

HB-2X2-M

~25° medium beam optimized for CREE XP-L
and XM-L

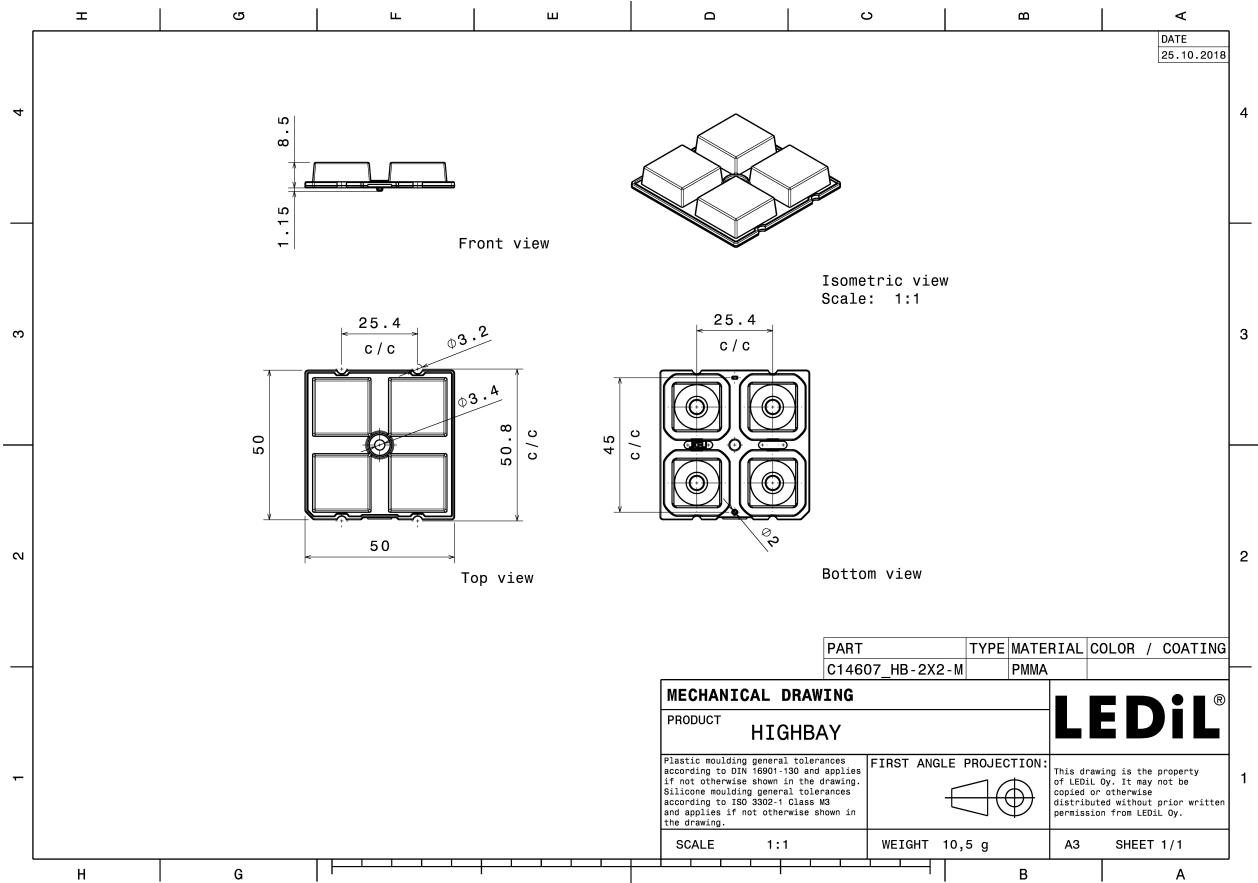
TECHNICAL SPECIFICATIONS:

Dimensions	50.0 mm
Height	8.5 mm
Fastening	pin, screw
Colour	clear
Box size	480 x 280 x 300 mm
Box weight	9.2 kg
Quantity in Box	800 pcs
ROHS compliant	yes ⓘ


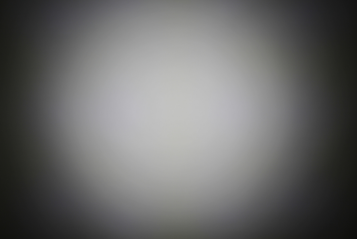
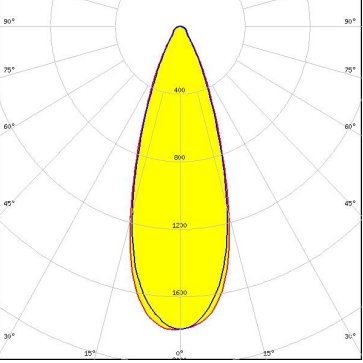

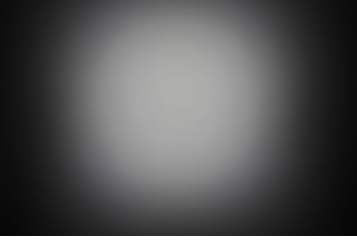
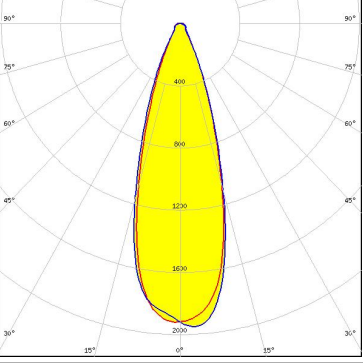


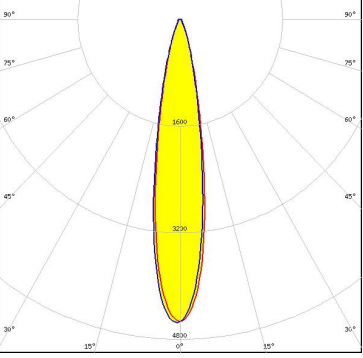

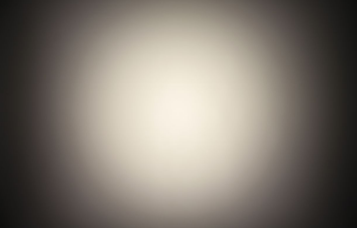
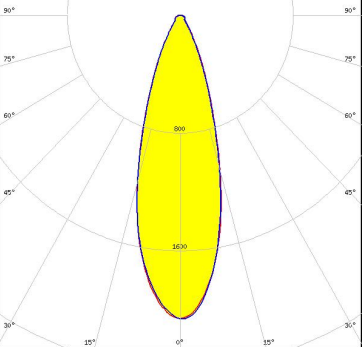


MATERIAL SPECIFICATIONS:

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



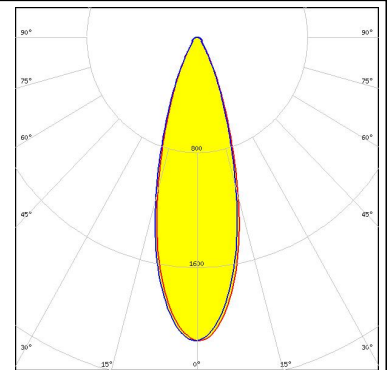
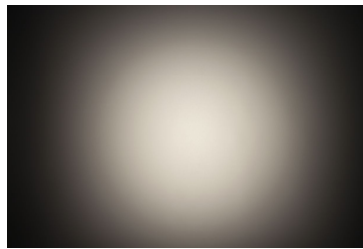
PHOTOMETRIC DATA (MEASURED):

<p> bridgelux</p> <p>LED Bridgelux SMD 5050 FWHM 36.0° Efficiency 94 % Peak intensity 1.800 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p> CREE</p> <p>LED XD16 FWHM 33.0° Efficiency 94 % Peak intensity 2.000 cd/lm LEDs/each optic 4 Light colour White Required components:</p>		
<p> CREE</p> <p>LED XD16 FWHM 19.0° Efficiency 90 % Peak intensity 4.600 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p> CREE</p> <p>LED XM-L FWHM 32.0° Efficiency 93 % Peak intensity 2.040 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		

PHOTOMETRIC DATA (MEASURED):

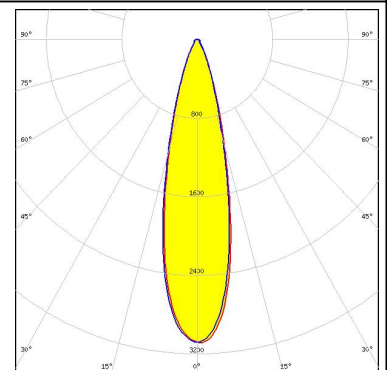
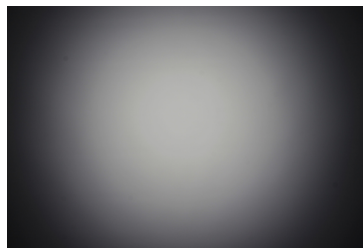
CREE

LED XM-L2
 FWHM 32.0°
 Efficiency 92 %
 Peak intensity 2.112 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



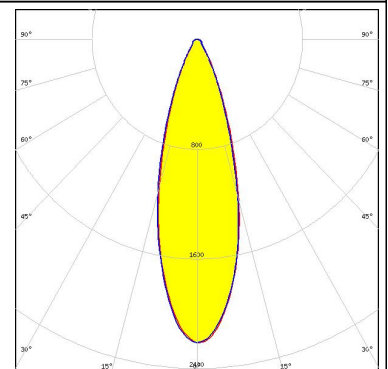
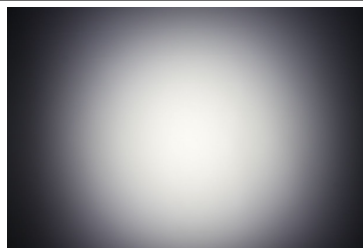
CREE

LED XP-G2
 FWHM 25.0°
 Efficiency 0 %
 Peak intensity 3.100 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



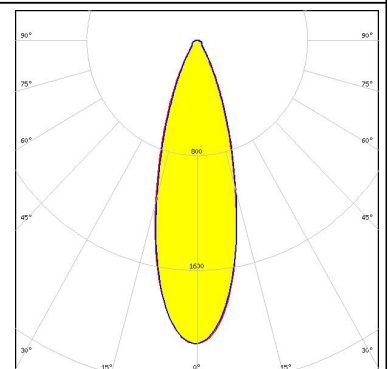
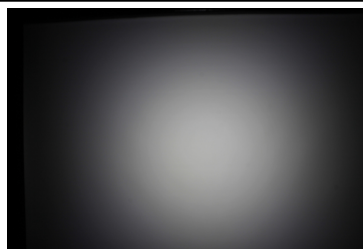
CREE

LED XP-L HD
 FWHM 31.0°
 Efficiency 94 %
 Peak intensity 2.213 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:


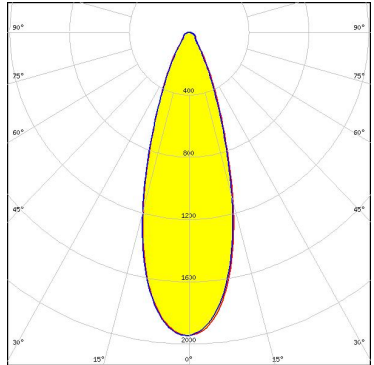

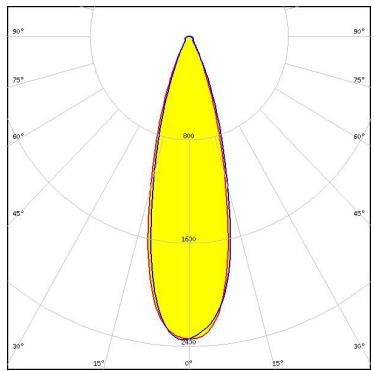

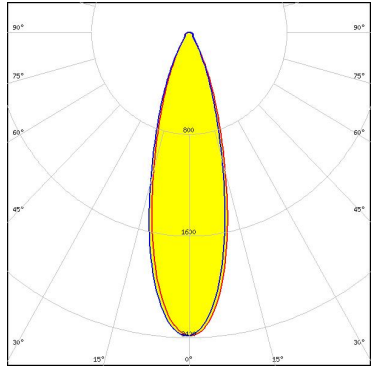
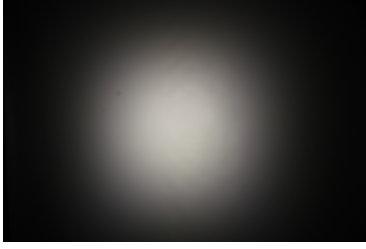
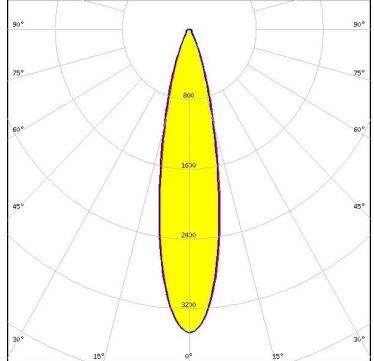


CREE

LED XP-L2
 FWHM 31.0°
 Efficiency 93 %
 Peak intensity 2.100 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



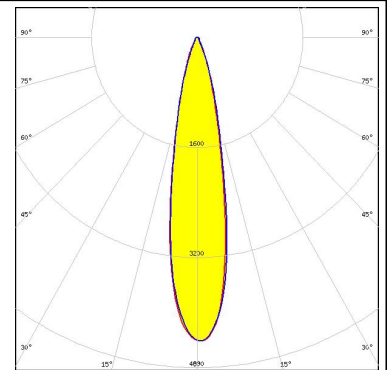
PHOTOMETRIC DATA (MEASURED):

<p>LUMILEDS</p> <p>LED LUXEON 5050 Round LES</p> <p>FWHM 34.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 1.950 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>LUMILEDS</p> <p>LED LUXEON MZ</p> <p>FWHM 30.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 2.400 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>LUMILEDS</p> <p>LED LUXEON V</p> <p>FWHM 29.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 2.400 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>LUMILEDS</p> <p>LED LUXEON V2</p> <p>FWHM 23.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 3.500 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

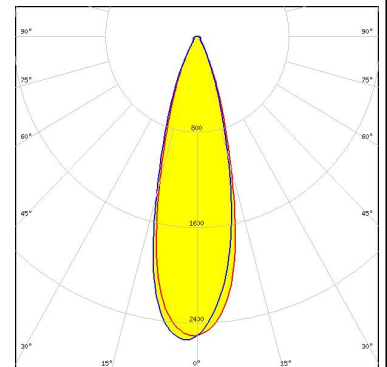
PHOTOMETRIC DATA (MEASURED):



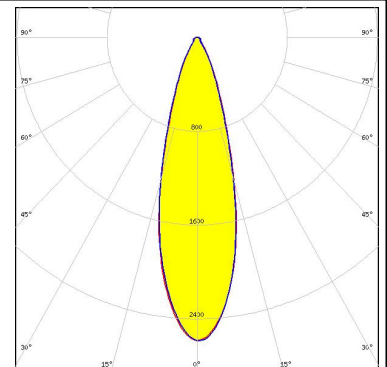
LED SST-10-B130
 FWHM 21.0°
 Efficiency 95 %
 Peak intensity 4.411 cd/lm
 LEDs/each optic 1
 Light colour Deep Red
 Required components:



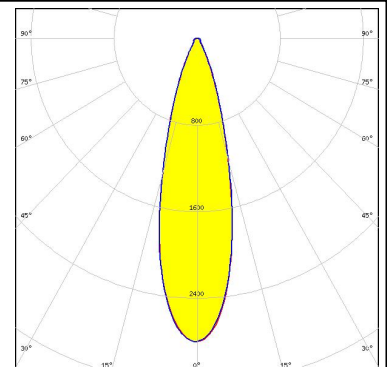
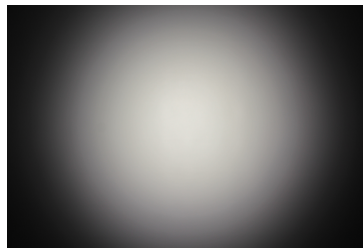
LED NVSW219D
 FWHM 29.0°
 Efficiency 94 %
 Peak intensity 2.500 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED NVSW319B
 FWHM 29.0°
 Efficiency 94 %
 Peak intensity 2.600 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



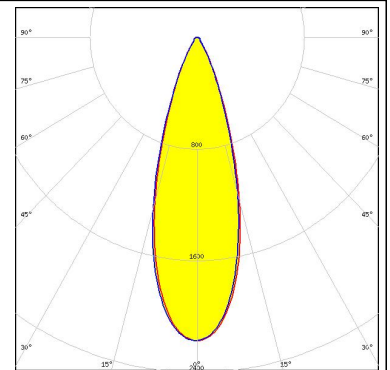
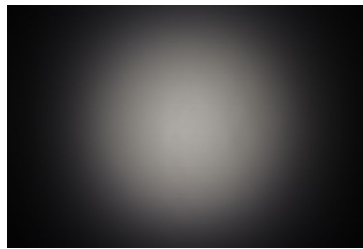
LED NVSW3x9A
 FWHM 28.0°
 Efficiency 94 %
 Peak intensity 2.800 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



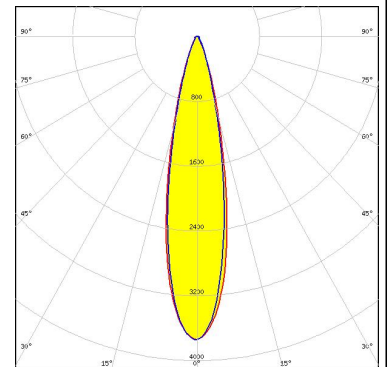
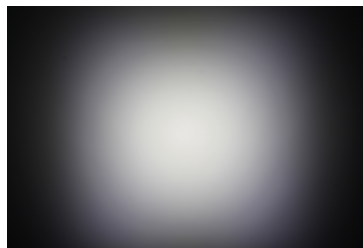
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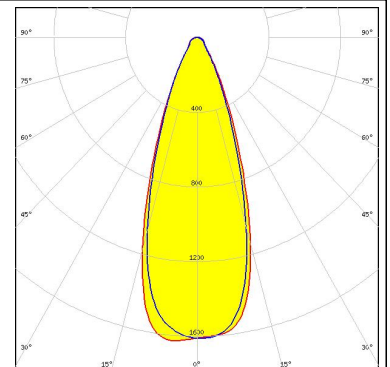
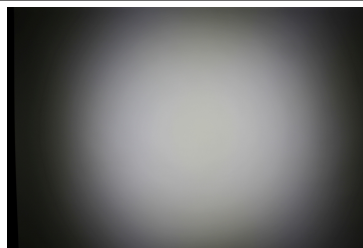
LED NWSx229A
 FWHM 33.0°
 Efficiency 87 %
 Peak intensity 2.200 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



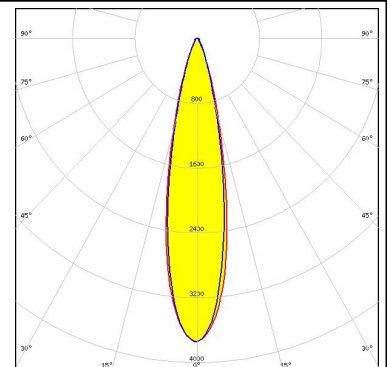
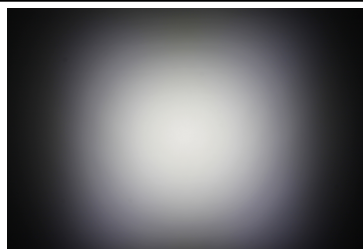
LED PrevaLED Brick HP 2x8
 FWHM 23.0°
 Efficiency 91 %
 Peak intensity 3.750 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED Duris S8
 FWHM 38.0°
 Efficiency 94 %
 Peak intensity 1.600 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



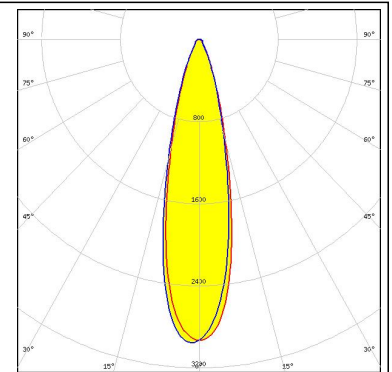
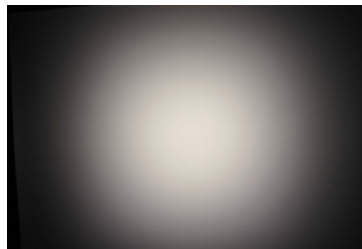
LED OSLOM Square CSSRM2/CSSRM3
 FWHM 23.0°
 Efficiency 91 %
 Peak intensity 3.750 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



PHOTOMETRIC DATA (MEASURED):

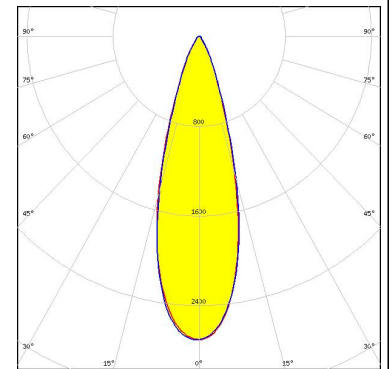
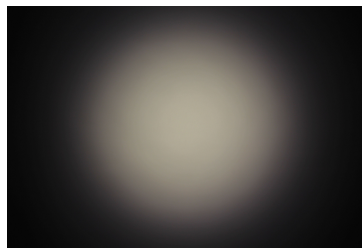
PHILIPS

LED Fortimo FastFlex LED 2x8 DA G4
 FWHM 25.0°
 Efficiency 92 %
 Peak intensity 3.000 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



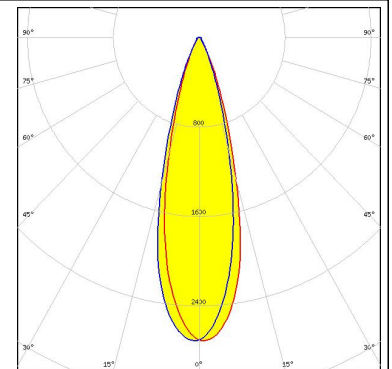
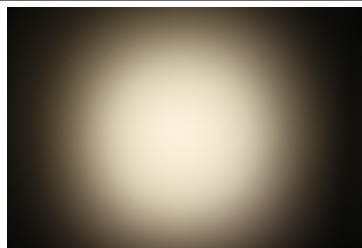
SAMSUNG

LED HiLOM RH16 (LH351C)
 FWHM 30.0°
 Efficiency 94 %
 Peak intensity 2.700 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



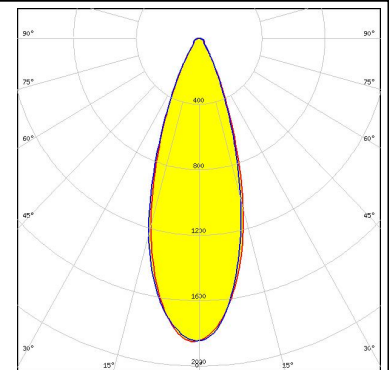
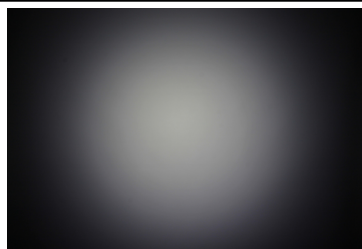
SAMSUNG

LED LH351B
 FWHM 28.0°
 Efficiency 85 %
 Peak intensity 2.720 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



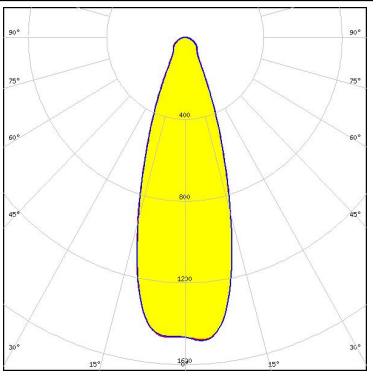


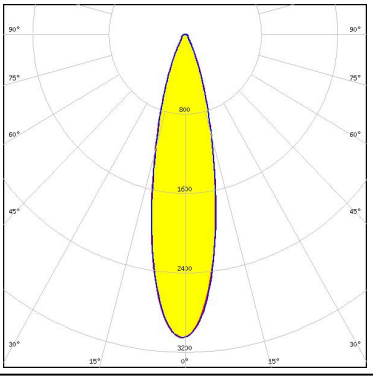

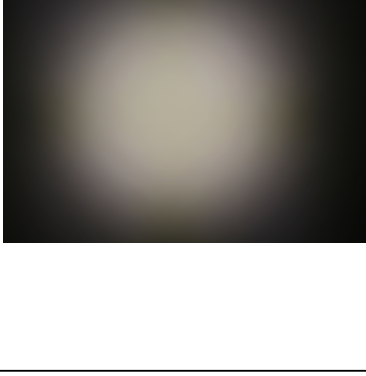
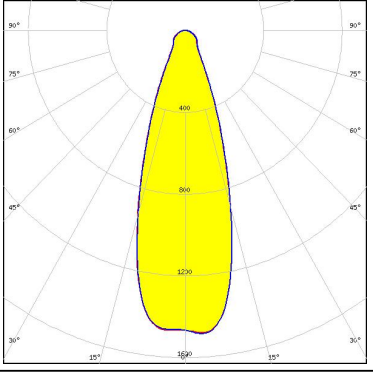

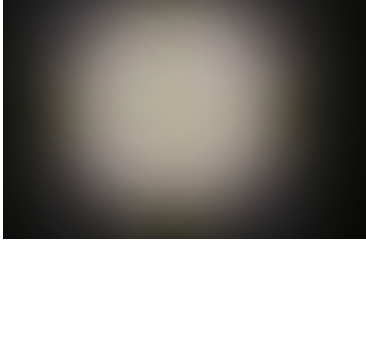
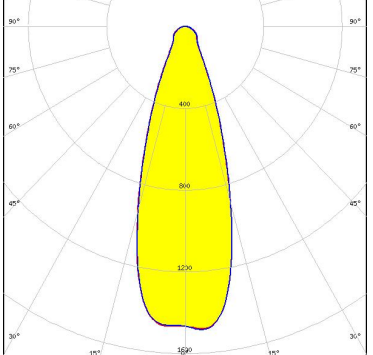


SAMSUNG

LED LH351D
 FWHM 35.0°
 Efficiency 91 %
 Peak intensity 1.900 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



PHOTOMETRIC DATA (MEASURED):

<p> SEUL SEOUL SEMICONDUCTOR</p> <p>LED 2x2 Y22 module - SMJQ-D48W16AA-XX FWHM 34.0° Efficiency 93 % Peak intensity 1.500 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p> SEUL SEOUL SEMICONDUCTOR</p> <p>LED Z5M3 FWHM 25.0° Efficiency 94 % Peak intensity 3.100 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p> SEUL SEOUL SEMICONDUCTOR</p> <p>LED Z8Y19 FWHM 34.0° Efficiency 93 % Peak intensity 1.500 cd/lm LEDs/each optic 4 Light colour White Required components:</p>		
<p> SEUL SEOUL SEMICONDUCTOR</p> <p>LED Z8Y19 FWHM 34.0° Efficiency 93 % Peak intensity 1.500 cd/lm LEDs/each optic 4 Light colour White Required components:</p>		

PHOTOMETRIC DATA (MEASURED):

			
LED	Z8Y22P		
FWHM	25.0°		
Efficiency	92 %		
Peak intensity	3.100 cd/lm		
LEDs/each optic	1		
Light colour	White		
Required components:			

TRIDONIC

LED RLE 2x4 2000lm HP EXC2 OTD
 FWHM 23.0°
 Efficiency 94 %
 Peak intensity 3.400 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

TRIDONIC

LED RLE 2x8 4000lm HP EXC2 OTD
 FWHM 23.0°
 Efficiency 94 %
 Peak intensity 3.400 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

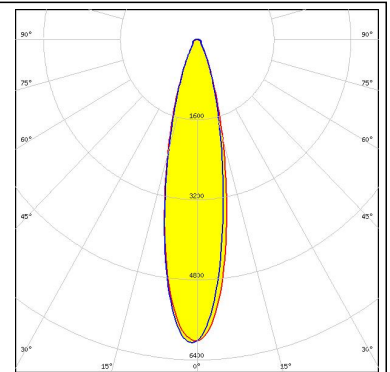
TRIDONIC

LED RLE G1 49x121mm 2000lm xxx EXC OTD
 FWHM 24.0°
 Efficiency 94 %
 Peak intensity 3.000 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

PHOTOMETRIC DATA (MEASURED):

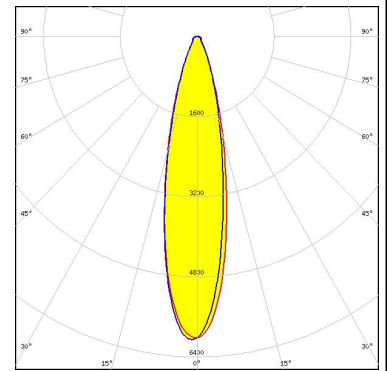
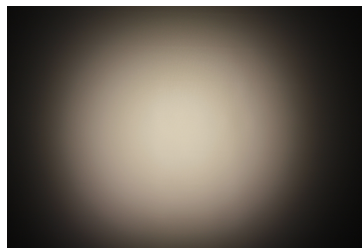
TRIDONIC

LED RLE G1 49x133mm 2000lm xxx EXC OTD
 FWHM 24.0°
 Efficiency 94 %
 Peak intensity 3.000 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



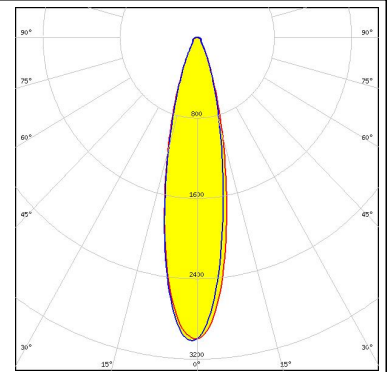
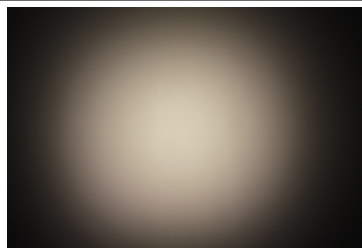
TRIDONIC

LED RLE G1 49x223mm 4000lm xxx EXC OTD
 FWHM 24.0°
 Efficiency 94 %
 Peak intensity 3.000 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



TRIDONIC

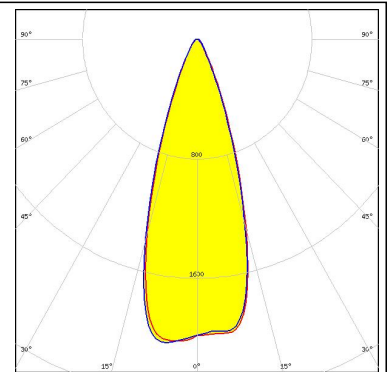
LED RLE G1 49x245mm 4000lm xxx EXC OTD
 FWHM 24.0°
 Efficiency 94 %
 Peak intensity 3.000 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



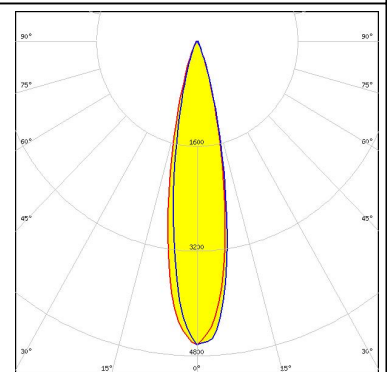
PHOTOMETRIC DATA (SIMULATED):



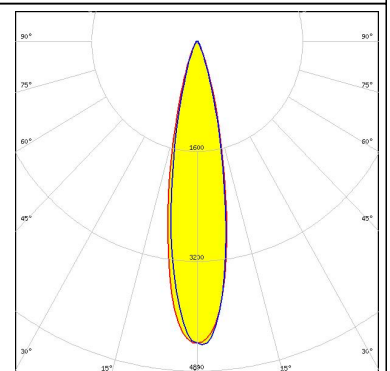
LED XP-G2 HE
 FWHM 35.0°
 Efficiency 92 %
 Peak intensity 2.063 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



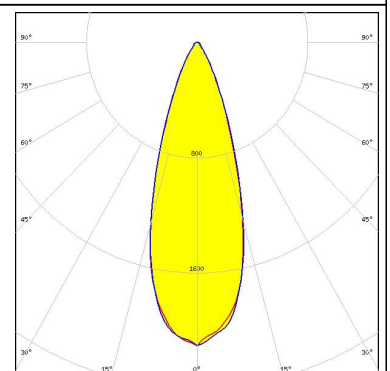
LED LUXEON 3030 2D (Round LES)
 FWHM 21.0°
 Efficiency 91 %
 Peak intensity 4.700 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED LUXEON 3535 2D
 FWHM 22.0°
 Efficiency 92 %
 Peak intensity 4.500 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



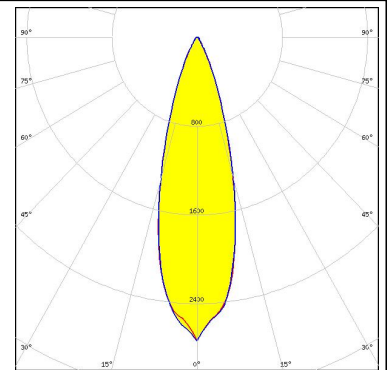
LED LUXEON 5050 Square LES
 FWHM 34.0°
 Efficiency 93 %
 Peak intensity 2.109 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



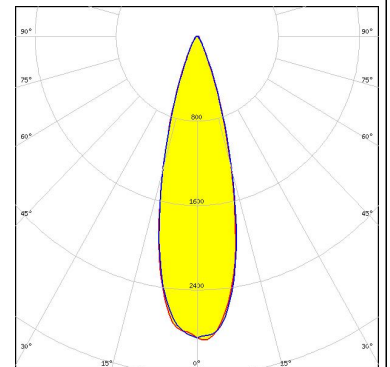
PHOTOMETRIC DATA (SIMULATED):



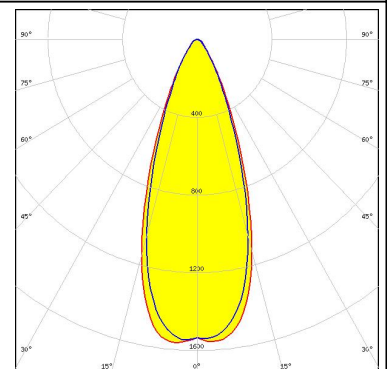
LED NV4WB35AM
 FWHM 30.0°
 Efficiency 93 %
 Peak intensity 2.736 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED NVSxx19B/NVSxx19C
 FWHM 28.0°
 Efficiency 92 %
 Peak intensity 2.888 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



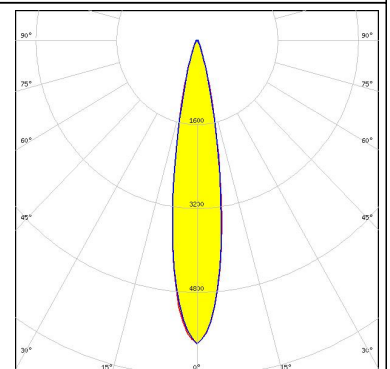
LED Duris S8
 FWHM 38.0°
 Efficiency 89 %
 Peak intensity 1.600 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



Transparent protective cover



LED OSCONIQ P 3030
 FWHM 18.0°
 Efficiency 94 %
 Peak intensity 5.783 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

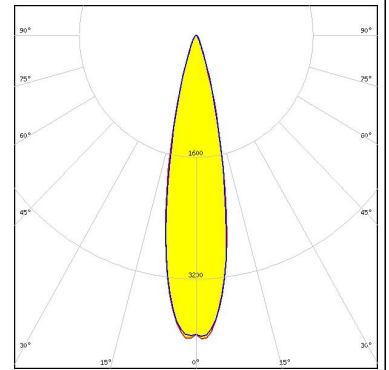


PHOTOMETRIC DATA (SIMULATED):

OSRAM
Opto Semiconductors

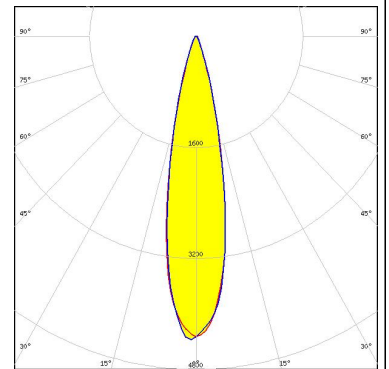
LED OSCONIQ P 3737 (2W version)
 FWHM 22.0°
 Efficiency 87 %
 Peak intensity 4.018 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

Transparent protective cover



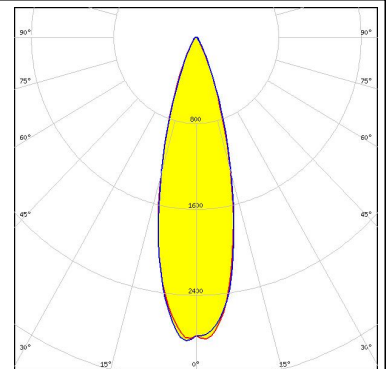
OSRAM
Opto Semiconductors

LED OSCONIQ P 3737 (2W version)
 FWHM 22.0°
 Efficiency 92 %
 Peak intensity 4.378 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



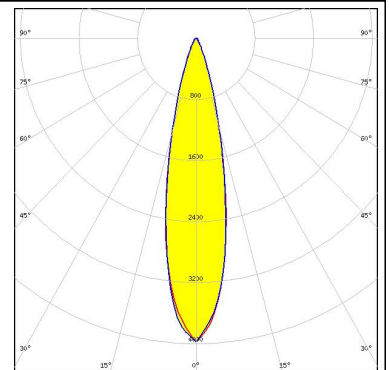
OSRAM
Opto Semiconductors

LED OSCONIQ P 3737 (3W version)
 FWHM 29.0°
 Efficiency 93 %
 Peak intensity 2.840 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OSRAM
Opto Semiconductors

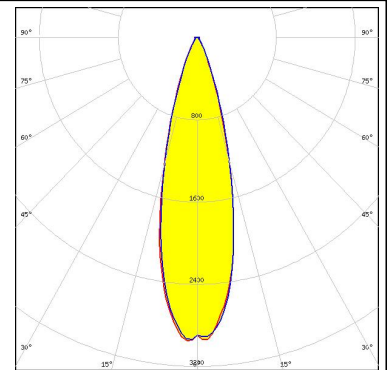
LED OSCONIQ P 3737 Flat
 FWHM 24.0°
 Efficiency 93 %
 Peak intensity 3.976 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



PHOTOMETRIC DATA (SIMULATED):

PHILIPS

LED Fortimo FastFlex LED 2x8 DAX G4
 FWHM 28.0°
 Efficiency 92 %
 Peak intensity 3.000 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

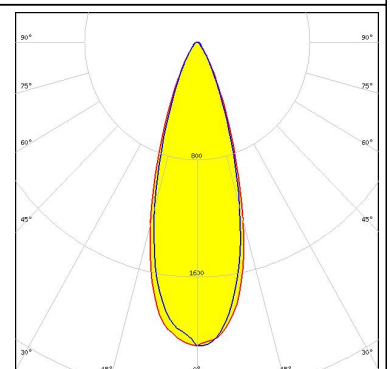
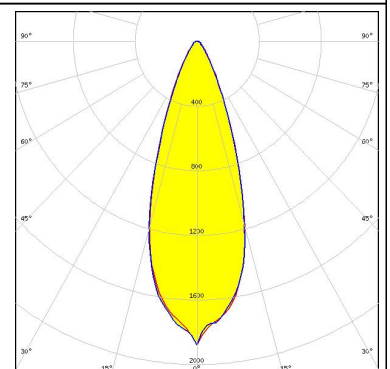



SAMSUNG

LED LH231B
 FWHM 24.0°
 Efficiency 92 %
 Peak intensity 3.683 cd/lm
 LEDs/each optic 4
 Light colour White
 Required components:

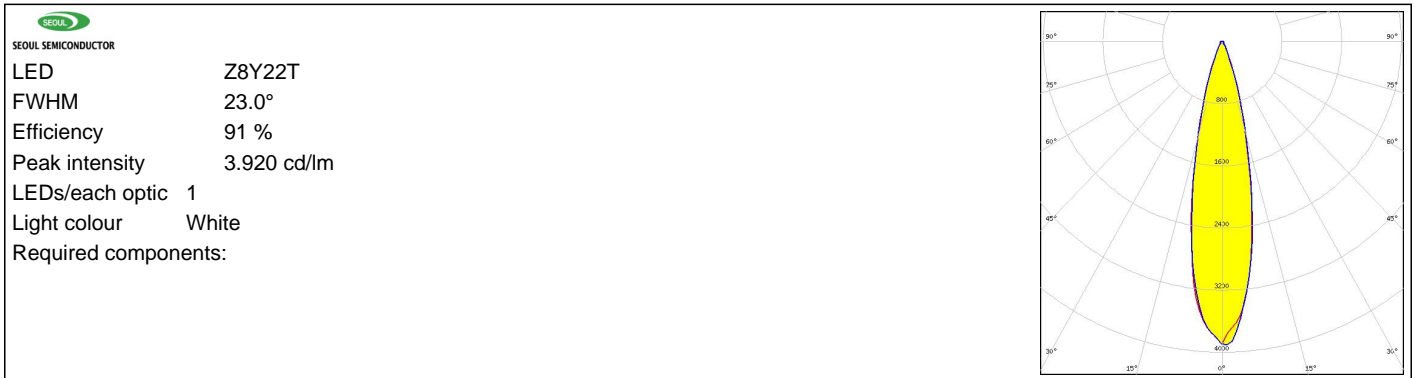
SAMSUNG

LED LH351D
 FWHM 36.0°
 Efficiency 92 %
 Peak intensity 1.878 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



 **SEOUL SEMICONDUCTOR**
 LED SEOUL DC 5050 6V
 FWHM 34.0°
 Efficiency 94 %
 Peak intensity 2.100 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

PHOTOMETRIC DATA (SIMULATED):



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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