

Report No.: MSTLAB241104022

Test Time: 2024/11/4 20:43

## Luminaire Property

Luminaire Manufacturer: MESTER

Luminaire Category:

Luminaire Description: MALL014F40W27V40K(Down-50%)

Lamp Catalog:

Lamp Description:

Number of Lamps: 1

Lumens per Lamp:

Luminous Length (mm): 1200

Luminous Width (mm): 63

Luminous Height (mm):

Voltage: 120.1 V

Current: 0.341 A

Power: 40.80 W

Power Factor: 0.995

## Photometric Results

CIE Class: General Diffuse

Total Rated Lamp Lumens: 5626.4 lm

Measurement Flux: 5626.4 lm

Efficiency: 100%

Downward Ratio: 52%

Upward Ratio: 48%

Horizontal Diffuse Angle(10%,50%,75%,100%): H160.3,H112.7,H76.7,H1

Vertical Diffuse Angle(10%,50%,75%,100%): V161.7,V114.2,V78.3,V0

Luminaire Efficacy Rating (LER): 137.95

C0r0 Intensity: 1021.11 cd

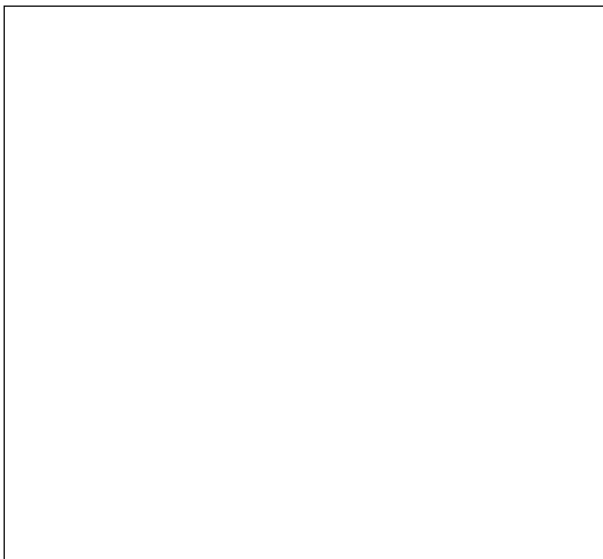
Max. Intensity: 1022.38 cd

Pos of Max. Intensity: H30 V0

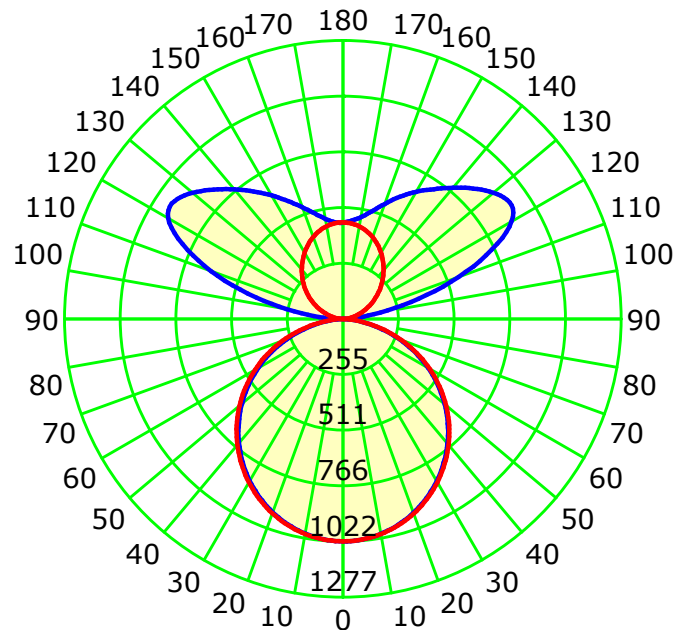
S/MH(C0/C180): 1.25

S/MH(C90/C270): 1.26

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

Average Diffuse Angle(50%): 221.6°

C Plane (°):0.0-360.0: 30.0

Test Lab: MESTER LAB

Test Type: TYPE C

Temperature: 25.5℃

Operator: Yanzhao Sun

— C0-C180 — C90-C270

Gamma Plane (°):0.0-180.0:1.0

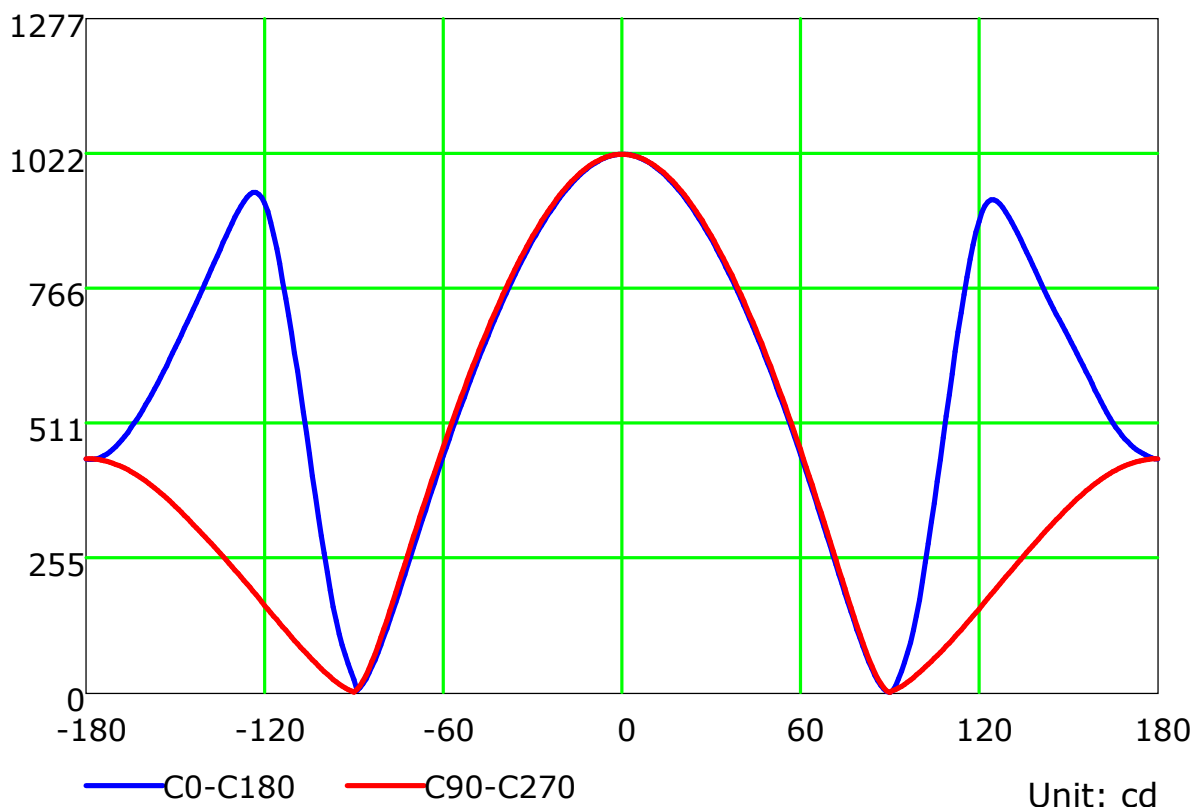
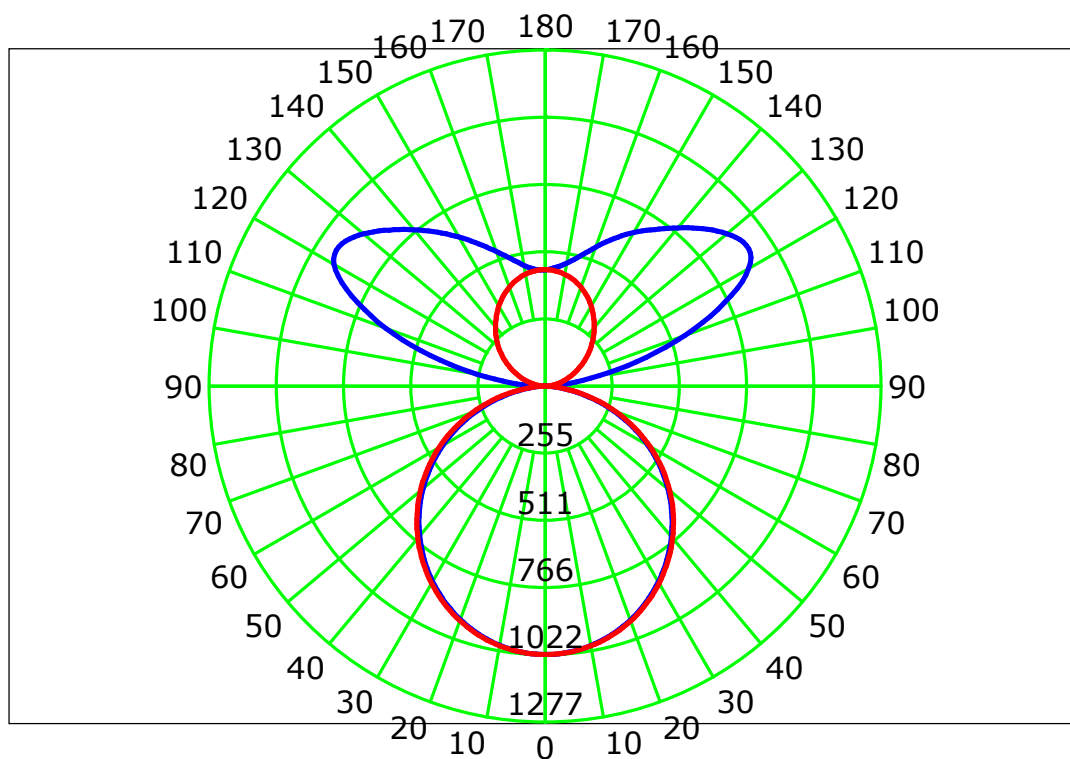
Test Device: GPM-1800B

Distance: 11.655 m [K=1.0900]

Humidity: 45% R.H

Inspector:

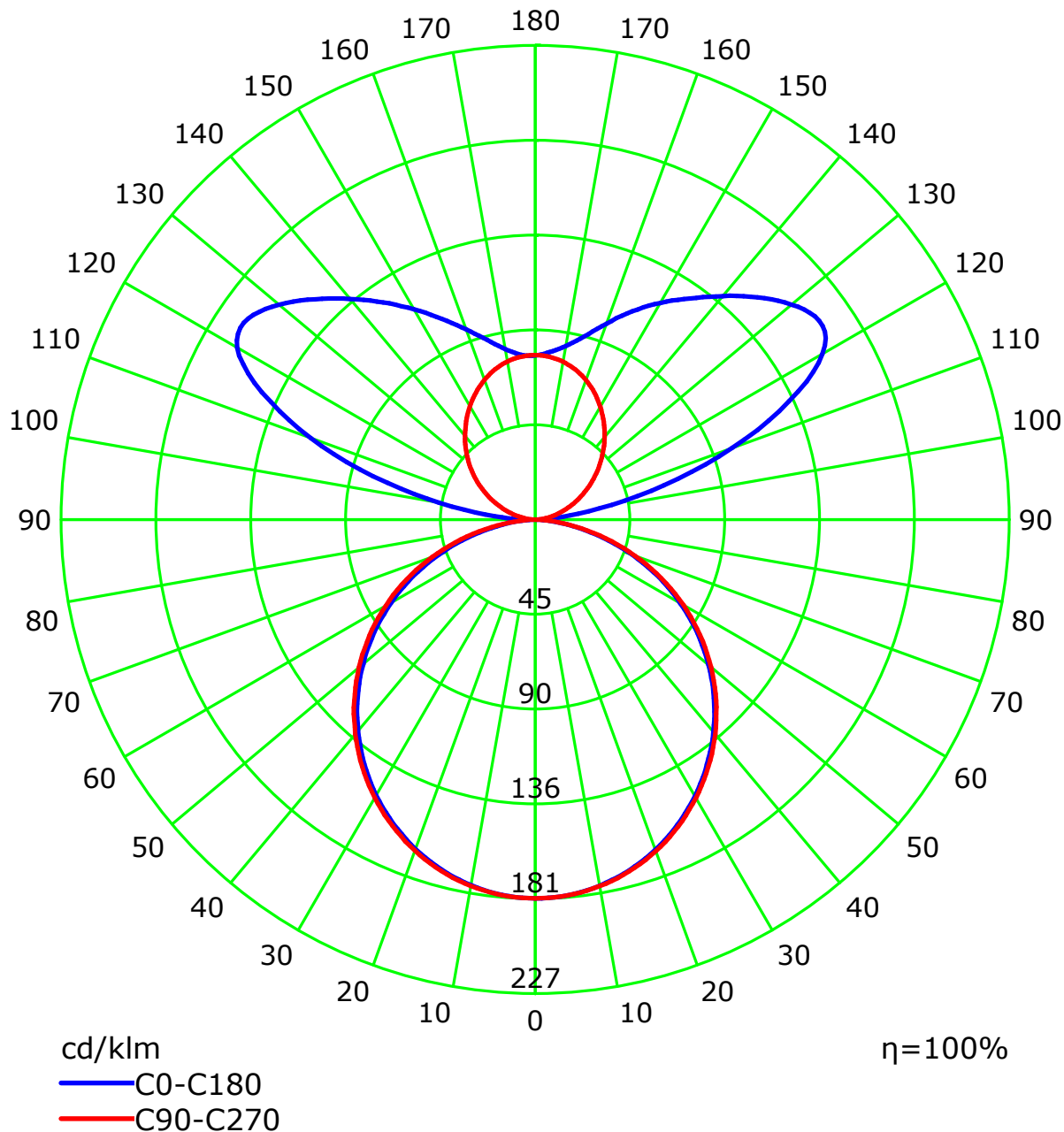
## Luminous Intensity Distribution Curve



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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



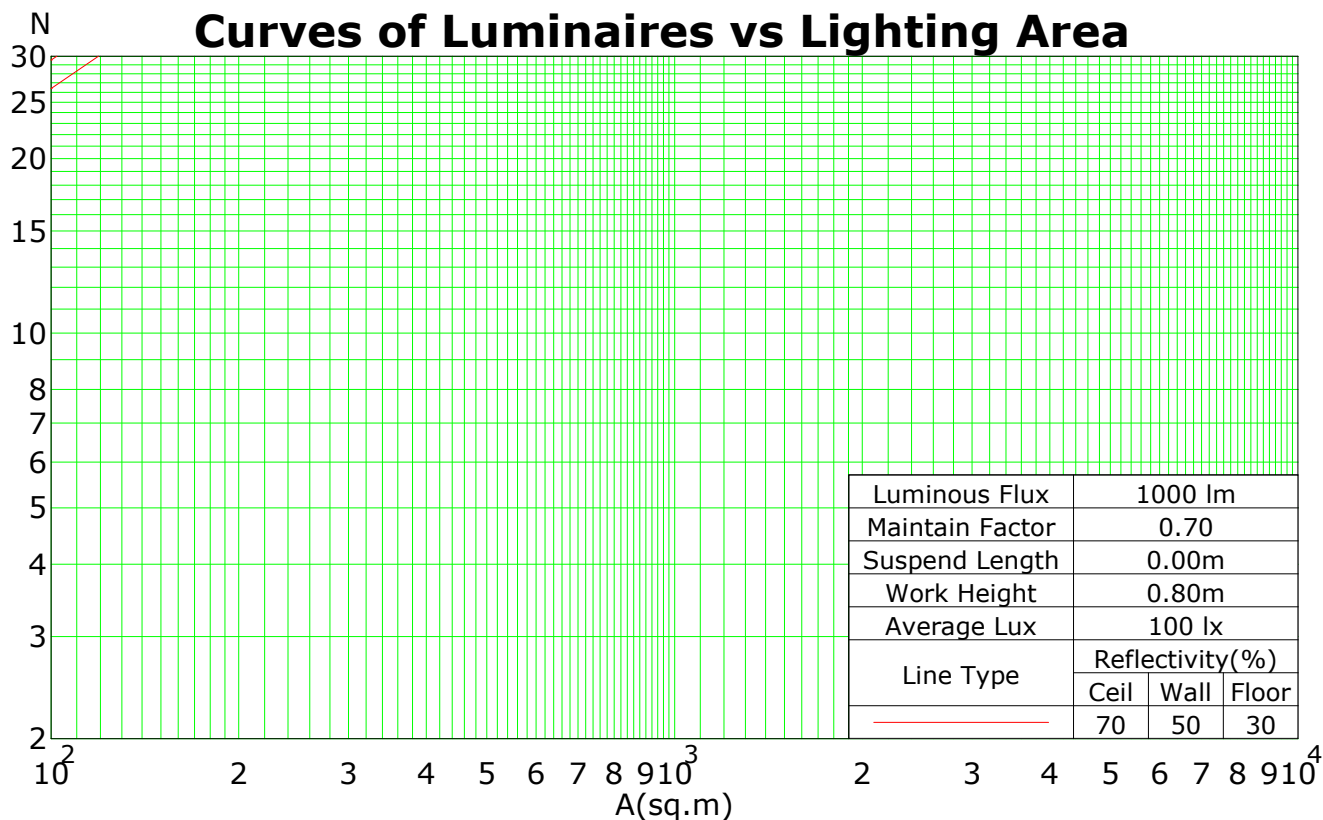
## Coefficients Of Utilization - Zonal Cavity Method

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	1.08	1.08	1.08	1.08	1.00	1.00	1.00	1.00	0.84	0.84	0.84	0.71	0.71	0.71	0.58	0.58	0.58	0.52
1	0.98	0.94	0.90	0.86	0.91	0.87	0.83	0.80	0.74	0.71	0.69	0.62	0.60	0.59	0.51	0.50	0.49	0.44
2	0.89	0.82	0.75	0.70	0.82	0.76	0.70	0.66	0.65	0.60	0.57	0.54	0.51	0.49	0.45	0.43	0.41	0.36
3	0.81	0.72	0.64	0.58	0.75	0.66	0.60	0.55	0.57	0.52	0.48	0.48	0.44	0.41	0.39	0.37	0.34	0.30
4	0.74	0.63	0.55	0.49	0.68	0.59	0.52	0.46	0.50	0.45	0.40	0.42	0.38	0.35	0.35	0.32	0.30	0.26
5	0.68	0.56	0.48	0.42	0.63	0.52	0.45	0.39	0.45	0.39	0.35	0.38	0.34	0.30	0.32	0.28	0.26	0.22
6	0.63	0.50	0.42	0.36	0.58	0.47	0.39	0.34	0.40	0.35	0.30	0.34	0.30	0.26	0.29	0.25	0.22	0.20
7	0.58	0.45	0.37	0.32	0.53	0.42	0.35	0.30	0.36	0.31	0.26	0.31	0.27	0.23	0.26	0.22	0.20	0.17
8	0.54	0.41	0.33	0.28	0.49	0.38	0.31	0.26	0.33	0.28	0.23	0.28	0.24	0.21	0.24	0.20	0.18	0.15
9	0.50	0.37	0.30	0.25	0.46	0.35	0.28	0.23	0.30	0.25	0.21	0.26	0.22	0.18	0.22	0.18	0.16	0.14
10	0.47	0.34	0.27	0.22	0.43	0.32	0.26	0.21	0.28	0.23	0.19	0.24	0.20	0.17	0.20	0.17	0.14	0.12

Spacing Criteria (0-180): 1.25

Spacing Criteria (90-270): 1.26

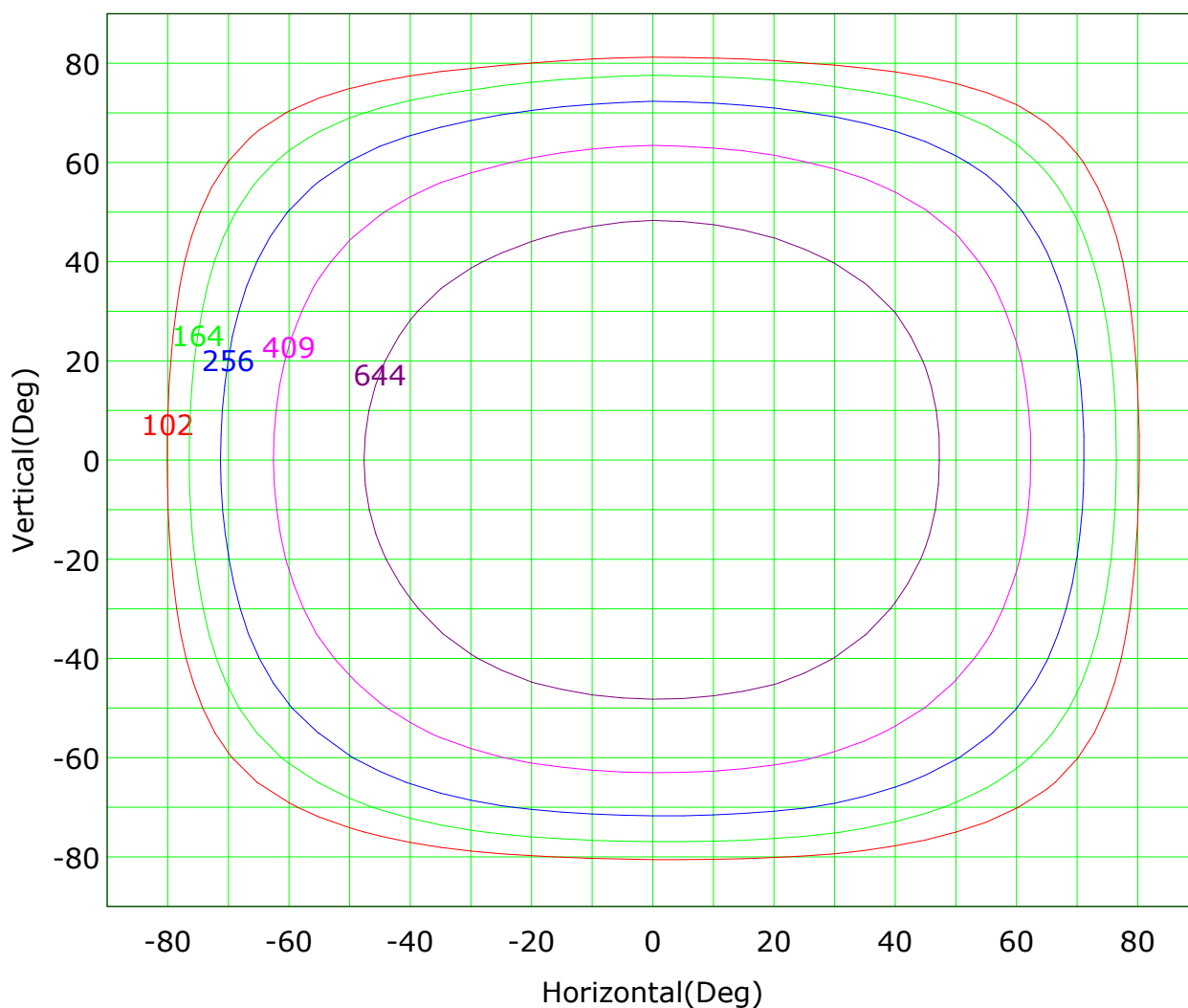
Spacing Criteria (Diagonal): 1.38



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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:

## Isocandela (rectangle)



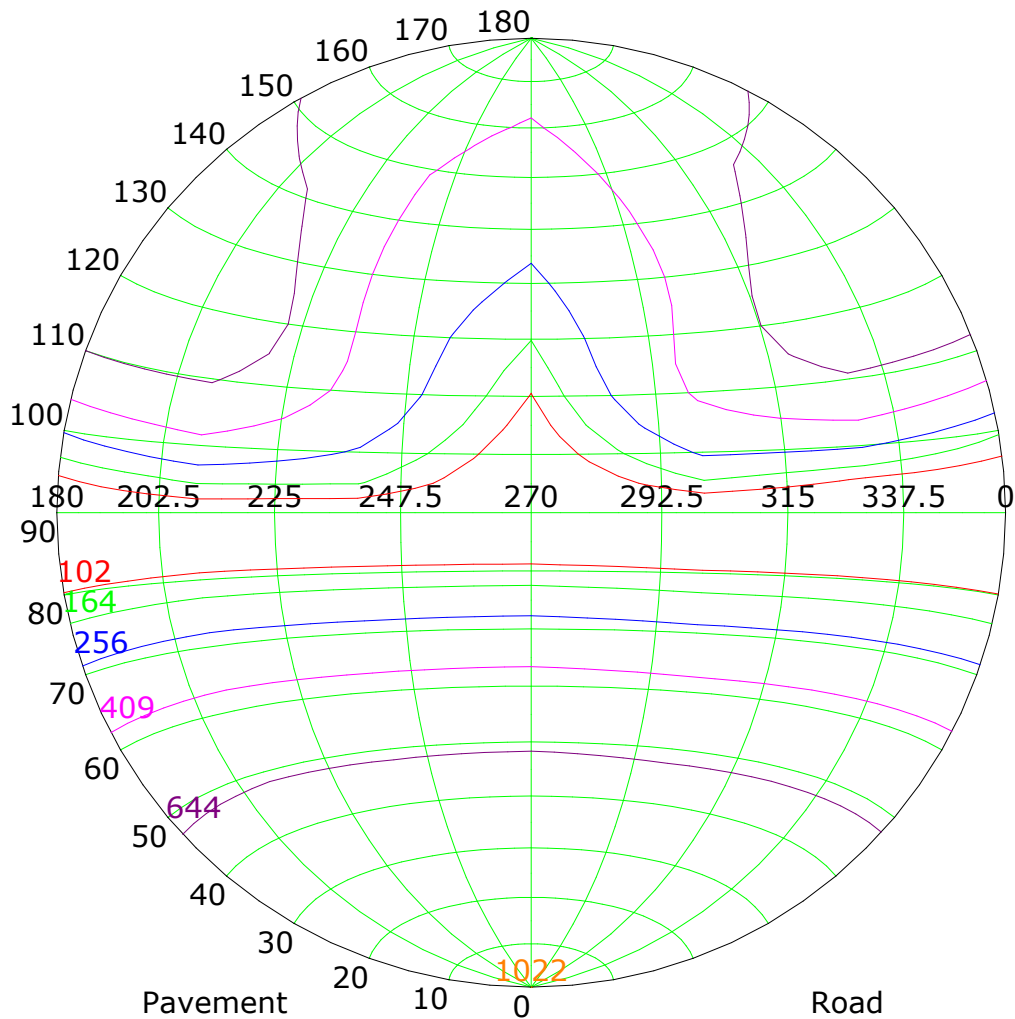
Imax (100%): 1022 cd

( 10%): 102 cd	( 16%): 164 cd
( 25%): 256 cd	( 40%): 409 cd
( 63%): 644 cd	(100%): 1022 cd

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:

## Isocandela (sphere)

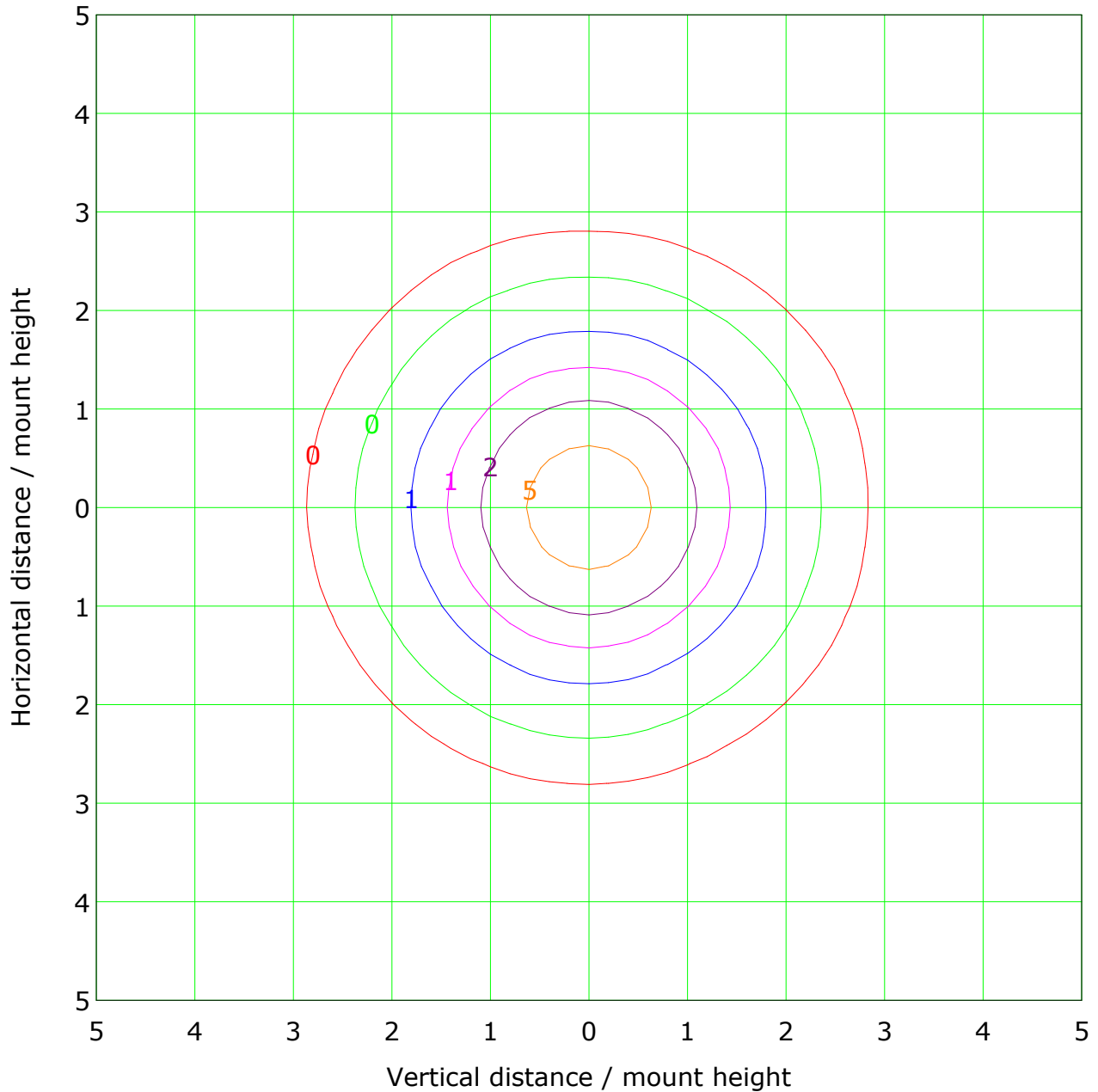


Imax (100%): 1022 cd

( 10%): 102 cd  
( 25%): 256 cd  
( 63%): 644 cd

( 16%): 164 cd  
( 40%): 409 cd  
(100%): 1022 cd

## IsoLux Plot



Mounting Height: 10.0m    Max Lux(100%): 10.2 lx

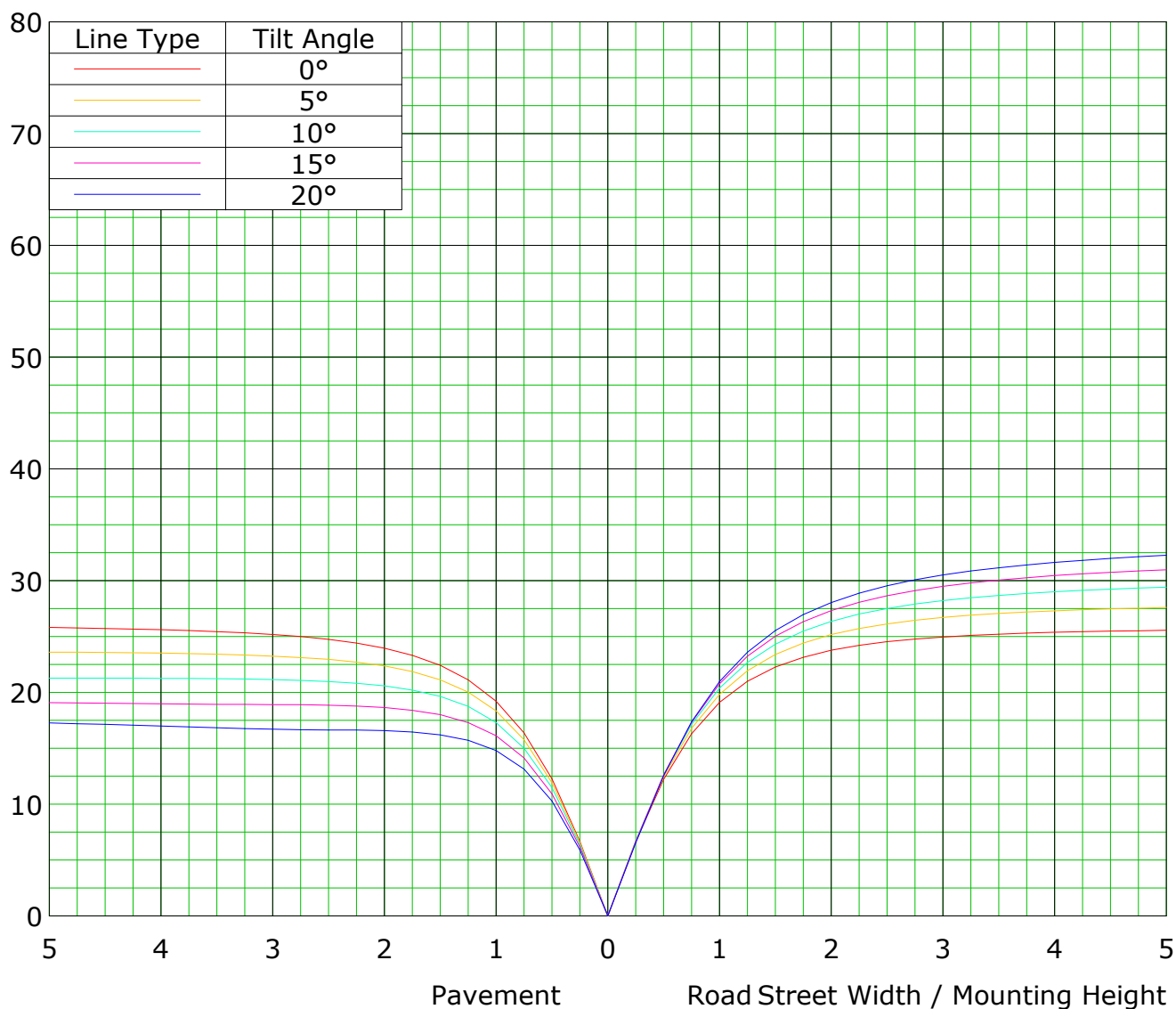
( 1%): 0.1 lx	( 2%): 0.2 lx
( 5%): 0.5 lx	( 10%): 1.0 lx
( 20%): 2.0 lx	( 50%): 5.1 lx
(100%): 10.2 lx	

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
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℃  
Operator: Yanzhao Sun

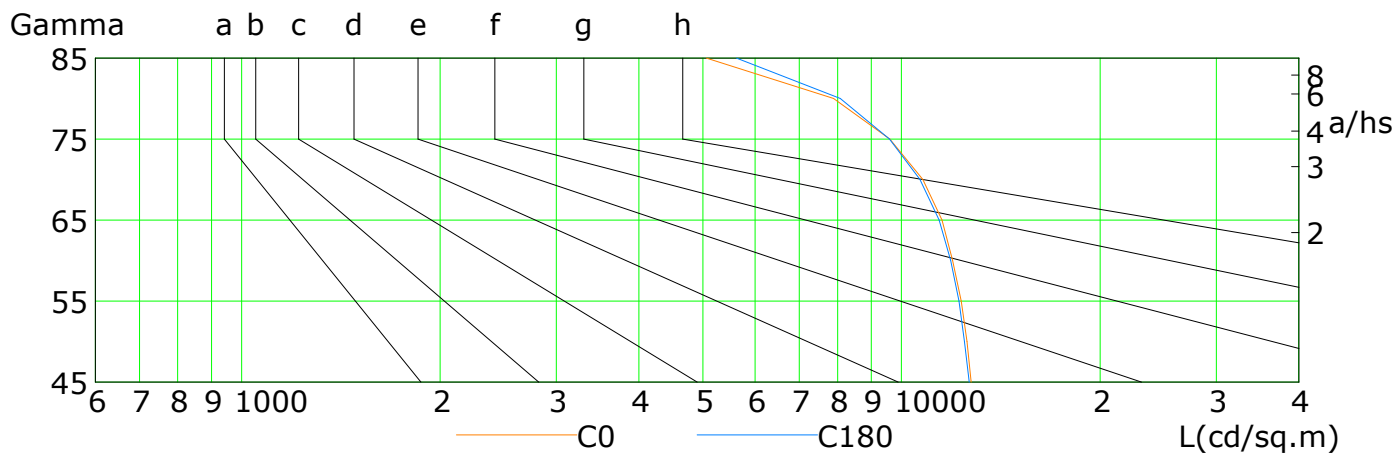
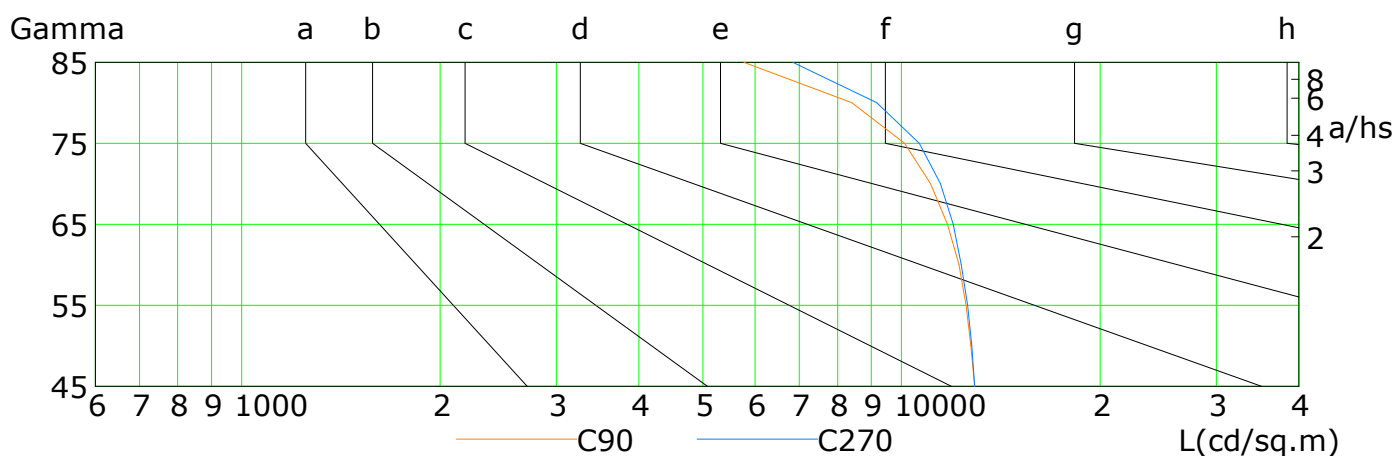
Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:



## 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

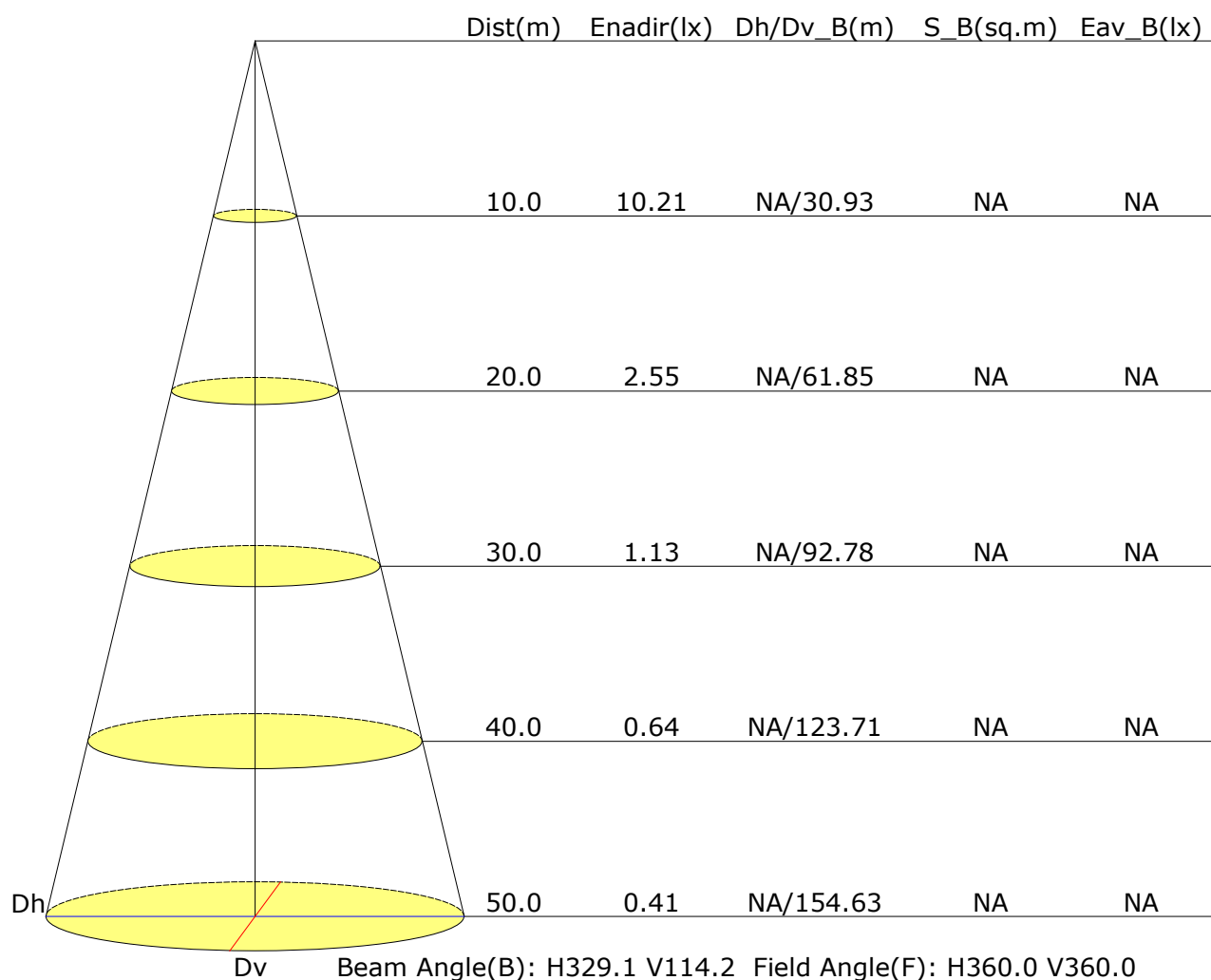


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	12746	12561	12320	11950	11517	10773	9607	7887	5060
C90	12904	12738	12519	12218	11740	11072	10112	8408	5768
C180	12663	12460	12226	11879	11409	10662	9589	8075	5623
C270	12908	12774	12593	12321	11974	11460	10637	9171	6844

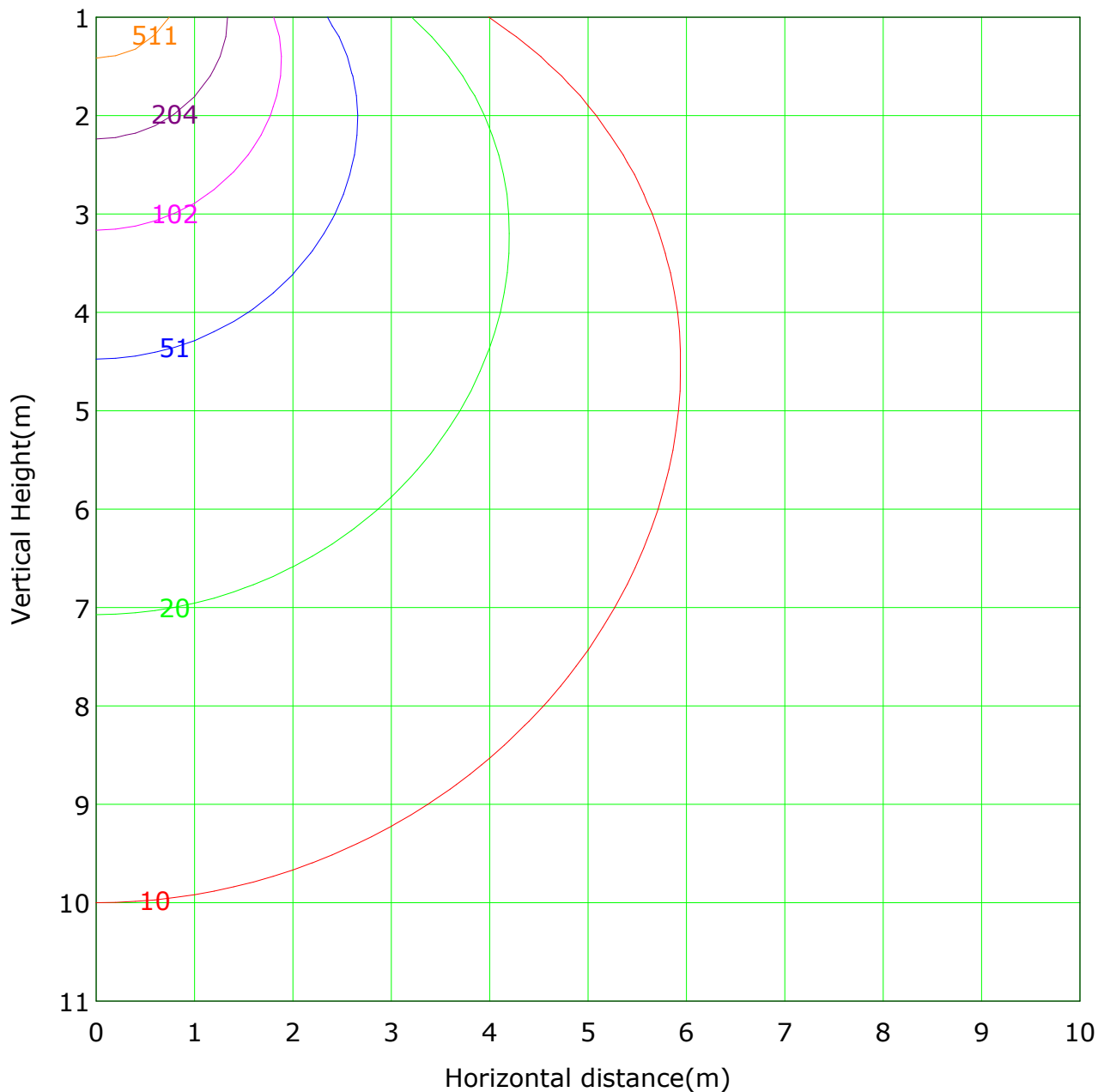
C Plane (°):0.0-360.0: 30.0  
Test Lab: MESTER LAB  
Test Type: TYPE C  
Temperature: 25.5℃  
Operator: Yanzhao Sun

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:

## Illuminance at a Distance



## Vertical IsoLux Plot



Lowest(m): 1.0m    Highest(m): 11.0m    Max Lux: 1021.1 lx

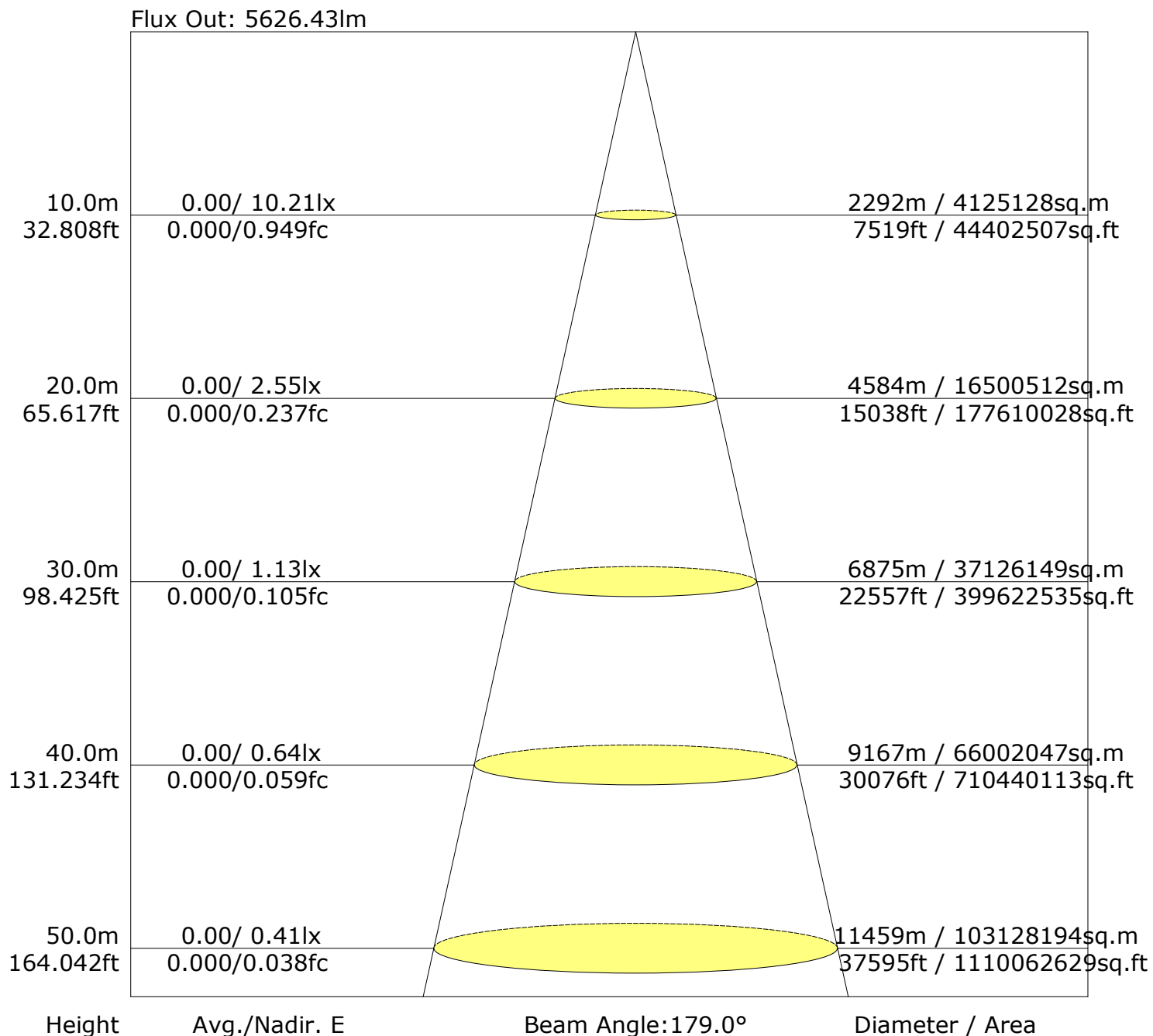
— ( 1%): 10.2 lx	— ( 2%): 20.4 lx
— ( 5%): 51.1 lx	— ( 10%): 102.1 lx
— ( 20%): 204.2 lx	— ( 50%): 510.6 lx
— (100%):1021.1 lx	

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:

## The Average Illuminance Effective Figure



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

Gamma Plane (°): 0.0-180.0: 1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
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	17.3	18.2	18.2	19.1	20.4	17.4	18.3	18.4	19.3	20.5
3H	19.0	19.8	20.0	20.8	22.0	19.2	20.0	20.2	21.0	22.2
4H	19.6	20.4	20.6	21.3	22.6	19.8	20.6	20.8	21.6	22.8
6H	20.0	20.7	21.0	21.7	22.9	20.2	20.9	21.2	21.9	23.2
8H	20.1	20.7	21.0	21.7	23.0	20.3	21.0	21.3	22.0	23.3
12H	20.1	20.7	21.1	21.7	23.0	20.4	21.0	21.4	22.0	23.3
X=4H Y=2H	17.8	18.6	18.8	19.6	20.8	18.0	18.7	19.0	19.7	21.0
3H	19.8	20.4	20.7	21.4	22.7	20.0	20.6	21.0	21.6	22.9
4H	20.5	21.1	21.5	22.0	23.4	20.7	21.3	21.7	22.3	23.6
6H	21.0	21.5	22.0	22.5	23.8	21.2	21.7	22.2	22.8	24.1
8H	21.1	21.5	22.1	22.6	23.9	21.4	21.8	22.4	22.8	24.2
12H	21.1	21.5	22.1	22.6	23.9	21.4	21.8	22.4	22.9	24.2
X=8H Y=4H	20.7	21.2	21.7	22.2	23.5	20.9	21.4	21.9	22.4	23.7
6H	21.3	21.7	22.3	22.7	24.1	21.6	22.0	22.6	23.0	24.3
8H	21.5	21.8	22.5	22.8	24.2	21.8	22.1	22.8	23.2	24.5
12H	21.6	21.9	22.6	22.9	24.3	21.9	22.2	22.9	23.2	24.6
X=12H Y=4H	20.7	21.1	21.7	22.2	23.5	20.9	21.3	21.9	22.4	23.7
6H	21.3	21.7	22.4	22.7	24.1	21.6	21.9	22.6	23.0	24.3
8H	21.5	21.8	22.6	22.9	24.2	21.8	22.1	22.9	23.1	24.5

Calculate in accordance with CIE 190:2010 The table is revised with 5626lm ( $8\log(F/F_0) = 6.0$ ).

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:

**FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM**

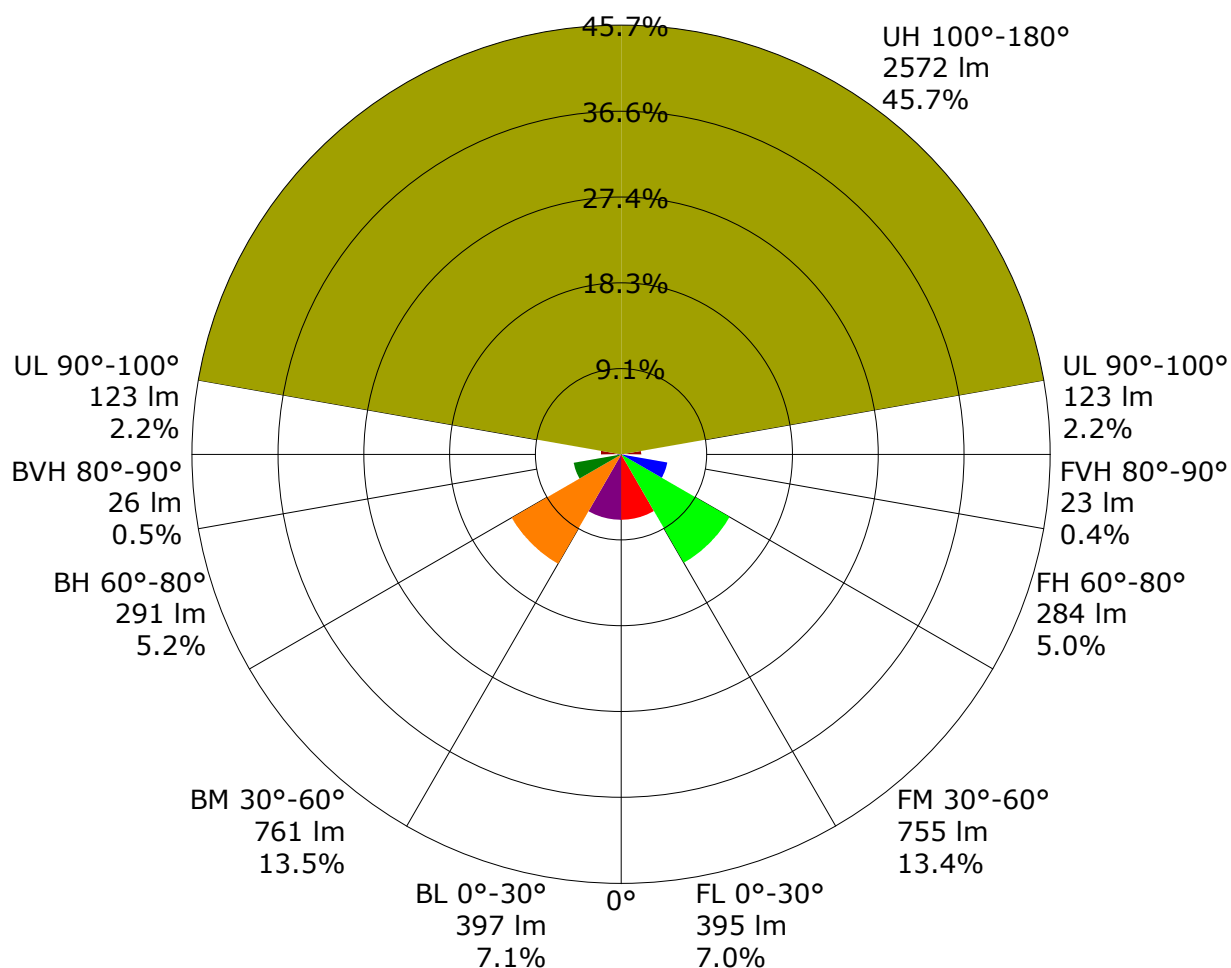
	ZONE	LUMENS	% LAMP LUMENS
	FORWARD LIGHT	1457	25.9
	FL ( 0°-30°)	395	7.0
	FM (30°-60°)	755	13.4
	FH (60°-80°)	284	5.0
	FVH (80°-90°)	23	0.4
	BACK LIGHT	1474	26.2
	BL ( 0°-30°)	397	7.1
	BM (30°-60°)	761	13.5
	BH (60°-80°)	291	5.2
	BVH (80°-90°)	26	0.5
	UP LIGHT	2696	47.9
	UL (90°-100°)	123	2.2
	UH (100°-180°)	2572	45.7
	TRAPPED LIGHT	NA	NA

BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B1 U5 G1
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B1 U5 G1

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
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	0.46	0.55	0.62	0.66	0.73	0.78	0.81	0.85	0.88	
	0.30		0.39	0.48	0.55	0.60	0.67	0.73	0.76	0.81	0.85	
	0.20		0.34	0.43	0.50	0.55	0.63	0.68	0.72	0.78	0.82	
0.50	0.50	0.20	0.40	0.48	0.53	0.57	0.63	0.67	0.69	0.73	0.75	
	0.30		0.34	0.42	0.48	0.52	0.58	0.63	0.66	0.70	0.73	
	0.20		0.30	0.39	0.44	0.48	0.55	0.60	0.63	0.67	0.70	
0.30	0.50	0.20	0.34	0.41	0.45	0.49	0.53	0.56	0.58	0.61	0.63	
	0.30		0.30	0.37	0.41	0.45	0.50	0.54	0.56	0.59	0.61	
	0.20		0.27	0.33	0.38	0.42	0.47	0.51	0.54	0.57	0.60	
0.00	0.00	0.00	0.21	0.26	0.29	0.32	0.36	0.39	0.41	0.43	0.45	
Rating:41W 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	0.89	0.74	0.63	0.55	0.44	0.37	0.31	0.24	0.20	
	0.30		0.75	0.64	0.55	0.49	0.40	0.34	0.29	0.23	0.19	
	0.20		0.64	0.56	0.49	0.44	0.36	0.31	0.27	0.22	0.18	
0.50	0.50	0.20	0.76	0.63	0.54	0.47	0.37	0.33	0.26	0.20	0.17	
	0.30		0.64	0.55	0.47	0.42	0.34	0.29	0.25	0.19	0.16	
	0.20		0.56	0.48	0.42	0.38	0.31	0.27	0.23	0.18	0.15	
0.30	0.50	0.20	0.64	0.52	0.45	0.39	0.31	0.25	0.22	0.17	0.14	
	0.30		0.55	0.46	0.40	0.35	0.28	0.24	0.20	0.16	0.13	
	0.20		0.48	0.41	0.36	0.32	0.26	0.22	0.19	0.15	0.13	
0.00	0.00	0.00	0.32	0.26	0.23	0.20	0.16	0.13	0.12	0.09	0.07	
Rating:41W 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	0.62	0.64	0.64	0.65	0.65	0.66	0.66	0.67	0.67	
	0.30		0.56	0.58	0.59	0.60	0.61	0.62	0.63	0.64	0.65	
	0.20		0.52	0.53	0.54	0.56	0.57	0.59	0.60	0.61	0.62	
0.50	0.50	0.20	0.60	0.61	0.62	0.62	0.63	0.63	0.64	0.64	0.64	
	0.30		0.55	0.56	0.57	0.58	0.59	0.60	0.61	0.62	0.62	
	0.20		0.51	0.53	0.54	0.55	0.56	0.57	0.58	0.59	0.60	
0.30	0.50	0.20	0.58	0.59	0.60	0.60	0.60	0.61	0.61	0.61	0.61	
	0.30		0.54	0.55	0.56	0.57	0.58	0.58	0.59	0.59	0.60	
	0.20		0.51	0.52	0.53	0.54	0.55	0.56	0.57	0.58	0.59	
0.00	0.00	0.00	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	
Rating:41W 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 <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	1020.8	1.0	1.0	0.02	0.02
1.0-2.0	1020.4	2.9	3.9	0.05	0.07
2.0-3.0	1019.6	4.9	8.8	0.09	0.16
3.0-4.0	1018.5	6.8	15.6	0.12	0.28
4.0-5.0	1017.0	8.8	24.4	0.16	0.43
5.0-6.0	1015.1	10.7	35.0	0.19	0.62
6.0-7.0	1012.9	12.6	47.6	0.22	0.85
7.0-8.0	1010.3	14.5	62.1	0.26	1.10
8.0-9.0	1007.3	16.3	78.4	0.29	1.39
9.0-10.0	1004.0	18.2	96.6	0.32	1.72
10.0-11.0	1000.3	20.0	116.5	0.36	2.07
11.0-12.0	996.3	21.8	138.3	0.39	2.46
12.0-13.0	992.0	23.5	161.9	0.42	2.88
13.0-14.0	987.5	25.3	187.2	0.45	3.33
14.0-15.0	982.4	27.0	214.1	0.48	3.81
15.0-16.0	976.9	28.6	242.8	0.51	4.31
16.0-17.0	971.2	30.2	273.0	0.54	4.85
17.0-18.0	965.1	31.8	304.8	0.57	5.42
18.0-19.0	958.7	33.4	338.2	0.59	6.01
19.0-20.0	952.0	34.8	373.0	0.62	6.63
20.0-21.0	944.9	36.3	409.3	0.64	7.28
21.0-22.0	937.6	37.7	447.0	0.67	7.94
22.0-23.0	929.9	39.0	486.0	0.69	8.64
23.0-24.0	921.9	40.3	526.3	0.72	9.35
24.0-25.0	913.7	41.5	567.9	0.74	10.09
25.0-26.0	905.1	42.7	610.6	0.76	10.85
26.0-27.0	896.3	43.9	654.5	0.78	11.63
27.0-28.0	887.1	44.9	699.4	0.80	12.43
28.0-29.0	877.6	45.9	745.3	0.82	13.25
29.0-30.0	867.9	46.9	792.2	0.83	14.08
30.0-31.0	858.0	47.8	839.9	0.85	14.93
31.0-32.0	847.7	48.6	888.5	0.86	15.79
32.0-33.0	837.3	49.3	937.8	0.88	16.67
33.0-34.0	826.6	50.0	987.9	0.89	17.56
34.0-35.0	815.3	50.6	1038.5	0.90	18.46
35.0-36.0	804.0	51.2	1089.7	0.91	19.37

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
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	792.6	51.7	1141.4	0.92	20.29
37.0-38.0	780.8	52.1	1193.5	0.93	21.21
38.0-39.0	768.7	52.5	1246.0	0.93	22.15
39.0-40.0	756.3	52.8	1298.8	0.94	23.08
40.0-41.0	743.8	53.0	1351.7	0.94	24.02
41.0-42.0	731.2	53.1	1404.9	0.94	24.97
42.0-43.0	718.4	53.2	1458.1	0.95	25.92
43.0-44.0	705.2	53.2	1511.3	0.95	26.86
44.0-45.0	691.7	53.2	1564.5	0.94	27.81
45.0-46.0	678.1	53.0	1617.5	0.94	28.75
46.0-47.0	664.2	52.8	1670.4	0.94	29.69
47.0-48.0	650.1	52.6	1722.9	0.93	30.62
48.0-49.0	636.0	52.2	1775.2	0.93	31.55
49.0-50.0	621.4	51.8	1827.0	0.92	32.47
50.0-51.0	606.5	51.3	1878.3	0.91	33.38
51.0-52.0	591.6	50.8	1929.1	0.90	34.29
52.0-53.0	576.6	50.2	1979.2	0.89	35.18
53.0-54.0	561.3	49.5	2028.7	0.88	36.06
54.0-55.0	546.0	48.7	2077.5	0.87	36.92
55.0-56.0	530.4	47.9	2125.4	0.85	37.78
56.0-57.0	514.4	47.0	2172.4	0.84	38.61
57.0-58.0	498.3	46.1	2218.5	0.82	39.43
58.0-59.0	482.1	45.1	2263.6	0.80	40.23
59.0-60.0	465.7	44.0	2307.6	0.78	41.01
60.0-61.0	449.2	42.9	2350.5	0.76	41.78
61.0-62.0	432.7	41.7	2392.2	0.74	42.52
62.0-63.0	415.6	40.4	2432.6	0.72	43.24
63.0-64.0	398.2	39.1	2471.7	0.69	43.93
64.0-65.0	381.2	37.7	2509.4	0.67	44.60
65.0-66.0	363.9	36.3	2545.7	0.65	45.25
66.0-67.0	346.2	34.8	2580.5	0.62	45.86
67.0-68.0	328.6	33.3	2613.8	0.59	46.46
68.0-69.0	311.2	31.7	2645.6	0.56	47.02
69.0-70.0	293.4	30.1	2675.7	0.54	47.56
70.0-71.0	275.4	28.5	2704.2	0.51	48.06
71.0-72.0	257.7	26.8	2731.0	0.48	48.54

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:

## Zonal Lumen (Continue 2)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
72.0-73.0	240.0	25.1	2756.1	0.45	48.98
73.0-74.0	222.1	23.3	2779.4	0.41	49.40
74.0-75.0	204.2	21.6	2801.0	0.38	49.78
75.0-76.0	186.5	19.8	2820.8	0.35	50.13
76.0-77.0	168.9	18.0	2838.8	0.32	50.46
77.0-78.0	151.7	16.2	2855.1	0.29	50.74
78.0-79.0	134.8	14.5	2869.5	0.26	51.00
79.0-80.0	118.2	12.7	2882.3	0.23	51.23
80.0-81.0	101.9	11.0	2893.3	0.20	51.42
81.0-82.0	86.3	9.4	2902.7	0.17	51.59
82.0-83.0	71.4	7.8	2910.4	0.14	51.73
83.0-84.0	57.5	6.3	2916.7	0.11	51.84
84.0-85.0	44.6	4.9	2921.6	0.09	51.93
85.0-86.0	32.7	3.6	2925.2	0.06	51.99
86.0-87.0	22.4	2.4	2927.6	0.04	52.03
87.0-88.0	13.7	1.5	2929.1	0.03	52.06
88.0-89.0	6.8	0.7	2929.8	0.01	52.07
89.0-90.0	9.6	1.1	2930.9	0.02	52.09
90.0-91.0	22.5	2.5	2933.4	0.04	52.14
91.0-92.0	39.0	4.3	2937.6	0.08	52.21
92.0-93.0	58.8	6.4	2944.1	0.11	52.33
93.0-94.0	79.4	8.7	2952.8	0.15	52.48
94.0-95.0	100.3	11.0	2963.7	0.19	52.68
95.0-96.0	121.6	13.3	2977.0	0.24	52.91
96.0-97.0	143.2	15.6	2992.6	0.28	53.19
97.0-98.0	165.6	18.0	3010.6	0.32	53.51
98.0-99.0	189.2	20.5	3031.1	0.36	53.87
99.0-100.0	213.3	23.1	3054.2	0.41	54.28
100.0-101.0	237.3	25.6	3079.8	0.45	54.74
101.0-102.0	261.8	28.1	3107.9	0.50	55.24
102.0-103.0	285.8	30.6	3138.5	0.54	55.78
103.0-104.0	309.3	33.0	3171.5	0.59	56.37
104.0-105.0	332.4	35.3	3206.8	0.63	57.00
105.0-106.0	354.9	37.5	3244.3	0.67	57.66
106.0-107.0	376.7	39.6	3283.9	0.70	58.37
107.0-108.0	397.9	41.6	3325.5	0.74	59.11

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:

## Zonal Lumen (Continue 3)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
108.0-109.0	418.4	43.5	3369.0	0.77	59.88
109.0-110.0	437.7	45.2	3414.3	0.80	60.68
110.0-111.0	456.2	46.9	3461.1	0.83	61.52
111.0-112.0	475.0	48.5	3509.6	0.86	62.38
112.0-113.0	493.3	50.0	3559.6	0.89	63.27
113.0-114.0	510.1	51.3	3610.9	0.91	64.18
114.0-115.0	525.9	52.5	3663.3	0.93	65.11
115.0-116.0	540.7	53.5	3716.9	0.95	66.06
116.0-117.0	553.5	54.3	3771.2	0.97	67.03
117.0-118.0	564.3	54.9	3826.1	0.98	68.00
118.0-119.0	573.3	55.3	3881.3	0.98	68.98
119.0-120.0	580.5	55.4	3936.7	0.98	69.97
120.0-121.0	585.8	55.4	3992.1	0.98	70.95
121.0-122.0	589.3	55.1	4047.2	0.98	71.93
122.0-123.0	591.2	54.7	4101.9	0.97	72.90
123.0-124.0	591.6	54.1	4156.0	0.96	73.86
124.0-125.0	590.8	53.4	4209.4	0.95	74.81
125.0-126.0	589.2	52.6	4262.0	0.93	75.75
126.0-127.0	586.9	51.7	4313.7	0.92	76.67
127.0-128.0	583.9	50.8	4364.5	0.90	77.57
128.0-129.0	580.6	49.8	4414.3	0.89	78.46
129.0-130.0	577.1	48.8	4463.2	0.87	79.32
130.0-131.0	573.4	47.8	4511.0	0.85	80.17
131.0-132.0	569.6	46.8	4557.8	0.83	81.01
132.0-133.0	565.8	45.7	4603.5	0.81	81.82
133.0-134.0	562.1	44.7	4648.2	0.79	82.61
134.0-135.0	558.3	43.7	4691.9	0.78	83.39
135.0-136.0	554.6	42.6	4734.5	0.76	84.15
136.0-137.0	551.0	41.6	4776.1	0.74	84.89
137.0-138.0	547.5	40.6	4816.7	0.72	85.61
138.0-139.0	544.0	39.5	4856.2	0.70	86.31
139.0-140.0	540.6	38.5	4894.7	0.68	86.99
140.0-141.0	537.2	37.5	4932.2	0.67	87.66
141.0-142.0	534.0	36.5	4968.6	0.65	88.31
142.0-143.0	530.8	35.4	5004.0	0.63	88.94
143.0-144.0	527.6	34.4	5038.5	0.61	89.55

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:

## Zonal Lumen (Continue 4)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
144.0-145.0	524.5	33.4	5071.9	0.59	90.14
145.0-146.0	521.5	32.4	5104.3	0.58	90.72
146.0-147.0	518.5	31.4	5135.6	0.56	91.28
147.0-148.0	515.4	30.4	5166.0	0.54	91.82
148.0-149.0	512.4	29.4	5195.4	0.52	92.34
149.0-150.0	509.4	28.4	5223.7	0.50	92.84
150.0-151.0	506.3	27.3	5251.0	0.49	93.33
151.0-152.0	503.2	26.3	5277.4	0.47	93.80
152.0-153.0	500.1	25.3	5302.7	0.45	94.25
153.0-154.0	497.0	24.3	5327.0	0.43	94.68
154.0-155.0	493.8	23.3	5350.3	0.41	95.09
155.0-156.0	490.6	22.3	5372.6	0.40	95.49
156.0-157.0	487.5	21.3	5394.0	0.38	95.87
157.0-158.0	484.4	20.3	5414.3	0.36	96.23
158.0-159.0	481.3	19.3	5433.6	0.34	96.57
159.0-160.0	478.1	18.4	5452.0	0.33	96.90
160.0-161.0	475.0	17.4	5469.4	0.31	97.21
161.0-162.0	472.1	16.4	5485.8	0.29	97.50
162.0-163.0	469.3	15.5	5501.3	0.28	97.78
163.0-164.0	466.5	14.5	5515.8	0.26	98.03
164.0-165.0	463.9	13.6	5529.4	0.24	98.28
165.0-166.0	461.5	12.7	5542.1	0.23	98.50
166.0-167.0	459.1	11.8	5553.8	0.21	98.71
167.0-168.0	457.0	10.8	5564.7	0.19	98.90
168.0-169.0	454.9	9.9	5574.6	0.18	99.08
169.0-170.0	453.1	9.1	5583.7	0.16	99.24
170.0-171.0	451.3	8.2	5591.8	0.15	99.39
171.0-172.0	449.8	7.3	5599.1	0.13	99.51
172.0-173.0	448.4	6.4	5605.6	0.11	99.63
173.0-174.0	447.2	5.6	5611.1	0.10	99.73
174.0-175.0	446.2	4.7	5615.8	0.08	99.81
175.0-176.0	445.3	3.8	5619.6	0.07	99.88
176.0-177.0	444.6	3.0	5622.6	0.05	99.93
177.0-178.0	444.1	2.1	5624.7	0.04	99.97
178.0-179.0	443.7	1.3	5626.0	0.02	99.99
179.0-180.0	443.5	0.4	5626.4	0.01	100.00

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:



## Zonal Lumen (Continue 5)

cone flux(90°): 1564.49 lm

%lum = 27.8%

%lamp = 27.8%

cone flux(120°): 2307.59 lm

%lum = 41.0%

%lamp = 41.0%

## 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	1021.1	1022.4	1021.3	1020.9	1020.0	1019.7	1021.1	1022.4	1021.3	1020.9
G1.0	1021.1	1022.2	1021.3	1020.7	1020.0	1019.2	1020.8	1022.1	1021.1	1020.8
G2.0	1020.6	1021.1	1020.7	1020.3	1019.9	1019.1	1020.2	1021.9	1020.4	1020.2
G3.0	1019.7	1020.0	1019.5	1019.4	1019.3	1018.0	1019.3	1020.9	1019.2	1019.4
G4.0	1018.2	1018.5	1018.6	1018.1	1018.2	1017.2	1017.9	1019.7	1017.9	1018.0
G5.0	1016.4	1016.6	1016.9	1016.5	1016.8	1015.6	1015.8	1018.4	1016.5	1016.4
G6.0	1014.4	1014.1	1014.8	1014.6	1015.0	1013.6	1013.7	1016.6	1014.3	1014.3
G7.0	1011.8	1011.8	1012.5	1012.4	1012.8	1011.3	1010.9	1014.5	1011.8	1011.9
G8.0	1008.9	1008.6	1009.9	1009.9	1010.6	1008.8	1007.8	1011.7	1009.1	1009.0
G9.0	1006.1	1005.6	1006.7	1006.5	1008.0	1005.8	1004.5	1009.0	1005.9	1006.0
G10.0	1002.1	1001.7	1003.3	1003.1	1004.5	1002.6	1000.8	1005.8	1002.2	1002.5
G11.0	997.8	998.0	999.8	999.7	1001.1	999.0	996.9	1002.3	998.5	998.8
G12.0	993.7	993.4	995.6	995.6	997.3	994.3	992.1	997.7	994.6	995.0
G13.0	989.2	988.7	991.2	991.4	993.3	990.1	988.0	993.3	990.1	990.6
G14.0	984.2	984.0	986.5	986.8	988.8	985.5	982.5	988.9	985.3	985.5
G15.0	978.7	978.6	980.8	981.4	983.3	980.2	977.1	983.8	980.0	980.5
G16.0	972.8	972.4	975.5	976.0	978.1	974.2	971.4	978.6	974.3	975.0
G17.0	967.0	966.4	969.9	970.7	972.8	968.8	965.0	972.3	968.6	969.3
G18.0	960.8	960.0	963.9	964.5	967.0	962.4	958.5	966.1	962.7	963.1
G19.0	954.3	953.5	957.1	957.6	960.9	956.0	952.0	959.8	955.7	956.3
G20.0	947.1	946.3	950.3	951.1	953.9	949.2	945.1	953.1	948.8	949.6
G21.0	940.0	938.6	943.2	944.2	947.1	941.4	937.5	945.6	941.9	942.9
G22.0	932.5	930.8	935.4	937.0	940.4	934.0	929.8	938.2	934.5	935.8
G23.0	924.7	922.6	927.7	929.3	932.2	926.5	921.6	930.6	926.9	927.4
G24.0	916.6	914.8	920.1	920.7	924.6	918.0	913.0	922.8	918.7	919.5
G25.0	907.6	905.7	912.0	912.7	916.7	910.0	905.2	913.6	910.1	911.7
G26.0	899.1	896.7	903.6	904.2	908.4	900.6	895.9	904.9	901.9	903.1
G27.0	889.6	887.7	894.8	895.6	899.6	892.0	886.4	895.9	892.7	894.3
G28.0	880.2	878.1	885.0	885.6	890.1	882.8	877.6	887.2	883.5	884.5
G29.0	870.8	867.6	875.6	876.2	880.8	873.1	867.3	877.8	874.0	875.2
G30.0	861.2	857.9	865.9	866.8	871.2	862.6	858.1	868.1	864.1	865.8
G31.0	851.2	847.8	855.5	856.8	861.8	852.4	847.6	857.2	854.7	856.0
G32.0	840.2	837.6	845.7	845.9	851.1	842.5	837.1	847.5	843.4	846.1
G33.0	829.6	826.9	834.9	835.6	840.8	831.7	826.5	837.1	833.4	835.0
G34.0	819.0	815.9	824.5	824.9	830.3	821.0	815.2	826.2	822.5	824.5
G35.0	806.6	803.4	812.4	813.9	818.5	808.9	804.0	814.5	811.7	813.7
G36.0	795.5	792.5	801.4	802.7	807.4	797.7	792.8	803.1	800.4	802.8

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
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	784.1	780.7	789.9	791.9	796.3	786.0	780.1	792.0	788.0	790.4
G38.0	772.4	769.1	777.1	779.0	784.9	774.5	768.3	780.3	776.4	779.1
G39.0	760.3	755.8	765.4	767.3	773.1	761.4	756.2	767.0	764.3	767.3
G40.0	746.9	743.4	753.1	755.0	759.8	749.2	743.1	754.9	752.7	755.2
G41.0	734.5	730.6	740.6	742.8	747.7	736.7	730.2	742.7	739.2	741.8
G42.0	721.9	718.1	727.8	728.9	735.4	724.2	718.0	730.5	726.7	729.7
G43.0	709.0	704.9	715.3	716.0	722.5	710.8	705.4	716.4	714.3	717.1
G44.0	694.9	690.6	701.3	703.0	708.3	697.9	691.4	703.7	701.0	704.3
G45.0	681.4	677.1	688.2	689.8	695.4	683.3	676.9	690.5	688.1	690.0
G46.0	668.0	663.5	674.6	676.3	681.8	669.6	663.5	677.1	673.5	676.7
G47.0	654.4	649.5	659.7	662.4	667.0	655.7	649.2	662.5	659.6	663.5
G48.0	639.0	635.4	646.0	647.3	653.2	641.9	635.9	648.7	646.1	649.9
G49.0	624.8	621.1	632.0	633.0	639.3	627.8	621.3	634.7	632.0	634.8
G50.0	610.4	605.2	617.3	619.0	624.7	611.8	605.5	620.6	616.6	620.8
G51.0	595.9	590.5	601.3	603.2	609.0	597.4	591.2	604.6	602.5	606.5
G52.0	579.6	575.6	586.7	588.3	595.9	582.6	576.3	589.8	587.7	592.2
G53.0	564.5	560.5	571.8	573.5	579.6	567.7	560.1	575.1	572.1	576.0
G54.0	549.7	543.8	556.9	558.4	564.7	551.0	545.0	560.1	557.1	561.1
G55.0	534.2	528.1	541.5	542.9	549.3	535.5	530.2	545.1	542.4	546.0
G56.0	518.8	512.5	524.5	526.0	532.8	520.1	514.4	528.4	526.9	531.1
G57.0	501.6	495.2	508.8	510.2	517.2	502.6	498.8	512.8	511.5	514.1
G58.0	485.8	479.0	493.3	494.2	501.6	486.4	481.3	497.2	494.6	498.7
G59.0	470.0	462.7	477.5	478.0	485.6	470.3	465.1	479.8	478.5	483.1
G60.0	451.7	446.4	459.5	461.9	468.1	454.4	449.0	463.9	462.6	465.7
G61.0	435.7	429.7	443.2	443.7	451.7	437.6	432.8	447.8	446.9	449.9
G62.0	419.0	413.2	426.6	427.2	435.2	421.0	416.0	431.5	430.3	433.8
G63.0	402.0	394.5	407.9	410.6	418.5	402.7	397.9	413.3	412.0	417.3
G64.0	383.7	377.6	391.1	393.8	399.9	385.7	380.9	396.4	395.6	400.8
G65.0	368.0	360.4	373.9	375.1	382.6	368.5	364.5	380.0	379.3	382.6
G66.0	349.3	343.1	357.1	357.8	366.1	351.2	345.9	362.9	360.8	365.9
G67.0	330.9	324.1	338.0	340.6	348.9	332.2	328.8	344.3	343.7	349.0
G68.0	313.4	306.3	321.0	323.1	329.9	314.8	311.6	327.3	326.7	332.2
G69.0	296.1	288.8	303.8	305.5	312.7	297.2	294.2	310.3	309.5	313.4
G70.0	278.5	271.4	286.0	286.3	295.0	279.7	275.7	292.9	290.7	296.3
G71.0	259.5	253.4	267.0	268.4	276.0	261.9	258.1	274.2	273.4	279.2
G72.0	242.5	234.8	249.7	251.4	258.7	243.3	241.7	257.3	256.8	260.7
G73.0	224.5	216.0	231.7	233.0	240.7	226.3	223.5	239.4	238.5	242.9

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:

## Candlepower Table (Continue 2)

Unit: cd

G\C	C0.0	C30.0	C60.0	C90.0	C120.0	C150.0	C180.0	C210.0	C240.0	C270.0
G74.0	206.4	198.7	213.3	215.3	222.3	207.3	205.9	221.7	221.0	225.3
G75.0	188.0	181.3	194.8	197.9	203.8	190.0	187.6	203.1	204.1	208.1
G76.0	171.5	163.2	177.7	179.3	186.5	172.0	171.8	185.2	186.2	190.4
G77.0	153.1	146.5	159.3	160.9	167.9	155.2	154.1	168.3	168.0	171.7
G78.0	137.2	130.3	141.4	144.0	151.1	138.8	138.0	150.6	151.6	155.3
G79.0	119.6	112.7	124.8	127.3	133.1	122.4	120.9	134.4	135.0	137.2
G80.0	103.5	97.7	107.9	110.4	116.3	106.0	106.0	117.7	118.2	120.4
G81.0	87.6	81.4	91.3	94.7	99.3	90.8	90.0	101.4	101.5	104.6
G82.0	72.9	66.9	76.1	79.3	83.9	75.9	75.8	85.7	86.2	88.3
G83.0	58.5	53.4	61.1	64.5	68.5	61.1	61.9	71.6	71.5	73.0
G84.0	46.0	41.0	47.4	50.8	55.0	48.2	49.3	57.6	57.9	59.2
G85.0	33.3	29.8	35.3	38.0	41.7	36.6	37.0	45.0	44.9	45.1
G86.0	22.7	19.6	24.4	26.8	30.1	25.6	26.0	32.9	33.1	33.3
G87.0	14.0	11.1	15.1	17.2	20.1	16.5	16.9	22.6	23.0	22.4
G88.0	6.8	5.2	7.6	9.4	11.6	9.0	9.7	13.8	14.2	13.3
G89.0	1.9	0.0	2.4	3.5	4.9	3.0	3.7	6.7	7.5	6.4
G90.0	0.0	0.0	0.0	0.0	36.4	32.2	24.5	45.4	41.4	1.1
G91.0	3.8	6.8	11.3	3.8	62.9	53.2	39.1	68.3	72.4	3.5
G92.0	12.6	24.4	38.5	6.0	91.1	74.5	54.5	93.2	102.9	6.0
G93.0	25.8	48.2	66.7	8.7	116.8	96.2	71.4	120.0	130.5	9.1
G94.0	41.0	73.6	95.0	11.9	136.3	120.9	90.1	149.2	151.8	12.4
G95.0	57.2	101.5	120.2	15.7	157.6	149.9	110.9	181.9	169.2	16.3
G96.0	75.2	130.1	141.1	19.7	176.5	180.0	135.8	215.8	184.3	20.5
G97.0	95.0	160.9	157.2	23.8	194.9	214.2	162.2	254.0	200.0	24.8
G98.0	118.5	197.2	171.9	28.5	213.4	248.4	193.7	291.0	215.6	29.9
G99.0	145.2	236.5	186.5	33.6	232.1	286.0	228.2	326.8	230.3	34.8
G100.0	176.0	272.4	201.0	38.4	250.8	319.9	264.2	358.9	245.5	39.9
G101.0	210.7	309.2	215.7	43.3	269.1	357.0	297.1	392.5	259.4	45.4
G102.0	247.4	346.3	229.9	48.7	287.3	391.1	333.6	427.2	272.4	50.7
G103.0	282.9	379.9	243.9	53.7	303.0	426.0	371.7	457.7	285.0	56.5
G104.0	323.9	412.6	256.7	59.4	319.6	457.8	410.9	487.5	295.9	62.1
G105.0	359.2	445.2	269.0	65.0	335.3	489.7	452.7	517.5	306.2	68.1
G106.0	400.4	475.5	279.9	70.4	347.9	518.9	491.8	547.5	315.4	74.3
G107.0	441.5	505.4	289.7	76.1	362.1	548.7	531.5	575.5	322.7	80.4
G108.0	483.7	535.1	298.6	81.9	372.2	578.0	570.4	601.9	329.0	86.1
G109.0	524.2	565.2	306.1	88.1	381.2	602.5	609.7	631.1	333.7	92.8
G110.0	564.8	592.7	313.1	93.8	388.7	626.4	644.1	659.6	337.9	98.9

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:

## Candlepower Table (Continue 3)

Unit: cd

G\C	C0.0	C30.0	C60.0	C90.0	C120.0	C150.0	C180.0	C210.0	C240.0	C270.0
G111.0	604.2	620.7	318.6	100.0	394.0	653.3	682.0	687.5	340.2	105.1
G112.0	646.8	650.4	322.9	106.5	398.4	689.8	715.3	717.9	341.8	112.0
G113.0	683.9	677.7	326.4	112.8	401.1	722.1	747.8	744.7	342.7	118.4
G114.0	720.2	703.5	329.5	118.7	401.7	750.5	779.9	769.2	342.8	124.8
G115.0	754.7	729.8	331.8	125.7	401.9	779.3	813.5	793.5	342.6	131.4
G116.0	787.9	752.6	333.6	132.2	401.2	801.8	842.1	811.6	342.2	138.6
G117.0	821.6	771.8	335.2	138.5	399.6	819.3	868.4	825.9	341.4	145.0
G118.0	849.2	787.8	336.4	145.2	397.8	832.9	891.5	836.5	341.1	151.8
G119.0	873.4	800.0	337.5	151.4	396.2	842.5	912.6	842.9	340.4	158.5
G120.0	893.5	808.6	338.9	158.2	394.6	849.0	927.7	845.3	340.3	165.1
G121.0	911.3	814.2	340.3	165.4	393.1	850.9	938.6	844.1	340.6	172.4
G122.0	923.1	815.8	341.5	172.0	392.3	849.9	945.2	840.1	340.9	179.3
G123.0	930.7	815.1	343.3	178.6	392.6	846.5	948.8	833.8	341.7	185.8
G124.0	934.4	811.3	345.1	185.8	392.0	839.7	948.3	824.9	343.0	192.5
G125.0	934.5	806.1	347.1	192.3	391.7	833.0	944.9	815.2	344.4	199.9
G126.0	932.1	799.3	349.3	199.0	391.6	827.1	939.3	804.9	346.0	206.1
G127.0	926.7	790.9	351.7	206.0	391.7	817.5	931.3	794.1	347.9	212.7
G128.0	920.1	781.8	354.4	212.7	392.1	807.5	922.8	782.3	350.0	219.5
G129.0	911.8	772.7	356.8	219.4	392.9	797.1	912.9	770.8	352.4	226.0
G130.0	902.0	763.2	359.9	226.0	393.9	786.7	902.0	759.6	354.9	232.3
G131.0	892.4	753.1	362.5	232.4	394.9	774.7	889.8	748.8	357.4	238.7
G132.0	881.9	743.2	365.3	238.9	396.1	764.2	878.1	736.9	360.0	245.1
G133.0	871.3	732.6	368.6	245.8	397.4	753.6	866.0	726.2	362.9	251.9
G134.0	859.2	723.0	371.5	252.3	399.2	743.4	853.7	715.6	366.1	258.2
G135.0	847.5	713.3	374.2	258.8	400.7	733.0	840.0	705.4	369.0	264.1
G136.0	835.7	703.2	377.1	265.8	402.6	721.9	827.6	695.6	372.0	270.3
G137.0	823.7	694.2	380.3	272.1	404.4	712.3	815.1	684.8	375.3	277.0
G138.0	811.7	685.6	383.0	278.5	406.5	702.6	802.6	675.4	378.3	283.0
G139.0	799.7	677.4	386.2	284.3	408.2	692.1	790.2	666.2	381.3	288.9
G140.0	786.4	668.4	389.3	291.3	410.4	682.7	776.8	656.5	384.4	295.2
G141.0	774.4	660.6	392.1	297.6	412.4	673.2	764.3	647.7	387.7	301.1
G142.0	762.8	652.7	394.9	303.8	414.3	663.8	752.0	638.9	390.6	306.9
G143.0	751.2	645.2	397.8	309.9	416.1	653.8	739.9	630.1	393.5	312.7
G144.0	739.3	637.9	400.4	315.9	418.0	644.8	726.9	621.5	396.2	318.6
G145.0	728.0	629.9	403.2	322.3	419.9	636.1	715.0	612.4	398.9	324.7
G146.0	717.5	622.7	406.1	328.0	421.5	627.4	703.2	604.1	401.6	330.5
G147.0	706.9	615.4	408.3	333.9	423.2	617.6	691.3	596.1	404.2	336.3

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:

## Candlepower Table (Continue 4)

Unit: cd

G\C	C0.0	C30.0	C60.0	C90.0	C120.0	C150.0	C180.0	C210.0	C240.0	C270.0
G148.0	696.5	608.1	411.4	339.7	424.6	609.0	678.2	588.2	406.7	341.9
G149.0	686.2	600.0	413.8	345.8	426.3	600.4	666.8	580.4	409.0	347.4
G150.0	674.6	592.3	416.3	351.2	427.7	592.0	655.0	572.1	411.6	353.3
G151.0	664.1	584.8	418.5	356.6	429.0	583.8	643.6	565.2	413.7	358.5
G152.0	653.5	576.3	421.0	362.3	430.2	575.1	632.0	557.8	415.8	363.8
G153.0	642.8	568.6	423.0	367.6	431.4	567.3	619.6	551.1	417.6	368.7
G154.0	630.7	560.8	425.1	372.7	432.5	559.4	608.5	543.8	419.7	374.2
G155.0	619.9	553.2	427.0	377.4	433.4	551.9	597.5	537.1	421.4	378.7
G156.0	608.7	545.3	429.1	382.7	434.3	543.8	587.0	530.4	423.2	383.5
G157.0	597.6	537.2	431.0	387.2	435.0	536.9	575.6	524.5	424.6	388.1
G158.0	586.0	530.1	432.7	391.6	435.7	529.8	565.7	518.2	426.0	392.4
G159.0	573.6	522.9	434.2	396.0	436.5	522.2	555.6	512.1	427.5	396.9
G160.0	562.6	515.4	435.6	400.7	437.0	515.4	546.0	505.6	428.6	401.3
G161.0	551.7	508.6	437.0	404.5	437.3	508.9	535.9	500.3	429.5	405.1
G162.0	541.3	502.1	438.2	408.3	437.5	502.6	526.8	494.8	430.7	408.9
G163.0	531.0	496.2	439.5	412.0	438.0	496.1	518.3	489.1	431.9	412.5
G164.0	520.6	490.4	440.7	415.3	438.5	490.1	510.0	483.4	432.7	416.2
G165.0	511.6	485.2	441.6	418.9	438.8	484.1	502.1	478.3	433.7	419.5
G166.0	503.2	480.2	442.6	421.9	439.0	478.9	493.5	473.6	434.6	422.6
G167.0	495.4	475.4	443.2	425.0	439.3	473.9	486.2	468.7	435.4	425.8
G168.0	487.9	471.6	443.8	427.4	439.4	468.6	479.3	464.3	436.3	428.3
G169.0	481.3	467.5	444.3	430.2	439.7	464.4	473.1	460.4	436.9	430.8
G170.0	475.4	464.2	444.7	432.4	439.8	460.4	466.8	457.1	437.5	432.8
G171.0	469.8	460.5	444.9	434.4	440.1	456.8	461.5	453.7	438.2	435.1
G172.0	464.7	457.5	445.0	436.3	440.4	453.3	456.9	450.8	439.0	436.9
G173.0	460.5	455.0	445.1	438.0	440.7	450.6	452.8	448.1	439.9	438.5
G174.0	456.8	452.6	445.0	439.3	441.2	448.3	449.3	446.1	440.4	439.9
G175.0	453.5	450.4	445.1	440.6	441.5	446.2	446.3	444.4	441.1	441.0
G176.0	450.5	448.2	445.0	441.8	441.9	444.6	444.2	443.2	441.6	442.0
G177.0	447.6	446.5	444.9	442.5	442.5	443.8	442.9	442.5	442.4	442.8
G178.0	445.6	445.0	444.6	443.2	443.1	443.4	442.1	442.3	443.0	443.5
G179.0	443.8	443.5	444.0	443.5	443.5	443.5	442.1	442.3	443.4	443.7
G180.0	442.8	442.9	443.7	443.7	444.0	443.8	442.8	442.9	443.7	443.7

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:

## Candlepower Table (Continue 5)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G0.0	1020.0	1019.7	1021.1							
G1.0	1019.5	1019.3	1021.1							
G2.0	1019.0	1018.5	1020.6							
G3.0	1017.5	1017.5	1019.7							
G4.0	1016.0	1015.7	1018.2							
G5.0	1013.8	1014.1	1016.4							
G6.0	1011.6	1012.2	1014.4							
G7.0	1008.9	1009.4	1011.8							
G8.0	1005.8	1006.3	1008.9							
G9.0	1002.3	1003.3	1006.1							
G10.0	998.9	999.5	1002.1							
G11.0	994.3	995.2	997.8							
G12.0	990.3	991.0	993.7							
G13.0	985.9	986.6	989.2							
G14.0	980.4	982.1	984.2							
G15.0	975.0	976.8	978.7							
G16.0	969.9	971.0	972.8							
G17.0	963.5	964.2	967.0							
G18.0	957.2	958.3	960.8							
G19.0	950.1	951.5	954.3							
G20.0	942.8	945.1	947.1							
G21.0	935.9	937.2	940.0							
G22.0	927.9	929.6	932.5							
G23.0	920.2	922.3	924.7							
G24.0	912.0	914.1	916.6							
G25.0	903.1	905.0	907.6							
G26.0	894.7	896.5	899.1							
G27.0	885.1	887.1	889.6							
G28.0	876.2	878.1	880.2							
G29.0	866.4	868.5	870.8							
G30.0	856.8	857.8	861.2							
G31.0	845.8	847.7	851.2							
G32.0	835.8	837.6	840.2							
G33.0	825.4	827.0	829.6							
G34.0	814.2	815.2	819.0							
G35.0	803.1	804.3	806.6							
G36.0	792.1	792.9	795.5							

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:

## Candlepower Table (Continue 6)

Unit: cd

G\C	C300.0	C330.0	C360.0						
G37.0	779.4	781.9	784.1						
G38.0	767.9	770.2	772.4						
G39.0	755.4	756.9	760.3						
G40.0	743.6	744.6	746.9						
G41.0	730.2	732.3	734.5						
G42.0	717.4	719.8	721.9						
G43.0	705.2	705.8	709.0						
G44.0	692.0	692.8	694.9						
G45.0	678.7	679.6	681.4						
G46.0	664.0	666.4	668.0						
G47.0	649.9	651.4	654.4						
G48.0	636.8	637.8	639.0						
G49.0	622.3	623.8	624.8						
G50.0	606.8	608.1	610.4						
G51.0	592.4	593.5	595.9						
G52.0	577.7	578.9	579.6						
G53.0	561.8	564.1	564.5						
G54.0	546.8	549.2	549.7						
G55.0	532.1	534.1	534.2						
G56.0	516.5	517.3	518.8						
G57.0	501.1	501.9	501.6						
G58.0	484.1	486.1	485.8						
G59.0	468.2	468.8	470.0						
G60.0	452.3	452.9	451.7						
G61.0	436.1	436.7	435.7						
G62.0	419.9	420.5	419.0						
G63.0	401.7	402.1	402.0						
G64.0	385.2	385.5	383.7						
G65.0	368.6	368.7	368.0						
G66.0	350.3	351.9	349.3						
G67.0	333.1	333.3	330.9						
G68.0	316.2	315.9	313.4						
G69.0	298.8	299.0	296.1						
G70.0	279.9	280.1	278.5						
G71.0	262.9	262.6	259.5						
G72.0	246.2	246.1	242.5						
G73.0	228.2	226.6	224.5						

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:



## Candlepower Table (Continue 7)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G74.0	210.6	210.5	206.4							
G75.0	192.1	191.8	188.0							
G76.0	176.1	174.1	171.5							
G77.0	158.0	157.3	153.1							
G78.0	141.7	139.8	137.2							
G79.0	124.2	123.7	119.6							
G80.0	108.9	107.4	103.5							
G81.0	92.1	91.4	87.6							
G82.0	77.2	75.9	72.9							
G83.0	63.0	62.0	58.5							
G84.0	50.0	48.5	46.0							
G85.0	37.3	36.3	33.3							
G86.0	26.2	24.9	22.7							
G87.0	16.8	15.4	14.0							
G88.0	9.2	7.9	6.8							
G89.0	3.6	2.4	1.9							
G90.0	1.9	1.8	0.0							
G91.0	20.0	9.3	3.8							
G92.0	52.3	25.8	12.6							
G93.0	87.8	47.6	25.8							
G94.0	122.9	71.0	41.0							
G95.0	155.4	95.5	57.2							
G96.0	185.2	123.6	75.2							
G97.0	208.9	153.7	95.0							
G98.0	228.0	188.1	118.5							
G99.0	248.5	227.7	145.2							
G100.0	268.9	266.2	176.0							
G101.0	287.7	306.5	210.7							
G102.0	308.8	344.9	247.4							
G103.0	328.6	382.5	282.9							
G104.0	346.9	417.9	323.9							
G105.0	364.6	454.3	359.2							
G106.0	380.1	488.2	400.4							
G107.0	394.3	522.3	441.5							
G108.0	406.6	556.3	483.7							
G109.0	417.5	589.1	524.2							
G110.0	425.6	618.7	564.8							

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:

## Candlepower Table (Continue 8)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G111.0	432.2	647.9	604.2							
G112.0	436.6	676.6	646.8							
G113.0	439.3	707.8	683.9							
G114.0	440.5	735.1	720.2							
G115.0	441.0	760.8	754.7							
G116.0	439.8	786.8	787.9							
G117.0	438.3	807.5	821.6							
G118.0	436.4	825.2	849.2							
G119.0	433.5	839.6	873.4							
G120.0	431.2	850.1	893.5							
G121.0	428.7	857.2	911.3							
G122.0	426.5	860.4	923.1							
G123.0	424.2	860.4	930.7							
G124.0	422.5	857.6	934.4							
G125.0	421.1	851.7	934.5							
G126.0	420.2	844.8	932.1							
G127.0	419.3	835.8	926.7							
G128.0	418.8	825.9	920.1							
G129.0	418.7	815.8	911.8							
G130.0	418.7	804.9	902.0							
G131.0	419.1	794.3	892.4							
G132.0	419.5	782.9	881.9							
G133.0	419.9	771.2	871.3							
G134.0	420.6	760.2	859.2							
G135.0	421.3	749.4	847.5							
G136.0	422.3	738.8	835.7							
G137.0	423.2	728.1	823.7							
G138.0	424.5	717.0	811.7							
G139.0	425.7	707.6	799.7							
G140.0	426.7	698.2	786.4							
G141.0	427.5	688.2	774.4							
G142.0	428.4	679.3	762.8							
G143.0	429.3	670.7	751.2							
G144.0	430.7	661.9	739.3							
G145.0	431.6	653.7	728.0							
G146.0	432.3	645.2	717.5							
G147.0	433.5	636.1	706.9							

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:

## Candlepower Table (Continue 9)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G148.0	434.5	628.1	696.5							
G149.0	435.8	619.6	686.2							
G150.0	436.7	610.6	674.6							
G151.0	438.0	602.0	664.1							
G152.0	438.8	593.5	653.5							
G153.0	439.8	585.1	642.8							
G154.0	440.8	575.8	630.7							
G155.0	441.5	567.2	619.9							
G156.0	442.4	558.6	608.7							
G157.0	443.1	550.1	597.6							
G158.0	444.0	541.8	586.0							
G159.0	444.6	533.8	573.6							
G160.0	445.1	525.1	562.6							
G161.0	445.8	517.8	551.7							
G162.0	446.2	510.6	541.3							
G163.0	446.6	503.9	531.0							
G164.0	446.8	496.9	520.6							
G165.0	447.1	491.0	511.6							
G166.0	447.7	485.4	503.2							
G167.0	447.8	480.3	495.4							
G168.0	448.0	475.5	487.9							
G169.0	447.9	470.8	481.3							
G170.0	447.9	467.1	475.4							
G171.0	447.6	463.5	469.8							
G172.0	447.4	460.2	464.7							
G173.0	447.0	457.3	460.5							
G174.0	446.7	454.3	456.8							
G175.0	446.3	452.0	453.5							
G176.0	445.8	449.6	450.5							
G177.0	445.4	447.7	447.6							
G178.0	444.8	446.0	445.6							
G179.0	444.5	444.8	443.8							
G180.0	444.0	443.8	442.8							

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

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:

## LED Average Luminance Report

Avg.L	cd/m <sup>2</sup>
L 0-180(65) av	11462.93
L 0-180(75) av	9598.03
L 0-180(85) av	5341.65
L 90-270(65) av	11857.14
L 90-270(75) av	10374.58
L 90-270(85) av	6306.07
L 45(65) av	11667.29
L 45(75) av	9972.23
L 45(85) av	5822.46

Standard: GB/T 29293-2012