



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## HB-2X2-M

~25° medium beam

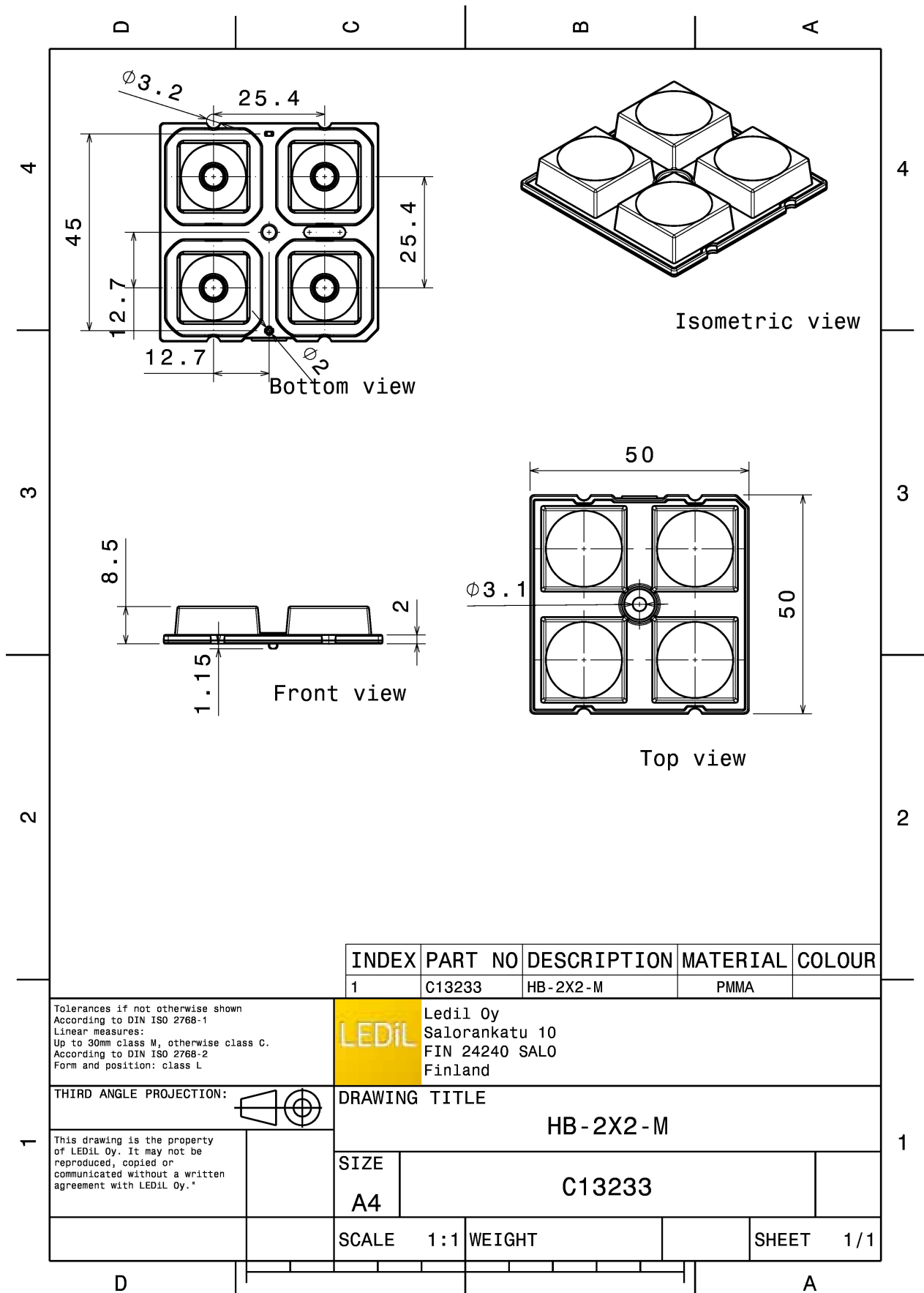
### TECHNICAL SPECIFICATIONS:

Dimensions	50x50 mm
Height	8.5 mm
Fastening	glue, screw, pin
Colour	clear
Box size	480 x 280 x 300 mm
Box weight	9.2 kg
Quantity in Box	800 pcs
ROHS compliant	yes ⓘ



### MATERIAL SPECIFICATIONS:

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



INDEX	PART NO	DESCRIPTION	MATERIAL	COLOUR
1	C13233	HB-2X2-M	PMMA	

Tolerances if not otherwise shown  
According to DIN ISO 2768-1  
Linear measures:  
Up to 30mm class M, otherwise class C.  
According to DIN ISO 2768-2  
Form and position: class L

**LEDiL**  
LediL Oy  
Salorankatu 10  
FIN 24240 SALO  
Finland

THIRD ANGLE PROJECTION:

DRAWING TITLE  
**HB-2X2-M**



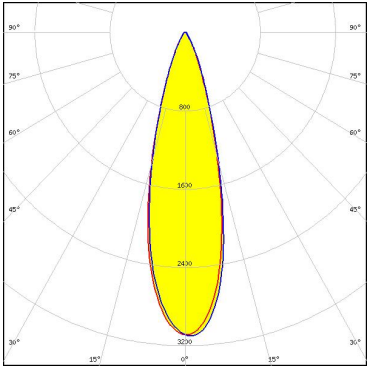

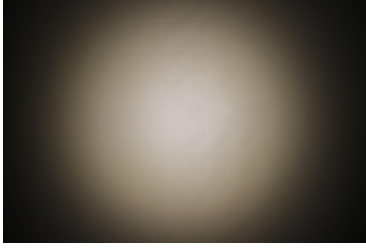
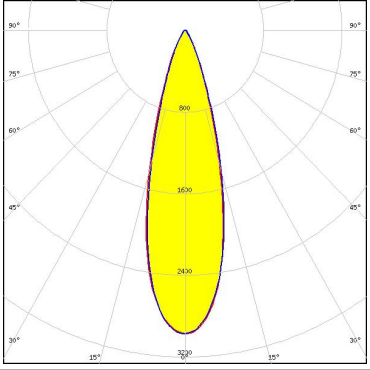


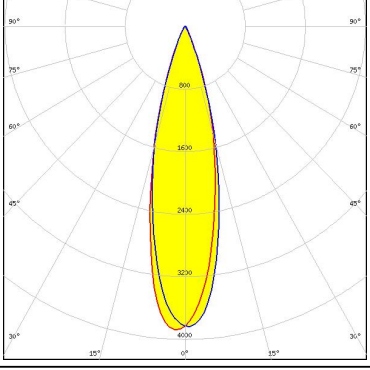


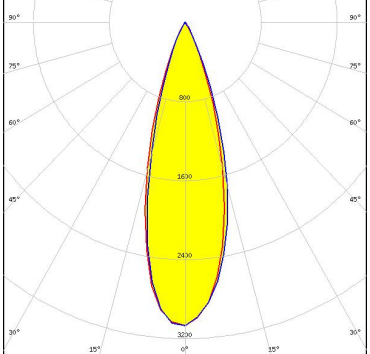
This drawing is the property of LEDiL Oy. It may not be reproduced, copied or communicated without a written agreement with LEDiL Oy."

SIZE  
**A4**

**C13233**

SCALE 1:1 WEIGHT SHEET 1/1

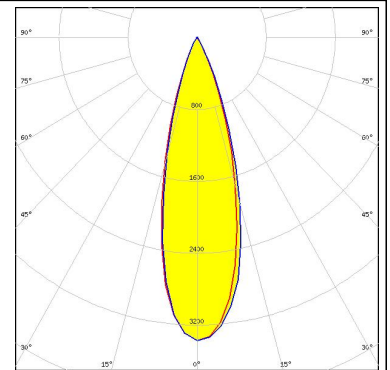
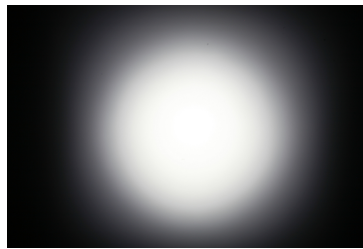
**PHOTOMETRIC DATA (MEASURED):**

<p></p> <p>LED QUICK FLUX XTP 2x4 xxx LS G5            FWHM 28.0°            Efficiency 94 %            Peak intensity 3.100 cd/lm            Required components:</p>		
<p></p> <p>LED QUICK FLUX XTP 2x6 xxx LS G5            FWHM 29.0°            Efficiency 94 %            Peak intensity 3.000 cd/lm            Required components:</p>		
<p></p> <p>LED XB-D            FWHM 26.0°            Efficiency 95 %            Peak intensity 3.900 cd/lm            Required components:</p>		
<p></p> <p>LED XP-G            FWHM 31.0°            Efficiency 91 %            Peak intensity 3.100 cd/lm            Required components:</p>		

**PHOTOMETRIC DATA (MEASURED):**

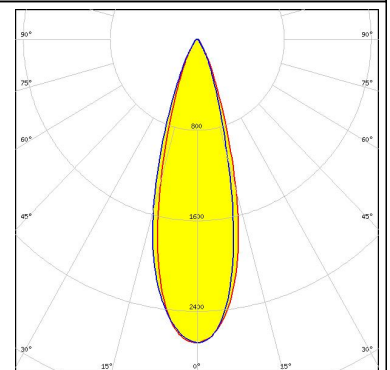
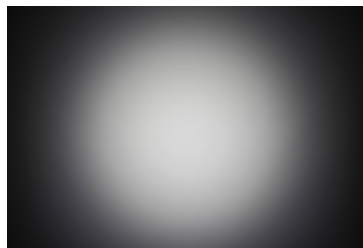
**CREE** 

LED XP-G2  
FWHM 33.0°  
Efficiency 93 %  
Peak intensity 3.400 cd/lm  
Required components:



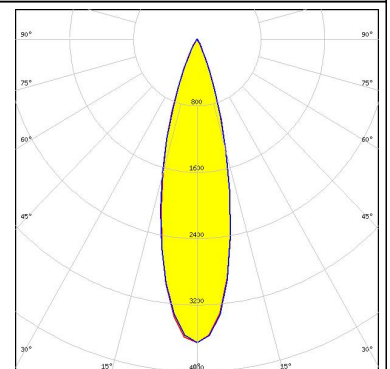
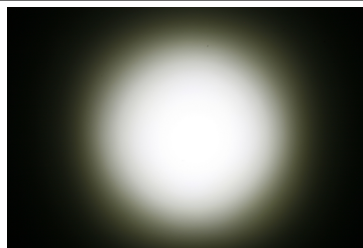
**CREE** 

LED XP-G3  
FWHM 30.0°  
Efficiency 94 %  
Peak intensity 2.700 cd/lm  
Required components:



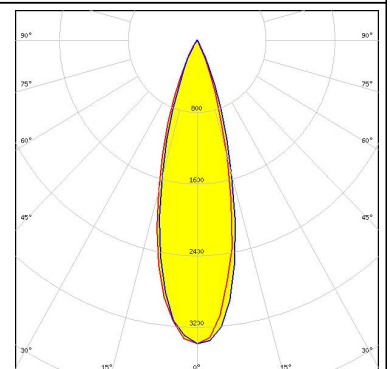
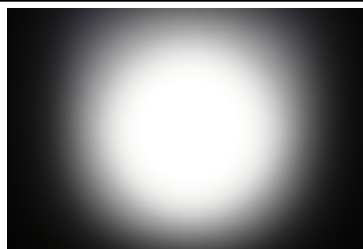
**CREE** 

LED XT-E  
FWHM 25.0°  
Efficiency 92 %  
Peak intensity 3.700 cd/lm  
Required components:



 **LG Innotek**

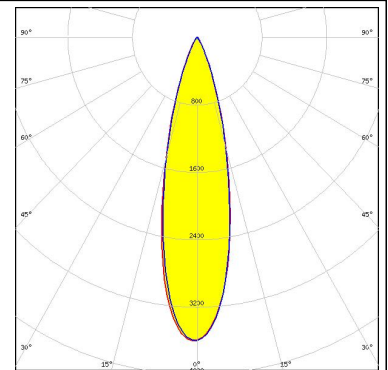
LED H35C1 (LEMWA33)  
FWHM 29.0°  
Efficiency 91 %  
Peak intensity 3.400 cd/lm  
Required components:



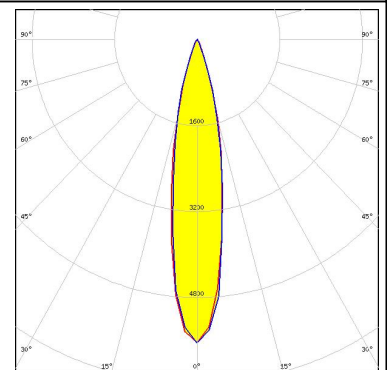
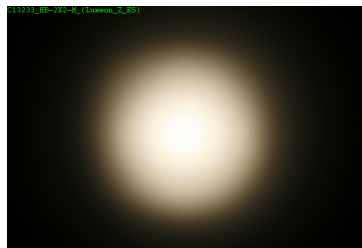
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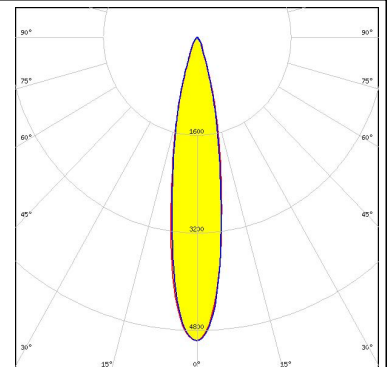
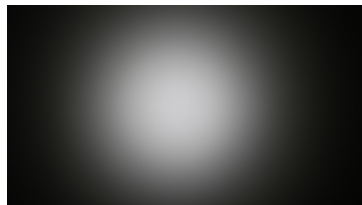
LED LUXEON Q  
FWHM 26.0°  
Efficiency 94 %  
Peak intensity 3.600 cd/lm  
Required components:



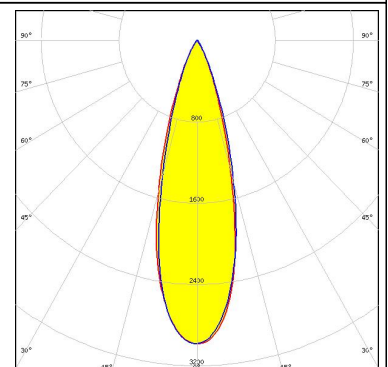
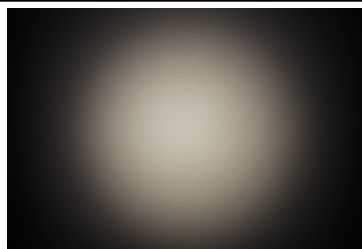
LED LUXEON Z ES  
FWHM 21.0°  
Efficiency 91 %  
Peak intensity 5.640 cd/lm  
Required components:



LED NVSxE21A  
FWHM 20.0°  
Efficiency 94 %  
Peak intensity 4.970 cd/lm  
Required components:



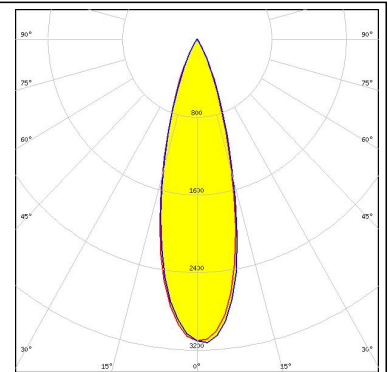
LED NVSxx19B/NVSxx19C  
FWHM 29.0°  
Efficiency 90 %  
Peak intensity 3.000 cd/lm  
Required components:



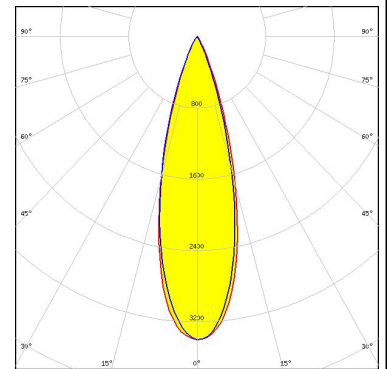
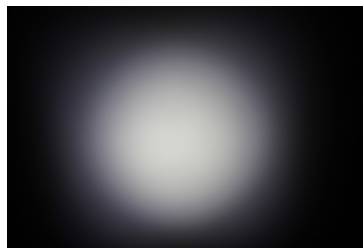
#### PHOTOMETRIC DATA (MEASURED):



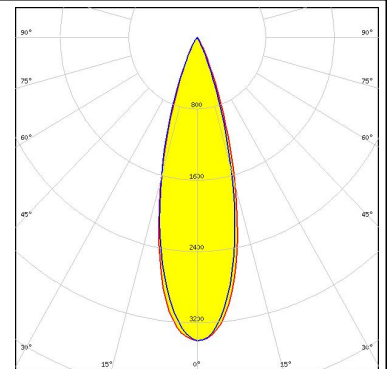
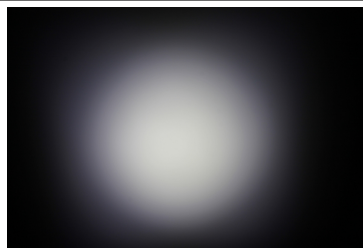
LED NVSxx19B/NVSxx19C  
 FWHM 29.0°  
 Efficiency 91 %  
 Peak intensity 3.100 cd/lm  
 Required components:



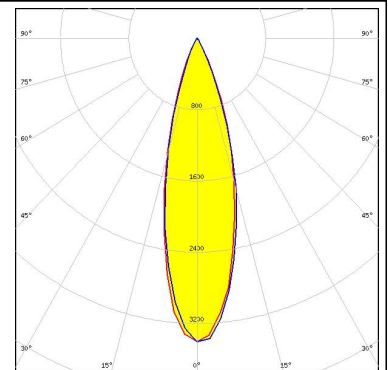
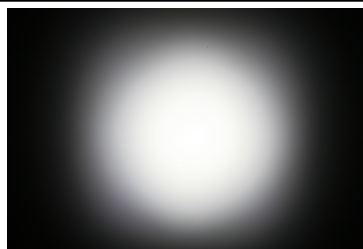
LED PrevaLED Brick DC 2x8  
 FWHM 30.0°  
 Efficiency 93 %  
 Peak intensity 3.400 cd/lm  
 Required components:



LED Oslon Square Gen3  
 FWHM 30.0°  
 Efficiency 93 %  
 Peak intensity 3.400 cd/lm  
 Required components:



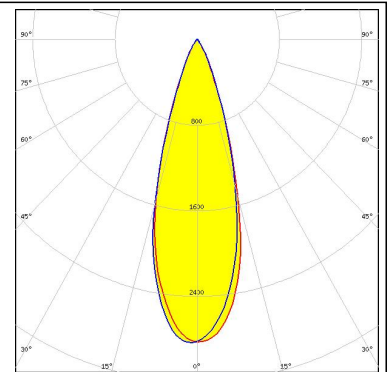
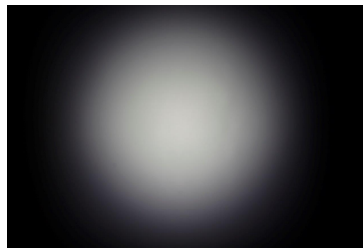
LED Oslon Square PC  
 FWHM 30.0°  
 Efficiency 91 %  
 Peak intensity 3.400 cd/lm  
 Required components:



**PHOTOMETRIC DATA (MEASURED):**

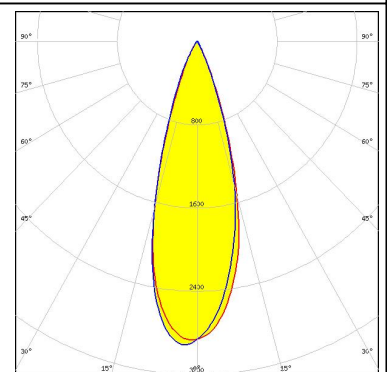
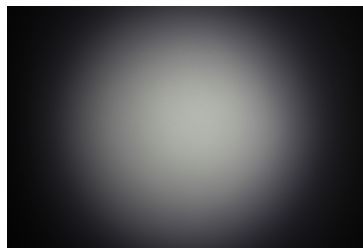
**SAMSUNG**

LED LH351B  
FWHM 31.0°  
Efficiency 94 %  
Peak intensity 2.800 cd/lm  
Required components:



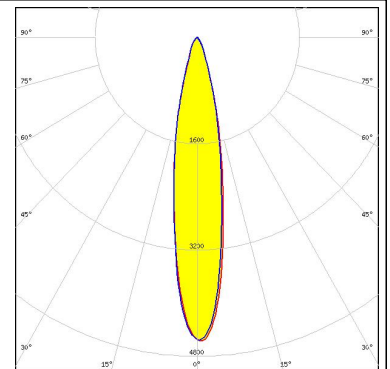
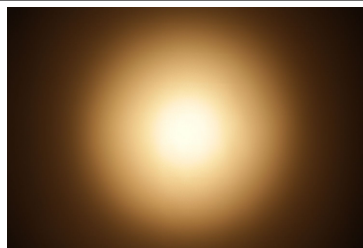
**SAMSUNG**

LED LH351Z  
FWHM 32.0°  
Efficiency 93 %  
Peak intensity 2.900 cd/lm  
Required components:



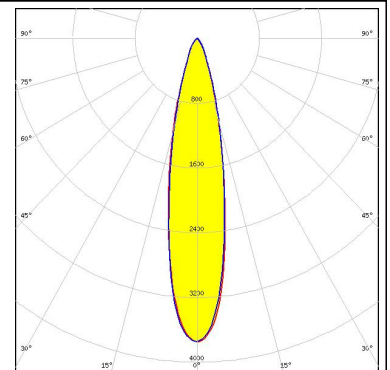
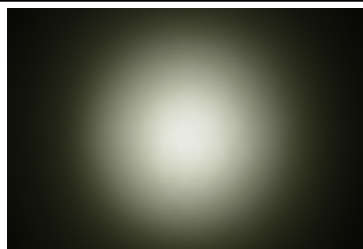
SEOUL SEMICONDUCTOR

LED Z8Y15  
FWHM 20.0°  
Efficiency 89 %  
Peak intensity 4.600 cd/lm  
Required components:




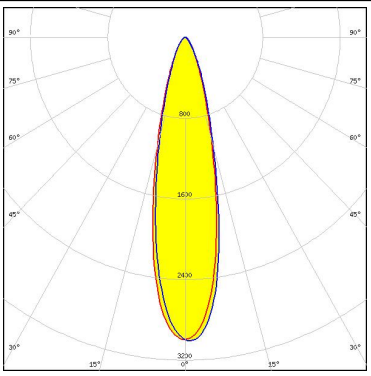
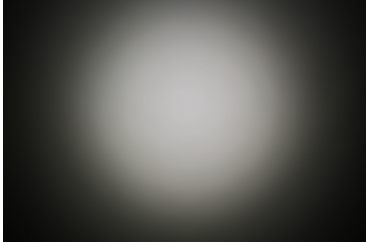
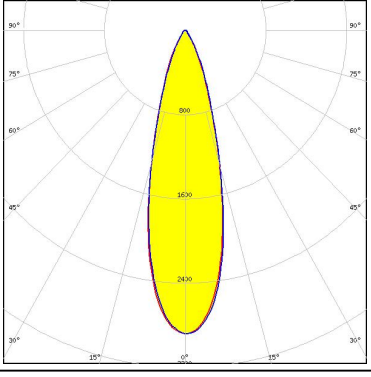
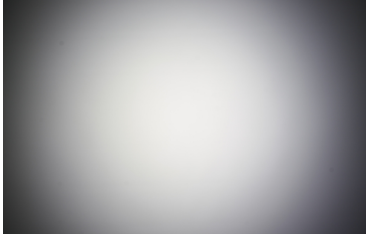
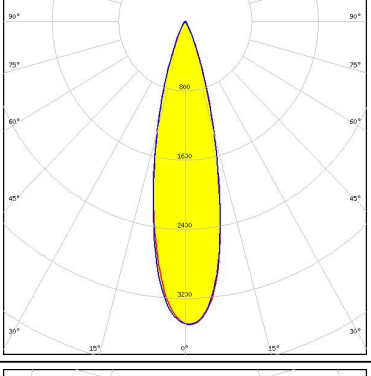

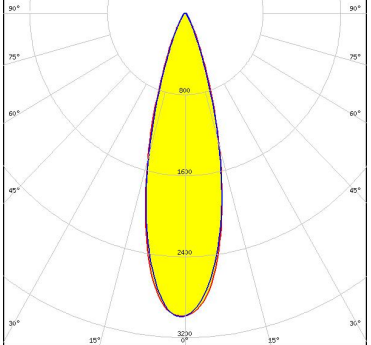
SEOUL SEMICONDUCTOR

LED Z8Y19  
FWHM 22.0°  
Efficiency 89 %  
Peak intensity 3.800 cd/lm  
Required components:





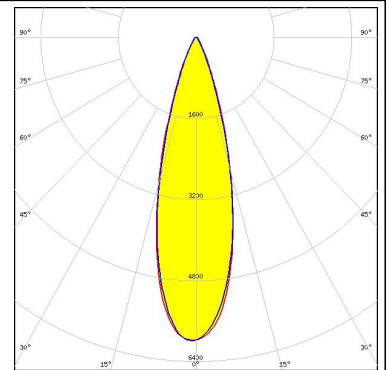
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<p><b>SEOUL SEMICONDUCTOR</b></p> <p>LED            Z8Y22</p> <p>FWHM        24.0°</p> <p>Efficiency    94 %</p> <p>Peak intensity 3.000 cd/lm</p> <p>Required components:</p>		
<p><b>SEOUL SEMICONDUCTOR</b></p> <p>LED            Z8Y22P</p> <p>FWHM        28.0°</p> <p>Efficiency    94 %</p> <p>Peak intensity 2.900 cd/lm</p> <p>Required components:</p>		
<p><b>TOSHIBA</b> Leading Innovation &gt;&gt;&gt;</p> <p>LED            TL1L4</p> <p>FWHM        25.0°</p> <p>Efficiency    85 %</p> <p>Peak intensity 3.500 cd/lm</p> <p>Required components:</p>		
<p><b>TRIDONIC</b></p> <p>LED            RLE G1 49x121mm 2000lm xxx EXC OTD</p> <p>FWHM        29.0°</p> <p>Efficiency    94 %</p> <p>Peak intensity 3.000 cd/lm</p> <p>Required components:</p>		

### PHOTOMETRIC DATA (MEASURED):

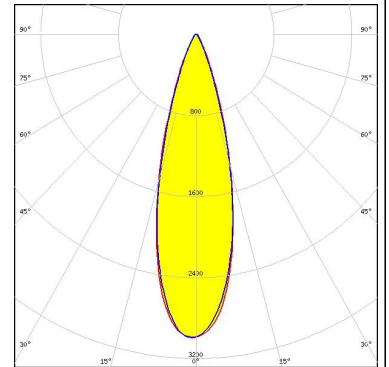
#### TRIDONIC

LED RLE G1 49x133mm 2000lm xxx EXC OTD  
FWHM 29.0°  
Efficiency 94 %  
Peak intensity 3.000 cd/lm  
Required components:



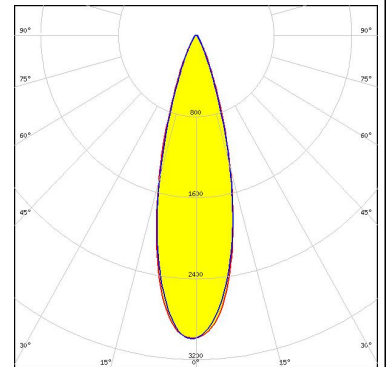
#### TRIDONIC

LED RLE G1 49x223mm 4000lm xxx EXC OTD  
FWHM 29.0°  
Efficiency 94 %  
Peak intensity 3.000 cd/lm  
Required components:



#### TRIDONIC

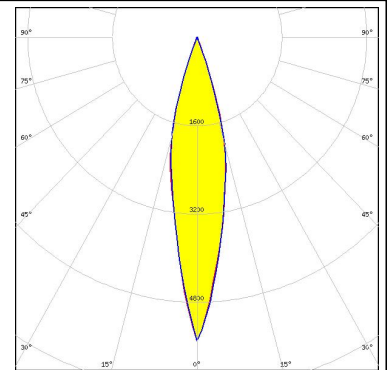
LED RLE G1 49x245mm 4000lm xxx EXC OTD  
FWHM 29.0°  
Efficiency 94 %  
Peak intensity 3.000 cd/lm  
Required components:



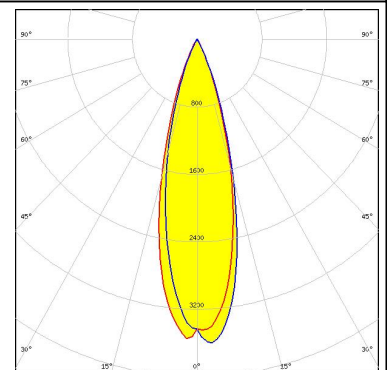
#### PHOTOMETRIC DATA (SIMULATED):



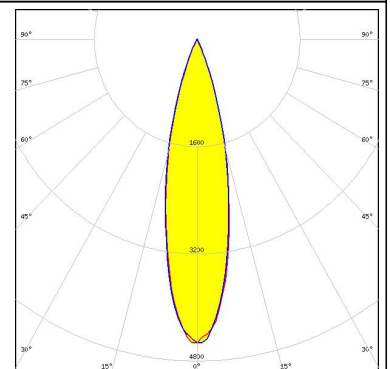
LED XQ-E HI  
 FWHM 22.0°  
 Efficiency 93 %  
 Peak intensity 5.500 cd/lm  
 Required components:



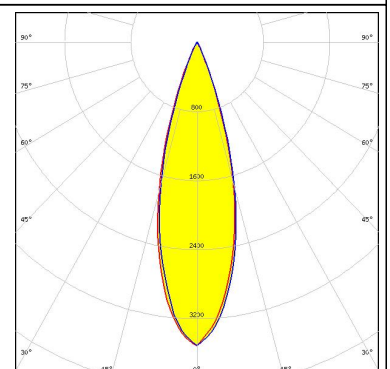
LED LUXEON 3030 2D  
 FWHM 28.0°  
 Efficiency 94 %  
 Peak intensity 3.600 cd/lm  
 Required components:



LED LUXEON C  
 FWHM 25.0°  
 Efficiency 94 %  
 Peak intensity 4.600 cd/lm  
 Required components:



LED Oslon SSL 80  
 FWHM 29.6°  
 Efficiency 94 %  
 Peak intensity 3.500 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.

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#### LEDiL Oy

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#### Local sales and technical support

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

#### Shipping locations

Salo, Finland  
Hong Kong, China

#### Distribution Partners

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