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Rev.No/Date: 02 / 11.01.2019

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**ÖLÇÜM RAPORU**  
MEASUREMENT REPORT

TL-806

19-TST-0045-48

03-19

**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-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

: 18.03.2019

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

: 19

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.  
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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

Saltuk Buğra GÜNEŞ

**Onaylayan**  
Approval

Gürhan CANSIZ

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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**

: 250W

**Beyan Gerilimi / Rated Voltage**

: 100-240 VAC

**Sembollerin Tanımı / Definitions of Symbols**

DGC= Denedyden Geçen Cihaz  
EUT=Equipment Under Test



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**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     | -                           | CE,UL                           |
| DRİVER                | MEANWELL               | HLG-240H-24A      | -                           | CE,UR                           |
| PCB                   | LIMBUS                 | TLS-12NI-URL-ASYM | -                           | -                               |

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**1.4 Deney Sonuçları ( Test Results)**

**Elektriksel Ölçümler**

(Electrical Measurements)

|   |                   |
|---|-------------------|
| <b>Ölçülen Güç (W)</b><br>(Input Power)   | 240,1             |
| <b>Ölçülen Gerilim (V)</b><br>(Input Voltage)                                   | 240               |
| <b>Ölçülen Akım (A)</b><br>(Input Current)                                      | 1,022             |
| <b>Güç Faktörü (PF)</b><br>(Power Factor)                                       | 0,9788            |
| <b>Ölçülen Frekans (Hz)</b><br>(Input Frequency)                                | 50                |
| <b>Ortam Sıcaklığı / Bağıl Nem</b><br>(Ambient Temperature / Relative Humidity) | 25,1 °C<br>49% Rh |
| <b>Stabilizasyon Süresi</b><br>(Stabilization Time)                             | 60min± 5min       |

**Fotometrik Ölçüm Sonuçları**

(Photometric Measurement Results)

|   |         |
|---|---------|
| <b>Toplam Işık Akısı</b><br>(Total Luminous Flux) (lm)      | 28434,1 |
| <b>Maksimum Işık Şiddeti</b><br>(Max. Light Intensity) (cd) | 12846   |
| <b>Armatür Etkinliği</b><br>(Luminaire Efficacy) (lm/W)     | 118,4   |



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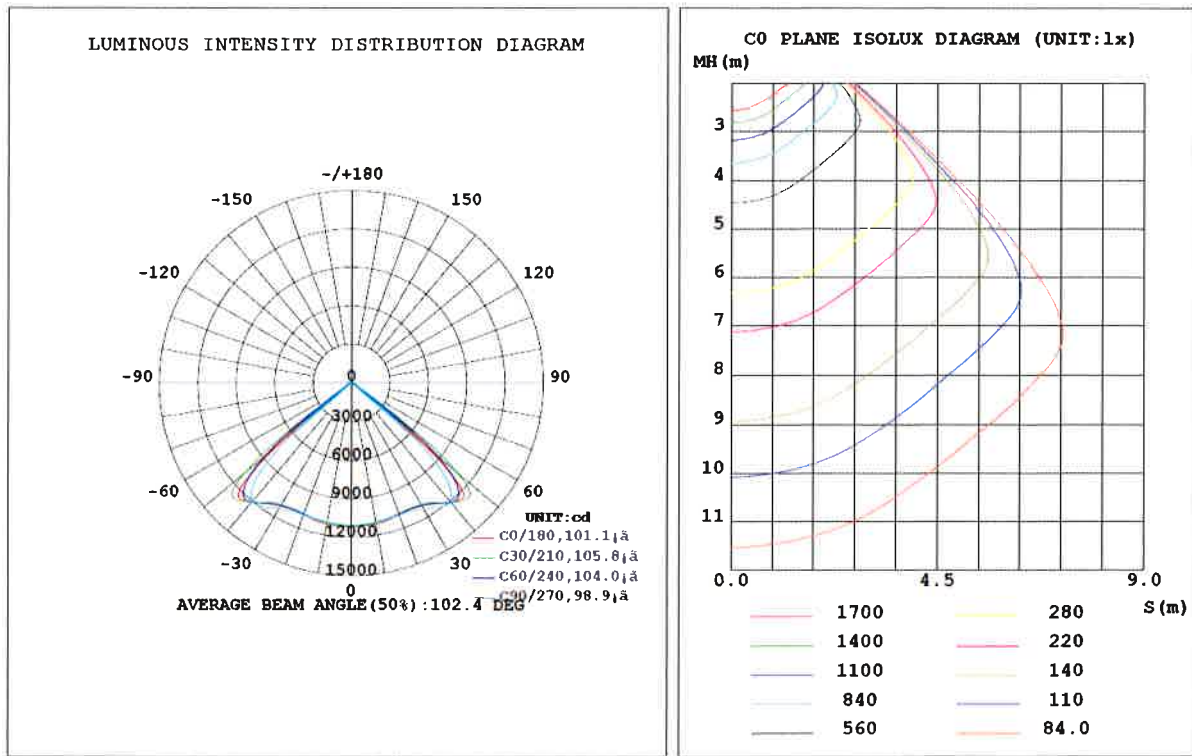
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**2 Fotometrik Deney Sonuçları (Photometric Test Results)**





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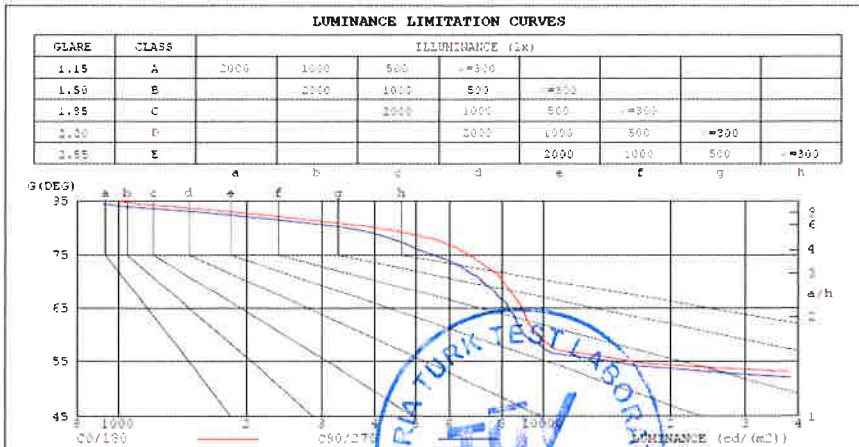
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**2 Fotometrik Deney Sonuçları (Photometric Test Results)**

**ZONAL FLUX DIAGRAM**  
**AND LUMINANCE LIMITATION CURVES**

ZONAL FLUX DIAGRAM:

| y   | C0     | C45    | C90    | C135   | C180   | C225   | C270   | C315   | y       | Φ zona | Φ total | klum.lamp |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|---------|-----------|
| 5   | 1116   | 1108   | 1104   | 1108   | 1116   | 1108   | 1104   | 1108   | 0- 5    | 265.8  | 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   | 57.8,57.8 |
| 45  | 1245   | 1271   | 1047   | 1271   | 1245   | 1271   | 1047   | 1271   | 40- 45  | 4501   | 20925   | 73.6,73.6 |
| 50  | 736.9  | 1059   | 512.4  | 1059   | 736.9  | 1059   | 512.4  | 1059   | 45- 50  | 4347   | 25276   | 98.9,98.9 |
| 55  | 91.46  | 361.6  | 80.93  | 361.6  | 91.46  | 361.6  | 80.93  | 361.6  | 50- 55  | 2109   | 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   | 88.1,98.1 |
| 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  | 15.37  | 28431   | 100,100   |
| 90  | 0.0050 | 0.0025 | 0.0002 | 0.0025 | 0.0050 | 0.0025 | 0.0002 | 0.0025 | 85- 90  | 1.901  | 28433   | 100,100   |
| 95  | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 90- 95  | 0.0002 | 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 | 0.0453 | 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 | 0.1431 | 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(DES) | 29/180 | 290/270 |
|--------|--------|---------|
| 95     | 1005   | 789     |
| 80     | 4966   | 3427    |
| 75     | 6693   | 5559    |
| 70     | 9075   | 7206    |
| 65     | 8922   | 8269    |
| 60     | 9742   | 9000    |
| 55     | 15945  | 14110   |
| 50     | 114641 | 79717   |
| 45     | 176076 | 148973  |

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

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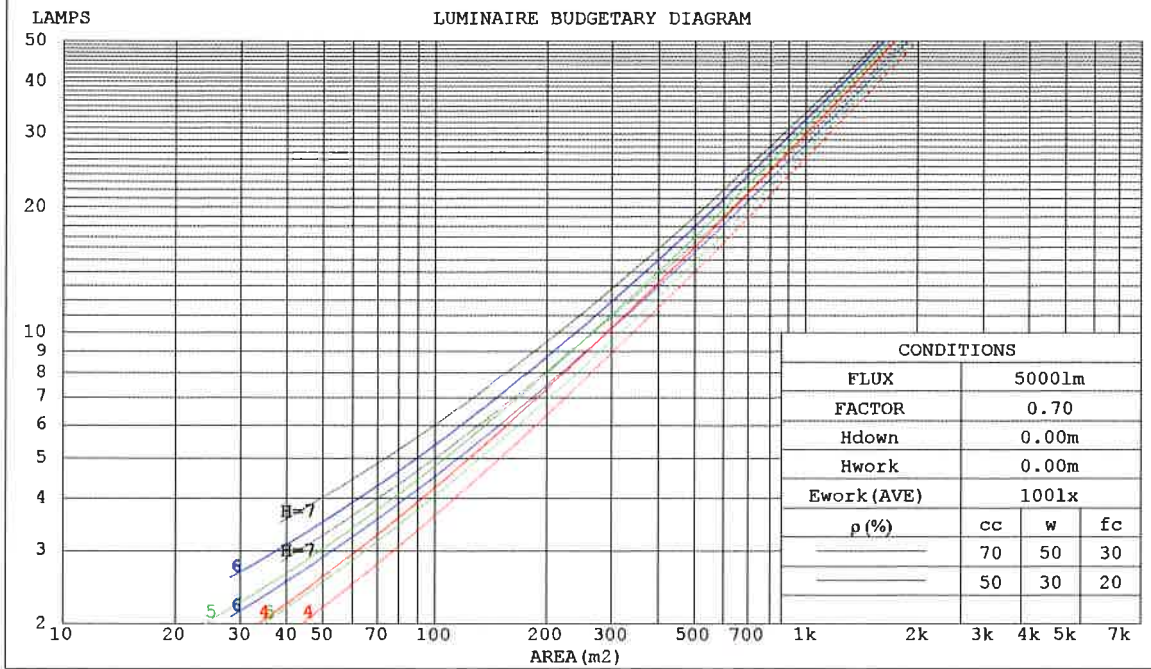
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**2 Fotometrik Deney Sonuçları (Photometric Test Results)**

**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   |
| pfc  | 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 |



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

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**2 Fotometrik Deney Sonuçları (Photometric Test Results)****WEC AND CCEC**

| $\rho_{cc}$ | 80%                   |      |      | 70%  |      |      | 50%                             |      |      | 30%  |      |      | 10%  |      |      | 0 |
|-------------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|---|
| $\rho_w$    | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| $\rho_{fc}$ | 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 |   |

| $\rho_{cc}$ | 80%                   |      |      | 70%  |      |      | 50%  |      |      | 30%  |      |      | 10%  |      |      | 0 |
|-------------|-----------------------|------|------|------|------|------|--|------|------|------|------|------|------|------|------|---|
| $\rho_w$    | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| $\rho_{fc}$ | 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 |   |



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## ÖLÇÜM RAPORU MEASUREMENT REPORT

### 2 Fotometrik Deney Sonuçları (Photometric 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. (8log(F/F0) = 11.6)



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**2 Fotometrik Deney Sonuçları (Photometric 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 |     |     |        |



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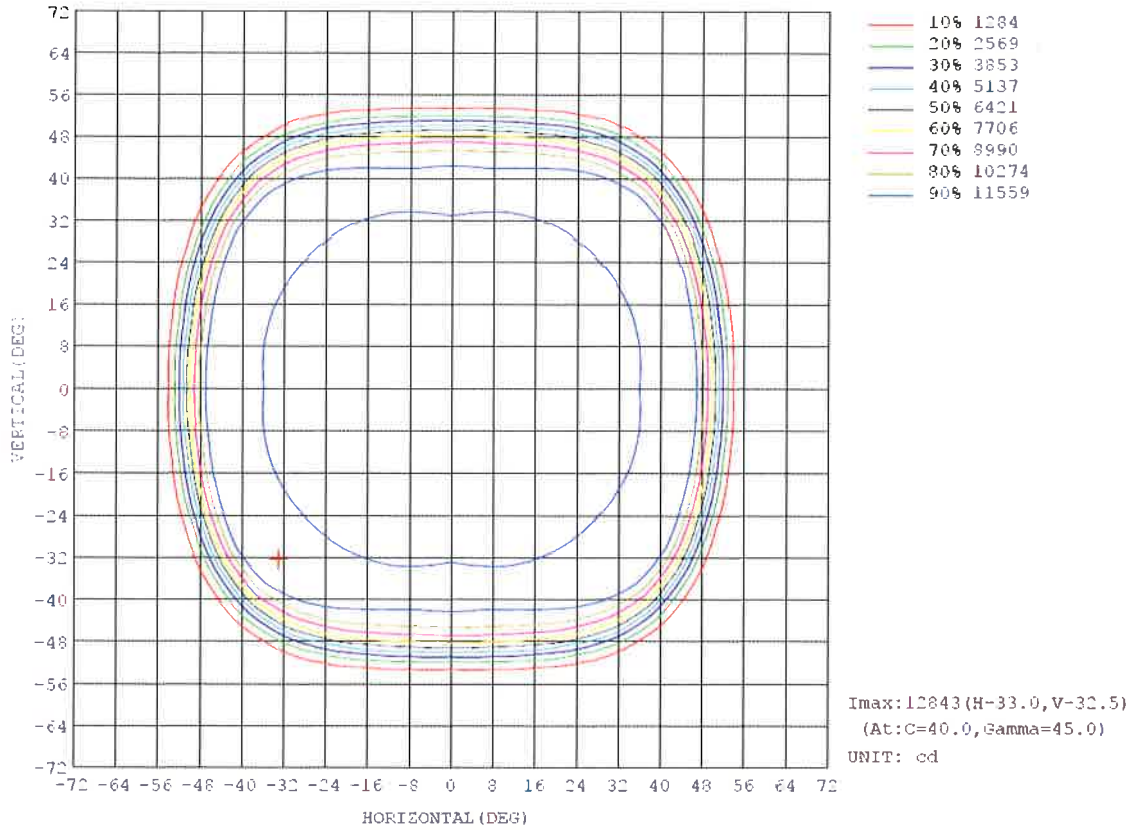
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**2 Fotometrik Deney Sonuçları (Photometric Test Results)**

**ISOCANDELA DIAGRAM**





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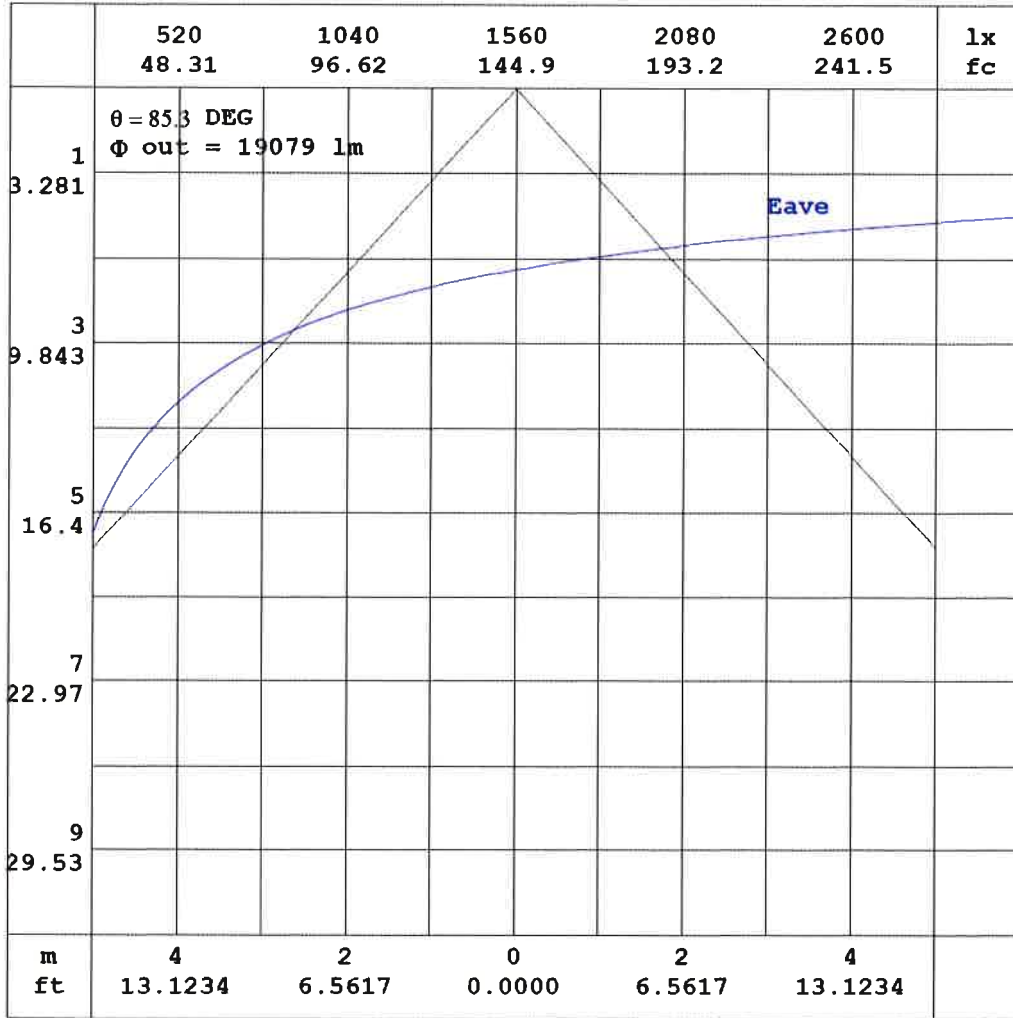
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**2 Fotometrik Deney Sonuçları (Photometric Test Results)**

**AAI CURVES**



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



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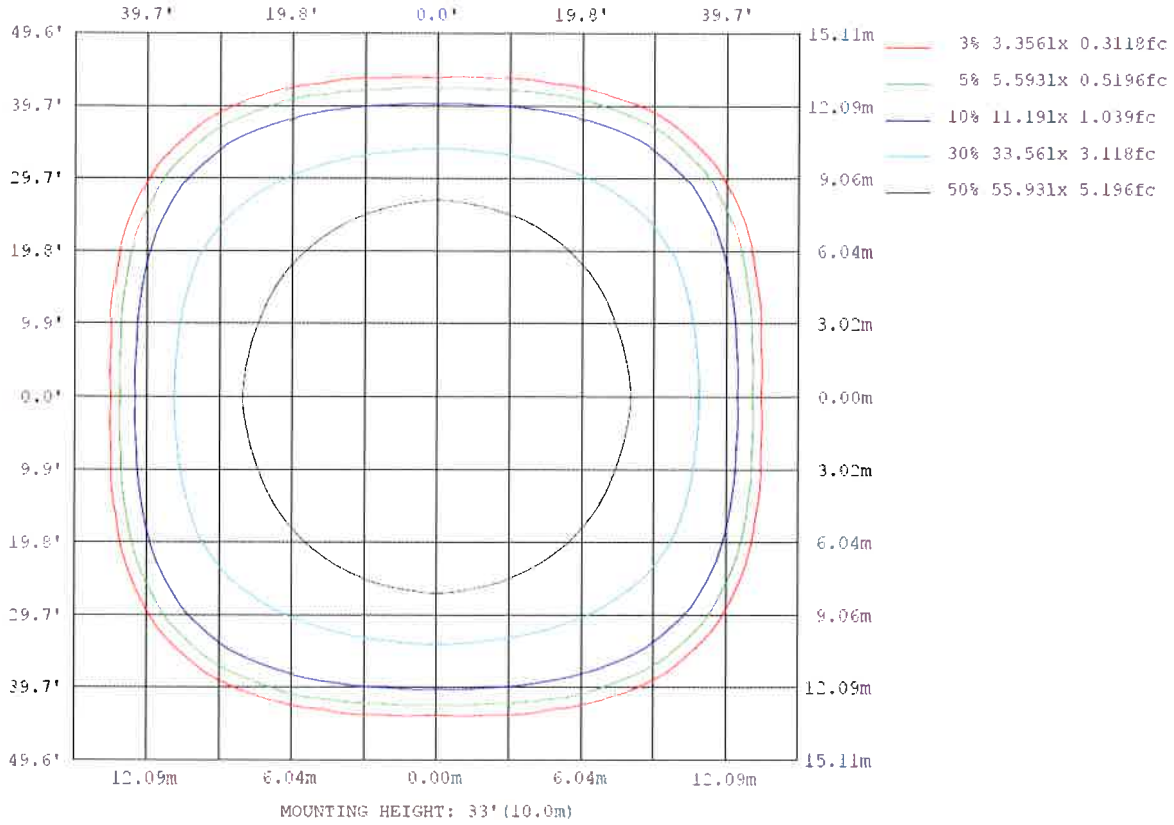
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**2 Fotometrik Deney Sonuçları (Photometric Test Results)**

**ISOLUX DIAGRAM**



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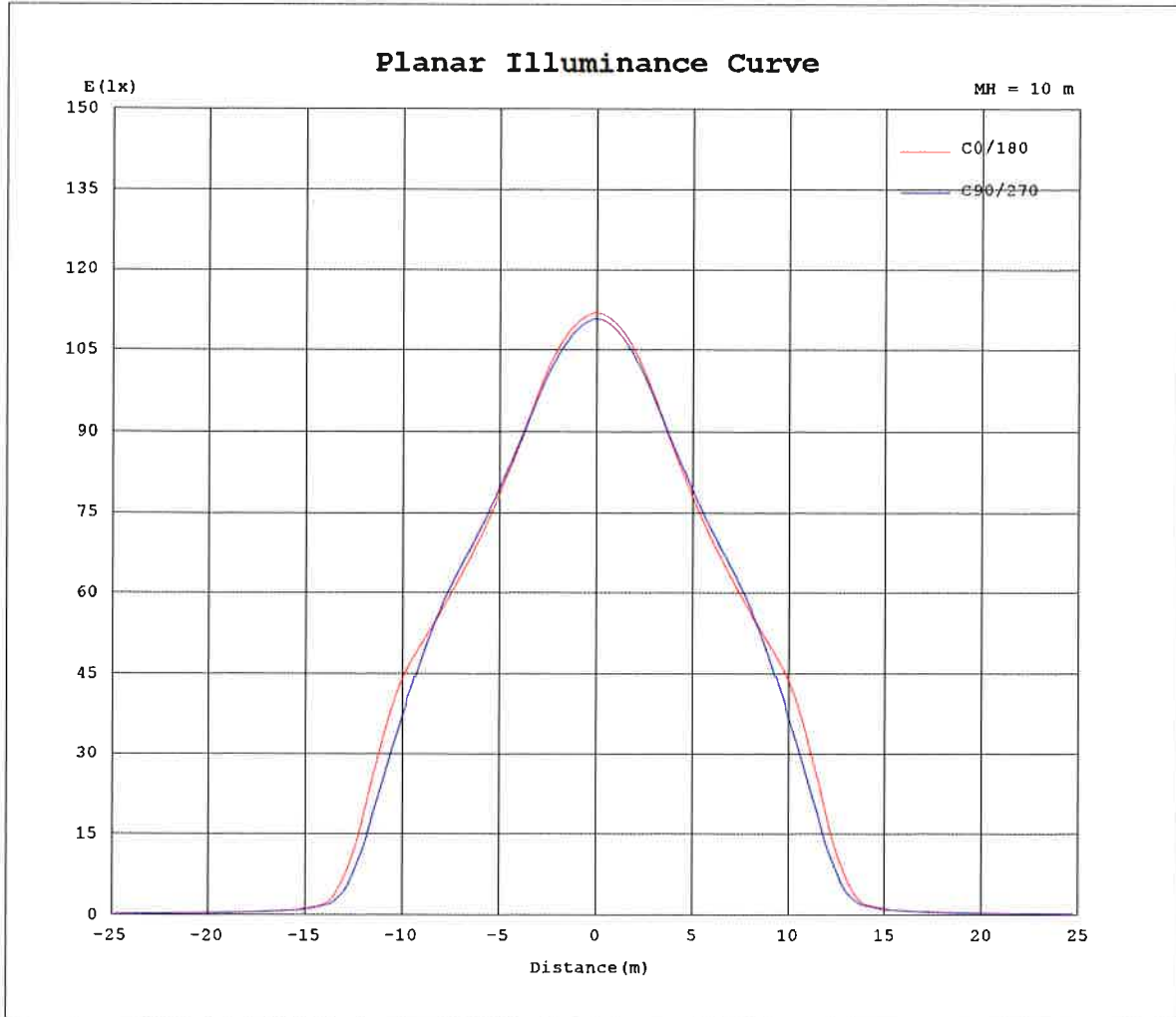
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**2 Fotometrik Deney Sonuçları (Photometric Test Results)**

**Planar Illuminance Curve**



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

(Electrical Measurements)

|   |                   |
|---|-------------------|
| <b>Ölçülen Güç (W)</b><br>(Input Power)   | 240,1             |
| <b>Ölçülen Gerilim (V)</b><br>(Input Voltage)                                   | 240               |
| <b>Ölçülen Akım (A)</b><br>(Input Current)                                      | 1,022             |
| <b>Güç Faktörü (PF)</b><br>(Power Factor)                                       | 0,9788            |
| <b>Ölçülen Frekans (Hz)</b><br>(Input Frequency)                                | 50                |
| <b>Ortam Sıcaklığı / Bağıl Nem</b><br>(Ambient Temperature / Relative Humidity) | 25.1 °C<br>49% Rh |
| <b>Stabilizasyon Süresi</b><br>(Stabilization Time)                             | 45 min ±5 min     |

**Spektrokolorimetrik Ölçüm Sonuçları**

(Spectrocolorimetric Measurement Results)

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





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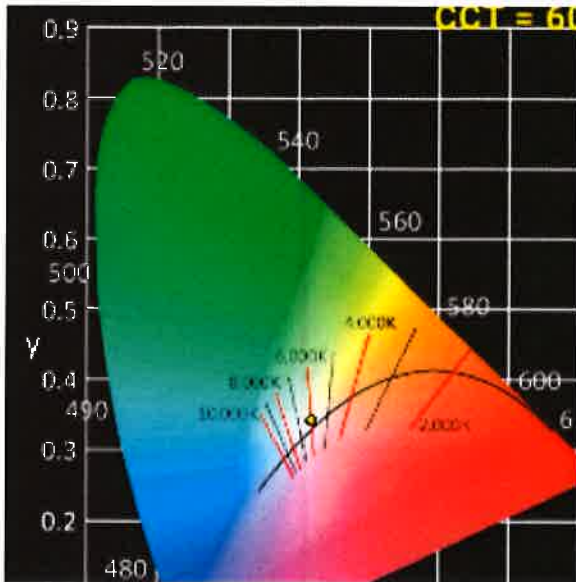
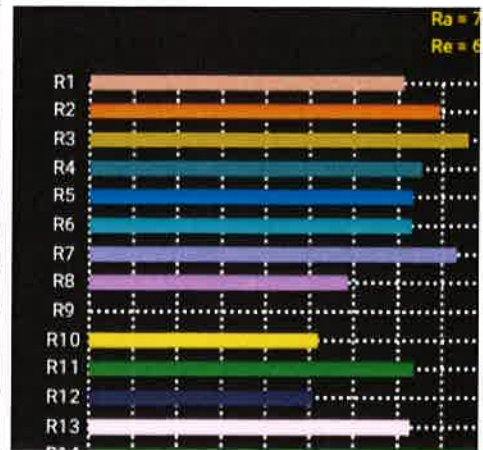
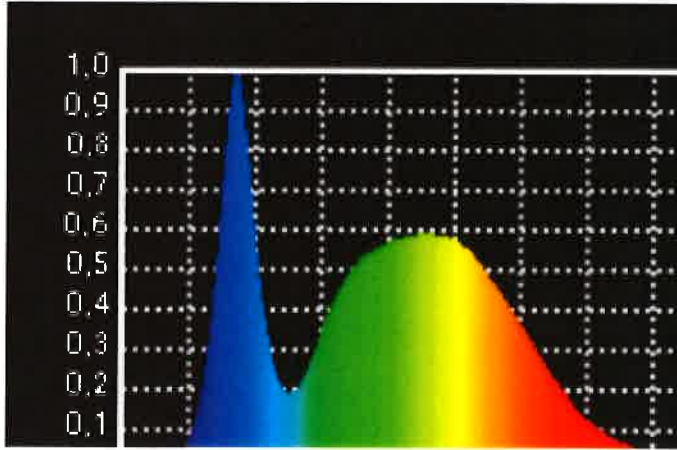
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**2 Spektrokolorimetrik Deney Sonuçları (Spectrocolorimetric Test Results)**



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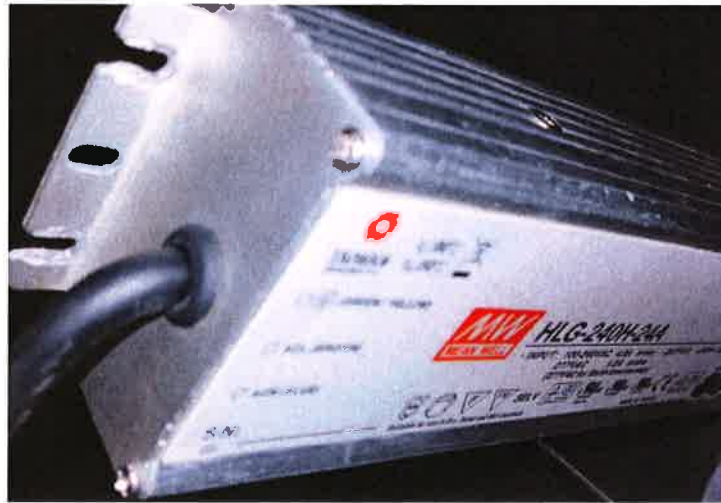
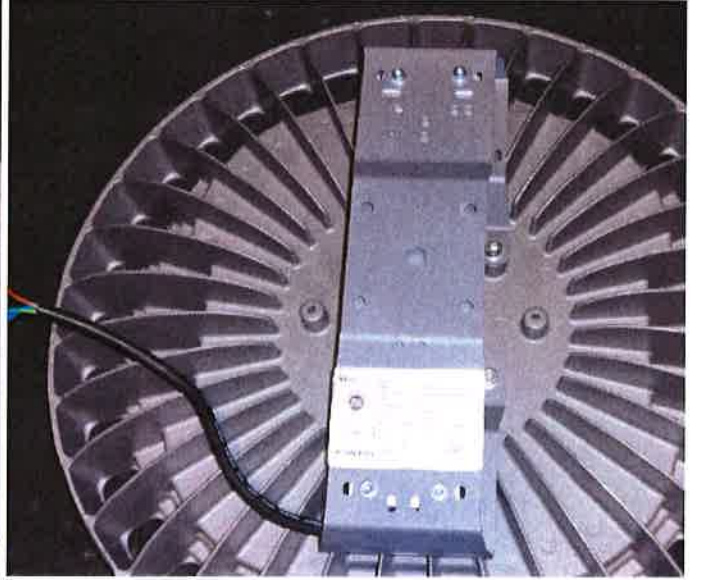
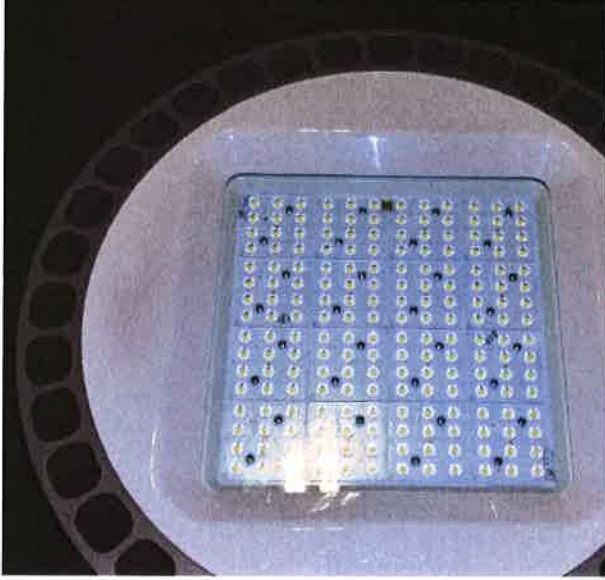
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**3.1 DGC'nin Fotoğrafları (Photos of EUT)**



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3.1 DGC'nin Fotoğrafları (Photos of EUT)

