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**MODEL NO: PL121106**

**SUBJECT: Philips Lumileds LUXEON® Rebel LEDs – Lens Coupling - Output Luminous Intensity Measurement**

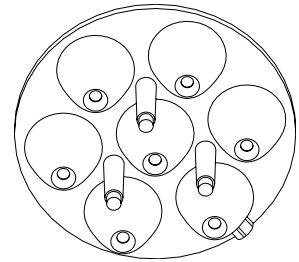


**PL121106**

- NJC Technology
- High efficiency
- No vibration problems
- Free testing

**Typical applications are**

- Wall Washing
- Architectural lighting
- Lamps
- Public



DESCRIPTION:

The luminous intensity test has been carried out by coupling Khatod Lenses with LUXEON® Rebel LED: LXML-PWN1-0070.

REPORT:

The luminous intensity emitted by LUXEON® Rebel LED has been measured at 1 m ± 0,02 distance. These measurements have been repeated under the same test conditions by coupling Rebel® LEDs with Khatod Lenses PL121106.

MEASURED DATA:

Column 1 shows the Lens P/N - Column 2 shows the Luminous Intensity detected by measuring the LEDs without the Lens - Column 3 shows the Luminous Intensity detected by measuring the LEDs coupled with the Lens. - Column 4 shows the difference (X\*) between col. 2 and col. 3

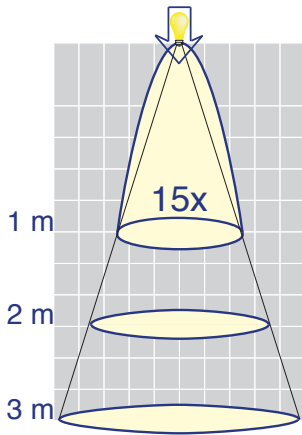
Lens Type	LED Lux from 1 Mt (ftc From 1 Mt)	LED + lens Lux from 1Mt (ftc From 1 Mt)	X*
PL121106 (13°)	153 (14,12 ftc)	2287 (211,06 ftc)	15

Test carried out after 5 min. of operation of the LED to: 350 mA ~ ,  
local power source **GOSSEN KONSTANTER** mod 3226-K118

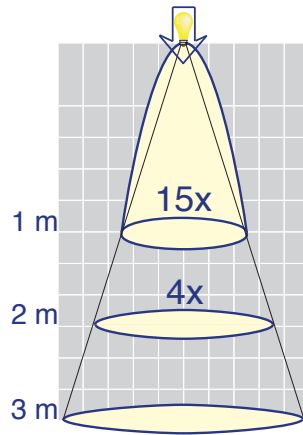
Measurements carried out by using Luxometer mod LUX-1337 of **ISO-TEC** and **MINOLTA** mod LS – 150

\* X is the value of the LED brightness measurement at 1 meter distance, without optic devices applied to the LED.

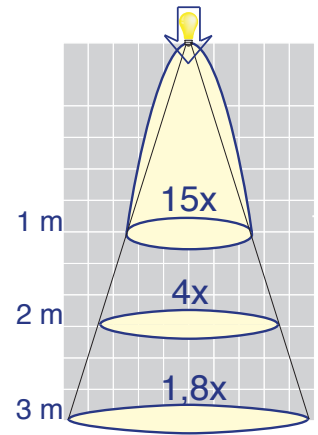
## White LED Illuminance Chart



PL121106 (13°) - 1 METER



PL121106 (13°) - 2 METER



PL121106 (13°) - 3 METER

\* X is the value of the LEDs brightness measurement at 1 meter distance, without optic devices applied to the LED.

### Test conditions:

Test current: 350 mA

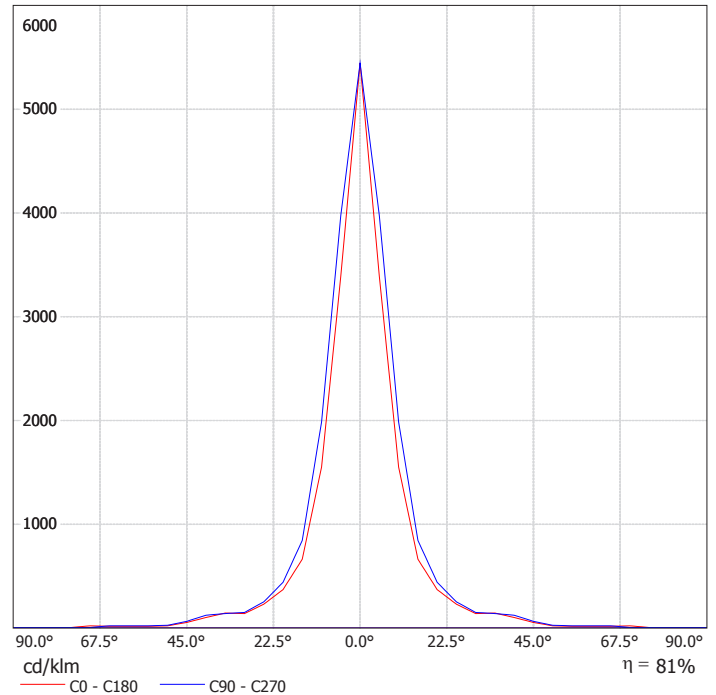
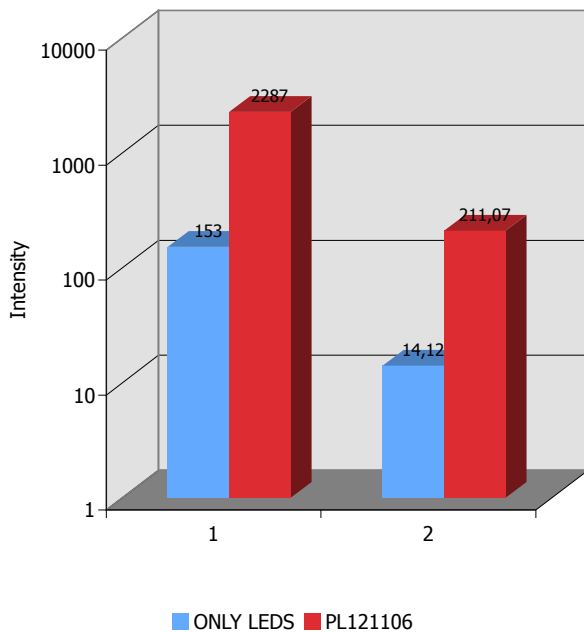
Room Luminous Intensity : 0 Lumen

Room Temperature: 23,2° C

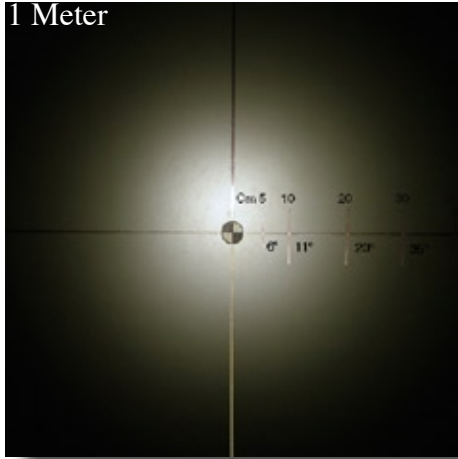
LED temperature after 10 min. : ~ 46 °C

The diagram shows the performance of Khatod lenses

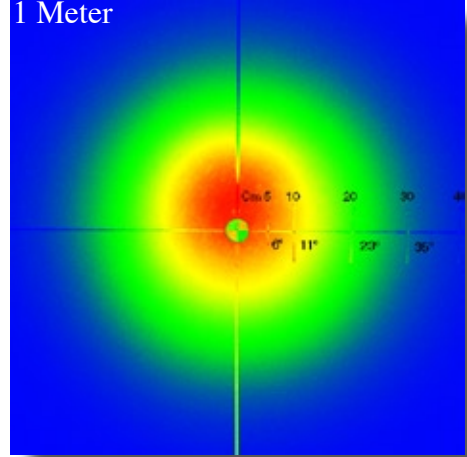
Intensity to 1 Meter



Photos:

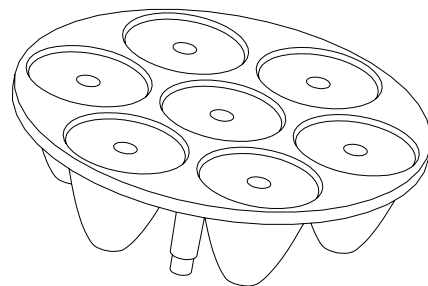
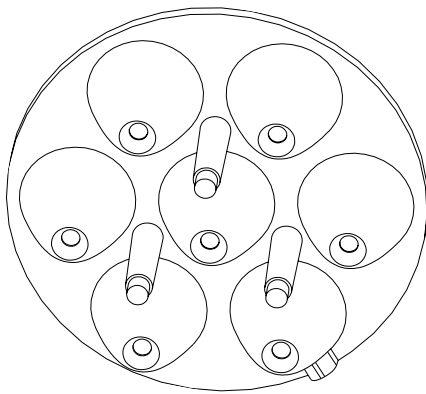


PL121106 (13°)

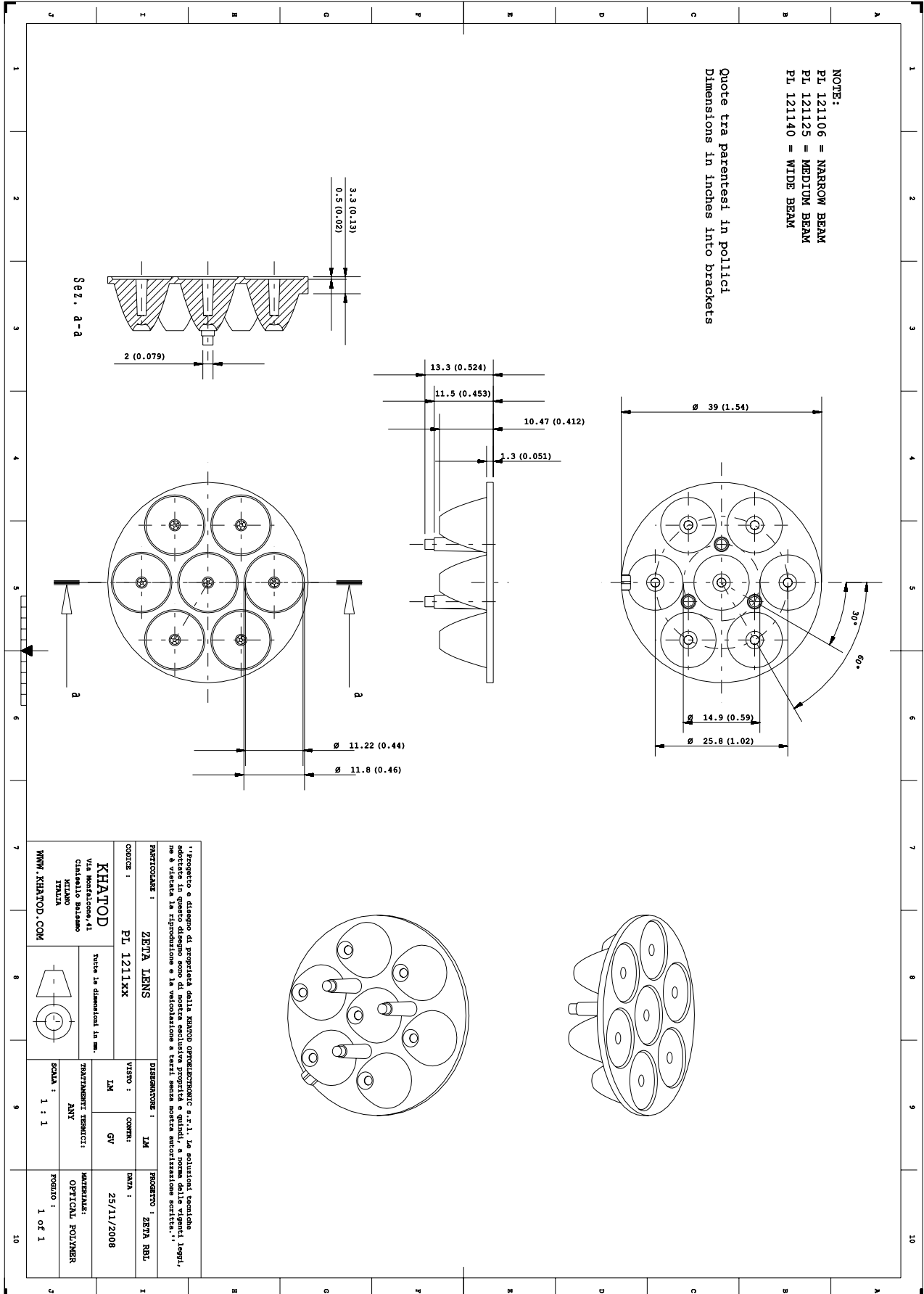


PL121106 (13°)  
Spectro Metric Analysis Photo

Measurements carried out by using Luxometer mod LUX-1337. Room Luminous Intensity: 0 Lumen. Camera mod. Fujifilm S7000



Drawing.



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PARTICOLARE : ZETA LENS		DISEGNATORE : IM		PROGETTO : ZETA RBL	
CODICE : PL 1211XX		VISTO : IM		DATA : 25/11/2008	
KHATOD Via Montalione, 41 Chiosello Balsano MILANO ITALIA WWW.KHATOD.COM		TRATTA LE DIMENSIONI IN MM.		INSTRUMENTI : OPTICAL POLYMER	
TRATTA LE DIMENSIONI IN MM.		CORRETI : GV		PRODOTTO : 1 of 1	
SCALA : 1 : 1		INSTRUMENTI : OPTICAL POLYMER			

## Lens characteristics

Parameter	Symbol	Rating	Unit
Lens Material	PC Optics	--	--
Holder Material	--	--	--
Operating Temperature	Topr	-40 to +120	°C
Storage Temperature	Tstg	-40 to +120	°C
Average transmittance in visible spectrum (400 – 700nm) >90% as measured using 3mm thick Optical Grade PC			

## LED characteristics

For technical specification on LEDs, please refer to LUXEON® LEDs datasheet or visit [www.luxeon.com](http://www.luxeon.com)

## Notes:

Please note that flow lines and weld lines on the external surfaces of the lenses are acceptable if the optical performance of the lens is within the specification described in the section "OPTICAL CHARACTERISTICS"

- Should you require further information, please contact Khatod for advice.
- All lens testing must be subject to identical conditions as Khatod test condition.
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## **KHATOD LENS Use And Maintenance**

- DO NOT HANDLE OR INSTALL LENSES WITHOUT WEARING GLOVES, SKIN OILS MAY DAMAGE LENS OR LIGHT TRANSMISSION
- CLEAN LENSES WITH MILD SOAP AND WATER AND A SOFT CLOTH
- DO NOT USE ANY COMMERCIAL CLEANING SOLVENTS ON LENSES

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