

Report No.: MSTLAB241102041

Test Time: 2024/11/2

Luminaire Property

Luminaire Manufacturer: MESTER

Luminaire Category: ALL012F

Luminaire Description: MALL012F20W27V27K(Up50%-Down50%)

Lamp Catalog:

Number of Lamps: 1

Luminous Length (mm): 600

Luminous Height (mm):

Current: 0.169 A

Power Factor: 0.996

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 63

Voltage: 120.2 V

Power: 20.20 W

Photometric Results

CIE Class: General Diffuse

Measurement Flux: 2638.1 lm

Downward Ratio: 49%

Horizontal Diffuse Angle(10%,50%,75%,100%): H159.4,H105.9,H67.1,H0

Vertical Diffuse Angle(10%,50%,75%,100%): V160.3,V109.7,V73.2,V0

Luminous Efficacy (lm/w): 130.60

Max. Intensity: 496.47 cd

S/MH(C0/C180): 1.22

Total Rated Lamp Lumens: 2638.1 lm

Efficiency: 100%

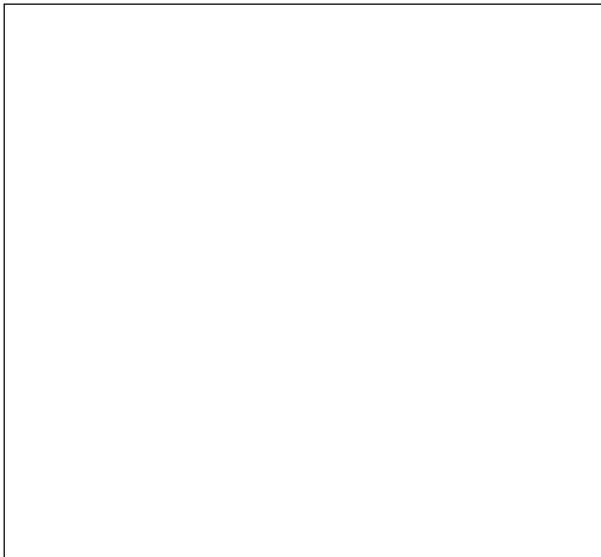
Upward Ratio: 51%

C0r0 Intensity: 465.57 cd

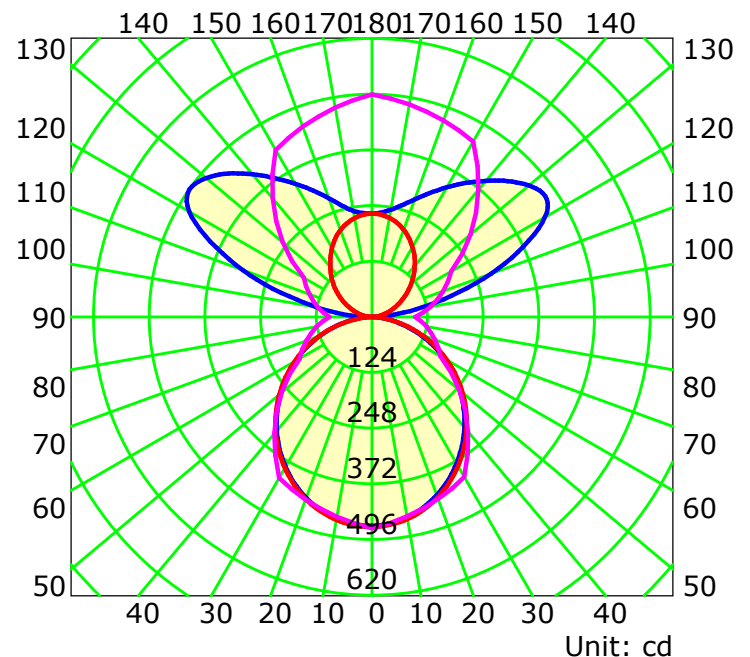
Pos of Max. Intensity: H180 V125

S/MH(C90/C270): 1.23

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd
Average Diffuse Angle(50%): 222.4°

— C0-C180 — C90-C270 — G125

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

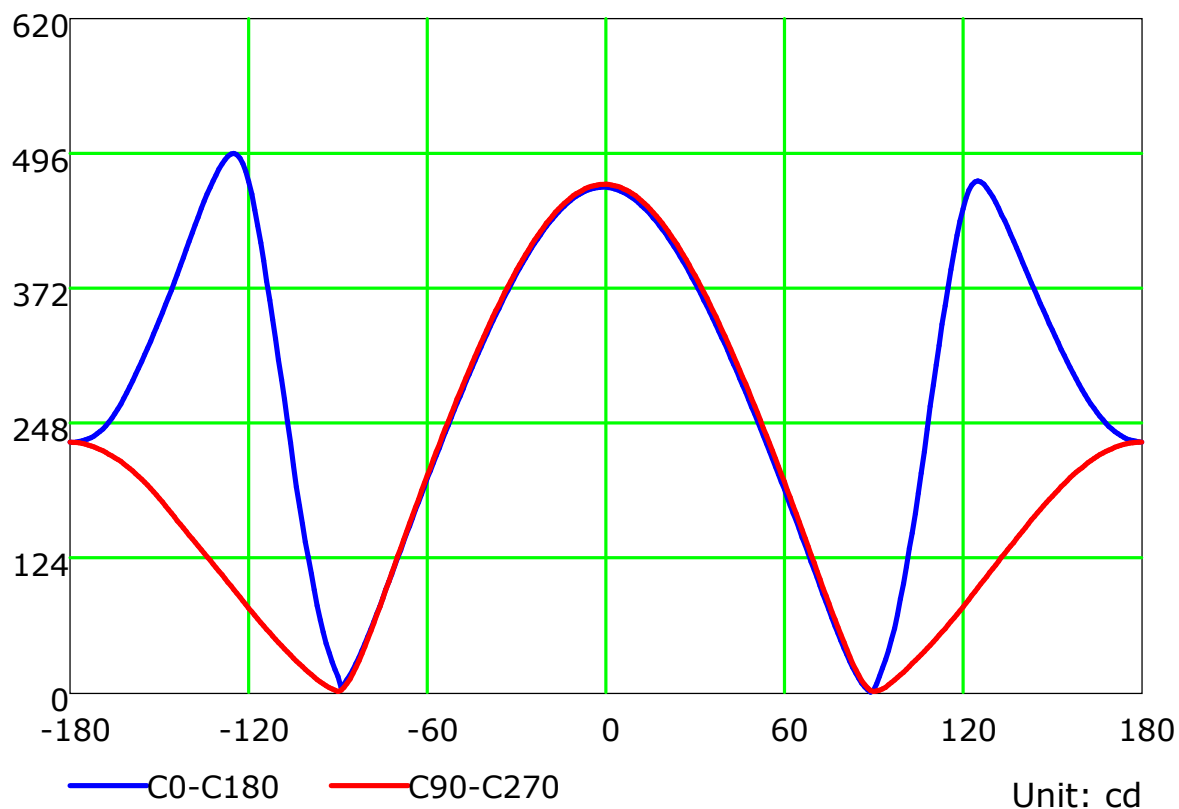
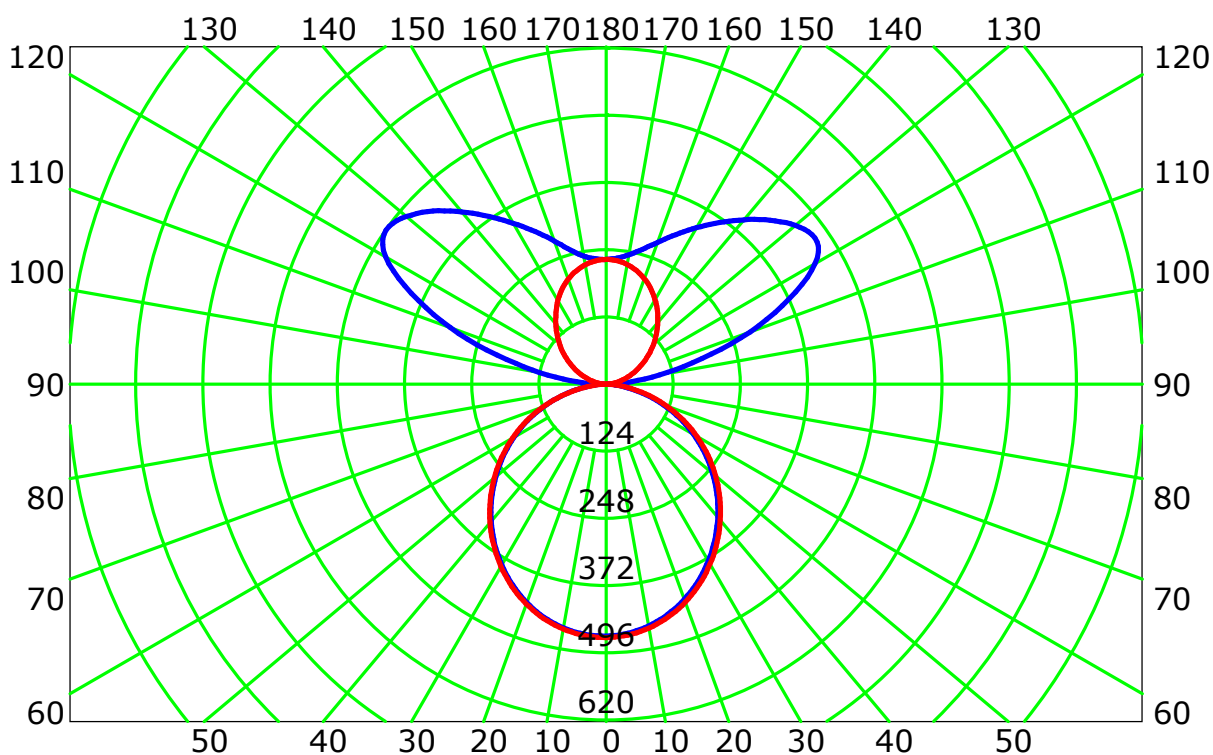
Test Device: GPM-1800B

Distance: 11.655 m [K=1.0000]

Humidity: 45% R.H

Inspector:

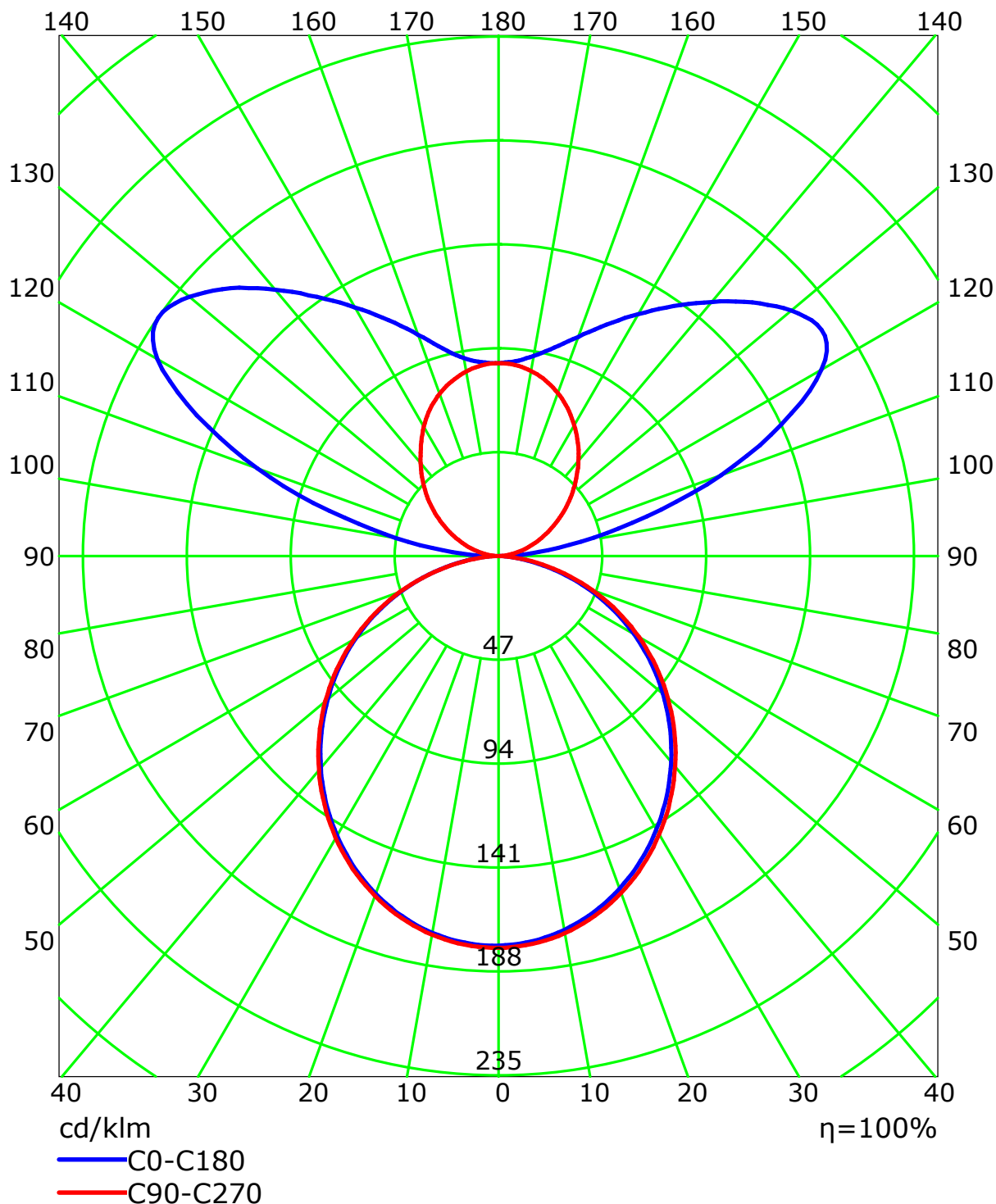
Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5℃
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
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Distance: 11.655 m [K=1.0000]
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Inspector:

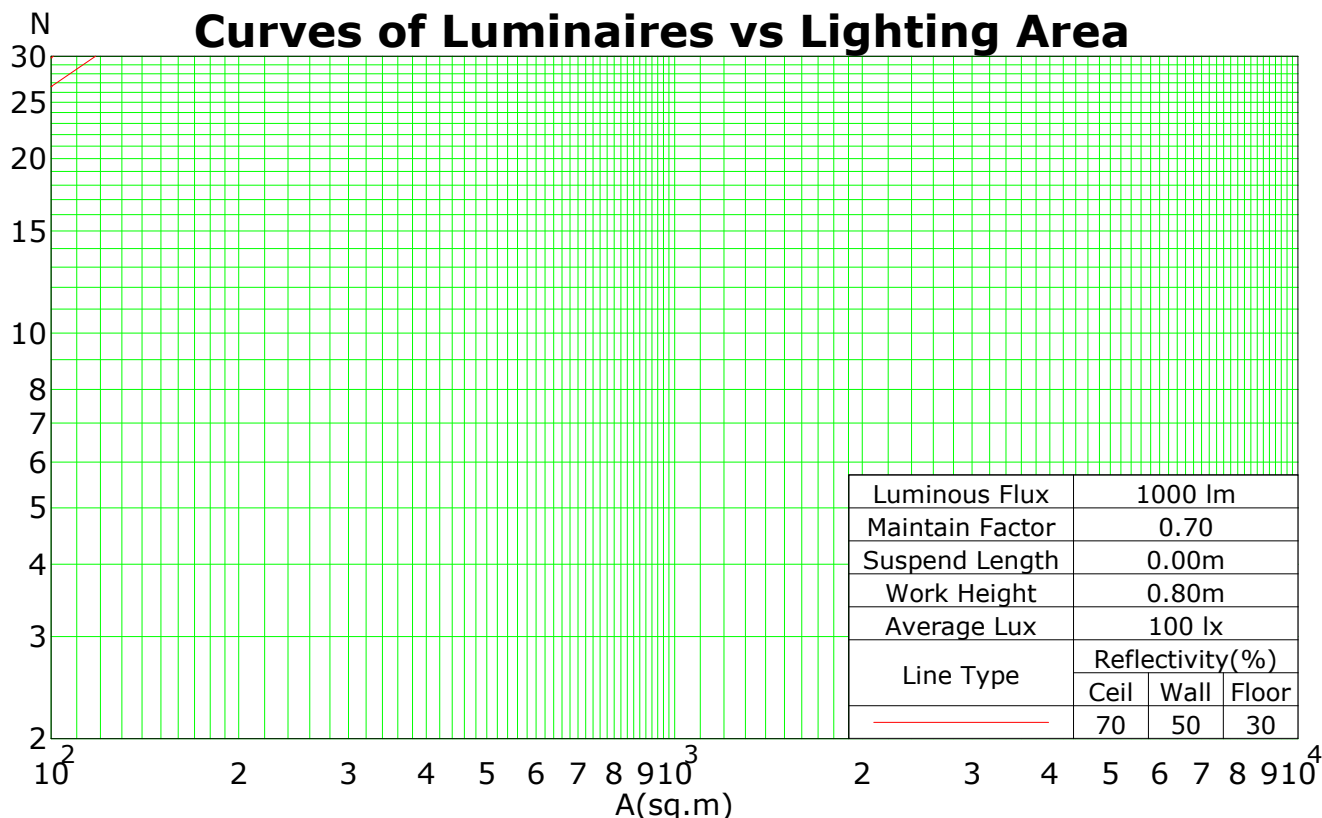
Coefficients Of Utilization - Zonal Cavity Method

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	1.07	1.07	1.07	1.07	0.98	0.98	0.98	0.98	0.83	0.83	0.83	0.68	0.68	0.68	0.55	0.55	0.55	0.49
1	0.97	0.93	0.89	0.86	0.90	0.86	0.82	0.79	0.72	0.70	0.68	0.60	0.58	0.57	0.48	0.47	0.46	0.41
2	0.89	0.81	0.75	0.70	0.81	0.75	0.70	0.65	0.63	0.59	0.56	0.52	0.50	0.47	0.42	0.40	0.39	0.34
3	0.81	0.71	0.64	0.58	0.74	0.66	0.59	0.54	0.56	0.51	0.47	0.46	0.43	0.40	0.37	0.35	0.33	0.29
4	0.74	0.63	0.55	0.49	0.68	0.58	0.51	0.46	0.49	0.44	0.40	0.41	0.37	0.34	0.33	0.31	0.28	0.24
5	0.68	0.56	0.48	0.42	0.62	0.52	0.45	0.39	0.44	0.38	0.34	0.37	0.33	0.29	0.30	0.27	0.24	0.21
6	0.62	0.50	0.42	0.36	0.57	0.46	0.39	0.34	0.40	0.34	0.30	0.33	0.29	0.26	0.27	0.24	0.21	0.19
7	0.58	0.45	0.37	0.32	0.53	0.42	0.35	0.30	0.36	0.30	0.26	0.30	0.26	0.23	0.25	0.22	0.19	0.16
8	0.53	0.41	0.33	0.28	0.49	0.38	0.31	0.26	0.33	0.27	0.23	0.28	0.23	0.20	0.23	0.19	0.17	0.15
9	0.50	0.37	0.30	0.25	0.46	0.35	0.28	0.23	0.30	0.24	0.21	0.25	0.21	0.18	0.21	0.18	0.15	0.13
10	0.46	0.34	0.27	0.22	0.43	0.32	0.25	0.21	0.28	0.22	0.19	0.23	0.19	0.16	0.19	0.16	0.14	0.12

Spacing Criteria (0-180): 1.22

Spacing Criteria (90-270): 1.23

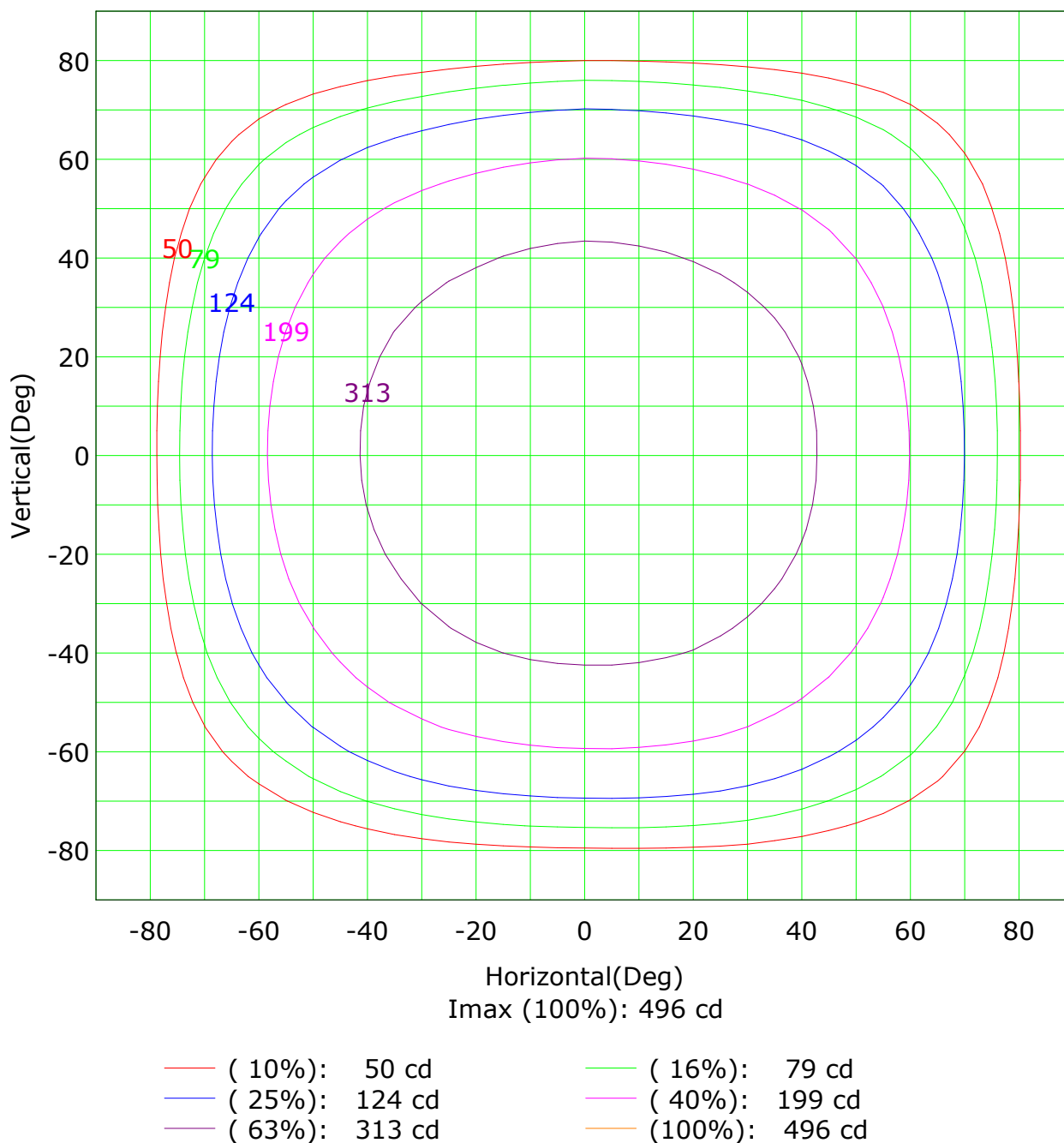
Spacing Criteria (Diagonal): 1.35



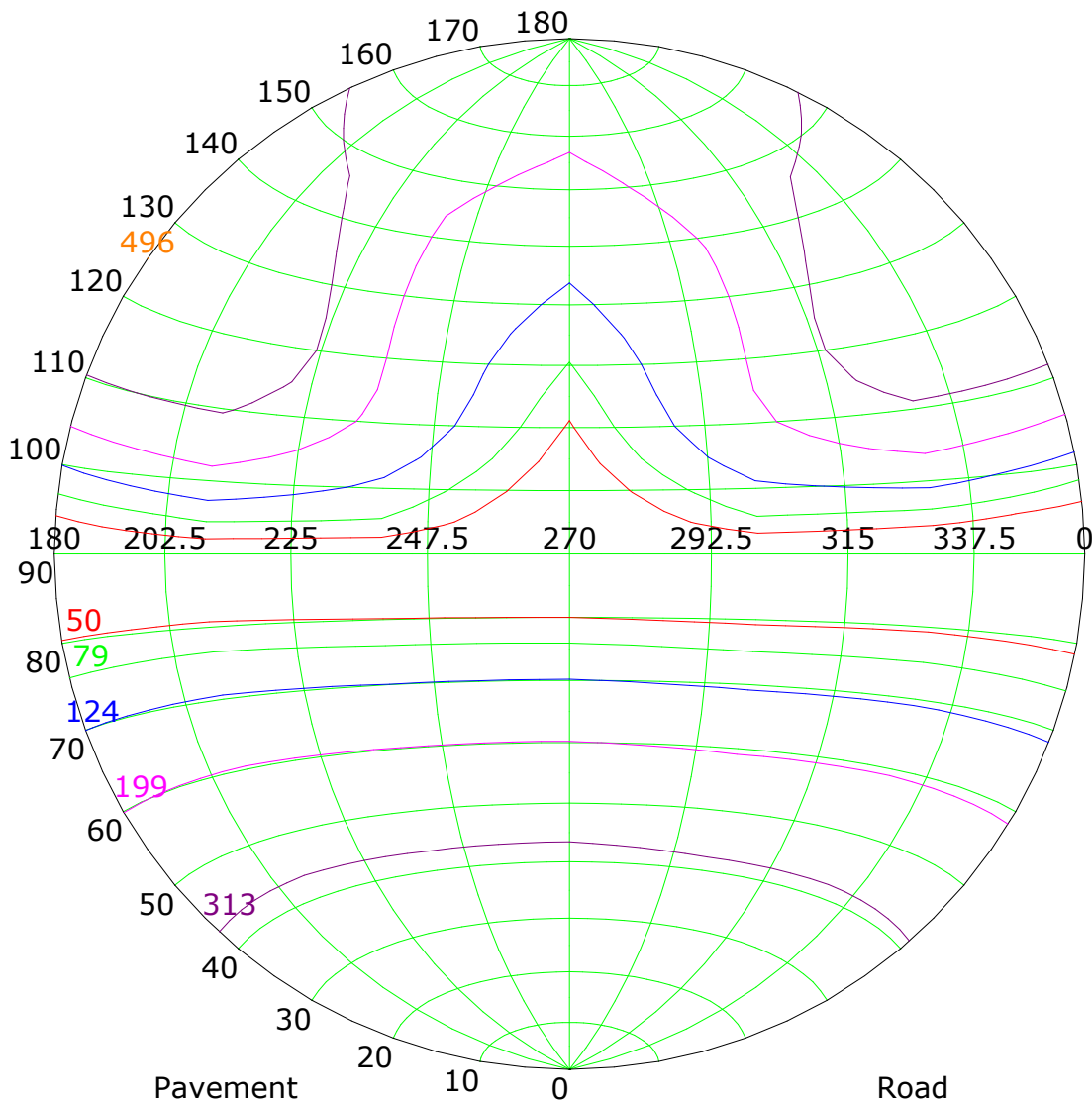
C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5℃
Operator: Yanzhao Sun

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)



Isocandela (sphere)



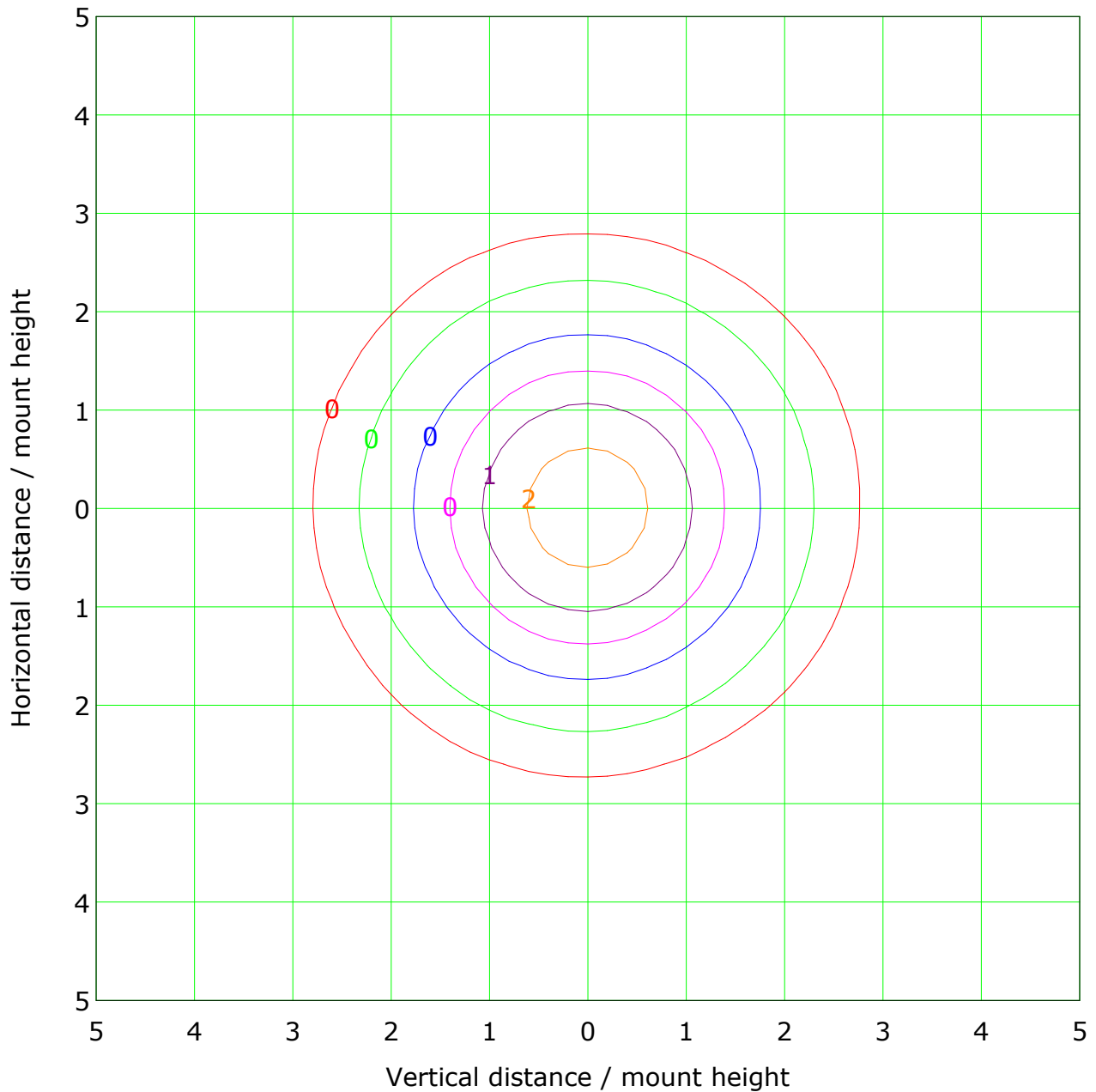
Imax (100%): 496 cd

(10%): 50 cd	(16%): 79 cd
(25%): 124 cd	(40%): 199 cd
(63%): 313 cd	(100%): 496 cd

CIE: narrow - long
CIE: Non-cut-off luminaire
Max.At90: 8.607 cd/klm

IES: Cut-off
Max.At80: 20.552 cd/klm
Max.80-90: 20.552 cd/klm

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 4.7 lx

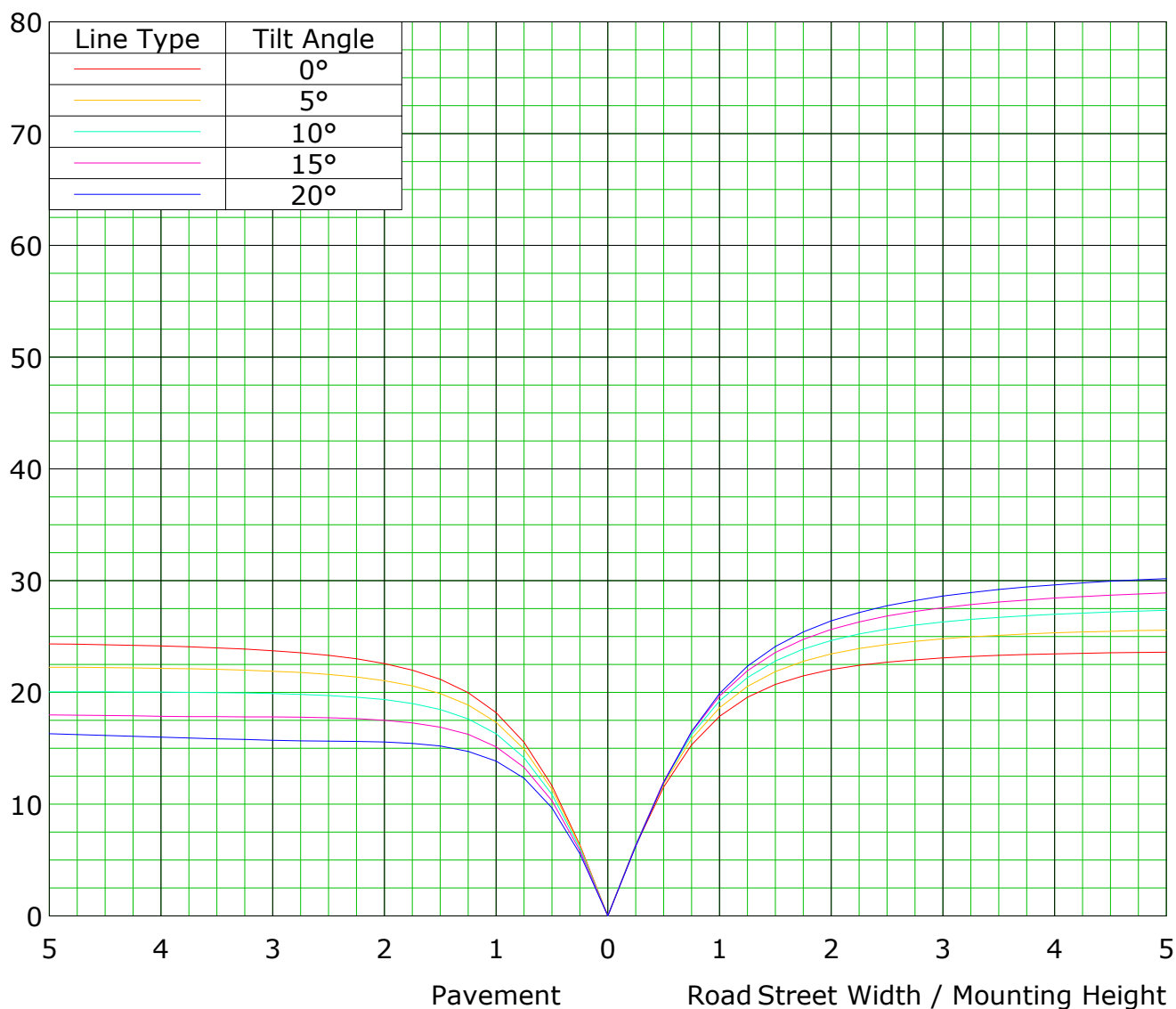
(1%): 0.0 lx	(2%): 0.1 lx
(5%): 0.2 lx	(10%): 0.5 lx
(20%): 0.9 lx	(50%): 2.3 lx
(100%): 4.7 lx	

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Humidity: 45% R.H
Inspector:

Roadway CU Curve

Efficiency(%)



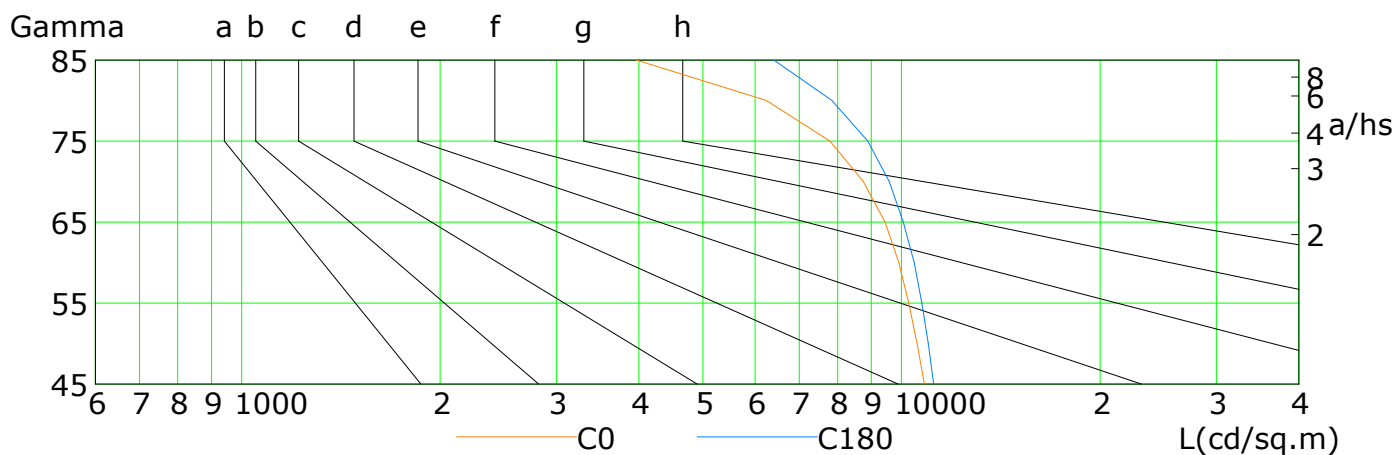
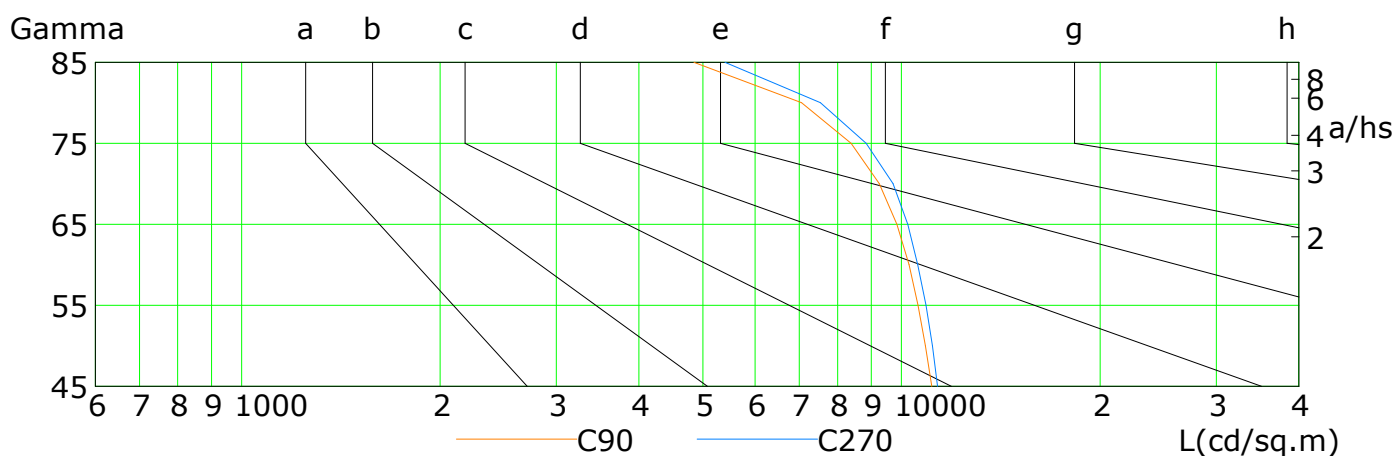
C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5°C
Operator: Yanzhao Sun

Gamma Plane (°):0.0-180.0:1.0
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

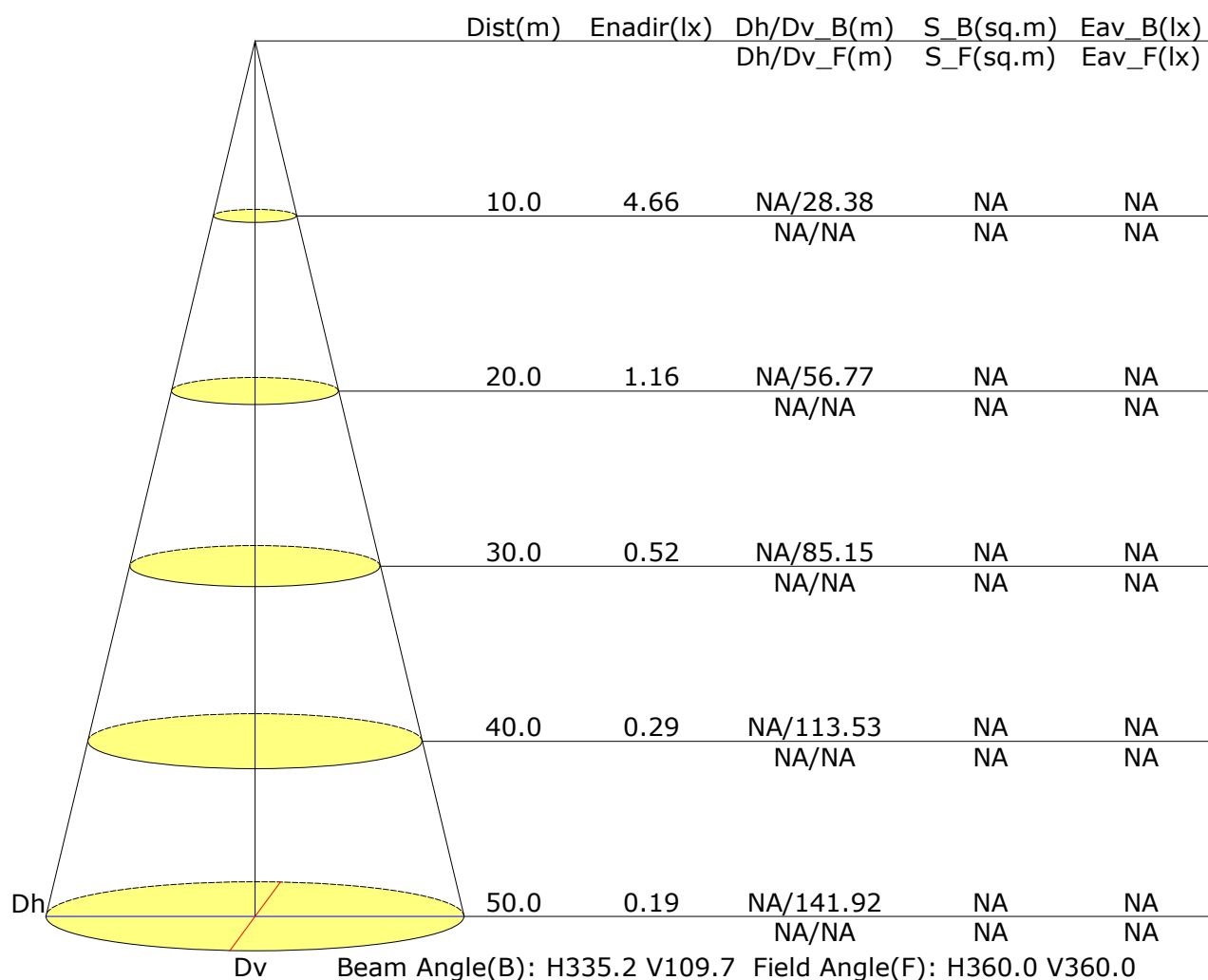


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	10829	10563	10259	9906	9438	8753	7794	6239	3970
C90	11113	10868	10596	10266	9845	9257	8385	7056	4847
C180	11196	10975	10739	10452	10063	9579	8887	7843	6406
C270	11341	11136	10896	10586	10222	9705	8839	7537	5401

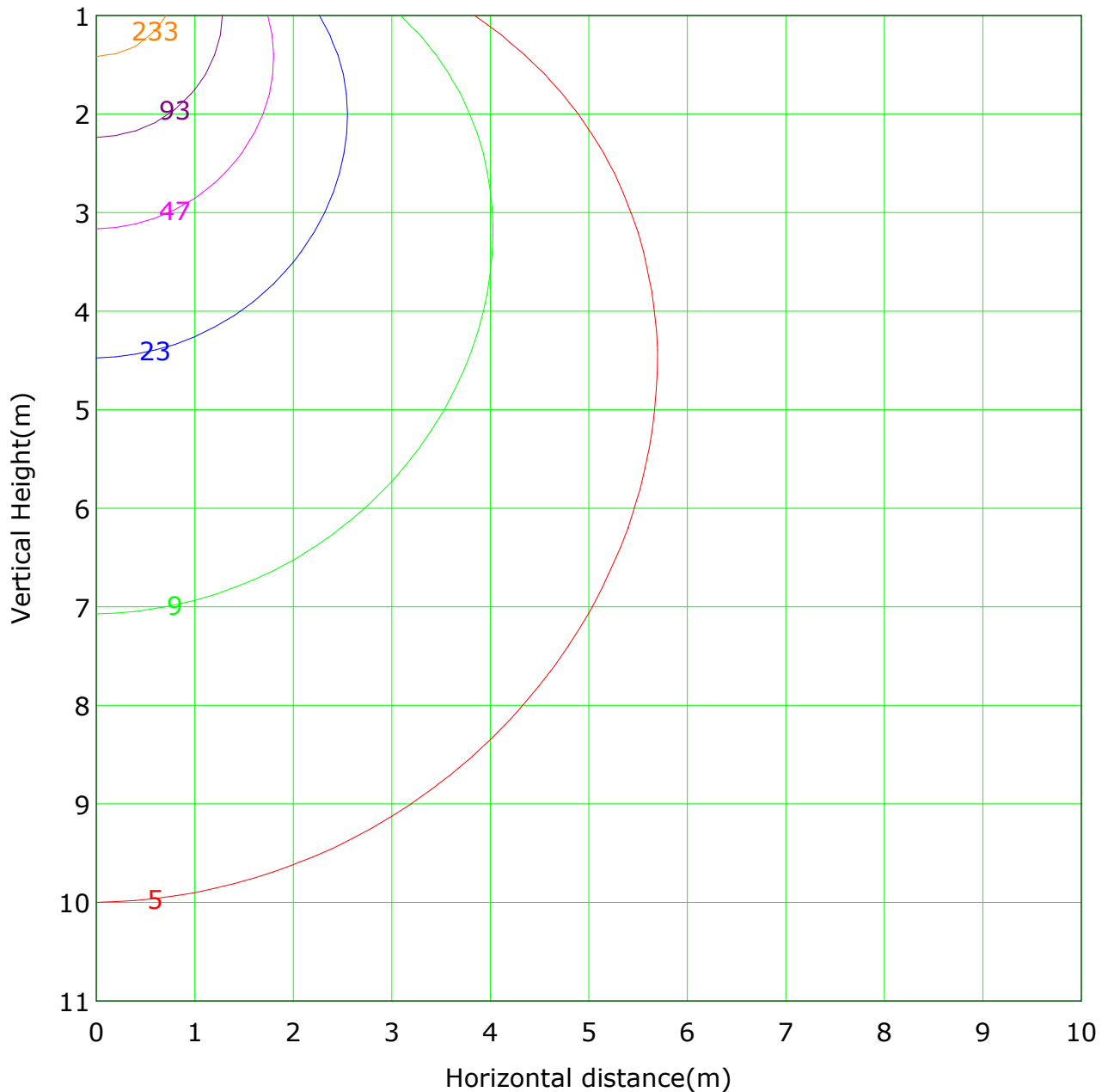
C Plane (°):0.0-360.0: 30.0
Test Lab: MESTER LAB
Test Type: TYPE C
Temperature: 25.5℃
Operator: Yanzhao Sun

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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: 465.6 lx

— (1%): 4.7 lx	— (2%): 9.3 lx
— (5%): 23.3 lx	— (10%): 46.6 lx
— (20%): 93.1 lx	— (50%): 232.8 lx
— (100%): 465.6 lx	

Area Flux Table

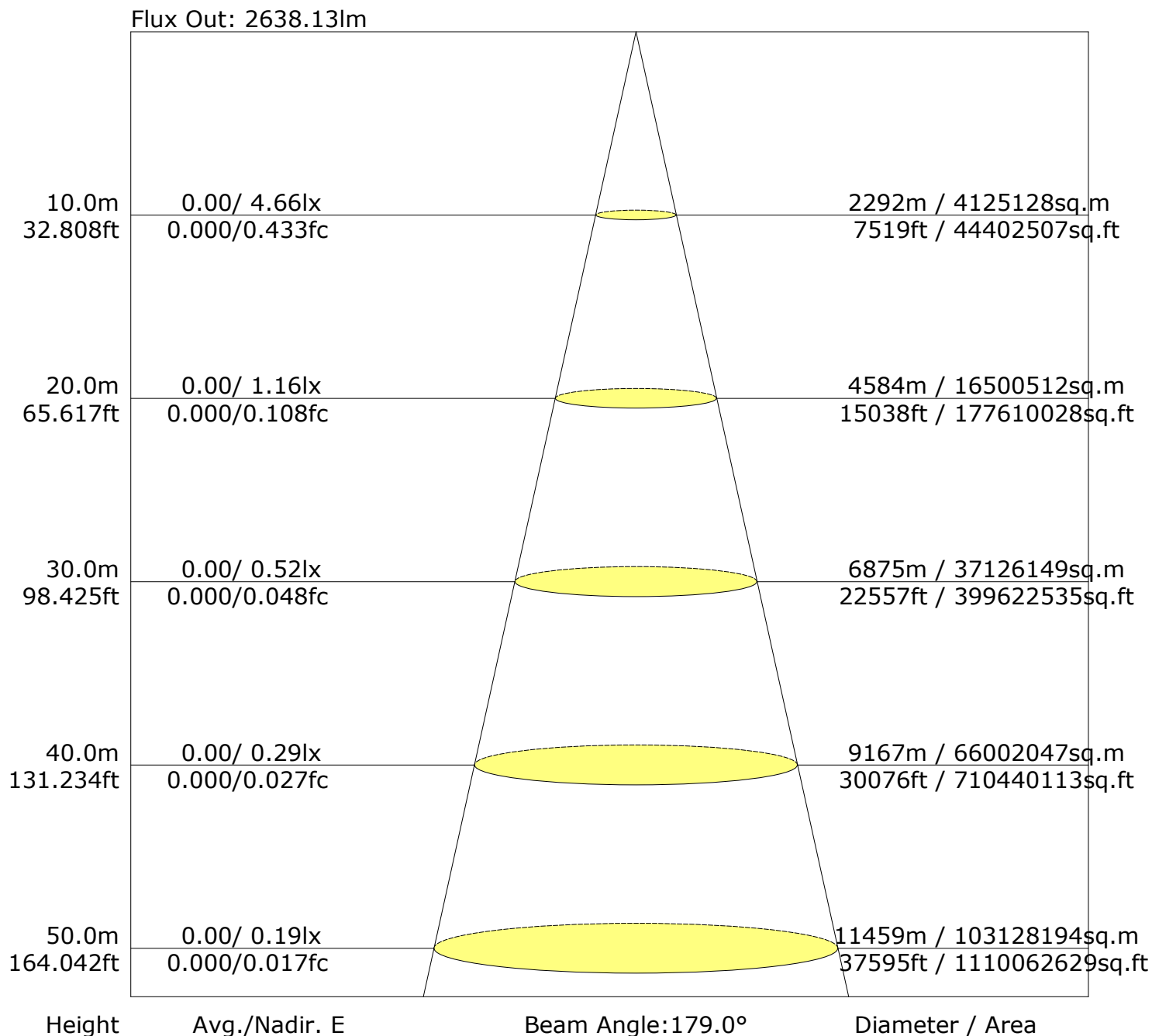
Unit: lm

Vertical plane		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90
Flux(E)	Flux(T)	0.0	0.1	0.2	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0	0.0	1.0
0.0	1.0	0.1	0.1	0.2	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0	0.0	1.0
6.1	7.7	0.2	0.4	0.7	0.8	1.2	1.7	2.1	2.4	2.6	2.6	2.3	1.9	1.5	1.0	0.6	0.3	0.1	0.0	7.7
21.1	22.5	0.3	0.8	1.5	2.3	3.4	4.6	5.8	6.6	7.1	7.1	6.5	5.6	4.4	3.2	2.0	1.2	0.6	0.0	22.5
42.8	44.1	0.4	1.2	2.3	3.2	4.6	6.0	7.4	8.5	9.1	9.1	8.4	7.2	5.7	4.1	2.6	1.3	0.9	0.0	44.1
68.6	70.0	0.5	1.7	3.2	4.0	5.8	7.1	8.8	10.2	10.9	10.9	10.0	8.6	6.9	4.9	3.1	1.9	0.2	0.0	70.0
95.6	96.9	0.6	2.1	4.0	5.5	7.4	8.8	10.9	12.4	12.3	12.3	11.4	9.8	7.8	5.6	3.5	2.0	0.6	0.0	96.9
120.1	121.4	0.6	2.4	4.6	6.6	8.5	10.2	11.6	13.0	14.0	14.0	12.9	11.0	8.7	6.2	3.9	1.9	0.6	0.0	121.4
138.6	139.9	0.6	2.6	4.9	6.9	9.1	10.9	12.4	13.5	14.0	13.9	12.8	11.0	8.7	6.2	3.9	1.9	0.6	0.0	139.9
148.3	149.5	0.6	2.6	4.9	6.9	9.1	10.9	12.4	13.5	14.0	13.9	12.8	11.0	8.7	6.2	3.9	1.9	0.6	0.0	149.5
147.3	148.5	0.6	2.6	4.9	6.9	9.1	10.9	12.4	13.5	14.0	13.9	12.8	11.0	8.7	6.2	3.9	1.9	0.6	0.0	148.5
136.0	137.3	0.5	2.3	4.5	6.5	8.4	10.0	11.4	12.3	12.9	12.9	11.3	9.7	7.6	5.5	3.1	1.2	0.2	0.0	137.3
116.5	117.8	0.4	2.3	4.5	6.5	8.4	10.0	11.4	12.3	12.9	12.9	11.3	9.7	7.6	5.5	3.1	1.2	0.2	0.0	117.8
91.6	92.9	0.3	2.3	4.5	6.5	8.4	10.0	11.4	12.3	12.9	12.9	11.3	9.7	7.6	5.5	3.1	1.2	0.2	0.0	92.9
64.9	66.2	0.2	2.3	4.5	6.5	8.4	10.0	11.4	12.3	12.9	12.9	11.3	9.7	7.6	5.5	3.1	1.2	0.2	0.0	66.2
39.6	41.0	0.1	2.3	4.5	6.5	8.4	10.0	11.4	12.3	12.9	12.9	11.3	9.7	7.6	5.5	3.1	1.2	0.2	0.0	41.0
18.8	20.2	0.0	2.3	4.5	6.5	8.4	10.0	11.4	12.3	12.9	12.9	11.3	9.7	7.6	5.5	3.1	1.2	0.2	0.0	20.2
4.6	6.3	0.0	2.3	4.5	6.5	8.4	10.0	11.4	12.3	12.9	12.9	11.3	9.7	7.6	5.5	3.1	1.2	0.2	0.0	6.3
0.0	0.6	0.0	2.3	4.5	6.5	8.4	10.0	11.4	12.3	12.9	12.9	11.3	9.7	7.6	5.5	3.1	1.2	0.2	0.0	0.6
	1284	0.0	2.3	4.5	6.5	8.4	10.0	11.4	12.3	12.9	12.9	11.3	9.7	7.6	5.5	3.1	1.2	0.2	0.0	1284
	1260	0.0	2.3	4.5	6.5	8.4	10.0	11.4	12.3	12.9	12.9	11.3	9.7	7.6	5.5	3.1	1.2	0.2	0.0	1260

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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	16.2	17.0	17.1	18.0	19.3	16.4	17.3	17.4	18.3	19.6
3H	17.9	18.6	18.8	19.6	20.9	18.2	18.9	19.1	19.9	21.2
4H	18.4	19.2	19.4	20.2	21.5	18.8	19.5	19.8	20.5	21.8
6H	18.8	19.5	19.8	20.5	21.8	19.2	19.8	20.2	20.8	22.2
8H	18.9	19.5	19.9	20.5	21.8	19.3	19.9	20.3	20.9	22.3
12H	18.9	19.5	19.9	20.5	21.8	19.3	19.9	20.3	20.9	22.3
X=4H Y=2H	16.7	17.5	17.7	18.5	19.8	17.0	17.7	18.0	18.7	20.0
3H	18.6	19.2	19.6	20.2	21.6	18.9	19.5	19.9	20.6	21.9
4H	19.3	19.9	20.3	20.9	22.2	19.7	20.2	20.7	21.2	22.6
6H	19.8	20.2	20.8	21.3	22.6	20.2	20.7	21.2	21.7	23.0
8H	19.9	20.3	20.9	21.3	22.7	20.3	20.8	21.3	21.8	23.2
12H	19.9	20.3	20.9	21.3	22.7	20.4	20.8	21.4	21.8	23.2
X=8H Y=4H	19.5	20.0	20.6	21.0	22.4	19.9	20.3	20.9	21.4	22.7
6H	20.1	20.5	21.2	21.5	22.9	20.5	20.9	21.6	22.0	23.3
8H	20.3	20.6	21.3	21.7	23.0	20.7	21.1	21.8	22.1	23.5
12H	20.3	20.6	21.4	21.7	23.1	20.8	21.1	21.9	22.2	23.6
X=12H Y=4H	19.5	19.9	20.6	21.0	22.4	19.9	20.3	20.9	21.3	22.7
6H	20.1	20.4	21.2	21.5	22.9	20.5	20.9	21.6	21.9	23.3
8H	20.3	20.6	21.4	21.7	23.1	20.8	21.1	21.8	22.1	23.6

Calculate in accordance with CIE 190:2010 The table is revised with 2638lm ($8\log(F/F_0) = 3.4$).

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 Humidity: 45% R.H
 Inspector:

FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM

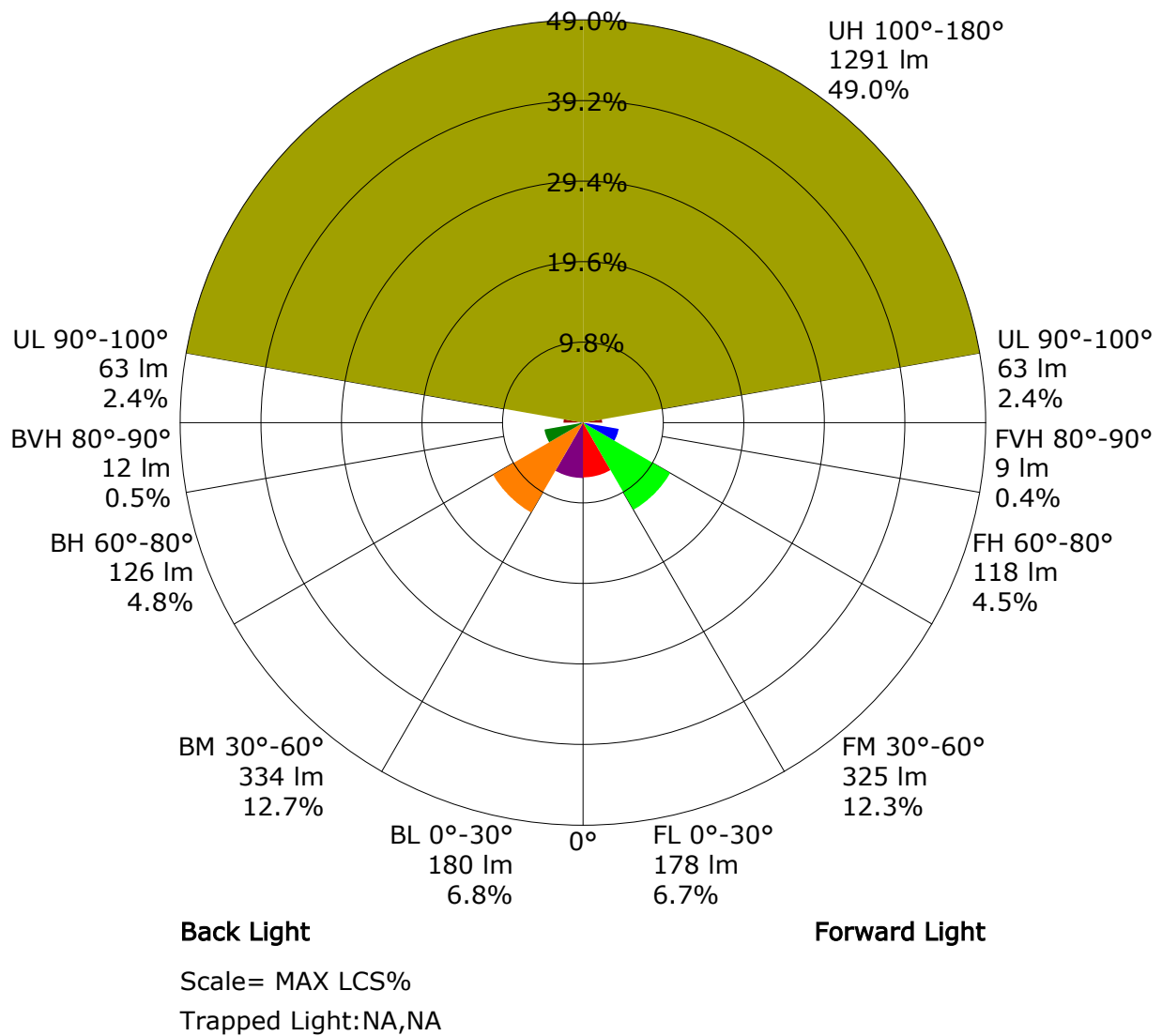
	ZONE	LUMENS	% LAMP LUMENS
	FORWARD LIGHT	631	23.9
	FL (0°-30°)	178	6.7
	FM (30°-60°)	325	12.3
	FH (60°-80°)	118	4.5
	FVH (80°-90°)	9	0.4
	BACK LIGHT	653	24.7
	BL (0°-30°)	180	6.8
	BM (30°-60°)	334	12.7
	BH (60°-80°)	126	4.8
	BVH (80°-90°)	12	0.5
	UP LIGHT	1354	51.3
	UL (90°-100°)	63	2.4
	UH (100°-180°)	1291	49.0
	TRAPPED LIGHT	NA	NA

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

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Inspector:

LCS Graph



Utilisation Factor Table(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 1.25									
Room Reflectance			Room Index(RI)									
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	
0.70	0.50	0.20	0.46	0.55	0.61	0.66	0.72	0.77	0.80	0.84	0.87	
	0.30		0.39	0.48	0.54	0.59	0.67	0.72	0.75	0.80	0.84	
	0.20		0.34	0.43	0.49	0.54	0.62	0.68	0.72	0.77	0.81	
0.50	0.50	0.20	0.39	0.47	0.52	0.56	0.61	0.65	0.68	0.71	0.73	
	0.30		0.34	0.41	0.47	0.51	0.57	0.61	0.64	0.68	0.71	
	0.20		0.30	0.38	0.43	0.47	0.54	0.58	0.62	0.66	0.69	
0.30	0.50	0.20	0.33	0.40	0.44	0.47	0.51	0.54	0.56	0.59	0.61	
	0.30		0.29	0.36	0.40	0.44	0.48	0.52	0.54	0.57	0.59	
	0.20		0.26	0.33	0.37	0.41	0.46	0.49	0.52	0.55	0.58	
0.00	0.00	0.00	0.20	0.24	0.28	0.30	0.34	0.36	0.38	0.40	0.42	
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 = 1.25									
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	0.88	0.73	0.63	0.55	0.44	0.36	0.31	0.24	0.20	
	0.30		0.73	0.63	0.55	0.48	0.39	0.33	0.29	0.23	0.19	
	0.20		0.63	0.55	0.48	0.43	0.36	0.31	0.27	0.21	0.18	
0.50	0.50	0.20	0.74	0.61	0.52	0.46	0.36	0.32	0.26	0.20	0.16	
	0.30		0.63	0.53	0.46	0.41	0.33	0.28	0.24	0.19	0.16	
	0.20		0.54	0.47	0.41	0.37	0.31	0.26	0.23	0.18	0.15	
0.30	0.50	0.20	0.61	0.50	0.43	0.37	0.29	0.24	0.21	0.16	0.13	
	0.30		0.52	0.44	0.38	0.34	0.27	0.23	0.20	0.15	0.13	
	0.20		0.46	0.39	0.35	0.31	0.25	0.21	0.19	0.15	0.12	
0.00	0.00	0.00	0.29	0.24	0.21	0.18	0.15	0.12	0.11	0.08	0.07	
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 = 1.25									
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	0.66	0.67	0.67	0.68	0.69	0.69	0.69	0.70	0.70	
	0.30		0.60	0.61	0.62	0.63	0.64	0.65	0.66	0.67	0.68	
	0.20		0.55	0.57	0.58	0.59	0.61	0.62	0.63	0.65	0.66	
0.50	0.50	0.20	0.63	0.64	0.65	0.65	0.66	0.66	0.67	0.67	0.67	
	0.30		0.58	0.60	0.61	0.61	0.62	0.63	0.64	0.65	0.65	
	0.20		0.55	0.56	0.57	0.58	0.59	0.61	0.61	0.63	0.63	
0.30	0.50	0.20	0.61	0.62	0.63	0.63	0.63	0.64	0.64	0.64	0.64	
	0.30		0.57	0.58	0.59	0.60	0.61	0.61	0.62	0.62	0.63	
	0.20		0.54	0.55	0.56	0.57	0.58	0.59	0.60	0.61	0.62	
0.00	0.00	0.00	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	
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	467.6	0.4	0.4	0.02	0.02
1.0-2.0	467.4	1.3	1.8	0.05	0.07
2.0-3.0	467.0	2.2	4.0	0.08	0.15
3.0-4.0	466.4	3.1	7.1	0.12	0.27
4.0-5.0	465.6	4.0	11.2	0.15	0.42
5.0-6.0	464.6	4.9	16.0	0.19	0.61
6.0-7.0	463.4	5.8	21.8	0.22	0.83
7.0-8.0	462.0	6.6	28.4	0.25	1.08
8.0-9.0	460.4	7.5	35.9	0.28	1.36
9.0-10.0	458.6	8.3	44.2	0.31	1.67
10.0-11.0	456.6	9.1	53.3	0.35	2.02
11.0-12.0	454.4	9.9	63.2	0.38	2.40
12.0-13.0	452.1	10.7	74.0	0.41	2.80
13.0-14.0	449.6	11.5	85.5	0.44	3.24
14.0-15.0	446.9	12.3	97.7	0.47	3.70
15.0-16.0	444.0	13.0	110.7	0.49	4.20
16.0-17.0	441.0	13.7	124.5	0.52	4.72
17.0-18.0	437.7	14.4	138.9	0.55	5.27
18.0-19.0	434.4	15.1	154.0	0.57	5.84
19.0-20.0	430.8	15.8	169.8	0.60	6.44
20.0-21.0	427.1	16.4	186.2	0.62	7.06
21.0-22.0	423.2	17.0	203.2	0.64	7.70
22.0-23.0	419.2	17.6	220.8	0.67	8.37
23.0-24.0	415.1	18.2	239.0	0.69	9.06
24.0-25.0	410.8	18.7	257.6	0.71	9.77
25.0-26.0	406.3	19.2	276.8	0.73	10.49
26.0-27.0	401.8	19.7	296.5	0.75	11.24
27.0-28.0	397.1	20.1	316.6	0.76	12.00
28.0-29.0	392.2	20.5	337.1	0.78	12.78
29.0-30.0	387.3	20.9	358.0	0.79	13.57
30.0-31.0	382.2	21.3	379.3	0.81	14.38
31.0-32.0	377.0	21.6	400.9	0.82	15.20
32.0-33.0	371.8	21.9	422.8	0.83	16.03
33.0-34.0	366.4	22.2	445.0	0.84	16.87
34.0-35.0	360.9	22.4	467.4	0.85	17.72
35.0-36.0	355.3	22.6	490.0	0.86	18.57

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	349.6	22.8	512.8	0.86	19.44
37.0-38.0	343.8	23.0	535.8	0.87	20.31
38.0-39.0	338.0	23.1	558.9	0.87	21.18
39.0-40.0	332.0	23.2	582.0	0.88	22.06
40.0-41.0	325.9	23.2	605.2	0.88	22.94
41.0-42.0	319.8	23.2	628.5	0.88	23.82
42.0-43.0	313.7	23.2	651.7	0.88	24.70
43.0-44.0	307.4	23.2	674.9	0.88	25.58
44.0-45.0	300.9	23.1	698.0	0.88	26.46
45.0-46.0	294.5	23.0	721.1	0.87	27.33
46.0-47.0	288.1	22.9	744.0	0.87	28.20
47.0-48.0	281.5	22.8	766.7	0.86	29.06
48.0-49.0	274.9	22.6	789.3	0.86	29.92
49.0-50.0	268.2	22.4	811.7	0.85	30.77
50.0-51.0	261.5	22.1	833.8	0.84	31.61
51.0-52.0	254.8	21.9	855.7	0.83	32.44
52.0-53.0	248.0	21.6	877.3	0.82	33.25
53.0-54.0	241.0	21.2	898.5	0.81	34.06
54.0-55.0	234.0	20.9	919.4	0.79	34.85
55.0-56.0	227.1	20.5	939.9	0.78	35.63
56.0-57.0	219.9	20.1	960.0	0.76	36.39
57.0-58.0	212.8	19.7	979.7	0.75	37.14
58.0-59.0	205.8	19.2	998.9	0.73	37.87
59.0-60.0	198.6	18.8	1017.7	0.71	38.58
60.0-61.0	191.3	18.3	1036.0	0.69	39.27
61.0-62.0	184.0	17.7	1053.7	0.67	39.94
62.0-63.0	176.7	17.2	1070.9	0.65	40.59
63.0-64.0	169.4	16.6	1087.5	0.63	41.22
64.0-65.0	161.9	16.0	1103.5	0.61	41.83
65.0-66.0	154.5	15.4	1118.9	0.58	42.41
66.0-67.0	147.0	14.8	1133.7	0.56	42.97
67.0-68.0	139.6	14.1	1147.9	0.54	43.51
68.0-69.0	132.0	13.5	1161.3	0.51	44.02
69.0-70.0	124.5	12.8	1174.1	0.48	44.51
70.0-71.0	117.0	12.1	1186.2	0.46	44.96
71.0-72.0	109.4	11.4	1197.6	0.43	45.40

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	101.8	10.6	1208.2	0.40	45.80
73.0-74.0	94.3	9.9	1218.2	0.38	46.18
74.0-75.0	86.9	9.2	1227.4	0.35	46.52
75.0-76.0	79.5	8.4	1235.8	0.32	46.84
76.0-77.0	72.0	7.7	1243.5	0.29	47.13
77.0-78.0	64.8	6.9	1250.4	0.26	47.40
78.0-79.0	57.8	6.2	1256.6	0.24	47.63
79.0-80.0	50.7	5.5	1262.1	0.21	47.84
80.0-81.0	44.0	4.8	1266.9	0.18	48.02
81.0-82.0	37.5	4.1	1270.9	0.15	48.17
82.0-83.0	31.2	3.4	1274.3	0.13	48.30
83.0-84.0	25.2	2.8	1277.1	0.10	48.41
84.0-85.0	19.8	2.2	1279.2	0.08	48.49
85.0-86.0	14.8	1.6	1280.8	0.06	48.55
86.0-87.0	10.4	1.1	1282.0	0.04	48.59
87.0-88.0	6.7	0.7	1282.7	0.03	48.62
88.0-89.0	3.7	0.4	1283.1	0.02	48.64
89.0-90.0	6.2	0.7	1283.8	0.03	48.66
90.0-91.0	14.5	1.6	1285.4	0.06	48.72
91.0-92.0	23.5	2.6	1288.0	0.10	48.82
92.0-93.0	33.0	3.6	1291.6	0.14	48.96
93.0-94.0	42.7	4.7	1296.3	0.18	49.14
94.0-95.0	52.2	5.7	1302.0	0.22	49.35
95.0-96.0	61.6	6.7	1308.7	0.25	49.61
96.0-97.0	71.4	7.8	1316.5	0.29	49.90
97.0-98.0	81.9	8.9	1325.4	0.34	50.24
98.0-99.0	92.8	10.1	1335.4	0.38	50.62
99.0-100.0	103.7	11.2	1346.6	0.42	51.05
100.0-101.0	114.4	12.3	1359.0	0.47	51.51
101.0-102.0	125.2	13.5	1372.4	0.51	52.02
102.0-103.0	136.0	14.6	1387.0	0.55	52.57
103.0-104.0	147.1	15.7	1402.7	0.59	53.17
104.0-105.0	158.6	16.8	1419.5	0.64	53.81
105.0-106.0	169.9	18.0	1437.5	0.68	54.49
106.0-107.0	181.1	19.0	1456.5	0.72	55.21
107.0-108.0	191.9	20.1	1476.6	0.76	55.97

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	202.3	21.0	1497.6	0.80	56.77
109.0-110.0	212.5	22.0	1519.6	0.83	57.60
110.0-111.0	222.7	22.9	1542.5	0.87	58.47
111.0-112.0	232.5	23.7	1566.2	0.90	59.37
112.0-113.0	241.7	24.5	1590.7	0.93	60.30
113.0-114.0	250.5	25.2	1615.9	0.95	61.25
114.0-115.0	259.0	25.8	1641.7	0.98	62.23
115.0-116.0	267.2	26.4	1668.2	1.00	63.23
116.0-117.0	274.5	26.9	1695.1	1.02	64.25
117.0-118.0	280.9	27.3	1722.4	1.04	65.29
118.0-119.0	286.6	27.6	1750.0	1.05	66.34
119.0-120.0	291.4	27.8	1777.9	1.05	67.39
120.0-121.0	295.4	27.9	1805.8	1.06	68.45
121.0-122.0	298.2	27.9	1833.6	1.06	69.51
122.0-123.0	299.9	27.7	1861.4	1.05	70.56
123.0-124.0	300.9	27.5	1888.9	1.04	71.60
124.0-125.0	301.0	27.2	1916.1	1.03	72.63
125.0-126.0	300.6	26.8	1942.9	1.02	73.65
126.0-127.0	299.6	26.4	1969.4	1.00	74.65
127.0-128.0	298.4	26.0	1995.3	0.98	75.63
128.0-129.0	296.9	25.5	2020.8	0.97	76.60
129.0-130.0	295.2	25.0	2045.8	0.95	77.55
130.0-131.0	293.3	24.5	2070.2	0.93	78.47
131.0-132.0	291.3	23.9	2094.1	0.91	79.38
132.0-133.0	289.4	23.4	2117.5	0.89	80.27
133.0-134.0	287.4	22.9	2140.4	0.87	81.13
134.0-135.0	285.3	22.3	2162.7	0.85	81.98
135.0-136.0	283.3	21.8	2184.5	0.83	82.80
136.0-137.0	281.2	21.2	2205.7	0.80	83.61
137.0-138.0	279.1	20.7	2226.4	0.78	84.39
138.0-139.0	277.1	20.1	2246.5	0.76	85.16
139.0-140.0	275.2	19.6	2266.1	0.74	85.90
140.0-141.0	273.3	19.1	2285.2	0.72	86.62
141.0-142.0	271.4	18.5	2303.7	0.70	87.32
142.0-143.0	269.5	18.0	2321.7	0.68	88.01
143.0-144.0	267.8	17.5	2339.2	0.66	88.67

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	266.1	16.9	2356.1	0.64	89.31
145.0-146.0	264.3	16.4	2372.5	0.62	89.93
146.0-147.0	262.6	15.9	2388.4	0.60	90.53
147.0-148.0	261.0	15.4	2403.8	0.58	91.12
148.0-149.0	259.4	14.9	2418.7	0.56	91.68
149.0-150.0	257.8	14.3	2433.0	0.54	92.22
150.0-151.0	256.2	13.8	2446.9	0.52	92.75
151.0-152.0	254.6	13.3	2460.2	0.51	93.25
152.0-153.0	253.0	12.8	2473.0	0.49	93.74
153.0-154.0	251.6	12.3	2485.3	0.47	94.21
154.0-155.0	250.1	11.8	2497.1	0.45	94.65
155.0-156.0	248.6	11.3	2508.4	0.43	95.08
156.0-157.0	247.1	10.8	2519.2	0.41	95.49
157.0-158.0	245.7	10.3	2529.5	0.39	95.88
158.0-159.0	244.4	9.8	2539.4	0.37	96.26
159.0-160.0	243.0	9.3	2548.7	0.35	96.61
160.0-161.0	241.6	8.8	2557.5	0.34	96.94
161.0-162.0	240.4	8.4	2565.9	0.32	97.26
162.0-163.0	239.3	7.9	2573.8	0.30	97.56
163.0-164.0	238.2	7.4	2581.2	0.28	97.84
164.0-165.0	237.1	6.9	2588.2	0.26	98.11
165.0-166.0	236.2	6.5	2594.6	0.25	98.35
166.0-167.0	235.3	6.0	2600.7	0.23	98.58
167.0-168.0	234.6	5.6	2606.2	0.21	98.79
168.0-169.0	233.9	5.1	2611.3	0.19	98.98
169.0-170.0	233.3	4.7	2616.0	0.18	99.16
170.0-171.0	232.8	4.2	2620.2	0.16	99.32
171.0-172.0	232.3	3.8	2624.0	0.14	99.46
172.0-173.0	231.9	3.3	2627.3	0.13	99.59
173.0-174.0	231.6	2.9	2630.2	0.11	99.70
174.0-175.0	231.3	2.4	2632.6	0.09	99.79
175.0-176.0	231.1	2.0	2634.6	0.08	99.87
176.0-177.0	231.0	1.5	2636.1	0.06	99.92
177.0-178.0	230.8	1.1	2637.3	0.04	99.97
178.0-179.0	230.7	0.7	2637.9	0.03	99.99
179.0-180.0	230.7	0.2	2638.1	0.01	100.00

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

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

Zonal Lumen (Continue 5)

cone flux(90°): 698.03 lm

%lum = 26.5%

%lamp = 26.5%

cone flux(120°): 1017.70 lm

%lum = 38.6%

%lamp = 38.6%

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	465.6	466.5	467.3	468.2	468.9	469.6	465.6	466.5	467.3	468.2
G1.0	465.2	466.1	467.0	468.0	468.8	469.6	465.7	466.8	467.4	468.1
G2.0	464.7	465.4	466.7	467.6	468.7	469.4	465.4	466.8	467.3	467.9
G3.0	464.0	464.7	466.1	466.9	468.3	469.0	465.1	466.5	467.0	467.5
G4.0	463.1	463.7	465.1	466.2	467.7	468.4	464.6	466.2	466.4	466.9
G5.0	461.9	462.4	464.2	465.2	467.0	467.6	463.7	465.4	465.6	466.2
G6.0	460.8	461.0	463.0	464.0	465.9	466.6	462.9	464.5	464.7	465.3
G7.0	459.1	459.5	461.5	462.7	464.8	465.3	461.8	463.5	463.6	464.1
G8.0	457.4	457.7	459.9	461.2	463.3	463.9	460.2	462.4	462.3	462.5
G9.0	455.6	455.6	458.2	459.5	461.8	462.3	458.8	461.0	460.7	461.1
G10.0	453.5	453.5	456.3	457.6	460.0	460.5	457.1	459.2	459.0	459.5
G11.0	451.1	451.1	454.0	455.5	458.3	458.6	455.2	457.5	457.1	457.6
G12.0	448.6	448.7	451.6	453.0	456.0	456.3	453.1	455.5	455.0	455.2
G13.0	446.1	446.1	449.2	450.5	453.7	454.0	450.9	453.4	452.7	453.0
G14.0	443.5	443.0	446.5	448.0	451.3	451.6	448.1	450.8	450.1	450.6
G15.0	440.5	440.0	443.4	445.0	448.7	448.9	445.5	448.3	447.5	448.0
G16.0	437.1	436.9	440.5	442.0	445.6	445.7	442.8	445.6	444.6	445.2
G17.0	434.1	433.5	437.3	438.9	442.9	442.6	439.4	442.8	441.8	442.3
G18.0	430.4	429.8	434.0	435.7	439.5	439.5	436.3	439.7	438.4	439.0
G19.0	426.9	426.1	430.4	432.2	436.2	436.1	433.1	436.2	435.2	435.6
G20.0	423.1	422.3	426.8	428.3	432.8	432.6	429.4	432.7	431.7	432.2
G21.0	418.9	418.4	422.9	424.5	428.8	428.9	425.9	429.3	428.1	428.3
G22.0	415.0	414.3	418.9	420.6	425.1	424.7	421.8	425.6	424.1	424.6
G23.0	410.7	410.1	414.8	416.7	421.2	420.7	417.9	421.4	420.2	420.7
G24.0	406.5	405.3	410.2	412.5	417.3	416.5	413.8	417.4	416.1	416.7
G25.0	401.7	400.9	406.0	407.8	412.6	412.3	409.5	413.3	411.9	412.6
G26.0	397.2	396.4	401.5	403.3	408.2	407.5	405.2	409.2	407.6	407.9
G27.0	392.5	391.7	396.9	398.8	403.7	403.0	400.3	404.7	403.3	403.3
G28.0	387.7	386.4	392.2	394.1	399.2	398.4	395.7	399.7	398.2	398.8
G29.0	382.2	381.4	387.0	388.8	394.0	393.5	391.0	395.0	393.6	394.2
G30.0	377.3	376.4	382.2	384.0	389.3	388.6	386.1	390.3	388.7	389.3
G31.0	372.3	371.1	377.1	378.9	384.3	383.1	380.7	385.3	383.4	384.0
G32.0	367.1	365.5	371.4	373.8	379.3	378.0	375.6	380.4	378.3	379.0
G33.0	361.3	360.0	366.3	368.5	373.8	372.7	370.4	374.7	373.1	373.9
G34.0	355.9	354.5	361.0	363.2	368.5	367.2	365.0	369.5	367.9	368.6
G35.0	350.4	348.9	355.6	357.3	363.0	361.9	359.6	364.3	362.4	362.7
G36.0	344.8	343.3	349.5	351.8	357.6	355.8	353.6	358.8	357.0	357.3

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 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	338.7	337.6	343.9	346.2	351.5	350.1	348.1	352.8	350.8	351.8
G38.0	332.8	331.4	338.2	340.4	345.7	344.4	342.3	347.2	345.2	346.2
G39.0	326.9	325.4	332.4	334.1	340.1	338.5	336.7	341.3	339.4	340.3
G40.0	321.2	319.6	326.5	328.2	334.2	332.1	330.1	335.5	333.6	334.0
G41.0	315.1	313.5	320.0	322.2	327.6	326.0	324.4	329.0	327.2	328.1
G42.0	308.3	306.8	313.9	316.2	321.7	320.0	318.4	323.0	321.3	322.0
G43.0	302.3	300.6	307.8	310.1	315.6	313.9	312.3	317.1	315.2	316.1
G44.0	296.3	294.4	301.2	303.2	309.6	307.6	305.6	311.0	308.4	309.3
G45.0	289.5	288.1	294.8	297.0	302.8	300.7	299.2	304.2	302.1	303.1
G46.0	283.2	281.8	288.6	290.6	296.5	294.3	293.1	298.0	295.8	296.8
G47.0	276.7	274.7	282.3	284.3	290.2	288.0	286.6	291.6	289.4	289.9
G48.0	269.8	268.2	275.2	277.8	283.1	281.4	279.7	285.3	283.2	283.5
G49.0	263.1	261.7	268.7	270.7	276.6	275.0	273.2	278.3	276.0	277.0
G50.0	256.6	255.1	262.2	264.1	270.0	267.7	266.7	271.8	269.5	270.6
G51.0	250.0	247.9	255.6	257.6	263.5	261.1	260.1	265.2	262.8	263.2
G52.0	243.3	241.2	248.9	250.9	256.8	254.4	253.5	258.6	256.1	256.6
G53.0	236.6	234.5	241.5	243.4	250.0	247.6	246.3	251.2	248.8	249.8
G54.0	229.2	227.7	234.7	236.7	242.6	240.2	239.5	244.5	242.1	243.1
G55.0	222.4	220.1	227.9	229.7	235.9	233.2	232.8	237.7	235.2	236.2
G56.0	215.6	213.4	221.1	223.0	229.0	226.4	225.3	230.8	228.4	228.7
G57.0	208.0	206.5	213.6	215.3	221.4	219.5	218.4	223.3	220.7	221.8
G58.0	201.2	199.4	206.8	208.2	214.5	211.6	211.5	216.5	213.7	214.8
G59.0	194.2	192.4	199.8	201.1	207.5	204.6	204.5	209.6	206.7	207.2
G60.0	187.2	185.2	192.1	194.0	200.5	197.4	197.5	201.9	199.7	200.1
G61.0	179.4	177.6	184.9	186.3	192.7	190.4	189.8	194.8	191.8	193.0
G62.0	172.3	170.3	177.8	179.7	185.5	183.1	182.7	187.7	184.7	185.8
G63.0	165.2	163.3	170.6	172.0	178.3	175.3	175.6	180.6	177.5	177.9
G64.0	158.0	155.3	162.7	164.6	171.0	168.0	168.5	173.5	170.2	170.6
G65.0	150.8	148.1	155.4	157.3	163.7	160.7	160.8	165.5	162.3	163.3
G66.0	142.9	140.8	148.1	149.9	155.7	153.3	153.5	158.3	155.0	156.0
G67.0	135.7	133.5	140.9	141.8	148.4	145.9	146.3	151.0	147.7	147.8
G68.0	128.4	126.3	132.9	134.5	141.1	137.9	139.1	143.8	140.4	140.4
G69.0	120.5	118.9	125.7	127.0	133.1	130.4	131.0	135.7	132.1	132.9
G70.0	113.2	110.9	118.3	119.7	125.6	123.1	123.8	128.4	124.8	125.5
G71.0	105.9	103.6	111.0	111.5	118.3	115.7	116.6	121.2	117.4	117.3
G72.0	98.2	96.5	103.2	104.4	110.4	107.8	108.9	113.4	109.5	110.0
G73.0	90.7	88.9	95.6	96.6	102.7	100.1	102.0	105.8	102.4	102.2

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 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	83.3	81.6	88.1	89.2	95.2	92.6	94.7	98.3	94.8	94.5
G75.0	76.2	74.5	80.9	82.0	87.9	85.4	86.9	91.1	86.9	86.5
G76.0	68.9	67.2	73.5	74.4	80.3	77.8	79.5	83.6	79.3	78.8
G77.0	61.3	59.7	65.6	67.4	72.9	70.7	72.5	75.7	72.1	71.4
G78.0	54.8	53.0	59.0	60.4	65.6	63.7	65.3	68.8	64.6	63.8
G79.0	48.0	46.3	51.6	53.4	58.5	56.7	58.4	61.3	57.6	56.6
G80.0	41.0	39.7	44.7	46.3	50.9	49.7	51.5	54.2	50.4	49.5
G81.0	35.0	33.5	38.4	39.7	44.4	43.1	45.0	47.6	43.8	42.4
G82.0	28.7	27.6	31.7	33.2	37.4	36.7	38.7	40.8	37.4	35.9
G83.0	23.1	22.1	25.4	26.7	31.1	30.5	32.6	34.2	31.1	29.3
G84.0	17.8	17.0	20.0	21.1	24.9	24.8	26.6	28.4	24.9	23.3
G85.0	13.1	12.4	14.9	16.0	19.4	19.3	21.1	22.4	19.6	17.8
G86.0	8.7	8.2	10.2	11.2	14.1	14.5	16.3	17.3	14.5	12.6
G87.0	5.1	4.8	6.4	7.3	9.7	10.1	11.8	12.5	10.2	8.5
G88.0	2.4	2.2	3.5	4.1	6.0	6.4	7.9	8.4	6.5	4.9
G89.0	0.6	0.5	1.3	1.8	3.1	3.5	4.6	4.9	3.6	2.2
G90.0	2.4	3.5	3.7	1.0	18.0	18.0	14.8	22.7	20.9	0.9
G91.0	8.2	12.9	16.6	1.6	33.1	26.9	21.1	33.4	33.8	2.1
G92.0	15.2	24.1	31.3	2.3	41.8	37.2	28.3	44.9	46.8	3.3
G93.0	22.6	35.0	44.7	3.4	57.4	48.1	36.3	57.5	58.7	4.7
G94.0	30.4	46.7	57.1	5.0	68.1	60.0	45.2	71.3	68.7	6.2
G95.0	38.8	59.8	67.3	7.1	77.6	71.3	55.6	86.8	76.4	8.0
G96.0	48.7	73.2	75.5	9.3	86.3	81.0	66.8	102.7	83.6	10.0
G97.0	59.1	88.2	82.3	11.6	95.2	98.1	80.1	119.8	90.7	12.1
G98.0	71.9	105.2	89.8	13.9	103.6	116.5	94.4	135.8	98.0	14.3
G99.0	86.2	120.6	97.4	16.4	112.5	134.0	109.4	151.1	105.3	16.5
G100.0	100.3	137.7	104.3	18.8	123.2	147.0	125.3	166.8	113.0	19.0
G101.0	116.0	153.2	111.5	21.5	134.5	160.5	138.7	182.8	119.8	21.4
G102.0	132.7	168.3	118.8	24.1	142.6	175.8	155.4	198.7	127.4	23.9
G103.0	147.1	183.1	125.2	26.9	151.0	189.8	171.6	215.1	133.9	26.5
G104.0	164.9	198.8	132.0	29.6	159.7	213.2	189.6	230.6	140.3	29.1
G105.0	183.4	215.1	137.6	32.4	167.3	227.4	209.3	246.3	146.5	31.8
G106.0	202.2	230.5	143.3	35.1	173.3	248.3	230.2	262.0	152.4	34.7
G107.0	221.9	245.8	148.2	37.9	180.0	266.2	250.1	276.7	157.5	37.5
G108.0	242.8	261.1	152.6	40.8	186.6	283.1	270.2	290.2	162.1	40.3
G109.0	263.6	275.5	156.2	43.6	192.9	295.7	288.3	305.8	165.8	43.1
G110.0	283.1	291.7	159.6	46.6	198.9	311.9	306.5	322.0	169.0	46.2

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 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	301.8	305.9	162.2	49.8	204.5	330.1	326.0	336.8	171.7	49.0
G112.0	319.8	321.1	164.3	52.9	209.1	348.1	343.7	351.7	173.6	52.0
G113.0	339.2	335.5	166.2	55.9	211.5	359.6	361.5	366.4	175.0	55.3
G114.0	356.2	351.2	167.6	58.9	212.5	372.6	378.9	381.7	175.8	58.3
G115.0	373.0	365.0	168.7	62.5	212.9	389.4	397.8	394.6	176.3	61.4
G116.0	389.5	377.1	169.6	65.6	212.7	406.7	414.2	406.2	176.3	64.5
G117.0	406.5	388.7	170.3	68.9	212.1	416.9	430.1	416.2	176.3	68.0
G118.0	421.1	399.0	171.0	72.1	211.2	424.2	444.8	425.2	176.0	71.2
G119.0	434.1	406.6	171.6	75.4	210.1	433.7	459.3	431.2	175.8	74.4
G120.0	445.5	412.1	172.2	79.0	209.0	444.7	470.7	435.0	175.6	77.7
G121.0	455.5	415.5	172.9	82.4	207.9	451.9	480.0	437.1	175.4	81.3
G122.0	462.6	417.0	173.7	85.8	207.0	454.5	487.1	437.3	175.2	84.6
G123.0	467.4	416.8	174.5	89.4	206.0	455.0	492.3	436.0	175.3	87.9
G124.0	470.3	415.0	175.5	93.1	205.4	453.8	495.4	433.4	175.4	91.6
G125.0	471.1	412.2	176.5	96.6	204.9	451.5	496.5	429.5	175.7	94.9
G126.0	470.3	408.5	177.6	100.1	204.5	447.8	496.0	425.1	176.2	98.2
G127.0	468.2	403.8	178.8	103.5	204.3	443.1	494.0	420.3	176.8	101.6
G128.0	464.8	399.0	180.2	107.0	204.2	437.9	490.7	415.0	177.6	105.2
G129.0	460.9	393.8	181.5	110.8	204.2	432.5	486.8	409.3	178.5	108.5
G130.0	456.6	388.5	182.9	114.2	204.6	426.8	482.1	403.5	179.3	111.8
G131.0	451.5	382.7	184.3	117.6	204.9	420.3	476.6	397.0	180.4	115.1
G132.0	446.2	377.2	185.8	121.0	205.3	414.1	471.2	391.0	181.5	118.4
G133.0	440.1	372.1	187.3	124.7	205.8	407.8	465.4	385.1	182.6	122.0
G134.0	434.6	366.9	188.7	128.1	206.3	401.3	459.1	378.6	183.7	125.3
G135.0	428.7	361.7	190.2	131.5	207.0	394.8	452.7	372.7	185.0	128.5
G136.0	422.5	356.2	191.7	134.9	207.6	388.3	445.9	366.8	186.4	131.8
G137.0	415.7	351.2	193.4	138.2	208.3	381.0	437.8	361.0	187.8	135.3
G138.0	409.6	346.4	194.9	141.9	209.1	374.7	430.9	354.6	189.1	138.5
G139.0	403.3	341.6	196.5	145.3	209.9	368.4	423.4	349.1	190.7	141.7
G140.0	396.1	337.2	198.3	148.6	210.7	362.3	415.7	343.7	192.4	144.9
G141.0	390.0	332.7	200.0	152.1	211.3	356.2	408.1	338.3	193.9	148.5
G142.0	383.7	327.8	201.5	155.4	212.1	350.0	400.6	332.6	195.4	151.7
G143.0	377.4	323.6	203.0	159.0	212.8	344.4	393.4	327.6	197.1	154.9
G144.0	371.1	319.3	204.5	162.3	213.5	339.1	385.1	322.8	199.0	158.2
G145.0	364.9	315.2	205.9	165.5	214.2	333.9	378.2	318.0	200.6	161.9
G146.0	358.3	310.7	207.3	168.6	215.0	328.2	370.8	313.4	202.3	165.3
G147.0	352.2	306.7	208.6	172.0	215.9	323.2	363.6	308.3	203.8	168.7

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=1.0000]
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	346.2	302.7	209.8	174.9	216.7	318.6	357.1	303.8	205.4	172.0
G149.0	339.7	298.7	211.1	178.0	217.3	313.8	350.2	299.2	206.9	175.6
G150.0	333.8	294.9	212.3	180.9	218.2	309.2	343.0	294.9	208.3	178.8
G151.0	328.0	291.0	213.4	183.8	218.8	304.6	336.5	290.2	209.6	182.0
G152.0	322.3	287.0	214.7	186.6	219.4	299.5	330.2	286.2	210.8	185.0
G153.0	316.1	283.2	216.1	189.7	220.0	295.0	323.5	282.3	212.3	187.9
G154.0	310.6	279.7	217.3	192.4	220.6	290.6	317.2	278.4	213.6	191.1
G155.0	305.1	276.1	218.4	195.1	221.2	286.2	311.2	274.7	214.7	193.9
G156.0	299.8	272.5	219.5	197.9	221.7	281.5	305.1	270.7	215.9	196.6
G157.0	294.2	269.2	220.7	200.5	222.2	277.2	298.7	267.2	217.0	199.2
G158.0	289.0	266.2	221.7	202.9	222.7	273.0	293.3	263.8	218.2	201.6
G159.0	284.2	263.2	222.7	205.2	223.1	268.8	287.4	260.7	219.3	204.3
G160.0	278.8	260.2	223.8	207.2	223.5	264.9	281.5	257.3	220.3	206.4
G161.0	274.2	257.5	224.7	209.4	224.0	260.7	276.2	254.3	221.2	208.5
G162.0	270.0	255.1	225.5	211.7	224.5	257.3	271.1	251.4	222.0	210.7
G163.0	265.8	252.8	226.3	213.7	225.1	253.9	265.6	248.5	223.0	212.9
G164.0	261.8	250.6	227.1	215.5	225.6	250.9	261.2	245.8	223.8	214.8
G165.0	258.2	248.1	227.9	217.3	226.1	247.8	256.9	243.3	224.6	216.4
G166.0	254.5	246.2	228.4	219.1	226.7	245.2	252.9	241.1	225.3	218.0
G167.0	251.4	244.4	228.9	220.7	227.3	242.8	248.8	239.3	225.9	219.6
G168.0	248.2	242.6	229.2	222.1	227.9	240.7	245.6	237.6	226.5	221.4
G169.0	245.2	240.9	229.5	223.4	228.3	238.8	242.9	236.2	227.0	222.8
G170.0	242.9	239.3	229.8	224.6	228.8	237.3	240.4	235.2	227.6	224.0
G171.0	240.6	237.9	230.0	225.9	229.0	236.0	238.3	234.1	227.9	225.2
G172.0	238.7	236.5	230.3	226.9	229.4	234.9	236.3	233.2	228.4	226.4
G173.0	236.8	235.2	230.5	227.8	229.7	233.8	234.8	232.4	228.8	227.2
G174.0	235.0	234.1	230.6	228.6	229.9	233.0	233.7	231.8	229.3	228.1
G175.0	233.8	233.1	230.8	229.3	230.2	232.2	232.8	231.4	229.5	228.8
G176.0	232.8	232.5	231.0	229.8	230.4	231.7	232.0	230.9	229.8	229.5
G177.0	232.1	232.0	231.0	230.1	230.5	231.2	231.2	230.7	230.0	230.1
G178.0	231.5	231.5	231.0	230.4	230.7	230.9	230.7	230.5	230.3	230.3
G179.0	230.9	231.0	230.8	230.7	230.7	230.7	230.5	230.6	230.5	230.5
G180.0	230.6	230.8	230.6	230.7	230.7	230.6	230.6	230.8	230.6	230.7

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

Candlepower Table (Continue 5)

Unit: cd

G\C	C300.0	C330.0	C360.0						
G0.0	468.9	469.6	465.6						
G1.0	468.7	469.3	465.2						
G2.0	468.1	468.8	464.7						
G3.0	467.6	468.2	464.0						
G4.0	466.7	467.2	463.1						
G5.0	465.8	466.3	461.9						
G6.0	464.5	465.1	460.8						
G7.0	463.1	463.7	459.1						
G8.0	461.4	461.9	457.4						
G9.0	459.7	460.1	455.6						
G10.0	457.7	458.1	453.5						
G11.0	455.6	455.7	451.1						
G12.0	453.2	453.3	448.6						
G13.0	450.8	450.9	446.1						
G14.0	447.9	448.2	443.5						
G15.0	445.1	445.2	440.5						
G16.0	442.2	441.9	437.1						
G17.0	438.7	438.7	434.1						
G18.0	435.4	435.4	430.4						
G19.0	432.0	431.7	426.9						
G20.0	428.3	428.1	423.1						
G21.0	424.5	423.9	418.9						
G22.0	420.2	420.0	415.0						
G23.0	416.2	415.9	410.7						
G24.0	411.9	411.1	406.5						
G25.0	407.5	406.7	401.7						
G26.0	403.0	402.2	397.2						
G27.0	398.0	397.6	392.5						
G28.0	393.3	392.8	387.7						
G29.0	388.6	388.0	382.2						
G30.0	383.6	382.5	377.3						
G31.0	378.1	377.4	372.3						
G32.0	372.9	372.2	367.1						
G33.0	367.5	366.9	361.3						
G34.0	362.2	360.9	355.9						
G35.0	356.6	355.5	350.4						
G36.0	350.6	349.9	344.8						

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	345.0	343.8	338.7						
G38.0	339.1	338.0	332.8						
G39.0	333.4	332.0	326.9						
G40.0	326.8	326.1	321.2						
G41.0	321.0	320.2	315.1						
G42.0	314.9	314.1	308.3						
G43.0	308.8	307.4	302.3						
G44.0	301.9	301.2	296.3						
G45.0	295.6	295.0	289.5						
G46.0	289.3	288.0	283.2						
G47.0	282.9	281.6	276.7						
G48.0	275.8	275.2	269.8						
G49.0	269.3	268.7	263.1						
G50.0	262.7	261.5	256.6						
G51.0	256.0	254.8	250.0						
G52.0	249.4	248.1	243.3						
G53.0	242.1	241.4	236.6						
G54.0	235.3	234.0	229.2						
G55.0	228.5	227.1	222.4						
G56.0	220.8	220.2	215.6						
G57.0	213.9	213.3	208.0						
G58.0	206.9	206.5	201.2						
G59.0	199.9	198.8	194.2						
G60.0	192.2	191.8	187.2						
G61.0	185.0	184.7	179.4						
G62.0	177.8	176.8	172.3						
G63.0	170.6	169.7	165.2						
G64.0	163.3	162.5	158.0						
G65.0	155.5	155.2	150.8						
G66.0	148.1	147.3	142.9						
G67.0	140.8	140.0	135.7						
G68.0	133.5	132.7	128.4						
G69.0	125.3	125.4	120.5						
G70.0	117.9	117.4	113.2						
G71.0	110.5	110.2	105.9						
G72.0	102.5	102.4	98.2						
G73.0	94.7	94.9	90.7						

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

Candlepower Table (Continue 7)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G74.0	87.9	87.4	83.3							
G75.0	80.0	80.3	76.2							
G76.0	72.4	72.9	68.9							
G77.0	65.3	65.8	61.3							
G78.0	57.9	58.5	54.8							
G79.0	51.0	51.7	48.0							
G80.0	44.0	44.8	41.0							
G81.0	37.6	38.1	35.0							
G82.0	31.4	31.6	28.7							
G83.0	25.1	25.9	23.1							
G84.0	19.7	20.4	17.8							
G85.0	14.6	15.4	13.1							
G86.0	10.4	10.8	8.7							
G87.0	6.7	7.0	5.1							
G88.0	3.8	3.9	2.4							
G89.0	1.6	1.5	0.6							
G90.0	7.8	6.6	2.4							
G91.0	21.1	16.5	8.2							
G92.0	35.4	26.9	15.2							
G93.0	49.1	37.7	22.6							
G94.0	62.1	49.0	30.4							
G95.0	73.1	61.9	38.8							
G96.0	82.7	75.5	48.7							
G97.0	90.3	90.8	59.1							
G98.0	98.3	105.9	71.9							
G99.0	106.9	122.5	86.2							
G100.0	115.0	138.9	100.3							
G101.0	123.5	153.8	116.0							
G102.0	131.6	169.0	132.7							
G103.0	139.7	185.3	147.1							
G104.0	147.1	201.4	164.9							
G105.0	154.4	217.9	183.4							
G106.0	160.7	234.8	202.2							
G107.0	166.6	250.4	221.9							
G108.0	171.9	266.0	242.8							
G109.0	176.6	280.5	263.6							
G110.0	180.1	296.5	283.1							

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

Candlepower Table (Continue 8)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G111.0	182.9	311.2	301.8							
G112.0	185.1	326.0	319.8							
G113.0	186.8	340.6	339.2							
G114.0	187.8	356.1	356.2							
G115.0	188.3	369.7	373.0							
G116.0	188.5	382.1	389.5							
G117.0	188.5	393.0	406.5							
G118.0	188.2	403.3	421.1							
G119.0	187.8	410.3	434.1							
G120.0	187.4	415.4	445.5							
G121.0	187.1	418.5	455.5							
G122.0	186.9	419.8	462.6							
G123.0	186.8	419.6	467.4							
G124.0	186.8	417.9	470.3							
G125.0	187.0	414.6	471.1							
G126.0	187.3	411.0	470.3							
G127.0	187.7	406.7	468.2							
G128.0	188.3	402.0	464.8							
G129.0	189.0	397.0	460.9							
G130.0	189.7	391.3	456.6							
G131.0	190.6	385.9	451.5							
G132.0	191.5	380.8	446.2							
G133.0	192.4	375.6	440.1							
G134.0	193.5	369.9	434.6							
G135.0	194.5	364.9	428.7							
G136.0	195.5	359.8	422.5							
G137.0	196.7	354.2	415.7							
G138.0	198.1	349.4	409.6							
G139.0	199.5	344.6	403.3							
G140.0	200.8	339.8	396.1							
G141.0	202.3	334.7	390.0							
G142.0	203.7	330.1	383.7							
G143.0	205.1	325.6	377.4							
G144.0	206.6	321.2	371.1							
G145.0	208.0	316.8	364.9							
G146.0	209.3	312.0	358.3							
G147.0	210.9	307.7	352.2							

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 9)

Unit: cd

G\C	C300.0	C330.0	C360.0						
G148.0	212.3	303.3	346.2						
G149.0	213.7	299.3	339.7						
G150.0	215.0	294.8	333.8						
G151.0	216.0	290.9	328.0						
G152.0	217.0	287.1	322.3						
G153.0	218.1	283.2	316.1						
G154.0	219.3	279.7	310.6						
G155.0	220.1	275.9	305.1						
G156.0	221.2	272.1	299.8						
G157.0	222.0	268.8	294.2						
G158.0	222.7	265.7	289.0						
G159.0	223.4	262.6	284.2						
G160.0	224.1	259.2	278.8						
G161.0	224.9	256.4	274.2						
G162.0	225.3	253.5	270.0						
G163.0	225.9	251.0	265.8						
G164.0	226.3	248.6	261.8						
G165.0	226.7	246.4	258.2						
G166.0	227.2	244.3	254.5						
G167.0	227.6	242.4	251.4						
G168.0	228.1	240.7	248.2						
G169.0	228.4	238.9	245.2						
G170.0	228.9	237.5	242.9						
G171.0	229.1	236.1	240.6						
G172.0	229.4	235.0	238.7						
G173.0	229.6	233.9	236.8						
G174.0	229.9	233.0	235.0						
G175.0	230.2	232.2	233.8						
G176.0	230.4	231.7	232.8						
G177.0	230.5	231.4	232.1						
G178.0	230.5	231.0	231.5						
G179.0	230.6	230.7	230.9						
G180.0	230.7	230.6	230.6						

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

LED Average Luminance Report

Avg.L	cd/m ²
L 0-180(65) av	9750.57
L 0-180(75) av	8340.08
L 0-180(85) av	5187.61
L 90-270(65) av	10033.23
L 90-270(75) av	8612.07
L 90-270(85) av	5123.86
L 45(65) av	9908.74
L 45(75) av	8522.87
L 45(85) av	5240.54

Standard: GB/T 29293-2012