HB-2X2-O

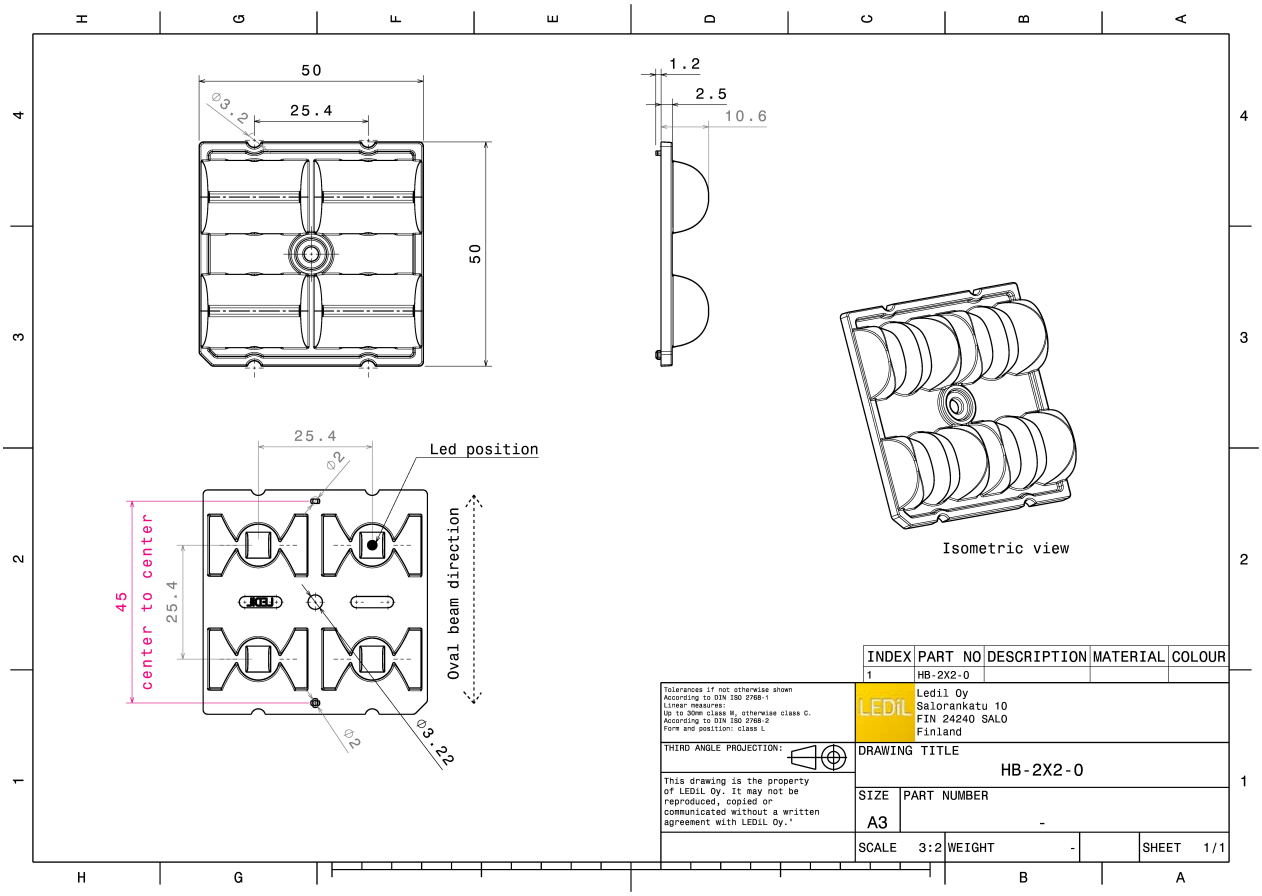
~20° + 115° oval beam for aisle lighting

TECHNICAL SPECIFICATIONS:

Dimensions	50.0 mm
Height	10.6 mm
Fastening	glue, pin, screw
Colour	clear
Box size	480 x 280 x 300 mm
Box weight	10.4 kg
Quantity in Box	800 pcs
ROHS compliant	yes

MATERIAL SPECIFICATIONS:

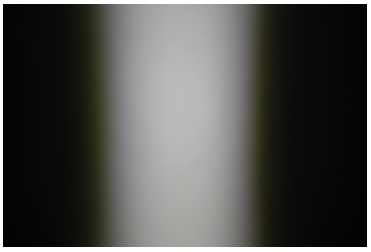
Component	Type	Material	Colour
HB-2X2-O	Multi-lens	PMMA	clear

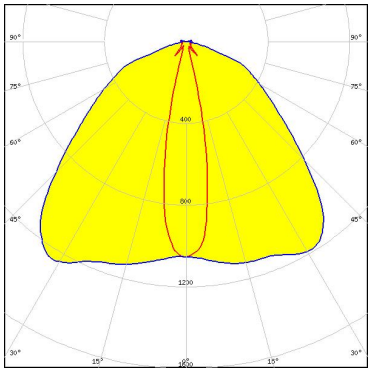

50
25.4
Ø3.2
50
1.2
2.5
10.6
25.4
Ø2
Led position
45
center to center
25.4
Oval beam direction
Ø2
Ø3.2
Isometric view
INDEX
PART NO
DESCRIPTION
MATERIAL
COLOUR
1
HB-2X2-0
Tolerances if not otherwise shown
According to DIN ISO 2768-1
Linear measures:
Up to 30mm class B, otherwise class C.
According to DIN ISO 2768-2
Form and position: class L
Ledil Oy
Salorankatu 10
FIN 24240 SALO
Finland
THIRD ANGLE PROJECTION:
DRAWING TITLE
HB-2X2-0
This drawing is the property of LEDiL Oy. It may not be reproduced, copied or communicated without a written agreement with LEDiL Oy.
SIZE
A3
PART NUMBER
-
SCALE 3:2
WEIGHT -
SHEET 1/1

PHOTOMETRIC DATA (MEASURED):

COMET ELECTRONICS

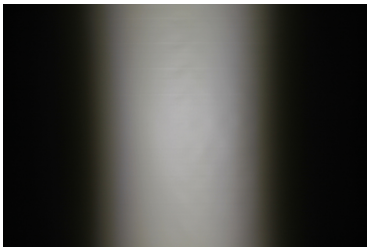
LED	QUICK FLUX XTP 2x4 xxx LS G5
FWHM	21.0 + 111.0°
Efficiency	94 %
Peak intensity	1.300 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

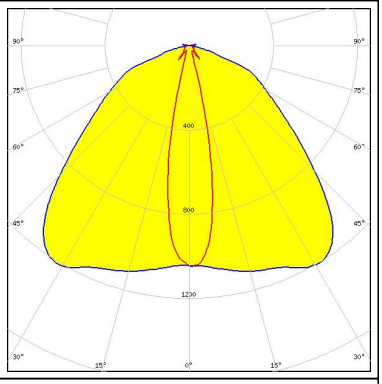




COMET ELECTRONICS

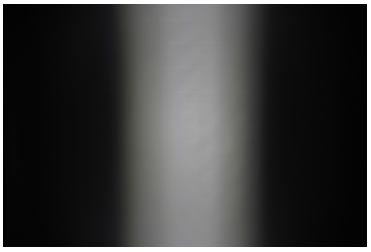
LED	QUICK FLUX XTP 2x6 xxx LS G5
FWHM	22.0 + 111.0°
Efficiency	94 %
Peak intensity	1.200 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

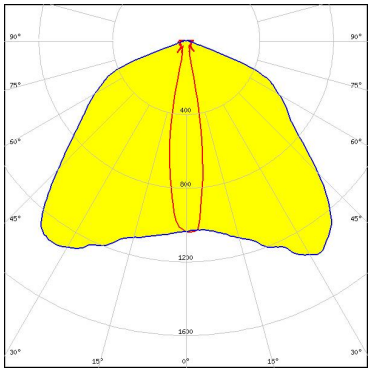




CREE

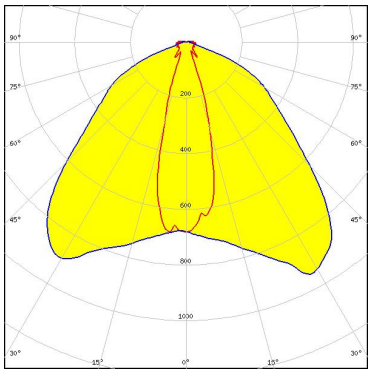
LED	XD16
FWHM	19.0 + 127.0°
Efficiency	93 %
Peak intensity	1.400 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	





CREE

LED	XD16
FWHM	29.0 + 116.0°
Efficiency	94 %
Peak intensity	0.950 cd/lm
LEDs/each optic	4
Light colour	White
Required components:	

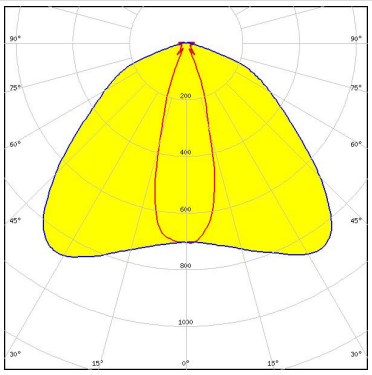


PHOTOMETRIC DATA (MEASURED):

CREE

LED	XHP35 HD
FWHM	29.0 + 117.0°
Efficiency	94 %
Peak intensity	0.870 cd/lm
LEDs/each optic	1
Light colour	White

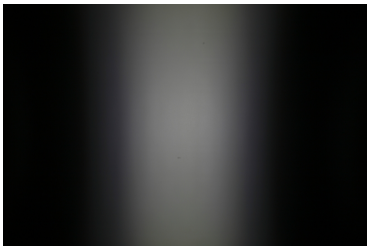
Required components:

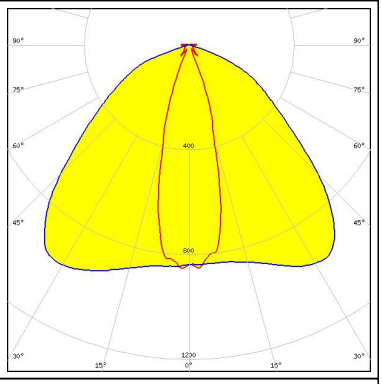


CREE

LED	XM-L
FWHM	28.0 + 108.0°
Efficiency	94 %
Peak intensity	0.970 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

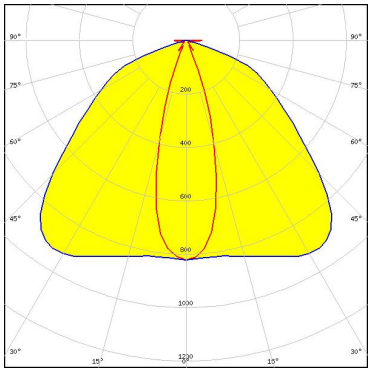




CREE

LED	XM-L2
FWHM	30.0 + 106.0°
Efficiency	94 %
Peak intensity	1.000 cd/lm
LEDs/each optic	1
Light colour	White

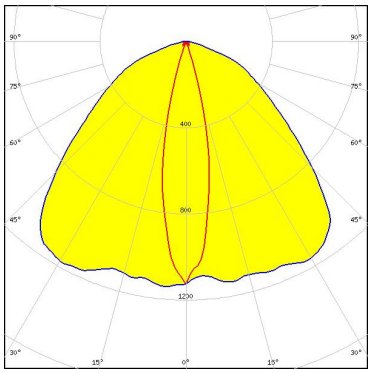
Required components:



CREE

LED	XP-G
FWHM	26.0 + 115.0°
Efficiency	94 %
Peak intensity	1.130 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

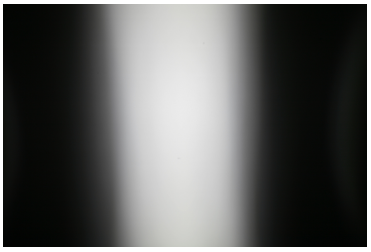


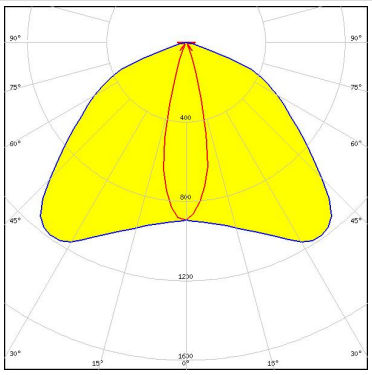
PHOTOMETRIC DATA (MEASURED):

CREE

LED	XP-G2
FWHM	27.0 + 112.0°
Efficiency	94 %
Peak intensity	1.200 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

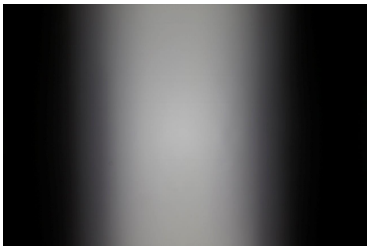


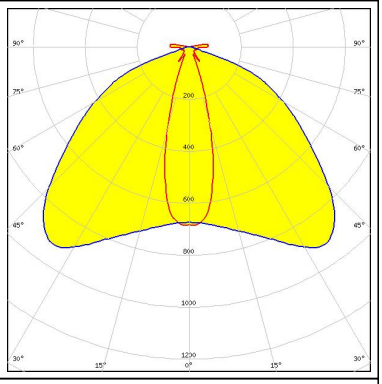


CREE

LED	XP-L HD
FWHM	29.0 + 117.0°
Efficiency	94 %
Peak intensity	0.890 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

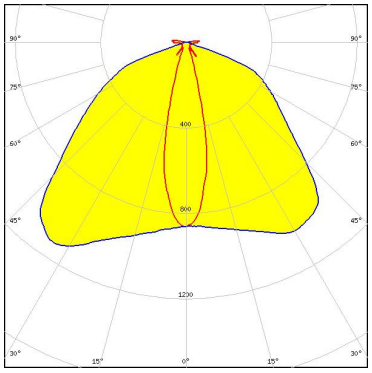




CREE

LED	XP-L HI
FWHM	25.0 + 123.0°
Efficiency	94 %
Peak intensity	1.100 cd/lm
LEDs/each optic	1
Light colour	White

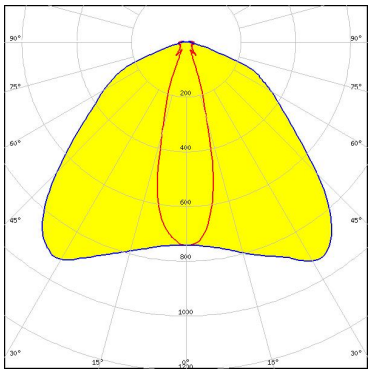
Required components:



CREE

LED	XP-L2
FWHM	28.0 + 117.0°
Efficiency	94 %
Peak intensity	0.930 cd/lm
LEDs/each optic	1
Light colour	White

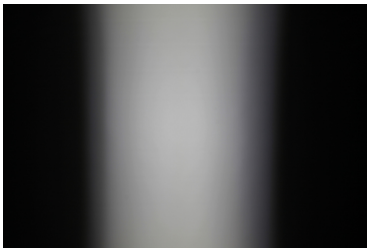
Required components:

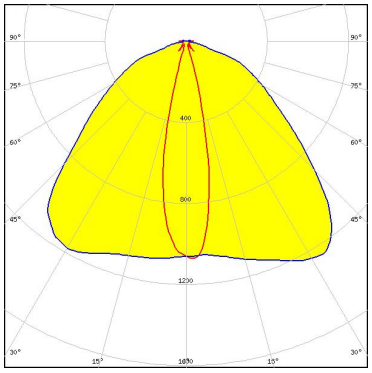


PHOTOMETRIC DATA (MEASURED):

LG Innotek

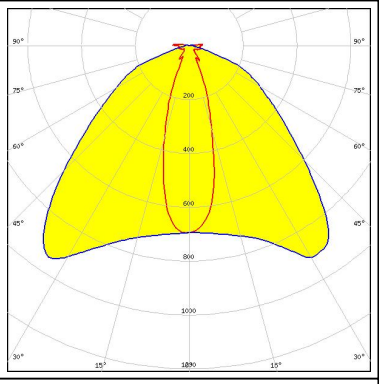
LED	H35C1 (LEMWA33)
FWHM	23.0 + 110.0°
Efficiency	94 %
Peak intensity	1.200 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	





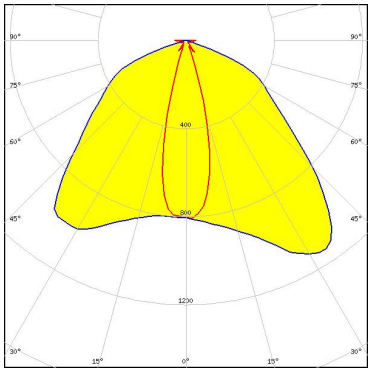
LUMILEDS

LED	LUXEON 5050 Round LES
FWHM	29.0 + 114.0°
Efficiency	94 %
Peak intensity	0.940 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



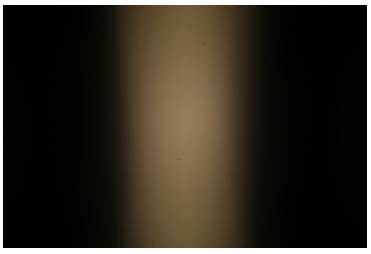
LUMILEDS

LED	LUXEON MZ
FWHM	28.0 + 103.0°
Efficiency	94 %
Peak intensity	1.100 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



LUMILEDS

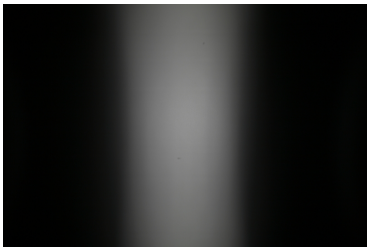
LED	LUXEON R
FWHM	25.0 + 105.0°
Efficiency	94 %
Peak intensity	1.240 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

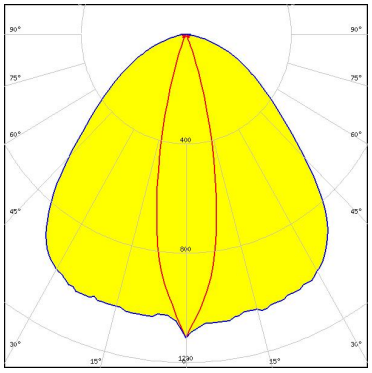


PHOTOMETRIC DATA (MEASURED):

LUMILEDS

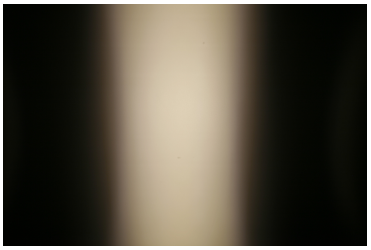
LED	LUXEON Rebel ES
FWHM	25.0 + 106.0°
Efficiency	94 %
Peak intensity	1.200 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

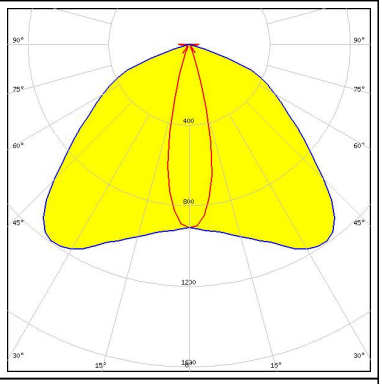




LUMILEDS

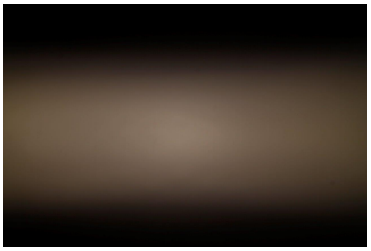
LED	LUXEON T
FWHM	26.0 + 110.0°
Efficiency	94 %
Peak intensity	1.200 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

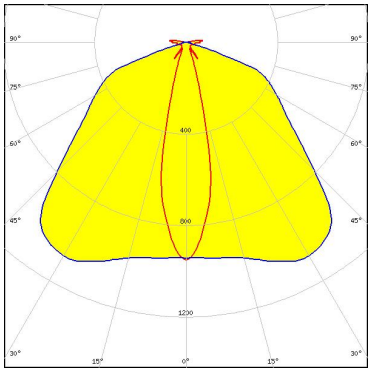




LUMILEDS

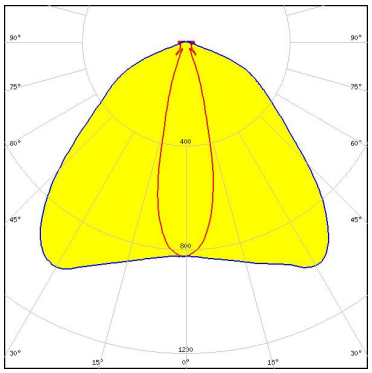
LED	LUXEON TX
FWHM	24.0 + 118.0°
Efficiency	94 %
Peak intensity	1.080 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	





LUMILEDS

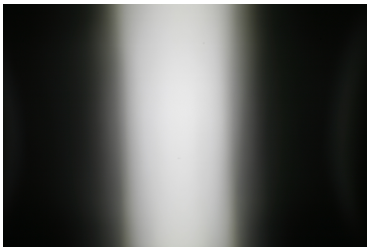
LED	LUXEON V
FWHM	26.0 + 108.0°
Efficiency	94 %
Peak intensity	1.000 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

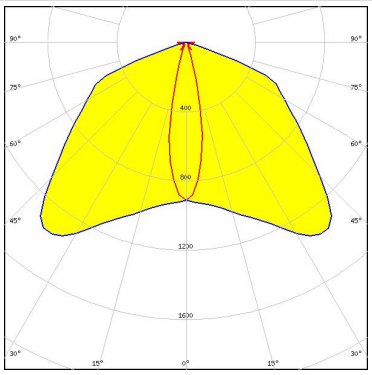


PHOTOMETRIC DATA (MEASURED):

NICHIA

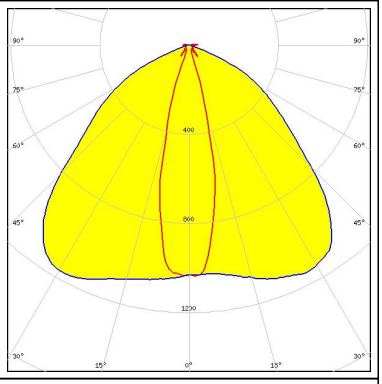
LED	NCSxx19B
FWHM	23.0 + 113.0°
Efficiency	94 %
Peak intensity	1.400 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	





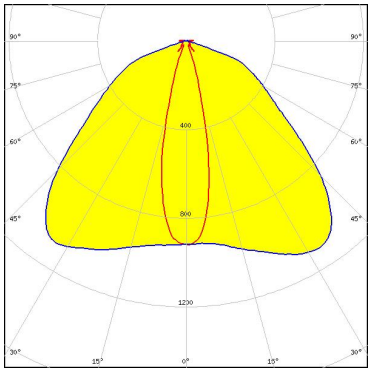
NICHIA

LED	NVSW219D
FWHM	25.0 + 107.0°
Efficiency	94 %
Peak intensity	1.200 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



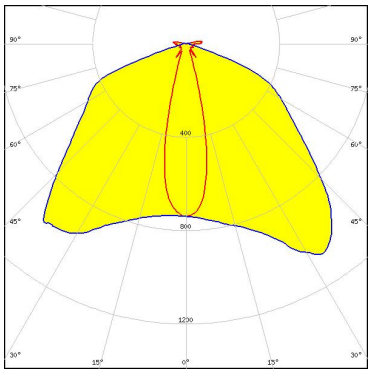
NICHIA

LED	NVSW319B
FWHM	25.0 + 113.0°
Efficiency	94 %
Peak intensity	1.100 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



NICHIA

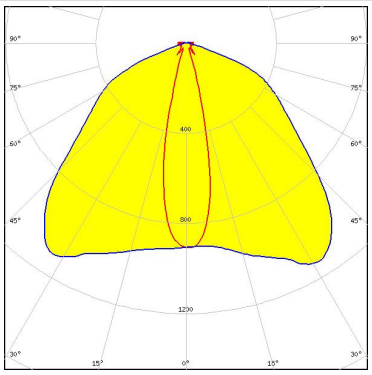
LED	NVSW3x9A
FWHM	25.0 + 134.0°
Efficiency	93 %
Peak intensity	0.400 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



PHOTOMETRIC DATA (MEASURED):

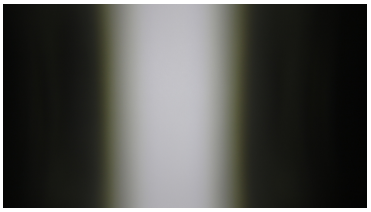
NICHIA

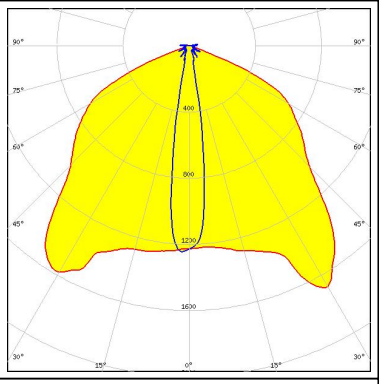
LED	NVSW3x9A
FWHM	24.0 + 119.0°
Efficiency	94 %
Peak intensity	1.100 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



NICHIA

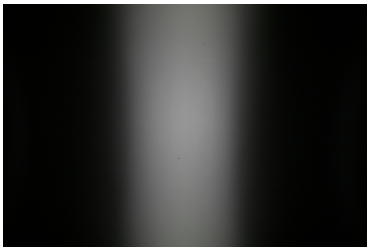
LED	NVSxE21A
FWHM	17.0 + 125.0°
Efficiency	94 %
Peak intensity	1.680 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

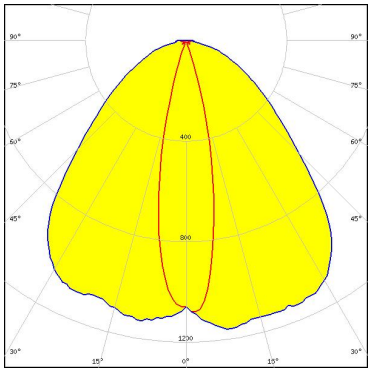




NICHIA

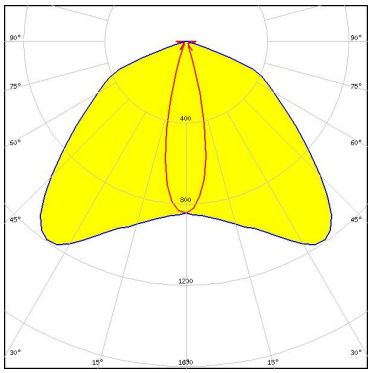
LED	NVSxx19A
FWHM	24.0 + 105.0°
Efficiency	94 %
Peak intensity	1.220 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	





NICHIA

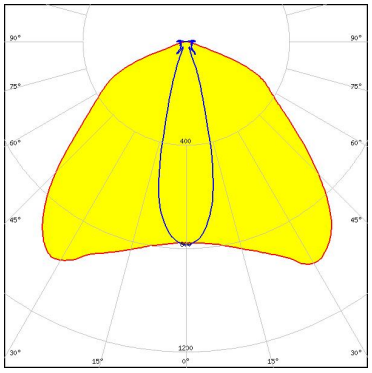
LED	NVSxx19B/NVSxx19C
FWHM	26.0 + 108.0°
Efficiency	94 %
Peak intensity	1.200 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



PHOTOMETRIC DATA (MEASURED):

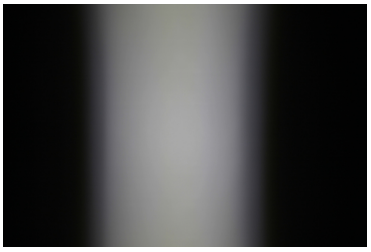
NICHIA

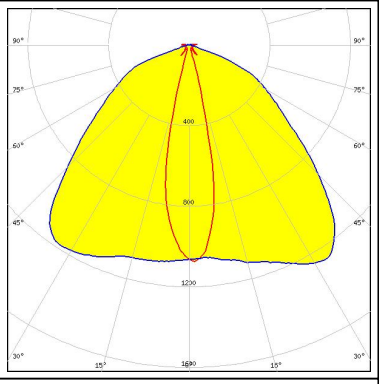
LED	NWSx229A
FWHM	27.0 + 118.0°
Efficiency	94 %
Peak intensity	1.000 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



OSRAM

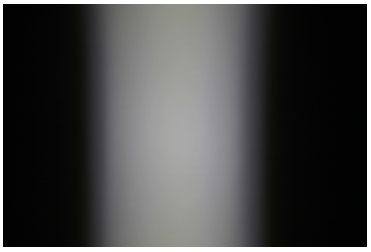
LED	PrevaLED Brick HP 2x8
FWHM	23.0 + 111.0°
Efficiency	94 %
Peak intensity	1.300 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

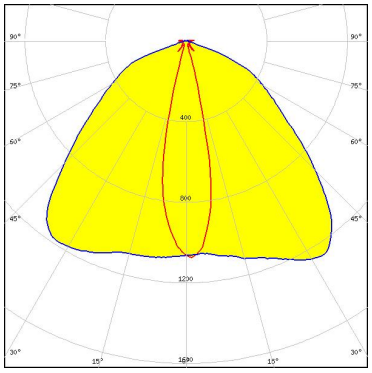




OSRAM Opto Semiconductors

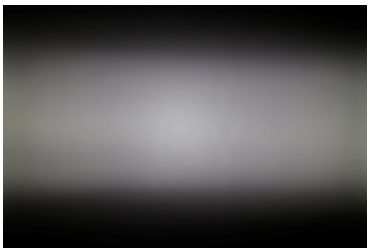
LED	OSLON Square CSSRM2/CSSRM3
FWHM	23.0 + 111.0°
Efficiency	94 %
Peak intensity	1.300 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

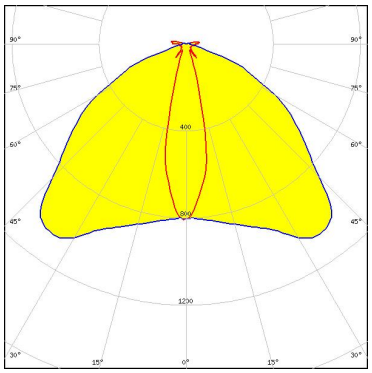




OSRAM Opto Semiconductors

LED	OSLON Square PC
FWHM	25.0 + 124.0°
Efficiency	91 %
Peak intensity	1.070 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

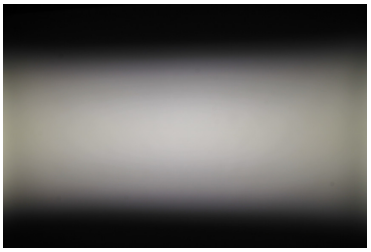


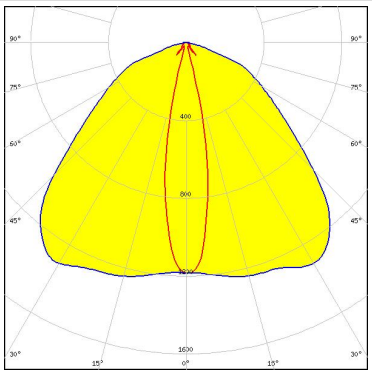


PHOTOMETRIC DATA (MEASURED):

PHILIPS

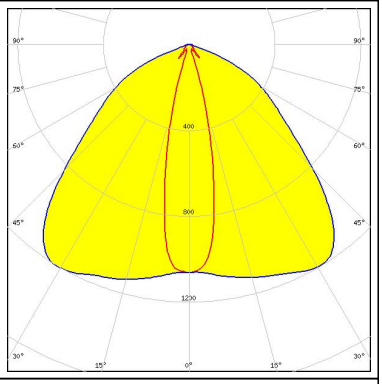
LED	Fortimo FastFlex LED 2x8 DA G4
FWHM	21.0 + 108.0°
Efficiency	94 %
Peak intensity	1.300 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	





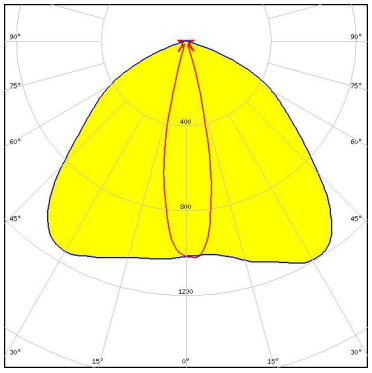
SAMSUNG

LED	HiLOM RH16 (LH351C)
FWHM	23.0 + 106.0°
Efficiency	94 %
Peak intensity	1.200 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



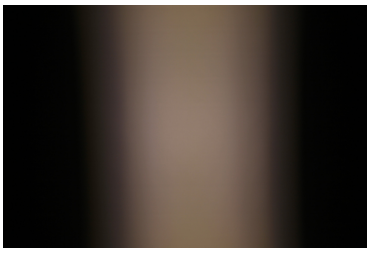
SAMSUNG

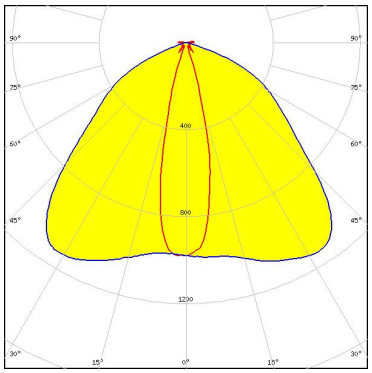
LED	LH351B
FWHM	23.0 + 113.0°
Efficiency	94 %
Peak intensity	1.210 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



SAMSUNG

LED	LH351C
FWHM	24.0 + 111.0°
Efficiency	94 %
Peak intensity	1.100 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

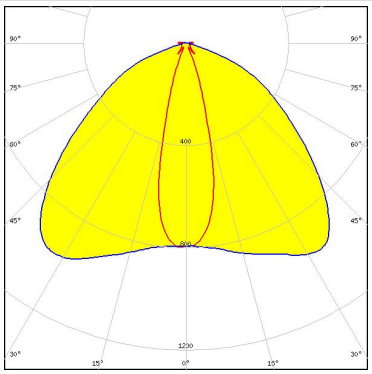




PHOTOMETRIC DATA (MEASURED):

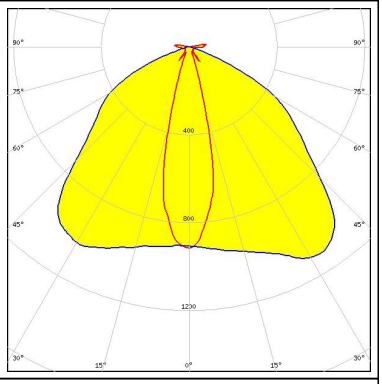
SAMSUNG

LED	LH351D
FWHM	27.0 + 116.0°
Efficiency	94 %
Peak intensity	0.970 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



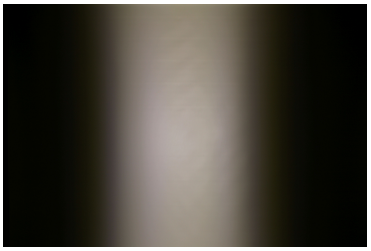
SAMSUNG

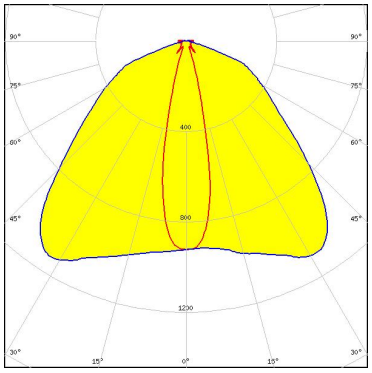
LED	LH351Z
FWHM	26.0 + 117.0°
Efficiency	94 %
Peak intensity	1.100 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



SEOUL SEMICONDUCTOR

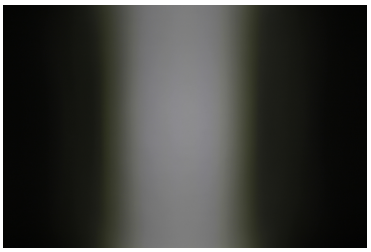
LED	Z5M3
FWHM	23.0 + 113.0°
Efficiency	94 %
Peak intensity	1.100 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

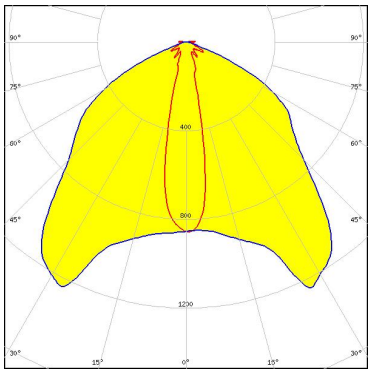




SEOUL SEMICONDUCTOR

LED	Z8Y22
FWHM	21.0 + 121.0°
Efficiency	94 %
Peak intensity	1.200 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

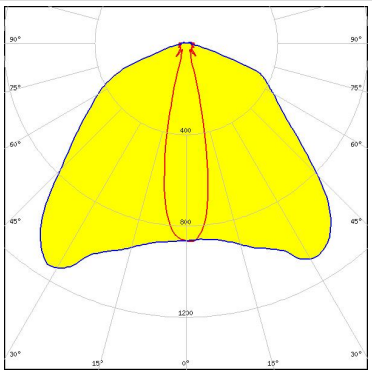




PHOTOMETRIC DATA (MEASURED):

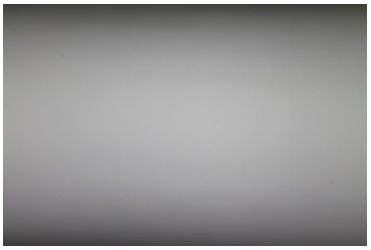
SEOUL SEMICONDUCTOR

LED	Z8Y22P
FWHM	23.0 + 121.0°
Efficiency	94 %
Peak intensity	1.100 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



TOSHIBA
Leading Innovation

LED	TL1L4
FWHM	24.0 + 119.0°
Efficiency	89 %
Peak intensity	1.100 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

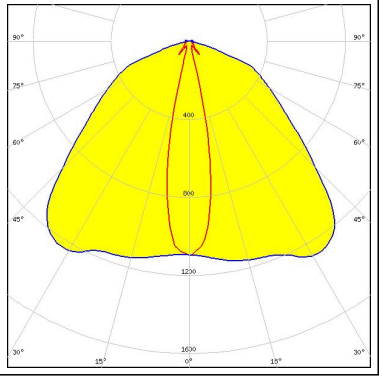


TRIDONIC

LED	RLE 2x4 2000lm HP EXC2 OTD
FWHM	22.0 + 113.0°
Efficiency	94 %
Peak intensity	1.300 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

TRIDONIC

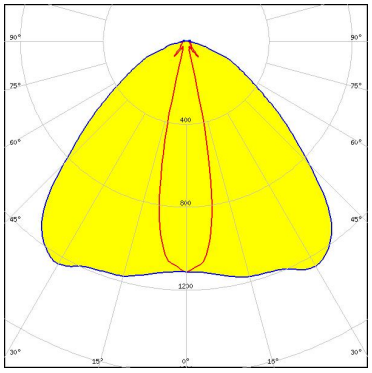
LED	RLE 2x8 4000lm HP EXC2 OTD
FWHM	22.0 + 113.0°
Efficiency	94 %
Peak intensity	1.300 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



PHOTOMETRIC DATA (MEASURED):

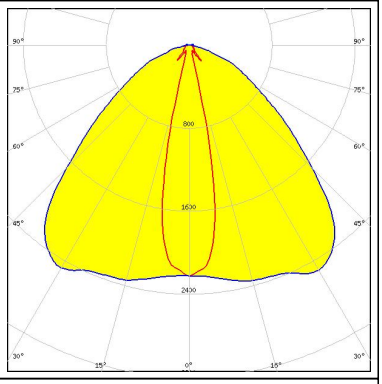
TRIDONIC

LED	RLE G1 49x121mm 2000lm xxx EXC OTD
FWHM	23.0 + 104.0°
Efficiency	94 %
Peak intensity	1.300 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



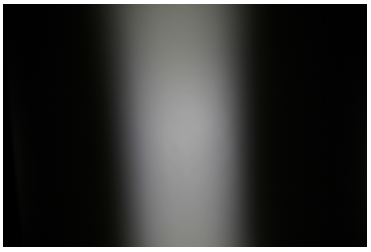
TRIDONIC

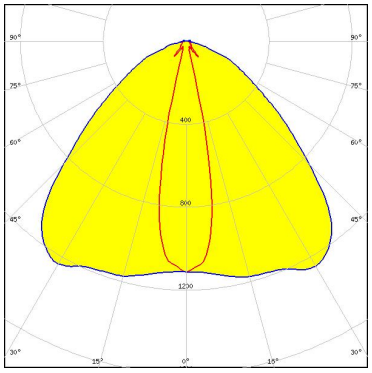
LED	RLE G1 49x133mm 2000lm xxx EXC OTD
FWHM	23.0 + 104.0°
Efficiency	94 %
Peak intensity	1.300 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



TRIDONIC

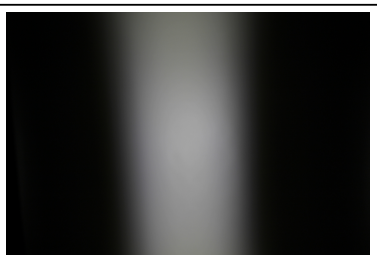
LED	RLE G1 49x223mm 4000lm xxx EXC OTD
FWHM	23.0 + 104.0°
Efficiency	94 %
Peak intensity	1.300 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

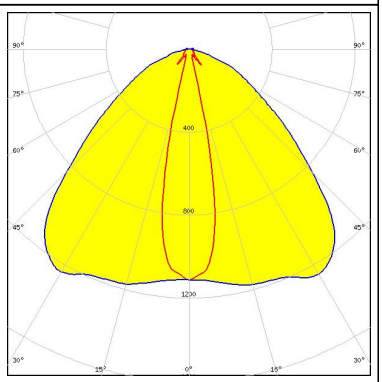




TRIDONIC

LED	RLE G1 49x245mm 4000lm xxx EXC OTD
FWHM	23.0 + 104.0°
Efficiency	94 %
Peak intensity	1.300 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



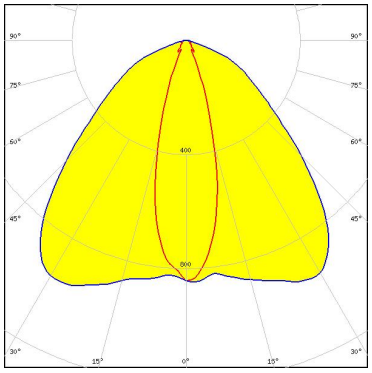


PHOTOMETRIC DATA (SIMULATED):

CREE

LED	J Series 5050
FWHM	30.0 + 97.0°
Efficiency	94 %
Peak intensity	0.960 cd/lm
LEDs/each optic	1
Light colour	White

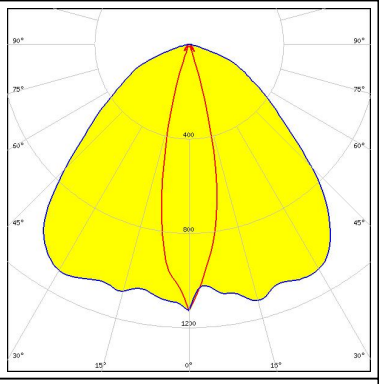
Required components:



CREE

LED	XHP35 HI
FWHM	101.0 + 27.0°
Efficiency	94 %
Peak intensity	1.200 cd/lm
LEDs/each optic	1
Light colour	White

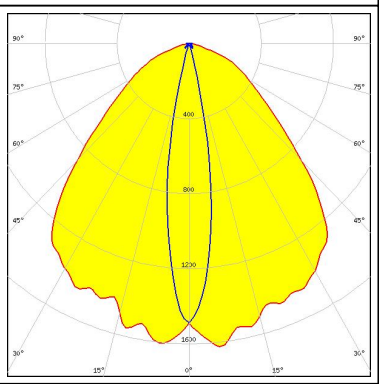
Required components:



CREE

LED	XP-E2
FWHM	93.0 + 18.0°
Efficiency	94 %
Peak intensity	1.630 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

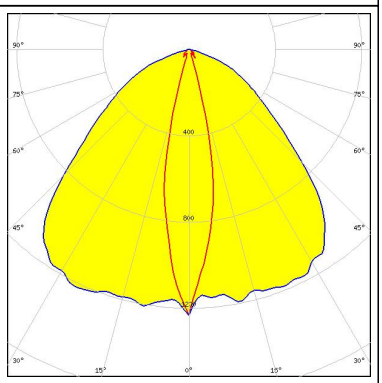


CREE

LED	XP-G2
FWHM	21.0 + 98.0°
Efficiency	91 %
Peak intensity	1.200 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

Transparent protective cover

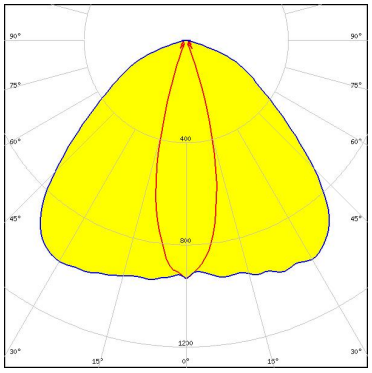


PHOTOMETRIC DATA (SIMULATED):

CREE

LED	XP-G2 HE
FWHM	28.0 + 103.0°
Efficiency	94 %
Peak intensity	0.999 cd/lm
LEDs/each optic	1
Light colour	White

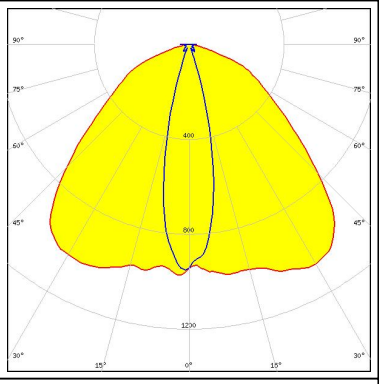
Required components:



CREE

LED	XP-G3
FWHM	103.0 + 29.0°
Efficiency	94 %
Peak intensity	1.100 cd/lm
LEDs/each optic	1
Light colour	White

Required components:



CREE

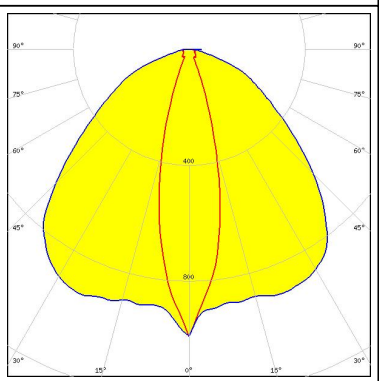
LED	XQ-E HI
FWHM	96.0 + 14.0°
Efficiency	%
Peak intensity	cd/lm
LEDs/each optic	1
Light colour	White

Required components:

CREE

LED	XT-E HE
FWHM	100.0 + 24.0°
Efficiency	94 %
Peak intensity	cd/lm
LEDs/each optic	1
Light colour	White

Required components:



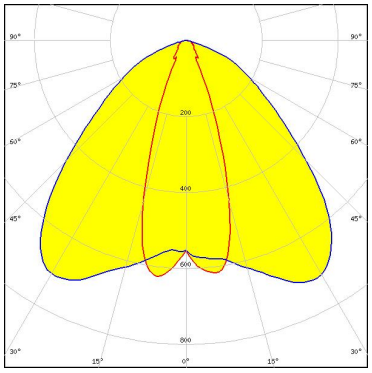
PHOTOMETRIC DATA (SIMULATED):

OSRAM
Opto Semiconductors

LED	Duris S8
FWHM	36.0 + 98.0°
Efficiency	87 %
Peak intensity	0.716 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

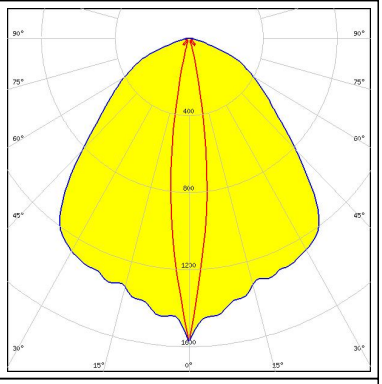
Transparent protective cover



OSRAM
Opto Semiconductors

LED	OSCONIQ P 3030
FWHM	14.0 + 92.0°
Efficiency	95 %
Peak intensity	1.576 cd/lm
LEDs/each optic	1
Light colour	White

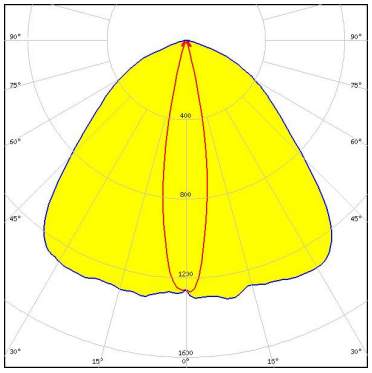
Required components:



OSRAM
Opto Semiconductors

LED	OSCONIQ P 3737 (2W version)
FWHM	99.0 + 19.0°
Efficiency	94 %
Peak intensity	1.300 cd/lm
LEDs/each optic	1
Light colour	White

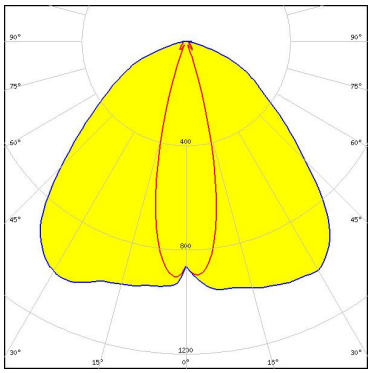
Required components:



OSRAM
Opto Semiconductors

LED	OSCONIQ P 3737 (3W version)
FWHM	100.0 + 30.0°
Efficiency	94 %
Peak intensity	1.030 cd/lm
LEDs/each optic	1
Light colour	White

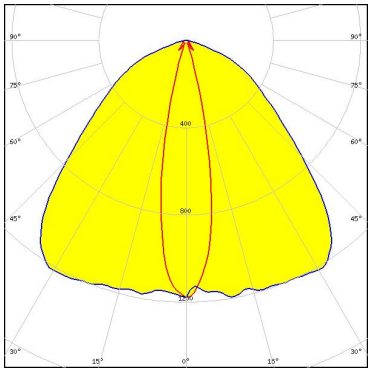
Required components:



PHOTOMETRIC DATA (SIMULATED):

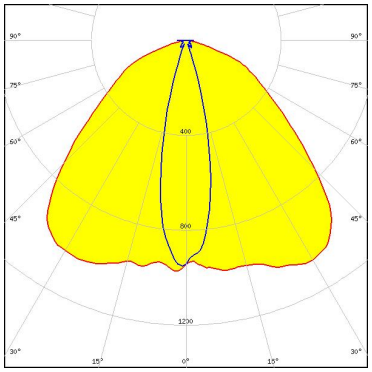
OSRAM
Opto Semiconductors

LED	OSCONIQ P 3737 Flat
FWHM	22.0 + 98.0°
Efficiency	96 %
Peak intensity	1.219 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



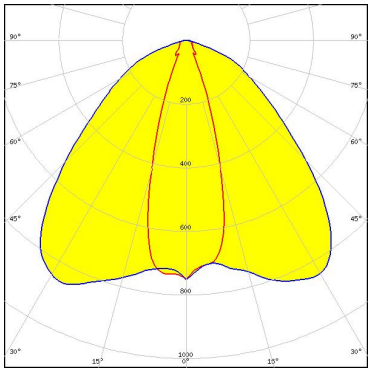
PHILIPS

LED	Fortimo FastFlex LED 2x8 DAX G4
FWHM	103.0 + 29.0°
Efficiency	94 %
Peak intensity	1.100 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



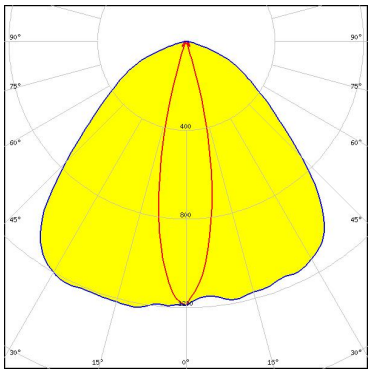
SEOUL SEMICONDUCTOR

LED	SEOUL DC 5050 6V
FWHM	33.0 + 98.0°
Efficiency	94 %
Peak intensity	0.860 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	1.200 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

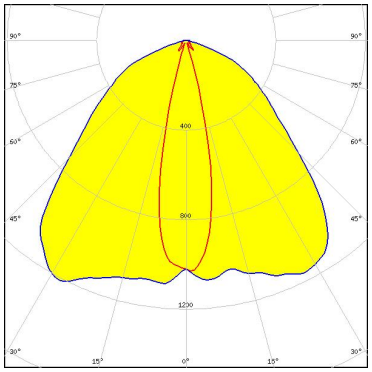


PHOTOMETRIC DATA (SIMULATED):

SEOUL SEMICONDUCTOR

LED	Z8Y22T
FWHM	21.0 + 96.0°
Efficiency	94 %
Peak intensity	1.210 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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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/
where_to_buy

Shipping locations
Salo, Finland
Hong Kong, China

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