

Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 1 / 14

TL-806

19-TST-0045-56

03-19

**ÖLÇÜM RAPORU**  
MEASUREMENT REPORT

**Müşterinin Adı Adresi**  
Customer name/address

: Baytaş Aydınlatma İmalat Proje Taah.San. ve Tic.Ltd.Şti.  
Sincan Sanayi Sitesi Ahi Evran Mah. 225.Cad. No:84 Sincan -ANKARA

**İstek Numarası**  
Order No

: 19-TST-0045

**Numunenin Adı ve Tarifi**  
Name and identity of test item

: SIRUS L PROJEKTÖR  
SIRUS L FLOODLIGHT

**Numunenin kabul tarihi**  
The date of receipt of test item

: 07.03.2019

**Açıklamalar**  
Remarks

: DGC'ye , IES LM-79-08 standardı uyarınca fotometrik ölçümler yapılmıştır.  
Photometric measurement has been applied to EUT according to IESNA LM-79-08

**Deneyin Yapıldığı Tarih**  
Date of Test

: 21.03.2019

**Raporun Sayfa Sayısı**  
Number of Pages of the Report

: 14

Deney laboratuvarı olarak faaliyet gösteren TÜV AUSTRIA TURK, International Accreditation Service, Inc. (IAS) TL-806 ile TS EN ISO/IEC 17025 Nisan 2012 standardına göre akredite edilmiştir.  
TÜV AUSTRIA TURK is accredited by International Accreditation Service, Inc. (IAS) under registration number TL-806 for TS EN ISO/IEC 17025 April 2012 as a test laboratory.

International Accreditation Service, Inc. (IAS) deney raporlarının tanınırlığı konusunda Avrupa Akreditasyon Birliği(EA) ile Çok Taraflı Anlaşma ve Uluslararası Laboratuvar Akreditasyon Birliği(ILAC) ile karşılıklı tanıma anlaşması imzalamıştır.  
International Accreditation Service, Inc. (IAS) is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreement (MLA) and to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for the recognition of test reports.

Deney ve /veya ölçüm sonuçları, genişletilmiş ölçüm belirsizlikleri ( olması halinde ) ve deney metotları bu sertifikanın 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.

Bu rapor, laboratuvara gönderilen numunelere uygulanan deney/deneyler sonucu hazırlanmıştır. Müşteriye ait diğer numuneleri kapsamaz.  
This report was prepared according to test results of specimens sent to laboratory. It doesn't contain other specimens belonging to customer.



**Deney Sorumlusu**  
Person in charge of test

Gürhan CANSIZ

**Onaylayan**  
Approval

Gürhan CANSIZ

Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 2 / 14

**ÖLÇÜM RAPORU**  
MEASUREMENT REPORT

TL-806

19-TST-0045-56

03-19

**İÇİNDEKİLER**  
(CONTENTS)

	<b>Sayfa</b> <b>Page</b>
<b>1. Dokümantasyon (Documentation)</b>	
1.1 <b>DGC, Çevre Şartları ve Sembollerin Tanımları (Description of the EUT, Environmental Conditions and Symbol Definitions)</b>	3
1.2 <b>Deney Standartları (Test Standards)</b>	4
1.3 <b>Deney Ekipmanları (Test Equipments)</b>	4
1.4 <b>Ölçüm Sonuçları (Test Results)</b>	5
<b>2. Deney Sonuçları ve Koşulları (Test Results and Conditions)</b>	6
<b>3. Ekler (Attachments)</b>	13
3.1 <b>DGC'nin Fotoğrafları (Photos of EUT)</b>	13



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 3 / 14

**ÖLÇÜM RAPORU**  
MEASUREMENT REPORT

TL-806

19-TST-0045-56

03-19

1.1

**DGC, Çevre Şartları ve Sembollerin Tanımları** (Description of the EUT, Environmental Conditions and Symbol Definitions)

**Markası / Brand**

:BAYLED

**Modeli / Model**

:SIRUS L 250 W

**Seri Numarası / Serial Number**

: Test Numunesi  
Test Sample

**Beyan Gücü / Rated Power**

: 250 W

**Beyan Gerilimi / Rated Voltage**

: 100-240 VAC

**Sembollerin Tanımı / Definitions of Symbols**

DGC= Deneden Geçen Cihaz  
EUT=Equipment Under Test



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 4 / 14

**ÖLÇÜM RAPORU**  
MEASUREMENT REPORT

TL-806

19-TST-0045-56

03-19

**1.2 Deney Standartları (Test Standards)**

Deneyler aşağıdaki standartlara göre yapılmıştır (The tests were performed according to following standards):

**Standart / Standard**

- IESNA LM-79-08 Electrical and Photometric Measurements of Solid-State Lighting Products

**1.3 Deney Ekipmanları (Test Equipments)**

Kayıt No. (ID – No.)	Tip (Type)	Kalibrasyon Tarihi (Calibration Date)	Sonraki Kalibrasyon Tarihi (Next Calibration Date)	Kontrol (Check Point)
LAB-011	Goniophotometer	09.01.2019	09.01.2020	<input checked="" type="checkbox"/>
LAB-015	AC Power Supply	05.06.2018	05.06.2019	<input checked="" type="checkbox"/>
LAB-027	Powermeter	09.01.2019	09.01.2020	<input checked="" type="checkbox"/>
LAB-023	Standart Lamp	09.01.2019	09.01.2020	<input checked="" type="checkbox"/>
LAB-012	Integrating sphere	28.05.2018	28.05.2019	<input checked="" type="checkbox"/>

**1.3 Komponent listesi (Component list)**

Komponent (Component)	Üretici (Manufacturer)	Model (Model)	Standart no. (Standart No.)	Sertifika no. (Certificate No.)
LED	NICHIA	NF2W757GRT-V1	-	-
DRİVER	MEANWELL	ELG-240-48A	-	-
PCB	LIMBUS	TLS-12NI-UPL-ASYM	-	-

Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 5 / 14

**ÖLÇÜM RAPORU**  
MEASUREMENT REPORT

TL-806

19-TST-0045-56

03-19

**1.4 Deney Sonuçları ( Test Results)**

**Elektriksel Ölçümler**

(Electrical Measurements)

<b>Ölçülen Güç (W)</b> (Input Power)	239,6
<b>Ölçülen Gerilim (V)</b> (Input Voltage)	240,2
<b>Ölçülen Akım (A)</b> (Input Current)	1,013
<b>Güç Faktörü (PF)</b> (Power Factor)	0,9844
<b>Ölçülen Frekans (Hz)</b> (Input Frequency)	50
<b>Ortam Sıcaklığı / Bağıl Nem</b> (Ambient Temperature / Relative Humidity)	25,1 °C 49% Rh
<b>Stabilizasyon Süresi</b> (Stabilization Time)	60min± 5min

**Fotometrik Ölçüm Sonuçları**

(Photometric Measurement Results)

<b>Toplam Işık Akısı</b> (Total Luminous Flux) (lm)	29163
<b>Maksimum Işık Şiddeti</b> (Max. Light Intensity) (cd)	14136
<b>Armatür Etkinliği</b> (Luminaire Efficacy) (lm/W)	121,72



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 6 / 14

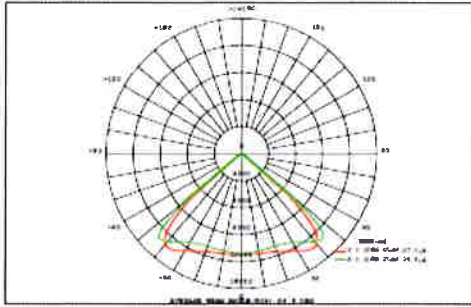
**ÖLÇÜM RAPORU**  
MEASUREMENT REPORT

TL-806

19-TST-0045-56

03-19

**2 Fotometrik Deney Sonuçları (Photometric Test Results)**



DATA OF LAMP		Eff:121.72lm/W	
MODEL	SIRUS L	Imax (cd)	14136
NOMINAL POWER (W)	240	AVAILABILITY (%)	96.6
RATED VOLTAGE (V)	240	Avai. FLUX (lm)	28167
NOMINAL FLUX (lm)	29163	LOR (%)	100.0
LAMPS INSIDE	1	TOTAL FLUX (lm)	29162
TEST VOLTAGE (V)	240.1	θ @50% (H,V)	78,93DEG

AREA FLUX DIAGRAM																	ONIT: lm		φ t	φ a
90	0.00	0.01	0.05	0.10	0.17	0.25	0.32	0.38	0.42	0.42	0.38	0.32	0.25	0.17	0.10	0.05	0.01	0.00	3.38	0.00
80	0.01	0.10	0.38	0.90	1.68	2.59	3.42	4.16	4.92	4.92	4.16	3.42	2.59	1.68	0.90	0.38	0.10	0.01	36.3	0.00
70	0.02	0.26	1.06	2.47	4.45	6.66	8.91	10.9	12.1	12.1	10.9	8.91	6.66	4.45	2.47	1.06	0.26	0.02	93.7	0.00
60	0.03	0.48	1.90	4.36	7.69	12.2	20.4	34.2	41.3	41.3	34.2	20.4	12.2	7.69	4.36	1.90	0.48	0.03	245	86.9
50	0.05	0.72	2.80	6.31	13.1	21.1	37.7	61.3	81.6	81.6	61.3	37.7	21.1	13.1	6.31	2.80	0.72	0.05	2123	2062
40	0.06	0.96	3.60	8.28	18.9	32.2	55.0	90.9	121.7	121.7	90.9	55.0	32.2	18.9	8.28	3.60	0.96	0.06	2933	2890
30	0.08	1.16	4.24	10.4	21.4	37.7	64.6	107.1	141.3	141.3	107.1	64.6	37.7	21.4	10.4	4.24	1.16	0.08	2995	2959
20	0.09	1.31	4.69	11.4	23.1	40.1	69.1	116.7	156.3	156.3	116.7	69.1	40.1	23.1	11.4	4.69	1.31	0.09	3044	3011
10	0.10	1.40	4.88	11.9	24.1	41.6	71.6	121.7	164.6	164.6	121.7	71.6	41.6	24.1	11.9	4.88	1.40	0.10	3107	3075
0	0.10	1.40	4.88	11.9	24.1	41.6	71.6	121.7	164.6	164.6	121.7	71.6	41.6	24.1	11.9	4.88	1.40	0.10	3107	3075
-10	0.09	1.31	4.69	11.4	23.1	40.1	69.1	116.7	156.3	156.3	116.7	69.1	40.1	23.1	11.4	4.69	1.31	0.09	3044	3011
-20	0.08	1.16	4.24	10.4	21.4	37.7	64.6	107.1	141.3	141.3	107.1	64.6	37.7	21.4	10.4	4.24	1.16	0.08	2995	2959
-30	0.06	0.96	3.60	8.28	18.9	32.2	55.0	90.9	121.7	121.7	90.9	55.0	32.2	18.9	8.28	3.60	0.96	0.06	2933	2890
-40	0.05	0.72	2.80	6.31	13.1	21.1	37.7	61.3	81.6	81.6	61.3	37.7	21.1	13.1	6.31	2.80	0.72	0.05	2123	2062
-50	0.03	0.48	1.90	4.36	7.69	12.2	20.4	34.2	41.3	41.3	34.2	20.4	12.2	7.69	4.36	1.90	0.48	0.03	245	86.9
-60	0.02	0.26	1.06	2.47	4.45	6.66	8.91	10.9	12.1	12.1	10.9	8.91	6.66	4.45	2.47	1.06	0.26	0.02	93.7	0.00
-70	0.01	0.10	0.38	0.90	1.68	2.59	3.42	4.16	4.92	4.92	4.16	3.42	2.59	1.68	0.90	0.38	0.10	0.01	36.3	0.00
-80	0.00	0.01	0.05	0.10	0.17	0.25	0.32	0.38	0.42	0.42	0.38	0.32	0.25	0.17	0.10	0.05	0.01	0.00	3.38	0.00
-90	0.00	0.01	0.05	0.10	0.17	0.25	0.32	0.38	0.42	0.42	0.38	0.32	0.25	0.17	0.10	0.05	0.01	0.00	3.38	0.00
	φ t	0.00	12.8	47.2	132	2715	3327	3520	3577	3577	3520	3327	2715	1249	132	47.2	12.8	0.00	29161	---
	φ a	0.00	0.00	0.00	26.5	1174	2655	3267	3455	3505	3455	3267	2655	1174	26.5	0.00	0.00	0.00	---	28167

one-half-peak spread: U:9.9,D:9.9 , L:12.7,R:12.NEMA Beam Type: Type 5 x 6 (H x V)



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 7 / 14

**ÖLÇÜM RAPORU**  
**MEASUREMENT REPORT**

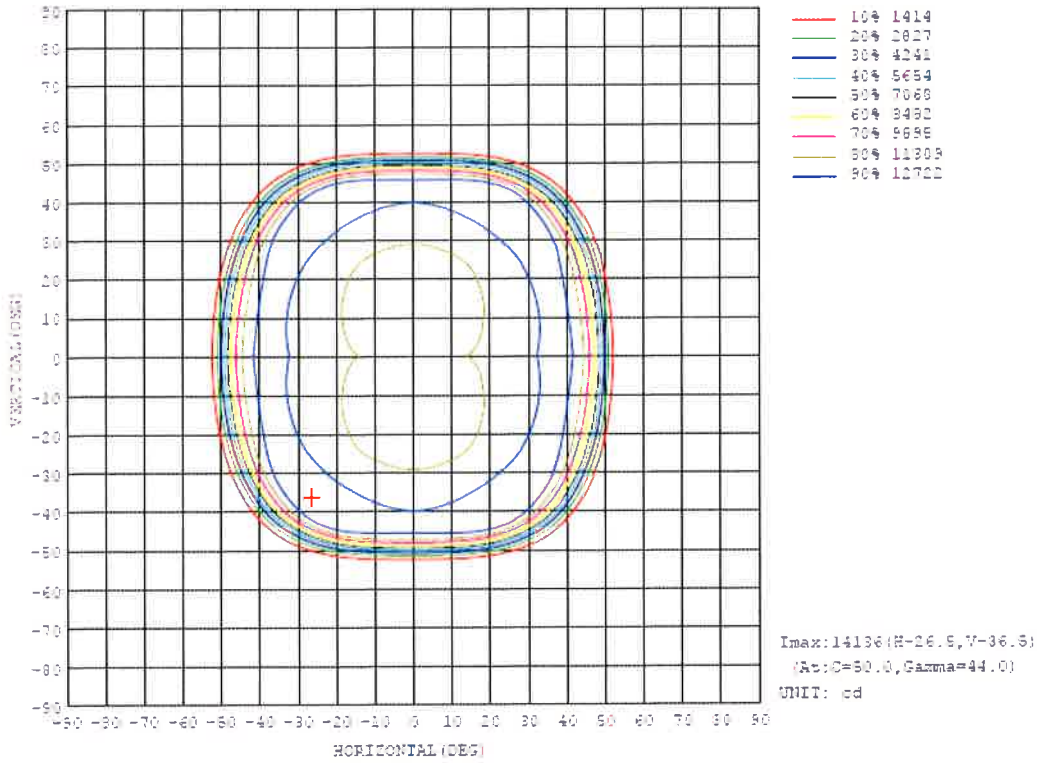
TL-806

19-TST-0045-56

03-19

**2 Fotometrik Deney Sonuçları (Photometric Test Results)**

**ISOCANDELA DIAGRAM**



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 8 / 14

**ÖLÇÜM RAPORU**  
MEASUREMENT REPORT

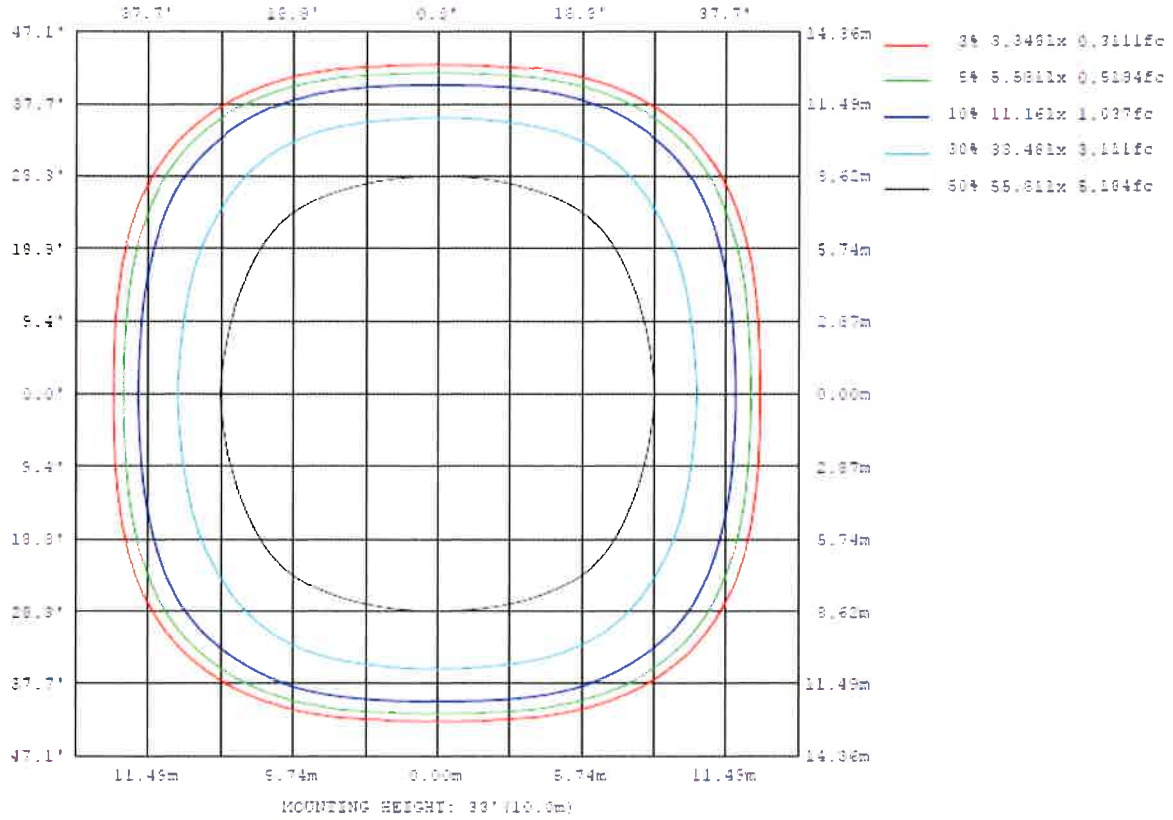
TL-806

19-TST-0045-56

03-19

**2 Fotometrik Deney Sonuçları (Photometric Test Results)**

**ISOLUX DIAGRAM**





Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 9 / 14

**ÖLÇÜM RAPORU**  
**MEASUREMENT REPORT**

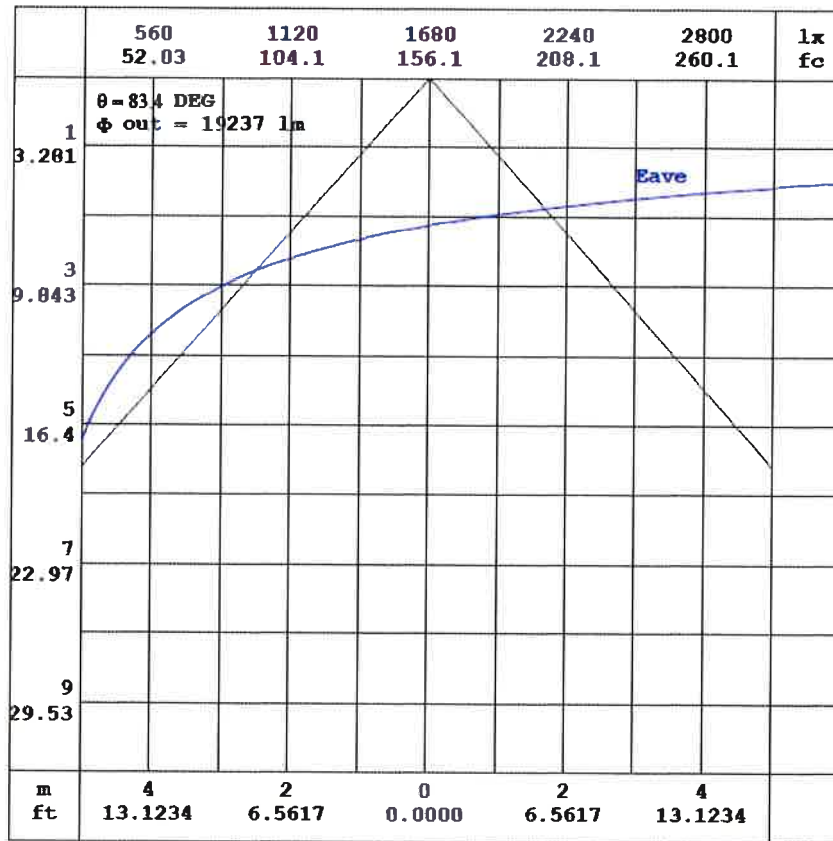
TL-806

19-TST-0045-56

03-19

**2 Fotometrik Deney Sonuçları (Photometric Test Results)**

**AAI CURVES**



Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.



Bu rapor, laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir.

This report shall not be reproduced other than in full except with the permission of the laboratory. Testing reports without signature and seal are not valid.

Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 10 / 14

**ÖLÇÜM RAPORU**  
MEASUREMENT REPORT

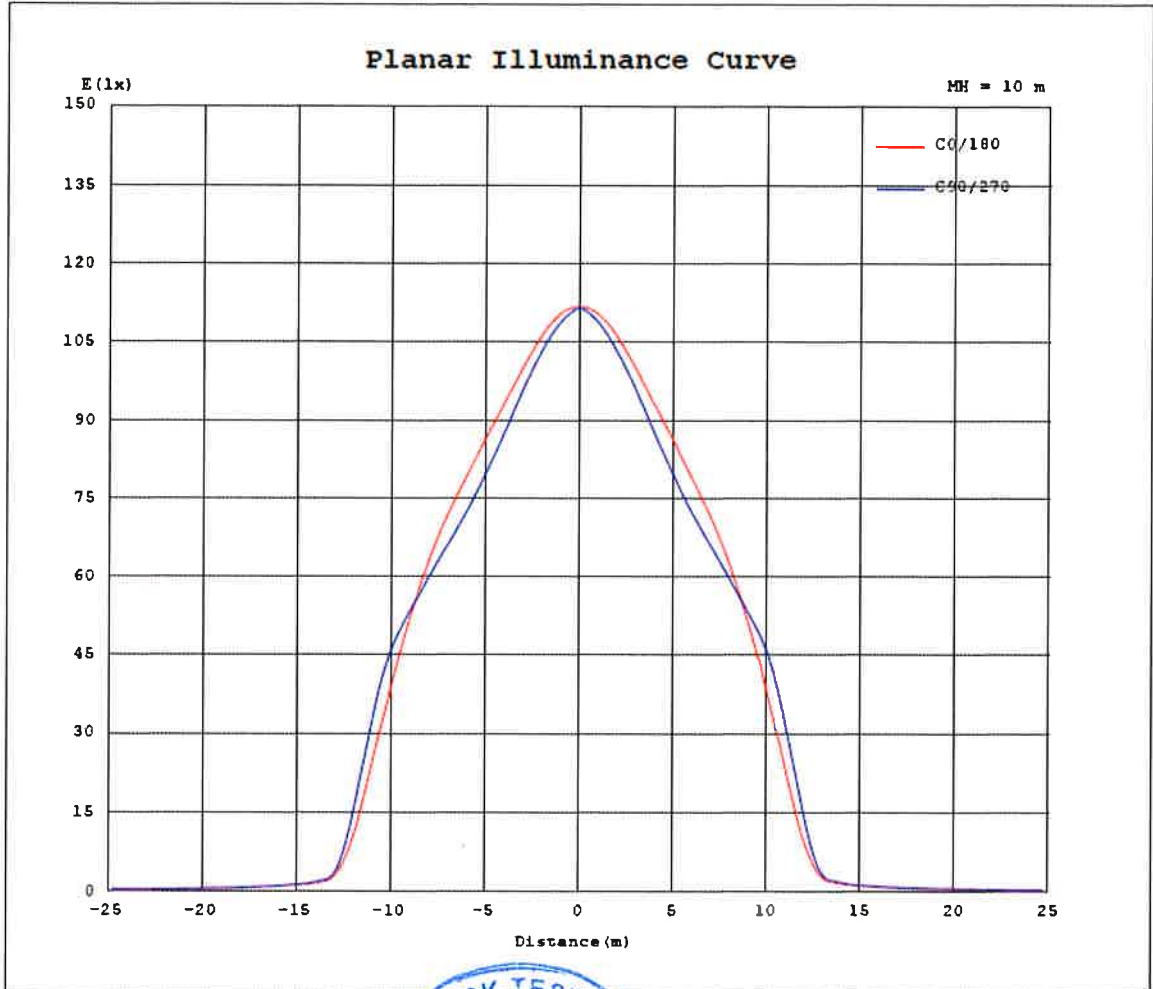
TL-806

19-TST-0045-56

03-19

2 **Fotometrik Deney Sonuçları (Photometric Test Results)**

**Planar Illuminance Curve**



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 11 / 14

**ÖLÇÜM RAPORU**  
MEASUREMENT REPORT

TL-806

19-TST-0045-56

03-19

2 **Spektrokolorimetrik Deney Sonuçları (Spectrocolorimetric Test Results )**

**Elektriksel Ölçümler**

(Electrical Measurements)

<b>Ölçülen Güç (W)</b> (Input Power)	239,6
<b>Ölçülen Gerilim (V)</b> (Input Voltage)	240,2
<b>Ölçülen Akım (A)</b> (Input Current)	1,013
<b>Güç Faktörü (PF)</b> (Power Factor)	0,9844
<b>Ölçülen Frekans (Hz)</b> (Input Frequency)	50
<b>Ortam Sıcaklığı / Bağıl Nem</b> (Ambient Temperature / Relative Humidity)	25.1 °C 49% Rh
<b>Stabilizasyon Süresi</b> (Stabilization Time)	45 min ±5 min

**Spektrokolorimetrik Ölçüm Sonuçları**

(Spectrocolorimetric Measurement Results)

<b>Chrom x</b>	0,3173
<b>Chrom y</b>	0,3415
<b>Duv</b>	0,0072
<b>Chrom u'</b>	0,1964
<b>Chrom v'</b>	0,4755
<b>Peak</b>	447nm
<b>Dominant</b>	498 nm
<b>CCT</b>	6197 K
<b>Nominal CCT</b>	6000 K
<b>Ra(CRI)</b>	72
<b>R9</b>	-34
<b>S/P Ratio</b>	2,0
<b>Preburning time</b>	1 hr
<b>Test Configuration</b>	4π



Bu rapor, laboratuvarın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir.

This report shall not be reproduced other than in full except with the permission of the laboratory. Testing reports without signature and seal are not valid.

Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 12 / 14

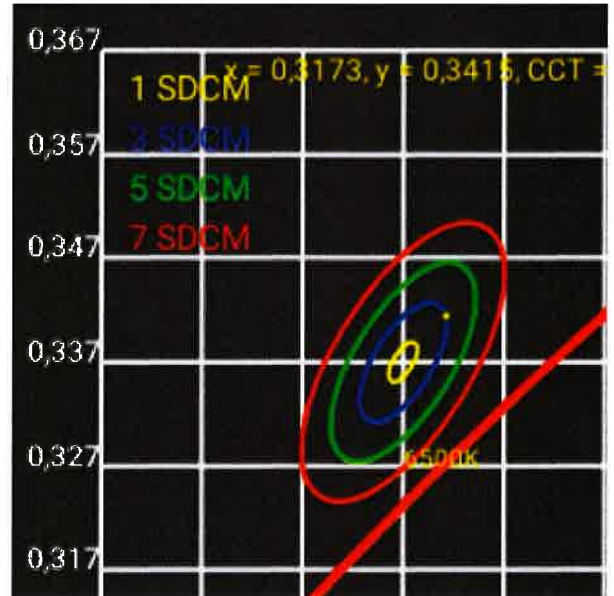
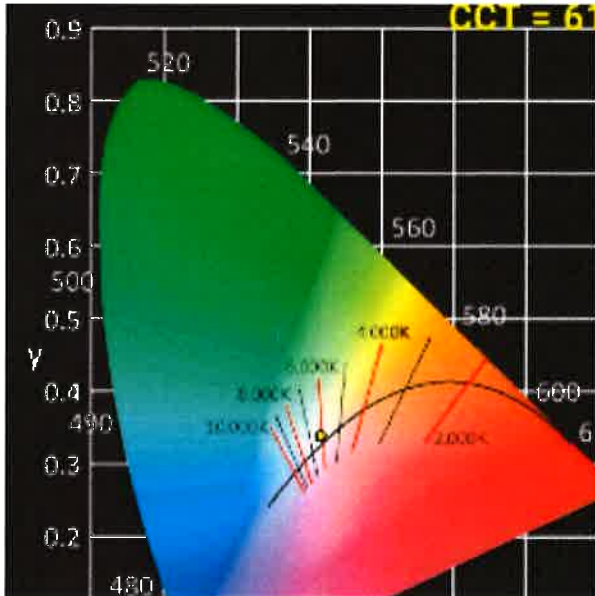
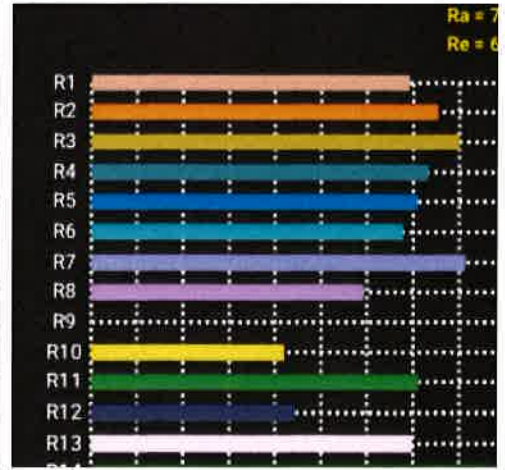
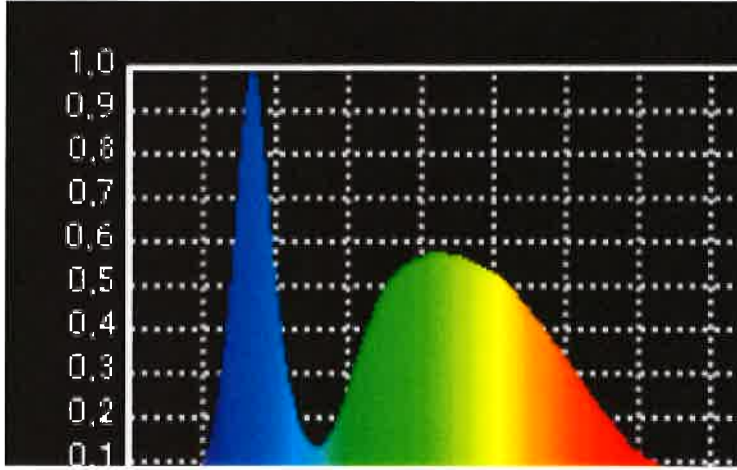
**ÖLÇÜM RAPORU**  
MEASUREMENT REPORT

TL-806

19-TST-0045-56

03-19

**2 Spektrokolorimetrik Deney Sonuçları (Spectrocolorimetric Test Results)**



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 13 / 14

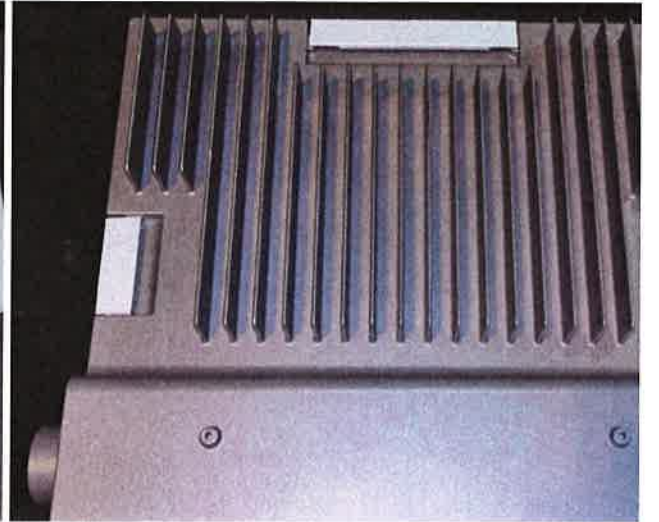
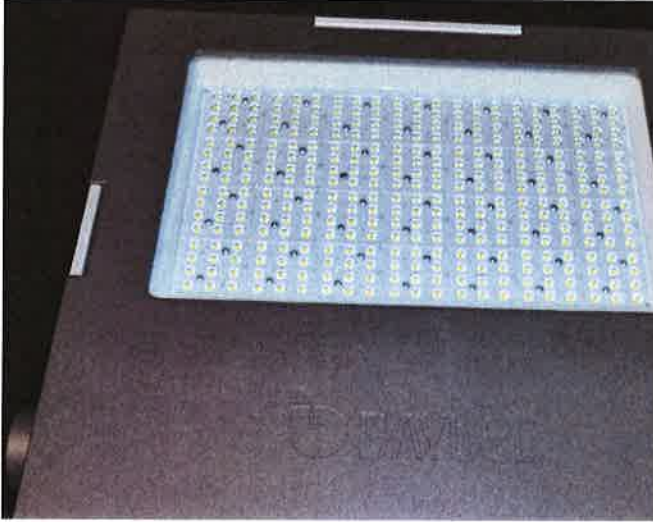
**ÖLÇÜM RAPORU**  
MEASUREMENT REPORT

TL-806

19-TST-0045-56

03-19

3.1 DGC'nin Fotoğrafları (Photos of EUT)



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 14 / 14

**ÖLÇÜM RAPORU**  
MEASUREMENT REPORT

TL-806

19-TST-0045-56

03-19

**3.1 DGC'nin Fotoğrafları (Photos of EUT)**

