

Report No.: 1809271554

Test Time: 2018-09-27 16:05

Luminaire Property

Luminaire Manufacturer:

Number of Lamps: 1

Luminous Width (mm): 110

Voltage: 220.6 V

Power: 18.39 W

Luminous Length (mm): 1525

Luminous Height (mm): 90

Current: 0.085 A

Power Factor: 0.977

Photometric Results

CIE Class: Direct

Measurement Flux: 2205.6 lm

Downward Ratio: 99%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 158.8, 180.4, 178.8, 178.8

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 109.7, 106.6, 113.2, 113.2

Luminaire Efficacy Rating (LER): 119.99

Max. Intensity: 365.08 cd/klm

S/MH(C0/C180): 1.24

Total Rated Lamp Lumens: 2205.6 lm

Efficiency: 100%

Upward Ratio: 1%

Central Intensity: 275.38 cd/klm

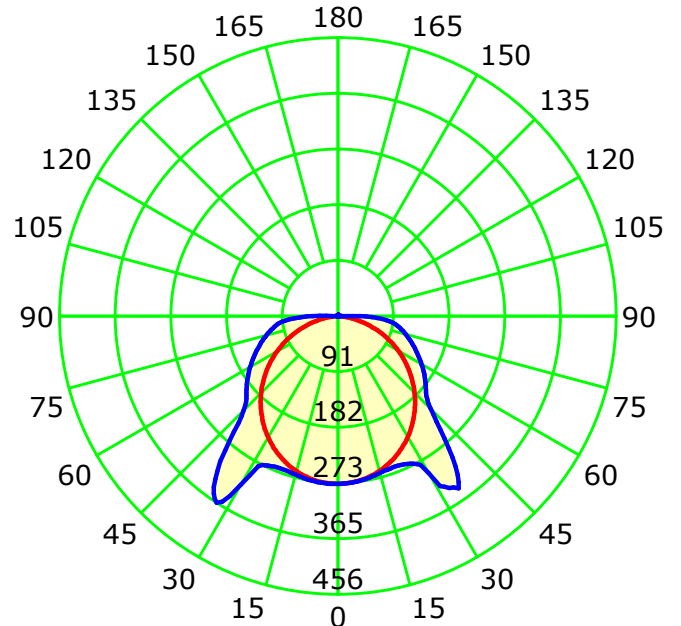
Pos of Max. Intensity: H270 V33

S/MH(C90/C270): 1.64

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd/klm

Average Diffuse Angle(50%): 108.2°

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 22.5

Test Lab: KARMA

Test Type: TYPE C

Temperature: 24

Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0

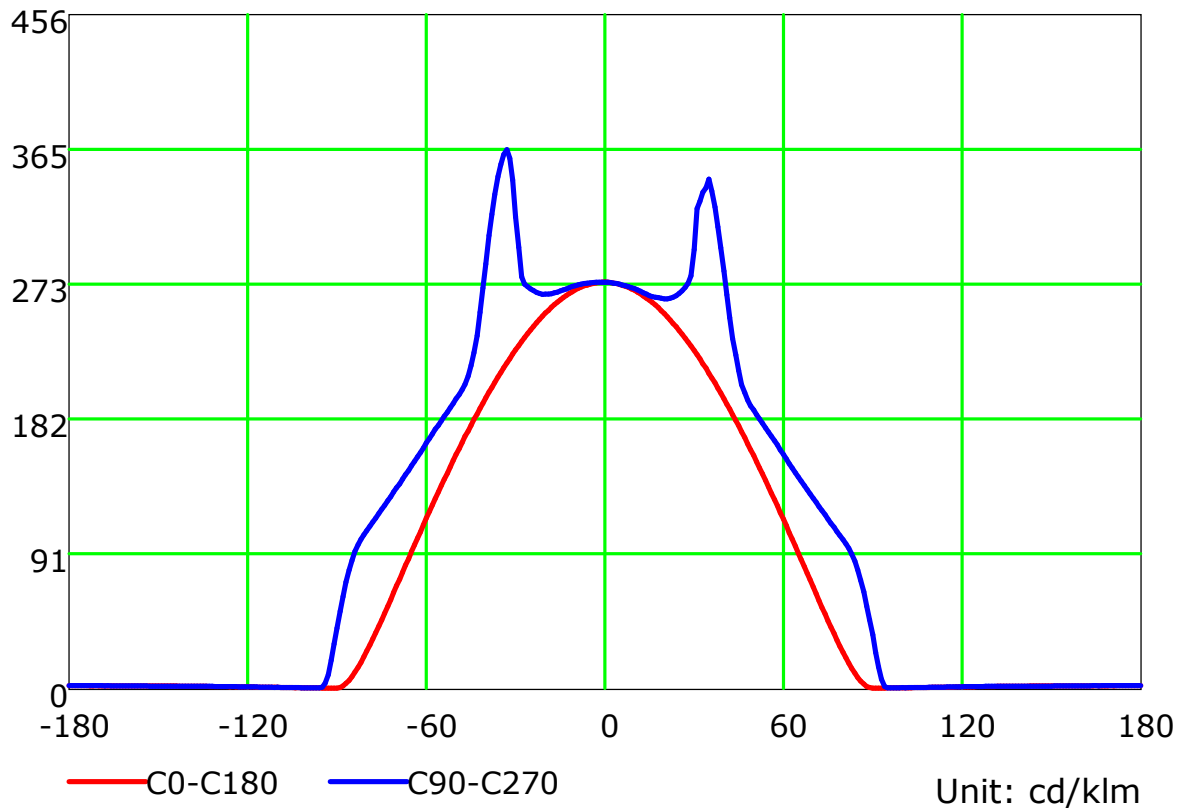
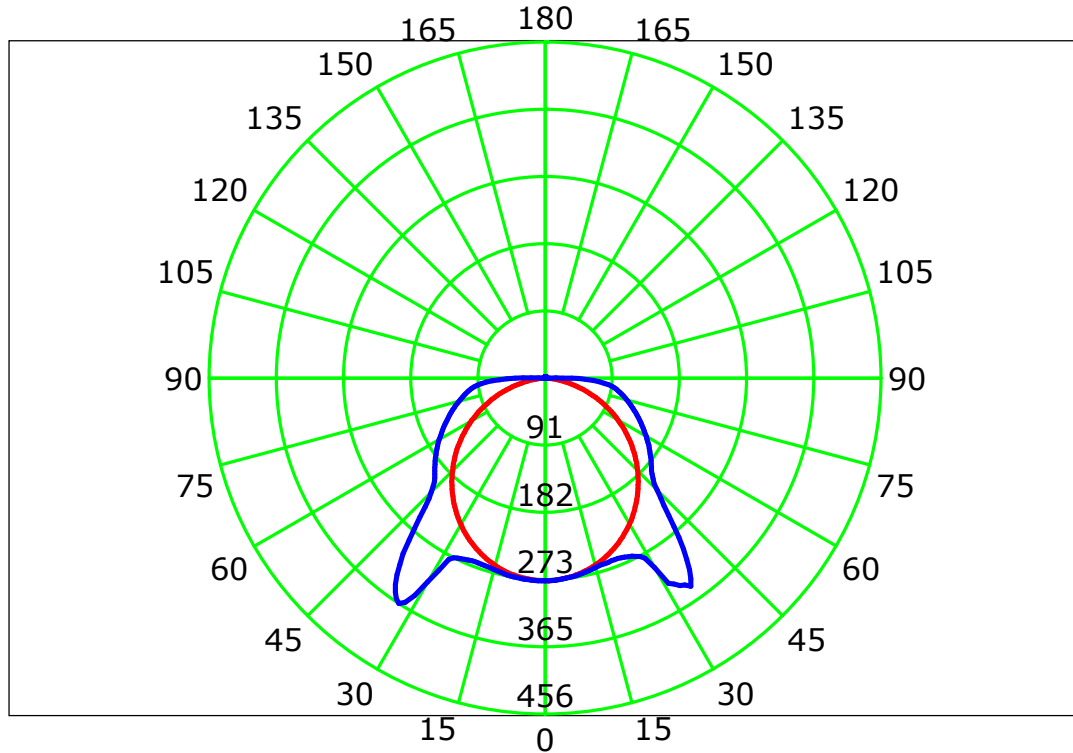
Test Device: LSG-1700B

Distance: 8.942 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Test Lab: KARMA

Test Type: TYPE C

Temperature: 24

Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0

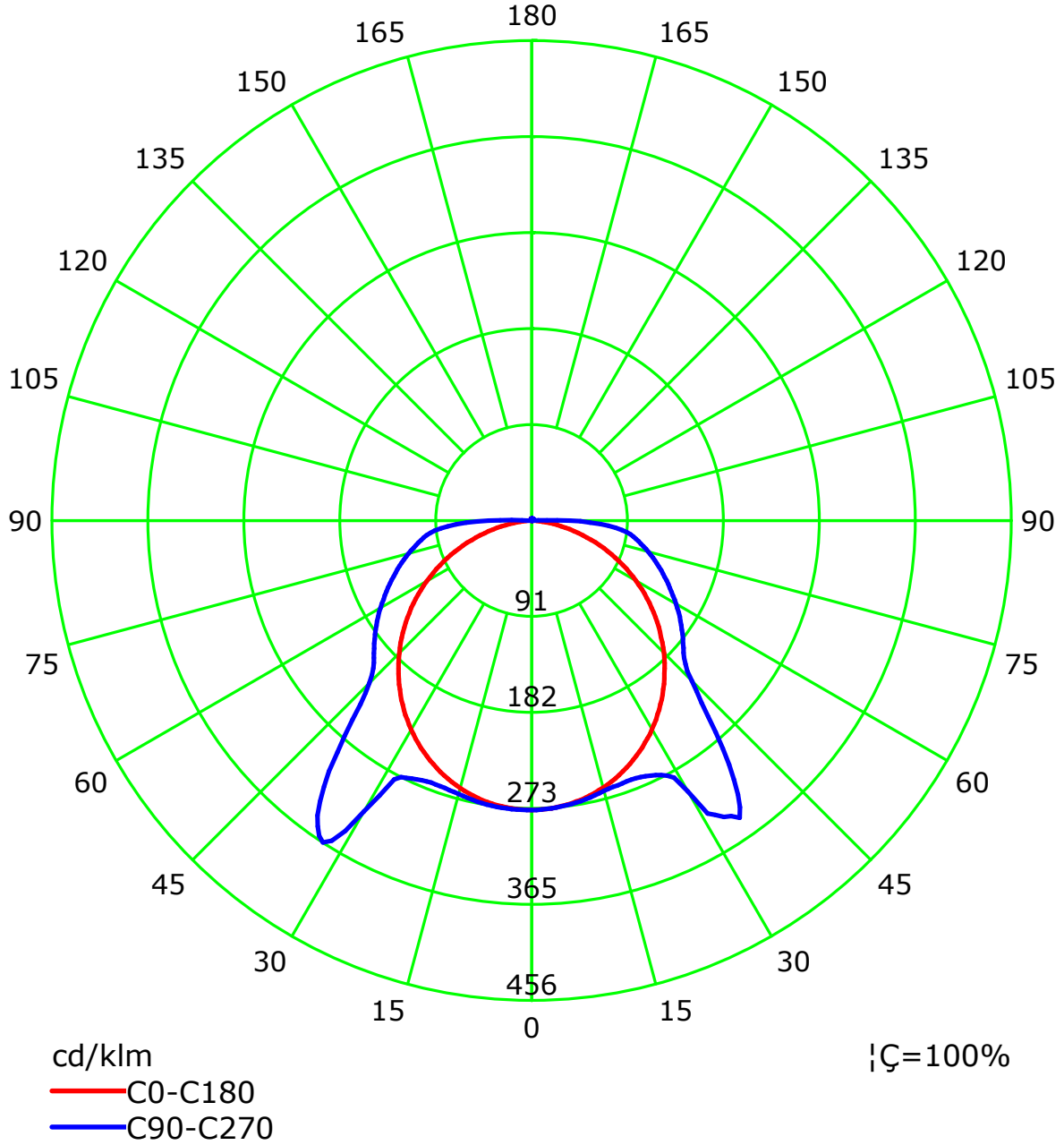
Test Device: LSG-1700B

Distance: 8.942 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 22.5

Test Lab: KARMA

Test Type: TYPE C

Temperature: 24

Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1700B

Distance: 8.942 m

Humidity:

Inspector:

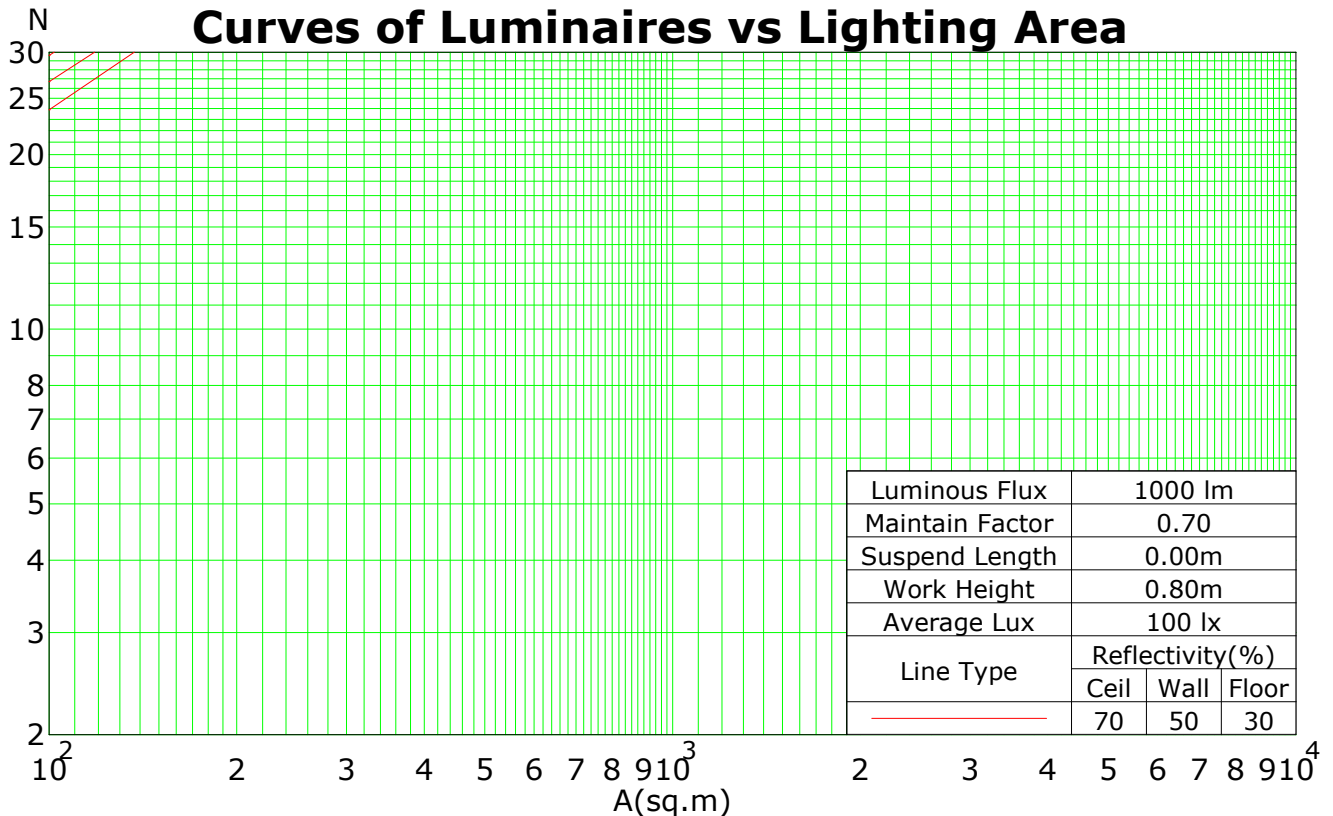
Coefficients Of Utilization - Zonal Cavity Method

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	110	110	110	106	106	106	101	101	101	99
1	106	101	96	91	103	98	94	90	94	90	86	90	86	84	86	83	81	79
2	96	87	79	73	93	85	78	72	81	75	70	77	72	68	74	70	66	64
3	87	75	67	59	84	74	65	59	70	63	58	67	61	56	65	60	55	53
4	79	66	57	50	77	65	56	49	62	55	48	60	53	48	57	52	47	44
5	73	59	49	42	70	58	49	42	55	48	41	53	46	41	51	45	40	38
6	67	53	43	37	65	52	43	36	50	42	36	48	41	36	46	40	35	33
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31	29
8	58	43	35	28	56	43	34	28	41	34	28	40	33	28	39	32	28	26
9	54	40	31	25	52	39	31	25	38	30	25	37	30	25	36	29	25	23
10	50	37	28	23	49	36	28	23	35	28	23	34	27	22	33	27	22	20

Spacing Criteria (0-180): 1.24

Spacing Criteria (90-270): 1.64

Spacing Criteria (Diagonal): 1.63



C Plane (°):0.0-360.0: 22.5

Test Lab: KARMA

Test Type: TYPE C

Temperature: 24

Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0

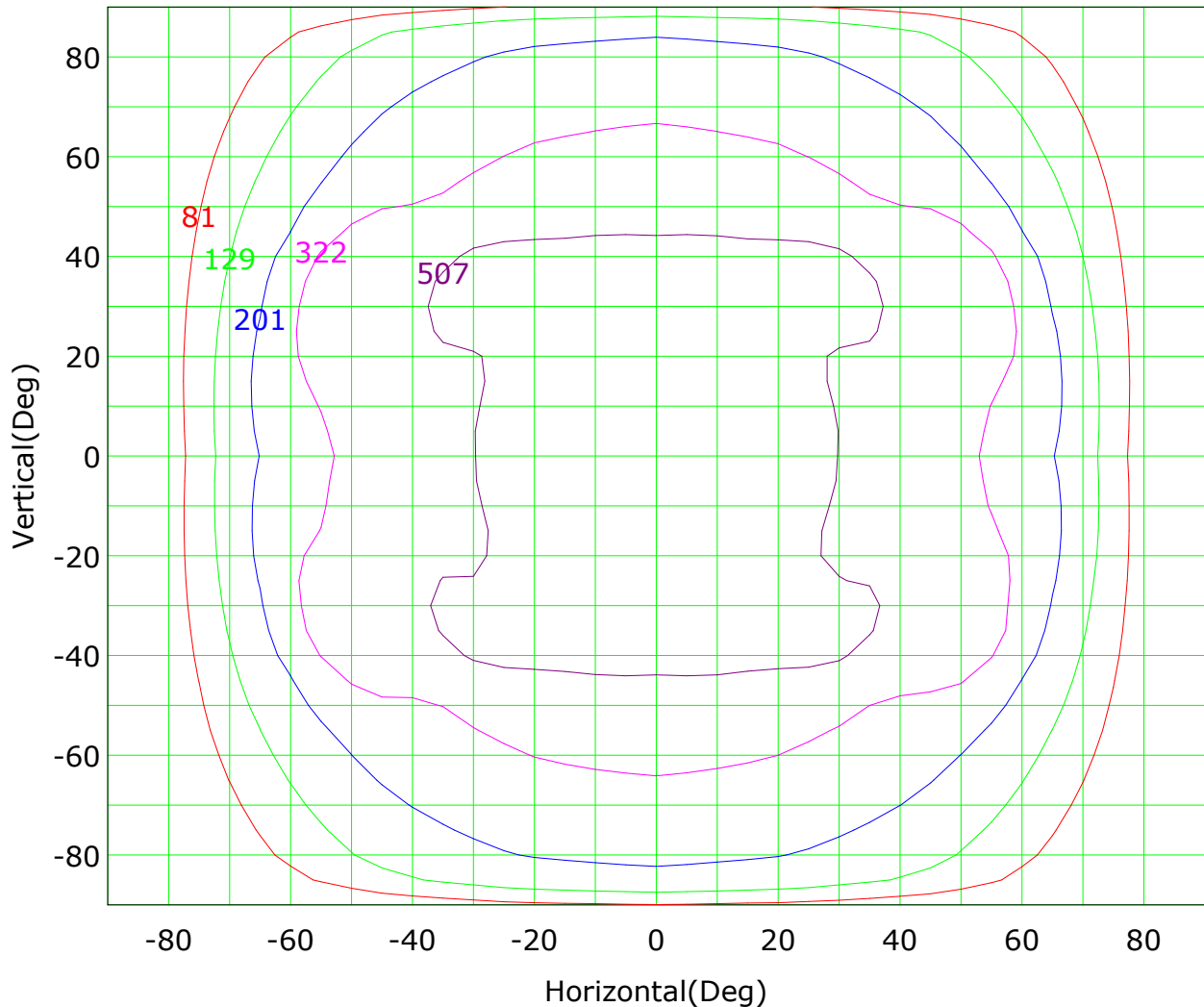
Test Device: LSG-1700B

Distance: 8.942 m

Humidity:

Inspector:

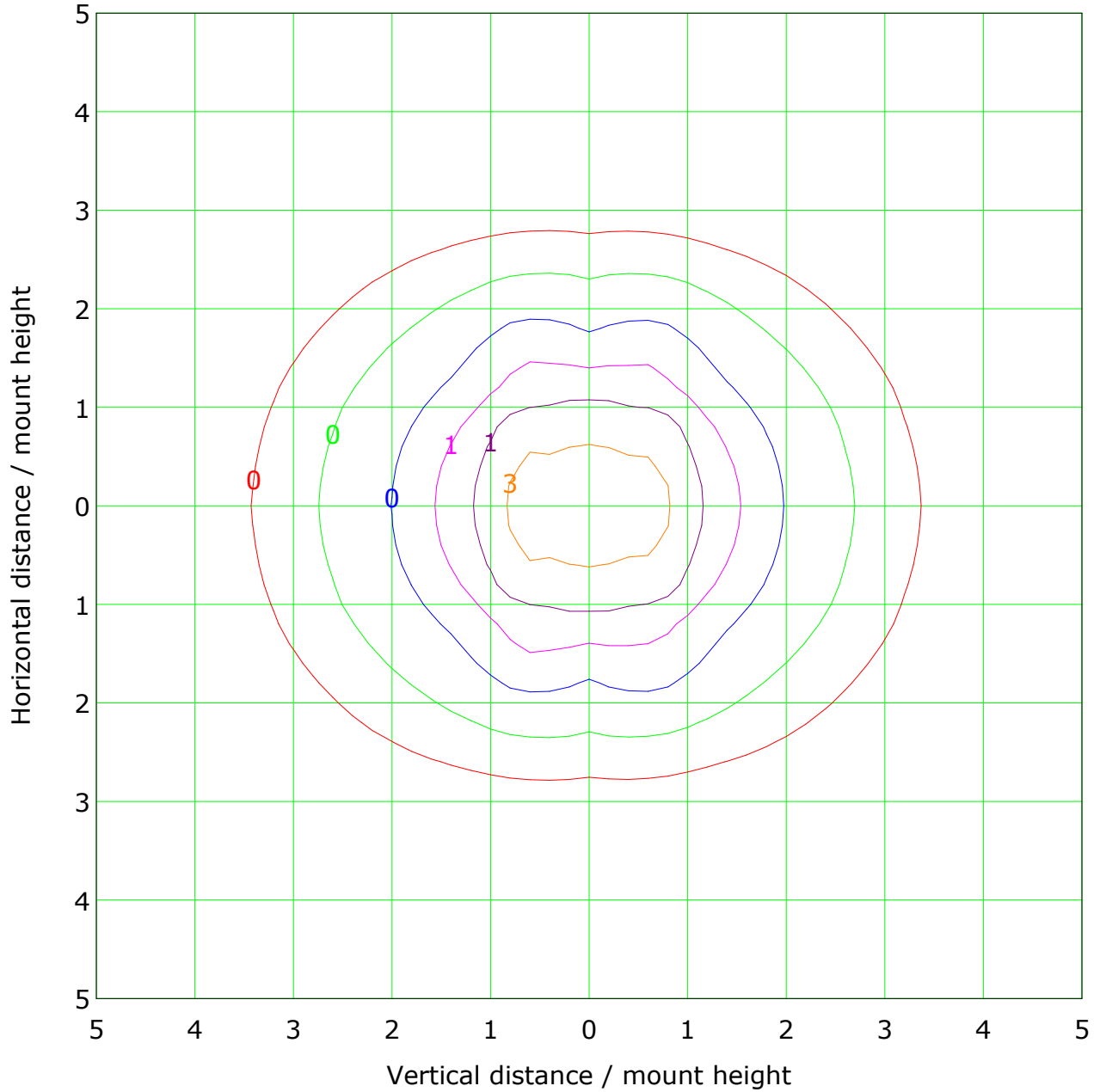
Isocandela (rectangle)



Imax (100%): 805 cd

(10%): 81 cd	(16%): 129 cd
(25%): 201 cd	(40%): 322 cd
(63%): 507 cd	(100%): 805 cd

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 6.1 lx

(1%): 0.1 lx	(2%): 0.1 lx
(5%): 0.3 lx	(10%): 0.6 lx
(20%): 1.2 lx	(50%): 3.0 lx
(100%): 6.1 lx	

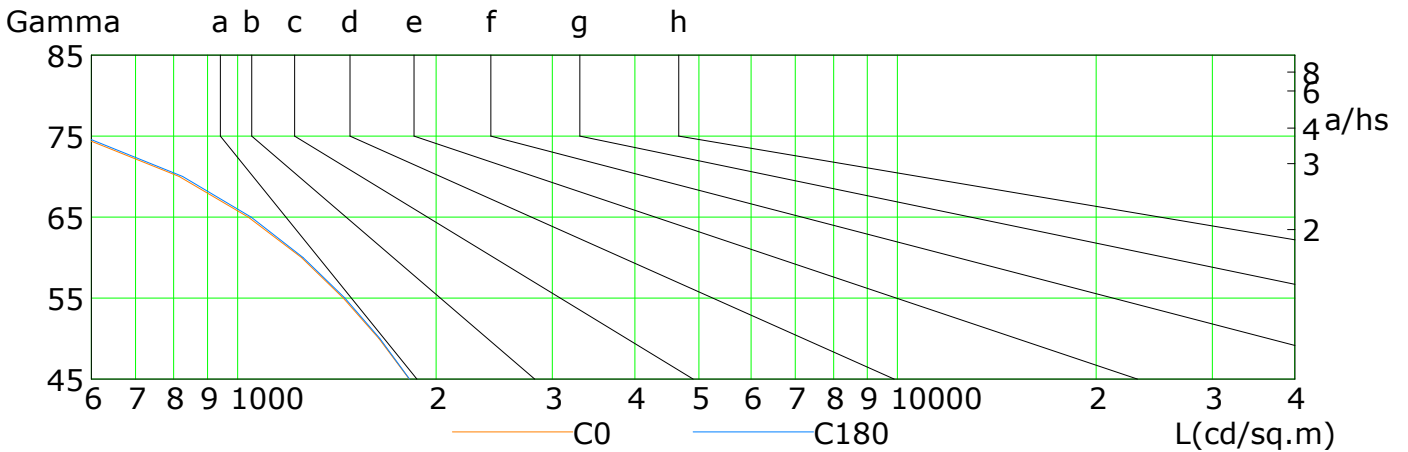
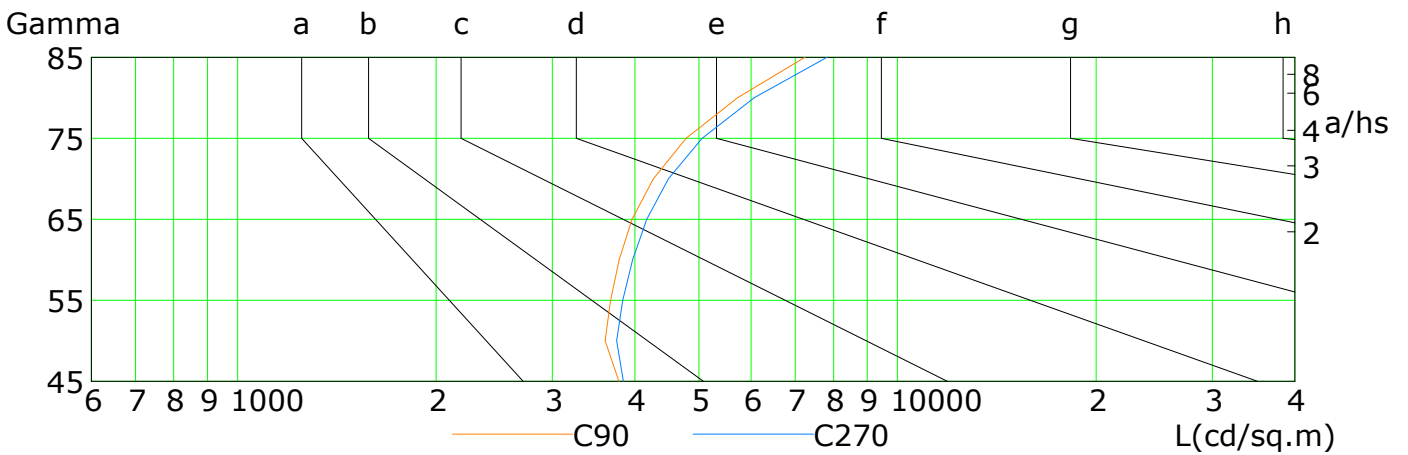
C Plane (°):0.0-360.0: 22.5
 Test Lab: KARMA
 Test Type: TYPE C
 Temperature: 24
 Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1700B
 Distance: 8.942 m
 Humidity:
 Inspector:

Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
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

a b c d e f g h



L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	1821	1637	1446	1249	1038	815	575	331	109
C90	3783	3605	3675	3785	3961	4265	4783	5722	7238
C180	1823	1643	1454	1257	1048	825	583	341	119
C270	3842	3751	3836	3967	4168	4500	5056	6070	7823

C Plane (°):0.0-360.0: 22.5

Test Lab: KARMA

Test Type: TYPE C

Temperature: 24

Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0

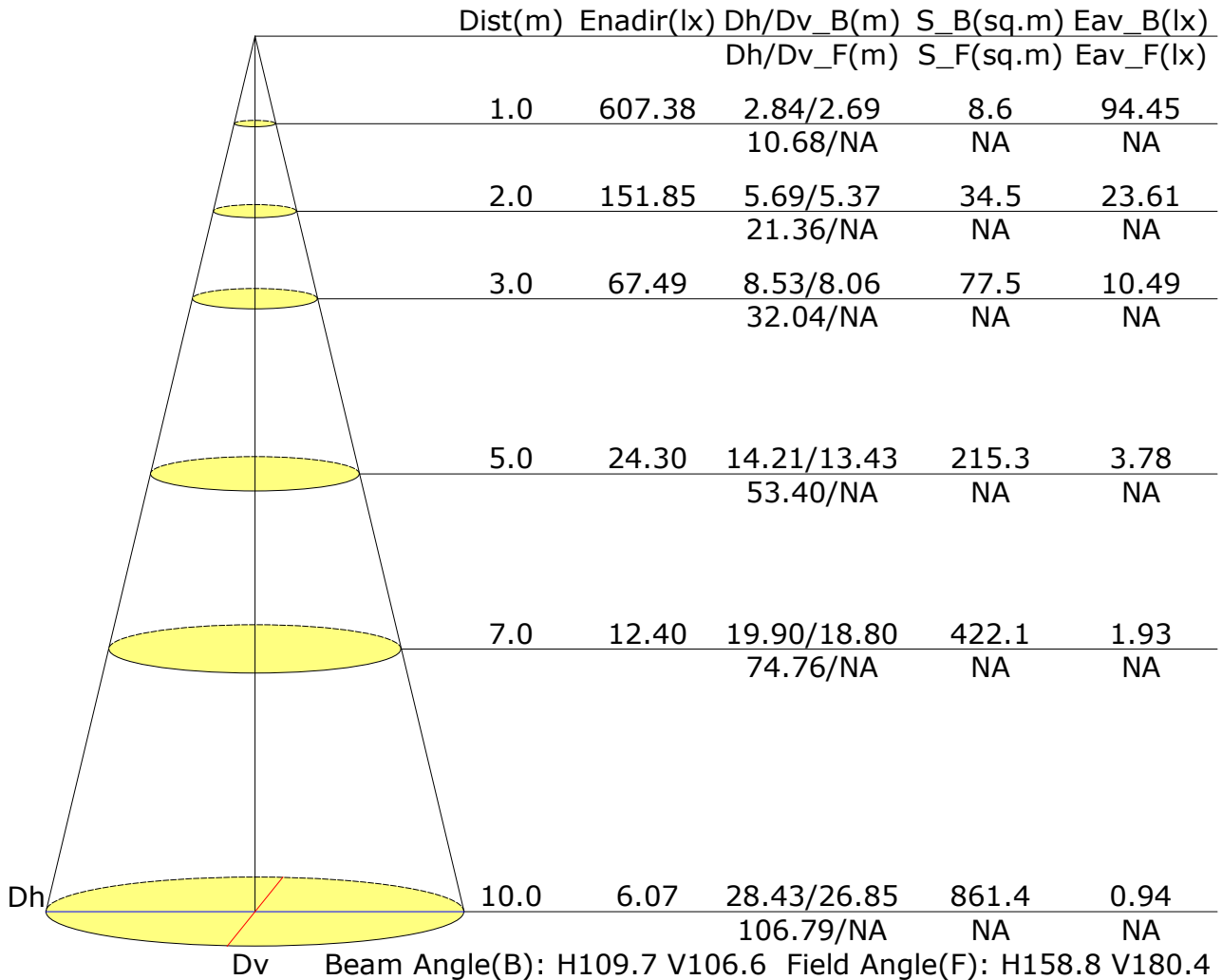
Test Device: LSG-1700B

Distance: 8.942 m

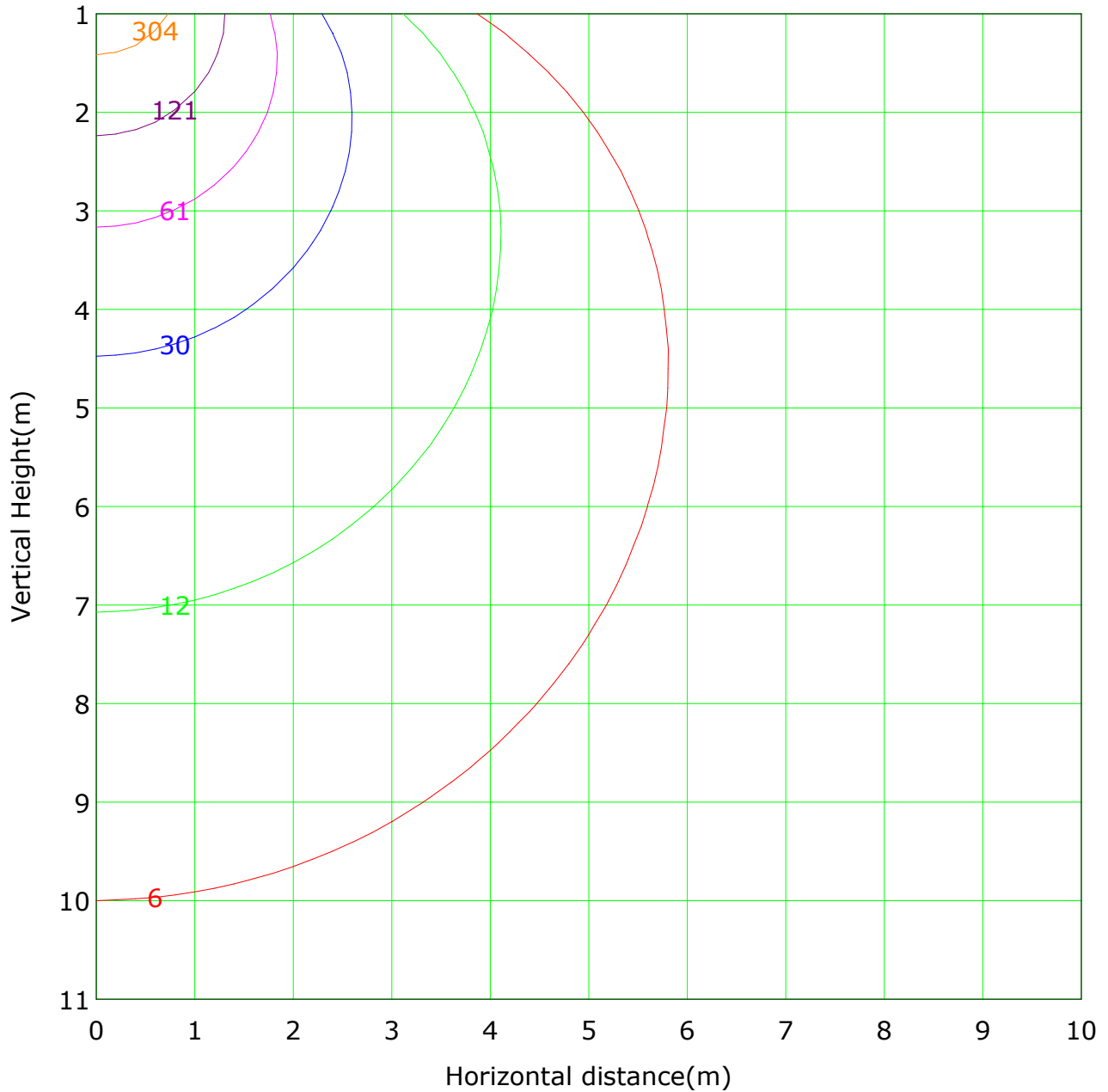
Humidity:

Inspector:

Illuminance at a Distance



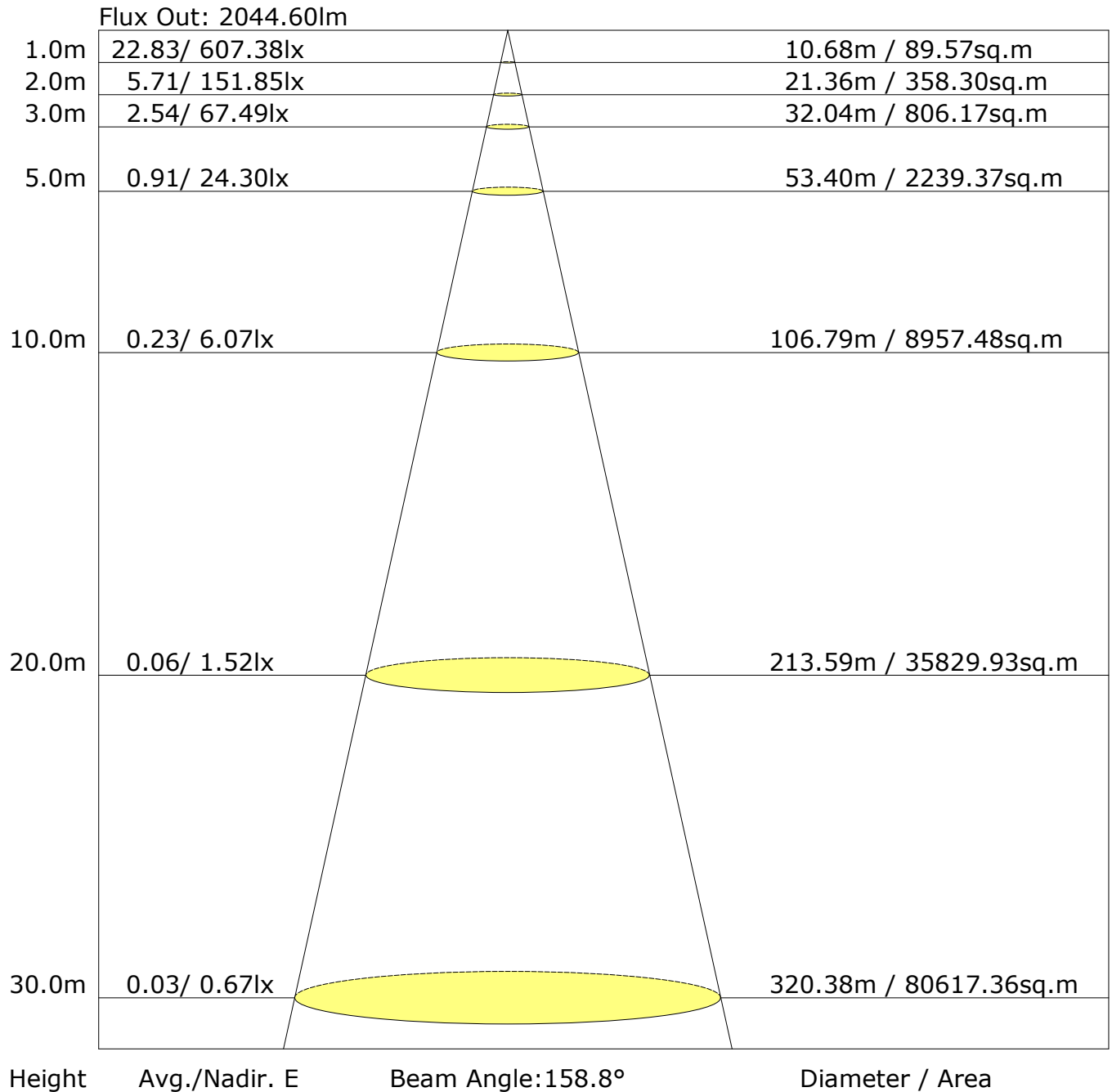
Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 607.4 lx

— (1%): 6.1 lx	— (2%): 12.1 lx
— (5%): 30.4 lx	— (10%): 60.7 lx
— (20%): 121.5 lx	— (50%): 303.7 lx
— (100%): 607.4 lx	

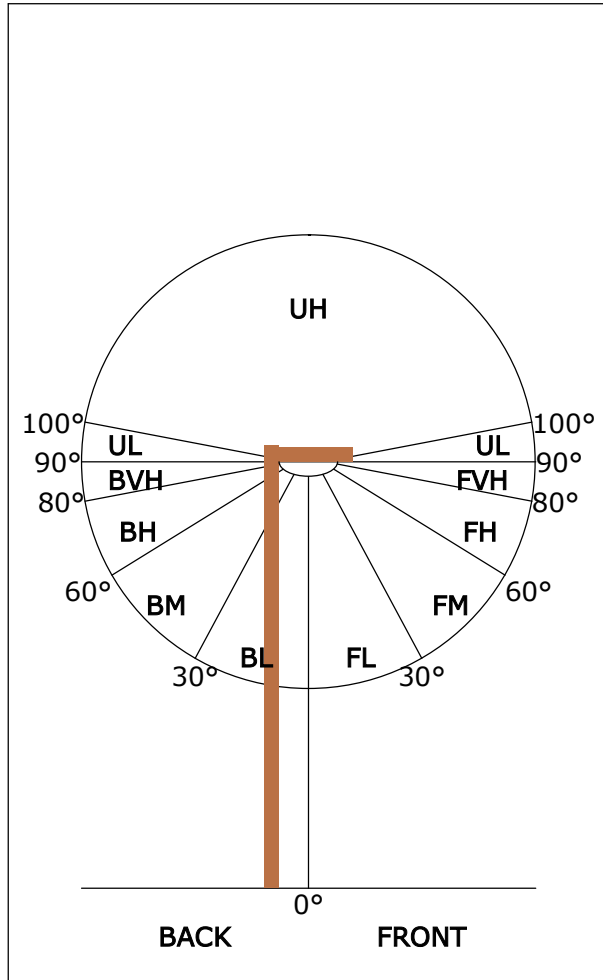
The Average Illuminance Effective Figure



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	14.6	16.0	14.9	16.3	16.6	16.5	17.9	16.8	18.2	18.5
3H	15.4	16.8	15.8	17.1	17.4	18.6	20.0	19.0	20.3	20.6
4H	15.7	17.0	16.1	17.3	17.6	19.8	21.1	20.2	21.4	21.7
6H	15.8	17.0	16.2	17.3	17.7	21.1	22.3	21.5	22.6	23.0
8H	15.8	17.0	16.2	17.3	17.7	21.7	22.9	22.1	23.2	23.6
12H	15.8	16.9	16.2	17.3	17.6	22.4	23.5	22.8	23.9	24.3
X=4H Y=2H	15.3	16.6	15.7	16.9	17.2	16.8	18.1	17.2	18.4	18.7
3H	16.4	17.5	16.8	17.9	18.2	19.2	20.3	19.6	20.6	21.0
4H	16.8	17.8	17.2	18.2	18.6	20.5	21.5	20.9	21.9	22.3
6H	17.0	17.9	17.5	18.3	18.8	21.9	22.8	22.4	23.2	23.7
8H	17.1	17.9	17.5	18.3	18.8	22.7	23.5	23.2	24.0	24.4
12H	17.1	17.8	17.6	18.3	18.8	23.5	24.2	24.0	24.7	25.2
X=8H Y=4H	17.4	18.2	17.8	18.6	19.1	20.6	21.5	21.1	21.9	22.4
6H	17.8	18.5	18.3	19.0	19.5	22.3	22.9	22.8	23.4	23.9
8H	18.0	18.6	18.5	19.0	19.6	23.2	23.8	23.7	24.3	24.8
12H	18.0	18.6	18.6	19.1	19.6	24.1	24.6	24.6	25.1	25.7
X=12H Y=4H	17.6	18.3	18.0	18.7	19.2	20.6	21.4	21.1	21.8	22.3
6H	18.1	18.7	18.6	19.2	19.7	22.3	22.9	22.8	23.4	23.9
8H	18.3	18.9	18.8	19.4	19.9	23.2	23.8	23.8	24.3	24.8
Variations with the observer position at spacings:										
S=1.0H	+0.4/-0.3					+0.3/-0.3				
S=1.5H	+0.6/-0.8					+0.5/-0.6				
S=2.0H	+1.2/-1.4					+0.8/-1.1				

Calculate in accordance with CIE Pub.117. The table is revised with 2206lm ($8\log(F/F_0) = 2.7$).

FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM


ZONE	LUMENS	% LAMP LUMENS
FORWARD LIGHT	1092	49.5
FL (0°-30°)	241	10.9
FM (30°-60°)	544	24.7
FH (60°-80°)	245	11.1
FVH (80°-90°)	63	2.8
BACK LIGHT	1088	49.3
BL (0°-30°)	241	10.9
BM (30°-60°)	541	24.5
BH (60°-80°)	244	11.1
BVH (80°-90°)	63	2.8
UP LIGHT	25	1.1
UL (90°-100°)	10	0.5
UH (100°-180°)	15	0.7
TRAPPED LIGHT	NA	NA

BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B1 U2 G1
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B1 U2 G1

C Plane (°):0.0-360.0: 22.5

Test Lab: KARMA

Test Type: TYPE C

Temperature: 24

Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0

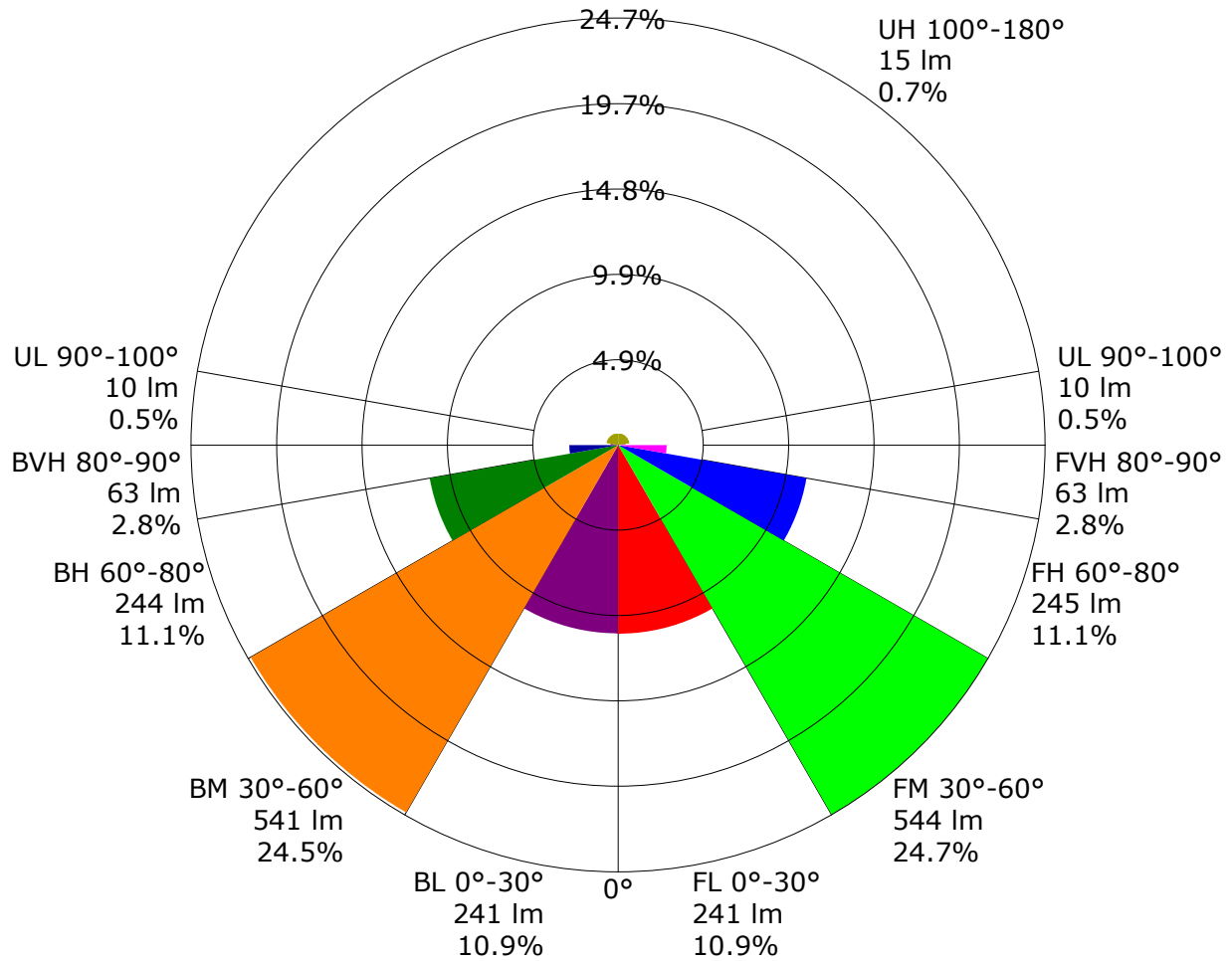
Test Device: LSG-1700B

Distance: 8.942 m

Humidity:

Inspector:

LCS Graph



Back Light

Forward Light

Scale= MAX LCS%

Trapped Light:NA,NA



Utilisation Factor Table(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 1.50									
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	0.55	0.64	0.71	0.76	0.84	0.89	0.92	0.97	1.00	
	0.30		0.47	0.55	0.63	0.69	0.77	0.82	0.86	0.92	0.96	
	0.20		0.42	0.49	0.57	0.63	0.71	0.77	0.81	0.88	0.92	
0.50	0.50	0.20	0.54	0.61	0.68	0.73	0.80	0.85	0.88	0.93	0.96	
	0.30		0.46	0.54	0.62	0.67	0.74	0.80	0.83	0.89	0.92	
	0.20		0.41	0.49	0.56	0.62	0.69	0.75	0.79	0.85	0.89	
0.30	0.50	0.20	0.52	0.59	0.66	0.71	0.77	0.81	0.85	0.89	0.92	
	0.30		0.46	0.53	0.60	0.65	0.72	0.77	0.81	0.85	0.89	
	0.20		0.41	0.48	0.55	0.61	0.68	0.73	0.77	0.82	0.86	
0.00	0.00	0.00	0.39	0.45	0.52	0.57	0.64	0.69	0.73	0.78	0.81	
<p>Rating:18W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>												



Utilisation Factor Table(Wall)

Utilisation Factors UF(W)			SHR NOM = 1.50									
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	1.01	0.87	0.75	0.66	0.54	0.46	0.40	0.32	0.26	
	0.30		0.85	0.75	0.65	0.58	0.49	0.42	0.37	0.30	0.25	
	0.20		0.73	0.65	0.58	0.52	0.44	0.39	0.34	0.28	0.24	
0.50	0.50	0.20	0.98	0.84	0.72	0.63	0.52	0.47	0.38	0.30	0.25	
	0.30		0.83	0.73	0.63	0.57	0.47	0.40	0.35	0.29	0.24	
	0.20		0.72	0.64	0.57	0.51	0.43	0.38	0.33	0.27	0.23	
0.30	0.50	0.20	0.95	0.81	0.69	0.61	0.49	0.42	0.36	0.29	0.24	
	0.30		0.81	0.71	0.62	0.55	0.46	0.39	0.34	0.28	0.23	
	0.20		0.71	0.63	0.56	0.50	0.42	0.37	0.32	0.26	0.22	
0.00	0.00	0.00	0.61	0.54	0.47	0.42	0.35	0.30	0.27	0.22	0.18	
<p>Rating:18W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>												



Utilisation Factor Table(Ceiling cavity)

Utilisation Factors UF(C)			SHR NOM = 1.50									
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	0.17	0.19	0.20	0.20	0.21	0.22	0.22	0.23	0.23	
	0.30		0.10	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20	
	0.20		0.05	0.07	0.08	0.09	0.11	0.13	0.14	0.16	0.17	
0.50	0.50	0.20	0.17	0.18	0.19	0.20	0.20	0.21	0.21	0.22	0.22	
	0.30		0.10	0.12	0.13	0.14	0.15	0.16	0.17	0.18	0.19	
	0.20		0.05	0.07	0.08	0.09	0.11	0.13	0.14	0.15	0.16	
0.30	0.50	0.20	0.16	0.18	0.18	0.19	0.20	0.20	0.20	0.21	0.21	
	0.30		0.10	0.11	0.13	0.14	0.15	0.16	0.17	0.18	0.18	
	0.20		0.05	0.07	0.08	0.09	0.11	0.12	0.13	0.15	0.16	
0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
<p>Rating:18W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>												



Zonal Lumen

Gamma [°]	I _{mean} [cd/klm]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	274.8	0.6	0.6	0.03	0.03
1.0-2.0	274.7	1.7	2.3	0.08	0.11
2.0-3.0	274.5	2.9	5.2	0.13	0.24
3.0-4.0	274.3	4.1	9.3	0.18	0.42
4.0-5.0	274.0	5.2	14.5	0.24	0.66
5.0-6.0	273.5	6.3	20.8	0.29	0.94
6.0-7.0	273.0	7.5	28.3	0.34	1.28
7.0-8.0	272.4	8.6	36.9	0.39	1.67
8.0-9.0	271.7	9.7	46.6	0.44	2.11
9.0-10.0	271.0	10.8	57.4	0.49	2.60
10.0-11.0	270.1	11.9	69.3	0.54	3.14
11.0-12.0	269.1	13.0	82.3	0.59	3.73
12.0-13.0	268.1	14.0	96.3	0.64	4.37
13.0-14.0	267.0	15.1	111.4	0.68	5.05
14.0-15.0	265.9	16.1	127.5	0.73	5.78
15.0-16.0	264.7	17.1	144.6	0.78	6.56
16.0-17.0	263.4	18.1	162.7	0.82	7.38
17.0-18.0	262.1	19.1	181.8	0.86	8.24
18.0-19.0	260.9	20.0	201.8	0.91	9.15
19.0-20.0	259.6	21.0	222.8	0.95	10.10
20.0-21.0	258.3	21.9	244.6	0.99	11.09
21.0-22.0	257.0	22.8	267.4	1.03	12.12
22.0-23.0	255.8	23.7	291.1	1.07	13.20
23.0-24.0	254.7	24.6	315.7	1.11	14.31
24.0-25.0	253.8	25.5	341.1	1.15	15.47
25.0-26.0	252.9	26.3	367.4	1.19	16.66
26.0-27.0	252.0	27.2	394.6	1.23	17.89
27.0-28.0	251.3	28.1	422.7	1.27	19.16
28.0-29.0	251.4	29.0	451.7	1.32	20.48
29.0-30.0	252.8	30.1	481.8	1.37	21.85
30.0-31.0	256.2	31.5	513.3	1.43	23.27
31.0-32.0	260.8	33.0	546.3	1.49	24.77
32.0-33.0	266.0	34.6	580.8	1.57	26.33
33.0-34.0	269.5	36.0	616.8	1.63	27.96
34.0-35.0	270.1	37.0	653.8	1.68	29.64
35.0-36.0	269.2	37.8	691.6	1.71	31.36

C Plane (°):0.0-360.0: 22.5

Test Lab: KARMA

Test Type: TYPE C

Temperature: 24

Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1700B

Distance: 8.942 m

Humidity:

Inspector:

Zonal Lumen (Continue 1)

Gamma [°]	Imean [cd/klm]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	267.1	38.4	730.0	1.74	33.10
37.0-38.0	264.5	39.0	769.0	1.77	34.86
38.0-39.0	261.6	39.4	808.4	1.79	36.65
39.0-40.0	259.2	39.9	848.3	1.81	38.46
40.0-41.0	256.3	40.3	888.5	1.83	40.28
41.0-42.0	251.4	40.3	928.8	1.83	42.11
42.0-43.0	244.6	40.0	968.8	1.81	43.92
43.0-44.0	237.6	39.6	1008.4	1.79	45.72
44.0-45.0	230.5	39.1	1047.4	1.77	47.49
45.0-46.0	222.9	38.5	1085.9	1.74	49.23
46.0-47.0	215.4	37.8	1123.7	1.71	50.95
47.0-48.0	208.1	37.1	1160.8	1.68	52.63
48.0-49.0	201.1	36.4	1197.2	1.65	54.28
49.0-50.0	194.7	35.8	1233.0	1.62	55.90
50.0-51.0	188.3	35.1	1268.2	1.59	57.50
51.0-52.0	182.1	34.5	1302.6	1.56	59.06
52.0-53.0	176.5	33.9	1336.5	1.54	60.60
53.0-54.0	171.4	33.3	1369.8	1.51	62.11
54.0-55.0	167.2	32.9	1402.8	1.49	63.60
55.0-56.0	164.2	32.7	1435.5	1.48	65.08
56.0-57.0	162.3	32.7	1468.2	1.48	66.57
57.0-58.0	161.2	32.9	1501.1	1.49	68.06
58.0-59.0	159.6	32.9	1534.0	1.49	69.55
59.0-60.0	156.9	32.7	1566.7	1.48	71.03
60.0-61.0	153.5	32.3	1599.0	1.47	72.50
61.0-62.0	149.4	31.8	1630.8	1.44	73.94
62.0-63.0	144.6	31.0	1661.8	1.41	75.34
63.0-64.0	139.2	30.1	1691.9	1.37	76.71
64.0-65.0	133.6	29.2	1721.1	1.32	78.03
65.0-66.0	127.9	28.1	1749.2	1.28	79.31
66.0-67.0	122.1	27.1	1776.3	1.23	80.53
67.0-68.0	116.6	26.1	1802.4	1.18	81.72
68.0-69.0	111.5	25.1	1827.5	1.14	82.85
69.0-70.0	106.8	24.2	1851.7	1.10	83.95
70.0-71.0	102.8	23.4	1875.1	1.06	85.01
71.0-72.0	99.0	22.7	1897.8	1.03	86.04

C Plane (°):0.0-360.0: 22.5

Test Lab: KARMA

Test Type: TYPE C

Temperature: 24

Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1700B

Distance: 8.942 m

Humidity:

Inspector:

Zonal Lumen (Continue 2)

Gamma [°]	Imean [cd/klm]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
72.0-73.0	95.4	22.0	1919.8	1.00	87.04
73.0-74.0	92.1	21.4	1941.2	0.97	88.01
74.0-75.0	88.7	20.7	1961.9	0.94	88.95
75.0-76.0	85.5	20.0	1981.9	0.91	89.85
76.0-77.0	82.3	19.3	2001.2	0.88	90.73
77.0-78.0	79.0	18.7	2019.9	0.85	91.58
78.0-79.0	75.9	18.0	2037.9	0.82	92.39
79.0-80.0	72.7	17.3	2055.1	0.78	93.18
80.0-81.0	69.7	16.6	2071.8	0.75	93.93
81.0-82.0	66.7	16.0	2087.7	0.72	94.65
82.0-83.0	63.7	15.3	2103.0	0.69	95.35
83.0-84.0	60.4	14.5	2117.5	0.66	96.01
84.0-85.0	56.7	13.7	2131.2	0.62	96.62
85.0-86.0	52.4	12.6	2143.8	0.57	97.20
86.0-87.0	47.7	11.5	2155.3	0.52	97.72
87.0-88.0	41.8	10.1	2165.4	0.46	98.18
88.0-89.0	34.8	8.4	2173.8	0.38	98.56
89.0-90.0	27.1	6.5	2180.4	0.30	98.86
90.0-91.0	18.6	4.5	2184.9	0.20	99.06
91.0-92.0	11.0	2.7	2187.5	0.12	99.18
92.0-93.0	5.4	1.3	2188.8	0.06	99.24
93.0-94.0	2.2	0.5	2189.4	0.02	99.26
94.0-95.0	1.0	0.2	2189.6	0.01	99.27
95.0-96.0	0.7	0.2	2189.8	0.01	99.28
96.0-97.0	0.7	0.2	2189.9	0.01	99.29
97.0-98.0	0.7	0.2	2190.1	0.01	99.30
98.0-99.0	0.6	0.2	2190.3	0.01	99.30
99.0-100.0	0.6	0.2	2190.4	0.01	99.31
100.0-101.0	0.7	0.2	2190.6	0.01	99.32
101.0-102.0	0.7	0.2	2190.7	0.01	99.32
102.0-103.0	0.7	0.2	2190.9	0.01	99.33
103.0-104.0	0.7	0.2	2191.1	0.01	99.34
104.0-105.0	0.7	0.2	2191.2	0.01	99.35
105.0-106.0	0.8	0.2	2191.4	0.01	99.36
106.0-107.0	0.8	0.2	2191.6	0.01	99.36
107.0-108.0	0.8	0.2	2191.8	0.01	99.37

C Plane (°):0.0-360.0: 22.5
 Test Lab: KARMA
 Test Type: TYPE C
 Temperature: 24
 Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1700B
 Distance: 8.942 m
 Humidity:
 Inspector:

Zonal Lumen (Continue 3)

Gamma [°]	Imean [cd/klm]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
108.0-109.0	0.9	0.2	2192.0	0.01	99.38
109.0-110.0	0.9	0.2	2192.2	0.01	99.39
110.0-111.0	0.9	0.2	2192.4	0.01	99.40
111.0-112.0	0.9	0.2	2192.6	0.01	99.41
112.0-113.0	1.0	0.2	2192.8	0.01	99.42
113.0-114.0	1.0	0.2	2193.1	0.01	99.43
114.0-115.0	1.0	0.2	2193.3	0.01	99.44
115.0-116.0	1.1	0.2	2193.5	0.01	99.45
116.0-117.0	1.1	0.2	2193.8	0.01	99.46
117.0-118.0	1.1	0.2	2194.0	0.01	99.47
118.0-119.0	1.2	0.2	2194.2	0.01	99.48
119.0-120.0	1.2	0.2	2194.5	0.01	99.49
120.0-121.0	1.2	0.3	2194.8	0.01	99.51
121.0-122.0	1.3	0.3	2195.0	0.01	99.52
122.0-123.0	1.3	0.3	2195.3	0.01	99.53
123.0-124.0	1.3	0.3	2195.5	0.01	99.54
124.0-125.0	1.3	0.3	2195.8	0.01	99.55
125.0-126.0	1.4	0.3	2196.1	0.01	99.57
126.0-127.0	1.4	0.3	2196.3	0.01	99.58
127.0-128.0	1.4	0.3	2196.6	0.01	99.59
128.0-129.0	1.4	0.3	2196.9	0.01	99.60
129.0-130.0	1.4	0.3	2197.1	0.01	99.61
130.0-131.0	1.5	0.3	2197.4	0.01	99.63
131.0-132.0	1.5	0.3	2197.7	0.01	99.64
132.0-133.0	1.5	0.3	2198.0	0.01	99.65
133.0-134.0	1.5	0.3	2198.2	0.01	99.66
134.0-135.0	1.5	0.3	2198.5	0.01	99.68
135.0-136.0	1.6	0.3	2198.7	0.01	99.69
136.0-137.0	1.6	0.3	2199.0	0.01	99.70
137.0-138.0	1.6	0.3	2199.3	0.01	99.71
138.0-139.0	1.6	0.3	2199.5	0.01	99.72
139.0-140.0	1.6	0.3	2199.8	0.01	99.73
140.0-141.0	1.6	0.2	2200.0	0.01	99.75
141.0-142.0	1.6	0.2	2200.3	0.01	99.76
142.0-143.0	1.6	0.2	2200.5	0.01	99.77
143.0-144.0	1.7	0.2	2200.7	0.01	99.78

C Plane (°):0.0-360.0: 22.5
 Test Lab: KARMA
 Test Type: TYPE C
 Temperature: 24
 Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1700B
 Distance: 8.942 m
 Humidity:
 Inspector:



Zonal Lumen (Continue 4)

Gamma [°]	Imean [cd/klm]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
144.0-145.0	1.7	0.2	2201.0	0.01	99.79
145.0-146.0	1.7	0.2	2201.2	0.01	99.80
146.0-147.0	1.7	0.2	2201.4	0.01	99.81
147.0-148.0	1.7	0.2	2201.7	0.01	99.82
148.0-149.0	1.8	0.2	2201.9	0.01	99.83
149.0-150.0	1.8	0.2	2202.1	0.01	99.84
150.0-151.0	1.8	0.2	2202.3	0.01	99.85
151.0-152.0	1.8	0.2	2202.5	0.01	99.86
152.0-153.0	1.8	0.2	2202.7	0.01	99.87
153.0-154.0	1.8	0.2	2202.9	0.01	99.88
154.0-155.0	1.8	0.2	2203.1	0.01	99.89
155.0-156.0	1.9	0.2	2203.3	0.01	99.89
156.0-157.0	1.9	0.2	2203.5	0.01	99.90
157.0-158.0	1.9	0.2	2203.7	0.01	99.91
158.0-159.0	1.9	0.2	2203.8	0.01	99.92
159.0-160.0	1.9	0.2	2204.0	0.01	99.93
160.0-161.0	1.9	0.2	2204.1	0.01	99.93
161.0-162.0	1.9	0.1	2204.3	0.01	99.94
162.0-163.0	1.9	0.1	2204.4	0.01	99.95
163.0-164.0	2.0	0.1	2204.6	0.01	99.95
164.0-165.0	2.0	0.1	2204.7	0.01	99.96
165.0-166.0	2.0	0.1	2204.8	0.01	99.96
166.0-167.0	2.0	0.1	2204.9	0.01	99.97
167.0-168.0	2.0	0.1	2205.0	0.00	99.97
168.0-169.0	2.0	0.1	2205.1	0.00	99.98
169.0-170.0	2.0	0.1	2205.2	0.00	99.98
170.0-171.0	2.0	0.1	2205.3	0.00	99.98
171.0-172.0	2.0	0.1	2205.4	0.00	99.99
172.0-173.0	2.0	0.1	2205.4	0.00	99.99
173.0-174.0	2.0	0.1	2205.5	0.00	99.99
174.0-175.0	2.0	0.0	2205.5	0.00	100.00
175.0-176.0	2.0	0.0	2205.6	0.00	100.00
176.0-177.0	2.0	0.0	2205.6	0.00	100.00
177.0-178.0	2.0	0.0	2205.6	0.00	100.00
178.0-179.0	2.0	0.0	2205.6	0.00	100.00
179.0-180.0	2.0	0.0	2205.6	0.00	100.00

C Plane (°):0.0-360.0: 22.5

Test Lab: KARMA

Test Type: TYPE C

Temperature: 24

Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1700B

Distance: 8.942 m

Humidity:

Inspector:

Candlepower Table

Unit: cd/klm

G\C	C0.0	C22.5	C45.0	C67.5	C90.0	C112.5	C135.0	C157.5	C180.0	C202.5
G0.0	275.4	275.1	274.9	275.0	275.2	274.3	274.5	274.4	275.4	275.1
G1.0	275.2	275.0	274.8	274.9	275.3	274.1	274.4	274.5	275.1	275.1
G2.0	274.9	274.8	274.6	274.7	274.9	274.0	274.1	274.2	275.0	275.0
G3.0	274.7	274.5	274.3	274.4	274.6	273.7	273.9	273.9	274.8	274.8
G4.0	274.3	274.0	274.1	274.2	274.3	273.4	273.5	273.6	274.3	274.4
G5.0	273.8	273.7	273.6	273.6	274.0	272.9	273.1	273.2	273.9	274.1
G6.0	273.1	273.1	273.0	273.2	273.2	272.3	272.5	272.5	273.3	273.6
G7.0	272.4	272.4	272.4	272.6	272.8	272.0	271.9	271.9	272.8	272.9
G8.0	271.7	271.6	271.6	272.0	272.2	271.2	271.2	271.1	271.9	272.3
G9.0	270.6	270.6	270.8	271.3	271.6	270.4	270.4	270.2	271.0	271.5
G10.0	269.7	269.6	270.1	270.7	270.9	269.6	269.6	269.3	270.1	270.5
G11.0	268.5	268.4	269.0	269.8	270.0	268.9	268.3	268.1	268.8	269.4
G12.0	267.3	267.3	268.1	269.0	269.2	268.1	267.4	267.0	267.6	268.2
G13.0	266.0	266.1	266.9	268.2	268.1	267.0	266.2	265.7	266.3	267.1
G14.0	264.4	264.4	265.7	267.1	267.1	265.8	265.0	264.2	264.9	265.7
G15.0	263.1	263.1	264.5	266.2	266.2	264.9	263.8	262.9	263.3	264.5
G16.0	261.5	261.5	263.2	265.1	265.4	263.7	262.6	261.3	261.7	262.8
G17.0	259.8	259.8	261.8	264.0	264.9	262.6	261.0	259.6	260.0	261.2
G18.0	258.0	258.2	260.4	263.2	264.8	262.0	259.3	257.9	258.3	259.7
G19.0	255.9	256.3	258.7	262.7	264.5	261.3	257.6	255.9	256.2	257.7
G20.0	253.9	254.4	257.0	262.6	264.0	260.8	255.9	254.1	254.3	256.0
G21.0	251.8	252.5	255.7	262.2	264.0	259.8	254.3	252.2	252.2	253.9
G22.0	249.6	250.2	253.8	261.8	264.4	259.2	252.5	250.1	250.0	252.0
G23.0	247.3	248.1	252.4	261.5	265.1	259.0	251.2	248.0	247.8	250.0
G24.0	245.1	246.0	251.1	261.9	266.0	259.2	249.8	245.5	245.4	247.5
G25.0	242.5	243.5	250.0	262.4	267.6	259.7	248.2	243.3	242.9	245.4
G26.0	240.1	241.2	248.8	263.0	269.3	260.4	246.5	240.9	240.6	243.1
G27.0	237.2	238.6	247.6	264.2	271.8	261.5	244.7	238.3	237.8	240.6
G28.0	234.7	236.1	246.4	265.4	274.7	262.9	243.3	235.9	235.2	238.1
G29.0	232.1	233.6	245.3	267.4	279.5	264.8	242.3	233.2	232.3	235.3
G30.0	229.0	230.6	244.3	269.8	297.3	267.7	241.3	230.2	229.4	232.8
G31.0	226.2	228.1	243.5	273.5	325.0	273.4	240.5	227.5	226.7	229.9
G32.0	223.4	225.4	243.1	284.4	330.0	291.6	239.9	224.8	223.5	227.0
G33.0	219.9	222.3	242.6	317.8	336.1	313.9	239.4	221.6	220.6	224.1
G34.0	217.0	219.4	242.3	324.4	339.1	317.4	239.2	218.7	217.4	221.1
G35.0	213.5	216.4	242.2	330.4	345.0	321.8	239.4	215.5	214.1	217.9
G36.0	210.5	213.4	242.5	333.0	337.0	324.4	239.8	212.5	210.9	215.1

C Plane (°):0.0-360.0: 22.5
 Test Lab: KARMA
 Test Type: TYPE C
 Temperature: 24
 Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1700B
 Distance: 8.942 m
 Humidity:
 Inspector:

**Candlepower Table (Continue 1)**

Unit: cd/klm

G\C	C0.0	C22.5	C45.0	C67.5	C90.0	C112.5	C135.0	C157.5	C180.0	C202.5
G37.0	207.2	210.6	243.2	337.4	326.2	332.9	241.1	209.8	207.4	212.1
G38.0	203.5	207.5	245.0	329.0	312.7	326.3	244.1	206.7	203.9	209.1
G39.0	200.2	204.5	251.1	318.3	298.7	315.6	256.5	203.7	200.8	205.9
G40.0	196.3	201.6	273.2	304.3	282.9	302.6	276.0	200.5	196.9	202.3
G41.0	192.7	198.7	287.9	290.3	266.7	289.9	277.9	197.4	193.3	199.3
G42.0	189.3	195.8	292.5	276.5	251.1	275.3	278.1	194.1	189.7	196.4
G43.0	185.4	192.8	293.7	259.9	237.0	258.0	280.5	190.8	185.9	192.9
G44.0	181.6	190.0	295.1	244.8	226.0	243.3	286.7	187.7	182.3	189.7
G45.0	178.0	187.1	291.0	230.4	215.4	230.2	286.9	184.9	178.2	186.5
G46.0	173.9	184.0	279.7	218.0	205.9	218.4	277.2	181.8	174.5	183.5
G47.0	170.0	181.4	268.0	207.0	200.4	206.7	266.7	179.1	170.8	180.9
G48.0	165.7	178.5	253.5	197.1	195.4	196.7	253.6	176.3	166.5	177.9
G49.0	161.9	176.0	240.4	191.3	191.6	190.7	240.9	173.8	162.5	175.4
G50.0	158.0	173.4	226.5	186.2	188.6	185.7	226.5	171.3	158.6	172.8
G51.0	153.6	170.7	211.2	181.6	185.4	180.6	210.4	168.8	154.4	170.0
G52.0	149.6	168.6	196.7	178.5	182.6	177.5	197.2	166.5	150.2	167.8
G53.0	145.6	166.3	184.4	175.5	179.8	174.3	186.4	164.6	145.8	165.1
G54.0	141.0	164.3	172.7	172.3	176.7	171.2	174.3	162.9	141.8	163.2
G55.0	136.7	162.9	163.7	169.4	173.8	168.1	163.9	161.9	137.6	166.6
G56.0	132.4	163.2	155.6	166.1	170.8	165.0	156.4	168.1	133.1	171.4
G57.0	128.1	168.4	150.5	163.1	168.0	162.1	150.8	176.4	128.7	178.4
G58.0	123.8	182.1	145.9	160.1	165.0	159.0	145.5	175.1	124.2	189.3
G59.0	119.0	186.9	141.9	156.9	161.7	155.6	141.3	172.3	119.9	192.9
G60.0	114.8	185.1	138.7	153.9	158.6	152.7	137.9	170.8	115.5	191.6
G61.0	110.4	181.7	135.3	150.7	155.5	149.6	134.5	174.1	110.8	184.1
G62.0	105.5	172.6	131.5	147.2	152.3	146.2	130.8	170.2	106.2	175.4
G63.0	101.3	161.8	128.3	144.1	149.5	143.0	127.5	161.1	102.0	165.5
G64.0	96.5	148.5	124.9	140.7	146.3	139.7	123.9	149.6	97.2	153.4
G65.0	91.9	136.4	121.7	137.9	143.4	136.9	120.6	138.3	92.8	141.7
G66.0	87.4	124.0	118.2	135.0	140.6	133.8	117.3	126.0	88.0	127.7
G67.0	82.7	111.7	114.6	131.7	137.6	130.6	113.8	113.1	83.5	115.2
G68.0	78.1	100.3	111.3	128.7	134.8	127.8	110.4	103.1	78.9	103.8
G69.0	73.7	90.9	107.9	126.0	132.0	124.8	107.2	93.2	74.1	94.0
G70.0	68.9	83.2	104.5	122.8	128.9	121.6	103.7	85.1	69.7	87.0
G71.0	64.3	77.9	101.4	119.9	126.2	119.0	100.6	79.3	65.2	81.6
G72.0	59.6	73.7	97.9	116.9	123.2	115.7	97.2	73.7	60.1	76.9
G73.0	55.0	70.2	95.0	114.1	120.6	113.1	94.1	70.1	55.8	73.2

C Plane (°):0.0-360.0: 22.5

Test Lab: KARMA

Test Type: TYPE C

Temperature: 24

Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1700B

Distance: 8.942 m

Humidity:

Inspector:

Candlepower Table (Continue 2)

Unit: cd/klm

G\C	C0.0	C22.5	C45.0	C67.5	C90.0	C112.5	C135.0	C157.5	C180.0	C202.5
G74.0	50.7	66.5	91.8	111.4	117.8	110.3	91.2	66.6	51.0	69.0
G75.0	45.9	62.8	88.8	108.4	114.9	107.3	88.1	62.8	46.5	65.6
G76.0	41.7	59.3	85.9	105.7	112.1	104.6	85.1	59.4	42.5	62.1
G77.0	37.4	56.0	83.1	102.9	109.3	101.8	82.4	55.9	37.8	58.4
G78.0	32.9	52.3	80.1	99.9	106.4	98.9	79.3	52.4	33.7	55.0
G79.0	28.8	49.1	77.2	97.2	103.7	96.1	76.5	49.2	29.6	51.6
G80.0	24.6	45.8	74.4	94.3	100.9	93.3	73.5	46.0	25.4	48.3
G81.0	20.9	43.0	71.5	91.6	98.2	90.6	70.9	43.0	21.6	45.3
G82.0	17.3	40.2	68.9	88.9	95.1	87.9	68.3	40.2	17.7	42.3
G83.0	13.7	37.3	66.1	85.2	91.1	84.5	65.5	37.2	14.4	39.4
G84.0	10.6	34.7	63.4	80.8	86.4	80.4	62.9	34.8	11.2	36.9
G85.0	7.5	31.9	59.5	75.4	80.3	75.0	59.4	32.0	8.2	34.0
G86.0	5.1	29.7	54.7	68.8	73.5	68.7	55.0	29.7	5.6	31.5
G87.0	3.2	27.0	48.9	61.7	65.5	61.3	49.5	27.3	3.6	29.2
G88.0	1.5	22.8	40.9	52.3	55.8	52.0	41.8	23.5	1.9	25.5
G89.0	0.7	17.0	32.3	42.7	46.4	43.0	33.4	18.4	0.8	20.2
G90.0	0.3	10.1	23.2	32.9	36.5	32.6	24.4	11.4	0.3	12.6
G91.0	0.3	3.2	12.8	21.6	24.4	21.2	13.7	3.8	0.3	5.3
G92.0	0.3	1.6	5.2	11.9	14.6	11.7	5.2	1.5	0.3	1.7
G93.0	0.4	1.4	0.9	4.6	6.4	4.2	0.8	1.2	0.4	1.4
G94.0	0.4	1.2	0.8	0.7	1.4	0.6	0.8	1.1	0.3	1.2
G95.0	0.5	1.0	0.8	0.7	0.6	0.5	0.7	0.9	0.4	1.0
G96.0	0.5	1.0	0.7	0.7	0.6	0.6	0.7	0.8	0.5	0.9
G97.0	0.5	0.9	0.7	0.7	0.6	0.5	0.7	0.7	0.5	0.8
G98.0	0.5	0.8	0.7	0.7	0.6	0.6	0.7	0.7	0.5	0.8
G99.0	0.6	0.8	0.7	0.7	0.6	0.6	0.7	0.7	0.5	0.7
G100.0	0.6	0.7	0.7	0.8	0.7	0.6	0.7	0.7	0.5	0.7
G101.0	0.6	0.8	0.7	0.8	0.6	0.6	0.8	0.7	0.6	0.7
G102.0	0.6	0.7	0.7	0.8	0.7	0.6	0.7	0.7	0.6	0.7
G103.0	0.6	0.7	0.7	0.8	0.7	0.7	0.8	0.7	0.7	0.7
G104.0	0.7	0.8	0.8	0.9	0.7	0.7	0.8	0.7	0.6	0.7
G105.0	0.7	0.8	0.8	0.9	0.7	0.7	0.9	0.7	0.7	0.7
G106.0	0.7	0.8	0.8	0.9	0.8	0.8	0.9	0.7	0.7	0.8
G107.0	0.8	0.8	0.9	1.0	0.8	0.8	0.9	0.8	0.8	0.7
G108.0	0.8	0.8	0.9	1.0	0.9	0.9	1.0	0.8	0.8	0.8
G109.0	0.8	0.8	0.9	1.0	0.9	0.9	1.0	0.8	0.9	0.8
G110.0	0.9	0.9	0.9	1.1	0.9	0.9	1.0	0.8	0.9	0.8

C Plane (°):0.0-360.0: 22.5

Test Lab: KARMA

Test Type: TYPE C

Temperature: 24

Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1700B

Distance: 8.942 m

Humidity:

Inspector:

**KARMA Lighting**<http://www.karmalighting.com>

Tel: +90(212)5654060

Fax: +0(212)5654061

Page 25 of 31 Pages

Candlepower Table (Continue 3)

Unit: cd/klm

G\C	C0.0	C22.5	C45.0	C67.5	C90.0	C112.5	C135.0	C157.5	C180.0	C202.5
G111.0	0.9	0.9	0.9	1.1	1.0	1.0	1.0	0.8	0.9	0.9
G112.0	0.9	0.9	1.0	1.1	1.0	1.0	1.0	0.9	0.9	0.9
G113.0	1.0	0.9	1.0	1.2	1.0	1.0	1.1	0.9	0.9	0.9
G114.0	1.0	0.9	1.1	1.2	1.1	1.1	1.1	0.9	1.0	0.9
G115.0	1.0	1.0	1.1	1.2	1.1	1.1	1.1	0.9	1.0	0.9
G116.0	1.1	1.0	1.1	1.3	1.1	1.1	1.2	1.0	1.0	1.0
G117.0	1.1	1.0	1.1	1.3	1.2	1.2	1.2	1.0	1.1	1.0
G118.0	1.1	1.1	1.2	1.3	1.2	1.1	1.2	1.0	1.1	1.0
G119.0	1.1	1.1	1.2	1.4	1.2	1.2	1.3	1.0	1.1	1.1
G120.0	1.1	1.1	1.3	1.4	1.3	1.2	1.3	1.0	1.1	1.0
G121.0	1.2	1.1	1.3	1.4	1.3	1.3	1.4	1.1	1.2	1.1
G122.0	1.2	1.1	1.4	1.5	1.3	1.3	1.4	1.1	1.2	1.1
G123.0	1.2	1.2	1.4	1.5	1.4	1.4	1.4	1.1	1.2	1.1
G124.0	1.3	1.2	1.4	1.5	1.4	1.4	1.4	1.2	1.2	1.2
G125.0	1.3	1.2	1.4	1.6	1.4	1.4	1.4	1.2	1.3	1.2
G126.0	1.3	1.3	1.4	1.5	1.4	1.4	1.4	1.2	1.3	1.2
G127.0	1.4	1.3	1.4	1.6	1.5	1.5	1.5	1.3	1.4	1.3
G128.0	1.4	1.3	1.4	1.7	1.5	1.5	1.4	1.3	1.4	1.3
G129.0	1.4	1.4	1.4	1.7	1.6	1.5	1.5	1.3	1.4	1.3
G130.0	1.4	1.4	1.4	1.7	1.6	1.5	1.5	1.4	1.4	1.3
G131.0	1.4	1.4	1.4	1.7	1.6	1.6	1.5	1.4	1.4	1.4
G132.0	1.5	1.4	1.4	1.7	1.6	1.6	1.5	1.4	1.4	1.4
G133.0	1.5	1.4	1.5	1.7	1.6	1.6	1.5	1.4	1.5	1.4
G134.0	1.6	1.5	1.4	1.7	1.7	1.6	1.5	1.4	1.5	1.5
G135.0	1.6	1.5	1.5	1.7	1.7	1.6	1.5	1.5	1.5	1.5
G136.0	1.6	1.5	1.5	1.7	1.6	1.6	1.5	1.5	1.6	1.5
G137.0	1.6	1.5	1.5	1.7	1.6	1.6	1.6	1.5	1.6	1.5
G138.0	1.7	1.6	1.5	1.7	1.6	1.6	1.6	1.5	1.6	1.5
G139.0	1.7	1.6	1.5	1.7	1.6	1.6	1.6	1.5	1.6	1.6
G140.0	1.7	1.6	1.6	1.8	1.6	1.6	1.7	1.6	1.7	1.6
G141.0	1.7	1.6	1.6	1.8	1.6	1.6	1.7	1.6	1.7	1.6
G142.0	1.7	1.7	1.6	1.7	1.7	1.6	1.7	1.6	1.7	1.6
G143.0	1.7	1.7	1.6	1.8	1.7	1.6	1.7	1.6	1.7	1.7
G144.0	1.7	1.7	1.7	1.8	1.7	1.6	1.7	1.6	1.7	1.6
G145.0	1.7	1.7	1.7	1.8	1.7	1.6	1.8	1.7	1.8	1.7
G146.0	1.8	1.8	1.7	1.8	1.7	1.7	1.8	1.7	1.7	1.7
G147.0	1.8	1.8	1.7	1.8	1.7	1.7	1.8	1.7	1.8	1.7

C Plane (°):0.0-360.0: 22.5

Test Lab: KARMA

Test Type: TYPE C

Temperature: 24

Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1700B

Distance: 8.942 m

Humidity:

Inspector:



Candlepower Table (Continue 4)

Unit: cd/klm

G\C	C0.0	C22.5	C45.0	C67.5	C90.0	C112.5	C135.0	C157.5	C180.0	C202.5
G148.0	1.8	1.8	1.7	1.9	1.7	1.7	1.8	1.7	1.8	1.8
G149.0	1.8	1.8	1.8	1.9	1.7	1.7	1.8	1.7	1.8	1.7
G150.0	1.8	1.8	1.8	1.9	1.7	1.7	1.8	1.7	1.8	1.8
G151.0	1.8	1.8	1.8	1.9	1.7	1.7	1.8	1.8	1.8	1.8
G152.0	1.8	1.8	1.8	2.0	1.7	1.7	1.9	1.8	1.8	1.8
G153.0	1.8	1.9	1.8	1.9	1.8	1.8	1.9	1.8	1.8	1.8
G154.0	1.9	1.8	1.8	2.0	1.8	1.8	1.9	1.8	1.8	1.9
G155.0	1.8	1.8	1.9	2.0	1.8	1.8	1.9	1.8	1.8	1.9
G156.0	1.8	1.9	1.9	2.0	1.8	1.8	1.9	1.8	1.8	1.9
G157.0	1.8	1.9	1.9	2.0	1.8	1.8	2.0	1.8	1.9	1.8
G158.0	1.9	1.9	1.9	2.1	1.9	1.8	2.0	1.9	1.9	1.9
G159.0	1.9	1.9	1.9	2.1	1.9	1.8	1.9	1.8	1.9	1.9
G160.0	1.9	2.0	2.0	2.1	1.9	1.8	2.0	1.9	1.9	1.9
G161.0	1.9	1.9	2.0	2.1	1.9	1.9	2.0	1.9	1.9	1.9
G162.0	1.9	1.9	2.0	2.1	1.9	1.9	2.0	1.9	1.9	1.9
G163.0	1.9	2.0	2.0	2.1	1.9	1.9	2.0	1.9	1.9	1.9
G164.0	1.9	1.9	2.0	2.1	2.0	1.9	2.1	1.9	1.9	1.9
G165.0	2.0	2.0	2.0	2.1	2.0	1.9	2.0	1.9	1.9	2.0
G166.0	1.9	1.9	2.0	2.2	1.9	2.0	2.1	1.9	1.9	1.9
G167.0	1.9	2.0	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9
G168.0	1.9	2.0	2.0	2.2	2.0	1.9	2.1	1.9	1.9	1.9
G169.0	1.9	2.0	2.0	2.2	2.0	2.0	2.0	1.9	1.9	1.9
G170.0	2.0	2.0	2.0	2.2	2.0	2.0	2.1	1.9	1.9	1.9
G171.0	1.9	2.0	2.0	2.2	2.0	1.9	2.1	1.9	2.0	1.9
G172.0	2.0	2.0	2.0	2.2	2.0	2.0	2.1	1.9	1.9	2.0
G173.0	2.0	1.9	2.0	2.1	2.0	1.9	2.0	1.9	1.9	1.9
G174.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0
G175.0	2.0	2.0	1.9	2.1	2.0	2.0	2.1	2.0	2.0	2.0
G176.0	2.0	2.0	2.0	2.1	2.0	1.9	2.0	1.9	2.0	2.0
G177.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0
G178.0	2.0	2.0	1.9	2.1	2.0	1.9	2.0	1.9	2.0	1.9
G179.0	2.0	2.0	1.9	2.1	2.0	2.0	2.1	2.0	2.0	2.0
G180.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	1.9	2.0	2.0

C Plane (°):0.0-360.0: 22.5

Test Lab: KARMA

Test Type: TYPE C

Temperature: 24

Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1700B

Distance: 8.942 m

Humidity:

Inspector:

**Candlepower Table (Continue 5)**

Unit: cd/klm

G\C	C225.0	C247.5	C270.0	C292.5	C315.0	C337.5	C360.0			
G0.0	274.9	275.0	275.2	274.3	274.5	274.4	275.4			
G1.0	274.9	275.0	275.3	274.5	274.7	274.4	275.2			
G2.0	274.8	274.9	275.3	274.2	274.5	274.3	274.9			
G3.0	274.7	274.9	275.2	274.3	274.3	274.1	274.7			
G4.0	274.5	274.8	275.1	274.2	274.1	273.7	274.3			
G5.0	274.2	274.5	274.8	274.1	273.8	273.4	273.8			
G6.0	273.7	274.2	274.6	273.8	273.4	272.8	273.1			
G7.0	273.2	273.8	274.3	273.4	273.0	272.2	272.4			
G8.0	272.6	273.5	273.8	273.0	272.3	271.4	271.7			
G9.0	272.0	272.7	273.5	272.5	271.7	270.7	270.6			
G10.0	271.2	272.5	272.9	271.9	271.0	269.9	269.7			
G11.0	270.5	271.7	272.3	271.3	270.1	268.7	268.5			
G12.0	269.6	271.0	271.5	270.8	269.4	267.7	267.3			
G13.0	268.3	270.1	270.7	270.0	268.2	266.3	266.0			
G14.0	267.4	269.3	270.0	269.2	267.4	265.1	264.4			
G15.0	266.4	268.4	269.3	268.4	266.1	263.7	263.1			
G16.0	265.1	267.2	268.5	267.3	264.9	262.3	261.5			
G17.0	263.7	266.2	268.1	266.5	263.8	260.6	259.8			
G18.0	262.2	265.8	267.4	265.9	262.5	259.0	258.0			
G19.0	260.7	264.7	267.2	265.3	260.9	257.1	255.9			
G20.0	259.1	264.2	267.2	264.8	259.5	255.3	253.9			
G21.0	257.3	263.5	266.9	264.4	257.9	253.3	251.8			
G22.0	255.9	262.9	267.6	264.4	256.2	251.2	249.6			
G23.0	254.4	262.6	268.2	264.1	255.1	249.0	247.3			
G24.0	252.5	262.8	269.5	264.4	253.8	246.8	245.1			
G25.0	251.0	263.5	270.7	264.9	252.4	244.5	242.5			
G26.0	249.7	264.1	272.2	265.7	251.1	242.3	240.1			
G27.0	247.9	265.1	273.9	266.5	249.9	239.7	237.2			
G28.0	246.3	266.0	278.8	267.6	249.1	237.4	234.7			
G29.0	245.0	267.5	298.8	269.0	248.0	234.6	232.1			
G30.0	244.2	272.8	319.4	274.4	247.0	232.1	229.0			
G31.0	243.4	289.2	344.5	290.5	246.1	229.4	226.2			
G32.0	242.7	309.3	359.1	312.1	245.7	226.5	223.4			
G33.0	242.2	334.2	365.1	333.1	245.1	223.9	219.9			
G34.0	241.9	347.6	361.7	348.1	244.6	221.0	217.0			
G35.0	241.6	354.6	355.0	354.2	244.3	217.9	213.5			
G36.0	241.5	351.4	346.7	351.1	245.1	215.2	210.5			

C Plane (°):0.0-360.0: 22.5

Test Lab: KARMA

Test Type: TYPE C

Temperature: 24

Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1700B

Distance: 8.942 m

Humidity:

Inspector:

Candlepower Table (Continue 6)

Unit: cd/klm

G\C	C225.0	C247.5	C270.0	C292.5	C315.0	C337.5	C360.0			
G37.0	244.3	344.5	334.6	344.5	249.8	211.9	207.2			
G38.0	255.5	335.8	321.1	336.8	261.9	208.9	203.5			
G39.0	267.9	325.2	306.8	326.2	277.0	206.4	200.2			
G40.0	287.7	310.4	287.5	312.5	292.9	203.3	196.3			
G41.0	302.9	296.7	271.3	298.7	306.9	200.2	192.7			
G42.0	309.7	280.3	254.9	282.7	310.4	197.2	189.3			
G43.0	309.3	262.8	239.0	263.9	309.0	194.0	185.4			
G44.0	303.6	247.2	227.6	248.2	303.2	191.4	181.6			
G45.0	294.8	230.3	218.8	232.2	294.9	188.5	178.0			
G46.0	285.3	219.0	211.7	219.8	285.9	185.7	173.9			
G47.0	274.0	210.1	206.1	211.1	274.4	182.8	170.0			
G48.0	260.0	202.3	202.3	202.6	260.9	180.1	165.7			
G49.0	245.8	195.9	199.2	196.5	246.6	177.5	161.9			
G50.0	231.3	192.1	196.3	192.3	231.5	174.9	158.0			
G51.0	214.7	188.4	193.1	188.7	215.0	172.4	153.6			
G52.0	199.6	185.2	190.2	185.5	201.0	169.9	149.6			
G53.0	185.8	181.8	187.2	182.1	186.5	168.9	145.6			
G54.0	176.0	178.7	184.3	179.1	176.5	169.2	141.0			
G55.0	167.8	175.6	181.4	176.2	168.2	172.9	136.7			
G56.0	160.2	172.5	178.3	172.8	161.0	179.7	132.4			
G57.0	155.0	169.3	175.7	169.8	155.3	187.0	128.1			
G58.0	150.8	166.2	172.5	166.6	151.2	194.0	123.8			
G59.0	147.1	163.3	169.5	163.6	147.7	195.2	119.0			
G60.0	143.6	160.2	166.3	160.5	144.2	190.8	114.8			
G61.0	139.8	156.8	163.0	157.1	140.6	183.0	110.4			
G62.0	136.5	153.6	159.8	154.0	137.2	174.3	105.5			
G63.0	133.1	150.4	157.0	150.9	133.8	164.2	101.3			
G64.0	129.5	146.8	153.8	147.5	130.3	152.2	96.5			
G65.0	126.0	143.8	150.9	144.5	127.1	139.5	91.9			
G66.0	122.6	140.7	147.7	141.2	123.5	125.8	87.4			
G67.0	119.2	137.5	144.8	138.1	120.1	113.4	82.7			
G68.0	115.9	134.7	141.9	135.2	116.8	102.8	78.1			
G69.0	112.2	131.5	138.7	132.1	113.1	93.2	73.7			
G70.0	108.8	128.5	136.0	129.2	110.0	86.6	68.9			
G71.0	105.7	125.7	133.3	126.2	106.7	81.0	64.3			
G72.0	102.3	122.5	130.1	123.1	103.4	76.8	59.6			
G73.0	99.2	119.7	127.3	120.3	100.2	72.9	55.0			

C Plane (°):0.0-360.0: 22.5
 Test Lab: KARMA
 Test Type: TYPE C
 Temperature: 24
 Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1700B
 Distance: 8.942 m
 Humidity:
 Inspector:

**Candlepower Table (Continue 7)**

Unit: cd/klm

G\C	C225.0	C247.5	C270.0	C292.5	C315.0	C337.5	C360.0			
G74.0	95.7	116.6	124.2	117.1	96.9	69.1	50.7			
G75.0	92.9	113.7	121.4	114.4	93.9	65.5	45.9			
G76.0	90.0	111.1	118.7	111.6	90.8	62.1	41.7			
G77.0	86.7	107.9	115.4	108.6	87.8	58.5	37.4			
G78.0	83.7	104.9	112.7	105.7	84.9	55.3	32.9			
G79.0	81.1	102.2	110.1	103.0	82.0	51.9	28.8			
G80.0	78.0	99.2	107.0	99.9	79.1	48.5	24.6			
G81.0	75.3	96.6	104.2	97.2	76.2	45.6	20.9			
G82.0	72.1	93.5	101.1	94.3	73.4	42.5	17.3			
G83.0	69.6	90.4	97.4	91.1	70.7	39.7	13.7			
G84.0	66.9	86.6	93.0	87.1	67.9	37.1	10.6			
G85.0	63.5	81.2	86.8	81.5	64.1	34.3	7.5			
G86.0	59.3	75.1	80.3	75.4	59.6	31.9	5.1			
G87.0	54.0	67.9	72.1	67.7	53.7	29.3	3.2			
G88.0	46.0	58.3	62.4	58.6	45.8	24.9	1.5			
G89.0	37.9	49.0	52.3	49.2	37.0	19.1	0.7			
G90.0	27.8	37.9	40.9	37.6	26.7	11.1	0.3			
G91.0	17.2	26.7	30.1	26.9	16.7	4.0	0.3			
G92.0	8.2	16.0	19.3	16.0	7.7	1.6	0.3			
G93.0	2.3	7.1	9.4	7.3	2.2	1.3	0.4			
G94.0	0.6	2.6	3.6	2.2	0.8	1.2	0.4			
G95.0	0.6	0.6	0.9	0.5	0.8	1.1	0.5			
G96.0	0.6	0.6	0.5	0.5	0.8	0.9	0.5			
G97.0	0.6	0.7	0.6	0.5	0.7	0.8	0.5			
G98.0	0.6	0.7	0.5	0.6	0.7	0.8	0.5			
G99.0	0.6	0.7	0.6	0.6	0.7	0.7	0.6			
G100.0	0.6	0.7	0.6	0.6	0.7	0.7	0.6			
G101.0	0.6	0.7	0.6	0.6	0.7	0.7	0.6			
G102.0	0.6	0.8	0.6	0.6	0.7	0.7	0.6			
G103.0	0.7	0.8	0.7	0.7	0.8	0.7	0.6			
G104.0	0.7	0.8	0.7	0.7	0.8	0.7	0.7			
G105.0	0.7	0.8	0.7	0.7	0.8	0.7	0.7			
G106.0	0.8	0.9	0.8	0.8	0.8	0.7	0.7			
G107.0	0.8	0.9	0.8	0.8	0.9	0.7	0.8			
G108.0	0.8	0.9	0.8	0.8	0.9	0.8	0.8			
G109.0	0.8	1.0	0.8	0.9	0.9	0.8	0.8			
G110.0	0.9	1.0	0.9	0.9	1.0	0.8	0.9			

C Plane (°):0.0-360.0: 22.5

Test Lab: KARMA

Test Type: TYPE C

Temperature: 24

Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1700B

Distance: 8.942 m

Humidity:

Inspector:



KARMA Lighting

<http://www.karmalighting.com>

Tel: +90(212)5654060

Fax: +0(212)5654061

Page 30 of 31 Pages

Candlepower Table (Continue 8)

Unit: cd/klm

G\C	C225.0	C247.5	C270.0	C292.5	C315.0	C337.5	C360.0			
G111.0	0.9	1.0	0.9	0.9	1.0	0.8	0.9			
G112.0	0.9	1.1	0.9	0.9	1.1	0.9	0.9			
G113.0	0.9	1.1	1.0	1.0	1.0	0.9	1.0			
G114.0	1.0	1.1	1.0	1.0	1.1	0.9	1.0			
G115.0	1.0	1.2	1.0	1.0	1.1	1.0	1.0			
G116.0	1.0	1.2	1.1	1.0	1.2	0.9	1.1			
G117.0	1.1	1.3	1.1	1.1	1.2	1.0	1.1			
G118.0	1.1	1.3	1.2	1.1	1.2	1.0	1.1			
G119.0	1.2	1.3	1.2	1.2	1.2	1.1	1.1			
G120.0	1.1	1.3	1.2	1.2	1.3	1.1	1.1			
G121.0	1.2	1.4	1.2	1.2	1.3	1.1	1.2			
G122.0	1.3	1.4	1.3	1.2	1.3	1.1	1.2			
G123.0	1.2	1.4	1.3	1.3	1.4	1.2	1.2			
G124.0	1.3	1.5	1.3	1.3	1.4	1.2	1.3			
G125.0	1.3	1.5	1.4	1.3	1.4	1.2	1.3			
G126.0	1.4	1.5	1.4	1.4	1.5	1.2	1.3			
G127.0	1.4	1.5	1.4	1.4	1.4	1.3	1.4			
G128.0	1.3	1.5	1.4	1.5	1.4	1.3	1.4			
G129.0	1.3	1.6	1.4	1.4	1.4	1.3	1.4			
G130.0	1.4	1.6	1.5	1.5	1.5	1.3	1.4			
G131.0	1.4	1.6	1.5	1.5	1.5	1.4	1.4			
G132.0	1.4	1.7	1.5	1.5	1.5	1.4	1.5			
G133.0	1.4	1.6	1.6	1.5	1.5	1.4	1.5			
G134.0	1.4	1.7	1.6	1.5	1.5	1.4	1.6			
G135.0	1.4	1.7	1.6	1.5	1.5	1.4	1.6			
G136.0	1.5	1.6	1.6	1.5	1.6	1.4	1.6			
G137.0	1.5	1.6	1.6	1.5	1.6	1.5	1.6			
G138.0	1.5	1.7	1.6	1.5	1.6	1.5	1.7			
G139.0	1.5	1.7	1.6	1.5	1.6	1.5	1.7			
G140.0	1.5	1.7	1.6	1.6	1.6	1.6	1.7			
G141.0	1.5	1.7	1.6	1.6	1.6	1.6	1.7			
G142.0	1.6	1.7	1.6	1.5	1.7	1.7	1.7			
G143.0	1.6	1.7	1.6	1.6	1.7	1.6	1.7			
G144.0	1.6	1.7	1.6	1.6	1.7	1.7	1.7			
G145.0	1.7	1.7	1.6	1.6	1.8	1.6	1.7			
G146.0	1.7	1.8	1.6	1.6	1.7	1.7	1.8			
G147.0	1.7	1.7	1.7	1.7	1.7	1.7	1.8			

C Plane (°):0.0-360.0: 22.5

Test Lab: KARMA

Test Type: TYPE C

Temperature: 24

Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1700B

Distance: 8.942 m

Humidity:

Inspector:

**Candlepower Table (Continue 9)**

Unit: cd/klm

G\C	C225.0	C247.5	C270.0	C292.5	C315.0	C337.5	C360.0			
G148.0	1.7	1.8	1.7	1.7	1.8	1.7	1.8			
G149.0	1.7	1.8	1.7	1.7	1.8	1.7	1.8			
G150.0	1.7	1.8	1.7	1.7	1.8	1.8	1.8			
G151.0	1.7	1.8	1.7	1.7	1.8	1.8	1.8			
G152.0	1.7	1.8	1.7	1.7	1.9	1.8	1.8			
G153.0	1.7	1.8	1.7	1.8	1.9	1.8	1.8			
G154.0	1.8	1.9	1.8	1.8	1.9	1.8	1.9			
G155.0	1.8	1.9	1.8	1.8	1.9	1.8	1.8			
G156.0	1.8	1.9	1.8	1.8	1.9	1.9	1.8			
G157.0	1.8	1.9	1.8	1.9	1.9	1.8	1.8			
G158.0	1.8	1.9	1.8	1.9	1.9	1.9	1.9			
G159.0	1.8	1.9	1.8	1.9	2.0	1.9	1.9			
G160.0	1.9	2.0	1.9	1.9	2.0	1.9	1.9			
G161.0	1.9	2.0	1.9	1.9	2.0	1.9	1.9			
G162.0	1.9	2.0	1.9	1.9	2.0	1.8	1.9			
G163.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9			
G164.0	1.9	2.0	1.9	2.0	2.0	1.9	1.9			
G165.0	1.9	2.1	1.9	2.0	2.0	1.9	2.0			
G166.0	1.9	2.0	1.9	2.0	2.0	1.9	1.9			
G167.0	2.0	2.1	2.0	2.0	2.0	1.9	1.9			
G168.0	1.9	2.1	1.9	2.0	2.0	1.9	1.9			
G169.0	1.9	2.1	2.0	2.0	2.1	1.9	1.9			
G170.0	1.9	2.1	2.0	2.0	2.0	1.9	2.0			
G171.0	1.9	2.1	2.0	2.0	2.0	1.9	1.9			
G172.0	1.9	2.1	2.0	2.0	2.0	1.9	2.0			
G173.0	1.9	2.1	2.0	2.0	2.1	1.9	2.0			
G174.0	1.9	2.1	2.0	2.0	2.1	1.9	2.0			
G175.0	2.0	2.1	2.0	2.0	2.1	1.9	2.0			
G176.0	1.9	2.1	2.0	2.0	2.0	1.9	2.0			
G177.0	1.9	2.1	2.0	2.0	2.0	1.9	2.0			
G178.0	1.9	2.1	2.0	2.0	2.0	1.9	2.0			
G179.0	1.9	2.1	2.0	1.9	2.0	1.9	2.0			
G180.0	2.0	2.1	2.0	2.0	2.0	1.9	2.0			

C Plane (°):0.0-360.0: 22.5

Test Lab: KARMA

Test Type: TYPE C

Temperature: 24

Operator: S.DURDURAN

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1700B

Distance: 8.942 m

Humidity:

Inspector: