

### WINNIE-O

~60° + 20° oval beam. Holder with 35 mm screw hole distance according to Zhaga standard. Compatible with Bender+Wirth 4xx Typ L5 connector.

#### SPECIFICATION:

Dimensions	Ø 49.8 mm
Height	19.3 mm
Fastening	screw
ROHS compliant	yes ⓘ



#### MATERIALS:

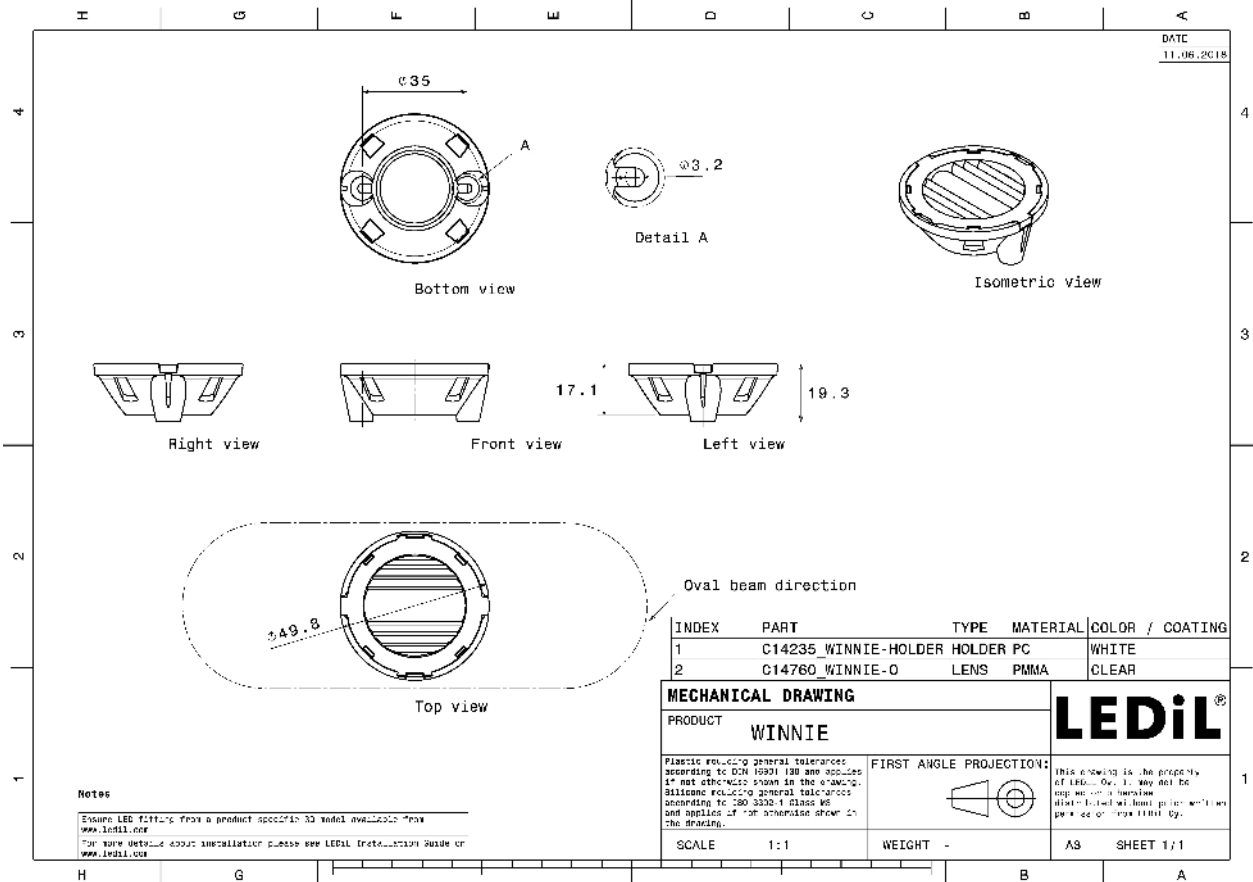
Component	Type	Material	Colour	Finish
C14760_WINNIE-O	Single lens	PMMA	clear	
C14235_WINNIE-HOLDER	Holder	PC	white	

