

HB-2X2-WW

~65° wide beam

SPECIFICATION:

Dimensions	50.0 x 50.0 mm
Height	8.5 mm
Fastening	glue, pin, screw
ROHS compliant	yes ⓘ

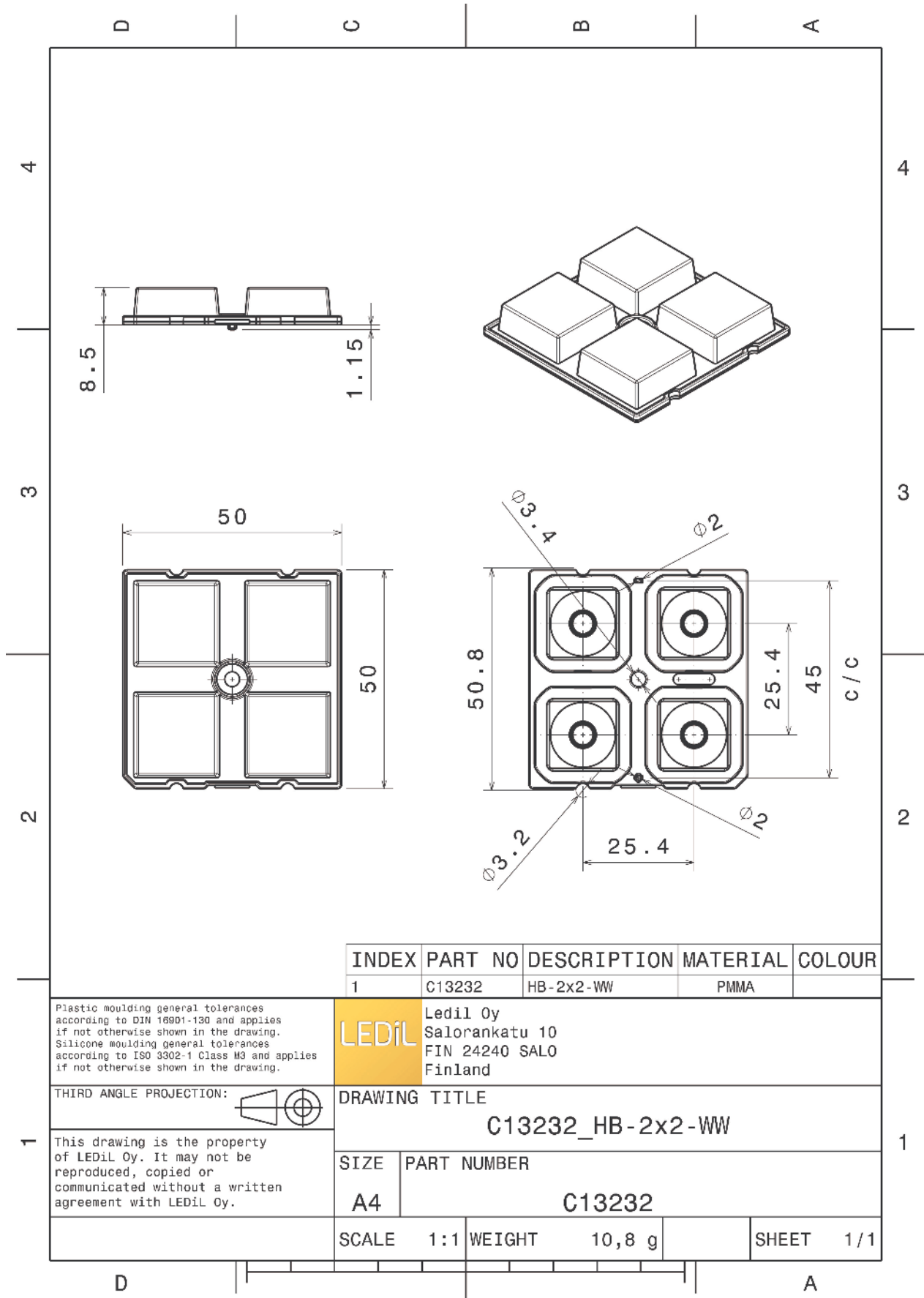
MATERIALS:

Component	Type	Material	Colour	Finish
HB-2X2-WW	Multi-lens	PMMA	clear	

ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
C13232_HB-2X2-WW » Box size: 480 x 280 x 300 mm	800	160	160	9.5





INDEX	PART NO	DESCRIPTION	MATERIAL	COLOUR
1	C13232	HB-2x2-WW	PMMA	

Plastic moulding general tolerances according to DIN 169D1-130 and applies if not otherwise shown in the drawing. Silicone moulding general tolerances according to ISO 3302-1 Class M3 and applies if not otherwise shown in the drawing.



Ledil Oy
Salorankatu 10
FIN 24240 SALO
Finland

THIRD ANGLE PROJECTION:

DRAWING TITLE
C13232_HB-2x2-WW

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SIZE	PART NUMBER
A4	C13232

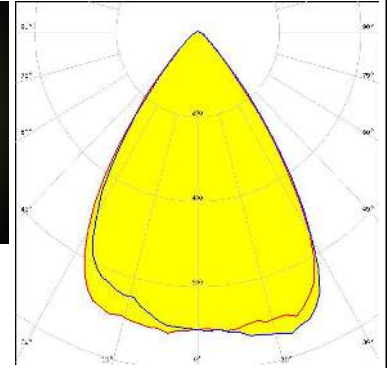
SCALE	1:1	WEIGHT	10,8 g	SHEET	1/1
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See also our general installation guide: www.ledil.com/installation_guide

OPTICAL RESULTS (MEASURED):

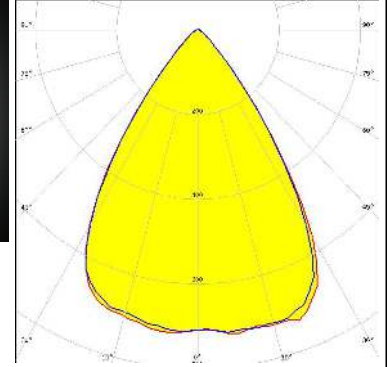
CREE LED

LED XP-G
 FWHM / FWTM 69.0° / 92.0°
 Efficiency 91 %
 Peak intensity 0.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



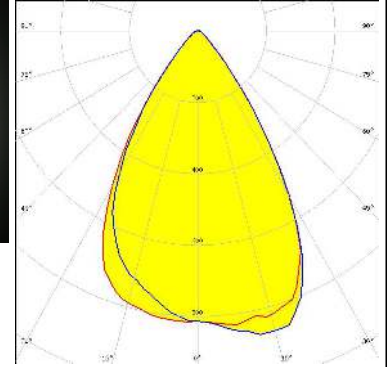
CREE LED

LED XP-G2
 FWHM / FWTM 69.0° / 92.0°
 Efficiency 91 %
 Peak intensity 0.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



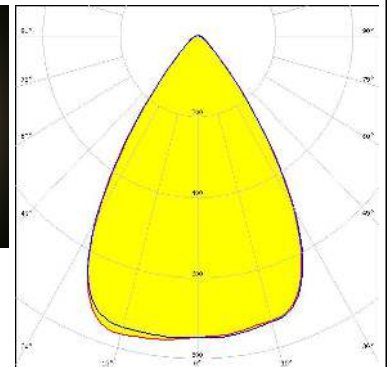
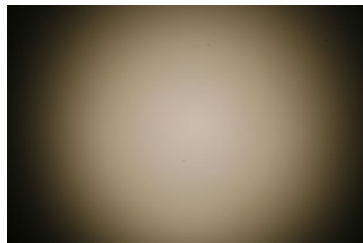
CREE LED

LED XT-E
 FWHM / FWTM 65.0° / 89.0°
 Efficiency 91 %
 Peak intensity 0.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:


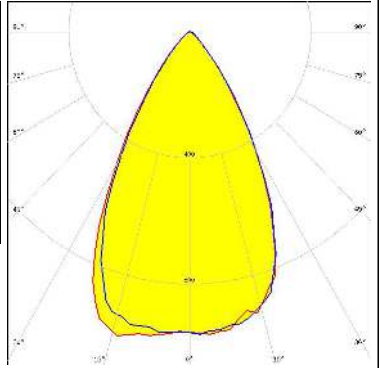

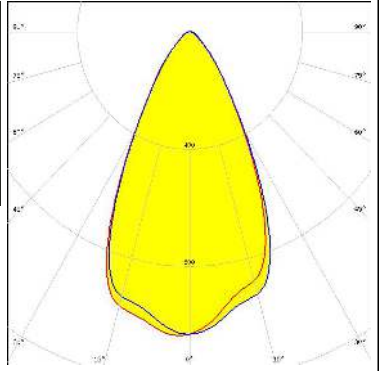

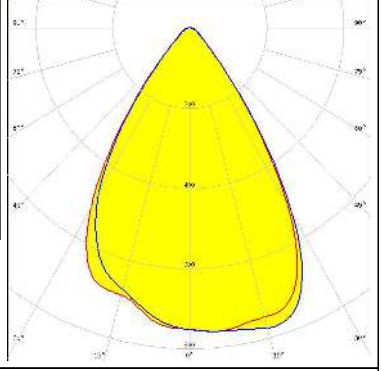

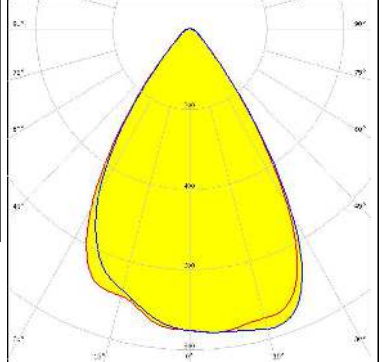


LUMILEDS

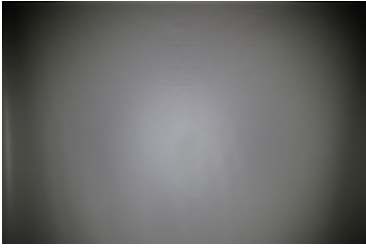
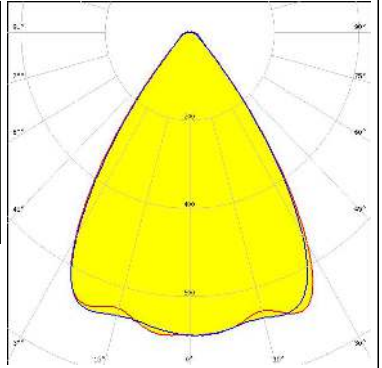

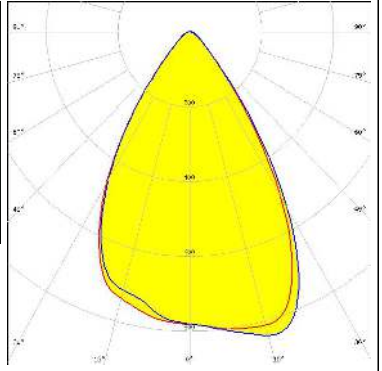
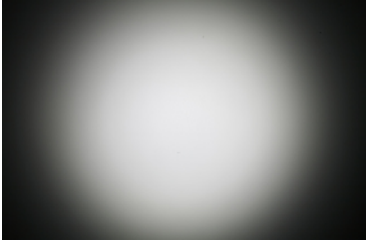
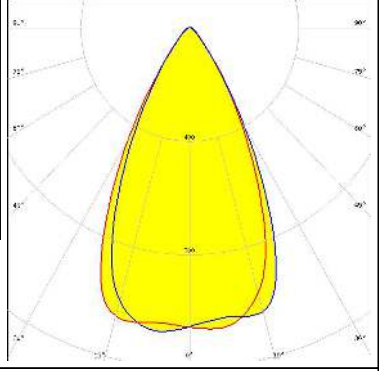
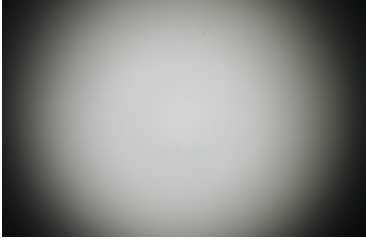
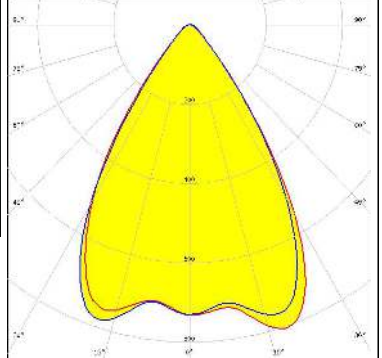
LED LUXEON Q
 FWHM / FWTM 67.0° / 92.0°
 Efficiency 91 %
 Peak intensity 0.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

<p>LUMILEDS</p> <p>LED LUXEON Z ES</p> <p>FWHM / FWTM 59.0° / 87.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 1 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>NICHIA</p> <p>LED NVSxE21A</p> <p>FWHM / FWTM 54.0° / 89.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 1.1 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>OSRAM</p> <p>LED PrevaLED Brick HP 2x8</p> <p>FWHM / FWTM 67.0° / 92.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.8 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>OSRAM Opto Semiconductors</p> <p>LED OSOLON Square CSSRM2/CSSRM3</p> <p>FWHM / FWTM 67.0° / 92.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.8 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

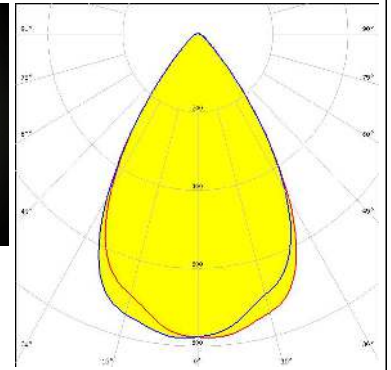
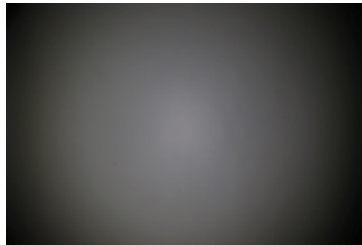
OPTICAL RESULTS (MEASURED):

<p>OSRAM Opto Semiconductors</p> <p>LED OSLON Square CSSRM2/CSSRM3</p> <p>FWHM / FWTM 71.0° / 94.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 0.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>OSRAM Opto Semiconductors</p> <p>LED OSLON Square PC</p> <p>FWHM / FWTM 63.0° / 90.0°</p> <p>Efficiency 91 %</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>OSRAM Opto Semiconductors</p> <p>LED OSLON SSL 80</p> <p>FWHM / FWTM 54.0° / 80.0°</p> <p>Efficiency 92 %</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>SAMSUNG</p> <p>LED LH351A</p> <p>FWHM / FWTM 68.0° / 91.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

OPTICAL RESULTS (MEASURED):

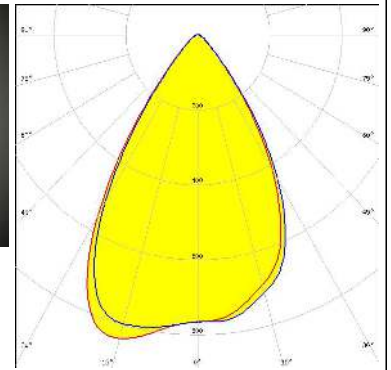
SAMSUNG

LED LH351B
 FWHM / FWTM 65.0° / 92.0°
 Efficiency 89 %
 Peak intensity 0.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

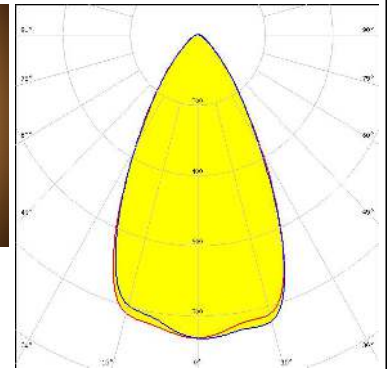
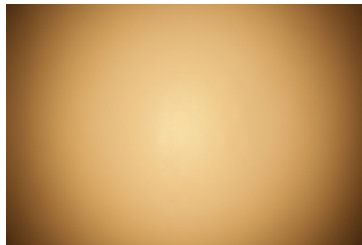


SAMSUNG

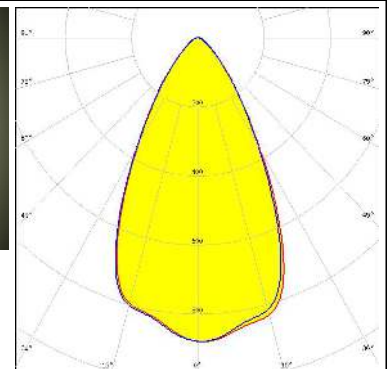
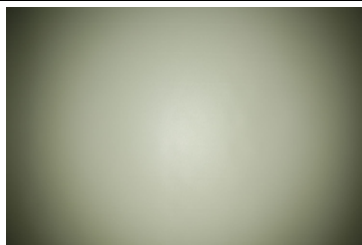
LED LH351Z
 FWHM / FWTM 63.0° / 89.0°
 Efficiency 89 %
 Peak intensity 0.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



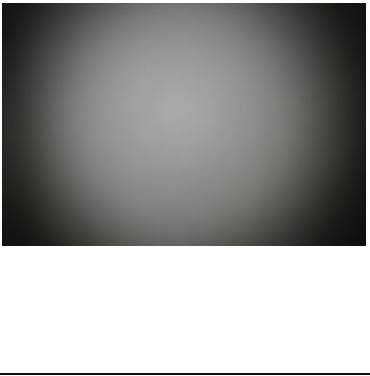
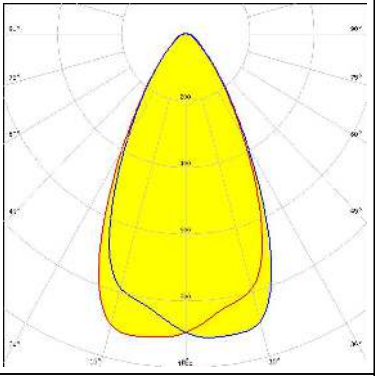

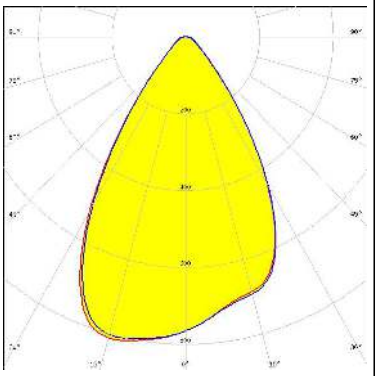

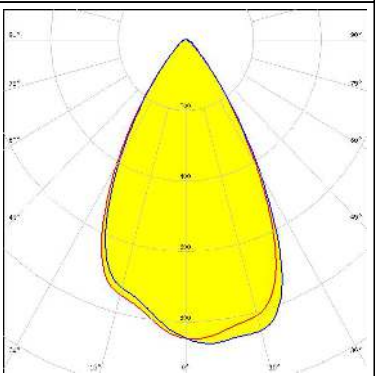
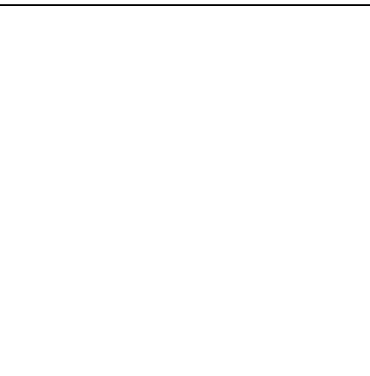
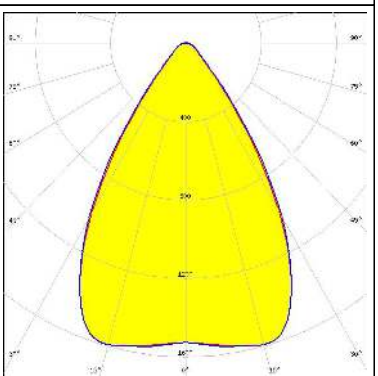
LED Z8Y15
 FWHM / FWTM 56.0° / 92.0°
 Efficiency 85 %
 Peak intensity 0.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED Z8Y19
 FWHM / FWTM 56.0° / 92.0°
 Efficiency 85 %
 Peak intensity 0.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



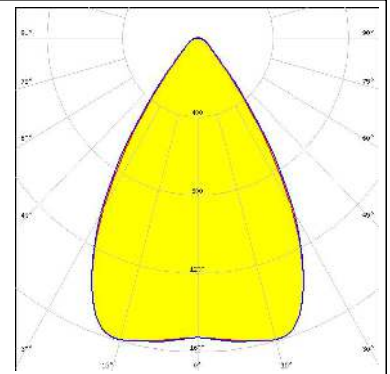
OPTICAL RESULTS (MEASURED):

<p>SEUL SEMICONDUCTOR</p> <p>LED Z8Y22</p> <p>FWHM / FWTM 55.0° / 94.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>SEUL SEMICONDUCTOR</p> <p>LED Z8Y22P</p> <p>FWHM / FWTM 65.0° / 95.0°</p> <p>Efficiency 94 %</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>TOSHIBA Leading Innovation >>></p> <p>LED TL1L4</p> <p>FWHM / FWTM 60.0° / 87.0°</p> <p>Efficiency 84 %</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>TRIDONIC</p> <p>LED RLE G1 49x121mm 2000lm xxx EXC OTD</p> <p>FWHM / FWTM 67.0° / 93.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 0.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

OPTICAL RESULTS (MEASURED):

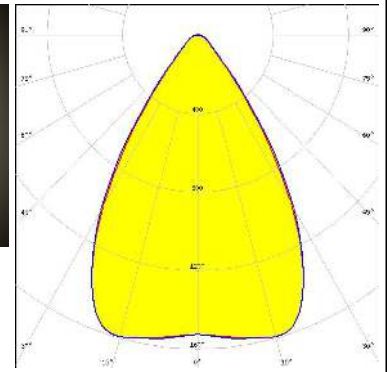
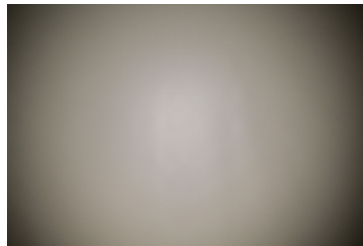
TRIDONIC

LED RLE G1 49x133mm 2000lm xxx EXC OTD
 FWHM / FWTM 67.0° / 93.0°
 Efficiency 94 %
 Peak intensity 0.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



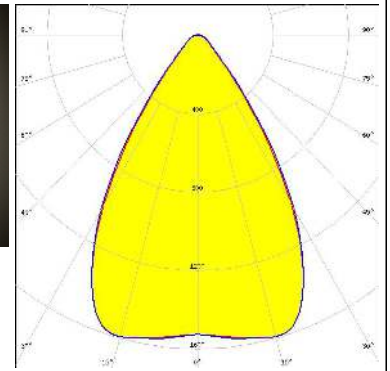
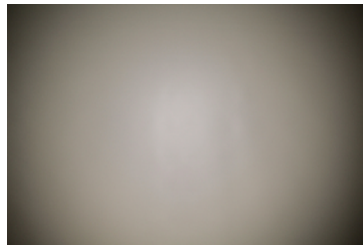
TRIDONIC

LED RLE G1 49x223mm 4000lm xxx EXC OTD
 FWHM / FWTM 67.0° / 93.0°
 Efficiency 94 %
 Peak intensity 0.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

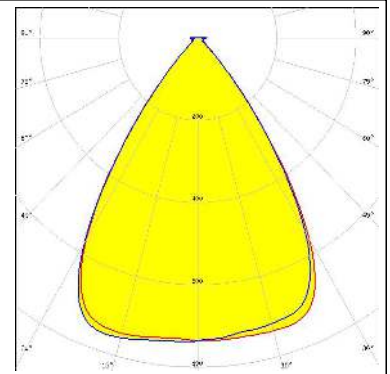
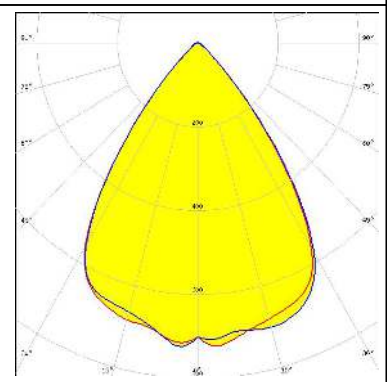
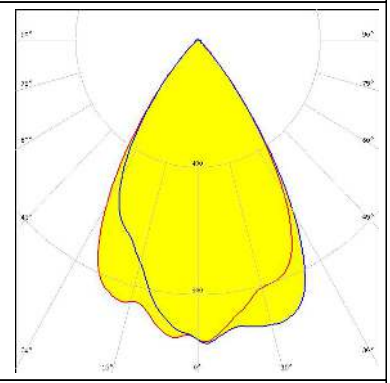
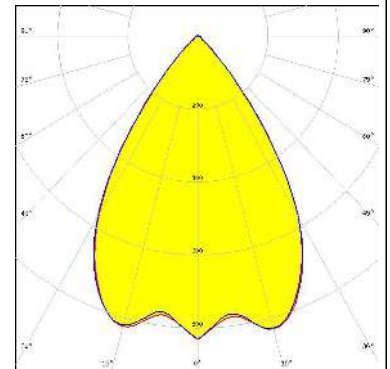


TRIDONIC

LED RLE G1 49x245mm 4000lm xxx EXC OTD
 FWHM / FWTM 67.0° / 93.0°
 Efficiency 94 %
 Peak intensity 0.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (SIMULATED):

<p>CREE → LED</p> <p>LED: XD16 FWHM / FWTM: 69.0° / 90.0° Efficiency: 95 % Peak intensity: 0.8 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>CREE → LED</p> <p>LED: XP-G2 FWHM / FWTM: 72.0° / 94.0° Efficiency: 92 % Peak intensity: 0.7 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p> <p style="background-color: #ADD8E6; padding: 2px; display: inline-block;">Protective plate, glass</p>	
<p>LUMILEDS</p> <p>LED: LUXEON 3030 2D (Round LES) FWHM / FWTM: 64.0° / 82.0° Efficiency: 94 % Peak intensity: 1 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>LUMILEDS</p> <p>LED: LUXEON C FWHM / FWTM: 65.0° / 88.0° Efficiency: 94 % Peak intensity: 0.8 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	

OPTICAL RESULTS (SIMULATED):

<p>OSRAM Opto Semiconductors</p> <p>LED OSCONIQ C 2424</p> <p>FWHM / FWTM 68.0° / 82.0°</p> <p>Efficiency 97 %</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>OSRAM Opto Semiconductors</p> <p>LED OSLON Square CSSRM2/CSSRM3</p> <p>FWHM / FWTM 70.0° / 94.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 0.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p style="background-color: #ADD8E6; padding: 2px;">Protective plate, glass</p>	
<p>SEOL SEOL SEMICONDUCTOR</p> <p>LED Z8Y22T</p> <p>FWHM / FWTM 63.0° / 86.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 1 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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Hong Kong, China

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