



21/04/2015

Sayı/Issue: 14 04 15 SÖ 065/00

İlgi/Subject:

Interest on request, samples were sent to our laboratory for lighting fixtures, physical examination and tests. The following results were obtained.

Rapor Tarihi-Report Date / Rapor Numarası-Report Number/ Ticari Marka-TradeMark/Model-Type

21.04.2015 / 15-077 / LUXAR-ODEL / HS15-273-40F (1500mm HS Serisi T8 Led Tüp)

Numbers in above-mentioned report, the date of the inspection and test reports of the samples will be sent to our letter attached.

Best Regards,

Prof.Dr. Zafer UTLU

Laboratory Manager

EK/EKLER:

(ANNEX/ANNEXES)

Not: Muayene ve Deney amacı ile gönderilen numuneler, firma veya yetkilisi tarafından 30 gün içerisinde alınmadığı takdirde tasfiye edilecektir.

The samples are sent in order to inspection and test, will be liquidated if it will taken back within 30 days by representative of company.

İAÜ Florya Halit Aydın Kampüsü İnönü Cad. No:38 Beşyol mah. Küçükçekmece / İSTANBUL
Tel:(0212) 444 1 428 Dahili : 14630



MUAYENE VE DENEY RAPORU

TEST REPORT



IAU
15-077
20.04.2015

Deneği Talep Eden : ODSEL ELEKTRONİK SAN. ve TİC. A.Ş.
(Adı,Adresi,Şehir v.b.) Muradiye Orta Ölçekli Sanayi Bölgesi 16. Sokak No:4 Muradiye / MANİSA
Customer (Name,Address, City etc.)

Deneş Talep Tarihi /No : 10.04.2015
Order Date /No

Numunenin Kabul Tarihi : 14.04.2015
Test Item Receipt Date

Deneşlerin Yapıldığı Tarih : 14.04-21.04.2015
Date of Test

Uygulanan Standart /Metod : TS EN13032-1:2004 +A1:2012LightandLighting –Measurement and Presentation of
Applied Standart/Method Photometric Data of Lampsand Luminaires-Part1: Measurementand File

Raporun Sayfa Sayısı : 14
Number of Pages of the report

Açıklamalar :

Deneş ve/veya ölçüm sonuçları,genişletilmiş ölçüm belirsizlikleri (olması halinde) ve deneş metodları bu raporun tamamlayıcı kısmı olan takip eden sayfalarda verilmiştir.
The test and/or measurement results, the uncertainties (if applicable) with confidence probability and test methods are given on the following pages which are part of this report.

Mühür	Tarih	Deneş Sorumlusu	Kontrol Eden	Onaylayan
<i>Seal</i>	<i>Date</i>	<i>Person in charge of tests</i>	<i>Reviewer</i>	<i>Approved By</i>
		Sercan ÖZKAN Lab. Tech.	Temel SÖNMEZOCAK Quality Manager	Prof.Dr. Zafer UTLU Lab. Manager

Bu rapor , hazırlayan laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir. Bu rapor , sadece deneşiyapılan numune için geçerlidir ve "Ürün Belgesi" yerine geçmez.

This test report shall not be reproduced other than in fill except with the written permission of the laboratory .Test reports without signature and seal are not valid. This report represents only tested samples,and shall not be used as product Certificate.

İSTANBUL AYDIN ÜNİVERSİTESİ AYDINLATMA TEST-ÖLÇÜM ve ANALİZ LABORATUARLARI

(*ISTANBUL AYDIN UNIVERSITY LIGHTING TEST MEASUREMENT AND ANALYSIS LABORATORIES*)