#### ORDERING INFORMATION:

##### Quantities for one set:


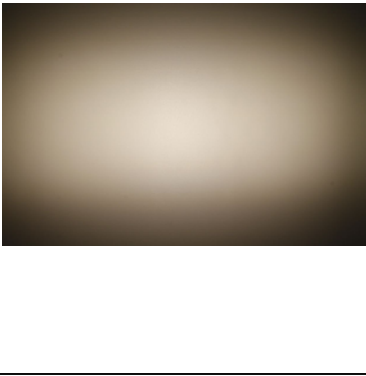
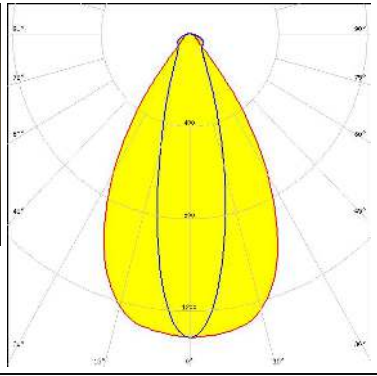

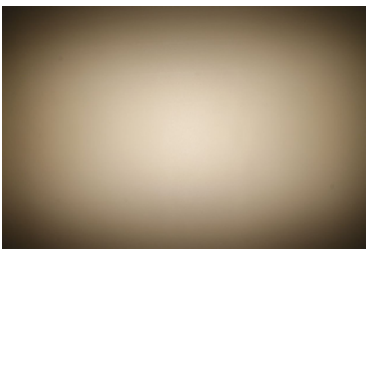
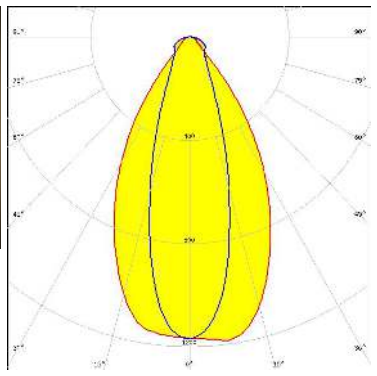

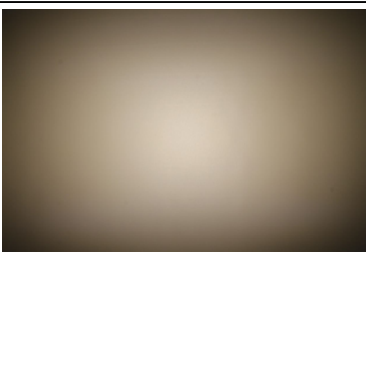
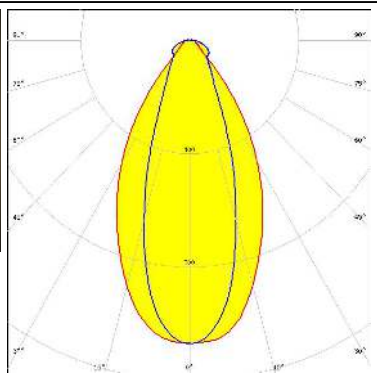

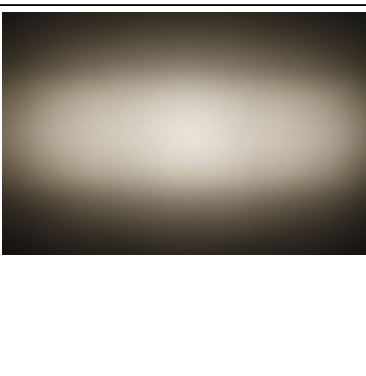
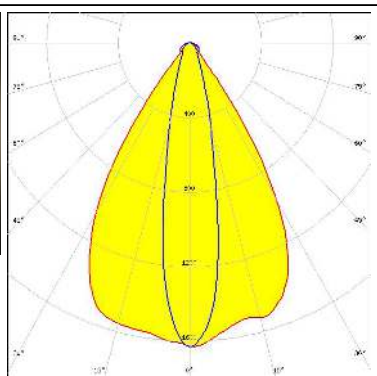
Single lens	1
Holder	1

Component		Qty in box	MOQ	MPQ	Box weight (kg)
C14760_WINNIE-O	Single lens	364	84	28	7.0
» Box size: 480 x 280 x 300 mm					
C14235_WINNIE-HOLDER	Holder	1820	84	28	7.2
» Box size: 480 x 280 x 300 mm					



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

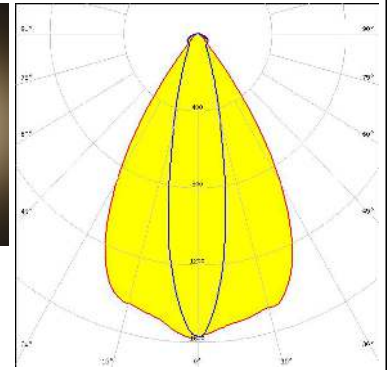
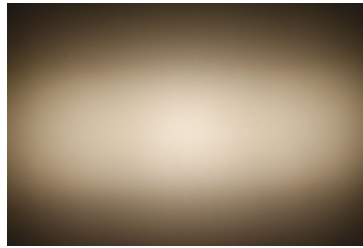
### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED V13 Gen6</p> <p>FWHM / FWTM 62.0 + 27.0° / 85.0 + 60.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 1.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p></p> <p>LED V15 Gen6</p> <p>FWHM / FWTM 59.0 + 31.0° / 87.0 + 71.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 1.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p></p> <p>LED V18 Gen6</p> <p>FWHM / FWTM 57.0 + 35.0° / 89.0 + 80.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 1.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p></p> <p>LED V8 Gen6</p> <p>FWHM / FWTM 65.0 + 21.0° / 81.0 + 47.0°</p> <p>Efficiency 89 %</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):

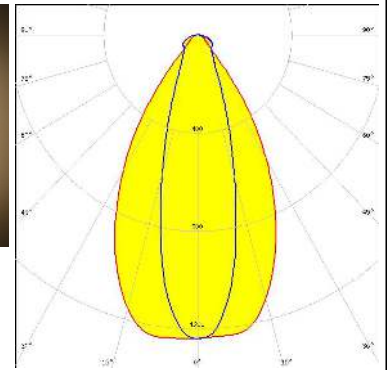
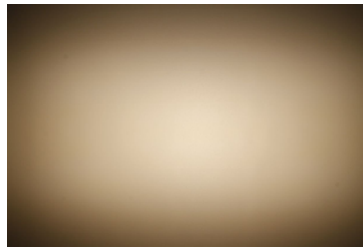
### CITIZEN

LED CLL02x/CLU02x (LES10)  
 FWHM / FWTM 63.0 + 22.0° / 82.0 + 52.0°  
 Efficiency 90 %  
 Peak intensity 1.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 Bender Wirth: 434 Typ L5



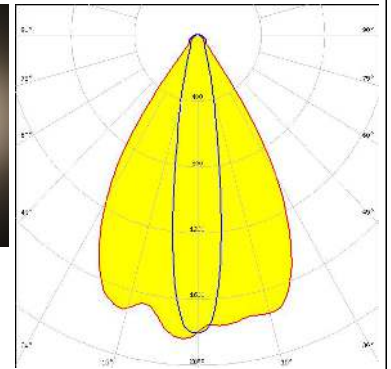
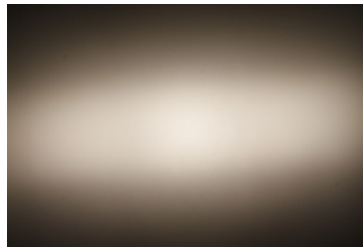
### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 59.0 + 29.0° / 85.0 + 66.0°  
 Efficiency 90 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 Bender Wirth: 433 Typ L5



