

Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 1 / 21

ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806
19-TST-0045-129
05-19

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

: YÜKSEK TAVAN AYDINLATMA ARMATÜRÜ
HIGHBAY LUMINIARE

Numunenin kabul tarihi
The date of receipt of test item

: 07.03.2019

Açıklamalar
Remarks

: DGC'ye , IES LM-82-12 standardı uyarınca fotometrik ölçümler yapılmıştır.
Photometric measurement has been applied to EUT according to IESNA LM-82-12.

Deneyin Yapıldığı Tarih
Date of Test

: 29.05.2019

Raporun Sayfa Sayısı
Number of Pages of the Report

:21

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.

Mühür ve Tarih
Seal and Date



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 / 21

ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806
19-TST-0045-129
05-19

İÇİNDEKİLER
(CONTENTS)

	Sayfa Page
1. Dokümantasyon (Documentation)	
1.1 DGC, Çevre Şartları ve Sembollerin Tanımları (Description of the EUT, Environmental Conditions and Symbol Definitions)	3
1.2 Deney Standartları (Test Standards)	4
1.3 Deney Ekipmanları (Test Equipments)	4
1.4 Ölçüm Sonuçları (Test Results)	5
2. Deney Sonuçları ve Koşulları (Test Results and Conditions)	9
3. Ekler (Attachments)	19
3.1 DGC'nin Fotoğrafları (Photos of EUT)	19



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 3 / 21

ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

19-TST-0045-
129

05-19

1.1

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

Markası / Brand	: BAYLED
Modeli / Model	: CIRCLE HIGHBAY 250W
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

Çevre Şartları / Environmental Conditions	
Sıcaklık (°C) (Temperature)	25 °C ±1
Nem (Rh) (Humidity)	%45 ±10
Stabilizasyon (Stabilization)	1 hour ±5min



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 4 / 21

ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

19-TST-0045-
129

05-19

1.2 Deney Standartları (Test Standards)

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

Standart / Standard

- IES LM-82-12
- IES LM-79-08

1.3 Deney Ekipmanları (Test Equipments)

Kayıt No. (ID – No.)	Tip (Type)	Kontrol (Check Point)
LAB-011	Goniophotometer	<input checked="" type="checkbox"/>
LAB-015	AC Power Supply	<input checked="" type="checkbox"/>
LAB-027	Powermeter	<input checked="" type="checkbox"/>
LAB-012	Integrating Sphere	<input checked="" type="checkbox"/>
LAB-007	Accelerated Aging Lifetime Test System	<input checked="" type="checkbox"/>
LAB-023	Standart Lamp	<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	-	CE,UL
DRİVER	MEANWELL	HLG-240H-24A	-	CE,UR
PCB	LIMBUS	TLS-12NI-UPL-ASYM	-	-



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 5 / 21

ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

19-TST-0045-
129

05-19

1.4 25°C Oda Sıcaklığında ilk ölçüm (Room Temperature Initial Measurement Test at 25°C)

Unit	Room Temperature Initial Measurement Test at 25°C
Aktif Güç <i>Electric Power P_0 (W)</i>	240,1
Gerilim <i>Voltage (V)</i>	240
Akım <i>Current (A)</i>	1,022
Işık Akısı <i>Luminous Flux Φ_0 (lm)</i>	28434,1
Verimlilik <i>Luminous efficacy (lm/w)</i>	118,4
CIE Koordinatları <i>CIE Coordinate x_0</i>	0,3201
CIE Koordinatları <i>CIE Coordinate y_0</i>	0,3442
CCTi (K)	6051
Tb	62,3
Tsp	71,8
Tc LED Driver	56



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 6 / 21

ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

19-TST-0045-
129

05-19

1.4 $T_{b,0}+25^{\circ}\text{C}$ Oda Sıcaklığında ilk ölçüm (Room Temperature Initial Measurement Test at $T_{b,0}+25^{\circ}\text{C}$)

Unit	Room Temperature Initial Measurement Test at $T_{b,0}+25^{\circ}\text{C}$
Aktif Güç <i>Electric Power P_o (W)</i>	233,8
Gerilim <i>Voltage (V)</i>	239,9
Akım <i>Current (A)</i>	1,002
Işık Akısı <i>Luminous Flux Φ_o (lm)</i>	25698
Verimlilik <i>Luminous efficacy (lm/w)</i>	109,82
CIE Koordinatları <i>CIE Coordinate x_0</i>	0,3157
CIE Koordinatları <i>CIE Coordinate y_0</i>	0,3429
CCTi (K)	6044
Tb	88,1
Tsp	99
Tc LED Driver	85,4



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 7 / 21

ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

19-TST-0045-
129

05-19

2 Deney Sonuçları (Test Results)

Electrical Measurements

Aktif güç (W) (active power)	240,1
Ortalama Gerilim (V) (Average Voltage)	240
Ortalama AC Akım (A) (Average AC Current)	1,022
Güç Faktörü (PF) (Power Factor)	0,9788
Frekans (Hz) (Frequency)	50
Ortam Sıcaklığı (°C) (Ambient Temperature)	25.1 °C 49% Rh

Photometric Results

Işık Akısı (Luminous Flux)	28434,1 lm
Maksimum Işık Şiddeti (Peak Intensity)	12846 cd
Verimlilik (Luminous efficacy)	118,4 lm/W



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 8 / 21

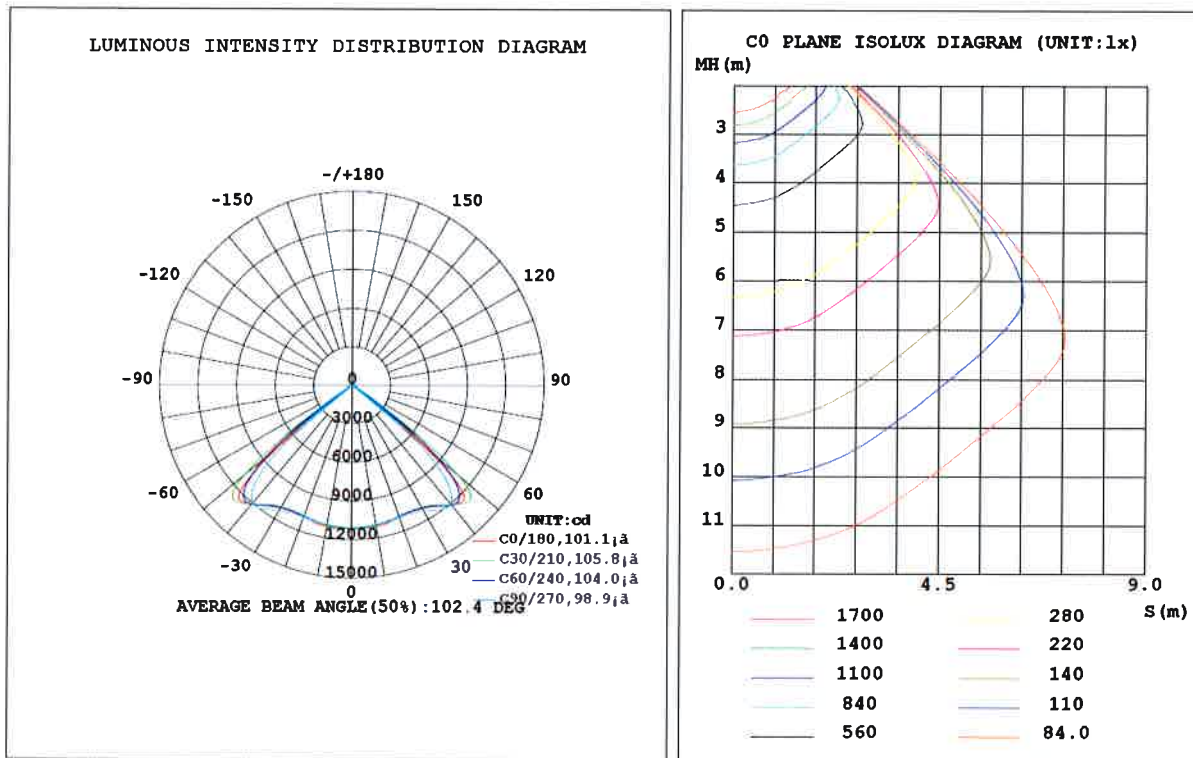
ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

19-TST-0045-
129

05-19

2 Deney Sonuçları (Test Results)



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 9 / 21

ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

19-TST-0045-
129

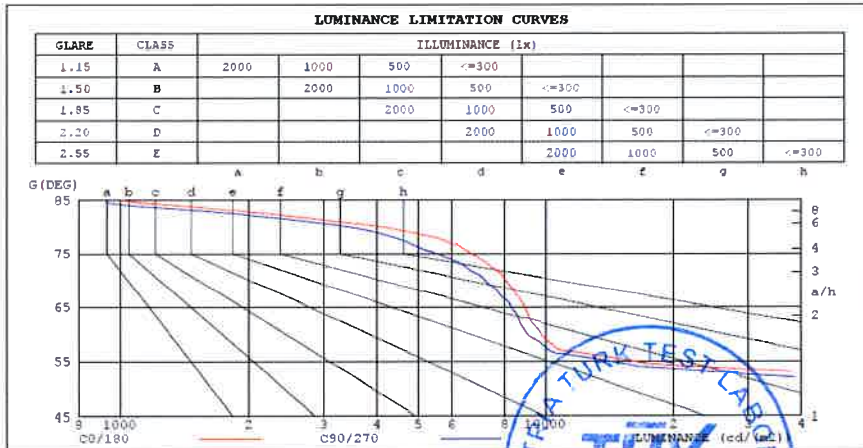
05-19

2 Deney Sonuçları (Test Results)

**ZONAL FLUX DIAGRAM
AND LUMINANCE LIMITATION CURVES**

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum.lamp
5	1116	1108	1104	1108	1116	1108	1104	1108	0- 5	265.3	265.3	0.93,0.93
10	1114	1103	1100	1103	1114	1103	1100	1103	5- 10	791.3	1057	3.72,3.72
15	1106	1095	1097	1095	1106	1095	1097	1095	10- 15	1306	2362	8.31,8.31
20	1091	1084	1092	1084	1091	1084	1092	1084	15- 20	1798	4161	14.6,14.6
25	1089	1078	1103	1078	1089	1078	1103	1078	20- 25	2274	6435	22.6,22.6
30	1104	1093	1128	1093	1104	1093	1128	1093	25- 30	2764	9199	32.4,32.4
35	1146	1138	1179	1138	1146	1138	1179	1138	30- 35	3303	12502	44,44
40	1206	1217	1202	1217	1206	1217	1202	1217	35- 40	3926	16428	57.6,57.6
45	1245	1271	1047	1271	1245	1271	1047	1271	40- 45	4501	20929	73.6,73.6
50	736.9	1059	512.4	1059	736.9	1059	512.4	1059	45- 50	4347	25276	88.9,88.9
55	91.46	361.6	80.93	361.6	91.46	361.6	80.93	361.6	50- 55	2189	27465	96.6,96.6
60	48.71	53.38	45.00	53.38	48.71	53.38	45.00	53.38	55- 60	429.4	27895	98.1,98.1
65	37.71	36.42	34.95	36.42	37.71	36.42	34.95	36.42	60- 65	210.2	28105	98.8,98.8
70	27.62	24.37	24.65	24.37	27.62	24.37	24.65	24.37	65- 70	155.7	28261	99.4,99.4
75	17.32	14.16	14.39	14.16	17.32	14.16	14.39	14.16	70- 75	102.3	28363	99.8,99.8
80	7.060	5.696	5.951	5.696	7.060	5.696	5.951	5.696	75- 80	52.62	28416	99.9,99.9
85	0.8756	0.9190	0.6965	0.9190	0.8756	0.9190	0.6965	0.9190	80- 85	15.33	28431	100,100
90	0.0050	0.0025	0.0002	0.0025	0.0050	0.0025	0.0002	0.0025	85- 90	1.501	28433	100,100
95	0	0	0	0	0	0	0	0	90- 95	0.0008	28433	100,100
100	0	0	0	0	0	0	0	0	95-100	0	28433	100,100
105	0	0	0	0	0	0	0	0	100-105	0	28433	100,100
110	0	0	0	0	0	0	0	0	105-110	0	28433	100,100
115	0	0	0	0	0	0	0	0	110-115	0	28433	100,100
120	0.0007	0.0069	0.0030	0.0069	0.0007	0.0069	0.0030	0.0069	115-120	0.0058	28433	100,100
125	0.0114	0.0201	0.0171	0.0201	0.0114	0.0201	0.0171	0.0201	120-125	0.0493	28433	100,100
130	0.0253	0.0313	0.0291	0.0313	0.0253	0.0313	0.0291	0.0313	125-130	0.1020	28433	100,100
135	0.0397	0.0434	0.0414	0.0434	0.0397	0.0434	0.0414	0.0434	130-135	0.1471	28433	100,100
140	0.0532	0.0591	0.0558	0.0591	0.0532	0.0591	0.0558	0.0591	135-140	0.1817	28433	100,100
145	0.0666	0.0702	0.0676	0.0702	0.0666	0.0702	0.0676	0.0702	140-145	0.2113	28433	100,100
150	0.0740	0.0738	0.0718	0.0738	0.0740	0.0738	0.0718	0.0738	145-150	0.2107	28433	100,100
155	0.0763	0.0752	0.0737	0.0752	0.0763	0.0752	0.0737	0.0752	150-155	0.1901	28434	100,100
160	0.0819	0.0806	0.0794	0.0806	0.0819	0.0806	0.0794	0.0806	155-160	0.1634	28434	100,100
165	0.0799	0.0790	0.0783	0.0790	0.0799	0.0790	0.0783	0.0790	160-165	0.1332	28434	100,100
170	0.0798	0.0789	0.0786	0.0789	0.0798	0.0789	0.0786	0.0789	165-170	0.0927	28434	100,100
175	0.0889	0.0881	0.0877	0.0881	0.0889	0.0881	0.0877	0.0881	170-175	0.0591	28434	100,100
180	0.0938	0.0933	0.0934	0.0933	0.0938	0.0933	0.0934	0.0933	175-180	0.0217	28434	100,100



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1005	799
80	4066	3427
75	6693	5558
70	8075	7206
65	8922	8269
60	9742	9000
55	15945	14110
50	114641	79717
45	176078	148073

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 / 21

ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

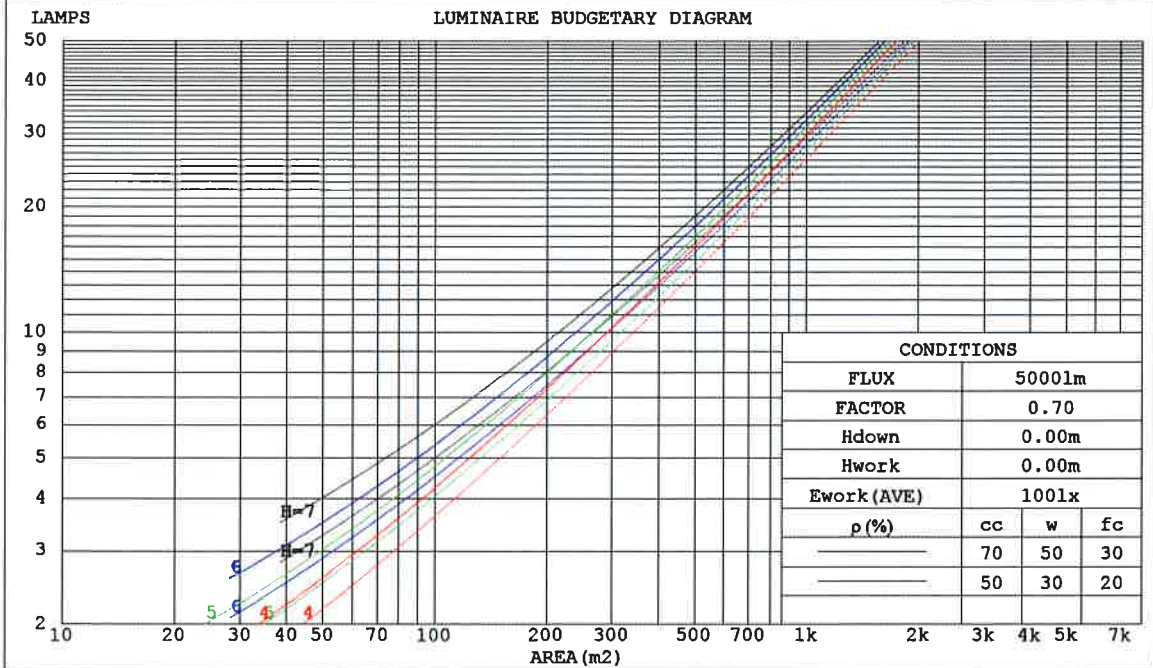
19-TST-0045-
129

05-19

2 Deney Sonuçları (Test Results)

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pf _c	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.08	1.05	1.02	1.06	1.03	1.00	1.02	.99	.97	.98	.96	.94	.95	.93	.92	.90
2.0	.97	.92	.88	.96	.91	.87	.92	.88	.85	.89	.86	.83	.86	.83	.81	.79
3.0	.88	.81	.76	.86	.80	.75	.83	.78	.74	.81	.76	.73	.78	.75	.71	.70
4.0	.79	.72	.66	.78	.71	.66	.75	.69	.65	.73	.68	.64	.71	.67	.63	.61
5.0	.71	.64	.58	.70	.63	.57	.68	.62	.57	.66	.61	.56	.65	.60	.56	.54
6.0	.65	.57	.51	.64	.56	.51	.62	.55	.50	.60	.54	.50	.59	.54	.50	.48
7.0	.59	.51	.45	.58	.50	.45	.56	.50	.45	.55	.49	.44	.54	.48	.44	.42
8.0	.54	.46	.40	.53	.45	.40	.52	.45	.40	.50	.44	.40	.49	.44	.40	.38
9.0	.49	.41	.36	.48	.41	.36	.47	.41	.36	.46	.40	.36	.45	.40	.36	.34
10.0	.45	.38	.33	.45	.37	.33	.44	.37	.33	.43	.37	.32	.42	.36	.32	.31



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 11 / 21

ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

19-TST-0045-
129

05-19

2

Deney Sonuçları (Test Results)**WEC AND CCEC**

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.228	.130	.041	.221	.126	.040	.209	.120	.038	.197	.113	.036	.186	.108	.035	
2.0	.225	.123	.038	.219	.121	.037	.208	.116	.036	.198	.111	.035	.188	.107	.034	
3.0	.217	.116	.035	.212	.113	.034	.202	.110	.033	.193	.106	.032	.185	.102	.032	
4.0	.207	.108	.032	.203	.106	.031	.194	.103	.031	.186	.100	.030	.179	.097	.030	
5.0	.197	.101	.029	.193	.099	.029	.186	.097	.028	.179	.094	.028	.172	.092	.028	
6.0	.188	.094	.027	.184	.093	.027	.177	.091	.026	.171	.089	.026	.165	.087	.026	
7.0	.178	.088	.025	.175	.087	.025	.169	.085	.025	.163	.084	.024	.158	.082	.024	
8.0	.169	.083	.023	.166	.082	.023	.161	.080	.023	.156	.079	.023	.151	.077	.023	
9.0	.161	.078	.022	.158	.077	.022	.153	.076	.021	.148	.074	.021	.144	.073	.021	
10.0	.153	.073	.020	.150	.073	.020	.146	.071	.020	.142	.070	.020	.138	.069	.020	

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.191	.191	.191	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.175	.157	.141	.149	.135	.121	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.163	.132	.106	.140	.114	.092	.096	.079	.064	.055	.046	.038	.018	.015	.012	
3.0	.154	.114	.082	.132	.098	.071	.091	.068	.050	.052	.040	.029	.017	.013	.010	
4.0	.147	.100	.065	.126	.086	.056	.087	.060	.040	.050	.035	.023	.016	.011	.008	
5.0	.140	.089	.052	.120	.077	.045	.083	.054	.032	.048	.032	.019	.015	.010	.006	
6.0	.133	.081	.043	.115	.070	.037	.079	.049	.026	.046	.029	.016	.015	.009	.005	
7.0	.128	.074	.036	.110	.064	.031	.076	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.122	.068	.031	.105	.059	.027	.073	.041	.019	.042	.024	.011	.014	.008	.004	
9.0	.117	.063	.027	.101	.055	.023	.070	.039	.017	.041	.023	.010	.013	.007	.003	
10.0	.112	.059	.024	.097	.051	.021	.067	.036	.015	.039	.021	.009	.013	.007	.003	



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 / 21

ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

19-TST-0045-
129

05-19

2 Deney Sonuçları (Test Results)

Uncorrected UGR Table

ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	28.3	29.7	28.6	29.8	30.0	27.5	28.8	27.8	29.0	29.2
3H	28.2	29.4	28.4	29.6	29.8	27.4	28.5	27.6	28.8	29.0
4H	28.1	29.2	28.4	29.4	29.7	27.3	28.4	27.6	28.6	28.9
6H	28.0	29.0	28.3	29.3	29.6	27.2	28.2	27.5	28.5	28.7
8H	27.9	28.9	28.3	29.2	29.5	27.1	28.1	27.5	28.4	28.7
12H	27.9	28.8	28.2	29.1	29.4	27.1	28.0	27.4	28.3	28.6
4H 2H	28.1	29.2	28.4	29.5	29.7	27.3	28.5	27.6	28.7	28.9
3H	27.9	28.9	28.3	29.2	29.5	27.2	28.1	27.5	28.4	28.7
4H	27.9	28.7	28.2	29.0	29.4	27.1	28.0	27.5	28.3	28.6
6H	27.8	28.5	28.2	28.9	29.2	27.0	27.8	27.4	28.1	28.5
8H	27.7	28.4	28.1	28.8	29.2	27.0	27.7	27.4	28.0	28.4
12H	27.7	28.3	28.1	28.7	29.1	26.9	27.6	27.3	27.9	28.3
8H 4H	27.7	28.4	28.1	28.8	29.2	27.0	27.7	27.4	28.0	28.4
6H	27.7	28.2	28.1	28.6	29.0	26.9	27.5	27.3	27.9	28.3
8H	27.6	28.1	28.1	28.5	29.0	26.9	27.3	27.3	27.8	28.2
12H	27.6	28.0	28.0	28.4	28.9	26.8	27.2	27.3	27.7	28.1
12H 4H	27.7	28.3	28.1	28.7	29.1	26.9	27.6	27.3	27.9	28.3
6H	27.6	28.1	28.1	28.5	29.0	26.9	27.3	27.3	27.8	28.2
8H	27.6	28.0	28.0	28.4	28.9	26.8	27.2	27.3	27.7	28.1
Variations with the observer position at spacings:										
S = 1.0H	+ 2.7 / - 9.7					+ 2.6 / -10.4				
1.5H	+ 2.0 / - 6.1					+ 2.0 / - 7.2				
2.0H	+ 5.1 / -12.2					+ 5.2 / -11.4				

CIE Pub.117 Corrected 28434 lm Total Lamp Luminous Flux. ($\log(F/F_0) = 11.6$)



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 : 13 / 21

ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

19-TST-0045-
129

05-19

2

Deney Sonuçları (Test Results)**UTILIZATION FACTORS TABLE**

REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	64	54	48	64	54	47	62	53	47	42
0.80	76	66	59	75	65	59	73	64	59	53
1.00	85	76	70	84	75	70	82	76	69	63
1.25	92	84	78	91	83	78	88	82	77	71
1.50	96	89	83	95	88	83	92	86	82	76
2.00	102	96	91	100	95	90	97	93	89	82
2.50	105	99	94	103	98	93	99	95	92	85
3.00	107	102	98	105	101	97	101	98	95	87
4.00	110	106	102	108	104	101	104	101	98	90
5.00	111	108	104	109	106	103	105	102	100	91
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 14 / 21

ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

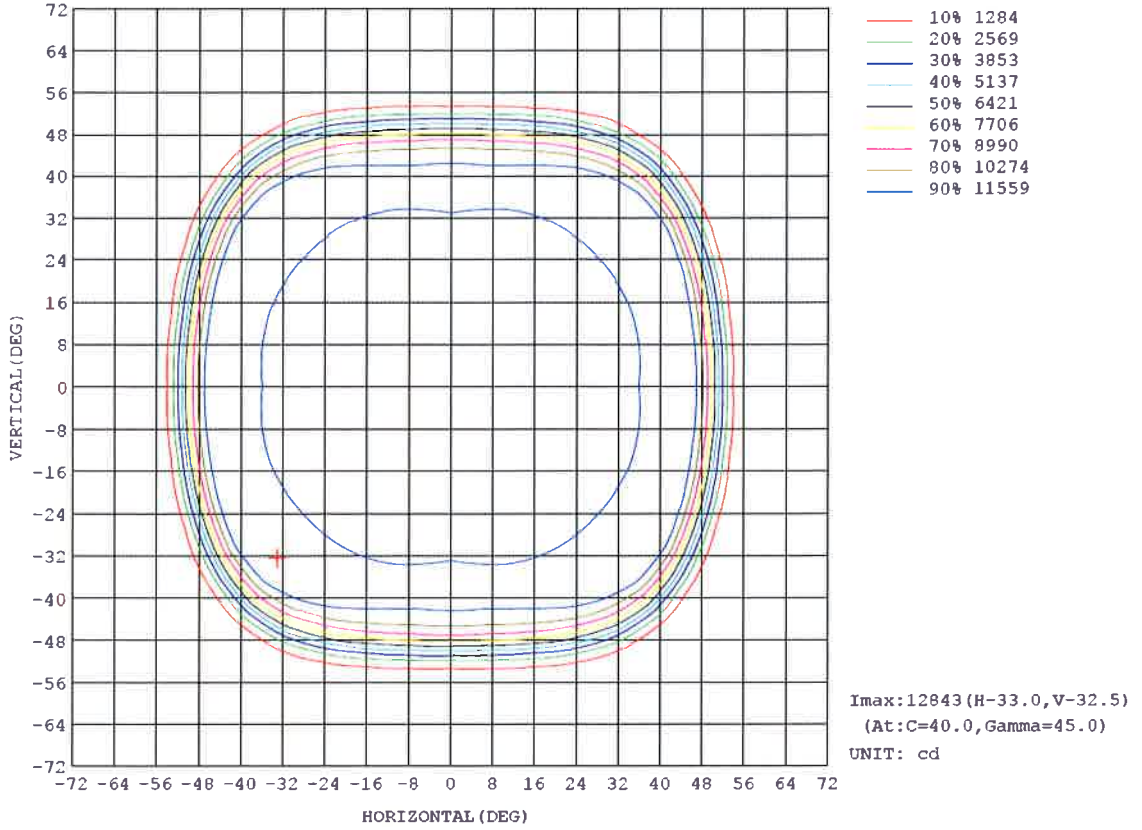
19-TST-0045-
129

05-19

2

Deney Sonuçları (Test Results)

ISOCANDELA DIAGRAM



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 15 / 21

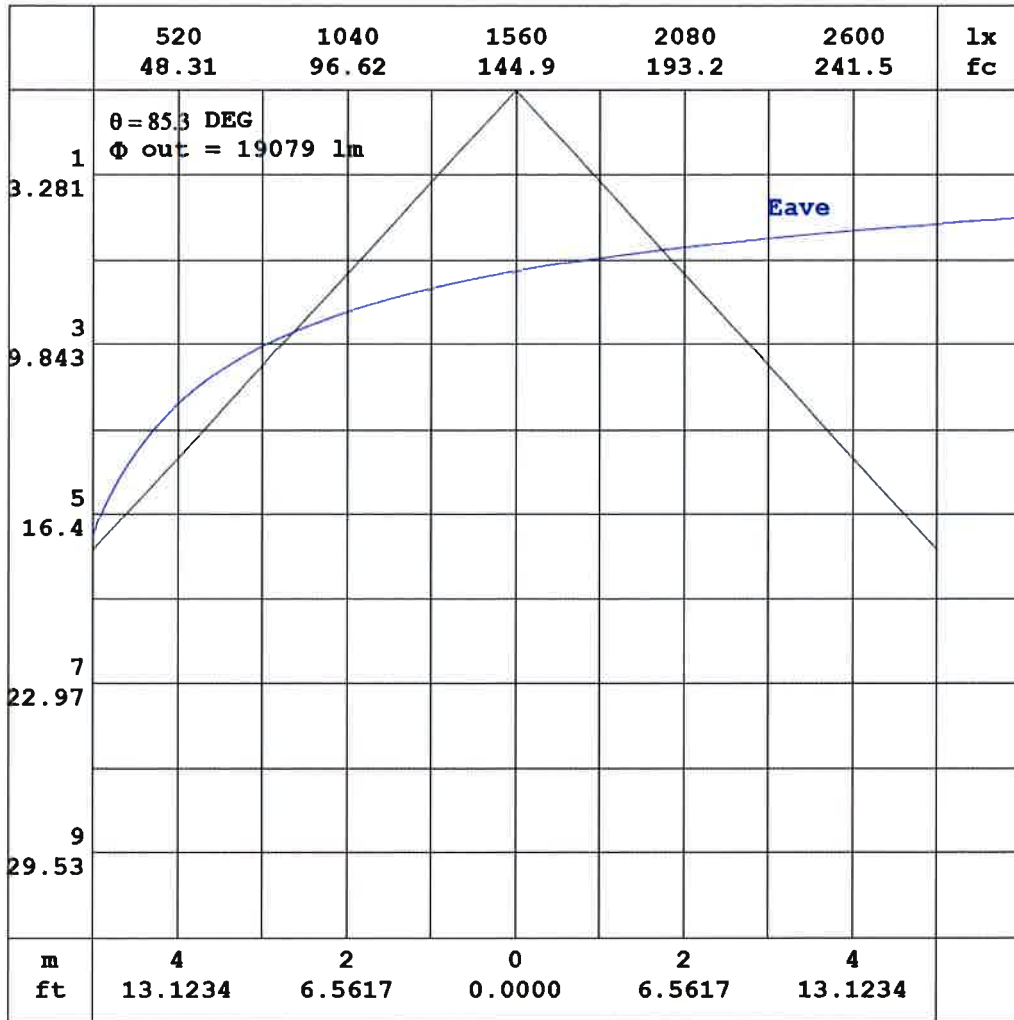
ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

19-TST-0045-
129

05-19

2

Deney Sonuçları (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 : 16 / 21

ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

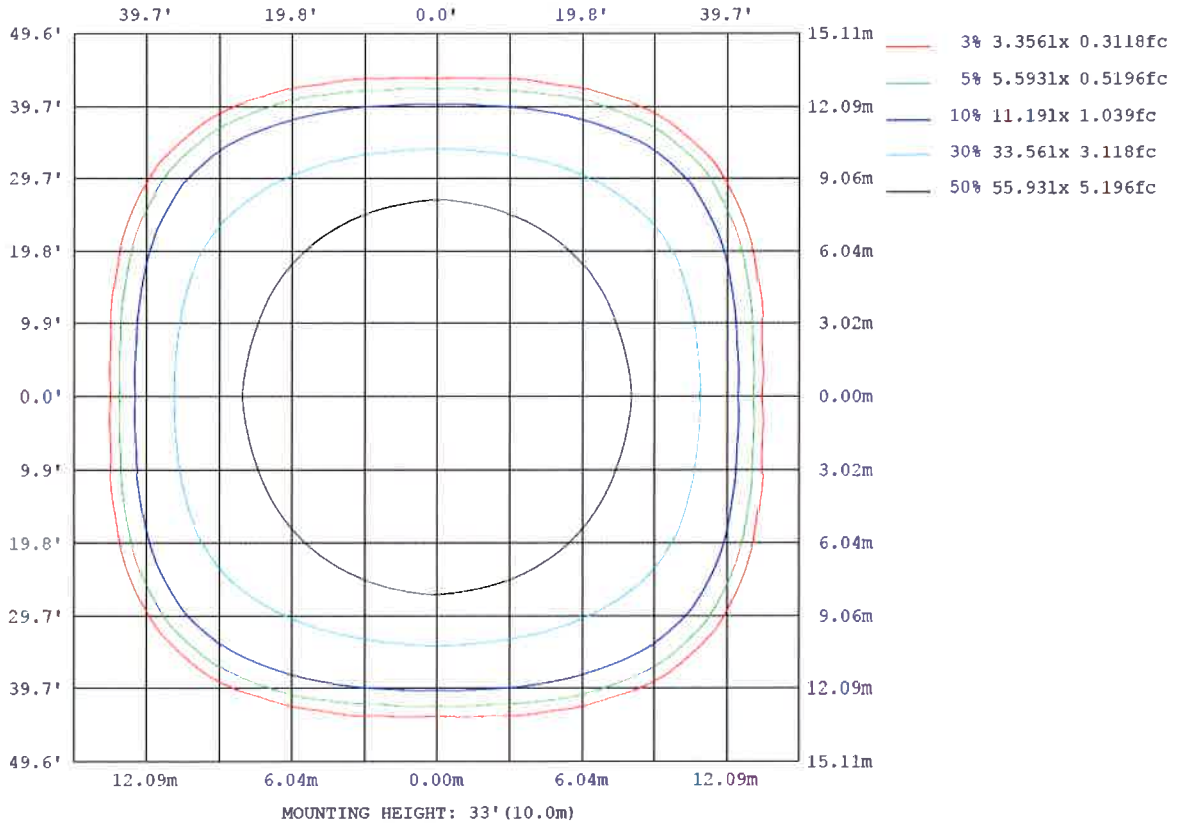
19-TST-0045-
129

05-19

2

Deney Sonuçları (Test Results)

