

## HB-2X2-WW

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

### TECHNICAL SPECIFICATIONS:

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

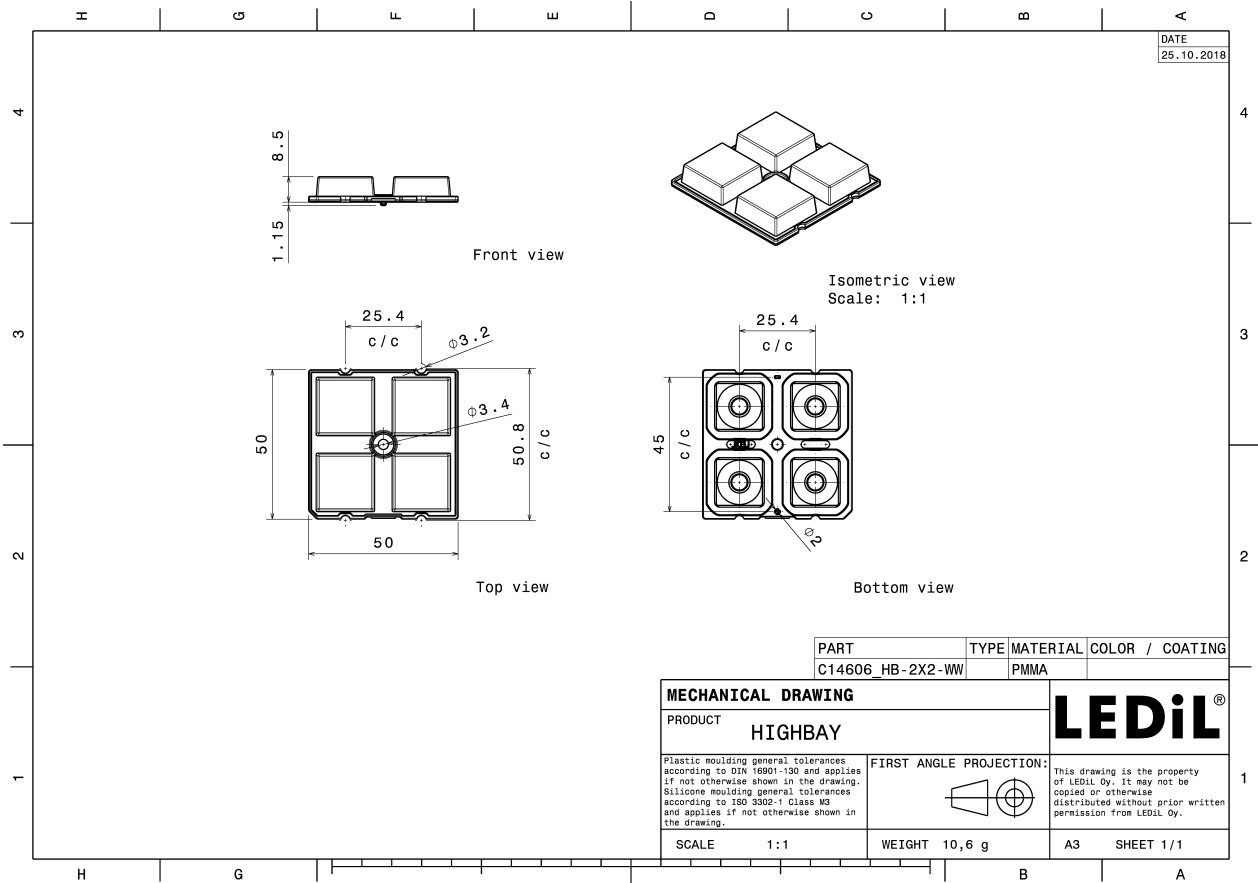
### MATERIAL SPECIFICATIONS:

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

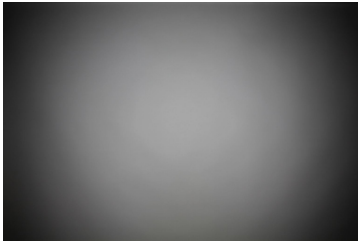
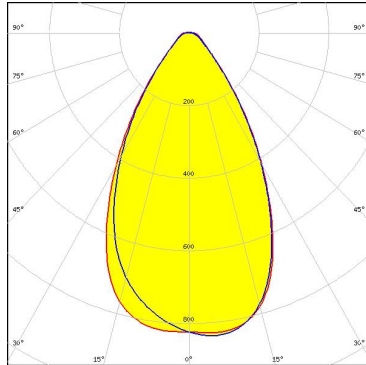
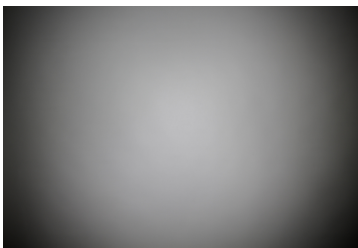
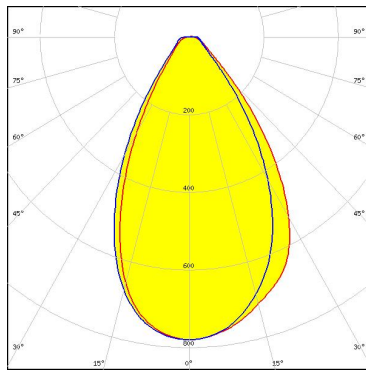

