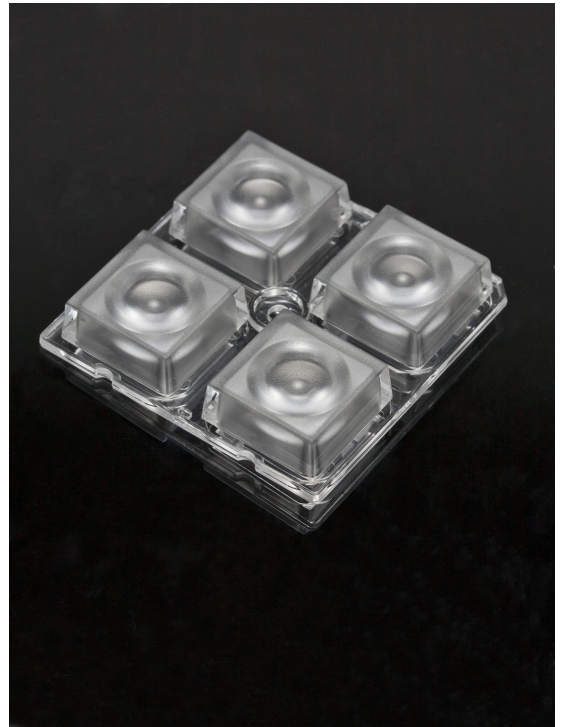


## HB-2X2-WW

~65° wide beam

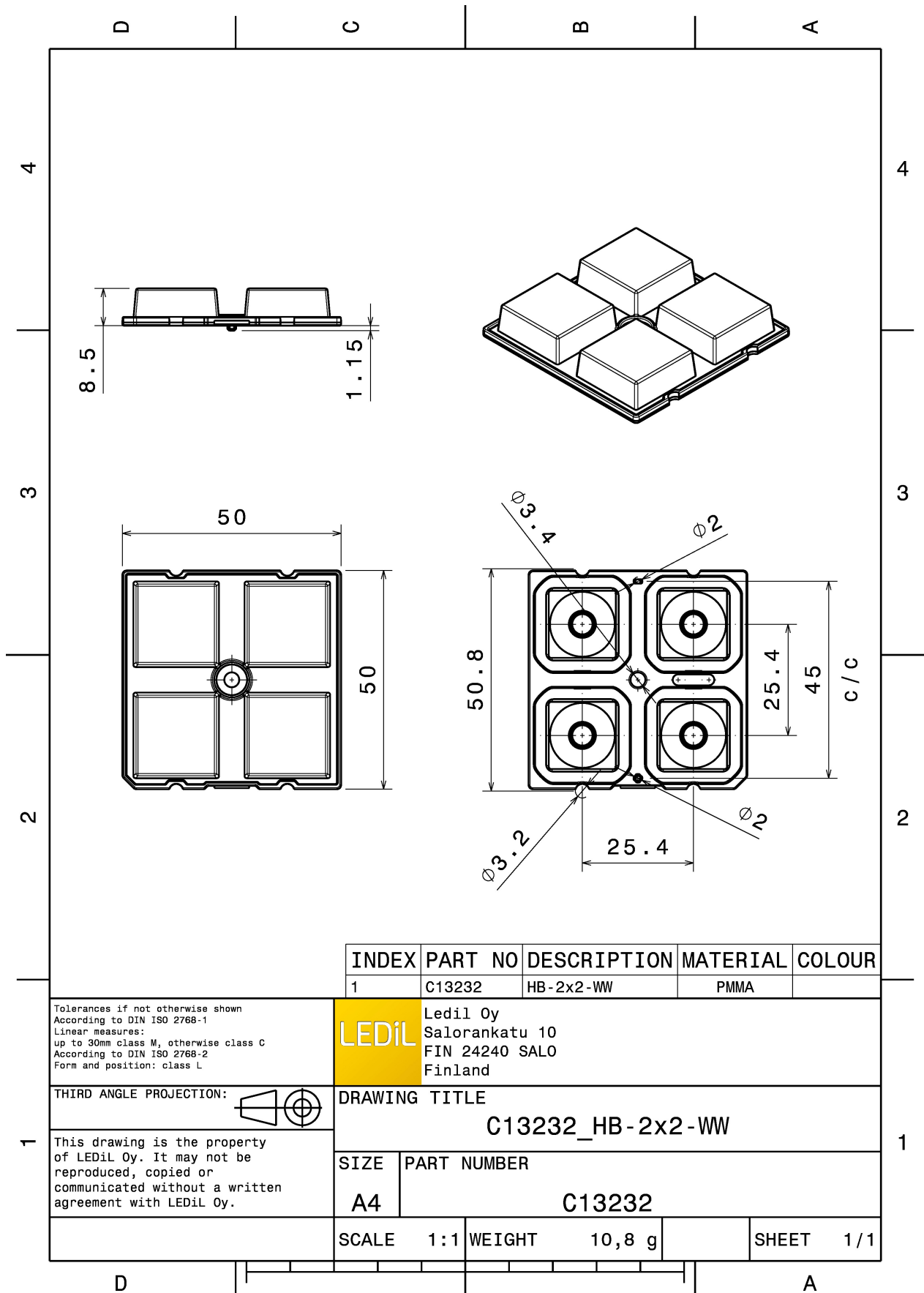
### TECHNICAL SPECIFICATIONS:

Dimensions	50x50 mm
Height	8.5 mm
Fastening	screw, pin, glue
Colour	clear
Box size	480 x 280 x 300 mm
Box weight	9.5 kg
Quantity in Box	800 pcs
ROHS compliant	yes ⓘ



### MATERIAL SPECIFICATIONS:

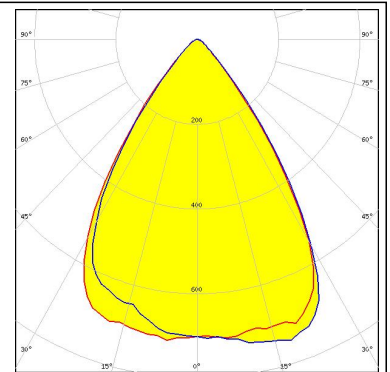
Component	Type	Material	Colour
HB-2X2-WW	Lens array	PMMA	clear



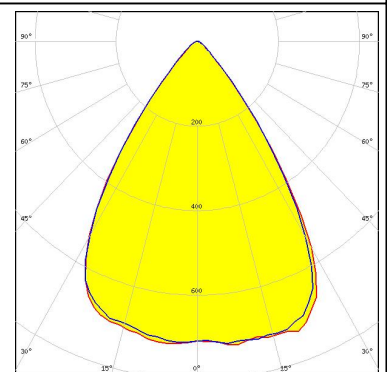
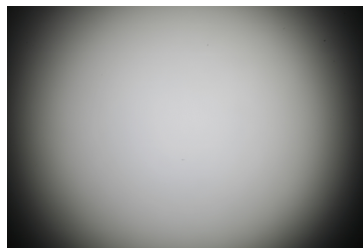
**PHOTOMETRIC DATA (MEASURED):**



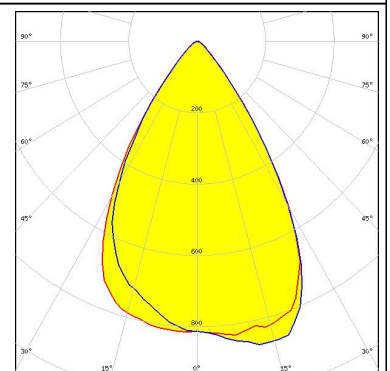
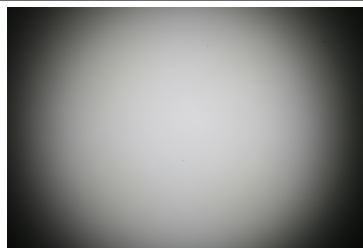
LED XP-G  
FWHM 69.0°  
Efficiency 91 %  
Peak intensity 0.800 cd/lm  
Required components:



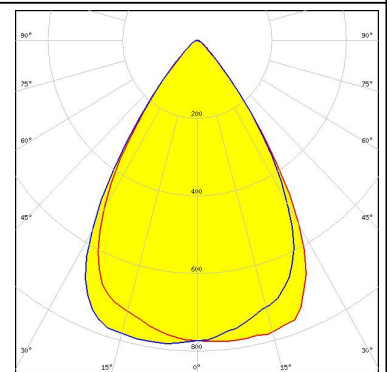
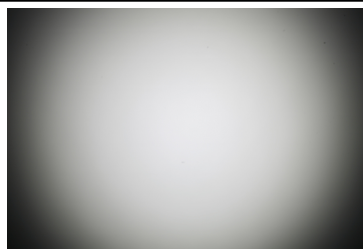
LED XP-G2  
FWHM 69.0°  
Efficiency 91 %  
Peak intensity 0.700 cd/lm  
Required components:



LED XT-E  
FWHM 65.0°  
Efficiency 91 %  
Peak intensity 0.900 cd/lm  
Required components:



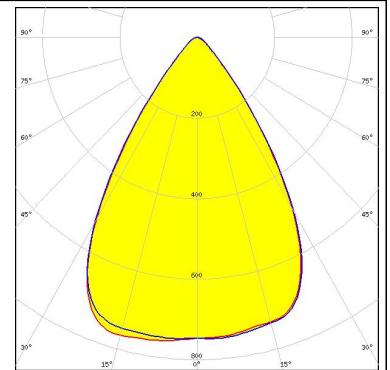
LED H35C1 (LEMWA33)  
FWHM 68.0°  
Efficiency 89 %  
Peak intensity 0.800 cd/lm  
Required components:



**PHOTOMETRIC DATA (MEASURED):**

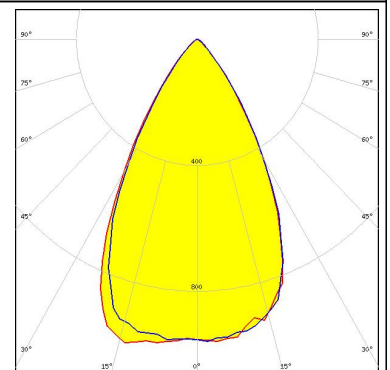
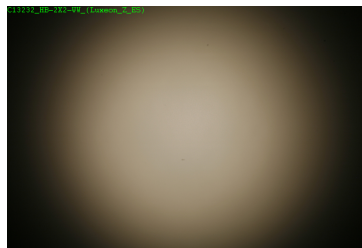
**LUMILEDS**

LED LUXEON Q  
FWHM 67.0°  
Efficiency 91 %  
Peak intensity 0.800 cd/lm  
Required components:



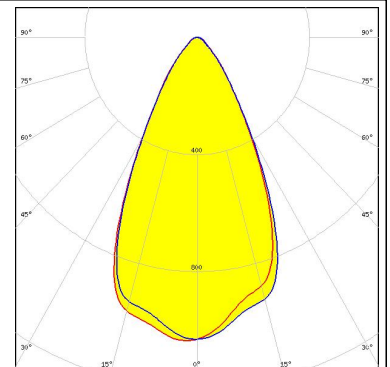
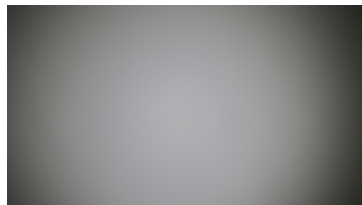
**LUMILEDS**

LED LUXEON Z ES  
FWHM 59.0°  
Efficiency 90 %  
Peak intensity 1.000 cd/lm  
Required components:



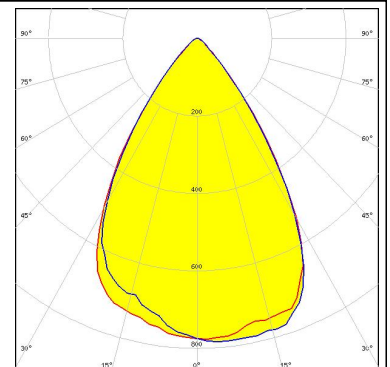
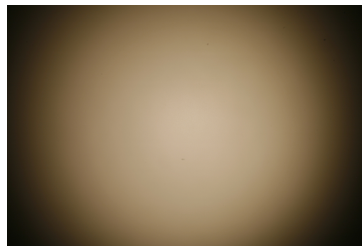
**NICHIA**

LED NVSxE21A  
FWHM 54.0°  
Efficiency 94 %  
Peak intensity 1.050 cd/lm  
Required components:



**NICHIA**

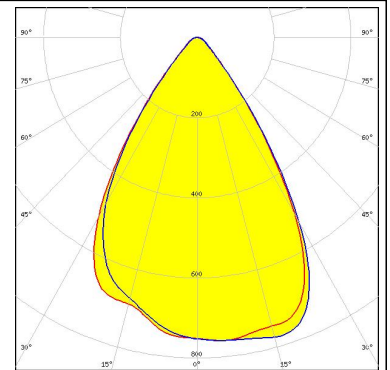
LED NVSxx19B/NVSxx19C  
FWHM 67.0°  
Efficiency 91 %  
Peak intensity 0.800 cd/lm  
Required components:



### PHOTOMETRIC DATA (MEASURED):

#### OSRAM

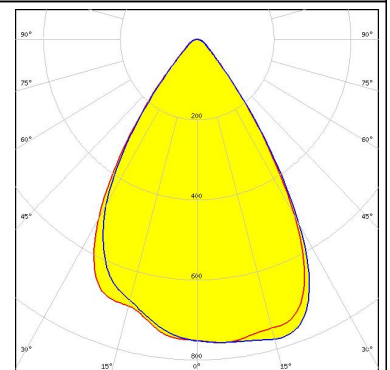
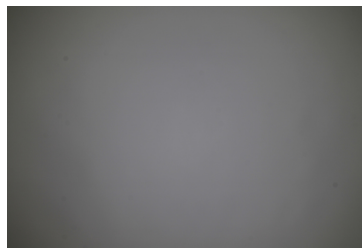
LED PrevaLED Brick DC 2x8  
FWHM 67.0°  
Efficiency 92 %  
Peak intensity 0.790 cd/lm  
Required components:



#### OSRAM

Osram Opto Semiconductors

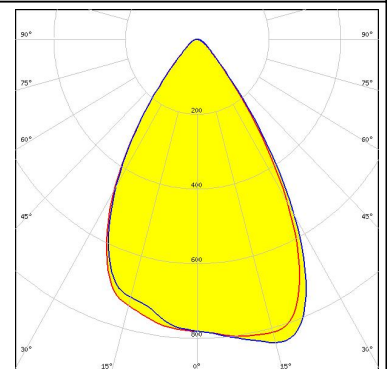
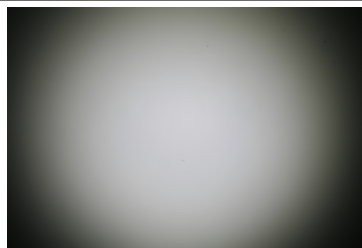
LED Oslon Square Gen3  
FWHM 67.0°  
Efficiency 92 %  
Peak intensity 0.790 cd/lm  
Required components:



#### OSRAM

Osram Opto Semiconductors

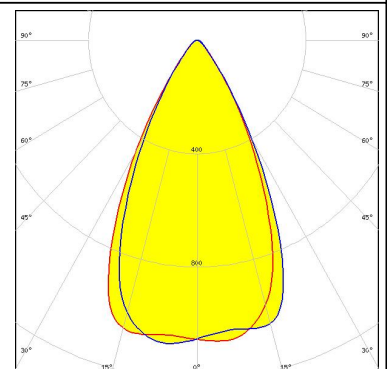
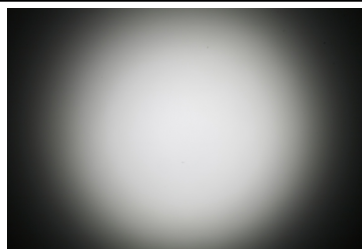
LED Oslon Square PC  
FWHM 63.0°  
Efficiency 91 %  
Peak intensity 0.863 cd/lm  
Required components:



#### OSRAM

Osram Opto Semiconductors

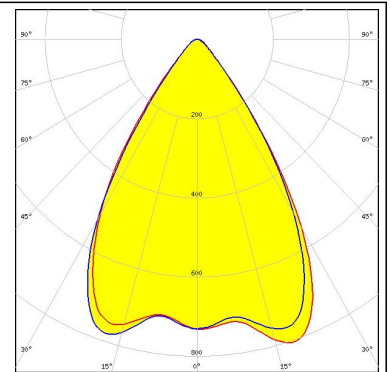
LED Oslon SSL 80  
FWHM 54.0°  
Efficiency 92 %  
Peak intensity 1.080 cd/lm  
Required components:



### PHOTOMETRIC DATA (MEASURED):

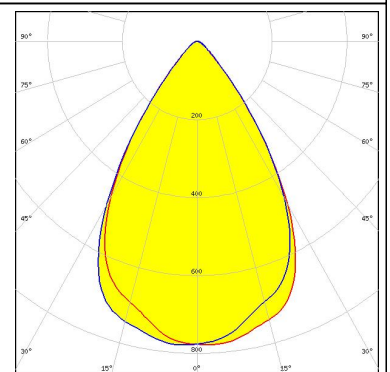
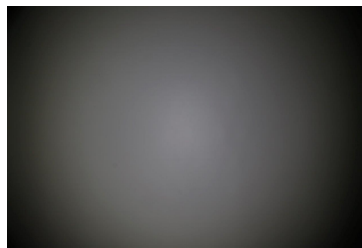
#### SAMSUNG

LED LH351A(3535)  
FWHM 68.0°  
Efficiency 92 %  
Peak intensity 0.800 cd/lm  
Required components:



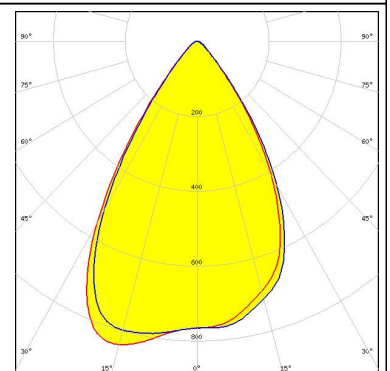
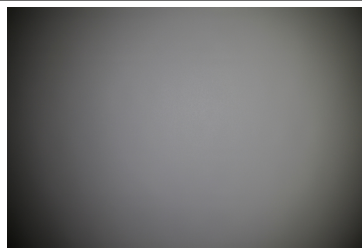
#### SAMSUNG

LED LH351B  
FWHM 65.0°  
Efficiency 89 %  
Peak intensity 0.780 cd/lm  
Required components:



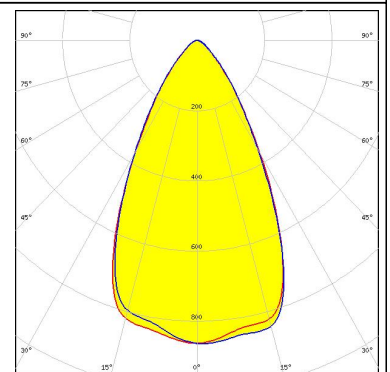
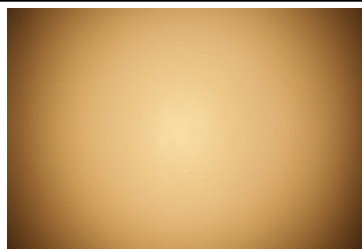
#### SAMSUNG

LED LH351Z  
FWHM 63.0°  
Efficiency 89 %  
Peak intensity 0.860 cd/lm  
Required components:


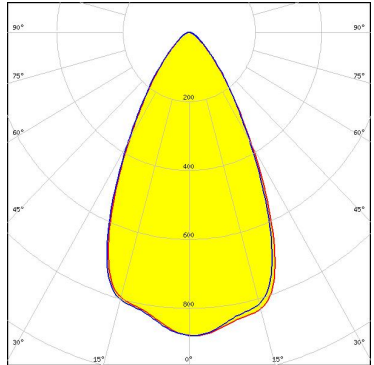
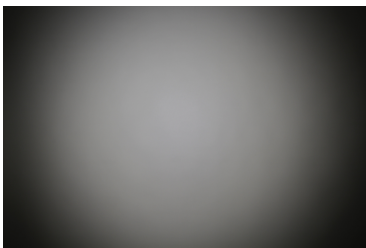
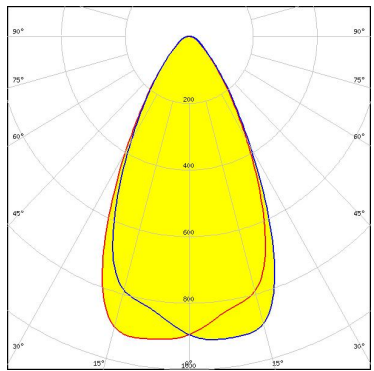

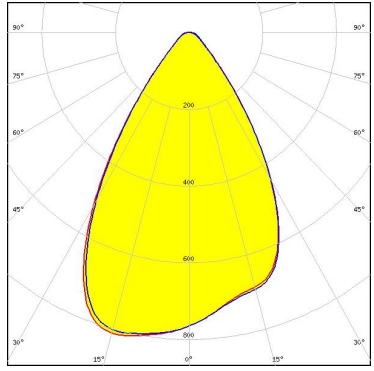
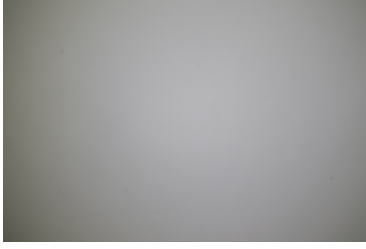
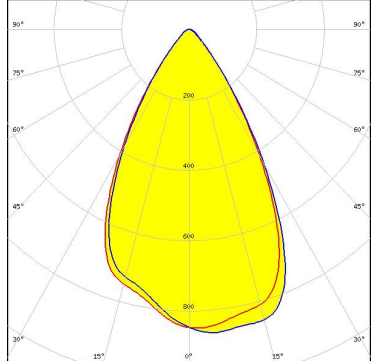


SEOUL SEMICONDUCTOR

LED Z8Y15  
FWHM 56.0°  
Efficiency 85 %  
Peak intensity 0.870 cd/lm  
Required components:



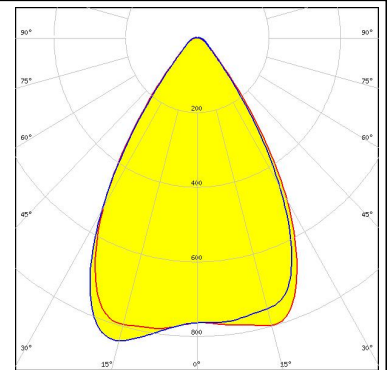
**PHOTOMETRIC DATA (MEASURED):**

<p><b>SEOL</b> SEOUL SEMICONDUCTOR</p> <p>LED            Z8Y19 FWHM        56.0° Efficiency    85 % Peak intensity 0.880 cd/lm Required components:</p>		
<p><b>SEOL</b> SEOUL SEMICONDUCTOR</p> <p>LED            Z8Y22 FWHM        55.0° Efficiency    94 % Peak intensity 0.950 cd/lm Required components:</p>		
<p><b>SEOL</b> SEOUL SEMICONDUCTOR</p> <p>LED            Z8Y22P FWHM        65.0° Efficiency    94 % Peak intensity 0.850 cd/lm Required components:</p>		
<p><b>TOSHIBA</b> Leading Innovation &gt;&gt;&gt;</p> <p>LED            TL1L4 FWHM        60.0° Efficiency    84 % Peak intensity 0.870 cd/lm Required components:</p>		

#### PHOTOMETRIC DATA (MEASURED):

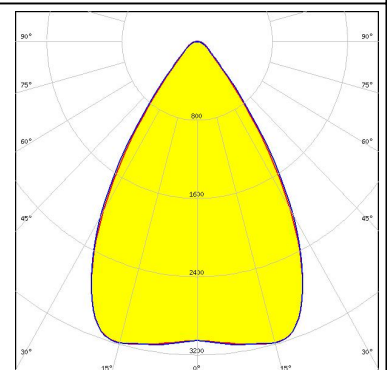
#### TRIDONIC

LED RLE G1 49x121mm 2000lm xxx EXC OTD  
FWHM 67.0°  
Efficiency 94 %  
Peak intensity 0.850 cd/lm  
Required components:



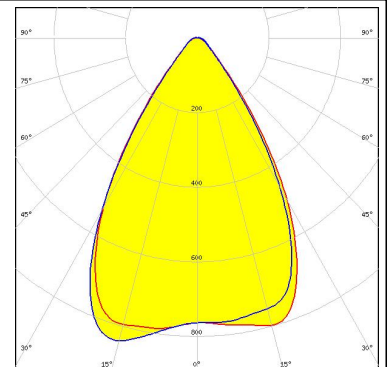
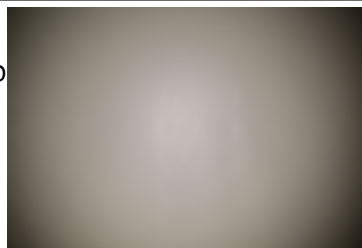
#### TRIDONIC

LED RLE G1 49x133mm 2000lm xxx EXC OTD  
FWHM 67.0°  
Efficiency 94 %  
Peak intensity 0.850 cd/lm  
Required components:



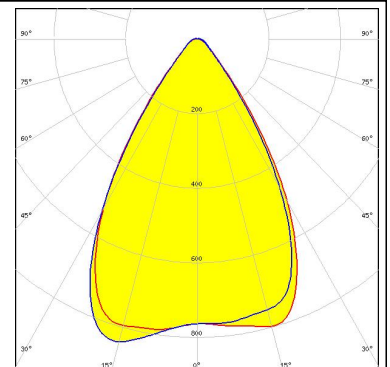
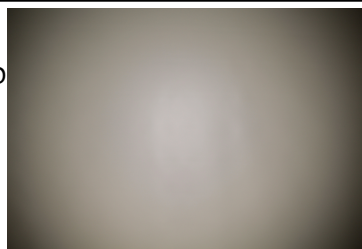
#### TRIDONIC

LED RLE G1 49x223mm 4000lm xxx EXC OTD  
FWHM 67.0°  
Efficiency 94 %  
Peak intensity 0.850 cd/lm  
Required components:



#### TRIDONIC

LED RLE G1 49x245mm 4000lm xxx EXC OTD  
FWHM 67.0°  
Efficiency 94 %  
Peak intensity 0.850 cd/lm  
Required components:

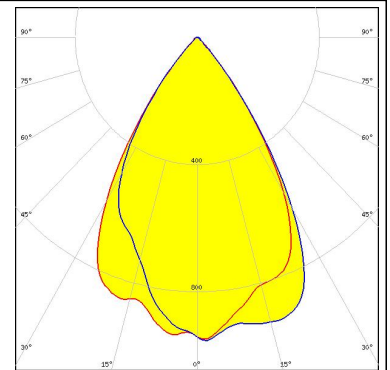




#### PHOTOMETRIC DATA (SIMULATED):

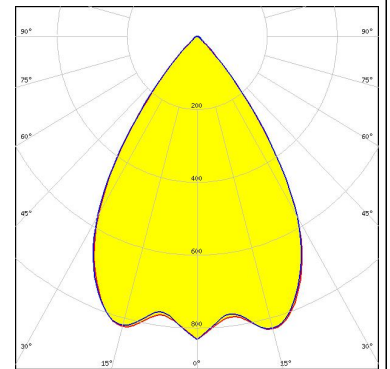
##### LUMILEDS

LED LUXEON 3030 2D (Round LES)  
FWHM 64.0°  
Efficiency 94 %  
Peak intensity 0.960 cd/lm  
Required components:



##### LUMILEDS

LED LUXEON C  
FWHM 65.0°  
Efficiency 94 %  
Peak intensity 0.840 cd/lm  
Required components:



## 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

### 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)