

Report No.:

Test Time: 2024/10/31 19:17

## Luminaire Property

Luminaire Manufacturer: MESTER

Luminaire Category:

Luminaire Description: MALL014F40W27V50K(Up25%-Down-75%)

Lamp Catalog:

Lamp Description:

Number of Lamps:

Lumens per Lamp:

Luminous Length (mm): 1200

Luminous Width (mm): 63

Luminous Height (mm):

Voltage: 120.1 V

Current: 0.338 A

Power: 40.40 W

Power Factor: 0.996

## Photometric Results

CIE Class: Semi-Direct

Measurement Flux: 5416.9 lm

Downward Ratio: 78%

Total Rated Lamp Lumens: 5416.9 lm

Efficiency: 100%

Upward Ratio: 22%

Horizontal Diffuse Angle(10%,50%,75%,100%): H160.2,H112.5,H76.7,H0

Vertical Diffuse Angle(10%,50%,75%,100%): V161.5,V114.2,V78.2,V2

Luminaire Efficacy Rating (LER): 134.13

C0r0 Intensity: 1482.17 cd

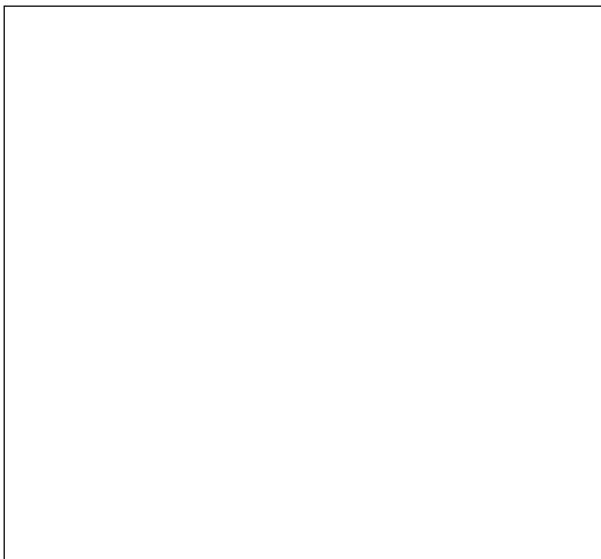
Max. Intensity: 1482.18 cd

Pos of Max. Intensity: H0 V0

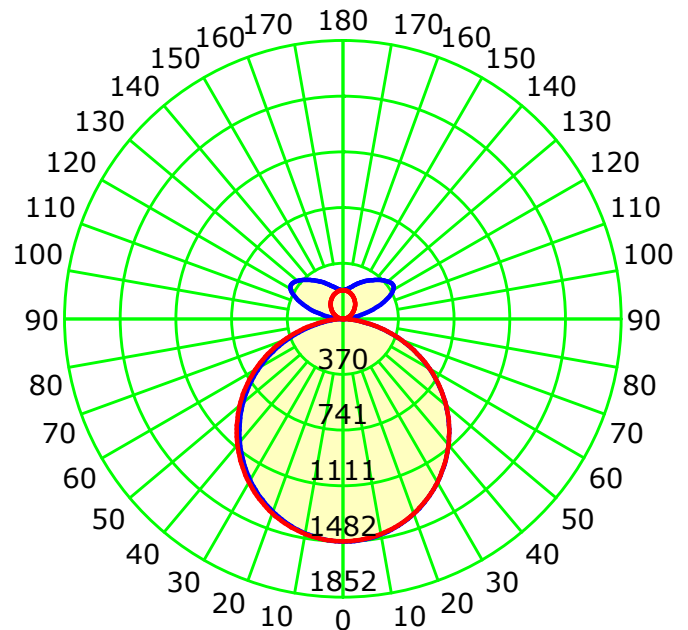
S/MH(C0/C180): 1.25

S/MH(C90/C270): 1.26

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

Average Diffuse Angle(50%): 113.4°

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

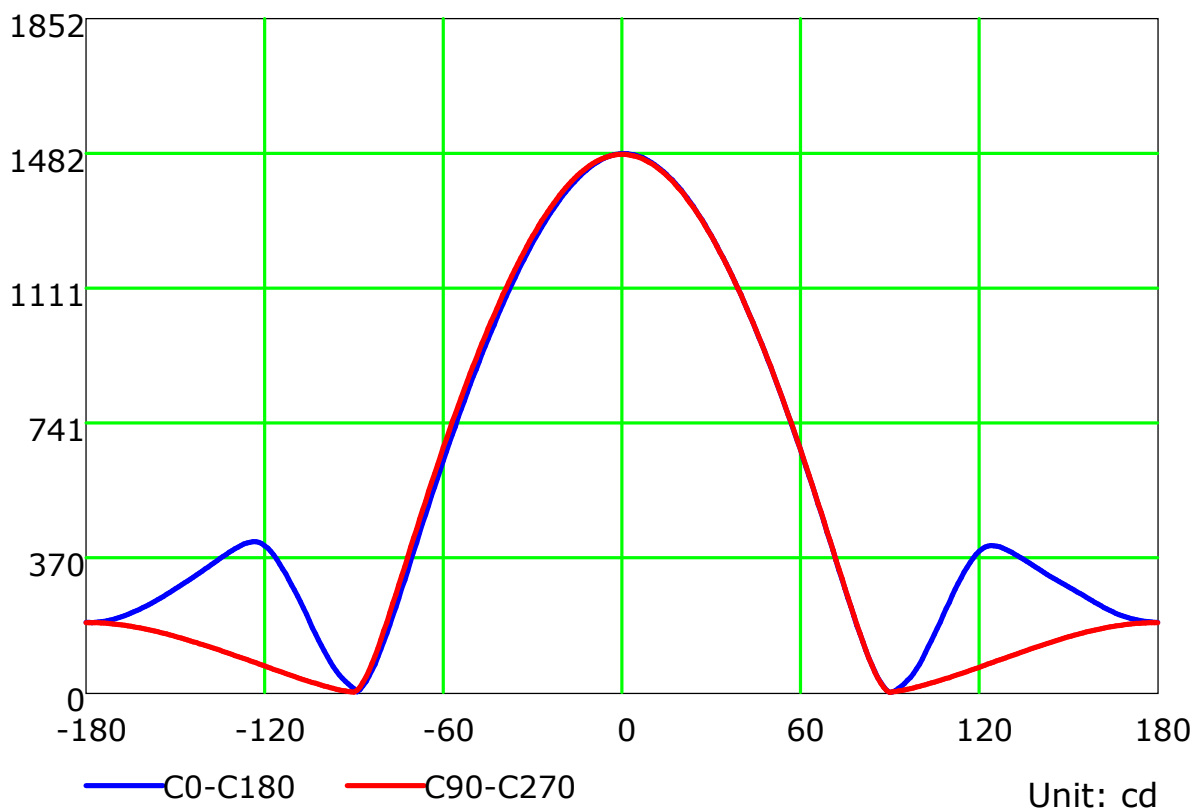
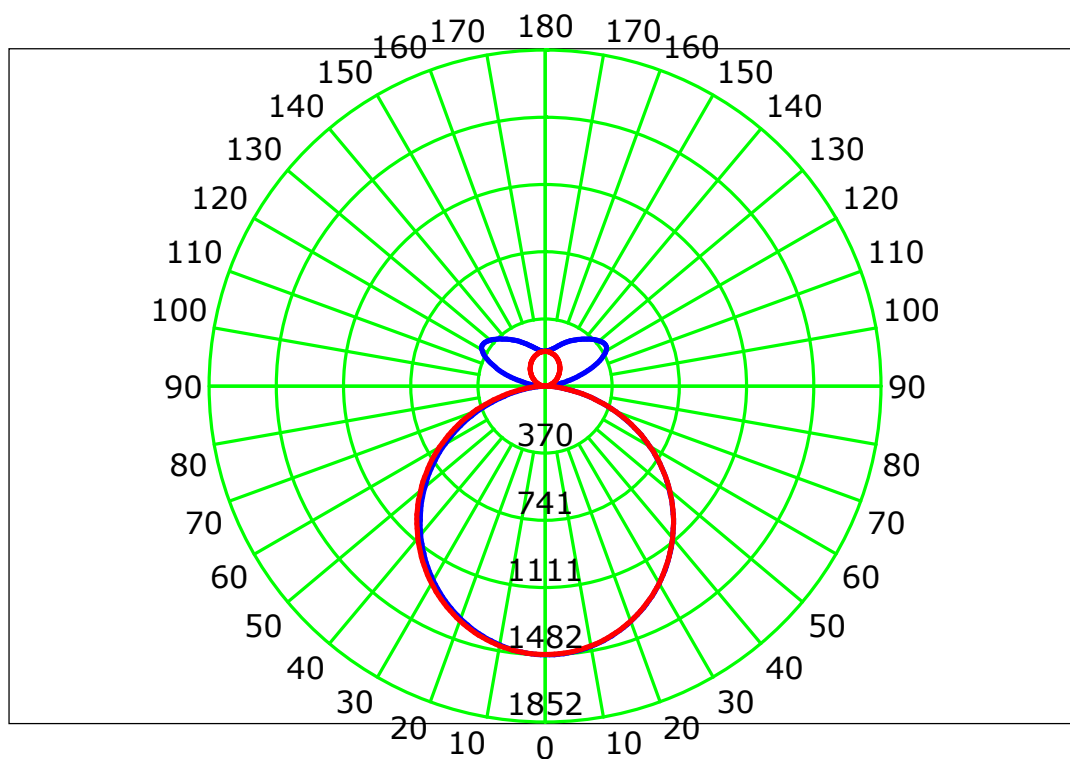
Test Device: GPM-1800B

Distance: 11.655 m [K=1.0900]

Humidity: 45% R.H

Inspector:

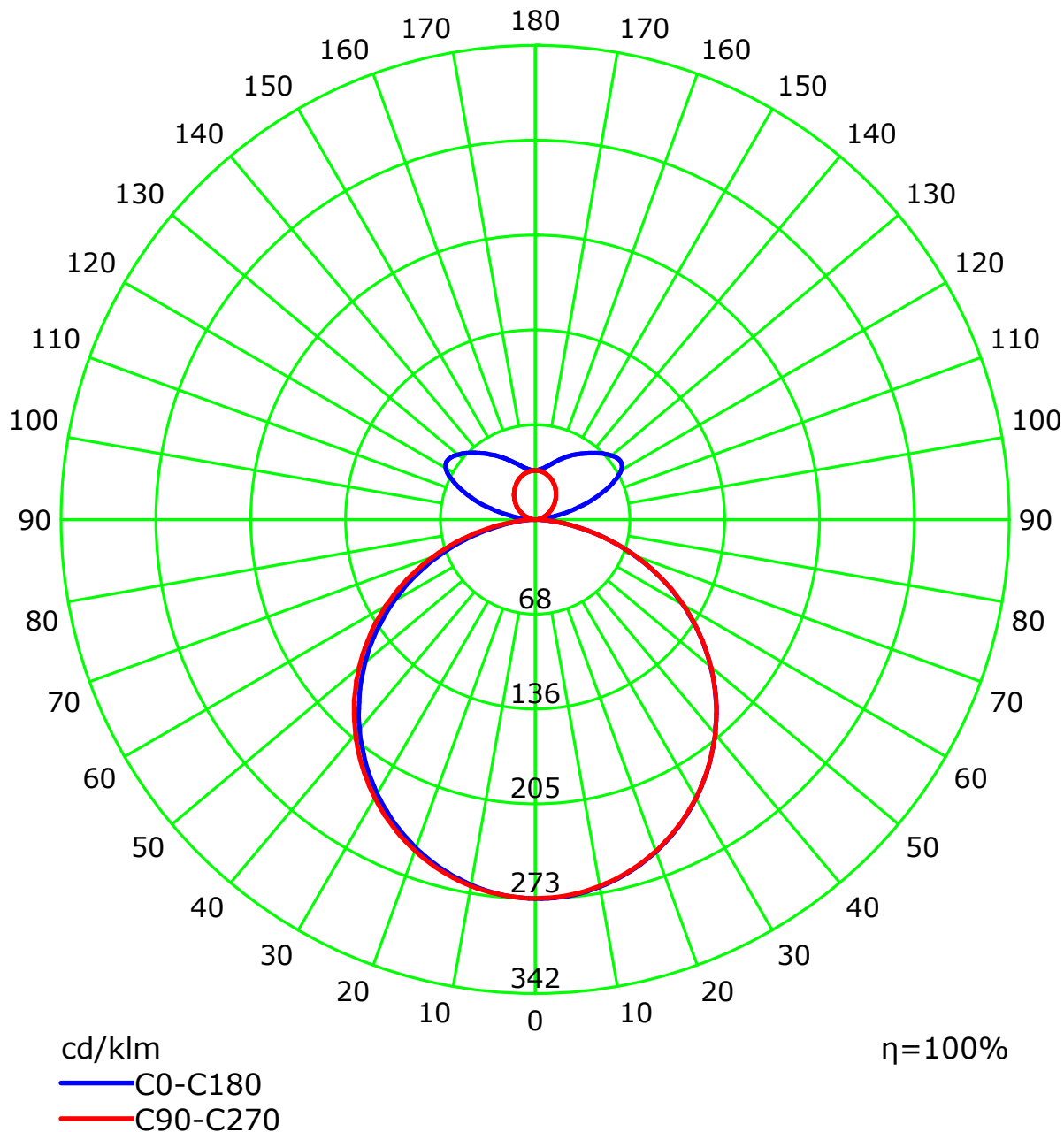
## Luminous Intensity Distribution Curve



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)



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:

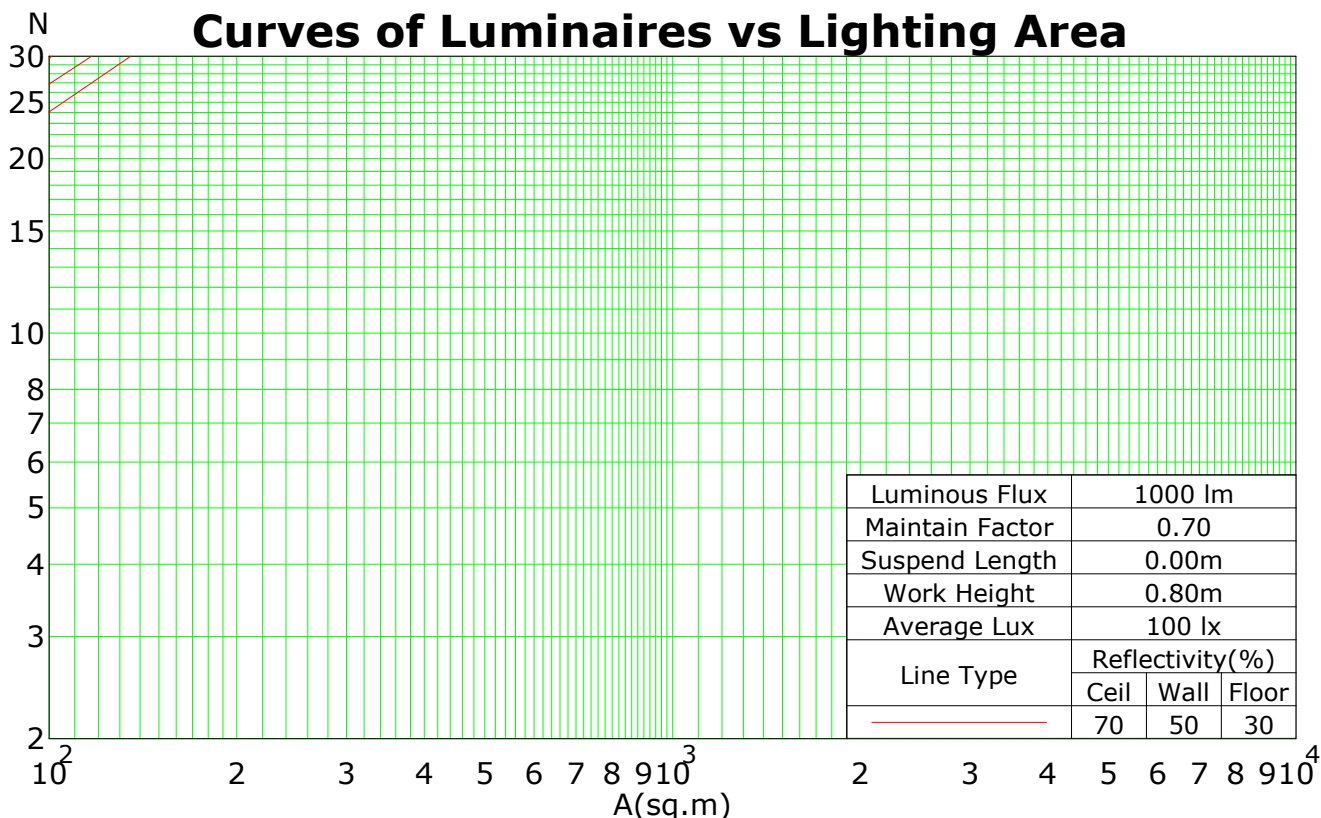
## Coefficients Of Utilization - Zonal Cavity Method

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	1.14	1.14	1.14	1.14	1.09	1.09	1.09	1.09	0.99	0.99	0.99	0.90	0.90	0.90	0.82	0.82	0.82	0.78
1	1.04	0.99	0.95	0.91	0.99	0.95	0.91	0.88	0.87	0.84	0.81	0.79	0.77	0.75	0.72	0.71	0.69	0.66
2	0.94	0.86	0.80	0.74	0.90	0.83	0.77	0.72	0.76	0.71	0.67	0.69	0.66	0.62	0.63	0.60	0.58	0.54
3	0.86	0.76	0.68	0.62	0.82	0.73	0.66	0.60	0.67	0.61	0.56	0.61	0.56	0.52	0.56	0.52	0.49	0.46
4	0.79	0.67	0.59	0.52	0.75	0.64	0.57	0.51	0.59	0.53	0.48	0.54	0.49	0.45	0.50	0.45	0.42	0.39
5	0.72	0.60	0.51	0.45	0.69	0.57	0.49	0.43	0.53	0.46	0.41	0.49	0.43	0.39	0.45	0.40	0.36	0.34
6	0.67	0.54	0.45	0.39	0.63	0.52	0.44	0.38	0.48	0.41	0.36	0.44	0.38	0.34	0.40	0.36	0.32	0.29
7	0.62	0.48	0.40	0.34	0.59	0.47	0.39	0.33	0.43	0.36	0.32	0.40	0.34	0.30	0.37	0.32	0.28	0.26
8	0.57	0.44	0.36	0.30	0.54	0.43	0.35	0.29	0.39	0.33	0.28	0.37	0.31	0.27	0.34	0.29	0.25	0.23
9	0.53	0.40	0.32	0.27	0.51	0.39	0.31	0.26	0.36	0.30	0.25	0.34	0.28	0.24	0.31	0.26	0.23	0.21
10	0.50	0.37	0.29	0.24	0.48	0.36	0.29	0.24	0.33	0.27	0.23	0.31	0.26	0.22	0.29	0.24	0.21	0.19

Spacing Criteria (0-180): 1.25

Spacing Criteria (90-270): 1.26

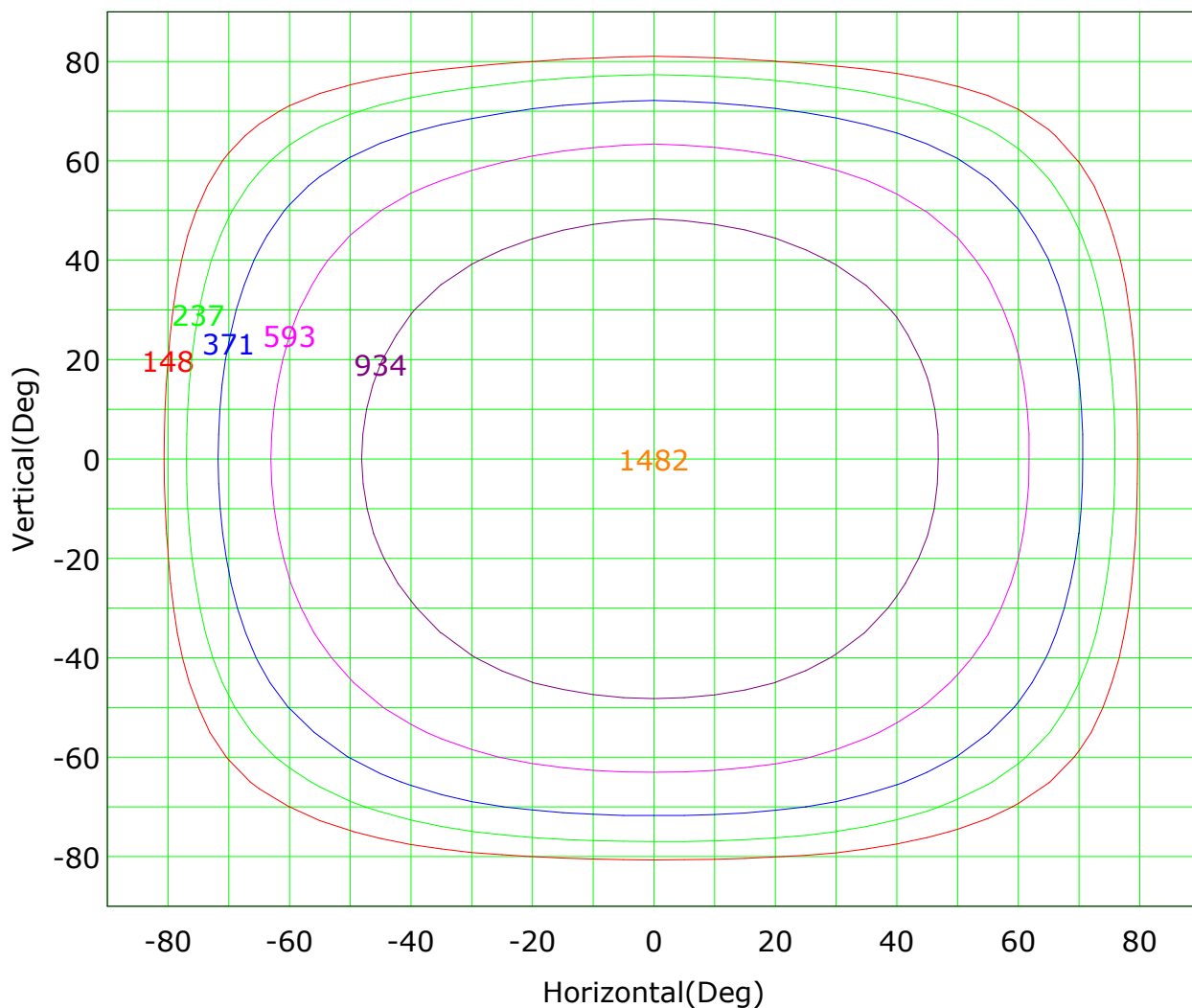
Spacing Criteria (Diagonal): 1.38



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:

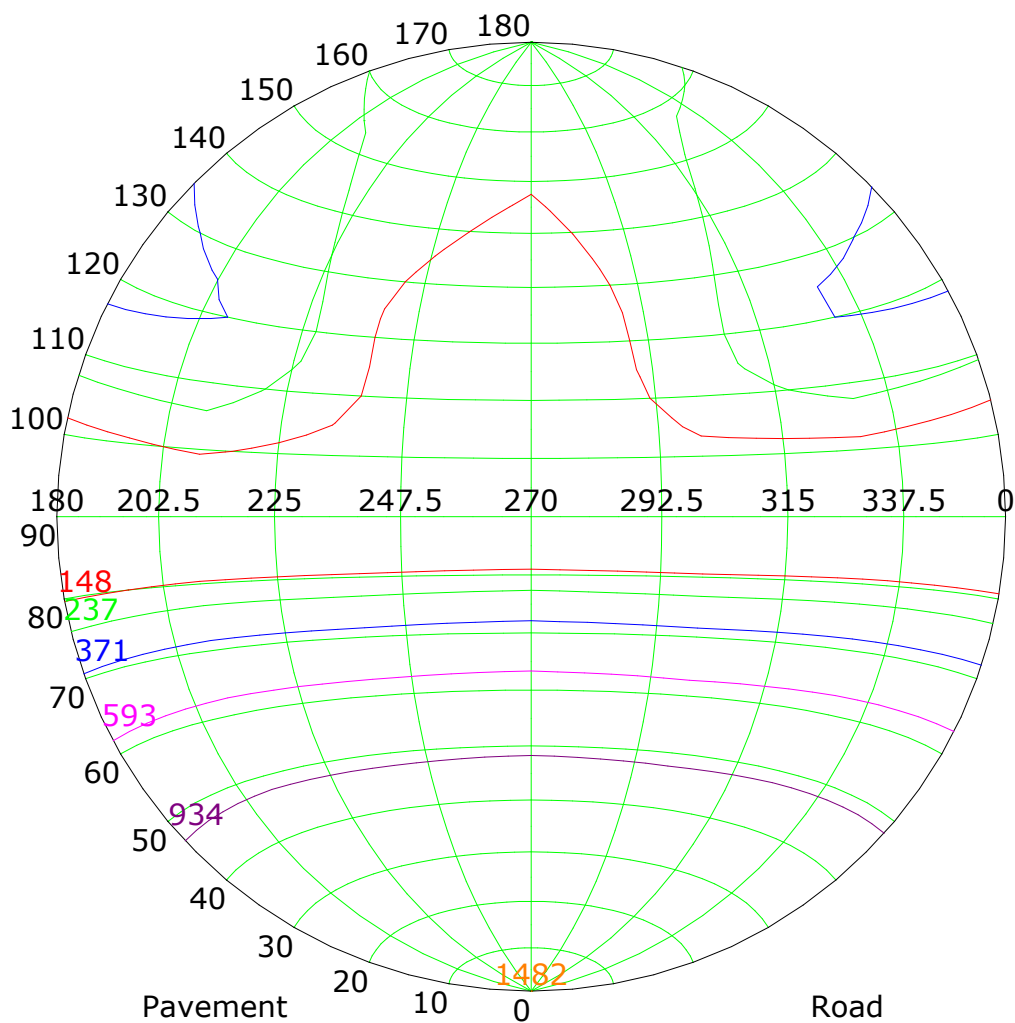
## Isocandela (rectangle)