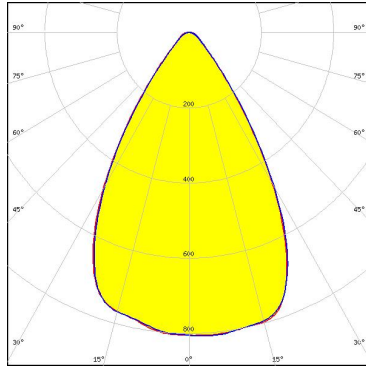
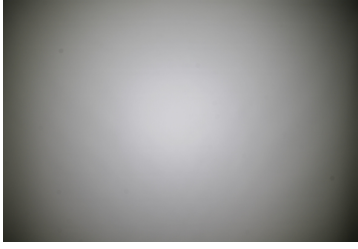
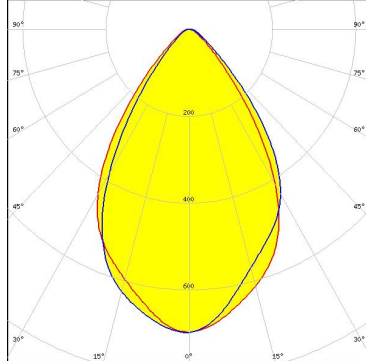


### ORDERING INFORMATION:

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



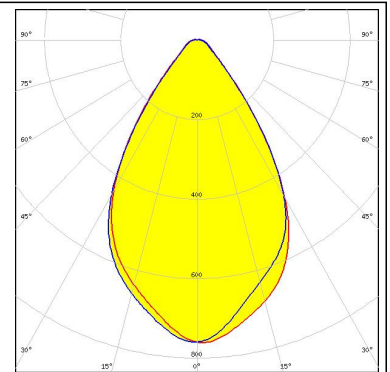
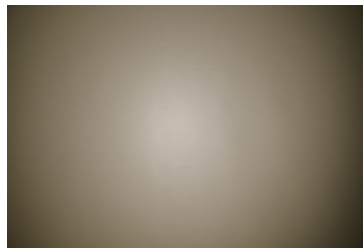
#### PHOTOMETRIC DATA (MEASURED):

|   |  |   |
|---|--|---|
| <p><b>bridgelux</b></p> <p>LED            Bridgelux SMD 5050<br/>           FWHM        59.0°<br/>           Efficiency    94 %<br/>           Peak intensity 0.8 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour    White<br/>           Required components:</p> |    |    |
| <p><b>CREE</b> ⇄</p> <p>LED            XD16<br/>           FWHM        61.0°<br/>           Efficiency    92 %<br/>           Peak intensity 0.8 cd/lm<br/>           LEDs/each optic 4<br/>           Light colour    White<br/>           Required components:</p>                  |   |   |
| <p><b>CREE</b> ⇄</p> <p>LED            XD16<br/>           FWHM        63.0°<br/>           Efficiency    93 %<br/>           Peak intensity 0.8 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour    White<br/>           Required components:</p>                  |  |  |
| <p><b>CREE</b> ⇄</p> <p>LED            XHP35 HD<br/>           FWHM        67.0°<br/>           Efficiency    84 %<br/>           Peak intensity 0.7 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour    White<br/>           Required components:</p>              |  |  |

#### PHOTOMETRIC DATA (MEASURED):

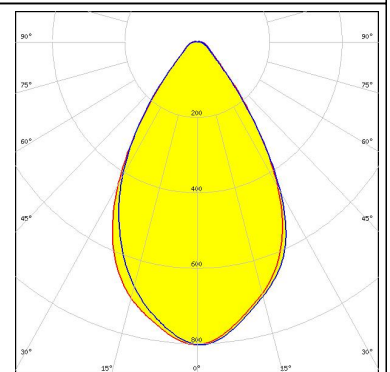
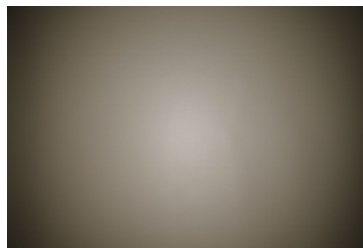
#### CREE

LED XM-L  
 FWHM 66.0°  
 Efficiency 93 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



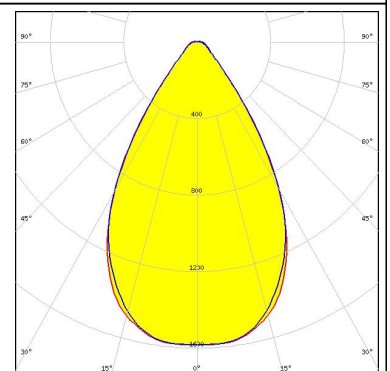
#### CREE

LED XM-L2  
 FWHM 62.0°  
 Efficiency 92 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



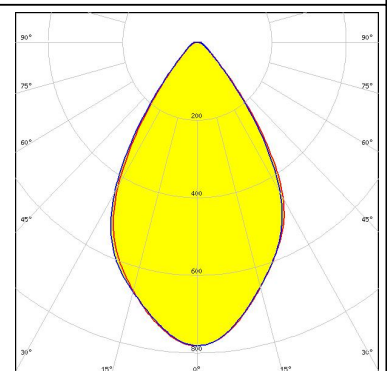
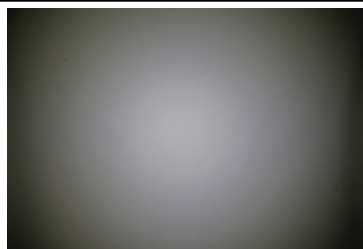
#### CREE

LED XP-G2  
 FWHM 63.0°  
 Efficiency 91 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### CREE

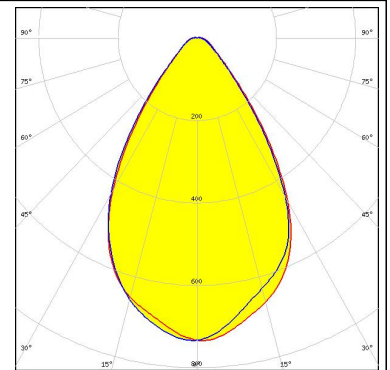
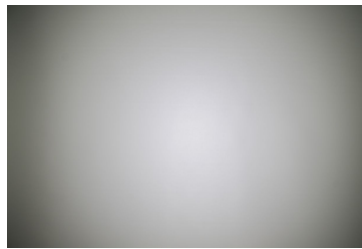
LED XP-G3  
 FWHM 64.0°  
 Efficiency 86 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



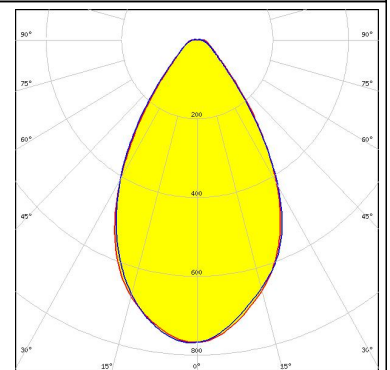
#### PHOTOMETRIC DATA (MEASURED):



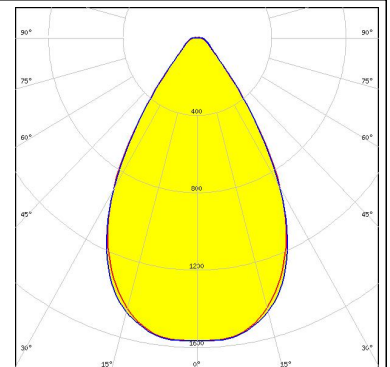
LED XP-L HD  
 FWHM 66.0°  
 Efficiency 93 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



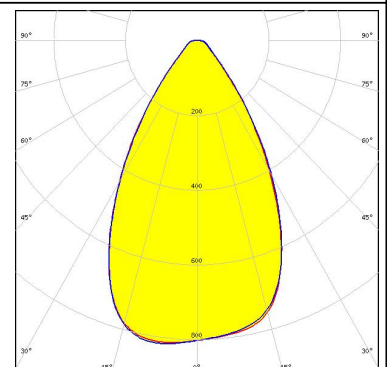
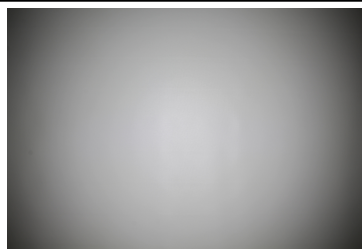
LED XP-L2  
 FWHM 62.0°  
 Efficiency 93 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED H35C1 (LEMWA33)  
 FWHM 63.0°  
 Efficiency 92 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



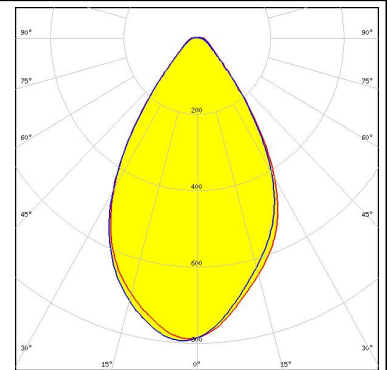
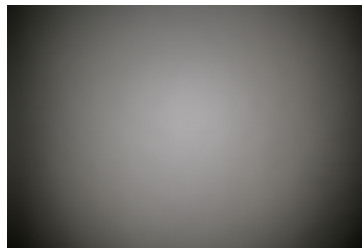
LED LUXEON 5050 Round LES  
 FWHM 61.0°  
 Efficiency 94 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (MEASURED):

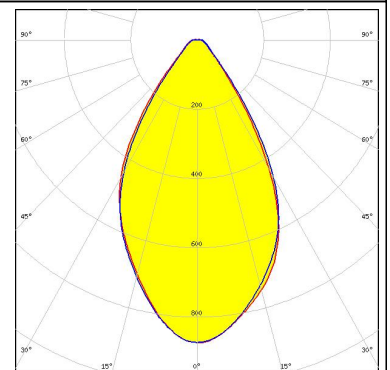
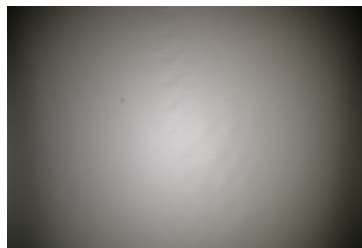
##### LUMILEDS

LED LUXEON V  
 FWHM 63.0°  
 Efficiency 93 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



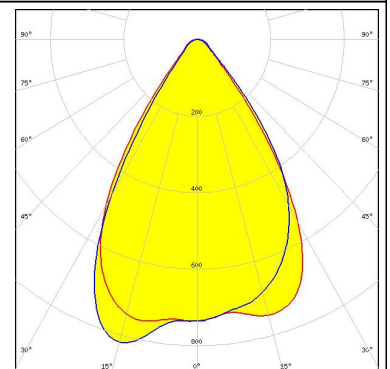
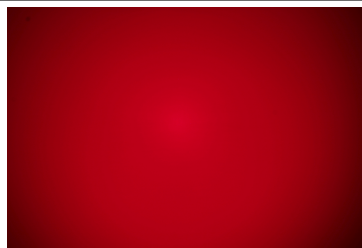
##### LUMILEDS

LED LUXEON V2  
 FWHM 61.0°  
 Efficiency 94 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



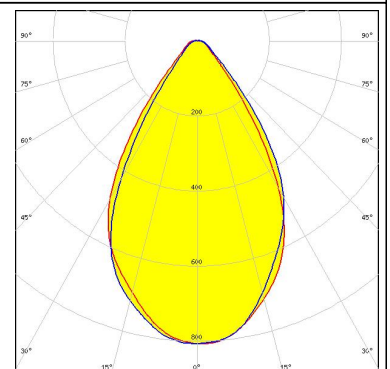
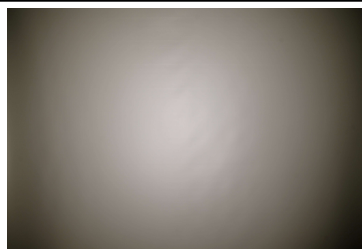
##### LUMINUS

LED SST-10-B130  
 FWHM 69.0°  
 Efficiency 95 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour Deep Red  
 Required components:

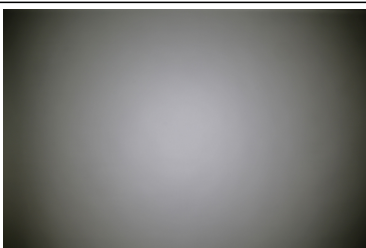
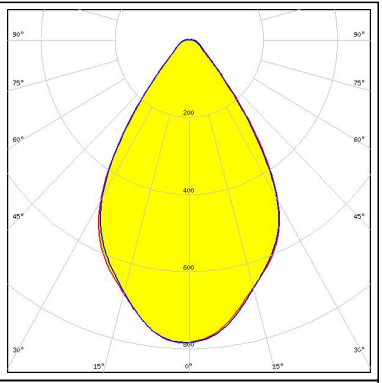
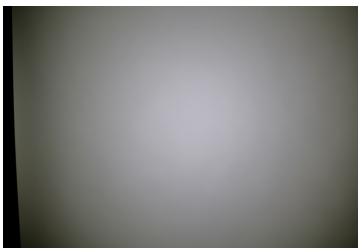
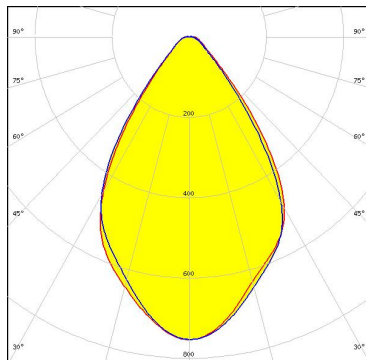

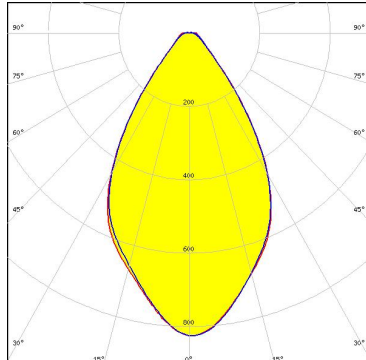
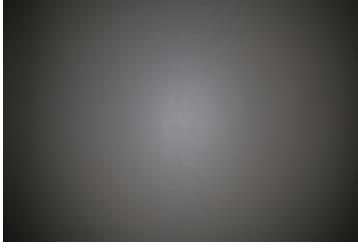
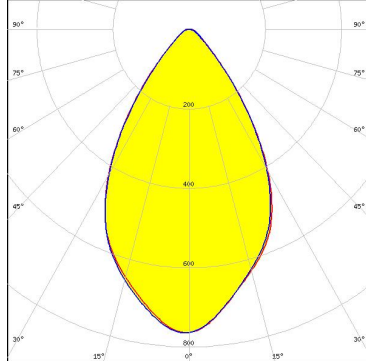


##### NICHIA

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



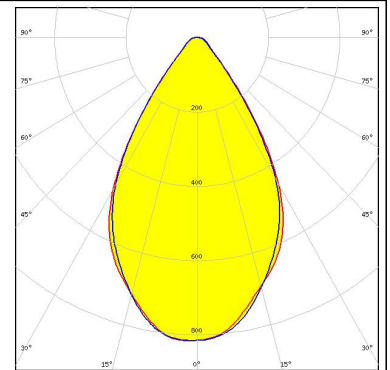
#### PHOTOMETRIC DATA (MEASURED):

|  |  |   |
|--|--|---|
| <p><b>NICHIA</b></p> <p>LED NVSW219F<br/>           FWHM 66.0°<br/>           Efficiency 94 %<br/>           Peak intensity 0.8 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p> |    |    |
| <p><b>NICHIA</b></p> <p>LED NVSW319B<br/>           FWHM 68.0°<br/>           Efficiency 93 %<br/>           Peak intensity 0.8 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p> |   |   |
| <p><b>NICHIA</b></p> <p>LED NVSW3x9A<br/>           FWHM 62.0°<br/>           Efficiency 93 %<br/>           Peak intensity 0.8 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p> |  |  |
| <p><b>NICHIA</b></p> <p>LED NWSx229A<br/>           FWHM 63.0°<br/>           Efficiency 85 %<br/>           Peak intensity 0.8 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p> |  |  |

**PHOTOMETRIC DATA (MEASURED):**

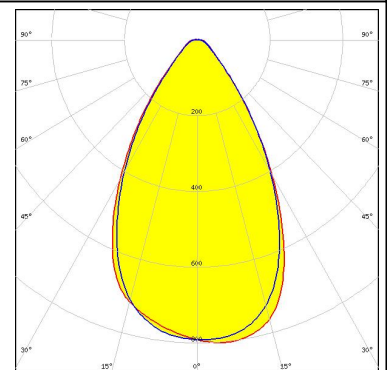
**OSRAM**

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



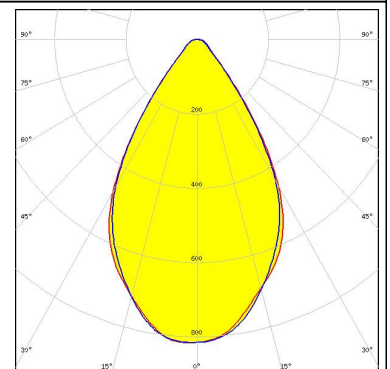
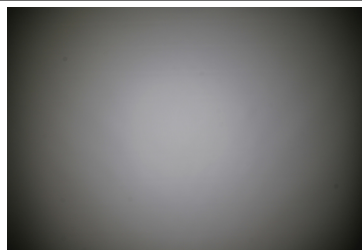
**OSRAM**  
Opto Semiconductors

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



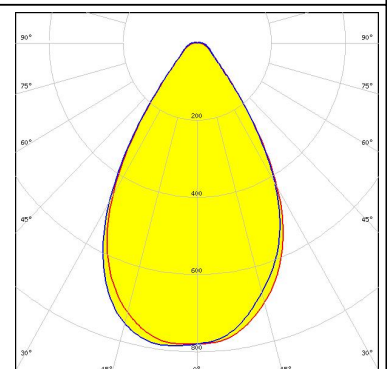
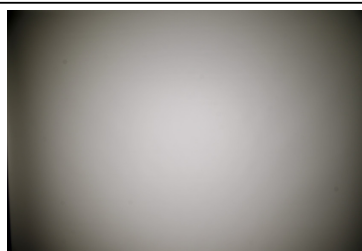
**OSRAM**  
Opto Semiconductors

LED OSLOM Square CSSRM2/CSSRM3  
 FWHM 64.0°  
 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 64.0°  
 Efficiency 93 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

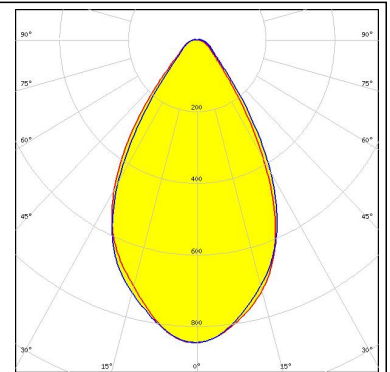
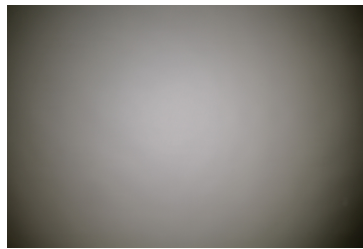




#### PHOTOMETRIC DATA (MEASURED):

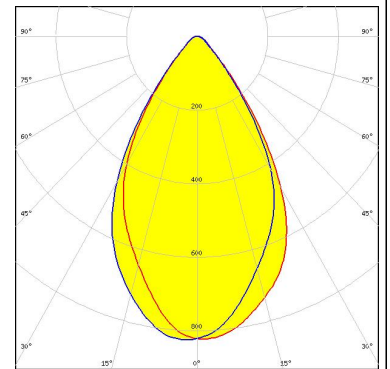
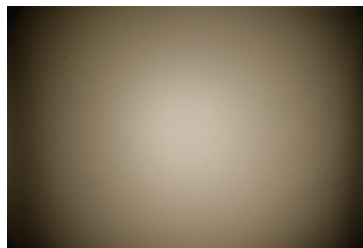
#### SAMSUNG

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



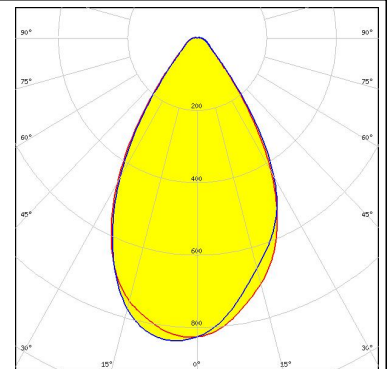
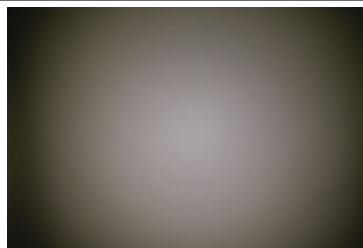
#### SAMSUNG

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



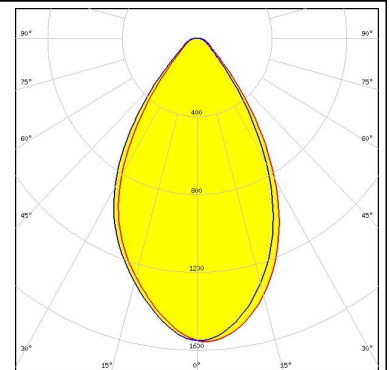
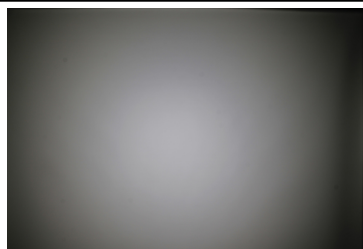
#### SAMSUNG

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



#### SAMSUNG

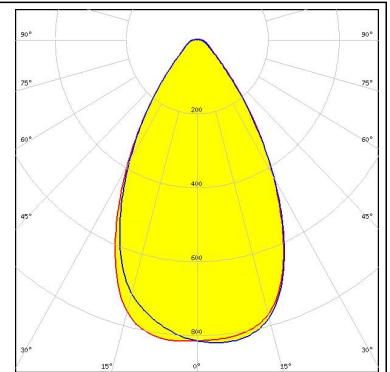
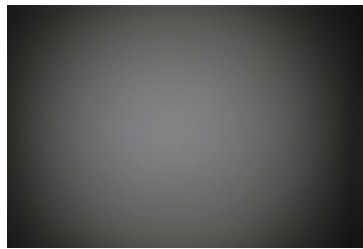
LED LH351D  
 FWHM 62.0°  
 Efficiency 91 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



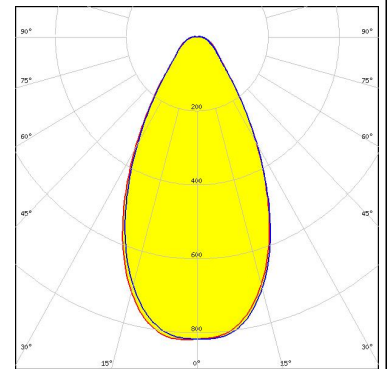
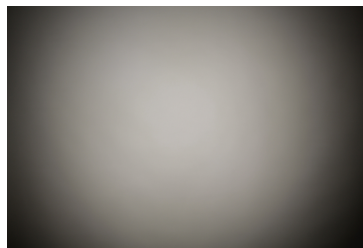
#### PHOTOMETRIC DATA (MEASURED):

### SAMSUNG

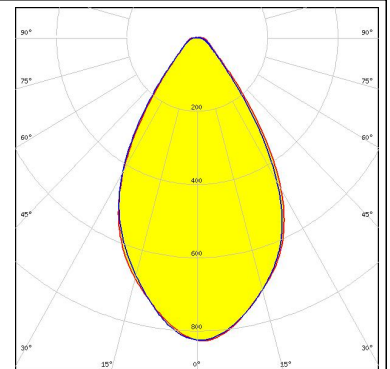
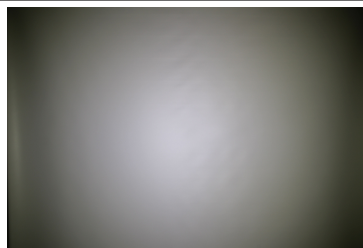
LED LH508A  
 FWHM 60.0°  
 Efficiency 93 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



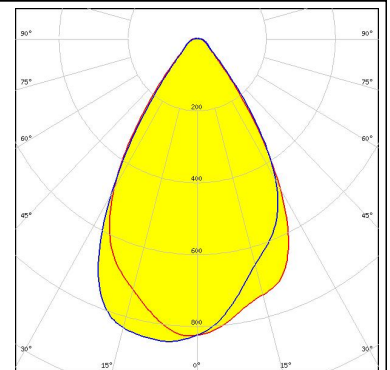
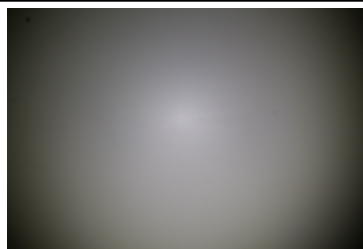
SEOUL SEMICONDUCTOR  
 LED 2x2 Y22 module - SMJQ-D48W16AA-XX  
 FWHM 55.0°  
 Efficiency 92 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:




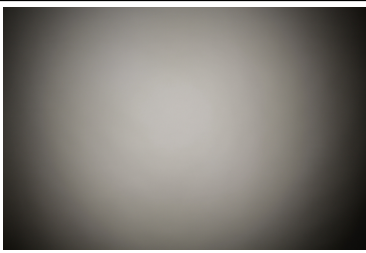
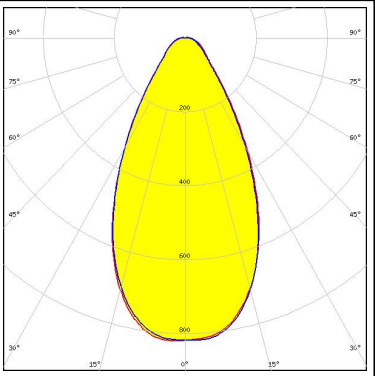


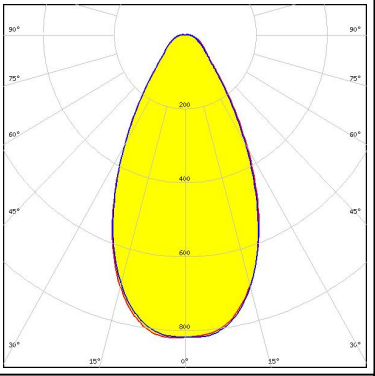


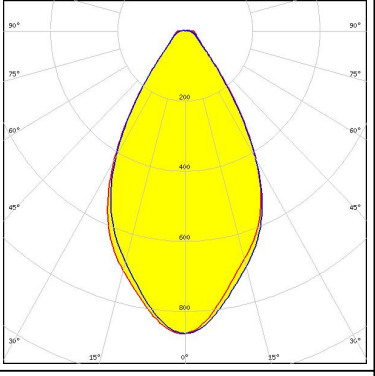
SEOUL SEMICONDUCTOR  
 LED Z5M3  
 FWHM 62.0°  
 Efficiency 94 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



SEOUL SEMICONDUCTOR  
 LED Z5M4  
 FWHM 64.0°  
 Efficiency 95 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



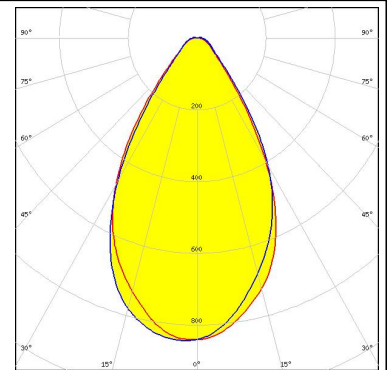
#### PHOTOMETRIC DATA (MEASURED):

|   |  |   |
|---|--|---|
| <p> SEUL SEMICONDUCTOR</p> <p>LED Z8Y19<br/>           FWHM 55.0°<br/>           Efficiency 92 %<br/>           Peak intensity 0.8 cd/lm<br/>           LEDs/each optic 4<br/>           Light colour White<br/>           Required components:</p>    |    |    |
| <p> SEUL SEMICONDUCTOR</p> <p>LED Z8Y19<br/>           FWHM 55.0°<br/>           Efficiency 92 %<br/>           Peak intensity 0.8 cd/lm<br/>           LEDs/each optic 4<br/>           Light colour White<br/>           Required components:</p>    |   |   |
| <p> SEUL SEMICONDUCTOR</p> <p>LED Z8Y22P<br/>           FWHM 59.0°<br/>           Efficiency 92 %<br/>           Peak intensity 0.9 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p> |  |  |
| <p><b>TRIDONIC</b></p> <p>LED RLE 2x4 2000lm HP EXC2 OTD<br/>           FWHM 61.0°<br/>           Efficiency 94 %<br/>           Peak intensity 0.9 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p>  |  |   |

#### PHOTOMETRIC DATA (MEASURED):

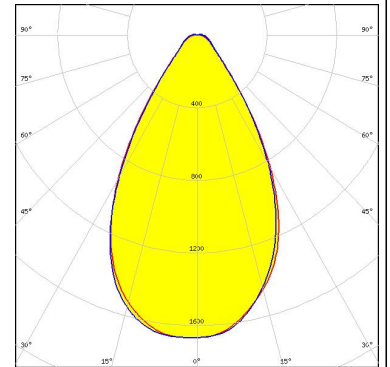
#### TRIDONIC

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



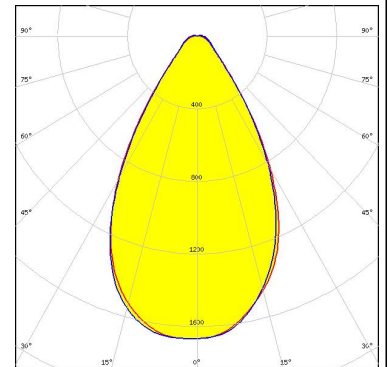
#### TRIDONIC

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



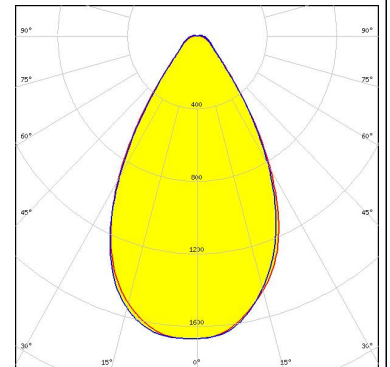
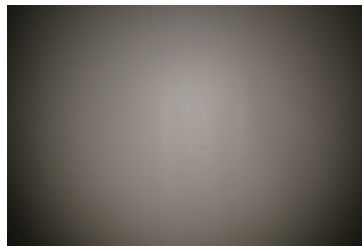
#### TRIDONIC

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



#### TRIDONIC

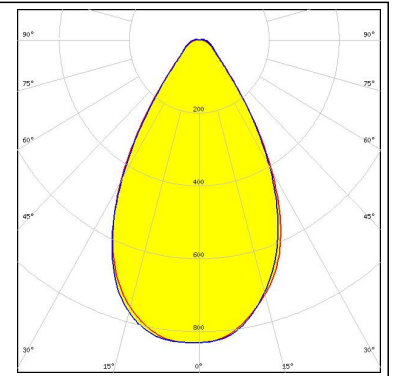
LED RLE G1 49x223mm 4000lm xxx EXC OTD  
 FWHM 61.0°  
 Efficiency 94 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



## PHOTOMETRIC DATA (MEASURED):

### TRIDONIC

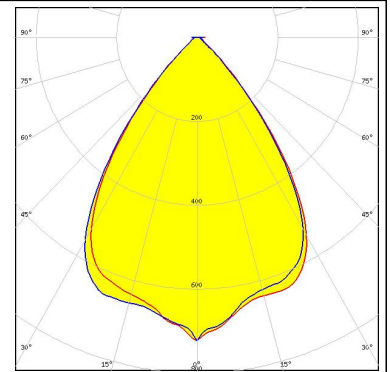
LED RLE G1 49x245mm 4000lm xxx EXC OTD  
FWHM 61.0°  
Efficiency 94 %  
Peak intensity 0.8 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



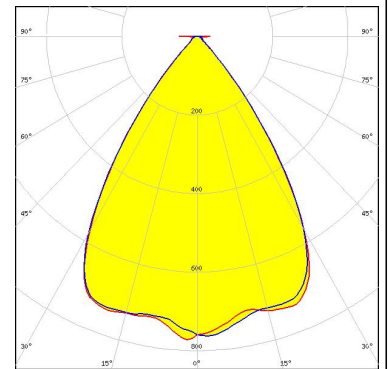
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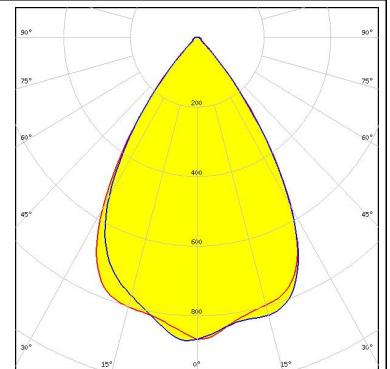
LED XP-G2 HE  
 FWHM 73.0°  
 Efficiency 95 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



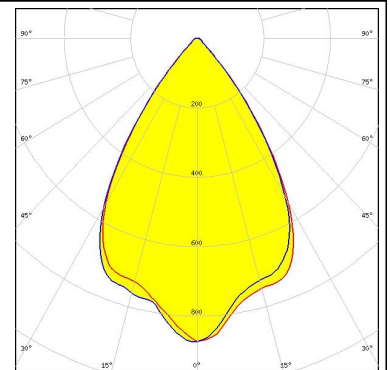
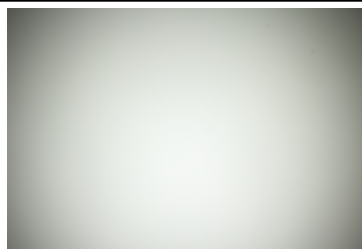
LED XT-E  
 FWHM 69.0°  
 Efficiency 94 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



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



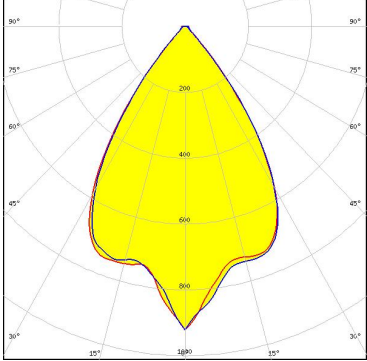
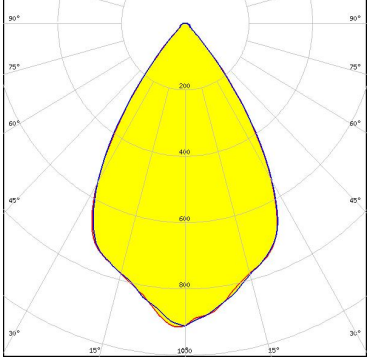
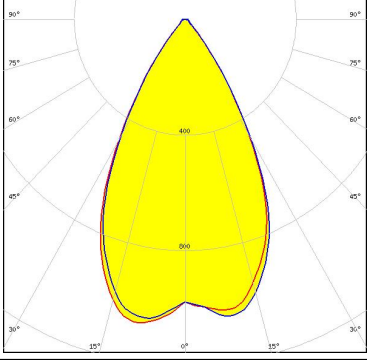
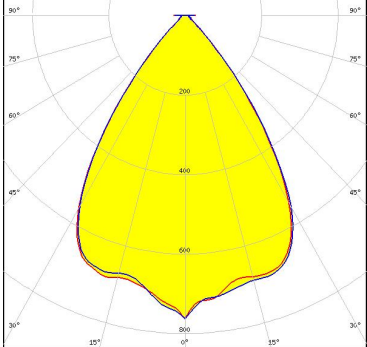
LED LUXEON MZ  
 FWHM 66.0°  
 Efficiency 94 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (SIMULATED):

|  |  |
|--|--|
| <p><b>NICHIA</b></p> <p>LED: NV4WB35AM<br/>           FWHM: 69.0°<br/>           Efficiency: 95 %<br/>           Peak intensity: 0.8 cd/lm<br/>           LEDs/each optic: 1<br/>           Light colour: White<br/>           Required components:</p>  |  |
| <p><b>NICHIA</b></p> <p>LED: NVSxx19B/NVSxx19C<br/>           FWHM: 70.0°<br/>           Efficiency: 95 %<br/>           Peak intensity: 0.8 cd/lm<br/>           LEDs/each optic: 1<br/>           Light colour: White<br/>           Required components:</p>  |  |
| <p><b>OSRAM</b><br/> <small>Opto Semiconductors</small></p> <p>LED: OSCONIQ P 3030<br/>           FWHM: 66.0°<br/>           Efficiency: 96 %<br/>           Peak intensity: 0.8 cd/lm<br/>           LEDs/each optic: 1<br/>           Light colour: White<br/>           Required components:</p>              |  |
| <p><b>OSRAM</b><br/> <small>Opto Semiconductors</small></p> <p>LED: OSCONIQ P 3737 (2W version)<br/>           FWHM: 66.0°<br/>           Efficiency: 96 %<br/>           Peak intensity: 0.9 cd/lm<br/>           LEDs/each optic: 1<br/>           Light colour: White<br/>           Required components:</p> |  |

#### PHOTOMETRIC DATA (SIMULATED):

|  |   |
|--|---|
| <p><b>OSRAM</b><br/>Opto Semiconductors</p> <p>LED                   OSCONIQ P 3737 (3W version)</p> <p>FWHM                66.0°</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><b>OSRAM</b><br/>Opto Semiconductors</p> <p>LED                   OSCONIQ P 3737 Flat</p> <p>FWHM                64.0°</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><br/>Opto Semiconductors</p> <p>LED                   OSLON SSL 80</p> <p>FWHM                55.6°</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>PHILIPS</b></p> <p>LED                   Fortimo FastFlex LED 2x8 DAX G4</p> <p>FWHM                71.0°</p> <p>Efficiency           94 %</p> <p>Peak intensity      0.8 cd/lm</p> <p>LEDs/each optic    1</p> <p>Light colour        White</p> <p>Required components:</p>                   |  |



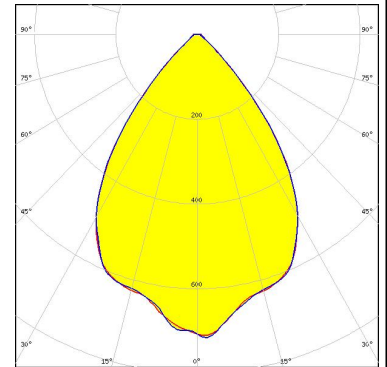
**PHOTOMETRIC DATA (SIMULATED):**

**SAMSUNG**

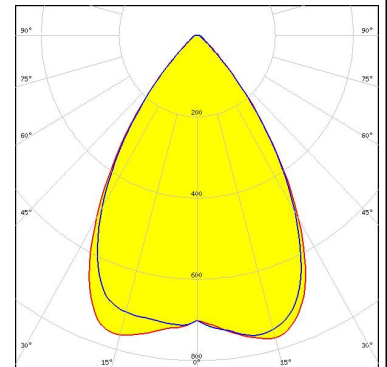
LED LH231B  
FWHM 60.0°  
Efficiency 94 %  
Peak intensity 1 cd/lm  
LEDs/each optic 4  
Light colour White  
Required components:

**SAMSUNG**

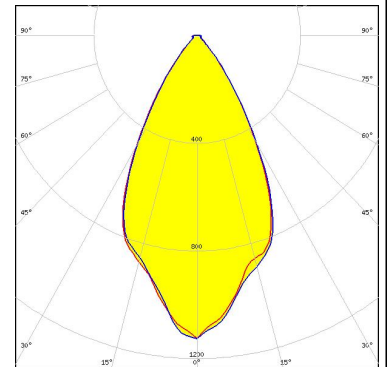
LED LH351D  
FWHM 74.0°  
Efficiency 95 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



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



SEOUL SEMICONDUCTOR  
LED Z8Y22T  
FWHM 55.0°  
Efficiency 94 %  
Peak intensity 1.1 cd/lm  
LEDs/each optic 1  
Light colour White  
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.

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Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

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Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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