



Ordering number FA12038_TINA-RS-BLK

Family	Tina	FWHM	16 degrees
Type	Lens	Efficiency	90 %
LED	LUXEON Rebel ES	cd/lm	-
Color	Black	Gerber File	Available
Diameter	16.1 mm		
Height	9.4 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Tape, pin		
Status	Ready		



Ordering number FA12040_TINA-M-BLK

Family	Tina	FWHM	28 degrees
Type	Lens	Efficiency	88 %
LED	LUXEON Rebel ES	cd/lm	-
Color	Black	Gerber File	Available
Diameter	16.1 mm		
Height	9.4 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Tape, pin		
Status	Ready		

Ordering number FA12310
Description FA12310_Tina-RE-ES-D-Tape

Family	Tina	FWHM	17 degrees
Type	Lens	Efficiency	88 %
LED	LUXEON Rebel ES	cd/lm	-
Color	Black	Gerber File	Available
Diameter	16.1 mm		
Height	9.4 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Pin, tape		
Status	Ready		

NOTE: The typical divergence will be changed by different color, chip size and chip position tolerance. The typical total divergence is the full angle measured where the luminous intensity is half of the peak value.



PRODUCT DATASHEET Tina series

last update 1/12/2011



GENERAL INFORMATION

- Product series especially designed & optimized for LUXEON Rebel ES series of LEDs.
- Special care taken to make light distribution as uniform as possible.
- Lens material optical grade PMMA with high UV and temperature resistance (105 degrees of Celcius / 220 degrees of Fahrenheit). Allows use of high current and temperature conditions.

Please find more information about used material from below:

http://ledil.fi/sites/default/files/Documents/Technical/Material/PMMA%20N%20UL94_Yellow%20Card.pdf

<http://ledil.fi/sites/default/files/Documents/Technical/Material/PMMA%20N%20PLEXIGLAS-Datasheet.pdf>

- Optic holder molded by high quality PC material (120 dergees of Celcius / 248 degrees of Fahrenheit).

- Fastening to heat sink with a PU foam adhesive tape of automotive grade. Please find fastening details by clicking link: http://www.ledil.com/datasheets/DataSheet_TAPE.pdf

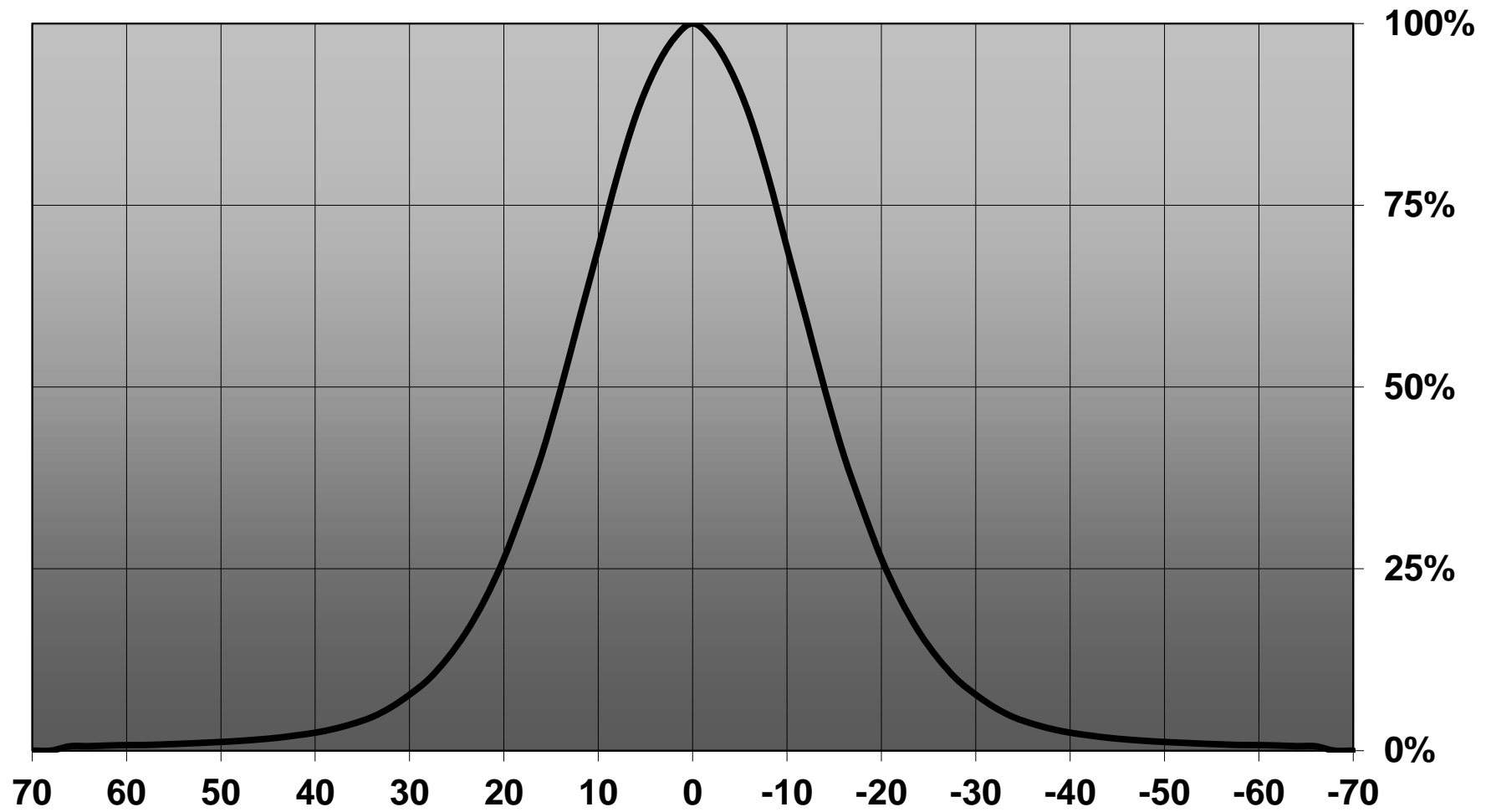
NOTE 1: We advise customer to ensure the suitability and sufficiency of the bond in the end product. For example, mechanical stress, vibration and holes on the surface of the circuit board weaken the strength of the tape.

NOTE 2: Assembly to the surface must be made straight, so the tape bonds constant and balanced with fastening surface. Slanted assembly might cause unbalanced bond to the surface. All surfaces where tape is applied must be clean, dry and free from grease and dirt.

If cleaning of PCB surfaces is needed, please follow strictly the cleaning instructions of your LED manufacturer - this is important as cleaning shall under no circumstances damage LEDs or other electronics components on the PCB.

Further note that optical components shall not be cleaned with any chemicals - only micro fiber cloth may be used to remove fingerprints or other traces from handling.

Relative intensity of Tina-RE-ES-M



D

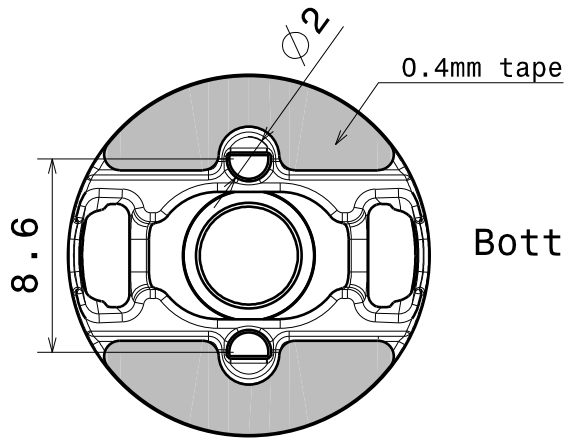
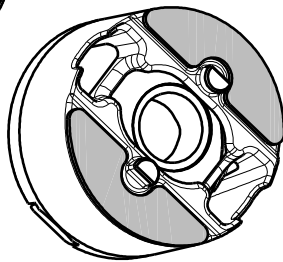
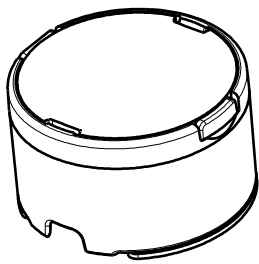
C

B

A

4

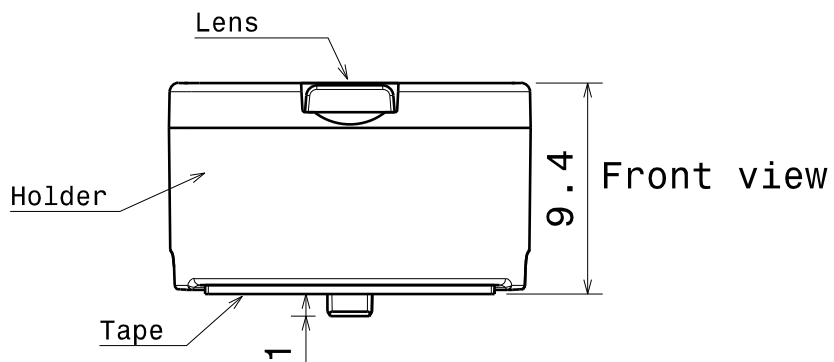
4



Bottom view

3

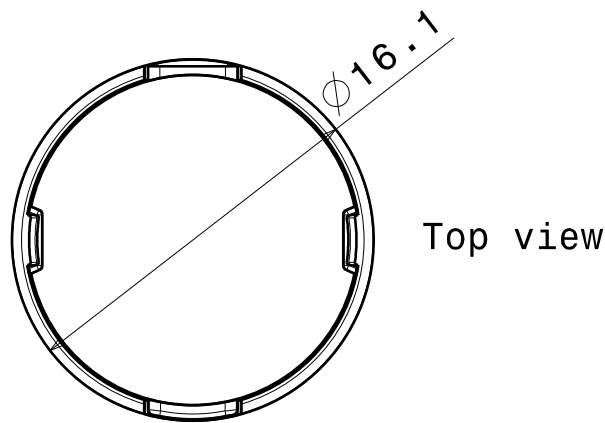
3



Front view

2

2



Top view

Part No.s:
 FA12038_Tina-RE-ES-RS-tape
 FA12040_Tina-RE-ES-M-tape

MATERIALS
 Lens: PMMA
 Holder: PC

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 or communicated without
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 Finland

DRAWING TITLE

Datasheet Tina-RE-ES-Series

DRAWN BY
 mav

DATE
 28.04.2011

CHECKED BY
 pv

DATE
 28.04.2011

SIZE
 A4

DRAWING NUMBER
 Multiple

REV
 1

DESIGNED BY
 mav

DATE
 07.02.2011

SCALE 2:1

WEIGHT (g) -

SHEET 1/1

D

A

1

1