

Report No.:

Test Time: 2023-04-14 15:48

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog: LED

Number of Lamps: 1

Luminous Length (mm): 1213 mm

Luminous Height (mm): 0 mm

Current: 0.188 A

Power Factor: 0.995

Luminaire Description:

Lamp Description:

Lumens per Lamp: 3189.4 lm

Luminous Width (mm): 303 mm

Voltage: 119.9 V

Power: 22.48 mW

## Photometric Results

CIE Class: Direct

Measurement Flux: 2950.3 lm

Downward Ratio: 91.08%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 167.3, 157.9, 165.2, 165.9

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 117.2, 107.4, 111.4, 111.6

Luminaire Efficacy Rating (LER): 131.29

Max. Intensity: 1012.12 cd

S/MH(C0/C180): 1.26

Total Rated Lamp Lumens: 3189.4 lm

Efficiency: 92.50%

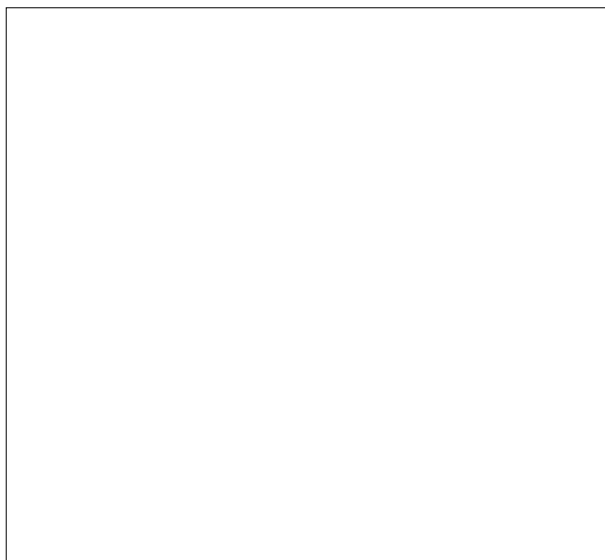
Upward Ratio: 1.42%

C0r0 Intensity: 1012.01 cd

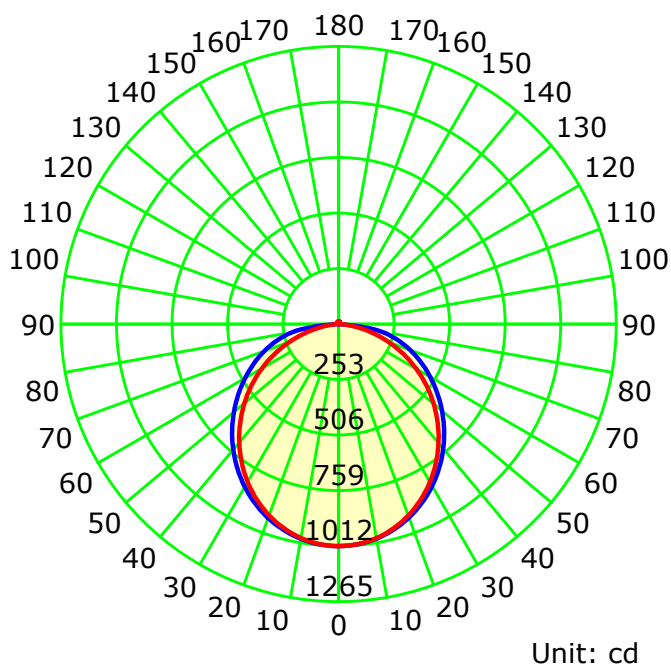
Pos of Max. Intensity: H210 V1

S/MH(C90/C270): 1.22

Picture Of Luminaire



Luminous Intensity Distribution Curve



— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

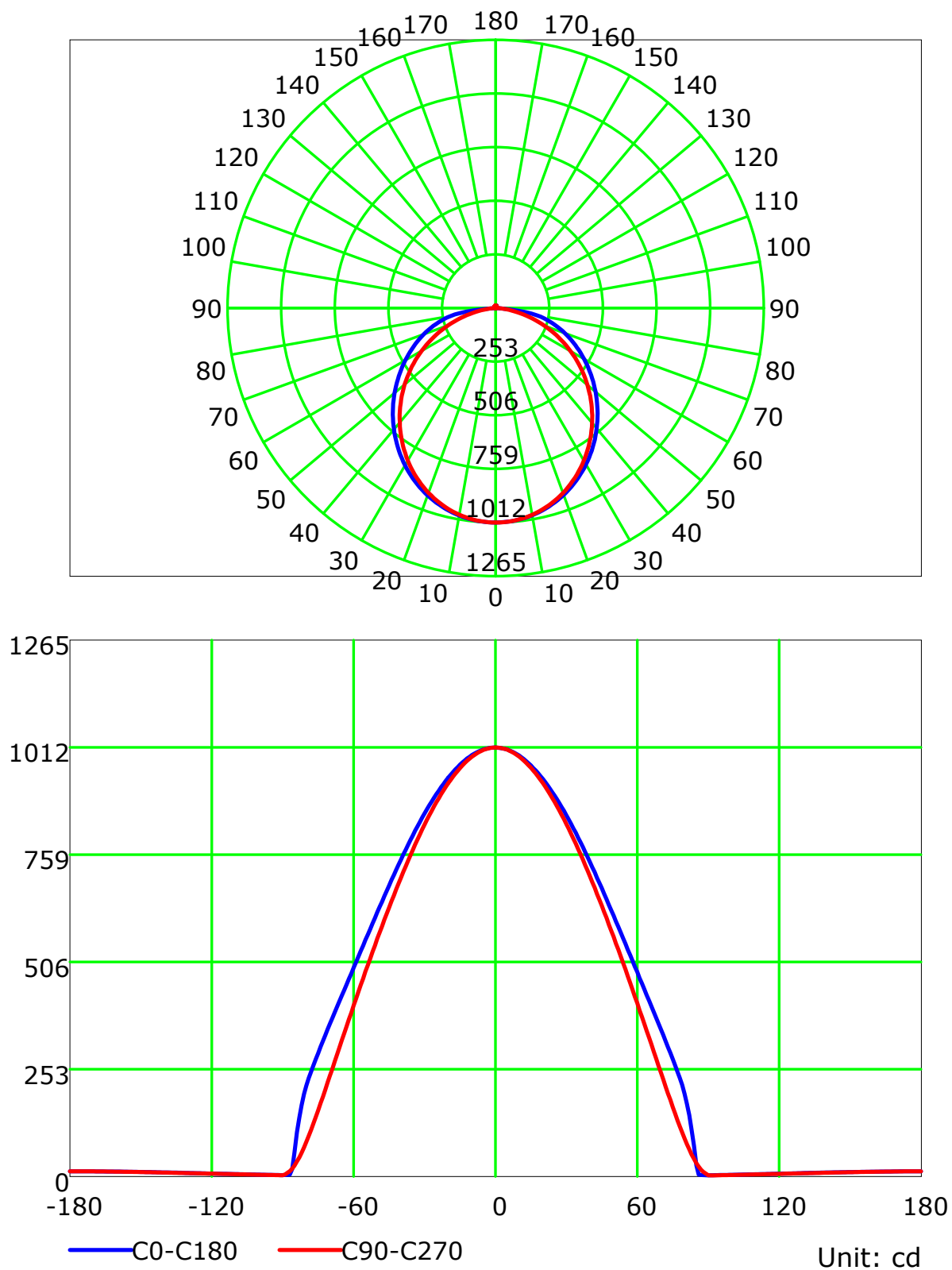
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

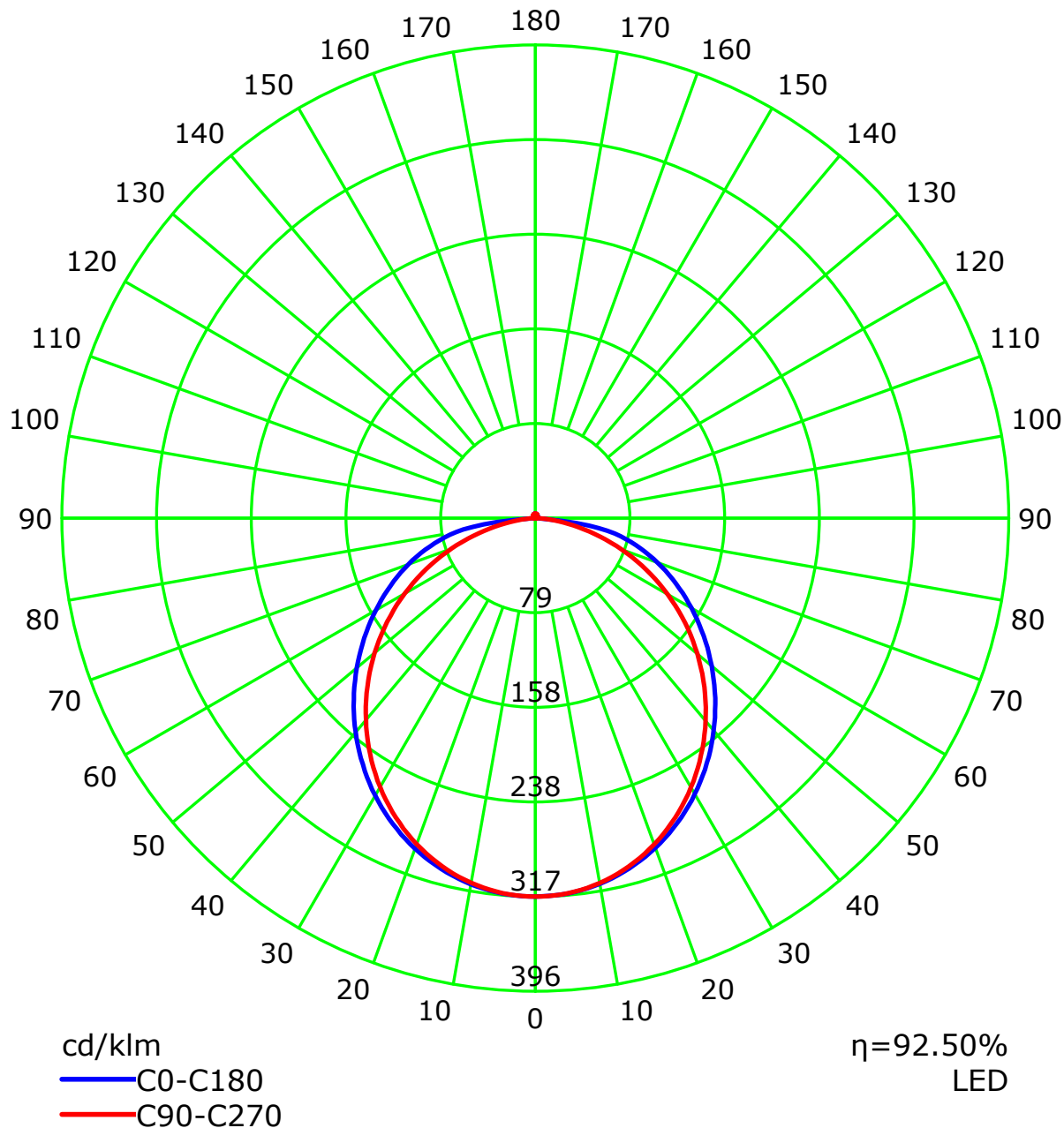
## Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1600L  
Distance: 9.011 m  
Humidity:  
Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



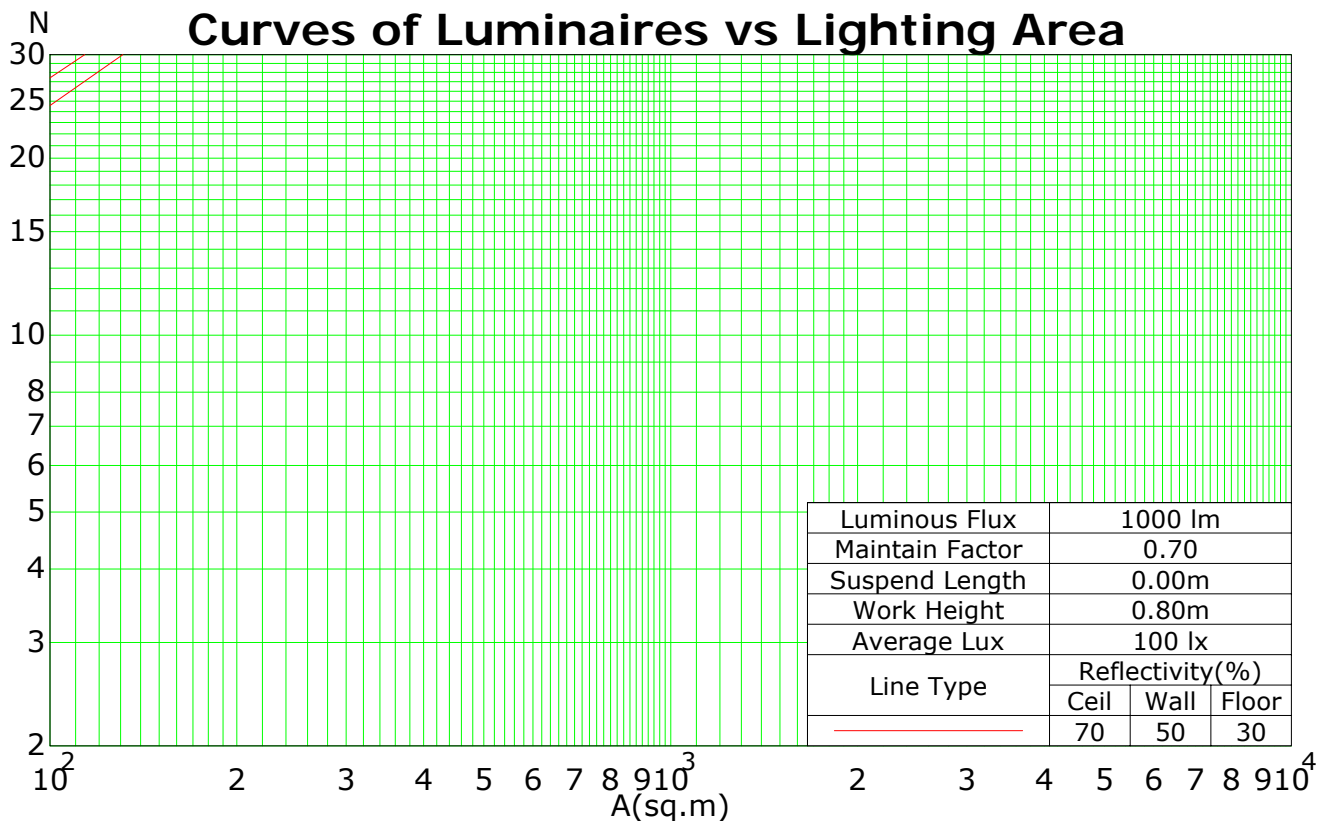
C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1600L  
Distance: 9.011 m  
Humidity:  
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	1.10	1.10	1.10	1.10	1.07	1.07	1.07	1.07	1.02	1.02	1.02	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.00	0.95	0.91	0.88	0.97	0.93	0.89	0.86	0.89	0.86	0.83	0.85	0.83	0.80	0.81	0.79	0.78	0.76
2	0.91	0.83	0.76	0.71	0.88	0.81	0.75	0.70	0.77	0.72	0.68	0.74	0.70	0.66	0.71	0.68	0.65	0.63
3	0.82	0.73	0.65	0.59	0.80	0.71	0.64	0.58	0.68	0.62	0.57	0.65	0.60	0.56	0.63	0.58	0.55	0.52
4	0.75	0.64	0.56	0.50	0.73	0.63	0.55	0.49	0.60	0.54	0.48	0.58	0.52	0.48	0.56	0.51	0.47	0.45
5	0.69	0.57	0.49	0.43	0.67	0.56	0.48	0.42	0.54	0.47	0.42	0.52	0.46	0.41	0.50	0.45	0.41	0.39
6	0.64	0.52	0.43	0.37	0.62	0.51	0.43	0.37	0.49	0.42	0.36	0.47	0.41	0.36	0.45	0.40	0.36	0.34
7	0.59	0.47	0.39	0.33	0.58	0.46	0.38	0.33	0.44	0.37	0.32	0.43	0.37	0.32	0.41	0.36	0.32	0.30
8	0.55	0.43	0.35	0.29	0.54	0.42	0.34	0.29	0.41	0.34	0.29	0.39	0.33	0.29	0.38	0.32	0.28	0.26
9	0.52	0.39	0.31	0.26	0.50	0.38	0.31	0.26	0.37	0.31	0.26	0.36	0.30	0.26	0.35	0.30	0.26	0.24
10	0.48	0.36	0.29	0.24	0.47	0.36	0.28	0.24	0.35	0.28	0.24	0.34	0.28	0.23	0.33	0.27	0.23	0.22

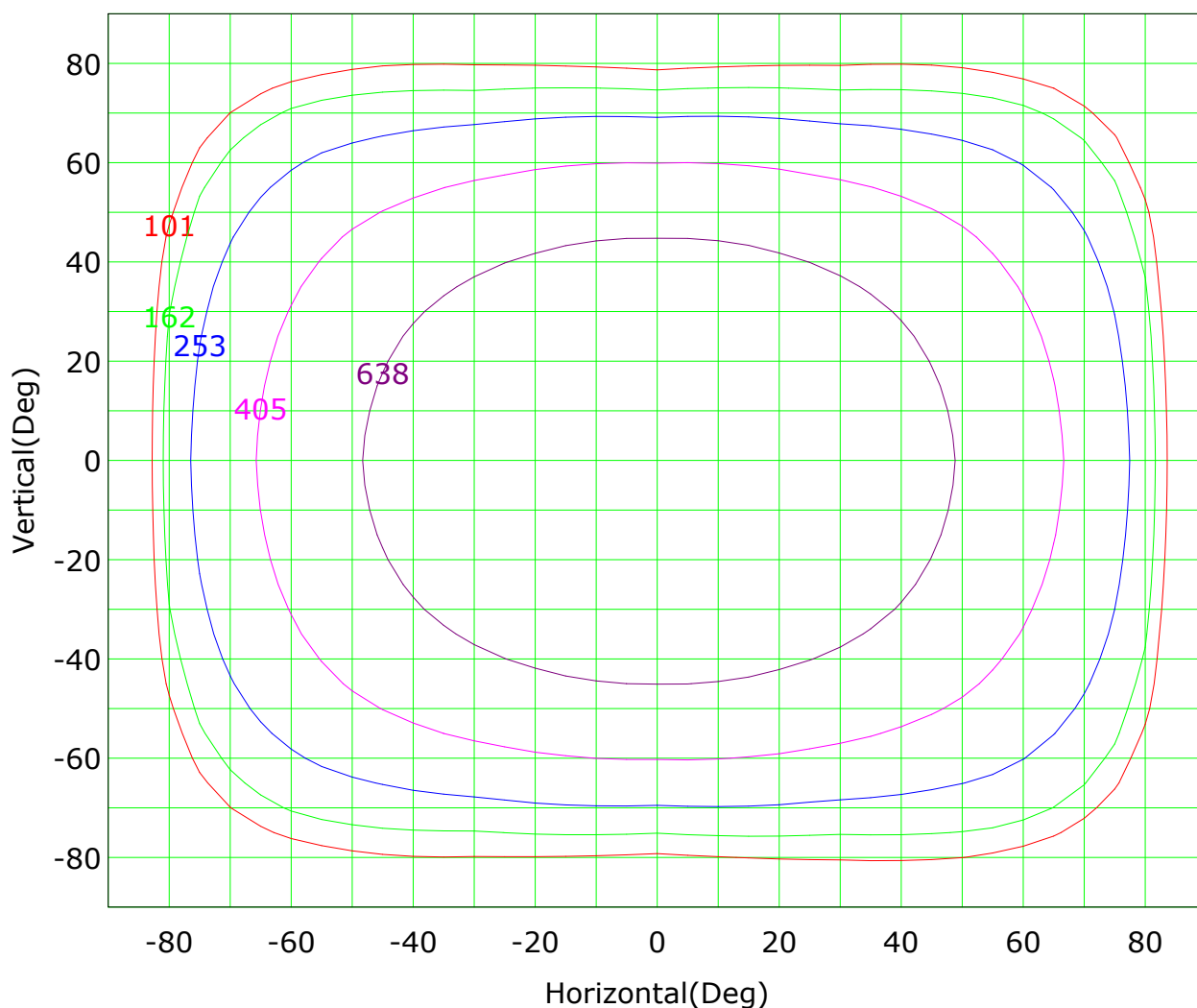
Spacing Criteria (0-180): 1.26  
Spacing Criteria (90-270): 1.22  
Spacing Criteria (Diagonal): 1.36



C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1600L  
Distance: 9.011 m  
Humidity:  
Inspector:

## Isocandela (rectangle)



Imax (100%): 1012 cd

( 10%): 101 cd	( 16%): 162 cd
( 25%): 253 cd	( 40%): 405 cd
( 63%): 638 cd	(100%): 1012 cd

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

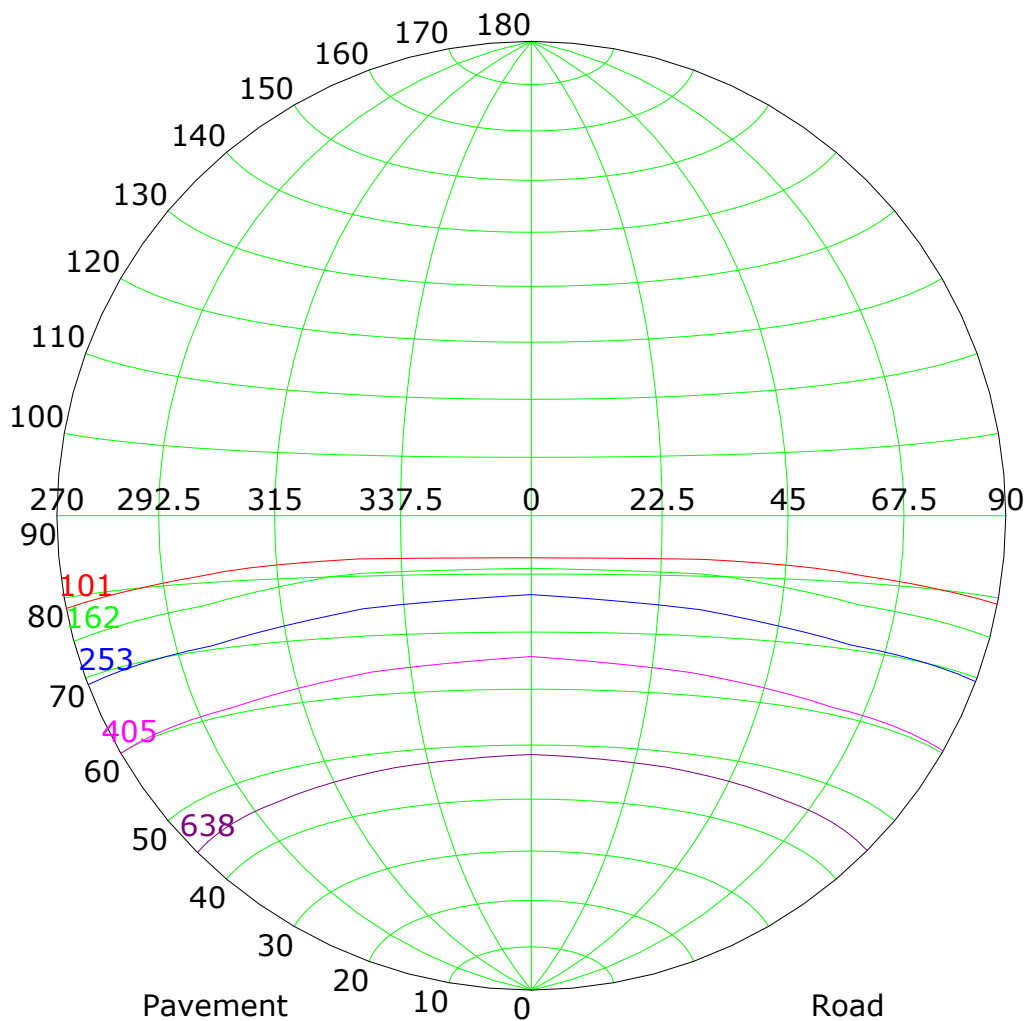
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## Isocandela (sphere)



Imax (100%): 1012 cd

( 10%): 101 cd	( 16%): 162 cd
( 25%): 253 cd	( 40%): 405 cd
( 63%): 638 cd	(100%): 1012 cd

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

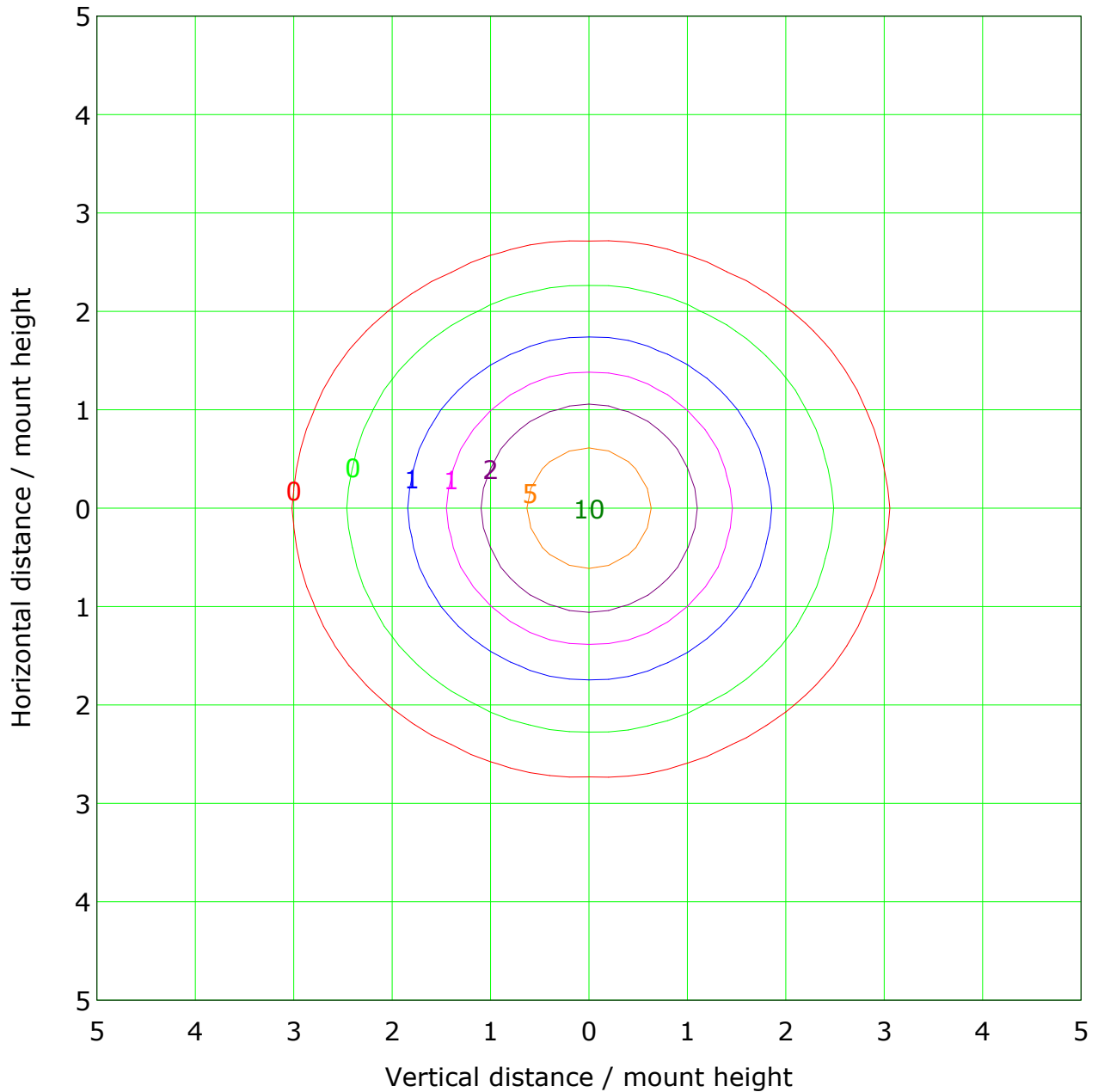
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## IsoLux Plot



Mounting Height: 10.0m    Max Lux(100%): 10.1 lx

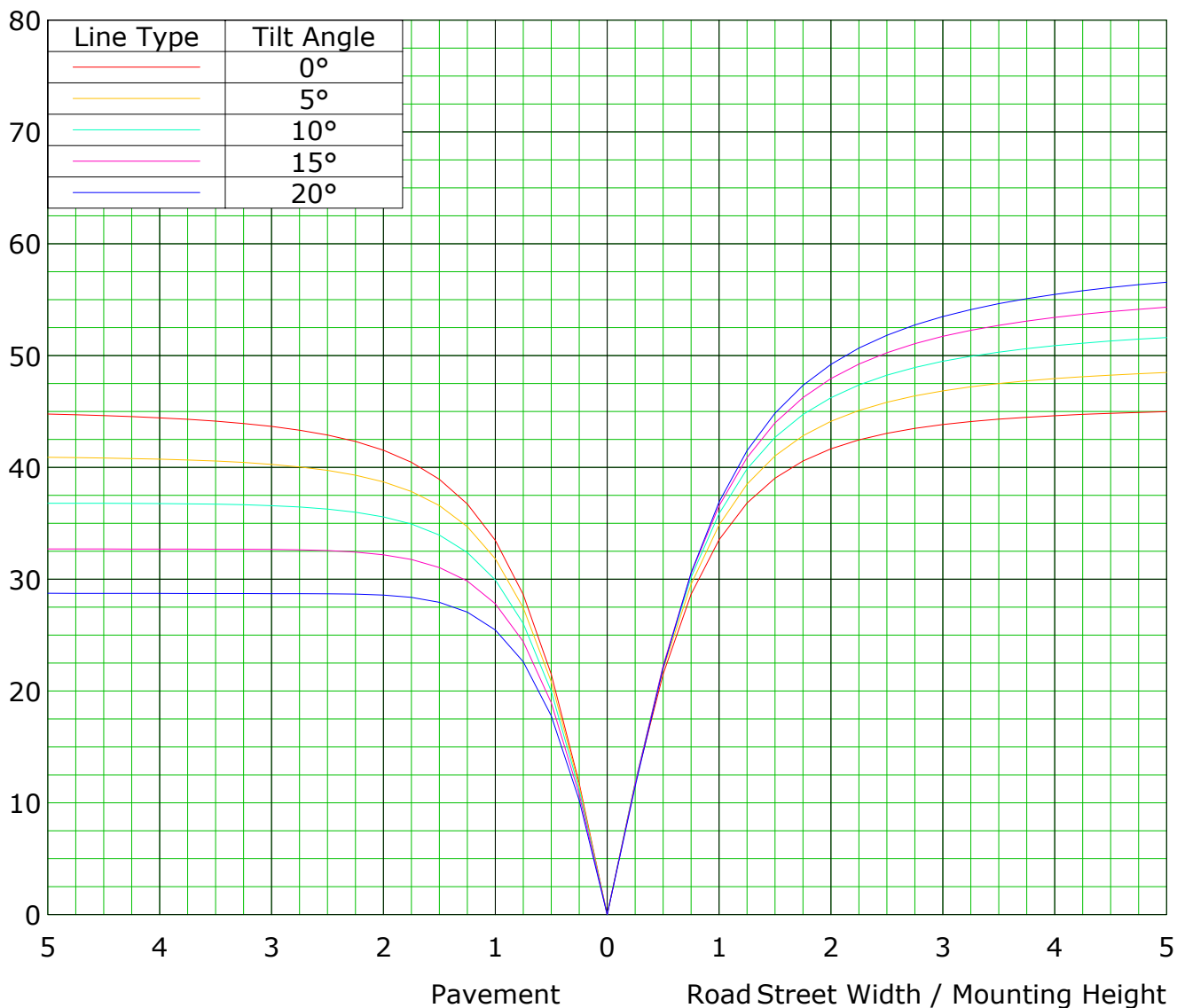
( 1%): 0.1 lx	( 2%): 0.2 lx
( 5%): 0.5 lx	( 10%): 1.0 lx
( 20%): 2.0 lx	( 50%): 5.1 lx
(100%): 10.1 lx	

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1600L  
Distance: 9.011 m  
Humidity:  
Inspector:

## Roadway CU Curve

Efficiency(%)



C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

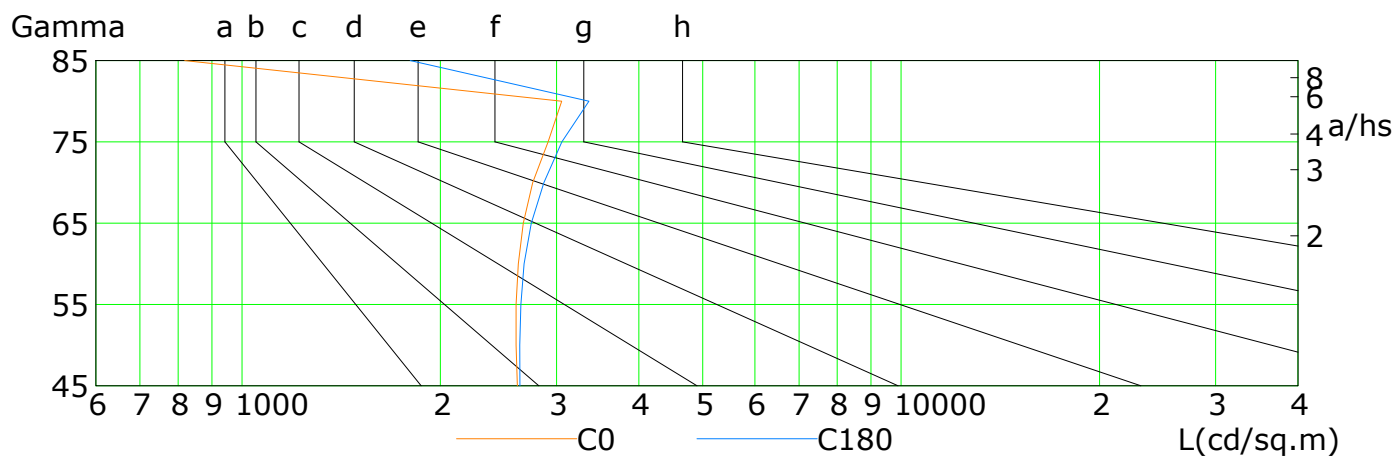
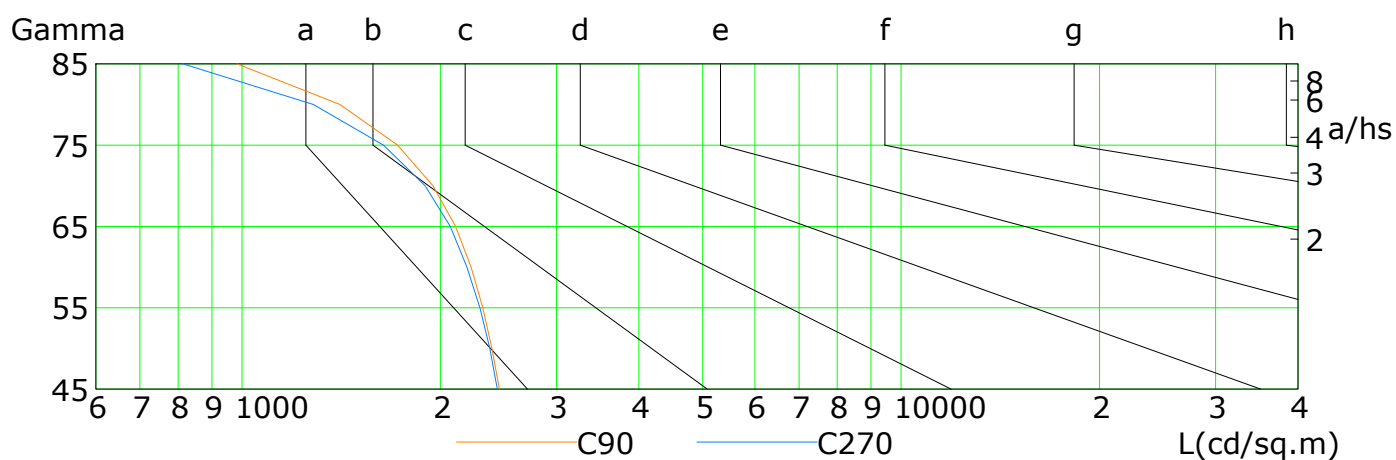
Inspector:



## 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	2616	2605	2605	2625	2671	2761	2913	3055	819
C90	2458	2394	2319	2226	2108	1948	1722	1408	983
C180	2640	2639	2649	2679	2747	2870	3056	3360	1800
C270	2440	2377	2295	2195	2070	1896	1639	1283	814

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

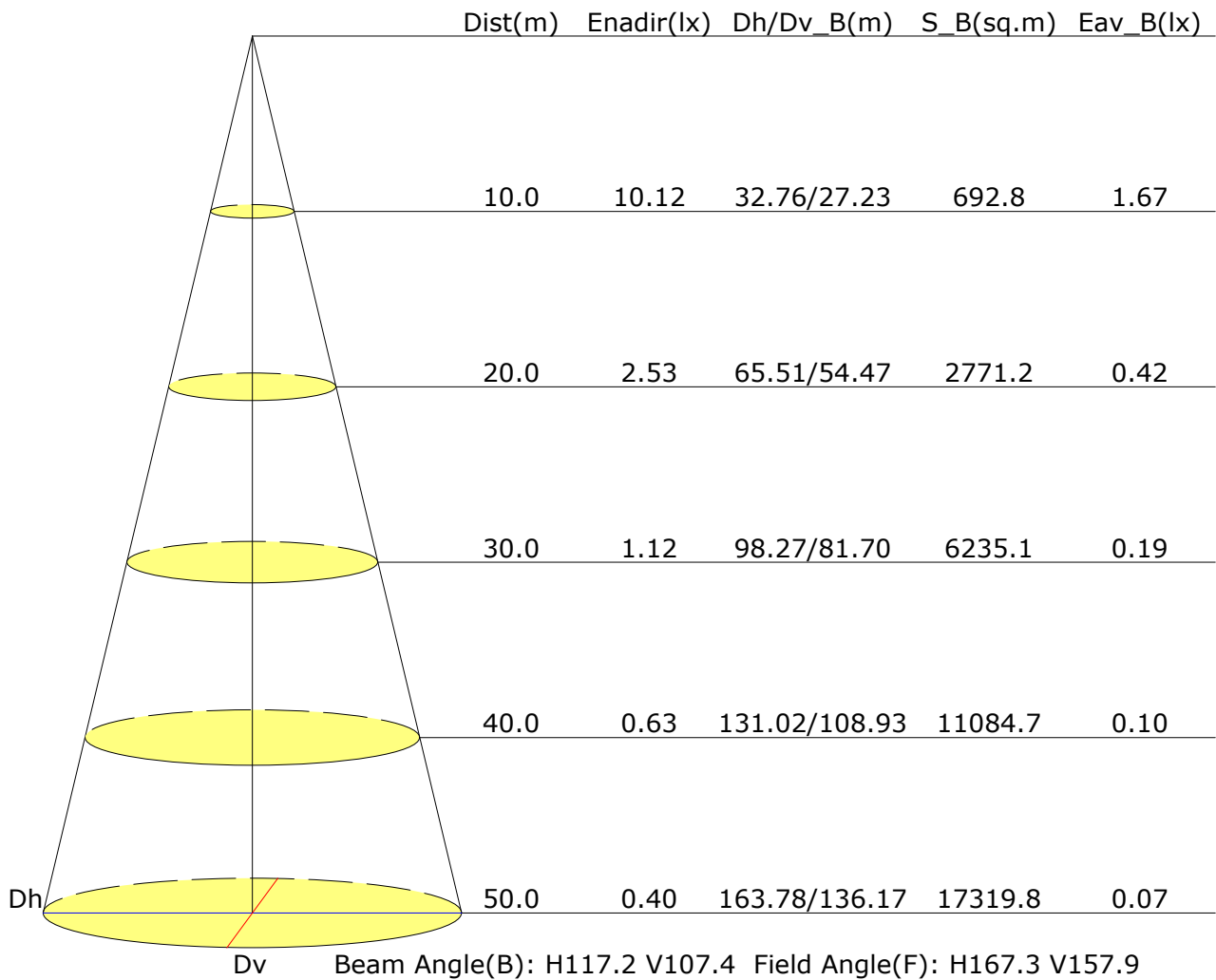
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

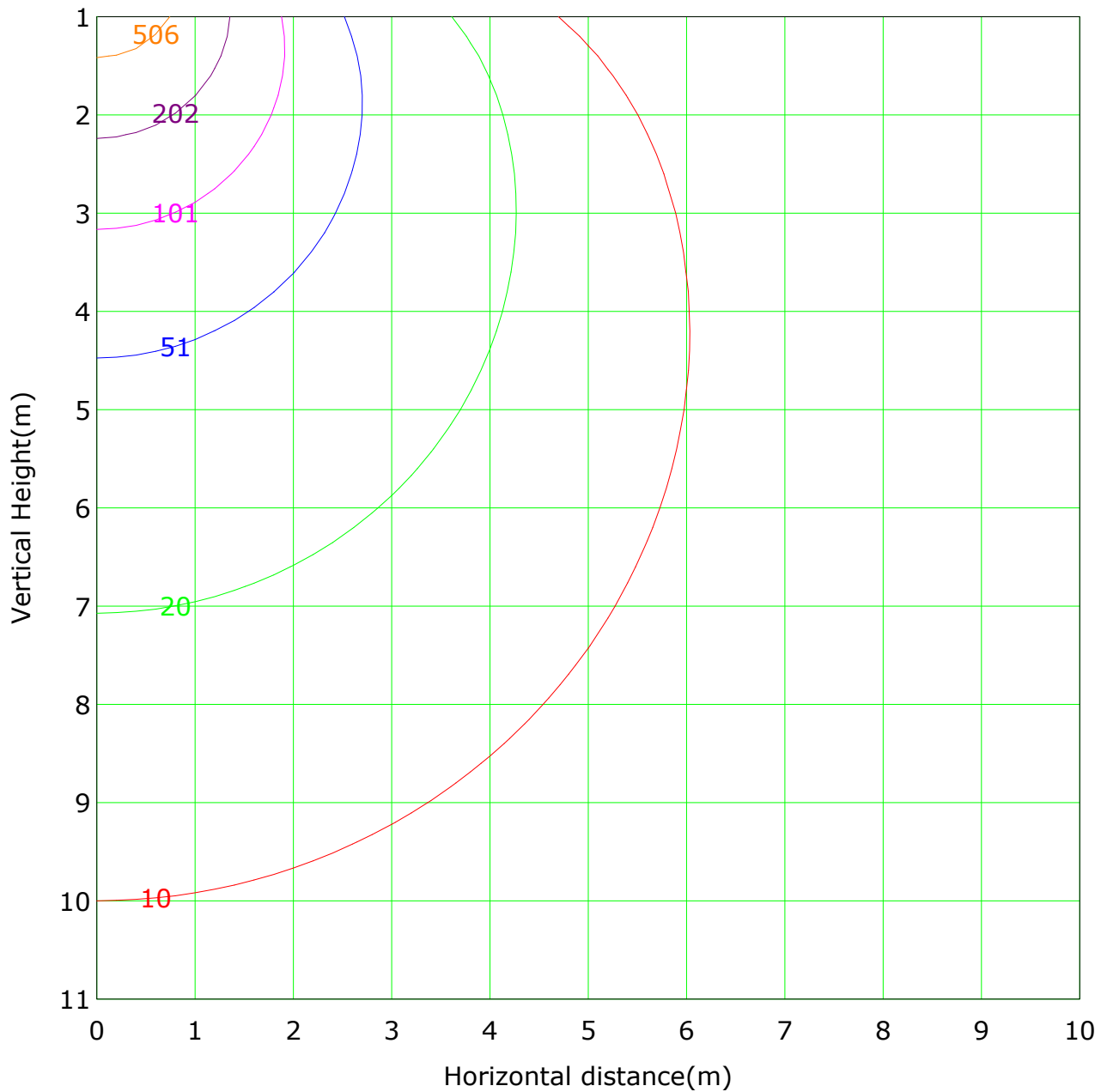
## Illuminance at a Distance



C Plane (°):0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 25  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600L  
 Distance: 9.011 m  
 Humidity:  
 Inspector:

## Vertical IsoLux Plot



Lowest(m): 1.0m    Highest(m): 11.0m    Max Lux: 1012.0 lx

— ( 1%): 10.1 lx	— ( 2%): 20.2 lx
— ( 5%): 50.6 lx	— (10%): 101.2 lx
— (20%): 202.4 lx	— (50%): 506.0 lx
— (100%):1012.0 lx	

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

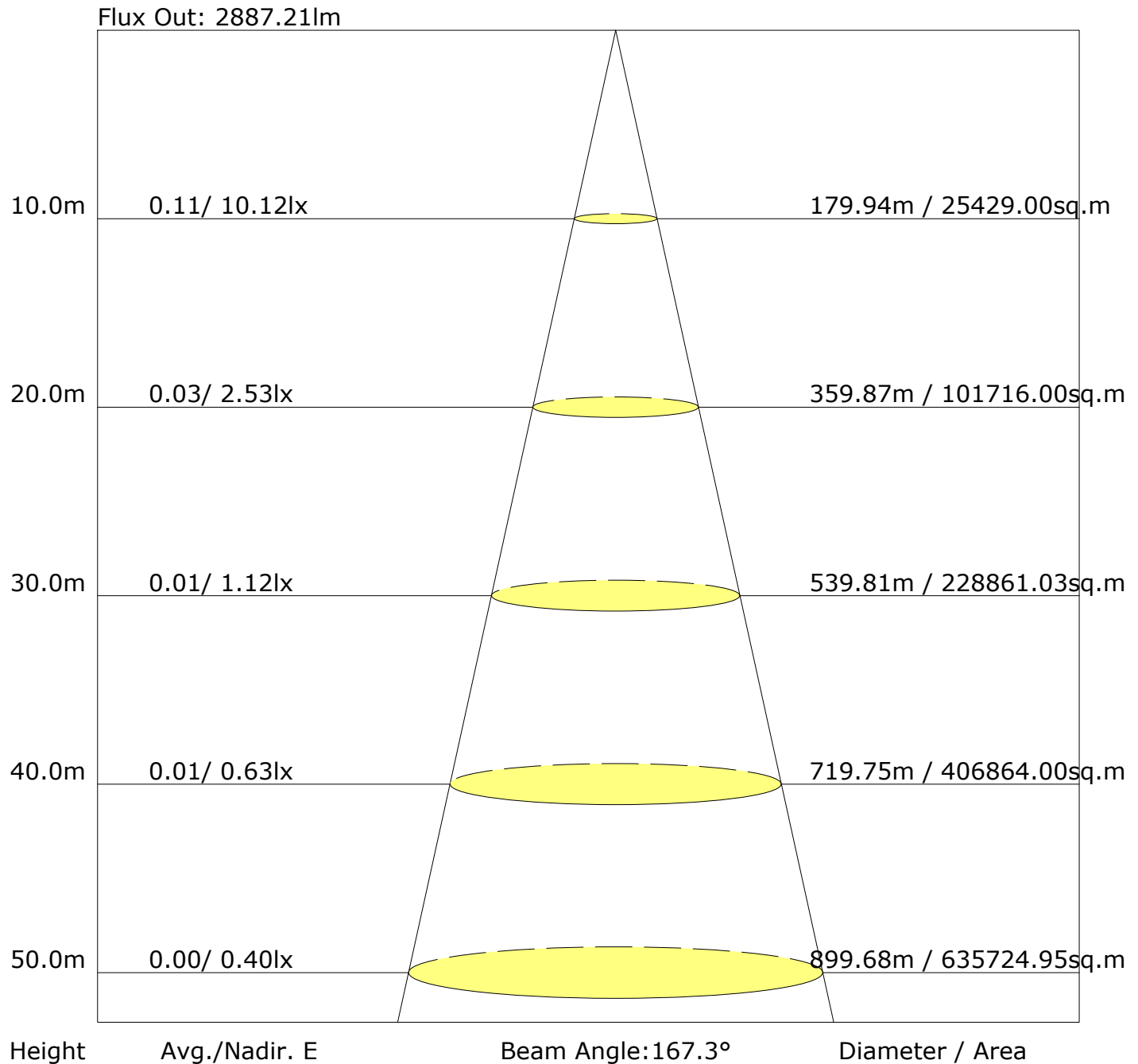
Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1600L  
Distance: 9.011 m  
Humidity:  
Inspector:

## Unit: lm

Horizontal plane

Test Device: GPM-1600L  
Distance: 9.011 m  
Humidity:  
Inspector:

## The Average Illuminance Effective Figure



C Plane (°): 0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 25  
 Operator:

Gamma Plane (°): 0.0-180.0: 1.0  
 Test Device: GPM-1600L  
 Distance: 9.011 m  
 Humidity:  
 Inspector:

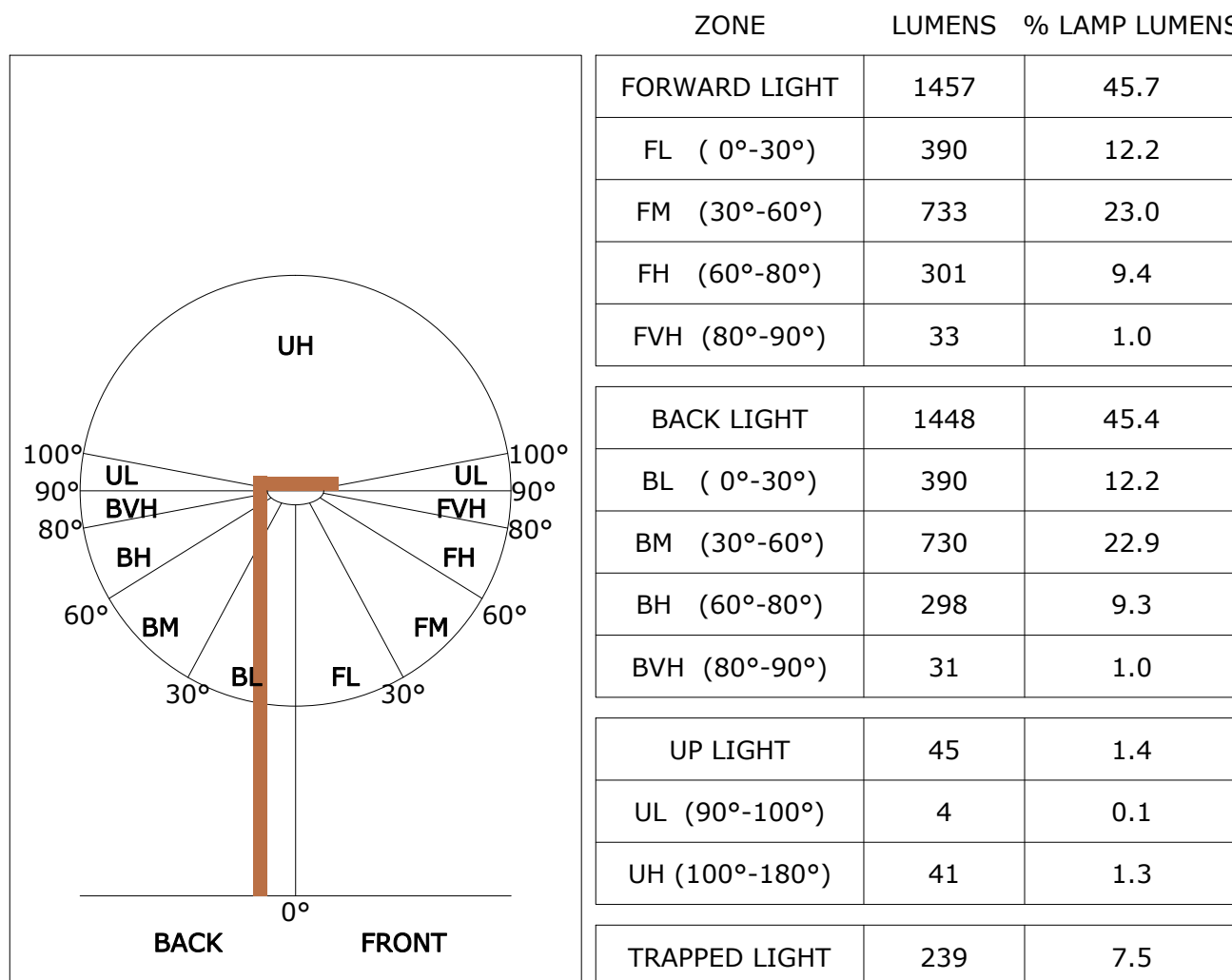
Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	15.9	17.3	16.3	17.6	17.9	15.3	16.7	15.6	16.9	17.2
3H	17.9	19.1	18.2	19.4	19.8	16.7	18.0	17.1	18.3	18.6
4H	18.8	20.0	19.2	20.3	20.7	17.3	18.5	17.6	18.8	19.1
6H	19.7	20.8	20.1	21.1	21.5	17.6	18.7	18.0	19.1	19.4
8H	20.0	21.0	20.4	21.4	21.7	17.7	18.8	18.1	19.1	19.5
12H	20.0	21.1	20.4	21.4	21.8	17.7	18.8	18.1	19.1	19.5
X=4H Y=2H	16.6	17.8	16.9	18.1	18.4	16.1	17.2	16.4	17.6	17.9
3H	18.7	19.8	19.1	20.1	20.5	17.7	18.7	18.1	19.1	19.5
4H	19.8	20.7	20.3	21.1	21.5	18.4	19.3	18.8	19.7	20.1
6H	20.8	21.7	21.3	22.1	22.5	18.8	19.7	19.3	20.1	20.5
8H	21.2	21.9	21.6	22.4	22.8	19.0	19.7	19.4	20.2	20.6
12H	21.3	22.0	21.8	22.4	22.9	19.0	19.7	19.5	20.2	20.6
X=8H Y=4H	20.1	20.9	20.6	21.3	21.7	18.8	19.6	19.3	20.0	20.5
6H	21.3	21.9	21.8	22.4	22.9	19.5	20.1	20.0	20.5	21.0
8H	21.8	22.3	22.3	22.8	23.3	19.7	20.2	20.2	20.7	21.2
12H	21.9	22.4	22.5	22.9	23.4	19.8	20.3	20.3	20.8	21.3
X=12H Y=4H	20.1	20.8	20.6	21.2	21.7	18.9	19.6	19.4	20.0	20.5
6H	21.4	21.9	21.9	22.4	22.9	19.6	20.2	20.1	20.6	21.2
8H	21.9	22.3	22.4	22.8	23.4	19.9	20.4	20.4	20.8	21.4
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.2					+0.2/-0.2				
S=1.5H	+0.4/-0.4					+0.4/-0.5				
S=2.0H	+0.5/-0.7					+0.5/-0.9				

Calculate in accordance with CIE Pub.117. The table is revised with 3189lm ( $8\log(F/F_0) = 4.0$ ).

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1600L  
Distance: 9.011 m  
Humidity:  
Inspector:

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

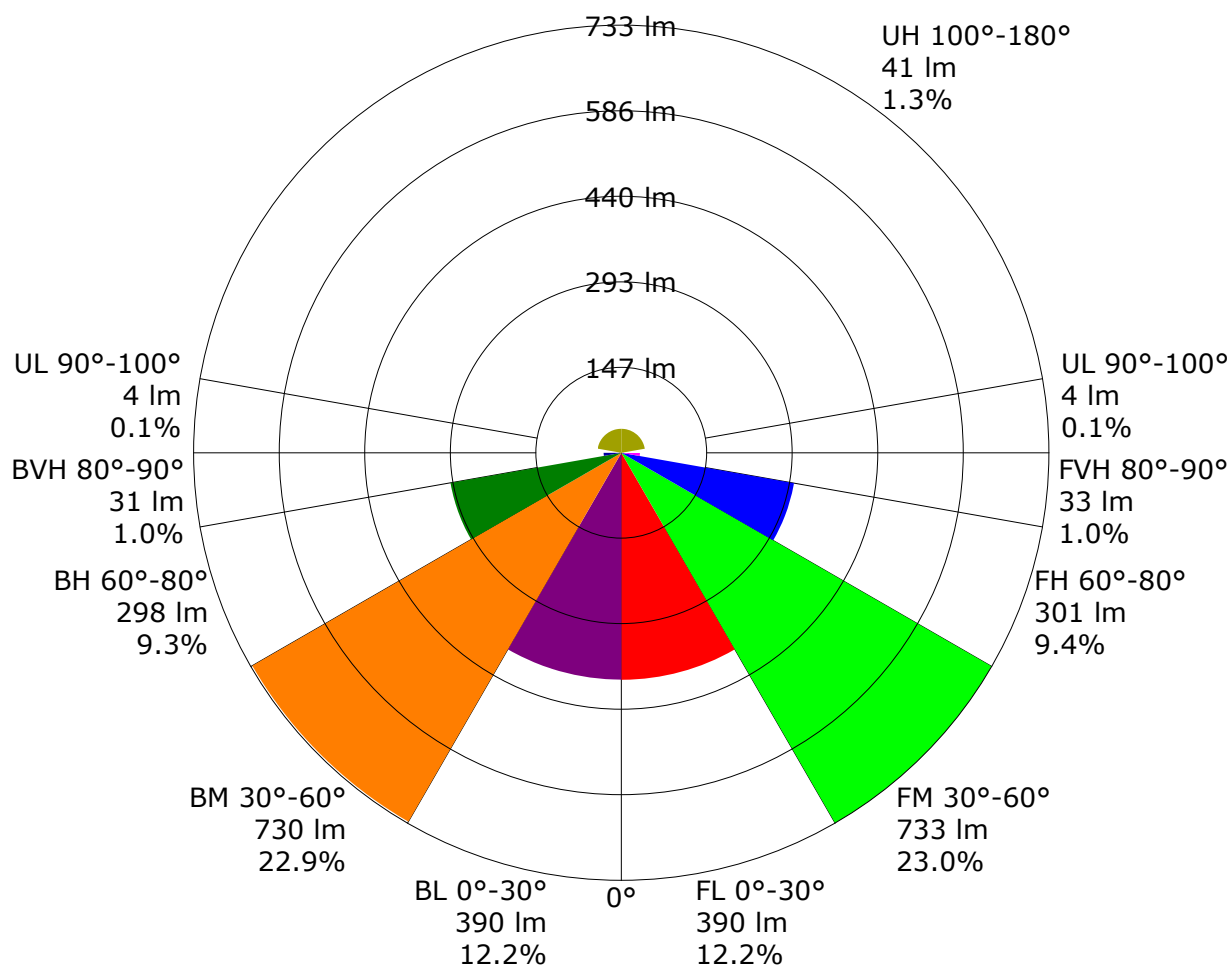


BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B1 U2 G1
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B1 U2 G1

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1600L  
Distance: 9.011 m  
Humidity:  
Inspector:

## LCS Graph



**Back Light**

**Forward Light**

Scale= 733 lm

Trapped Light:239 lm,7.5%

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

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	0.61	0.67	0.72	0.79	0.84	0.87	0.92	0.95	
	0.30		0.44	0.54	0.61	0.66	0.73	0.79	0.83	0.88	0.91	
	0.20		0.39	0.48	0.55	0.61	0.69	0.74	0.78	0.84	0.88	
0.50	0.50	0.20	0.50	0.59	0.65	0.70	0.76	0.81	0.84	0.88	0.90	
	0.30		0.43	0.52	0.59	0.64	0.71	0.76	0.80	0.85	0.88	
	0.20		0.38	0.47	0.54	0.59	0.67	0.72	0.76	0.82	0.85	
0.30	0.50	0.20	0.48	0.57	0.63	0.67	0.73	0.77	0.80	0.84	0.87	
	0.30		0.42	0.51	0.58	0.62	0.69	0.74	0.77	0.81	0.84	
	0.20		0.38	0.47	0.53	0.58	0.65	0.70	0.74	0.79	0.82	
0.00	0.00	0.00	0.36	0.44	0.51	0.55	0.62	0.67	0.70	0.75	0.78	
Rating:22W 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:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

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	0.33	0.25	0.21	
	0.30		0.78	0.66	0.57	0.51	0.42	0.35	0.30	0.24	0.20	
	0.20		0.66	0.58	0.51	0.46	0.38	0.32	0.28	0.22	0.19	
0.50	0.50	0.20	0.89	0.74	0.63	0.55	0.44	0.39	0.31	0.24	0.20	
	0.30		0.76	0.64	0.56	0.49	0.40	0.34	0.29	0.23	0.19	
	0.20		0.66	0.57	0.50	0.45	0.37	0.31	0.27	0.22	0.18	
0.30	0.50	0.20	0.87	0.71	0.60	0.53	0.42	0.35	0.30	0.23	0.19	
	0.30		0.74	0.62	0.54	0.48	0.39	0.32	0.28	0.22	0.18	
	0.20		0.65	0.56	0.49	0.44	0.36	0.30	0.26	0.21	0.17	
0.00	0.00	0.00	0.55	0.47	0.40	0.36	0.29	0.24	0.21	0.16	0.13	
Rating:22W 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	0.17	0.18	0.19	0.19	0.20	0.20	0.21	0.21	0.22	
	0.30		0.10	0.12	0.13	0.14	0.15	0.16	0.17	0.18	0.19	
	0.20		0.06	0.07	0.08	0.10	0.11	0.13	0.14	0.16	0.17	
0.50	0.50	0.20	0.16	0.17	0.18	0.18	0.19	0.20	0.20	0.20	0.21	
	0.30		0.10	0.11	0.13	0.13	0.15	0.16	0.17	0.18	0.18	
	0.20		0.06	0.07	0.08	0.09	0.11	0.13	0.14	0.15	0.16	
0.30	0.50	0.20	0.15	0.16	0.17	0.18	0.18	0.19	0.19	0.19	0.20	
	0.30		0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18	
	0.20		0.06	0.07	0.08	0.09	0.11	0.12	0.13	0.15	0.16	
0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
<p>Rating:22W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>												

## Zonal Lumen

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	1011.9	1.0	1.0	0.03	0.03
1.0-2.0	1011.5	2.9	3.9	0.09	0.12
2.0-3.0	1010.6	4.8	8.7	0.15	0.27
3.0-4.0	1009.4	6.8	15.5	0.21	0.48
4.0-5.0	1007.8	8.7	24.1	0.27	0.76
5.0-6.0	1005.8	10.6	34.7	0.33	1.09
6.0-7.0	1003.3	12.5	47.2	0.39	1.48
7.0-8.0	1000.5	14.3	61.5	0.45	1.93
8.0-9.0	997.3	16.2	77.6	0.51	2.43
9.0-10.0	993.7	18.0	95.6	0.56	3.00
10.0-11.0	989.7	19.8	115.4	0.62	3.62
11.0-12.0	985.3	21.5	137.0	0.68	4.29
12.0-13.0	980.6	23.3	160.2	0.73	5.02
13.0-14.0	975.5	25.0	185.2	0.78	5.81
14.0-15.0	969.9	26.6	211.8	0.84	6.64
15.0-16.0	964.0	28.3	240.1	0.89	7.53
16.0-17.0	957.8	29.8	269.9	0.94	8.46
17.0-18.0	951.4	31.4	301.3	0.98	9.45
18.0-19.0	944.4	32.9	334.1	1.03	10.48
19.0-20.0	937.1	34.3	368.5	1.08	11.55
20.0-21.0	929.8	35.7	404.2	1.12	12.67
21.0-22.0	921.8	37.0	441.2	1.16	13.83
22.0-23.0	913.6	38.3	479.6	1.20	15.04
23.0-24.0	905.0	39.6	519.1	1.24	16.28
24.0-25.0	896.0	40.7	559.9	1.28	17.55
25.0-26.0	887.2	41.9	601.8	1.31	18.87
26.0-27.0	877.7	42.9	644.7	1.35	20.21
27.0-28.0	867.9	43.9	688.6	1.38	21.59
28.0-29.0	858.2	44.9	733.5	1.41	23.00
29.0-30.0	847.8	45.8	779.3	1.44	24.43
30.0-31.0	837.1	46.6	825.9	1.46	25.90
31.0-32.0	826.3	47.3	873.3	1.48	27.38
32.0-33.0	815.0	48.0	921.3	1.51	28.89
33.0-34.0	804.0	48.7	969.9	1.53	30.41
34.0-35.0	792.3	49.2	1019.2	1.54	31.95
35.0-36.0	780.4	49.7	1068.9	1.56	33.51

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## Zonal Lumen (Continue 1)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	768.6	50.1	1119.0	1.57	35.08
37.0-38.0	756.2	50.5	1169.5	1.58	36.67
38.0-39.0	744.0	50.8	1220.3	1.59	38.26
39.0-40.0	731.3	51.0	1271.3	1.60	39.86
40.0-41.0	718.4	51.2	1322.4	1.60	41.46
41.0-42.0	705.9	51.3	1373.7	1.61	43.07
42.0-43.0	692.7	51.3	1425.0	1.61	44.68
43.0-44.0	679.3	51.3	1476.3	1.61	46.29
44.0-45.0	666.0	51.2	1527.5	1.60	47.89
45.0-46.0	652.3	51.0	1578.5	1.60	49.49
46.0-47.0	638.7	50.8	1629.3	1.59	51.09
47.0-48.0	624.8	50.5	1679.8	1.58	52.67
48.0-49.0	610.7	50.2	1730.0	1.57	54.24
49.0-50.0	597.1	49.8	1779.8	1.56	55.80
50.0-51.0	582.7	49.3	1829.1	1.55	57.35
51.0-52.0	568.4	48.8	1877.9	1.53	58.88
52.0-53.0	554.2	48.2	1926.1	1.51	60.39
53.0-54.0	539.6	47.6	1973.7	1.49	61.88
54.0-55.0	525.3	46.9	2020.6	1.47	63.35
55.0-56.0	510.6	46.1	2066.7	1.45	64.80
56.0-57.0	495.8	45.3	2112.0	1.42	66.22
57.0-58.0	481.5	44.5	2156.6	1.40	67.62
58.0-59.0	466.5	43.6	2200.2	1.37	68.98
59.0-60.0	451.6	42.7	2242.8	1.34	70.32
60.0-61.0	436.6	41.7	2284.5	1.31	71.63
61.0-62.0	421.6	40.6	2325.1	1.27	72.90
62.0-63.0	407.2	39.6	2364.8	1.24	74.14
63.0-64.0	392.1	38.5	2403.2	1.21	75.35
64.0-65.0	377.1	37.3	2440.6	1.17	76.52
65.0-66.0	362.6	36.2	2476.8	1.13	77.66
66.0-67.0	347.5	34.9	2511.7	1.10	78.75
67.0-68.0	332.5	33.7	2545.4	1.06	79.81
68.0-69.0	317.4	32.4	2577.8	1.02	80.82
69.0-70.0	302.2	31.0	2608.8	0.97	81.80
70.0-71.0	287.7	29.7	2638.6	0.93	82.73
71.0-72.0	272.6	28.3	2666.9	0.89	83.62

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## Zonal Lumen (Continue 2)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
72.0-73.0	257.4	26.9	2693.8	0.84	84.46
73.0-74.0	243.0	25.6	2719.4	0.80	85.26
74.0-75.0	228.0	24.1	2743.5	0.76	86.02
75.0-76.0	212.9	22.6	2766.1	0.71	86.73
76.0-77.0	198.1	21.1	2787.2	0.66	87.39
77.0-78.0	183.3	19.6	2806.8	0.62	88.00
78.0-79.0	169.1	18.2	2825.0	0.57	88.57
79.0-80.0	154.1	16.6	2841.6	0.52	89.10
80.0-81.0	138.3	15.0	2856.6	0.47	89.56
81.0-82.0	121.7	13.2	2869.8	0.41	89.98
82.0-83.0	103.3	11.2	2881.0	0.35	90.33
83.0-84.0	83.1	9.1	2890.0	0.28	90.61
84.0-85.0	59.8	6.5	2896.6	0.20	90.82
85.0-86.0	35.9	3.9	2900.5	0.12	90.94
86.0-87.0	18.9	2.1	2902.6	0.06	91.01
87.0-88.0	10.3	1.1	2903.7	0.04	91.04
88.0-89.0	6.5	0.7	2904.4	0.02	91.06
89.0-90.0	4.3	0.5	2904.9	0.01	91.08
90.0-91.0	3.3	0.4	2905.2	0.01	91.09
91.0-92.0	3.3	0.4	2905.6	0.01	91.10
92.0-93.0	3.4	0.4	2906.0	0.01	91.11
93.0-94.0	3.5	0.4	2906.4	0.01	91.13
94.0-95.0	3.7	0.4	2906.8	0.01	91.14
95.0-96.0	3.8	0.4	2907.2	0.01	91.15
96.0-97.0	3.9	0.4	2907.6	0.01	91.16
97.0-98.0	4.0	0.4	2908.0	0.01	91.18
98.0-99.0	4.2	0.5	2908.5	0.01	91.19
99.0-100.0	4.3	0.5	2908.9	0.01	91.21
100.0-101.0	4.4	0.5	2909.4	0.01	91.22
101.0-102.0	4.5	0.5	2909.9	0.02	91.24
102.0-103.0	4.6	0.5	2910.4	0.02	91.25
103.0-104.0	4.8	0.5	2910.9	0.02	91.27
104.0-105.0	4.9	0.5	2911.4	0.02	91.28
105.0-106.0	5.0	0.5	2912.0	0.02	91.30
106.0-107.0	5.1	0.5	2912.5	0.02	91.32
107.0-108.0	5.3	0.6	2913.1	0.02	91.34

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## Zonal Lumen (Continue 3)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
108.0-109.0	5.4	0.6	2913.6	0.02	91.35
109.0-110.0	5.5	0.6	2914.2	0.02	91.37
110.0-111.0	5.7	0.6	2914.8	0.02	91.39
111.0-112.0	5.8	0.6	2915.4	0.02	91.41
112.0-113.0	6.0	0.6	2916.0	0.02	91.43
113.0-114.0	6.1	0.6	2916.6	0.02	91.45
114.0-115.0	6.2	0.6	2917.2	0.02	91.47
115.0-116.0	6.3	0.6	2917.8	0.02	91.49
116.0-117.0	6.4	0.6	2918.5	0.02	91.51
117.0-118.0	6.6	0.6	2919.1	0.02	91.53
118.0-119.0	6.7	0.6	2919.8	0.02	91.55
119.0-120.0	6.9	0.7	2920.4	0.02	91.57
120.0-121.0	7.0	0.7	2921.1	0.02	91.59
121.0-122.0	7.1	0.7	2921.7	0.02	91.61
122.0-123.0	7.3	0.7	2922.4	0.02	91.63
123.0-124.0	7.4	0.7	2923.1	0.02	91.65
124.0-125.0	7.5	0.7	2923.8	0.02	91.67
125.0-126.0	7.7	0.7	2924.4	0.02	91.69
126.0-127.0	7.8	0.7	2925.1	0.02	91.71
127.0-128.0	7.9	0.7	2925.8	0.02	91.74
128.0-129.0	8.1	0.7	2926.5	0.02	91.76
129.0-130.0	8.2	0.7	2927.2	0.02	91.78
130.0-131.0	8.4	0.7	2927.9	0.02	91.80
131.0-132.0	8.5	0.7	2928.6	0.02	91.82
132.0-133.0	8.6	0.7	2929.3	0.02	91.85
133.0-134.0	8.8	0.7	2930.0	0.02	91.87
134.0-135.0	8.9	0.7	2930.7	0.02	91.89
135.0-136.0	9.0	0.7	2931.4	0.02	91.91
136.0-137.0	9.2	0.7	2932.1	0.02	91.93
137.0-138.0	9.3	0.7	2932.8	0.02	91.95
138.0-139.0	9.4	0.7	2933.5	0.02	91.98
139.0-140.0	9.5	0.7	2934.1	0.02	92.00
140.0-141.0	9.7	0.7	2934.8	0.02	92.02
141.0-142.0	9.8	0.7	2935.5	0.02	92.04
142.0-143.0	9.9	0.7	2936.1	0.02	92.06
143.0-144.0	10.0	0.7	2936.8	0.02	92.08

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## Zonal Lumen (Continue 4)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
144.0-145.0	10.1	0.6	2937.4	0.02	92.10
145.0-146.0	10.2	0.6	2938.1	0.02	92.12
146.0-147.0	10.3	0.6	2938.7	0.02	92.14
147.0-148.0	10.4	0.6	2939.3	0.02	92.16
148.0-149.0	10.6	0.6	2939.9	0.02	92.18
149.0-150.0	10.7	0.6	2940.5	0.02	92.20
150.0-151.0	10.8	0.6	2941.1	0.02	92.21
151.0-152.0	10.9	0.6	2941.7	0.02	92.23
152.0-153.0	11.0	0.6	2942.2	0.02	92.25
153.0-154.0	11.1	0.5	2942.8	0.02	92.27
154.0-155.0	11.2	0.5	2943.3	0.02	92.28
155.0-156.0	11.3	0.5	2943.8	0.02	92.30
156.0-157.0	11.4	0.5	2944.3	0.02	92.32
157.0-158.0	11.4	0.5	2944.8	0.02	92.33
158.0-159.0	11.5	0.5	2945.2	0.01	92.34
159.0-160.0	11.6	0.4	2945.7	0.01	92.36
160.0-161.0	11.7	0.4	2946.1	0.01	92.37
161.0-162.0	11.8	0.4	2946.5	0.01	92.39
162.0-163.0	11.8	0.4	2946.9	0.01	92.40
163.0-164.0	11.9	0.4	2947.3	0.01	92.41
164.0-165.0	11.9	0.4	2947.6	0.01	92.42
165.0-166.0	12.0	0.3	2948.0	0.01	92.43
166.0-167.0	12.1	0.3	2948.3	0.01	92.44
167.0-168.0	12.1	0.3	2948.6	0.01	92.45
168.0-169.0	12.2	0.3	2948.8	0.01	92.46
169.0-170.0	12.3	0.2	2949.1	0.01	92.46
170.0-171.0	12.3	0.2	2949.3	0.01	92.47
171.0-172.0	12.4	0.2	2949.5	0.01	92.48
172.0-173.0	12.4	0.2	2949.7	0.01	92.48
173.0-174.0	12.4	0.2	2949.8	0.00	92.49
174.0-175.0	12.4	0.1	2950.0	0.00	92.49
175.0-176.0	12.4	0.1	2950.1	0.00	92.50
176.0-177.0	12.4	0.1	2950.2	0.00	92.50
177.0-178.0	12.4	0.1	2950.2	0.00	92.50
178.0-179.0	12.5	0.0	2950.2	0.00	92.50
179.0-180.0	12.5	0.0	2950.3	0.00	92.50

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:



## Zonal Lumen (Continue 5)

cone flux(90°): 1527.50 lm

%lum = 47.9%

%lamp = 51.8%

cone flux(120°): 2242.85 lm

%lum = 70.3%

%lamp = 76.0%

## 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	1012.0	1012.0	1012.0	1012.0	1012.0	1012.0	1012.0	1012.0	1012.0	1012.0
G1.0	1011.5	1011.9	1011.9	1011.7	1011.6	1011.9	1011.8	1012.1	1011.7	1011.8
G2.0	1010.8	1011.2	1011.1	1011.2	1011.2	1011.2	1011.3	1011.3	1011.1	1011.1
G3.0	1009.9	1010.2	1010.1	1010.0	1010.1	1010.4	1010.3	1010.4	1009.9	1009.8
G4.0	1008.7	1008.7	1008.7	1008.6	1008.6	1009.1	1009.0	1009.2	1008.6	1008.3
G5.0	1007.4	1007.1	1006.7	1006.8	1006.8	1007.4	1007.6	1007.1	1006.6	1006.6
G6.0	1004.9	1004.9	1004.4	1004.3	1004.6	1005.2	1005.5	1005.2	1004.3	1003.9
G7.0	1002.3	1002.4	1001.8	1001.5	1001.8	1002.9	1003.1	1002.7	1001.6	1001.0
G8.0	999.8	999.4	998.5	998.5	998.9	1000.2	1000.3	999.6	998.3	997.8
G9.0	996.4	995.9	994.9	994.5	995.4	997.0	997.4	996.2	994.7	994.1
G10.0	993.0	992.4	991.2	990.6	991.4	993.5	994.0	992.9	991.0	990.1
G11.0	988.7	988.1	986.5	986.1	986.8	989.2	989.9	988.9	986.4	985.5
G12.0	984.6	983.6	981.8	981.2	982.3	985.0	986.1	984.5	981.8	980.9
G13.0	979.9	979.1	977.1	976.0	977.6	980.4	981.3	979.8	977.0	975.7
G14.0	974.8	973.3	970.9	970.1	971.8	975.3	976.6	974.7	971.3	969.7
G15.0	969.6	968.4	965.4	964.3	966.0	970.0	971.4	969.2	965.5	963.4
G16.0	963.5	961.9	958.8	957.6	959.4	963.9	965.6	963.3	958.9	956.9
G17.0	957.9	956.1	952.4	951.1	953.2	958.0	960.0	957.2	952.2	950.3
G18.0	951.9	949.4	945.6	944.0	946.4	951.7	953.9	951.0	945.8	943.4
G19.0	944.8	942.4	937.9	936.0	938.8	944.6	947.1	943.9	938.1	935.3
G20.0	938.2	935.4	930.6	928.5	931.7	937.6	940.6	936.8	930.5	927.8
G21.0	931.0	928.1	922.7	920.5	923.8	930.6	933.7	929.7	922.8	919.8
G22.0	923.1	919.8	913.9	911.6	915.1	922.6	925.7	921.7	913.8	910.6
G23.0	915.3	912.2	905.9	902.7	907.0	915.0	918.6	914.0	905.5	902.2
G24.0	906.8	903.0	896.1	893.1	897.3	906.0	909.8	905.0	896.2	891.9
G25.0	898.6	894.4	887.2	883.9	888.6	897.9	901.9	896.8	886.8	882.9
G26.0	890.3	885.5	878.0	874.1	879.3	889.1	893.7	887.7	877.7	873.5
G27.0	880.9	876.2	867.3	863.7	869.2	879.7	884.4	878.0	867.5	862.5
G28.0	871.6	867.0	857.7	853.3	859.5	870.2	875.7	869.1	857.3	852.4
G29.0	862.6	857.1	847.7	843.2	849.1	861.0	866.1	859.4	847.3	841.7
G30.0	851.9	846.2	836.3	831.3	838.1	850.3	856.2	849.0	836.2	830.1
G31.0	842.3	836.3	825.1	820.7	827.1	840.6	847.0	839.3	825.3	819.2
G32.0	831.7	825.1	813.4	808.5	815.7	829.3	836.0	827.9	813.5	806.6
G33.0	821.0	814.4	802.6	796.9	804.9	819.0	825.9	817.1	802.0	795.3
G34.0	810.9	803.9	791.0	785.4	793.2	808.6	815.8	806.2	790.3	783.2
G35.0	798.9	791.6	778.5	772.1	781.0	796.5	803.9	794.6	777.6	769.8
G36.0	788.5	780.6	766.4	760.4	768.9	785.8	793.6	783.6	765.9	757.7

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

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	777.2	768.8	754.6	747.8	756.7	774.3	782.0	770.9	752.5	744.4
G38.0	765.3	756.4	740.8	734.2	743.8	762.0	770.7	759.5	740.4	731.5
G39.0	753.4	744.9	728.8	721.4	731.1	750.2	759.6	748.2	727.6	718.8
G40.0	741.2	731.5	714.7	707.5	717.6	737.5	747.1	734.8	713.9	704.3
G41.0	729.2	719.7	702.1	694.2	704.6	725.4	735.7	723.2	701.3	691.3
G42.0	717.7	707.1	688.7	681.2	692.1	713.5	723.7	710.6	688.0	677.7
G43.0	704.2	693.8	674.6	666.2	678.0	699.8	711.1	697.4	673.9	663.0
G44.0	692.4	680.9	660.9	652.9	664.4	687.7	699.6	685.1	660.1	649.6
G45.0	680.0	668.0	647.9	638.8	650.8	675.0	686.0	671.0	645.6	634.1
G46.0	666.7	654.3	632.6	624.0	636.3	661.4	674.1	658.6	631.5	620.3
G47.0	654.1	641.0	619.1	610.1	622.9	648.4	661.6	645.3	618.1	606.0
G48.0	640.7	627.2	603.7	594.3	607.5	634.5	648.3	631.5	602.6	590.5
G49.0	627.8	614.3	589.8	579.8	593.8	621.2	636.2	618.0	588.7	575.7
G50.0	615.5	600.7	575.4	565.7	579.4	608.5	623.4	605.4	574.1	561.5
G51.0	601.5	585.8	560.1	549.4	564.2	593.8	610.0	590.6	558.8	544.9
G52.0	588.9	572.7	545.2	535.1	549.7	580.9	597.1	577.6	544.6	530.3
G53.0	576.0	559.1	530.4	520.0	535.6	567.3	583.7	562.6	528.3	514.2
G54.0	562.3	544.7	514.9	504.2	519.5	553.2	570.7	549.4	513.9	498.7
G55.0	549.2	530.8	499.8	488.8	504.6	539.5	558.5	535.7	498.8	483.9
G56.0	534.9	516.2	484.1	472.5	488.9	525.1	544.5	521.3	482.8	466.8
G57.0	522.3	502.4	469.5	456.9	474.5	511.4	531.9	507.4	467.5	451.9
G58.0	509.2	488.4	453.5	441.2	458.6	497.6	519.0	494.0	452.9	436.0
G59.0	494.8	473.8	437.4	424.2	442.8	482.6	505.5	478.9	436.0	419.3
G60.0	482.4	459.8	421.9	409.0	427.5	469.5	492.3	465.6	421.2	403.3
G61.0	467.8	444.6	405.1	391.7	410.8	454.6	478.8	451.0	405.1	386.4
G62.0	455.3	431.2	390.4	376.5	396.1	440.8	466.4	436.9	389.5	371.0
G63.0	442.1	417.0	374.8	360.5	380.9	427.5	453.2	423.7	373.8	354.6
G64.0	427.6	402.4	358.7	343.5	364.7	412.5	439.5	408.4	357.4	337.9
G65.0	414.8	388.3	343.0	327.5	349.3	399.1	426.7	395.1	342.7	321.5
G66.0	401.6	374.9	328.1	312.0	334.5	385.2	414.3	381.0	327.0	305.0
G67.0	387.8	359.3	311.0	294.3	317.6	370.6	400.8	366.1	310.6	288.1
G68.0	374.7	345.7	296.2	278.6	302.8	356.8	387.8	352.6	295.6	272.2
G69.0	360.7	330.2	279.1	261.0	286.0	342.3	374.1	337.4	278.7	254.2
G70.0	347.1	316.7	263.6	244.9	271.2	328.6	360.8	324.1	263.8	238.3
G71.0	334.2	302.7	248.9	229.5	256.1	314.9	348.0	310.2	248.3	222.5
G72.0	319.1	287.4	232.1	211.9	239.5	300.4	333.2	295.5	231.9	204.6
G73.0	305.3	273.9	217.4	196.0	225.1	286.4	320.1	281.3	216.8	188.5

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

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	291.9	259.8	202.3	181.1	210.1	273.1	306.3	267.8	202.2	173.2
G75.0	277.1	244.8	186.7	163.8	194.6	258.3	290.8	252.1	185.8	155.9
G76.0	262.8	230.4	172.0	149.2	179.9	244.2	277.3	238.4	170.9	141.2
G77.0	247.2	215.3	156.9	132.7	165.0	228.7	262.4	222.7	155.7	125.3
G78.0	232.8	200.7	143.0	118.6	151.1	214.9	247.7	208.6	142.2	110.6
G79.0	216.2	186.8	129.9	104.3	138.1	200.4	232.4	193.9	128.4	96.2
G80.0	195.0	170.0	115.3	89.9	123.5	185.0	214.5	177.7	113.5	81.9
G81.0	172.0	151.9	102.8	76.7	111.1	169.3	195.1	160.9	100.7	68.9
G82.0	145.0	132.4	90.5	64.2	98.1	151.4	168.8	140.0	86.2	56.4
G83.0	110.6	108.3	76.7	52.1	84.1	129.2	139.1	116.9	73.8	45.2
G84.0	72.6	80.8	64.1	41.9	72.0	103.5	104.4	91.2	60.4	35.7
G85.0	26.2	45.7	49.1	31.5	57.5	71.1	57.7	56.5	45.6	26.1
G86.0	4.6	15.4	35.4	23.4	43.9	36.2	17.7	23.0	31.0	18.8
G87.0	3.7	7.0	20.6	16.0	28.6	9.7	4.5	7.9	17.7	12.7
G88.0	3.3	5.5	9.7	10.8	13.7	6.1	4.1	6.3	9.2	9.0
G89.0	3.1	4.0	6.3	7.0	7.9	4.7	3.7	5.0	6.0	5.0
G90.0	3.0	2.9	2.9	3.1	4.6	3.4	3.5	3.6	3.3	3.1
G91.0	3.1	3.0	2.8	2.7	3.0	3.2	3.5	3.6	3.4	3.2
G92.0	3.2	3.1	3.0	2.8	3.1	3.3	3.7	3.7	3.6	3.3
G93.0	3.4	3.3	3.1	2.9	3.2	3.4	3.8	3.8	3.7	3.5
G94.0	3.6	3.4	3.2	3.0	3.3	3.6	3.9	3.9	3.8	3.6
G95.0	3.7	3.5	3.3	3.1	3.4	3.7	4.0	4.0	3.9	3.7
G96.0	3.7	3.6	3.5	3.3	3.6	3.8	4.1	4.1	4.0	3.8
G97.0	3.9	3.7	3.6	3.5	3.7	3.9	4.2	4.3	4.1	4.0
G98.0	3.9	3.9	3.8	3.5	3.8	4.1	4.4	4.4	4.2	4.1
G99.0	4.1	4.0	3.9	3.7	4.0	4.1	4.5	4.5	4.4	4.2
G100.0	4.2	4.1	4.1	3.8	4.1	4.3	4.6	4.6	4.5	4.3
G101.0	4.4	4.2	4.2	3.9	4.2	4.5	4.7	4.7	4.6	4.4
G102.0	4.5	4.4	4.2	4.0	4.4	4.6	4.9	4.9	4.8	4.6
G103.0	4.5	4.5	4.4	4.2	4.5	4.7	5.0	4.9	4.9	4.7
G104.0	4.7	4.6	4.6	4.3	4.6	4.8	5.1	5.1	5.0	4.8
G105.0	4.8	4.7	4.6	4.4	4.7	5.0	5.2	5.2	5.1	4.9
G106.0	4.9	4.9	4.8	4.6	4.9	5.0	5.3	5.3	5.2	5.1
G107.0	5.1	5.0	4.9	4.7	5.0	5.2	5.5	5.4	5.4	5.1
G108.0	5.2	5.1	5.0	4.8	5.1	5.3	5.6	5.6	5.5	5.3
G109.0	5.3	5.3	5.1	5.0	5.2	5.5	5.7	5.6	5.7	5.4
G110.0	5.5	5.3	5.3	5.1	5.4	5.6	5.9	5.9	5.8	5.6

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

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	5.6	5.5	5.5	5.2	5.6	5.8	5.9	5.9	5.9	5.7
G112.0	5.7	5.6	5.7	5.4	5.8	5.8	6.1	6.1	6.0	5.9
G113.0	5.8	5.7	5.8	5.5	5.9	6.0	6.3	6.2	6.2	6.0
G114.0	6.0	5.9	5.9	5.6	5.9	6.1	6.3	6.3	6.3	6.1
G115.0	6.1	6.0	6.0	5.8	6.0	6.2	6.5	6.5	6.5	6.2
G116.0	6.2	6.1	6.0	5.9	6.3	6.4	6.5	6.6	6.6	6.4
G117.0	6.3	6.2	6.2	6.1	6.4	6.5	6.8	6.7	6.7	6.5
G118.0	6.5	6.4	6.3	6.2	6.6	6.7	6.9	6.9	6.9	6.6
G119.0	6.6	6.5	6.4	6.3	6.6	6.8	7.1	7.1	7.0	6.7
G120.0	6.8	6.7	6.5	6.4	6.8	6.9	7.1	7.1	7.1	6.9
G121.0	6.9	6.8	6.7	6.6	6.9	7.1	7.2	7.3	7.2	7.0
G122.0	7.1	7.0	6.8	6.7	7.0	7.2	7.4	7.5	7.4	7.2
G123.0	7.2	7.1	7.0	6.9	7.1	7.3	7.5	7.6	7.5	7.3
G124.0	7.4	7.2	7.2	7.0	7.4	7.5	7.6	7.7	7.6	7.4
G125.0	7.5	7.4	7.2	7.2	7.4	7.6	7.8	7.8	7.7	7.6
G126.0	7.7	7.5	7.4	7.3	7.6	7.8	8.0	8.0	7.9	7.7
G127.0	7.8	7.7	7.5	7.3	7.7	7.9	8.1	8.1	8.0	7.8
G128.0	8.0	7.8	7.6	7.5	7.8	8.1	8.3	8.2	8.1	8.0
G129.0	8.1	7.9	7.8	7.7	7.9	8.2	8.4	8.4	8.3	8.1
G130.0	8.2	8.1	7.9	7.8	8.1	8.4	8.6	8.6	8.4	8.3
G131.0	8.4	8.2	8.0	8.0	8.2	8.6	8.7	8.7	8.5	8.4
G132.0	8.5	8.4	8.2	8.1	8.4	8.7	8.8	8.8	8.7	8.5
G133.0	8.7	8.6	8.3	8.2	8.6	8.8	9.0	8.9	8.8	8.6
G134.0	8.8	8.7	8.5	8.3	8.7	8.9	9.1	9.1	9.0	8.7
G135.0	9.0	8.9	8.6	8.5	8.8	9.0	9.4	9.1	9.1	8.9
G136.0	9.1	9.0	8.7	8.6	8.9	9.1	9.4	9.3	9.1	9.0
G137.0	9.2	9.1	8.8	8.7	9.1	9.3	9.5	9.5	9.3	9.1
G138.0	9.3	9.1	9.0	8.9	9.3	9.4	9.6	9.6	9.4	9.2
G139.0	9.5	9.3	9.1	9.0	9.3	9.5	9.8	9.7	9.6	9.4
G140.0	9.6	9.4	9.2	9.1	9.4	9.7	9.9	9.8	9.6	9.5
G141.0	9.7	9.6	9.3	9.3	9.5	9.7	9.9	9.9	9.8	9.6
G142.0	9.8	9.7	9.5	9.4	9.6	9.8	10.0	10.1	9.9	9.7
G143.0	9.9	9.8	9.6	9.5	9.8	10.0	10.2	10.2	10.0	9.8
G144.0	10.1	10.0	9.7	9.7	9.9	10.0	10.2	10.3	10.1	10.0
G145.0	10.2	10.0	9.9	9.7	10.0	10.2	10.4	10.4	10.3	10.1
G146.0	10.3	10.1	10.0	9.9	10.1	10.3	10.5	10.5	10.3	10.2
G147.0	10.4	10.2	10.1	10.0	10.2	10.4	10.6	10.6	10.4	10.4

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

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	10.5	10.3	10.2	10.2	10.3	10.5	10.7	10.7	10.6	10.4
G149.0	10.6	10.5	10.3	10.2	10.4	10.6	10.9	10.8	10.6	10.6
G150.0	10.6	10.5	10.5	10.4	10.5	10.7	11.0	10.9	10.8	10.7
G151.0	10.8	10.7	10.7	10.5	10.7	10.9	11.1	11.1	10.8	10.8
G152.0	10.9	10.8	10.7	10.5	10.7	10.9	11.1	11.2	11.0	10.9
G153.0	11.0	10.9	10.8	10.7	10.8	11.1	11.3	11.2	11.0	11.0
G154.0	11.0	10.9	10.9	10.8	10.9	11.2	11.3	11.3	11.1	11.1
G155.0	11.1	11.1	11.0	10.9	11.1	11.2	11.4	11.4	11.2	11.2
G156.0	11.2	11.2	11.1	11.0	11.1	11.3	11.5	11.5	11.3	11.3
G157.0	11.2	11.2	11.2	11.2	11.3	11.4	11.6	11.5	11.4	11.4
G158.0	11.4	11.4	11.3	11.2	11.3	11.5	11.6	11.6	11.5	11.5
G159.0	11.4	11.5	11.4	11.3	11.4	11.5	11.8	11.6	11.6	11.6
G160.0	11.5	11.5	11.5	11.3	11.5	11.6	11.8	11.7	11.7	11.6
G161.0	11.6	11.6	11.6	11.4	11.6	11.7	11.8	11.8	11.8	11.7
G162.0	11.6	11.7	11.7	11.6	11.7	11.8	11.8	11.8	11.8	11.8
G163.0	11.8	11.8	11.7	11.7	11.8	11.8	11.9	11.9	11.9	11.8
G164.0	11.8	11.8	11.8	11.7	11.8	11.9	11.9	11.9	11.9	11.9
G165.0	11.8	11.9	11.9	11.8	11.9	12.0	11.9	12.0	12.0	12.0
G166.0	11.9	12.0	12.0	11.8	12.0	12.0	12.0	12.0	12.0	12.0
G167.0	12.0	12.0	12.0	11.9	12.0	12.0	12.1	12.0	12.2	12.1
G168.0	12.0	12.1	12.1	12.0	12.2	12.1	12.2	12.1	12.2	12.1
G169.0	12.1	12.2	12.1	12.0	12.2	12.2	12.2	12.3	12.2	12.2
G170.0	12.2	12.2	12.2	12.1	12.2	12.2	12.3	12.3	12.3	12.3
G171.0	12.3	12.4	12.4	12.1	12.3	12.3	12.3	12.3	12.4	12.3
G172.0	12.3	12.3	12.4	12.2	12.4	12.3	12.3	12.3	12.4	12.3
G173.0	12.3	12.3	12.4	12.3	12.5	12.4	12.3	12.3	12.4	12.4
G174.0	12.3	12.3	12.4	12.3	12.5	12.4	12.3	12.3	12.4	12.3
G175.0	12.3	12.3	12.4	12.3	12.5	12.5	12.3	12.3	12.4	12.4
G176.0	12.3	12.3	12.4	12.3	12.6	12.6	12.3	12.3	12.4	12.3
G177.0	12.4	12.4	12.4	12.3	12.6	12.5	12.3	12.3	12.4	12.3
G178.0	12.5	12.4	12.4	12.3	12.6	12.6	12.5	12.4	12.4	12.4
G179.0	12.5	12.5	12.5	12.3	12.5	12.5	12.5	12.3	12.4	12.5
G180.0	12.5	12.5	12.4	12.3	12.5	12.6	12.5	12.4	12.4	12.3

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## Candlepower Table (Continue 5)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G0.0	1012.0	1012.0	1012.0							
G1.0	1011.6	1011.7	1011.5							
G2.0	1011.0	1011.2	1010.8							
G3.0	1009.8	1009.9	1009.9							
G4.0	1008.5	1008.7	1008.7							
G5.0	1006.3	1006.8	1007.4							
G6.0	1003.9	1004.7	1004.9							
G7.0	1001.2	1002.0	1002.3							
G8.0	998.1	998.9	999.8							
G9.0	994.6	995.7	996.4							
G10.0	990.7	991.9	993.0							
G11.0	986.2	987.6	988.7							
G12.0	981.4	983.3	984.6							
G13.0	976.6	978.7	979.9							
G14.0	970.7	973.3	974.8							
G15.0	965.0	968.1	969.6							
G16.0	958.5	961.8	963.5							
G17.0	951.9	955.8	957.9							
G18.0	945.3	949.5	951.9							
G19.0	937.5	942.0	944.8							
G20.0	930.0	935.2	938.2							
G21.0	922.4	927.8	931.0							
G22.0	913.7	919.6	923.1							
G23.0	905.0	911.8	915.3							
G24.0	895.7	902.8	906.8							
G25.0	886.8	894.3	898.6							
G26.0	877.1	885.8	890.3							
G27.0	866.9	875.6	880.9							
G28.0	856.7	866.6	871.6							
G29.0	846.8	857.4	862.6							
G30.0	835.4	846.3	851.9							
G31.0	824.9	836.4	842.3							
G32.0	812.7	825.4	831.7							
G33.0	801.2	814.6	821.0							
G34.0	789.6	803.5	810.9							
G35.0	777.1	791.6	798.9							
G36.0	765.4	780.1	788.5							

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## Candlepower Table (Continue 6)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G37.0	751.9	768.0	777.2							
G38.0	739.8	756.1	765.3							
G39.0	727.1	744.6	753.4							
G40.0	713.3	731.3	741.2							
G41.0	700.1	719.3	729.2							
G42.0	687.3	707.5	717.7							
G43.0	673.1	693.4	704.2							
G44.0	659.3	681.2	692.4							
G45.0	644.8	666.9	680.0							
G46.0	630.8	654.4	666.7							
G47.0	617.0	641.2	654.1							
G48.0	601.4	627.3	640.7							
G49.0	587.5	613.9	627.8							
G50.0	572.9	600.8	615.5							
G51.0	557.4	586.6	601.5							
G52.0	543.2	572.9	588.9							
G53.0	526.7	558.4	576.0							
G54.0	512.4	544.5	562.3							
G55.0	497.4	531.4	549.2							
G56.0	481.5	516.3	534.9							
G57.0	466.1	503.1	522.3							
G58.0	451.5	489.1	509.2							
G59.0	434.6	474.6	494.8							
G60.0	419.8	460.5	482.4							
G61.0	402.9	445.9	467.8							
G62.0	387.8	432.4	455.3							
G63.0	372.3	418.4	442.1							
G64.0	355.9	403.7	427.6							
G65.0	341.0	389.5	414.8							
G66.0	325.4	376.0	401.6							
G67.0	308.9	360.5	387.8							
G68.0	293.9	347.0	374.7							
G69.0	276.8	332.4	360.7							
G70.0	261.8	318.4	347.1							
G71.0	246.2	305.0	334.2							
G72.0	230.1	289.7	319.1							
G73.0	214.8	276.3	305.3							

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:



## Candlepower Table (Continue 7)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G74.0	200.3	262.1	291.9							
G75.0	184.1	246.6	277.1							
G76.0	170.1	232.9	262.8							
G77.0	154.7	218.1	247.2							
G78.0	141.5	203.6	232.8							
G79.0	128.1	189.0	216.2							
G80.0	114.3	172.9	195.0							
G81.0	101.6	154.8	172.0							
G82.0	88.8	133.1	145.0							
G83.0	76.7	110.6	110.6							
G84.0	63.2	82.5	72.6							
G85.0	48.3	46.6	26.2							
G86.0	33.5	17.0	4.6							
G87.0	19.2	6.9	3.7							
G88.0	9.2	5.4	3.3							
G89.0	6.2	4.1	3.1							
G90.0	3.4	3.7	3.0							
G91.0	3.6	3.8	3.1							
G92.0	3.7	3.8	3.2							
G93.0	3.8	4.0	3.4							
G94.0	3.9	4.0	3.6							
G95.0	4.1	4.3	3.7							
G96.0	4.2	4.4	3.7							
G97.0	4.3	4.4	3.9							
G98.0	4.5	4.6	3.9							
G99.0	4.6	4.7	4.1							
G100.0	4.8	4.8	4.2							
G101.0	4.9	4.9	4.4							
G102.0	5.0	5.1	4.5							
G103.0	5.1	5.2	4.5							
G104.0	5.2	5.3	4.7							
G105.0	5.4	5.4	4.8							
G106.0	5.4	5.6	4.9							
G107.0	5.6	5.7	5.1							
G108.0	5.7	5.9	5.2							
G109.0	5.8	5.9	5.3							
G110.0	6.0	6.1	5.5							

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## Candlepower Table (Continue 8)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G111.0	6.1	6.2	5.6							
G112.0	6.3	6.3	5.7							
G113.0	6.5	6.4	5.8							
G114.0	6.6	6.6	6.0							
G115.0	6.6	6.7	6.1							
G116.0	6.7	6.8	6.2							
G117.0	6.8	6.9	6.3							
G118.0	7.0	7.0	6.5							
G119.0	7.0	7.2	6.6							
G120.0	7.2	7.3	6.8							
G121.0	7.4	7.4	6.9							
G122.0	7.5	7.6	7.1							
G123.0	7.6	7.7	7.2							
G124.0	7.7	7.8	7.4							
G125.0	7.9	8.0	7.5							
G126.0	8.1	8.1	7.7							
G127.0	8.1	8.3	7.8							
G128.0	8.2	8.4	8.0							
G129.0	8.4	8.6	8.1							
G130.0	8.5	8.7	8.2							
G131.0	8.6	8.9	8.4							
G132.0	8.7	9.0	8.5							
G133.0	8.9	9.2	8.7							
G134.0	9.0	9.3	8.8							
G135.0	9.2	9.4	9.0							
G136.0	9.3	9.4	9.1							
G137.0	9.4	9.7	9.2							
G138.0	9.5	9.8	9.3							
G139.0	9.7	10.0	9.5							
G140.0	9.8	10.1	9.6							
G141.0	9.9	10.2	9.7							
G142.0	10.0	10.3	9.8							
G143.0	10.1	10.4	9.9							
G144.0	10.3	10.5	10.1							
G145.0	10.4	10.6	10.2							
G146.0	10.5	10.6	10.3							
G147.0	10.6	10.8	10.4							

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## Candlepower Table (Continue 9)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G148.0	10.7	10.9	10.5							
G149.0	10.9	11.0	10.6							
G150.0	11.0	11.1	10.6							
G151.0	11.1	11.2	10.8							
G152.0	11.2	11.3	10.9							
G153.0	11.3	11.4	11.0							
G154.0	11.4	11.5	11.0							
G155.0	11.5	11.6	11.1							
G156.0	11.6	11.7	11.2							
G157.0	11.7	11.8	11.2							
G158.0	11.8	11.9	11.4							
G159.0	11.8	12.0	11.4							
G160.0	11.9	12.0	11.5							
G161.0	12.0	12.1	11.6							
G162.0	11.9	12.1	11.6							
G163.0	12.1	12.2	11.8							
G164.0	12.2	12.3	11.8							
G165.0	12.2	12.3	11.8							
G166.0	12.4	12.4	11.9							
G167.0	12.3	12.4	12.0							
G168.0	12.4	12.5	12.0							
G169.0	12.5	12.5	12.1							
G170.0	12.6	12.5	12.2							
G171.0	12.5	12.5	12.3							
G172.0	12.5	12.5	12.3							
G173.0	12.5	12.6	12.3							
G174.0	12.5	12.5	12.3							
G175.0	12.5	12.6	12.3							
G176.0	12.5	12.6	12.3							
G177.0	12.5	12.5	12.4							
G178.0	12.6	12.7	12.5							
G179.0	12.5	12.6	12.5							
G180.0	12.5	12.7	12.5							

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## LED Average Luminance Report

Avg.L	cd/m <sup>2</sup>
L 0-180(65) av	2708.81
L 0-180(75) av	2984.93
L 0-180(85) av	1309.26
L 90-270(65) av	2088.84
L 90-270(75) av	1680.73
L 90-270(85) av	898.06
L 45(65) av	2372.38
L 45(75) av	2303.64
L 45(85) av	1641.04

Standard: GB/T 29293-2012