Report No.: MSTLAB241102033 Test Time: 2024/11/2

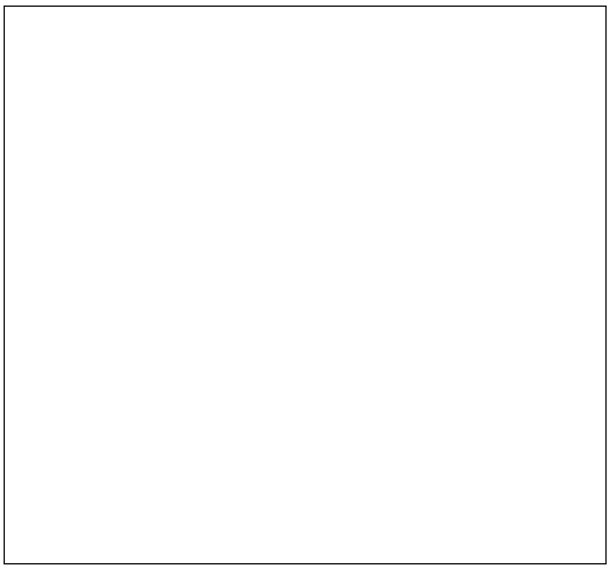
Luminaire Property

Luminaire Manufacturer: MESTER
Luminaire Category: ALL012F
Luminaire Description: MALL012F20W27V30K(Up25%-Down75%)
Lamp Catalog: Lamp Description:
Number of Lamps: 1 Lumens per Lamp:
Luminous Length (mm): 600 Luminous Width (mm): 63
Luminous Height (mm): Voltage: 120.0 V
Current: 0.166 A Power: 19.89 W
Power Factor: 0.995

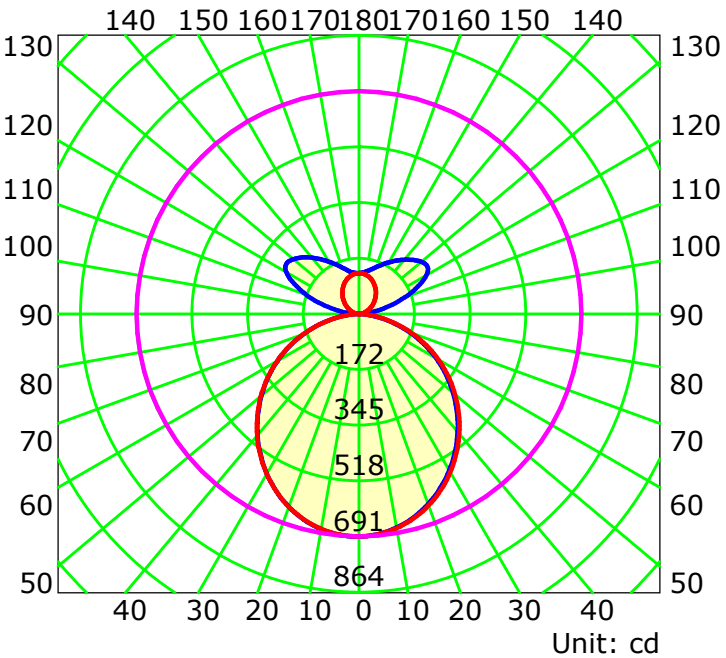
Photometric Results

CIE Class: Semi-Direct Total Rated Lamp Lumens: 2644.2 lm
Measurement Flux: 2644.2 lm Efficiency: 100%
Downward Ratio: 72% Upward Ratio: 28%
Horizontal Diffuse Angle(10%,50%,75%,100%): H159.8,H108.4,H72.1,H1
Vertical Diffuse Angle(10%,50%,75%,100%): V160.1,V109.6,V73.3,V1
Luminous Efficacy (lm/w): 132.94 C0r0 Intensity: 691.73 cd
Max. Intensity: 691.82 cd Pos of Max. Intensity: H180 V1
S/MH(C0/C180): 1.22 S/MH(C90/C270): 1.23

Picture Of Luminaire



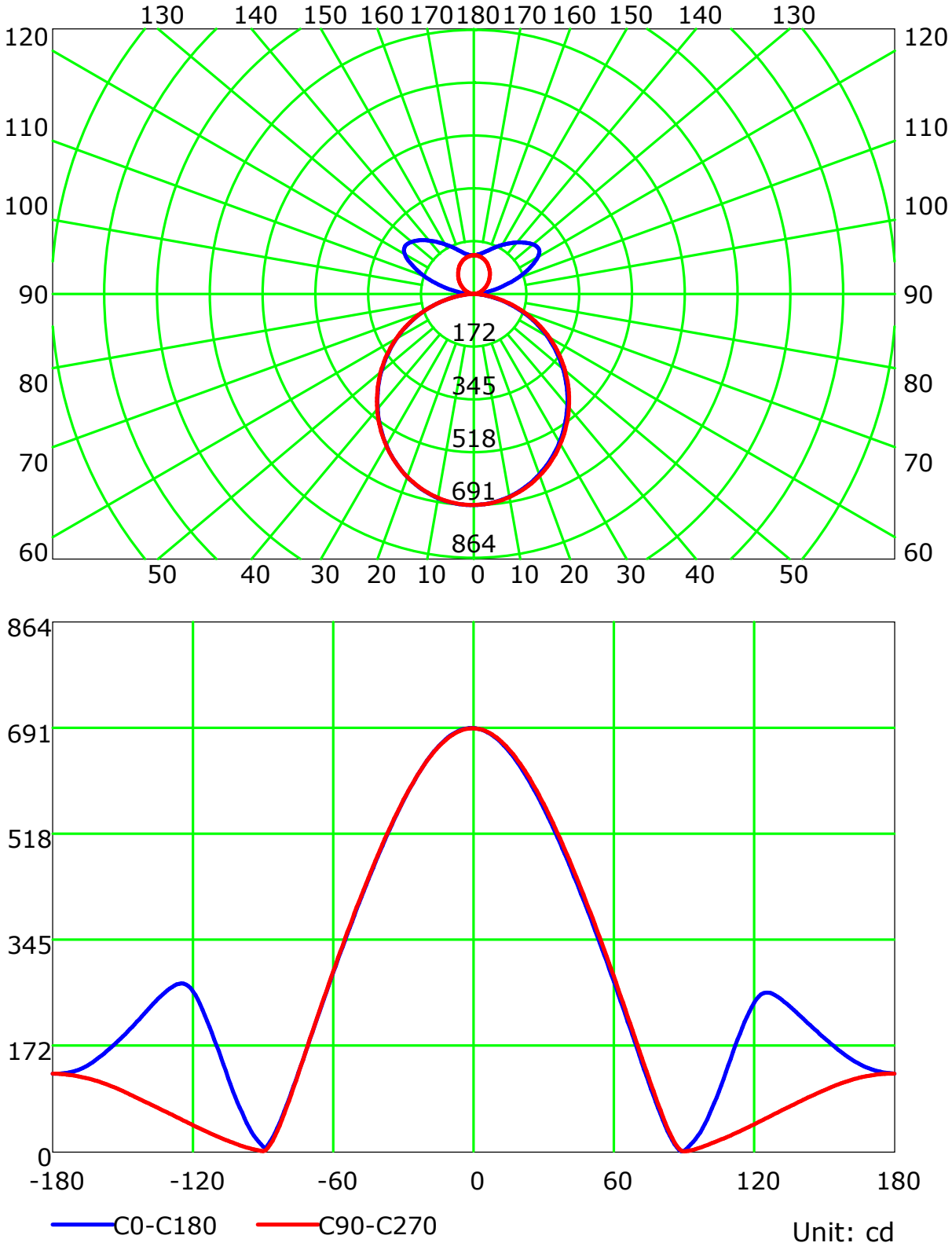
Luminous Intensity Distribution Curve



Unit: cd
Average Diffuse Angle(50%): 109.0°
C0-C180 C90-C270 G1

C Plane (°):0.0-360.0: 30.0 Gamma Plane (°):0.0-180.0:1.0
Test Lab: MESTER LAB Test Device: GPM-1800B
Test Type: TYPE C Distance: 11.655 m [K=1.0000]
Temperature: 25.5℃ Humidity: 45% R.H
Operator: Yanzhao Sun Inspector:

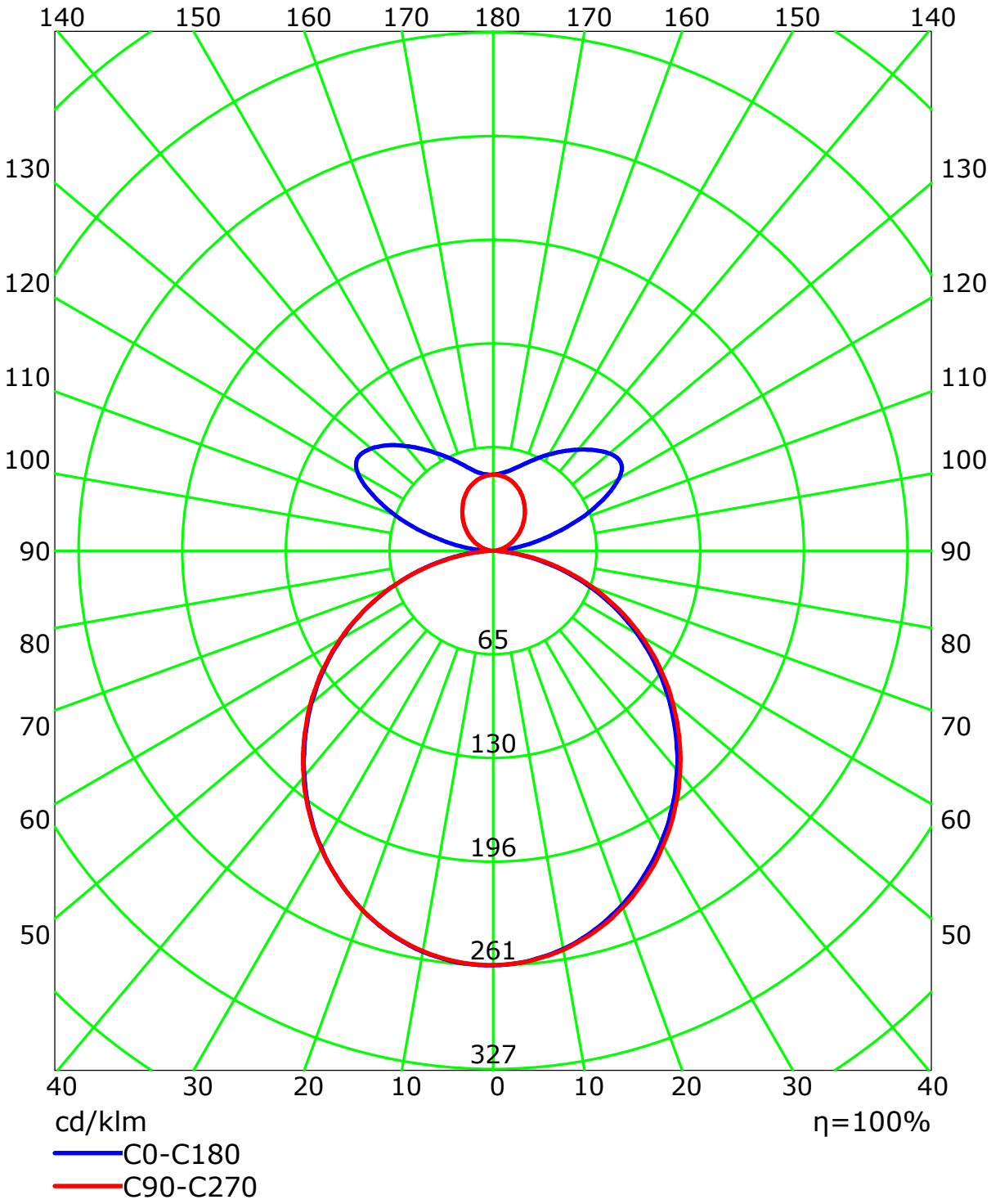
Luminous Intensity Distribution Curve



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=1.0000]
Humidity: 45% R.H
Inspector:

Luminous Intensity Distribution Curve(cd/klm)



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

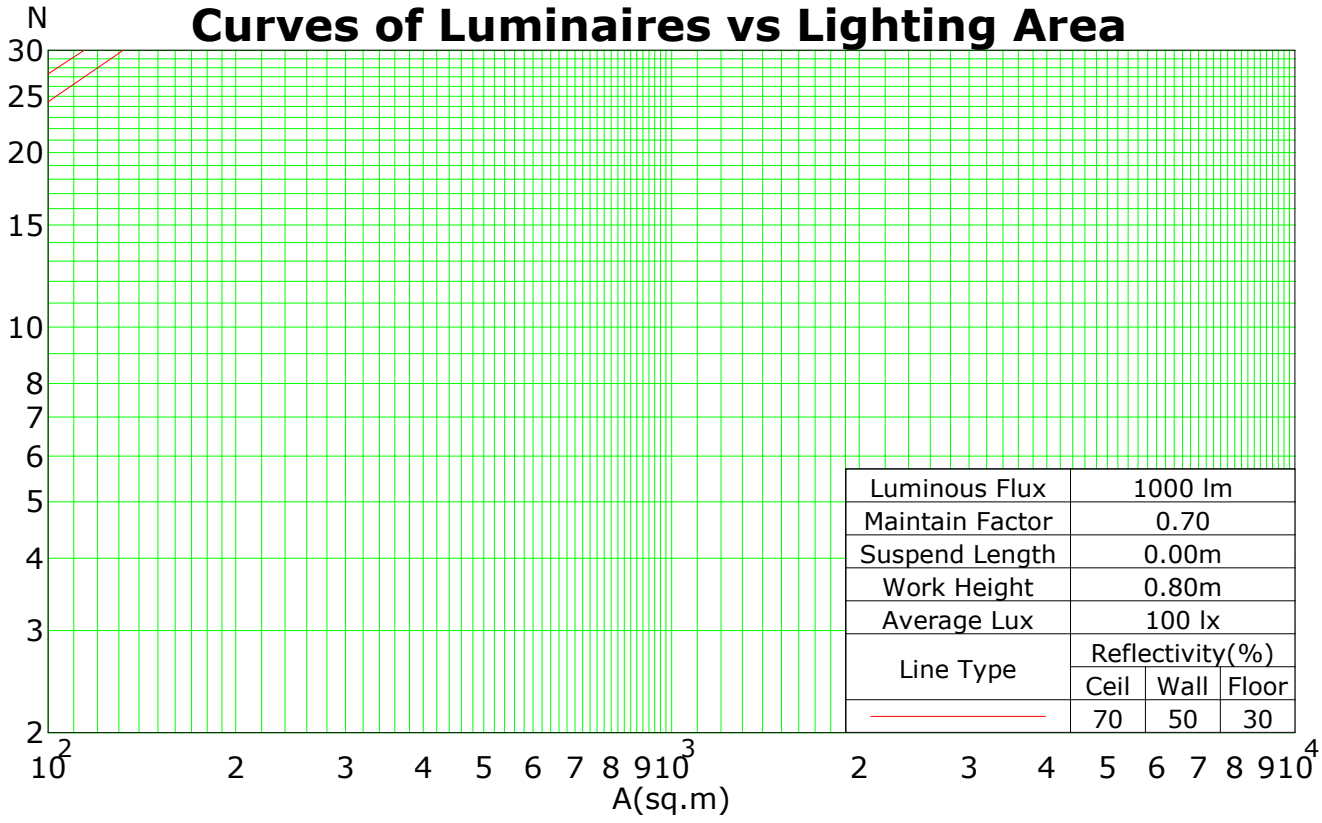
Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
Inspector:

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	1.12	1.12	1.12	1.12	1.06	1.06	1.06	1.06	0.95	0.95	0.95	0.85	0.85	0.85	0.76	0.76	0.76	0.72
1	1.03	0.98	0.94	0.90	0.97	0.93	0.89	0.86	0.84	0.81	0.78	0.75	0.73	0.71	0.67	0.66	0.64	0.60
2	0.93	0.85	0.79	0.74	0.88	0.81	0.75	0.71	0.73	0.69	0.65	0.66	0.62	0.59	0.59	0.56	0.54	0.50
3	0.85	0.75	0.67	0.61	0.80	0.71	0.64	0.59	0.64	0.59	0.54	0.58	0.54	0.50	0.52	0.49	0.46	0.42
4	0.78	0.66	0.58	0.52	0.73	0.63	0.56	0.50	0.57	0.51	0.46	0.52	0.47	0.43	0.46	0.42	0.39	0.36
5	0.71	0.59	0.51	0.44	0.67	0.56	0.49	0.43	0.51	0.45	0.40	0.46	0.41	0.37	0.42	0.37	0.34	0.31
6	0.66	0.53	0.45	0.39	0.62	0.51	0.43	0.37	0.46	0.40	0.35	0.42	0.36	0.32	0.38	0.33	0.30	0.27
7	0.61	0.48	0.40	0.34	0.58	0.46	0.38	0.33	0.42	0.35	0.31	0.38	0.33	0.29	0.35	0.30	0.27	0.24
8	0.57	0.44	0.36	0.30	0.54	0.42	0.34	0.29	0.38	0.32	0.27	0.35	0.29	0.26	0.32	0.27	0.24	0.22
9	0.53	0.40	0.32	0.27	0.50	0.38	0.31	0.26	0.35	0.29	0.25	0.32	0.27	0.23	0.29	0.25	0.21	0.19
10	0.49	0.37	0.29	0.24	0.47	0.35	0.28	0.24	0.32	0.26	0.22	0.30	0.24	0.21	0.27	0.23	0.19	0.18

Spacing Criteria (0-180): 1.22
Spacing Criteria (90-270): 1.23
Spacing Criteria (Diagonal): 1.34

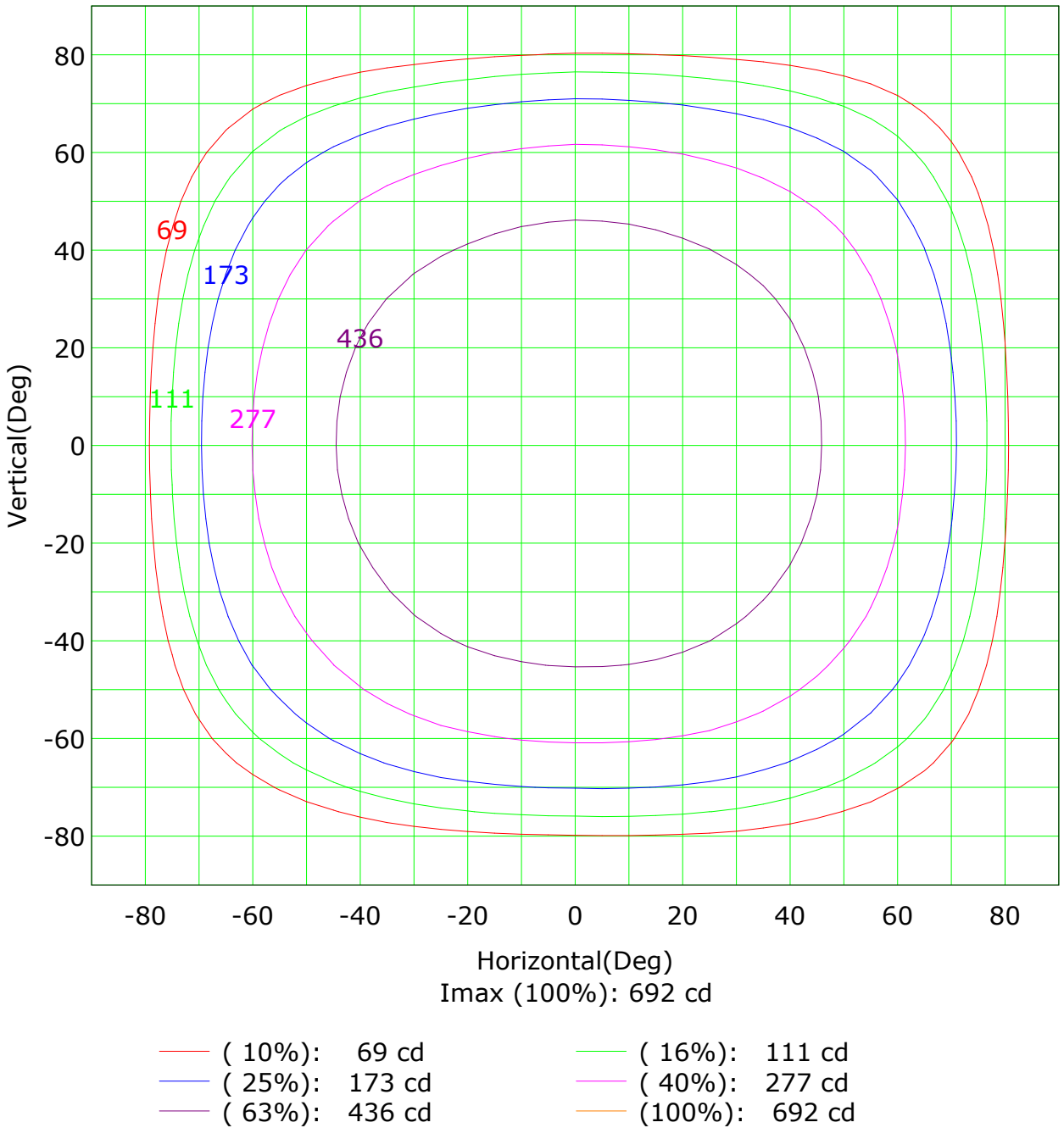
Curves of Luminaires vs Lighting Area



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=1.0000]
Humidity: 45% R.H
Inspector:

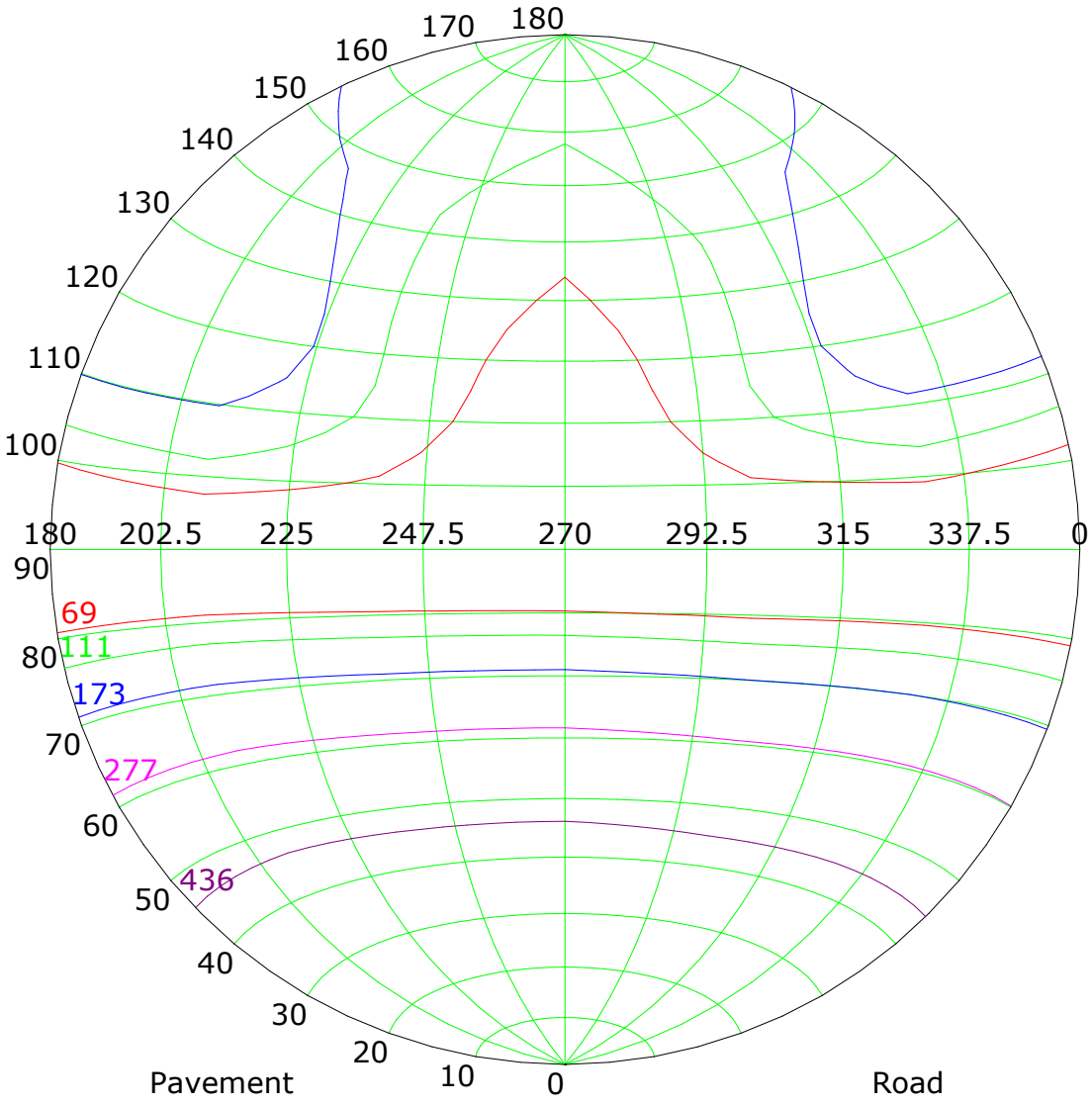
Isocandela (rectangle)



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=1.0000]
Humidity: 45% R.H
Inspector:

Isocandela (sphere)



Imax (100%): 692 cd

(10%): 69 cd	(16%): 111 cd
(25%): 173 cd	(40%): 277 cd
(63%): 436 cd	(100%): 692 cd

