

Report No.: TH-4601A

Test Time: 2023/11/15 09:35

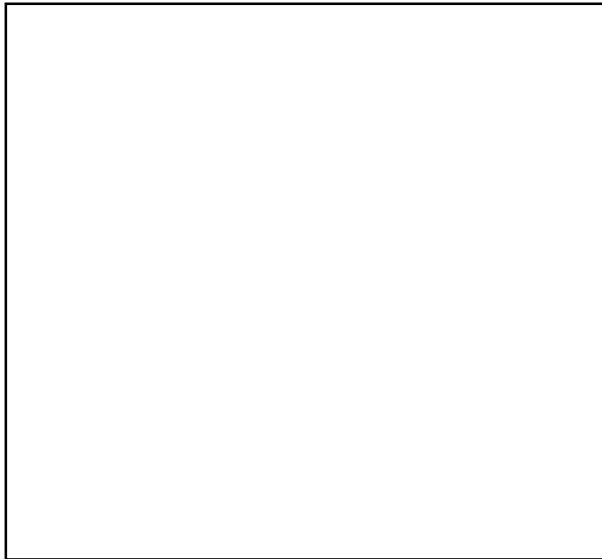
## Luminaire Property

Luminaire Manufacturer:	Luminaire Description: CUPD950BLLED18
Luminaire Category:	Lamp Description:
Lamp Catalog:	Lumens per Lamp:
Number of Lamps:	Luminous Width (mm):
Luminous Length (mm):	Voltage: 120.0 V
Luminous Height (mm):	Power: 20.29 W
Current: 0.172 A	
Power Factor: 0.985	

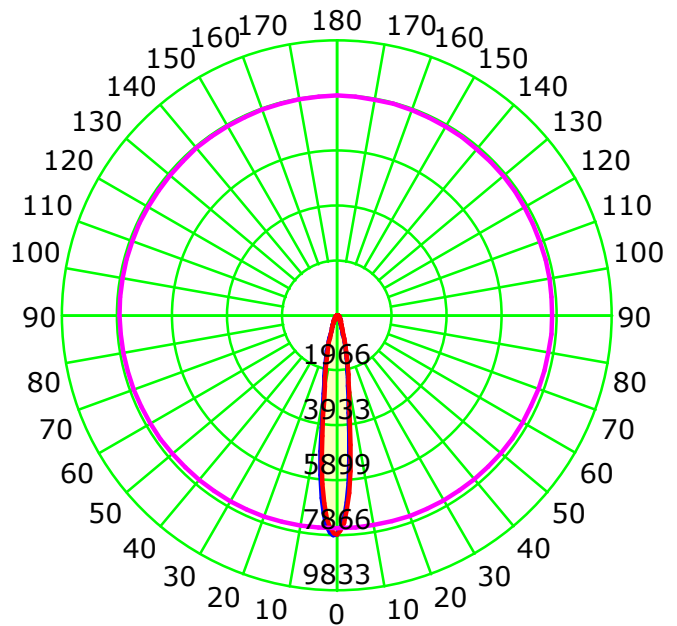
## Photometric Results

CIE Class: Direct	Total Rated Lamp Lumens: 1209.9 lm
Measurement Flux: 1209.9 lm	Efficiency: 100%
Downward Ratio: 99%	Upward Ratio: 1%
Horizontal Diffuse Angle(50%): H14.6	
Vertical Diffuse Angle(50%): V14.6	
Luminaire Efficacy Rating (LER): 59.68	C0r0 Intensity: 7820.87 cd
Max. Intensity: 7866.45 cd	Pos of Max. Intensity: H180 V1
S/MH(C0/C180): 0.26	S/MH(C90/C270): 0.25

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

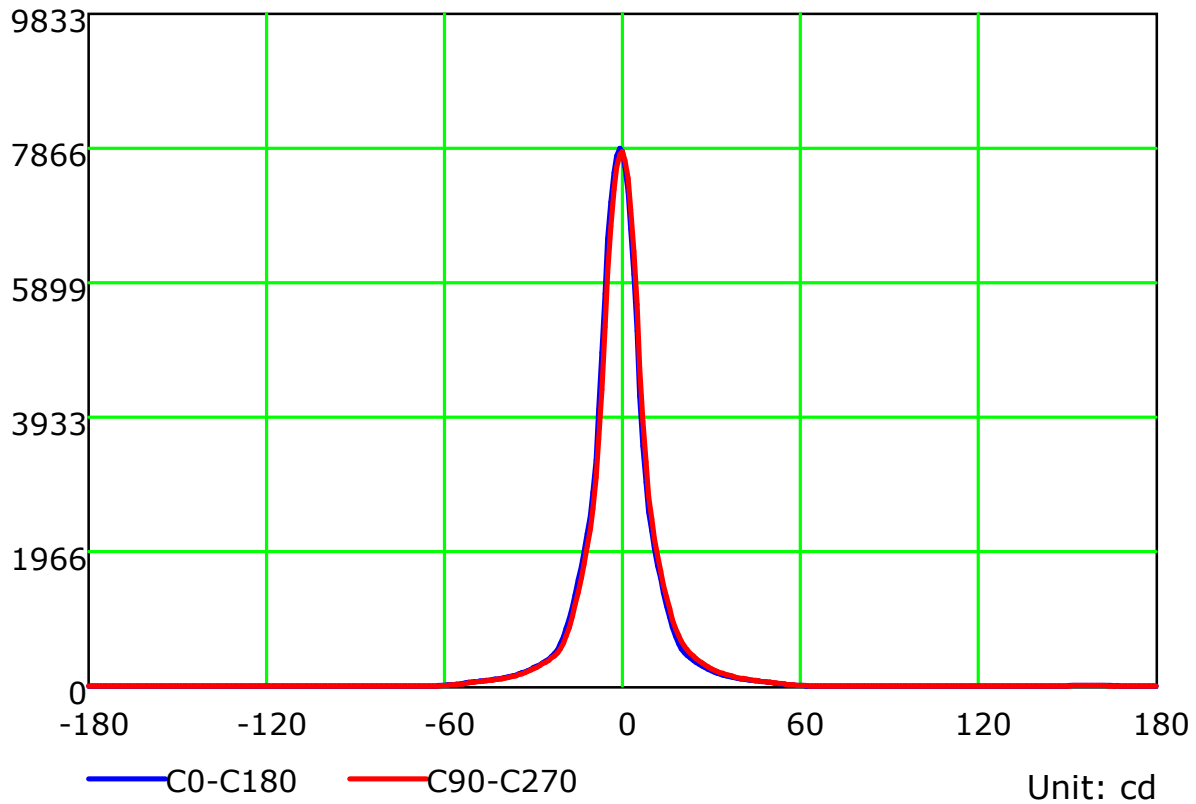
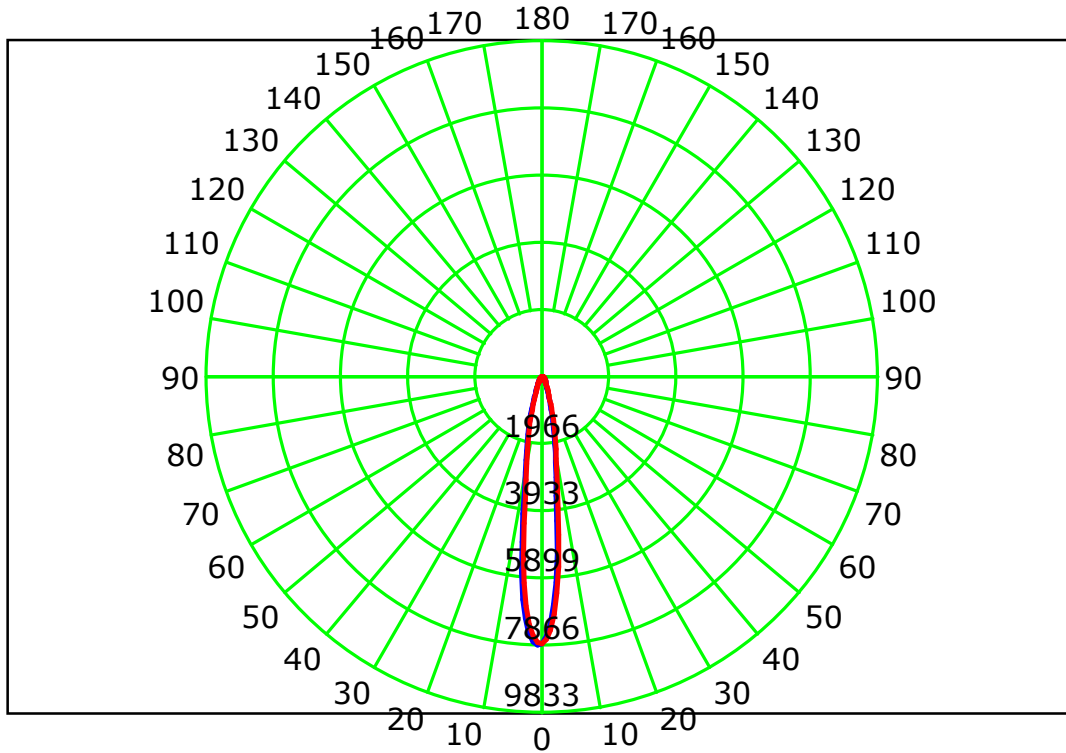
Average Diffuse Angle(50%): 14.6°

— C0-C180 — C90-C270 — G1

C Plane (°):0.0-360.0: 90.0  
 Test Lab: inventfine instruments  
 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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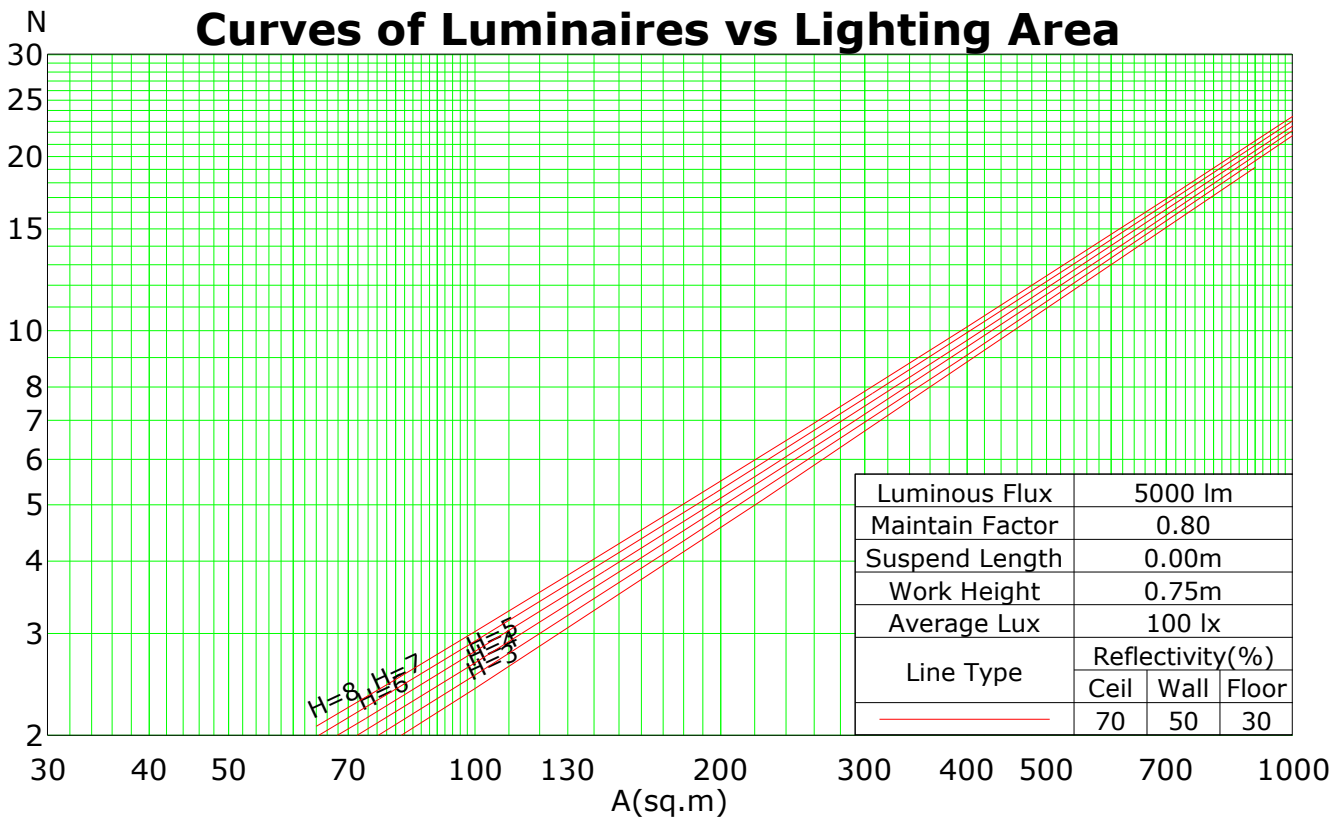
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 Test Device: GPM-1800B  
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## Coefficients Of Utilization - Zonal Cavity Method

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	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.01	1.01	1.01	0.99
1	1.14	1.12	1.10	1.08	1.12	1.10	1.08	1.06	1.06	1.04	1.03	1.02	1.01	1.00	0.98	0.97	0.97	0.95
2	1.10	1.06	1.02	1.00	1.08	1.04	1.01	0.99	1.01	0.98	0.96	0.98	0.96	0.94	0.95	0.93	0.92	0.91
3	1.06	1.00	0.96	0.93	1.04	0.99	0.95	0.92	0.96	0.93	0.91	0.94	0.91	0.89	0.92	0.90	0.88	0.86
4	1.02	0.96	0.91	0.88	1.00	0.95	0.90	0.87	0.92	0.89	0.86	0.90	0.87	0.85	0.89	0.86	0.84	0.83
5	0.98	0.91	0.87	0.83	0.97	0.90	0.86	0.83	0.89	0.85	0.82	0.87	0.84	0.81	0.86	0.83	0.81	0.79
6	0.95	0.88	0.83	0.79	0.93	0.87	0.82	0.79	0.85	0.82	0.79	0.84	0.81	0.78	0.83	0.80	0.78	0.76
7	0.92	0.84	0.80	0.76	0.90	0.84	0.79	0.76	0.82	0.78	0.76	0.81	0.78	0.75	0.80	0.77	0.75	0.74
8	0.89	0.81	0.77	0.73	0.88	0.81	0.76	0.73	0.80	0.76	0.73	0.79	0.75	0.73	0.78	0.75	0.72	0.71
9	0.86	0.79	0.74	0.71	0.85	0.78	0.74	0.71	0.77	0.73	0.70	0.76	0.73	0.70	0.76	0.72	0.70	0.69
10	0.84	0.76	0.72	0.69	0.83	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.71	0.68	0.74	0.70	0.68	0.67

Spacing Criteria (0-180): 0.26  
 Spacing Criteria (90-270): 0.25  
 Spacing Criteria (Diagonal): 0.29