Imax (100%): 1482 cd

( 10%): 148 cd	( 16%): 237 cd
( 25%): 371 cd	( 40%): 593 cd
( 63%): 934 cd	(100%): 1482 cd

## Isocandela (sphere)

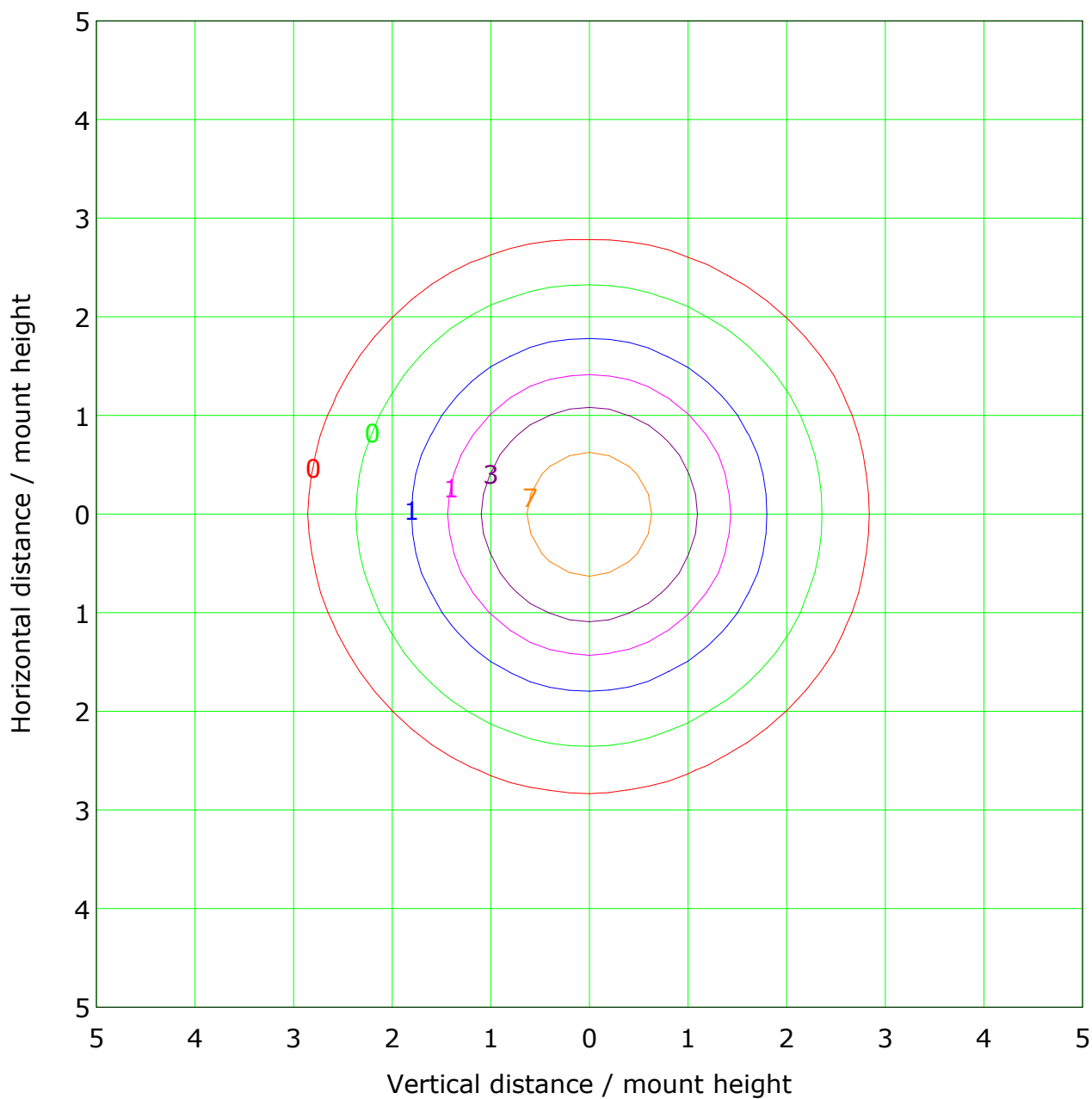


Imax (100%): 1482 cd

— ( 10%): 148 cd  
— ( 25%): 371 cd  
— ( 63%): 934 cd

— ( 16%): 237 cd  
— ( 40%): 593 cd  
— (100%): 1482 cd

## IsoLux Plot



Mounting Height: 10.0m    Max Lux(100%): 14.8 lx

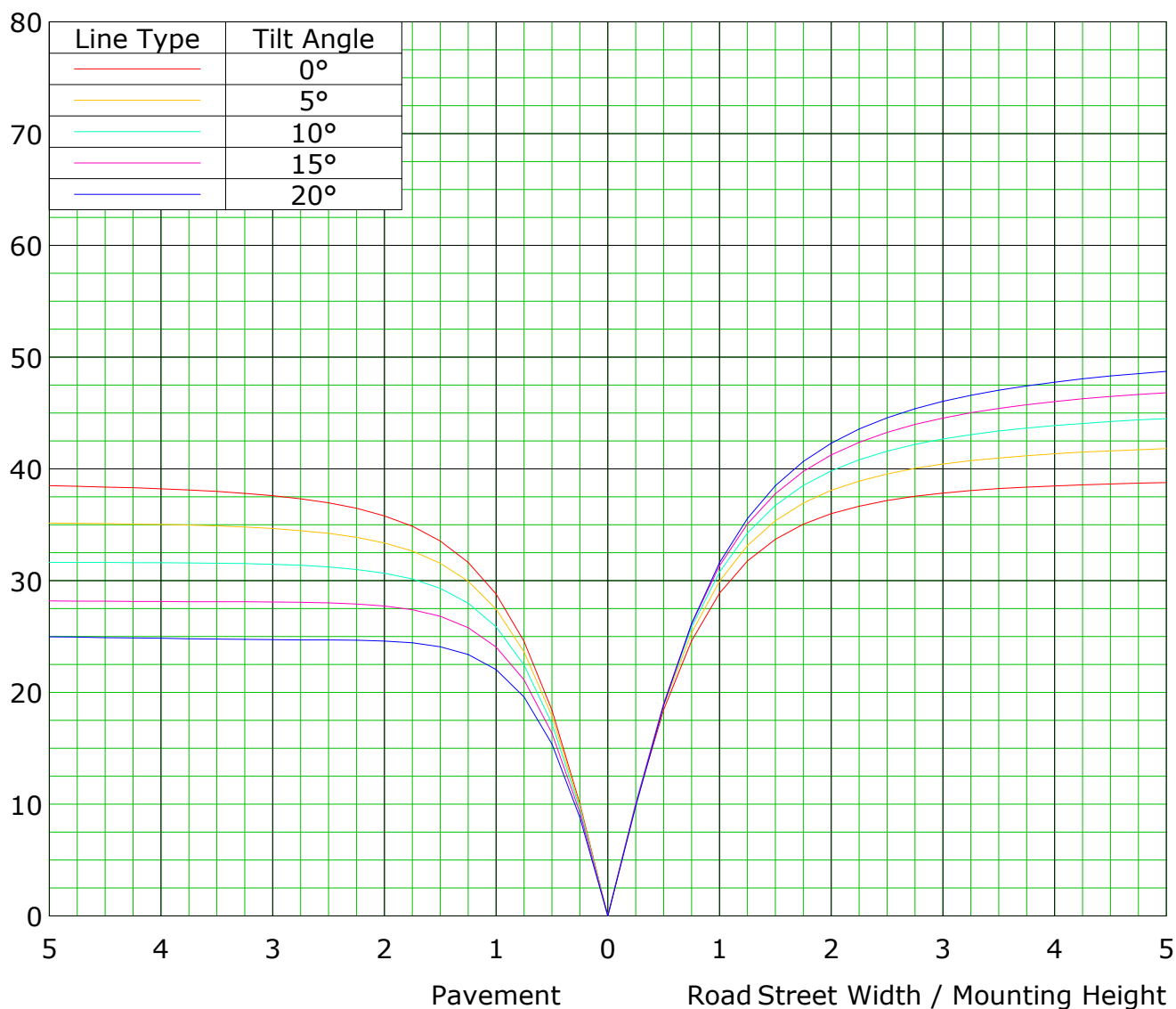
( 1%): 0.1 lx	( 2%): 0.3 lx
( 5%): 0.7 lx	( 10%): 1.5 lx
( 20%): 3.0 lx	( 50%): 7.4 lx
(100%): 14.8 lx	

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

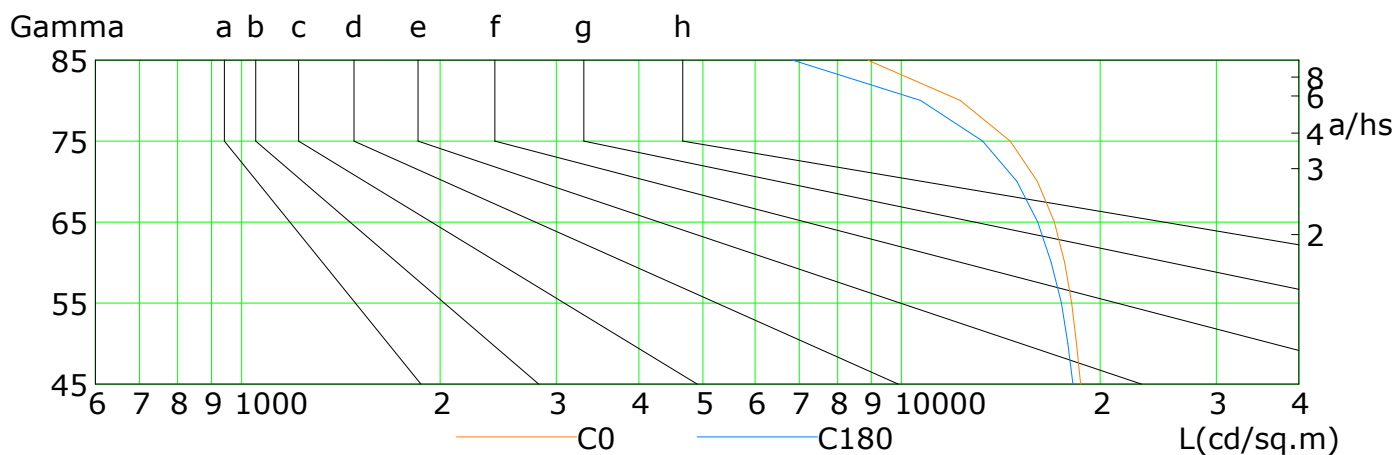
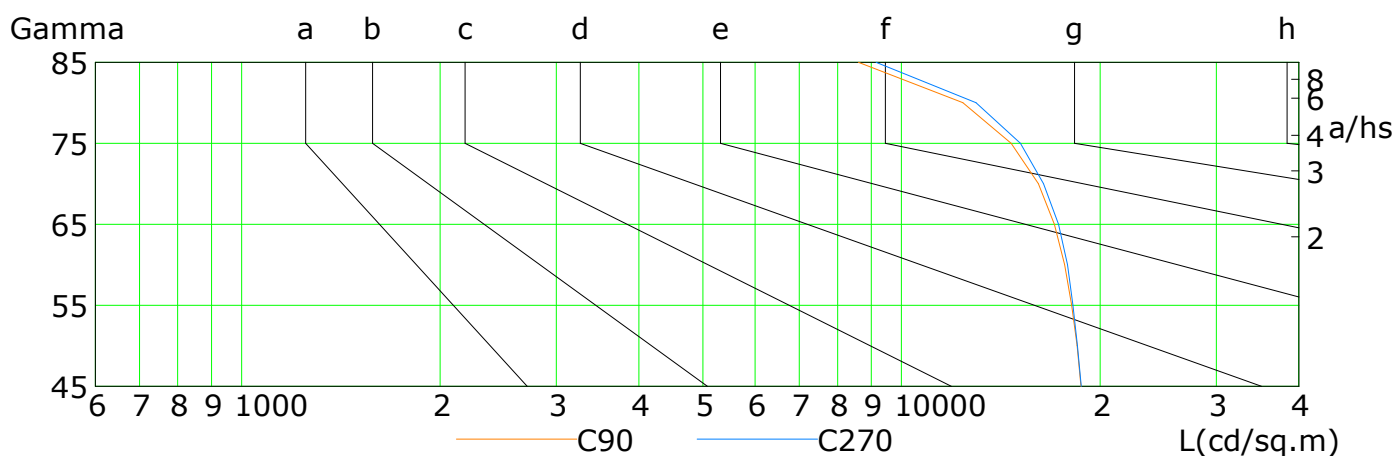
Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 11.655 m [K=1.0900]  
Humidity: 45% R.H  
Inspector:



## 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

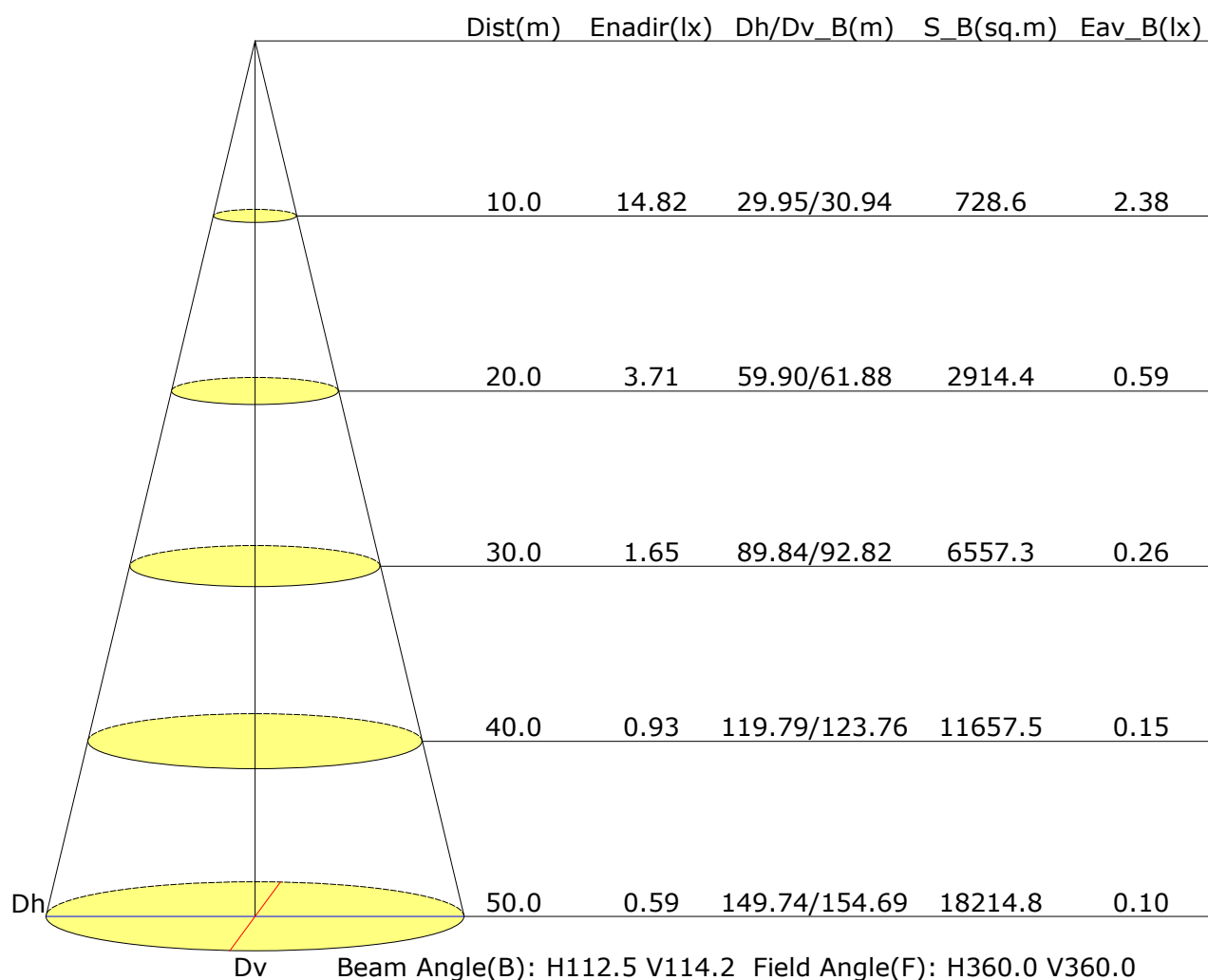


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	18675	18421	18103	17678	17052	16062	14618	12283	8892
C90	18703	18465	18112	17674	17057	16121	14656	12386	8609
C180	18190	17869	17482	16862	16096	14963	13269	10693	6840
C270	18729	18483	18199	17848	17305	16420	15143	12965	9153

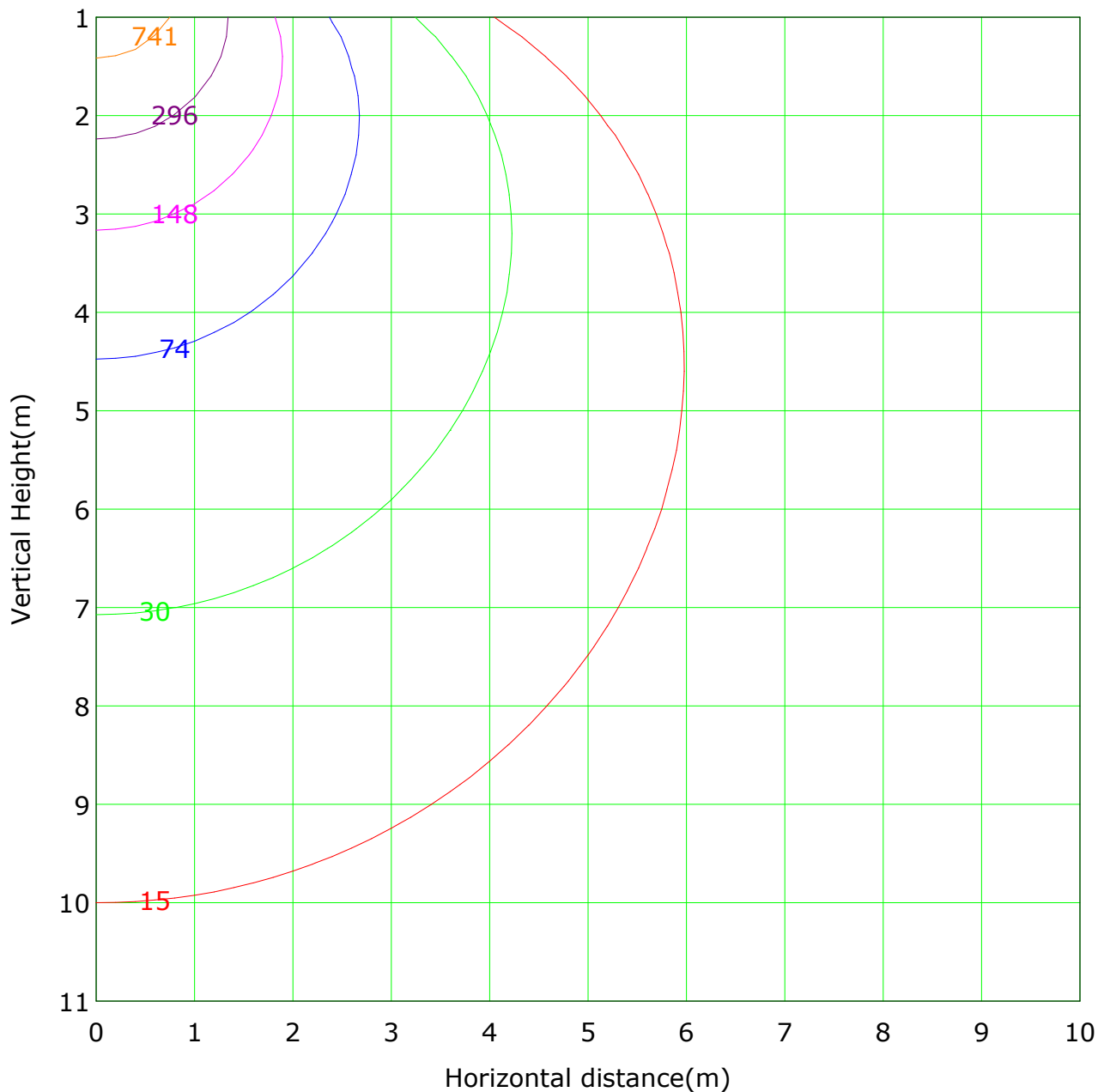
C Plane (°):0.0-360.0: 30.0  
Test Lab: MESTER LAB  
Test Type: TYPE C  
Temperature: 25.5℃  
Operator: Yanzhao Sun

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: 1482.2 lx

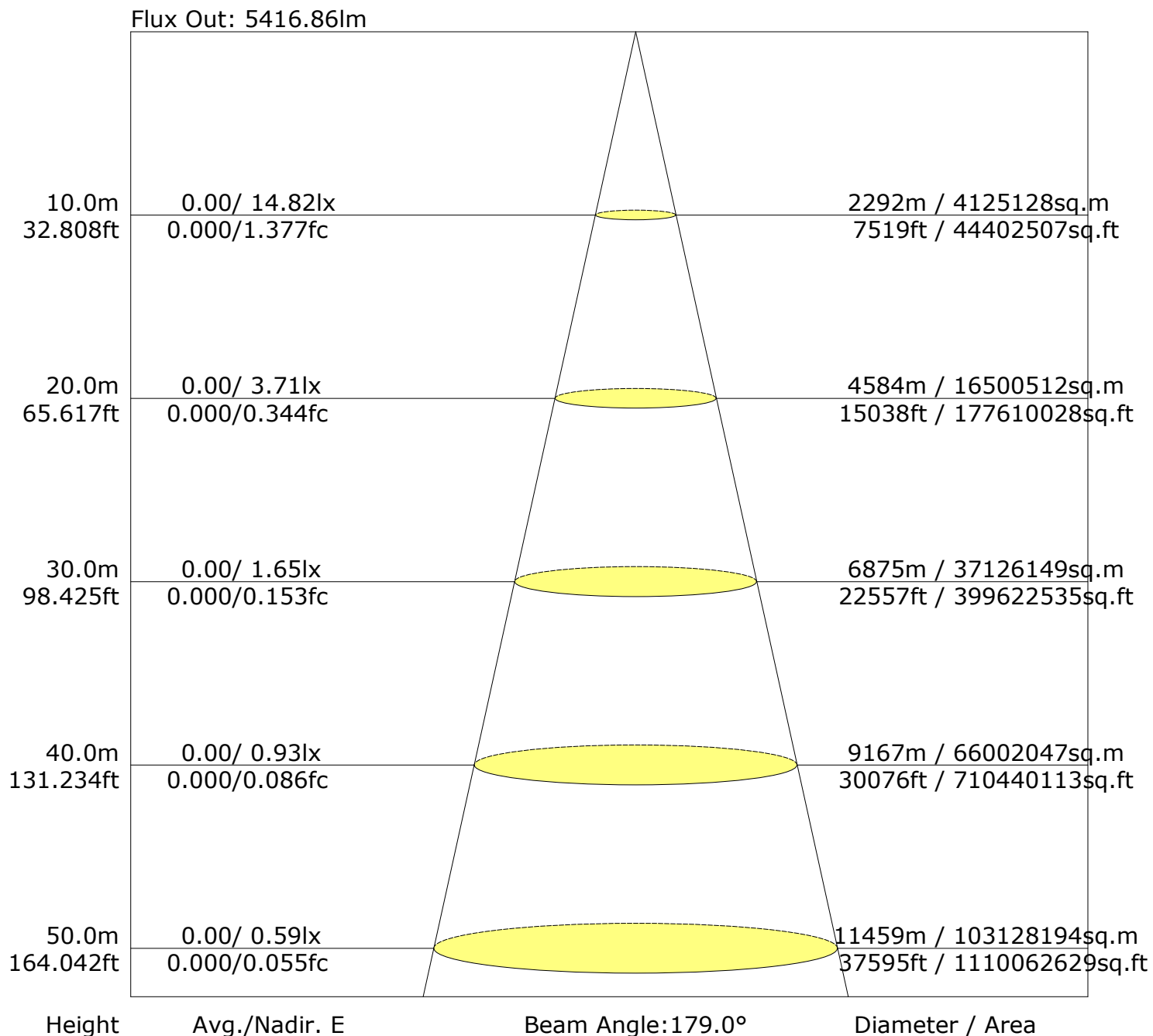
— ( 1%): 14.8 lx	— ( 2%): 29.6 lx
— ( 5%): 74.1 lx	— ( 10%): 148.2 lx
— ( 20%): 296.4 lx	— ( 50%): 741.1 lx
— (100%):1482.2 lx	

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:

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	20.7	22.0	21.4	22.6	23.4	20.8	22.0	21.5	22.7	23.5
3H	22.5	23.6	23.2	24.3	25.2	22.6	23.7	23.3	24.4	25.2
4H	23.2	24.2	23.9	24.9	25.8	23.3	24.3	24.0	25.0	25.9
6H	23.6	24.6	24.3	25.3	26.1	23.7	24.6	24.4	25.4	26.2
8H	23.7	24.6	24.4	25.4	26.2	23.8	24.7	24.5	25.4	26.3
12H	23.8	24.6	24.5	25.4	26.3	23.9	24.7	24.6	25.5	26.3
X=4H Y=2H	21.3	22.4	22.1	23.1	23.9	21.4	22.4	22.1	23.1	24.0
3H	23.3	24.2	24.1	24.9	25.8	23.4	24.3	24.1	25.0	25.9
4H	24.1	24.9	24.8	25.6	26.5	24.2	25.0	24.9	25.7	26.6
6H	24.6	25.3	25.4	26.1	27.0	24.7	25.4	25.5	26.2	27.1
8H	24.8	25.4	25.5	26.2	27.1	24.9	25.5	25.6	26.3	27.2
12H	24.9	25.4	25.6	26.2	27.1	25.0	25.5	25.7	26.3	27.2
X=8H Y=4H	24.4	25.0	25.1	25.8	26.7	24.4	25.1	25.2	25.8	26.8
6H	25.0	25.5	25.8	26.3	27.3	25.1	25.6	25.9	26.4	27.3
8H	25.2	25.7	26.0	26.5	27.4	25.3	25.8	26.1	26.6	27.5
12H	25.3	25.8	26.1	26.6	27.5	25.4	25.8	26.2	26.6	27.6
X=12H Y=4H	24.4	24.9	25.2	25.7	26.7	24.4	25.0	25.2	25.8	26.7
6H	25.0	25.5	25.9	26.3	27.3	25.1	25.6	25.9	26.4	27.4
8H	25.3	25.7	26.1	26.5	27.5	25.4	25.8	26.2	26.6	27.6

Calculate in accordance with CIE 190:2010 The table is revised with 5417lm ( $8\log(F/F_0) = 5.9$ ).

