

Report No.:

Test Time: 2024/10/17

Luminaire Property

Luminaire Manufacturer: MESTER

Luminaire Category:

Luminaire Description: MALL012F20W27V40K-Down-100%

Lamp Catalog:

Number of Lamps: 1

Luminous Length (mm): 600

Luminous Height (mm):

Current: 0.168 A

Power Factor: 0.996

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 63

Voltage: 120.2 V

Power: 20.11 W

Photometric Results

CIE Class: Direct

Measurement Flux: 2611.2 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(10%,50%,75%,100%): H93.8,H65.3,H44.9,H0

Vertical Diffuse Angle(10%,50%,75%,100%): V84.5,V62.8,V47.5,V0

Luminous Efficacy (lm/w): 129.85

Max. Intensity: 2398.11 cd

S/MH(C0/C180): 0.95

Total Rated Lamp Lumens: 2611.2 lm

Efficiency: 100%

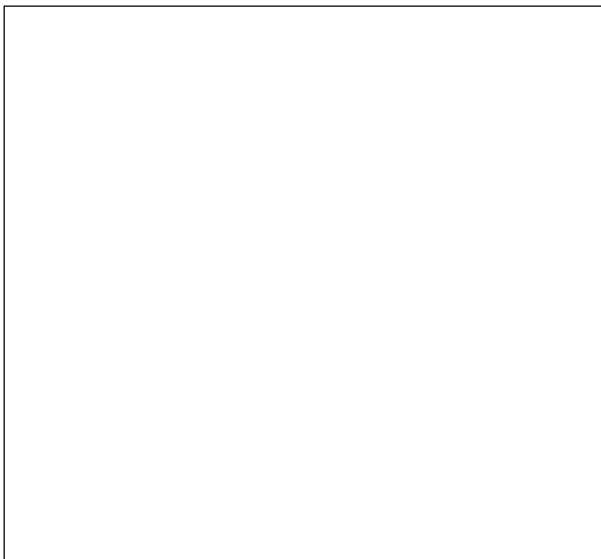
Upward Ratio: 0%

C0r0 Intensity: 2397.53 cd

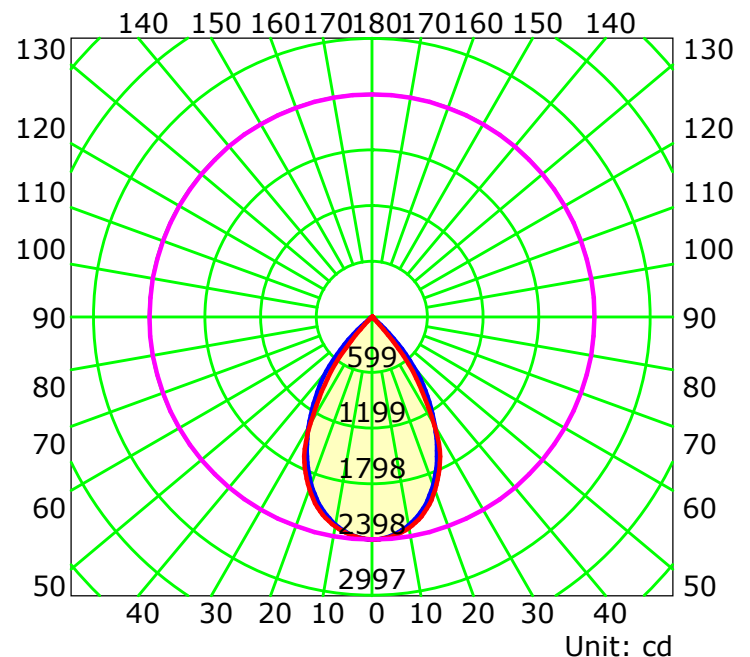
Pos of Max. Intensity: H30 V0

S/MH(C90/C270): 0.98

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 64.0°

— C0-C180 — C90-C270 — G0

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 (°):0.0-90.0:1.0

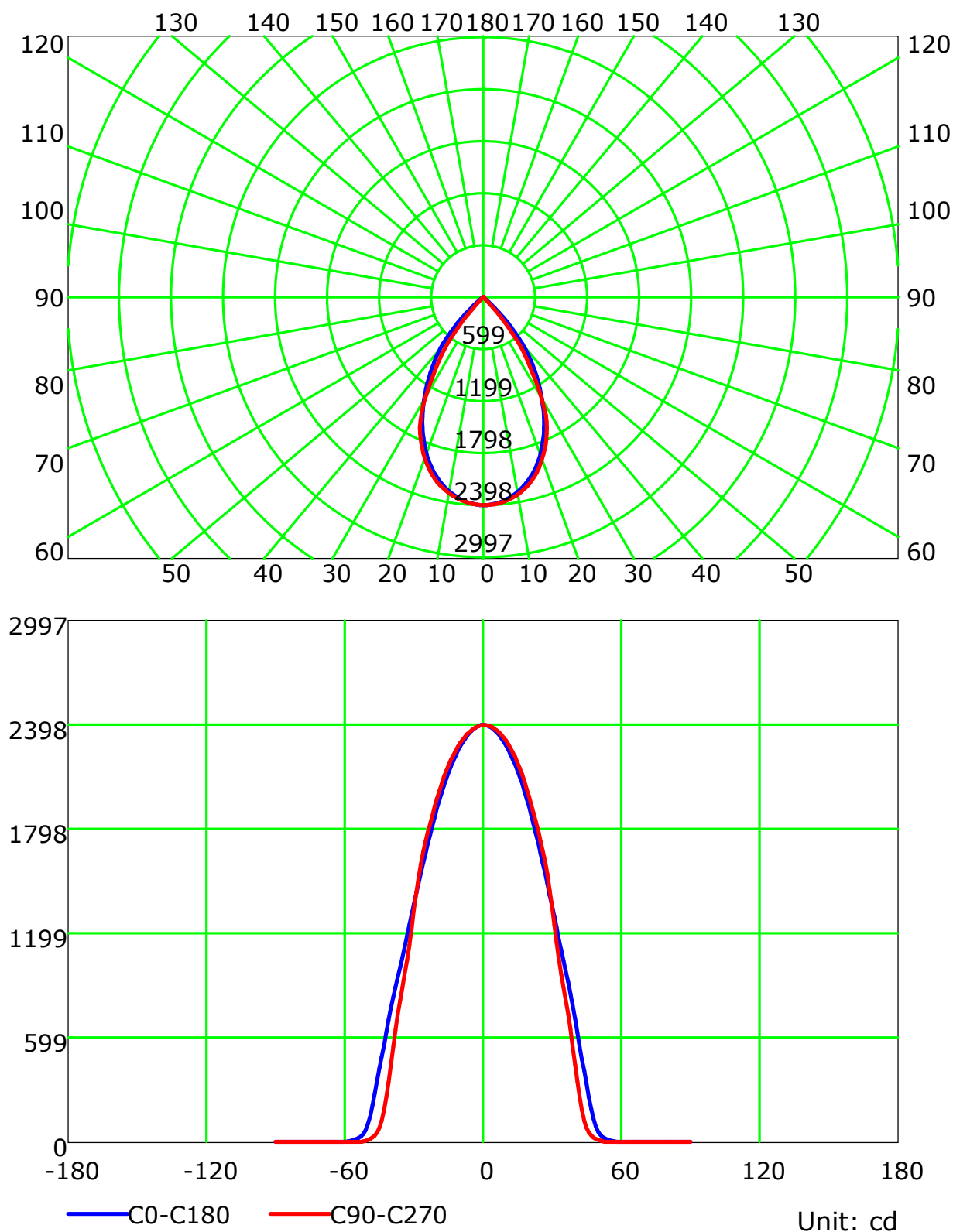
Test Device: GPM-1800B

Distance: 11.655 m [K=1.0000]

Humidity: 45% R.H

Inspector:

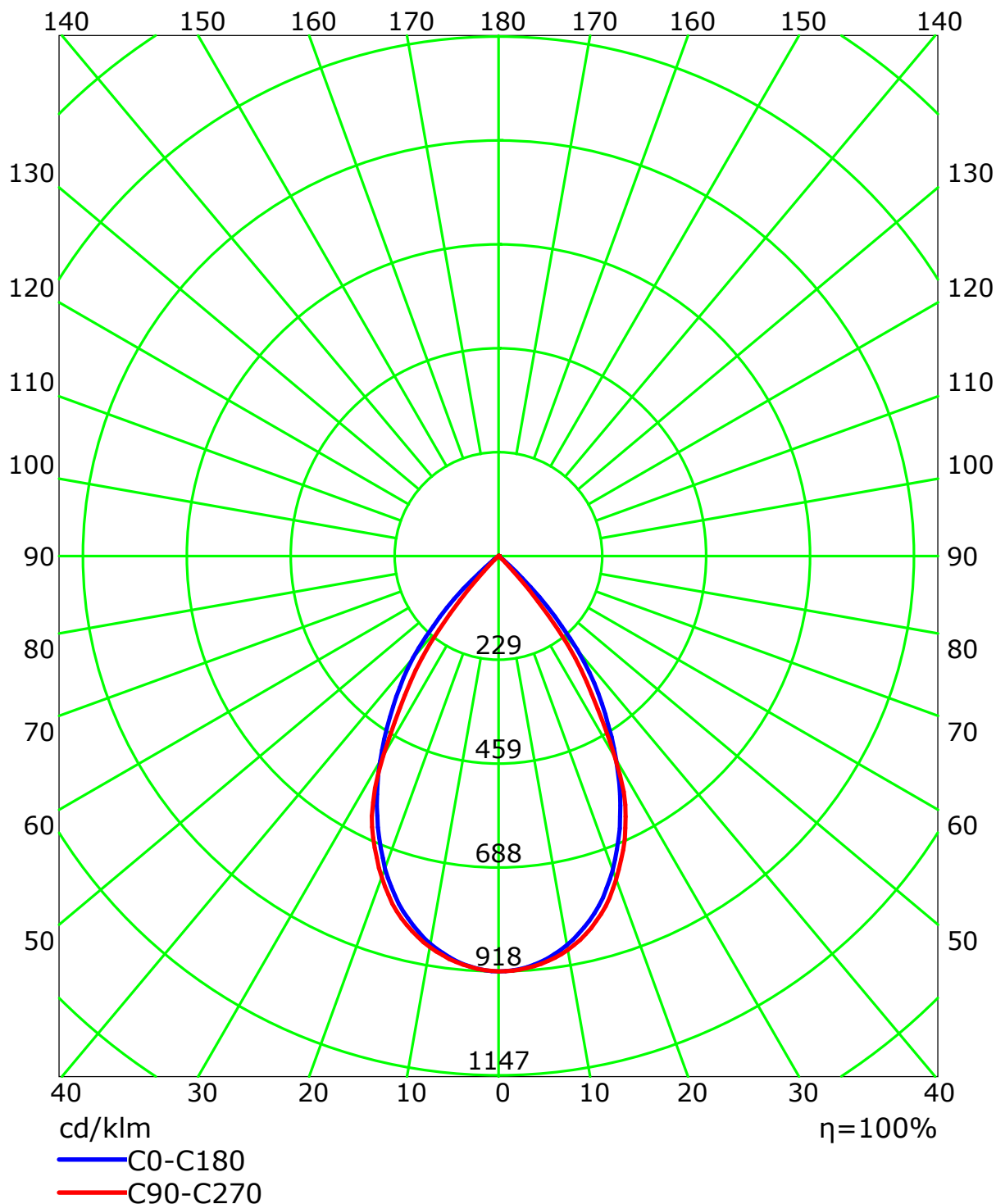
Luminous Intensity Distribution Curve



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

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

Luminous Intensity Distribution Curve(cd/klm)



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

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

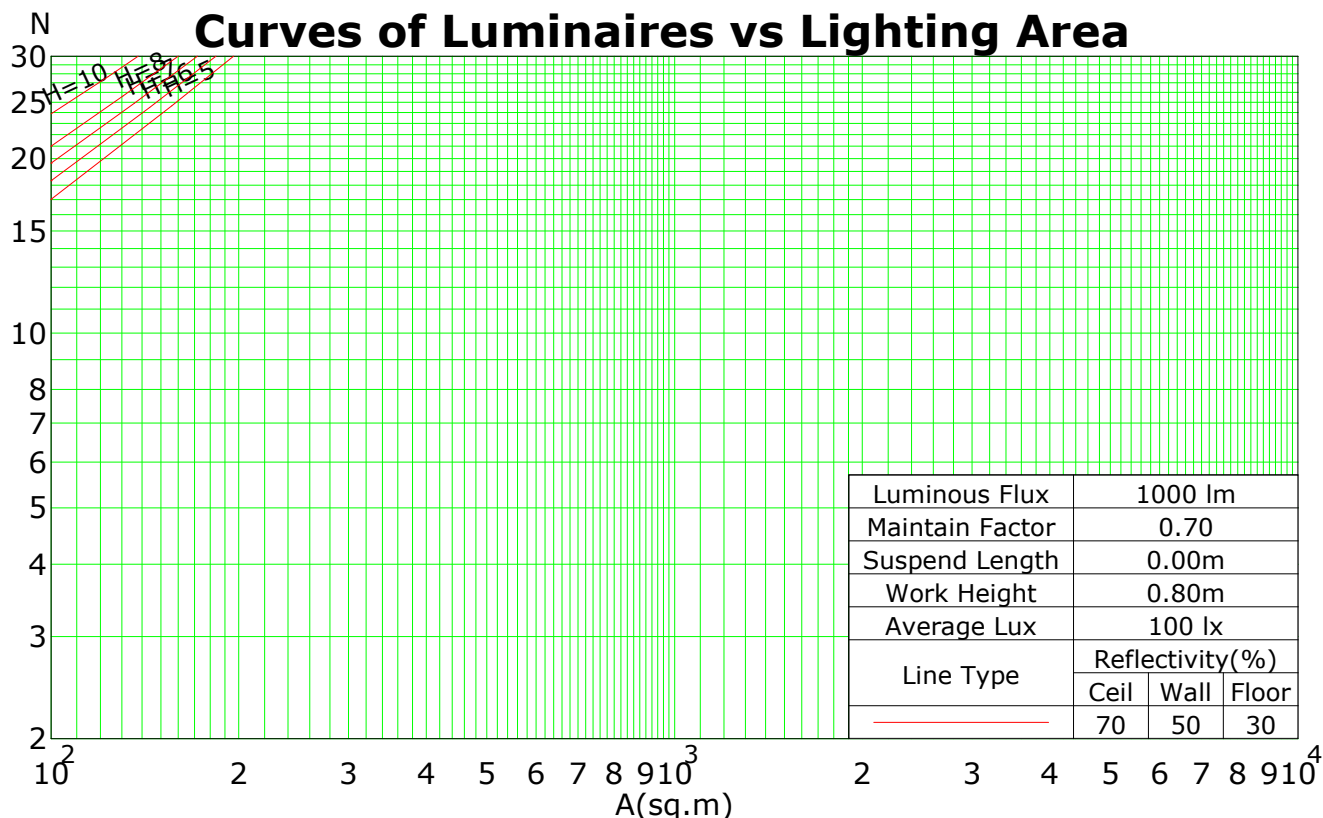
Coefficients Of Utilization - Zonal Cavity Method

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	1.13	1.10	1.08	1.06	1.11	1.08	1.06	1.04	1.04	1.02	1.01	1.00	0.99	0.98	0.97	0.96	0.95	0.93
2	1.07	1.02	0.98	0.95	1.05	1.01	0.97	0.94	0.97	0.94	0.92	0.94	0.92	0.90	0.92	0.90	0.88	0.86
3	1.02	0.95	0.90	0.86	1.00	0.94	0.89	0.85	0.91	0.87	0.84	0.88	0.85	0.82	0.86	0.83	0.81	0.79
4	0.96	0.88	0.82	0.78	0.94	0.87	0.82	0.78	0.85	0.80	0.77	0.83	0.79	0.76	0.81	0.78	0.75	0.73
5	0.91	0.82	0.76	0.71	0.89	0.81	0.75	0.71	0.79	0.74	0.70	0.78	0.73	0.70	0.76	0.72	0.69	0.68
6	0.86	0.77	0.70	0.66	0.84	0.76	0.70	0.66	0.74	0.69	0.65	0.73	0.68	0.65	0.71	0.67	0.64	0.63
7	0.81	0.72	0.65	0.61	0.80	0.71	0.65	0.61	0.70	0.64	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.58
8	0.77	0.67	0.61	0.56	0.76	0.66	0.60	0.56	0.65	0.60	0.56	0.64	0.59	0.56	0.63	0.59	0.55	0.54
9	0.73	0.63	0.57	0.52	0.72	0.62	0.56	0.52	0.61	0.56	0.52	0.60	0.55	0.52	0.60	0.55	0.52	0.50
10	0.69	0.59	0.53	0.49	0.68	0.59	0.53	0.49	0.58	0.52	0.49	0.57	0.52	0.49	0.56	0.52	0.48	0.47

Spacing Criteria (0-180): 0.95

Spacing Criteria (90-270): 0.98

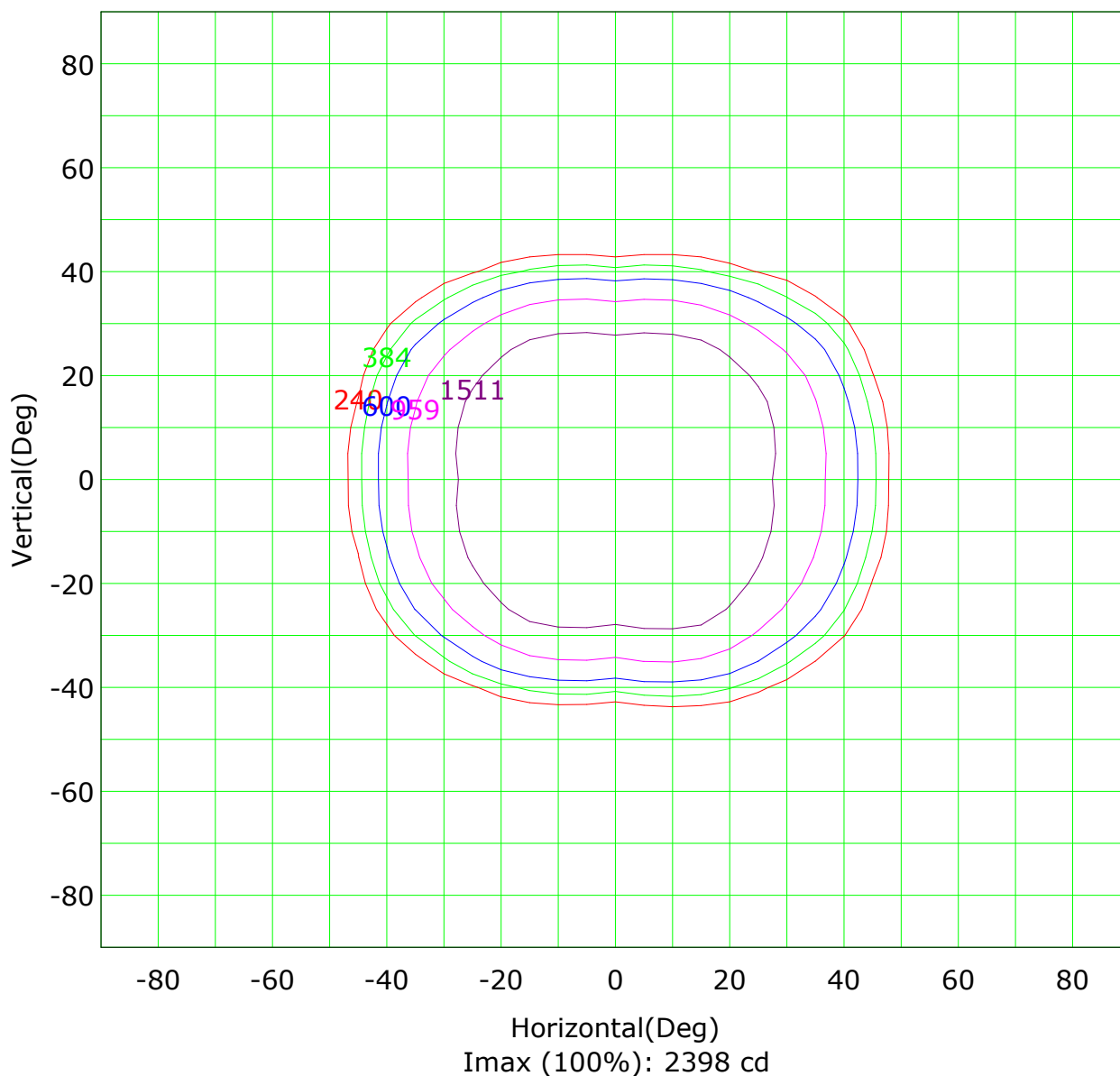
Spacing Criteria (Diagonal): 1.01



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

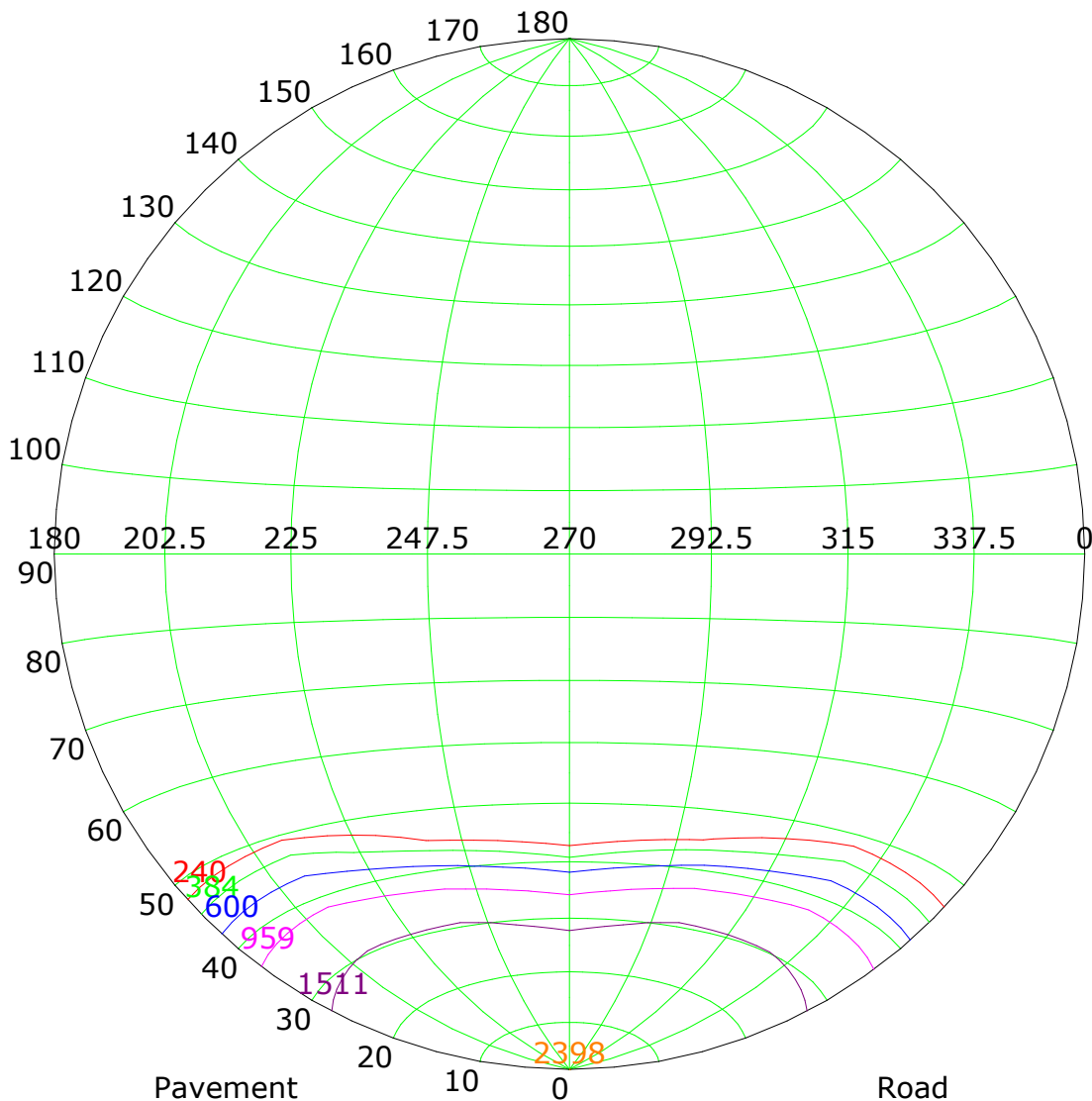
Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
Inspector:

Isocandela (rectangle)



(10%): 240 cd	(16%): 384 cd
(25%): 600 cd	(40%): 959 cd
(63%): 1511 cd	(100%): 2398 cd

Isocandela (sphere)



Imax (100%): 2398 cd

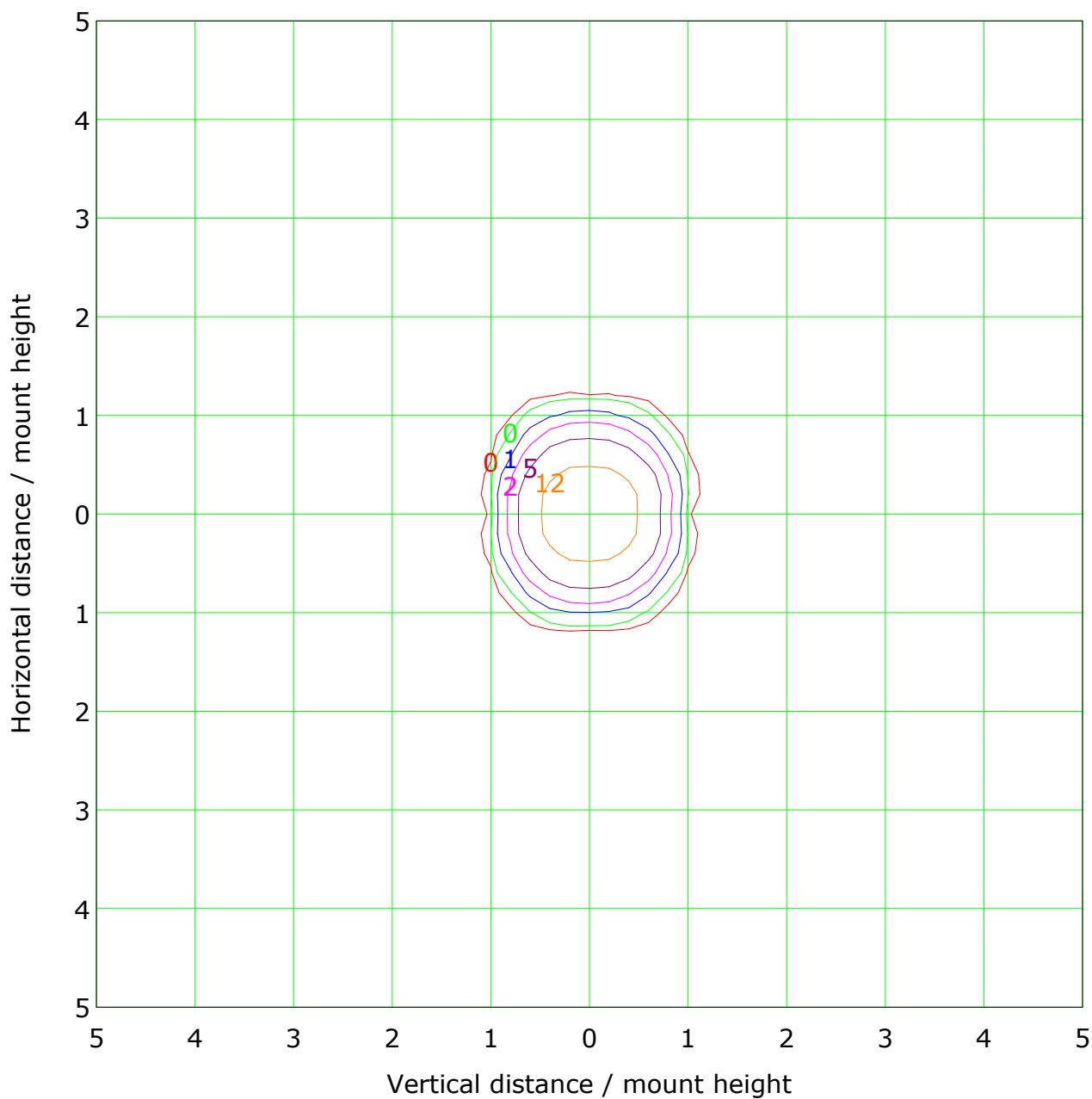
(10%): 240 cd
(25%): 600 cd
(63%): 1511 cd

(16%): 384 cd
(40%): 959 cd
(100%): 2398 cd

CIE: narrow - short
CIE: Full-cut-off luminaire
Max.At90: 0.000 cd/klm

IES: Cut-off
Max.At80: 0.000 cd/klm
Max.80-90: 0.000 cd/klm

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 24.0 lx

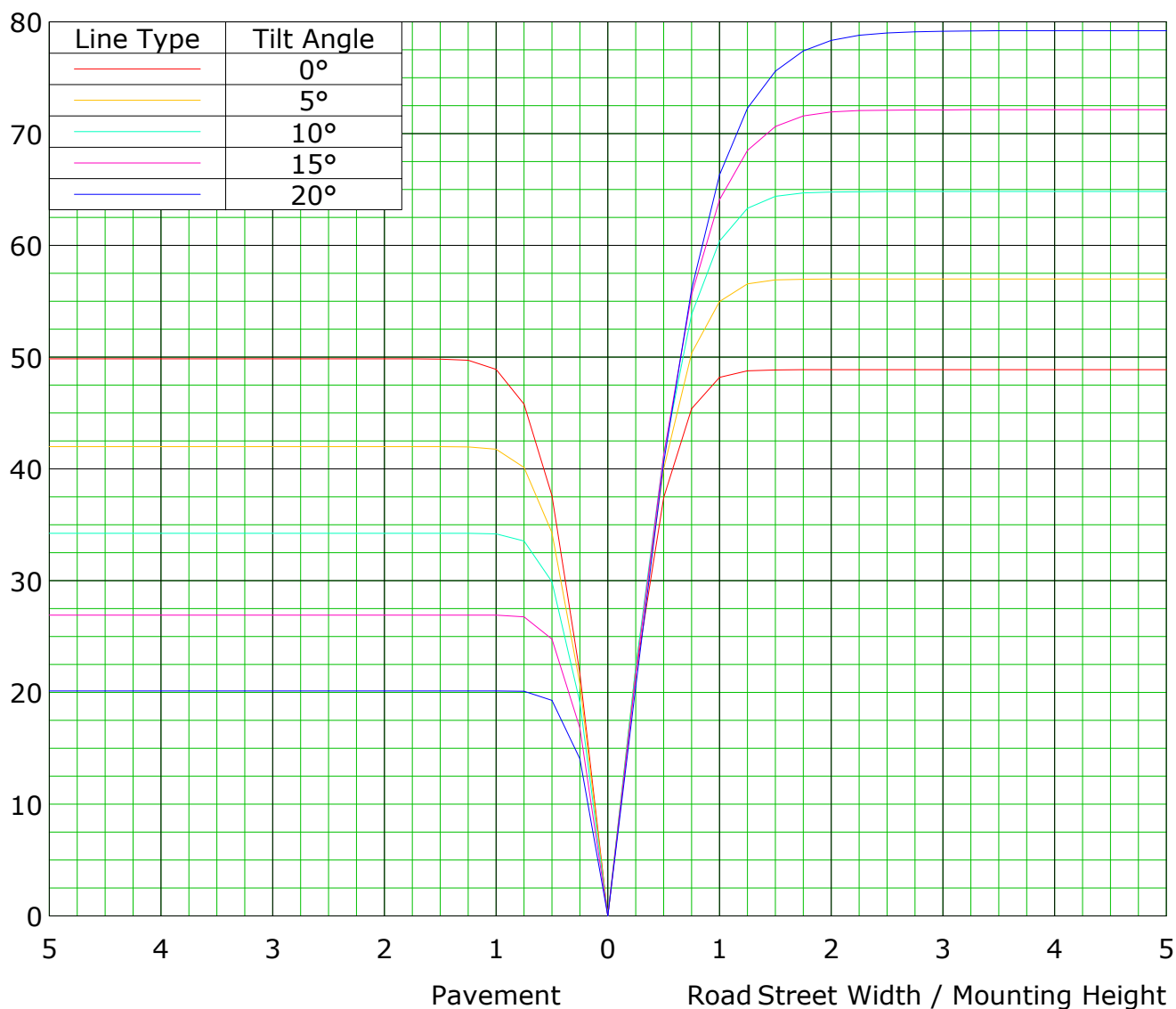
(1%): 0.2 lx	(2%): 0.5 lx
(5%): 1.2 lx	(10%): 2.4 lx
(20%): 4.8 lx	(50%): 12.0 lx
(100%): 24.0 lx	

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

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

Roadway CU Curve

Efficiency(%)

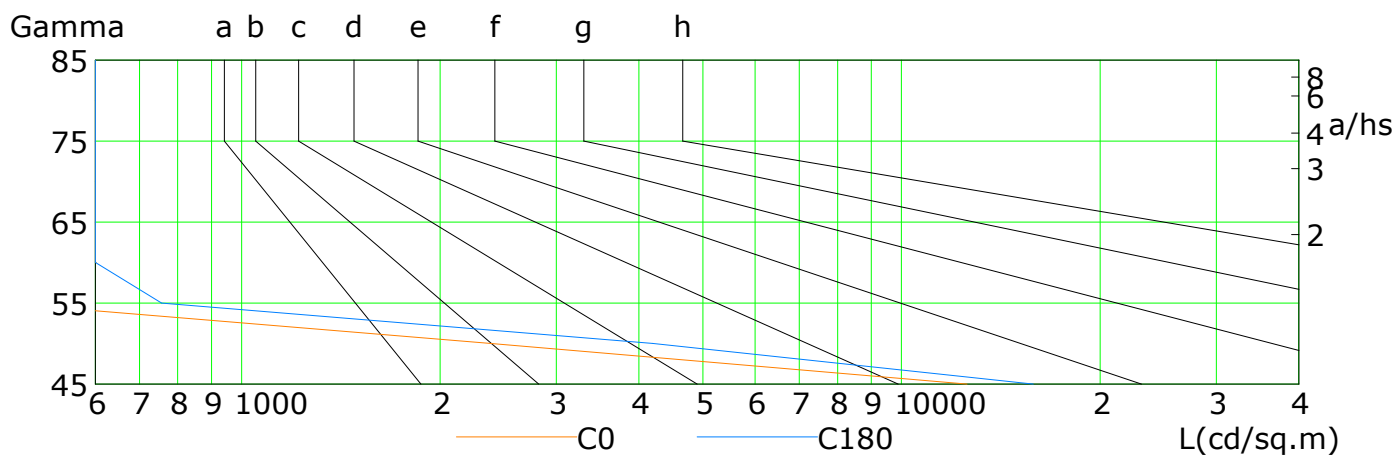
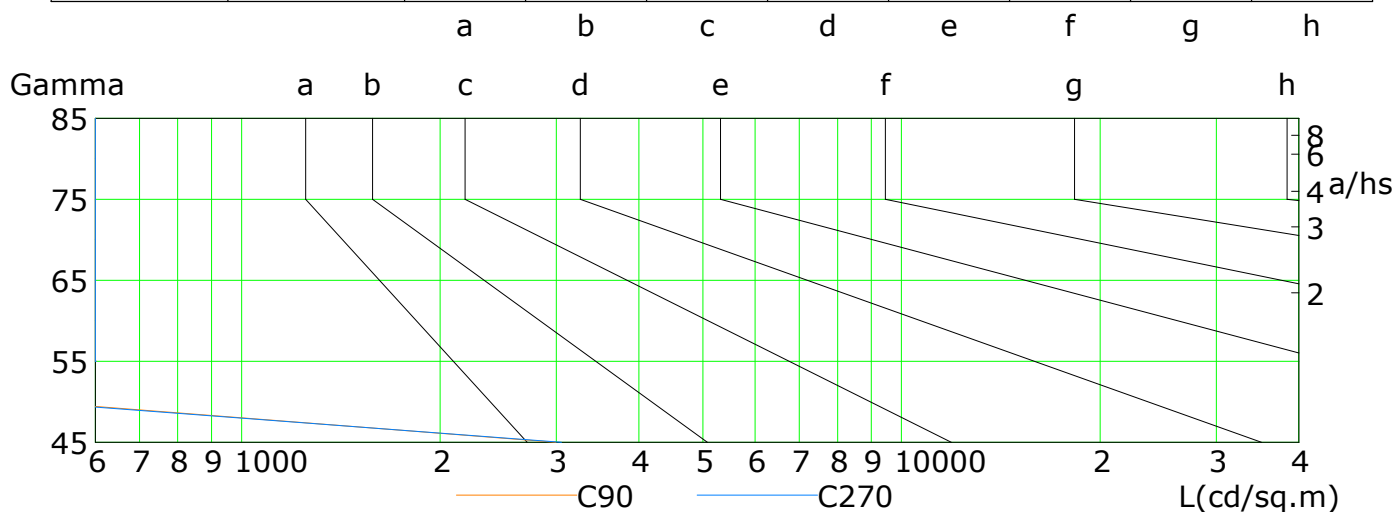


C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5°C
Operator: Yanzhao Sun

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

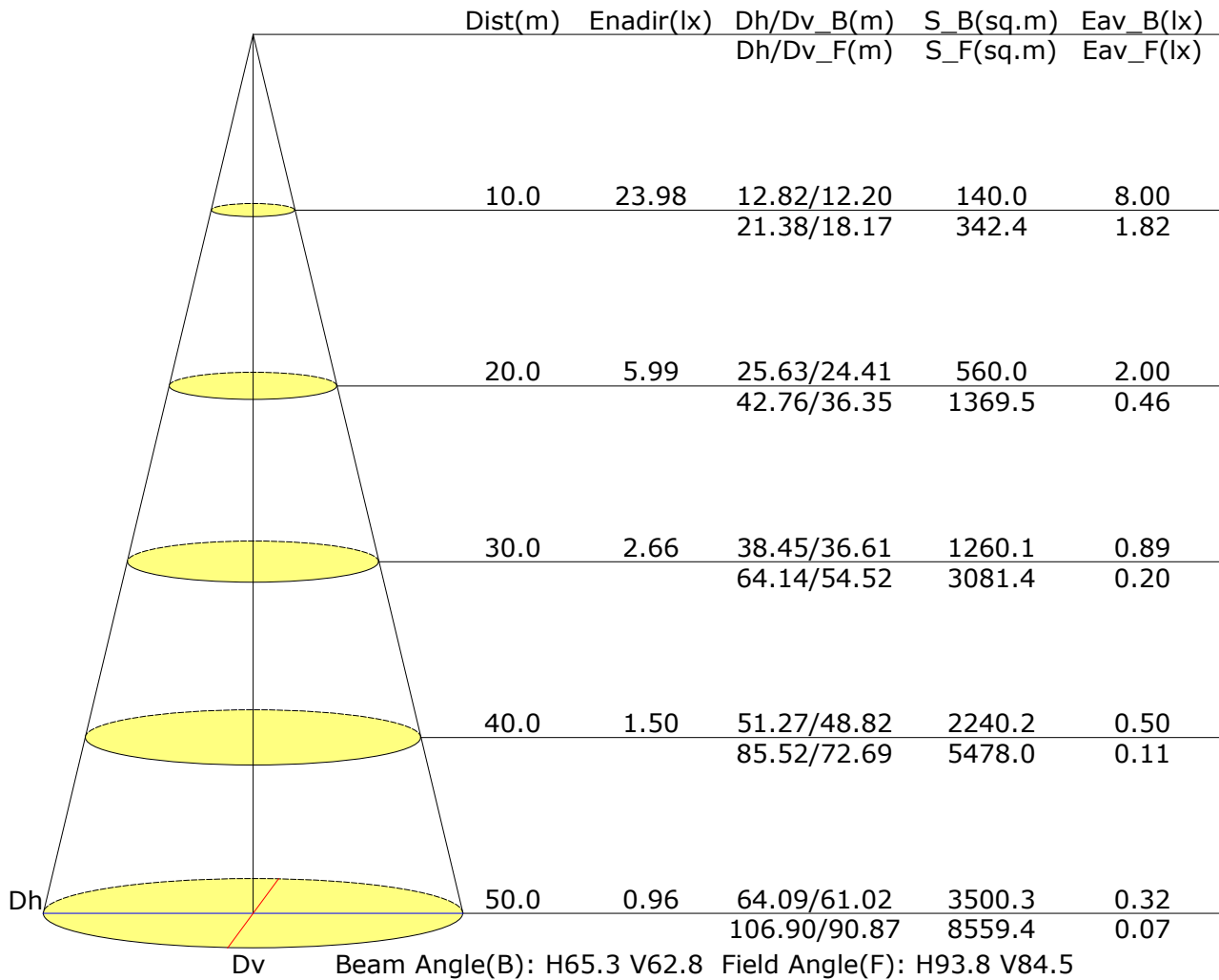


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	12567	2381	438	0	0	0	0	0	0
C90	2996	487	0	0	0	0	0	0	0
C180	15831	4197	757	0	0	0	0	0	0
C270	3054	468	0	0	0	0	0	0	0

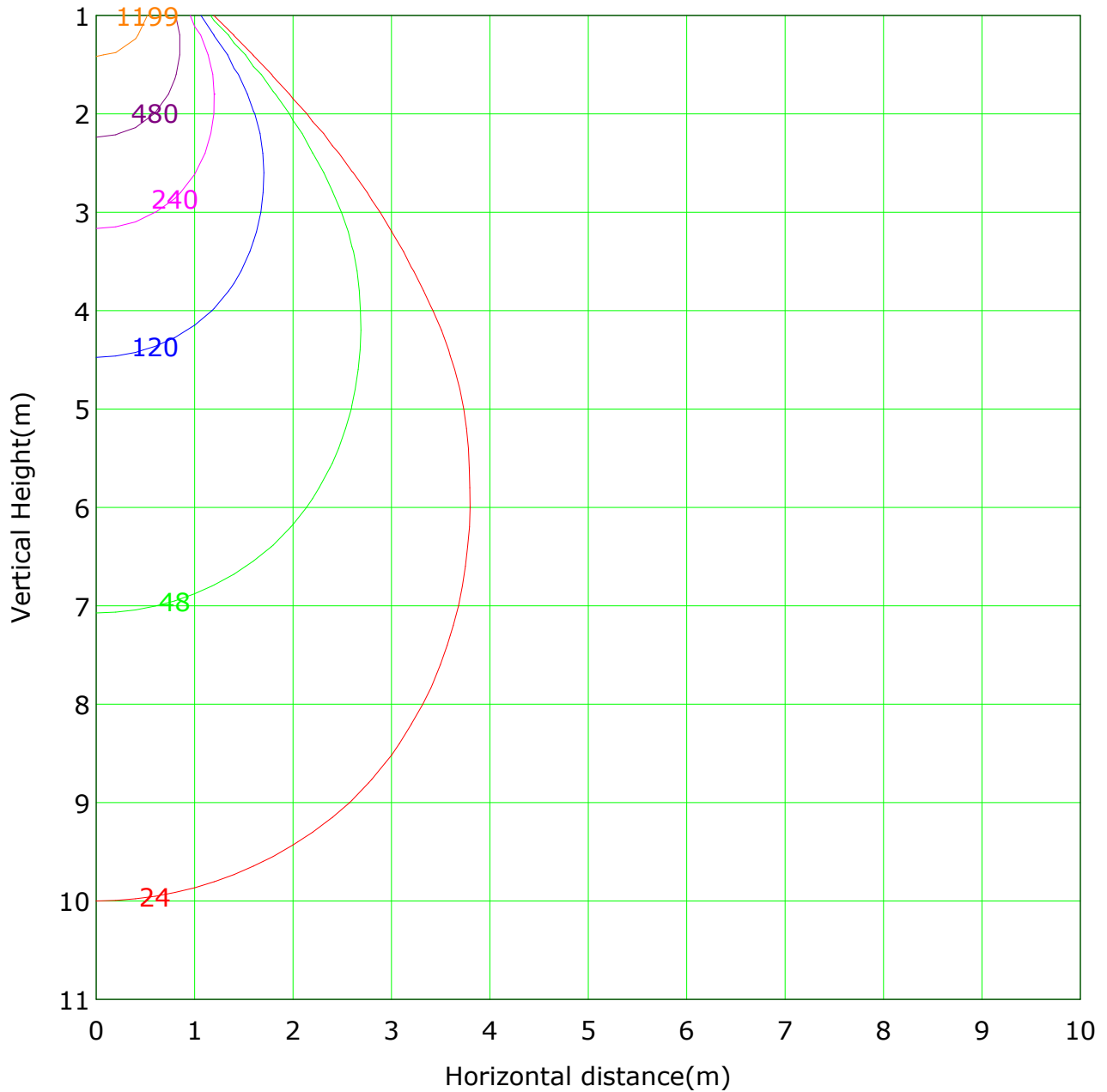
C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5℃
Operator: Yanzhao Sun

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

Illuminance at a Distance



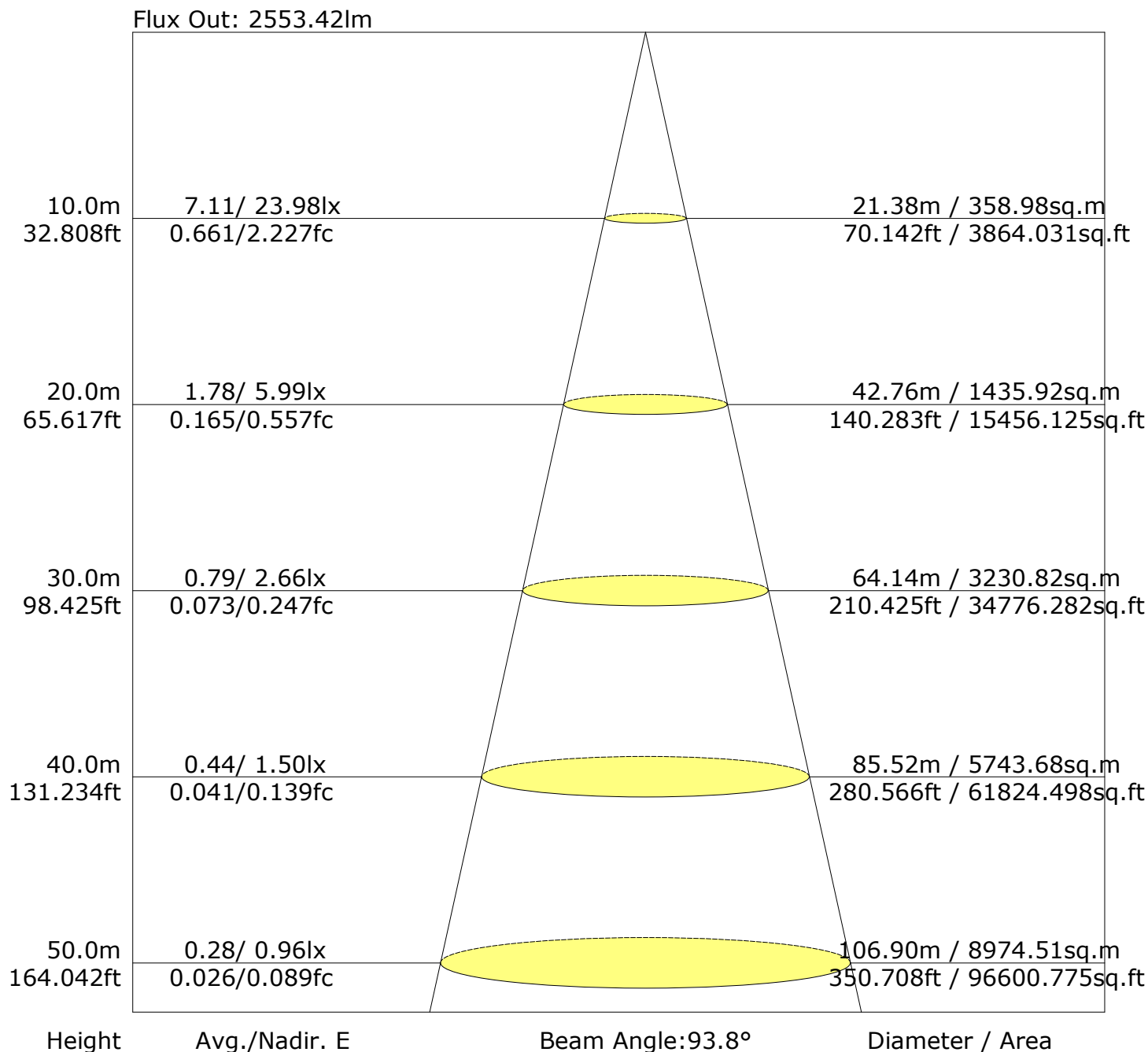
Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 2397.5 lx
— (1%): 24.0 lx — (2%): 48.0 lx
— (5%): 119.9 lx — (10%): 239.8 lx
— (20%): 479.5 lx — (50%): 1198.8 lx
— (100%): 2397.5 lx

