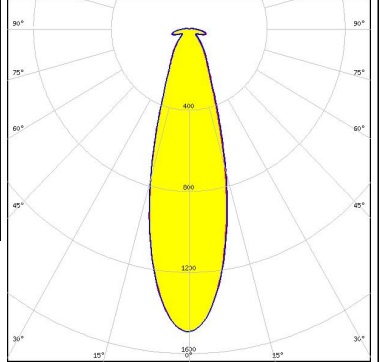
#### PHOTOMETRIC DATA (MEASURED):

<p></p> <p>LED V18 Gen7            FWHM / FWTM 32.0° / 77.0°            Efficiency 85 %            Peak intensity 1.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:            Bender Wirth: 439 Typ L3</p>		
<p></p> <p>LED V18 Gen7            FWHM / FWTM 32.0° / 77.0°            Efficiency 84 %            Peak intensity 1.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:            BJB: 47.319.2350</p>		
<p></p> <p>LED V22 Gen7            FWHM / FWTM 36.0° / 118.0°            Efficiency 84 %            Peak intensity 1 cd/lm            LEDs/each optic 1            Light colour White            Required components:            Bender Wirth: 431 Typ Z1</p>		
<p></p> <p>LED V22 Gen7            FWHM / FWTM 37.0° / 118.0°            Efficiency 86 %            Peak intensity 1 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE Connectivity: 2213480-1</p>		


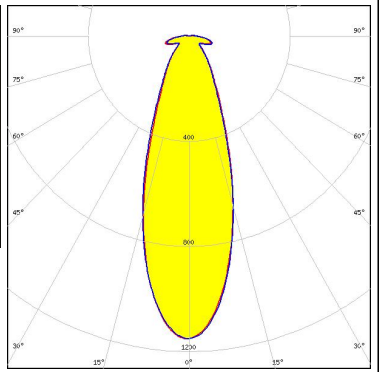

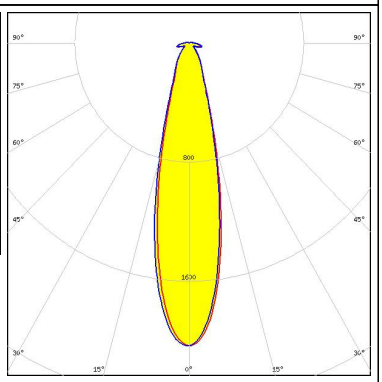

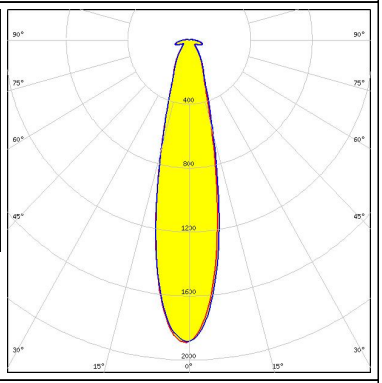

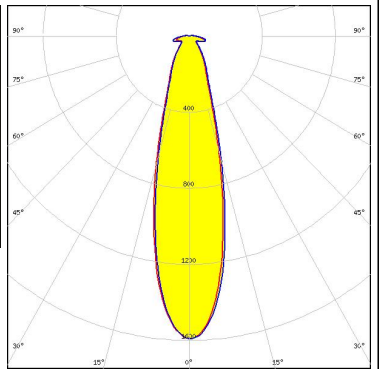
#### PHOTOMETRIC DATA (MEASURED):

<p>bridgelux.</p> <p>LED Vero SE 13</p> <p>FWHM / FWTM 27.0° / 63.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 1.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>bridgelux.</p> <p>LED Vero SE 18</p> <p>FWHM / FWTM 31.0° / 73.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 1.3 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>bridgelux.</p> <p>LED Vero SE 29</p> <p>FWHM / FWTM 46.0° / 161.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 0.7 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>bridgelux.</p> <p>LED VERO13</p> <p>FWHM / FWTM 26.0° / 62.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 1.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

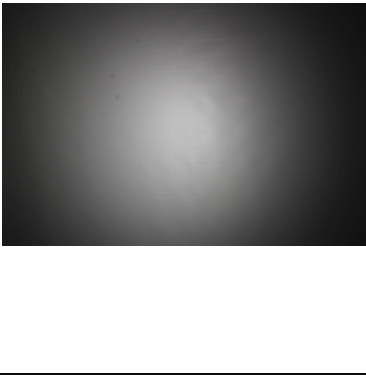
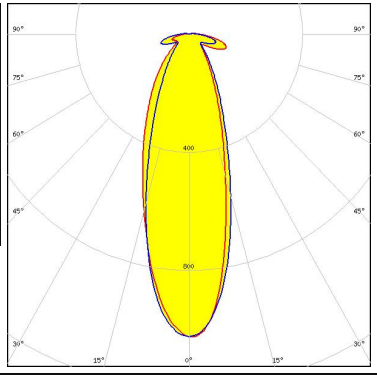

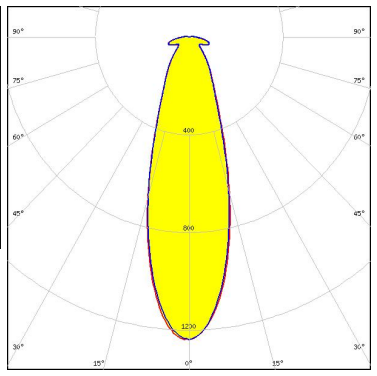

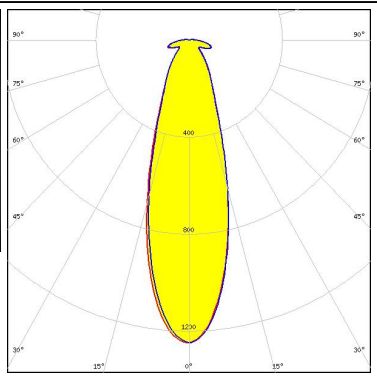
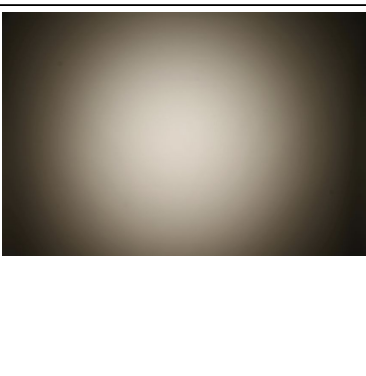
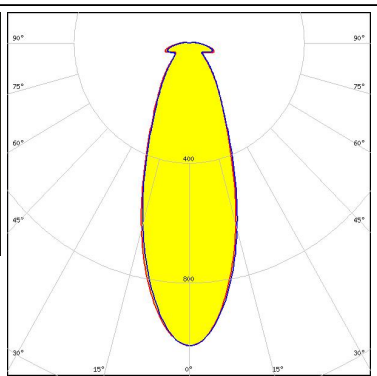
#### PHOTOMETRIC DATA (MEASURED):

<p></p> <p>LED VERO18            FWHM / FWTM 31.0° / 75.0°            Efficiency 85 %            Peak intensity 1.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p></p> <p>LED VERO29            FWHM / FWTM 48.0° / 165.0°            Efficiency 87 %            Peak intensity 0.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>CITIZEN</b></p> <p>LED CLL04x/CLU04x            FWHM / FWTM 36.0° / 99.0°            Efficiency 86 %            Peak intensity 1.1 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p></p> <p>LED CMA2550            FWHM / FWTM 30.0° / 67.0°            Efficiency 86 %            Peak intensity 1.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		

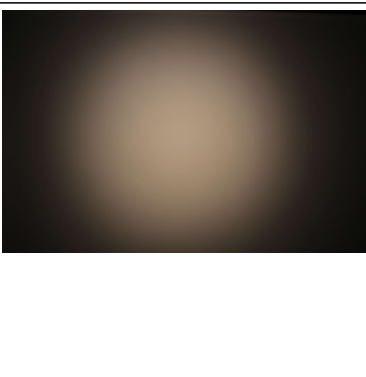
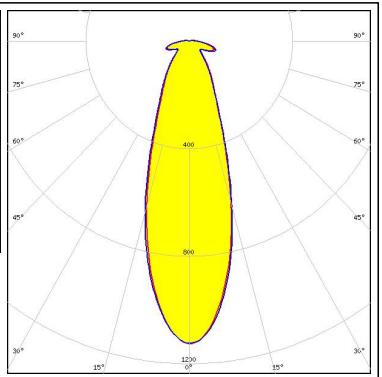

