

Report No.: 6

Test Time: 2017/7/20 09:16

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: 50W-1

Current: 0.237 A

Power Factor: 0.975

Voltage: 220 V

Power: 50.8 W

Photometric Results

CIE Class: Direct

Measurement Flux: 5967 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H91.1

Vertical Diffuse Angle(50%): V127.3

Luminaire Efficacy Rating (LER): 117.51

Max. Intensity: 4765.46 cd

S/MH(C0/C180): 1.23

Total Rated Lamp Lumens: 5967.0 lm

Efficiency: 100%

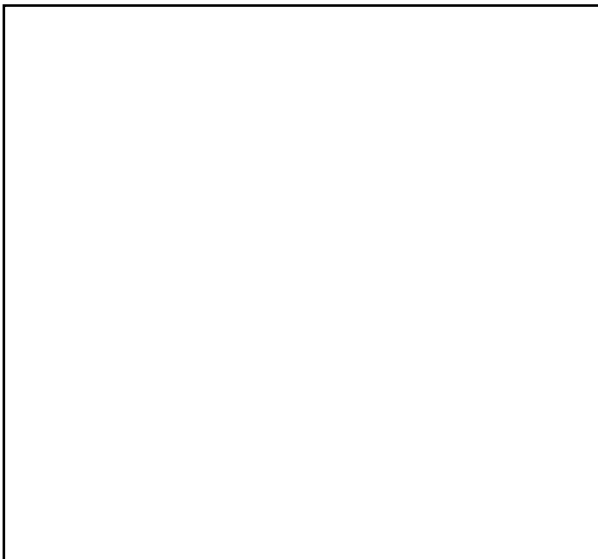
Upward Ratio: 1%

Central Intensity: 1674.96 cd

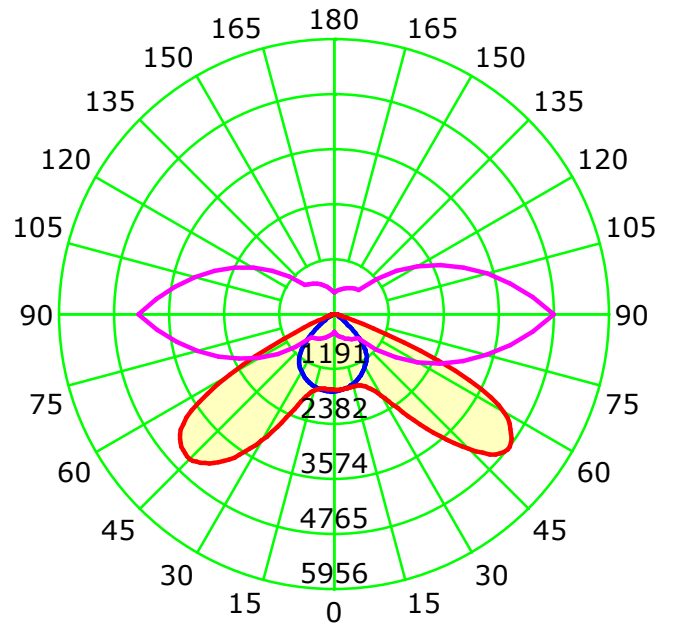
Pos of Max. Intensity: H90 V52

S/MH(C90/C270): 2.85

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

Average Diffuse Angle(50%): 109.0°

— C0-C180 — C90-C270 — G52

C Plane (°):0.0-360.0: 45.0

Test Lab: Inventfine instrument

Test Type: TYPE C

Temperature: 28

Operator: Jacky tang

Gamma Plane (°):0.0-180.0:1.0

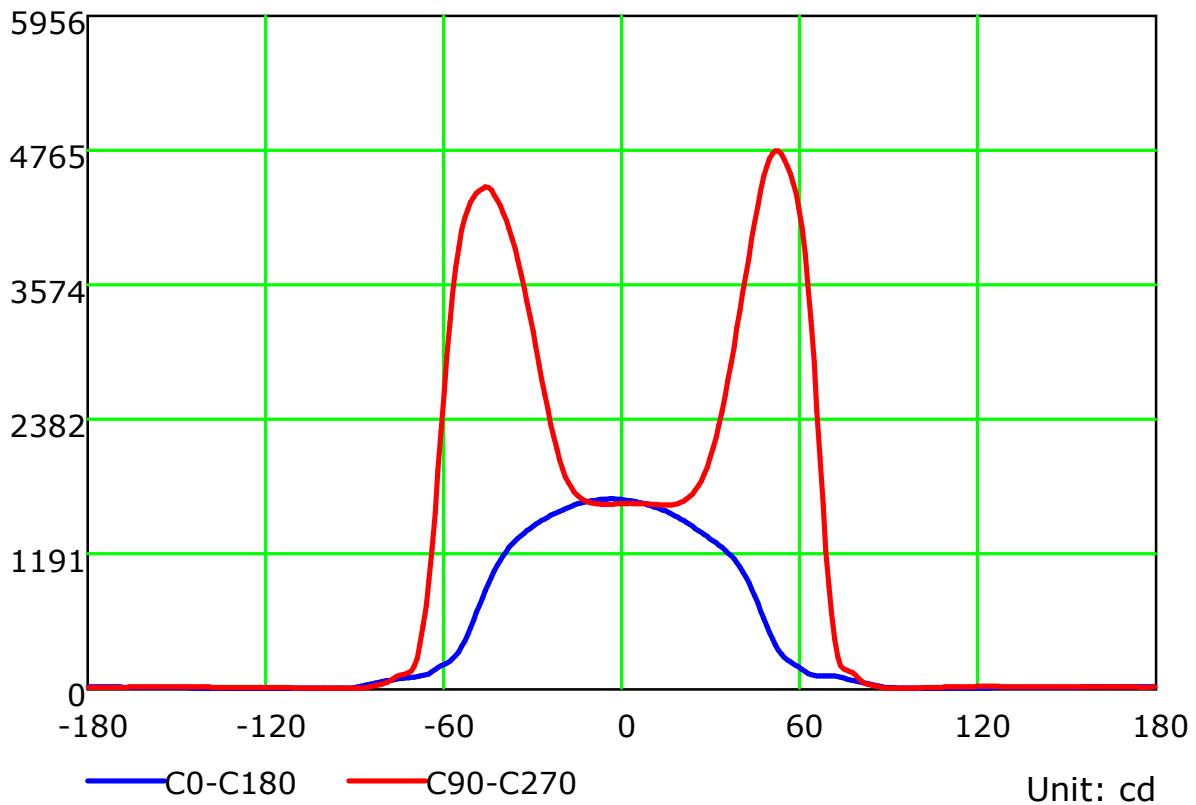
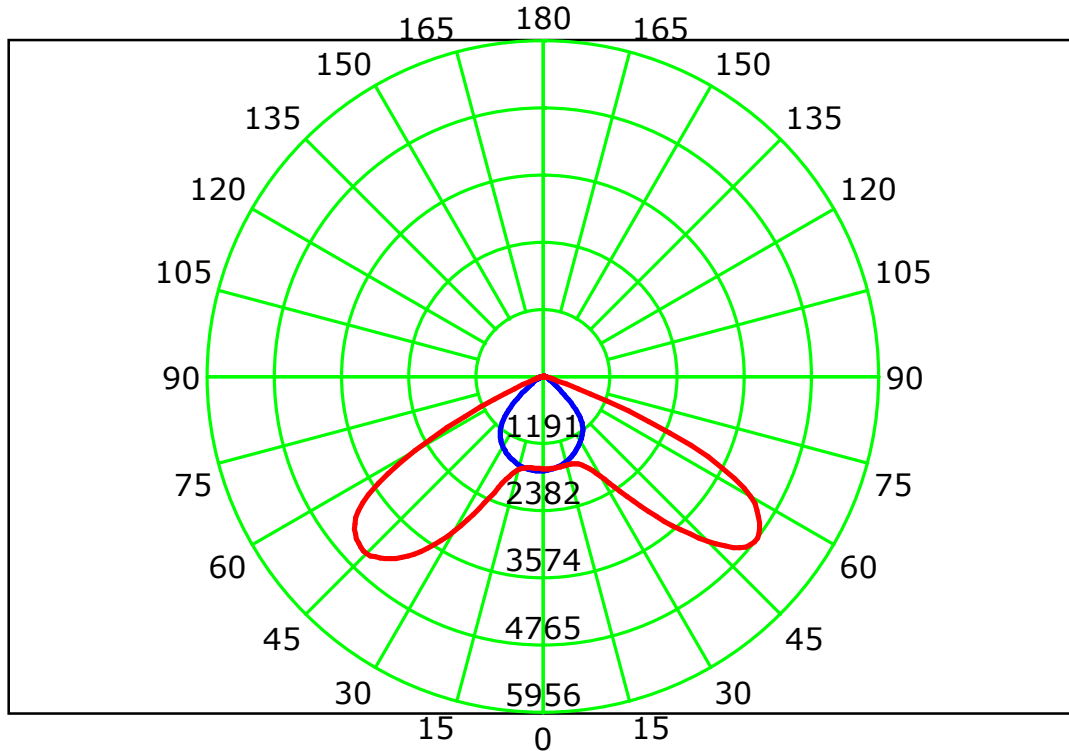
Test Device: GPM-1800B

Distance: 7.992 m

Humidity: 58

Inspector:

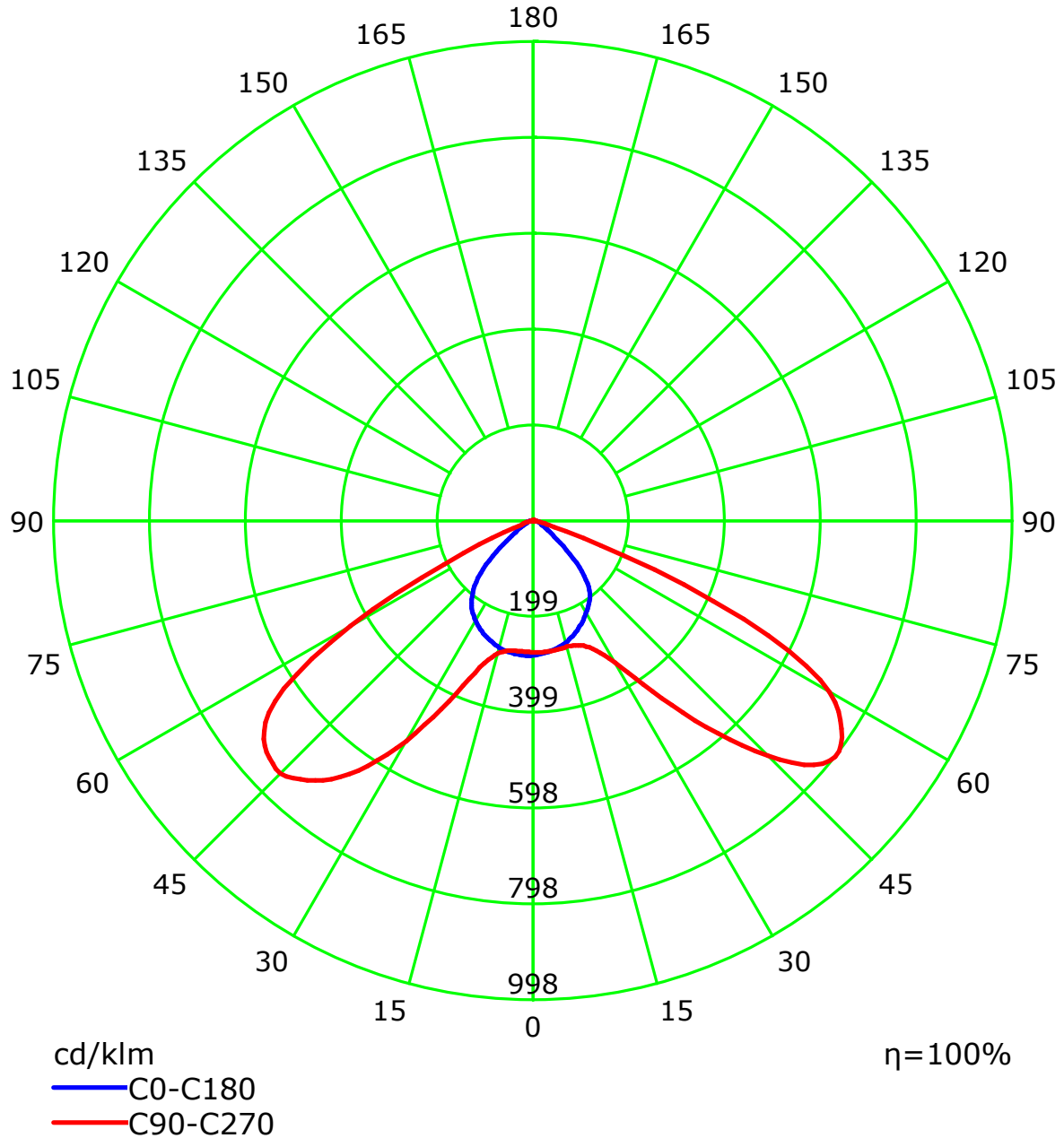
Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 45.0
Test Lab: Inventfine instrument
Test Type: TYPE C
Temperature: 28
Operator: Jacky tang

