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KCLP series REFLECTORS for Lambertian



KCLP Series

- High efficiency
- Available in 2 different beams
- Ø 17mm and Ø 20mm Standard

Typical applications are

- Portable lighting (flashlights, bicycle, ...)
- Lamps
- Architectural lighting
- Most applications where a compact light source is required



DESCRIPTION:

The KCLP series offers two reflectors designed for Lambertian LEDs. These REFLECTORS have been studied by using software for optical simulation in order to get the narrow and medium beam with a perfect homogeneous central spot.

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. KCLP17CR, KCLP17ST, KCLP20CR and KCLP20ST.

MEASURED DATA:

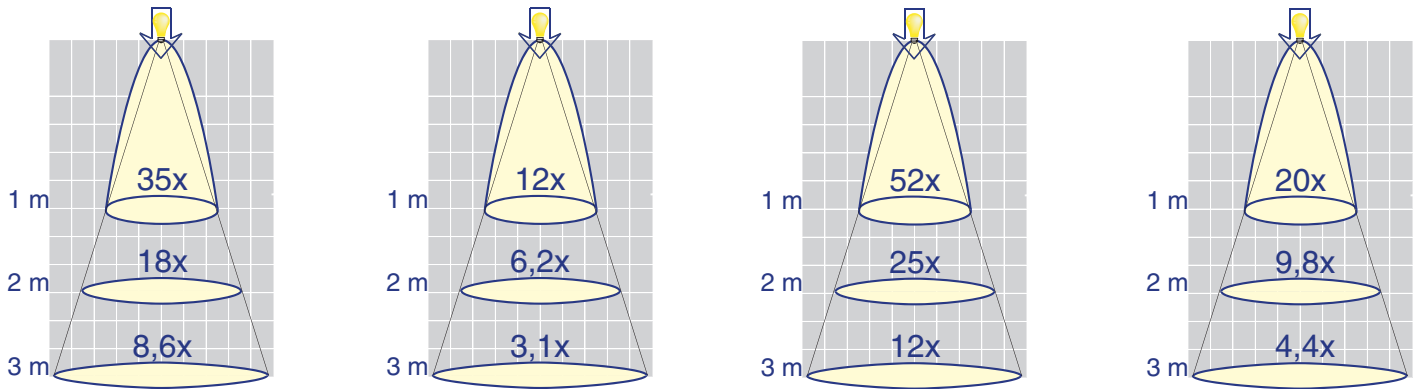
Column 1 shows p/n of the Lenses, column 2 shows Luminous Intensity detected measuring LEDs without lens, column 3 shows Luminous Intensity detected on LEDs coupled with lens, column 4 shows the difference (X*) between col. 2 and col. 3

Lens Type	LED Lux from 1 Mt (ftc From 1 Mt)	LED + REFLECTORS Lux from 1Mt (ftc From 1 Mt)	X*
KCLP17CR (6°)	11,25 (1,04 ftc)	388 (35,81 ftc)	35
KCLP17ST (35°)	11,25 (1,04 ftc)	135 (12,46 ftc)	12
KCLP20CR (6°)	11,25 (1,04 ftc)	580 (53,55 ftc)	52
KCLP20ST (25°)	11,25 (1,04 ftc)	225 (20,77 ftc)	20

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 with Luxometer mod LUX-1337 of **ISO-TEC** and **MINOLTA** mod LS – 150

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

White LED Illuminance Chart



KCLP17CR

KCLP17ST

KCLP20CR

KCLP20ST

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

Test conditions:

Test current: 350 mA / LED

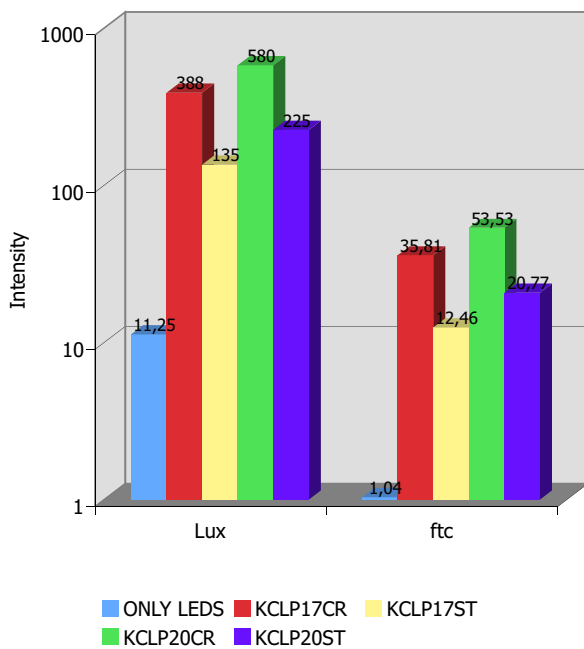
Room Luminous Intensity : 0 Lumen

Room Temperature: 23° C

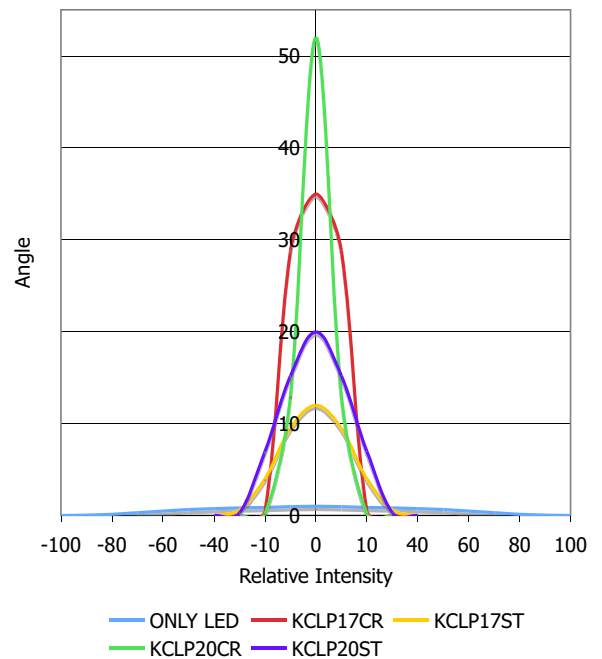
LED temperature after 10 min. : ~ 42 °C

The diagram demonstrates the performance of the Khatod optoelectronic reflectors

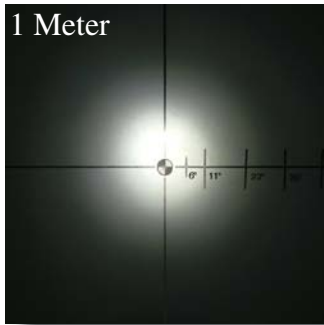
Intensity to 1 Meter



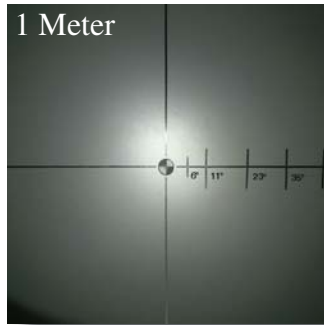
Spectrum Distribution



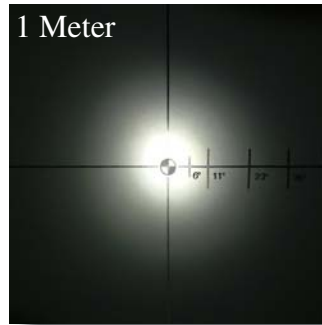
Photos:



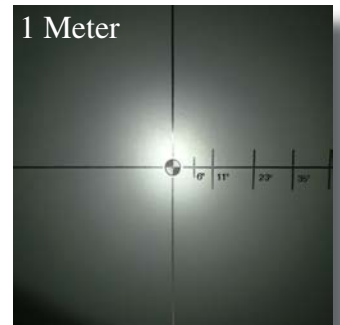
KCLP17CR



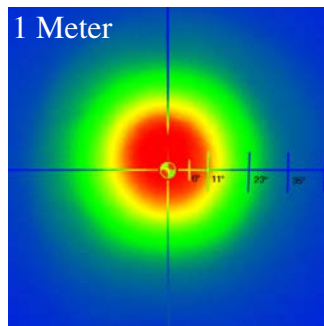
KCLP17ST



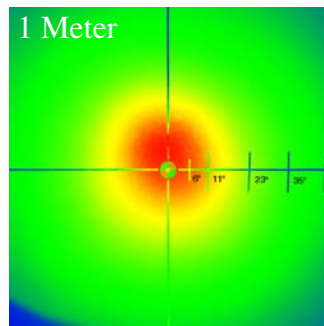
KCLP20CR



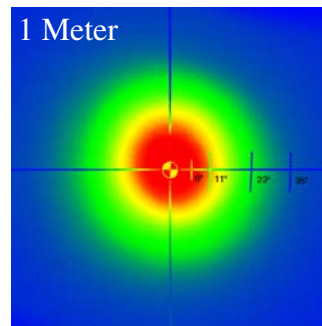
KCLP20ST



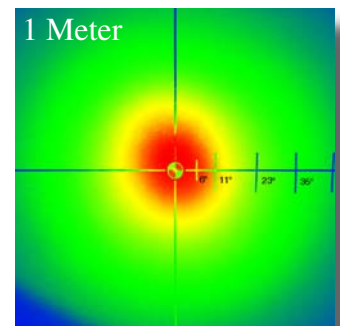
KCLP17CR
Spectro Metric Analysis



KCLP17ST
Spectro Metric Analysis



KCLP20CR
Spectro Metric Analysis



KCLP20ST
Spectro Metric Analysis

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

Ordering part number:

KCLP XX XX

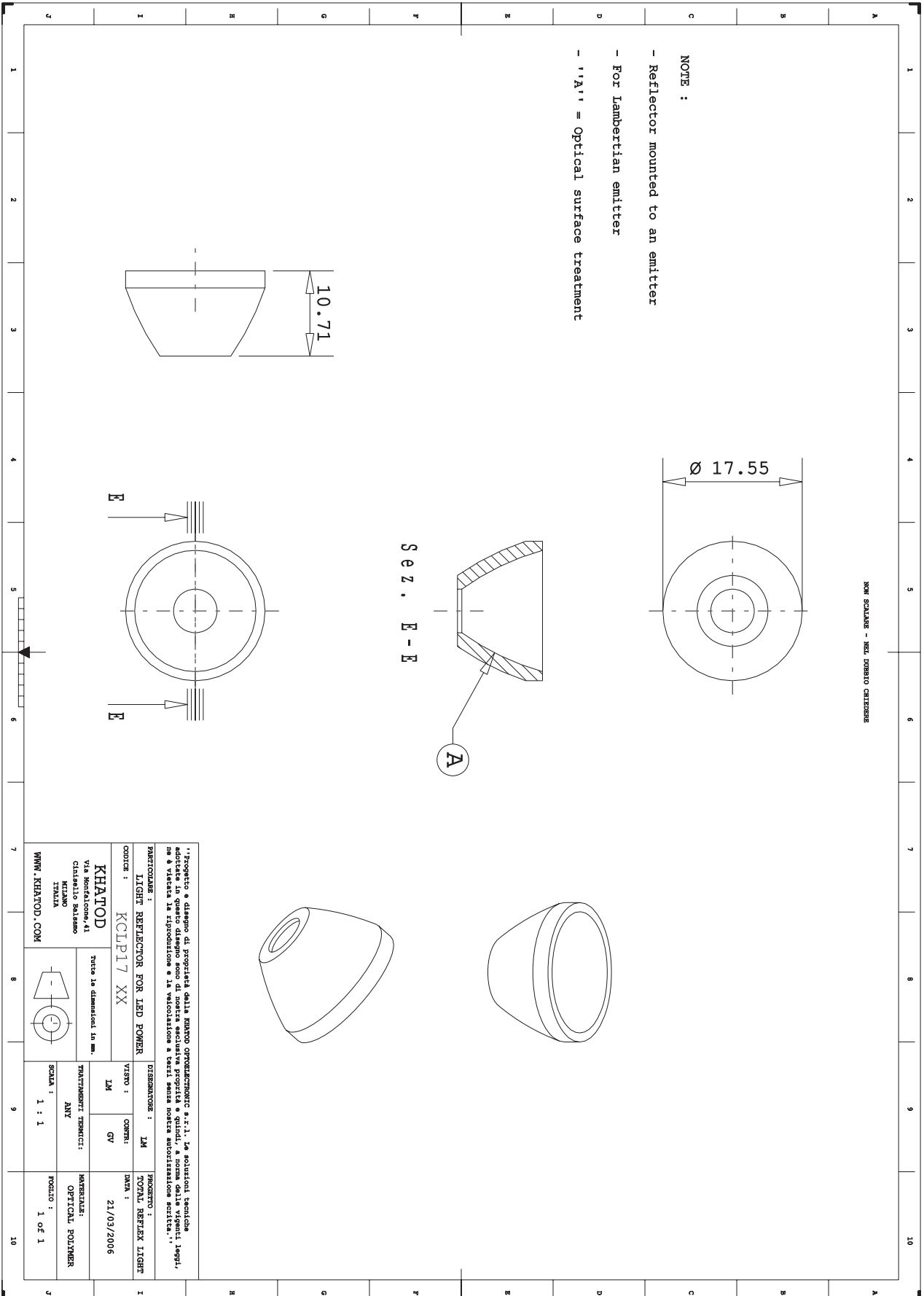
CR = metalized (Narrow beam)

ST = embossed surface (Medium beam)

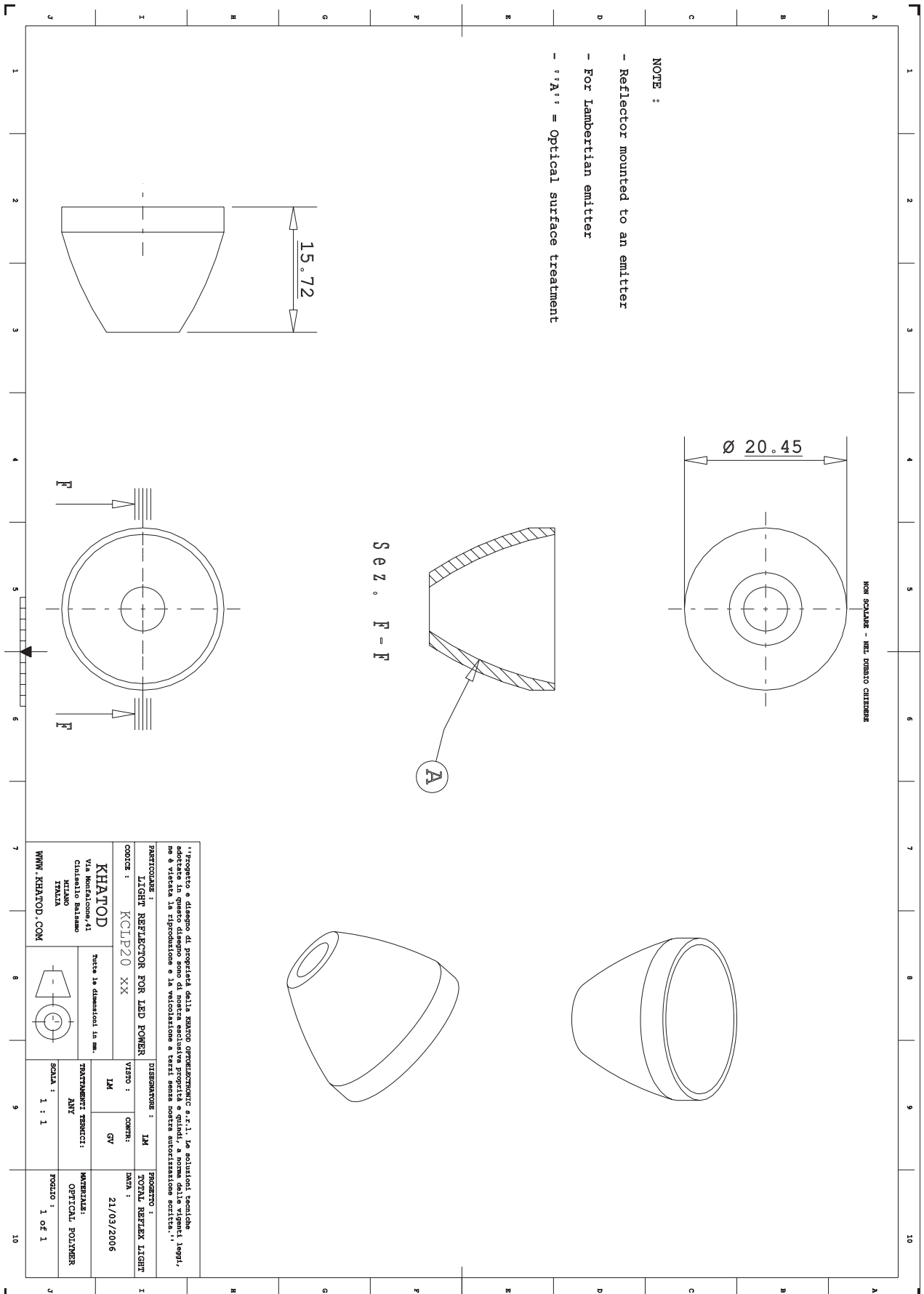
17 = Ø 17,5 mm

20 = Ø 20,5 mm

Drawing.



Drawing.



Reflectors characteristics

Parameter	Symbol	Rating	Unit
Reflector Material	PC Polycarbonate, Aluminium reflective coating with protective clear-coat	--	--
Operating Temperature	Topr	-40 to +120	°C
Storage Temperature	Tstg	-40 to +120	°C

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Notes:

Please note that small defects in the reflective coating, flow lines and weld lines on the surfaces of the reflectors are acceptable if the optical performance of the reflectors is within the specification described in the section "OPTICAL CHARACTERISTICS"

- Should you require further information, please contact Khatod for advice.
- All reflectors testing must be subject to identical conditions as Khatod test condition.

KHATOD REFLECTORS Use And Maintenance

- DO NOT HANDLE OR INSTALL REFLECTORS 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 REFLECTORS

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