

## NIS83 SQUARE lenses for Nichia 083 / 183 LEDs

 **NICHIA**  
www.nichia.com



- Specially designed for Nichia NS6x083 /183 series of LEDs
- Special care taken to make a uniform white or warm white illumination.
- Lens material optical grade PC with high UV and temperature resistance (120°C/248°F).
- Best available optical efficiency, up to >90%, with an extremely good cutoff of light
- Integrated holder. Fastening to heat sink with a PU foam adhesive tape of automotive grade
- 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.
- Please check fastening details from this link:  
([http://www.ledil.com/datasheets/DataSheet\\_TAPE.pdf](http://www.ledil.com/datasheets/DataSheet_TAPE.pdf))
- Compact dimensions 21.6 x 21.6 mm. Square form enables easy build of matrix without any gaps between lenses.

## LENS TYPES

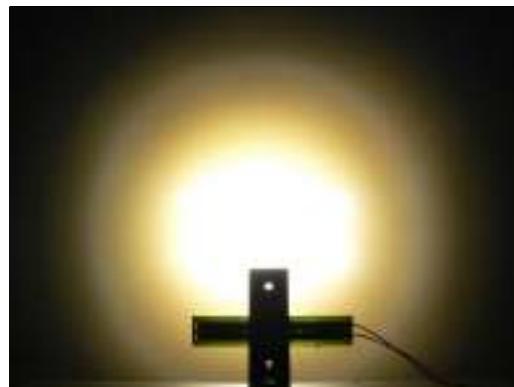
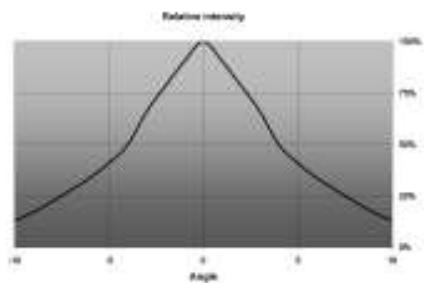
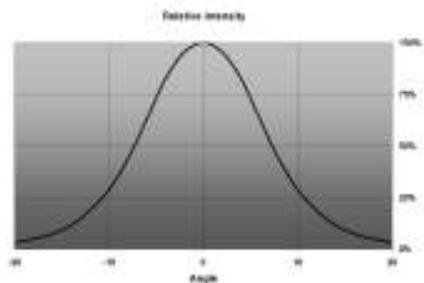
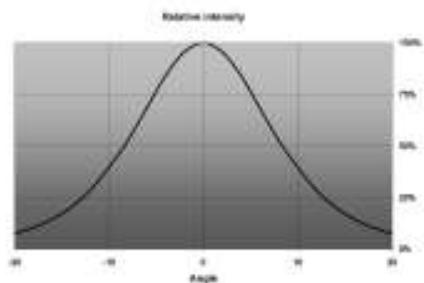
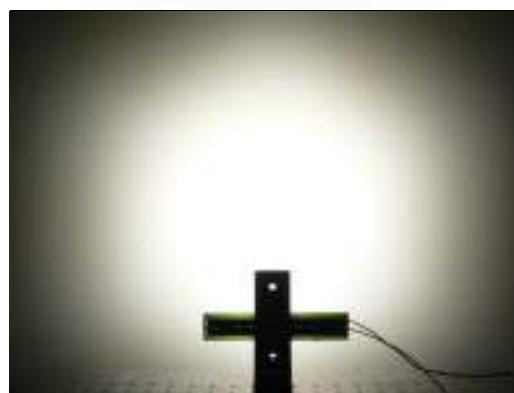
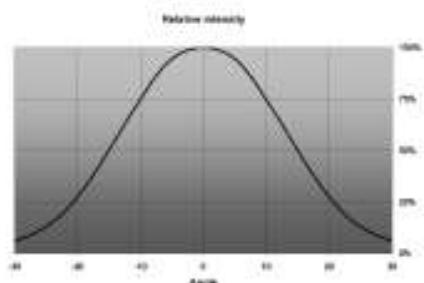
NAME	ORDERING CODE	FWHM Angle
NIS83 REAL SPOT*	FA10336_NIS83-RS	±3°
NIS83 SMOOTH SPOT*	FA10337_NIS83-SS	±7°
NIS83 DIFFUSER	FA10338_NIS83-D	±6°
NIS83 MEDIUM	FA10339_NIS83-M	±15°
NIS83 OVAL	FA10340_NIS83-O	±6° x ±24°
NIS83 OVAL TURNED 90°	4FA11151_NIS83-O-90	±6° x ±24°
NIS83 WIDE VERSION 4	FA10344_NIS83-W	±19°
NIS83 WIDE VERSION 6	FA10903_NIS83-W-V6	±30.5°

### \*) IMPORTANT NOTICE:

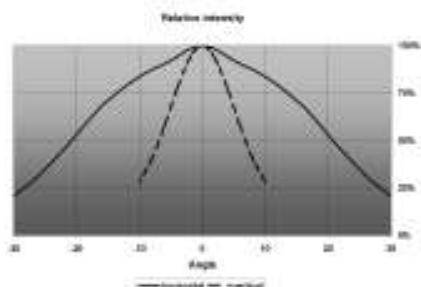
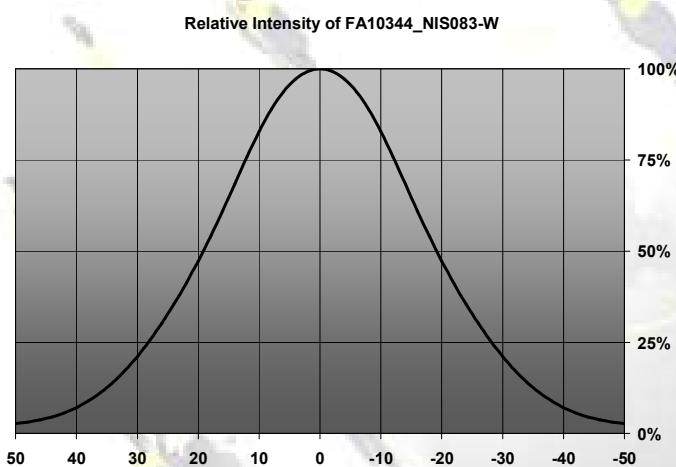
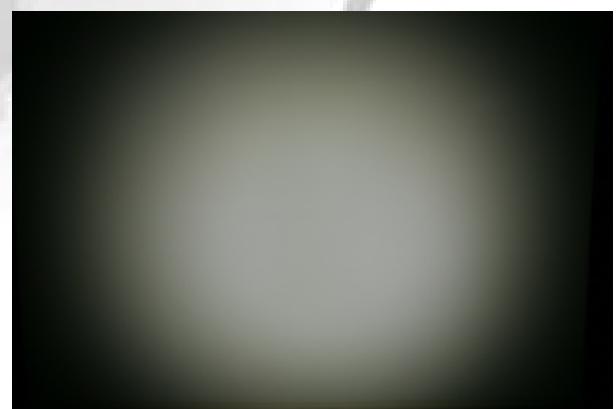
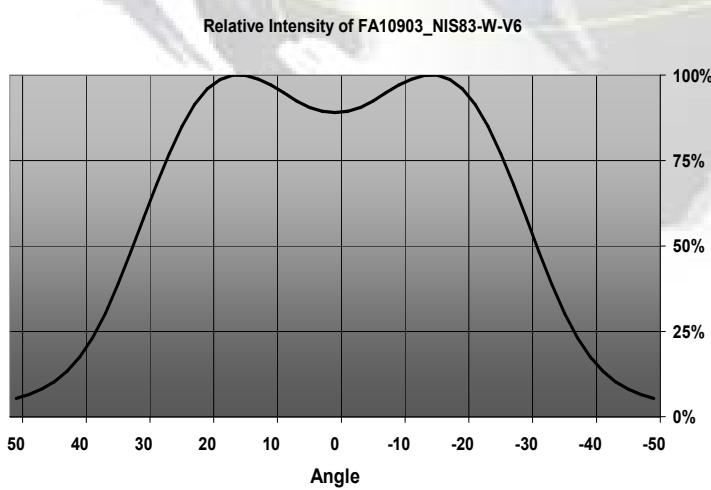
**REAL SPOT** lens is a highly efficient pure collimator lens, which optically functions in an excellent way, giving a high intensity. REAL SPOT lens also reveals the chip level optical structure of the LED. We recommend REAL SPOT lens ONLY for applications, where light intensity is of highest priority, while we do not recommend it for applications, where color uniformity and aesthetics are of high importance.

**SMOOTH SPOT** lens is a pure collimator lens with light mixing properties. It smoothes the beam pattern and makes a uniform color distribution over the whole beam angle. Light intensity is lower than for the REAL SPOT lens. SMOOTH SPOT lens is recommended for white light applications, where pleasant, high-quality illumination is wished.

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**MEASUREMENTS (using warm white LED)**
**NIS83-RS**

**NIS83-SS**

**NIS83-D**

**NIS83-M**


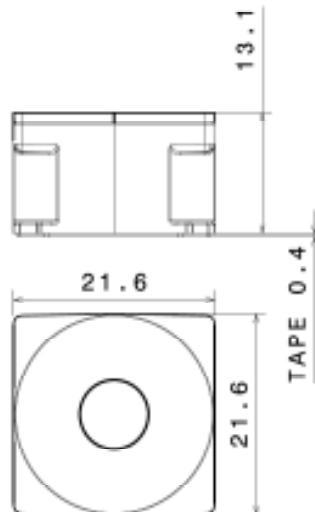
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**NIS83-O**

**NIS83-W-V4**

**NIS83-W-V6**


## DIMENSIONS



Adhesive tape for quick  
and secure fastening.



## PACKAGING

NIS83 lenses are delivered on adhesive tape liner sheets, each sheet containing 60 lenses.

## SPECIAL VERSIONS

Special versions available on request, e.g. different lens holder colors or packaging sizes.