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 7.992 m
Humidity: 58
Inspector:

Luminous Intensity Distribution Curve(cd/klm)



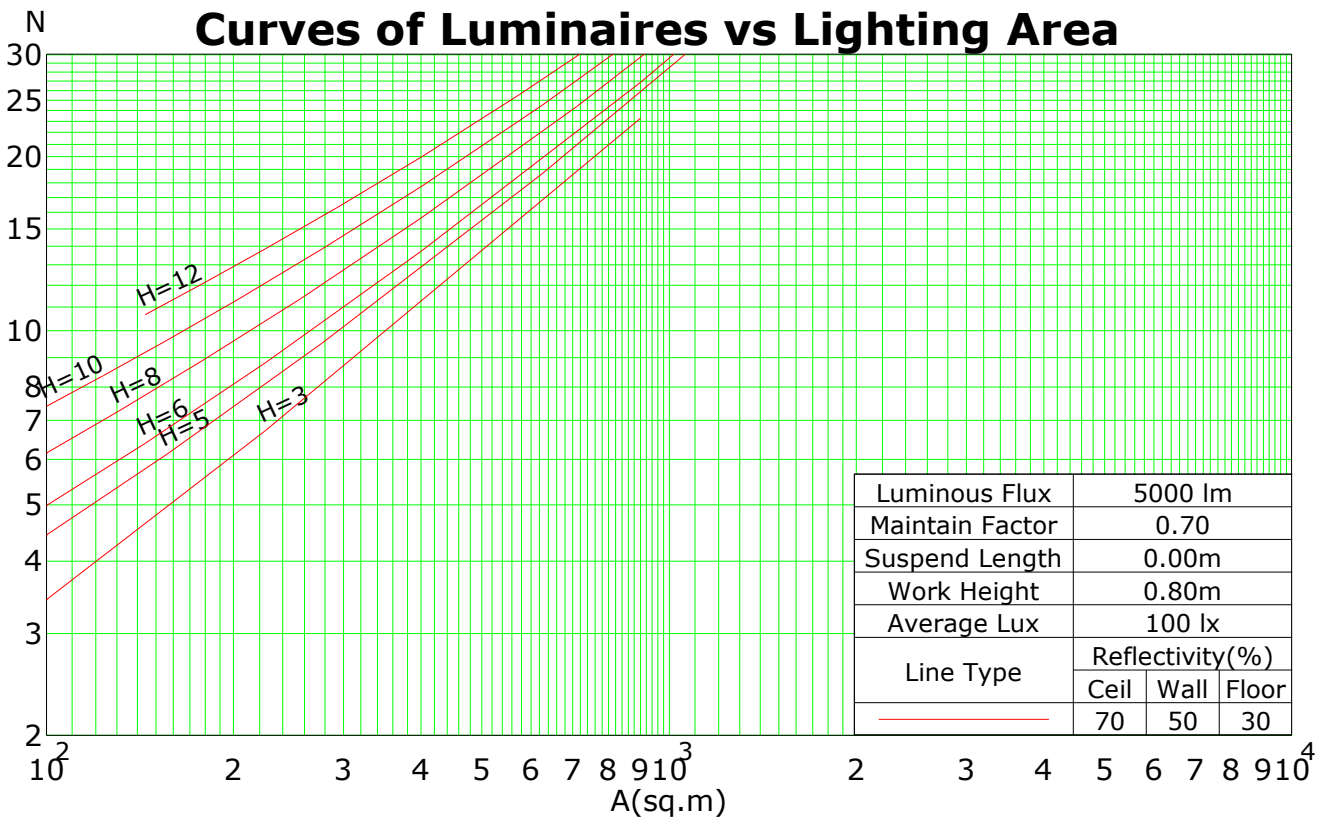
C Plane (°):0.0-360.0: 45.0
Test Lab: Inventfine instrument
Test Type: TYPE C
Temperature: 28
Operator: Jacky tang

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 7.992 m
Humidity: 58
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	110	105	102	98	107	103	100	96	99	96	93	95	93	90	91	89	88	86
2	100	92	86	81	98	90	85	80	87	82	78	84	79	76	80	77	74	72
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	51	46	56	50	46	44
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	45	39	35	33
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

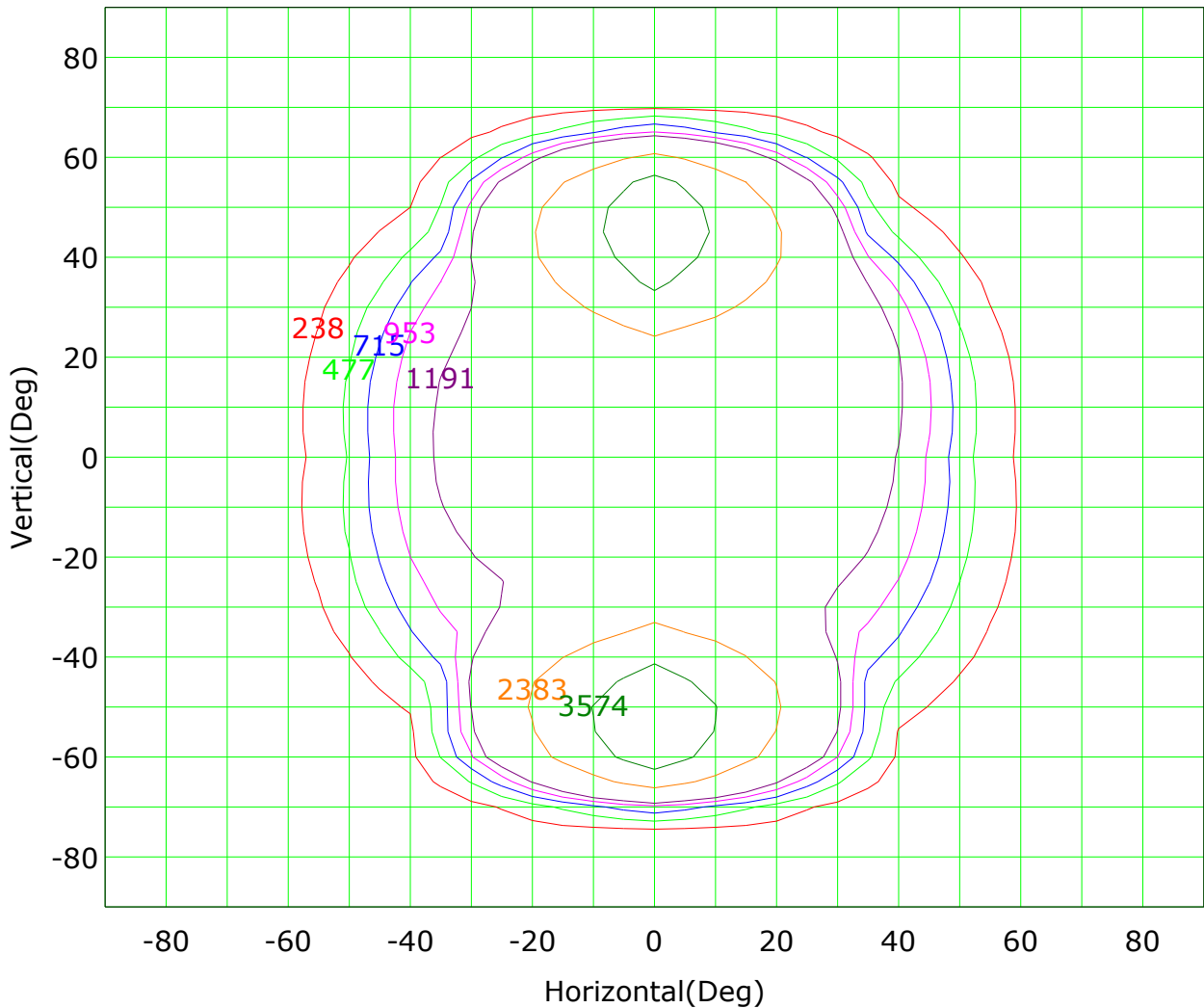
Spacing Criteria (0-180): 1.23
 Spacing Criteria (90-270): 2.85
 Spacing Criteria (Diagonal): 1.39



C Plane (°):0.0-360.0: 45.0
 Test Lab: Inventfine instrument
 Test Type: TYPE C
 Temperature: 28
 Operator: Jacky tang

Gamma Plane (°):0.0-180.0:1.0
 Test Device: GPM-1800B
 Distance: 7.992 m
 Humidity: 58
 Inspector:

Isocandela (rectangle)



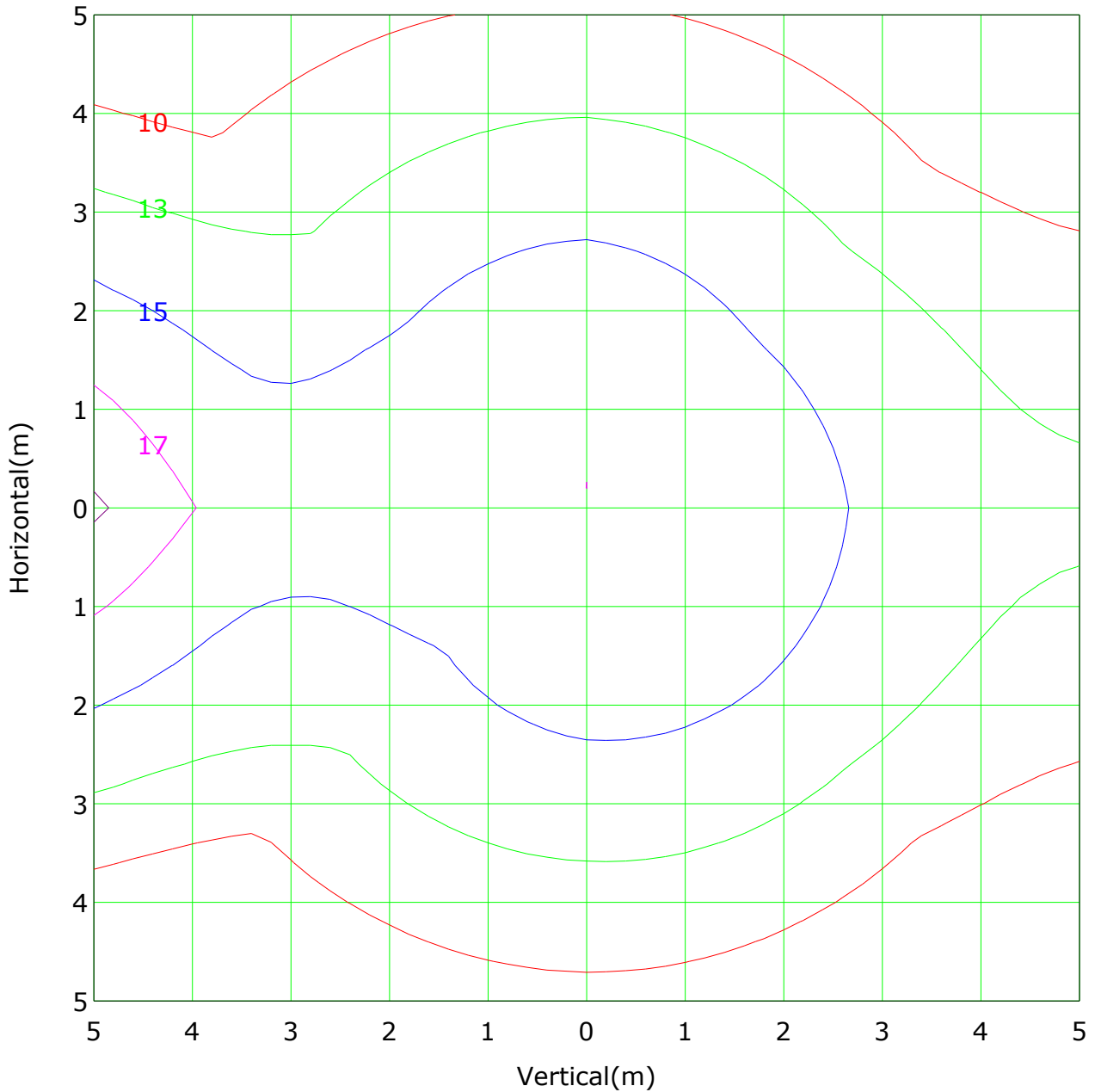
Imax (100%): 4765 cd

— (5%): 238 cd	— (10%): 477 cd
— (15%): 715 cd	— (20%): 953 cd
— (25%): 1191 cd	— (50%): 2383 cd
— (75%): 3574 cd	— (100%): 4765 cd

C Plane (°):0.0-360.0: 45.0
Test Lab: Inventfine instrument
Test Type: TYPE C
Temperature: 28
Operator: Jacky tang

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 7.992 m
Humidity: 58
Inspector:

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 20.9 lx

(50%): 10.5 lx	(60%): 12.6 lx
(70%): 14.7 lx	(80%): 16.8 lx
(90%): 18.9 lx	(100%): 20.9 lx

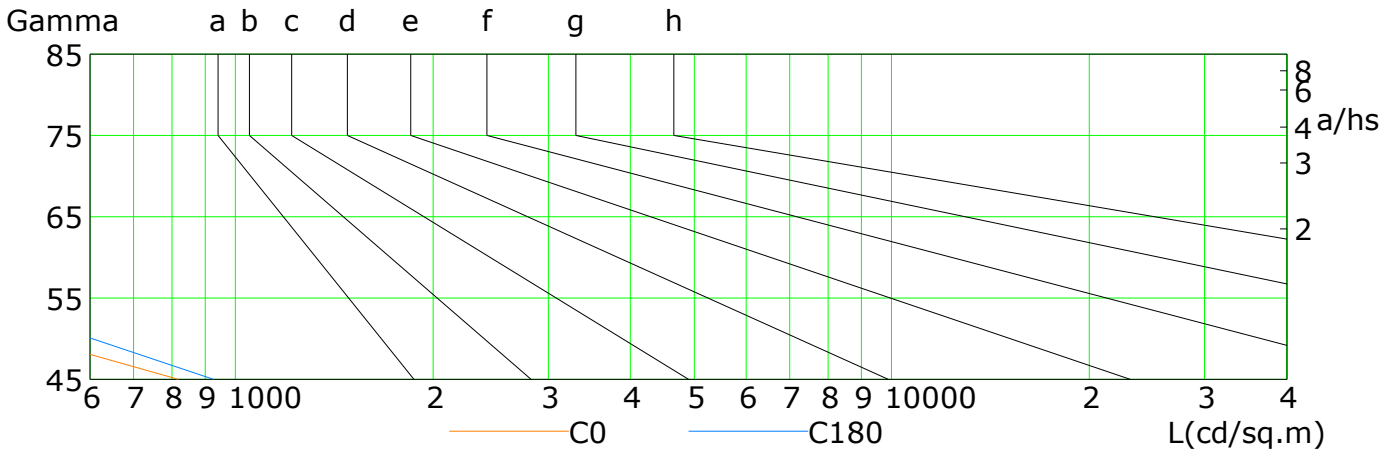
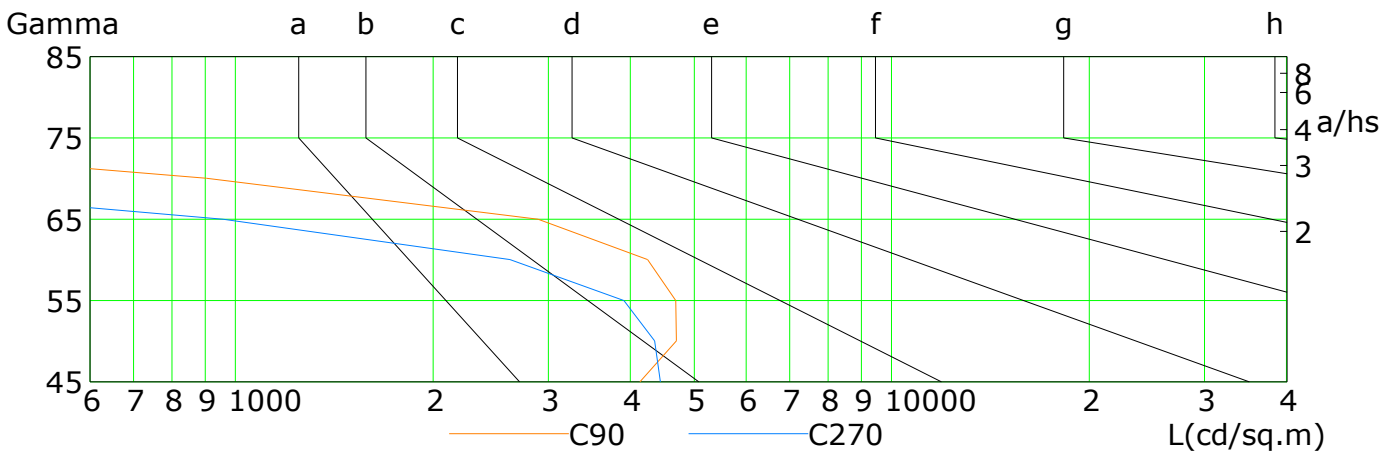
C Plane (°):0.0-360.0: 45.0
Test Lab: Inventfine instrument
Test Type: TYPE C
Temperature: 28
Operator: Jacky tang

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 7.992 m
Humidity: 58
Inspector:

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

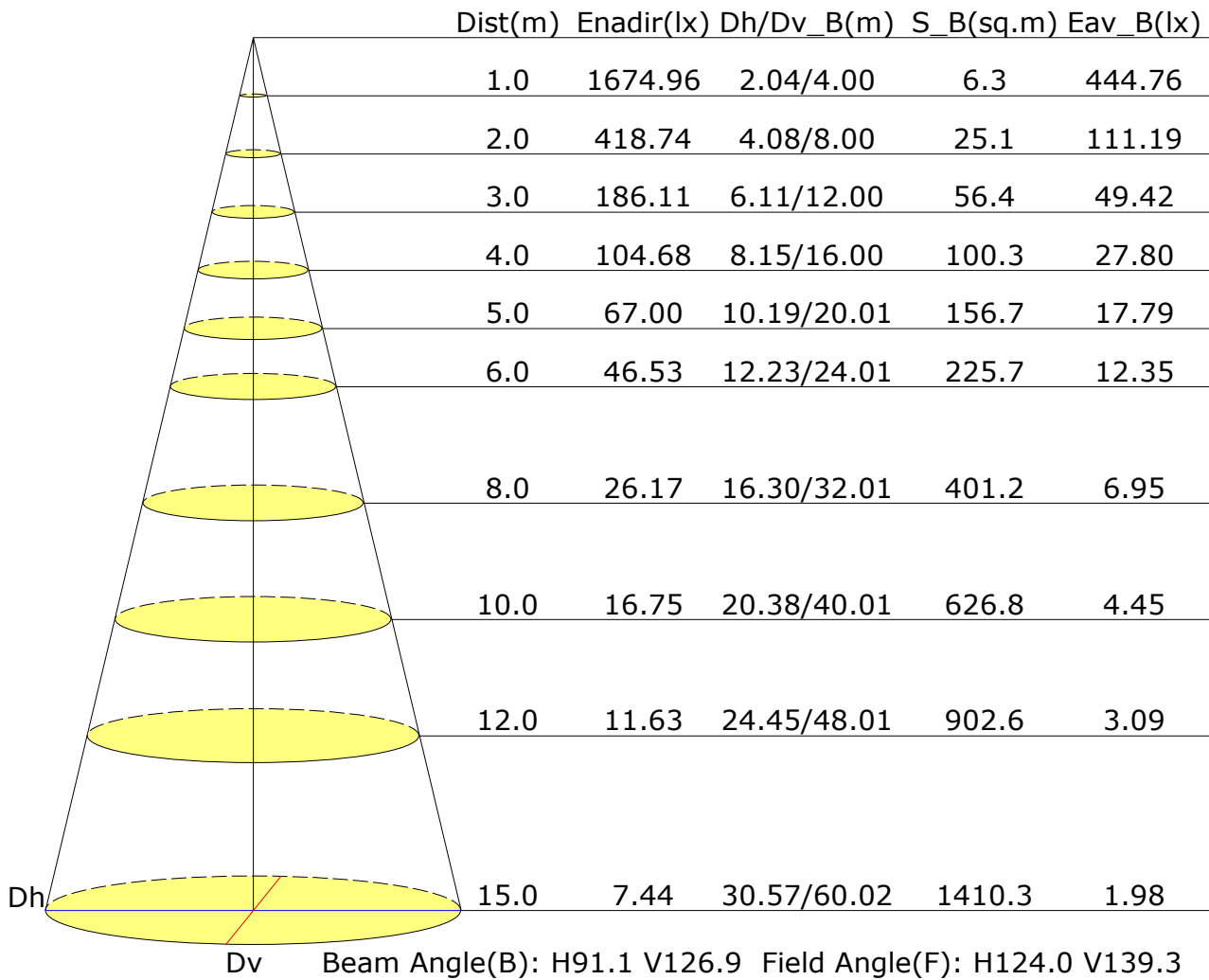


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	820	494	273	187	117	113	93	59	30
C90	4131	4697	4689	4253	2896	903	175	88	24
C180	926	604	327	213	130	101	86	64	36
C270	4442	4352	3912	2622	959	196	114	46	13

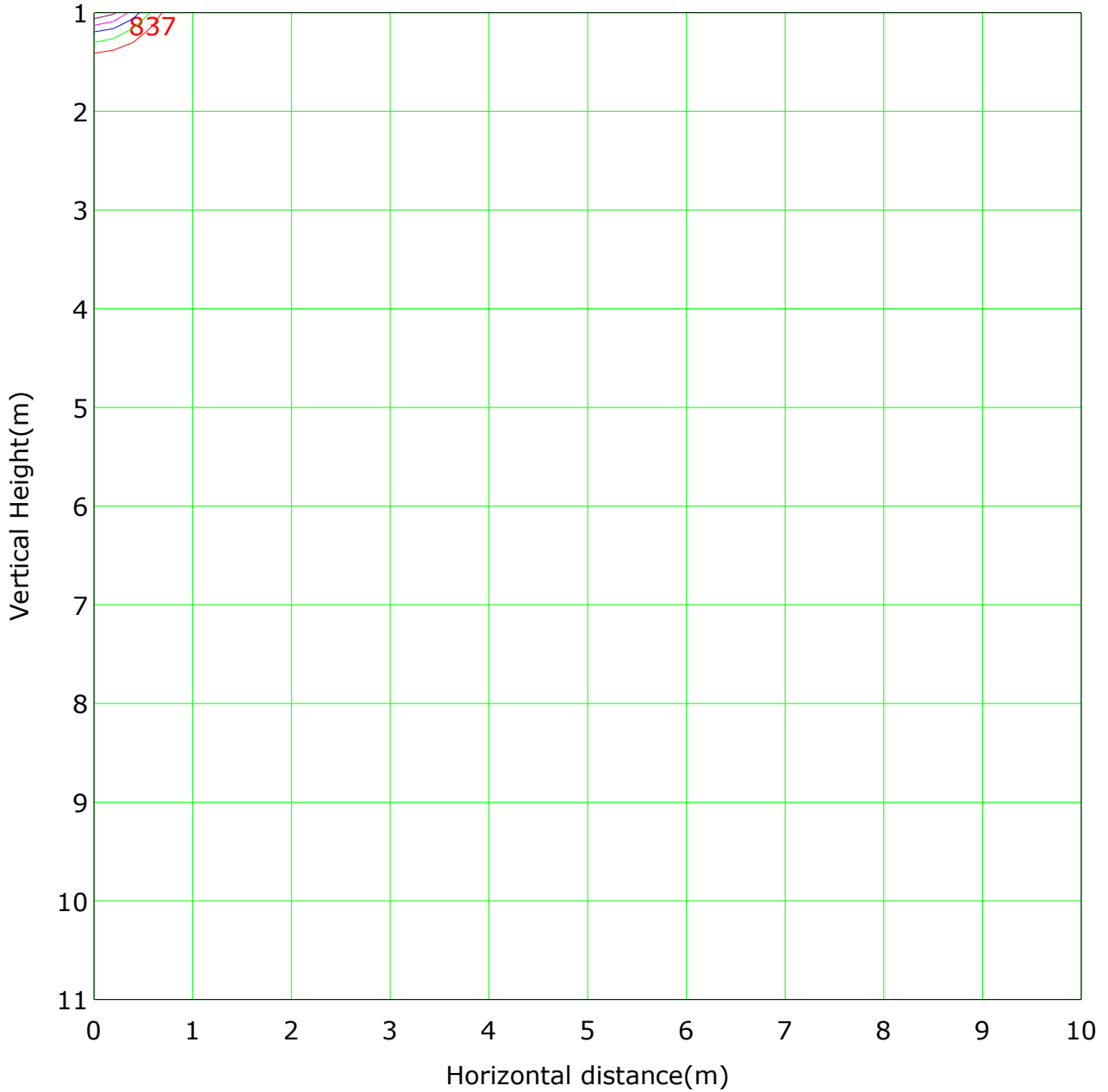
C Plane (°):0.0-360.0: 45.0
Test Lab: Inventfine instrument
Test Type: TYPE C
Temperature: 28
Operator: Jacky tang

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 7.992 m
Humidity: 58
Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 1675.0 lx
 — (50%): 837.5 lx — (60%):1005.0 lx
 — (70%):1172.5 lx — (80%):1340.0 lx
 — (90%):1507.5 lx — (100%):1675.0 lx

Area Flux Table

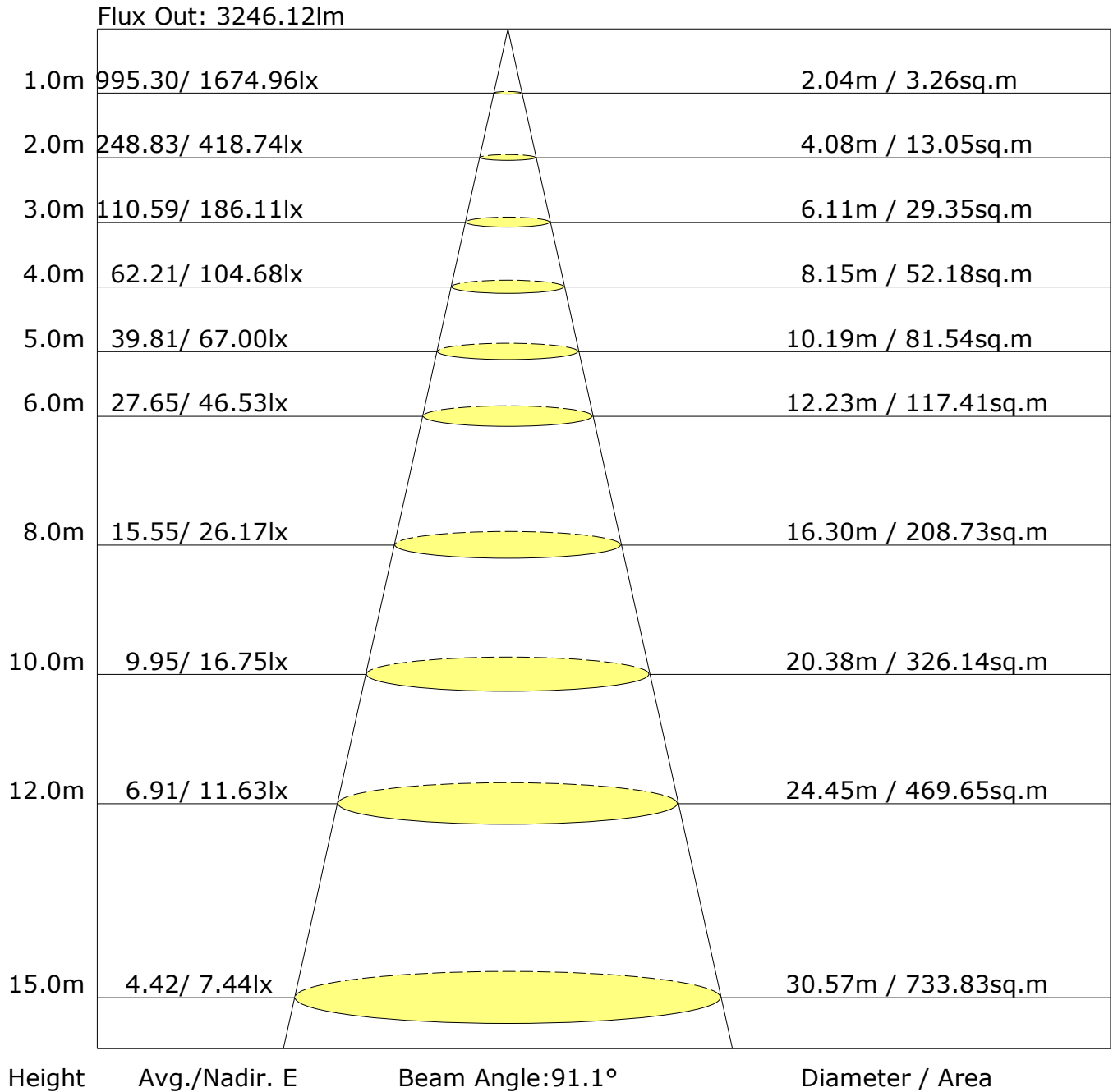
Unit: lm

Vertical plane		Horizontal plane																		
Flux(T)	Flux(E)	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90
90	1.5	8.5	22.0	60.2	166.8	325.4	557.2	824.1	1106.4	1405.6	1800.7	2292.1	2892.3	3145.0	52.2	20.7	8.4	1.3	5928	
80	0.0	0.1	0.2	0.4	0.5	0.7	0.8	0.9	0.9	0.9	0.8	0.7	0.6	0.5	0.3	0.2	0.1	0.0	8.7	0.0
70	0.0	0.2	0.6	1.0	1.6	2.4	3.6	5.6	7.7	7.7	5.5	3.5	2.3	1.5	1.0	0.5	0.2	0.0	45.1	7.3
60	0.1	0.4	0.9	1.6	2.6	7.9	23.7	47.7	73.0	72.9	47.4	23.3	7.5	2.4	1.6	0.9	0.3	0.0	314.2	288.2
50	0.1	0.5	1.1	2.2	4.1	16.1	48.2	86.0	123.3	123.0	85.3	47.0	15.0	3.5	2.1	1.1	0.4	0.1	559.2	538.3
40	0.1	0.6	1.4	3.0	7.1	18.9	50.0	81.9	110.5	110.4	81.5	49.5	17.6	5.9	2.6	1.4	0.5	0.1	542.8	518.3
30	0.1	0.6	1.5	4.2	11.6	22.7	40.0	59.1	73.0	72.4	57.7	38.6	21.9	10.4	3.5	1.5	0.6	0.1	419.7	400.4
20	0.1	0.7	1.7	5.5	15.6	27.3	36.0	45.9	52.0	51.7	44.5	33.5	25.5	14.3	4.6	1.6	0.7	0.1	361.4	345.3
10	0.1	0.7	1.9	6.4	18.4	30.7	38.9	44.9	48.7	48.9	44.5	36.7	28.3	16.7	5.5	1.7	0.7	0.1	373.6	358.8
0	0.1	0.7	1.9	6.5	19.8	32.6	41.2	47.1	49.6	49.7	46.0	38.8	30.0	17.6	5.5	1.7	0.7	0.1	389.7	375.2
-10	0.1	0.7	1.9	6.6	20.6	33.5	41.7	47.4	50.1	48.7	45.3	38.7	30.4	17.9	5.5	1.7	0.7	0.1	391.6	377.6
-20	0.1	0.7	1.8	6.4	20.6	33.9	41.2	46.9	51.6	50.6	44.1	37.0	29.6	17.2	5.4	1.7	0.7	0.1	389.5	375.1
-30	0.1	0.6	1.7	5.3	18.0	33.2	42.4	57.0	69.9	68.8	53.3	36.3	27.8	14.6	4.5	1.6	0.7	0.1	435.8	420.1
-40	0.1	0.6	1.5	3.8	12.4	29.0	50.5	76.9	101.7	100.3	72.7	44.1	23.4	10.1	3.3	1.5	0.6	0.1	532.5	513.8
-50	0.1	0.5	1.3	2.7	6.4	19.5	52.1	86.6	118.4	117.2	83.3	47.8	16.5	5.5	2.4	1.3	0.5	0.1	562.3	537.9
-60	0.1	0.4	1.1	2.0	3.6	10.7	34.8	67.8	100.2	99.7	66.7	33.7	10.1	3.2	2.0	1.1	0.4	0.1	437.5	413.7
-70	0.1	0.3	0.8	1.5	2.3	4.1	9.2	18.9	30.0	29.9	18.7	8.9	3.9	2.2	1.4	0.7	0.3	0.0	133.2	91.7
-80	0.0	0.2	0.5	0.9	1.4	1.8	2.4	2.9	3.2	3.2	2.8	2.3	1.8	1.2	0.8	0.4	0.2	0.0	26.0	0.0
-90	0.0	0.1	0.2	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.2	0.1	0.1	0.0	5.5	0.0

C Plane (°):0.0-360.0: 45.0
Test Lab: Inventfine instrument
Test Type: TYPE C
Temperature: 28
Operator: Jacky tang

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 7.992 m
Humidity: 58
Inspector:

The Average Illuminance Effective Figure



C Plane (°):0.0-360.0: 45.0
Test Lab: Inventfine instrument
Test Type: TYPE C
Temperature: 28
Operator: Jacky tang

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 7.992 m
Humidity: 58
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 $5967lm$ ($8\log(F/F_0) = 6.2$).

Utilisation Factor Table(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 1.75								
Room Reflectance			Room Index(RI)								
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	NA	0.71	0.79	0.85	0.92	0.96	0.99	1.03	1.06
	0.30		NA	0.64	0.72	0.78	0.86	0.92	0.95	1.00	1.03
	0.20		NA	0.59	0.67	0.74	0.82	0.88	0.91	0.97	1.00
0.50	0.50	0.20	NA	0.69	0.77	0.82	0.89	0.93	0.96	0.99	1.01
	0.30		NA	0.63	0.71	0.77	0.84	0.89	0.92	0.96	0.99
	0.20		NA	0.58	0.66	0.72	0.80	0.85	0.89	0.94	0.97
0.30	0.50	0.20	NA	0.67	0.74	0.79	0.86	0.90	0.92	0.96	0.98
	0.30		NA	0.62	0.69	0.75	0.82	0.86	0.89	0.93	0.96
	0.20		NA	0.58	0.65	0.71	0.79	0.83	0.87	0.91	0.94
0.00	0.00	0.00	NA	0.55	0.63	0.68	0.75	0.80	0.83	0.87	0.89
<p>Rating:52W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>											

Utilisation Factor Table(Wall)

Utilisation Factors UF(W)			SHR NOM = 1.75								
Room Reflectance			Room Index(RI)								
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	NA	0.76	0.63	0.54	0.42	0.34	0.29	0.22	0.18
	0.30		NA	0.65	0.55	0.47	0.38	0.31	0.27	0.21	0.17
	0.20		NA	0.56	0.49	0.43	0.34	0.29	0.25	0.20	0.16
0.50	0.50	0.20	NA	0.72	0.60	0.51	0.39	0.36	0.27	0.21	0.17
	0.30		NA	0.63	0.53	0.46	0.36	0.30	0.26	0.20	0.16
	0.20		NA	0.55	0.48	0.41	0.33	0.28	0.24	0.19	0.16
0.30	0.50	0.20	NA	0.69	0.58	0.49	0.37	0.31	0.26	0.20	0.16
	0.30		NA	0.61	0.52	0.44	0.35	0.29	0.24	0.19	0.15
	0.20		NA	0.55	0.47	0.40	0.32	0.27	0.23	0.18	0.15
0.00	0.00	0.00	1.00	0.44	0.37	0.31	0.24	0.20	0.17	0.13	0.11
<p>Rating:52W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>											

Utilisation Factor Table(Ceiling cavity)

Utilisation Factors UF(C)			SHR NOM = 1.75								
Room Reflectance			Room Index(RI)								
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	NA	0.18	0.18	0.19	0.20	0.21	0.21	0.22	0.22
	0.30		NA	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20
	0.20		NA	0.07	0.09	0.10	0.12	0.14	0.15	0.17	0.18
0.50	0.50	0.20	NA	0.17	0.18	0.18	0.19	0.20	0.20	0.21	0.21
	0.30		NA	0.11	0.13	0.14	0.15	0.16	0.17	0.18	0.19
	0.20		NA	0.07	0.09	0.10	0.12	0.14	0.15	0.16	0.17
0.30	0.50	0.20	NA	0.16	0.17	0.18	0.18	0.19	0.19	0.20	0.20
	0.30		NA	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.18
	0.20		NA	0.07	0.09	0.10	0.12	0.13	0.14	0.16	0.17
0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
<p>Rating:52W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>											