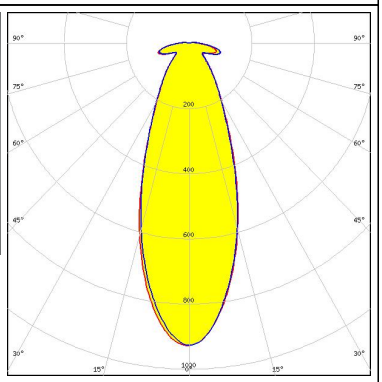

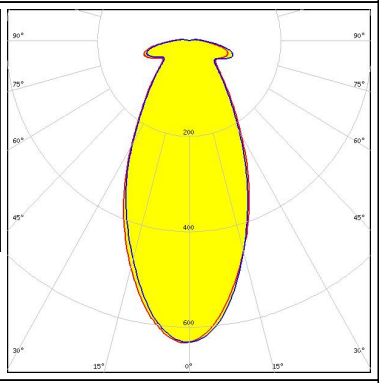

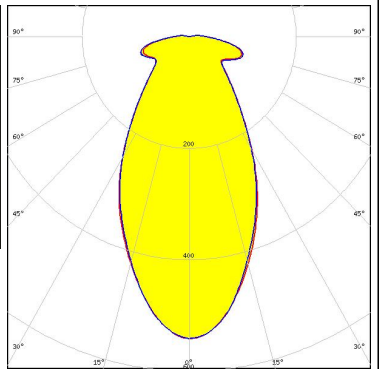
#### PHOTOMETRIC DATA (MEASURED):

<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED CMA3090            FWHM / FWTM 35.0° / 79.0°            Efficiency 88 %            Peak intensity 1.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED CMT19xx            FWHM / FWTM 25.0° / 54.0°            Efficiency 87 %            Peak intensity 2 cd/lm            LEDs/each optic 1            Light colour White            Required components:            Bender Wirth: 477 Typ Z1</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED CXA/B 1816 &amp; CXA/B 1820 &amp; CXA 1850            FWHM / FWTM 24.0° / 57.0°            Efficiency 84 %            Peak intensity 1.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED CXA/B 1830            FWHM / FWTM 26.0° / 64.0°            Efficiency 85 %            Peak intensity 1.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C14305_STELLA-CLAMP-CXA15-18</p>		

#### PHOTOMETRIC DATA (MEASURED):


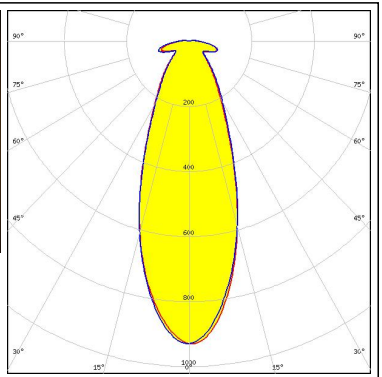

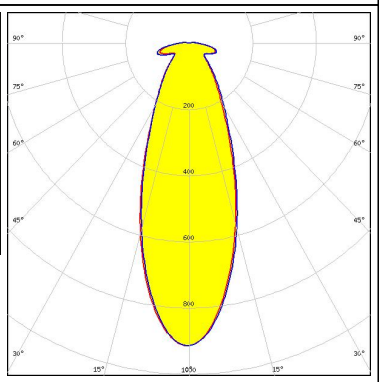

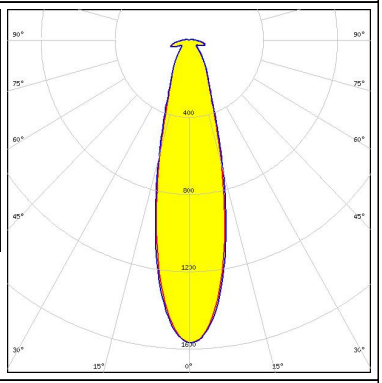

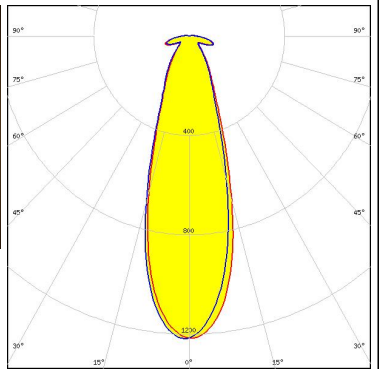
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED                    CXA/B 25xx            FWHM / FWTM      33.0° / 120.0°            Efficiency            84 %            Peak intensity      1 cd/m            LEDs/each optic    1            Light colour        White            Required components:</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED                    CXA/B 25xx            FWHM / FWTM      32.0° / 76.0°            Efficiency            85 %            Peak intensity      1.2 cd/m            LEDs/each optic    1            Light colour        White            Required components:                Bender Wirth: 439 Typ L3</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED                    CXA/B 25xx            FWHM / FWTM      31.0° / 75.0°            Efficiency            86 %            Peak intensity      1.2 cd/m            LEDs/each optic    1            Light colour        White            Required components:</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED                    CXA/B 30xx            FWHM / FWTM      37.0° / 87.0°            Efficiency            88 %            Peak intensity      1 cd/m            LEDs/each optic    1            Light colour        White            Required components:                BJB: 47.319.2151</p>		

#### PHOTOMETRIC DATA (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1211</p> <p>FWHM / FWTM 33.0° / 79.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 1.1 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: Bender Wirth: 431 Typ L3</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1216/1812</p> <p>FWHM / FWTM 39.0° / 139.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 0.9 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1321</p> <p>FWHM / FWTM 50.0° / 165.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 0.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1825</p> <p>FWHM / FWTM 56.0° / 169.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 0.5 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		



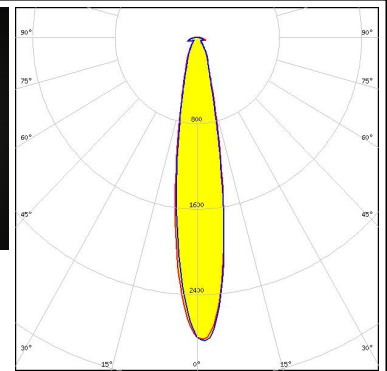
#### PHOTOMETRIC DATA (MEASURED):

<p><b>LUMINUS</b></p> <p>LED CxM-22 (28x28)</p> <p>FWHM / FWTM 38.0° / 136.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 0.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: Bender Wirth: 431 Typ L3</p>		
<p><b>NICHIA</b></p> <p>LED COB H-Type</p> <p>FWHM / FWTM 38.0° / 120.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 0.9 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 COB J-Type</p> <p>FWHM / FWTM 26.0° / 65.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 1.6 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 Soleriq S19</p> <p>FWHM / FWTM 32.1° / 72.5°</p> <p>Efficiency 84 %</p> <p>Peak intensity 1.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

#### PHOTOMETRIC DATA (MEASURED):

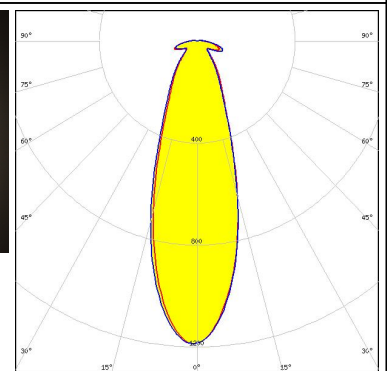
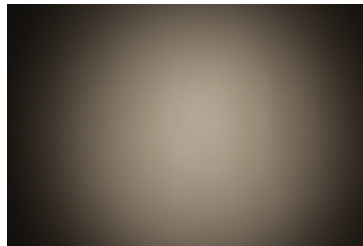
#### PHILIPS

LED Fortimo SLM L06 CoB  
 FWHM / FWTM 18.0° / 44.0°  
 Efficiency 86 %  
 Peak intensity 2.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



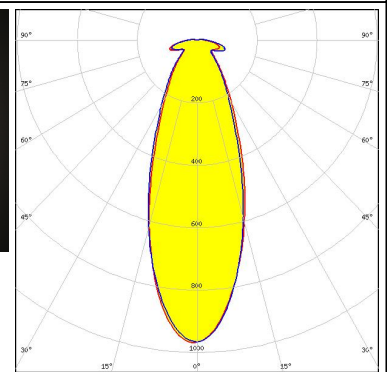
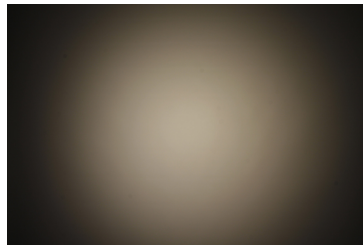
#### PHILIPS

LED Fortimo SLM L19 + SLM holder (PI)  
 FWHM / FWTM 33.0° / 78.0°  
 Efficiency 87 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



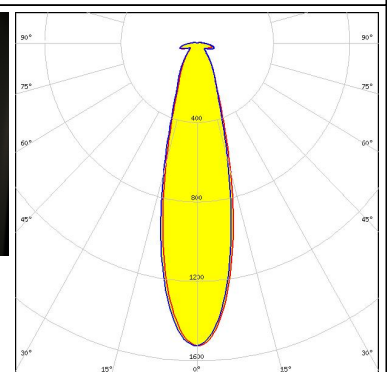
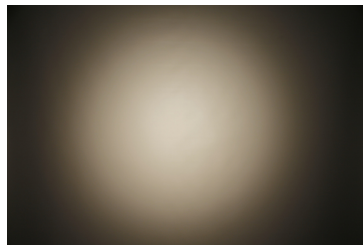
#### PHILIPS

LED Fortimo SLM L23 CoB  
 FWHM / FWTM 38.0° / 87.0°  
 Efficiency 87 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### SAMSUNG

