

Report No.:

Test Time: 2023-05-18 16:02

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog: LED

Number of Lamps: 1

Luminous Length (mm): 1200

Luminous Height (mm): 45

Current: 0.233 A

Power Factor: 0.993

Luminaire Description:

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 600

Voltage: 120.0 V

Power: 27.77 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 3676.8 lm

Downward Ratio: 99%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 166.5, 159.1, 165.8, 166.3

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 116.8, 108.8, 112.5, 112.3

Luminaire Efficacy Rating (LER): 132.45

Max. Intensity: 1252.22 cd

S/MH(C0/C180): 1.26

Total Rated Lamp Lumens: 3676.8 lm

Efficiency: 100%

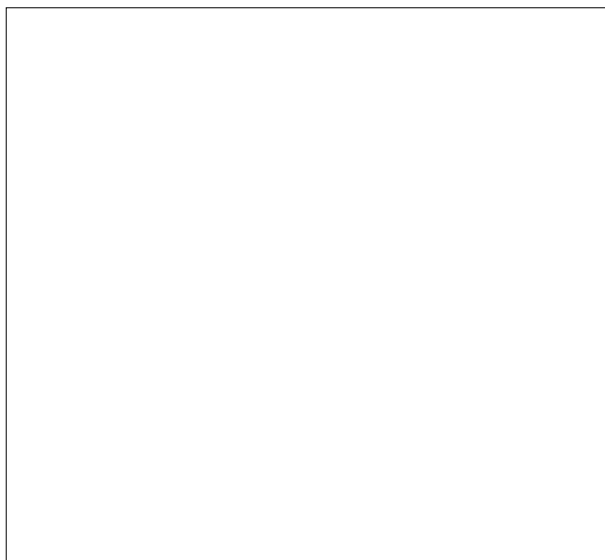
Upward Ratio: 1%

C0r0 Intensity: 1251.34 cd

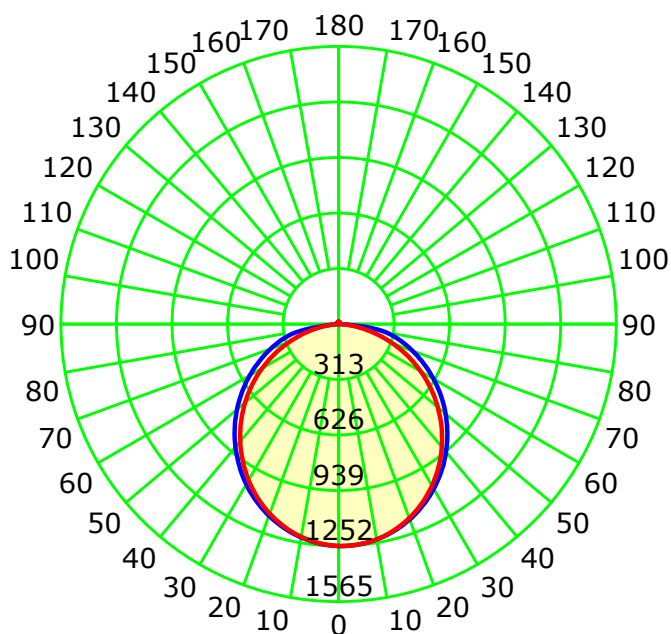
Pos of Max. Intensity: H30 V2

S/MH(C90/C270): 1.23

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

— 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

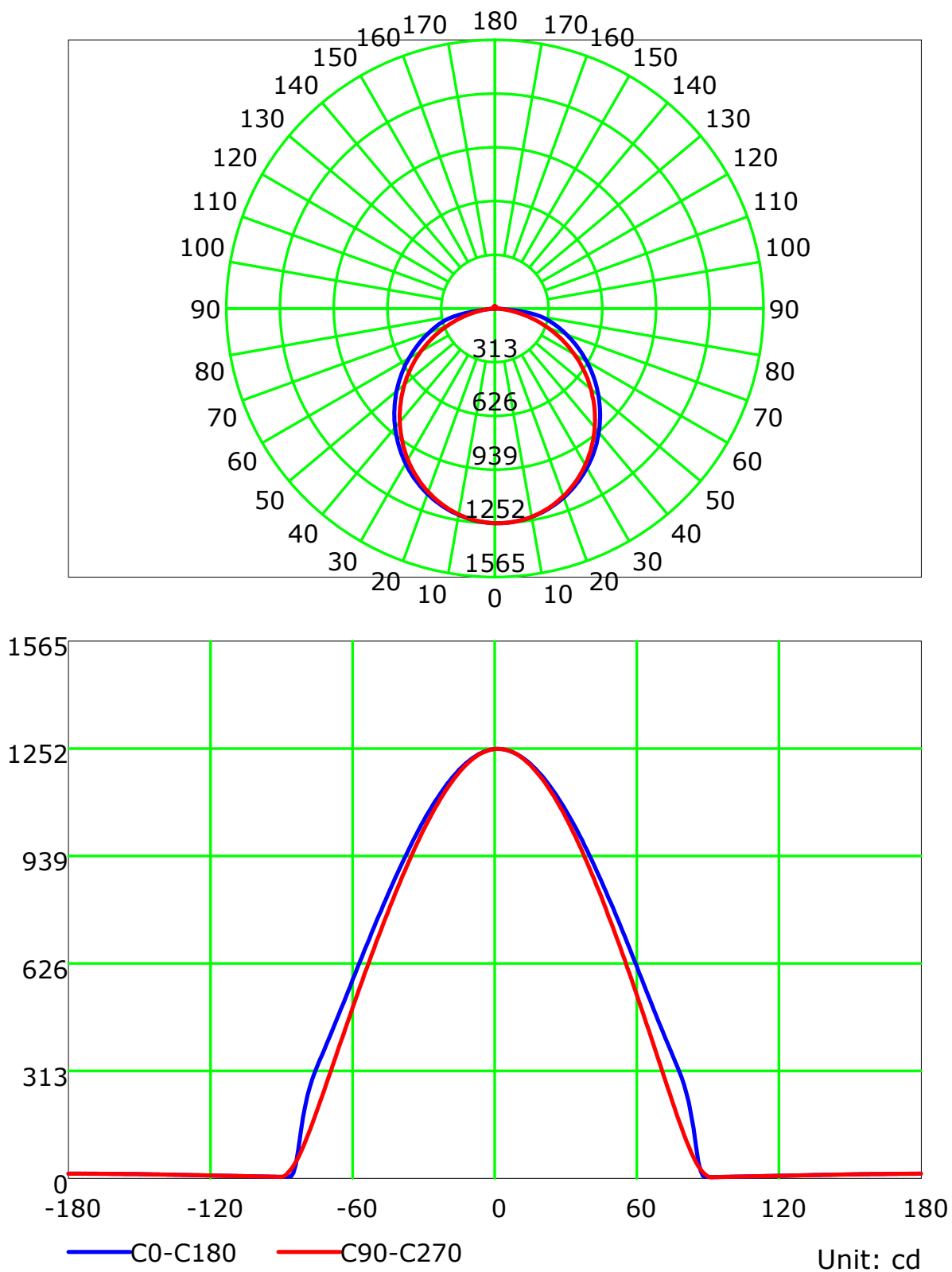
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

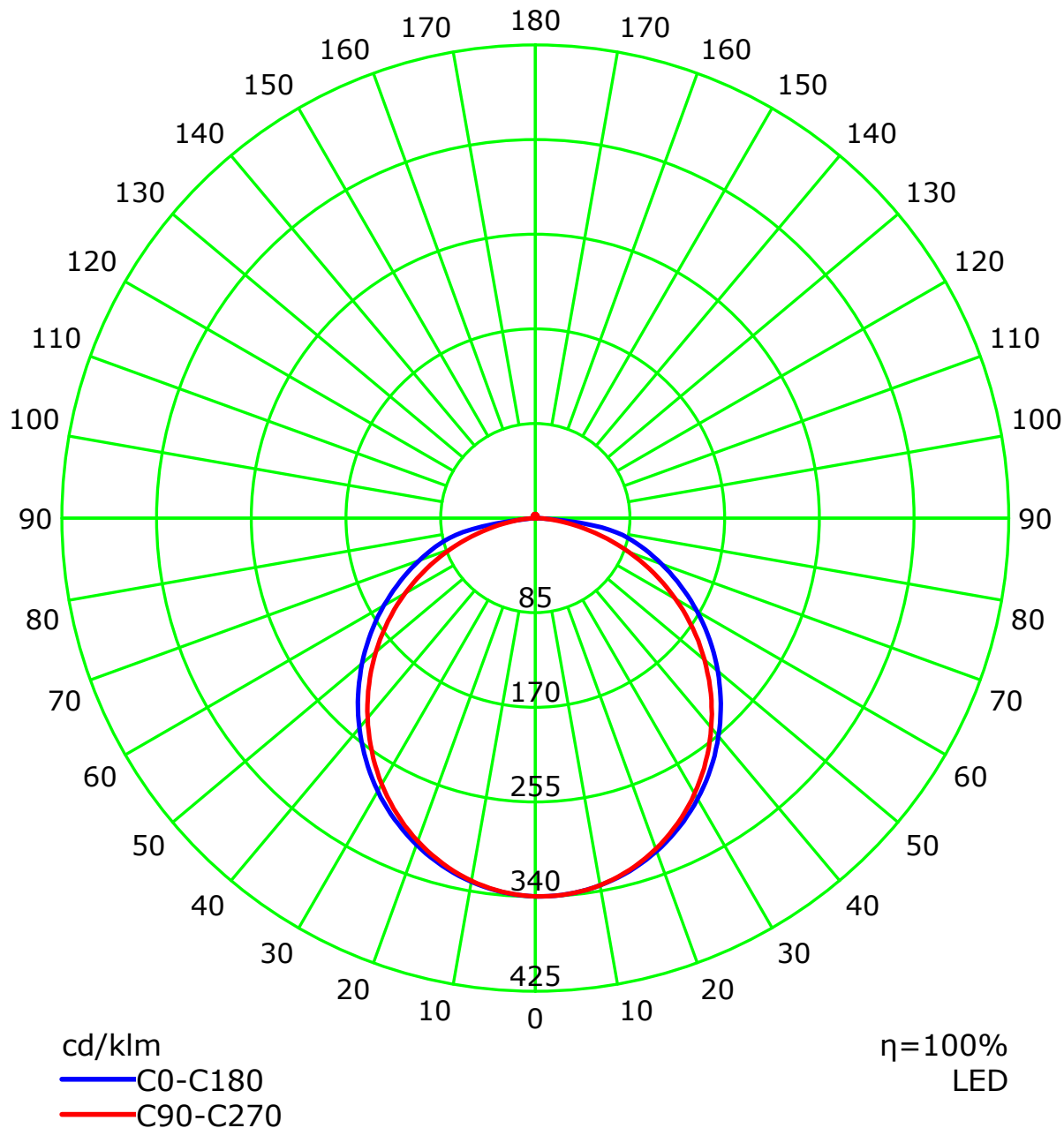
## Luminous Intensity Distribution Curve



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)



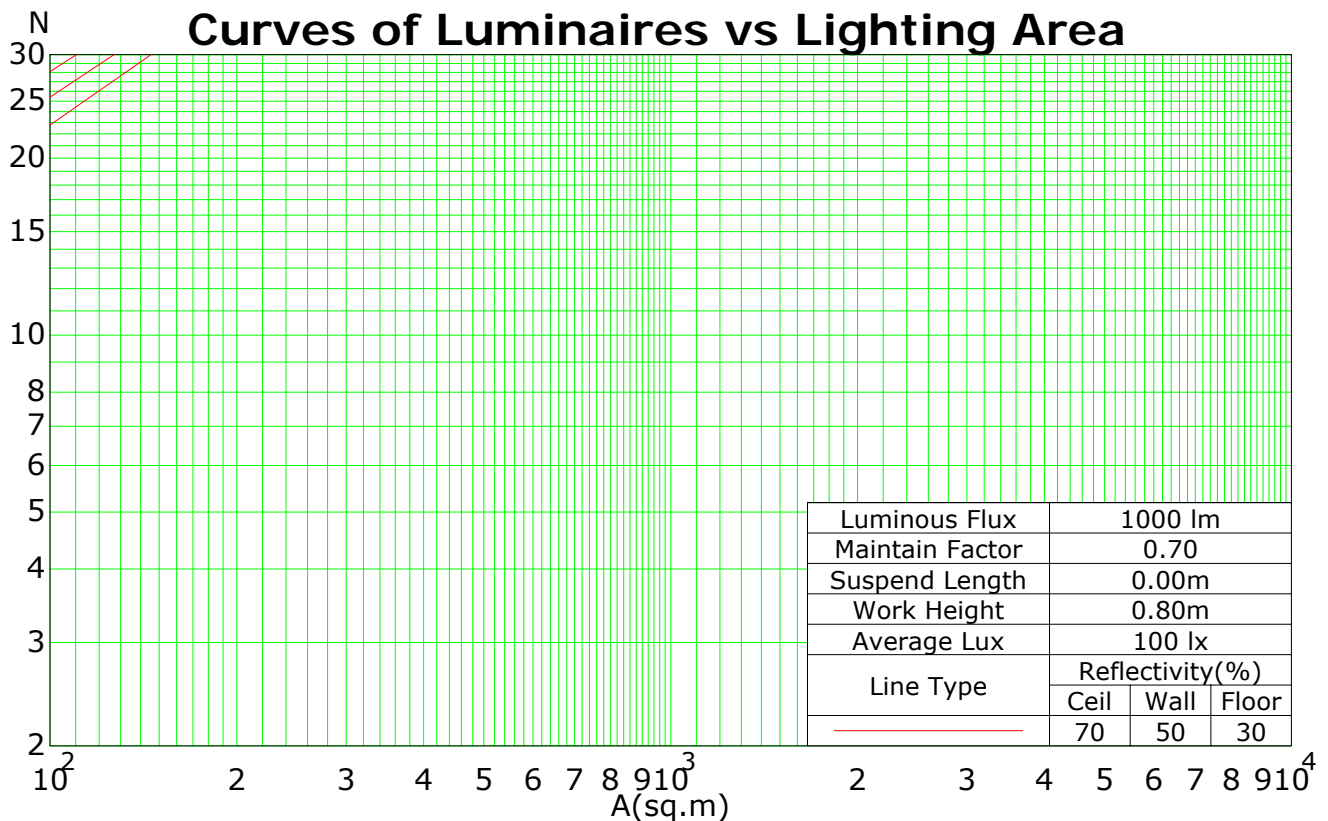
C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

