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## DENEY RAPORU TEST REPORT

AB-1333-T
030220AI03/R1
03022020

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Susuz Mah. İstanbul Yolu 26 Km Rampa Gıda Blokları C Blok No:1 Kat:2 Yenimahalle / ANKARA

Tel. 0312 351 76 86

Müşterinin Adı / Adresi: (Customer Name / Address)	Baytaş Aydınlatma İmalat Proje Taah.San.Ltd.Şti. Sincan Sanayi Sitesi Ahi Evran Mahallesi 225 Cadde No:84 Sincan / ANKARA
Talep Numarası: (Order No)	200128-01
Ürünün Adı ve tarifi: (Name and Identity of Test Item)	Yüksek Tavan Armatürü (Circle High Bay) High Ceiling Fixture (Circle High Bay)
Ürünün Kabul Tarihi: (The Date of Receipt of Test)	30.01.2020
Deney Tarihi: (Date of Test)	03.02.2020
Açıklamalar: (Comments)	Numuneye TS EN 13032-1 ve TS EN 13032-1 standardı uyarınca testler uygulanmıştır. 030220AI03 nolu rapor geçersizdir. 030220AI03 nolu raporun yerini 030220AI03/R1 nolu rapor almıştır. Test were applied to sample according to TS EN 13032-1 and TS EN 13032-1 standards. Report 030220AI03 is invalid. 030220AI03 has been replaced by 030220AI03 / R1.

Türk Akreditasyon Kurumu (TÜRKAK) deney raporlarının tanınırlığı konusunda Avrupa Akreditasyon Birliği (EA) ile Çok Taraflı Anlaşma ve Uluslararası Laboratuvar Akreditasyon Birliği (ILAC) ile karşılıklı tanıma anlaşması imzalamıştır. Turkish Accreditation Agency (TURKAK) 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; firmamıza ulaşan numunelere deney ve/veya deneyler uygulanarak elde edilmiştir.

This report was prepared after applying test/tests to the samples that are sent to our company.

Müşteriye ait diğer numuneleri kapsamaz.

Note that this report does not involve other samples of the customer.

\* İşaretsiz deneyler veya akreditasyon numarasının yer almadığı sayfalar, akreditasyon kapsamı dahilinde değildir.

\*signed tests or the papers which have not the accreditation number are not in the scope of accreditation.



Mühür / Seal

Deney Sorumlusu  
Person in Charge of Test

Ayhan İNALTUN

Laboratuvar Müdürü  
Head of Testing Laboratory

Ayhan İNALTUN

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**1.3 Ürün Bilgileri (Information of Test Item)**

Ürünün Adı: (Name of Test Item)	Yüksek Tavan Armatürü (Circle High bay) High Ceiling Fixture (Circle High bay)
Marka / Model: (Mark / Model)	Bayled / Circle High bay
Ürünün Tanımı / Tipi: (Product description / Type)	Yüksek Tavan Armatürü. High Ceiling Fixture.
Sürücü Tipi / Modeli: (Model of Driver)	Meanwell XLG-200-H-A
Seri No: (Serial Number)	-
Ürünün Boyutları / cm: (Product dimensions / cm)	Uzunluk / Çap: 45 (length / diameter) Genişlik: - (Width) Yükseklik: 19.4 (height)
Ürünün Ağırlığı / kg: (Product weight / kg)	9
IP Sınıfı: (IP Class)	IP66 (Müşteri Beyanı.)

**1.4 Çevre Şartları (Environmental Conditions)**

Sıcaklık - °C: (Temperature - °C)	25.8
Nem: (Humidity)	%29
Hava Akımı - m/s: (Air flow - m/s)	0.1

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**1.5 Deney Standartları (Test Standard)**

Deneyley ařađıdaki standartlara g6re yapılmıřtır.  
(The tests were performed according to following standards)

<b>TS EN 13032-1</b>	<b>Iřık ve aydınlatma - Lambaların ve armat6rlerin fotometrik verilerininin 6l66lmesi ve sunulması - B6l6m 1: 6l6me ve dosya bi6imi</b> Light and lighting - Measurement and presentation of photometric data of lamps and luminaires - Part 1: Measurement and file format
<b>TS EN 13032-2</b>	<b>Iřık ve aydınlatma - Lambaların ve armat6rlerin fotometrik verilerininin 6l66lmesi ve sunulması - B6l6m 2: İ6 ve dıř mekan iř yerleri i6in verilerin sunulması</b> Light and lighting - Measurement and presentation of photometric data of lamps and luminaires - Part 2: Presentation of data for indoor and outdoor work places

**1.6 Belirsizlik A6ıklamaları (Uncertainty Explanations)**

6l66m belirsizliđi geniřletilmiř belirsizlik olup bileřik belirsizlik kapsam fakt6r6  $k = 2.0$  6arpılarak elde edildi. G6venirlik d6zeyi %95'tir.  
(The measurement is sum uncertainty and extended uncertainty, and the composite uncertainty coverage factor  $k = 2.0$  is derived. Reliability level is 95%.)

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**1.7 Elektriksel Ölçüm Sonuçları (Electrical Measurement Results)**

Gerilim -Volt (Voltage - Volt)	Akım - Amper (Current - Amper)	Güç - Watt (Power - Watt)	Güç Faktör (Power Factor)
229.8	0.9407	211.3	0.9773

**1.8 Ölçüm Sonuçları Özeti (Measurement Results Summary)**

Işık Akısı - Lümen: (Luminous Flux - Lumen)	33960.2
Işık Şiddeti - Kandela: (Luminous Intensity - Candela)	15932
Ortalama Işıma Açısı: (Average Beam Angle)	93.7
Verimlilik - lm/w: (Efficiency - lm/w)	160.76
Renksel Geri Verim / CRI: (CRI: Color Render Index)	73.4
Renk Sıcaklığı / Kelvin: (CCT: Colarated Color temprature / Kelvin)	5299
Test sırasında SSL ürünün yanma pozisyonu: (Burn position of SSL during testing)	Görsellere Bakınız.
Stabilizasyon süresi / dakika: (Stabilization time / Minute)	55
Stabilizasyon dahil olmak üzere ürünün toplam çalışma süresi / dakika (Total operating time of the product including stabilization / Minute)	85
Uygulanan düzeltme faktörleri: (Applied correction factors)	-

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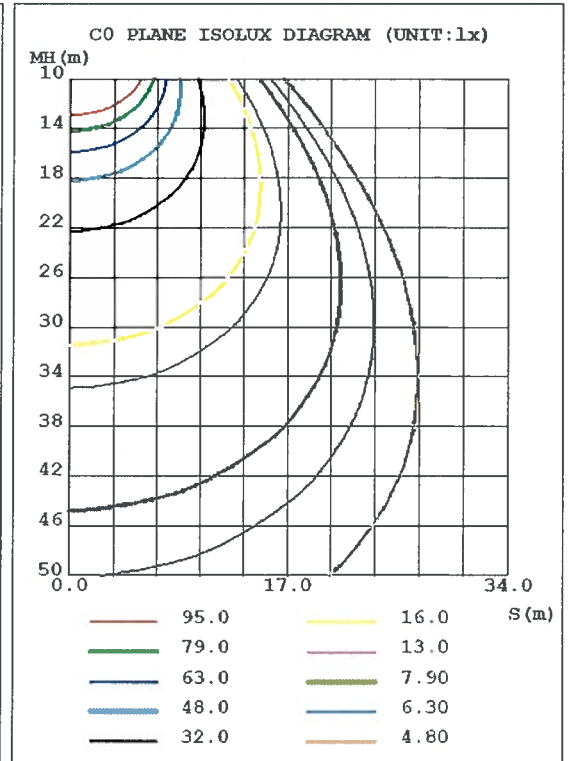
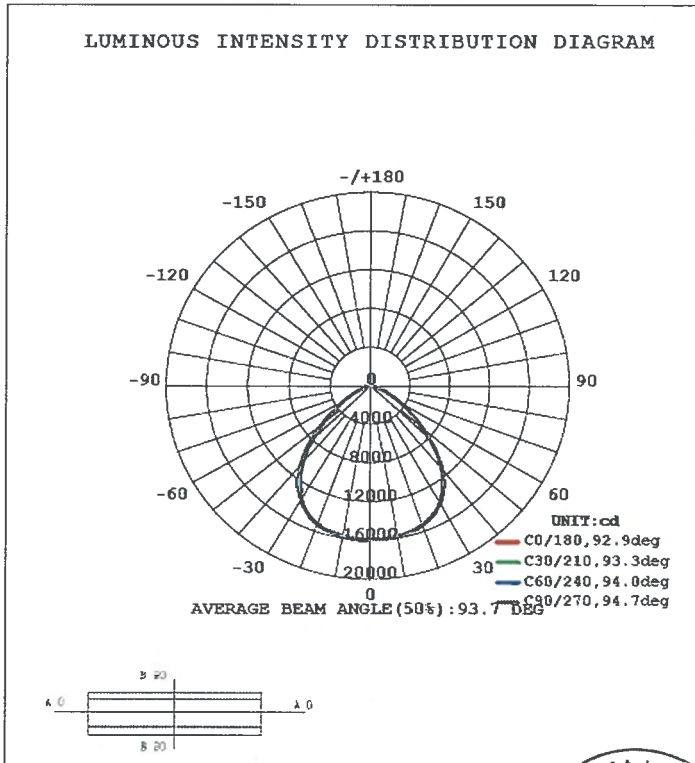