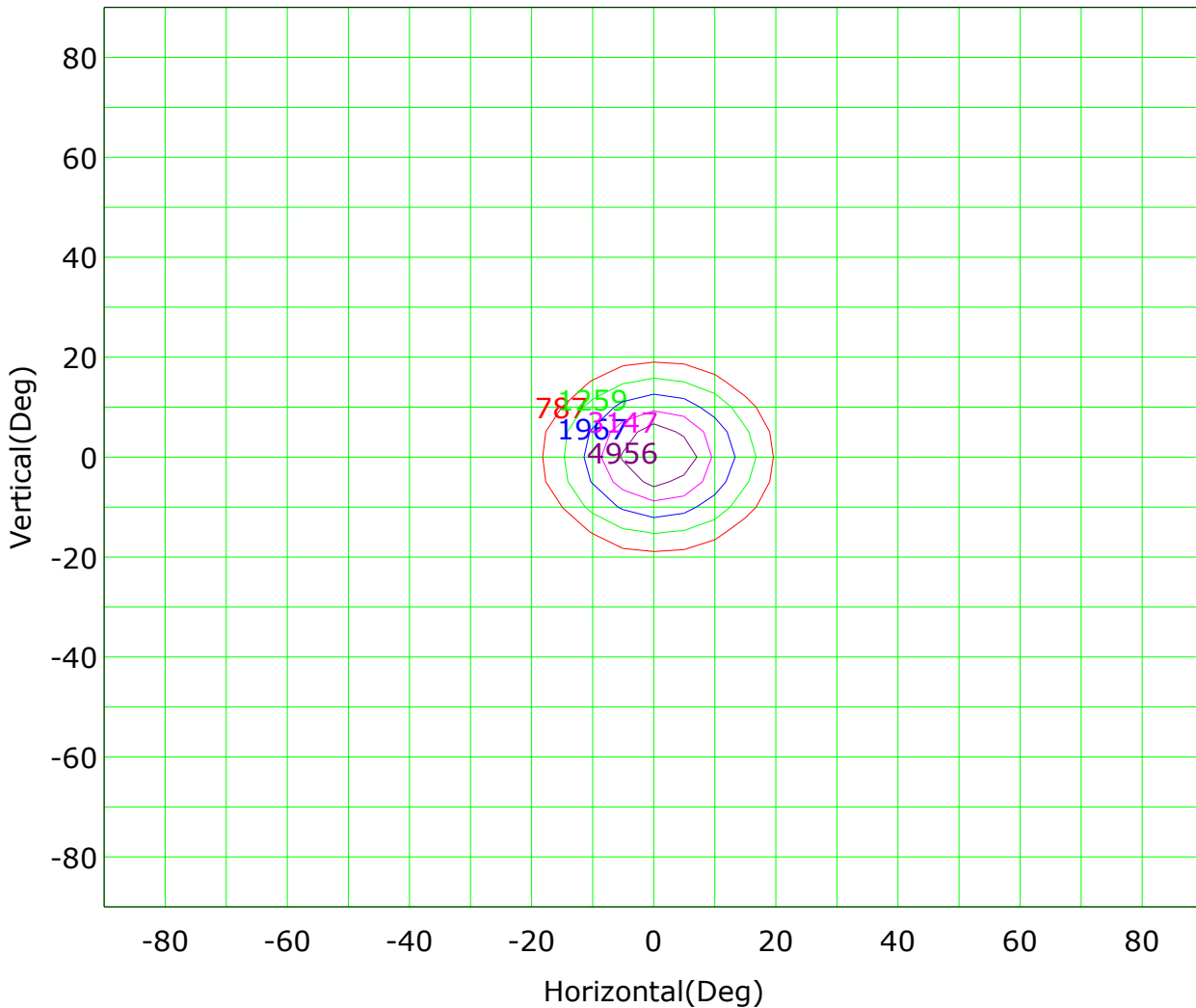
## Curves of Luminaires vs Lighting Area



C Plane (°):0.0-360.0: 90.0  
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## Isocandela (rectangle)



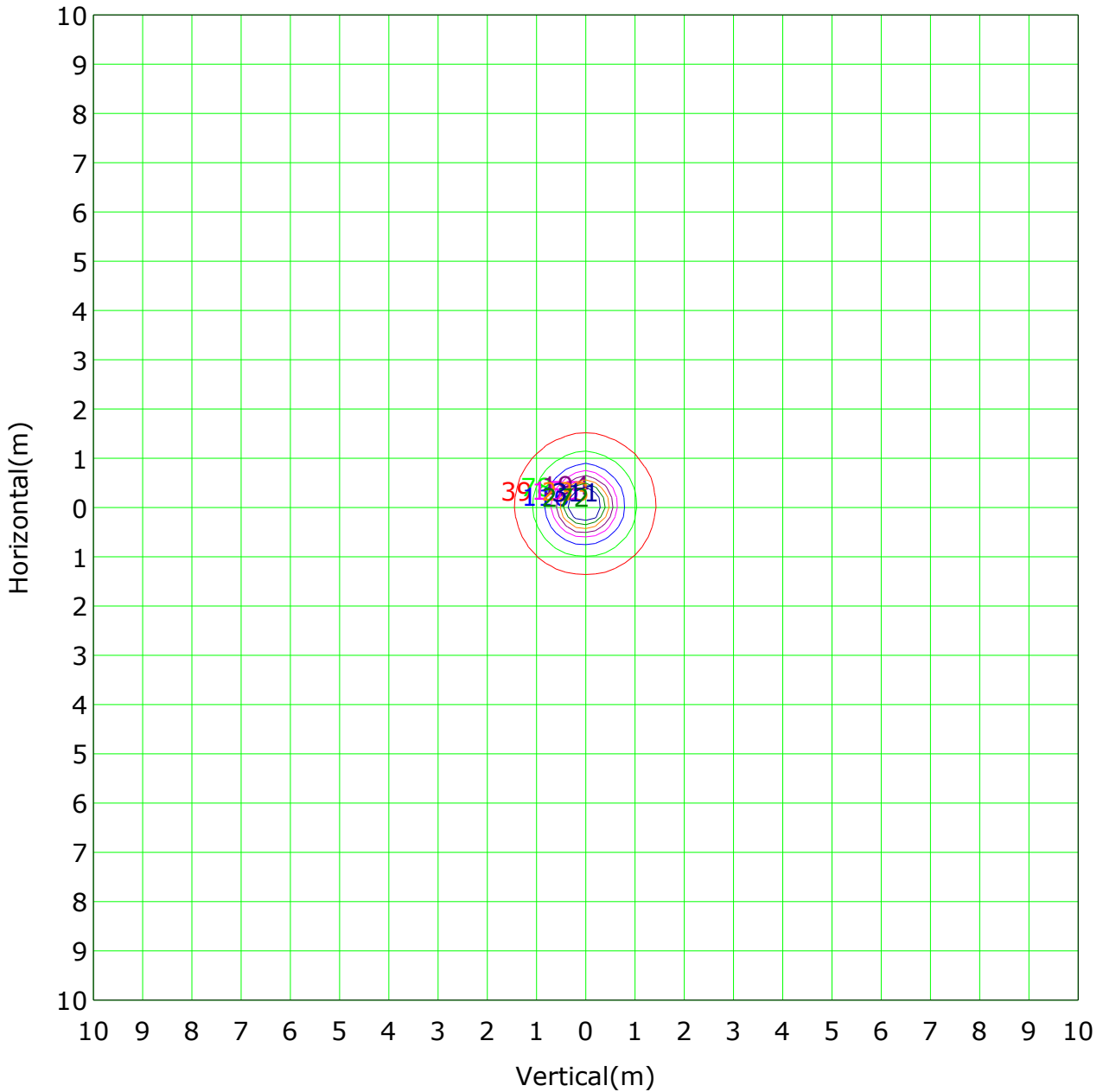
Imax (100%): 7866 cd

— ( 10%): 787 cd	— ( 16%): 1259 cd
— ( 25%): 1967 cd	— ( 40%): 3147 cd
— ( 63%): 4956 cd	— (100%): 7866 cd

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:

## IsoLux Plot



Mounting Height: 4.5m    Max Lux(100%): 388.3 lx

( 10%): 38.8 lx	( 20%): 77.7 lx
( 30%): 116.5 lx	( 40%): 155.3 lx
( 50%): 194.1 lx	( 60%): 233.0 lx
( 70%): 271.8 lx	( 80%): 310.6 lx

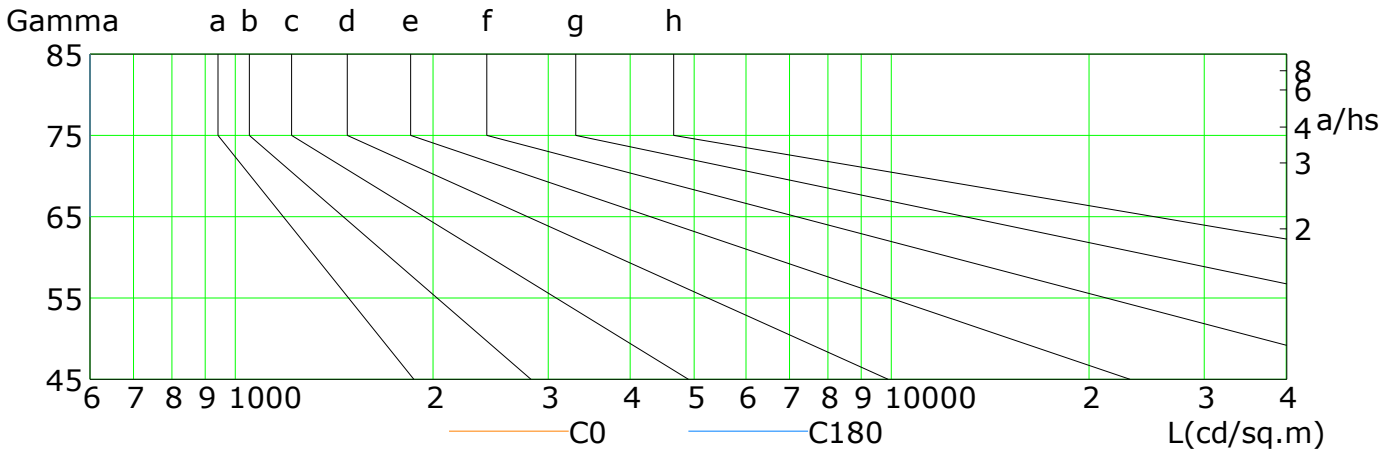
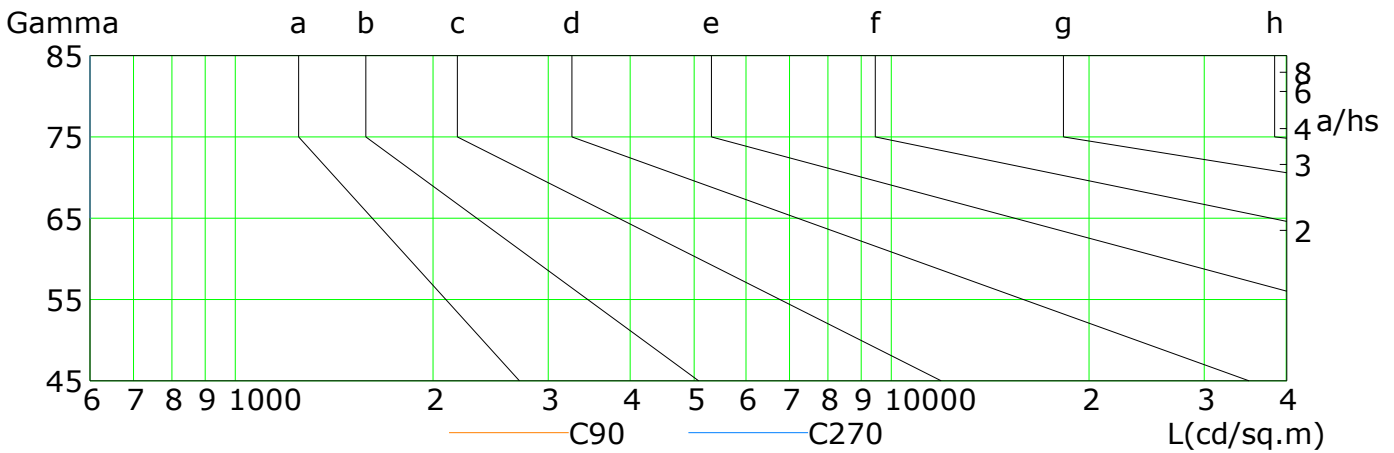
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## Lum Limit Curve

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

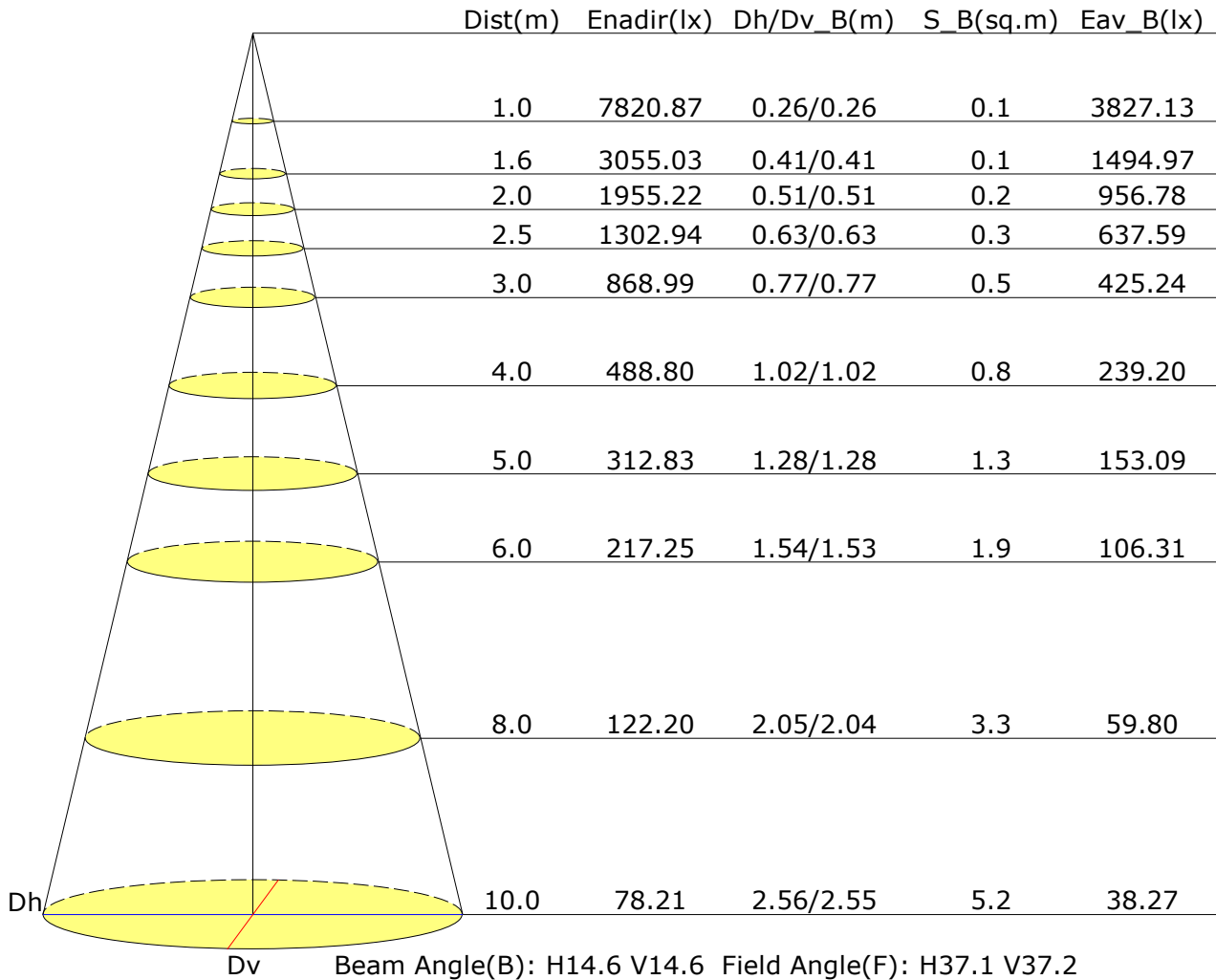


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	81	57	29	13	0	0	0	0	0
C90	85	60	33	15	0	0	0	0	0
C180	93	68	37	17	0	0	0	0	0
C270	87	63	31	15	0	0	0	0	0

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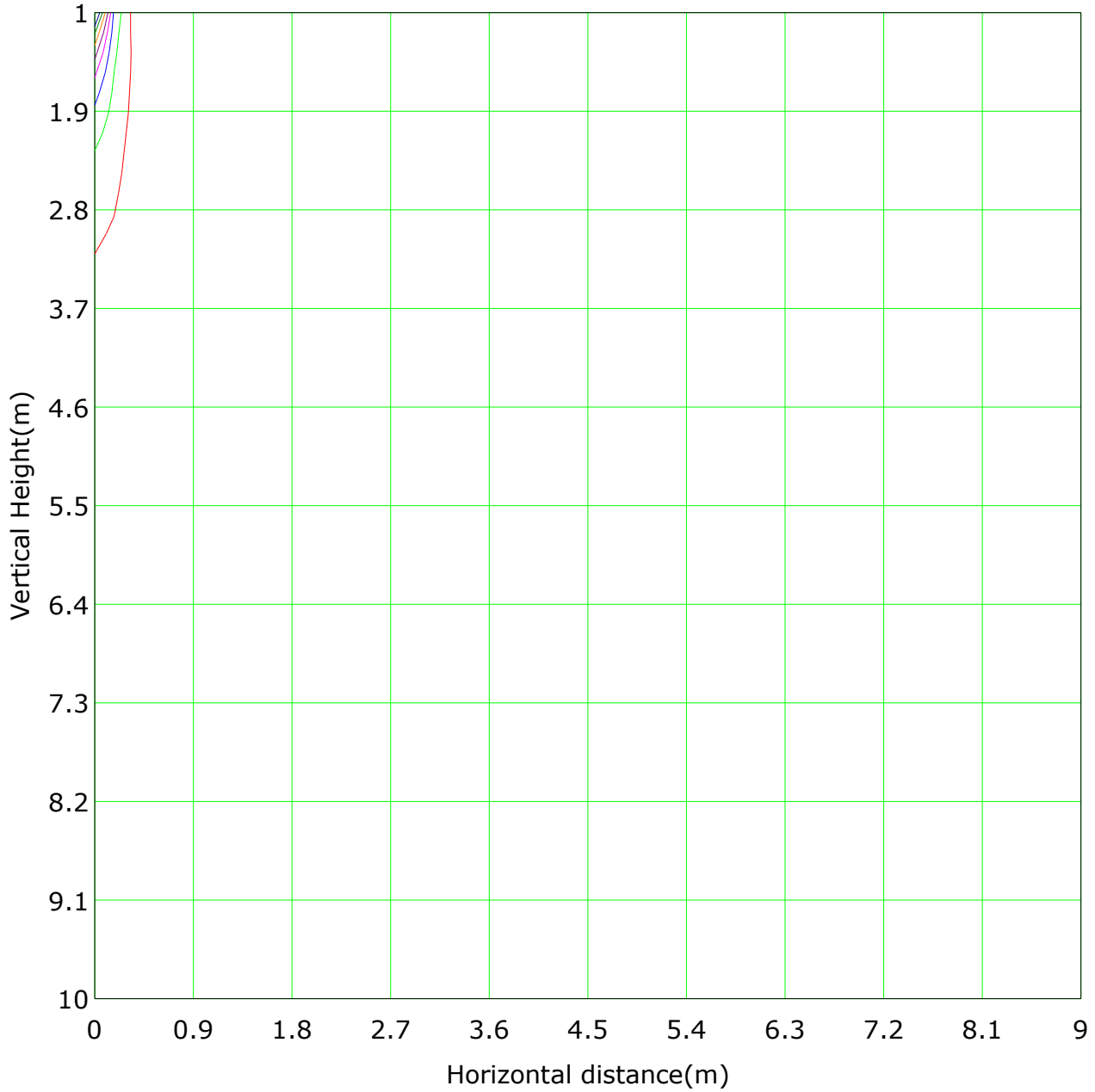
## Illuminance at a Distance



C Plane (°):0.0-360.0: 90.0  
 Test Lab: inventfine instruments  
 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: 7820.9 lx

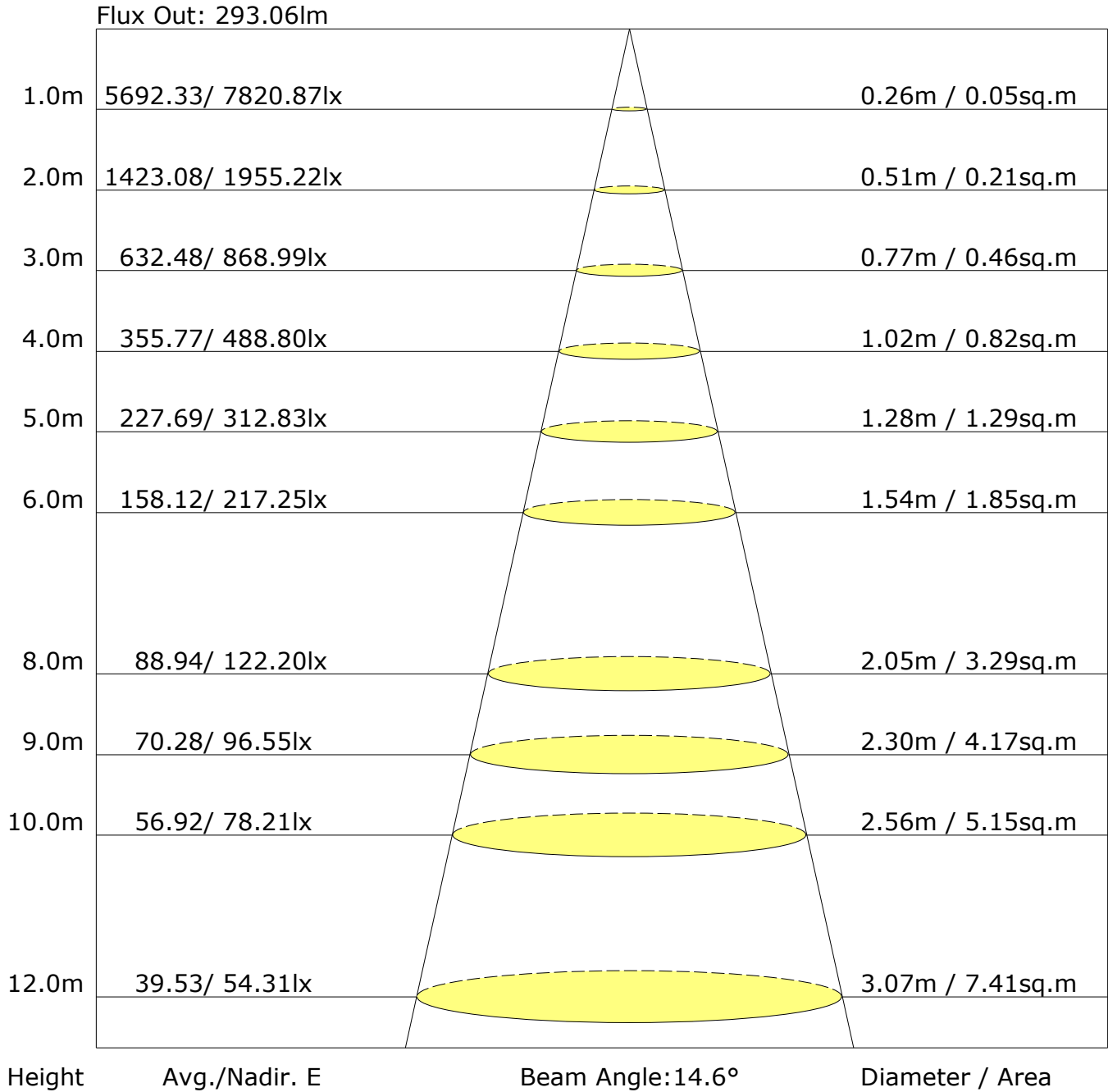
— ( 10%): 782.1 lx	— ( 20%): 1564.2 lx
— ( 30%): 2346.3 lx	— ( 40%): 3128.3 lx
— ( 50%): 3910.4 lx	— ( 60%): 4692.5 lx
— ( 70%): 5474.6 lx	— ( 80%): 6256.7 lx

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 Inspector:



## The Average Illuminance Effective Figure



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 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.\$
S=1.5H										-1.\$/-1.\$
S=2.0H										-1.\$/-1.\$

Calculate in accordance with CIE Pub.117. The table is revised with 1210lm ( $8\log(F/F_0) = 0.7$ ).

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 Distance: 8.684 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	7778.5	7.4	7.4	0.62	0.62
1.0-2.0	7620.2	21.9	29.3	1.81	2.42
2.0-3.0	7309.1	35.0	64.3	2.89	5.31
3.0-4.0	6832.1	45.7	110.0	3.78	9.09
4.0-5.0	6199.9	53.3	163.4	4.41	13.50
5.0-6.0	5414.4	56.9	220.3	4.70	18.21
6.0-7.0	4567.5	56.7	277.0	4.69	22.89
7.0-8.0	3820.0	54.7	331.6	4.52	27.41
8.0-9.0	3205.3	52.0	383.6	4.29	31.71
9.0-10.0	2732.3	49.5	433.1	4.09	35.79
10.0-11.0	2390.7	47.8	480.8	3.95	39.74
11.0-12.0	2117.1	46.3	527.1	3.83	43.57
12.0-13.0	1870.0	44.4	571.5	3.67	47.24
13.0-14.0	1649.0	42.2	613.7	3.49	50.73
14.0-15.0	1451.5	39.9	653.6	3.29	54.02
15.0-16.0	1260.4	36.9	690.5	3.05	57.07
16.0-17.0	1087.0	33.9	724.4	2.80	59.87
17.0-18.0	931.4	30.7	755.1	2.54	62.41
18.0-19.0	796.8	27.7	782.8	2.29	64.70
19.0-20.0	689.1	25.2	808.0	2.09	66.79
20.0-21.0	602.2	23.1	831.2	1.91	68.70
21.0-22.0	533.9	21.5	852.6	1.77	70.47
22.0-23.0	479.8	20.1	872.7	1.66	72.14
23.0-24.0	437.7	19.1	891.9	1.58	73.72
24.0-25.0	403.1	18.3	910.2	1.52	75.23
25.0-26.0	371.6	17.5	927.8	1.45	76.68
26.0-27.0	341.9	16.7	944.5	1.38	78.07
27.0-28.0	314.0	15.9	960.4	1.31	79.38
28.0-29.0	288.8	15.1	975.5	1.25	80.63
29.0-30.0	266.2	14.4	989.9	1.19	81.82
30.0-31.0	245.3	13.7	1003.5	1.13	82.95
31.0-32.0	226.1	13.0	1016.5	1.07	84.02
32.0-33.0	208.4	12.3	1028.8	1.01	85.03
33.0-34.0	192.4	11.6	1040.4	0.96	86.00
34.0-35.0	177.6	11.0	1051.4	0.91	86.91
35.0-36.0	164.3	10.5	1061.9	0.87	87.77

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 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	152.8	10.0	1071.9	0.82	88.60
37.0-38.0	142.2	9.5	1081.4	0.78	89.38
38.0-39.0	132.2	9.0	1090.4	0.75	90.13
39.0-40.0	123.2	8.6	1099.0	0.71	90.84
40.0-41.0	115.5	8.2	1107.2	0.68	91.52
41.0-42.0	108.2	7.9	1115.1	0.65	92.17
42.0-43.0	101.2	7.5	1122.6	0.62	92.79
43.0-44.0	94.8	7.2	1129.7	0.59	93.38
44.0-45.0	89.2	6.9	1136.6	0.57	93.94
45.0-46.0	83.5	6.5	1143.1	0.54	94.48
46.0-47.0	78.1	6.2	1149.3	0.51	95.00
47.0-48.0	73.3	5.9	1155.3	0.49	95.49
48.0-49.0	68.8	5.6	1160.9	0.47	95.96
49.0-50.0	64.2	5.4	1166.3	0.44	96.40
50.0-51.0	59.5	5.0	1171.3	0.42	96.81
51.0-52.0	54.0	4.6	1175.9	0.38	97.20
52.0-53.0	47.5	4.1	1180.1	0.34	97.54
53.0-54.0	40.8	3.6	1183.7	0.30	97.84
54.0-55.0	35.1	3.1	1186.8	0.26	98.10
55.0-56.0	29.9	2.7	1189.5	0.22	98.32
56.0-57.0	25.6	2.3	1191.9	0.19	98.51
57.0-58.0	22.1	2.0	1193.9	0.17	98.68
58.0-59.0	19.0	1.8	1195.7	0.15	98.83
59.0-60.0	16.4	1.5	1197.2	0.13	98.96
60.0-61.0	13.9	1.3	1198.5	0.11	99.07
61.0-62.0	11.0	1.1	1199.6	0.09	99.15
62.0-63.0	8.1	0.8	1200.4	0.07	99.22
63.0-64.0	4.2	0.4	1200.8	0.03	99.25
64.0-65.0	0.8	0.1	1200.9	0.01	99.26
65.0-66.0	0.0	0.0	1200.9	0.00	99.26
66.0-67.0	0.0	0.0	1200.9	0.00	99.26
67.0-68.0	0.0	0.0	1200.9	0.00	99.26
68.0-69.0	0.0	0.0	1200.9	0.00	99.26
69.0-70.0	0.0	0.0	1200.9	0.00	99.26
70.0-71.0	0.0	0.0	1200.9	0.00	99.26
71.0-72.0	0.0	0.0	1200.9	0.00	99.26

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 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	0.0	0.0	1200.9	0.00	99.26
73.0-74.0	0.0	0.0	1200.9	0.00	99.26
74.0-75.0	0.0	0.0	1200.9	0.00	99.26
75.0-76.0	0.0	0.0	1200.9	0.00	99.26
76.0-77.0	0.0	0.0	1200.9	0.00	99.26
77.0-78.0	0.0	0.0	1200.9	0.00	99.26
78.0-79.0	0.0	0.0	1200.9	0.00	99.26
79.0-80.0	0.0	0.0	1200.9	0.00	99.26
80.0-81.0	0.0	0.0	1200.9	0.00	99.26
81.0-82.0	0.0	0.0	1200.9	0.00	99.26
82.0-83.0	0.0	0.0	1200.9	0.00	99.26
83.0-84.0	0.0	0.0	1200.9	0.00	99.26
84.0-85.0	0.0	0.0	1200.9	0.00	99.26
85.0-86.0	0.0	0.0	1200.9	0.00	99.26
86.0-87.0	0.0	0.0	1200.9	0.00	99.26
87.0-88.0	0.0	0.0	1200.9	0.00	99.26
88.0-89.0	0.0	0.0	1200.9	0.00	99.26
89.0-90.0	0.0	0.0	1200.9	0.00	99.26
90.0-91.0	0.0	0.0	1200.9	0.00	99.26
91.0-92.0	0.0	0.0	1200.9	0.00	99.26
92.0-93.0	0.0	0.0	1200.9	0.00	99.26
93.0-94.0	0.0	0.0	1200.9	0.00	99.26
94.0-95.0	0.0	0.0	1200.9	0.00	99.26
95.0-96.0	0.0	0.0	1200.9	0.00	99.26
96.0-97.0	0.0	0.0	1200.9	0.00	99.26
97.0-98.0	0.0	0.0	1200.9	0.00	99.26
98.0-99.0	0.0	0.0	1200.9	0.00	99.26
99.0-100.0	0.0	0.0	1200.9	0.00	99.26
100.0-101.0	0.0	0.0	1200.9	0.00	99.26
101.0-102.0	0.0	0.0	1200.9	0.00	99.26
102.0-103.0	0.0	0.0	1200.9	0.00	99.26
103.0-104.0	0.0	0.0	1200.9	0.00	99.26
104.0-105.0	0.0	0.0	1200.9	0.00	99.26
105.0-106.0	0.0	0.0	1200.9	0.00	99.26
106.0-107.0	0.0	0.0	1200.9	0.00	99.26
107.0-108.0	0.0	0.0	1200.9	0.00	99.26

C Plane (°):0.0-360.0: 90.0  
 Test Lab: inventfine instruments  
 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 [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
108.0-109.0	0.0	0.0	1200.9	0.00	99.26
109.0-110.0	0.0	0.0	1200.9	0.00	99.26
110.0-111.0	0.0	0.0	1200.9	0.00	99.26
111.0-112.0	0.0	0.0	1200.9	0.00	99.26
112.0-113.0	0.0	0.0	1200.9	0.00	99.26
113.0-114.0	0.0	0.0	1200.9	0.00	99.26
114.0-115.0	0.0	0.0	1200.9	0.00	99.26
115.0-116.0	0.0	0.0	1200.9	0.00	99.26
116.0-117.0	0.0	0.0	1200.9	0.00	99.26
117.0-118.0	0.0	0.0	1200.9	0.00	99.26
118.0-119.0	0.0	0.0	1200.9	0.00	99.26
119.0-120.0	0.0	0.0	1200.9	0.00	99.26
120.0-121.0	0.0	0.0	1200.9	0.00	99.26
121.0-122.0	0.0	0.0	1200.9	0.00	99.26
122.0-123.0	0.0	0.0	1200.9	0.00	99.26
123.0-124.0	0.0	0.0	1200.9	0.00	99.26
124.0-125.0	0.0	0.0	1200.9	0.00	99.26
125.0-126.0	0.0	0.0	1200.9	0.00	99.26
126.0-127.0	0.0	0.0	1200.9	0.00	99.26
127.0-128.0	0.0	0.0	1200.9	0.00	99.26
128.0-129.0	0.0	0.0	1200.9	0.00	99.26
129.0-130.0	0.0	0.0	1200.9	0.00	99.26
130.0-131.0	0.0	0.0	1200.9	0.00	99.26
131.0-132.0	0.0	0.0	1200.9	0.00	99.26
132.0-133.0	0.0	0.0	1200.9	0.00	99.26
133.0-134.0	0.0	0.0	1200.9	0.00	99.26
134.0-135.0	0.0	0.0	1200.9	0.00	99.26
135.0-136.0	0.0	0.0	1200.9	0.00	99.26
136.0-137.0	0.0	0.0	1200.9	0.00	99.26
137.0-138.0	0.0	0.0	1200.9	0.00	99.26
138.0-139.0	0.0	0.0	1200.9	0.00	99.26
139.0-140.0	0.0	0.0	1200.9	0.00	99.26
140.0-141.0	0.0	0.0	1200.9	0.00	99.26
141.0-142.0	0.0	0.0	1200.9	0.00	99.26
142.0-143.0	0.7	0.0	1200.9	0.00	99.26
143.0-144.0	1.5	0.1	1201.0	0.01	99.27

C Plane (°):0.0-360.0: 90.0  
 Test Lab: inventfine instruments  
 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	3.1	0.2	1201.2	0.02	99.29
145.0-146.0	4.7	0.3	1201.5	0.02	99.31
146.0-147.0	5.0	0.3	1201.8	0.03	99.34
147.0-148.0	5.3	0.3	1202.1	0.03	99.36
148.0-149.0	5.6	0.3	1202.5	0.03	99.39
149.0-150.0	6.7	0.4	1202.8	0.03	99.42
150.0-151.0	7.8	0.4	1203.2	0.03	99.45
151.0-152.0	8.1	0.4	1203.7	0.04	99.49
152.0-153.0	8.4	0.4	1204.1	0.03	99.52
153.0-154.0	8.6	0.4	1204.5	0.03	99.56
154.0-155.0	9.0	0.4	1204.9	0.04	99.59
155.0-156.0	9.1	0.4	1205.4	0.03	99.63
156.0-157.0	9.4	0.4	1205.8	0.03	99.66
157.0-158.0	9.5	0.4	1206.2	0.03	99.69
158.0-159.0	9.4	0.4	1206.5	0.03	99.73
159.0-160.0	9.2	0.4	1206.9	0.03	99.76
160.0-161.0	9.1	0.3	1207.2	0.03	99.78
161.0-162.0	9.0	0.3	1207.5	0.03	99.81
162.0-163.0	8.9	0.3	1207.8	0.02	99.83
163.0-164.0	8.8	0.3	1208.1	0.02	99.86
164.0-165.0	8.6	0.3	1208.4	0.02	99.88
165.0-166.0	8.4	0.2	1208.6	0.02	99.90
166.0-167.0	8.2	0.2	1208.8	0.02	99.91
167.0-168.0	8.0	0.2	1209.0	0.02	99.93
168.0-169.0	7.8	0.2	1209.2	0.01	99.94
169.0-170.0	7.0	0.1	1209.3	0.01	99.95
170.0-171.0	6.8	0.1	1209.4	0.01	99.96
171.0-172.0	6.6	0.1	1209.5	0.01	99.97
172.0-173.0	6.4	0.1	1209.6	0.01	99.98
173.0-174.0	6.2	0.1	1209.7	0.01	99.99
174.0-175.0	4.4	0.0	1209.7	0.00	99.99
175.0-176.0	4.2	0.0	1209.8	0.00	99.99
176.0-177.0	4.8	0.0	1209.8	0.00	100.00
177.0-178.0	4.7	0.0	1209.8	0.00	100.00
178.0-179.0	4.7	0.0	1209.8	0.00	100.00
179.0-180.0	4.7	0.0	1209.9	0.00	100.00

C Plane (°):0.0-360.0: 90.0  
 Test Lab: inventfine instruments  
 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°): 1136.59 lm

%lum = 93.9%  
%lamp = 93.9%

cone flux(120°): 1197.21 lm

%lum = 99.0%  
%lamp = 99.0%

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C Plane (°):0.0-360.0: 90.0  
Test Lab: inventfine instruments  
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

Unit: cd

G\C	C0.0	C90.0	C180.0	C270.0	C360.0					
G0.0	7820.9	7820.9	7820.9	7820.9	7820.9					
G1.0	7604.1	7695.2	7866.4	7779.0	7604.1					
G2.0	7235.6	7431.5	7761.2	7588.4	7235.6					
G3.0	6695.3	6970.5	7515.8	7274.7	6695.3					
G4.0	6028.8	6359.9	7082.2	6729.4	6028.8					
G5.0	5202.3	5589.9	6549.8	6057.2	5202.3					
G6.0	4251.3	4660.7	5747.7	5256.6	4251.3					
G7.0	3516.9	3882.3	4887.0	4337.8	3516.9					
G8.0	2985.9	3283.2	4048.4	3618.6	2985.9					
G9.0	2553.2	2780.9	3314.2	3057.6	2553.2					
G10.0	2268.7	2446.7	2842.1	2594.9	2268.7					
G11.0	2018.8	2162.0	2495.2	2297.1	2018.8					
G12.0	1763.0	1917.6	2235.1	2048.4	1763.0					
G13.0	1575.0	1682.2	1957.4	1781.3	1575.0					
G14.0	1369.3	1488.7	1753.6	1584.9	1369.3					
G15.0	1177.1	1306.1	1556.6	1375.7	1177.1					
G16.0	1006.4	1138.3	1331.9	1190.6	1006.4					
G17.0	866.9	976.0	1162.1	1023.4	866.9					
G18.0	734.2	849.5	985.2	853.8	734.2					
G19.0	626.3	745.8	849.1	730.5	626.3					
G20.0	548.5	656.8	727.9	628.2	548.5					
G21.0	492.2	589.2	627.2	547.4	492.2					
G22.0	450.9	535.8	539.7	488.7	450.9					
G23.0	413.8	485.2	480.6	443.9	413.8					
G24.0	382.1	443.9	439.3	412.5	382.1					
G25.0	353.8	407.0	402.2	383.9	353.8					
G26.0	325.5	372.9	372.2	355.9	325.5					
G27.0	298.3	337.6	345.0	328.1	298.3					
G28.0	272.8	309.9	317.3	303.0	272.8					
G29.0	250.8	283.9	294.1	279.0	250.8					
G30.0	231.8	261.7	272.3	256.2	231.8					
G31.0	212.0	242.0	252.5	234.3	212.0					
G32.0	196.1	221.8	232.7	217.2	196.1					
G33.0	181.1	204.8	213.4	200.2	181.1					
G34.0	168.4	189.5	197.3	184.3	168.4					
G35.0	157.1	175.0	179.7	169.5	157.1					
G36.0	145.5	162.3	167.3	158.3	145.5					

C Plane (°):0.0-360.0: 90.0  
 Test Lab: inventfine instruments  
 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	135.9	149.9	155.9	147.6	135.9					
G38.0	126.8	139.2	145.2	137.5	126.8					
G39.0	118.0	129.1	134.4	127.4	118.0					
G40.0	111.2	120.4	126.2	119.0	111.2					
G41.0	104.2	112.7	118.6	111.8	104.2					
G42.0	98.2	104.8	110.9	104.6	98.2					
G43.0	91.4	97.3	103.9	98.5	91.4					
G44.0	85.5	91.3	97.9	92.7	85.5					
G45.0	80.7	85.2	92.8	87.2	80.7					
G46.0	75.0	79.4	86.3	81.5	75.0					
G47.0	69.9	73.7	81.5	77.4	69.9					
G48.0	65.7	69.3	76.7	72.5	65.7					
G49.0	61.4	64.4	72.2	67.9	61.4					
G50.0	56.9	60.1	67.6	63.3	56.9					
G51.0	50.7	55.7	63.7	58.1	50.7					
G52.0	45.0	49.4	57.7	52.0	45.0					
G53.0	39.3	43.3	50.1	43.0	39.3					
G54.0	33.1	37.8	43.6	36.4	33.1					
G55.0	29.2	32.6	36.8	31.2	29.2					
G56.0	24.6	28.0	30.6	26.6	24.6					
G57.0	20.9	24.3	26.9	23.1	20.9					
G58.0	17.8	20.2	23.2	19.9	17.8					
G59.0	16.1	17.6	19.5	17.3	16.1					
G60.0	13.0	15.3	17.0	15.0	13.0					
G61.0	11.0	12.7	15.0	12.1	11.0					
G62.0	7.9	9.5	11.0	8.7	7.9					
G63.0	5.9	6.6	8.8	6.4	5.9					
G64.0	0.0	0.0	6.2	0.0	0.0					
G65.0	0.0	0.0	0.0	0.0	0.0					
G66.0	0.0	0.0	0.0	0.0	0.0					
G67.0	0.0	0.0	0.0	0.0	0.0					
G68.0	0.0	0.0	0.0	0.0	0.0					
G69.0	0.0	0.0	0.0	0.0	0.0					
G70.0	0.0	0.0	0.0	0.0	0.0					
G71.0	0.0	0.0	0.0	0.0	0.0					
G72.0	0.0	0.0	0.0	0.0	0.0					
G73.0	0.0	0.0	0.0	0.0	0.0					

C Plane (°):0.0-360.0: 90.0  
 Test Lab: inventfine instruments  
 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	0.0	0.0	0.0	0.0	0.0					
G75.0	0.0	0.0	0.0	0.0	0.0					
G76.0	0.0	0.0	0.0	0.0	0.0					
G77.0	0.0	0.0	0.0	0.0	0.0					
G78.0	0.0	0.0	0.0	0.0	0.0					
G79.0	0.0	0.0	0.0	0.0	0.0					
G80.0	0.0	0.0	0.0	0.0	0.0					
G81.0	0.0	0.0	0.0	0.0	0.0					
G82.0	0.0	0.0	0.0	0.0	0.0					
G83.0	0.0	0.0	0.0	0.0	0.0					
G84.0	0.0	0.0	0.0	0.0	0.0					
G85.0	0.0	0.0	0.0	0.0	0.0					
G86.0	0.0	0.0	0.0	0.0	0.0					
G87.0	0.0	0.0	0.0	0.0	0.0					
G88.0	0.0	0.0	0.0	0.0	0.0					
G89.0	0.0	0.0	0.0	0.0	0.0					
G90.0	0.0	0.0	0.0	0.0	0.0					
G91.0	0.0	0.0	0.0	0.0	0.0					
G92.0	0.0	0.0	0.0	0.0	0.0					
G93.0	0.0	0.0	0.0	0.0	0.0					
G94.0	0.0	0.0	0.0	0.0	0.0					
G95.0	0.0	0.0	0.0	0.0	0.0					
G96.0	0.0	0.0	0.0	0.0	0.0					
G97.0	0.0	0.0	0.0	0.0	0.0					
G98.0	0.0	0.0	0.0	0.0	0.0					
G99.0	0.0	0.0	0.0	0.0	0.0					
G100.0	0.0	0.0	0.0	0.0	0.0					
G101.0	0.0	0.0	0.0	0.0	0.0					
G102.0	0.0	0.0	0.0	0.0	0.0					
G103.0	0.0	0.0	0.0	0.0	0.0					
G104.0	0.0	0.0	0.0	0.0	0.0					
G105.0	0.0	0.0	0.0	0.0	0.0					
G106.0	0.0	0.0	0.0	0.0	0.0					
G107.0	0.0	0.0	0.0	0.0	0.0					
G108.0	0.0	0.0	0.0	0.0	0.0					
G109.0	0.0	0.0	0.0	0.0	0.0					
G110.0	0.0	0.0	0.0	0.0	0.0					

C Plane (°):0.0-360.0: 90.0  
 Test Lab: inventfine instruments  
 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	0.0	0.0	0.0	0.0	0.0					
G112.0	0.0	0.0	0.0	0.0	0.0					
G113.0	0.0	0.0	0.0	0.0	0.0					
G114.0	0.0	0.0	0.0	0.0	0.0					
G115.0	0.0	0.0	0.0	0.0	0.0					
G116.0	0.0	0.0	0.0	0.0	0.0					
G117.0	0.0	0.0	0.0	0.0	0.0					
G118.0	0.0	0.0	0.0	0.0	0.0					
G119.0	0.0	0.0	0.0	0.0	0.0					
G120.0	0.0	0.0	0.0	0.0	0.0					
G121.0	0.0	0.0	0.0	0.0	0.0					
G122.0	0.0	0.0	0.0	0.0	0.0					
G123.0	0.0	0.0	0.0	0.0	0.0					
G124.0	0.0	0.0	0.0	0.0	0.0					
G125.0	0.0	0.0	0.0	0.0	0.0					
G126.0	0.0	0.0	0.0	0.0	0.0					
G127.0	0.0	0.0	0.0	0.0	0.0					
G128.0	0.0	0.0	0.0	0.0	0.0					
G129.0	0.0	0.0	0.0	0.0	0.0					
G130.0	0.0	0.0	0.0	0.0	0.0					
G131.0	0.0	0.0	0.0	0.0	0.0					
G132.0	0.0	0.0	0.0	0.0	0.0					
G133.0	0.0	0.0	0.0	0.0	0.0					
G134.0	0.0	0.0	0.0	0.0	0.0					
G135.0	0.0	0.0	0.0	0.0	0.0					
G136.0	0.0	0.0	0.0	0.0	0.0					
G137.0	0.0	0.0	0.0	0.0	0.0					
G138.0	0.0	0.0	0.0	0.0	0.0					
G139.0	0.0	0.0	0.0	0.0	0.0					
G140.0	0.0	0.0	0.0	0.0	0.0					
G141.0	0.0	0.0	0.0	0.0	0.0					
G142.0	0.0	0.0	0.0	0.0	0.0					
G143.0	5.7	0.0	0.0	0.0	5.7					
G144.0	6.2	0.0	0.0	0.0	6.2					
G145.0	6.8	5.8	5.7	0.0	6.8					
G146.0	7.4	6.4	5.9	0.0	7.4					
G147.0	7.1	6.9	6.5	0.0	7.1					

C Plane (°):0.0-360.0: 90.0  
 Test Lab: inventfine instruments  
 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	7.6	7.5	6.8	0.0	7.6					
G149.0	8.5	7.5	6.8	0.0	8.5					
G150.0	9.3	8.4	7.1	5.8	9.3					
G151.0	9.6	9.0	7.1	5.8	9.6					
G152.0	9.9	9.5	7.6	6.4	9.9					
G153.0	10.2	9.5	7.9	5.8	10.2					
G154.0	10.8	10.1	7.9	6.4	10.8					
G155.0	11.6	10.7	8.2	6.4	11.6					
G156.0	11.3	11.0	7.9	6.1	11.3					
G157.0	12.2	11.3	8.5	6.6	12.2					
G158.0	11.6	11.3	8.2	6.4	11.6					
G159.0	11.3	11.3	8.5	6.4	11.3					
G160.0	11.3	10.7	8.5	6.1	11.3					
G161.0	11.0	10.1	8.8	6.4	11.0					
G162.0	10.5	9.8	8.8	6.6	10.5					
G163.0	11.0	9.8	8.8	6.1	11.0					
G164.0	10.5	9.2	9.1	6.1	10.5					
G165.0	10.2	8.7	8.8	6.4	10.2					
G166.0	9.3	8.1	9.1	6.4	9.3					
G167.0	9.6	8.1	8.8	6.4	9.6					
G168.0	9.1	7.8	8.5	5.8	9.1					
G169.0	8.5	7.8	8.5	6.4	8.5					
G170.0	8.2	7.8	8.5	0.0	8.2					
G171.0	7.9	7.5	8.8	5.8	7.9					
G172.0	7.9	6.9	8.2	0.0	7.9					
G173.0	7.6	6.9	7.6	6.1	7.6					
G174.0	7.1	6.6	7.6	0.0	7.1					
G175.0	6.5	0.0	7.1	0.0	6.5					
G176.0	6.5	6.1	7.1	0.0	6.5					
G177.0	5.9	0.0	7.1	5.8	5.9					
G178.0	5.9	5.8	7.1	0.0	5.9					
G179.0	6.2	0.0	6.8	5.8	6.2					
G180.0	5.9	0.0	6.8	6.1	5.9					

C Plane (°):0.0-360.0: 90.0  
 Test Lab: inventfine instruments  
 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 <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

C Plane (°):0.0-360.0: 90.0  
 Test Lab: inventfine instruments  
 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: