

## HB-2X2-WW

~65° wide beam optimized for CREE XP-L and XM-L

### TECHNICAL SPECIFICATIONS:

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

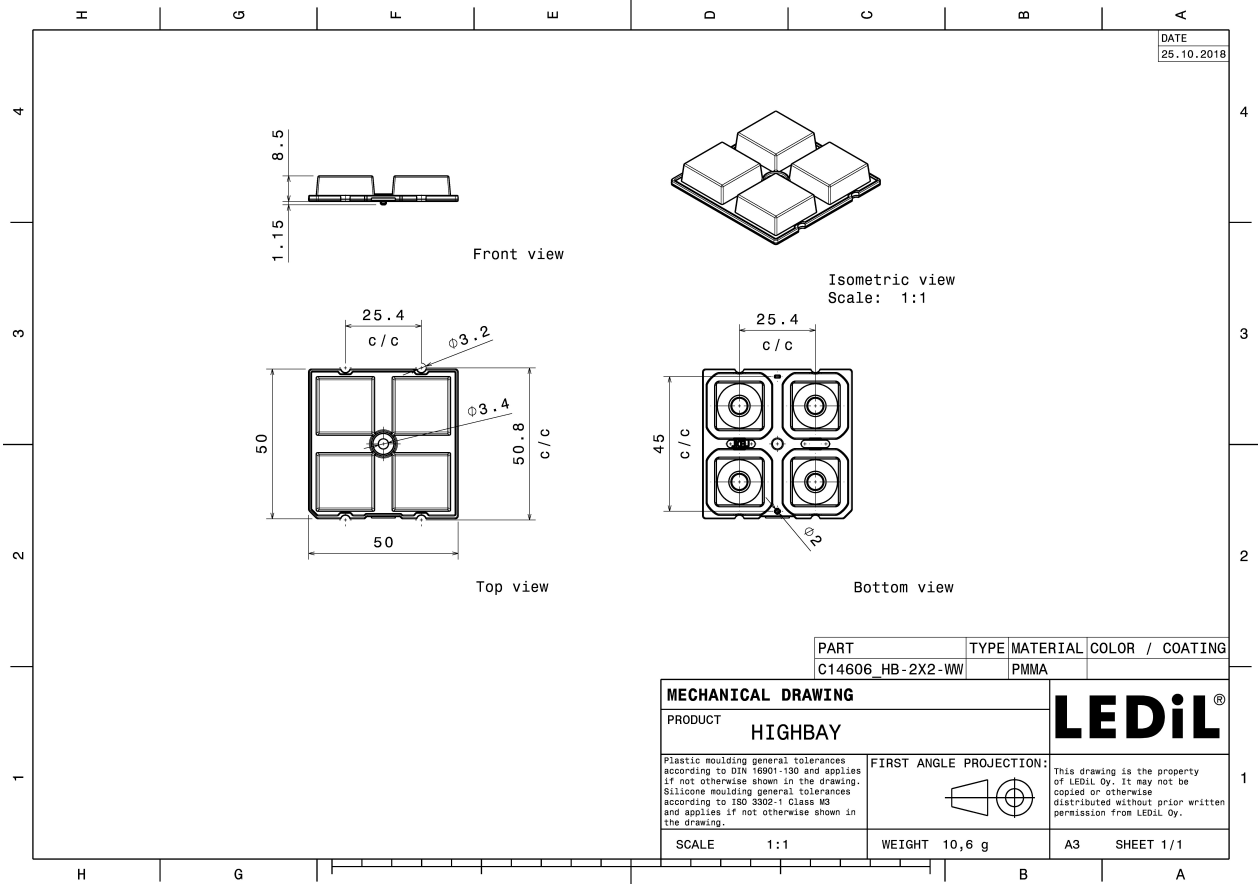
### MATERIAL SPECIFICATIONS:

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

### ORDERING INFORMATION:


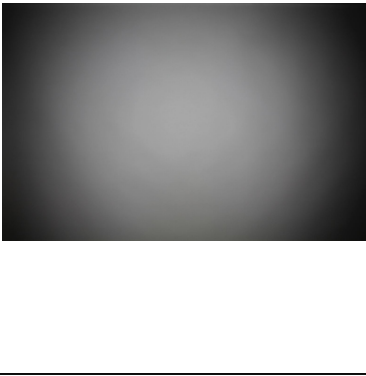
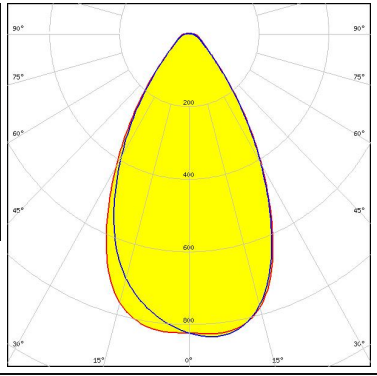


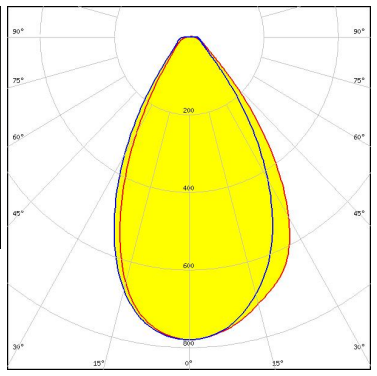


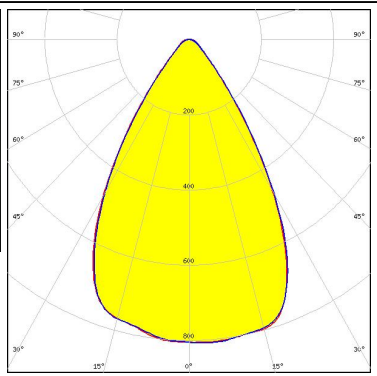


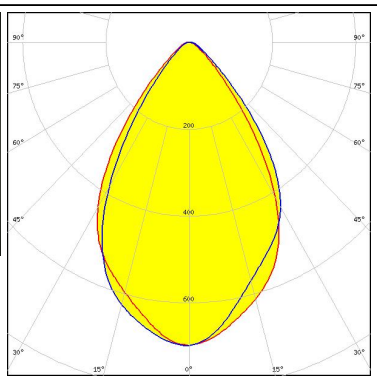
Component	Qty in box	MOQ	MPQ	Box weight (kg)
C14606_HB-2X2-WW » Box size: 480 x 280 x 300 mm	800	160	160	9.2



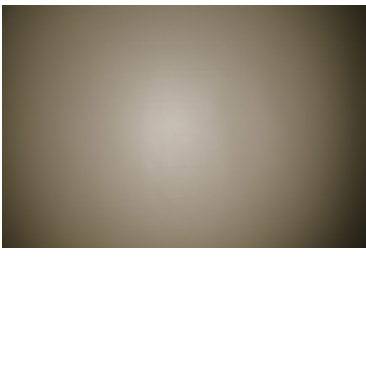
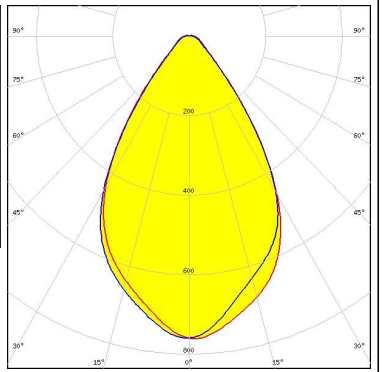

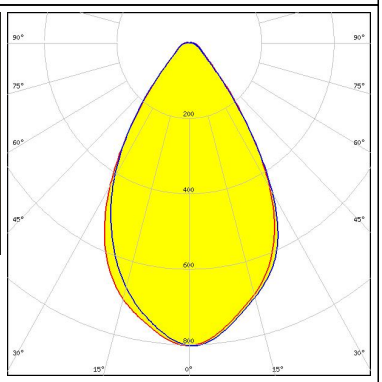

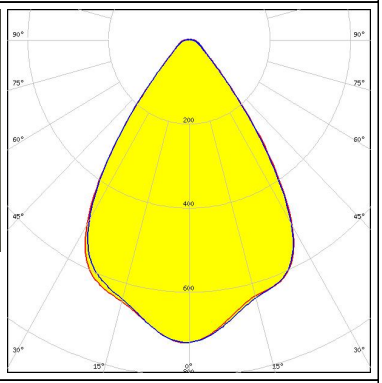

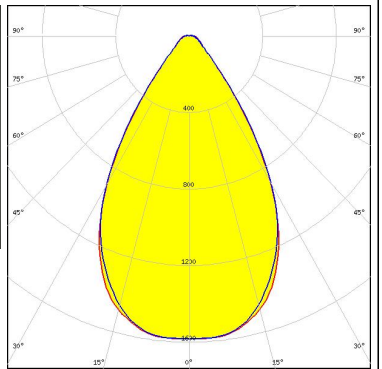


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)


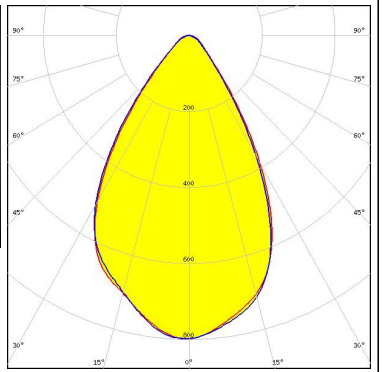

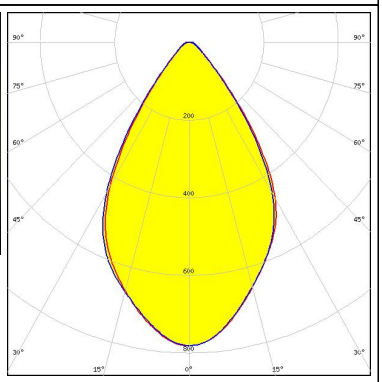
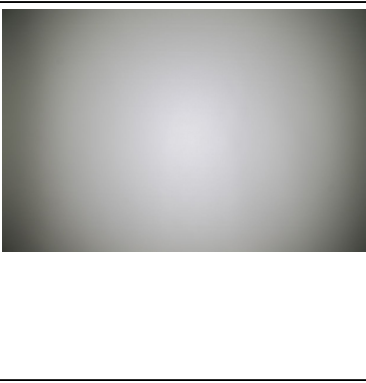
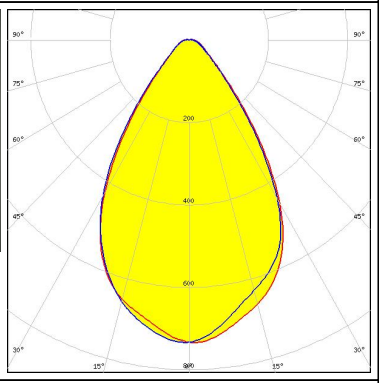

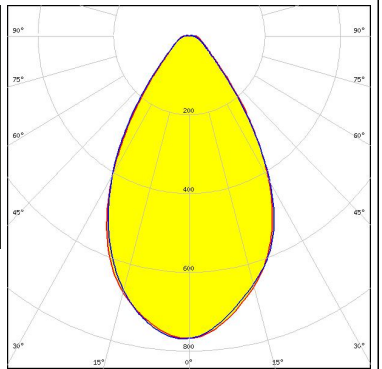
#### PHOTOMETRIC DATA (MEASURED):

<p> <b>LED</b>      Bridgelux SMD 5050</p> <p><b>FWHM / FWTM</b>    59.0° / 96.0°</p> <p><b>Efficiency</b>        94 %</p> <p><b>Peak intensity</b>    0.8 cd/lm</p> <p><b>LEDs/each optic</b>    1</p> <p><b>Light colour</b>        White</p> <p><b>Required components:</b></p>		
<p> <b>LED</b>      XD16</p> <p><b>FWHM / FWTM</b>    61.0° / 97.0°</p> <p><b>Efficiency</b>        92 %</p> <p><b>Peak intensity</b>    0.8 cd/lm</p> <p><b>LEDs/each optic</b>    4</p> <p><b>Light colour</b>        White</p> <p><b>Required components:</b></p>		
<p> <b>LED</b>      XD16</p> <p><b>FWHM / FWTM</b>    63.0° / 92.0°</p> <p><b>Efficiency</b>        93 %</p> <p><b>Peak intensity</b>    0.8 cd/lm</p> <p><b>LEDs/each optic</b>    1</p> <p><b>Light colour</b>        White</p> <p><b>Required components:</b></p>		
<p> <b>LED</b>      XHP35 HD</p> <p><b>FWHM / FWTM</b>    67.0° / 100.0°</p> <p><b>Efficiency</b>        84 %</p> <p><b>Peak intensity</b>    0.7 cd/lm</p> <p><b>LEDs/each optic</b>    1</p> <p><b>Light colour</b>        White</p> <p><b>Required components:</b></p>		


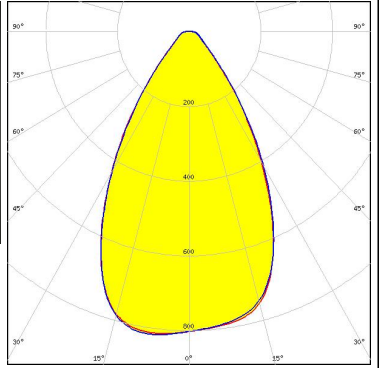
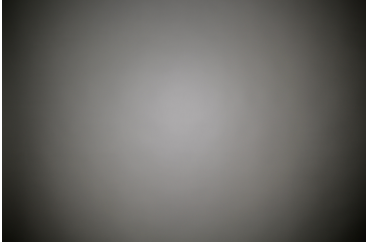
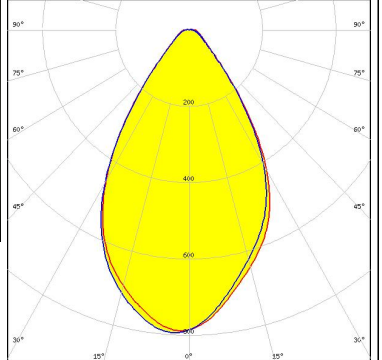
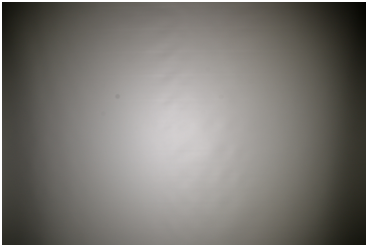
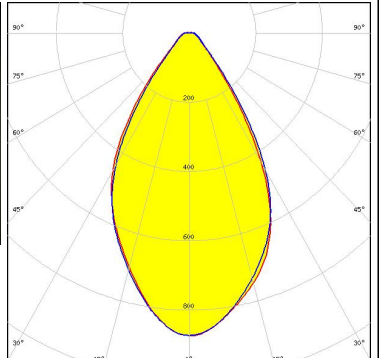
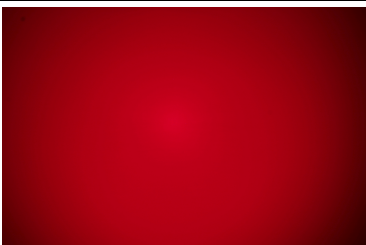
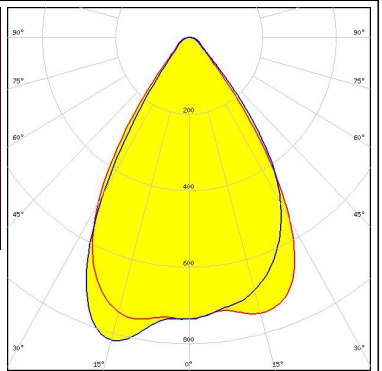
#### PHOTOMETRIC DATA (MEASURED):

