

HB-2X2-RW

~50° wide beam optimized for CREE XP-L and XM-L

SPECIFICATION:

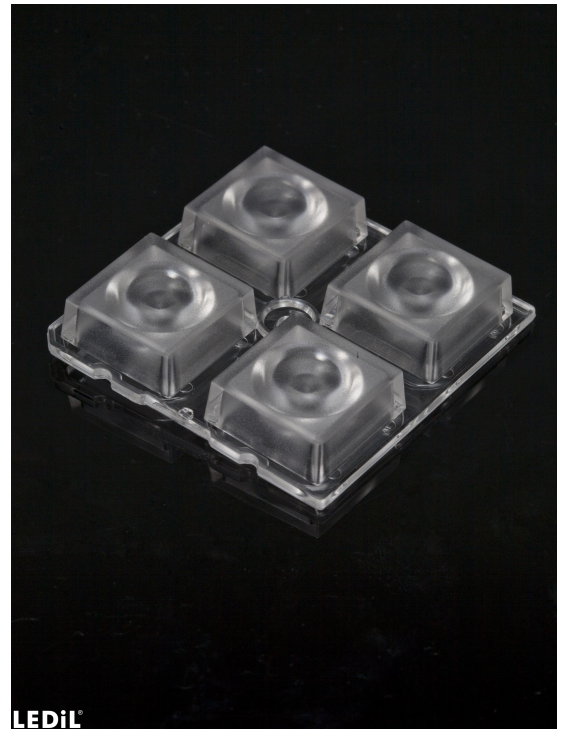
Dimensions	50.0 x 50.0 mm
Height	8.5 mm
Fastening	pin, screw
ROHS compliant	yes ⓘ

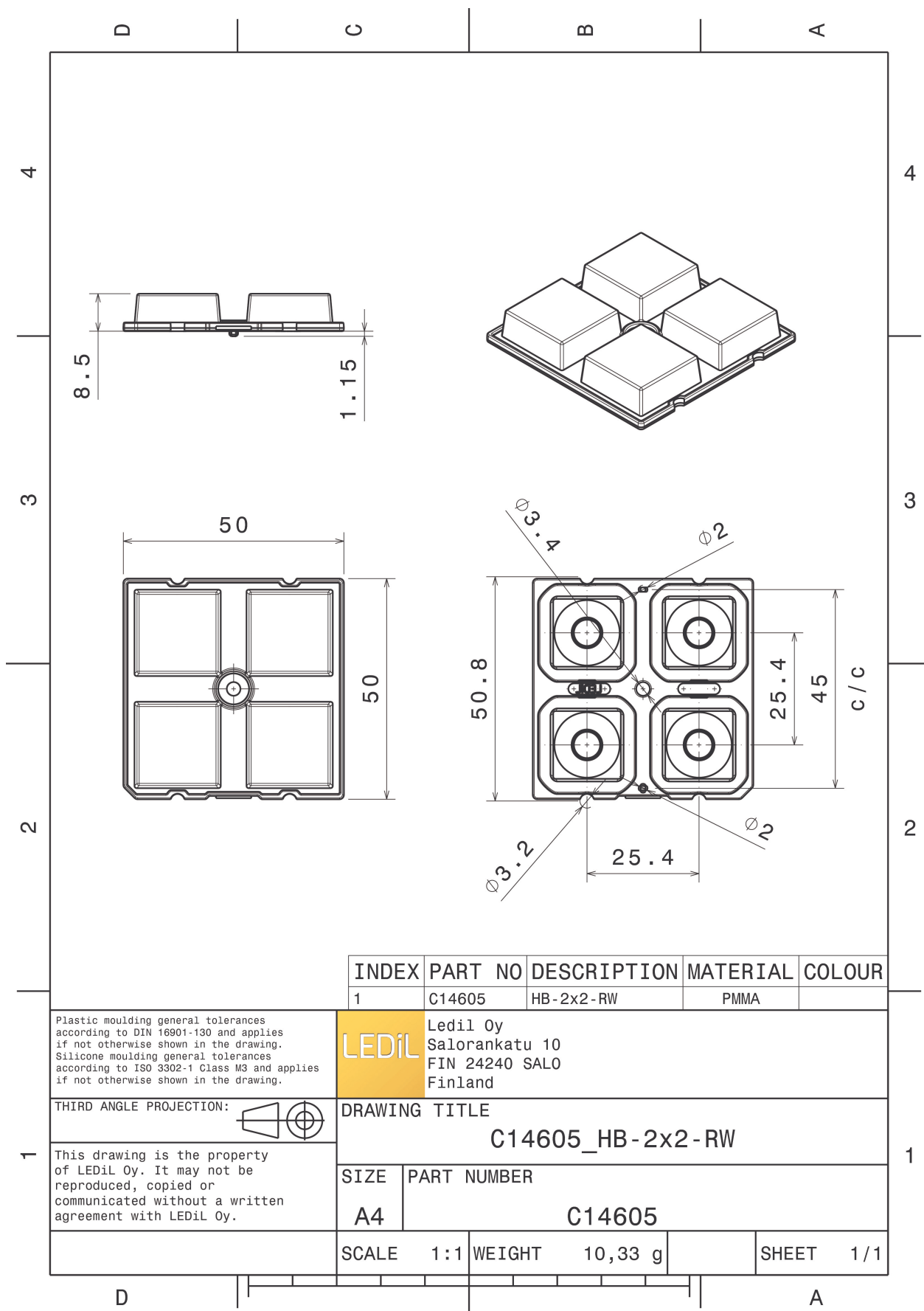
MATERIALS:

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

ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
C14605_HB-2X2-RW » Box size: 476 x 273 x 292 mm	800	160	160	9.1



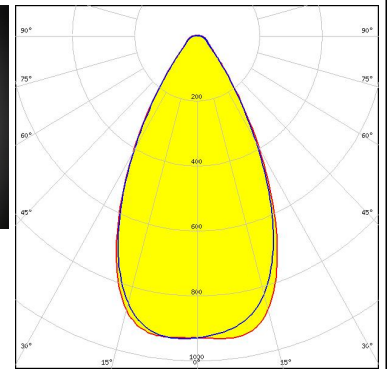
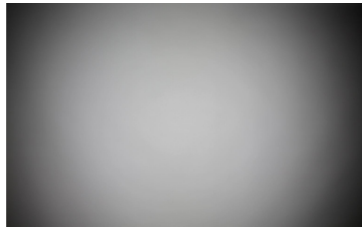


See also our general installation guide: www.ledil.com/installation_guide

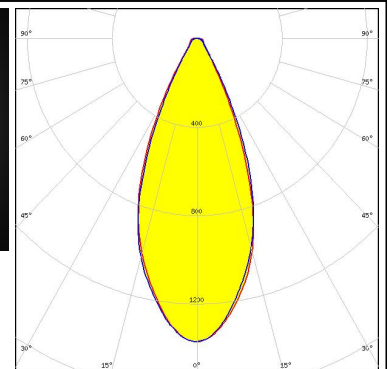
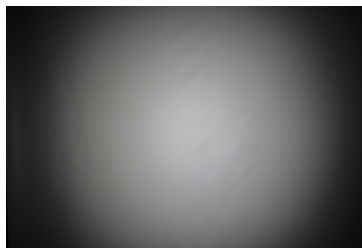
OPTICAL RESULTS (MEASURED):



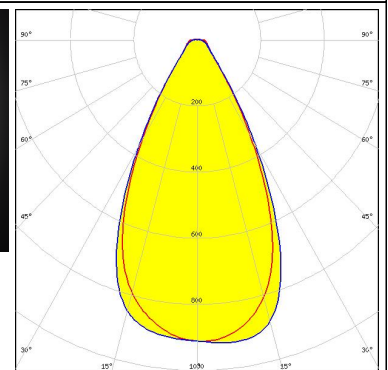
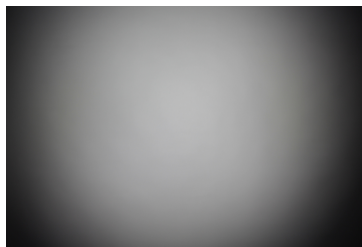
LED Bridgelux SMD 5050
 FWHM / FWTM 56.0° / 89.0°
 Efficiency 94 %
 Peak intensity 0.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



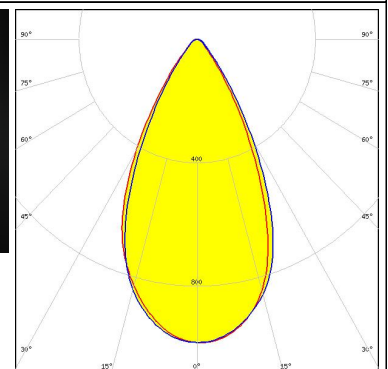
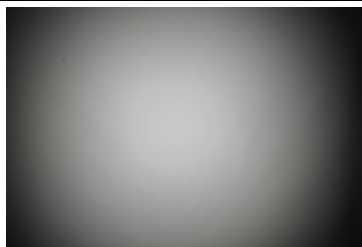
LED XD16
 FWHM / FWTM 44.0° / 71.0°
 Efficiency 90 %
 Peak intensity 1.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED XD16
 FWHM / FWTM 54.0° / 85.0°
 Efficiency 92 %
 Peak intensity 0.9 cd/lm
 LEDs/each optic 4
 Light colour White
 Required components:



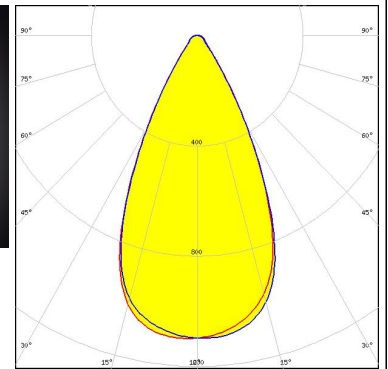
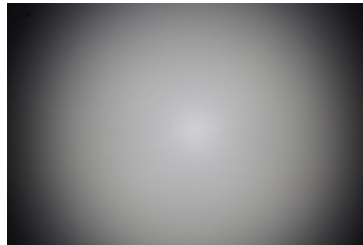
LED XHP35 HD
 FWHM / FWTM 53.0° / 82.0°
 Efficiency 84 %
 Peak intensity 1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



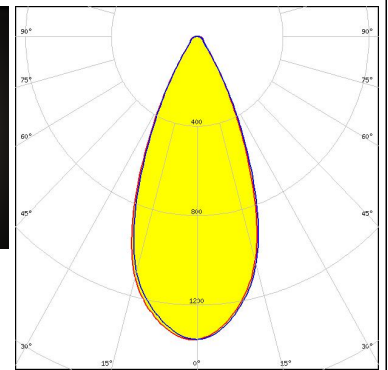
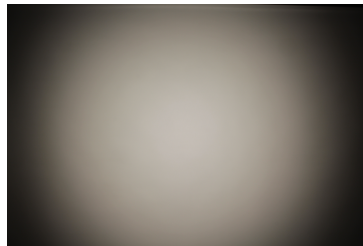
OPTICAL RESULTS (MEASURED):



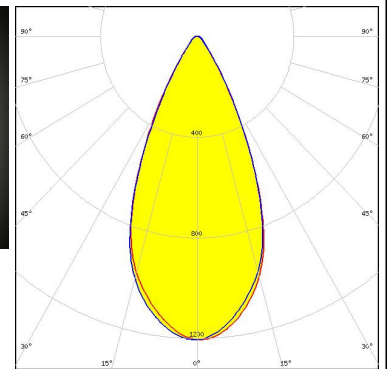
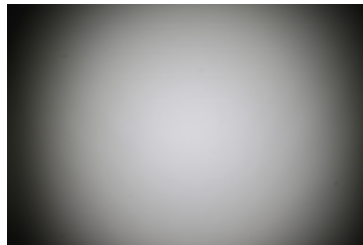
LED XM-L3
FWHM / FWTM 52.0° / 79.0°
Efficiency 95 %
Peak intensity 1.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



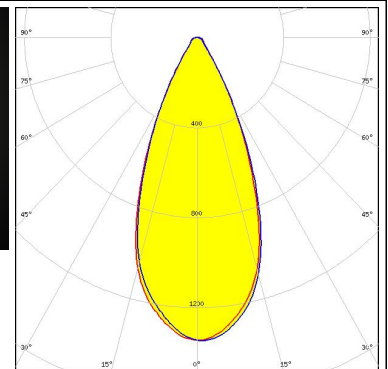
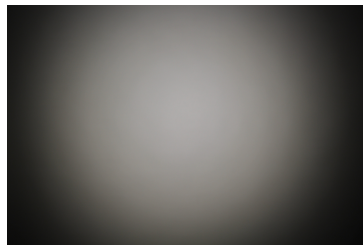
LED XP-G2
FWHM / FWTM 45.0° / 73.0°
Efficiency 94 %
Peak intensity 1.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LED XP-G3
FWHM / FWTM 48.0° / 75.0°
Efficiency 86 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



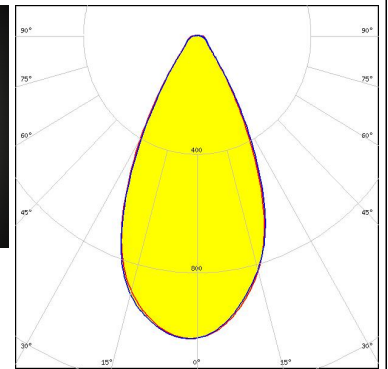
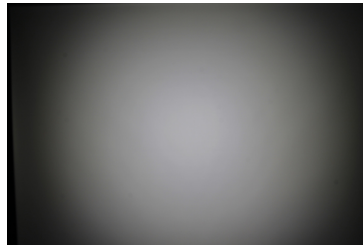
LED XP-L HI
FWHM / FWTM 45.0° / 72.0°
Efficiency 92 %
Peak intensity 1.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



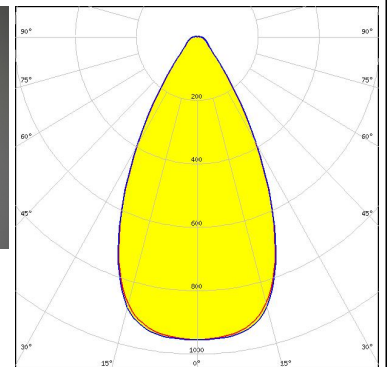
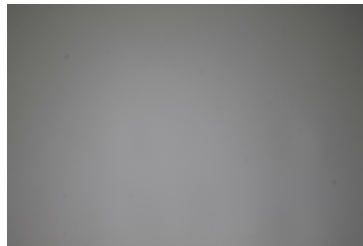
OPTICAL RESULTS (MEASURED):



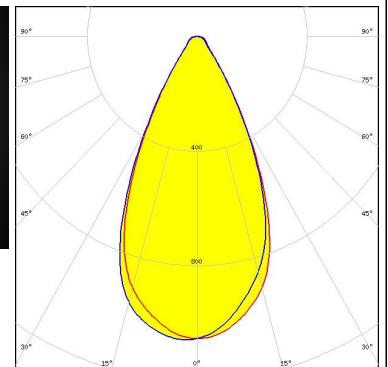
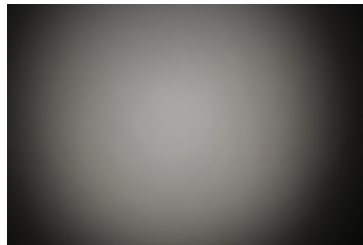
LED XP-L2
FWHM / FWTM 52.0° / 83.0°
Efficiency 92 %
Peak intensity 1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



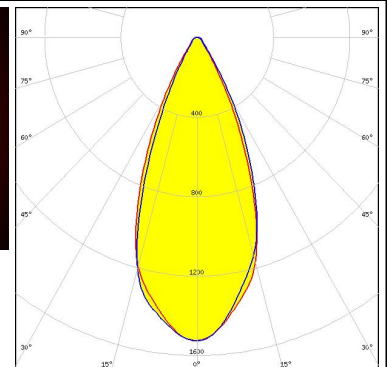
LED LUXEON 5050 Round LES
FWHM / FWTM 55.0° / 87.0°
Efficiency 94 %
Peak intensity 1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LED LUXEON V
FWHM / FWTM 52.0° / 81.0°
Efficiency 93 %
Peak intensity 1.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



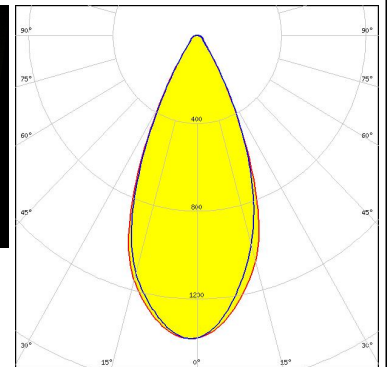
LED SST-10-B130
FWHM / FWTM 44.0° / 70.0°
Efficiency 96 %
Peak intensity 1.5 cd/lm
LEDs/each optic 1
Light colour Deep Red
Required components:



OPTICAL RESULTS (MEASURED):

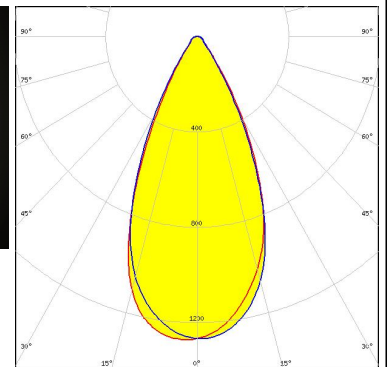
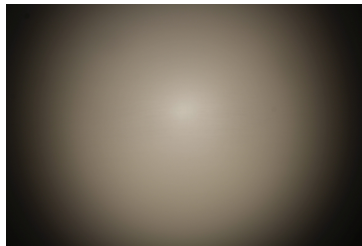
MST Your solutions

LED RecLED 122x50mm 1900lm 730 2x4 Opt G1
 FWHM / FWTM 46.0° / 72.5°
 Efficiency 97 %
 Peak intensity 1.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



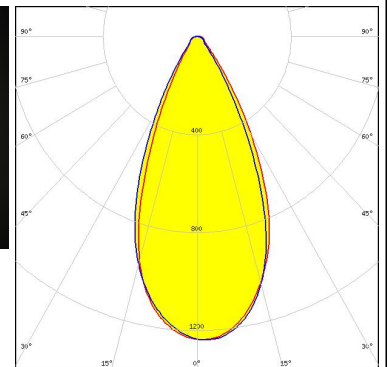
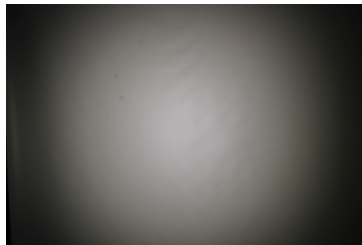
NICHIA

LED NVSW219F
 FWHM / FWTM 49.0° / 76.0°
 Efficiency 96 %
 Peak intensity 1.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



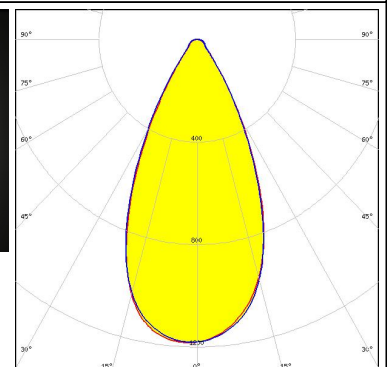
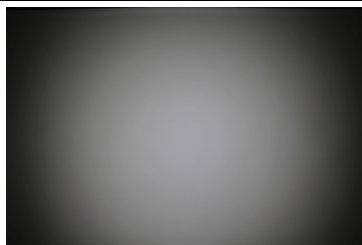
NICHIA

LED NVSW219F
 FWHM / FWTM 48.0° / 76.0°
 Efficiency 94 %
 Peak intensity 1.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



NICHIA

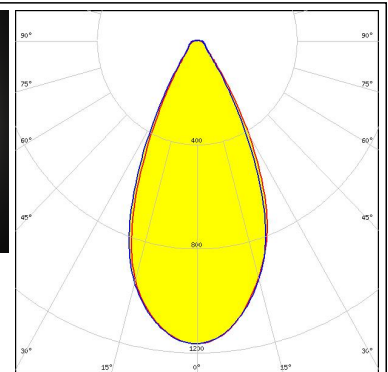
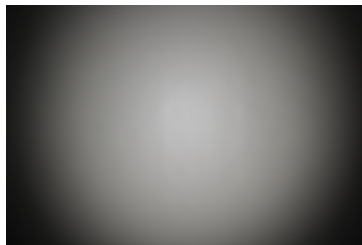
LED NVSW319B
 FWHM / FWTM 50.0° / 79.0°
 Efficiency 94 %
 Peak intensity 1.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

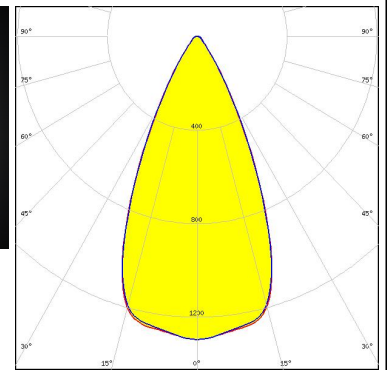
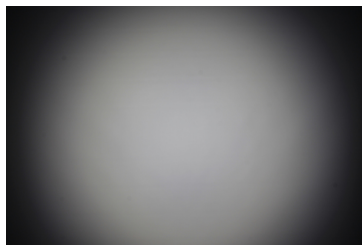


LED NVSW3x9A
FWHM / FWTM 50.0° / 78.0°
Efficiency 93 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OSRAM

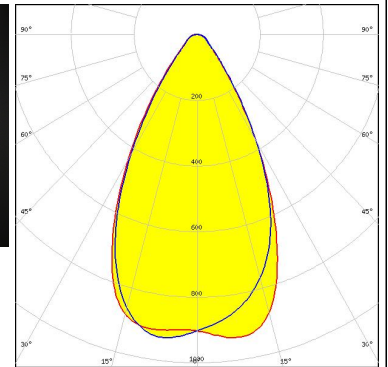
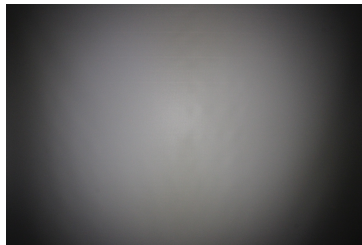
LED PrevaLED Brick HP 2x8
FWHM / FWTM 49.0° / 72.0°
Efficiency 94 %
Peak intensity 1.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OSRAM

Opto Semiconductors

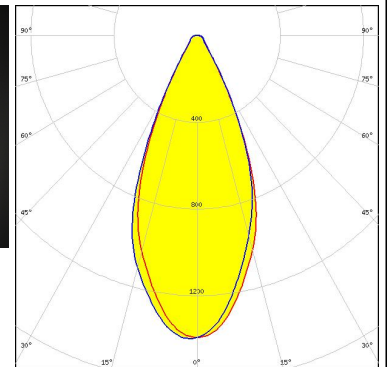
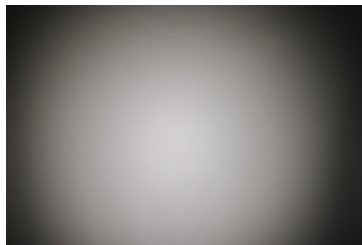
LED Duris S8
FWHM / FWTM 56.0° / 89.0°
Efficiency 95 %
Peak intensity 0.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OSRAM

Opto Semiconductors

LED OSCONIQ C 3030
FWHM / FWTM 45.0° / 71.0°
Efficiency 94 %
Peak intensity 1.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:

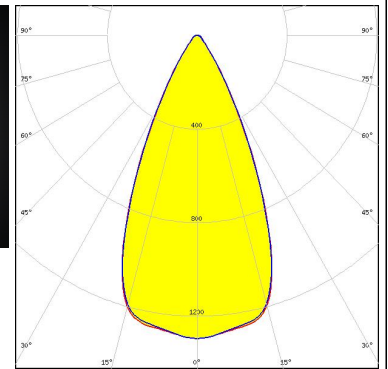
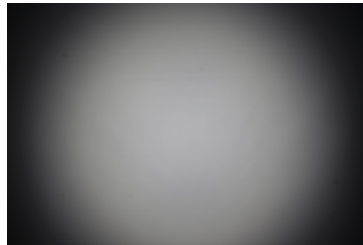


OPTICAL RESULTS (MEASURED):

OSRAM

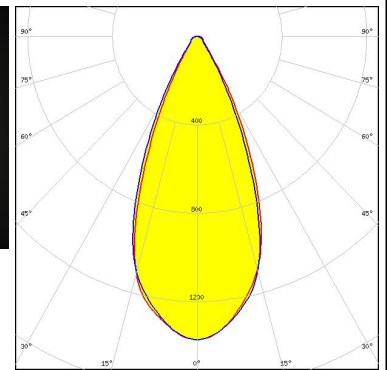
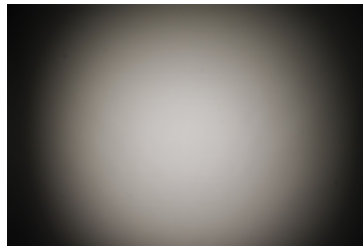
Opto Semiconductors

LED OSLON Square CSSRM2/CSSRM3
FWHM / FWTM 49.0° / 72.0°
Efficiency 94 %
Peak intensity 1.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



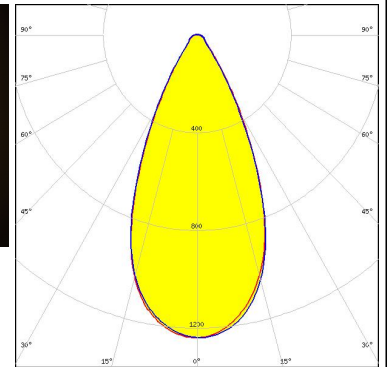
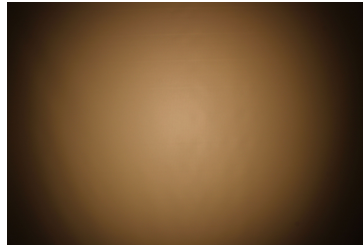
PHILIPS

LED Fortimo FastFlex LED 2x8 DA G4
FWHM / FWTM 45.0° / 71.0°
Efficiency 93 %
Peak intensity 1.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



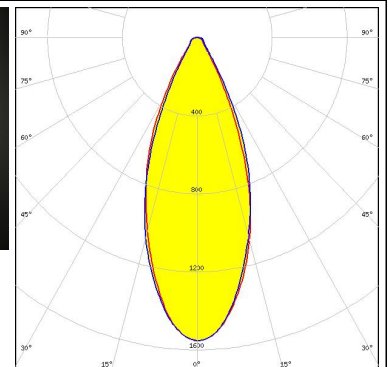
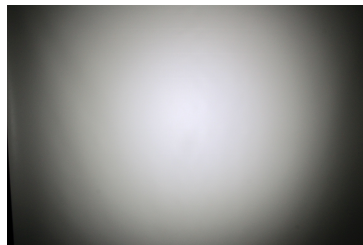
PHILIPS

LED Fortimo FastFlex LED 2x8 DA G4+
FWHM / FWTM 48.0° / 77.0°
Efficiency 96 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



SAMSUNG

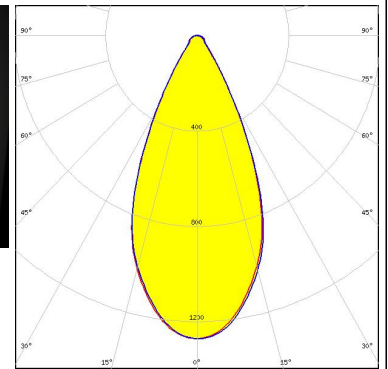
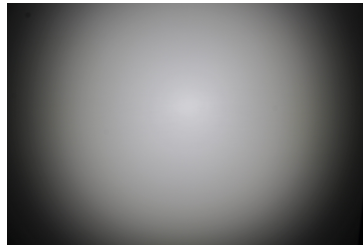
LED HiLOM RC12 Z (LH181B)
FWHM / FWTM 41.0° / 71.0°
Efficiency 97 %
Peak intensity 1.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OPTICAL RESULTS (MEASURED):

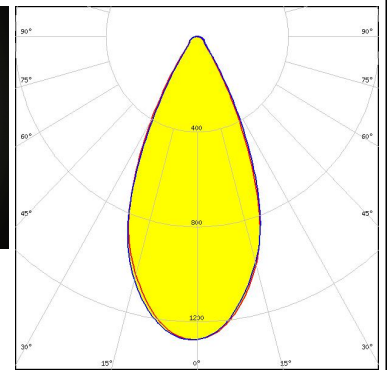
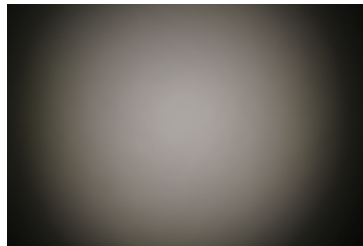
SAMSUNG

LED HiLOM RH12 Z (LH351C)
 FWHM / FWTM 48.0° / 75.0°
 Efficiency 96 %
 Peak intensity 1.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



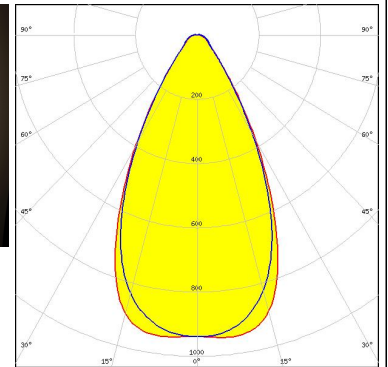
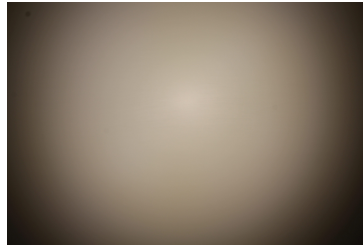
SAMSUNG

LED HiLOM RH16 (LH351C)
 FWHM / FWTM 48.0° / 75.0°
 Efficiency 94 %
 Peak intensity 1.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



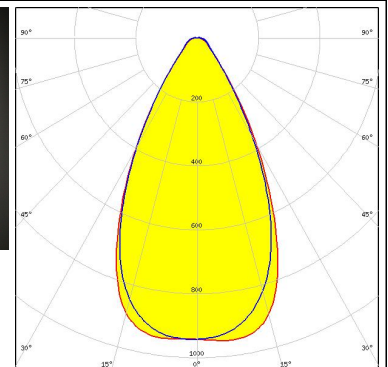
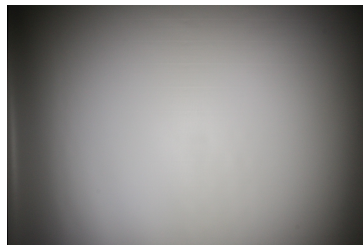
SAMSUNG

LED HiLOM RM12 Z (LH502C)
 FWHM / FWTM 55.0° / 88.0°
 Efficiency 95 %
 Peak intensity 1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



SAMSUNG

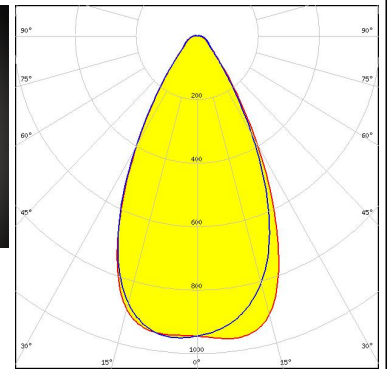
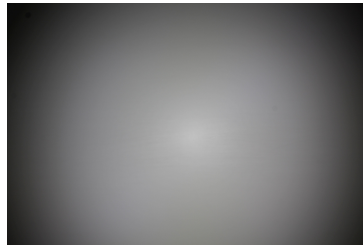
LED HiLOM RM16 Z (LH502C)
 FWHM / FWTM 55.0° / 89.0°
 Efficiency 96 %
 Peak intensity 1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

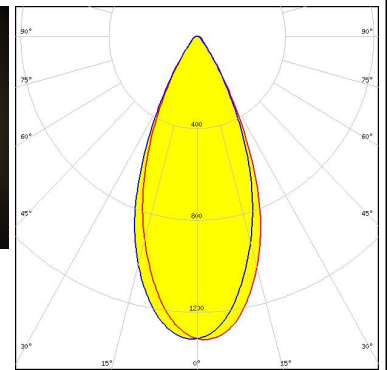
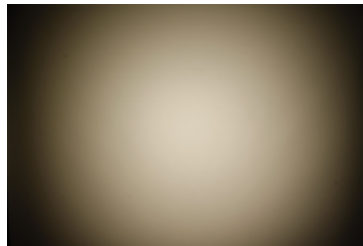
SAMSUNG

LED HiLOM RM8 Z (LH502C)
 FWHM / FWTM 56.0° / 88.0°
 Efficiency 97 %
 Peak intensity 1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



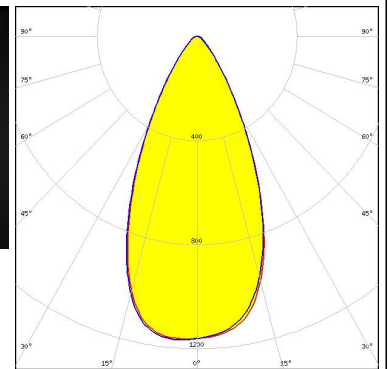
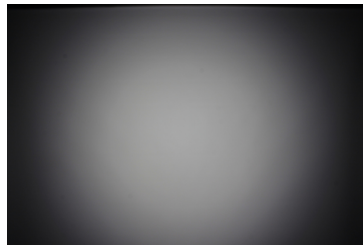
SAMSUNG

LED LH351B
 FWHM / FWTM 45.0° / 74.0°
 Efficiency 86 %
 Peak intensity 1.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



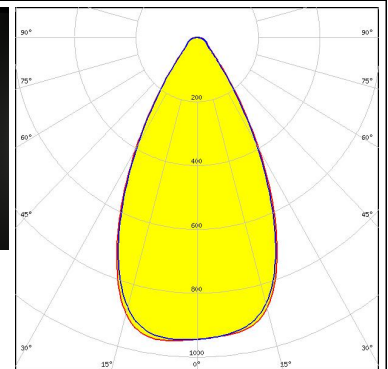
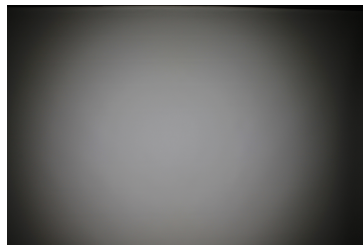
SAMSUNG

LED LH351D
 FWHM / FWTM 49.0° / 82.0°
 Efficiency 94 %
 LEDs/each optic 1
 Light colour White
 Required components:



SAMSUNG

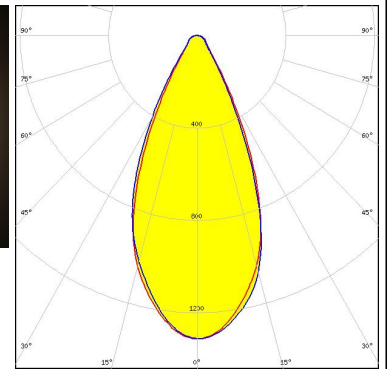
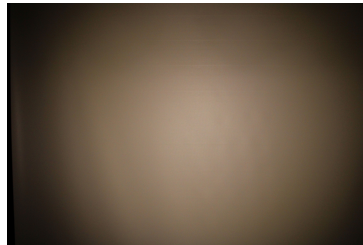
LED LH508A
 FWHM / FWTM 56.0° / 87.0°
 Efficiency 93 %
 Peak intensity 1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

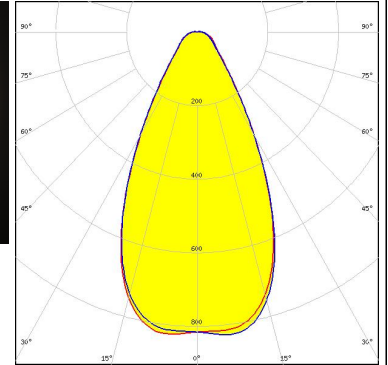


LED LED-Pa-L15c2W11c2-xxx-C050-01
 FWHM / FWTM 47.0° / 76.0°
 Efficiency 96 %
 Peak intensity 1.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



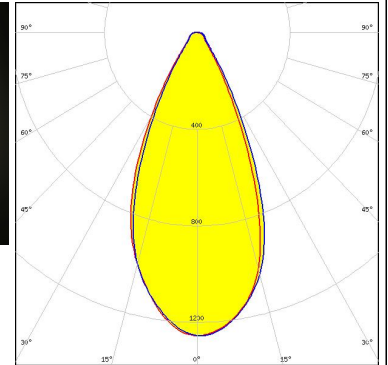
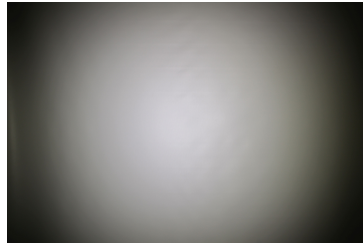
SEOUL SEMICONDUCTOR

LED 2x2 Y22 module - SMJQ-D48W16AA-XX
 FWHM / FWTM 54.0° / 94.0°
 Efficiency 92 %
 Peak intensity 0.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



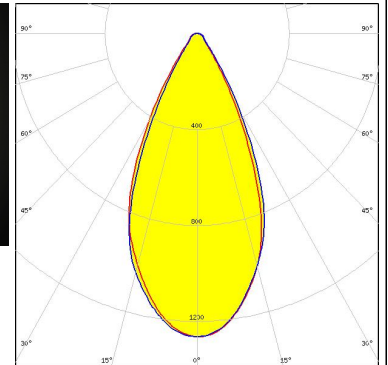
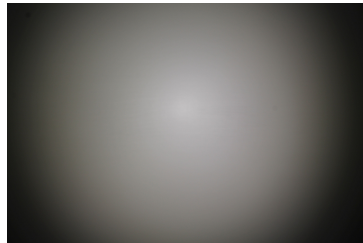
SEOUL SEMICONDUCTOR

LED Z5M3
 FWHM / FWTM 47.0° / 75.0°
 Efficiency 94 %
 Peak intensity 1.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:


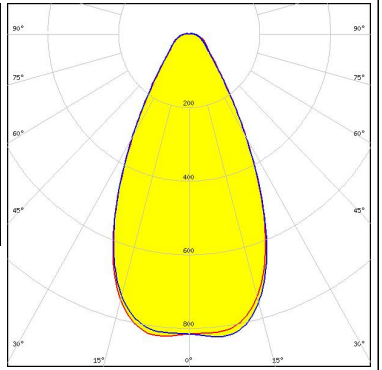
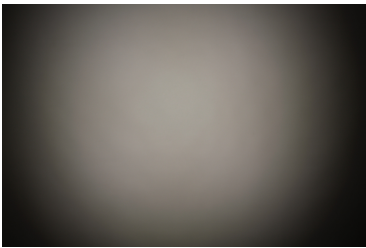
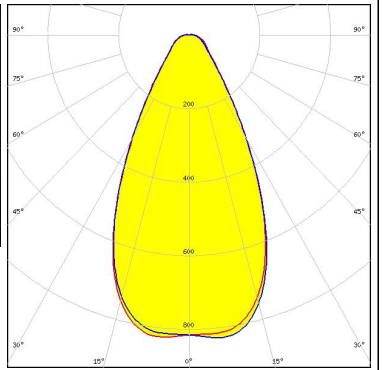

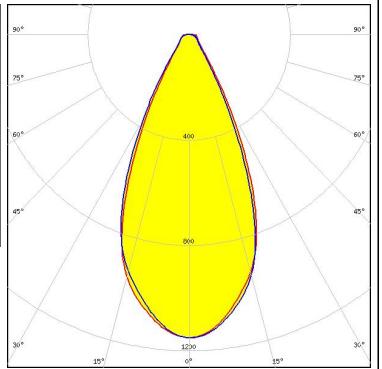


SEOUL SEMICONDUCTOR

LED Z5M4
 FWHM / FWTM 49.0° / 76.0°
 Efficiency 96 %
 Peak intensity 1.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



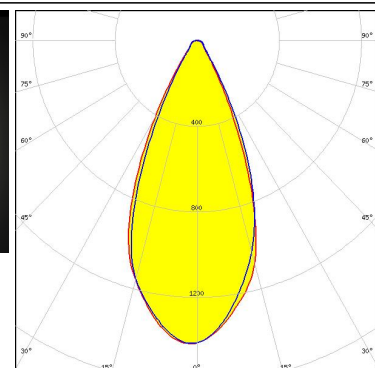
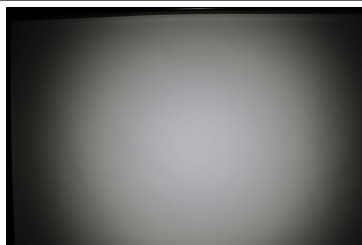
OPTICAL RESULTS (MEASURED):

<p>SEOUL SEMICONDUCTOR</p> <p>LED Z8Y19</p> <p>FWHM / FWTM 54.0° / 94.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.8 cd/lm</p> <p>LEDs/each optic 4</p> <p>Light colour White</p> <p>Required components:</p>		
<p>SEOUL SEMICONDUCTOR</p> <p>LED Z8Y19</p> <p>FWHM / FWTM 54.0° / 94.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.8 cd/lm</p> <p>LEDs/each optic 4</p> <p>Light colour White</p> <p>Required components:</p>		
<p>SEOUL SEMICONDUCTOR</p> <p>LED Z8Y22P</p> <p>FWHM / FWTM 48.0° / 77.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 1.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>TRIDONIC</p> <p>LED RLE 2x4 2000lm HP EXC2 OTD</p> <p>FWHM / FWTM 46.0° / 71.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 1.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

OPTICAL RESULTS (MEASURED):

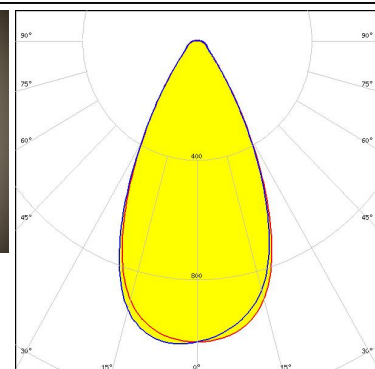
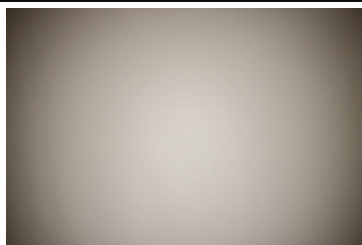
TRIDONIC

LED RLE 2x8 4000lm HP EXC2 OTD
FWHM / FWTM 46.0° / 71.0°
Efficiency 94 %
Peak intensity 1.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



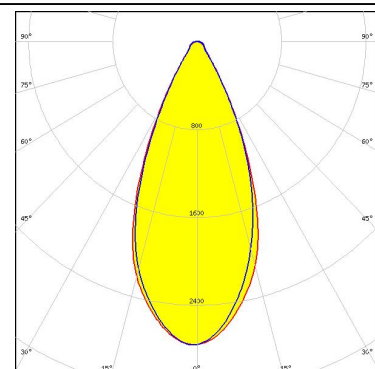
TRIDONIC

LED RLE 2x8 6000lm HP HE EXC3 OTD
FWHM / FWTM 53.0° / 86.0°
Efficiency 96 %
Peak intensity 1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



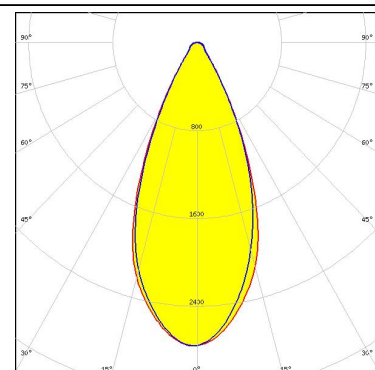
TRIDONIC

LED RLE G1 49x121mm 2000lm xxx EXC OTD
FWHM / FWTM 46.0° / 73.0°
Efficiency 94 %
Peak intensity 1.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



TRIDONIC

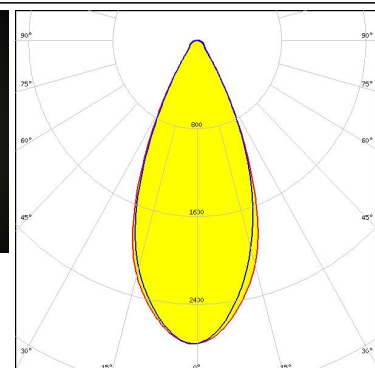
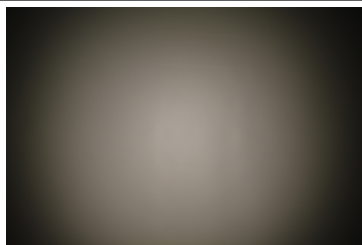
LED RLE G1 49x133mm 2000lm xxx EXC OTD
FWHM / FWTM 46.0° / 73.0°
Efficiency 94 %
Peak intensity 1.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OPTICAL RESULTS (MEASURED):

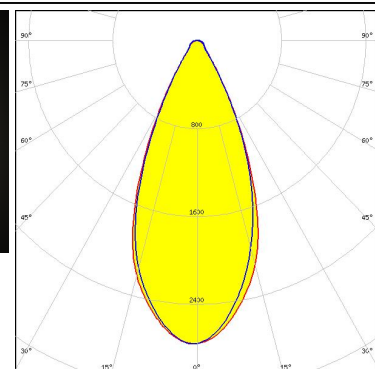
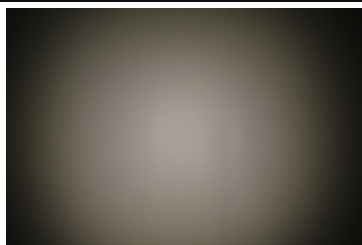
TRIDONIC

LED RLE G1 49x223mm 4000lm xxx EXC OTD
FWHM / FWTM 46.0° / 73.0°
Efficiency 94 %
Peak intensity 1.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



TRIDONIC

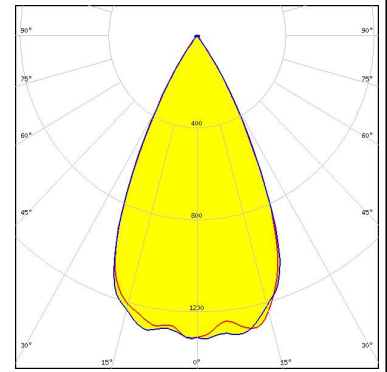
LED RLE G1 49x245mm 4000lm xxx EXC OTD
FWHM / FWTM 46.0° / 73.0°
Efficiency 94 %
Peak intensity 1.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



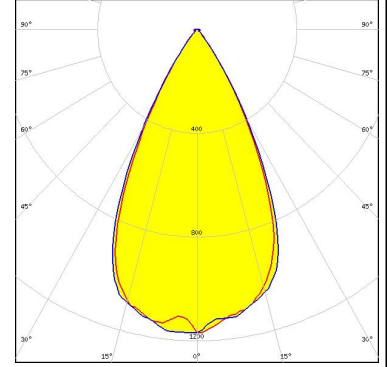
OPTICAL RESULTS (SIMULATED):



LED XHP35 HI
FWHM / FWTM 52.0° / 68.0°
Efficiency 93 %
Peak intensity 1.4 cd/Im
LEDs/each optic 1
Light colour White
Required components:

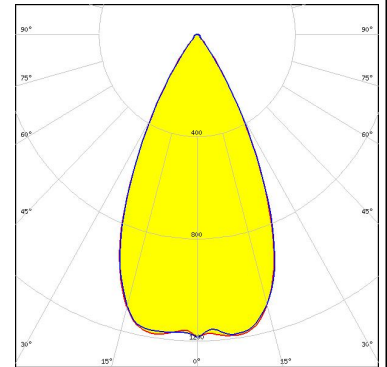


LED XM-L
FWHM / FWTM 54.0° / 74.0°
Efficiency 92 %
Peak intensity 1.2 cd/Im
LEDs/each optic 1
Light colour White
Required components:

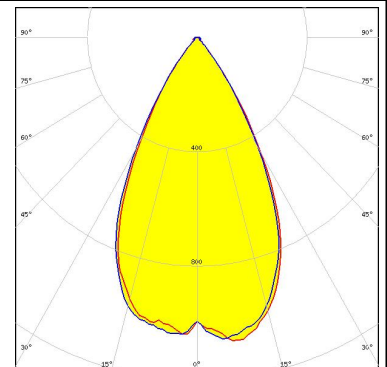


LED XP-G3
FWHM / FWTM 52.0° / 74.0°
Efficiency 89 %
Peak intensity 1.2 cd/Im
LEDs/each optic 1
Light colour White
Required components:

Protective plate, glass



LED XP-L HD
FWHM / FWTM 55.0° / 79.0°
Efficiency 93 %
Peak intensity 1.1 cd/Im
LEDs/each optic 1
Light colour White
Required components:

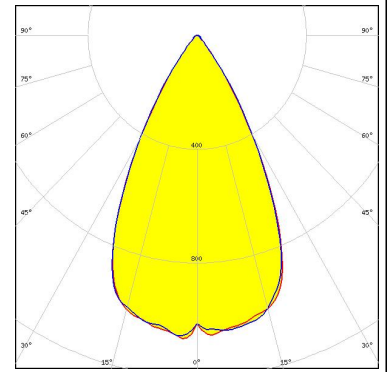


OPTICAL RESULTS (SIMULATED):



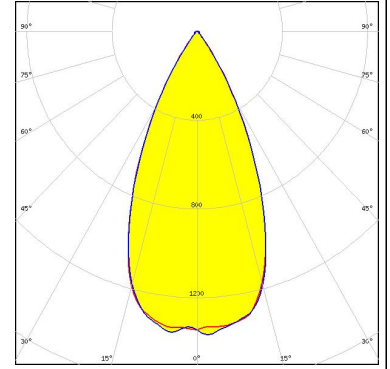
LED XP-L HD
FWHM / FWTM 56.0° / 78.0°
Efficiency 90 %
Peak intensity 1.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:

Protective plate, glass



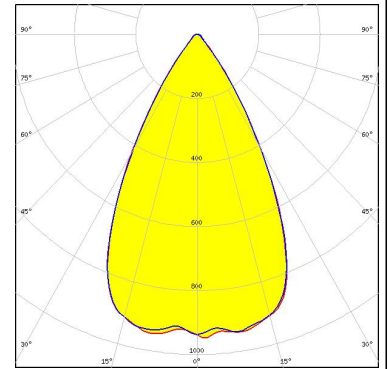
LED XP-L HI
FWHM / FWTM 48.0° / 72.0°
Efficiency 90 %
Peak intensity 1.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:

Protective plate, glass



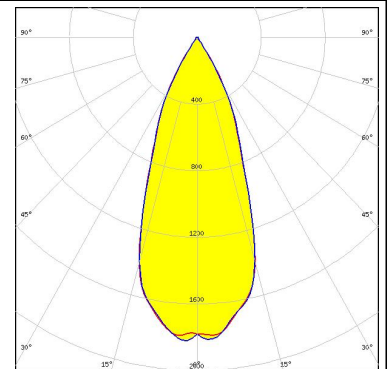
LED XP-L2
FWHM / FWTM 58.0° / 82.0°
Efficiency 89 %
Peak intensity 1 cd/lm
LEDs/each optic 1
Light colour White
Required components:

Protective plate, glass



LED XP-P
FWHM / FWTM 40.0° / 66.0°
Efficiency 91 %
Peak intensity 1.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:

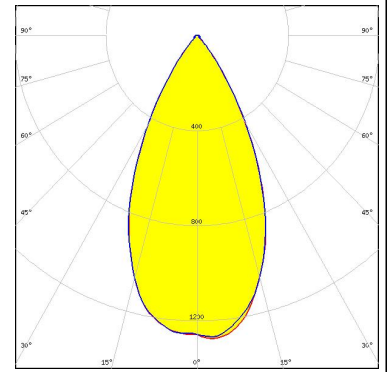
Protective plate, glass



OPTICAL RESULTS (SIMULATED):

LUMILEDS

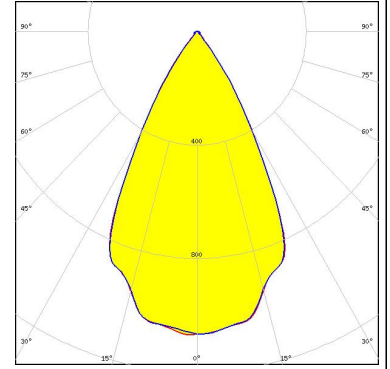
LED LUXEON HL2X
FWHM / FWTM 50.0° / 76.0°
Efficiency 94 %
Peak intensity 1.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LUMILEDS

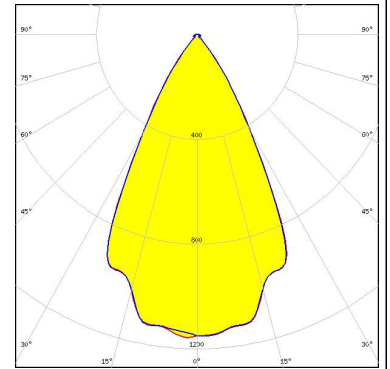
LED LUXEON HL2X-D
FWHM / FWTM 56.0° / 76.0°
Efficiency 88 %
Peak intensity 1.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:

Protective plate, glass



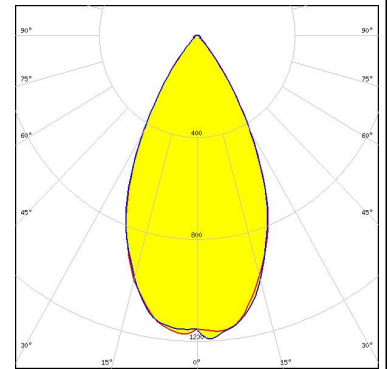
LUMILEDS

LED LUXEON HL2X-D
FWHM / FWTM 56.0° / 76.0°
Efficiency 96 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LUMILEDS

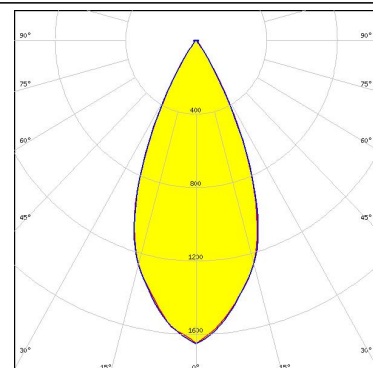
LED LUXEON HL2X-P
FWHM / FWTM 54.0° / 80.0°
Efficiency 94 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OPTICAL RESULTS (SIMULATED):

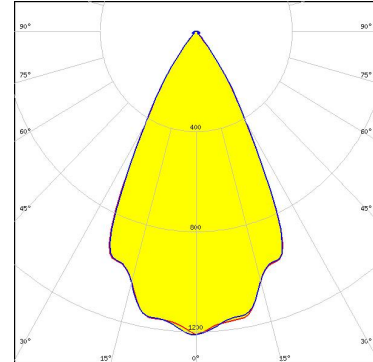
LUMILEDS

LED LUXEON HL2Z
 FWHM / FWTM 46.0° / 66.0°
 Efficiency 94 %
 Peak intensity 1.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LUMILEDS

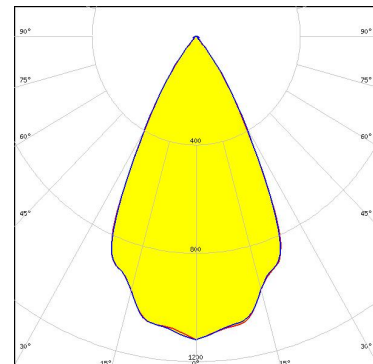
LED LUXEON XR-HL2X (L2H2-xxxxxxxMLU010)
 FWHM / FWTM 54.0° / 76.0°
 Efficiency 96 %
 Peak intensity 1.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LUMILEDS

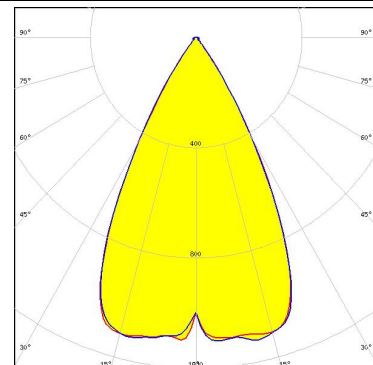
LED LUXEON XR-HL2X (L2H2-xxxxxxxMLU010)
 FWHM / FWTM 54.0° / 76.0°
 Efficiency 88 %
 Peak intensity 1.1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

Protective plate, glass



NICHIA

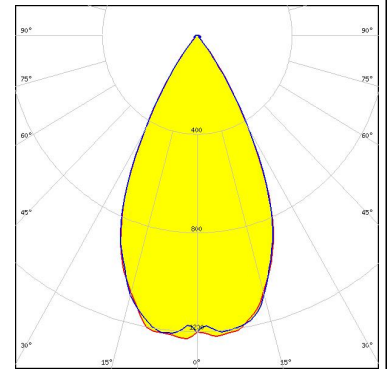
LED NV4WB35AM
 FWHM / FWTM 56.0° / 74.0°
 Efficiency 95 %
 Peak intensity 1.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (SIMULATED):

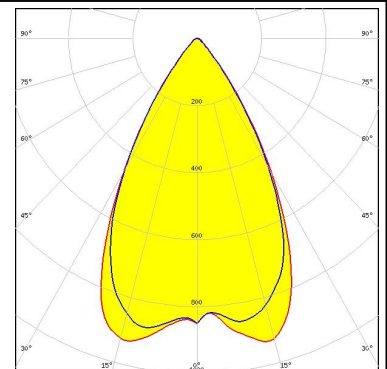


LED NVSW219D
 FWHM / FWTM 54.0° / 75.0°
 Efficiency 95 %
 Peak intensity 1.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

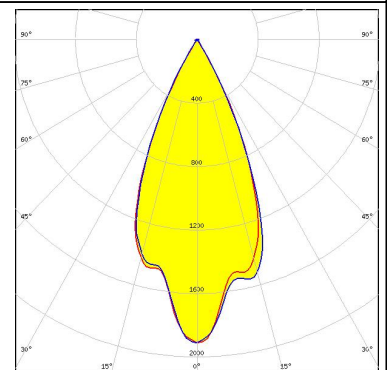


LED Duris S8
 FWHM / FWTM 57.0° / 83.0°
 Efficiency 90 %
 Peak intensity 1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

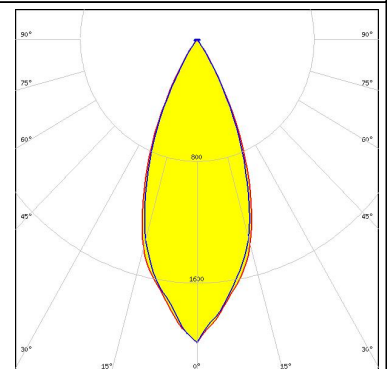
Protective plate, glass



LED OSCONIQ C 2424
 FWHM / FWTM 45.0° / 62.0°
 Efficiency 96 %
 Peak intensity 1.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED OSCONIQ P 3030
 FWHM / FWTM 42.0° / 64.0°
 Efficiency 96 %
 Peak intensity 2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

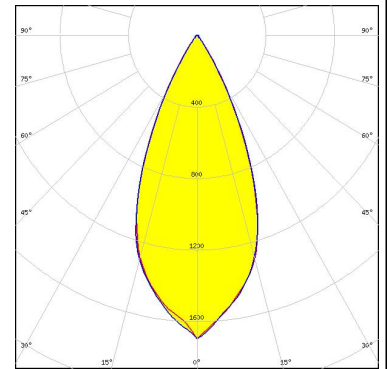


OPTICAL RESULTS (SIMULATED):

OSRAM

Opto Semiconductors

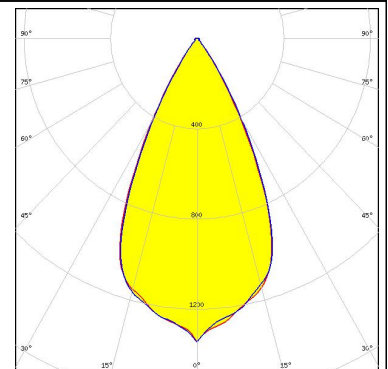
LED OSCONIQ P 3737 (2W version)
 FWHM / FWTM 45.0° / 68.0°
 Efficiency 96 %
 Peak intensity 1.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OSRAM

Opto Semiconductors

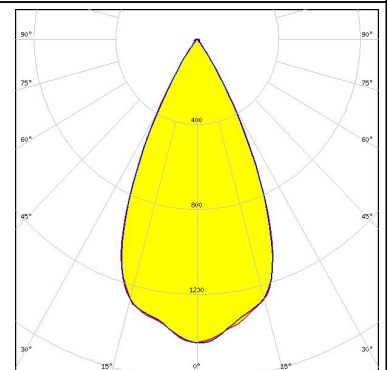
LED OSCONIQ P 3737 (3W version)
 FWHM / FWTM 52.0° / 72.0°
 Efficiency 94 %
 Peak intensity 1.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OSRAM

Opto Semiconductors

LED OSCONIQ P 3737 Flat
 FWHM / FWTM 50.0° / 68.0°
 Efficiency 96 %
 Peak intensity 1.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

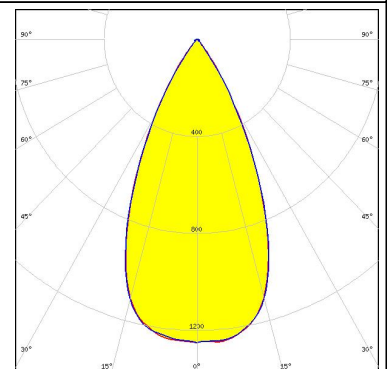


OSRAM

Opto Semiconductors

LED OSLON Square CSSRM2/CSSRM3
 FWHM / FWTM 50.0° / 72.0°
 Efficiency 87 %
 Peak intensity 1.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

Protective plate, glass

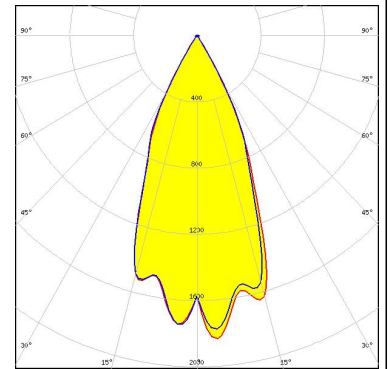


OPTICAL RESULTS (SIMULATED):

OSRAM

Opto Semiconductors

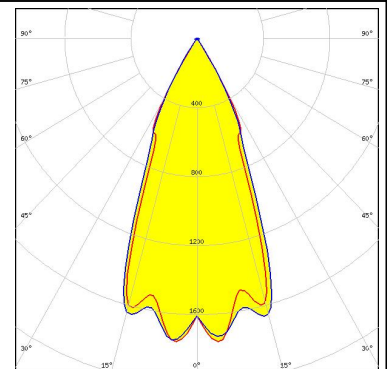
LED OSLON Square Flat
FWHM / FWTM 43.0° / 64.0°
Efficiency 96 %
Peak intensity 1.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OSRAM

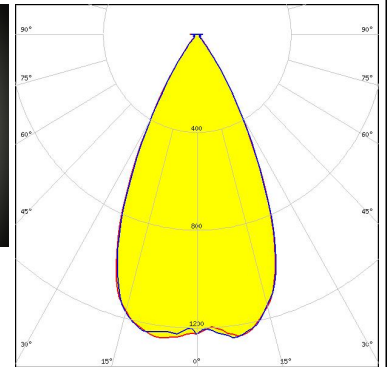
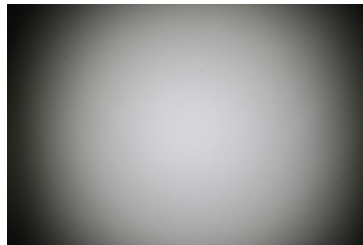
Opto Semiconductors

LED OSTAR Projection Compact (KW.CSLNM1.TG)
FWHM / FWTM 42.0° / 64.0°
Efficiency 96 %
Peak intensity 1.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:



PHILIPS

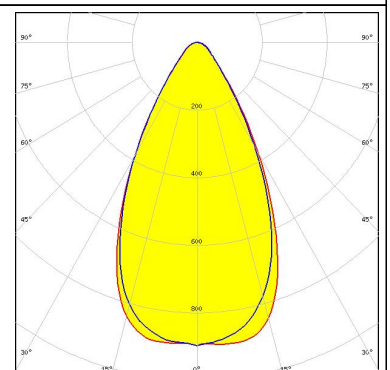
LED Fortimo FastFlex LED 2x8 DAX G4
FWHM / FWTM 51.0° / 73.0°
Efficiency 94 %
Peak intensity 1.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



SAMSUNG

LED HiLOM RM16 Z (LH502C)
FWHM / FWTM 56.0° / 90.0°
Efficiency 89 %
Peak intensity 0.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:

Protective plate, glass



OPTICAL RESULTS (SIMULATED):

<p> SEOUL SEMICONDUCTOR</p> <p>LED SEOUL DC 5050 6V</p> <p>FWHM / FWTM 54.0° / 79.0°</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> SEOUL SEMICONDUCTOR</p> <p>LED Z8Y22T</p> <p>FWHM / FWTM 51.0° / 69.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 1.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	

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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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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P.R.CHINA

Local sales and technical support

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where_to_buy](http://www.ledil.com/where_to_buy)

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Distribution Partners

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