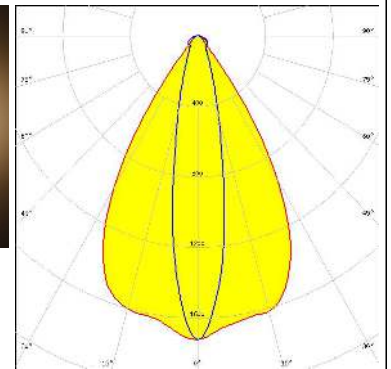
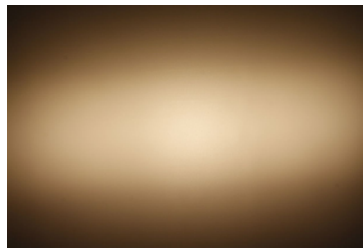
### CITIZEN

LED CLU700/701/702/703  
 FWHM / FWTM 64.0 + 18.0° / 79.0 + 43.0°  
 Efficiency 91 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### CITIZEN

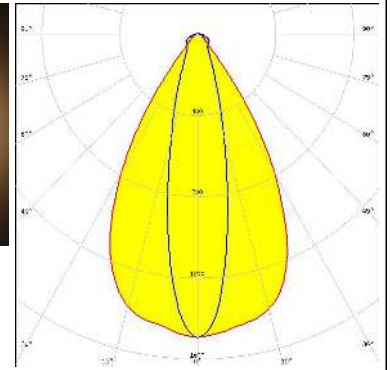
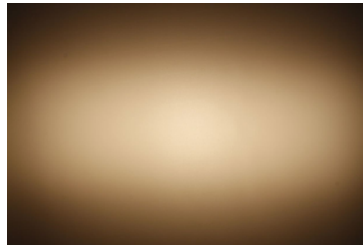
LED CLU710/711  
 FWHM / FWTM 63.0 + 20.0° / 81.0 + 48.0°  
 Efficiency 91 %  
 Peak intensity 1.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 Bender Wirth: 470 Typ L5



### OPTICAL RESULTS (MEASURED):

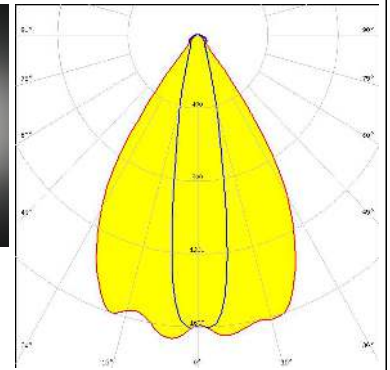
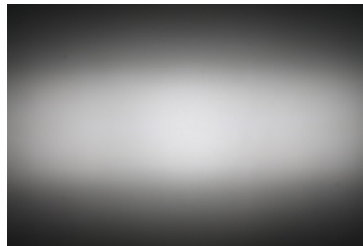
#### CITIZEN

LED CLU720/721/723  
 FWHM / FWTM 61.0 + 23.0° / 83.0 + 55.0°  
 Efficiency 90 %  
 Peak intensity 1.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 Bender Wirth: 433 Typ L5



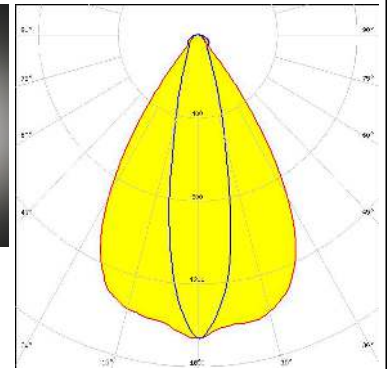
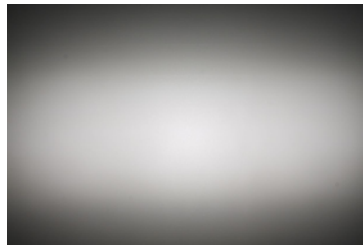
#### CREE LED

LED CXA/B 13xx  
 FWHM / FWTM 66.0 + 20.0° / 81.0 + 45.0°  
 Efficiency 90 %  
 Peak intensity 1.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



