

Report No.:

Test Time: 2024/10/10

Luminaire Property

Luminaire Manufacturer: MESTER

Luminaire Category:

Luminaire Description: MALL014F27V40K-DOWN-100%

Lamp Catalog:

Number of Lamps:

Luminous Length (mm): 1200

Luminous Height (mm):

Current: 0.337 A

Power Factor: 0.995

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 63

Voltage: 120.5 V

Power: 40.37 W

Photometric Results

CIE Class: Direct

Measurement Flux: 5060.2 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(10%,50%,75%,100%): H162.1,H112.5,H75.9,H3

Vertical Diffuse Angle(10%,50%,75%,100%): V162.3,V113.5,V77.1,V0

Luminous Efficacy (lm/w): 125.35

Max. Intensity: 1764.35 cd

S/MH(C0/C180): 1.25

Total Rated Lamp Lumens: 5060.2 lm

Efficiency: 100%

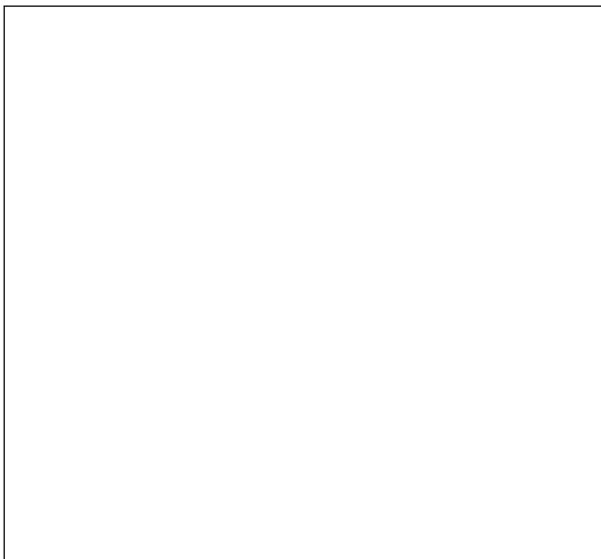
Upward Ratio: 0%

C0r0 Intensity: 1761.55 cd

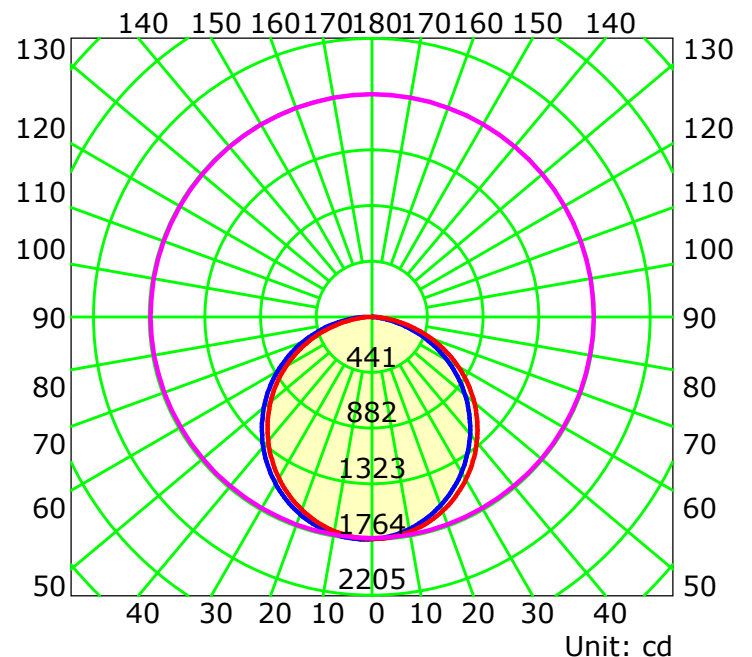
Pos of Max. Intensity: H180 V3

S/MH(C90/C270): 1.25

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 113.0°

— C0-C180 — C90-C270 — G3

C Plane (°):0.0-360.0: 30.0

Test Lab: MESTER LAB

Test Type: TYPE C

Temperature: 25.5°C

Operator: huayan Luo

Gamma Plane (°):0.0-90.0:1.0

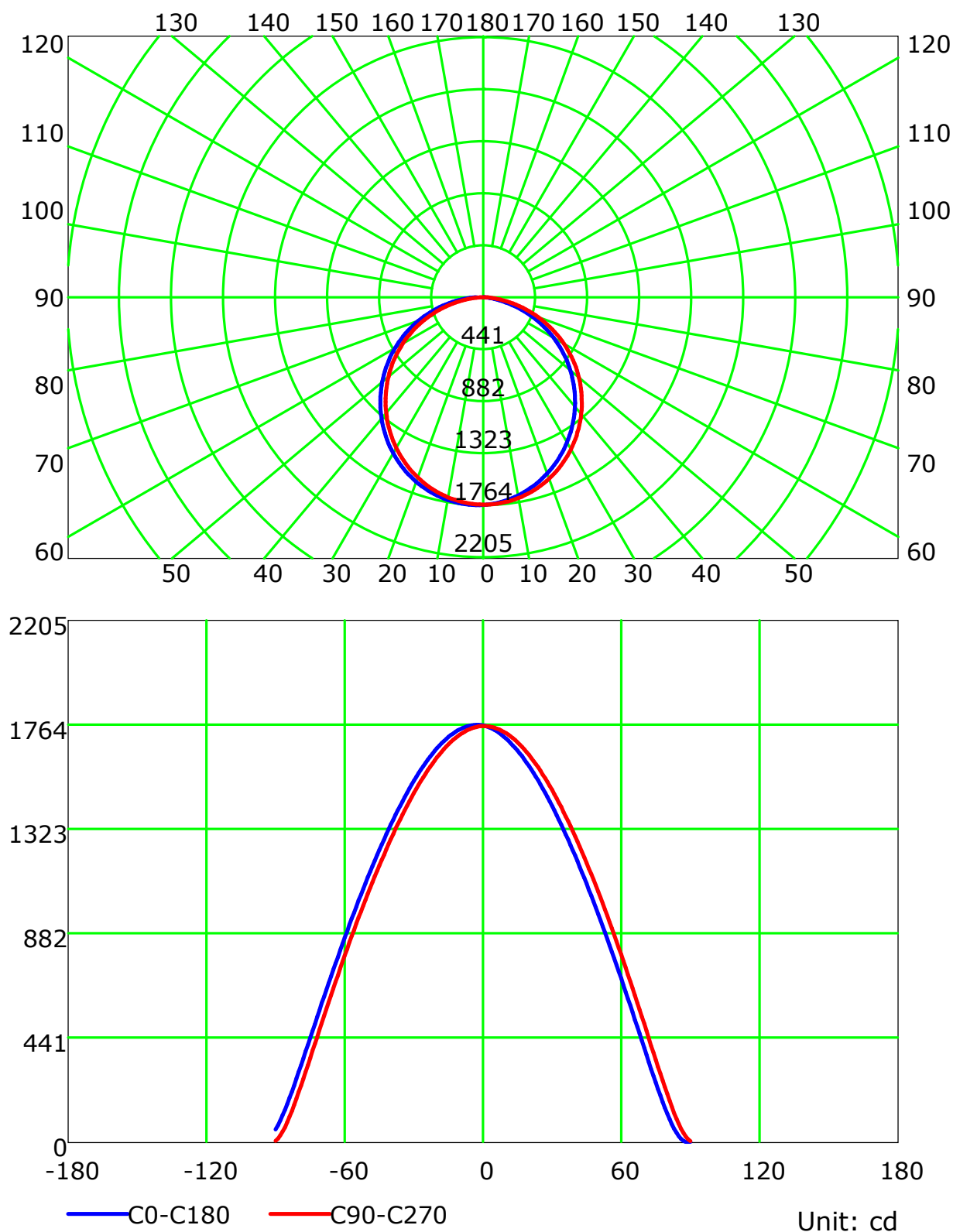
Test Device: GPM-1800B

Distance: 11.655 m [K=1.0000]

Humidity: 45% R.H

Inspector:

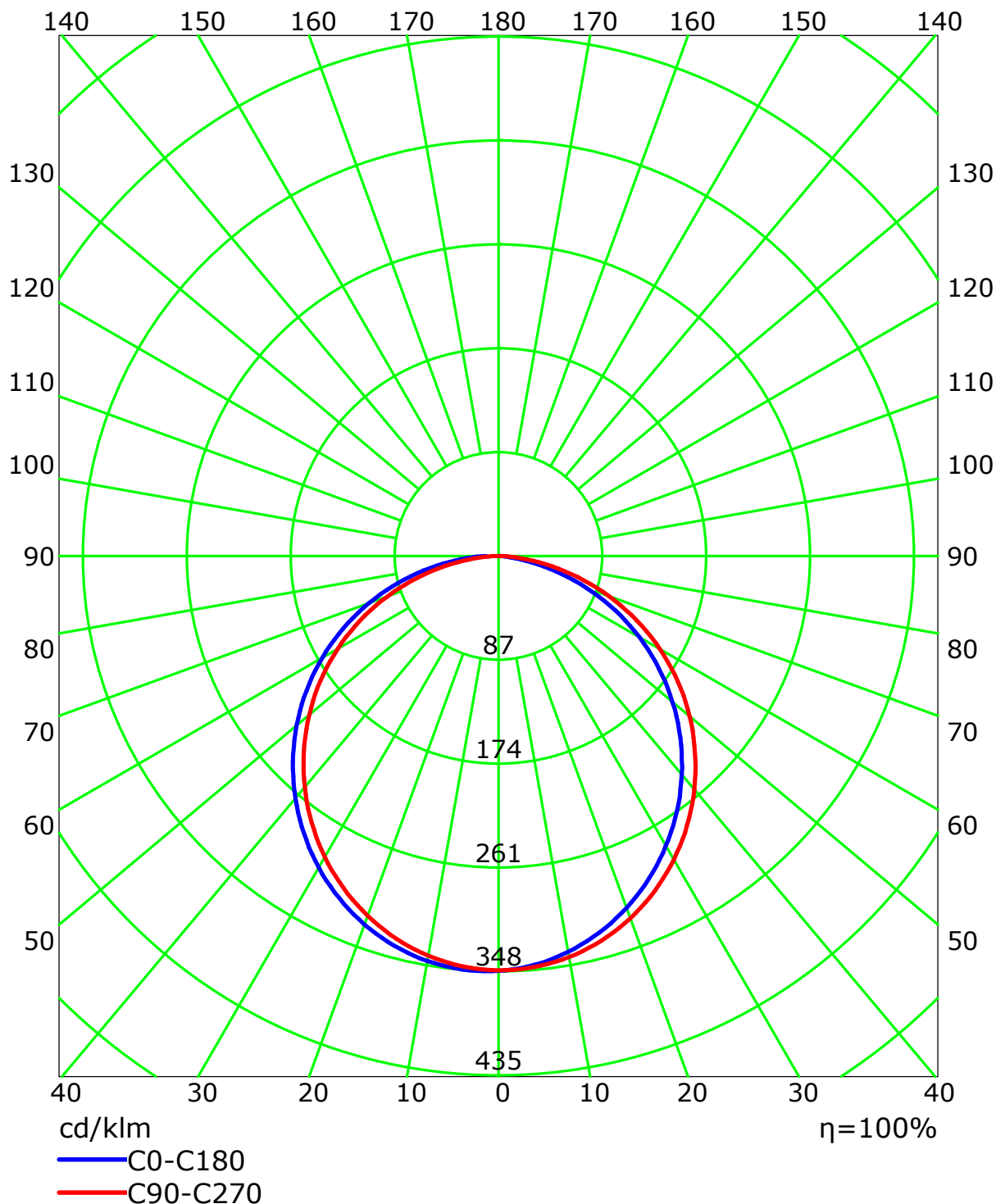
Luminous Intensity Distribution Curve



C Plane (°): 0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5°C
Operator: huayan Luo

Gamma Plane (°): 0.0-90.0: 1.0
Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
Inspector:

Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5°C
Operator: huayan Luo

Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
Inspector:

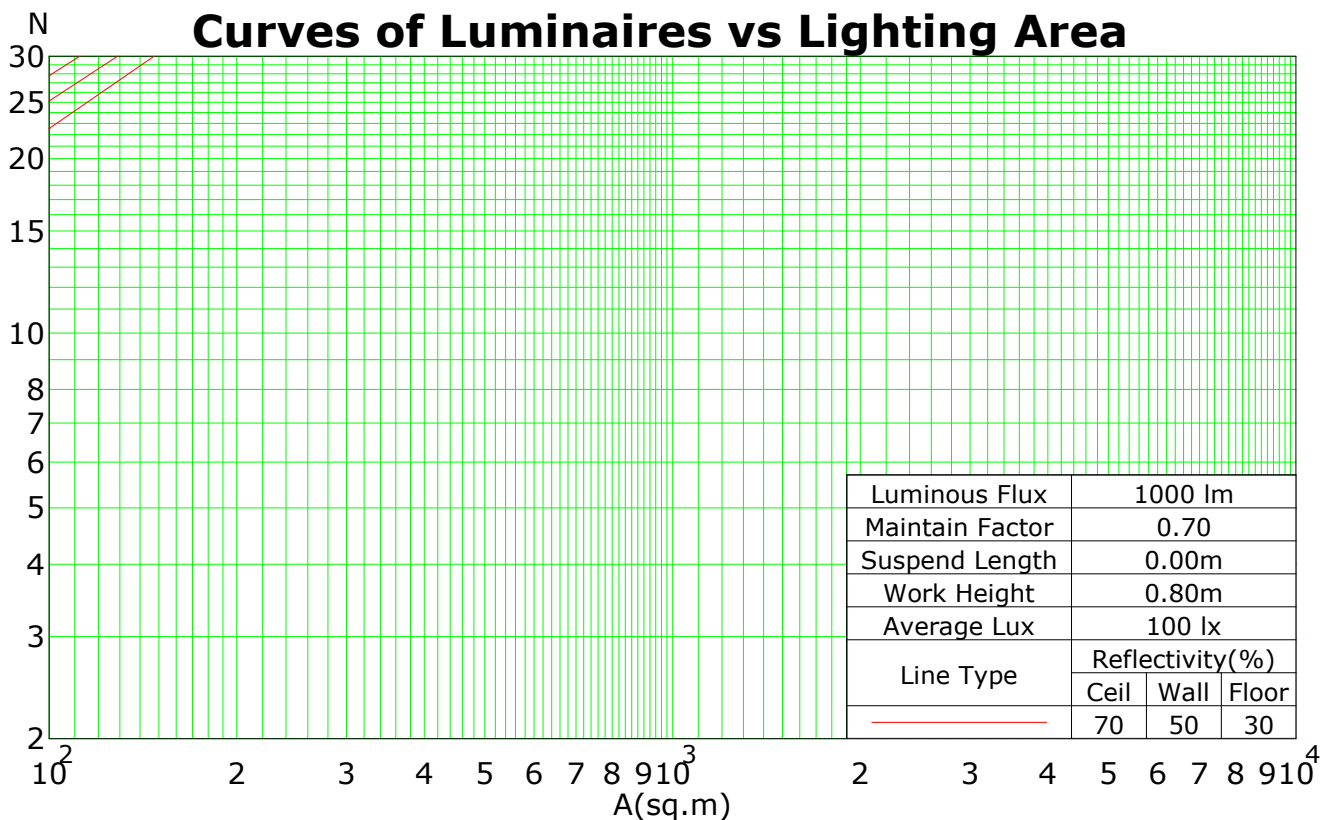
Coefficients Of Utilization - Zonal Cavity Method

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	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	1.02	1.02	1.02	1.00
1	1.09	1.04	0.99	0.95	1.06	1.01	0.97	0.94	0.97	0.94	0.91	0.93	0.91	0.88	0.90	0.87	0.85	0.83
2	0.99	0.90	0.83	0.77	0.96	0.88	0.82	0.76	0.85	0.79	0.75	0.81	0.77	0.73	0.78	0.75	0.71	0.69
3	0.90	0.79	0.71	0.64	0.87	0.77	0.70	0.64	0.74	0.68	0.62	0.72	0.66	0.61	0.69	0.64	0.60	0.58
4	0.82	0.70	0.61	0.54	0.80	0.69	0.60	0.54	0.66	0.59	0.53	0.64	0.57	0.52	0.62	0.56	0.52	0.49
5	0.75	0.62	0.53	0.47	0.73	0.61	0.53	0.46	0.59	0.52	0.46	0.57	0.50	0.45	0.55	0.49	0.45	0.43
6	0.70	0.56	0.47	0.41	0.68	0.55	0.47	0.40	0.53	0.46	0.40	0.52	0.45	0.40	0.50	0.44	0.39	0.37
7	0.65	0.51	0.42	0.36	0.63	0.50	0.42	0.36	0.49	0.41	0.35	0.47	0.40	0.35	0.46	0.40	0.35	0.33
8	0.60	0.46	0.38	0.32	0.58	0.46	0.38	0.32	0.44	0.37	0.32	0.43	0.36	0.31	0.42	0.36	0.31	0.29
9	0.56	0.43	0.34	0.29	0.55	0.42	0.34	0.29	0.41	0.34	0.28	0.40	0.33	0.28	0.39	0.33	0.28	0.26
10	0.53	0.39	0.31	0.26	0.51	0.39	0.31	0.26	0.38	0.31	0.26	0.37	0.30	0.26	0.36	0.30	0.26	0.24

Spacing Criteria (0-180): 1.25

Spacing Criteria (90-270): 1.25

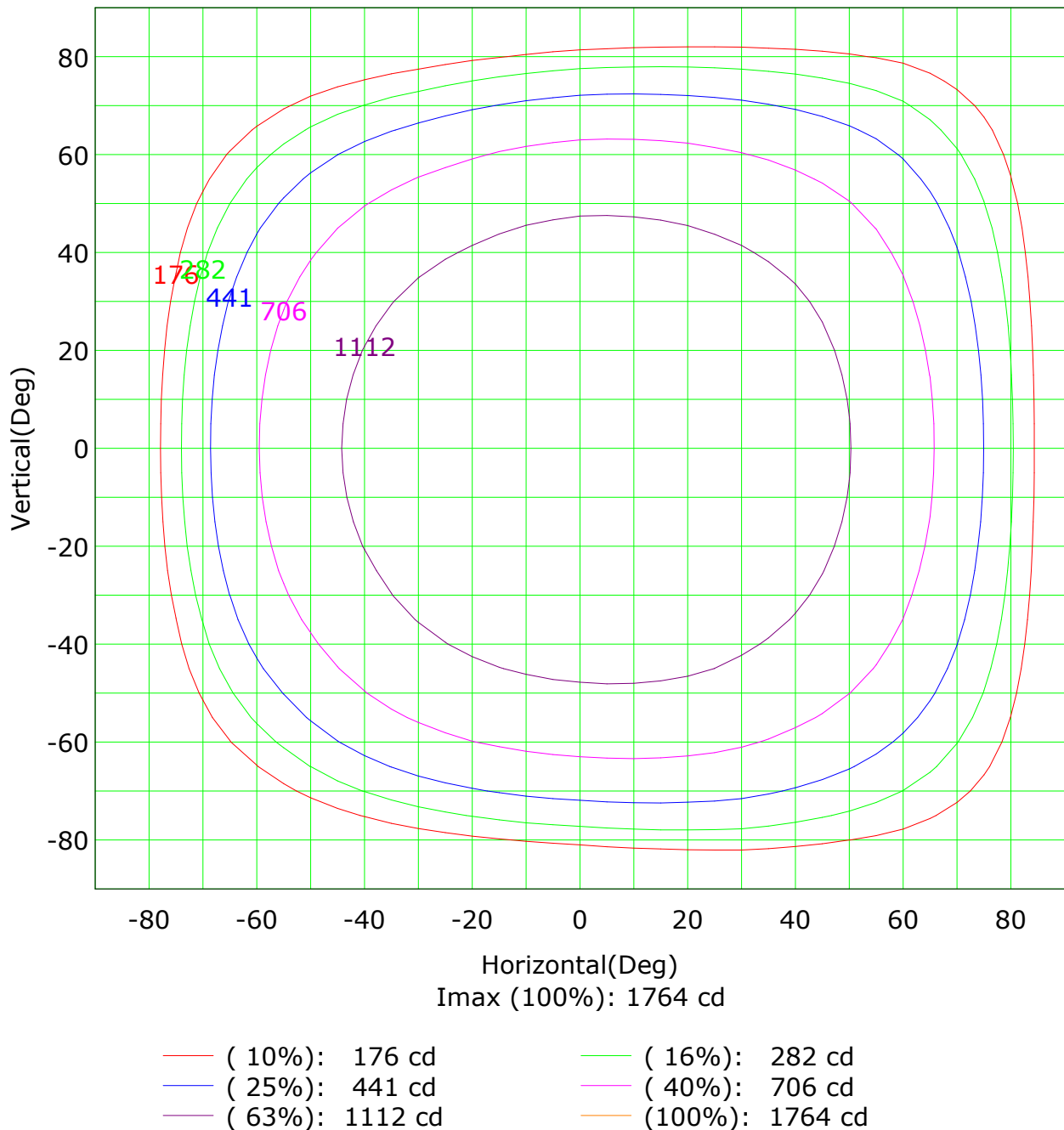
Spacing Criteria (Diagonal): 1.37



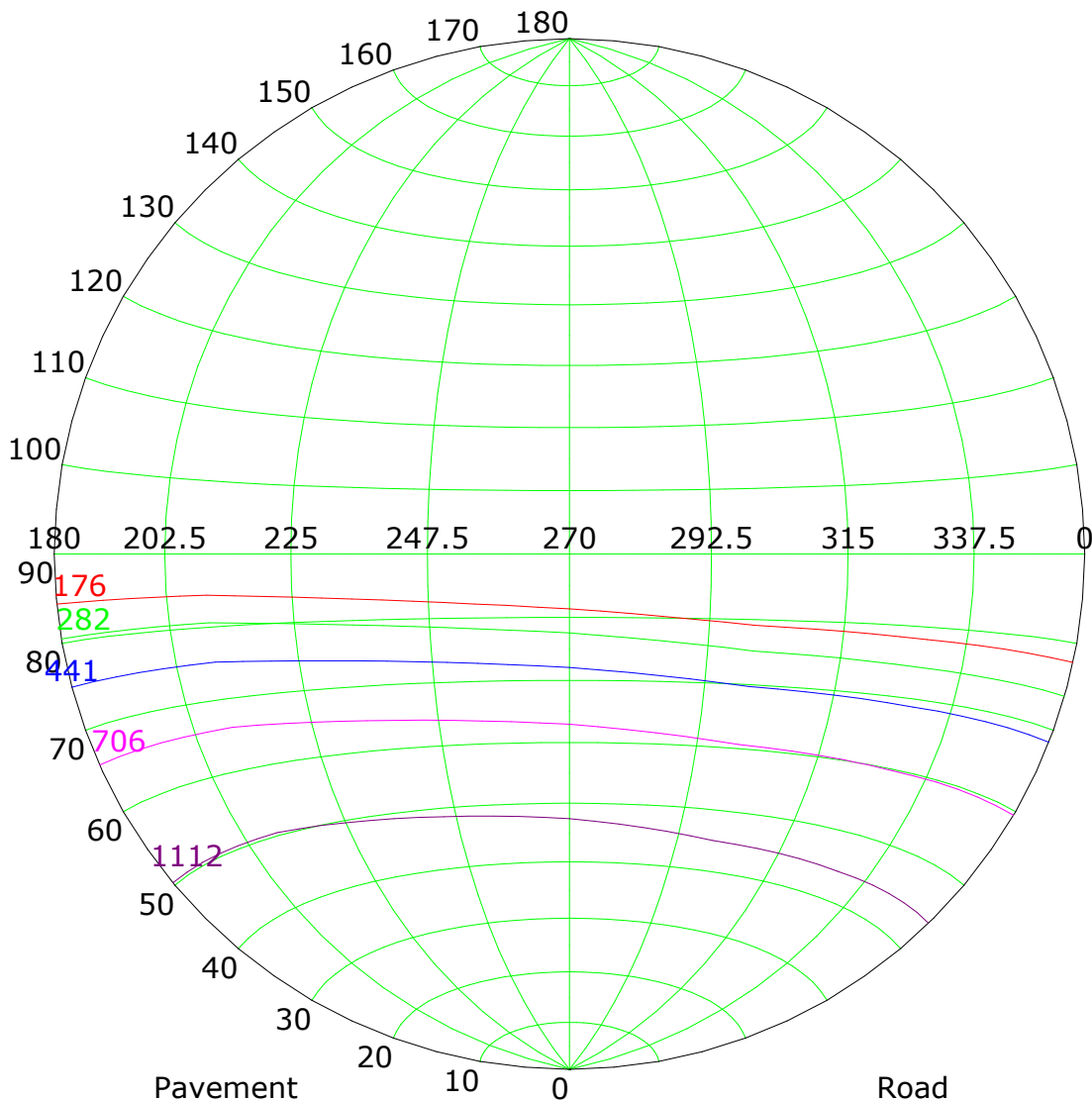
C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5℃
Operator: huayan Luo

Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
Inspector:

Isocandela (rectangle)



Isocandela (sphere)



Imax (100%): 1764 cd

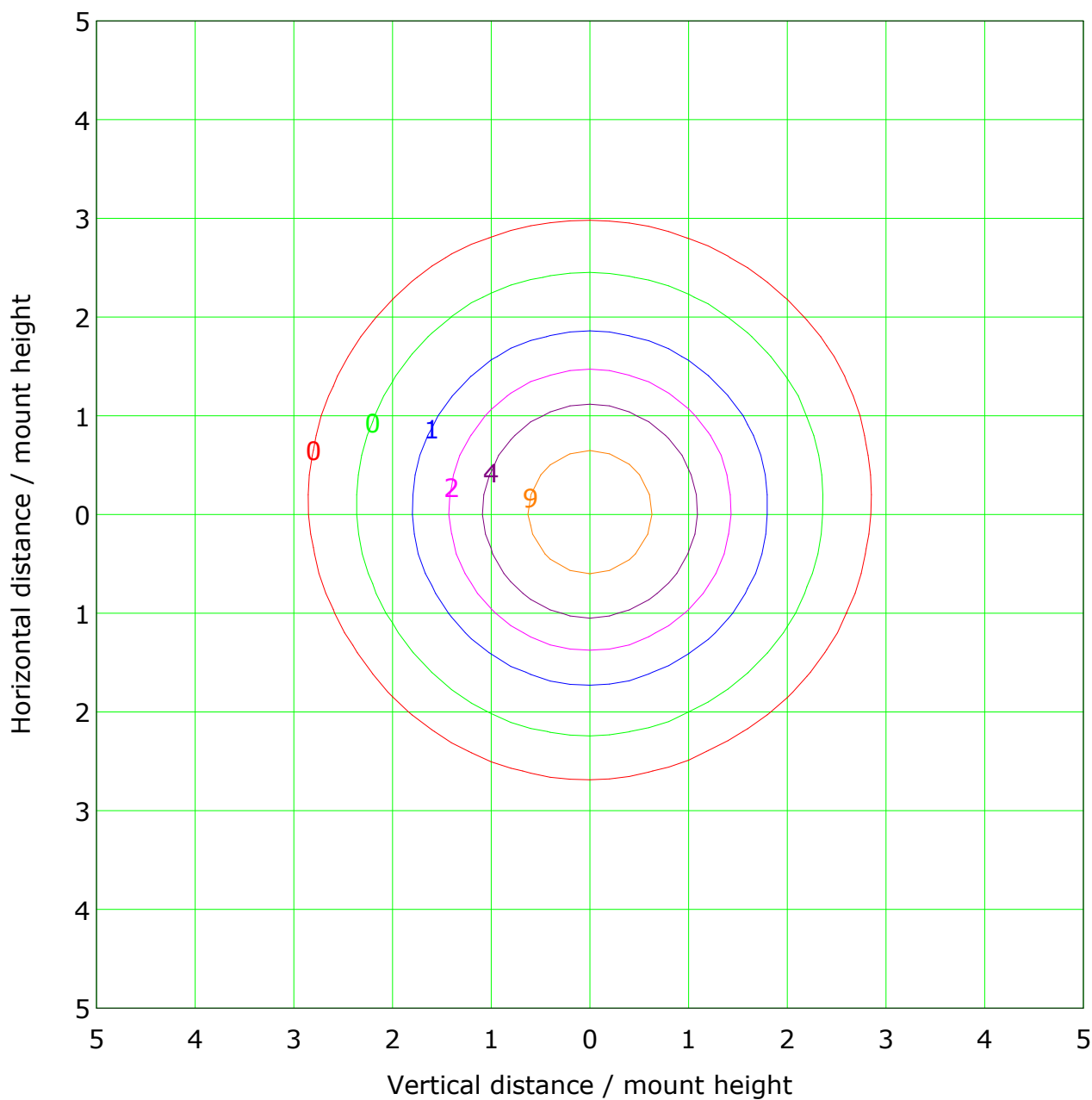
(10%): 176 cd
(25%): 441 cd
(63%): 1112 cd

(16%): 282 cd
(40%): 706 cd
(100%): 1764 cd

CIE: narrow - short
CIE: Semi-cut-off luminaire
Max.At90: 10.402 cd/klm

IES: Cut-off
Max.At80: 59.065 cd/klm
Max.80-90: 59.065 cd/klm

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 17.6 lx

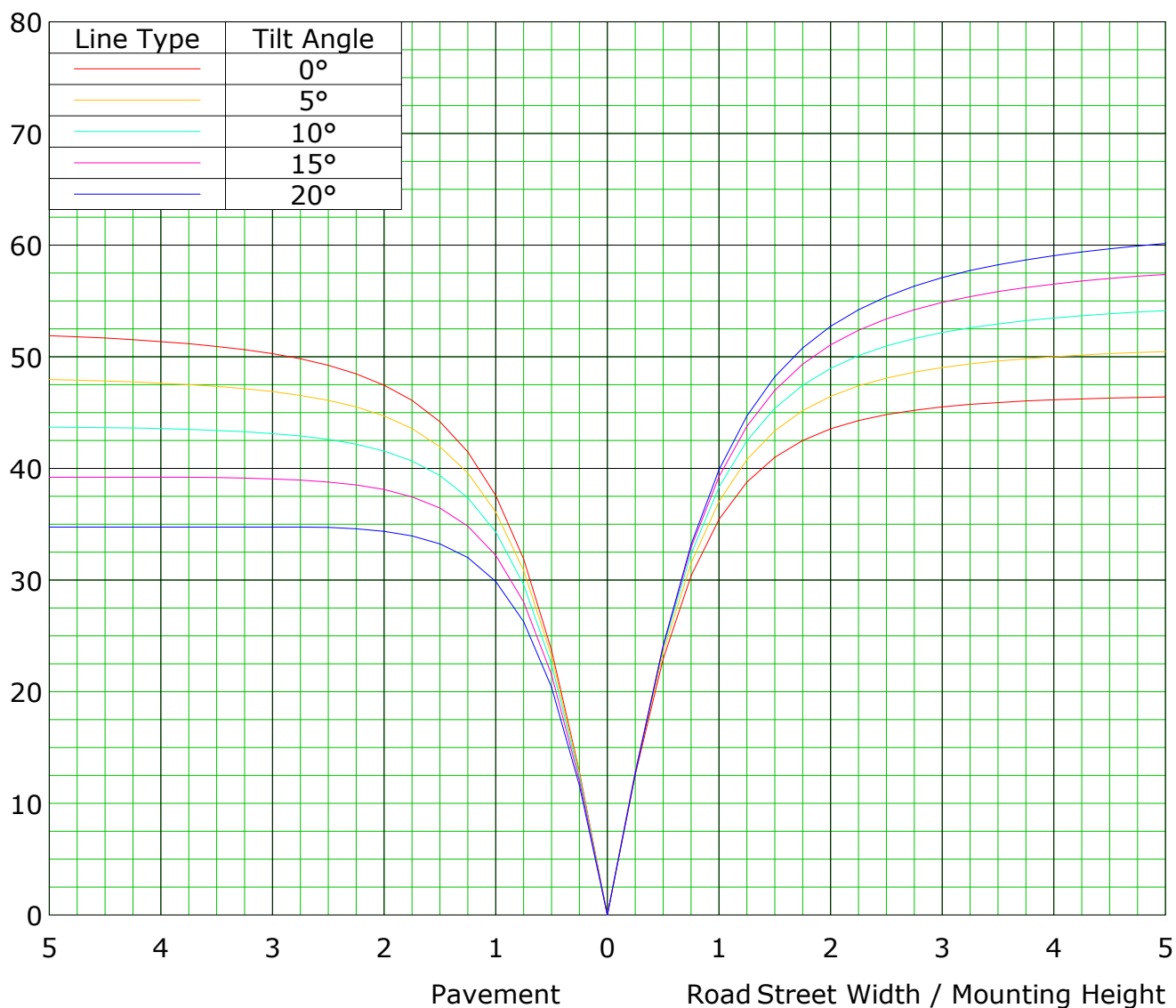
(1%): 0.2 lx	(2%): 0.4 lx
(5%): 0.9 lx	(10%): 1.8 lx
(20%): 3.5 lx	(50%): 8.8 lx
(100%): 17.6 lx	

C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5°C
Operator: huayan Luo

Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
Inspector:

Roadway CU Curve

Efficiency(%)



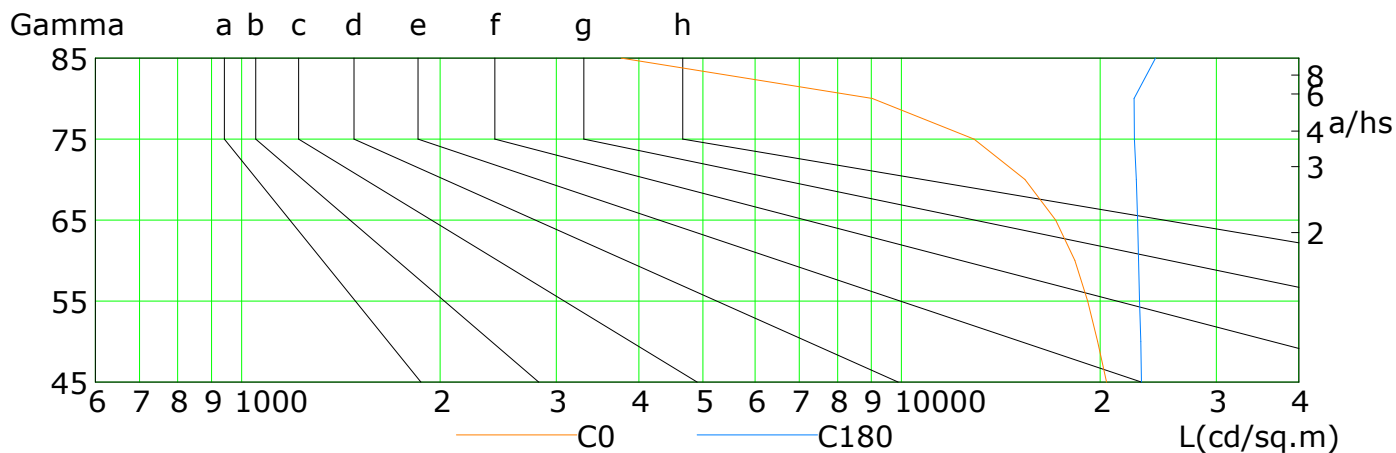
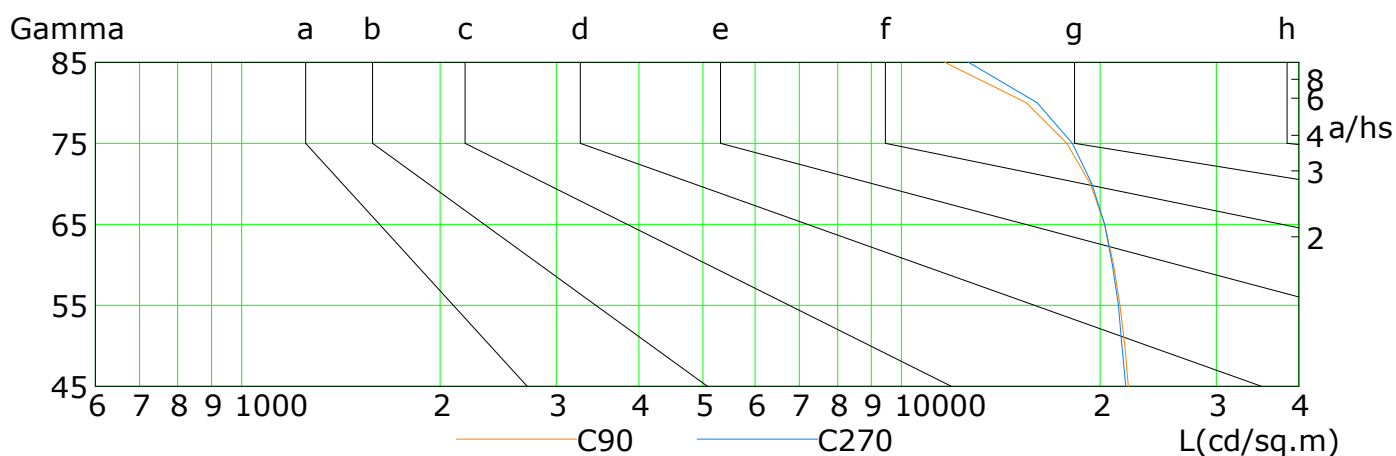
C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5°C
Operator: huayan Luo

Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
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

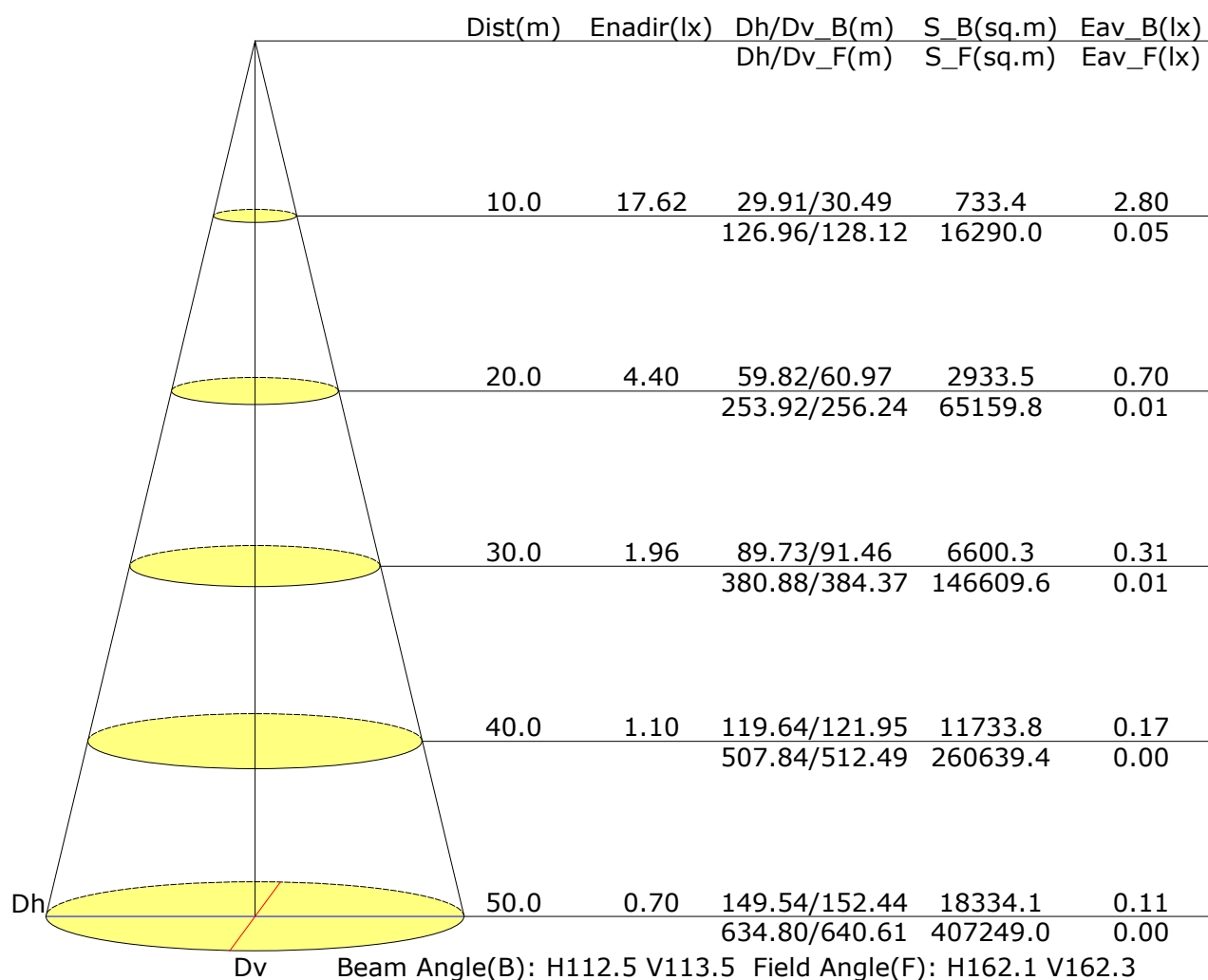


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	20446	19834	19159	18316	17134	15380	12879	9028	3763
C90	22069	21792	21431	20957	20306	19329	17812	15452	11631
C180	23111	23048	22940	22860	22792	22696	22542	22506	24270
C270	21880	21590	21323	20870	20314	19427	18143	16046	12639

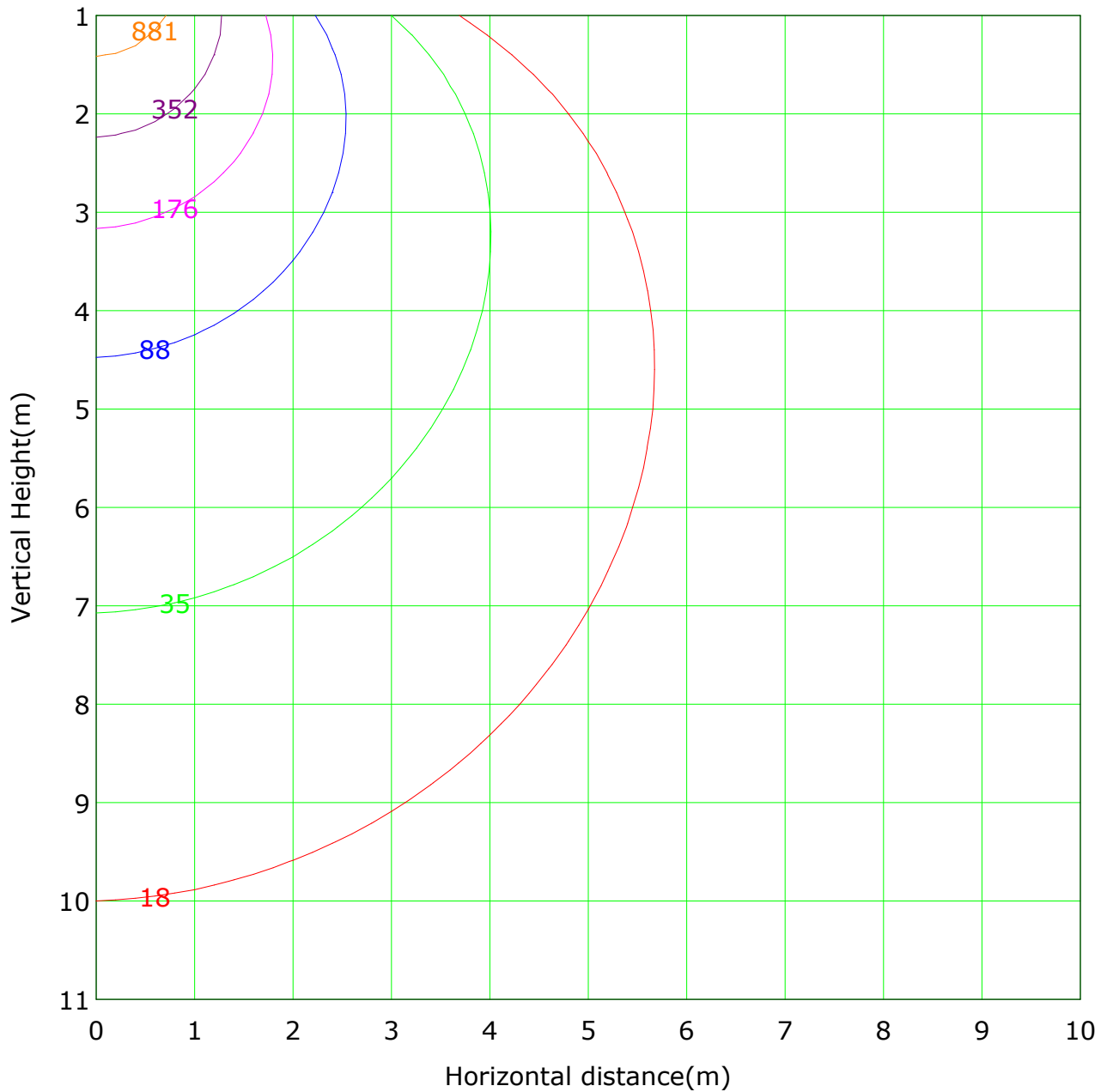
C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5℃
Operator: huayan Luo

Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 1761.5 lx

— (1%): 17.6 lx	— (2%): 35.2 lx
— (5%): 88.1 lx	— (10%): 176.2 lx
— (20%): 352.3 lx	— (50%): 880.8 lx
— (100%): 1761.5 lx	

Area Flux Table

Unit: lm

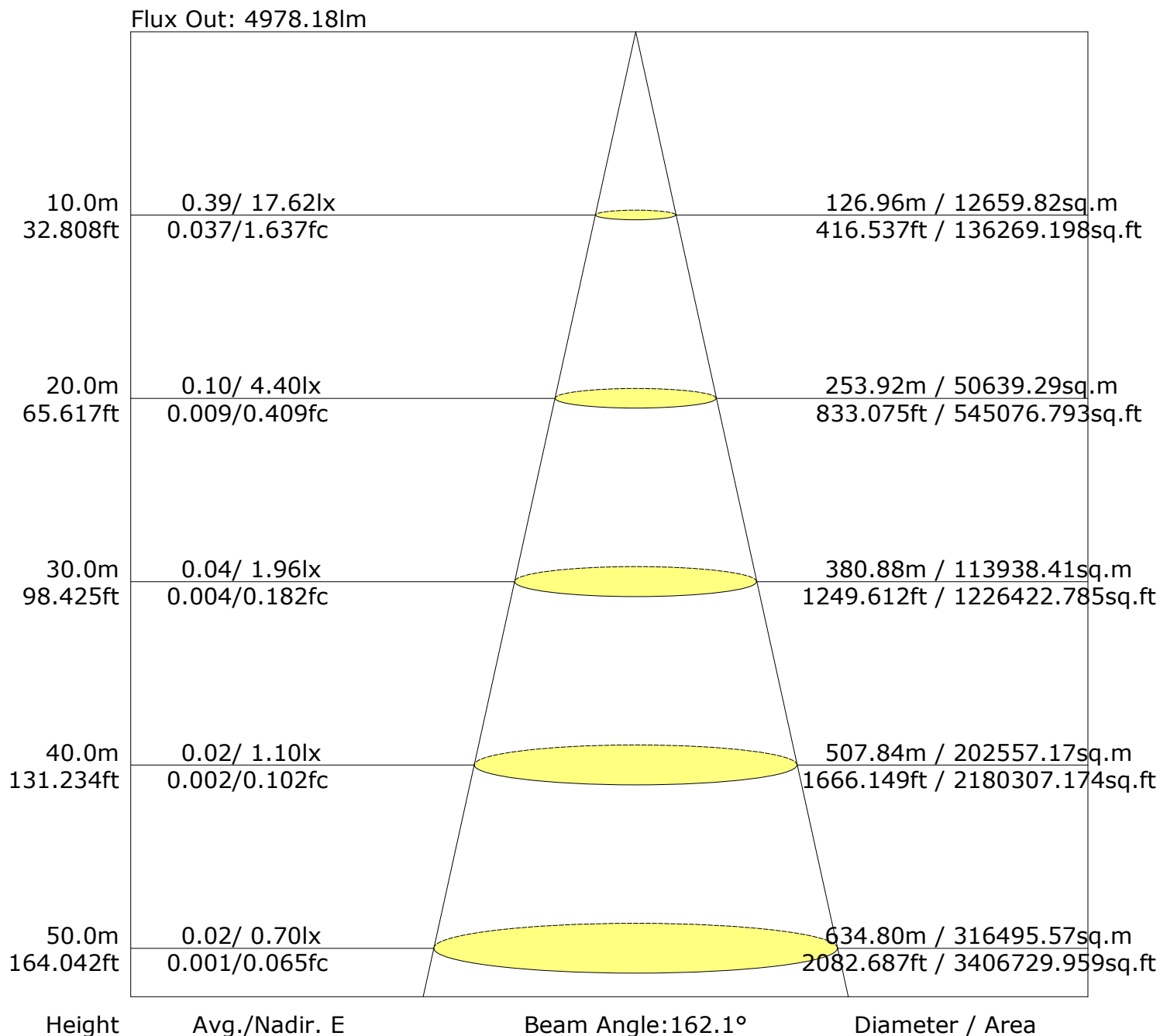
Vertical plane		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90
		0.2	0.6	1.2	1.8	2.4	2.8	3.1	3.1	2.9	2.6	2.0	1.4	0.9	0.5	0.2	0.1	0.0	0.0	25.9
		0.2	1.1	2.5	4.4	6.3	8.2	9.7	10.7	10.9	10.4	9.0	7.1	5.2	3.4	1.8	0.7	0.1	0.0	91.8
		0.3	1.6	4.0	7.2	10.7	14.1	16.9	18.9	19.8	19.1	17.2	14.2	10.9	7.4	4.2	1.8	0.4	0.0	168.6
		0.4	2.1	5.4	9.9	14.8	19.7	23.8	26.7	28.0	27.4	24.9	21.0	16.4	11.5	6.8	3.1	0.8	0.0	242.6
		0.4	2.5	6.7	12.3	18.6	24.7	29.9	33.7	35.4	34.8	31.8	27.1	21.4	15.2	9.2	4.3	1.2	0.1	309.1
		0.5	2.9	7.7	14.3	21.7	28.9	35.2	39.7	41.9	41.2	37.8	32.4	25.7	18.3	11.2	5.4	1.5	0.1	366.4
		0.5	3.3	8.6	15.8	24.1	32.3	39.5	44.6	47.1	46.4	42.6	36.7	29.0	20.8	12.8	6.2	1.8	0.1	412.3
		0.5	3.5	9.1	16.8	25.7	34.6	42.5	48.2	50.9	50.2	46.2	39.7	31.5	22.5	13.9	6.8	2.0	0.1	444.7
		0.5	3.6	9.4	17.4	26.5	35.7	43.9	50.0	52.9	52.2	48.2	41.4	32.7	23.4	14.5	7.1	2.1	0.1	461.7
		0.5	3.6	9.4	17.4	26.5	35.7	43.9	50.0	52.9	52.2	48.2	41.4	32.7	23.4	14.5	7.1	2.1	0.1	462.1
		0.5	3.5	9.1	16.8	25.7	34.6	42.5	48.2	50.9	50.2	46.2	39.7	31.5	22.5	13.9	6.8	2.0	0.1	446.2
		0.5	3.2	8.5	15.8	24.1	32.5	39.8	45.2	47.6	46.9	43.2	36.9	29.1	20.7	12.8	6.2	1.8	0.1	414.8
		0.5	2.9	7.7	14.2	21.7	29.2	35.7	40.4	42.4	41.7	38.4	32.9	25.8	18.2	11.1	5.3	1.5	0.1	369.6
		0.4	2.5	6.6	12.2	18.6	24.9	30.5	34.3	35.9	35.2	32.4	27.7	21.6	15.1	9.0	4.2	1.1	0.1	312.4
		0.3	2.0	5.3	9.7	14.9	20.0	24.4	27.2	28.3	27.7	25.4	21.5	16.7	11.4	6.6	2.9	0.7	0.0	245.1
		0.3	1.5	3.8	7.0	10.7	14.3	17.4	19.2	19.9	19.2	17.4	14.6	11.1	7.3	4.0	1.7	0.4	0.0	170.0
		0.2	1.0	2.4	4.2	6.3	8.3	10.0	10.8	10.9	10.3	9.1	7.3	5.3	3.3	1.6	0.6	0.1	0.0	91.6
		0.2	0.6	1.1	1.7	2.3	2.8	3.1	3.1	2.8	2.4	2.0	1.4	0.9	0.5	0.2	0.1	0.0	0.0	25.0
		6.9	41.9	108.4	198.9	301.3	403.4	492.1	554.5	582.0	570.6	522.3	444.5	348.2	245.3	148.4	70.1	19.7	1.3	5060
		3.3	38.0	104.6	195.0	297.3	399.5	488.1	550.6	577.8	556.6	518.0	440.3	343.9	240.9	144.0	65.4	13.5	0.0	4987

Horizontal plane

C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5℃
Operator: huayan Luo

Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
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	22.0	23.7	22.4	24.0	24.3	22.9	24.6	23.3	24.9	25.2
3H	23.6	25.1	24.0	25.5	25.8	24.8	26.3	25.1	26.6	26.9
4H	24.2	25.6	24.6	25.9	26.3	25.4	26.9	25.8	27.2	27.6
6H	24.4	25.7	24.8	26.1	26.5	25.9	27.2	26.3	27.6	28.0
8H	24.5	25.7	24.9	26.1	26.5	26.1	27.3	26.5	27.7	28.1
12H	24.5	25.7	24.9	26.0	26.5	26.2	27.3	26.6	27.7	28.2
X=4H Y=2H	22.7	24.1	23.1	24.4	24.8	23.6	25.0	24.0	25.3	25.7
3H	24.5	25.7	24.9	26.1	26.5	25.7	26.8	26.1	27.2	27.6
4H	25.1	26.2	25.5	26.6	27.0	26.5	27.5	26.9	28.0	28.4
6H	25.4	26.4	25.9	26.8	27.3	27.1	28.0	27.5	28.5	28.9
8H	25.5	26.4	26.0	26.8	27.3	27.3	28.1	27.7	28.6	29.0
12H	25.5	26.3	26.0	26.8	27.2	27.4	28.2	27.9	28.6	29.1
X=8H Y=4H	25.4	26.2	25.8	26.7	27.1	26.8	27.7	27.3	28.1	28.6
6H	25.8	26.5	26.3	27.0	27.5	27.5	28.3	28.0	28.8	29.2
8H	25.9	26.5	26.4	27.0	27.5	27.8	28.5	28.3	29.0	29.4
12H	25.9	26.5	26.4	27.0	27.5	28.0	28.6	28.5	29.1	29.6
X=12H Y=4H	25.4	26.2	25.9	26.7	27.1	26.8	27.6	27.3	28.1	28.6
6H	25.8	26.5	26.3	26.9	27.5	27.6	28.3	28.1	28.7	29.3
8H	25.9	26.5	26.4	27.0	27.6	27.9	28.5	28.4	29.0	29.6

Calculate in accordance with CIE 190:2010 The table is revised with 5060lm ($8\log(F/F_0) = 5.6$).

C Plane (°):0.0-360.0: 30.0
 Test Lab: MESTER LAB
 Test Type: TYPE C
 Temperature: 25.5℃
 Operator: huayan Luo

Gamma Plane (°):0.0-90.0:1.0
 Test Device: GPM-1800B
 Distance: 11.655 m [K=1.0000]
 Humidity: 45% R.H
 Inspector:

FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM

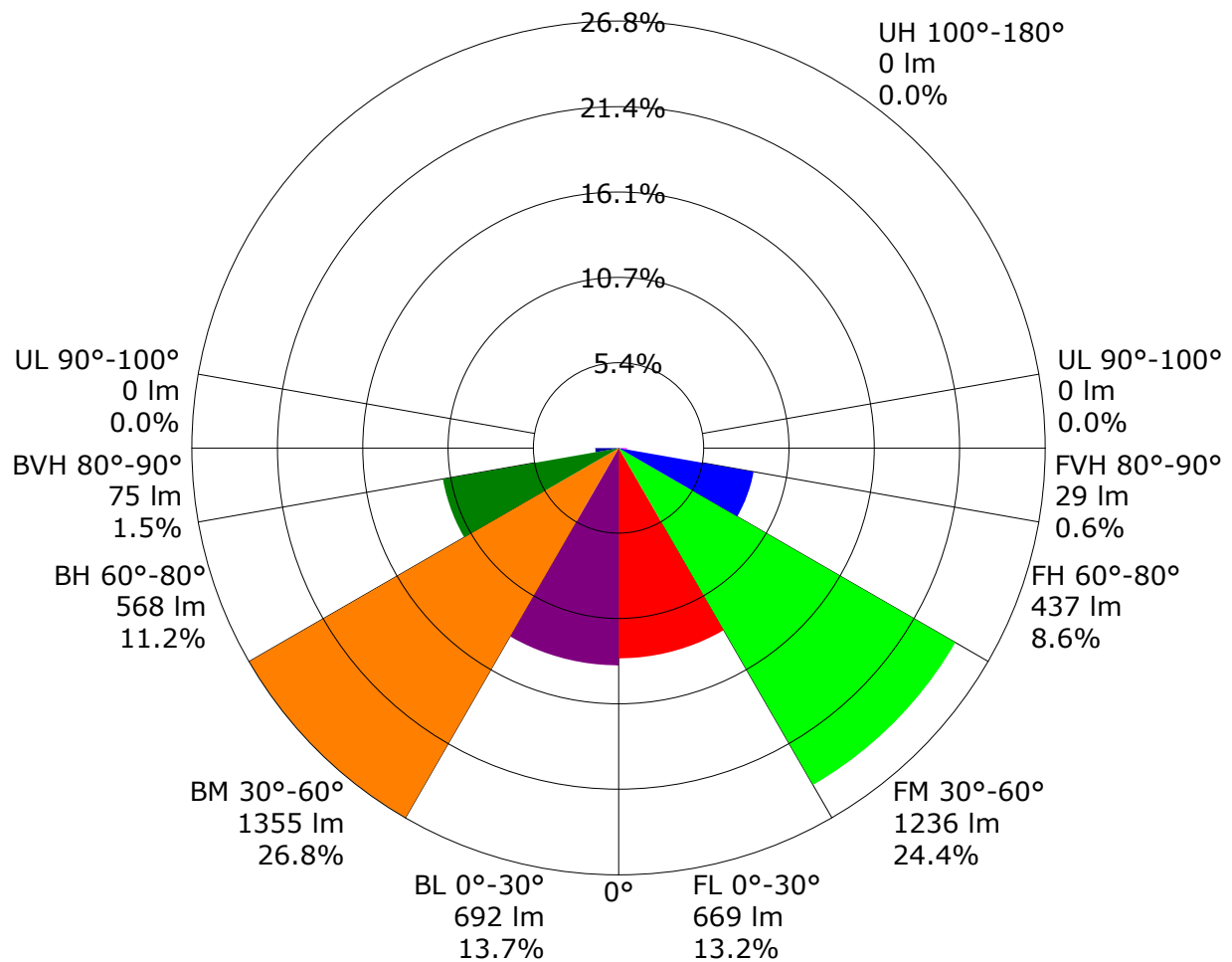
	ZONE	LUMENS	% LAMP LUMENS
	FORWARD LIGHT	2371	46.8
	FL (0°-30°)	669	13.2
	FM (30°-60°)	1236	24.4
	FH (60°-80°)	437	8.6
	FVH (80°-90°)	29	0.6
	BACK LIGHT	2690	53.2
	BL (0°-30°)	692	13.7
	BM (30°-60°)	1355	26.8
	BH (60°-80°)	568	11.2
	BVH (80°-90°)	75	1.5
	UP LIGHT	0	0.0
	UL (90°-100°)	0	0.0
	UH (100°-180°)	0	0.0
	TRAPPED LIGHT	NA	NA

BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B2 U2 G2
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B2 U2 G1

C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5℃
Operator: huayan Luo

Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
Inspector:

LCS Graph



Back Light

Forward Light

Scale= MAX LCS%

Trapped Light:NA,NA

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	0.66	0.74	0.79	0.87	0.92	0.95	1.00	1.03	
	0.30		0.48	0.59	0.66	0.72	0.80	0.86	0.90	0.96	0.99	
	0.20		0.42	0.53	0.60	0.66	0.75	0.81	0.86	0.92	0.96	
0.50	0.50	0.20	0.54	0.64	0.71	0.76	0.83	0.88	0.92	0.96	0.99	
	0.30		0.47	0.57	0.65	0.70	0.78	0.83	0.87	0.93	0.96	
	0.20		0.42	0.52	0.60	0.65	0.74	0.79	0.84	0.89	0.93	
0.30	0.50	0.20	0.53	0.62	0.69	0.74	0.81	0.85	0.88	0.92	0.95	
	0.30		0.46	0.56	0.63	0.69	0.76	0.81	0.85	0.89	0.93	
	0.20		0.42	0.52	0.59	0.64	0.72	0.78	0.82	0.87	0.90	
0.00	0.00	0.00	0.39	0.49	0.56	0.61	0.69	0.74	0.77	0.82	0.86	
Rating:40W 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	1.01	0.83	0.71	0.62	0.50	0.41	0.35	0.27	0.22	
	0.30		0.84	0.71	0.62	0.55	0.45	0.38	0.33	0.26	0.21	
	0.20		0.72	0.62	0.55	0.49	0.41	0.35	0.30	0.24	0.20	
0.50	0.50	0.20	0.97	0.80	0.68	0.60	0.47	0.43	0.34	0.26	0.21	
	0.30		0.82	0.70	0.60	0.53	0.43	0.36	0.31	0.25	0.20	
	0.20		0.72	0.62	0.54	0.48	0.40	0.34	0.30	0.23	0.20	
0.30	0.50	0.20	0.95	0.77	0.66	0.57	0.45	0.38	0.32	0.25	0.20	
	0.30		0.81	0.68	0.59	0.52	0.42	0.35	0.30	0.24	0.20	
	0.20		0.71	0.61	0.53	0.47	0.39	0.33	0.29	0.23	0.19	
0.00	0.00	0.00	0.61	0.51	0.44	0.39	0.32	0.26	0.23	0.18	0.15	
<p>Rating:40W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>												

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	0.16	0.18	0.19	0.19	0.20	0.21	0.21	0.22	0.22	
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19	
	0.20		0.05	0.06	0.08	0.09	0.11	0.13	0.14	0.16	0.17	
0.50	0.50	0.20	0.16	0.17	0.18	0.18	0.19	0.20	0.20	0.21	0.21	
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19	
	0.20		0.04	0.06	0.08	0.09	0.11	0.12	0.13	0.15	0.16	
0.30	0.50	0.20	0.15	0.16	0.17	0.18	0.19	0.19	0.19	0.20	0.20	
	0.30		0.09	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18	
	0.20		0.04	0.06	0.07	0.09	0.11	0.12	0.13	0.15	0.16	
0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Rating:40W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

Zonal Lumen

Gamma [°]	I _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	1759.0	1.7	1.7	0.03	0.03
1.0-2.0	1758.3	5.0	6.7	0.10	0.13
2.0-3.0	1757.0	8.4	15.1	0.17	0.30
3.0-4.0	1754.9	11.7	26.9	0.23	0.53
4.0-5.0	1752.2	15.1	42.0	0.30	0.83
5.0-6.0	1748.9	18.4	60.3	0.36	1.19
6.0-7.0	1744.9	21.7	82.0	0.43	1.62
7.0-8.0	1740.3	24.9	106.9	0.49	2.11
8.0-9.0	1734.9	28.1	135.0	0.56	2.67
9.0-10.0	1729.0	31.3	166.3	0.62	3.29
10.0-11.0	1722.5	34.4	200.7	0.68	3.97
11.0-12.0	1715.2	37.5	238.2	0.74	4.71
12.0-13.0	1707.4	40.5	278.8	0.80	5.51
13.0-14.0	1699.0	43.5	322.3	0.86	6.37
14.0-15.0	1690.0	46.4	368.7	0.92	7.29
15.0-16.0	1680.4	49.2	417.9	0.97	8.26
16.0-17.0	1670.1	52.0	469.9	1.03	9.29
17.0-18.0	1659.3	54.7	524.6	1.08	10.37
18.0-19.0	1647.9	57.3	582.0	1.13	11.50
19.0-20.0	1636.0	59.9	641.9	1.18	12.68
20.0-21.0	1623.3	62.3	704.2	1.23	13.92
21.0-22.0	1610.1	64.7	768.9	1.28	15.20
22.0-23.0	1596.6	67.0	835.9	1.32	16.52
23.0-24.0	1582.5	69.2	905.1	1.37	17.89
24.0-25.0	1567.7	71.3	976.4	1.41	19.30
25.0-26.0	1552.5	73.3	1049.7	1.45	20.74
26.0-27.0	1537.0	75.2	1124.9	1.49	22.23
27.0-28.0	1520.9	77.0	1201.9	1.52	23.75
28.0-29.0	1504.4	78.7	1280.6	1.56	25.31
29.0-30.0	1487.4	80.3	1361.0	1.59	26.90
30.0-31.0	1469.6	81.8	1442.8	1.62	28.51
31.0-32.0	1451.7	83.2	1525.9	1.64	30.16
32.0-33.0	1433.5	84.5	1610.4	1.67	31.82
33.0-34.0	1414.5	85.6	1696.0	1.69	33.52
34.0-35.0	1394.8	86.6	1782.6	1.71	35.23
35.0-36.0	1375.2	87.6	1870.2	1.73	36.96

C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5℃
Operator: huayan Luo

Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
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	1355.4	88.4	1958.6	1.75	38.71
37.0-38.0	1334.9	89.1	2047.7	1.76	40.47
38.0-39.0	1313.9	89.7	2137.4	1.77	42.24
39.0-40.0	1292.6	90.2	2227.6	1.78	44.02
40.0-41.0	1271.0	90.5	2318.1	1.79	45.81
41.0-42.0	1249.1	90.8	2408.9	1.79	47.60
42.0-43.0	1226.7	90.9	2499.8	1.80	49.40
43.0-44.0	1204.0	90.9	2590.6	1.80	51.20
44.0-45.0	1181.0	90.8	2681.4	1.79	52.99
45.0-46.0	1157.7	90.6	2772.0	1.79	54.78
46.0-47.0	1133.7	90.2	2862.2	1.78	56.56
47.0-48.0	1109.8	89.7	2951.9	1.77	58.34
48.0-49.0	1086.0	89.2	3041.1	1.76	60.10
49.0-50.0	1061.1	88.5	3129.6	1.75	61.85
50.0-51.0	1035.7	87.6	3217.2	1.73	63.58
51.0-52.0	1010.6	86.7	3303.9	1.71	65.29
52.0-53.0	985.4	85.7	3389.7	1.69	66.99
53.0-54.0	959.4	84.6	3474.2	1.67	68.66
54.0-55.0	933.1	83.3	3557.5	1.65	70.30
55.0-56.0	906.9	82.0	3639.5	1.62	71.92
56.0-57.0	880.1	80.5	3720.0	1.59	73.51
57.0-58.0	853.0	78.9	3798.9	1.56	75.07
58.0-59.0	825.7	77.2	3876.1	1.53	76.60
59.0-60.0	798.3	75.4	3951.5	1.49	78.09
60.0-61.0	770.8	73.6	4025.1	1.45	79.54
61.0-62.0	743.0	71.6	4096.7	1.42	80.96
62.0-63.0	714.4	69.5	4166.2	1.37	82.33
63.0-64.0	685.7	67.3	4233.5	1.33	83.66
64.0-65.0	657.6	65.1	4298.6	1.29	84.95
65.0-66.0	629.0	62.8	4361.3	1.24	86.19
66.0-67.0	599.4	60.3	4421.6	1.19	87.38
67.0-68.0	569.9	57.7	4479.3	1.14	88.52
68.0-69.0	541.2	55.2	4534.6	1.09	89.61
69.0-70.0	511.8	52.6	4587.1	1.04	90.65
70.0-71.0	481.9	49.8	4637.0	0.98	91.64
71.0-72.0	452.2	47.0	4684.0	0.93	92.56

C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5℃
Operator: huayan Luo

Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
Inspector:

Zonal Lumen (Continue 3)

cone flux(90°): 2681.43 lm

%lum = 53.0%
%lamp = 53.0%

cone flux(120°): 3951.52 lm

%lum = 78.1%
%lamp = 78.1%

Candlepower Table

Unit: cd

G\C	C0.0	C30.0	C60.0	C90.0	C120.0	C150.0	C180.0	C210.0	C240.0	C270.0
G0.0	1761.5	1758.1	1757.9	1758.9	1758.8	1760.1	1761.5	1758.1	1757.9	1758.9
G1.0	1759.4	1755.6	1756.8	1758.5	1759.9	1761.5	1763.0	1760.1	1758.0	1758.2
G2.0	1756.4	1752.8	1754.8	1757.8	1761.0	1762.9	1764.3	1761.1	1758.2	1757.1
G3.0	1752.4	1749.1	1752.4	1756.8	1761.2	1763.6	1764.3	1761.3	1757.3	1754.8
G4.0	1747.8	1744.0	1749.6	1754.7	1760.6	1763.7	1763.2	1761.0	1756.1	1752.1
G5.0	1742.7	1739.1	1745.4	1751.8	1759.5	1762.8	1762.2	1760.2	1753.3	1749.0
G6.0	1737.4	1733.5	1741.1	1748.0	1757.7	1761.3	1760.0	1758.7	1750.8	1745.2
G7.0	1730.6	1728.2	1736.1	1744.6	1755.0	1759.0	1757.3	1756.5	1747.3	1740.5
G8.0	1722.7	1721.2	1730.9	1739.9	1751.8	1756.6	1753.7	1753.2	1743.2	1735.0
G9.0	1715.1	1712.9	1723.9	1734.9	1747.9	1753.5	1749.8	1749.9	1738.7	1729.5
G10.0	1706.6	1704.4	1717.3	1729.0	1743.6	1749.2	1745.3	1745.6	1733.2	1723.4
G11.0	1697.6	1695.9	1710.0	1722.7	1738.4	1744.4	1740.7	1740.4	1727.4	1715.9
G12.0	1687.3	1686.8	1702.0	1715.4	1732.5	1738.4	1734.4	1734.9	1720.1	1708.1
G13.0	1677.3	1675.8	1692.6	1707.8	1726.6	1732.4	1727.4	1728.8	1713.3	1700.5
G14.0	1666.5	1665.9	1683.4	1699.4	1719.7	1725.9	1720.5	1721.8	1705.2	1691.4
G15.0	1655.5	1654.8	1673.6	1690.9	1711.4	1718.7	1713.2	1713.3	1696.1	1682.3
G16.0	1643.7	1642.7	1663.2	1680.6	1703.0	1709.9	1704.5	1705.2	1688.0	1672.4
G17.0	1631.5	1630.6	1652.6	1671.0	1694.5	1701.3	1694.9	1696.8	1678.0	1660.7
G18.0	1617.4	1616.9	1639.9	1660.3	1685.3	1692.1	1685.9	1687.6	1667.8	1649.9
G19.0	1603.8	1604.0	1627.6	1648.9	1674.6	1682.1	1676.1	1677.8	1657.5	1638.5
G20.0	1590.0	1590.0	1615.5	1637.3	1664.3	1671.8	1665.6	1666.0	1645.7	1626.2
G21.0	1575.2	1575.7	1602.1	1623.9	1653.1	1659.5	1653.4	1654.6	1633.1	1612.6
G22.0	1560.1	1559.3	1587.3	1611.1	1641.8	1647.9	1641.5	1642.9	1621.0	1599.6
G23.0	1544.7	1543.7	1572.9	1597.9	1628.4	1635.4	1629.3	1631.3	1608.2	1586.3
G24.0	1528.9	1528.0	1558.3	1584.2	1615.7	1623.3	1616.4	1617.4	1594.8	1572.5
G25.0	1511.2	1512.0	1541.7	1569.8	1602.5	1609.9	1602.1	1604.1	1579.6	1556.5
G26.0	1494.4	1495.9	1525.8	1553.6	1588.4	1594.8	1589.2	1590.4	1564.8	1541.6
G27.0	1477.1	1478.8	1509.9	1538.3	1573.3	1580.3	1573.7	1576.2	1550.3	1525.9
G28.0	1458.9	1459.4	1492.9	1522.6	1558.2	1565.8	1559.3	1561.1	1535.1	1510.3
G29.0	1440.8	1441.2	1476.4	1506.2	1542.9	1550.6	1544.0	1545.6	1517.7	1493.6
G30.0	1420.7	1423.1	1458.8	1489.4	1527.3	1534.7	1526.9	1528.5	1501.6	1475.3
G31.0	1402.3	1404.0	1439.3	1470.4	1509.5	1516.9	1510.9	1512.7	1485.2	1457.7
G32.0	1382.8	1383.0	1421.0	1453.3	1492.8	1500.3	1494.4	1496.0	1467.4	1440.3
G33.0	1363.0	1363.3	1402.1	1434.8	1475.7	1483.0	1477.3	1479.2	1450.3	1422.4
G34.0	1341.1	1343.2	1380.7	1416.6	1458.2	1465.8	1457.9	1460.0	1430.5	1402.1
G35.0	1320.8	1322.7	1361.0	1395.2	1438.2	1445.5	1439.5	1442.2	1411.9	1383.1
G36.0	1300.1	1301.9	1341.3	1376.4	1419.8	1427.3	1421.4	1423.9	1393.2	1363.7

C Plane (°):0.0-360.0: 30.0
 Test Lab: MESTER LAB
 Test Type: TYPE C
 Temperature: 25.5℃
 Operator: huayan Luo

Gamma Plane (°):0.0-90.0:1.0
 Test Device: GPM-1800B
 Distance: 11.655 m [K=1.0000]
 Humidity: 45% R.H
 Inspector:

Candlepower Table (Continue 1)

Unit: cd

G\C	C0.0	C30.0	C60.0	C90.0	C120.0	C150.0	C180.0	C210.0	C240.0	C270.0
G37.0	1279.0	1278.6	1320.8	1356.5	1401.3	1408.5	1402.7	1403.6	1374.0	1344.2
G38.0	1255.6	1257.0	1297.8	1336.2	1381.8	1389.4	1383.3	1384.7	1352.5	1324.3
G39.0	1233.5	1235.2	1277.0	1315.7	1360.0	1368.1	1362.3	1365.2	1332.8	1301.3
G40.0	1211.2	1213.0	1255.0	1292.7	1339.6	1347.9	1342.1	1345.3	1312.7	1280.3
G41.0	1188.7	1187.9	1233.4	1271.3	1319.0	1327.3	1322.0	1325.1	1292.1	1259.4
G42.0	1163.3	1165.1	1211.1	1249.6	1298.1	1306.7	1301.4	1302.6	1269.0	1238.0
G43.0	1140.4	1141.9	1186.3	1227.7	1276.8	1285.4	1278.5	1281.9	1248.1	1214.2
G44.0	1116.6	1118.0	1163.8	1203.0	1253.1	1261.7	1257.2	1260.7	1226.0	1192.1
G45.0	1093.0	1094.1	1140.5	1179.8	1231.3	1239.4	1235.5	1239.2	1204.2	1169.6
G46.0	1066.5	1069.5	1114.8	1156.7	1209.0	1217.2	1213.5	1215.3	1179.6	1147.0
G47.0	1041.7	1042.4	1091.0	1133.0	1184.4	1194.5	1188.8	1193.3	1156.8	1122.2
G48.0	1017.3	1017.8	1066.8	1109.6	1161.4	1171.8	1166.3	1171.4	1133.9	1098.4
G49.0	992.2	992.7	1042.4	1085.5	1137.9	1146.2	1143.4	1148.4	1110.6	1075.2
G50.0	963.8	967.4	1017.1	1059.0	1113.6	1122.8	1120.0	1123.0	1084.7	1049.2
G51.0	938.7	939.3	989.8	1034.3	1087.7	1099.3	1094.1	1099.6	1061.2	1024.6
G52.0	912.4	913.4	964.0	1009.0	1062.8	1074.9	1070.1	1075.4	1036.6	1000.1
G53.0	886.4	887.1	938.4	983.7	1038.2	1048.1	1046.5	1051.8	1012.9	975.1
G54.0	857.5	858.1	909.7	955.7	1013.0	1023.5	1021.9	1025.3	985.4	950.2
G55.0	830.8	831.2	883.7	929.3	988.0	998.0	994.7	1000.1	960.8	924.6
G56.0	804.1	804.6	857.3	903.3	959.9	972.8	969.7	975.4	935.3	896.5
G57.0	774.6	777.2	830.5	874.0	933.9	944.7	944.3	950.5	909.6	870.5
G58.0	747.4	746.4	801.1	846.9	908.3	918.3	919.0	922.4	883.9	844.5
G59.0	719.8	721.2	773.5	819.5	881.7	891.6	890.4	897.1	855.1	815.7
G60.0	692.3	690.4	745.9	792.2	852.2	865.3	864.1	871.4	828.7	788.9
G61.0	661.4	662.1	715.2	764.4	825.3	838.5	838.1	845.0	802.2	762.1
G62.0	633.1	634.1	689.6	736.6	798.0	808.9	811.5	816.1	775.4	735.2
G63.0	604.7	603.1	658.8	706.2	767.9	782.0	782.4	789.3	745.6	704.8
G64.0	576.3	573.9	629.9	677.4	739.8	754.3	755.3	762.0	718.1	677.1
G65.0	547.4	545.2	600.9	648.8	711.5	726.5	728.2	735.0	691.0	649.0
G66.0	516.0	516.1	569.5	619.8	683.9	698.4	700.8	705.1	663.2	621.1
G67.0	487.1	486.9	540.2	587.7	652.3	667.3	670.7	677.1	632.5	590.0
G68.0	458.5	454.8	511.4	558.6	624.1	638.9	642.8	649.6	604.4	561.9
G69.0	429.2	425.5	481.9	529.2	595.1	610.0	614.8	621.9	576.0	533.5
G70.0	397.7	396.2	449.6	499.8	566.2	581.3	586.8	591.0	547.8	502.3
G71.0	368.8	367.2	420.4	470.1	534.0	549.4	555.8	563.3	516.4	473.7
G72.0	337.7	336.1	388.8	438.5	505.5	521.3	528.2	532.7	488.5	442.9
G73.0	308.3	308.7	358.4	407.4	475.1	490.7	498.2	503.4	458.5	415.8

C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5℃
Operator: huayan Luo

Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
Inspector:

Candlepower Table (Continue 2)

Unit: cd

[illegible]

C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5°C
Operator: huayan Luo

Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
Inspector:

Candlepower Table (Continue 3)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G0.0	1758.8	1760.1	1761.5							
G1.0	1756.2	1757.4	1759.4							
G2.0	1753.7	1754.1	1756.4							
G3.0	1750.3	1750.1	1752.4							
G4.0	1746.3	1745.4	1747.8							
G5.0	1741.1	1740.8	1742.7							
G6.0	1735.7	1734.9	1737.4							
G7.0	1730.2	1728.6	1730.6							
G8.0	1723.6	1720.9	1722.7							
G9.0	1716.4	1713.1	1715.1							
G10.0	1708.2	1705.4	1706.6							
G11.0	1699.2	1695.6	1697.6							
G12.0	1690.6	1685.8	1687.3							
G13.0	1681.4	1676.2	1677.3							
G14.0	1671.3	1665.5	1666.5							
G15.0	1659.8	1654.5	1655.5							
G16.0	1648.4	1642.8	1643.7							
G17.0	1637.0	1629.4	1631.5							
G18.0	1624.5	1616.5	1617.4							
G19.0	1610.9	1603.2	1603.8							
G20.0	1597.6	1589.2	1590.0							
G21.0	1583.7	1573.5	1575.2							
G22.0	1569.3	1559.1	1560.1							
G23.0	1554.0	1544.1	1544.7							
G24.0	1537.2	1528.1	1528.9							
G25.0	1521.5	1510.3	1511.2							
G26.0	1505.4	1493.6	1494.4							
G27.0	1488.7	1476.6	1477.1							
G28.0	1470.3	1459.0	1458.9							
G29.0	1453.1	1441.0	1440.8							
G30.0	1434.8	1422.7	1420.7							
G31.0	1416.8	1401.9	1402.3							
G32.0	1398.0	1382.9	1382.8							
G33.0	1376.8	1363.3	1363.0							
G34.0	1357.0	1343.5	1341.1							
G35.0	1337.1	1321.3	1320.8							
G36.0	1317.2	1300.6	1300.1							

C Plane (°):0.0-360.0: 30.0
 Test Lab: MESTER LAB
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 Operator: huayan Luo

Gamma Plane (°):0.0-90.0:1.0
 Test Device: GPM-1800B
 Distance: 11.655 m [K=1.0000]
 Humidity: 45% R.H
 Inspector:

Candlepower Table (Continue 4)

Unit: cd

G\C	C300.0	C330.0	C360.0						
G37.0	1294.1	1279.8	1279.0						
G38.0	1273.2	1258.2	1255.6						
G39.0	1252.1	1236.2	1233.5						
G40.0	1230.3	1212.1	1211.2						
G41.0	1206.6	1189.4	1188.7						
G42.0	1184.4	1167.2	1163.3						
G43.0	1162.0	1142.0	1140.4						
G44.0	1138.8	1119.0	1116.6						
G45.0	1113.0	1095.4	1093.0						
G46.0	1089.7	1071.2	1066.5						
G47.0	1065.6	1045.0	1041.7						
G48.0	1041.8	1020.5	1017.3						
G49.0	1017.4	996.0	992.2						
G50.0	990.2	968.5	963.8						
G51.0	965.4	943.2	938.7						
G52.0	940.0	917.7	912.4						
G53.0	912.8	891.6	886.4						
G54.0	886.7	866.0	857.5						
G55.0	861.2	839.3	830.8						
G56.0	834.6	810.5	804.1						
G57.0	805.3	783.7	774.6						
G58.0	778.5	756.9	747.4						
G59.0	751.3	727.1	719.8						
G60.0	724.3	700.0	692.3						
G61.0	696.6	672.4	661.4						
G62.0	666.2	644.4	633.1						
G63.0	638.3	613.6	604.7						
G64.0	610.0	585.3	576.3						
G65.0	582.3	556.7	547.4						
G66.0	550.8	528.8	516.0						
G67.0	522.3	497.3	487.1						
G68.0	493.9	468.4	458.5						
G69.0	464.9	440.3	429.2						
G70.0	433.5	408.9	397.7						
G71.0	404.9	380.4	368.8						
G72.0	377.2	349.9	337.7						
G73.0	347.4	323.5	308.3						

C Plane (°):0.0-360.0: 30.0
 Test Lab: MESTER LAB
 Test Type: TYPE C
 Temperature: 25.5℃
 Operator: huayan Luo

Gamma Plane (°):0.0-90.0:1.0
 Test Device: GPM-1800B
 Distance: 11.655 m [K=1.0000]
 Humidity: 45% R.H
 Inspector:

Candlepower Table (Continue 5)

Unit: cd

[illegible]

C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5°C
Operator: huayan Luo

Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
Inspector:

LED Average Luminance Report

Avg.L	cd/m ²
L 0-180(65) av	19963.06
L 0-180(75) av	17710.69
L 0-180(85) av	14016.38
L 90-270(65) av	20309.83
L 90-270(75) av	17977.26
L 90-270(85) av	12135.05
L 45(65) av	20145.20
L 45(75) av	17851.23
L 45(85) av	13264.59

Standard: GB/T 29293-2012