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	-4.4	-3.4	-4.1	-3.1	-2.8	-25.0	-24.0	-24.7	-23.7	-23.4
3H	-4.6	-3.7	-4.2	-3.4	-3.0	-25.2	-24.3	-24.8	-24.0	-23.6
4H	-4.7	-3.9	-4.3	-3.5	-3.2	-25.3	-24.5	-24.9	-24.2	-23.8
6H	-4.8	-4.1	-4.4	-3.7	-3.3	-25.4	-24.7	-25.0	-24.3	-23.9
8H	-4.9	-4.2	-4.4	-3.8	-3.4	-25.5	-24.8	-25.1	-24.4	-24.0
12H	-4.9	-4.3	-4.5	-3.9	-3.4	-25.6	-24.9	-25.1	-24.5	-24.1
X=4H Y=2H	-4.7	-3.9	-4.3	-3.5	-3.2	-25.3	-24.5	-24.9	-24.2	-23.8
3H	-4.9	-4.3	-4.5	-3.8	-3.4	-25.5	-24.9	-25.1	-24.5	-24.1
4H	-5.0	-4.4	-4.6	-4.0	-3.6	-25.7	-25.1	-25.2	-24.6	-24.2
6H	-5.1	-4.6	-4.7	-4.2	-3.7	-25.8	-25.3	-25.3	-24.8	-24.3
8H	-5.2	-4.8	-4.7	-4.3	-3.8	-25.8	-25.4	-25.4	-24.9	-24.4
12H	-5.3	-4.9	-4.8	-4.4	-3.9	-25.9	-25.5	-25.4	-25.0	-24.5
X=8H Y=4H	-5.2	-4.8	-4.7	-4.3	-3.8	-25.8	-25.4	-25.4	-24.9	-24.4
6H	-5.3	-5.0	-4.8	-4.5	-4.0	-26.0	-25.6	-25.5	-25.1	-24.6
8H	-5.4	-5.1	-4.9	-4.6	-4.1	-26.0	-25.7	-25.5	-25.2	-24.7
12H	-5.5	-5.2	-5.0	-4.7	-4.1	-26.1	-25.8	-25.6	-25.3	-24.7
X=12H Y=4H	-5.3	-4.9	-4.8	-4.4	-3.9	-25.9	-25.5	-25.4	-25.0	-24.5
6H	-5.4	-5.1	-4.9	-4.6	-4.1	-26.0	-25.7	-25.5	-25.2	-24.7
8H	-5.5	-5.2	-5.0	-4.7	-4.1	-26.1	-25.8	-25.6	-25.3	-24.7

Calculate in accordance with CIE 190:2010 The table is revised with 2611lm ($8\log(F/F_0) = 3.3$).

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

Gamma Plane (°):0.0-90.0:1.0
 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

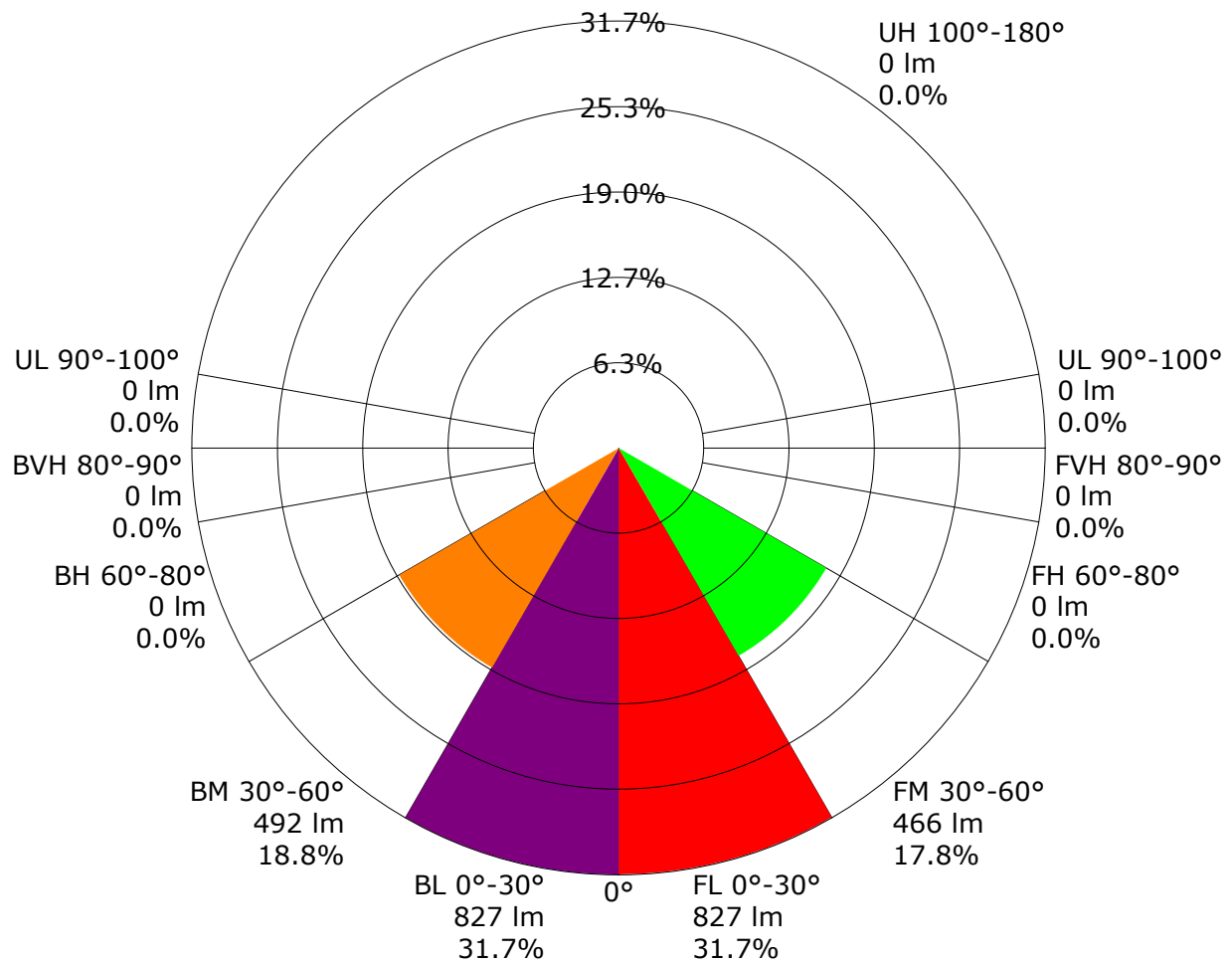
	ZONE	LUMENS	% LAMP LUMENS
	FORWARD LIGHT	1293	49.5
	FL (0°-30°)	827	31.7
	FM (30°-60°)	466	17.8
	FH (60°-80°)	0	0.0
	FVH (80°-90°)	0	0.0
	BACK LIGHT	1319	50.5
	BL (0°-30°)	827	31.7
	BM (30°-60°)	492	18.8
	BH (60°-80°)	0	0.0
	BVH (80°-90°)	0	0.0
	UP LIGHT	0	0.0
	UL (90°-100°)	0	0.0
	UH (100°-180°)	0	0.0
	TRAPPED LIGHT	NA	NA

BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B2 U0 G0
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B2 U0 G0

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

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

LCS Graph



Back Light

Forward Light

Scale= MAX LCS%

Trapped Light:NA,NA

Utilisation Factor Table(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 1.00									
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	0.83	0.90	0.95	0.98	1.02	1.05	1.07	1.09	1.10	
	0.30		0.78	0.86	0.91	0.94	0.99	1.02	1.04	1.07	1.09	
	0.20		0.75	0.82	0.87	0.91	0.96	0.99	1.02	1.05	1.07	
0.50	0.50	0.20	0.82	0.89	0.93	0.96	0.99	1.02	1.03	1.05	1.06	
	0.30		0.77	0.85	0.89	0.92	0.97	0.99	1.01	1.03	1.05	
	0.20		0.74	0.82	0.86	0.90	0.94	0.97	0.99	1.02	1.04	
0.30	0.50	0.20	0.80	0.87	0.91	0.93	0.97	0.99	1.00	1.02	1.03	
	0.30		0.77	0.84	0.88	0.91	0.94	0.97	0.98	1.00	1.02	
	0.20		0.74	0.81	0.85	0.89	0.93	0.95	0.97	0.99	1.01	
0.00	0.00	0.00	0.72	0.79	0.83	0.86	0.89	0.92	0.93	0.95	0.96	
Rating:20W 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 = 1.00									
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	0.60	0.48	0.40	0.34	0.27	0.22	0.19	0.14	0.12	
	0.30		0.50	0.41	0.35	0.30	0.24	0.20	0.17	0.13	0.11	
	0.20		0.43	0.36	0.31	0.27	0.22	0.18	0.16	0.13	0.10	
0.50	0.50	0.20	0.58	0.45	0.37	0.32	0.25	0.24	0.17	0.13	0.11	
	0.30		0.49	0.39	0.33	0.28	0.23	0.19	0.16	0.12	0.10	
	0.20		0.42	0.35	0.29	0.26	0.21	0.17	0.15	0.12	0.10	
0.30	0.50	0.20	0.55	0.43	0.35	0.30	0.23	0.19	0.16	0.12	0.10	
	0.30		0.47	0.38	0.31	0.27	0.21	0.17	0.15	0.11	0.09	
	0.20		0.41	0.33	0.28	0.25	0.20	0.16	0.14	0.11	0.09	
0.00	0.00	0.00	0.28	0.21	0.17	0.14	0.11	0.09	0.07	0.06	0.04	
Rating:20W 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 = 1.00									
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	0.13	0.14	0.16	0.16	0.18	0.19	0.19	0.20	0.21	
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.19	0.19	
	0.20		0.06	0.08	0.10	0.11	0.13	0.14	0.16	0.17	0.18	
0.50	0.50	0.20	0.13	0.14	0.15	0.16	0.17	0.18	0.19	0.19	0.20	
	0.30		0.09	0.10	0.12	0.13	0.15	0.16	0.17	0.18	0.19	
	0.20		0.06	0.08	0.09	0.11	0.13	0.14	0.15	0.17	0.18	
0.30	0.50	0.20	0.12	0.13	0.15	0.15	0.16	0.17	0.18	0.19	0.19	
	0.30		0.08	0.10	0.12	0.13	0.14	0.15	0.16	0.17	0.18	
	0.20		0.06	0.08	0.09	0.11	0.12	0.14	0.15	0.16	0.17	
0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Rating:20W 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	2396.5	2.3	2.3	0.09	0.09
1.0-2.0	2394.0	6.9	9.2	0.26	0.35
2.0-3.0	2389.2	11.4	20.6	0.44	0.79
3.0-4.0	2382.3	15.9	36.5	0.61	1.40
4.0-5.0	2373.5	20.4	57.0	0.78	2.18
5.0-6.0	2362.7	24.8	81.8	0.95	3.13
6.0-7.0	2350.1	29.2	111.0	1.12	4.25
7.0-8.0	2335.8	33.4	144.4	1.28	5.53
8.0-9.0	2319.8	37.6	182.0	1.44	6.97
9.0-10.0	2302.5	41.7	223.7	1.60	8.57
10.0-11.0	2283.6	45.6	269.3	1.75	10.31
11.0-12.0	2263.2	49.5	318.8	1.89	12.21
12.0-13.0	2241.6	53.2	372.0	2.04	14.25
13.0-14.0	2218.7	56.8	428.8	2.18	16.42
14.0-15.0	2194.2	60.2	489.0	2.31	18.73
15.0-16.0	2168.2	63.5	552.6	2.43	21.16
16.0-17.0	2140.4	66.7	619.3	2.55	23.71
17.0-18.0	2109.9	69.6	688.8	2.66	26.38
18.0-19.0	2076.8	72.3	761.1	2.77	29.15
19.0-20.0	2041.0	74.7	835.8	2.86	32.01
20.0-21.0	2002.4	76.9	912.7	2.95	34.95
21.0-22.0	1960.7	78.8	991.5	3.02	37.97
22.0-23.0	1916.6	80.4	1071.9	3.08	41.05
23.0-24.0	1869.8	81.8	1153.7	3.13	44.18
24.0-25.0	1820.1	82.8	1236.5	3.17	47.35
25.0-26.0	1768.6	83.5	1320.0	3.20	50.55
26.0-27.0	1713.8	83.9	1403.8	3.21	53.76
27.0-28.0	1654.9	83.8	1487.6	3.21	56.97
28.0-29.0	1592.4	83.3	1570.9	3.19	60.16
29.0-30.0	1525.1	82.4	1653.3	3.15	63.31
30.0-31.0	1453.3	80.9	1734.2	3.10	66.41
31.0-32.0	1377.5	78.9	1813.1	3.02	69.43
32.0-33.0	1298.9	76.5	1889.6	2.93	72.37
33.0-34.0	1218.4	73.7	1963.4	2.82	75.19
34.0-35.0	1136.9	70.6	2034.0	2.70	77.89
35.0-36.0	1056.5	67.3	2101.3	2.58	80.47

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

Gamma Plane (°):0.0-90.0:1.0
 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	975.8	63.7	2164.9	2.44	82.91
37.0-38.0	894.9	59.7	2224.7	2.29	85.20
38.0-39.0	815.1	55.6	2280.3	2.13	87.33
39.0-40.0	734.6	51.2	2331.6	1.96	89.29
40.0-41.0	652.7	46.5	2378.0	1.78	91.07
41.0-42.0	571.6	41.5	2419.6	1.59	92.66
42.0-43.0	493.5	36.6	2456.1	1.40	94.06
43.0-44.0	418.6	31.6	2487.7	1.21	95.27
44.0-45.0	349.0	26.8	2514.6	1.03	96.30
45.0-46.0	285.1	22.3	2536.9	0.85	97.15
46.0-47.0	227.1	18.1	2554.9	0.69	97.84
47.0-48.0	177.4	14.3	2569.3	0.55	98.39
48.0-49.0	136.0	11.2	2580.4	0.43	98.82
49.0-50.0	102.0	8.5	2588.9	0.33	99.15
50.0-51.0	74.9	6.3	2595.3	0.24	99.39
51.0-52.0	54.7	4.7	2600.0	0.18	99.57
52.0-53.0	39.8	3.5	2603.4	0.13	99.70
53.0-54.0	28.4	2.5	2605.9	0.10	99.80
54.0-55.0	20.0	1.8	2607.7	0.07	99.87
55.0-56.0	13.9	1.3	2609.0	0.05	99.91
56.0-57.0	9.4	0.9	2609.8	0.03	99.95
57.0-58.0	6.1	0.6	2610.4	0.02	99.97
58.0-59.0	4.0	0.4	2610.8	0.01	99.98
59.0-60.0	2.6	0.2	2611.0	0.01	99.99
60.0-61.0	1.4	0.1	2611.2	0.01	100.00
61.0-62.0	0.7	0.1	2611.2	0.00	100.00
62.0-63.0	0.2	0.0	2611.2	0.00	100.00
63.0-64.0	0.0	0.0	2611.2	0.00	100.00
64.0-65.0	0.0	0.0	2611.2	0.00	100.00
65.0-66.0	0.0	0.0	2611.2	0.00	100.00
66.0-67.0	0.0	0.0	2611.2	0.00	100.00
67.0-68.0	0.0	0.0	2611.2	0.00	100.00
68.0-69.0	0.0	0.0	2611.2	0.00	100.00
69.0-70.0	0.0	0.0	2611.2	0.00	100.00
70.0-71.0	0.0	0.0	2611.2	0.00	100.00
71.0-72.0	0.0	0.0	2611.2	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 (°):0.0-90.0:1.0
 Test Device: GPM-1800B
 Distance: 11.655 m [K=1.0000]
 Humidity: 45% R.H
 Inspector:

Zonal Lumen (Continue 2)

[illegible]

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

Zonal Lumen (Continue 3)

cone flux(90°): 2514.56 lm

%lum = 96.3%

%lamp = 96.3%

cone flux(120°): 2611.02 lm

%lum = 100.0%

%lamp = 100.0%

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	2397.5	2398.1	2396.4	2396.9	2397.0	2397.5	2397.5	2398.1	2396.4	2396.9
G1.0	2396.6	2396.5	2396.7	2396.3	2397.2	2396.2	2396.1	2397.2	2393.8	2394.6
G2.0	2393.1	2391.9	2394.0	2393.7	2395.8	2392.4	2390.9	2392.8	2388.8	2390.7
G3.0	2387.0	2385.1	2388.6	2390.3	2392.2	2386.7	2383.2	2386.1	2381.8	2384.9
G4.0	2378.4	2376.6	2383.1	2384.2	2386.7	2377.9	2374.8	2377.1	2371.8	2376.0
G5.0	2367.6	2366.2	2374.8	2376.7	2378.9	2367.8	2363.4	2366.3	2361.0	2366.7
G6.0	2354.9	2352.3	2364.4	2366.1	2370.3	2356.9	2349.8	2352.5	2349.1	2355.2
G7.0	2339.7	2339.2	2352.4	2354.7	2359.6	2344.0	2332.8	2338.1	2335.3	2342.9
G8.0	2320.7	2322.6	2339.5	2340.7	2348.0	2329.3	2314.0	2322.0	2319.9	2326.7
G9.0	2301.4	2306.1	2324.9	2325.4	2334.1	2310.5	2294.2	2304.8	2301.6	2310.8
G10.0	2279.8	2288.6	2308.5	2308.1	2320.6	2293.0	2272.3	2286.3	2283.8	2291.6
G11.0	2256.0	2270.1	2291.8	2286.3	2305.8	2272.9	2247.5	2264.9	2265.0	2271.3
G12.0	2227.4	2250.7	2275.0	2264.7	2290.3	2252.4	2218.2	2244.6	2246.0	2246.9
G13.0	2199.7	2228.1	2257.2	2239.9	2273.9	2228.4	2189.0	2223.3	2226.5	2221.6
G14.0	2169.3	2207.1	2239.1	2213.2	2254.0	2205.1	2157.4	2201.5	2204.4	2195.1
G15.0	2136.0	2184.7	2217.2	2181.5	2235.7	2181.0	2124.1	2176.8	2183.2	2165.4
G16.0	2100.7	2160.4	2195.9	2149.1	2215.5	2154.5	2088.7	2152.7	2161.5	2133.4
G17.0	2062.2	2131.6	2172.9	2113.9	2194.0	2126.8	2047.3	2128.2	2138.1	2098.5
G18.0	2017.5	2102.0	2148.3	2075.0	2171.1	2093.6	2006.4	2101.4	2110.2	2057.3
G19.0	1973.8	2070.0	2120.5	2029.4	2143.1	2060.6	1964.3	2072.9	2082.5	2016.9
G20.0	1928.9	2034.7	2087.6	1985.7	2114.9	2024.1	1918.9	2038.5	2050.9	1973.6
G21.0	1876.1	1995.5	2054.4	1938.8	2082.8	1983.4	1866.9	2004.7	2018.3	1928.7
G22.0	1826.1	1948.7	2018.1	1890.8	2043.5	1935.6	1817.4	1967.1	1982.6	1876.9
G23.0	1774.3	1902.7	1978.4	1842.3	2004.5	1890.5	1766.2	1926.1	1939.8	1829.1
G24.0	1721.0	1853.8	1932.3	1791.4	1962.8	1842.4	1714.3	1876.8	1897.8	1779.5
G25.0	1660.3	1801.6	1888.4	1731.5	1918.1	1791.4	1655.2	1828.9	1854.2	1727.1
G26.0	1602.9	1747.2	1841.0	1674.2	1870.6	1737.7	1605.0	1778.4	1808.0	1669.3
G27.0	1545.1	1685.0	1791.8	1611.7	1816.3	1676.7	1544.2	1724.0	1755.4	1595.7
G28.0	1485.2	1624.8	1732.5	1540.4	1764.0	1618.5	1487.3	1668.1	1703.5	1519.0
G29.0	1418.3	1560.8	1675.8	1447.4	1708.3	1558.5	1430.8	1609.0	1645.9	1431.5
G30.0	1357.6	1495.8	1614.4	1350.4	1649.6	1496.4	1366.1	1541.6	1577.6	1334.8
G31.0	1295.3	1427.1	1545.5	1247.9	1578.3	1432.5	1307.9	1477.7	1494.1	1226.0
G32.0	1233.3	1350.2	1459.0	1147.7	1507.3	1359.6	1248.0	1412.0	1406.6	1131.5
G33.0	1164.6	1277.4	1369.1	1053.4	1427.2	1290.4	1186.8	1344.5	1310.6	1045.7
G34.0	1103.0	1203.7	1269.7	961.9	1337.3	1220.7	1121.6	1268.2	1212.4	968.2
G35.0	1042.2	1129.7	1155.0	887.2	1229.2	1150.3	1062.0	1198.2	1113.1	888.8
G36.0	980.3	1054.8	1053.2	813.6	1127.8	1078.3	1004.6	1127.0	1018.5	814.8

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

Gamma Plane (°):0.0-90.0:1.0
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	919.5	973.2	957.0	735.7	1028.1	1001.0	948.2	1049.4	920.1	734.5
G38.0	852.1	900.2	866.9	648.2	923.5	930.6	890.5	978.6	835.5	644.9
G39.0	783.5	830.0	779.7	544.0	832.2	862.1	833.9	907.5	751.1	547.9
G40.0	707.4	758.4	695.0	444.2	746.4	794.8	768.5	837.3	665.0	438.7
G41.0	628.8	681.8	598.0	348.2	661.8	722.7	702.9	770.9	571.3	344.1
G42.0	546.4	612.4	509.9	260.3	577.9	659.1	631.2	699.5	483.4	258.2
G43.0	475.2	540.9	421.1	184.4	491.3	594.6	555.0	633.5	398.6	184.1
G44.0	407.4	470.2	331.7	120.7	399.5	529.5	488.8	568.9	312.3	121.6
G45.0	335.9	400.0	257.2	80.1	320.1	462.1	423.1	502.8	242.3	81.6
G46.0	257.6	326.4	194.4	54.1	250.2	397.0	356.0	429.9	183.6	55.1
G47.0	189.6	264.4	143.6	37.6	184.4	329.4	277.4	364.7	135.9	36.8
G48.0	132.8	209.2	102.0	25.6	137.4	272.0	209.6	303.8	97.4	25.7
G49.0	89.9	161.9	74.0	17.9	101.1	218.7	147.9	248.4	70.7	17.6
G50.0	57.9	122.3	53.6	11.8	73.7	170.1	102.0	193.2	51.7	11.4
G51.0	40.0	89.7	38.8	7.2	52.5	126.1	66.1	149.4	37.2	6.6
G52.0	28.3	67.5	27.6	3.3	38.3	94.5	45.8	114.1	26.2	3.3
G53.0	20.2	50.2	18.1	0.0	27.5	70.0	32.6	86.7	17.3	0.0
G54.0	13.7	36.1	11.7	0.0	19.3	50.5	23.3	64.3	10.6	0.0
G55.0	9.5	26.2	6.6	0.0	12.7	36.6	16.4	48.3	5.8	0.0
G56.0	6.2	19.1	2.9	0.0	6.9	26.4	11.8	35.6	2.1	0.0
G57.0	3.3	13.9	0.0	0.0	2.9	19.4	8.0	25.8	0.0	0.0
G58.0	0.0	9.7	0.0	0.0	0.0	13.9	5.0	18.1	0.0	0.0
G59.0	0.0	6.4	0.0	0.0	0.0	9.9	2.5	13.0	0.0	0.0
G60.0	0.0	3.3	0.0	0.0	0.0	6.2	0.0	9.0	0.0	0.0
G61.0	0.0	1.2	0.0	0.0	0.0	3.4	0.0	5.8	0.0	0.0
G62.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	3.0	0.0	0.0
G63.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G64.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G66.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G68.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G69.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G71.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G72.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G73.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Gamma Plane (°):0.0-90.0:1.0
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: Yanzhao Sun

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	2397.0	2397.5	2397.5							
G1.0	2393.6	2395.5	2396.6							
G2.0	2389.7	2392.2	2393.1							
G3.0	2383.2	2386.6	2387.0							
G4.0	2375.1	2378.6	2378.4							
G5.0	2364.0	2369.5	2367.6							
G6.0	2353.1	2356.9	2354.9							
G7.0	2340.4	2342.8	2339.7							
G8.0	2326.5	2328.2	2320.7							
G9.0	2311.0	2312.4	2301.4							
G10.0	2294.0	2295.5	2279.8							
G11.0	2277.0	2275.7	2256.0							
G12.0	2259.6	2256.8	2227.4							
G13.0	2241.1	2236.4	2199.7							
G14.0	2222.2	2215.7	2169.3							
G15.0	2200.0	2191.7	2136.0							
G16.0	2179.2	2167.7	2100.7							
G17.0	2156.1	2141.1	2062.2							
G18.0	2131.3	2112.6	2017.5							
G19.0	2100.6	2080.8	1973.8							
G20.0	2069.1	2042.1	1928.9							
G21.0	2034.5	2004.9	1876.1							
G22.0	1997.0	1964.4	1826.1							
G23.0	1954.6	1920.7	1774.3							
G24.0	1905.5	1868.8	1721.0							
G25.0	1860.1	1818.8	1660.3							
G26.0	1811.8	1765.6	1602.9							
G27.0	1763.2	1709.6	1545.1							
G28.0	1704.5	1652.0	1485.2							
G29.0	1645.2	1586.2	1418.3							
G30.0	1578.1	1523.2	1357.6							
G31.0	1503.9	1457.4	1295.3							
G32.0	1420.1	1389.9	1233.3							
G33.0	1318.7	1321.0	1164.6							
G34.0	1223.5	1242.8	1103.0							
G35.0	1126.2	1170.5	1042.2							
G36.0	1032.8	1097.9	980.3							

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

Gamma Plane (°):0.0-90.0:1.0
 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	932.4	1017.0	919.5						
G38.0	845.5	944.0	852.1						
G39.0	759.4	871.7	783.5						
G40.0	673.0	799.5	707.4						
G41.0	577.4	729.3	628.8						
G42.0	488.1	653.7	546.4						
G43.0	402.7	581.5	475.2						
G44.0	323.3	508.5	407.4						
G45.0	251.6	436.1	335.9						
G46.0	186.0	360.0	257.6						
G47.0	138.0	297.8	189.6						
G48.0	101.6	240.3	132.8						
G49.0	73.7	184.2	89.9						
G50.0	51.8	141.2	57.9						
G51.0	37.3	106.7	40.0						
G52.0	26.0	80.3	28.3						
G53.0	16.9	59.8	20.2						
G54.0	10.2	42.7	13.7						
G55.0	5.4	30.9	9.5						
G56.0	2.2	22.4	6.2						
G57.0	0.0	16.1	3.3						
G58.0	0.0	10.9	0.0						
G59.0	0.0	7.0	0.0						
G60.0	0.0	4.1	0.0						
G61.0	0.0	1.3	0.0						
G62.0	0.0	0.0	0.0						
G63.0	0.0	0.0	0.0						
G64.0	0.0	0.0	0.0						
G65.0	0.0	0.0	0.0						
G66.0	0.0	0.0	0.0						
G67.0	0.0	0.0	0.0						
G68.0	0.0	0.0	0.0						
G69.0	0.0	0.0	0.0						
G70.0	0.0	0.0	0.0						
G71.0	0.0	0.0	0.0						
G72.0	0.0	0.0	0.0						
G73.0	0.0	0.0	0.0						

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

Gamma Plane (°):0.0-90.0:1.0
 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: Yanzhao Sun

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	0.00
L 0-180(75) av	0.00
L 0-180(85) av	0.00
L 90-270(65) av	0.00
L 90-270(75) av	0.00
L 90-270(85) av	0.00
L 45(65) av	0.00
L 45(75) av	0.00
L 45(85) av	0.00

Standard: GB/T 29293-2012