TINA3-S

~13° spot beam optimized for CREE XP-E. Assembly with holder, installation tape and location pins.

SPECIFICATION:

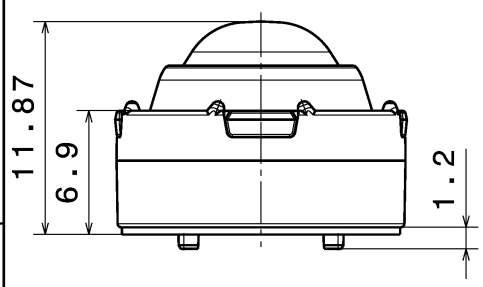
Dimensions	Ø 16.1 mm
Height	11.4 mm
Fastening	tape, pin
ROHS compliant	yes

MATERIALS:

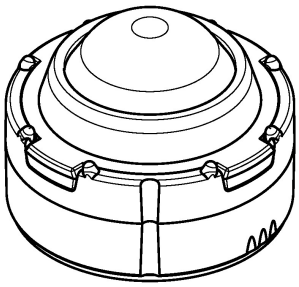
Component	Type	Material	Colour	Finish
TINA3-S	Single lens	PMMA	clear	
TINA3-HLD-PIN-TAPE-XP	Holder	PC	white	
TINA-TAPE3	Tape	Acrylic foam	black	

ORDERING INFORMATION:

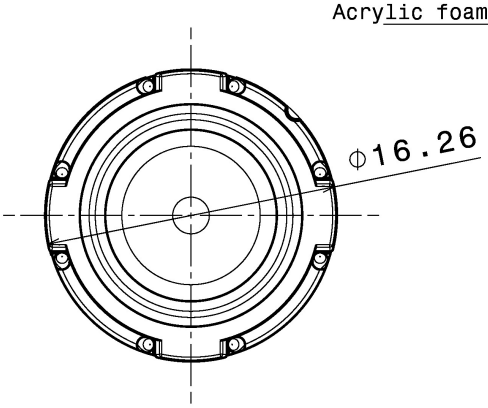
Component		Qty in box	MOQ	MPQ	Box weight (kg)
FA11905_TINA3-S	Single lens	2016	288	288	3.7
» Box size:					



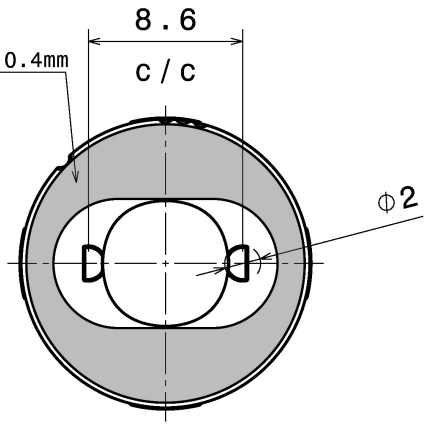
Front view



Isometric view
Scale: 3:1



Top view



Bottom view

INDEX	PART NO	DESCRIPTION	MATERIAL	COLOUR
1	F11823	TINA3-HLD-PIN-TAPE-XP	PC	white
2	F11872	TINA3-S	PMMA	
3	F11840	TINA-TAPE3	Acrylic 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
Salorankatu 10
FIN 24240 SALO
Finland

THIRD ANGLE PROJECTION:

DRAWING TITLE
FA11905_TINA3-S

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

SIZE A4 | PART NUMBER FA11905

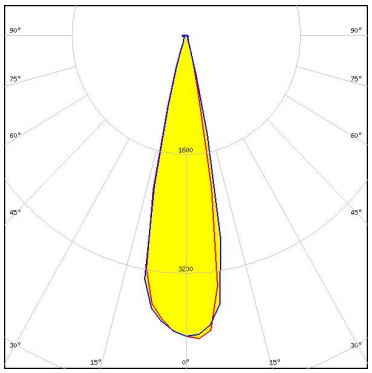
SCALE 3:1 | WEIGHT 1,7 g | SHEET 1/1

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

OPTICAL RESULTS (MEASURED):