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	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.16	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	0.99
1	1.08	1.03	0.99	0.95	1.05	1.01	0.97	0.93	0.96	0.93	0.90	0.92	0.89	0.87	0.88	0.86	0.84	0.82
2	0.98	0.89	0.82	0.77	0.95	0.87	0.81	0.76	0.84	0.78	0.74	0.80	0.76	0.72	0.77	0.73	0.70	0.68
3	0.89	0.78	0.70	0.63	0.86	0.77	0.69	0.63	0.73	0.67	0.61	0.70	0.65	0.60	0.68	0.63	0.59	0.57
4	0.82	0.69	0.60	0.53	0.79	0.68	0.59	0.53	0.65	0.58	0.52	0.63	0.56	0.51	0.60	0.55	0.50	0.48
5	0.75	0.62	0.53	0.46	0.73	0.61	0.52	0.46	0.58	0.51	0.45	0.56	0.50	0.44	0.54	0.48	0.44	0.42
6	0.69	0.56	0.47	0.40	0.67	0.55	0.46	0.40	0.53	0.45	0.39	0.51	0.44	0.39	0.49	0.43	0.38	0.36
7	0.64	0.50	0.42	0.35	0.62	0.50	0.41	0.35	0.48	0.40	0.35	0.46	0.39	0.34	0.45	0.39	0.34	0.32
8	0.60	0.46	0.37	0.31	0.58	0.45	0.37	0.31	0.44	0.36	0.31	0.42	0.36	0.31	0.41	0.35	0.30	0.29
9	0.56	0.42	0.34	0.28	0.54	0.42	0.34	0.28	0.40	0.33	0.28	0.39	0.32	0.28	0.38	0.32	0.27	0.26
10	0.52	0.39	0.31	0.26	0.51	0.38	0.31	0.26	0.37	0.30	0.25	0.36	0.30	0.25	0.35	0.29	0.25	0.23

Spacing Criteria (0-180): 1.26  
Spacing Criteria (90-270): 1.23  
Spacing Criteria (Diagonal): 1.37



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

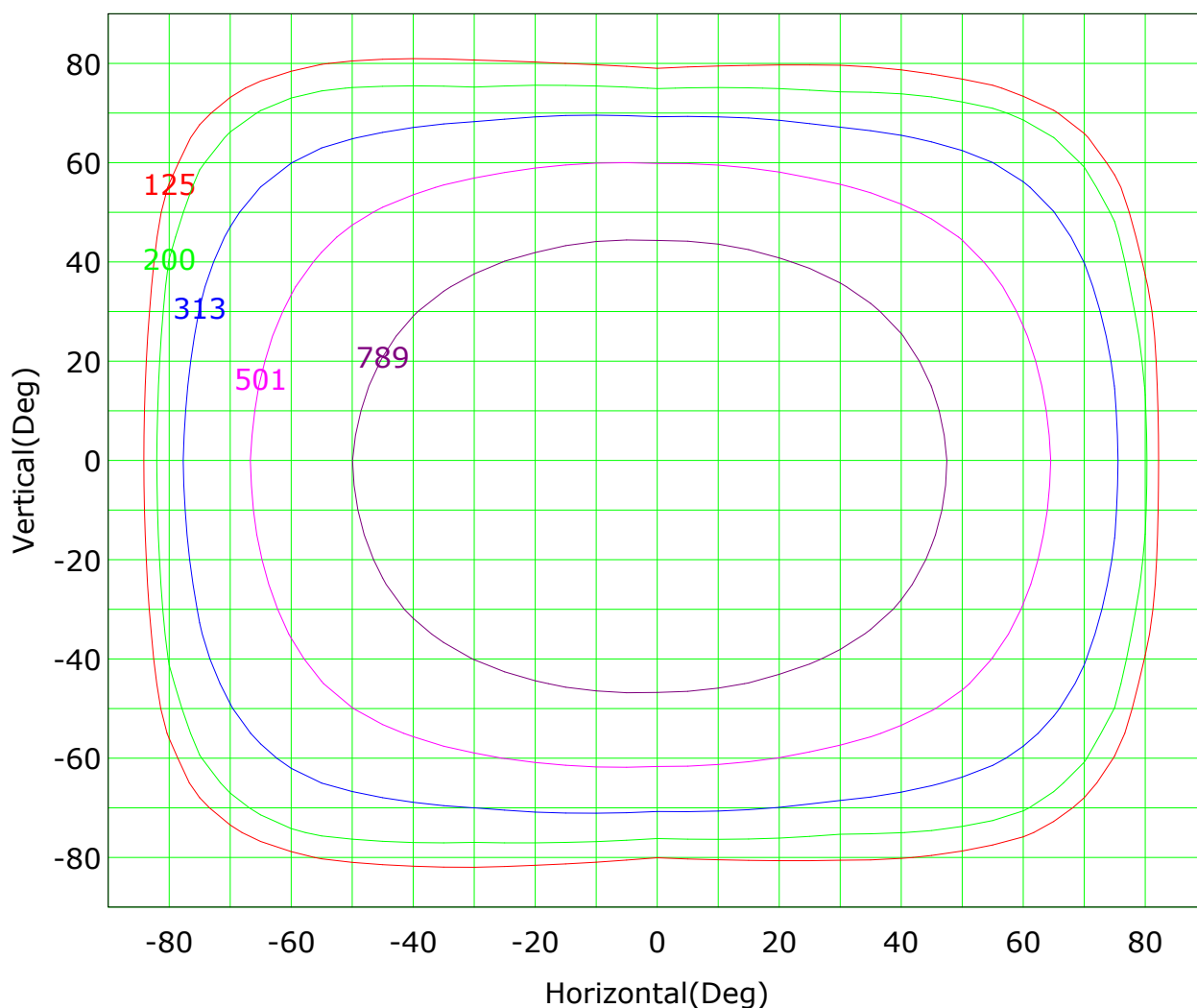
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## Isocandela (rectangle)



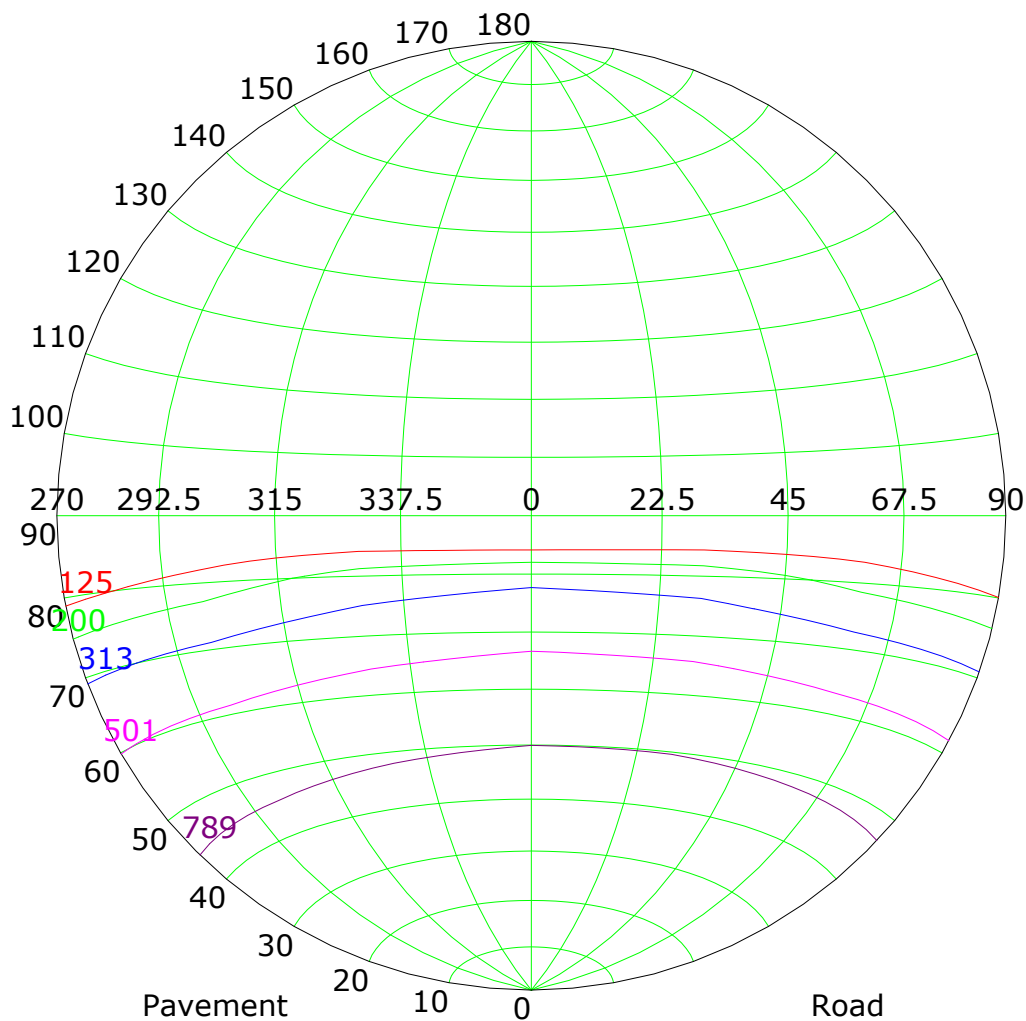
I<sub>max</sub> (100%): 1252 cd

( 10%): 125 cd	( 16%): 200 cd
( 25%): 313 cd	( 40%): 501 cd
( 63%): 789 cd	(100%): 1252 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%): 1252 cd

( 10%): 125 cd	( 16%): 200 cd
( 25%): 313 cd	( 40%): 501 cd
( 63%): 789 cd	(100%): 1252 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

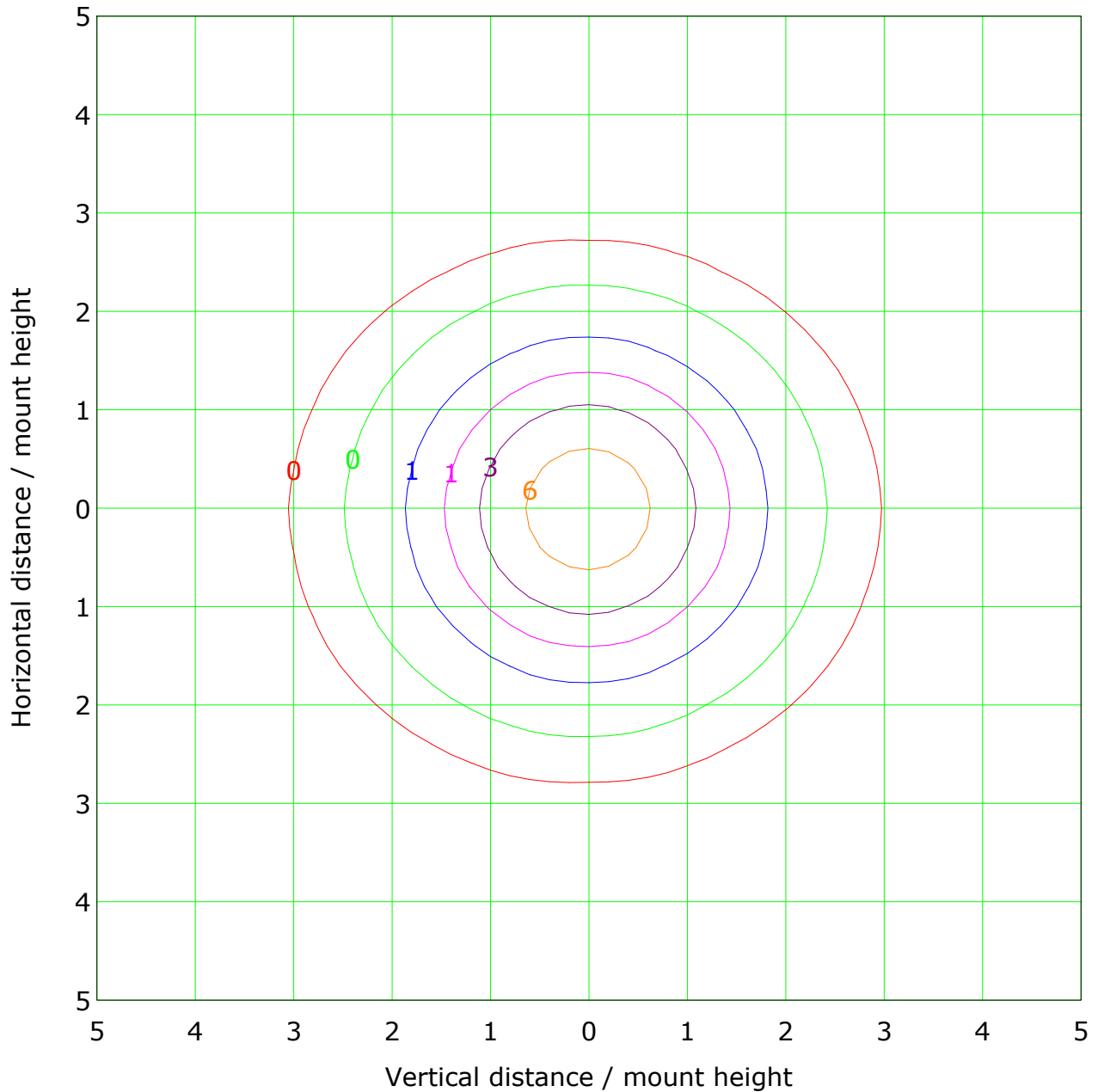
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## IsoLux Plot

