

## 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 ⓘ     |

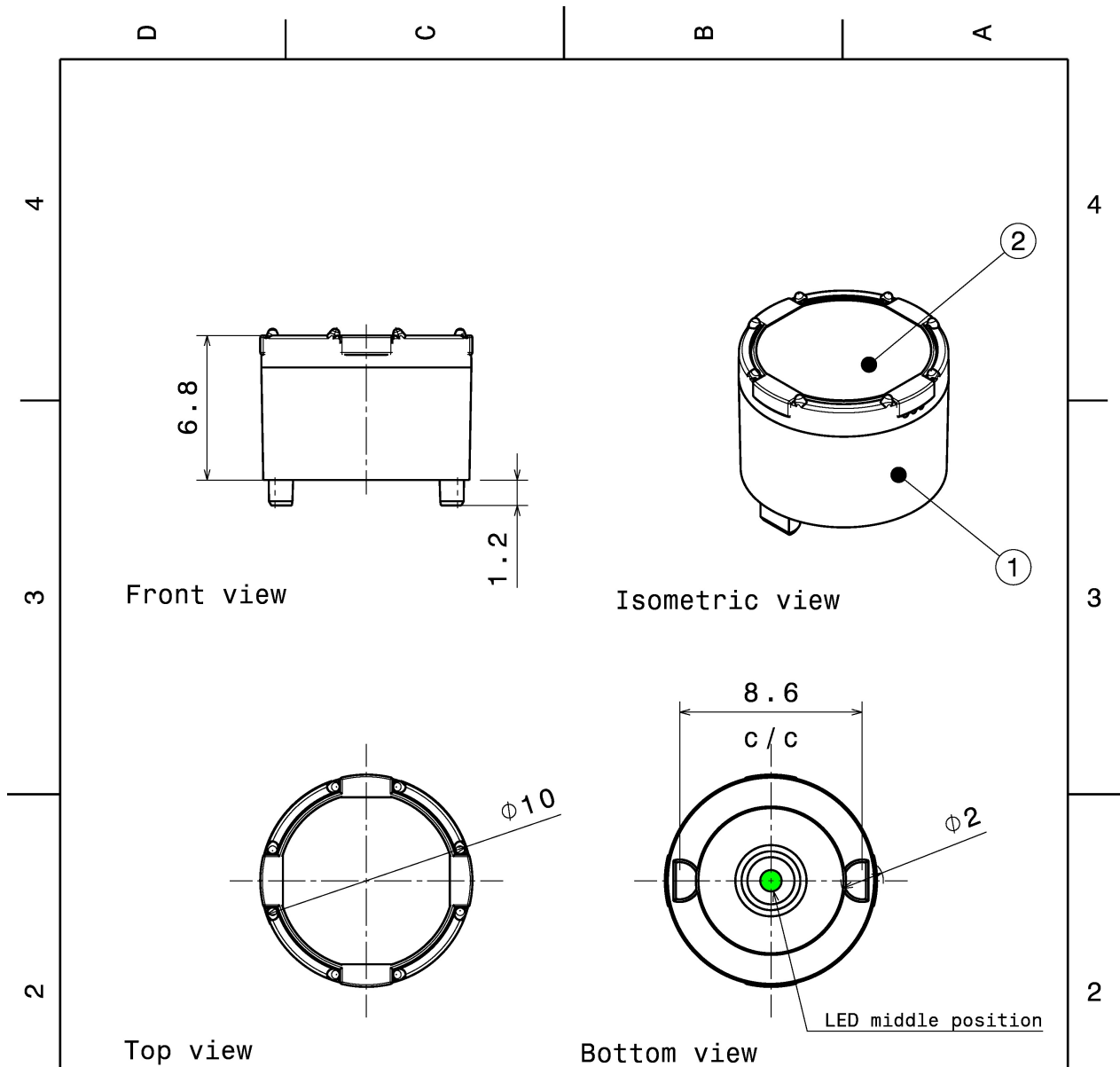


### MATERIALS:

| 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 |
|-------|-----|--------|-------|-------|-----|
|-------|-----|--------|-------|-------|-----|

See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

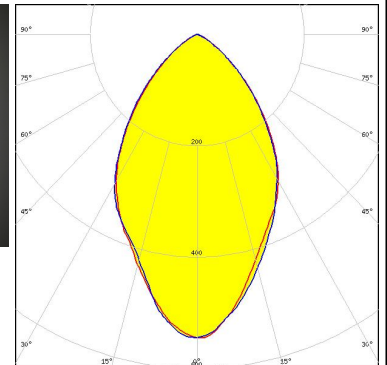
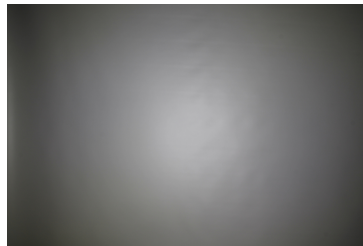
#### OPTICAL RESULTS (MEASURED):

##### CREE LED

LED XB-D  
 FWHM / FWTM 73.0° / 116.0°  
 Efficiency 71 %  
 LEDs/each optic 1  
 Light colour White  
 Required components:

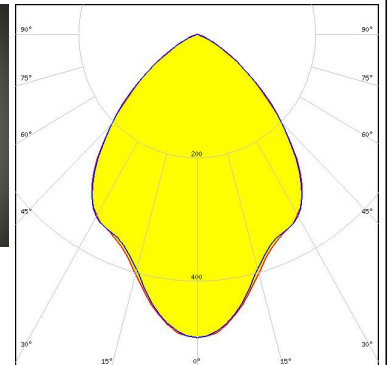
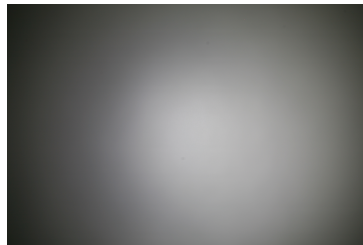
##### CREE LED

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:



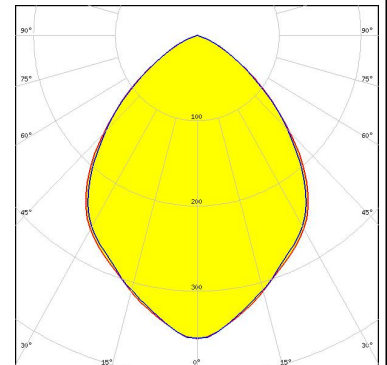
##### CREE LED

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



##### CREE LED

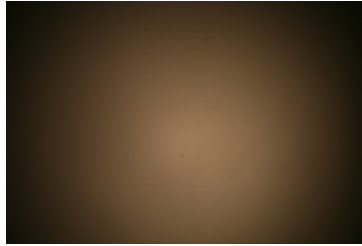
LED XP-G  
 FWHM / FWTM 86.0° / 126.0°  
 Efficiency 75 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (MEASURED):

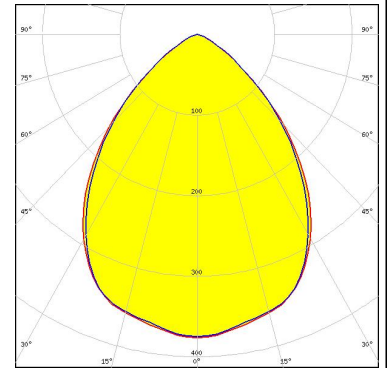
##### LUMILEDS

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:



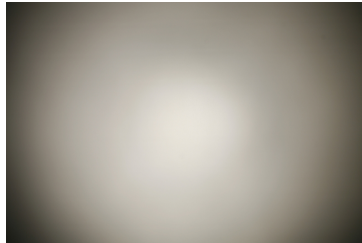
##### LUMILEDS

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



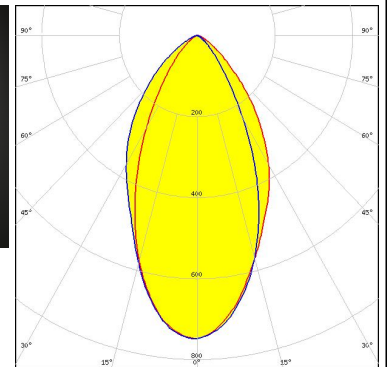
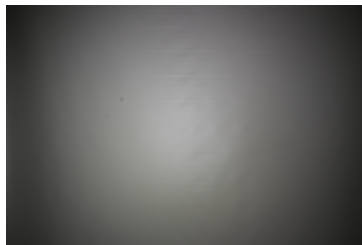
##### LUMILEDS

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:



#### OPTICAL RESULTS (MEASURED):

#### OSRAM

Opto Semiconductors

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

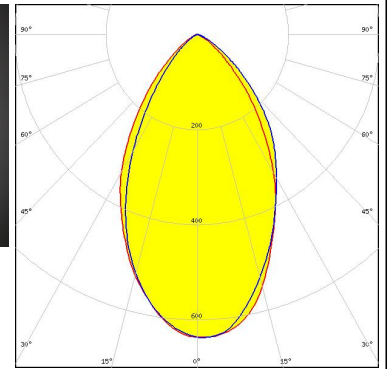
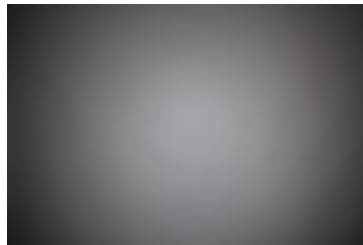
#### OSRAM

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:



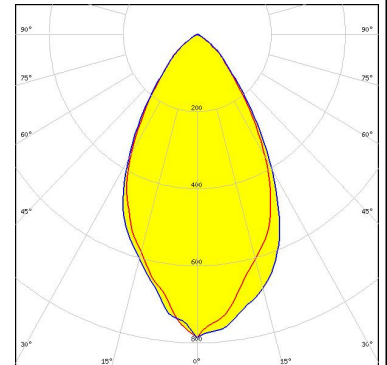
#### OPTICAL RESULTS (SIMULATED):



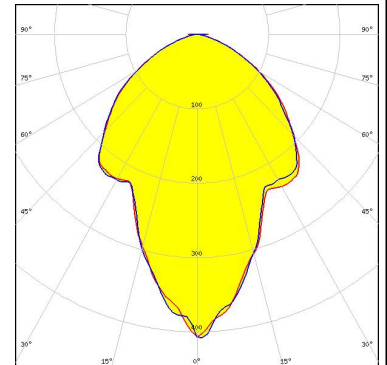
**LED** XQ-E HD  
**FWHM / FWTM** 70.0° / 126.0°  
**Efficiency** 81 %  
**Peak intensity** 0.6 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**



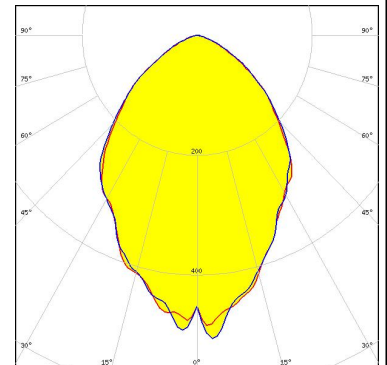
**LED** LUXEON IR 2720  
**FWHM / FWTM** 58.0° / 101.0°  
**Efficiency** 76 %  
**Peak intensity** 0.8 cd/lm  
**LEDs/each optic** 1  
**Light colour** IR  
**Required components:**



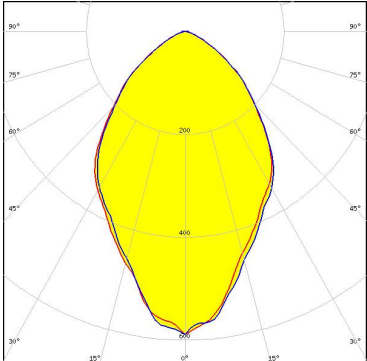
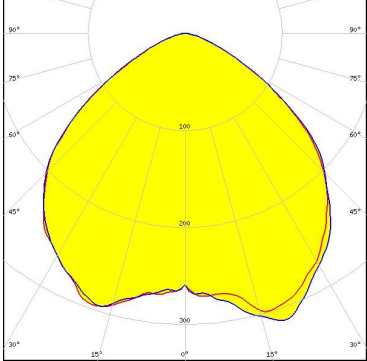
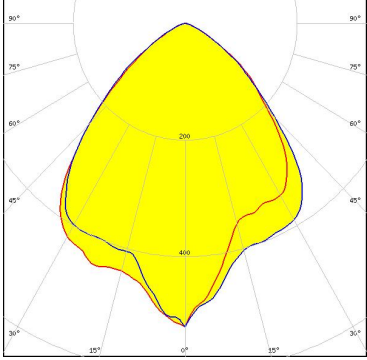
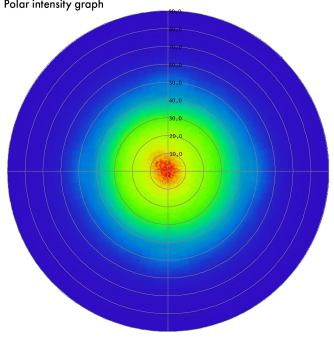
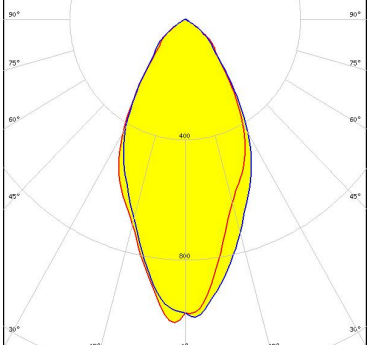
**LED** LUXEON SunPlus 20 Line (150 deg)  
**FWHM / FWTM** 84.0° / 140.0°  
**Efficiency** 73 %  
**Peak intensity** 0.4 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**



**LED** LUXEON TX  
**FWHM / FWTM** 80.0° / 130.0°  
**Efficiency** 83 %  
**Peak intensity** 0.5 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**



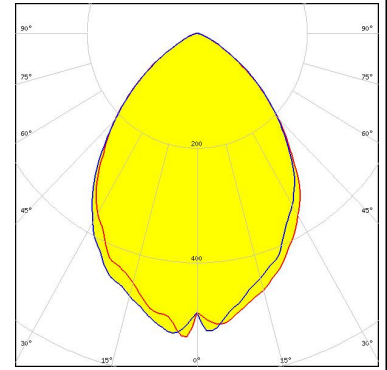
#### OPTICAL RESULTS (SIMULATED):

|   |   |
|---|---|
| <p><b>LUMINUS</b></p> <p>LED SST-20<br/>           FWHM / FWTM 73.0° / 122.0°<br/>           Efficiency 86 %<br/>           Peak intensity 0.6 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p>   |    |
| <p><b>NICHIA</b></p> <p>LED NVSW519A<br/>           FWHM / FWTM 104.0° / 140.0°<br/>           Efficiency 76 %<br/>           Peak intensity 0.3 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p>   |   |
| <p><b>OSRAM</b><br/> <small>Opto Semiconductors</small></p> <p>LED OSOLON SSL 120<br/>           FWHM / FWTM 86.0° / 123.0°<br/>           Efficiency 87 %<br/>           Peak intensity 0.5 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour Amber<br/>           Required components:</p> |    |
| <p><b>OSRAM</b><br/> <small>Opto Semiconductors</small></p> <p>LED SFH 4715AS<br/>           FWHM / FWTM 52.0° / 102.0°<br/>           Efficiency 88 %<br/>           LEDs/each optic 1<br/>           Light colour IR<br/>           Required components:</p>  | <p>Polar intensity graph</p>   |

### OPTICAL RESULTS (SIMULATED):

#### 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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