

Report No.: TH-2825A

Test Time: 2021/11/29 10:37

## Luminaire Property

Luminaire Manufacturer:  
Luminaire Category:  
Lamp Catalog:  
Number of Lamps:  
Luminous Length (mm):  
Luminous Height (mm):  
Current: 0.127 A  
Power Factor: 0.916

Luminaire Description: 57642  
Lamp Description:  
Lumens per Lamp:  
Luminous Width (mm):  
Voltage: 120.0 V  
Power: 13.91 W

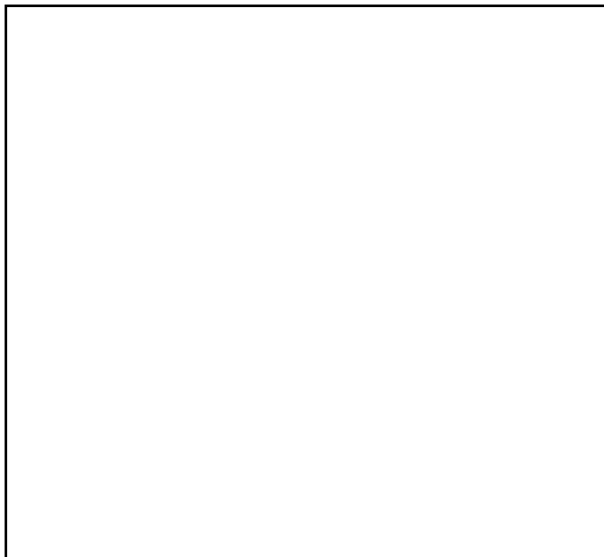
## Photometric Results

CIE Class: Direct  
Measurement Flux: 934.7 lm  
Downward Ratio: 96%  
Horizontal Diffuse Angle(50%): H108.5  
Vertical Diffuse Angle(50%): V108.6  
Luminaire Efficacy Rating (LER): 67.24  
Max. Intensity: 317.76 cd  
S/MH(C0/C180): 1.22

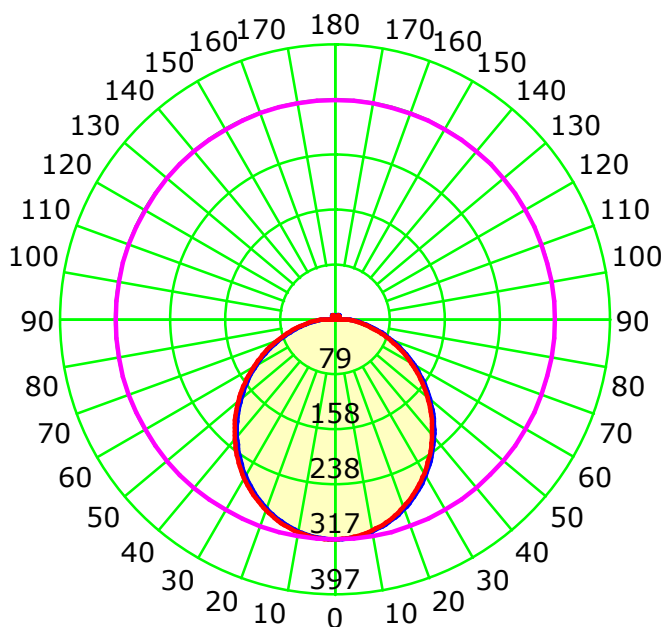
Total Rated Lamp Lumens: 934.7 lm  
Efficiency: 100%  
Upward Ratio: 4%

C0r0 Intensity: 317.6 cd  
Pos of Max. Intensity: H315 V1  
S/MH(C90/C270): 1.22

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

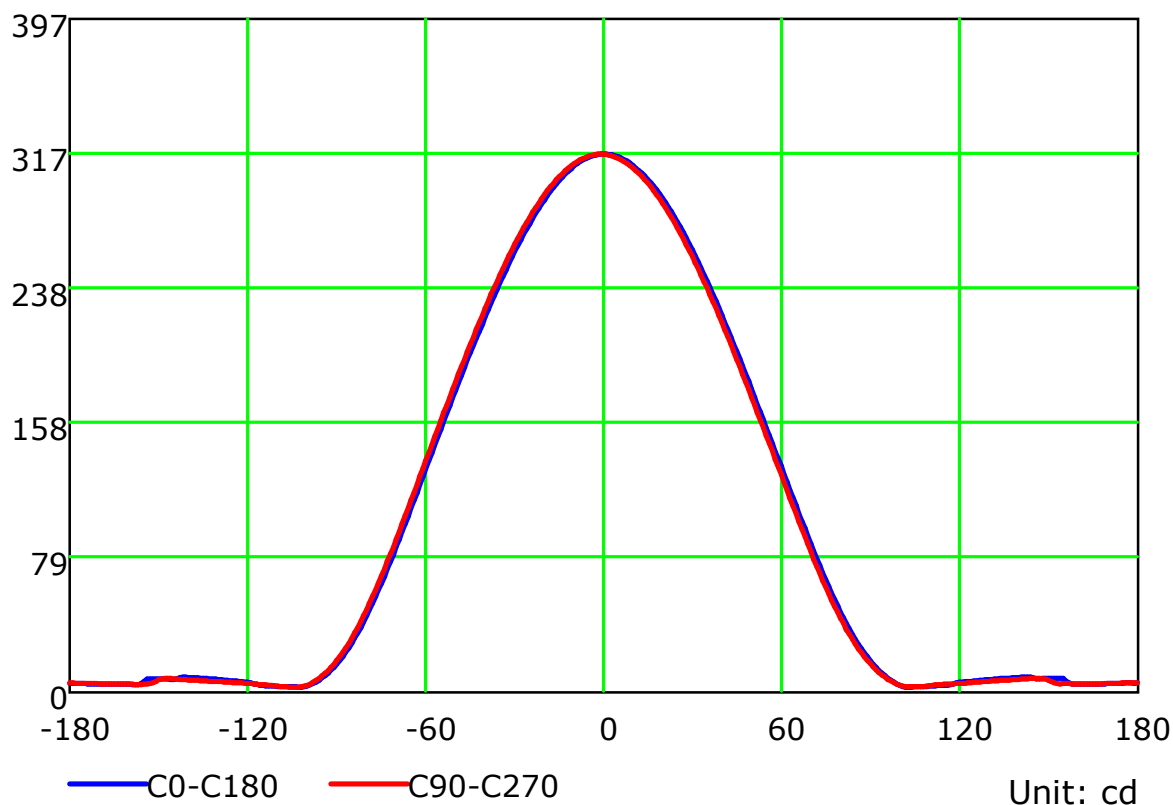
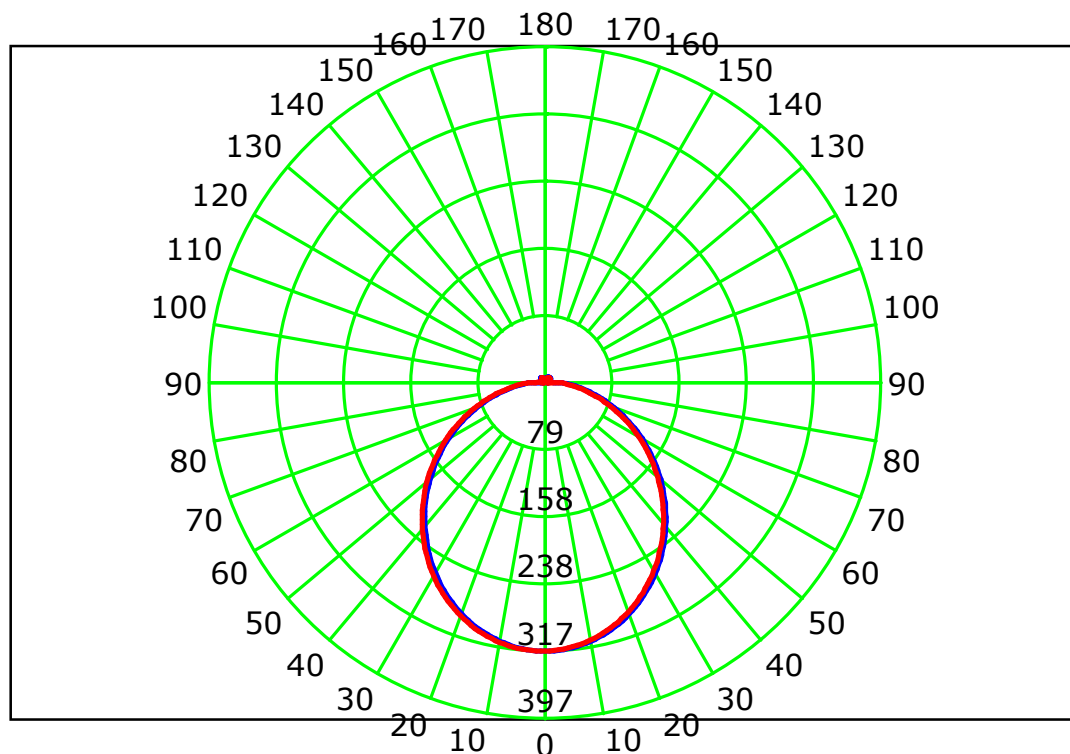
Average Diffuse Angle(50%): 108.5°

— C0-C180 — C90-C270 — G1

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: 8.506 m [K=1.0000]  
Humidity: 65  
Inspector:

## Luminous Intensity Distribution Curve



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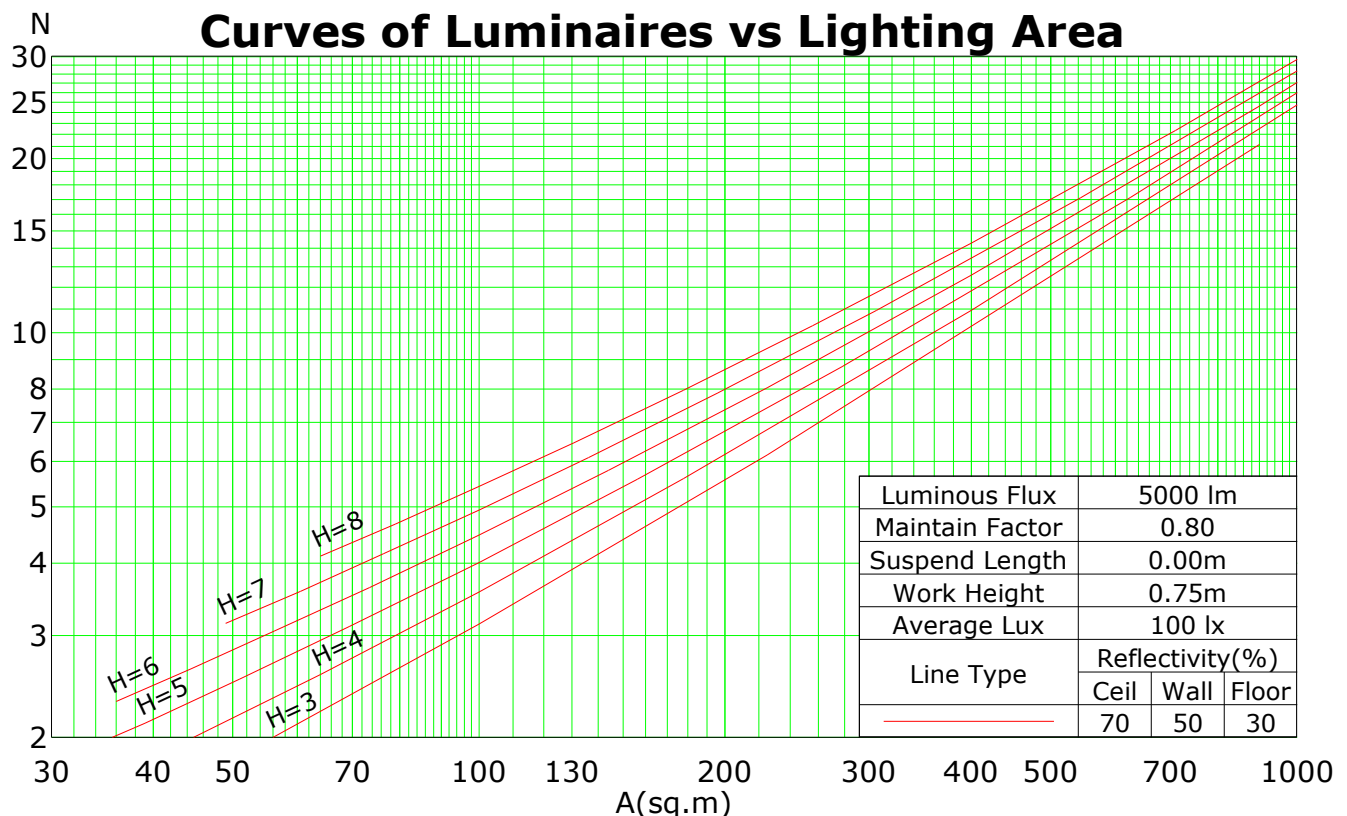
## Coefficients Of Utilization - Zonal Cavity Method

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	1.18	1.18	1.18	1.18	1.15	1.15	1.15	1.15	1.09	1.09	1.09	1.03	1.03	1.03	0.98	0.98	0.98	0.96
1	1.07	1.02	0.97	0.93	1.04	0.99	0.95	0.91	0.94	0.91	0.88	0.90	0.87	0.84	0.86	0.83	0.81	0.79
2	0.97	0.89	0.82	0.76	0.94	0.86	0.80	0.74	0.82	0.77	0.72	0.78	0.74	0.70	0.75	0.71	0.68	0.65
3	0.89	0.78	0.69	0.63	0.86	0.76	0.68	0.62	0.72	0.66	0.60	0.69	0.63	0.59	0.66	0.61	0.57	0.55
4	0.81	0.69	0.60	0.53	0.78	0.67	0.59	0.53	0.64	0.57	0.51	0.61	0.55	0.50	0.59	0.54	0.49	0.47
5	0.75	0.62	0.52	0.46	0.72	0.60	0.52	0.45	0.58	0.50	0.44	0.55	0.49	0.44	0.53	0.47	0.43	0.40
6	0.69	0.55	0.46	0.40	0.67	0.54	0.46	0.40	0.52	0.44	0.39	0.50	0.43	0.38	0.48	0.42	0.38	0.35
7	0.64	0.50	0.41	0.35	0.62	0.49	0.41	0.35	0.47	0.40	0.34	0.46	0.39	0.34	0.44	0.38	0.33	0.31
8	0.59	0.46	0.37	0.31	0.58	0.45	0.37	0.31	0.43	0.36	0.31	0.42	0.35	0.30	0.40	0.34	0.30	0.28
9	0.56	0.42	0.34	0.28	0.54	0.41	0.33	0.28	0.40	0.33	0.28	0.39	0.32	0.27	0.37	0.31	0.27	0.25
10	0.52	0.39	0.31	0.26	0.51	0.38	0.31	0.25	0.37	0.30	0.25	0.36	0.29	0.25	0.35	0.29	0.25	0.23

Spacing Criteria (0-180): 1.22

Spacing Criteria (90-270): 1.22

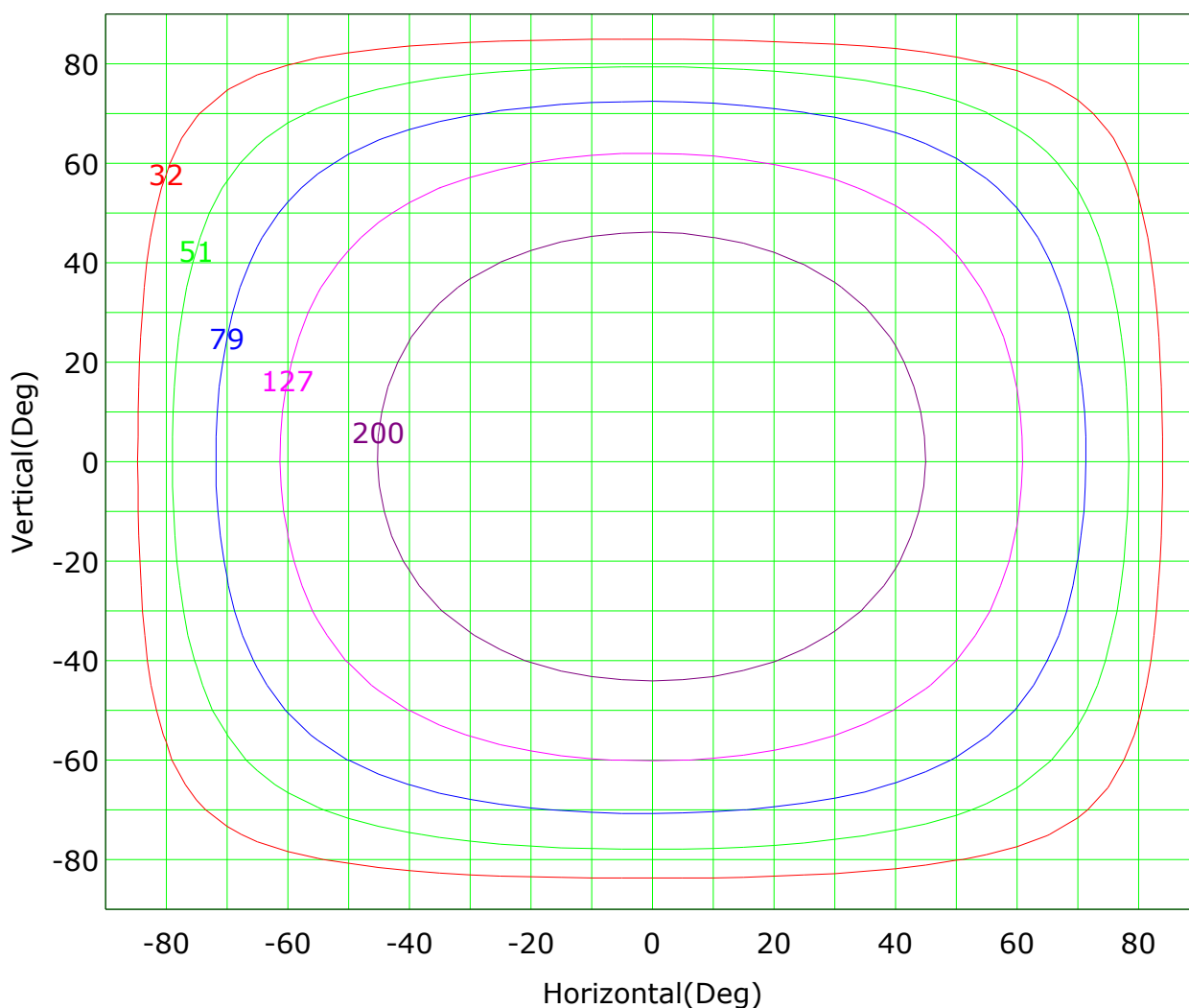
Spacing Criteria (Diagonal): 1.34



C Plane (°):0.0-360.0: 45.0  
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Test Device: GPM-1800B  
Distance: 8.506 m [K=1.0000]  
Humidity: 65  
Inspector:

## Isocandela (rectangle)



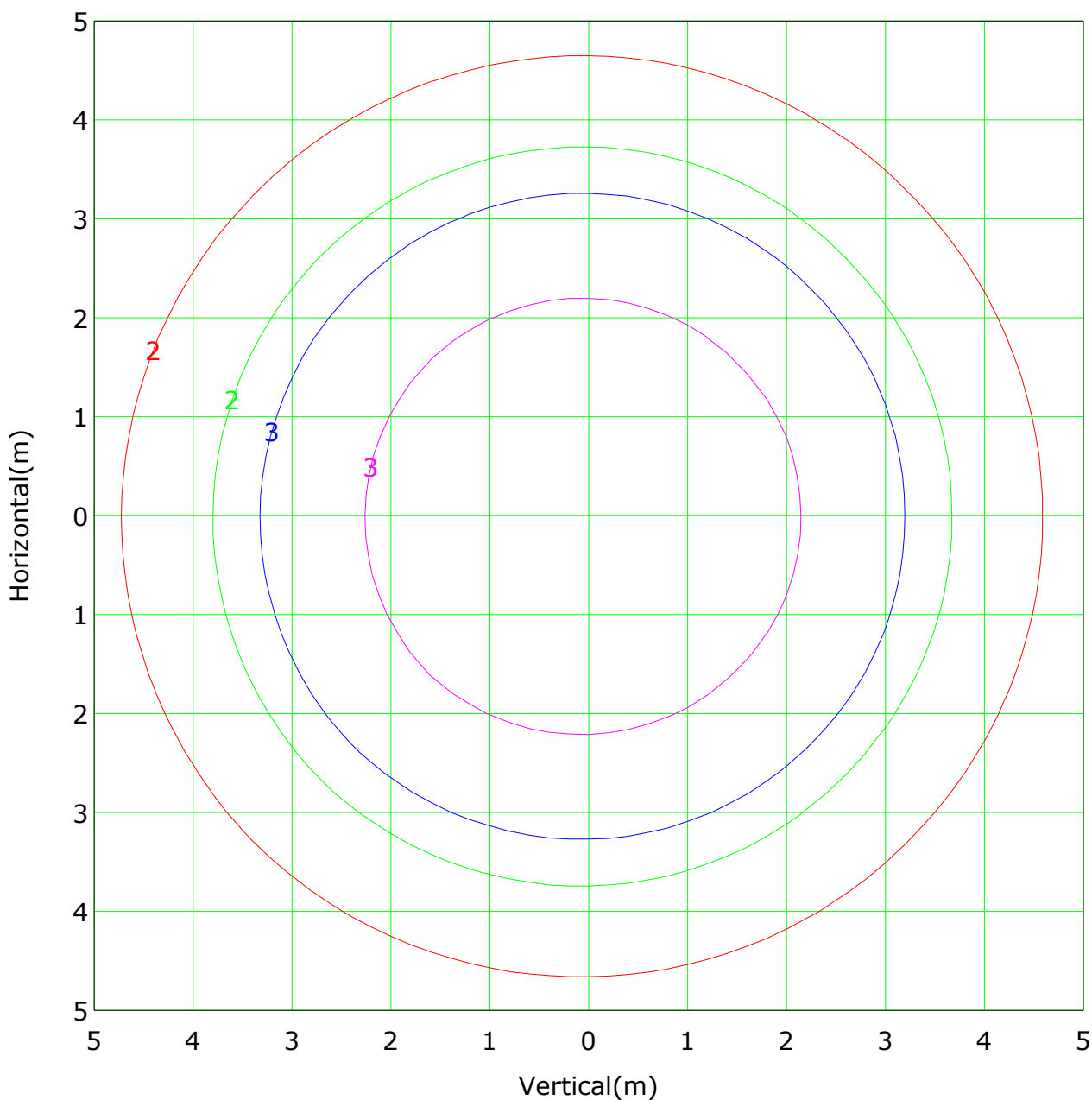
Imax (100%): 318 cd

( 10%):	32 cd	( 16%):	51 cd
( 25%):	79 cd	( 40%):	127 cd
( 63%):	200 cd	(100%):	318 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: 8.506 m [K=1.0000]  
Humidity: 65  
Inspector:

## IsoLux Plot

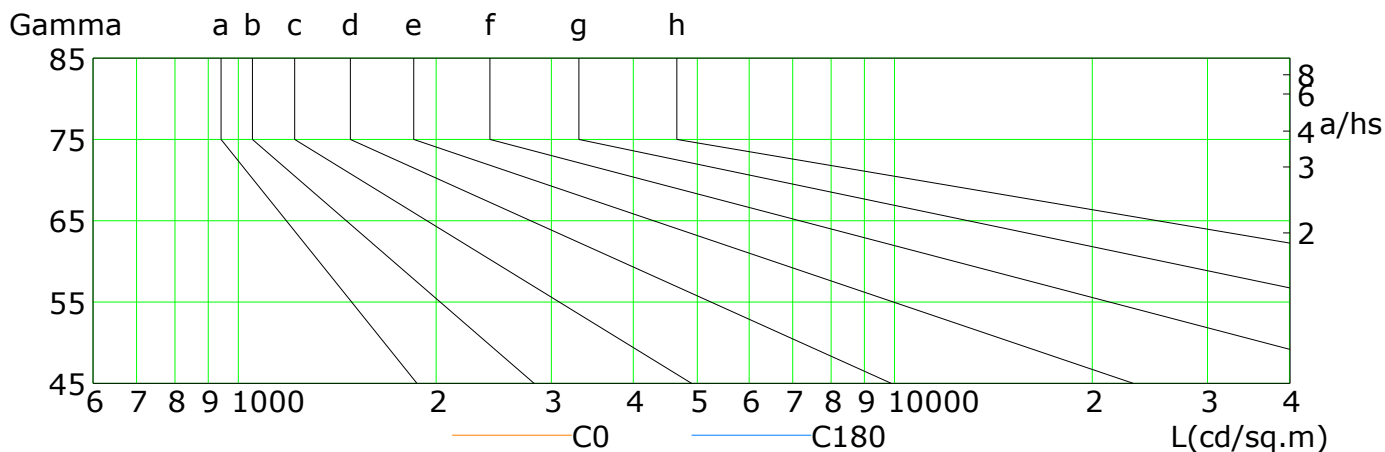
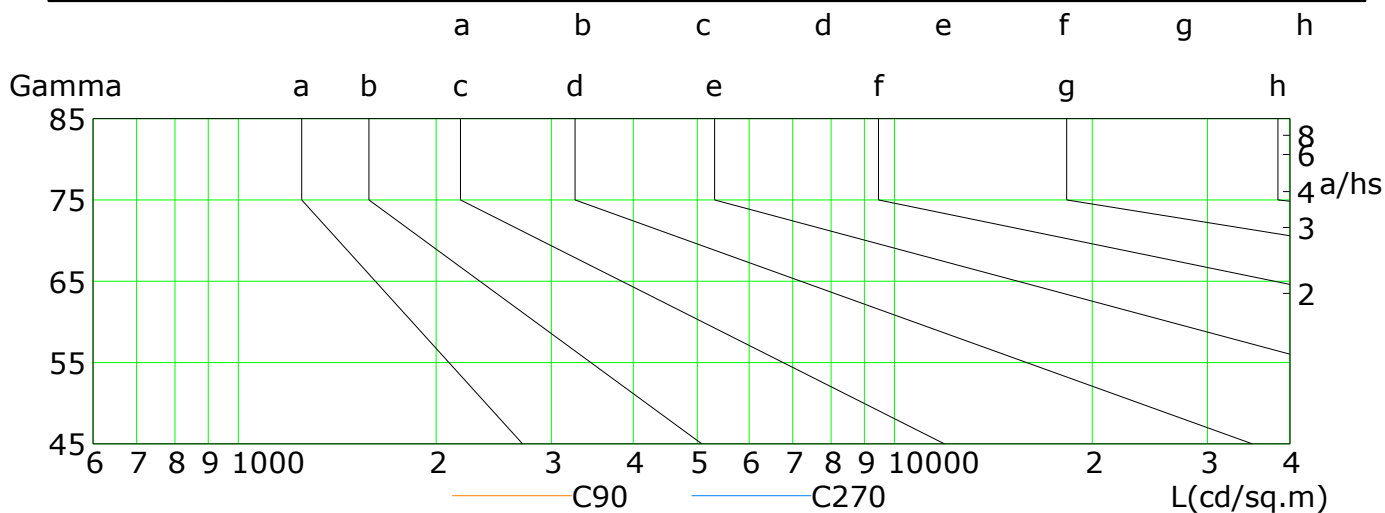


C Plane (°):0.0-360.0: 45.0  
Test Lab: Inventfine instrument  
Test Type: TYPE C  
Temperature: 26  
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Test Device: GPM-1800B  
Distance: 8.506 m [K=1.0000]  
Humidity: 65  
Inspector:

## 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

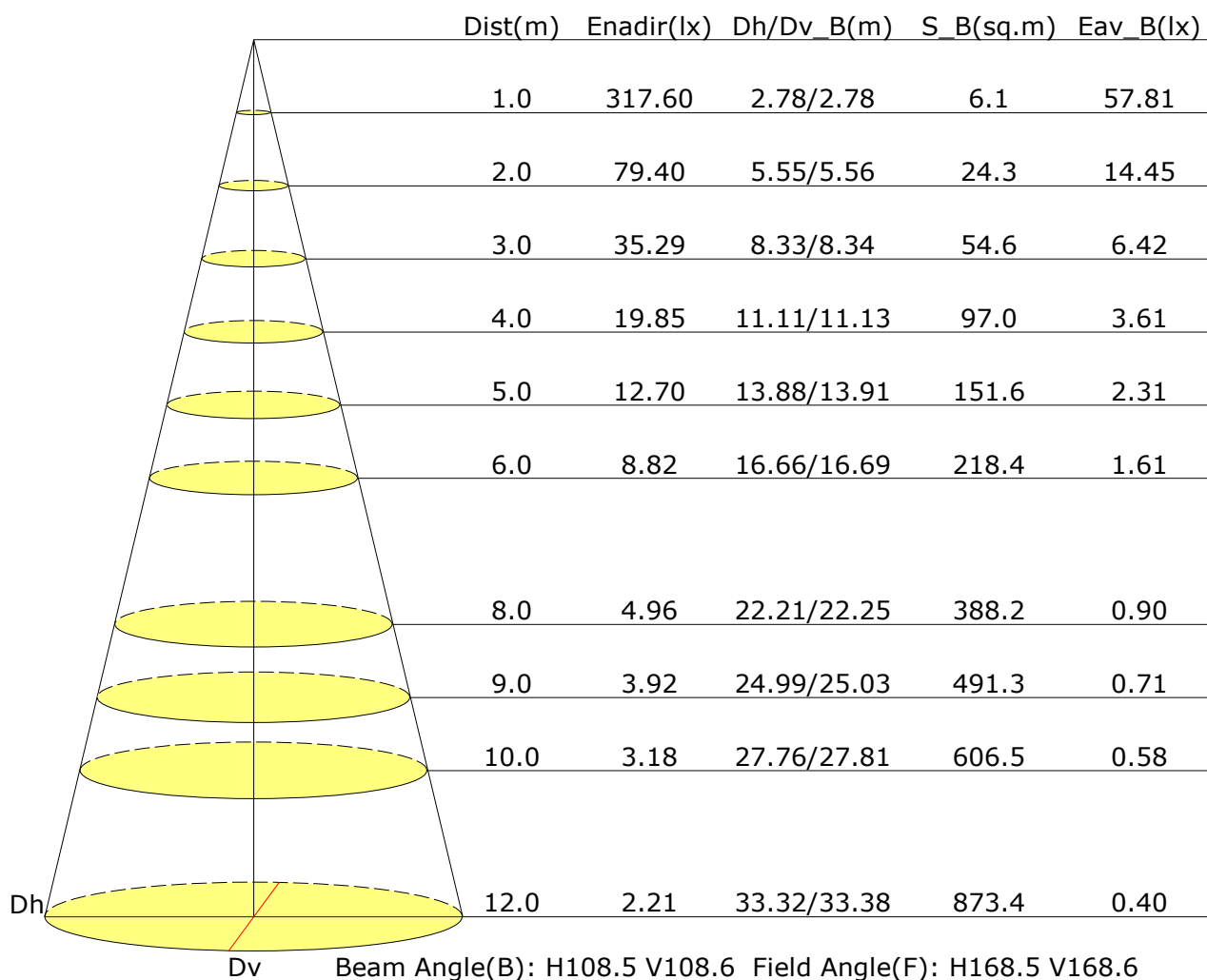


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	201	179	156	133	110	87	66	47	31
C90	196	174	151	128	105	83	62	43	28
C180	200	178	155	131	108	86	64	45	28
C270	205	183	160	136	113	90	68	48	31

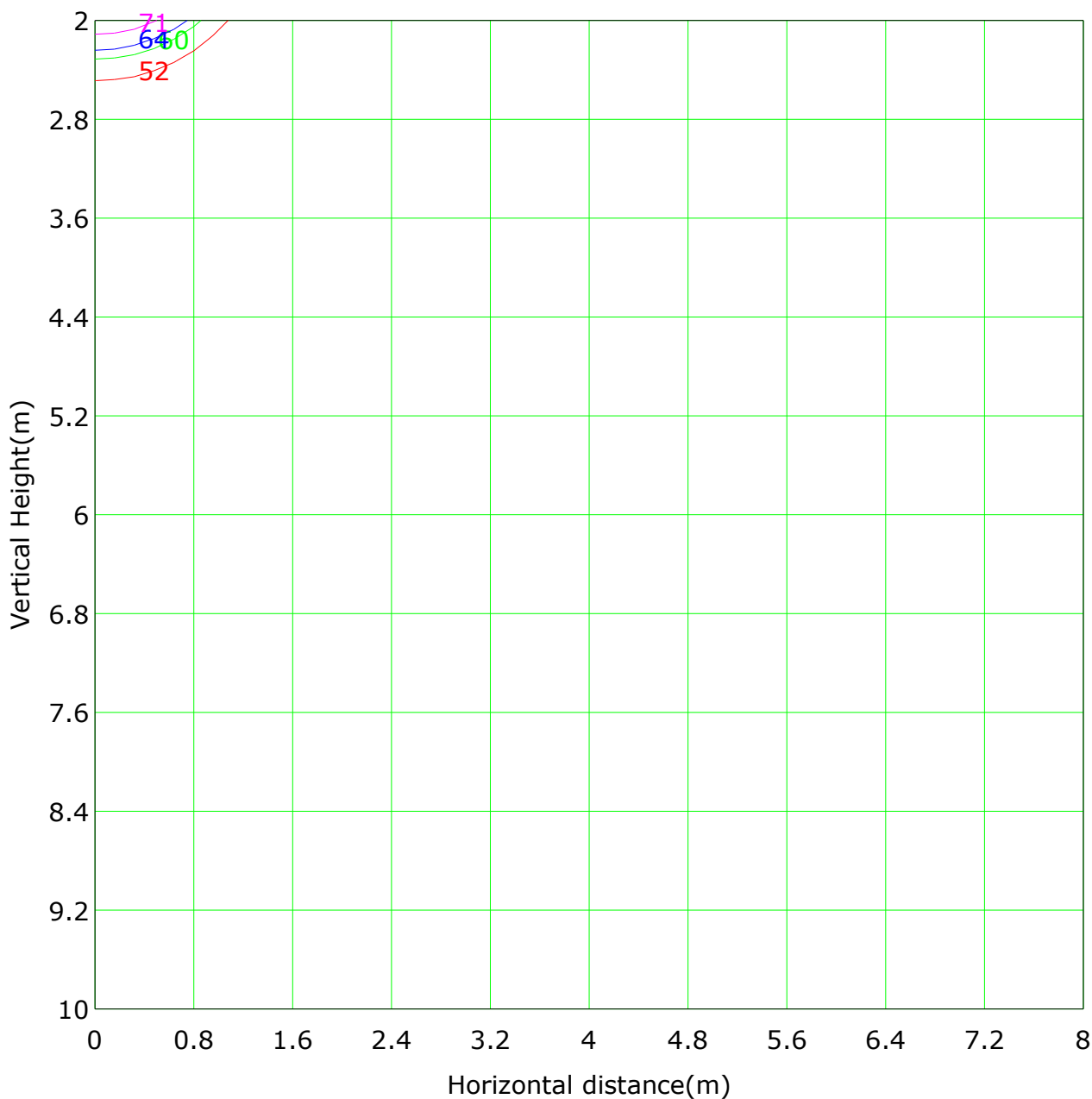
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Test Lab: Inventfine instrument  
Test Type: TYPE C  
Temperature: 26  
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Distance: 8.506 m [K=1.0000]  
Humidity: 65  
Inspector:

## Illuminance at a Distance



## Vertical IsoLux Plot



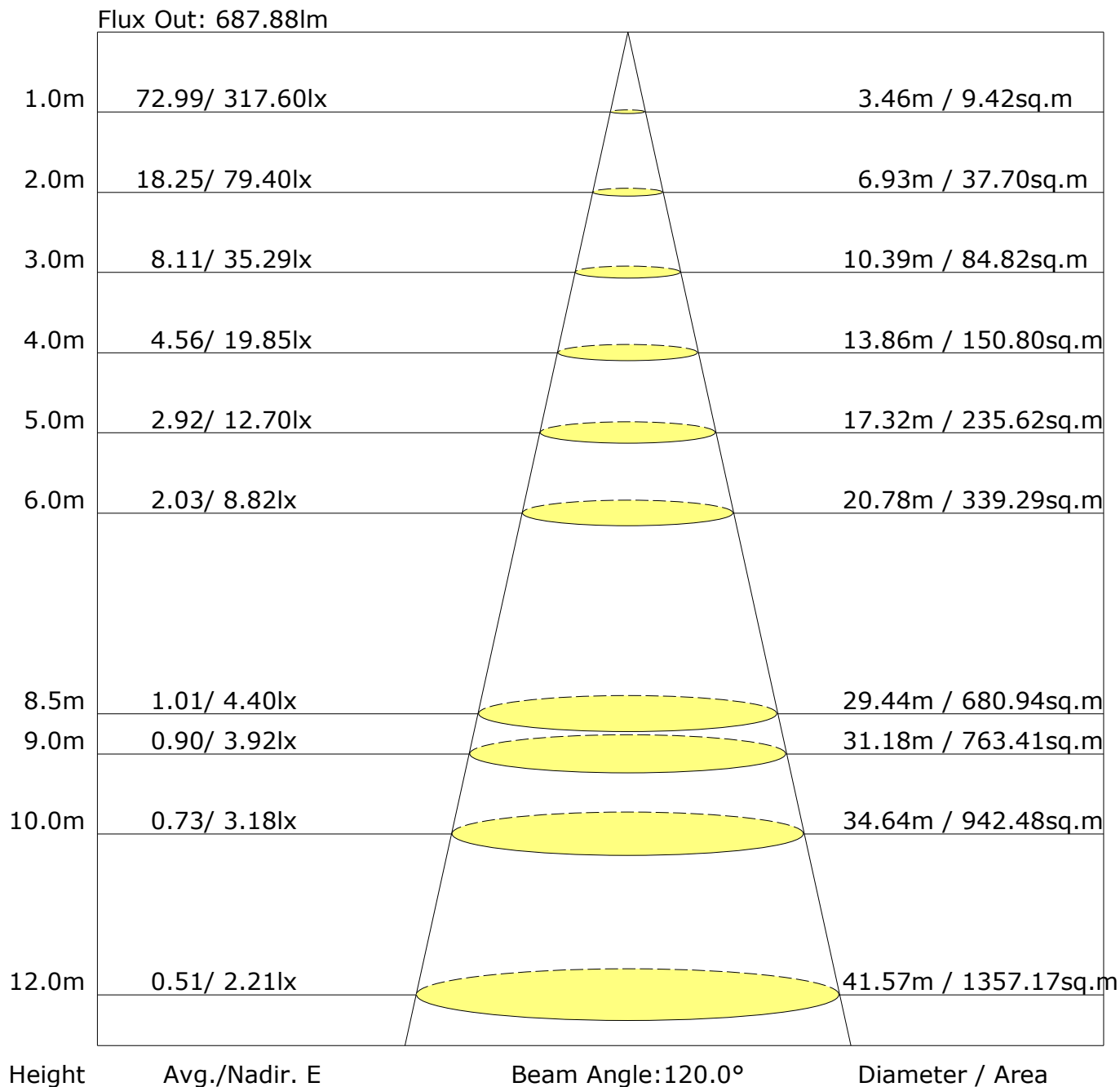
Lowest(m): 2.0m	Highest(m): 10.0m	Max Lux: 79.4 lx
( 65%): 51.6 lx	( 75%): 59.5 lx	
( 80%): 63.5 lx	( 90%): 71.5 lx	
(100%): 79.4 lx		

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: 8.506 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 935lm ( $8\log(F/F_0) = -0.2$ ).

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Test Device: GPM-1800B  
Distance: 8.506 m [K=1.0000]  
Humidity: 65  
Inspector:

## Zonal Lumen

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	317.6	0.3	0.3	0.03	0.03
1.0-2.0	317.4	0.9	1.2	0.10	0.13
2.0-3.0	317.1	1.5	2.7	0.16	0.29
3.0-4.0	316.7	2.1	4.9	0.23	0.52
4.0-5.0	316.1	2.7	7.6	0.29	0.81
5.0-6.0	315.5	3.3	10.9	0.35	1.16
6.0-7.0	314.6	3.9	14.8	0.42	1.58
7.0-8.0	313.7	4.5	19.3	0.48	2.06
8.0-9.0	312.6	5.1	24.3	0.54	2.61
9.0-10.0	311.4	5.6	30.0	0.60	3.21
10.0-11.0	310.0	6.2	36.2	0.66	3.87
11.0-12.0	308.5	6.7	42.9	0.72	4.59
12.0-13.0	306.9	7.3	50.2	0.78	5.37
13.0-14.0	305.2	7.8	58.0	0.84	6.21
14.0-15.0	303.3	8.3	66.3	0.89	7.10
15.0-16.0	301.3	8.8	75.2	0.94	8.04
16.0-17.0	299.3	9.3	84.5	1.00	9.04
17.0-18.0	297.1	9.8	94.3	1.05	10.09
18.0-19.0	294.7	10.3	104.6	1.10	11.19
19.0-20.0	292.2	10.7	115.2	1.14	12.33
20.0-21.0	289.7	11.1	126.4	1.19	13.52
21.0-22.0	287.1	11.5	137.9	1.23	14.76
22.0-23.0	284.3	11.9	149.8	1.28	16.03
23.0-24.0	281.5	12.3	162.2	1.32	17.35
24.0-25.0	278.5	12.7	174.8	1.35	18.70
25.0-26.0	275.5	13.0	187.8	1.39	20.09
26.0-27.0	272.3	13.3	201.1	1.43	21.52
27.0-28.0	269.1	13.6	214.8	1.46	22.98
28.0-29.0	265.7	13.9	228.7	1.49	24.47
29.0-30.0	262.3	14.2	242.8	1.52	25.98
30.0-31.0	258.8	14.4	257.2	1.54	27.52
31.0-32.0	255.2	14.6	271.9	1.56	29.09
32.0-33.0	251.6	14.8	286.7	1.59	30.67
33.0-34.0	247.8	15.0	301.7	1.60	32.28
34.0-35.0	244.0	15.2	316.8	1.62	33.90
35.0-36.0	240.2	15.3	332.1	1.64	35.54

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Test Device: GPM-1800B  
Distance: 8.506 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	236.2	15.4	347.5	1.65	37.18
37.0-38.0	232.2	15.5	363.0	1.66	38.84
38.0-39.0	228.2	15.6	378.6	1.67	40.51
39.0-40.0	224.1	15.6	394.3	1.67	42.18
40.0-41.0	219.9	15.7	409.9	1.68	43.86
41.0-42.0	215.7	15.7	425.6	1.68	45.53
42.0-43.0	211.4	15.7	441.3	1.68	47.21
43.0-44.0	207.1	15.6	456.9	1.67	48.88
44.0-45.0	202.8	15.6	472.5	1.67	50.55
45.0-46.0	198.4	15.5	488.0	1.66	52.21
46.0-47.0	194.0	15.4	503.4	1.65	53.86
47.0-48.0	189.5	15.3	518.7	1.64	55.50
48.0-49.0	185.0	15.2	533.9	1.63	57.13
49.0-50.0	180.5	15.1	549.0	1.61	58.74
50.0-51.0	176.0	14.9	563.9	1.59	60.33
51.0-52.0	171.4	14.7	578.6	1.57	61.90
52.0-53.0	166.8	14.5	593.1	1.55	63.46
53.0-54.0	162.3	14.3	607.4	1.53	64.99
54.0-55.0	157.6	14.1	621.5	1.51	66.49
55.0-56.0	153.0	13.8	635.3	1.48	67.97
56.0-57.0	148.4	13.6	648.9	1.45	69.42
57.0-58.0	143.7	13.3	662.2	1.42	70.85
58.0-59.0	139.0	13.0	675.2	1.39	72.24
59.0-60.0	134.5	12.7	687.9	1.36	73.60
60.0-61.0	129.8	12.4	700.3	1.33	74.92
61.0-62.0	125.2	12.1	712.3	1.29	76.21
62.0-63.0	120.5	11.7	724.1	1.25	77.47
63.0-64.0	115.8	11.4	735.4	1.22	78.68
64.0-65.0	111.3	11.0	746.4	1.18	79.86
65.0-66.0	106.7	10.6	757.1	1.14	81.00
66.0-67.0	102.1	10.3	767.4	1.10	82.10
67.0-68.0	97.5	9.9	777.2	1.06	83.16
68.0-69.0	93.0	9.5	786.7	1.02	84.17
69.0-70.0	88.6	9.1	795.8	0.97	85.14
70.0-71.0	84.1	8.7	804.5	0.93	86.07
71.0-72.0	79.7	8.3	812.8	0.89	86.96

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Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 8.506 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	75.5	7.9	820.7	0.84	87.81
73.0-74.0	71.2	7.5	828.2	0.80	88.61
74.0-75.0	67.1	7.1	835.3	0.76	89.37
75.0-76.0	63.0	6.7	842.0	0.72	90.08
76.0-77.0	58.9	6.3	848.2	0.67	90.75
77.0-78.0	55.1	5.9	854.1	0.63	91.38
78.0-79.0	51.3	5.5	859.7	0.59	91.97
79.0-80.0	47.6	5.1	864.8	0.55	92.52
80.0-81.0	44.1	4.8	869.6	0.51	93.03
81.0-82.0	40.7	4.4	874.0	0.47	93.51
82.0-83.0	37.4	4.1	878.0	0.43	93.94
83.0-84.0	34.2	3.7	881.8	0.40	94.34
84.0-85.0	31.2	3.4	885.2	0.36	94.70
85.0-86.0	28.3	3.1	888.3	0.33	95.03
86.0-87.0	25.6	2.8	891.1	0.30	95.33
87.0-88.0	23.0	2.5	893.6	0.27	95.60
88.0-89.0	20.6	2.3	895.8	0.24	95.85
89.0-90.0	18.3	2.0	897.8	0.22	96.06
90.0-91.0	16.2	1.8	899.6	0.19	96.25
91.0-92.0	14.3	1.6	901.2	0.17	96.42
92.0-93.0	12.6	1.4	902.6	0.15	96.57
93.0-94.0	10.9	1.2	903.8	0.13	96.69
94.0-95.0	9.4	1.0	904.8	0.11	96.80
95.0-96.0	8.0	0.9	905.7	0.09	96.90
96.0-97.0	6.8	0.7	906.4	0.08	96.98
97.0-98.0	5.6	0.6	907.0	0.07	97.04
98.0-99.0	4.6	0.5	907.5	0.05	97.10
99.0-100.0	3.6	0.4	907.9	0.04	97.14
100.0-101.0	3.0	0.3	908.2	0.03	97.17
101.0-102.0	2.7	0.3	908.5	0.03	97.20
102.0-103.0	2.6	0.3	908.8	0.03	97.23
103.0-104.0	2.6	0.3	909.1	0.03	97.26
104.0-105.0	2.7	0.3	909.4	0.03	97.30
105.0-106.0	2.8	0.3	909.7	0.03	97.33
106.0-107.0	2.8	0.3	910.0	0.03	97.36
107.0-108.0	2.9	0.3	910.3	0.03	97.39

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: 8.506 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	3.1	0.3	910.6	0.03	97.43
109.0-110.0	3.2	0.3	910.9	0.04	97.46
110.0-111.0	3.3	0.3	911.3	0.04	97.50
111.0-112.0	3.4	0.4	911.6	0.04	97.54
112.0-113.0	3.5	0.4	912.0	0.04	97.57
113.0-114.0	3.7	0.4	912.4	0.04	97.61
114.0-115.0	3.8	0.4	912.7	0.04	97.65
115.0-116.0	4.0	0.4	913.1	0.04	97.70
116.0-117.0	4.2	0.4	913.6	0.04	97.74
117.0-118.0	4.5	0.4	914.0	0.05	97.79
118.0-119.0	4.7	0.5	914.4	0.05	97.84
119.0-120.0	4.9	0.5	914.9	0.05	97.89
120.0-121.0	5.1	0.5	915.4	0.05	97.94
121.0-122.0	5.3	0.5	915.9	0.05	97.99
122.0-123.0	5.4	0.5	916.4	0.05	98.04
123.0-124.0	5.6	0.5	916.9	0.05	98.10
124.0-125.0	5.7	0.5	917.4	0.06	98.15
125.0-126.0	5.9	0.5	917.9	0.06	98.21
126.0-127.0	6.0	0.5	918.5	0.06	98.27
127.0-128.0	6.2	0.5	919.0	0.06	98.32
128.0-129.0	6.3	0.5	919.6	0.06	98.38
129.0-130.0	6.4	0.5	920.1	0.06	98.44
130.0-131.0	6.6	0.5	920.6	0.06	98.50
131.0-132.0	6.7	0.6	921.2	0.06	98.56
132.0-133.0	6.8	0.6	921.8	0.06	98.62
133.0-134.0	7.0	0.6	922.3	0.06	98.68
134.0-135.0	7.1	0.6	922.9	0.06	98.74
135.0-136.0	7.2	0.6	923.4	0.06	98.80
136.0-137.0	7.3	0.6	924.0	0.06	98.86
137.0-138.0	7.4	0.5	924.5	0.06	98.91
138.0-139.0	7.5	0.5	925.1	0.06	98.97
139.0-140.0	7.6	0.5	925.6	0.06	99.03
140.0-141.0	7.7	0.5	926.2	0.06	99.09
141.0-142.0	7.8	0.5	926.7	0.06	99.15
142.0-143.0	7.9	0.5	927.2	0.06	99.20
143.0-144.0	7.9	0.5	927.7	0.06	99.26

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: 8.506 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	7.8	0.5	928.2	0.05	99.31
145.0-146.0	7.6	0.5	928.7	0.05	99.36
146.0-147.0	7.5	0.5	929.2	0.05	99.41
147.0-148.0	7.4	0.4	929.6	0.05	99.46
148.0-149.0	7.3	0.4	930.0	0.04	99.50
149.0-150.0	7.1	0.4	930.4	0.04	99.54
150.0-151.0	6.9	0.4	930.8	0.04	99.58
151.0-152.0	6.8	0.4	931.1	0.04	99.62
152.0-153.0	6.6	0.3	931.5	0.04	99.66
153.0-154.0	6.2	0.3	931.8	0.03	99.69
154.0-155.0	5.7	0.3	932.0	0.03	99.72
155.0-156.0	5.1	0.2	932.3	0.03	99.74
156.0-157.0	4.6	0.2	932.5	0.02	99.76
157.0-158.0	4.3	0.2	932.6	0.02	99.78
158.0-159.0	4.2	0.2	932.8	0.02	99.80
159.0-160.0	4.2	0.2	933.0	0.02	99.82
160.0-161.0	4.3	0.2	933.1	0.02	99.84
161.0-162.0	4.3	0.1	933.3	0.02	99.85
162.0-163.0	4.3	0.1	933.4	0.02	99.87
163.0-164.0	4.3	0.1	933.6	0.01	99.88
164.0-165.0	4.3	0.1	933.7	0.01	99.90
165.0-166.0	4.4	0.1	933.8	0.01	99.91
166.0-167.0	4.4	0.1	933.9	0.01	99.92
167.0-168.0	4.5	0.1	934.0	0.01	99.93
168.0-169.0	4.5	0.1	934.1	0.01	99.94
169.0-170.0	4.5	0.1	934.2	0.01	99.95
170.0-171.0	4.6	0.1	934.3	0.01	99.96
171.0-172.0	4.6	0.1	934.4	0.01	99.97
172.0-173.0	4.7	0.1	934.4	0.01	99.98
173.0-174.0	4.7	0.1	934.5	0.01	99.98
174.0-175.0	4.8	0.1	934.6	0.01	99.99
175.0-176.0	4.8	0.0	934.6	0.00	99.99
176.0-177.0	4.9	0.0	934.6	0.00	100.00
177.0-178.0	4.9	0.0	934.6	0.00	100.00
178.0-179.0	4.9	0.0	934.7	0.00	100.00
179.0-180.0	5.0	0.0	934.7	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: 8.506 m [K=1.0000]  
Humidity: 65  
Inspector:

## Zonal Lumen (Continue 5)

cone flux(90°): 472.48 lm

%lum = 50.6%

%lamp = 50.6%

cone flux(120°): 687.88 lm

%lum = 73.6%

%lamp = 73.6%



## 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	317.6	317.6	317.6	317.6	317.6	317.6	317.6	317.6	317.6	
G1.0	317.6	317.4	317.3	317.5	317.5	317.6	317.7	317.8	317.6	
G2.0	317.3	317.1	316.8	317.1	317.3	317.5	317.5	317.7	317.3	
G3.0	317.0	316.6	316.4	316.6	316.9	317.2	317.3	317.5	317.0	
G4.0	316.5	316.0	315.8	315.8	316.3	316.9	317.0	317.1	316.5	
G5.0	315.9	315.2	315.0	315.2	315.8	316.4	316.5	316.8	315.9	
G6.0	315.2	314.5	314.1	314.3	314.9	315.8	315.8	316.1	315.2	
G7.0	314.3	313.4	313.1	313.4	314.1	314.8	315.1	315.4	314.3	
G8.0	313.2	312.3	312.0	312.1	313.0	313.9	314.2	314.4	313.2	
G9.0	312.2	311.1	310.7	310.9	311.7	312.8	313.2	313.5	312.2	
G10.0	310.9	309.8	309.1	309.5	310.6	311.5	312.0	312.3	310.9	
G11.0	309.4	308.2	307.7	308.0	309.0	310.1	310.6	311.1	309.4	
G12.0	307.8	306.6	306.1	306.1	307.4	308.7	309.3	309.5	307.8	
G13.0	306.4	304.8	304.4	304.5	305.7	307.1	307.7	308.1	306.4	
G14.0	304.6	303.1	302.3	302.6	304.1	305.4	305.9	306.4	304.6	
G15.0	302.6	300.9	300.4	300.4	302.0	303.6	304.3	304.6	302.6	
G16.0	300.6	298.8	298.3	298.4	300.0	301.4	302.4	302.7	300.6	
G17.0	298.6	296.7	296.0	296.2	297.9	299.4	300.2	300.6	298.6	
G18.0	296.3	294.4	293.4	293.9	295.7	297.1	298.1	298.5	296.3	
G19.0	293.8	291.8	291.1	291.2	293.1	294.6	295.9	296.2	293.8	
G20.0	291.3	289.2	288.6	288.7	290.5	292.4	293.6	293.7	291.3	
G21.0	288.9	286.6	285.8	286.1	288.1	289.8	291.1	291.4	288.9	
G22.0	286.1	283.7	283.0	283.2	285.3	287.1	288.3	288.8	286.1	
G23.0	283.3	281.0	280.3	280.4	282.6	284.3	285.7	286.2	283.3	
G24.0	280.3	278.0	277.1	277.5	279.4	281.5	283.0	283.0	280.3	
G25.0	277.3	275.1	274.0	274.2	276.5	278.3	280.1	280.4	277.3	
G26.0	274.3	272.0	270.8	271.1	273.5	275.3	277.2	277.4	274.3	
G27.0	271.1	268.4	267.4	267.9	270.3	272.1	274.2	274.3	271.1	
G28.0	267.8	265.0	264.0	264.4	267.1	269.1	271.1	270.9	267.8	
G29.0	264.3	261.6	260.6	261.1	263.5	265.6	267.5	267.8	264.3	
G30.0	260.9	258.2	257.1	257.4	260.1	262.2	264.2	264.5	260.9	
G31.0	257.4	254.5	253.4	254.0	256.7	258.7	260.8	260.7	257.4	
G32.0	253.8	251.0	249.9	250.1	253.1	254.9	257.4	257.3	253.8	
G33.0	250.2	247.4	245.9	246.5	249.1	251.3	253.9	253.8	250.2	
G34.0	246.2	243.4	242.1	242.4	245.4	247.6	249.8	250.1	246.2	
G35.0	242.5	239.6	238.5	238.6	241.5	243.8	246.2	246.0	242.5	
G36.0	238.7	235.8	234.3	234.7	237.6	240.1	242.4	242.2	238.7	

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: 8.506 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	234.5	231.4	230.3	230.9	233.4	235.9	238.5	238.5	234.5	
G38.0	230.6	227.6	226.3	226.6	229.4	232.0	234.6	234.6	230.6	
G39.0	226.6	223.5	222.4	222.6	225.6	228.1	230.4	230.3	226.6	
G40.0	222.3	219.1	217.9	218.6	221.5	224.0	226.4	226.3	222.3	
G41.0	218.2	215.1	213.8	214.1	217.0	220.0	222.4	221.9	218.2	
G42.0	214.1	210.9	209.6	209.9	213.0	215.5	217.9	217.9	214.1	
G43.0	209.5	206.4	205.1	205.7	208.8	211.3	213.8	213.6	209.5	
G44.0	205.4	202.1	200.9	201.0	204.8	207.1	209.5	209.4	205.4	
G45.0	201.2	197.4	196.3	196.9	200.2	202.5	205.3	204.8	201.2	
G46.0	196.6	193.2	191.9	192.6	196.0	198.2	200.5	200.6	196.6	
G47.0	192.2	188.9	187.6	187.8	191.4	193.9	196.3	196.2	192.2	
G48.0	187.5	184.1	182.8	183.5	186.5	189.5	191.9	191.9	187.5	
G49.0	183.1	179.7	178.4	179.1	182.1	185.1	187.6	187.1	183.1	
G50.0	178.8	175.4	174.0	174.2	177.8	180.3	182.8	182.8	178.8	
G51.0	173.9	170.5	169.2	169.8	173.3	175.9	178.4	178.3	173.9	
G52.0	169.5	166.0	164.7	165.3	168.7	171.1	173.9	173.4	169.5	
G53.0	165.1	161.6	160.3	160.9	164.4	166.6	168.9	169.1	165.1	
G54.0	160.1	156.7	155.8	156.0	159.5	162.3	164.6	164.2	160.1	
G55.0	155.7	152.4	151.0	151.6	155.0	157.3	160.0	159.6	155.7	
G56.0	151.3	147.9	146.5	147.1	150.5	152.7	155.1	155.1	151.3	
G57.0	146.3	143.4	142.0	142.2	145.5	148.2	150.5	150.6	146.3	
G58.0	141.8	138.4	137.0	137.7	141.0	143.1	145.9	145.6	141.8	
G59.0	137.3	134.0	132.5	133.2	136.5	138.6	140.9	141.0	137.3	
G60.0	132.9	129.5	128.0	128.6	131.4	134.1	136.3	136.5	132.9	
G61.0	128.0	125.0	123.5	123.7	126.9	129.6	131.7	131.5	128.0	
G62.0	123.4	120.5	118.5	119.1	122.4	124.6	127.2	127.0	123.4	
G63.0	118.9	115.5	114.1	114.6	117.5	120.1	122.3	122.1	118.9	
G64.0	114.5	111.0	109.6	110.2	113.0	115.2	117.4	117.5	114.5	
G65.0	110.0	106.6	105.0	105.7	108.5	110.7	112.8	113.0	110.0	
G66.0	105.0	102.2	100.6	100.8	103.6	106.2	108.4	108.1	105.0	
G67.0	100.6	97.7	95.8	96.3	99.1	101.3	103.9	103.6	100.6	
G68.0	96.3	92.9	91.4	91.9	94.2	97.0	99.0	99.2	96.3	
G69.0	91.9	88.6	87.0	87.6	89.9	92.5	94.5	94.3	91.9	
G70.0	87.2	84.3	82.8	83.3	85.5	88.1	89.7	89.9	87.2	
G71.0	82.8	80.1	78.1	78.6	80.7	83.4	85.4	85.6	82.8	
G72.0	78.7	76.0	73.9	74.4	76.5	79.1	81.0	81.2	78.7	
G73.0	74.5	71.4	69.8	70.3	72.4	74.9	76.8	76.6	74.5	

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: 8.506 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	70.3	67.3	65.8	66.3	67.9	70.3	72.3	72.4	70.3	
G75.0	65.9	63.4	61.9	62.3	63.8	66.3	68.2	68.4	65.9	
G76.0	62.0	59.5	57.6	58.0	59.9	62.4	63.8	64.0	62.0	
G77.0	58.1	55.7	53.9	54.2	56.0	58.1	59.9	60.1	58.1	
G78.0	54.3	52.0	50.3	50.5	51.9	54.3	56.0	56.3	54.3	
G79.0	50.3	48.1	46.8	47.0	48.2	50.6	51.9	52.1	50.3	
G80.0	46.8	44.8	43.4	43.6	44.7	46.6	48.3	48.5	46.8	
G81.0	43.4	41.4	40.1	40.3	41.0	43.2	44.7	45.0	43.4	
G82.0	40.1	38.2	36.7	36.9	37.7	39.8	41.3	41.6	40.1	
G83.0	36.9	34.8	33.7	33.8	34.5	36.3	37.7	37.9	36.9	
G84.0	33.6	31.8	30.8	30.9	31.5	33.2	34.5	34.8	33.6	
G85.0	30.7	29.0	28.1	28.2	28.4	30.2	31.5	31.7	30.7	
G86.0	27.9	26.3	25.2	25.5	25.7	27.4	28.4	28.6	27.9	
G87.0	25.2	23.8	22.9	23.1	23.1	24.5	25.6	25.9	25.2	
G88.0	22.7	21.4	20.6	20.6	20.4	22.0	23.1	23.3	22.7	
G89.0	20.4	19.0	18.4	18.4	18.3	19.7	20.7	20.6	20.4	
G90.0	18.0	16.9	16.5	16.4	16.2	17.3	18.2	18.4	18.0	
G91.0	16.0	15.0	14.4	14.6	14.2	15.3	16.1	16.3	16.0	
G92.0	14.2	13.2	12.7	12.7	12.5	13.6	14.3	14.4	14.2	
G93.0	12.4	11.4	11.2	11.2	11.0	11.7	12.4	12.4	12.4	
G94.0	10.6	9.9	9.8	9.8	9.4	10.1	10.8	10.7	10.6	
G95.0	9.1	8.6	8.5	8.4	8.0	8.6	9.1	9.2	9.1	
G96.0	7.7	7.3	7.1	7.1	6.8	7.4	7.8	7.7	7.7	
G97.0	6.4	6.2	6.1	6.0	5.7	6.1	6.5	6.5	6.4	
G98.0	5.3	4.6	5.2	5.1	4.8	5.1	5.4	5.1	5.3	
G99.0	4.5	3.1	4.4	4.3	4.0	4.3	4.5	3.7	4.5	
G100.0	3.6	2.6	3.7	3.1	3.2	3.0	3.6	2.6	3.6	
G101.0	3.0	2.6	3.2	2.9	2.8	2.7	3.1	2.6	3.0	
G102.0	2.5	2.6	2.8	2.7	2.5	2.5	2.7	2.6	2.5	
G103.0	2.5	2.7	2.7	2.7	2.6	2.6	2.6	2.7	2.5	
G104.0	2.6	2.6	2.7	2.7	2.8	2.6	2.6	2.7	2.6	
G105.0	2.9	2.7	2.7	2.7	3.0	2.6	2.6	2.7	2.9	
G106.0	3.0	2.9	2.8	2.8	2.8	2.8	2.6	2.7	3.0	
G107.0	2.9	3.0	2.8	3.0	2.9	3.0	2.7	2.8	2.9	
G108.0	2.9	3.1	2.9	3.2	2.9	3.2	2.7	3.1	2.9	
G109.0	3.0	3.2	3.1	3.4	3.0	3.3	2.8	3.3	3.0	
G110.0	3.1	3.3	3.4	3.4	3.0	3.4	3.1	3.3	3.1	

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: 8.506 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	3.3	3.3	3.6	3.5	3.1	3.4	3.4	3.4	3.3	
G112.0	3.4	3.4	3.8	3.7	3.2	3.6	3.6	3.5	3.4	
G113.0	3.4	3.4	3.9	3.8	3.3	3.6	3.7	3.6	3.4	
G114.0	3.5	3.7	4.1	3.9	3.4	3.7	3.8	3.8	3.5	
G115.0	3.6	3.9	4.2	4.2	3.5	3.9	4.0	4.2	3.6	
G116.0	3.8	3.9	4.4	4.3	3.7	4.2	4.1	4.5	3.8	
G117.0	4.2	4.3	4.5	4.4	4.2	4.3	4.3	4.6	4.2	
G118.0	4.5	4.8	4.5	4.5	4.5	4.7	4.4	4.7	4.5	
G119.0	5.1	5.0	4.6	4.6	5.1	5.0	4.5	4.9	5.1	
G120.0	5.4	5.1	4.7	4.7	5.4	5.2	4.6	5.0	5.4	
G121.0	5.6	5.4	4.8	4.8	5.6	5.4	4.7	5.3	5.6	
G122.0	5.8	5.7	4.9	4.9	5.7	5.7	4.9	5.3	5.8	
G123.0	5.9	5.9	5.0	5.1	5.9	5.9	5.1	5.4	5.9	
G124.0	6.1	6.1	5.2	5.2	6.1	6.0	5.2	5.6	6.1	
G125.0	6.2	6.2	5.3	5.4	6.3	6.1	5.3	5.7	6.2	
G126.0	6.4	6.4	5.5	5.6	6.4	6.2	5.4	5.8	6.4	
G127.0	6.5	6.6	5.6	5.8	6.6	6.4	5.5	5.9	6.5	
G128.0	6.7	6.7	5.7	5.9	6.7	6.5	5.6	6.1	6.7	
G129.0	6.9	7.0	5.8	6.0	6.9	6.6	5.7	6.2	6.9	
G130.0	7.0	7.2	6.0	6.1	7.0	6.8	5.8	6.3	7.0	
G131.0	7.2	7.3	6.2	6.2	7.2	6.9	5.9	6.5	7.2	
G132.0	7.3	7.4	6.3	6.3	7.3	7.0	5.9	6.6	7.3	
G133.0	7.5	7.6	6.4	6.4	7.5	7.1	6.0	6.8	7.5	
G134.0	7.6	7.7	6.6	6.5	7.6	7.2	6.2	6.9	7.6	
G135.0	7.7	7.9	6.6	6.6	7.8	7.4	6.3	7.0	7.7	
G136.0	7.8	8.0	6.7	6.6	7.9	7.5	6.4	7.2	7.8	
G137.0	7.9	8.1	6.8	6.6	8.0	7.7	6.4	7.3	7.9	
G138.0	8.0	8.2	6.9	6.7	8.1	7.8	6.5	7.5	8.0	
G139.0	8.1	8.3	7.0	6.9	8.2	7.9	6.7	7.6	8.1	
G140.0	8.2	8.4	7.1	7.0	8.3	8.0	6.8	7.7	8.2	
G141.0	8.3	8.5	7.2	7.0	8.3	8.1	6.9	7.9	8.3	
G142.0	8.4	8.6	7.4	7.1	8.4	8.2	7.1	8.0	8.4	
G143.0	8.5	8.6	7.5	7.2	8.3	8.4	7.2	8.1	8.5	
G144.0	8.6	8.5	7.6	7.0	7.5	8.4	7.2	8.1	8.6	
G145.0	8.0	8.1	7.7	7.0	7.2	8.0	7.4	8.1	8.0	
G146.0	7.5	7.9	7.7	6.8	7.2	7.7	7.6	8.1	7.5	
G147.0	7.6	7.8	7.7	6.3	7.2	7.3	7.8	7.8	7.6	

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: 8.506 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	7.6	7.7	7.6	5.8	7.3	7.2	7.7	7.5	7.6	
G149.0	7.7	7.7	7.3	5.7	7.3	7.1	7.6	7.5	7.7	
G150.0	7.7	7.7	6.6	5.7	7.3	7.2	6.8	7.4	7.7	
G151.0	7.6	7.8	5.7	5.8	7.3	7.2	5.8	7.4	7.6	
G152.0	7.7	7.8	5.1	5.9	7.3	7.2	5.1	7.4	7.7	
G153.0	7.8	7.8	4.7	5.8	7.3	7.0	4.6	6.7	7.8	
G154.0	7.9	6.9	4.5	5.2	7.3	6.1	4.4	5.2	7.9	
G155.0	7.9	6.2	4.6	4.6	5.8	5.8	4.3	4.4	7.9	
G156.0	6.3	5.2	4.6	4.6	4.8	4.8	4.1	4.5	6.3	
G157.0	5.2	4.2	4.6	4.3	4.1	4.4	4.1	4.3	5.2	
G158.0	4.3	4.2	4.3	4.3	4.1	4.1	4.1	4.2	4.3	
G159.0	4.2	4.3	4.3	4.3	4.1	4.2	4.2	4.2	4.2	
G160.0	4.2	4.2	4.2	4.3	4.2	4.2	4.2	4.3	4.2	
G161.0	4.3	4.3	4.3	4.3	4.2	4.3	4.3	4.3	4.3	
G162.0	4.3	4.3	4.3	4.4	4.2	4.3	4.2	4.4	4.3	
G163.0	4.3	4.4	4.3	4.4	4.3	4.3	4.5	4.4	4.3	
G164.0	4.3	4.4	4.4	4.4	4.2	4.3	4.3	4.4	4.3	
G165.0	4.4	4.4	4.4	4.5	4.3	4.1	4.4	4.4	4.4	
G166.0	4.4	4.5	4.4	4.5	4.3	4.4	4.4	4.5	4.4	
G167.0	4.4	4.5	4.5	4.5	4.3	4.4	4.4	4.5	4.4	
G168.0	4.5	4.5	4.5	4.5	4.4	4.4	4.4	4.6	4.5	
G169.0	4.5	4.6	4.6	4.6	4.4	4.4	4.4	4.6	4.5	
G170.0	4.6	4.6	4.6	4.6	4.4	4.4	4.5	4.6	4.6	
G171.0	4.6	4.7	4.7	4.7	4.4	4.5	4.5	4.6	4.6	
G172.0	4.7	4.8	4.7	4.8	4.4	4.5	4.6	4.7	4.7	
G173.0	4.8	4.8	4.8	4.8	4.5	4.5	4.6	4.7	4.8	
G174.0	4.8	4.9	4.9	4.9	4.5	4.6	4.6	4.7	4.8	
G175.0	4.9	5.0	4.9	4.9	4.6	4.6	4.7	4.8	4.9	
G176.0	5.0	5.0	5.0	5.0	4.6	4.7	4.7	4.9	5.0	
G177.0	4.9	5.0	5.0	5.0	4.7	4.8	4.8	4.9	4.9	
G178.0	4.9	5.0	5.0	5.1	4.8	4.8	4.9	5.0	4.9	
G179.0	4.9	5.0	5.0	5.1	4.8	4.9	4.9	5.0	4.9	
G180.0	4.9	5.0	5.0	5.0	4.8	4.9	5.0	5.1	4.9	

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: 8.506 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