

Report No.: 6

Test Time: 2021/8/6 18:23

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: ZENO 8W

Luminous Width (mm): 81

Current: 0.055 A

Power Factor: 0.85

Luminous Length (mm): 81

Voltage: 220 V

Power: 8.23 W

Photometric Results

CIE Class: Direct

Measurement Flux: 620.71 lm

Downward Ratio: 98%

Horizontal Diffuse Angle(50%): H83

Vertical Diffuse Angle(50%): V42.1

Luminaire Efficacy Rating (LER): 76

Max. Intensity: 228.09 cd

Total Rated Lamp Lumens: 620.71 lm

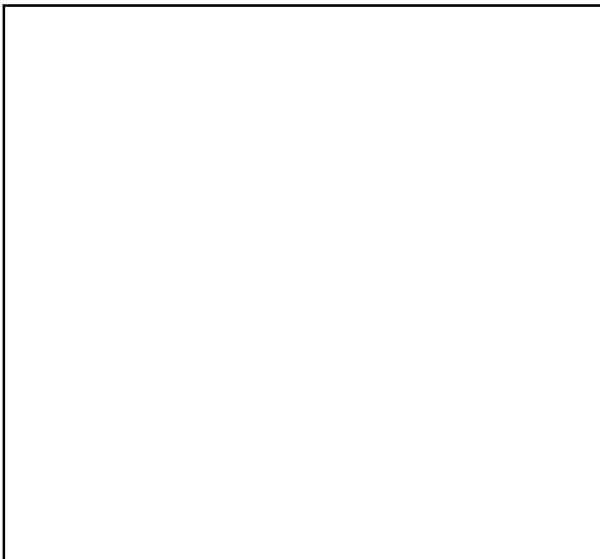
Efficiency: 100%

Upward Ratio: 2%

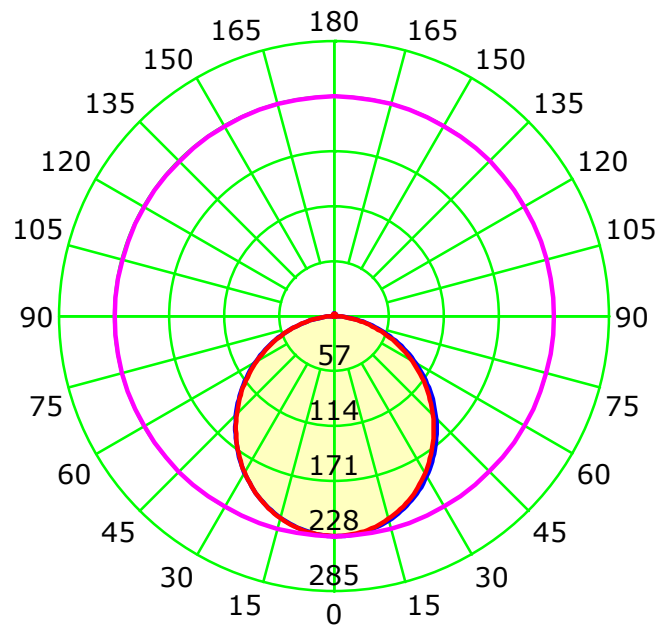
Central Intensity: 228.08 cd

Pos of Max. Intensity: H0 V0

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 83.0°

— 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

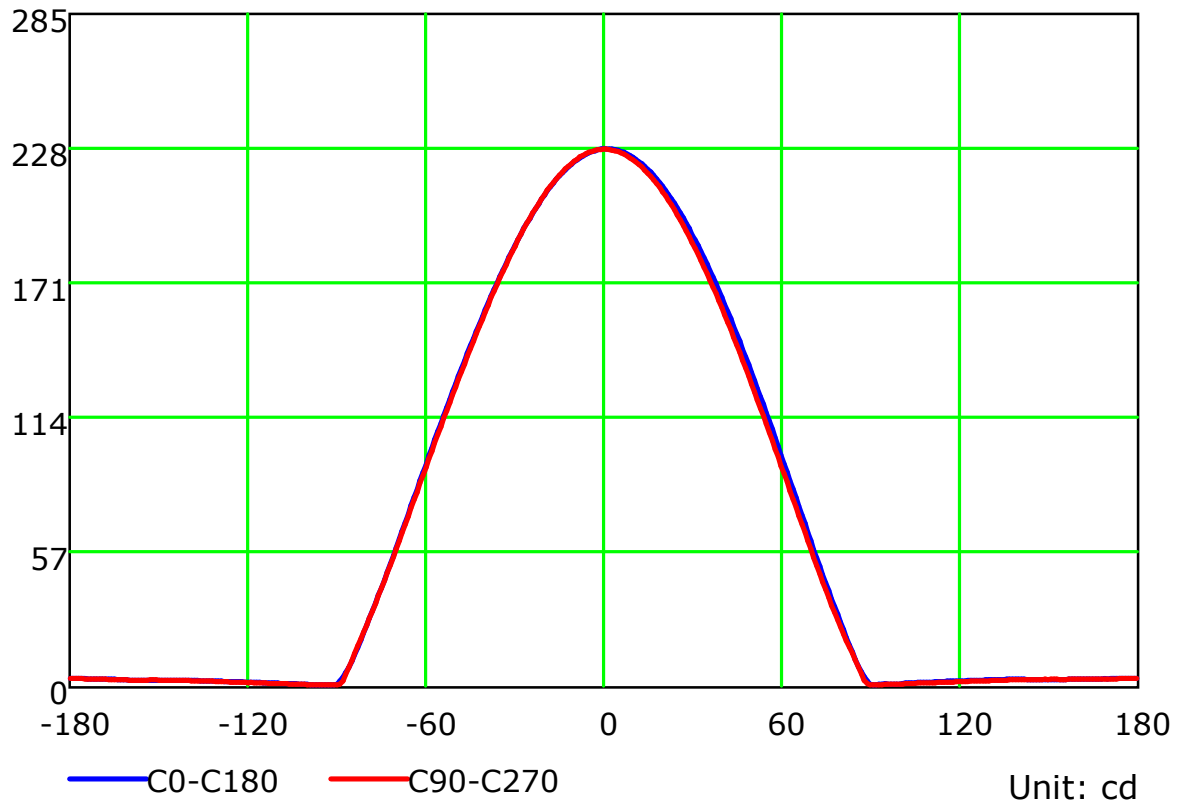
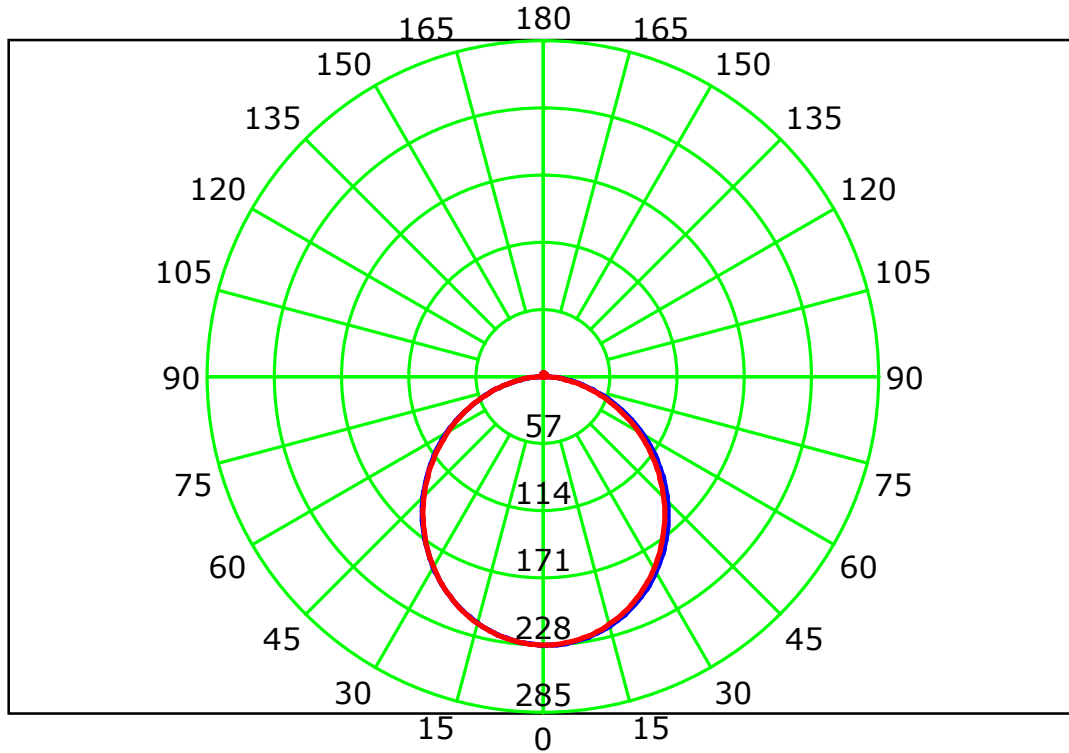
Test Device: GPM-1800B

Distance: 8.082 m

Humidity: 58

Inspector:

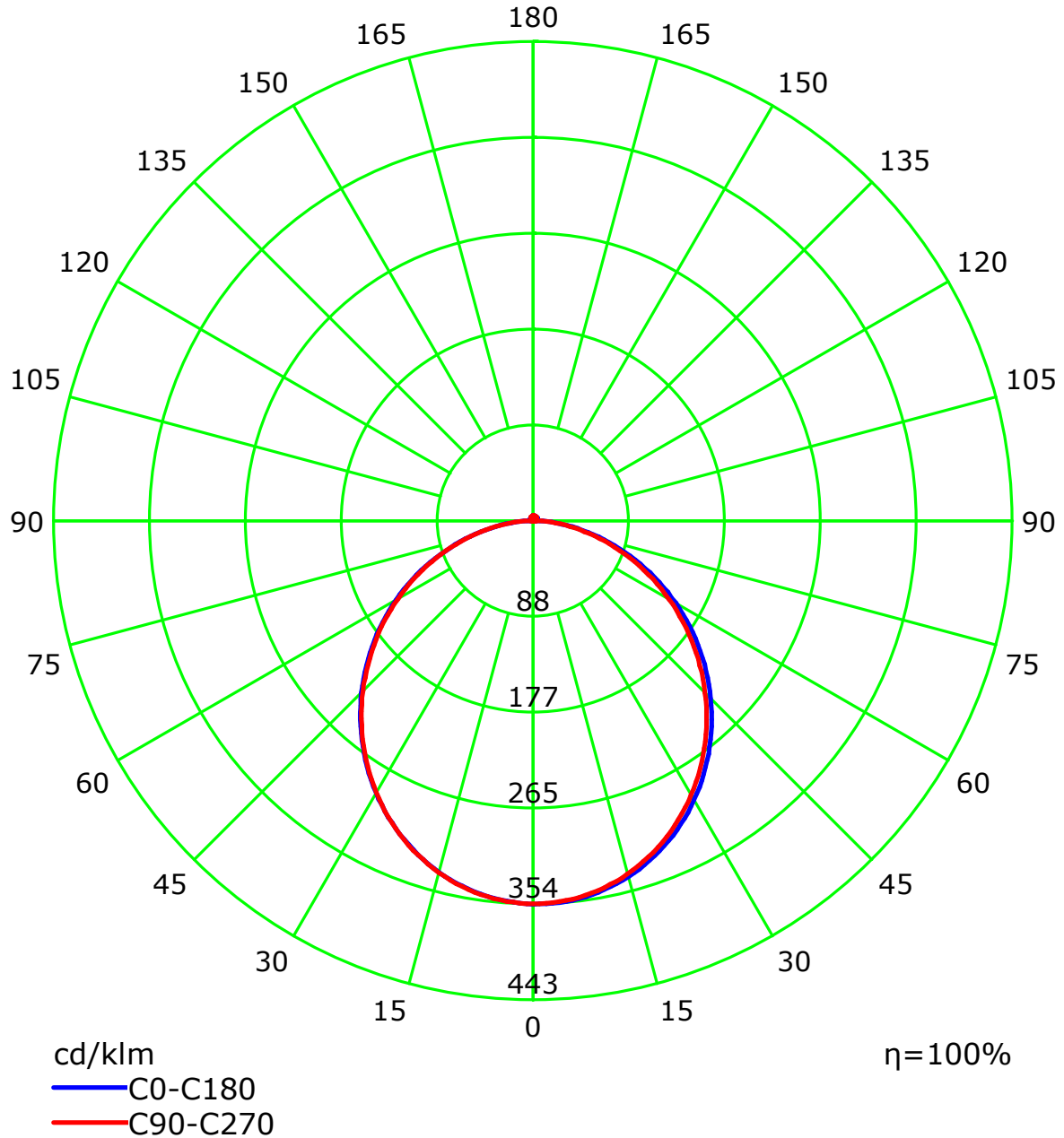
Luminous Intensity Distribution Curve



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)



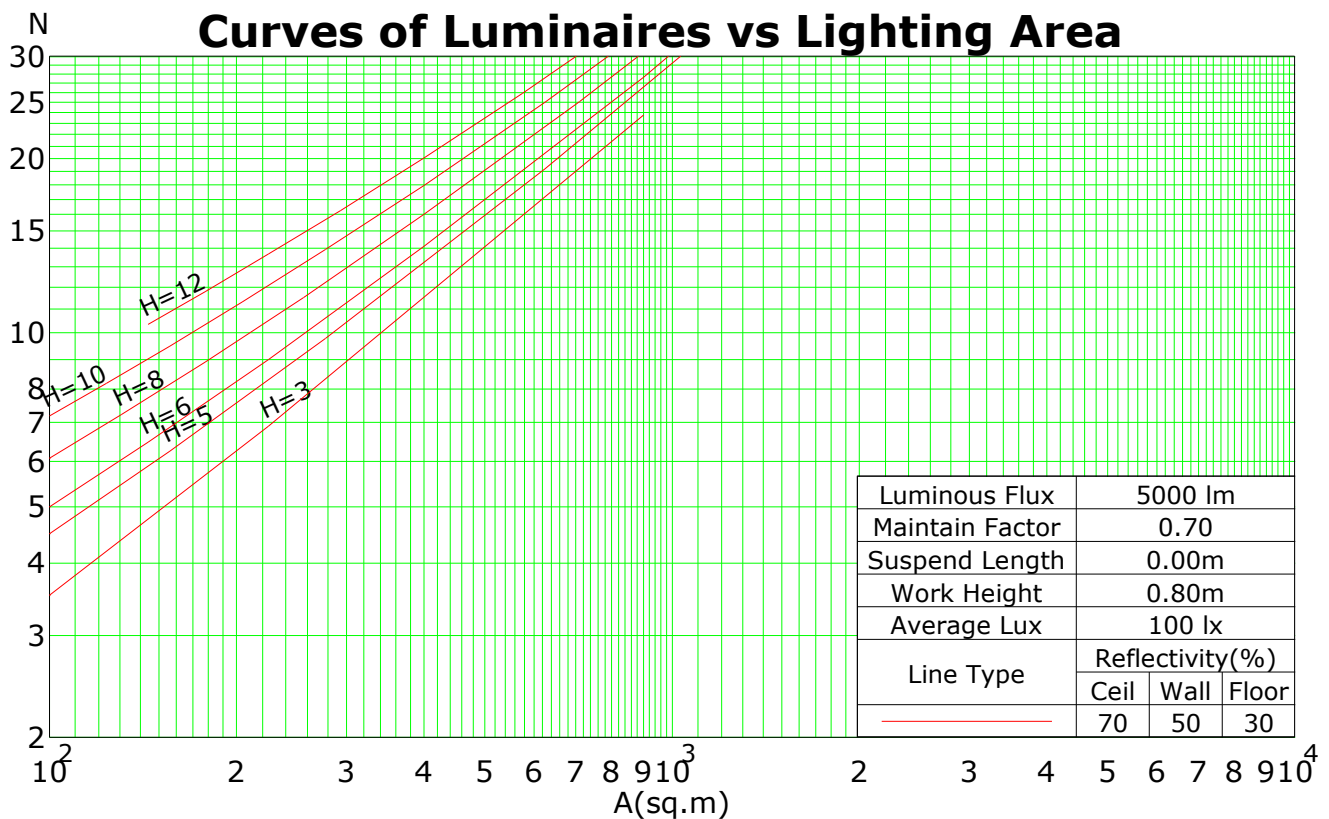
Coefficients Of Utilization - Zonal Cavity Method

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	119	119	119	119	116	116	116	116	110	110	110	105	105	105	100	100	100	98
1	108	103	99	95	105	101	97	94	96	93	90	92	90	87	88	86	84	82
2	98	90	83	78	96	88	82	76	84	79	74	81	76	72	77	74	71	68
3	90	79	71	64	87	77	70	64	74	68	62	71	66	61	68	64	60	57
4	82	70	61	55	80	69	60	54	66	59	53	63	57	52	61	56	51	49
5	76	63	54	47	73	61	53	47	59	52	46	57	50	45	55	49	45	42
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	45	39	35	33
8	60	47	38	32	59	46	38	32	44	37	32	43	36	32	42	36	31	29
9	56	43	35	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	40	32	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

Spacing Criteria (0-180): 1.24

Spacing Criteria (90-270): 1.22

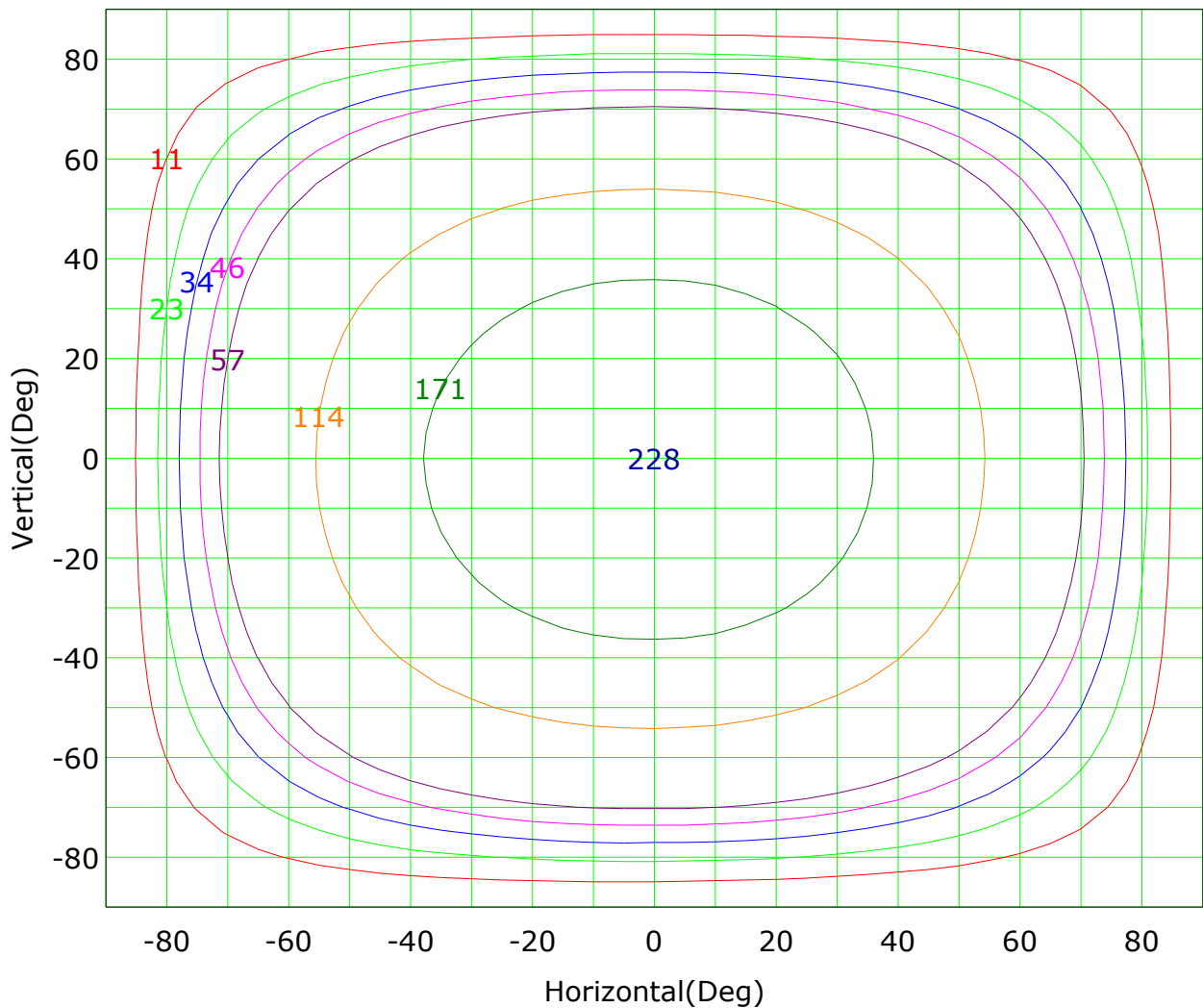
Spacing Criteria (Diagonal): 1.35



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)



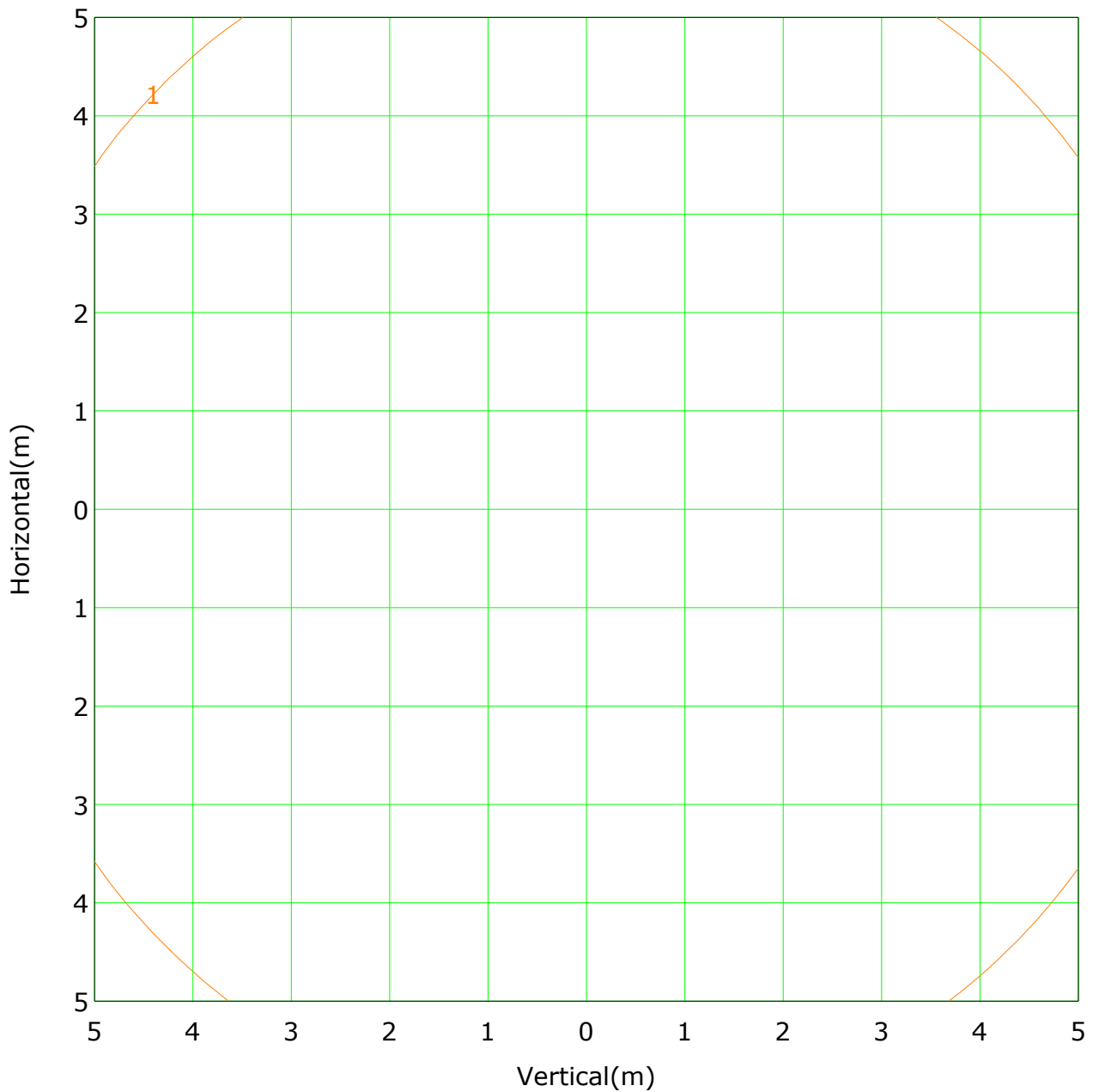
Imax (100%): 228 cd

(5%):	11 cd	(10%):	23 cd
(15%):	34 cd	(20%):	46 cd
(25%):	57 cd	(50%):	114 cd
(75%):	171 cd	(100%):	228 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: 8.082 m
Humidity: 58
Inspector:

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 2.3 lx

(1%): 0.0 lx	(2%): 0.0 lx
(5%): 0.1 lx	(10%): 0.2 lx
(20%): 0.5 lx	(50%): 1.1 lx
(100%): 2.3 lx	

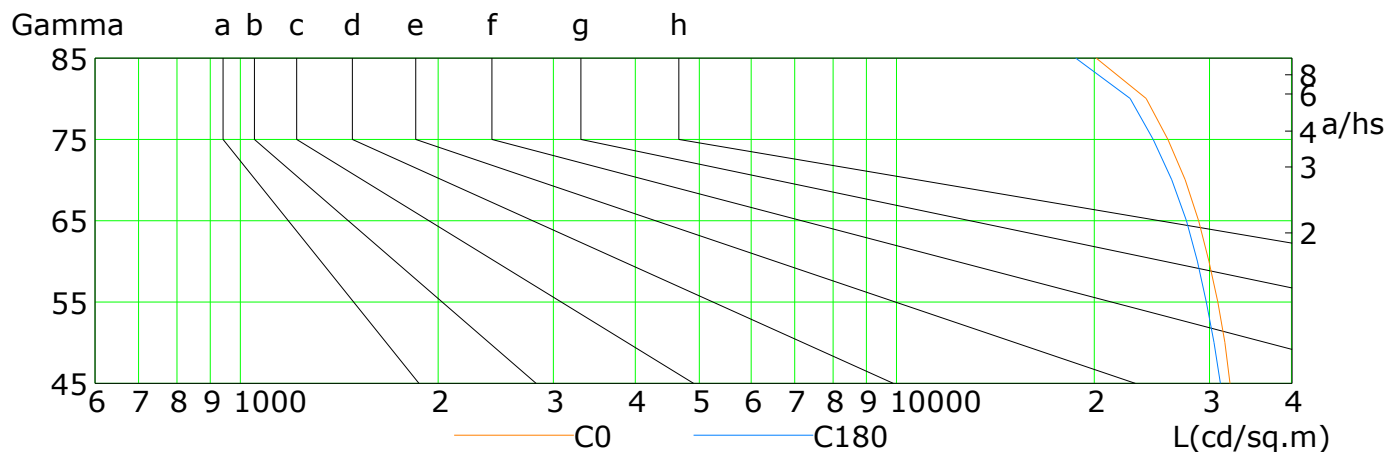
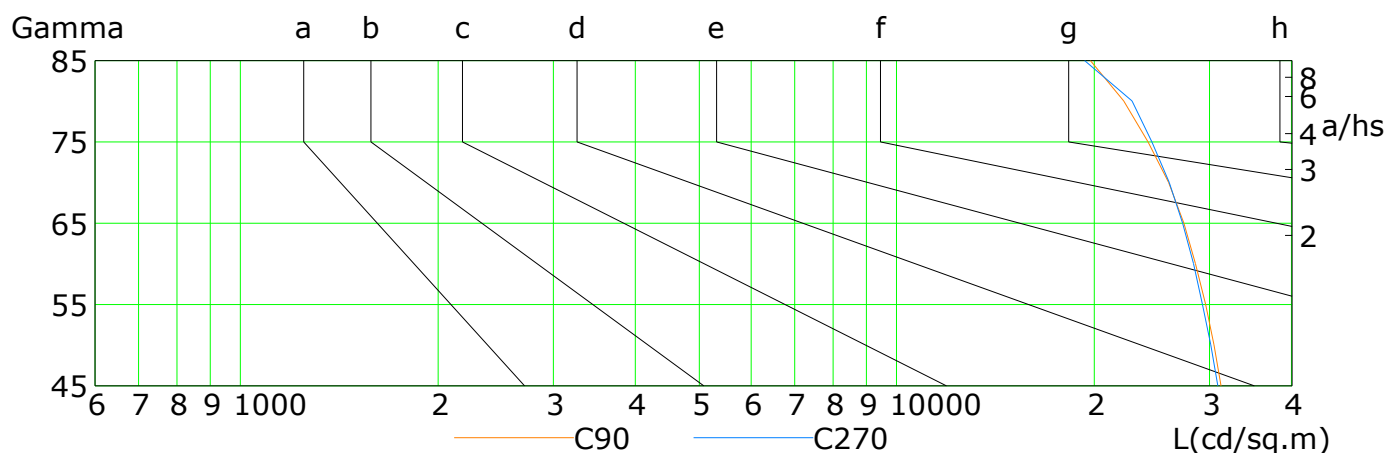
C Plane (°):0.0-360.0: 45.0
Test Lab: Inventfine instrument
Test Type: TYPE C
Temperature: 28
Operator: Jacky tang

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

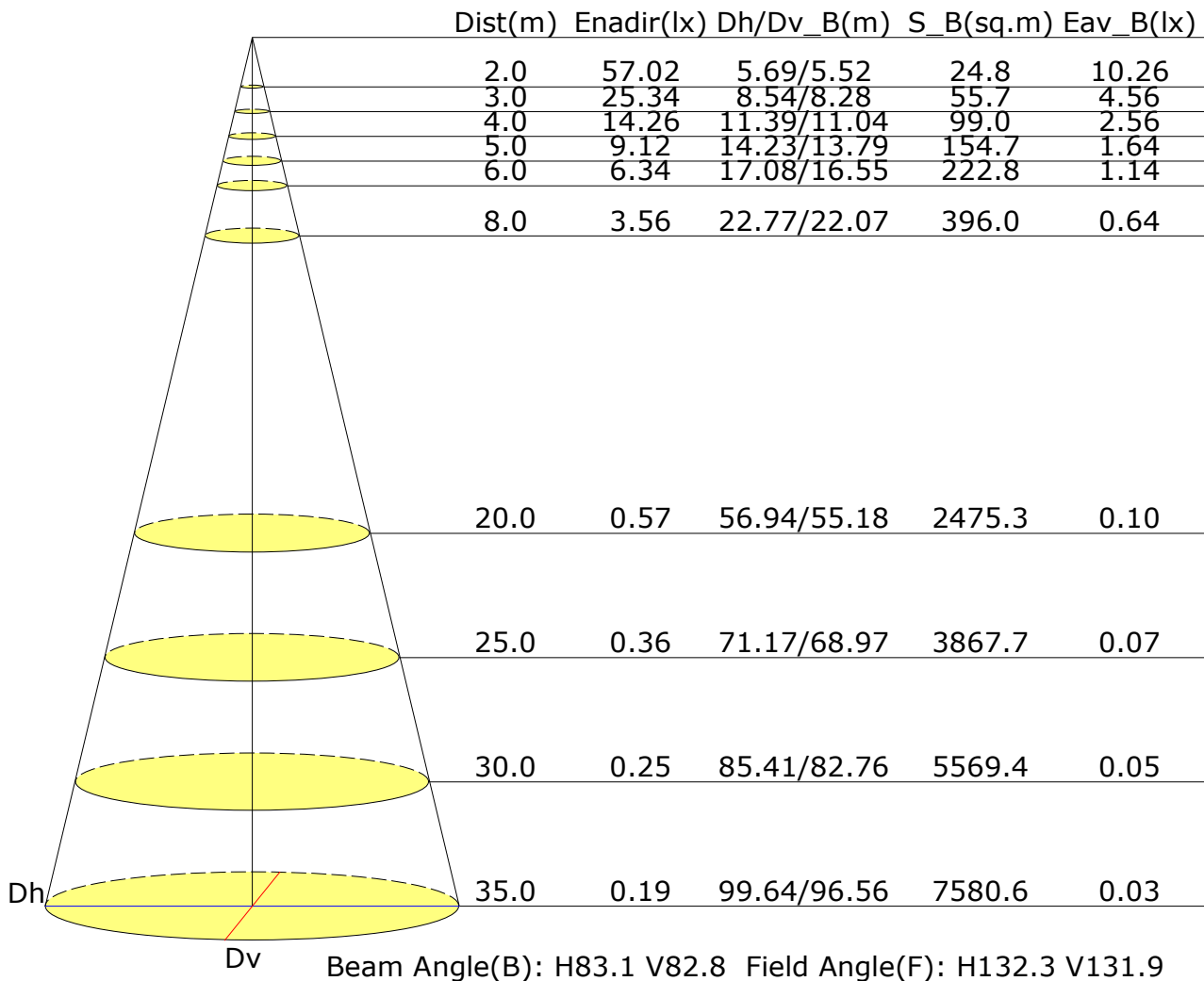


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	32240	31610	30830	29934	28877	27513	25888	23980	20128
C90	31203	30441	29586	28535	27398	25945	24156	22171	19726
C180	31145	30415	29631	28697	27647	26248	24621	22698	18729
C270	30864	30114	29249	28355	27290	25994	24504	22865	19359

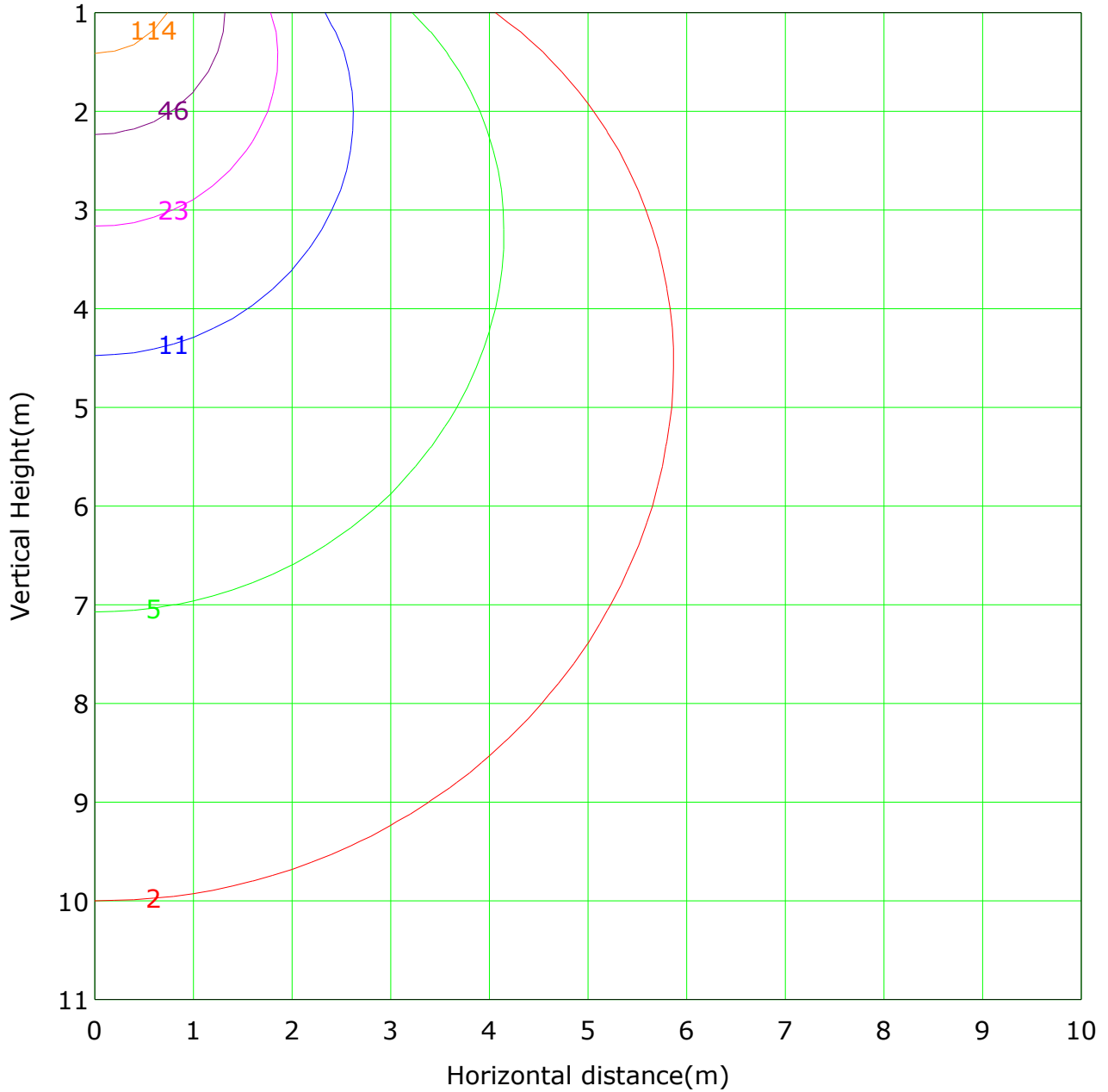
C Plane (°):0.0-360.0: 45.0
Test Lab: Inventfine instrument
Test Type: TYPE C
Temperature: 28
Operator: Jacky tang

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



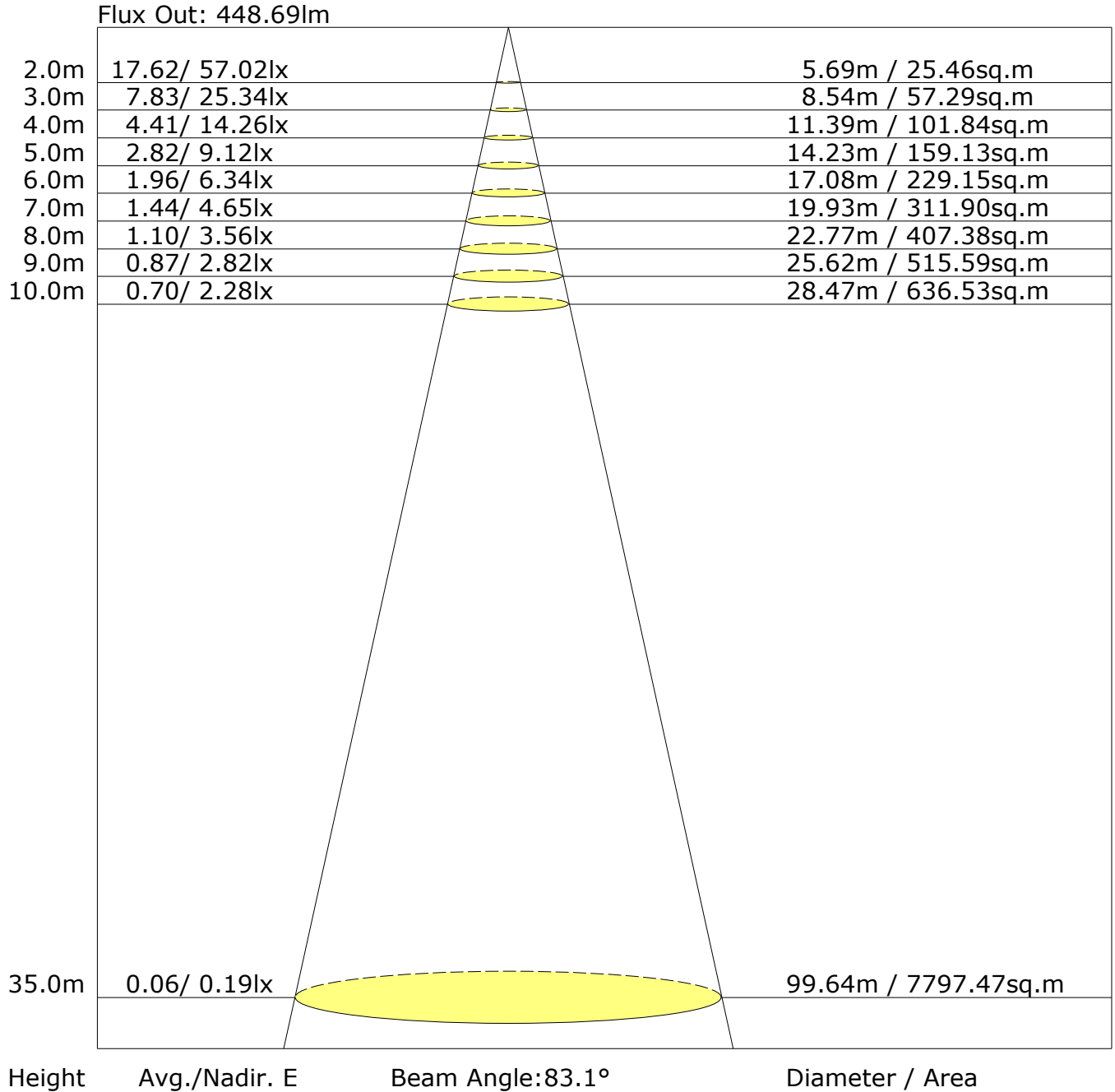
Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 228.1 lx
— (1%): 2.3 lx — (2%): 4.6 lx
— (5%): 11.4 lx — (10%): 22.8 lx
— (20%): 45.6 lx — (50%): 114.0 lx
— (100%): 228.1 lx

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:

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	25.5	27.0	25.9	27.4	27.8	25.3	26.8	25.7	27.2	27.6
3H	27.3	28.7	27.7	29.1	29.5	27.0	28.5	27.5	28.9	29.3
4H	28.0	29.4	28.4	29.7	30.2	27.7	29.1	28.2	29.5	29.9
6H	28.5	29.8	29.0	30.2	30.6	28.2	29.5	28.7	29.9	30.3
8H	28.7	29.9	29.2	30.3	30.8	28.4	29.6	28.9	30.0	30.5
12H	28.8	30.0	29.3	30.4	30.9	28.5	29.7	29.0	30.1	30.6
X=4H Y=2H	26.1	27.4	26.5	27.8	28.2	25.9	27.3	26.3	27.6	28.1
3H	28.1	29.3	28.6	29.7	30.2	27.9	29.1	28.4	29.5	29.9
4H	29.0	30.0	29.4	30.5	30.9	28.7	29.7	29.2	30.2	30.7
6H	29.6	30.5	30.1	31.0	31.5	29.4	30.3	29.8	30.7	31.2
8H	29.9	30.7	30.4	31.2	31.7	29.6	30.4	30.1	30.9	31.4
12H	30.0	30.8	30.5	31.3	31.8	29.7	30.5	30.3	31.0	31.5
X=8H Y=4H	29.3	30.1	29.8	30.6	31.1	29.0	29.9	29.5	30.4	30.9
6H	30.1	30.8	30.6	31.3	31.8	29.8	30.5	30.3	31.0	31.6
8H	30.4	31.0	30.9	31.6	32.1	30.1	30.7	30.7	31.3	31.8
12H	30.6	31.2	31.2	31.7	32.3	30.4	30.9	30.9	31.4	32.0
X=12H Y=4H	29.3	30.1	29.8	30.6	31.1	29.1	29.8	29.6	30.4	30.9
6H	30.2	30.8	30.7	31.3	31.9	29.9	30.5	30.4	31.0	31.6
8H	30.5	31.1	31.1	31.6	32.2	30.2	30.8	30.8	31.3	31.9

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 = 1.25									
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	0.56	0.67	0.74	0.79	0.87	0.92	0.95	1.00	1.03	
	0.30		0.49	0.59	0.67	0.72	0.80	0.86	0.90	0.96	0.99	
	0.20		0.43	0.53	0.61	0.67	0.75	0.81	0.86	0.92	0.96	
0.50	0.50	0.20	0.55	0.64	0.71	0.76	0.83	0.88	0.91	0.95	0.98	
	0.30		0.48	0.58	0.65	0.70	0.78	0.83	0.87	0.92	0.95	
	0.20		0.42	0.52	0.60	0.65	0.73	0.79	0.83	0.89	0.92	
0.30	0.50	0.20	0.53	0.62	0.69	0.73	0.80	0.84	0.87	0.91	0.94	
	0.30		0.47	0.56	0.63	0.68	0.76	0.80	0.84	0.89	0.92	
	0.20		0.42	0.52	0.59	0.64	0.72	0.77	0.81	0.86	0.89	
0.00	0.00	0.00	0.40	0.49	0.56	0.61	0.68	0.73	0.76	0.81	0.84	
Rating:9W 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 = 1.25									
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	0.99	0.82	0.70	0.61	0.49	0.41	0.35	0.27	0.22	
	0.30		0.83	0.70	0.61	0.54	0.44	0.37	0.32	0.25	0.21	
	0.20		0.71	0.61	0.54	0.48	0.40	0.34	0.30	0.24	0.20	
0.50	0.50	0.20	0.96	0.79	0.67	0.58	0.46	0.42	0.33	0.26	0.21	
	0.30		0.81	0.68	0.59	0.52	0.42	0.36	0.31	0.24	0.20	
	0.20		0.70	0.60	0.53	0.47	0.39	0.33	0.29	0.23	0.19	
0.30	0.50	0.20	0.92	0.75	0.64	0.56	0.44	0.37	0.31	0.24	0.20	
	0.30		0.79	0.66	0.57	0.50	0.41	0.34	0.30	0.23	0.19	
	0.20		0.69	0.59	0.52	0.46	0.38	0.32	0.28	0.22	0.18	
0.00	0.00	0.00	0.59	0.49	0.43	0.37	0.30	0.25	0.22	0.17	0.14	
Rating:9W 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 = 1.25									
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	0.19	0.20	0.21	0.22	0.22	0.23	0.23	0.24	
	0.30		0.11	0.13	0.14	0.15	0.17	0.18	0.19	0.20	0.21	
	0.20		0.06	0.08	0.10	0.11	0.13	0.14	0.16	0.17	0.19	
0.50	0.50	0.20	0.18	0.19	0.20	0.20	0.21	0.21	0.22	0.22	0.23	
	0.30		0.11	0.13	0.14	0.15	0.16	0.17	0.18	0.19	0.20	
	0.20		0.06	0.08	0.09	0.11	0.13	0.14	0.15	0.17	0.18	
0.30	0.50	0.20	0.17	0.18	0.19	0.19	0.20	0.21	0.21	0.21	0.22	
	0.30		0.11	0.12	0.14	0.15	0.16	0.17	0.18	0.19	0.20	
	0.20		0.06	0.08	0.09	0.10	0.12	0.14	0.15	0.16	0.17	
0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
Rating:9W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												