HAVIT COMMERCIAL
http://www.havitcommercial.com.au
Tel: 02 9381 8383
E-mail:sales@havitcommercial.com.au

Report No.: 8

Test Time: 2019/6/19 16:03

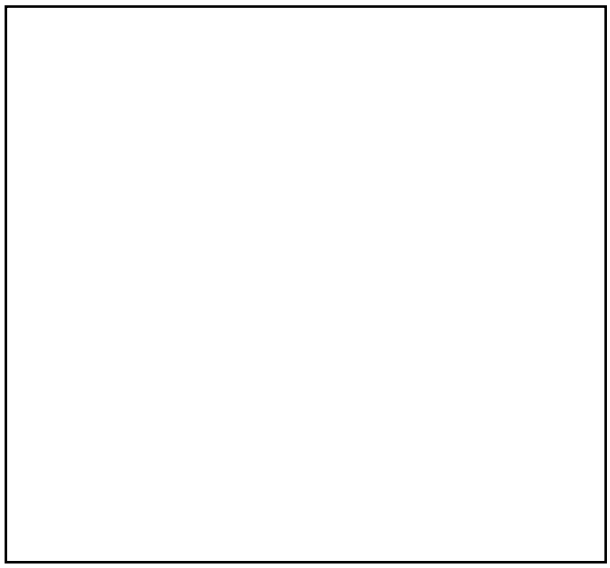
Luminaire Property

Luminaire Manufacturer:HAVIT COMMERCIAL
Luminaire Description: HCP-89X2004-3K
Voltage: 220 V
Current: 0.083 A
Power: 17.59 W
Power Factor: 0.969

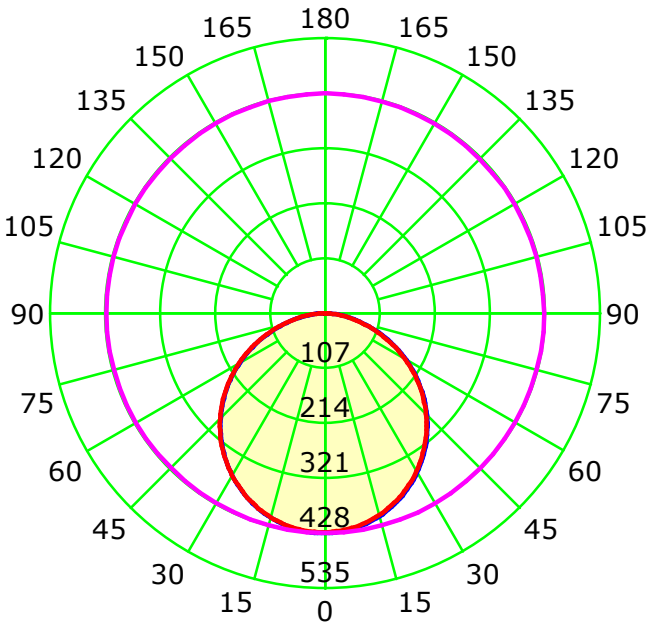
Photometric Results

CIE Class: Direct
Total Rated Lamp Lumens: 1214.4 lm
Measurement Flux: 1214.4 lm
Efficiency: 100%
Downward Ratio: 100%
Upward Ratio: 0%
Horizontal Diffuse Angle(50%): H112.2
Vertical Diffuse Angle(50%): V112.4
Luminaire Efficacy Rating (LER): 69.09
Central Intensity: 428.25 cd
Max. Intensity: 428.3 cd
Pos of Max. Intensity: H180 V1
S/MH(C0/C180): 1.25
S/MH(C90/C270): 1.25

Picture Of Luminaire



Luminous Intensity Distribution Curve

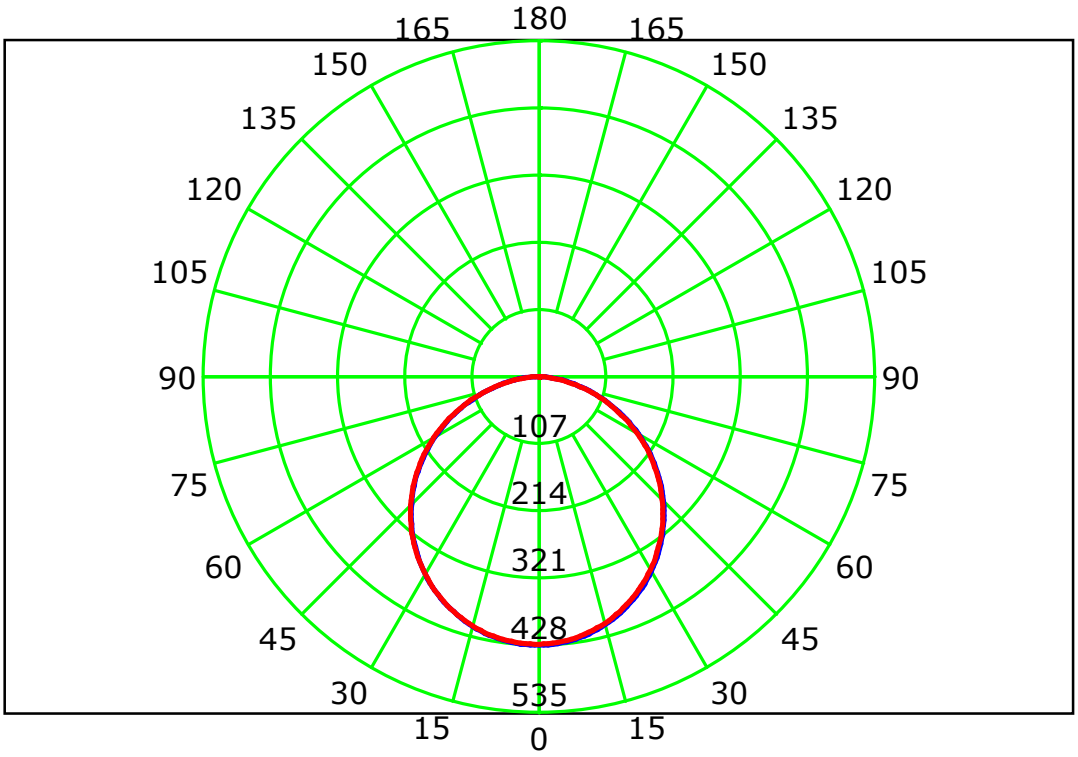


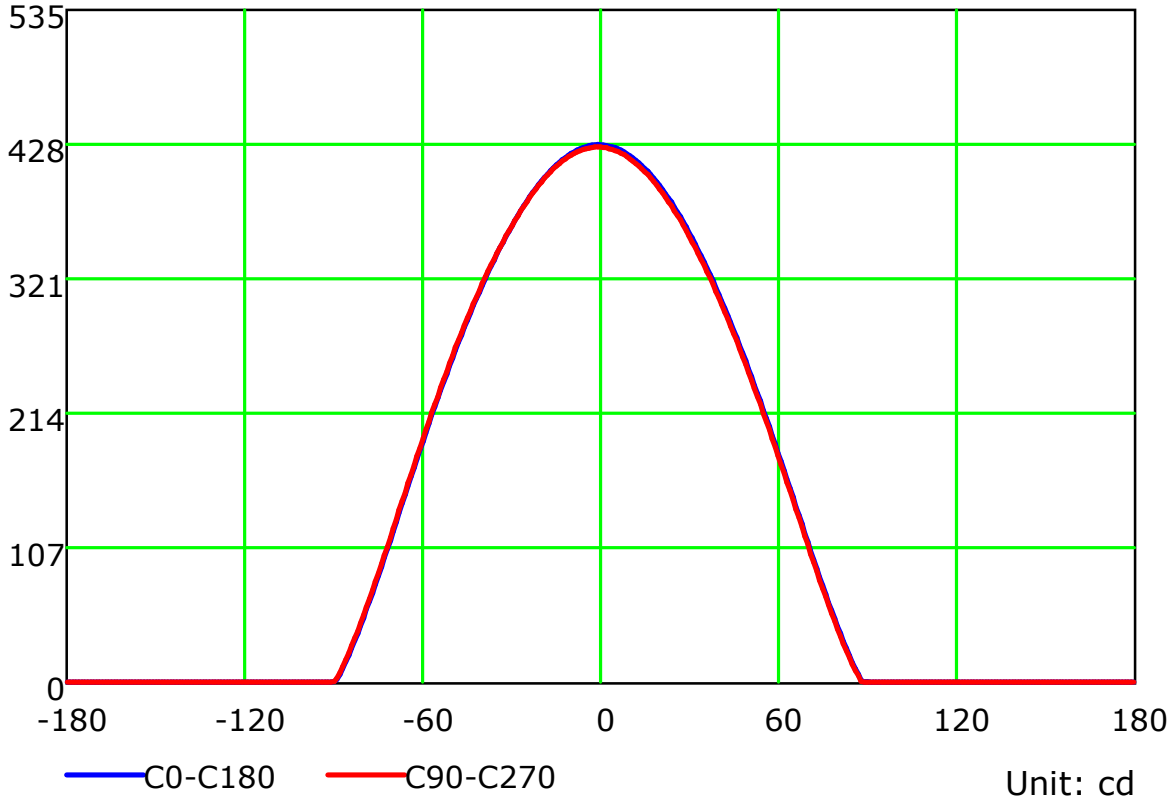
Unit: cd
Average Diffuse Angle(50%): 112.3°
C0-C180 C90-C270 G1

C Plane (°):0.0-360.0: 45.0
Gamma Plane (°):0.0-180.0:1.0
Test Lab: Inventfine instruments
Test Device: GPM-1800B
Test Type: TYPE C
Distance: 8.509 m
Temperature: 26
Humidity: 55
Operator: Jacky tang
Inspector:

HAVIT COMMERCIAL
http://www.havitcommercial.com.au
Tel: 02 9381 8383
E-mail:sales@havitcommercial.com.au

Luminous Intensity Distribution Curve





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

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
Inspector:

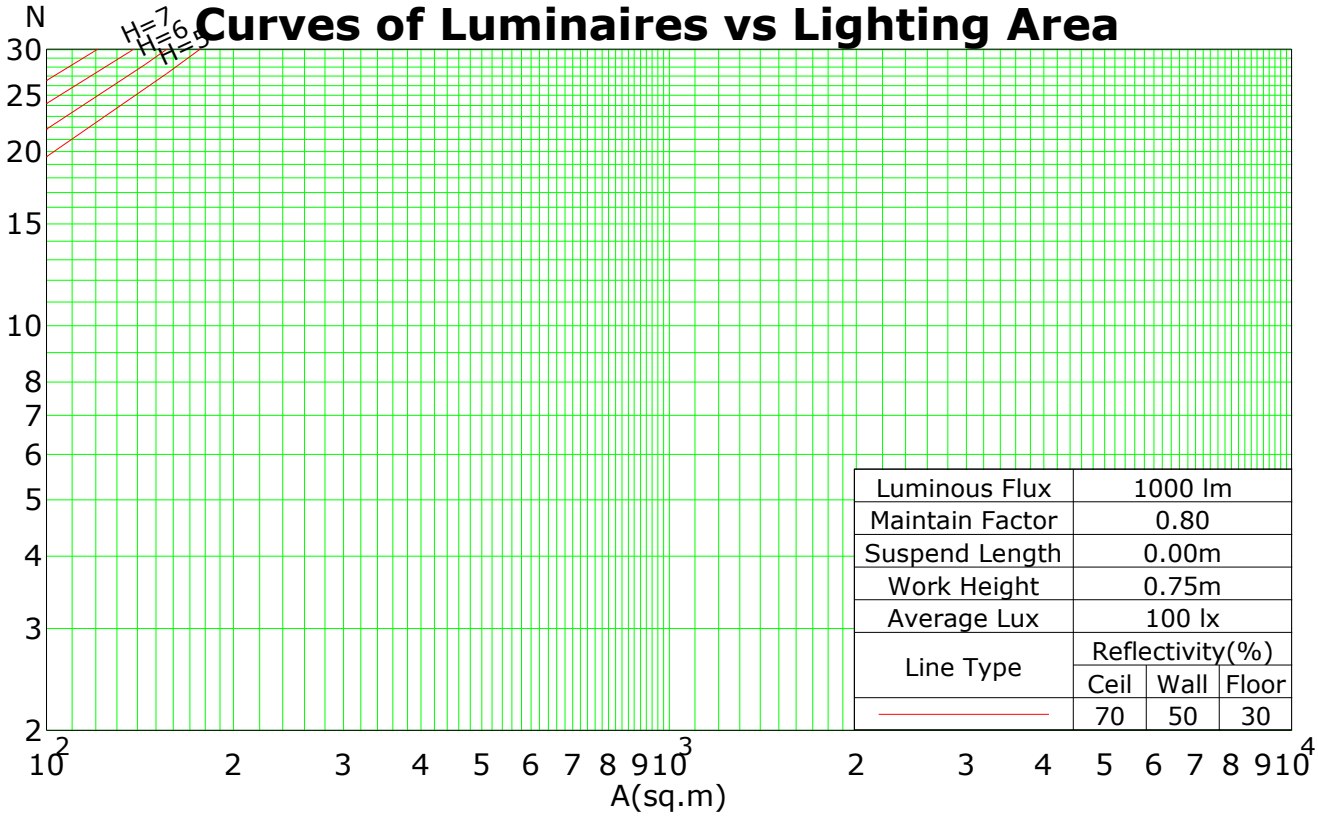
HAVIT COMMERCIAL
http://www.havitcommercial.com.au
Tel: 02 9381 8383
E-mail:sales@havitcommercial.com.au

Coefficients Of Utilization - Zonal Cavity Method

RC	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.3	0.3	0.3	0.1	0.1	0.1	0
RW	0.7	0.5	0.3	0.1	0.7	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0
RCR	RF = 0.2																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	56	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

Spacing Criteria (0-180): 1.25
Spacing Criteria (90-270): 1.25
Spacing Criteria (Diagonal): 1.37

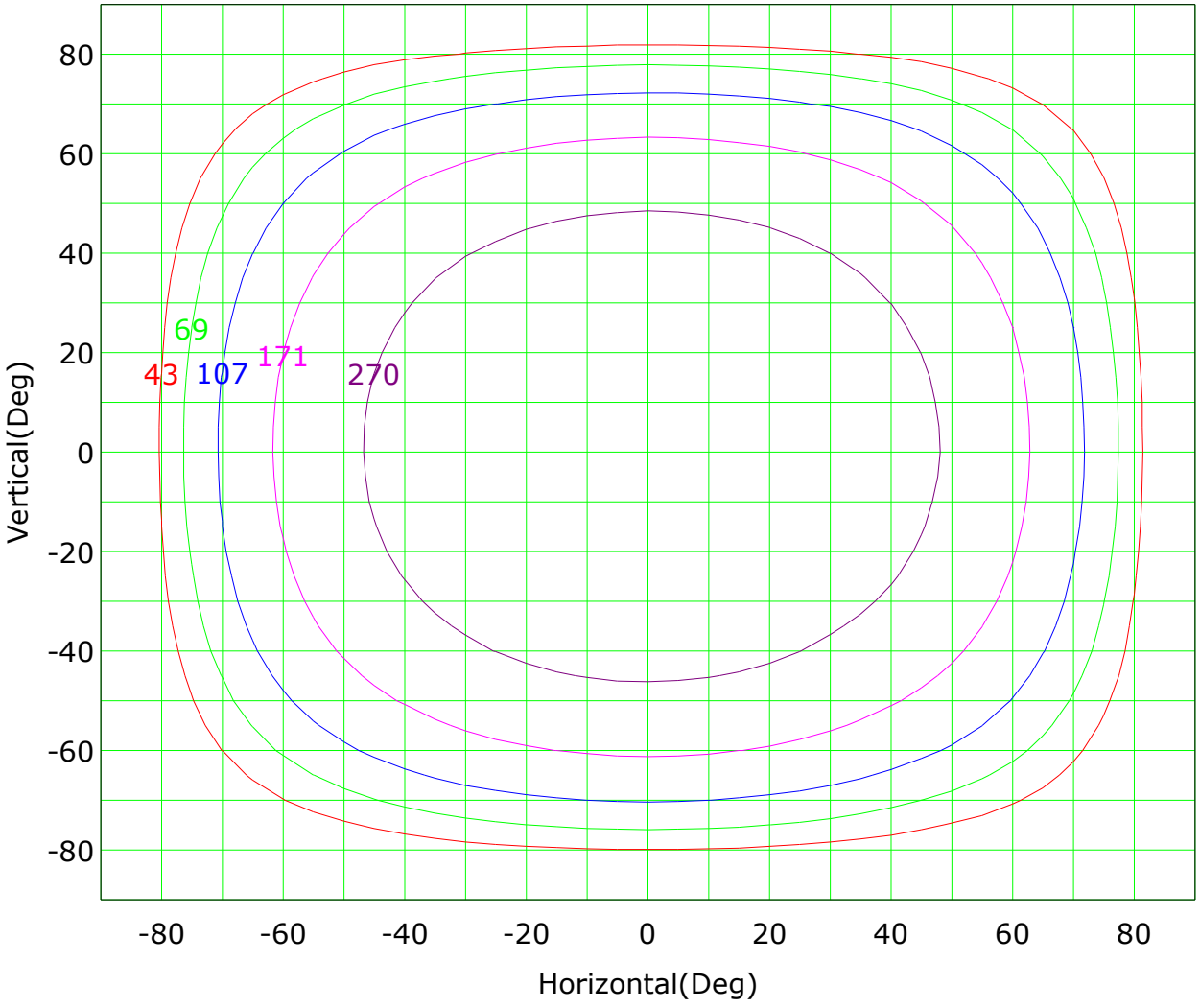
Curves of Luminaires vs Lighting Area



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

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
Inspector:

Isocandela (rectangle)



Imax (100%): 428 cd

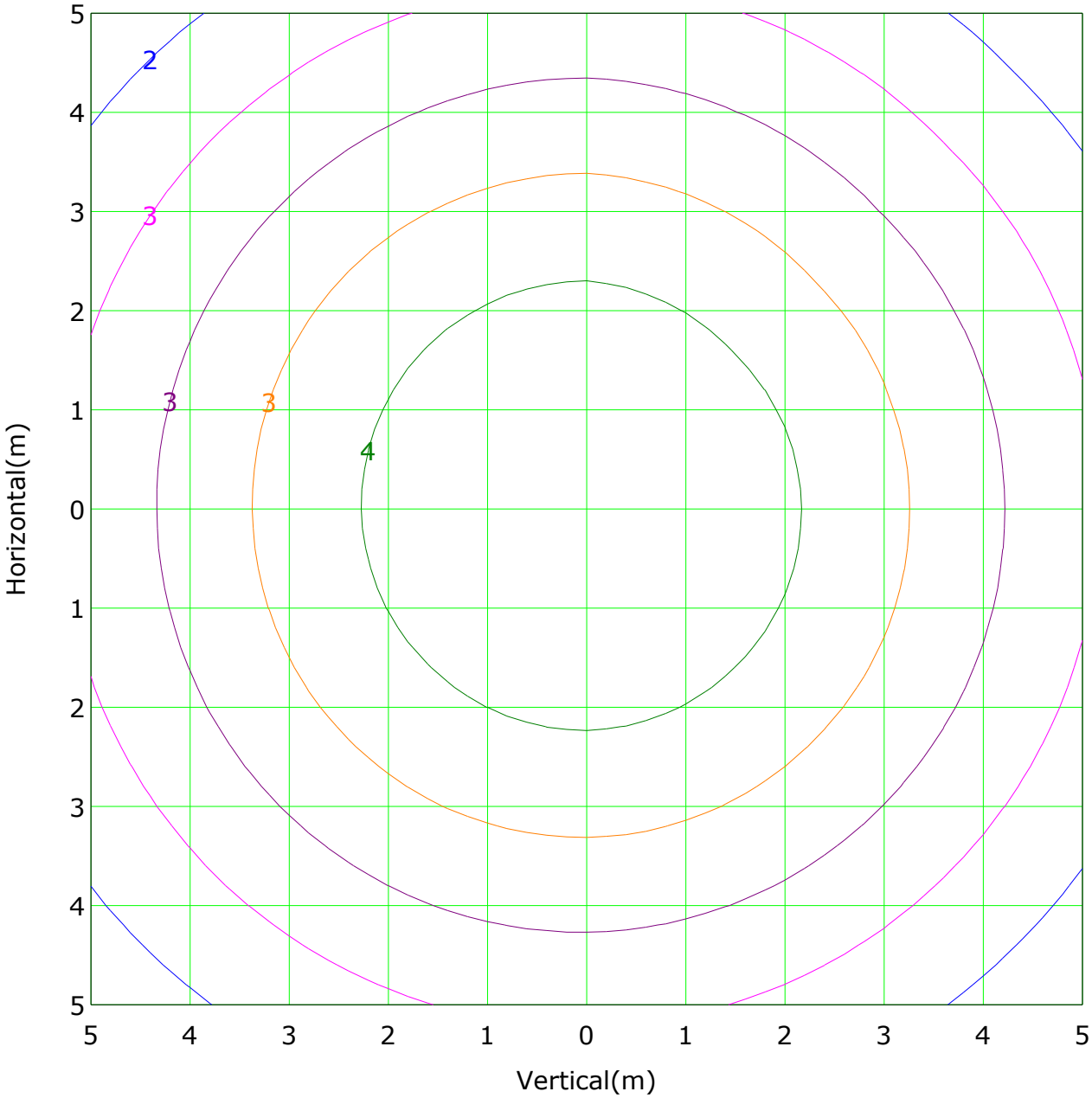
(10%): 43 cd	(16%): 69 cd
(25%): 107 cd	(40%): 171 cd
(63%): 270 cd	(100%): 428 cd

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

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
Inspector:

HAVIT COMMERCIAL
http://www.havitcommercial.com.au
Tel: 02 9381 8383
E-mail:sales@havitcommercial.com.au

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 4.3 lx

(30%): 1.3 lx	(40%): 1.7 lx
(50%): 2.1 lx	(60%): 2.6 lx
(70%): 3.0 lx	(80%): 3.4 lx
(90%): 3.9 lx	(100%): 4.3 lx
(120%): 5.1 lx	(150%): 6.4 lx

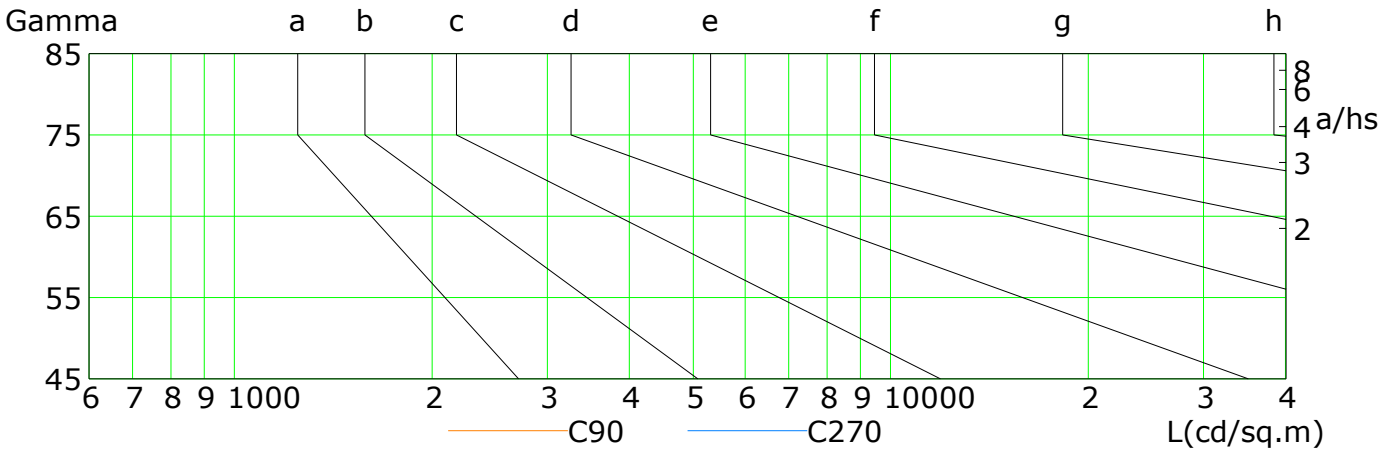
C Plane (°):0.0-360.0: 45.0
Test Lab: Inventfine instruments
Test Type: TYPE C
Temperature: 26
Operator: Jacky tang

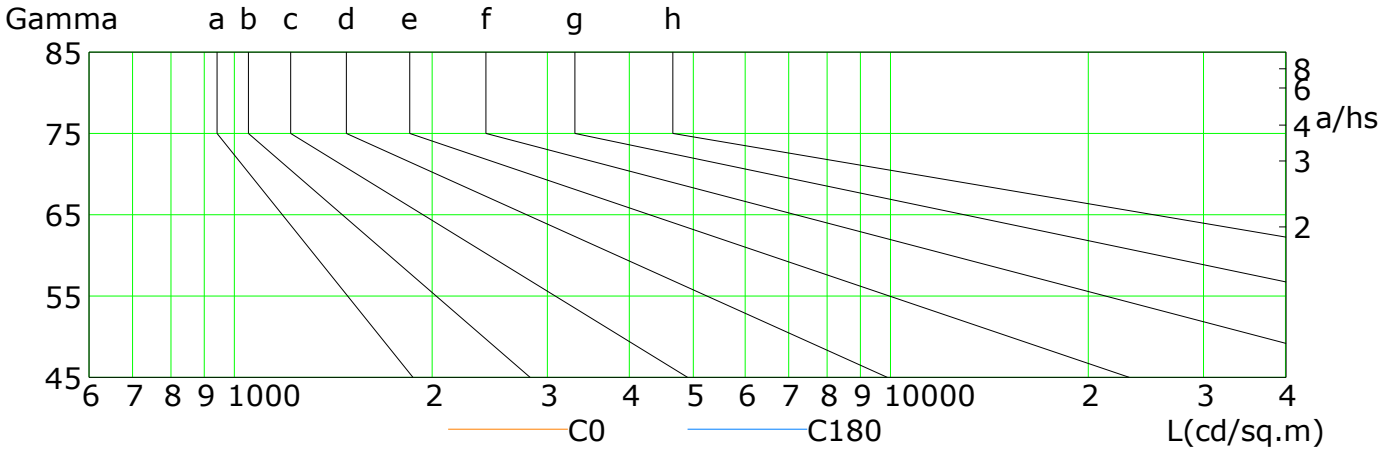
Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
Inspector:

HAVIT COMMERCIAL
http://www.havitcommercial.com.au
Tel: 02 9381 8383
E-mail:sales@havitcommercial.com.au

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





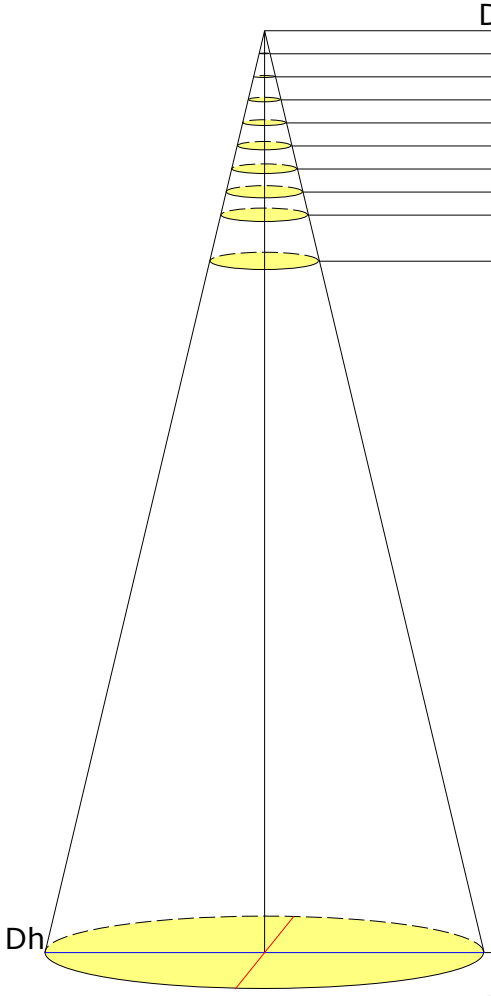
L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	280	250	217	183	148	112	77	45	16
C90	278	247	214	181	145	110	75	43	14
C180	288	258	226	192	156	120	85	51	22
C270	290	260	228	194	159	123	87	54	24

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

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
Inspector:

HAVIT COMMERCIAL
http://www.havitcommercial.com.au
Tel: 02 9381 8383
E-mail:sales@havitcommercial.com.au

Illuminance at a Distance



Dist(m)	Enadir(lx)	Dh/Dv_B(m)	S_B(sq.m)	Eav_B(lx)
1.0	428.25	2.98/2.99	7.0	71.79
2.0	107.06	5.95/5.98	27.8	17.95
3.0	47.58	8.93/8.97	62.6	7.98
4.0	26.77	11.91/11.95	111.2	4.49
5.0	17.13	14.88/14.94	173.8	2.87
6.0	11.90	17.86/17.93	250.2	1.99
7.0	8.74	20.84/20.92	340.6	1.47
8.0	6.69	23.81/23.91	444.9	1.12
10.0	4.28	29.77/29.88	695.1	0.72
40.0	0.27	119.06/119.53	11121.5	0.04

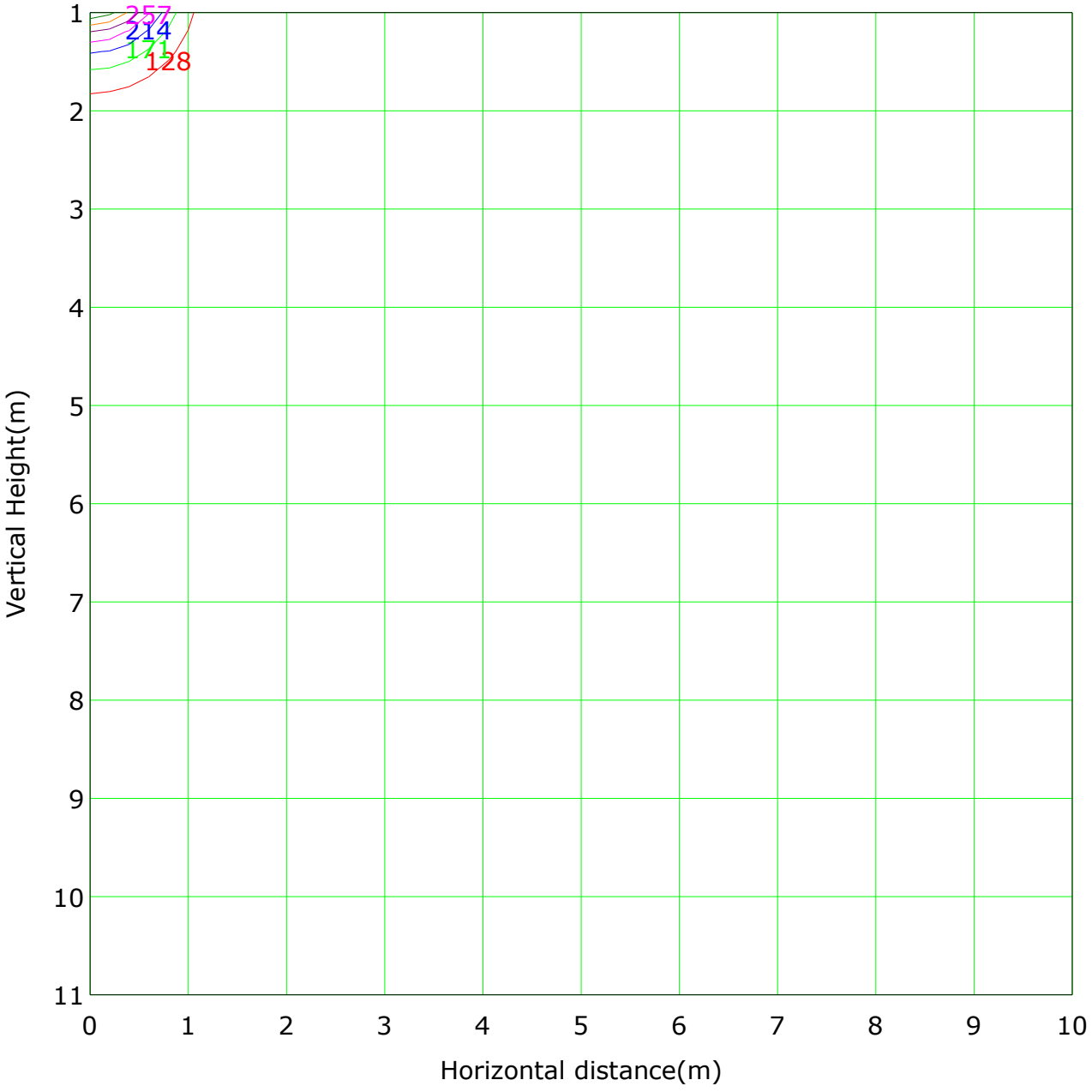
Beam Angle(B): H112.2 V112.4 Field Angle(F): H161.7 V161.8

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

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
Inspector:

HAVIT COMMERCIAL
http://www.havitcommercial.com.au
Tel: 02 9381 8383
E-mail:sales@havitcommercial.com.au

Vertical IsoLux Plot



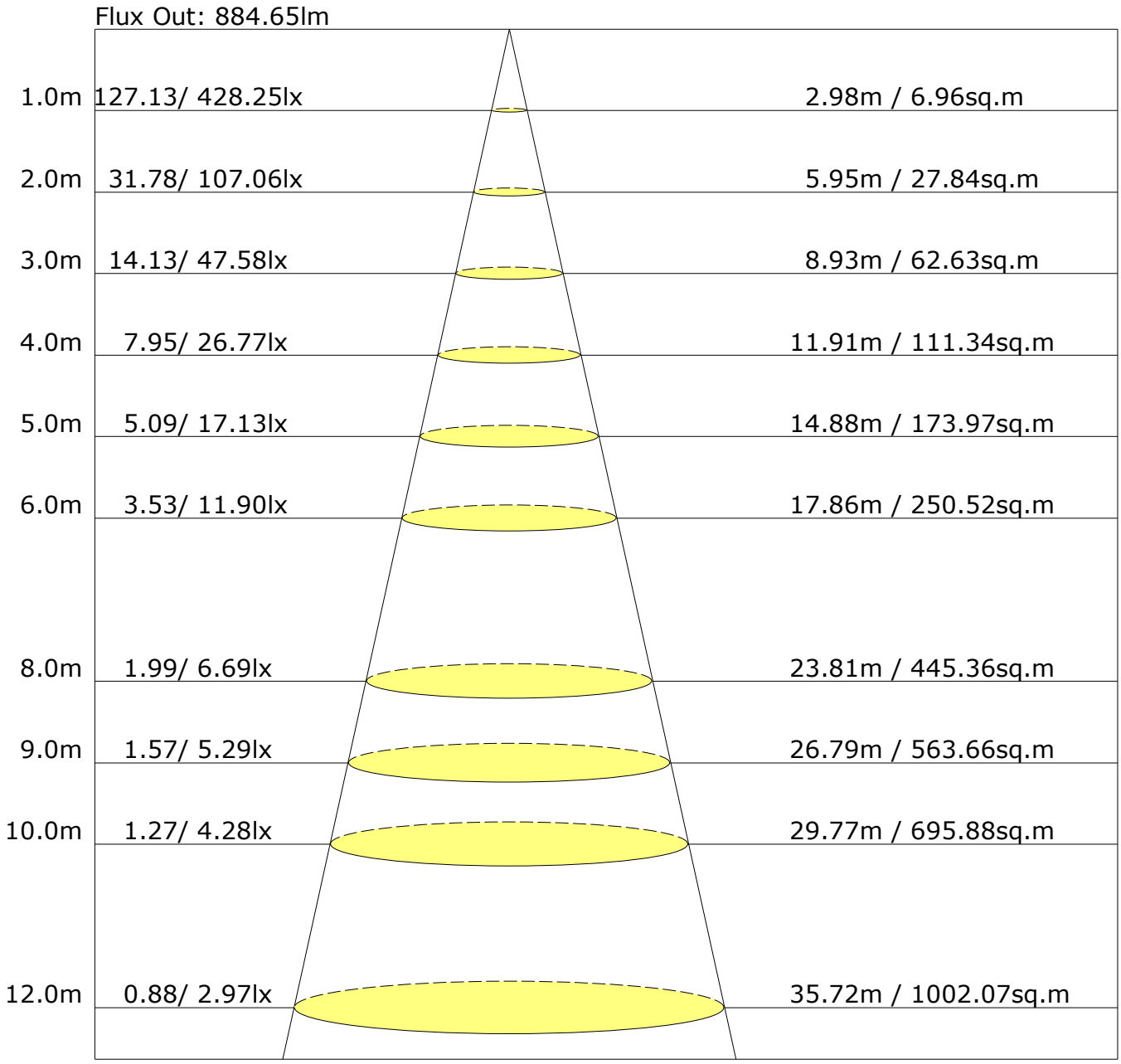
Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 428.3 lx

(30%): 128.5 lx	(40%): 171.3 lx
(50%): 214.1 lx	(60%): 256.9 lx
(70%): 299.8 lx	(80%): 342.6 lx
(90%): 385.4 lx	(100%): 428.3 lx
(120%): 513.9 lx	(150%): 642.4 lx

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

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
Inspector:

The Average Illuminance Effective Figure



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

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
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 1214lm (8log(F/F0) = 0.7).

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

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
Inspector:

Zonal Lumen

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	426.9	0.4	0.4	0.03	0.03
1.0-2.0	426.7	1.2	1.6	0.10	0.13
2.0-3.0	426.4	2.0	3.7	0.17	0.30
3.0-4.0	425.9	2.9	6.5	0.23	0.54
4.0-5.0	425.3	3.7	10.2	0.30	0.84
5.0-6.0	424.5	4.5	14.6	0.37	1.21
6.0-7.0	423.6	5.3	19.9	0.43	1.64
7.0-8.0	422.5	6.0	26.0	0.50	2.14
8.0-9.0	421.3	6.8	32.8	0.56	2.70
9.0-10.0	419.9	7.6	40.4	0.63	3.33
10.0-11.0	418.3	8.4	48.7	0.69	4.01
11.0-12.0	416.6	9.1	57.8	0.75	4.76
12.0-13.0	414.7	9.8	67.7	0.81	5.57
13.0-14.0	412.7	10.6	78.3	0.87	6.44
14.0-15.0	410.6	11.3	89.5	0.93	7.37
15.0-16.0	408.3	12.0	101.5	0.99	8.36
16.0-17.0	405.9	12.6	114.1	1.04	9.40
17.0-18.0	403.3	13.3	127.4	1.10	10.49
18.0-19.0	400.6	13.9	141.4	1.15	11.64
19.0-20.0	397.7	14.6	155.9	1.20	12.84
20.0-21.0	394.7	15.2	171.1	1.25	14.09
21.0-22.0	391.6	15.7	186.8	1.30	15.38
22.0-23.0	388.3	16.3	203.1	1.34	16.73
23.0-24.0	384.9	16.8	219.9	1.39	18.11
24.0-25.0	381.3	17.3	237.3	1.43	19.54
25.0-26.0	377.7	17.8	255.1	1.47	21.01
26.0-27.0	373.9	18.3	273.4	1.51	22.52
27.0-28.0	370.0	18.7	292.2	1.54	24.06
28.0-29.0	366.0	19.1	311.3	1.58	25.64
29.0-30.0	361.8	19.5	330.8	1.61	27.24
30.0-31.0	357.5	19.9	350.7	1.64	28.88
31.0-32.0	353.1	20.2	371.0	1.67	30.55
32.0-33.0	348.6	20.5	391.5	1.69	32.24
33.0-34.0	344.0	20.8	412.3	1.71	33.95
34.0-35.0	339.2	21.1	433.4	1.74	35.69
35.0-36.0	334.4	21.3	454.7	1.75	37.44

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

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
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	329.5	21.5	476.2	1.77	39.21
37.0-38.0	324.5	21.7	497.9	1.78	41.00
38.0-39.0	319.3	21.8	519.6	1.79	42.79
39.0-40.0	314.0	21.9	541.6	1.80	44.60
40.0-41.0	308.7	22.0	563.5	1.81	46.41
41.0-42.0	303.2	22.0	585.6	1.81	48.22
42.0-43.0	297.7	22.1	607.6	1.82	50.04
43.0-44.0	292.1	22.0	629.7	1.82	51.85
44.0-45.0	286.3	22.0	651.7	1.81	53.66
45.0-46.0	280.4	21.9	673.6	1.81	55.47
46.0-47.0	274.5	21.8	695.4	1.80	57.27
47.0-48.0	268.5	21.7	717.2	1.79	59.06
48.0-49.0	262.4	21.5	738.7	1.77	60.83
49.0-50.0	256.2	21.4	760.1	1.76	62.59
50.0-51.0	249.8	21.1	781.2	1.74	64.33
51.0-52.0	243.5	20.9	802.1	1.72	66.05
52.0-53.0	237.0	20.6	822.7	1.70	67.75
53.0-54.0	230.5	20.3	843.0	1.67	69.42
54.0-55.0	223.9	20.0	863.0	1.65	71.07
55.0-56.0	217.2	19.6	882.7	1.62	72.69
56.0-57.0	210.5	19.3	901.9	1.59	74.27
57.0-58.0	203.7	18.8	920.7	1.55	75.82
58.0-59.0	196.8	18.4	939.2	1.52	77.34
59.0-60.0	190.0	17.9	957.1	1.48	78.82
60.0-61.0	183.1	17.5	974.6	1.44	80.25
61.0-62.0	176.0	17.0	991.5	1.40	81.65
62.0-63.0	169.0	16.4	1008.0	1.35	83.01
63.0-64.0	162.1	15.9	1023.9	1.31	84.32
64.0-65.0	154.9	15.3	1039.2	1.26	85.58
65.0-66.0	147.7	14.7	1054.0	1.21	86.79
66.0-67.0	140.7	14.1	1068.1	1.16	87.96
67.0-68.0	133.5	13.5	1081.6	1.11	89.07
68.0-69.0	126.3	12.9	1094.5	1.06	90.13
69.0-70.0	119.2	12.2	1106.8	1.01	91.14
70.0-71.0	112.0	11.6	1118.3	0.95	92.09
71.0-72.0	105.0	10.9	1129.3	0.90	92.99

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

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
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	98.0	10.3	1139.5	0.84	93.84
73.0-74.0	91.0	9.6	1149.1	0.79	94.62
74.0-75.0	84.0	8.9	1157.9	0.73	95.35
75.0-76.0	77.2	8.2	1166.1	0.67	96.03
76.0-77.0	70.5	7.5	1173.7	0.62	96.65
77.0-78.0	63.9	6.8	1180.5	0.56	97.21
78.0-79.0	57.5	6.2	1186.7	0.51	97.72
79.0-80.0	51.1	5.5	1192.2	0.45	98.17
80.0-81.0	44.8	4.8	1197.0	0.40	98.57
81.0-82.0	38.8	4.2	1201.2	0.35	98.92
82.0-83.0	33.0	3.6	1204.8	0.30	99.22
83.0-84.0	27.2	3.0	1207.8	0.24	99.46
84.0-85.0	21.6	2.4	1210.2	0.19	99.65
85.0-86.0	16.3	1.8	1211.9	0.15	99.80
86.0-87.0	11.3	1.2	1213.2	0.10	99.90
87.0-88.0	6.5	0.7	1213.9	0.06	99.96
88.0-89.0	2.9	0.3	1214.2	0.03	99.99
89.0-90.0	1.0	0.1	1214.3	0.01	100.00
90.0-91.0	0.2	0.0	1214.4	0.00	100.00
91.0-92.0	0.0	0.0	1214.4	0.00	100.00
92.0-93.0	0.0	0.0	1214.4	0.00	100.00
93.0-94.0	0.0	0.0	1214.4	0.00	100.00
94.0-95.0	0.0	0.0	1214.4	0.00	100.00
95.0-96.0	0.0	0.0	1214.4	0.00	100.00
96.0-97.0	0.0	0.0	1214.4	0.00	100.00
97.0-98.0	0.0	0.0	1214.4	0.00	100.00
98.0-99.0	0.0	0.0	1214.4	0.00	100.00
99.0-100.0	0.0	0.0	1214.4	0.00	100.00
100.0-101.0	0.0	0.0	1214.4	0.00	100.00
101.0-102.0	0.0	0.0	1214.4	0.00	100.00
102.0-103.0	0.0	0.0	1214.4	0.00	100.00
103.0-104.0	0.0	0.0	1214.4	0.00	100.00
104.0-105.0	0.0	0.0	1214.4	0.00	100.00
105.0-106.0	0.0	0.0	1214.4	0.00	100.00
106.0-107.0	0.0	0.0	1214.4	0.00	100.00
107.0-108.0	0.0	0.0	1214.4	0.00	100.00

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

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
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	0.0	0.0	1214.4	0.00	100.00
109.0-110.0	0.0	0.0	1214.4	0.00	100.00
110.0-111.0	0.0	0.0	1214.4	0.00	100.00
111.0-112.0	0.0	0.0	1214.4	0.00	100.00
112.0-113.0	0.0	0.0	1214.4	0.00	100.00
113.0-114.0	0.0	0.0	1214.4	0.00	100.00
114.0-115.0	0.0	0.0	1214.4	0.00	100.00
115.0-116.0	0.0	0.0	1214.4	0.00	100.00
116.0-117.0	0.0	0.0	1214.4	0.00	100.00
117.0-118.0	0.0	0.0	1214.4	0.00	100.00
118.0-119.0	0.0	0.0	1214.4	0.00	100.00
119.0-120.0	0.0	0.0	1214.4	0.00	100.00
120.0-121.0	0.0	0.0	1214.4	0.00	100.00
121.0-122.0	0.0	0.0	1214.4	0.00	100.00
122.0-123.0	0.0	0.0	1214.4	0.00	100.00
123.0-124.0	0.0	0.0	1214.4	0.00	100.00
124.0-125.0	0.0	0.0	1214.4	0.00	100.00
125.0-126.0	0.0	0.0	1214.4	0.00	100.00
126.0-127.0	0.0	0.0	1214.4	0.00	100.00
127.0-128.0	0.0	0.0	1214.4	0.00	100.00
128.0-129.0	0.0	0.0	1214.4	0.00	100.00
129.0-130.0	0.0	0.0	1214.4	0.00	100.00
130.0-131.0	0.0	0.0	1214.4	0.00	100.00
131.0-132.0	0.0	0.0	1214.4	0.00	100.00
132.0-133.0	0.0	0.0	1214.4	0.00	100.00
133.0-134.0	0.0	0.0	1214.4	0.00	100.00
134.0-135.0	0.0	0.0	1214.4	0.00	100.00
135.0-136.0	0.0	0.0	1214.4	0.00	100.00
136.0-137.0	0.0	0.0	1214.4	0.00	100.00
137.0-138.0	0.0	0.0	1214.4	0.00	100.00
138.0-139.0	0.0	0.0	1214.4	0.00	100.00
139.0-140.0	0.0	0.0	1214.4	0.00	100.00
140.0-141.0	0.0	0.0	1214.4	0.00	100.00
141.0-142.0	0.0	0.0	1214.4	0.00	100.00
142.0-143.0	0.0	0.0	1214.4	0.00	100.00
143.0-144.0	0.0	0.0	1214.4	0.00	100.00

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

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
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	0.0	0.0	1214.4	0.00	100.00
145.0-146.0	0.0	0.0	1214.4	0.00	100.00
146.0-147.0	0.0	0.0	1214.4	0.00	100.00
147.0-148.0	0.0	0.0	1214.4	0.00	100.00
148.0-149.0	0.0	0.0	1214.4	0.00	100.00
149.0-150.0	0.0	0.0	1214.4	0.00	100.00
150.0-151.0	0.0	0.0	1214.4	0.00	100.00
151.0-152.0	0.0	0.0	1214.4	0.00	100.00
152.0-153.0	0.0	0.0	1214.4	0.00	100.00
153.0-154.0	0.0	0.0	1214.4	0.00	100.00
154.0-155.0	0.0	0.0	1214.4	0.00	100.00
155.0-156.0	0.0	0.0	1214.4	0.00	100.00
156.0-157.0	0.0	0.0	1214.4	0.00	100.00
157.0-158.0	0.0	0.0	1214.4	0.00	100.00
158.0-159.0	0.0	0.0	1214.4	0.00	100.00
159.0-160.0	0.0	0.0	1214.4	0.00	100.00
160.0-161.0	0.0	0.0	1214.4	0.00	100.00
161.0-162.0	0.0	0.0	1214.4	0.00	100.00
162.0-163.0	0.0	0.0	1214.4	0.00	100.00
163.0-164.0	0.0	0.0	1214.4	0.00	100.00
164.0-165.0	0.0	0.0	1214.4	0.00	100.00
165.0-166.0	0.0	0.0	1214.4	0.00	100.00
166.0-167.0	0.0	0.0	1214.4	0.00	100.00
167.0-168.0	0.0	0.0	1214.4	0.00	100.00
168.0-169.0	0.0	0.0	1214.4	0.00	100.00
169.0-170.0	0.0	0.0	1214.4	0.00	100.00
170.0-171.0	0.0	0.0	1214.4	0.00	100.00
171.0-172.0	0.0	0.0	1214.4	0.00	100.00
172.0-173.0	0.0	0.0	1214.4	0.00	100.00
173.0-174.0	0.0	0.0	1214.4	0.00	100.00
174.0-175.0	0.0	0.0	1214.4	0.00	100.00
175.0-176.0	0.0	0.0	1214.4	0.00	100.00
176.0-177.0	0.0	0.0	1214.4	0.00	100.00
177.0-178.0	0.0	0.0	1214.4	0.00	100.00
178.0-179.0	0.0	0.0	1214.4	0.00	100.00
179.0-180.0	0.0	0.0	1214.4	0.00	100.00

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

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
Inspector:

Candlepower Table

Unit: cd

G\C	C0.0	C45.0	C90.0	C135.0	C180.0	C225.0	C270.0	C315.0	C360.0	
G0.0	428.3	427.2	426.4	425.8	428.3	427.2	426.4	425.8	428.3	
G1.0	428.1	426.8	426.1	425.6	428.3	427.3	426.5	425.9	428.1	
G2.0	427.8	426.6	425.8	425.2	428.2	427.3	426.4	425.8	427.8	
G3.0	427.3	426.0	425.1	424.7	427.8	427.0	426.1	425.5	427.3	
G4.0	426.7	425.4	424.5	424.0	427.4	426.6	425.8	425.0	426.7	
G5.0	425.8	424.4	423.7	423.3	426.8	426.1	425.2	424.5	425.8	
G6.0	424.9	423.4	422.7	422.2	426.0	425.4	424.4	423.8	424.9	
G7.0	423.7	422.2	421.5	421.1	425.1	424.5	423.6	422.8	423.7	
G8.0	422.5	420.9	420.2	419.8	424.0	423.4	422.6	421.8	422.5	
G9.0	421.1	419.5	418.8	418.3	422.7	422.3	421.4	420.7	421.1	
G10.0	419.6	418.0	417.1	416.7	421.4	421.0	420.1	419.2	419.6	
G11.0	417.7	416.1	415.3	414.9	419.7	419.6	418.7	417.7	417.7	
G12.0	415.9	414.2	413.5	413.0	418.1	417.8	417.1	416.0	415.9	
G13.0	414.0	412.2	411.3	411.0	416.2	416.1	415.2	414.1	414.0	
G14.0	411.8	409.9	409.1	408.6	414.4	414.3	413.3	412.2	411.8	
G15.0	409.3	407.5	406.8	406.3	412.1	412.2	411.4	410.1	409.3	
G16.0	406.9	404.9	404.4	403.9	409.9	409.9	409.0	407.7	406.9	
G17.0	404.4	402.3	401.8	401.3	407.5	407.6	406.7	405.4	404.4	
G18.0	401.7	399.6	398.9	398.4	404.8	405.3	404.2	402.9	401.7	
G19.0	398.7	396.5	396.1	395.5	402.1	402.6	401.7	400.3	398.7	
G20.0	395.7	393.5	392.8	392.6	399.3	399.7	398.7	397.3	395.7	
G21.0	392.4	390.4	389.7	389.2	396.4	396.9	395.9	394.4	392.4	
G22.0	389.2	386.9	386.5	386.0	393.3	393.8	392.9	391.3	389.2	
G23.0	385.9	383.5	382.8	382.3	390.1	390.4	389.8	388.1	385.9	
G24.0	382.4	380.0	379.4	378.8	386.8	387.2	386.1	384.5	382.4	
G25.0	378.5	376.0	375.8	375.2	383.1	383.8	382.8	381.1	378.5	
G26.0	374.8	372.3	372.0	371.1	379.5	380.0	379.3	377.6	374.8	
G27.0	370.9	368.4	368.2	367.1	375.8	376.3	375.7	373.9	370.9	
G28.0	366.8	364.3	364.1	363.1	372.0	372.6	371.6	369.7	366.8	
G29.0	362.7	359.7	359.6	358.9	368.1	368.4	367.8	365.9	362.7	
G30.0	358.1	355.5	355.4	354.4	363.7	364.4	363.8	361.9	358.1	
G31.0	353.9	350.9	350.8	350.1	359.5	360.4	359.6	357.7	353.9	
G32.0	349.2	346.5	346.4	345.3	355.2	355.6	355.4	353.0	349.2	
G33.0	344.7	341.6	341.9	340.7	350.8	351.3	351.1	348.6	344.7	
G34.0	340.0	336.9	336.9	335.7	346.3	346.8	346.6	344.1	340.0	
G35.0	334.8	331.7	332.1	330.9	341.2	342.3	342.1	339.5	334.8	
G36.0	329.9	326.8	327.2	326.0	336.5	337.6	337.4	334.8	329.9	

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

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
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	325.0	321.7	322.3	321.0	331.6	332.8	332.6	329.5	325.0	
G38.0	319.9	316.6	316.7	315.4	326.6	327.9	327.7	324.6	319.9	
G39.0	314.2	310.9	311.5	310.2	321.6	322.4	322.8	319.6	314.2	
G40.0	308.9	305.7	306.3	305.0	316.0	317.3	317.8	314.0	308.9	
G41.0	303.5	300.2	300.8	299.6	310.8	312.2	312.1	308.8	303.5	
G42.0	298.1	294.3	294.9	293.7	305.5	306.9	306.8	303.5	298.1	
G43.0	292.2	288.7	289.4	288.2	300.0	301.0	301.5	298.1	292.2	
G44.0	286.6	283.1	283.9	282.5	294.5	295.5	296.0	292.6	286.6	
G45.0	280.3	276.8	277.6	276.3	288.4	289.9	290.5	287.0	280.3	
G46.0	274.5	271.0	271.8	270.5	282.6	284.2	284.2	280.7	274.5	
G47.0	268.6	264.5	266.0	264.6	276.8	278.5	278.5	275.0	268.6	
G48.0	262.1	258.5	259.5	258.1	270.9	272.6	272.7	269.0	262.1	
G49.0	256.0	252.6	253.4	252.0	264.4	266.1	266.8	263.2	256.0	
G50.0	249.8	245.6	247.2	245.9	258.4	260.2	260.2	256.6	249.8	
G51.0	243.7	239.4	240.4	239.0	252.2	254.0	254.1	250.5	243.7	
G52.0	236.8	233.1	234.2	232.8	245.5	247.9	247.4	244.4	236.8	
G53.0	230.4	226.1	227.9	226.5	239.1	241.1	241.2	237.5	230.4	
G54.0	223.9	219.8	221.4	219.5	232.8	234.8	235.0	231.2	223.9	
G55.0	216.9	212.6	214.4	213.1	226.4	228.3	227.9	224.2	216.9	
G56.0	210.4	206.0	207.9	206.5	219.3	221.9	221.5	217.8	210.4	
G57.0	203.8	199.4	201.3	199.3	212.7	214.7	215.0	211.1	203.8	
G58.0	196.5	192.7	194.0	192.7	206.1	208.0	207.7	204.6	196.5	
G59.0	189.7	185.3	187.3	186.0	198.7	201.4	201.1	197.2	189.7	
G60.0	182.9	178.5	180.6	179.3	192.0	194.7	194.3	190.6	182.9	
G61.0	176.1	171.7	173.1	172.4	185.2	187.9	186.8	183.8	176.1	
G62.0	168.6	164.9	166.2	165.6	177.7	180.4	180.1	176.3	168.6	
G63.0	161.7	157.9	159.4	158.1	170.9	173.6	173.3	169.5	161.7	
G64.0	154.8	151.0	152.5	151.2	164.1	166.8	165.7	162.7	154.8	
G65.0	147.8	143.3	144.8	144.2	156.4	159.2	158.8	155.1	147.8	
G66.0	140.2	136.5	137.9	137.4	149.6	152.3	151.3	148.3	140.2	
G67.0	133.3	129.6	131.1	130.5	142.5	145.3	144.3	140.7	133.3	
G68.0	126.3	122.6	123.4	122.8	134.9	137.6	137.4	133.6	126.3	
G69.0	118.7	115.8	116.6	116.0	127.9	130.7	129.7	126.8	118.7	
G70.0	111.8	108.2	109.8	109.1	120.2	123.7	122.7	119.1	111.8	
G71.0	104.9	101.4	102.3	102.3	113.2	116.0	115.7	112.1	104.9	
G72.0	97.4	94.6	95.4	95.4	106.2	109.0	108.0	105.2	97.4	
G73.0	90.6	87.9	88.7	88.7	99.4	102.1	101.2	98.4	90.6	

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

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
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	83.9	80.6	81.3	81.3	91.8	94.6	94.4	91.0	83.9	
G75.0	77.3	73.9	74.7	74.7	85.1	87.9	87.0	84.2	77.3	
G76.0	70.1	67.5	68.2	68.2	77.8	80.5	80.3	77.6	70.1	
G77.0	63.7	61.1	61.8	61.8	71.1	73.8	73.7	70.4	63.7	
G78.0	57.4	54.9	54.9	55.6	64.7	67.3	66.6	64.0	57.4	
G79.0	50.7	48.3	48.8	49.5	58.2	60.8	60.1	57.7	50.7	
G80.0	44.7	42.3	42.8	42.9	51.4	53.9	53.8	51.5	44.7	
G81.0	38.9	36.5	36.5	37.1	45.2	47.7	47.1	44.9	38.9	
G82.0	32.7	30.9	30.9	31.5	39.2	41.6	41.1	38.9	32.7	
G83.0	27.1	25.4	25.4	26.0	33.4	35.7	35.2	33.2	27.1	
G84.0	21.3	20.0	19.5	20.7	27.1	29.3	29.5	27.1	21.3	
G85.0	16.1	14.8	14.4	15.5	21.7	23.8	23.6	21.8	16.1	
G86.0	11.1	9.4	9.5	10.2	16.4	18.4	18.3	16.6	11.1	
G87.0	6.5	4.9	5.1	5.8	10.9	12.7	12.7	11.6	6.5	
G88.0	1.9	0.9	0.9	1.7	6.4	7.9	7.9	6.6	1.9	
G89.0	0.5	0.4	0.3	0.3	2.2	3.5	3.4	2.2	0.5	
G90.0	0.5	0.4	0.4	0.4	0.6	0.5	0.6	0.5	0.5	
G91.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G92.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G93.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G94.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G95.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G96.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G97.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G98.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G99.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G101.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G102.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G103.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G104.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G105.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G106.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G107.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G108.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G109.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G110.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

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

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G112.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G113.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G114.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G115.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G116.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G117.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G118.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G119.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G120.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G121.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G122.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G123.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G124.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G125.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G126.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G127.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G128.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G129.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G130.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G131.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G132.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G133.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G134.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G135.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G136.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G137.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G138.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G139.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G140.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G141.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G142.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G143.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G144.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G145.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G146.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G147.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

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

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G149.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G151.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G152.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G153.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G154.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G155.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G156.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G157.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G158.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G159.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G160.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G161.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G162.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G163.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G164.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G165.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G166.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G167.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G168.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G169.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G170.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G171.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G172.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G173.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G174.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G175.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G176.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G177.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G178.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G179.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
G180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

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

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.509 m
Humidity: 55
Inspector: