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MODEL NO: KEPL198xxP9 series

SUBJECT: **Z-POWER® LED P9 – Lens Coupling - Output Luminous Intensity Measurement**

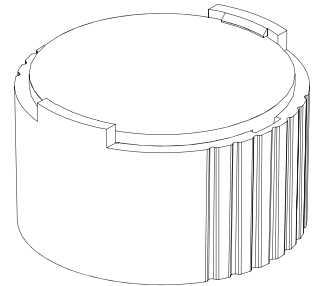


KEPL198xxP9 Series

- High efficiency
- No vibration problems
- Free testing

Typical applications are

- Architectural lighting
- Lamps
- Street lights
- Most applications where a compact light source is required



DESCRIPTION:

Verification of Luminous Intensity with coupling conditions between Khatod lenses and Z-POWER® 0,5W White LEDs P9 series.

REPORT:

From 1 m ± 0,02 distance, we have measured Luminous Intensity emitted by LED. Such measurements have been repeated with the same test conditions but coupling LEDs to the lens Khatod cod. KEPL19806P9, KEPL19825P9, KEPL19840P9, KEPL19840WP9 and PL198GD

MEASURED DATA:

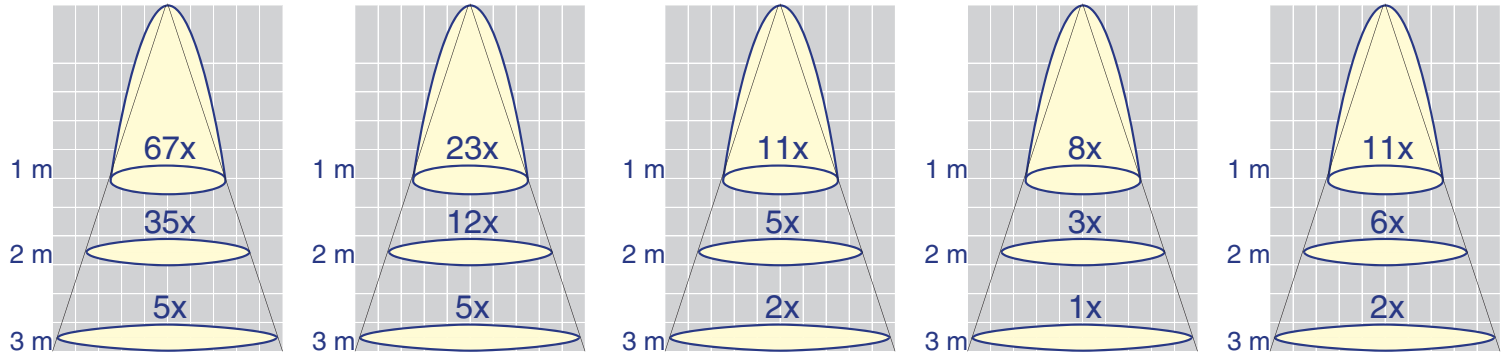
Column 1 shows p/n of the Lenses, column 2 shows Luminous Intensity detected measuring LEDs without lens, column 3 shows Luminous Intensity detected on LEDs coupled with lens, column 4 shows the difference (X*) between col. 2 and col. 3

Lens Type	LED Lux from 1 Mt (ftc From 1 Mt)	LED + lens Lux from 1Mt (ftc From 1 Mt)	X*
KEPL19806 (10°)	7,93 (0,73 ftc)	533 (49,51 ftc)	67
KEPL19825 (25°)	7,93 (0,73 ftc)	186 (17,27 ftc)	23
KEPL19840 (10°X100°)	7,93 (0,73 ftc)	92 (8,54 ftc)	11
KEPL19840W (40°)	7,93 (0,73 ftc)	68 (6,31 ftc)	8
PL198GD (30°)	7,93 (0,73 ftc)	93 (8,63 ftc)	11

Test carried out after 5 min. of operation of the LED to 175 mA ~ , local power source **GOSSON KONSTANTER** mod 3226-K118
Measurements carried out with Luxometer mod LUX-1337 of **ISO-TEC** and **MINOLTA** mod LS – 150

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

Illuminance chart white LED



KEPL19806P9

KEPL19825P9

KEPL19840P9

KEPL19840WP9

PL198GD

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

Test conditions:

Test current: 175 mA / LED

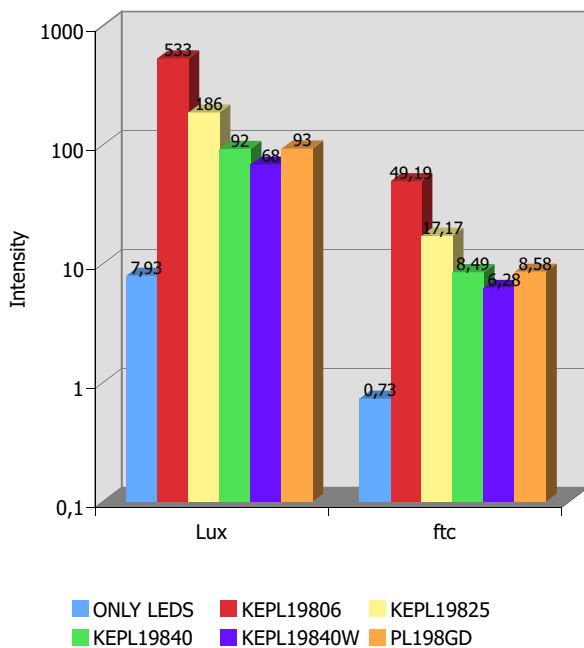
Room Luminous Intensity : 0 Lumen

Room Temperature: 23° C

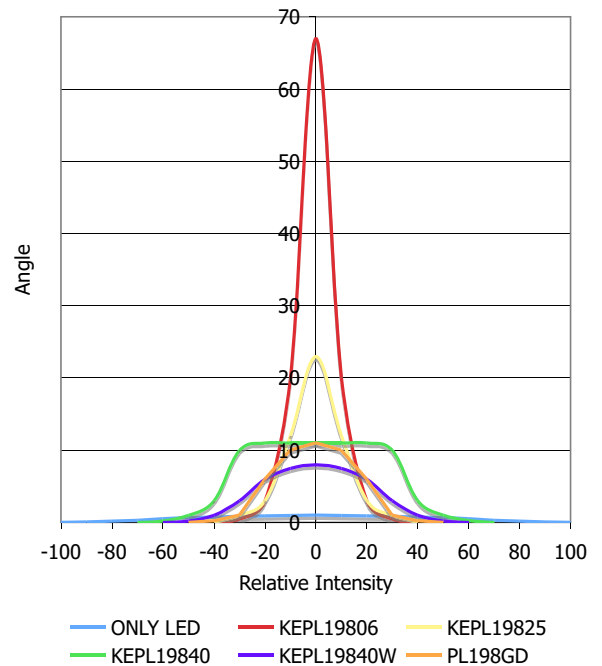
LED temperature after 10 min. : ~ 36 °C

The diagram demonstrates the performance of the Khatod optoelectronic lenses

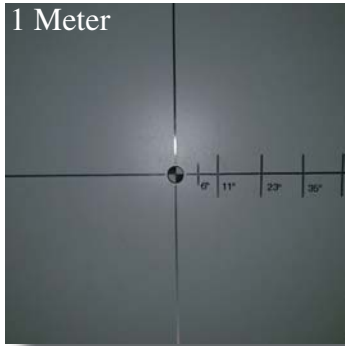
Intensity to 1 Meter



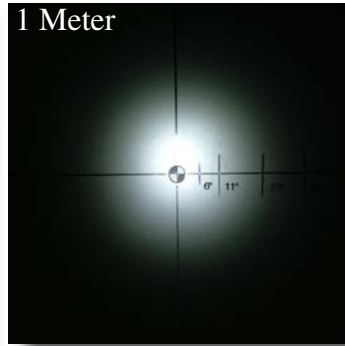
Spectrum Distribution



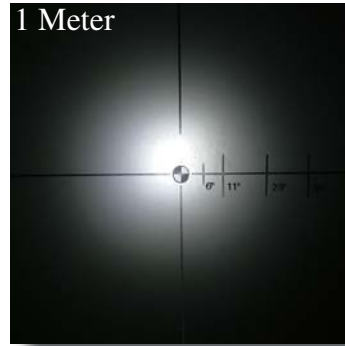
Photos:



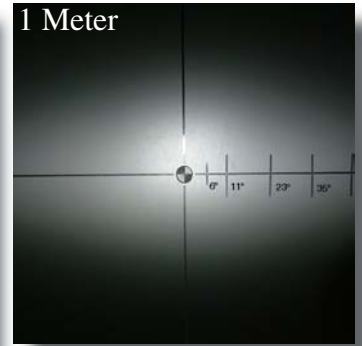
LED SEOUL 0,5W



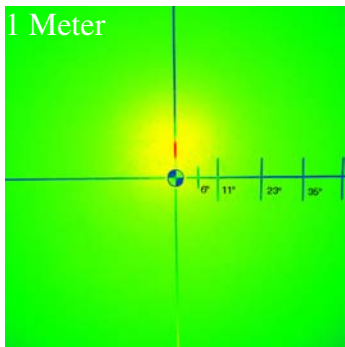
KEPL19806 (10°)



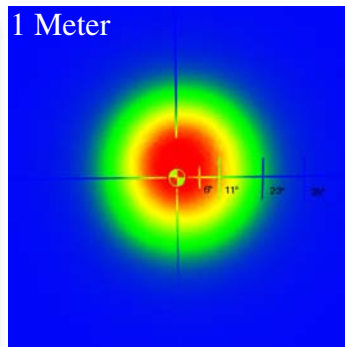
KEPL19825 (25°)



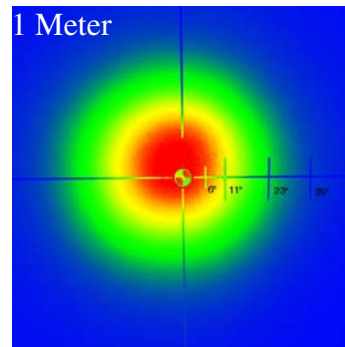
KEPL19840 (10°X100°)



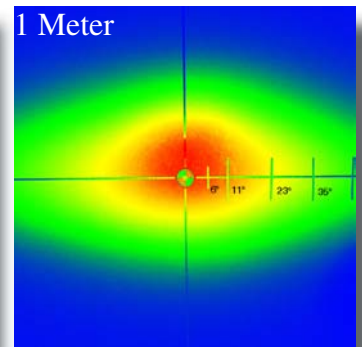
LED SEOUL 0,5W
Spectro Metric Analysis



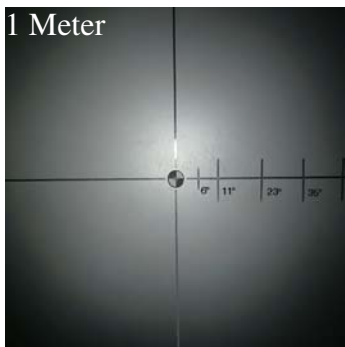
KEPL19806 (10°)
Spectro Metric Analysis



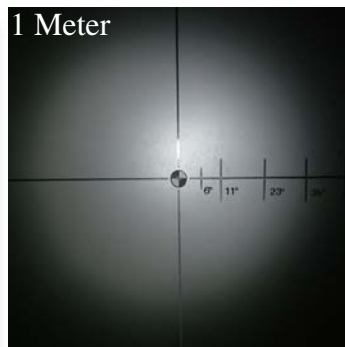
KEPL19825 (25°)
Spectro Metric Analysis



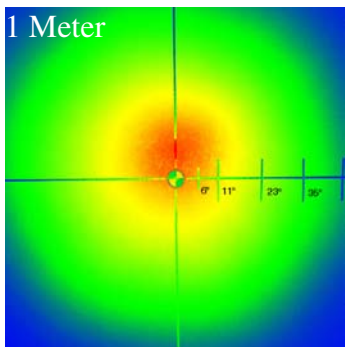
KEPL19840 (10°X100°)
Spectro Metric Analysis



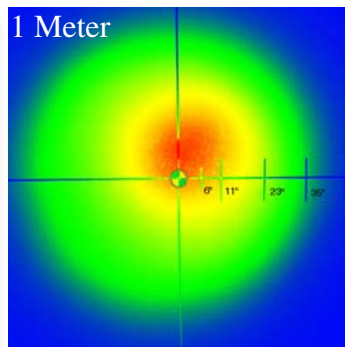
KEPL19840W (40°)



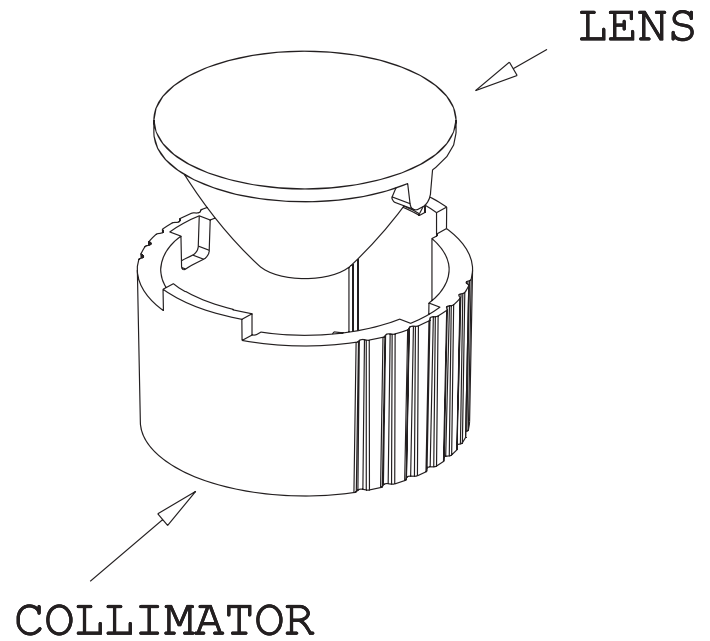
PL198GD (30°)



KEPL19840W (40°)
Spectro Metric Analysis

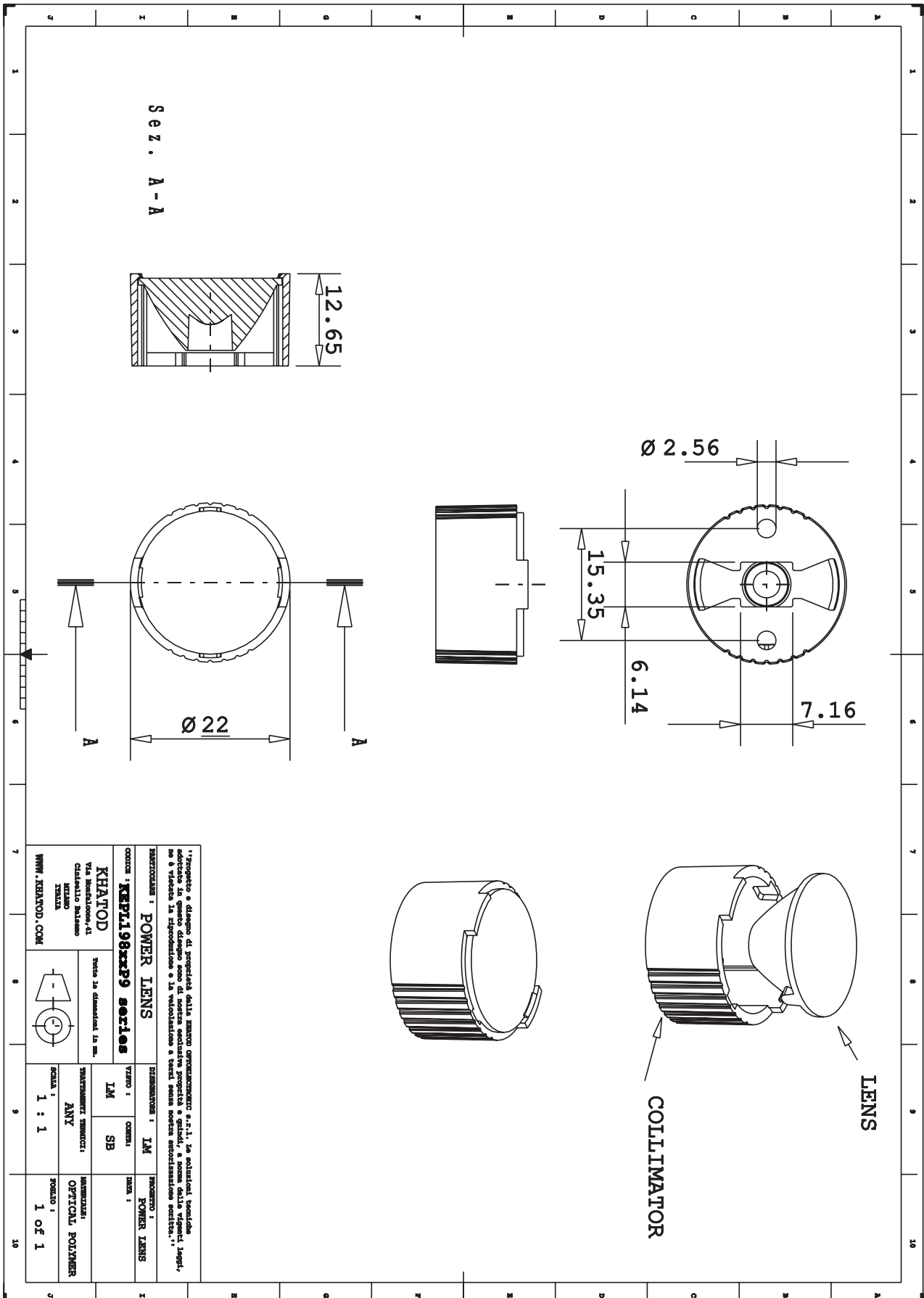


PL198GD (30°)
Spectro Metric Analysis



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

Drawing.



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INTRODUZIONE : POWER LENS MODELLO : KEPL198KCP9 series PRODOTTORE : KHATOD Via Montebello, 41 Chianello Salsomaggiore 41010 MODENA WWW.KHATOD.COM		DESCRIZIONE : IM VERSIONE : IM SB STRUTTURE : ANY SCALA : 1 : 1		PRODOTTORE : POWER LENS PRODOTTO : OPTICAL POLYMER 1 OF 1	
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Lens characteristics

Parameter	Symbol	Rating	Unit
Lens Material	PMMA Optics	--	--
Holder Material	PC	--	--
Operating Temperature	Topr	-40 to +80	°C
Storage Temperature	Tstg	-40 to +80	°C
Average transmittance in visible spectrum (400 – 700nm) >90% as measured using 3mm thick Optical Grade PMMA			

LED characteristics

For technical specification on LEDs please refer to Seoul Semiconductor® 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.
- 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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