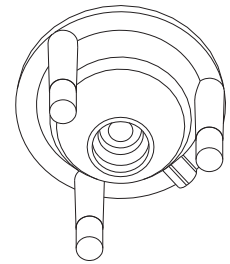


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CODE NUMBER: 11000000227

**SUBJECT: Secondary Optics for Power LEDs - PL59740NCH1
Lens Coupling - Output Luminous Intensity Measurement**

- **Typ. Illuminance@1m ~ 375 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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Luminous Distribution Intensity Data	- Annex A
General Lens Features	- Annex B
General Notes	- Annex B

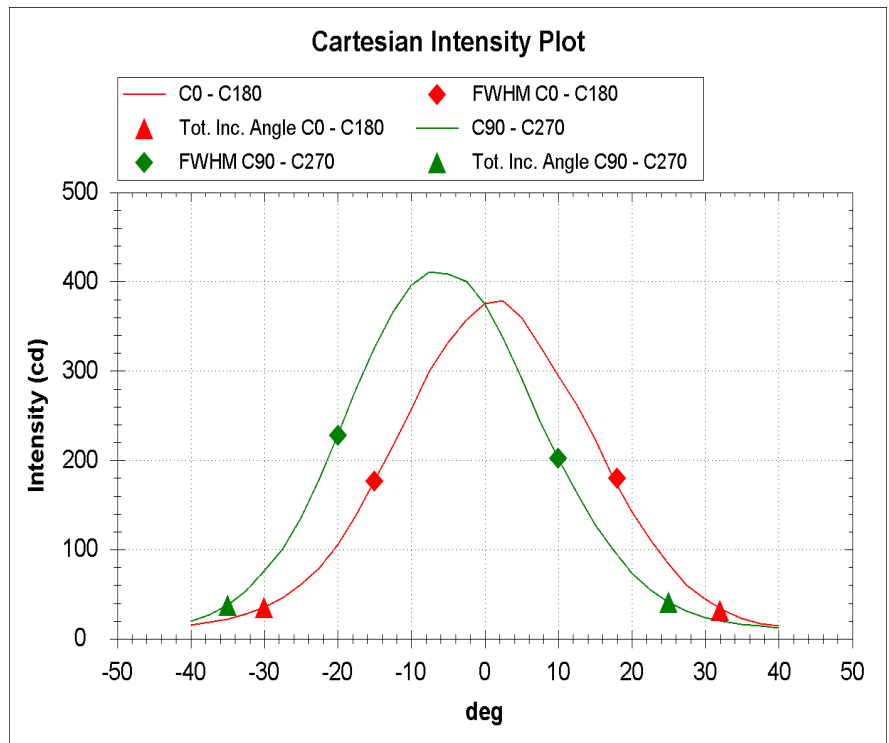
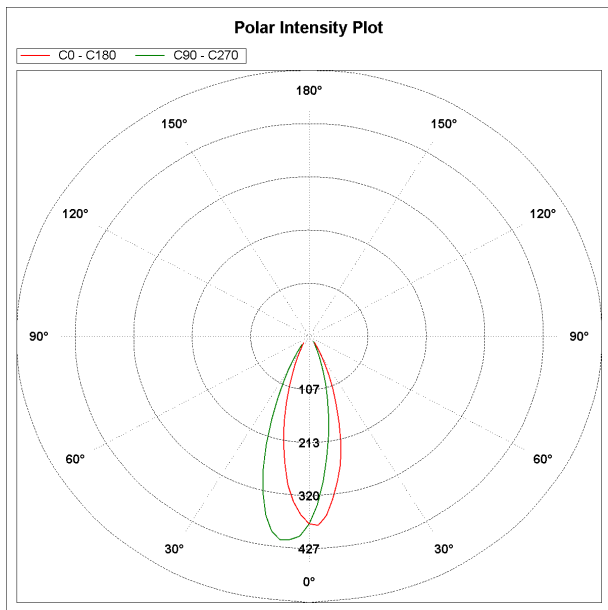
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CODE NUMBER: 11000000227

Goniophotometer Type	KLX12M	Operator	SIMONE BASSI
Power Supply Type	ISO TECH ISP3303	Date	25/05/2011
LED Driver Type	////		

Lamp Model	////	Nominal Flux (lm)	225	Angle FWHM C Plane	33
Lens Model	PL59740NCH1	Total Flux (lm)	225	Angle FWHM γ Plane	30
LED Model	NICHIA NS6W183	Imax (cd)	410		
N. LED	1	Max Ill. @ Meas. Dist. (lux)	16.4	Total Incl. Angle C Plane	62
Rated Voltage (V)	3.7	Measurement Distance (m)	5	Total Incl. Angle γ Plane	60
LED Drive Current (mA)	700	Room Temperature (°C)	25		

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



Polar Intensity Plot

— C0 - C180 — C90 - C270

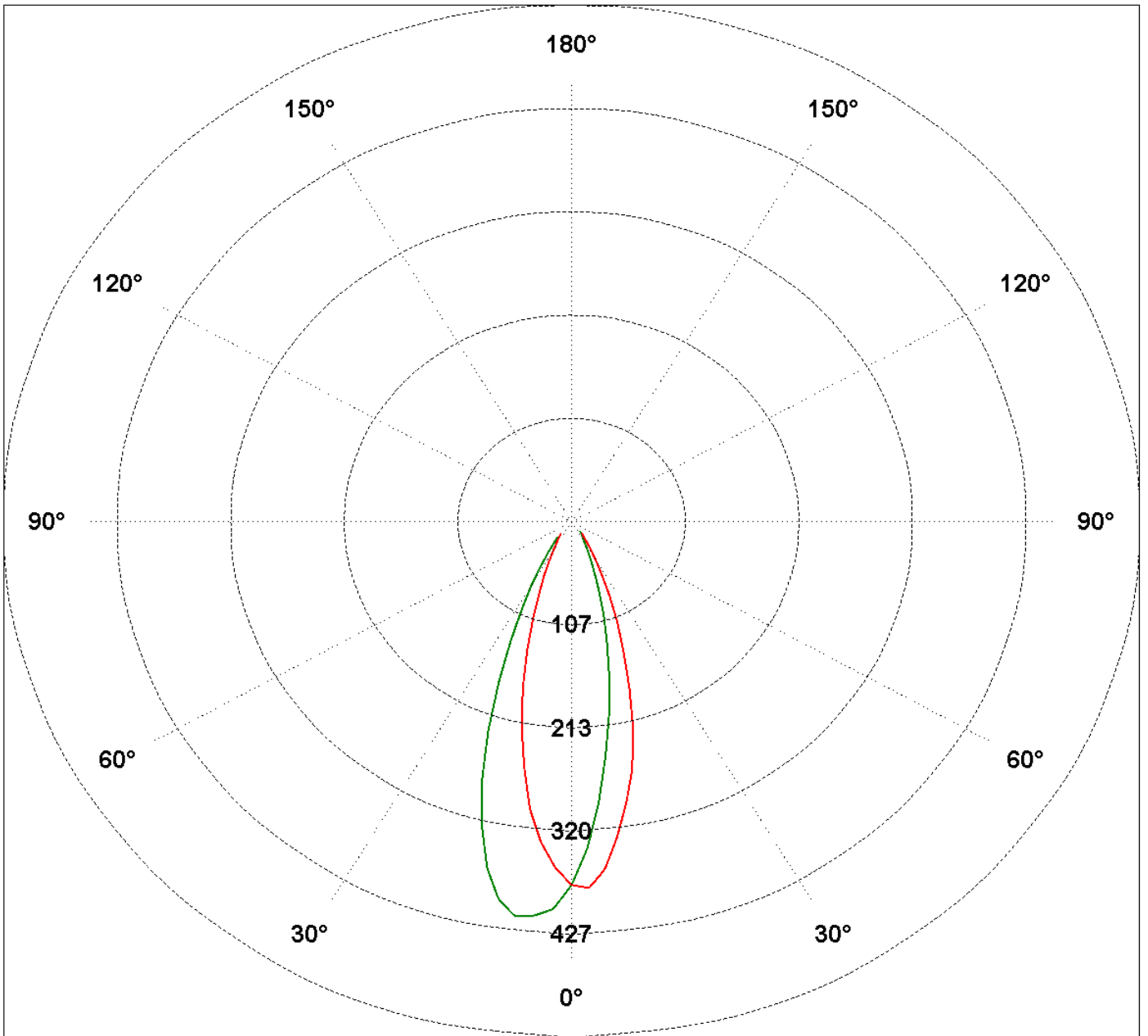


Figure C0-C180

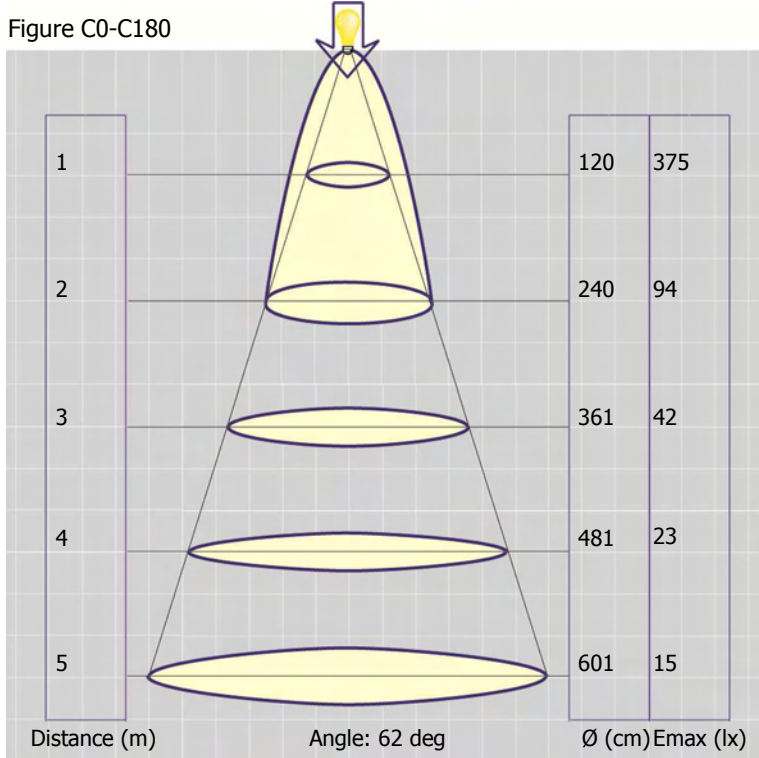
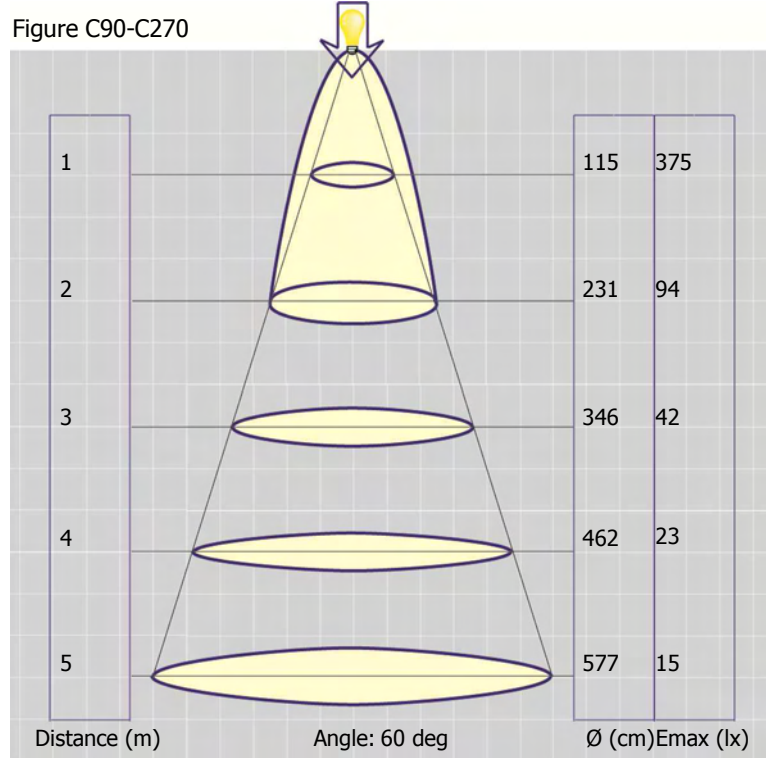
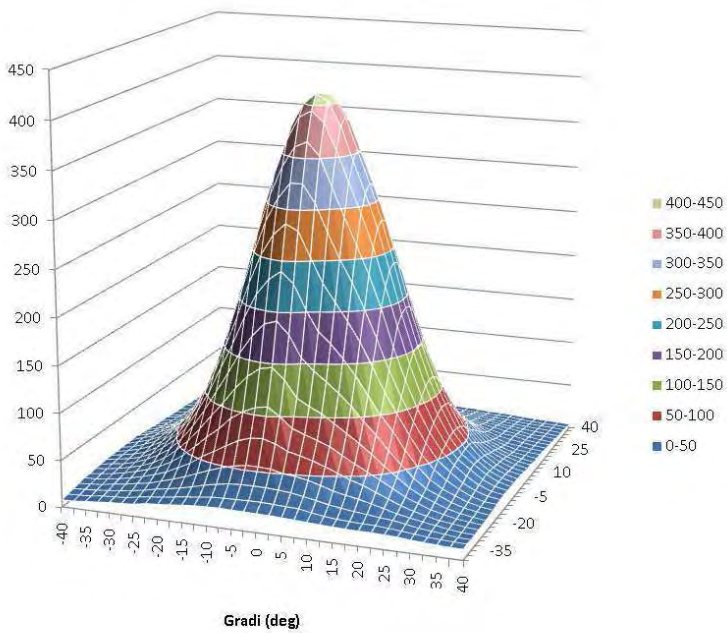


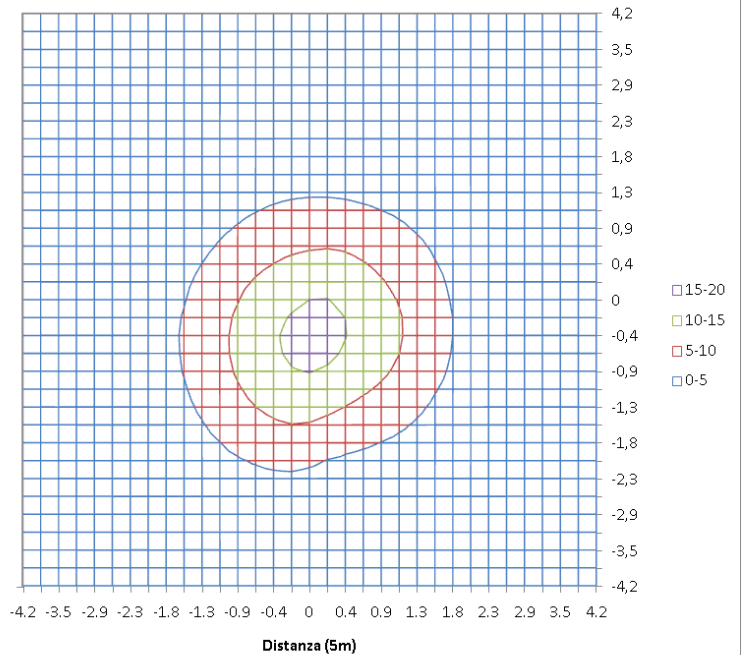
Figure C90-C270

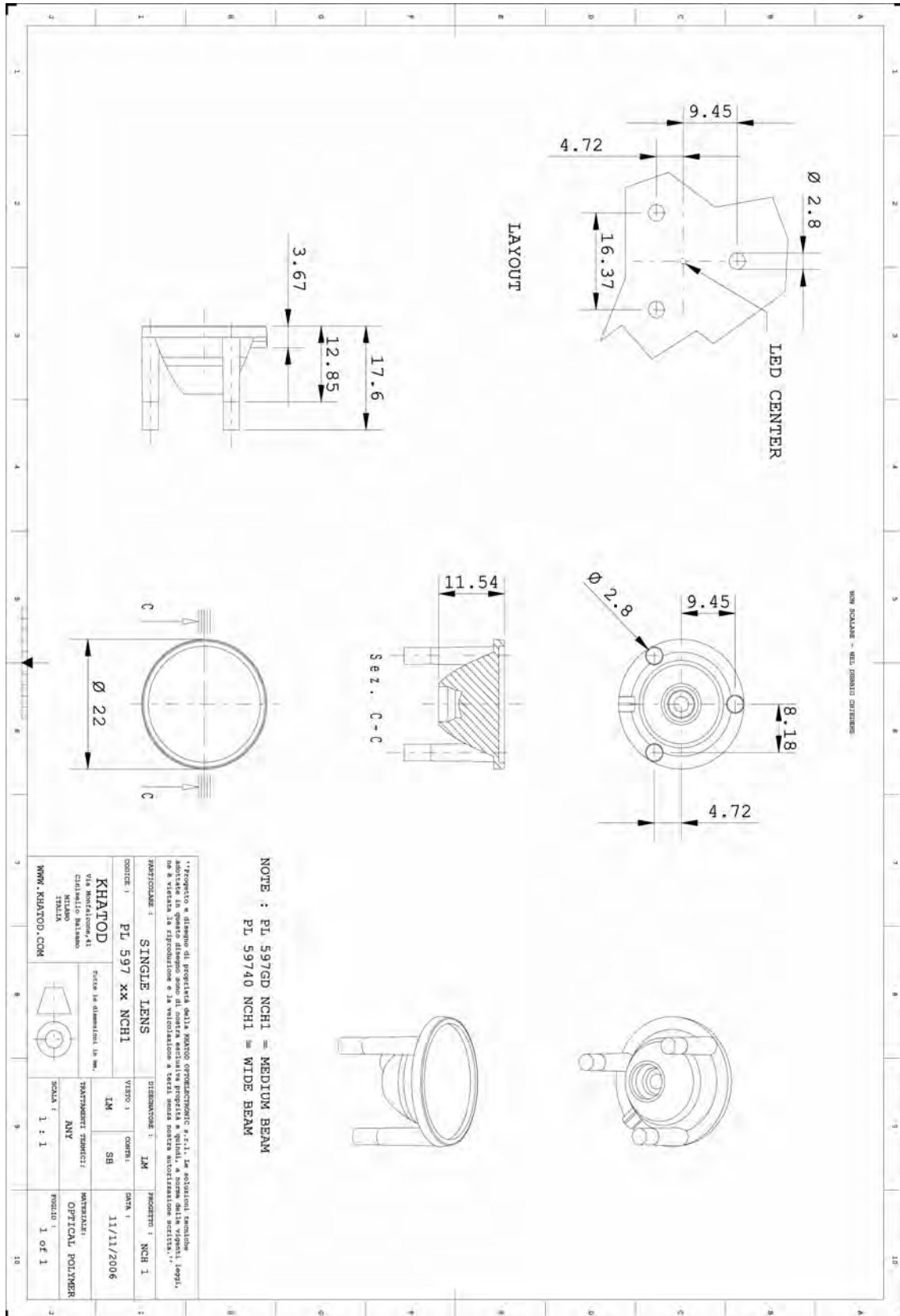


Isocandela Diagram

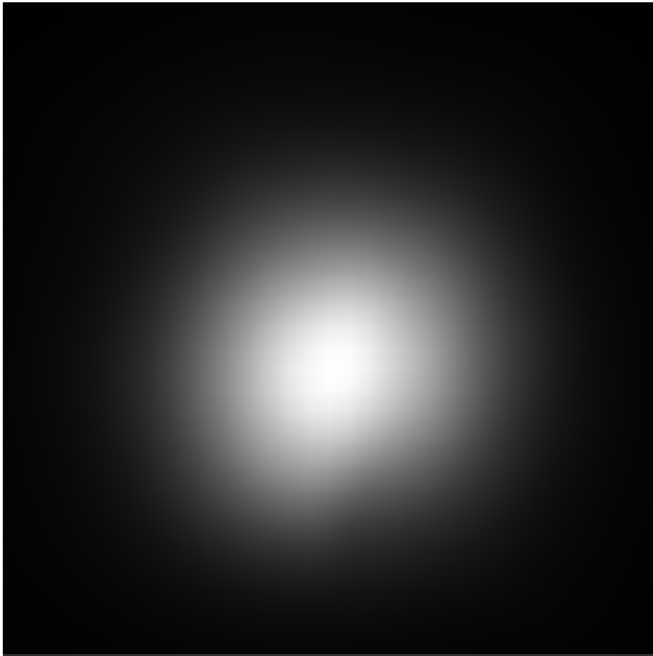


Isolux Diagram

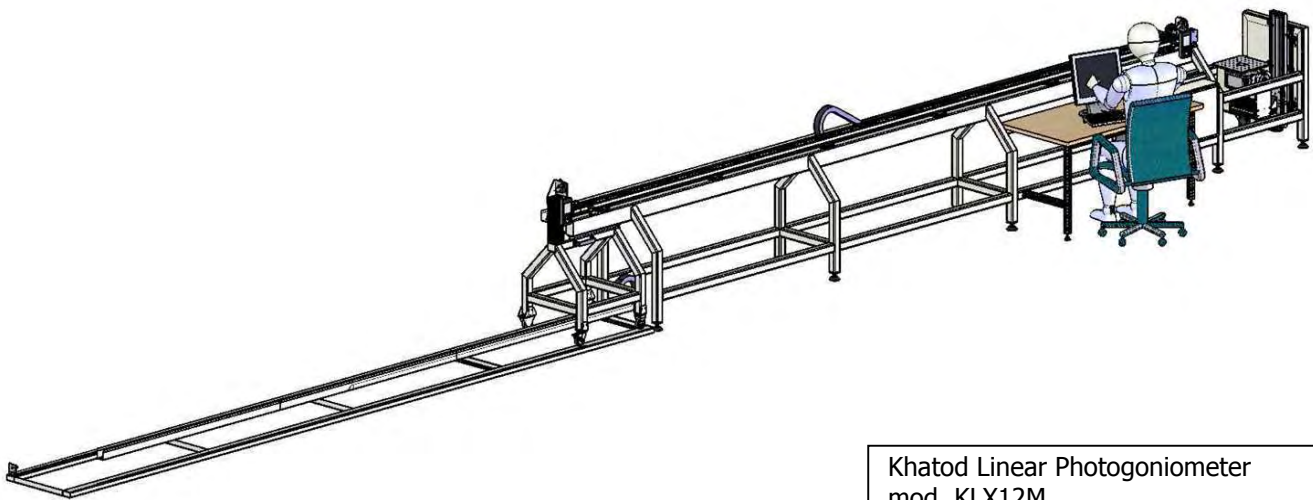
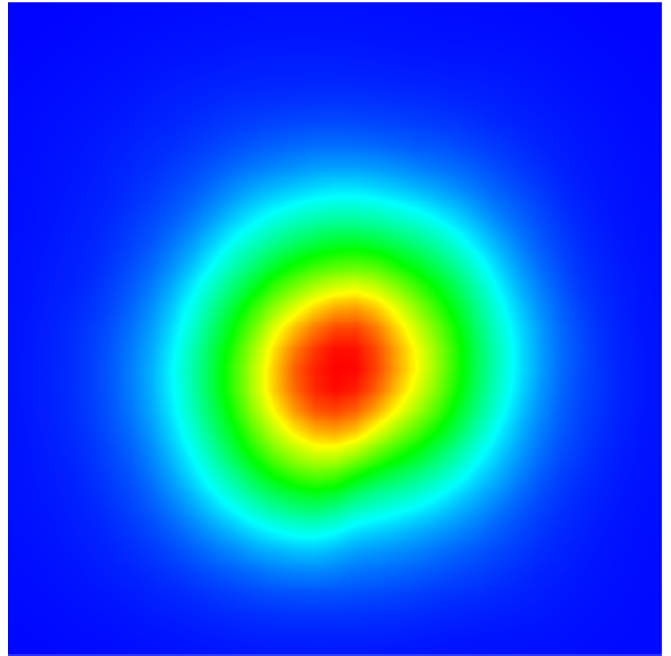




Gray Scale Illuminance @ 5m Distance



False Colours Illuminance @ 5m Distance



Khatod Linear Photogoniometer
mod. KLX12M

Luminous Distribution Intensity Data

CODE NUMBER: 11000000227

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°	375	375	375	375	375	375	375	375	375	375	375	375	375	375	375	375	375	375	375	375
5°	360	349	340	333	323	316	310	301	295	291	288	287	288	290	295	302	310	320	332	342
10°	295	280	267	254	241	230	223	214	207	202	199	198	200	203	210	218	229	243	257	275
15°	224	208	194	180	167	155	144	137	131	128	127	127	128	130	134	141	150	163	177	195
20°	142	131	122	113	105	94.3	84.5	79.6	75.6	73.5	73.3	74.2	77.4	77.2	77.4	79	85.4	94.9	106	122
25°	84.3	74.9	68.4	63.5	59.5	54.8	48.6	43.1	40.9	40.8	41.6	43.3	44.4	44.3	43.6	44.1	46.8	52.4	61	71.3
30°	44.3	37.4	35.8	35.3	33.9	31.5	28.7	25.4	23.9	23.5	24.2	26.5	27.8	27.3	27.3	26.6	26.7	29.1	34.8	40.7
35°	22.8	20.7	18.8	18.5	19.5	19.3	18.2	15.7	15.6	16.5	17.7	18.2	19.3	19.7	19.3	18	18.2	19.6	22.3	25.2
40°	14.8	13.1	12.3	13	13.7	13.9	12.8	11.5	11.7	12	12.9	13	13.6	13.9	14.4	14.7	13	13.9	15.3	17.5
45°	0	0	0	9.41	9.24	9.38	8.47	0	0	0	0	0	9.51	9.92	11	10.7	0	0	0	0
50°	0	0	0	0	6.68	6.03	0	0	0	0	0	0	0	6.58	7.51	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°
375	375	375	375	375	375	375	375	375	375	375	375	375	375	375	375
353	365	375	384	393	399	404	409	408	407	405	398	391	385	376	367
294	314	335	354	370	382	391	396	389	379	369	358	346	337	324	310
215	237	259	282	304	318	328	326	310	292	284	280	276	268	254	239
138	158	177	200	223	237	242	229	200	192	193	193	191	181	168	156
81	92.5	108	126	141	151	151	135	117	117	120	119	115	107	99.2	92.1
46.6	52.2	61.3	72.2	80.8	84.3	83.3	75.5	69	69.3	70	69.7	65.5	59.6	53.4	48.8
27.4	30.4	35.3	39.8	42.5	42.9	40.9	38	37.7	37.6	41.8	40.3	34.9	32.6	30.3	27.1
18.4	20.2	22.7	24.3	24.3	23.4	22.1	19.8	20.3	20.3	24.4	24.5	22	19	17.3	16.1
0	15.7	16.2	16.1	16.3	0	0	0	0	0	16.8	17.4	15.1	13.5	0	0
0	0	12.4	11.5	0	0	0	0	0	0	0	13.3	11.8	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

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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