Report No.: TH-4228A
Test Time: 2023/5/13 15:47

Luminaire Property

Luminaire Manufacturer:
Luminaire Category:
Lamp Catalog:
Number of Lamps:
Luminous Length (mm):
Luminous Height (mm):
Current: 0.065 A
Power Factor: 0.449

Luminaire Description: GW-8663-135
Lamp Description:
Lumens per Lamp:
Luminous Width (mm):
Voltage: 220.5 V
Power: 6.44 W

Photometric Results

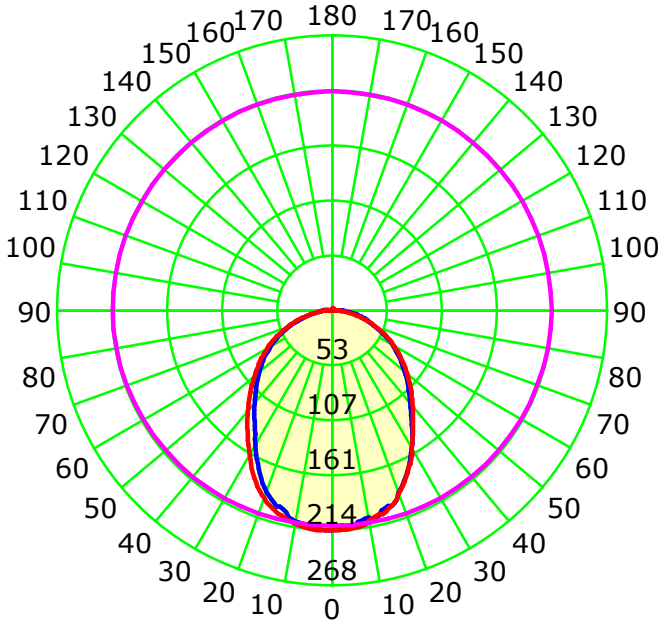
CIE Class: Direct
Measurement Flux: 520.4 lm
Downward Ratio: 97%
Horizontal Diffuse Angle(50%): H88.4
Vertical Diffuse Angle(50%): V92.7
Luminaire Efficacy Rating (LER): 80.86
Max. Intensity: 214.72 cd
S/MH(C0/C180): 1.09

Total Rated Lamp Lumens: 520.4 lm
Efficiency: 100%
Upward Ratio: 3%

C0r0 Intensity: 214.33 cd
Pos of Max. Intensity: H270 V3
S/MH(C90/C270): 1.12

Picture Of Luminaire

Luminous Intensity Distribution Curve

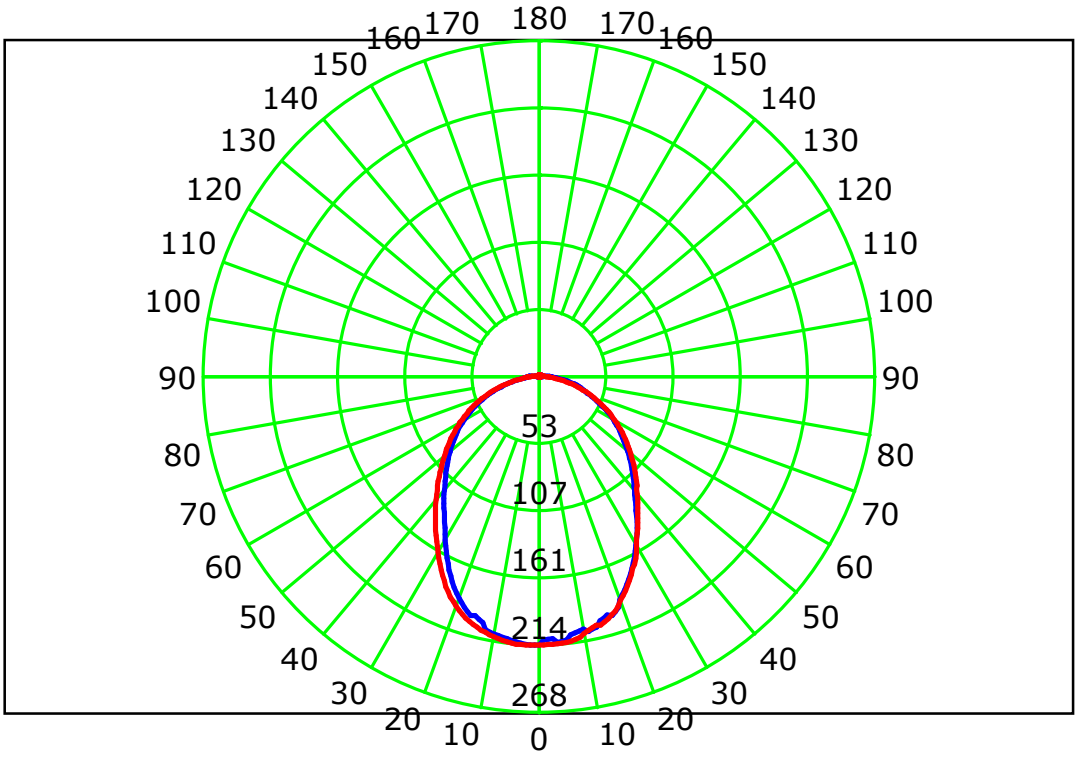


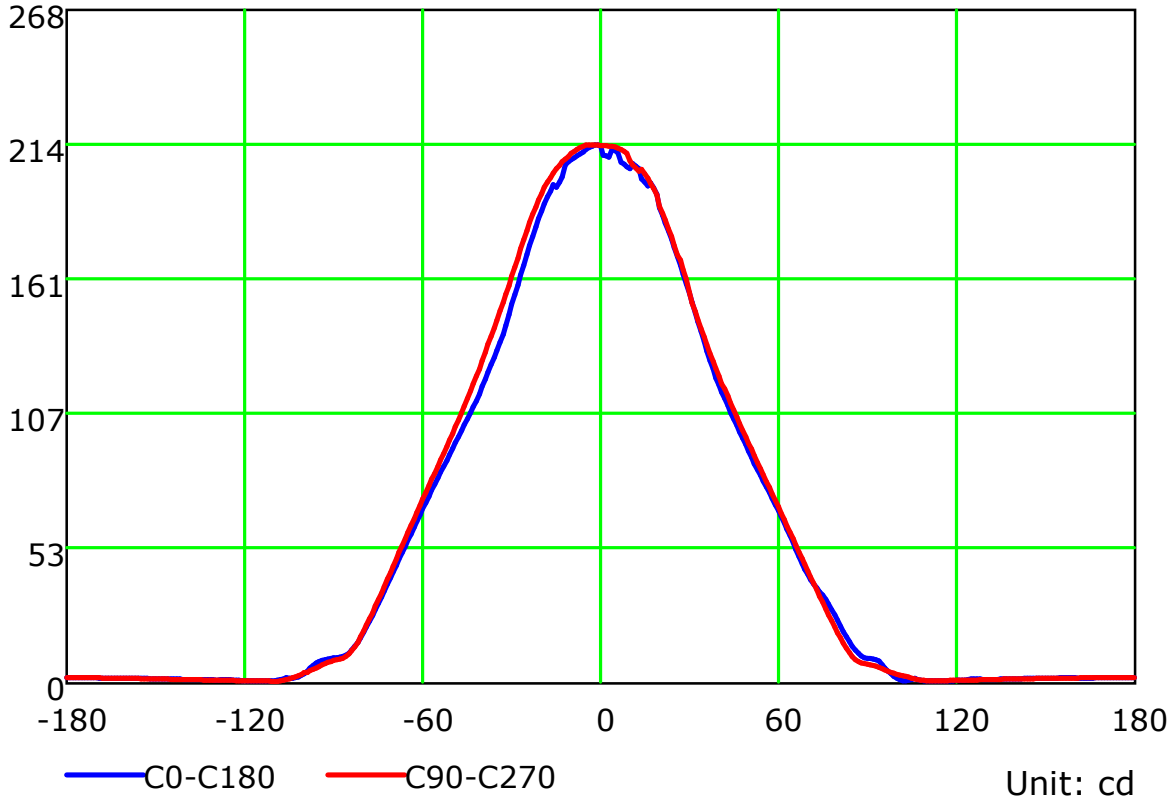
Unit: cd
Average Diffuse Angle(50%): 90.5°
C0-C180 C90-C270 G3

C Plane (°):0.0-360.0: 90.0
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: 8.684 m [K=1.0000]
Humidity: 65
Inspector:

Luminous Intensity Distribution Curve





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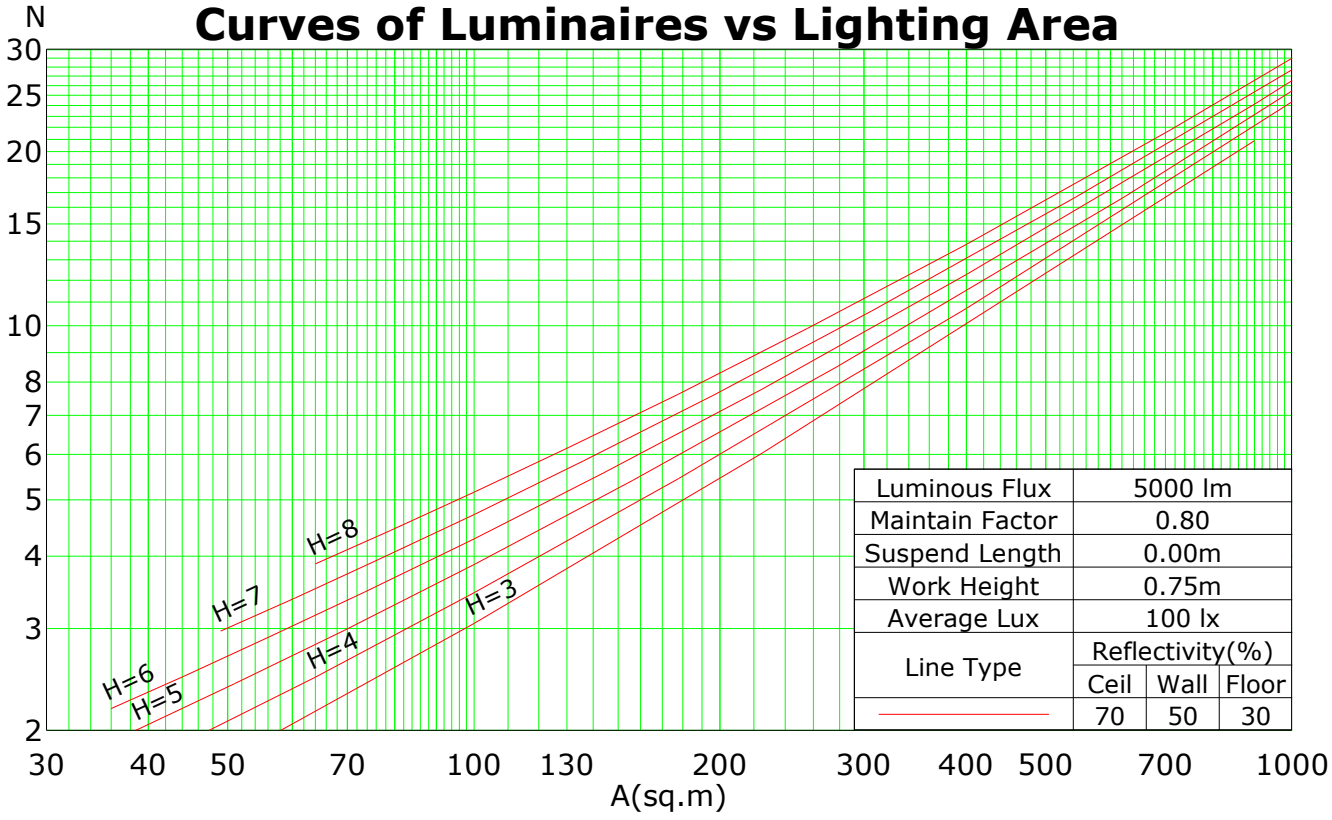
Inspector:

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	1.18	1.18	1.18	1.18	1.15	1.15	1.15	1.15	1.10	1.10	1.10	1.04	1.04	1.04	1.00	1.00	1.00	0.97
1	1.08	1.03	0.99	0.95	1.05	1.01	0.97	0.93	0.96	0.93	0.90	0.92	0.89	0.87	0.88	0.86	0.84	0.81
2	0.99	0.90	0.84	0.78	0.96	0.88	0.82	0.77	0.84	0.79	0.75	0.81	0.76	0.73	0.77	0.74	0.71	0.68
3	0.90	0.80	0.72	0.65	0.87	0.78	0.71	0.65	0.75	0.68	0.63	0.71	0.66	0.62	0.69	0.64	0.60	0.58
4	0.83	0.71	0.62	0.56	0.80	0.69	0.61	0.55	0.67	0.60	0.54	0.64	0.58	0.53	0.62	0.56	0.52	0.50
5	0.76	0.64	0.55	0.48	0.74	0.62	0.54	0.48	0.60	0.53	0.47	0.58	0.51	0.47	0.56	0.50	0.46	0.44
6	0.71	0.58	0.49	0.43	0.69	0.57	0.48	0.42	0.54	0.47	0.42	0.53	0.46	0.41	0.51	0.45	0.41	0.39
7	0.66	0.52	0.44	0.38	0.64	0.52	0.43	0.38	0.50	0.42	0.37	0.48	0.42	0.37	0.47	0.41	0.36	0.34
8	0.61	0.48	0.40	0.34	0.60	0.47	0.39	0.34	0.46	0.39	0.33	0.44	0.38	0.33	0.43	0.37	0.33	0.31
9	0.57	0.44	0.36	0.31	0.56	0.44	0.36	0.31	0.42	0.35	0.30	0.41	0.35	0.30	0.40	0.34	0.30	0.28
10	0.54	0.41	0.33	0.28	0.53	0.40	0.33	0.28	0.39	0.32	0.28	0.38	0.32	0.27	0.37	0.31	0.27	0.26

Spacing Criteria (0-180): 1.09
Spacing Criteria (90-270): 1.12
Spacing Criteria (Diagonal): 1.20

Curves of Luminaires vs Lighting Area



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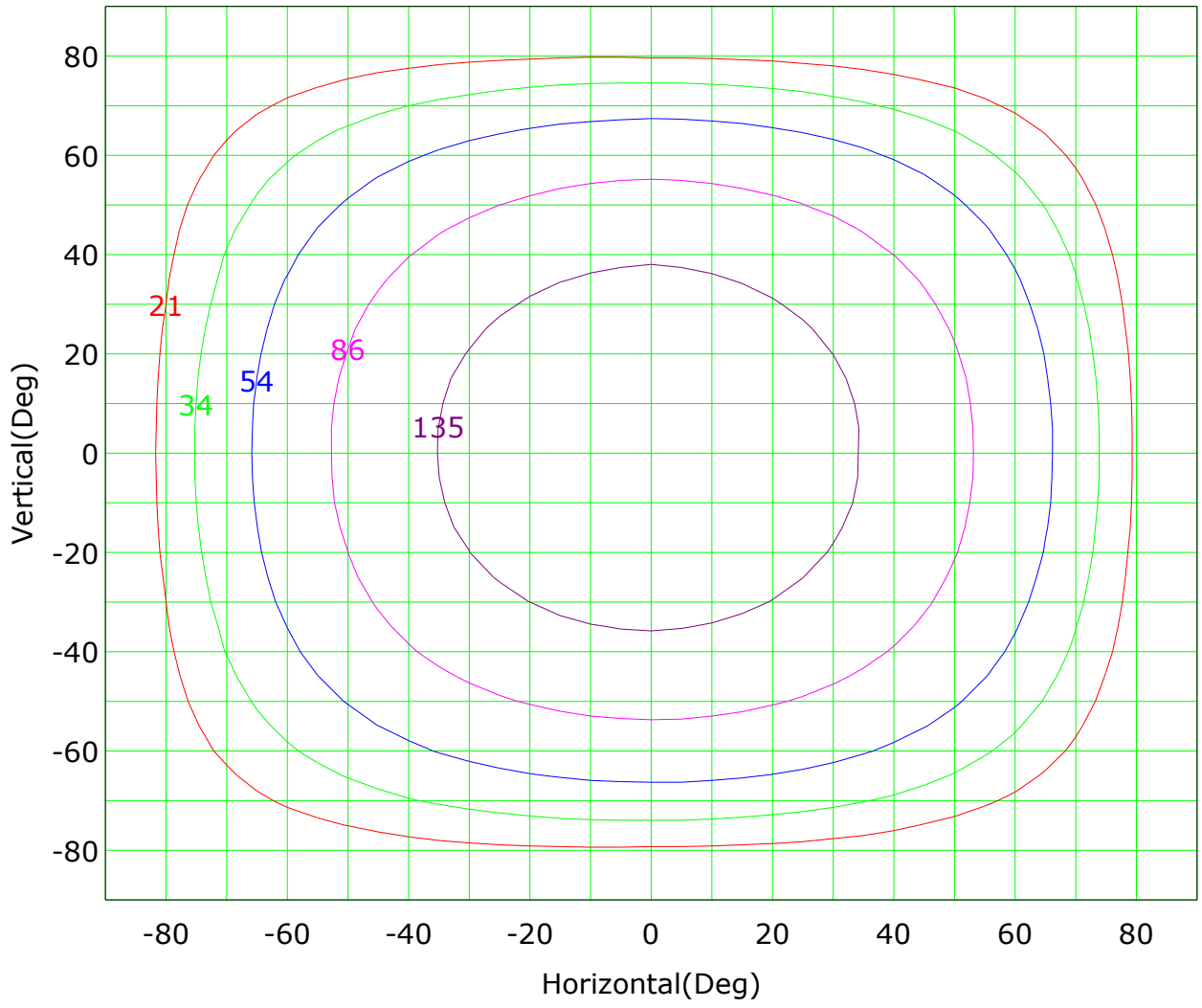
Humidity: 65
Inspector:

Isocandela (rectangle)



Imax (100%): 215 cd

(10%): 21 cd
(16%): 34 cd
(25%): 54 cd
(40%): 86 cd
(63%): 135 cd
(100%): 215 cd

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Gamma Plane (°):0.0-180.0:1.0
Test Lab: Inventfine instrument
Test Device: GPM-1800B
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Distance: 8.684 m [K=1.0000]
Temperature: 26
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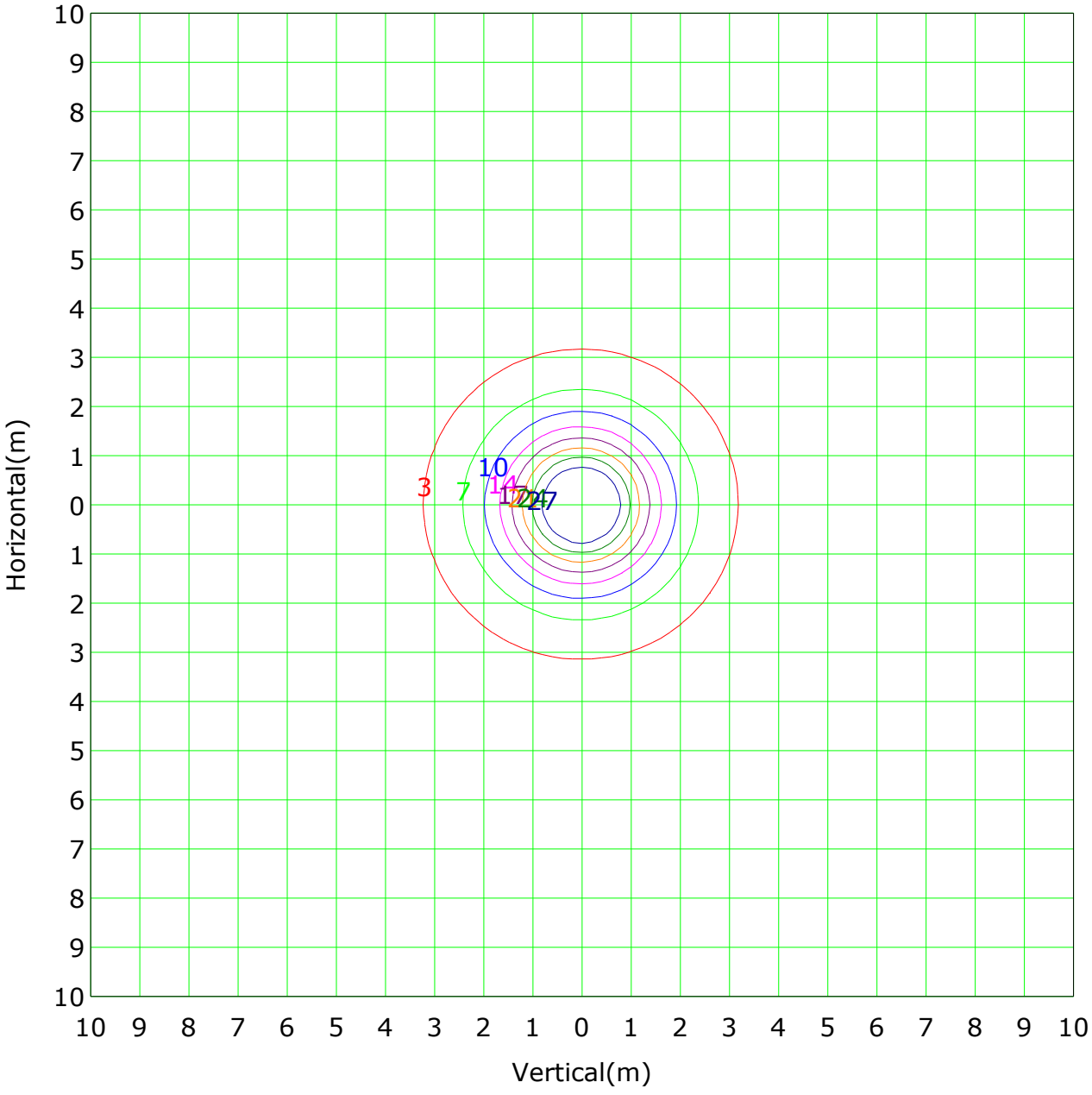
Operator: Jacky
Inspector:

IsoLux Plot



Mounting Height: 2.5m Max Lux(100%): 34.3 lx

(10%): 3.4 lx	(20%): 6.9 lx
(30%): 10.3 lx	(40%): 13.7 lx
(50%): 17.2 lx	(60%): 20.6 lx
(70%): 24.0 lx	(80%): 27.5 lx

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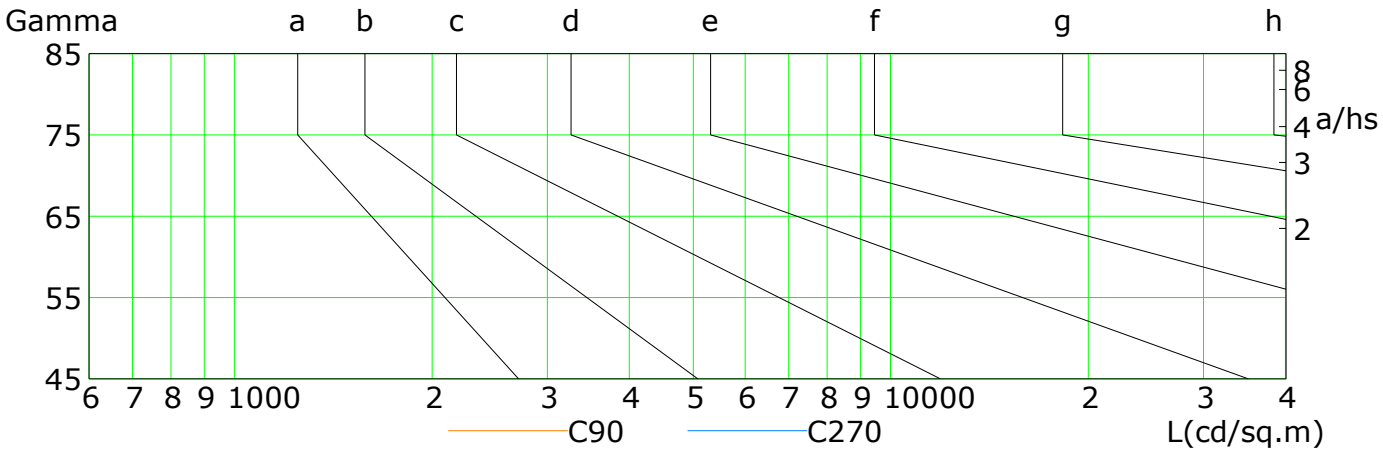
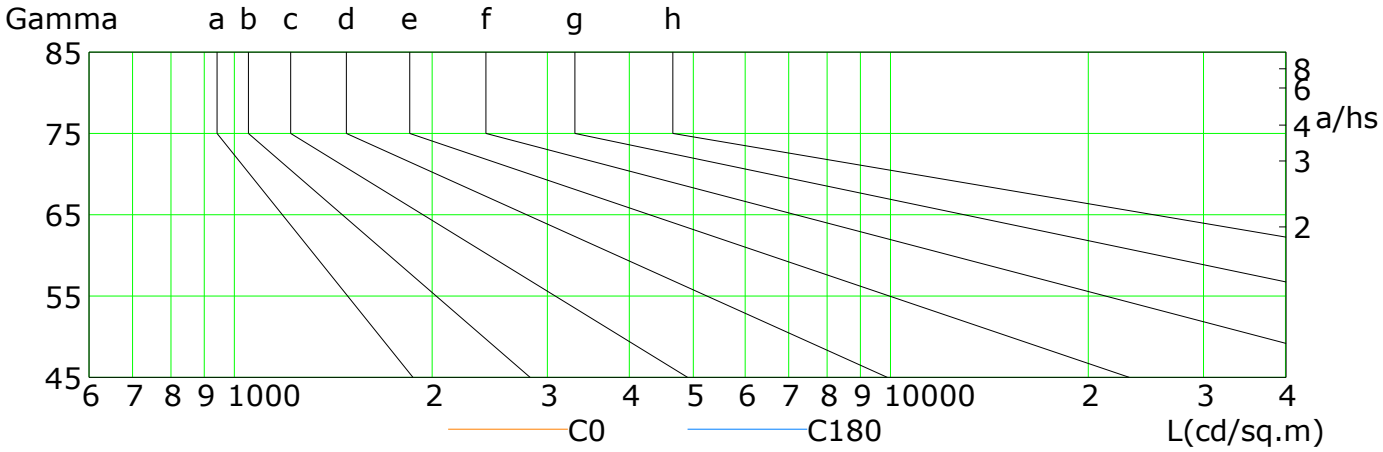
Test Device: GPM-1800B
Distance: 8.684 m [K=1.0000]
Humidity: 65
Inspector:

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	105	92	80	69	56	43	35	25	15
C90	109	96	83	70	57	44	32	20	10
C180	105	93	82	69	57	44	32	20	12
C270	113	99	86	73	60	46	33	20	11

C Plane (°):0.0-360.0: 90.0
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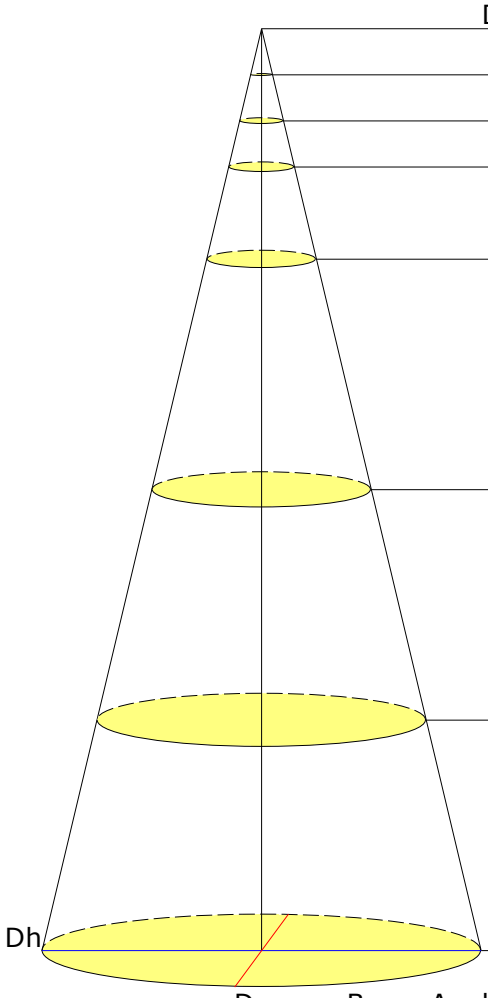
Test Type: TYPE C
Temperature: 26
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.684 m [K=1.0000]
Humidity: 65
Inspector:

Illuminance at a Distance



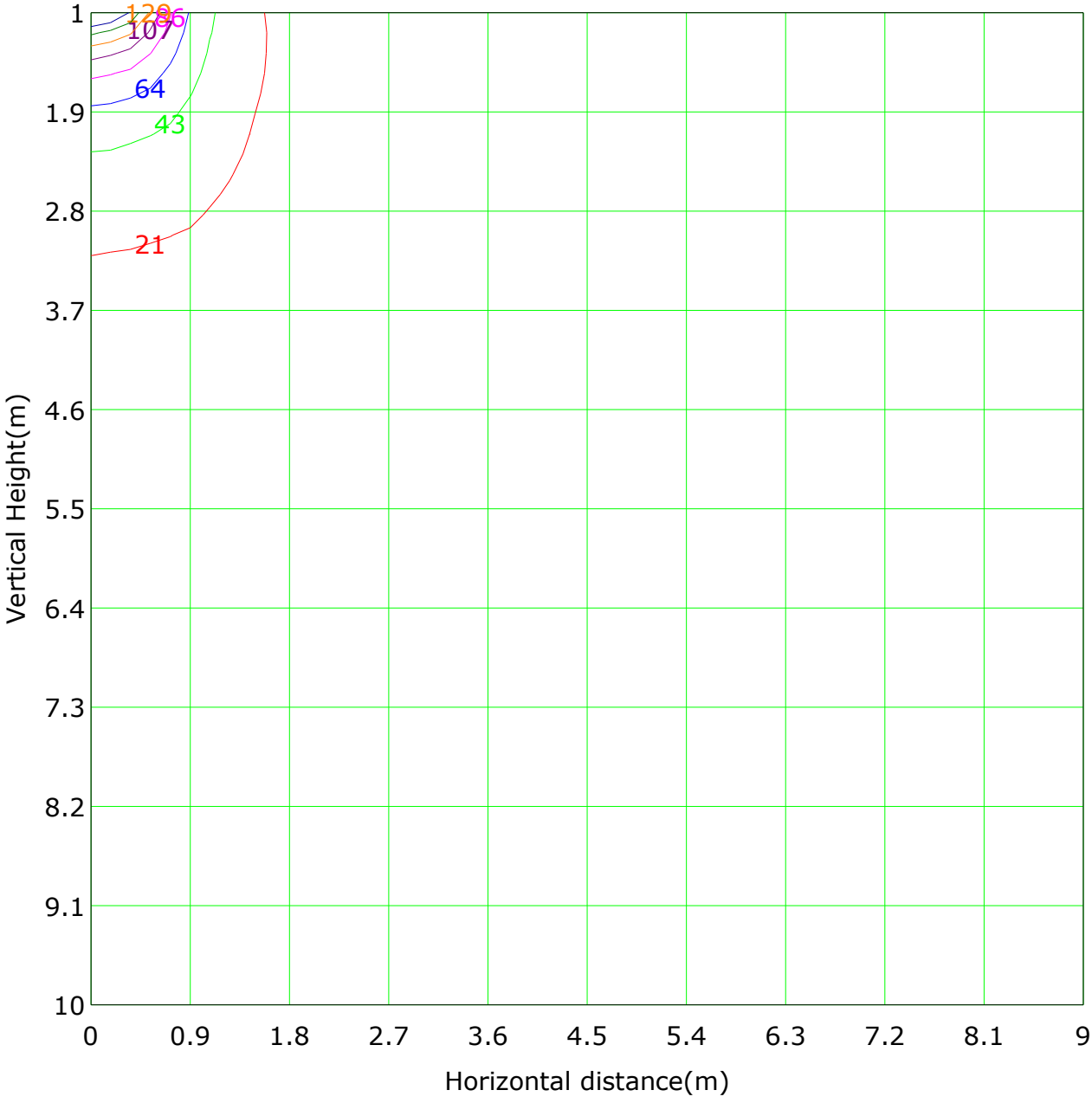
Dist(m)	Enadir(lx)	Dh/Dv_B(m)	S_B(sq.m)	Eav_B(lx)
1.0	214.33	1.94/2.09	3.2	55.86
2.0	53.58	3.88/4.19	12.8	13.96
3.0	23.81	5.83/6.28	28.8	6.21
5.0	8.57	9.71/10.46	80.1	2.23
10.0	2.14	19.42/20.93	320.4	0.56
15.0	0.95	29.13/31.39	721.0	0.25
20.0	0.54	38.84/41.85	1281.8	0.14

Beam Angle(B): H88.3 V92.6 Field Angle(F): H160.8 V158.9

C Plane (°):0.0-360.0: 90.0
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: 8.684 m [K=1.0000]
Humidity: 65
Inspector:

Vertical IsoLux Plot

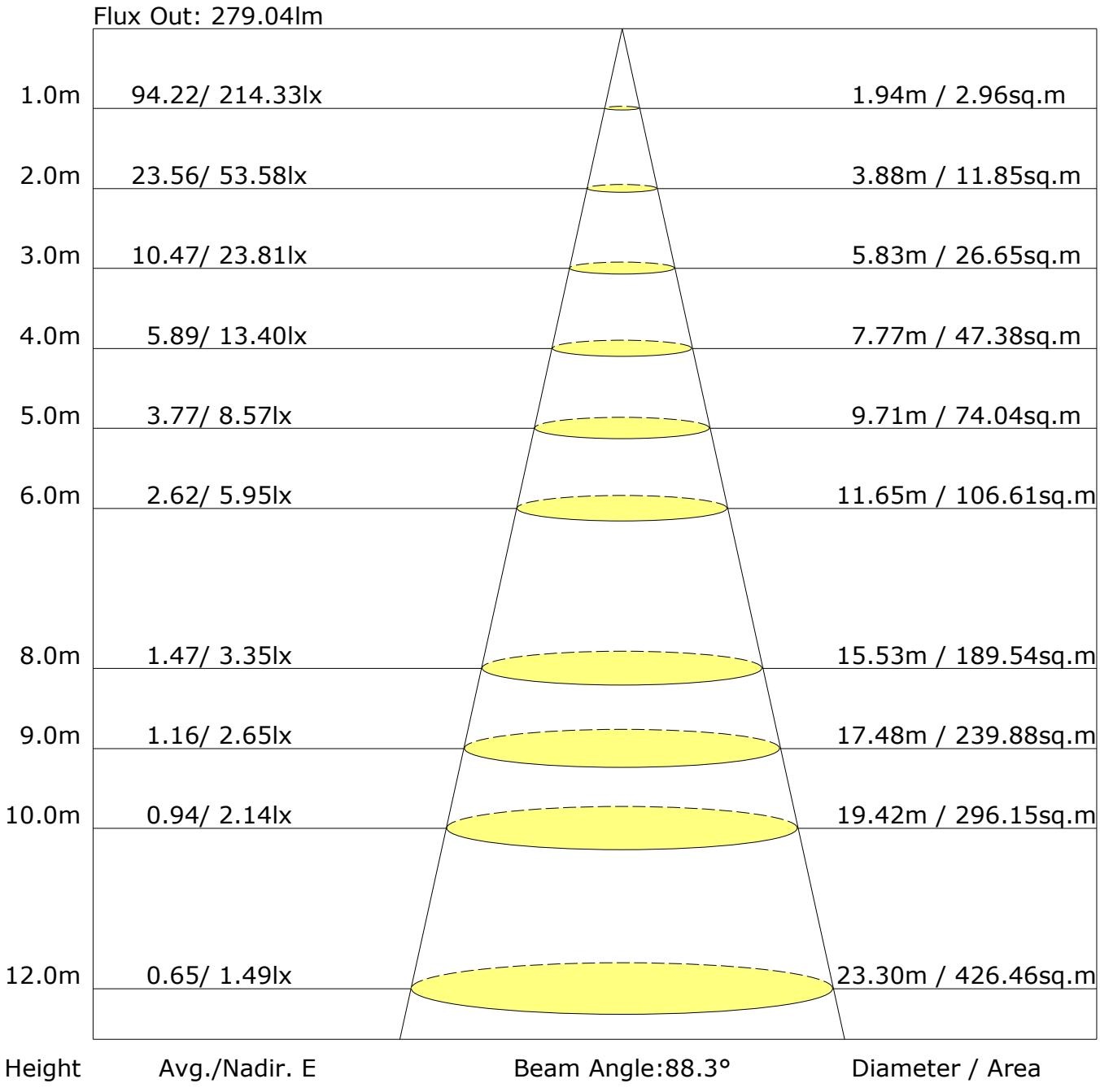


Lowest(m): 1.0m Highest(m): 10.0m Max Lux: 214.3 lx

(10%): 21.4 lx
(20%): 42.9 lx
(30%): 64.3 lx
(40%): 85.7 lx
(50%): 107.2 lx
(60%): 128.6 lx
(70%): 150.0 lx
(80%): 171.5 lx

C Plane (°):0.0-360.0: 90.0
Gamma Plane (°):0.0-180.0:1.0
Test Lab: Inventfine instrument
Test Device: GPM-1800B
Test Type: TYPE C
Distance: 8.684 m [K=1.0000]
Temperature: 26
Humidity: 65
Operator: Jacky
Inspector:

The Average Illuminance Effective Figure



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Test Device: GPM-1800B
Distance: 8.684 m [K=1.0000]
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	-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 520lm (8log(F/F0) = -2.3).

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Temperature: 26
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Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.684 m [K=1.0000]
Humidity: 65
Inspector:

Zonal Lumen

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	213.9	0.2	0.2	0.04	0.04
1.0-2.0	213.4	0.6	0.8	0.12	0.16
2.0-3.0	213.3	1.0	1.8	0.20	0.35
3.0-4.0	213.5	1.4	3.3	0.27	0.63
4.0-5.0	213.6	1.8	5.1	0.35	0.98
5.0-6.0	213.0	2.2	7.3	0.43	1.41
6.0-7.0	212.0	2.6	10.0	0.51	1.92
7.0-8.0	210.9	3.0	13.0	0.58	2.50
8.0-9.0	210.1	3.4	16.4	0.65	3.15
9.0-10.0	209.0	3.8	20.2	0.73	3.88
10.0-11.0	208.1	4.2	24.3	0.80	4.68
11.0-12.0	207.4	4.5	28.9	0.87	5.55
12.0-13.0	205.8	4.9	33.8	0.94	6.49
13.0-14.0	203.9	5.2	39.0	1.00	7.49
14.0-15.0	202.2	5.6	44.5	1.07	8.56
15.0-16.0	200.9	5.9	50.4	1.13	9.69
16.0-17.0	199.8	6.2	56.6	1.20	10.88
17.0-18.0	198.1	6.5	63.2	1.26	12.14
18.0-19.0	195.8	6.8	70.0	1.31	13.45
19.0-20.0	192.6	7.1	77.0	1.36	14.80
20.0-21.0	189.3	7.3	84.3	1.40	16.20
21.0-22.0	186.4	7.5	91.8	1.44	17.64
22.0-23.0	183.3	7.7	99.5	1.48	19.12
23.0-24.0	180.0	7.9	107.4	1.51	20.63
24.0-25.0	176.5	8.0	115.4	1.54	22.17
25.0-26.0	172.9	8.2	123.6	1.57	23.74
26.0-27.0	169.4	8.3	131.8	1.59	25.33
27.0-28.0	165.8	8.4	140.2	1.61	26.95
28.0-29.0	162.0	8.5	148.7	1.63	28.58
29.0-30.0	158.0	8.5	157.2	1.64	30.22
30.0-31.0	154.0	8.6	165.8	1.65	31.87
31.0-32.0	150.2	8.6	174.4	1.65	33.52
32.0-33.0	146.6	8.6	183.1	1.66	35.18
33.0-34.0	143.1	8.7	191.7	1.66	36.84
34.0-35.0	139.6	8.7	200.4	1.67	38.51
35.0-36.0	136.1	8.7	209.1	1.67	40.17

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Test Device: GPM-1800B
Distance: 8.684 m [K=1.0000]
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	132.9	8.7	217.7	1.67	41.84
37.0-38.0	129.7	8.7	226.4	1.66	43.50
38.0-39.0	126.5	8.6	235.0	1.66	45.16
39.0-40.0	123.4	8.6	243.6	1.65	46.82
40.0-41.0	120.4	8.6	252.2	1.65	48.47
41.0-42.0	117.6	8.5	260.8	1.64	50.11
42.0-43.0	114.9	8.5	269.3	1.64	51.74
43.0-44.0	112.2	8.5	277.7	1.63	53.37
44.0-45.0	109.5	8.4	286.1	1.62	54.99
45.0-46.0	106.8	8.4	294.5	1.60	56.59
46.0-47.0	104.2	8.3	302.8	1.59	58.19
47.0-48.0	101.6	8.2	311.0	1.58	59.76
48.0-49.0	99.0	8.1	319.1	1.56	61.33
49.0-50.0	96.4	8.0	327.2	1.55	62.87
50.0-51.0	93.9	7.9	335.1	1.53	64.40
51.0-52.0	91.4	7.8	343.0	1.51	65.90
52.0-53.0	88.9	7.7	350.7	1.49	67.39
53.0-54.0	86.4	7.6	358.3	1.46	68.85
54.0-55.0	84.0	7.5	365.8	1.44	70.29
55.0-56.0	81.5	7.4	373.2	1.42	71.71
56.0-57.0	79.0	7.2	380.4	1.39	73.10
57.0-58.0	76.6	7.1	387.5	1.36	74.46
58.0-59.0	74.1	6.9	394.4	1.33	75.79
59.0-60.0	71.6	6.8	401.2	1.30	77.09
60.0-61.0	69.1	6.6	407.8	1.27	78.36
61.0-62.0	66.6	6.4	414.2	1.23	79.59
62.0-63.0	64.0	6.2	420.4	1.20	80.79
63.0-64.0	61.4	6.0	426.4	1.16	81.95
64.0-65.0	58.8	5.8	432.3	1.12	83.07
65.0-66.0	56.2	5.6	437.9	1.08	84.14
66.0-67.0	53.5	5.4	443.2	1.03	85.18
67.0-68.0	50.9	5.2	448.4	0.99	86.17
68.0-69.0	48.3	4.9	453.3	0.95	87.11
69.0-70.0	45.8	4.7	458.0	0.90	88.02
70.0-71.0	43.3	4.5	462.5	0.86	88.88
71.0-72.0	40.9	4.3	466.8	0.82	89.70

C Plane (°):0.0-360.0: 90.0
Test Lab: Inventfine instrument
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Temperature: 26
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.684 m [K=1.0000]
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	38.5	4.0	470.8	0.77	90.47
73.0-74.0	36.2	3.8	474.6	0.73	91.20
74.0-75.0	34.0	3.6	478.2	0.69	91.89
75.0-76.0	31.7	3.4	481.6	0.65	92.54
76.0-77.0	29.4	3.1	484.7	0.60	93.14
77.0-78.0	27.0	2.9	487.6	0.56	93.70
78.0-79.0	24.7	2.7	490.2	0.51	94.21
79.0-80.0	22.4	2.4	492.7	0.46	94.67
80.0-81.0	20.2	2.2	494.8	0.42	95.09
81.0-82.0	18.0	2.0	496.8	0.38	95.47
82.0-83.0	16.1	1.7	498.5	0.34	95.80
83.0-84.0	14.3	1.6	500.1	0.30	96.10
84.0-85.0	12.7	1.4	501.5	0.27	96.37
85.0-86.0	11.4	1.2	502.7	0.24	96.61
86.0-87.0	10.4	1.1	503.9	0.22	96.83
87.0-88.0	9.7	1.1	504.9	0.20	97.03
88.0-89.0	9.2	1.0	505.9	0.19	97.22
89.0-90.0	9.0	1.0	506.9	0.19	97.41
90.0-91.0	8.7	1.0	507.9	0.18	97.60
91.0-92.0	8.5	0.9	508.8	0.18	97.78
92.0-93.0	8.2	0.9	509.7	0.17	97.95
93.0-94.0	7.8	0.9	510.6	0.16	98.11
94.0-95.0	7.2	0.8	511.4	0.15	98.26
95.0-96.0	6.4	0.7	512.1	0.14	98.40
96.0-97.0	5.6	0.6	512.7	0.12	98.52
97.0-98.0	4.8	0.5	513.2	0.10	98.62
98.0-99.0	4.1	0.4	513.6	0.08	98.70
99.0-100.0	3.4	0.4	514.0	0.07	98.77
100.0-101.0	2.8	0.3	514.3	0.06	98.83
101.0-102.0	2.3	0.2	514.5	0.05	98.88
102.0-103.0	1.9	0.2	514.8	0.04	98.92
103.0-104.0	1.7	0.2	514.9	0.03	98.95
104.0-105.0	1.5	0.2	515.1	0.03	98.98
105.0-106.0	1.5	0.2	515.2	0.03	99.01
106.0-107.0	1.3	0.1	515.4	0.03	99.04
107.0-108.0	1.0	0.1	515.5	0.02	99.06

C Plane (°):0.0-360.0: 90.0
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: 8.684 m [K=1.0000]
Humidity: 65
Inspector:

Zonal Lumen (Continue 3)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
108.0-109.0	0.8	0.1	515.6	0.02	99.07
109.0-110.0	0.6	0.1	515.6	0.01	99.09
110.0-111.0	0.6	0.1	515.7	0.01	99.10
111.0-112.0	0.6	0.1	515.8	0.01	99.11
112.0-113.0	0.6	0.1	515.8	0.01	99.12
113.0-114.0	0.6	0.1	515.9	0.01	99.13
114.0-115.0	0.6	0.1	515.9	0.01	99.15
115.0-116.0	0.6	0.1	516.0	0.01	99.16
116.0-117.0	0.7	0.1	516.1	0.01	99.17
117.0-118.0	0.7	0.1	516.1	0.01	99.18
118.0-119.0	0.7	0.1	516.2	0.01	99.20
119.0-120.0	0.7	0.1	516.3	0.01	99.21
120.0-121.0	0.8	0.1	516.3	0.01	99.22
121.0-122.0	0.8	0.1	516.4	0.01	99.24
122.0-123.0	0.8	0.1	516.5	0.02	99.25
123.0-124.0	0.9	0.1	516.6	0.02	99.27
124.0-125.0	1.0	0.1	516.7	0.02	99.29
125.0-126.0	1.1	0.1	516.8	0.02	99.31
126.0-127.0	1.1	0.1	516.9	0.02	99.32
127.0-128.0	1.1	0.1	517.0	0.02	99.34
128.0-129.0	1.1	0.1	517.1	0.02	99.36
129.0-130.0	1.0	0.1	517.1	0.02	99.38
130.0-131.0	1.1	0.1	517.2	0.02	99.39
131.0-132.0	1.1	0.1	517.3	0.02	99.41
132.0-133.0	1.1	0.1	517.4	0.02	99.43
133.0-134.0	1.1	0.1	517.5	0.02	99.44
134.0-135.0	1.2	0.1	517.6	0.02	99.46
135.0-136.0	1.2	0.1	517.7	0.02	99.48
136.0-137.0	1.2	0.1	517.8	0.02	99.50
137.0-138.0	1.3	0.1	517.9	0.02	99.52
138.0-139.0	1.3	0.1	518.0	0.02	99.53
139.0-140.0	1.3	0.1	518.1	0.02	99.55
140.0-141.0	1.3	0.1	518.1	0.02	99.57
141.0-142.0	1.4	0.1	518.2	0.02	99.59
142.0-143.0	1.4	0.1	518.3	0.02	99.60
143.0-144.0	1.4	0.1	518.4	0.02	99.62

C Plane (°):0.0-360.0: 90.0
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: 8.684 m [K=1.0000]
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	1.4	0.1	518.5	0.02	99.64
145.0-146.0	1.4	0.1	518.6	0.02	99.66
146.0-147.0	1.5	0.1	518.7	0.02	99.67
147.0-148.0	1.5	0.1	518.8	0.02	99.69
148.0-149.0	1.5	0.1	518.9	0.02	99.71
149.0-150.0	1.5	0.1	518.9	0.02	99.72
150.0-151.0	1.6	0.1	519.0	0.02	99.74
151.0-152.0	1.6	0.1	519.1	0.02	99.76
152.0-153.0	1.6	0.1	519.2	0.02	99.77
153.0-154.0	1.6	0.1	519.3	0.02	99.79
154.0-155.0	1.6	0.1	519.4	0.01	99.80
155.0-156.0	1.7	0.1	519.4	0.01	99.82
156.0-157.0	1.7	0.1	519.5	0.01	99.83
157.0-158.0	1.7	0.1	519.6	0.01	99.84
158.0-159.0	1.7	0.1	519.6	0.01	99.86
159.0-160.0	1.7	0.1	519.7	0.01	99.87
160.0-161.0	1.7	0.1	519.8	0.01	99.88
161.0-162.0	1.7	0.1	519.8	0.01	99.89
162.0-163.0	1.7	0.1	519.9	0.01	99.90
163.0-164.0	1.7	0.1	519.9	0.01	99.91
164.0-165.0	1.8	0.1	520.0	0.01	99.92
165.0-166.0	1.8	0.0	520.0	0.01	99.93
166.0-167.0	1.8	0.0	520.1	0.01	99.94
167.0-168.0	1.8	0.0	520.1	0.01	99.95
168.0-169.0	1.8	0.0	520.2	0.01	99.96
169.0-170.0	1.8	0.0	520.2	0.01	99.97
170.0-171.0	1.8	0.0	520.2	0.01	99.97
171.0-172.0	1.8	0.0	520.3	0.01	99.98
172.0-173.0	1.9	0.0	520.3	0.01	99.98
173.0-174.0	1.9	0.0	520.3	0.00	99.99
174.0-175.0	1.9	0.0	520.3	0.00	99.99
175.0-176.0	1.9	0.0	520.4	0.00	99.99
176.0-177.0	1.9	0.0	520.4	0.00	100.00
177.0-178.0	1.9	0.0	520.4	0.00	100.00
178.0-179.0	1.9	0.0	520.4	0.00	100.00
179.0-180.0	1.9	0.0	520.4	0.00	100.00

C Plane (°):0.0-360.0: 90.0
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: 8.684 m [K=1.0000]
Humidity: 65
Inspector:

Zonal Lumen (Continue 5)

cone flux(90°): 286.15 lm

%lum = 55.0%
%lamp = 55.0%

cone flux(120°): 401.18 lm

%lum = 77.1%
%lamp = 77.1%

Candlepower Table

Unit: cd

G\C	C0.0	C90.0	C180.0	C270.0	C360.0					
G0.0	214.3	214.3	214.3	214.3	214.3					
G1.0	210.5	214.3	214.6	214.5	210.5					
G2.0	210.2	214.2	214.5	214.6	210.2					
G3.0	209.8	214.2	214.1	214.7	209.8					
G4.0	212.8	214.1	213.6	214.7	212.8					
G5.0	212.4	213.8	212.7	214.5	212.4					
G6.0	211.5	213.4	211.8	214.2	211.5					
G7.0	207.7	212.8	211.0	213.6	207.7					
G8.0	206.9	212.0	210.2	212.9	206.9					
G9.0	206.0	211.2	209.6	212.1	206.0					
G10.0	205.0	208.3	208.8	211.1	205.0					
G11.0	207.3	206.6	207.8	210.0	207.3					
G12.0	206.2	205.4	206.6	208.9	206.2					
G13.0	205.2	204.0	201.9	207.8	205.2					
G14.0	201.0	204.9	199.8	206.4	201.0					
G15.0	199.8	203.0	197.8	205.0	199.8					
G16.0	198.3	201.2	198.7	203.4	198.3					
G17.0	199.6	199.2	196.2	201.6	199.6					
G18.0	197.5	197.1	193.8	199.7	197.5					
G19.0	195.0	194.6	191.2	197.6	195.0					
G20.0	189.5	189.9	188.3	195.1	189.5					
G21.0	186.4	187.3	185.2	192.6	186.4					
G22.0	183.5	184.6	181.9	189.9	183.5					
G23.0	180.4	181.2	178.1	186.9	180.4					
G24.0	177.1	178.0	174.5	183.6	177.1					
G25.0	173.7	174.5	170.8	180.2	173.7					
G26.0	170.1	170.5	166.6	176.8	170.1					
G27.0	166.5	168.6	162.7	173.3	166.5					
G28.0	162.8	164.8	158.5	169.4	162.8					
G29.0	159.0	160.9	154.7	165.8	159.0					
G30.0	155.4	155.4	150.9	162.3	155.4					
G31.0	151.7	151.5	146.7	158.5	151.7					
G32.0	147.7	148.1	142.5	155.0	147.7					
G33.0	143.9	144.8	138.9	151.6	143.9					
G34.0	140.2	141.2	135.8	148.3	140.2					
G35.0	136.0	137.9	132.5	144.6	136.0					
G36.0	132.2	134.8	129.7	141.4	132.2					

C Plane (°):0.0-360.0: 90.0
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: 8.684 m [K=1.0000]
Humidity: 65
Inspector:

Candlepower Table (Continue 1)

Unit: cd

G\C	C0.0	C90.0	C180.0	C270.0	C360.0					
G37.0	128.5	131.4	126.9	138.2	128.5					
G38.0	125.0	128.3	123.9	135.1	125.0					
G39.0	121.6	125.3	121.1	131.6	121.6					
G40.0	118.7	122.4	118.2	128.5	118.7					
G41.0	116.0	119.2	115.1	125.2	116.0					
G42.0	113.3	117.2	112.4	122.2	113.3					
G43.0	110.6	114.4	110.0	119.3	110.6					
G44.0	107.7	111.7	107.7	116.3	107.7					
G45.0	105.1	108.7	105.1	113.4	105.1					
G46.0	102.6	106.1	102.8	110.3	102.6					
G47.0	100.2	103.5	100.5	107.6	100.2					
G48.0	97.5	100.7	97.9	104.7	97.5					
G49.0	95.0	98.1	95.7	102.0	95.0					
G50.0	92.4	95.6	93.4	99.2	92.4					
G51.0	89.9	93.1	90.9	96.6	89.9					
G52.0	87.3	90.6	88.7	94.1	87.3					
G53.0	85.0	87.8	86.4	91.4	85.0					
G54.0	82.7	85.3	83.9	88.8	82.7					
G55.0	80.3	82.8	81.6	86.3	80.3					
G56.0	78.1	80.2	79.2	83.6	78.1					
G57.0	75.8	77.7	76.8	81.0	75.8					
G58.0	73.4	75.3	74.2	78.5	73.4					
G59.0	70.9	72.8	71.8	75.7	70.9					
G60.0	68.7	70.1	69.4	73.2	68.7					
G61.0	66.4	67.6	66.7	70.7	66.4					
G62.0	63.7	65.1	64.3	67.9	63.7					
G63.0	61.2	62.6	61.9	65.4	61.2					
G64.0	58.6	59.9	59.2	62.8	58.6					
G65.0	55.7	57.3	56.8	60.0	55.7					
G66.0	53.0	54.8	54.3	57.4	53.0					
G67.0	50.3	52.1	51.9	54.5	50.3					
G68.0	47.5	49.6	49.1	51.9	47.5					
G69.0	45.1	47.1	46.7	49.3	45.1					
G70.0	43.1	44.4	44.1	46.4	43.1					
G71.0	41.0	42.0	41.7	43.8	41.0					
G72.0	39.2	39.5	39.2	41.2	39.2					
G73.0	37.7	36.9	36.5	38.3	37.7					

C Plane (°):0.0-360.0: 90.0
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: 8.684 m [K=1.0000]
Humidity: 65
Inspector:

Candlepower Table (Continue 2)

Unit: cd

G\C	C0.0	C90.0	C180.0	C270.0	C360.0					
G74.0	36.1	34.4	34.0	35.7	36.1					
G75.0	34.8	32.0	31.7	33.2	34.8					
G76.0	33.0	29.4	29.0	30.6	33.0					
G77.0	31.3	27.0	26.7	27.8	31.3					
G78.0	29.0	24.6	24.4	25.3	29.0					
G79.0	27.0	22.1	22.2	22.9	27.0					
G80.0	24.8	19.9	20.0	20.5	24.8					
G81.0	22.4	17.8	17.8	18.2	22.4					
G82.0	20.3	15.8	16.0	15.9	20.3					
G83.0	18.3	13.7	14.3	14.1	18.3					
G84.0	16.3	11.9	12.9	12.6	16.3					
G85.0	14.5	10.4	11.8	11.4	14.5					
G86.0	13.0	9.2	10.8	10.4	13.0					
G87.0	11.5	8.3	10.2	9.7	11.5					
G88.0	10.5	7.8	10.1	9.3	10.5					
G89.0	9.9	7.5	10.0	9.0	9.9					
G90.0	9.7	7.3	9.8	8.7	9.7					
G91.0	9.5	7.0	9.6	8.4	9.5					
G92.0	9.4	6.8	9.4	8.0	9.4					
G93.0	9.2	6.4	9.0	7.5	9.2					
G94.0	8.5	6.0	8.7	6.9	8.5					
G95.0	7.2	5.5	8.3	6.4	7.2					
G96.0	5.7	5.0	7.8	5.8	5.7					
G97.0	4.4	4.5	6.8	5.2	4.4					
G98.0	3.3	4.0	5.7	4.6	3.3					
G99.0	2.4	3.6	4.6	4.1	2.4					
G100.0	1.7	3.2	3.6	3.9	1.7					
G101.0	1.1	2.9	2.8	3.1	1.1					
G102.0	0.7	2.6	2.2	2.7	0.7					
G103.0	0.6	2.4	1.9	2.3	0.6					
G104.0	0.8	2.1	1.6	1.8	0.8					
G105.0	1.2	1.7	1.7	1.4	1.2					
G106.0	1.6	1.4	1.8	1.1	1.6					
G107.0	1.2	1.1	1.5	0.8	1.2					
G108.0	0.9	0.9	1.1	0.6	0.9					
G109.0	0.7	0.8	0.8	0.5	0.7					
G110.0	0.6	0.7	0.6	0.5	0.6					

C Plane (°):0.0-360.0: 90.0
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: 8.684 m [K=1.0000]
Humidity: 65
Inspector:

Candlepower Table (Continue 3)

Unit: cd

G\C	C0.0	C90.0	C180.0	C270.0	C360.0					
G111.0	0.6	0.7	0.5	0.5	0.6					
G112.0	0.6	0.7	0.6	0.5	0.6					
G113.0	0.6	0.7	0.6	0.5	0.6					
G114.0	0.7	0.7	0.6	0.6	0.7					
G115.0	0.7	0.7	0.6	0.6	0.7					
G116.0	0.7	0.7	0.6	0.6	0.7					
G117.0	0.7	0.7	0.6	0.6	0.7					
G118.0	0.7	0.8	0.7	0.6	0.7					
G119.0	0.7	0.8	0.7	0.7	0.7					
G120.0	0.8	0.8	0.7	0.7	0.8					
G121.0	0.8	0.9	0.7	0.7	0.8					
G122.0	0.9	0.9	0.8	0.7	0.9					
G123.0	1.0	0.9	0.8	0.7	1.0					
G124.0	1.2	0.9	0.9	0.8	1.2					
G125.0	1.4	1.0	1.1	0.8	1.4					
G126.0	1.5	1.0	1.1	0.8	1.5					
G127.0	1.4	1.0	1.1	0.8	1.4					
G128.0	1.3	1.0	1.1	0.9	1.3					
G129.0	1.2	1.1	1.0	0.9	1.2					
G130.0	1.2	1.1	1.0	0.9	1.2					
G131.0	1.2	1.1	1.0	0.9	1.2					
G132.0	1.1	1.2	1.1	1.0	1.1					
G133.0	1.2	1.2	1.1	1.0	1.2					
G134.0	1.2	1.3	1.1	1.0	1.2					
G135.0	1.3	1.3	1.1	1.0	1.3					
G136.0	1.4	1.3	1.1	1.1	1.4					
G137.0	1.4	1.3	1.1	1.1	1.4					
G138.0	1.4	1.4	1.2	1.1	1.4					
G139.0	1.5	1.4	1.2	1.1	1.5					
G140.0	1.5	1.4	1.2	1.2	1.5					
G141.0	1.5	1.4	1.3	1.2	1.5					
G142.0	1.5	1.5	1.3	1.2	1.5					
G143.0	1.5	1.5	1.3	1.2	1.5					
G144.0	1.6	1.5	1.3	1.2	1.6					
G145.0	1.6	1.5	1.4	1.3	1.6					
G146.0	1.6	1.5	1.4	1.3	1.6					
G147.0	1.7	1.6	1.4	1.3	1.7					

C Plane (°):0.0-360.0: 90.0
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: 8.684 m [K=1.0000]
Humidity: 65
Inspector:

Candlepower Table (Continue 4)

Unit: cd

G\C	C0.0	C90.0	C180.0	C270.0	C360.0					
G148.0	1.7	1.6	1.4	1.3	1.7					
G149.0	1.7	1.6	1.4	1.4	1.7					
G150.0	1.7	1.6	1.5	1.4	1.7					
G151.0	1.7	1.6	1.5	1.4	1.7					
G152.0	1.8	1.7	1.5	1.4	1.8					
G153.0	1.8	1.7	1.5	1.5	1.8					
G154.0	1.8	1.7	1.6	1.5	1.8					
G155.0	1.8	1.7	1.6	1.5	1.8					
G156.0	1.8	1.7	1.6	1.5	1.8					
G157.0	1.9	1.7	1.6	1.6	1.9					
G158.0	1.9	1.8	1.6	1.6	1.9					
G159.0	1.9	1.8	1.7	1.6	1.9					
G160.0	1.8	1.8	1.7	1.6	1.8					
G161.0	1.8	1.8	1.7	1.7	1.8					
G162.0	1.8	1.8	1.7	1.7	1.8					
G163.0	1.8	1.8	1.7	1.7	1.8					
G164.0	1.8	1.8	1.7	1.7	1.8					
G165.0	1.8	1.8	1.7	1.7	1.8					
G166.0	1.8	1.8	1.7	1.7	1.8					
G167.0	1.8	1.8	1.8	1.8	1.8					
G168.0	1.8	1.8	1.8	1.8	1.8					
G169.0	1.8	1.9	1.8	1.8	1.8					
G170.0	1.8	1.9	1.8	1.8	1.8					
G171.0	1.8	1.9	1.8	1.8	1.8					
G172.0	1.8	1.9	1.8	1.8	1.8					
G173.0	1.9	1.9	1.8	1.9	1.9					
G174.0	1.9	1.9	1.8	1.9	1.9					
G175.0	1.9	1.9	1.9	1.9	1.9					
G176.0	1.9	1.9	1.9	1.9	1.9					
G177.0	1.9	1.9	1.9	1.9	1.9					
G178.0	1.9	1.9	1.9	2.0	1.9					
G179.0	1.9	1.9	1.9	1.9	1.9					
G180.0	1.9	1.9	1.9	1.9	1.9					

C Plane (°):0.0-360.0: 90.0
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: 8.684 m [K=1.0000]
Humidity: 65
Inspector:

LED Average Luminance Report

Avg.L	cd/m^2
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

C Plane (°):0.0-360.0: 90.0
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: 8.684 m [K=1.0000]
Humidity: 65
Inspector: