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ÖLÇÜM RAPORU
MEASUREMENT REPORT

TL-806

19-TST-0095-
180

08-19

Müşterinin Adı Adresi
Customer name/address

: HERA EĞLENCE VE MİMARİ AYDINLATMA SİSTEMLERİ A.Ş.
Güllübağlar Mah. Kahramanlar Cad. No:3-1 34906 PENDİK-
İSTANBUL/TÜRKİYE

İstek Numarası
Order No

: 19-TST-0095

Numunenin Adı ve Tarifi
Name and identity of test item

: Leoline® S12 915mm DMX SC WW Linear Asymmetric Beam 35+15°

Numunenin kabul tarihi
The date of receipt of test item

: 31.07.2019

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

: 05.08.2019

Raporun Sayfa Sayısı
Number of Pages of the Report

:18

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.

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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

Gürhan CANSIZ

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 | : HERA |
| Modeli / Model | : Leoline® S12 915mm DMX SC WW Linear Asymmetric Beam 35+15° |
| Seri Numarası / Serial Number | : Test Numunesi Test Sample |
| Beyan Gücü / Rated Power | : 43,7 W |
| Beyan Gerilimi / Rated Voltage | : 48 VDC |
| Sembollerin Tanımı / Definitions of Symbols | DGC= Deneden 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 | 05.06.2020 | <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 | 28.05.2020 | <input checked="" type="checkbox"/> |

1.3 Komponent listesi (Component list)

| Komponent (Component) | Üretici (Manufacturer) | Model (Model) | Teknik Bilgi (Technical Data) | Standart no. (Standart No.) |
|-----------------------|------------------------|--------------------------------|--|---|
| LED | Cree Inc | XTEAWT 2700-3000K White Led | Binned at 85 °C • Thermal resistance: 5 °C/W • Wide viewing angle: 115°-140° Maximum drive current: White 1.5 A, Royal Blue 1.5 A Maximum Vf for High Efficacy XT-E White: 2.85 V Available in 2200 K CCT | UL (E349212) RoHS REACH |
| PCB | PCB | C13088_R1.1 | 0.8mm FR4 4 Layers 35+35+35+35umCu/ BlackSolderMask/Whi teSilkScreen | IPC A 600 J Class II Revizyon J standardı (COC) IPC 6012 Class II UL FQC |
| LENS | LEDIL | CA11052 TINA2-O- 35+15 | Dimensions Ø 16.1 mm Height 9.7 mm | ANSI/ESD S20.20:2014 EN 61340-5- 1:2007 |

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

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2.1 WW Fotometrik Deney Sonuçları (Photometric Test Results of the WW)**Elektriksel Ölçümler**

(Electrical Measurements)

| | |
|---|-------------------|
| Ölçülen Güç (W) (Input Power) | 42,22 W |
| Ölçülen Gerilim (V) (Input Voltage) | 46,92 VDC |
| Ölçülen Akım (A) (Input Current) | 0,90 A |
| Güç Faktörü (PF) (Power Factor) | - |
| Ölçülen Frekans (Hz) (Input Frequency) | - |
| Ortam Sıcaklığı / Bağıl Nem (Ambient Temperature / Relative Humidity) | 24.9 °C 47% Rh |
| Stabilizasyon Süresi (Stabilization Time) | 60 dk ±5dk |

Fotometrik Ölçüm Sonuçları

(Photometric Measurement Results)

| | |
|---|--------|
| Toplam Işık Akısı (Total Luminous Flux) (lm) | 2860,4 |
| Maksimum Işık Şiddeti (Max. Light Intensity) (cd) | 8951 |
| Armatür Etkinliği (Luminaire Efficacy) (lm/W) | 67,75 |



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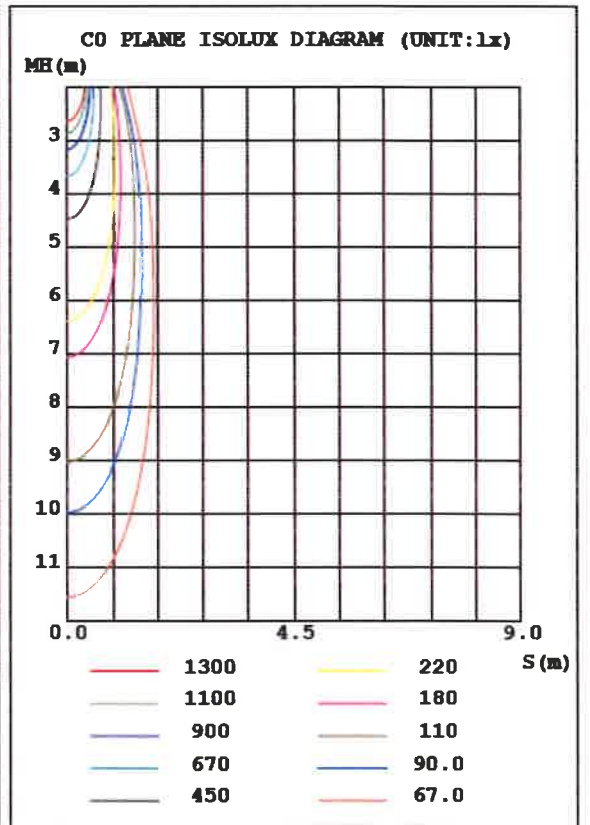
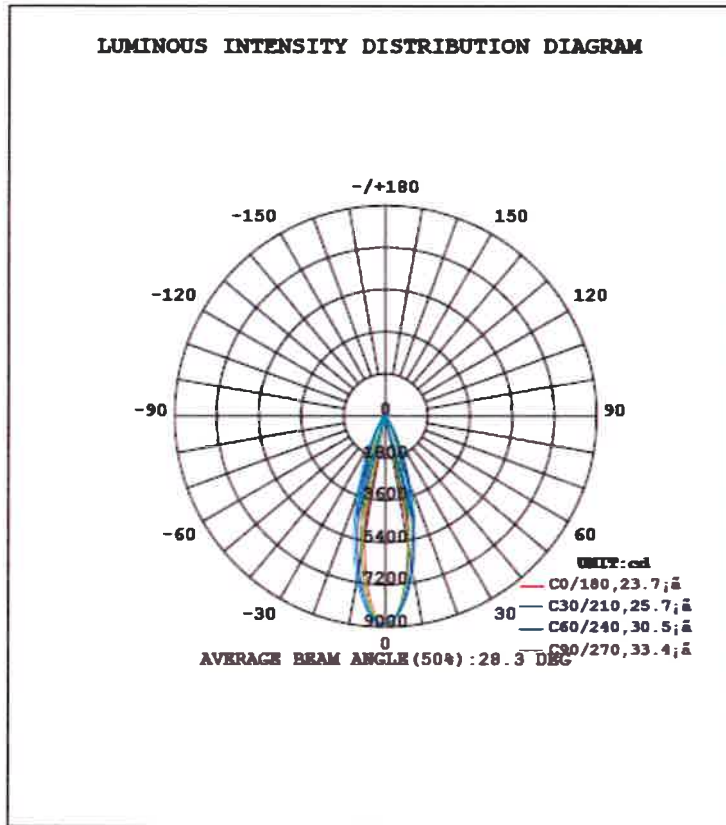
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2.1 WW Fotometrik Deney Sonuçları (Photometric Test Results of the WW)



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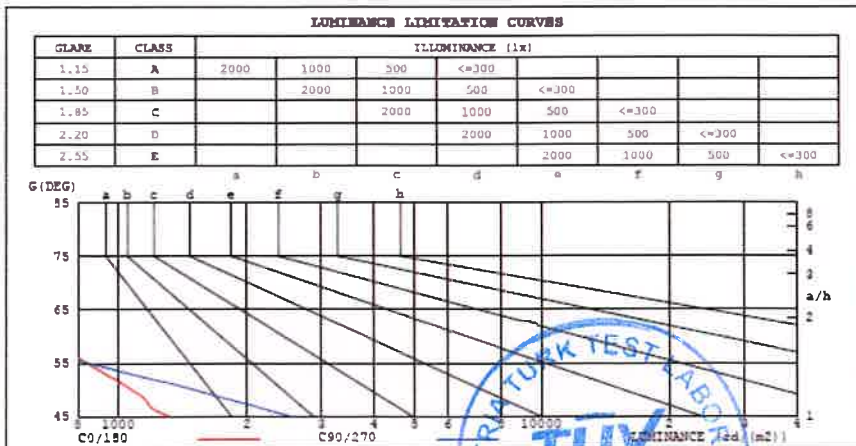
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2.1 WW Fotometrik Deney Sonuçları (Photometric Test Results of the WW)

**ZONAL FLUX DIAGRAM
AND LUMINANCE LIMITATION CURVES**

ZONAL FLUX DIAGRAM:

| y | C0 | C48 | C90 | C135 | C180 | C225 | C270 | C315 | y | @ 5mm | @ 30cm | Ulim,lm/m² |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|------------|
| 5 | 7854 | 8172 | 8388 | 8591 | 8785 | 8974 | 9157 | 9329 | 0- 5 | 232.8 | 202.8 | 7.09.7.09 |
| 10 | 5342 | 6249 | 7008 | 7602 | 8030 | 8307 | 8534 | 8711 | 5- 10 | 308.9 | 708.7 | 24.8.24.8 |
| 15 | 3025 | 4089 | 5194 | 6306 | 7122 | 7629 | 7981 | 8283 | 10- 15 | 393.0 | 1302 | 45.9.45.3 |
| 20 | 1692 | 2391 | 3268 | 4205 | 5004 | 5589 | 6007 | 6369 | 15- 20 | 512.8 | 1915 | 63.6.63.5 |
| 25 | 920.6 | 1327 | 1801 | 2335 | 2829 | 3283 | 3698 | 4075 | 20- 25 | 678.6 | 2192 | 76.6.76.6 |
| 30 | 474.4 | 723.7 | 1019 | 1362 | 1752 | 2189 | 2674 | 3107 | 25- 30 | 908.0 | 2440 | 85.2.85.2 |
| 35 | 288.0 | 391.0 | 506.1 | 632.7 | 770.6 | 920.2 | 1081.6 | 1254.6 | 30- 35 | 1185.4 | 2594 | 90.7.90.7 |
| 40 | 146.4 | 220.4 | 329.9 | 465.5 | 628.5 | 810.6 | 1012.7 | 1235.8 | 35- 40 | 1597.7 | 2692 | 94.1.94.1 |
| 45 | 92.67 | 129.3 | 179.2 | 240.8 | 324.0 | 430.2 | 559.1 | 701.1 | 40- 45 | 2061.9 | 2752 | 96.2.96.2 |
| 50 | 68.75 | 90.22 | 121.71 | 160.07 | 210.26 | 274.95 | 356.95 | 457.02 | 45- 50 | 2588.8 | 2791 | 97.4.97.4 |
| 55 | 49.26 | 65.62 | 88.99 | 118.54 | 158.78 | 212.48 | 282.25 | 368.27 | 50- 55 | 3188.6 | 2816 | 98.5.98.5 |
| 60 | 34.18 | 46.66 | 63.70 | 86.22 | 113.34 | 150.89 | 198.09 | 254.29 | 55- 60 | 3854.0 | 2822 | 99.1.99.1 |
| 65 | 23.98 | 31.01 | 41.50 | 55.31 | 73.42 | 97.89 | 129.13 | 167.13 | 60- 65 | 4588.5 | 2845 | 99.5.99.5 |
| 70 | 18.27 | 22.00 | 29.448 | 39.09 | 51.07 | 67.27 | 89.78 | 118.78 | 65- 70 | 5394.0 | 2852 | 99.7.99.7 |
| 75 | 7.724 | 9.935 | 13.145 | 17.362 | 22.827 | 30.022 | 39.695 | 52.375 | 70- 75 | 6374.0 | 2858 | 99.9.99.9 |
| 80 | 2.973 | 2.185 | 2.873 | 3.777 | 4.913 | 6.397 | 8.409 | 11.149 | 75- 80 | 7534.0 | 2860 | 100.100 |
| 85 | 0.4824 | 0.2956 | 0.3911 | 0.5160 | 0.6771 | 0.8808 | 1.1408 | 1.4722 | 80- 85 | 8880.0 | 2860 | 100.100 |
| 90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 85- 90 | 10320.0 | 2860 | 100.100 |
| 95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 90- 95 | 11850.0 | 2860 | 100.100 |
| 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 95-100 | 13480.0 | 2860 | 100.100 |
| 105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100-105 | 15210.0 | 2860 | 100.100 |
| 110 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 105-110 | 17040.0 | 2860 | 100.100 |
| 115 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 110-115 | 18970.0 | 2860 | 100.100 |
| 120 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 115-120 | 21000.0 | 2860 | 100.100 |
| 125 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 120-125 | 23130.0 | 2860 | 100.100 |
| 130 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 125-130 | 25360.0 | 2860 | 100.100 |
| 135 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130-135 | 27690.0 | 2860 | 100.100 |
| 140 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 135-140 | 30120.0 | 2860 | 100.100 |
| 145 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 140-145 | 32650.0 | 2860 | 100.100 |
| 150 | 0 | 0.0059 | 0.0639 | 0.2012 | 0 | 0.0027 | 0.0428 | 0 | 145-150 | 35280.0 | 2860 | 100.100 |
| 155 | 0 | 0.1231 | 0.2672 | 0.4983 | 0 | 0.0027 | 0.0428 | 0 | 150-155 | 38010.0 | 2860 | 100.100 |
| 160 | 0.1984 | 0.2280 | 0.4988 | 0.2690 | 0.0427 | 0.0683 | 0.1082 | 0.0367 | 155-160 | 40840.0 | 2860 | 100.100 |
| 165 | 0.3921 | 0.4914 | 0.6123 | 0.4286 | 0.1468 | 0.1470 | 0.1696 | 0.1117 | 160-165 | 43770.0 | 2860 | 100.100 |
| 170 | 0.5247 | 0.5984 | 0.6823 | 0.5421 | 0.2382 | 0.2246 | 0.1892 | 0.1646 | 165-170 | 46800.0 | 2860 | 100.100 |
| 175 | 0.5618 | 0.6202 | 0.6762 | 0.5624 | 0.3042 | 0.3190 | 0.2391 | 0.2081 | 170-175 | 49930.0 | 2860 | 100.100 |
| 180 | 0.5326 | 0.5895 | 0.6476 | 0.4922 | 0.3401 | 0.3578 | 0.3140 | 0.2712 | 175-180 | 53160.0 | 2860 | 100.100 |
| 185 | | | | | | | | | | | | |
| 190 | | | | | | | | | | | | |
| 195 | | | | | | | | | | | | |
| 200 | | | | | | | | | | | | |



LUMINANCE cd/(m²)

| G (DEG) | C0/180 | C90/270 |
|---------|--------|---------|
| 85 | 55 | 22 |
| 90 | 171 | 108 |
| 75 | 298 | 187 |
| 70 | 449 | 276 |
| 65 | 567 | 290 |
| 60 | 682 | 554 |
| 55 | 541 | 954 |
| 50 | 1070 | 1505 |
| 45 | 1211 | 2535 |

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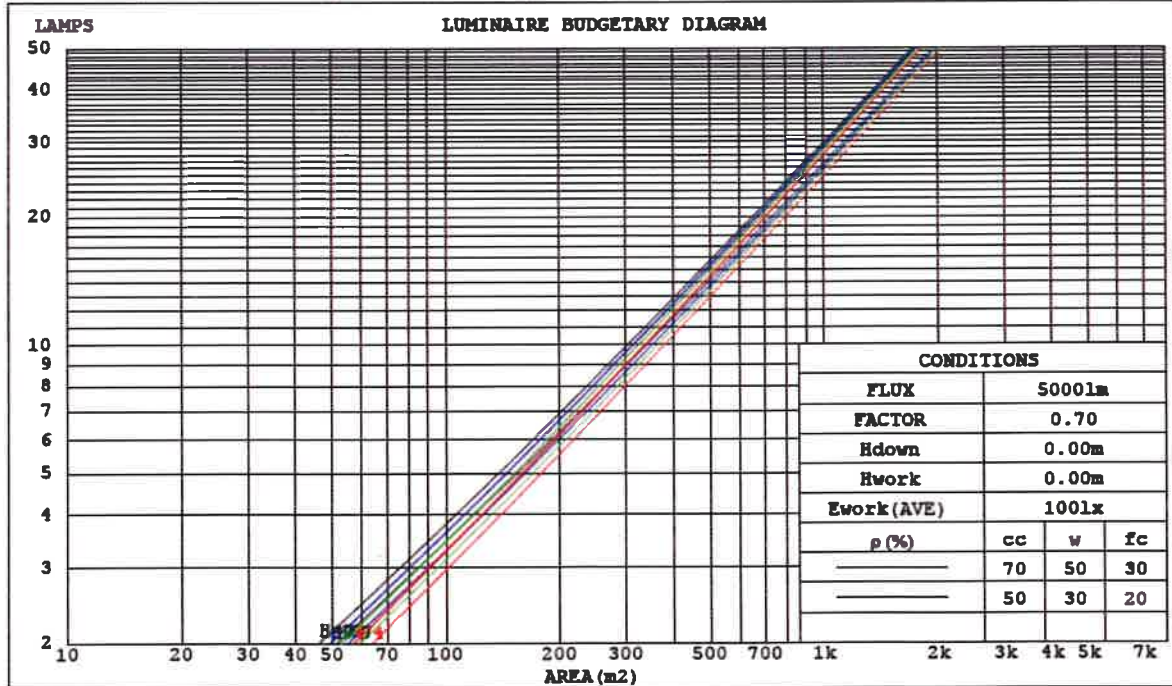
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2.1 WW Fotometrik Deney Sonuçları (Photometric Test Results of the WW)

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 |
| ffc | 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 | 1.12 | 1.10 | 1.08 | 1.10 | 1.08 | 1.06 | 1.06 | 1.04 | 1.03 | 1.02 | 1.01 | .00 | .99 | .98 | .97 | .96 |
| 2.0 | 1.05 | 1.02 | .99 | 1.04 | 1.01 | .98 | 1.01 | .98 | .96 | .98 | .96 | .94 | .96 | .93 | .92 | .90 |
| 3.0 | .00 | .96 | .92 | .98 | .95 | .91 | .96 | .93 | .90 | .94 | .91 | .89 | .91 | .89 | .87 | .86 |
| 4.0 | .95 | .90 | .87 | .94 | .89 | .86 | .92 | .88 | .85 | .90 | .87 | .84 | .88 | .85 | .83 | .82 |
| 5.0 | .90 | .85 | .82 | .89 | .86 | .81 | .88 | .84 | .81 | .86 | .83 | .80 | .85 | .82 | .79 | .78 |
| 6.0 | .86 | .81 | .78 | .85 | .81 | .77 | .84 | .80 | .77 | .83 | .79 | .76 | .82 | .78 | .76 | .75 |
| 7.0 | .83 | .78 | .74 | .82 | .77 | .74 | .81 | .77 | .74 | .80 | .76 | .73 | .79 | .75 | .73 | .72 |
| 8.0 | .79 | .74 | .71 | .79 | .74 | .71 | .78 | .73 | .70 | .77 | .73 | .70 | .76 | .72 | .70 | .69 |
| 9.0 | .76 | .71 | .68 | .76 | .71 | .68 | .75 | .71 | .68 | .74 | .70 | .67 | .73 | .70 | .67 | .66 |
| 10.0 | .73 | .69 | .65 | .73 | .68 | .65 | .72 | .68 | .65 | .72 | .68 | .65 | .71 | .67 | .65 | .64 |



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2.1 WW Fotometrik Deney Sonuçları (Photometric Test Results of the WW)

WEC AND CCEC

| pcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|-----------------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|---|
| p _w | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| p _{fc} | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio | | | | | | Wall Exitance Coefficients(WEC) | | | | | | | | | |
| 0.0 | | | | | | | | | | | | | | | | |
| 1.0 | .157 | .089 | .028 | .150 | .086 | .027 | .137 | .079 | .025 | .126 | .073 | .023 | .115 | .067 | .022 | |
| 2.0 | .148 | .081 | .025 | .142 | .078 | .024 | .132 | .073 | .023 | .122 | .069 | .021 | .113 | .064 | .020 | |
| 3.0 | .139 | .074 | .022 | .134 | .072 | .022 | .126 | .068 | .021 | .118 | .064 | .020 | .110 | .061 | .019 | |
| 4.0 | .131 | .068 | .020 | .127 | .067 | .020 | .120 | .064 | .019 | .113 | .061 | .018 | .106 | .058 | .018 | |
| 5.0 | .124 | .063 | .018 | .121 | .062 | .018 | .114 | .060 | .018 | .108 | .057 | .017 | .103 | .055 | .016 | |
| 6.0 | .118 | .059 | .017 | .115 | .058 | .017 | .109 | .056 | .016 | .104 | .054 | .016 | .099 | .052 | .015 | |
| 7.0 | .112 | .055 | .016 | .110 | .055 | .016 | .105 | .053 | .015 | .100 | .051 | .015 | .096 | .050 | .015 | |
| 8.0 | .107 | .052 | .015 | .105 | .052 | .015 | .100 | .050 | .014 | .096 | .049 | .014 | .092 | .047 | .014 | |
| 9.0 | .102 | .049 | .014 | .100 | .049 | .014 | .096 | .048 | .014 | .093 | .046 | .013 | .089 | .045 | .013 | |
| 10.0 | .098 | .047 | .013 | .096 | .046 | .013 | .093 | .045 | .013 | .089 | .044 | .013 | .086 | .043 | .012 | |

| pcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|-----------------|-----------------------|------|------|------|------|------|---|------|------|------|------|------|------|------|------|---|
| p _w | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| p _{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 | .170 | .158 | .147 | .145 | .135 | .126 | .099 | .093 | .087 | .057 | .054 | .051 | .018 | .017 | .016 | |
| 2.0 | .153 | .133 | .115 | .131 | .114 | .100 | .090 | .079 | .070 | .052 | .046 | .041 | .017 | .015 | .013 | |
| 3.0 | .139 | .113 | .093 | .119 | .098 | .081 | .082 | .068 | .056 | .047 | .040 | .033 | .015 | .013 | .011 | |
| 4.0 | .128 | .098 | .076 | .110 | .085 | .066 | .075 | .059 | .046 | .044 | .035 | .027 | .014 | .011 | .009 | |
| 5.0 | .118 | .086 | .063 | .101 | .075 | .055 | .070 | .052 | .039 | .040 | .031 | .023 | .013 | .010 | .008 | |
| 6.0 | .110 | .077 | .053 | .094 | .066 | .046 | .065 | .047 | .033 | .038 | .027 | .019 | .012 | .009 | .006 | |
| 7.0 | .103 | .069 | .045 | .088 | .060 | .039 | .061 | .042 | .028 | .035 | .025 | .017 | .011 | .008 | .005 | |
| 8.0 | .097 | .062 | .039 | .083 | .054 | .034 | .057 | .038 | .024 | .033 | .022 | .014 | .011 | .007 | .005 | |
| 9.0 | .091 | .057 | .034 | .078 | .049 | .029 | .054 | .035 | .021 | .032 | .020 | .012 | .010 | .007 | .004 | |
| 10.0 | .086 | .052 | .030 | .074 | .045 | .026 | .052 | .032 | .018 | .030 | .019 | .011 | .010 | .006 | .004 | |



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2.1 WW Fotometrik Deney Sonuçları (Photometric Test Results of the WW)

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 | 6.6 | 7.4 | 6.8 | 7.6 | 7.7 | 9.5 | 10.3 | 9.7 | 10.4 | 10.6 |
| 3H | 6.9 | 7.6 | 7.1 | 7.8 | 8.0 | 9.4 | 10.1 | 9.7 | 10.3 | 10.5 |
| 4H | 6.9 | 7.6 | 7.2 | 7.8 | 8.0 | 9.4 | 10.0 | 9.6 | 10.3 | 10.5 |
| 6H | 6.9 | 7.5 | 7.2 | 7.8 | 8.0 | 9.3 | 9.9 | 9.6 | 10.2 | 10.4 |
| 8H | 6.9 | 7.5 | 7.2 | 7.7 | 8.0 | 9.2 | 9.9 | 9.5 | 10.1 | 10.4 |
| 12H | 6.8 | 7.4 | 7.1 | 7.7 | 7.9 | 9.2 | 9.8 | 9.5 | 10.1 | 10.3 |
| 4H 2H | 6.6 | 7.3 | 6.9 | 7.6 | 7.8 | 9.4 | 10.1 | 9.6 | 10.3 | 10.5 |
| 3H | 7.0 | 7.6 | 7.3 | 7.9 | 8.1 | 9.3 | 9.9 | 9.6 | 10.2 | 10.4 |
| 4H | 7.0 | 7.6 | 7.4 | 7.9 | 8.2 | 9.2 | 9.8 | 9.6 | 10.1 | 10.4 |
| 6H | 7.0 | 7.5 | 7.4 | 7.8 | 8.2 | 9.2 | 9.6 | 9.5 | 10.0 | 10.3 |
| 8H | 7.0 | 7.4 | 7.4 | 7.8 | 8.1 | 9.1 | 9.6 | 9.5 | 9.9 | 10.3 |
| 12H | 6.9 | 7.3 | 7.3 | 7.7 | 8.1 | 9.1 | 9.5 | 9.5 | 9.8 | 10.2 |
| 8H 4H | 6.9 | 7.4 | 7.3 | 7.7 | 8.1 | 9.1 | 9.6 | 9.5 | 9.9 | 10.3 |
| 6H | 6.9 | 7.3 | 7.4 | 7.7 | 8.1 | 9.0 | 9.4 | 9.5 | 9.8 | 10.2 |
| 8H | 6.9 | 7.2 | 7.3 | 7.6 | 8.1 | 9.0 | 9.3 | 9.4 | 9.7 | 10.2 |
| 12H | 6.8 | 7.1 | 7.3 | 7.6 | 8.0 | 8.9 | 9.2 | 9.4 | 9.6 | 10.1 |
| 12H 4H | 6.9 | 7.3 | 7.3 | 7.7 | 8.1 | 9.1 | 9.5 | 9.5 | 9.9 | 10.2 |
| 6H | 6.9 | 7.2 | 7.3 | 7.6 | 8.1 | 9.0 | 9.3 | 9.4 | 9.7 | 10.2 |
| 8H | 6.8 | 7.1 | 7.3 | 7.6 | 8.0 | 8.9 | 9.2 | 9.4 | 9.6 | 10.1 |
| Variations with the observer position at spacings: | | | | | | | | | | |
| S = 1.0H | + 1.3 / - 2.0 | | | | | + 3.1 / - 5.3 | | | | |
| 1.5H | + 1.8 / - 1.3 | | | | | + 4.6 / - 4.3 | | | | |
| 2.0H | + 1.8 / - 1.4 | | | | | + 4.0 / - 3.9 | | | | |

CIE Pub.117 Corrected 2860 lm Total Lamp Luminous Flux. (8log(F/F0) = 3.7)



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2.1 WW Fotometrik Denev Sonuları (Photometric Test Results of the WW)**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) $k(RI) \times BCR = 5$ | | | | | | | | | |
| k = 0.60 | 88 | 82 | 78 | 87 | 81 | 78 | 87 | 81 | 78 | 74 |
| 0.80 | 95 | 89 | 86 | 96 | 89 | 86 | 93 | 89 | 85 | 82 |
| 1.00 | 100 | 94 | 90 | 99 | 94 | 90 | 97 | 93 | 90 | 86 |
| 1.25 | 103 | 98 | 95 | 102 | 98 | 95 | 100 | 97 | 94 | 90 |
| 1.50 | 106 | 101 | 98 | 105 | 101 | 98 | 103 | 99 | 97 | 92 |
| 2.00 | 109 | 105 | 102 | 107 | 104 | 101 | 105 | 102 | 99 | 94 |
| 2.50 | 110 | 107 | 104 | 109 | 105 | 103 | 106 | 103 | 101 | 95 |
| 3.00 | 112 | 109 | 106 | 110 | 107 | 105 | 107 | 104 | 103 | 96 |
| 4.00 | 114 | 111 | 109 | 112 | 110 | 108 | 108 | 106 | 105 | 98 |
| 5.00 | 115 | 113 | 111 | 113 | 111 | 110 | 109 | 108 | 106 | 99 |
| ROOM INDEX | UF (total) | | | | | | | | | Direct |
| According to DIN EN 13032-2 2004 | | | Suspended | | | | SEDOM = 1.25 | | | |



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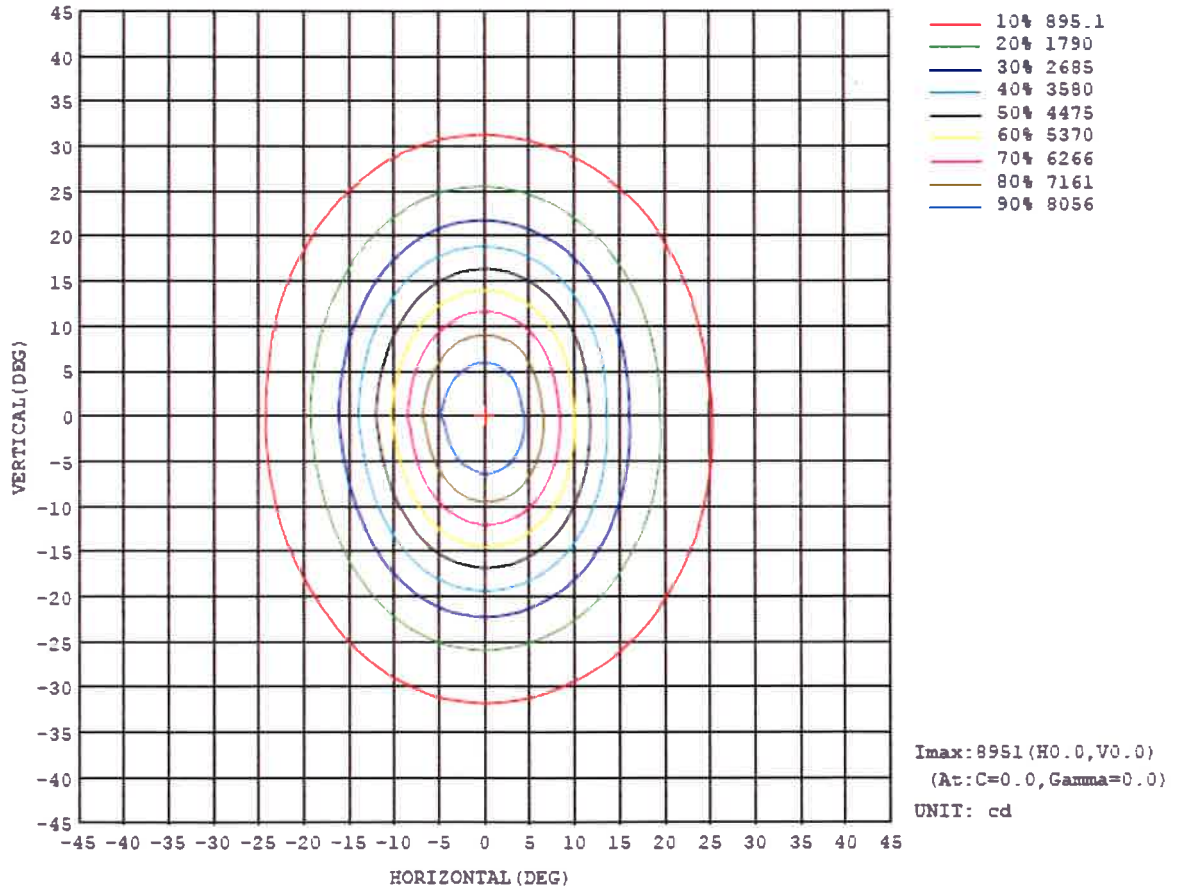
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2.1 WW Fotometrik Deney Sonuçları (Photometric Test Results of the WW)

ISOCANDELA DIAGRAM



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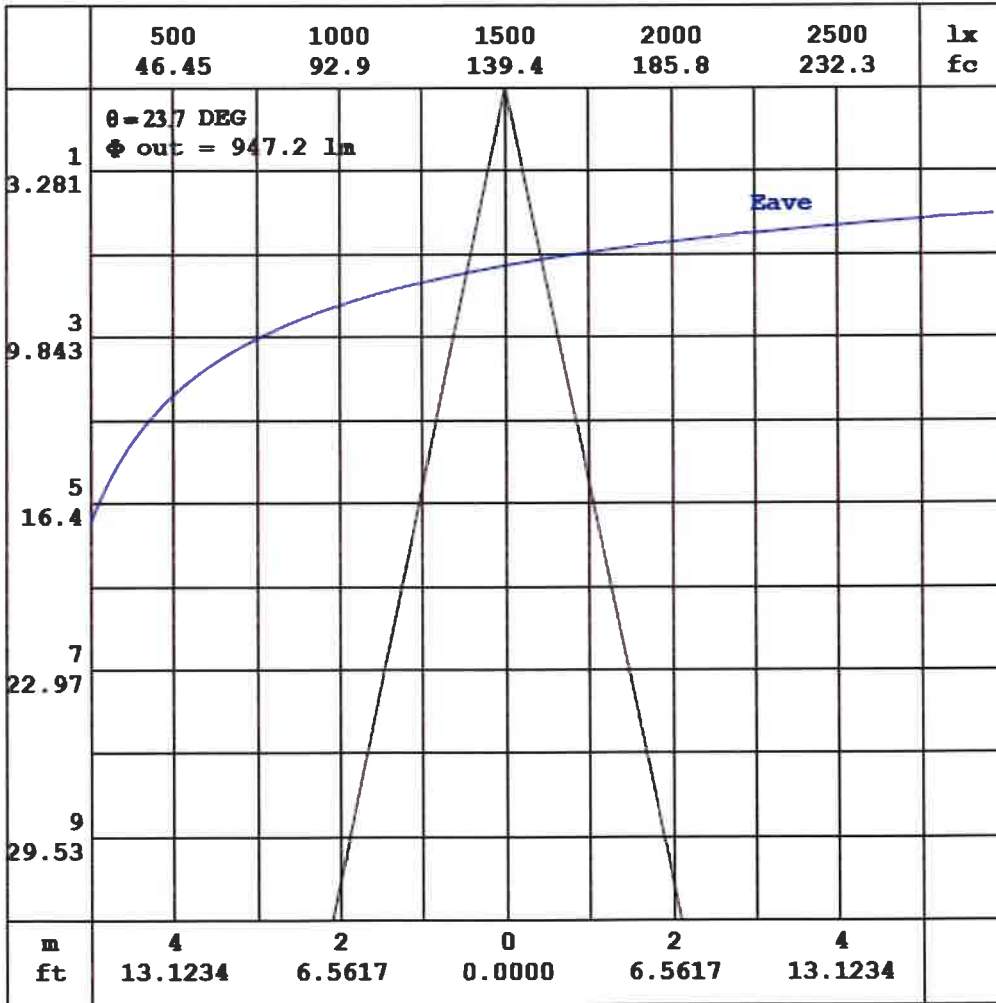
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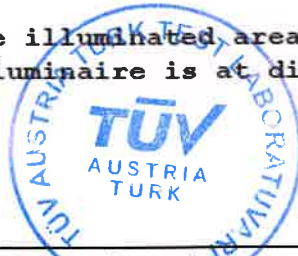
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2.1 WW Fotometrik Deney Sonuçları (Photometric Test Results of the WW)

AAI CURVES



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



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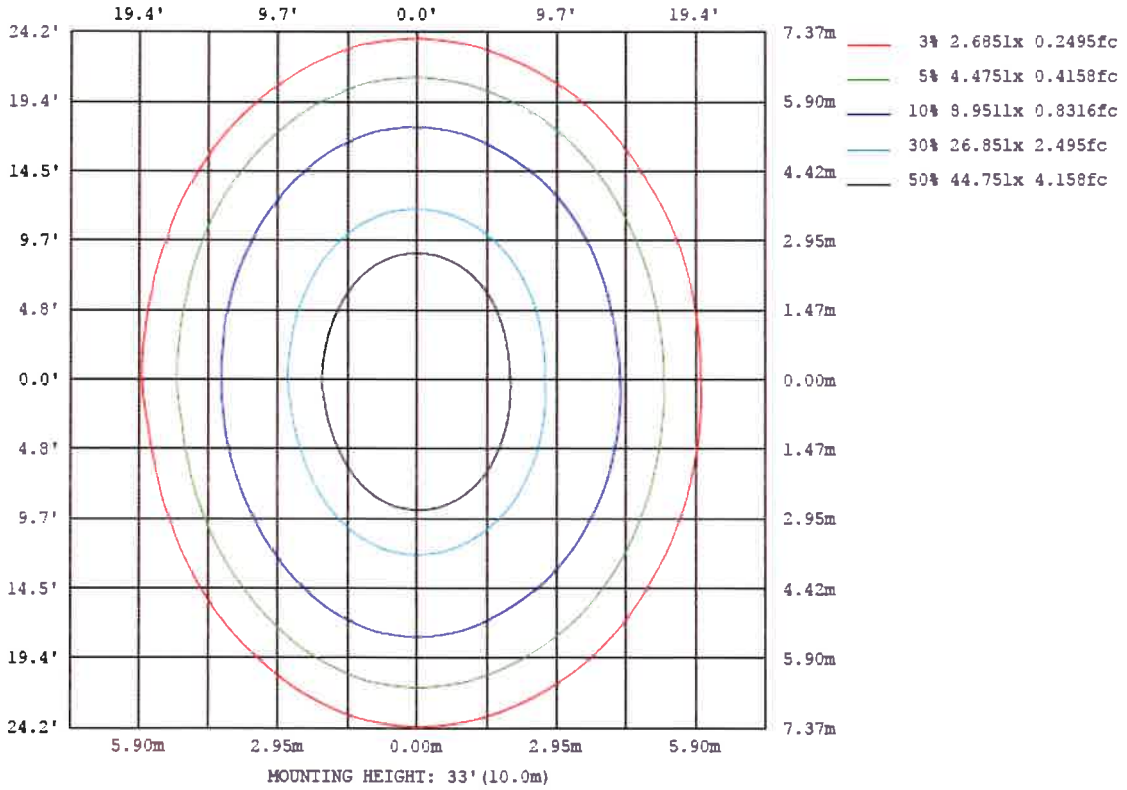
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2.1 WW Fotometrik Deney Sonuçları (Photometric Test Results of the WW)

ISOLUX DIAGRAM



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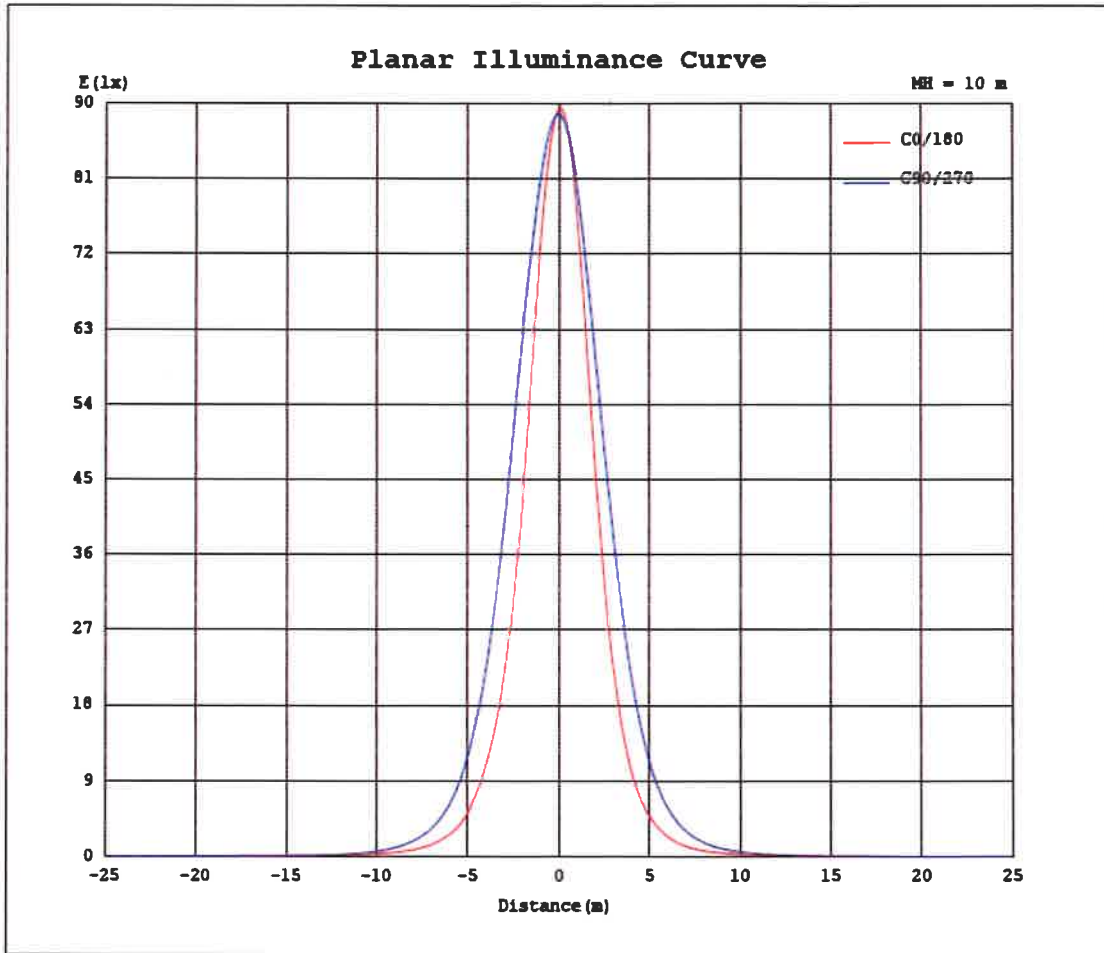
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2.1 WW Fotometrik Deney Sonuçları (Photometric Test Results of the WW)



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2.2 WW Spektrokolorimetrik Deney Sonuçları (spectrocolorimetric Test Results of the WW)**Elektriksel Ölçümler**

(Electrical Measurements)

| | |
|--|-------------------|
| Ölçülen Güç (W) (Input Power) | 42,22 W |
| Ölçülen Gerilim (V) (Input Voltage) | 46,92 VDC |
| Ölçülen Akım (A) (Input Current) | 0,90 A |
| Güç Faktörü (PF) (Power Factor) | - |
| Ölçülen Frekans (Hz) (Input Frequency) | - |
| Ortam Sıcaklığı / Bağıl Nem (Ambient Temperature / Relative Humidity) | 24.9 °C 47% Rh |
| Stabilizasyon Süresi (Stabilization Time) | 60 dk ±5dk |

Spektrokolorimetrik Ölçüm Sonuçları

(Spectrocolorimetric Measurement Results)

| | |
|--------------------|--------|
| Chrom x | 0,4401 |
| Chrom y | 0,4135 |
| Duv | 0,0033 |
| Chrom u' | 0,2486 |
| Chrom v' | 0,5255 |
| Peak | 594 nm |
| Dominant | 582 nm |
| CCT | 3022 K |
| Nominal CCT | - |
| Ra(CRI) | 71 |
| R9 | -30 |
| S/P Ratio | 1,2 |
| Preburning time | 1 hr |
| Test Configuration | 4π |



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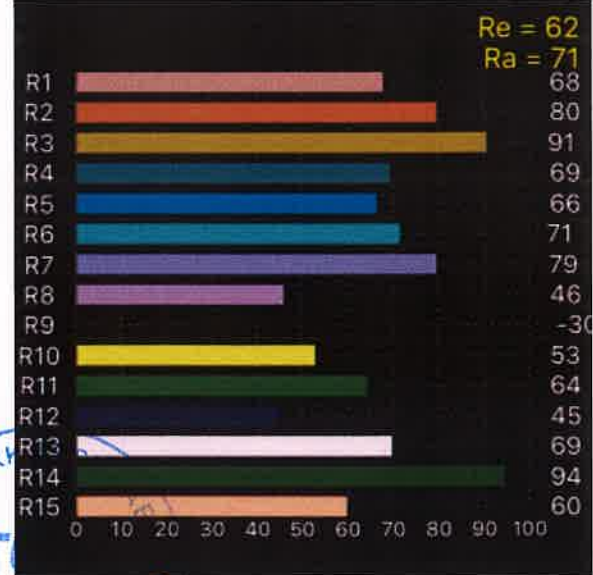
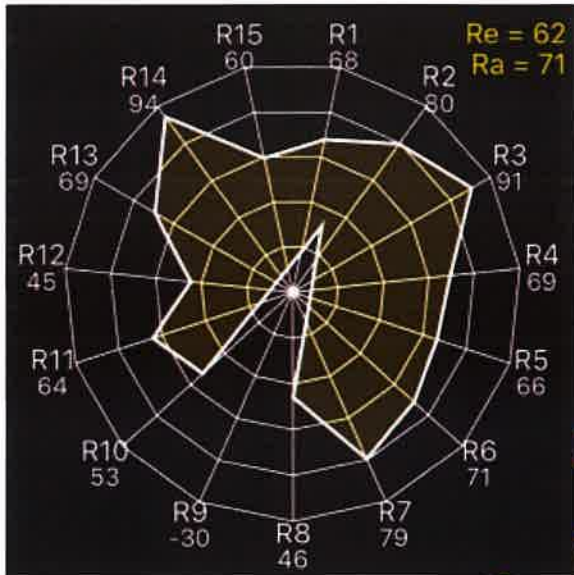
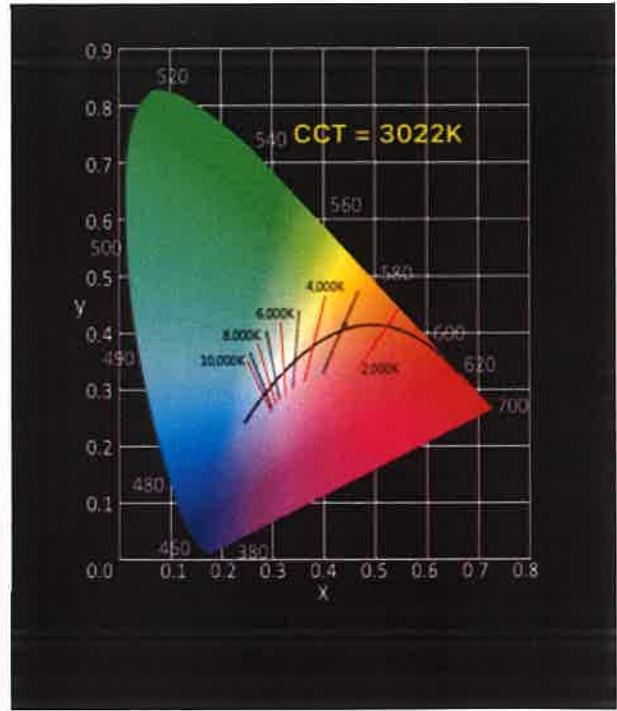
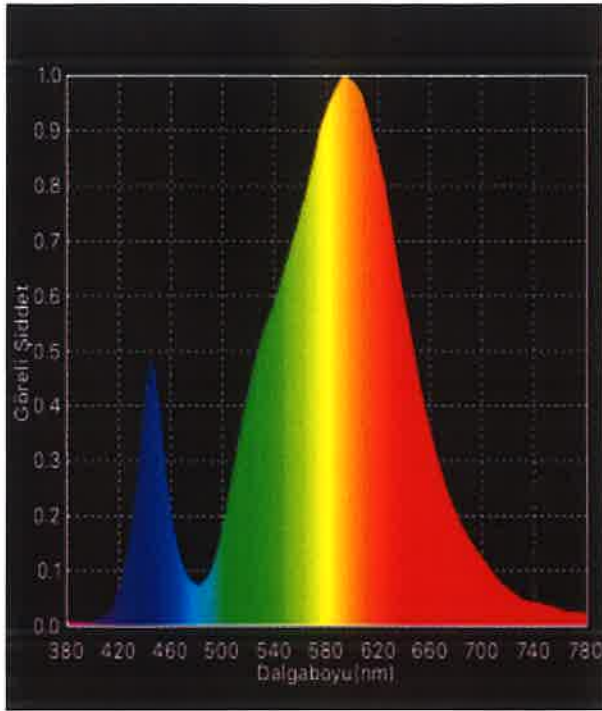
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2.2 WW Spektrokolorimetrik Deney Sonuçları (spectrocolorimetric Test Results of the WW)

Spectral Power Distribution



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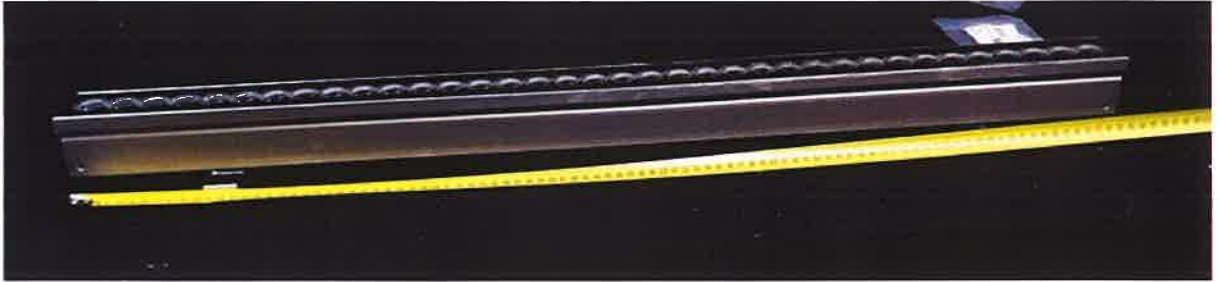
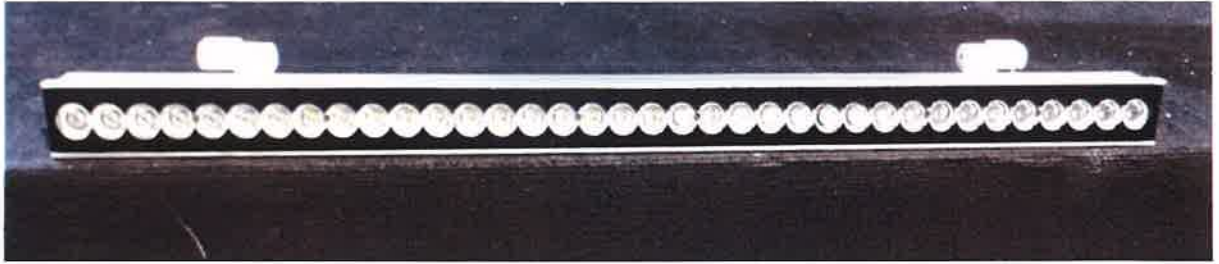
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3.1 DGC'nin Fotoğrafları (Photos of EUT)



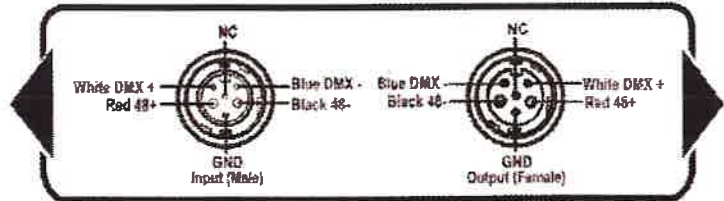
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