CREE LEDs

LED	XM-L
FWHM / FWTM	23.0° / 30.0°
Efficiency	86 %
Peak intensity	3.4 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

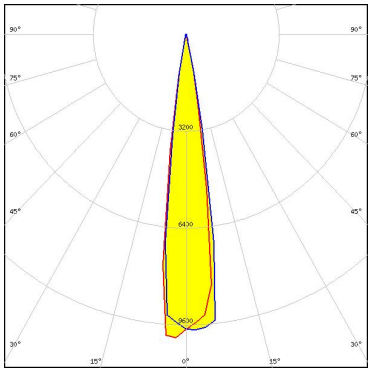


CREE LEDs

LED	XP-E
FWHM / FWTM	10.0° / 16.0°
Efficiency	86 %
Peak intensity	15.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

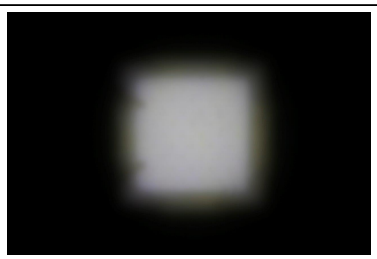
CREE LEDs

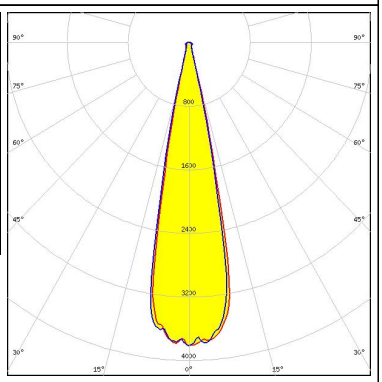
LED	XP-G
FWHM / FWTM	15.0° / 25.0°
Efficiency	86 %
Peak intensity	6.7 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



CREE LEDs

LED	XP-L HD
FWHM / FWTM	23.0° / 32.0°
Efficiency	87 %
Peak intensity	3.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



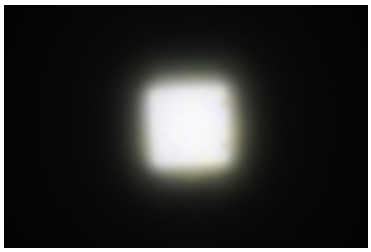


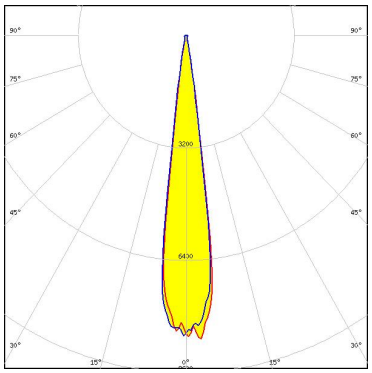
OPTICAL RESULTS (MEASURED):

CREE LEDs

LED	XP-L HI
FWHM / FWTM	15.0° / 22.0°
Efficiency	88 %
Peak intensity	8.9 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

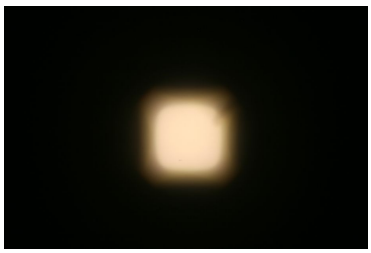




LUMILEDS

LED	LUXEON A
FWHM / FWTM	16.0° / 23.0°
Efficiency	83 %
Peak intensity	6.7 cd/lm
LEDs/each optic	1
Light colour	White

Required components:



LUMILEDS

LED	LUXEON Rebel
FWHM / FWTM	11.0° / 18.0°
Efficiency	83 %
Peak intensity	12.9 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

LUMILEDS

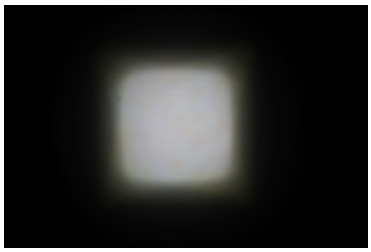
LED	LUXEON Rebel ES
FWHM / FWTM	18.5° / 22.0°
Efficiency	82 %
Peak intensity	6.9 cd/lm
LEDs/each optic	1
Light colour	White

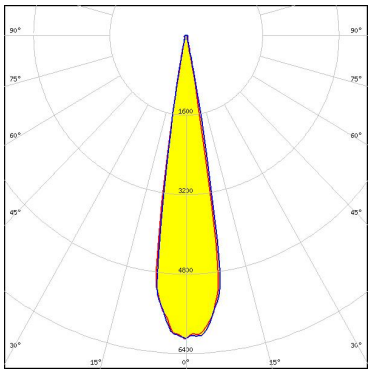
Required components:

OPTICAL RESULTS (MEASURED):

NICHIA

LED	NVSW219F
FWHM / FWTM	18.0° / 24.0°
Efficiency	85 %
Peak intensity	6.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



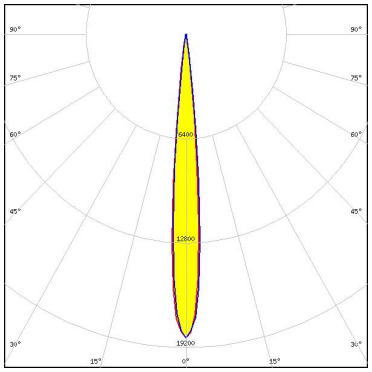


NICHIA

LED	NVSxx19A
FWHM / FWTM	16.5° / 23.0°
Efficiency	87 %
Peak intensity	6.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OSRAM
Opto Semiconductors

LED	OSLON SSL 150
FWHM / FWTM	9.0° / 14.0°
Efficiency	84 %
Peak intensity	18.4 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



OSRAM
Opto Semiconductors

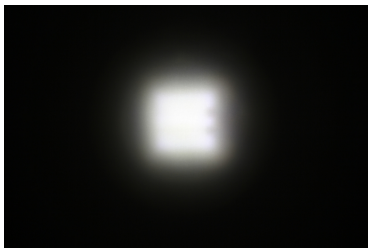
LED	OSLON SSL 80
FWHM / FWTM	11.0° / 17.0°
Efficiency	86 %
Peak intensity	14 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (MEASURED):

SEOUL SEMICONDUCTOR

LED	Z5
FWHM / FWTM	10.0° / 17.0°
Efficiency	80 %
Peak intensity	16.4 cd/lm
LEDs/each optic	1
Light colour	White

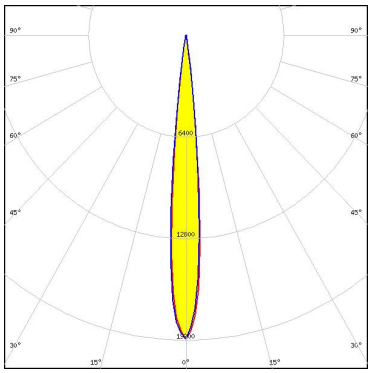
Required components:



OPTICAL RESULTS (SIMULATED):

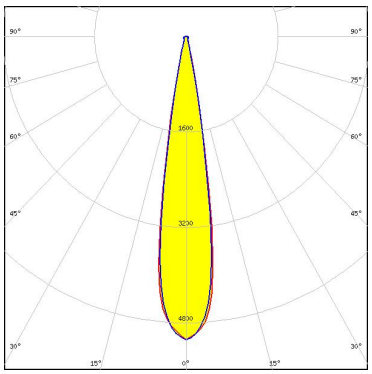
CREE LEDs

LED	XP-E2
FWHM / FWTM	10.0° / 17.0°
Efficiency	92 %
Peak intensity	19.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



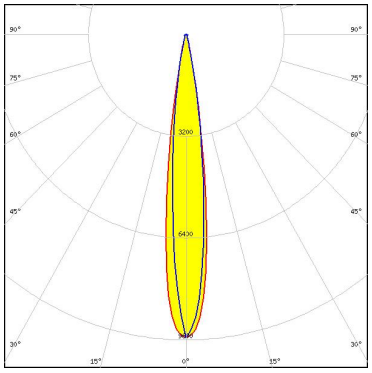
CREE LEDs

LED	XP-G3
FWHM / FWTM	18.0° / 28.0°
Efficiency	78 %
Peak intensity	5.1 cd/lm
LEDs/each optic	1
Light colour	Blue
Required components:	



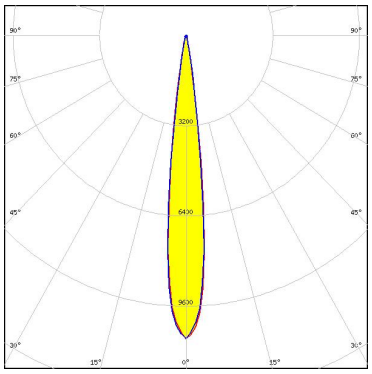
LUMILEDS

LED	LUXEON 2835 Line
FWHM / FWTM	13.0° / 25.0°
Efficiency	91 %
Peak intensity	9.5 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



LUMINUS

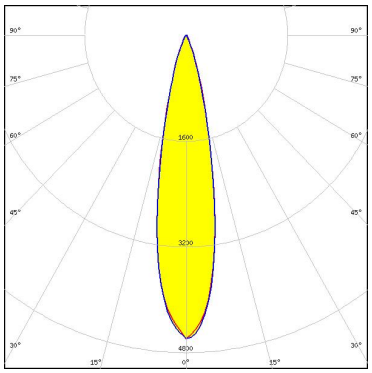
LED	SST-20
FWHM / FWTM	12.0° / 22.0°
Efficiency	86 %
Peak intensity	10.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



OPTICAL RESULTS (SIMULATED):

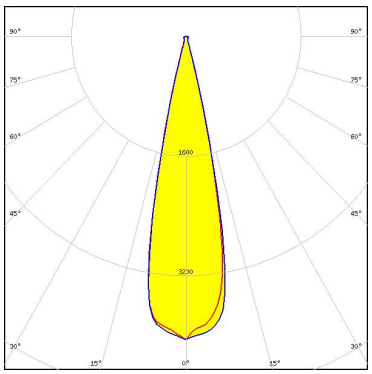
NICHIA

LED	NV4WB35AM
FWHM / FWTM	22.0° / 41.0°
Efficiency	90 %
Peak intensity	4.6 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



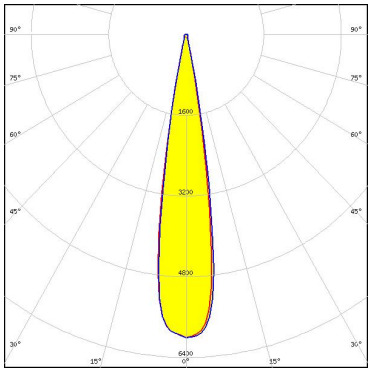
NICHIA

LED	NVSW519A
FWHM / FWTM	24.0° / 32.0°
Efficiency	82 %
Peak intensity	4.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



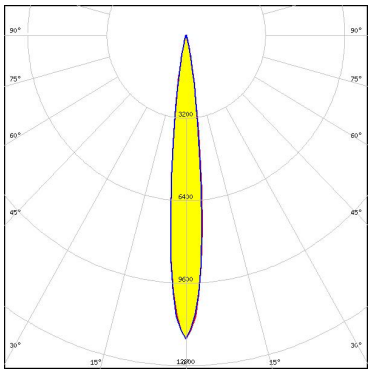
NICHIA

LED	NVSxx19B/NVSxx19C
FWHM / FWTM	18.0° / 26.0°
Efficiency	83 %
Peak intensity	6 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



OSRAM
Opto Semiconductors

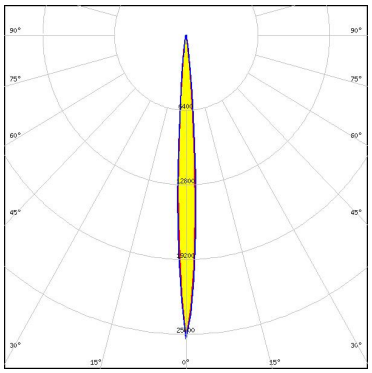
LED	OSLON Black
FWHM / FWTM	12.0° / 23.0°
Efficiency	86 %
Peak intensity	11.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



OPTICAL RESULTS (SIMULATED):

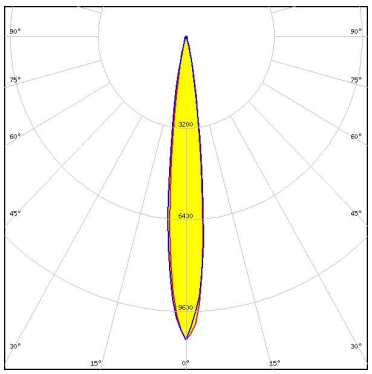
OSRAM
Opto Semiconductors

LED	SFH 4714A
FWHM / FWTM	7.0° / 14.0°
Efficiency	84 %
Peak intensity	26 cd/lm
LEDs/each optic	1
Light colour	IR
Required components:	



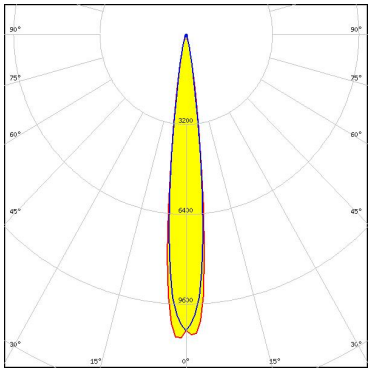
OSRAM
Opto Semiconductors

LED	SFH 4715AS
FWHM / FWTM	13.0° / 25.0°
Efficiency	88 %
LEDs/each optic	1
Light colour	IR
Required components:	



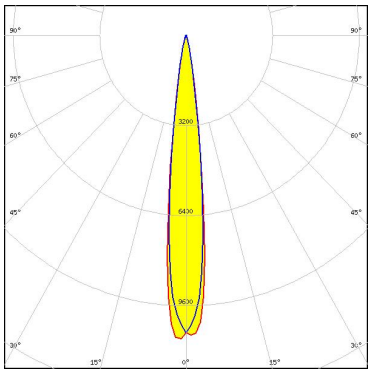
OSRAM
Opto Semiconductors

LED	SFH 4715S
FWHM / FWTM	13.0° / 24.0°
Efficiency	87 %
LEDs/each optic	1
Light colour	IR
Required components:	



OSRAM
Opto Semiconductors

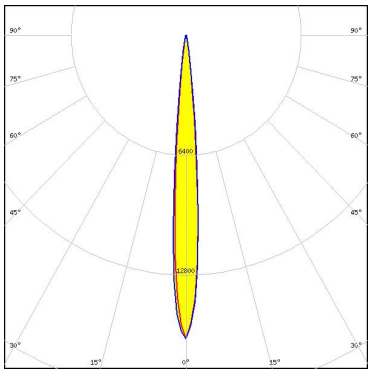
LED	SFH 4725S
FWHM / FWTM	13.0° / 24.0°
Efficiency	87 %
LEDs/each optic	1
Light colour	IR
Required components:	



OPTICAL RESULTS (SIMULATED):

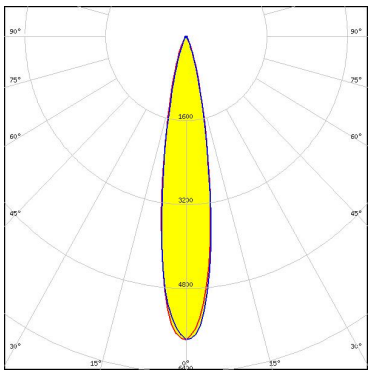
OSRAM
Opto Semiconductors

LED	SFH 4726S
FWHM / FWTM	9.0° / 17.0°
Efficiency	84 %
LEDs/each optic	1
Light colour	IR
Required components:	



SEOUL SEMICONDUCTOR

LED	Z8Y22
FWHM / FWTM	15.0° / 29.0°
Efficiency	80 %
Peak intensity	5.4 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.

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