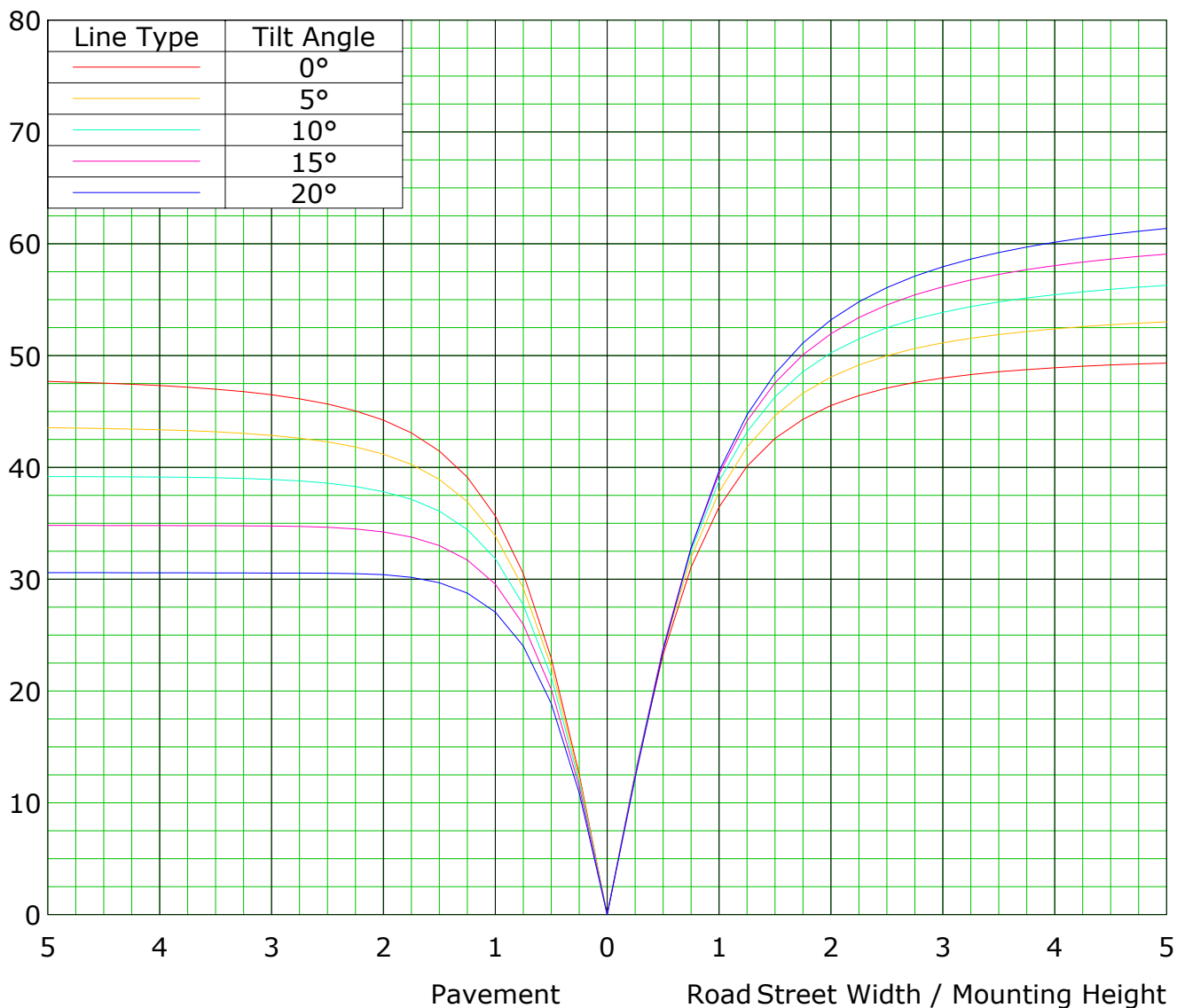


C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

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:

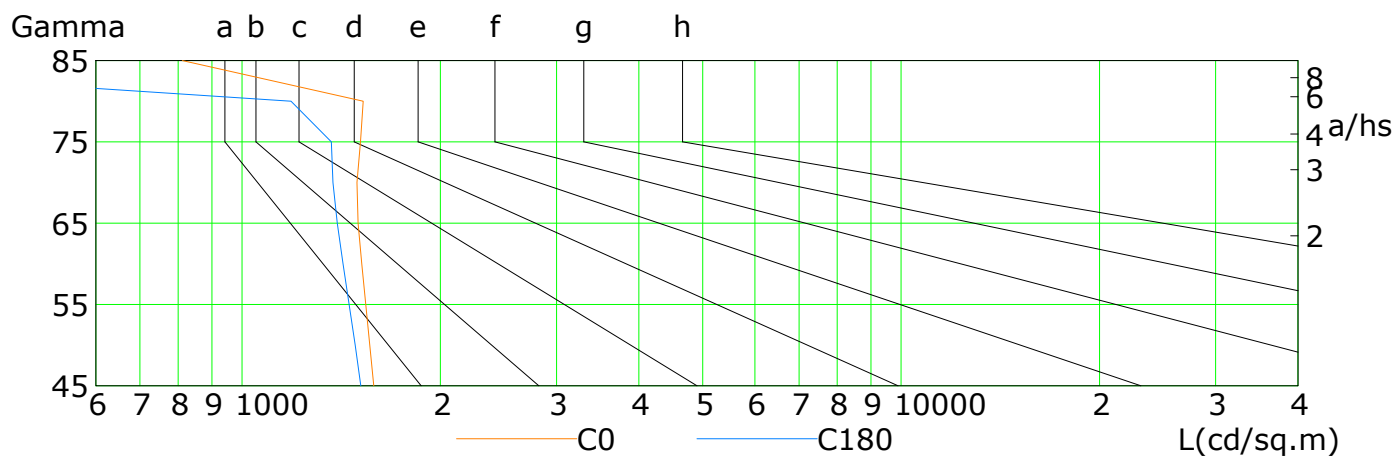
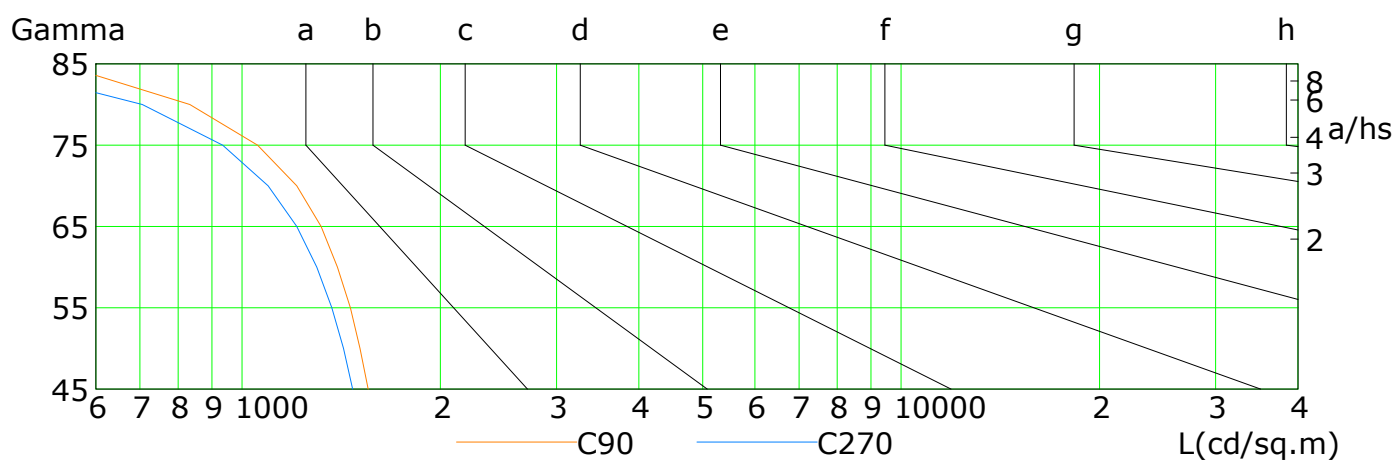
Inspector:



## 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	1584	1563	1540	1519	1500	1495	1513	1527	812
C90	1554	1510	1461	1396	1318	1211	1056	833	528
C180	1514	1485	1454	1424	1395	1374	1366	1187	137
C270	1472	1425	1368	1298	1211	1096	935	706	406

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

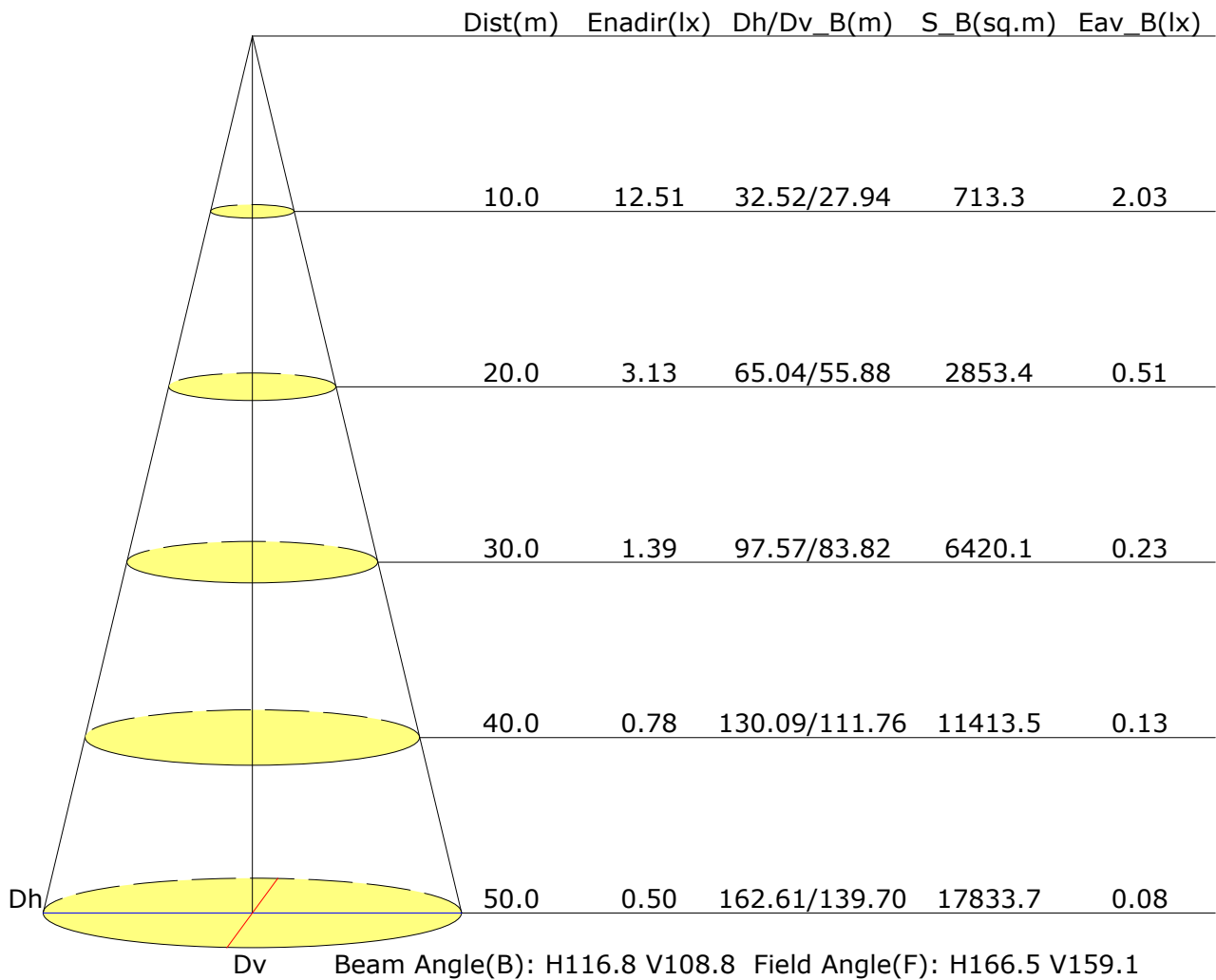
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

