

HB-IP-2X6-M

~25° medium beam

SPECIFICATION:

Dimensions	173.0 x 71.4 mm
Height	11.4 mm
Fastening	pin, screw
Ingress protection classes	IP67
ROHS compliant	yes ⓘ

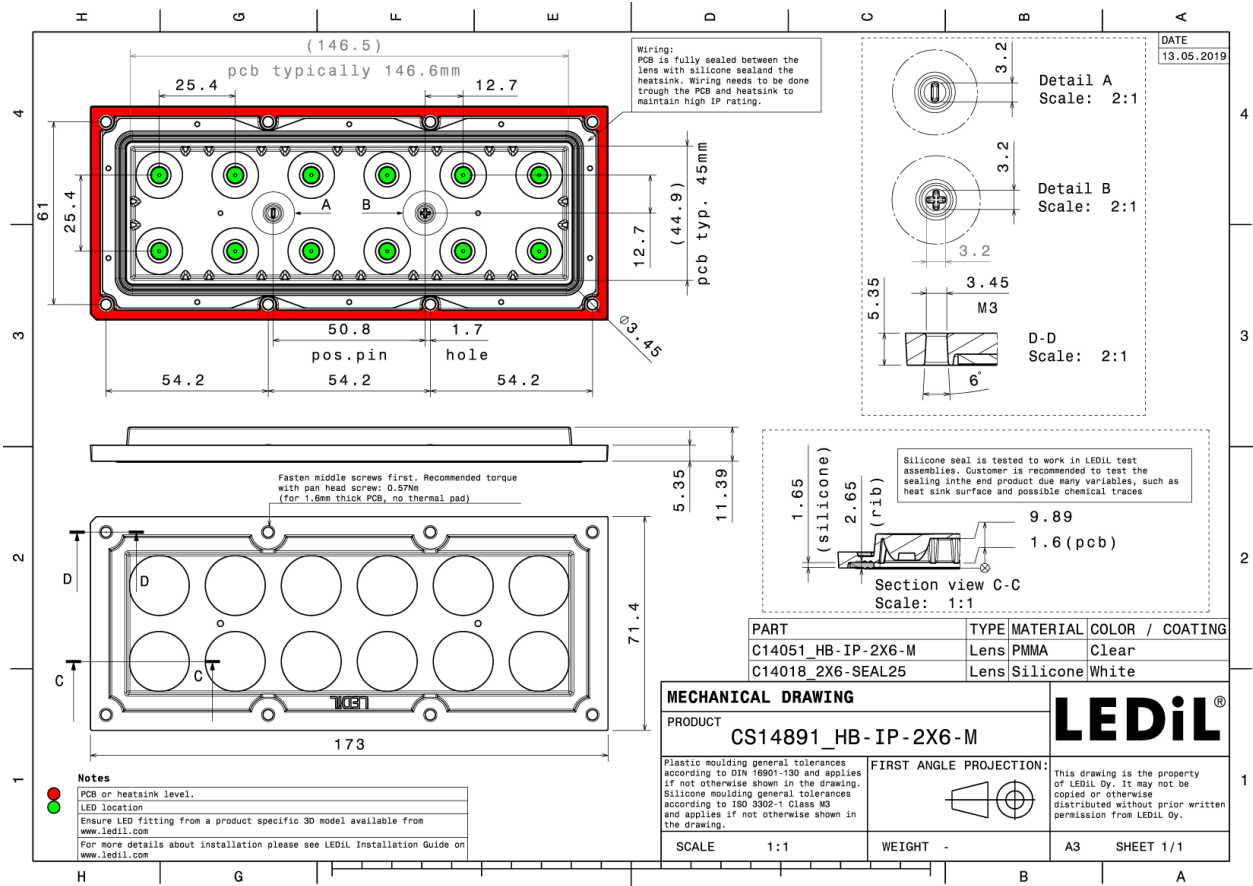
MATERIALS:

Component	Type	Material	Colour	Finish
HB-IP-2X6-M	Multi-lens	PMMA	clear	
2X6-SEAL25	Seal	Silicone	white	



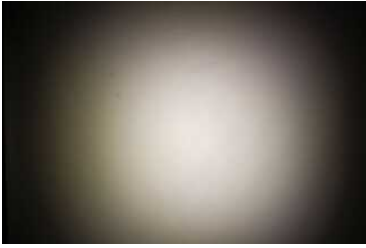
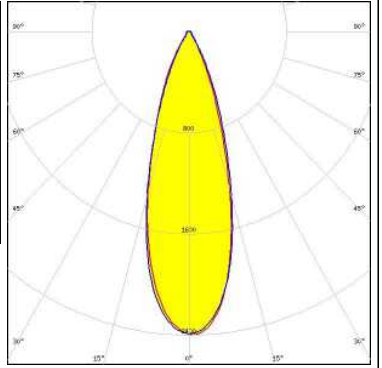

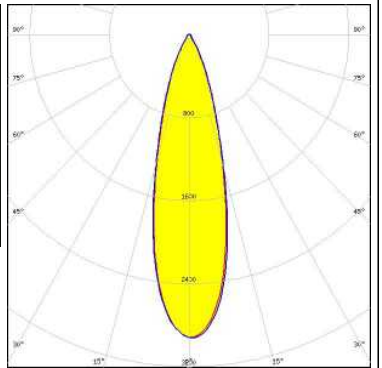

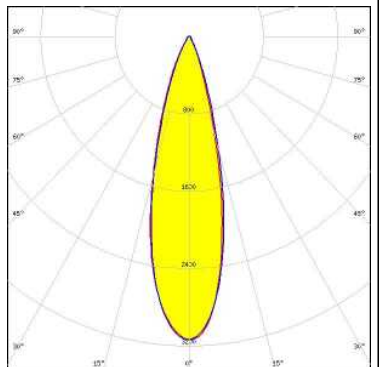
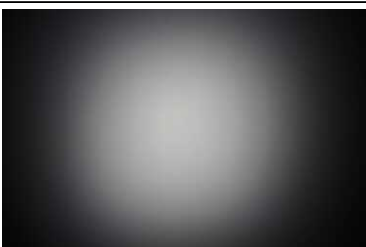
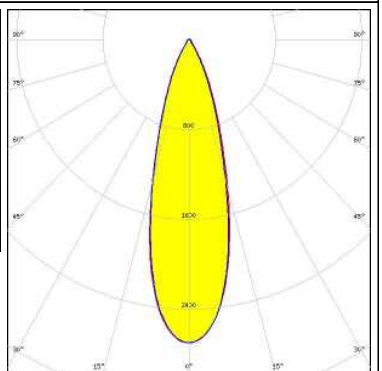
ORDERING INFORMATION:

Component	Type	Qty in box	MOQ	MPQ	Box weight (kg)
CS14891_HB-IP-2X6-M » Box size: 476 x 273 x 247 mm	Multi-lens	120	40	40	8.1

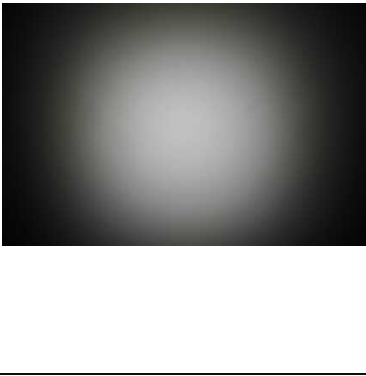
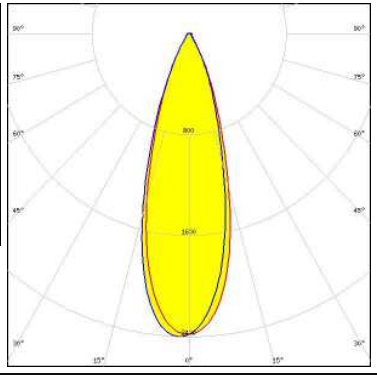
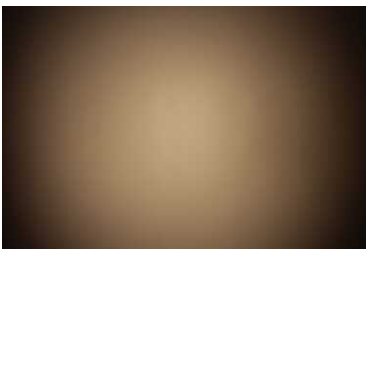
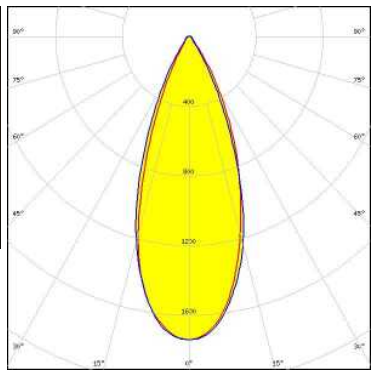
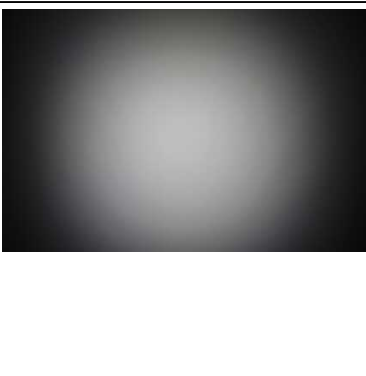
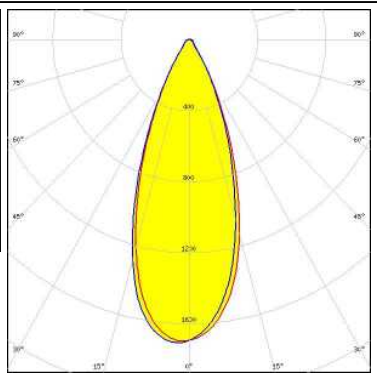
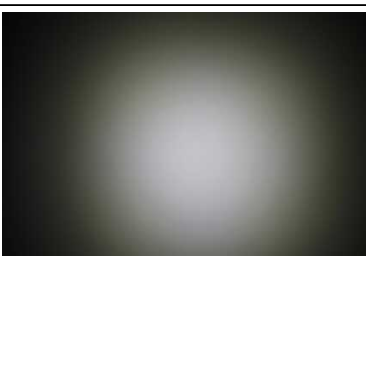
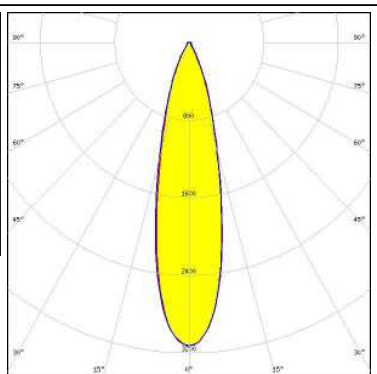


See also our general installation guide: www.ledil.com/installation_guide

OPTICAL RESULTS (MEASURED):

<p>COMET ELECTRONICS</p> <p>LED QUICK FLUX 2x6 LED XG xxx G7+</p> <p>FWHM / FWTM 32.0° / 59.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 2.4 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>COMET ELECTRONICS</p> <p>LED QUICK FLUX 2x6 LED XT xxx G5</p> <p>FWHM / FWTM 28.0° / 55.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 2.9 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>CREE LEDs</p> <p>LED XM-L</p> <p>FWHM / FWTM 27.0° / 50.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 3.1 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>CREE LEDs</p> <p>LED XP-G2</p> <p>FWHM / FWTM 30.0° / 57.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 2.7 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

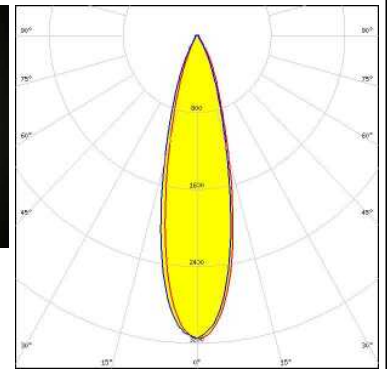
OPTICAL RESULTS (MEASURED):

<p>CREE LEDs</p> <p>LED XP-G3 FWHM / FWTM 32.0° / 58.0° Efficiency 94 % Peak intensity 2.4 cd/m LEDs/each optic 1 Light colour White Required components:</p>		
<p>CREE LEDs</p> <p>LED XP-L HD FWHM / FWTM 39.0° / 66.0° Efficiency 94 % Peak intensity 1.7 cd/m LEDs/each optic 1 Light colour White Required components:</p>		
<p>CREE LEDs</p> <p>LED XP-L2 FWHM / FWTM 39.0° / 67.0° Efficiency 94 % Peak intensity 1.7 cd/m LEDs/each optic 1 Light colour White Required components:</p>		
<p>CREE LEDs</p> <p>LED XT-E FWHM / FWTM 25.0° / 52.0° Efficiency 92 % Peak intensity 3.1 cd/m LEDs/each optic 1 Light colour White Required components:</p>		

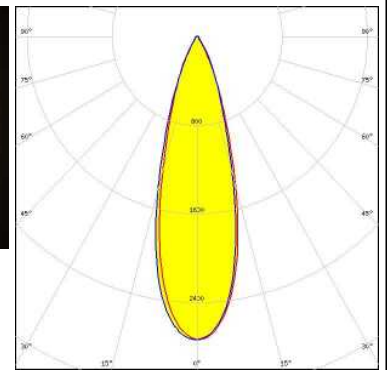
OPTICAL RESULTS (MEASURED):



