

## LISA2-RS-PIN

~19° spot 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 ⓘ

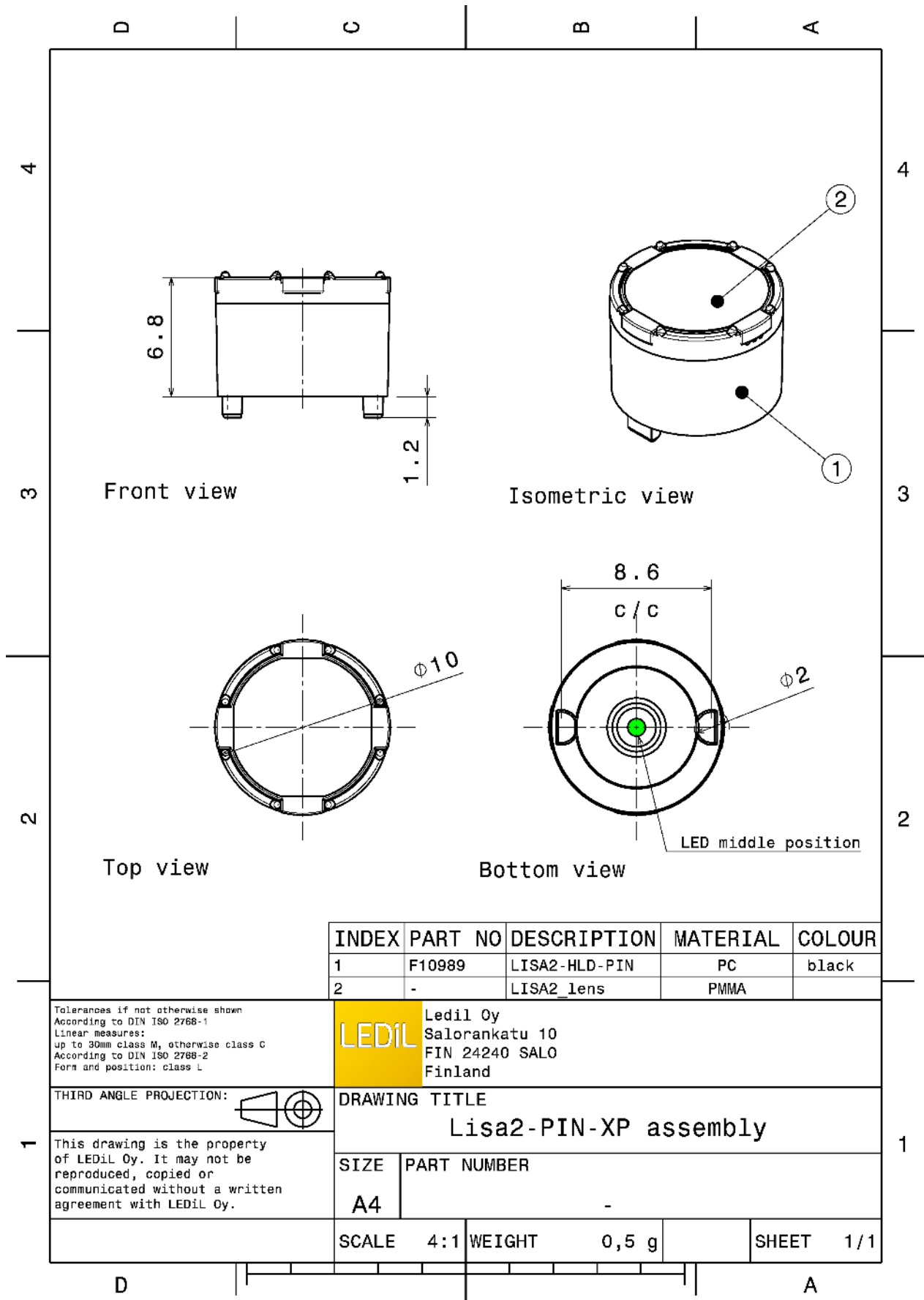


### MATERIALS:

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

### ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
FP11055_LISA2-RS-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**


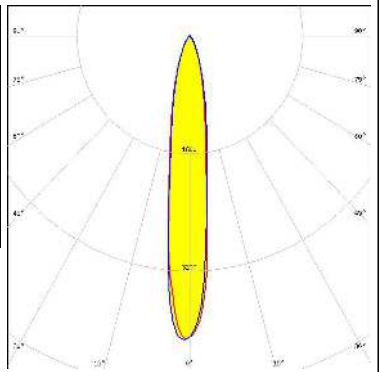

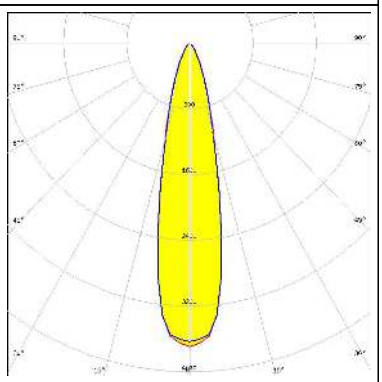

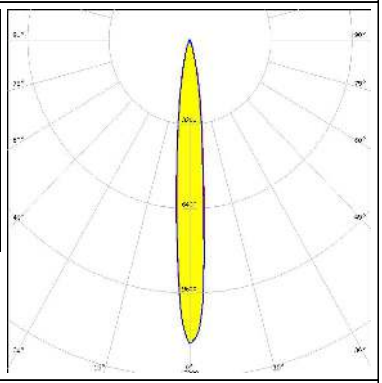

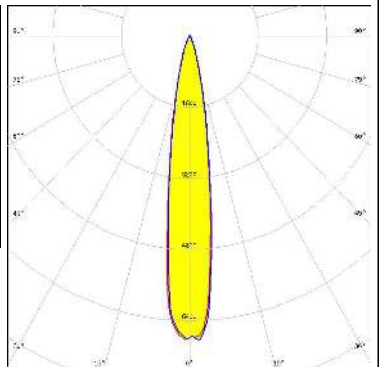
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SIZE	PART NUMBER
A4	-


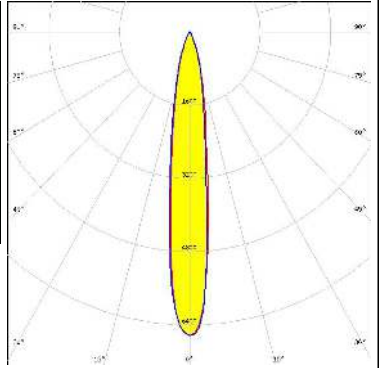

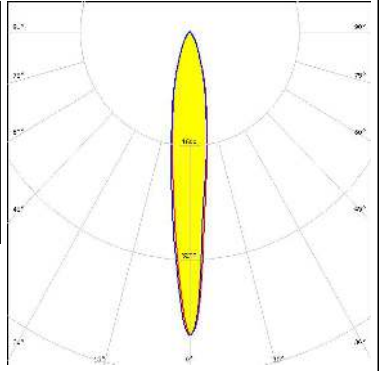

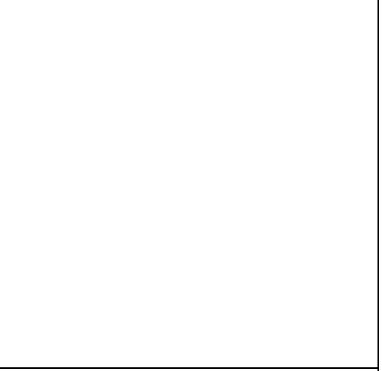

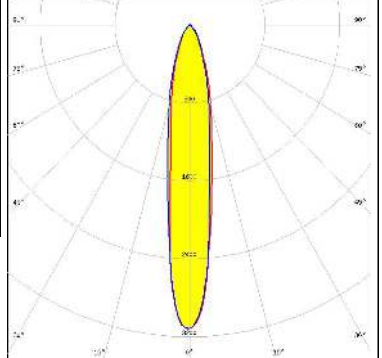
SCALE	4:1	WEIGHT	0,5 g	SHEET	1/1
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See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED: XD16            FWHM / FWTM: 15.0° / 42.0°            Efficiency: 70 %            Peak intensity: 4.2 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED: XP-G            FWHM / FWTM: 24.0°            Efficiency: 90 %            LEDs/each optic: 1            Light colour: White            Required components:</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED: XQ-E HI            FWHM / FWTM: 11.0° / 27.0°            Efficiency: 86 %            Peak intensity: 11.5 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>		
<p><b>LUMILEDS</b></p> <p>LED: LUXEON C            FWHM / FWTM: 16.0° / 35.0°            Efficiency: 87 %            Peak intensity: 6.8 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>		

#### OPTICAL RESULTS (MEASURED):


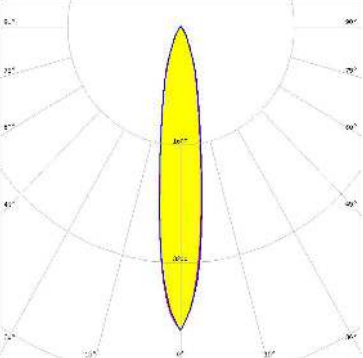

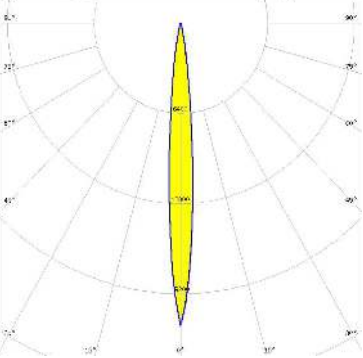

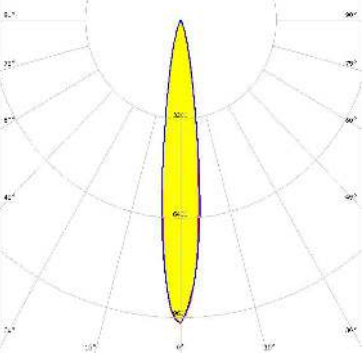

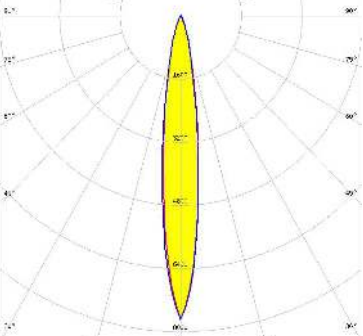
<p><b>LUMILEDS</b></p> <p>LED LUXEON Z ES</p> <p>FWHM / FWTM 15.0° / 38.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 6.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>NICHIA</b></p> <p>LED NCSxE17A</p> <p>FWHM / FWTM 13.0° / 43.0°</p> <p>Efficiency 72 %</p> <p>Peak intensity 4.3 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED SFH 4180S</p> <p>FWHM / FWTM 9.0° / 24.0°</p> <p>Efficiency %</p> <p>LEDs/each optic 1</p> <p>Light colour IR</p> <p>Required components:</p>		
<p><b>SAMSUNG</b></p> <p>LED LH181B</p> <p>FWHM / FWTM 16.0° / 50.0°</p> <p>Efficiency 71 %</p> <p>Peak intensity 3.1 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

## OPTICAL RESULTS (MEASURED):


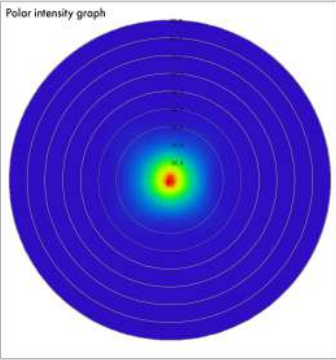
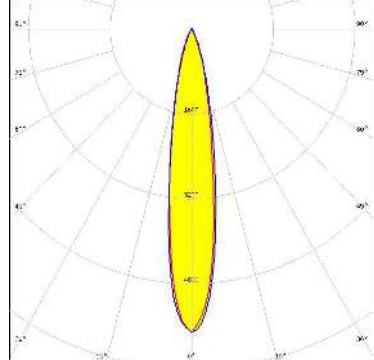

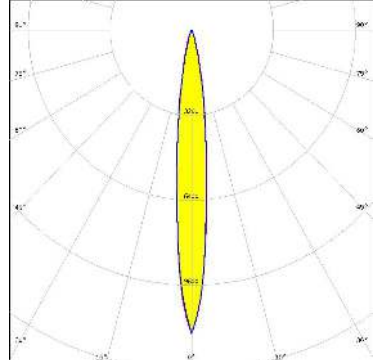

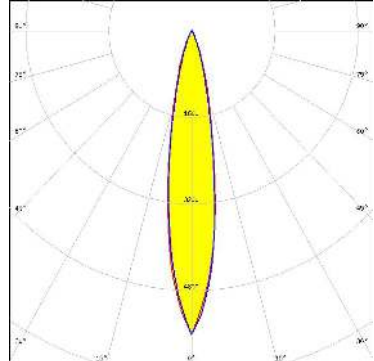

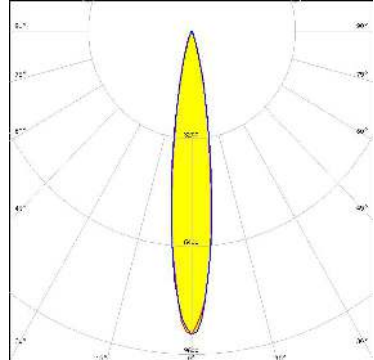
### SHARP

LED	Double Dome (GM2BB)
FWHM / FWTM	18.0°
Efficiency	90 %
LEDs/each optic	1
Light colour	White
Required components:	

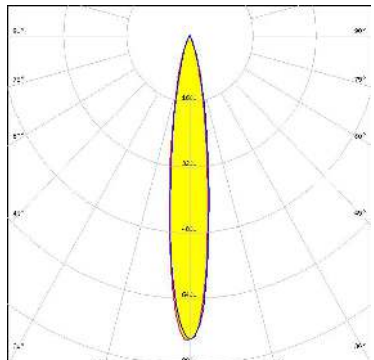
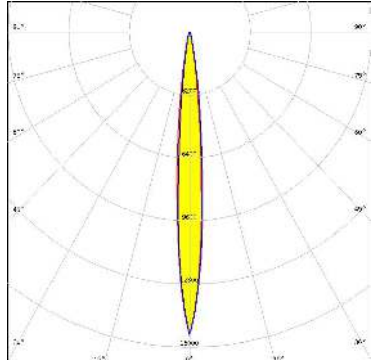
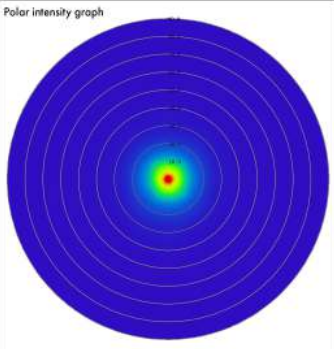
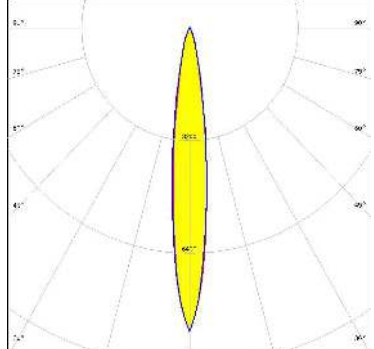
#### OPTICAL RESULTS (SIMULATED):

<p> LED CSP 2323 (BXCP)</p> <p>FWHM / FWTM 16.0° / 44.0°</p> <p>Efficiency 77 %</p> <p>Peak intensity 4.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p> LED XQ-A</p> <p>FWHM / FWTM 10.0° / 20.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 21.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p> LED XQ-E HD</p> <p>FWHM / FWTM 14.5° / 28.5°</p> <p>Efficiency 91 %</p> <p>Peak intensity 10.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p> LED LUXEON IR 2720</p> <p>FWHM / FWTM 14.0° / 34.0°</p> <p>Efficiency 88 %</p> <p>LEDs/each optic 1</p> <p>Light colour IR</p> <p>Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

 <p>LED SST-10-IR-B90            FWHM / FWTM 18.0° / 40.0°            Efficiency 89 %            LEDs/each optic 1            Light colour IR            Required components:</p>	<p>Polar intensity graph</p> 	
 <p>LED OSLOM Black Flat (LUW HWQP)            FWHM / FWTM 12.0° / 28.0°            Efficiency 89 %            Peak intensity 11.4 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
 <p>LED OSLOM Square EC            FWHM / FWTM 18.0° / 40.0°            Efficiency 90 %            Peak intensity 5.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
 <p>LED OSLOM SSL 150            FWHM / FWTM 16.0° / 32.0°            Efficiency 92 %            Peak intensity 9 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		

#### OPTICAL RESULTS (SIMULATED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: OSLOM SSL 80</p> <p>FWHM / FWTM: 16.0° / 35.0°</p> <p>Efficiency: 90 %</p> <p>Peak intensity: 7.5 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: SFH 4170S</p> <p>FWHM / FWTM: 10.0° / 22.0°</p> <p>Efficiency: 77 %</p> <p>LEDs/each optic: 1</p> <p>Light colour: IR</p> <p>Required components:</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: SFH 4770S</p> <p>FWHM / FWTM: 13.0° / 31.0°</p> <p>Efficiency: 88 %</p> <p>LEDs/each optic: 1</p> <p>Light colour: IR</p> <p>Required components:</p>	<p>Polar intensity graph</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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#### LEDiL Oy

Joensuunkatu 13  
FI-24240 SALO  
Finland

#### LEDiL Inc.

228 West Page Street  
Suite D  
Sycamore IL 60178  
USA

#### Ledil Optics Technology (Shenzhen) Co., Ltd.

# 405 , Block B  
Casic Motor Building  
Shenzhen 518057  
P.R.CHINA

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