ISOLUX DIAGRAM



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 17 / 21

ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

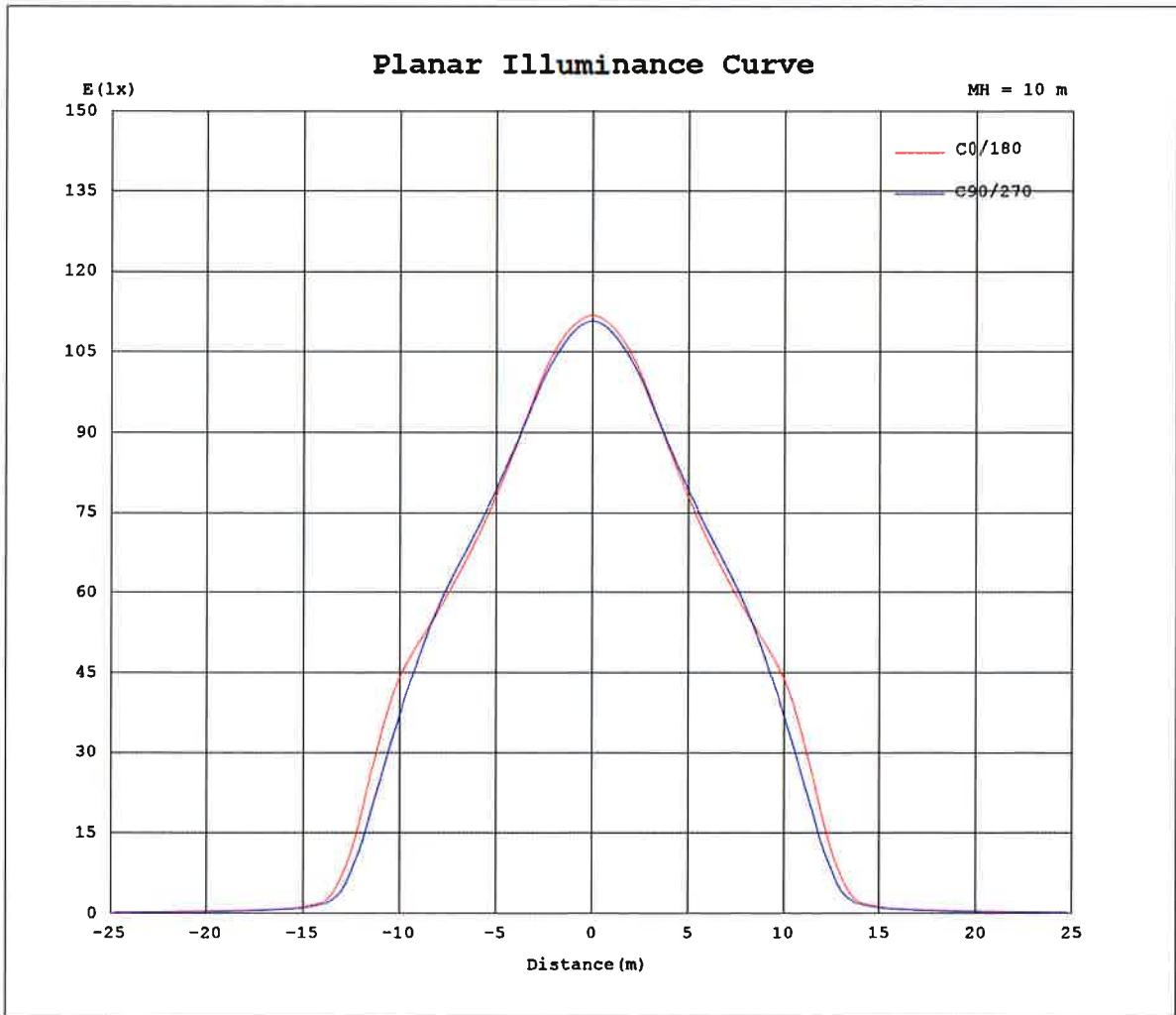
19-TST-0045-
129

05-19

2

Deney Sonuçları (Test Results)

Planar Illuminance Curve



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 18 / 21

ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

19-TST-0045-
129

05-19

2 **Deney Sonuçları (Test Results)**

Aktif güç (W)(active power)	240,1
Ortalama Gerilim (V)(Average Voltage)	240
Ortalama AC Akım (A)(Average AC Current)	1,022
Güç Faktörü (PF)(Power Factor)	0,9788
Frekans (Hz)(Frequency)	50
Ortam Sıcaklığı (°C)(Ambient Temperature)	25.1 °C 49% Rh

Spectrocolorimetric Results

Chrom x	0,3201
Chrom y	0,3442
Duv	0,0054
Chrom u'	0,1973
Chrom v'	0,4773
Peak	448 nm
Dominant	503 nm
CCT	6051 K
Nominal CCT	6000 K
Ra(CRI)	75
R9	-32
S/P Ratio	2,1
Preburning time	1 hr
Test Configuration	4π



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 19 / 21

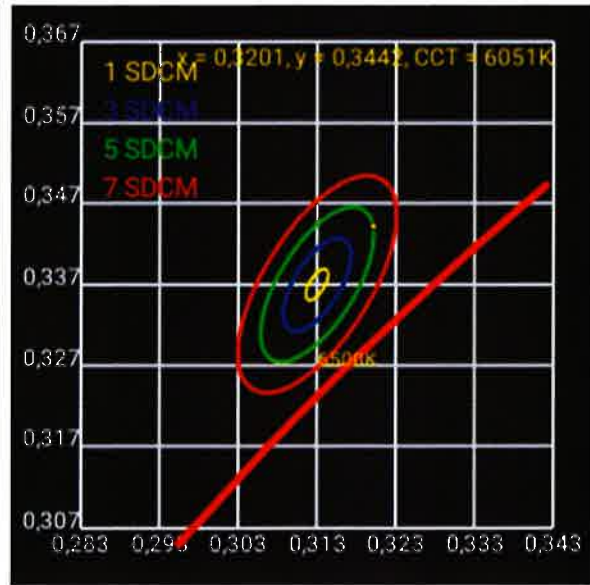
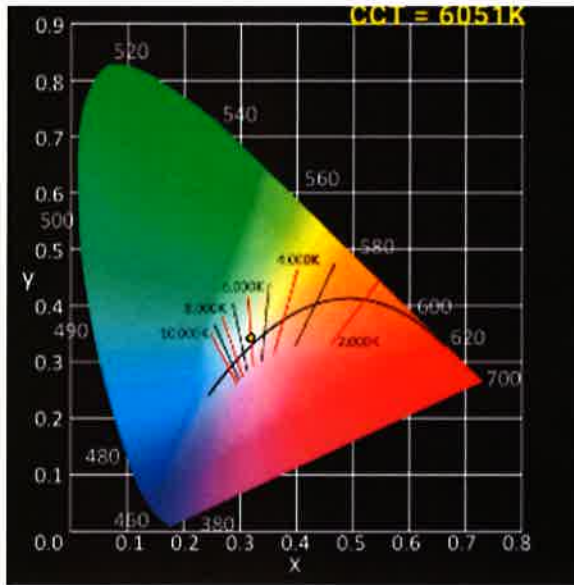
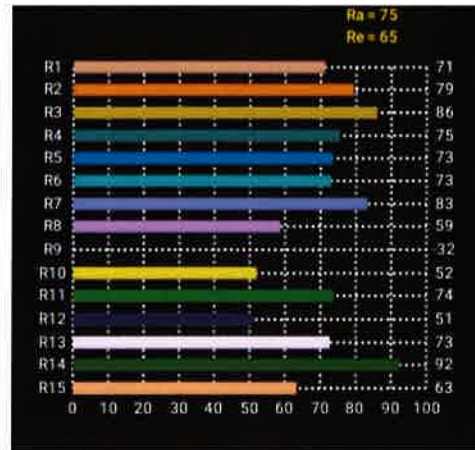
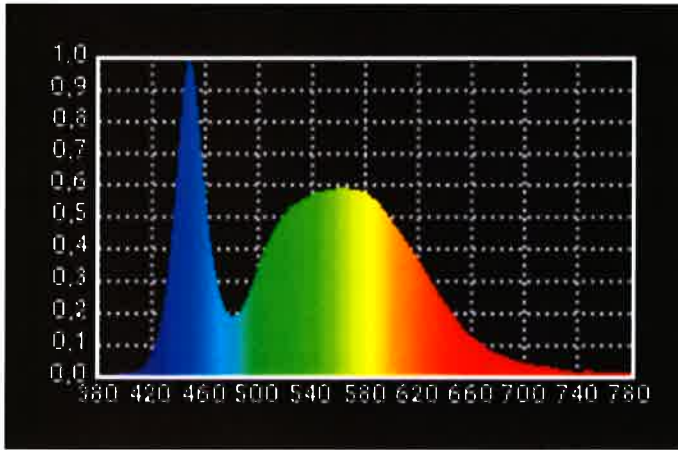
ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

19-TST-0045-
129

05-19

2 Deney Sonuçları (Test Results)



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 20 / 21

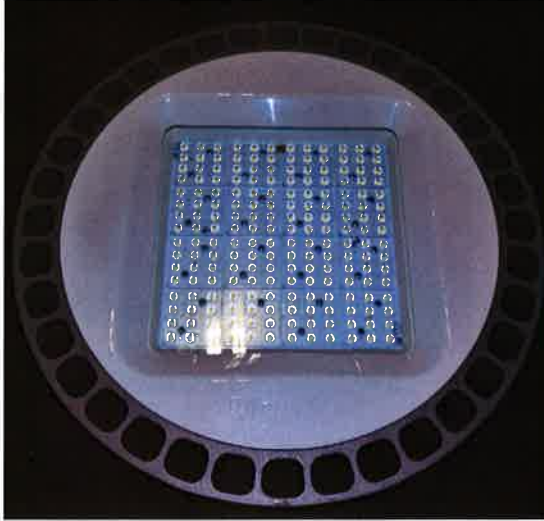
ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

19-TST-0045-
129

05-19

3.1 DGC'nin Fotoğrafları (Photos of EUT)



Doc No: FRM-LAB-009a

Rev.No/Date: 02 / 11.01.2019

Sayfa / Page : 21 / 21

ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

19-TST-0045-
129

05-19

3.1 DGC'nin Fotoğrafları (Photos of EUT)