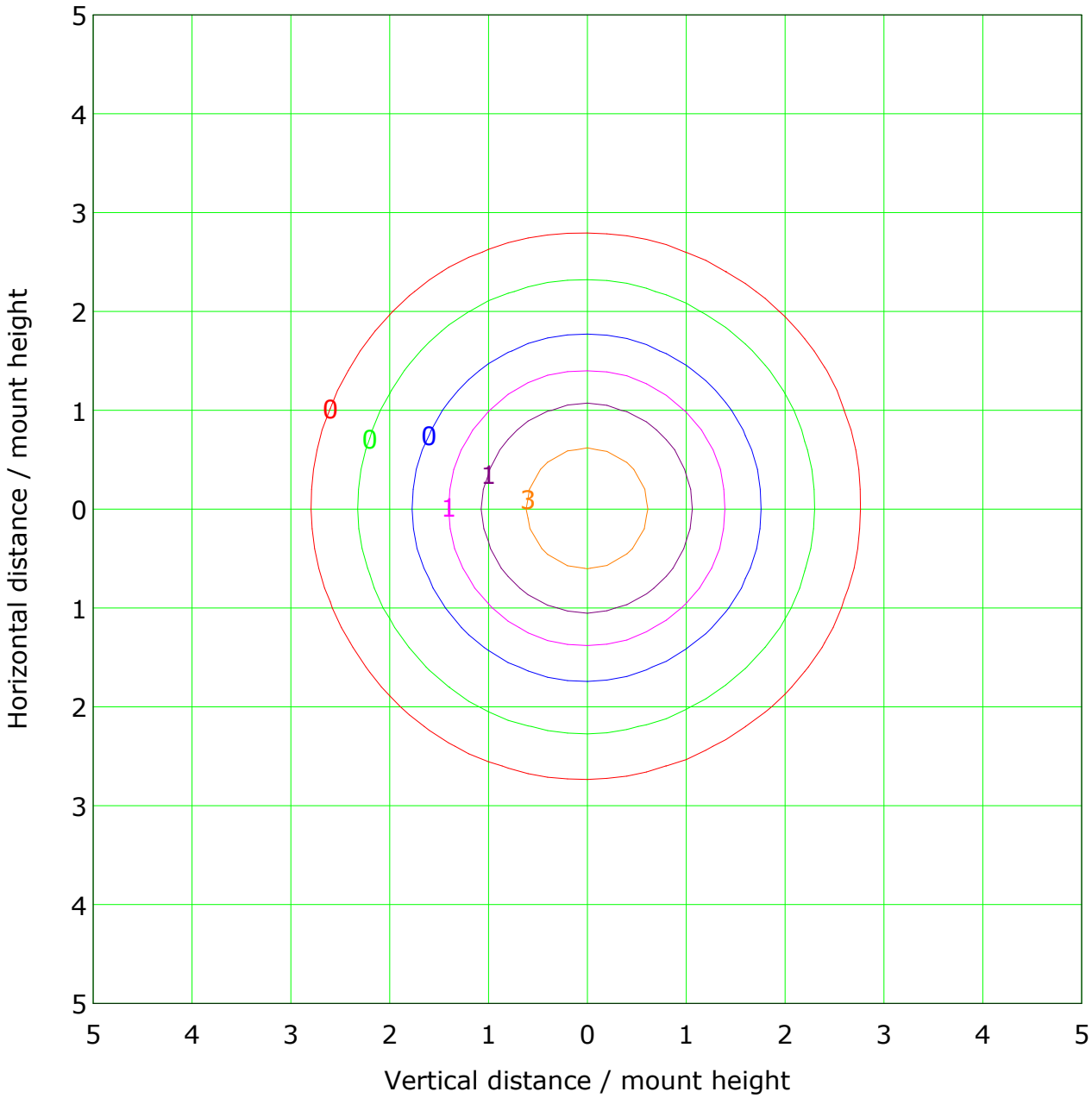
CIE: narrow - short
CIE: Full-cut-off luminaire
Max.At90: 4.742 cd/klm

IES: Cut-off
Max.At80: 29.797 cd/klm
Max.80-90: 29.797 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=1.0000]
Humidity: 45% R.H
Inspector:

IsoLux Plot



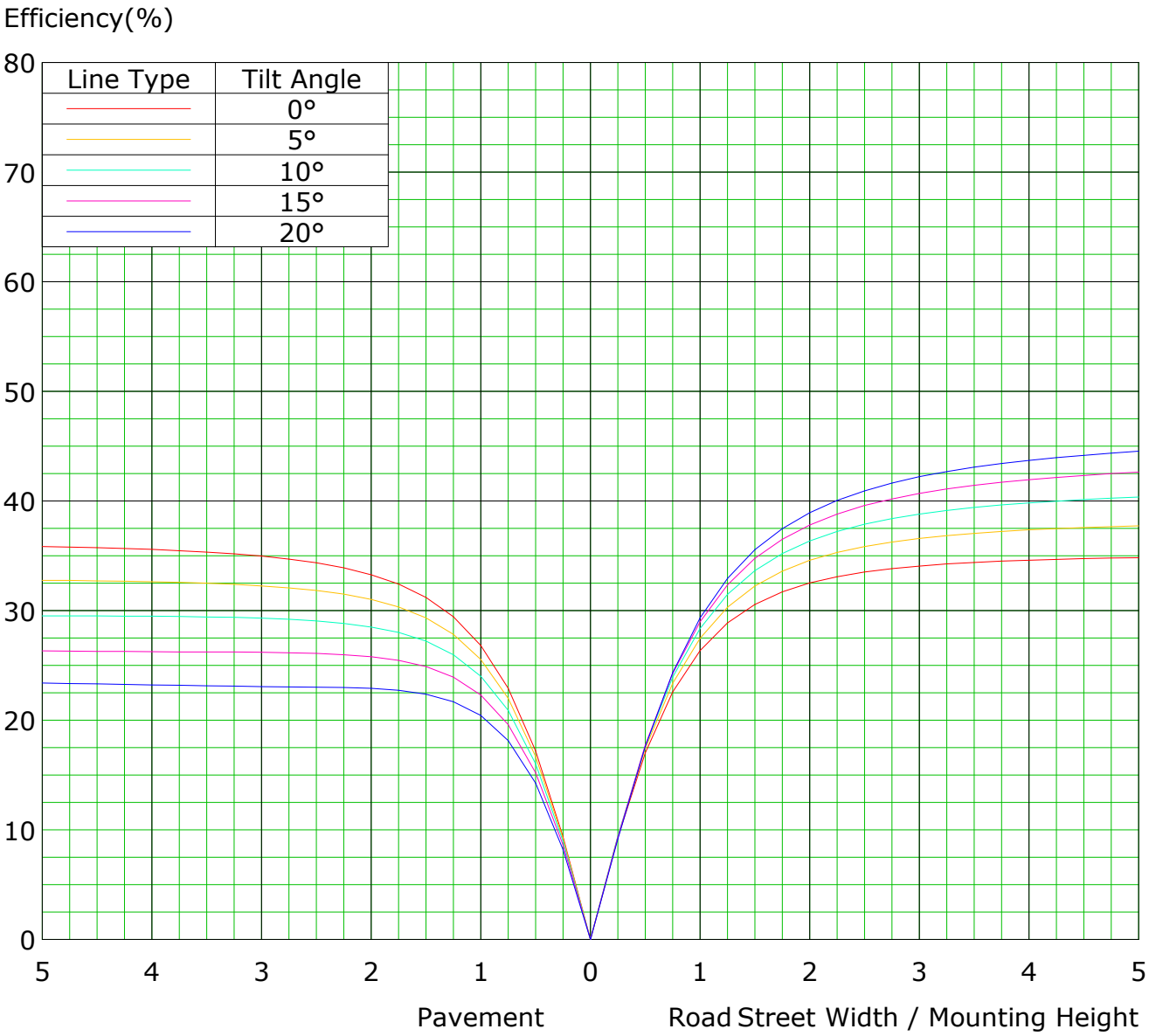
Mounting Height: 10.0m Max Lux(100%): 6.9 lx

(1%): 0.1 lx	(2%): 0.1 lx
(5%): 0.3 lx	(10%): 0.7 lx
(20%): 1.4 lx	(50%): 3.5 lx
(100%): 6.9 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=1.0000]
Humidity: 45% R.H
Inspector:

Roadway CU Curve

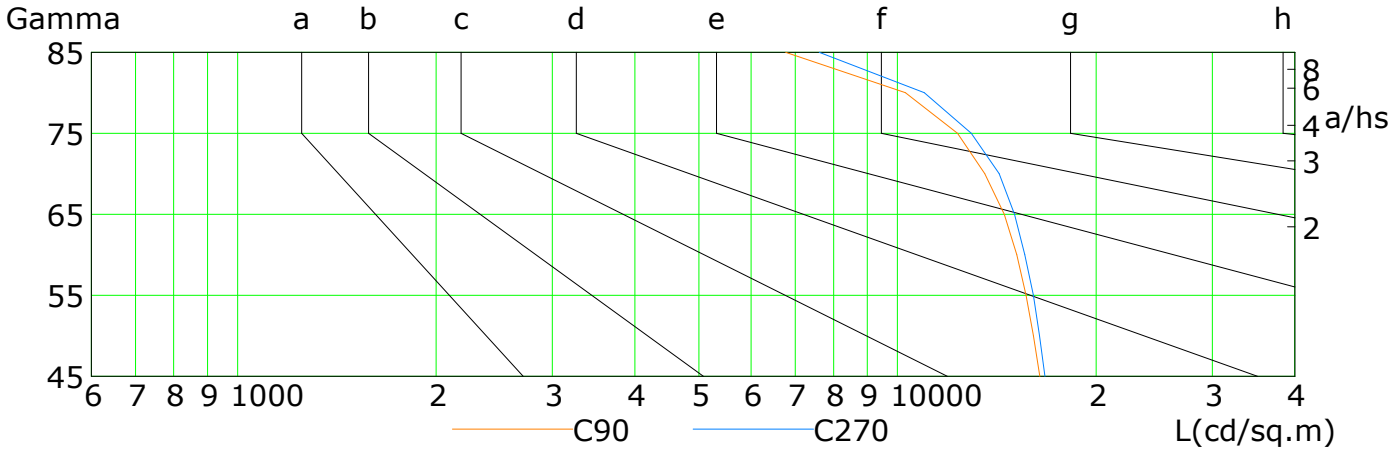


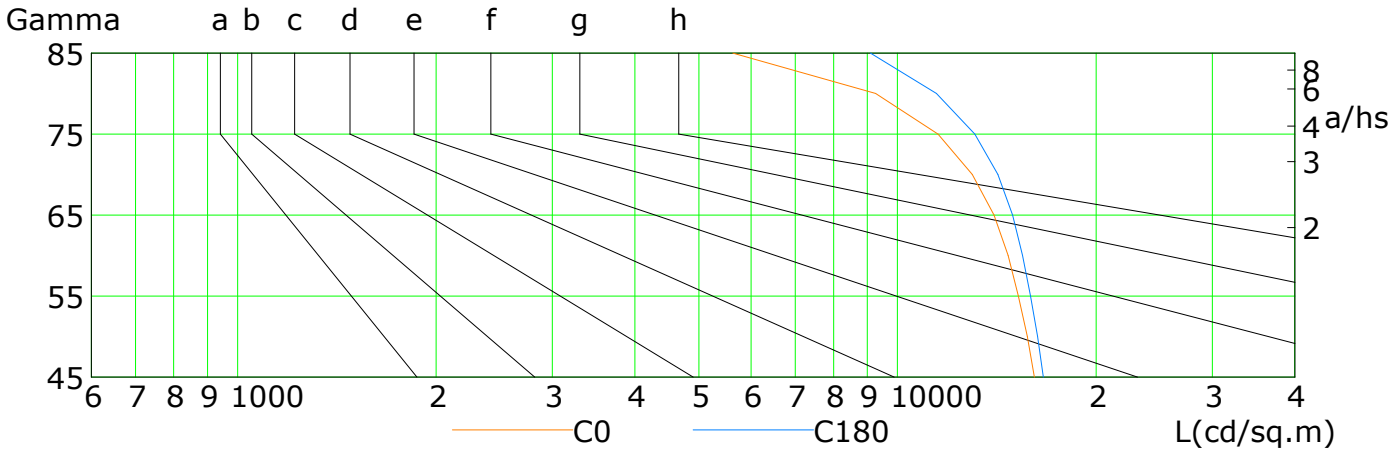
C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5℃
Operator: Yanzhao Sun

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
Inspector:

Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



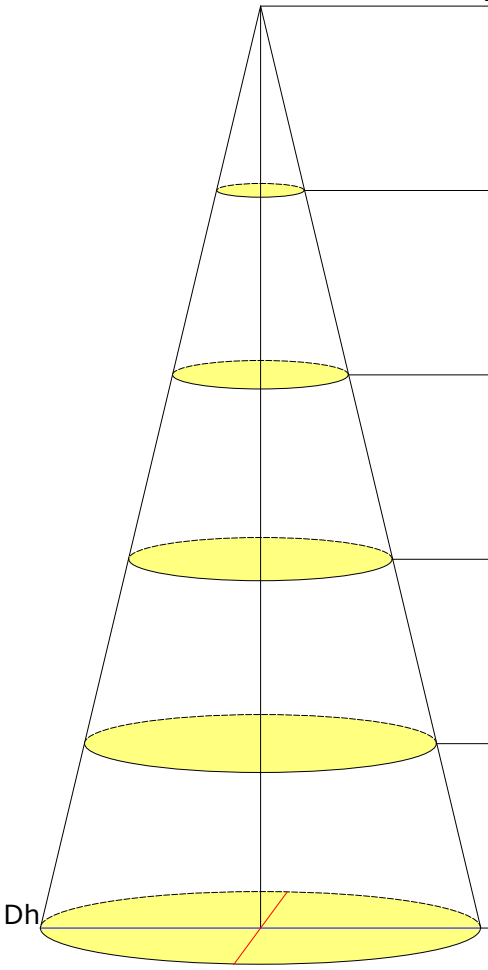


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	16129	15733	15252	14706	14008	12976	11521	9265	5632
C90	16433	16066	15655	15170	14519	13559	12327	10285	6768
C180	16631	16308	15905	15477	14937	14202	13106	11453	9097
C270	16720	16420	16061	15585	15047	14259	12941	10976	7609

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=1.0000]
Humidity: 45% R.H
Inspector:

Illuminance at a Distance



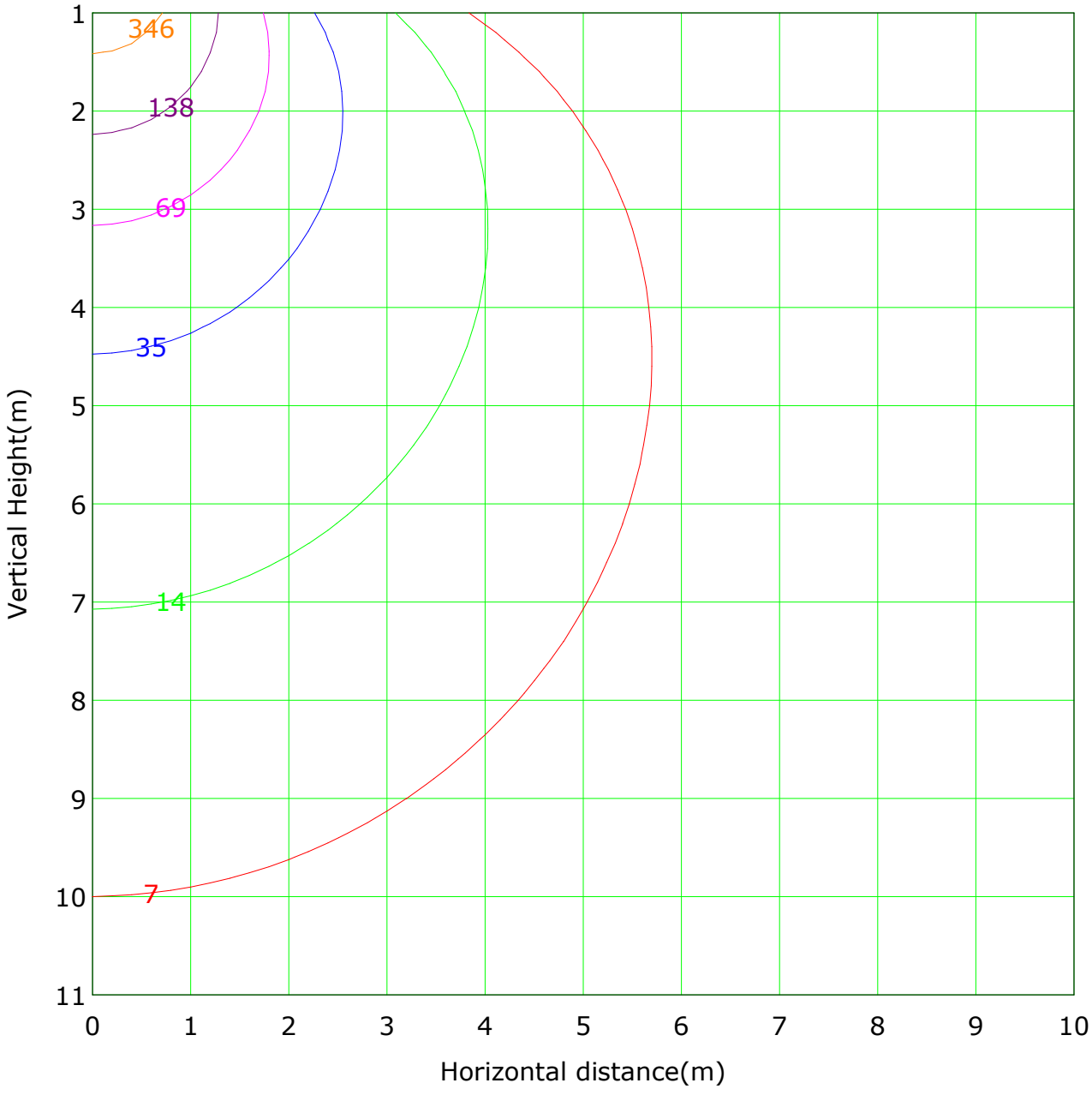
Dist(m)	Enadir(lx)	Dh/Dv_B(m)	S_B(sq.m)	Eav_B(lx)
		Dh/Dv_F(m)	S_F(sq.m)	Eav_F(lx)
10.0	6.92	27.75/28.37	619.6	1.22
		NA/NA	NA	NA
20.0	1.73	55.49/56.74	2478.5	0.31
		NA/NA	NA	NA
30.0	0.77	83.24/85.11	5576.6	0.14
		NA/NA	NA	NA
40.0	0.43	110.98/113.48	9913.9	0.08
		NA/NA	NA	NA
50.0	0.28	138.73/141.85	15490.4	0.05
		NA/NA	NA	NA

Beam Angle(B): H108.4 V109.6 Field Angle(F): H360.0 V360.0

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=1.0000]
Humidity: 45% R.H
Inspector:

Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 691.7 lx

(1%): 6.9 lx
(2%): 13.8 lx
(5%): 34.6 lx
(10%): 69.2 lx
(20%): 138.3 lx
(50%): 345.9 lx
(100%): 691.7 lx

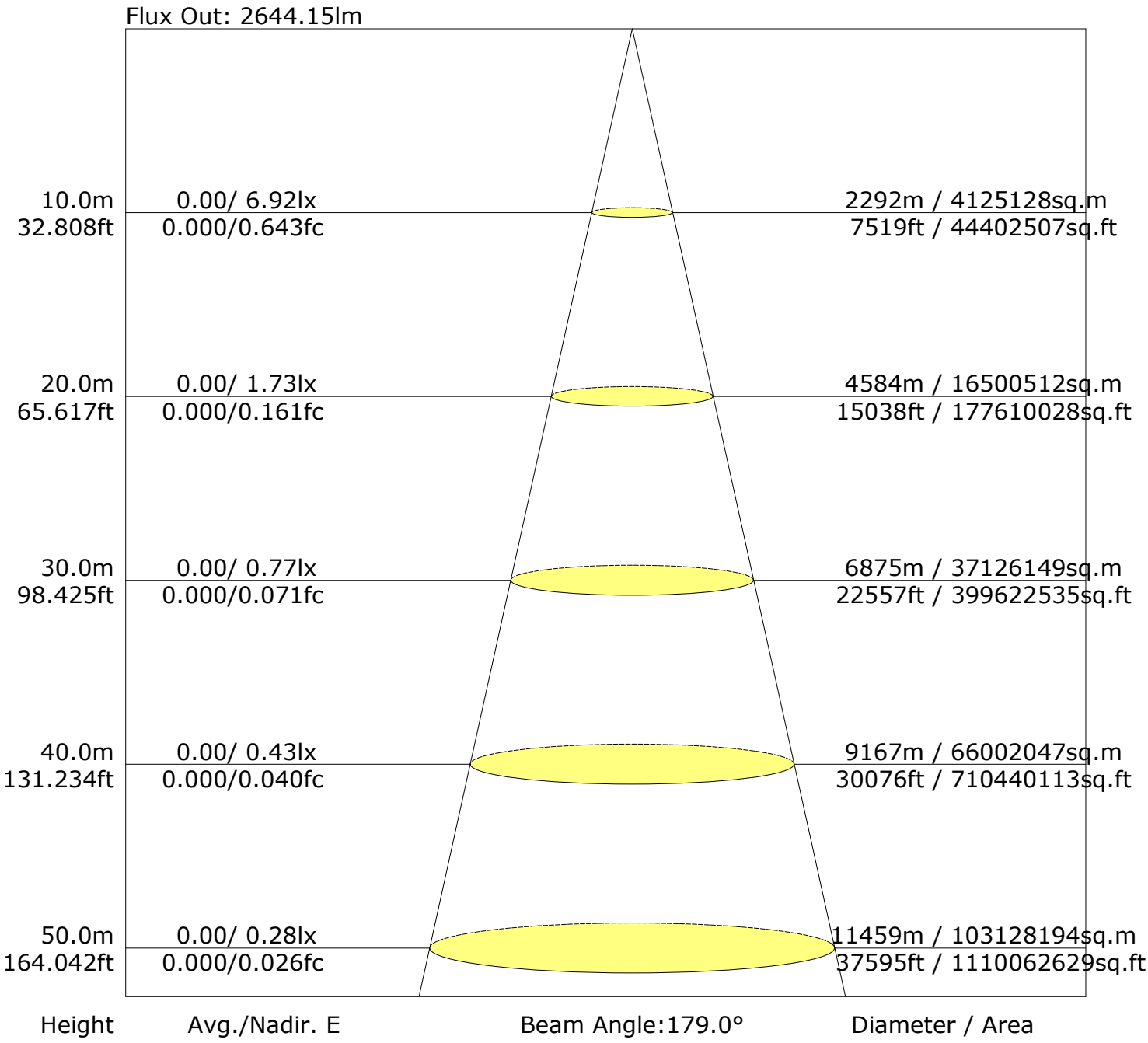
C Plane (°):0.0-360.0: 30.0
Gamma Plane (°):0.0-180.0:1.0
Test Lab: MESTER LAB
Test Device: GPM-1800B
Test Type: TYPE C
Distance: 11.655 m [K=1.0000]
Temperature: 25.5℃
Humidity: 45% R.H
Operator: Yanzhao Sun
Inspector:

Area Flux Table

Unit: lm

| Horizontal plane | Vertical plane | | |

The Average Illuminance Effective Figure



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=1.0000]
Humidity: 45% R.H
Inspector:

UGR Table

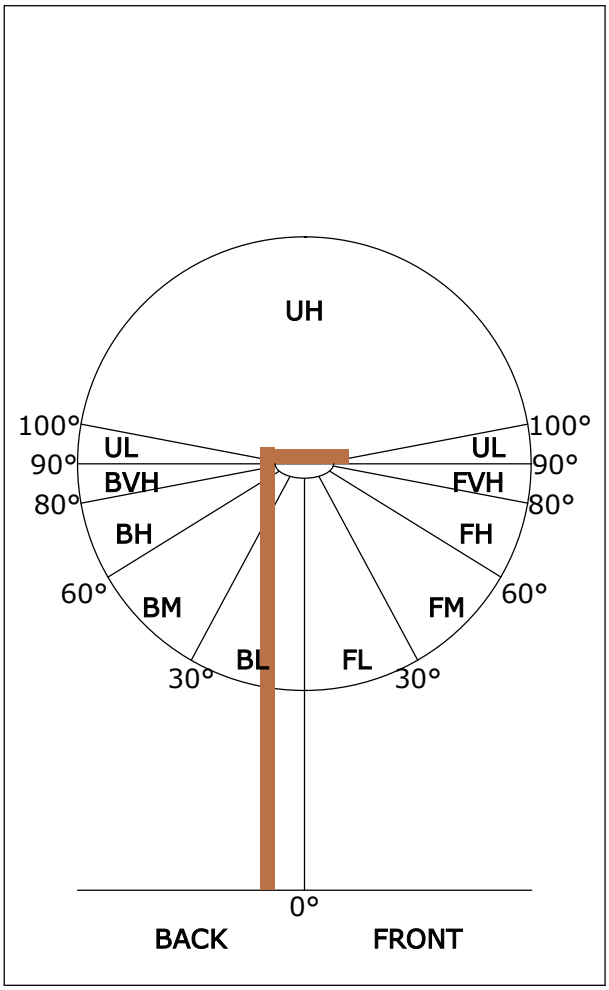
Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	19.5	20.6	20.2	21.4	22.3	19.7	20.8	20.4	21.6	22.5
3H	21.2	22.2	21.9	23.0	23.9	21.4	22.4	22.2	23.2	24.2
4H	21.8	22.7	22.5	23.5	24.5	22.1	23.0	22.8	23.8	24.8
6H	22.1	23.0	22.9	23.8	24.8	22.5	23.3	23.3	24.1	25.1
8H	22.2	23.0	23.0	23.8	24.8	22.6	23.4	23.4	24.2	25.2
12H	22.2	23.0	23.0	23.8	24.8	22.6	23.4	23.4	24.2	25.2
X=4H Y=2H	20.1	21.0	20.8	21.8	22.8	20.3	21.2	21.0	22.0	23.0
3H	22.0	22.7	22.8	23.6	24.6	22.2	23.0	23.0	23.8	24.8
4H	22.7	23.4	23.5	24.2	25.2	23.0	23.7	23.8	24.5	25.5
6H	23.1	23.7	23.9	24.6	25.6	23.5	24.1	24.3	25.0	26.0
8H	23.2	23.8	24.1	24.7	25.7	23.6	24.2	24.5	25.1	26.1
12H	23.3	23.8	24.1	24.7	25.7	23.7	24.2	24.5	25.1	26.1
X=8H Y=4H	22.9	23.5	23.7	24.3	25.4	23.2	23.8	24.1	24.6	25.7
6H	23.5	24.0	24.3	24.8	25.9	23.8	24.3	24.7	25.2	26.2
8H	23.6	24.1	24.5	24.9	26.0	24.1	24.5	24.9	25.4	26.4
12H	23.7	24.1	24.6	25.0	26.1	24.2	24.5	25.0	25.4	26.5
X=12H Y=4H	22.9	23.4	23.8	24.3	25.3	23.2	23.7	24.1	24.6	25.6
6H	23.5	23.9	24.4	24.8	25.9	23.9	24.3	24.8	25.2	26.3
8H	23.7	24.1	24.6	24.9	26.0	24.1	24.5	25.0	25.4	26.5

Calculate in accordance with CIE 190:2010 The table is revised with 2644lm (8log(F/F0) = 3.4).

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=1.0000]
Humidity: 45% R.H
Inspector:

FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM



ZONE	LUMENS	% LAMP LUMENS
FORWARD LIGHT	932	35.3
FL (0°-30°)	263	10.0
FM (30°-60°)	481	18.2
FH (60°-80°)	174	6.6
FVH (80°-90°)	13	0.5
BACK LIGHT	963	36.4
BL (0°-30°)	266	10.1
BM (30°-60°)	494	18.7
BH (60°-80°)	186	7.0
BVH (80°-90°)	17	0.6
UP LIGHT	749	28.3
UL (90°-100°)	35	1.3
UH (100°-180°)	714	27.0
TRAPPED LIGHT	NA	NA

BUG(**B**acklight,**U**plight,**G**lare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B1 U4 G1
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B1 U4 G1

C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
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Temperature: 25.5℃
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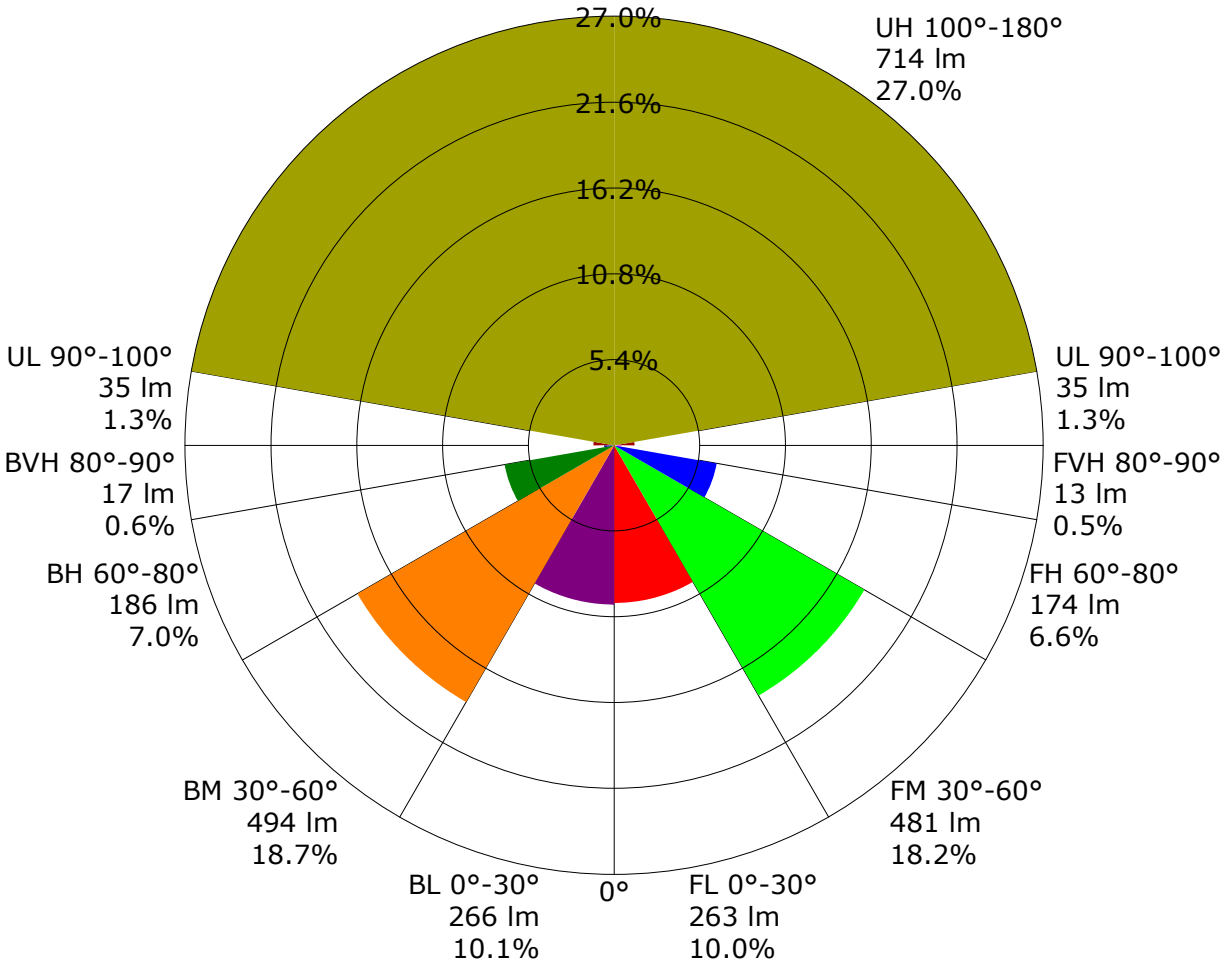
Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
Inspector:

LCS Graph



Scale= MAX LCS%

Trapped Light:NA,NA

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=1.0000]
Humidity: 45% R.H
Inspector:

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	0.51	0.60	0.67	0.72	0.79	0.84	0.87	0.92	0.94
	0.30		0.43	0.53	0.60	0.66	0.73	0.79	0.82	0.88	0.91
	0.20		0.38	0.48	0.55	0.60	0.68	0.74	0.78	0.84	0.88
0.50	0.50	0.20	0.47	0.55	0.61	0.66	0.72	0.76	0.79	0.83	0.85
	0.30		0.40	0.49	0.56	0.60	0.67	0.72	0.75	0.80	0.82
	0.20		0.36	0.45	0.51	0.56	0.63	0.68	0.72	0.77	0.80
0.30	0.50	0.20	0.43	0.50	0.56	0.59	0.65	0.68	0.71	0.74	0.76
	0.30		0.38	0.45	0.51	0.55	0.61	0.65	0.68	0.72	0.74
	0.20		0.34	0.42	0.47	0.52	0.58	0.63	0.66	0.70	0.73
0.00	0.00	0.00	0.29	0.36	0.41	0.45	0.50	0.54	0.56	0.60	0.62

Rating:20W Photometrically tested without ceiling board.
Multiply UF values by service correction factors
Calculate in accordance with CIBSE Technical Memorandum NO.5 1980

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=1.0000]
Humidity: 45% R.H
Inspector:

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	0.93	0.77	0.66	0.57	0.46	0.38	0.32	0.25	0.20
	0.30		0.78	0.66	0.57	0.51	0.41	0.35	0.30	0.24	0.19
	0.20		0.67	0.58	0.51	0.45	0.38	0.32	0.28	0.22	0.19
0.50	0.50	0.20	0.84	0.69	0.59	0.51	0.41	0.36	0.29	0.22	0.18
	0.30		0.71	0.60	0.52	0.46	0.37	0.31	0.27	0.21	0.17
	0.20		0.62	0.53	0.47	0.42	0.34	0.29	0.25	0.20	0.17
0.30	0.50	0.20	0.76	0.62	0.52	0.45	0.36	0.30	0.25	0.20	0.16
	0.30		0.65	0.54	0.47	0.41	0.33	0.28	0.24	0.19	0.15
	0.20		0.57	0.48	0.42	0.38	0.31	0.26	0.23	0.18	0.15
0.00	0.00	0.00	0.43	0.36	0.31	0.27	0.22	0.18	0.16	0.12	0.10

Rating:20W Photometrically tested without ceiling board.

Multiply UF values by service correction factors

Calculate in accordance with CIBSE Technical Memorandum NO.5 1980

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=1.0000]
Humidity: 45% R.H
Inspector:

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	0.44	0.45	0.45	0.46	0.47	0.47	0.48	0.48	0.48
	0.30		0.37	0.39	0.40	0.41	0.42	0.43	0.44	0.45	0.46
	0.20		0.33	0.34	0.35	0.37	0.38	0.40	0.41	0.43	0.44
0.50	0.50	0.20	0.42	0.43	0.44	0.44	0.45	0.45	0.46	0.46	0.46
	0.30		0.36	0.38	0.39	0.40	0.41	0.42	0.43	0.44	0.44
	0.20		0.32	0.34	0.35	0.36	0.38	0.39	0.40	0.41	0.42
0.30	0.50	0.20	0.41	0.42	0.42	0.43	0.43	0.44	0.44	0.44	0.44
	0.30		0.36	0.37	0.38	0.39	0.40	0.41	0.41	0.42	0.43
	0.20		0.32	0.33	0.34	0.35	0.37	0.38	0.39	0.40	0.41
0.00	0.00	0.00	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28

Rating:20W Photometrically tested without ceiling board.
Multiply UF values by service correction factors
Calculate in accordance with CIBSE Technical Memorandum NO.5 1980

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=1.0000]
Humidity: 45% R.H
Inspector:

Zonal Lumen

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	691.4	0.7	0.7	0.03	0.03
1.0-2.0	691.1	2.0	2.6	0.08	0.10
2.0-3.0	690.5	3.3	5.9	0.12	0.22
3.0-4.0	689.6	4.6	10.6	0.17	0.40
4.0-5.0	688.5	5.9	16.5	0.22	0.62
5.0-6.0	687.0	7.2	23.7	0.27	0.90
6.0-7.0	685.2	8.5	32.2	0.32	1.22
7.0-8.0	683.1	9.8	42.0	0.37	1.59
8.0-9.0	680.8	11.0	53.0	0.42	2.01
9.0-10.0	678.2	12.3	65.3	0.46	2.47
10.0-11.0	675.3	13.5	78.8	0.51	2.98
11.0-12.0	672.1	14.7	93.5	0.56	3.54
12.0-13.0	668.6	15.9	109.4	0.60	4.14
13.0-14.0	664.9	17.0	126.4	0.64	4.78
14.0-15.0	660.9	18.1	144.5	0.69	5.47
15.0-16.0	656.6	19.2	163.8	0.73	6.19
16.0-17.0	652.1	20.3	184.1	0.77	6.96
17.0-18.0	647.4	21.3	205.4	0.81	7.77
18.0-19.0	642.4	22.4	227.8	0.85	8.61
19.0-20.0	637.2	23.3	251.1	0.88	9.50
20.0-21.0	631.7	24.3	275.4	0.92	10.41
21.0-22.0	625.9	25.2	300.5	0.95	11.37
22.0-23.0	620.0	26.0	326.5	0.98	12.35
23.0-24.0	613.9	26.8	353.4	1.02	13.36
24.0-25.0	607.5	27.6	381.0	1.04	14.41
25.0-26.0	600.9	28.4	409.4	1.07	15.48
26.0-27.0	594.2	29.1	438.4	1.10	16.58
27.0-28.0	587.2	29.7	468.2	1.12	17.71
28.0-29.0	580.1	30.4	498.5	1.15	18.85
29.0-30.0	572.8	30.9	529.5	1.17	20.02
30.0-31.0	565.3	31.5	560.9	1.19	21.21
31.0-32.0	557.6	31.9	592.9	1.21	22.42
32.0-33.0	549.8	32.4	625.3	1.23	23.65
33.0-34.0	541.8	32.8	658.1	1.24	24.89
34.0-35.0	533.7	33.1	691.2	1.25	26.14
35.0-36.0	525.5	33.5	724.7	1.27	27.41

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=1.0000]
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	517.1	33.7	758.4	1.28	28.68
37.0-38.0	508.5	33.9	792.3	1.28	29.97
38.0-39.0	499.8	34.1	826.5	1.29	31.26
39.0-40.0	491.0	34.2	860.7	1.30	32.55
40.0-41.0	481.9	34.3	895.0	1.30	33.85
41.0-42.0	472.9	34.4	929.4	1.30	35.15
42.0-43.0	463.8	34.4	963.8	1.30	36.45
43.0-44.0	454.4	34.3	998.1	1.30	37.75
44.0-45.0	445.0	34.2	1032.3	1.29	39.04
45.0-46.0	435.6	34.1	1066.3	1.29	40.33
46.0-47.0	426.0	33.9	1100.2	1.28	41.61
47.0-48.0	416.2	33.7	1133.9	1.27	42.88
48.0-49.0	406.5	33.4	1167.3	1.26	44.14
49.0-50.0	396.6	33.1	1200.3	1.25	45.40
50.0-51.0	386.7	32.7	1233.1	1.24	46.63
51.0-52.0	376.7	32.3	1265.4	1.22	47.86
52.0-53.0	366.5	31.9	1297.3	1.21	49.06
53.0-54.0	356.2	31.4	1328.7	1.19	50.25
54.0-55.0	346.0	30.9	1359.6	1.17	51.42
55.0-56.0	335.6	30.3	1389.9	1.15	52.56
56.0-57.0	325.1	29.7	1419.6	1.12	53.69
57.0-58.0	314.5	29.1	1448.7	1.10	54.79
58.0-59.0	304.0	28.4	1477.1	1.07	55.86
59.0-60.0	293.2	27.7	1504.8	1.05	56.91
60.0-61.0	282.5	27.0	1531.8	1.02	57.93
61.0-62.0	271.8	26.2	1558.0	0.99	58.92
62.0-63.0	261.0	25.4	1583.4	0.96	59.88
63.0-64.0	250.0	24.5	1607.9	0.93	60.81
64.0-65.0	239.0	23.7	1631.6	0.89	61.71
65.0-66.0	227.9	22.7	1654.3	0.86	62.57
66.0-67.0	216.9	21.8	1676.1	0.82	63.39
67.0-68.0	205.8	20.9	1697.0	0.79	64.18
68.0-69.0	194.7	19.9	1716.8	0.75	64.93
69.0-70.0	183.5	18.8	1735.7	0.71	65.64
70.0-71.0	172.3	17.8	1753.5	0.67	66.32
71.0-72.0	161.1	16.8	1770.3	0.63	66.95

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=1.0000]
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	149.9	15.7	1785.9	0.59	67.54
73.0-74.0	138.8	14.6	1800.5	0.55	68.09
74.0-75.0	127.7	13.5	1814.0	0.51	68.60
75.0-76.0	116.7	12.4	1826.4	0.47	69.07
76.0-77.0	105.7	11.3	1837.7	0.43	69.50
77.0-78.0	95.0	10.2	1847.9	0.38	69.88
78.0-79.0	84.5	9.1	1856.9	0.34	70.23
79.0-80.0	74.1	8.0	1864.9	0.30	70.53
80.0-81.0	64.0	6.9	1871.8	0.26	70.79
81.0-82.0	54.3	5.9	1877.7	0.22	71.01
82.0-83.0	45.0	4.9	1882.6	0.19	71.20
83.0-84.0	36.2	3.9	1886.6	0.15	71.35
84.0-85.0	28.1	3.1	1889.6	0.12	71.47
85.0-86.0	20.6	2.3	1891.9	0.09	71.55
86.0-87.0	14.1	1.5	1893.4	0.06	71.61
87.0-88.0	8.6	0.9	1894.4	0.04	71.64
88.0-89.0	4.1	0.5	1894.8	0.02	71.66
89.0-90.0	3.8	0.4	1895.3	0.02	71.68
90.0-91.0	7.9	0.9	1896.1	0.03	71.71
91.0-92.0	12.9	1.4	1897.5	0.05	71.76
92.0-93.0	18.2	2.0	1899.5	0.08	71.84
93.0-94.0	23.6	2.6	1902.1	0.10	71.94
94.0-95.0	28.9	3.2	1905.3	0.12	72.06
95.0-96.0	34.2	3.7	1909.0	0.14	72.20
96.0-97.0	39.5	4.3	1913.3	0.16	72.36
97.0-98.0	45.3	4.9	1918.2	0.19	72.55
98.0-99.0	51.4	5.6	1923.8	0.21	72.76
99.0-100.0	57.4	6.2	1930.0	0.23	72.99
100.0-101.0	63.2	6.8	1936.8	0.26	73.25
101.0-102.0	69.2	7.4	1944.3	0.28	73.53
102.0-103.0	75.3	8.1	1952.3	0.30	73.84
103.0-104.0	81.5	8.7	1961.0	0.33	74.16
104.0-105.0	87.7	9.3	1970.3	0.35	74.52
105.0-106.0	94.0	9.9	1980.3	0.38	74.89
106.0-107.0	100.1	10.5	1990.8	0.40	75.29
107.0-108.0	106.0	11.1	2001.9	0.42	75.71

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=1.0000]
Humidity: 45% R.H
Inspector:

Zonal Lumen (Continue 3)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
108.0-109.0	111.8	11.6	2013.5	0.44	76.15
109.0-110.0	117.4	12.1	2025.6	0.46	76.61
110.0-111.0	123.0	12.6	2038.3	0.48	77.09
111.0-112.0	128.4	13.1	2051.4	0.50	77.58
112.0-113.0	133.6	13.5	2064.9	0.51	78.09
113.0-114.0	138.5	13.9	2078.8	0.53	78.62
114.0-115.0	143.1	14.3	2093.1	0.54	79.16
115.0-116.0	147.6	14.6	2107.7	0.55	79.71
116.0-117.0	151.7	14.9	2122.6	0.56	80.28
117.0-118.0	155.3	15.1	2137.7	0.57	80.85
118.0-119.0	158.3	15.3	2153.0	0.58	81.42
119.0-120.0	161.0	15.4	2168.4	0.58	82.01
120.0-121.0	163.2	15.4	2183.8	0.58	82.59
121.0-122.0	164.8	15.4	2199.2	0.58	83.17
122.0-123.0	165.9	15.3	2214.5	0.58	83.75
123.0-124.0	166.5	15.2	2229.8	0.58	84.33
124.0-125.0	166.6	15.1	2244.8	0.57	84.90
125.0-126.0	166.4	14.9	2259.7	0.56	85.46
126.0-127.0	166.0	14.6	2274.3	0.55	86.01
127.0-128.0	165.3	14.4	2288.7	0.54	86.56
128.0-129.0	164.4	14.1	2302.8	0.53	87.09
129.0-130.0	163.5	13.8	2316.6	0.52	87.61
130.0-131.0	162.5	13.5	2330.2	0.51	88.13
131.0-132.0	161.4	13.3	2343.4	0.50	88.63
132.0-133.0	160.3	13.0	2356.4	0.49	89.12
133.0-134.0	159.2	12.7	2369.0	0.48	89.60
134.0-135.0	158.1	12.4	2381.4	0.47	90.06
135.0-136.0	156.9	12.1	2393.5	0.46	90.52
136.0-137.0	155.7	11.8	2405.2	0.44	90.96
137.0-138.0	154.6	11.5	2416.7	0.43	91.40
138.0-139.0	153.5	11.2	2427.8	0.42	91.82
139.0-140.0	152.3	10.8	2438.7	0.41	92.23
140.0-141.0	151.2	10.5	2449.2	0.40	92.63
141.0-142.0	150.1	10.3	2459.5	0.39	93.02
142.0-143.0	149.1	10.0	2469.4	0.38	93.39
143.0-144.0	148.1	9.7	2479.1	0.37	93.76

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=1.0000]
Humidity: 45% R.H
Inspector:

Zonal Lumen (Continue 4)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
144.0-145.0	147.1	9.4	2488.5	0.35	94.11
145.0-146.0	146.1	9.1	2497.5	0.34	94.45
146.0-147.0	145.2	8.8	2506.3	0.33	94.79
147.0-148.0	144.2	8.5	2514.8	0.32	95.11
148.0-149.0	143.3	8.2	2523.0	0.31	95.42
149.0-150.0	142.4	7.9	2530.9	0.30	95.72
150.0-151.0	141.5	7.6	2538.6	0.29	96.01
151.0-152.0	140.6	7.4	2545.9	0.28	96.29
152.0-153.0	139.7	7.1	2553.0	0.27	96.55
153.0-154.0	138.8	6.8	2559.8	0.26	96.81
154.0-155.0	138.0	6.5	2566.3	0.25	97.06
155.0-156.0	137.2	6.2	2572.6	0.24	97.29
156.0-157.0	136.4	6.0	2578.5	0.23	97.52
157.0-158.0	135.6	5.7	2584.2	0.22	97.73
158.0-159.0	134.8	5.4	2589.6	0.20	97.94
159.0-160.0	134.1	5.1	2594.8	0.19	98.13
160.0-161.0	133.4	4.9	2599.7	0.18	98.32
161.0-162.0	132.7	4.6	2604.3	0.17	98.49
162.0-163.0	132.1	4.4	2608.6	0.16	98.66
163.0-164.0	131.5	4.1	2612.7	0.15	98.81
164.0-165.0	130.9	3.8	2616.6	0.15	98.96
165.0-166.0	130.4	3.6	2620.2	0.14	99.09
166.0-167.0	129.9	3.3	2623.5	0.13	99.22
167.0-168.0	129.5	3.1	2626.6	0.12	99.33
168.0-169.0	129.1	2.8	2629.4	0.11	99.44
169.0-170.0	128.8	2.6	2631.9	0.10	99.54
170.0-171.0	128.5	2.3	2634.3	0.09	99.63
171.0-172.0	128.2	2.1	2636.3	0.08	99.70
172.0-173.0	128.0	1.8	2638.2	0.07	99.77
173.0-174.0	127.8	1.6	2639.8	0.06	99.83
174.0-175.0	127.6	1.3	2641.1	0.05	99.88
175.0-176.0	127.5	1.1	2642.2	0.04	99.93
176.0-177.0	127.4	0.9	2643.1	0.03	99.96
177.0-178.0	127.3	0.6	2643.7	0.02	99.98
178.0-179.0	127.3	0.4	2644.0	0.01	100.00
179.0-180.0	127.2	0.1	2644.2	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 (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 11.655 m [K=1.0000]
Humidity: 45% R.H
Inspector:

Zonal Lumen (Continue 5)

cone flux(90°): 1032.27 lm

%lum = 39.0%
%lamp = 39.0%

cone flux(120°): 1504.85 lm

%lum = 56.9%
%lamp = 56.9%

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	691.7	691.3	691.8	691.1	691.3	691.7	691.7	691.3	691.8	691.1
G1.0	691.2	690.7	691.2	690.9	691.4	691.6	691.8	691.3	691.7	691.2
G2.0	690.5	689.9	690.6	690.4	690.9	691.5	691.6	691.4	691.6	690.9
G3.0	689.6	688.6	689.8	689.5	690.5	690.8	690.9	691.0	691.0	690.4
G4.0	688.4	687.1	688.2	688.6	689.6	690.0	690.3	690.5	690.1	689.5
G5.0	686.7	685.4	687.0	687.1	688.5	689.0	689.4	689.3	689.0	688.3
G6.0	684.6	683.5	685.1	685.3	687.1	687.5	687.8	688.1	687.8	686.7
G7.0	682.5	681.1	683.0	683.3	685.5	685.6	685.9	686.6	686.0	685.0
G8.0	680.1	678.7	680.7	681.3	683.4	683.7	684.0	685.0	683.7	682.8
G9.0	677.2	675.3	678.3	678.6	681.2	681.3	681.7	682.7	681.6	680.6
G10.0	674.2	672.3	675.4	675.9	678.7	678.8	679.2	680.1	679.3	678.0
G11.0	671.0	668.8	671.8	672.9	675.7	675.9	676.5	677.5	676.1	675.3
G12.0	667.6	665.2	668.6	669.2	672.5	672.5	673.1	674.5	673.0	672.0
G13.0	663.2	661.6	664.8	665.6	669.2	669.0	669.6	671.4	669.8	668.5
G14.0	659.1	656.9	660.9	661.8	665.5	665.3	665.9	667.5	665.9	665.0
G15.0	654.5	652.5	656.9	657.5	661.5	661.5	662.1	663.7	661.9	661.2
G16.0	650.0	648.0	652.0	653.2	657.3	656.9	657.6	659.5	657.9	657.1
G17.0	645.2	643.2	647.2	648.7	652.8	652.6	653.3	655.3	653.6	652.6
G18.0	639.7	637.5	642.2	644.1	648.2	647.8	648.4	651.1	648.6	647.6
G19.0	634.6	632.1	637.4	638.4	643.4	642.8	643.5	645.6	643.7	643.0
G20.0	628.9	626.5	632.2	633.1	638.3	637.8	638.3	640.7	638.5	637.9
G21.0	622.8	620.7	626.1	627.7	632.5	631.7	632.3	635.4	633.4	632.6
G22.0	616.8	614.3	620.3	622.0	627.1	626.1	626.6	630.3	627.7	626.7
G23.0	610.6	608.6	614.2	615.8	621.2	619.9	620.9	624.0	621.2	620.8
G24.0	604.1	601.6	607.5	609.8	614.7	614.0	614.8	618.1	615.4	614.7
G25.0	597.2	595.0	601.2	602.9	608.5	607.7	607.7	611.8	609.2	608.6
G26.0	590.4	588.2	594.4	596.4	602.1	600.7	601.3	605.7	602.8	601.8
G27.0	583.6	581.4	587.8	589.8	595.4	594.0	594.6	598.9	595.6	595.2
G28.0	576.5	573.3	579.9	582.9	587.9	586.9	588.0	591.6	588.9	588.5
G29.0	569.1	566.0	572.9	575.1	580.9	579.9	580.8	584.7	581.8	581.6
G30.0	561.1	558.5	565.8	567.8	573.8	572.6	572.7	577.6	574.8	574.4
G31.0	553.5	550.9	558.2	560.4	566.5	564.5	565.7	570.3	566.7	566.5
G32.0	546.0	542.6	549.8	552.7	558.4	556.8	558.0	562.9	559.3	558.9
G33.0	538.2	534.5	542.2	545.0	551.0	549.0	550.2	554.4	551.7	551.5
G34.0	529.3	526.3	534.2	536.8	543.2	541.3	541.9	546.7	543.6	543.6
G35.0	521.0	518.1	526.3	528.2	535.4	532.5	533.6	538.8	535.9	535.0
G36.0	512.8	509.9	517.3	520.0	527.3	524.3	525.4	530.8	527.7	527.2

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=1.0000]
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	504.4	501.5	509.1	511.8	518.5	516.0	517.2	521.8	518.7	518.8
G38.0	495.0	492.2	500.4	503.2	509.9	507.7	508.6	513.4	510.4	510.7
G39.0	486.5	483.4	491.9	494.0	501.8	499.1	499.3	504.6	501.7	502.0
G40.0	477.4	474.6	483.0	485.2	493.0	489.5	490.3	496.2	492.7	492.5
G41.0	468.7	464.8	473.5	476.6	483.4	480.5	481.7	486.5	483.4	483.7
G42.0	459.5	455.7	464.5	467.4	474.5	471.5	473.0	477.8	474.7	475.0
G43.0	449.4	446.6	455.4	458.4	465.4	462.4	463.0	468.7	465.9	466.1
G44.0	440.5	437.5	445.6	448.5	455.9	452.5	453.8	459.5	455.7	456.1
G45.0	431.1	428.0	436.4	439.2	446.6	443.0	444.5	450.6	446.4	446.9
G46.0	421.0	418.7	427.2	429.7	437.4	433.7	435.2	440.8	437.1	437.7
G47.0	411.3	408.0	417.7	420.1	428.0	424.0	425.1	431.5	427.7	427.4
G48.0	401.8	398.4	407.6	409.7	417.6	414.6	415.7	421.9	418.3	417.9
G49.0	392.3	388.7	397.8	400.1	408.1	404.8	406.0	411.4	407.7	408.6
G50.0	382.3	379.0	388.0	390.4	398.2	394.2	396.3	401.9	398.0	399.0
G51.0	371.8	368.2	378.4	380.8	388.5	384.5	385.5	392.2	388.5	389.2
G52.0	361.5	358.3	368.2	370.8	378.4	374.6	375.3	382.3	378.2	378.3
G53.0	351.7	348.4	357.5	359.9	367.8	363.8	366.0	371.4	368.1	368.3
G54.0	340.7	338.2	347.5	349.8	357.7	353.7	355.7	361.4	357.9	358.5
G55.0	330.7	327.0	337.8	339.4	347.9	343.4	344.8	351.2	347.9	348.2
G56.0	320.4	316.9	327.6	329.3	337.5	333.2	334.8	341.1	337.5	336.7
G57.0	310.2	306.7	316.2	318.3	326.2	321.9	324.4	330.0	326.3	326.6
G58.0	299.0	296.0	306.0	307.6	316.3	311.2	314.3	319.8	315.9	316.4
G59.0	288.5	285.6	295.5	297.3	305.8	300.8	302.8	309.4	305.4	305.0
G60.0	278.0	274.0	283.9	286.7	294.2	290.3	292.5	299.0	295.0	294.6
G61.0	267.5	263.4	273.5	276.0	283.7	279.7	282.1	287.5	283.1	284.2
G62.0	256.0	253.0	263.1	264.4	273.1	269.1	271.3	277.1	272.5	273.6
G63.0	245.3	242.3	252.6	253.5	262.6	257.5	260.8	266.6	261.8	262.0
G64.0	234.5	230.6	240.7	242.9	251.9	246.8	249.1	255.8	251.0	251.2
G65.0	223.8	219.7	230.0	231.9	239.9	236.0	238.6	243.8	239.4	240.4
G66.0	211.9	208.9	219.1	220.1	229.1	225.2	227.8	233.3	228.5	229.4
G67.0	201.3	198.1	208.5	209.1	218.3	213.1	216.2	222.5	217.6	217.4
G68.0	190.4	187.3	196.6	198.4	206.3	202.5	205.4	211.6	206.7	206.2
G69.0	179.6	176.3	185.7	187.3	195.6	191.4	194.4	199.7	194.4	195.3
G70.0	167.8	164.5	174.8	175.3	184.6	180.4	183.6	189.1	183.7	184.3
G71.0	156.9	153.6	163.0	164.2	173.6	169.6	171.7	178.3	172.6	172.2
G72.0	145.3	143.2	152.3	153.6	161.8	157.8	161.1	166.6	161.0	161.3
G73.0	134.2	132.0	141.1	142.3	150.7	146.7	149.9	155.2	150.3	149.9

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=1.0000]
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	123.3	120.9	129.9	131.2	139.2	135.5	138.7	144.1	139.2	138.6
G75.0	112.7	109.7	119.4	120.6	128.6	124.8	128.2	133.4	127.5	126.6
G76.0	101.8	99.4	108.4	109.4	117.3	113.3	117.0	122.2	116.2	115.1
G77.0	91.4	88.1	96.6	98.7	105.5	102.7	106.6	111.5	105.8	104.4
G78.0	80.7	78.3	86.9	87.8	95.7	92.8	95.8	100.4	94.6	93.2
G79.0	70.8	68.1	75.8	77.3	84.4	82.3	85.4	89.1	84.1	82.5
G80.0	60.8	58.2	65.6	67.5	73.8	71.7	75.2	78.8	74.2	72.0
G81.0	51.3	49.2	55.5	56.9	64.2	62.2	65.7	69.0	63.7	61.5
G82.0	42.4	40.3	46.1	47.5	53.9	52.8	55.7	58.8	54.2	51.8
G83.0	33.5	31.9	36.7	38.4	44.2	43.8	46.6	49.0	45.0	42.2
G84.0	25.5	24.2	28.8	29.9	35.7	34.8	38.2	40.5	35.8	33.1
G85.0	18.6	17.1	20.9	22.3	27.1	27.1	30.0	31.8	27.9	25.1
G86.0	12.0	11.3	14.3	15.1	19.5	19.8	22.6	24.0	20.3	17.4
G87.0	6.6	6.3	8.7	9.0	13.0	13.6	16.1	17.1	13.8	11.4
G88.0	2.3	2.1	4.2	4.2	7.6	8.0	10.3	10.9	8.4	6.0
G89.0	0.0	0.0	0.0	1.1	3.2	3.7	5.4	5.8	4.1	1.8
G90.0	1.2	1.8	1.8	0.3	9.5	9.8	8.1	12.5	11.7	0.5
G91.0	4.1	7.5	8.3	0.7	17.0	15.4	12.0	18.0	19.6	1.1
G92.0	7.7	14.0	16.0	1.1	20.5	21.2	16.2	24.1	27.0	1.8
G93.0	11.6	20.4	23.3	1.8	30.0	27.7	20.9	30.9	33.7	2.5
G94.0	15.9	27.0	30.3	2.7	36.2	34.5	25.9	38.2	39.3	3.4
G95.0	20.5	34.5	36.0	3.9	41.4	42.0	32.0	46.4	43.4	4.3
G96.0	25.5	42.3	40.6	5.1	45.8	47.4	38.9	55.3	47.5	5.4
G97.0	31.2	50.6	44.6	6.5	50.7	55.2	46.1	64.3	51.8	6.5
G98.0	37.8	59.9	48.6	7.8	55.6	66.4	54.5	73.5	55.8	7.7
G99.0	45.2	68.8	52.6	9.2	60.3	75.6	63.6	81.6	60.1	9.0
G100.0	53.0	78.1	56.6	10.6	65.4	84.5	71.5	90.2	64.5	10.3
G101.0	61.7	86.3	60.7	12.1	71.0	90.1	79.7	98.4	68.3	11.7
G102.0	70.4	95.1	64.5	13.6	76.0	98.8	89.3	107.8	72.5	13.0
G103.0	79.2	103.3	68.2	15.1	81.1	107.7	98.6	116.2	76.5	14.5
G104.0	87.9	112.7	72.0	16.7	86.0	119.0	109.7	124.7	80.1	15.9
G105.0	97.9	121.6	75.2	18.2	89.8	128.3	119.8	133.4	83.6	17.4
G106.0	108.0	129.9	78.5	19.7	93.6	138.9	131.5	142.2	86.6	18.9
G107.0	118.8	138.2	81.4	21.3	97.1	148.7	142.4	150.3	89.4	20.4
G108.0	130.1	146.6	83.8	22.9	100.4	158.4	153.2	157.9	92.0	22.0
G109.0	140.9	154.4	86.2	24.6	103.9	166.4	164.1	166.4	94.2	23.7
G110.0	151.5	163.0	88.0	26.3	107.4	175.1	173.9	174.5	96.0	25.3

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=1.0000]
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	163.0	171.0	89.7	28.1	110.7	183.9	183.6	183.4	97.5	26.9
G112.0	173.0	179.0	91.1	29.8	113.7	192.9	194.2	191.7	98.6	28.5
G113.0	182.9	187.6	92.1	31.4	115.3	201.8	203.7	199.9	99.3	30.4
G114.0	192.3	195.2	93.0	33.2	116.1	209.1	213.3	207.8	99.8	32.1
G115.0	202.5	202.5	93.6	35.1	116.6	216.5	222.6	215.9	100.0	33.8
G116.0	211.6	209.8	94.1	36.8	116.6	225.0	231.7	222.6	100.1	35.5
G117.0	220.2	215.7	94.6	38.7	116.5	231.7	241.0	228.5	100.1	37.4
G118.0	228.3	220.6	94.9	40.5	116.1	236.2	248.7	233.4	99.9	39.2
G119.0	235.7	224.5	95.2	42.3	115.7	240.2	255.6	237.7	99.7	41.0
G120.0	243.1	227.3	95.5	44.3	115.1	244.1	261.5	240.5	99.6	42.9
G121.0	248.5	229.1	95.8	46.2	114.5	248.0	266.8	242.1	99.5	44.9
G122.0	253.1	229.7	96.1	48.1	113.9	250.0	270.3	242.8	99.4	46.7
G123.0	256.4	229.4	96.5	50.1	113.4	250.6	272.7	242.6	99.4	48.6
G124.0	258.5	228.3	96.9	52.0	113.0	249.9	274.1	241.5	99.5	50.4
G125.0	259.6	226.6	97.4	53.9	112.7	248.4	274.5	239.8	99.6	52.3
G126.0	259.6	224.5	97.9	55.8	112.4	246.4	274.0	237.6	99.9	54.3
G127.0	258.8	222.2	98.5	57.9	112.2	244.0	272.8	235.1	100.2	56.2
G128.0	257.4	219.2	99.2	59.8	112.1	240.9	270.8	232.1	100.6	58.0
G129.0	255.4	216.4	99.8	61.6	112.1	237.8	268.5	229.1	101.0	60.0
G130.0	253.0	213.6	100.6	63.5	112.2	234.7	266.0	225.8	101.5	61.9
G131.0	250.4	210.6	101.3	65.6	112.3	231.4	263.1	222.3	102.0	63.7
G132.0	247.6	207.8	102.0	67.4	112.5	228.0	259.7	219.0	102.6	65.5
G133.0	244.3	204.6	102.8	69.2	112.7	224.1	256.5	215.7	103.2	67.3
G134.0	241.2	201.8	103.7	71.1	113.0	220.7	253.1	212.3	103.8	69.3
G135.0	238.0	198.9	104.5	73.1	113.4	217.1	249.4	209.0	104.4	71.2
G136.0	234.6	196.2	105.3	74.9	113.7	213.5	245.6	205.3	105.1	73.0
G137.0	230.9	193.2	106.1	76.7	114.0	209.8	241.3	202.0	105.7	74.8
G138.0	227.8	190.6	107.0	78.6	114.4	206.3	237.3	198.7	106.5	76.8
G139.0	224.0	188.0	107.8	80.6	114.8	202.9	233.2	195.5	107.3	78.5
G140.0	220.5	185.3	108.8	82.4	115.3	199.4	228.6	192.2	108.0	80.3
G141.0	217.0	182.8	109.6	84.2	115.7	195.9	224.5	189.0	108.8	82.0
G142.0	213.5	180.3	110.5	86.1	116.2	192.7	220.3	186.1	109.6	84.0
G143.0	209.8	177.9	111.3	88.0	116.6	189.6	216.1	183.2	110.4	85.7
G144.0	206.3	175.5	112.3	89.8	117.0	186.5	212.0	180.2	111.2	87.6
G145.0	202.8	173.3	113.1	91.5	117.4	183.6	207.5	177.4	112.1	89.4
G146.0	199.4	170.7	113.9	93.2	117.9	180.5	203.6	174.8	112.8	91.2
G147.0	196.0	168.5	114.6	95.0	118.4	177.7	199.7	172.1	113.7	93.2

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=1.0000]
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	192.2	166.3	115.4	96.7	118.9	175.0	195.8	169.5	114.4	95.0
G149.0	189.0	163.9	116.2	98.4	119.4	172.1	191.7	166.9	115.1	96.8
G150.0	185.6	161.8	116.9	100.1	119.8	169.5	188.0	164.3	115.8	98.7
G151.0	182.3	159.7	117.7	101.8	120.2	166.9	184.4	161.8	116.4	100.5
G152.0	179.2	157.6	118.4	103.4	120.6	164.3	180.9	159.5	117.1	102.1
G153.0	175.6	155.4	119.1	105.0	121.0	161.5	177.4	157.1	117.8	103.7
G154.0	172.6	153.4	119.9	106.6	121.4	159.0	173.5	154.9	118.4	105.4
G155.0	169.5	151.5	120.5	108.1	121.7	156.6	170.2	152.7	119.0	106.8
G156.0	166.3	149.6	121.1	109.7	122.0	154.2	166.9	150.6	119.6	108.4
G157.0	163.4	147.7	121.8	111.0	122.4	151.7	163.6	148.5	120.2	109.8
G158.0	160.4	146.0	122.4	112.4	122.7	149.4	160.2	146.5	120.7	111.2
G159.0	157.6	144.5	122.9	113.6	123.0	147.3	157.2	144.7	121.3	112.5
G160.0	154.8	143.0	123.5	114.9	123.3	145.3	154.2	142.9	121.8	113.9
G161.0	152.3	141.4	124.0	116.1	123.6	143.1	151.3	141.2	122.3	115.0
G162.0	149.6	140.1	124.5	117.2	123.8	141.3	148.5	139.6	122.7	116.2
G163.0	147.3	138.8	124.9	118.4	124.1	139.6	145.6	137.8	123.2	117.2
G164.0	145.1	137.5	125.4	119.4	124.4	137.9	143.2	136.4	123.6	118.4
G165.0	143.0	136.5	125.7	120.4	124.7	136.3	140.9	135.0	124.0	119.3
G166.0	141.0	135.3	126.1	121.2	125.0	134.8	138.7	133.7	124.4	120.2
G167.0	139.2	134.3	126.3	122.1	125.3	133.6	136.6	132.6	124.7	121.0
G168.0	137.5	133.4	126.5	122.9	125.6	132.5	134.9	131.5	125.0	121.9
G169.0	136.0	132.6	126.7	123.6	125.9	131.6	133.5	130.6	125.3	122.7
G170.0	134.6	131.8	126.9	124.2	126.1	130.7	132.2	129.9	125.6	123.4
G171.0	133.4	131.0	127.0	124.8	126.3	129.9	131.0	129.3	125.8	124.1
G172.0	132.2	130.2	127.0	125.4	126.4	129.3	130.0	128.8	126.0	124.7
G173.0	131.1	129.6	127.2	125.8	126.6	128.8	129.2	128.3	126.2	125.2
G174.0	130.2	129.0	127.3	126.3	126.7	128.3	128.6	127.9	126.4	125.7
G175.0	129.4	128.5	127.3	126.6	126.8	127.9	128.1	127.7	126.6	126.2
G176.0	128.7	128.1	127.4	126.8	126.9	127.6	127.6	127.4	126.8	126.5
G177.0	128.2	127.8	127.4	127.1	127.1	127.4	127.3	127.2	126.9	126.8
G178.0	127.8	127.6	127.4	127.2	127.2	127.3	127.1	127.1	127.1	127.0
G179.0	127.4	127.3	127.3	127.3	127.2	127.3	127.2	127.1	127.2	127.1
G180.0	127.2	127.2	127.3	127.3	127.2	127.2	127.2	127.2	127.3	127.3

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=1.0000]
Humidity: 45% R.H
Inspector:

Candlepower Table (Continue 5)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G0.0	691.3	691.7	691.7							
G1.0	690.8	691.3	691.2							
G2.0	690.4	690.7	690.5							
G3.0	689.5	689.8	689.6							
G4.0	688.4	688.6	688.4							
G5.0	686.8	686.9	686.7							
G6.0	685.1	685.1	684.6							
G7.0	683.1	683.2	682.5							
G8.0	680.5	680.6	680.1							
G9.0	677.8	677.9	677.2							
G10.0	675.0	674.9	674.2							
G11.0	671.8	671.5	671.0							
G12.0	668.5	668.1	667.6							
G13.0	664.7	664.3	663.2							
G14.0	660.6	660.5	659.1							
G15.0	656.2	656.2	654.5							
G16.0	651.8	651.8	650.0							
G17.0	647.0	646.4	645.2							
G18.0	642.0	641.6	639.7							
G19.0	637.0	636.4	634.6							
G20.0	631.5	631.0	628.9							
G21.0	625.9	624.8	622.8							
G22.0	619.9	619.1	616.8							
G23.0	613.8	613.1	610.6							
G24.0	607.6	606.9	604.1							
G25.0	601.0	599.8	597.2							
G26.0	594.4	593.0	590.4							
G27.0	587.1	586.1	583.6							
G28.0	580.2	579.1	576.5							
G29.0	573.2	571.9	569.1							
G30.0	566.0	563.8	561.1							
G31.0	557.8	556.2	553.5							
G32.0	550.1	548.5	546.0							
G33.0	542.4	540.8	538.2							
G34.0	534.4	532.0	529.3							
G35.0	526.4	523.9	521.0							
G36.0	517.4	515.7	512.8							

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=1.0000]
Humidity: 45% R.H
Inspector:

Candlepower Table (Continue 6)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G37.0	509.0	507.5	504.4							
G38.0	500.5	498.3	495.0							
G39.0	491.8	489.5	486.5							
G40.0	483.1	481.0	477.4							
G41.0	473.5	471.9	468.7							
G42.0	464.5	463.1	459.5							
G43.0	455.5	453.2	449.4							
G44.0	445.7	443.9	440.5							
G45.0	436.3	434.8	431.1							
G46.0	426.9	425.6	421.0							
G47.0	417.5	415.1	411.3							
G48.0	407.1	405.5	401.8							
G49.0	397.4	396.3	392.3							
G50.0	387.7	385.5	382.3							
G51.0	378.0	375.8	371.8							
G52.0	367.8	365.9	361.5							
G53.0	357.4	355.7	351.7							
G54.0	346.9	345.9	340.7							
G55.0	336.8	334.8	330.7							
G56.0	325.7	324.9	320.4							
G57.0	315.5	314.6	310.2							
G58.0	305.0	304.4	299.0							
G59.0	294.6	293.1	288.5							
G60.0	283.2	282.6	278.0							
G61.0	272.6	272.3	267.5							
G62.0	262.0	261.7	256.0							
G63.0	251.3	250.1	245.3							
G64.0	240.6	239.4	234.5							
G65.0	229.0	228.6	223.8							
G66.0	218.3	216.9	211.9							
G67.0	207.5	206.1	201.3							
G68.0	196.7	195.5	190.4							
G69.0	184.5	184.7	179.6							
G70.0	173.5	172.8	167.8							
G71.0	162.6	162.2	156.9							
G72.0	150.9	150.7	145.3							
G73.0	140.2	139.5	134.2							

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=1.0000]
Humidity: 45% R.H
Inspector:

Candlepower Table (Continue 7)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G74.0	129.1	128.6	123.3							
G75.0	117.4	118.0	112.7							
G76.0	106.4	107.0	101.8							
G77.0	95.9	96.7	91.4							
G78.0	84.9	85.8	80.7							
G79.0	74.7	75.6	70.8							
G80.0	64.2	65.5	60.8							
G81.0	54.7	55.5	51.3							
G82.0	45.3	45.9	42.4							
G83.0	36.7	37.5	33.5							
G84.0	28.1	29.3	25.5							
G85.0	20.6	21.4	18.6							
G86.0	14.1	14.9	12.0							
G87.0	8.7	9.4	6.6							
G88.0	4.4	4.6	2.3							
G89.0	0.0	1.1	0.0							
G90.0	4.3	3.6	1.2							
G91.0	12.4	8.7	4.1							
G92.0	20.5	14.4	7.7							
G93.0	28.3	20.2	11.6							
G94.0	35.5	26.3	15.9							
G95.0	41.5	33.2	20.5							
G96.0	46.6	40.8	25.5							
G97.0	51.1	48.9	31.2							
G98.0	55.4	57.5	37.8							
G99.0	60.2	66.1	45.2							
G100.0	64.9	75.4	53.0							
G101.0	69.3	83.2	61.7							
G102.0	74.0	92.1	70.4							
G103.0	78.5	100.3	79.2							
G104.0	82.6	109.0	87.9							
G105.0	86.5	118.1	97.9							
G106.0	90.0	127.3	108.0							
G107.0	93.2	136.0	118.8							
G108.0	96.0	143.9	130.1							
G109.0	98.5	152.6	140.9							
G110.0	100.3	160.6	151.5							

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=1.0000]
Humidity: 45% R.H
Inspector:

Candlepower Table (Continue 8)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G111.0	102.0	169.4	163.0							
G112.0	103.1	177.4	173.0							
G113.0	104.0	185.4	182.9							
G114.0	104.5	193.3	192.3							
G115.0	104.8	201.6	202.5							
G116.0	104.9	208.4	211.6							
G117.0	104.9	214.7	220.2							
G118.0	104.8	220.1	228.3							
G119.0	104.6	225.0	235.7							
G120.0	104.5	228.3	243.1							
G121.0	104.3	230.5	248.5							
G122.0	104.3	231.6	253.1							
G123.0	104.2	231.8	256.4							
G124.0	104.3	231.2	258.5							
G125.0	104.4	229.8	259.6							
G126.0	104.6	227.9	259.6							
G127.0	104.8	225.7	258.8							
G128.0	105.2	223.1	257.4							
G129.0	105.5	220.4	255.4							
G130.0	105.9	217.5	253.0							
G131.0	106.4	214.3	250.4							
G132.0	106.9	211.3	247.6							
G133.0	107.4	208.5	244.3							
G134.0	108.0	205.5	241.2							
G135.0	108.6	202.6	238.0							
G136.0	109.2	199.5	234.6							
G137.0	109.9	196.7	230.9							
G138.0	110.5	194.0	227.8							
G139.0	111.2	191.3	224.0							
G140.0	112.0	188.3	220.5							
G141.0	112.6	185.7	217.0							
G142.0	113.3	183.2	213.5							
G143.0	114.0	180.6	209.8							
G144.0	114.8	177.9	206.3							
G145.0	115.5	175.5	202.8							
G146.0	116.2	173.1	199.4							
G147.0	116.9	170.6	196.0							

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=1.0000]
Humidity: 45% R.H
Inspector:

Candlepower Table (Continue 9)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G148.0	117.7	168.3	192.2							
G149.0	118.3	165.9	189.0							
G150.0	118.9	163.5	185.6							
G151.0	119.5	161.2	182.3							
G152.0	120.1	159.1	179.2							
G153.0	120.7	156.8	175.6							
G154.0	121.2	154.8	172.6							
G155.0	121.7	152.8	169.5							
G156.0	122.2	150.8	166.3							
G157.0	122.7	148.8	163.4							
G158.0	123.1	147.0	160.4							
G159.0	123.5	145.3	157.6							
G160.0	123.9	143.6	154.8							
G161.0	124.2	142.0	152.3							
G162.0	124.6	140.5	149.6							
G163.0	124.9	138.9	147.3							
G164.0	125.1	137.7	145.1							
G165.0	125.3	136.5	143.0							
G166.0	125.6	135.4	141.0							
G167.0	125.9	134.2	139.2							
G168.0	126.1	133.2	137.5							
G169.0	126.3	132.4	136.0							
G170.0	126.5	131.5	134.6							
G171.0	126.6	130.8	133.4							
G172.0	126.7	130.0	132.2							
G173.0	126.8	129.5	131.1							
G174.0	126.9	128.9	130.2							
G175.0	127.0	128.5	129.4							
G176.0	127.1	128.1	128.7							
G177.0	127.2	127.8	128.2							
G178.0	127.2	127.5	127.8							
G179.0	127.2	127.3	127.4							
G180.0	127.2	127.2	127.2							

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=1.0000]
Humidity: 45% R.H
Inspector:

LED Average Luminance Report

Avg.L	cd/m^2
L 0-180(65) av	14472.52
L 0-180(75) av	12313.51
L 0-180(85) av	7364.12
L 90-270(65) av	14783.28
L 90-270(75) av	12634.16
L 90-270(85) av	7188.53
L 45(65) av	14604.46
L 45(75) av	12507.33
L 45(85) av	7352.21

Standard: GB/T 29293-2012

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=1.0000]
Humidity: 45% R.H
Inspector: