HB-2X2-ON

~15° + 50° oval beam



SPECIFICATION:

Dimensions	50.0 x 50.0
Height	10 mm
Fastening	screw
ROHS compliant	yes

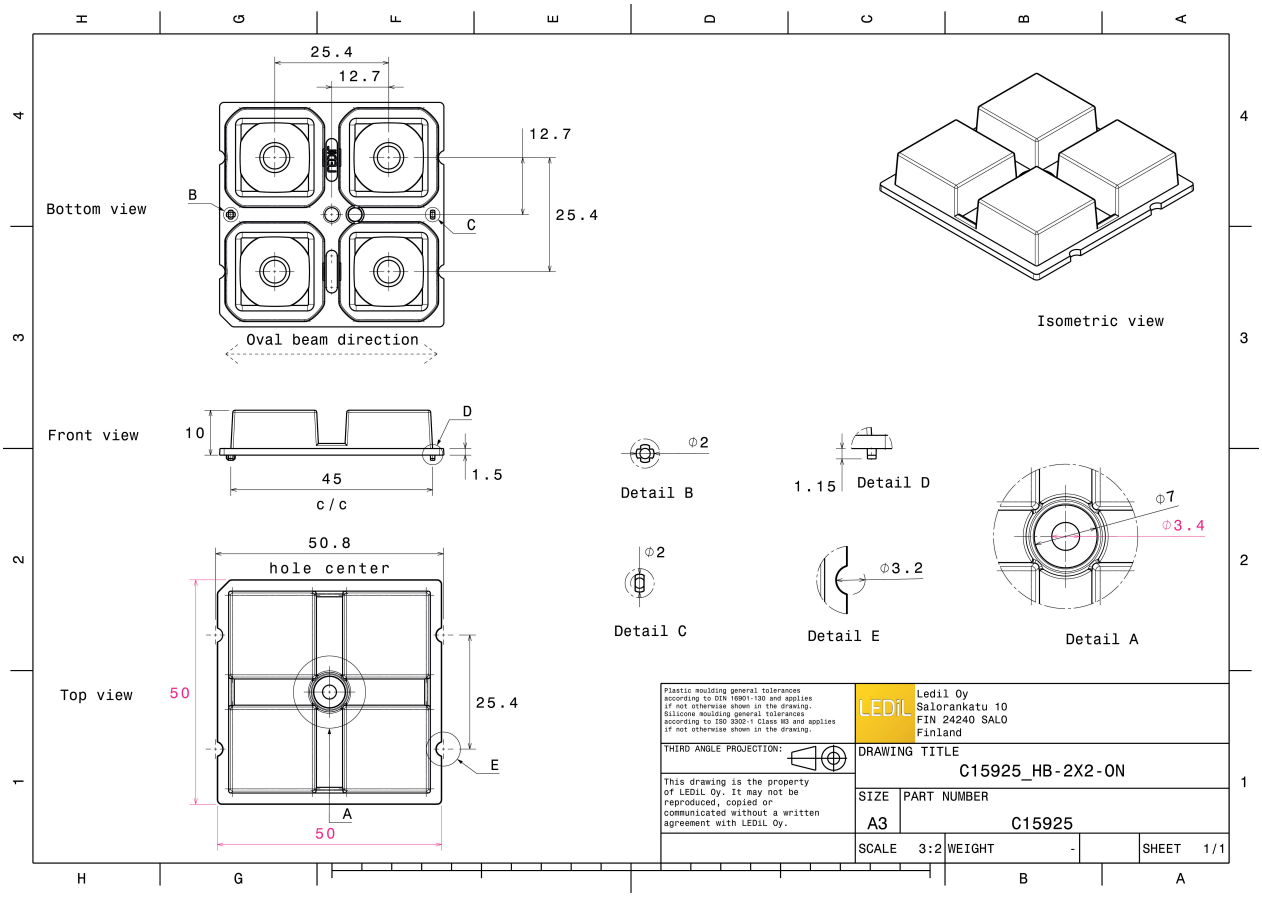
MATERIALS:

Component	Type	Material	Colour	Finish	Length (mm)
HB-2X2-ON	Multi-lens	PMMA	clear		
» Box size: 480 x 280 x 300 mm					

ORDERING INFORMATION:

Component	Type	Qty in box	MOQ	MPQ	Box weight (kg)
C15925_HB-2X2-ON	Multi-lens	800	160	160	9.8

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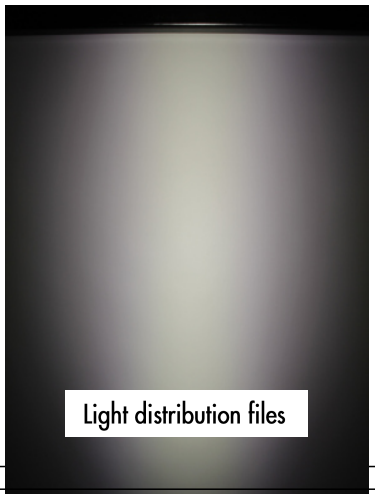
See also our general installation guide: www.ledil.com/installation_guide

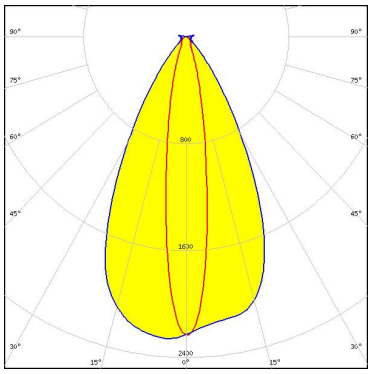
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OPTICAL RESULTS (MEASURED):

COMET ELECTRONICS

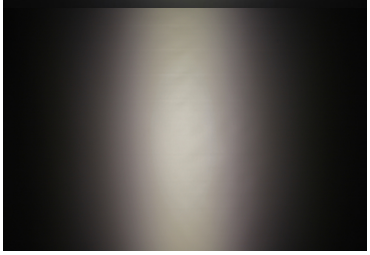
LED	QUICK FLUX XTP 2x4 xxx LS G5
FWHM / FWTM	16.0 + 55.0° / 40.0 + 83.0°
Efficiency	93 %
Peak intensity	2.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

