# LISA2-M-PIN

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


## TECHNICAL SPECIFICATIONS:

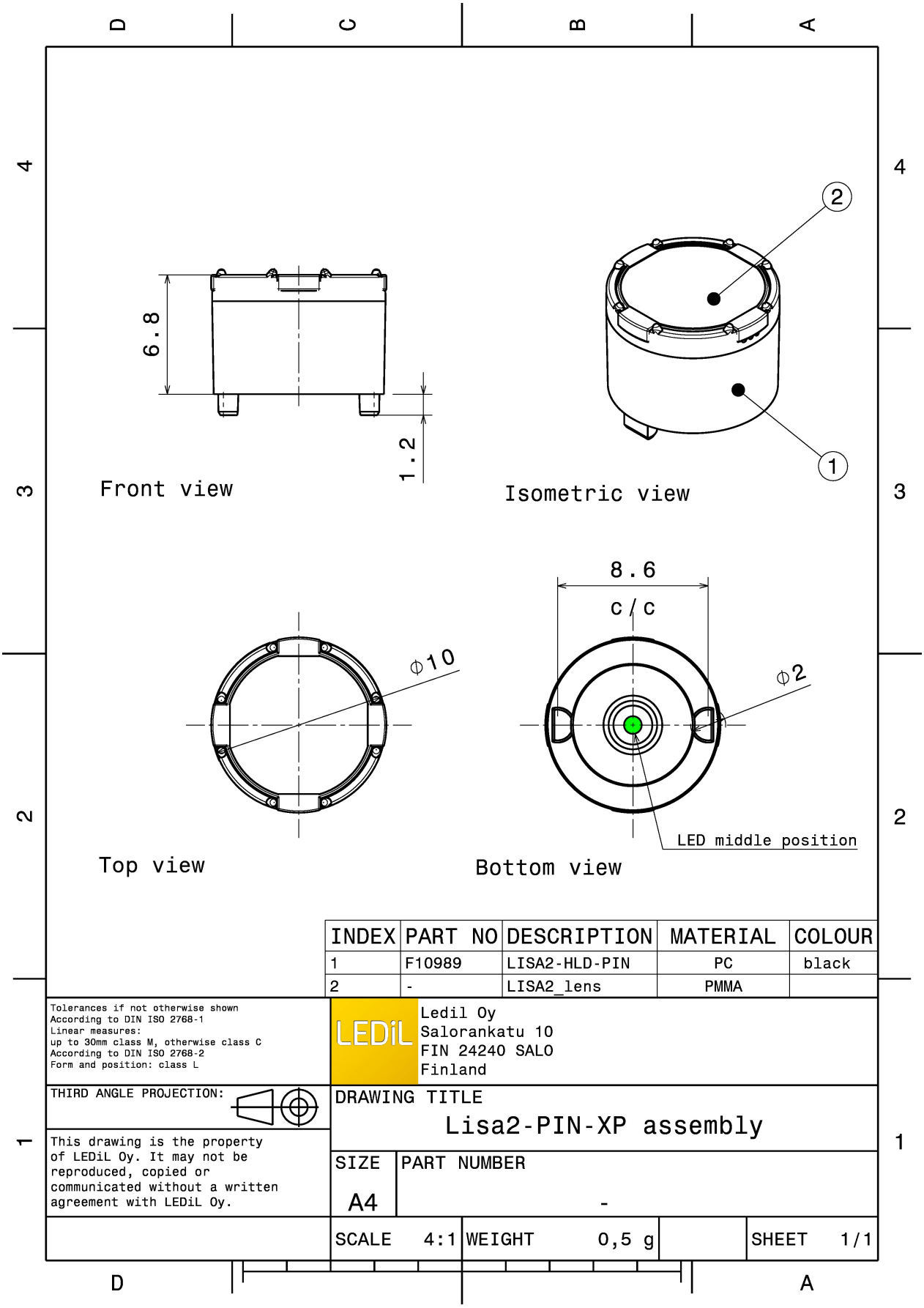
| | |
|---|---|
| Dimensions | Ø 9.9 mm |
| Height | 6.8 mm |
| Fastening | glue, pin |
| ROHS compliant | yes |

## MATERIAL SPECIFICATIONS:

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

## ORDERING INFORMATION:

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




| 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

THIRD ANGLE PROJECTION:

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Salorankatu 10
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DRAWING TITLE
Lisa2-PIN-XP assembly

SIZE A4 | PART NUMBER -

SCALE 4:1 | WEIGHT 0,5 g | SHEET 1/1

See also our general installation guide: www.ledil.com/installation_guide

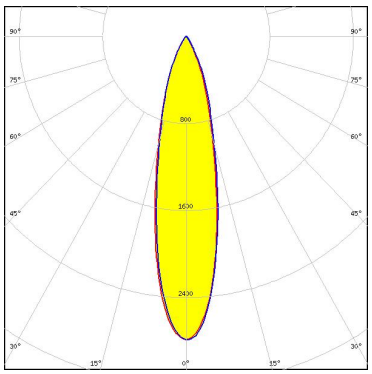
## PHOTOMETRIC DATA (MEASURED):

CREE LED

| | |
|---|---|
| LED | XB-D White |
| FWHM / FWTM | 26.0° |
| Efficiency | 87 % |
| Peak intensity | 2.7 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

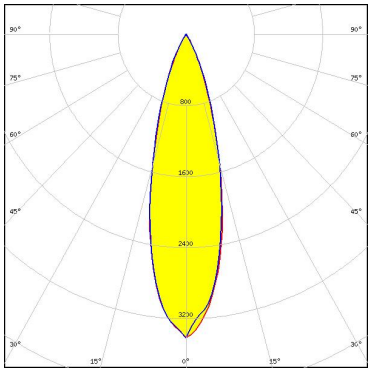
CREE LED

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



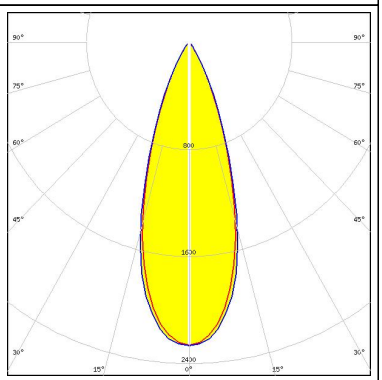
CREE LED

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



CREE LED

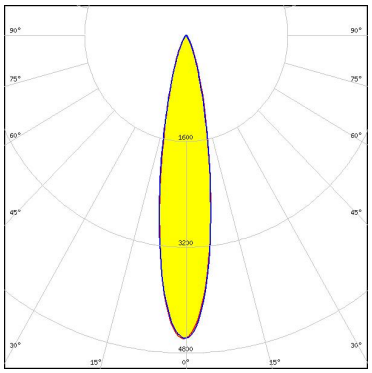
| | |
|---|---|
| LED | XP-G |
| FWHM / FWTM | 34.0° / 60.0° |
| Efficiency | 91 % |
| Peak intensity | 2.2 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



## PHOTOMETRIC DATA (MEASURED):

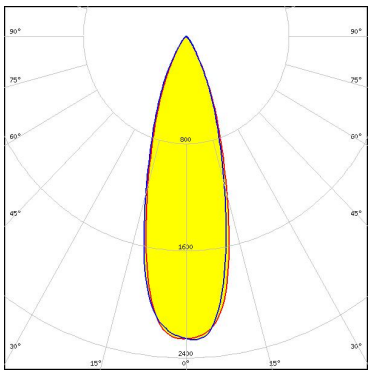
CREE LED

| | |
|---|---|
| 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 | White |
| Required components: | |



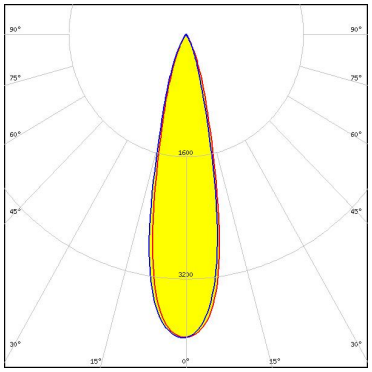
CREE LED

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



LUMILEDS

| | |
|---|---|
| LED | LUXEON C |
| FWHM / FWTM | 24.0° / 46.0° |
| Efficiency | 89 % |
| Peak intensity | 4 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



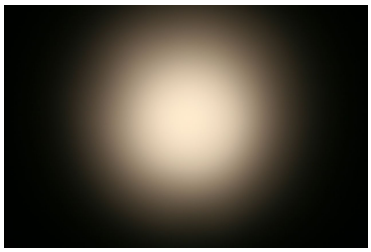
LUMILEDS

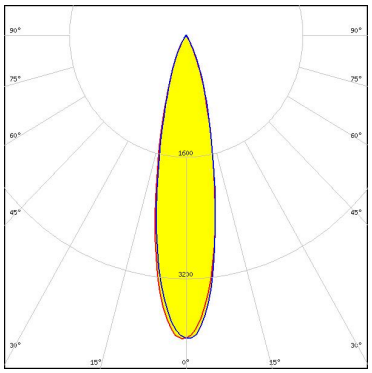
| | |
|---|---|
| LED | LUXEON Z |
| FWHM / FWTM | 19.0° / 41.0° |
| Efficiency | 86 % |
| Peak intensity | 5.3 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

## PHOTOMETRIC DATA (MEASURED):

LUMILEDS

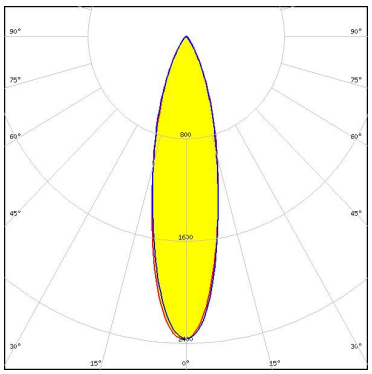
| | |
|---|---|
| LED | LUXEON Z ES |
| FWHM / FWTM | 23.0° / 48.0° |
| Efficiency | 87 % |
| Peak intensity | 4 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |





NICHIA

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



OSRAM
Opto Semiconductors

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

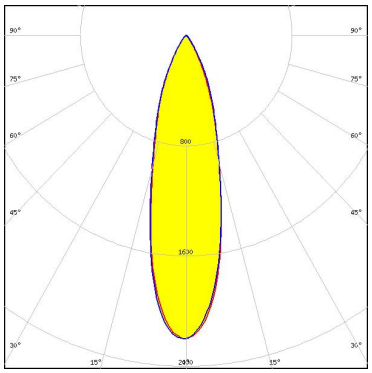
OSRAM
Opto Semiconductors

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

## PHOTOMETRIC DATA (MEASURED):

SAMSUNG

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



SHARP

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

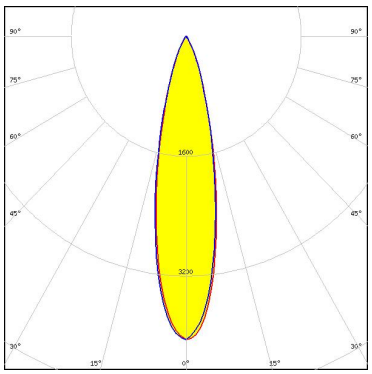
## PHOTOMETRIC DATA (SIMULATED):

CREE LED

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

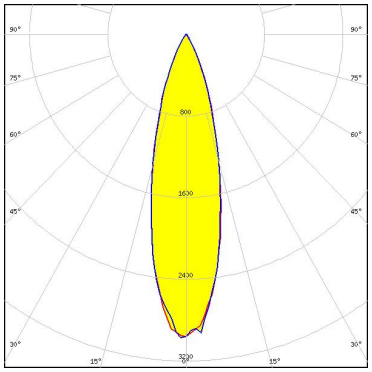
LUMILEDS

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



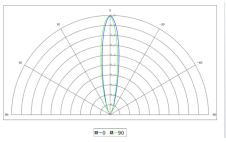
NICHIA

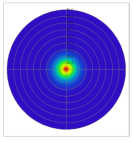
| | |
|---|---|
| LED | NVSxE21A |
| FWHM / FWTM | 27.0° / 54.0° |
| Efficiency | 86 % |
| Peak intensity | 3 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

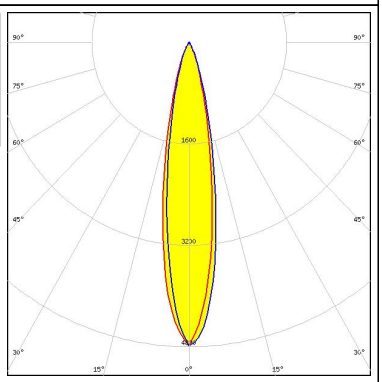


OSRAM
Opto Semiconductors

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



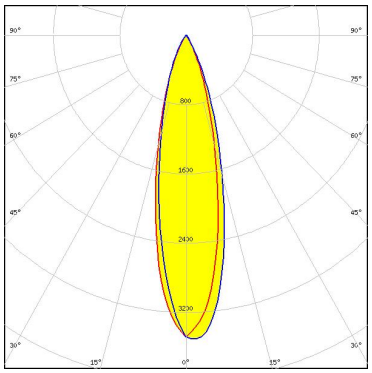




## PHOTOMETRIC DATA (SIMULATED):

OSRAM
Opto Semiconductors

| | |
|---|---|
| LED | SFH 4770S |
| FWHM / FWTM | 25.0° / 52.0° |
| Efficiency | 91 % |
| Peak intensity | 3.5 cd/lm |
| 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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