

### LISA

Miniature TIR-lenses for jewellery shops, reading lights, torches and head lamps.

LISA series of lenses, measuring less than 10 mm in diameter and less than 7 mm tall, achieves up to 90 % light transmission efficiency through superior design and materials. Each lens is mounted in a molded polycarbonate (PC) housing and attaches to the PCB by means of locating pins or optional mounting clips and is built to maintain its physical integrity over the usable life of the luminaire.

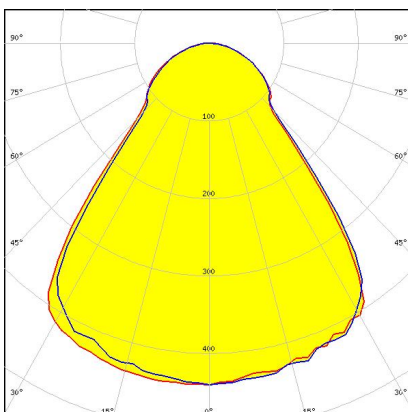
### LISA2

Ø9.9 mm variant with glue or clip mounting for up to 3535 size LED packages



### PRODUCTS:

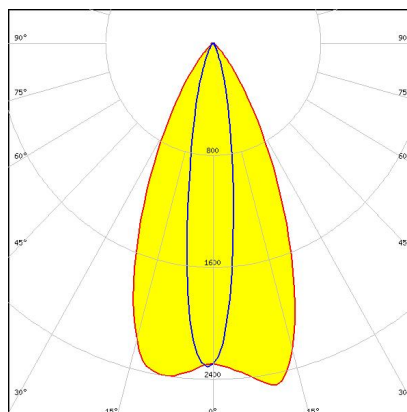
#### C12469\_LISA2-R-PIN



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.60 mm**

White mini reflector with ~80° wide beam.  
6.5 mm high with location pin installation.

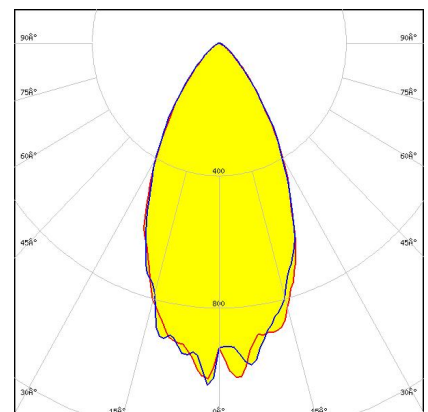
#### FP11121\_LISA2-O-CLIP



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.80 mm**

~45° x 20° oval beam optimized for  
CREE XP-E. 6.8 mm high variant with  
clip installation.

#### FP13026\_LISA2-WW-PIN

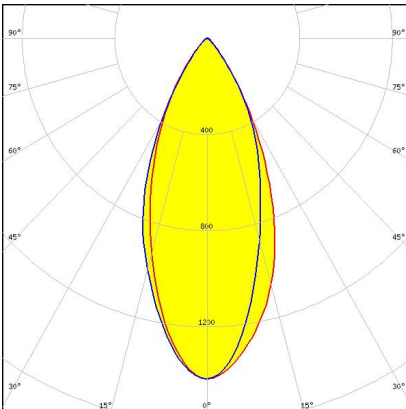


**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.80 mm**

~45° wide beam. 6.8 mm high variant  
with location pin installation.

### PRODUCTS:

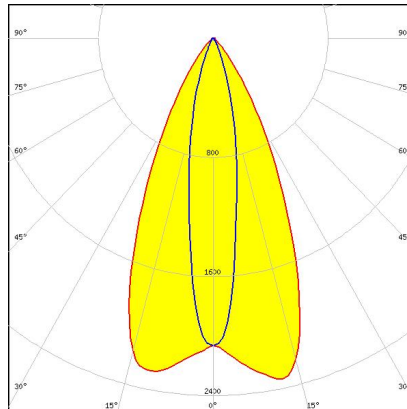
#### FP11002\_LISA2-W-PIN



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.60 mm**

~35° wide beam optimized for 3535 size LED packages. 6.6 mm high variant with location pin installation.

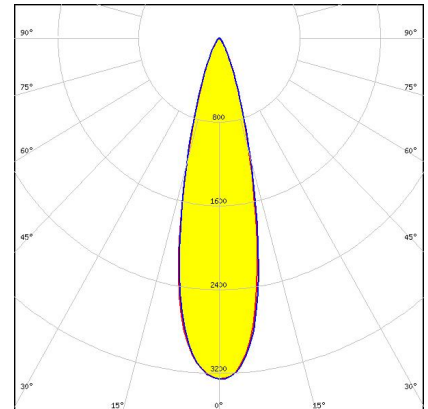
#### FP11125\_LISA2-O-PIN



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.80 mm**

~45° x 20° oval beam. 6.8 mm high variant with location pin installation.

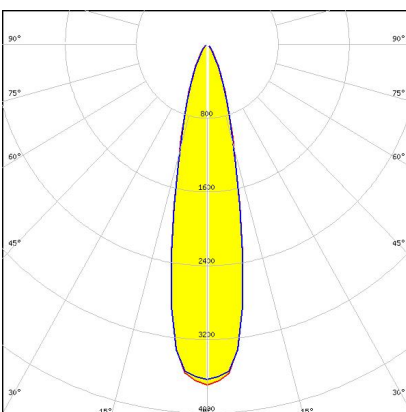
#### FP13030\_LISA2-M-CLIP



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.80 mm**

~20° medium beam optimized for CREE XP-E. 6.8 mm high variant with clip installation.

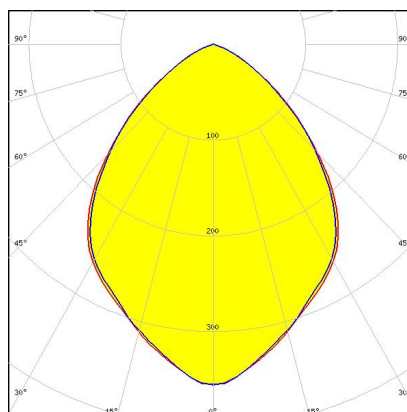
#### FP11055\_LISA2-RS-PIN



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.80 mm**

~19° spot beam. 6.8 mm high variant with location pin installation.

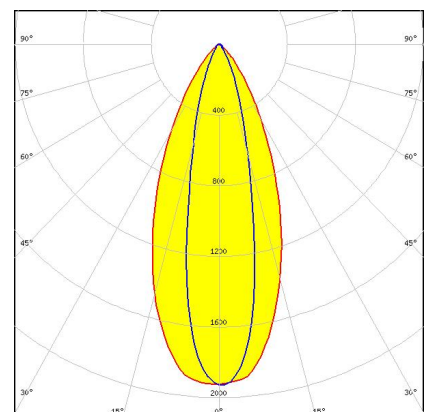
#### FP11431\_LISA2-WWW-CLIP



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 7.00 mm**

~80° wide beam optimized for CREE XP-E. 7.0 mm high variant with clip installation.

#### FP14415\_LISA2-O-CLIP

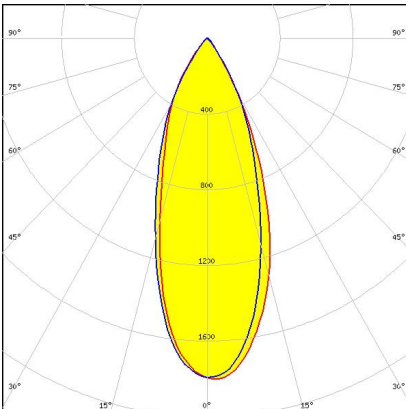


**Dimensions: 10.0 mm x 10.0 mm**  
**Height: 6.81 mm**

~45° x 20° oval beam optimized for CREE XP-E. 7.13 mm high variant with clip installation.

### PRODUCTS:

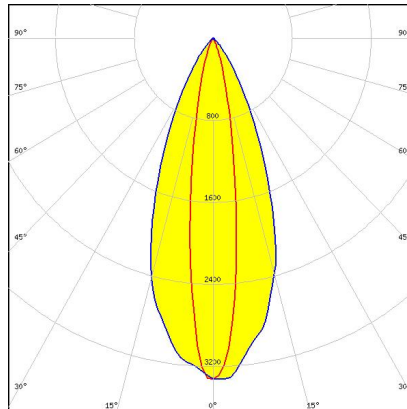
#### FP11073\_LISA2-W-CLIP



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.60 mm**

~35° wide beam optimized for LUXEON Rebel. 6.6 mm high variant with clip installation.

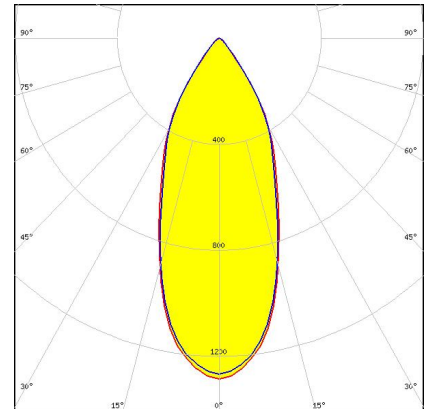
#### FP11856\_LISA2-O-90-CLIP



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.80 mm**

~20° x 50° turned oval beam optimized for CREE XP-E. 6.8 mm high variant with clip installation.

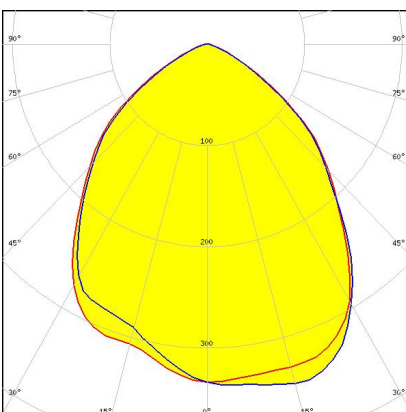
#### FP11077\_LISA2-WW-CLIP



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.80 mm**

~45° wide beam optimized for CREE XP-E. 6.8 mm high variant with clip installation.

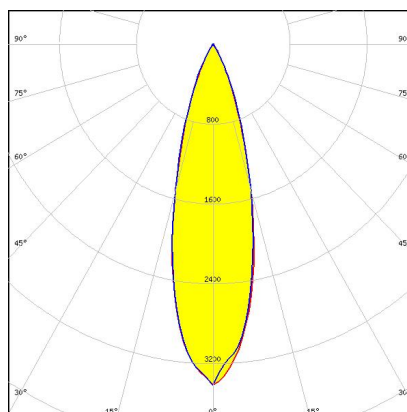
#### FP11957\_LISA2-WWW-PIN



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.65 mm**

~80° wide beam optimized for 3535 size LED packages. 6.6 mm high variant with location pin installation.

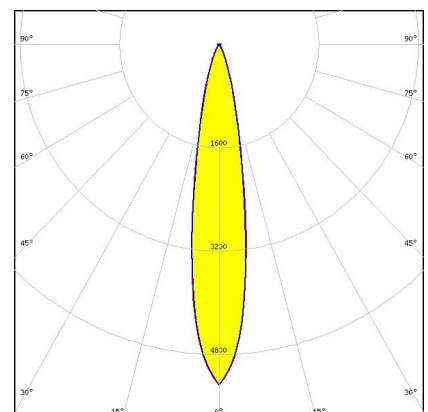
#### FP10995\_LISA2-M-PIN



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.80 mm**

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

#### FP11084\_LISA2-RS-CLIP

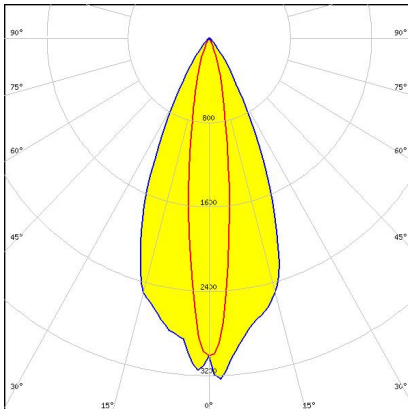


**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.60 mm**

~19° spot beam optimized for 3535 size LED packages. 6.6 mm high variant with clip installation.

### PRODUCTS:

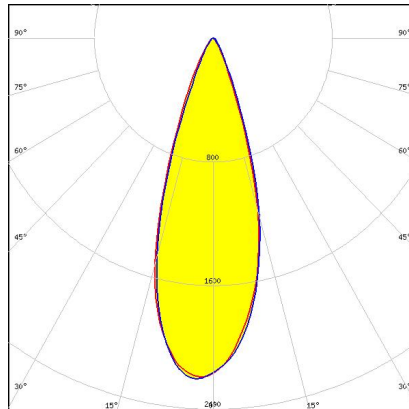
#### FP11120\_LISA2-O-CLIP



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.60 mm**

~45° x 20° oval beam optimized for 3535 size LED packages. 6.6 mm high variant with clip installation.

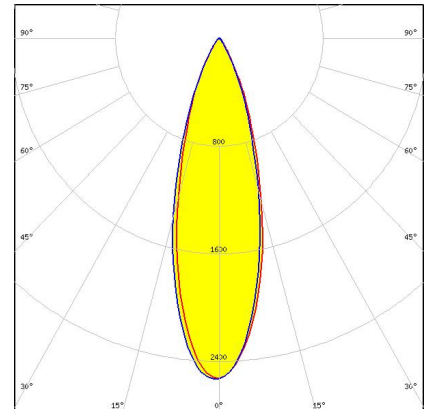
#### FP13025\_LISA2-W-PIN



**Dimensions: 10.0 mm x 10.0 mm**  
**Height: 6.80 mm**

~35° wide beam. 6.8 mm high variant with location pin installation.

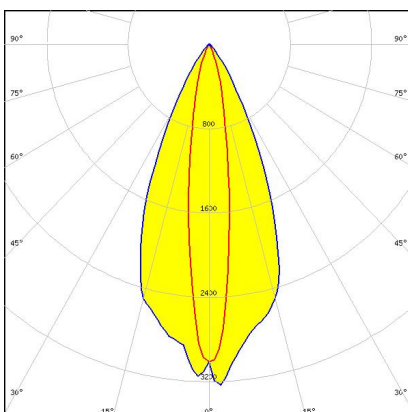
#### FP11001\_LISA2-M-PIN



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.65 mm**

~20° medium beam optimized for 3535 size LED packages. 6.6 mm high variant with location pin installation.

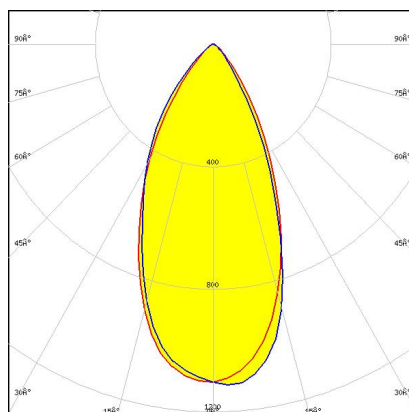
#### FP11124\_LISA2-O-PIN



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.65 mm**

~45° x 20° oval beam optimized for 3535 size LED packages. mm high variant with location pin installation.

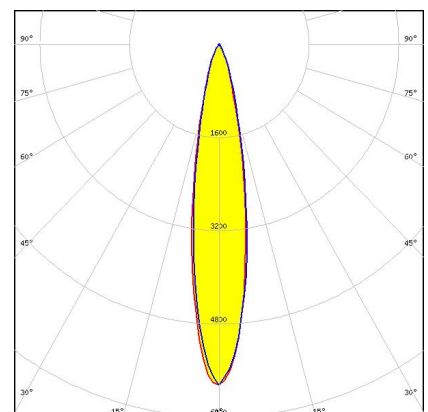
#### FP13029\_LISA2-WW-CLIP



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.80 mm**

~45° wide beam optimized for CREE XP-E. 6.8 mm high variant with clip installation.

#### FP11047\_LISA2-RS-PIN

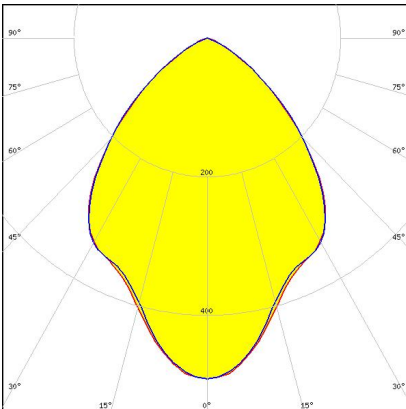


**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.70 mm**

~19° spot beam optimized for 3535 size LED packages.. 6.6 mm high variant with location pin installation.

### PRODUCTS:

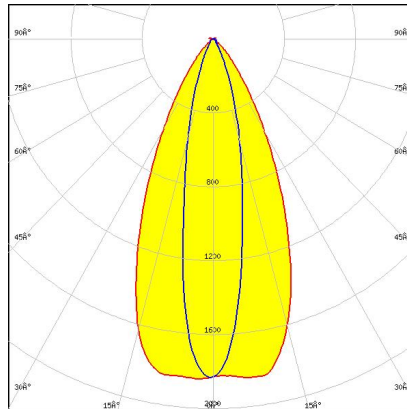
#### FP11429\_LISA2-WWW-PIN



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 7.00 mm**

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

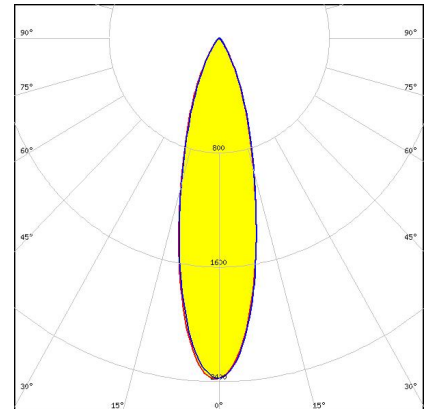
#### FP14414\_LISA2-O-PIN



**Dimensions: 10.0 mm x 10.0 mm**  
**Height: 6.81 mm**

~45° x 20° oval beam. 7.13 mm high variant with location pin installation.

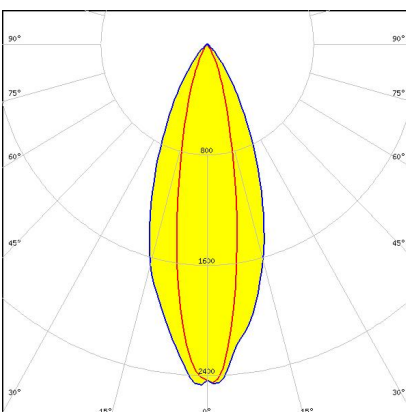
#### FP11072\_LISA2-M-CLIP



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.60 mm**

~20° medium beam optimized for LUXEON Rebel. 6.6 mm high variant with clip installation.

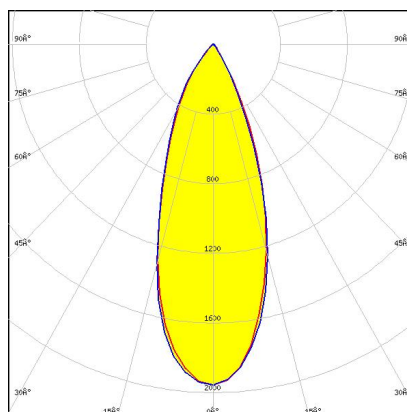
#### FP11852\_LISA2-O-90-PIN



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.60 mm**

~20° x 50° oval beam optimized for 3535 size LED packages. Variant with beam direction rotated 90°. 6.6 mm high variant with location pin installation.

#### FP11076\_LISA2-W-CLIP



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.80 mm**

~35° wide beam optimized for CREE XP-E. 6.8 mm high variant with clip installation.

#### FP11952\_LISA2-WWW-CLIP

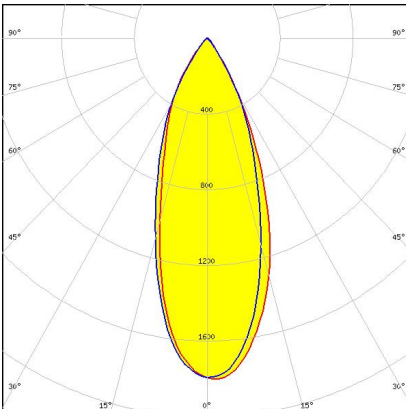
**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.60 mm**

~80° wide beam optimized for LUXEON Rebel. 6.6 mm high variant with clip installation.



### PRODUCTS:

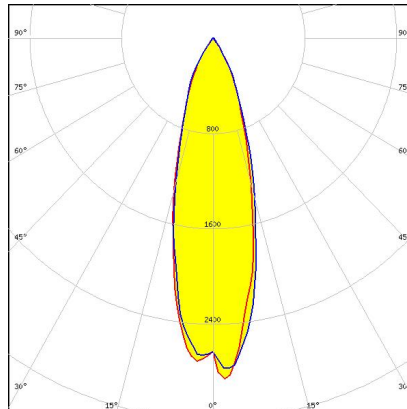
#### FP10993\_LISA2-W-PIN



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.60 mm**

~35° wide beam optimized for LUXEON Rebel. 6.6 mm high variant with location pin installation.

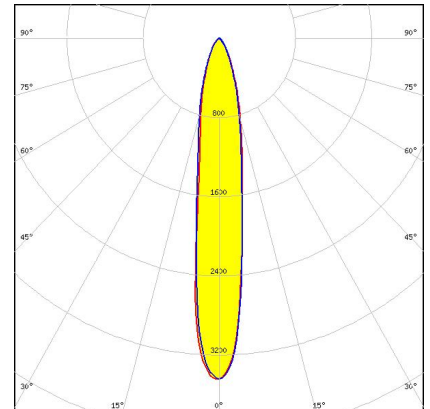
#### FP11082\_LISA2-W-CLIP



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.60 mm**

~35° wide beam optimized for 3535 size LED packages. 6.6 mm high variant with clip installation.

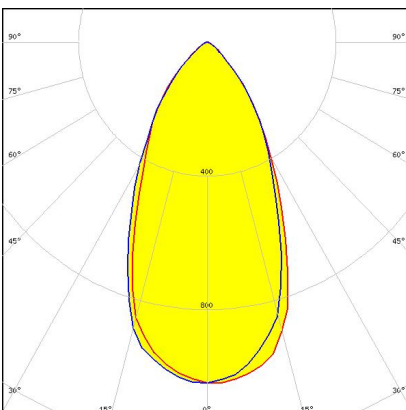
#### FP11086\_LISA2-RS-CLIP



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.60 mm**

~19° spot beam optimized for LUXEON Rebel. 6.6 mm high variant with clip installation.

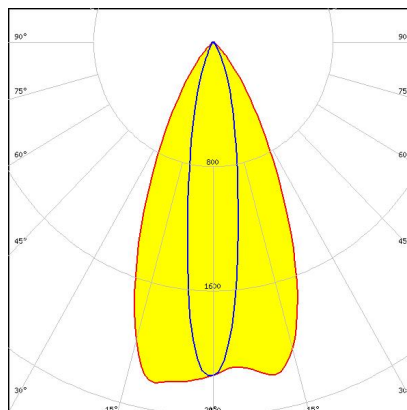
#### FP10997\_LISA2-WW-PIN



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 7.00 mm**

~45° wide beam. 7.0 mm high variant with location pin installation.

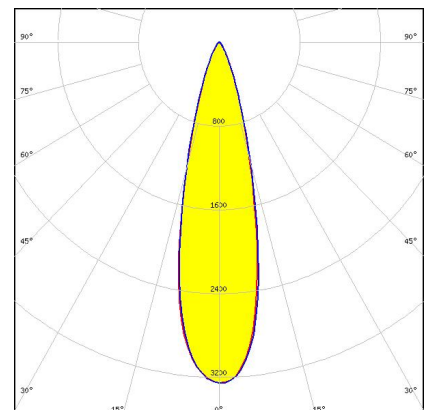
#### FP11122\_LISA2-O-CLIP



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.60 mm**

~45° x 20° oval beam optimized for LUXEON Rebel. 6.6 mm high variant with clip installation.

#### FP13028\_LISA2-M-PIN

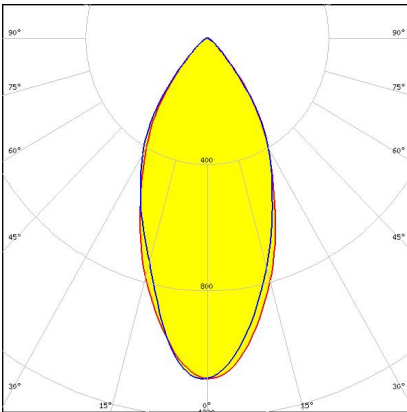


**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.80 mm**

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

### PRODUCTS:

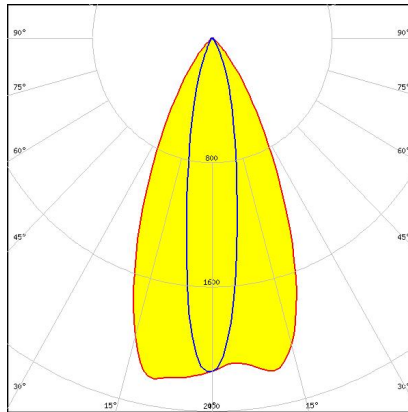
#### FP11003\_LISA2-WW-PIN



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.81 mm**

~45° wide beam optimized for 3535 size LED packages. 6.8 mm high variant with location pin installation.

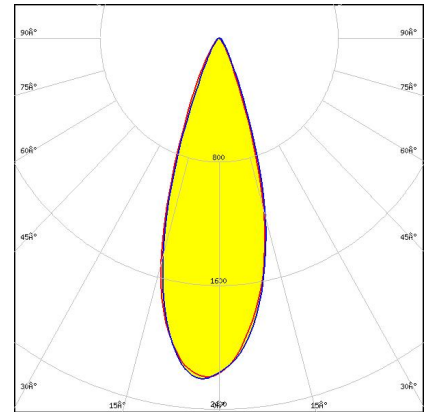
#### FP11126\_LISA2-O-PIN



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.60 mm**

~45° x 20° oval beam optimized for LUXEON Rebel. 6.6 mm high variant with location pin installation.

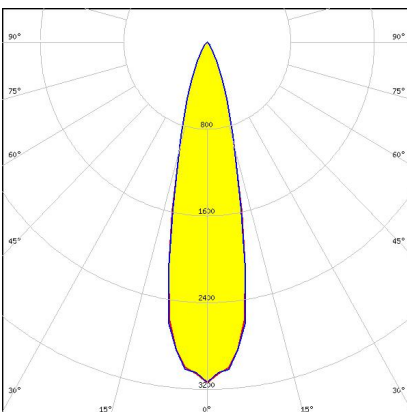
#### FP13031\_LISA2-W-CLIP



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.80 mm**

~35° wide beam optimized for CREE XP-E. 6.8 mm high variant with clip installation.

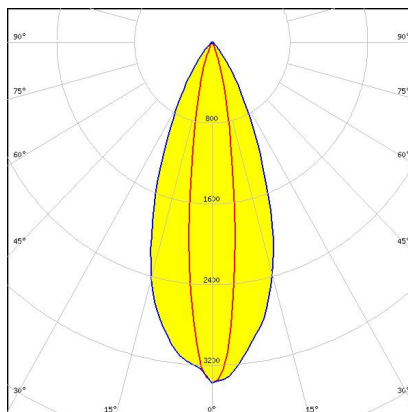
#### FP11056\_LISA2-RS-PIN



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.60 mm**

~19° spot beam optimized for LUXEON Rebel. 6.6 mm high variant with location pin installation.

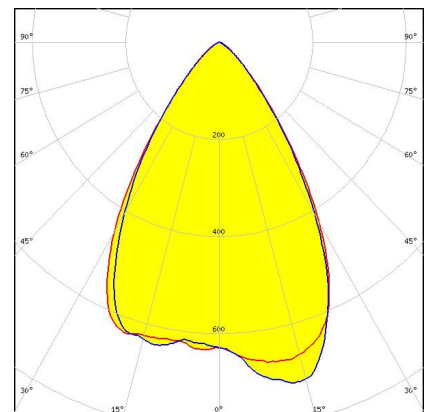
#### FP11851\_LISA2-O-90-PIN



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.80 mm**

~20° x 50° oval beam. Variant with beam direction rotated 90°. 6.8 mm high variant with location pin installation.

#### FP14766\_LISA2-WWX-PIN

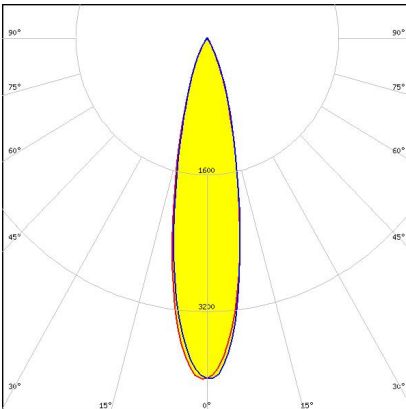


**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 7.00 mm**

~60° wide beam optimized for 3535 size LED packages. 7.0 mm high variant with location pin installation.

### PRODUCTS:

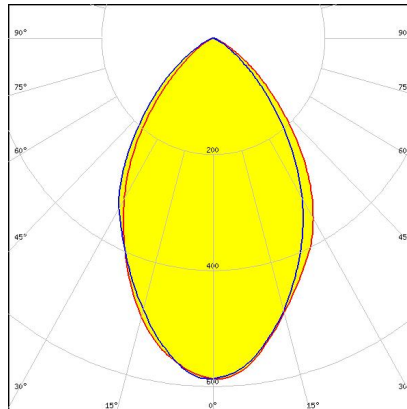
#### FP11075\_LISA2-M-CLIP



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.80 mm**

~20° medium beam optimized for CREE XP-E. 6.8 mm high variant with clip installation.

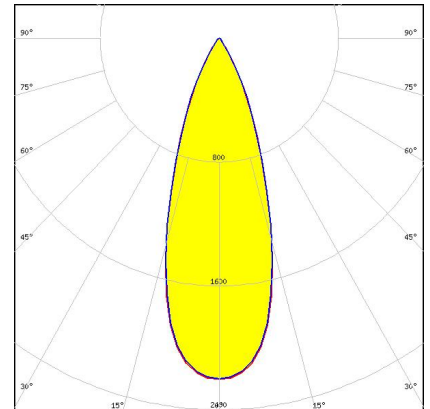
#### FP11951\_LISA2-WWW-PIN



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.60 mm**

~80° wide beam optimized for LUXEON Rebel. 6.6 mm high variant with location pin installation.

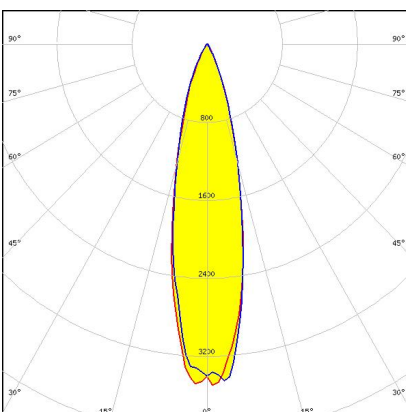
#### FP10992\_LISA2-M-PIN



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.60 mm**

~20° medium beam optimized for LUXEON Rebel. 6.6 mm high variant with location pin installation.

#### FP11081\_LISA2-M-CLIP



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.60 mm**

~20° medium beam optimized for 3535 size LED packages.. 6.6 mm high variant with clip installation.

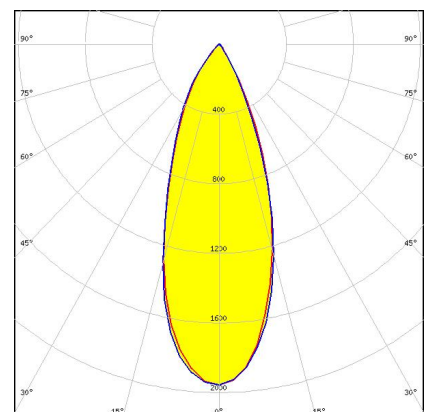
#### FP11958\_LISA2-WWW-CLIP



**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.60 mm**

~80° wide beam optimized for 3535 size LED packages. 6.6 mm high variant with clip installation.

#### FP10996\_LISA2-W-PIN



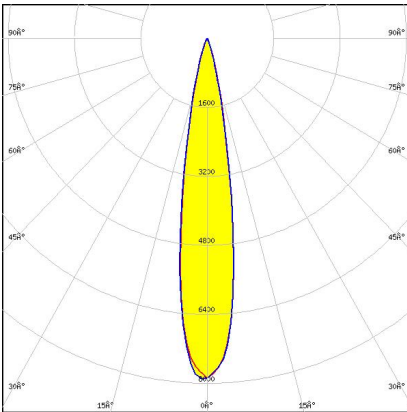
**Dimensions: 9.9 mm x 9.9 mm**  
**Height: 6.80 mm**

~35° wide beam. 6.8 mm high variant with location pin installation.



## PRODUCTS:

### FP11085\_LISA2-RS-CLIP



**Dimensions: 9.9 mm x 9.9 mm**

**Height: 6.80 mm**

~19° spot beam optimized for CREE

XP-E. 6.8 mm high variant with clip  
installation.

### 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:

As part of our continuous research and improvement processes, and to ensure the best possible quality and availability of our products, LEDiL reserves the right to change material grades without notice.

### PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

The measured data in the provided downloadable LEDiL Product Datasheets and Mechanical 2D-Drawings is rounded and provided as reference for planning. LEDiL Oy's optical specifications have been verified by conducting performance testing of the products in accordance with the company's quality system. The reported data are averaged results of multiple measurements with typical variation. LEDiL Oy reserves the right to without prior notification make changes and improvements to its products.

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#### LEDiL Oy

Joensuunkatu 7  
FI-24100 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

#### Local sales and technical support

[www.ledil.com/  
where\\_to\\_buy](http://www.ledil.com/where_to_buy)

#### Shipping locations

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#### Distribution Partners

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