

## LISA2-WWW-PIN

~80° wide beam. 7.0 mm high variant with location pin installation.

### SPECIFICATION:

Dimensions	Ø 9.9 mm
Height	7 mm
Fastening	glue, pin
ROHS compliant	yes ⓘ

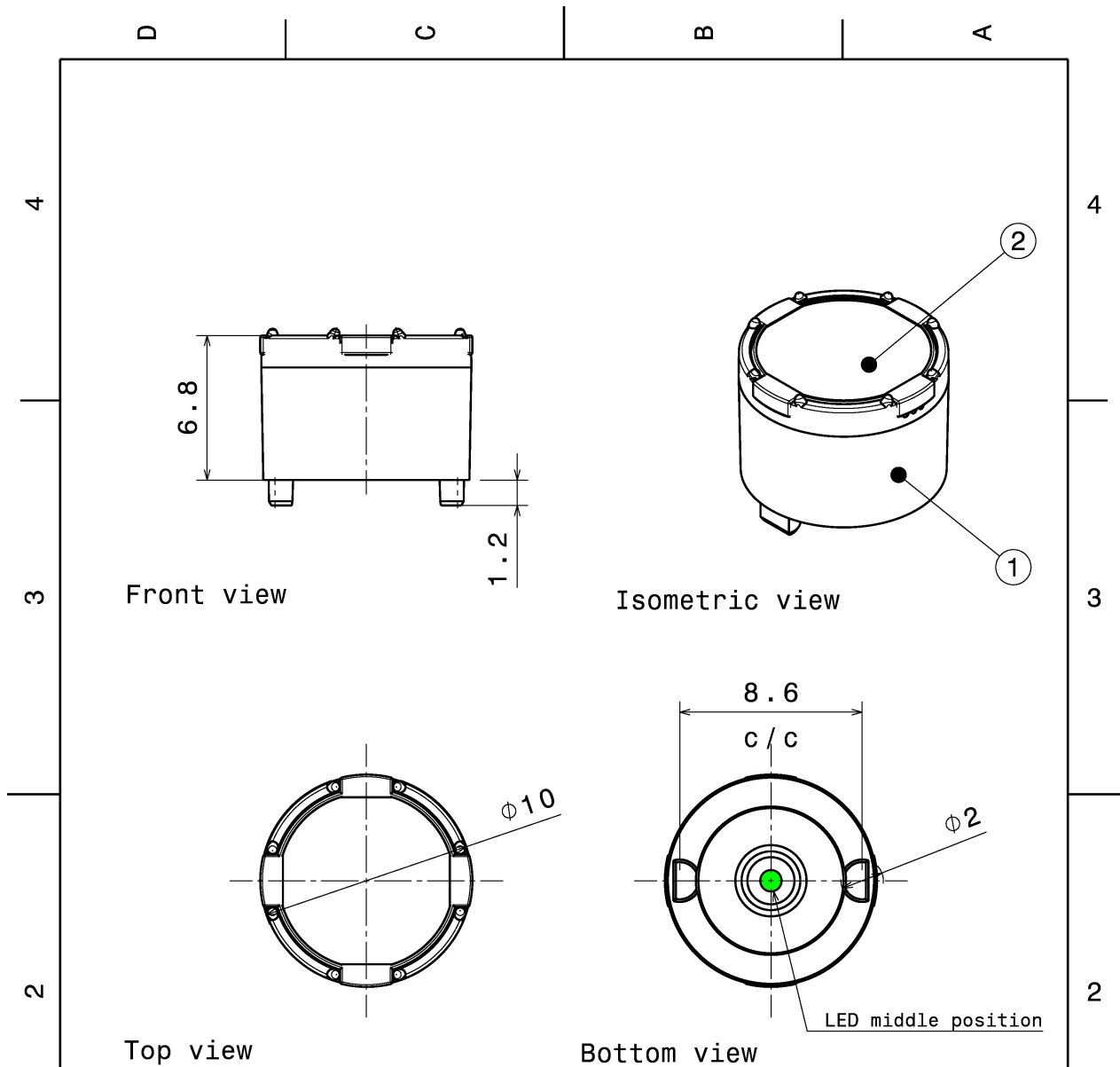


### MATERIALS:

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

### ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
FP11429_LISA2-WWW-PIN	Single lens	2000		100	1.4
» Box size:					



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	-

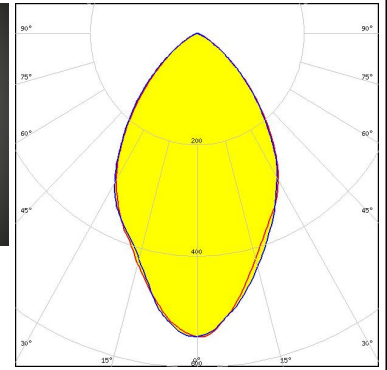
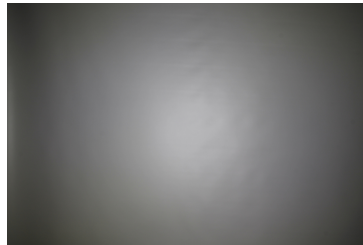
SCALE	4:1	WEIGHT	0,5 g	SHEET	1/1
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See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

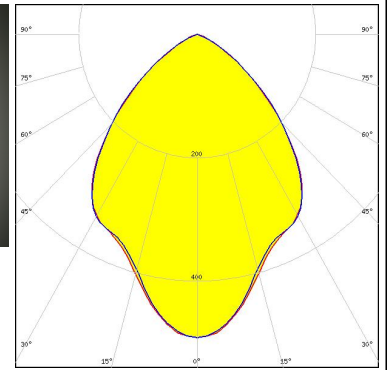
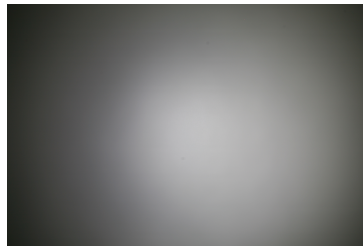
#### OPTICAL RESULTS (MEASURED):



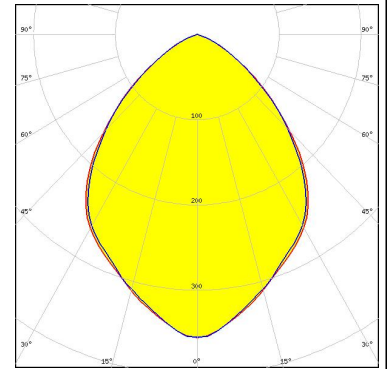
LED XD16  
 FWHM / FWTM 66.0° / 110.0°  
 Efficiency 66 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



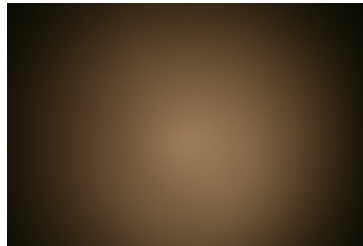
LED XP-E  
 FWHM / FWTM 84.0°  
 Efficiency 77 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED XP-G  
 FWHM / FWTM 86.0° / 126.0°  
 Efficiency 75 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



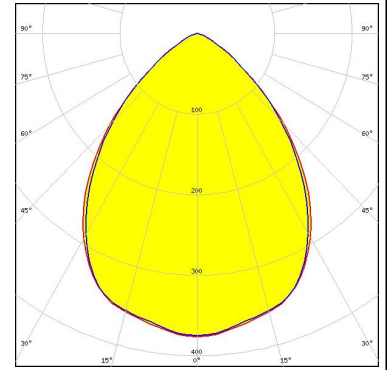
LED LUXEON A  
 FWHM / FWTM 86.0° / 122.0°  
 Efficiency 72 %  
 Peak intensity 0.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (MEASURED):

##### LUMILEDS

LED LUXEON Rebel ES  
FWHM / FWTM 88.0°  
Efficiency %  
LEDs/each optic 1  
Light colour White  
Required components:



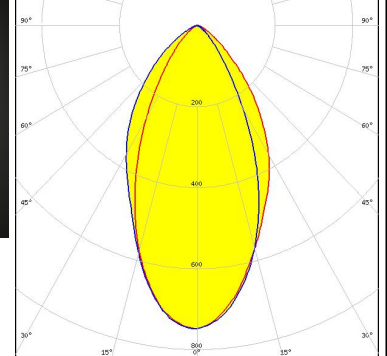
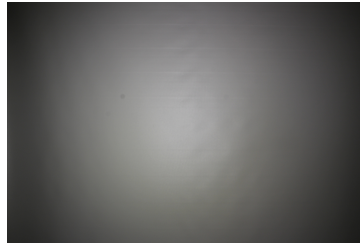
##### LUMILEDS

LED LUXEON Z  
FWHM / FWTM 73.0° / 106.0°  
Efficiency 75 %  
Peak intensity 0.6 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



##### NICHIA

LED NVSxE21A  
FWHM / FWTM 53.0° / 98.0°  
Efficiency 70 %  
Peak intensity 0.8 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



##### OSRAM

Opto Semiconductors

LED SFH 4170S  
FWHM / FWTM 58.0° / 114.0°  
Efficiency %  
LEDs/each optic 1  
Light colour IR  
Required components:

#### OPTICAL RESULTS (MEASURED):

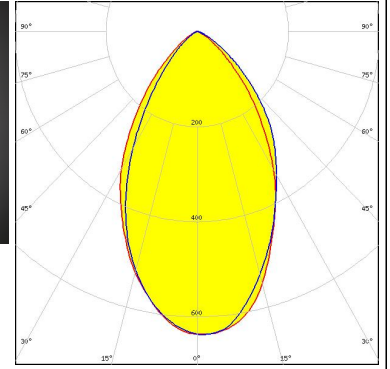
#### OSRAM

Opto Semiconductors

LED SFH 4180S  
FWHM / FWTM 57.0° / 112.0°  
Efficiency %  
LEDs/each optic 1  
Light colour IR  
Required components:

#### SAMSUNG

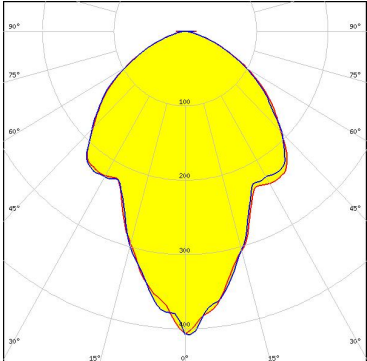
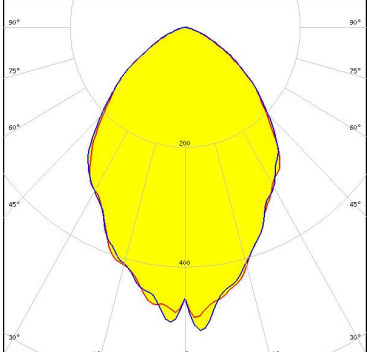
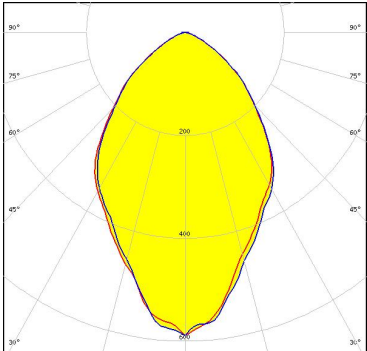
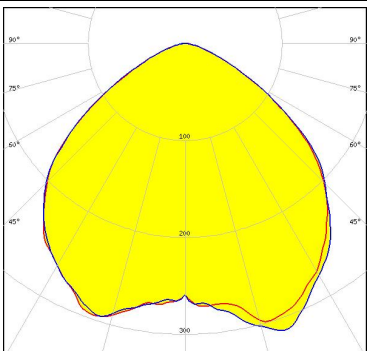
LED LH181B  
FWHM / FWTM 62.0° / 104.0°  
Efficiency 72 %  
Peak intensity 0.6 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



#### OPTICAL RESULTS (SIMULATED):

<p><b>bridgelux</b></p> <p>LED CSP 2323 (BXCP)</p> <p>FWHM / FWTM 61.0° / 111.0 + 112.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 0.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p><b>CREE LEDs</b></p> <p>LED XB-D</p> <p>FWHM / FWTM 53.0° / 104.0°</p> <p>Efficiency 73 %</p> <p>Peak intensity 0.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p><b>CREE LEDs</b></p> <p>LED XQ-E HD</p> <p>FWHM / FWTM 70.0° / 126.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED LUXEON IR 2720</p> <p>FWHM / FWTM 58.0° / 101.0°</p> <p>Efficiency 76 %</p> <p>Peak intensity 0.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour IR</p> <p>Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

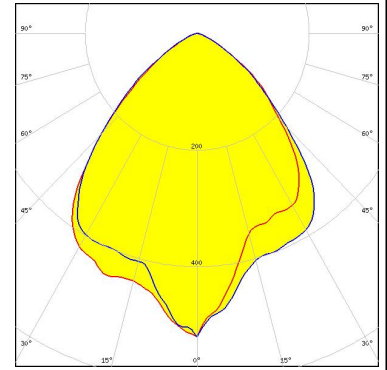
<p><b>LUMILEDS</b></p> <p>LED LUXEON SunPlus 20 Line (150 deg)</p> <p>FWHM / FWTM 84.0° / 140.0°</p> <p>Efficiency 73 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED LUXEON TX</p> <p>FWHM / FWTM 80.0° / 130.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 0.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p><b>LUMINUS</b></p> <p>LED SST-20</p> <p>FWHM / FWTM 73.0° / 122.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p><b>NICHIA</b></p> <p>LED NVSW519A</p> <p>FWHM / FWTM 104.0° / 140.0°</p> <p>Efficiency 76 %</p> <p>Peak intensity 0.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

##### OSRAM

Opto Semiconductors

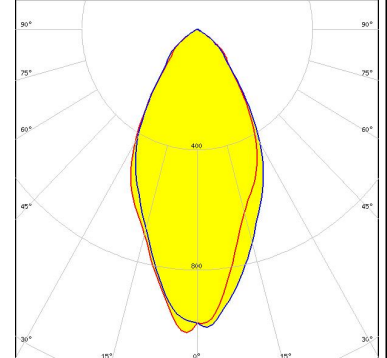
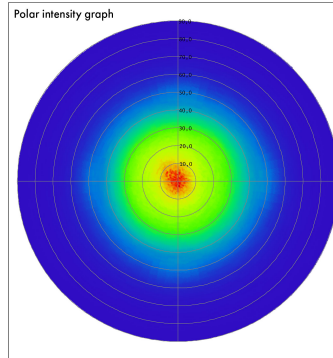
LED OSLOM SSL 120  
 FWHM / FWTM 86.0° / 123.0°  
 Efficiency 87 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour Amber  
 Required components:



##### OSRAM

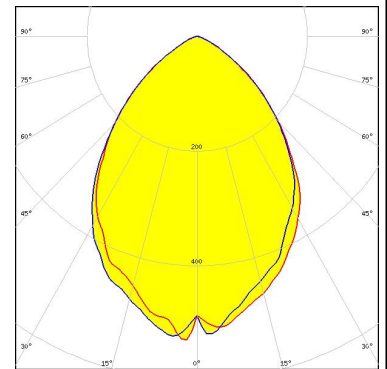
Opto Semiconductors

LED SFH 4715AS  
 FWHM / FWTM 52.0° / 102.0°  
 Efficiency 88 %  
 LEDs/each optic 1  
 Light colour IR  
 Required components:



##### SAMSUNG

LED LM301B  
 FWHM / FWTM 80.0° / 122.0°  
 Efficiency 86 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



SEOUL SEMICONDUCTOR

LED Z5  
 FWHM / FWTM 70.0°  
 Efficiency %  
 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:

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