<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED XM-L            FWHM / FWTM 66.0° / 99.0°            Efficiency 93 %            Peak intensity 0.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED XM-L2            FWHM / FWTM 62.0° / 96.0°            Efficiency 92 %            Peak intensity 0.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED XM-L3            FWHM / FWTM 70.0° / 98.0°            Efficiency 94 %            Peak intensity 0.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED XP-G2            FWHM / FWTM 63.0° / 93.0°            Efficiency 91 %            Peak intensity 0.8 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            XP-G3            FWHM / FWTM    63.0° / 95.0°            Efficiency        90 %            Peak intensity    0.8 cd/m            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><b>CREE</b> → <b>LED</b></p> <p>LED            XP-G3            FWHM / FWTM    64.0° / 94.0°            Efficiency        86 %            Peak intensity    0.8 cd/m            LEDs/each optic    1            Light colour      White            Required components:</p>		
<p><b>CREE</b> → <b>LED</b></p> <p>LED            XP-L HD            FWHM / FWTM    66.0° / 102.0°            Efficiency        93 %            Peak intensity    0.7 cd/m            LEDs/each optic    1            Light colour      White            Required components:</p>		
<p><b>CREE</b> → <b>LED</b></p> <p>LED            XP-L2            FWHM / FWTM    62.0° / 101.0°            Efficiency        93 %            Peak intensity    0.8 cd/m            LEDs/each optic    1            Light colour      White            Required components:</p>		

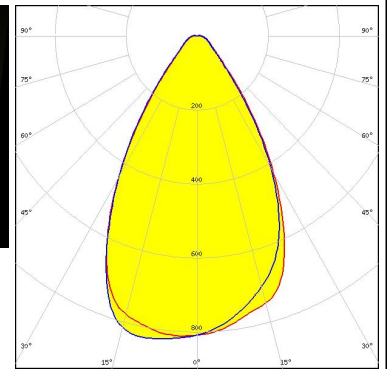
#### PHOTOMETRIC DATA (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON 5050 Round LES</p> <p>FWHM / FWTM 61.0° / 96.0°</p> <p>Efficiency 94 %</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><b>LUMILEDS</b></p> <p>LED LUXEON V</p> <p>FWHM / FWTM 63.0° / 97.0°</p> <p>Efficiency 93 %</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><b>LUMILEDS</b></p> <p>LED LUXEON V2</p> <p>FWHM / FWTM 61.0° / 93.0°</p> <p>Efficiency 94 %</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>LUMINUS</b></p> <p>LED SST-10-B130</p> <p>FWHM / FWTM 69.0° / 94.0°</p> <p>Efficiency 95 %</p> <p>Peak intensity 0.8 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour Deep Red</p> <p>Required components:</p>		

#### PHOTOMETRIC DATA (MEASURED):

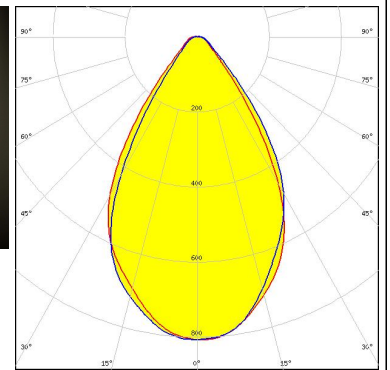
**MST** *Your solutions*

LED RecLED 122x50mm 1900lm 730 2x4 Opt G1  
 FWHM / FWTM 61.0° / 94.0°  
 Efficiency 95 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



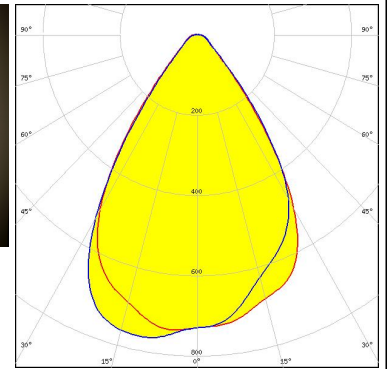
**NICHIA**

LED NVSW219D  
 FWHM / FWTM 64.0° / 95.0°  
 Efficiency 94 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



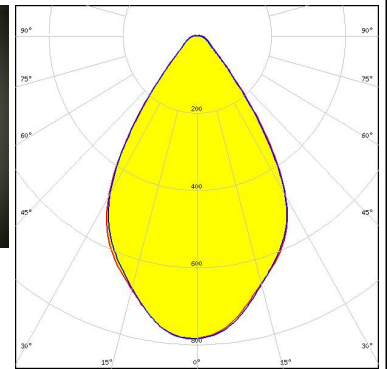
**NICHIA**

LED NVSW219F  
 FWHM / FWTM 69.0° / 96.0°  
 Efficiency 95 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



**NICHIA**

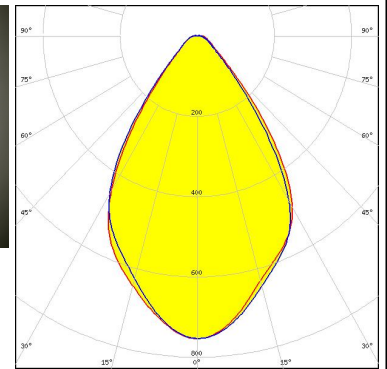
LED NVSW219F  
 FWHM / FWTM 66.0° / 96.0°  
 Efficiency 94 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



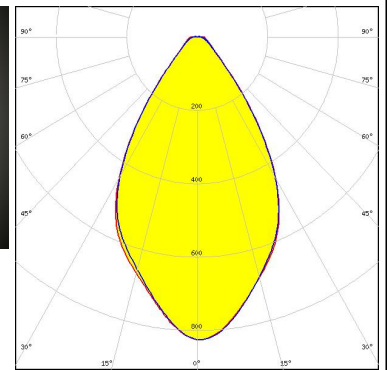
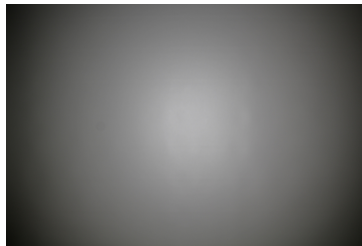
#### PHOTOMETRIC DATA (MEASURED):