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:

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

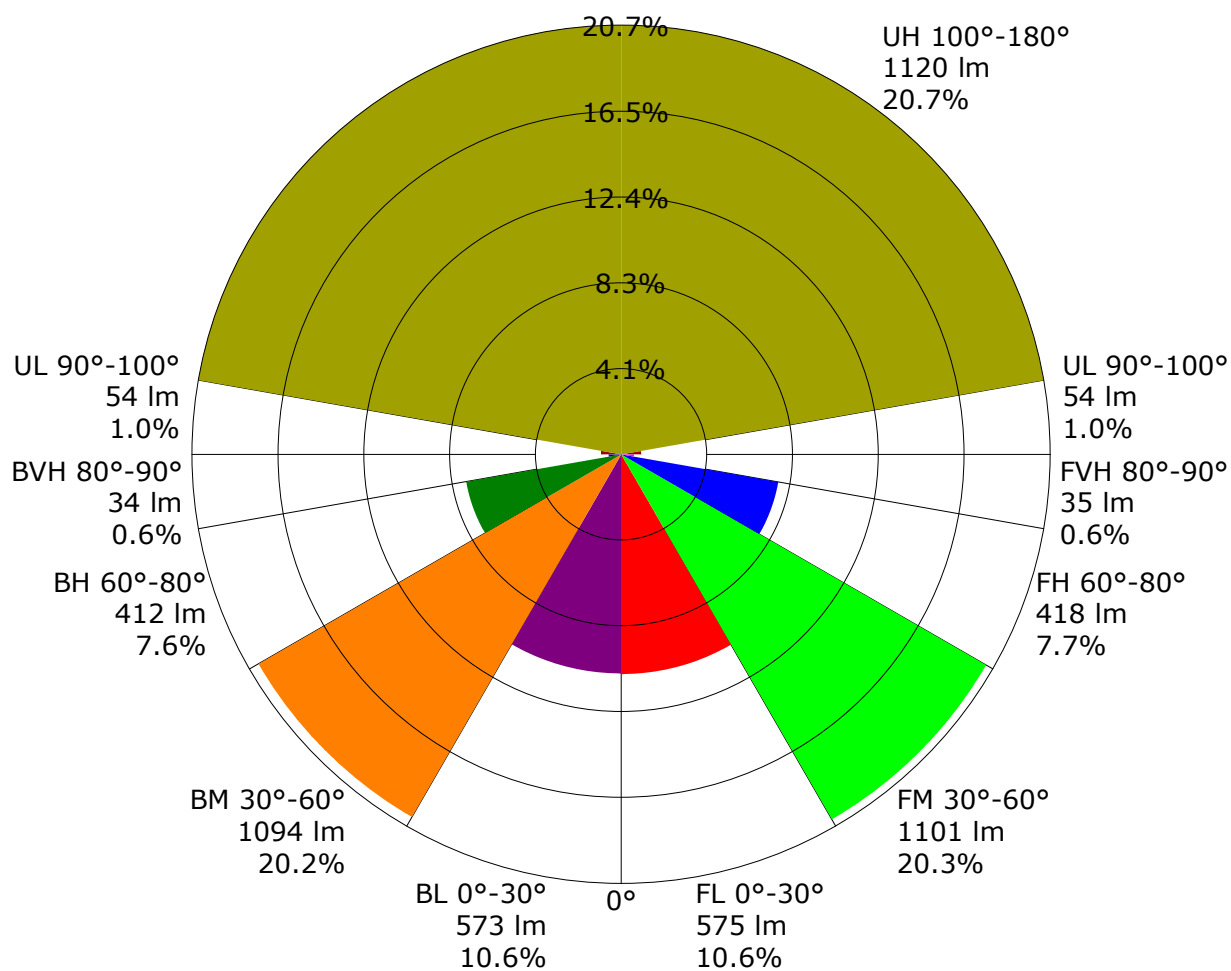
	ZONE	LUMENS	% LAMP LUMENS
	FORWARD LIGHT	2130	39.3
	FL ( 0°-30°)	575	10.6
	FM (30°-60°)	1101	20.3
	FH (60°-80°)	418	7.7
	FVH (80°-90°)	35	0.6
	BACK LIGHT	2113	39.0
	BL ( 0°-30°)	573	10.6
	BM (30°-60°)	1094	20.2
	BH (60°-80°)	412	7.6
	BVH (80°-90°)	34	0.6
	UP LIGHT	1174	21.7
	UL (90°-100°)	54	1.0
	UH (100°-180°)	1120	20.7
	TRAPPED LIGHT	NA	NA

BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B2 U5 G1
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B2 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	0.52	0.61	0.68	0.74	0.81	0.86	0.89	0.93	0.96	
	0.30		0.44	0.54	0.61	0.67	0.75	0.80	0.84	0.89	0.93	
	0.20		0.39	0.48	0.56	0.62	0.70	0.76	0.80	0.86	0.90	
0.50	0.50	0.20	0.48	0.57	0.63	0.68	0.74	0.79	0.82	0.86	0.88	
	0.30		0.42	0.51	0.57	0.62	0.70	0.74	0.78	0.83	0.85	
	0.20		0.37	0.46	0.53	0.58	0.65	0.71	0.75	0.80	0.83	
0.30	0.50	0.20	0.45	0.53	0.59	0.63	0.68	0.72	0.75	0.78	0.81	
	0.30		0.39	0.48	0.54	0.58	0.65	0.69	0.72	0.76	0.79	
	0.20		0.35	0.44	0.50	0.55	0.61	0.66	0.69	0.74	0.77	
0.00	0.00	0.00	0.31	0.39	0.44	0.48	0.54	0.58	0.61	0.65	0.67	
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	0.95	0.79	0.67	0.59	0.47	0.39	0.33	0.26	0.21	
	0.30		0.80	0.68	0.59	0.52	0.42	0.36	0.31	0.24	0.20	
	0.20		0.68	0.59	0.52	0.47	0.39	0.33	0.29	0.23	0.19	
0.50	0.50	0.20	0.88	0.72	0.61	0.53	0.43	0.38	0.30	0.23	0.19	
	0.30		0.74	0.63	0.54	0.48	0.39	0.33	0.28	0.22	0.18	
	0.20		0.64	0.55	0.49	0.43	0.36	0.30	0.26	0.21	0.17	
0.30	0.50	0.20	0.81	0.66	0.56	0.49	0.38	0.32	0.27	0.21	0.17	
	0.30		0.69	0.58	0.50	0.44	0.36	0.30	0.26	0.20	0.16	
	0.20		0.60	0.52	0.45	0.40	0.33	0.28	0.24	0.19	0.16	
0.00	0.00	0.00	0.47	0.40	0.34	0.30	0.24	0.20	0.17	0.13	0.11	
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	0.37	0.38	0.39	0.40	0.41	0.41	0.41	0.42	0.42	
	0.30		0.31	0.32	0.33	0.34	0.36	0.37	0.38	0.39	0.40	
	0.20		0.26	0.27	0.29	0.30	0.32	0.33	0.35	0.36	0.37	
0.50	0.50	0.20	0.36	0.37	0.38	0.38	0.39	0.39	0.40	0.40	0.40	
	0.30		0.30	0.31	0.33	0.33	0.35	0.36	0.37	0.38	0.38	
	0.20		0.26	0.27	0.28	0.30	0.31	0.33	0.34	0.35	0.36	
0.30	0.50	0.20	0.35	0.36	0.36	0.37	0.37	0.38	0.38	0.38	0.39	
	0.30		0.30	0.31	0.32	0.33	0.34	0.35	0.35	0.36	0.37	
	0.20		0.26	0.27	0.28	0.29	0.31	0.32	0.33	0.34	0.35	
0.00	0.00	0.00	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	
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 <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	1479.8	1.4	1.4	0.03	0.03
1.0-2.0	1479.3	4.2	5.7	0.08	0.10
2.0-3.0	1478.1	7.1	12.7	0.13	0.24
3.0-4.0	1476.5	9.9	22.6	0.18	0.42
4.0-5.0	1474.4	12.7	35.3	0.23	0.65
5.0-6.0	1471.7	15.5	50.8	0.29	0.94
6.0-7.0	1468.5	18.2	69.0	0.34	1.27
7.0-8.0	1464.7	21.0	90.0	0.39	1.66
8.0-9.0	1460.4	23.7	113.6	0.44	2.10
9.0-10.0	1455.6	26.3	140.0	0.49	2.58
10.0-11.0	1450.3	29.0	169.0	0.54	3.12
11.0-12.0	1444.5	31.6	200.5	0.58	3.70
12.0-13.0	1438.2	34.1	234.7	0.63	4.33
13.0-14.0	1431.4	36.6	271.3	0.68	5.01
14.0-15.0	1423.9	39.1	310.4	0.72	5.73
15.0-16.0	1416.1	41.5	351.9	0.77	6.50
16.0-17.0	1407.8	43.8	395.8	0.81	7.31
17.0-18.0	1399.0	46.1	441.9	0.85	8.16
18.0-19.0	1389.8	48.4	490.3	0.89	9.05
19.0-20.0	1380.1	50.5	540.8	0.93	9.98
20.0-21.0	1369.8	52.6	593.4	0.97	10.95
21.0-22.0	1359.2	54.6	648.0	1.01	11.96
22.0-23.0	1348.1	56.6	704.6	1.04	13.01
23.0-24.0	1336.5	58.4	763.0	1.08	14.09
24.0-25.0	1324.4	60.2	823.3	1.11	15.20
25.0-26.0	1312.1	61.9	885.2	1.14	16.34
26.0-27.0	1299.3	63.6	948.8	1.17	17.52
27.0-28.0	1285.9	65.1	1013.9	1.20	18.72
28.0-29.0	1272.1	66.6	1080.5	1.23	19.95
29.0-30.0	1258.1	67.9	1148.4	1.25	21.20
30.0-31.0	1243.7	69.2	1217.6	1.28	22.48
31.0-32.0	1228.7	70.4	1288.0	1.30	23.78
32.0-33.0	1213.3	71.5	1359.5	1.32	25.10
33.0-34.0	1197.8	72.5	1432.0	1.34	26.44
34.0-35.0	1181.9	73.4	1505.4	1.36	27.79
35.0-36.0	1165.5	74.2	1579.6	1.37	29.16