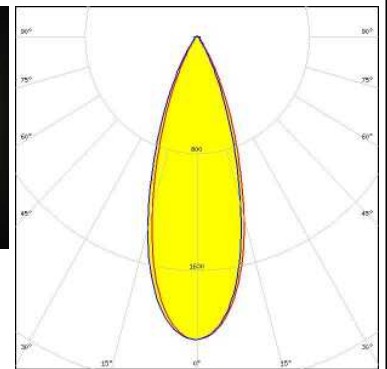
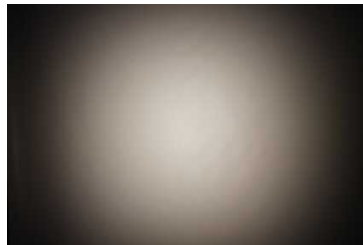
LED XT-E HE
 FWHM / FWTM 26.0° / 53.0°
 Efficiency 94 %
 Peak intensity 3.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



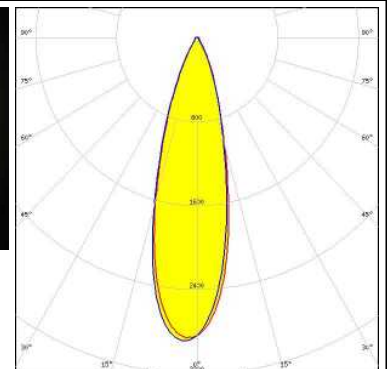
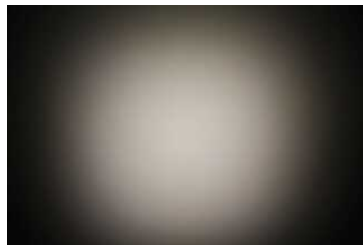
LED LUXEON T
 FWHM / FWTM 29.0° / 55.0°
 Efficiency 94 %
 Peak intensity 2.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED LUXEON V
 FWHM / FWTM 35.0° / 62.0°
 Efficiency 93 %
 Peak intensity 2.1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



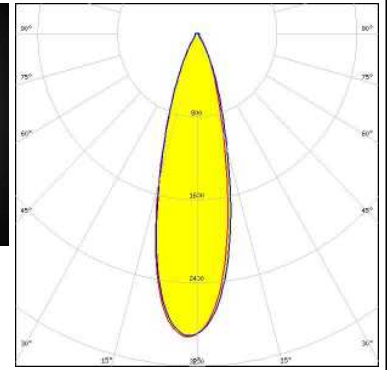
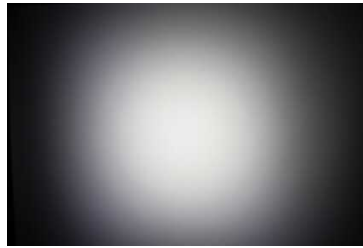
LED LUXEON V2
 FWHM / FWTM 28.0° / 54.0°
 Efficiency 94 %
 Peak intensity 2.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

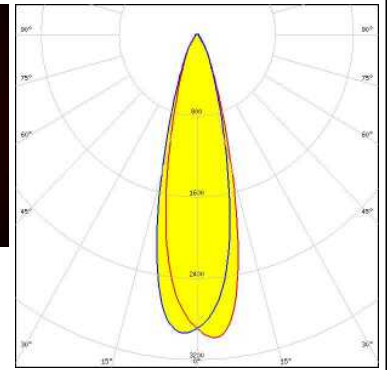
LUMILEDS

LED LUXEON XR-TX (L2T0-xxxx012M0000)
 FWHM / FWTM 28.0° / 54.0°
 Efficiency 94 %
 Peak intensity 3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



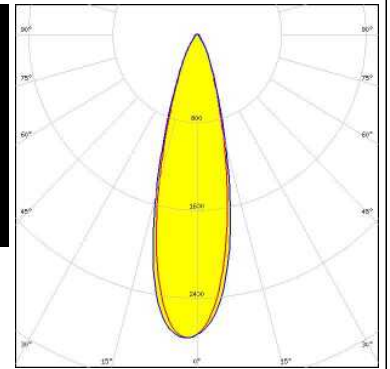
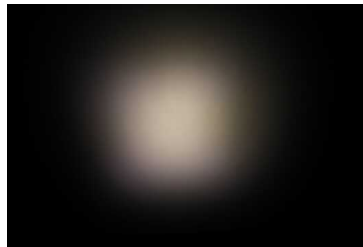
LUMINUS

LED SST-10-B130
 FWHM / FWTM 27.0° / 53.0°
 Efficiency 95 %
 Peak intensity 3 cd/lm
 LEDs/each optic 1
 Light colour Deep Red
 Required components:



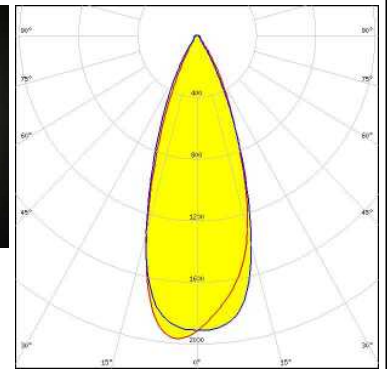
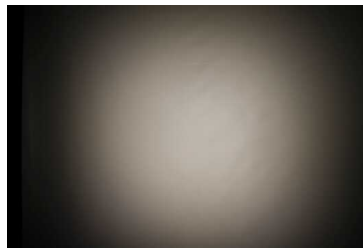
MST *Your solutions*

LED RecLED 146x45mm 2900lm 730 2x6 IP G1
 FWHM / FWTM 28.0° / 55.0°
 Efficiency 95 %
 Peak intensity 2.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



NICHIA

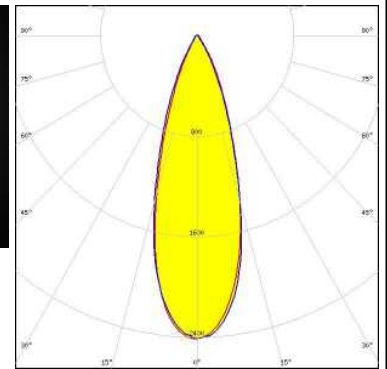
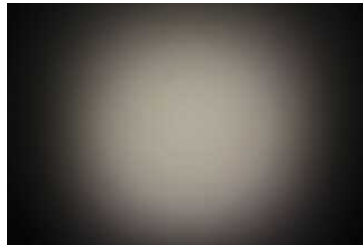
LED NVSW219D
 FWHM / FWTM 38.0° / 63.0°
 Efficiency 94 %
 Peak intensity 2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



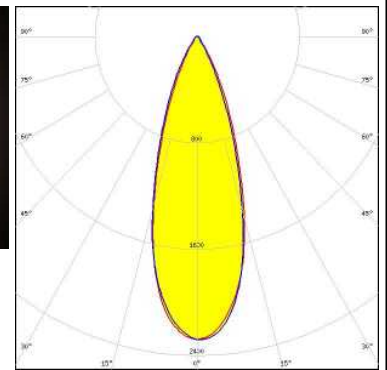
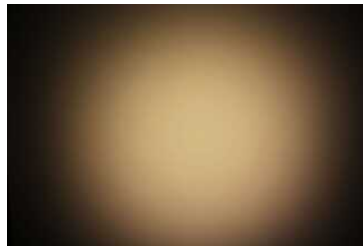
OPTICAL RESULTS (MEASURED):



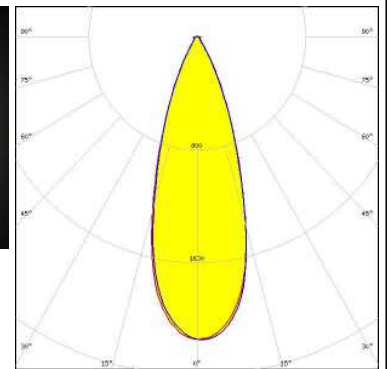
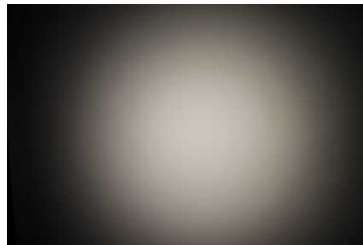
LED NVSW219F
 FWHM / FWTM 33.0° / 59.0°
 Efficiency 94 %
 Peak intensity 2.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



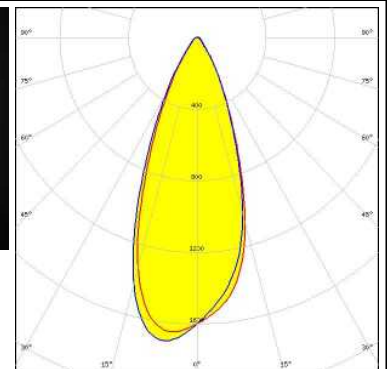
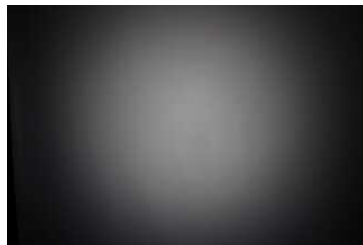
LED NVSW319B
 FWHM / FWTM 34.0° / 61.0°
 Efficiency 94 %
 Peak intensity 2.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



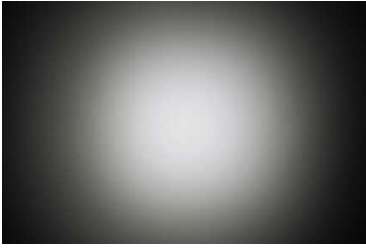
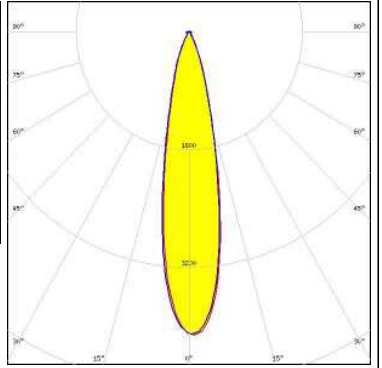
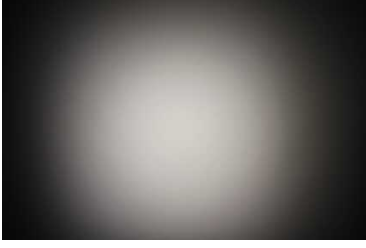
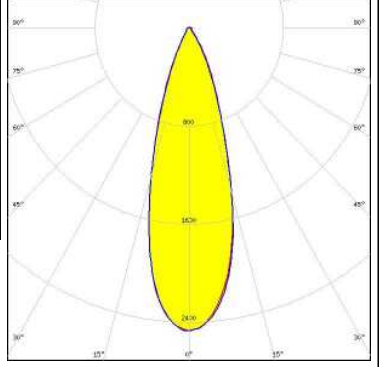
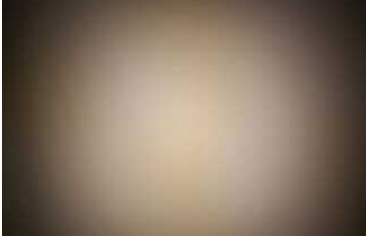
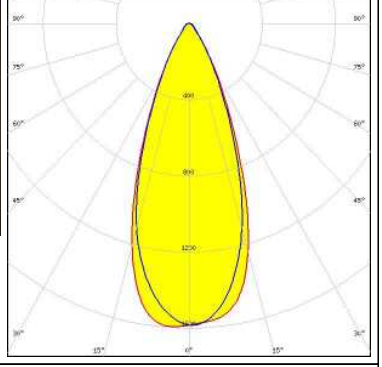

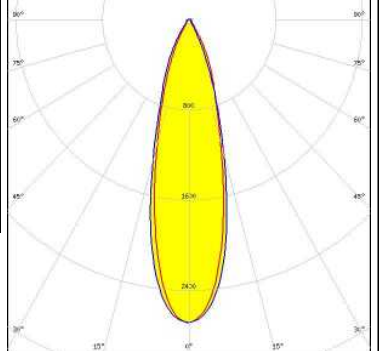
LED NVSW3x9A
 FWHM / FWTM 34.0° / 60.0°
 Efficiency 94 %
 Peak intensity 2.1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED NVSW519A
 FWHM / FWTM 40.0° / 70.0°
 Efficiency 95 %
 Peak intensity 1.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



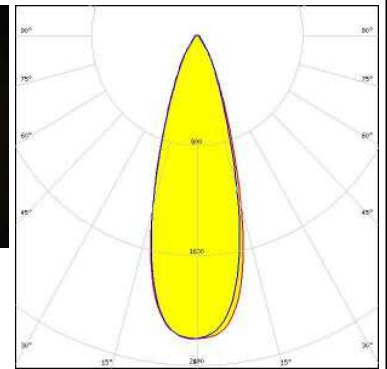
OPTICAL RESULTS (MEASURED):