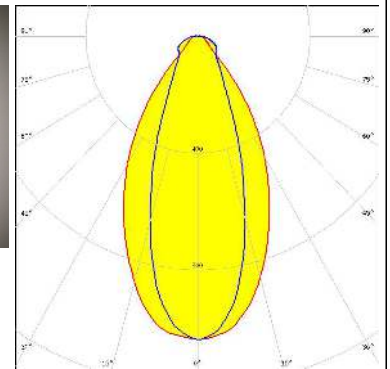
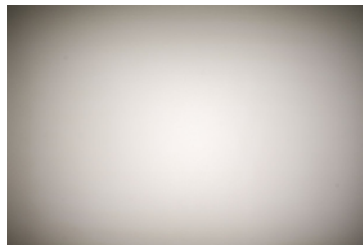
#### CREE LED

LED CXA/B 15xx  
 FWHM / FWTM 65.0 + 23.0° / 83.0 + 52.0°  
 Efficiency 89 %  
 Peak intensity 1.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

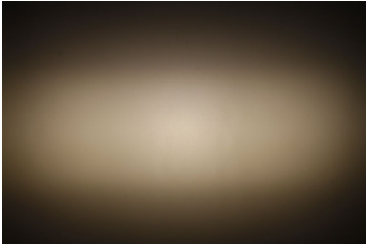
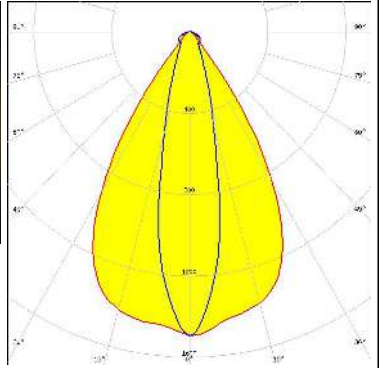
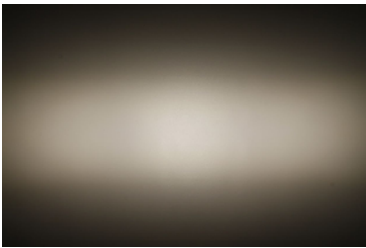
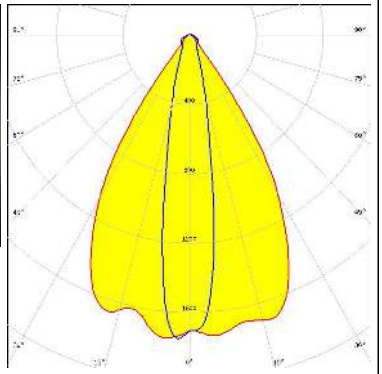
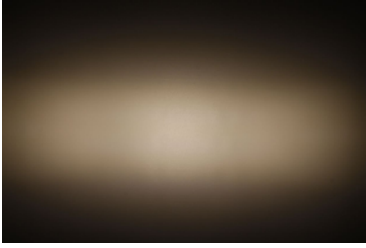
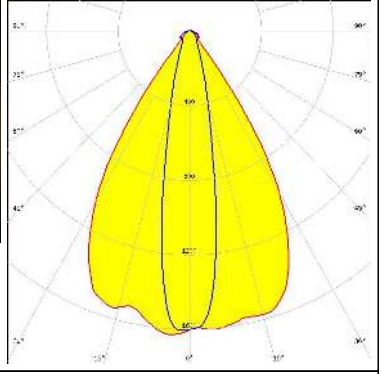
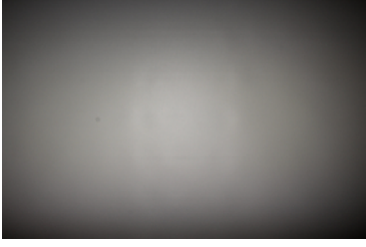
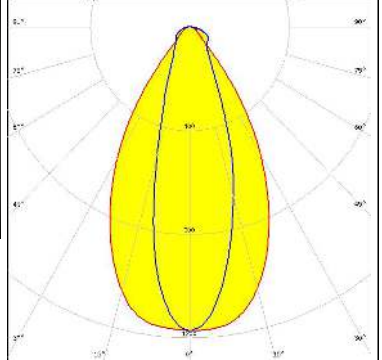


#### CREE LED


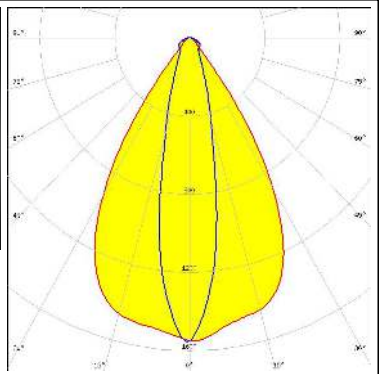

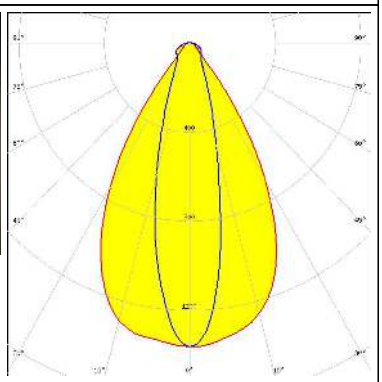

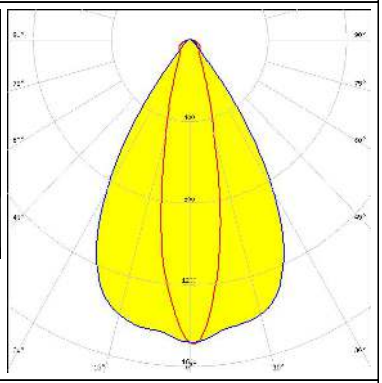

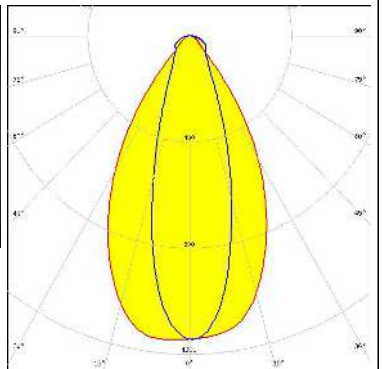
LED CXA/B 25xx  
 FWHM / FWTM 57.0 + 37.0° / 91.0 + 83.0°  
 Efficiency 89 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### OPTICAL RESULTS (MEASURED):



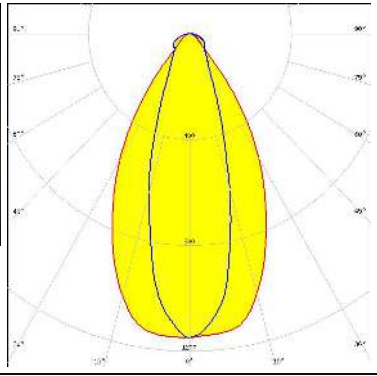


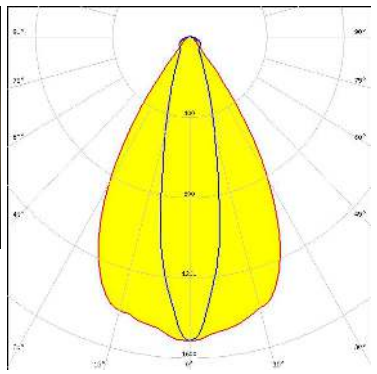
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202/1203</p> <p>FWHM / FWTM 64.0 + 23.0° / 82.0 + 53.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 1.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202s</p> <p>FWHM / FWTM 65.0 + 19.0° / 80.0 + 43.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 1800 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 CoB Compact</p> <p>FWHM / FWTM 65.0 + 20.0° / 81.0 + 46.0°</p> <p>Efficiency 88 %</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>NICHIA</b></p> <p>LED COB J-Type</p> <p>FWHM / FWTM 59.0 + 31.0° / 86.0 + 71.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 1.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

### OPTICAL RESULTS (MEASURED):


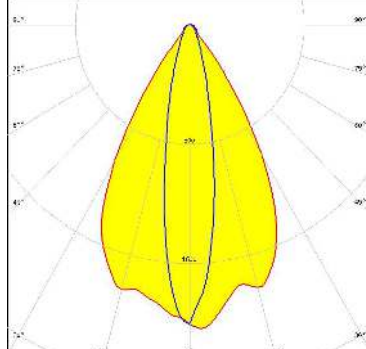

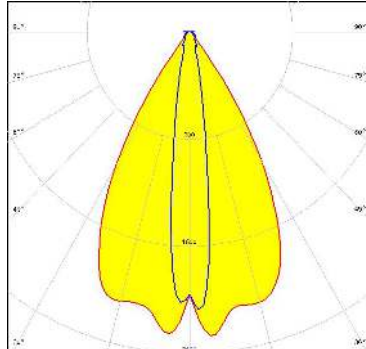

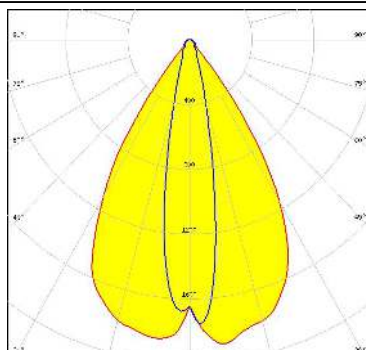

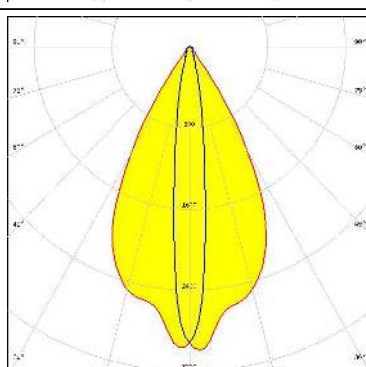
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 64.0 + 22.0° / 82.0 + 51.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 1.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 62.0 + 25.0° / 83.0 + 59.0°</p> <p>Efficiency 89 %</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><b>SAMSUNG</b></p> <p>LED LC003D / LC006D / LC009D / LC013D</p> <p>FWHM / FWTM 63.0 + 23.0° / 82.0 + 53.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 1.5 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 LC016D / LC019D / LC026D / LC033D</p> <p>FWHM / FWTM 59.0 + 31.0° / 87.0 + 71.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 1.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		



### OPTICAL RESULTS (MEASURED):

<p> SEOUL SEMICONDUCTOR</p> <p>LED MJT COB LES 14.5</p> <p>FWHM / FWTM 58.0 + 32.0° / 86.0 + 73.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 1.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: Bender Wirth: 433 Typ L5</p>		
<p> SEOUL SEMICONDUCTOR</p> <p>LED MJT COB LES 9.8</p> <p>FWHM / FWTM 62.0 + 23.0° / 82.0 + 53.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 1.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: Bender Wirth: 434 Typ L5</p>		

### OPTICAL RESULTS (SIMULATED):

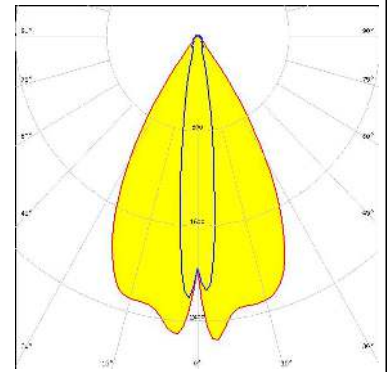
<p> <b>bridgelux</b></p> <p>LED: VERO10            FWHM / FWTM: 60.0 + 20.0° / 80.0 + 48.0°            Efficiency: 100 %            Peak intensity: 2.1 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p> <b>CREE LED</b></p> <p>LED: XP-G3            FWHM / FWTM: 60.0 + 15.0° / 76.0 + 32.0°            Efficiency: 91 %            Peak intensity: 2.3 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p> <b>LUMILEDS</b></p> <p>LED: LUXEON M/MX            FWHM / FWTM: 20.0 + 64.0° / 41.0 + 81.0°            Efficiency: 92 %            Peak intensity: 1.9 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p> <b>LUMINUS</b></p> <p>LED: SBT-90            FWHM / FWTM: 56.0 + 12.0° / 74.0 + 32.0°            Efficiency: 93 %            Peak intensity: 3 cd/lm            LEDs/each optic: 1            Light colour: Red            Required components:</p>	