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 [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	1148.6	74.9	1654.6	1.38	30.54
37.0-38.0	1131.3	75.5	1730.1	1.39	31.94
38.0-39.0	1114.0	76.1	1806.1	1.40	33.34
39.0-40.0	1096.4	76.5	1882.6	1.41	34.75
40.0-41.0	1078.0	76.8	1959.4	1.42	36.17
41.0-42.0	1059.3	77.0	2036.4	1.42	37.59
42.0-43.0	1040.7	77.1	2113.5	1.42	39.02
43.0-44.0	1021.5	77.1	2190.6	1.42	40.44
44.0-45.0	1002.0	77.0	2267.6	1.42	41.86
45.0-46.0	982.2	76.8	2344.4	1.42	43.28
46.0-47.0	962.1	76.5	2420.9	1.41	44.69
47.0-48.0	941.8	76.1	2497.1	1.41	46.10
48.0-49.0	921.0	75.6	2572.7	1.40	47.49
49.0-50.0	899.9	75.0	2647.8	1.39	48.88
50.0-51.0	878.5	74.3	2722.1	1.37	50.25
51.0-52.0	857.1	73.6	2795.7	1.36	51.61
52.0-53.0	835.3	72.7	2868.3	1.34	52.95
53.0-54.0	812.8	71.6	2940.0	1.32	54.27
54.0-55.0	790.3	70.6	3010.5	1.30	55.58
55.0-56.0	767.7	69.4	3079.9	1.28	56.86
56.0-57.0	744.6	68.1	3148.0	1.26	58.12
57.0-58.0	721.2	66.7	3214.7	1.23	59.35
58.0-59.0	697.8	65.2	3280.0	1.20	60.55
59.0-60.0	674.0	63.7	3343.6	1.18	61.73
60.0-61.0	649.7	62.0	3405.6	1.14	62.87
61.0-62.0	625.4	60.3	3465.9	1.11	63.98
62.0-63.0	601.0	58.5	3524.4	1.08	65.06
63.0-64.0	576.2	56.5	3580.9	1.04	66.11
64.0-65.0	551.1	54.6	3635.5	1.01	67.11
65.0-66.0	525.9	52.5	3687.9	0.97	68.08
66.0-67.0	500.6	50.3	3738.3	0.93	69.01
67.0-68.0	475.4	48.2	3786.5	0.89	69.90
68.0-69.0	449.5	45.9	3832.3	0.85	70.75
69.0-70.0	423.4	43.5	3875.8	0.80	71.55
70.0-71.0	397.9	41.1	3916.9	0.76	72.31
71.0-72.0	371.9	38.7	3955.6	0.71	73.02

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 [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
72.0-73.0	345.8	36.2	3991.8	0.67	73.69
73.0-74.0	320.1	33.7	4025.4	0.62	74.31
74.0-75.0	294.5	31.1	4056.5	0.57	74.89
75.0-76.0	268.9	28.6	4085.1	0.53	75.41
76.0-77.0	243.5	26.0	4111.1	0.48	75.89
77.0-78.0	218.6	23.4	4134.5	0.43	76.33
78.0-79.0	193.9	20.8	4155.3	0.38	76.71
79.0-80.0	169.8	18.3	4173.6	0.34	77.05
80.0-81.0	146.6	15.9	4189.5	0.29	77.34
81.0-82.0	124.2	13.5	4202.9	0.25	77.59
82.0-83.0	102.6	11.2	4214.1	0.21	77.80
83.0-84.0	82.5	9.0	4223.1	0.17	77.96
84.0-85.0	63.8	7.0	4230.1	0.13	78.09
85.0-86.0	46.7	5.1	4235.2	0.09	78.18
86.0-87.0	31.9	3.5	4238.7	0.06	78.25
87.0-88.0	19.5	2.1	4240.8	0.04	78.29
88.0-89.0	9.7	1.1	4241.8	0.02	78.31
89.0-90.0	6.4	0.7	4242.5	0.01	78.32
90.0-91.0	10.3	1.1	4243.7	0.02	78.34
91.0-92.0	17.4	1.9	4245.6	0.04	78.38
92.0-93.0	26.0	2.9	4248.4	0.05	78.43
93.0-94.0	35.0	3.8	4252.3	0.07	78.50
94.0-95.0	44.2	4.8	4257.1	0.09	78.59
95.0-96.0	53.6	5.8	4262.9	0.11	78.70
96.0-97.0	63.0	6.9	4269.8	0.13	78.82
97.0-98.0	72.7	7.9	4277.7	0.15	78.97
98.0-99.0	83.0	9.0	4286.7	0.17	79.14
99.0-100.0	93.4	10.1	4296.8	0.19	79.32
100.0-101.0	104.0	11.2	4308.0	0.21	79.53
101.0-102.0	114.5	12.3	4320.3	0.23	79.76
102.0-103.0	125.0	13.4	4333.7	0.25	80.00
103.0-104.0	135.2	14.4	4348.1	0.27	80.27
104.0-105.0	145.4	15.4	4363.6	0.28	80.56
105.0-106.0	155.3	16.4	4380.0	0.30	80.86
106.0-107.0	164.8	17.3	4397.3	0.32	81.18
107.0-108.0	174.1	18.2	4415.5	0.34	81.51

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	182.9	19.0	4434.5	0.35	81.87
109.0-110.0	191.3	19.8	4454.3	0.37	82.23
110.0-111.0	199.4	20.5	4474.8	0.38	82.61
111.0-112.0	207.5	21.2	4496.0	0.39	83.00
112.0-113.0	215.2	21.8	4517.8	0.40	83.40
113.0-114.0	222.5	22.4	4540.1	0.41	83.82
114.0-115.0	229.4	22.9	4563.0	0.42	84.24
115.0-116.0	235.7	23.3	4586.4	0.43	84.67
116.0-117.0	241.2	23.7	4610.0	0.44	85.11
117.0-118.0	246.0	23.9	4634.0	0.44	85.55
118.0-119.0	249.9	24.1	4658.0	0.44	85.99
119.0-120.0	253.0	24.1	4682.2	0.45	86.44
120.0-121.0	255.2	24.1	4706.3	0.45	86.88
121.0-122.0	256.7	24.0	4730.3	0.44	87.33
122.0-123.0	257.5	23.8	4754.1	0.44	87.77
123.0-124.0	257.7	23.6	4777.7	0.44	88.20
124.0-125.0	257.2	23.2	4800.9	0.43	88.63
125.0-126.0	256.5	22.9	4823.8	0.42	89.05
126.0-127.0	255.6	22.5	4846.4	0.42	89.47
127.0-128.0	254.3	22.1	4868.5	0.41	89.88
128.0-129.0	252.9	21.7	4890.2	0.40	90.28
129.0-130.0	251.3	21.3	4911.5	0.39	90.67
130.0-131.0	249.7	20.8	4932.3	0.38	91.05
131.0-132.0	248.1	20.4	4952.7	0.38	91.43
132.0-133.0	246.4	19.9	4972.6	0.37	91.80
133.0-134.0	244.7	19.5	4992.0	0.36	92.16
134.0-135.0	243.0	19.0	5011.0	0.35	92.51
135.0-136.0	241.4	18.6	5029.6	0.34	92.85
136.0-137.0	239.7	18.1	5047.7	0.33	93.19
137.0-138.0	238.1	17.6	5065.3	0.33	93.51
138.0-139.0	236.5	17.2	5082.5	0.32	93.83
139.0-140.0	235.0	16.7	5099.3	0.31	94.14
140.0-141.0	233.5	16.3	5115.6	0.30	94.44
141.0-142.0	232.0	15.8	5131.4	0.29	94.73
142.0-143.0	230.6	15.4	5146.8	0.28	95.01
143.0-144.0	229.2	14.9	5161.7	0.28	95.29

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	227.8	14.5	5176.2	0.27	95.56
145.0-146.0	226.4	14.1	5190.3	0.26	95.82
146.0-147.0	225.1	13.6	5203.9	0.25	96.07
147.0-148.0	223.7	13.2	5217.1	0.24	96.31
148.0-149.0	222.4	12.7	5229.8	0.24	96.55
149.0-150.0	221.0	12.3	5242.1	0.23	96.77
150.0-151.0	219.7	11.9	5254.0	0.22	96.99
151.0-152.0	218.3	11.4	5265.4	0.21	97.20
152.0-153.0	217.0	11.0	5276.4	0.20	97.41
153.0-154.0	215.6	10.5	5287.0	0.19	97.60
154.0-155.0	214.2	10.1	5297.1	0.19	97.79
155.0-156.0	212.8	9.7	5306.8	0.18	97.97
156.0-157.0	211.4	9.2	5316.0	0.17	98.14
157.0-158.0	210.0	8.8	5324.8	0.16	98.30
158.0-159.0	208.7	8.4	5333.2	0.15	98.46
159.0-160.0	207.3	8.0	5341.2	0.15	98.60
160.0-161.0	206.1	7.5	5348.7	0.14	98.74
161.0-162.0	204.8	7.1	5355.8	0.13	98.87
162.0-163.0	203.6	6.7	5362.5	0.12	99.00
163.0-164.0	202.4	6.3	5368.8	0.12	99.11
164.0-165.0	201.3	5.9	5374.7	0.11	99.22
165.0-166.0	200.2	5.5	5380.2	0.10	99.32
166.0-167.0	199.2	5.1	5385.3	0.09	99.42
167.0-168.0	198.3	4.7	5390.1	0.09	99.51
168.0-169.0	197.4	4.3	5394.4	0.08	99.58
169.0-170.0	196.6	3.9	5398.3	0.07	99.66
170.0-171.0	195.9	3.5	5401.8	0.07	99.72
171.0-172.0	195.2	3.2	5405.0	0.06	99.78
172.0-173.0	194.7	2.8	5407.8	0.05	99.83
173.0-174.0	194.2	2.4	5410.2	0.04	99.88
174.0-175.0	193.7	2.0	5412.2	0.04	99.91
175.0-176.0	193.3	1.7	5413.9	0.03	99.95
176.0-177.0	193.1	1.3	5415.2	0.02	99.97
177.0-178.0	192.8	0.9	5416.1	0.02	99.99
178.0-179.0	192.7	0.6	5416.7	0.01	100.00
179.0-180.0	192.7	0.2	5416.9	0.00	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°): 2267.58 lm

%lum = 41.9%

%lamp = 41.9%

cone flux(120°): 3343.64 lm

%lum = 61.7%

%lamp = 61.7%

## 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	1482.2	1479.8	1480.1	1480.1	1479.2	1478.5	1482.2	1479.8	1480.1	1480.1
G1.0	1482.1	1479.7	1479.8	1480.1	1479.5	1477.8	1481.1	1479.5	1479.5	1480.2
G2.0	1481.9	1478.8	1479.2	1478.9	1479.0	1477.0	1479.7	1478.6	1478.7	1478.9
G3.0	1480.3	1477.5	1478.3	1477.8	1478.0	1475.4	1478.3	1477.3	1476.8	1477.4
G4.0	1478.9	1475.8	1476.4	1475.9	1476.3	1473.3	1475.7	1475.3	1474.8	1475.8
G5.0	1476.8	1473.3	1474.2	1473.7	1473.9	1470.8	1472.7	1472.6	1472.5	1473.3
G6.0	1474.1	1470.1	1471.9	1471.0	1471.5	1467.8	1469.2	1470.1	1469.4	1470.2
G7.0	1470.8	1466.9	1468.3	1467.7	1467.9	1464.2	1465.0	1466.5	1466.0	1466.9
G8.0	1466.8	1463.0	1464.8	1463.5	1464.4	1459.8	1460.0	1462.8	1461.9	1462.8
G9.0	1462.5	1457.8	1460.2	1459.2	1460.4	1455.2	1455.2	1458.3	1456.9	1458.8
G10.0	1457.5	1452.8	1455.5	1454.1	1455.9	1450.2	1449.3	1452.9	1451.8	1453.8
G11.0	1452.0	1447.3	1450.3	1448.9	1450.3	1444.8	1443.0	1447.4	1445.8	1448.2
G12.0	1445.7	1441.5	1444.5	1443.4	1444.2	1438.7	1435.8	1441.5	1439.7	1442.2
G13.0	1439.7	1435.2	1438.6	1436.5	1438.2	1431.5	1429.6	1435.1	1433.3	1435.9
G14.0	1432.5	1427.5	1431.9	1429.8	1431.3	1424.4	1421.2	1427.2	1425.6	1428.9
G15.0	1425.3	1420.2	1423.9	1422.5	1424.2	1416.8	1413.3	1419.5	1417.8	1421.5
G16.0	1416.9	1412.2	1416.3	1414.9	1415.8	1407.8	1404.6	1411.5	1410.1	1413.6
G17.0	1409.5	1403.7	1408.1	1406.8	1407.6	1399.2	1395.1	1402.9	1402.0	1405.2
G18.0	1399.9	1395.2	1399.4	1397.2	1398.9	1389.7	1385.5	1393.0	1392.7	1396.4
G19.0	1390.8	1385.0	1389.7	1387.9	1390.0	1380.4	1375.9	1383.7	1382.8	1387.4
G20.0	1381.1	1374.7	1379.8	1378.6	1380.4	1370.7	1365.4	1373.7	1372.4	1376.8
G21.0	1370.1	1364.7	1370.1	1368.7	1370.0	1359.2	1353.9	1363.3	1362.2	1367.0
G22.0	1359.9	1353.3	1358.4	1356.9	1359.8	1348.0	1342.6	1352.8	1352.0	1356.3
G23.0	1348.7	1342.6	1348.6	1346.3	1348.7	1336.6	1331.0	1340.3	1340.4	1345.4
G24.0	1337.3	1330.5	1336.1	1334.8	1337.2	1324.8	1318.9	1328.6	1328.0	1333.1
G25.0	1324.5	1317.4	1324.6	1323.0	1324.4	1312.5	1306.6	1316.6	1315.8	1321.3
G26.0	1311.9	1305.1	1312.1	1311.0	1312.4	1298.5	1293.7	1304.2	1303.5	1309.3
G27.0	1299.3	1292.3	1299.8	1298.2	1299.7	1285.4	1279.0	1289.8	1290.7	1296.6
G28.0	1286.0	1278.2	1285.6	1284.0	1285.5	1272.4	1265.6	1276.6	1276.3	1283.7
G29.0	1271.1	1264.0	1272.0	1270.6	1271.9	1257.9	1252.0	1262.7	1262.8	1268.9
G30.0	1257.3	1250.1	1258.2	1256.8	1258.4	1243.8	1237.3	1248.4	1248.6	1255.1
G31.0	1242.6	1235.3	1243.9	1242.1	1244.1	1227.8	1221.2	1234.0	1234.5	1241.1
G32.0	1228.6	1219.0	1228.4	1226.1	1228.5	1213.1	1206.2	1219.2	1218.2	1226.4
G33.0	1211.9	1203.9	1213.6	1211.1	1213.4	1197.5	1190.5	1202.8	1203.0	1210.3
G34.0	1196.9	1188.2	1198.6	1195.6	1198.2	1181.5	1174.5	1187.0	1187.4	1194.9
G35.0	1180.8	1172.3	1181.4	1179.9	1182.7	1163.7	1158.0	1171.2	1171.2	1179.3
G36.0	1164.7	1155.7	1165.2	1163.8	1166.5	1147.4	1139.8	1153.2	1155.2	1163.5

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 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	1146.6	1139.1	1148.7	1146.3	1148.7	1130.5	1123.0	1136.6	1136.8	1145.6
G38.0	1129.4	1120.3	1131.8	1128.9	1131.7	1113.2	1105.6	1119.7	1120.2	1129.1
G39.0	1112.0	1103.3	1113.3	1112.2	1114.6	1096.3	1088.1	1102.3	1102.8	1111.6
G40.0	1094.6	1085.2	1095.3	1094.6	1097.2	1076.3	1068.4	1084.7	1085.1	1094.1
G41.0	1075.0	1067.0	1077.8	1074.8	1077.8	1057.8	1050.6	1064.9	1065.8	1074.9
G42.0	1056.4	1046.9	1059.4	1056.5	1059.5	1039.5	1032.2	1046.9	1047.7	1057.0
G43.0	1038.1	1028.1	1041.3	1038.0	1041.4	1020.8	1011.2	1028.1	1029.2	1038.5
G44.0	1019.2	1009.1	1020.9	1019.1	1020.8	1001.4	991.9	1007.3	1010.5	1019.9
G45.0	998.3	989.4	1002.2	999.8	1001.9	979.8	972.4	988.1	991.1	1001.2
G46.0	978.6	969.7	982.6	980.0	982.7	960.1	952.4	968.7	969.5	979.8
G47.0	959.0	949.8	960.9	958.4	963.0	939.9	932.1	949.1	949.7	960.3
G48.0	938.7	927.1	940.9	938.6	941.1	919.6	910.1	929.1	929.9	940.7
G49.0	916.3	906.8	921.0	918.4	920.9	899.7	888.9	906.7	909.4	918.4
G50.0	895.1	885.8	899.7	897.3	900.0	876.1	868.3	885.9	887.2	898.2
G51.0	874.3	862.9	876.9	874.8	879.3	855.5	846.8	864.9	866.1	877.5
G52.0	852.6	841.3	855.5	853.3	857.8	834.0	825.4	843.5	844.6	856.3
G53.0	831.0	819.7	833.8	831.8	836.2	812.0	802.3	819.9	821.9	834.9
G54.0	807.1	798.1	812.2	808.1	812.6	787.9	779.5	798.2	799.3	811.2
G55.0	785.0	775.2	790.4	785.4	790.7	765.0	758.1	775.8	778.0	789.1
G56.0	762.6	750.5	765.7	763.0	768.3	742.5	732.2	754.0	755.6	767.5
G57.0	737.9	727.9	743.2	740.9	743.8	719.9	709.4	729.1	732.9	745.2
G58.0	714.7	704.3	720.3	717.1	720.8	693.8	686.7	706.2	707.9	720.3
G59.0	691.9	680.9	697.7	694.1	698.2	670.5	662.8	683.3	684.6	697.6
G60.0	668.2	657.1	671.8	668.1	672.5	646.7	637.4	658.0	661.6	674.6
G61.0	642.3	630.7	648.2	644.5	648.8	622.7	613.3	634.2	638.1	648.8
G62.0	618.1	606.9	624.1	620.6	624.7	598.7	589.3	610.6	614.0	625.1
G63.0	594.2	582.8	597.9	596.9	600.9	572.4	565.2	586.5	587.8	601.3
G64.0	569.6	555.5	573.4	569.7	574.0	547.8	540.7	562.1	563.6	577.2
G65.0	544.8	531.2	548.8	545.0	549.4	523.1	514.3	535.6	539.7	552.9
G66.0	517.7	506.1	524.3	520.0	524.8	497.9	489.6	510.9	512.8	526.0
G67.0	493.1	480.9	496.9	494.9	500.1	472.8	464.7	486.2	488.1	501.2
G68.0	468.0	455.6	472.0	469.8	472.7	445.2	439.5	461.4	462.9	476.7
G69.0	440.4	430.1	447.0	442.0	447.5	419.6	412.1	434.2	437.6	449.2
G70.0	415.3	402.1	421.6	416.8	422.4	394.3	386.9	409.0	410.2	424.6
G71.0	390.0	377.0	393.7	391.2	396.9	368.7	362.0	384.0	385.2	399.8
G72.0	362.9	351.9	368.9	363.8	369.9	341.6	335.1	357.0	360.6	372.7
G73.0	336.8	325.6	342.6	339.9	343.7	315.4	309.0	330.9	334.3	346.4

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	310.8	299.6	316.6	313.8	317.3	289.6	286.1	305.4	308.6	321.0
G75.0	286.0	275.0	289.1	286.8	292.3	265.2	259.6	280.8	281.8	296.3
G76.0	260.1	248.6	262.9	262.3	266.2	241.3	234.5	254.9	258.3	270.1
G77.0	235.1	223.9	237.5	235.2	238.7	214.5	211.1	230.2	231.9	245.2
G78.0	210.0	198.9	212.0	211.6	215.0	191.8	186.5	205.1	208.2	219.2
G79.0	184.6	175.3	187.9	187.1	189.1	167.9	163.5	179.7	182.6	192.9
G80.0	161.2	151.3	163.8	162.6	164.7	144.6	140.4	156.1	160.1	170.2
G81.0	139.1	129.2	139.3	139.8	141.9	123.1	119.2	134.3	136.2	145.7
G82.0	116.6	107.7	117.6	117.3	118.5	101.8	99.2	111.9	114.5	122.0
G83.0	96.4	87.4	95.4	95.9	96.3	81.9	78.2	90.8	93.5	100.9
G84.0	76.5	68.9	75.0	75.9	77.2	62.6	61.0	72.4	74.6	80.0
G85.0	58.6	52.0	57.0	56.7	58.0	46.5	45.1	53.8	56.1	60.3
G86.0	41.5	36.1	40.6	40.5	41.4	31.5	30.3	38.4	40.0	43.2
G87.0	27.6	23.0	26.2	25.9	27.1	19.4	18.5	24.8	26.2	28.3
G88.0	15.9	12.5	14.6	14.5	15.5	9.6	8.8	13.6	14.9	15.8
G89.0	6.4	4.6	6.3	6.1	6.3	2.2	2.2	4.8	6.7	6.7
G90.0	0.8	0.7	0.5	0.6	16.6	14.1	11.1	20.6	18.2	1.0
G91.0	2.1	3.5	5.3	2.1	28.5	22.9	17.3	30.6	31.7	2.1
G92.0	5.9	11.4	16.7	3.2	40.2	32.0	24.2	41.7	44.5	3.3
G93.0	11.7	22.0	29.0	4.5	51.4	41.6	31.5	53.7	56.2	4.7
G94.0	18.3	33.4	40.9	5.9	60.4	52.2	39.7	66.6	65.7	6.1
G95.0	25.5	45.8	52.0	7.5	69.8	64.0	48.8	81.1	72.9	7.8
G96.0	33.5	58.5	60.1	9.2	78.4	77.0	59.8	96.8	79.3	9.6
G97.0	42.2	72.2	66.7	11.1	86.1	91.7	71.4	112.9	85.9	11.6
G98.0	52.4	88.4	73.1	13.2	94.0	107.4	85.1	129.2	92.1	13.7
G99.0	64.4	105.6	78.8	15.2	102.4	122.4	99.2	144.7	98.6	16.0
G100.0	77.6	121.3	85.0	17.4	111.0	138.0	114.8	159.7	104.9	18.3
G101.0	93.2	137.6	91.1	19.6	118.5	153.3	130.2	173.2	110.7	20.6
G102.0	109.2	153.3	96.7	21.8	126.8	168.1	145.0	188.4	116.2	23.1
G103.0	126.3	166.9	102.0	24.1	134.7	183.9	161.6	201.5	121.4	25.6
G104.0	143.2	182.0	107.2	26.4	141.7	198.2	178.5	214.6	126.2	28.0
G105.0	159.9	196.1	112.1	28.8	149.4	212.3	196.4	227.6	130.5	30.6
G106.0	176.6	208.9	116.4	31.4	154.4	226.1	215.3	240.7	134.1	33.2
G107.0	194.4	221.8	120.4	33.8	161.4	239.2	232.5	252.8	137.4	35.8
G108.0	213.3	234.4	124.1	36.4	165.4	252.3	249.7	264.1	140.2	38.6
G109.0	230.6	247.2	127.3	38.8	170.4	262.6	265.1	277.0	142.5	41.1
G110.0	248.2	259.1	130.0	41.3	174.4	272.6	281.7	289.1	144.2	44.1

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	267.0	270.7	132.3	44.1	176.4	284.2	296.5	301.1	145.5	46.8
G112.0	283.7	282.4	134.2	46.8	179.2	298.4	311.1	314.2	146.4	49.6
G113.0	299.5	294.7	135.8	49.4	180.3	312.1	326.5	325.6	146.9	52.4
G114.0	315.2	305.7	137.2	52.4	180.2	325.8	340.5	336.0	147.1	55.5
G115.0	331.3	315.6	138.3	55.1	180.9	338.0	353.7	345.5	147.2	58.4
G116.0	344.0	325.7	139.2	57.9	180.9	348.3	366.2	354.1	147.2	61.2
G117.0	357.9	333.5	140.0	60.7	179.7	356.6	378.7	360.3	147.1	64.0
G118.0	369.4	340.0	140.8	63.9	178.6	363.5	388.7	364.8	147.0	67.2
G119.0	379.5	344.9	141.5	66.7	178.1	367.9	397.2	367.6	146.8	70.2
G120.0	388.4	348.5	142.2	69.5	177.7	371.1	404.0	368.8	146.8	73.1
G121.0	395.0	350.5	143.0	72.4	176.2	371.8	409.7	368.3	147.0	75.9
G122.0	399.7	351.0	143.8	75.3	175.4	371.8	412.9	366.6	147.3	79.2
G123.0	402.8	350.4	144.7	78.4	175.6	371.7	414.7	363.8	147.7	82.0
G124.0	404.2	348.7	145.7	81.2	175.1	368.0	414.9	359.9	148.3	84.9
G125.0	404.0	346.3	146.7	84.1	174.7	364.0	413.7	355.7	149.0	87.8
G126.0	402.8	343.4	147.8	87.2	174.5	362.1	411.4	351.2	149.8	90.9
G127.0	400.6	339.7	149.1	90.0	174.4	358.9	408.4	346.3	150.7	93.7
G128.0	397.6	335.7	150.4	93.0	174.4	354.4	404.8	341.0	151.7	96.4
G129.0	394.1	331.7	151.7	95.7	174.5	349.8	400.2	336.1	152.7	99.2
G130.0	389.7	327.6	153.0	98.9	174.8	344.7	395.5	331.1	153.9	102.1
G131.0	385.6	323.3	154.4	101.7	175.0	340.0	390.6	326.2	155.1	105.1
G132.0	381.1	319.2	155.8	104.5	175.4	335.2	385.5	321.3	156.4	107.9
G133.0	376.1	314.6	157.2	107.3	175.9	330.5	379.7	316.1	157.7	110.5
G134.0	371.2	310.4	158.6	110.4	176.4	325.3	374.4	311.2	159.2	113.3
G135.0	366.2	306.3	160.0	113.1	177.0	320.6	368.8	306.7	160.5	116.3
G136.0	361.2	302.1	161.5	115.8	177.6	316.3	363.1	302.4	161.8	118.9
G137.0	356.1	298.3	162.8	118.9	178.3	311.3	357.0	297.8	163.2	121.6
G138.0	350.4	294.7	164.2	121.6	179.0	306.9	351.3	293.3	164.7	124.2
G139.0	345.1	291.0	165.5	124.3	179.6	302.6	345.7	289.2	166.0	127.0
G140.0	339.9	287.1	167.0	127.0	180.4	298.3	340.1	284.8	167.4	129.5
G141.0	334.7	283.7	168.2	129.7	181.1	294.1	334.0	280.8	168.7	132.1
G142.0	329.5	280.5	169.6	132.4	181.9	289.6	328.5	276.8	170.0	134.6
G143.0	324.2	277.2	170.9	135.4	182.6	285.4	323.1	273.1	171.3	137.4
G144.0	319.3	273.8	172.2	137.9	183.3	281.4	317.6	269.2	172.5	139.9
G145.0	314.6	270.6	173.4	140.5	183.9	277.4	311.8	265.3	173.7	142.3
G146.0	310.0	267.5	174.8	143.1	184.7	273.4	306.5	261.6	174.8	144.8
G147.0	304.9	264.4	176.0	145.9	185.2	269.2	301.4	258.3	176.0	147.3

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	300.3	261.3	177.3	148.3	185.9	265.2	296.2	254.5	177.0	149.9
G149.0	295.9	257.9	178.4	150.6	186.4	261.5	291.0	251.2	178.0	152.2
G150.0	291.3	254.8	179.6	153.2	186.9	257.4	285.4	247.8	178.9	154.5
G151.0	286.8	251.4	180.7	155.6	187.4	253.7	280.2	244.6	180.0	156.7
G152.0	281.8	248.1	181.7	157.8	187.9	250.0	275.2	241.6	180.9	158.9
G153.0	277.1	244.6	182.7	160.1	188.3	246.5	270.2	238.5	181.7	161.3
G154.0	272.6	241.3	183.7	162.2	188.6	243.1	264.8	235.3	182.5	163.4
G155.0	267.8	238.1	184.7	164.3	189.0	239.7	260.1	232.6	183.2	165.4
G156.0	262.5	235.0	185.5	166.5	189.3	236.1	255.3	229.6	183.9	167.4
G157.0	257.6	231.5	186.3	168.4	189.6	233.0	250.8	227.3	184.6	169.3
G158.0	252.9	228.4	187.1	170.3	189.8	229.8	246.4	224.5	185.2	171.1
G159.0	248.1	225.6	187.8	172.4	190.0	226.6	241.7	222.0	185.7	173.0
G160.0	243.4	222.5	188.5	174.1	190.1	223.6	237.5	219.3	186.2	174.7
G161.0	238.8	219.7	189.1	175.8	190.3	220.8	233.5	217.1	186.7	176.4
G162.0	234.0	217.1	189.7	177.5	190.4	217.9	229.6	214.6	187.2	177.9
G163.0	229.8	214.6	190.2	179.1	190.5	215.2	225.6	212.2	187.6	179.5
G164.0	225.8	212.3	190.7	180.5	190.6	212.6	222.0	210.1	187.9	180.9
G165.0	221.8	210.0	191.1	181.9	190.7	210.1	218.5	208.0	188.4	182.3
G166.0	218.0	207.9	191.5	183.2	190.8	207.8	215.2	205.8	188.9	183.7
G167.0	214.8	206.1	191.8	184.4	190.8	205.6	212.1	203.8	189.3	184.9
G168.0	211.7	204.3	192.0	185.7	190.9	203.3	208.8	202.0	189.6	186.0
G169.0	208.7	202.6	192.3	186.8	190.9	201.5	206.1	200.3	189.9	187.1
G170.0	206.4	201.1	192.6	187.7	191.0	199.7	203.6	198.9	190.2	188.1
G171.0	203.8	199.7	192.7	188.6	191.1	198.2	201.4	197.5	190.5	189.0
G172.0	201.8	198.6	192.9	189.5	191.2	196.6	199.4	196.2	190.8	189.8
G173.0	200.0	197.5	193.0	190.2	191.3	195.4	197.4	195.2	191.1	190.4
G174.0	198.5	196.4	193.0	190.8	191.4	194.4	195.9	194.2	191.4	191.0
G175.0	197.0	195.6	193.0	191.4	191.6	193.5	194.7	193.5	191.7	191.5
G176.0	195.8	194.8	193.1	191.8	191.7	192.8	193.7	193.0	192.0	191.9
G177.0	194.7	194.1	193.1	192.2	192.0	192.3	192.9	192.6	192.3	192.2
G178.0	193.8	193.5	192.9	192.4	192.3	192.2	192.7	192.5	192.5	192.4
G179.0	193.1	193.0	192.9	192.6	192.5	192.4	192.8	192.7	192.6	192.6
G180.0	192.8	192.8	192.7	192.6	192.6	192.4	192.8	192.8	192.7	192.6

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	1479.2	1478.5	1482.2							
G1.0	1478.9	1478.1	1482.1							
G2.0	1478.0	1477.1	1481.9							
G3.0	1476.0	1476.3	1480.3							
G4.0	1473.9	1474.5	1478.9							
G5.0	1471.7	1472.4	1476.8							
G6.0	1468.2	1469.7	1474.1							
G7.0	1464.7	1465.7	1470.8							
G8.0	1460.8	1461.9	1466.8							
G9.0	1456.0	1457.6	1462.5							
G10.0	1450.8	1452.7	1457.5							
G11.0	1445.0	1446.8	1452.0							
G12.0	1439.0	1440.9	1445.7							
G13.0	1432.4	1434.7	1439.7							
G14.0	1424.9	1427.7	1432.5							
G15.0	1417.1	1419.6	1425.3							
G16.0	1408.9	1411.9	1416.9							
G17.0	1399.8	1403.5	1409.5							
G18.0	1390.6	1394.8	1399.9							
G19.0	1381.6	1385.6	1390.8							
G20.0	1371.5	1375.7	1381.1							
G21.0	1361.3	1364.6	1370.1							
G22.0	1350.6	1354.2	1359.9							
G23.0	1337.9	1343.1	1348.7							
G24.0	1326.6	1330.6	1337.3							
G25.0	1314.6	1318.9	1324.5							
G26.0	1302.0	1306.4	1311.9							
G27.0	1288.9	1293.5	1299.3							
G28.0	1275.0	1280.4	1286.0							
G29.0	1261.3	1267.1	1271.1							
G30.0	1247.0	1251.8	1257.3							
G31.0	1231.6	1237.3	1242.6							
G32.0	1216.6	1222.5	1228.6							
G33.0	1201.4	1207.7	1211.9							
G34.0	1185.8	1190.8	1196.9							
G35.0	1169.7	1175.0	1180.8							
G36.0	1153.7	1159.0	1164.7							

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 6)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G37.0	1135.5	1142.5	1146.6							
G38.0	1118.4	1124.0	1129.4							
G39.0	1101.3	1106.7	1112.0							
G40.0	1083.8	1089.1	1094.6							
G41.0	1064.4	1071.5	1075.0							
G42.0	1046.1	1053.3	1056.4							
G43.0	1027.7	1032.9	1038.1							
G44.0	1006.9	1014.4	1019.2							
G45.0	987.6	995.4	998.3							
G46.0	968.1	973.7	978.6							
G47.0	948.2	954.2	959.0							
G48.0	928.3	934.3	938.7							
G49.0	905.8	914.1	916.3							
G50.0	885.6	891.4	895.1							
G51.0	864.4	870.4	874.3							
G52.0	843.1	849.1	852.6							
G53.0	820.2	827.5	831.0							
G54.0	797.8	803.9	807.1							
G55.0	776.4	781.6	785.0							
G56.0	753.7	759.4	762.6							
G57.0	729.0	737.2	737.9							
G58.0	706.2	714.2	714.7							
G59.0	683.0	689.2	691.9							
G60.0	660.0	666.0	668.2							
G61.0	636.3	642.3	642.3							
G62.0	610.1	616.5	618.1							
G63.0	586.3	592.7	594.2							
G64.0	561.7	568.1	569.6							
G65.0	535.4	543.6	544.8							
G66.0	510.6	516.8	517.7							
G67.0	486.4	492.0	493.1							
G68.0	461.1	467.2	468.0							
G69.0	433.2	442.7	440.4							
G70.0	408.5	415.1	415.3							
G71.0	383.4	389.9	390.0							
G72.0	356.5	363.1	362.9							
G73.0	332.6	337.3	336.8							

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 7)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G74.0	306.8	311.6	310.8							
G75.0	280.0	286.8	286.0							
G76.0	254.4	261.0	260.1							
G77.0	230.3	236.3	235.1							
G78.0	206.5	211.0	210.0							
G79.0	180.8	187.3	184.6							
G80.0	158.3	163.4	161.2							
G81.0	134.5	140.1	139.1							
G82.0	112.7	117.5	116.6							
G83.0	91.9	97.4	96.4							
G84.0	71.7	77.4	76.5							
G85.0	54.6	58.6	58.6							
G86.0	38.3	42.6	41.5							
G87.0	25.2	28.3	27.6							
G88.0	14.3	16.4	15.9							
G89.0	6.3	7.2	6.4							
G90.0	1.2	1.2	0.8							
G91.0	9.1	4.4	2.1							
G92.0	23.9	11.4	5.9							
G93.0	39.6	20.8	11.7							
G94.0	54.5	30.8	18.3							
G95.0	69.7	42.0	25.5							
G96.0	82.4	54.2	33.5							
G97.0	93.1	67.4	42.2							
G98.0	102.2	82.4	52.4							
G99.0	110.6	99.8	64.4							
G100.0	119.7	116.7	77.6							
G101.0	128.6	134.5	93.2							
G102.0	137.3	151.4	109.2							
G103.0	146.1	167.9	126.3							
G104.0	154.2	183.4	143.2							
G105.0	162.1	199.4	159.9							
G106.0	169.6	214.5	176.6							
G107.0	175.9	229.4	194.4							
G108.0	181.6	244.1	213.3							
G109.0	186.0	257.3	230.6							
G110.0	190.0	270.4	248.2							

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	192.8	284.3	267.0							
G112.0	194.7	296.8	283.7							
G113.0	196.0	309.0	299.5							
G114.0	196.6	320.6	315.2							
G115.0	196.7	332.7	331.3							
G116.0	196.2	342.4	344.0							
G117.0	195.5	351.3	357.9							
G118.0	194.4	359.5	369.4							
G119.0	193.3	365.4	379.5							
G120.0	192.1	369.6	388.4							
G121.0	190.9	372.4	395.0							
G122.0	189.7	373.7	399.7							
G123.0	188.7	373.5	402.8							
G124.0	187.9	372.1	404.2							
G125.0	187.1	369.7	404.0							
G126.0	186.5	366.6	402.8							
G127.0	186.0	362.6	400.6							
G128.0	185.7	358.6	397.6							
G129.0	185.5	354.2	394.1							
G130.0	185.4	349.5	389.7							
G131.0	185.3	344.4	385.6							
G132.0	185.4	339.5	381.1							
G133.0	185.5	334.7	376.1							
G134.0	185.7	329.9	371.2							
G135.0	185.9	324.5	366.2							
G136.0	186.2	319.9	361.2							
G137.0	186.5	315.2	356.1							
G138.0	186.8	310.8	350.4							
G139.0	187.0	306.1	345.1							
G140.0	187.3	302.0	339.9							
G141.0	187.7	297.9	334.7							
G142.0	188.0	293.9	329.5							
G143.0	188.3	289.7	324.2							
G144.0	188.6	286.0	319.3							
G145.0	188.8	282.4	314.6							
G146.0	189.1	278.6	310.0							
G147.0	189.4	274.9	304.9							

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	189.7	271.1	300.3							
G149.0	190.1	267.5	295.9							
G150.0	190.5	263.9	291.3							
G151.0	190.8	260.3	286.8							
G152.0	191.2	256.6	281.8							
G153.0	191.5	252.7	277.1							
G154.0	191.7	249.0	272.6							
G155.0	192.0	245.3	267.8							
G156.0	192.3	241.4	262.5							
G157.0	192.5	237.5	257.6							
G158.0	192.7	233.9	252.9							
G159.0	193.0	230.5	248.1							
G160.0	193.1	227.2	243.4							
G161.0	193.3	224.0	238.8							
G162.0	193.5	220.5	234.0							
G163.0	193.7	217.6	229.8							
G164.0	193.8	214.9	225.8							
G165.0	193.9	212.3	221.8							
G166.0	194.0	209.7	218.0							
G167.0	194.0	207.5	214.8							
G168.0	194.0	205.5	211.7							
G169.0	194.0	203.7	208.7							
G170.0	194.0	201.8	206.4							
G171.0	193.9	200.2	203.8							
G172.0	193.8	199.0	201.8							
G173.0	193.6	197.7	200.0							
G174.0	193.5	196.5	198.5							
G175.0	193.3	195.4	197.0							
G176.0	193.1	194.6	195.8							
G177.0	192.9	193.8	194.7							
G178.0	192.8	193.1	193.8							
G179.0	192.6	192.6	193.1							
G180.0	192.6	192.4	192.8							

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	16573.83
L 0-180(75) av	13943.70
L 0-180(85) av	7866.02
L 90-270(65) av	17180.91
L 90-270(75) av	14899.89
L 90-270(85) av	8881.05
L 45(65) av	16850.16
L 45(75) av	14380.85
L 45(85) av	8283.39

Standard: GB/T 29293-2012