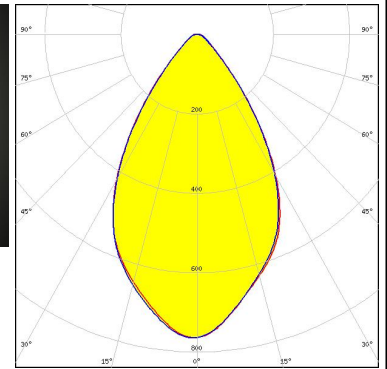
LED NVSW319B  
 FWHM / FWTM 68.0° / 100.0°  
 Efficiency 93 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



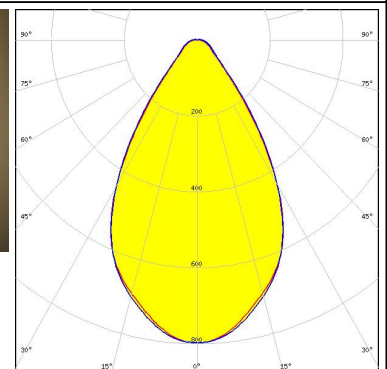
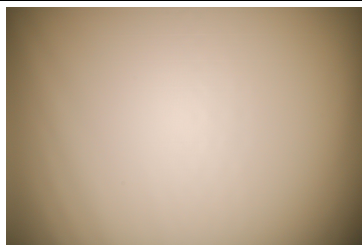
LED NVSW3x9A  
 FWHM / FWTM 62.0° / 97.0°  
 Efficiency 93 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED NWSx229A  
 FWHM / FWTM 63.0° / 97.0°  
 Efficiency 85 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED PL-BRICK HP 3800 2x8 SSG  
 FWHM / FWTM 64.0° / 96.0°  
 Efficiency 94 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

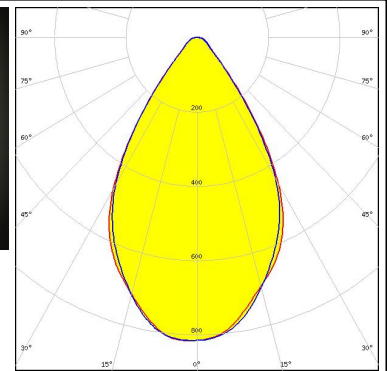
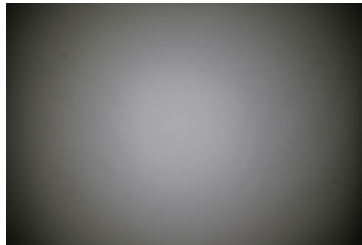




#### PHOTOMETRIC DATA (MEASURED):

### OSRAM

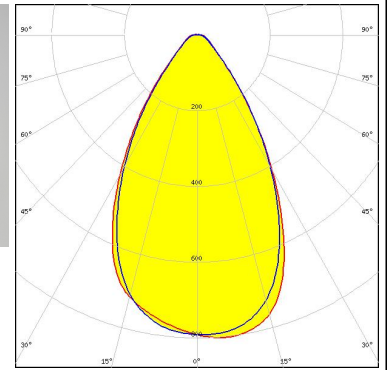
LED PrevaLED Brick HP 2x8  
 FWHM / FWTM 64.0° / 93.0°  
 Efficiency 92 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### OSRAM

Opto Semiconductors

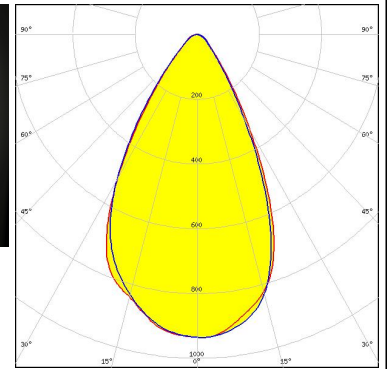
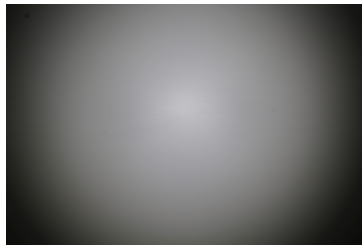
LED Duris S8  
 FWHM / FWTM 61.0° / 97.0°  
 Efficiency 93 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### OSRAM

Opto Semiconductors

LED OSCONIQ P 3737 (2W version)  
 FWHM / FWTM 58.0° / 88.0°  
 Efficiency 91 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

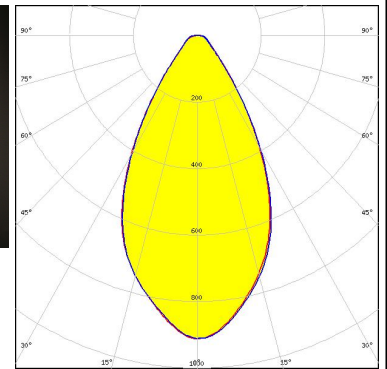
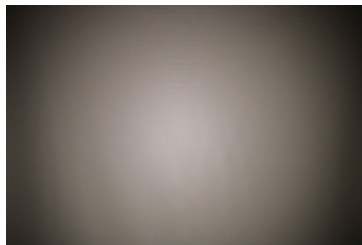


Protective plate, glass

### OSRAM

Opto Semiconductors

LED OSCONIQ P 3737 (3W version)  
 FWHM / FWTM 56.0° / 93.0°  
 Efficiency 93 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

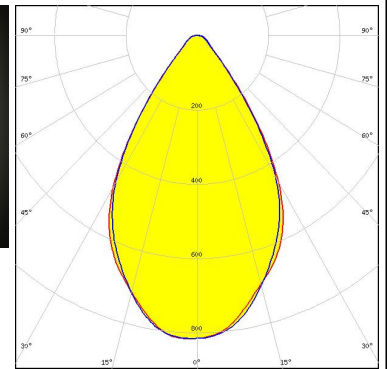
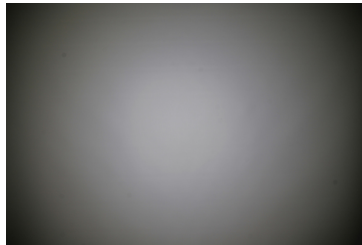


#### PHOTOMETRIC DATA (MEASURED):

#### OSRAM

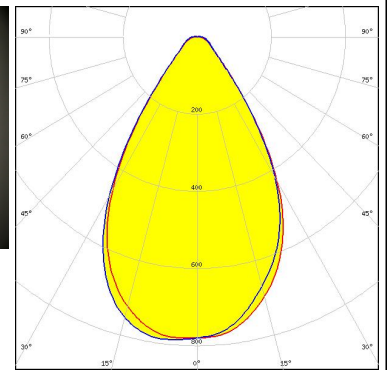
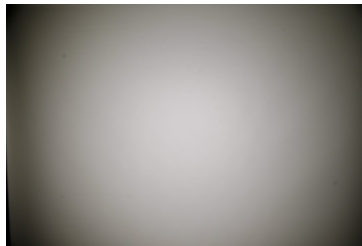
Opto Semiconductors

LED OSLON Square CSSRM2/CSSRM3  
 FWHM / FWTM 64.0° / 93.0°  
 Efficiency 92 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



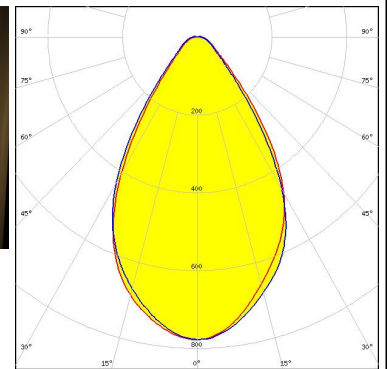
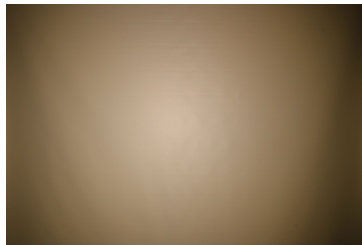
#### PHILIPS

LED Fortimo FastFlex LED 2x8 DA G4  
 FWHM / FWTM 64.0° / 96.0°  
 Efficiency 93 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



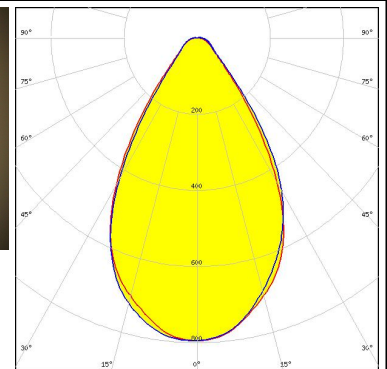
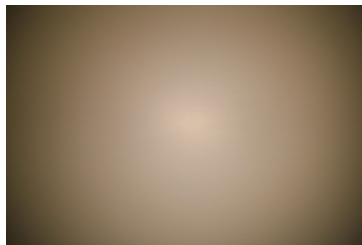
#### PHILIPS

LED Fortimo FastFlex LED 2x8 DA G4+  
 FWHM / FWTM 64.0° / 101.0°  
 Efficiency 95 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHILIPS

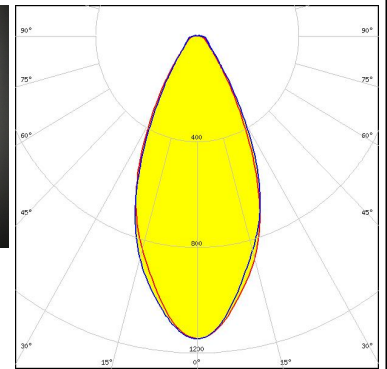
LED Fortimo FastFlex LED 2x8 DA G5  
 FWHM / FWTM 64.0° / 97.0°  
 Efficiency 94 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (MEASURED):

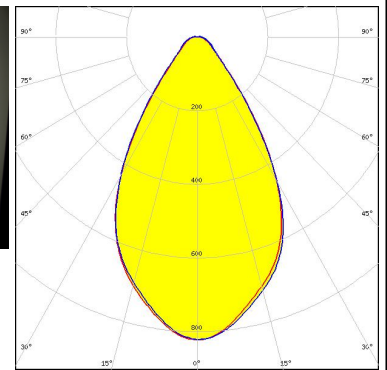
### SAMSUNG

LED HiLOM RC12 Z (LH181B)  
 FWHM / FWTM 48.0° / 85.0°  
 Efficiency 96 %  
 Peak intensity 1.1 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:



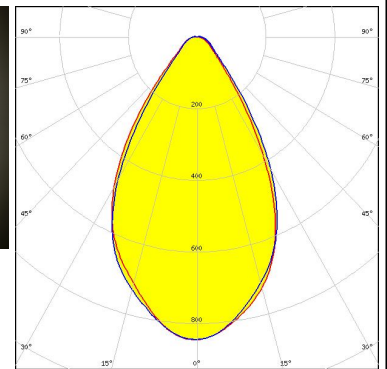
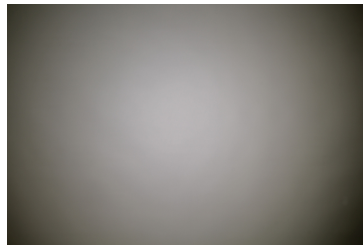
### SAMSUNG

LED HiLOM RH12 Z (LH351C)  
 FWHM / FWTM 62.0° / 97.0°  
 Efficiency 95 %  
 Peak intensity 0.8 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:



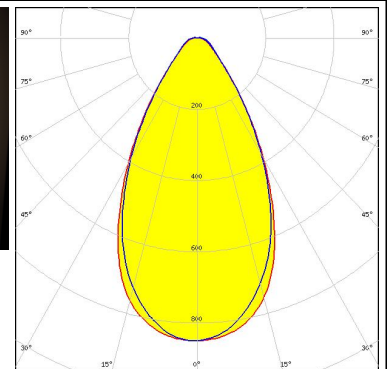
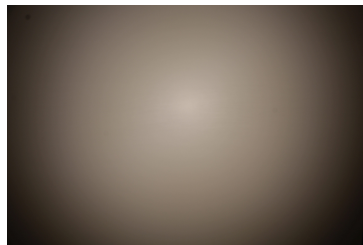
### SAMSUNG

LED HiLOM RH16 (LH351C)  
 FWHM / FWTM 61.0° / 96.0°  
 Efficiency 94 %  
 Peak intensity 0.9 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### SAMSUNG

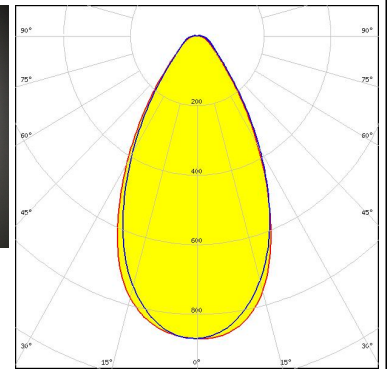
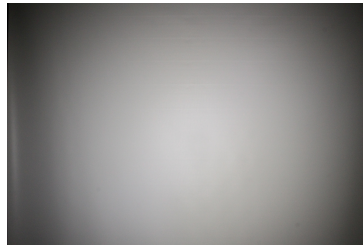
LED HiLOM RM12 Z (LH502C)  
 FWHM / FWTM 57.0° / 98.0°  
 Efficiency 94 %  
 Peak intensity 0.9 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (MEASURED):

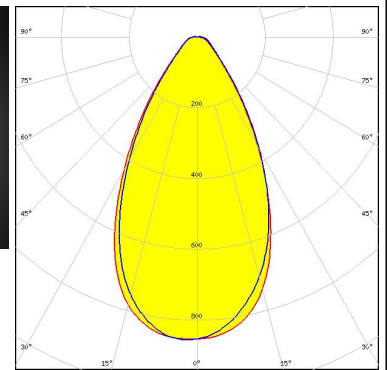
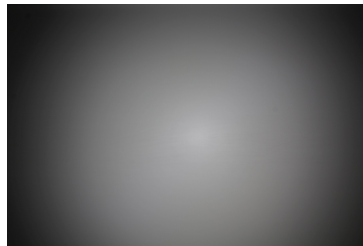
### SAMSUNG

LED HiLOM RM16 Z (LH502C)  
 FWHM / FWTM 57.0° / 97.0°  
 Efficiency 95 %  
 Peak intensity 0.9 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:



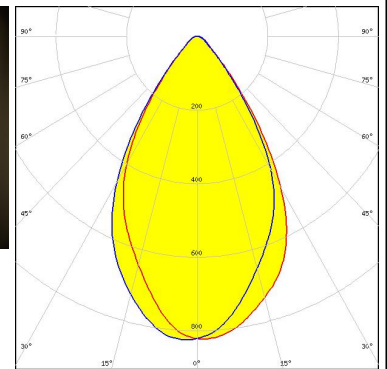
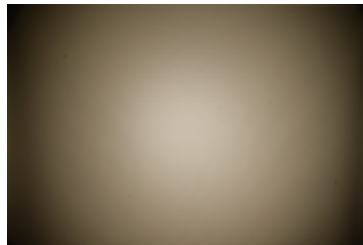
### SAMSUNG

LED HiLOM RM8 Z (LH502C)  
 FWHM / FWTM 57.0° / 98.0°  
 Efficiency 95 %  
 Peak intensity 0.9 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:



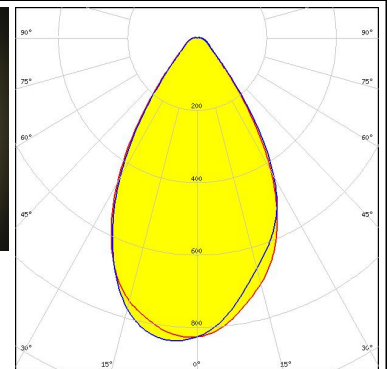
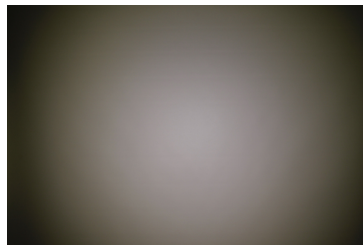
### SAMSUNG

LED LH351B  
 FWHM / FWTM 62.0° / 92.0°  
 Efficiency 86 %  
 Peak intensity 0.8 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### SAMSUNG

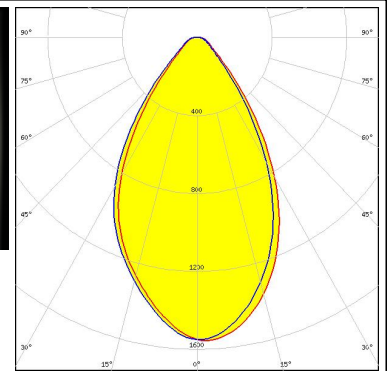
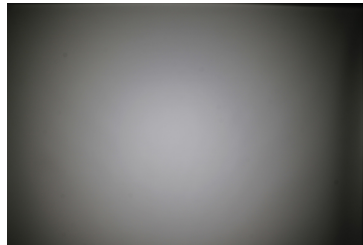
LED LH351C  
 FWHM / FWTM 62.0° / 94.0°  
 Efficiency 93 %  
 Peak intensity 0.8 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (MEASURED):

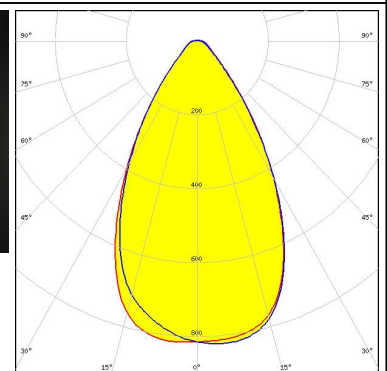
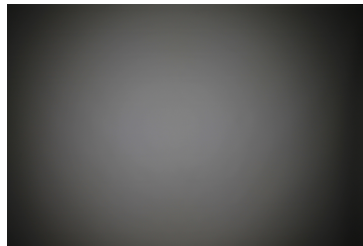
### SAMSUNG

LED LH351D  
 FWHM / FWTM 62.0° / 99.0°  
 Efficiency 91 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

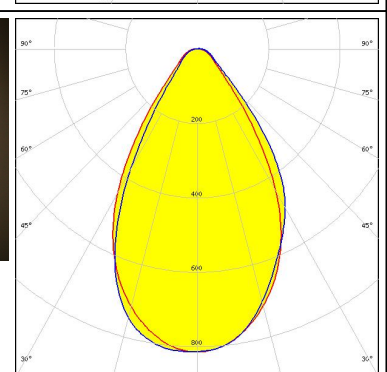
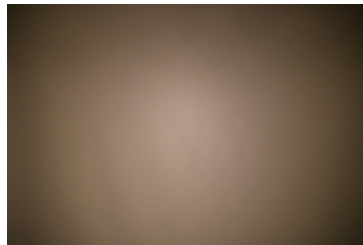


### SAMSUNG

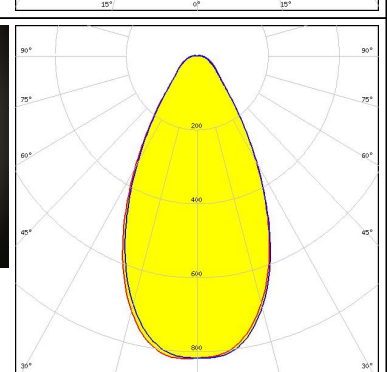
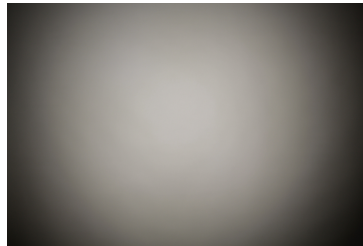
LED LH508A  
 FWHM / FWTM 60.0° / 97.0°  
 Efficiency 93 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



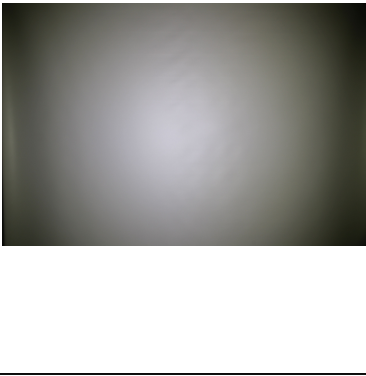
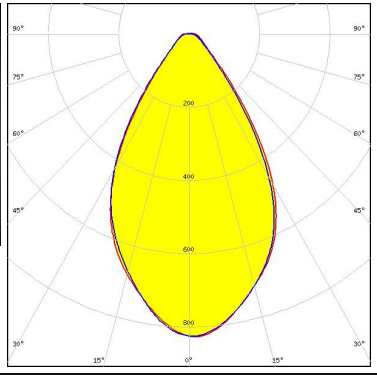

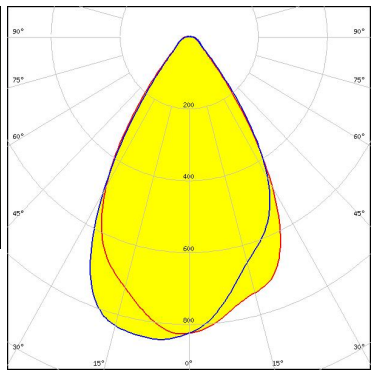

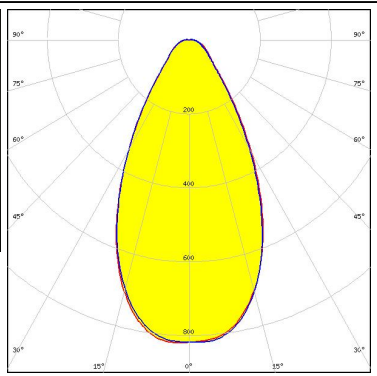

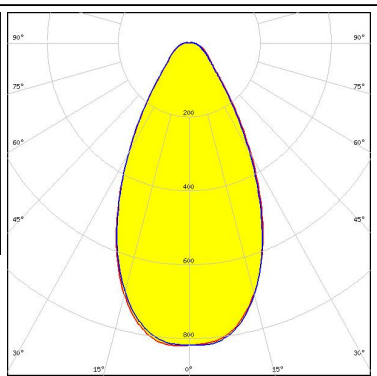
LED LED-Pa-L15c2W11c2-xxx-C050-01  
 FWHM / FWTM 64.0° / 98.0°  
 Efficiency 95 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED 2x2 Y22 module - SMJQ-D48W16AA-XX  
 FWHM / FWTM 55.0° / 98.0°  
 Efficiency 92 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (MEASURED):

<p><b>SEOUL SEMICONDUCTOR</b></p> <p>LED Z5M3</p> <p>FWHM / FWTM 62.0° / 96.0°</p> <p>Efficiency 94 %</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><b>SEOUL SEMICONDUCTOR</b></p> <p>LED Z5M4</p> <p>FWHM / FWTM 64.0° / 92.0°</p> <p>Efficiency 95 %</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><b>SEOUL SEMICONDUCTOR</b></p> <p>LED Z8Y19</p> <p>FWHM / FWTM 55.0° / 98.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.8 cd/m</p> <p>LEDs/each optic 4</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>SEOUL SEMICONDUCTOR</b></p> <p>LED Z8Y19</p> <p>FWHM / FWTM 55.0° / 98.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.8 cd/m</p> <p>LEDs/each optic 4</p> <p>Light colour White</p> <p>Required components:</p>		

#### PHOTOMETRIC DATA (MEASURED):

			
LED	Z8Y22P		
FWHM / FWTM	59.0° / 94.0°		
Efficiency	92 %		
Peak intensity	0.9 cd/m		
LEDs/each optic	1		
Light colour	White		
Required components:			

#### TRIDONIC

LED RLE 2x4 2000lm HP EXC2 OTD  
 FWHM / FWTM 61.0° / 96.0°  
 Efficiency 94 %  
 Peak intensity 0.9 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:

#### TRIDONIC

LED RLE 2x4 2000lm HP EXC2 OTD  
 FWHM / FWTM 61.0° / 95.0°  
 Efficiency 89 %  
 Peak intensity 0.8 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass

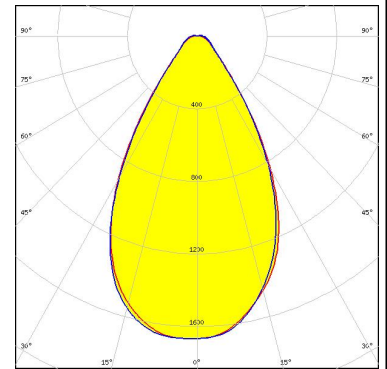
#### TRIDONIC

LED RLE 2x8 4000lm HP EXC2 OTD  
 FWHM / FWTM 61.0° / 96.0°  
 Efficiency 94 %  
 Peak intensity 0.9 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:

#### PHOTOMETRIC DATA (MEASURED):

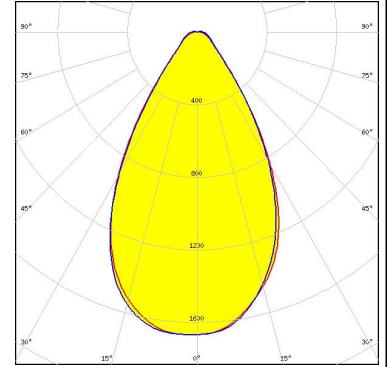
#### TRIDONIC

LED RLE G1 49x121mm 2000lm xxx EXC OTD  
 FWHM / FWTM 61.0° / 96.0°  
 Efficiency 94 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



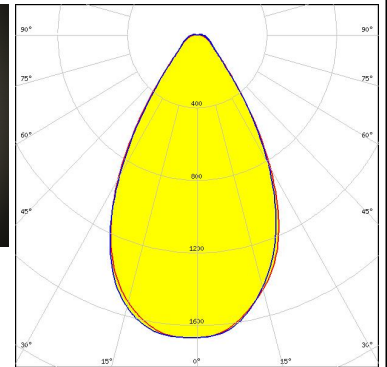
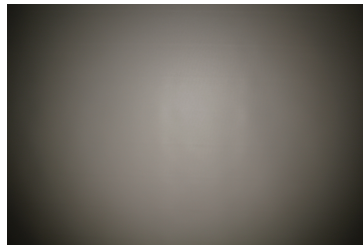
#### TRIDONIC

LED RLE G1 49x133mm 2000lm xxx EXC OTD  
 FWHM / FWTM 61.0° / 96.0°  
 Efficiency 94 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



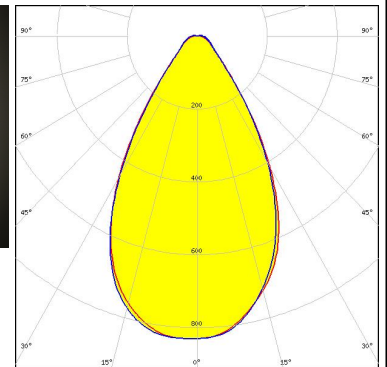
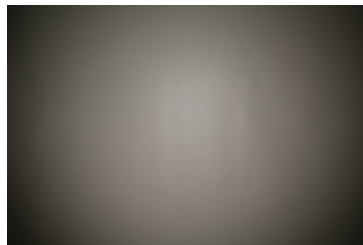
#### TRIDONIC

LED RLE G1 49x223mm 4000lm xxx EXC OTD  
 FWHM / FWTM 61.0° / 96.0°  
 Efficiency 94 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### TRIDONIC

LED RLE G1 49x245mm 4000lm xxx EXC OTD  
 FWHM / FWTM 61.0° / 96.0°  
 Efficiency 94 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

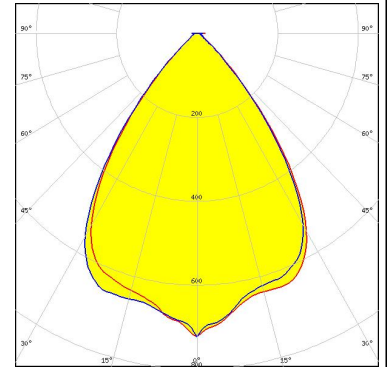




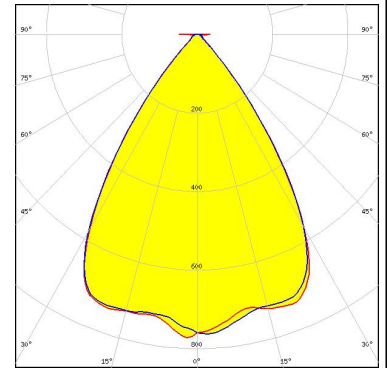
#### PHOTOMETRIC DATA (SIMULATED):



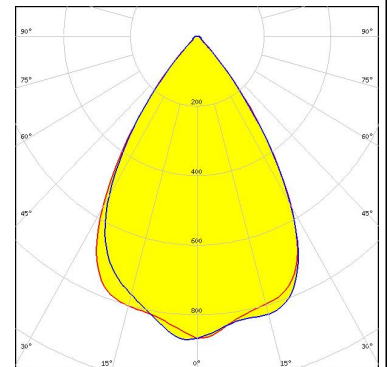
LED XP-G2 HE  
 FWHM / FWTM 73.0° / 97.0°  
 Efficiency 95 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



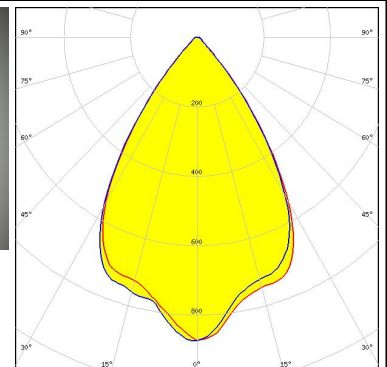
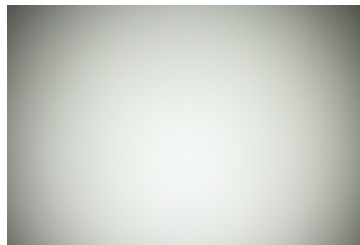
LED XT-E  
 FWHM / FWTM 69.0° / 90.0°  
 Efficiency 94 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED LUXEON 3535L  
 FWHM / FWTM 66.0° / 89.0°  
 Efficiency 94 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



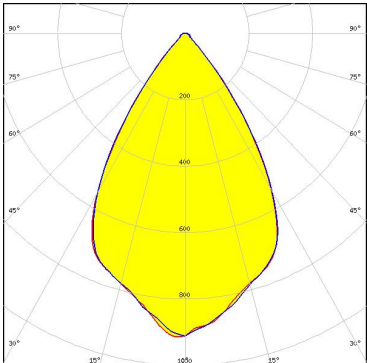
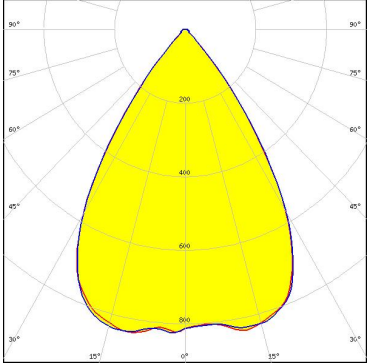
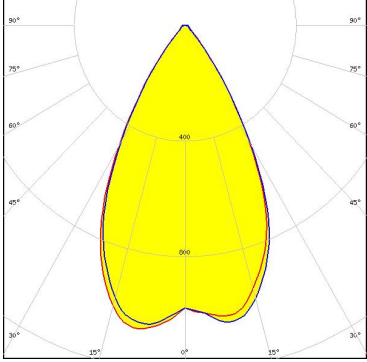
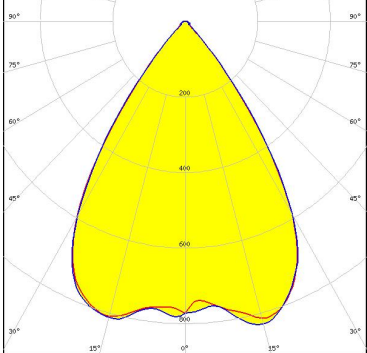
LED LUXEON MZ  
 FWHM / FWTM 66.0° / 90.0°  
 Efficiency 94 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (SIMULATED):

<p><b>NICHIA</b></p> <p>LED NV4WB35AM            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><b>NICHIA</b></p> <p>LED NVSxx19B/NVSxx19C            FWHM / FWTM 70.0° / 90.0°            Efficiency 95 %            Peak intensity 0.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED OSCONIQ C 2424            FWHM / FWTM 66.0 + 68.0° / 82.0°            Efficiency 96 %            Peak intensity 0.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED OSCONIQ P 3030            FWHM / FWTM 66.0° / 88.0°            Efficiency 96 %            Peak intensity 0.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	

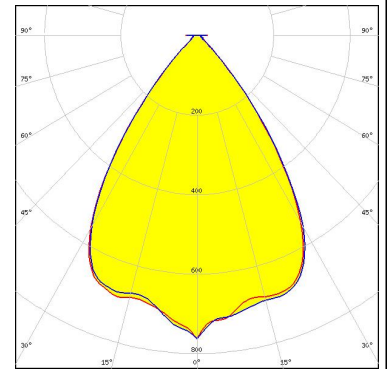
#### PHOTOMETRIC DATA (SIMULATED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSCONIQ P 3737 Flat</p> <p>FWHM / FWTM 64.0° / 88.0°</p> <p>Efficiency 95 %</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>OSRAM</b> Opto Semiconductors</p> <p>LED OSLON Square Flat</p> <p>FWHM / FWTM 68.0° / 86.0°</p> <p>Efficiency 95 %</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>OSRAM</b> Opto Semiconductors</p> <p>LED OSLON SSL 80</p> <p>FWHM / FWTM 55.6° / 81.2°</p> <p>Efficiency 94 %</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><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSTAR Projection Compact (Kx.CSLNM1.xx)</p> <p>FWHM / FWTM 68.0° / 88.0°</p> <p>Efficiency 96 %</p> <p>Peak intensity 0.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	

#### PHOTOMETRIC DATA (SIMULATED):

### PHILIPS

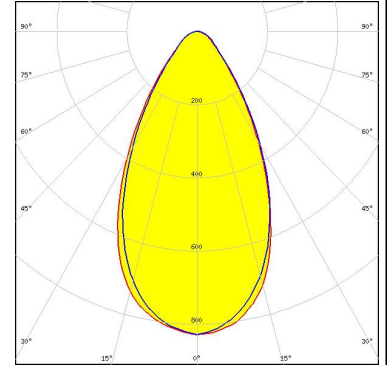
LED Fortimo FastFlex LED 2x8 DAX G4  
 FWHM / FWTM 71.0° / 94.0°  
 Efficiency 94 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### SAMSUNG

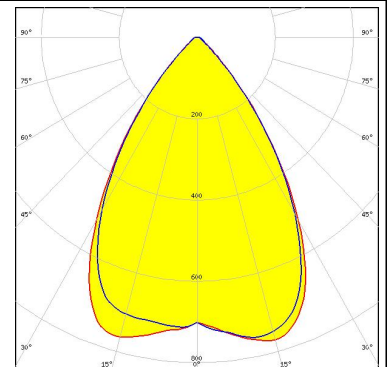
LED HiLOM RM16 Z (LH502C)  
 FWHM / FWTM 56.0° / 98.0°  
 Efficiency 88 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass



### SAMSUNG

LED LH231B  
 FWHM / FWTM 60.0° / 87.0°  
 Efficiency 94 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 4  
 Light colour White  
 Required components:



SEOUL SEMICONDUCTOR

LED SEOUL DC 5050 6V  
 FWHM / FWTM 64.0° / 93.0°  
 Efficiency 94 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

## PHOTOMETRIC DATA (SIMULATED):



### 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.

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.

The user agrees to this disclaimer and user agreement with the download or usage of the provided files.

#### 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

[www.ledil.com/  
where\\_to\\_buy](http://www.ledil.com/where_to_buy)

#### Shipping locations

Salo, Finland  
Hong Kong, China

#### Distribution Partners

[www.ledil.com/  
where\\_to\\_buy](http://www.ledil.com/where_to_buy)