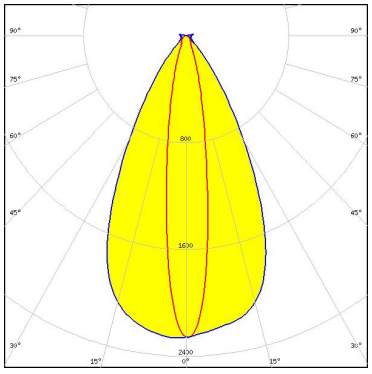




COMET ELECTRONICS

LED	QUICK FLUX XTP 2x6 xxx LS G5
FWHM / FWTM	16.0 + 55.0° / 40.0 + 83.0°
Efficiency	93 %
Peak intensity	2.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

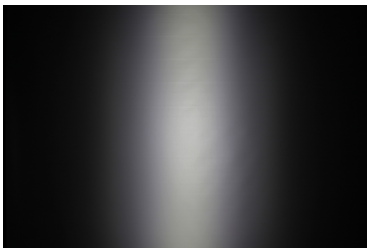


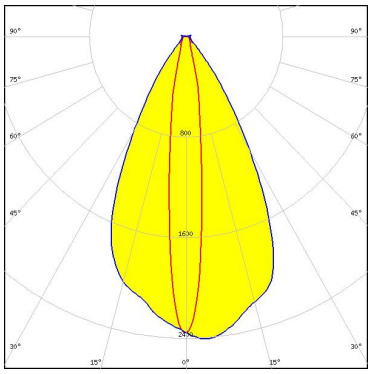


Light distribution files

CREE LEDs

LED	XD16
FWHM / FWTM	13.0 + 55.0° / 34.0 + 82.0°
Efficiency	89 %
Peak intensity	2.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	





Light distribution files

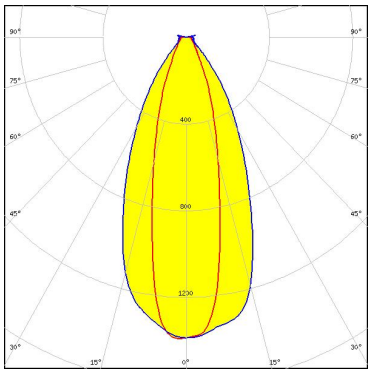
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OPTICAL RESULTS (MEASURED):

CREE LEDs

LED	XD16
FWHM / FWTM	27.0 + 49.0° / 62.0 + 89.0°
Efficiency	90 %
Peak intensity	1.4 cd/lm
LEDs/each optic	4
Light colour/type	White
Required components:	



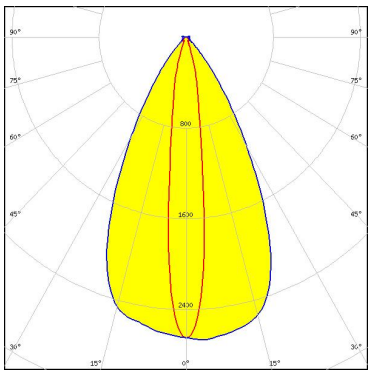


Light distribution files

CREE LEDs

LED	XP-G2
FWHM / FWTM	14.0 + 55.0° / 34.0 + 82.0°
Efficiency	89 %
Peak intensity	2.7 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



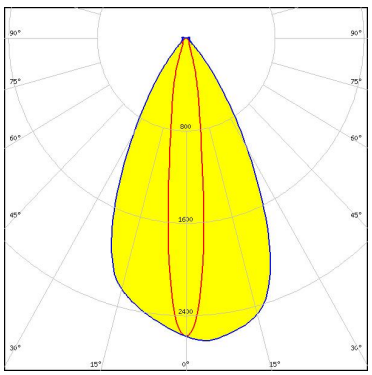


Light distribution files

CREE LEDs

LED	XP-L HI
FWHM / FWTM	14.0 + 55.0° / 36.0 + 82.0°
Efficiency	91 %
Peak intensity	2.6 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	





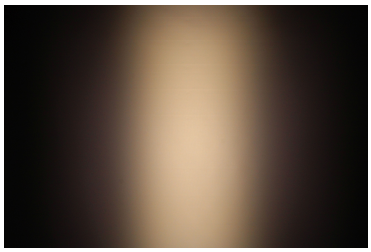
Light distribution files

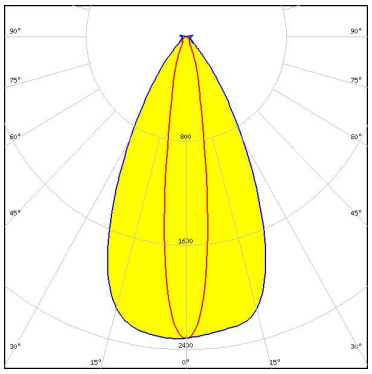
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OPTICAL RESULTS (MEASURED):

inventronics

LED	PL-BRICK HP 3800 2x8 SSG
FWHM / FWTM	17.0 + 54.0° / 41.0 + 84.0°
Efficiency	92 %
Peak intensity	2.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

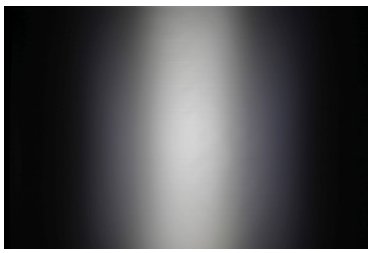


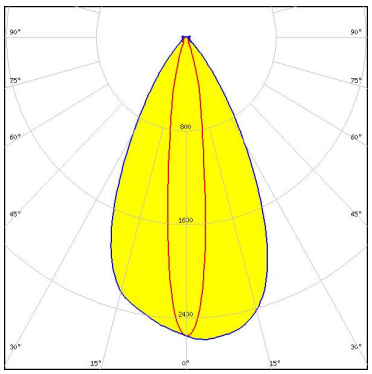


Light distribution files

inventronics

LED	PrevaLED Brick HP 2x8
FWHM / FWTM	15.0 + 54.0° / 36.0 + 82.0°
Efficiency	91 %
Peak intensity	2.6 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



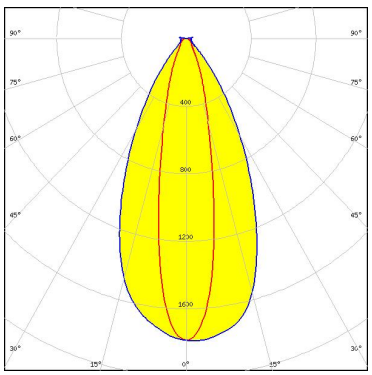


Light distribution files

LUMILEDS

LED	LUXEON V
FWHM / FWTM	22.0 + 51.0° / 52.0 + 86.0°
Efficiency	92 %
Peak intensity	1.8 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	





Light distribution files

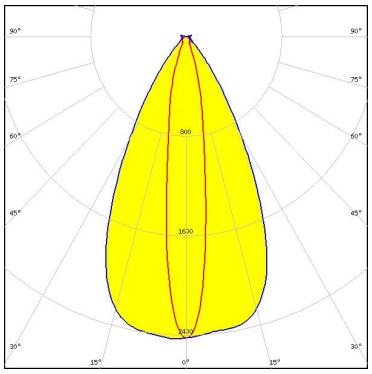
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OPTICAL RESULTS (MEASURED):

MST Your solutions

LED	RecLED 122x50mm 1900lm 730 2x4 Opt G1
FWHM / FWTM	15.0 + 54.0° / 38.5 + 82.5°
Efficiency	94 %
Peak intensity	2.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

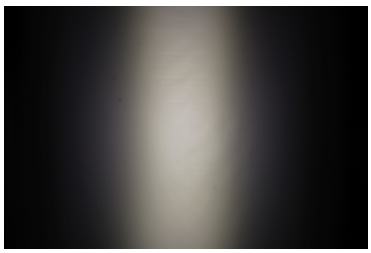


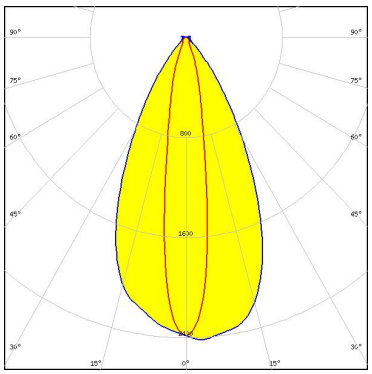


Light distribution files

NICHIA

LED	NVSW219F-V2
FWHM / FWTM	17.0 + 53.0° / 40.0 + 83.0°
Efficiency	93 %
Peak intensity	2.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

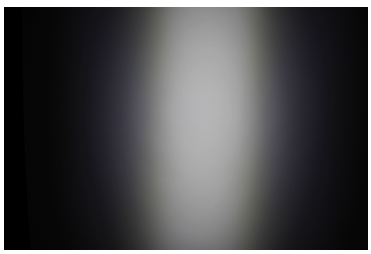


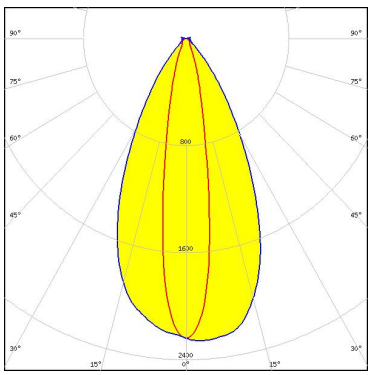


Light distribution files

NICHIA

LED	NVSW319B
FWHM / FWTM	18.0 + 52.0° / 41.0 + 84.0°
Efficiency	93 %
Peak intensity	2.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	





Light distribution files

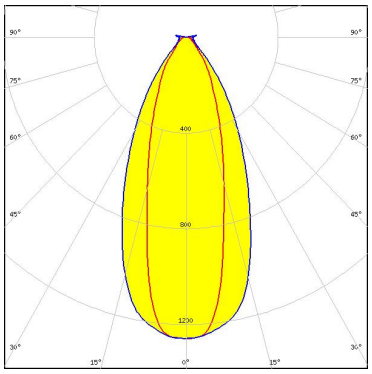
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OPTICAL RESULTS (MEASURED):

OSRAM
Opto Semiconductors

LED	Duris S8
FWHM / FWTM	31.0 + 49.0° / 78.0 + 91.0°
Efficiency	92 %
Peak intensity	1.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

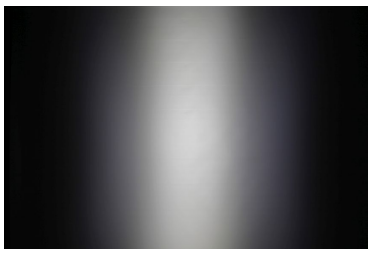


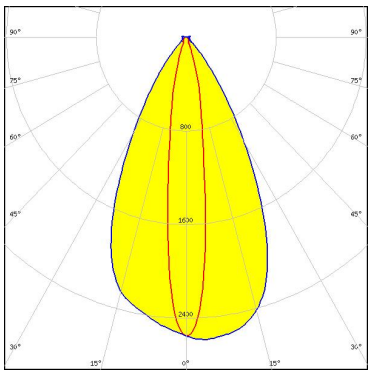


Light distribution files

OSRAM
Opto Semiconductors

LED	OSLON Square CSSRM2/CSSRM3
FWHM / FWTM	15.0 + 54.0° / 36.0 + 82.0°
Efficiency	91 %
Peak intensity	2.6 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

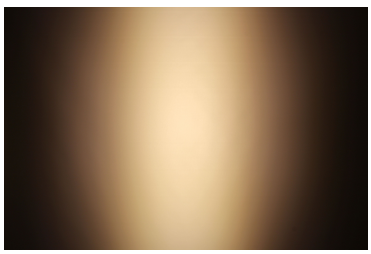


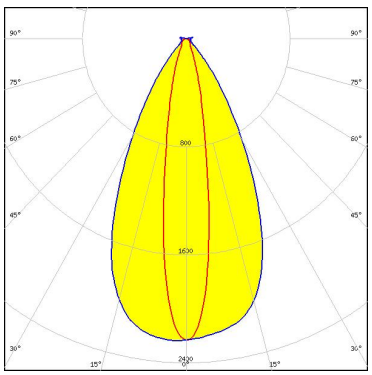


Light distribution files

PHILIPS

LED	Fortimo FastFlex LED 2x8 DA G4+
FWHM / FWTM	18.0 + 53.0° / 41.0 + 84.0°
Efficiency	94 %
Peak intensity	2.2 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	





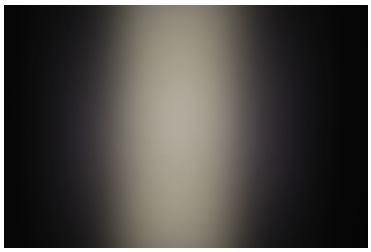
Light distribution files

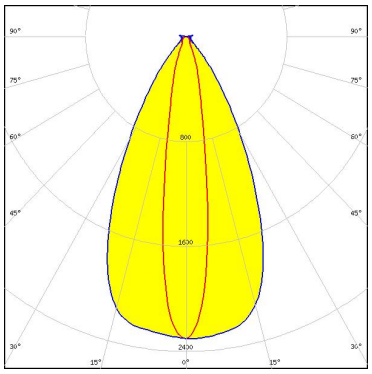
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OPTICAL RESULTS (MEASURED):

SAMSUNG

LED	HiLOM RH16 (LH351C)
FWHM / FWTM	17.0 + 54.0° / 42.0 + 84.0°
Efficiency	94 %
Peak intensity	2.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

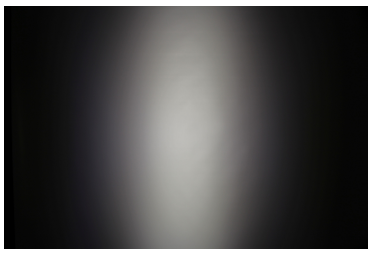


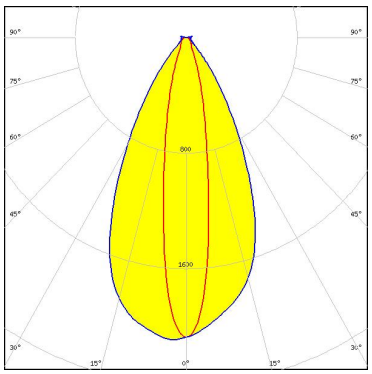


Light distribution files

SEOUL SEMICONDUCTOR

LED	Z5M3
FWHM / FWTM	18.0 + 53.0° / 44.0 + 84.0°
Efficiency	93 %
Peak intensity	2.1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



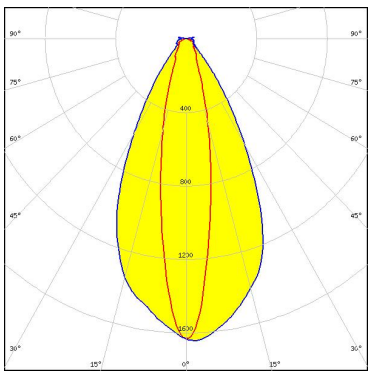


Light distribution files

SEOUL SEMICONDUCTOR

LED	Z8Y22
FWHM / FWTM	20.0 + 53.0° / 50.0 + 85.0°
Efficiency	91 %
Peak intensity	1.6 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	





Light distribution files

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OPTICAL RESULTS (MEASURED):

TRIDONIC

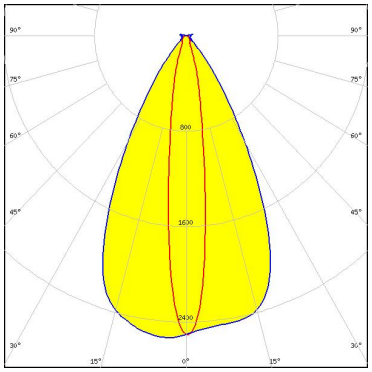
LED	RLE 2x4 2000lm HP EXC2 OTD
FWHM / FWTM	15.0 + 55.0° / 37.0 + 82.0°
Efficiency	94 %
Peak intensity	2.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

Light distribution files

TRIDONIC

LED	RLE 2x8 4000lm HP EXC2 OTD
FWHM / FWTM	15.0 + 55.0° / 37.0 + 82.0°
Efficiency	94 %
Peak intensity	2.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	





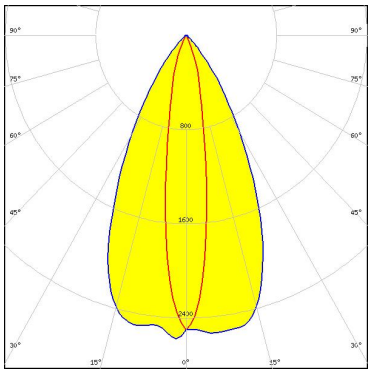
Light distribution files

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OPTICAL RESULTS (SIMULATED):

CREE LEDs

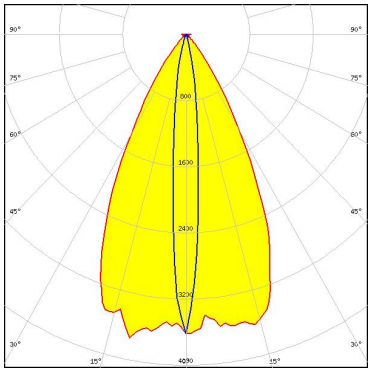
LED	XHP35 HI
FWHM / FWTM	16.0 + 50.0°
Efficiency	90 %
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

CREE LEDs

LED	XP-E2
FWHM / FWTM	54.0 + 10.0° / 78.0 + 27.0°
Efficiency	93 %
Peak intensity	3.8 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

CREE LEDs

LED	XP-E2
FWHM / FWTM	10.0 + 50.0°
Efficiency	90 %
LEDs/each optic	1
Light colour/type	White
Required components:	

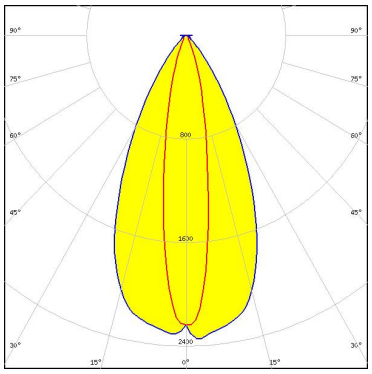
Light distribution files

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OPTICAL RESULTS (SIMULATED):

CREE LEDs

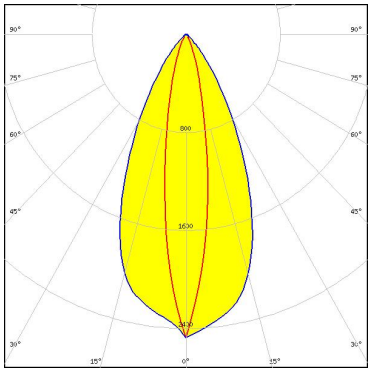
LED	XP-G2 HE
FWHM / FWTM	18.0 + 51.0° / 42.0 + 82.0°
Efficiency	90 %
Peak intensity	2.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

CREE LEDs

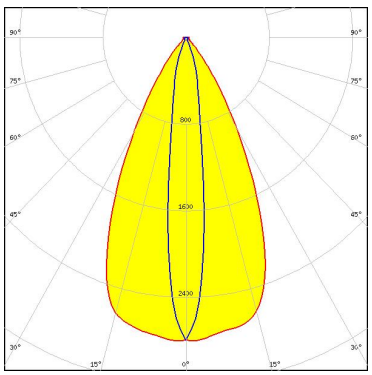
LED	XP-G3
FWHM / FWTM	17.0 + 48.0°
Efficiency	89 %
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

CREE LEDs

LED	XP-G4
FWHM / FWTM	14.0 + 54.0° / 36.0 + 80.0°
Efficiency	91 %
Peak intensity	2.8 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



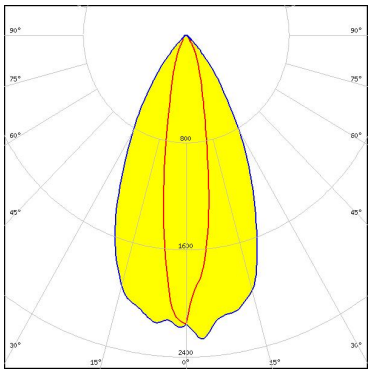
Light distribution files

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OPTICAL RESULTS (SIMULATED):

CREE LEDs

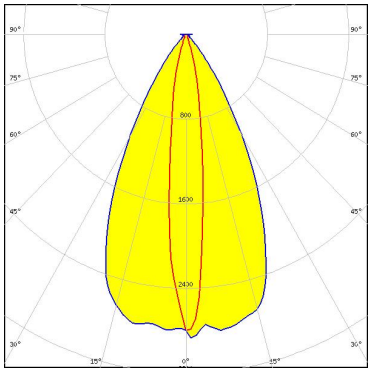
LED	XP-L HD
FWHM / FWTM	18.0 + 50.0°
Efficiency	88 %
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

CREE LEDs

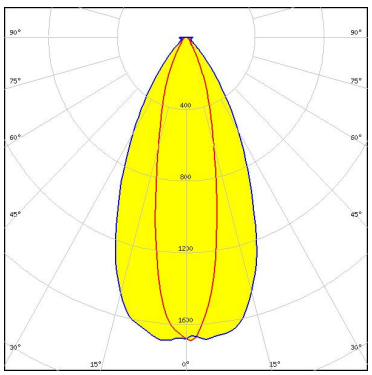
LED	XT-E
FWHM / FWTM	14.0 + 55.0° / 34.0 + 80.0°
Efficiency	91 %
Peak intensity	2.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

LUMILEDS

LED	LUXEON 5050 Round LES
FWHM / FWTM	23.0 + 51.0° / 56.0 + 86.0°
Efficiency	89 %
Peak intensity	1.7 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



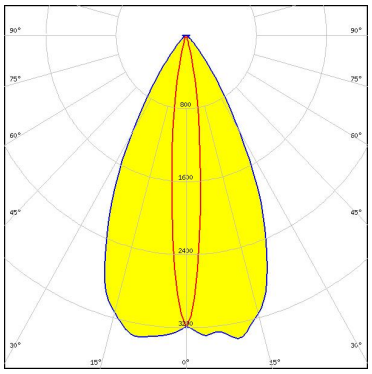
Light distribution files

LEDiL is a registered trademark of LEDiL Oy in the European Union, USA, and certain other countries.

OPTICAL RESULTS (SIMULATED):

LUMILEDS

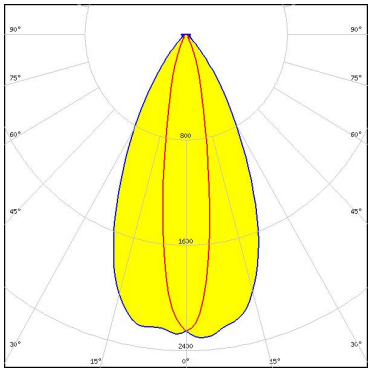
LED	LUXEON C
FWHM / FWTM	12.0 + 54.0° / 27.0 + 79.0°
Efficiency	91 %
Peak intensity	3.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

LUMILEDS

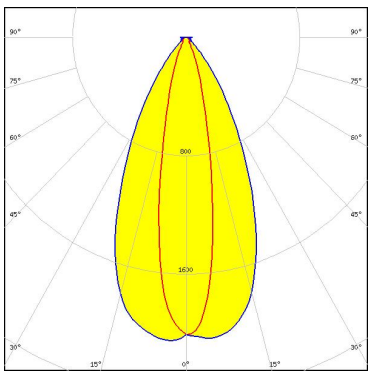
LED	LUXEON HL2X
FWHM / FWTM	18.0 + 52.0° / 42.0 + 82.0°
Efficiency	90 %
Peak intensity	2.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

LUMILEDS

LED	LUXEON HL4X
FWHM / FWTM	20.0 + 50.0° / 46.0 + 84.0°
Efficiency	91 %
Peak intensity	2.1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



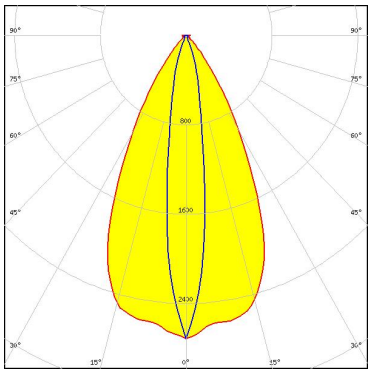
Light distribution files

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OPTICAL RESULTS (SIMULATED):

LUMILEDS

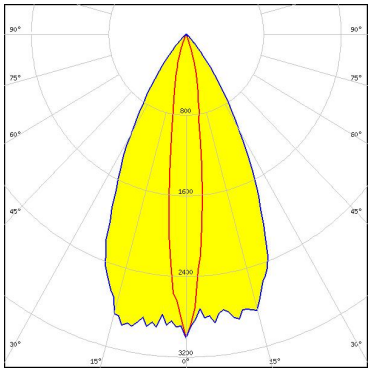
LED	LUXEON HL4Z
FWHM / FWTM	54.0 + 14.0° / 80.0 + 36.0°
Efficiency	91 %
Peak intensity	2.7 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

LUMILEDS

LED	LUXEON TX
FWHM / FWTM	14.0 + 50.0°
Efficiency	90 %
LEDs/each optic	1
Light colour/type	White
Required components:	

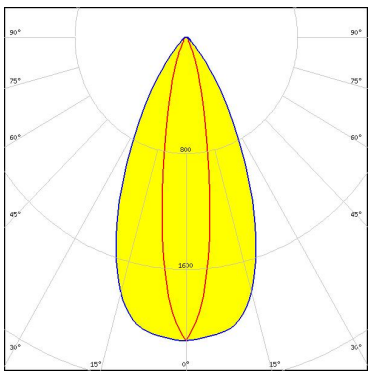


Light distribution files

LUMILEDS

LED	LUXEON XR-HL2X (L2H2-xxxxxxxMLU010)
FWHM / FWTM	18.0 + 50.0° / 42.0 + 80.0°
Efficiency	82 %
Peak intensity	2.1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

Protective plate, glass



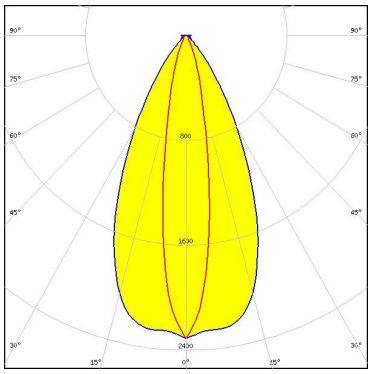
Light distribution files

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OPTICAL RESULTS (SIMULATED):

LUMILEDS

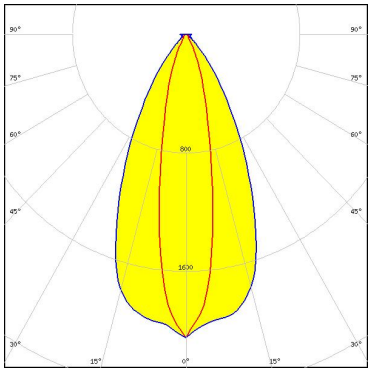
LED	LUXEON XR-HL2X (L2H2-xxxxxxxMLU010)
FWHM / FWTM	18.0 + 52.0° / 42.0 + 82.0°
Efficiency	91 %
Peak intensity	2.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

NICHIA

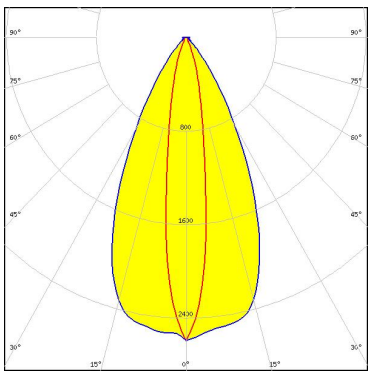
LED	NV4WB35AM
FWHM / FWTM	20.0 + 50.0° / 48.0 + 84.0°
Efficiency	90 %
Peak intensity	2.1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

NICHIA

LED	NVSW219GL
FWHM / FWTM	16.0 + 52.0° / 38.0 + 80.0°
Efficiency	91 %
Peak intensity	2.6 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



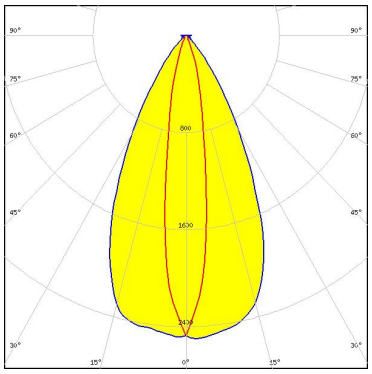
Light distribution files

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OPTICAL RESULTS (SIMULATED):

NICHIA

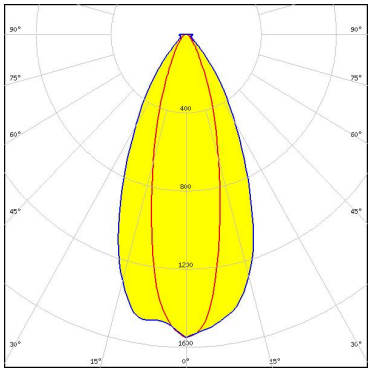
LED	NVSxx19B/NVSxx19C
FWHM / FWTM	16.0 + 53.0° / 38.0 + 81.0°
Efficiency	90 %
Peak intensity	2.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

LED	Duris S8
FWHM / FWTM	26.0 + 49.0° / 59.0 + 86.0°
Efficiency	88 %
Peak intensity	1.6 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

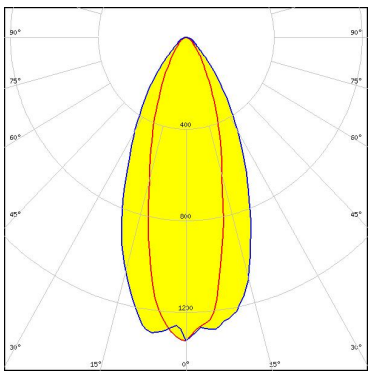


Light distribution files

OSRAM
Opto Semiconductors

LED	Duris S8
FWHM / FWTM	29.0 + 49.0° / 69.0 + 89.0°
Efficiency	84 %
Peak intensity	1.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

Protective plate, glass



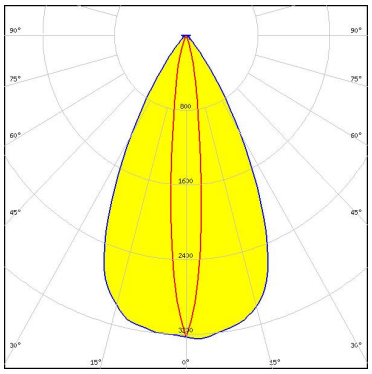
Light distribution files

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OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

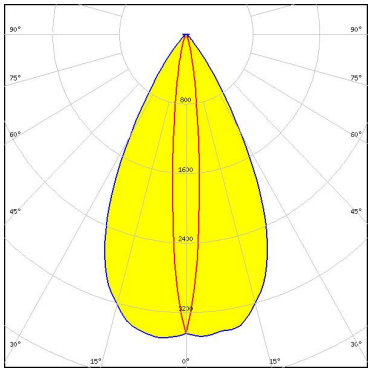
LED	OSCONIQ C 2424 Gen1
FWHM / FWTM	12.0 + 54.0° / 30.0 + 78.0°
Efficiency	92 %
Peak intensity	3.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

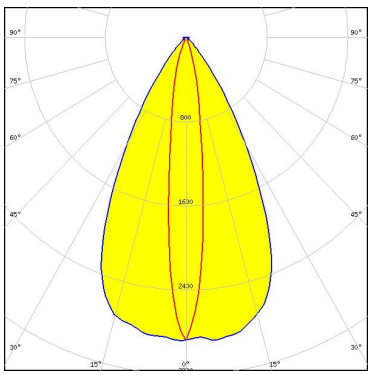
LED	OSCONIQ P 3030
FWHM / FWTM	10.0 + 56.0° / 28.0 + 78.0°
Efficiency	94 %
Peak intensity	3.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

LED	OSCONIQ P 3737 (2W) PUSRA1
FWHM / FWTM	13.0 + 56.0° / 34.0 + 81.0°
Efficiency	93 %
Peak intensity	2.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



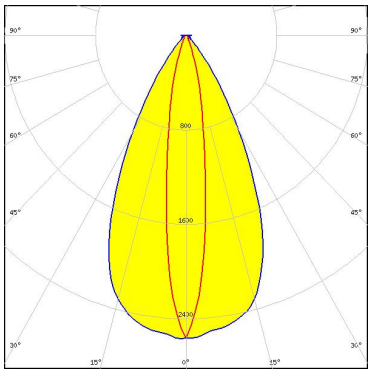
Light distribution files

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OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

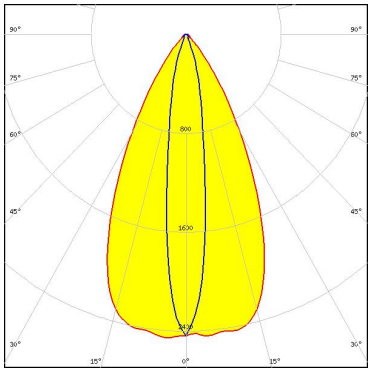
LED	OSCONIQ P 3737 Flat
FWHM / FWTM	16.0 + 54.0° / 38.0 + 80.0°
Efficiency	92 %
Peak intensity	2.6 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

LED	OSLON Square CSSRM2/CSSRM3
FWHM / FWTM	54.0 + 16.0° / 80.0 + 38.0°
Efficiency	84 %
Peak intensity	2.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

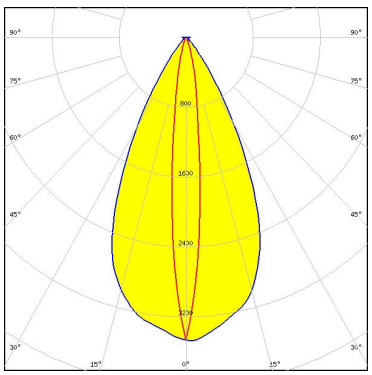


Protective plate, glass

Light distribution files

OSRAM
Opto Semiconductors

LED	OSLON Square Flat
FWHM / FWTM	12.0 + 52.0° / 29.0 + 76.0°
Efficiency	93 %
Peak intensity	3.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



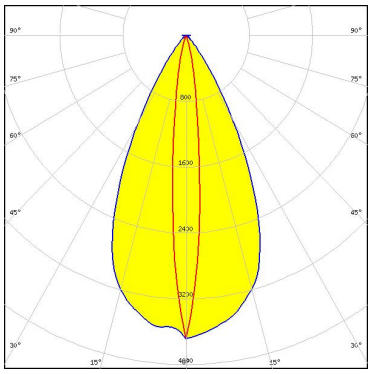
Light distribution files

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OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

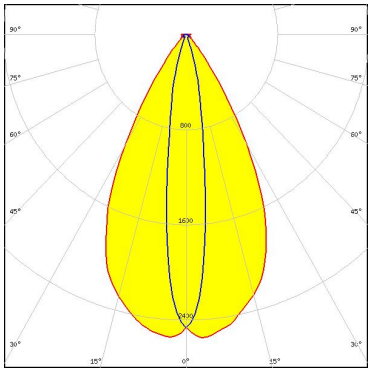
LED	OSTAR Projection Compact (KW.CSLNM1.TG)
FWHM / FWTM	10.0 + 52.0° / 26.0 + 76.0°
Efficiency	93 %
Peak intensity	3.7 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

LED	SFH 4715AS
FWHM / FWTM	56.0 + 14.0° / 78.0 + 31.0°
Efficiency	90 %
LEDs/each optic	1
Light colour/type	IR
Required components:	

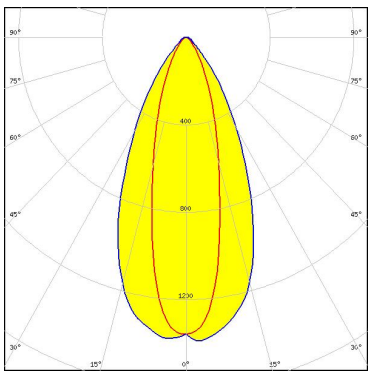


Light distribution files

SAMSUNG

LED	LH502C
FWHM / FWTM	28.0 + 50.0° / 64.0 + 86.0°
Efficiency	79 %
Peak intensity	1.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

Protective plate, glass



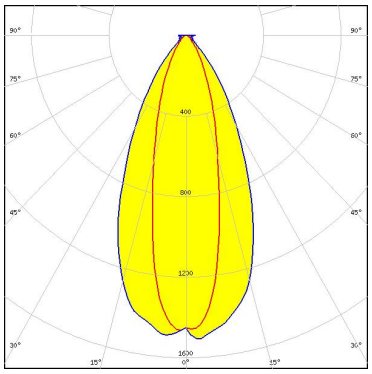
Light distribution files

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OPTICAL RESULTS (SIMULATED):

SAMSUNG

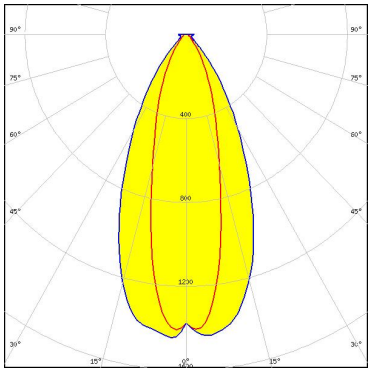
LED	LH502C
FWHM / FWTM	26.0 + 50.0° / 64.0 + 86.0°
Efficiency	87 %
Peak intensity	1.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

SEOUL SEMICONDUCTOR

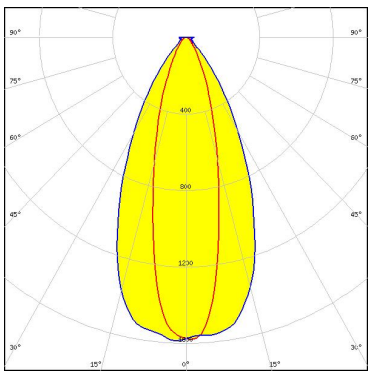
LED	MJT 5050
FWHM / FWTM	28.0 + 50.0° / 67.0 + 88.0°
Efficiency	87 %
Peak intensity	1.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

SEOUL SEMICONDUCTOR

LED	SEOUL DC 5050 6V
FWHM / FWTM	26.0 + 50.0° / 60.0 + 86.0°
Efficiency	90 %
Peak intensity	1.6 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



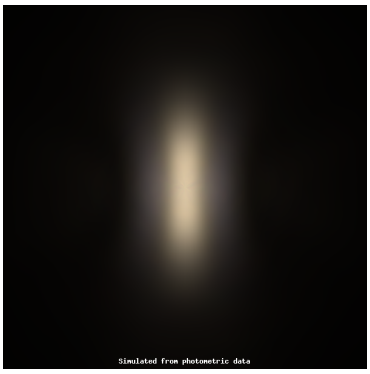
Light distribution files

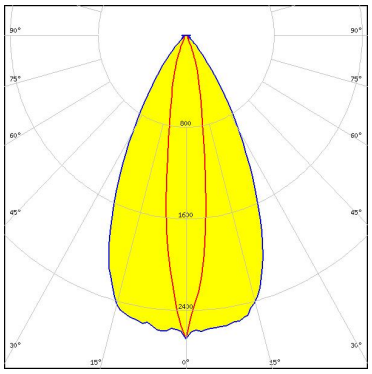
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OPTICAL RESULTS (SIMULATED):

SEOUL SEMICONDUCTOR

LED	Z5M3-E1
FWHM / FWTM	16.0 + 54.0° / 40.0 + 82.0°
Efficiency	92 %
Peak intensity	2.7 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

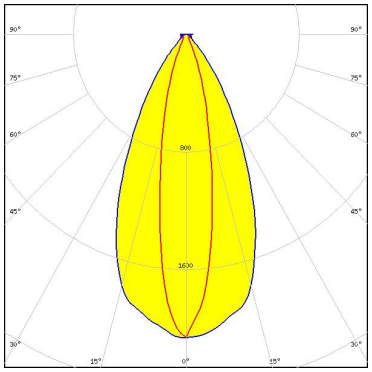




Light distribution files

SEOUL SEMICONDUCTOR

LED	Z5M5
FWHM / FWTM	20.0 + 50.0° / 46.0 + 82.0°
Efficiency	90 %
Peak intensity	2.1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

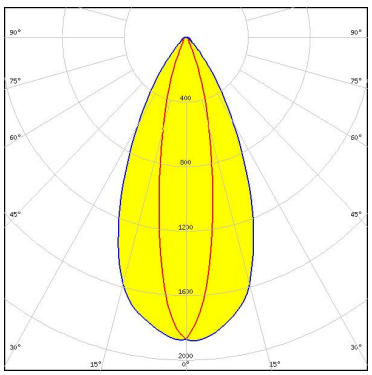


Light distribution files

SEOUL SEMICONDUCTOR

LED	Z5M5
FWHM / FWTM	22.0 + 50.0° / 46.0 + 82.0°
Efficiency	81 %
Peak intensity	1.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

Protective plate, glass



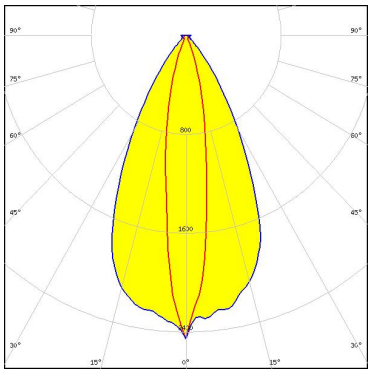
Light distribution files

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OPTICAL RESULTS (SIMULATED):

SEOUL SEMICONDUCTOR

LED	Z8Y22T
FWHM / FWTM	16.0 + 52.0° / 39.0 + 81.0°
Efficiency	90 %
Peak intensity	2.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

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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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