

## LISA2-WW-PIN

~45° 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 ⓘ

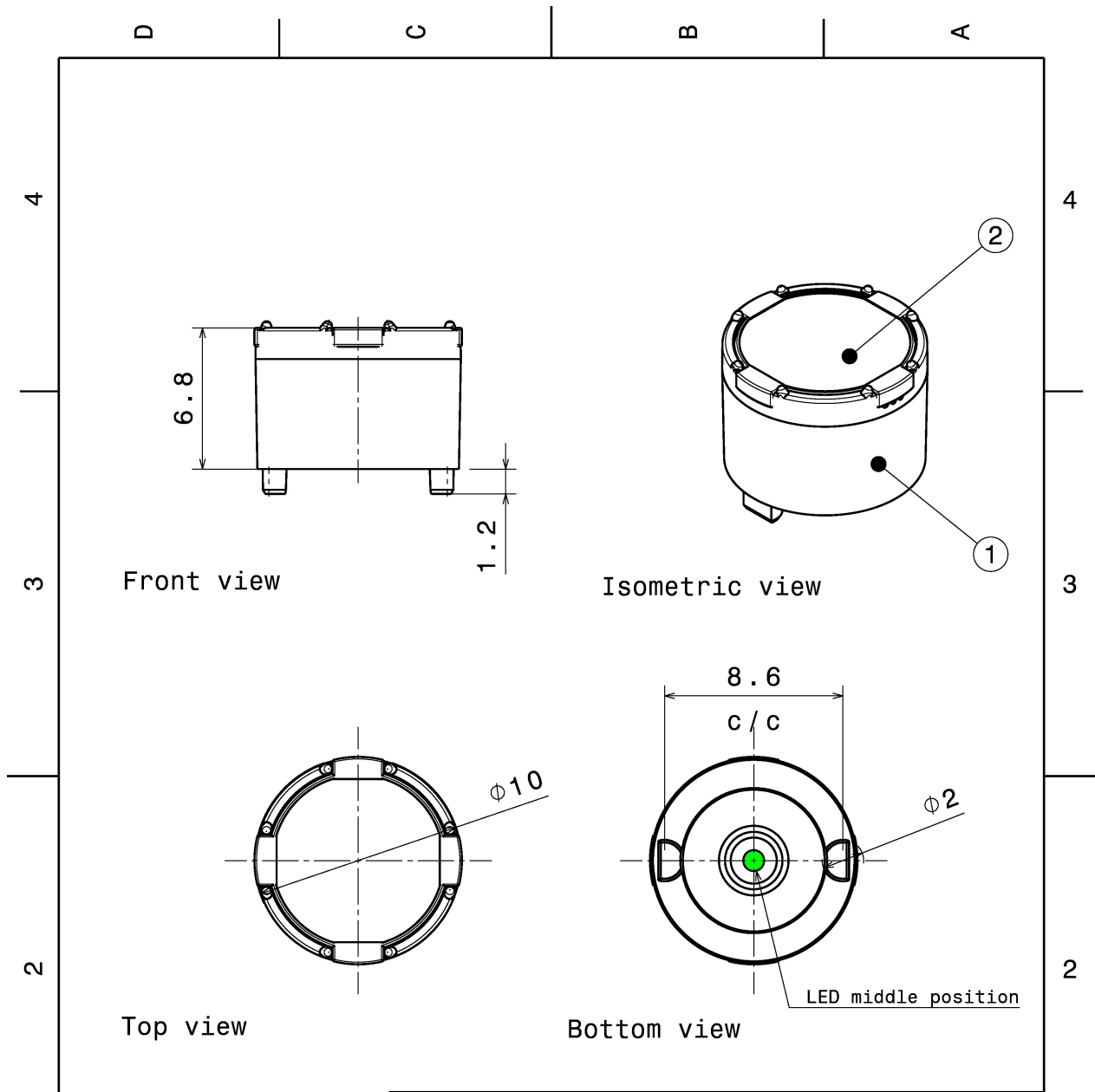


### MATERIALS:

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

### ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
FP10997_LISA2-WW-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)

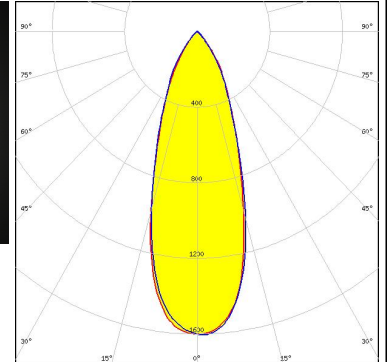
#### OPTICAL RESULTS (MEASURED):

##### CREE LED

LED XB-D  
 FWHM / FWTM 38.0°  
 Efficiency 85 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

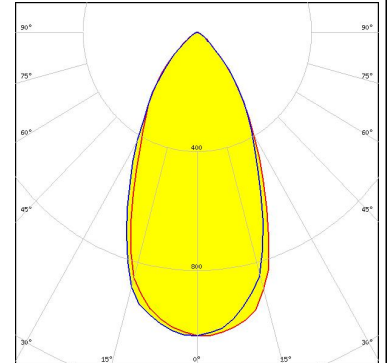
##### CREE LED

LED XD16  
 FWHM / FWTM 35.0° / 72.0°  
 Efficiency 78 %  
 Peak intensity 1.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



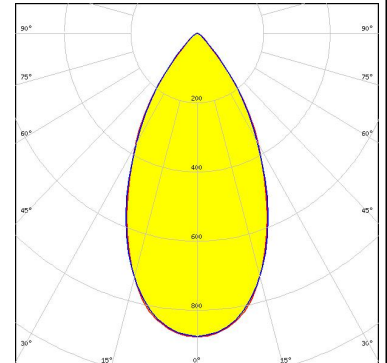
##### CREE LED

LED XP-E  
 FWHM / FWTM 42.0° / 78.0°  
 Efficiency 91 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



##### CREE LED

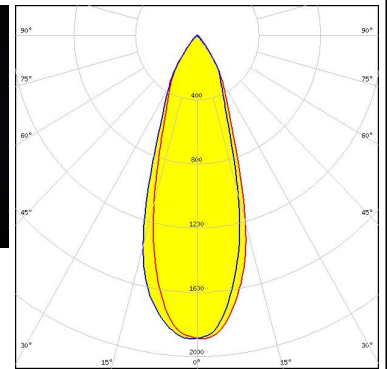
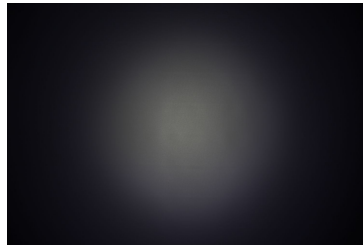
LED XP-G  
 FWHM / FWTM 54.0° / 88.0°  
 Efficiency 90 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (MEASURED):

##### LUMILEDS

LED LUXEON C  
 FWHM / FWTM 34.0° / 72.0°  
 Efficiency 88 %  
 Peak intensity 1.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

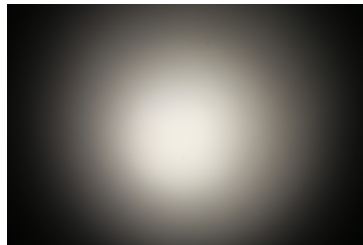


##### LUMILEDS

LED LUXEON Rebel ES  
 FWHM / FWTM 56.0° / 88.0°  
 Efficiency 93 %  
 LEDs/each optic 1  
 Light colour White  
 Required components:

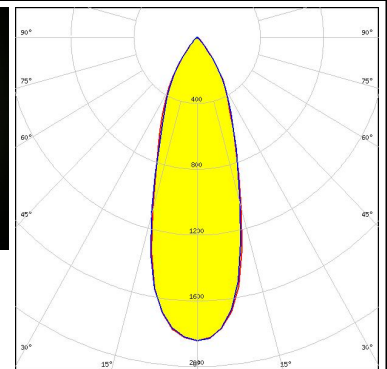
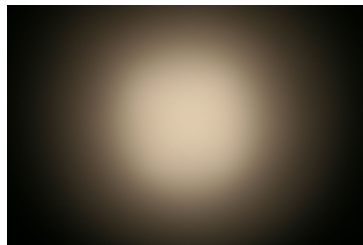
##### LUMILEDS

LED LUXEON Z  
 FWHM / FWTM 28.0° / 70.0°  
 Efficiency 87 %  
 Peak intensity 2.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



##### LUMILEDS

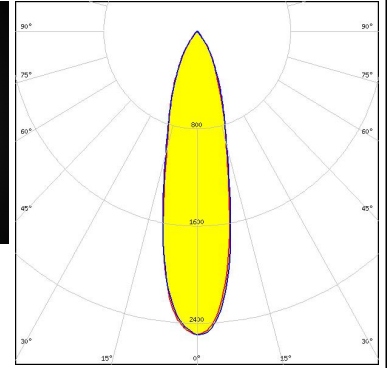
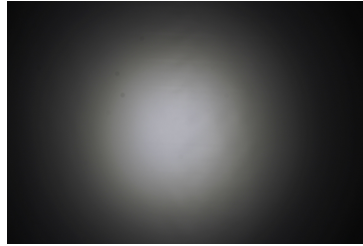
LED LUXEON Z ES  
 FWHM / FWTM 35.0° / 73.0°  
 Efficiency 88 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (MEASURED):



LED NCSxE17A  
 FWHM / FWTM 25.0° / 62.0°  
 Efficiency 82 %  
 Peak intensity 2.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



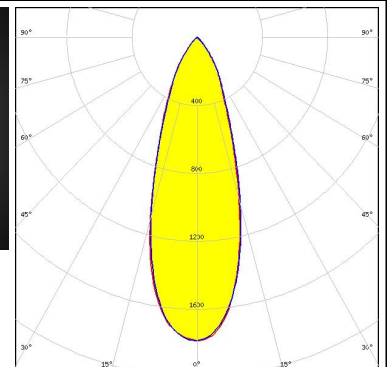
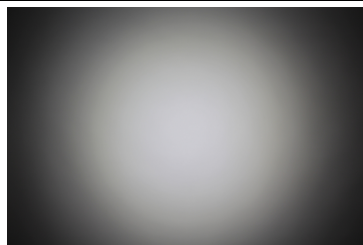
LED SFH 4170S  
 FWHM / FWTM 25.0° / 69.0°  
 Efficiency %  
 LEDs/each optic 1  
 Light colour IR  
 Required components:



LED SFH 4180S  
 FWHM / FWTM 25.0° / 68.0°  
 Efficiency %  
 LEDs/each optic 1  
 Light colour IR  
 Required components:



LED LH181B  
 FWHM / FWTM 34.0° / 69.0°  
 Efficiency 81 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



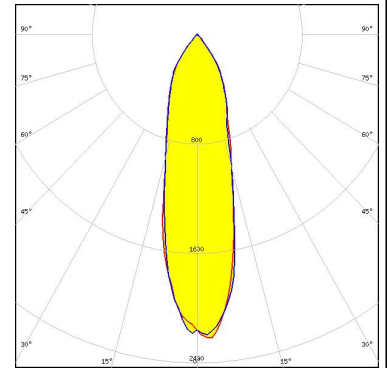
#### OPTICAL RESULTS (SIMULATED):



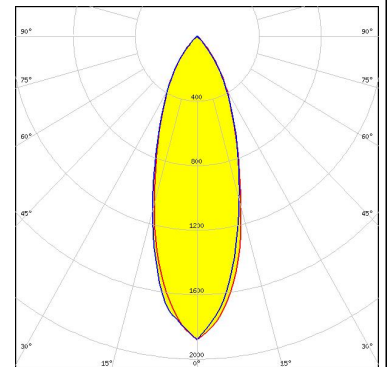
LED XQ-E HD  
 FWHM / FWTM 72.0° / 99.0°  
 Efficiency 90 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



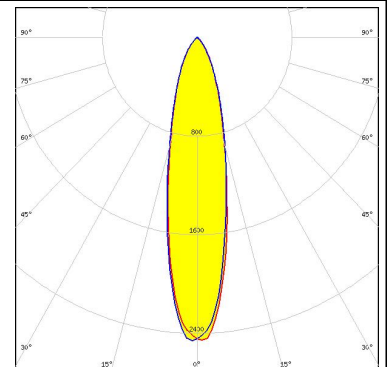
LED XQ-E HI  
 FWHM / FWTM 27.0° / 72.0°  
 Efficiency 89 %  
 Peak intensity 2.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



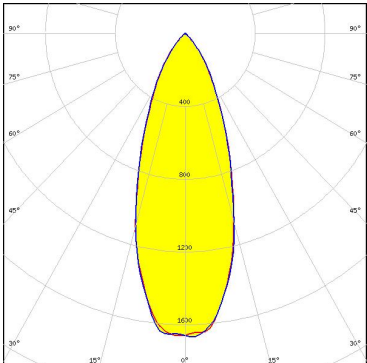
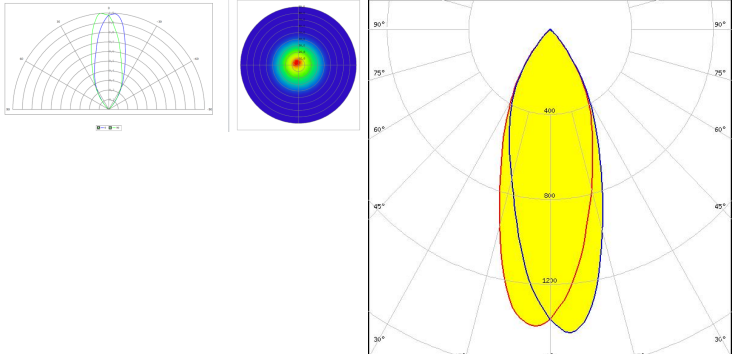
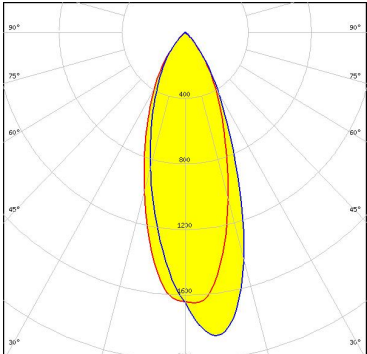
LED LUXEON IR 2720  
 FWHM / FWTM 35.0° / 75.0°  
 Efficiency 93 %  
 LEDs/each optic 1  
 Light colour IR  
 Required components:



LED LUXEON IR 2720  
 FWHM / FWTM 24.0° / 60.0°  
 Efficiency 74 %  
 LEDs/each optic 1  
 Light colour IR  
 Required components:



#### OPTICAL RESULTS (SIMULATED):

<p><b>NICHIA</b></p> <p>LED NVSxE21A            FWHM / FWTM 37.0° / 75.0°            Efficiency 88 %            Peak intensity 1.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED SFH 4170S            FWHM / FWTM 36.0° / 78.0°            Efficiency 80 %            LEDs/each optic 1            Light colour IR            Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED SFH 4770S            FWHM / FWTM 34.0° / 75.0°            Efficiency 92 %            Peak intensity 1.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>SHARP</b></p> <p>LED Double Dome (GM2BB)            FWHM / FWTM 60.0°            Efficiency %            LEDs/each optic 1            Light colour White            Required components:</p>	

### 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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