

TINA2-M

~30° medium beam. Assembly with holder, installation tape and location pins.



SPECIFICATION:

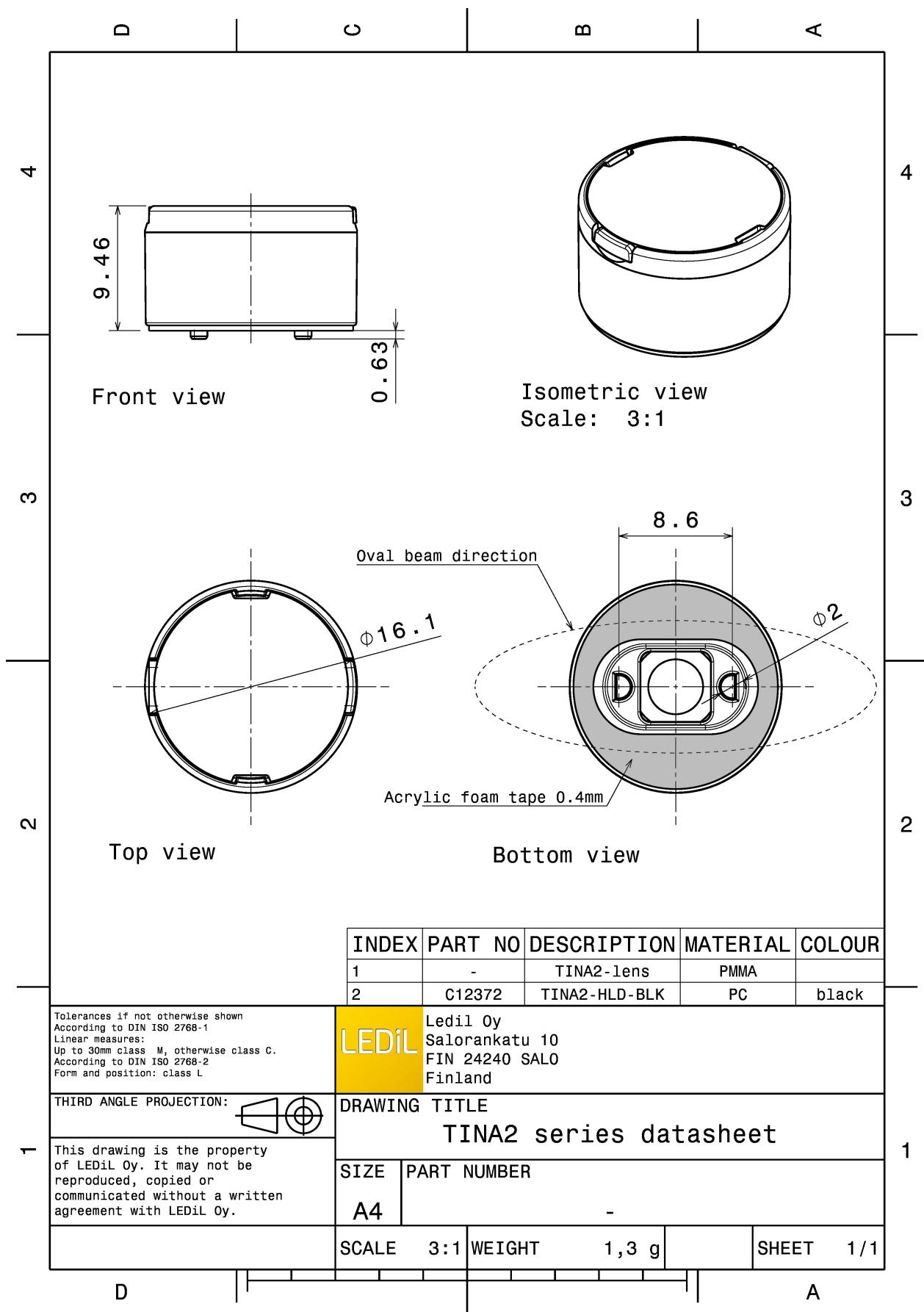
Dimensions	Ø 16.0 mm
Height	9.5 mm
Fastening	tape, pin
ROHS compliant	yes ⓘ

MATERIALS:

Component	Type	Material	Colour	Finish
TINA2-XP-M	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)
CA12377_TINA2-M » Box size: 451 x 241 x 298 mm	Single lens	4140	230	230

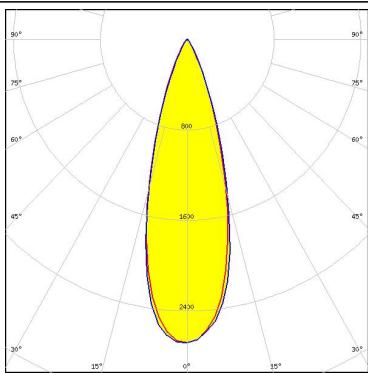


See also our general installation guide: www.ledil.com/installation_guide

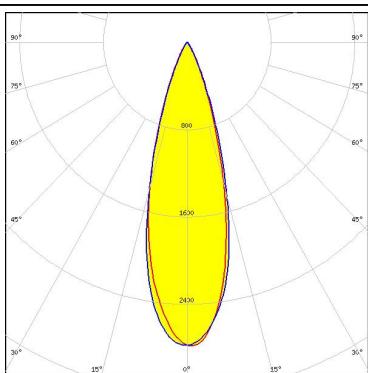
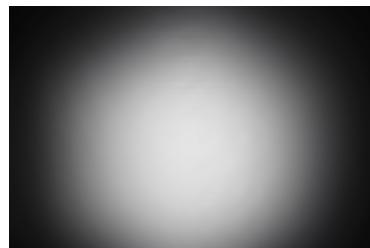
OPTICAL RESULTS (MEASURED):



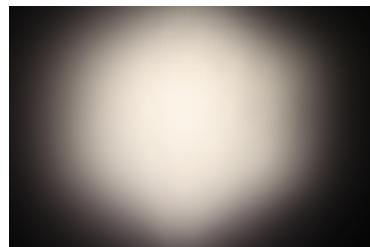
LED XB-H
FWHM / FWTM 31.0° / 54.0°
Efficiency 85 %
Peak intensity 2.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:



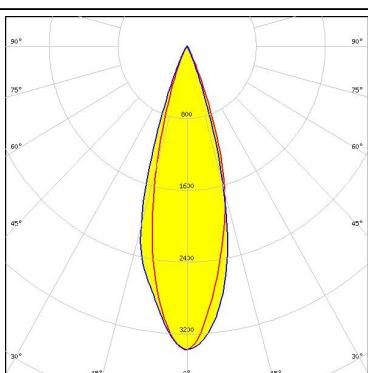
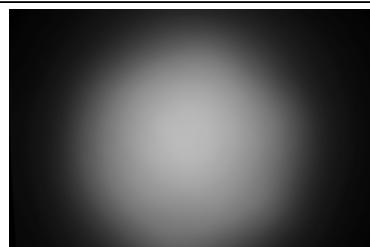
LED XD16
FWHM / FWTM 30.0° / 52.0°
Efficiency 83 %
Peak intensity 2.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LED XQ-E HD
FWHM / FWTM 29.0° / 51.0°
Efficiency 84 %
Peak intensity 3.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



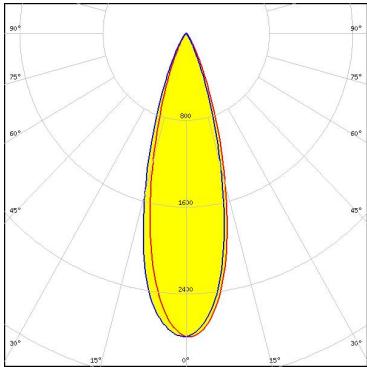
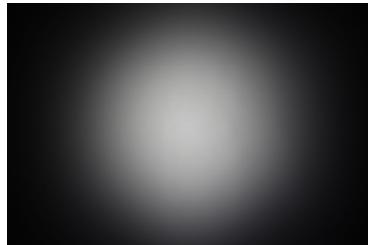
LED LUXEON CZ
FWHM / FWTM 28.0° / 47.0°
Efficiency 89 %
Peak intensity 3.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OPTICAL RESULTS (MEASURED):

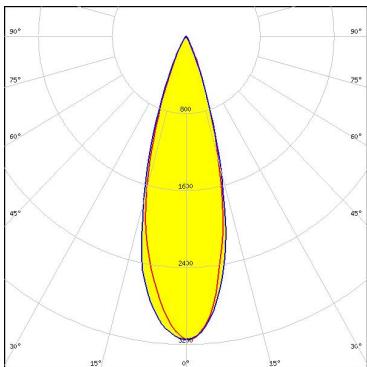
LUMILEDS

LED LUXEON TX
FWHM / FWTM 30.0° / 53.0°
Efficiency 86 %
Peak intensity 2.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:



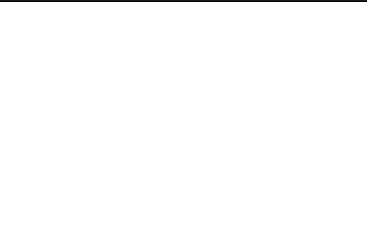
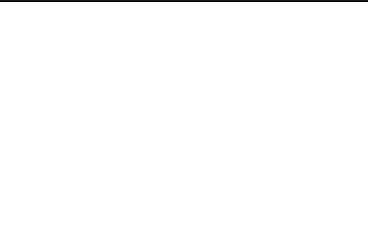
LUMILEDS

LED LUXEON Z ES
FWHM / FWTM 31.0° / 50.0°
Efficiency 88 %
Peak intensity 3.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



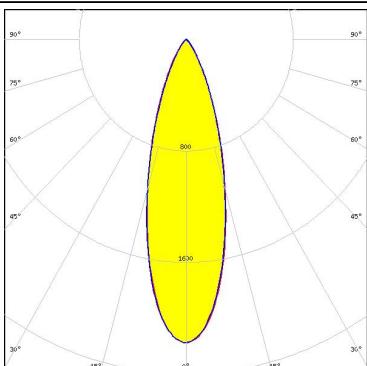
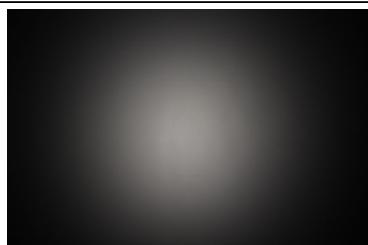
NICHIA

LED NVSxx19B/NVSxx19C
FWHM / FWTM 29.0° / 55.0°
Efficiency 85 %
Peak intensity 2.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:



NICHIA

LED NWSx229A
FWHM / FWTM 26.0° / 52.0°
Efficiency 86 %
Peak intensity 2.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:

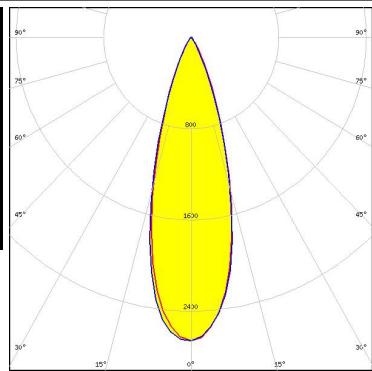


OPTICAL RESULTS (MEASURED):

OSRAM

Opto Semiconductors

LED OSLON Square EC
FWHM / FWTM 30.0° / 54.0°
Efficiency 85 %
Peak intensity 2.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OSRAM

Opto Semiconductors

LED OSLON Square PC
FWHM / FWTM 29.0° / 53.0°
Efficiency 86 %
Peak intensity 2.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:

OSRAM

Opto Semiconductors

LED SFH 4170S
FWHM / FWTM 28.0° / 50.0°
Efficiency %
LEDs/each optic 1
Light colour IR
Required components:

OSRAM

Opto Semiconductors

LED SFH 4180S
FWHM / FWTM 29.0° / 49.0°
Efficiency %
LEDs/each optic 1
Light colour IR
Required components:

OPTICAL RESULTS (MEASURED):

OSRAM

Opto Semiconductors

LED SFH 4715S

FWHM / FWTM 28.0° / 56.0°

Efficiency %

LEDs/each optic 1

Light colour IR

Required components:

OSRAM

Opto Semiconductors

LED SFH 4725S

FWHM / FWTM 27.0° / 54.0°

Efficiency %

LEDs/each optic 1

Light colour IR

Required components:

SEoul SEMICONDUCTOR

Opto Semiconductors

LED Z5M3

FWHM / FWTM 30.0° / 57.0°

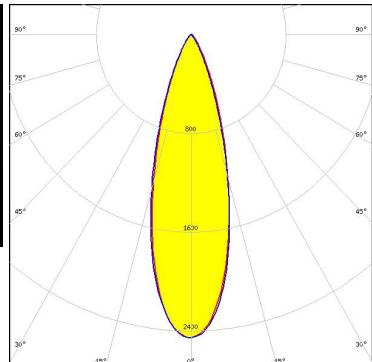
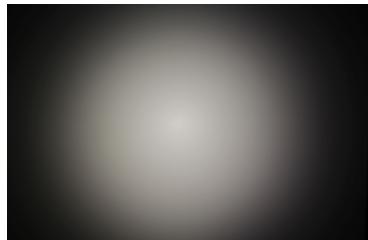
Efficiency 83 %

Peak intensity 2.5 cd/lm

LEDs/each optic 1

Light colour White

Required components:

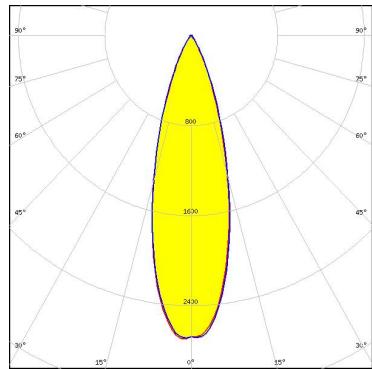


OPTICAL RESULTS (SIMULATED):



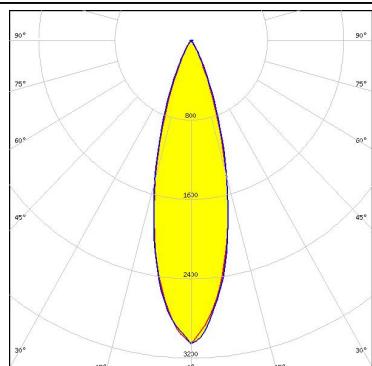
LED	XB-D
FWHM / FWTM	30.0° / 55.0°
Efficiency	86 %
Peak intensity	2.7 cd/lm
LEDs/each optic	1
Light colour	White

Required components:



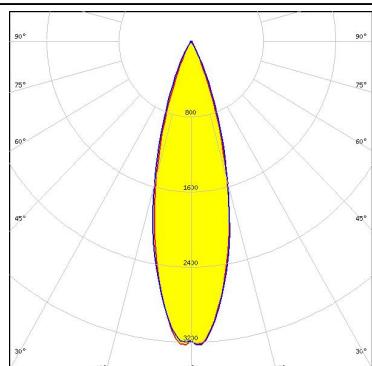
LED	XE-G
FWHM / FWTM	29.0° / 53.0°
Efficiency	89 %
Peak intensity	3.1 cd/lm
LEDs/each optic	1
Light colour	White

Required components:



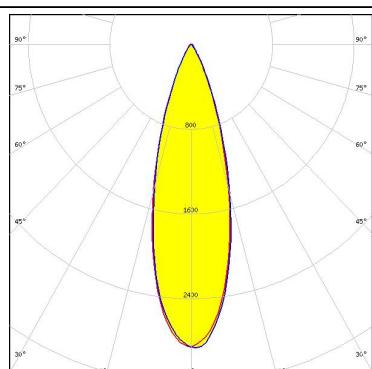
LED	XQ-E HI
FWHM / FWTM	29.0° / 51.0°
Efficiency	90 %
Peak intensity	3.2 cd/lm
LEDs/each optic	1
Light colour	White

Required components:



LED	LUXEON 2835 Line
FWHM / FWTM	30.0° / 55.0°
Efficiency	96 %
Peak intensity	2.9 cd/lm
LEDs/each optic	1
Light colour	White

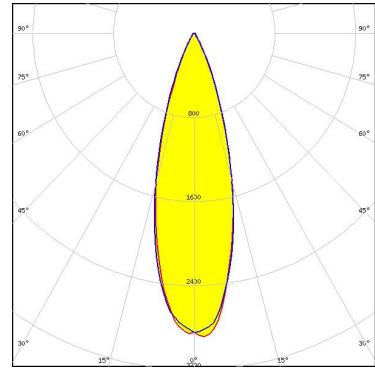
Required components:



OPTICAL RESULTS (SIMULATED):

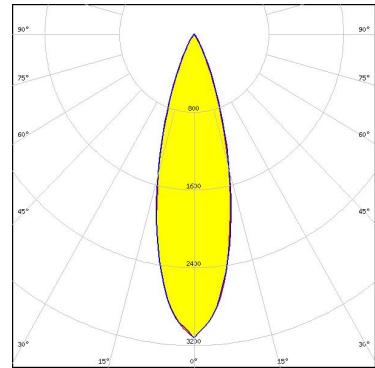
LUMILEDS

LED LUXEON C
FWHM / FWTM 30.0° / 52.0°
Efficiency 93 %
Peak intensity 2.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:



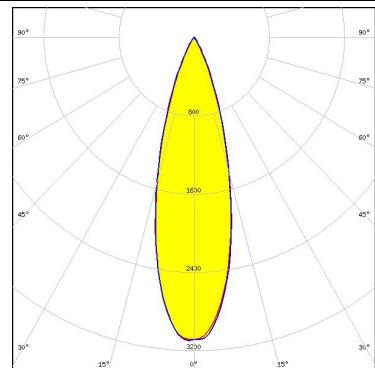
LUMILEDS

LED LUXEON IR Compact
FWHM / FWTM 29.0° / 51.0°
Efficiency 83 %
LEDs/each optic 1
Light colour IR
Required components:



LUMILEDS

LED LUXEON Rubix
FWHM / FWTM 28.0° / 53.0°
Efficiency 91 %
Peak intensity 3.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



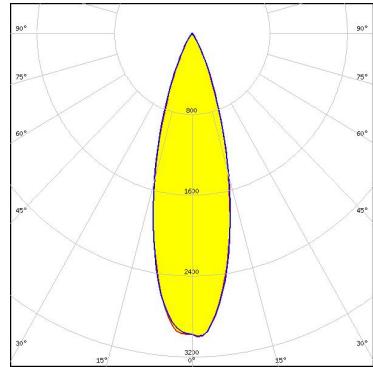
LUMILEDS

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

OPTICAL RESULTS (SIMULATED):

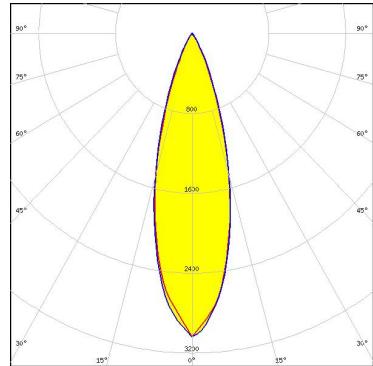
LUMILEDS

LED LUXEON Rubix
FWHM / FWTM 30.0° / 53.0°
Efficiency 91 %
Peak intensity 3 cd/lm
LEDs/each optic 1
Light colour Blue
Required components:



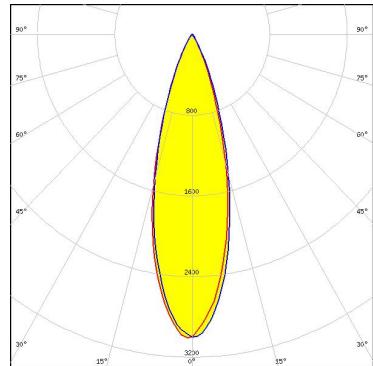
LUMILEDS

LED LUXEON SunPlus 20 Line (150 deg)
FWHM / FWTM 30.0° / 53.0°
Efficiency 89 %
Peak intensity 3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



NICHIA

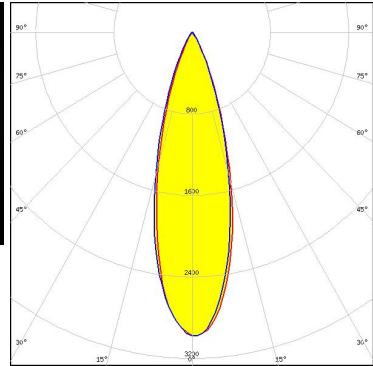
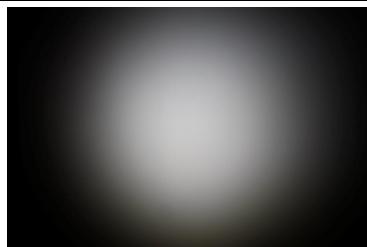
LED NFSx757G
FWHM / FWTM 29.0° / 53.0°
Efficiency 90 %
Peak intensity 3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OSRAM

Opto Semiconductors

LED Duris S5 (2 chip)
FWHM / FWTM 29.0° / 54.0°
Efficiency 92 %
Peak intensity 3 cd/lm
LEDs/each optic 1
Light colour White
Required components:

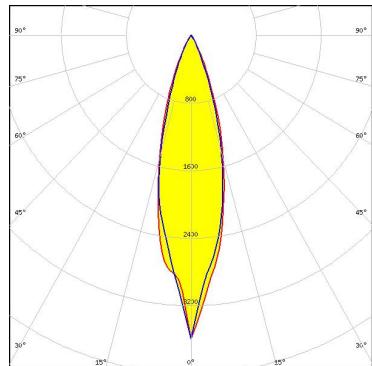


OPTICAL RESULTS (SIMULATED):

OSRAM

Opto Semiconductors

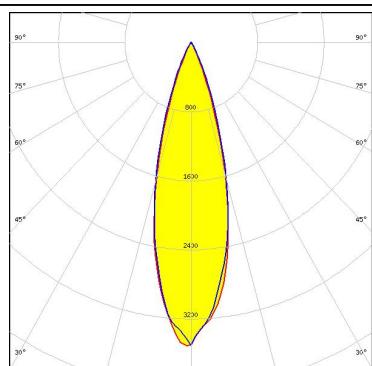
LED OSONIQ P 3030
FWHM / FWTM 26.0° / 50.0 + 52.0°
Efficiency 90 %
Peak intensity 3.6 cd/lm
LEDs/each optic 1
Light colour Blue
Required components:



OSRAM

Opto Semiconductors

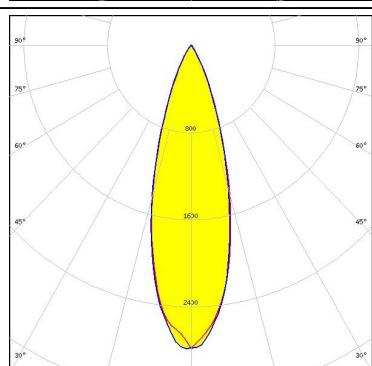
LED OSLON Black Flat (LUW HWQP)
FWHM / FWTM 28.0° / 49.0°
Efficiency 91 %
Peak intensity 3.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OSRAM

Opto Semiconductors

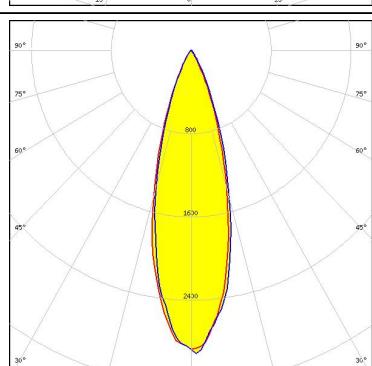
LED OSLON Square CSSRM2/CSSRM3
FWHM / FWTM 30.0° / 56.0°
Efficiency 90 %
Peak intensity 2.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OSRAM

Opto Semiconductors

LED OSLON Square CSSRM2/CSSRM3
FWHM / FWTM 29.0° / 54.0°
Efficiency 90 %
Peak intensity 2.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:



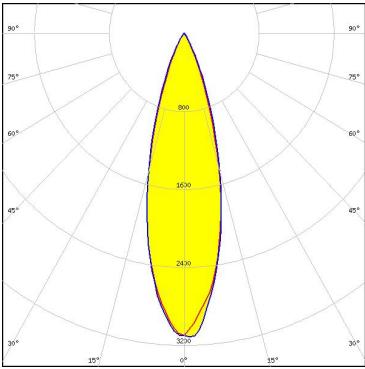
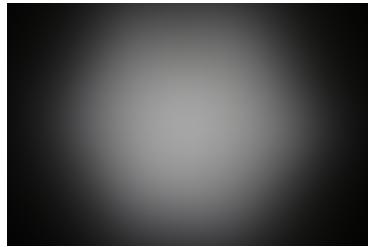
OPTICAL RESULTS (SIMULATED):

OSRAM

Opto Semiconductors

LED	OSLON Square Flat
FWHM / FWTM	29.0° / 52.0°
Efficiency	89 %
Peak intensity	3.1 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

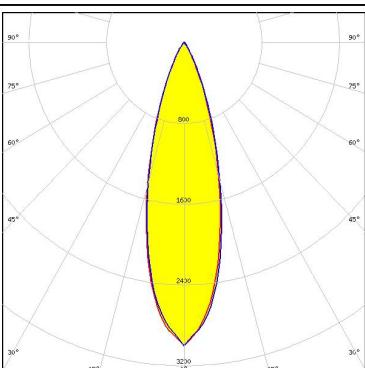


OSRAM

Opto Semiconductors

LED	OSLON SSL 150
FWHM / FWTM	29.0° / 54.0°
Efficiency	90 %
Peak intensity	3 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

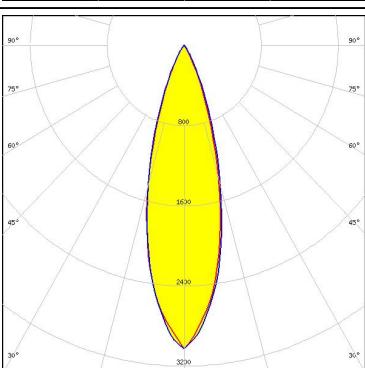


OSRAM

Opto Semiconductors

LED	OSLON SSL 80
FWHM / FWTM	29.0° / 53.0°
Efficiency	89 %
Peak intensity	3 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

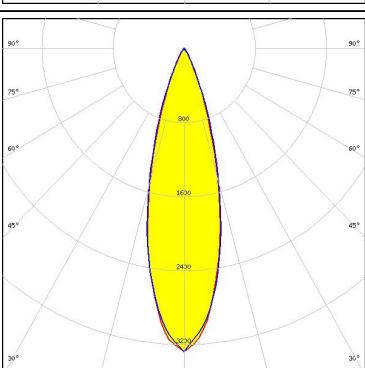


OSRAM

Opto Semiconductors

LED	SFH 4715S
FWHM / FWTM	28.0° / 51.0°
Efficiency	90 %
LEDs/each optic	1
Light colour	IR

Required components:



OPTICAL RESULTS (SIMULATED):

OSRAM

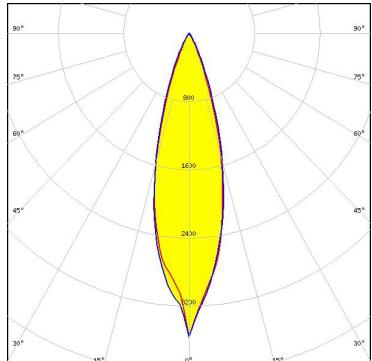
Opto Semiconductors

LED SFH 4770S
FWHM / FWTM 27.0° / 51.0°
Efficiency 85 %
LEDs/each optic 1
Light colour IR
Required components:

OSRAM

Opto Semiconductors

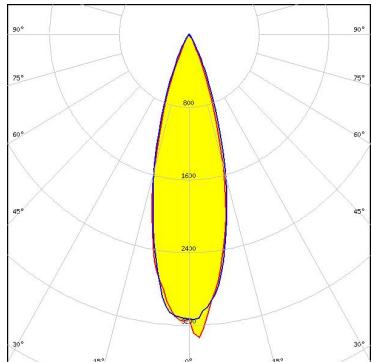
LED Synios P2720 1 mm
FWHM / FWTM 27.0° / 50.0°
Efficiency 91 %
Peak intensity 3.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OSRAM

Opto Semiconductors

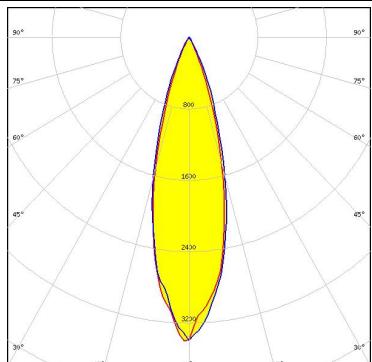
LED Synios P2720 1/2 mm
FWHM / FWTM 29.0° / 51.0°
Efficiency 93 %
Peak intensity 3.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OSRAM

Opto Semiconductors

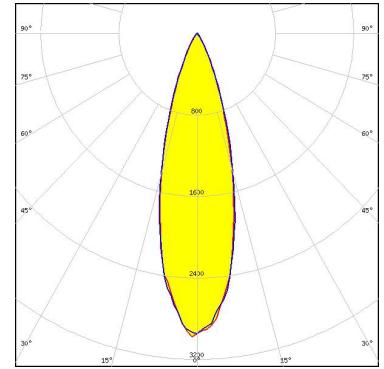
LED Synios P2720 1/4 mm
FWHM / FWTM 28.0° / 50.0°
Efficiency 91 %
Peak intensity 3.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OPTICAL RESULTS (SIMULATED):

SAMSUNG

LED LH181B
FWHM / FWTM 29.0° / 53.5°
Efficiency 90 %
Peak intensity 3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



GENERAL INFORMATION:

NOTE: The typical beam angle will be changed by different color, chip size and chip position tolerance. The typical total beam angle is the full angle measured where the luminous intensity is half of the peak value.

MATERIALS:

As part of our continuous research and improvement processes, and to ensure the best possible quality and availability of our products, LEDiL reserves the right to change material grades without notice.

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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