

Report No.:

Test Time:

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog: LED

Number of Lamps: 1

Luminous Length (mm): 1200

Luminous Height (mm): 45

Current: 0.319 A

Power Factor: 0.996

Luminaire Description:

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 600

Voltage: 119.9 V

Power: 38.15 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 5001.5 lm

Downward Ratio: 99%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 166.5, 159.0, 165.7, 166.4

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 116.8, 108.8, 112.6, 112.3

Luminaire Efficacy Rating (LER): 131.15

Max. Intensity: 1703.27 cd

S/MH(C0/C180): 1.26

Total Rated Lamp Lumens: 5001.5 lm

Efficiency: 100%

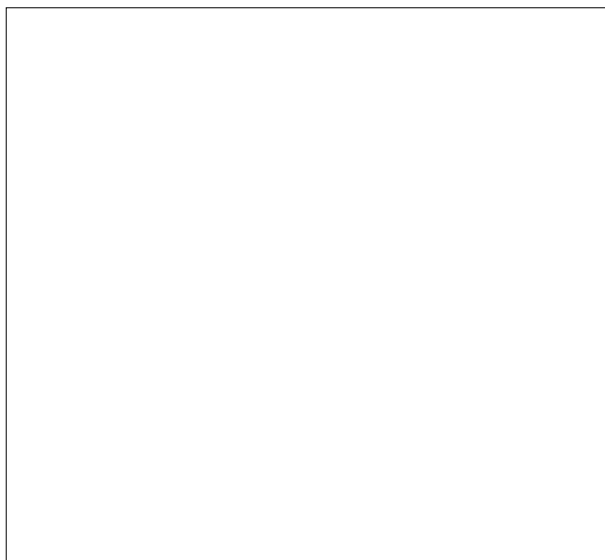
Upward Ratio: 1%

C0r0 Intensity: 1701.91 cd

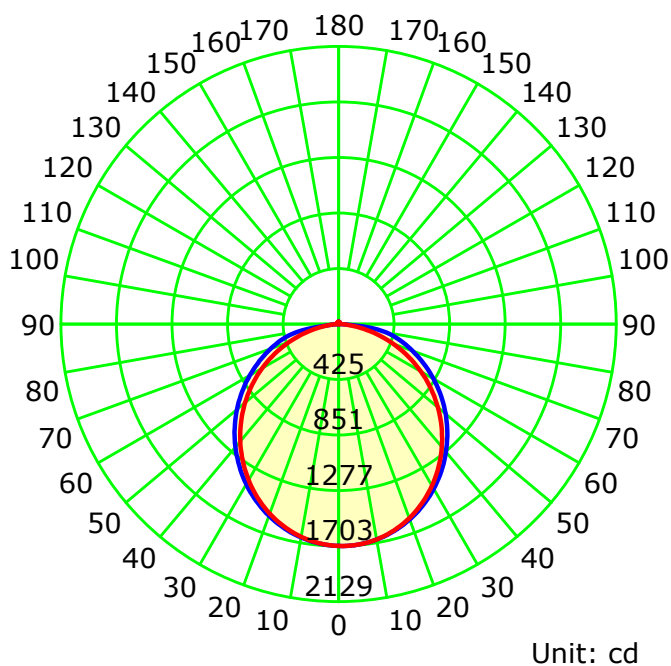
Pos of Max. Intensity: H60 V2

S/MH(C90/C270): 1.23

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

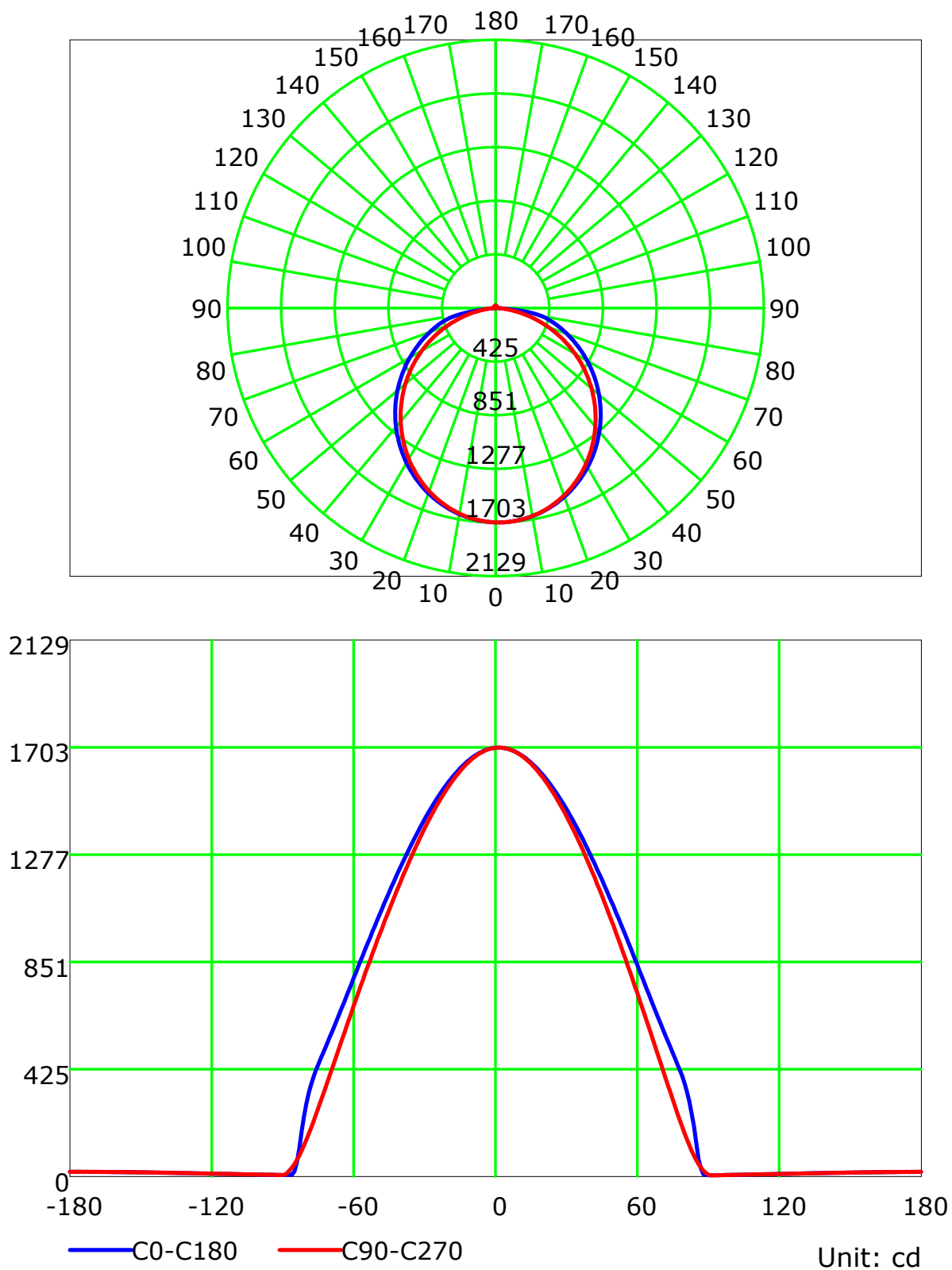
Test Device: GPM-1600L

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

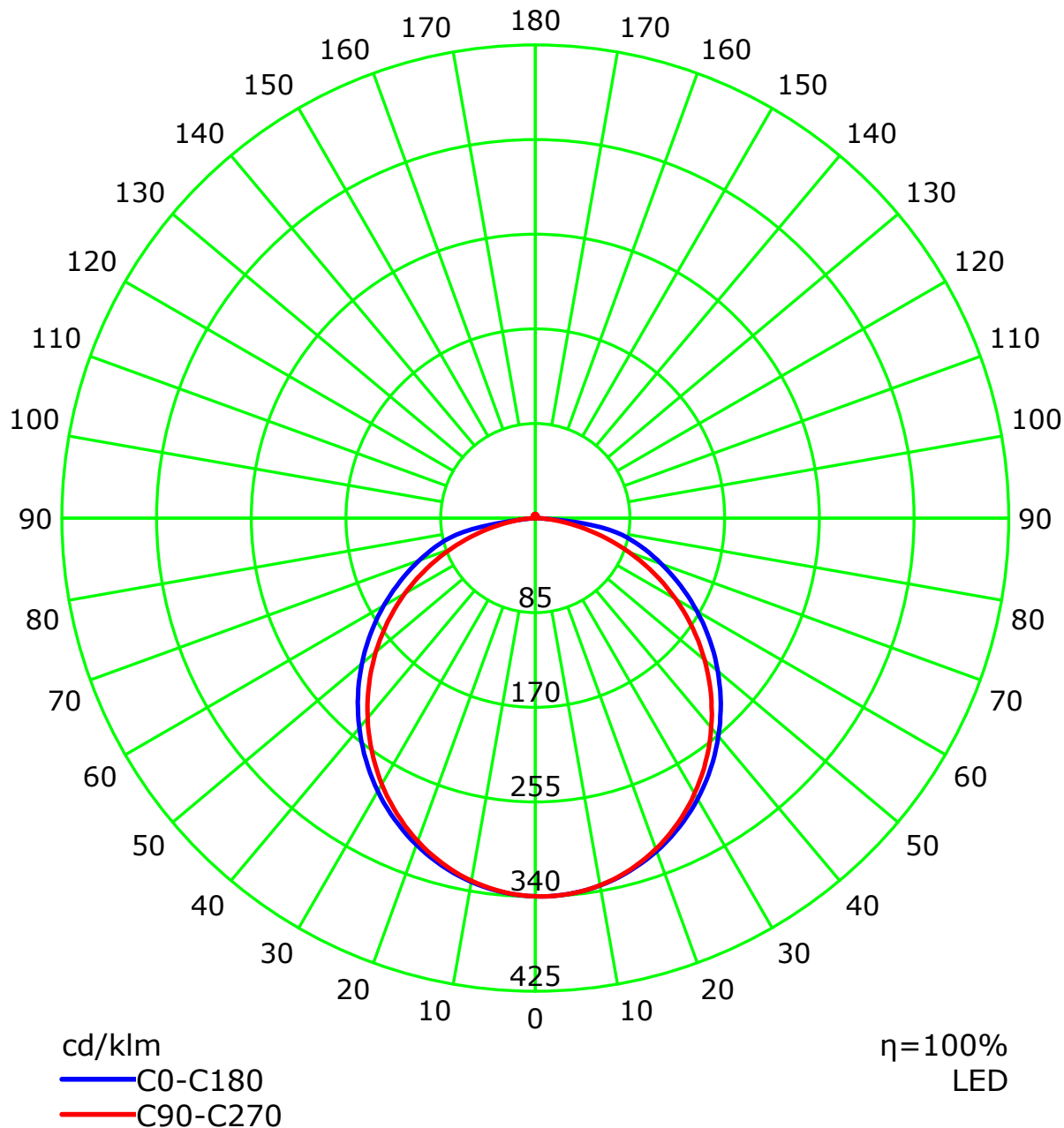
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



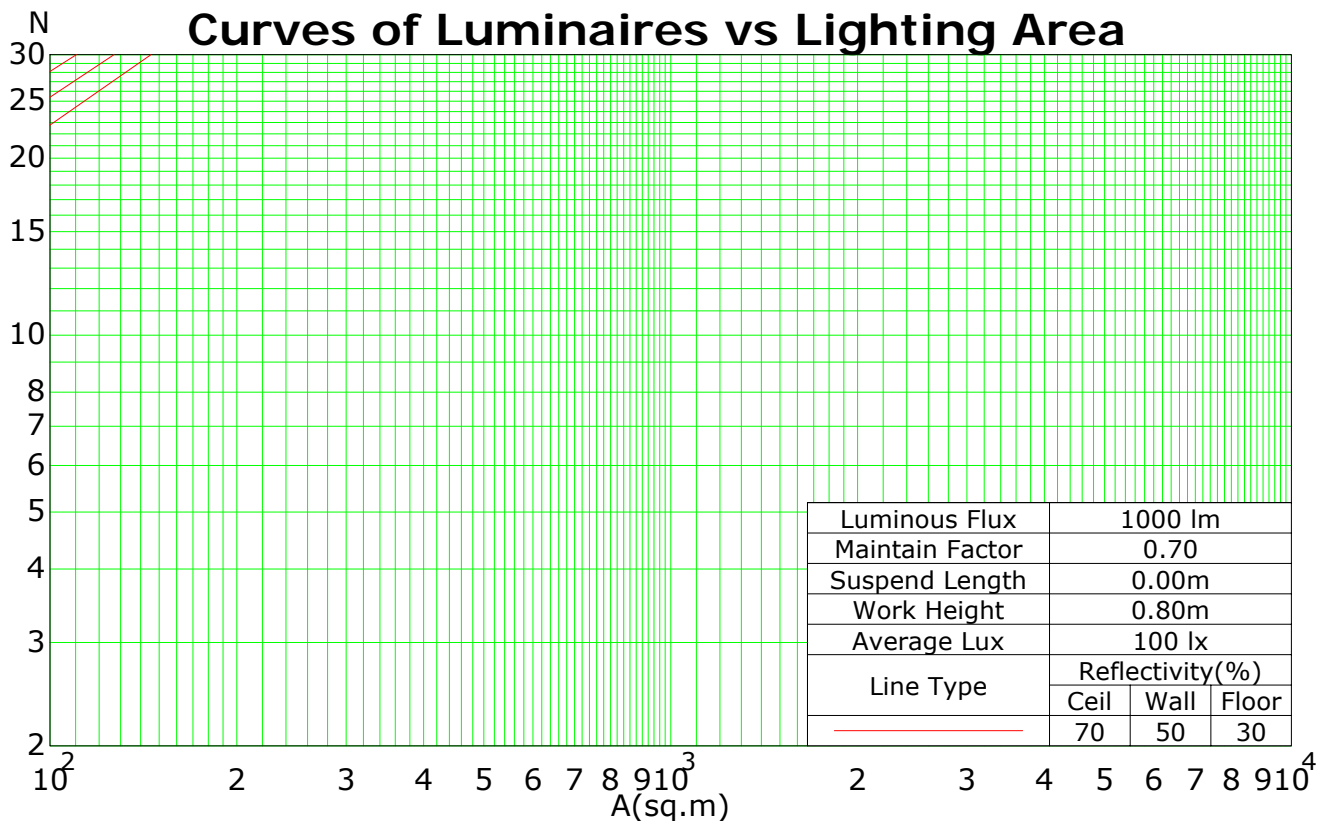
C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

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	1.19	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

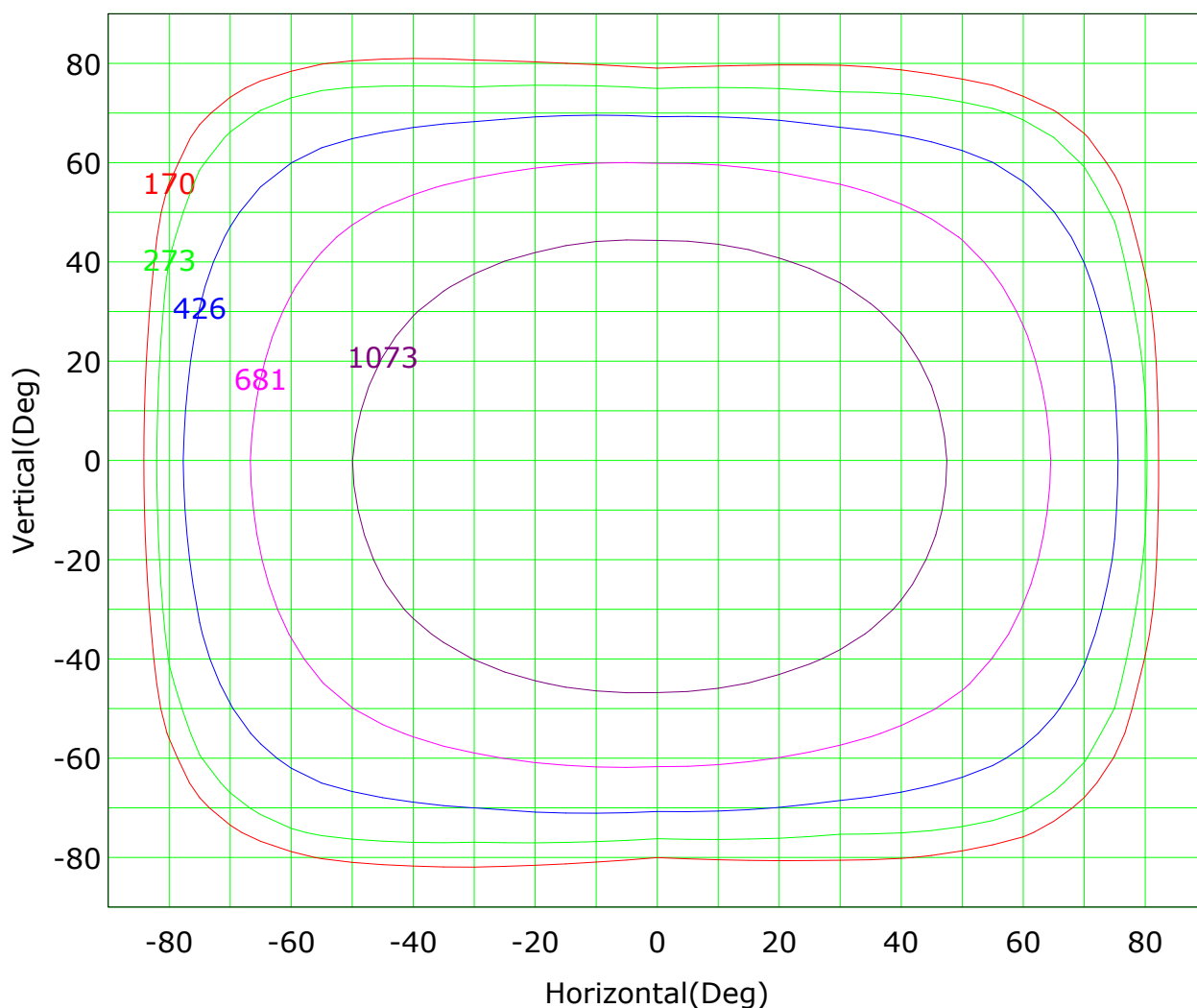
Spacing Criteria (0-180): 1.26  
 Spacing Criteria (90-270): 1.23  
 Spacing Criteria (Diagonal): 1.37



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)



Imax (100%): 1703 cd

( 10%): 170 cd	( 16%): 273 cd
( 25%): 426 cd	( 40%): 681 cd
( 63%): 1073 cd	(100%): 1703 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

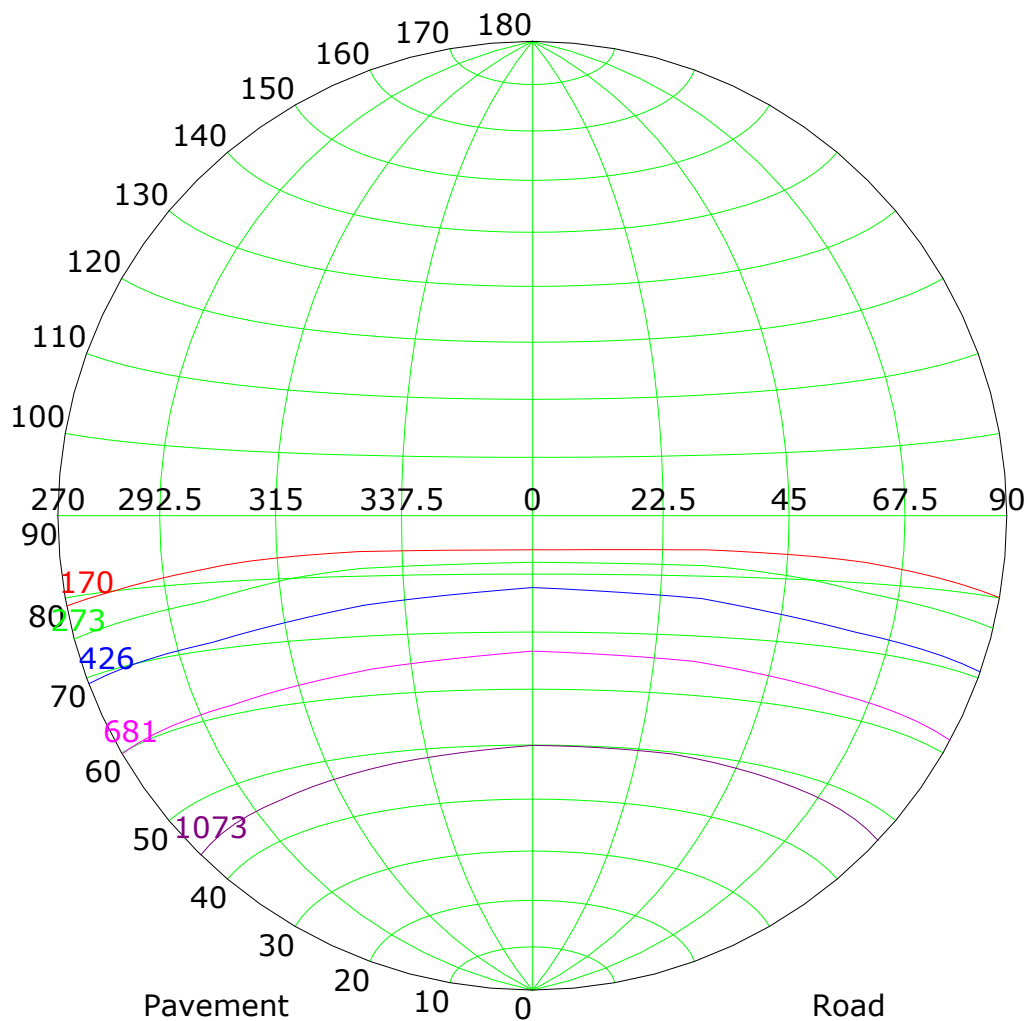
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## Isocandela (sphere)



Imax (100%): 1703 cd

( 10%): 170 cd	( 16%): 273 cd
( 25%): 426 cd	( 40%): 681 cd
( 63%): 1073 cd	(100%): 1703 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

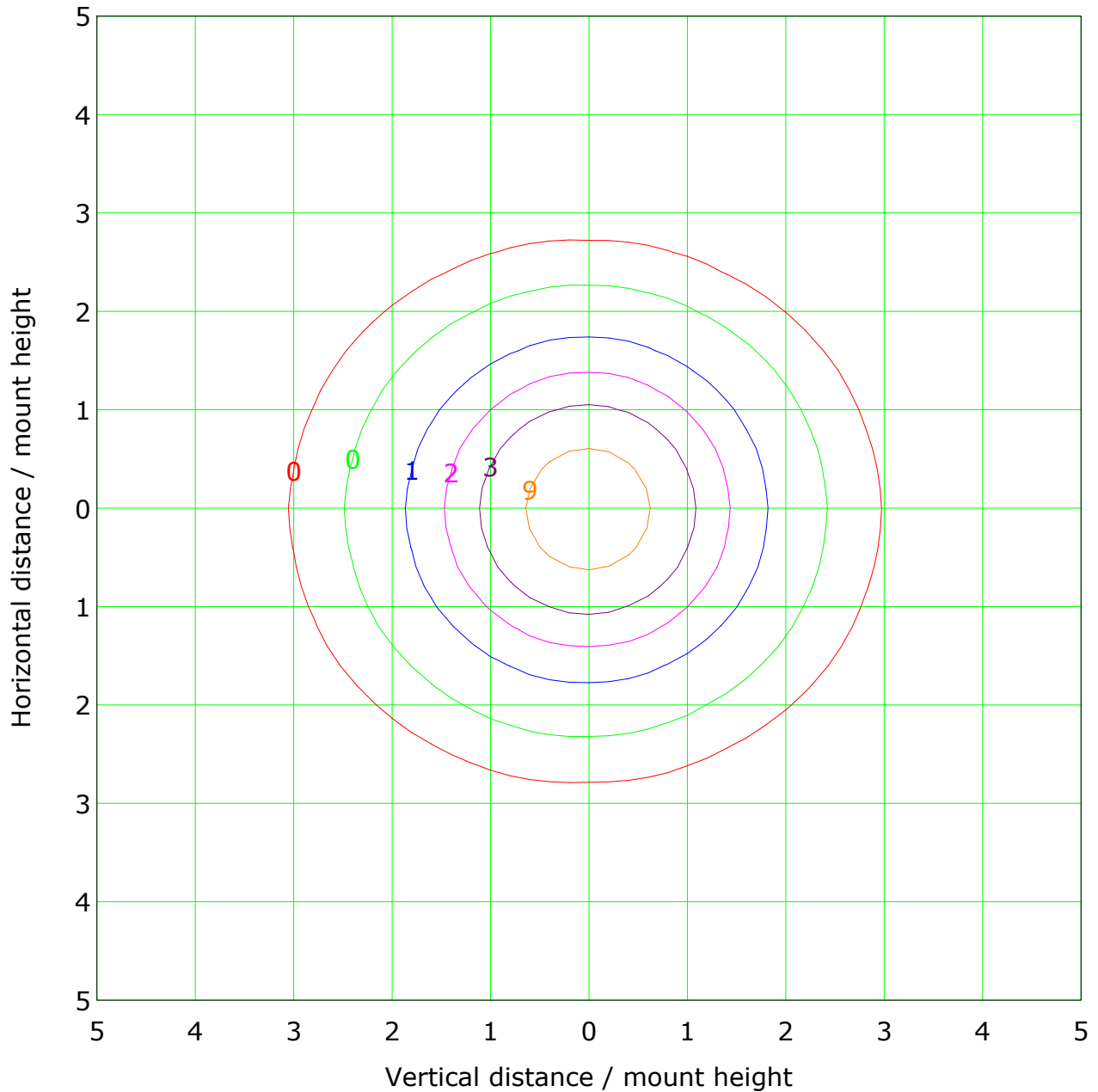
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## IsoLux Plot



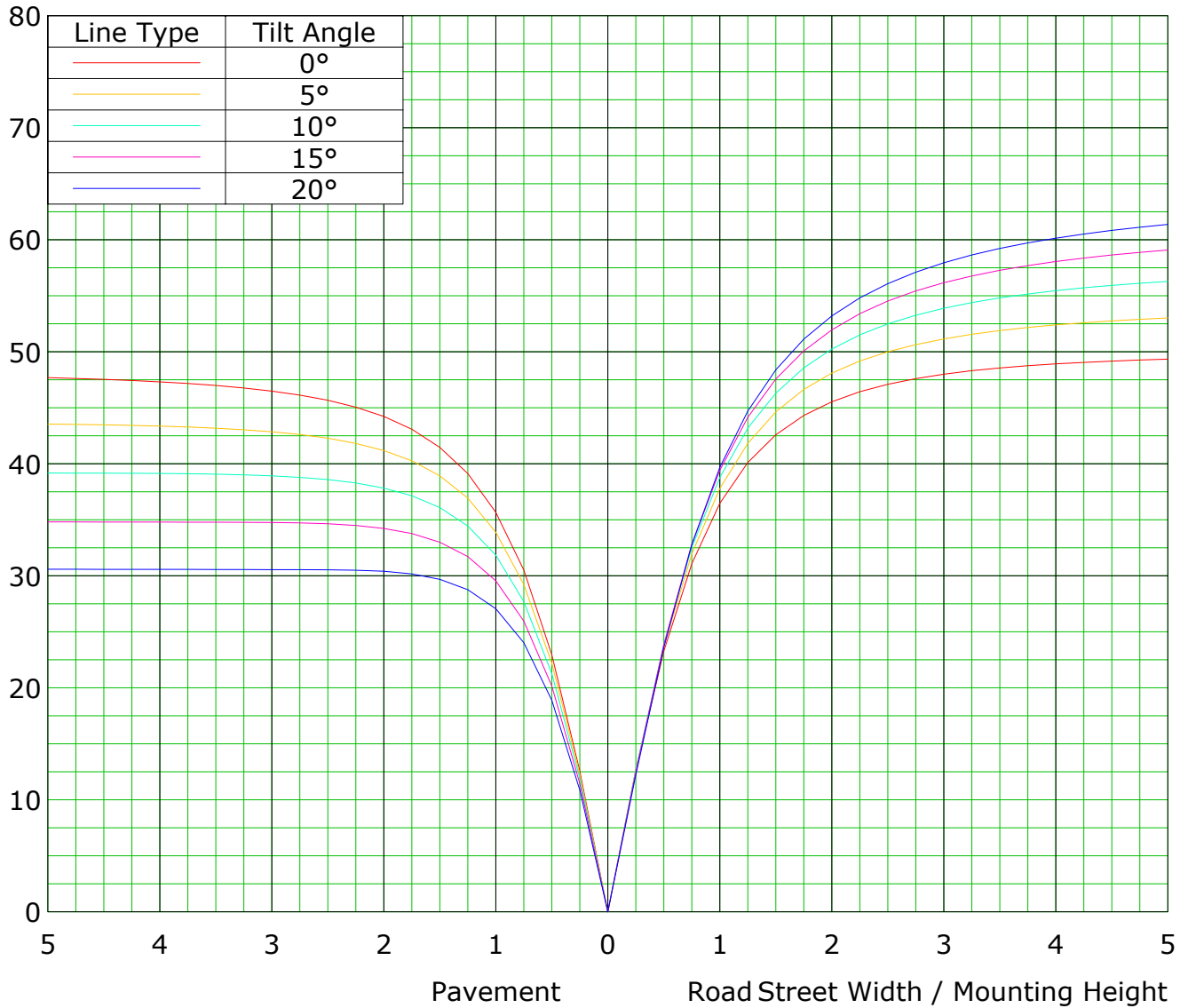
Mounting Height: 10.0m    Max Lux(100%): 17.0 lx	
( 1%): 0.2 lx	( 2%): 0.3 lx
( 5%): 0.9 lx	( 10%): 1.7 lx
( 20%): 3.4 lx	( 50%): 8.5 lx
(100%): 17.0 lx	

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:

## 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:

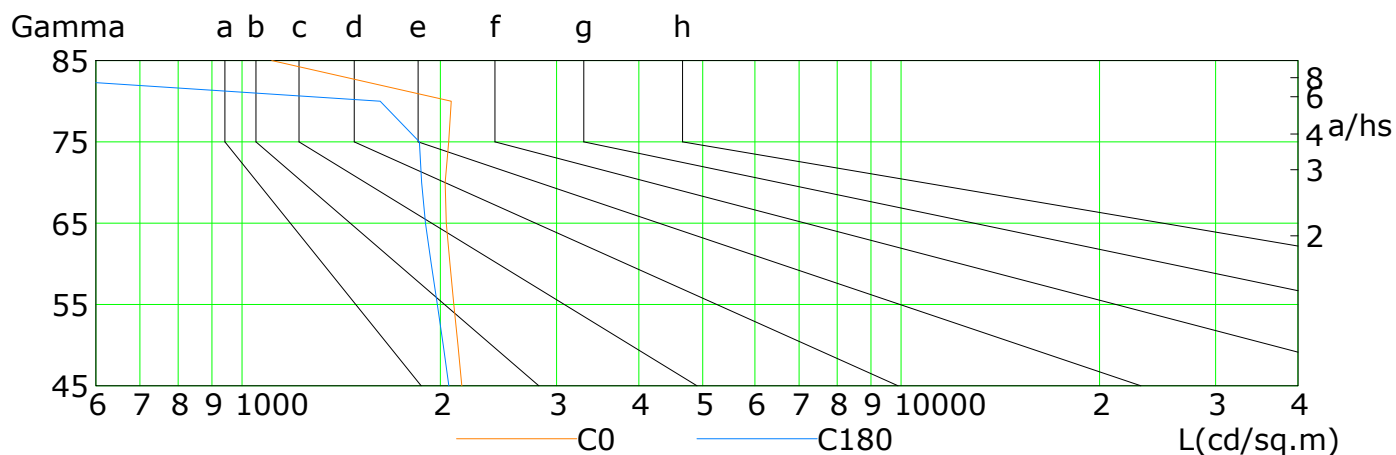
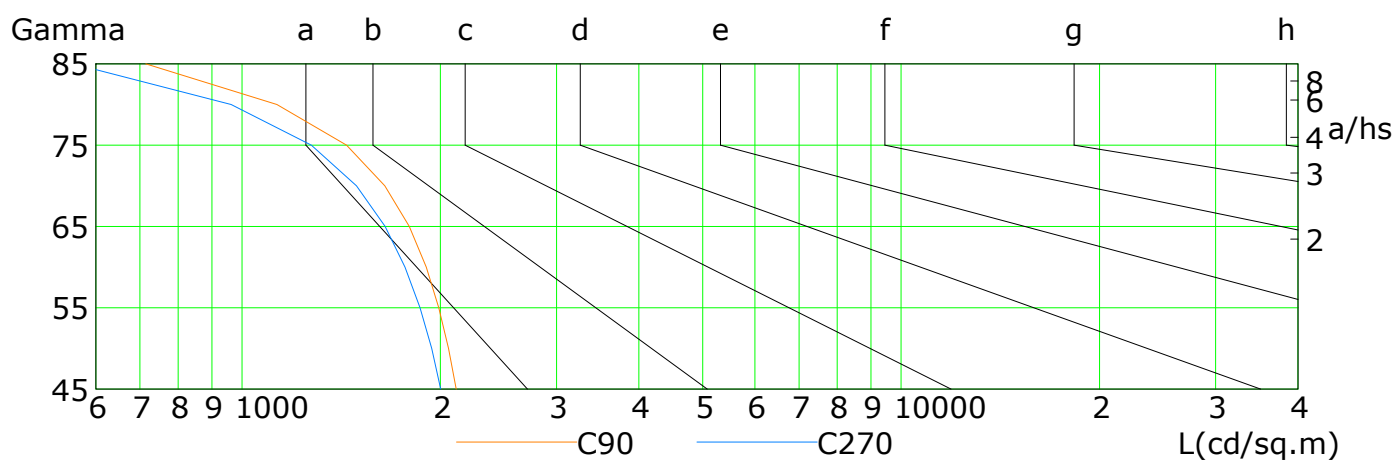
Inspector:



## 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	2155	2126	2096	2067	2041	2033	2058	2077	1110
C90	2114	2057	1988	1903	1794	1647	1441	1130	715
C180	2060	2020	1979	1936	1898	1872	1858	1620	184
C270	2002	1940	1863	1767	1648	1491	1274	963	556

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

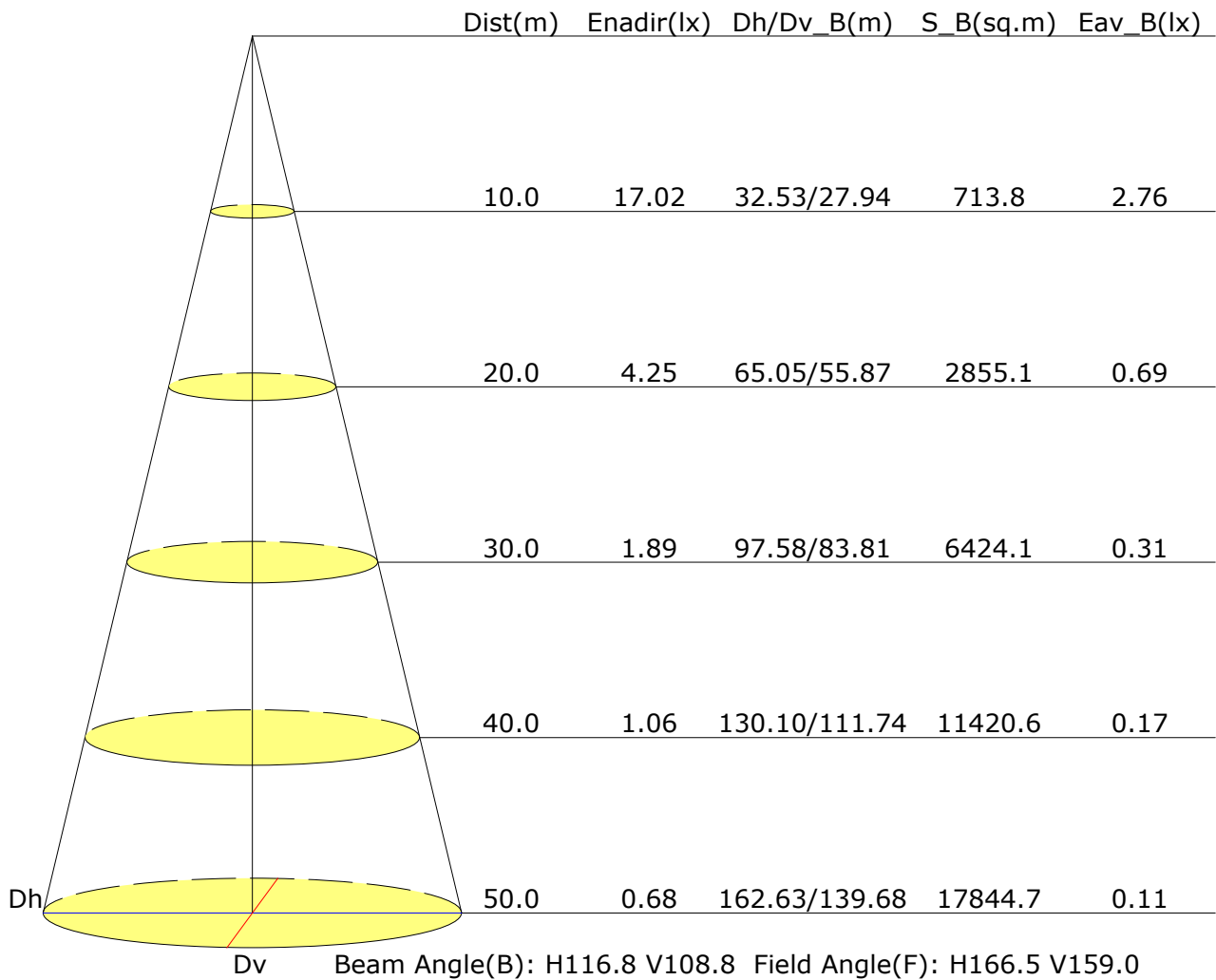
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

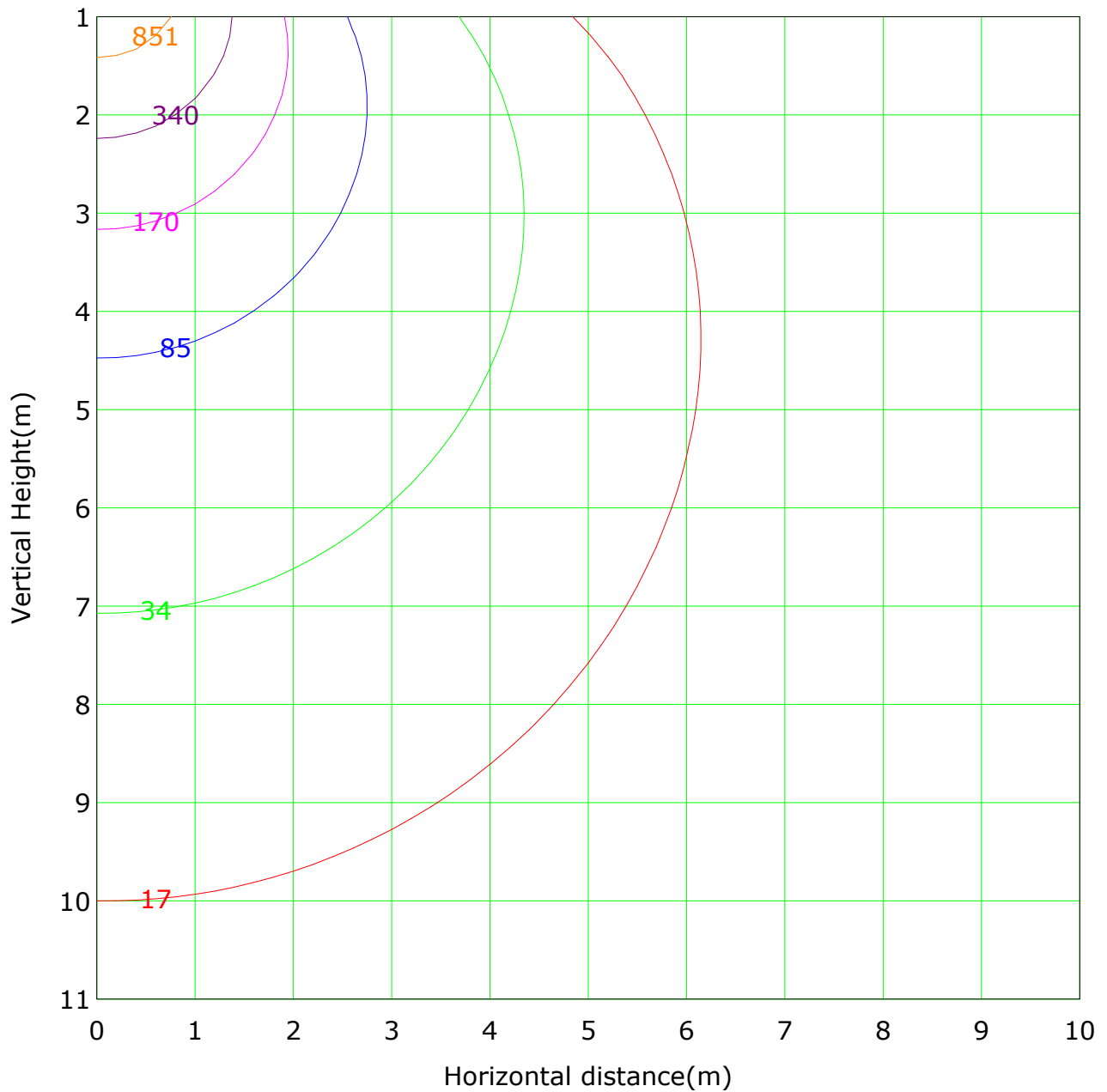
## Illuminance at a Distance



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: 1701.9 lx

— ( 1%): 17.0 lx	— ( 2%): 34.0 lx
— ( 5%): 85.1 lx	— ( 10%): 170.2 lx
— ( 20%): 340.4 lx	— ( 50%): 851.0 lx
— (100%):1701.9 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

		Unit: m																		
-90	0.0	0.1	0.1	0.3	0.7	1.2	1.7	1.8	1.8	2.0	2.3	2.4	2.2	1.7	1.0	0.4	0.1	0.0	19.7	1.1
-80	0.0	0.1	1.1	3.1	5.0	6.4	7.3	8.1	8.4	8.5	8.4	7.8	7.0	6.0	4.5	2.5	0.6	0.0	85.0	80.3
-70	0.0	0.7	3.5	6.3	8.9	11.3	13.6	15.5	16.4	16.5	15.9	14.2	12.0	9.6	7.0	4.3	1.6	0.1	157.4	156.4
-60	0.0	1.6	5.0	8.5	12.4	16.4	20.0	22.9	24.4	24.6	23.3	20.7	17.2	13.2	9.2	5.5	2.4	0.2	227.7	227.2
-50	0.1	2.3	6.0	10.6	15.9	21.2	26.0	29.8	31.9	32.1	30.3	26.8	22.1	16.7	11.3	6.6	2.9	0.3	293.0	292.7
-40	0.2	2.8	7.0	12.4	18.9	25.5	31.4	36.0	38.6	38.8	36.5	32.2	26.4	19.8	13.2	7.5	3.3	0.4	350.9	350.7
-30	0.2	3.2	7.7	14.0	21.3	28.9	35.9	41.2	44.2	44.4	41.8	36.7	29.9	22.3	14.8	8.3	3.6	0.5	398.7	398.5
-20	0.3	3.4	8.3	15.1	23.1	31.4	39.1	45.0	48.3	48.5	45.6	40.0	32.4	24.1	15.9	8.9	3.8	0.6	433.7	433.5
-10	0.3	3.5	8.6	15.7	24.1	32.8	40.9	47.1	50.6	50.9	47.7	41.8	33.9	25.1	16.6	9.3	3.9	0.6	453.5	453.3
0	0.3	3.5	8.7	15.8	24.2	33.0	41.1	47.4	51.0	51.2	48.1	42.1	34.1	25.3	16.7	9.3	3.9	0.6	456.1	455.9
10	0.3	3.4	8.4	15.2	23.4	31.9	39.8	45.8	49.2	49.4	46.4	40.7	33.0	24.4	16.1	9.0	3.8	0.6	440.9	440.8
20	0.3	3.2	7.8	14.2	21.8	29.7	36.9	42.4	45.5	45.7	43.0	37.8	30.8	22.9	15.1	8.5	3.6	0.5	409.6	409.4
30	0.2	2.9	7.1	12.8	19.5	26.4	32.6	37.5	40.2	40.4	38.1	33.5	27.4	20.5	13.7	7.7	3.3	0.4	364.2	363.9
40	0.1	2.4	6.2	11.0	16.5	22.2	27.3	31.4	33.6	33.8	31.9	28.2	23.2	17.5	11.8	6.8	3.0	0.3	307.2	306.9
50	0.1	1.8	5.1	8.9	13.1	17.3	21.2	24.3	26.0	26.2	24.9	22.1	18.3	14.0	9.7	5.7	2.5	0.2	241.4	240.9
60	0.0	0.9	3.8	6.6	9.4	12.1	14.6	16.7	17.8	18.0	17.2	15.4	13.0	10.3	7.4	4.5	1.7	0.1	169.7	168.8
70	0.0	0.2	1.6	3.9	5.6	6.9	8.0	9.0	9.4	9.5	9.5	8.8	7.8	6.5	4.9	2.7	0.7	0.0	95.1	92.3
80	0.0	0.0	0.1	0.5	1.2	1.9	2.3	2.4	2.3	2.4	2.7	2.8	2.5	1.9	1.1	0.4	0.1	0.0	24.8	4.8
90	2.6	36.2	96.1	174.8	265.0	356.8	439.8	504.3	553.9	554.2	513.7	453.9	373.3	281.7	190.0	108.0	44.8	5.6	4929	
Flux(T)	1.2	34.1	94.1	172.7	262.4	353.6	436.3	500.3	553.4	553.8	509.3	450.0	370.0	279.3	188.0	106.2	43.0	4.0		4877
Flux(E)																				

Horizontal plane

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

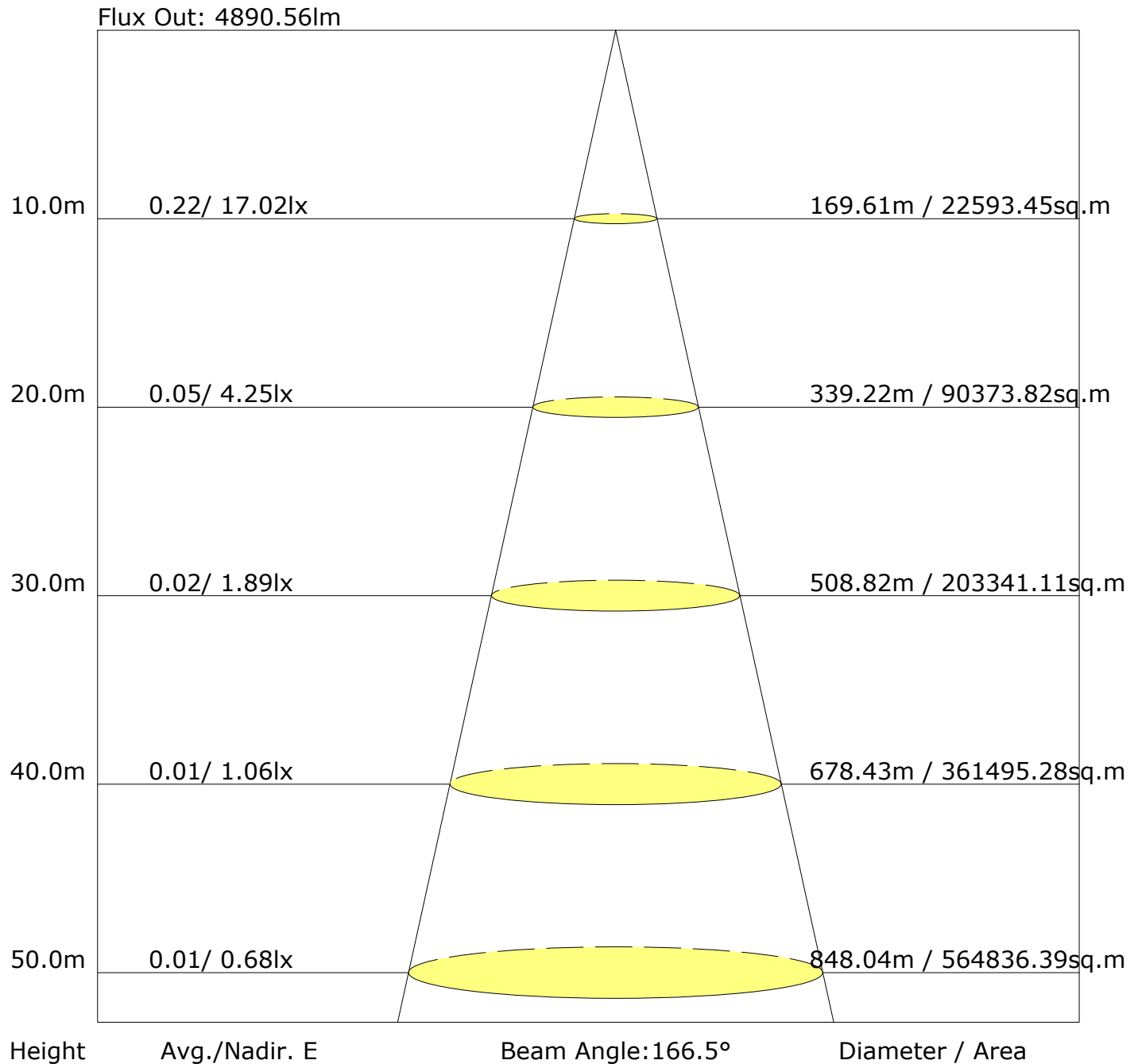
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## 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:

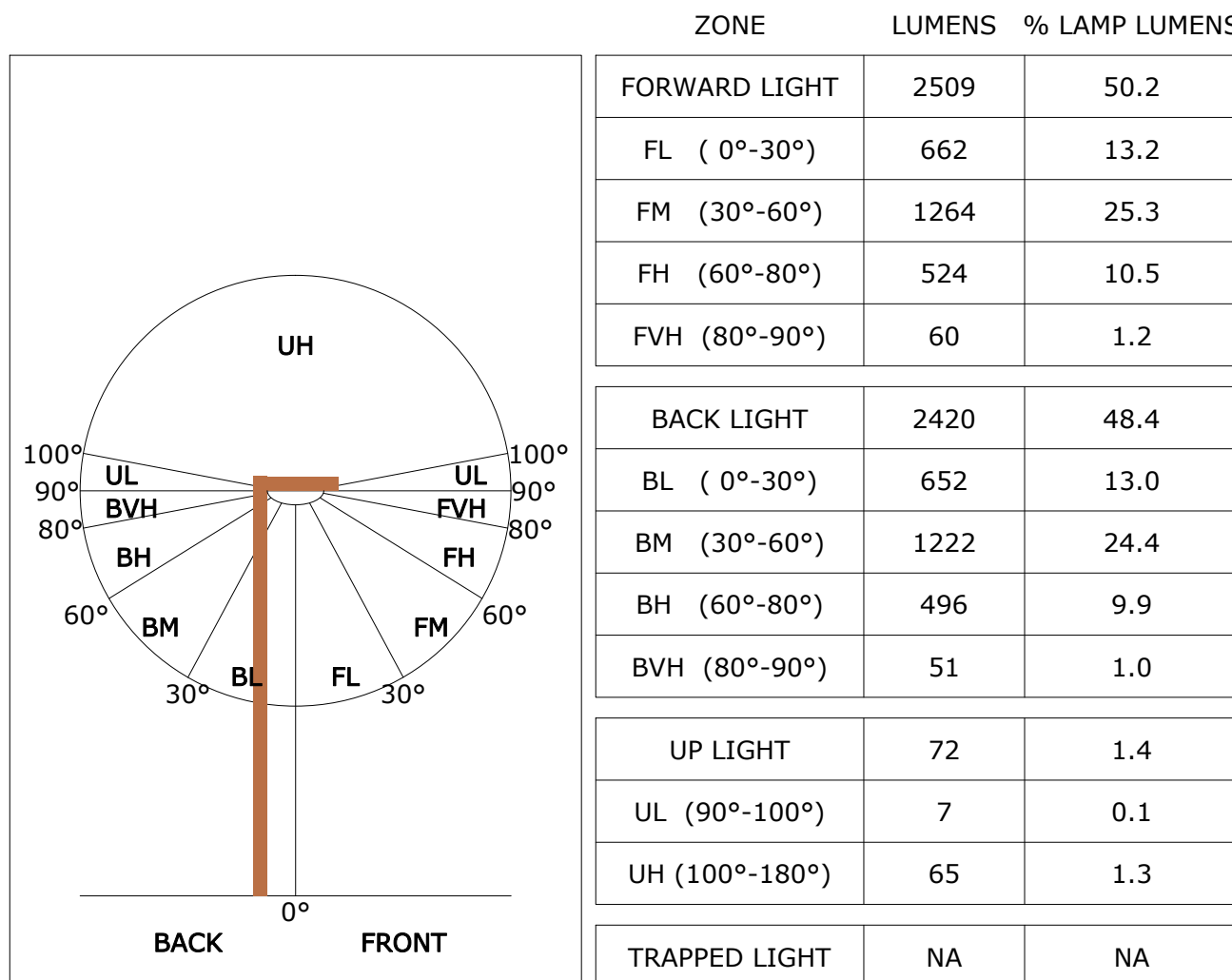
Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	15.2	16.6	15.6	16.9	17.2	14.7	16.1	15.0	16.3	16.6
3H	17.1	18.3	17.4	18.6	18.9	16.1	17.4	16.5	17.7	18.0
4H	18.0	19.1	18.3	19.5	19.8	16.7	17.9	17.0	18.2	18.5
6H	18.8	19.9	19.1	20.2	20.6	17.0	18.1	17.4	18.5	18.8
8H	19.1	20.1	19.5	20.5	20.9	17.1	18.2	17.5	18.5	18.9
12H	19.2	20.2	19.6	20.6	21.0	17.1	18.2	17.5	18.5	18.9
X=4H Y=2H	15.9	17.1	16.2	17.4	17.7	15.4	16.6	15.8	16.9	17.3
3H	17.9	18.9	18.3	19.3	19.7	17.1	18.1	17.5	18.5	18.8
4H	18.9	19.9	19.4	20.2	20.7	17.7	18.7	18.2	19.0	19.5
6H	19.9	20.7	20.4	21.1	21.6	18.2	19.0	18.7	19.4	19.9
8H	20.3	21.0	20.7	21.5	21.9	18.3	19.1	18.8	19.5	20.0
12H	20.5	21.2	21.0	21.6	22.1	18.4	19.1	18.9	19.5	20.0
X=8H Y=4H	19.2	20.0	19.7	20.4	20.9	18.2	18.9	18.6	19.3	19.8
6H	20.4	21.0	20.9	21.5	22.0	18.8	19.4	19.3	19.9	20.4
8H	20.9	21.4	21.4	21.9	22.4	19.0	19.6	19.5	20.0	20.6
12H	21.1	21.6	21.7	22.1	22.6	19.2	19.6	19.7	20.1	20.7
X=12H Y=4H	19.2	19.9	19.7	20.4	20.8	18.2	18.9	18.7	19.4	19.8
6H	20.4	21.0	20.9	21.5	22.0	18.9	19.5	19.4	20.0	20.5
8H	21.0	21.5	21.5	21.9	22.5	19.2	19.7	19.7	20.2	20.7
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 5001lm ( $8\log(F/F_0) = 5.6$ ).

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:

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

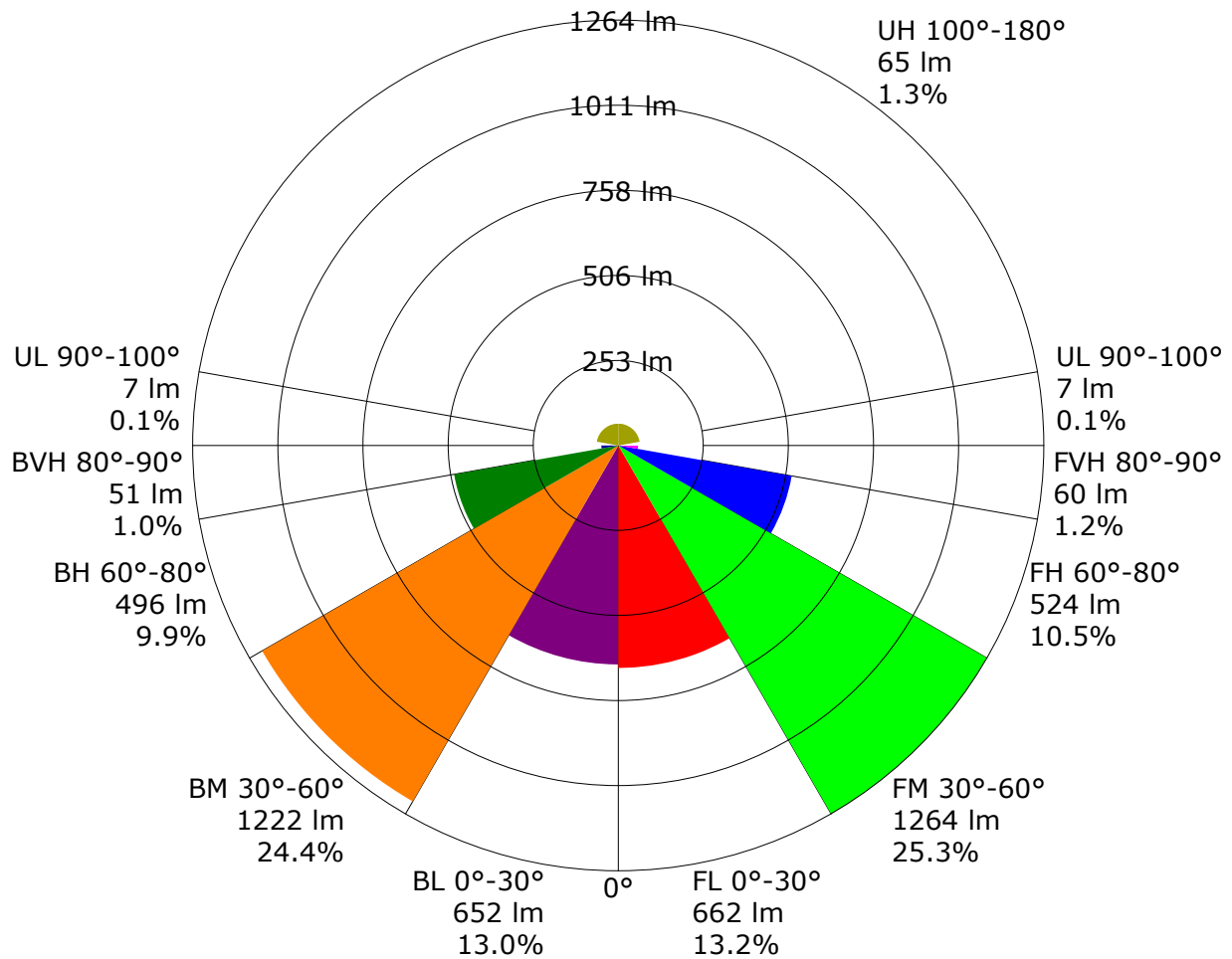


BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B2 U2 G1
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B2 U2 G1

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= 1264 lm

Trapped Light:NA,NA



## 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	
<p>Rating:38W 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:

## 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	0.21	
	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:38W 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(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	
Rating:38W 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:

## 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	1701.7	1.6	1.6	0.03	0.03
1.0-2.0	1701.1	4.9	6.5	0.10	0.13
2.0-3.0	1699.7	8.1	14.6	0.16	0.29
3.0-4.0	1697.7	11.4	26.0	0.23	0.52
4.0-5.0	1695.1	14.6	40.6	0.29	0.81
5.0-6.0	1691.7	17.8	58.4	0.36	1.17
6.0-7.0	1687.7	21.0	79.3	0.42	1.59
7.0-8.0	1683.2	24.1	103.4	0.48	2.07
8.0-9.0	1677.8	27.2	130.6	0.54	2.61
9.0-10.0	1672.0	30.3	160.9	0.61	3.22
10.0-11.0	1665.4	33.3	194.2	0.67	3.88
11.0-12.0	1658.2	36.3	230.4	0.72	4.61
12.0-13.0	1650.7	39.2	269.6	0.78	5.39
13.0-14.0	1642.2	42.0	311.6	0.84	6.23
14.0-15.0	1633.1	44.8	356.5	0.90	7.13
15.0-16.0	1623.3	47.6	404.0	0.95	8.08
16.0-17.0	1613.0	50.2	454.3	1.00	9.08
17.0-18.0	1602.6	52.8	507.1	1.06	10.14
18.0-19.0	1591.1	55.4	562.5	1.11	11.25
19.0-20.0	1579.1	57.8	620.3	1.16	12.40
20.0-21.0	1567.0	60.2	680.5	1.20	13.61
21.0-22.0	1553.9	62.5	742.9	1.25	14.85
22.0-23.0	1540.3	64.6	807.6	1.29	16.15
23.0-24.0	1526.1	66.7	874.3	1.33	17.48
24.0-25.0	1511.4	68.7	943.0	1.37	18.85
25.0-26.0	1496.7	70.7	1013.7	1.41	20.27
26.0-27.0	1481.0	72.5	1086.2	1.45	21.72
27.0-28.0	1464.9	74.2	1160.3	1.48	23.20
28.0-29.0	1449.0	75.8	1236.2	1.52	24.72
29.0-30.0	1431.9	77.3	1313.5	1.55	26.26
30.0-31.0	1414.4	78.7	1392.2	1.57	27.84
31.0-32.0	1396.5	80.0	1472.2	1.60	29.44
32.0-33.0	1378.0	81.2	1553.4	1.62	31.06
33.0-34.0	1359.8	82.3	1635.7	1.65	32.70
34.0-35.0	1340.5	83.3	1719.0	1.66	34.37
35.0-36.0	1321.0	84.1	1803.1	1.68	36.05

