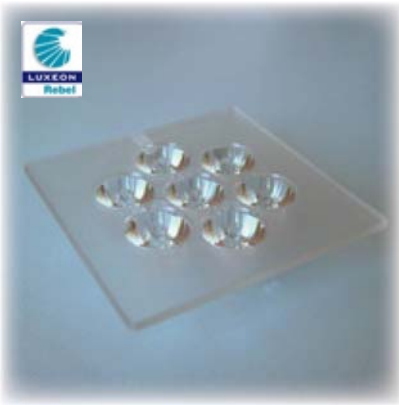


Via Monfalcone 41
20092 Cinisello Balsamo (Milano) – Italy
Tel. +39 0266013695 – Fax +39 0266013500

MODEL NO: PL121506

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

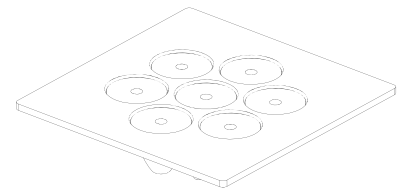


PL121506

- NJC Technology
- High efficiency
- Zeta Square lens

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 PL121506.

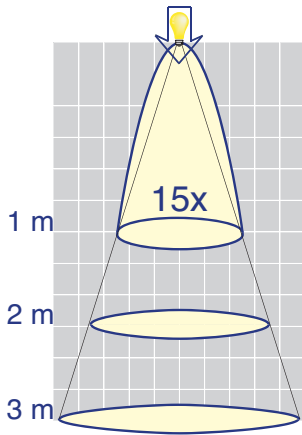
MEASURED DATA:

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

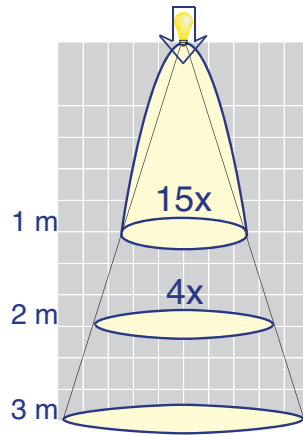
Lens Type	LED Lux from 1 Mt (ftc From 1 Mt)	LED + lens Lux from 1Mt (ftc From 1 Mt)	X*
PL121506 (13°)	153 (14,12 ftc)	2287 (211,06 ftc)	15

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.

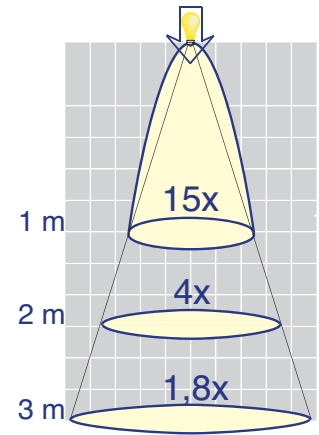
White LED Illuminance Chart



PL121506 (13°) - 1 METER



PL121506 (13°) - 2 METER



PL121506 (13°) - 3 METER

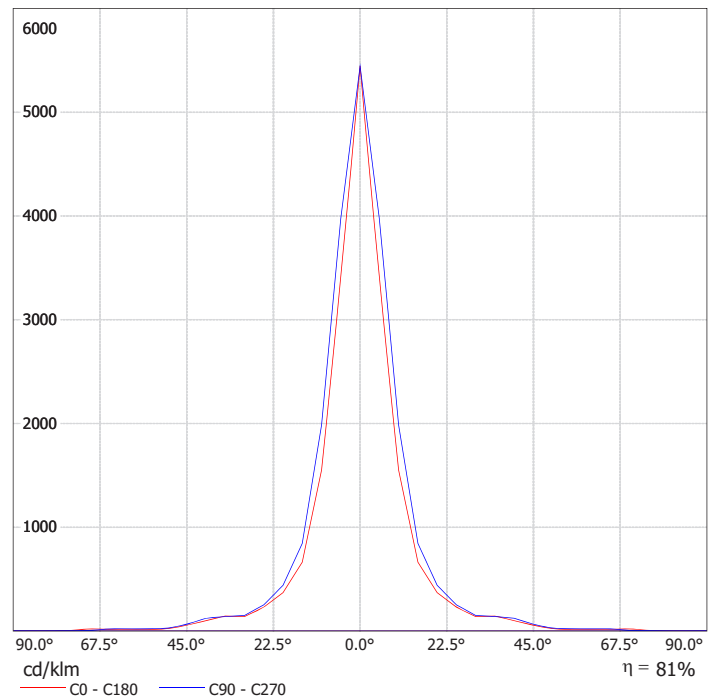
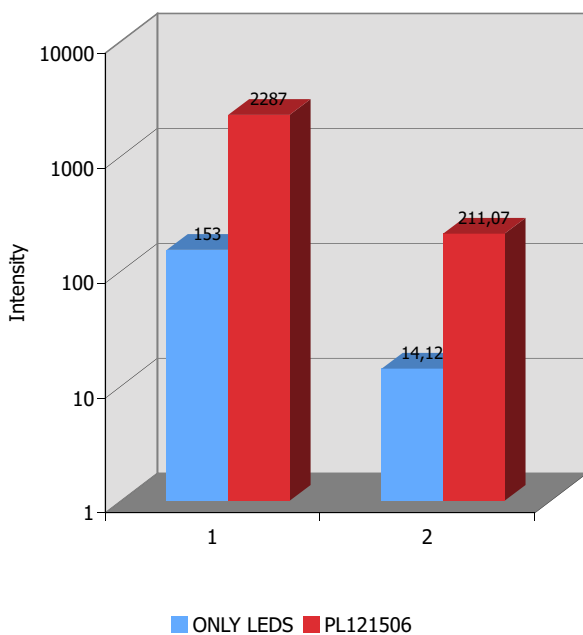
* X is the value of the LEDs brightness measurement at 1 meter distance, without optic devices applied to the LED.

Test conditions:

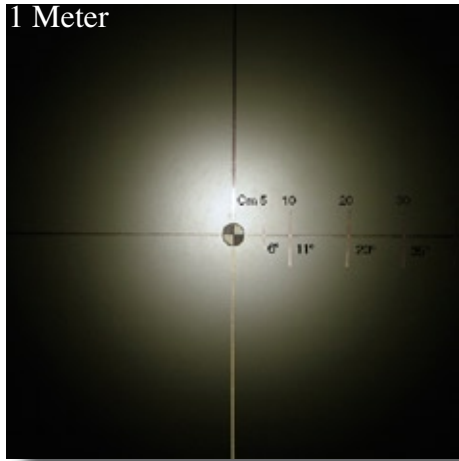
Test current: 350 mA
 Room Luminous Intensity : 0 Lumen
 Room Temperature: 23,2° C
 LED temperature after 10 min. : ~ 46 °C

The diagram shows the performance of Khatod lenses

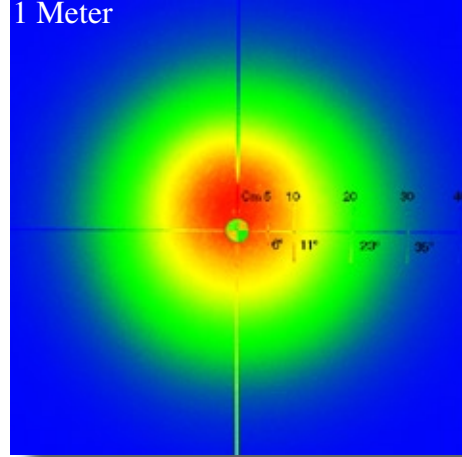
Intensity to 1 Meter



Photos:

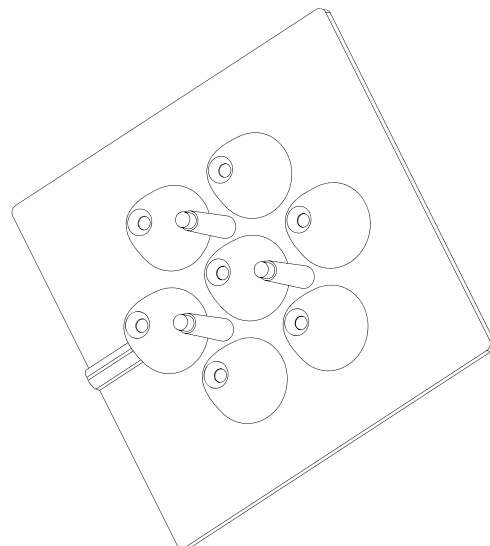
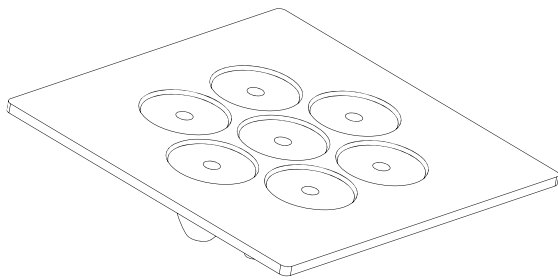


PL121506 (13°)

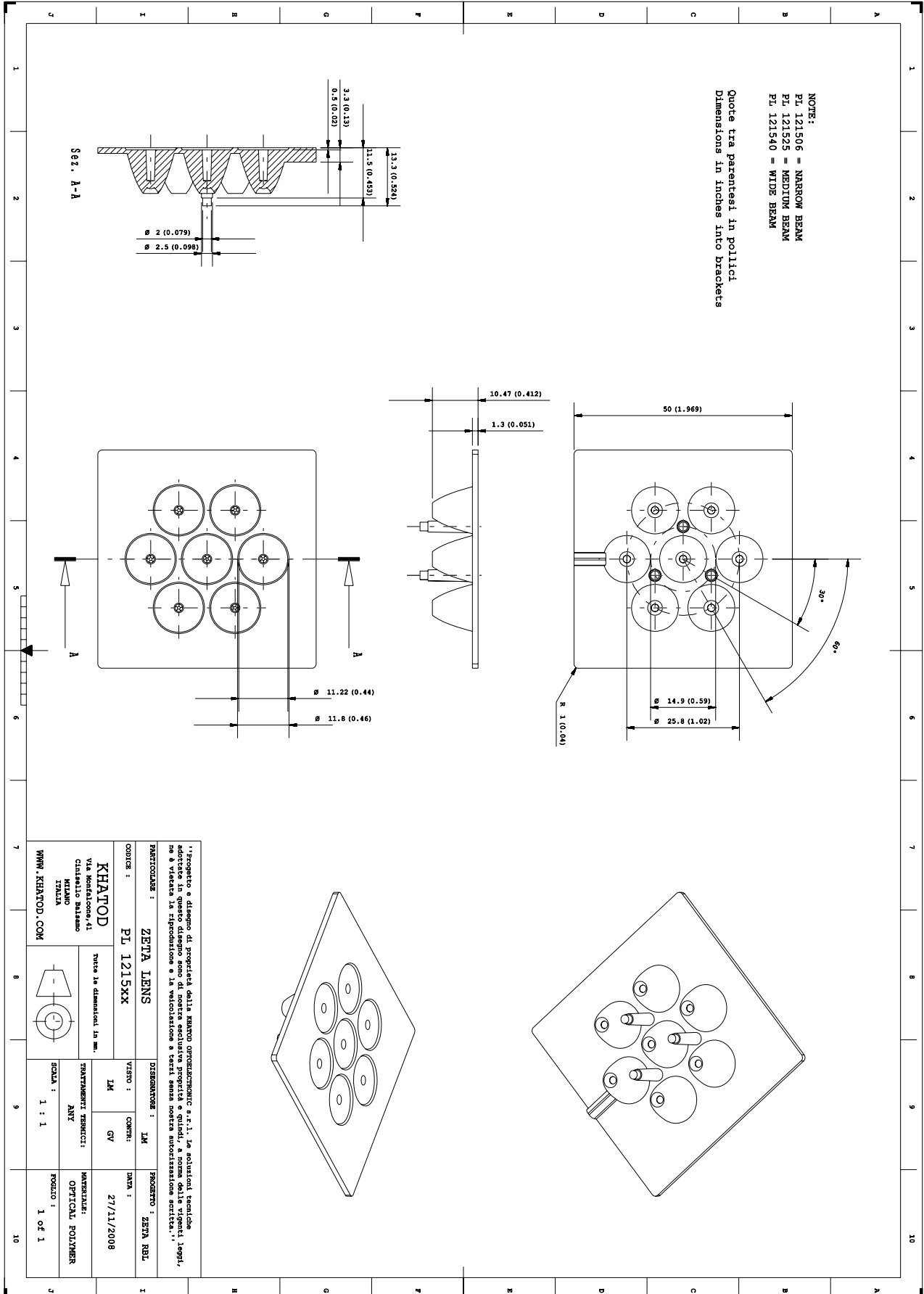


PL121506 (13°)
Spectro Metric Analysis Photo

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



Drawing.



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

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.
- Published by Khatod optoelectronic srl - All the data contained in this document are the property of Khatod optoelectronic srl and may change without notice.

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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