



PTC
ÜRÜN TEST VE BELGELENDİRME
SAN. TİC. LTD. ŞTİ

DENEY RAPORU
TEST REPORT

Müşteri Adı / Adresi:
Customer name / address

HERA EĞLENCE VE MİMARİ AYDINLATMA SİSTEMLERİ A.Ş.

Güllübağlar Mah. Kahramanlar Cad. No:3-1 34906 Pendik / İstanbul / TURKEY

Rapor ve İstek No:
Report and order no:

171801-864-7

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

Procolor DC 10DW Floodlight Wide Beam 35° P03001123

Numune Kabul Tarihi:
The date of receipt of test
item:

03.01.2020

Deneyin Yapıldığı Tarih:
Date of test:

06.01.2020

Rapor Sayfa Sayısı:
Number of pages of the
report:

20

Uygulanan Standart / Metod: IES-LM-79-08 (with TS EN13032-1)
Applied Standart / Method

Açıklamalar:
Remarks:

Test sonuçları için raporu inceleyiniz. / Review the report for test results.



Deneyi Yapan Personel
Person in Performing the Test

Emine Nur ÇİDEM

Laboratuvar Teknik Yöneticisi
Laboratory Technical Manager

Murat ÇİTİL

Bu rapor, laboratuvarımızın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz. İmzasız ve mühürsüz raporlar geçersizdir.
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Deney Rapor No / Test Report No: 171801-864-7

PTC Ürün Test ve Belgelendirme San. Tic. Ltd. Şti.

Aydınlı Mah. Patlayıcı Maddeler Yolu Cad. Beyoğlu Sanayi Sitesi. D1 Blok No:26 Tuzla/İstanbul-Turkey

Tel: +90 216 393 3232 e-mail: info@ptctestng.com web: www.ptctestng.com

FOTOMETRİK ÖLÇÜM SONUÇLARI / PHOTOMETRIC MEASUREMEMENT RESULTS

Kullanılan Cihaz/EquipmentUsed.....:	Goniophotometer System (LSG-1700B) Sphere System (LMS-7000)
Uygulanan Standart-Metot/Applied Standard-Method.....:	IES-LM-79-08 Electrical and Photometric Measurements of Solid-State Lighting Products TS EN13032-1:2004 +A1:2012LightandLighting Measurementand Presentation of Photometric Data of Lampsand Luminaires-Part I: Measurementand File.
Deney Ortam Şartları/Experimental Ambient Conditions.....:	25°C ±1°C,60%RH±5%RH
Armatüre Uygulanan Gerilim / Applied Voltage.....:	48 V dc
Armatür Markası-Üretici/Luminaire Brand-Producer.....:	HERA EĞLENCE VE MİMARİ AYDINLATMA SİSTEMLERİ A.Ş.
Armatür Kodu-Modeli/Luminaire Code-Model.....:	Procolor DC 10DW Floodlight Wide Beam 35° P03001123

Armatürde Ölçülen Toplam Güç / Measured Total Power of Luminaire.....:	8.64 W ;
Armatürün Ölçülen Işık Akısı / Measured Luminous Flux of Luminaire.....:	352.7 lm (Effective Value)
Armatür verimliliği (lm/Watt) / Luminous efficiency.....:	40.82 lm/Watt
Beam Angle (C0/C180, C90/C270, C45/C225, C135/315):	33.3, 32.4, 32.5, 33.1

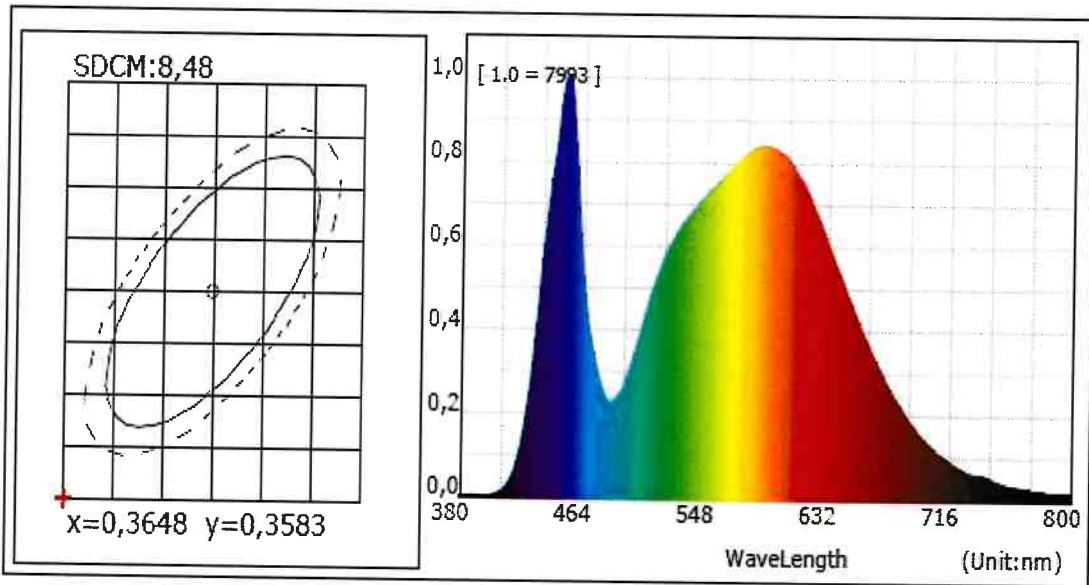
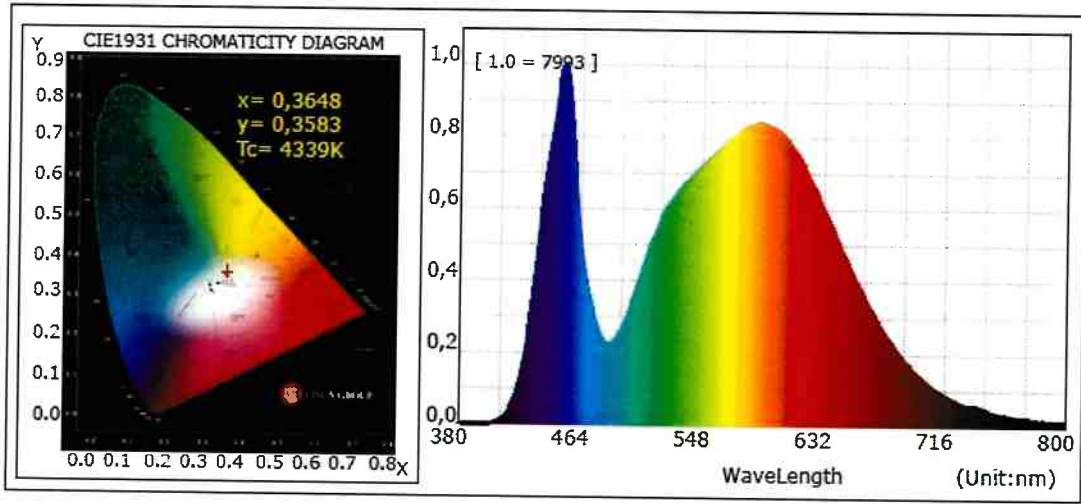
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Date/Time	06.01.2020 13:00
Chromaticity x coord	0,3648
Chromaticity y coord	0,3583
Chromaticity u coord	0,2221
Chromaticity v coord	0,3272
Chromaticity u' coord	0,2221
Chromaticity v' coord	0,4908
Peak Wavelength (nm)	451,8
Half Wavelength (nm)	30,0
Dominant Wavelength (nm)	580,9
Color Purity (%)	17,002
Correlated Color Temperature (deg. K)	4339
SDCM	8,48
Color Rendering Index Average (RA)	81,1
Color Rendering Index (R1)	80
Color Rendering Index (R2)	86
Color Rendering Index (R3)	89
Color Rendering Index (R4)	81
Color Rendering Index (R5)	80
Color Rendering Index (R6)	80
Color Rendering Index (R7)	86
Color Rendering Index (R8)	67
Color Rendering Index (R9)	12
Color Rendering Index (R10)	65
Color Rendering Index (R11)	78
Color Rendering Index (R12)	59
Color Rendering Index (R13)	81
Color Rendering Index (R14)	94
Color Rendering Index (R15)	77

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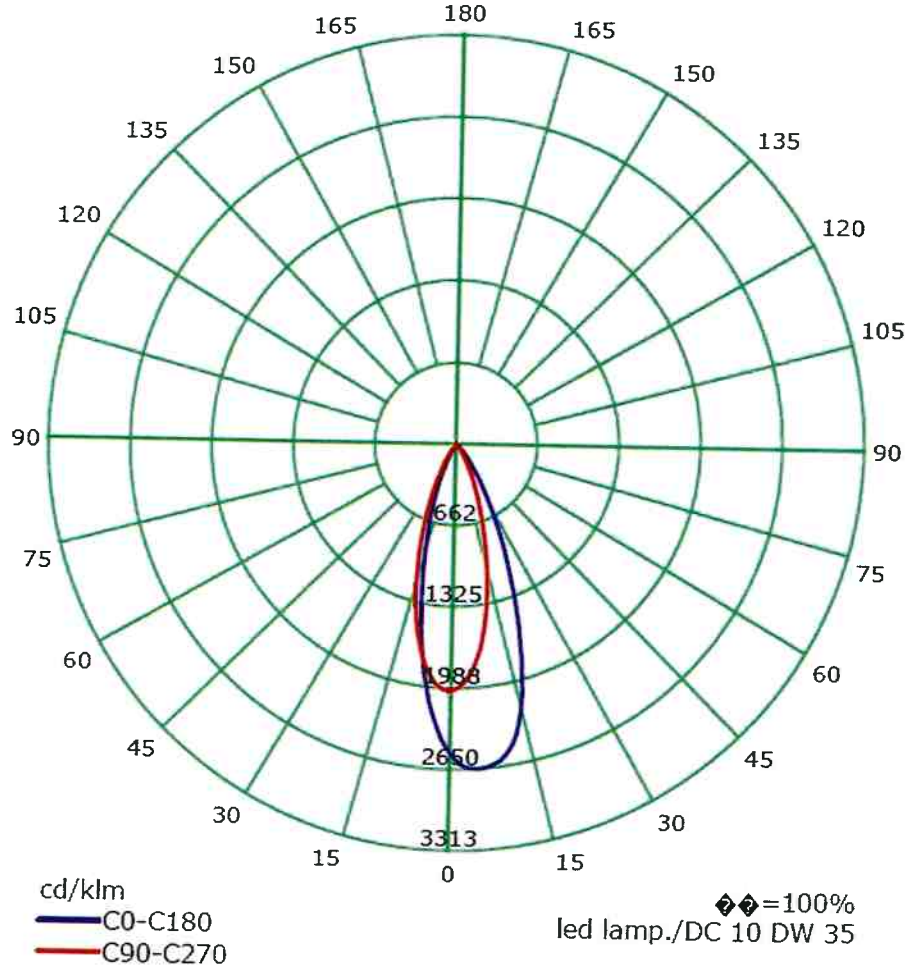
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Luminous Intensity Distribution Curve(cd/klm)



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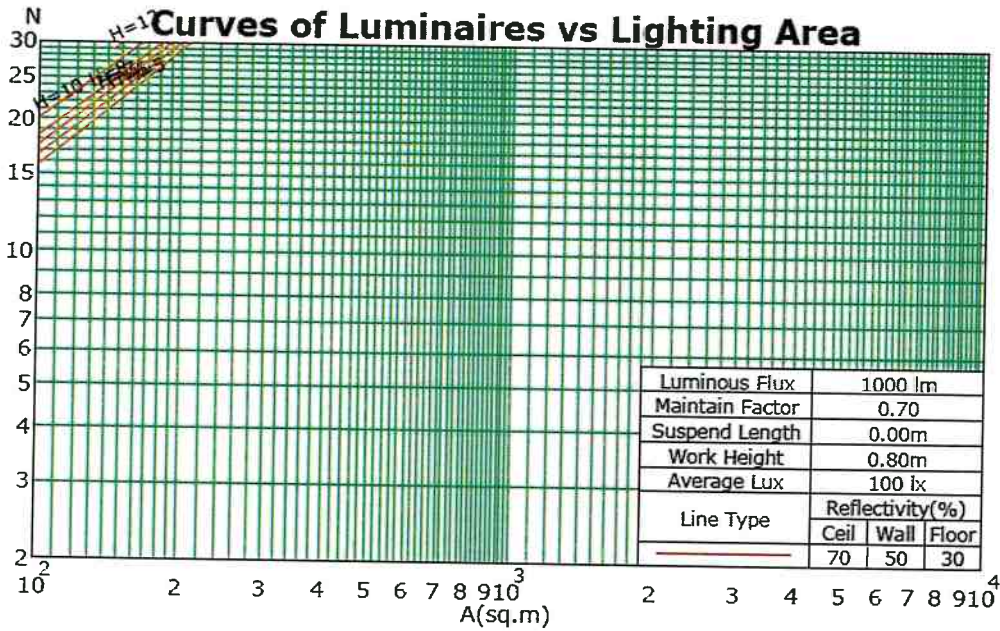
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Coefficients Of Utilization - Zonal Cavity Method

RC	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.3	0.3	0.3	0.1	0.1	0.1	0
RW	0.7	0.5	0.3	0.1	0.7	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0
RCR	RF = 0.2																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	112	109	107	112	109	107	106	105	104	102	101	100	99	98	97	96	94
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89
3	105	99	94	91	103	97	93	90	95	91	89	92	90	87	90	88	86	84
4	100	93	89	85	98	92	88	84	90	86	83	88	85	82	86	84	81	80
5	96	89	83	80	94	88	83	79	86	82	79	84	81	78	83	80	77	76
6	92	84	79	75	91	83	78	75	82	78	74	81	77	74	79	76	73	72
7	88	80	75	71	87	79	75	71	78	74	71	77	73	70	76	72	70	69
8	85	76	71	68	84	76	71	67	75	70	67	74	70	67	73	69	67	65
9	81	73	68	64	80	73	68	64	72	67	64	71	67	64	70	66	64	62
10	78	70	65	62	77	70	65	61	69	64	61	68	64	61	67	64	61	60

Spacing Criteria (0-180): 0.59
 Spacing Criteria (90-270): 0.54
 Spacing Criteria (Diagonal): 0.59



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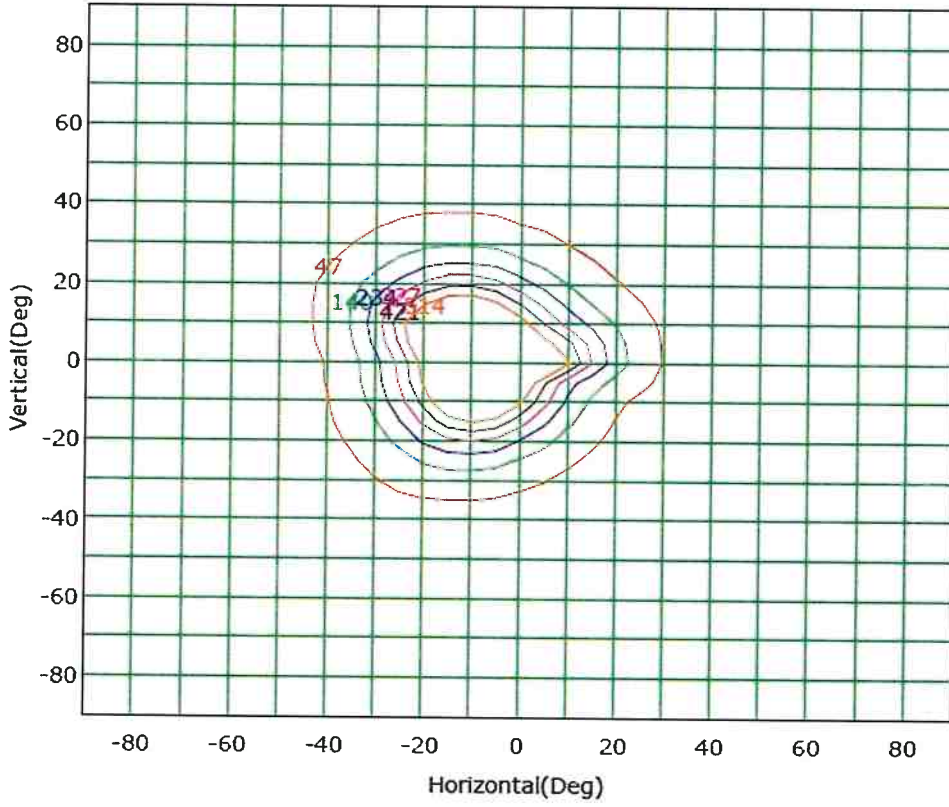
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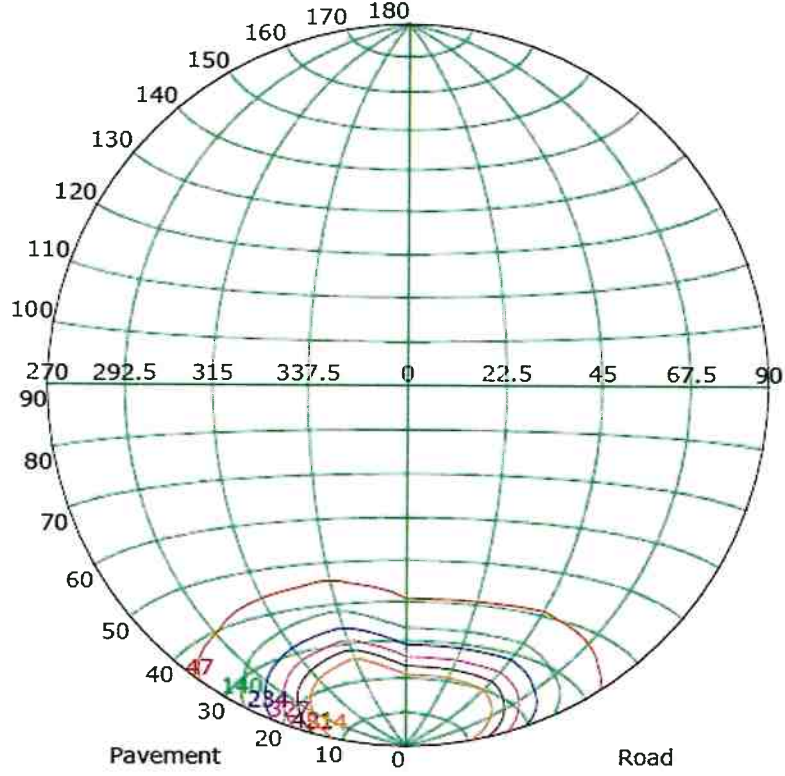
Isocandela (rectangle)



Imax (100%): 935 cd

— (5%): 47 cd	— (15%): 140 cd
— (25%): 234 cd	— (35%): 327 cd
— (45%): 421 cd	— (55%): 514 cd

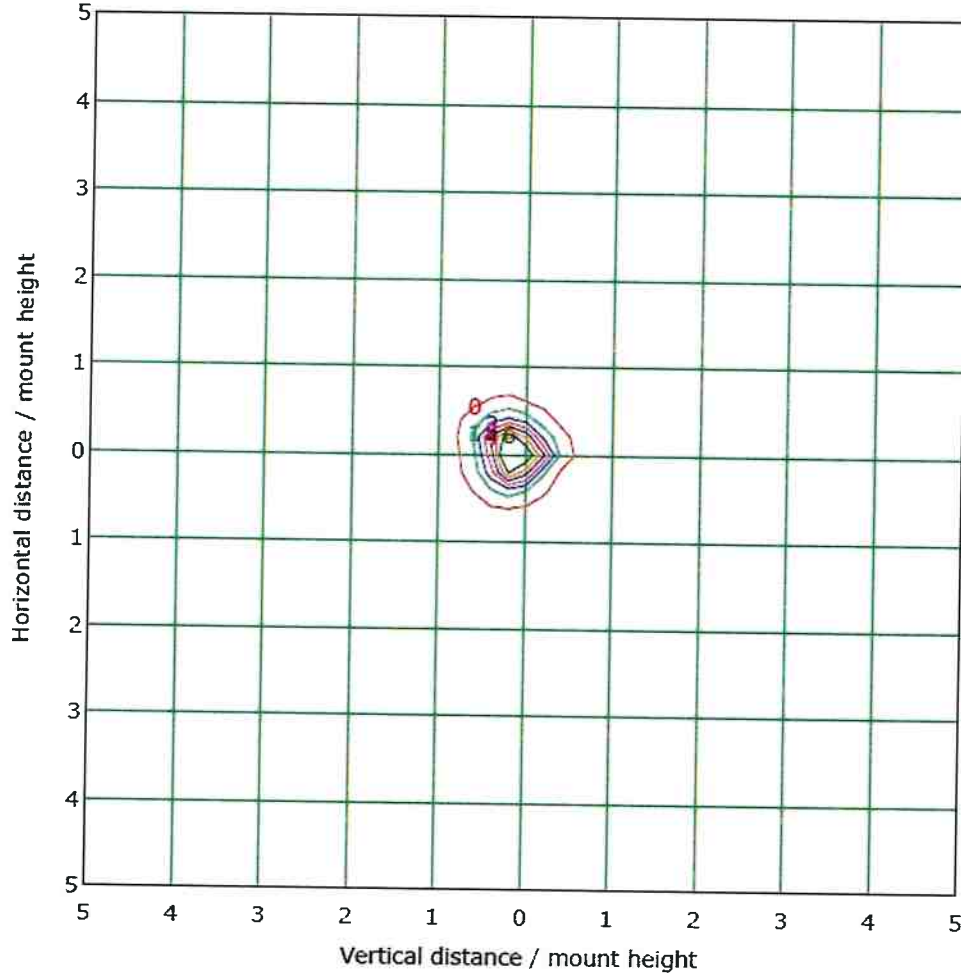
Isocandela (sphere)



Imax (100%): 935 cd

— (5%): 47 cd	— (15%): 140 cd
— (25%): 234 cd	— (35%): 327 cd
— (45%): 421 cd	— (55%): 514 cd

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 9.3 lx

— (5%): 0.5 lx	— (15%): 1.4 lx
— (25%): 2.3 lx	— (35%): 3.2 lx
— (45%): 4.2 lx	— (55%): 5.1 lx
— (65%): 6.0 lx	

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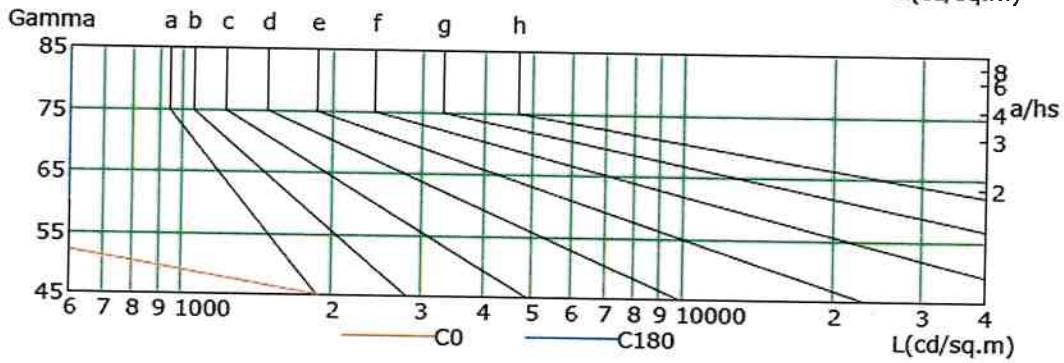
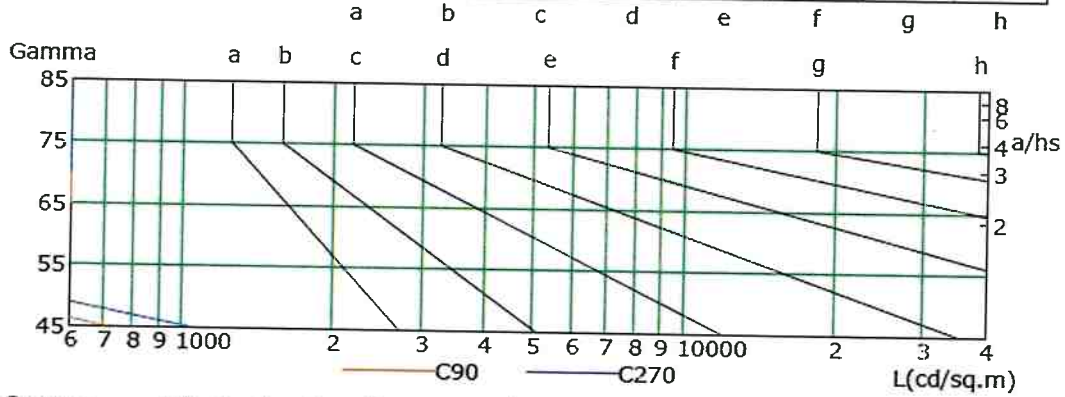
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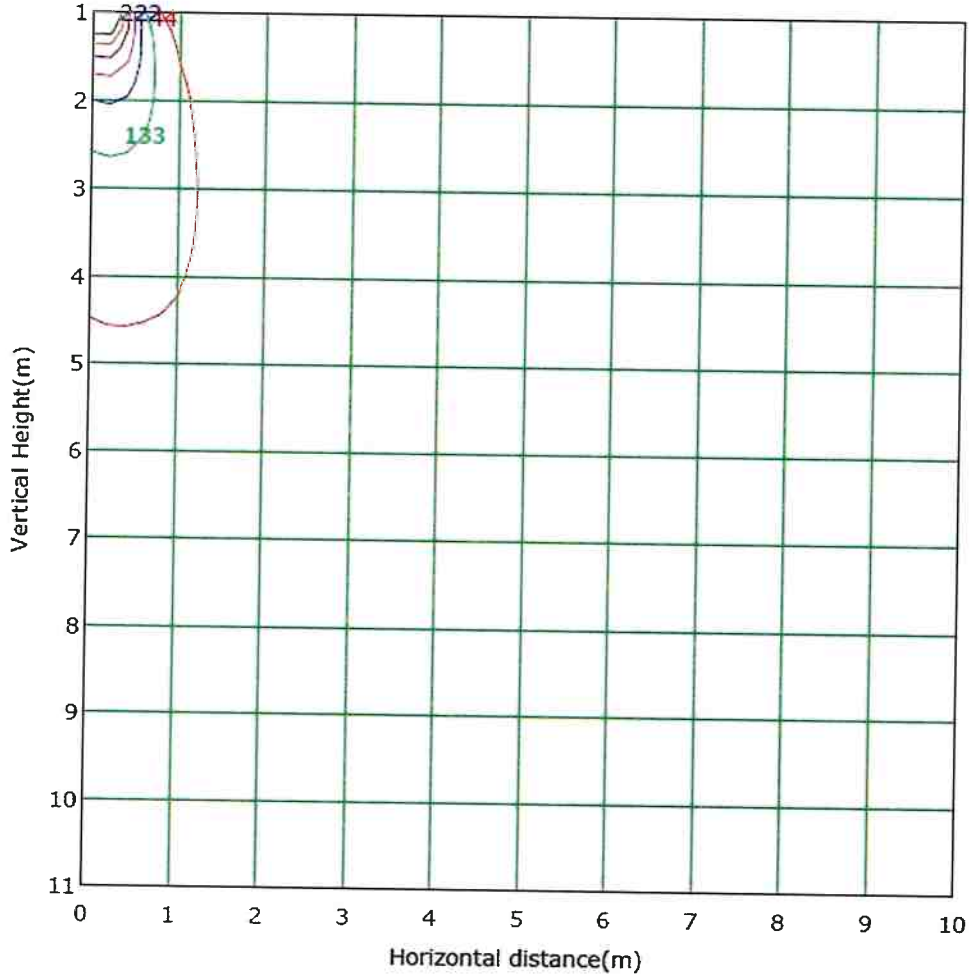
Lum Limit Curve

Dazzle	Quality	Illuminance (lx)									
		2000	1000	500	<=300						
1.15	A	2000	1000	500	<=300						
1.50	B		2000	1000	500	<=300					
1.85	C			2000	1000	500	<=300				
2.20	D				2000	1000	500	<=300			
2.55	E					2000	1000	500	<=300		



L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	1892	853	372	192	75	0	0	0	0
C90	706	368	178	80	0	0	0	0	0
C180	309	137	53	0	0	0	0	0	0
C270	1038	508	254	119	28	0	0	0	0

Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 888.8 lx
— (5%): 44.4 lx — (15%): 133.3 lx
— (25%): 222.2 lx — (35%): 311.1 lx
— (45%): 399.9 lx — (55%): 488.8 lx
— (65%): 577.7 lx

UGR Table

Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference 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	12.8	13.5	13.0	13.7	13.9	8.6	9.4	8.9	9.6	9.8
3H	12.6	13.3	12.9	13.6	13.8	8.5	9.2	8.8	9.4	9.7
4H	12.6	13.2	12.9	13.5	13.7	8.4	9.1	8.7	9.3	9.6
6H	12.5	13.1	12.8	13.4	13.7	8.3	8.9	8.7	9.2	9.5
8H	12.4	13.0	12.8	13.3	13.6	8.3	8.9	8.6	9.2	9.5
12H	12.4	13.0	12.8	13.3	13.6	8.3	8.8	8.6	9.1	9.4
X=4H Y=2H	12.6	13.2	12.9	13.5	13.7	8.5	9.1	8.8	9.4	9.6
3H	12.4	13.0	12.8	13.3	13.6	8.3	8.9	8.7	9.2	9.5
4H	12.3	12.8	12.7	13.2	13.5	8.2	8.7	8.6	9.1	9.4
6H	12.3	12.7	12.7	13.1	13.5	8.1	8.6	8.6	8.9	9.3
8H	12.2	12.6	12.6	13.0	13.4	8.1	8.5	8.5	8.9	9.3
12H	12.2	12.5	12.6	12.9	13.4	8.0	8.4	8.5	8.8	9.3
X=8H Y=4H	12.2	12.6	12.6	13.0	13.4	8.1	8.5	8.5	8.9	9.3
6H	12.1	12.4	12.6	12.9	13.3	8.0	8.3	8.5	8.7	9.2
8H	12.1	12.3	12.5	12.8	13.3	7.9	8.2	8.4	8.7	9.2
12H	12.0	12.3	12.5	12.7	13.2	7.9	8.1	8.4	8.6	9.1
X=12H Y=4H	12.2	12.5	12.6	12.9	13.4	8.0	8.4	8.5	8.8	9.3
6H	12.1	12.3	12.5	12.8	13.3	7.9	8.2	8.4	8.7	9.2
8H	12.0	12.3	12.5	12.7	13.2	7.9	8.1	8.4	8.6	9.1
Variations with the observer position at spacings:										
S=1.0H	+4.7/-10.3					+4.3/-11.2				
S=1.5H	+7.8/-15.2					+6.3/-16.4				
S=2.0H	+9.9/-20.9					+8.2/-26.7				

Calculate in accordance with CIE Pub.117. The table is revised with 353lm ($8\log(F/F_0) = -3.6$).

Utilisation Factor Table(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 0.75								
Room Reflectance			Room Index(RI)								
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.90	0.96	0.99	1.02	1.05	1.08	1.09	1.11	1.12
		0.30	0.86	0.92	0.96	0.99	1.02	1.05	1.07	1.09	1.11
		0.20	0.83	0.89	0.93	0.96	1.00	1.03	1.05	1.07	1.09
0.50	0.50	0.20	0.89	0.94	0.97	1.00	1.02	1.04	1.06	1.07	1.08
		0.30	0.86	0.91	0.94	0.97	1.00	1.02	1.04	1.06	1.07
		0.20	0.83	0.88	0.92	0.94	0.98	1.00	1.02	1.04	1.06
0.30	0.50	0.20	0.88	0.93	0.95	0.97	1.00	1.01	1.02	1.04	1.04
		0.30	0.85	0.90	0.93	0.95	0.98	1.00	1.01	1.02	1.03
		0.20	0.82	0.88	0.91	0.93	0.96	0.98	1.00	1.01	1.02
0.00	0.00	0.00	0.81	0.86	0.89	0.91	0.93	0.95	0.96	0.97	0.98

Rating:17W Photometrically tested without ceiling board.
 Multiply UF values by service correction factors
 Calculate in accordance with CIBSE Technical Memorandum NO.5 1980

Utilisation Factor Table(Wall)

Utilisation Factors UF(W)			SHR NOM = 0.75								
Room Reflectance			Room Index(RI)								
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.51	0.41	0.34	0.30	0.23	0.19	0.17	0.13	0.10
	0.30		0.42	0.35	0.30	0.26	0.21	0.18	0.15	0.12	0.10
	0.20		0.36	0.31	0.27	0.24	0.19	0.16	0.14	0.11	0.09
0.50	0.50	0.20	0.48	0.38	0.32	0.27	0.22	0.22	0.15	0.12	0.09
	0.30		0.41	0.33	0.28	0.25	0.20	0.16	0.14	0.11	0.09
	0.20		0.35	0.29	0.25	0.22	0.18	0.15	0.13	0.10	0.09
0.30	0.50	0.20	0.46	0.36	0.30	0.25	0.20	0.16	0.14	0.10	0.08
	0.30		0.39	0.32	0.27	0.23	0.18	0.15	0.13	0.10	0.08
	0.20		0.34	0.28	0.24	0.21	0.17	0.14	0.12	0.09	0.08
0.00	0.00	0.00	0.20	0.15	0.12	0.10	0.08	0.06	0.05	0.04	0.03

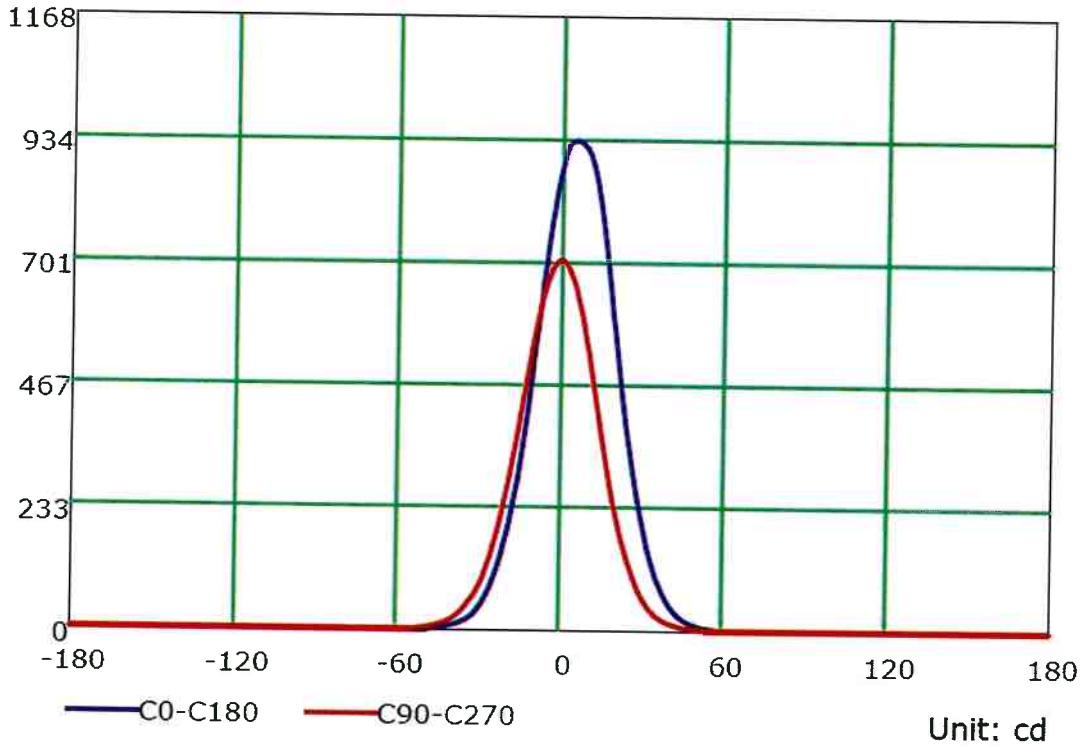
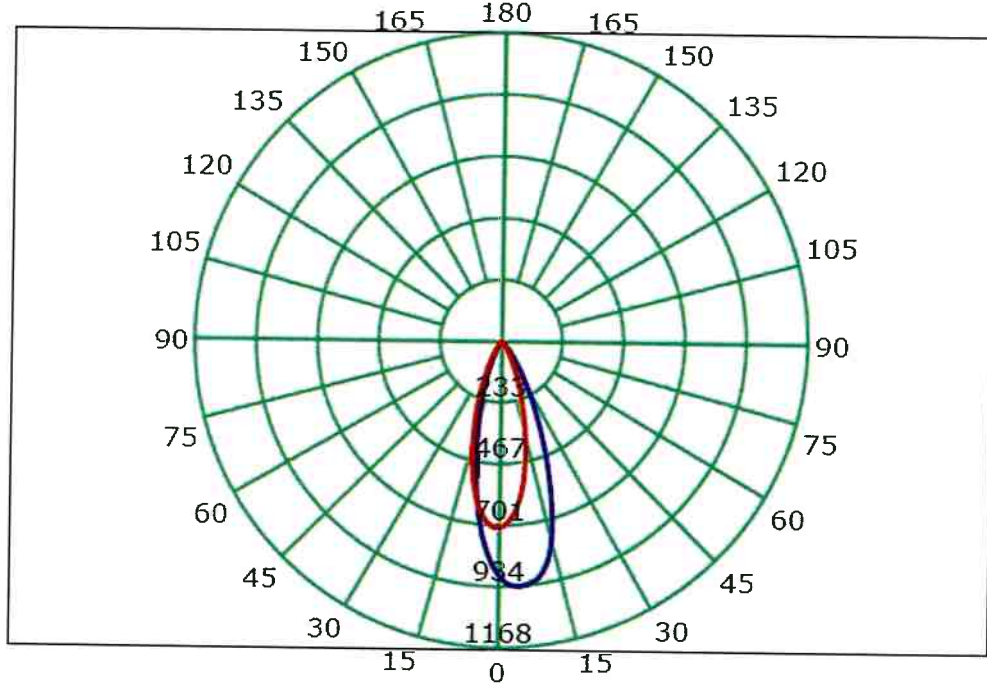
Rating:17W Photometrically tested without ceiling board.
Multiply UF values by service correction factors
Calculate in accordance with CIBSE Technical Memorandum NO.5 1980

Utilisation Factor Table(Ceiling cavity)

Utilisation Factors UF(C)			SHR NOM = 0.75								
Room Reflectance			Room Index(RI)								
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.13	0.14	0.16	0.17	0.18	0.19	0.20	0.21	0.21
	0.30		0.09	0.11	0.13	0.14	0.16	0.17	0.18	0.19	0.20
	0.20		0.07	0.09	0.10	0.12	0.14	0.15	0.16	0.18	0.19
0.50	0.50	0.20	0.12	0.14	0.15	0.16	0.17	0.18	0.19	0.20	0.20
	0.30		0.09	0.11	0.12	0.14	0.15	0.16	0.17	0.19	0.19
	0.20		0.07	0.09	0.10	0.12	0.13	0.15	0.16	0.17	0.18
0.30	0.50	0.20	0.12	0.13	0.15	0.15	0.17	0.18	0.18	0.19	0.19
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.07	0.09	0.10	0.11	0.13	0.15	0.16	0.17	0.18
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Rating:17W Photometrically tested without ceiling board.
Multiply UF values by service correction factors
Calculate in accordance with CIBSE Technical Memorandum NO.5 1980

Luminous Intensity Distribution Curve



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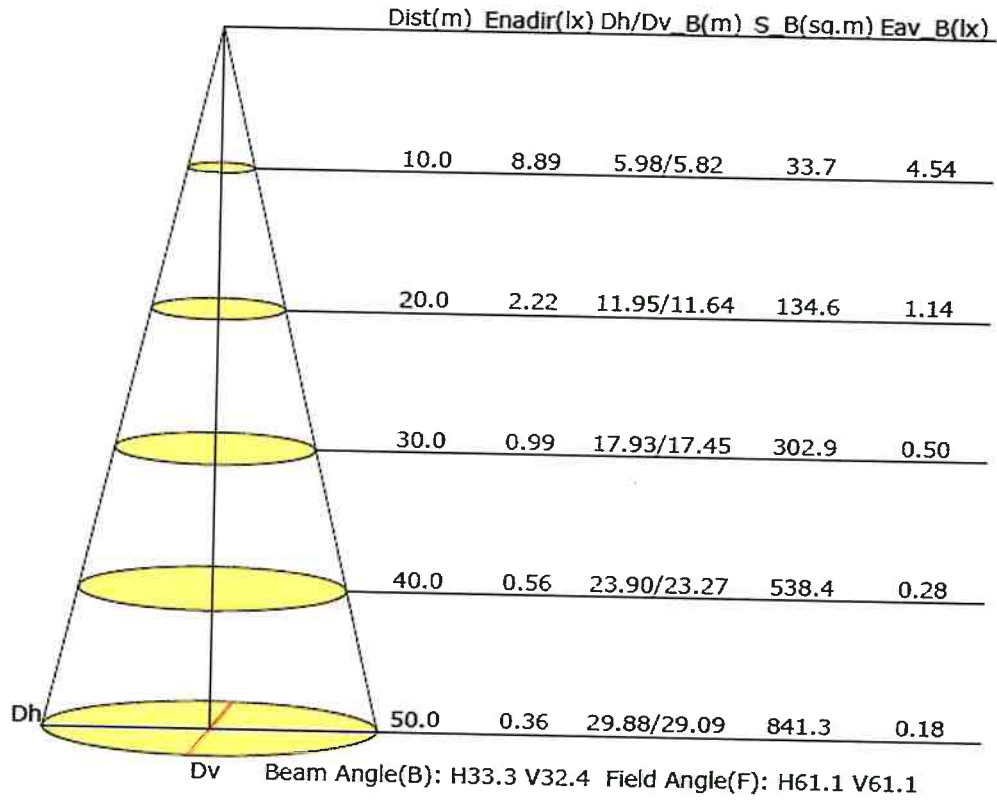
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Illuminance at a Distance



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Görsel Dökümanlar / Photo Documentation





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