

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

**CODE NUMBER: 120000000967**

**SUBJECT: KCLP1512ST - Reflector for Power LEDs**



Images shown above is Indicative only

- Fit for major COB LEDs
- Made in PCHT for special coating treatment
- Innovative vacuum coating treatment, specific for optical reflector systems
- High lighting efficiency over 85%
- Excellent luminous flux
- Innovative design
- Easy fixing onto the PCB by twist & lock block system
- Complying with UL94 Specifications
- Complying with Zhaga Standards

### **Typical Applications:**

KCLP series is suitable for any application in Wide Area Lighting, Indoor and Outdoor:

- Industrial Lighting : Warehouses, Laboratories, Sheds, Garages, Machine Shops, etc.
- Indoor Lighting : Outlets & Shop Centers, Exhibition Areas, Offices, Hospital Wards, Passages, Aisles, etc.
- Outdoor Lighting : Parking Areas, Pathways, Petrol & Service Stations, Gardens, Playgrounds, Canopies, etc.
- Architectural Lighting : Entertainment & Decorative, Shop Windows, Halls & Entrances, Lamps , etc.

The Optical Reflector Systems from Khatod ensure the highest lighting efficiency thanks to our exclusive vacuum coating plant, specific for optical treatments .

The new reflectors from Khatod are provided with a special adaptor, customized for the major COB LEDs, allowing an immediate easy assembling of the reflector by a simple twist & lock block system.

The concept is very simple: first the adaptor is fixed onto the PCB while the reflector is then fixed by simply twisting and locking it onto the adaptor.

The Optical Reflector Systems from Khatod assure the highest in design and the easiest in usability, and guarantee the most efficient and cost-effective optical solution

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## 1 Light Source Model

| Parameter                      | Symbol | Value            | Unit |
|--------------------------------|--------|------------------|------|
| Lens / Reflector Model         | -      | KCLP1512ST       | -    |
| Material (More info on page 9) | -      | PC, ALUMINIUM    | -    |
| Dimensions                     | -      | See page 8       | -    |
| Source Model                   | -      | LUXEON K24       | -    |
| Number of Sources              | $N$    | 1                | -    |
| Power Supply Type              | -      | ISO TECH ISP3303 | -    |
| Driver Type                    | -      | -                | -    |
| Driving Voltage                | $V_F$  | -                | V    |
| Driving Current                | $I_F$  | 700              | mA   |
| Nominal Flux                   | $\Phi$ | $2745 \times 1$  | lm   |

## 2 Measurement Setup

| Parameter            | Symbol | Value        | Unit |
|----------------------|--------|--------------|------|
| Operator             | -      | Simone Bassi | -    |
| Goniophotometer Type | -      | KLX12M       | -    |
| Measurement Distance | $z$    | 5            | m    |
| Room Temperature     | $T$    | 25           | °C   |
| Date                 | -      | 03-May-2012  | -    |

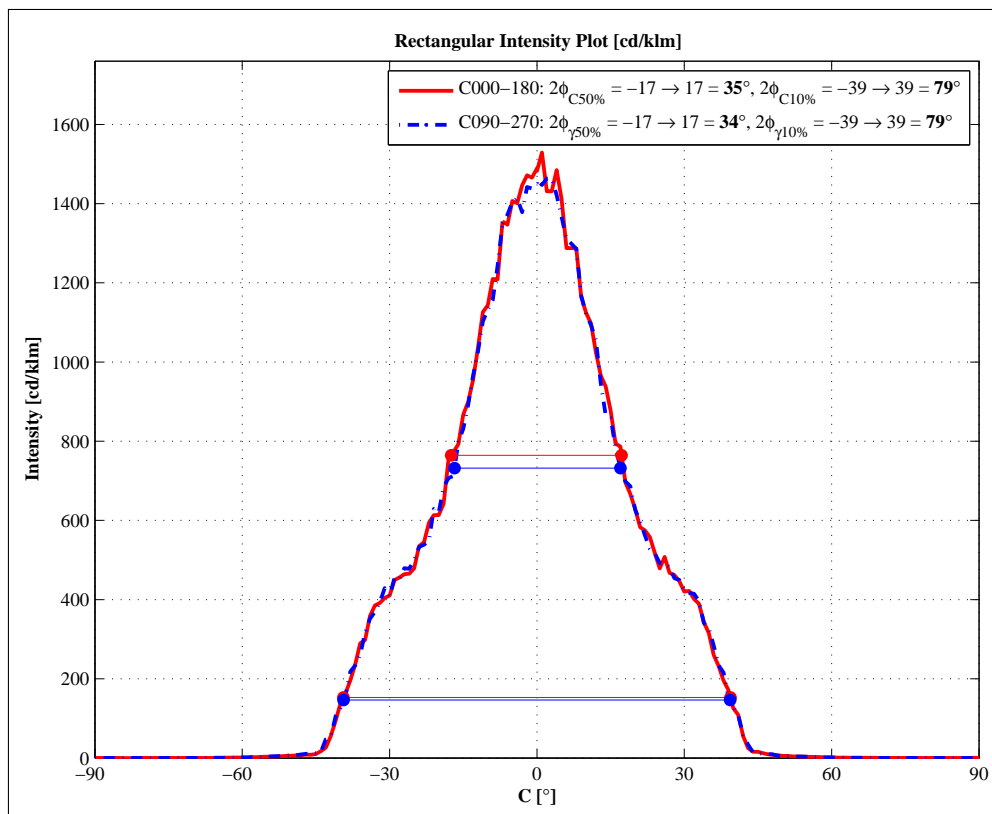
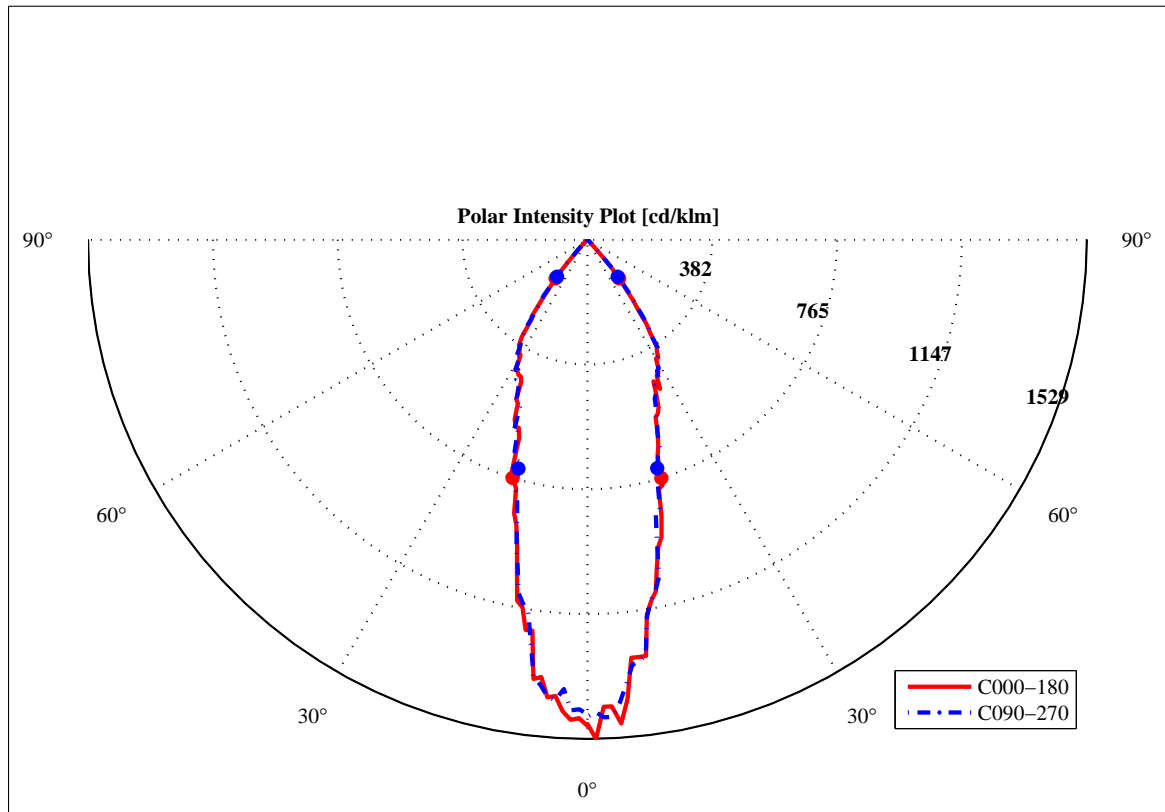
## 3 Results

| Parameter                                 | Symbol               | Value      | Unit |
|---|----------------------|------------|------|
| Total Flux                                | $\Phi$               | 2745       | lm   |
| Max Intensity                             | $I_{\max}$           | 4167       | cd   |
| Max Illuminance at 5 m                    | $E_{\max}$           | 167        | lx   |
| C-Viewing Angle at 50% $I_{\max}$         | $2\phi_C$            | 35         | °    |
| $\gamma$ -Viewing Angle at 50% $I_{\max}$ | $2\phi_\gamma$       | 34         | °    |
| C-Viewing Angle at 10% $I_{\max}$         | $2\phi_{C10\%}$      | 79         | °    |
| $\gamma$ -Viewing Angle at 10% $I_{\max}$ | $2\phi_{\gamma10\%}$ | 79         | °    |
| General Optical Measurement Tolerance     | -                    | $\pm 10\%$ | -    |

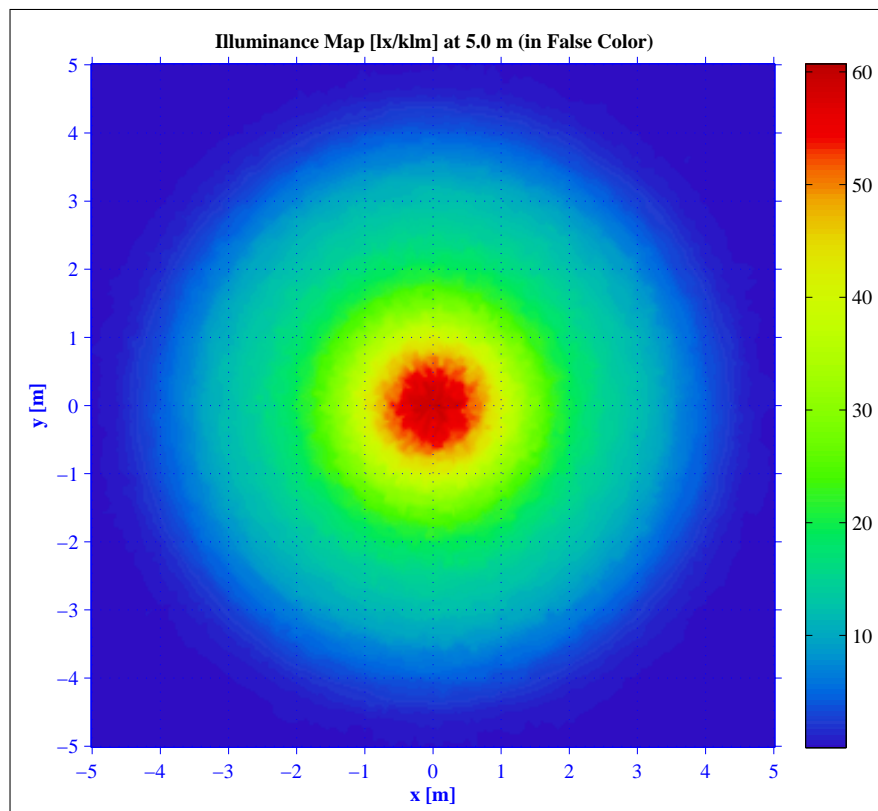
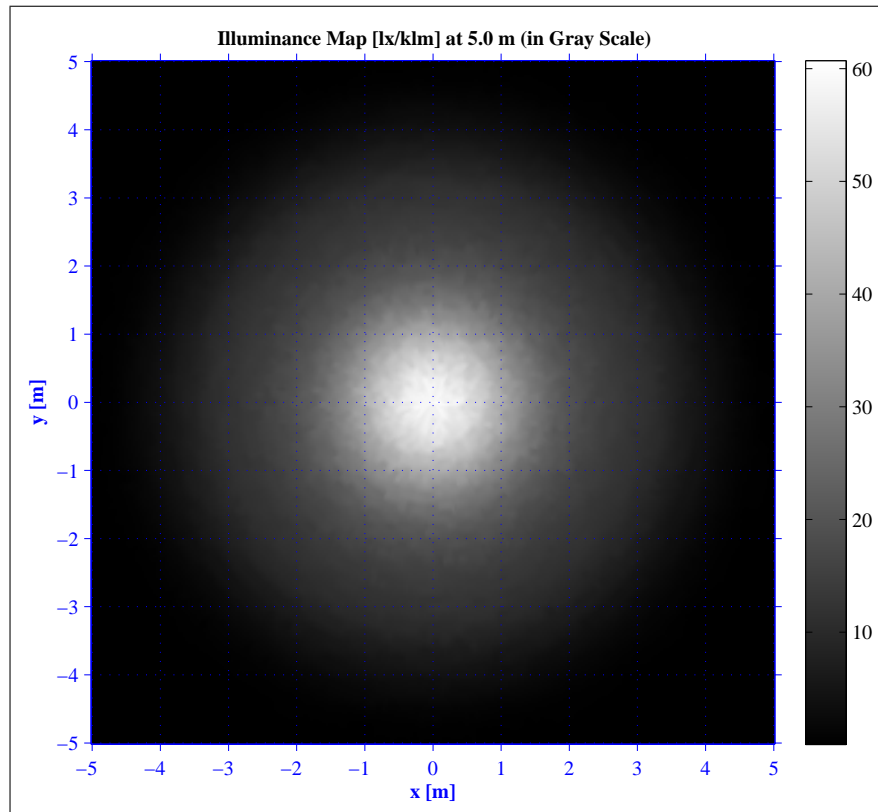
### NOTES:

- Intensity ( $I$ ) and illuminance ( $E$ ) data are normalized by 1000 lm
- The optical values shown are the result of optical simulations carried out with ASAP and ZEMAX software systems. The optical simulations are carried out on the basis of the typical values provided in the LED manufacturers' official datasheets. The photometric analysis has been carried out on physical samples. On request, by supplying your PCB, we can provide the measurement photometric file.

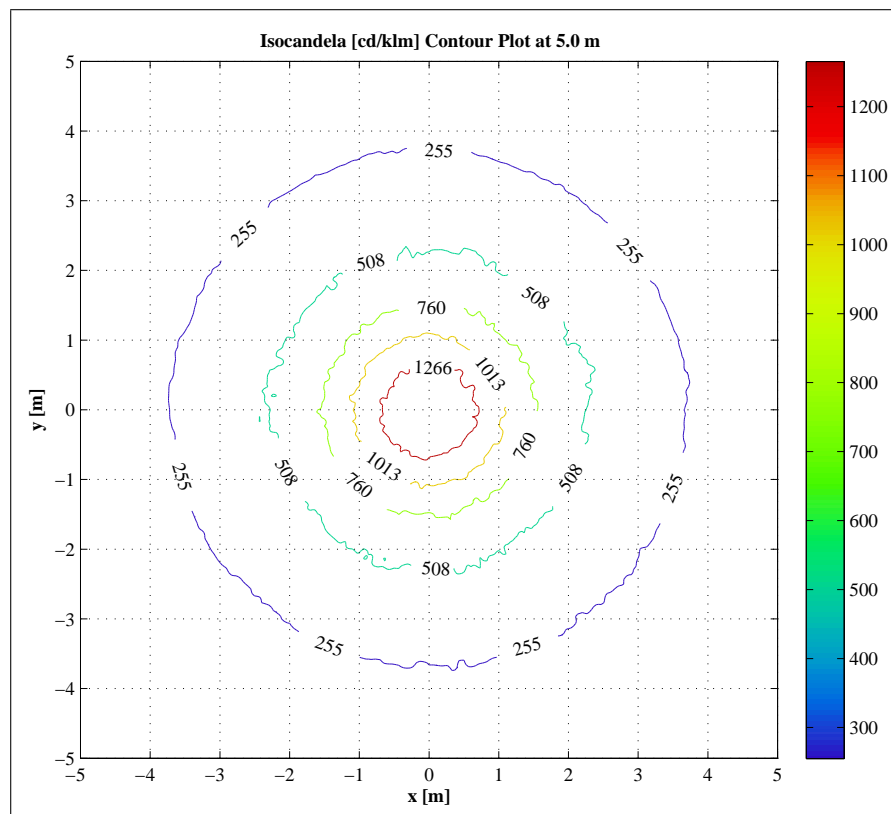
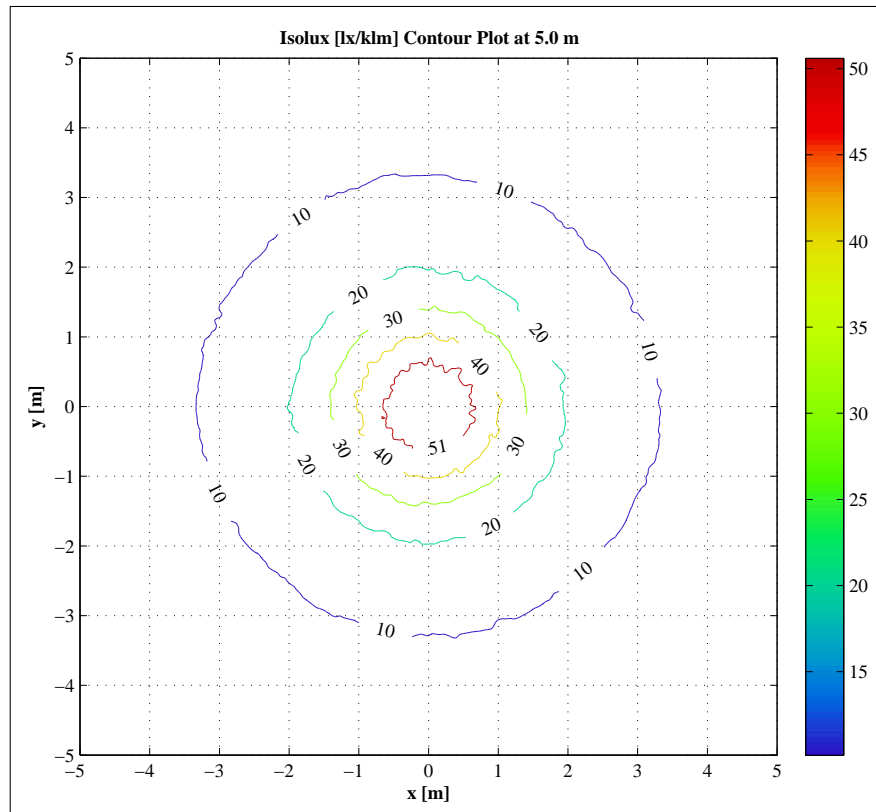
## 4 Intensity Plot



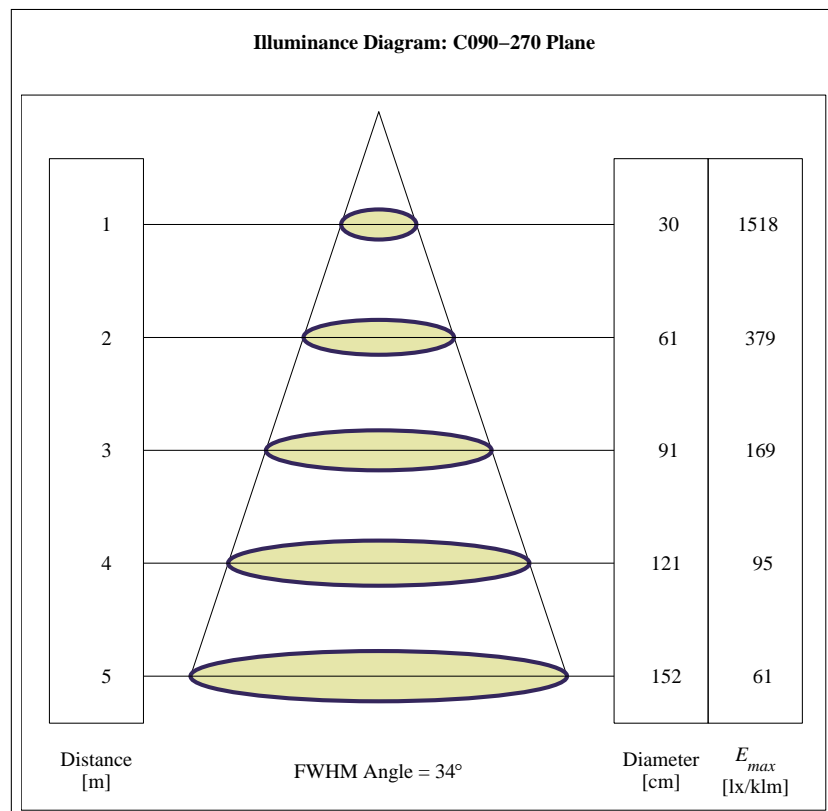
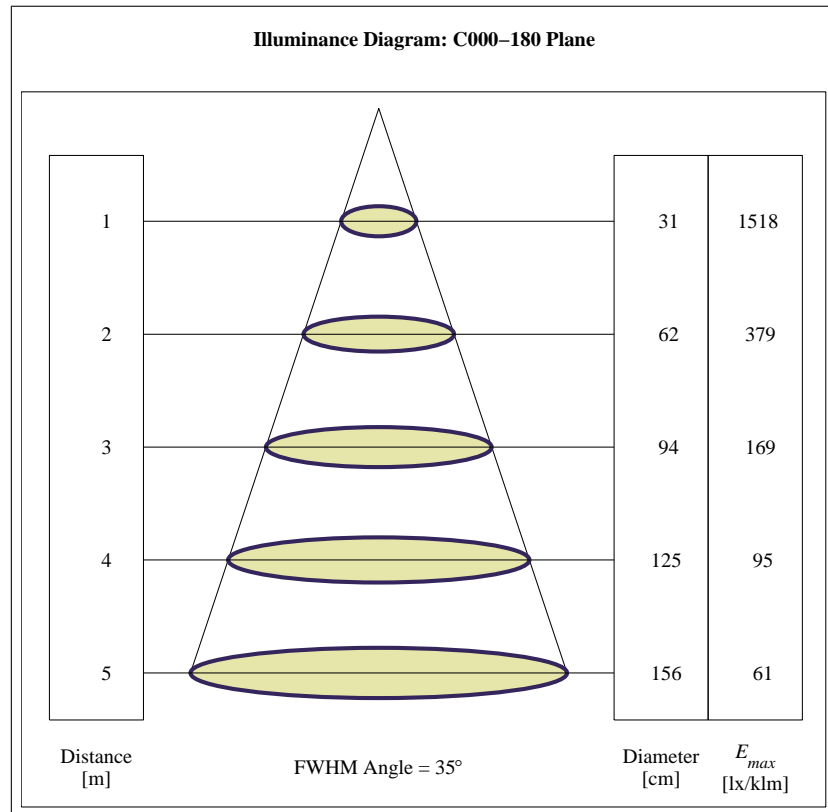
## 5 Illuminance Map



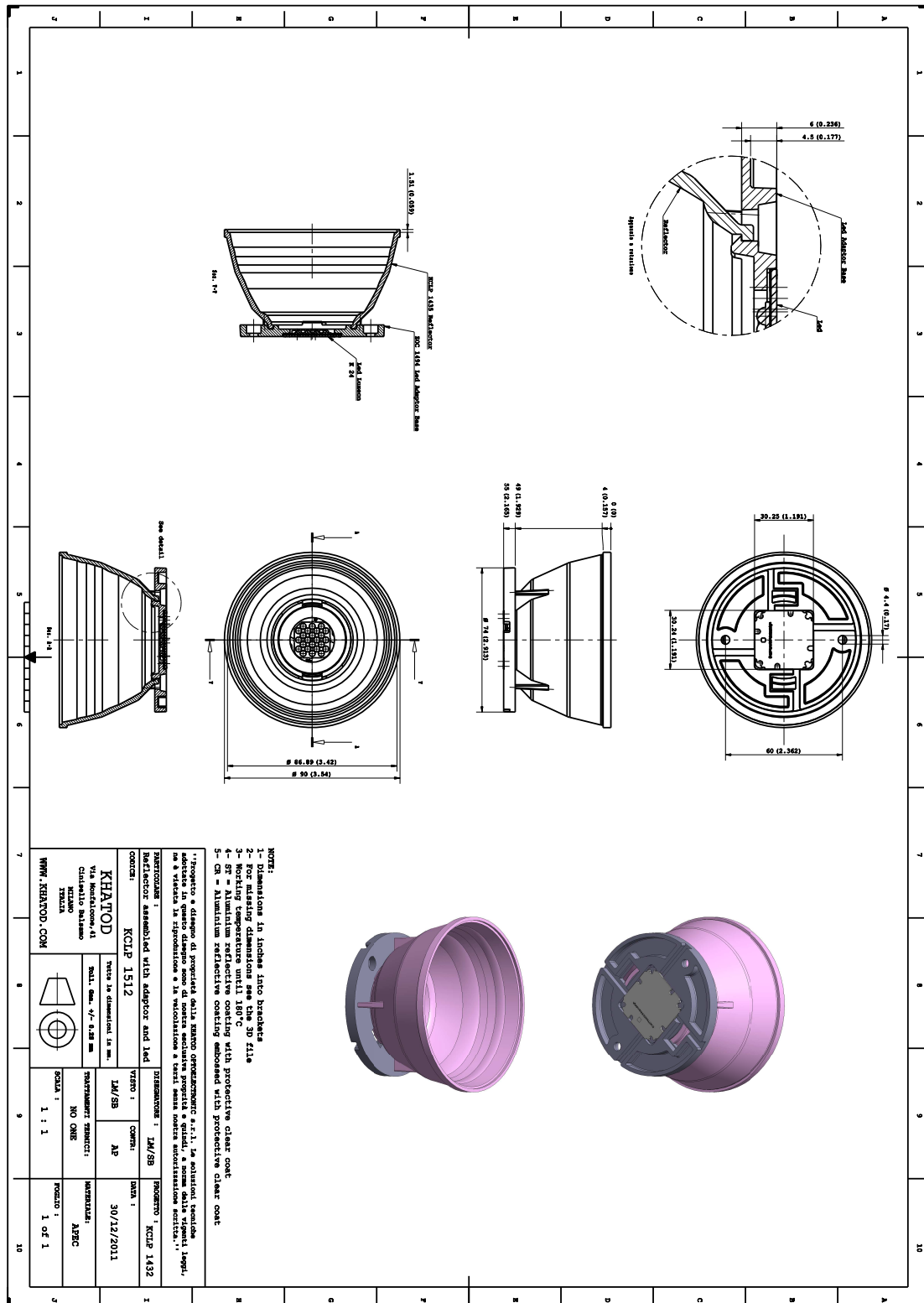
## 6 Isolux / Isocandela Plots



## 7 Illuminance Diagram



## 8 Drawing





## 9 Use and Maintenance

### Reflector characteristics

| Parameter             | Symbol   | Rating      | Unit |
|-----------------------|--|-------------|------|
| Reflector Material    | PC , Aluminium Reflective Coating with protective clear coat | --          | --   |
| Holder Material       | --   | --          | --   |
| Operating Temperature | Topr   | -40 to +180 | °C   |
| Storage Temperature   | Tstg   | -30 to +80  | °C   |

### 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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