

## LOTTA-A-RE LENSES FOR LUXEON REBEL LEDs

LUXEON



- Specially designed for Luxeon Rebel series of LEDs.
- New extremely wide backlight design with very wide horizontal and vertical angle.
- Special care taken to make a uniform white or warm white illumination. Lenses work well with other colors, too.
- Lens material optical grade PMMA. Allows use of high current and temperature conditions
- Best available optical efficiency, approximately 85%.
- Fastening to heat sink with or without PU foam adhesive tape of automotive grade, please select which suits the best for your needs.
- Please check fastening details from this link:

([http://www.ledil.com/datasheets/DataSheet\\_TAPE.pdf](http://www.ledil.com/datasheets/DataSheet_TAPE.pdf))

### LENS TYPES

NAME	ORDERING CODE
Lotta-A-RE	C11518_Lotta-A-RE
Lotta-A-RE-tape	CA11519_Lotta-A-RE-tape

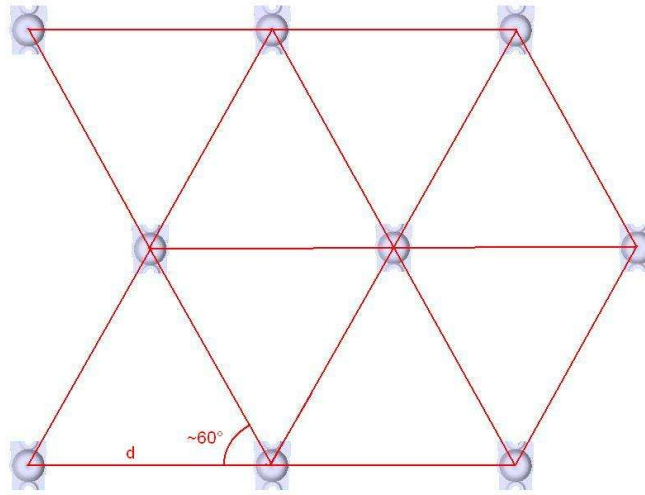
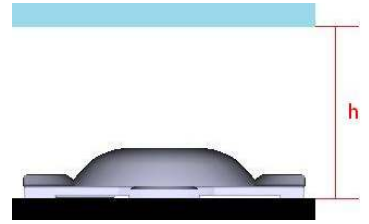
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## LENS ARRANGEMENT ON BACKLIGHT SOLUTIONS

-Leds arranged on pcb so they make equilateral triangles gives best results.

- Minimum lux value is over 95% of maximum lux value when distance between leds ( $d$ ) is less than 1.5 times the distance between pcb and diffusing plate ( $h$ ), and uniformity is close to 100%.

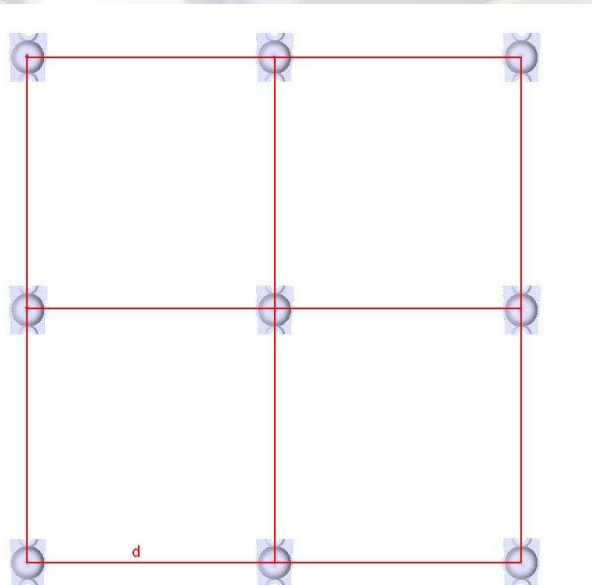
- Minimum lux value is still over 50% of maximum lux value when distance between leds ( $d$ ) is less than 4 times the distance between pcb and diffusing plate ( $h$ ), while uniformity is over 80%.



-Leds can be arranged in typical square matrix with little loss on uniformity.

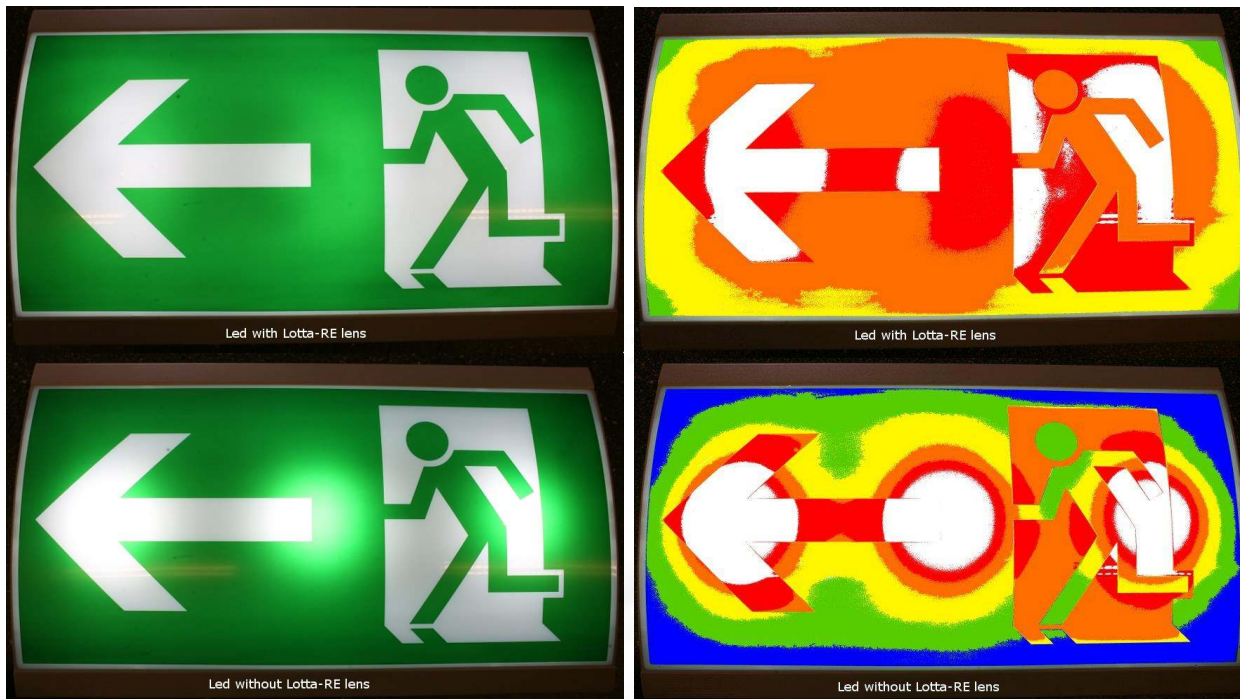
- Minimum lux value is around 90% of maximum lux value when distance between leds ( $d$ ) is less than 1.5 times the distance between pcb and diffusing plate ( $h$ ), and uniformity is about 95%.

- Minimum lux value is still over 50% of maximum lux value when distance between leds ( $d$ ) is less than 3.5 times the distance between pcb and diffusing plate ( $h$ ), while uniformity is over 80%.



**EXAMPLE USE OF LOTTA-A-RE LENSES**

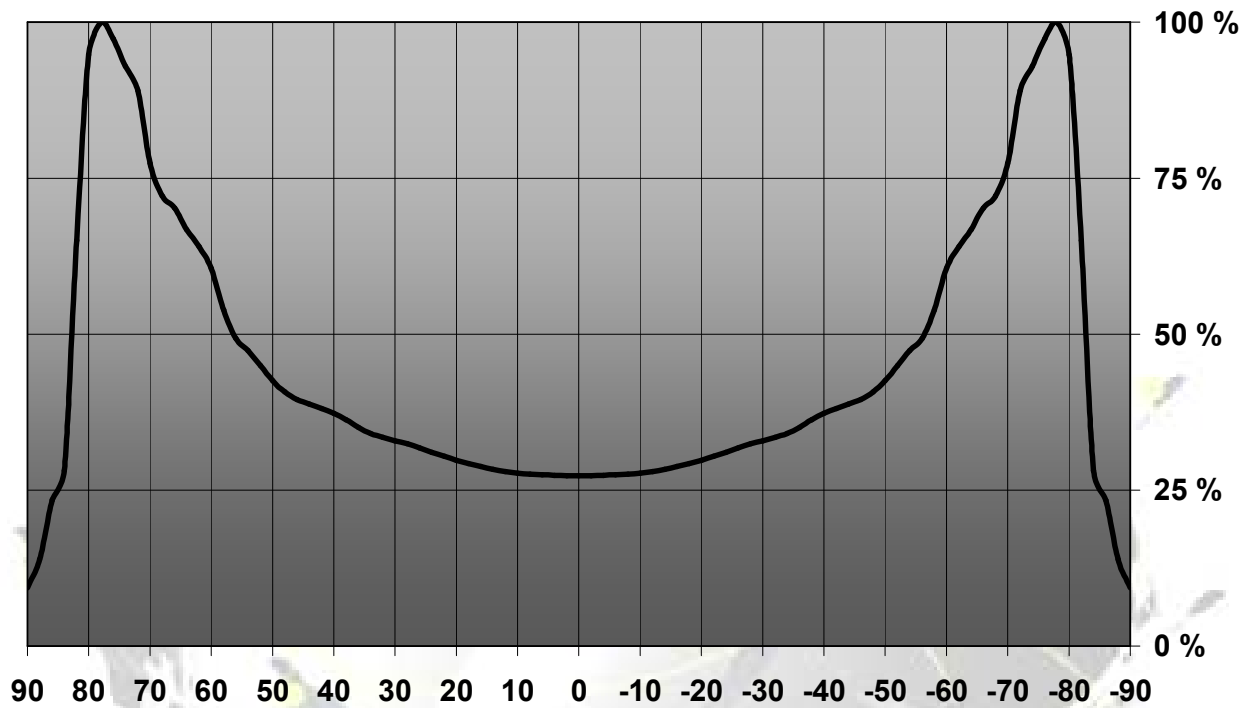
Lotta-A-RE lenses can be used in numerous situations when wide and uniform light distribution is needed. Lotta-A-RE is ideal for backlight situations such as emergency signs.



Above is an example of standard emergency sign. Upper images were taken with Lotta-A-RE lenses attached and lower images were taken with rebel leds without any additional optics. Height to distance between the leds ratio is 1:5. Surface of the emergency sign is more evenly lit when Lotta-A-RE is used. Figures on the sign are clearer when the light is distributed evenly making it easier to identify.

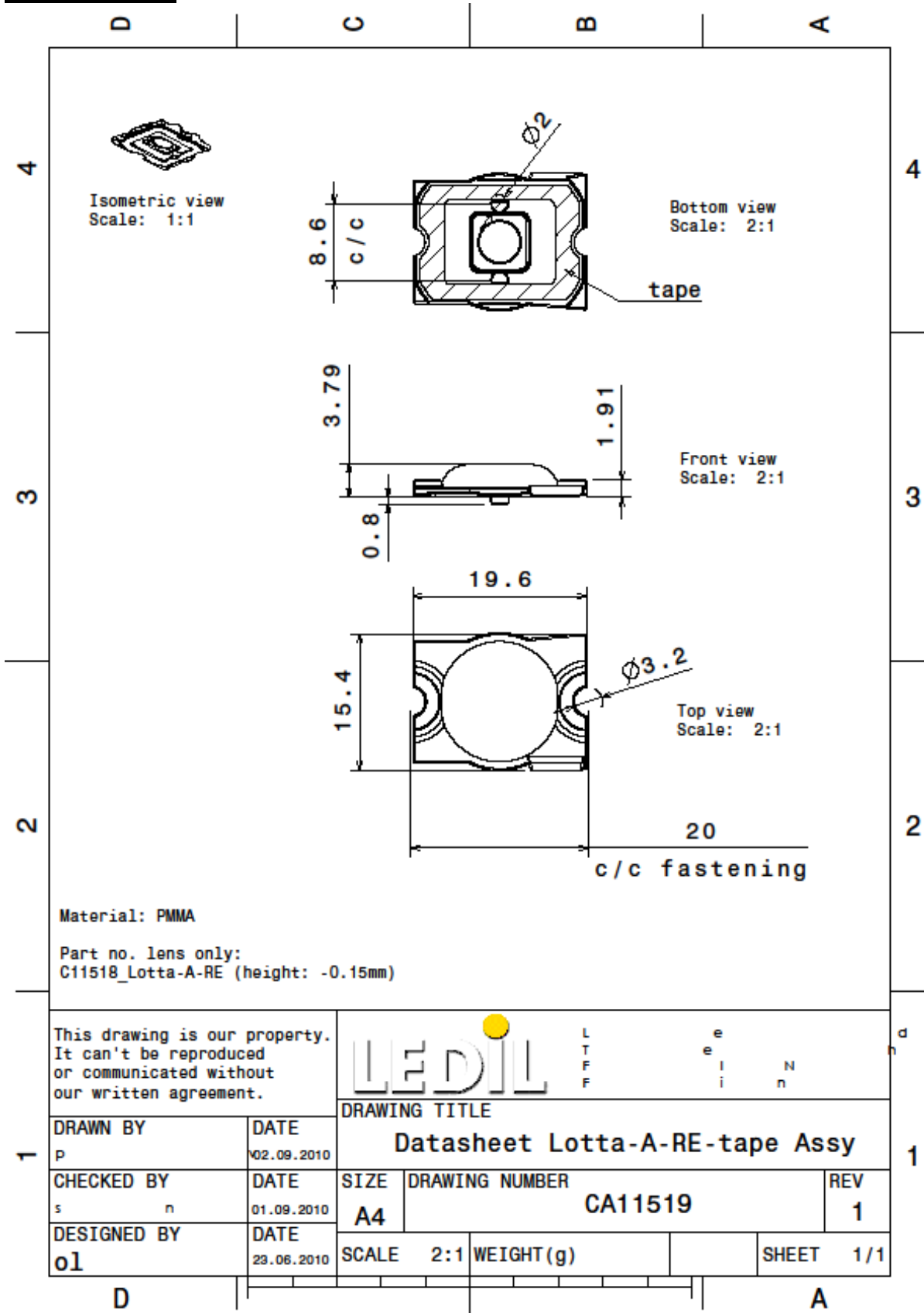
**MEASUREMENT DATA**

Relative intensity of CA11519\_Lotta-A-RE-tape



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## DRAWINGS



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