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MODEL NO: KEPL118725

SUBJECT: Z-POWER® LED P4 – Lens Coupling - Output Luminous Intensity Measurement

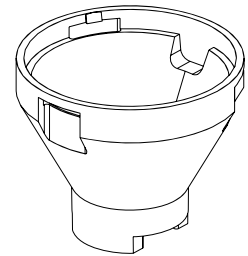


KEPL118725

- High efficiency
- No vibration problems
- Easy mounting onto the LED

Typical applications are

- Wall Washing
- Architectural lighting
- Lamps
- Most applications where a compact light source is required



DESCRIPTION:

The luminous intensity test has been carried out by coupling Khatod Lenses with Z-POWER® P4 White LED.

REPORT:

The luminous intensity emitted by Z-POWER® P4 LED has been measured at 1 m ± 0,02 distance. These measurements have been repeated under the same test conditions by coupling Z-POWER® P4 LEDs with Khatod Lenses KEPL118725.

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

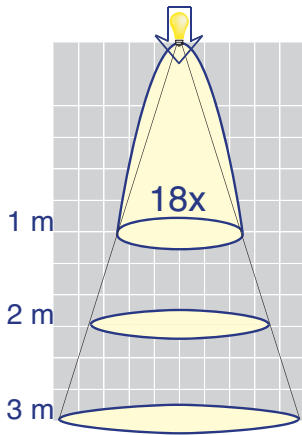
Lens Type	LED Lux from 1 Mt (ftc From 1 Mt)	LED + lens Lux from 1Mt (ftc From 1 Mt)	X*
KEPL118725 (25°)	28 (2,03 ftc)	521 (48,08 ftc)	18

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

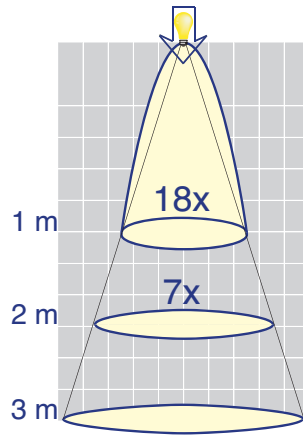
Measurements carried out by using Luxometer mod LUX-1337 of **ISO-TEC** and **MINOLTA** mod LS – 150

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

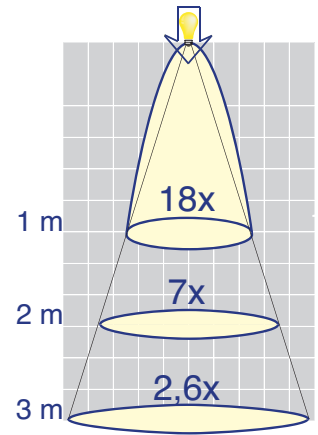
White LED Illuminance Chart



KEPL118725 (25°) - 1 METER



KEPL118725 (25°) - 2 METER



KEPL118725 (25°) - 3 METER

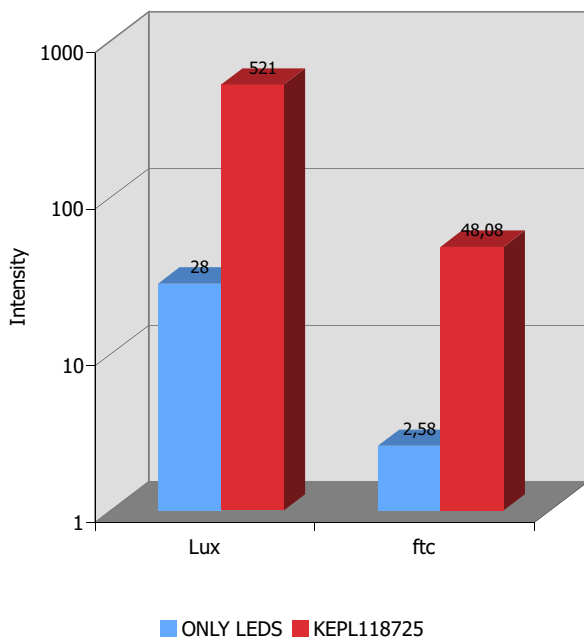
* X is the value of the LEDs brightness measurement at 1 meter distance, without optic devices applied to the LED.

Test conditions:

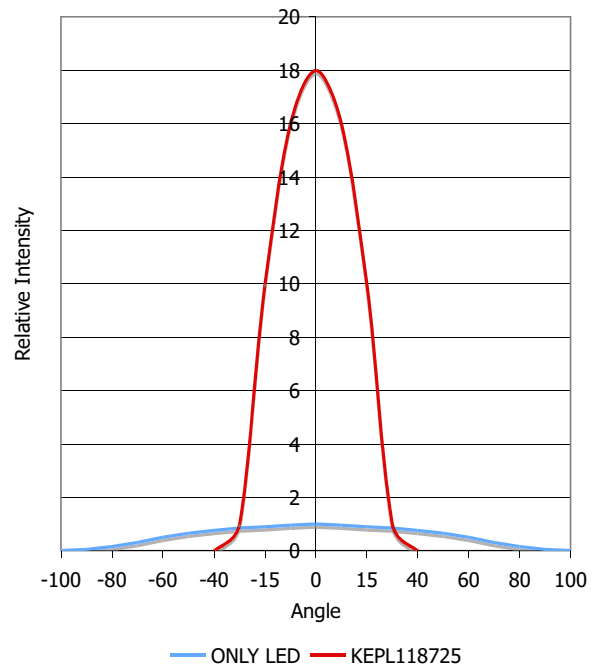
Test current: 350 mA
Room Luminous Intensity : 0 Lumen
Room Temperature: 21° C
LED temperature after 10 min. : ~ 40 °C

The diagram shows the performance of Khatod lenses

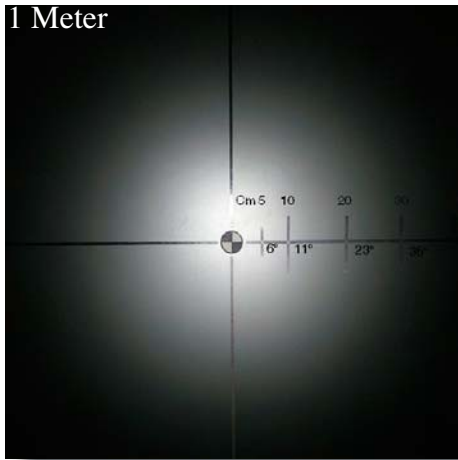
Intensity to 1 Meter



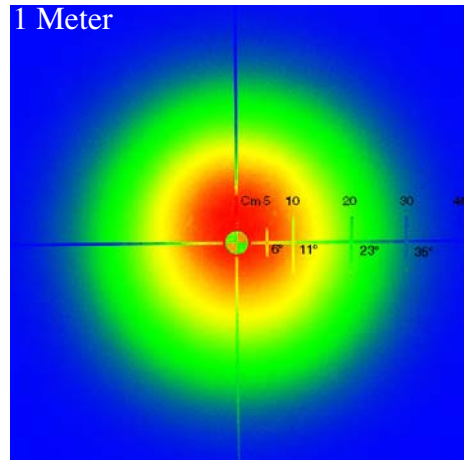
Spectrum Distribution



Photos:

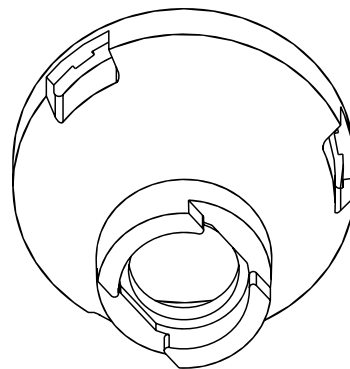
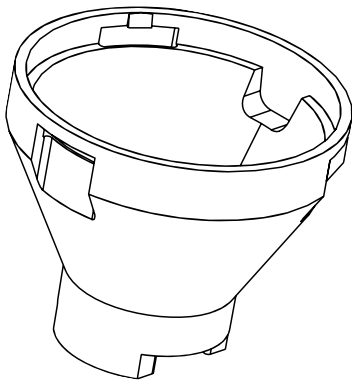


KEPL118725 (25°)

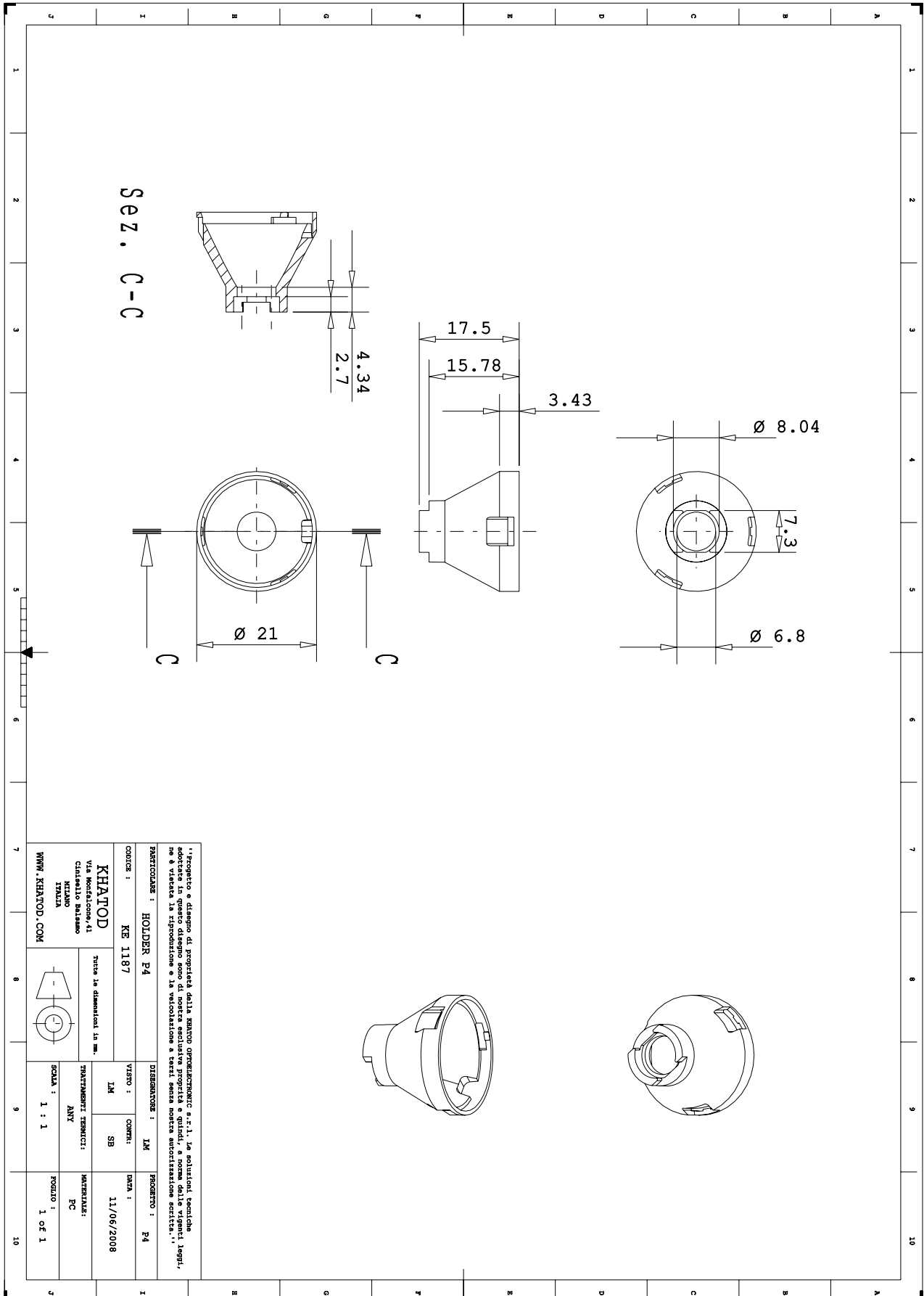


KEPL118725 (25°)
Spectro Metric Analysis Photo

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	PMMA Optics	--	--
Holder Material	PC	--	--
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +85	°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 Seoul Semiconductor[®] LEDs datasheet or visit www.seoulsemicon.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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