### OPTICAL RESULTS (SIMULATED):

#### OSRAM

Opto Semiconductors

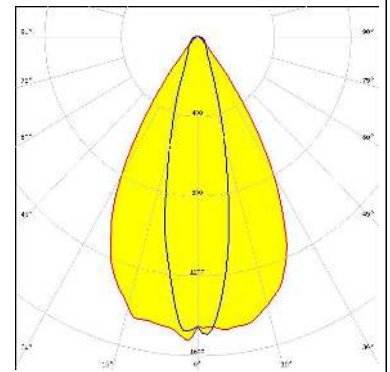
LED OSLOM Square CSSRM2/CSSRM3  
 FWHM / FWTM 58.0 + 14.0° / 76.0 + 30.0°  
 Efficiency 91 %  
 Peak intensity 2.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OSRAM

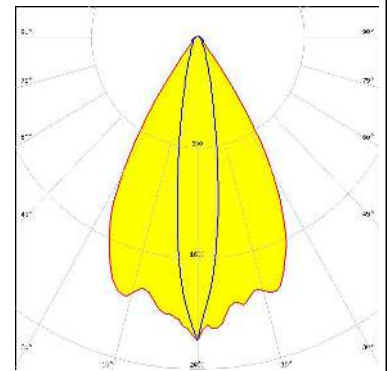
Opto Semiconductors

LED Soleriq S9  
 FWHM / FWTM 61.0 + 24.0° / 83.0 + 51.0°  
 Efficiency 88 %  
 Peak intensity 1.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



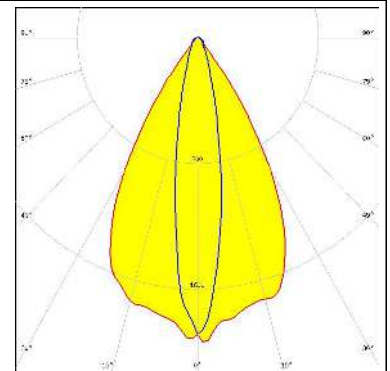
#### SAMSUNG

LED LC010C  
 FWHM / FWTM 56.0 + 16.0° / 78.0 + 40.0°  
 Efficiency 92 %  
 Peak intensity 2.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 Bender Wirth: 479 Typ L5



#### SAMSUNG

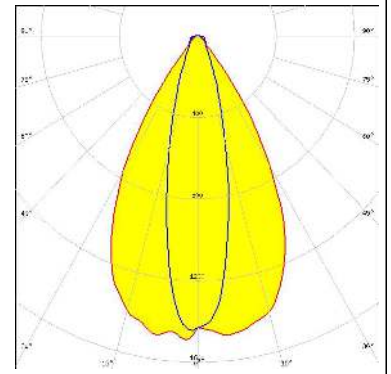
LED LC020C  
 FWHM / FWTM 60.0 + 18.0° / 79.0 + 44.0°  
 Efficiency 89 %  
 Peak intensity 1.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 Bender Wirth: 479 Typ L5



### OPTICAL RESULTS (SIMULATED):

#### SAMSUNG

LED	LC040C
FWHM / FWTM	60.0 + 24.0° / 82.0 + 55.0°
Efficiency	87 %
Peak intensity	1.5 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
Bender Wirth: 479 Typ L5	



### 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.

### 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.

LEDiL Oy assumes neither warranty, nor guarantee nor any other liability of any kind for the contents and correctness of the provided data. The provided data has been generated with highest diligence but the provided data may in reality not represent the complete possible variation range of all intrinsic parameters. Therefore, in certain cases a deviation from the provided data could occur.

LEDiL Oy reserves the right to undertake technical changes of its products without further notification which could lead to changes in the provided data. LEDiL Oy assumes no liability of any kind for the possible deviation from any provided data or any other damage resulting from the usage of the provided data.

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#### LEDiL Oy

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#### LEDiL Inc.

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