## 2.2 Gonyofotometre Sonuçları (Goniophotometer Measurement Results)

Işık Şiddeti (I max): Luminous intensity(Cd)	15932	C: (C Range)	0-360 derece
Aydınlatma Çıkış Oranı: (LOR:Lighting Output Ratio)	100	Düzlemler arası açı adımı C: (C Interval)	10 derece
Ort. Işıma Açısı: (Average Beam Angle)	93.7	Gama: (Gamma range)	0-180 derece
Ölçme uzaklığı: (Test Distance)	26 metre	Düzlem içi açı adımı X: (X Interval)	1 derece
$\eta$ up (%)	0.1	$\eta$ UP,DN(C0-180)	0.0 - 50.5
$\eta$ down (%)	99.9	$\eta$ UP,DN(C180-360)	0.1 - 49.4
S/MH(C0/180)	1.25	CIBSE SHR NOM	1.25
S/MH(C90/270)	1.26	CIBSE SHR MAX	1.35

### 2.2.1 Işık YeğİnliĐi Polar EĐrisi ve C0 Düzlemi Isolux Şeması

(Luminous Intensity Distribution Diagram and C0 Plane Isolux Diagram)



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## 2.2.2 Bölgesel Akı Diagramı (Zonal Flux Diagram)

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\lambda$ lum, lamp
10	1571	1576	1575	1584	1578	1577	1566	1568	0- 10	1510	1510	4.45, 4.45
20	1520	1535	1524	1531	1527	1525	1513	1519	10- 20	4406	5916	17.4, 17.4
30	1394	1402	1389	1365	1350	1354	1367	1380	20- 30	6744	12660	37.3, 37.3
40	1106	1114	1103	1049	1023	1029	1076	1089	30- 40	7751	20411	60.1, 60.1
50	683.5	704.9	692.5	644.2	606.3	627.2	664.5	685.4	40- 50	6714	27125	79.9, 79.9
60	320.2	349.9	324.5	310.5	274.2	298.9	303.7	335.7	50- 60	4267	31352	92.4, 92.4
70	92.60	124.1	97.05	108.1	77.86	98.71	86.60	111.8	60- 70	1960	33352	98.2, 98.2
80	11.64	16.80	13.69	14.64	11.29	11.93	10.62	13.21	70- 80	534.1	33886	99.9, 99.9
90	0.0874	0.1040	0.0357	0.0339	0.3665	0.0399	0.0236	0.0399	80- 90	40.32	33826	99.9, 99.9
100	0.0945	0.0786	0	0	0.1199	0.1675	0.1273	0.1631	90-100	0.6743	33927	99.9, 99.9
110	0.1016	0.0532	0	0	0.4137	0.4620	0.3888	0.4457	100-110	1.570	33929	99.9, 99.9
120	0.1087	0.0675	0.0776	0.0516	0.8663	0.8629	0.5084	0.8153	110-120	3.087	33932	99.9, 99.9
130	0.2220	0.1730	0.2058	0.1429	1.335	1.006	1.404	1.252	120-130	5.075	33937	99.9, 99.9
140	0.4208	0.2980	0.4200	0.3059	1.668	1.338	1.582	1.346	130-140	6.442	33943	99.9, 99.9
150	0.6111	0.5751	0.7369	0.5557	1.701	1.632	1.578	1.494	140-150	6.443	33950	100, 100
160	0.7777	0.7191	0.8372	0.6994	1.660	1.617	1.508	1.785	150-160	5.398	33955	100, 100
170	1.318	1.160	1.340	1.188	1.835	1.661	1.429	1.836	160-170	3.684	33959	100, 100
180	1.602	1.763	1.808	1.790	1.708	1.653	1.840	1.691	170-180	1.512	33960	100, 100
DEG	LUMINOUS INTENSITY: *10cd									UNIT: lm		

## Açıklamalar (Descriptions)

Luminous Intensity: Işık Şiddeti.

Unit: Birim.

$\gamma$ : Gama.

Zone: Bölge.

Total: Toplam.

Lamp: Lamba.

Degree: Derece.

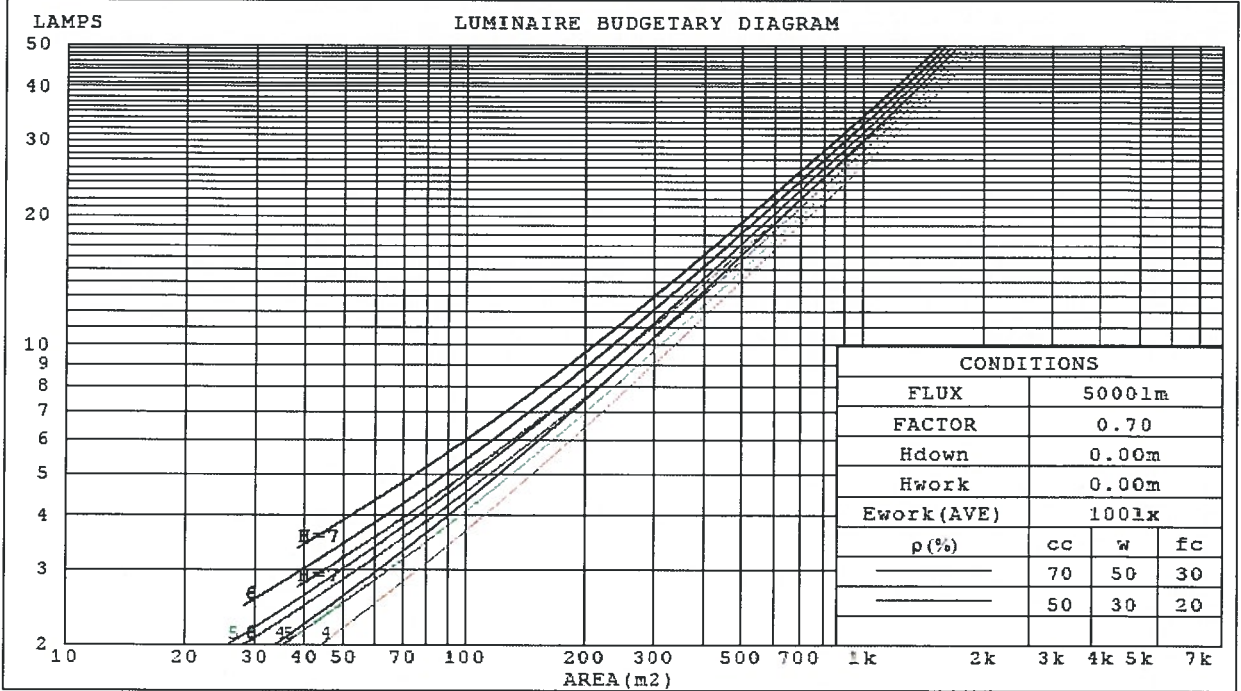
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### 2.2.3 Kullanım Katsayıları ve Armatür Bütçe Tahmin Şeması (Coefficients of Utilization and luminaire budgetary estimate diagram)

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	1.07	1.04	1.01	1.05	1.02	.00	1.01	.99	.96	.97	.95	.93	.94	.92	.91	.89
2.0	.96	.91	.86	.94	.89	.85	.91	.87	.83	.88	.84	.81	.85	.82	.80	.78
3.0	.86	.80	.74	.85	.79	.74	.82	.77	.72	.79	.75	.71	.77	.73	.70	.68
4.0	.78	.70	.65	.77	.70	.64	.74	.68	.63	.72	.67	.62	.70	.65	.62	.60
5.0	.70	.63	.57	.69	.62	.57	.67	.61	.56	.66	.60	.55	.64	.59	.55	.53
6.0	.64	.56	.50	.63	.56	.50	.61	.55	.50	.60	.54	.49	.58	.53	.49	.47
7.0	.59	.51	.45	.58	.50	.45	.56	.50	.45	.55	.49	.44	.54	.48	.44	.42
8.0	.54	.46	.41	.53	.46	.41	.52	.45	.40	.51	.45	.40	.50	.44	.40	.38
9.0	.50	.42	.37	.49	.42	.37	.48	.41	.37	.47	.41	.36	.46	.40	.36	.35
10.0	.46	.39	.34	.45	.38	.34	.44	.38	.33	.44	.38	.33	.43	.37	.33	.32



#### Açıklamalar (Descriptions)

pcc - Ceiling / Cavity: Tavan / Boşluk.

pw - Walls: Duvarlar.

pfc - Working plane: Çalışma Alanı / Zemin.

RCR - Room cavity Ratio: Oda Boşluk Oranı.

CU - Coefficients of Utilization: Kullanım Katsayıları.

Lamps: Lambalar.

Luminaire Budgetary Diagram: Armatür Bütçe Diyagramı.

Area: Alan.

Conditions: Koşullar.

Flux: Akı, lümen.

Factor: Faktör.

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**2.2.4 Duvar Varlığı Katsayıları ve Tavan Boşluğu Varlığı Katsayıları**  
(Wall Exitance Coefficients and Ceiling Cavity Exitance Coefficients)

$\rho_{cc}$	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	.240	.136	.043	.233	.133	.042	.220	.126	.040	.208	.120	.039	.197	.114	.037	
2.0	.235	.129	.040	.229	.126	.039	.218	.121	.038	.207	.116	.036	.198	.112	.035	
3.0	.224	.119	.036	.219	.117	.035	.209	.113	.034	.200	.110	.034	.192	.106	.033	
4.0	.212	.110	.032	.208	.109	.032	.199	.106	.032	.191	.103	.031	.183	.100	.030	
5.0	.200	.102	.030	.196	.101	.029	.189	.098	.029	.181	.096	.028	.175	.093	.028	
6.0	.189	.095	.027	.185	.094	.027	.178	.091	.027	.172	.089	.026	.166	.087	.026	
7.0	.178	.088	.025	.175	.087	.025	.169	.085	.025	.163	.084	.024	.158	.082	.024	
8.0	.168	.082	.023	.166	.082	.023	.160	.080	.023	.155	.078	.023	.150	.077	.022	
9.0	.159	.077	.022	.157	.076	.021	.152	.075	.021	.147	.074	.021	.143	.073	.021	
10.0	.151	.072	.020	.149	.072	.020	.144	.071	.020	.140	.070	.020	.136	.068	.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	.112	.112	.112	.064	.064	.064	.020	.020	.020	
1.0	.176	.158	.141	.151	.135	.121	.103	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.165	.133	.106	.142	.114	.091	.097	.079	.064	.056	.046	.037	.018	.015	.012	
3.0	.156	.115	.082	.134	.099	.071	.092	.069	.050	.053	.040	.029	.017	.013	.010	
4.0	.149	.101	.065	.127	.087	.056	.088	.061	.040	.051	.036	.023	.016	.012	.008	
5.0	.141	.090	.052	.121	.078	.046	.084	.055	.032	.048	.032	.019	.016	.010	.006	
6.0	.135	.082	.043	.116	.071	.038	.080	.049	.027	.046	.029	.016	.015	.010	.005	
7.0	.128	.075	.037	.110	.065	.032	.076	.045	.023	.044	.027	.014	.014	.009	.004	
8.0	.123	.069	.032	.106	.060	.028	.073	.042	.020	.042	.025	.012	.014	.008	.004	
9.0	.117	.064	.028	.101	.055	.024	.070	.039	.017	.041	.023	.010	.013	.008	.003	
10.0	.112	.060	.025	.097	.052	.021	.067	.036	.015	.039	.022	.009	.013	.007	.003	

**Açıklamalar (Descriptions)**

$\rho_{cc}$  - Ceiling / Cavity: Tavan / Boşluk.

$\rho_w$  - Walls: Duvarlar.

$\rho_{fc}$  - Working plane: Çalışma Alanı / Zemin.

RCR - Room cavity Ratio: Oda Boşluk Oranı.

WEC - Wall Exitance Coefficients: Duvar varlığı Katsayıları.

CCEC - Ceiling Cavity Exitance Coefficients: Tavan Boşluk Varlığı Katsayıları.

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**2.2.5 UGR - Birleşik parlama derecesi Tablosu (UGR - Unified Glare Rating 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	26.4	27.7	26.6	27.9	28.1	26.4	27.7	26.7	27.9	28.1
3H	26.6	27.8	26.9	28.0	28.3	26.7	27.9	26.9	28.1	28.3
4H	26.6	27.7	26.9	28.0	28.2	26.6	27.8	26.9	28.0	28.3
6H	26.5	27.6	26.8	27.8	28.1	26.6	27.6	26.9	27.9	28.2
8H	26.4	27.5	26.8	27.8	28.0	26.5	27.5	26.8	27.8	28.1
12H	26.4	27.4	26.7	27.7	28.0	26.5	27.4	26.8	27.7	28.0
4H 2H	26.6	27.7	26.9	27.9	28.2	26.6	27.7	26.9	28.0	28.2
3H	26.9	27.9	27.2	28.2	28.5	26.9	27.9	27.3	28.2	28.5
4H	26.9	27.8	27.3	28.1	28.4	26.9	27.8	27.3	28.2	28.5
6H	26.8	27.6	27.2	28.0	28.3	26.9	27.7	27.3	28.0	28.4
8H	26.8	27.5	27.2	27.9	28.3	26.9	27.6	27.3	27.9	28.3
12H	26.8	27.4	27.2	27.8	28.2	26.8	27.5	27.2	27.9	28.3
8H 4H	26.9	27.6	27.3	27.9	28.3	26.9	27.6	27.3	28.0	28.4
6H	26.8	27.4	27.3	27.8	28.2	26.9	27.5	27.3	27.9	28.3
8H	26.8	27.3	27.2	27.7	28.2	26.8	27.3	27.3	27.8	28.2
12H	26.7	27.2	27.2	27.6	28.1	26.8	27.2	27.3	27.7	28.2
12H 4H	26.8	27.5	27.2	27.9	28.3	26.9	27.5	27.3	27.9	28.3
6H	26.8	27.3	27.2	27.7	28.2	26.8	27.3	27.3	27.8	28.2
8H	26.7	27.2	27.2	27.6	28.1	26.8	27.2	27.3	27.7	28.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.8 / - 1.1					+ 0.9 / - 1.1				
1.5H	+ 0.4 / - 0.5					+ 0.4 / - 0.5				
2.0H	+ 1.7 / - 1.8					+ 1.7 / - 1.8				

CIE Pub.117 Corrected 33960 lm Total Lamp Luminous Flux. ( $\log(F/F_0) = 12.2$ )

**Açıklamalar (Descriptions)**

Ceiling / Cavity: Tavan / Boşluk.

Walls: Duvarlar.

Working plane: Çalışma Alanı / Zemin.

Room Dimensions: Oda Boyutları.

Viewed crosswise: Çaprazlama bakmak.

Viewed endwise: Bitiş noktasından bakmak.

Variations with the observer position at spacings: Aralıklarla gözlemci pozisyonu ile varyasyonlar.



## 2.2.6 Kullanım Faktörler Tablosu (Utilization Factors Table)

REFLECTANCE										
Ceiling	0.8	0.8	0.6	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	66	56	50	65	56	50	64	55	50	44
0.80	76	67	60	75	66	60	74	65	60	54
1.00	85	76	70	84	75	69	81	76	69	63
1.25	91	83	77	90	82	77	87	81	76	70
1.50	96	88	82	94	87	82	91	85	81	74
2.00	101	95	90	99	93	89	96	91	87	81
2.50	104	98	93	102	97	93	99	94	91	83
3.00	107	101	97	105	100	96	101	97	94	86
4.00	110	105	102	107	104	100	103	100	98	90
5.00	111	108	105	109	106	103	105	102	100	91
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

## Açıklamalar (Descriptions)

Refletance: Yansım.

Ceiling: Tavan.

Walls: Duvarlar.

Working plane: Çalışma alanı.

Room Index: Oda indeksi.

Utilization Factors (Percent): Kullanım faktörleri (%).

SHRNOM: Nominal aralık yükseklik oranı.

Bu rapor laboratuvarın yazılı izni olmadan kısmen veya tamamen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir.  
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## 2.2.7 Isocandela Diyagramı (Isocandela Diagram)

Conical surface Flux(90deg):

24021 lm

%lum = 70.7%

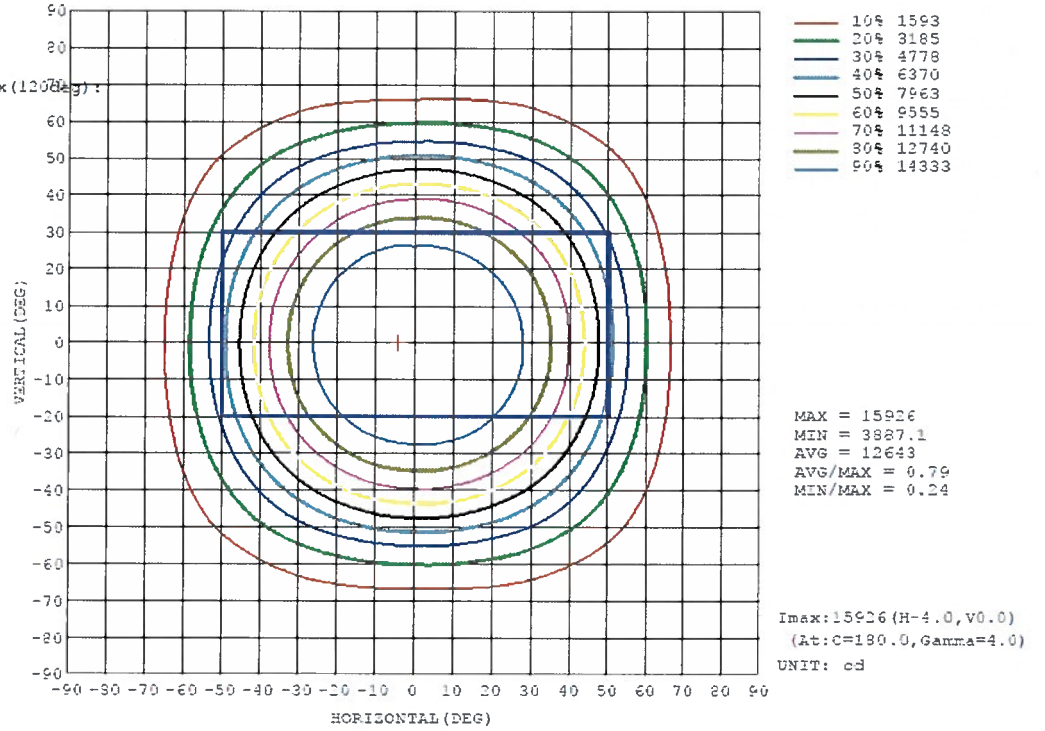
%lamp = 70.7%

Conical surface Flux(120deg):

31392 lm

%lum = 92.4%

%lamp = 92.4%

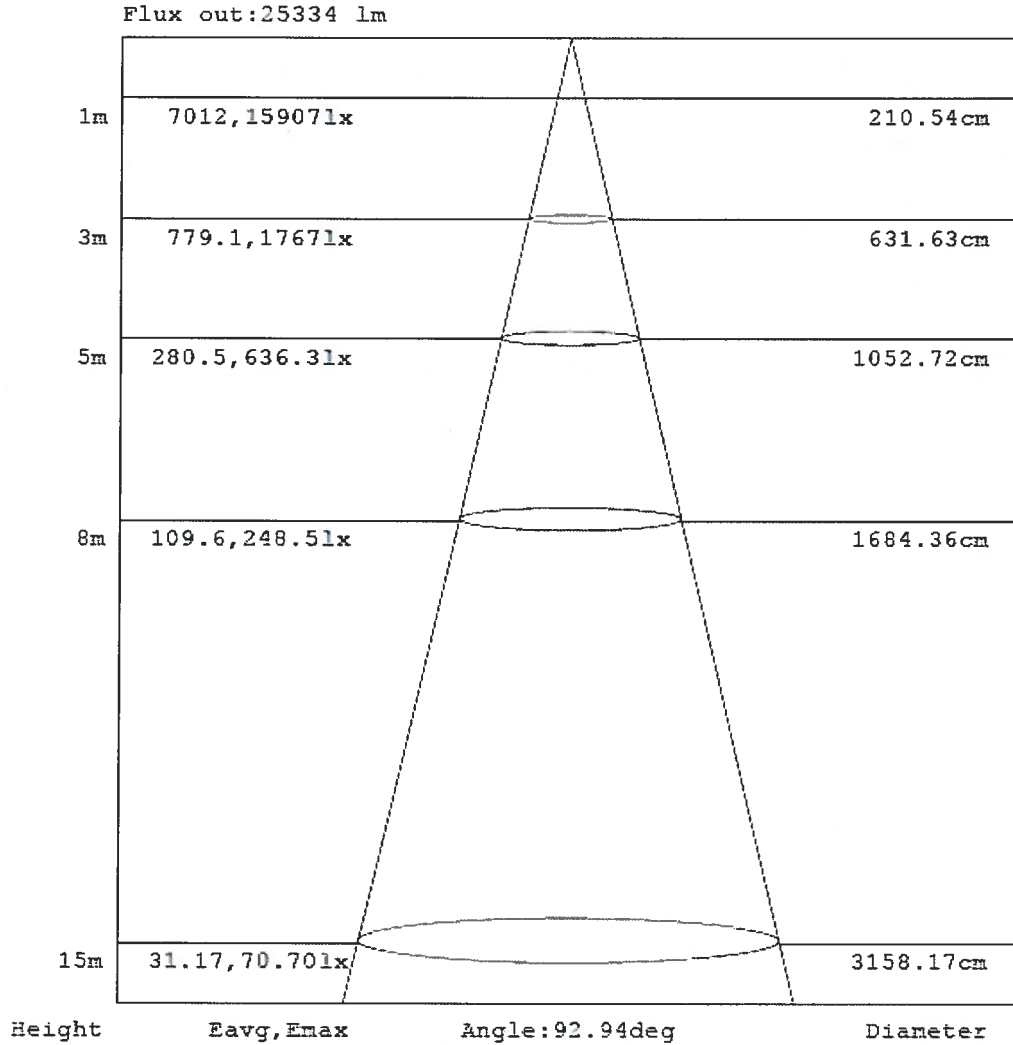


## Açıklamalar (Descriptions)

Conical surface Flux: Konik yüzey Akısı.

Vertical: Dikey.

Horizontal: Yatay.

**2.2.8 Aydınlık Şeması (Illuminance Diagram)**

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

**Açıklamalar (Descriptions)**

Flux Out: Akı (Lümen) Çıkışı.

Height: Yükseklik.

Angle: Açı.

Diameter: Çap.

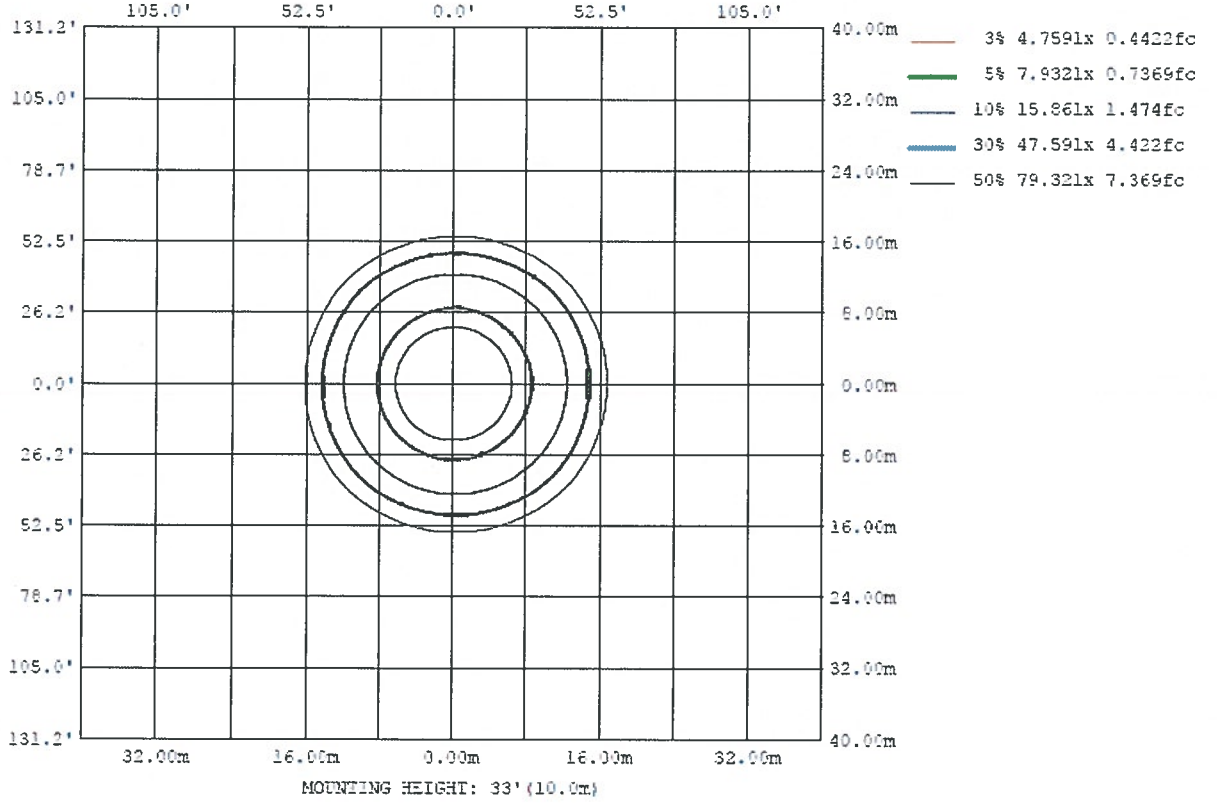
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

Not: Eğriler, aydınlatılmış alanı ve armatür farklı mesafelerde olduğunda ortalama aydınlatmayı gösterir.

Bu rapor laboratuvarın yazılı izni olmadan kısmen veya tamamen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir.  
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## 2.2.9 Isolux Diyagramı (Isolux Diagram)

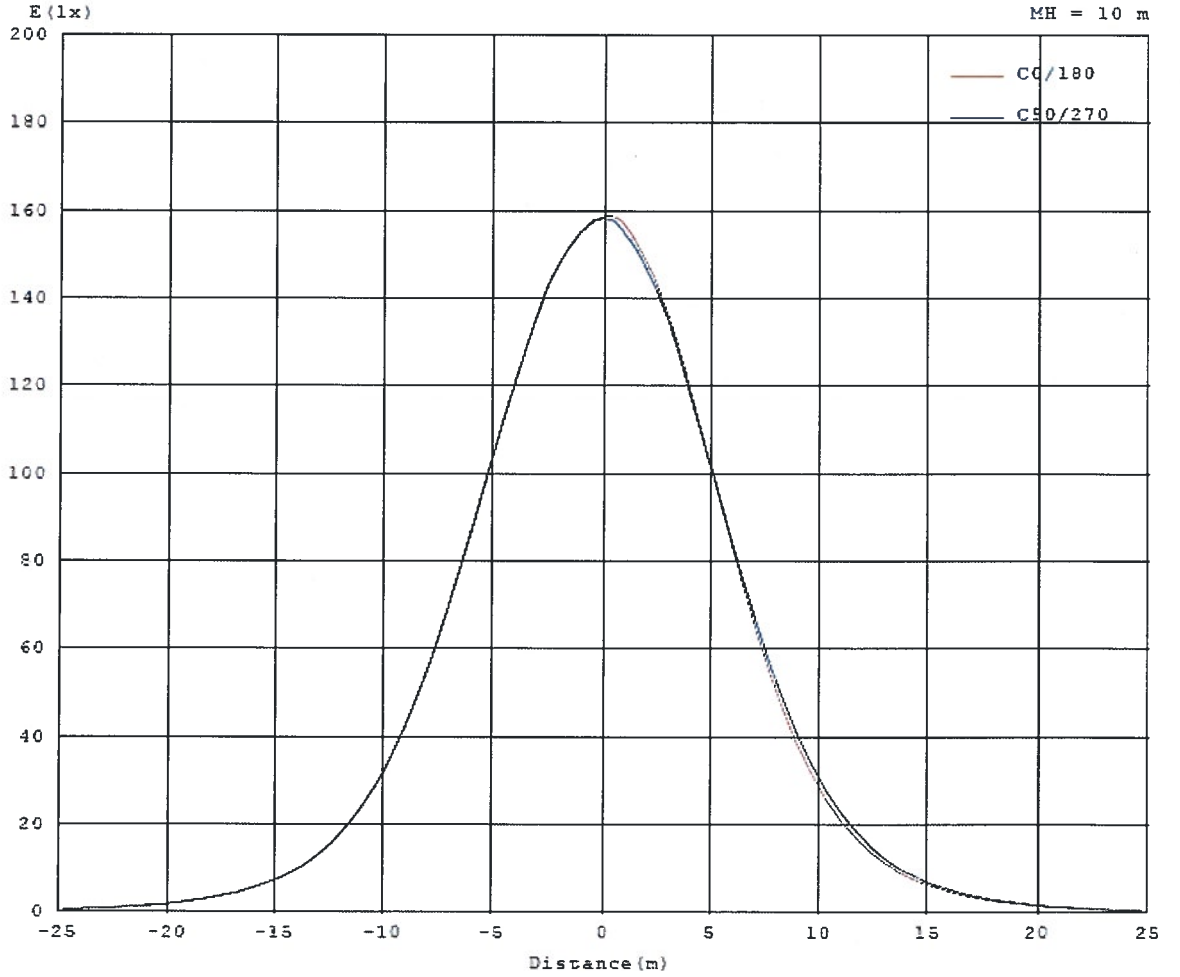


## Açıklamalar (Descriptions)

Mounting Height: Montaj Yüksekliği.

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### 2.2.10 Işık Yeğİnliđi Kartezyan Eđrisi (Planar Illuminance Curve)



### Açıklamalar (Descriptions)

MH: Mounting Height: Montaj Yüksekliđi.

Distance: Mesafe.

Bu rapor laboratuvarın yazılı izni olmadan kısmen veya tamamen kopyalanıp çođaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir.  
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2.2.11 Işık Şiddeti yoğunluğu dağılımına ait veriler (Luminous Distribution Intensity Data)

Table--1

UNIT:  $\times 10\text{cd}$

C (DEG) y (DEG)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
0	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
5	1575	1582	1581	1583	1582	1583	1585	1585	1587	1581	1586	1588	1589	1586	1589	1589	1590	1587	1592
10	1571	1573	1577	1574	1575	1578	1580	1576	1581	1575	1580	1581	1584	1582	1585	1588	1584	1584	1578
15	1552	1558	1560	1559	1560	1564	1566	1565	1567	1566	1564	1567	1564	1567	1570	1566	1565	1566	1562
20	1520	1528	1532	1532	1533	1536	1535	1534	1531	1524	1530	1532	1533	1530	1531	1529	1523	1524	1527
25	1475	1478	1482	1482	1485	1488	1484	1481	1479	1475	1471	1471	1467	1463	1465	1463	1460	1456	1454
30	1394	1398	1401	1402	1401	1403	1404	1395	1397	1389	1386	1384	1375	1366	1364	1363	1357	1350	1350
35	1275	1279	1282	1279	1277	1280	1281	1278	1276	1269	1262	1258	1240	1226	1224	1221	1216	1210	1205
40	1106	1112	1113	1114	1114	1113	1118	1117	1116	1103	1098	1084	1070	1052	1045	1038	1033	1028	1023
45	908	910	912	910	913	914	917	917	918	906	897	884	867	852	844	835	828	823	817
50	684	693	697	700	704	705	707	708	705	693	688	677	660	648	641	628	619	611	606
55	481	489	494	506	514	519	510	496	493	482	478	471	473	470	460	446	429	428	421
60	320	330	337	343	351	349	343	339	334	325	323	319	314	312	309	299	290	283	274
65	190	199	211	219	219	219	217	212	202	194	197	200	197	193	190	186	178	167	158
70	92.6	102	117	123	124	124	124	117	104	97.0	103	113	113	110	107	105	96.2	83.9	77.9
75	38.2	43.9	53.8	58.3	59.2	59.5	58.5	53.9	44.9	41.2	45.7	52.9	53.9	52.4	51.1	48.9	44.1	37.0	33.5
80	11.6	13.5	16.8	18.4	16.5	17.1	19.0	17.3	14.9	13.7	15.1	17.3	17.3	14.6	14.6	15.8	14.2	12.3	11.3
85	1.81	1.83	1.96	2.12	2.30	2.40	2.41	2.41	2.41	2.40	2.40	2.39	2.36	2.33	2.29	2.17	2.06	1.91	1.89
90	0.09	0.06	0.04	0.06	0.08	0.12	0.14	0.03	0.03	0.04	0.04	0.04	0.04	0.03	0.04	0.06	0.01	0.01	0.37
95	0.09	0.05	0.04	0.06	0.07	0.11	0.12	0.02	0.01	0.01	0.02	0.01	0.01	0.00	0.02	0.02	0.00	0.00	0.09
100	0.09	0.05	0.05	0.05	0.06	0.09	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12
105	0.10	0.05	0.05	0.05	0.05	0.08	0.08	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
110	0.10	0.05	0.05	0.04	0.04	0.06	0.06	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41
115	0.11	0.05	0.05	0.04	0.03	0.05	0.04	0.03	0.03	0.03	0.02	0.01	0.03	0.01	0.00	0.01	0.05	0.04	0.63
120	0.11	0.07	0.06	0.06	0.06	0.07	0.08	0.07	0.06	0.08	0.06	0.06	0.08	0.06	0.05	0.06	0.08	0.08	0.87
125	0.13	0.13	0.14	0.14	0.12	0.10	0.12	0.13	0.13	0.15	0.14	0.13	0.13	0.10	0.10	0.14	0.14	0.15	1.08
130	0.22	0.21	0.21	0.19	0.17	0.18	0.16	0.19	0.19	0.21	0.20	0.18	0.17	0.14	0.14	0.19	0.20	0.21	1.33
135	0.30	0.29	0.29	0.25	0.22	0.22	0.24	0.26	0.25	0.30	0.26	0.29	0.28	0.22	0.23	0.25	0.27	0.31	1.52
140	0.42	0.42	0.34	0.33	0.29	0.31	0.36	0.33	0.37	0.42	0.38	0.42	0.37	0.29	0.32	0.36	0.40	0.39	1.67
145	0.50	0.47	0.45	0.43	0.40	0.44	0.49	0.48	0.54	0.56	0.52	0.52	0.52	0.44	0.41	0.45	0.52	0.52	1.70
150	0.61	0.52	0.59	0.54	0.55	0.60	0.64	0.64	0.71	0.74	0.70	0.67	0.68	0.57	0.54	0.56	0.61	0.61	1.70
155	0.60	0.72	0.61	0.64	0.64	0.68	0.68	0.70	0.80	0.81	0.77	0.72	0.70	0.64	0.67	0.68	0.67	0.67	1.71
160	0.78	0.82	0.74	0.73	0.70	0.74	0.76	0.76	0.84	0.84	0.78	0.77	0.75	0.68	0.72	0.77	0.80	0.76	1.66
165	0.93	0.87	0.91	0.88	0.87	0.91	0.95	0.94	0.95	0.97	0.96	0.96	0.89	0.86	0.87	0.95	0.98	0.83	1.76
170	1.32	1.13	1.21	1.24	1.18	1.15	1.44	1.52	1.49	1.34	1.49	1.51	1.41	1.28	1.10	1.15	1.22	1.45	1.83
175	1.47	1.41	1.37	1.50	1.43	1.51	1.63	1.74	1.72	1.53	1.67	1.69	1.47	1.63	1.28	1.29	1.36	1.64	1.86
180	1.60	1.65	1.57	1.78	1.69	1.83	1.83	1.98	2.04	1.81	2.07	2.05	1.71	1.94	1.64	1.45	1.68	2.11	1.71

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2.2.11 Işık Şiddeti yoğunluğu dağılımına ait veriler (Luminous Distribution Intensity Data)

Table--2

UNIT:  $\times 10\text{cd}$

C (DEG) y (DEG)	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350		
0	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587		
5	1590	1588	1587	1585	1584	1587	1583	1585	1578	1581	1584	1580	1575	1583	1584	1580	1581		
10	1582	1582	1580	1577	1578	1579	1573	1578	1566	1568	1572	1571	1565	1570	1571	1572	1568		
15	1564	1561	1565	1559	1560	1560	1556	1555	1550	1550	1554	1552	1549	1552	1554	1553	1555		
20	1524	1524	1525	1524	1525	1524	1519	1518	1513	1517	1516	1520	1517	1522	1523	1523	1525		
25	1455	1457	1455	1455	1457	1461	1457	1461	1451	1457	1461	1464	1462	1468	1472	1470	1473		
30	1351	1351	1350	1352	1356	1363	1363	1369	1367	1371	1378	1376	1378	1383	1389	1387	1394		
35	1207	1207	1205	1205	1213	1225	1231	1240	1244	1252	1255	1252	1253	1259	1267	1269	1277		
40	1023	1024	1023	1025	1033	1046	1057	1071	1076	1087	1090	1088	1087	1091	1101	1106	1106		
45	816	817	817	823	831	840	852	868	875	884	889	887	888	895	898	902	906		
50	608	610	615	623	631	640	651	661	664	676	683	682	683	688	687	688	691		
55	422	423	434	446	457	456	454	461	464	473	478	492	501	502	496	492	492		
60	278	282	290	297	301	302	302	304	304	314	322	329	334	337	332	329	330		
65	163	173	178	179	182	187	186	180	177	187	199	205	203	201	204	200	196		
70	82.5	92.6	97.8	97.8	99.7	103	101	92.0	86.6	93.4	107	114	112	112	111	106	97.3		
75	36.2	41.9	44.7	45.1	45.6	46.4	44.7	38.4	34.9	38.8	47.0	51.8	52.4	51.9	50.9	45.8	39.4		
80	11.9	13.0	13.5	12.0	11.9	13.6	13.3	11.7	10.6	11.7	13.8	14.9	13.2	13.2	15.3	14.4	12.1		
85	1.83	1.83	1.86	1.86	1.81	1.76	1.69	1.64	1.63	1.65	1.69	1.74	1.75	1.77	1.73	1.70	1.68		
90	0.04	0.05	0.06	0.04	0.04	0.04	0.03	0.02	0.02	0.02	0.04	0.03	0.04	0.04	0.05	0.04	0.31		
95	0.07	0.08	0.09	0.09	0.08	0.07	0.07	0.06	0.06	0.06	0.06	0.08	0.07	0.08	0.09	0.08	0.07		
100	0.14	0.14	0.17	0.17	0.17	0.15	0.14	0.14	0.13	0.14	0.15	0.16	0.16	0.17	0.16	0.15	0.13		
105	0.26	0.26	0.28	0.29	0.29	0.27	0.25	0.25	0.25	0.25	0.24	0.27	0.29	0.29	0.28	0.26	0.25		
110	0.41	0.44	0.46	0.46	0.46	0.43	0.41	0.39	0.39	0.39	0.39	0.40	0.44	0.45	0.45	0.42	0.40		
115	0.64	0.66	0.66	0.66	0.66	0.53	0.48	0.50	0.56	0.54	0.50	0.59	0.59	0.62	0.63	0.61	0.60		
120	0.87	0.88	0.88	0.87	0.85	0.57	0.51	0.41	0.51	0.45	0.55	0.70	0.85	0.78	0.80	0.82	0.83		
125	1.11	1.11	1.09	1.04	0.89	1.00	1.09	0.99	1.14	0.92	1.12	0.74	0.94	1.07	1.00	1.03	1.04		
130	1.34	1.32	1.30	1.22	0.79	1.35	1.30	1.19	1.40	1.18	1.39	1.20	1.21	1.29	1.30	1.32	1.33		
135	1.53	1.49	1.44	1.30	1.05	1.47	1.45	1.21	1.51	1.27	1.46	1.56	1.14	1.36	1.46	1.57	1.56		
140	1.67	1.62	1.51	1.17	1.51	1.61	1.53	1.22	1.58	1.37	1.53	1.76	1.28	1.41	1.52	1.69	1.74		
145	1.75	1.71	1.55	1.14	1.76	1.73	1.54	0.98	1.31	1.24	1.66	1.81	1.64	1.23	1.53	1.76	1.75		
150	1.80	1.75	1.40	1.49	1.77	1.83	1.52	1.62	1.58	1.41	1.65	1.81	1.81	1.18	1.57	1.75	1.75		
155	1.83	1.75	1.34	1.57	1.78	1.84	1.46	1.61	1.46	1.59	1.64	1.78	1.83	1.46	1.44	1.75	1.82		
160	1.78	1.72	1.50	1.45	1.79	1.85	1.49	1.61	1.51	1.68	1.45	1.72	1.82	1.75	1.33	1.75	1.84		
165	1.73	1.63	1.55	1.45	1.79	1.80	1.60	1.61	1.63	1.66	1.64	1.68	1.83	1.80	1.36	1.58	1.83		
170	1.82	1.60	1.56	1.60	1.73	1.81	1.61	1.39	1.43	1.42	1.40	1.60	1.83	1.85	1.49	1.52	1.82		
175	1.84	1.74	1.65	1.78	1.73	1.87	1.61	1.85	1.84	1.78	1.90	1.83	1.94	1.88	1.53	1.48	1.81		
180	1.64	1.61	1.55	1.69	1.61	1.75	1.61	1.82	1.84	1.67	1.84	1.83	1.64	1.73	1.46	1.40	1.50		

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**3. EKLER (Attachments)****3.1 Deney Bileşenleri (Test Components)**

Envanter No (Inventory Number)	Cihaz Adı (Device Name)	Seri No (Serial Number)	Kal./Doğ. Tarihi (Cal./Ver. Date)
LAB-002	Integrating Sphere 2 m.	G121960CF1341163D	12.04.2019
LAB-004	Power Meter	G103508CD1331128	26.06.2019
LAB-006	AC Power Supply	G119885CF1341123	26.06.2019
LAB-022	Standard light source (sphere)	G100283CA1341240	17.04.2019
LAB-025	Auxiliary lamp (sphere)	001	17.04.2019
LAB-059	Sphere termokupl	13200840	25.10.2019
LAB-021	Standard light source(gonio)	M119805CN1331115	17.04.2019
LAB-027	Full field speed goniophotometer	0110133CA1341113	12.04.2019
LAB-030	AC Power Supply	G120984CF1341115	26.06.2019
LAB-031	Power Meter	G103508TO1331122	26.06.2019
LAB-005	Spectroradiometer	G112048JC1341124	12.04.2019

Bu rapor laboratuvarın yazılı izni olmadan kısmen veya tamamen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir.  
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3.2 Kritik Komponent Listesi (Critical Components List)

CIRCLE HIGH BAY

Komponent Listesi / list of Component				
Sıra No	Komponent Adı	Marka / Model	Seri No:	Teknik Özellikleri
1	DRIVER	MILANWILL XLG 200 H A		200W 27-30VDC 3500-5550mA IP67
2	LED	NICHIA NF2W757H-F1		MID POWER 3W LED CHIP
3	LENS	KINGBRITE KB HB24W-90-3030		50*50MM 24'LÜ 90 DERECE LENS
4				
5				
6				
7				
8				
9				
10				

Firma Yetkili Ad Soyad / Kaşe / İmza / Tarih



03/02/2020  
Seyhan Tuba

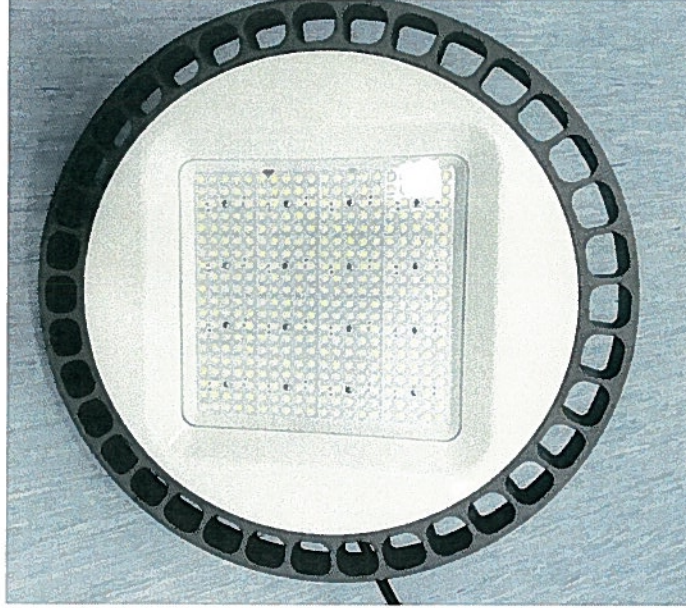
Bu rapor laboratuvarın yazılı izni olmadan kısmen veya tamamen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir.

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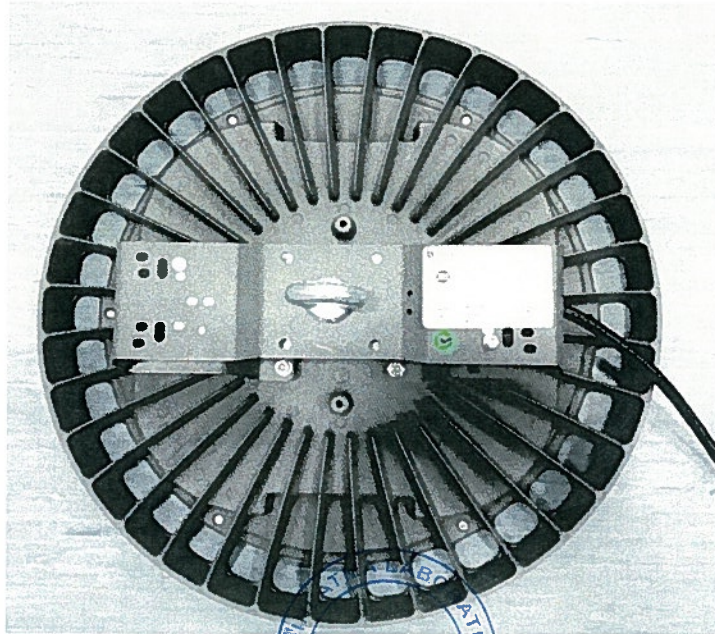


### 3.3 Ürün Fotoğrafları (Photos of Test Items)

#### 3.3.1 Ön Görünüm (Front view)



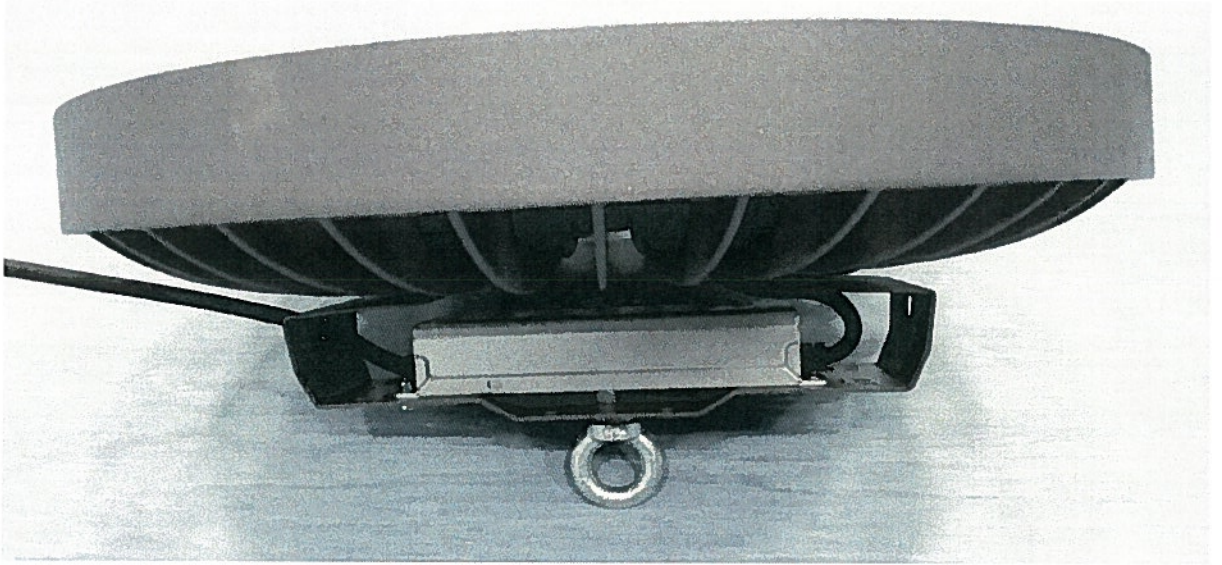
#### 3.3.2 Görünüm (view)



Bu rapor laboratuvarın yazılı izni olmadan kısmen veya tamamen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir.  
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### 3.3.3 Görünüm (view)



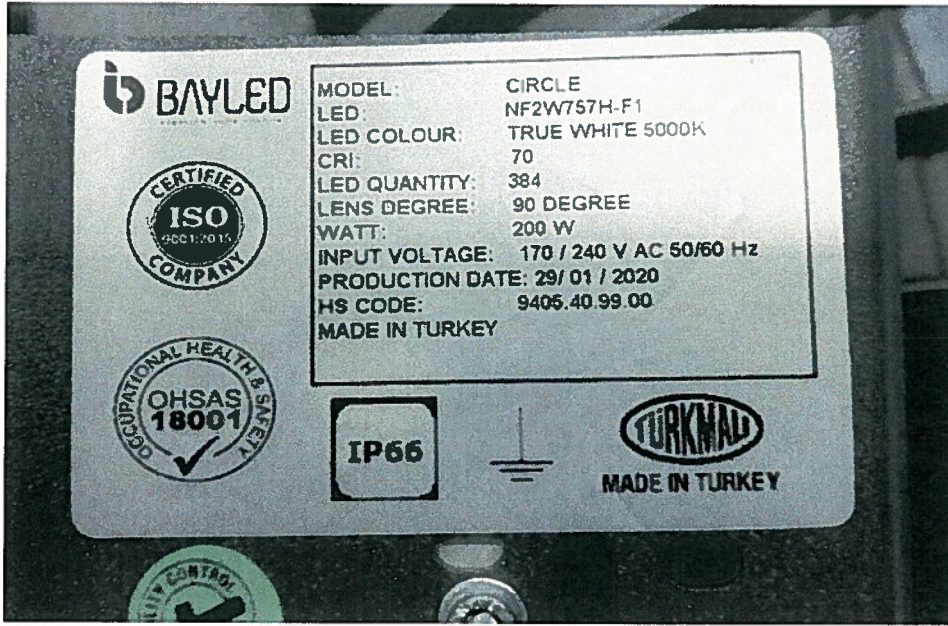
### 3.3.4 Komponentler (Components)



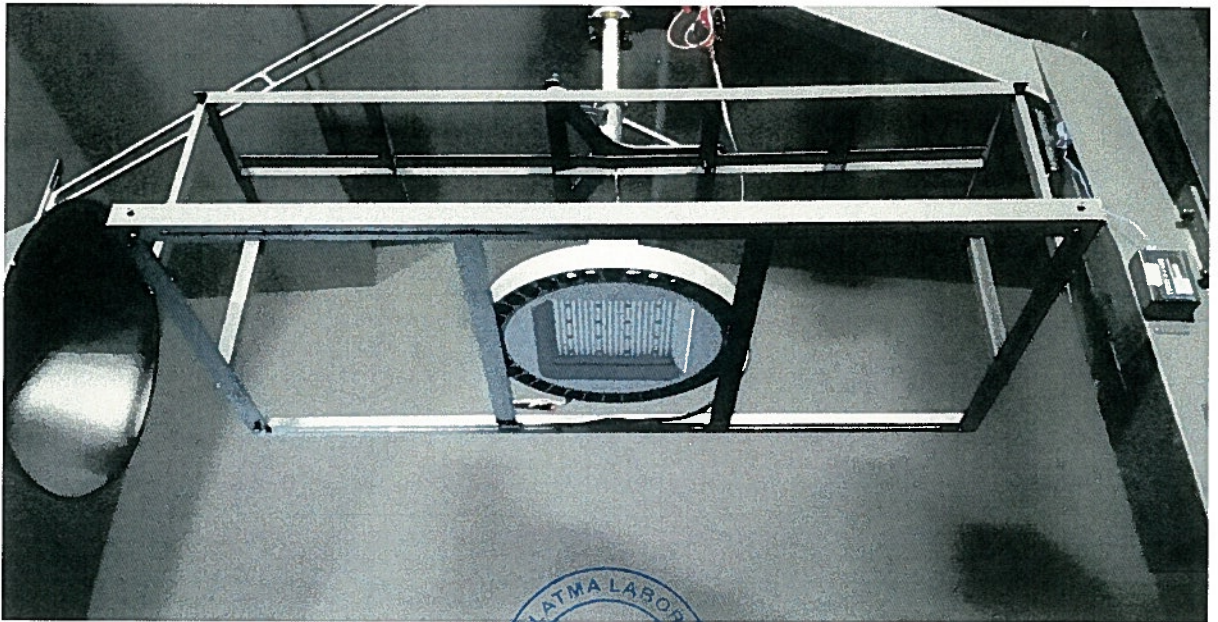
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### 3.3.5 Görünüm (view)



### 3.3.6 Görünüm (view)



Bu rapor laboratuvarın yazılı izni olmadan kısmen veya tamamen kopya edilip çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir.  
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