

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

**CODE NUMBER: 11000000233**

**SUBJECT: Secondary Optics for Power LEDs - PL600A06  
Lens Coupling - Output Luminous Intensity Measurement**



- **Typ. Illuminance@1m ~ 2700 lux**
- High lighting efficiency
- Excellent luminous flux
- No vibration problems
- Free testing
- Superior optical engineering for a perfect uniform light distribution
- Innovative design
- Easy fixing system to the PCB
- NJC Technology
- Complying with UL94 Specifications
- ☀️ UV Protected



**Typical Application are:**

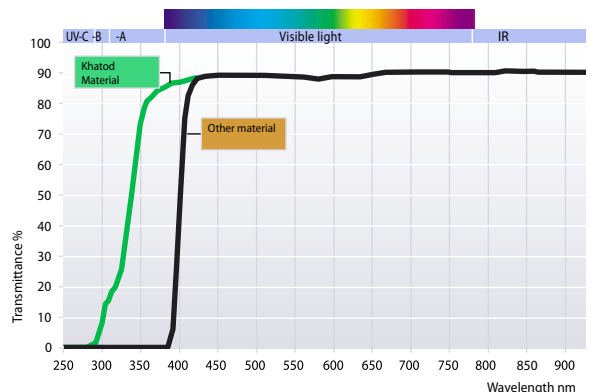
- Wall Washing
- Architectural lighting
- Lamps
- Most applications where a compact light source is required
- Any application requiring placement of LEDs in narrow or recessed spaces, as well as in diverse LED configurations

Khatod Optics are a basic element to make your optical design real. The right optical solution is fundamental for type and number of LEDs used in your design. Advanced research, scientific rigour, great attention to the continuous evolution in LED Technology, have led Khatod to develop optical solutions performing an excellent, homogeneous luminous flux, and a high lighting efficiency. The product we are proposing, is the result of Khatod's superior engineering. It helps in reducing the costs while meeting the most demanding lighting specifications and applications.

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**Transmittance Curve vs Wavelength**



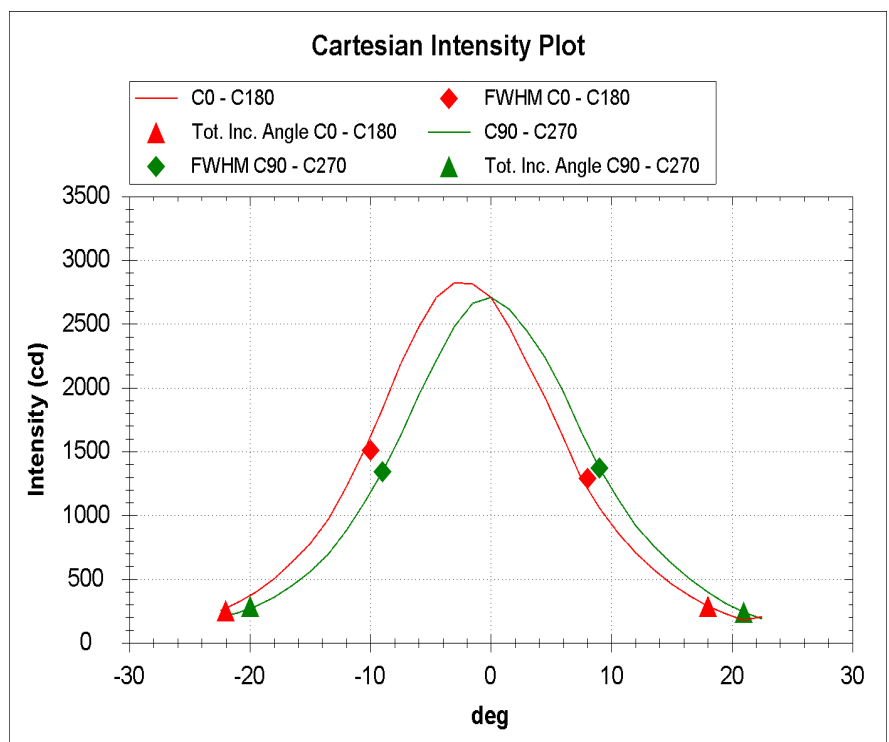
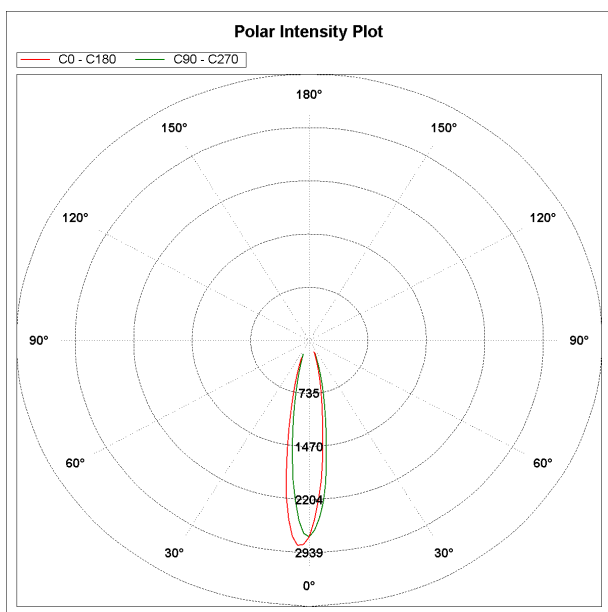
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Goniophotometer Type	KLX12M	Operator	SIMONE BASSI
Power Supply Type	ISO TECH ISP3303	Date	15/06/2011
LED Driver Type	////		

Lamp Model	////	Nominal Flux (lm)	225	Angle FWHM C Plane	18
Lens Model	PL600A06	Total Flux (lm)	675	Angle FWHM $\gamma$ Plane	18
LED Model	NICHIA NS6W183	Imax (cd)	2826		
N. LED	3	Max Ill. @ Meas. Dist. (lux)	113	Total Incl. Angle C Plane	40
Rated Voltage (V)	10.7	Measurement Distance (m)	5	Total Incl. Angle $\gamma$ Plane	41
LED Drive Current (mA)	700	Room Temperature (°C)	25		

Notes:  
General Optical Measurement Tolerance: +/-10%



## Polar Intensity Plot

— C0 - C180    — C90 - C270

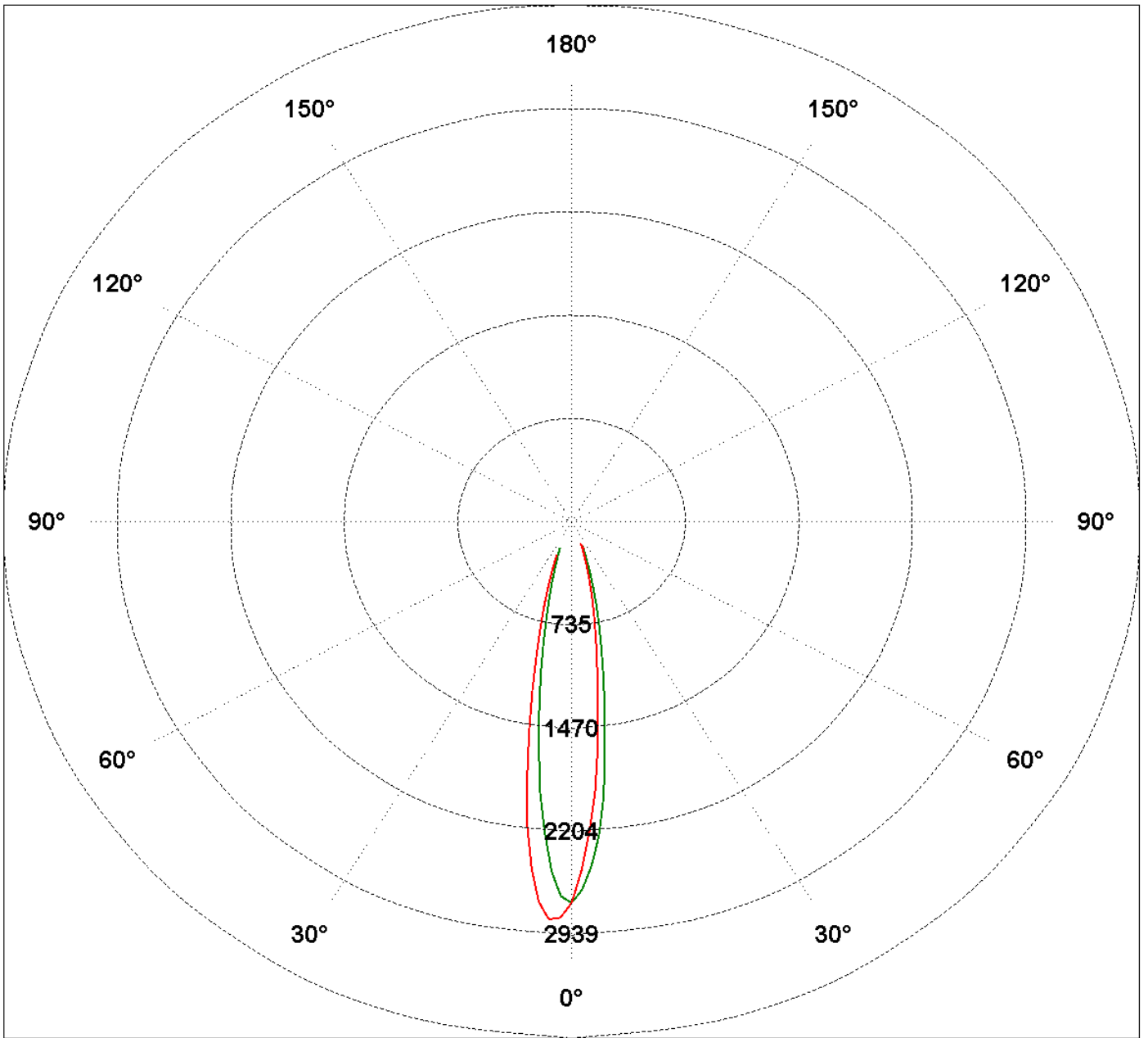


Figure C0-C180

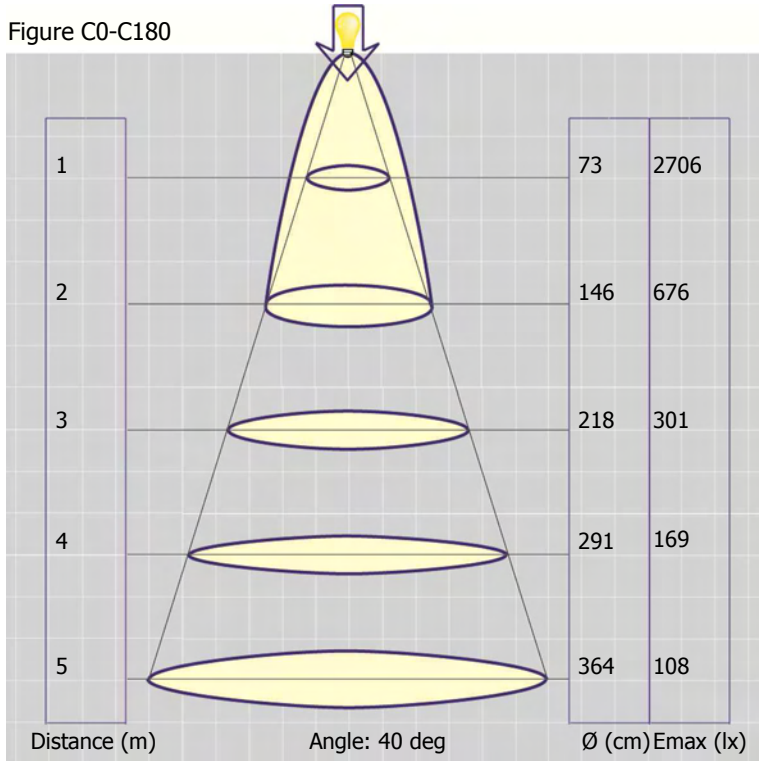
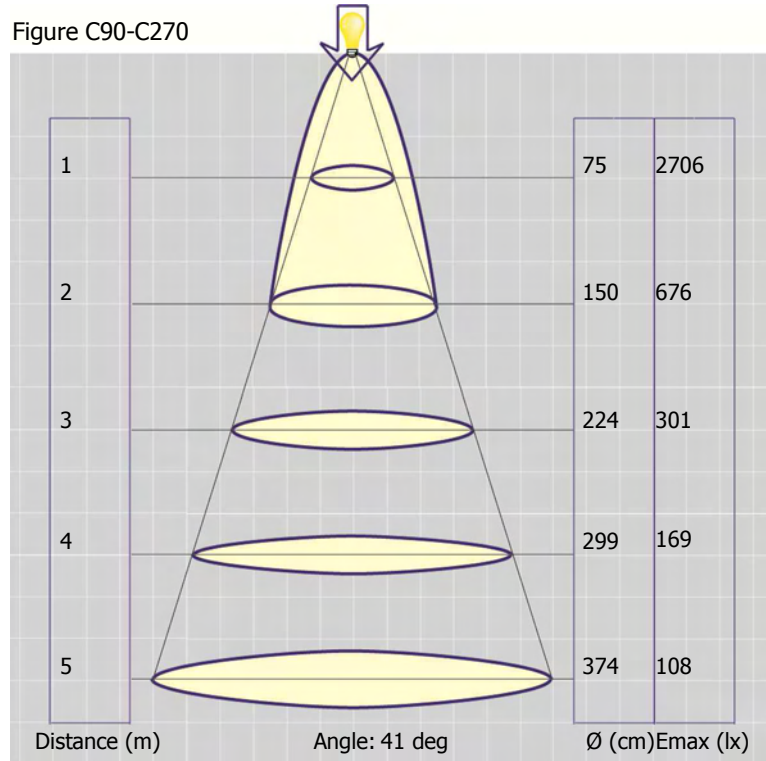
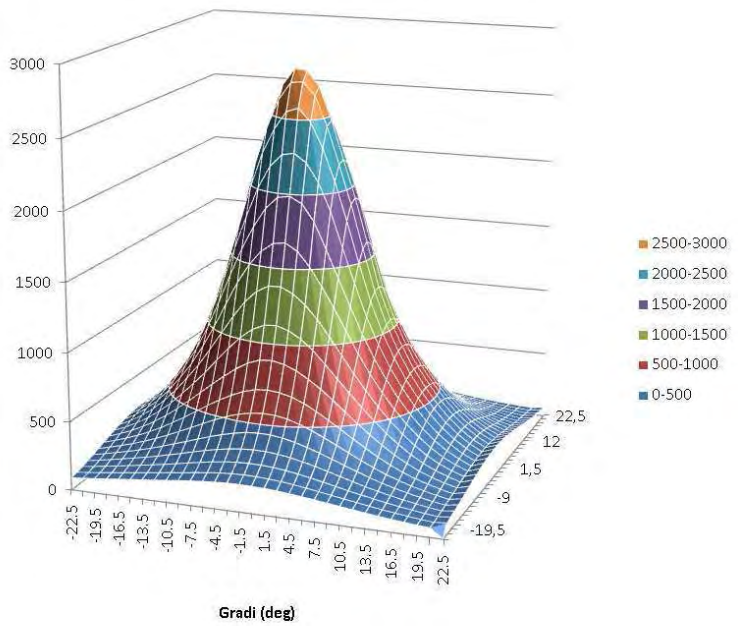


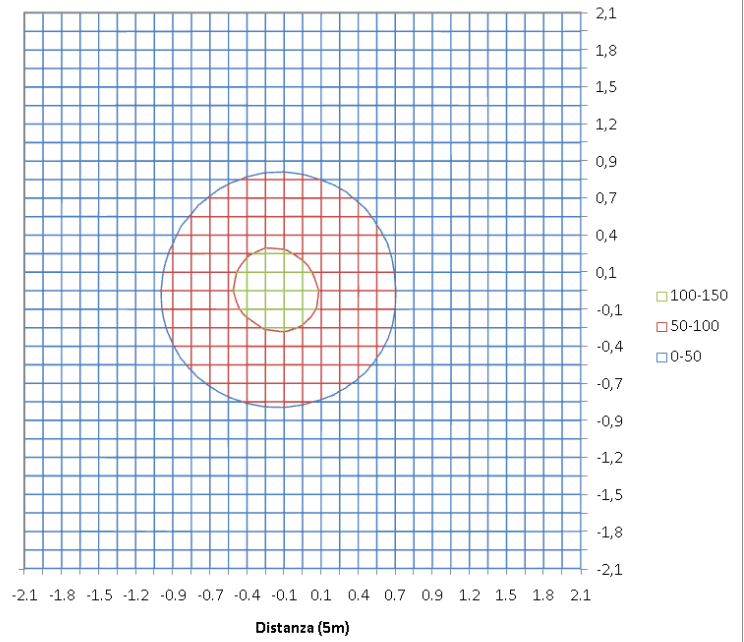
Figure C90-C270

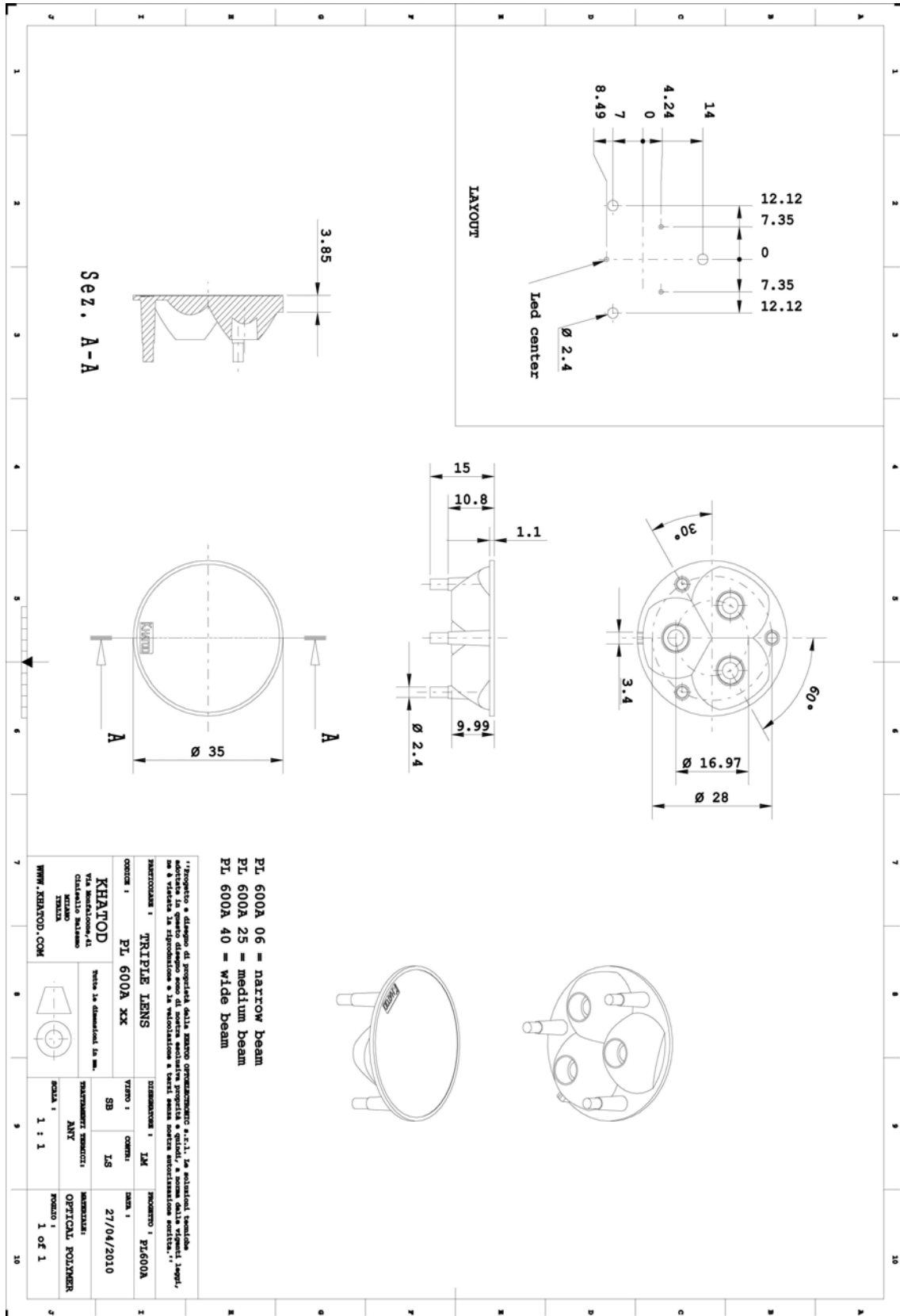


**Isocandela Diagram**

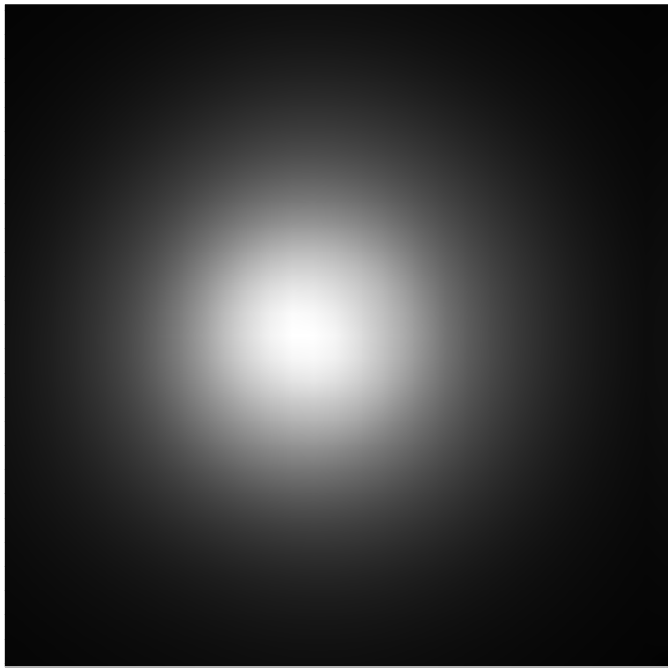


**Isolux Diagram**

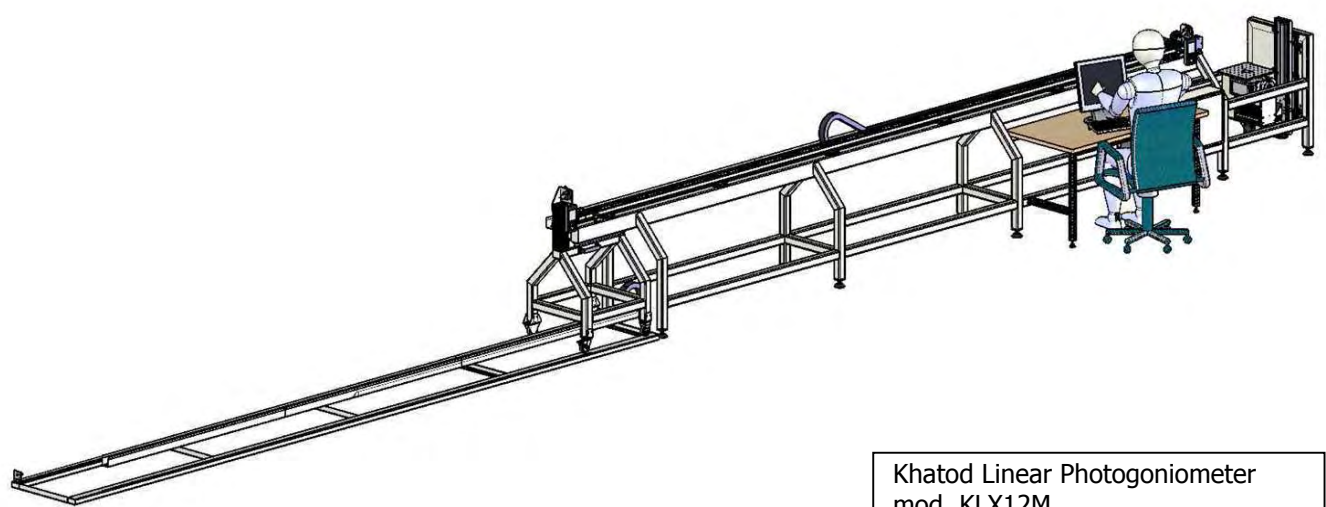
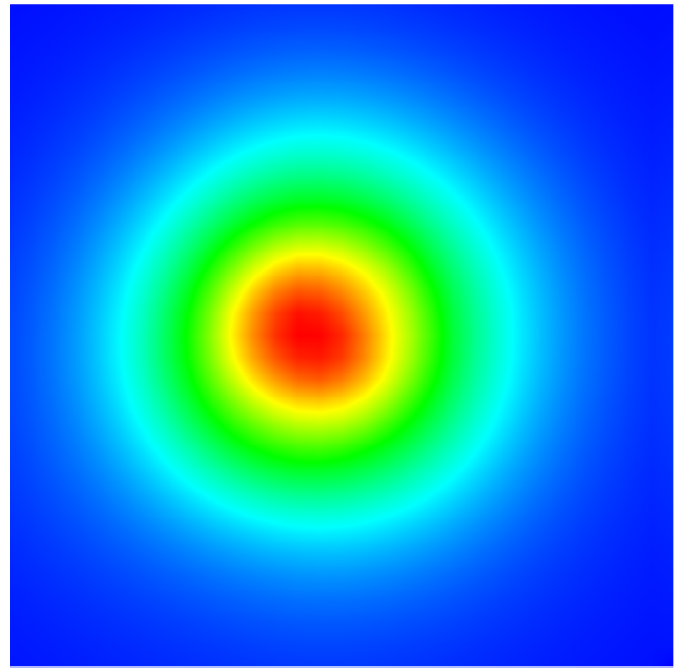




Gray Scale Illuminance @ 5m Distance



False Colours Illuminance @ 5m Distance



Khatod Linear Photogoniometer  
mod. KLX12M

## Luminous Distribution Intensity Data

CODE NUMBER: 11000000233

C (deg) γ (deg)	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°	110°	120°	130°	140°	150°	160°	170°	180°	190°
0°	2706	2706	2706	2706	2706	2706	2706	2706	2706	2706	2706	2706	2706	2706	2706	2706	2706	2706	2706	2706
5°	1823	1819	1838	1858	1892	1933	1981	2033	2081	2149	2213	2295	2369	2446	2509	2565	2610	2617	2630	2592
10°	930	933	941	957	978	1012	1054	1102	1153	1210	1265	1320	1375	1427	1484	1532	1570	1597	1616	1612
15°	463	468	476	485	497	514	535	562	591	621	649	671	686	697	711	727	748	767	781	788
20°	210	210	213	218	224	232	241	252	266	284	299	310	315	320	326	334	345	356	370	378
25°	0	0	0	117	104	106	108	0	0	0	0	0	140	145	149	154	0	0	0	0
30°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

200°	210°	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°	330°	340°	350°
2706	2706	2706	2706	2706	2706	2706	2706	2706	2706	2706	2706	2706	2706	2706	2706
2560	2500	2440	2374	2299	2236	2171	2124	2063	2020	1973	1932	1898	1865	1845	1823
1589	1549	1496	1428	1362	1296	1234	1176	1126	1086	1051	1022	989	964	944	934
784	764	732	690	644	607	580	561	542	527	514	502	490	480	470	464
383	375	353	324	300	286	277	271	260	252	245	236	230	224	217	212
0	199	187	171	160	0	0	0	0	0	129	124	119	131	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



## Lens characteristics

Parameter	Symbol	Rating	Unit
Lens Material	PMMA Optics	--	--
Holder Material	--	--	--
Operating Temperature	Topr	-30 to +80	°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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