

Report No.: 18

Test Time: 2017/5/2 09:01

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: WE-AR111-8°-12W

Luminous Width (mm): 93

Current: 0.051 A

Power Factor: 0.991

Luminous Length (mm): 93

Voltage: 220V

Power: 11.2W

Photometric Results

CIE Class: Direct

Measurement Flux: 755.5 lm

Downward Ratio: 94%

Horizontal Diffuse Angle(50%): H11.8

Vertical Diffuse Angle(50%): V11

Luminaire Efficacy Rating (LER): 67

Max. Intensity: 11255.08 cd

Total Rated Lamp Lumens: 755.5 lm

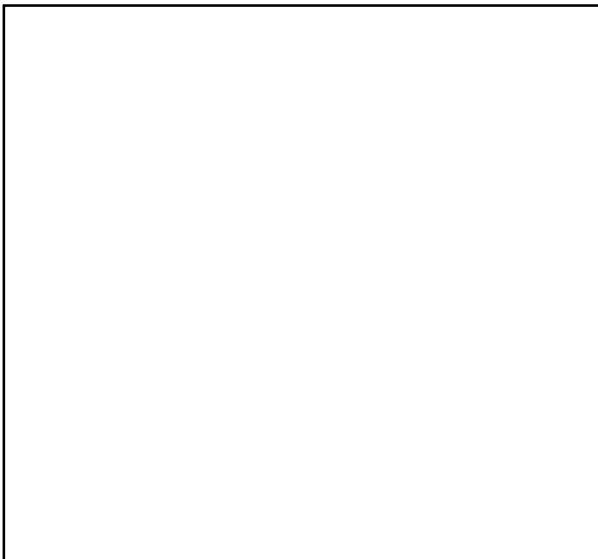
Efficiency: 100%

Upward Ratio: 6%

