



ATC MIDDLE EAST FZCO



 rafeed[®]
LED
Eseries

2022

OUR BEAUTIFUL WORLD WITH
LIGHTS.

Report No.: TH-834A

Test Time: 2020/1/7 17:19

Luminaire Property

Luminaire Manufacturer: ATC
Luminaire Description: 217B-30W
Luminous Width (mm): -180
Current: 0.135 A
Power Factor: 0.962

Luminous Length (mm): -180
Voltage: 219.9 V
Power: 28.66 W

Photometric Results

CIE Class: Direct
Measurement Flux: 2523.2 lm
Downward Ratio: 99%
Horizontal Diffuse Angle(50%): H107.8
Vertical Diffuse Angle(50%): V107.7
Luminaire Efficacy Rating (LER): 88.09
Max. Intensity: 1036.41 cd
S/MH(C0/C180): 1.39

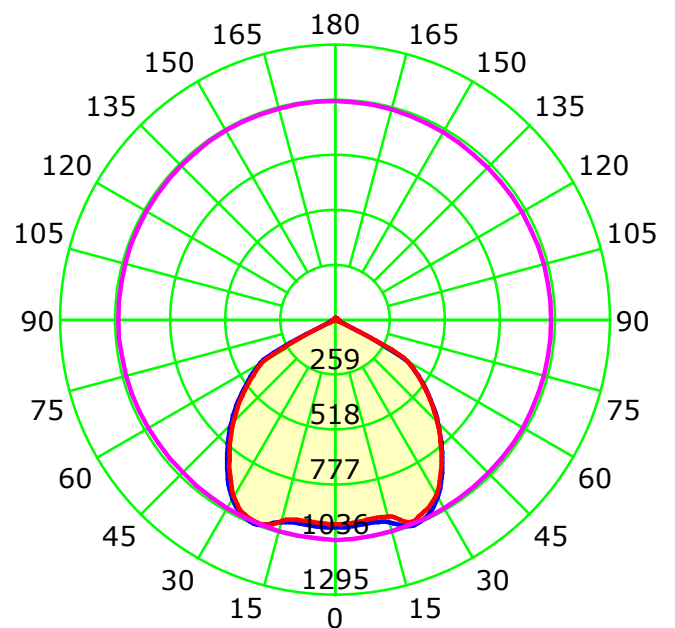
Total Rated Lamp Lumens: 2523.2 lm
Efficiency: 100%
Upward Ratio: 1%

Central Intensity: 978.84 cd
Pos of Max. Intensity: H0 V21
S/MH(C90/C270): 1.39

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

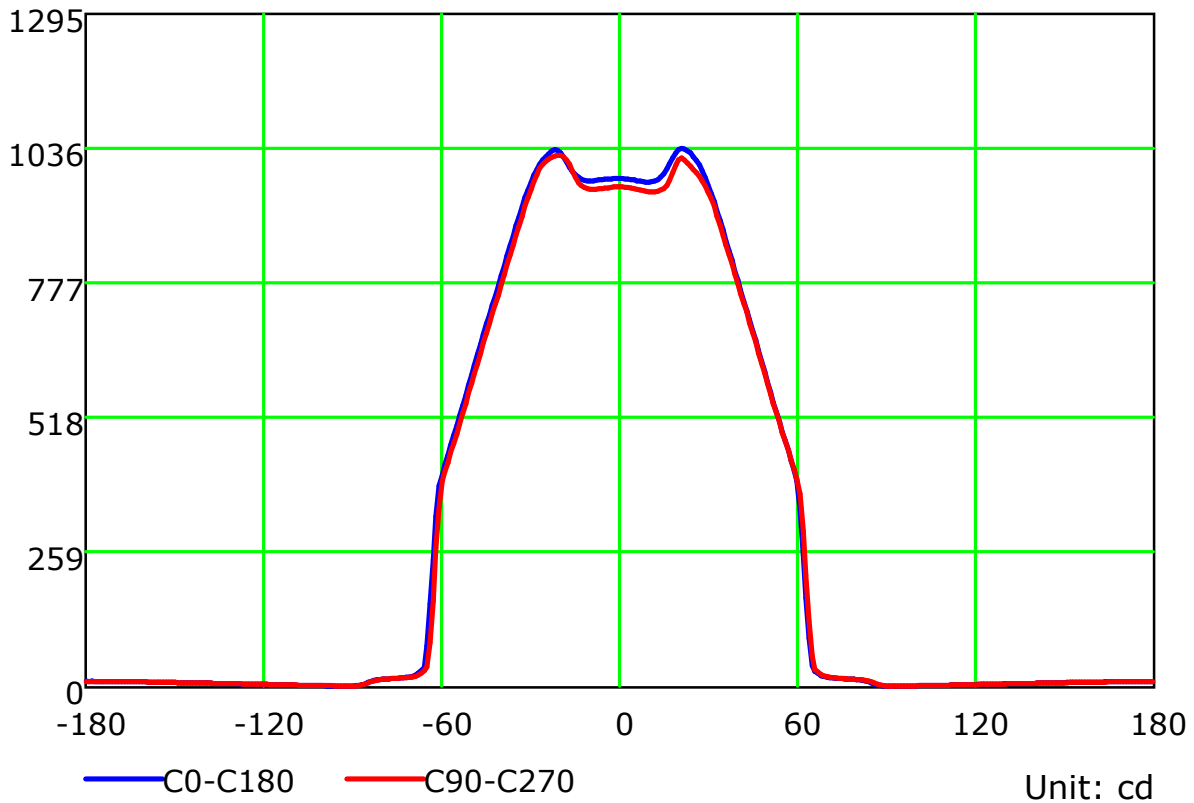
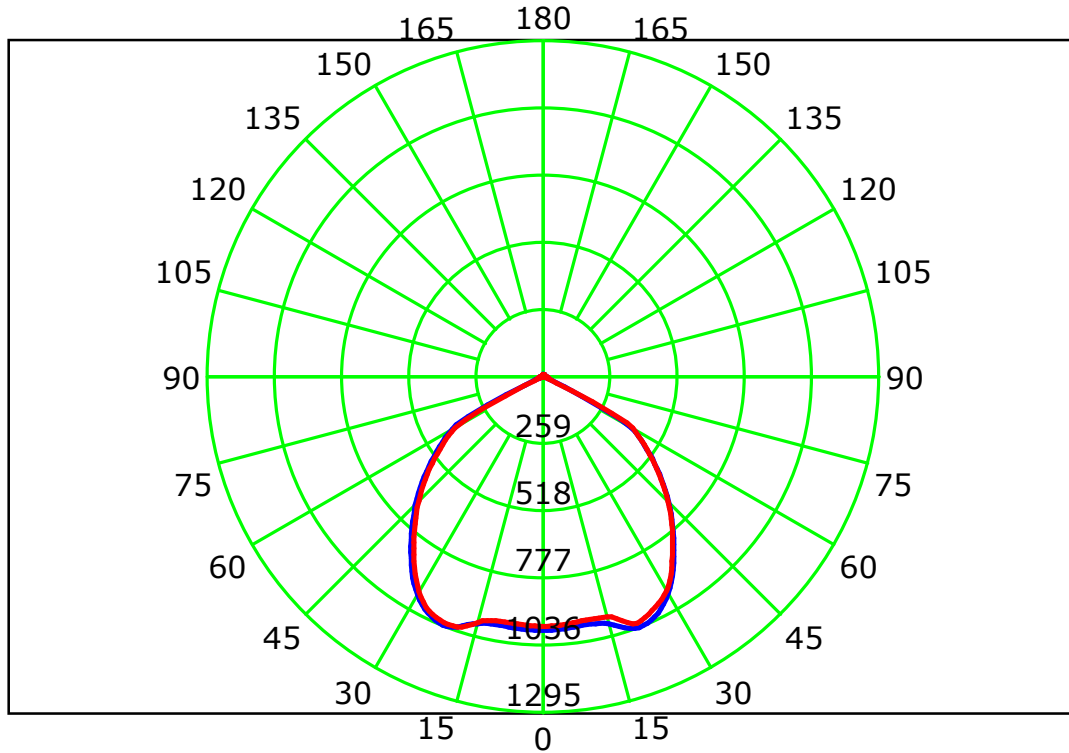
Average Diffuse Angle(50%): 107.6°

— C0-C180 — C90-C270 — G21

C Plane (°):0.0-360.0: 45.0
Test Lab: Inventfine instruments
Test Type: TYPE C
Temperature: 26
Operator: ATC

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.499 m
Humidity: 65
Inspector:

Luminous Intensity Distribution Curve



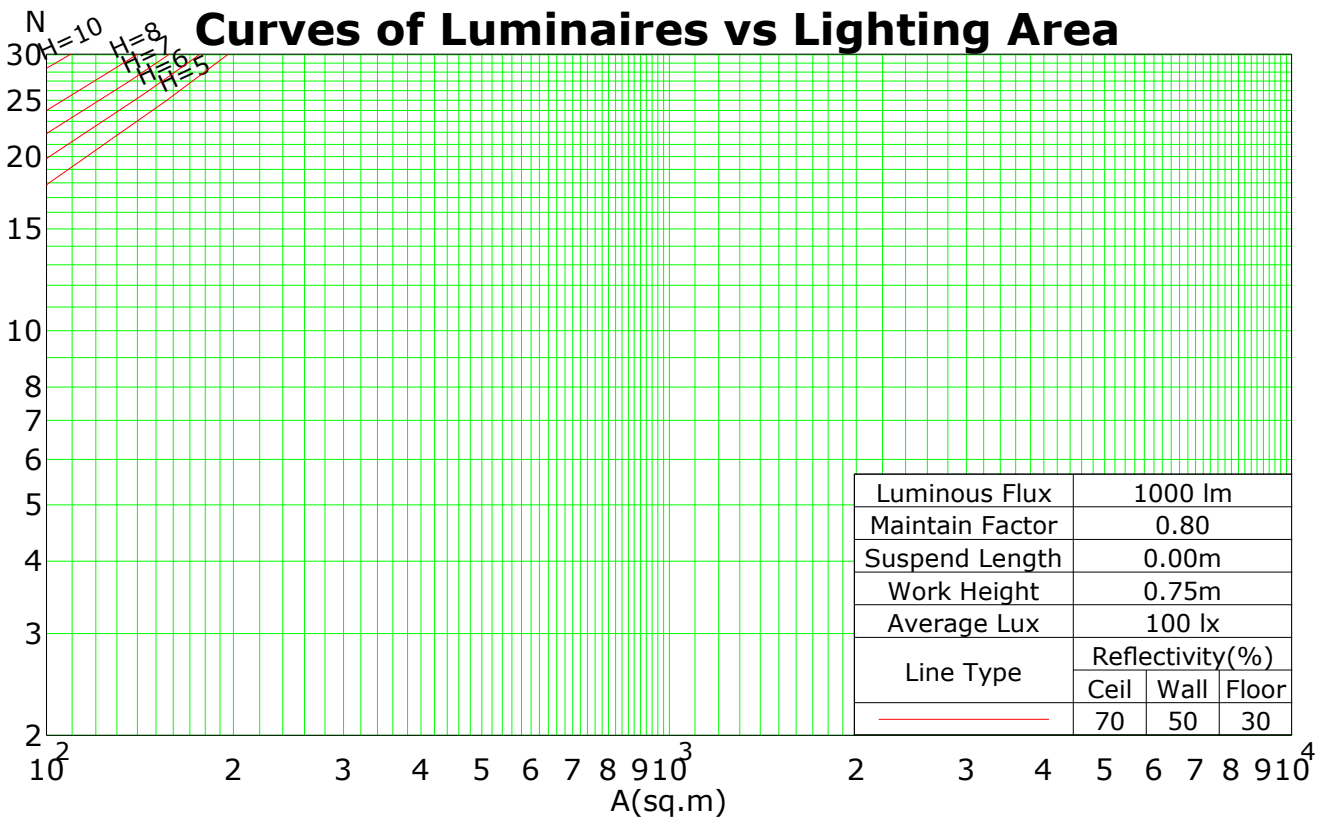
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Coefficients Of Utilization - Zonal Cavity Method

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	101	101	101	99
1	111	107	104	101	108	105	102	99	100	98	96	96	94	93	93	91	90	88
2	102	96	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	60	68	63	60	58
5	80	69	61	55	78	68	60	54	65	59	54	63	58	53	62	56	52	50
6	74	62	54	48	72	61	53	48	59	52	47	58	51	47	56	51	46	44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	41	39
8	64	52	44	38	63	51	43	38	49	43	38	48	42	37	47	41	37	35
9	60	47	40	34	59	47	39	34	46	39	34	44	38	34	43	38	34	32
10	56	44	36	31	55	43	36	31	42	35	31	41	35	31	40	35	30	29

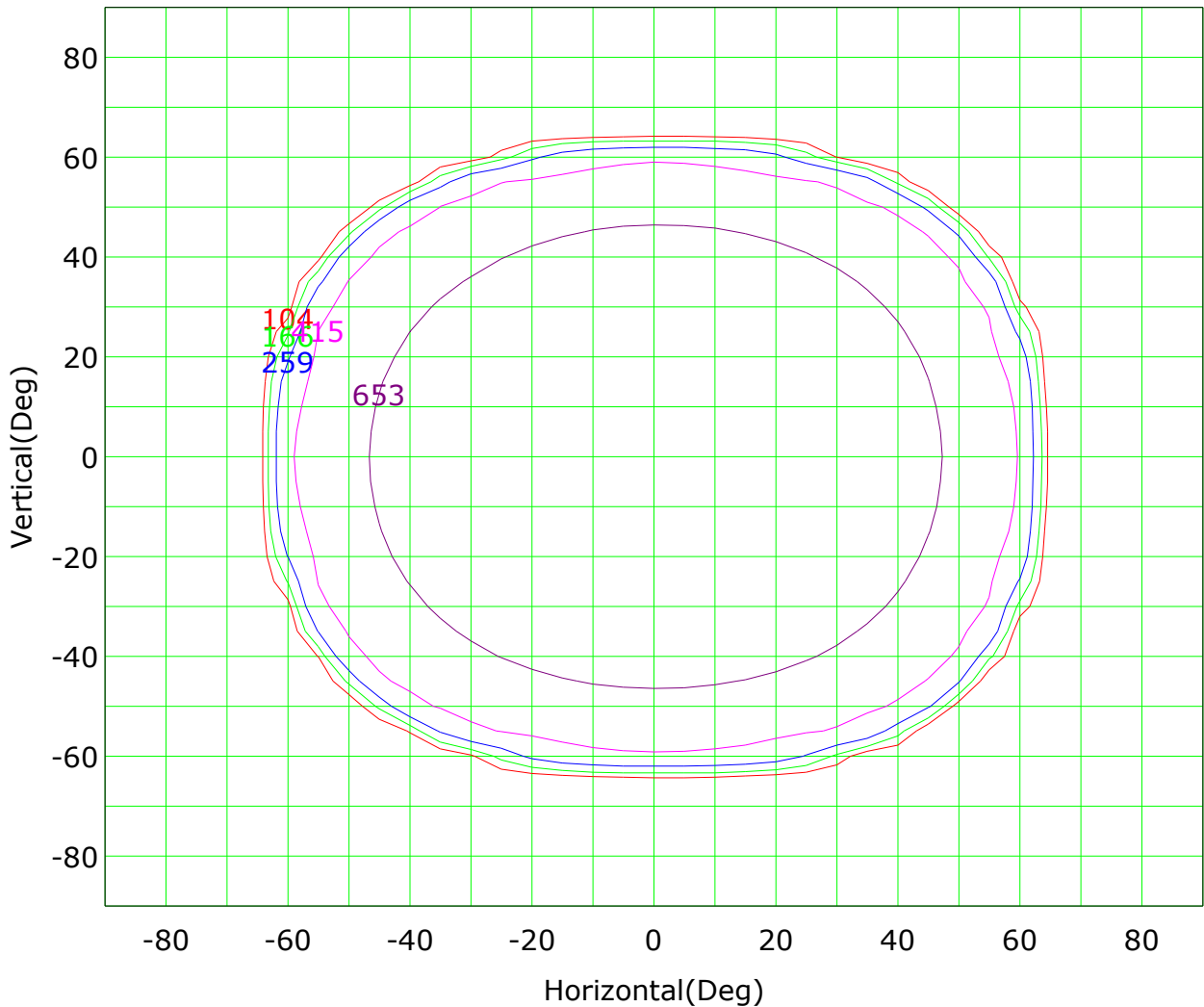
Spacing Criteria (0-180): 1.39
 Spacing Criteria (90-270): 1.39
 Spacing Criteria (Diagonal): 1.40



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 Test Device: GPM-1800B
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 Inspector:

Isocandela (rectangle)



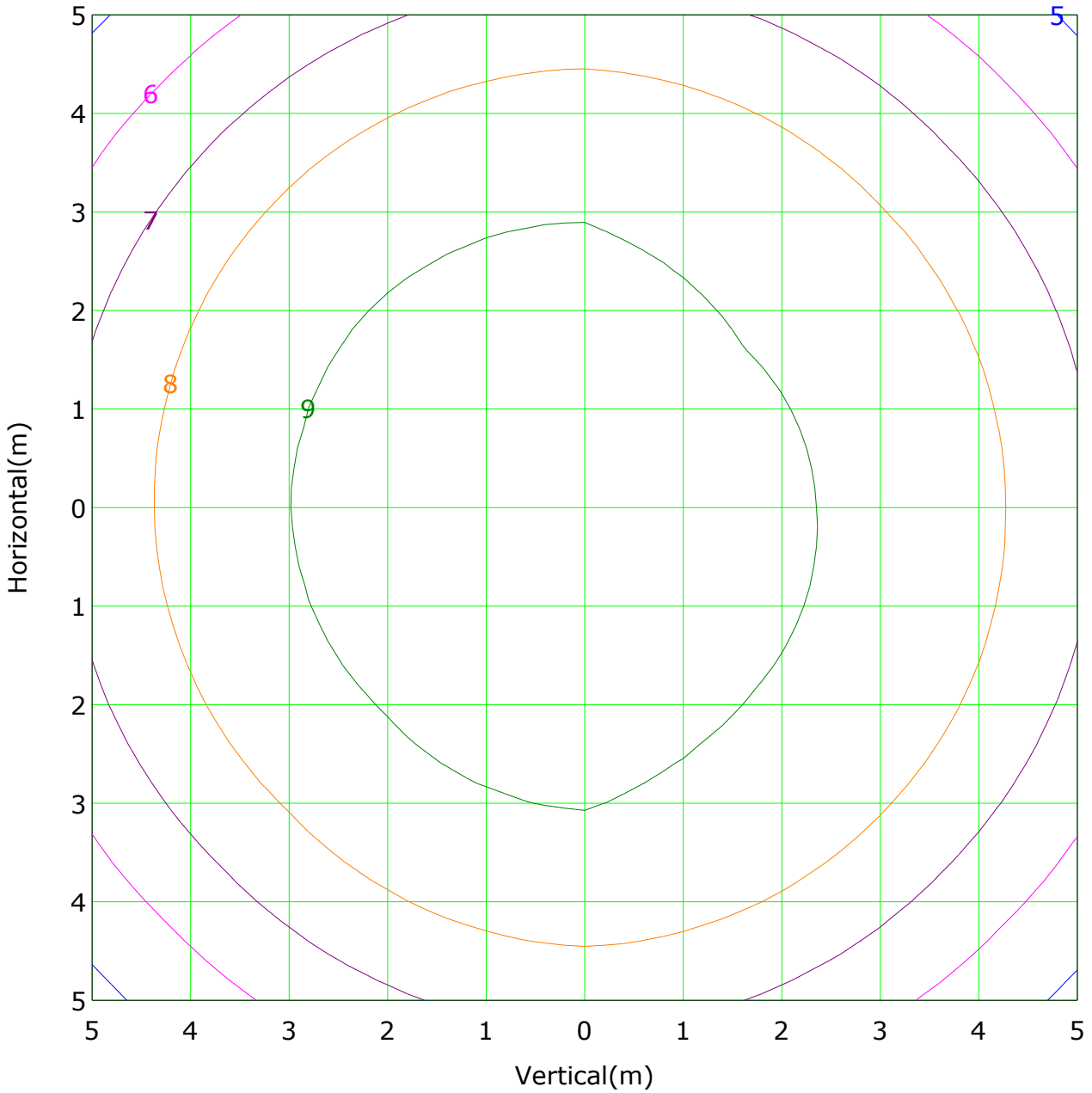
Imax (100%): 1036 cd

- | | |
|----------------|-----------------|
| (10%): 104 cd | (16%): 166 cd |
| (25%): 259 cd | (40%): 415 cd |
| (63%): 653 cd | (100%): 1036 cd |

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 Test Device: GPM-1800B
 Distance: 8.499 m
 Humidity: 65
 Inspector:

IsoLux Plot



Mounting Height: 10.0m		Max Lux(100%): 9.8 lx	
— (30%): 2.9 lx	— (40%): 3.9 lx	— (60%): 5.9 lx	— (80%): 7.8 lx
— (50%): 4.9 lx	— (70%): 6.9 lx	— (100%): 9.8 lx	— (150%): 14.7 lx
— (90%): 8.8 lx			
— (120%): 11.7 lx			

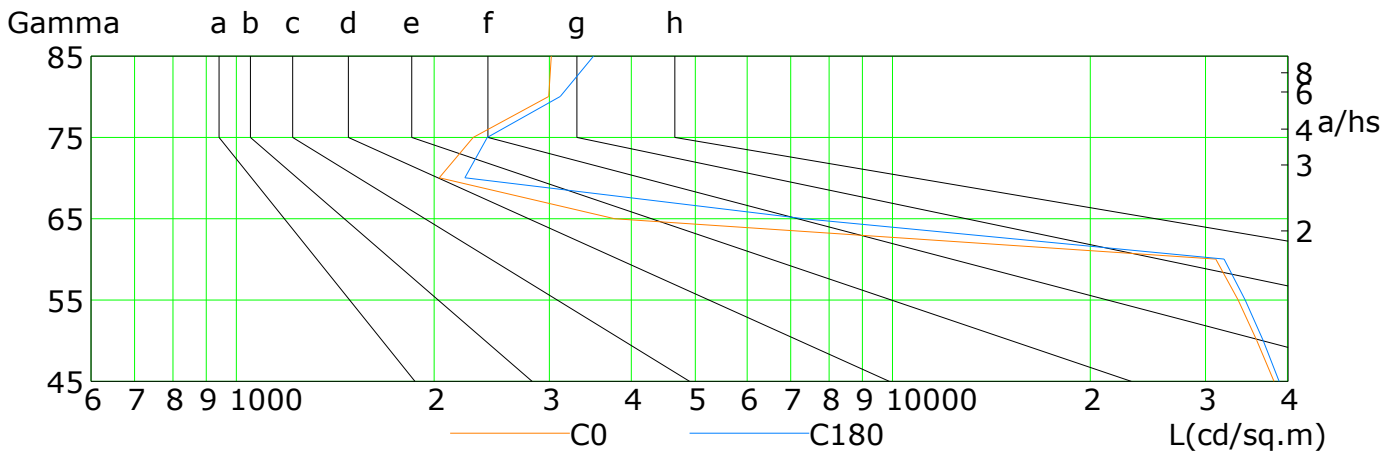
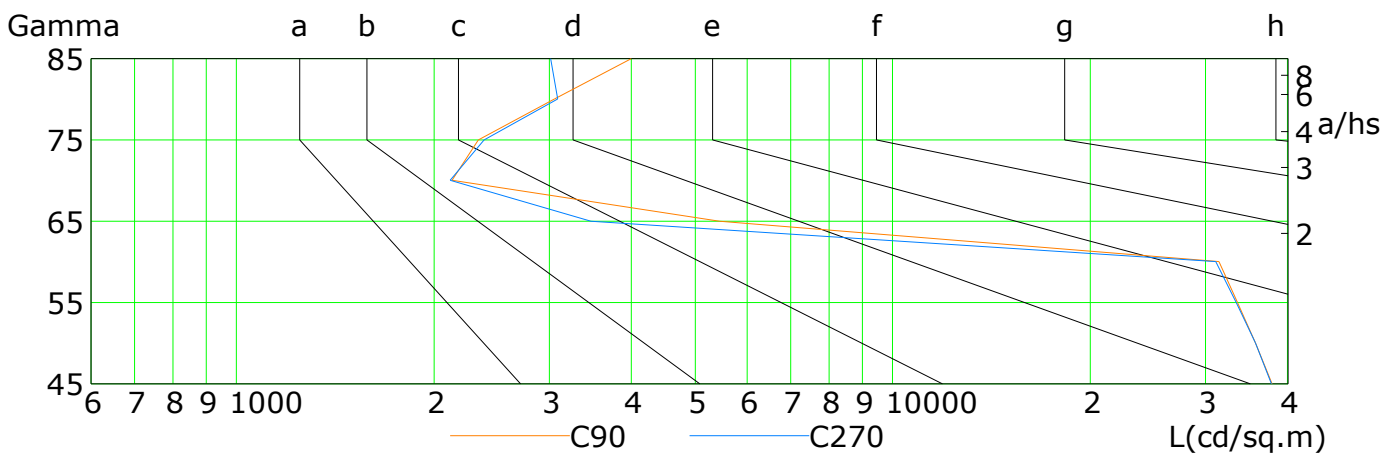
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 Inspector:

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

a b c d e f g h

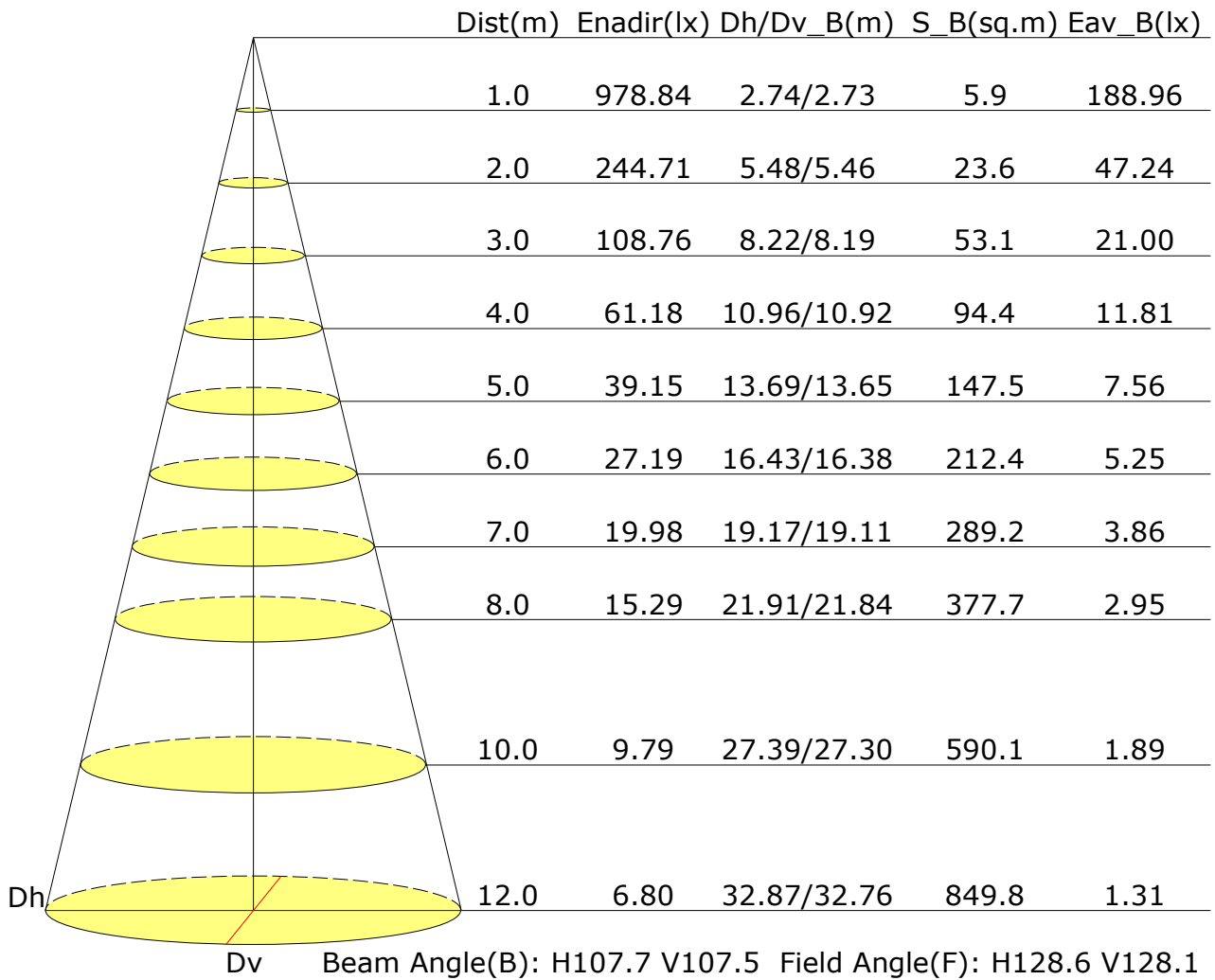


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	38084	35869	33611	31036	3771	2038	2294	2992	3021
C90	37884	35693	33547	31416	5455	2131	2340	3053	3999
C180	38813	36675	34430	31992	7333	2230	2414	3114	3499
C270	37796	35693	33380	31074	3474	2115	2385	3085	3012

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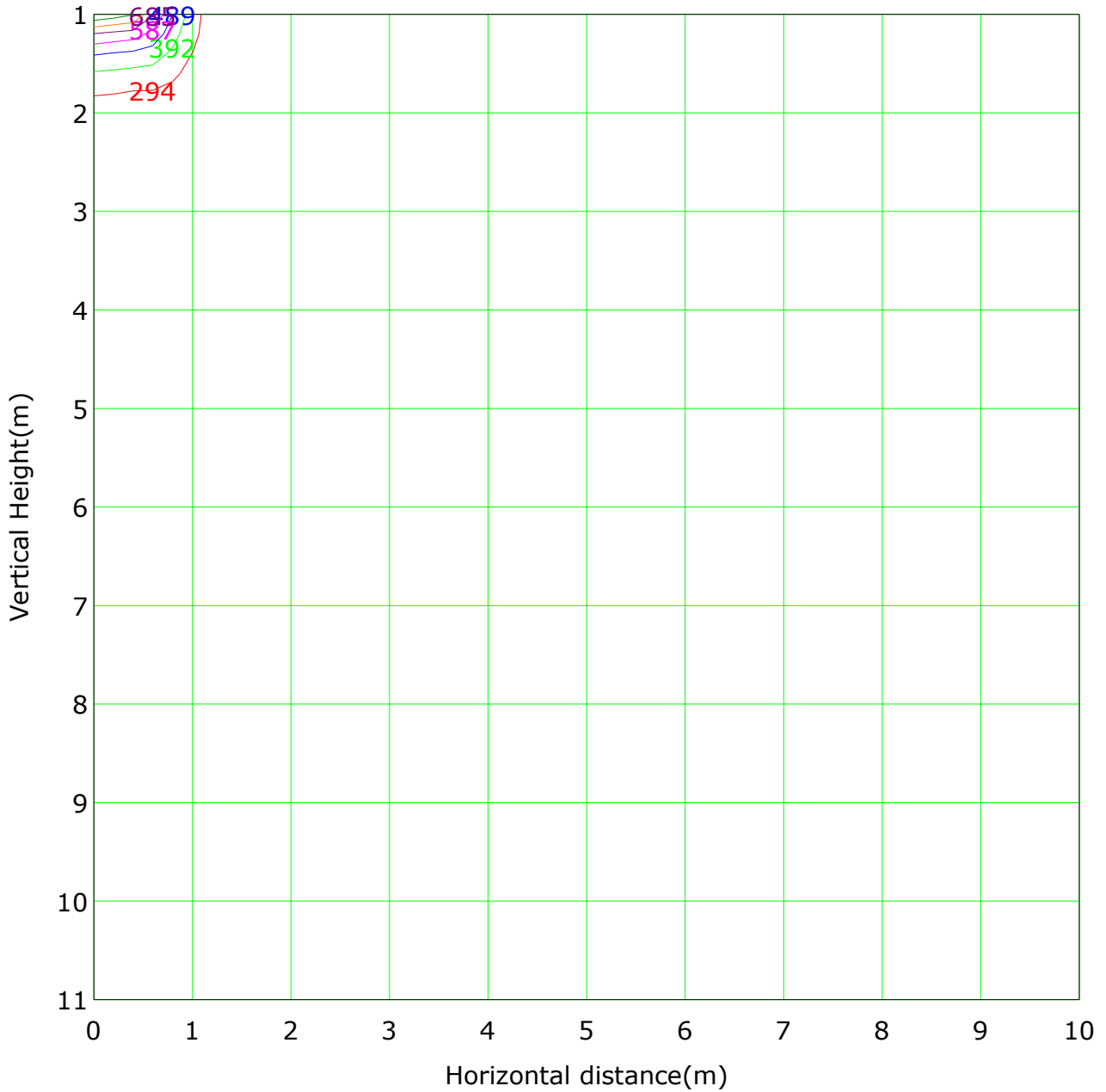
Illuminance at a Distance



C Plane (°):0.0-360.0: 45.0
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 Temperature: 26
 Operator: ATC

Gamma Plane (°):0.0-180.0:1.0
 Test Device: GPM-1800B
 Distance: 8.499 m
 Humidity: 65
 Inspector:

Vertical IsoLux Plot

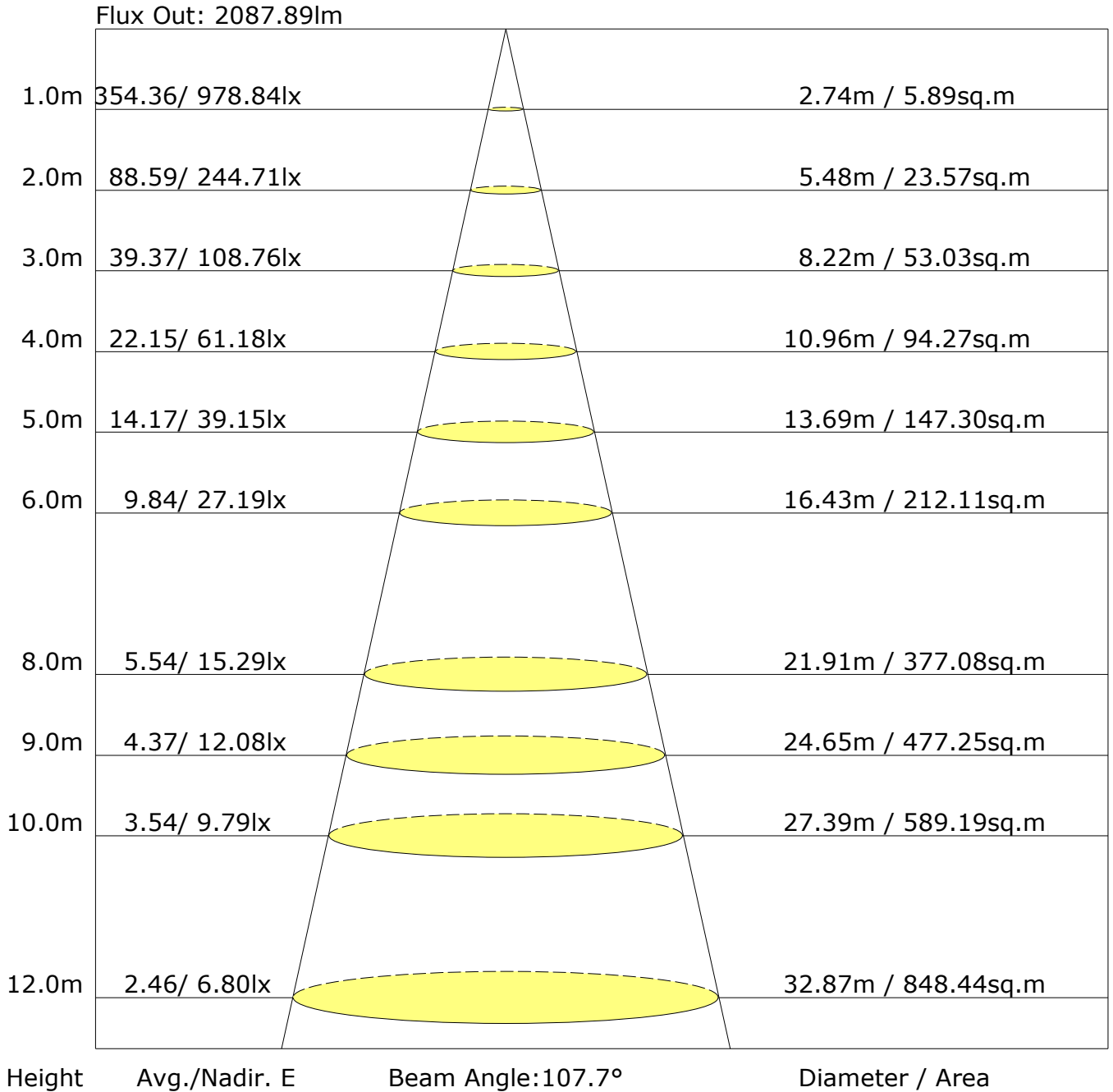


Lowest(m): 1.0m	Highest(m): 11.0m	Max Lux: 978.8 lx
— (30%): 293.7 lx	— (40%): 391.5 lx	— (60%): 587.3 lx
— (50%): 489.4 lx	— (80%): 783.1 lx	— (100%): 978.8 lx
— (70%): 685.2 lx	— (120%):1174.6 lx	— (150%):1468.3 lx
— (90%): 881.0 lx		

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Gamma Plane (°):0.0-180.0:1.0
 Test Device: GPM-1800B
 Distance: 8.499 m
 Humidity: 65
 Inspector:

The Average Illuminance Effective Figure



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 Operator: ATC

Gamma Plane (°):0.0-180.0:1.0
 Test Device: GPM-1800B
 Distance: 8.499 m
 Humidity: 65
 Inspector:

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	24.5	25.8	24.8	26.0	26.2	24.6	25.8	24.9	26.0	26.3
3H	24.4	25.5	24.7	25.8	26.0	24.4	25.5	24.8	25.8	26.1
4H	24.3	25.3	24.7	25.6	25.9	24.3	25.4	24.7	25.7	26.0
6H	24.2	25.2	24.6	25.5	25.8	24.3	25.2	24.7	25.6	25.9
8H	24.2	25.1	24.6	25.5	25.8	24.3	25.2	24.6	25.5	25.8
12H	24.2	25.1	24.6	25.4	25.7	24.2	25.1	24.6	25.4	25.8
X=4H Y=2H	24.7	25.7	25.0	26.0	26.3	24.7	25.7	25.0	26.0	26.3
3H	24.5	25.4	24.9	25.7	26.1	24.6	25.4	24.9	25.8	26.1
4H	24.5	25.2	24.9	25.6	26.0	24.5	25.3	24.9	25.6	26.0
6H	24.4	25.1	24.8	25.5	25.9	24.4	25.1	24.9	25.5	25.9
8H	24.4	25.0	24.8	25.4	25.9	24.4	25.0	24.9	25.5	25.9
12H	24.4	24.9	24.8	25.3	25.8	24.4	25.0	24.9	25.4	25.9
X=8H Y=4H	24.4	25.0	24.8	25.4	25.8	24.4	25.0	24.8	25.4	25.9
6H	24.3	24.8	24.8	25.3	25.7	24.4	24.8	24.8	25.3	25.8
8H	24.3	24.7	24.8	25.2	25.7	24.4	24.8	24.8	25.3	25.8
12H	24.3	24.7	24.8	25.2	25.7	24.4	24.7	24.9	25.2	25.7
X=12H Y=4H	24.3	24.9	24.8	25.3	25.8	24.4	24.9	24.8	25.3	25.8
6H	24.3	24.7	24.8	25.2	25.7	24.3	24.8	24.8	25.2	25.7
8H	24.3	24.7	24.8	25.1	25.7	24.3	24.7	24.8	25.2	25.7
Variations with the observer position at spacings:										
S=1.0H	+0.9/-0.4					+0.9/-0.4				
S=1.5H	+1.6/-5.0					+1.6/-5.3				
S=2.0H	+2.4/-12.8					+2.4/-12.7				

Calculate in accordance with CIE Pub.117. The table is revised with 2523lm ($8\log(F/F_0) = 3.2$).

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 Distance: 8.499 m
 Humidity: 65
 Inspector:

Zonal Lumen

Gamma [°]	I _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	967.0	0.9	0.9	0.04	0.04
1.0-2.0	966.8	2.8	3.7	0.11	0.15
2.0-3.0	966.4	4.6	8.3	0.18	0.33
3.0-4.0	965.9	6.5	14.8	0.26	0.59
4.0-5.0	965.1	8.3	23.1	0.33	0.92
5.0-6.0	964.2	10.1	33.2	0.40	1.32
6.0-7.0	963.1	12.0	45.2	0.47	1.79
7.0-8.0	962.1	13.8	59.0	0.55	2.34
8.0-9.0	961.2	15.6	74.5	0.62	2.95
9.0-10.0	960.7	17.4	91.9	0.69	3.64
10.0-11.0	961.0	19.2	111.1	0.76	4.40
11.0-12.0	962.0	21.0	132.2	0.83	5.24
12.0-13.0	964.1	22.9	155.0	0.91	6.14
13.0-14.0	967.4	24.8	179.8	0.98	7.13
14.0-15.0	972.6	26.7	206.5	1.06	8.18
15.0-16.0	979.6	28.7	235.2	1.14	9.32
16.0-17.0	988.5	30.8	266.0	1.22	10.54
17.0-18.0	998.4	32.9	298.9	1.30	11.85
18.0-19.0	1008.3	35.1	334.0	1.39	13.24
19.0-20.0	1016.8	37.2	371.2	1.48	14.71
20.0-21.0	1022.3	39.3	410.5	1.56	16.27
21.0-22.0	1023.6	41.1	451.6	1.63	17.90
22.0-23.0	1021.3	42.9	494.5	1.70	19.60
23.0-24.0	1016.9	44.5	539.0	1.76	21.36
24.0-25.0	1011.3	46.0	584.9	1.82	23.18
25.0-26.0	1005.1	47.4	632.4	1.88	25.06
26.0-27.0	997.4	48.8	681.2	1.93	27.00
27.0-28.0	987.8	50.0	731.2	1.98	28.98
28.0-29.0	976.5	51.1	782.3	2.02	31.00
29.0-30.0	963.7	52.0	834.4	2.06	33.07
30.0-31.0	949.8	52.9	887.2	2.10	35.16
31.0-32.0	934.5	53.5	940.8	2.12	37.28
32.0-33.0	917.8	54.1	994.8	2.14	39.43
33.0-34.0	899.8	54.5	1049.3	2.16	41.59
34.0-35.0	881.1	54.7	1104.0	2.17	43.76
35.0-36.0	862.4	54.9	1158.9	2.18	45.93

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Gamma Plane (°):0.0-180.0:1.0
 Test Device: GPM-1800B
 Distance: 8.499 m
 Humidity: 65
 Inspector:

Zonal Lumen (Continue 1)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	843.5	55.0	1214.0	2.18	48.11
37.0-38.0	824.7	55.1	1269.0	2.18	50.29
38.0-39.0	805.6	55.0	1324.0	2.18	52.47
39.0-40.0	786.3	54.8	1378.9	2.17	54.65
40.0-41.0	767.4	54.7	1433.5	2.17	56.81
41.0-42.0	748.3	54.4	1487.9	2.16	58.97
42.0-43.0	729.7	54.1	1542.0	2.14	61.11
43.0-44.0	711.2	53.7	1595.6	2.13	63.24
44.0-45.0	692.3	53.2	1648.8	2.11	65.35
45.0-46.0	673.3	52.7	1701.5	2.09	67.43
46.0-47.0	654.0	52.0	1753.5	2.06	69.50
47.0-48.0	634.3	51.3	1804.8	2.03	71.53
48.0-49.0	614.6	50.5	1855.3	2.00	73.53
49.0-50.0	595.5	49.7	1905.0	1.97	75.50
50.0-51.0	576.2	48.8	1953.7	1.93	77.43
51.0-52.0	557.0	47.8	2001.5	1.89	79.32
52.0-53.0	538.2	46.8	2048.3	1.86	81.18
53.0-54.0	519.3	45.8	2094.1	1.81	82.99
54.0-55.0	500.4	44.7	2138.8	1.77	84.76
55.0-56.0	482.1	43.6	2182.4	1.73	86.49
56.0-57.0	464.0	42.4	2224.8	1.68	88.17
57.0-58.0	445.3	41.2	2266.0	1.63	89.80
58.0-59.0	426.4	39.9	2305.8	1.58	91.39
59.0-60.0	406.8	38.4	2344.3	1.52	92.91
60.0-61.0	376.1	35.9	2380.2	1.42	94.33
61.0-62.0	320.2	30.9	2411.0	1.22	95.55
62.0-63.0	242.4	23.6	2434.6	0.93	96.49
63.0-64.0	160.0	15.7	2450.3	0.62	97.11
64.0-65.0	88.6	8.8	2459.1	0.35	97.46
65.0-66.0	45.0	4.5	2463.6	0.18	97.64
66.0-67.0	29.9	3.0	2466.6	0.12	97.76
67.0-68.0	24.9	2.5	2469.1	0.10	97.86
68.0-69.0	21.2	2.2	2471.3	0.09	97.94
69.0-70.0	19.1	2.0	2473.2	0.08	98.02
70.0-71.0	18.1	1.9	2475.1	0.07	98.09
71.0-72.0	17.3	1.8	2476.9	0.07	98.16

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 Test Device: GPM-1800B
 Distance: 8.499 m
 Humidity: 65
 Inspector:

Zonal Lumen (Continue 2)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
72.0-73.0	16.7	1.7	2478.6	0.07	98.23
73.0-74.0	16.2	1.7	2480.3	0.07	98.30
74.0-75.0	15.7	1.7	2482.0	0.07	98.37
75.0-76.0	15.3	1.6	2483.6	0.06	98.43
76.0-77.0	14.9	1.6	2485.2	0.06	98.49
77.0-78.0	14.5	1.5	2486.8	0.06	98.56
78.0-79.0	14.1	1.5	2488.3	0.06	98.62
79.0-80.0	13.7	1.5	2489.8	0.06	98.67
80.0-81.0	13.2	1.4	2491.2	0.06	98.73
81.0-82.0	12.6	1.4	2492.6	0.05	98.79
82.0-83.0	11.6	1.3	2493.8	0.05	98.84
83.0-84.0	10.3	1.1	2494.9	0.04	98.88
84.0-85.0	8.6	0.9	2495.9	0.04	98.92
85.0-86.0	6.3	0.7	2496.6	0.03	98.94
86.0-87.0	4.3	0.5	2497.0	0.02	98.96
87.0-88.0	2.9	0.3	2497.3	0.01	98.98
88.0-89.0	1.8	0.2	2497.5	0.01	98.98
89.0-90.0	0.9	0.1	2497.6	0.00	98.99
90.0-91.0	0.6	0.1	2497.7	0.00	98.99
91.0-92.0	0.6	0.1	2497.8	0.00	98.99
92.0-93.0	0.6	0.1	2497.8	0.00	98.99
93.0-94.0	0.7	0.1	2497.9	0.00	99.00
94.0-95.0	0.8	0.1	2498.0	0.00	99.00
95.0-96.0	0.9	0.1	2498.1	0.00	99.01
96.0-97.0	1.0	0.1	2498.2	0.00	99.01
97.0-98.0	1.1	0.1	2498.3	0.00	99.01
98.0-99.0	1.2	0.1	2498.4	0.00	99.02
99.0-100.0	1.3	0.1	2498.6	0.01	99.02
100.0-101.0	1.4	0.1	2498.7	0.01	99.03
101.0-102.0	1.5	0.2	2498.9	0.01	99.04
102.0-103.0	1.6	0.2	2499.1	0.01	99.04
103.0-104.0	1.7	0.2	2499.2	0.01	99.05
104.0-105.0	1.8	0.2	2499.4	0.01	99.06
105.0-106.0	1.9	0.2	2499.6	0.01	99.07
106.0-107.0	2.0	0.2	2499.8	0.01	99.07
107.0-108.0	2.1	0.2	2500.1	0.01	99.08

C Plane (°):0.0-360.0: 45.0
 Test Lab: Inventfine instruments
 Test Type: TYPE C
 Temperature: 26
 Operator: ATC

Gamma Plane (°):0.0-180.0:1.0
 Test Device: GPM-1800B
 Distance: 8.499 m
 Humidity: 65
 Inspector:

Zonal Lumen (Continue 3)

Gamma [°]	I _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
108.0-109.0	2.3	0.2	2500.3	0.01	99.09
109.0-110.0	2.4	0.2	2500.5	0.01	99.10
110.0-111.0	2.5	0.3	2500.8	0.01	99.11
111.0-112.0	2.6	0.3	2501.1	0.01	99.12
112.0-113.0	2.8	0.3	2501.3	0.01	99.13
113.0-114.0	2.9	0.3	2501.6	0.01	99.15
114.0-115.0	3.0	0.3	2501.9	0.01	99.16
115.0-116.0	3.1	0.3	2502.3	0.01	99.17
116.0-117.0	3.3	0.3	2502.6	0.01	99.18
117.0-118.0	3.4	0.3	2502.9	0.01	99.20
118.0-119.0	3.5	0.3	2503.2	0.01	99.21
119.0-120.0	3.6	0.3	2503.6	0.01	99.22
120.0-121.0	3.8	0.4	2503.9	0.01	99.24
121.0-122.0	3.9	0.4	2504.3	0.01	99.25
122.0-123.0	4.1	0.4	2504.7	0.01	99.27
123.0-124.0	4.2	0.4	2505.1	0.02	99.28
124.0-125.0	4.3	0.4	2505.5	0.02	99.30
125.0-126.0	4.4	0.4	2505.9	0.02	99.31
126.0-127.0	4.6	0.4	2506.3	0.02	99.33
127.0-128.0	4.7	0.4	2506.7	0.02	99.34
128.0-129.0	4.8	0.4	2507.1	0.02	99.36
129.0-130.0	5.0	0.4	2507.5	0.02	99.38
130.0-131.0	5.1	0.4	2507.9	0.02	99.39
131.0-132.0	5.2	0.4	2508.4	0.02	99.41
132.0-133.0	5.3	0.4	2508.8	0.02	99.43
133.0-134.0	5.5	0.4	2509.2	0.02	99.45
134.0-135.0	5.6	0.4	2509.7	0.02	99.46
135.0-136.0	5.7	0.4	2510.1	0.02	99.48
136.0-137.0	5.9	0.4	2510.6	0.02	99.50
137.0-138.0	6.0	0.4	2511.0	0.02	99.52
138.0-139.0	6.1	0.4	2511.4	0.02	99.53
139.0-140.0	6.2	0.4	2511.9	0.02	99.55
140.0-141.0	6.3	0.4	2512.3	0.02	99.57
141.0-142.0	6.4	0.4	2512.7	0.02	99.59
142.0-143.0	6.5	0.4	2513.2	0.02	99.60
143.0-144.0	6.6	0.4	2513.6	0.02	99.62

C Plane (°):0.0-360.0: 45.0
 Test Lab: Inventfine instruments
 Test Type: TYPE C
 Temperature: 26
 Operator: ATC

Gamma Plane (°):0.0-180.0:1.0
 Test Device: GPM-1800B
 Distance: 8.499 m
 Humidity: 65
 Inspector:

Zonal Lumen (Continue 4)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
144.0-145.0	6.7	0.4	2514.0	0.02	99.64
145.0-146.0	6.9	0.4	2514.5	0.02	99.65
146.0-147.0	7.0	0.4	2514.9	0.02	99.67
147.0-148.0	7.1	0.4	2515.3	0.02	99.69
148.0-149.0	7.2	0.4	2515.7	0.02	99.70
149.0-150.0	7.3	0.4	2516.1	0.02	99.72
150.0-151.0	7.4	0.4	2516.5	0.02	99.74
151.0-152.0	7.5	0.4	2516.9	0.02	99.75
152.0-153.0	7.7	0.4	2517.3	0.02	99.77
153.0-154.0	7.8	0.4	2517.7	0.02	99.78
154.0-155.0	7.9	0.4	2518.1	0.01	99.80
155.0-156.0	8.0	0.4	2518.4	0.01	99.81
156.0-157.0	8.1	0.4	2518.8	0.01	99.82
157.0-158.0	8.2	0.3	2519.1	0.01	99.84
158.0-159.0	8.3	0.3	2519.4	0.01	99.85
159.0-160.0	8.4	0.3	2519.8	0.01	99.86
160.0-161.0	8.5	0.3	2520.1	0.01	99.88
161.0-162.0	8.6	0.3	2520.4	0.01	99.89
162.0-163.0	8.7	0.3	2520.7	0.01	99.90
163.0-164.0	8.8	0.3	2520.9	0.01	99.91
164.0-165.0	8.9	0.3	2521.2	0.01	99.92
165.0-166.0	9.0	0.2	2521.5	0.01	99.93
166.0-167.0	9.1	0.2	2521.7	0.01	99.94
167.0-168.0	9.1	0.2	2521.9	0.01	99.95
168.0-169.0	9.2	0.2	2522.1	0.01	99.96
169.0-170.0	9.3	0.2	2522.3	0.01	99.96
170.0-171.0	9.4	0.2	2522.5	0.01	99.97
171.0-172.0	9.5	0.2	2522.6	0.01	99.98
172.0-173.0	9.5	0.1	2522.8	0.01	99.98
173.0-174.0	9.6	0.1	2522.9	0.00	99.99
174.0-175.0	9.6	0.1	2523.0	0.00	99.99
175.0-176.0	9.7	0.1	2523.1	0.00	99.99
176.0-177.0	9.7	0.1	2523.1	0.00	100.00
177.0-178.0	9.8	0.0	2523.2	0.00	100.00
178.0-179.0	9.8	0.0	2523.2	0.00	100.00
179.0-180.0	9.8	0.0	2523.2	0.00	100.00

C Plane (°):0.0-360.0: 45.0
 Test Lab: Inventfine instruments
 Test Type: TYPE C
 Temperature: 26
 Operator: ATC

Gamma Plane (°):0.0-180.0:1.0
 Test Device: GPM-1800B
 Distance: 8.499 m
 Humidity: 65
 Inspector:

Candlepower Table

Unit: cd

G\C	C0.0	C45.0	C90.0	C135.0	C180.0	C225.0	C270.0	C315.0	C360.0	
G0.0	978.8	969.1	962.4	957.8	978.8	969.1	962.4	957.8	978.8	
G1.0	978.6	968.9	962.7	957.8	978.8	969.0	962.7	957.4	978.6	
G2.0	978.3	968.4	962.1	957.4	978.5	968.4	962.4	957.0	978.3	
G3.0	977.9	967.6	961.5	957.5	978.3	968.3	962.0	956.6	977.9	
G4.0	976.8	966.8	960.7	956.9	977.8	968.1	961.1	955.8	976.8	
G5.0	976.1	965.8	959.9	956.2	977.4	967.3	960.2	954.8	976.1	
G6.0	974.7	964.4	958.6	955.1	976.6	966.2	959.6	953.5	974.7	
G7.0	973.7	963.1	957.0	953.8	976.1	965.4	959.0	953.1	973.7	
G8.0	972.3	961.4	955.6	952.5	974.8	964.6	958.0	952.7	972.3	
G9.0	971.5	960.7	954.4	951.2	974.1	964.1	957.9	952.6	971.5	
G10.0	971.4	960.2	953.5	950.3	973.5	964.2	958.2	953.6	971.4	
G11.0	972.5	960.4	953.4	949.9	974.2	964.9	959.2	955.9	972.5	
G12.0	974.3	961.3	953.7	950.3	975.1	966.8	961.6	959.2	974.3	
G13.0	976.7	963.1	954.9	951.2	977.5	970.4	965.1	963.8	976.7	
G14.0	981.1	965.6	956.7	952.8	981.3	976.3	970.9	971.2	981.1	
G15.0	987.5	969.6	959.9	954.8	986.2	984.1	981.4	981.7	987.5	
G16.0	997.3	976.4	965.1	957.6	992.4	993.4	994.0	992.9	997.3	
G17.0	1007.9	984.8	975.5	962.5	1000.6	1005.5	1005.8	1003.7	1007.9	
G18.0	1018.8	994.9	989.6	972.4	1011.0	1015.8	1015.1	1011.2	1018.8	
G19.0	1028.2	1005.3	1004.7	986.8	1020.5	1023.2	1020.6	1015.5	1028.2	
G20.0	1034.5	1015.0	1015.4	1002.9	1028.4	1028.0	1023.2	1016.7	1034.5	
G21.0	1036.4	1020.1	1018.2	1014.8	1033.2	1029.6	1023.3	1016.4	1036.4	
G22.0	1035.2	1019.4	1014.4	1016.1	1034.7	1028.4	1022.2	1015.0	1035.2	
G23.0	1032.3	1015.3	1008.1	1010.6	1031.7	1025.8	1019.9	1012.0	1032.3	
G24.0	1028.2	1009.8	1002.3	1001.5	1026.5	1022.3	1016.1	1007.7	1028.2	
G25.0	1021.3	1001.7	996.5	994.8	1021.1	1017.1	1012.2	1002.1	1021.3	
G26.0	1014.1	992.9	990.2	990.0	1014.9	1011.0	1006.6	994.5	1014.1	
G27.0	1004.4	983.0	982.3	983.7	1005.7	1001.8	998.2	984.8	1004.4	
G28.0	993.4	972.6	973.8	976.1	996.4	990.4	986.1	971.8	993.4	
G29.0	980.2	958.9	963.9	966.1	985.4	976.6	973.0	958.6	980.2	
G30.0	966.6	945.5	953.1	956.0	971.7	962.4	958.2	943.6	966.6	
G31.0	950.1	931.7	940.2	944.6	957.1	946.1	942.5	927.2	950.1	
G32.0	934.5	915.9	925.9	929.6	941.5	930.8	926.2	908.6	934.5	
G33.0	916.4	899.3	906.6	913.6	924.6	914.0	906.5	891.1	916.4	
G34.0	899.3	880.2	888.5	892.8	905.5	897.1	888.3	873.2	899.3	
G35.0	879.1	862.9	868.2	874.8	887.2	878.0	869.5	853.2	879.1	
G36.0	859.9	844.8	851.0	856.3	868.0	860.4	850.9	834.1	859.9	

C Plane (°):0.0-360.0: 45.0
 Test Lab: Inventfine instruments
 Test Type: TYPE C
 Temperature: 26
 Operator: ATC

Gamma Plane (°):0.0-180.0:1.0
 Test Device: GPM-1800B
 Distance: 8.499 m
 Humidity: 65
 Inspector:

Candlepower Table (Continue 1)

Unit: cd

G\C	C0.0	C45.0	C90.0	C135.0	C180.0	C225.0	C270.0	C315.0	C360.0	
G37.0	839.5	827.5	831.8	837.5	849.1	841.5	830.4	814.0	839.5	
G38.0	820.8	809.6	813.5	819.9	829.9	822.3	812.3	795.7	820.8	
G39.0	800.6	789.7	795.6	800.6	809.7	800.5	794.0	775.1	800.6	
G40.0	782.3	770.8	775.9	782.2	791.3	781.4	774.0	757.0	782.3	
G41.0	763.5	751.3	756.9	762.1	772.8	763.0	754.1	739.2	763.5	
G42.0	742.4	731.2	738.8	744.1	752.6	743.3	737.1	721.1	742.4	
G43.0	724.1	713.8	720.7	726.7	734.3	725.2	718.9	700.3	724.1	
G44.0	706.1	695.7	700.5	707.6	716.2	706.8	700.2	681.8	706.1	
G45.0	685.3	675.9	681.7	689.1	698.4	688.3	680.1	663.5	685.3	
G46.0	666.5	657.4	663.3	671.3	677.9	668.1	661.5	644.6	666.5	
G47.0	646.9	639.2	642.0	650.2	659.3	648.8	642.1	625.8	646.9	
G48.0	625.7	618.4	622.7	630.8	639.9	629.6	621.4	605.6	625.7	
G49.0	605.9	599.5	603.0	611.5	619.1	610.7	603.0	587.2	605.9	
G50.0	586.7	581.2	583.8	592.4	599.9	590.6	583.8	568.9	586.7	
G51.0	567.5	562.4	563.5	571.3	581.0	572.5	565.3	548.7	567.5	
G52.0	546.9	544.5	545.3	552.6	560.2	554.7	544.9	530.7	546.9	
G53.0	528.5	525.6	526.9	534.6	541.4	535.0	526.0	512.8	528.5	
G54.0	510.2	506.2	508.9	515.2	521.2	517.3	505.4	492.8	510.2	
G55.0	490.6	488.1	489.6	497.8	502.5	499.1	487.2	474.6	490.6	
G56.0	472.8	470.3	472.0	480.9	484.1	478.9	468.8	456.7	472.8	
G57.0	454.7	451.5	454.4	463.4	464.1	461.4	450.8	438.7	454.7	
G58.0	434.4	431.3	435.6	444.5	446.1	443.0	431.5	418.7	434.4	
G59.0	415.4	412.4	418.1	427.4	427.6	423.3	413.7	399.5	415.4	
G60.0	394.9	392.9	399.7	409.5	407.0	404.7	395.4	367.4	394.9	
G61.0	339.5	343.6	371.1	389.7	386.3	377.3	343.7	295.1	339.5	
G62.0	254.1	266.8	300.9	351.5	327.6	305.6	266.1	203.9	254.1	
G63.0	170.4	184.1	214.6	279.1	243.4	224.4	164.6	120.7	170.4	
G64.0	93.6	105.5	126.2	193.4	159.3	142.0	84.3	55.0	93.6	
G65.0	40.5	46.2	58.7	103.9	78.9	63.0	37.4	30.5	40.5	
G66.0	29.3	30.0	32.4	44.3	35.9	33.5	29.7	26.4	29.3	
G67.0	24.8	25.5	28.0	31.5	30.7	28.8	25.2	21.9	24.8	
G68.0	20.8	21.5	23.2	26.7	25.1	23.7	21.4	19.1	20.8	
G69.0	18.5	19.0	19.9	21.8	21.1	20.3	19.3	18.1	18.5	
G70.0	17.7	18.0	18.5	19.2	19.4	19.1	18.4	17.5	17.7	
G71.0	17.1	17.3	17.6	18.2	18.4	18.3	17.7	16.9	17.1	
G72.0	16.5	16.6	17.0	17.4	17.6	17.5	17.1	16.4	16.5	
G73.0	16.0	16.0	16.4	16.7	17.0	17.0	16.6	15.9	16.0	

C Plane (°):0.0-360.0: 45.0
 Test Lab: Inventfine instruments
 Test Type: TYPE C
 Temperature: 26
 Operator: ATC

Gamma Plane (°):0.0-180.0:1.0
 Test Device: GPM-1800B
 Distance: 8.499 m
 Humidity: 65
 Inspector:

Candlepower Table (Continue 2)

Unit: cd

G\C	C0.0	C45.0	C90.0	C135.0	C180.0	C225.0	C270.0	C315.0	C360.0	
G74.0	15.6	15.5	15.9	16.2	16.4	16.4	16.1	15.6	15.6	
G75.0	15.1	15.1	15.4	15.6	15.9	15.9	15.7	15.2	15.1	
G76.0	14.7	14.7	15.0	15.3	15.5	15.4	15.3	14.8	14.7	
G77.0	14.4	14.3	14.6	14.8	15.0	14.9	14.9	14.4	14.4	
G78.0	14.0	14.0	14.2	14.4	14.6	14.6	14.5	14.1	14.0	
G79.0	13.6	13.6	13.9	14.1	14.2	14.1	14.1	13.7	13.6	
G80.0	13.2	13.2	13.5	13.8	13.8	13.7	13.6	13.3	13.2	
G81.0	12.7	12.7	13.1	13.4	13.3	13.1	13.0	12.6	12.7	
G82.0	11.6	11.9	12.4	12.9	12.5	12.3	12.1	11.6	11.6	
G83.0	10.8	10.7	11.5	12.3	11.2	11.1	10.9	10.3	10.8	
G84.0	8.8	9.4	10.3	11.2	9.8	9.7	9.3	8.3	8.8	
G85.0	6.7	7.3	8.9	9.9	7.8	7.9	6.7	5.1	6.7	
G86.0	4.2	4.4	6.5	7.9	4.9	4.5	4.3	3.8	4.2	
G87.0	2.9	3.2	4.2	4.9	3.3	3.4	3.1	2.5	2.9	
G88.0	1.8	2.0	2.9	3.7	2.3	2.4	2.0	1.3	1.8	
G89.0	0.9	1.0	1.8	2.4	1.3	1.2	0.8	0.6	0.9	
G90.0	0.3	0.3	0.6	1.3	0.5	0.6	0.7	0.7	0.3	
G91.0	0.4	0.4	0.3	0.3	0.5	0.7	0.8	0.8	0.4	
G92.0	0.5	0.5	0.4	0.3	0.8	0.7	0.8	0.8	0.5	
G93.0	0.5	0.6	0.5	0.4	0.7	0.8	0.9	0.9	0.5	
G94.0	0.6	0.7	0.6	0.5	0.7	0.9	1.0	1.0	0.6	
G95.0	0.7	0.8	0.6	0.6	0.8	1.0	1.0	1.1	0.7	
G96.0	0.8	0.9	0.8	0.7	0.9	1.0	1.1	1.2	0.8	
G97.0	0.9	1.0	0.9	0.8	1.0	1.1	1.2	1.3	0.9	
G98.0	1.0	1.0	0.9	0.9	1.1	1.2	1.4	1.4	1.0	
G99.0	1.1	1.1	1.0	1.0	1.2	1.4	1.4	1.5	1.1	
G100.0	1.2	1.2	1.2	1.1	1.3	1.5	1.5	1.5	1.2	
G101.0	1.3	1.4	1.3	1.2	1.4	1.5	1.6	1.6	1.3	
G102.0	1.4	1.5	1.4	1.3	1.5	1.7	1.7	1.8	1.4	
G103.0	1.5	1.5	1.5	1.4	1.6	1.8	1.8	1.9	1.5	
G104.0	1.6	1.6	1.6	1.5	1.8	1.9	2.0	2.0	1.6	
G105.0	1.8	1.7	1.7	1.6	1.9	2.0	2.0	2.1	1.8	
G106.0	1.8	1.8	1.8	1.7	2.0	2.1	2.2	2.2	1.8	
G107.0	2.0	1.9	1.9	1.8	2.1	2.3	2.3	2.3	2.0	
G108.0	2.0	2.0	2.0	2.0	2.3	2.3	2.4	2.4	2.0	
G109.0	2.2	2.2	2.1	2.0	2.4	2.5	2.5	2.6	2.2	
G110.0	2.3	2.3	2.2	2.1	2.5	2.6	2.7	2.7	2.3	

C Plane (°):0.0-360.0: 45.0
 Test Lab: Inventfine instruments
 Test Type: TYPE C
 Temperature: 26
 Operator: ATC

Gamma Plane (°):0.0-180.0:1.0
 Test Device: GPM-1800B
 Distance: 8.499 m
 Humidity: 65
 Inspector:

Candlepower Table (Continue 3)

Unit: cd

G\C	C0.0	C45.0	C90.0	C135.0	C180.0	C225.0	C270.0	C315.0	C360.0	
G111.0	2.4	2.4	2.4	2.3	2.7	2.8	2.8	2.8	2.4	
G112.0	2.6	2.6	2.5	2.4	2.8	2.9	2.9	3.0	2.6	
G113.0	2.8	2.7	2.6	2.5	2.9	3.0	3.1	3.1	2.8	
G114.0	2.8	2.8	2.7	2.7	3.0	3.1	3.2	3.2	2.8	
G115.0	3.0	3.0	2.8	2.8	3.2	3.2	3.3	3.3	3.0	
G116.0	3.1	3.1	3.0	3.0	3.3	3.4	3.4	3.5	3.1	
G117.0	3.2	3.2	3.1	3.0	3.5	3.5	3.6	3.6	3.2	
G118.0	3.3	3.3	3.2	3.2	3.6	3.6	3.7	3.7	3.3	
G119.0	3.5	3.4	3.4	3.3	3.7	3.8	3.9	3.8	3.5	
G120.0	3.4	3.6	3.5	3.4	3.8	3.9	4.0	4.0	3.4	
G121.0	3.7	3.7	3.6	3.5	4.0	4.0	4.1	4.1	3.7	
G122.0	3.9	3.8	3.8	3.7	4.1	4.1	4.2	4.3	3.9	
G123.0	4.0	4.0	3.9	3.8	4.2	4.3	4.3	4.4	4.0	
G124.0	4.2	4.1	4.0	3.9	4.3	4.4	4.5	4.5	4.2	
G125.0	4.3	4.2	4.2	4.1	4.5	4.5	4.6	4.7	4.3	
G126.0	4.4	4.3	4.3	4.2	4.7	4.7	4.7	4.8	4.4	
G127.0	4.5	4.5	4.4	4.4	4.7	4.8	4.8	4.9	4.5	
G128.0	4.7	4.7	4.6	4.5	4.9	4.9	5.0	5.0	4.7	
G129.0	4.8	4.8	4.7	4.6	5.0	5.0	5.1	5.1	4.8	
G130.0	4.9	4.9	4.8	4.8	5.1	5.2	5.3	5.2	4.9	
G131.0	5.1	5.1	5.0	4.9	5.2	5.3	5.3	5.3	5.1	
G132.0	5.2	5.2	5.1	5.0	5.2	5.4	5.5	5.5	5.2	
G133.0	5.3	5.3	5.2	5.2	5.6	5.6	5.6	5.6	5.3	
G134.0	5.5	5.5	5.4	5.3	5.7	5.7	5.8	5.8	5.5	
G135.0	5.6	5.5	5.5	5.4	5.8	5.8	5.9	5.8	5.6	
G136.0	5.8	5.7	5.7	5.5	5.9	6.0	6.0	6.0	5.8	
G137.0	5.8	5.8	5.8	5.7	6.0	6.1	6.1	6.1	5.8	
G138.0	5.9	5.8	5.9	5.8	6.2	6.2	6.2	6.2	5.9	
G139.0	6.0	6.0	6.0	5.9	6.3	6.3	6.3	6.3	6.0	
G140.0	6.1	6.1	6.1	5.8	6.4	6.4	6.4	6.4	6.1	
G141.0	6.2	6.2	6.2	6.1	6.5	6.5	6.5	6.5	6.2	
G142.0	6.3	6.3	6.3	6.1	6.6	6.6	6.7	6.6	6.3	
G143.0	6.4	6.4	6.4	6.2	6.7	6.8	6.8	6.7	6.4	
G144.0	6.6	6.5	6.5	6.4	6.8	6.9	6.9	6.9	6.6	
G145.0	6.7	6.7	6.6	6.5	7.0	7.0	7.0	7.0	6.7	
G146.0	6.8	6.8	6.7	6.7	7.1	7.1	7.1	7.1	6.8	
G147.0	6.9	6.9	6.9	6.8	7.2	7.2	7.2	7.2	6.9	

C Plane (°):0.0-360.0: 45.0
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Gamma Plane (°):0.0-180.0:1.0
 Test Device: GPM-1800B
 Distance: 8.499 m
 Humidity: 65
 Inspector:

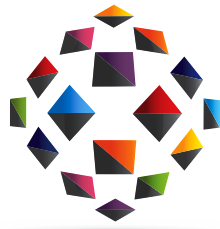
Candlepower Table (Continue 4)

Unit: cd

G\C	C0.0	C45.0	C90.0	C135.0	C180.0	C225.0	C270.0	C315.0	C360.0	
G148.0	7.1	7.0	7.0	6.9	7.3	7.3	7.3	7.3	7.1	
G149.0	7.2	7.1	7.1	7.0	7.3	7.4	7.3	7.3	7.2	
G150.0	7.3	7.3	7.2	7.1	7.5	7.5	7.5	7.4	7.3	
G151.0	7.4	7.4	7.3	7.2	7.6	7.6	7.6	7.6	7.4	
G152.0	7.5	7.5	7.5	7.3	7.8	7.8	7.7	7.7	7.5	
G153.0	7.7	7.7	7.6	7.5	7.9	7.8	7.9	7.8	7.7	
G154.0	7.8	7.8	7.8	7.6	7.9	7.9	8.0	7.9	7.8	
G155.0	7.9	7.8	7.8	7.7	8.1	8.1	8.1	8.0	7.9	
G156.0	8.0	7.9	7.9	7.8	8.2	8.2	8.2	8.2	8.0	
G157.0	8.1	8.1	8.0	7.9	8.3	8.3	8.3	8.3	8.1	
G158.0	8.2	8.1	8.1	8.0	8.4	8.4	8.4	8.4	8.2	
G159.0	8.3	8.2	8.2	8.1	8.5	8.5	8.6	8.5	8.3	
G160.0	8.4	8.3	8.3	8.2	8.6	8.7	8.7	8.6	8.4	
G161.0	8.4	8.4	8.4	8.2	8.8	8.8	8.9	8.8	8.4	
G162.0	8.5	8.5	8.4	8.4	8.9	8.8	9.0	8.9	8.5	
G163.0	8.6	8.6	8.5	8.5	8.9	9.0	9.1	8.9	8.6	
G164.0	8.7	8.7	8.6	8.5	9.1	9.1	9.1	9.1	8.7	
G165.0	8.8	8.7	8.7	8.6	9.2	9.1	9.2	9.1	8.8	
G166.0	8.8	8.8	8.8	8.7	9.3	9.3	9.3	9.3	8.8	
G167.0	9.0	8.9	8.9	8.8	9.3	9.3	9.4	9.3	9.0	
G168.0	9.0	9.0	9.0	8.9	9.4	9.4	9.4	9.4	9.0	
G169.0	9.1	9.1	9.1	9.0	9.5	9.5	9.5	9.4	9.1	
G170.0	9.3	9.2	9.2	9.1	9.6	9.6	9.6	9.5	9.3	
G171.0	9.3	9.3	9.3	9.1	9.6	9.6	9.6	9.5	9.3	
G172.0	9.4	9.4	9.4	9.2	9.7	9.7	9.7	9.6	9.4	
G173.0	9.5	9.4	9.4	9.4	9.8	9.7	9.7	9.6	9.5	
G174.0	9.5	9.5	9.5	9.4	9.8	9.8	9.8	9.6	9.5	
G175.0	9.6	9.6	9.5	9.5	9.8	9.8	9.8	9.7	9.6	
G176.0	9.7	9.6	9.6	9.5	9.8	9.9	9.8	9.7	9.7	
G177.0	9.8	9.7	9.7	9.6	9.9	9.9	9.8	9.7	9.8	
G178.0	9.8	9.7	9.7	9.6	9.9	9.9	9.8	9.8	9.8	
G179.0	9.8	9.7	9.8	9.7	9.9	9.9	9.8	9.7	9.8	
G180.0	9.8	9.8	9.8	9.7	9.9	9.8	9.8	9.8	9.8	

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