


HB-2X2-O

~20° + 115° oval beam for aisle lighting

TECHNICAL SPECIFICATIONS:

Dimensions	50.0 mm
Height	10.6 mm
Fastening	glue, pin, screw
ROHS compliant	yes 

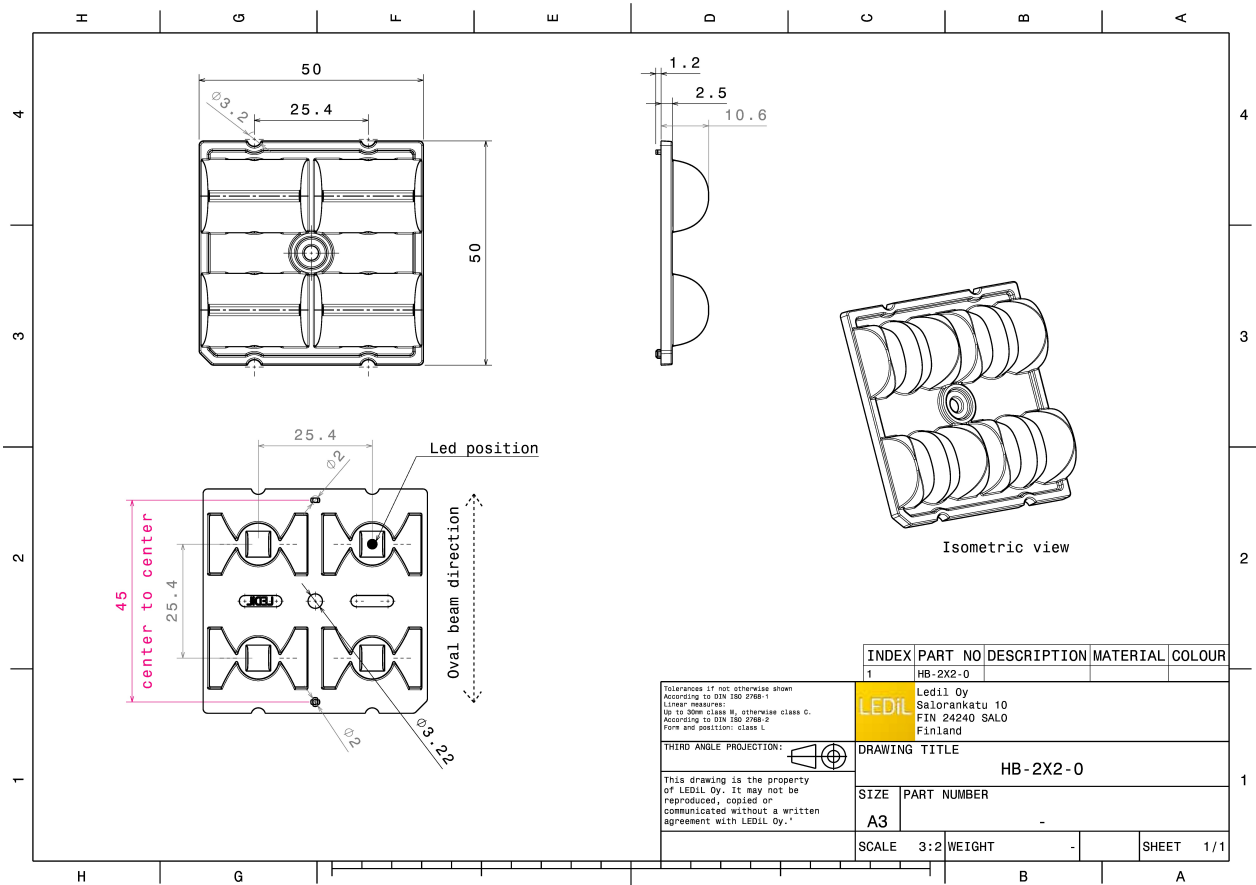
MATERIAL SPECIFICATIONS:

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



ORDERING INFORMATION:

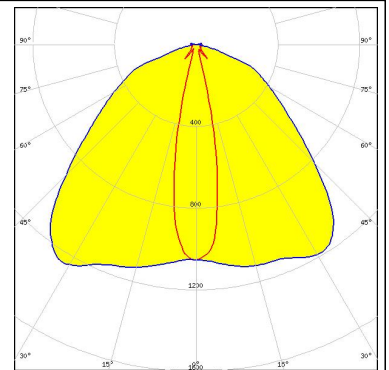
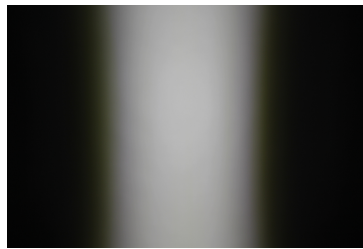
Component	Qty in box	MOQ	MPQ	Box weight (kg)
C13749_HB-2X2-O » Box size: 480 x 280 x 300 mm	800	160	160	10.4



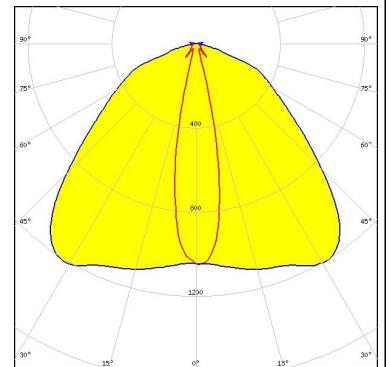
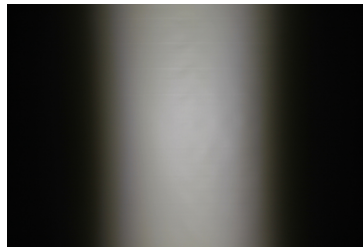
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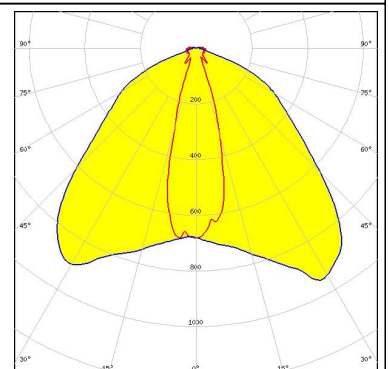
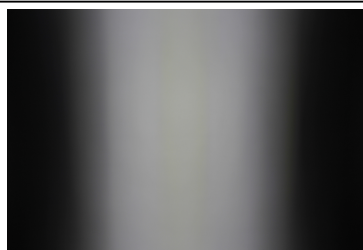
LED QUICK FLUX XTP 2x4 xxx LS G5
FWHM 21.0 + 111.0°
Efficiency 94 %
Peak intensity 1.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



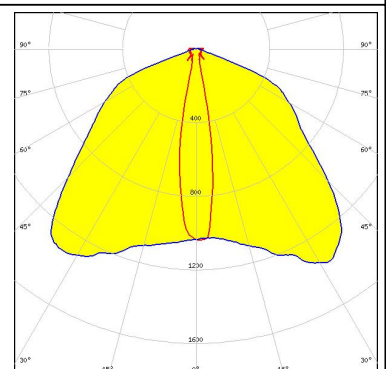
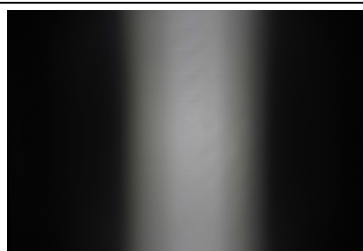
LED QUICK FLUX XTP 2x6 xxx LS G5
FWHM 22.0 + 111.0°
Efficiency 94 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LED XD16
FWHM 29.0 + 116.0°
Efficiency 94 %
Peak intensity 1 cd/lm
LEDs/each optic 4
Light colour White
Required components:



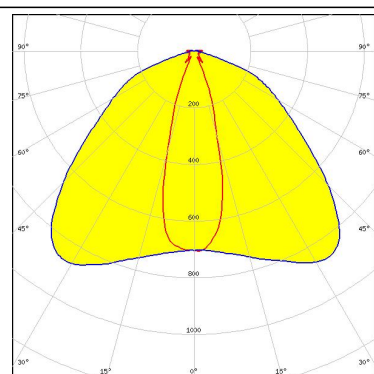
LED XD16
FWHM 19.0 + 127.0°
Efficiency 93 %
Peak intensity 1.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



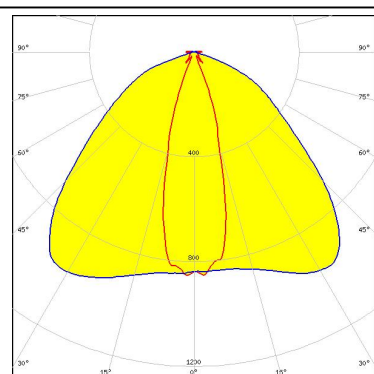
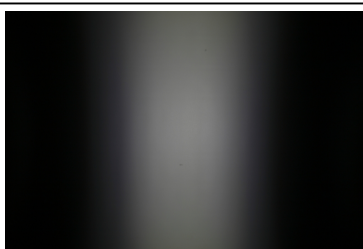
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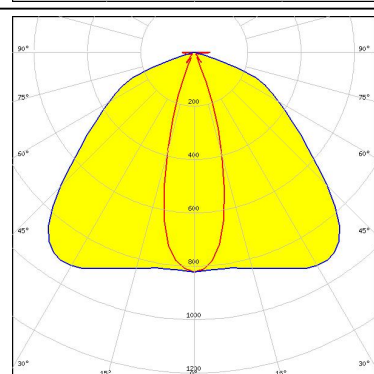
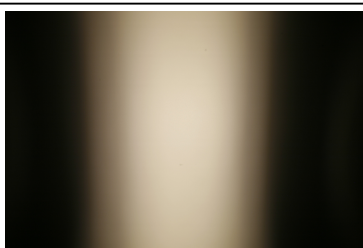
LED XHP35 HD
FWHM 29.0 + 117.0°
Efficiency 94 %
Peak intensity 0.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:



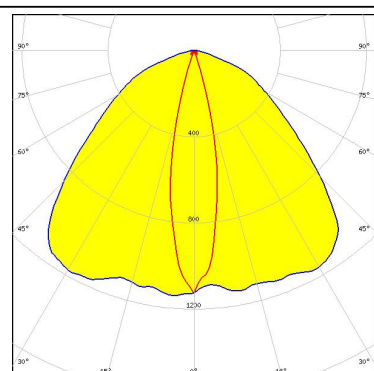
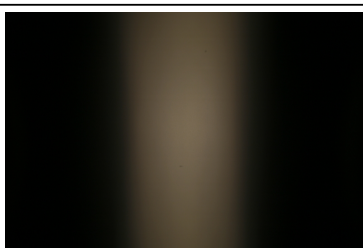
LED XM-L
FWHM 28.0 + 108.0°
Efficiency 94 %
Peak intensity 1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LED XM-L2
FWHM 30.0 + 106.0°
Efficiency 94 %
Peak intensity 1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



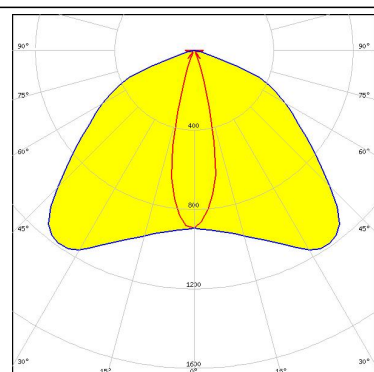
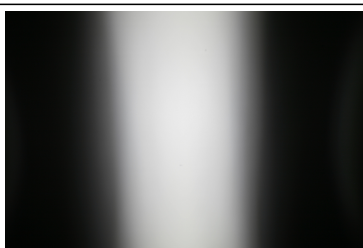
LED XP-G
FWHM 26.0 + 115.0°
Efficiency 94 %
Peak intensity 1.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



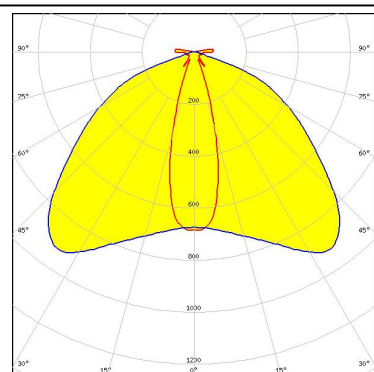
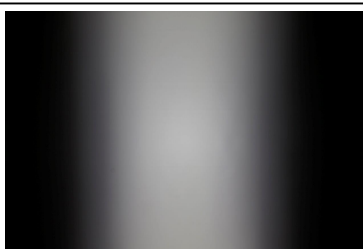
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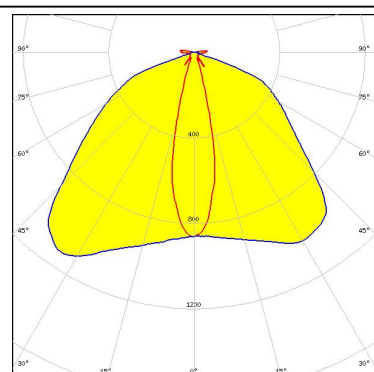
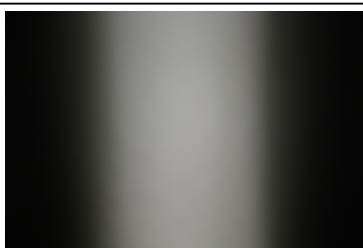
LED XP-G2
FWHM 27.0 + 112.0°
Efficiency 94 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



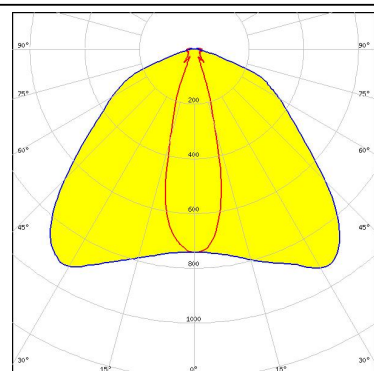
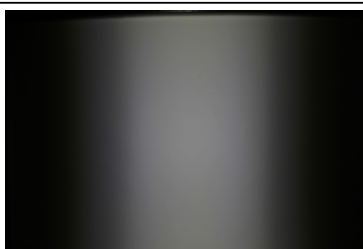
LED XP-L HD
FWHM 29.0 + 117.0°
Efficiency 94 %
Peak intensity 0.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LED XP-L HI
FWHM 25.0 + 123.0°
Efficiency 94 %
Peak intensity 1.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



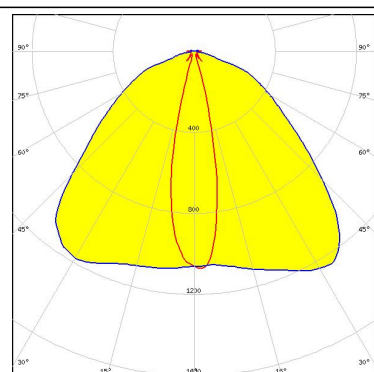
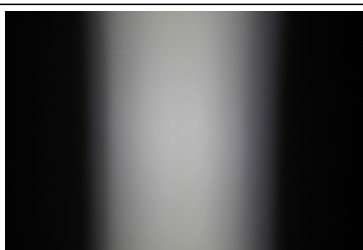
LED XP-L2
FWHM 28.0 + 117.0°
Efficiency 94 %
Peak intensity 0.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:



PHOTOMETRIC DATA (MEASURED):

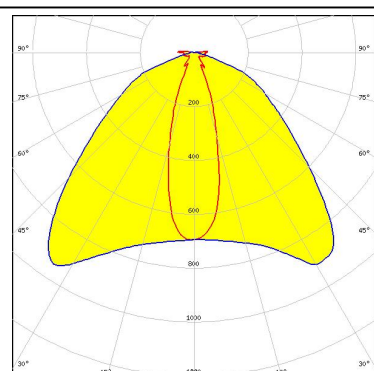
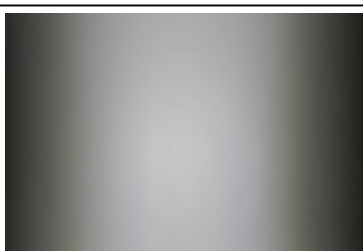
LG Innotech

LED H35C1 (LEMWA33)
FWHM 23.0 + 110.0°
Efficiency 94 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



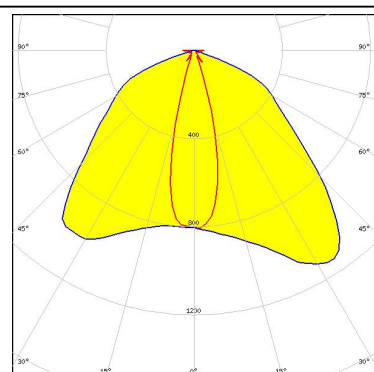
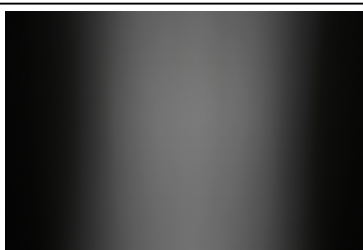
LUMILEDS

LED LUXEON 5050 Round LES
FWHM 29.0 + 114.0°
Efficiency 94 %
Peak intensity 0.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:



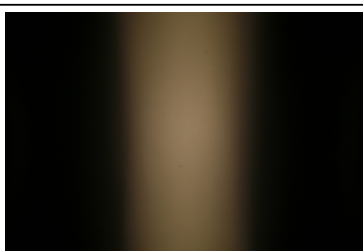
LUMILEDS

LED LUXEON MZ
FWHM 28.0 + 103.0°
Efficiency 94 %
Peak intensity 1.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LUMILEDS

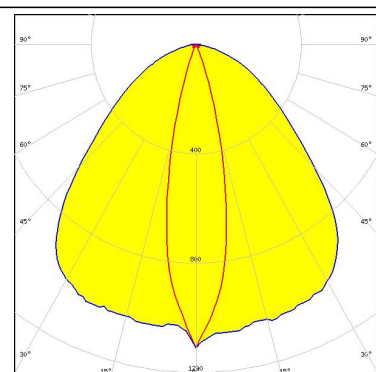
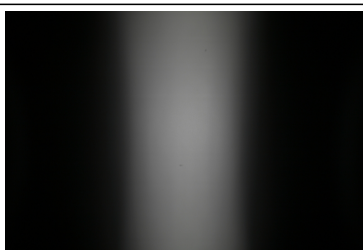
LED LUXEON R
FWHM 25.0 + 105.0°
Efficiency 94 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



PHOTOMETRIC DATA (MEASURED):

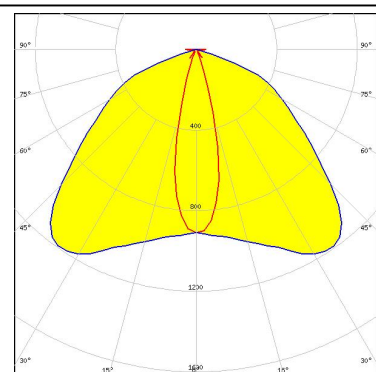
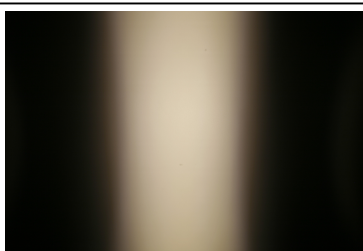
LUMILEDS

LED LUXEON Rebel ES
FWHM 25.0 + 106.0°
Efficiency 94 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



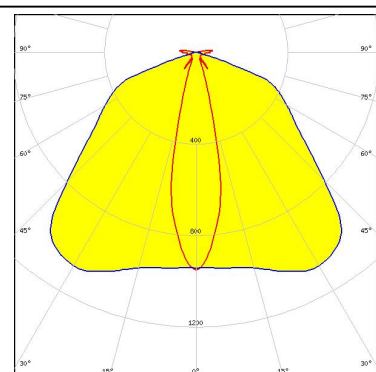
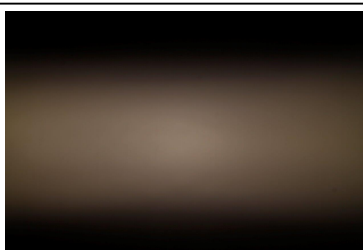
LUMILEDS

LED LUXEON T
FWHM 26.0 + 110.0°
Efficiency 94 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



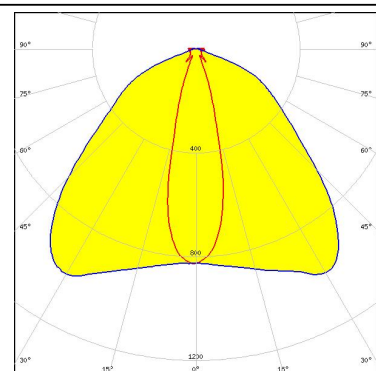
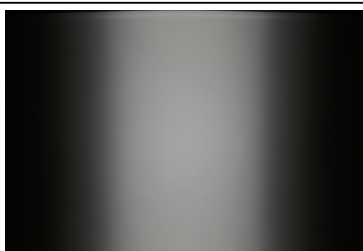
LUMILEDS

LED LUXEON TX
FWHM 24.0 + 118.0°
Efficiency 94 %
Peak intensity 1.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LUMILEDS

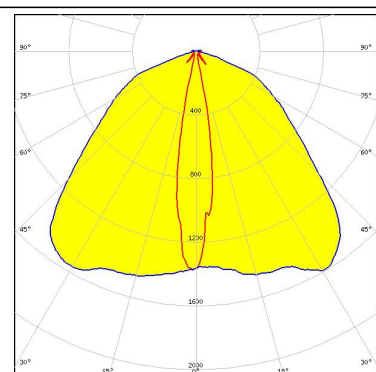
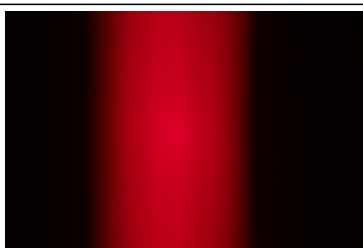
LED LUXEON V
FWHM 26.0 + 108.0°
Efficiency 94 %
Peak intensity 1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



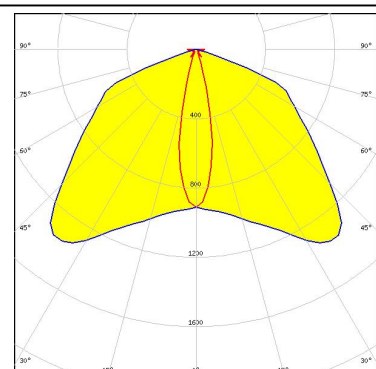
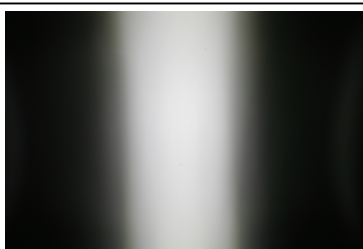
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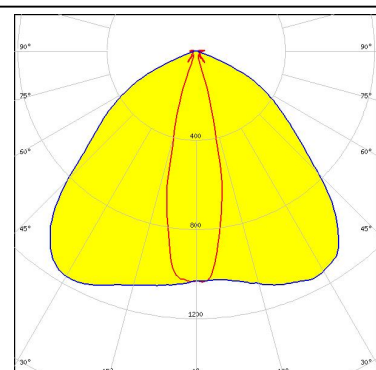
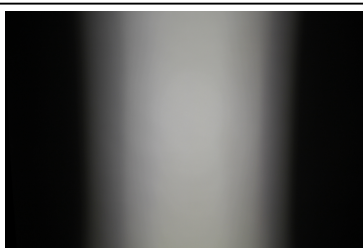
LED SST-10-B130
FWHM 18.0 + 104.0°
Efficiency 97 %
Peak intensity 1.6 cd/lm
LEDs/each optic 1
Light colour Deep Red
Required components:



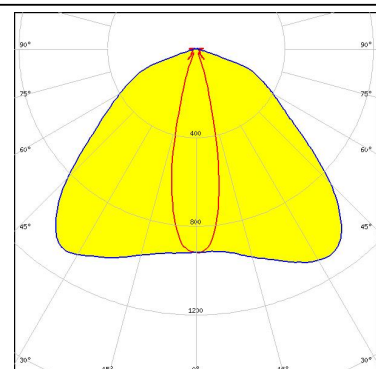
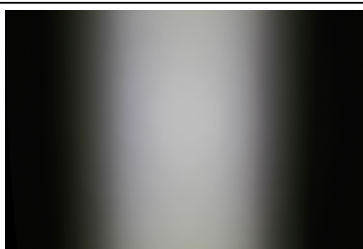
LED NCSxx19B
FWHM 23.0 + 113.0°
Efficiency 94 %
Peak intensity 1.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LED NVSW219D
FWHM 25.0 + 107.0°
Efficiency 94 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



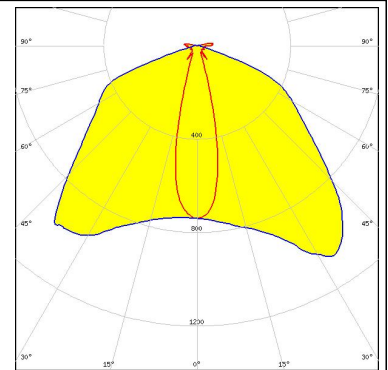
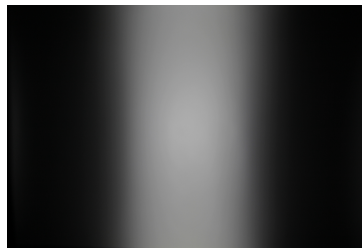
LED NVSW319B
FWHM 25.0 + 113.0°
Efficiency 94 %
Peak intensity 1.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



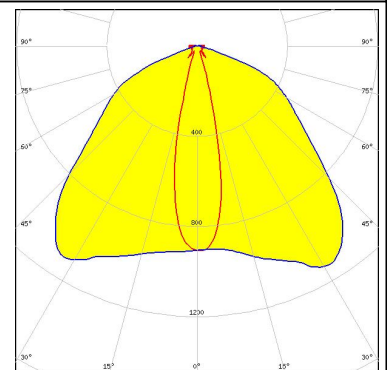
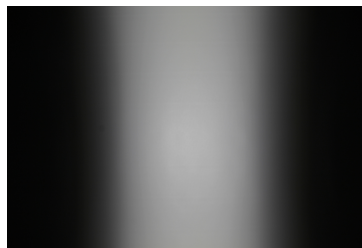
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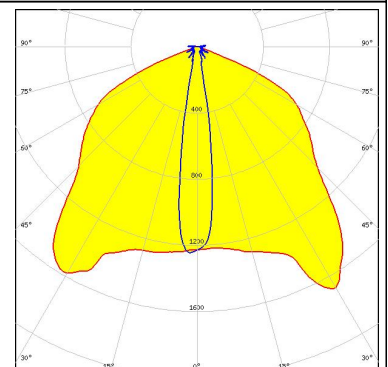
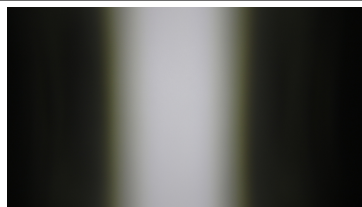
LED NVSW3x9A
FWHM 25.0 + 134.0°
Efficiency 93 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



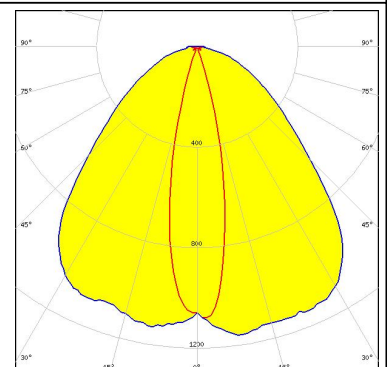
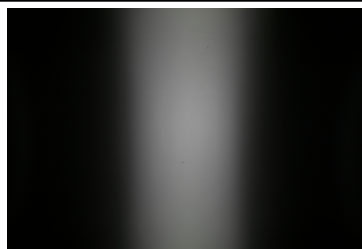
LED NVSW3x9A
FWHM 24.0 + 119.0°
Efficiency 94 %
Peak intensity 1.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LED NVSxE21A
FWHM 17.0 + 125.0°
Efficiency 94 %
Peak intensity 1.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:



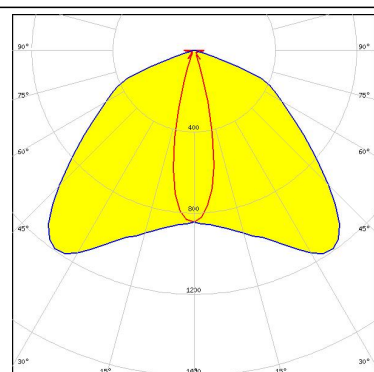
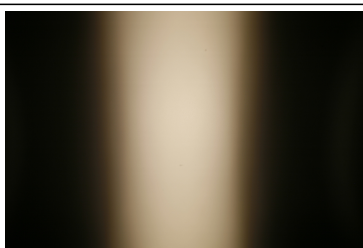
LED NVSxx19A
FWHM 24.0 + 105.0°
Efficiency 94 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



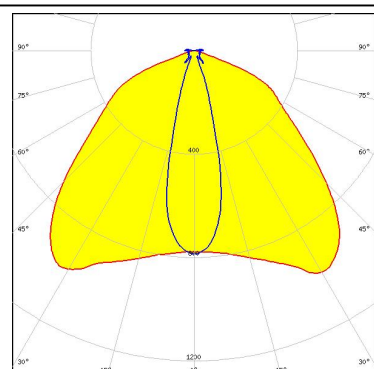
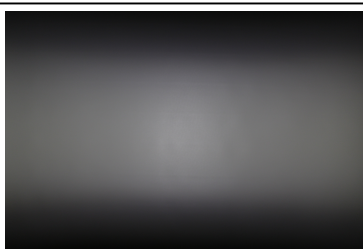
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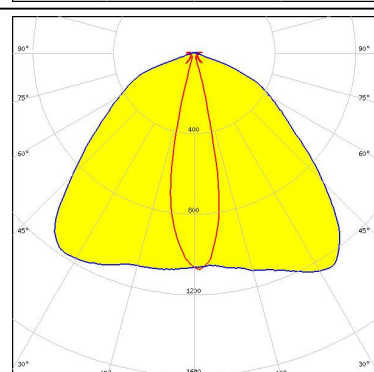
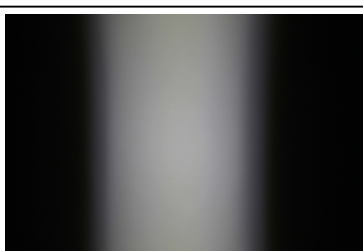
LED NVSxx19B/NVSxx19C
FWHM 26.0 + 108.0°
Efficiency 94 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



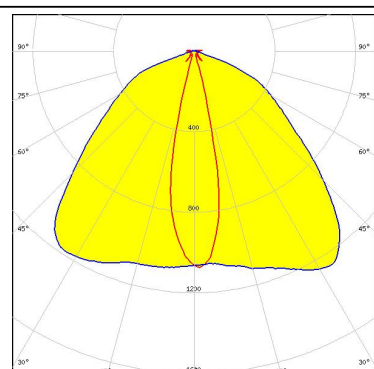
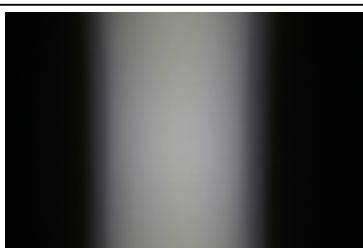
LED NWSx229A
FWHM 27.0 + 118.0°
Efficiency 94 %
Peak intensity 1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LED PrevaLED Brick HP 2x8
FWHM 23.0 + 111.0°
Efficiency 94 %
Peak intensity 1.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LED OSLON Square CSSRM2/CSSRM3
FWHM 23.0 + 111.0°
Efficiency 94 %
Peak intensity 1.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:

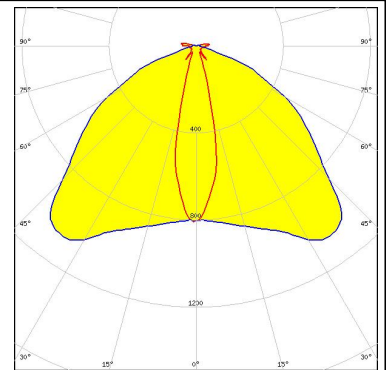
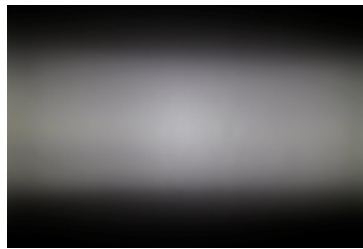


PHOTOMETRIC DATA (MEASURED):

OSRAM

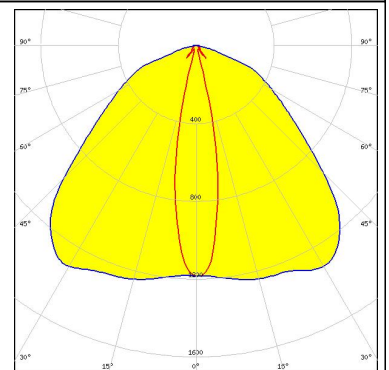
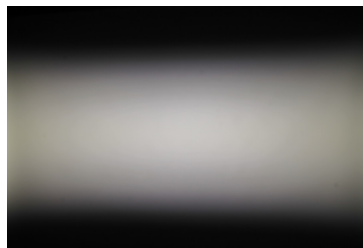
Opto Semiconductors

LED OSLON Square PC
FWHM 25.0 + 124.0°
Efficiency 91 %
Peak intensity 1.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



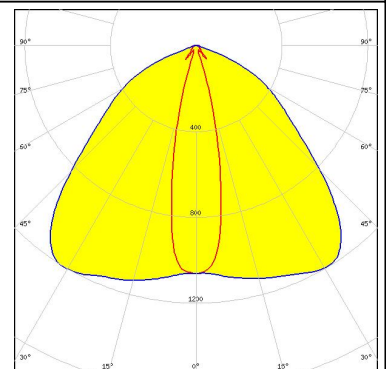
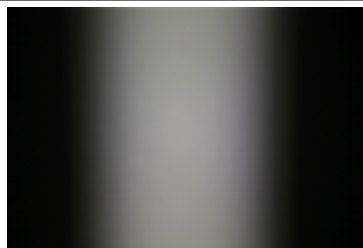
PHILIPS

LED Fortimo FastFlex LED 2x8 DA G4
FWHM 21.0 + 108.0°
Efficiency 94 %
Peak intensity 1.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



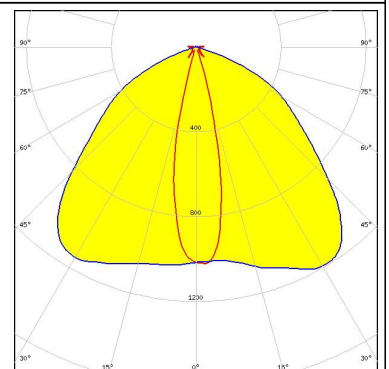
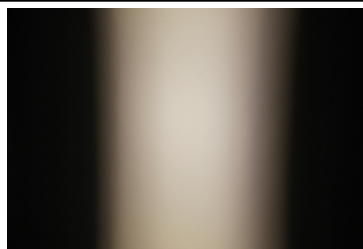
SAMSUNG

LED HiLOM RH16 (LH351C)
FWHM 23.0 + 106.0°
Efficiency 94 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



SAMSUNG

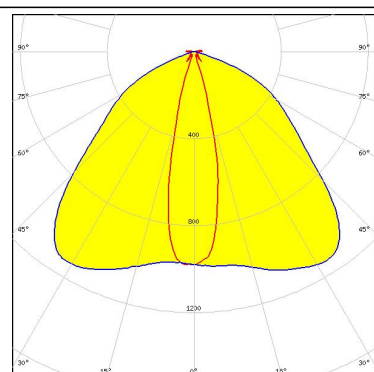
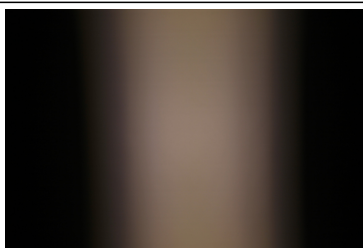
LED LH351B
FWHM 23.0 + 113.0°
Efficiency 94 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



PHOTOMETRIC DATA (MEASURED):

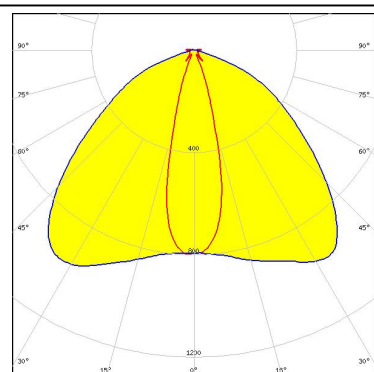
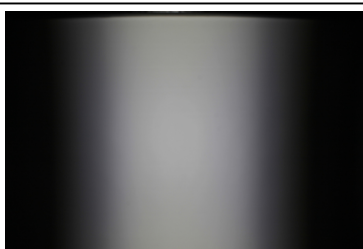
SAMSUNG

LED LH351C
FWHM 24.0 + 111.0°
Efficiency 94 %
Peak intensity 1.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



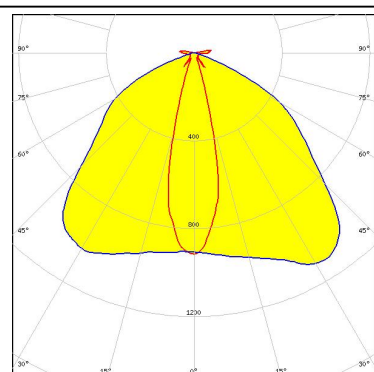
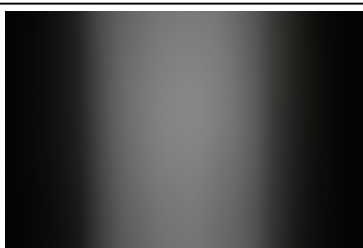
SAMSUNG

LED LH351D
FWHM 27.0 + 116.0°
Efficiency 94 %
Peak intensity 1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



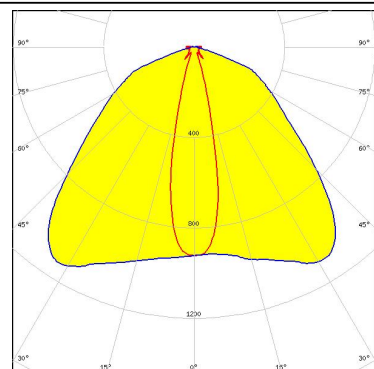
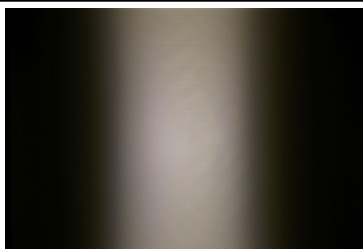
SAMSUNG

LED LH351Z
FWHM 26.0 + 117.0°
Efficiency 94 %
Peak intensity 1.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



SEOUL SEMICONDUCTOR

LED Z5M3
FWHM 23.0 + 113.0°
Efficiency 94 %
Peak intensity 1.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



PHOTOMETRIC DATA (MEASURED):

<p>SEOUL SEOUL SEMICONDUCTOR</p> <p>LED Z5M4 FWHM 22.0 + 97.0° Efficiency 98 % Peak intensity 1.3 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>SEOUL SEOUL SEMICONDUCTOR</p> <p>LED Z8Y22 FWHM 21.0 + 121.0° Efficiency 94 % Peak intensity 1.2 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>SEOUL SEOUL SEMICONDUCTOR</p> <p>LED Z8Y22P FWHM 23.0 + 121.0° Efficiency 94 % Peak intensity 1.1 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>TOSHIBA Leading Innovation >>></p> <p>LED TL1L4 FWHM 24.0 + 119.0° Efficiency 89 % Peak intensity 1.1 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		

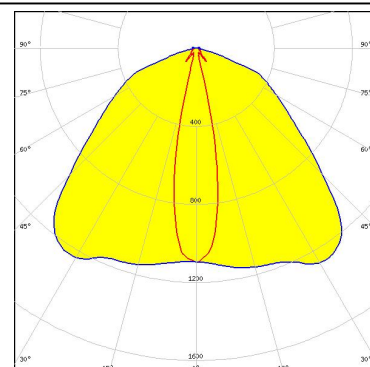
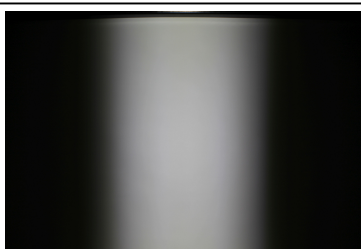
PHOTOMETRIC DATA (MEASURED):

TRIDONIC

LED RLE 2x4 2000lm HP EXC2 OTD
FWHM 22.0 + 113.0°
Efficiency 94 %
Peak intensity 1.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:

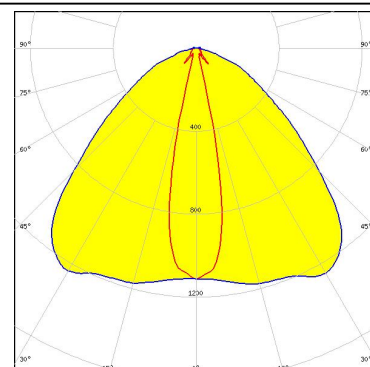
TRIDONIC

LED RLE 2x8 4000lm HP EXC2 OTD
FWHM 22.0 + 113.0°
Efficiency 94 %
Peak intensity 1.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



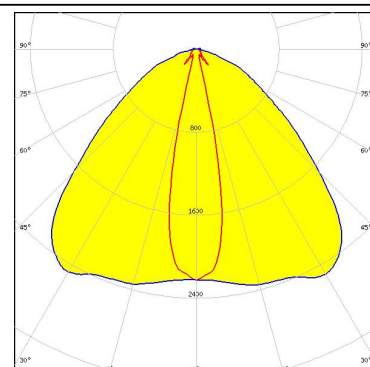
TRIDONIC

LED RLE G1 49x121mm 2000lm xxx EXC OTD
FWHM 23.0 + 104.0°
Efficiency 94 %
Peak intensity 1.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



TRIDONIC

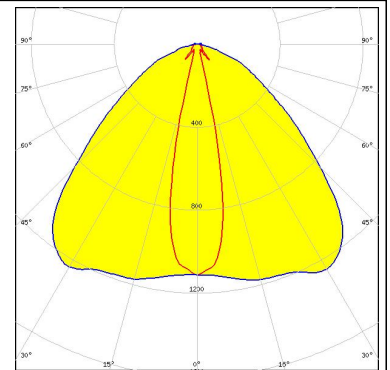
LED RLE G1 49x133mm 2000lm xxx EXC OTD
FWHM 23.0 + 104.0°
Efficiency 94 %
Peak intensity 1.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



PHOTOMETRIC DATA (MEASURED):

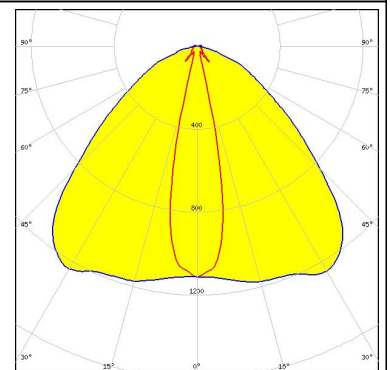
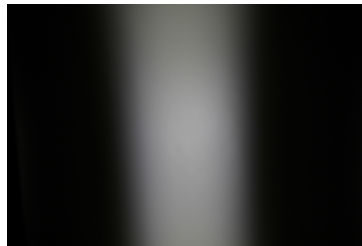
TRIDONIC

LED RLE G1 49x223mm 4000lm xxx EXC OTD
FWHM 23.0 + 104.0°
Efficiency 94 %
Peak intensity 1.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



TRIDONIC

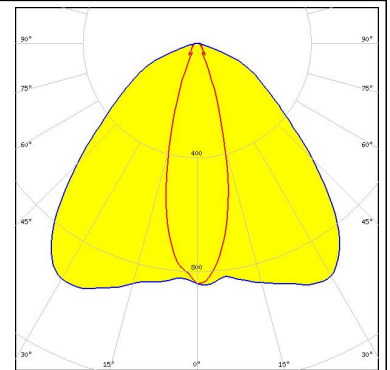
LED RLE G1 49x245mm 4000lm xxx EXC OTD
FWHM 23.0 + 104.0°
Efficiency 94 %
Peak intensity 1.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



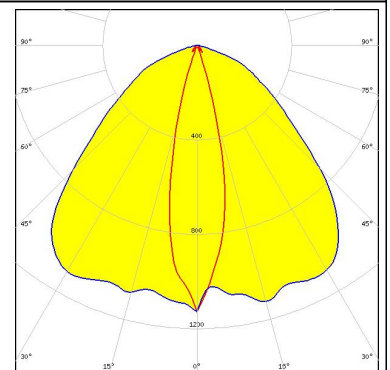
PHOTOMETRIC DATA (SIMULATED):



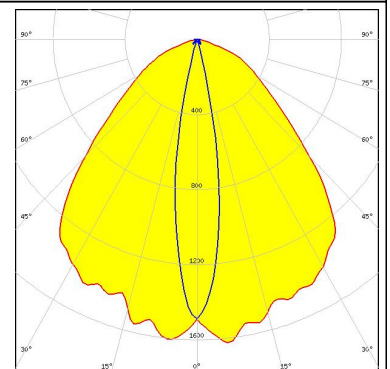
LED J Series 5050
FWHM 30.0 + 97.0°
Efficiency 94 %
Peak intensity 1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



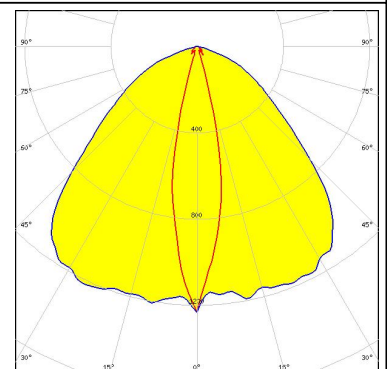
LED XHP35 HI
FWHM 101.0 + 27.0°
Efficiency 94 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LED XP-E2
FWHM 93.0 + 18.0°
Efficiency 94 %
Peak intensity 1.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LED XP-G2
FWHM 21.0 + 98.0°
Efficiency 91 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:

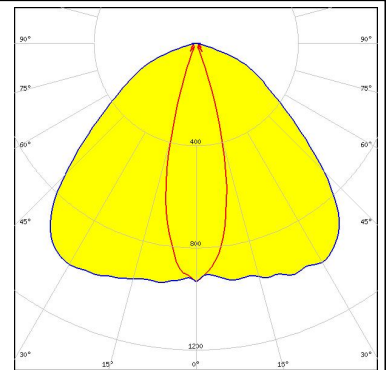


Transparent protective cover

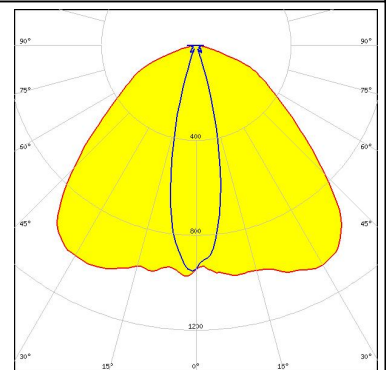
PHOTOMETRIC DATA (SIMULATED):



LED XP-G2 HE
FWHM 28.0 + 103.0°
Efficiency 94 %
Peak intensity 1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



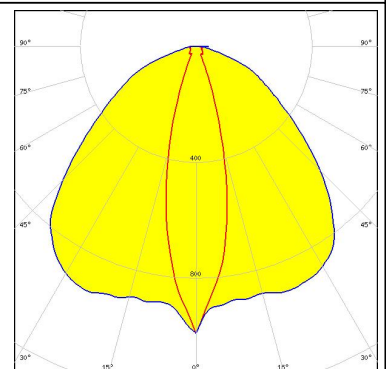
LED XP-G3
FWHM 103.0 + 29.0°
Efficiency 94 %
Peak intensity 1.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LED XQ-E HI
FWHM 96.0 + 14.0°
Efficiency %
LEDs/each optic 1
Light colour White
Required components:



LED XT-E HE
FWHM 100.0 + 24.0°
Efficiency 94 %
LEDs/each optic 1
Light colour White
Required components:

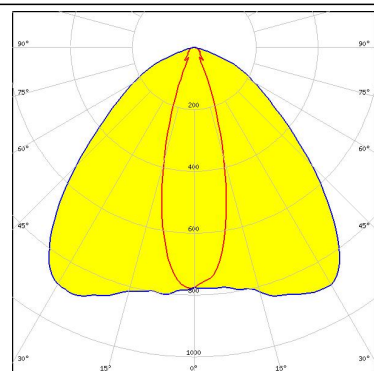


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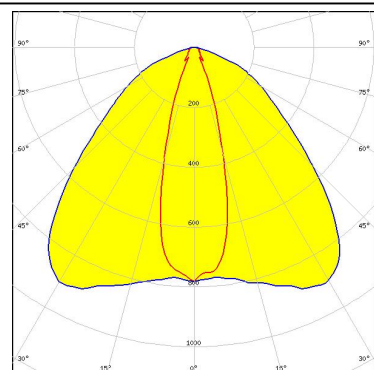


LED LUXEON 5050 Round LES
 FWHM 30.0 + 96.0°
 Efficiency 88 %
 Peak intensity 0.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

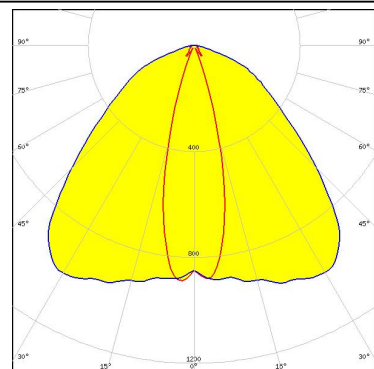
Transparent protective cover



LED LUXEON 5050 Square LES
 FWHM 30.0 + 98.0°
 Efficiency 95 %
 Peak intensity 0.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

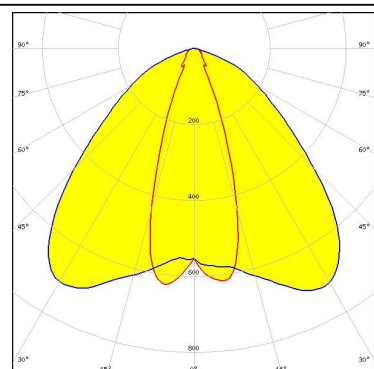


LED NV4WB35AM
 FWHM 28.0 + 100.0°
 Efficiency 95 %
 Peak intensity 1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED Duris S8
 FWHM 36.0 + 98.0°
 Efficiency 87 %
 Peak intensity 0.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

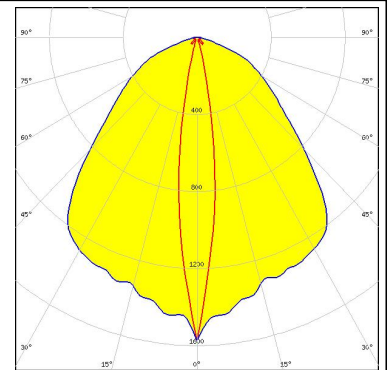
Transparent protective cover



PHOTOMETRIC DATA (SIMULATED):

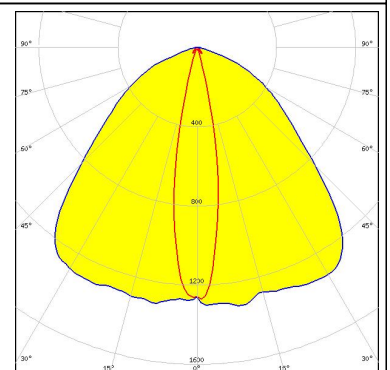
OSRAM Opto Semiconductors

LED OSCONIQ P 3030
FWHM 14.0 + 92.0°
Efficiency 95 %
Peak intensity 1.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:



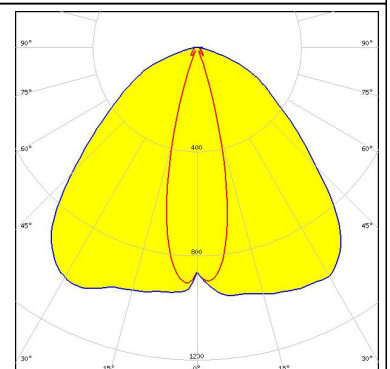
OSRAM Opto Semiconductors

LED OSCONIQ P 3737 (2W version)
FWHM 99.0 + 19.0°
Efficiency 94 %
Peak intensity 1.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



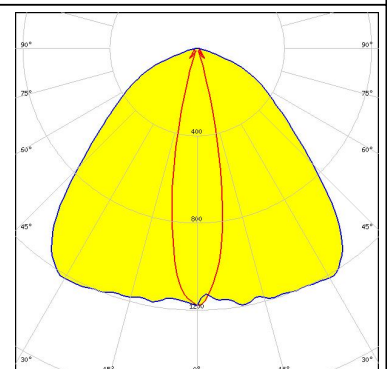
OSRAM Opto Semiconductors

LED OSCONIQ P 3737 (3W version)
FWHM 100.0 + 30.0°
Efficiency 94 %
Peak intensity 1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OSRAM Opto Semiconductors

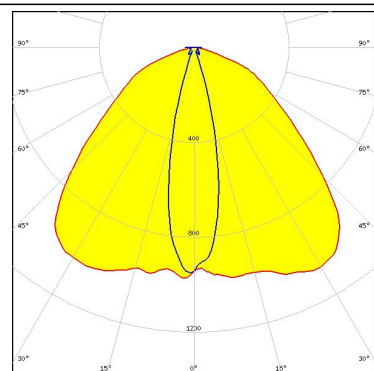
LED OSCONIQ P 3737 Flat
FWHM 22.0 + 98.0°
Efficiency 96 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



PHOTOMETRIC DATA (SIMULATED):

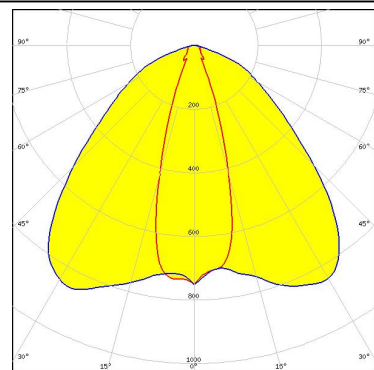
PHILIPS

LED Fortimo FastFlex LED 2x8 DAX G4
FWHM 103.0 + 29.0°
Efficiency 94 %
Peak intensity 1.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



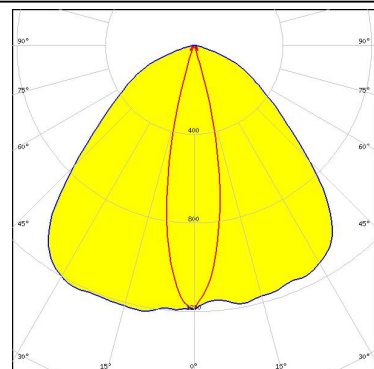
SEOUL SEMICONDUCTOR

LED SEOUL DC 5050 6V
FWHM 33.0 + 98.0°
Efficiency 94 %
Peak intensity 0.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:



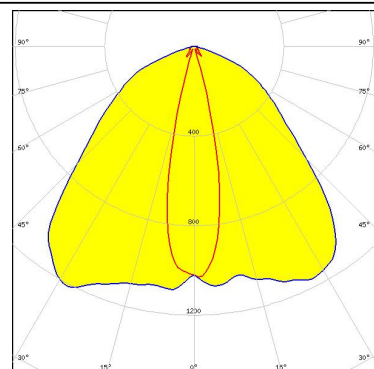
SEOUL SEMICONDUCTOR

LED Z5M1/Z5M2
FWHM 22.0 + 97.0°
Efficiency 94 %
Peak intensity 1.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



SEOUL SEMICONDUCTOR

LED Z8Y22T
FWHM 21.0 + 96.0°
Efficiency 94 %
Peak intensity 1.2 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.

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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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