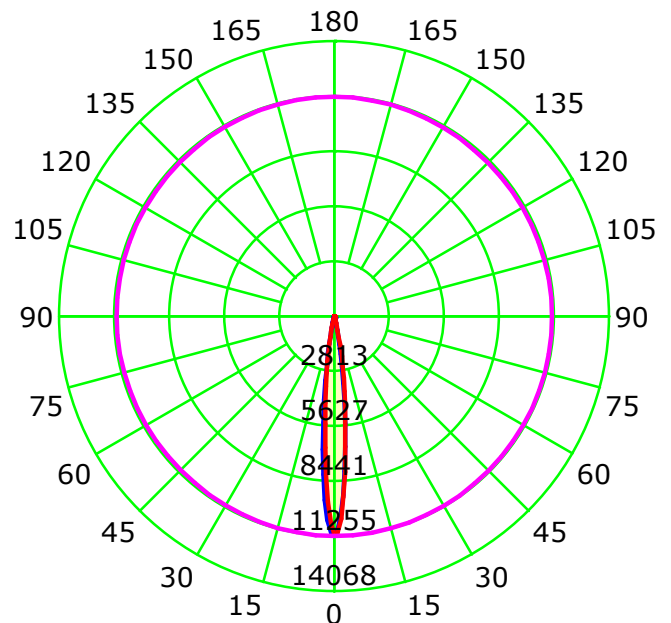
Central Intensity: 11255.07 cd

Pos of Max. Intensity: H0 V0

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 11.4° Unit: cd

— C0-C180 — C90-C270 — G0

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

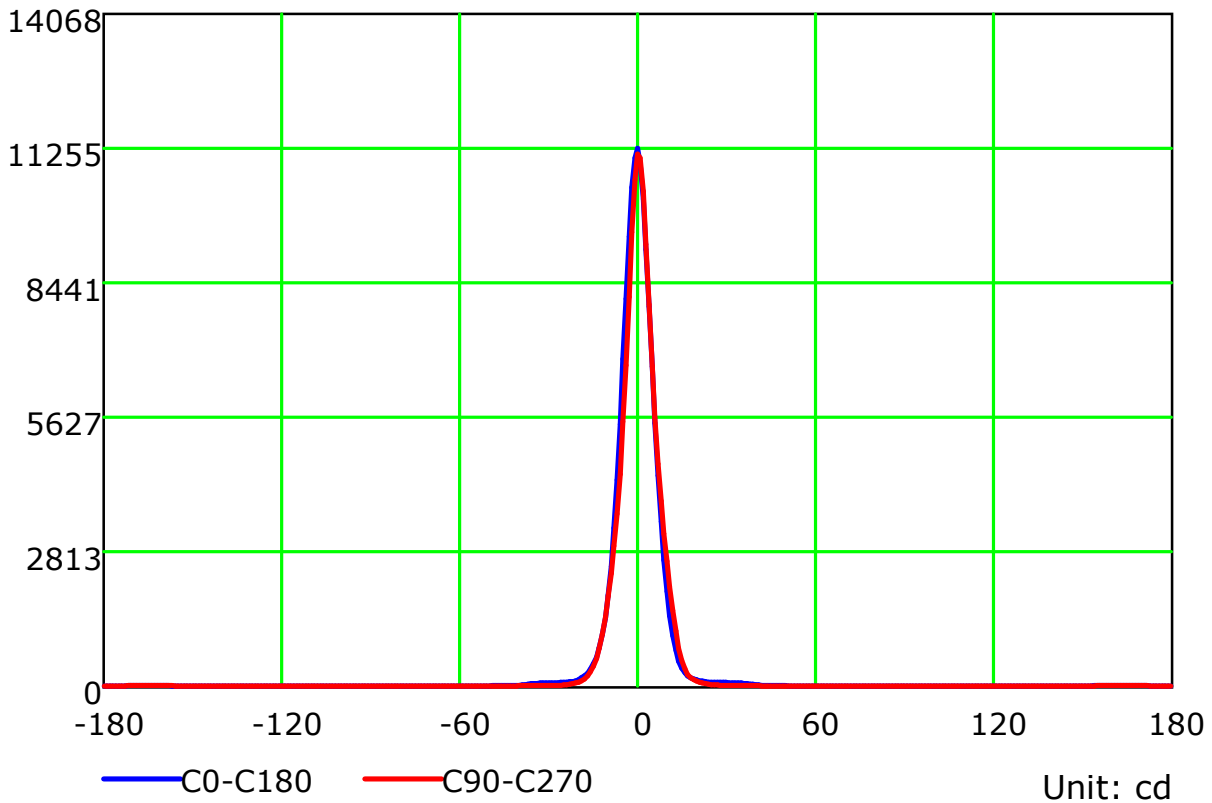
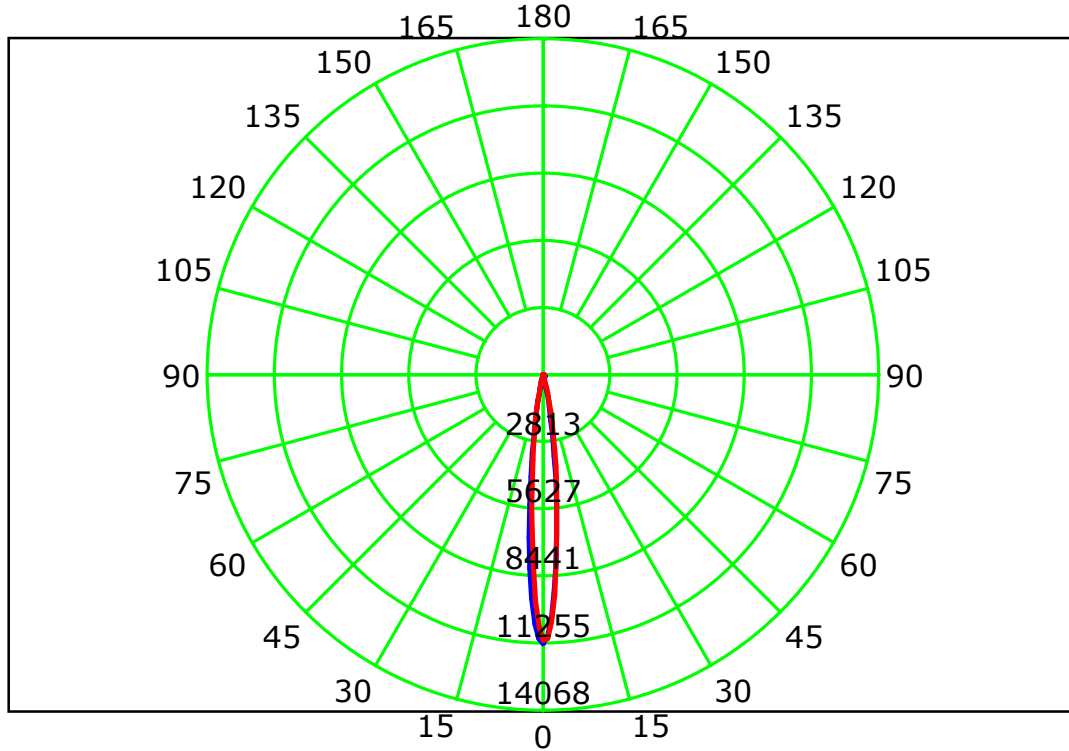
Test Device: GPM-1800B

Distance: 8.082 m

Humidity: 58

Inspector:

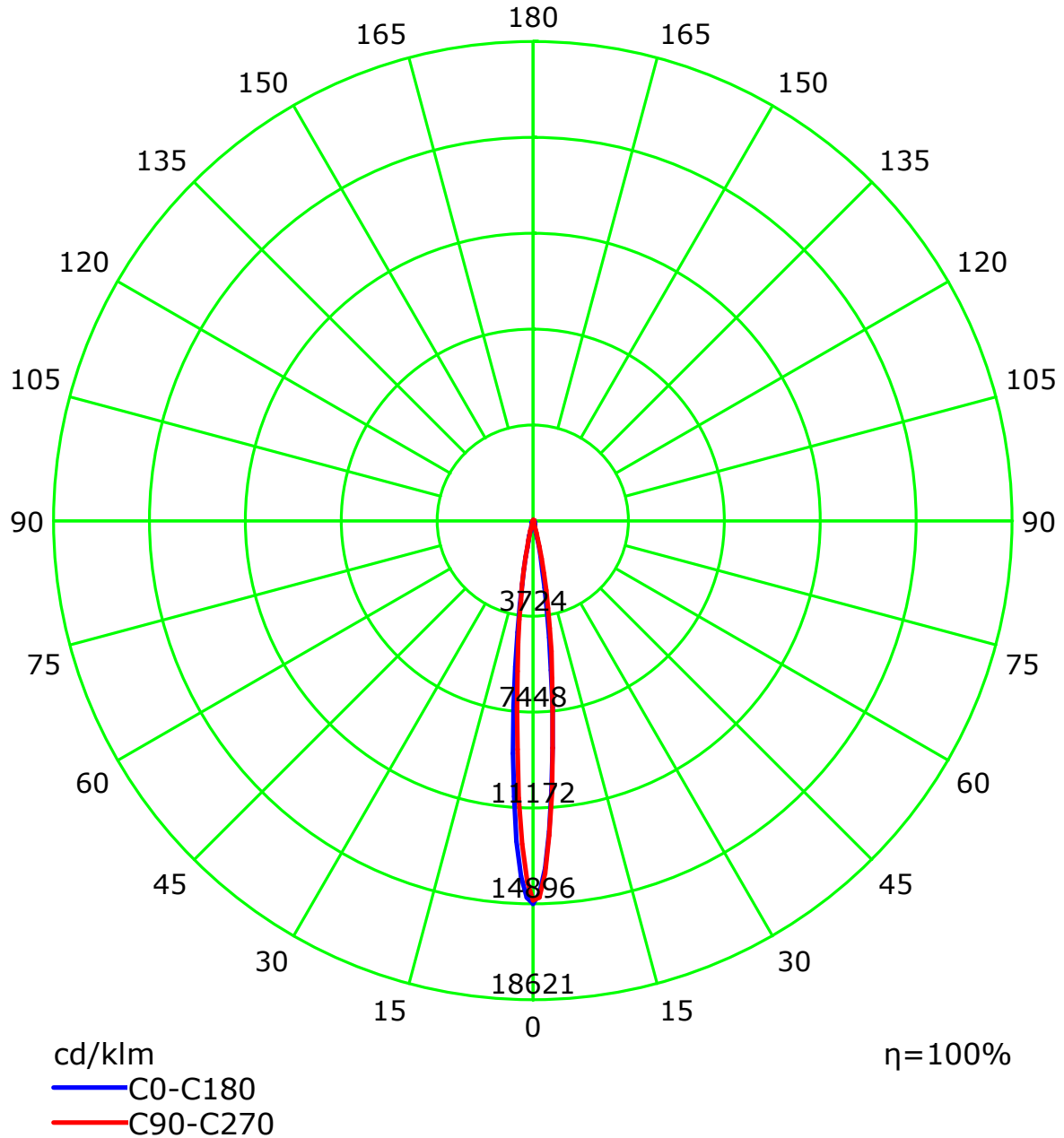
Luminous Intensity Distribution Curve



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: 8.082 m
Humidity: 58
Inspector:

Luminous Intensity Distribution Curve(cd/klm)



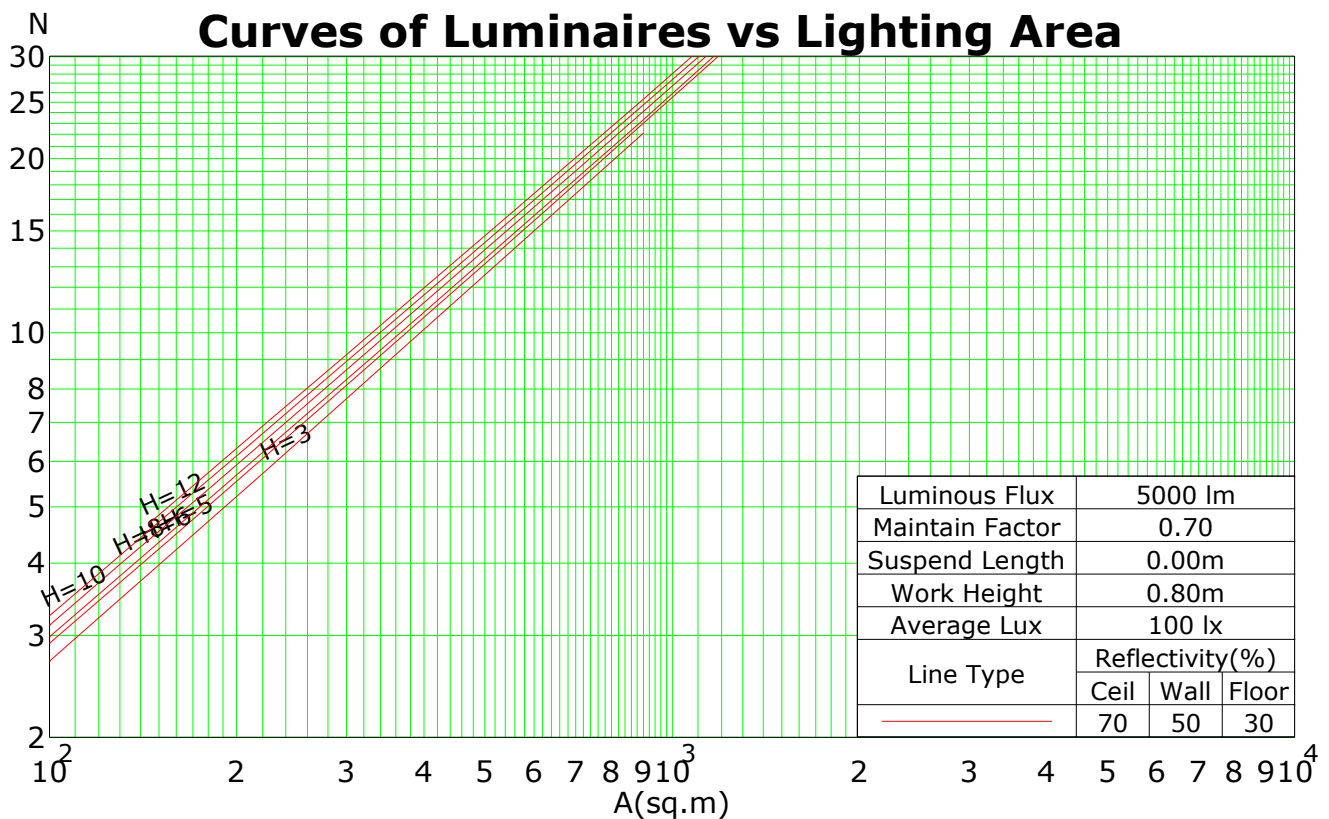
Coefficients Of Utilization - Zonal Cavity Method

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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	97	97	97	94
1	113	111	109	107	110	109	107	105	103	102	101	99	98	97	95	94	93	91
2	110	106	103	101	107	104	101	99	100	98	96	96	95	93	93	92	91	89
3	107	102	99	96	104	101	97	95	97	95	93	94	92	91	91	90	89	87
4	104	99	95	92	102	98	94	92	95	92	90	92	90	88	90	88	87	85
5	102	96	92	90	100	95	92	89	93	90	88	91	88	86	89	87	85	84
6	99	94	90	87	98	93	89	87	91	88	86	89	87	85	88	86	84	83
7	97	92	88	85	96	91	87	85	89	86	84	88	85	83	86	84	83	82
8	96	90	86	84	94	89	86	84	88	85	83	87	84	82	85	83	82	81
9	94	88	85	82	93	88	84	82	86	84	82	85	83	81	84	82	81	80
10	92	87	83	81	91	86	83	81	85	83	81	84	82	80	83	81	80	79

Spacing Criteria (0-180): 0.20

Spacing Criteria (90-270): 0.19

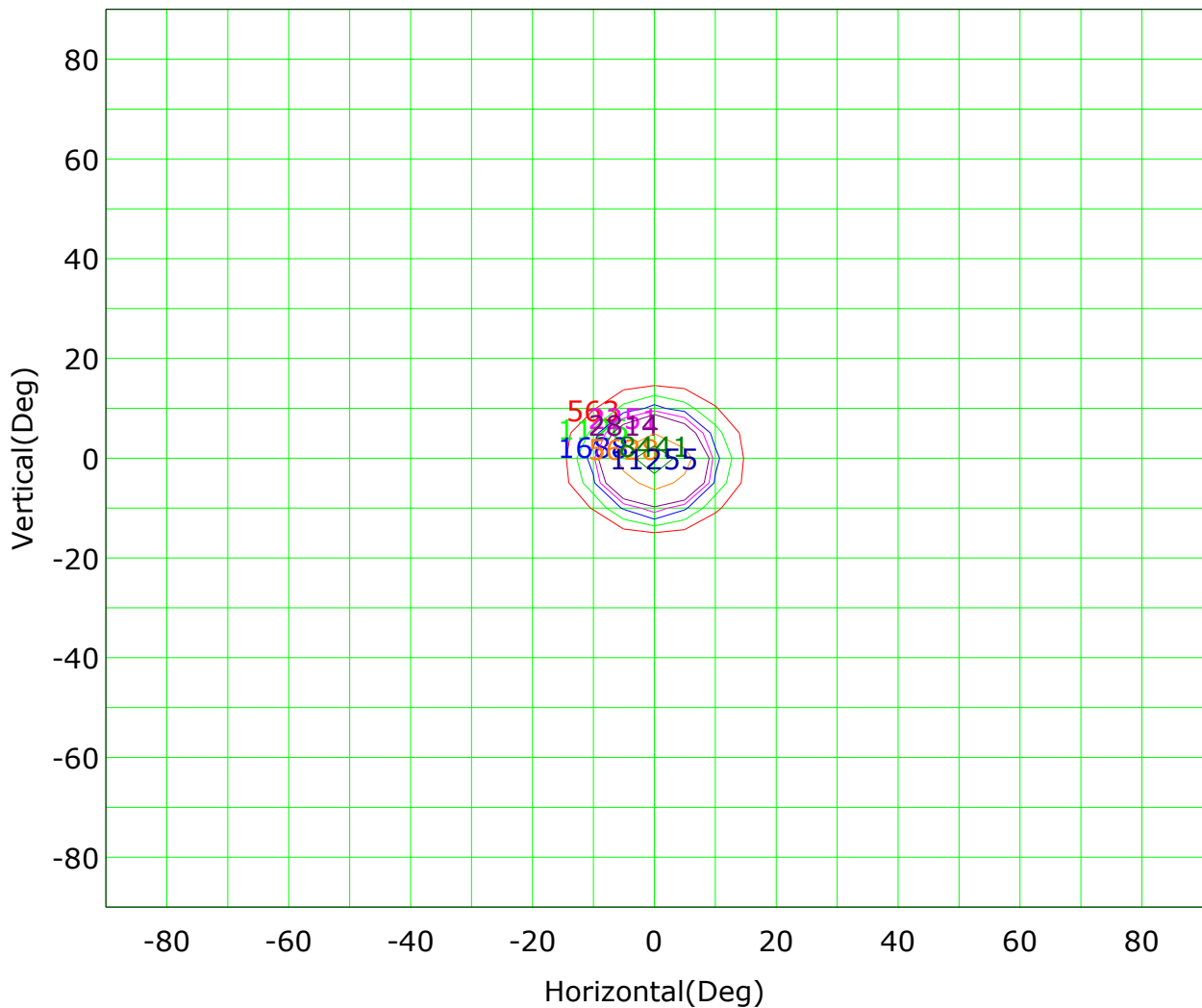
Spacing Criteria (Diagonal): 0.21



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: 8.082 m
Humidity: 58
Inspector:

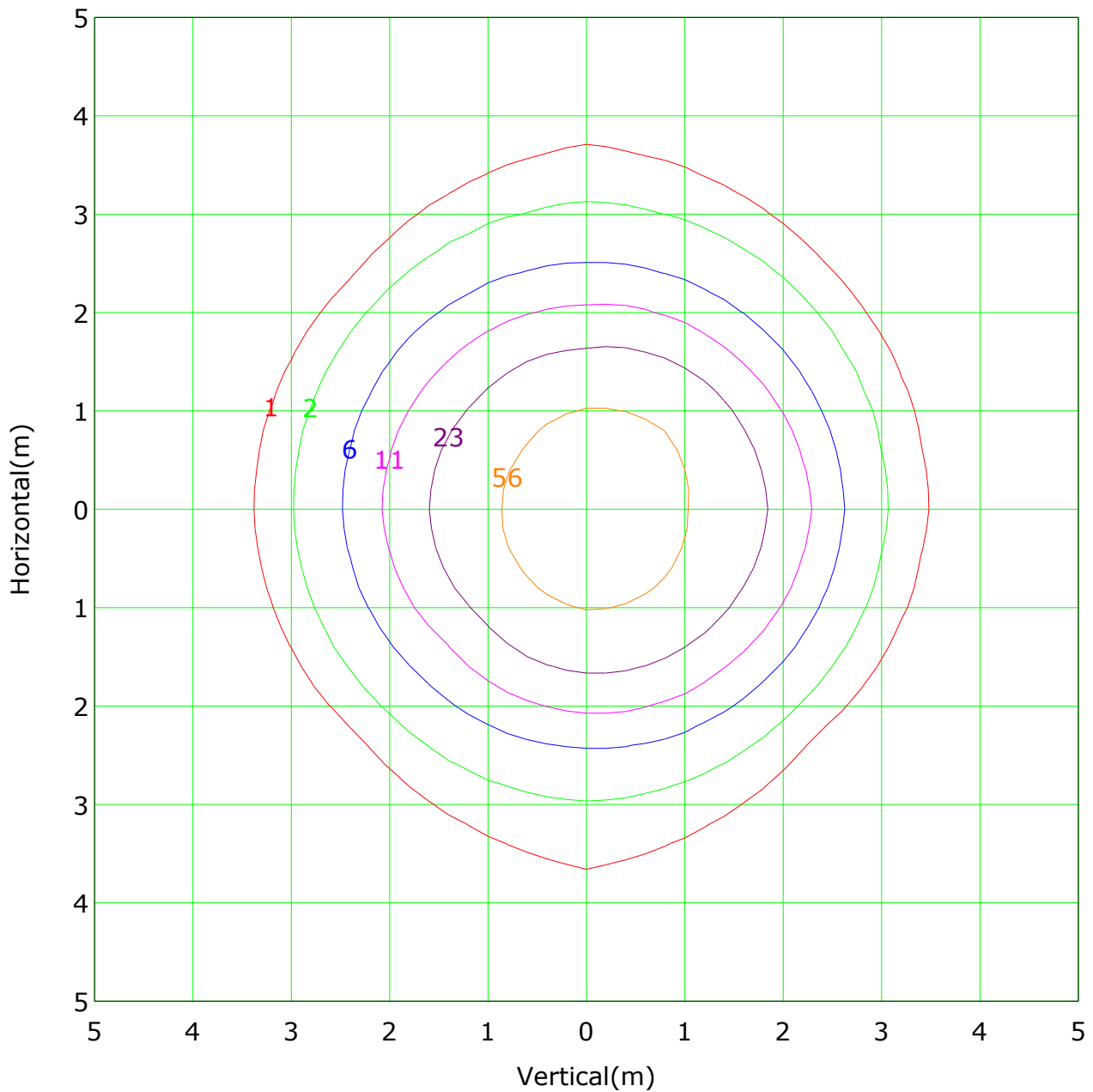
Isocandela (rectangle)



Imax (100%): 11255 cd

(5%): 563 cd	(10%): 1126 cd
(15%): 1688 cd	(20%): 2251 cd
(25%): 2814 cd	(50%): 5628 cd
(75%): 8441 cd	(100%): 11255 cd

IsoLux Plot



Mounting Height: 10.0m		Max Lux(100%): 112.6 lx	
— (1%):	1.1 lx	— (2%):	2.3 lx
— (5%):	5.6 lx	— (10%):	11.3 lx
— (20%):	22.5 lx	— (50%):	56.3 lx
— (100%):	112.6 lx	— (200%):	225.1 lx

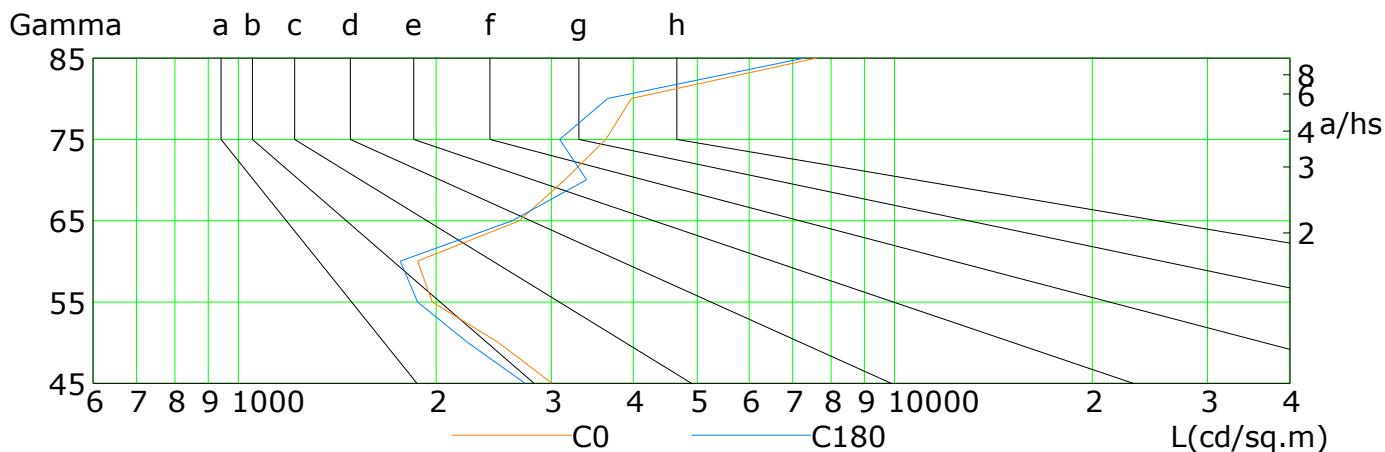
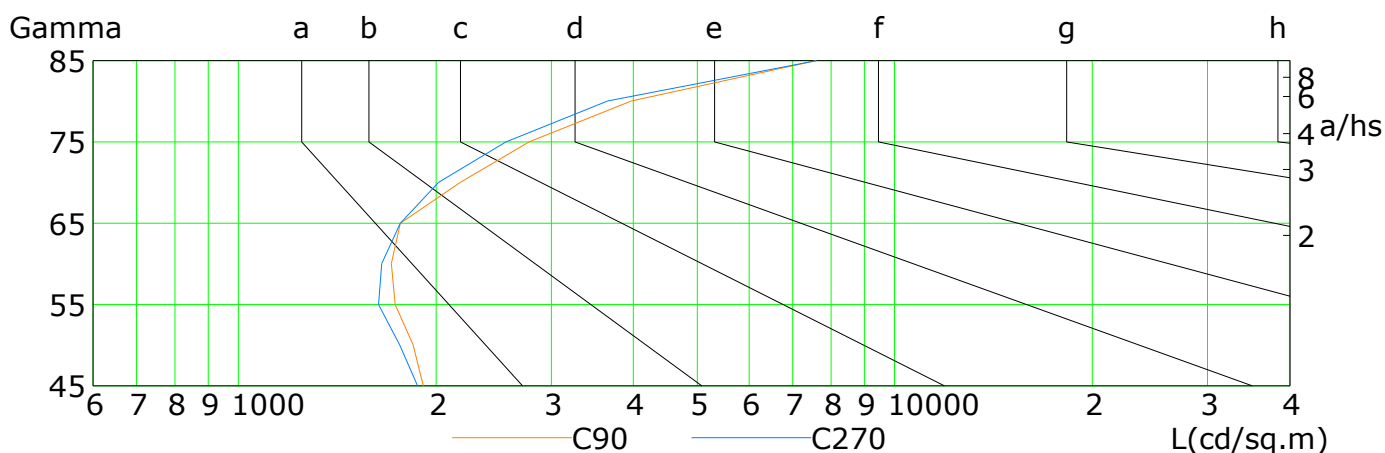
C Plane (°):0.0-360.0: 45.0
Test Lab: Inventfine instrument
Test Type: TYPE C
Temperature: 28
Operator: Jacky tang

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.082 m
Humidity: 58
Inspector:

Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300

a b c d e f g h

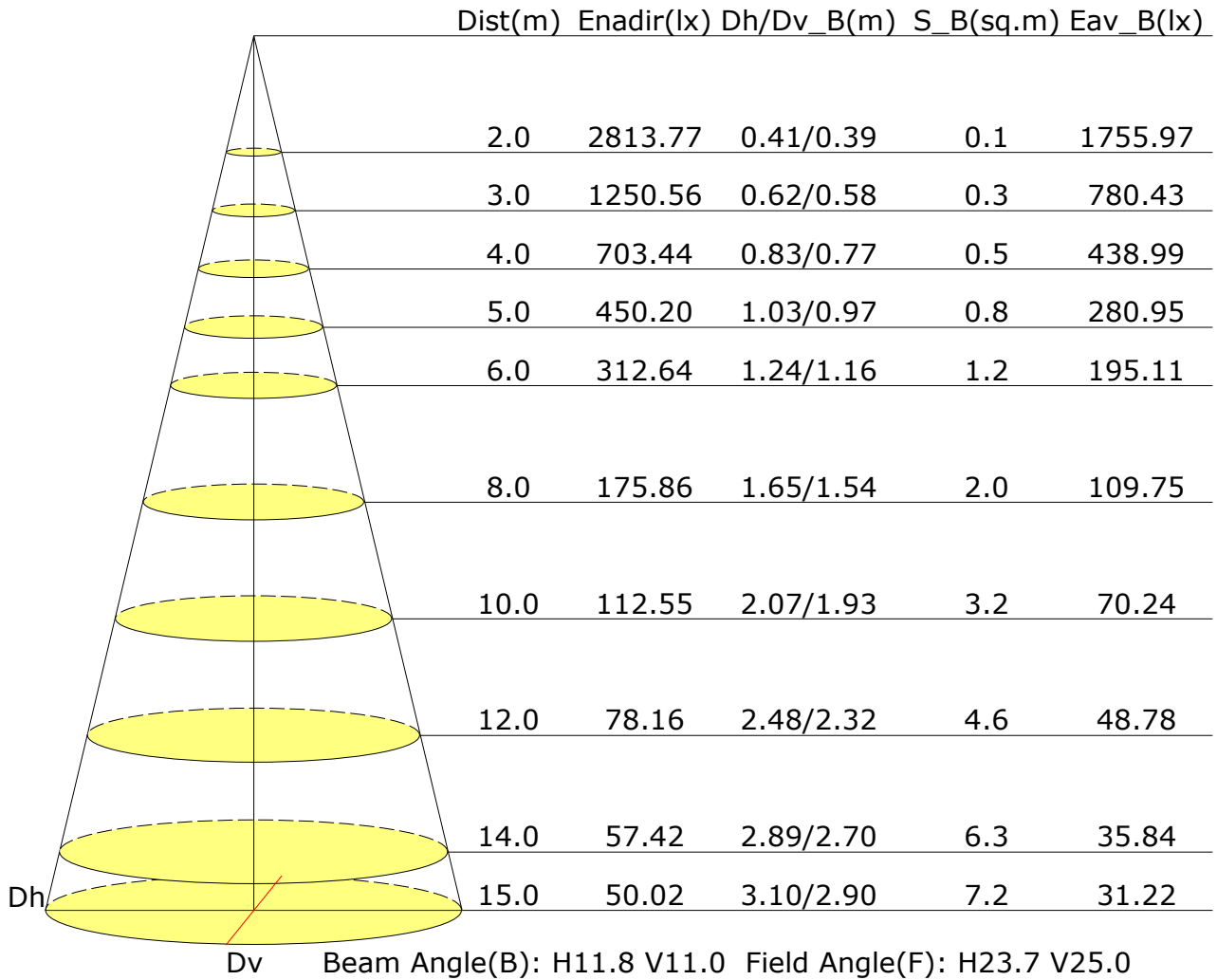


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	3007	2491	1973	1878	2678	3147	3627	3975	7601
C90	1913	1847	1734	1711	1765	2180	2774	3975	7601
C180	2734	2234	1877	1767	2613	3391	3091	3655	7283
C270	1874	1761	1637	1656	1765	2018	2560	3655	7601

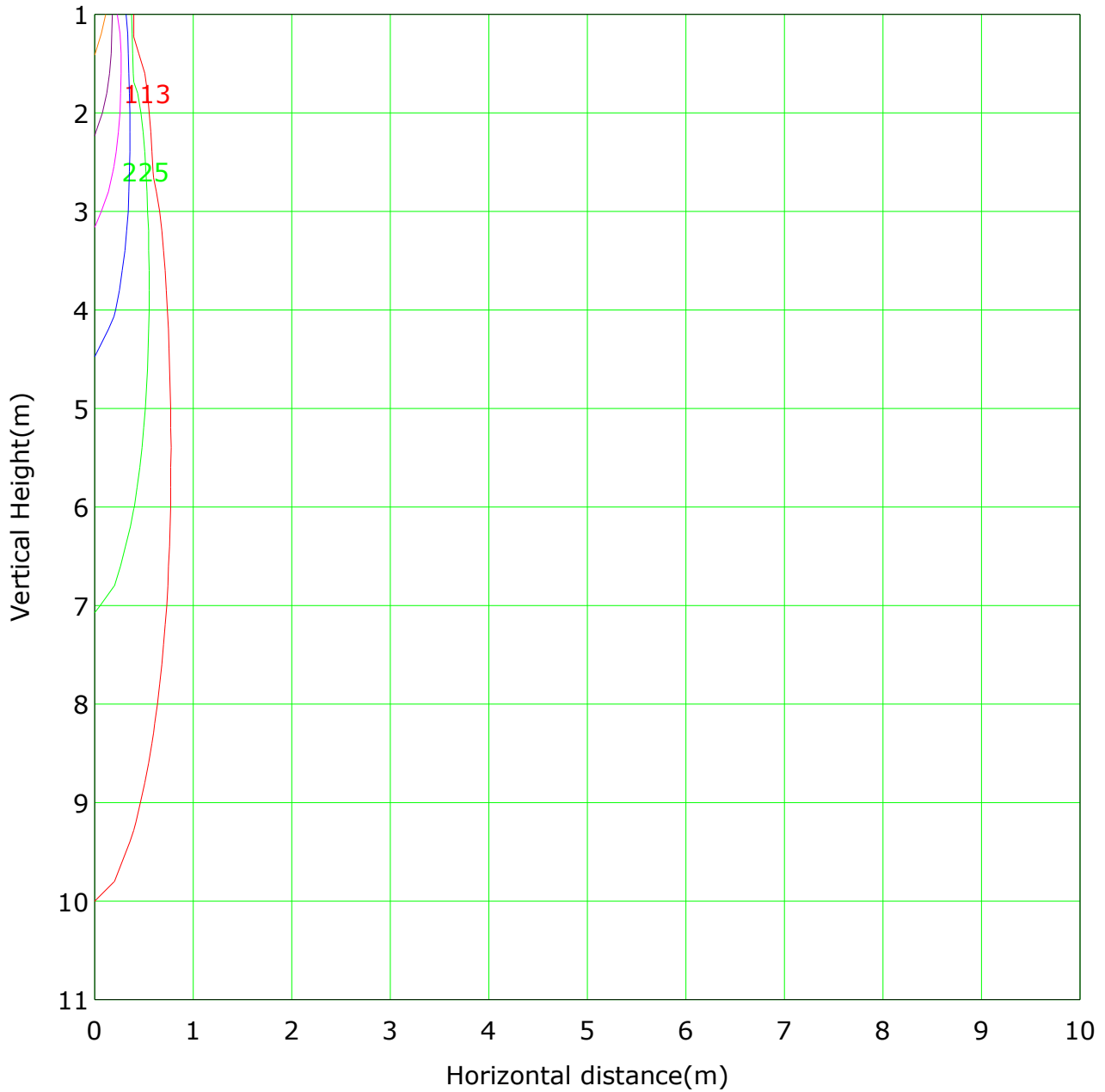
C Plane (°): 0.0-360.0: 45.0
Test Lab: Inventfine instrument
Test Type: TYPE C
Temperature: 28
Operator: Jacky tang

Gamma Plane (°): 0.0-180.0: 1.0
Test Device: GPM-1800B
Distance: 8.082 m
Humidity: 58
Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 11255.1 lx

— (1%): 112.6 lx	— (2%): 225.1 lx
— (5%): 562.8 lx	— (10%): 1125.5 lx
— (20%): 2251.0 lx	— (50%): 5627.5 lx
— (100%): 11255.1 lx	— (200%): 22510.1 lx

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

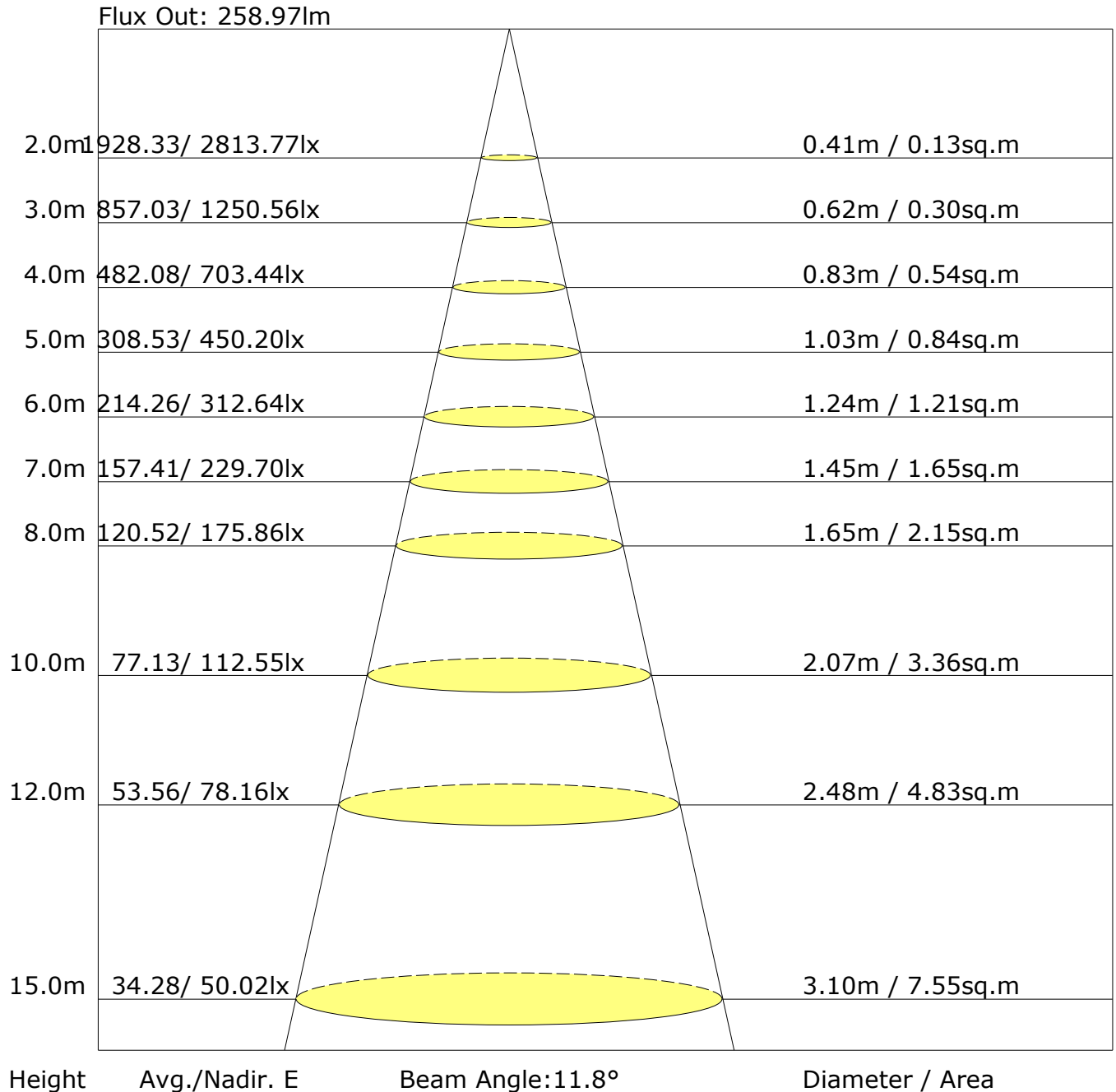
Gamma Plane (°): 0.0-180.0: 1.0
Test Device: GPM-1800B
Distance: 8.082 m
Humidity: 58
Inspector:

Unit: lm

[illegible]

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 8.082 m
Humidity: 58
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	6.3	7.2	6.7	7.6	8.0	5.8	6.8	6.3	7.2	7.6
3H	9.9	10.7	10.3	11.1	11.6	8.5	9.3	9.0	9.7	10.2
4H	11.3	12.0	11.8	12.5	13.0	9.9	10.7	10.5	11.1	11.7
6H	12.4	13.1	12.9	13.6	14.1	11.6	12.3	12.1	12.8	13.3
8H	13.2	13.8	13.7	14.3	14.8	12.5	13.2	13.1	13.7	14.2
12H	14.1	14.7	14.6	15.2	15.7	13.7	14.3	14.2	14.8	15.3
X=4H Y=2H	7.0	7.7	7.5	8.2	8.7	6.7	7.4	7.2	7.9	8.4
3H	10.6	11.2	11.1	11.7	12.2	9.6	10.2	10.1	10.7	11.2
4H	12.3	12.8	12.8	13.3	13.9	11.2	11.8	11.7	12.3	12.8
6H	13.7	14.1	14.2	14.7	15.3	13.1	13.5	13.6	14.1	14.7
8H	14.5	14.9	15.1	15.5	16.1	14.1	14.5	14.7	15.1	15.7
12H	15.6	16.0	16.2	16.5	17.1	15.3	15.7	15.9	16.3	16.9
X=8H Y=4H	12.7	13.1	13.3	13.7	14.3	11.9	12.3	12.4	12.8	13.4
6H	14.4	14.7	15.0	15.3	15.9	14.0	14.3	14.6	14.9	15.5
8H	15.4	15.8	16.1	16.4	17.0	15.2	15.5	15.8	16.1	16.7
12H	16.8	17.1	17.4	17.7	18.3	16.6	16.9	17.3	17.5	18.2
X=12H Y=4H	12.8	13.2	13.4	13.8	14.4	12.0	12.4	12.6	13.0	13.6
6H	14.6	14.9	15.2	15.5	16.1	14.2	14.5	14.8	15.1	15.8
8H	15.8	16.1	16.4	16.7	17.3	15.6	15.8	16.2	16.4	17.1

Calculate in accordance with CIE 190:2010

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: 8.082 m
 Humidity: 58
 Inspector:

Utilisation Factor Table(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 0.50									
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	1.08	1.12	1.14	1.16	1.19	1.21	1.22	1.24	1.25	
	0.30		1.05	1.08	1.11	1.13	1.16	1.18	1.19	1.22	1.23	
	0.20		1.02	1.05	1.08	1.10	1.13	1.16	1.17	1.20	1.22	
0.50	0.50	0.20	1.06	1.09	1.11	1.13	1.15	1.16	1.17	1.18	1.19	
	0.30		1.04	1.06	1.08	1.10	1.12	1.14	1.15	1.17	1.18	
	0.20		1.01	1.04	1.06	1.08	1.10	1.12	1.13	1.15	1.17	
0.30	0.50	0.20	1.05	1.07	1.08	1.09	1.11	1.12	1.13	1.14	1.14	
	0.30		1.02	1.05	1.06	1.07	1.09	1.10	1.11	1.12	1.13	
	0.20		1.00	1.03	1.04	1.06	1.08	1.09	1.10	1.11	1.12	
0.00	0.00	0.00	0.98	1.00	1.01	1.02	1.03	1.04	1.05	1.05	1.06	
Rating:0W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

Utilisation Factor Table(Wall)

Utilisation Factors UF(W)			SHR NOM = 0.50									
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	0.44	0.37	0.33	0.29	0.23	0.20	0.17	0.14	0.11	
	0.30		0.37	0.32	0.28	0.25	0.21	0.18	0.16	0.13	0.11	
	0.20		0.32	0.28	0.25	0.23	0.19	0.17	0.15	0.12	0.10	
0.50	0.50	0.20	0.40	0.34	0.29	0.26	0.21	0.22	0.15	0.12	0.10	
	0.30		0.34	0.29	0.26	0.23	0.19	0.16	0.14	0.11	0.09	
	0.20		0.30	0.26	0.23	0.21	0.17	0.15	0.13	0.11	0.09	
0.30	0.50	0.20	0.37	0.30	0.26	0.23	0.18	0.15	0.13	0.10	0.09	
	0.30		0.31	0.27	0.23	0.21	0.17	0.14	0.12	0.10	0.08	
	0.20		0.27	0.24	0.21	0.19	0.16	0.13	0.12	0.09	0.08	
0.00	0.00	0.00	0.10	0.08	0.07	0.06	0.05	0.04	0.04	0.03	0.03	
Rating:0W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

Utilisation Factor Table(Ceiling cavity)

Utilisation Factors UF(C)			SHR NOM = 0.50									
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	0.18	0.21	0.22	0.23	0.25	0.26	0.27	0.28	0.29	
	0.30		0.15	0.18	0.19	0.21	0.23	0.24	0.25	0.27	0.28	
	0.20		0.13	0.15	0.17	0.19	0.21	0.22	0.24	0.25	0.26	
0.50	0.50	0.20	0.18	0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	
	0.30		0.15	0.17	0.19	0.20	0.22	0.23	0.24	0.26	0.27	
	0.20		0.13	0.15	0.17	0.18	0.20	0.22	0.23	0.25	0.25	
0.30	0.50	0.20	0.17	0.19	0.21	0.22	0.23	0.24	0.25	0.26	0.26	
	0.30		0.15	0.17	0.18	0.20	0.21	0.23	0.24	0.25	0.26	
	0.20		0.13	0.15	0.17	0.18	0.20	0.21	0.22	0.24	0.25	
0.00	0.00	0.00	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	
Rating:0W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												