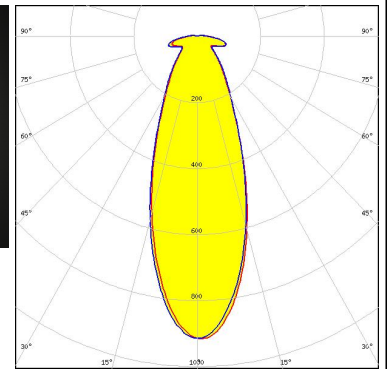
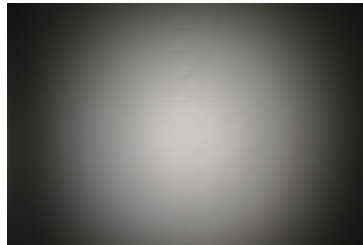
LED LC016D / LC019D / LC026D / LC033D  
 FWHM / FWTM 27.0° / 65.0°  
 Efficiency 83 %  
 Peak intensity 1.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (MEASURED):

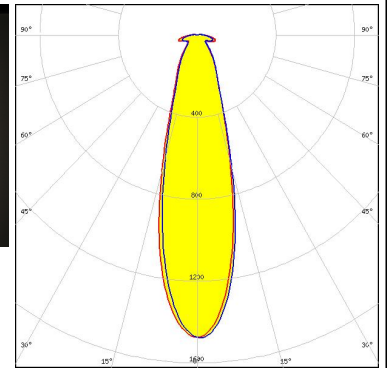
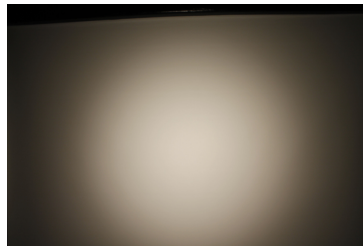
### SAMSUNG

LED LC040D / LC060D / LC080D  
 FWHM / FWTM 37.0° / 119.0°  
 Efficiency 84 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



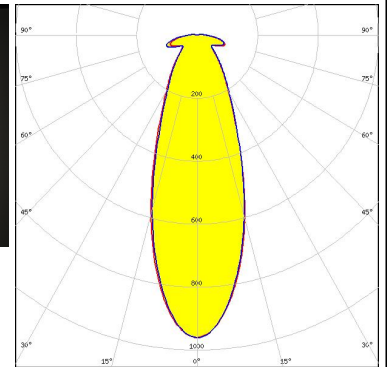
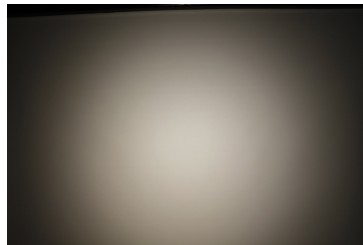
SEOUL SEMICONDUCTOR

LED MJT COB LES 14.5  
 FWHM / FWTM 28.0° / 67.0°  
 Efficiency 84 %  
 Peak intensity 1.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2103CT



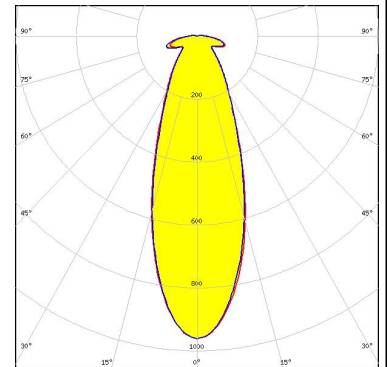
SEOUL SEMICONDUCTOR

LED MJT COB LES 22  
 FWHM / FWTM 36.0° / 118.0°  
 Efficiency 84 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2204CT

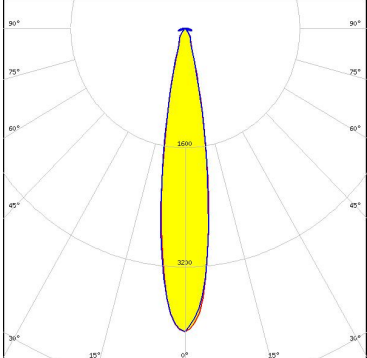
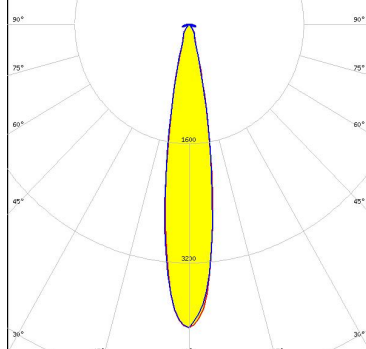
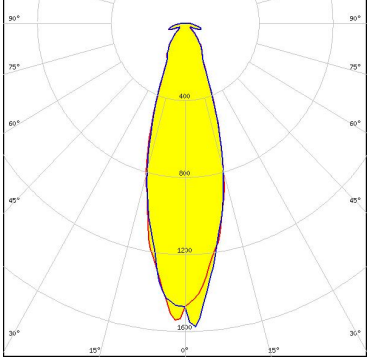
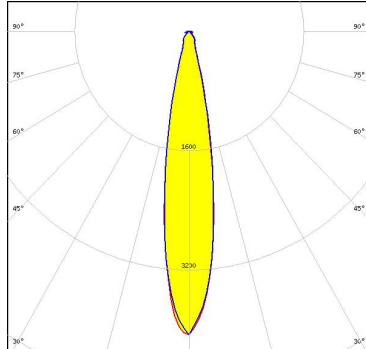

