KHATOD®
Optical Solutions for LED Lighting

TECHNICAL DEPT.
Lenses Test Report

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CODE NUMBER: 120000001119

SUBJECT: **PLJT1535 - Diffuser-Lens for COBs LEDs**

- High diffusion flux
- High luminous intensity
- Perfect uniform light distribution
- Provided with a special adaptor allowing immediate easy assembling by a simple twist & lock block system.
- Easy fixing system onto the COB LED XICATO®
- No vibration problems
- Available in fine-frosted and milky white finish
- Complying with UL94 Specifications
- UV protected

Typical Applications:

Khatod KPLJT Series are suitable for any application in General Lighting, Indoor and Outoor:

- Step-marker
- Signalling
- Lamps
- Architectural lighting
- Any applications where a diffused soft lighting is requested

Khatod's focus on secondary optics for the major LEDs manufacturers has required great technical and productive efforts to meet the needs of the market. The creation of complete series of lenses has caused us to invest in research, and greater production capabilities.
KPLJT Lens systems from Khatod perform a uniform diffused soft light. They are real diffusers with Lambertian reflectance: their brightness as well as their flux are perfectly uniform.
The new series of KPLJT lens systems are provided with a special adaptor, customized for the individual models of COB LEDs, allowing an immediate easy assembling of the diffuser-lens by a simple twist & lock block system. The concept is very simple: first the adaptor is fixed onto the COB LED while the diffuser-lens is then fixed by simply twisting and locking it onto the adaptor.
Our unique optical systems allow the customer to choose the highest in design and the easiest in usability, being certain that they are provided with the most efficient and cost-effective optical solution.

Contents

1 Light Source Model

Parameter	Symbol	Value	Unit
Lens / Reflector Model	-	PLJT1535	-
Material (More info on page 9)	-	PC	-
Dimensions	-	See page 8	-
Source Model	-	XICATO XSM 8027 1000	-
Number of Sources	N	12	-
Power Supply Type	-	ISO TECH ISP3303	-
Driver Type	-	-	-
Driving Voltage	V_F	-	V
Driving Current	I_F	700	mA
Nominal Flux	Φ	1000×12	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	-	28-Jun-2012	-

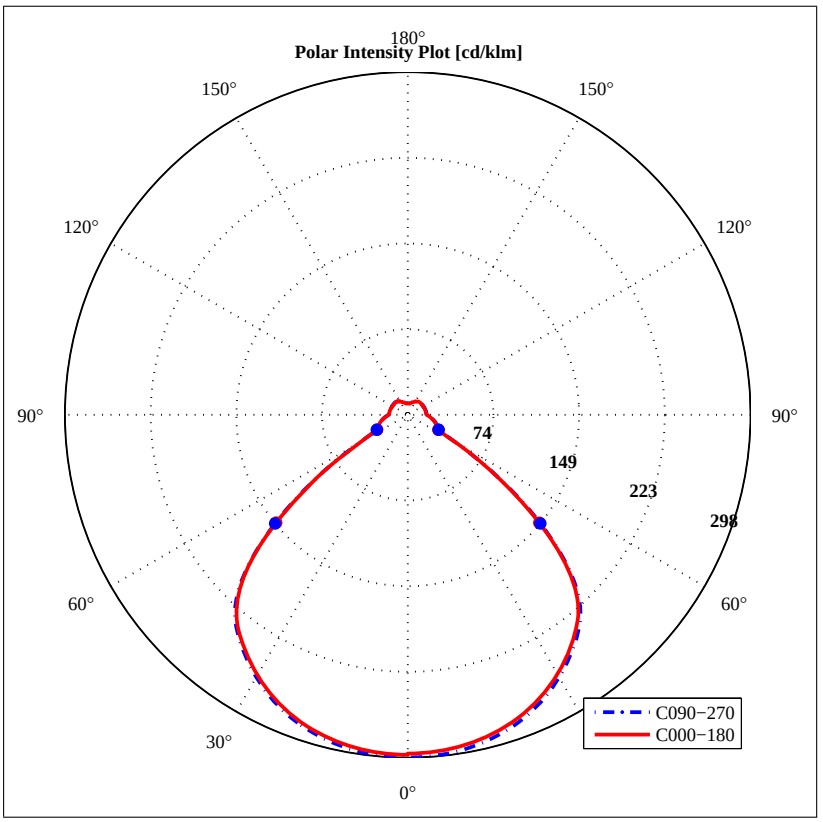
3 Results

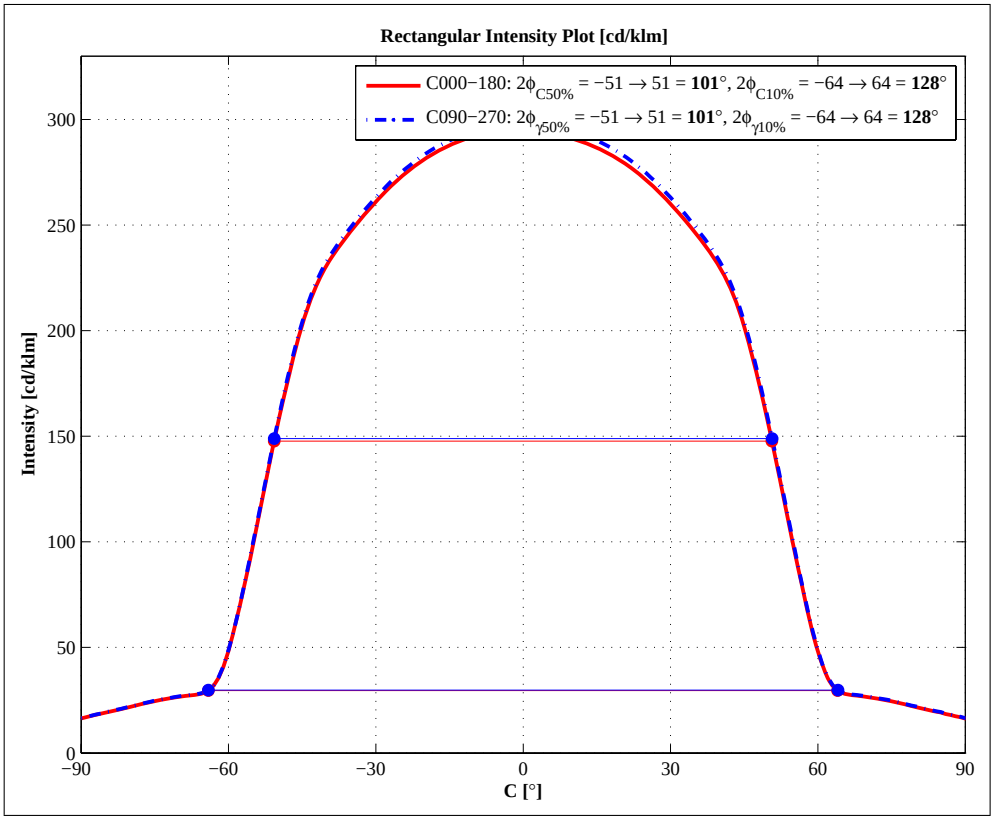
Parameter	Symbol	Value	Unit
Total Flux	Φ	1000	lm
Max Intensity	I_{max}	300	cd
Max Illuminance at 5 m	E_{max}	12	lx
C-Viewing Angle at 50%I_{max}	$2\varphi_C$	101	°
γ-Viewing Angle at 50%I_{max}	$2\varphi_\gamma$	101	°
C-Viewing Angle at 10%I_{max}	$2\varphi_{C10\%}$	128	°
γ-Viewing Angle at 10%I_{max}	$2\varphi_{\gamma10\%}$	128	°
General Optical Measurement Tolerance	-	±10%	-

NOTES:

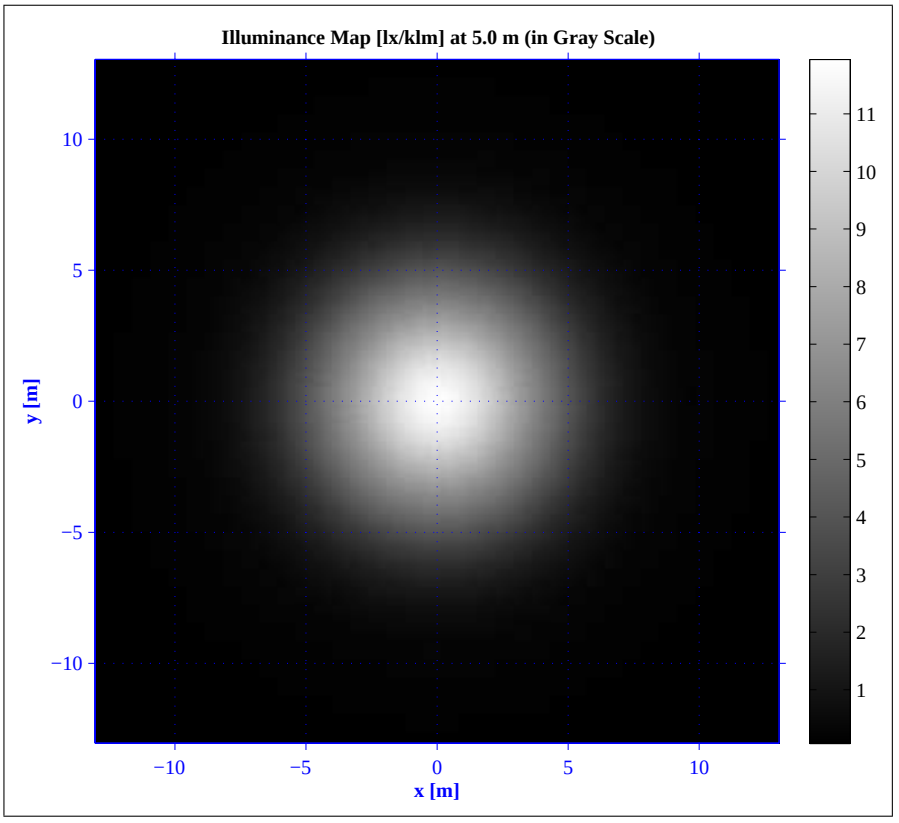
- Intensity (I) and illuminance (E) data are normalized by 1000 lm

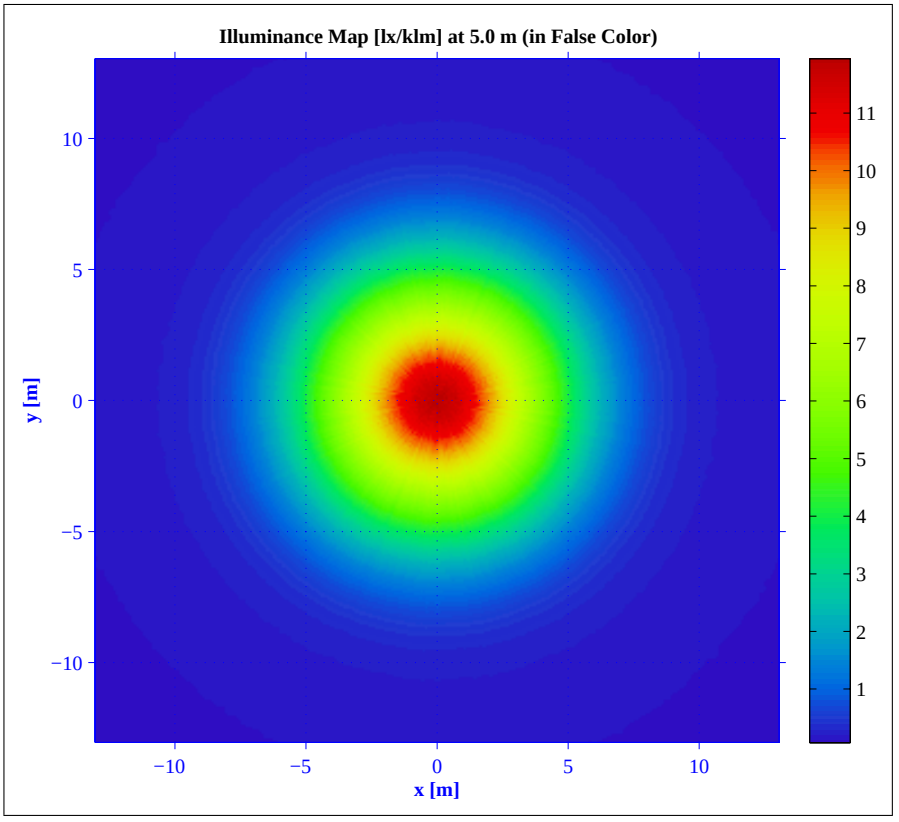
4 Intensity Plot



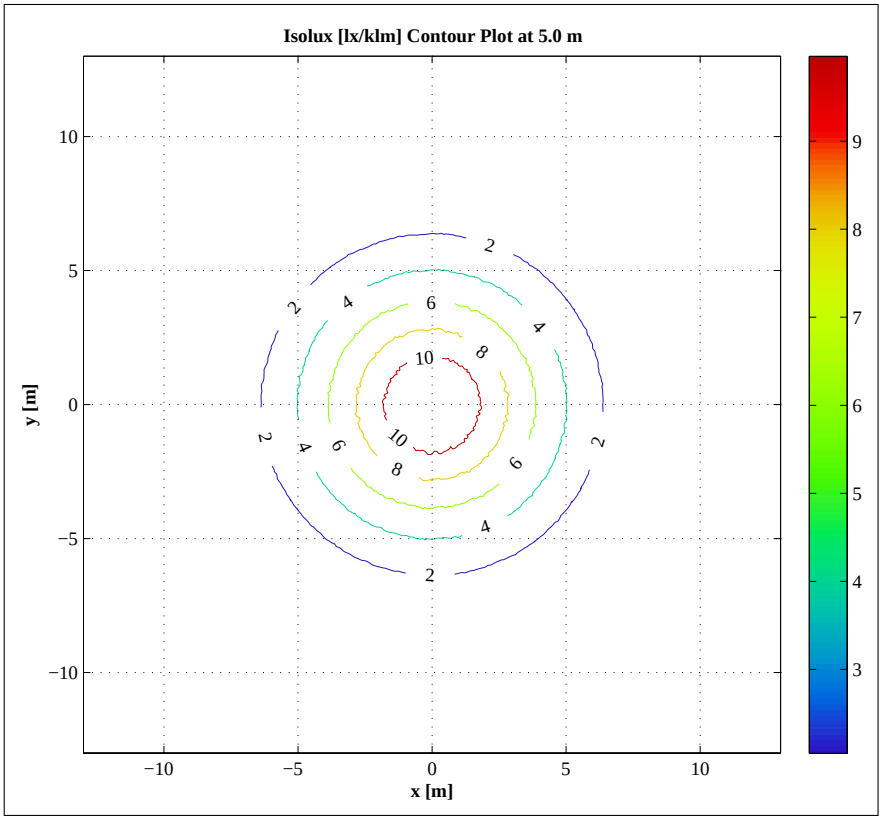


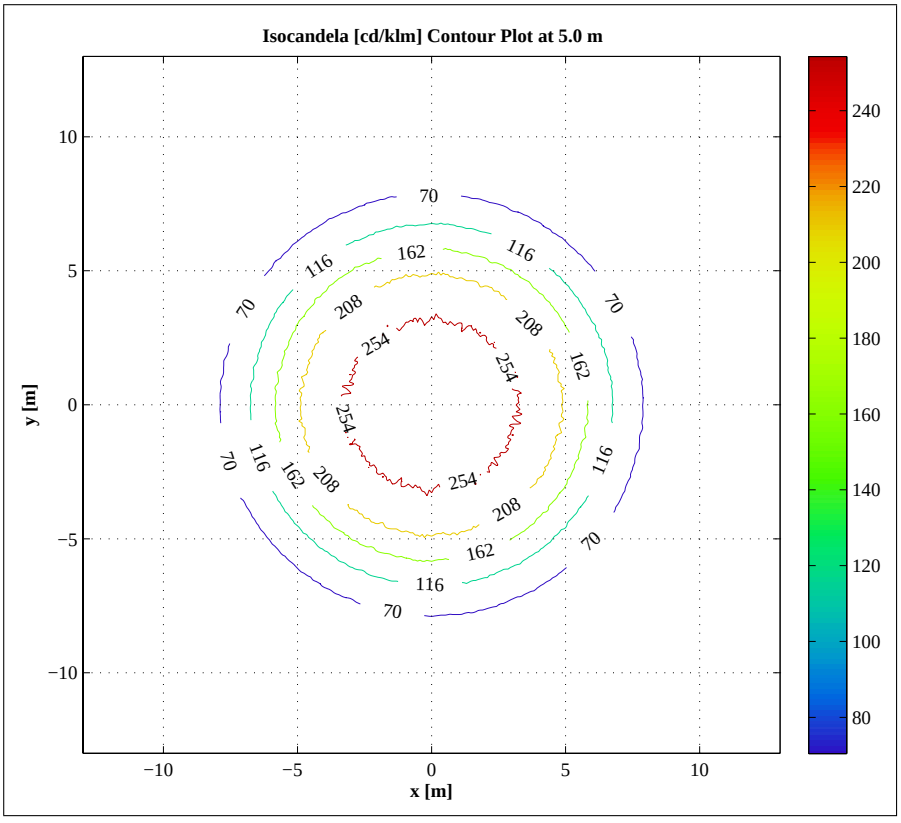
5 Illuminance Map



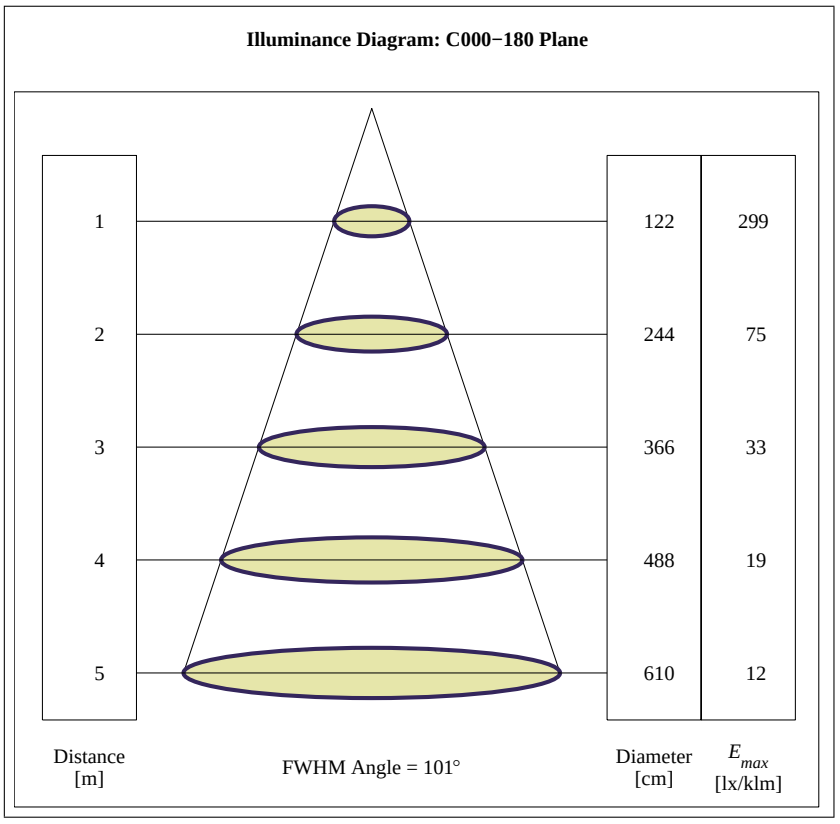


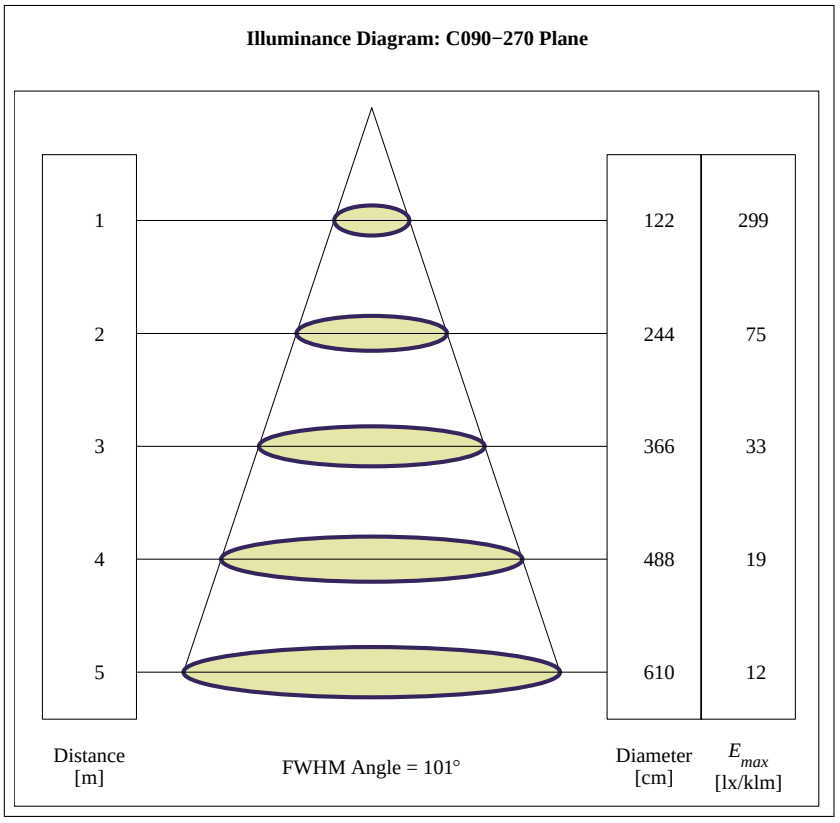
6 Isolux / Isocandela Plots



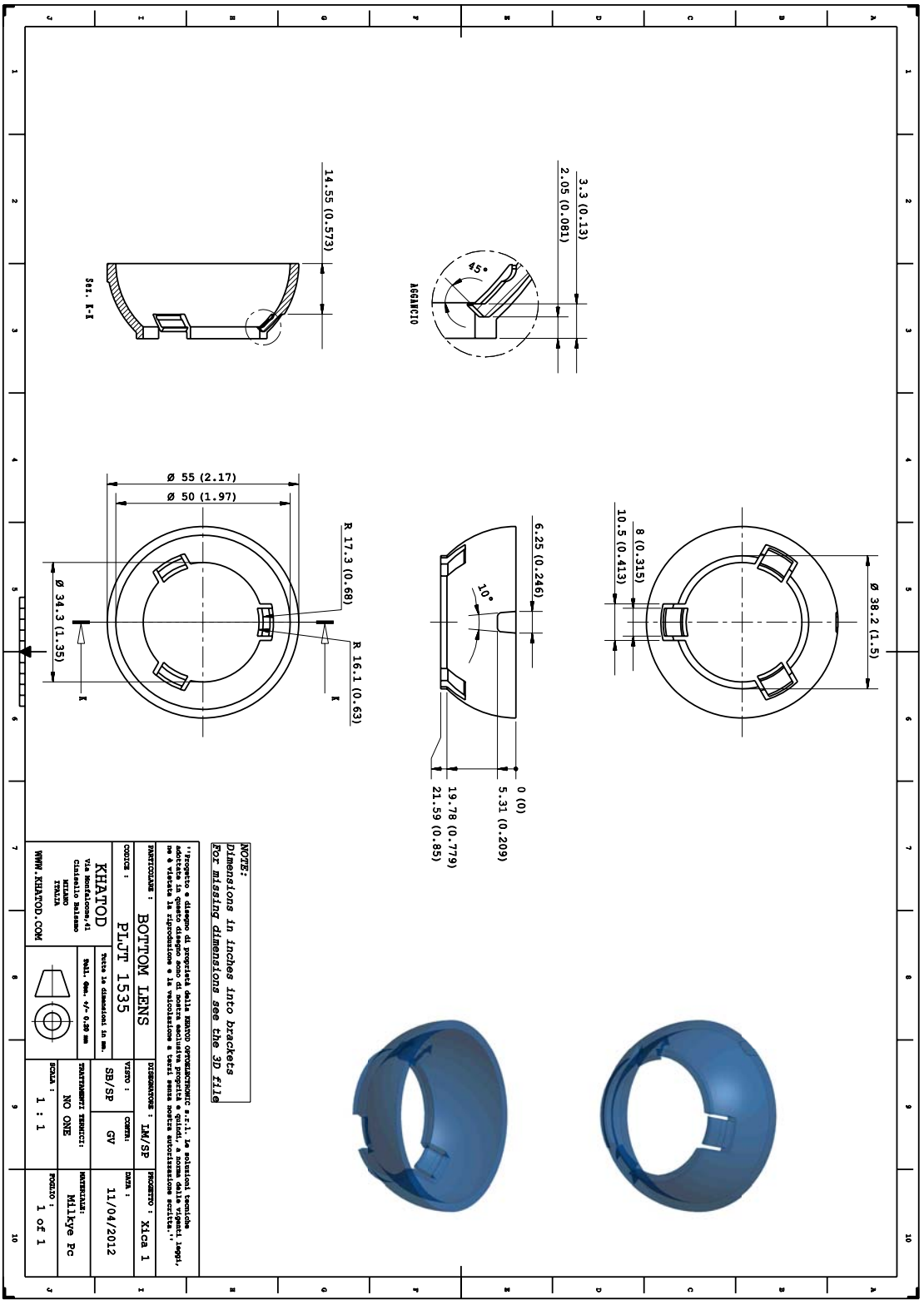


7 Illuminance Diagram





8 Drawing


14.55 (0.573)
Sez. E-E
3.3 (0.13)
2.05 (0.081)
45°
AGGANCIO
Ø 55 (2.17)
Ø 50 (1.97)
R 17.3 (0.68)
Ø 34.3 (1.35)
R 16.1 (0.63)
6.25 (0.246)
10°
0 (0)
5.31 (0.209)
19.78 (0.779)
21.59 (0.85)
10.5 (0.413)
8 (0.315)
Ø 38.2 (1.5)
NOTE:
Dimensions in inches into brackets
For missing dimensions see the 3D file
DISEGNATORE : LM/SP
PROGETTO : Xica 1
DATA : 11/04/2012
FOGLIO : 1 of 1
MATERIALE: Milkye Pc
TRATTAMENTI TERMICI: NO ONE
SCALA : 1 : 1
VISTO : SB/SP
CONTR: GV
Tutte le dimensioni in mm.
Tol. dim. +/- 0.20 mm
PARTICOLARE : BOTTOM LENS
CODICE : PLJT 1535
KHATOD
Via Monfalcone,41
Cinisello Balsamo
MILANO
ITALIA
WWW.KHATOD.COM

9 Use and Maintenance

Lens characteristics

Parameter	Symbol	Rating	Unit
Lens Material	PC Optics	--	--
Holder Material	--	--	--
Operating Temperature	Topr	-40 to +120	°C
Storage Temperature	Tstg	-40 to +120	°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 proprety 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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