

Report No.:

Test Time: 2024/10/10

Luminaire Property

Luminaire Manufacturer: MESTER

Luminaire Category:

Luminaire Description: MALL014F27V35K-DOWN-100%

Lamp Catalog:

Number of Lamps:

Luminous Length (mm): 1200

Luminous Height (mm):

Current: 0.331 A

Power Factor: 0.995

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 63

Voltage: 120.3 V

Power: 39.63 W

Photometric Results

CIE Class: Direct

Measurement Flux: 4960.1 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(10%,50%,75%,100%): H162.1,H112.5,H75.9,H2

Vertical Diffuse Angle(10%,50%,75%,100%): V162.2,V113.5,V77,V0

Luminous Efficacy (lm/w): 125.16

Max. Intensity: 1731 cd

S/MH(C0/C180): 1.24

Total Rated Lamp Lumens: 4960.1 lm

Efficiency: 100%

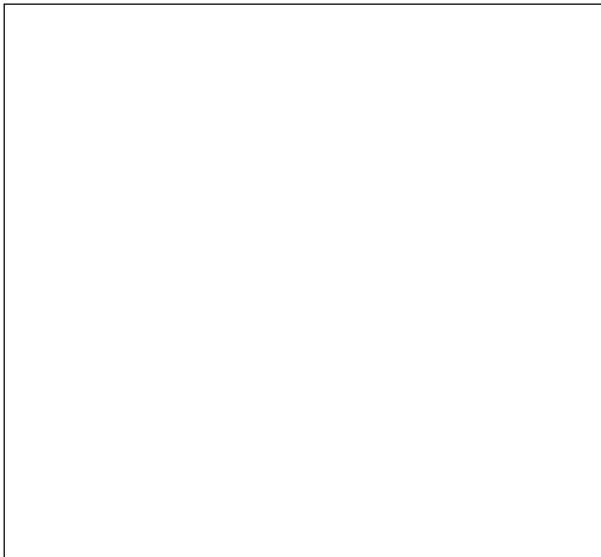
Upward Ratio: 0%

C0r0 Intensity: 1728.41 cd

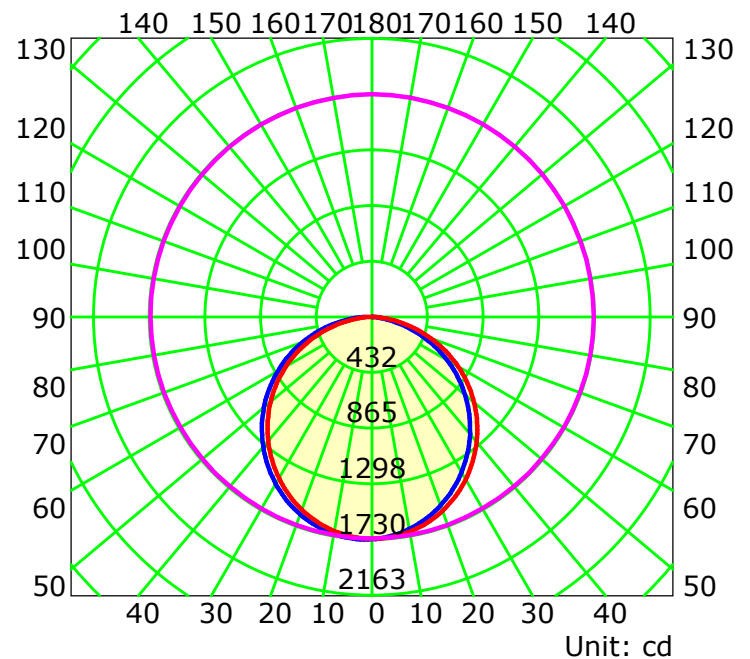
Pos of Max. Intensity: H180 V2

S/MH(C90/C270): 1.25

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 113.0°

— C0-C180 — C90-C270 — G2

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

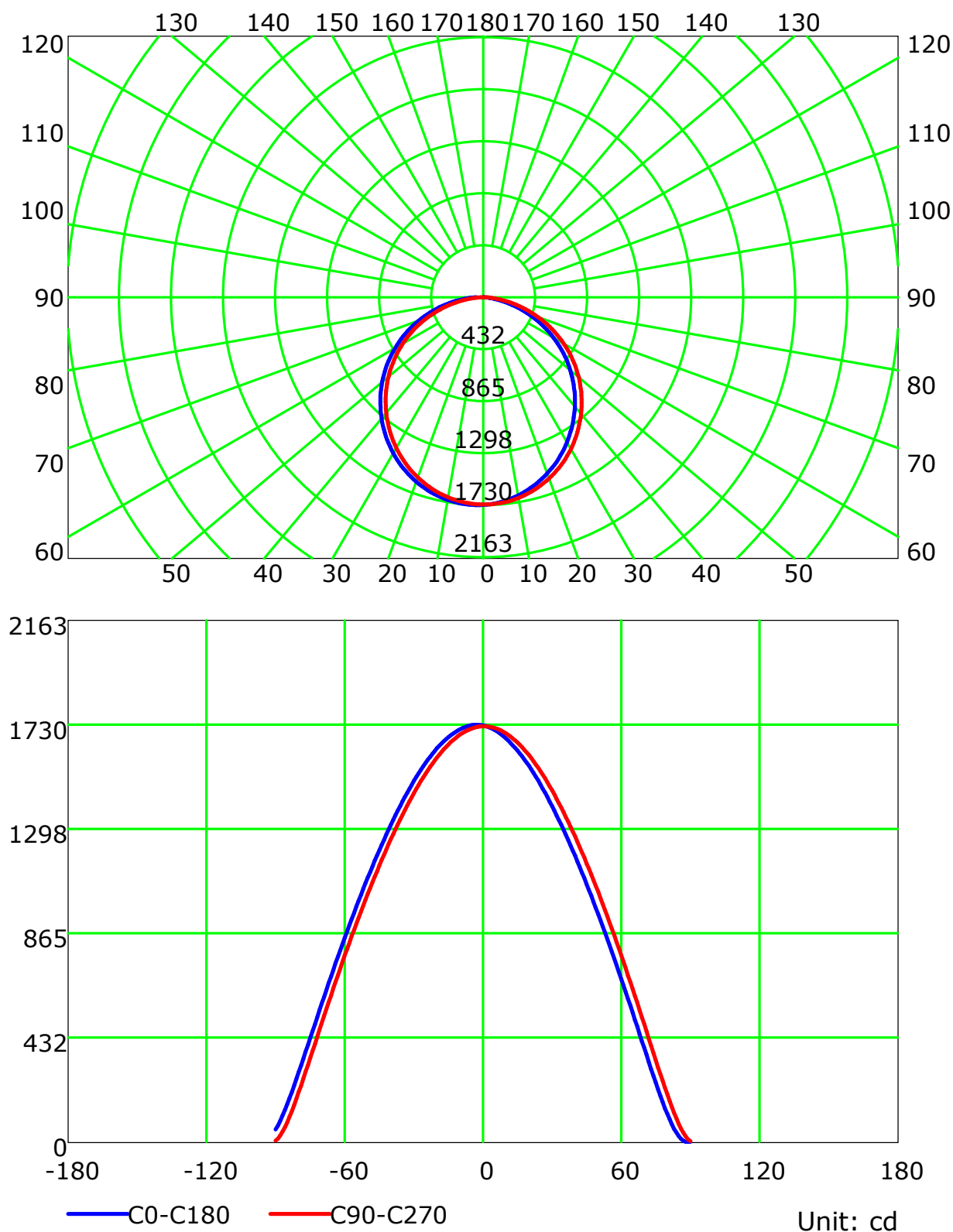
Test Device: GPM-1800B

Distance: 11.655 m [K=1.0000]

Humidity: 45% R.H

Inspector:

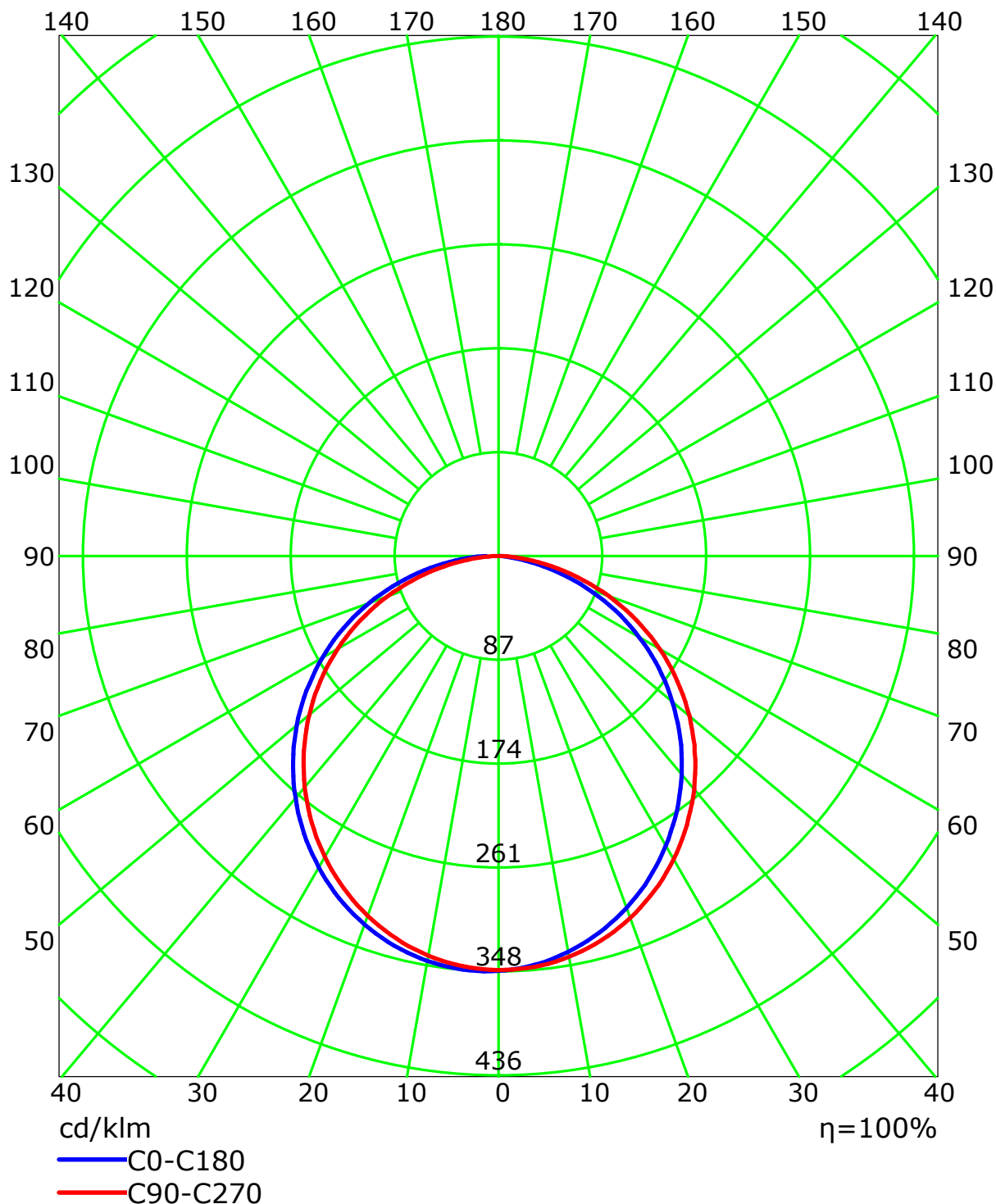
Luminous Intensity Distribution Curve



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℃
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:

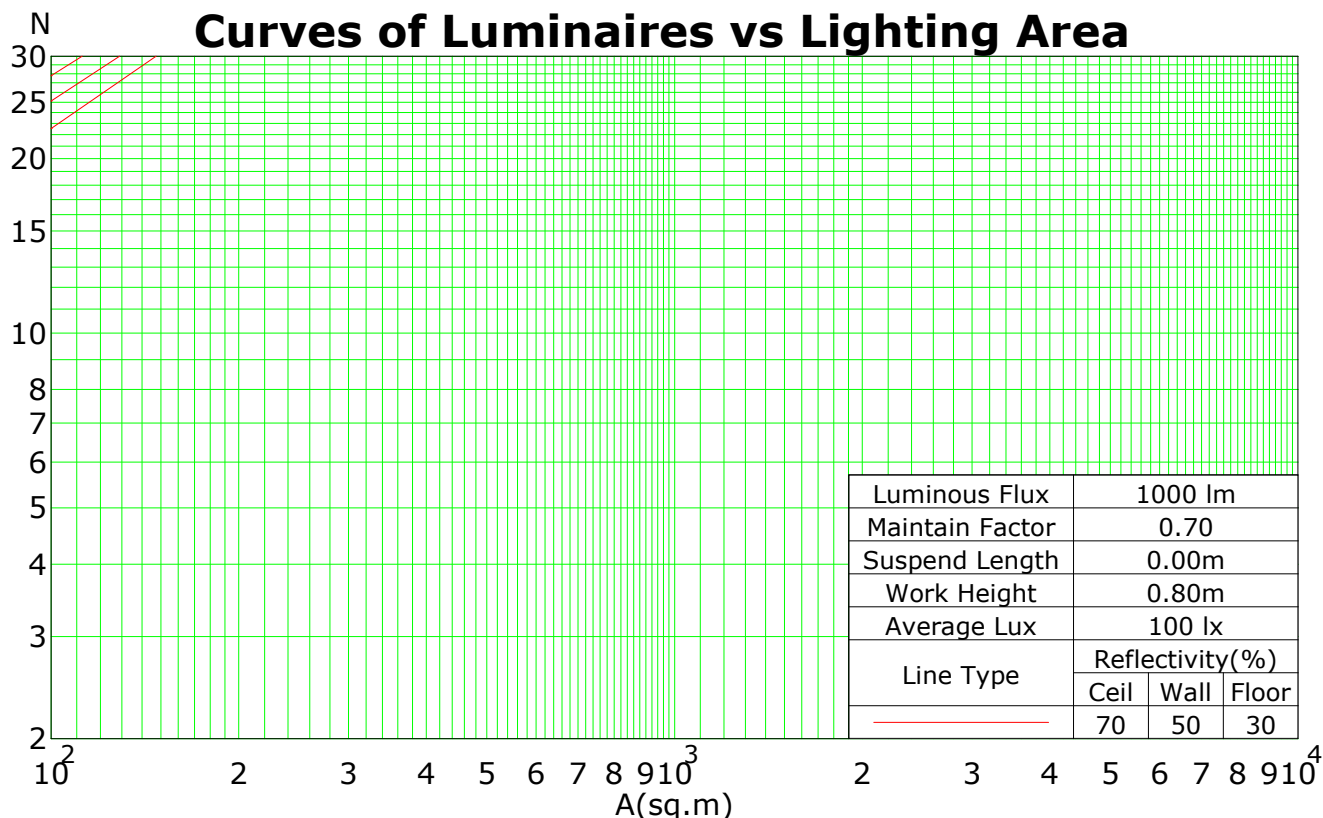
Coefficients Of Utilization - Zonal Cavity Method

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	0.51	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): 1.24

Spacing Criteria (90-270): 1.25

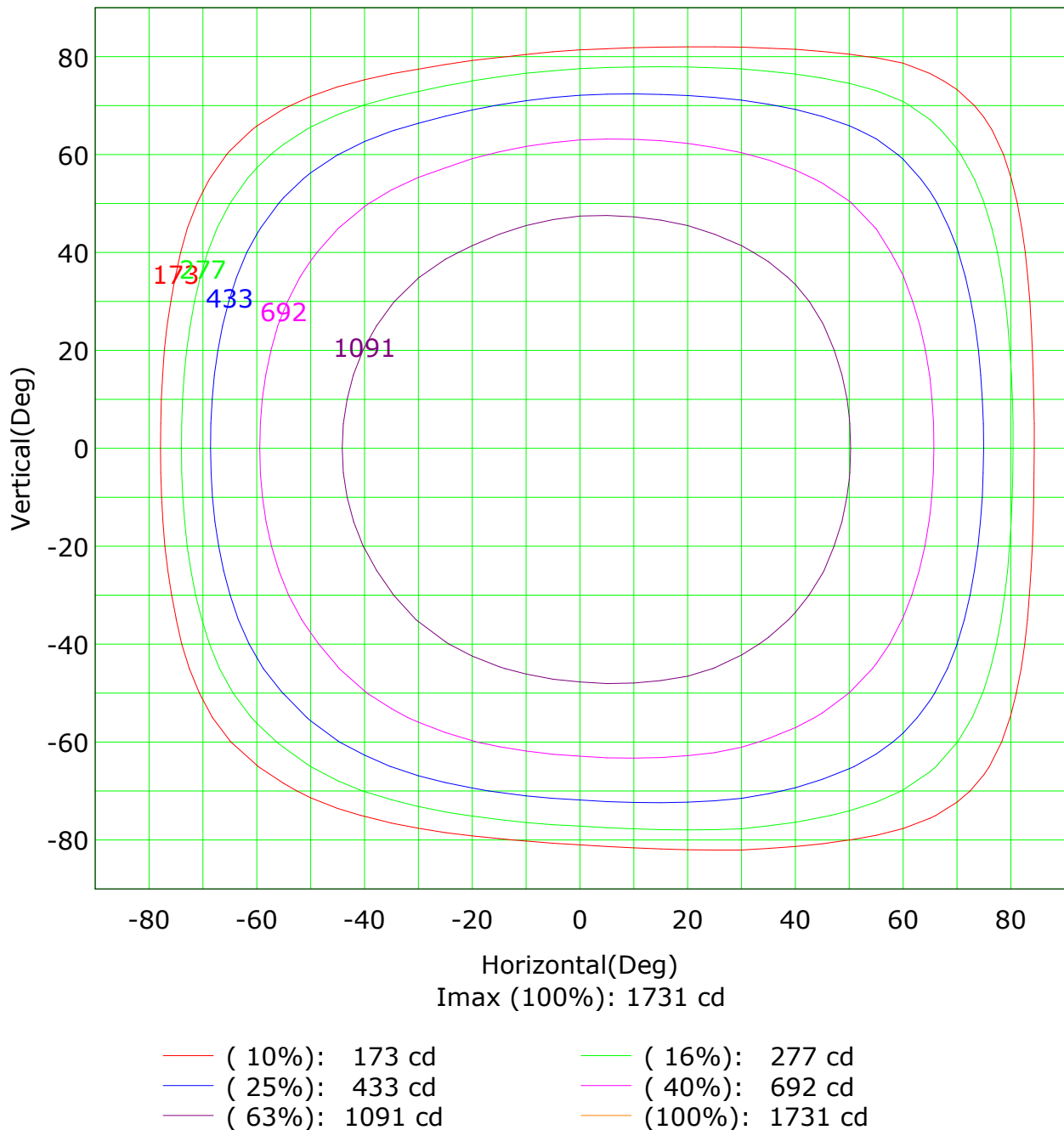
Spacing Criteria (Diagonal): 1.37



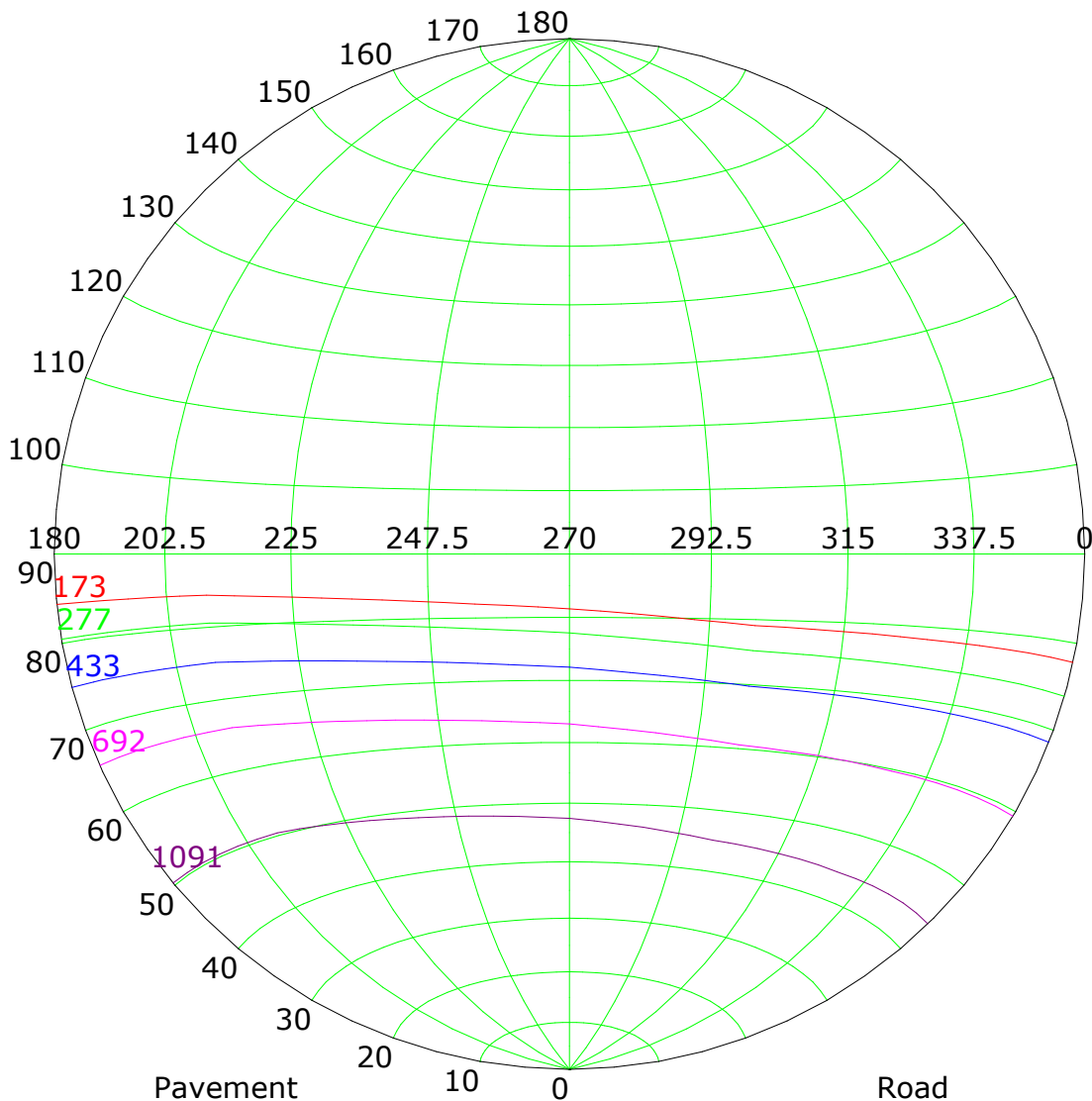
C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5℃
Operator: huayan Luo

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%): 1731 cd

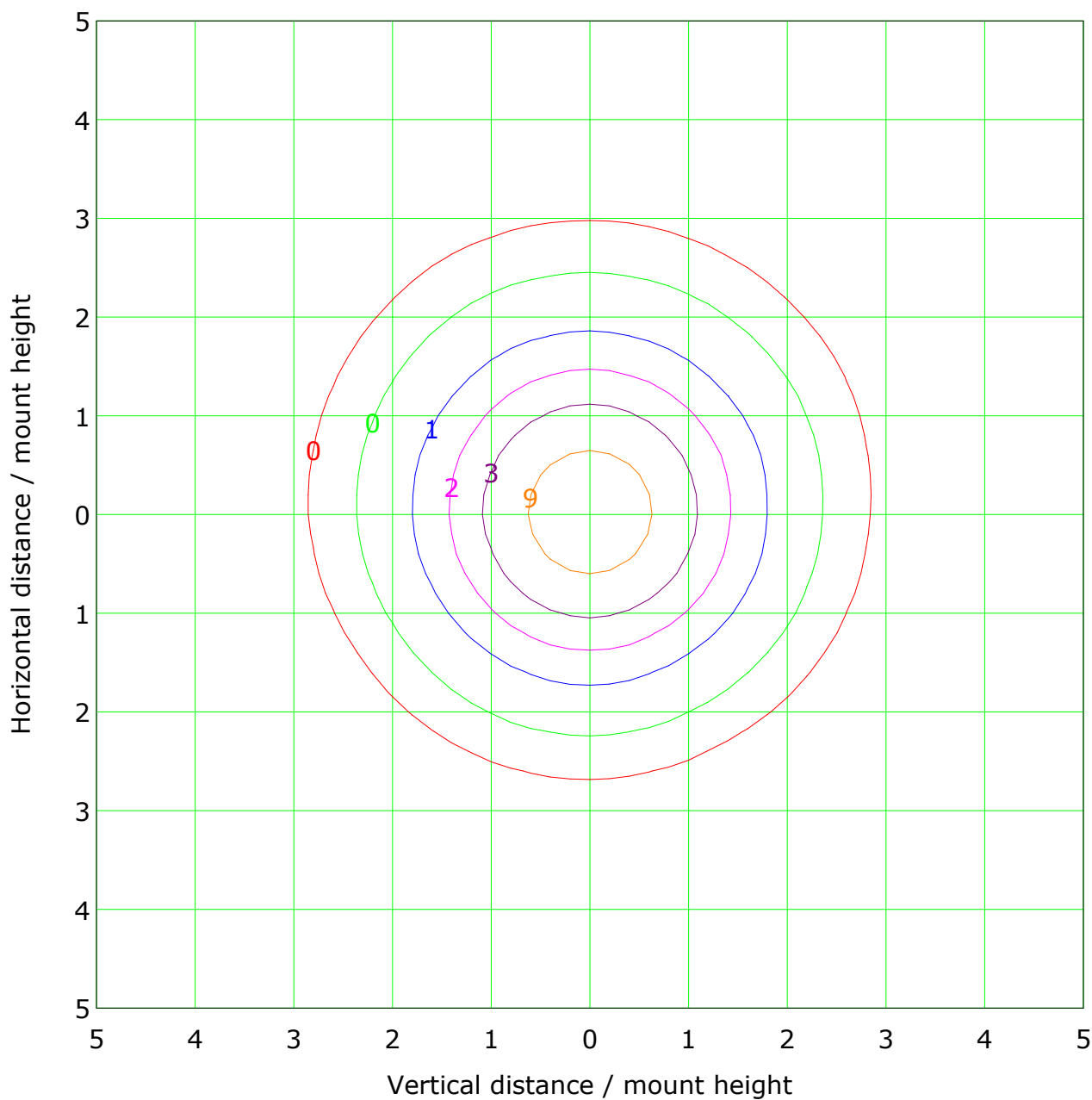
(10%): 173 cd
(25%): 433 cd
(63%): 1091 cd

(16%): 277 cd
(40%): 692 cd
(100%): 1731 cd

CIE: narrow - short
CIE: Semi-cut-off luminaire
Max.At90: 10.380 cd/klm

IES: Cut-off
Max.At80: 58.947 cd/klm
Max.80-90: 58.947 cd/klm

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 17.3 lx

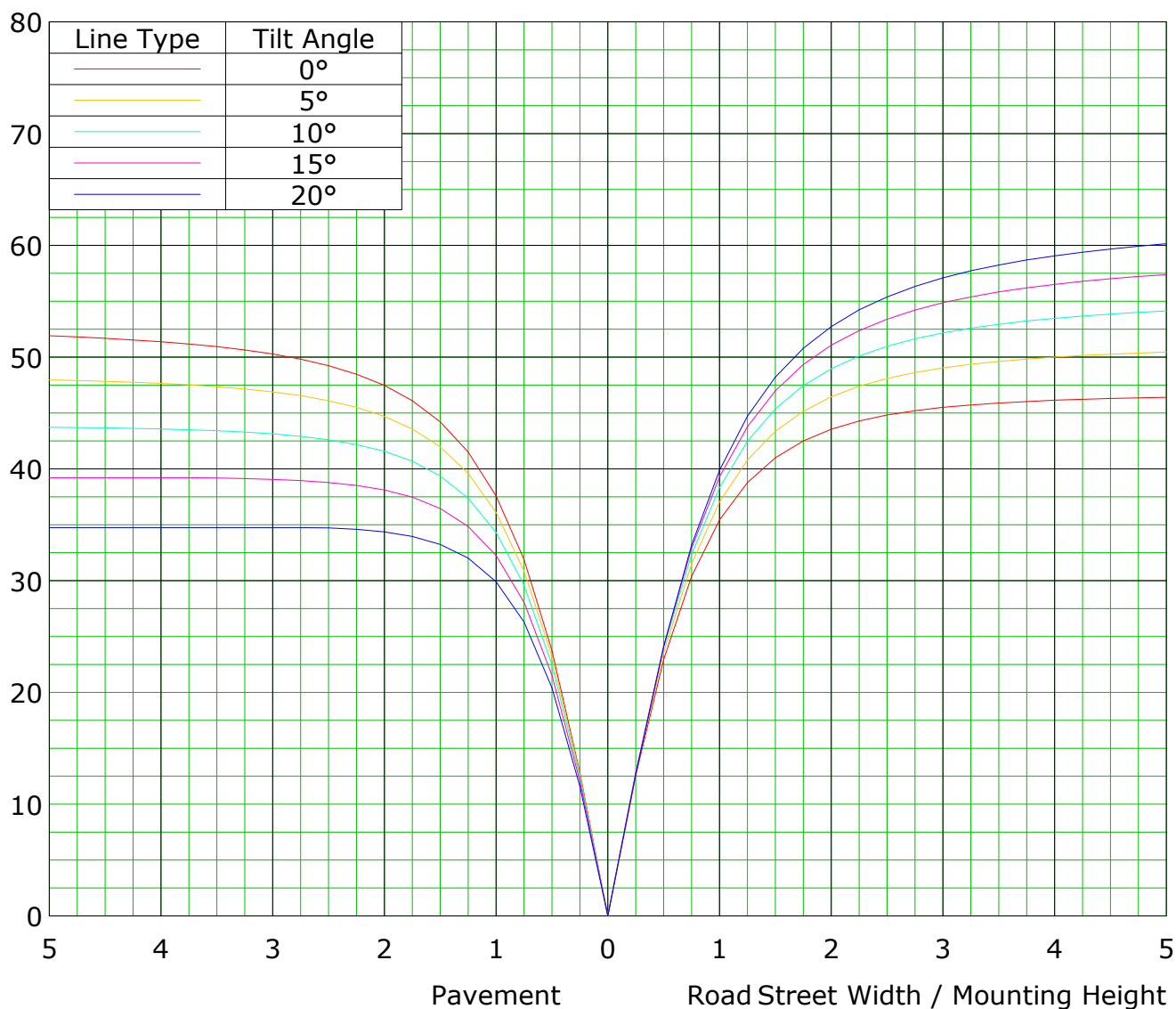
— (1%): 0.2 lx	— (2%): 0.3 lx
— (5%): 0.9 lx	— (10%): 1.7 lx
— (20%): 3.5 lx	— (50%): 8.6 lx
— (100%): 17.3 lx	

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Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
Inspector:

Roadway CU Curve

Efficiency(%)



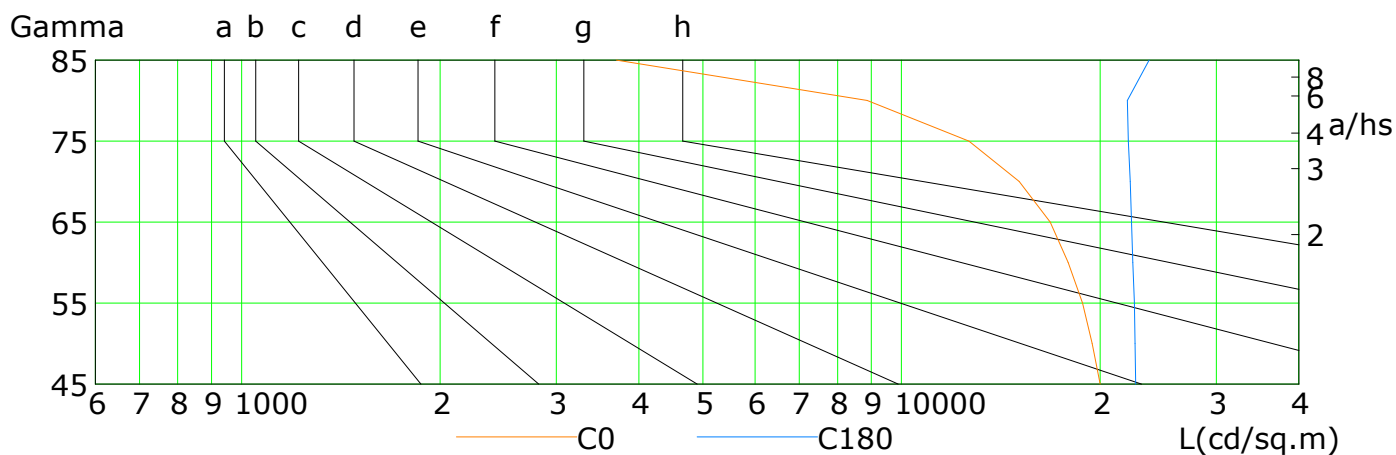
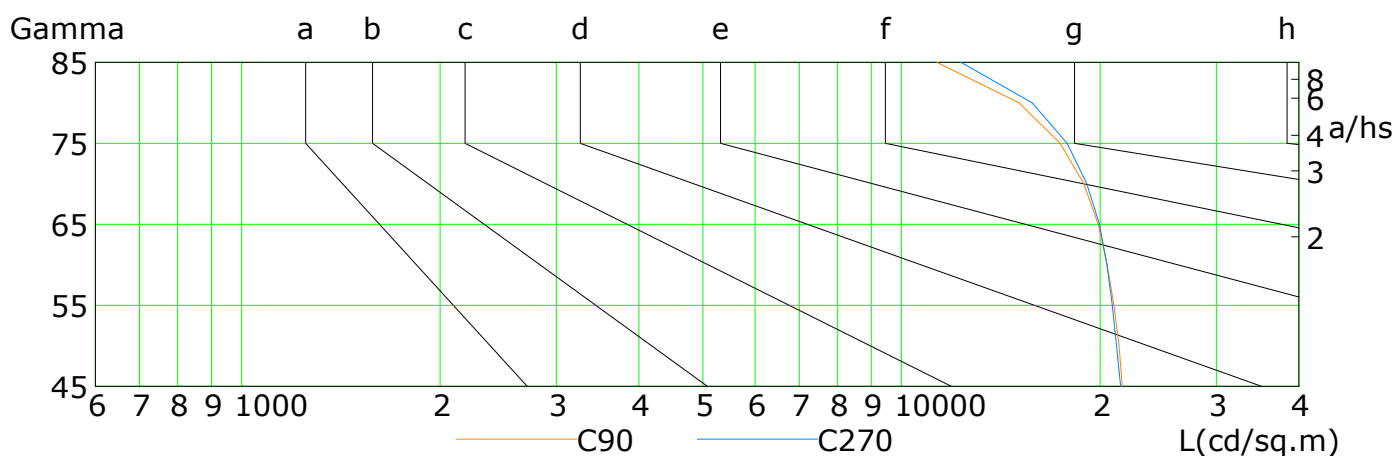
C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5°C
Operator: huayan Luo

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

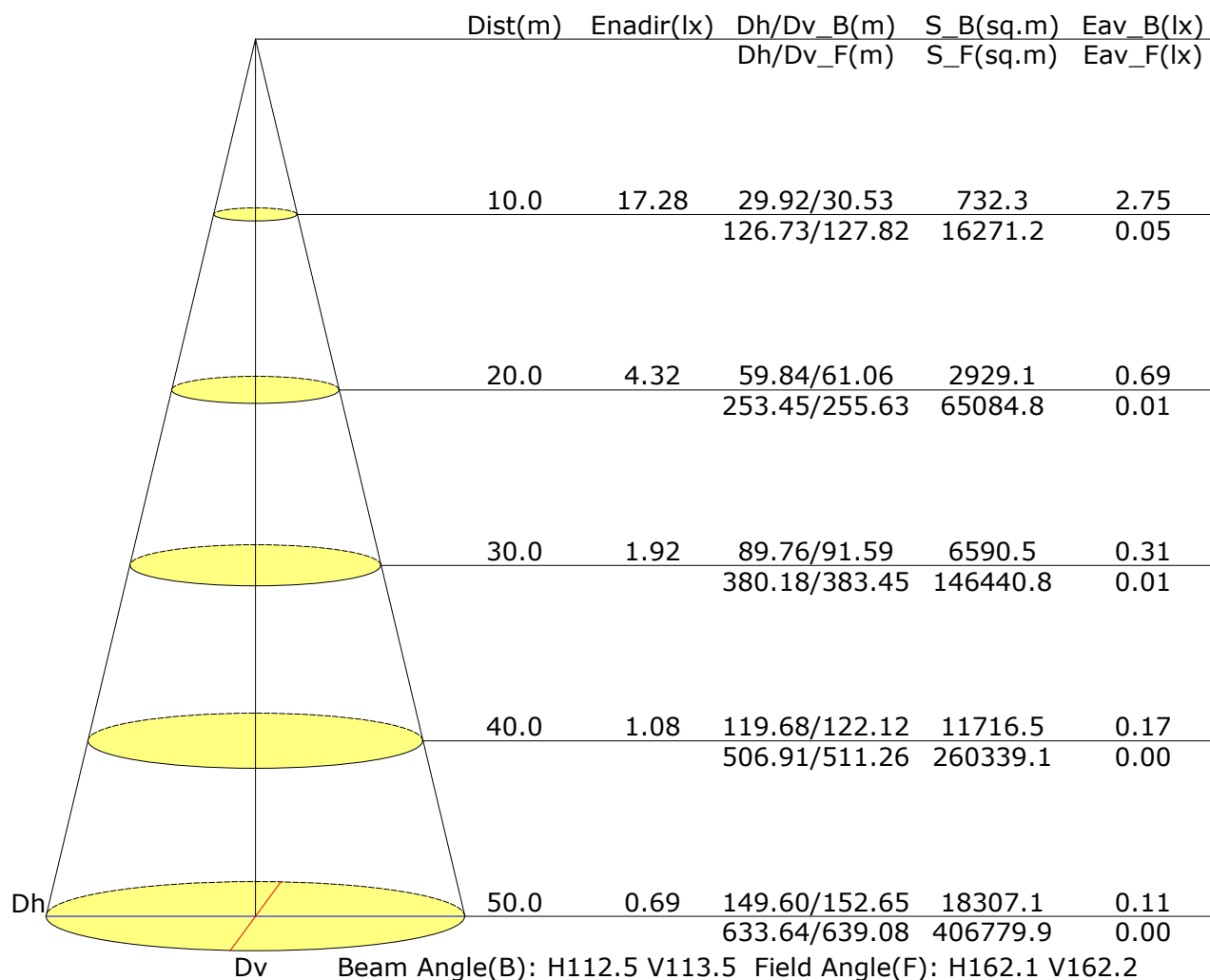


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	20007	19460	18802	17892	16812	15086	12649	8867	3699
C90	21610	21373	20976	20503	19860	18893	17388	15065	11313
C180	22648	22590	22533	22405	22325	22211	22065	22003	23723
C270	21475	21178	20867	20484	19954	19081	17834	15773	12299

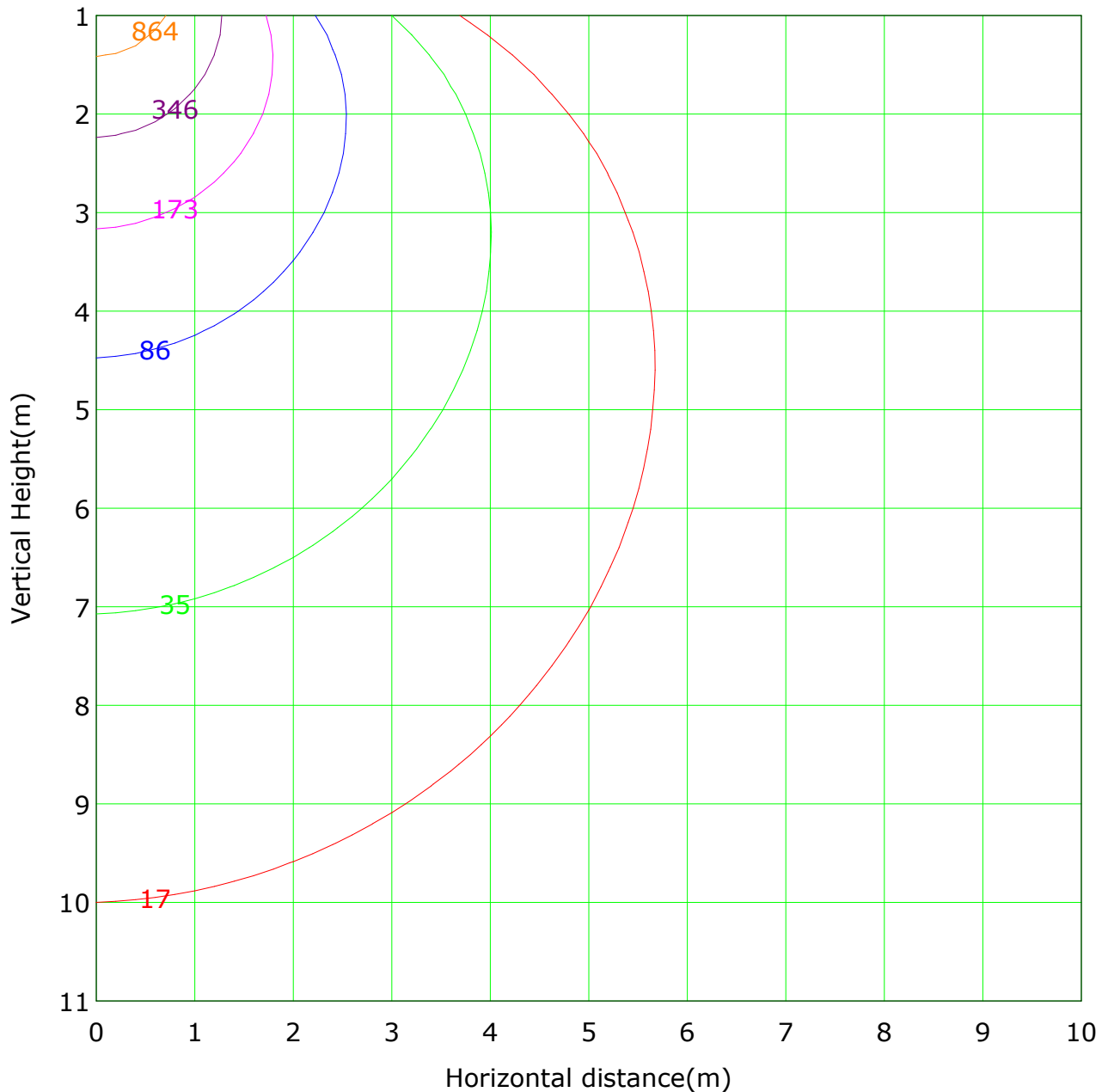
C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5℃
Operator: huayan Luo

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: 1728.4 lx
— (1%): 17.3 lx — (2%): 34.6 lx
— (5%): 86.4 lx — (10%): 172.8 lx
— (20%): 345.7 lx — (50%): 864.2 lx
— (100%):1728.4 lx

Area Flux Table

Unit: lm

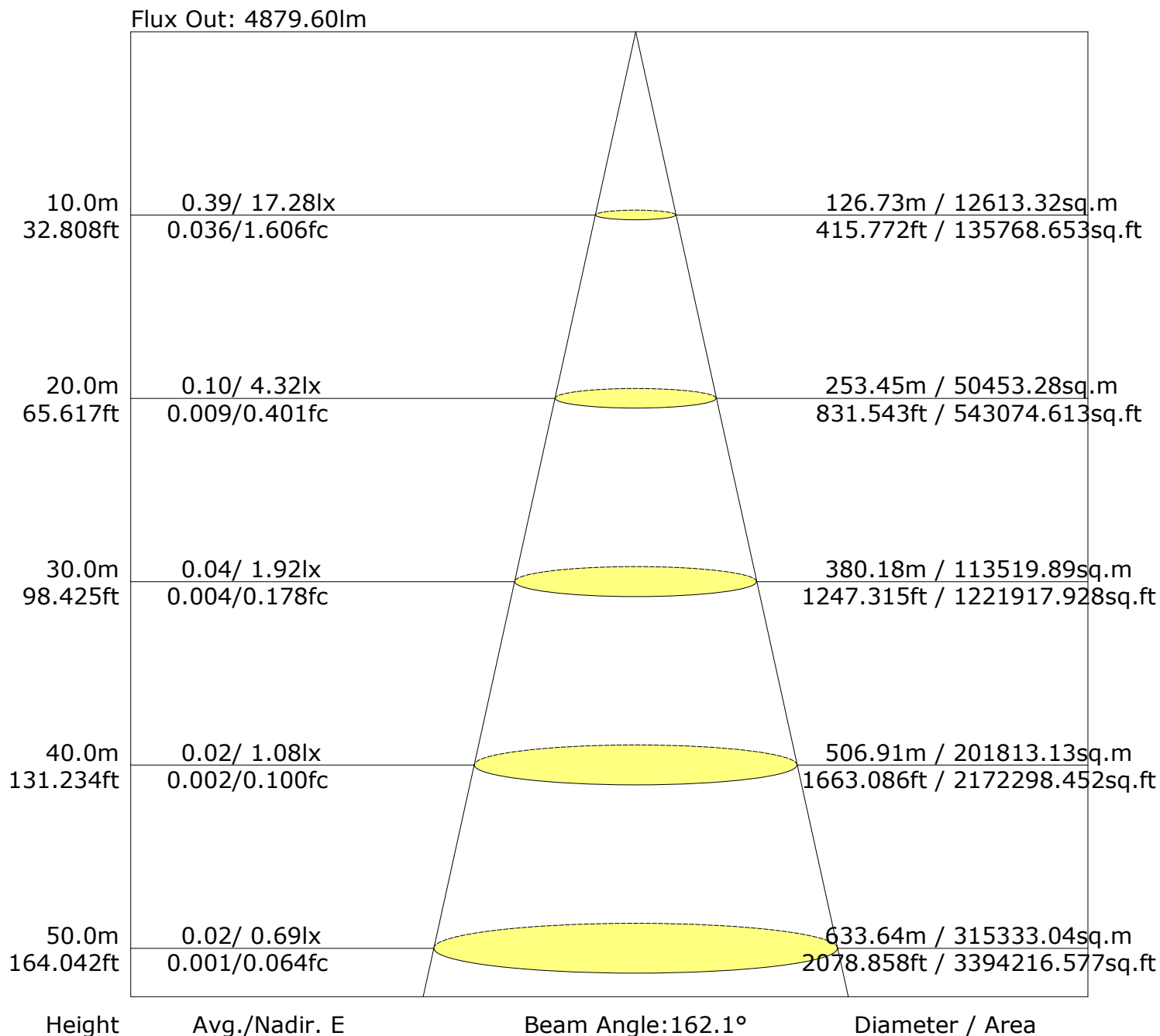
		Orbit, min																			
		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	$\int_{0}^{90} \text{Flux(T)} dT$	$\int_{0}^{90} \text{Flux(E)} dE$
Vertical plane	-90	0.2	0.6	1.2	1.8	2.3	2.7	3.0	3.1	2.9	2.5	2.0	1.4	0.9	0.5	0.2	0.1	0.0	0.0	25.3	4.8
	-80	0.2	1.0	2.5	4.3	6.2	8.0	9.5	10.5	10.7	10.2	8.8	7.0	5.1	3.3	1.8	0.7	0.1	0.0	90.0	81.9
	-70	0.3	1.5	3.9	7.1	10.5	13.8	16.6	18.6	19.4	18.8	16.8	13.9	10.6	7.3	4.1	1.8	0.4	0.0	165.4	162.7
	-60	0.3	2.0	5.3	9.7	14.6	19.3	23.3	26.2	27.5	26.9	24.4	20.6	16.1	11.2	6.7	3.0	0.8	0.0	237.9	236.5
	-50	0.4	2.5	6.5	12.1	18.2	24.2	29.3	33.0	34.8	34.1	31.2	26.6	21.0	14.8	9.0	4.2	1.1	0.1	303.1	302.2
	-40	0.4	2.9	7.6	14.0	21.3	28.4	34.5	39.0	41.1	40.4	37.0	31.8	25.2	17.9	11.0	5.3	1.5	0.1	359.3	358.6
	-30	0.5	3.2	8.4	15.5	23.6	31.7	38.7	43.8	46.2	45.5	41.8	35.9	28.5	20.4	12.6	6.1	1.8	0.1	404.3	403.8
	-20	0.5	3.4	9.0	16.5	25.2	33.9	41.7	47.3	49.9	49.2	45.3	38.9	30.8	22.1	13.7	6.7	2.0	0.1	436.1	435.6
	-10	0.5	3.5	9.2	17.0	26.0	35.0	43.1	49.1	51.9	51.2	47.3	40.6	32.1	22.9	14.2	7.0	2.1	0.1	452.8	452.4
	0	0.5	3.5	9.2	17.0	26.0	35.0	43.1	49.1	52.0	51.3	47.3	40.6	32.1	22.9	14.2	6.9	2.1	0.1	453.1	452.7
10	0.5	3.4	8.9	16.5	25.2	34.0	41.8	47.6	50.3	49.5	45.6	39.0	30.8	22.0	13.6	6.6	2.0	0.1	437.4	436.8	
20	0.5	3.2	8.4	15.4	23.6	31.8	39.0	44.4	46.7	46.0	42.3	36.2	28.5	20.3	12.5	6.0	1.7	0.1	406.6	406.0	
30	0.4	2.8	7.5	13.9	21.2	28.6	35.0	39.6	41.5	40.9	37.6	32.2	25.3	17.8	10.9	5.2	1.5	0.1	362.1	361.4	
40	0.4	2.5	6.4	11.9	18.2	24.4	29.9	33.6	35.2	34.5	31.8	27.1	21.2	14.8	8.8	4.1	1.1	0.1	306.0	305.0	
50	0.3	2.0	5.2	9.5	14.5	19.6	23.9	26.6	27.7	27.1	24.8	21.1	16.3	11.2	6.4	2.9	0.7	0.0	240.0	238.5	
60	0.3	1.5	3.8	6.9	10.5	14.0	17.1	18.8	19.4	18.8	17.1	14.3	10.8	7.2	3.9	1.6	0.4	0.0	166.4	163.5	
70	0.2	1.0	2.3	4.1	6.1	8.2	9.7	10.5	10.6	10.0	8.9	7.2	5.2	3.2	1.6	0.6	0.1	0.0	89.6	81.5	
80	0.2	0.6	1.1	1.6	2.2	2.7	3.0	3.0	2.7	2.4	1.9	1.4	0.9	0.5	0.2	0.0	0.0	0.0	24.4	4.4	
90	6.7	41.0	106.3	194.9	295.3	395.5	482.5	543.7	570.5	555.9	451.2	0.4	35.6	341.2	240.3	145.5	68.7	19.3	1.2	4960	
Flux(T)	3.2	37.2	102.5	191.1	291.5	391.7	478.6	553.9	566.4	555.4	507.8	431.5	337.0	236.1	141.1	64.1	13.2	0.0		4888	
Flux(E)	3.2	37.2	102.5	191.1	291.5	391.7	478.6	553.9	566.4	555.4	507.8	431.5	337.0	236.1	141.1	64.1	13.2	0.0		4888	

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	23.6	22.3	23.9	24.2	22.8	24.5	23.2	24.8	25.1
3H	23.6	25.1	23.9	25.4	25.7	24.7	26.2	25.1	26.5	26.9
4H	24.1	25.5	24.5	25.8	26.2	25.4	26.8	25.8	27.1	27.5
6H	24.4	25.7	24.8	26.0	26.4	25.8	27.2	26.3	27.5	27.9
8H	24.4	25.6	24.8	26.0	26.4	26.0	27.2	26.4	27.6	28.0
12H	24.4	25.6	24.8	26.0	26.4	26.1	27.3	26.5	27.6	28.1
X=4H Y=2H	22.6	24.0	23.0	24.4	24.7	23.5	24.9	23.9	25.2	25.6
3H	24.4	25.6	24.8	26.0	26.4	25.6	26.8	26.0	27.2	27.6
4H	25.0	26.1	25.4	26.5	26.9	26.4	27.5	26.8	27.9	28.3
6H	25.4	26.3	25.8	26.7	27.2	27.0	27.9	27.5	28.4	28.8
8H	25.4	26.3	25.9	26.7	27.2	27.2	28.1	27.6	28.5	29.0
12H	25.4	26.2	25.9	26.7	27.2	27.3	28.1	27.8	28.6	29.0
X=8H Y=4H	25.3	26.2	25.7	26.6	27.1	26.7	27.6	27.2	28.0	28.5
6H	25.7	26.4	26.2	26.9	27.4	27.4	28.2	28.0	28.7	29.1
8H	25.8	26.4	26.3	27.0	27.4	27.7	28.4	28.2	28.9	29.4
12H	25.8	26.4	26.3	26.9	27.5	27.9	28.5	28.4	29.0	29.5
X=12H Y=4H	25.3	26.1	25.8	26.6	27.0	26.8	27.5	27.2	28.0	28.5
6H	25.8	26.4	26.3	26.9	27.4	27.5	28.2	28.1	28.7	29.2
8H	25.9	26.4	26.4	26.9	27.5	27.8	28.4	28.3	28.9	29.5

Calculate in accordance with CIE 190:2010 The table is revised with 4960lm ($8\log(F/F_0) = 5.6$).

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

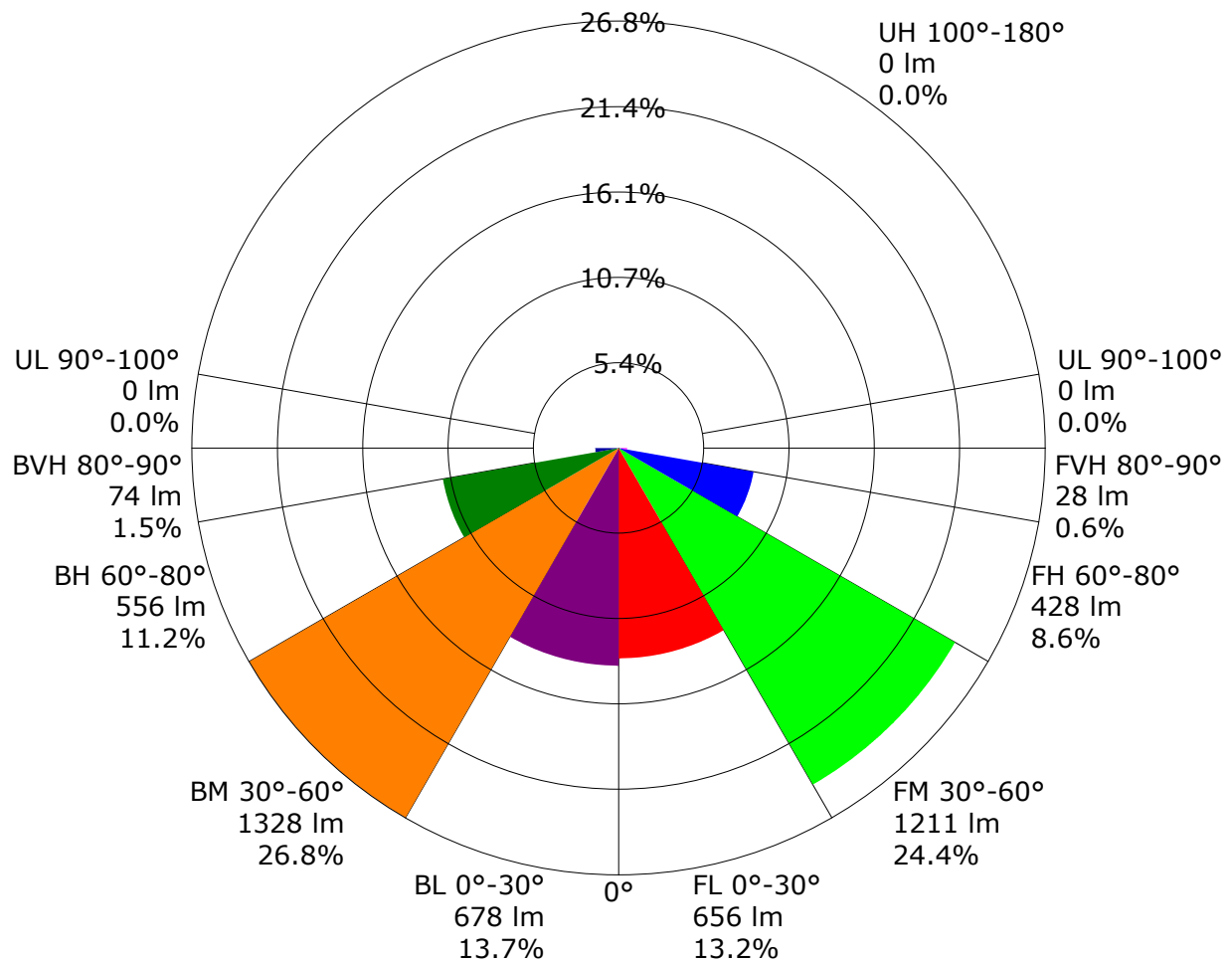
	ZONE	LUMENS	% LAMP LUMENS
	FORWARD LIGHT	2323	46.8
	FL (0°-30°)	656	13.2
	FM (30°-60°)	1211	24.4
	FH (60°-80°)	428	8.6
	FVH (80°-90°)	28	0.6
	BACK LIGHT	2637	53.2
	BL (0°-30°)	678	13.7
	BM (30°-60°)	1328	26.8
	BH (60°-80°)	556	11.2
	BVH (80°-90°)	74	1.5
	UP LIGHT	0	0.0
	UL (90°-100°)	0	0.0
	UH (100°-180°)	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 U1 G2
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B2 U1 G1

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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	0.78	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	0.31	0.26	0.23	0.18	0.15	
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(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	1725.1	1.7	1.7	0.03	0.03
1.0-2.0	1724.5	5.0	6.6	0.10	0.13
2.0-3.0	1723.2	8.2	14.8	0.17	0.30
3.0-4.0	1721.2	11.5	26.4	0.23	0.53
4.0-5.0	1718.6	14.8	41.2	0.30	0.83
5.0-6.0	1715.3	18.0	59.2	0.36	1.19
6.0-7.0	1711.4	21.2	80.4	0.43	1.62
7.0-8.0	1706.9	24.4	104.9	0.49	2.11
8.0-9.0	1701.6	27.6	132.4	0.56	2.67
9.0-10.0	1695.8	30.7	163.1	0.62	3.29
10.0-11.0	1689.3	33.8	196.9	0.68	3.97
11.0-12.0	1682.1	36.8	233.7	0.74	4.71
12.0-13.0	1674.3	39.7	273.4	0.80	5.51
13.0-14.0	1666.1	42.7	316.1	0.86	6.37
14.0-15.0	1657.3	45.5	361.6	0.92	7.29
15.0-16.0	1647.9	48.3	409.9	0.97	8.26
16.0-17.0	1637.8	51.0	460.9	1.03	9.29
17.0-18.0	1627.0	53.7	514.5	1.08	10.37
18.0-19.0	1615.8	56.2	570.7	1.13	11.51
19.0-20.0	1604.2	58.7	629.5	1.18	12.69
20.0-21.0	1591.9	61.1	690.6	1.23	13.92
21.0-22.0	1579.0	63.5	754.1	1.28	15.20
22.0-23.0	1565.6	65.7	819.8	1.32	16.53
23.0-24.0	1551.9	67.9	887.6	1.37	17.90
24.0-25.0	1537.4	69.9	957.5	1.41	19.30
25.0-26.0	1522.4	71.9	1029.4	1.45	20.75
26.0-27.0	1507.1	73.7	1103.2	1.49	22.24
27.0-28.0	1491.3	75.5	1178.7	1.52	23.76
28.0-29.0	1475.0	77.2	1255.9	1.56	25.32
29.0-30.0	1458.3	78.7	1334.6	1.59	26.91
30.0-31.0	1440.9	80.2	1414.8	1.62	28.52
31.0-32.0	1423.2	81.5	1496.3	1.64	30.17
32.0-33.0	1405.2	82.8	1579.1	1.67	31.84
33.0-34.0	1386.5	83.9	1663.1	1.69	33.53
34.0-35.0	1367.5	84.9	1748.0	1.71	35.24
35.0-36.0	1348.3	85.9	1833.9	1.73	36.97

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	1328.7	86.7	1920.5	1.75	38.72
37.0-38.0	1308.5	87.4	2007.9	1.76	40.48
38.0-39.0	1288.0	87.9	2095.8	1.77	42.25
39.0-40.0	1267.3	88.4	2184.2	1.78	44.04
40.0-41.0	1246.1	88.7	2272.9	1.79	45.82
41.0-42.0	1224.6	89.0	2361.9	1.79	47.62
42.0-43.0	1202.5	89.1	2451.0	1.80	49.41
43.0-44.0	1180.1	89.1	2540.1	1.80	51.21
44.0-45.0	1157.6	89.0	2629.1	1.79	53.00
45.0-46.0	1134.7	88.8	2717.8	1.79	54.79
46.0-47.0	1111.4	88.4	2806.2	1.78	56.58
47.0-48.0	1087.9	88.0	2894.2	1.77	58.35
48.0-49.0	1064.2	87.4	2981.6	1.76	60.11
49.0-50.0	1040.0	86.7	3068.3	1.75	61.86
50.0-51.0	1015.3	85.9	3154.2	1.73	63.59
51.0-52.0	990.7	85.0	3239.2	1.71	65.31
52.0-53.0	965.9	84.0	3323.3	1.69	67.00
53.0-54.0	940.3	82.9	3406.2	1.67	68.67
54.0-55.0	914.5	81.6	3487.8	1.65	70.32
55.0-56.0	888.8	80.3	3568.1	1.62	71.94
56.0-57.0	862.7	78.9	3647.0	1.59	73.53
57.0-58.0	836.2	77.3	3724.4	1.56	75.09
58.0-59.0	809.4	75.7	3800.1	1.53	76.61
59.0-60.0	782.3	73.9	3874.0	1.49	78.10
60.0-61.0	755.1	72.1	3946.0	1.45	79.56
61.0-62.0	728.0	70.2	4016.2	1.41	80.97
62.0-63.0	700.3	68.1	4084.3	1.37	82.34
63.0-64.0	672.4	66.0	4150.3	1.33	83.67
64.0-65.0	644.5	63.8	4214.1	1.29	84.96
65.0-66.0	616.2	61.5	4275.6	1.24	86.20
66.0-67.0	587.5	59.1	4334.7	1.19	87.39
67.0-68.0	558.7	56.6	4391.3	1.14	88.53
68.0-69.0	530.1	54.1	4445.4	1.09	89.62
69.0-70.0	501.1	51.5	4496.8	1.04	90.66
70.0-71.0	472.1	48.8	4545.6	0.98	91.64
71.0-72.0	443.1	46.1	4591.7	0.93	92.57

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:

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°): 2629.07 lm

%lum = 53.0%

%lamp = 53.0%

cone flux(120°): 3873.96 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	1728.4	1724.3	1724.1	1724.6	1724.0	1725.9	1728.4	1724.3	1724.1	1724.6
G1.0	1726.3	1722.0	1723.1	1724.4	1725.6	1727.7	1729.9	1726.1	1724.6	1723.9
G2.0	1723.2	1718.9	1721.3	1723.9	1726.3	1729.2	1731.0	1727.1	1724.1	1722.9
G3.0	1719.2	1715.0	1718.5	1722.3	1727.0	1729.6	1730.9	1727.7	1723.2	1721.2
G4.0	1714.6	1711.0	1716.1	1720.5	1726.3	1729.6	1730.5	1727.3	1721.9	1718.6
G5.0	1710.0	1706.0	1711.5	1718.2	1725.0	1728.8	1729.1	1726.3	1720.0	1715.3
G6.0	1704.6	1700.0	1707.4	1714.9	1723.2	1727.5	1727.0	1725.2	1717.0	1711.3
G7.0	1698.0	1694.0	1702.7	1711.2	1720.8	1725.4	1724.1	1723.3	1713.7	1706.8
G8.0	1690.6	1687.3	1697.1	1706.7	1717.6	1722.4	1720.7	1720.3	1710.0	1702.0
G9.0	1682.8	1680.0	1690.3	1701.1	1713.8	1719.0	1716.8	1716.8	1704.9	1696.5
G10.0	1674.2	1672.1	1683.6	1695.5	1709.9	1715.0	1712.3	1712.1	1700.2	1690.4
G11.0	1665.3	1663.6	1676.1	1688.6	1705.0	1710.3	1707.1	1706.9	1693.1	1683.0
G12.0	1655.7	1653.6	1668.5	1681.8	1698.8	1705.1	1701.1	1701.3	1687.1	1675.4
G13.0	1645.6	1643.7	1659.1	1673.8	1692.4	1699.0	1694.7	1695.0	1679.9	1667.8
G14.0	1635.2	1633.6	1650.0	1666.2	1685.6	1692.9	1687.5	1688.3	1672.7	1659.5
G15.0	1624.1	1622.8	1640.4	1657.4	1678.2	1685.0	1680.5	1680.8	1664.0	1649.2
G16.0	1612.4	1610.3	1630.1	1648.3	1670.6	1677.1	1672.3	1673.1	1655.2	1639.6
G17.0	1599.6	1598.2	1619.5	1637.5	1661.8	1668.5	1662.7	1663.7	1646.0	1629.3
G18.0	1586.9	1585.6	1606.8	1627.0	1651.6	1659.5	1653.7	1654.9	1636.1	1618.3
G19.0	1573.8	1572.6	1595.1	1616.0	1642.0	1649.1	1644.4	1645.0	1624.9	1607.2
G20.0	1560.4	1559.2	1582.7	1604.6	1631.7	1638.8	1633.5	1634.6	1613.5	1594.6
G21.0	1545.0	1544.1	1570.0	1592.7	1621.3	1628.1	1621.7	1622.7	1602.4	1582.3
G22.0	1530.6	1529.1	1555.4	1578.9	1608.9	1616.1	1610.4	1611.4	1590.2	1569.5
G23.0	1515.6	1514.1	1541.2	1565.6	1596.8	1603.9	1598.3	1599.7	1577.4	1556.3
G24.0	1500.1	1499.0	1526.9	1552.4	1584.2	1591.9	1585.6	1587.4	1564.3	1541.3
G25.0	1482.5	1483.1	1510.5	1538.3	1570.3	1577.5	1572.5	1573.2	1549.2	1526.9
G26.0	1465.6	1464.8	1495.0	1524.0	1556.9	1564.2	1559.1	1559.8	1535.3	1512.5
G27.0	1449.0	1448.0	1479.4	1508.8	1542.9	1550.0	1543.9	1545.7	1521.0	1497.1
G28.0	1431.2	1430.7	1462.7	1491.7	1528.2	1534.4	1529.5	1530.8	1505.8	1481.2
G29.0	1411.8	1413.1	1446.0	1476.0	1513.1	1519.1	1514.5	1515.9	1488.8	1465.1
G30.0	1393.5	1395.1	1428.8	1459.2	1497.6	1503.6	1498.6	1500.7	1473.2	1446.9
G31.0	1375.1	1374.9	1409.8	1442.5	1480.2	1487.6	1481.0	1483.4	1457.2	1429.7
G32.0	1354.6	1355.9	1391.8	1423.6	1463.7	1471.4	1464.2	1466.8	1439.9	1412.6
G33.0	1335.4	1336.7	1373.3	1405.4	1447.0	1452.7	1447.7	1450.5	1422.8	1395.2
G34.0	1315.8	1316.7	1352.6	1387.3	1428.2	1435.8	1430.6	1431.6	1403.3	1375.2
G35.0	1295.7	1294.2	1333.4	1368.5	1410.0	1417.8	1413.2	1414.3	1385.1	1356.7
G36.0	1275.2	1273.9	1313.7	1347.7	1392.2	1399.9	1393.3	1396.3	1367.1	1337.9

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	1252.4	1253.6	1293.9	1328.3	1373.7	1381.4	1374.7	1378.5	1348.1	1316.9
G38.0	1231.2	1232.3	1271.2	1308.3	1352.5	1360.5	1356.4	1359.7	1327.2	1297.5
G39.0	1209.7	1208.6	1250.7	1288.8	1333.4	1341.8	1337.0	1338.7	1307.6	1277.1
G40.0	1188.0	1186.8	1229.3	1268.3	1313.1	1321.9	1315.4	1319.4	1287.6	1256.7
G41.0	1163.5	1164.4	1208.2	1244.9	1293.2	1301.8	1295.9	1299.5	1267.6	1235.8
G42.0	1141.0	1142.3	1185.9	1223.8	1272.5	1279.4	1275.9	1279.3	1245.1	1213.0
G43.0	1118.2	1119.6	1161.9	1202.2	1249.6	1258.3	1253.5	1256.5	1224.3	1191.5
G44.0	1095.1	1093.9	1139.4	1180.3	1228.6	1237.4	1232.0	1235.9	1202.6	1170.0
G45.0	1069.5	1070.2	1116.7	1155.2	1207.2	1215.6	1210.7	1215.2	1181.3	1148.0
G46.0	1046.3	1046.2	1091.5	1135.0	1183.1	1193.9	1189.4	1193.6	1157.0	1123.5
G47.0	1021.9	1022.2	1067.7	1109.5	1160.8	1171.7	1167.3	1169.7	1134.5	1100.8
G48.0	995.5	998.2	1044.2	1086.4	1138.3	1147.2	1142.9	1147.7	1112.4	1077.9
G49.0	970.9	970.9	1020.7	1062.8	1115.7	1124.4	1120.3	1125.5	1089.6	1054.6
G50.0	945.7	945.8	995.9	1038.6	1089.8	1101.5	1097.8	1100.7	1064.1	1029.1
G51.0	920.8	921.2	969.0	1012.2	1066.4	1075.9	1074.5	1077.7	1041.0	1005.4
G52.0	894.8	895.8	943.8	987.6	1042.0	1052.1	1051.0	1054.2	1016.9	981.3
G53.0	869.6	867.4	918.5	962.8	1018.1	1027.9	1025.5	1030.6	993.6	956.9
G54.0	841.2	841.7	890.5	935.6	991.1	1004.2	1001.1	1006.8	966.8	929.7
G55.0	815.3	815.1	864.8	909.6	966.4	979.0	977.1	982.4	942.4	904.9
G56.0	789.0	789.0	838.8	884.3	941.6	951.9	950.0	955.7	917.5	879.8
G57.0	760.0	759.7	813.0	858.2	916.2	926.6	925.0	931.2	892.3	854.7
G58.0	733.3	732.2	783.9	828.9	888.3	900.8	900.3	905.9	867.2	826.3
G59.0	706.1	704.6	756.7	804.6	862.3	875.0	874.7	878.5	839.0	800.5
G60.0	676.3	677.4	730.0	775.0	836.2	846.0	846.9	853.3	813.2	774.3
G61.0	648.7	649.5	702.7	748.0	807.2	819.9	821.1	827.3	787.1	748.2
G62.0	621.2	621.8	674.8	720.6	780.2	793.6	794.7	801.7	760.7	718.9
G63.0	593.5	591.5	644.7	690.5	753.4	766.8	769.0	772.9	731.9	692.2
G64.0	565.4	562.9	616.3	662.3	725.9	739.7	742.2	746.1	704.9	664.9
G65.0	537.1	534.9	587.7	634.5	698.2	709.7	713.3	719.7	678.3	637.5
G66.0	506.5	506.4	557.2	606.2	668.2	682.2	686.2	693.1	650.8	607.3
G67.0	478.0	474.7	528.3	577.7	640.2	654.7	659.3	663.2	620.7	579.7
G68.0	447.0	446.4	500.2	546.2	612.5	626.7	629.4	636.1	593.3	551.6
G69.0	418.3	417.2	471.4	517.2	581.3	598.4	601.7	608.9	565.3	523.9
G70.0	390.1	388.8	439.6	488.5	552.8	567.4	574.3	578.8	534.9	493.4
G71.0	361.9	357.6	411.0	459.3	524.4	539.0	546.8	551.4	506.7	465.5
G72.0	331.6	329.9	380.2	428.4	493.5	511.3	516.7	521.5	479.6	435.0
G73.0	302.6	300.3	350.5	400.7	463.7	481.5	487.7	495.2	450.1	406.0

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	1724.0	1725.9	1728.4							
G1.0	1722.3	1723.5	1726.3							
G2.0	1719.6	1720.3	1723.2							
G3.0	1716.4	1716.7	1719.2							
G4.0	1712.4	1712.5	1714.6							
G5.0	1707.9	1706.9	1710.0							
G6.0	1703.0	1701.1	1704.6							
G7.0	1696.6	1695.0	1698.0							
G8.0	1690.1	1688.2	1690.6							
G9.0	1682.9	1680.4	1682.8							
G10.0	1676.1	1672.2	1674.2							
G11.0	1667.7	1663.2	1665.3							
G12.0	1657.8	1653.8	1655.7							
G13.0	1648.7	1644.3	1645.6							
G14.0	1638.8	1632.6	1635.2							
G15.0	1628.6	1621.9	1624.1							
G16.0	1617.3	1610.5	1612.4							
G17.0	1604.9	1598.4	1599.6							
G18.0	1592.8	1584.6	1586.9							
G19.0	1580.5	1571.7	1573.8							
G20.0	1567.2	1558.1	1560.4							
G21.0	1552.4	1544.3	1545.0							
G22.0	1538.6	1530.0	1530.6							
G23.0	1524.0	1513.3	1515.6							
G24.0	1509.1	1497.9	1500.1							
G25.0	1491.9	1481.8	1482.5							
G26.0	1476.0	1465.7	1465.6							
G27.0	1459.8	1447.0	1449.0							
G28.0	1442.9	1429.8	1431.2							
G29.0	1425.8	1412.0	1411.8							
G30.0	1406.2	1393.6	1393.5							
G31.0	1388.4	1375.3	1375.1							
G32.0	1370.3	1356.8	1354.6							
G33.0	1351.4	1335.7	1335.4							
G34.0	1330.0	1316.2	1315.8							
G35.0	1310.5	1296.4	1295.7							
G36.0	1290.7	1274.2	1275.2							

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 4)

Unit: cd

G\C	C300.0	C330.0	C360.0						
G37.0	1270.5	1253.6	1252.4						
G38.0	1250.0	1232.5	1231.2						
G39.0	1227.2	1211.5	1209.7						
G40.0	1206.0	1189.8	1188.0						
G41.0	1184.8	1165.6	1163.5						
G42.0	1162.8	1143.6	1141.0						
G43.0	1138.6	1120.7	1118.2						
G44.0	1115.6	1095.9	1095.1						
G45.0	1092.8	1072.6	1069.5						
G46.0	1069.8	1049.3	1046.3						
G47.0	1043.9	1025.8	1021.9						
G48.0	1020.6	1002.0	995.5						
G49.0	996.7	975.2	970.9						
G50.0	972.8	950.7	945.7						
G51.0	945.8	925.8	920.8						
G52.0	920.9	900.9	894.8						
G53.0	896.7	872.9	869.6						
G54.0	870.8	847.7	841.2						
G55.0	843.1	821.8	815.3						
G56.0	817.4	795.5	789.0						
G57.0	791.2	766.8	760.0						
G58.0	765.2	740.7	733.3						
G59.0	735.7	713.8	706.1						
G60.0	709.2	684.6	676.3						
G61.0	682.1	657.8	648.7						
G62.0	654.9	630.4	621.2						
G63.0	624.9	602.7	593.5						
G64.0	597.1	575.1	565.4						
G65.0	569.8	544.4	537.1						
G66.0	541.6	517.1	506.5						
G67.0	511.2	488.8	478.0						
G68.0	483.1	461.0	447.0						
G69.0	454.9	430.3	418.3						
G70.0	426.8	402.3	390.1						
G71.0	395.7	374.4	361.9						
G72.0	368.5	344.7	331.6						
G73.0	339.1	315.9	302.6						

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:

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	19568.33
L 0-180(75) av	17357.08
L 0-180(85) av	13711.17
L 90-270(65) av	19906.81
L 90-270(75) av	17610.87
L 90-270(85) av	11805.56
L 45(65) av	19728.53
L 45(75) av	17514.58
L 45(85) av	12965.17

Standard: GB/T 29293-2012