VERONICA-SQ-SE

~190° side emitter beam



SPECIFICATION:

Dimensions	22.5 x 22.5
Height	11.4 mm
Fastening	tape
ROHS compliant	yes

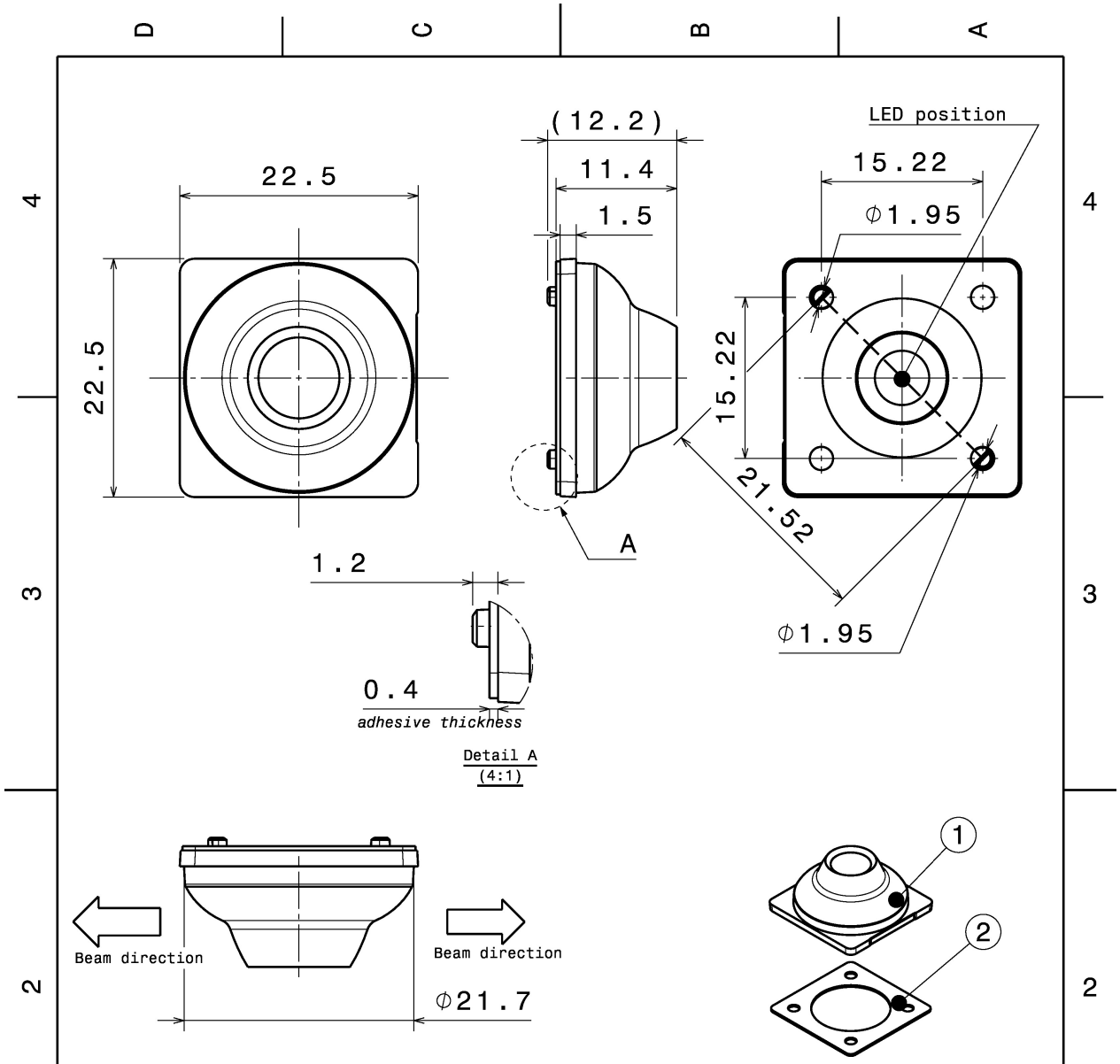
MATERIALS:

Component	Type	Material	Colour	Finish	Length
VERONICA-SQ-SE	Single lens	PMMA	clear		22.5
VERONICA-TAPE	Tape	Acrylic foam	clear		22.0

ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CA15902_VERONICA-SQ-SE » Box size: 480 x 280 x 300 mm	Single lens	3060	360	180	9.6

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



INDEX	PART NO	DESCRIPTION	MATERIAL	COLOUR
1	C15901	VERONICA-SQ-SE_Mech_Model	PMMA	CLEAR
2	C16105	VERONICA-TAPE	PU FOAM	BLACK

Tolerances if not otherwise shown
According to DIN ISO 2768-1
Linear measures:
Up to 30mm class M, otherwise class C.
According to DIN ISO 2768-2
Form and position: class L

Ledil Oy
Joensuunkatu 13
FIN 24100 SALO
Finland

FIRST ANGLE PROJECTION:

DRAWING TITLE
CA15902_STRADA-SQ-SE_Datasheet

This drawing is the property of LEDiL Oy. It may not be reproduced, copied or communicated without a written agreement with LEDiL Oy.

SIZE	PART NUMBER
A4	CA15902

SCALE	WEIGHT	SHEET
2:1	2,75g	1/1

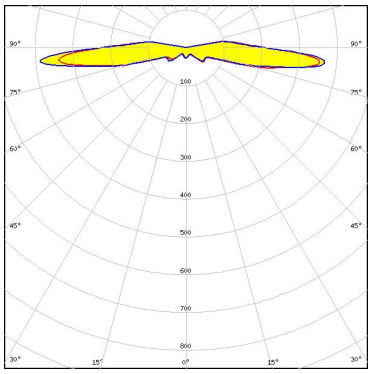
See also our general installation guide: www.ledil.com/installation_guide

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

OPTICAL RESULTS (MEASURED):

CREE LEDs

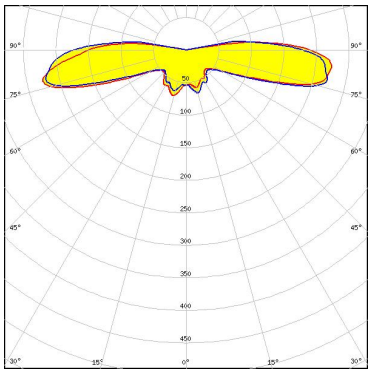
LED	XHP35 HI
FWHM / FWTM	183.0° / 201.0°
Efficiency	88 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

CREE LEDs

LED	XHP70.2
FWHM / FWTM	194.0° / 220.0°
Efficiency	84 %
Peak intensity	0.2 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

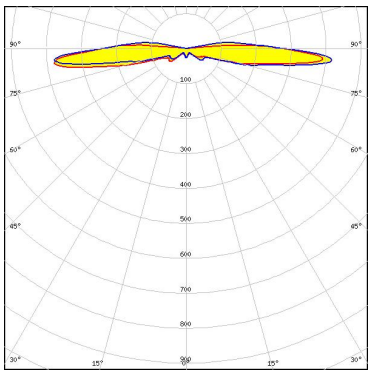


Light distribution files

CREE LEDs

LED	XP-G2
FWHM / FWTM	184.0° / 196.0°
Efficiency	87 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	





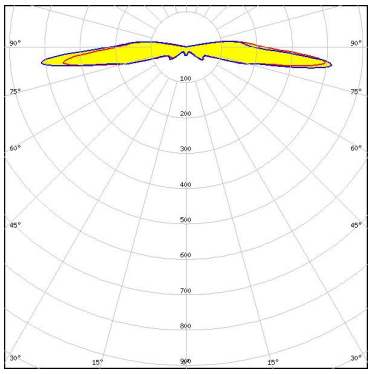
Light distribution files

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

OPTICAL RESULTS (MEASURED):

CREE LEDs

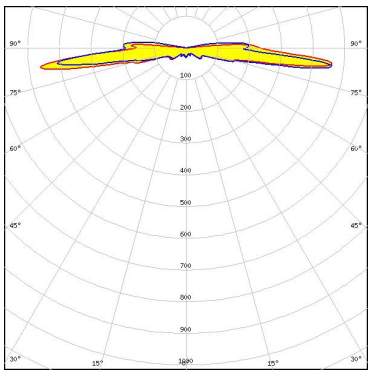
LED	XP-L HI
FWHM / FWTM	184.0° / 210.0°
Efficiency	87 %
Peak intensity	0.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

CREE LEDs

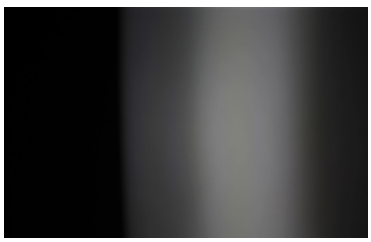
LED	XQ-E HI
FWHM / FWTM	176.0° / 195.0°
Efficiency	87 %
Peak intensity	0.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

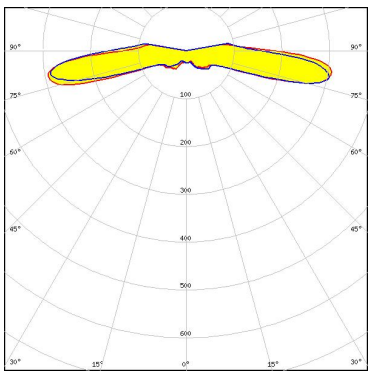


Light distribution files

LUMILEDS

LED	LUXEON 5050 Round LES
FWHM / FWTM	180.0° / 200.0°
Efficiency	87 %
Peak intensity	0.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	





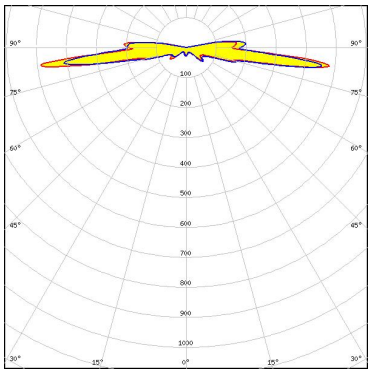
Light distribution files

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

OPTICAL RESULTS (MEASURED):

LUMILEDS

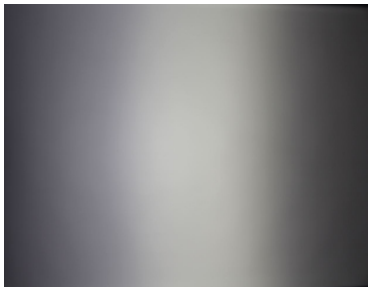
LED	LUXEON CZ
FWHM / FWTM	173.0° / 200.0°
Efficiency	90 %
Peak intensity	0.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

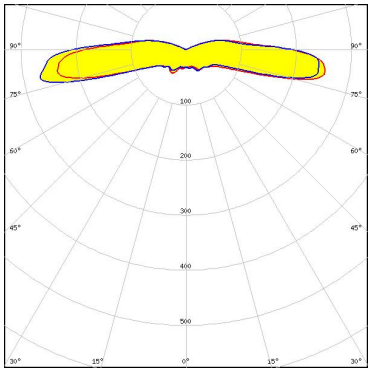


Light distribution files

LUMILEDS

LED	LUXEON M/MX
FWHM / FWTM	189.0° / 225.0°
Efficiency	91 %
Peak intensity	2.7 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



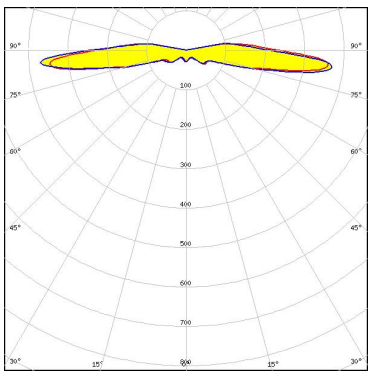


Light distribution files

LUMILEDS

LED	LUXEON TX
FWHM / FWTM	185.0° / 201.0°
Efficiency	88 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	





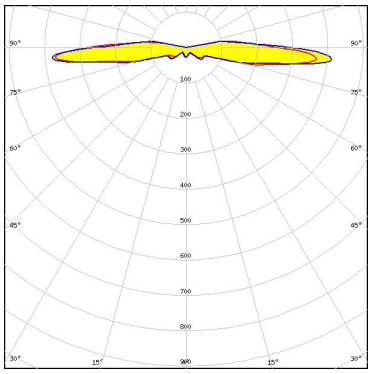
Light distribution files

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

OPTICAL RESULTS (MEASURED):

NICHIA

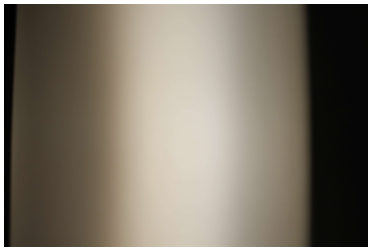
LED	NVSW219F
FWHM / FWTM	185.0° / 201.0°
Efficiency	89 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

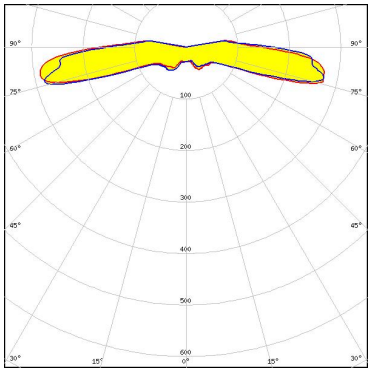


Light distribution files

OSRAM
Opto Semiconductors

LED	Duris S8
FWHM / FWTM	182.0° / 201.0°
Efficiency	87 %
Peak intensity	0.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

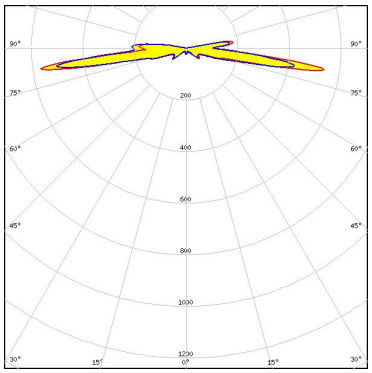




Light distribution files

OSRAM
Opto Semiconductors

LED	OSLON Black Flat (LUW HWQP)
FWHM / FWTM	170.0° / 210.0°
Efficiency	89 %
Peak intensity	0.6 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



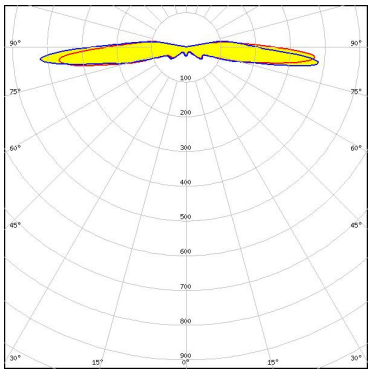
Light distribution files

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

OPTICAL RESULTS (MEASURED):

OSRAM
Opto Semiconductors

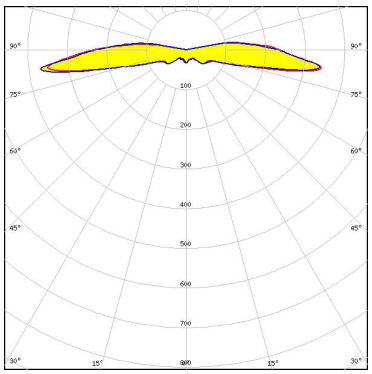
LED	OSLON Square CSSRM2/CSSRM3
FWHM / FWTM	186.0° / 220.0°
Efficiency	88 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

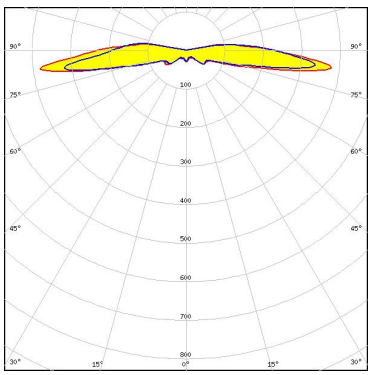
LED	OSLON Square EC
FWHM / FWTM	189.0° / 201.0°
Efficiency	88 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

LED	OSLON Square PC
FWHM / FWTM	187.0° / 200.0°
Efficiency	88 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

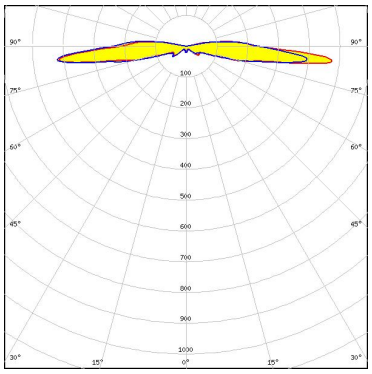
LEDiL is a registered trademark of LEDiL Oy in the European Union, USA, and certain other countries.

OPTICAL RESULTS (MEASURED):

OSRAM
Opto Semiconductors

LED	OSLON SSL 150
FWHM / FWTM	182.0° / 200.0°
Efficiency	89 %
Peak intensity	0.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

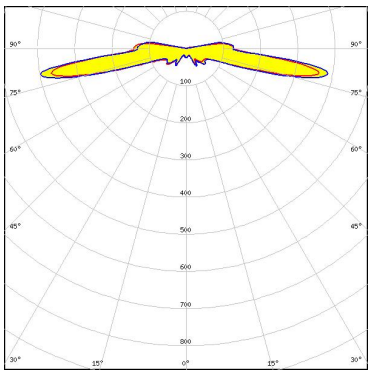




Light distribution files

SAMSUNG

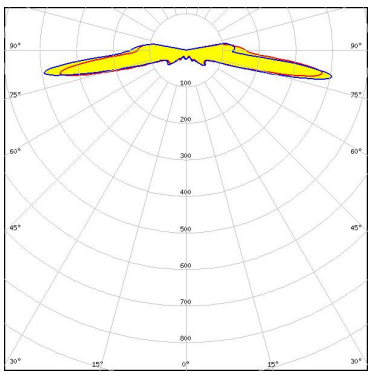
LED	LH181A
FWHM / FWTM	170.0° / 210.0°
Efficiency	91 %
Peak intensity	0.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

SAMSUNG

LED	LH181B
FWHM / FWTM	171.0° / 201.0°
Efficiency	88 %
Peak intensity	0.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



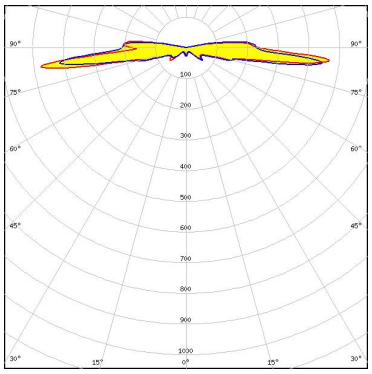
Light distribution files

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

OPTICAL RESULTS (MEASURED):

SEOUL SEMICONDUCTOR

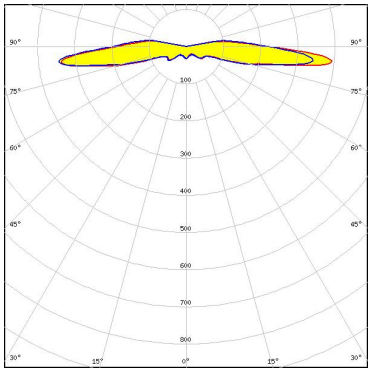
LED	nPola
FWHM / FWTM	181.0° / 200.0°
Efficiency	89 %
Peak intensity	0.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

SEOUL SEMICONDUCTOR

LED	Z5M3
FWHM / FWTM	184.0° / 201.0°
Efficiency	89 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



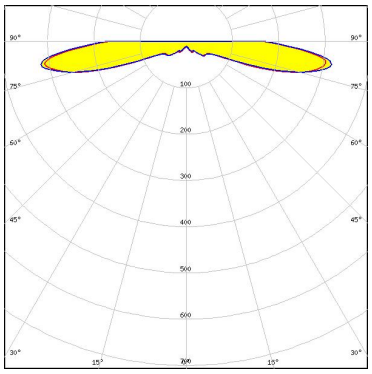
Light distribution files

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

OPTICAL RESULTS (SIMULATED):

CREE LEDs

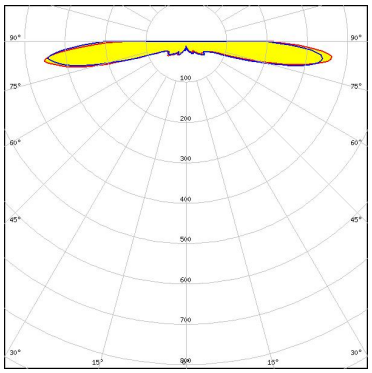
LED	J Series 5050 Round LES
FWHM / FWTM	180.0° / 182.0°
Efficiency	75 %
Peak intensity	0.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

CREE LEDs

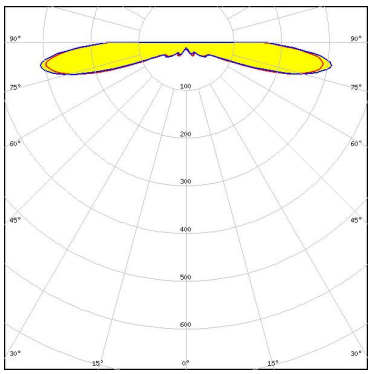
LED	J Series 5050B 30V K Class
FWHM / FWTM	180.0° / 182.0°
Efficiency	75 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

CREE LEDs

LED	J Series 5050B 6V K Class
FWHM / FWTM	180.0° / 182.0°
Efficiency	75 %
Peak intensity	0.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



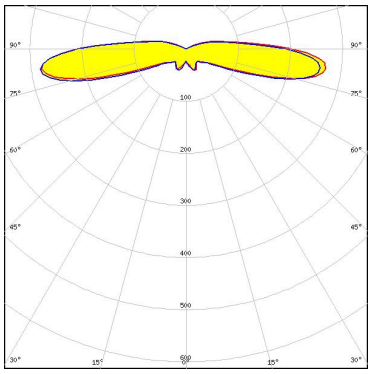
Light distribution files

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

OPTICAL RESULTS (SIMULATED):

CREE LEDs

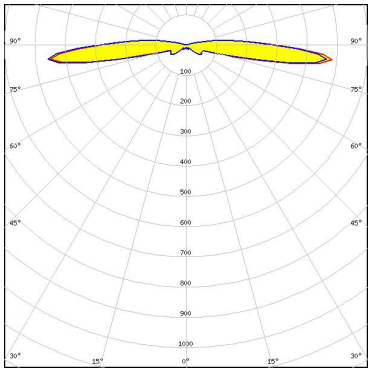
LED	XD16
FWHM / FWTM	188.0° / 223.0°
Efficiency	94 %
Peak intensity	0.3 cd/lm
LEDs/each optic	7
Light colour/type	White
Required components:	



Light distribution files

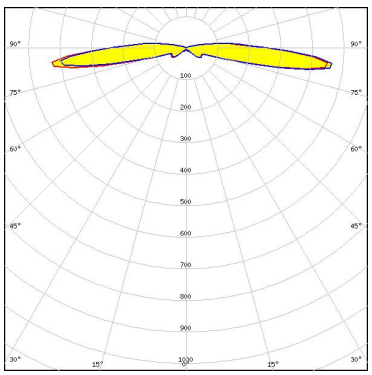
CREE LEDs

LED	XE-G
FWHM / FWTM	184.0° / 200.0°
Efficiency	94 %
Peak intensity	0.5 cd/lm
LEDs/each optic	1
Light colour/type	Green
Required components:	



CREE LEDs

LED	XE-G
FWHM / FWTM	180.0° / 204.0°
Efficiency	96 %
Peak intensity	0.5 cd/lm
LEDs/each optic	1
Light colour/type	Red
Required components:	

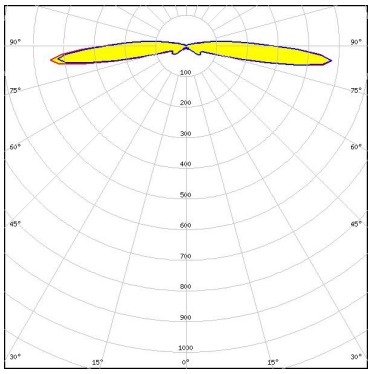


LEDiL is a registered trademark of LEDiL Oy in the European Union, USA, and certain other countries.

OPTICAL RESULTS (SIMULATED):

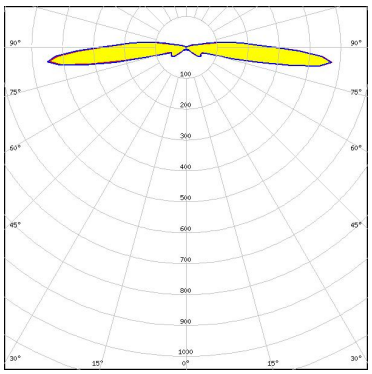
CREE LEDs

LED	XE-G
FWHM / FWTM	182.0° / 204.0°
Efficiency	96 %
Peak intensity	0.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



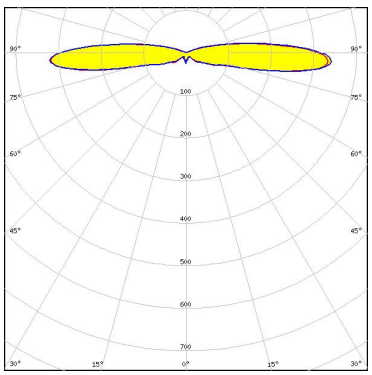
CREE LEDs

LED	XE-G
FWHM / FWTM	184.0° / 204.0°
Efficiency	96 %
Peak intensity	0.5 cd/lm
LEDs/each optic	1
Light colour/type	Blue
Required components:	



CREE LEDs

LED	XHP35 HD
FWHM / FWTM	194.0° / 216.0°
Efficiency	94 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



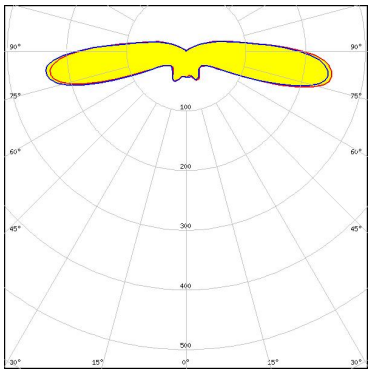
Light distribution files

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

OPTICAL RESULTS (SIMULATED):

CREE LEDs

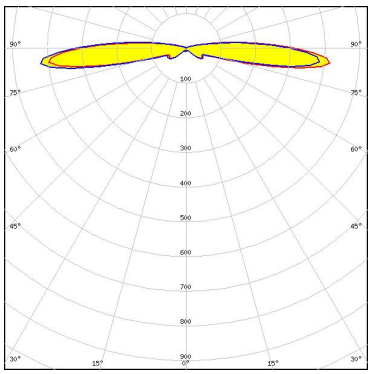
LED	XHP70
FWHM / FWTM	190.0° / 232.0°
Efficiency	94 %
Peak intensity	0.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

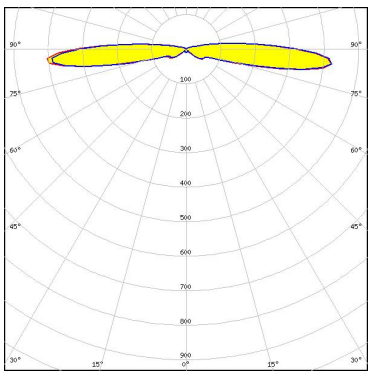
CREE LEDs

LED	XP-E
FWHM / FWTM	188.0° / 208.0°
Efficiency	95 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



CREE LEDs

LED	XP-E2
FWHM / FWTM	188.0° / 206.0°
Efficiency	95 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	Red
Required components:	



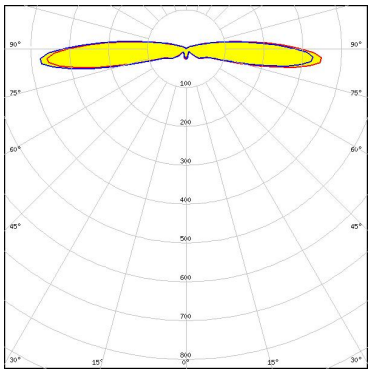
Light distribution files

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

OPTICAL RESULTS (SIMULATED):

CREE LEDs

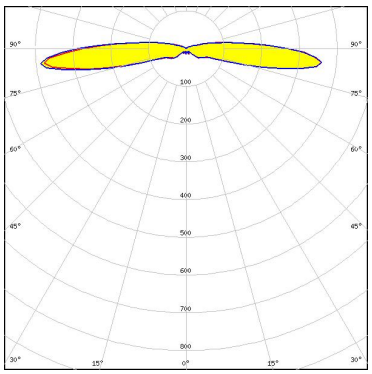
LED	XP-G2 HE
FWHM / FWTM	191.0° / 212.0°
Efficiency	95 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

CREE LEDs

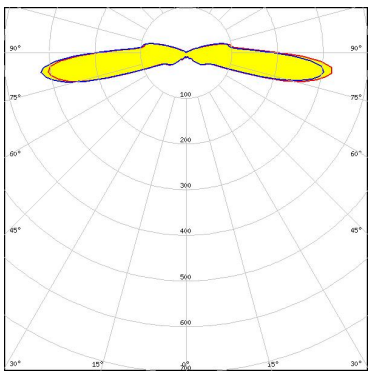
LED	XP-G3
FWHM / FWTM	186.0° / 211.0°
Efficiency	94 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

CREE LEDs

LED	XQ-E HI
FWHM / FWTM	183.0° / 221.0°
Efficiency	94 %
Peak intensity	0.3 cd/lm
LEDs/each optic	4
Light colour/type	White
Required components:	



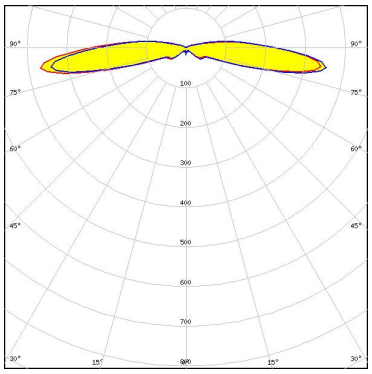
Light distribution files

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

OPTICAL RESULTS (SIMULATED):

CREE LEDs

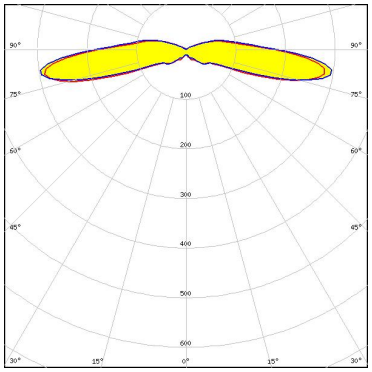
LED	XT-E
FWHM / FWTM	184.0° / 212.0°
Efficiency	95 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

LUMILEDS

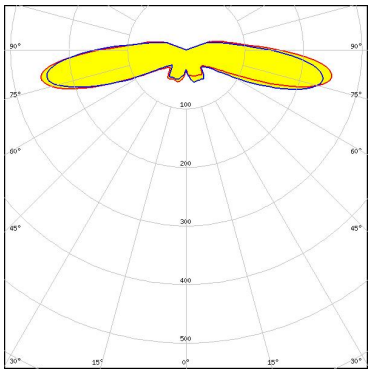
LED	LUXEON 5050 Round LES
FWHM / FWTM	184.0° / 226.0°
Efficiency	95 %
Peak intensity	0.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

LUMILEDS

LED	LUXEON 7070
FWHM / FWTM	185.0° / 220.0°
Efficiency	96 %
Peak intensity	0.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

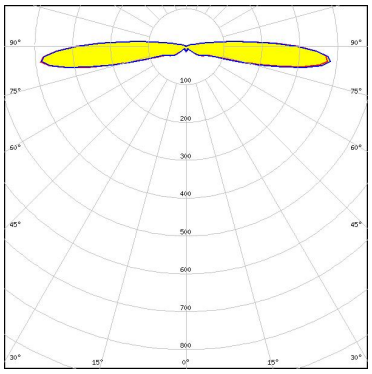


LEDiL is a registered trademark of LEDiL Oy in the European Union, USA, and certain other countries.

OPTICAL RESULTS (SIMULATED):

LUMILEDS

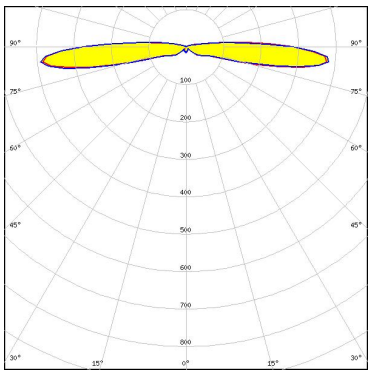
LED	LUXEON C
FWHM / FWTM	188.0° / 204.0°
Efficiency	93 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

LUMILEDS

LED	LUXEON C
FWHM / FWTM	184.0° / 204.0°
Efficiency	91 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	Red
Required components:	

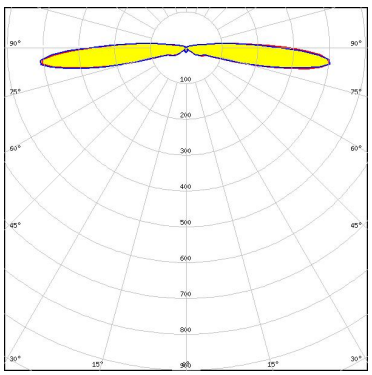


Light distribution files

LUMILEDS

LED	LUXEON C
FWHM / FWTM	183.0° / 201.0°
Efficiency	92 %
Peak intensity	0.5 cd/lm
LEDs/each optic	1
Light colour/type	Green
Required components:	





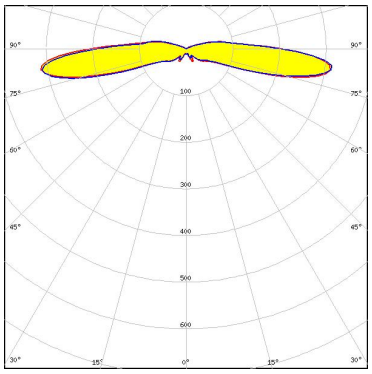
Light distribution files

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

OPTICAL RESULTS (SIMULATED):

LUMILEDS

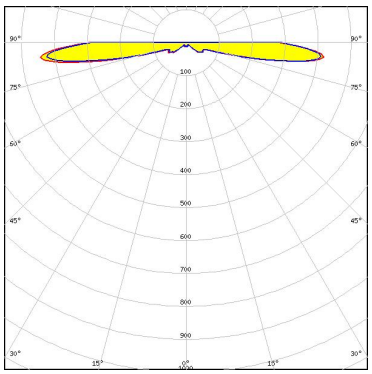
LED	LUXEON IR Compact
FWHM / FWTM	183.4° / 217.0°
Efficiency	94 %
Peak intensity	0.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

LUMILEDS

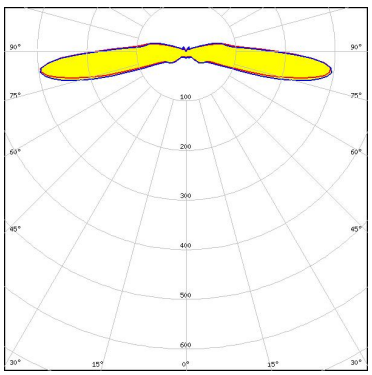
LED	LUXEON Rebel
FWHM / FWTM	180.0° / 182.0°
Efficiency	75 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	Red
Required components:	



Light distribution files

LUMILEDS

LED	LUXEON Z
FWHM / FWTM	183.4° / 218.0°
Efficiency	89 %
Peak intensity	0.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



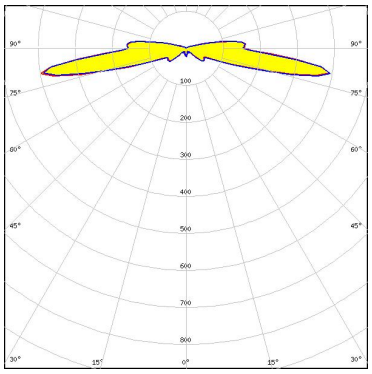
Light distribution files

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

OPTICAL RESULTS (SIMULATED):

NICHIA

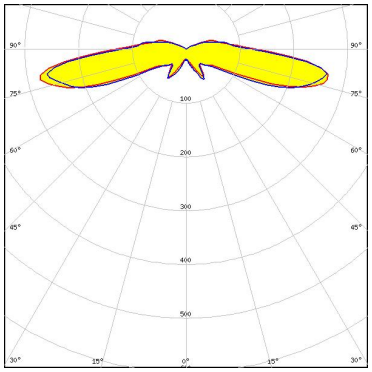
LED	NCSxE17A
FWHM / FWTM	173.0° / 208.0°
Efficiency	96 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

NICHIA

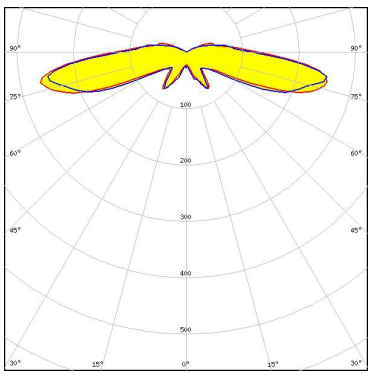
LED	NCSxE17A
FWHM / FWTM	179.0° / 228.0°
Efficiency	96 %
Peak intensity	0.3 cd/lm
LEDs/each optic	7
Light colour/type	White
Required components:	



Light distribution files

NICHIA

LED	NCSxE17A
FWHM / FWTM	180.0° / 226.0°
Efficiency	96 %
Peak intensity	0.3 cd/lm
LEDs/each optic	7
Light colour/type	White
Required components:	



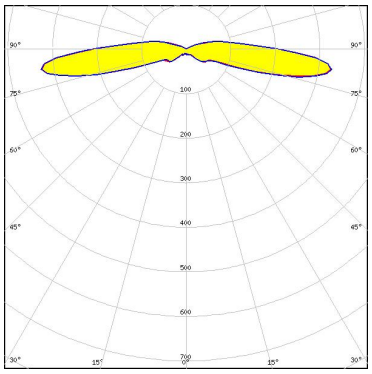
Light distribution files

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

OPTICAL RESULTS (SIMULATED):

NICHIA

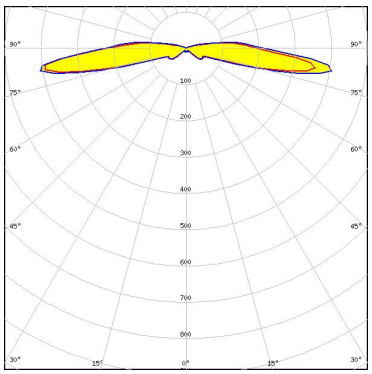
LED	NV4WB35AM
FWHM / FWTM	184.0° / 220.0°
Efficiency	95 %
Peak intensity	0.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

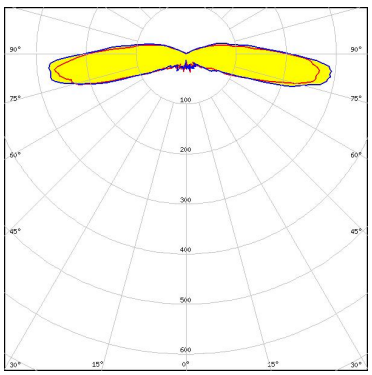
LED	OSCONIQ P 3030
FWHM / FWTM	181.0° / 208.0°
Efficiency	95 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

LED	OSCONIQ P 7070
FWHM / FWTM	192.0° / 226.0°
Efficiency	95 %
LEDs/each optic	1
Light colour/type	White
Required components:	



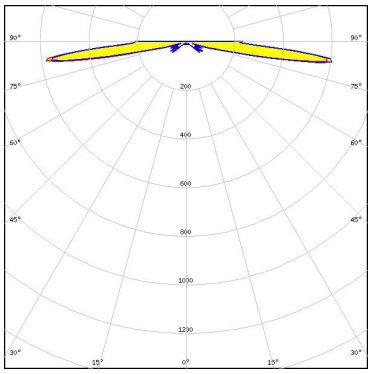
Light distribution files

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

OPTICAL RESULTS (SIMULATED):

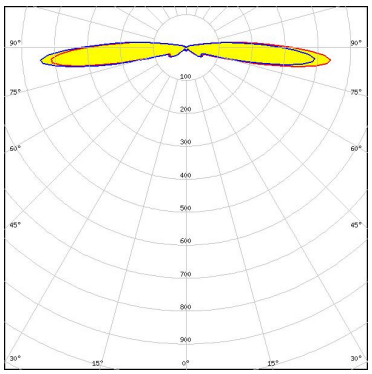
OSRAM
Opto Semiconductors

LED	OSLON Pure 1414
FWHM / FWTM	174.0 + 173.0° / 182.0°
Efficiency	76 %
Peak intensity	0.6 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



OSRAM
Opto Semiconductors

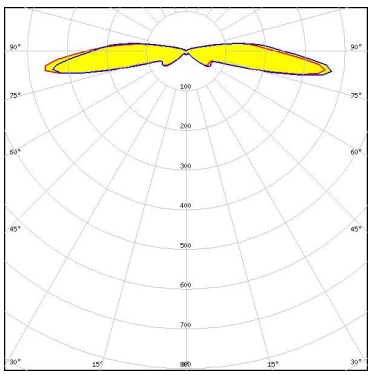
LED	OSLON Signal
FWHM / FWTM	186.0° / 203.0°
Efficiency	95 %
Peak intensity	0.5 cd/lm
LEDs/each optic	1
Light colour/type	Red
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

LED	OSLON SSL 120
FWHM / FWTM	188.0° / 212.0°
Efficiency	95 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



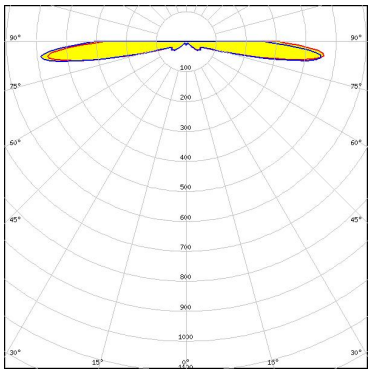
Light distribution files

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

OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

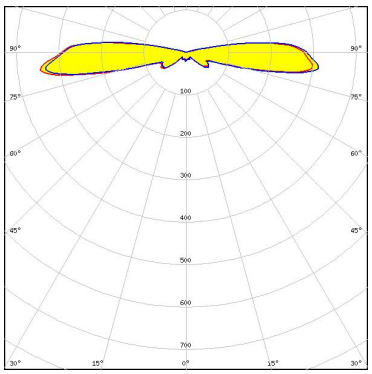
LED	OSLON SSL 150
FWHM / FWTM	180.0° / 182.0°
Efficiency	78 %
Peak intensity	0.5 cd/lm
LEDs/each optic	1
Light colour/type	Red
Required components:	



Light distribution files

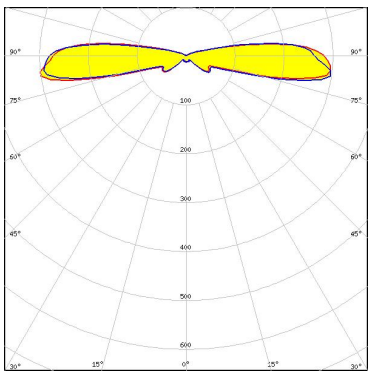
OSRAM
Opto Semiconductors

LED	OSLON SSL 80
FWHM / FWTM	195.0° / 206.0°
Efficiency	93 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



OSRAM
Opto Semiconductors

LED	OSLON SSL 80
FWHM / FWTM	198.0° / 216.0°
Efficiency	94 %
Peak intensity	0.3 cd/lm
LEDs/each optic	1
Light colour/type	Blue
Required components:	



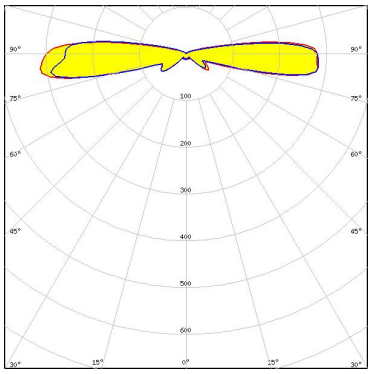
Light distribution files

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

OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

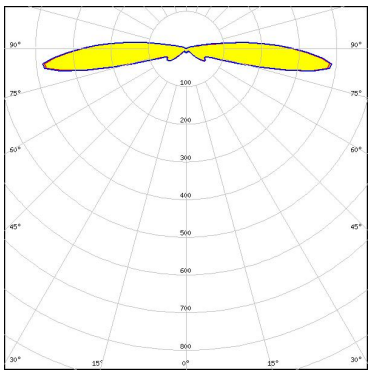
LED	OSLON SSL 80
FWHM / FWTM	197.0° / 215.0°
Efficiency	96 %
Peak intensity	0.3 cd/lm
LEDs/each optic	1
Light colour/type	Red
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

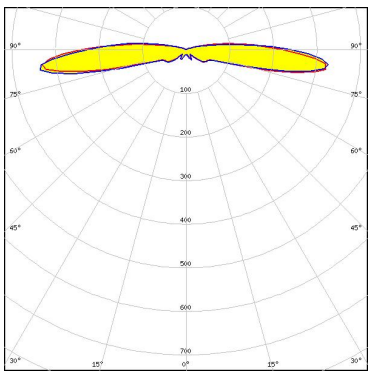
LED	OSTAR Projection Compact (KW.CSLNM1.TG)
FWHM / FWTM	188.0° / 208.0°
Efficiency	96 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	Red
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

LED	SFH 4170S
FWHM / FWTM	188.0° / 208.0°
Efficiency	87 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	IR
Required components:	



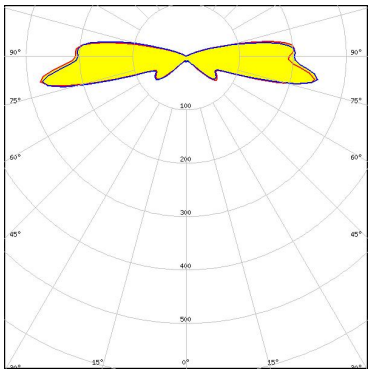
Light distribution files

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

OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

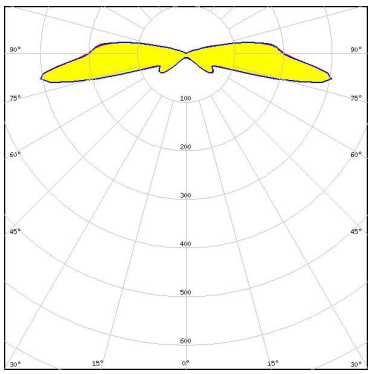
LED	SFH 4715AS
FWHM / FWTM	202.0° / 221.0°
Efficiency	95 %
Peak intensity	0.3 cd/lm
LEDs/each optic	1
Light colour/type	IR
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

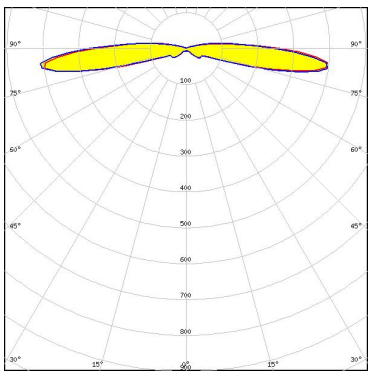
LED	SFH 4715S
FWHM / FWTM	196.0° / 216.0°
Efficiency	95 %
Peak intensity	0.3 cd/lm
LEDs/each optic	1
Light colour/type	IR
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

LED	SFH 4716AS
FWHM / FWTM	184.0° / 207.0°
Efficiency	95 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	IR
Required components:	



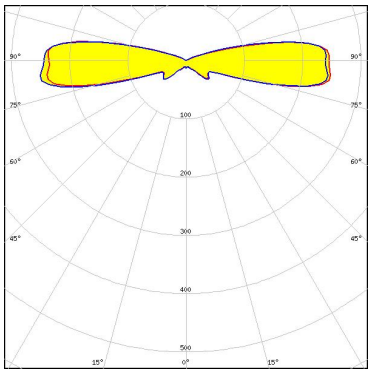
Light distribution files

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

OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

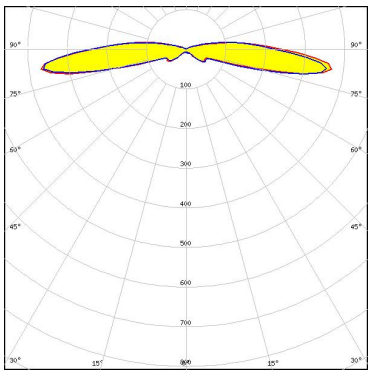
LED	SFH 4717AS
FWHM / FWTM	207.0° / 224.0°
Efficiency	95 %
Peak intensity	0.3 cd/lm
LEDs/each optic	1
Light colour/type	IR
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

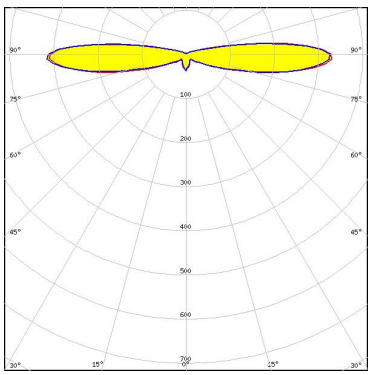
LED	SFH 4770S
FWHM / FWTM	185.0° / 212.0°
Efficiency	95 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	IR
Required components:	



Light distribution files

SAMSUNG

LED	LH351C
FWHM / FWTM	196.0° / 215.0°
Efficiency	96 %
Peak intensity	0.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

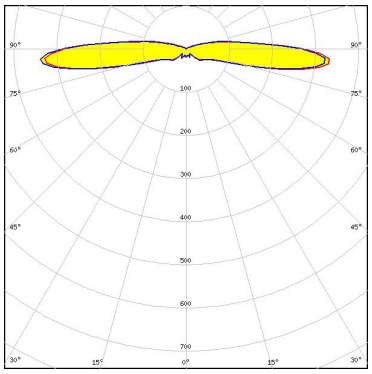


LEDiL is a registered trademark of LEDiL Oy in the European Union, USA, and certain other countries.

OPTICAL RESULTS (SIMULATED):

SAMSUNG

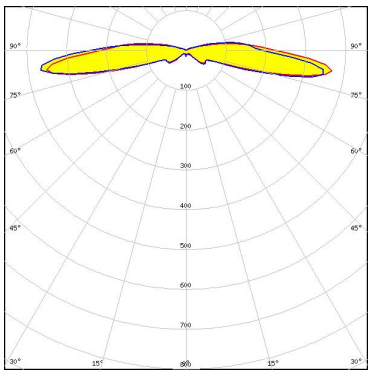
LED	LH351D
FWHM / FWTM	190.0° / 216.0°
Efficiency	94 %
Peak intensity	0.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

SEOUL SEMICONDUCTOR

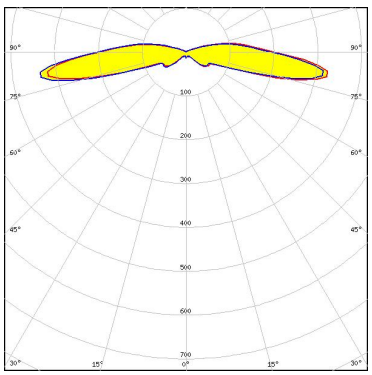
LED	MJT 3030
FWHM / FWTM	184.0° / 212.0°
Efficiency	95 %
Peak intensity	0.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

SEOUL SEMICONDUCTOR

LED	Z5M4
FWHM / FWTM	184.0° / 216.0°
Efficiency	95 %
Peak intensity	0.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



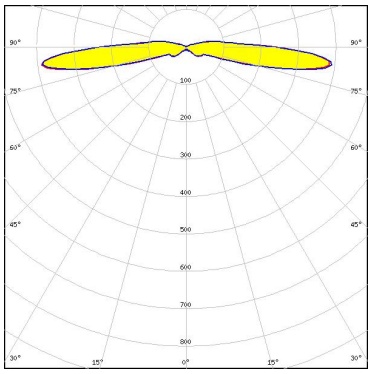
Light distribution files

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

OPTICAL RESULTS (SIMULATED):

SEOUL SEMICONDUCTOR

LED	Z8Y22P
FWHM / FWTM	181.4° / 210.6°
Efficiency	94 %
Peak intensity	0.4 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.

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.

LEDiL Oy assumes neither warranty, nor guarantee nor any other liability of any kind for the contents and correctness of the provided data. The provided data has been generated with highest diligence but the provided data may in reality not represent the complete possible variation range of all intrinsic parameters. Therefore, in certain cases a deviation from the provided data could occur.

LEDiL Oy reserves the right to undertake technical changes of its products without further notification which could lead to changes in the provided data. LEDiL Oy assumes no liability of any kind for the possible deviation from any provided data or any other damage resulting from the usage of the provided data.

The user agrees to this disclaimer and user agreement with the download or usage of the provided files.

LEDiL Oy
Joensuunkatu 13
FI-24240 SALO
Finland

LEDiL Inc.
228 West Page Street
Suite D
Sycamore IL 60178
USA

Ledil Optics Technology (Shenzhen) Co., Ltd.
405 , Block B
Casic Motor Building
Shenzhen 518057
P.R.CHINA

Local sales and technical support
www.ledil.com/
where_to_buy

Shipping locations
Salo, Finland
Hong Kong, China

Distribution Partners
www.ledil.com/
where_to_buy

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