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	1301.4	84.9	1888.0	1.70	37.75
37.0-38.0	1281.0	85.5	1973.5	1.71	39.46
38.0-39.0	1260.8	86.1	2059.6	1.72	41.18
39.0-40.0	1239.7	86.5	2146.0	1.73	42.91
40.0-41.0	1218.3	86.8	2232.8	1.73	44.64
41.0-42.0	1197.5	87.0	2319.8	1.74	46.38
42.0-43.0	1175.7	87.1	2406.9	1.74	48.12
43.0-44.0	1153.5	87.1	2494.0	1.74	49.87
44.0-45.0	1131.3	87.0	2580.9	1.74	51.60
45.0-46.0	1108.6	86.7	2667.7	1.73	53.34
46.0-47.0	1086.1	86.4	2754.0	1.73	55.06
47.0-48.0	1062.7	85.9	2840.0	1.72	56.78
48.0-49.0	1039.0	85.3	2925.3	1.71	58.49
49.0-50.0	1016.2	84.7	3010.0	1.69	60.18
50.0-51.0	992.1	83.9	3094.0	1.68	61.86
51.0-52.0	967.9	83.1	3177.1	1.66	63.52
52.0-53.0	944.0	82.1	3259.2	1.64	65.16
53.0-54.0	919.3	81.0	3340.2	1.62	66.78
54.0-55.0	895.0	79.9	3420.1	1.60	68.38
55.0-56.0	870.0	78.6	3498.7	1.57	69.95
56.0-57.0	844.8	77.3	3576.0	1.54	71.50
57.0-58.0	820.5	75.9	3651.9	1.52	73.02
58.0-59.0	794.7	74.3	3726.2	1.49	74.50
59.0-60.0	769.1	72.7	3798.9	1.45	75.95
60.0-61.0	743.4	70.9	3869.8	1.42	77.37
61.0-62.0	717.4	69.1	3938.9	1.38	78.76
62.0-63.0	692.7	67.4	4006.3	1.35	80.10
63.0-64.0	666.8	65.4	4071.8	1.31	81.41
64.0-65.0	640.7	63.4	4135.2	1.27	82.68
65.0-66.0	615.8	61.4	4196.6	1.23	83.91
66.0-67.0	589.9	59.3	4255.9	1.19	85.09
67.0-68.0	564.1	57.2	4313.1	1.14	86.24
68.0-69.0	538.4	54.9	4368.0	1.10	87.34
69.0-70.0	512.8	52.7	4420.7	1.05	88.39
70.0-71.0	488.2	50.5	4471.2	1.01	89.40
71.0-72.0	462.8	48.1	4519.3	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	437.8	45.8	4565.1	0.92	91.28
73.0-74.0	413.9	43.5	4608.6	0.87	92.15
74.0-75.0	389.0	41.1	4649.7	0.82	92.97
75.0-76.0	364.4	38.7	4688.4	0.77	93.74
76.0-77.0	339.9	36.2	4724.7	0.72	94.47
77.0-78.0	315.6	33.8	4758.4	0.68	95.14
78.0-79.0	291.8	31.4	4789.8	0.63	95.77
79.0-80.0	265.8	28.7	4818.5	0.57	96.34
80.0-81.0	238.2	25.8	4844.2	0.52	96.86
81.0-82.0	208.5	22.6	4866.8	0.45	97.31
82.0-83.0	175.2	19.0	4885.9	0.38	97.69
83.0-84.0	140.0	15.3	4901.1	0.31	97.99
84.0-85.0	103.9	11.3	4912.5	0.23	98.22
85.0-86.0	69.8	7.6	4920.1	0.15	98.37
86.0-87.0	42.8	4.7	4924.8	0.09	98.47
87.0-88.0	23.0	2.5	4927.3	0.05	98.52
88.0-89.0	11.2	1.2	4928.5	0.02	98.54
89.0-90.0	7.2	0.8	4929.3	0.02	98.56
90.0-91.0	6.0	0.7	4930.0	0.01	98.57
91.0-92.0	5.8	0.6	4930.6	0.01	98.58
92.0-93.0	5.9	0.6	4931.3	0.01	98.60
93.0-94.0	6.1	0.7	4931.9	0.01	98.61
94.0-95.0	6.3	0.7	4932.6	0.01	98.62
95.0-96.0	6.5	0.7	4933.3	0.01	98.64
96.0-97.0	6.7	0.7	4934.1	0.01	98.65
97.0-98.0	6.9	0.7	4934.8	0.01	98.67
98.0-99.0	7.1	0.8	4935.6	0.02	98.68
99.0-100.0	7.2	0.8	4936.4	0.02	98.70
100.0-101.0	7.4	0.8	4937.2	0.02	98.71
101.0-102.0	7.6	0.8	4938.0	0.02	98.73
102.0-103.0	7.8	0.8	4938.8	0.02	98.75
103.0-104.0	8.0	0.9	4939.7	0.02	98.76
104.0-105.0	8.2	0.9	4940.6	0.02	98.78
105.0-106.0	8.4	0.9	4941.4	0.02	98.80
106.0-107.0	8.6	0.9	4942.3	0.02	98.82
107.0-108.0	8.8	0.9	4943.3	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	8.9	0.9	4944.2	0.02	98.85
109.0-110.0	9.1	0.9	4945.1	0.02	98.87
110.0-111.0	9.4	1.0	4946.1	0.02	98.89
111.0-112.0	9.6	1.0	4947.1	0.02	98.91
112.0-113.0	9.7	1.0	4948.1	0.02	98.93
113.0-114.0	9.9	1.0	4949.0	0.02	98.95
114.0-115.0	10.1	1.0	4950.1	0.02	98.97
115.0-116.0	10.2	1.0	4951.1	0.02	98.99
116.0-117.0	10.4	1.0	4952.1	0.02	99.01
117.0-118.0	10.6	1.0	4953.1	0.02	99.03
118.0-119.0	10.8	1.0	4954.2	0.02	99.05
119.0-120.0	11.0	1.1	4955.2	0.02	99.08
120.0-121.0	11.2	1.1	4956.3	0.02	99.10
121.0-122.0	11.4	1.1	4957.3	0.02	99.12
122.0-123.0	11.6	1.1	4958.4	0.02	99.14
123.0-124.0	11.8	1.1	4959.5	0.02	99.16
124.0-125.0	12.0	1.1	4960.6	0.02	99.18
125.0-126.0	12.2	1.1	4961.7	0.02	99.20
126.0-127.0	12.4	1.1	4962.8	0.02	99.23
127.0-128.0	12.6	1.1	4963.8	0.02	99.25
128.0-129.0	12.8	1.1	4964.9	0.02	99.27
129.0-130.0	13.0	1.1	4966.0	0.02	99.29
130.0-131.0	13.2	1.1	4967.1	0.02	99.31
131.0-132.0	13.4	1.1	4968.2	0.02	99.34
132.0-133.0	13.6	1.1	4969.3	0.02	99.36
133.0-134.0	13.7	1.1	4970.4	0.02	99.38
134.0-135.0	13.9	1.1	4971.5	0.02	99.40
135.0-136.0	14.1	1.1	4972.6	0.02	99.42
136.0-137.0	14.3	1.1	4973.7	0.02	99.44
137.0-138.0	14.5	1.1	4974.8	0.02	99.47
138.0-139.0	14.6	1.1	4975.8	0.02	99.49
139.0-140.0	14.8	1.1	4976.9	0.02	99.51
140.0-141.0	15.0	1.0	4977.9	0.02	99.53
141.0-142.0	15.1	1.0	4978.9	0.02	99.55
142.0-143.0	15.3	1.0	4980.0	0.02	99.57
143.0-144.0	15.5	1.0	4981.0	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	15.6	1.0	4982.0	0.02	99.61
145.0-146.0	15.8	1.0	4983.0	0.02	99.63
146.0-147.0	15.9	1.0	4983.9	0.02	99.65
147.0-148.0	16.1	0.9	4984.9	0.02	99.67
148.0-149.0	16.2	0.9	4985.8	0.02	99.69
149.0-150.0	16.4	0.9	4986.7	0.02	99.70
150.0-151.0	16.5	0.9	4987.6	0.02	99.72
151.0-152.0	16.6	0.9	4988.5	0.02	99.74
152.0-153.0	16.7	0.8	4989.3	0.02	99.76
153.0-154.0	16.9	0.8	4990.1	0.02	99.77
154.0-155.0	17.0	0.8	4990.9	0.02	99.79
155.0-156.0	17.1	0.8	4991.7	0.02	99.81
156.0-157.0	17.2	0.8	4992.5	0.02	99.82
157.0-158.0	17.3	0.7	4993.2	0.01	99.83
158.0-159.0	17.5	0.7	4993.9	0.01	99.85
159.0-160.0	17.6	0.7	4994.6	0.01	99.86
160.0-161.0	17.6	0.6	4995.2	0.01	99.88
161.0-162.0	17.7	0.6	4995.8	0.01	99.89
162.0-163.0	17.9	0.6	4996.4	0.01	99.90
163.0-164.0	17.9	0.6	4997.0	0.01	99.91
164.0-165.0	18.0	0.5	4997.5	0.01	99.92
165.0-166.0	18.1	0.5	4998.0	0.01	99.93
166.0-167.0	18.2	0.5	4998.5	0.01	99.94
167.0-168.0	18.3	0.4	4998.9	0.01	99.95
168.0-169.0	18.4	0.4	4999.3	0.01	99.96
169.0-170.0	18.4	0.4	4999.7	0.01	99.96
170.0-171.0	18.5	0.3	5000.0	0.01	99.97
171.0-172.0	18.6	0.3	5000.3	0.01	99.98
172.0-173.0	18.6	0.3	5000.6	0.01	99.98
173.0-174.0	18.7	0.2	5000.8	0.00	99.99
174.0-175.0	18.7	0.2	5001.0	0.00	99.99
175.0-176.0	18.8	0.2	5001.2	0.00	99.99
176.0-177.0	18.8	0.1	5001.3	0.00	100.00
177.0-178.0	18.8	0.1	5001.4	0.00	100.00
178.0-179.0	18.9	0.1	5001.4	0.00	100.00
179.0-180.0	18.9	0.0	5001.5	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°): 2580.95 lm

%lum = 51.6%  
%lamp = 51.6%

cone flux(120°): 3798.86 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	1701.9	1701.9	1701.9	1701.9	1701.9	1701.9	1701.9	1701.9	1701.9	1701.9
G1.0	1702.3	1702.9	1703.0	1702.9	1702.1	1701.5	1700.8	1700.3	1700.2	1700.7
G2.0	1702.5	1703.0	1703.3	1702.7	1701.8	1700.3	1699.1	1698.1	1698.0	1698.5
G3.0	1701.6	1702.7	1702.9	1701.9	1700.2	1698.8	1696.7	1695.3	1694.9	1695.7
G4.0	1700.1	1701.7	1702.0	1700.3	1698.4	1696.2	1693.4	1691.6	1691.2	1692.2
G5.0	1697.8	1700.1	1700.3	1698.4	1696.0	1693.8	1689.9	1688.0	1686.8	1687.9
G6.0	1695.2	1697.5	1697.5	1695.6	1692.4	1689.8	1685.0	1682.8	1681.5	1682.8
G7.0	1692.1	1694.9	1694.5	1692.0	1688.8	1685.7	1680.3	1678.1	1676.1	1677.6
G8.0	1688.2	1691.5	1690.9	1688.1	1684.3	1681.0	1674.7	1671.8	1669.4	1671.1
G9.0	1683.5	1686.8	1686.1	1682.8	1678.8	1675.3	1668.6	1665.7	1662.5	1664.2
G10.0	1678.2	1682.3	1681.0	1677.4	1673.1	1669.6	1662.1	1658.6	1655.3	1656.9
G11.0	1672.4	1676.5	1675.3	1670.8	1666.1	1662.8	1654.7	1650.4	1646.3	1648.7
G12.0	1666.1	1670.9	1668.8	1664.0	1659.0	1655.5	1646.8	1642.3	1637.8	1640.1
G13.0	1659.5	1664.6	1661.6	1656.2	1651.4	1648.0	1638.6	1633.8	1628.9	1630.4
G14.0	1651.3	1656.5	1653.5	1647.9	1642.5	1638.9	1629.2	1623.9	1617.8	1619.9
G15.0	1643.5	1649.0	1645.4	1639.3	1634.0	1630.3	1620.0	1614.0	1607.6	1609.4
G16.0	1634.2	1639.7	1636.2	1628.7	1623.1	1619.7	1609.4	1602.8	1595.6	1597.7
G17.0	1625.6	1631.1	1626.6	1618.6	1613.3	1609.9	1599.3	1592.3	1584.0	1586.2
G18.0	1616.3	1621.3	1616.8	1608.1	1602.6	1598.9	1588.4	1580.7	1572.1	1573.8
G19.0	1605.2	1610.8	1605.0	1596.1	1590.5	1587.8	1576.3	1567.9	1558.8	1560.2
G20.0	1595.1	1600.6	1594.1	1584.5	1578.8	1576.2	1564.3	1555.2	1545.2	1546.4
G21.0	1583.7	1589.1	1582.1	1571.9	1565.9	1563.8	1552.4	1542.6	1531.8	1532.7
G22.0	1571.5	1576.8	1569.0	1558.1	1552.0	1550.3	1539.0	1527.9	1516.0	1517.6
G23.0	1559.8	1564.9	1556.4	1544.8	1538.4	1537.5	1525.7	1513.9	1501.7	1503.0
G24.0	1545.9	1550.7	1541.8	1529.3	1523.1	1522.2	1511.0	1498.6	1485.4	1485.8
G25.0	1533.0	1538.1	1527.6	1514.9	1508.3	1508.5	1497.1	1484.1	1469.5	1470.7
G26.0	1519.5	1524.3	1513.0	1499.3	1493.7	1493.3	1482.1	1469.3	1453.7	1453.6
G27.0	1504.7	1509.2	1496.8	1482.7	1477.1	1477.6	1466.3	1451.5	1436.1	1435.6
G28.0	1490.7	1494.4	1481.5	1466.2	1460.7	1461.8	1451.4	1435.9	1418.8	1419.0
G29.0	1475.7	1479.6	1465.3	1450.1	1444.8	1446.1	1435.2	1419.4	1401.8	1400.9
G30.0	1459.3	1463.2	1447.7	1430.9	1425.8	1428.5	1418.1	1401.2	1382.1	1381.8
G31.0	1443.4	1446.8	1430.5	1413.6	1408.7	1411.6	1401.4	1384.4	1364.4	1362.8
G32.0	1426.3	1429.5	1412.0	1394.6	1389.7	1393.3	1383.4	1364.8	1344.6	1342.7
G33.0	1410.2	1412.2	1394.5	1375.8	1371.0	1375.3	1365.6	1346.5	1325.1	1322.9
G34.0	1393.0	1395.6	1376.1	1357.2	1353.0	1358.0	1347.6	1328.5	1305.7	1302.8
G35.0	1374.7	1376.3	1356.1	1335.8	1331.8	1337.5	1328.3	1307.7	1284.4	1281.5
G36.0	1357.0	1358.5	1336.8	1316.6	1312.8	1319.4	1310.7	1289.0	1264.1	1261.8

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	1338.7	1339.8	1316.8	1296.0	1292.5	1299.8	1290.2	1268.6	1242.3	1239.5
G38.0	1319.0	1319.9	1295.6	1273.9	1270.9	1279.0	1271.9	1248.5	1222.3	1218.2
G39.0	1300.3	1300.5	1276.3	1252.6	1250.0	1259.9	1252.1	1229.1	1200.8	1197.4
G40.0	1280.0	1279.7	1253.1	1229.9	1227.5	1237.7	1231.6	1206.6	1178.1	1173.4
G41.0	1260.4	1259.8	1232.0	1208.0	1205.6	1217.0	1212.4	1186.5	1156.0	1151.0
G42.0	1241.6	1240.1	1211.4	1186.8	1184.8	1196.9	1191.8	1165.5	1134.8	1129.2
G43.0	1219.5	1217.7	1188.3	1161.8	1160.1	1174.7	1170.2	1143.0	1111.2	1105.4
G44.0	1200.1	1197.7	1166.2	1140.0	1138.7	1153.0	1150.4	1122.3	1088.3	1082.0
G45.0	1179.6	1176.4	1143.6	1116.5	1115.6	1131.6	1127.4	1098.5	1064.2	1057.5
G46.0	1157.8	1153.8	1119.7	1092.0	1091.3	1108.6	1107.1	1077.3	1040.7	1034.9
G47.0	1136.7	1131.9	1097.2	1067.9	1067.8	1086.4	1085.4	1055.2	1018.5	1011.1
G48.0	1114.2	1108.9	1071.6	1042.6	1042.8	1062.7	1062.6	1031.7	992.4	984.8
G49.0	1092.7	1086.6	1047.9	1018.2	1018.8	1039.9	1040.7	1009.1	969.5	961.5
G50.0	1071.9	1065.0	1025.0	994.6	995.5	1018.0	1018.6	987.1	945.1	937.8
G51.0	1048.0	1040.4	998.4	967.4	968.6	992.6	995.4	961.9	919.7	910.8
G52.0	1026.8	1017.2	975.0	942.1	944.7	970.4	973.9	939.7	896.4	886.8
G53.0	1004.4	995.3	950.0	917.8	919.9	946.9	949.4	915.4	869.1	859.3
G54.0	980.9	969.7	924.0	889.8	892.5	922.1	927.6	891.8	845.2	835.0
G55.0	958.2	947.3	898.7	865.0	868.1	898.1	904.6	869.4	820.2	810.4
G56.0	934.5	921.2	872.0	836.5	840.0	873.1	880.7	843.2	793.7	782.2
G57.0	911.6	898.5	846.3	811.1	815.2	848.8	857.7	820.5	768.5	757.4
G58.0	888.4	874.5	820.6	784.5	789.2	824.7	835.6	796.5	744.0	731.3
G59.0	863.0	848.2	792.3	755.1	760.6	798.1	810.1	771.2	716.1	703.9
G60.0	840.9	824.0	767.4	729.6	734.3	774.8	787.7	747.2	691.5	677.4
G61.0	815.3	798.4	738.7	699.6	706.5	748.2	763.1	721.8	663.1	649.7
G62.0	792.7	774.0	713.5	672.5	680.0	724.6	739.8	697.6	638.3	622.9
G63.0	769.3	750.6	687.1	646.3	654.3	699.9	717.4	674.4	612.3	597.1
G64.0	744.5	723.8	659.2	617.3	625.2	673.0	692.1	649.0	584.9	567.7
G65.0	721.0	700.0	632.3	589.7	599.5	649.3	670.3	624.8	558.8	542.0
G66.0	697.6	675.3	606.6	561.9	572.6	624.9	647.4	601.9	534.0	514.9
G67.0	673.5	649.4	577.4	532.7	544.3	599.0	623.8	576.1	506.8	486.5
G68.0	650.4	624.7	550.6	504.5	517.3	575.0	601.3	553.5	480.8	460.4
G69.0	626.8	599.2	522.7	475.4	489.3	549.9	577.6	528.1	453.8	432.2
G70.0	603.9	575.2	496.0	447.3	462.4	526.3	556.1	506.2	429.2	405.1
G71.0	581.5	551.2	470.5	419.2	435.8	503.8	533.7	483.1	403.6	378.1
G72.0	557.8	526.5	441.4	389.9	408.2	478.5	510.5	459.3	377.1	349.9
G73.0	536.5	503.0	416.2	361.9	381.9	455.4	489.3	437.6	352.1	324.5

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	514.1	480.5	389.9	335.2	357.0	433.3	467.3	415.2	328.7	298.0
G75.0	490.8	455.2	362.7	306.1	329.1	408.5	443.2	390.7	302.2	270.6
G76.0	468.7	433.3	337.1	278.8	304.8	386.9	421.9	369.4	278.9	245.2
G77.0	444.7	408.4	311.0	249.5	278.0	362.4	394.2	345.1	255.2	217.5
G78.0	423.6	386.7	286.8	224.4	255.3	341.2	366.2	321.2	233.2	194.1
G79.0	400.0	364.0	263.1	198.6	232.5	317.6	331.6	291.8	212.6	170.0
G80.0	370.2	339.9	239.1	171.3	208.2	289.6	288.7	255.0	189.7	146.0
G81.0	337.6	313.1	217.0	148.5	187.7	258.3	240.2	214.2	170.1	124.1
G82.0	299.0	281.2	194.8	125.5	167.0	221.1	179.2	163.3	148.5	102.5
G83.0	251.3	242.4	172.5	102.9	145.8	175.0	112.1	105.3	123.8	83.2
G84.0	199.4	199.2	152.4	82.9	125.9	122.1	56.8	48.6	94.5	66.6
G85.0	129.3	145.0	126.7	64.1	103.6	61.8	21.5	18.9	58.0	49.8
G86.0	66.0	85.0	99.6	48.2	79.7	25.3	8.3	10.8	20.0	37.3
G87.0	29.9	36.8	67.6	35.5	51.9	8.0	6.9	9.3	11.2	26.1
G88.0	9.4	13.6	29.3	23.7	17.5	5.9	6.3	7.8	7.5	16.0
G89.0	6.2	9.0	10.9	15.0	6.5	5.4	6.1	6.5	5.9	8.4
G90.0	5.6	7.5	7.8	7.8	4.7	5.4	6.0	6.4	6.1	6.1
G91.0	5.2	6.2	4.7	4.8	4.9	5.5	6.3	6.7	6.3	6.3
G92.0	5.2	5.2	4.7	5.1	5.1	5.7	6.4	6.8	6.5	6.5
G93.0	5.4	5.3	5.0	5.2	5.3	5.9	6.7	7.0	6.8	6.7
G94.0	5.5	5.5	5.2	5.4	5.5	6.0	6.9	7.2	6.9	6.9
G95.0	5.8	5.7	5.3	5.6	5.7	6.2	7.1	7.3	7.1	7.1
G96.0	6.0	5.9	5.5	5.8	5.9	6.4	7.2	7.6	7.3	7.3
G97.0	6.1	6.1	5.8	6.0	6.2	6.6	7.5	7.7	7.5	7.5
G98.0	6.3	6.2	5.9	6.2	6.3	6.8	7.6	7.9	7.8	7.7
G99.0	6.5	6.4	6.1	6.4	6.5	7.0	7.7	8.1	7.9	7.9
G100.0	6.7	6.6	6.3	6.6	6.7	7.2	7.9	8.3	8.1	8.0
G101.0	6.9	6.8	6.5	6.8	7.0	7.4	8.1	8.5	8.3	8.2
G102.0	7.0	7.0	6.7	7.0	7.2	7.6	8.3	8.7	8.5	8.4
G103.0	7.2	7.2	6.9	7.1	7.3	7.7	8.5	8.8	8.6	8.6
G104.0	7.4	7.4	7.0	7.4	7.5	7.9	8.7	9.1	8.8	8.7
G105.0	7.6	7.5	7.2	7.5	7.7	8.1	8.9	9.2	9.1	9.1
G106.0	7.8	7.7	7.5	7.7	7.8	8.3	9.0	9.5	9.2	9.2
G107.0	8.0	7.9	7.6	8.0	8.0	8.5	9.2	9.5	9.4	9.5
G108.0	8.1	8.1	7.7	8.1	8.2	8.7	9.4	9.7	9.6	9.5
G109.0	8.3	8.2	8.0	8.3	8.5	8.9	9.7	9.9	9.8	9.8
G110.0	8.6	8.5	8.2	8.5	8.8	9.1	9.8	10.1	10.0	9.9

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 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	8.7	8.7	8.3	8.7	9.0	9.3	9.9	10.3	10.4	10.1
G112.0	8.9	8.8	8.6	8.8	9.4	9.6	10.2	10.5	10.5	10.3
G113.0	9.1	9.1	8.7	9.1	9.4	9.6	10.3	10.6	10.7	10.4
G114.0	9.3	9.2	8.9	9.3	9.4	9.8	10.5	10.8	10.8	10.7
G115.0	9.4	9.4	9.2	9.4	9.6	10.1	10.7	11.0	10.9	10.8
G116.0	9.6	9.6	9.3	9.6	9.9	10.3	10.9	11.1	11.1	11.0
G117.0	9.8	9.8	9.5	9.8	10.0	10.5	11.0	11.4	11.3	11.2
G118.0	10.0	9.9	9.7	10.0	10.2	10.7	11.2	11.6	11.5	11.4
G119.0	10.2	10.1	9.8	10.2	10.3	10.8	11.4	11.8	11.6	11.6
G120.0	10.4	10.3	10.1	10.3	10.7	11.1	11.6	12.0	11.9	11.7
G121.0	10.6	10.6	10.2	10.5	10.8	11.2	11.8	12.2	12.1	11.9
G122.0	10.8	10.8	10.5	10.7	11.0	11.5	12.1	12.4	12.2	12.1
G123.0	11.0	10.9	10.6	11.0	11.2	11.6	12.2	12.5	12.6	12.3
G124.0	11.2	11.1	10.8	11.1	11.3	11.9	12.5	12.7	12.6	12.4
G125.0	11.4	11.4	11.0	11.3	11.6	12.0	12.6	13.0	12.7	12.7
G126.0	11.6	11.6	11.2	11.5	11.8	12.3	12.8	13.2	12.9	12.8
G127.0	11.8	11.8	11.4	11.6	11.9	12.5	13.0	13.4	13.2	12.9
G128.0	12.1	12.1	11.6	11.8	12.1	12.7	13.2	13.6	13.3	13.2
G129.0	12.2	12.2	11.8	12.0	12.3	12.9	13.4	13.7	13.5	13.4
G130.0	12.5	12.4	12.0	12.3	12.6	13.2	13.7	14.0	13.8	13.7
G131.0	12.6	12.8	12.1	12.5	12.6	13.2	13.8	14.2	13.8	13.8
G132.0	12.8	12.9	12.4	12.7	12.8	13.4	14.0	14.4	14.1	14.0
G133.0	13.1	13.1	12.6	12.8	13.0	13.7	14.2	14.6	14.2	14.2
G134.0	13.4	13.2	12.6	13.0	13.2	13.9	14.4	14.8	14.4	14.3
G135.0	13.6	13.4	12.9	13.2	13.4	14.1	14.6	15.0	14.6	14.5
G136.0	13.7	13.6	13.2	13.4	13.6	14.3	14.7	15.2	14.8	14.7
G137.0	13.9	13.7	13.3	13.6	13.8	14.8	14.9	15.4	15.0	14.9
G138.0	14.0	13.9	13.5	13.9	14.0	14.8	15.1	15.6	15.1	15.0
G139.0	14.1	14.1	13.7	14.0	14.2	14.9	15.3	15.7	15.3	15.2
G140.0	14.3	14.3	13.9	14.2	14.3	14.9	15.5	15.8	15.4	15.4
G141.0	14.5	14.4	14.1	14.4	14.6	15.1	15.6	16.0	15.7	15.6
G142.0	14.6	14.6	14.3	14.6	14.8	15.2	15.8	16.1	15.8	15.8
G143.0	14.8	14.7	14.5	14.8	15.0	15.4	16.0	16.2	16.0	15.9
G144.0	15.0	14.9	14.7	14.9	15.1	15.6	16.1	16.4	16.1	16.0
G145.0	15.1	15.0	14.8	15.1	15.2	15.7	16.2	16.5	16.3	16.2
G146.0	15.3	15.2	15.0	15.3	15.4	15.9	16.4	16.6	16.4	16.3
G147.0	15.5	15.4	15.1	15.4	15.5	16.0	16.5	16.8	16.6	16.5

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 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	15.6	15.5	15.2	15.6	15.6	16.1	16.7	16.8	16.7	16.7
G149.0	15.8	15.6	15.4	15.7	15.8	16.3	16.8	17.0	16.8	16.8
G150.0	15.9	15.8	15.6	15.9	16.0	16.4	16.9	17.1	16.9	16.9
G151.0	16.1	16.0	15.7	16.0	16.1	16.5	17.0	17.2	17.0	17.0
G152.0	16.2	16.1	15.9	16.2	16.3	16.7	17.1	17.3	17.2	17.2
G153.0	16.4	16.2	16.0	16.3	16.4	16.8	17.2	17.4	17.2	17.3
G154.0	16.5	16.4	16.1	16.5	16.5	17.0	17.4	17.5	17.4	17.4
G155.0	16.7	16.5	16.3	16.7	16.7	17.0	17.5	17.6	17.4	17.5
G156.0	16.8	16.6	16.4	16.7	16.7	17.2	17.5	17.8	17.6	17.7
G157.0	16.9	16.7	16.6	16.9	16.9	17.4	17.6	17.8	17.7	17.8
G158.0	17.0	16.9	16.7	17.0	17.0	17.5	17.8	18.0	17.8	17.9
G159.0	17.1	17.0	16.8	17.1	17.2	17.6	17.8	18.1	18.0	18.0
G160.0	17.2	17.1	16.9	17.2	17.3	17.7	17.9	18.1	18.0	18.1
G161.0	17.3	17.2	17.0	17.3	17.4	17.7	17.9	18.2	18.0	18.2
G162.0	17.4	17.4	17.2	17.5	17.5	17.9	18.1	18.3	18.2	18.3
G163.0	17.5	17.4	17.2	17.6	17.6	18.0	18.1	18.4	18.3	18.4
G164.0	17.6	17.5	17.4	17.7	17.7	18.1	18.2	18.5	18.3	18.5
G165.0	17.7	17.6	17.5	17.8	17.9	18.3	18.2	18.6	18.4	18.5
G166.0	17.8	17.8	17.6	18.0	17.9	18.3	18.3	18.6	18.5	18.6
G167.0	17.9	17.9	17.7	18.1	18.0	18.4	18.4	18.7	18.5	18.7
G168.0	18.0	18.1	17.8	18.1	18.2	18.5	18.4	18.7	18.5	18.7
G169.0	18.0	18.1	18.0	18.3	18.2	18.7	18.5	18.7	18.6	18.8
G170.0	18.1	18.2	18.1	18.4	18.2	18.7	18.5	18.8	18.7	18.8
G171.0	18.2	18.3	18.1	18.5	18.4	18.8	18.6	18.8	18.6	18.8
G172.0	18.3	18.4	18.2	18.5	18.5	18.8	18.6	18.9	18.7	18.9
G173.0	18.4	18.5	18.3	18.6	18.5	18.9	18.7	18.8	18.7	19.0
G174.0	18.4	18.5	18.4	18.7	18.5	18.9	18.6	18.9	18.7	18.9
G175.0	18.4	18.7	18.5	18.7	18.6	19.0	18.7	19.0	18.8	19.0
G176.0	18.5	18.7	18.5	18.8	18.7	19.1	18.7	19.0	18.7	19.0
G177.0	18.6	18.8	18.6	18.9	18.7	19.1	18.7	19.0	18.7	19.0
G178.0	18.6	18.8	18.7	18.9	18.7	19.1	18.8	19.0	18.8	19.1
G179.0	18.7	18.9	18.7	19.0	18.8	19.2	18.8	19.0	18.7	19.0
G180.0	18.8	19.0	18.7	19.0	18.9	19.2	18.8	18.9	18.7	19.0

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:

## Candlepower Table (Continue 5)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G0.0	1701.9	1701.9	1701.9							
G1.0	1701.0	1701.4	1702.3							
G2.0	1699.4	1700.5	1702.5							
G3.0	1697.1	1699.0	1701.6							
G4.0	1694.2	1696.7	1700.1							
G5.0	1690.5	1694.1	1697.8							
G6.0	1685.9	1690.2	1695.2							
G7.0	1681.1	1686.4	1692.1							
G8.0	1675.7	1681.5	1688.2							
G9.0	1669.2	1676.1	1683.5							
G10.0	1662.6	1670.7	1678.2							
G11.0	1654.8	1664.1	1672.4							
G12.0	1647.0	1656.8	1666.1							
G13.0	1638.5	1649.4	1659.5							
G14.0	1628.8	1640.7	1651.3							
G15.0	1618.8	1631.7	1643.5							
G16.0	1607.6	1621.8	1634.2							
G17.0	1596.7	1612.2	1625.6							
G18.0	1585.1	1601.8	1616.3							
G19.0	1572.2	1590.3	1605.2							
G20.0	1559.5	1578.3	1595.1							
G21.0	1546.5	1566.8	1583.7							
G22.0	1532.3	1553.5	1571.5							
G23.0	1517.5	1540.4	1559.8							
G24.0	1501.9	1526.1	1545.9							
G25.0	1486.9	1512.5	1533.0							
G26.0	1471.3	1497.6	1519.5							
G27.0	1454.0	1481.9	1504.7							
G28.0	1437.9	1467.0	1490.7							
G29.0	1420.7	1451.2	1475.7							
G30.0	1402.4	1434.1	1459.3							
G31.0	1384.9	1417.9	1443.4							
G32.0	1364.7	1399.1	1426.3							
G33.0	1345.7	1381.5	1410.2							
G34.0	1327.4	1364.0	1393.0							
G35.0	1305.8	1344.1	1374.7							
G36.0	1286.6	1326.1	1357.0							

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:

## Candlepower Table (Continue 6)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G37.0	1264.0	1306.0	1338.7							
G38.0	1244.3	1286.4	1319.0							
G39.0	1223.3	1266.4	1300.3							
G40.0	1200.9	1245.6	1280.0							
G41.0	1180.3	1225.9	1260.4							
G42.0	1158.1	1205.2	1241.6							
G43.0	1134.7	1183.2	1219.5							
G44.0	1112.2	1162.8	1200.1							
G45.0	1088.2	1139.3	1179.6							
G46.0	1066.2	1118.8	1157.8							
G47.0	1042.8	1096.7	1136.7							
G48.0	1018.3	1073.6	1114.2							
G49.0	994.5	1051.0	1092.7							
G50.0	970.5	1028.5	1071.9							
G51.0	945.0	1004.2	1048.0							
G52.0	921.5	982.2	1026.8							
G53.0	894.7	956.8	1004.4							
G54.0	871.0	934.5	980.9							
G55.0	845.7	910.9	958.2							
G56.0	819.4	886.0	934.5							
G57.0	794.0	863.3	911.6							
G58.0	769.6	839.4	888.4							
G59.0	742.7	814.3	863.0							
G60.0	717.0	789.9	840.9							
G61.0	689.8	764.8	815.3							
G62.0	663.6	740.3	792.7							
G63.0	638.7	717.1	769.3							
G64.0	610.3	690.4	744.5							
G65.0	585.2	667.1	721.0							
G66.0	559.1	642.7	697.6							
G67.0	531.8	617.5	673.5							
G68.0	506.8	594.3	650.4							
G69.0	478.2	568.2	626.8							
G70.0	453.4	545.6	603.9							
G71.0	427.6	522.3	581.5							
G72.0	400.7	498.1	557.8							
G73.0	375.5	475.4	536.5							

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 7)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G74.0	351.3	453.6	514.1							
G75.0	324.2	429.1	490.8							
G76.0	301.0	407.9	468.7							
G77.0	275.0	383.8	444.7							
G78.0	253.0	362.9	423.6							
G79.0	231.1	341.2	400.0							
G80.0	208.8	318.1	370.2							
G81.0	188.3	293.2	337.6							
G82.0	167.4	262.9	299.0							
G83.0	148.8	228.4	251.3							
G84.0	130.9	189.7	199.4							
G85.0	109.4	136.9	129.3							
G86.0	86.9	82.3	66.0							
G87.0	59.2	35.9	29.9							
G88.0	24.7	11.4	9.4							
G89.0	8.9	7.4	6.2							
G90.0	5.9	6.4	5.6							
G91.0	6.0	6.3	5.2							
G92.0	6.2	6.3	5.2							
G93.0	6.4	6.6	5.4							
G94.0	6.6	6.8	5.5							
G95.0	6.8	7.0	5.8							
G96.0	7.1	7.2	6.0							
G97.0	7.2	7.3	6.1							
G98.0	7.4	7.6	6.3							
G99.0	7.6	7.7	6.5							
G100.0	7.8	7.8	6.7							
G101.0	8.0	8.1	6.9							
G102.0	8.2	8.3	7.0							
G103.0	8.4	8.5	7.2							
G104.0	8.6	8.7	7.4							
G105.0	8.8	8.8	7.6							
G106.0	8.9	9.1	7.8							
G107.0	9.2	9.3	8.0							
G108.0	9.4	9.4	8.1							
G109.0	9.6	9.5	8.3							
G110.0	9.7	9.8	8.6							

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 8)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G111.0	10.1	10.0	8.7							
G112.0	10.4	10.2	8.9							
G113.0	10.4	10.3	9.1							
G114.0	10.6	10.6	9.3							
G115.0	10.9	10.7	9.4							
G116.0	10.9	10.9	9.6							
G117.0	11.1	11.1	9.8							
G118.0	11.2	11.2	10.0							
G119.0	11.4	11.5	10.2							
G120.0	11.6	11.7	10.4							
G121.0	11.8	11.9	10.6							
G122.0	11.9	12.1	10.8							
G123.0	12.2	12.3	11.0							
G124.0	12.3	12.5	11.2							
G125.0	12.6	12.9	11.4							
G126.0	12.6	13.0	11.6							
G127.0	12.8	13.2	11.8							
G128.0	13.0	13.3	12.1							
G129.0	13.1	13.5	12.2							
G130.0	13.4	13.8	12.5							
G131.0	13.5	14.1	12.6							
G132.0	13.8	14.1	12.8							
G133.0	14.0	14.2	13.1							
G134.0	14.1	14.4	13.4							
G135.0	14.3	14.6	13.6							
G136.0	14.5	14.8	13.7							
G137.0	14.7	14.9	13.9							
G138.0	14.9	15.2	14.0							
G139.0	15.1	15.3	14.1							
G140.0	15.2	15.4	14.3							
G141.0	15.3	15.6	14.5							
G142.0	15.6	15.8	14.6							
G143.0	15.8	15.9	14.8							
G144.0	15.8	16.0	15.0							
G145.0	16.1	16.2	15.1							
G146.0	16.2	16.3	15.3							
G147.0	16.3	16.5	15.5							

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 9)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G148.0	16.4	16.6	15.6							
G149.0	16.6	16.7	15.8							
G150.0	16.7	16.8	15.9							
G151.0	16.8	17.0	16.1							
G152.0	17.0	17.1	16.2							
G153.0	17.1	17.2	16.4							
G154.0	17.2	17.4	16.5							
G155.0	17.3	17.4	16.7							
G156.0	17.5	17.6	16.8							
G157.0	17.4	17.7	16.9							
G158.0	17.6	17.8	17.0							
G159.0	17.7	17.9	17.1							
G160.0	17.8	17.9	17.2							
G161.0	17.8	18.0	17.3							
G162.0	17.8	18.1	17.4							
G163.0	18.0	18.3	17.5							
G164.0	18.1	18.3	17.6							
G165.0	18.2	18.4	17.7							
G166.0	18.3	18.4	17.8							
G167.0	18.3	18.5	17.9							
G168.0	18.4	18.6	18.0							
G169.0	18.5	18.7	18.0							
G170.0	18.5	18.7	18.1							
G171.0	18.6	18.8	18.2							
G172.0	18.6	18.8	18.3							
G173.0	18.7	18.9	18.4							
G174.0	18.7	18.9	18.4							
G175.0	18.7	18.9	18.4							
G176.0	18.9	19.1	18.5							
G177.0	18.8	19.1	18.6							
G178.0	18.9	19.1	18.6							
G179.0	18.8	19.2	18.7							
G180.0	18.8	19.2	18.8							

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	2286.25
L 0-180(75) av	2506.17
L 0-180(85) av	1201.34
L 90-270(65) av	1859.59
L 90-270(75) av	1547.61
L 90-270(85) av	907.40
L 45(65) av	2061.00
L 45(75) av	2013.49
L 45(85) av	1514.49

Standard: GB/T 29293-2012