

## FULLY SEALABLE TITANUM lenses for Dragon



- 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
- 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.
- Fastening details: ([http://www.ledil.com/datasheets/DataSheet\\_TAPE.pdf](http://www.ledil.com/datasheets/DataSheet_TAPE.pdf))
- 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
Titanium smooth spot	CA10318_Titanium-O-SS	±7°
Titanium medium	CA10252_Titanium-O-M	±13°
Titanium oval	CA10319_Titanium-O-O	±3° x ±18°
Titanium oval metallized	CA10864_Titanium-O-OC	±3° x ±18°
Titanium oval (90°)	CA11240_Titanium-O-O-90	±3° x ±18°
Titanium oval metallized (90°)	CA11241_Titanium-O-OC-90	±3° x ±18°
Titanium wide	CA10244_Titanium-O-W	±35°

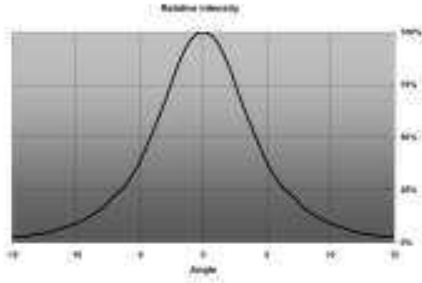
**SMOOTH SPOT** lens is a pure collimator lens with light mixing properties. It smoothens the beam pattern and makes a uniform color distribution over the whole beam angle. Light intensity is lower than for the REAL SPOT lens. SMOOTH SPOT lens is recommended for white light applications, where pleasant,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

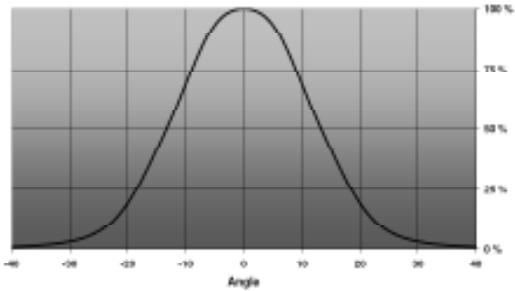
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## MEASUREMENTS

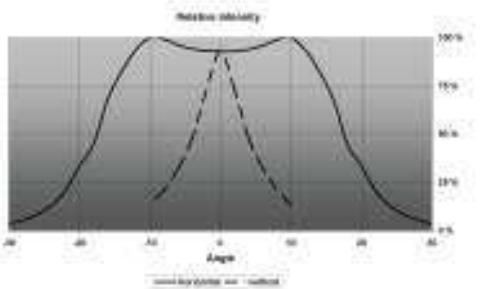
TITANUM-SS



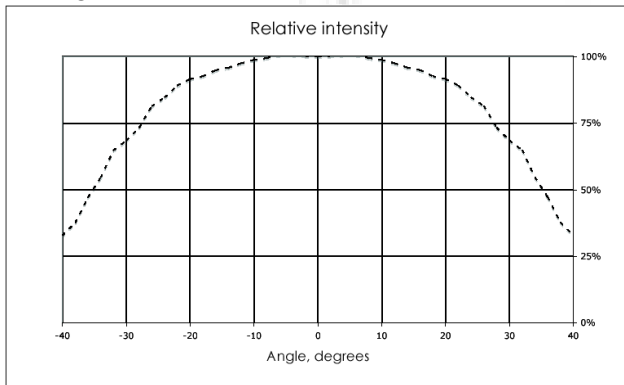
TITANUM-M



TITANUM-O



TITANUM-W



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## PHOTOGRAPHS



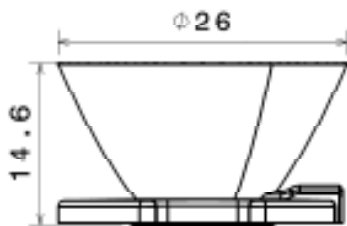
**TITANUM-SS**

**TITANUM-O**

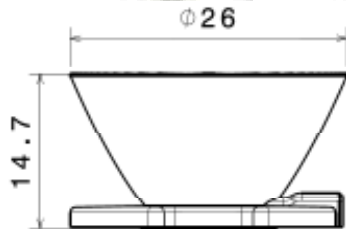
**TITANUM-M**

**TITANUM-W**

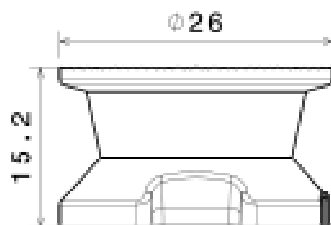
## DIMENSIONS



**TITANUM-SS and TITANUM-M**



**TITANUM-O**



**TITANUM-W**

**PACKAGING**

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

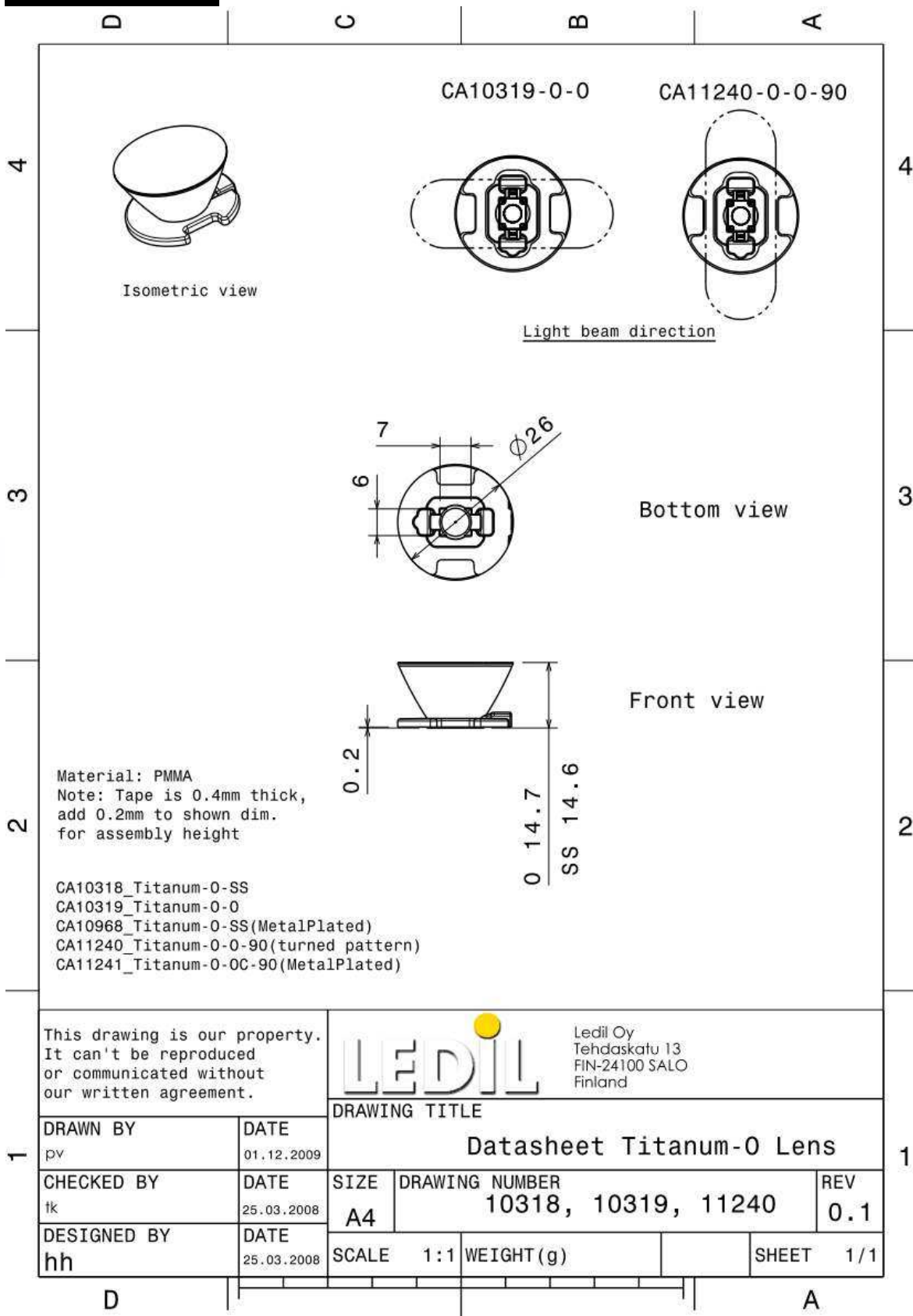
**SPECIAL VERSIONS**

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.



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## DRAWINGS



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