MUAYENE – DENEY SONUÇLARI / TEST RESULTS**FOTOMETRİK ÖLÇÜM SONUÇLARI****PHOTOMETRIC MEASUREMNT RESULTS**

Kullanılan Cihaz/EquipmentUsed.....:	NFMS Goniophotometer LabSphere Sphere System	
Uygulanan Standart-Metot/Applied Standard-Method.....:	TS EN13032-1 ; IES-LM-79	
Deney Ortam Şartları/ExperimentalAmbientConditions.....:	25°C ±3°C, 35%RH±5%RH	
Armatüre Uygulanan Gerilim / AppliedVoltage.....:	220V	
Armatür Markası-Üretici /LuminaireBrand-Producer.....:	ODSEL ELEKTRONİK	
Armatür Kodu-Modeli / LuminaireCode-Model.....:	HS15-273-40F /1500mm HS Serisi T8 Led Tüp	
Armatür Lamba Tipi-açıklama/Lamptype-description of Luminaire.....:	LED	
Armatür Boyutları / Dimensions of LuminaireArea.....:	Uzunluk –Çap / Lenght-dia	1500mm
	Genişlik/width	25mm
	Yükseklik / Height	40mm
Işıyan Alan Boyutu / Dimensions of LuminousArea.....:	Uzunluk –Çap / Lenght-dia	1500mm
	Genişlik/width	25mm
	C0 Yükseklik / Height	--
	C90Yükseklik / Height	--
	C180 Yükseklik / Height	--
	C270 Yükseklik / Height	--

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MUAYENE – DENEY SONUÇLARI / TEST RESULTS*FOTOMETRİK ÖLÇÜM SONUÇLARI / PHOTOMETRIC MEASUREMENT RESULTS*

Armatürde Ölçülen Toplam Güç/Measured Total Power of Luminaire.....:	28W 0,97pf
Armatürün Ölçülen Işık Akısı /Measured Luminous Flux of Luminaire.....:	3450 lm
Lamba Katalog Işık Akısı / Lamp Catalog Luminous Flux.....:	--
Armatür verimliliği (lm/Watt) / Luminous efficacy.....:	123,21 lm/Watt
Armatür Geri Verim (LOR)% / Luminous efficacy %.....:	--

FOTOMETRİK ÖLÇÜM BELİRSİZLİK TABLOSU / PHOTOMETRIC MEASUREMENT UNCERTAINTY BUDGET

Deney/Test(Unit)	Ölçüm Belirsizliği/Uncertainty
Radiant Flux (Watt)	1,3%
Luminous flux (Lumen / Lm)	1,08%
Correlated Color Temperature [CCT – Kelvin(K)]	7K
Chromaticity x coord	0,02
Chromaticity y coord	0,02
Chromaticity u' coord	0,02
Chromaticity v' coord	0,02
Color Rendering Index	1,4

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(İSTANBUL AYDIN UNIVERSITY LIGHTING TEST MEASUREMENT AND ANALYSIS LABORATORIES)

MUAYENE – DENEY SONUÇLARI / TEST RESULTS

Numunenin fotoğrafları / Photos of the Test Sample



İSTANBUL AYDIN ÜNİVERSİTESİ AYDINLATMA TEST-ÖLÇÜM ve ANALİZ LABORATUARLARI

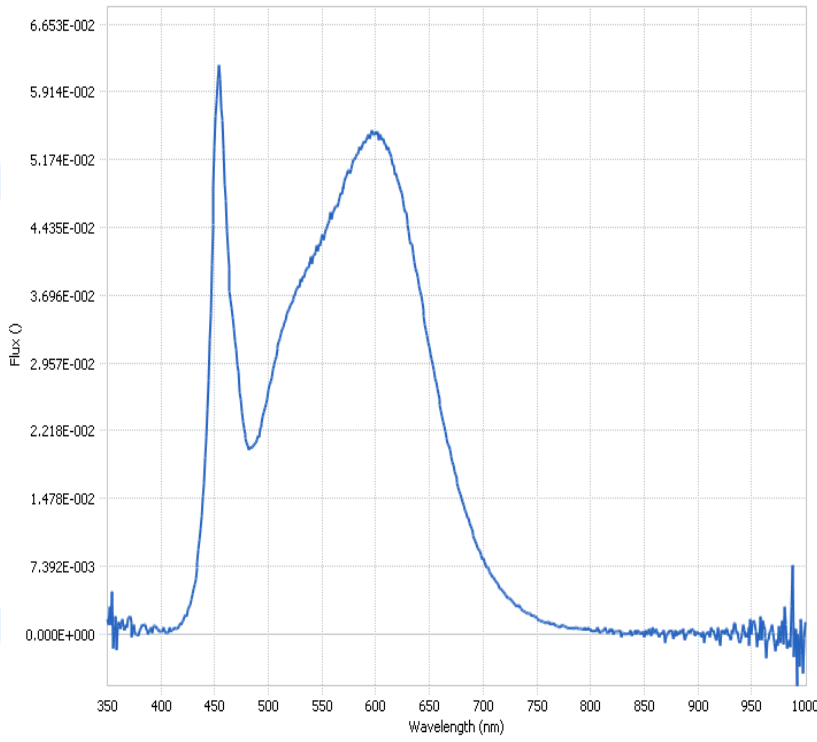
(*ISTANBUL AYDIN UNIVERSITY LIGHTING TEST MEASUREMENT AND ANALYSIS LABORATORIES*)

