TINA2-M

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

SPECIFICATION:

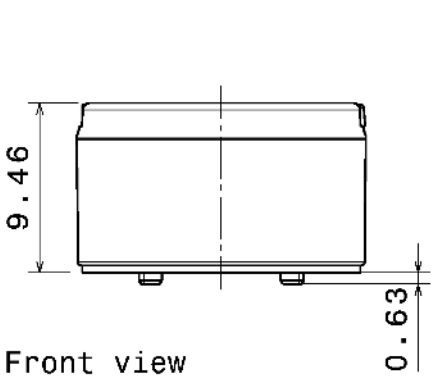
Dimensions	Ø 16.0 mm
Height	9.5 mm
Fastening	tape, pin
ROHS compliant	yes

MATERIALS:

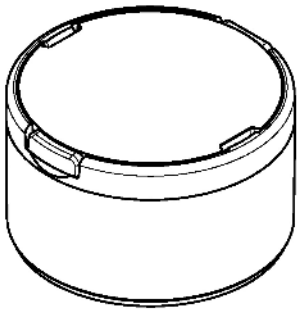
Component	Type	Material	Colour	Finish
TINA2-XP-M	Single lens	PMMA	clear	
TINA2-HLD-BLK	Holder	PC	black	
TINA-TAPE3	Tape	Acrylic foam	black	

ORDERING INFORMATION:

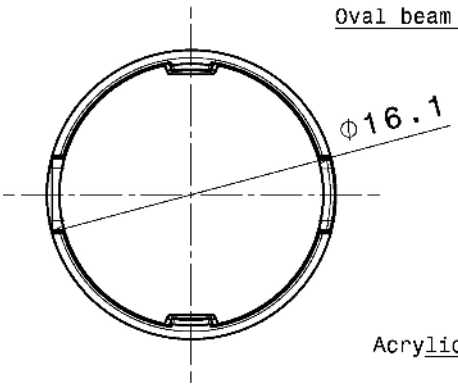
Component		Qty in box	MOQ	MPQ	Box weight (kg)
CA12377_TINA2-M » Box size: 451 x 241 x 298 mm	Single lens	4140	230	230	8.3



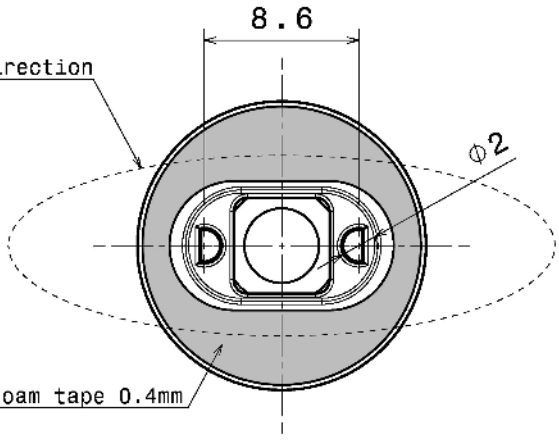
Front view



Isometric view
Scale: 3:1



Top view



Bottom view

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

SIZE A4 | PART NUMBER -

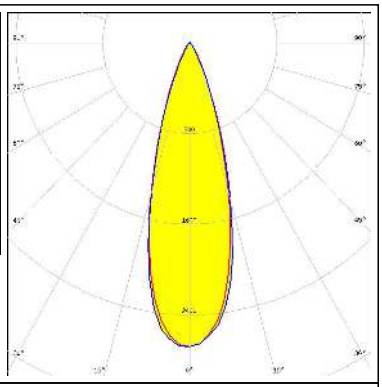
SCALE 3:1 | WEIGHT 1,3 g | SHEET 1/1

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

OPTICAL RESULTS (MEASURED):

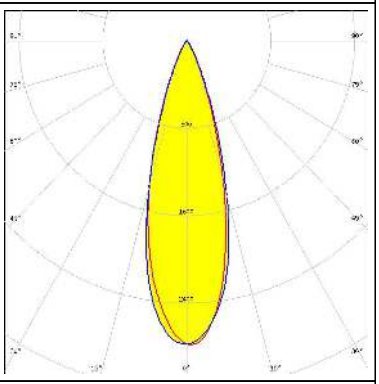
CREE LED

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:	



CREE LED

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:	

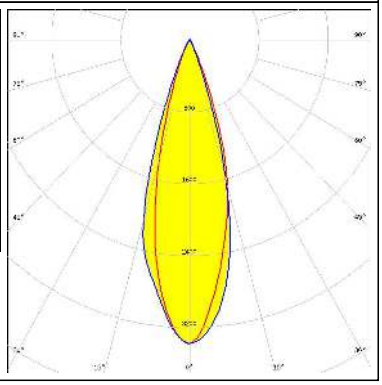


CREE LED

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:	

LUMILEDS

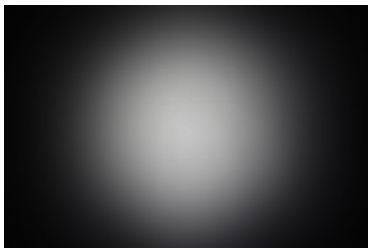
LED	LUXEON CZ
FWHM / FWTM	28.0° / 47.0°
Efficiency	89 %
Peak intensity	3.4 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

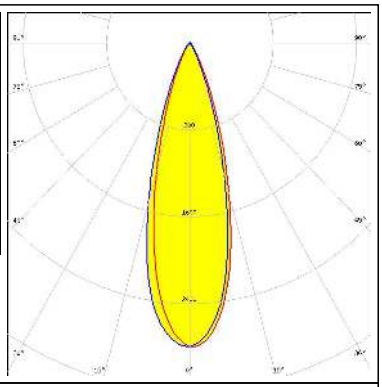


OPTICAL RESULTS (MEASURED):

LUMILEDS

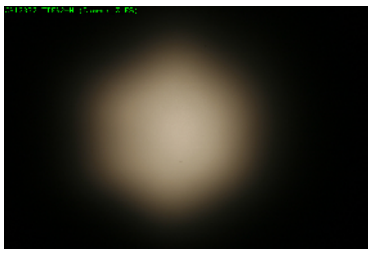
LED	LUXEON TX
FWHM / FWTM	30.0° / 53.0°
Efficiency	86 %
Peak intensity	2.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

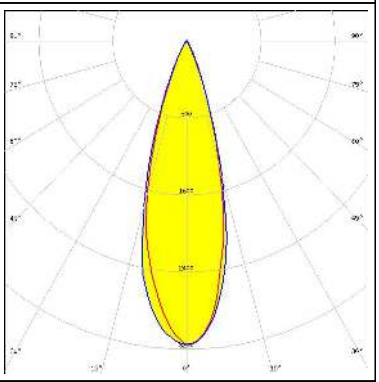




LUMILEDS

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:	



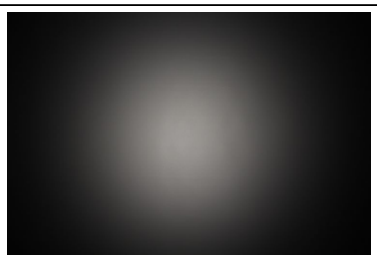


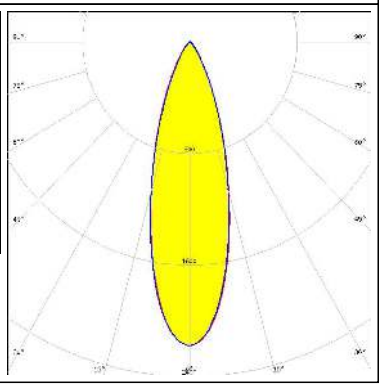
NICHIA

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:	



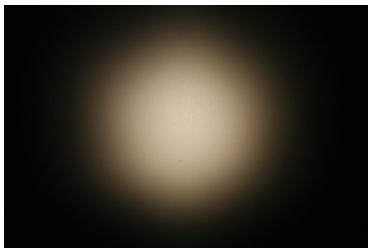


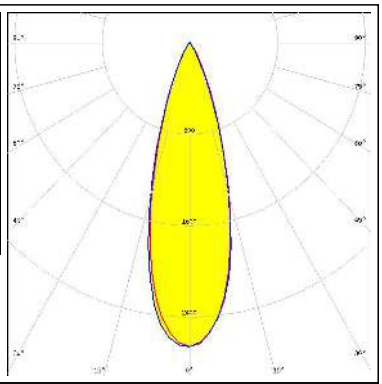
OPTICAL RESULTS (MEASURED):

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

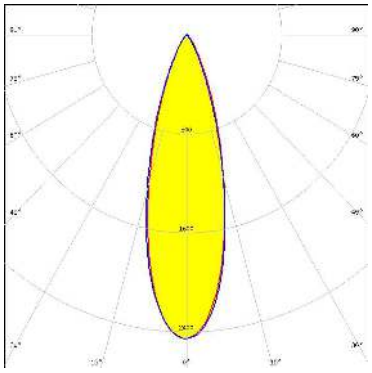
LED	SFH 4715S
FWHM / FWTM	28.0° / 56.0°
Efficiency	%
LEDs/each optic	1
Light colour	IR
Required components:	

OSRAM
Opto Semiconductors

LED	SFH 4725S
FWHM / FWTM	27.0° / 54.0°
Efficiency	%
LEDs/each optic	1
Light colour	IR
Required components:	

SEOUL SEMICONDUCTOR

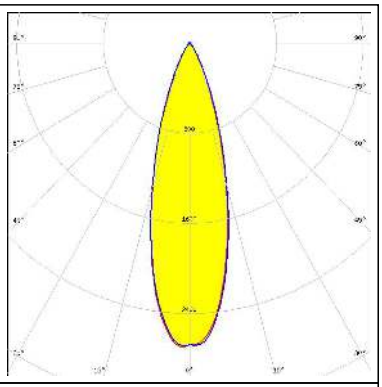
LED	Z5M3
FWHM / FWTM	30.0° / 57.0°
Efficiency	83 %
Peak intensity	2.5 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



OPTICAL RESULTS (SIMULATED):

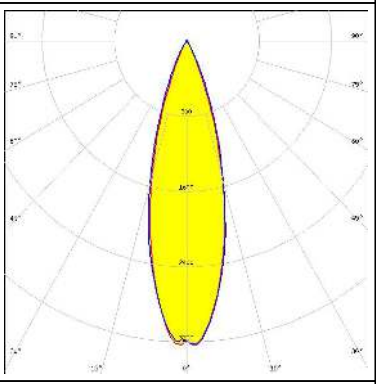
CREE LED

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:	



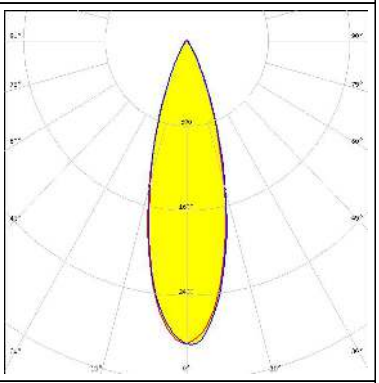
CREE LED

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:	



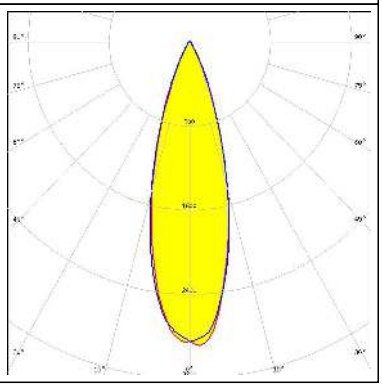
LUMILEDS

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:	



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:	



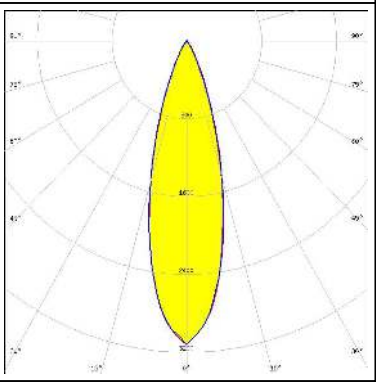
OPTICAL RESULTS (SIMULATED):

LUMILEDS

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

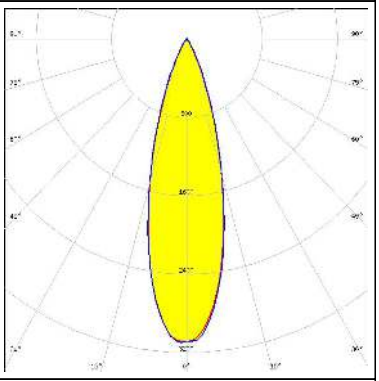
LUMILEDS

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:	



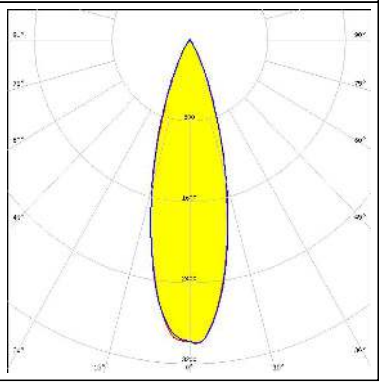
LUMILEDS

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:	



LUMILEDS

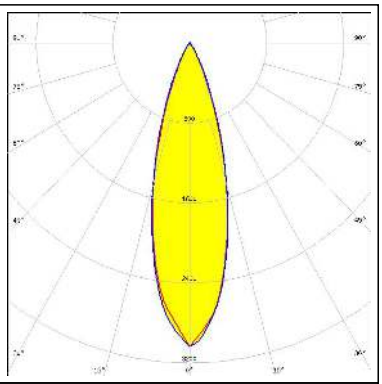
LED	LUXEON Rubix
FWHM / FWTM	30.0° / 53.0°
Efficiency	91 %
Peak intensity	3 cd/lm
LEDs/each optic	1
Light colour	Blue
Required components:	



OPTICAL RESULTS (SIMULATED):

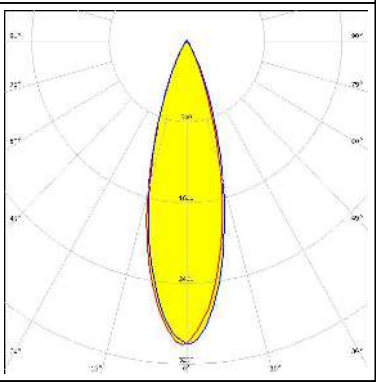
LUMILEDS

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:	



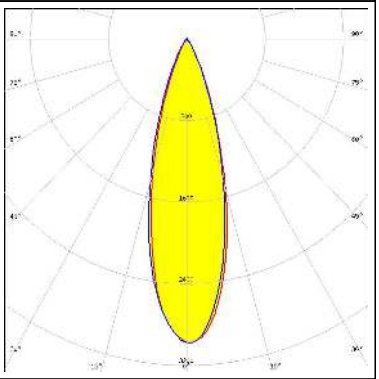
NICHIA

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



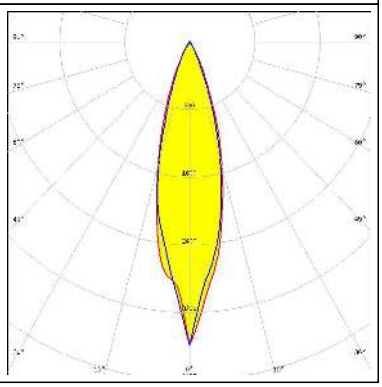
OSRAM
Opto Semiconductors

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:	



OSRAM
Opto Semiconductors

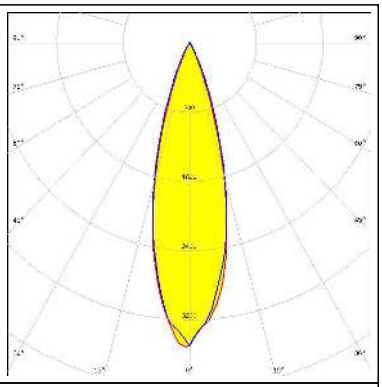
LED	OSCONIQ P 3030
FWHM / FWTM	26.0° / 50.0 + 52.0°
Efficiency	90 %
Peak intensity	3.6 cd/lm
LEDs/each optic	1
Light colour	Blue
Required components:	



OPTICAL RESULTS (SIMULATED):

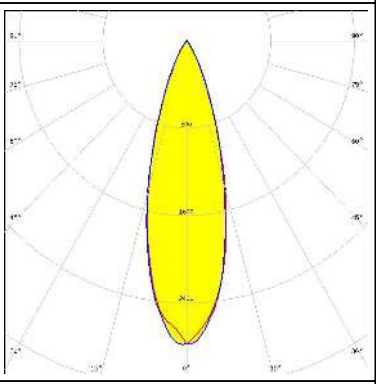
OSRAM Opto Semiconductors

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



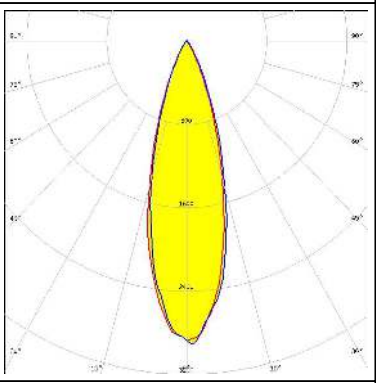
OSRAM Opto Semiconductors

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:	



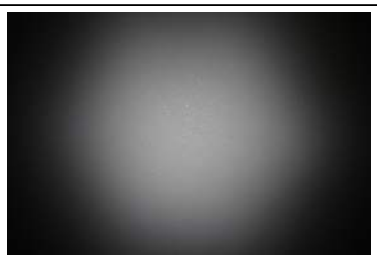
OSRAM Opto Semiconductors

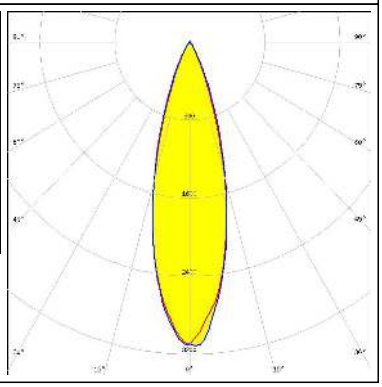
LED	OSLON Square CSSRM2/CSSRM3
FWHM / FWTM	29.0° / 54.0°
Efficiency	90 %
Peak intensity	2.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	



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:	

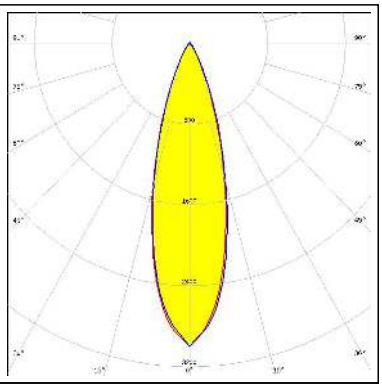




OPTICAL RESULTS (SIMULATED):

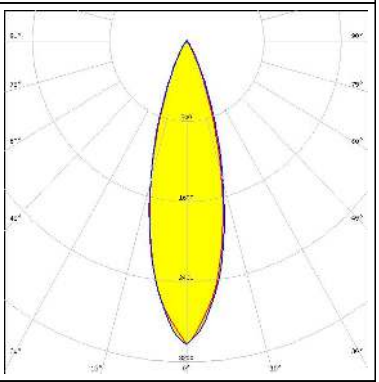
OSRAM
Opto Semiconductors

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:	



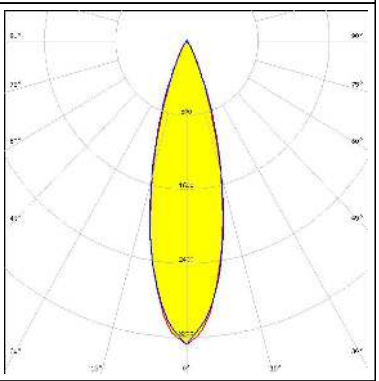
OSRAM
Opto Semiconductors

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:	



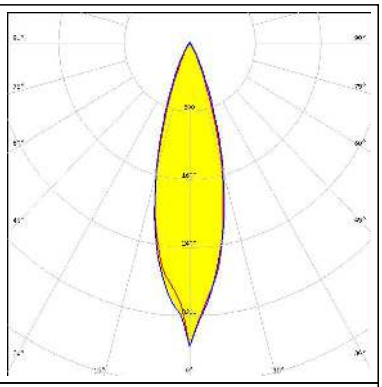
OSRAM
Opto Semiconductors

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

OPTICAL RESULTS (SIMULATED):

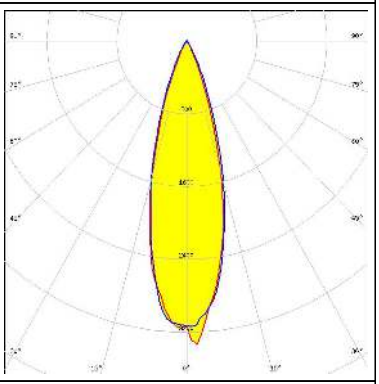
OSRAM Opto Semiconductors

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:	



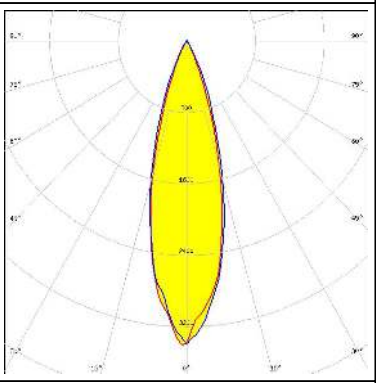
OSRAM Opto Semiconductors

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:	



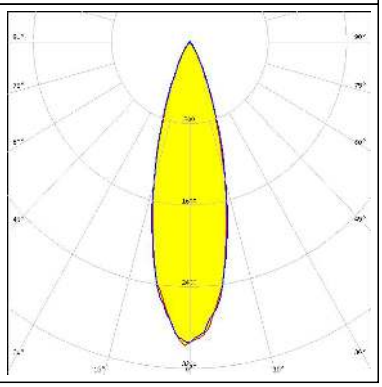
OSRAM Opto Semiconductors

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:	



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.

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