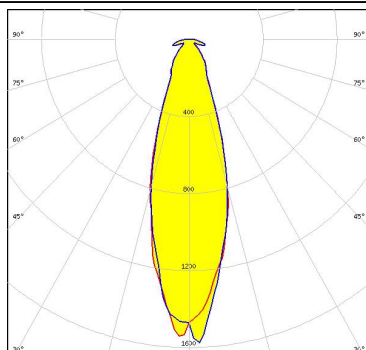
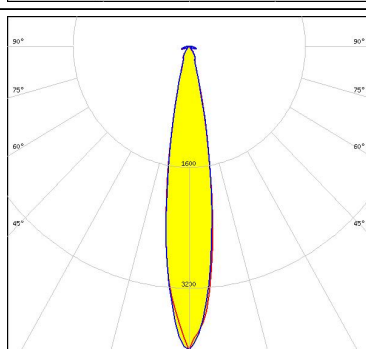


SEOUL SEMICONDUCTOR

LED MJT COB LES 22  
 FWHM / FWTM 36.0° / 118.0°  
 Efficiency 84 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2204CT



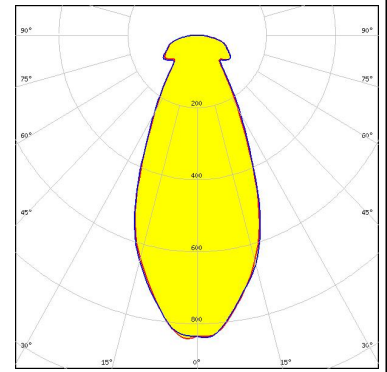
#### PHOTOMETRIC DATA (SIMULATED):

<p></p> <p>LED V10 Gen7            FWHM / FWTM 18.0° / 35.0°            Efficiency 85 %            Peak intensity 4 cd/lm            LEDs/each optic 1            Light colour White            Required components:            Bender Wirth: 486 Typ L1</p>	
<p></p> <p>LED V13 Gen7            FWHM / FWTM 20.0° / 90.0°            Efficiency 86 %            Peak intensity 0.4 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p></p> <p>LED V22 Gen7            FWHM / FWTM 30.0° / 70.0°            Efficiency 84 %            Peak intensity 0.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2204CT</p>	
<p><b>CITIZEN</b></p> <p>LED CLL02x/CLU02x (LES10)            FWHM / FWTM 17.0° / 35.0°            Efficiency 86 %            Peak intensity 4 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	

#### PHOTOMETRIC DATA (SIMULATED):

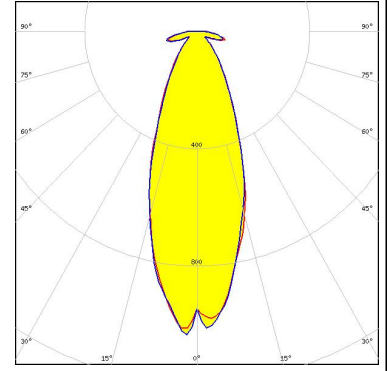
### CITIZEN

LED CLL05x/CLU05x  
 FWHM / FWTM 46.0° / 144.0°  
 Efficiency 91 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



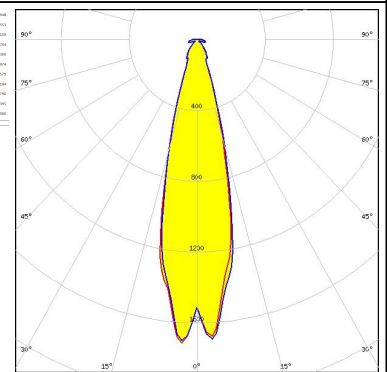
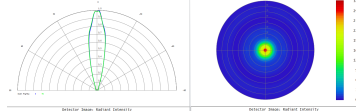
### CREE LED

LED CXA/B 3590  
 FWHM / FWTM 37.0° / 80.0°  
 Efficiency 83 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### LITEON

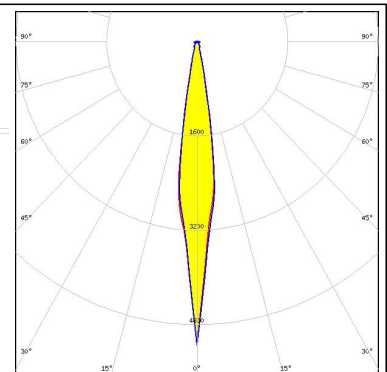
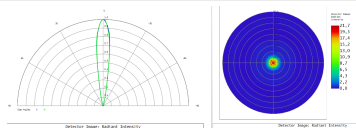
LED LTPL-G35UV275GR-E  
 FWHM / FWTM 23.0° / 40.0°  
 Efficiency 59 %  
 LEDs/each optic 13  
 Light colour UV-C  
 Required components:



The UVC LED result tolerance is  $\pm 10$  %

### LITEON

LED LTPL-G35UV275GR-E  
 FWHM / FWTM 16.0° / 26.0°  
 Efficiency 61 %  
 LEDs/each optic 4  
 Light colour UV-C  
 Required components:



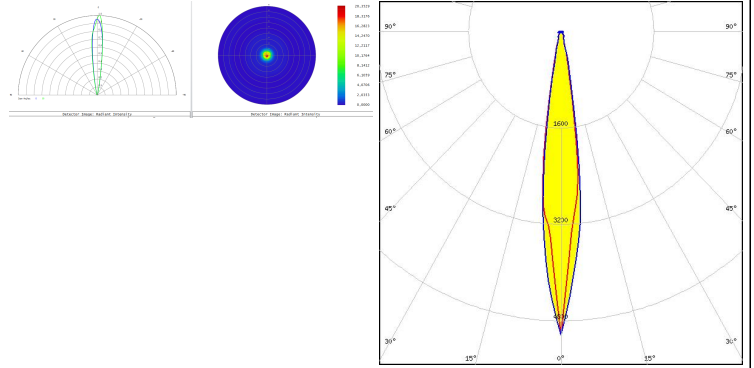
The UVC LED result tolerance is  $\pm 10$  %

### PHOTOMETRIC DATA (SIMULATED):

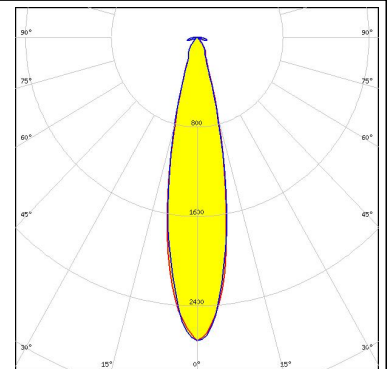


**LED** LTPL-G35UV275GR-E  
**FWHM / FWTM** 14.0° / 25.0°  
**Efficiency** 60 %  
**LEDs/each optic** 3  
**Light colour** UV-C  
**Required components:**

The UVC LED result tolerance is ±10 %

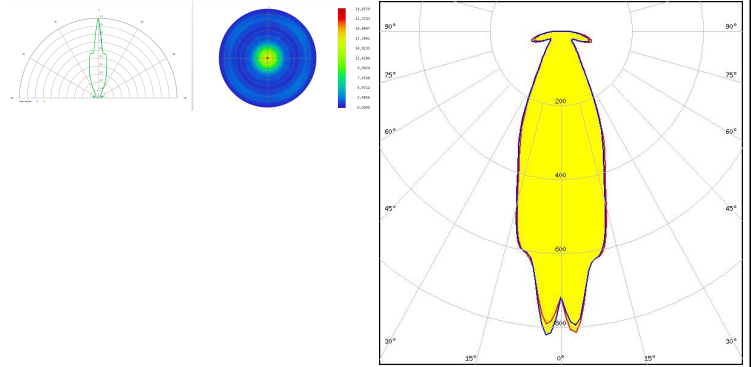


**LED** LUXEON CoB 1208  
**FWHM / FWTM** 23.0° / 43.0°  
**Efficiency** 82 %  
**Peak intensity** 2.8 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**



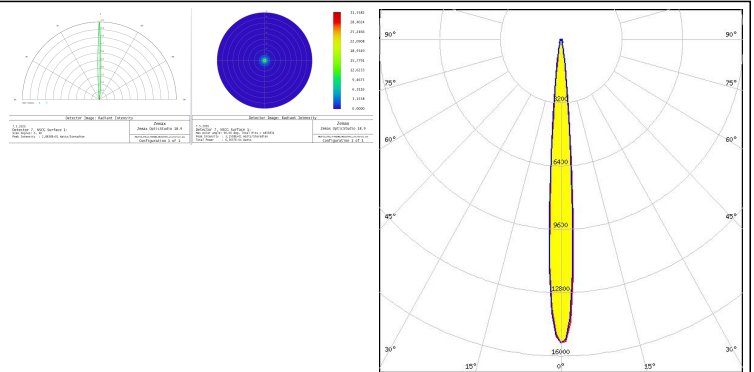
**LED** XFM-5050 3 Die  
**FWHM / FWTM** 26.0° / 62.0°  
**Efficiency** 66 %  
**LEDs/each optic** 21  
**Light colour** UV-C  
**Required components:**

The UVC LED result tolerance is ±10 %

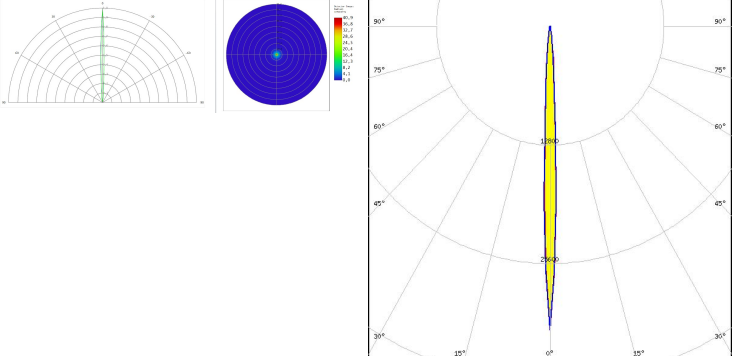
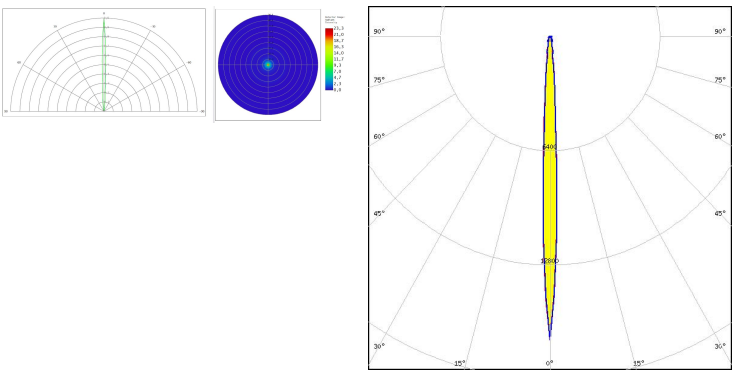
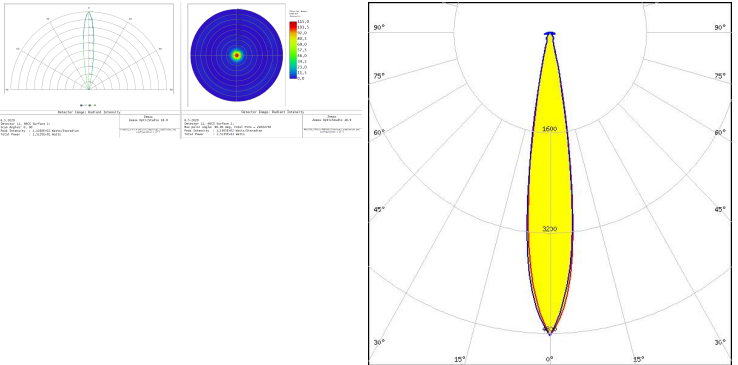


**LED** NCSU334A  
**FWHM / FWTM** 4.0° / 12.0°  
**Efficiency** 64 %  
**LEDs/each optic** 1  
**Light colour** UV-C  
**Required components:**

The UVC LED result tolerance is ±10 %



### PHOTOMETRIC DATA (SIMULATED):

<p>SEOL SEMICONDUCTOR</p> <p>LED CUN66A1B            FWHM / FWTM 4.1° / 12.0°            Efficiency 85 %            LEDs/each optic 1            Light colour UV-A            Required components:</p>	
<p>SEOL SEMICONDUCTOR</p> <p>LED CUN66B1B            FWHM / FWTM 4.3° / 13.0°            Efficiency 83 %            LEDs/each optic 1            Light colour UV-A            Required components:</p>	
<p>SEOL SEMICONDUCTOR</p> <p>LED WICOP DY9560-27            FWHM / FWTM 15.0° / 26.0°            Efficiency 63 %            LEDs/each optic 24            Light colour UV-C            Required components:</p> <p>The UVC LED result tolerance is ±10 %</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.

Due to use of high power COB's with this product, special attention to proper thermal design is highly recommended. LEDiL has no liability for direct, indirect or consecutive damages arising from the LEDiL products being used outside of the recommended temperature range.

### MATERIALS:

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

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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

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

#### Local sales and technical support

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