MUAYENE – DENEY SONUÇLARI / TEST RESULTS**Fotometrik Ölçümler / Photometric measurements**

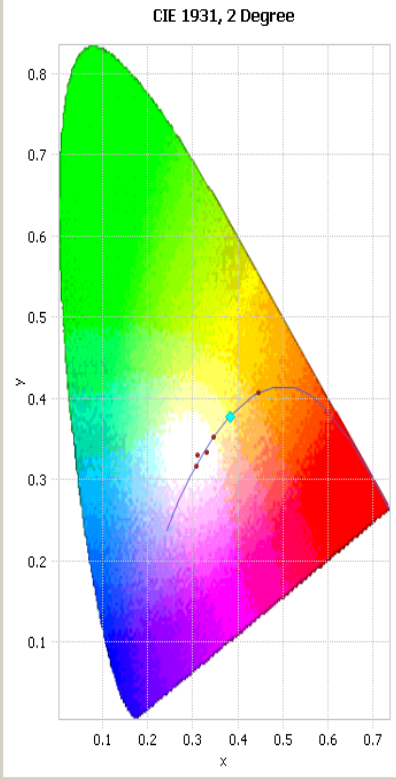
Parameter	Scan 1
Date/Time	15.04.2015 14:26
Radiant Flux (Watts)	9,909
Luminous Flux (lumens)	3450
Scotopic Luminous Flux (lm')	5477
Chromaticity x coord	0,3828
Chromaticity y coord	0,3771
Chromaticity u coord	0,2265
Chromaticity v coord	0,3347
Delta uv	0,0006
Chromaticity u' coord	0,2265
Chromaticity v' coord	0,5021
Peak Wavelength (nm)	453,9
Center Wavelength (nm)	457,4
Centroid Wavelength (nm)	566
Dominant Wavelength (nm)	579,6
Full Width Half Max Bandwidth (nm)	25,4
Excitation Purity (%)	28
Correlated Color Temperature (deg. K)	3937
Luminous Efficacy (lm/W)	123,21
SDCM	51.7 F 6500
Correlation	0,0054
Correlation Coefficient	0,000517133
Color Rendering Index Average (RA)	86,33814551
Color Rendering Index (R1)	85,8
Color Rendering Index (R2)	93,7
Color Rendering Index (R3)	96,4
Color Rendering Index (R4)	83,7
Color Rendering Index (R5)	85,2
Color Rendering Index (R6)	90
Color Rendering Index (R7)	86,7
Color Rendering Index (R8)	69,3
Color Rendering Index (R9)	25,1
Color Rendering Index (R10)	83,7
Color Rendering Index (R11)	83
Color Rendering Index (R12)	65,3
Color Rendering Index (R13)	88,2
Color Rendering Index (R14)	98,7

MUAYENE – DENEY SONUÇLARI / TEST RESULTS

▼ SPECTRAL FLUX GRAPH:



▼ CHROMATICITY DIAGRAM:



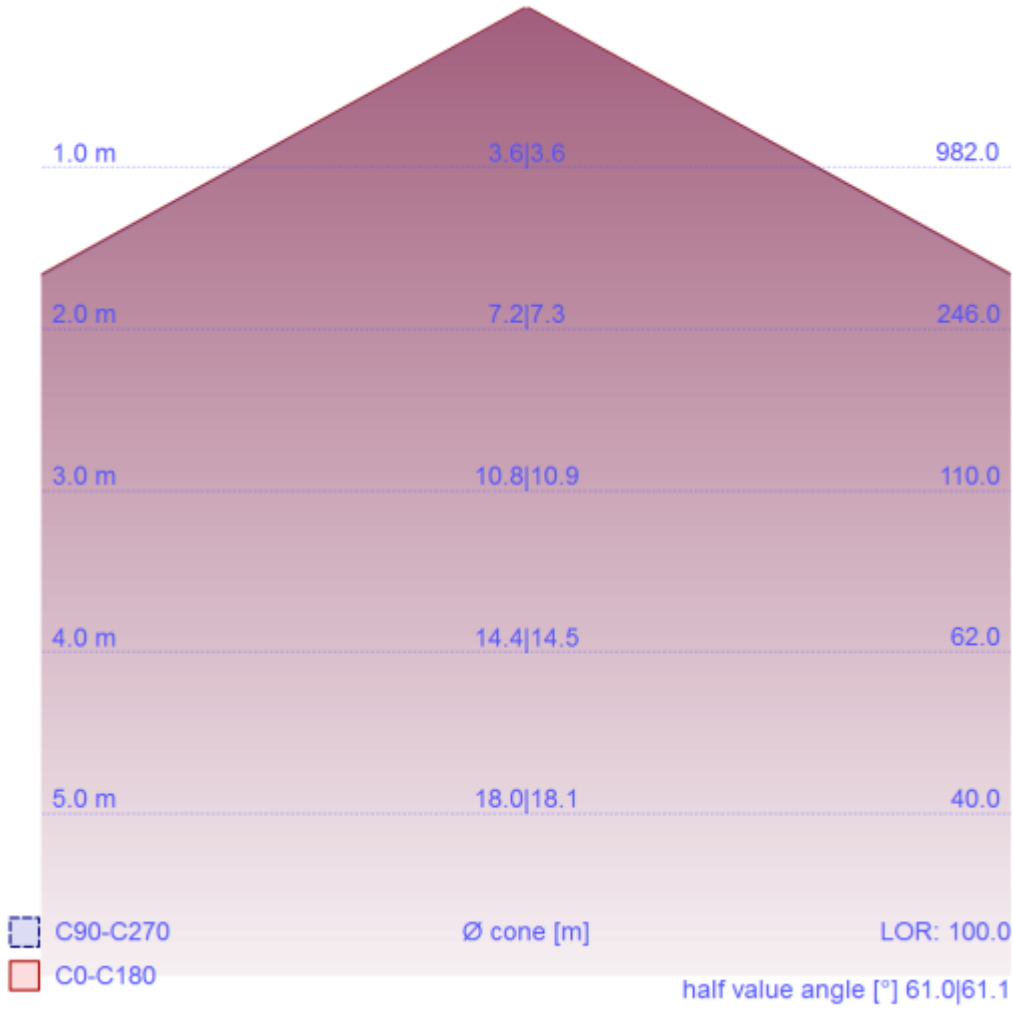
MUAYENE – DENEY SONUÇLARI / TEST RESULTS

FOTOMETRİK ÖLÇÜM SONUÇLARI / PHOTOMETRIC MEASUREMENT RESULTS

Cone Diagram ;

HS15-273

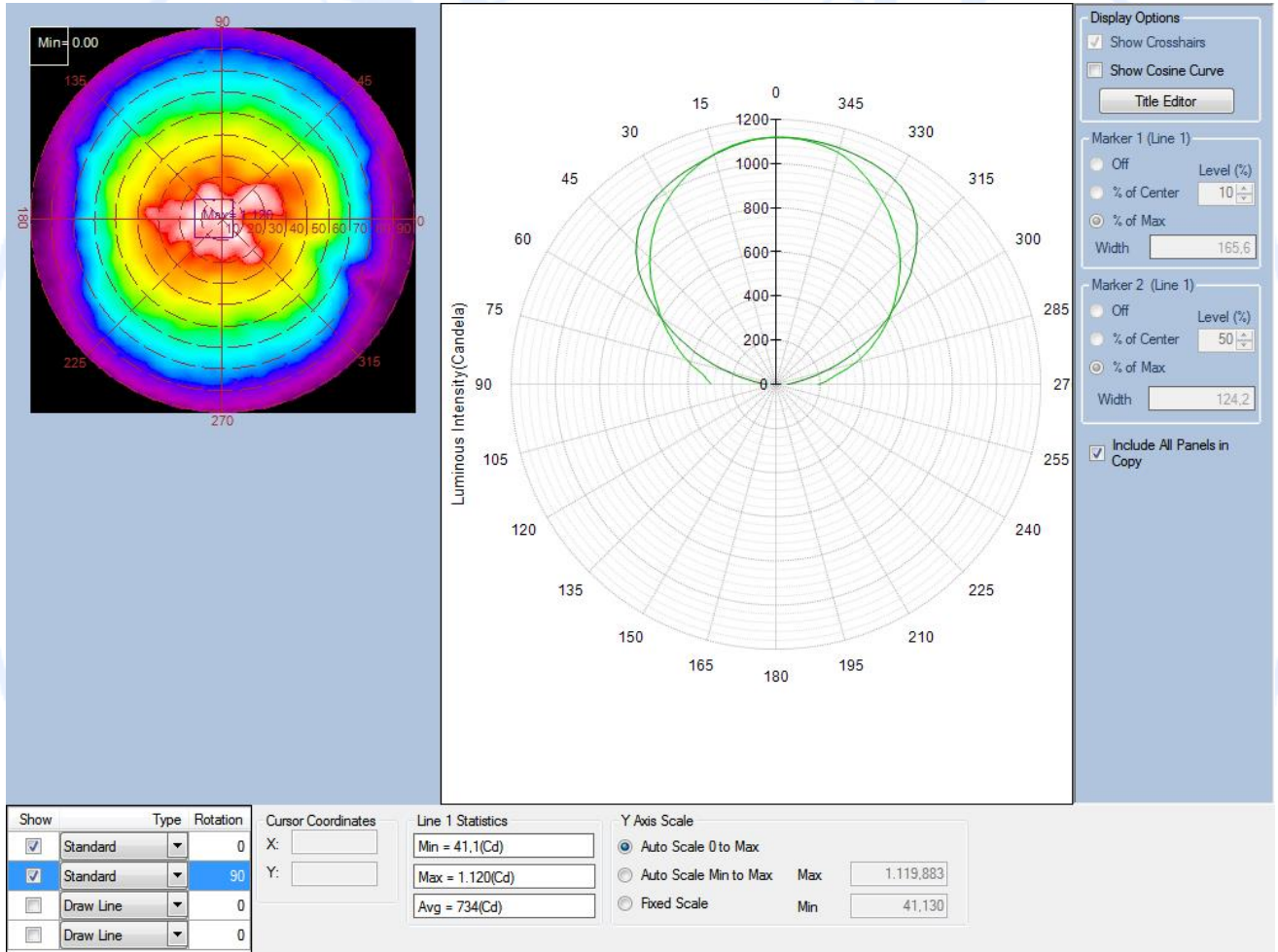
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İSTANBUL AYDIN ÜNİVERSİTESİ AYDINLATMA TEST-ÖLÇÜM ve ANALİZ LABORATUARLARI

(ISTANBUL AYDIN UNIVERSITY LIGHTING TEST MEASUREMENT AND ANALYSIS LABORATORIES)

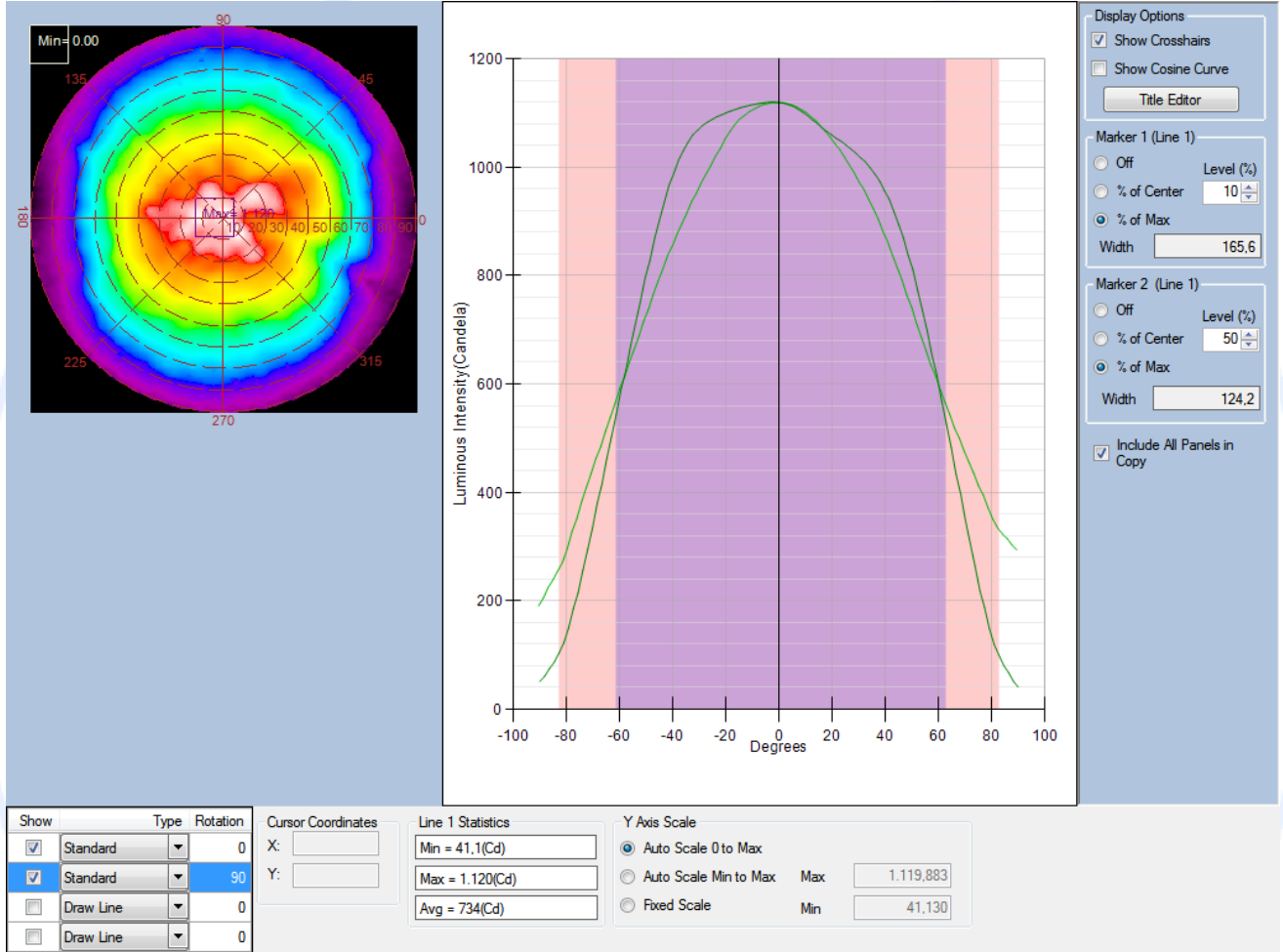
MUAYENE – DENEY SONUÇLARI / TEST RESULTS



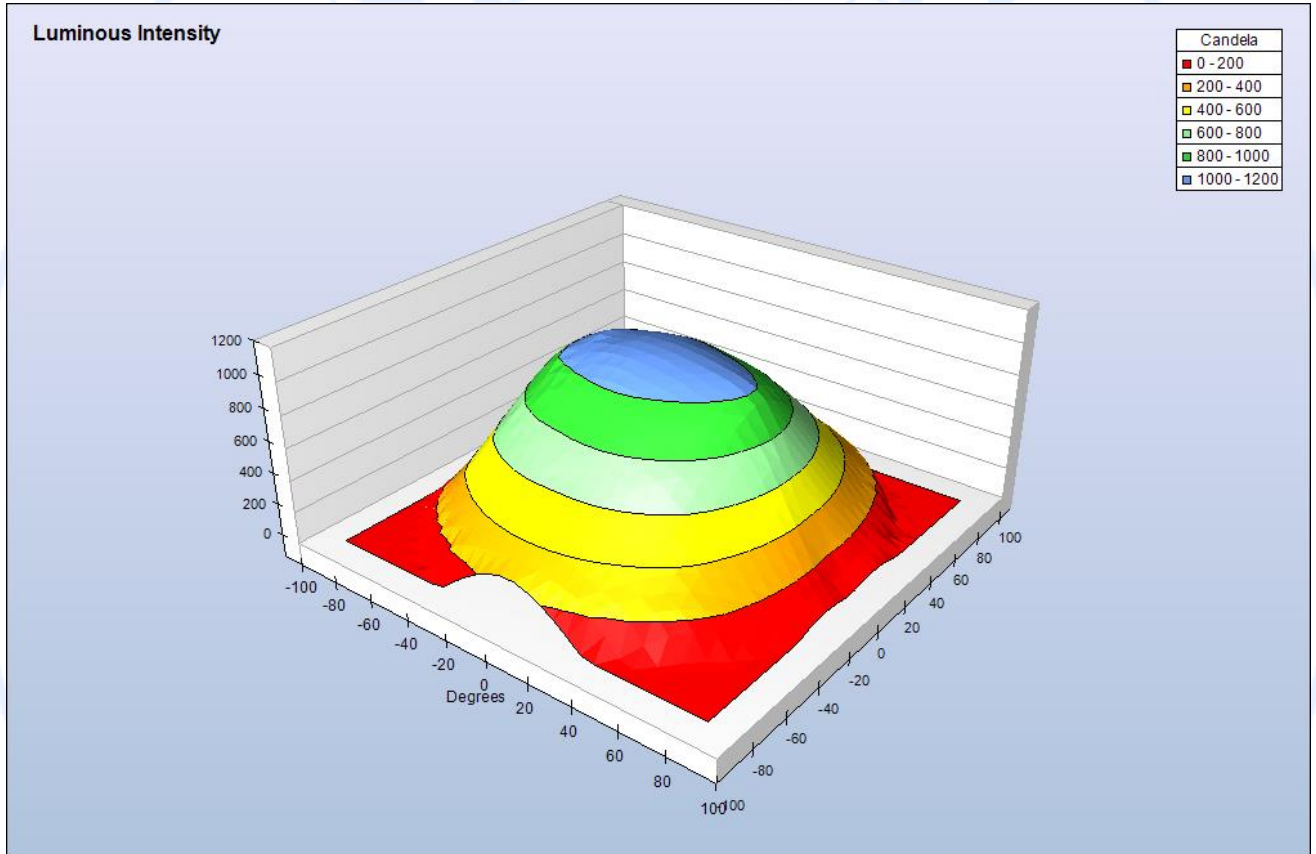
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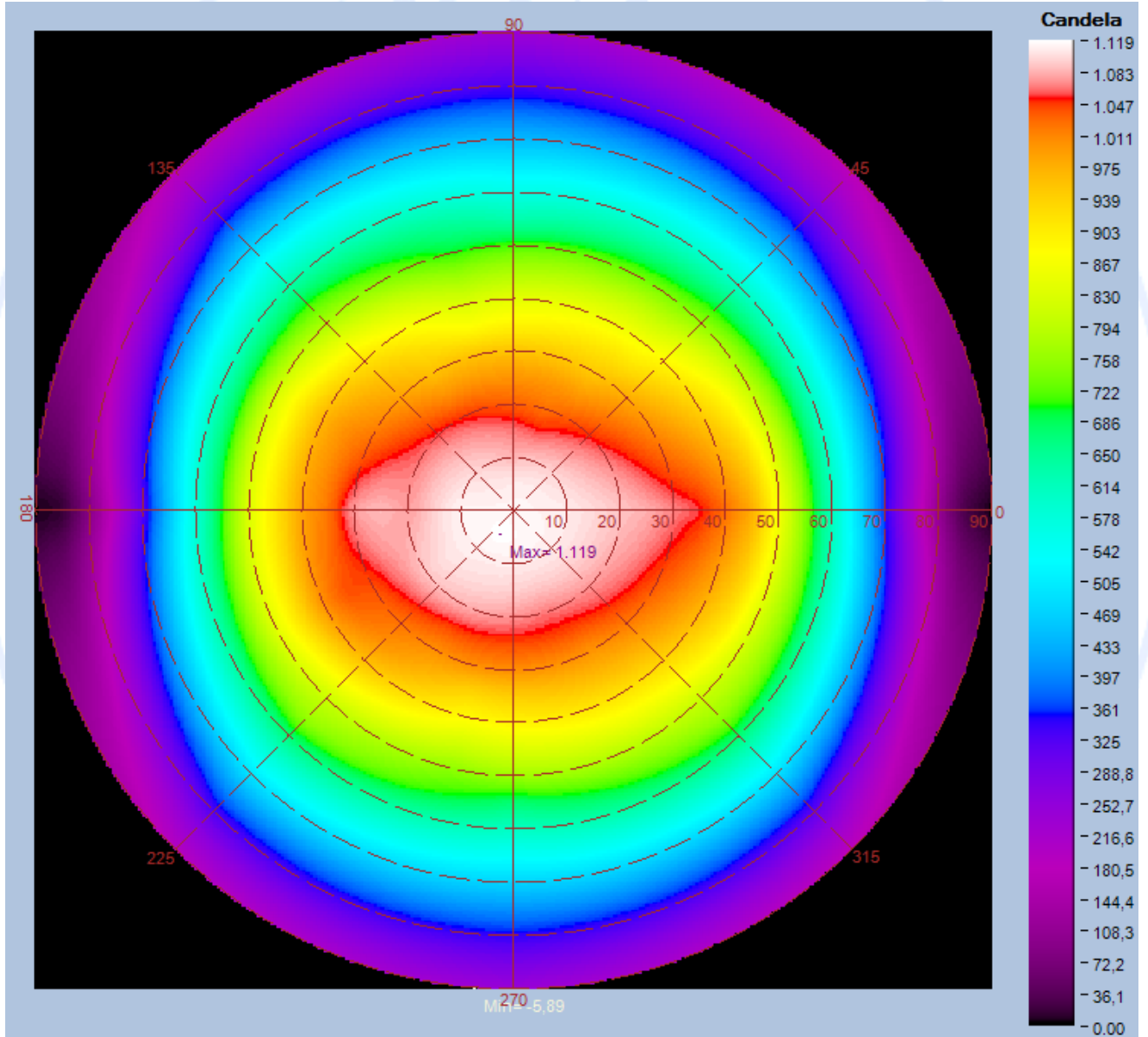
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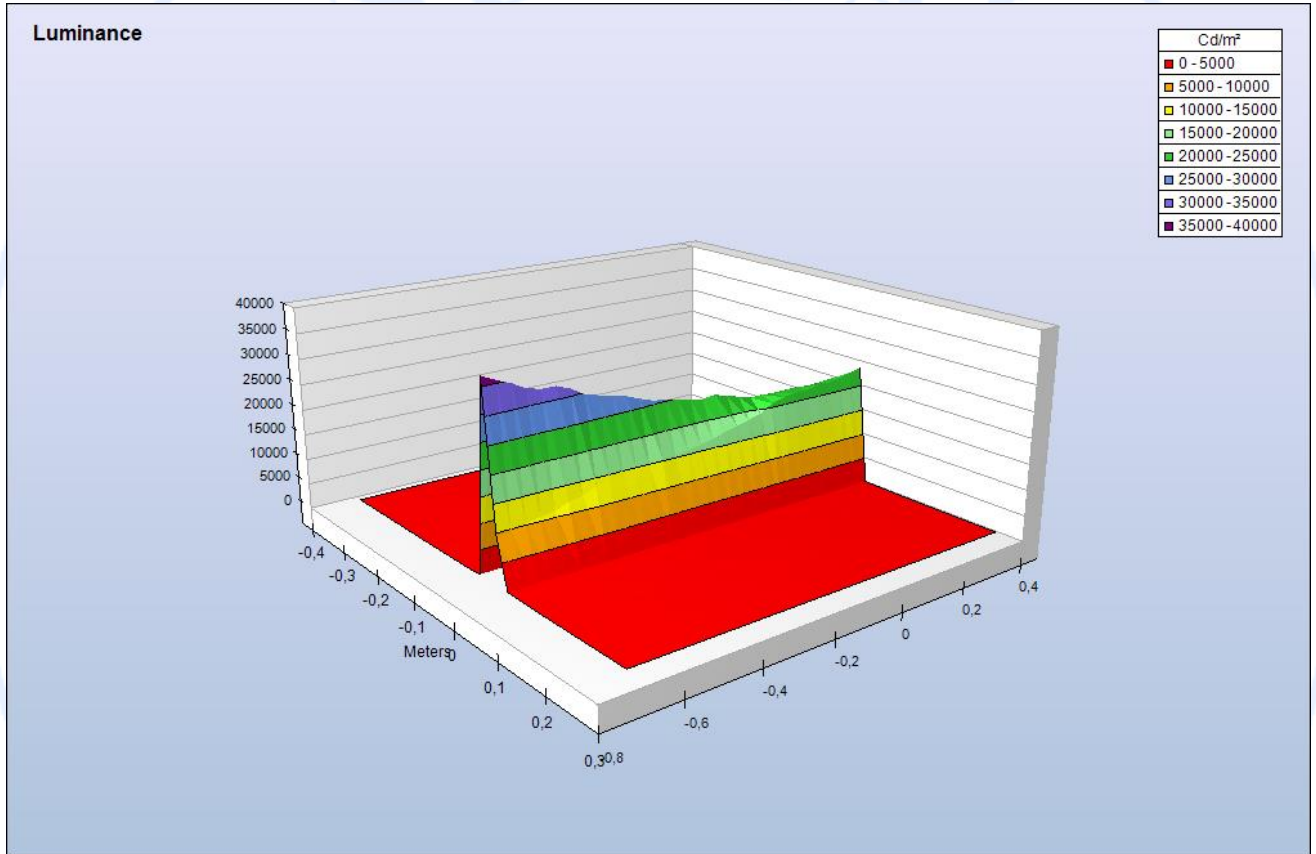
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