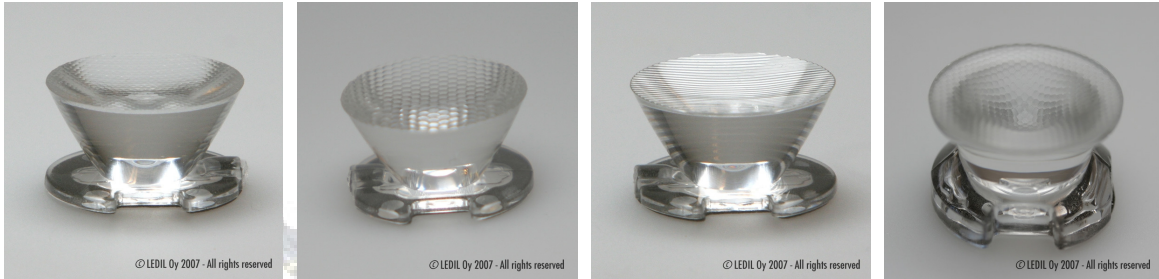
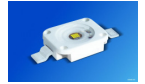


## FULLY SEALABLE TITANUM lenses for Dragon

# OSRAM



- Use with all Osram Dragon series of white and monochrome LEDs, both OLD and NEW package types
- NEW smooth spot and oval versions with improved efficiency and color uniformity also compatible with the new Dragon package
- Lens material optical grade PMMA with high UV and temperature resistance (105°C/220°F)
- High optical efficiency, up to 90%
- No lens holder. Fastening to heat sink with a PU foam adhesive tape of automotive grade
- Lens foot can be potted with resin without losses in optical efficiency (**fully sealed construction** of luminaire possible)
- Diameter 26 mm (approximately 1")
- Easy build of a complete luminaire using TITANUM, Dragon® and heat sink
- All lens types have the same outer dimensions, which allow a cross use of them in the same lighting fixture.

## LENS TYPES

NAME	ORDERING CODE	FWHM Angle
TITANUM smooth spot	TITANUM-SS (n. 10318)	±7°
TITANUM medium	TITANUM-M (n. 10252)	±13°
TITANUM oval	TITANUM-O (n. 10319)	±3° x ±18°
TITANUM wide	TITANUM-W (n. 10244)	±35°

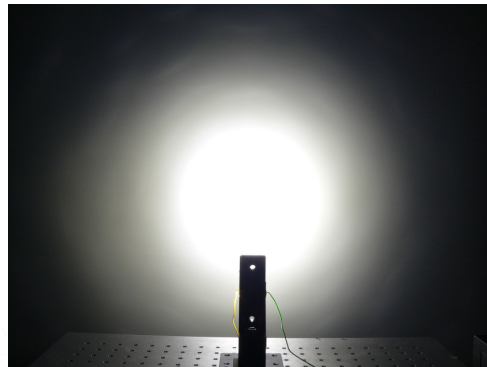
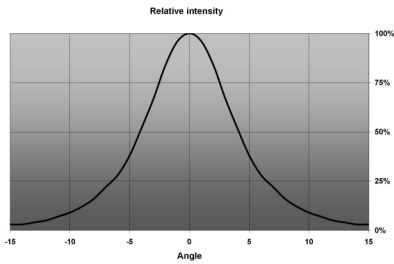
**SMOOTH SPOT** lens is a pure collimator lens with light mixing properties. It smoothens the beam pattern and makes a uniform color distribution over the whole beam angle. Light intensity is lower than for the REAL SPOT lens. SMOOTH SPOT lens is recommended for white light applications, where pleasant,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

**OVAL** lens is optimal for cases where a narrow stripe of light is wished. If a wider vertical distribution is needed, please consider LEDIL OSS-O with wider vertical distribution and a color mixing structure.

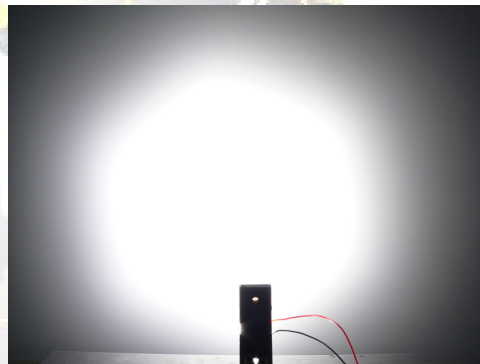
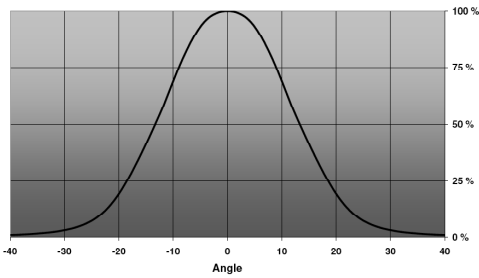
© Ledil Oy – Subject to change without prior notice

## MEASUREMENTS

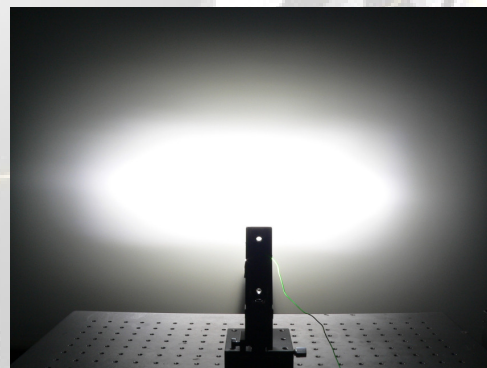
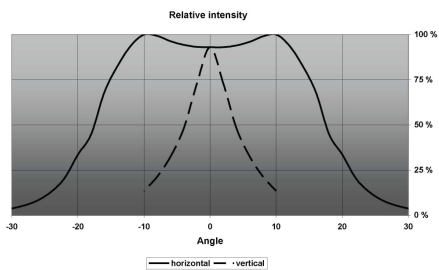
TITANUM-SS



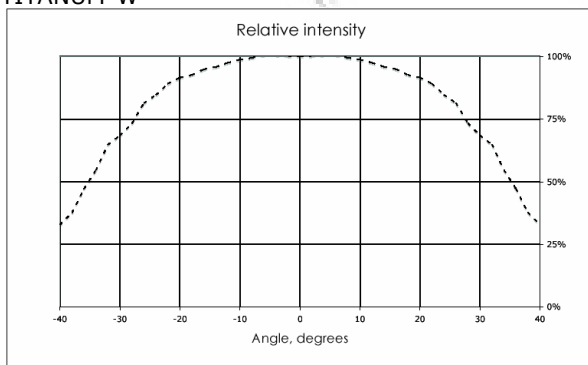
TITANUM-M



TITANUM-O



TITANUM-W



© Ledil Oy – Subject to change without prior notice

## PHOTOGRAPHS



© LEDIL Oy 2007 - All rights reserved



© LEDIL Oy 2007 - All rights reserved



© LEDIL Oy 2007 - All rights reserved



© LEDIL Oy 2007 - All rights reserved

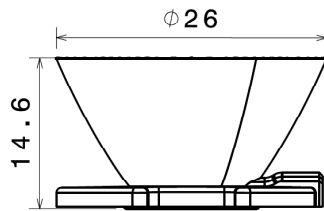
**TITANUM-SS**

**TITANUM-O**

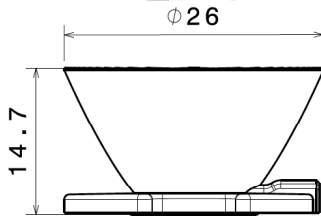
**TITANUM-M**

**TITANUM-W**

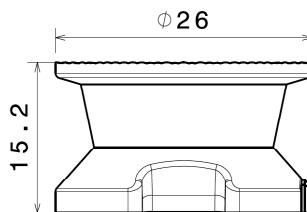
## DIMENSIONS



**TITANUM-SS and TITANUM-M**



**TITANUM-O**



**TITANUM-W**

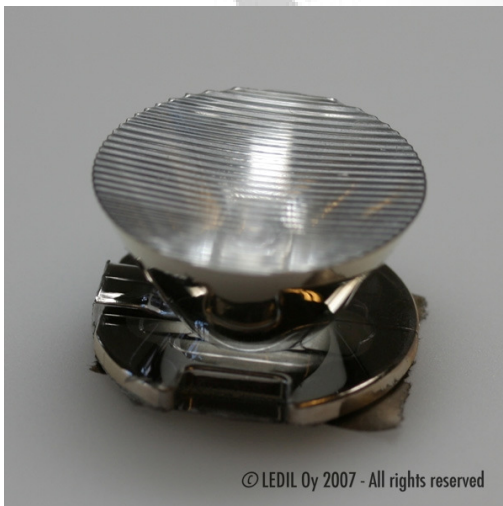
© Ledil Oy – Subject to change without prior notice

**PACKAGING**

Lenses are packed on plastic trays of 77 lenses. One box contains 13 trays, i.e. 1001 lenses.

**SPECIAL VERSIONS**

Special versions available on request, e.g. fully metallized outer surface allowing full potting of lens up to the top surface or different packing methods.



© Ledil Oy – Subject to change without prior notice