

Report No.: TH-2825A

Test Time: 2021/11/29 14:55

## Luminaire Property

Luminaire Manufacturer:  
Luminaire Category:  
Lamp Catalog:  
Number of Lamps:  
Luminous Length (mm):  
Luminous Height (mm):  
Current: 0.134 A  
Power Factor: 0.887

Luminaire Description: 57644  
Lamp Description:  
Lumens per Lamp:  
Luminous Width (mm):  
Voltage: 120.0 V  
Power: 14.20 W

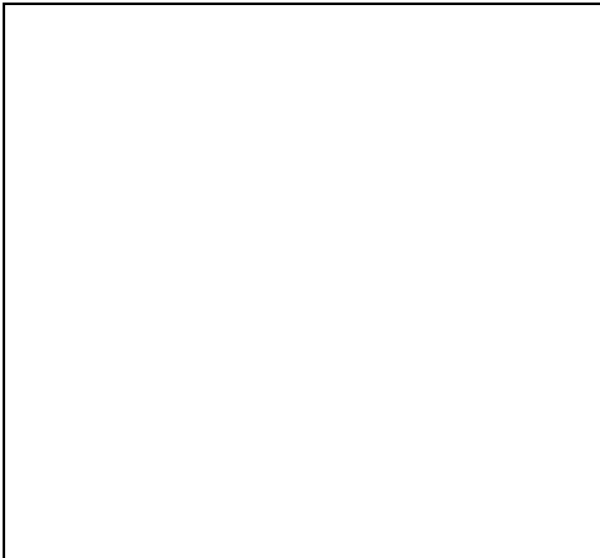
## Photometric Results

CIE Class: Direct  
Measurement Flux: 1100.9 lm  
Downward Ratio: 97%  
Horizontal Diffuse Angle(50%): H107.8  
Vertical Diffuse Angle(50%): V107.9  
Luminaire Efficacy Rating (LER): 77.58  
Max. Intensity: 384.29 cd  
S/MH(C0/C180): 1.22

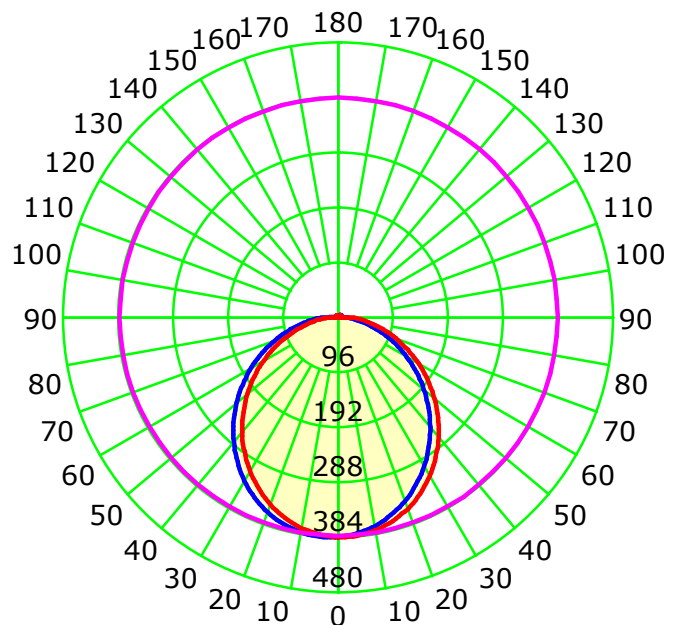
Total Rated Lamp Lumens: 1100.9 lm  
Efficiency: 100%  
Upward Ratio: 3%

C0r0 Intensity: 383.52 cd  
Pos of Max. Intensity: H180 V3  
S/MH(C90/C270): 1.22

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

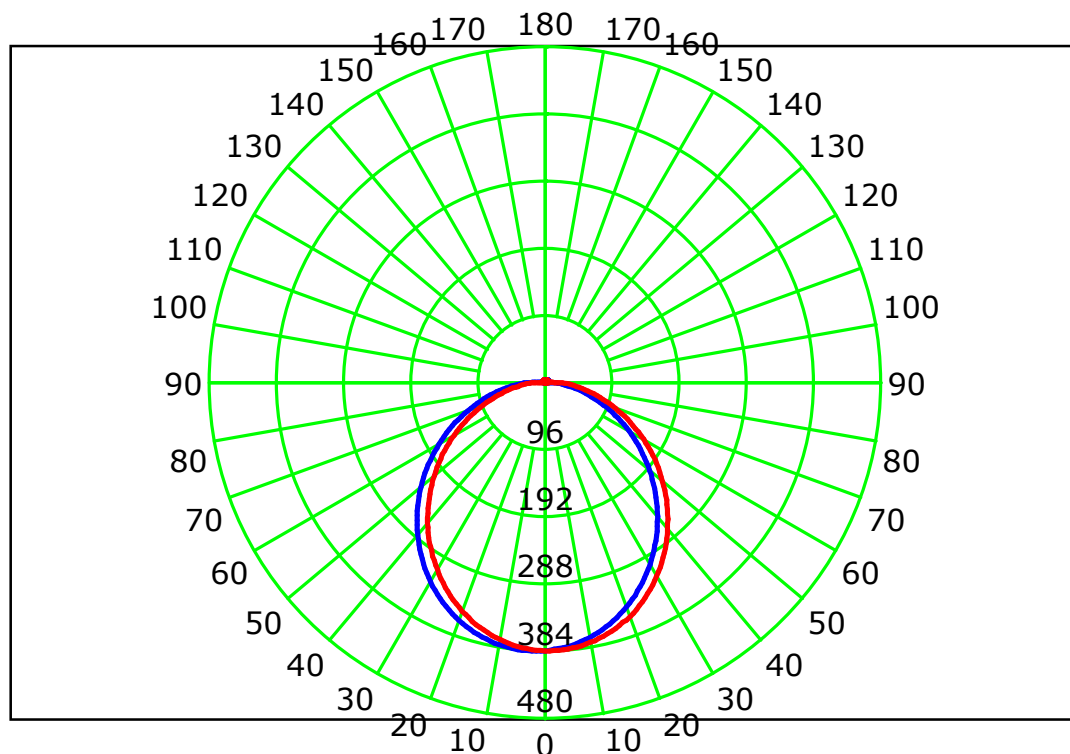
Average Diffuse Angle(50%): 107.8°

— C0-C180 — C90-C270 — G3

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.508 m [K=1.0000]  
Humidity: 65  
Inspector:

## Luminous Intensity Distribution Curve



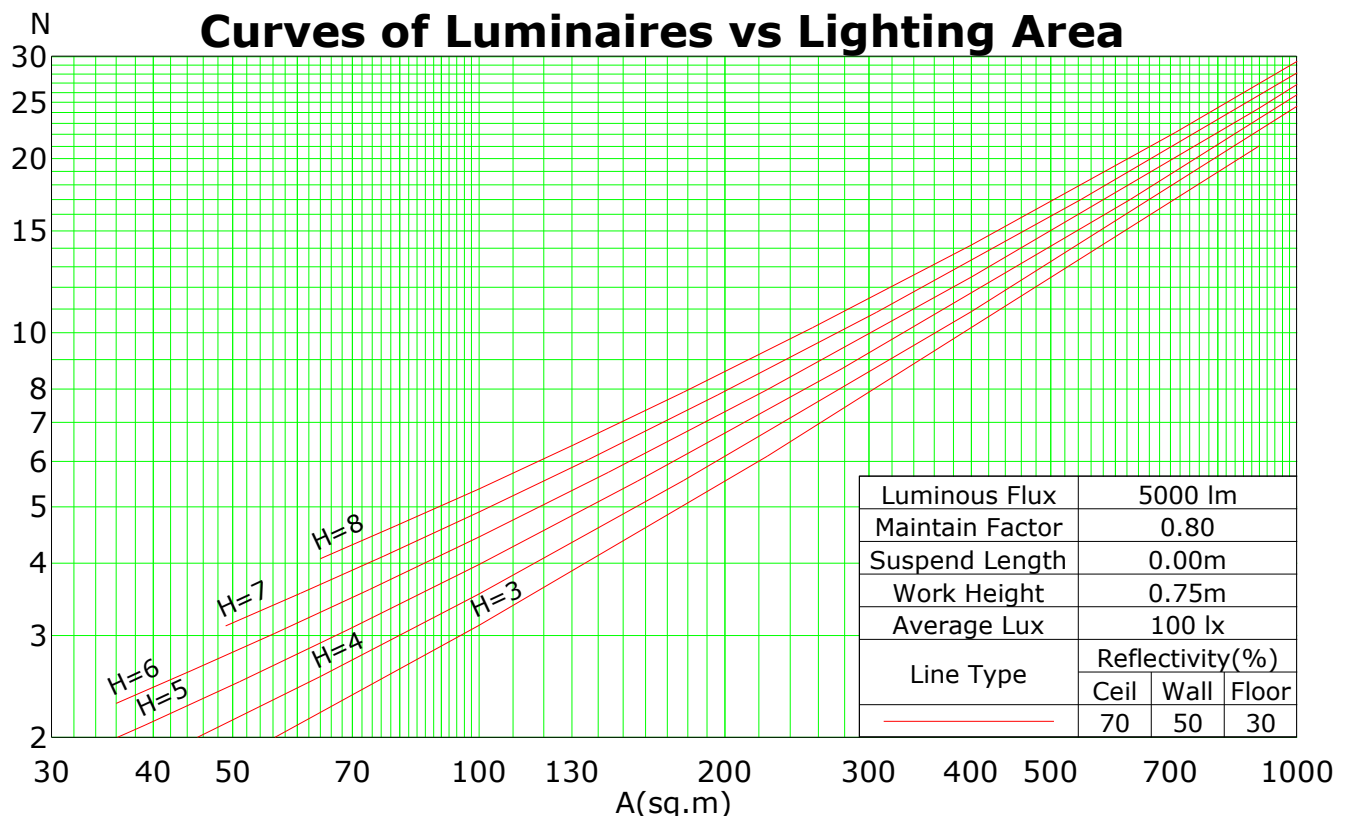
## Coefficients Of Utilization - Zonal Cavity Method

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	1.18	1.18	1.18	1.18	1.15	1.15	1.15	1.15	1.10	1.10	1.10	1.05	1.05	1.05	1.00	1.00	1.00	0.97
1	1.08	1.02	0.98	0.94	1.04	1.00	0.96	0.92	0.95	0.92	0.89	0.91	0.88	0.86	0.87	0.85	0.83	0.80
2	0.98	0.89	0.82	0.76	0.95	0.87	0.81	0.75	0.83	0.78	0.73	0.79	0.75	0.71	0.76	0.72	0.69	0.67
3	0.89	0.78	0.70	0.63	0.86	0.76	0.69	0.63	0.73	0.66	0.61	0.70	0.64	0.60	0.67	0.62	0.58	0.56
4	0.81	0.69	0.60	0.54	0.79	0.68	0.59	0.53	0.65	0.58	0.52	0.62	0.56	0.51	0.60	0.54	0.50	0.48
5	0.75	0.62	0.53	0.46	0.73	0.61	0.52	0.46	0.58	0.51	0.45	0.56	0.49	0.44	0.54	0.48	0.44	0.41
6	0.69	0.56	0.47	0.40	0.67	0.55	0.46	0.40	0.53	0.45	0.39	0.51	0.44	0.39	0.49	0.43	0.38	0.36
7	0.64	0.51	0.42	0.36	0.62	0.50	0.41	0.35	0.48	0.40	0.35	0.46	0.40	0.35	0.45	0.39	0.34	0.32
8	0.60	0.46	0.38	0.32	0.58	0.45	0.37	0.32	0.44	0.36	0.31	0.42	0.36	0.31	0.41	0.35	0.31	0.29
9	0.56	0.42	0.34	0.29	0.54	0.42	0.34	0.28	0.40	0.33	0.28	0.39	0.33	0.28	0.38	0.32	0.28	0.26
10	0.52	0.39	0.31	0.26	0.51	0.39	0.31	0.26	0.37	0.30	0.26	0.36	0.30	0.25	0.35	0.29	0.25	0.23

Spacing Criteria (0-180): 1.22

Spacing Criteria (90-270): 1.22

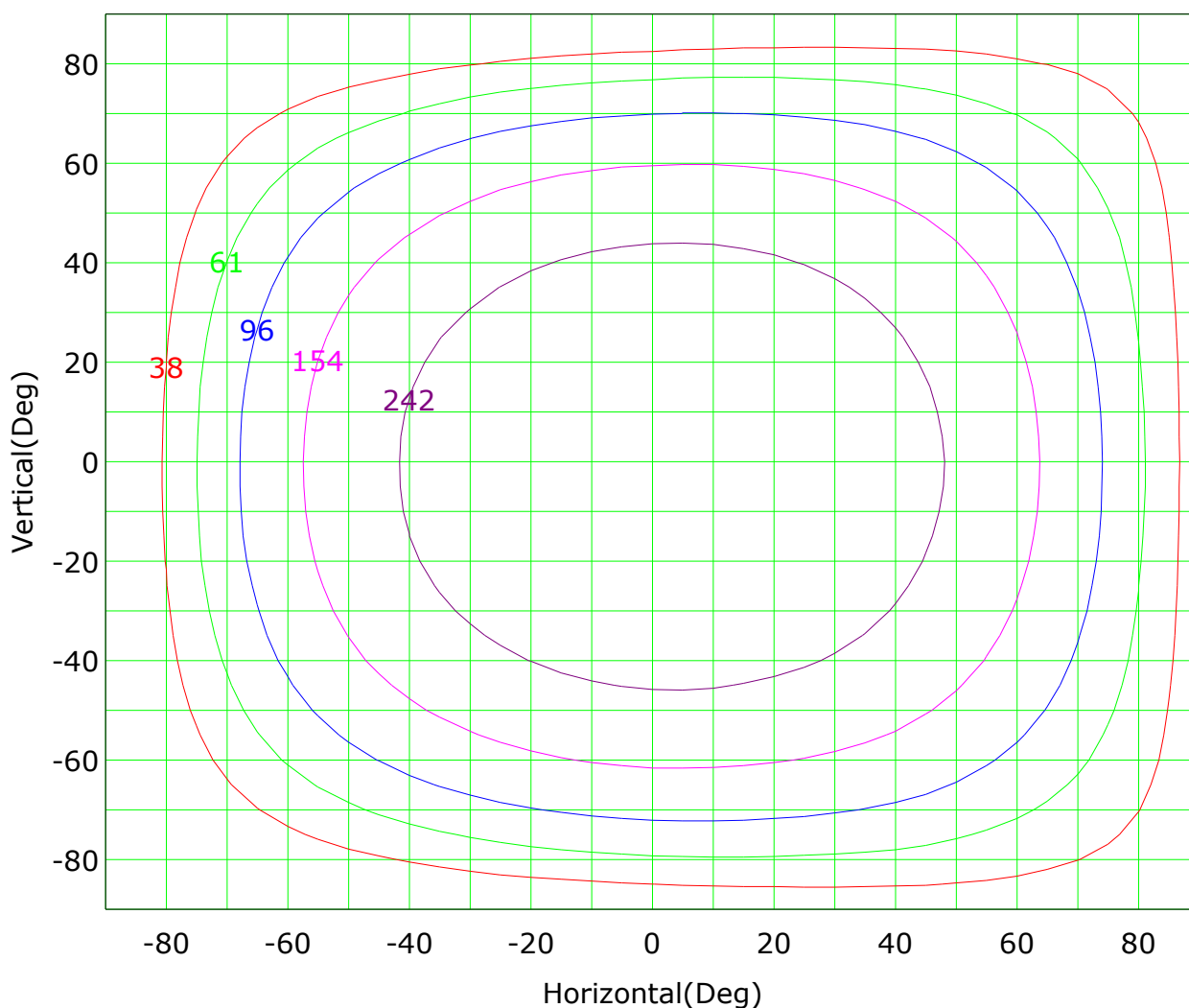
Spacing Criteria (Diagonal): 1.34



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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.508 m [K=1.0000]  
Humidity: 65  
Inspector:

## Isocandela (rectangle)



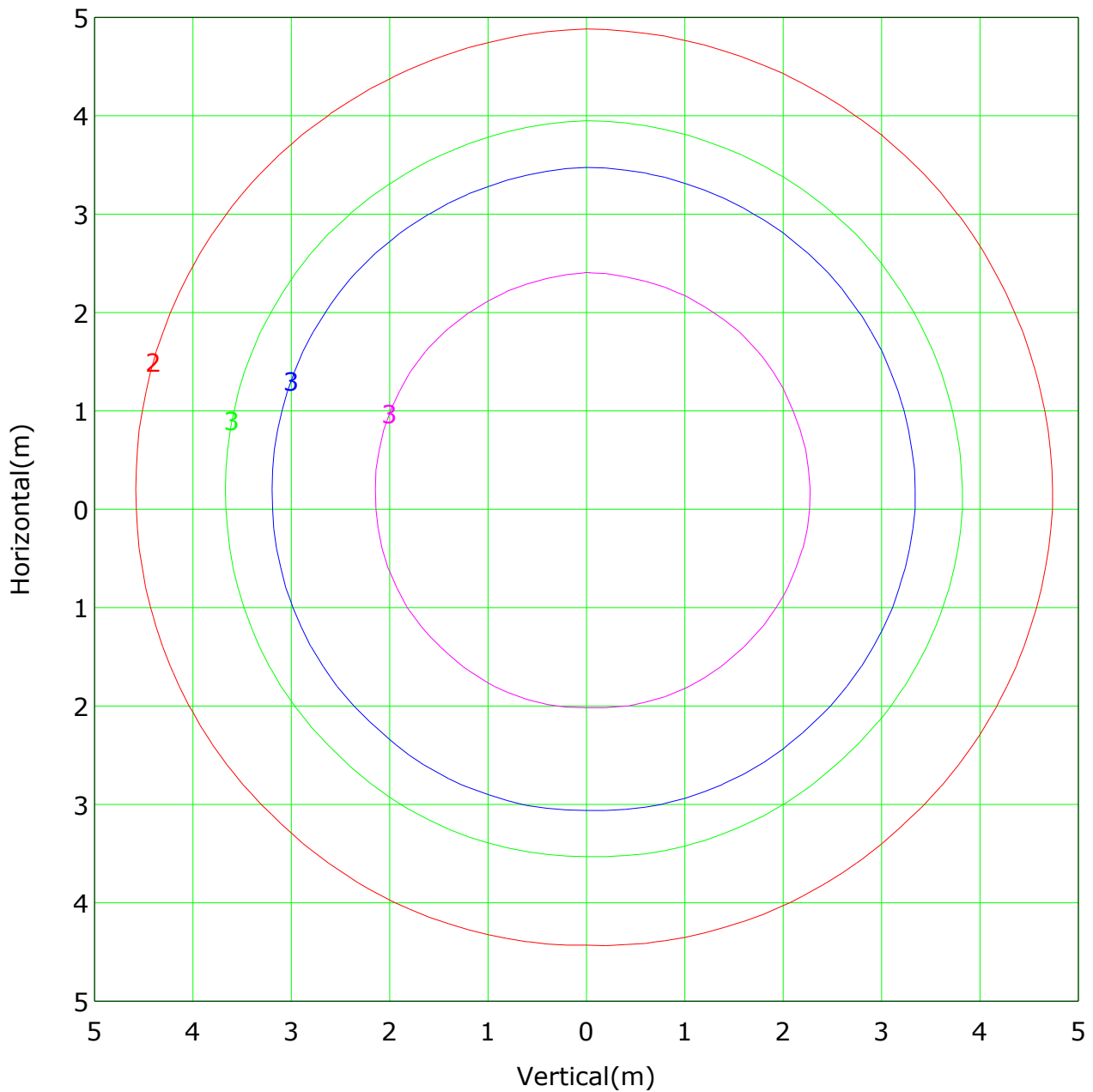
Imax (100%): 384 cd

( 10%): 38 cd	( 16%): 61 cd
( 25%): 96 cd	( 40%): 154 cd
( 63%): 242 cd	(100%): 384 cd

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.508 m [K=1.0000]  
Humidity: 65  
Inspector:

## IsoLux Plot



Mounting Height: 10.0m    Max Lux(100%): 3.8 lx

( 65%): 2.5 lx	( 75%): 2.9 lx
( 80%): 3.1 lx	( 90%): 3.5 lx
(100%): 3.8 lx	

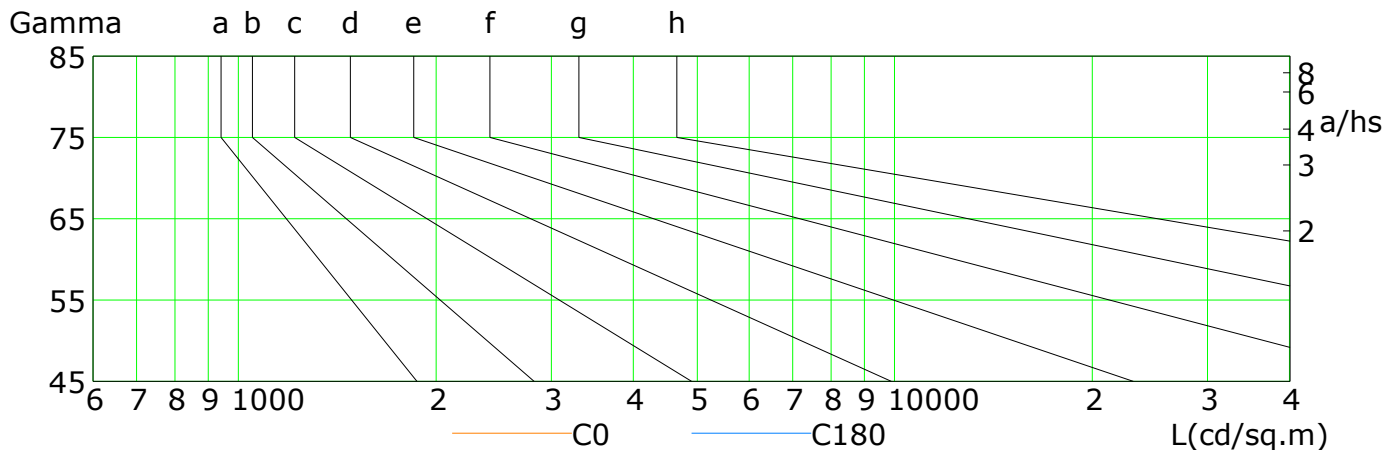
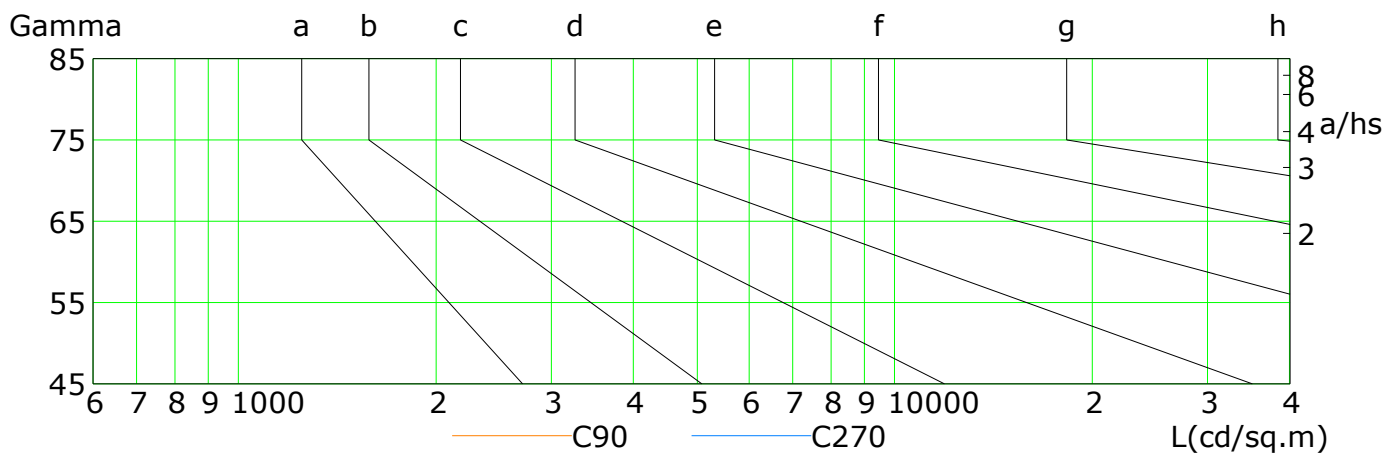
C Plane (°):0.0-360.0: 45.0  
Test Lab: Inventfine instrument  
Test Type: TYPE C  
Temperature: 26  
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.508 m [K=1.0000]  
Humidity: 65  
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

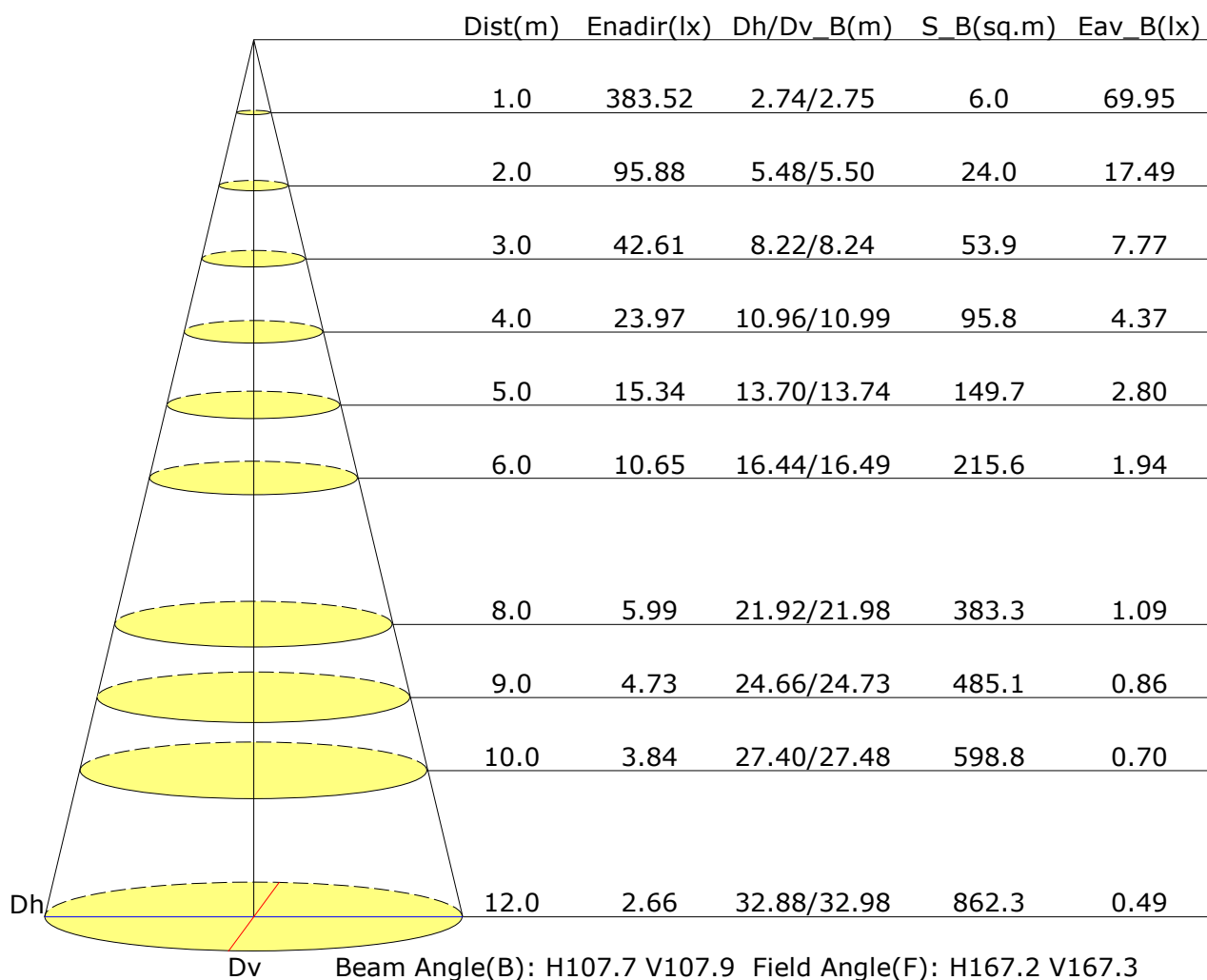


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	223	195	167	139	111	85	61	40	24
C90	247	219	192	163	135	107	82	58	38
C180	259	232	205	176	147	119	91	67	45
C270	235	208	180	151	123	95	69	47	29

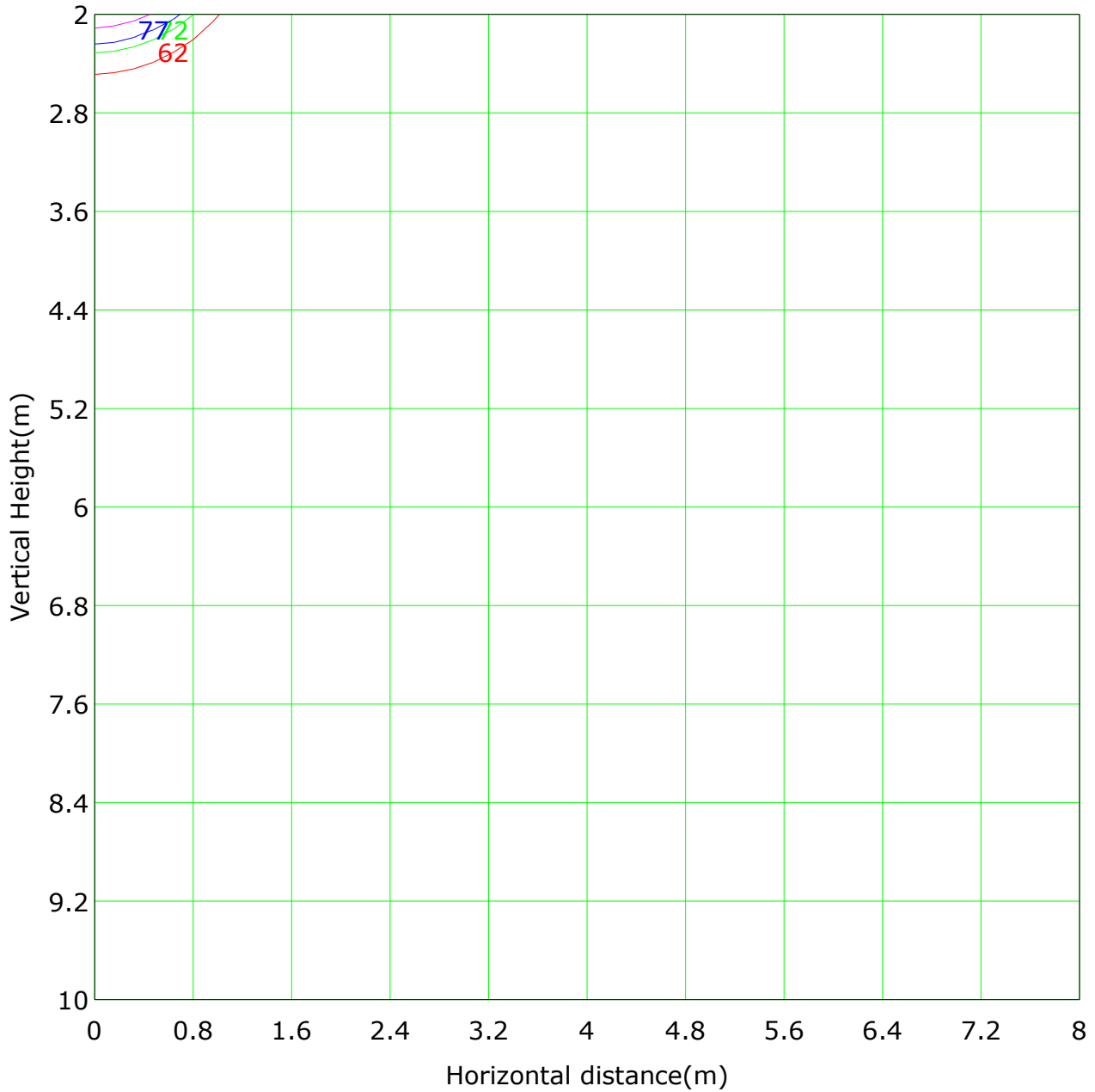
C Plane (°):0.0-360.0: 45.0  
Test Lab: Inventfine instrument  
Test Type: TYPE C  
Temperature: 26  
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.508 m [K=1.0000]  
Humidity: 65  
Inspector:

## Illuminance at a Distance



## Vertical IsoLux Plot



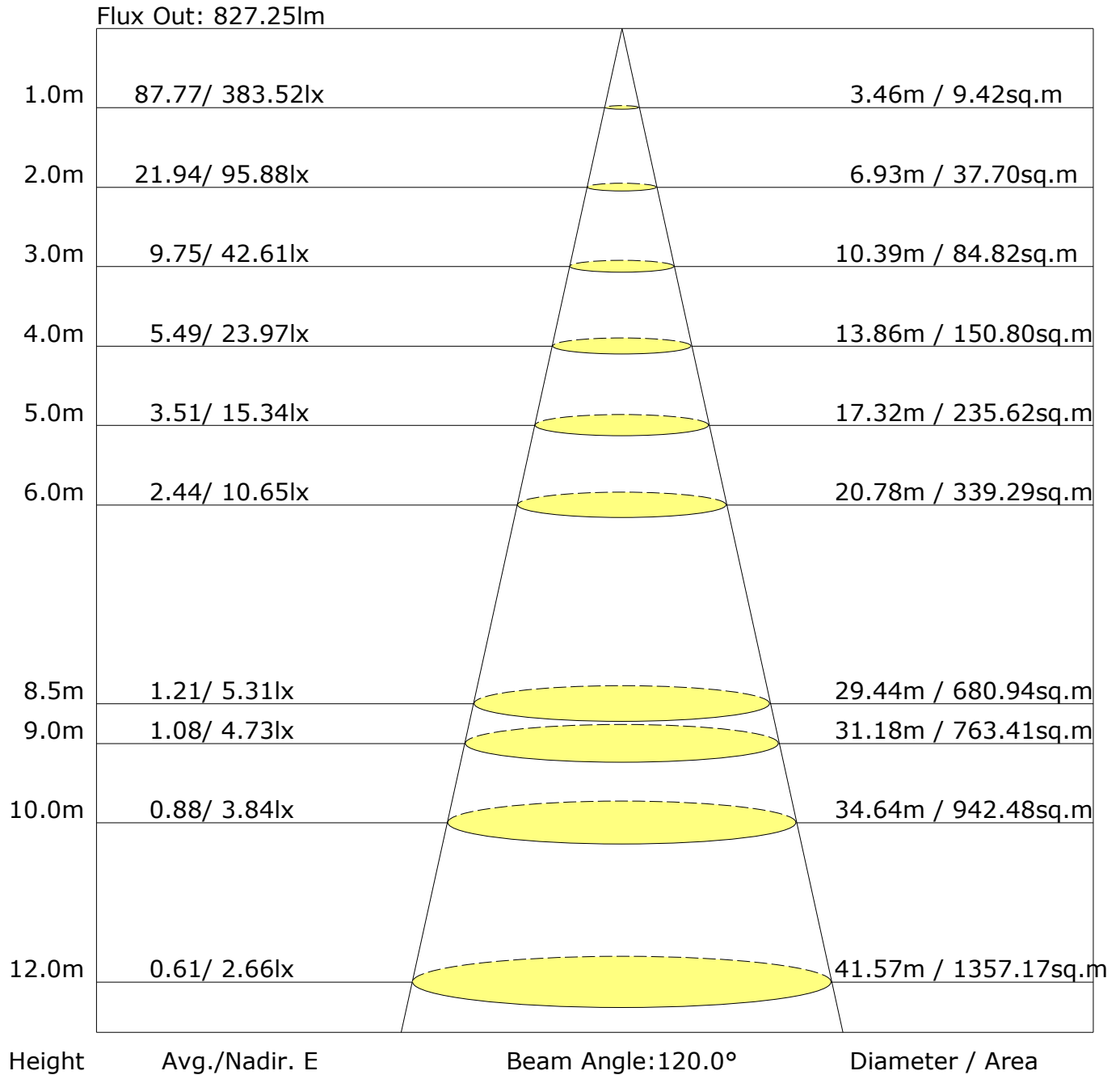
Lowest(m): 2.0m	Highest(m): 10.0m	Max Lux: 95.9 lx
— ( 65%): 62.3 lx	— ( 75%): 71.9 lx	
— ( 80%): 76.7 lx	— ( 90%): 86.3 lx	
— (100%): 95.9 lx		

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.508 m [K=1.0000]  
Humidity: 65  
Inspector:



## 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	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
3H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
4H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
6H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
8H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
12H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
X=4H Y=2H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
3H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
4H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
6H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
8H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
12H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
X=8H Y=4H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
6H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
8H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
12H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
X=12H Y=4H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
6H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
8H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
Variations with the observer position at spacings:										
S=1.0H	-1.\$/-1.\$					-1.\$/-1.\$				
S=1.5H	-1.\$/-1.\$					-1.\$/-1.\$				
S=2.0H	-1.\$/-1.\$					-1.\$/-1.\$				

Calculate in accordance with CIE Pub.117. The table is revised with 1101lm ( $8\log(F/F_0) = 0.3$ ).

## Zonal Lumen

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	383.5	0.4	0.4	0.03	0.03
1.0-2.0	383.3	1.1	1.5	0.10	0.13
2.0-3.0	383.0	1.8	3.3	0.17	0.30
3.0-4.0	382.5	2.6	5.9	0.23	0.53
4.0-5.0	381.8	3.3	9.1	0.30	0.83
5.0-6.0	381.0	4.0	13.1	0.36	1.19
6.0-7.0	380.0	4.7	17.9	0.43	1.62
7.0-8.0	378.8	5.4	23.3	0.49	2.12
8.0-9.0	377.5	6.1	29.4	0.56	2.67
9.0-10.0	376.1	6.8	36.2	0.62	3.29
10.0-11.0	374.4	7.5	43.7	0.68	3.97
11.0-12.0	372.6	8.1	51.8	0.74	4.71
12.0-13.0	370.7	8.8	60.6	0.80	5.51
13.0-14.0	368.6	9.4	70.1	0.86	6.37
14.0-15.0	366.3	10.1	80.1	0.91	7.28
15.0-16.0	364.0	10.7	90.8	0.97	8.25
16.0-17.0	361.4	11.3	102.1	1.02	9.27
17.0-18.0	358.7	11.8	113.9	1.07	10.35
18.0-19.0	356.0	12.4	126.3	1.13	11.47
19.0-20.0	353.1	12.9	139.2	1.17	12.64
20.0-21.0	350.0	13.4	152.6	1.22	13.87
21.0-22.0	346.8	13.9	166.6	1.27	15.13
22.0-23.0	343.4	14.4	181.0	1.31	16.44
23.0-24.0	339.9	14.9	195.9	1.35	17.79
24.0-25.0	336.3	15.3	211.1	1.39	19.18
25.0-26.0	332.5	15.7	226.8	1.43	20.61
26.0-27.0	328.6	16.1	242.9	1.46	22.07
27.0-28.0	324.7	16.4	259.4	1.49	23.56
28.0-29.0	320.7	16.8	276.1	1.52	25.08
29.0-30.0	316.4	17.1	293.2	1.55	26.64
30.0-31.0	312.0	17.4	310.6	1.58	28.21
31.0-32.0	307.6	17.6	328.2	1.60	29.81
32.0-33.0	303.2	17.9	346.1	1.62	31.44
33.0-34.0	298.6	18.1	364.2	1.64	33.08
34.0-35.0	293.9	18.3	382.4	1.66	34.74
35.0-36.0	289.2	18.4	400.8	1.67	36.41

C Plane (°):0.0-360.0: 45.0  
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Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.508 m [K=1.0000]  
Humidity: 65  
Inspector:

## Zonal Lumen (Continue 1)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	284.6	18.6	419.4	1.69	38.10
37.0-38.0	279.8	18.7	438.1	1.70	39.79
38.0-39.0	274.7	18.8	456.8	1.70	41.50
39.0-40.0	269.7	18.8	475.6	1.71	43.21
40.0-41.0	264.6	18.8	494.5	1.71	44.92
41.0-42.0	259.4	18.9	513.3	1.71	46.63
42.0-43.0	254.1	18.8	532.2	1.71	48.34
43.0-44.0	248.8	18.8	550.9	1.71	50.05
44.0-45.0	243.5	18.7	569.7	1.70	51.75
45.0-46.0	238.1	18.6	588.3	1.69	53.44
46.0-47.0	232.7	18.5	606.8	1.68	55.12
47.0-48.0	227.3	18.4	625.2	1.67	56.79
48.0-49.0	221.8	18.2	643.4	1.65	58.44
49.0-50.0	216.2	18.0	661.4	1.64	60.08
50.0-51.0	210.7	17.8	679.3	1.62	61.70
51.0-52.0	205.2	17.6	696.9	1.60	63.30
52.0-53.0	199.5	17.4	714.2	1.58	64.88
53.0-54.0	193.8	17.1	731.3	1.55	66.43
54.0-55.0	188.3	16.8	748.1	1.53	67.96
55.0-56.0	182.7	16.5	764.6	1.50	69.46
56.0-57.0	177.0	16.2	780.8	1.47	70.93
57.0-58.0	171.3	15.8	796.7	1.44	72.37
58.0-59.0	165.6	15.5	812.2	1.41	73.77
59.0-60.0	159.7	15.1	827.2	1.37	75.14
60.0-61.0	154.1	14.7	842.0	1.34	76.48
61.0-62.0	148.5	14.3	856.3	1.30	77.78
62.0-63.0	142.8	13.9	870.2	1.26	79.04
63.0-64.0	137.0	13.4	883.6	1.22	80.26
64.0-65.0	131.4	13.0	896.6	1.18	81.44
65.0-66.0	125.9	12.6	909.2	1.14	82.59
66.0-67.0	120.3	12.1	921.3	1.10	83.68
67.0-68.0	114.8	11.6	932.9	1.06	84.74
68.0-69.0	109.3	11.1	944.0	1.01	85.75
69.0-70.0	103.9	10.7	954.7	0.97	86.72
70.0-71.0	98.6	10.2	964.9	0.93	87.65
71.0-72.0	93.3	9.7	974.6	0.88	88.53

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Test Device: GPM-1800B  
Distance: 8.508 m [K=1.0000]  
Humidity: 65  
Inspector:

## Zonal Lumen (Continue 2)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
72.0-73.0	88.1	9.2	983.8	0.84	89.37
73.0-74.0	83.1	8.7	992.6	0.79	90.16
74.0-75.0	78.1	8.3	1000.8	0.75	90.91
75.0-76.0	73.3	7.8	1008.6	0.71	91.62
76.0-77.0	68.6	7.3	1015.9	0.66	92.28
77.0-78.0	63.9	6.8	1022.8	0.62	92.90
78.0-79.0	59.5	6.4	1029.2	0.58	93.48
79.0-80.0	55.2	6.0	1035.1	0.54	94.03
80.0-81.0	51.0	5.5	1040.6	0.50	94.53
81.0-82.0	46.9	5.1	1045.7	0.46	94.99
82.0-83.0	43.1	4.7	1050.4	0.43	95.41
83.0-84.0	39.4	4.3	1054.7	0.39	95.80
84.0-85.0	35.9	3.9	1058.6	0.36	96.16
85.0-86.0	32.5	3.6	1062.2	0.32	96.48
86.0-87.0	29.3	3.2	1065.4	0.29	96.77
87.0-88.0	26.3	2.9	1068.3	0.26	97.04
88.0-89.0	23.4	2.6	1070.8	0.23	97.27
89.0-90.0	20.7	2.3	1073.1	0.21	97.48
90.0-91.0	18.3	2.0	1075.1	0.18	97.66
91.0-92.0	15.9	1.7	1076.8	0.16	97.82
92.0-93.0	13.8	1.5	1078.3	0.14	97.95
93.0-94.0	11.8	1.3	1079.6	0.12	98.07
94.0-95.0	10.1	1.1	1080.7	0.10	98.17
95.0-96.0	8.4	0.9	1081.7	0.08	98.25
96.0-97.0	6.9	0.8	1082.4	0.07	98.32
97.0-98.0	5.5	0.6	1083.0	0.05	98.38
98.0-99.0	4.2	0.5	1083.5	0.04	98.42
99.0-100.0	2.9	0.3	1083.8	0.03	98.45
100.0-101.0	2.1	0.2	1084.0	0.02	98.47
101.0-102.0	1.7	0.2	1084.2	0.02	98.48
102.0-103.0	1.5	0.2	1084.3	0.01	98.50
103.0-104.0	1.4	0.1	1084.5	0.01	98.51
104.0-105.0	1.3	0.1	1084.6	0.01	98.52
105.0-106.0	1.4	0.1	1084.8	0.01	98.54
106.0-107.0	1.5	0.2	1084.9	0.01	98.55
107.0-108.0	1.5	0.2	1085.1	0.01	98.57

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.508 m [K=1.0000]  
Humidity: 65  
Inspector:

## Zonal Lumen (Continue 3)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
108.0-109.0	1.6	0.2	1085.3	0.02	98.58
109.0-110.0	1.7	0.2	1085.4	0.02	98.60
110.0-111.0	1.8	0.2	1085.6	0.02	98.61
111.0-112.0	1.9	0.2	1085.8	0.02	98.63
112.0-113.0	2.0	0.2	1086.0	0.02	98.65
113.0-114.0	2.1	0.2	1086.2	0.02	98.67
114.0-115.0	2.2	0.2	1086.5	0.02	98.69
115.0-116.0	2.3	0.2	1086.7	0.02	98.71
116.0-117.0	2.4	0.2	1086.9	0.02	98.73
117.0-118.0	2.5	0.2	1087.2	0.02	98.75
118.0-119.0	2.7	0.3	1087.4	0.02	98.78
119.0-120.0	3.0	0.3	1087.7	0.03	98.80
120.0-121.0	3.2	0.3	1088.0	0.03	98.83
121.0-122.0	3.3	0.3	1088.3	0.03	98.86
122.0-123.0	3.4	0.3	1088.6	0.03	98.89
123.0-124.0	3.4	0.3	1088.9	0.03	98.91
124.0-125.0	3.5	0.3	1089.3	0.03	98.94
125.0-126.0	3.6	0.3	1089.6	0.03	98.97
126.0-127.0	3.7	0.3	1089.9	0.03	99.00
127.0-128.0	3.9	0.3	1090.2	0.03	99.03
128.0-129.0	4.0	0.3	1090.6	0.03	99.07
129.0-130.0	4.1	0.4	1090.9	0.03	99.10
130.0-131.0	4.3	0.4	1091.3	0.03	99.13
131.0-132.0	4.4	0.4	1091.7	0.03	99.16
132.0-133.0	4.5	0.4	1092.0	0.03	99.19
133.0-134.0	4.6	0.4	1092.4	0.03	99.23
134.0-135.0	4.7	0.4	1092.7	0.03	99.26
135.0-136.0	4.8	0.4	1093.1	0.03	99.29
136.0-137.0	4.9	0.4	1093.5	0.03	99.33
137.0-138.0	4.9	0.4	1093.8	0.03	99.36
138.0-139.0	4.9	0.4	1094.2	0.03	99.39
139.0-140.0	5.0	0.4	1094.6	0.03	99.43
140.0-141.0	5.1	0.4	1094.9	0.03	99.46
141.0-142.0	5.2	0.4	1095.3	0.03	99.49
142.0-143.0	5.3	0.4	1095.6	0.03	99.52
143.0-144.0	5.2	0.3	1096.0	0.03	99.55

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.508 m [K=1.0000]  
Humidity: 65  
Inspector:

## Zonal Lumen (Continue 4)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
144.0-145.0	5.1	0.3	1096.3	0.03	99.58
145.0-146.0	5.0	0.3	1096.6	0.03	99.61
146.0-147.0	4.9	0.3	1096.9	0.03	99.64
147.0-148.0	4.8	0.3	1097.2	0.03	99.66
148.0-149.0	4.8	0.3	1097.5	0.02	99.69
149.0-150.0	4.7	0.3	1097.7	0.02	99.71
150.0-151.0	4.7	0.3	1098.0	0.02	99.74
151.0-152.0	4.6	0.2	1098.2	0.02	99.76
152.0-153.0	4.5	0.2	1098.4	0.02	99.78
153.0-154.0	4.5	0.2	1098.7	0.02	99.80
154.0-155.0	4.2	0.2	1098.9	0.02	99.82
155.0-156.0	4.0	0.2	1099.0	0.02	99.83
156.0-157.0	3.6	0.2	1099.2	0.01	99.85
157.0-158.0	3.4	0.1	1099.3	0.01	99.86
158.0-159.0	3.2	0.1	1099.5	0.01	99.87
159.0-160.0	3.2	0.1	1099.6	0.01	99.88
160.0-161.0	3.3	0.1	1099.7	0.01	99.89
161.0-162.0	3.3	0.1	1099.8	0.01	99.90
162.0-163.0	3.3	0.1	1099.9	0.01	99.91
163.0-164.0	3.3	0.1	1100.0	0.01	99.92
164.0-165.0	3.4	0.1	1100.1	0.01	99.93
165.0-166.0	3.4	0.1	1100.2	0.01	99.94
166.0-167.0	3.4	0.1	1100.3	0.01	99.95
167.0-168.0	3.5	0.1	1100.4	0.01	99.96
168.0-169.0	3.5	0.1	1100.5	0.01	99.96
169.0-170.0	3.5	0.1	1100.5	0.01	99.97
170.0-171.0	3.5	0.1	1100.6	0.01	99.97
171.0-172.0	3.5	0.1	1100.7	0.01	99.98
172.0-173.0	3.5	0.1	1100.7	0.00	99.98
173.0-174.0	3.6	0.0	1100.8	0.00	99.99
174.0-175.0	3.6	0.0	1100.8	0.00	99.99
175.0-176.0	3.6	0.0	1100.8	0.00	99.99
176.0-177.0	3.6	0.0	1100.9	0.00	100.00
177.0-178.0	3.6	0.0	1100.9	0.00	100.00
178.0-179.0	3.6	0.0	1100.9	0.00	100.00
179.0-180.0	3.6	0.0	1100.9	0.00	100.00

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.508 m [K=1.0000]  
Humidity: 65  
Inspector:

## Zonal Lumen (Continue 5)

cone flux(90°): 569.66 lm

%lum = 51.7%

%lamp = 51.7%

cone flux(120°): 827.25 lm

%lum = 75.1%

%lamp = 75.1%



## 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	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	383.5	
G1.0	382.8	383.2	383.7	383.9	383.9	383.7	383.3	383.0	382.8	
G2.0	381.6	382.8	383.6	384.1	384.2	383.7	382.8	382.3	381.6	
G3.0	381.1	382.1	383.4	384.2	384.3	383.5	382.2	381.4	381.1	
G4.0	380.0	381.2	383.0	384.1	384.2	383.2	381.4	380.2	380.0	
G5.0	378.7	380.3	382.5	383.8	384.1	382.8	380.5	379.1	378.7	
G6.0	377.4	379.1	381.7	383.4	383.8	382.0	379.4	377.8	377.4	
G7.0	375.6	377.7	380.8	382.8	383.2	381.2	378.1	376.1	375.6	
G8.0	373.9	376.3	379.8	382.1	382.5	380.2	376.6	374.4	373.9	
G9.0	372.0	374.5	378.6	381.0	381.7	379.1	375.1	372.7	372.0	
G10.0	369.8	372.8	377.1	380.0	380.6	377.8	373.4	370.7	369.8	
G11.0	367.7	370.9	375.6	378.7	379.5	376.3	371.5	368.3	367.7	
G12.0	365.4	368.7	374.0	377.2	378.0	374.7	369.5	366.0	365.4	
G13.0	362.9	366.5	372.2	375.7	376.6	372.7	367.1	363.6	362.9	
G14.0	360.0	364.1	370.3	373.9	374.9	370.9	364.9	361.1	360.0	
G15.0	357.3	361.6	367.9	372.1	373.1	368.8	362.4	358.1	357.3	
G16.0	354.4	358.7	365.7	370.0	371.4	366.4	359.8	355.3	354.4	
G17.0	351.4	356.0	363.1	367.7	369.2	364.0	357.1	352.4	351.4	
G18.0	348.0	353.1	360.6	365.4	367.1	361.6	354.0	349.0	348.0	
G19.0	344.8	350.1	359.1	363.0	364.6	359.0	351.0	345.7	344.8	
G20.0	341.4	346.6	356.2	360.4	361.9	356.3	347.8	342.4	341.4	
G21.0	337.6	343.4	353.0	357.4	359.2	353.1	344.6	338.9	337.6	
G22.0	334.1	340.0	349.9	354.6	356.4	350.0	340.9	335.0	334.1	
G23.0	330.4	336.2	346.5	351.6	353.5	346.8	337.4	331.2	330.4	
G24.0	326.1	332.5	343.1	348.2	350.5	343.6	333.7	327.4	326.1	
G25.0	322.2	328.4	339.3	344.9	347.0	340.2	330.0	323.6	322.2	
G26.0	318.1	324.6	335.7	341.2	343.7	336.3	325.8	319.1	318.1	
G27.0	313.6	320.6	332.1	337.6	340.2	332.6	321.8	315.0	313.6	
G28.0	309.6	316.4	328.1	333.9	336.7	328.9	317.8	310.8	309.6	
G29.0	304.8	312.3	324.2	330.1	332.7	325.1	313.7	306.0	304.8	
G30.0	300.4	307.6	319.7	325.9	329.0	320.0	309.0	301.6	300.4	
G31.0	295.5	303.3	315.7	322.1	325.0	315.4	304.6	297.1	295.5	
G32.0	291.1	298.5	311.2	317.7	320.6	311.3	300.2	292.6	291.1	
G33.0	286.0	294.0	306.9	313.6	316.5	307.0	295.7	287.9	286.0	
G34.0	281.3	289.0	302.1	309.3	312.3	302.3	290.7	282.7	281.3	
G35.0	276.0	284.4	297.7	304.6	307.6	297.8	286.0	277.9	276.0	
G36.0	271.2	279.7	292.7	300.2	303.1	293.3	282.7	273.0	271.2	

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.508 m [K=1.0000]  
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	266.3	274.3	287.9	295.7	298.7	289.7	277.9	268.0	266.3	
G38.0	260.8	269.4	283.2	291.0	294.1	284.4	272.4	262.5	260.8	
G39.0	255.7	264.5	278.0	285.9	289.1	279.8	267.1	257.6	255.7	
G40.0	250.6	259.0	273.1	281.2	284.3	275.0	262.0	252.5	250.6	
G41.0	245.0	254.0	267.7	276.4	279.6	270.0	257.0	246.8	245.0	
G42.0	239.7	248.9	262.7	271.0	274.3	264.6	251.4	241.7	239.7	
G43.0	234.5	243.3	257.2	266.0	269.3	259.1	246.2	236.4	234.5	
G44.0	228.7	238.1	252.1	260.5	264.2	253.9	240.9	230.6	228.7	
G45.0	223.5	232.8	247.0	255.5	259.2	248.3	235.1	225.3	223.5	
G46.0	217.6	227.0	241.8	250.4	254.0	243.1	229.8	219.9	217.6	
G47.0	212.3	221.7	236.0	244.7	248.4	237.9	224.4	214.5	212.3	
G48.0	206.8	215.9	230.8	239.5	243.1	232.6	219.0	209.0	206.8	
G49.0	201.4	210.5	225.4	234.2	237.9	226.3	213.7	203.1	201.4	
G50.0	195.3	205.0	219.5	228.4	232.1	221.9	207.7	197.7	195.3	
G51.0	189.9	199.7	214.1	223.0	226.7	216.5	202.3	191.7	189.9	
G52.0	184.3	193.6	208.7	217.7	221.4	211.1	196.8	186.2	184.3	
G53.0	178.3	188.1	202.8	211.8	215.5	204.4	190.8	180.8	178.3	
G54.0	172.8	182.6	197.3	206.3	210.1	199.0	185.4	174.7	172.8	
G55.0	167.4	177.3	192.3	201.0	204.6	193.5	179.9	169.1	167.4	
G56.0	161.4	171.2	186.3	195.6	198.5	188.1	173.7	163.7	161.4	
G57.0	155.8	165.7	180.8	189.6	193.1	182.7	168.1	157.5	155.8	
G58.0	150.3	160.2	174.4	184.1	187.5	177.1	162.6	151.9	150.3	
G59.0	144.2	154.2	168.3	178.5	181.4	170.9	157.0	146.3	144.2	
G60.0	138.8	148.7	162.9	172.5	175.8	165.1	150.8	140.2	138.8	
G61.0	133.2	143.2	157.3	167.0	170.3	159.5	145.2	134.7	133.2	
G62.0	127.8	137.7	151.8	161.5	164.7	153.5	139.7	129.0	127.8	
G63.0	121.8	131.7	145.8	156.0	158.7	148.0	133.7	123.0	121.8	
G64.0	116.4	126.2	140.2	150.4	153.1	141.9	128.2	117.6	116.4	
G65.0	111.0	120.7	134.7	144.3	147.0	136.4	122.6	112.2	111.0	
G66.0	105.7	115.4	129.3	138.9	141.5	130.9	116.7	106.4	105.7	
G67.0	100.0	110.1	123.4	133.4	136.0	125.4	111.3	101.0	100.0	
G68.0	94.8	104.3	117.9	127.9	130.0	119.4	105.9	95.9	94.8	
G69.0	89.7	99.1	112.7	122.0	124.2	114.0	100.1	90.2	89.7	
G70.0	84.7	94.1	107.4	116.6	118.8	108.6	94.9	85.1	84.7	
G71.0	79.7	89.0	101.7	111.3	112.8	102.8	89.7	80.2	79.7	
G72.0	74.5	84.1	96.5	106.0	107.5	97.6	84.2	75.3	74.5	
G73.0	69.8	78.7	91.4	100.8	102.1	92.4	79.3	70.1	69.8	

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.508 m [K=1.0000]  
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	65.2	74.0	86.4	95.6	96.4	86.9	74.5	65.6	65.2	
G75.0	60.8	69.3	81.5	90.0	91.1	81.9	69.3	61.3	60.8	
G76.0	56.5	64.8	76.7	85.0	86.4	77.1	64.7	56.5	56.5	
G77.0	51.9	60.4	71.5	80.3	80.9	72.4	60.3	52.5	51.9	
G78.0	47.9	55.8	67.0	75.5	76.1	67.3	55.6	47.9	47.9	
G79.0	44.1	51.7	62.6	70.8	71.2	62.8	51.4	44.0	44.1	
G80.0	40.5	47.8	58.3	65.7	66.6	58.4	47.4	40.3	40.5	
G81.0	36.8	44.0	54.0	61.3	61.6	53.7	43.2	36.8	36.8	
G82.0	33.2	40.0	49.7	57.0	57.2	49.6	39.5	33.1	33.2	
G83.0	30.1	36.5	45.8	52.8	53.0	45.6	36.0	29.9	30.1	
G84.0	27.1	33.1	42.0	48.8	48.9	41.8	32.6	26.9	27.1	
G85.0	24.2	29.9	38.4	44.9	44.6	37.8	29.2	24.0	24.2	
G86.0	21.5	26.9	34.9	40.7	40.8	34.4	26.2	21.1	21.5	
G87.0	19.0	24.0	31.7	37.1	37.3	31.2	23.4	18.7	19.0	
G88.0	16.4	21.1	28.5	33.7	33.5	27.7	20.8	16.4	16.4	
G89.0	14.3	18.6	25.3	30.5	30.2	24.8	18.1	14.1	14.3	
G90.0	12.4	16.3	22.5	27.4	27.2	22.1	15.8	12.2	12.4	
G91.0	10.5	14.1	20.0	24.2	23.9	19.5	13.8	10.4	10.5	
G92.0	8.8	12.2	17.5	21.5	21.2	16.9	11.7	8.5	8.8	
G93.0	7.3	10.2	15.1	19.0	18.7	14.7	9.9	7.1	7.3	
G94.0	5.9	8.6	13.0	16.6	16.4	12.7	8.3	5.7	5.9	
G95.0	4.8	7.1	11.1	14.5	14.0	10.8	6.9	4.5	4.8	
G96.0	3.6	5.7	9.4	12.2	12.0	9.0	5.6	3.5	3.6	
G97.0	2.7	4.3	7.7	10.2	10.1	7.5	4.4	2.6	2.7	
G98.0	2.0	3.0	6.2	7.9	8.3	6.0	3.5	2.0	2.0	
G99.0	1.5	1.7	5.0	4.3	6.8	4.4	2.7	1.5	1.5	
G100.0	1.2	1.1	3.9	1.7	5.5	2.3	2.0	1.2	1.2	
G101.0	1.1	1.1	3.0	1.1	4.1	1.3	1.5	1.3	1.1	
G102.0	1.2	1.2	2.2	1.2	3.2	1.1	1.2	1.3	1.2	
G103.0	1.2	1.2	1.7	1.1	2.4	1.1	1.2	1.4	1.2	
G104.0	1.4	1.3	1.3	1.2	1.7	1.2	1.2	1.4	1.4	
G105.0	1.8	1.5	1.2	1.2	1.2	1.2	1.3	1.4	1.8	
G106.0	2.0	1.7	1.3	1.2	1.1	1.4	1.4	1.5	2.0	
G107.0	1.7	1.7	1.5	1.3	1.2	1.5	1.4	1.5	1.7	
G108.0	1.8	1.8	1.7	1.3	1.3	1.6	1.6	1.6	1.8	
G109.0	1.8	1.9	1.7	1.4	1.4	1.6	1.7	1.7	1.8	
G110.0	1.9	1.9	1.8	1.5	1.5	1.7	1.8	2.0	1.9	

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.508 m [K=1.0000]  
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	2.0	2.0	1.9	1.7	1.6	1.7	2.0	2.1	2.0	
G112.0	2.1	2.1	2.0	1.8	1.7	1.8	2.0	2.3	2.1	
G113.0	2.1	2.1	2.1	1.9	1.7	1.9	2.2	2.5	2.1	
G114.0	2.2	2.2	2.2	2.0	1.7	1.9	2.3	2.6	2.2	
G115.0	2.2	2.3	2.3	2.1	1.9	2.0	2.4	2.8	2.2	
G116.0	2.4	2.4	2.3	2.2	2.0	2.1	2.4	2.9	2.4	
G117.0	2.5	2.4	2.4	2.3	2.4	2.2	2.5	3.0	2.5	
G118.0	2.9	2.5	2.4	2.3	2.4	2.5	2.7	3.1	2.9	
G119.0	3.3	2.7	2.6	2.5	2.6	3.0	3.0	3.1	3.3	
G120.0	3.6	3.4	2.8	2.5	2.9	3.2	3.1	3.2	3.6	
G121.0	3.7	3.5	3.0	2.6	3.1	3.4	3.4	3.3	3.7	
G122.0	3.7	3.6	3.1	2.6	3.2	3.5	3.5	3.3	3.7	
G123.0	3.6	3.7	3.2	2.7	3.3	3.7	3.6	3.4	3.6	
G124.0	3.4	3.9	3.3	2.8	3.4	3.7	3.7	3.5	3.4	
G125.0	3.4	4.0	3.4	2.9	3.5	3.8	3.8	3.5	3.4	
G126.0	3.6	4.1	3.6	2.9	3.6	3.9	3.9	3.6	3.6	
G127.0	4.0	4.2	3.8	3.0	3.7	4.0	4.0	3.7	4.0	
G128.0	4.4	4.3	4.1	3.1	3.8	4.1	4.2	3.9	4.4	
G129.0	4.7	4.4	4.0	3.1	4.0	4.2	4.3	3.9	4.7	
G130.0	4.8	4.5	4.3	3.2	4.1	4.3	4.5	4.0	4.8	
G131.0	4.9	4.6	4.4	3.3	4.1	4.4	4.6	4.1	4.9	
G132.0	4.9	4.8	4.6	3.3	4.3	4.4	4.7	4.2	4.9	
G133.0	5.0	4.9	4.7	3.4	4.4	4.6	4.8	4.4	5.0	
G134.0	5.2	5.1	4.7	3.4	4.5	4.7	4.9	4.5	5.2	
G135.0	5.3	5.1	4.9	3.5	4.6	4.8	4.9	4.7	5.3	
G136.0	5.4	5.3	5.0	3.5	4.7	4.9	5.1	4.7	5.4	
G137.0	5.5	5.3	5.1	3.6	4.8	5.0	5.1	4.8	5.5	
G138.0	5.6	5.0	5.2	3.7	4.9	5.1	5.2	4.9	5.6	
G139.0	5.6	4.8	5.2	3.7	5.0	5.1	5.2	5.0	5.6	
G140.0	5.7	5.1	5.3	3.8	5.1	5.2	5.3	5.0	5.7	
G141.0	5.8	5.5	5.4	3.8	5.2	5.3	5.4	5.1	5.8	
G142.0	5.9	5.9	5.4	3.9	5.3	5.4	5.4	5.2	5.9	
G143.0	5.9	6.0	5.5	3.8	5.4	5.1	5.5	5.3	5.9	
G144.0	5.7	5.7	5.4	3.8	5.4	4.5	5.5	5.3	5.7	
G145.0	5.6	5.3	5.3	3.8	4.9	4.5	5.3	5.4	5.6	
G146.0	5.2	5.1	5.1	3.9	4.7	4.6	5.3	5.3	5.2	
G147.0	5.1	5.1	4.9	3.9	4.5	4.7	5.1	5.3	5.1	

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.508 m [K=1.0000]  
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	5.1	5.2	4.7	4.0	4.4	4.7	4.9	5.4	5.1	
G149.0	5.1	5.1	4.8	3.8	4.5	4.8	4.9	5.3	5.1	
G150.0	5.2	5.0	4.8	3.6	4.5	4.8	4.9	5.0	5.2	
G151.0	5.2	4.9	4.7	3.4	4.5	4.9	4.8	4.5	5.2	
G152.0	5.3	5.0	4.7	3.3	4.6	4.9	4.7	4.1	5.3	
G153.0	5.3	5.0	4.7	3.1	4.7	4.8	4.7	3.7	5.3	
G154.0	5.3	5.0	4.4	3.1	4.7	4.7	4.4	3.5	5.3	
G155.0	5.2	5.1	3.8	3.2	3.7	4.6	3.7	3.5	5.2	
G156.0	4.5	5.1	3.6	3.2	3.4	4.0	3.5	3.6	4.5	
G157.0	3.4	4.3	3.4	3.2	3.0	3.1	3.5	3.7	3.4	
G158.0	3.2	3.4	3.2	3.2	3.0	3.2	3.2	3.6	3.2	
G159.0	3.3	3.2	3.3	3.2	3.1	3.2	3.2	3.3	3.3	
G160.0	3.2	3.3	3.2	3.3	3.1	3.3	3.2	3.3	3.2	
G161.0	3.3	3.3	3.3	3.3	3.2	3.3	3.3	3.4	3.3	
G162.0	3.3	3.4	3.3	3.3	3.2	3.3	3.3	3.4	3.3	
G163.0	3.3	3.4	3.3	3.3	3.2	3.3	3.3	3.4	3.3	
G164.0	3.4	3.4	3.4	3.3	3.3	3.4	3.4	3.5	3.4	
G165.0	3.4	3.4	3.4	3.4	3.3	3.4	3.4	3.4	3.4	
G166.0	3.4	3.4	3.4	3.4	3.3	3.4	3.4	3.5	3.4	
G167.0	3.4	3.5	3.5	3.5	3.3	3.4	3.4	3.5	3.4	
G168.0	3.5	3.5	3.5	3.5	3.4	3.5	3.5	3.5	3.5	
G169.0	3.5	3.5	3.5	3.5	3.4	3.5	3.5	3.6	3.5	
G170.0	3.5	3.5	3.5	3.5	3.4	3.5	3.5	3.5	3.5	
G171.0	3.5	3.5	3.6	3.5	3.4	3.5	3.5	3.6	3.5	
G172.0	3.5	3.6	3.6	3.6	3.5	3.5	3.5	3.6	3.5	
G173.0	3.5	3.5	3.6	3.6	3.5	3.6	3.5	3.6	3.5	
G174.0	3.5	3.6	3.6	3.6	3.4	3.6	3.5	3.7	3.5	
G175.0	3.5	3.6	3.6	3.6	3.5	3.6	3.6	3.7	3.5	
G176.0	3.5	3.6	3.6	3.7	3.5	3.6	3.5	3.7	3.5	
G177.0	3.5	3.6	3.6	3.6	3.5	3.6	3.6	3.6	3.5	
G178.0	3.5	3.6	3.6	3.6	3.5	3.6	3.6	3.7	3.5	
G179.0	3.5	3.7	3.6	3.7	3.5	3.6	3.6	3.7	3.5	
G180.0	3.6	3.6	3.6	3.6	3.5	3.6	3.7	3.7	3.6	

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.508 m [K=1.0000]  
Humidity: 65  
Inspector:

## LED Average Luminance Report

Avg.L	cd/m <sup>2</sup>
L 0-180(65) av	1.#J
L 0-180(75) av	1.#J
L 0-180(85) av	1.#J
L 90-270(65) av	1.#J
L 90-270(75) av	1.#J
L 90-270(85) av	1.#J
L 45(65) av	1.#J
L 45(75) av	1.#J
L 45(85) av	1.#J

Standard: GB/T 29293-2012