TINA2-O

~35° + 15° oval beam. Assembly with holder, installation tape and location pins.

SPECIFICATION:

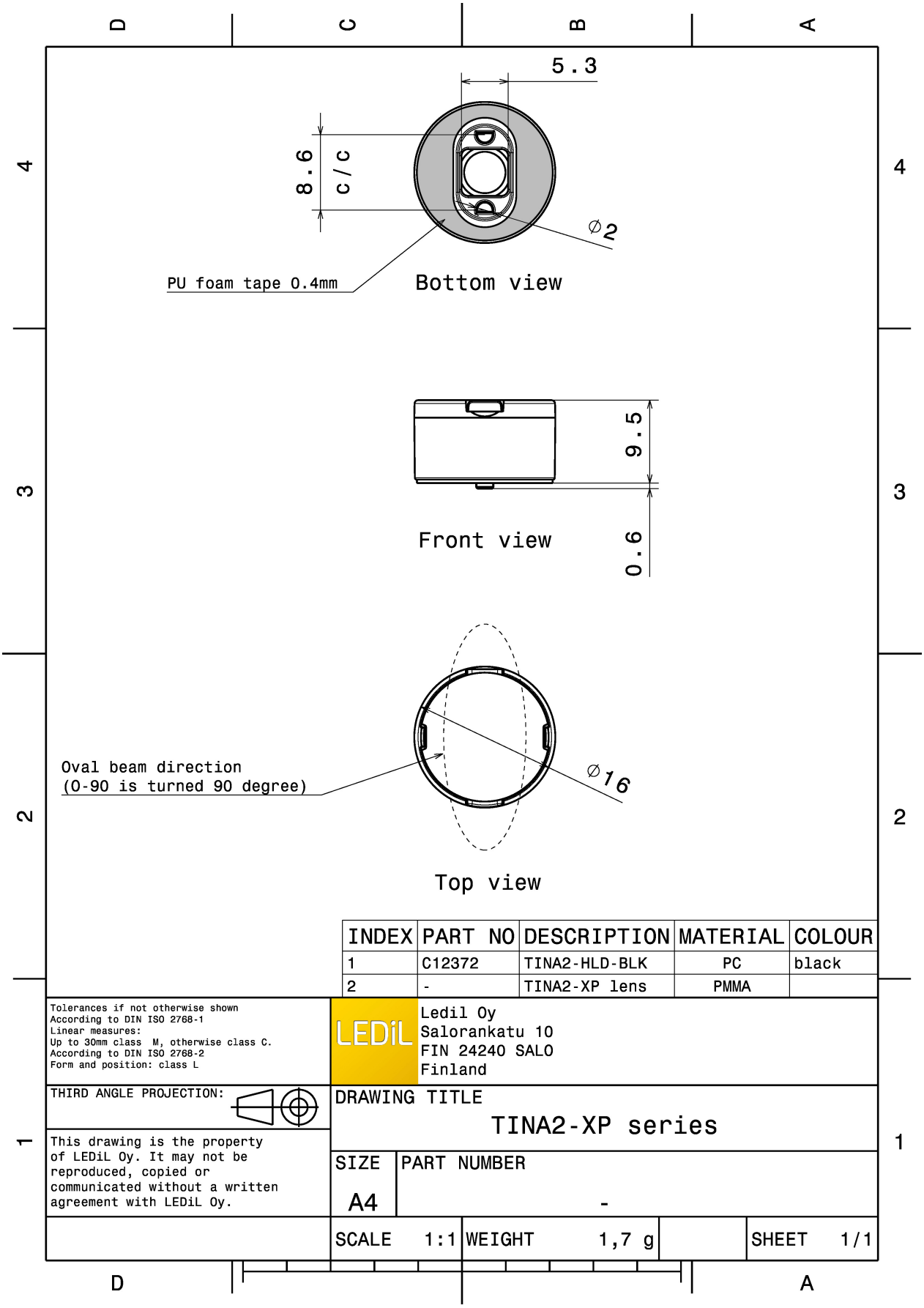
Dimensions	Ø 16.0
Height	9.5 mm
Fastening	tape, pin
ROHS compliant	yes

MATERIALS:

Component	Type	Material	Colour	Finish	Length (mm)
TINA2-XP-O	Single lens	PMMA	clear		
TINA2-HLD-BLK	Holder	PC	black		
TINA-TAPE3	Tape	Acrylic foam	black		

ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
CA12379_TINA2-O » Box size: 451 x 241 x 298 mm	4140	230	230	8.5



INDEX	PART NO	DESCRIPTION	MATERIAL	COLOUR
1	C12372	TINA2-HLD-BLK	PC	black
2	-	TINA2-XP lens	PMMA	

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

THIRD ANGLE PROJECTION:

Ledil Oy
Salorankatu 10
FIN 24240 SALO
Finland

DRAWING TITLE
TINA2-XP series

SIZE A4 | PART NUMBER -

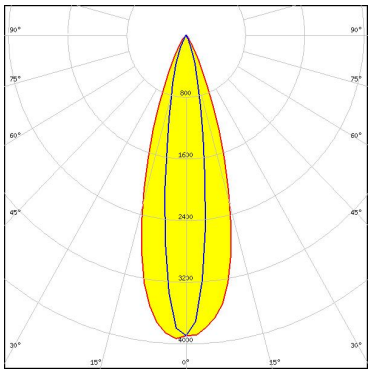
SCALE 1:1 | WEIGHT 1,7 g | SHEET 1/1

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

OPTICAL RESULTS (MEASURED):

CREE LEDs

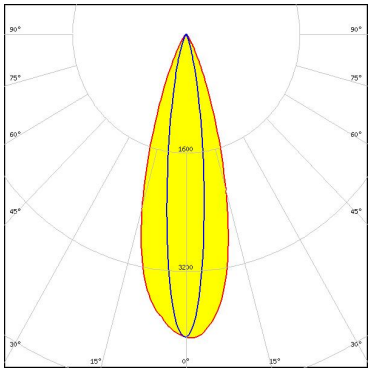
LED	XB-H
FWHM / FWTM	34.0 + 17.0° / 57.0 + 39.0°
Efficiency	84 %
Peak intensity	3.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

CREE LEDs

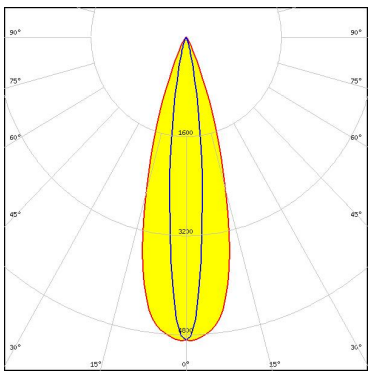
LED	XD16
FWHM / FWTM	32.0 + 15.0° / 54.0 + 32.0°
Efficiency	80 %
Peak intensity	4.1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

CREE LEDs

LED	XQ-E HI
FWHM / FWTM	33.0 + 13.0° / 51.0 + 28.0°
Efficiency	80 %
Peak intensity	5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

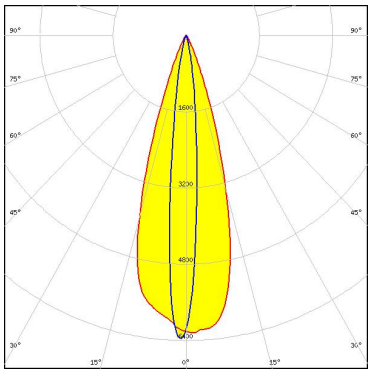


Light distribution files

OPTICAL RESULTS (MEASURED):

LUMILEDS

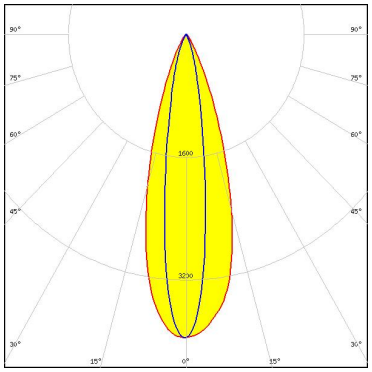
LED	LUXEON CZ
FWHM / FWTM	32.0 + 10.0° / 49.0 + 23.0°
Efficiency	88 %
Peak intensity	6.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

LUMILEDS

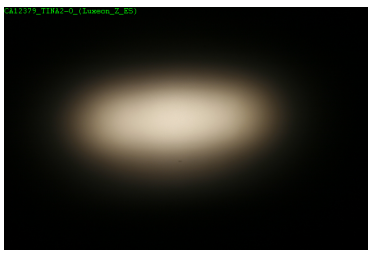
LED	LUXEON TX
FWHM / FWTM	32.0 + 16.0° / 55.0 + 37.0°
Efficiency	85 %
Peak intensity	4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

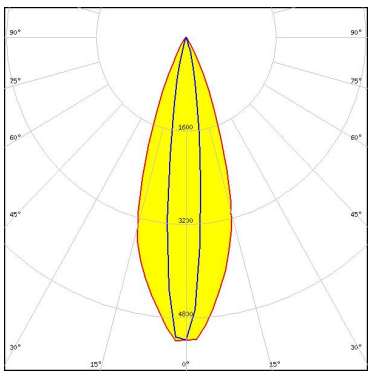


Light distribution files

LUMILEDS

LED	LUXEON Z ES
FWHM / FWTM	36.0 + 13.0° / 56.0 + 28.0°
Efficiency	85 %
Peak intensity	5.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



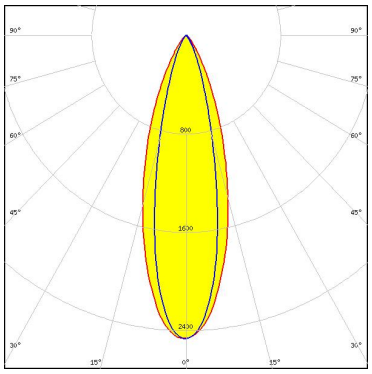


Light distribution files

OPTICAL RESULTS (MEASURED):

NICHIA

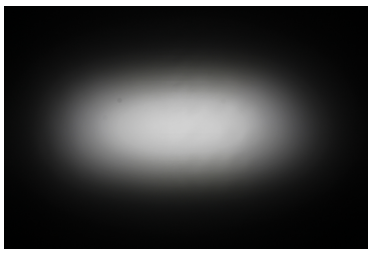
LED	NWSx229A
FWHM / FWTM	33.0 + 24.0° / 65.0 + 49.0°
Efficiency	82 %
Peak intensity	2.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

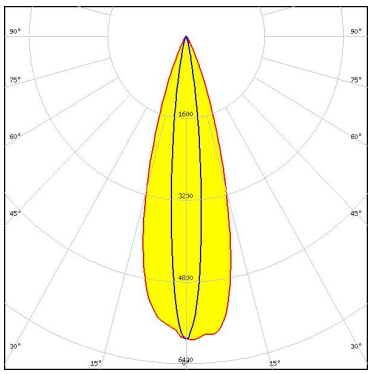


Light distribution files

OSRAM
Opto Semiconductors

LED	OSLON Black Flat (LUW HWQP)
FWHM / FWTM	31.0 + 12.0° / 50.0 + 24.0°
Efficiency	87 %
Peak intensity	6 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

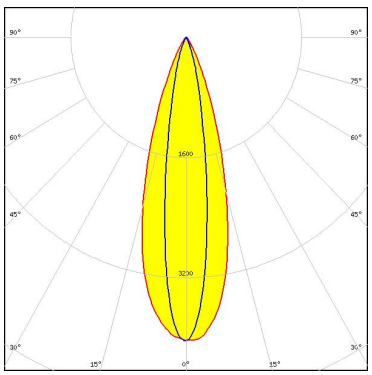




Light distribution files

OSRAM
Opto Semiconductors

LED	OSLON Square CSSRM2/CSSRM3
FWHM / FWTM	32.0 + 16.0° / 55.0 + 36.0°
Efficiency	87 %
Peak intensity	4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

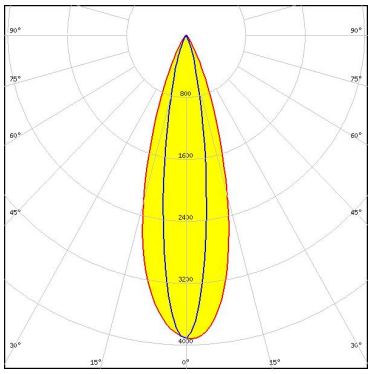


Light distribution files

OPTICAL RESULTS (MEASURED):

OSRAM
Opto Semiconductors

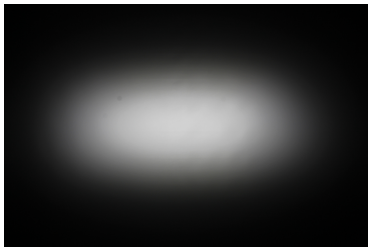
LED	OSLON Square EC
FWHM / FWTM	33.0 + 17.0° / 57.0 + 37.0°
Efficiency	84 %
Peak intensity	3.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

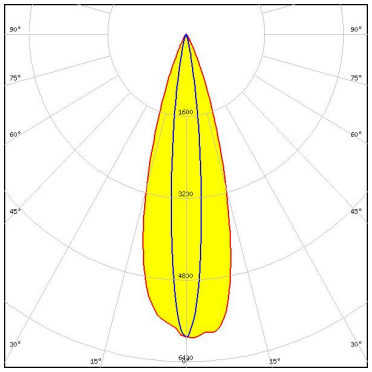


Light distribution files

OSRAM
Opto Semiconductors

LED	OSLON Square Flat
FWHM / FWTM	31.0 + 12.0° / 50.0 + 24.0°
Efficiency	87 %
Peak intensity	5.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	





Light distribution files

OSRAM
Opto Semiconductors

LED	OSLON Square PC
FWHM / FWTM	33.0 + 13.0° / 56.0 + 34.0°
Efficiency	87 %
Peak intensity	3.8 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

Light distribution files

OPTICAL RESULTS (MEASURED):

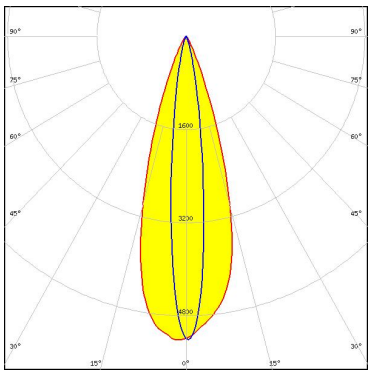
OSRAM
Opto Semiconductors

LED	OSLON SSL 150
FWHM / FWTM	38.0 + 13.0° / 59.0 + 30.0°
Efficiency	87 %
Peak intensity	3.7 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

Light distribution files

OSRAM
Opto Semiconductors

LED	OSLON SSL 150
FWHM / FWTM	33.0 + 13.0° / 52.0 + 28.0°
Efficiency	86 %
Peak intensity	5.2 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

LED	OSLON SSL 80
FWHM / FWTM	35.0 + 12.0° / 56.0 + 30.0°
Efficiency	86 %
Peak intensity	3.8 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

Light distribution files

OPTICAL RESULTS (MEASURED):

OSRAM
Opto Semiconductors

LED	SFH 4170S
FWHM / FWTM	30.0 + 10.0° / 50.0 + 26.0°
Efficiency	%
LEDs/each optic	1
Light colour/type	IR
Required components:	

Light distribution files

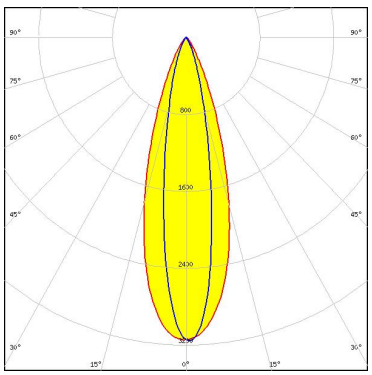
OSRAM
Opto Semiconductors

LED	SFH 4180S
FWHM / FWTM	31.0 + 10.0° / 50.0 + 27.0°
Efficiency	%
LEDs/each optic	1
Light colour/type	IR
Required components:	

Light distribution files

SEOUL SEMICONDUCTOR

LED	Z5M3
FWHM / FWTM	33.0 + 19.0° / 59.0 + 42.0°
Efficiency	82 %
Peak intensity	3.2 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

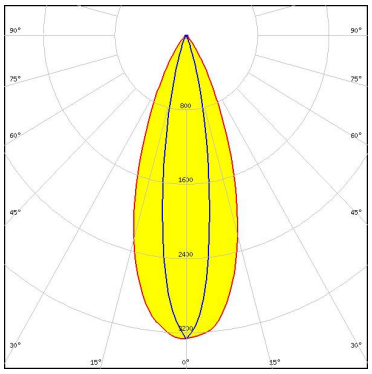


Light distribution files

OPTICAL RESULTS (SIMULATED):

CREE LEDs

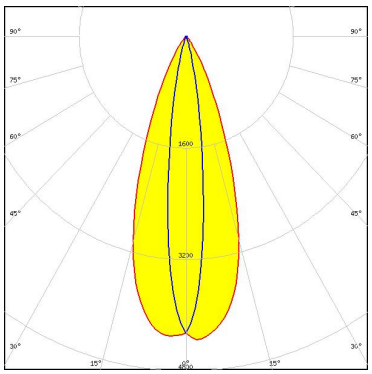
LED	XB-D
FWHM / FWTM	39.0 + 18.0° / 67.0 + 36.0°
Efficiency	86 %
Peak intensity	3.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

CREE LEDs

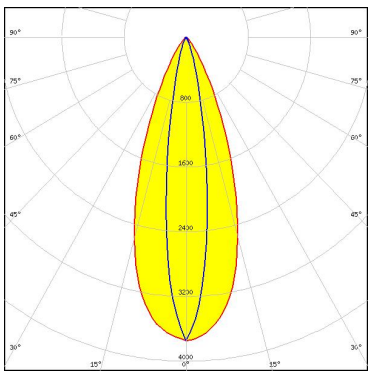
LED	XE-G
FWHM / FWTM	38.0 + 14.0° / 62.0 + 28.0°
Efficiency	89 %
Peak intensity	4.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

LUMILEDS

LED	LUXEON 2835 Line
FWHM / FWTM	38.0 + 16.0° / 66.0 + 34.0°
Efficiency	96 %
Peak intensity	3.7 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

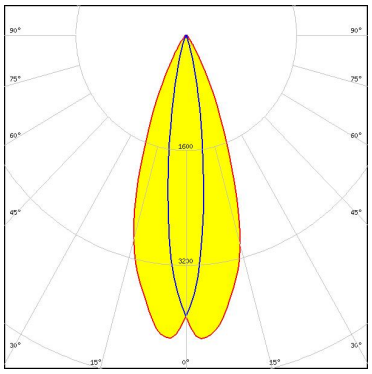


Light distribution files

OPTICAL RESULTS (SIMULATED):

LUMILEDS

LED	LUXEON C
FWHM / FWTM	14.0 + 37.0° / 30.0 + 60.0°
Efficiency	93 %
Peak intensity	4.2 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

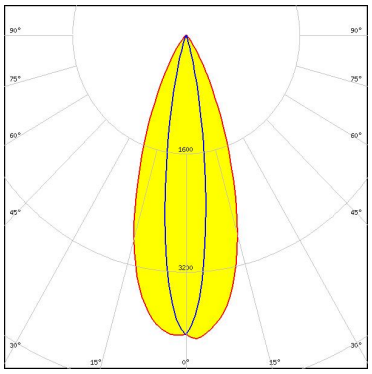
LUMILEDS

LED	LUXEON IR Compact
FWHM / FWTM	37.0 + 13.0° / 60.0 + 27.0°
Efficiency	82 %
LEDs/each optic	1
Light colour/type	White
Required components:	

Light distribution files

LUMILEDS

LED	LUXEON Rubix
FWHM / FWTM	38.0 + 16.0° / 65.0 + 30.0°
Efficiency	91 %
Peak intensity	4.1 cd/lm
LEDs/each optic	1
Light colour/type	Red
Required components:	

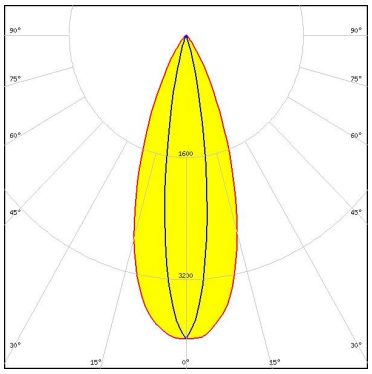


Light distribution files

OPTICAL RESULTS (SIMULATED):

LUMILEDS

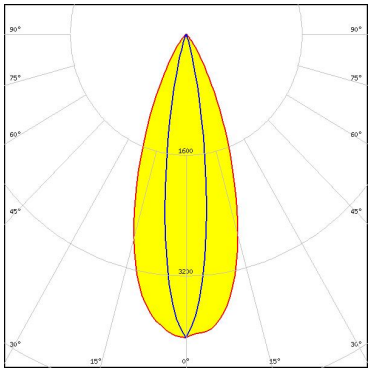
LED	LUXEON Rubix
FWHM / FWTM	38.0 + 16.0° / 65.0 + 31.0°
Efficiency	90 %
Peak intensity	4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

LUMILEDS

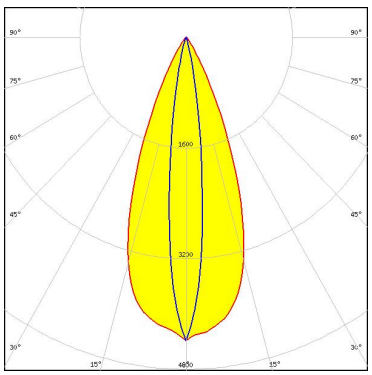
LED	LUXEON Rubix
FWHM / FWTM	38.0 + 16.0° / 66.0 + 30.0°
Efficiency	91 %
Peak intensity	4 cd/lm
LEDs/each optic	1
Light colour/type	Blue
Required components:	



Light distribution files

NICHIA

LED	NCSxE17A
FWHM / FWTM	42.0 + 13.0° / 62.0 + 26.0°
Efficiency	87 %
Peak intensity	4.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

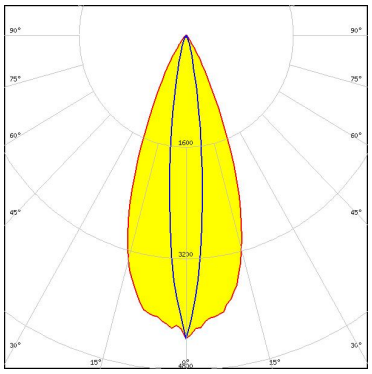


Light distribution files

OPTICAL RESULTS (SIMULATED):

NICHIA

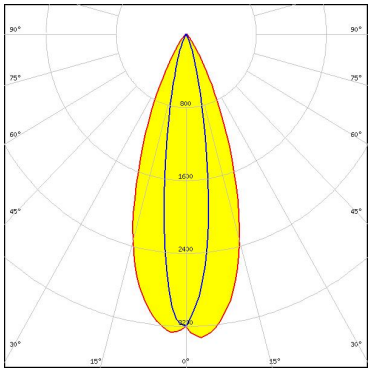
LED	NFSx757G
FWHM / FWTM	41.0 + 13.0° / 63.0 + 29.0°
Efficiency	90 %
Peak intensity	4.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

NICHIA

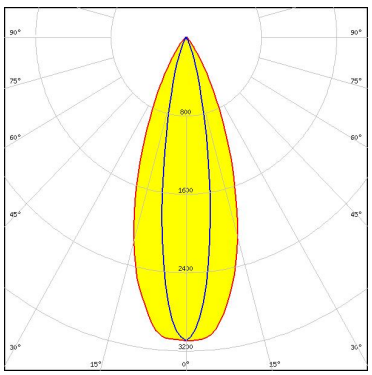
LED	NVSxx19B/NVSxx19C
FWHM / FWTM	39.0 + 17.0° / 66.0 + 36.0°
Efficiency	86 %
Peak intensity	3.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

NICHIA

LED	NVSxx19B/NVSxx19C
FWHM / FWTM	39.0 + 18.0° / 68.0 + 39.0°
Efficiency	85 %
Peak intensity	3.1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

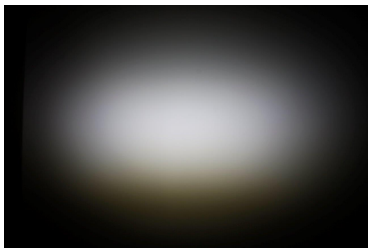


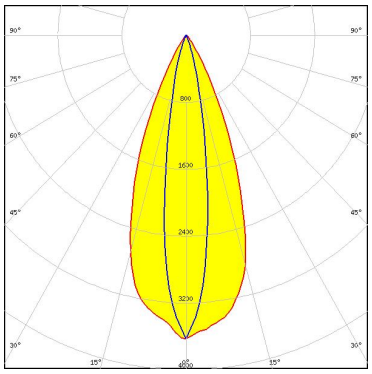
Light distribution files

OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

LED	Duris S5 (2 chip)
FWHM / FWTM	41.0 + 17.0° / 64.0 + 34.0°
Efficiency	91 %
Peak intensity	3.6 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

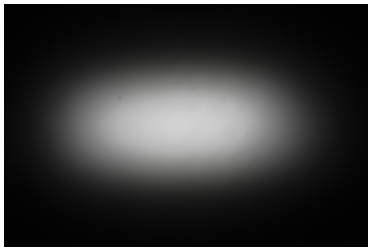


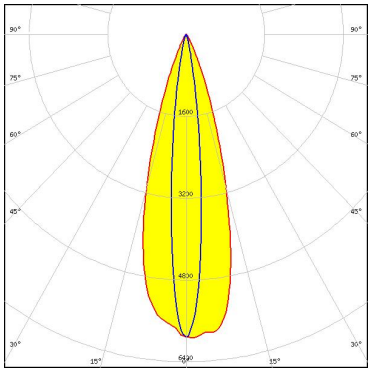


Light distribution files

OSRAM
Opto Semiconductors

LED	OSLON Black Flat (LUW HWQP)
FWHM / FWTM	31.0 + 12.0° / 50.0 + 24.0°
Efficiency	87 %
Peak intensity	6.2 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

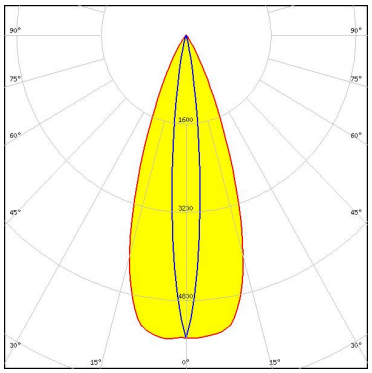




Light distribution files

OSRAM
Opto Semiconductors

LED	OSLON Pure 1414
FWHM / FWTM	38.0 + 12.0° / 60.0 + 24.0°
Efficiency	91 %
Peak intensity	5.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

OPTICAL RESULTS (SIMULATED):

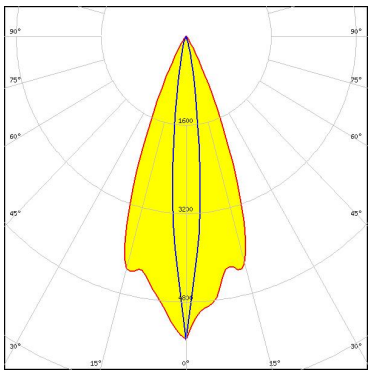
OSRAM
Opto Semiconductors

LED	SFH 4770S
FWHM / FWTM	41.0 + 16.0° / 63.0 + 33.0°
Efficiency	85 %
Peak intensity	3.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

Light distribution files

OSRAM
Opto Semiconductors

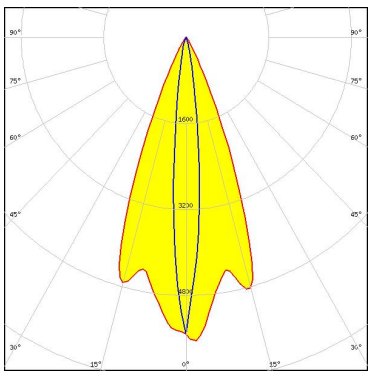
LED	Synios P2720 1 mm
FWHM / FWTM	41.0 + 11.0° / 57.0 + 23.0°
Efficiency	91 %
Peak intensity	5.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

OSRAM
Opto Semiconductors

LED	Synios P2720 1/2 mm
FWHM / FWTM	41.0 + 10.0° / 56.0 + 23.0°
Efficiency	91 %
Peak intensity	5.7 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

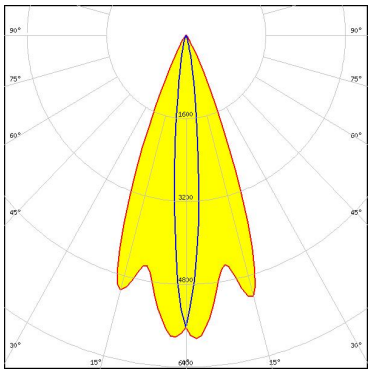


Light distribution files

OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

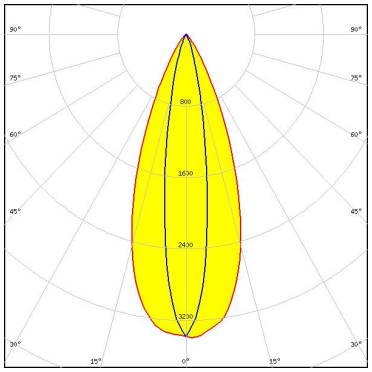
LED	Synios P2720 1/4 mm
FWHM / FWTM	41.0 + 9.0° / 56.0 + 22.0°
Efficiency	91 %
Peak intensity	6 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

SAMSUNG

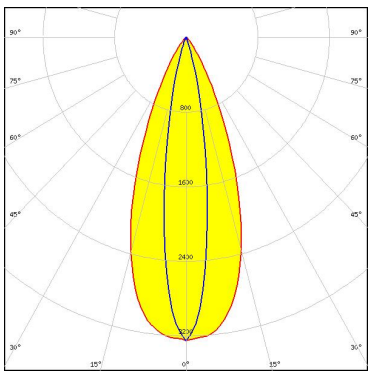
LED	LM302D
FWHM / FWTM	40.0 + 16.0° / 66.0 + 36.0°
Efficiency	88 %
Peak intensity	3.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

SEOUL SEMICONDUCTOR

LED	Z8Y15
FWHM / FWTM	40.0 + 17.0° / 66.0 + 32.0°
Efficiency	82 %
Peak intensity	3.3 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.

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 7
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
Poznan, Poland
Hong Kong, China

Distribution Partners
www.ledil.com/
where_to_buy