<p>NICHIA</p> <p>LED NVSxE21A FWHM / FWTM 24.0° / 53.0° Efficiency 92 % Peak intensity 4.1 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>NICHIA</p> <p>LED NVSxx19B/NVSxx19C FWHM / FWTM 31.0° / 58.0° Efficiency 93 % Peak intensity 2.5 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>OSRAM <small>Opto Semiconductors</small></p> <p>LED Duris S8 FWHM / FWTM 41.0° / 70.0° Efficiency 94 % Peak intensity 1.6 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>OSRAM <small>Opto Semiconductors</small></p> <p>LED OSLON Square PC FWHM / FWTM 29.0° / 57.0° Efficiency 93 % Peak intensity 2.7 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		

OPTICAL RESULTS (MEASURED):

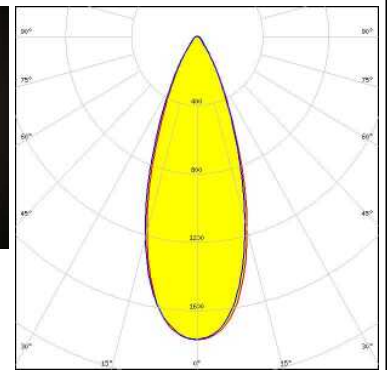
PHILIPS

LED Fortimo FastFlex LED 2x6 DP G5
 FWHM / FWTM 32.0° / 62.0°
 Efficiency 96 %
 Peak intensity 2.3 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:



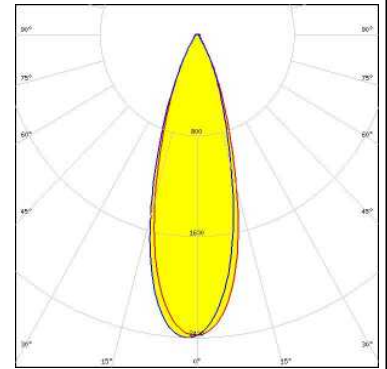
PHILIPS

LED Fortimo FastFlex LED 2x6 DP HE
 FWHM / FWTM 38.0° / 68.0°
 Efficiency 97 %
 Peak intensity 1.8 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:



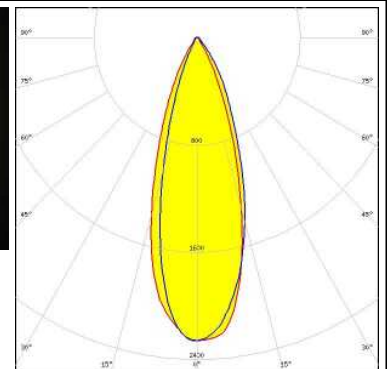
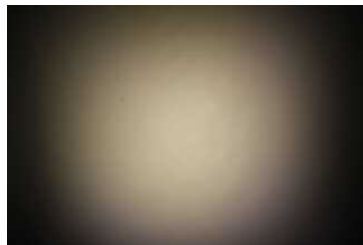
PHILIPS

LED Fortimo FastFlex LED 2x6 DPX G4
 FWHM / FWTM 32.0° / 58.0°
 Efficiency 94 %
 Peak intensity 2.4 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:



SAMSUNG

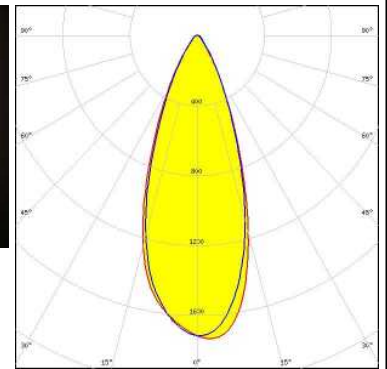
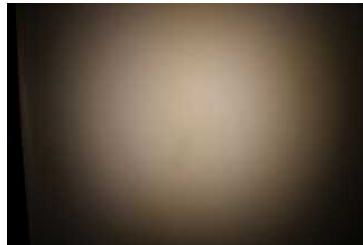
LED HiLOM RH12 (LH351C)
 FWHM / FWTM 33.0° / 61.0°
 Efficiency 94 %
 Peak intensity 2.3 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

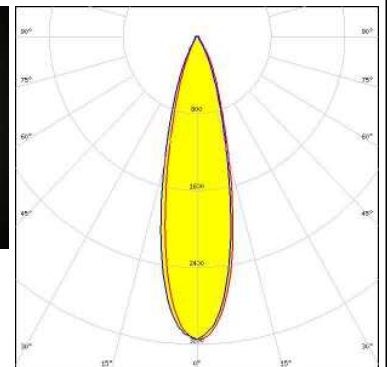
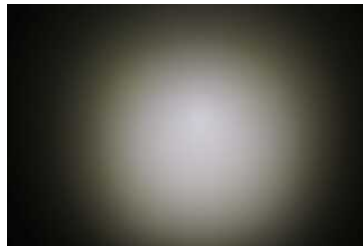
SAMSUNG

LED HiLOM RM12 ZP (LH502C)
 FWHM / FWTM 38.0° / 69.0°
 Efficiency 96 %
 Peak intensity 1.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



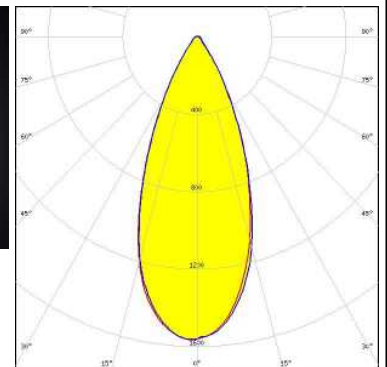
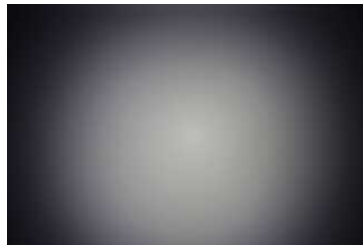
SCIOLUX

LED XLE-S22C4XTEHE (XT-E HE)
 FWHM / FWTM 26.0° / 53.0°
 Efficiency 94 %
 Peak intensity 3.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



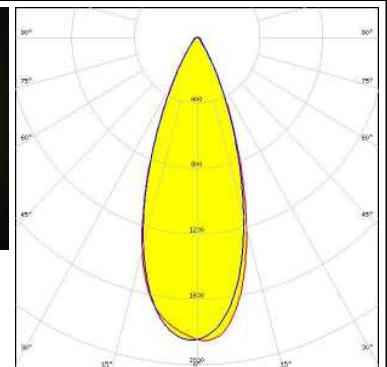
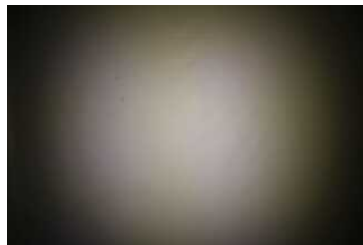
SCIOLUX

LED XLE-S26XHP35 (XHP35 HD)
 FWHM / FWTM 42.0° / 71.0°
 Efficiency 94 %
 Peak intensity 1.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



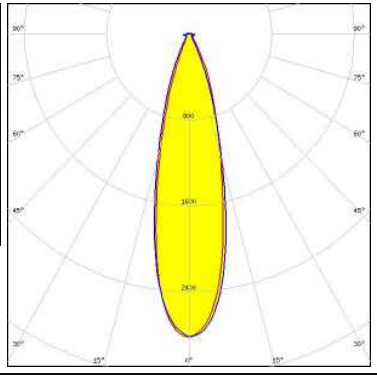


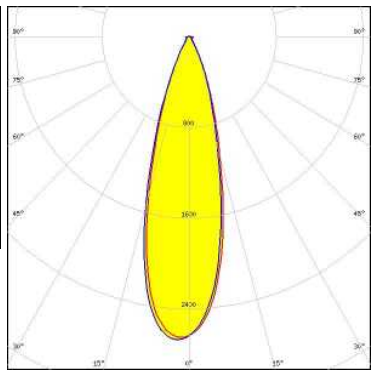

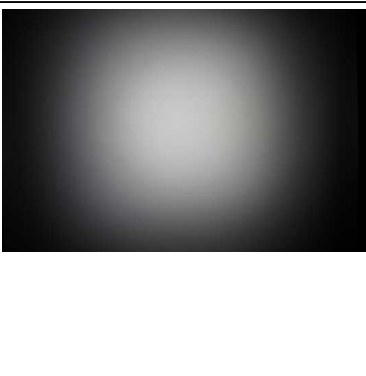
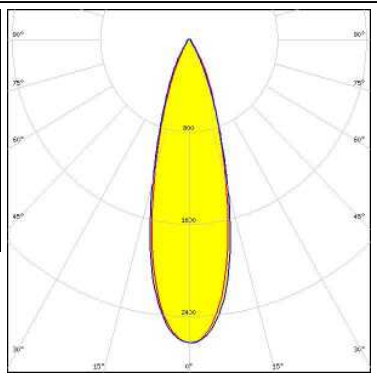


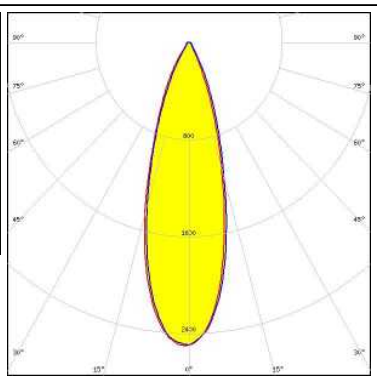


SEOUL SEMICONDUCTOR


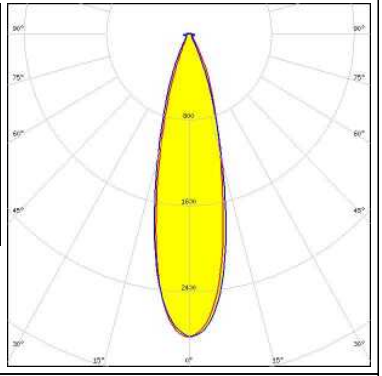
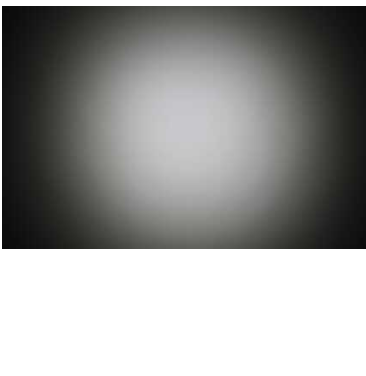
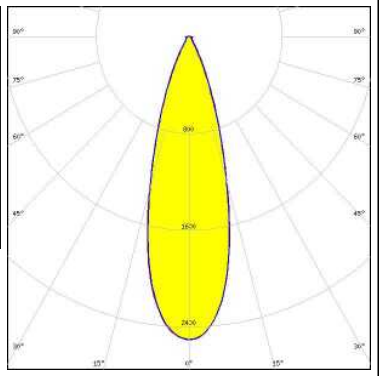

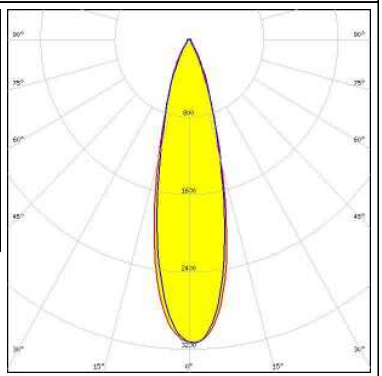

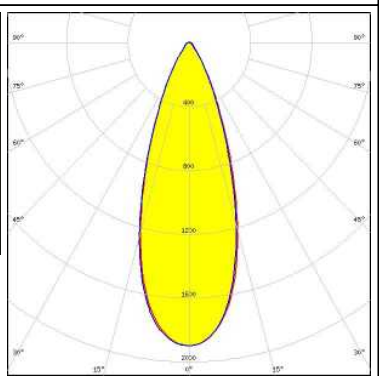
LED 2x6 5050 module - SMJD-3625012F-XX
 FWHM / FWTM 38.0° / 65.0°
 Efficiency 94 %
 Peak intensity 1.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



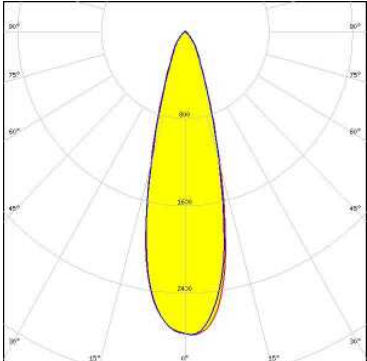
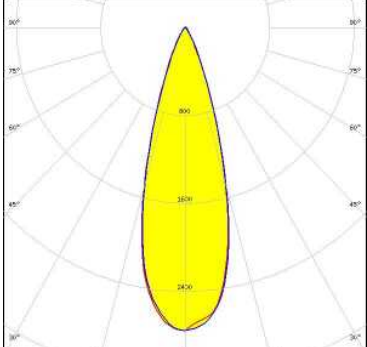
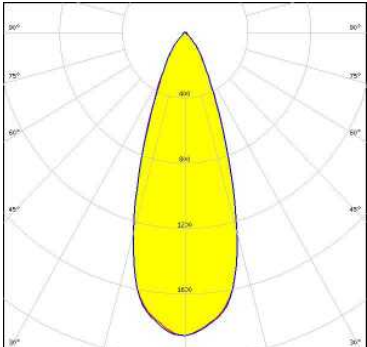
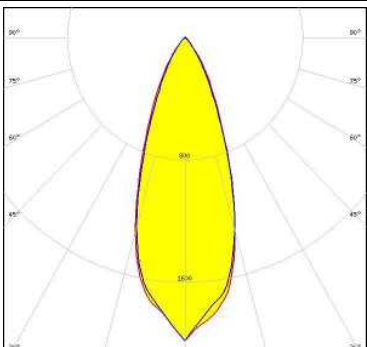
OPTICAL RESULTS (MEASURED):

<p> SEOU SEMICONDUCTOR</p> <p>LED SMJQ-D36W12Mx</p> <p>FWHM / FWTM 26.0° / 52.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 2.8 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p> SEOU SEMICONDUCTOR</p> <p>LED SMJQ-D36W12Px</p> <p>FWHM / FWTM 29.0° / 54.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 2.7 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p> SEOU SEMICONDUCTOR</p> <p>LED Z5M1/Z5M2</p> <p>FWHM / FWTM 30.0° / 57.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 2.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p> SEOU SEMICONDUCTOR</p> <p>LED Z5M3</p> <p>FWHM / FWTM 30.0° / 58.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 2.5 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

OPTICAL RESULTS (MEASURED):

<p>SEOL SEOUL SEMICONDUCTOR</p> <p>LED Z8Y22 FWHM / FWTM 26.0° / 52.0° Efficiency 91 % Peak intensity 2.8 cd/m LEDs/each optic 1 Light colour White Required components:</p>		
<p>SEOL SEOUL SEMICONDUCTOR</p> <p>LED Z8Y22P FWHM / FWTM 30.0° / 55.0° Efficiency 93 % Peak intensity 2.5 cd/m LEDs/each optic 1 Light colour White Required components:</p>		
<p>TRIDONIC</p> <p>LED RLE 2x6 3000lm HP EXC2 OTD FWHM / FWTM 26.0° / 53.0° Efficiency 94 % Peak intensity 3.1 cd/m LEDs/each optic 1 Light colour White Required components:</p>		
<p>TRIDONIC</p> <p>LED RLE 2x6 4500lm HP HE EXC3 OTD Z19 FWHM / FWTM 36.0° / 67.0° Efficiency 96 % Peak intensity 1.9 cd/m LEDs/each optic 1 Light colour White Required components:</p>		

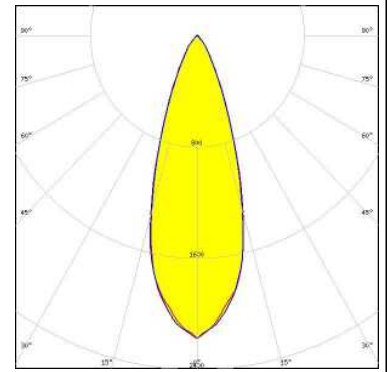
OPTICAL RESULTS (SIMULATED):

<p>CREE LEDs</p> <p>LED: XP-E FWHM / FWTM: 28.0° / 56.0° Efficiency: 94 % Peak intensity: 2.8 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>CREE LEDs</p> <p>LED: XP-G2 HE FWHM / FWTM: 31.0° / 53.0° Efficiency: 95 % Peak intensity: 2.8 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>CREE LEDs</p> <p>LED: XP-G4 FWHM / FWTM: 38.0° / 70.0° Efficiency: 96 % Peak intensity: 1.9 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>LUMILEDS</p> <p>LED: LUXEON 5050 Round LES FWHM / FWTM: 37.0° / 68.0° Efficiency: 93 % Peak intensity: 2 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	

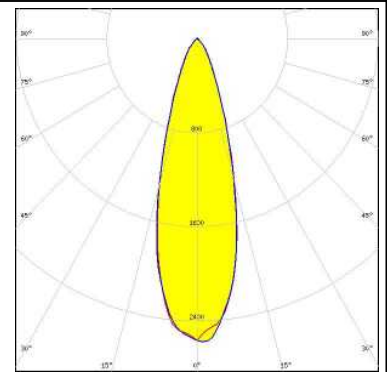
OPTICAL RESULTS (SIMULATED):



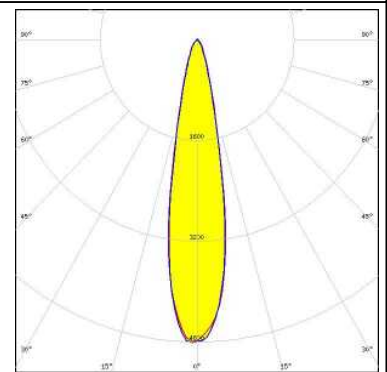
LED NV4WB35AM
 FWHM / FWTM 34.0° / 62.0°
 Efficiency 95 %
 Peak intensity 2.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



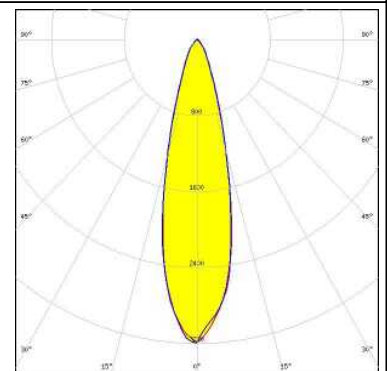
LED PrevaLED Brick HP IP 2x6
 FWHM / FWTM 30.0° / 58.0°
 Efficiency 95 %
 Peak intensity 2.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



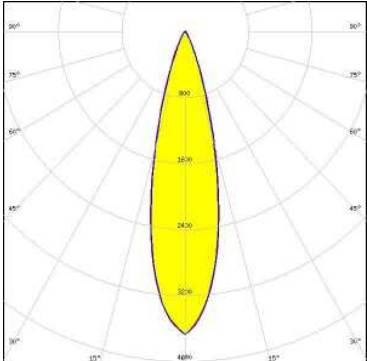
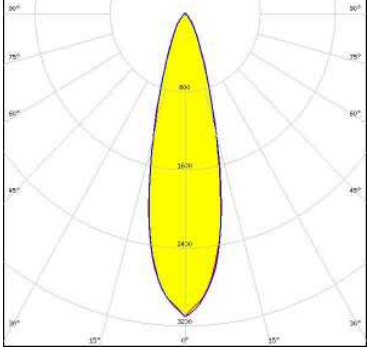
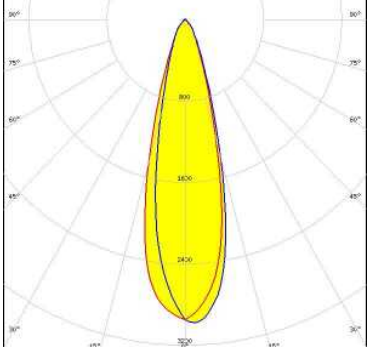
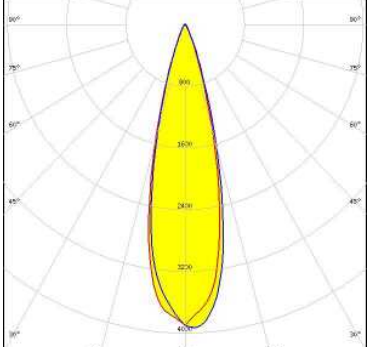
LED OSCONIQ P 3030
 FWHM / FWTM 20.0° / 42.0°
 Efficiency 96 %
 Peak intensity 4.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED OSCONIQ P 3737 (2W version)
 FWHM / FWTM 26.0° / 52.0°
 Efficiency 96 %
 Peak intensity 3.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



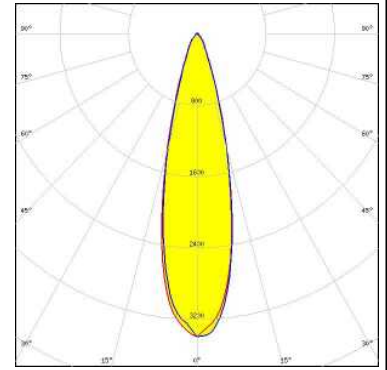
OPTICAL RESULTS (SIMULATED):

<p>OSRAM Opto Semiconductors</p> <p>LED OSCONIQ P 3737 (3W version)</p> <p>FWHM / FWTM 26.0° / 48.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 3.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED OSCONIQ P 3737 Flat</p> <p>FWHM / FWTM 27.0° / 54.0°</p> <p>Efficiency 96 %</p> <p>Peak intensity 3.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED OSLON Square CSSRM2/CSSRM3</p> <p>FWHM / FWTM 27.0° / 53.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p>PHILIPS</p> <p>LED Fortimo FastFlex LED 2x6 DP G4</p> <p>FWHM / FWTM 26.0° / 45.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	

OPTICAL RESULTS (SIMULATED):

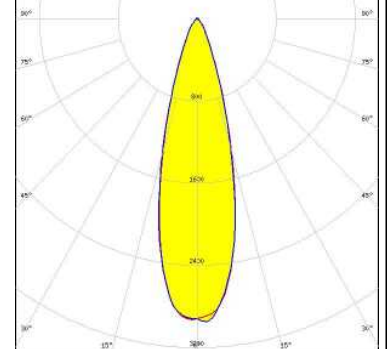
SAMSUNG

LED LH181B
 FWHM / FWTM 27.0° / 50.0°
 Efficiency 94 %
 Peak intensity 3.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



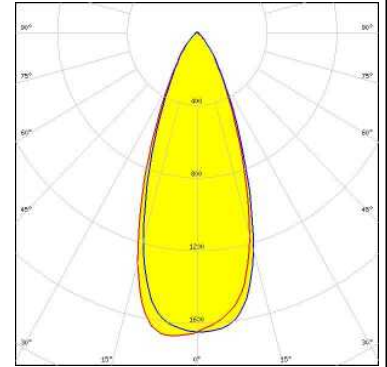
SAMSUNG

LED LH231B
 FWHM / FWTM 28.0° / 52.0°
 Efficiency 95 %
 Peak intensity 3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



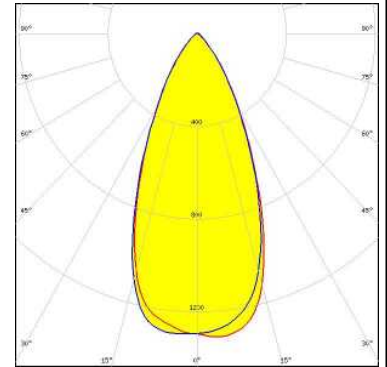
SAMSUNG

LED LH351C
 FWHM / FWTM 39.5° / 72.3°
 Efficiency 94 %
 Peak intensity 1.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



SAMSUNG

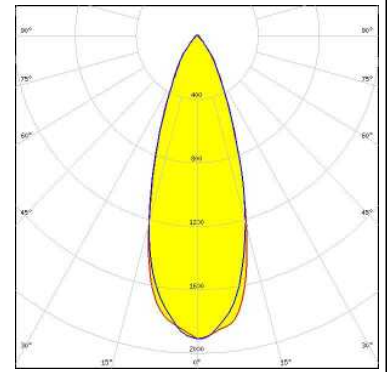
LED LH351D
 FWHM / FWTM 46.0° / 79.9°
 Efficiency 94 %
 Peak intensity 1.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



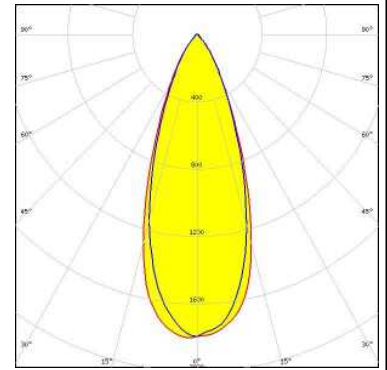
OPTICAL RESULTS (SIMULATED):

SAMSUNG

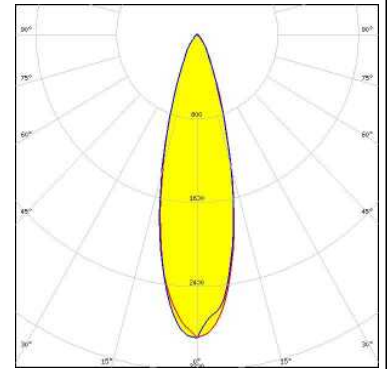
LED LH508B
 FWHM / FWTM 36.0° / 70.0°
 Efficiency 94 %
 Peak intensity 1.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



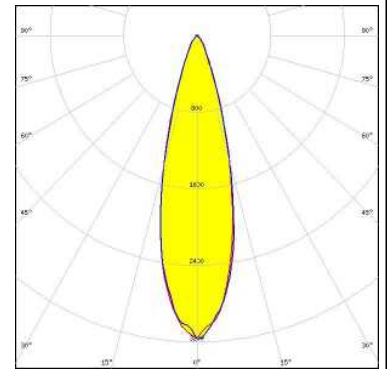
SEOUL SEMICONDUCTOR
 LED SEOUL DC 5050 6V
 FWHM / FWTM 39.0° / 72.0°
 Efficiency 94 %
 Peak intensity 1.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



SEOUL SEMICONDUCTOR
 LED Z5M4
 FWHM / FWTM 28.0° / 55.0°
 Efficiency 95 %
 Peak intensity 2.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



SEOUL SEMICONDUCTOR
 LED Z8Y22T
 FWHM / FWTM 28.0° / 51.0°
 Efficiency 94 %
 Peak intensity 3.2 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.

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)