

## LISA2-M-PIN

~20° medium beam. 6.8 mm high variant with location pin installation.

### SPECIFICATION:

Dimensions	Ø 9.9 mm
Height	6.8 mm
Fastening	glue, pin
ROHS compliant	yes ⓘ

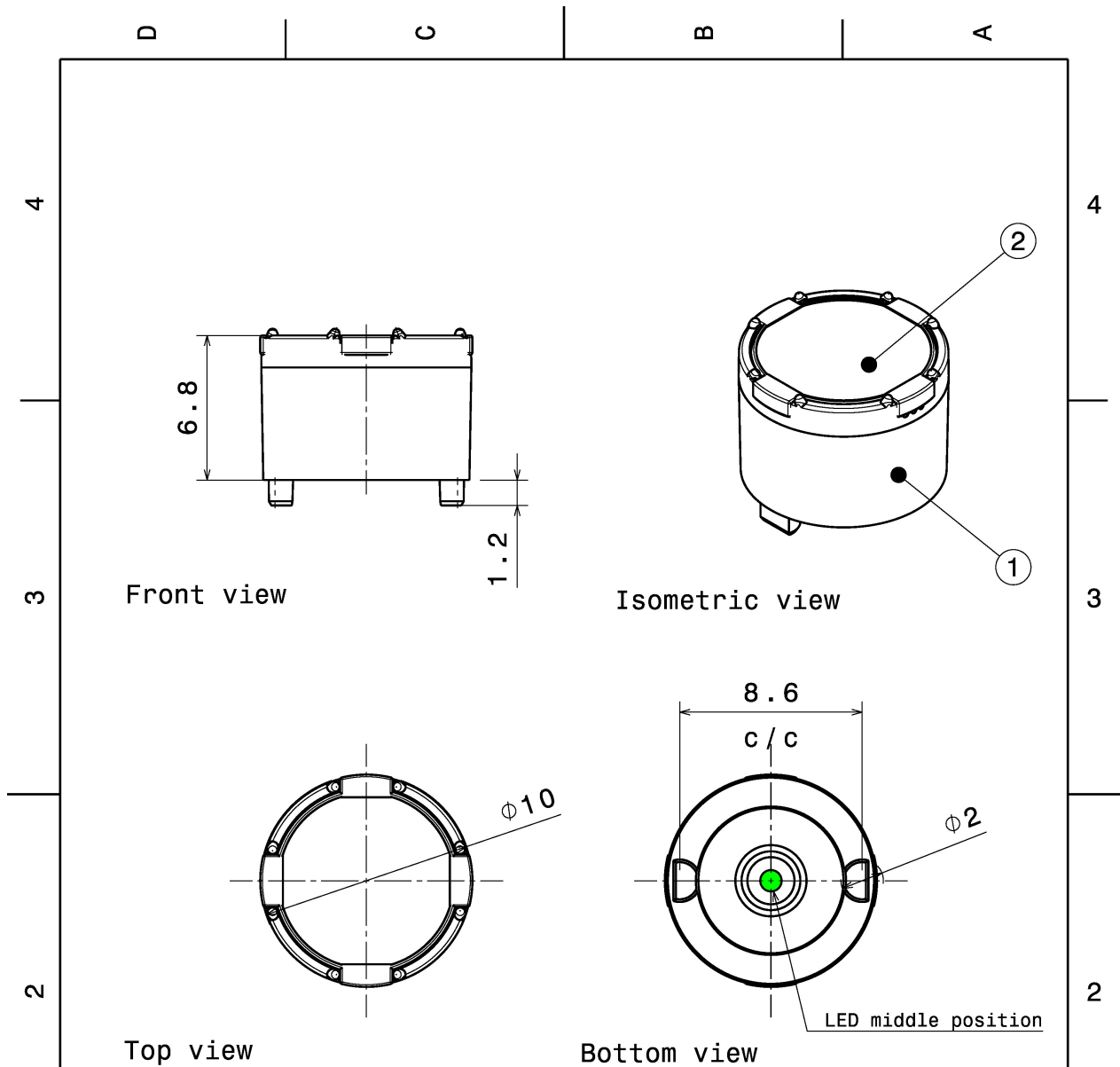


### MATERIALS:

Component	Type	Material	Colour	Finish	Length
LISA2-M	Single lens	PMMA	clear		9.9
LISA2-HLD-PIN	Holder	PC	black		9.9

### ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
FP10995_LISA2-M-PIN	Single lens	2000	300	100	1.4
» Box size: 310 x 230 x 60 mm					



INDEX	PART NO	DESCRIPTION	MATERIAL	COLOUR
1	F10989	LISA2-HLD-PIN	PC	black
2	-	LISA2_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

**LEDiL** Ledil Oy  
Salorankatu 10  
FIN 24240 SALO  
Finland

THIRD ANGLE PROJECTION:

DRAWING TITLE  
**Lisa2-PIN-XP assembly**

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SIZE	PART NUMBER
A4	-

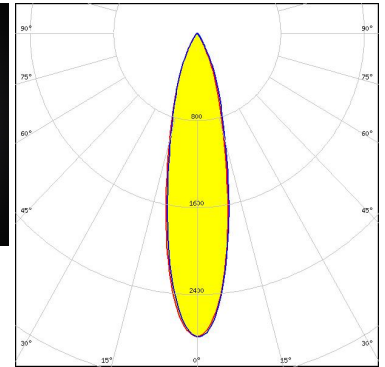
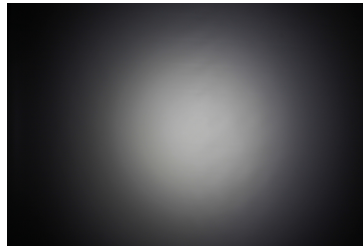
SCALE	4:1	WEIGHT	0,5 g	SHEET	1/1
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See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

### OPTICAL RESULTS (MEASURED):



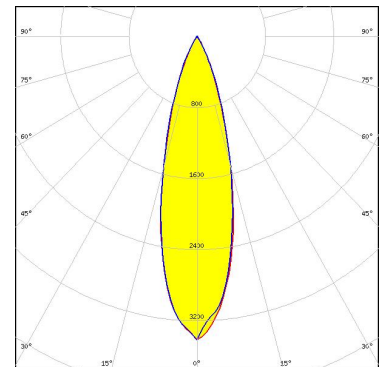
LED XD16  
 FWHM / FWTM 24.0° / 53.0°  
 Efficiency 74 %  
 Peak intensity 2.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



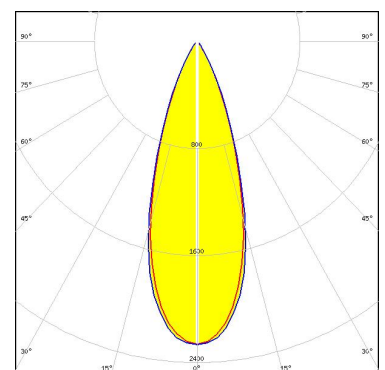
LED XP-E  
 FWHM / FWTM 24.0°  
 Efficiency 92 %  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED XP-G  
 FWHM / FWTM 34.0° / 60.0°  
 Efficiency 91 %  
 Peak intensity 2.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

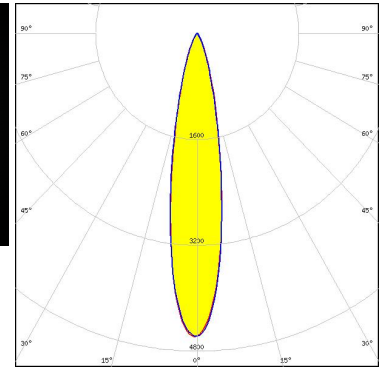


Light distribution files

#### OPTICAL RESULTS (MEASURED):



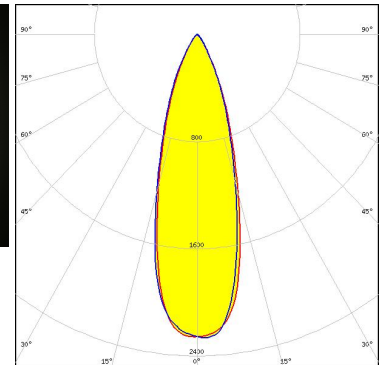
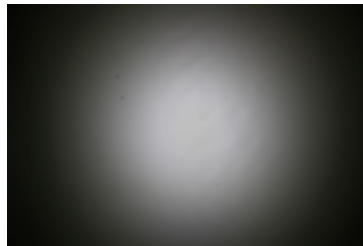
LED XQ-E HI  
 FWHM / FWTM 20.0° / 43.0 + 42.0°  
 Efficiency 85 %  
 Peak intensity 4.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED XT-E  
 FWHM / FWTM 31.0° / 60.0°  
 Efficiency 85 %  
 Peak intensity 2.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



LED LUXEON Z  
 FWHM / FWTM 19.0° / 41.0°  
 Efficiency 86 %  
 Peak intensity 5.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:


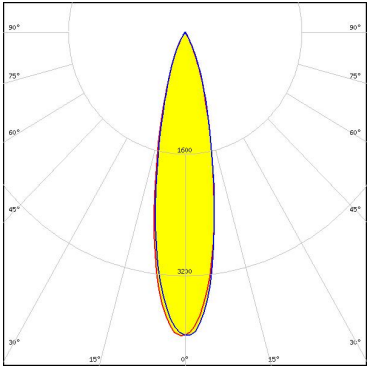


Light distribution files

#### OPTICAL RESULTS (MEASURED):

**LUMILEDS**


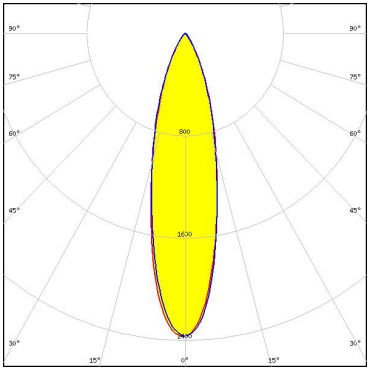
LED	LUXEON Z ES
FWHM / FWTM	23.0° / 48.0°
Efficiency	87 %
Peak intensity	4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

Light distribution files

**NICHIA**

LED	NCSxE17A
FWHM / FWTM	26.0° / 57.0°
Efficiency	74 %
Peak intensity	2.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

Light distribution files

**OSRAM**  
Opto Semiconductors

LED	SFH 4170S
FWHM / FWTM	14.0° / 38.0°
Efficiency	%
LEDs/each optic	1
Light colour/type	IR
Required components:	

Light distribution files

### OPTICAL RESULTS (MEASURED):

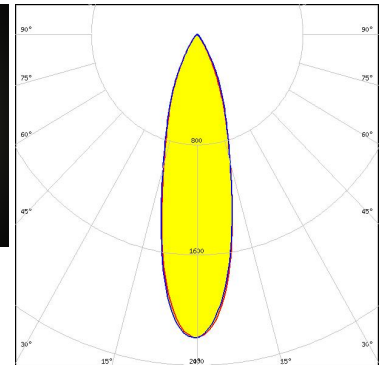
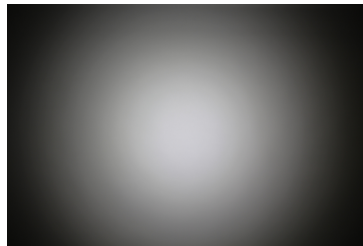
**OSRAM**  
Opto Semiconductors

LED SFH 4180S  
FWHM / FWTM 14.0° / 38.0°  
Efficiency %  
LEDs/each optic 1  
Light colour/type IR  
Required components:

[Light distribution files](#)

**SAMSUNG**

LED LH181B  
FWHM / FWTM 27.0° / 59.0°  
Efficiency 74 %  
Peak intensity 2.2 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



[Light distribution files](#)

**SHARP**

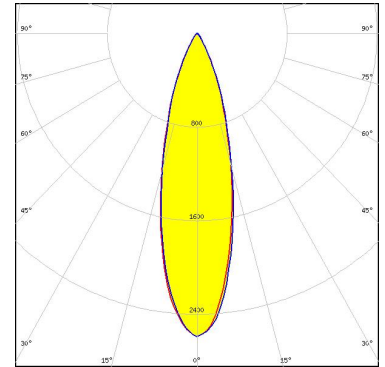
LED Double Dome (GM2BB)  
FWHM / FWTM 28.0°  
Efficiency 88 %  
LEDs/each optic 1  
Light colour/type White  
Required components:

[Light distribution files](#)

### OPTICAL RESULTS (SIMULATED):



LED CSP 2323 (BXCP)  
FWHM / FWTM 28.0° / 56.0°  
Efficiency 82 %  
Peak intensity 2.6 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

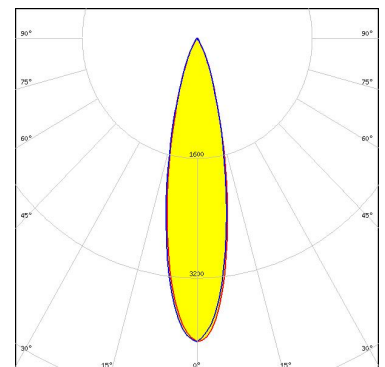


LED XQ-E HD  
FWHM / FWTM 27.5° / 63.0°  
Efficiency 91 %  
Peak intensity 3.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

Light distribution files



LED LUXEON IR 2720  
FWHM / FWTM 23.0° / 47.0°  
Efficiency 91 %  
LEDs/each optic 1  
Light colour/type IR  
Required components:

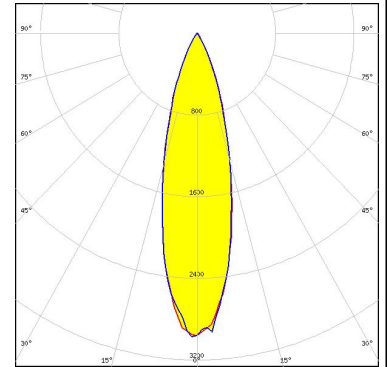


Light distribution files

### OPTICAL RESULTS (SIMULATED):



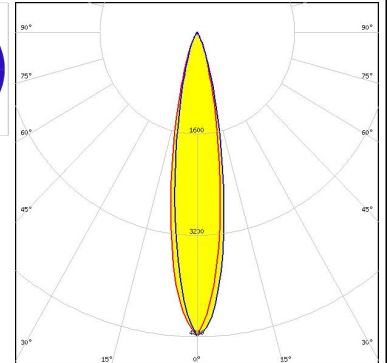
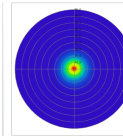
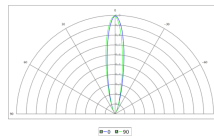
LED NVSxE21A  
 FWHM / FWTM 27.0° / 54.0°  
 Efficiency 86 %  
 Peak intensity 3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



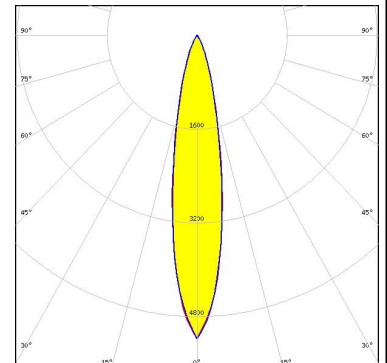
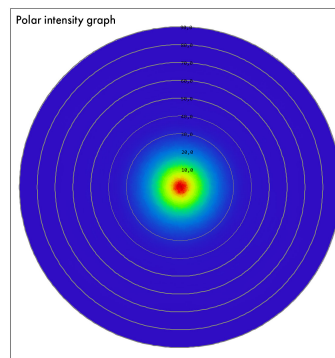
LED SFH 4170S  
 FWHM / FWTM 20.0° / 41.0°  
 Efficiency 79 %  
 LEDs/each optic 1  
 Light colour/type IR  
 Required components:



Light distribution files



LED SFH 4770S  
 FWHM / FWTM 20.0° / 43.0°  
 Efficiency 91 %  
 Peak intensity 5.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type IR  
 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.

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