HB-2X2-WW

~65° wide beam

SPECIFICATION:

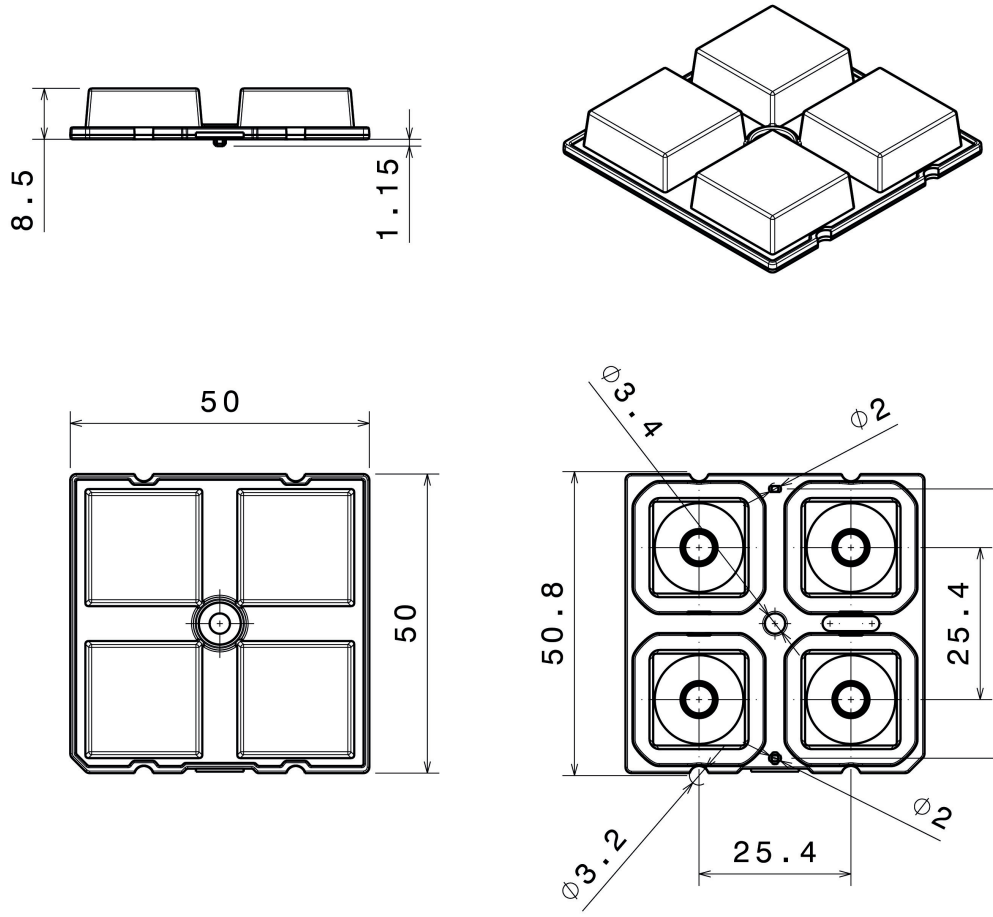
Dimensions	50.0 x 50.0
Height	8.5 mm
Fastening	glue, pin, screw
ROHS compliant	yes

MATERIALS:

Component	Type	Material	Colour	Finish	Length (mm)
HB-2X2-WW	Multi-lens	PMMA	clear		

ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
C13232_HB-2X2-WW » Box size: 480 x 280 x 300 mm	800	160	160	9.5



INDEX	PART NO	DESCRIPTION	MATERIAL	COLOUR
1	C13232	HB-2x2-WW	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
C13232_HB-2x2-WW

SIZE	PART NUMBER
A4	C13232

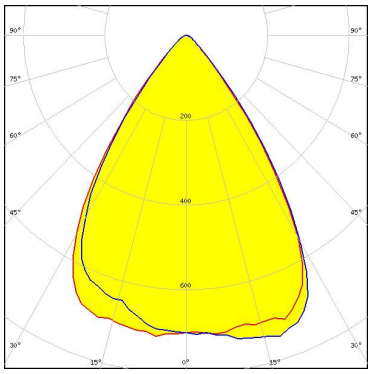
SCALE	WEIGHT		SHEET
1:1	10,8 g		1/1

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

OPTICAL RESULTS (MEASURED):

CREE LEDs

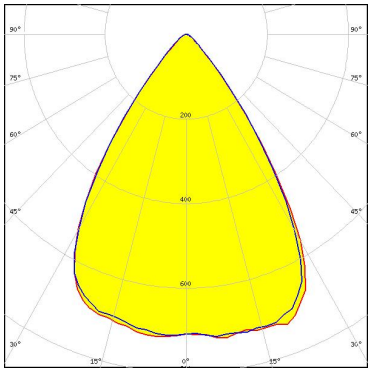
LED	XP-G
FWHM / FWTM	69.0° / 92.0°
Efficiency	91 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

CREE LEDs

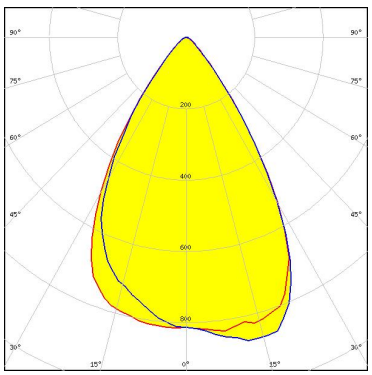
LED	XP-G2
FWHM / FWTM	69.0° / 92.0°
Efficiency	91 %
Peak intensity	0.7 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

CREE LEDs

LED	XT-E
FWHM / FWTM	65.0° / 89.0°
Efficiency	91 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

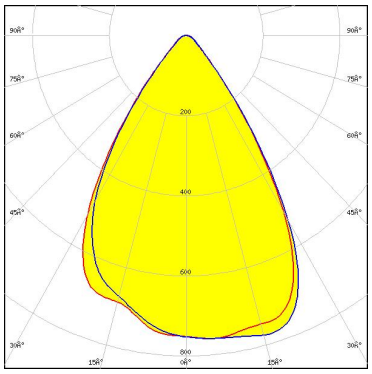


Light distribution files

OPTICAL RESULTS (MEASURED):

inventronics

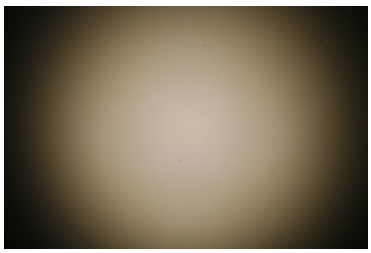
LED	PrevaLED Brick HP 2x8
FWHM / FWTM	67.0° / 92.0°
Efficiency	92 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

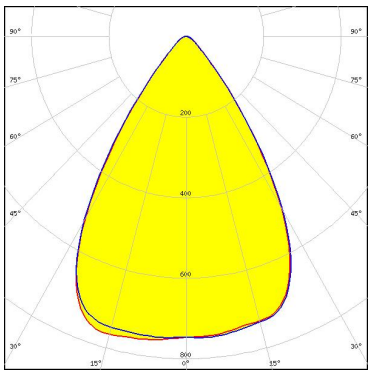


Light distribution files

LUMILEDS

LED	LUXEON Q
FWHM / FWTM	67.0° / 92.0°
Efficiency	91 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

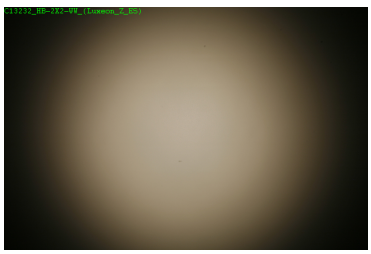


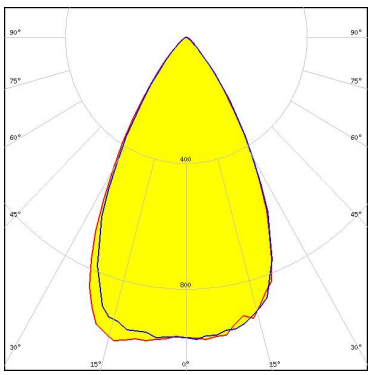


Light distribution files

LUMILEDS

LED	LUXEON Z ES
FWHM / FWTM	59.0° / 87.0°
Efficiency	90 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



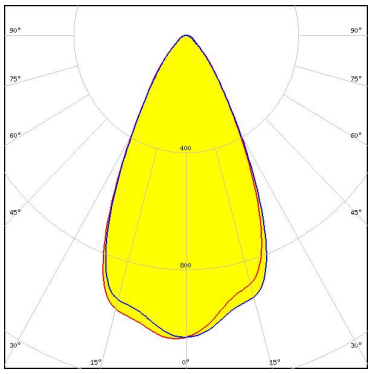


Light distribution files

OPTICAL RESULTS (MEASURED):

NICHIA

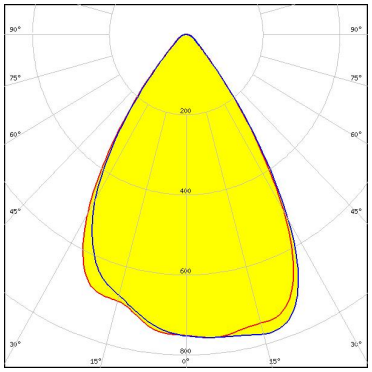
LED	NVSxE21A
FWHM / FWTM	54.0° / 89.0°
Efficiency	94 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

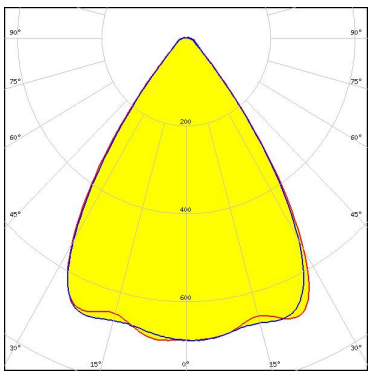
LED	OSLON Square CSSRM2/CSSRM3
FWHM / FWTM	67.0° / 92.0°
Efficiency	92 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

LED	OSLON Square CSSRM2/CSSRM3
FWHM / FWTM	71.0° / 94.0°
Efficiency	94 %
Peak intensity	0.7 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

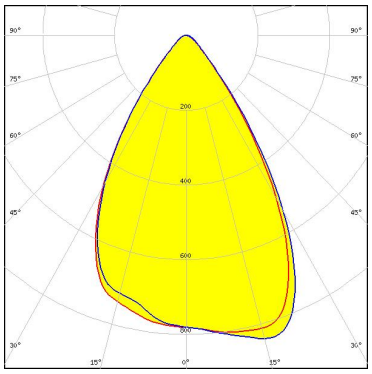


Light distribution files

OPTICAL RESULTS (MEASURED):

OSRAM
Opto Semiconductors

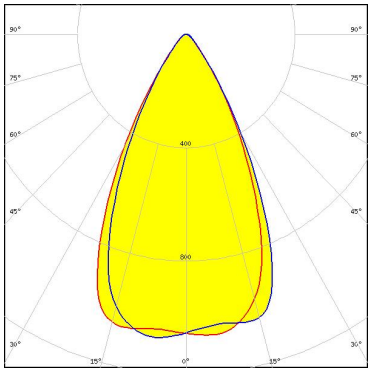
LED	OSLON Square PC
FWHM / FWTM	63.0° / 90.0°
Efficiency	91 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

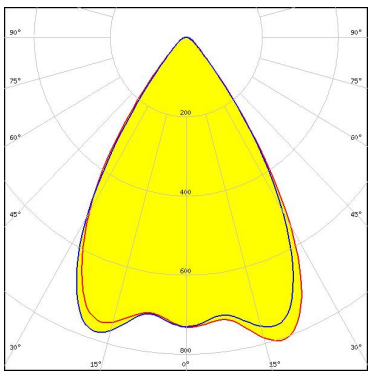
LED	OSLON SSL 80
FWHM / FWTM	54.0° / 80.0°
Efficiency	92 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

SAMSUNG

LED	LH351A
FWHM / FWTM	68.0° / 91.0°
Efficiency	92 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

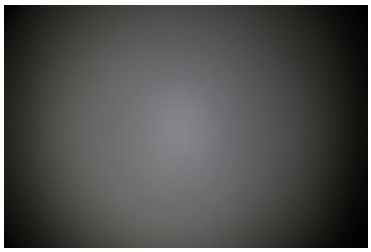


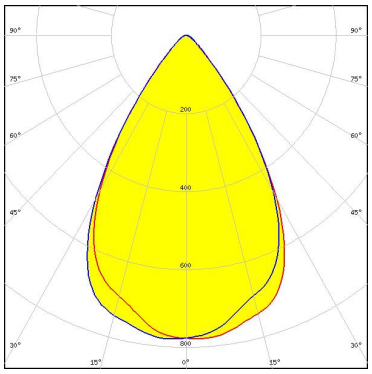
Light distribution files

OPTICAL RESULTS (MEASURED):

SAMSUNG

LED	LH351B
FWHM / FWTM	65.0° / 92.0°
Efficiency	89 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

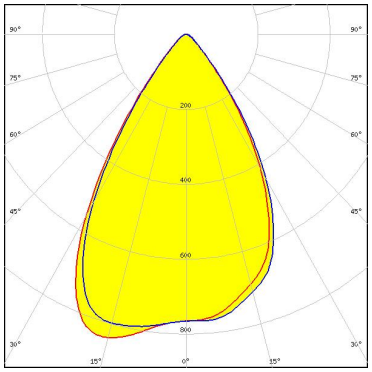




Light distribution files

SAMSUNG

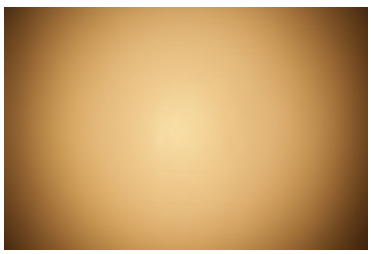
LED	LH351Z
FWHM / FWTM	63.0° / 89.0°
Efficiency	89 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

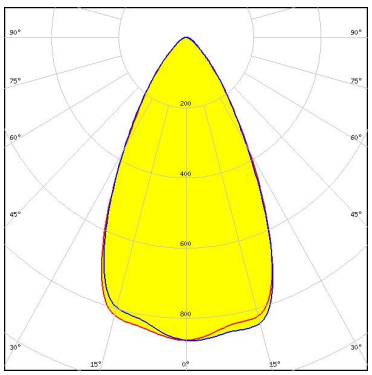


Light distribution files

SEOUL SEMICONDUCTOR

LED	Z8Y15
FWHM / FWTM	56.0° / 92.0°
Efficiency	85 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



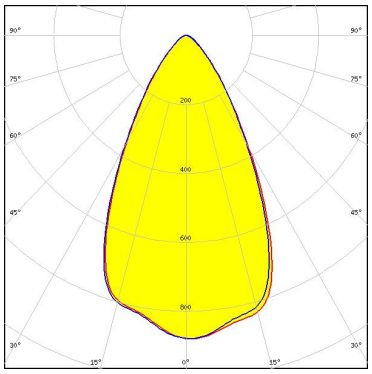


Light distribution files

OPTICAL RESULTS (MEASURED):

SEOUL SEMICONDUCTOR

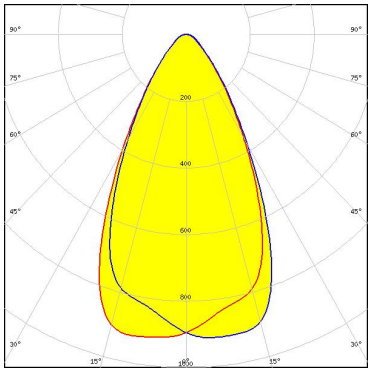
LED	Z8Y19
FWHM / FWTM	56.0° / 92.0°
Efficiency	85 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

SEOUL SEMICONDUCTOR

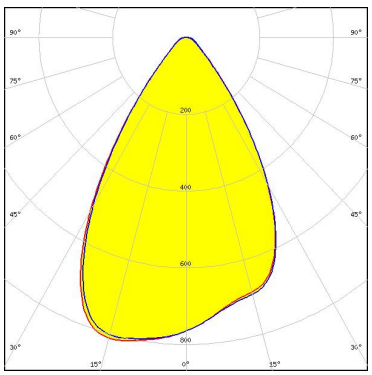
LED	Z8Y22
FWHM / FWTM	55.0° / 94.0°
Efficiency	94 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

SEOUL SEMICONDUCTOR

LED	Z8Y22P
FWHM / FWTM	65.0° / 95.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

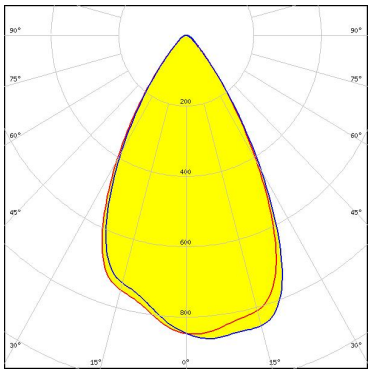


Light distribution files

OPTICAL RESULTS (MEASURED):

TOSHIBA
Leading Innovation

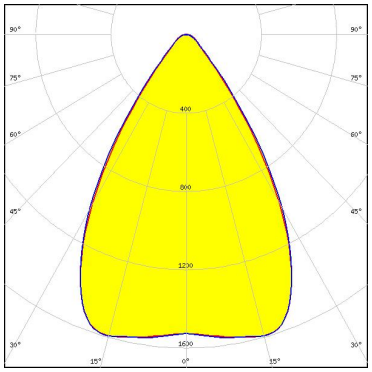
LED	TL1L4
FWHM / FWTM	60.0° / 87.0°
Efficiency	84 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

TRIDONIC

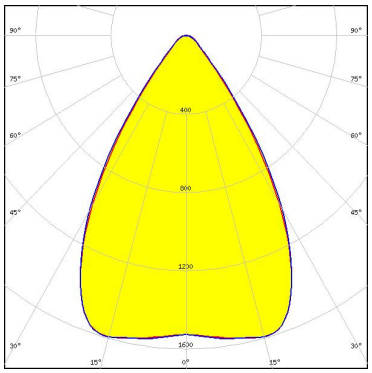
LED	RLE G1 49x121mm 2000lm xxx EXC OTD
FWHM / FWTM	67.0° / 93.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

TRIDONIC

LED	RLE G1 49x133mm 2000lm xxx EXC OTD
FWHM / FWTM	67.0° / 93.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

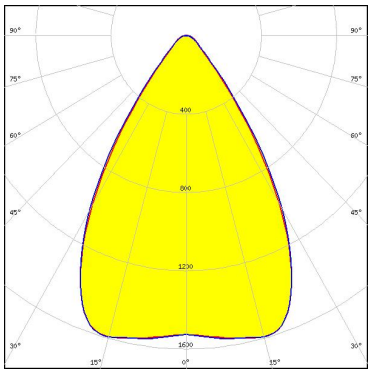


Light distribution files

OPTICAL RESULTS (MEASURED):

TRIDONIC

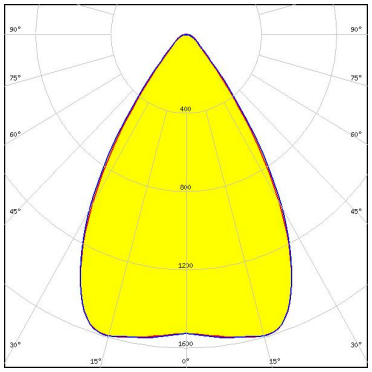
LED	RLE G1 49x223mm 4000lm xxx EXC OTD
FWHM / FWTM	67.0° / 93.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

TRIDONIC

LED	RLE G1 49x245mm 4000lm xxx EXC OTD
FWHM / FWTM	67.0° / 93.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

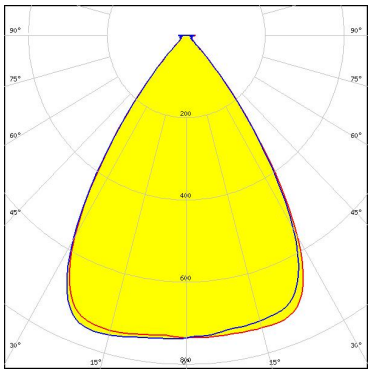


Light distribution files

OPTICAL RESULTS (SIMULATED):

CREE LEDs

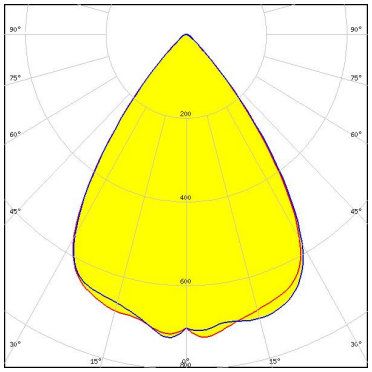
LED	XD16
FWHM / FWTM	69.0° / 90.0°
Efficiency	95 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

CREE LEDs

LED	XP-G2
FWHM / FWTM	72.0° / 94.0°
Efficiency	92 %
Peak intensity	0.7 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

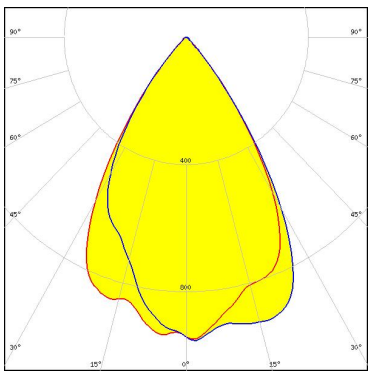


Protective plate, glass

Light distribution files

LUMILEDS

LED	LUXEON 3030 2D (Round LES)
FWHM / FWTM	64.0° / 82.0°
Efficiency	94 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

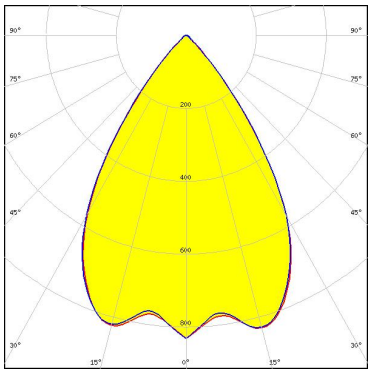


Light distribution files

OPTICAL RESULTS (SIMULATED):

LUMILEDS

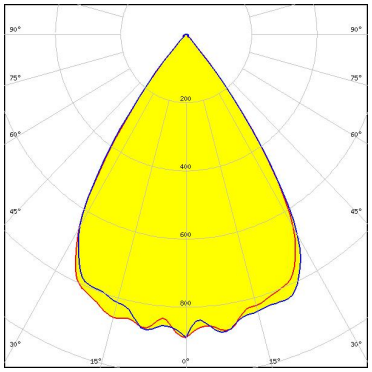
LED	LUXEON C
FWHM / FWTM	65.0° / 88.0°
Efficiency	94 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

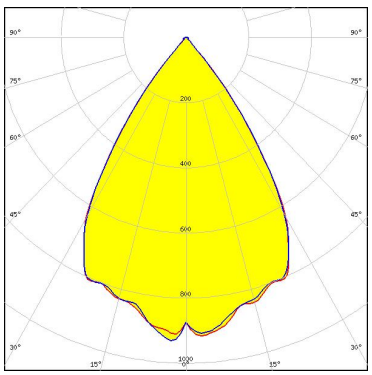
LED	OSCONIQ C 2424
FWHM / FWTM	68.0° / 82.0°
Efficiency	97 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

LED	OSCONIQ C 3030
FWHM / FWTM	68.0° / 84.0°
Efficiency	97 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

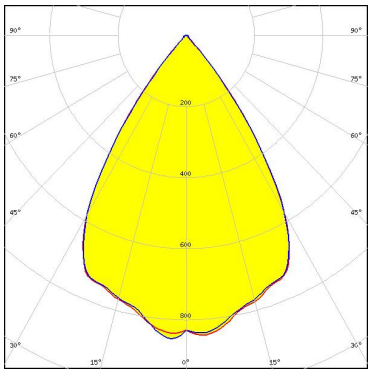


Light distribution files

OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

LED	OSCONIQ C 3030
FWHM / FWTM	68.0° / 84.0°
Efficiency	89 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

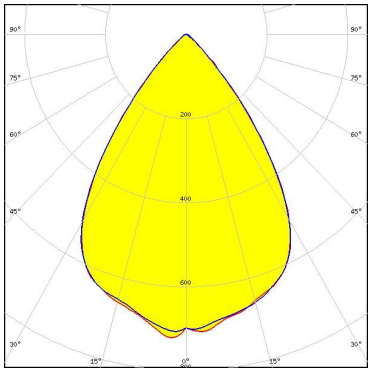


Protective plate, glass

Light distribution files

OSRAM
Opto Semiconductors

LED	OSLON Square CSSRM2/CSSRM3
FWHM / FWTM	70.0° / 94.0°
Efficiency	88 %
Peak intensity	0.7 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

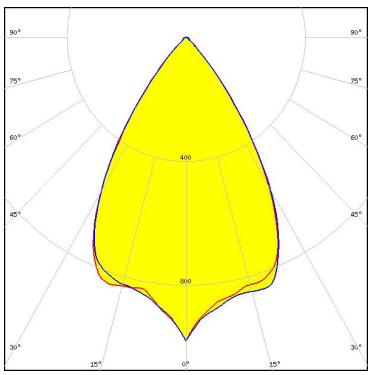


Protective plate, glass

Light distribution files

SEOUL SEMICONDUCTOR

LED	Z8Y22T
FWHM / FWTM	63.0° / 86.0°
Efficiency	94 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

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.

PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

The measured data in the provided downloadable LEDiL Product Datasheets and Mechanical 2D-Drawings is rounded and provided as reference for planning. LEDiL Oy's optical specifications have been verified by conducting performance testing of the products in accordance with the company's quality system. The reported data are averaged results of multiple measurements with typical variation. LEDiL Oy reserves the right to without prior notification make changes and improvements to its products.

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