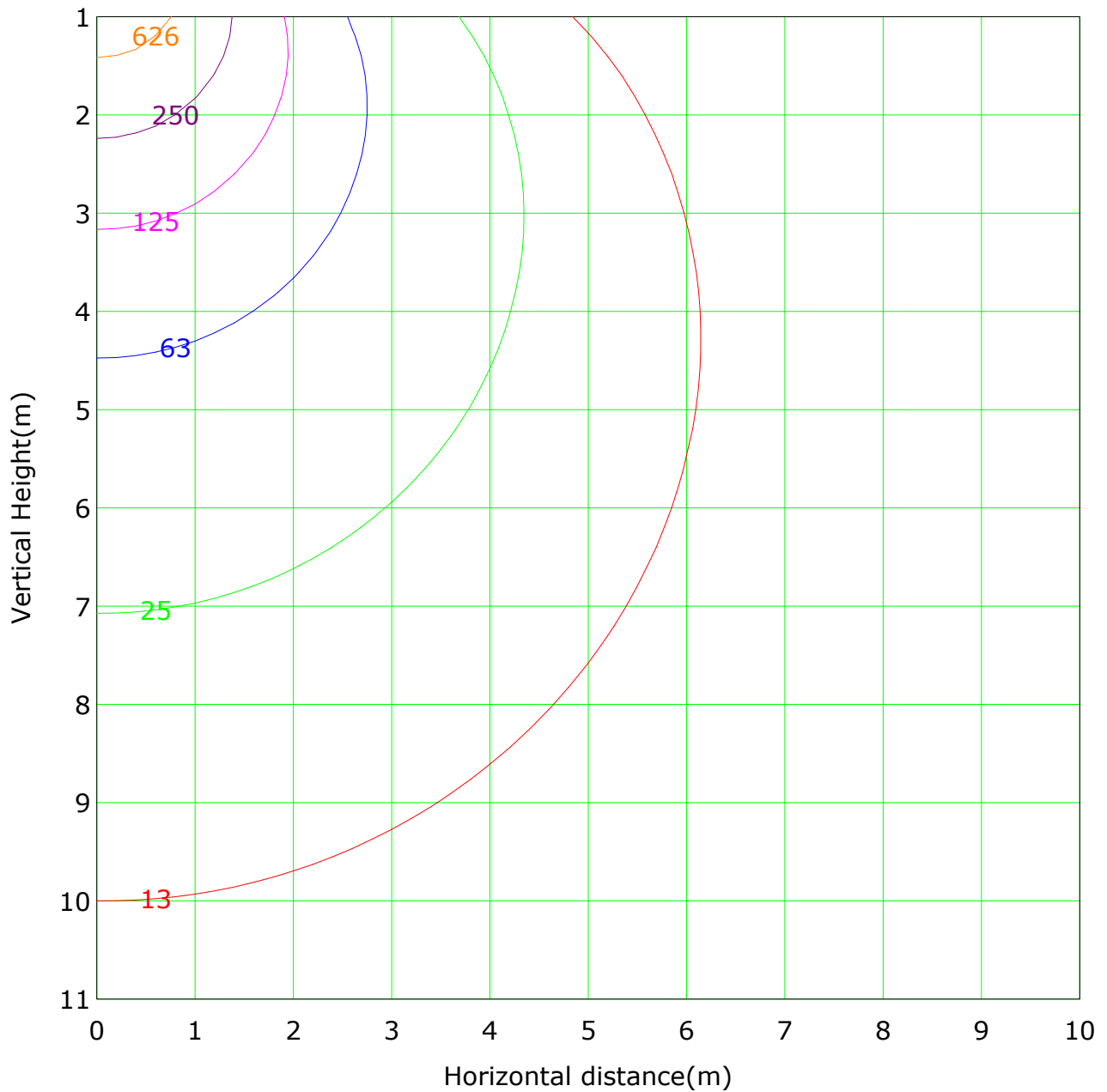
## Illuminance at a Distance



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: 1251.3 lx

— ( 1%): 12.5 lx	— ( 2%): 25.0 lx
— ( 5%): 62.6 lx	— ( 10%): 125.1 lx
— ( 20%): 250.3 lx	— ( 50%): 625.7 lx
— (100%):1251.3 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:

## Area Flux Table

Unit: lm

Orbit, min																				
-90	0.0	0.0	0.1	0.2	0.5	0.9	1.2	1.4	1.4	1.5	1.7	1.7	1.6	1.2	0.7	0.3	0.1	0.0	14.5	0.7
-80	0.0	0.1	0.8	2.3	3.7	4.7	5.4	6.0	6.1	6.2	6.2	5.7	5.2	4.4	3.3	1.9	0.5	0.0	62.4	58.9
-70	0.0	0.5	2.5	4.6	6.5	8.3	10.0	11.4	12.1	12.2	11.7	10.4	8.9	7.0	5.1	3.2	1.2	0.1	115.7	115.0
-60	0.0	1.2	3.6	6.3	9.1	12.1	14.7	16.8	17.9	18.1	17.2	15.2	12.7	9.7	6.8	4.1	1.8	0.2	167.4	167.0
-50	0.1	1.7	4.4	7.8	11.7	15.6	19.1	21.9	23.4	23.6	22.3	19.7	16.2	12.3	8.3	4.8	2.1	0.2	215.4	215.2
-40	0.1	2.1	5.1	9.1	13.9	18.7	23.1	26.5	28.4	28.5	26.9	23.7	19.4	14.5	9.7	5.5	2.4	0.3	258.0	257.8
-30	0.2	2.3	5.7	10.3	15.7	21.3	26.4	30.3	32.5	32.6	30.7	27.0	22.0	16.4	10.9	6.1	2.6	0.4	293.2	293.0
-20	0.2	2.5	6.1	11.1	17.0	23.1	28.7	33.1	35.5	35.7	33.5	29.4	23.9	17.7	11.7	6.6	2.8	0.4	318.9	318.7
-10	0.2	2.6	6.3	11.5	17.7	24.1	30.0	34.6	37.2	37.4	35.1	30.7	24.9	18.5	12.2	6.8	2.9	0.4	333.4	333.3
0	0.2	2.6	6.4	11.6	17.8	24.3	30.2	34.9	37.5	37.6	35.3	30.9	25.1	18.6	12.3	6.8	2.9	0.4	335.3	335.1
10	0.2	2.5	6.1	11.2	17.2	23.5	29.3	33.7	36.1	36.3	34.1	29.9	24.3	18.0	11.9	6.6	2.8	0.4	324.1	324.0
20	0.2	2.3	5.8	10.5	16.0	21.8	27.1	31.2	33.4	33.6	31.6	27.8	22.6	16.8	11.1	6.2	2.7	0.4	301.1	301.0
30	0.1	2.1	5.2	9.4	14.3	19.4	24.0	27.5	29.5	29.7	28.0	24.6	20.1	15.1	10.0	5.7	2.5	0.3	267.7	267.5
40	0.1	1.8	4.5	8.0	12.1	16.3	20.1	23.0	24.7	24.8	23.5	20.7	17.0	12.9	8.7	5.0	2.2	0.2	225.8	225.6
50	0.0	1.3	3.8	6.5	9.6	12.7	15.6	17.9	19.1	19.3	18.3	16.2	13.5	10.3	7.1	4.2	1.8	0.2	177.4	177.1
60	0.0	0.7	2.8	4.9	6.9	8.9	10.7	12.3	13.1	13.2	12.7	11.4	9.6	7.6	5.5	3.3	1.2	0.1	124.8	124.1
70	0.0	0.2	1.2	2.9	4.1	5.1	5.9	6.6	6.9	7.0	7.0	6.5	5.7	4.8	3.6	2.0	0.5	0.0	70.0	67.9
80	0.0	0.0	0.1	0.4	0.9	1.4	1.7	1.8	1.7	1.8	2.0	2.1	1.8	1.4	0.8	0.3	0.1	0.0	18.3	3.6
90	1.9	26.6	70.6	128.5	194.7	262.3	332.3	370.7	396.6	399.0	377.7	333.7	274.4	207.1	139.7	79.4	32.9	4.1	3623	
Flux(T)	0.9	25.0	69.2	126.9	192.8	259.9	332.0	373.6	393.1	395.7	374.5	330.8	272.0	205.3	138.2	78.0	31.6	3.0		3585
Flux(E)	0.9	25.0	69.2	126.9	192.8	259.9	332.0	373.6	393.1	395.7	374.5	330.8	272.0	205.3	138.2	78.0	31.6	3.0		3585
Vertical plane	0	2.6	6.3	11.5	17.7	24.1	30.0	34.6	37.2	37.4	35.1	30.7	24.9	18.5	12.2	6.8	2.9	0.4	333.4	333.3

Horizontal plane

Gamma Plane (°):0.0-180.0:1.0

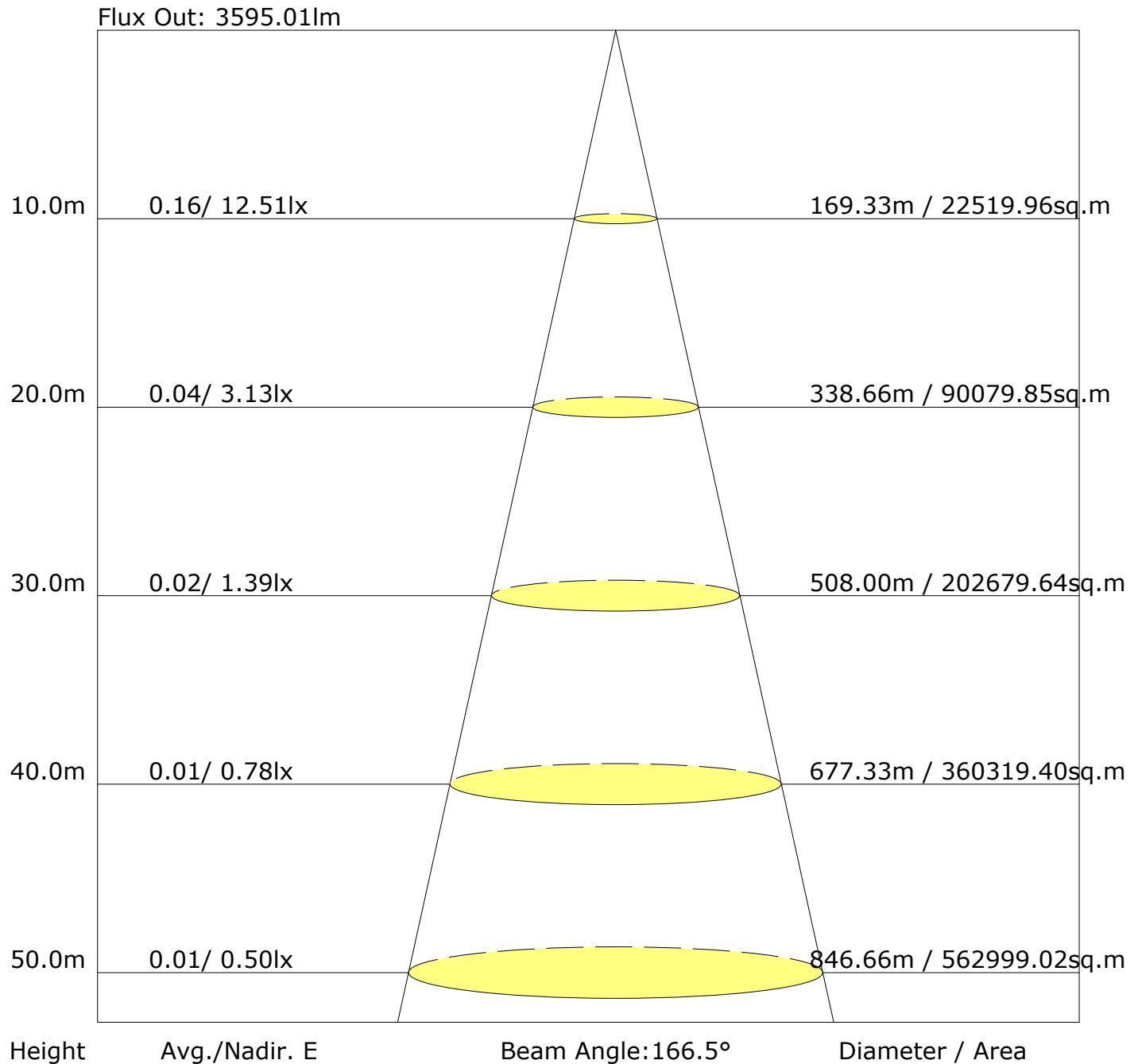
Test Device: GPM-1600L

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	14.2	15.6	14.5	15.8	16.1	13.6	15.0	13.9	15.3	15.5
3H	16.0	17.3	16.4	17.6	17.9	15.1	16.3	15.4	16.6	16.9
4H	16.9	18.1	17.3	18.4	18.7	15.6	16.8	16.0	17.1	17.4
6H	17.7	18.8	18.1	19.1	19.5	15.9	17.1	16.3	17.4	17.8
8H	18.0	19.1	18.4	19.4	19.8	16.0	17.1	16.4	17.5	17.8
12H	18.1	19.2	18.5	19.5	19.9	16.1	17.1	16.5	17.5	17.8
X=4H Y=2H	14.8	16.0	15.2	16.3	16.6	14.3	15.5	14.7	15.9	16.2
3H	16.8	17.9	17.2	18.2	18.6	16.0	17.0	16.4	17.4	17.8
4H	17.9	18.8	18.3	19.2	19.6	16.7	17.6	17.1	18.0	18.4
6H	18.8	19.7	19.3	20.1	20.5	17.1	18.0	17.6	18.4	18.8
8H	19.2	20.0	19.7	20.4	20.9	17.3	18.0	17.7	18.5	18.9
12H	19.4	20.1	19.9	20.5	21.0	17.3	18.0	17.8	18.5	18.9
X=8H Y=4H	18.1	18.9	18.6	19.3	19.8	17.1	17.8	17.6	18.3	18.7
6H	19.3	19.9	19.8	20.4	20.9	17.7	18.3	18.2	18.8	19.3
8H	19.8	20.3	20.3	20.8	21.3	18.0	18.5	18.5	19.0	19.5
12H	20.1	20.5	20.6	21.0	21.6	18.1	18.6	18.6	19.1	19.6
X=12H Y=4H	18.2	18.8	18.6	19.3	19.8	17.2	17.9	17.6	18.3	18.8
6H	19.4	19.9	19.9	20.4	20.9	17.9	18.4	18.4	18.9	19.4
8H	19.9	20.4	20.4	20.9	21.4	18.1	18.6	18.7	19.1	19.7
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 3677lm ( $8\log(F/F_0) = 4.5$ ).

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

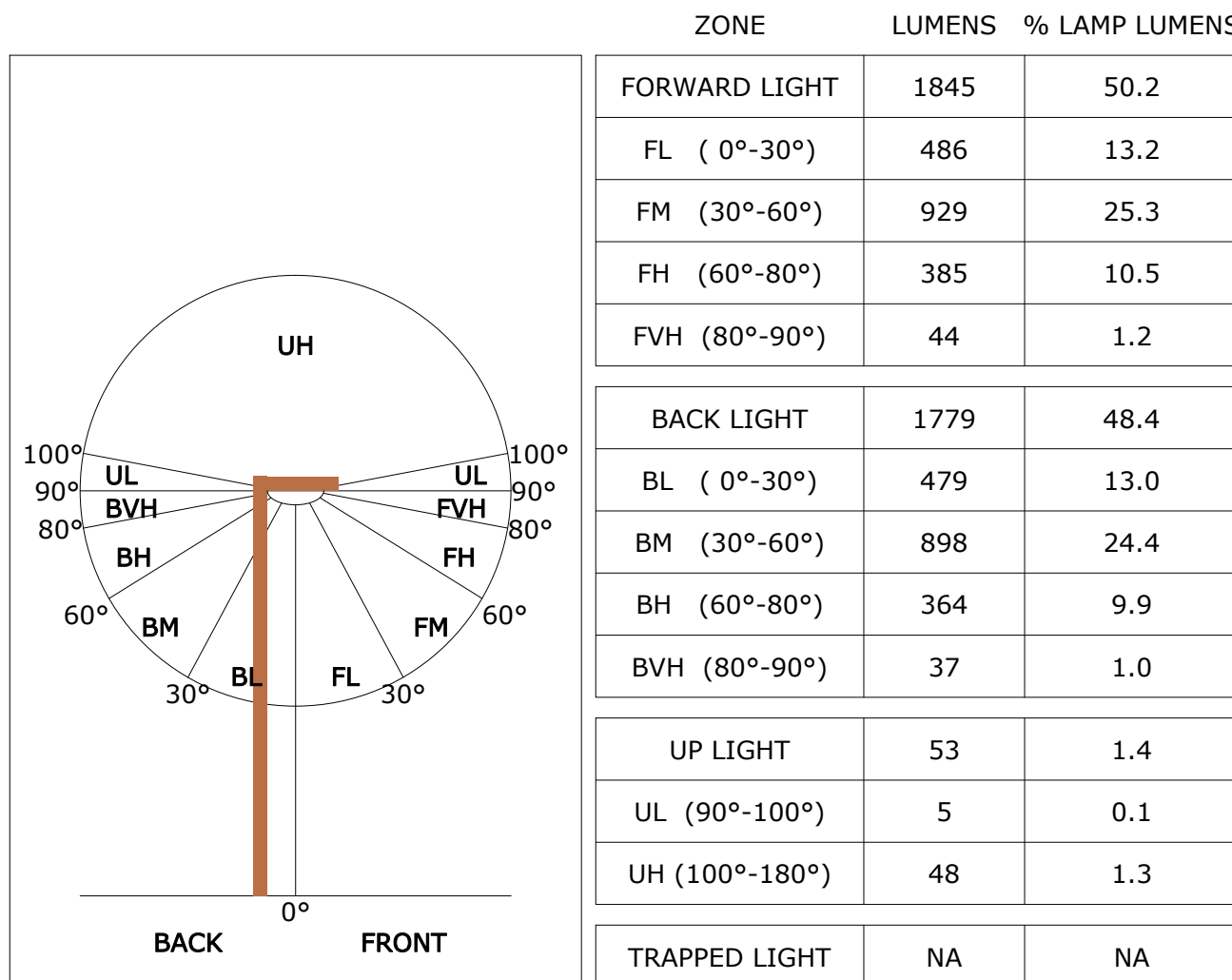
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

**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

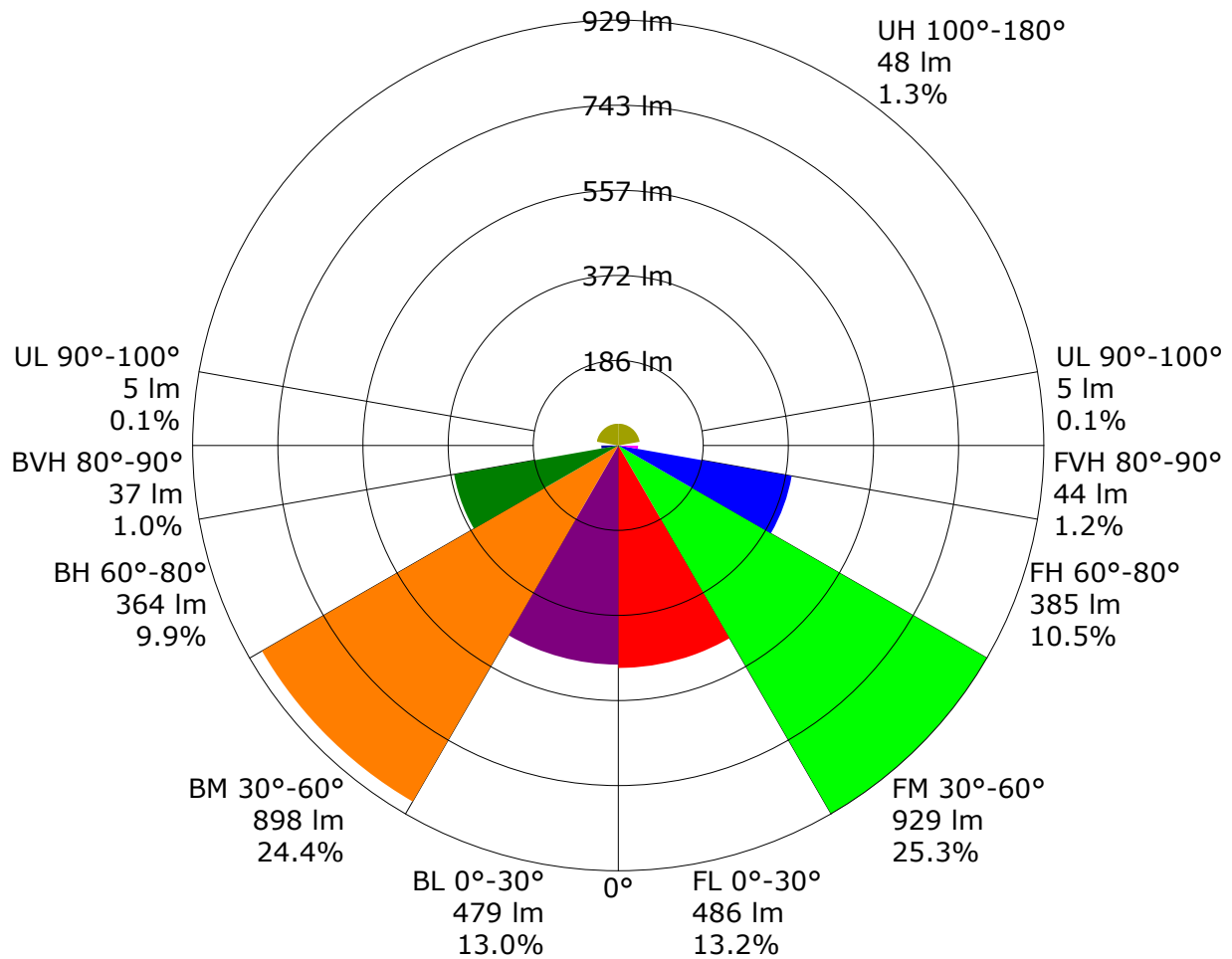
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## LCS Graph



**Back Light**

**Forward Light**

Scale= 929 lm

Trapped Light:NA,NA

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	0.55	0.66	0.73	0.78	0.86	0.91	0.94	0.99	1.02	
	0.30		0.47	0.58	0.65	0.71	0.79	0.85	0.89	0.95	0.99	
	0.20		0.42	0.52	0.59	0.65	0.74	0.80	0.85	0.91	0.95	
0.50	0.50	0.20	0.54	0.63	0.70	0.75	0.82	0.87	0.90	0.95	0.98	
	0.30		0.46	0.56	0.64	0.69	0.77	0.82	0.86	0.91	0.95	
	0.20		0.41	0.51	0.59	0.64	0.72	0.78	0.82	0.88	0.92	
0.30	0.50	0.20	0.52	0.61	0.68	0.73	0.79	0.84	0.87	0.91	0.94	
	0.30		0.46	0.55	0.62	0.67	0.75	0.80	0.83	0.88	0.91	
	0.20		0.41	0.50	0.58	0.63	0.71	0.76	0.80	0.85	0.89	
0.00	0.00	0.00	0.38	0.48	0.55	0.60	0.67	0.72	0.76	0.81	0.84	
Rating:28W 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	1.01	0.84	0.71	0.62	0.50	0.42	0.36	0.28	0.23	
	0.30		0.84	0.72	0.62	0.55	0.45	0.38	0.33	0.26	0.21	
	0.20		0.72	0.62	0.55	0.50	0.41	0.35	0.31	0.24	0.20	
0.50	0.50	0.20	0.97	0.80	0.68	0.60	0.48	0.43	0.34	0.26	0.21	
	0.30		0.82	0.70	0.60	0.53	0.44	0.37	0.32	0.25	0.20	
	0.20		0.71	0.61	0.54	0.48	0.40	0.34	0.30	0.24	0.20	
0.30	0.50	0.20	0.94	0.77	0.66	0.57	0.46	0.38	0.32	0.25	0.20	
	0.30		0.80	0.68	0.59	0.52	0.42	0.35	0.30	0.24	0.20	
	0.20		0.70	0.60	0.53	0.47	0.39	0.33	0.29	0.23	0.19	
0.00	0.00	0.00	0.60	0.51	0.44	0.39	0.32	0.26	0.23	0.18	0.15	
Rating:28W 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	0.18	0.19	0.20	0.21	0.21	0.22	0.22	0.23	0.23	
	0.30		0.11	0.12	0.14	0.15	0.16	0.18	0.18	0.20	0.21	
	0.20		0.06	0.08	0.09	0.10	0.12	0.14	0.15	0.17	0.18	
0.50	0.50	0.20	0.17	0.18	0.19	0.20	0.21	0.21	0.21	0.22	0.22	
	0.30		0.11	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20	
	0.20		0.06	0.07	0.09	0.10	0.12	0.14	0.15	0.16	0.17	
0.30	0.50	0.20	0.17	0.18	0.19	0.19	0.20	0.20	0.21	0.21	0.21	
	0.30		0.10	0.12	0.13	0.14	0.15	0.17	0.17	0.18	0.19	
	0.20		0.06	0.07	0.09	0.10	0.12	0.13	0.14	0.16	0.17	
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:28W 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>												

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

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	1251.1	1.2	1.2	0.03	0.03
1.0-2.0	1250.6	3.6	4.8	0.10	0.13
2.0-3.0	1249.6	6.0	10.8	0.16	0.29
3.0-4.0	1248.1	8.4	19.1	0.23	0.52
4.0-5.0	1246.2	10.7	29.8	0.29	0.81
5.0-6.0	1243.8	13.1	42.9	0.36	1.17
6.0-7.0	1240.9	15.4	58.3	0.42	1.59
7.0-8.0	1237.4	17.7	76.0	0.48	2.07
8.0-9.0	1233.5	20.0	96.0	0.54	2.61
9.0-10.0	1229.2	22.2	118.3	0.61	3.22
10.0-11.0	1224.4	24.5	142.7	0.67	3.88
11.0-12.0	1219.1	26.7	169.4	0.72	4.61
12.0-13.0	1213.5	28.8	198.2	0.78	5.39
13.0-14.0	1207.3	30.9	229.1	0.84	6.23
14.0-15.0	1200.6	33.0	262.1	0.90	7.13
15.0-16.0	1193.4	35.0	297.0	0.95	8.08
16.0-17.0	1185.8	36.9	334.0	1.00	9.08
17.0-18.0	1178.1	38.8	372.8	1.06	10.14
18.0-19.0	1169.7	40.7	413.5	1.11	11.25
19.0-20.0	1160.9	42.5	456.0	1.16	12.40
20.0-21.0	1152.1	44.2	500.3	1.20	13.61
21.0-22.0	1142.4	45.9	546.2	1.25	14.85
22.0-23.0	1132.4	47.5	593.7	1.29	16.15
23.0-24.0	1122.0	49.1	642.8	1.33	17.48
24.0-25.0	1111.3	50.5	693.3	1.37	18.86
25.0-26.0	1100.6	52.0	745.3	1.41	20.27
26.0-27.0	1089.0	53.3	798.5	1.45	21.72
27.0-28.0	1077.1	54.5	853.1	1.48	23.20
28.0-29.0	1065.4	55.7	908.8	1.52	24.72
29.0-30.0	1052.8	56.9	965.7	1.55	26.26
30.0-31.0	1040.0	57.9	1023.6	1.57	27.84
31.0-32.0	1026.8	58.8	1082.4	1.60	29.44
32.0-33.0	1013.2	59.7	1142.1	1.62	31.06
33.0-34.0	999.8	60.5	1202.6	1.65	32.71
34.0-35.0	985.6	61.2	1263.8	1.66	34.37
35.0-36.0	971.2	61.8	1325.7	1.68	36.06

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	956.8	62.4	1388.1	1.70	37.75
37.0-38.0	941.8	62.9	1451.0	1.71	39.46
38.0-39.0	926.9	63.3	1514.2	1.72	41.18
39.0-40.0	911.3	63.6	1577.8	1.73	42.91
40.0-41.0	895.6	63.8	1641.6	1.73	44.65
41.0-42.0	880.4	64.0	1705.6	1.74	46.39
42.0-43.0	864.3	64.0	1769.6	1.74	48.13
43.0-44.0	847.9	64.0	1833.6	1.74	49.87
44.0-45.0	831.6	63.9	1897.5	1.74	51.61
45.0-46.0	814.8	63.7	1961.2	1.73	53.34
46.0-47.0	798.2	63.5	2024.7	1.73	55.07
47.0-48.0	781.0	63.1	2087.9	1.72	56.79
48.0-49.0	763.7	62.7	2150.6	1.71	58.49
49.0-50.0	747.0	62.3	2212.9	1.69	60.19
50.0-51.0	729.3	61.7	2274.6	1.68	61.86
51.0-52.0	711.5	61.1	2335.7	1.66	63.53
52.0-53.0	693.8	60.4	2396.0	1.64	65.17
53.0-54.0	675.6	59.6	2455.6	1.62	66.79
54.0-55.0	657.7	58.7	2514.3	1.60	68.38
55.0-56.0	639.4	57.8	2572.1	1.57	69.96
56.0-57.0	621.0	56.8	2628.9	1.54	71.50
57.0-58.0	603.0	55.8	2684.7	1.52	73.02
58.0-59.0	584.2	54.6	2739.3	1.49	74.50
59.0-60.0	565.3	53.4	2792.7	1.45	75.96
60.0-61.0	546.3	52.1	2844.8	1.42	77.37
61.0-62.0	527.3	50.8	2895.6	1.38	78.76
62.0-63.0	509.1	49.5	2945.2	1.35	80.10
63.0-64.0	490.0	48.1	2993.3	1.31	81.41
64.0-65.0	470.9	46.6	3039.9	1.27	82.68
65.0-66.0	452.6	45.2	3085.0	1.23	83.91
66.0-67.0	433.6	43.6	3128.6	1.19	85.09
67.0-68.0	414.7	42.0	3170.6	1.14	86.23
68.0-69.0	395.8	40.4	3211.0	1.10	87.33
69.0-70.0	376.9	38.7	3249.7	1.05	88.39
70.0-71.0	358.9	37.1	3286.8	1.01	89.39
71.0-72.0	340.3	35.4	3322.2	0.96	90.36

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:

## 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	321.8	33.7	3355.9	0.92	91.27
73.0-74.0	304.2	32.0	3387.9	0.87	92.14
74.0-75.0	285.9	30.2	3418.1	0.82	92.96
75.0-76.0	267.8	28.4	3446.5	0.77	93.74
76.0-77.0	249.9	26.7	3473.2	0.72	94.46
77.0-78.0	232.0	24.8	3498.0	0.68	95.14
78.0-79.0	214.5	23.0	3521.0	0.63	95.77
79.0-80.0	195.3	21.1	3542.1	0.57	96.34
80.0-81.0	175.1	18.9	3561.0	0.52	96.85
81.0-82.0	153.4	16.6	3577.7	0.45	97.31
82.0-83.0	128.9	14.0	3591.7	0.38	97.69
83.0-84.0	103.0	11.2	3602.9	0.31	97.99
84.0-85.0	76.4	8.3	3611.3	0.23	98.22
85.0-86.0	51.3	5.6	3616.9	0.15	98.37
86.0-87.0	31.6	3.5	3620.3	0.09	98.47
87.0-88.0	16.9	1.9	3622.2	0.05	98.52
88.0-89.0	8.3	0.9	3623.1	0.02	98.54
89.0-90.0	5.3	0.6	3623.7	0.02	98.56
90.0-91.0	4.4	0.5	3624.2	0.01	98.57
91.0-92.0	4.3	0.5	3624.6	0.01	98.58
92.0-93.0	4.4	0.5	3625.1	0.01	98.60
93.0-94.0	4.5	0.5	3625.6	0.01	98.61
94.0-95.0	4.6	0.5	3626.1	0.01	98.62
95.0-96.0	4.8	0.5	3626.6	0.01	98.64
96.0-97.0	4.9	0.5	3627.2	0.01	98.65
97.0-98.0	5.1	0.6	3627.7	0.01	98.67
98.0-99.0	5.2	0.6	3628.3	0.02	98.68
99.0-100.0	5.3	0.6	3628.8	0.02	98.70
100.0-101.0	5.5	0.6	3629.4	0.02	98.71
101.0-102.0	5.6	0.6	3630.0	0.02	98.73
102.0-103.0	5.8	0.6	3630.7	0.02	98.75
103.0-104.0	5.9	0.6	3631.3	0.02	98.76
104.0-105.0	6.0	0.6	3631.9	0.02	98.78
105.0-106.0	6.2	0.7	3632.6	0.02	98.80
106.0-107.0	6.3	0.7	3633.2	0.02	98.82
107.0-108.0	6.4	0.7	3633.9	0.02	98.84

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	6.6	0.7	3634.6	0.02	98.85
109.0-110.0	6.7	0.7	3635.3	0.02	98.87
110.0-111.0	6.9	0.7	3636.0	0.02	98.89
111.0-112.0	7.0	0.7	3636.7	0.02	98.91
112.0-113.0	7.2	0.7	3637.5	0.02	98.93
113.0-114.0	7.3	0.7	3638.2	0.02	98.95
114.0-115.0	7.4	0.7	3638.9	0.02	98.97
115.0-116.0	7.6	0.7	3639.7	0.02	98.99
116.0-117.0	7.7	0.8	3640.4	0.02	99.01
117.0-118.0	7.8	0.8	3641.2	0.02	99.03
118.0-119.0	8.0	0.8	3642.0	0.02	99.05
119.0-120.0	8.1	0.8	3642.7	0.02	99.07
120.0-121.0	8.2	0.8	3643.5	0.02	99.10
121.0-122.0	8.4	0.8	3644.3	0.02	99.12
122.0-123.0	8.5	0.8	3645.1	0.02	99.14
123.0-124.0	8.7	0.8	3645.9	0.02	99.16
124.0-125.0	8.8	0.8	3646.7	0.02	99.18
125.0-126.0	9.0	0.8	3647.5	0.02	99.20
126.0-127.0	9.1	0.8	3648.3	0.02	99.23
127.0-128.0	9.3	0.8	3649.1	0.02	99.25
128.0-129.0	9.4	0.8	3649.9	0.02	99.27
129.0-130.0	9.5	0.8	3650.7	0.02	99.29
130.0-131.0	9.7	0.8	3651.5	0.02	99.31
131.0-132.0	9.8	0.8	3652.3	0.02	99.34
132.0-133.0	10.0	0.8	3653.1	0.02	99.36
133.0-134.0	10.1	0.8	3653.9	0.02	99.38
134.0-135.0	10.2	0.8	3654.7	0.02	99.40
135.0-136.0	10.4	0.8	3655.5	0.02	99.42
136.0-137.0	10.5	0.8	3656.3	0.02	99.44
137.0-138.0	10.7	0.8	3657.1	0.02	99.47
138.0-139.0	10.8	0.8	3657.9	0.02	99.49
139.0-140.0	10.9	0.8	3658.7	0.02	99.51
140.0-141.0	11.0	0.8	3659.4	0.02	99.53
141.0-142.0	11.2	0.8	3660.2	0.02	99.55
142.0-143.0	11.3	0.8	3660.9	0.02	99.57
143.0-144.0	11.4	0.7	3661.7	0.02	99.59

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	11.5	0.7	3662.4	0.02	99.61
145.0-146.0	11.6	0.7	3663.1	0.02	99.63
146.0-147.0	11.7	0.7	3663.9	0.02	99.65
147.0-148.0	11.8	0.7	3664.6	0.02	99.67
148.0-149.0	11.9	0.7	3665.2	0.02	99.69
149.0-150.0	12.0	0.7	3665.9	0.02	99.70
150.0-151.0	12.2	0.7	3666.6	0.02	99.72
151.0-152.0	12.3	0.6	3667.2	0.02	99.74
152.0-153.0	12.3	0.6	3667.8	0.02	99.76
153.0-154.0	12.4	0.6	3668.4	0.02	99.77
154.0-155.0	12.5	0.6	3669.0	0.02	99.79
155.0-156.0	12.6	0.6	3669.6	0.02	99.81
156.0-157.0	12.7	0.6	3670.2	0.02	99.82
157.0-158.0	12.8	0.5	3670.7	0.01	99.84
158.0-159.0	12.9	0.5	3671.2	0.01	99.85
159.0-160.0	12.9	0.5	3671.7	0.01	99.86
160.0-161.0	13.0	0.5	3672.2	0.01	99.88
161.0-162.0	13.0	0.5	3672.6	0.01	99.89
162.0-163.0	13.1	0.4	3673.1	0.01	99.90
163.0-164.0	13.2	0.4	3673.5	0.01	99.91
164.0-165.0	13.2	0.4	3673.9	0.01	99.92
165.0-166.0	13.3	0.4	3674.2	0.01	99.93
166.0-167.0	13.3	0.3	3674.6	0.01	99.94
167.0-168.0	13.4	0.3	3674.9	0.01	99.95
168.0-169.0	13.5	0.3	3675.2	0.01	99.96
169.0-170.0	13.5	0.3	3675.4	0.01	99.96
170.0-171.0	13.6	0.2	3675.7	0.01	99.97
171.0-172.0	13.6	0.2	3675.9	0.01	99.98
172.0-173.0	13.7	0.2	3676.1	0.01	99.98
173.0-174.0	13.7	0.2	3676.3	0.00	99.99
174.0-175.0	13.7	0.1	3676.4	0.00	99.99
175.0-176.0	13.8	0.1	3676.5	0.00	99.99
176.0-177.0	13.8	0.1	3676.6	0.00	100.00
177.0-178.0	13.8	0.1	3676.7	0.00	100.00
178.0-179.0	13.8	0.0	3676.7	0.00	100.00
179.0-180.0	13.9	0.0	3676.8	0.00	100.00

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°): 1897.51 lm

%lum = 51.6%

%lamp = 51.6%

cone flux(120°): 2792.69 lm

%lum = 76.0%

%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	1251.3	1251.3	1251.3	1251.3	1251.3	1251.3	1251.3	1251.3	1251.3	1251.3
G1.0	1251.6	1251.9	1251.9	1251.5	1251.4	1251.0	1250.3	1250.2	1250.0	1250.2
G2.0	1251.4	1252.2	1252.2	1251.4	1250.9	1250.4	1248.9	1248.7	1248.4	1248.6
G3.0	1250.7	1251.8	1251.9	1251.1	1250.3	1249.3	1247.0	1246.3	1246.0	1246.5
G4.0	1249.7	1251.0	1251.2	1249.9	1248.8	1247.6	1244.6	1244.0	1243.1	1243.6
G5.0	1248.1	1249.9	1249.9	1248.3	1247.2	1245.6	1242.2	1241.0	1240.1	1241.1
G6.0	1246.1	1248.2	1248.1	1246.3	1244.7	1242.6	1238.8	1237.5	1236.5	1237.5
G7.0	1243.7	1246.1	1245.7	1243.6	1241.7	1239.6	1235.2	1233.5	1232.3	1233.5
G8.0	1240.8	1243.4	1242.9	1240.9	1238.6	1236.4	1230.6	1228.9	1227.1	1228.6
G9.0	1237.3	1240.2	1239.1	1237.1	1234.1	1232.2	1226.4	1224.7	1221.9	1223.8
G10.0	1233.5	1236.7	1235.8	1233.2	1230.2	1227.8	1221.4	1219.6	1217.0	1218.2
G11.0	1229.3	1232.5	1231.4	1228.0	1225.2	1222.5	1215.9	1213.4	1210.6	1211.9
G12.0	1224.6	1228.3	1226.8	1223.3	1219.5	1217.2	1210.5	1207.4	1204.1	1205.6
G13.0	1219.9	1223.6	1221.7	1217.3	1214.1	1211.7	1204.3	1201.0	1197.7	1198.7
G14.0	1214.3	1218.0	1215.6	1211.0	1207.3	1205.0	1197.6	1193.8	1189.9	1191.1
G15.0	1208.4	1212.0	1209.3	1204.8	1200.7	1198.7	1190.8	1186.8	1181.8	1183.1
G16.0	1201.6	1205.4	1202.5	1197.3	1193.3	1191.3	1183.1	1178.3	1172.9	1174.3
G17.0	1194.9	1199.0	1195.8	1189.4	1186.0	1183.6	1175.4	1170.4	1165.0	1166.0
G18.0	1188.0	1192.2	1187.9	1181.6	1178.3	1176.1	1167.7	1162.2	1155.9	1156.8
G19.0	1180.0	1184.0	1179.8	1172.9	1168.8	1167.3	1158.6	1152.6	1146.1	1146.9
G20.0	1172.7	1176.4	1171.6	1164.3	1160.4	1159.0	1150.1	1144.0	1136.2	1137.1
G21.0	1164.6	1168.8	1162.9	1155.4	1151.3	1149.9	1140.7	1134.1	1126.3	1127.1
G22.0	1155.1	1158.9	1153.1	1145.1	1141.2	1139.9	1130.9	1123.5	1115.2	1115.7
G23.0	1146.3	1150.4	1143.3	1135.1	1131.7	1130.2	1121.3	1113.7	1104.1	1105.1
G24.0	1136.6	1140.7	1133.1	1124.0	1119.8	1119.8	1110.4	1101.8	1092.3	1092.7
G25.0	1126.8	1130.9	1123.0	1113.6	1109.7	1109.1	1100.3	1091.1	1081.1	1081.1
G26.0	1117.3	1120.6	1112.1	1102.3	1098.4	1098.6	1089.9	1079.9	1069.2	1069.3
G27.0	1105.9	1109.3	1100.4	1090.1	1086.0	1086.4	1077.8	1067.3	1056.0	1055.7
G28.0	1095.6	1099.0	1088.7	1077.9	1074.4	1075.1	1066.8	1055.8	1043.6	1043.3
G29.0	1084.6	1088.3	1077.4	1066.1	1062.1	1063.1	1055.4	1043.6	1030.7	1029.9
G30.0	1072.6	1075.4	1064.5	1052.2	1048.7	1050.2	1042.2	1030.3	1016.6	1015.9
G31.0	1061.1	1064.1	1051.6	1039.5	1035.4	1037.7	1030.5	1017.9	1003.9	1002.6
G32.0	1048.7	1050.5	1038.2	1025.2	1021.5	1024.1	1017.1	1004.1	988.5	987.3
G33.0	1036.9	1038.6	1024.9	1011.4	1007.9	1011.7	1004.2	990.4	974.3	973.4
G34.0	1024.2	1025.8	1011.7	997.9	994.5	998.2	990.9	976.9	959.8	958.6
G35.0	1010.8	1012.1	996.6	982.0	979.1	983.7	976.7	962.1	944.1	942.1
G36.0	997.7	998.5	982.8	968.0	965.3	969.9	963.0	947.7	929.9	927.3

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 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	985.0	985.3	968.3	952.9	949.9	955.3	948.1	932.9	913.7	911.6
G38.0	969.8	970.1	952.9	936.4	934.1	940.2	934.7	917.8	898.4	895.5
G39.0	956.4	956.2	937.6	920.8	918.7	925.4	920.5	903.5	883.0	880.3
G40.0	941.1	940.5	921.2	904.2	902.1	909.8	905.3	886.9	866.0	862.6
G41.0	927.4	926.3	905.6	887.8	886.2	894.6	890.6	872.1	850.3	846.9
G42.0	912.7	911.3	890.6	872.3	870.5	879.7	876.1	857.4	833.9	830.2
G43.0	897.3	895.5	872.8	854.0	852.5	863.4	860.2	840.0	816.8	812.4
G44.0	882.3	879.7	857.5	838.2	836.6	847.8	844.8	825.0	800.7	796.1
G45.0	867.1	864.1	840.7	820.9	819.8	831.8	828.7	807.9	782.0	777.3
G46.0	851.0	847.6	822.3	802.8	801.9	814.7	813.0	792.0	765.7	760.8
G47.0	835.5	832.4	806.0	785.2	784.7	798.2	797.1	775.4	748.5	743.2
G48.0	818.8	814.5	788.1	765.5	766.2	780.8	780.2	758.3	730.2	724.6
G49.0	803.8	799.1	770.3	748.3	748.4	764.7	765.0	742.5	712.7	706.6
G50.0	787.8	782.4	753.4	730.3	731.4	748.0	748.9	725.6	695.5	689.2
G51.0	770.9	765.1	733.8	711.1	711.7	730.2	731.8	707.8	676.1	669.4
G52.0	754.8	748.1	716.7	692.4	694.3	713.0	715.3	690.8	658.9	651.7
G53.0	738.2	731.0	698.5	674.6	675.8	695.7	697.7	672.8	638.9	632.2
G54.0	721.1	713.1	678.5	653.9	655.6	677.5	681.0	655.5	621.4	613.3
G55.0	704.3	695.8	661.0	635.5	637.7	660.1	664.8	638.9	602.9	595.4
G56.0	686.7	677.5	640.5	614.6	617.8	641.5	647.2	619.8	583.4	574.7
G57.0	669.9	660.9	622.5	595.9	598.7	623.8	630.3	602.9	565.6	556.6
G58.0	652.7	642.3	603.5	576.5	579.6	606.0	614.2	586.3	546.7	537.4
G59.0	635.0	623.6	582.8	555.1	558.6	587.1	595.4	566.8	527.0	517.1
G60.0	618.0	605.9	564.4	535.2	540.1	568.9	579.1	550.0	508.0	497.7
G61.0	599.1	586.3	543.4	514.2	519.0	549.4	560.2	530.5	488.0	477.1
G62.0	582.8	569.0	524.1	494.3	500.3	532.1	543.7	513.4	468.9	457.6
G63.0	565.5	551.3	505.4	475.0	480.7	514.2	526.5	495.6	450.7	438.8
G64.0	547.2	532.2	484.1	452.8	459.3	495.1	508.8	476.8	429.9	417.1
G65.0	529.8	514.0	465.3	433.3	440.4	477.0	492.6	459.1	411.5	398.1
G66.0	513.6	496.6	445.6	412.9	420.7	458.9	475.8	442.1	392.4	379.1
G67.0	494.9	476.9	425.0	391.5	400.0	440.0	458.5	424.0	372.3	357.2
G68.0	478.8	459.7	405.1	370.9	380.0	423.0	442.0	406.7	354.0	338.4
G69.0	460.6	440.2	384.6	349.5	359.4	403.9	424.6	388.6	333.3	317.4
G70.0	443.9	422.6	365.1	328.9	339.7	386.3	408.0	371.7	315.3	297.6
G71.0	428.0	405.8	345.3	308.1	320.0	370.0	392.2	355.5	297.4	278.4
G72.0	410.1	387.0	325.1	286.8	299.8	351.3	374.4	338.0	277.1	257.0
G73.0	394.3	370.2	305.5	266.3	281.4	334.9	359.0	321.4	259.5	238.1

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	377.8	353.2	287.1	246.5	262.3	318.1	343.5	305.0	241.5	218.8
G75.0	360.8	335.3	266.6	224.3	241.7	300.5	325.9	287.7	222.0	198.6
G76.0	344.4	318.4	248.6	205.2	223.8	283.9	309.5	271.3	205.6	179.9
G77.0	327.6	300.8	228.4	183.6	204.2	266.7	290.1	254.1	187.4	160.3
G78.0	311.3	284.2	211.4	165.1	187.6	250.3	268.7	235.9	172.0	142.4
G79.0	293.7	268.3	194.0	146.2	170.9	233.0	244.4	215.1	156.2	124.9
G80.0	272.1	249.6	175.7	126.3	152.9	212.5	211.5	187.1	140.1	107.0
G81.0	248.0	230.9	160.1	109.4	138.0	189.7	177.5	158.5	124.9	90.8
G82.0	221.0	207.7	144.2	92.6	122.7	163.5	130.8	119.7	109.0	75.0
G83.0	184.4	177.9	127.7	76.1	107.2	128.3	83.5	79.0	90.7	60.8
G84.0	146.3	147.5	112.0	61.3	92.7	91.3	40.6	35.2	70.2	48.6
G85.0	94.6	105.9	93.8	47.3	76.5	44.9	16.0	14.1	42.0	36.4
G86.0	49.9	63.7	73.0	35.8	58.8	18.3	5.9	7.9	15.4	27.1
G87.0	21.8	26.4	50.4	26.2	38.8	5.6	5.1	6.7	8.3	19.2
G88.0	7.3	10.1	20.9	17.6	13.1	4.2	4.6	5.7	5.7	11.6
G89.0	4.6	6.5	8.1	11.3	5.0	3.8	4.5	4.8	4.4	6.1
G90.0	4.1	5.5	5.8	5.8	3.6	3.8	4.5	4.7	4.6	4.4
G91.0	3.9	4.5	3.5	3.6	3.8	3.8	4.6	4.9	4.6	4.6
G92.0	3.9	3.8	3.6	3.6	3.9	4.1	4.8	5.1	4.8	4.8
G93.0	4.0	3.9	3.7	3.8	4.0	4.2	4.9	5.2	5.0	4.9
G94.0	4.1	4.0	3.9	3.9	4.2	4.3	5.1	5.3	5.2	5.1
G95.0	4.2	4.2	4.0	4.2	4.3	4.4	5.2	5.5	5.3	5.2
G96.0	4.4	4.3	4.1	4.3	4.5	4.5	5.3	5.6	5.4	5.3
G97.0	4.5	4.5	4.3	4.4	4.7	4.7	5.5	5.7	5.6	5.6
G98.0	4.6	4.6	4.4	4.5	4.8	4.9	5.6	5.9	5.8	5.6
G99.0	4.8	4.7	4.6	4.7	4.9	4.9	5.8	5.9	5.9	5.8
G100.0	4.9	4.8	4.7	4.8	5.2	5.1	5.8	6.2	6.1	5.9
G101.0	5.1	5.0	4.8	5.0	5.3	5.3	6.0	6.3	6.1	6.1
G102.0	5.3	5.1	5.0	5.1	5.4	5.4	6.1	6.4	6.2	6.2
G103.0	5.4	5.2	5.1	5.3	5.5	5.5	6.2	6.5	6.4	6.3
G104.0	5.5	5.4	5.3	5.4	5.7	5.7	6.4	6.6	6.5	6.5
G105.0	5.6	5.5	5.4	5.5	5.8	5.8	6.5	6.8	6.7	6.6
G106.0	5.7	5.7	5.5	5.6	5.9	5.9	6.7	6.9	6.9	6.7
G107.0	5.9	5.8	5.7	5.9	6.1	6.0	6.8	7.1	7.0	6.9
G108.0	6.0	5.9	5.9	6.0	6.2	6.2	6.9	7.2	7.1	7.0
G109.0	6.2	6.1	5.9	6.1	6.4	6.3	7.1	7.4	7.3	7.2
G110.0	6.3	6.2	6.1	6.2	6.6	6.5	7.2	7.5	7.4	7.3

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 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	6.4	6.4	6.2	6.4	6.8	6.6	7.4	7.5	7.7	7.4
G112.0	6.7	6.5	6.4	6.5	7.0	6.8	7.5	7.7	7.7	7.5
G113.0	6.7	6.6	6.5	6.6	7.2	6.9	7.6	7.8	7.9	7.7
G114.0	6.9	6.8	6.7	6.8	7.1	7.1	7.7	7.9	8.0	7.8
G115.0	7.1	7.0	6.8	6.9	7.2	7.3	7.8	8.1	8.1	8.0
G116.0	7.2	7.0	7.0	7.1	7.4	7.4	8.0	8.2	8.2	8.0
G117.0	7.2	7.2	7.1	7.2	7.5	7.5	8.1	8.3	8.4	8.2
G118.0	7.5	7.3	7.2	7.3	7.6	7.6	8.2	8.5	8.5	8.3
G119.0	7.5	7.5	7.4	7.4	7.7	7.7	8.4	8.7	8.6	8.4
G120.0	7.7	7.6	7.5	7.6	8.0	7.9	8.6	8.8	8.9	8.6
G121.0	7.9	7.8	7.6	7.7	8.1	8.0	8.7	8.9	9.0	8.8
G122.0	8.0	7.8	7.8	7.8	8.1	8.2	8.8	9.1	9.0	8.9
G123.0	8.1	8.1	7.9	8.0	8.4	8.4	8.9	9.3	9.2	9.1
G124.0	8.2	8.2	8.1	8.1	8.5	8.6	9.2	9.5	9.4	9.1
G125.0	8.5	8.3	8.1	8.3	8.6	8.7	9.4	9.6	9.5	9.3
G126.0	8.6	8.5	8.3	8.4	8.7	8.9	9.5	9.7	9.6	9.4
G127.0	8.7	8.7	8.4	8.6	8.9	9.0	9.6	9.8	9.8	9.6
G128.0	8.9	8.8	8.6	8.7	9.1	9.2	9.8	9.9	9.8	9.7
G129.0	9.1	9.1	8.8	8.9	9.2	9.3	9.9	10.1	10.0	9.9
G130.0	9.2	9.1	8.9	9.1	9.3	9.4	10.1	10.2	10.2	9.9
G131.0	9.4	9.4	9.1	9.1	9.5	9.5	10.2	10.5	10.3	10.1
G132.0	9.4	9.5	9.2	9.3	9.6	9.7	10.3	10.6	10.4	10.2
G133.0	9.8	9.6	9.4	9.5	9.7	9.9	10.5	10.7	10.5	10.4
G134.0	10.0	9.7	9.4	9.5	9.9	10.0	10.5	10.9	10.6	10.5
G135.0	10.1	9.9	9.6	9.7	10.0	10.1	10.7	11.0	10.8	10.7
G136.0	10.1	10.0	9.8	9.9	10.1	10.3	10.8	11.2	10.8	10.8
G137.0	10.3	10.1	9.9	10.0	10.2	10.6	11.0	11.3	11.0	11.0
G138.0	10.3	10.3	10.1	10.1	10.4	10.7	11.1	11.5	11.1	11.1
G139.0	10.5	10.3	10.2	10.3	10.6	10.7	11.3	11.5	11.3	11.2
G140.0	10.5	10.5	10.3	10.4	10.7	10.8	11.4	11.7	11.4	11.3
G141.0	10.7	10.6	10.5	10.6	10.8	11.0	11.5	11.8	11.5	11.4
G142.0	10.7	10.8	10.6	10.7	11.0	11.1	11.6	11.9	11.7	11.6
G143.0	10.9	10.9	10.7	10.8	11.2	11.1	11.7	11.9	11.8	11.7
G144.0	11.0	11.0	10.9	11.0	11.2	11.3	11.8	12.0	11.9	11.8
G145.0	11.1	11.1	11.0	11.1	11.3	11.4	12.0	12.2	12.1	11.9
G146.0	11.3	11.2	11.1	11.2	11.4	11.5	12.1	12.2	12.2	12.0
G147.0	11.4	11.3	11.2	11.4	11.6	11.6	12.2	12.3	12.3	12.2

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	11.5	11.4	11.3	11.4	11.7	11.7	12.3	12.4	12.3	12.2
G149.0	11.7	11.5	11.5	11.6	11.8	11.8	12.4	12.6	12.4	12.3
G150.0	11.7	11.6	11.5	11.7	11.9	11.9	12.5	12.7	12.6	12.5
G151.0	11.9	11.7	11.7	11.8	12.0	12.0	12.7	12.7	12.7	12.7
G152.0	12.0	11.9	11.8	11.9	12.1	12.1	12.7	12.7	12.7	12.8
G153.0	12.1	12.0	11.9	12.0	12.3	12.2	12.6	12.7	12.7	12.8
G154.0	12.3	12.1	12.1	12.1	12.3	12.3	12.7	12.7	12.7	12.7
G155.0	12.3	12.2	12.1	12.2	12.3	12.4	12.8	12.8	12.8	12.8
G156.0	12.4	12.2	12.2	12.3	12.5	12.5	12.9	13.0	12.9	13.0
G157.0	12.4	12.4	12.3	12.3	12.7	12.6	13.0	13.0	13.0	13.0
G158.0	12.5	12.5	12.4	12.5	12.8	12.6	13.1	13.1	13.2	13.1
G159.0	12.7	12.5	12.5	12.7	12.8	12.6	13.2	13.3	13.2	13.2
G160.0	12.7	12.7	12.7	12.8	12.8	12.8	13.2	13.2	13.3	13.3
G161.0	12.7	12.8	12.7	12.8	12.8	12.9	13.2	13.3	13.4	13.3
G162.0	12.7	12.8	12.7	12.8	13.0	13.0	13.3	13.4	13.3	13.4
G163.0	12.9	12.8	12.7	12.9	13.1	13.0	13.3	13.5	13.4	13.4
G164.0	12.9	12.8	12.8	12.9	13.1	13.1	13.4	13.5	13.5	13.5
G165.0	13.0	13.0	12.8	13.0	13.2	13.1	13.4	13.6	13.6	13.5
G166.0	13.1	13.0	12.9	13.1	13.3	13.2	13.5	13.6	13.6	13.5
G167.0	13.1	13.1	13.0	13.2	13.3	13.4	13.5	13.7	13.6	13.6
G168.0	13.2	13.2	13.1	13.3	13.4	13.3	13.5	13.7	13.7	13.7
G169.0	13.2	13.3	13.2	13.4	13.4	13.5	13.6	13.8	13.7	13.7
G170.0	13.3	13.3	13.2	13.4	13.6	13.5	13.6	13.8	13.7	13.7
G171.0	13.4	13.4	13.3	13.5	13.6	13.6	13.6	13.8	13.7	13.8
G172.0	13.4	13.5	13.4	13.6	13.6	13.7	13.7	13.8	13.7	13.9
G173.0	13.5	13.5	13.5	13.6	13.7	13.7	13.8	13.8	13.7	13.8
G174.0	13.5	13.6	13.5	13.6	13.8	13.6	13.7	13.9	13.8	13.9
G175.0	13.6	13.6	13.6	13.8	13.7	13.7	13.8	13.9	13.8	13.9
G176.0	13.7	13.8	13.6	13.8	13.8	13.7	13.8	13.9	13.8	13.9
G177.0	13.7	13.8	13.7	13.8	13.8	13.8	13.8	13.9	13.8	13.9
G178.0	13.7	13.8	13.7	13.8	13.8	13.8	13.8	13.9	13.8	13.9
G179.0	13.8	13.9	13.7	13.9	13.9	13.8	13.8	13.9	13.8	13.9
G180.0	13.9	13.9	13.8	13.8	13.9	13.9	13.7	13.9	13.7	13.9

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	1251.3	1251.3	1251.3							
G1.0	1250.5	1251.1	1251.6							
G2.0	1249.4	1250.6	1251.4							
G3.0	1247.8	1249.2	1250.7							
G4.0	1245.4	1247.8	1249.7							
G5.0	1243.0	1245.8	1248.1							
G6.0	1239.8	1243.2	1246.1							
G7.0	1236.2	1240.4	1243.7							
G8.0	1231.9	1236.5	1240.8							
G9.0	1227.3	1233.0	1237.3							
G10.0	1222.5	1228.7	1233.5							
G11.0	1216.8	1223.5	1229.3							
G12.0	1210.9	1218.3	1224.6							
G13.0	1204.5	1212.9	1219.9							
G14.0	1197.5	1206.3	1214.3							
G15.0	1190.3	1200.0	1208.4							
G16.0	1182.1	1192.7	1201.6							
G17.0	1173.8	1185.5	1194.9							
G18.0	1165.7	1178.1	1188.0							
G19.0	1156.0	1169.5	1180.0							
G20.0	1146.4	1161.0	1172.7							
G21.0	1137.2	1152.4	1164.6							
G22.0	1126.1	1142.5	1155.1							
G23.0	1116.1	1132.8	1146.3							
G24.0	1104.8	1122.6	1136.6							
G25.0	1093.8	1111.9	1126.8							
G26.0	1082.0	1101.6	1117.3							
G27.0	1069.3	1090.0	1105.9							
G28.0	1056.9	1078.8	1095.6							
G29.0	1044.8	1067.5	1084.6							
G30.0	1031.5	1054.5	1072.6							
G31.0	1017.9	1042.5	1061.1							
G32.0	1003.5	1029.1	1048.7							
G33.0	989.6	1016.1	1036.9							
G34.0	975.2	1002.8	1024.2							
G35.0	959.9	988.7	1010.8							
G36.0	945.7	975.3	997.7							

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 6)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G37.0	929.7	960.0	985.0							
G38.0	915.0	946.4	969.8							
G39.0	899.4	931.5	956.4							
G40.0	883.1	915.9	941.1							
G41.0	867.7	900.8	927.4							
G42.0	851.6	886.3	912.7							
G43.0	834.5	870.2	897.3							
G44.0	817.7	854.5	882.3							
G45.0	800.1	837.9	867.1							
G46.0	784.0	821.7	851.0							
G47.0	766.8	806.3	835.5							
G48.0	747.8	788.7	818.8							
G49.0	731.0	772.9	803.8							
G50.0	714.2	756.2	787.8							
G51.0	694.8	738.4	770.9							
G52.0	677.6	721.4	754.8							
G53.0	657.9	703.4	738.2							
G54.0	640.2	687.0	721.1							
G55.0	621.8	669.8	704.3							
G56.0	602.6	651.6	686.7							
G57.0	583.8	634.2	669.9							
G58.0	566.1	616.4	652.7							
G59.0	546.1	598.0	635.0							
G60.0	527.2	581.2	618.0							
G61.0	507.2	561.4	599.1							
G62.0	488.1	544.5	582.8							
G63.0	469.6	526.6	565.5							
G64.0	448.7	507.6	547.2							
G65.0	430.4	490.5	529.8							
G66.0	411.0	472.5	513.6							
G67.0	390.9	453.8	494.9							
G68.0	372.5	436.0	478.8							
G69.0	351.7	417.6	460.6							
G70.0	333.4	401.1	443.9							
G71.0	314.3	383.8	428.0							
G72.0	294.6	366.2	410.1							
G73.0	275.7	349.3	394.3							

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	258.1	333.3	377.8							
G75.0	238.2	315.3	360.8							
G76.0	221.1	299.7	344.4							
G77.0	201.9	281.9	327.6							
G78.0	185.9	266.0	311.3							
G79.0	169.6	250.7	293.7							
G80.0	153.3	233.1	272.1							
G81.0	138.1	215.4	248.0							
G82.0	122.9	192.3	221.0							
G83.0	109.1	168.0	184.4							
G84.0	96.0	138.3	146.3							
G85.0	80.0	101.0	94.6							
G86.0	63.9	59.1	49.9							
G87.0	43.5	26.5	21.8							
G88.0	18.4	7.9	7.3							
G89.0	6.6	5.3	4.6							
G90.0	4.4	4.5	4.1							
G91.0	4.5	4.4	3.9							
G92.0	4.7	4.5	3.9							
G93.0	4.9	4.7	4.0							
G94.0	5.0	4.8	4.1							
G95.0	5.1	5.0	4.2							
G96.0	5.3	5.1	4.4							
G97.0	5.4	5.2	4.5							
G98.0	5.6	5.4	4.6							
G99.0	5.7	5.5	4.8							
G100.0	5.9	5.6	4.9							
G101.0	6.1	5.8	5.1							
G102.0	6.2	5.9	5.3							
G103.0	6.4	6.1	5.4							
G104.0	6.5	6.2	5.5							
G105.0	6.6	6.3	5.6							
G106.0	6.8	6.4	5.7							
G107.0	6.9	6.6	5.9							
G108.0	7.0	6.7	6.0							
G109.0	7.2	6.9	6.2							
G110.0	7.4	7.0	6.3							

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 8)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G111.0	7.6	7.2	6.4							
G112.0	7.7	7.4	6.7							
G113.0	7.8	7.5	6.7							
G114.0	8.0	7.5	6.9							
G115.0	8.1	7.7	7.1							
G116.0	8.1	7.9	7.2							
G117.0	8.3	8.0	7.2							
G118.0	8.4	8.1	7.5							
G119.0	8.6	8.3	7.5							
G120.0	8.7	8.4	7.7							
G121.0	8.8	8.5	7.9							
G122.0	8.9	8.7	8.0							
G123.0	9.1	8.9	8.1							
G124.0	9.2	9.0	8.2							
G125.0	9.3	9.2	8.5							
G126.0	9.5	9.3	8.6							
G127.0	9.5	9.5	8.7							
G128.0	9.8	9.6	8.9							
G129.0	9.9	9.8	9.1							
G130.0	10.0	9.9	9.2							
G131.0	10.1	10.1	9.4							
G132.0	10.2	10.1	9.4							
G133.0	10.3	10.3	9.8							
G134.0	10.6	10.4	10.0							
G135.0	10.7	10.5	10.1							
G136.0	10.9	10.7	10.1							
G137.0	11.0	10.8	10.3							
G138.0	11.1	10.9	10.3							
G139.0	11.2	11.0	10.5							
G140.0	11.3	11.2	10.5							
G141.0	11.5	11.3	10.7							
G142.0	11.6	11.4	10.7							
G143.0	11.7	11.5	10.9							
G144.0	11.8	11.6	11.0							
G145.0	11.9	11.8	11.1							
G146.0	12.0	11.8	11.3							
G147.0	12.1	11.9	11.4							

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	12.3	12.1	11.5							
G149.0	12.3	12.1	11.7							
G150.0	12.4	12.2	11.7							
G151.0	12.6	12.4	11.9							
G152.0	12.6	12.4	12.0							
G153.0	12.8	12.6	12.1							
G154.0	12.8	12.6	12.3							
G155.0	12.8	12.6	12.3							
G156.0	12.8	12.6	12.4							
G157.0	12.8	12.8	12.4							
G158.0	13.1	12.9	12.5							
G159.0	13.0	12.9	12.7							
G160.0	13.2	13.0	12.7							
G161.0	13.2	13.1	12.7							
G162.0	13.3	13.1	12.7							
G163.0	13.4	13.2	12.9							
G164.0	13.3	13.2	12.9							
G165.0	13.4	13.3	13.0							
G166.0	13.5	13.4	13.1							
G167.0	13.5	13.4	13.1							
G168.0	13.6	13.4	13.2							
G169.0	13.7	13.5	13.2							
G170.0	13.7	13.5	13.3							
G171.0	13.8	13.6	13.4							
G172.0	13.8	13.7	13.4							
G173.0	13.8	13.6	13.5							
G174.0	13.9	13.7	13.5							
G175.0	13.9	13.7	13.6							
G176.0	13.9	13.7	13.7							
G177.0	13.9	13.8	13.7							
G178.0	13.9	13.8	13.7							
G179.0	13.9	13.9	13.8							
G180.0	13.9	13.9	13.9							

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	1680.03
L 0-180(75) av	1842.43
L 0-180(85) av	881.03
L 90-270(65) av	1366.08
L 90-270(75) av	1134.69
L 90-270(85) av	666.93
L 45(65) av	1515.05
L 45(75) av	1480.64
L 45(85) av	1111.97

Standard: GB/T 29293-2012