

HB-2X2-W

~50° wide beam

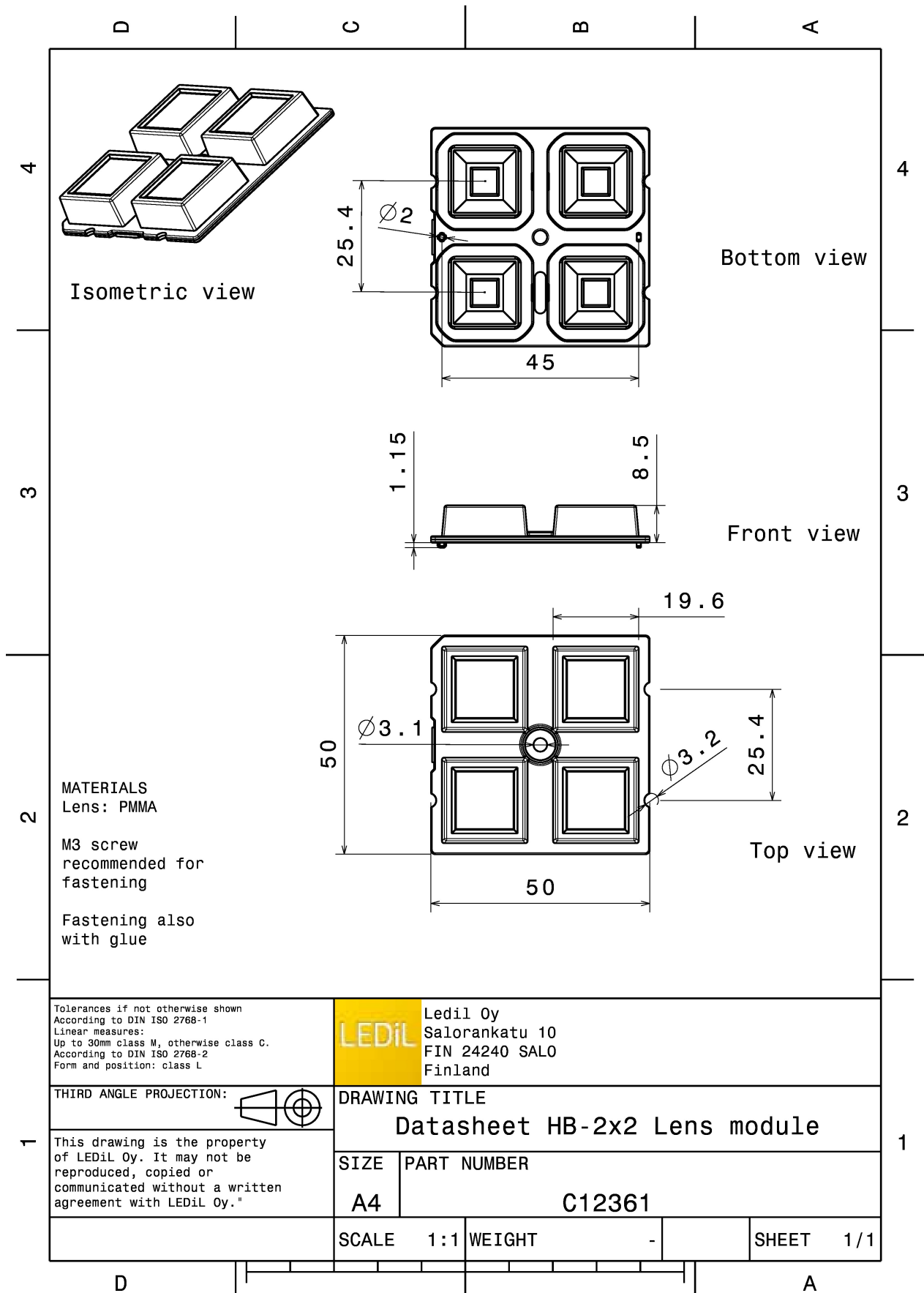
TECHNICAL SPECIFICATIONS:

Dimensions	50.0 mm
Height	8.5 mm
Fastening	glue, pin, screw
Colour	clear
Box size	480 x 280 x 300 mm
Box weight	9.1 kg
Quantity in Box	800 pcs
ROHS compliant	yes ⓘ



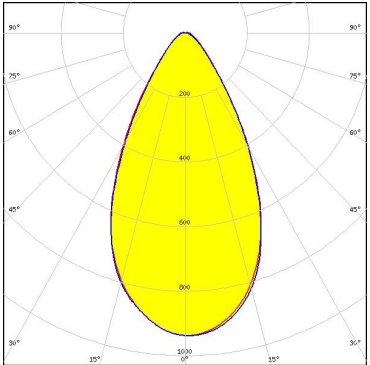

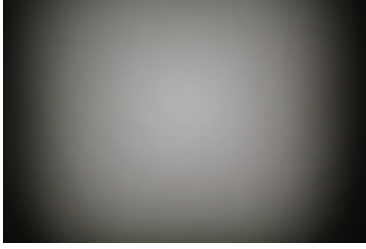
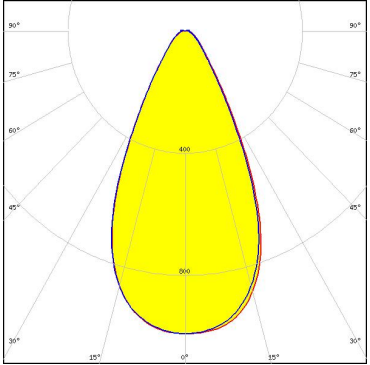


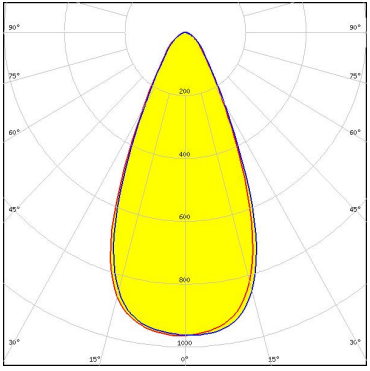

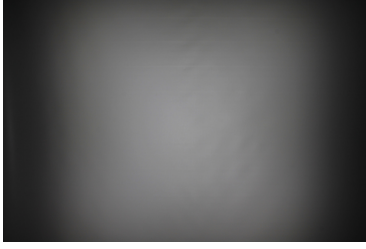
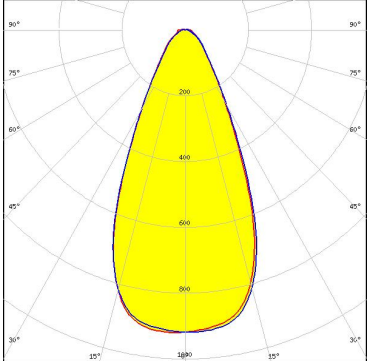


MATERIAL SPECIFICATIONS:

Component	Type	Material	Colour
HB-2X2-W	Lens array	PMMA	clear



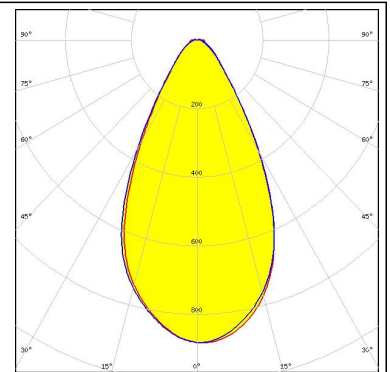
PHOTOMETRIC DATA (MEASURED):

<p></p> <p>LED SMD 5050 FWHM 55.0° Efficiency 94 % Peak intensity 0.940 cd/lm Required components:</p>		
<p></p> <p>LED QUICK FLUX XTP 2x4 xxx LS G5 FWHM 52.0° Efficiency 94 % Peak intensity 0.990 cd/lm Required components:</p>		
<p></p> <p>LED XB-D FWHM 48.0° Efficiency 86 % Peak intensity 0.960 cd/lm Required components:</p>		
<p></p> <p>LED XD16 FWHM 48.0° Efficiency 91 % Peak intensity 0.900 cd/lm Required components:</p>		

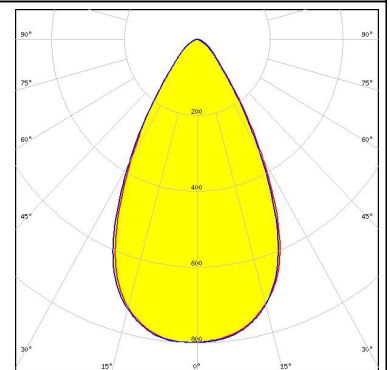
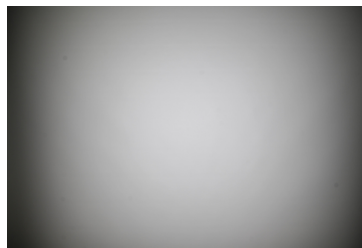
PHOTOMETRIC DATA (MEASURED):



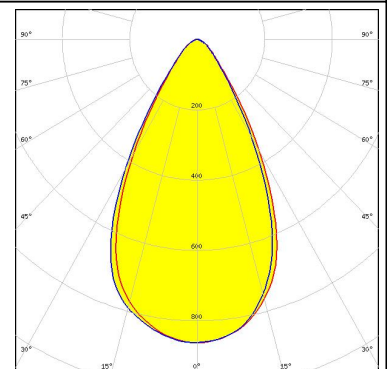
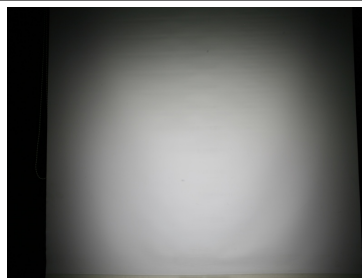
LED XD16 2x2 cluster
 FWHM 54.0°
 Efficiency 91 %
 Peak intensity 0.880 cd/lm
 Required components:



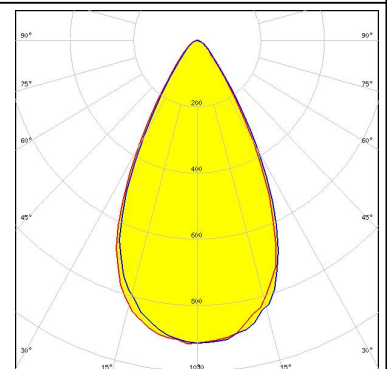
LED XHP35 HD
 FWHM 57.0°
 Efficiency 85 %
 Peak intensity 0.800 cd/lm
 Required components:



LED XM-L
 FWHM 57.0°
 Efficiency 89 %
 Peak intensity 0.860 cd/lm
 Required components:



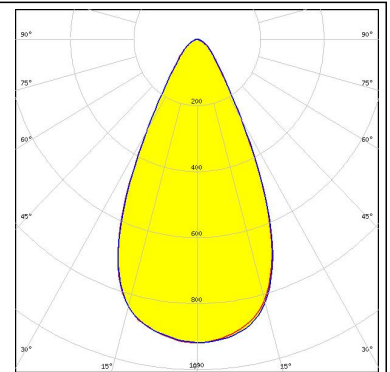
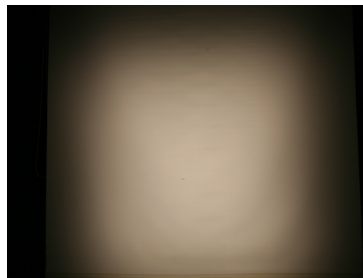
LED XM-L2
 FWHM 56.0°
 Efficiency 87 %
 Peak intensity 0.900 cd/lm
 Required components:



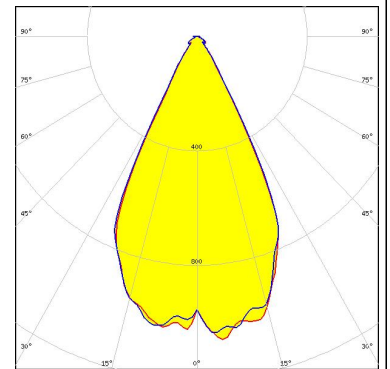
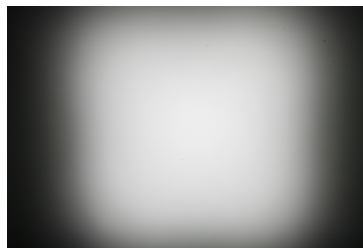
PHOTOMETRIC DATA (MEASURED):



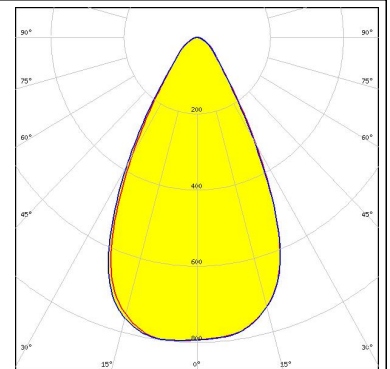
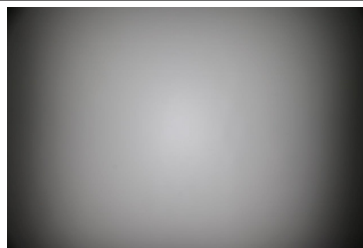
LED XP-G
FWHM 52.0°
Efficiency 88 %
Peak intensity 0.920 cd/lm
Required components:



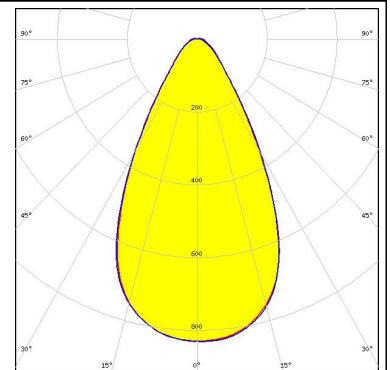
LED XP-G2
FWHM 51.0°
Efficiency 88 %
Peak intensity 0.900 cd/lm
Required components:



LED XP-L
FWHM 56.0°
Efficiency 87 %
Peak intensity 0.800 cd/lm
Required components:



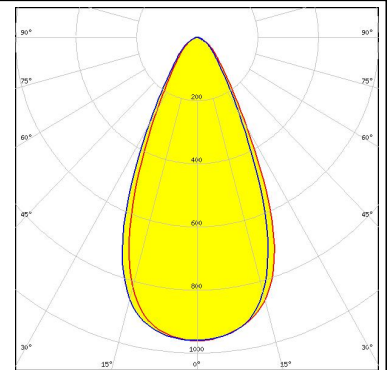
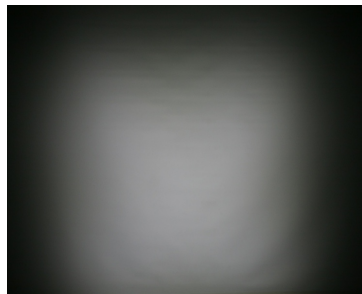
LED XP-L2
FWHM 56.0°
Efficiency 92 %
Peak intensity 0.830 cd/lm
Required components:



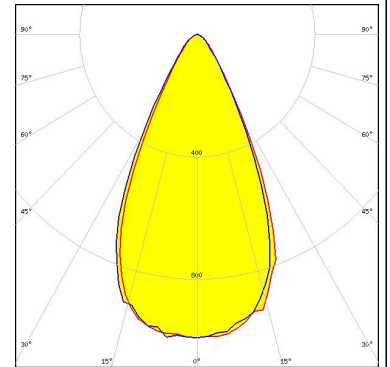
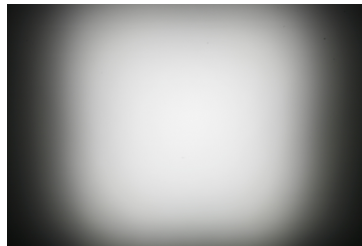
PHOTOMETRIC DATA (MEASURED):



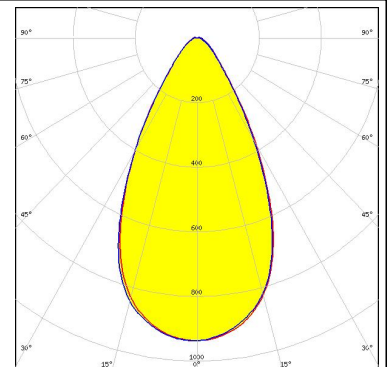
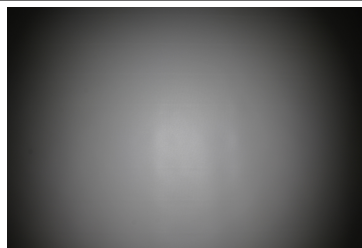
LED XT-E
 FWHM 50.0°
 Efficiency 87 %
 Peak intensity 0.970 cd/lm
 Required components:



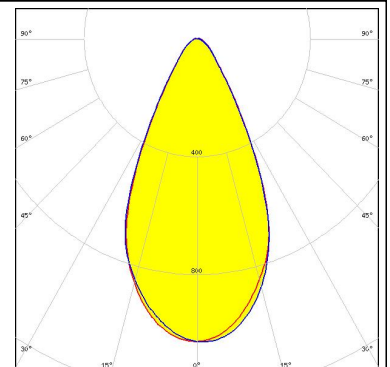
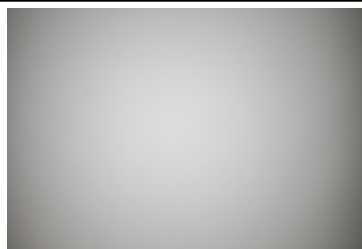
LED H35C1 (LEMWA33)
 FWHM 53.0°
 Efficiency 86 %
 Peak intensity 1.000 cd/lm
 Required components:



LED LUXEON 5050
 FWHM 55.0°
 Efficiency 94 %
 Peak intensity 0.940 cd/lm
 Required components:



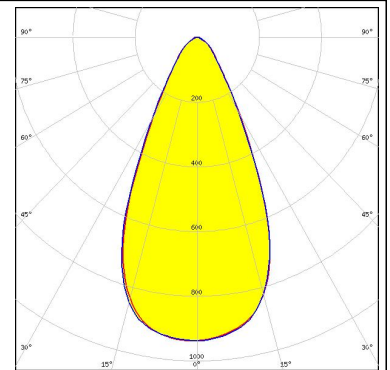
LED LUXEON MZ
 FWHM 53.0°
 Efficiency 92 %
 Peak intensity 1.000 cd/lm
 Required components:



PHOTOMETRIC DATA (MEASURED):

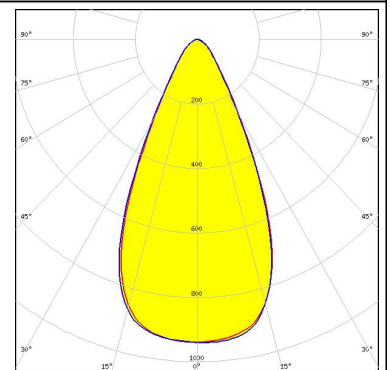
LUMILEDS

LED LUXEON Q
FWHM 50.0°
Efficiency 86 %
Peak intensity 0.900 cd/lm
Required components:



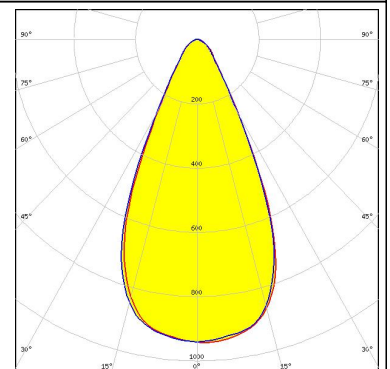
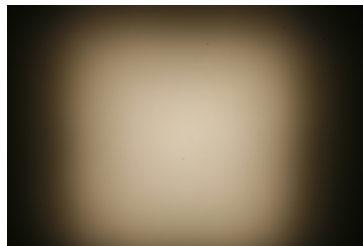
LUMILEDS

LED LUXEON Rebel ES
FWHM 51.0°
Efficiency 87 %
Peak intensity 0.940 cd/lm
Required components:



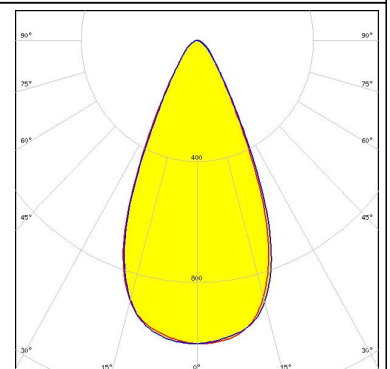
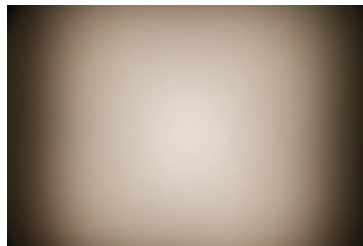
LUMILEDS

LED LUXEON T
FWHM 55.0°
Efficiency 87 %
Peak intensity 0.900 cd/lm
Required components:



LUMILEDS

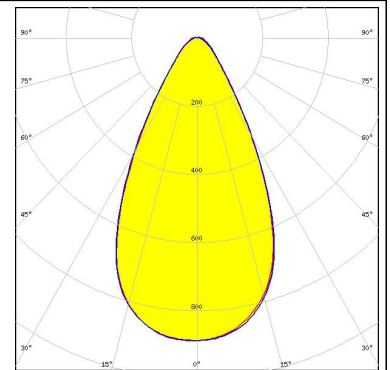
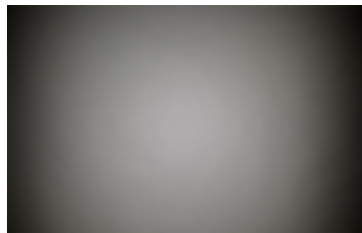
LED LUXEON TX
FWHM 50.0°
Efficiency 88 %
Peak intensity 1.000 cd/lm
Required components:



PHOTOMETRIC DATA (MEASURED):

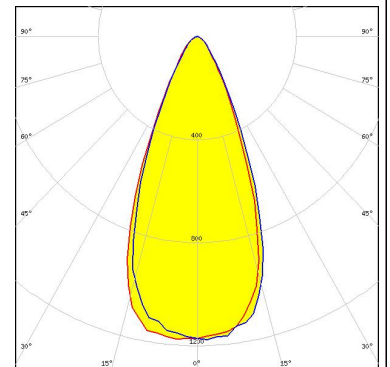
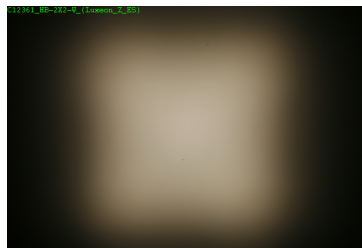
LUMILEDS

LED LUXEON V
 FWHM 55.0°
 Efficiency 93 %
 Peak intensity 0.890 cd/lm
 Required components:



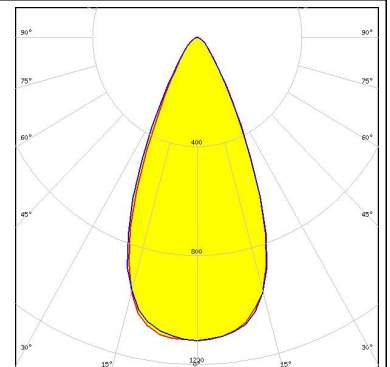
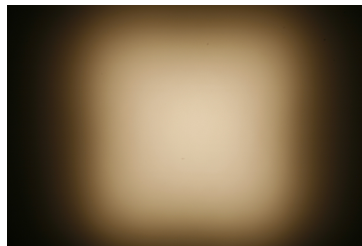
LUMILEDS

LED LUXEON Z ES
 FWHM 46.0°
 Efficiency 87 %
 Peak intensity 1.180 cd/lm
 Required components:



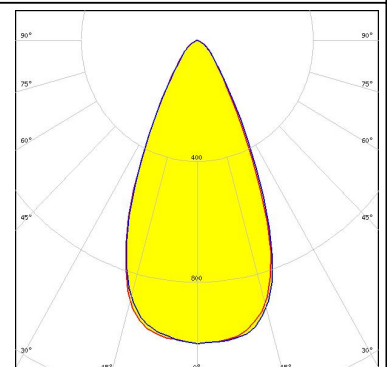
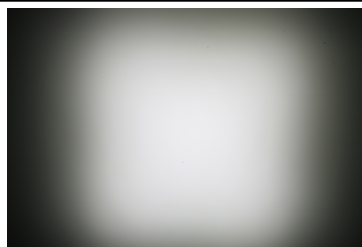
NICHIA

LED NCSxx19A
 FWHM 48.0°
 Efficiency 85 %
 Peak intensity 1.100 cd/lm
 Required components:



NICHIA

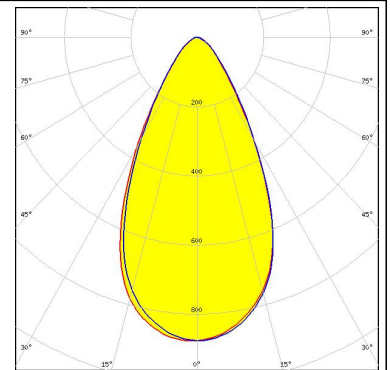
LED NCSxx19B
 FWHM 50.0°
 Efficiency 85 %
 Peak intensity 1.000 cd/lm
 Required components:



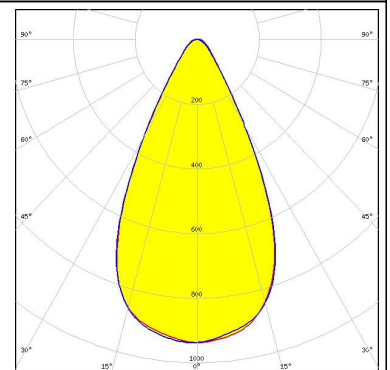
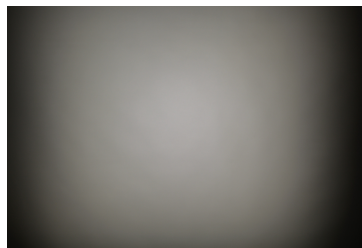
PHOTOMETRIC DATA (MEASURED):



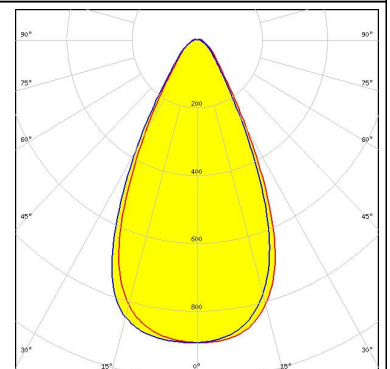
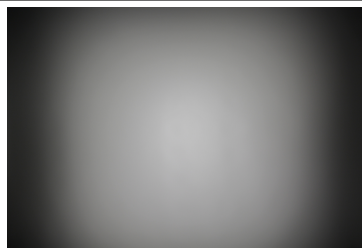
LED NS9x383
FWHM 54.0°
Efficiency 86 %
Peak intensity 0.880 cd/lm
Required components:



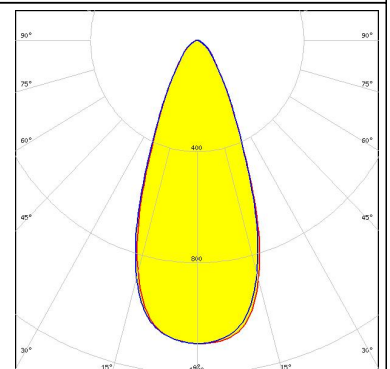
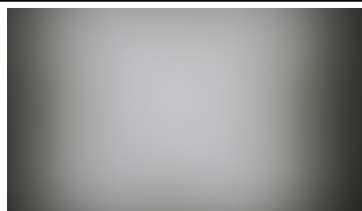
LED NVSW219D
FWHM 53.0°
Efficiency 94 %
Peak intensity 0.940 cd/lm
Required components:



LED NVSW3x9A
FWHM 53.0°
Efficiency 92 %
Peak intensity 0.900 cd/lm
Required components:



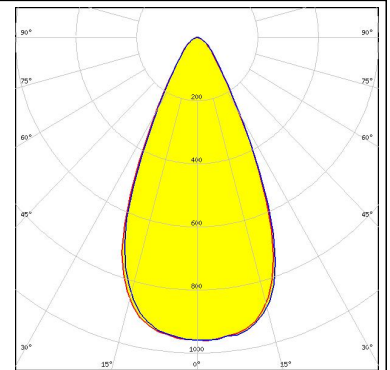
LED NVSxE21A
FWHM 43.0°
Efficiency 86 %
Peak intensity 1.100 cd/lm
Required components:



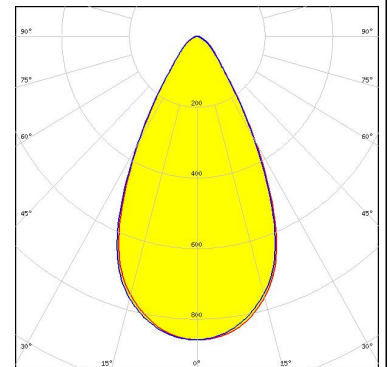
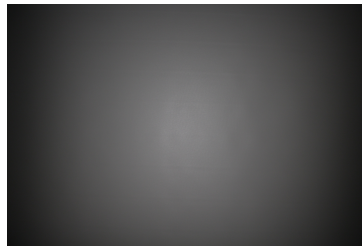
PHOTOMETRIC DATA (MEASURED):



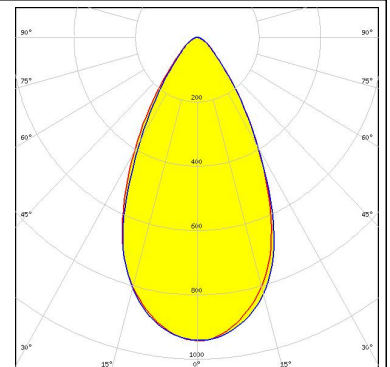
LED NVSxx19B/NVSxx19C
FWHM 51.0°
Efficiency 85 %
Peak intensity 0.960 cd/lm
Required components:



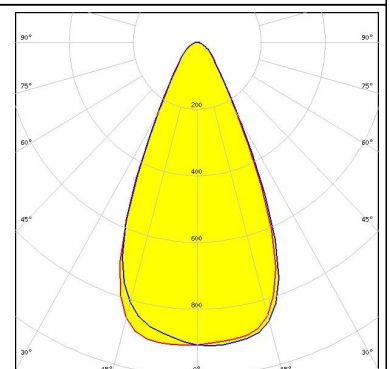
LED NWSx229A
FWHM 57.0°
Efficiency 86 %
Peak intensity 0.860 cd/lm
Required components:



LED OLP-5065F6L-06A
FWHM 56.0°
Efficiency 88 %
Peak intensity 0.940 cd/lm
Required components:



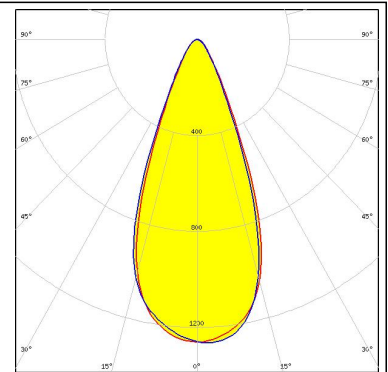
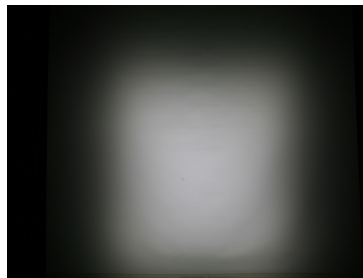
LED Oslon Square PC
FWHM 54.0°
Efficiency 87 %
Peak intensity 0.900 cd/lm
Required components:



PHOTOMETRIC DATA (MEASURED):

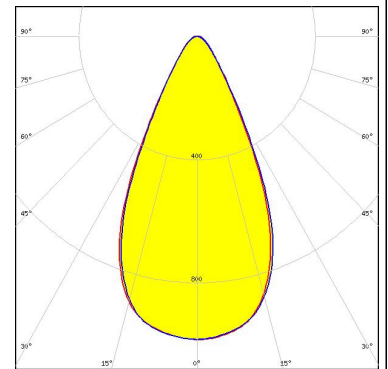
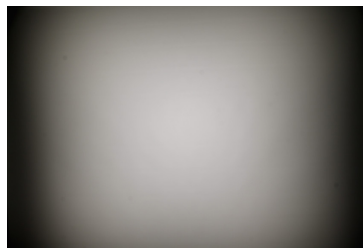
OSRAM
Opto Semiconductors

LED Oslon SSL 80
FWHM 43.0°
Efficiency 89 %
Peak intensity 1.260 cd/lm
Required components:



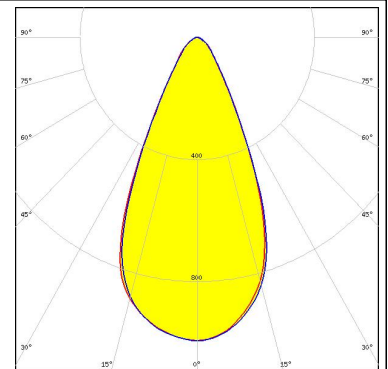
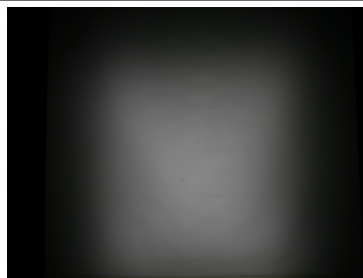
PHILIPS

LED Fortimo FastFlex LED board 2x8 DA G4
FWHM 52.0°
Efficiency 94 %
Peak intensity 0.990 cd/lm
Required components:



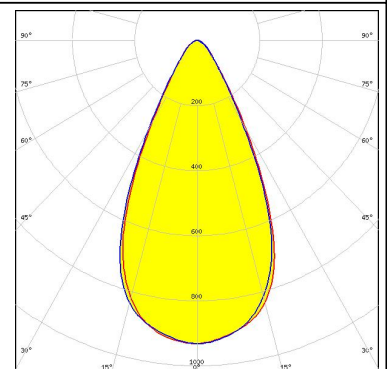
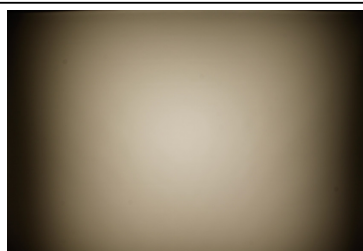
SAMSUNG

LED LH351A(3535)
FWHM 49.0°
Efficiency 89 %
Peak intensity 1.000 cd/lm
Required components:



SAMSUNG

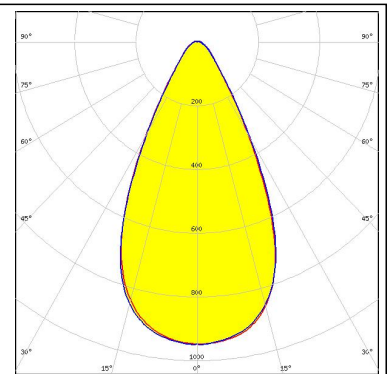
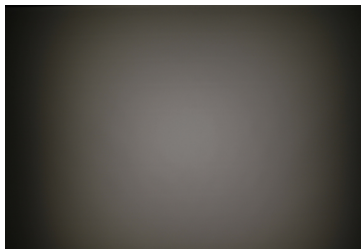
LED LH351B
FWHM 55.0°
Efficiency 86 %
Peak intensity 0.930 cd/lm
Required components:



PHOTOMETRIC DATA (MEASURED):

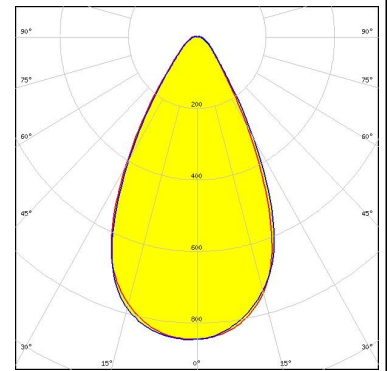
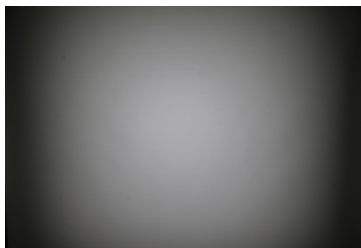
SAMSUNG

LED LH351C
FWHM 53.0°
Efficiency 93 %
Peak intensity 1.000 cd/lm
Required components:



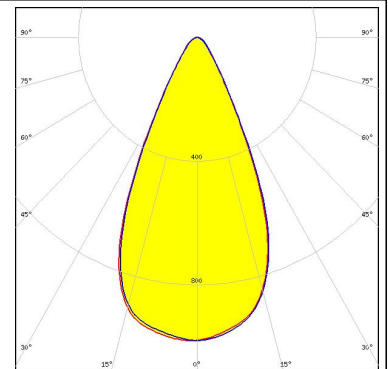
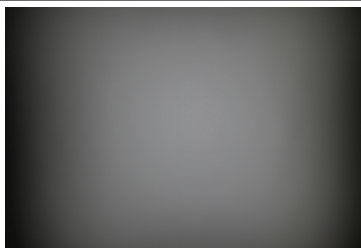
SAMSUNG

LED LH351D
FWHM 56.0°
Efficiency 91 %
Peak intensity 0.850 cd/lm
Required components:



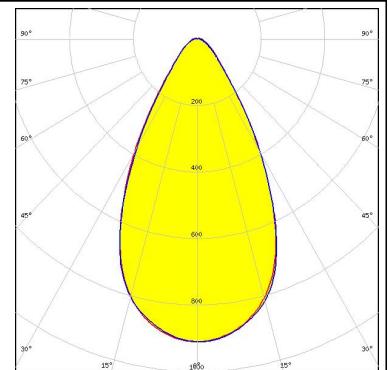
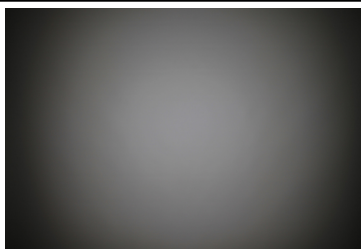
SAMSUNG

LED LH351Z
FWHM 50.0°
Efficiency 87 %
Peak intensity 1.000 cd/lm
Required components:


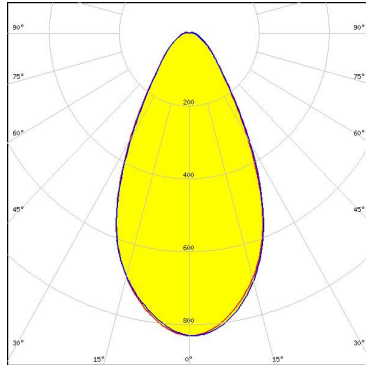

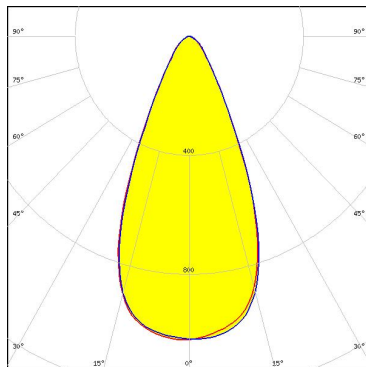

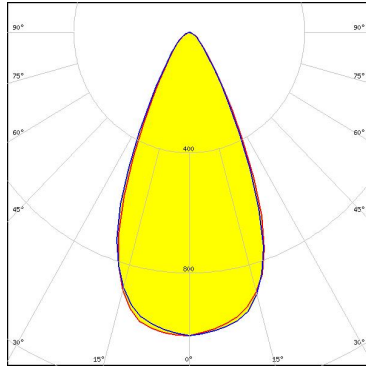

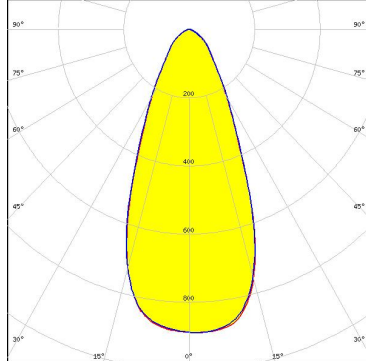


SAMSUNG


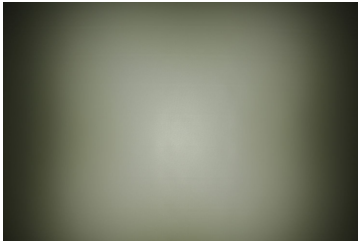
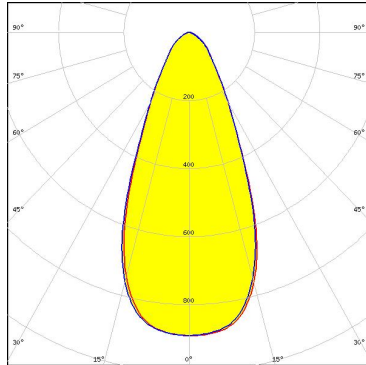

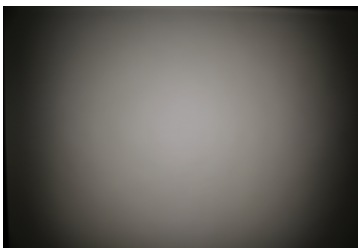
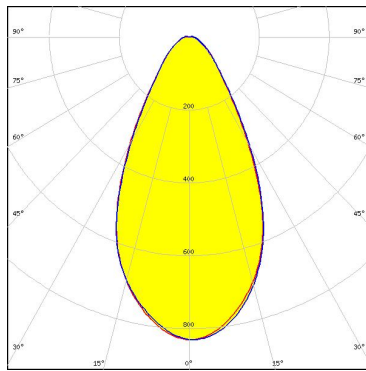


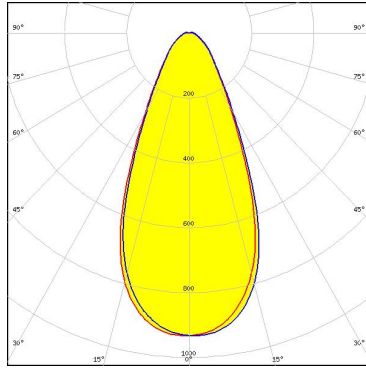

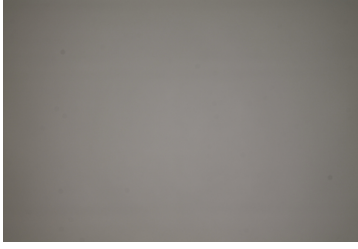
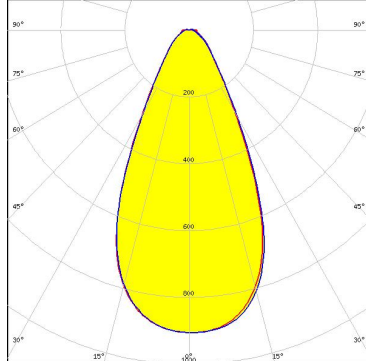
LED LH508A
FWHM 56.0°
Efficiency 93 %
Peak intensity 0.900 cd/lm
Required components:



PHOTOMETRIC DATA (MEASURED):

<p>SEOL SEOUL SEMICONDUCTOR</p> <p>LED SMJQ-D48W16AA-XX FWHM 54.0° Efficiency 92 % Peak intensity 0.830 cd/lm Required components:</p>		
<p>SEOL SEOUL SEMICONDUCTOR</p> <p>LED Z5 FWHM 48.0° Efficiency 88 % Peak intensity 1.000 cd/lm Required components:</p>		
<p>SEOL SEOUL SEMICONDUCTOR</p> <p>LED Z5M1/Z5M2 FWHM 51.0° Efficiency 85 % Peak intensity 1.000 cd/lm Required components:</p>		
<p>SEOL SEOUL SEMICONDUCTOR</p> <p>LED Z8Y15 FWHM 45.0° Efficiency 79 % Peak intensity 0.900 cd/lm Required components:</p>		

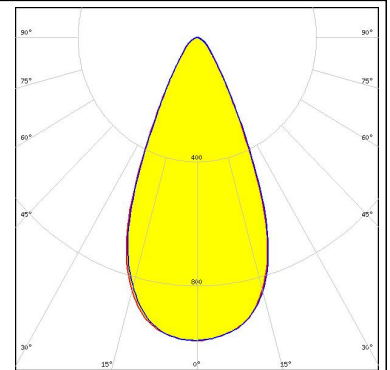
PHOTOMETRIC DATA (MEASURED):

<p> SEOUL SEMICONDUCTOR</p> <p>LED Z8Y19 FWHM 46.0° Efficiency 79 % Peak intensity 0.900 cd/lm Required components:</p>		
<p> SEOUL SEMICONDUCTOR</p> <p>LED Z8Y19 2x2 cluster FWHM 54.0° Efficiency 92 % Peak intensity 0.830 cd/lm Required components:</p>		
<p> SEOUL SEMICONDUCTOR</p> <p>LED Z8Y22 FWHM 48.0° Efficiency 92 % Peak intensity 0.930 cd/lm Required components:</p>		
<p> SEOUL SEMICONDUCTOR</p> <p>LED Z8Y22P FWHM 51.0° Efficiency 92 % Peak intensity 0.910 cd/lm Required components:</p>		

PHOTOMETRIC DATA (MEASURED):

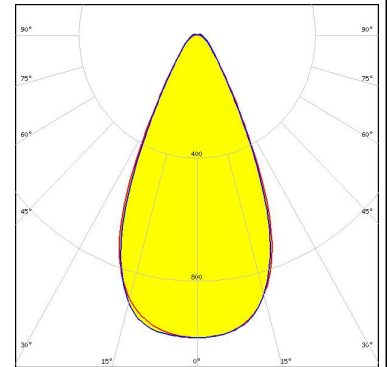
TOSHIBA
Leading Innovation >>>

LED TL1L4
FWHM 48.0°
Efficiency 81 %
Peak intensity 0.980 cd/lm
Required components:



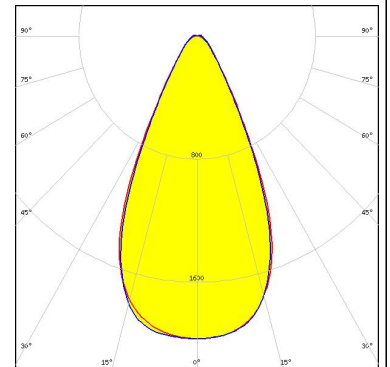
TRIDONIC

LED RLE G1 49x121mm 2000lm xxx EXC OTD
FWHM 52.0°
Efficiency 94 %
Peak intensity 0.980 cd/lm
Required components:



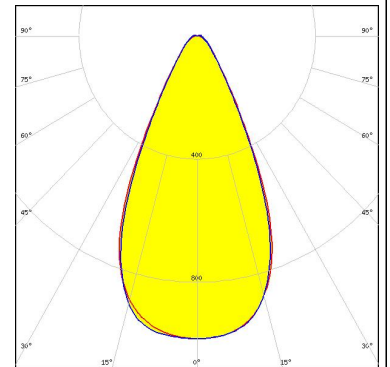
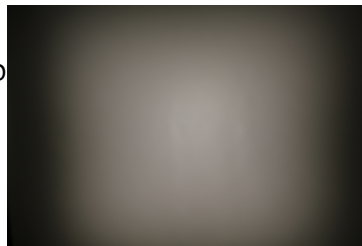
TRIDONIC

LED RLE G1 49x133mm 2000lm xxx EXC OTD
FWHM 52.0°
Efficiency 94 %
Peak intensity 0.980 cd/lm
Required components:



TRIDONIC

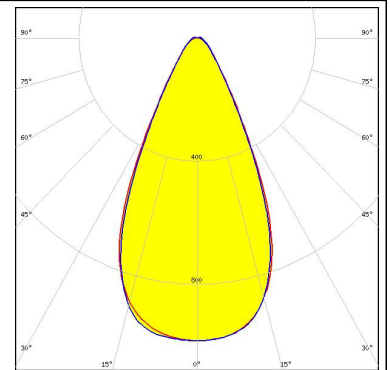
LED RLE G1 49x223mm 4000lm xxx EXC OTD
FWHM 52.0°
Efficiency 94 %
Peak intensity 0.980 cd/lm
Required components:



PHOTOMETRIC DATA (MEASURED):

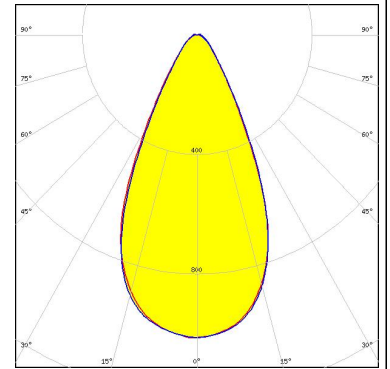
TRIDONIC

LED RLE G1 49x245mm 4000lm xxx EXC OTD
FWHM 52.0°
Efficiency 94 %
Peak intensity 0.980 cd/lm
Required components:



TRIDONIC

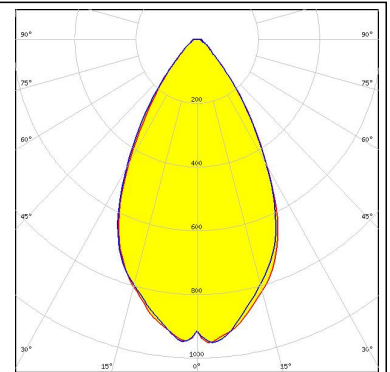
LED RLE G2 HP 2x8 4000lm
FWHM 51.0°
Efficiency 94 %
Peak intensity 1.000 cd/lm
Required components:



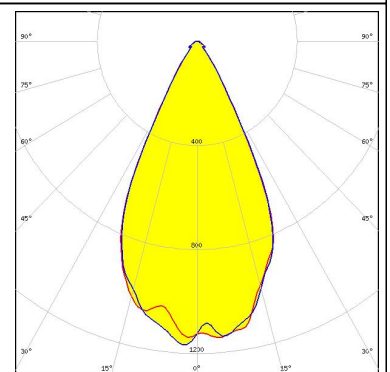
PHOTOMETRIC DATA (SIMULATED):



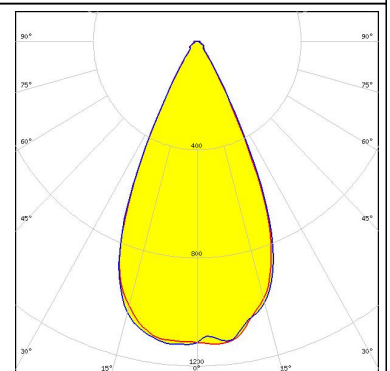
LED MHB-A/B
 FWHM 58.0°
 Efficiency 94 %
 Peak intensity 0.960 cd/lm
 Required components:



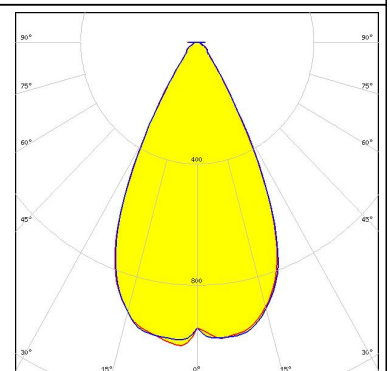
LED XHP35 HI
 FWHM 52.0°
 Efficiency 93 %
 Peak intensity 1.200 cd/lm
 Required components:



LED XP-E
 FWHM 50.0°
 Efficiency 94 %
 Peak intensity 1.200 cd/lm
 Required components:



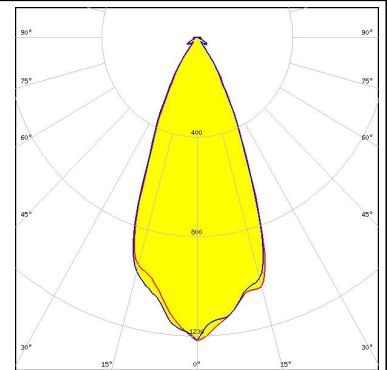
LED XP-G3
 FWHM 54.0°
 Efficiency 94 %
 Peak intensity 1.000 cd/lm
 Required components:



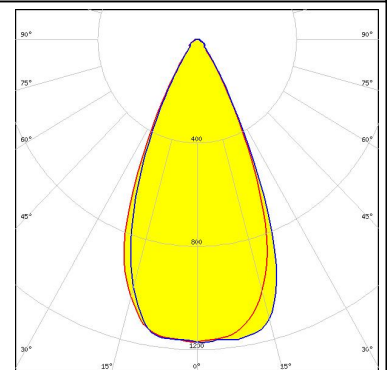
PHOTOMETRIC DATA (SIMULATED):



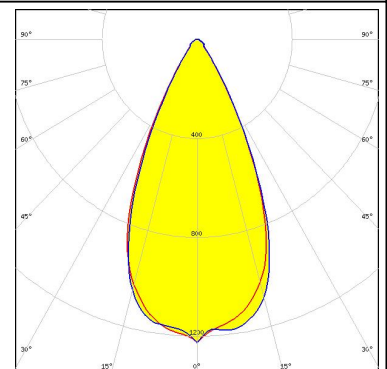
LED XQ-E HI
 FWHM 42.0°
 Efficiency 93 %
 Peak intensity 1.370 cd/lm
 Required components:



LED LUXEON 3030 2D (Round LES)
 FWHM 49.0°
 Efficiency 94 %
 Peak intensity 1.200 cd/lm
 Required components:



LED LUXEON 3535L
 FWHM 49.0°
 Efficiency 94 %
 Peak intensity 1.200 cd/lm
 Required components:

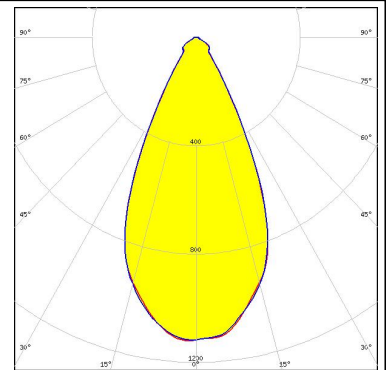


LED LUXEON A
 FWHM 52.0°
 Efficiency %
 Peak intensity cd/lm
 Required components:

PHOTOMETRIC DATA (SIMULATED):

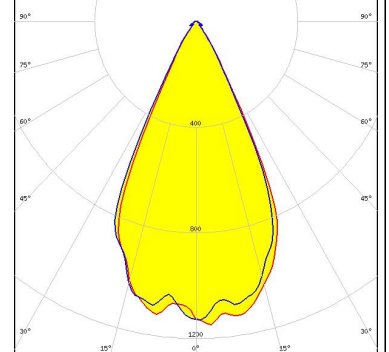
LUMILEDS

LED LUXEON C
FWHM 50.0°
Efficiency 94 %
Peak intensity 1.100 cd/lm
Required components:



LUMILEDS

LED LUXEON H50-2
FWHM 52.0°
Efficiency 91 %
Peak intensity 4.700 cd/lm
Required components:



LUMILEDS

LED LUXEON Rebel
FWHM 52.0°
Efficiency %
Peak intensity cd/lm
Required components:

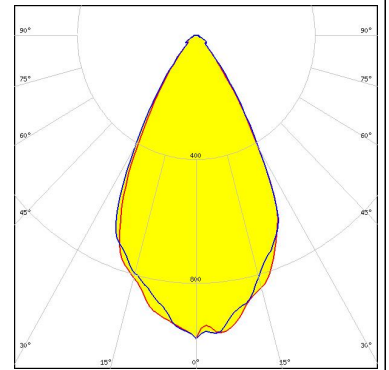
NICHIA

LED NVSxx19A
FWHM 50.0°
Efficiency %
Peak intensity cd/lm
Required components:

PHOTOMETRIC DATA (SIMULATED):

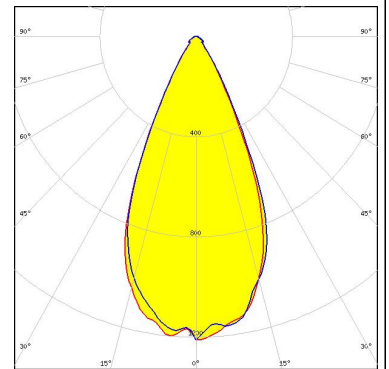
OSRAM
Opto Semiconductors

LED Duris S8
FWHM 56.0°
Efficiency 86 %
Peak intensity 1.000 cd/lm
Required components:



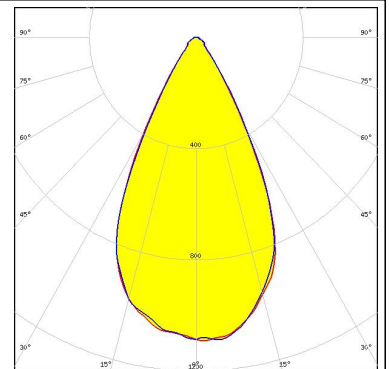
OSRAM
Opto Semiconductors

LED OSCONIQ P 3737 (2W version)
FWHM 48.0°
Efficiency 93 %
Peak intensity 1.200 cd/lm
Required components:



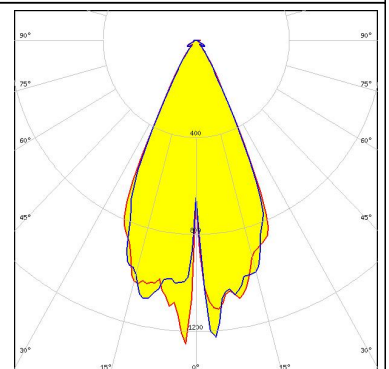
OSRAM
Opto Semiconductors

LED OSCONIQ P 3737 (3W version)
FWHM 54.0°
Efficiency 94 %
Peak intensity 1.100 cd/lm
Required components:



OSRAM
Opto Semiconductors

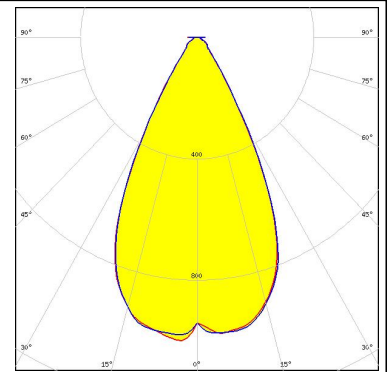
LED Oslon Square Gen3
FWHM 50.0°
Efficiency 93 %
Peak intensity 1.300 cd/lm
Required components:



PHOTOMETRIC DATA (SIMULATED):

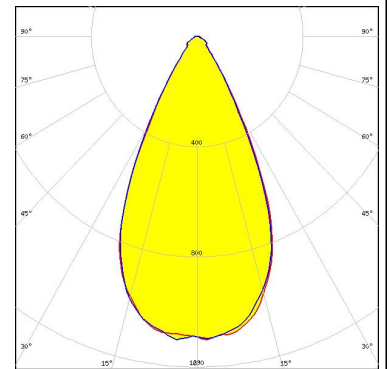
PHILIPS

LED Fortimo FastFlex LED board 2x8 DAX G4
 FWHM 54.0°
 Efficiency 94 %
 Peak intensity 1.000 cd/lm
 Required components:



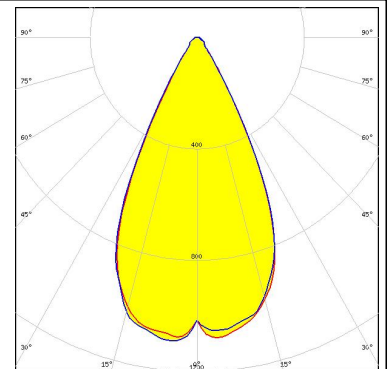
SEOUL SEMICONDUCTOR

LED Acrich MJT 4040
 FWHM 52.0°
 Efficiency 94 %
 Peak intensity 1.100 cd/lm
 Required components:



SEOUL SEMICONDUCTOR

LED Z5M1/Z5M2
 FWHM 52.0°
 Efficiency 94 %
 Peak intensity 1.100 cd/lm
 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:

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LEDiL Oy

Joensuunkatu 13
FI-24240 SALO
Finland

LEDiL Inc.

228 West Page Street
Suite D
Sycamore IL 60178
USA

Local sales and technical support

[www.ledil.com/
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