HB-2X2-M

~25° medium beam

SPECIFICATION:

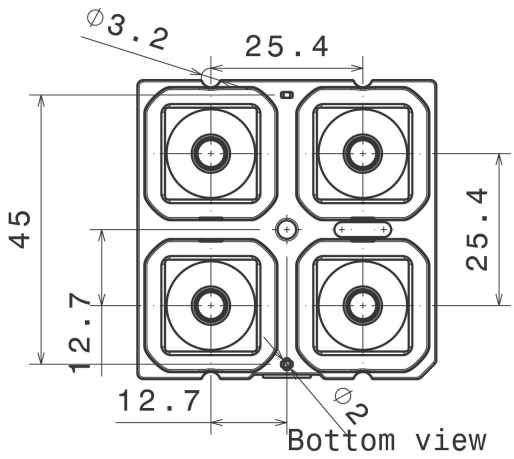
Dimensions	50.0 x 50.0 mm
Height	8.5 mm
Fastening	glue, pin, screw
ROHS compliant	yes

MATERIALS:

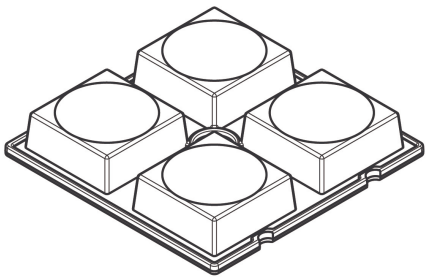
Component	Type	Material	Colour	Finish
HB-2X2-M	Multi-lens	PMMA	clear	

ORDERING INFORMATION:

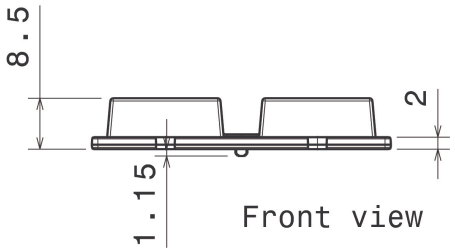
Component	Qty in box	MOQ	MPQ	Box weight (kg)
C13233_HB-2X2-M » Box size: 480 x 280 x 300 mm	800	160	160	9.2



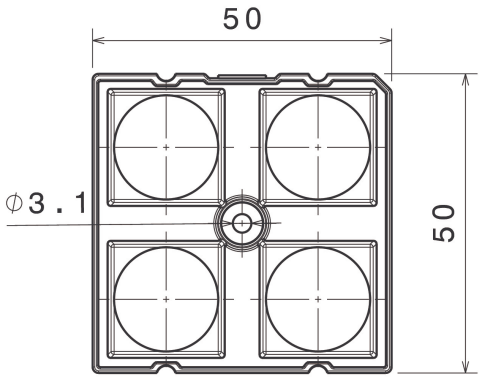
Bottom view



Isometric view



Front view



Top view

INDEX	PART NO	DESCRIPTION	MATERIAL	COLOUR
1	C13233	HB-2X2-M	PMMA	

Plastic moulding general tolerances according to DIN 16901-130 and applies if not otherwise shown in the drawing.
Silicone moulding general tolerances according to ISO 3302-1 Class M3 and applies if not otherwise shown in the drawing.

Ledil Oy
Salorankatu 10
FIN 24240 SALO
Finland

THIRD ANGLE PROJECTION:

DRAWING TITLE
HB-2X2-M

SIZE A4 | C13233

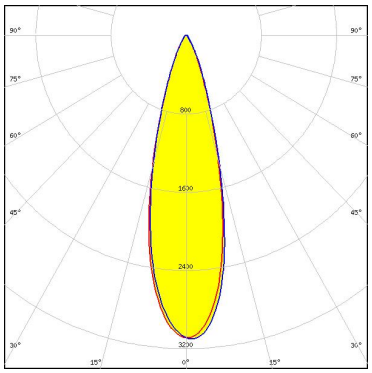
SCALE 1:1 | WEIGHT | SHEET 1/1

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

OPTICAL RESULTS (MEASURED):

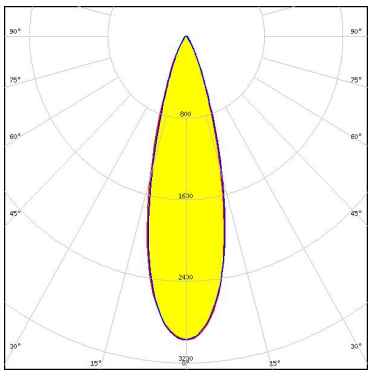
COMET ELECTRONICS

LED	QUICK FLUX XTP 2x4 xxx LS G5
FWHM / FWTM	28.0° / 52.0°
Efficiency	94 %
Peak intensity	3.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



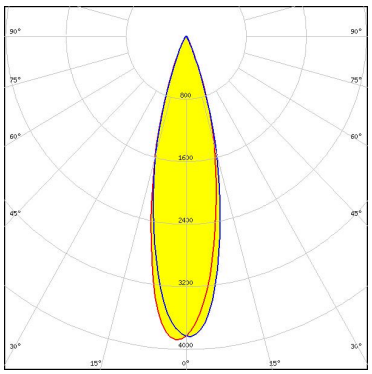
COMET ELECTRONICS

LED	QUICK FLUX XTP 2x6 xxx LS G5
FWHM / FWTM	29.0° / 52.0°
Efficiency	94 %
Peak intensity	3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



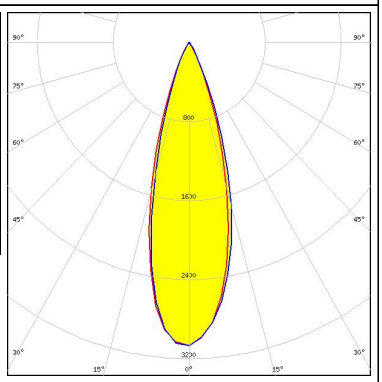
CREE LEDs

LED	XB-D
FWHM / FWTM	26.0° / 47.0°
Efficiency	94 %
Peak intensity	3.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



CREE LEDs

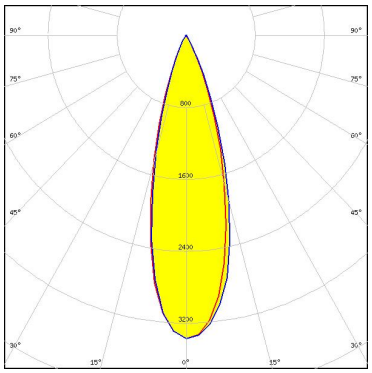
LED	XP-G
FWHM / FWTM	31.0° / 54.0°
Efficiency	91 %
Peak intensity	3.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



OPTICAL RESULTS (MEASURED):

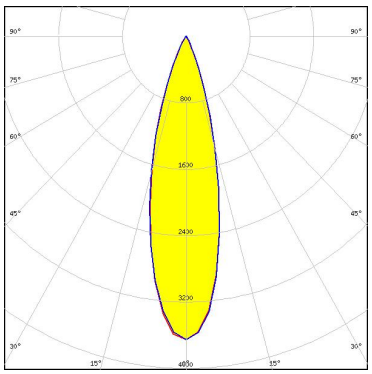
CREE LEDs

LED	XP-G2
FWHM / FWTM	33.0° / 54.0°
Efficiency	93 %
Peak intensity	3.4 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



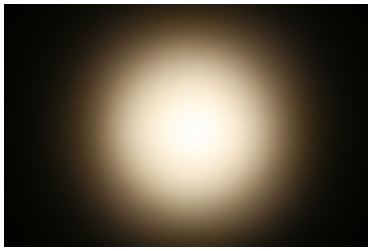
CREE LEDs

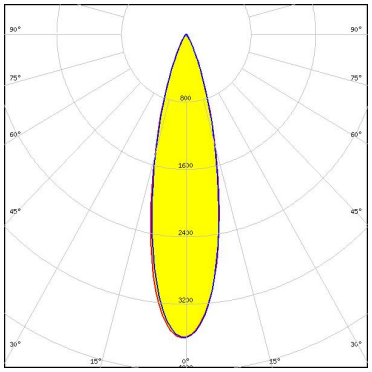
LED	XT-E
FWHM / FWTM	25.0° / 46.0°
Efficiency	92 %
Peak intensity	3.7 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



LUMILEDS

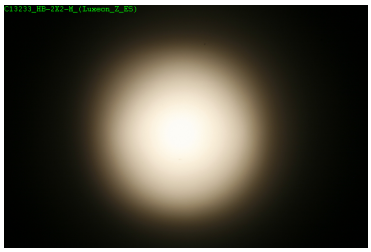
LED	LUXEON Q
FWHM / FWTM	26.0° / 49.0°
Efficiency	94 %
Peak intensity	3.6 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

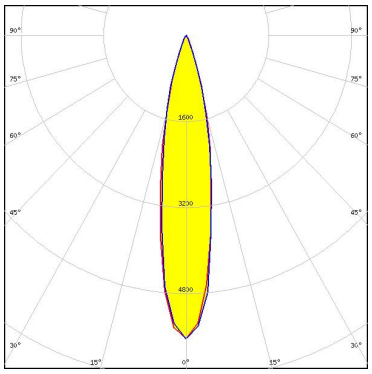




LUMILEDS

LED	LUXEON Z ES
FWHM / FWTM	21.0° / 42.0°
Efficiency	91 %
Peak intensity	5.6 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

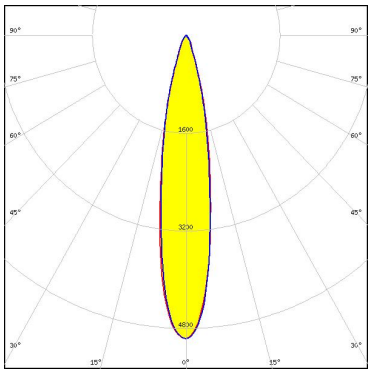




OPTICAL RESULTS (MEASURED):

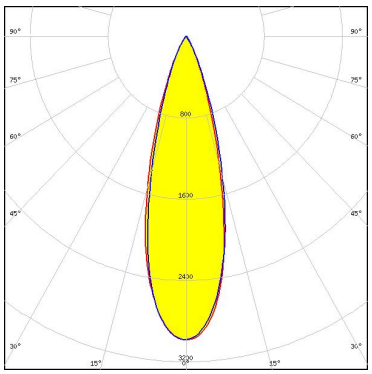
NICHIA

LED	NVSxE21A
FWHM / FWTM	20.0° / 40.0°
Efficiency	94 %
Peak intensity	5 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



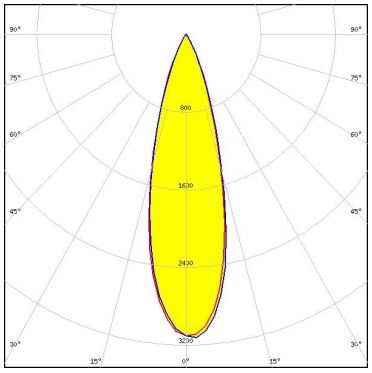
NICHIA

LED	NVSxx19B/NVSxx19C
FWHM / FWTM	29.0° / 53.0°
Efficiency	90 %
Peak intensity	3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



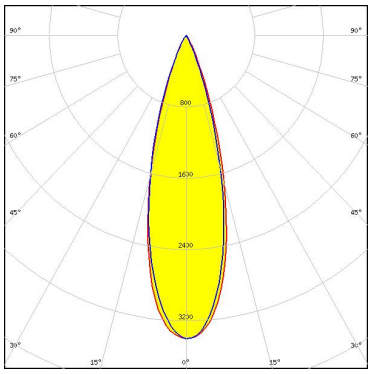
NICHIA

LED	NVSxx19B/NVSxx19C
FWHM / FWTM	29.0° / 52.0°
Efficiency	91 %
Peak intensity	3.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



OSRAM

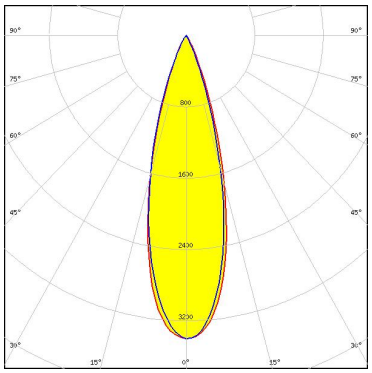
LED	PrevaLED Brick HP 2x8
FWHM / FWTM	30.0° / 51.0°
Efficiency	93 %
Peak intensity	3.4 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



OPTICAL RESULTS (MEASURED):

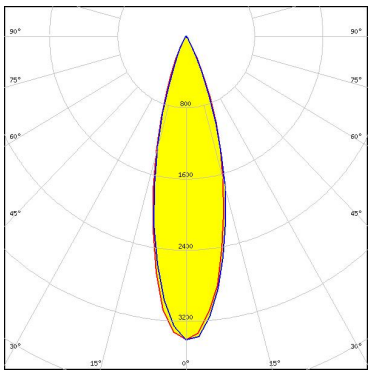
OSRAM Opto Semiconductors

LED	OSLON Square CSSRM2/CSSRM3
FWHM / FWTM	30.0° / 51.0°
Efficiency	93 %
Peak intensity	3.4 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



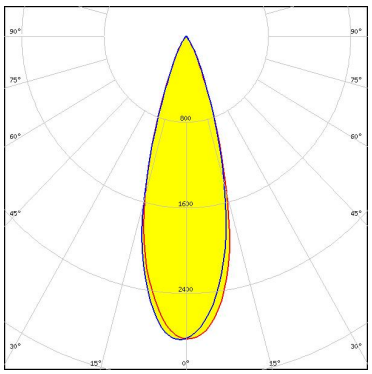
OSRAM Opto Semiconductors

LED	OSLON Square PC
FWHM / FWTM	30.0° / 54.0°
Efficiency	91 %
Peak intensity	3.4 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



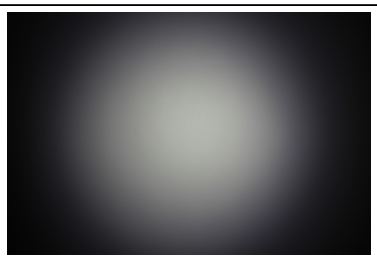
SAMSUNG

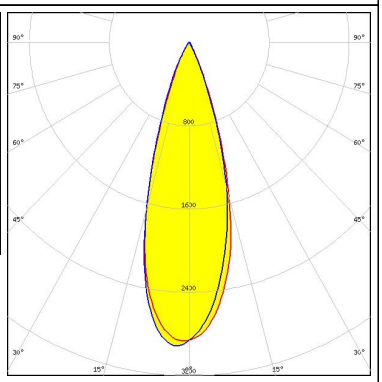
LED	LH351B
FWHM / FWTM	31.0° / 53.0°
Efficiency	94 %
Peak intensity	2.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



SAMSUNG

LED	LH351Z
FWHM / FWTM	32.0° / 52.0°
Efficiency	93 %
Peak intensity	2.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



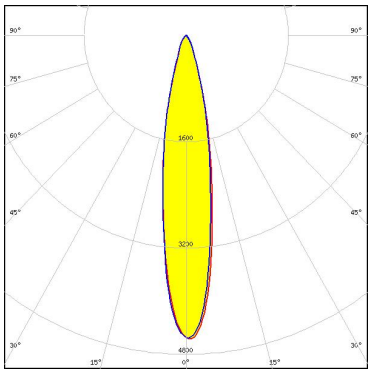


OPTICAL RESULTS (MEASURED):

SEOUL SEMICONDUCTOR

LED	Z8Y15
FWHM / FWTM	20.0° / 41.0°
Efficiency	89 %
Peak intensity	4.6 cd/lm
LEDs/each optic	1
Light colour	White

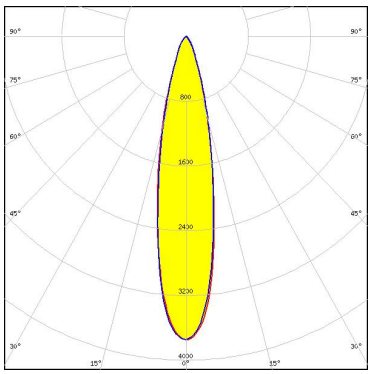
Required components:



SEOUL SEMICONDUCTOR

LED	Z8Y19
FWHM / FWTM	22.0° / 46.0°
Efficiency	89 %
Peak intensity	3.8 cd/lm
LEDs/each optic	1
Light colour	White

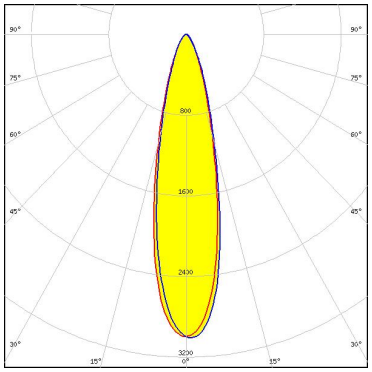
Required components:



SEOUL SEMICONDUCTOR

LED	Z8Y22
FWHM / FWTM	24.0° / 53.0°
Efficiency	94 %
Peak intensity	3 cd/lm
LEDs/each optic	1
Light colour	White

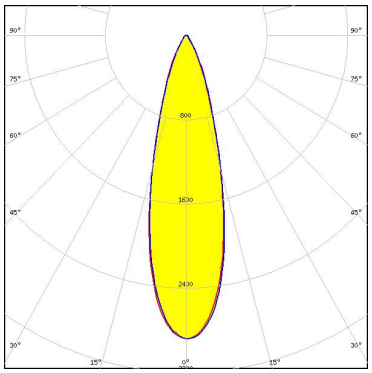
Required components:



SEOUL SEMICONDUCTOR

LED	Z8Y22P
FWHM / FWTM	28.0° / 56.0°
Efficiency	94 %
Peak intensity	2.9 cd/lm
LEDs/each optic	1
Light colour	White

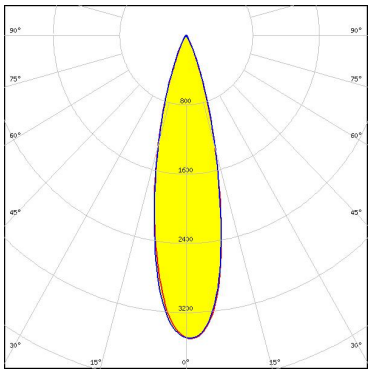
Required components:



OPTICAL RESULTS (MEASURED):

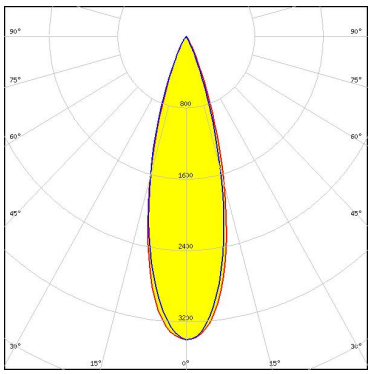
TOSHIBA
Leading Innovation

LED	TL1L4
FWHM / FWTM	25.0° / 46.0°
Efficiency	85 %
Peak intensity	3.5 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



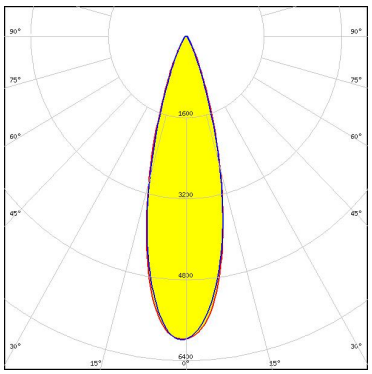
TRIDONIC

LED	RLE 2x4 2000lm HP EXC2 OTD
FWHM / FWTM	29.0° / 50.0°
Efficiency	93 %
Peak intensity	3.4 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



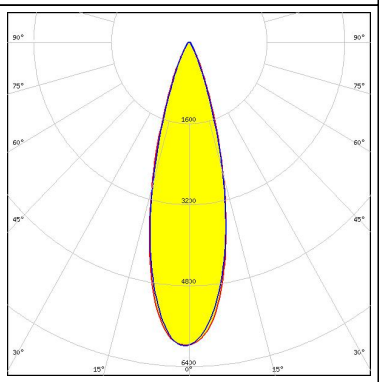
TRIDONIC

LED	RLE G1 49x121mm 2000lm xxx EXC OTD
FWHM / FWTM	29.0° / 53.0°
Efficiency	94 %
Peak intensity	3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



TRIDONIC

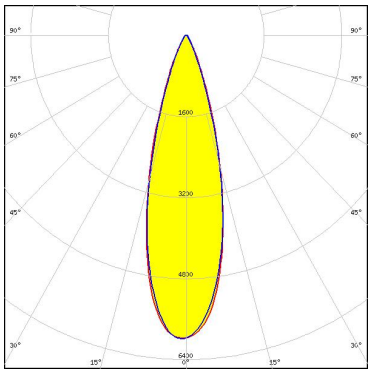
LED	RLE G1 49x133mm 2000lm xxx EXC OTD
FWHM / FWTM	29.0° / 53.0°
Efficiency	94 %
Peak intensity	3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



OPTICAL RESULTS (MEASURED):

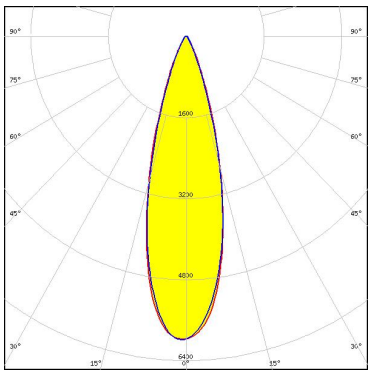
TRIDONIC

LED	RLE G1 49x223mm 4000lm xxx EXC OTD
FWHM / FWTM	29.0° / 53.0°
Efficiency	94 %
Peak intensity	3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



TRIDONIC

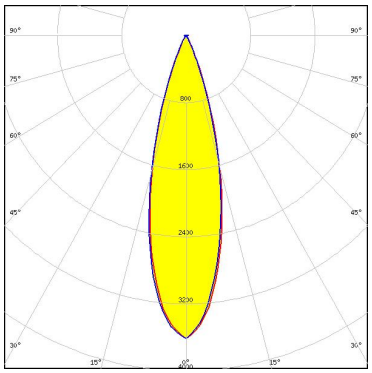
LED	RLE G1 49x245mm 4000lm xxx EXC OTD
FWHM / FWTM	29.0° / 53.0°
Efficiency	94 %
Peak intensity	3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



OPTICAL RESULTS (SIMULATED):

CREE LEDs

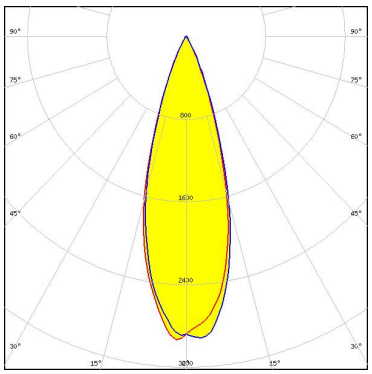
LED	XD16
FWHM / FWTM	28.0° / 48.0°
Efficiency	95 %
Peak intensity	3.6 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



CREE LEDs

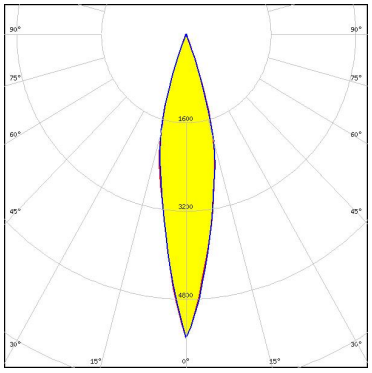
LED	XP-G2
FWHM / FWTM	32.0° / 52.0°
Efficiency	93 %
Peak intensity	3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

Protective plate, glass



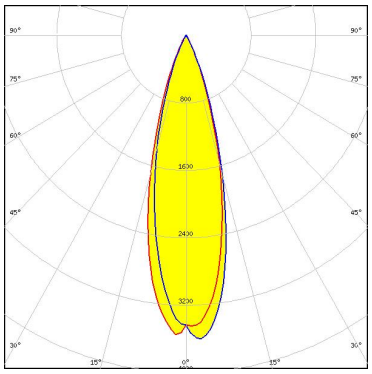
CREE LEDs

LED	XQ-E HI
FWHM / FWTM	22.0° / 42.0°
Efficiency	93 %
Peak intensity	5.5 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



LUMILEDS

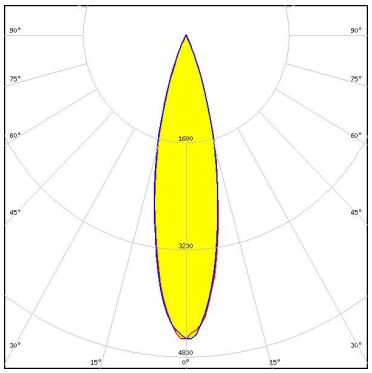
LED	LUXEON 3030 2D (Round LES)
FWHM / FWTM	28.0° / 49.0°
Efficiency	94 %
Peak intensity	3.6 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



OPTICAL RESULTS (SIMULATED):

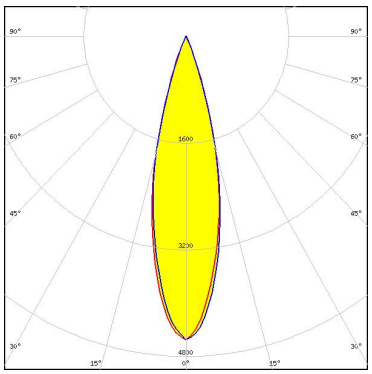
LUMILEDS

LED	LUXEON C
FWHM / FWTM	25.0° / 45.0°
Efficiency	94 %
Peak intensity	4.6 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



OSRAM
Opto Semiconductors

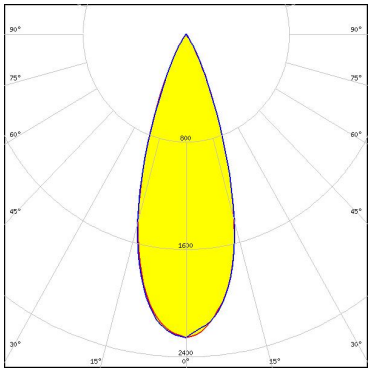
LED	OSCONIQ C 2424
FWHM / FWTM	26.0° / 43.0°
Efficiency	96 %
Peak intensity	4.6 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



OSRAM
Opto Semiconductors

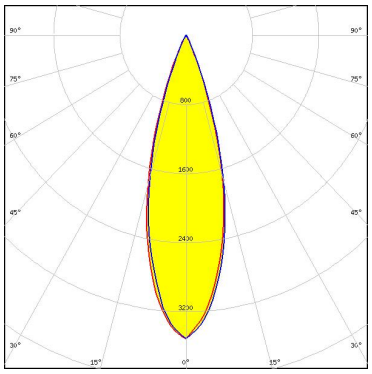
LED	OSLON Square CSSRM2/CSSRM3
FWHM / FWTM	36.0° / 56.0°
Efficiency	87 %
Peak intensity	2.3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

Protective plate, glass



OSRAM
Opto Semiconductors

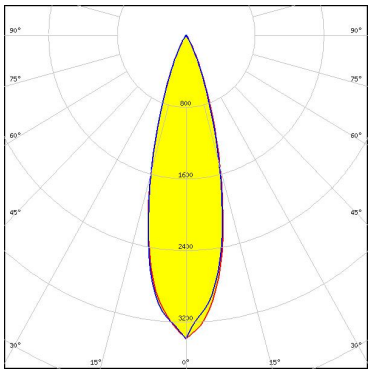
LED	OSLON SSL 80
FWHM / FWTM	29.6° / 48.1°
Efficiency	94 %
Peak intensity	3.5 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



OPTICAL RESULTS (SIMULATED):

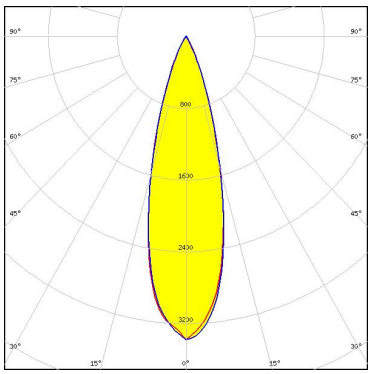
SAMSUNG

LED	LH231B
FWHM / FWTM	28.0° / 50.0°
Efficiency	94 %
Peak intensity	3.4 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



SEOUL SEMICONDUCTOR

LED	Z8Y22T
FWHM / FWTM	28.0° / 51.0°
Efficiency	94 %
Peak intensity	3.4 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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