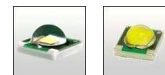


## LISA2-CLIP16-XP MINIATURE LENS FOR CREE XP SERIES OF LEDs



- Lens material optical grade PMMA with high UV and temperature resistance (105°C/220°F). Lens holder molded of high quality black PC (120°C/248°F).
- High optical efficiency, up to 90%. Expect Lisa2-O, around 75%.
- Integrated holder with small snap clips. See drawing below for more details. Fastening of holder the lens to PCB.
- Very small and compact dimensions: Diameter 9.9 mm, height 6.8 mm.

### LENS TYPES

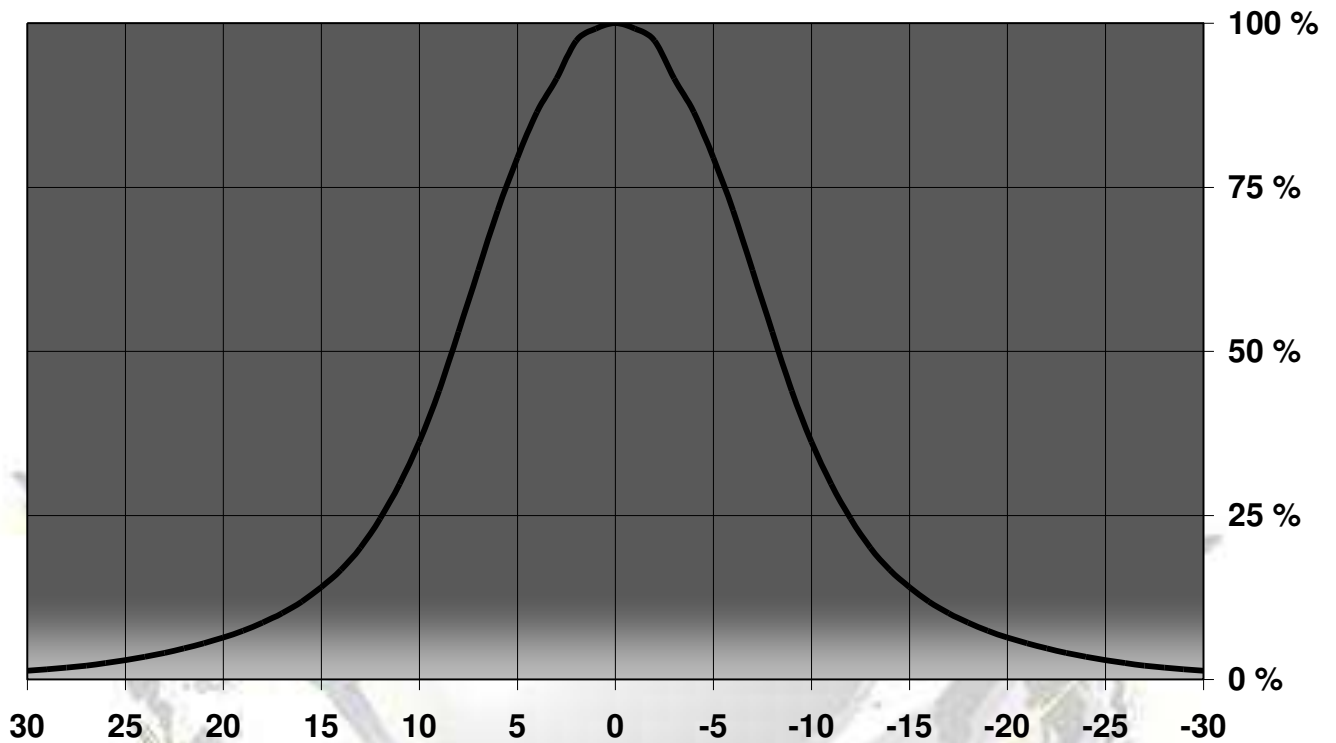
NAME	ORDERING CODE	FWHM Angle
Lisa2-Clip16 Real Spot	FA11085_Lisa2-RS-clip16-XP	±8°
Lisa2-Clip16 Medium	FA11075_Lisa2-M-clip16-XP	±12°
Lisa2-Clip16 Oval	FA11121_Lisa2-O-clip16-XP	±9° x ±24°
Lisa2-Clip16 Oval-90	FA11856_Lisa2-O-90-clip16-XP	±9° x ±24°
Lisa2-Clip16 Wide	FA11076_Lisa2-W-clip16-XP	±20°
Lisa2-Clip16 WW	FA11077_Lisa2-WW-clip16-XP	±30°
Lisa2-Clip16 WWW	FA11431_Lisa2-WWW-clip16-XP	~±34°

Lisa2-Clip16 Real Spot	FA11085_Lisa2-RS-clip16-XP-G	±13°
Lisa2-Clip16 Medium	FA11075_Lisa2-M-clip16-XP-G	±17°
Lisa2-Clip16 Oval	FA11121_Lisa2-O-clip16-XP-G	±12° x ±23°
Lisa2-Clip16 Oval-90	FA11856_Lisa2-O-90-clip16-XP-G	±12° x ±23°
Lisa2-Clip16 Wide	FA11076_Lisa2-W-clip16-XP-G	±20°
Lisa2-Clip16 WW	FA11077_Lisa2-WW-clip16-XP-G	~±30°
Lisa2-Clip16 WWW	FA11431_Lisa2-WWW-clip16-XP-G	~±40°

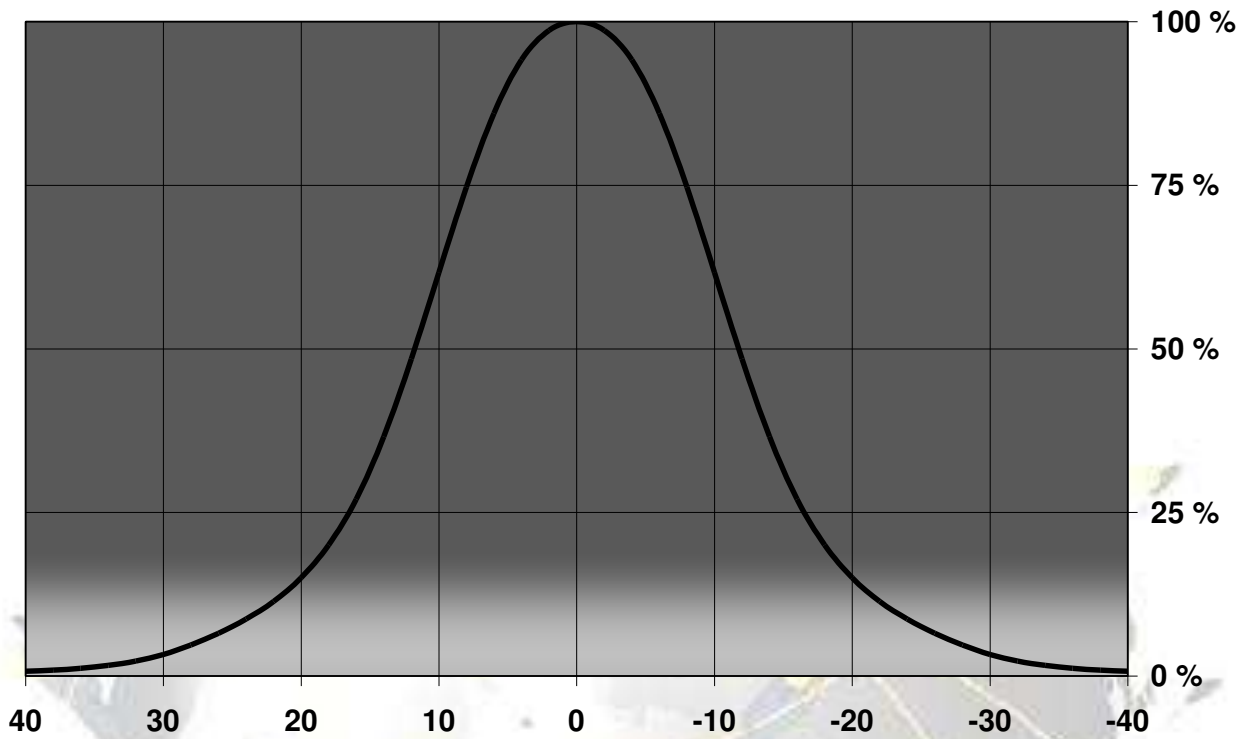
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**MEASUREMENT DATA FOR CREE XP-E**

Relative Intensity of FA11055\_Lisa2-RS-Pin-XP

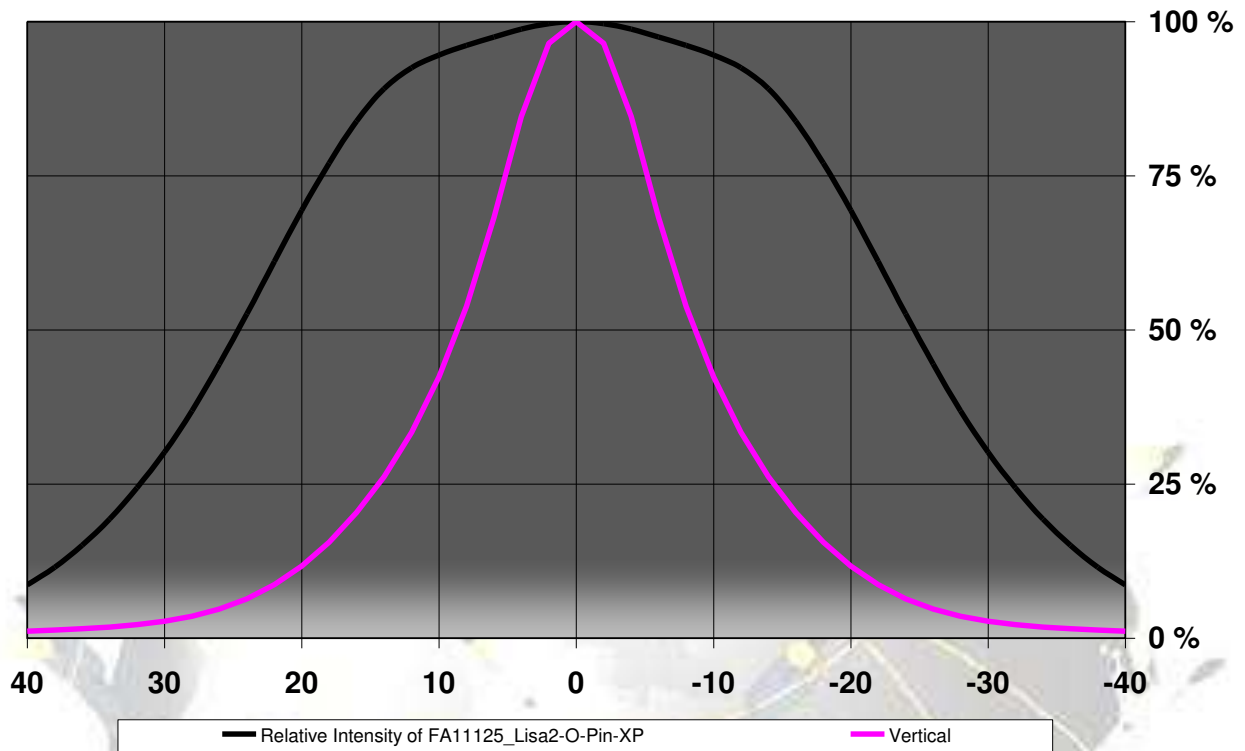


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**Relative Intensity of FA10995\_Lisa2-M-Pin-XP**

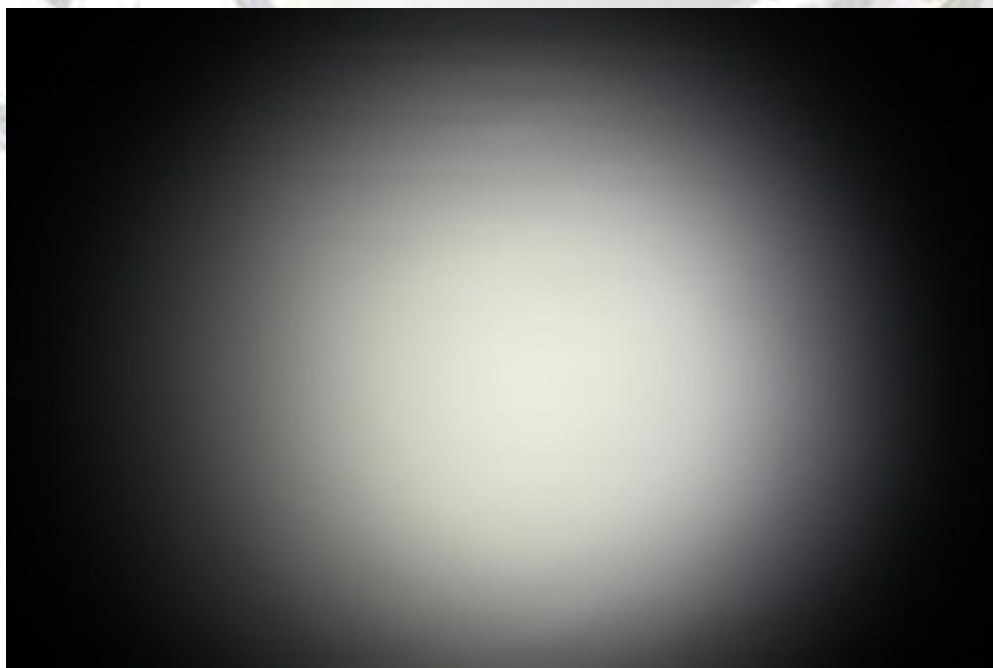
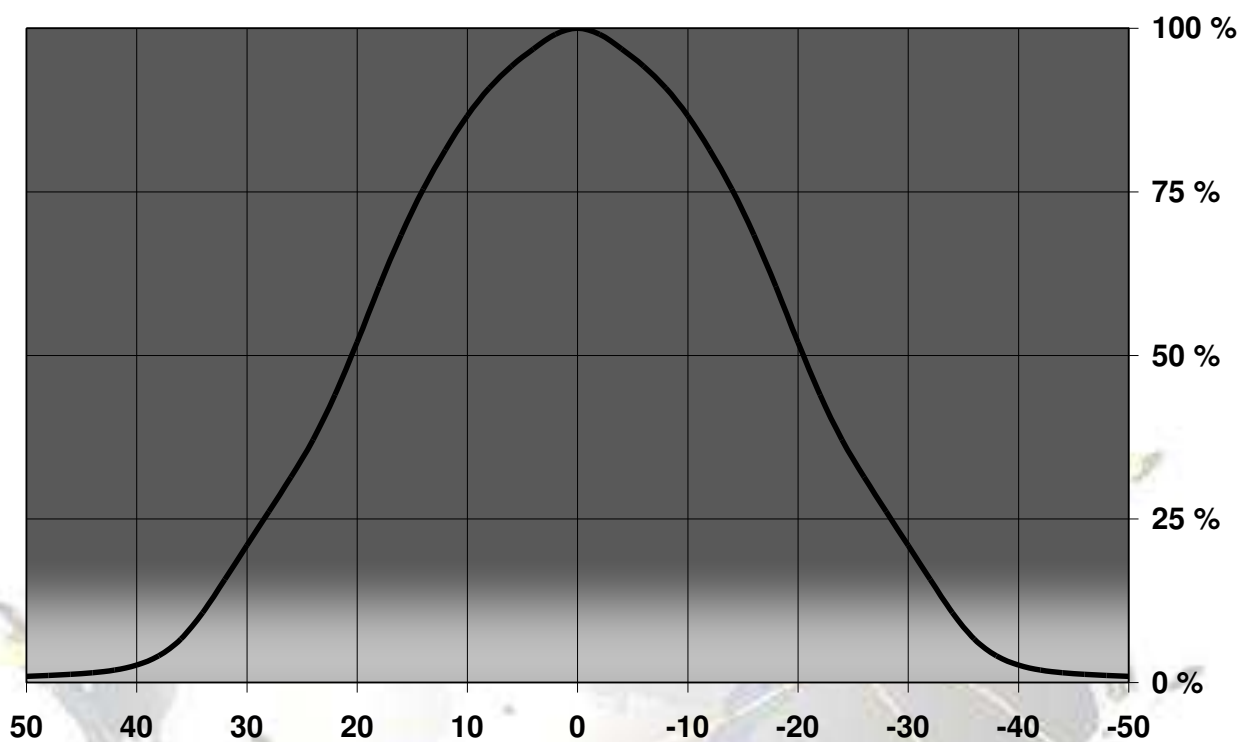
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Relative intensity of FA11125\_Lisa2-O-Pin-XP



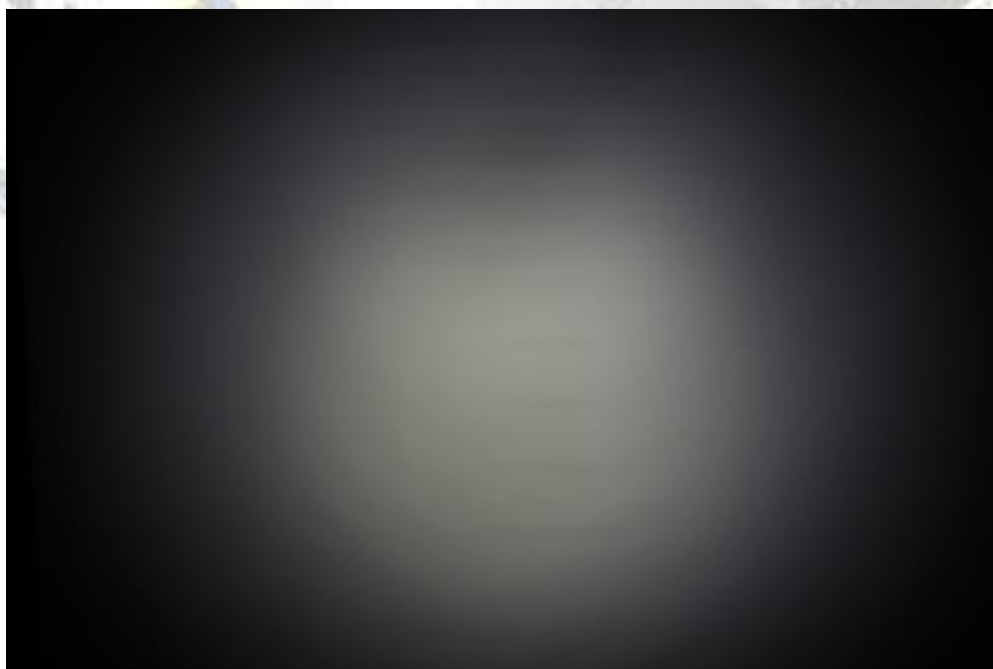
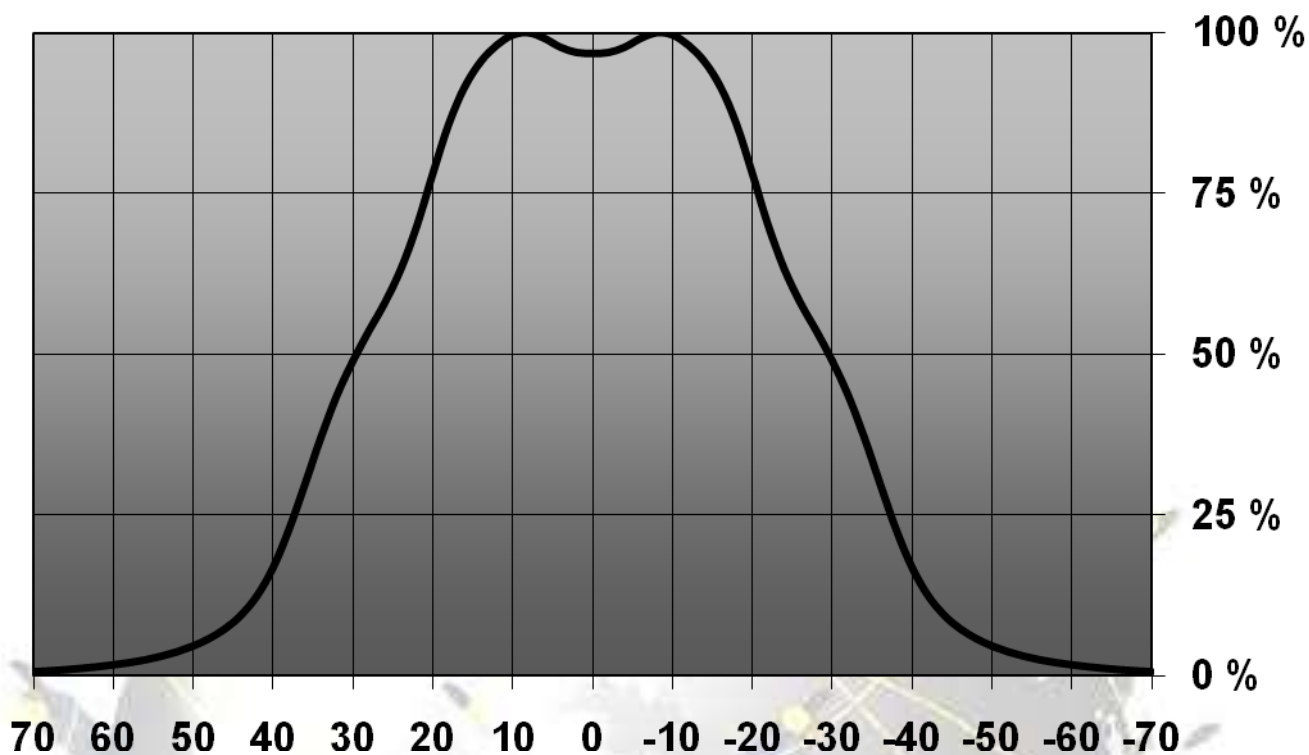
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Relative Intensity of FA10996\_Lisa2-W-Pin-XP



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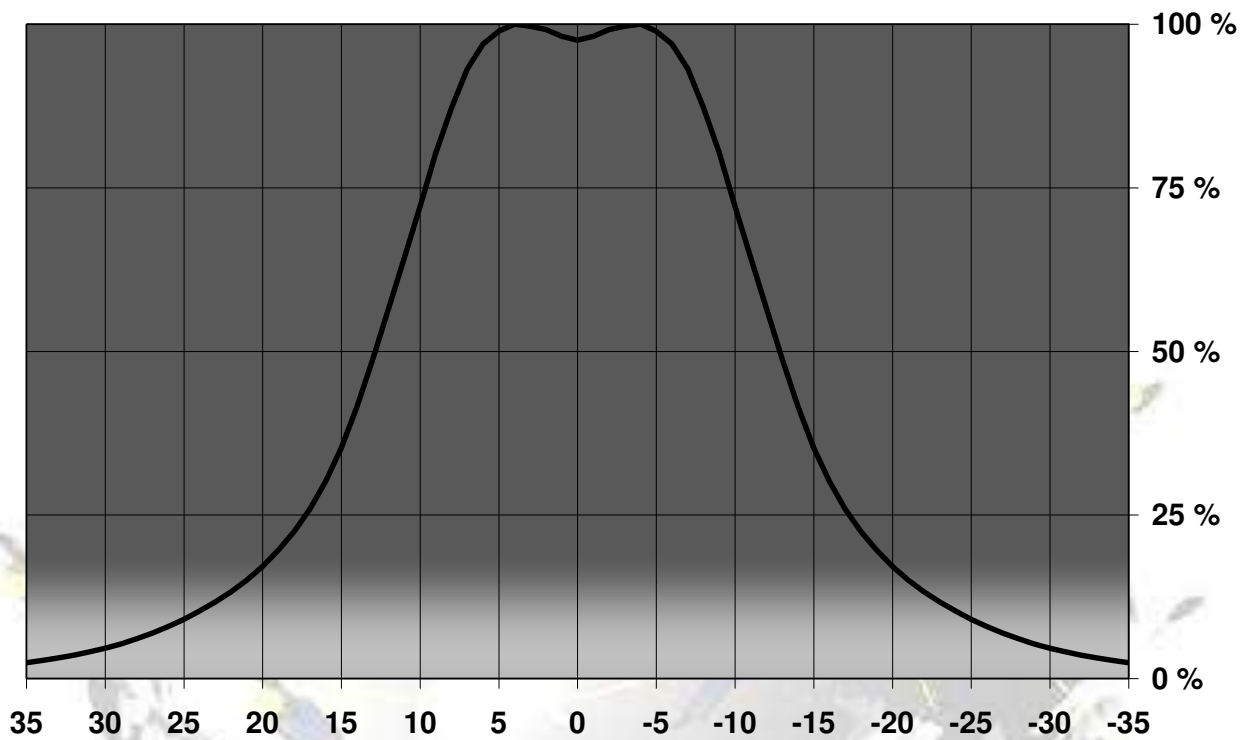
## Relative intensity of FA10997\_Lisa2-WW-Pin-XP



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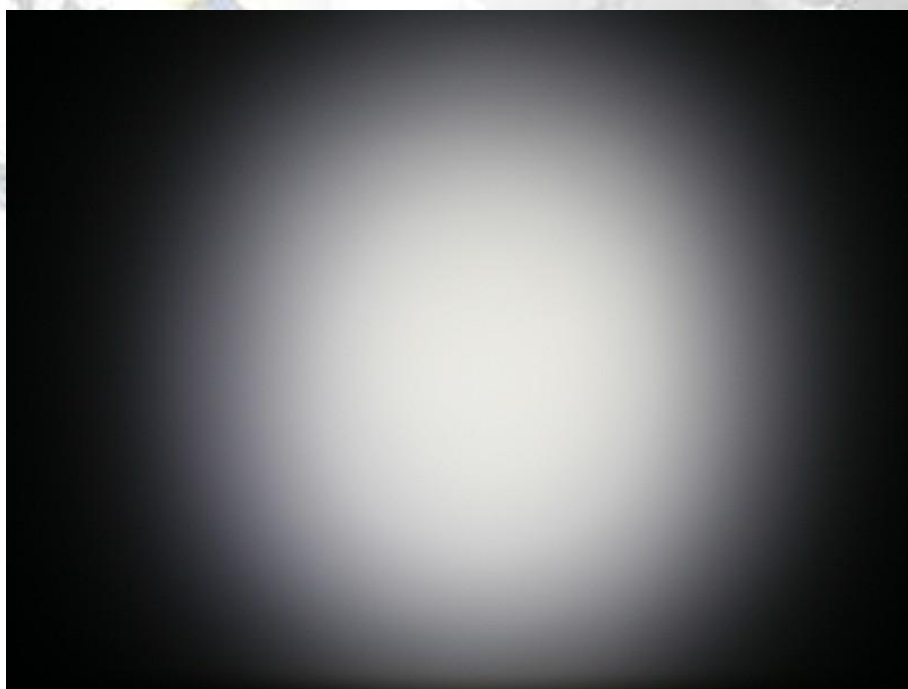
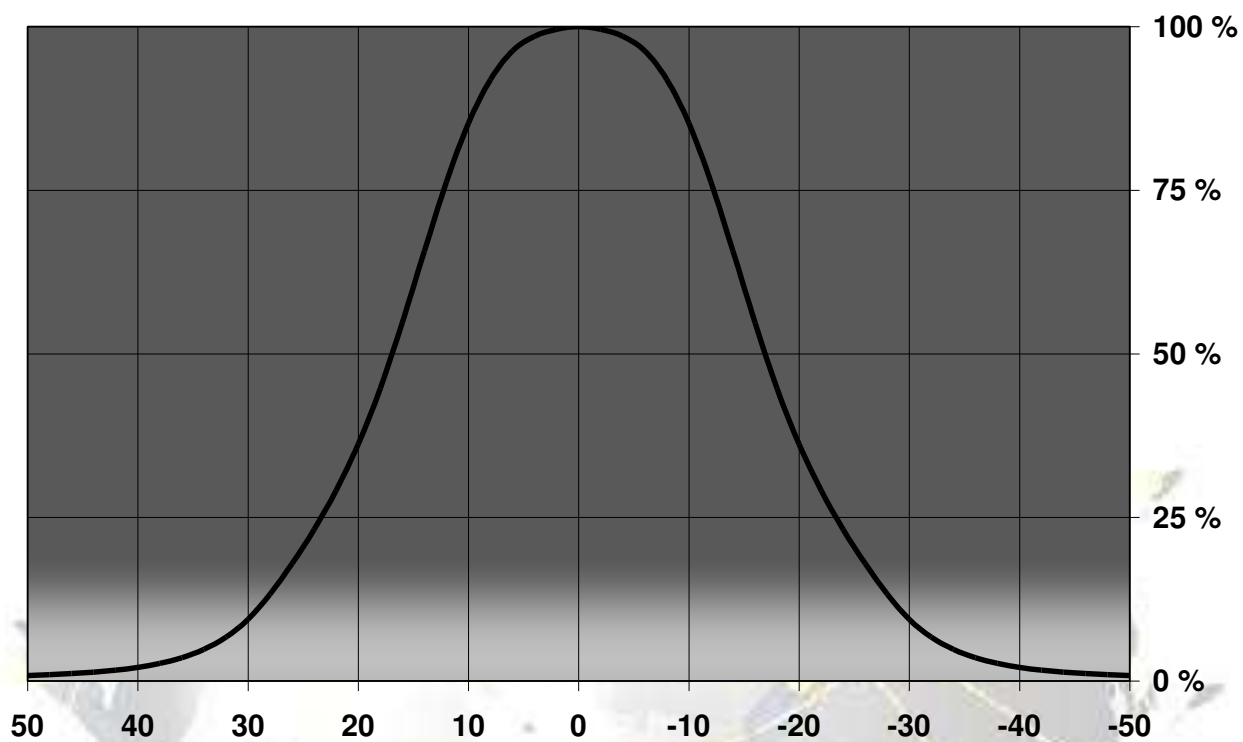
**MEASUREMENT DATA FOR CREE XP-G**

Relative Intensity of FA11055\_Lisa2-RS-Pin-XP-G



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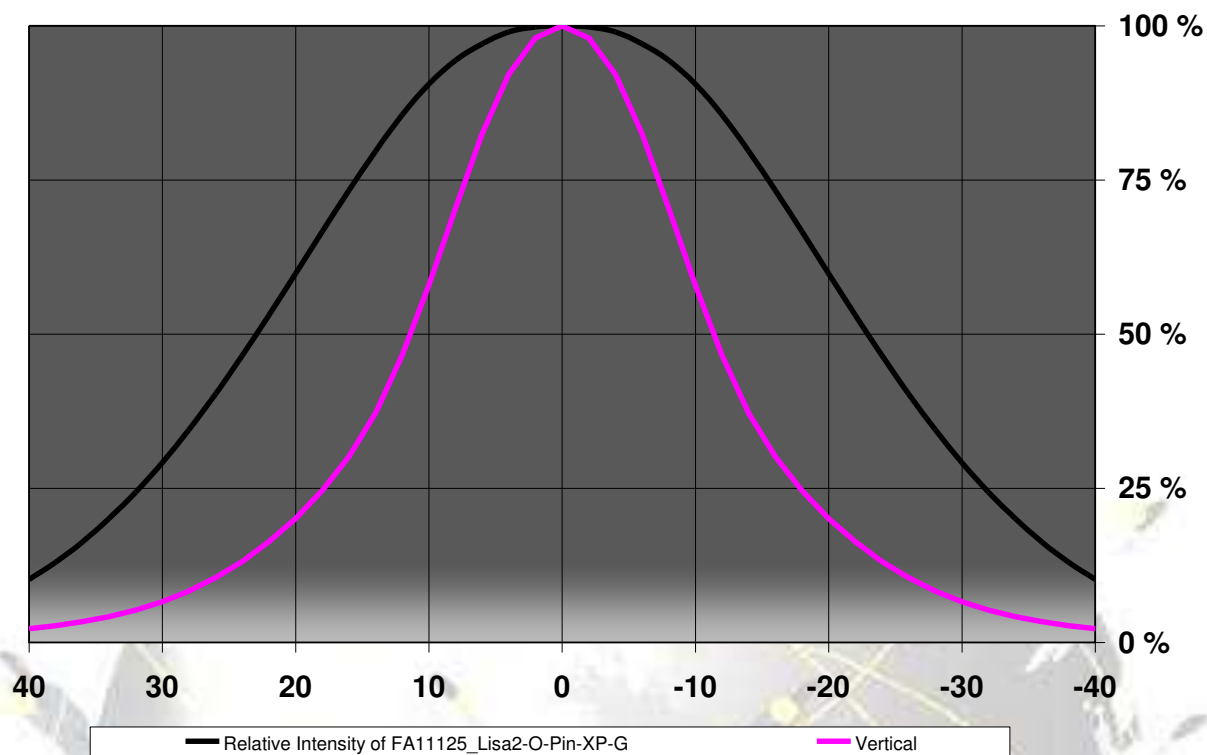
Relative Intensity of FA10995\_Lisa2-M-Pin-XP-G



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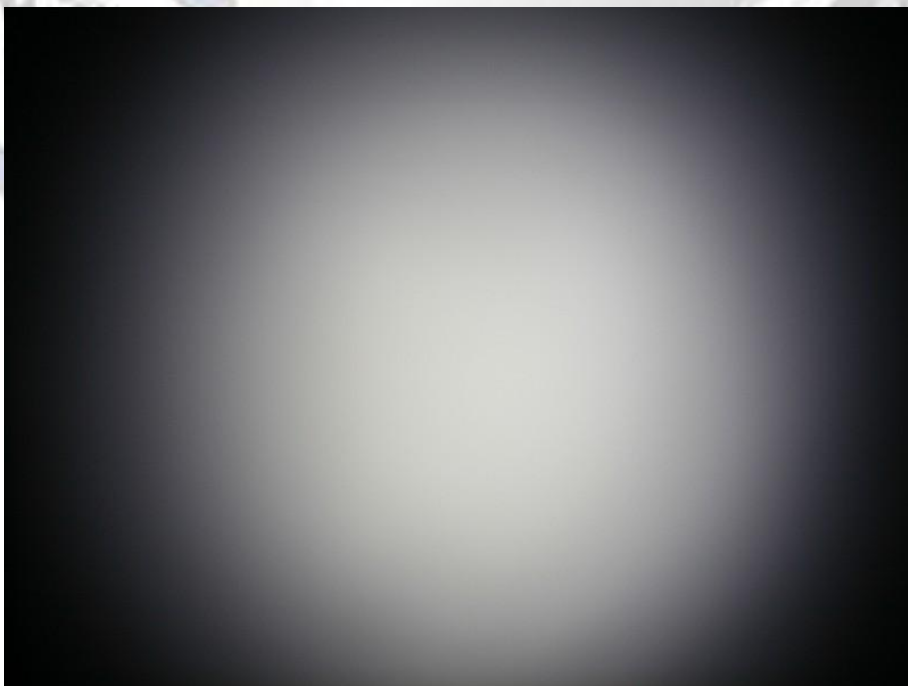
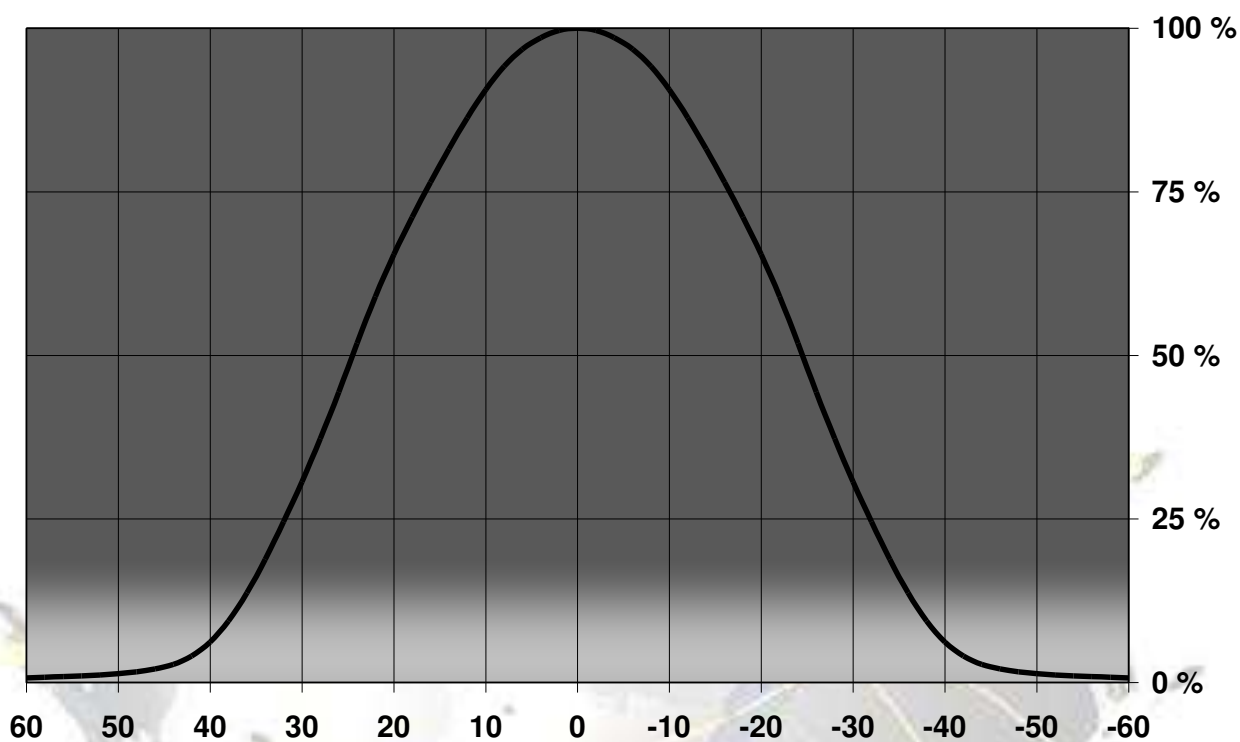


Relative intensity of FA11125\_Lisa2-O-Pin-XP-G



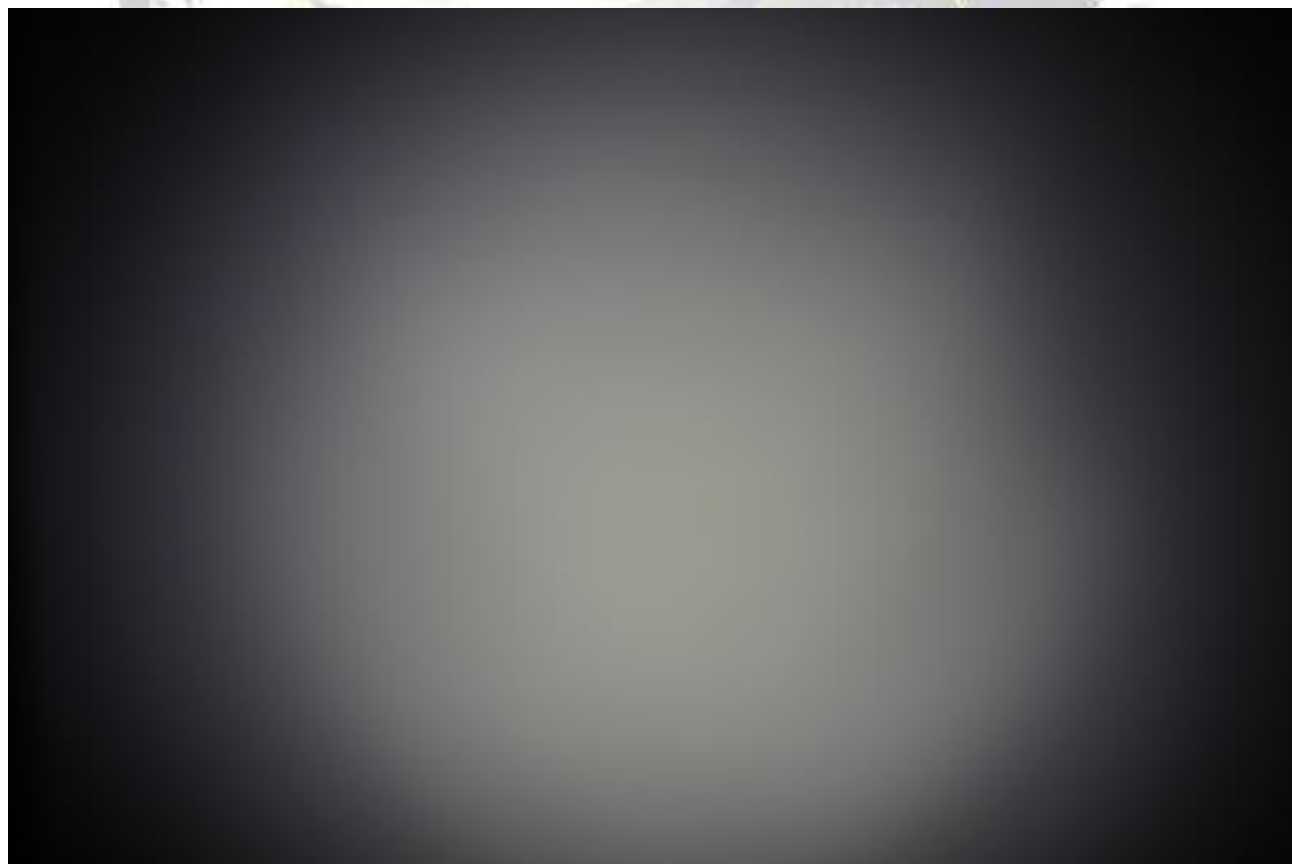
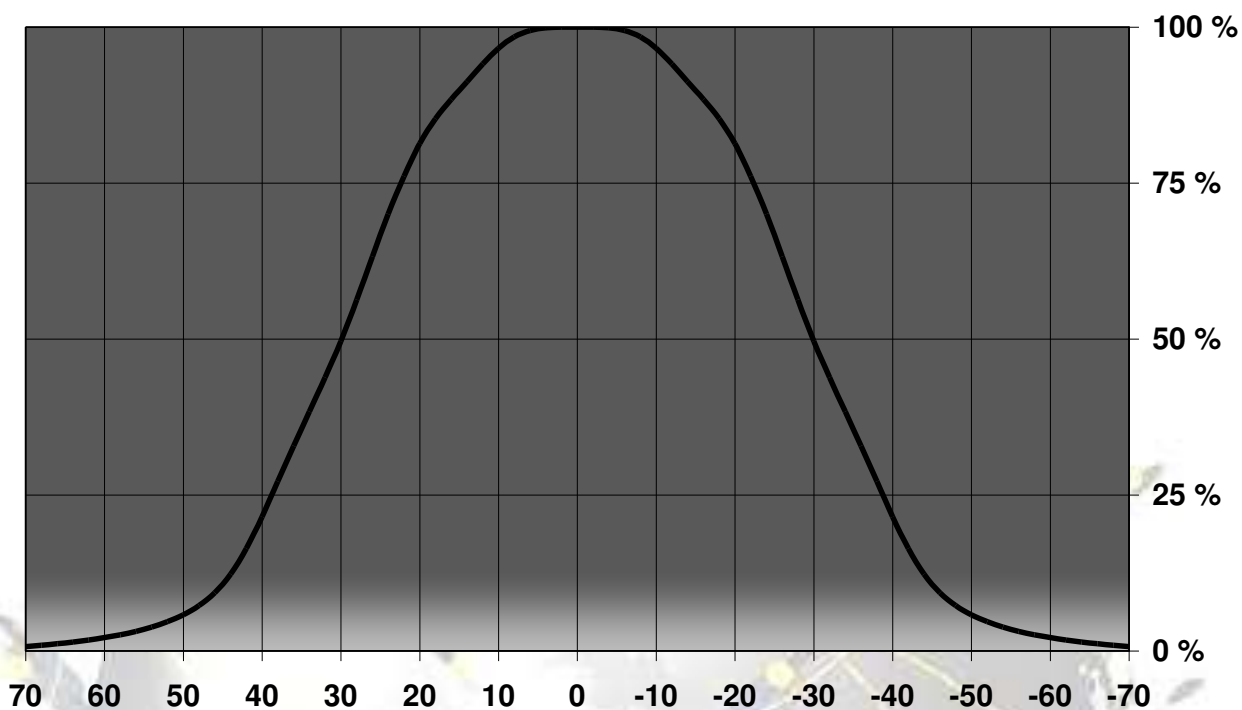
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Relative Intensity of FA10996\_Lisa2-W-Pin-XP-G



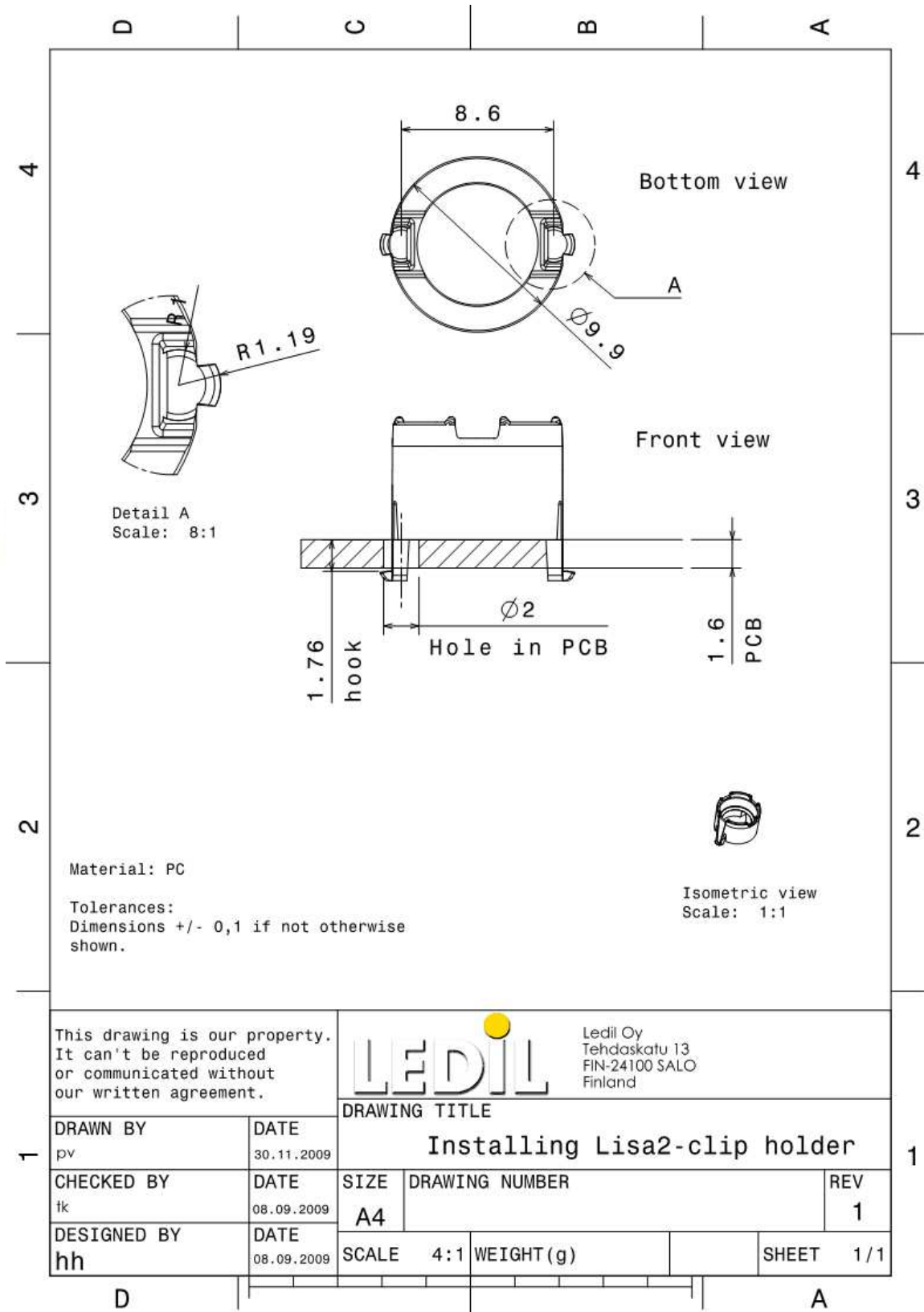
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Relative intensity of FA10997\_Lisa2-WW-Pin-XP-G



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## DRAWINGS



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 Finland

DRAWING TITLE

Installing Lisa2-clip holder

DRAWN BY pv	DATE 30.11.2009
CHECKED BY tk	DATE 08.09.2009
DESIGNED BY hh	DATE 08.09.2009

SIZE A4	DRAWING NUMBER	REV 1
SCALE 4:1	WEIGHT(g)	SHEET 1/1