

Report No.:

Test Time: 2023-04-16 09:34

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog: LED

Number of Lamps: 1

Luminous Length (mm): 1213

Luminous Height (mm):

Current: 0.125 A

Power Factor: 0.991

Luminaire Description:

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 303

Voltage: 119.9 V

Power: 14.88 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 2003.4 lm

Downward Ratio: 98%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 167.3, 157.9, 165.3, 165.7

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 117.2, 107.4, 111.5, 111.5

Luminaire Efficacy Rating (LER): 134.69

Max. Intensity: 687.44 cd

S/MH(C0/C180): 1.26

Total Rated Lamp Lumens: 2003.4 lm

Efficiency: 100%

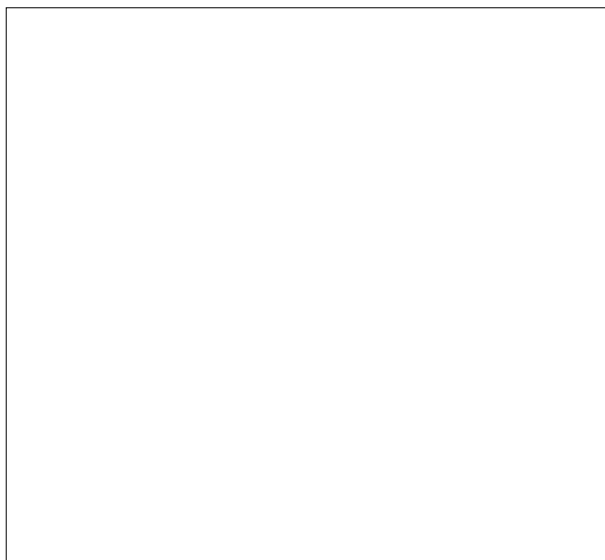
Upward Ratio: 2%

C0r0 Intensity: 687.27 cd

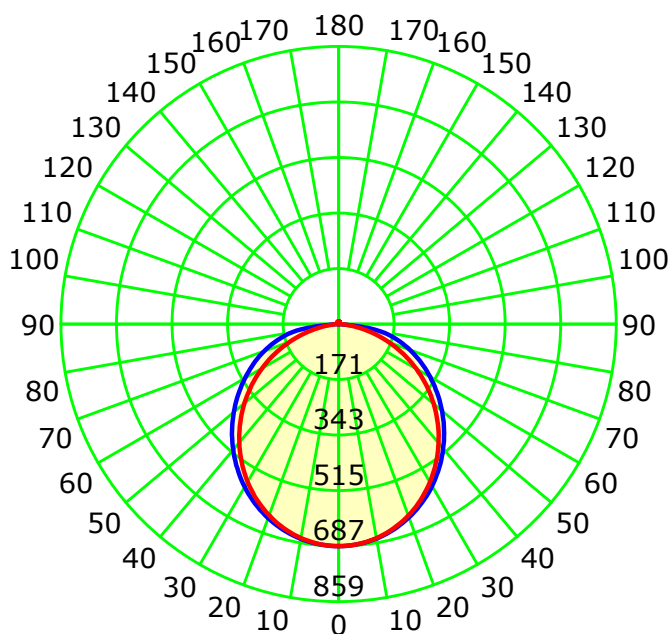
Pos of Max. Intensity: H90 V1

S/MH(C90/C270): 1.22

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

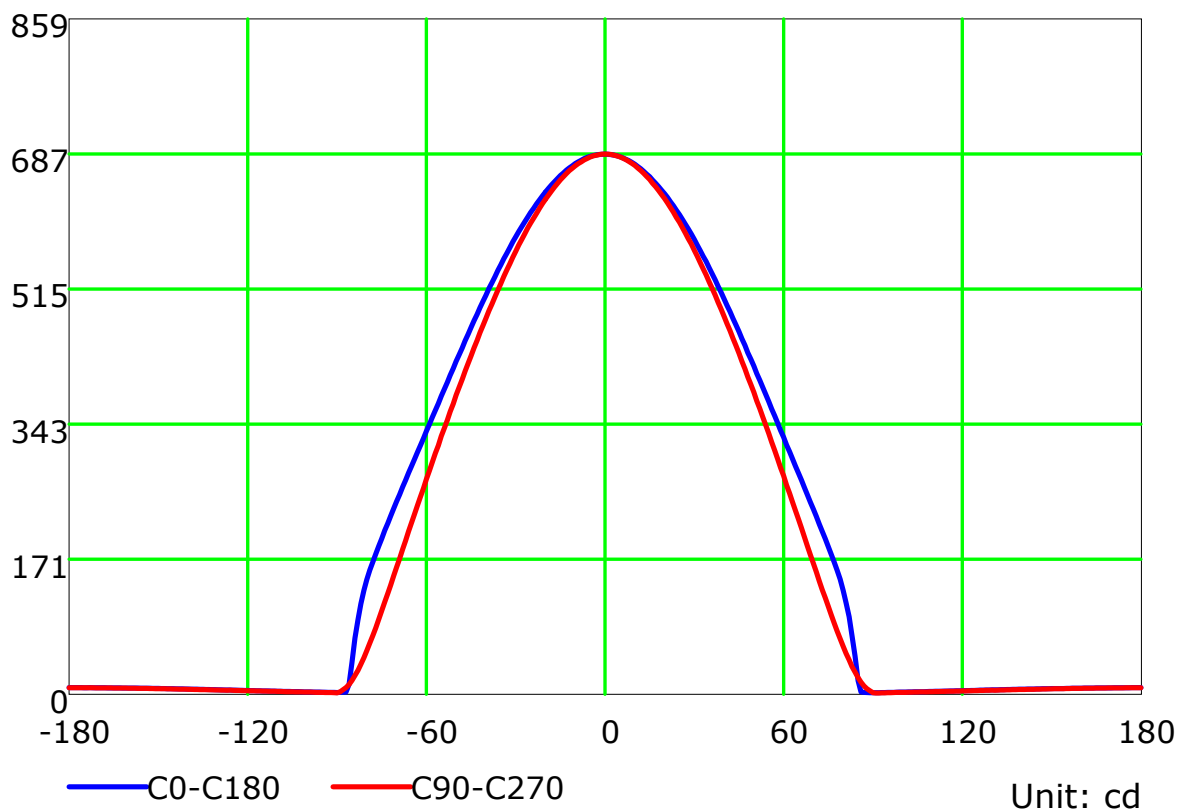
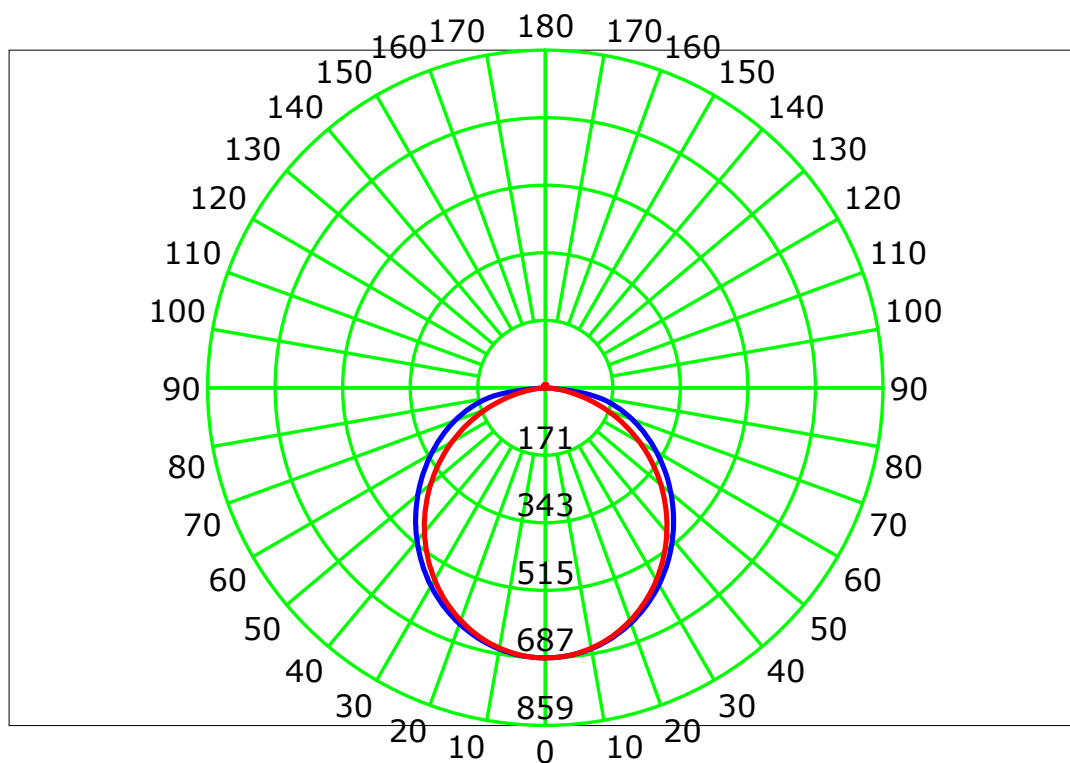
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

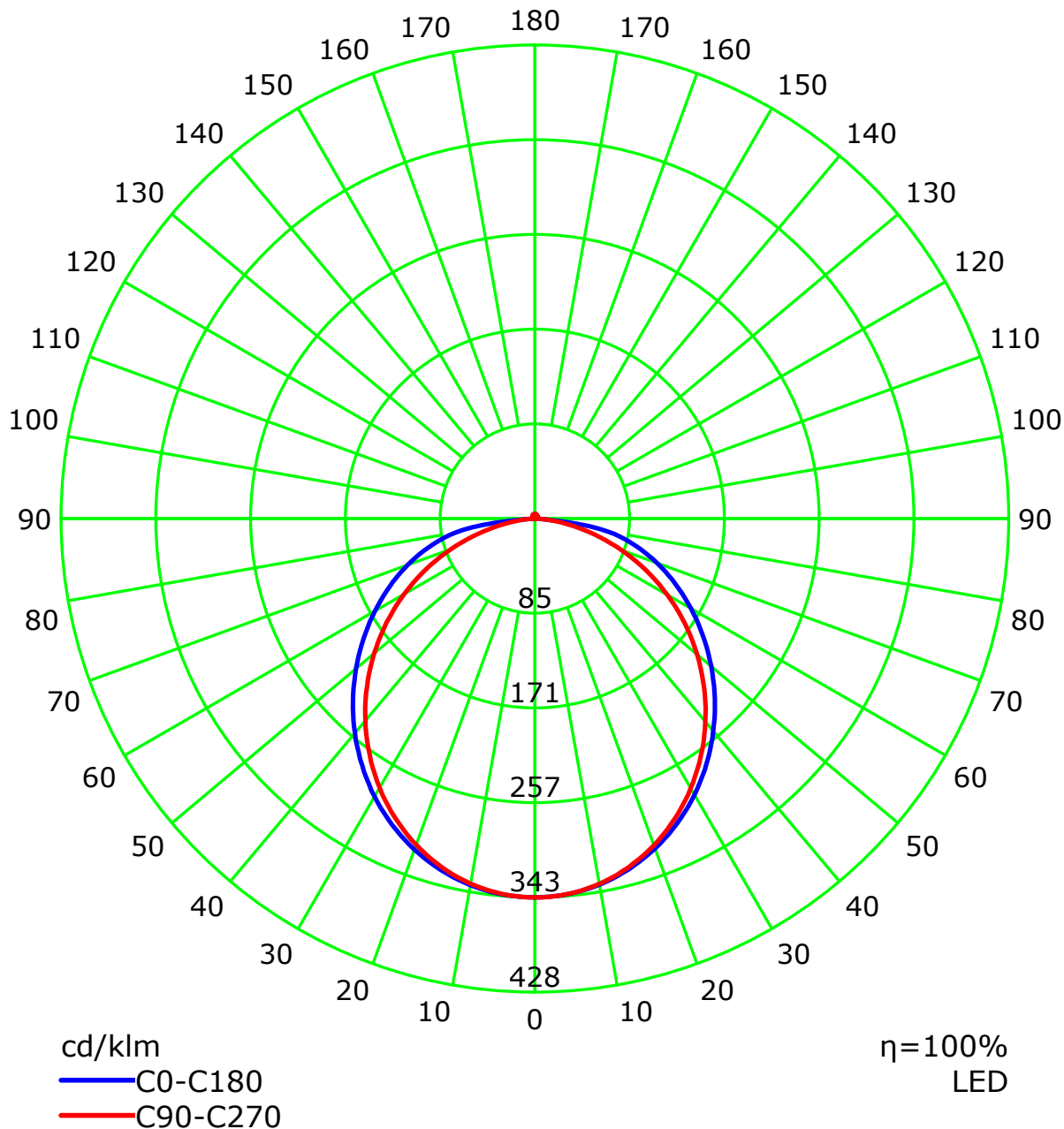
## Luminous Intensity Distribution Curve



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)



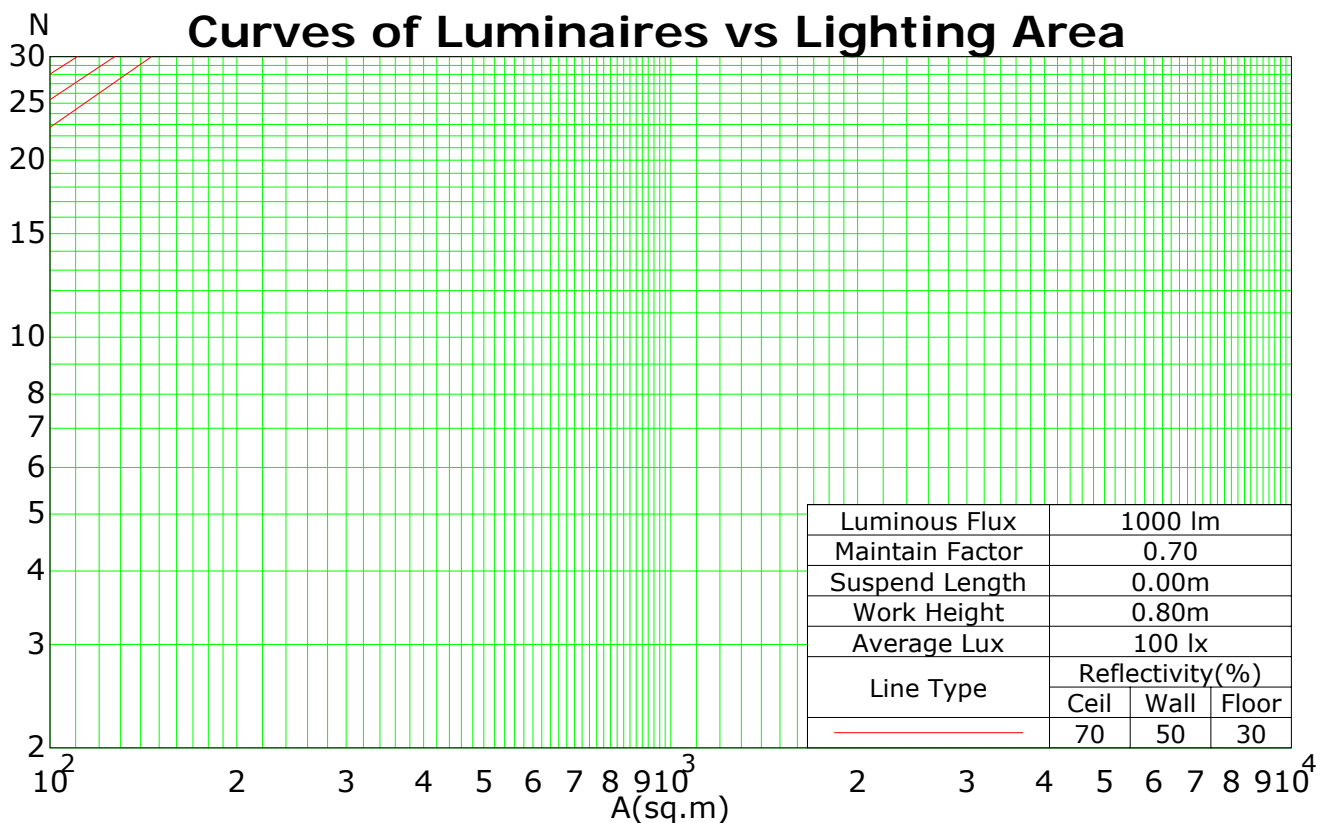
C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

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	0.98
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	0.90	0.83	0.77	0.95	0.88	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	0.87	0.77	0.69	0.63	0.73	0.67	0.61	0.71	0.65	0.60	0.68	0.63	0.59	0.57
4	0.82	0.69	0.60	0.54	0.79	0.68	0.60	0.53	0.65	0.58	0.52	0.63	0.56	0.51	0.60	0.55	0.51	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	0.51	0.42	0.35	0.62	0.50	0.41	0.35	0.48	0.40	0.35	0.46	0.40	0.35	0.45	0.39	0.34	0.32
8	0.60	0.46	0.37	0.32	0.58	0.45	0.37	0.31	0.44	0.36	0.31	0.42	0.36	0.31	0.41	0.35	0.31	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	0.33	0.28	0.38	0.32	0.28	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

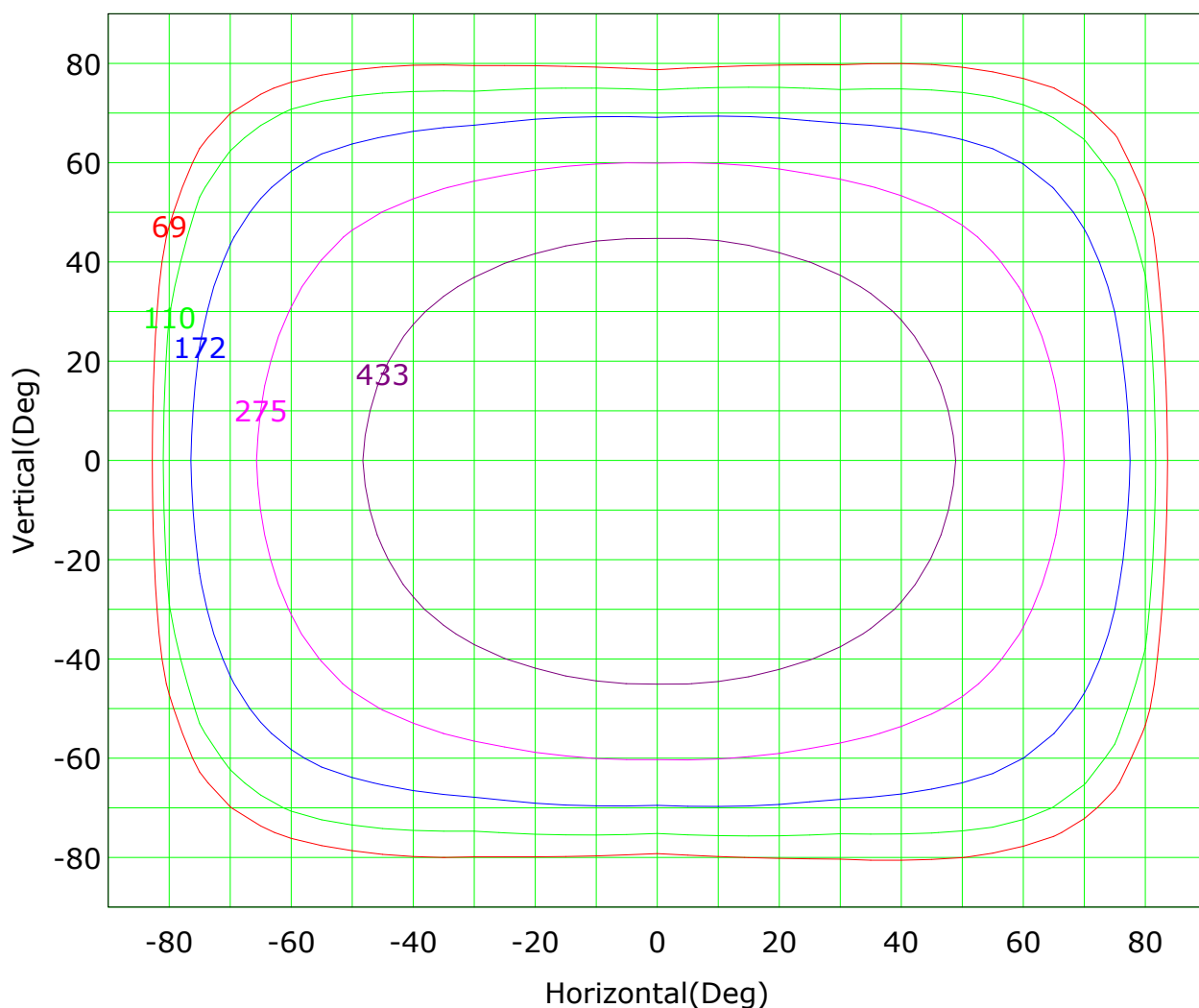
Spacing Criteria (0-180): 1.26  
Spacing Criteria (90-270): 1.22  
Spacing Criteria (Diagonal): 1.36



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%): 687 cd

( 10%): 69 cd	( 16%): 110 cd
( 25%): 172 cd	( 40%): 275 cd
( 63%): 433 cd	(100%): 687 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

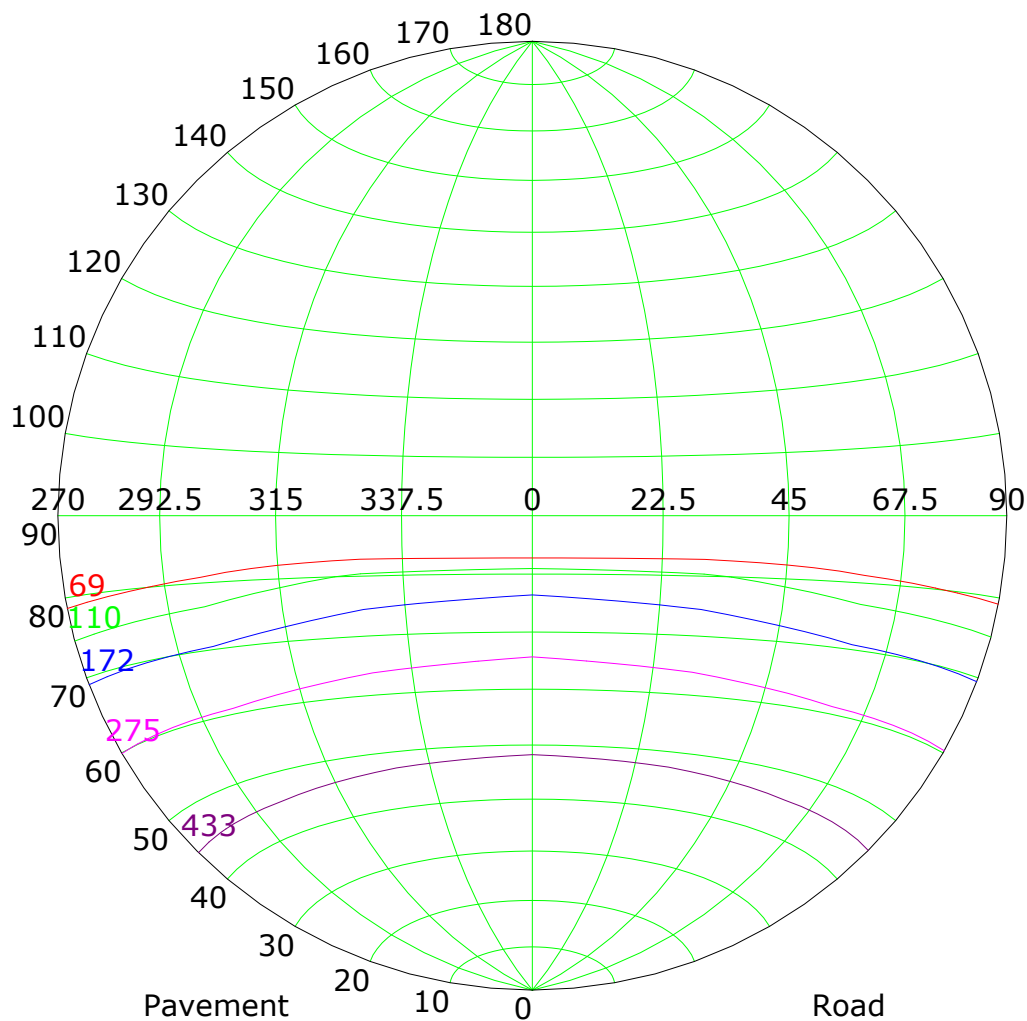
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## Isocandela (sphere)



Imax (100%): 687 cd

( 10%): 69 cd	( 16%): 110 cd
( 25%): 172 cd	( 40%): 275 cd
( 63%): 433 cd	(100%): 687 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

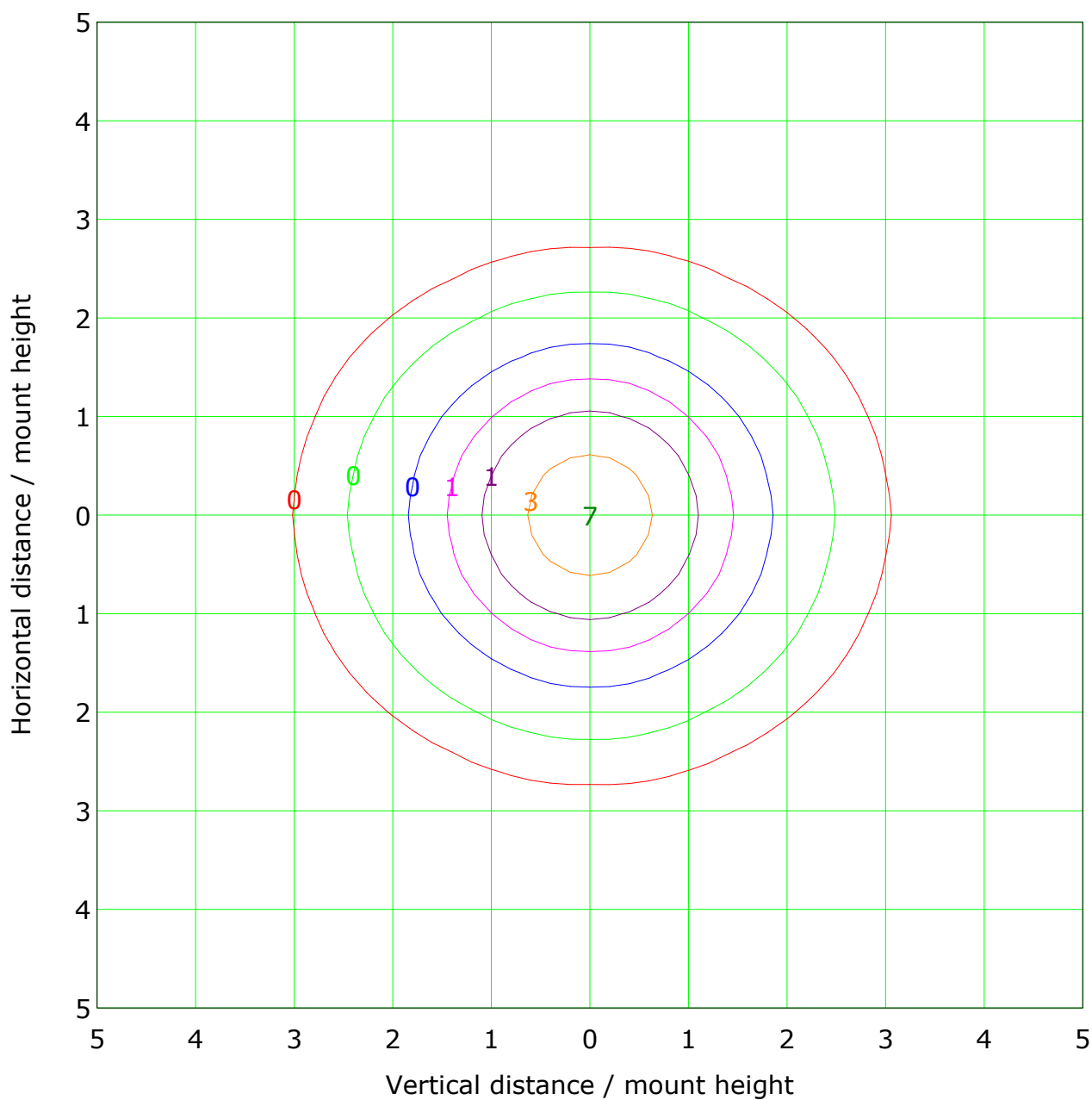
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## IsoLux Plot



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

— ( 1%): 0.1 lx	— ( 2%): 0.1 lx
— ( 5%): 0.3 lx	— (10%): 0.7 lx
— (20%): 1.4 lx	— (50%): 3.4 lx
— (100%): 6.9 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

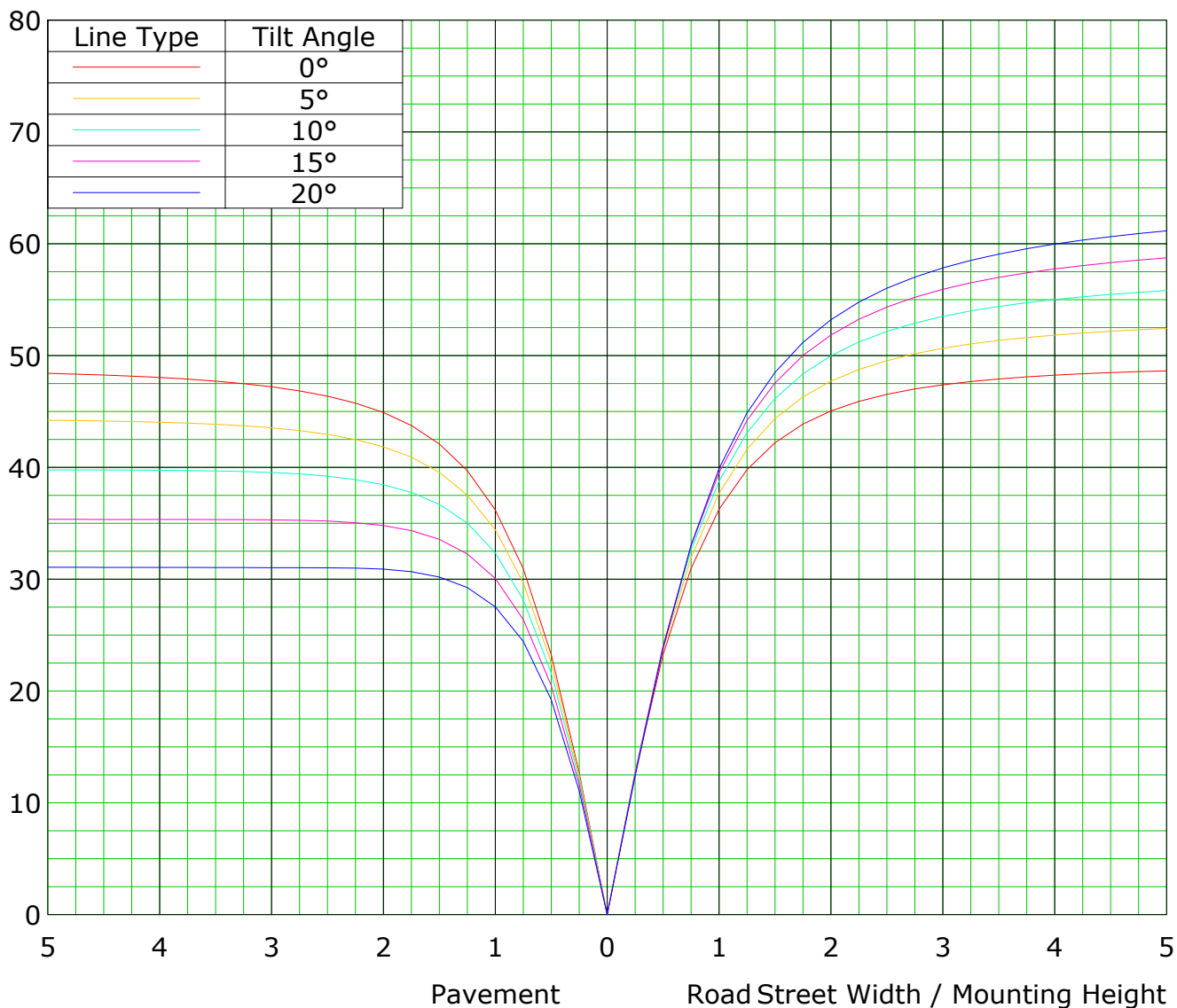
Distance: 9.011 m

Humidity:

Inspector:

## 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

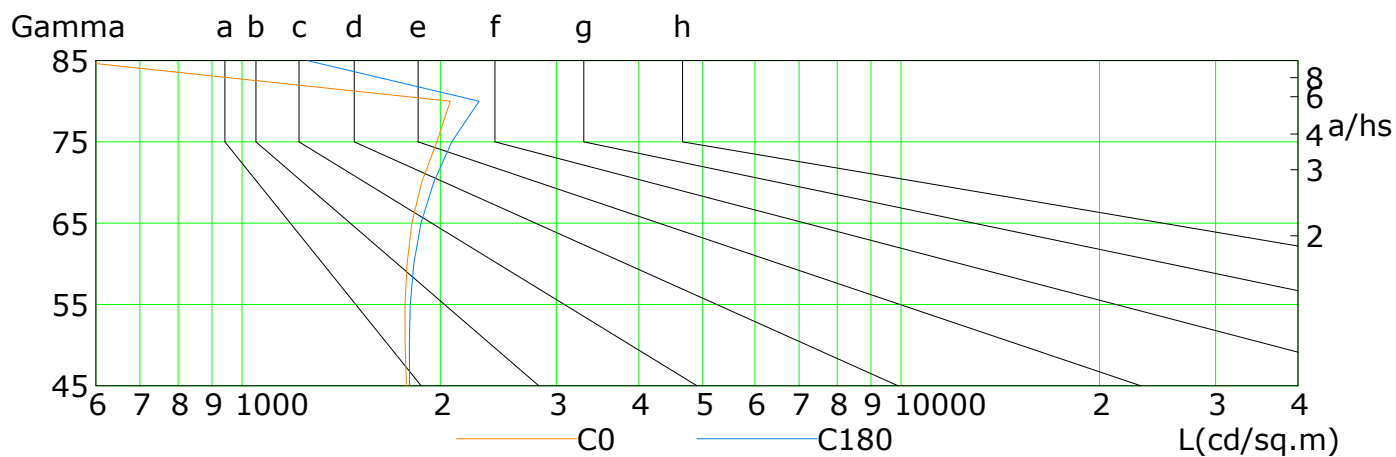
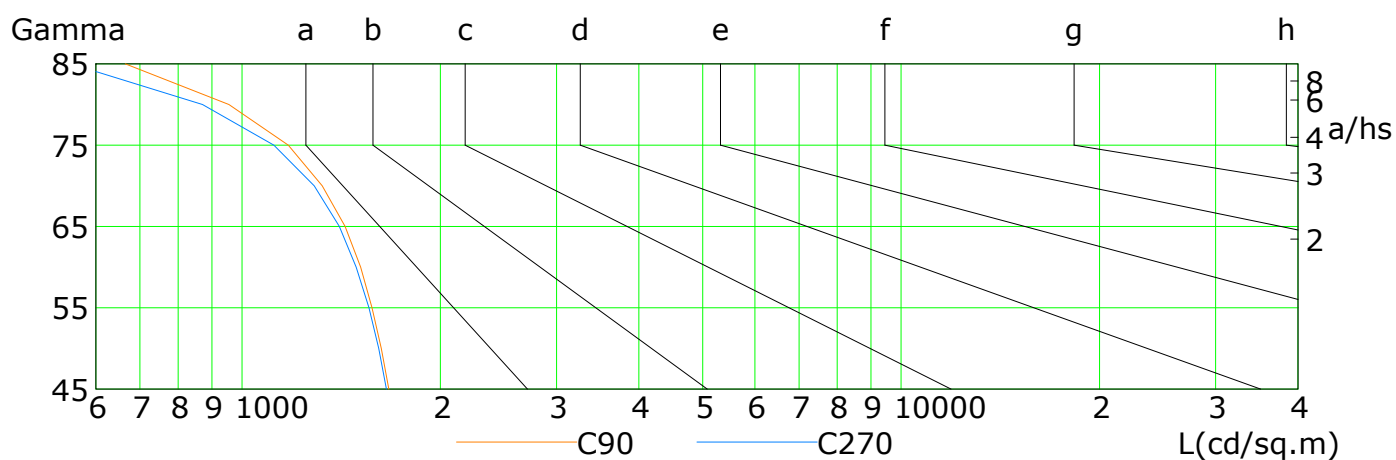
Humidity:

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	1776	1768	1767	1780	1810	1873	1975	2070	545
C90	1670	1627	1575	1513	1433	1324	1175	955	665
C180	1796	1794	1800	1822	1868	1953	2081	2289	1256
C270	1656	1613	1559	1490	1405	1287	1118	871	550

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

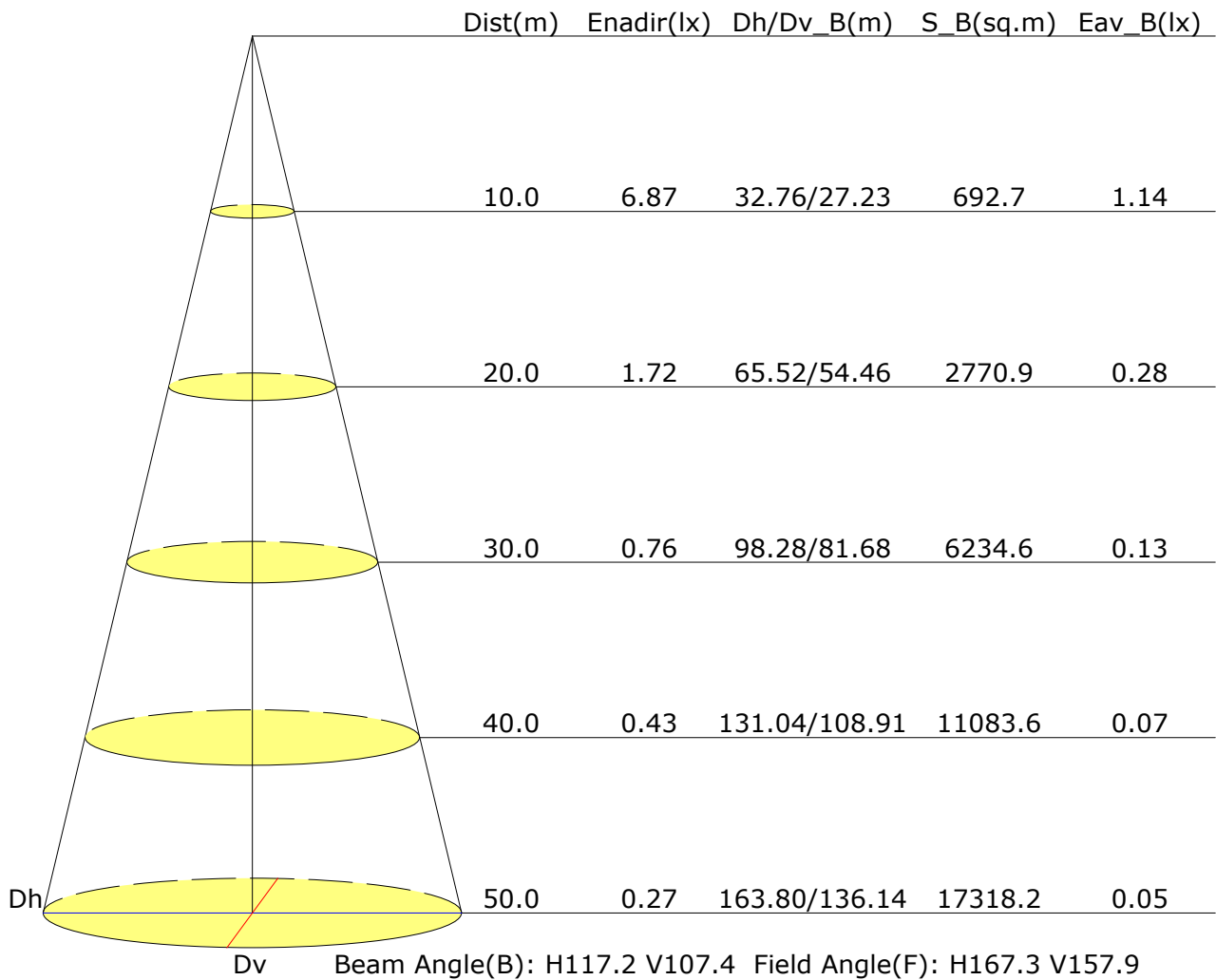
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

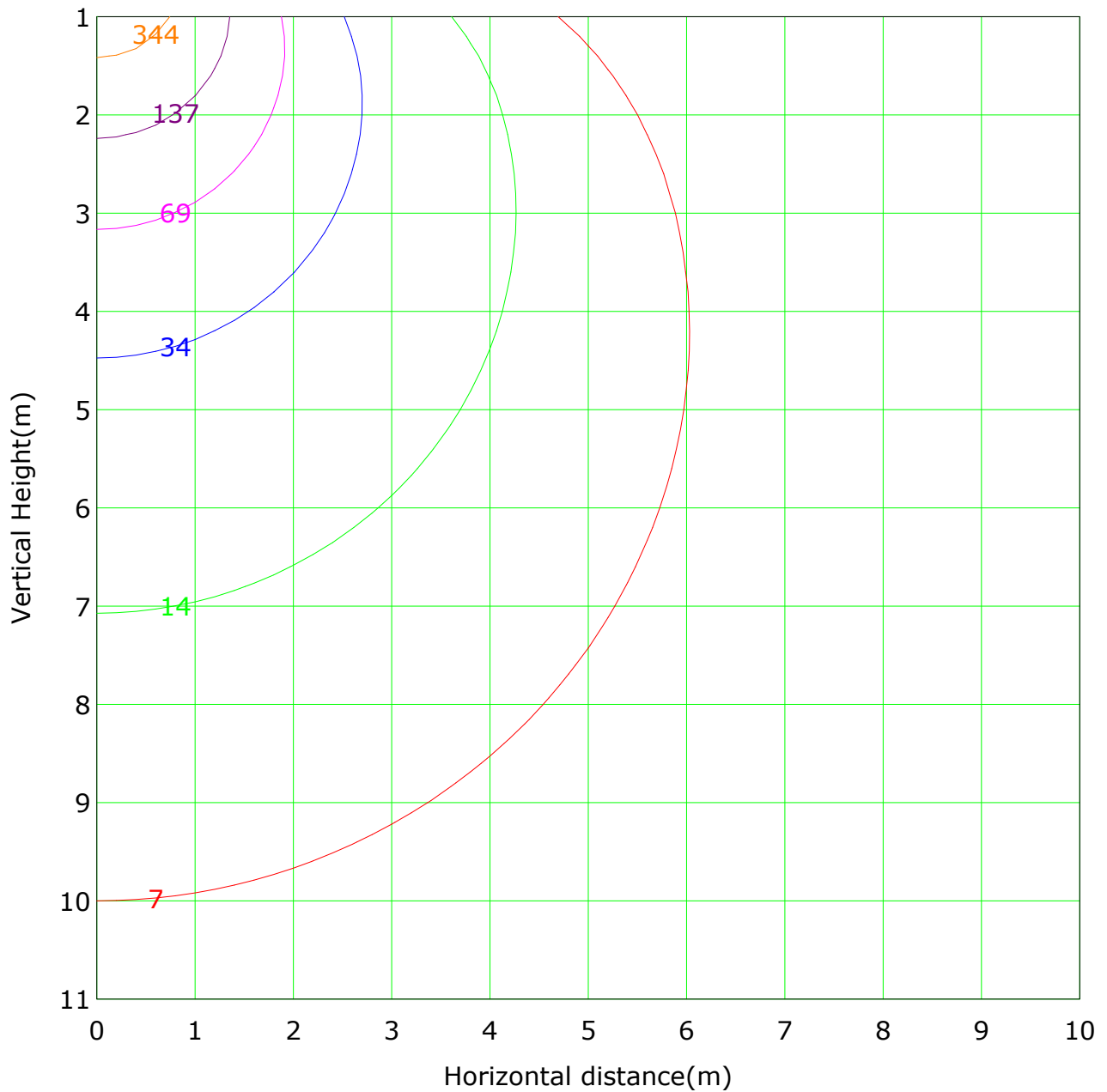
## Illuminance at a Distance



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: 687.3 lx

— ( 1%): 6.9 lx	— ( 2%): 13.7 lx
— ( 5%): 34.4 lx	— (10%): 68.7 lx
— (20%): 137.5 lx	— ( 50%): 343.6 lx
— (100%): 687.3 lx	

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

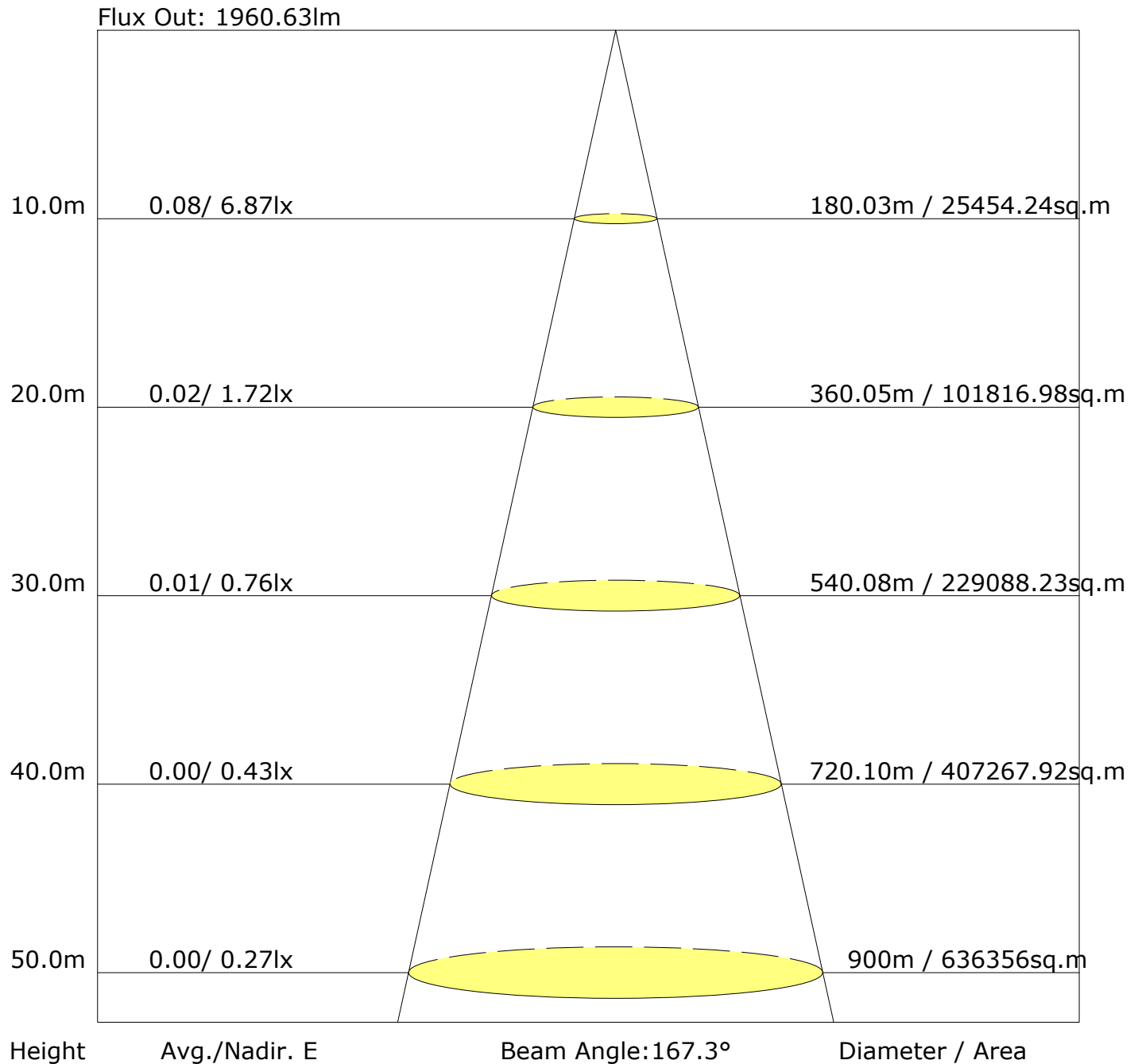
Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1600L  
Distance: 9.011 m  
Humidity:  
Inspector:

## Unit: lm

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	14.6	16.0	14.9	16.2	16.5	13.9	15.3	14.3	15.6	15.9
3H	16.5	17.8	16.9	18.1	18.4	15.4	16.6	15.7	16.9	17.3
4H	17.5	18.7	17.8	19.0	19.3	15.9	17.1	16.3	17.4	17.8
6H	18.3	19.4	18.7	19.8	20.1	16.3	17.4	16.7	17.7	18.1
8H	18.6	19.7	19.0	20.0	20.4	16.4	17.4	16.8	17.8	18.1
12H	18.7	19.7	19.1	20.1	20.4	16.4	17.4	16.8	17.8	18.2
X=4H Y=2H	15.2	16.4	15.6	16.7	17.1	14.7	15.9	15.1	16.2	16.5
3H	17.4	18.4	17.8	18.8	19.1	16.3	17.4	16.8	17.7	18.1
4H	18.5	19.4	18.9	19.8	20.2	17.0	17.9	17.4	18.3	18.7
6H	19.5	20.3	19.9	20.7	21.1	17.5	18.3	17.9	18.7	19.2
8H	19.8	20.6	20.3	21.0	21.5	17.6	18.4	18.1	18.8	19.3
12H	19.9	20.6	20.4	21.1	21.5	17.7	18.4	18.2	18.8	19.3
X=8H Y=4H	18.8	19.5	19.2	19.9	20.4	17.5	18.2	17.9	18.7	19.1
6H	20.0	20.6	20.4	21.0	21.5	18.1	18.7	18.6	19.2	19.7
8H	20.4	20.9	20.9	21.4	21.9	18.3	18.9	18.8	19.3	19.9
12H	20.6	21.0	21.1	21.5	22.1	18.5	18.9	19.0	19.4	20.0
X=12H Y=4H	18.8	19.4	19.2	19.9	20.4	17.6	18.2	18.0	18.7	19.2
6H	20.0	20.5	20.5	21.0	21.5	18.3	18.8	18.8	19.3	19.8
8H	20.5	21.0	21.0	21.5	22.0	18.5	19.0	19.0	19.5	20.0
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 2003Im ( $8\log(F/F_0) = 2.4$ ).

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

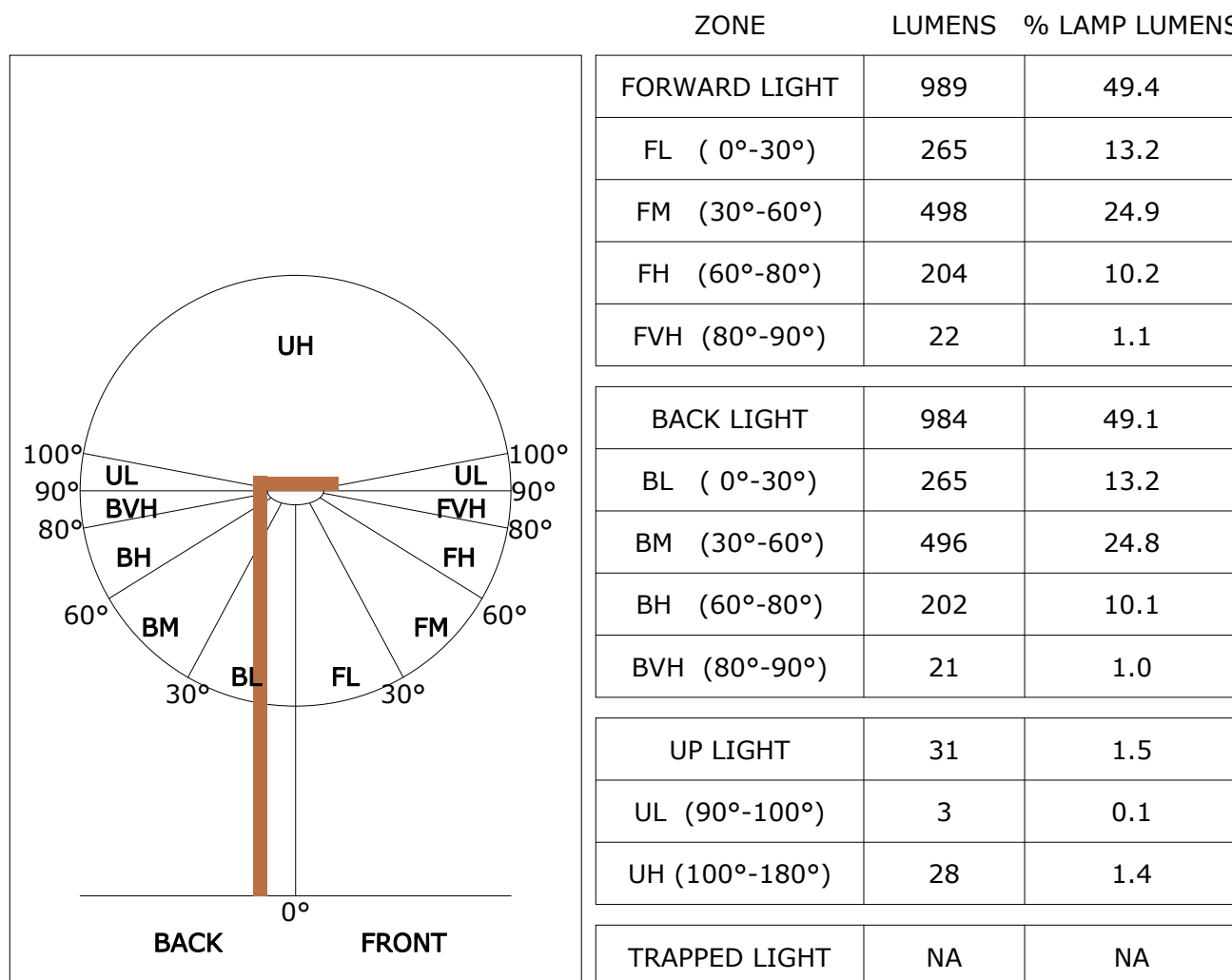
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

**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

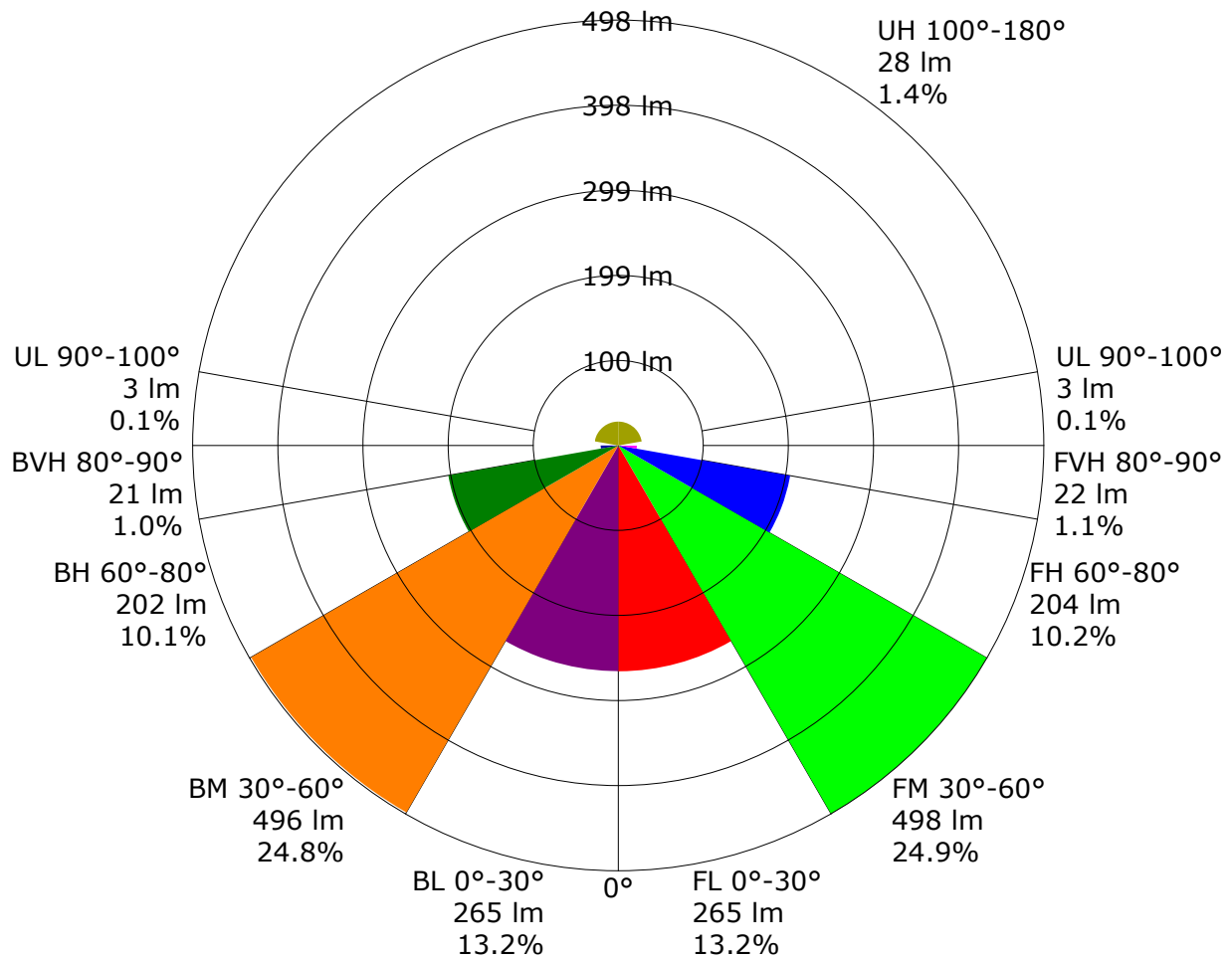
Test Device: GPM-1600L

Distance: 9.011 m

Humidity:

Inspector:

## LCS Graph



**Back Light**

**Forward Light**

Scale= 498 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	0.60	0.66	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		0.47	0.57	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	0.51	0.58	0.63	0.71	0.76	0.80	0.86	0.89	
0.00	0.00	0.00	0.39	0.48	0.55	0.60	0.67	0.72	0.76	0.81	0.84	
<p>Rating:15W 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	1.00	0.83	0.71	0.62	0.50	0.41	0.35	0.27	0.22	
	0.30		0.84	0.71	0.62	0.55	0.45	0.38	0.33	0.26	0.21	
	0.20		0.72	0.62	0.55	0.49	0.41	0.35	0.30	0.24	0.20	
0.50	0.50	0.20	0.97	0.80	0.68	0.59	0.47	0.43	0.34	0.26	0.21	
	0.30		0.82	0.69	0.60	0.53	0.43	0.36	0.31	0.25	0.20	
	0.20		0.71	0.61	0.54	0.48	0.40	0.34	0.30	0.23	0.20	
0.30	0.50	0.20	0.94	0.77	0.65	0.57	0.45	0.37	0.32	0.25	0.20	
	0.30		0.80	0.67	0.58	0.52	0.42	0.35	0.30	0.24	0.19	
	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	0.50	0.44	0.39	0.31	0.26	0.23	0.18	0.15	
Rating:15W 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	0.22	0.22	0.22	0.23	0.23
	0.30		0.11	0.13	0.14	0.15	0.17	0.18	0.19	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	0.22	0.22	0.22
	0.30		0.11	0.12	0.14	0.15	0.16	0.17	0.18	0.19	0.20
	0.20		0.06	0.08	0.09	0.10	0.12	0.14	0.15	0.16	0.18
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		0.11	0.12	0.13	0.14	0.16	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	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
<p>Rating:15W 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	687.2	0.7	0.7	0.03	0.03
1.0-2.0	687.0	2.0	2.6	0.10	0.13
2.0-3.0	686.4	3.3	5.9	0.16	0.30
3.0-4.0	685.5	4.6	10.5	0.23	0.52
4.0-5.0	684.5	5.9	16.4	0.29	0.82
5.0-6.0	683.1	7.2	23.6	0.36	1.18
6.0-7.0	681.4	8.5	32.0	0.42	1.60
7.0-8.0	679.5	9.7	41.8	0.49	2.08
8.0-9.0	677.3	11.0	52.7	0.55	2.63
9.0-10.0	674.9	12.2	64.9	0.61	3.24
10.0-11.0	672.2	13.4	78.4	0.67	3.91
11.0-12.0	669.2	14.6	93.0	0.73	4.64
12.0-13.0	666.0	15.8	108.8	0.79	5.43
13.0-14.0	662.5	17.0	125.8	0.85	6.28
14.0-15.0	658.7	18.1	143.9	0.90	7.18
15.0-16.0	654.7	19.2	163.1	0.96	8.14
16.0-17.0	650.4	20.3	183.3	1.01	9.15
17.0-18.0	646.1	21.3	204.6	1.06	10.21
18.0-19.0	641.4	22.3	226.9	1.11	11.33
19.0-20.0	636.5	23.3	250.2	1.16	12.49
20.0-21.0	631.5	24.3	274.5	1.21	13.70
21.0-22.0	626.1	25.2	299.7	1.26	14.96
22.0-23.0	620.5	26.0	325.7	1.30	16.26
23.0-24.0	614.6	26.9	352.6	1.34	17.60
24.0-25.0	608.6	27.7	380.2	1.38	18.98
25.0-26.0	602.6	28.4	408.7	1.42	20.40
26.0-27.0	596.1	29.2	437.9	1.46	21.86
27.0-28.0	589.4	29.8	467.7	1.49	23.35
28.0-29.0	582.8	30.5	498.2	1.52	24.87
29.0-30.0	575.8	31.1	529.3	1.55	26.42
30.0-31.0	568.6	31.6	560.9	1.58	28.00
31.0-32.0	561.2	32.2	593.1	1.60	29.60
32.0-33.0	553.5	32.6	625.7	1.63	31.23
33.0-34.0	546.1	33.1	658.8	1.65	32.88
34.0-35.0	538.1	33.4	692.2	1.67	34.55
35.0-36.0	530.0	33.7	725.9	1.68	36.24

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	521.9	34.0	760.0	1.70	37.93
37.0-38.0	513.6	34.3	794.3	1.71	39.65
38.0-39.0	505.3	34.5	828.7	1.72	41.37
39.0-40.0	496.6	34.6	863.4	1.73	43.10
40.0-41.0	487.8	34.7	898.1	1.73	44.83
41.0-42.0	479.3	34.8	933.0	1.74	46.57
42.0-43.0	470.4	34.9	967.8	1.74	48.31
43.0-44.0	461.3	34.8	1002.6	1.74	50.05
44.0-45.0	452.3	34.8	1037.4	1.74	51.78
45.0-46.0	443.0	34.6	1072.0	1.73	53.51
46.0-47.0	433.8	34.5	1106.5	1.72	55.23
47.0-48.0	424.3	34.3	1140.8	1.71	56.95
48.0-49.0	414.7	34.1	1174.9	1.70	58.65
49.0-50.0	405.5	33.8	1208.7	1.69	60.33
50.0-51.0	395.7	33.5	1242.2	1.67	62.01
51.0-52.0	385.9	33.1	1275.3	1.65	63.66
52.0-53.0	376.3	32.7	1308.1	1.63	65.29
53.0-54.0	366.5	32.3	1340.4	1.61	66.91
54.0-55.0	356.7	31.8	1372.2	1.59	68.49
55.0-56.0	346.7	31.3	1403.5	1.56	70.06
56.0-57.0	336.7	30.8	1434.3	1.54	71.60
57.0-58.0	326.9	30.2	1464.6	1.51	73.11
58.0-59.0	316.7	29.6	1494.2	1.48	74.58
59.0-60.0	306.6	29.0	1523.2	1.45	76.03
60.0-61.0	296.5	28.3	1551.5	1.41	77.44
61.0-62.0	286.2	27.6	1579.0	1.38	78.82
62.0-63.0	276.5	26.9	1605.9	1.34	80.16
63.0-64.0	266.4	26.1	1632.1	1.30	81.47
64.0-65.0	256.1	25.3	1657.4	1.27	82.73
65.0-66.0	246.3	24.6	1682.0	1.23	83.96
66.0-67.0	236.0	23.7	1705.7	1.18	85.14
67.0-68.0	225.7	22.9	1728.6	1.14	86.28
68.0-69.0	215.4	22.0	1750.6	1.10	87.38
69.0-70.0	205.1	21.1	1771.6	1.05	88.43
70.0-71.0	195.4	20.2	1791.8	1.01	89.44
71.0-72.0	185.1	19.3	1811.1	0.96	90.40

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	174.8	18.3	1829.4	0.91	91.31
73.0-74.0	165.0	17.4	1846.7	0.87	92.18
74.0-75.0	154.8	16.4	1863.1	0.82	93.00
75.0-76.0	144.6	15.4	1878.4	0.77	93.76
76.0-77.0	134.4	14.3	1892.8	0.72	94.48
77.0-78.0	124.4	13.3	1906.1	0.66	95.14
78.0-79.0	114.7	12.3	1918.4	0.62	95.76
79.0-80.0	104.5	11.3	1929.7	0.56	96.32
80.0-81.0	93.8	10.1	1939.8	0.51	96.83
81.0-82.0	82.6	9.0	1948.8	0.45	97.28
82.0-83.0	70.1	7.6	1956.4	0.38	97.66
83.0-84.0	56.4	6.1	1962.5	0.31	97.96
84.0-85.0	40.6	4.4	1967.0	0.22	98.18
85.0-86.0	24.5	2.7	1969.6	0.13	98.32
86.0-87.0	12.9	1.4	1971.1	0.07	98.39
87.0-88.0	7.0	0.8	1971.8	0.04	98.43
88.0-89.0	4.3	0.5	1972.3	0.02	98.45
89.0-90.0	2.9	0.3	1972.6	0.02	98.46
90.0-91.0	2.2	0.2	1972.9	0.01	98.48
91.0-92.0	2.2	0.2	1973.1	0.01	98.49
92.0-93.0	2.3	0.3	1973.4	0.01	98.50
93.0-94.0	2.4	0.3	1973.6	0.01	98.51
94.0-95.0	2.4	0.3	1973.9	0.01	98.53
95.0-96.0	2.5	0.3	1974.2	0.01	98.54
96.0-97.0	2.6	0.3	1974.4	0.01	98.56
97.0-98.0	2.7	0.3	1974.7	0.01	98.57
98.0-99.0	2.8	0.3	1975.0	0.02	98.59
99.0-100.0	2.9	0.3	1975.4	0.02	98.60
100.0-101.0	3.0	0.3	1975.7	0.02	98.62
101.0-102.0	3.0	0.3	1976.0	0.02	98.63
102.0-103.0	3.1	0.3	1976.3	0.02	98.65
103.0-104.0	3.2	0.3	1976.7	0.02	98.67
104.0-105.0	3.3	0.4	1977.0	0.02	98.69
105.0-106.0	3.4	0.4	1977.4	0.02	98.70
106.0-107.0	3.5	0.4	1977.8	0.02	98.72
107.0-108.0	3.6	0.4	1978.1	0.02	98.74

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	3.7	0.4	1978.5	0.02	98.76
109.0-110.0	3.8	0.4	1978.9	0.02	98.78
110.0-111.0	3.8	0.4	1979.3	0.02	98.80
111.0-112.0	3.9	0.4	1979.7	0.02	98.82
112.0-113.0	4.0	0.4	1980.1	0.02	98.84
113.0-114.0	4.1	0.4	1980.5	0.02	98.86
114.0-115.0	4.2	0.4	1980.9	0.02	98.88
115.0-116.0	4.3	0.4	1981.4	0.02	98.90
116.0-117.0	4.4	0.4	1981.8	0.02	98.92
117.0-118.0	4.5	0.4	1982.2	0.02	98.94
118.0-119.0	4.5	0.4	1982.7	0.02	98.97
119.0-120.0	4.6	0.4	1983.1	0.02	98.99
120.0-121.0	4.7	0.4	1983.5	0.02	99.01
121.0-122.0	4.8	0.5	1984.0	0.02	99.03
122.0-123.0	4.9	0.5	1984.5	0.02	99.06
123.0-124.0	5.0	0.5	1984.9	0.02	99.08
124.0-125.0	5.1	0.5	1985.4	0.02	99.10
125.0-126.0	5.2	0.5	1985.8	0.02	99.12
126.0-127.0	5.3	0.5	1986.3	0.02	99.15
127.0-128.0	5.4	0.5	1986.8	0.02	99.17
128.0-129.0	5.5	0.5	1987.2	0.02	99.20
129.0-130.0	5.6	0.5	1987.7	0.02	99.22
130.0-131.0	5.7	0.5	1988.2	0.02	99.24
131.0-132.0	5.8	0.5	1988.7	0.02	99.27
132.0-133.0	5.9	0.5	1989.1	0.02	99.29
133.0-134.0	6.0	0.5	1989.6	0.02	99.31
134.0-135.0	6.1	0.5	1990.1	0.02	99.34
135.0-136.0	6.1	0.5	1990.6	0.02	99.36
136.0-137.0	6.2	0.5	1991.0	0.02	99.38
137.0-138.0	6.3	0.5	1991.5	0.02	99.41
138.0-139.0	6.4	0.5	1992.0	0.02	99.43
139.0-140.0	6.5	0.5	1992.4	0.02	99.45
140.0-141.0	6.6	0.5	1992.9	0.02	99.48
141.0-142.0	6.6	0.5	1993.3	0.02	99.50
142.0-143.0	6.7	0.4	1993.8	0.02	99.52
143.0-144.0	6.8	0.4	1994.2	0.02	99.54

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	6.9	0.4	1994.7	0.02	99.57
145.0-146.0	7.0	0.4	1995.1	0.02	99.59
146.0-147.0	7.0	0.4	1995.5	0.02	99.61
147.0-148.0	7.1	0.4	1995.9	0.02	99.63
148.0-149.0	7.2	0.4	1996.3	0.02	99.65
149.0-150.0	7.3	0.4	1996.8	0.02	99.67
150.0-151.0	7.3	0.4	1997.1	0.02	99.69
151.0-152.0	7.4	0.4	1997.5	0.02	99.71
152.0-153.0	7.5	0.4	1997.9	0.02	99.73
153.0-154.0	7.5	0.4	1998.3	0.02	99.75
154.0-155.0	7.6	0.4	1998.6	0.02	99.76
155.0-156.0	7.7	0.3	1999.0	0.02	99.78
156.0-157.0	7.7	0.3	1999.3	0.02	99.80
157.0-158.0	7.8	0.3	1999.7	0.02	99.81
158.0-159.0	7.8	0.3	2000.0	0.02	99.83
159.0-160.0	7.9	0.3	2000.3	0.02	99.85
160.0-161.0	7.9	0.3	2000.6	0.01	99.86
161.0-162.0	8.0	0.3	2000.8	0.01	99.87
162.0-163.0	8.0	0.3	2001.1	0.01	99.89
163.0-164.0	8.1	0.3	2001.4	0.01	99.90
164.0-165.0	8.1	0.2	2001.6	0.01	99.91
165.0-166.0	8.1	0.2	2001.8	0.01	99.92
166.0-167.0	8.2	0.2	2002.0	0.01	99.93
167.0-168.0	8.3	0.2	2002.2	0.01	99.94
168.0-169.0	8.3	0.2	2002.4	0.01	99.95
169.0-170.0	8.3	0.2	2002.6	0.01	99.96
170.0-171.0	8.3	0.2	2002.7	0.01	99.97
171.0-172.0	8.4	0.1	2002.9	0.01	99.97
172.0-173.0	8.4	0.1	2003.0	0.01	99.98
173.0-174.0	8.4	0.1	2003.1	0.01	99.99
174.0-175.0	8.4	0.1	2003.2	0.00	99.99
175.0-176.0	8.5	0.1	2003.2	0.00	99.99
176.0-177.0	8.5	0.1	2003.3	0.00	100.00
177.0-178.0	8.5	0.0	2003.3	0.00	100.00
178.0-179.0	8.5	0.0	2003.4	0.00	100.00
179.0-180.0	8.5	0.0	2003.4	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°): 1037.40 lm

%lum = 51.8%

%lamp = 51.8%

cone flux(120°): 1523.16 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	687.3	687.3	687.3	687.3	687.3	687.3	687.3	687.3	687.3	687.3
G1.0	687.1	687.2	687.1	687.4	687.1	687.1	687.2	687.4	687.0	687.3
G2.0	686.7	686.8	686.8	686.9	686.7	686.9	686.9	686.8	686.5	686.7
G3.0	686.0	686.1	685.9	686.1	685.9	686.1	686.2	686.3	685.6	686.0
G4.0	685.4	685.0	684.8	685.1	685.0	685.2	685.4	685.2	685.0	685.0
G5.0	684.0	684.1	683.6	683.8	683.7	684.2	684.5	684.1	683.6	683.7
G6.0	682.6	682.2	681.9	682.2	682.2	682.7	683.2	682.6	682.0	681.9
G7.0	680.9	680.7	680.3	680.5	680.3	680.9	681.6	681.1	680.1	680.0
G8.0	679.1	678.8	678.1	678.1	678.3	679.1	679.5	678.8	677.8	677.6
G9.0	676.9	676.3	675.7	675.7	675.8	676.8	677.5	677.0	675.5	675.4
G10.0	674.4	674.1	673.0	673.0	673.3	674.6	675.2	674.6	673.1	672.6
G11.0	671.7	670.9	669.8	669.8	670.2	671.6	672.5	671.6	670.1	669.4
G12.0	668.8	668.1	666.8	666.6	667.2	668.8	669.8	668.8	666.6	666.3
G13.0	665.6	665.0	663.5	663.2	663.8	665.7	666.9	665.7	663.3	662.7
G14.0	661.9	661.3	659.3	659.0	659.9	662.2	663.4	661.8	659.5	658.6
G15.0	658.6	657.5	655.7	655.2	656.1	658.6	660.1	658.5	655.7	654.6
G16.0	654.4	653.4	650.9	650.4	651.5	654.5	656.2	654.4	651.2	650.0
G17.0	650.3	649.1	646.7	646.1	647.4	650.5	652.2	650.4	647.0	645.5
G18.0	646.2	645.1	642.3	641.3	642.8	646.3	648.2	646.0	642.2	640.5
G19.0	641.5	639.7	637.1	636.1	637.6	641.4	643.7	641.2	637.2	635.2
G20.0	637.1	635.3	632.1	630.9	632.7	636.9	639.2	636.5	631.9	629.8
G21.0	632.3	630.4	626.6	625.5	627.4	631.9	634.4	631.7	626.8	624.6
G22.0	626.7	624.5	620.9	619.3	621.6	626.6	629.2	625.9	620.8	618.5
G23.0	621.7	619.3	615.2	613.5	616.0	621.3	624.2	620.8	615.0	612.3
G24.0	615.8	613.3	608.5	606.7	609.5	615.2	618.3	615.0	608.7	605.9
G25.0	610.4	607.4	602.7	600.7	603.7	609.7	613.1	609.1	602.6	599.6
G26.0	604.4	601.6	596.1	594.0	597.1	603.8	607.2	603.3	596.6	593.2
G27.0	598.2	594.9	589.1	586.9	590.4	597.3	601.0	597.0	589.1	585.7
G28.0	592.2	588.5	582.4	579.9	583.4	591.0	595.1	590.7	582.4	578.8
G29.0	585.6	581.9	575.5	573.0	576.7	584.6	588.9	584.2	575.5	571.6
G30.0	578.7	574.8	567.9	564.9	569.0	577.6	582.0	576.7	568.0	563.6
G31.0	571.8	568.2	560.5	557.6	561.9	570.7	575.8	570.3	560.8	556.2
G32.0	564.6	560.3	552.7	549.3	553.9	563.3	568.3	562.9	552.5	547.7
G33.0	557.4	553.3	544.8	541.5	546.6	556.1	561.3	555.5	545.2	540.0
G34.0	550.6	545.7	537.3	533.6	538.6	549.1	554.3	548.2	537.2	531.7
G35.0	542.5	537.7	528.6	524.7	530.3	540.7	546.5	540.2	528.4	522.7
G36.0	535.2	530.3	520.6	516.7	522.0	533.3	539.4	532.3	520.2	514.4

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 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	527.6	522.3	512.3	508.1	513.7	525.6	531.2	524.4	511.6	505.5
G38.0	519.4	513.6	503.3	499.0	504.8	517.3	523.8	516.6	503.0	496.7
G39.0	511.7	505.8	494.7	490.1	496.8	509.2	516.5	508.5	494.7	488.2
G40.0	503.1	496.7	485.4	480.8	487.2	500.7	507.7	499.8	485.2	478.3
G41.0	494.9	488.7	476.6	471.7	478.3	492.3	500.2	491.4	476.6	469.4
G42.0	487.1	480.5	468.0	462.8	469.8	484.3	492.1	483.2	467.5	460.2
G43.0	478.4	471.1	458.0	453.2	460.4	475.3	483.5	474.3	458.0	450.2
G44.0	470.0	462.4	449.0	443.8	451.1	466.7	475.6	465.6	449.0	441.0
G45.0	461.5	454.0	439.8	434.1	441.9	458.0	466.8	456.4	438.8	430.5
G46.0	452.6	444.2	429.8	423.8	432.1	448.8	458.3	447.7	429.7	421.2
G47.0	444.3	435.7	420.3	414.2	422.4	440.1	449.8	439.1	420.2	411.3
G48.0	434.6	425.6	410.3	404.0	412.5	430.7	440.7	429.4	410.0	400.8
G49.0	426.4	417.0	400.9	394.4	403.2	421.5	432.1	420.7	400.1	390.8
G50.0	417.7	408.2	391.0	384.4	393.4	412.8	423.9	411.5	390.7	381.0
G51.0	408.1	398.3	380.0	373.3	382.5	402.8	414.7	401.9	379.7	369.8
G52.0	399.7	388.9	370.6	363.6	373.0	394.1	406.1	392.7	370.1	359.9
G53.0	390.8	380.1	360.5	353.2	363.1	384.9	397.0	383.0	359.4	349.0
G54.0	381.6	369.8	350.0	342.7	352.7	375.1	388.2	374.2	349.4	338.5
G55.0	372.6	361.0	339.8	332.0	342.4	366.0	379.4	364.8	339.6	328.6
G56.0	363.2	350.6	329.1	321.1	331.7	356.3	370.1	355.0	328.4	316.8
G57.0	354.4	341.6	318.7	310.4	321.4	346.7	361.3	345.6	318.6	306.7
G58.0	345.4	331.7	308.4	299.9	311.1	337.4	353.0	336.6	308.0	296.0
G59.0	335.6	321.9	297.0	288.2	299.9	327.3	343.7	326.3	297.2	284.7
G60.0	327.1	312.4	287.2	278.1	290.0	318.3	334.9	317.4	286.6	273.8
G61.0	317.4	302.4	275.6	266.2	278.6	307.9	325.6	307.5	275.6	262.2
G62.0	308.8	292.9	265.5	255.9	268.6	299.0	316.7	298.0	265.1	251.3
G63.0	299.9	283.9	255.1	245.0	258.3	289.5	308.3	288.8	255.0	240.8
G64.0	290.2	273.4	244.1	233.6	247.2	279.7	299.2	278.6	244.0	229.3
G65.0	281.2	264.3	233.5	222.6	236.7	270.3	290.2	269.6	233.4	218.3
G66.0	272.8	254.6	222.8	212.0	226.2	261.4	281.9	259.9	223.2	207.6
G67.0	262.9	244.4	211.7	200.0	215.1	250.7	272.3	250.1	211.7	195.3
G68.0	254.0	234.8	201.7	189.0	205.0	241.3	263.9	240.5	201.4	184.7
G69.0	244.5	224.4	190.1	177.4	193.6	231.7	254.2	230.5	190.2	172.8
G70.0	235.5	215.4	179.5	166.4	183.3	222.2	245.5	221.1	179.9	161.8
G71.0	226.6	206.0	169.5	156.0	173.3	213.4	236.5	212.1	169.8	151.1
G72.0	216.4	195.9	158.2	143.9	161.8	203.1	226.9	202.1	158.5	138.9
G73.0	207.3	186.5	148.2	133.2	152.2	193.9	217.5	192.6	148.6	128.4

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 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	198.0	177.1	138.0	122.9	142.1	184.4	208.5	182.8	138.2	117.6
G75.0	187.9	166.5	127.5	111.8	131.4	174.4	197.9	172.7	127.5	106.3
G76.0	178.2	157.2	117.5	101.3	121.5	164.6	188.8	162.9	117.4	95.8
G77.0	168.0	146.7	106.8	90.5	111.2	154.3	178.7	152.7	106.6	84.6
G78.0	157.9	136.7	97.8	80.5	101.6	145.0	168.6	143.2	97.4	75.0
G79.0	146.4	127.1	88.8	70.8	92.4	135.1	158.3	133.2	88.0	65.4
G80.0	132.1	115.7	79.2	61.0	82.9	124.6	146.1	121.7	78.5	55.6
G81.0	116.3	103.8	70.2	52.0	74.1	114.1	132.4	110.7	69.2	46.8
G82.0	98.8	89.8	62.2	43.8	65.4	102.3	115.4	95.7	59.8	38.4
G83.0	74.6	73.1	52.7	35.3	56.4	87.6	95.3	80.6	50.8	30.7
G84.0	48.7	54.1	44.1	28.3	48.1	70.8	71.8	62.1	42.0	24.2
G85.0	17.5	31.0	33.6	21.3	38.7	48.5	40.2	39.3	31.4	17.6
G86.0	3.1	9.5	24.2	15.6	29.5	26.1	12.8	16.2	21.6	12.5
G87.0	2.6	4.7	13.9	10.8	19.6	6.9	3.0	5.3	11.9	8.6
G88.0	2.2	3.6	6.4	7.3	9.6	4.0	2.7	4.3	6.2	6.0
G89.0	2.1	2.7	4.2	4.7	5.4	3.1	2.5	3.5	4.0	3.3
G90.0	2.1	2.0	1.9	2.0	3.1	2.3	2.4	2.5	2.2	2.0
G91.0	2.2	2.1	1.9	1.8	1.9	2.1	2.5	2.4	2.3	2.2
G92.0	2.2	2.2	2.0	1.8	2.0	2.2	2.5	2.5	2.4	2.3
G93.0	2.3	2.2	2.1	2.0	2.1	2.2	2.6	2.7	2.4	2.3
G94.0	2.4	2.3	2.1	2.0	2.1	2.3	2.7	2.7	2.5	2.4
G95.0	2.5	2.4	2.3	2.2	2.2	2.4	2.8	2.7	2.6	2.5
G96.0	2.6	2.5	2.4	2.2	2.3	2.5	2.9	2.9	2.7	2.6
G97.0	2.6	2.5	2.5	2.3	2.3	2.5	2.9	2.9	2.8	2.6
G98.0	2.7	2.6	2.6	2.4	2.4	2.7	3.0	3.0	2.9	2.7
G99.0	2.9	2.7	2.5	2.5	2.6	2.7	3.1	3.1	3.0	2.9
G100.0	2.9	2.8	2.7	2.5	2.7	2.8	3.2	3.1	3.0	2.9
G101.0	3.0	2.9	2.8	2.6	2.8	2.9	3.2	3.2	3.1	3.0
G102.0	3.1	3.0	2.9	2.8	2.9	3.0	3.4	3.2	3.2	3.1
G103.0	3.2	3.0	3.0	2.8	2.9	3.0	3.5	3.4	3.3	3.1
G104.0	3.3	3.1	3.0	2.9	3.0	3.1	3.5	3.5	3.4	3.2
G105.0	3.3	3.2	3.1	3.0	3.2	3.2	3.6	3.6	3.5	3.3
G106.0	3.5	3.3	3.2	3.1	3.2	3.3	3.8	3.7	3.6	3.4
G107.0	3.5	3.4	3.3	3.1	3.3	3.4	3.8	3.7	3.7	3.4
G108.0	3.6	3.5	3.4	3.3	3.4	3.5	3.8	3.9	3.7	3.6
G109.0	3.7	3.6	3.5	3.3	3.5	3.7	4.0	4.0	3.8	3.7
G110.0	3.7	3.7	3.6	3.4	3.5	3.8	4.0	4.0	4.0	3.8

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 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	3.9	3.7	3.7	3.5	3.7	3.8	4.1	4.1	4.0	3.9
G112.0	3.9	3.9	3.8	3.6	3.8	3.8	4.2	4.2	4.1	4.0
G113.0	4.1	4.0	4.0	3.7	3.9	4.1	4.3	4.3	4.2	4.0
G114.0	4.1	4.0	4.0	3.8	4.0	4.1	4.4	4.4	4.2	4.1
G115.0	4.2	4.1	4.0	3.9	4.0	4.2	4.5	4.4	4.4	4.2
G116.0	4.4	4.2	4.1	3.9	4.1	4.3	4.6	4.6	4.4	4.3
G117.0	4.4	4.3	4.2	4.1	4.3	4.3	4.7	4.6	4.6	4.4
G118.0	4.5	4.4	4.3	4.2	4.4	4.5	4.7	4.7	4.6	4.5
G119.0	4.6	4.5	4.4	4.3	4.4	4.5	4.8	4.8	4.7	4.6
G120.0	4.7	4.6	4.4	4.4	4.4	4.6	4.9	4.9	4.8	4.6
G121.0	4.8	4.7	4.5	4.5	4.6	4.7	5.0	5.1	4.9	4.7
G122.0	4.9	4.8	4.6	4.6	4.7	4.8	5.1	5.1	5.0	4.9
G123.0	5.0	4.8	4.8	4.6	4.8	4.9	5.2	5.2	5.1	5.0
G124.0	5.1	4.9	4.9	4.7	4.9	5.1	5.3	5.3	5.1	5.0
G125.0	5.2	5.1	4.9	4.8	4.9	5.1	5.5	5.3	5.3	5.2
G126.0	5.3	5.2	5.0	4.9	5.1	5.2	5.5	5.4	5.3	5.3
G127.0	5.5	5.2	5.1	5.0	5.1	5.3	5.6	5.6	5.4	5.3
G128.0	5.5	5.4	5.2	5.1	5.2	5.3	5.7	5.7	5.5	5.5
G129.0	5.6	5.4	5.3	5.2	5.4	5.5	5.8	5.8	5.7	5.5
G130.0	5.7	5.6	5.4	5.4	5.5	5.6	5.9	5.9	5.7	5.6
G131.0	5.8	5.7	5.4	5.2	5.5	5.8	6.0	5.9	5.8	5.7
G132.0	5.8	5.7	5.5	5.5	5.6	5.9	6.1	6.0	5.9	5.7
G133.0	6.0	5.9	5.7	5.5	5.7	5.9	6.2	6.1	6.0	5.9
G134.0	6.1	6.0	5.8	5.6	5.8	6.0	6.3	6.2	6.1	6.0
G135.0	6.2	6.1	5.8	5.7	5.8	6.0	6.4	6.4	6.2	6.0
G136.0	6.2	6.1	6.0	5.8	6.0	6.1	6.4	6.3	6.2	6.1
G137.0	6.4	6.3	6.0	6.0	6.1	6.2	6.6	6.4	6.3	6.2
G138.0	6.4	6.3	6.1	6.0	6.2	6.3	6.6	6.6	6.4	6.3
G139.0	6.6	6.4	6.2	6.1	6.3	6.3	6.7	6.6	6.4	6.4
G140.0	6.6	6.5	6.2	6.2	6.3	6.5	6.8	6.7	6.6	6.5
G141.0	6.7	6.6	6.4	6.3	6.4	6.5	6.9	6.8	6.6	6.6
G142.0	6.8	6.6	6.5	6.4	6.4	6.6	6.9	6.9	6.7	6.6
G143.0	6.9	6.7	6.6	6.4	6.6	6.7	7.0	7.0	6.8	6.6
G144.0	6.9	6.8	6.6	6.5	6.6	6.8	7.1	7.0	6.9	6.8
G145.0	7.0	6.9	6.7	6.6	6.7	6.9	7.2	7.1	7.0	6.9
G146.0	7.0	7.0	6.8	6.7	6.8	7.0	7.3	7.2	7.0	7.0
G147.0	7.2	7.0	6.9	6.9	6.8	7.0	7.3	7.3	7.1	7.0

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 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	7.2	7.1	6.9	6.9	7.0	7.1	7.4	7.3	7.1	7.1
G149.0	7.3	7.2	7.0	7.0	7.0	7.2	7.4	7.4	7.2	7.2
G150.0	7.3	7.2	7.1	7.0	7.0	7.3	7.6	7.5	7.3	7.2
G151.0	7.4	7.3	7.3	7.2	7.2	7.3	7.7	7.5	7.4	7.3
G152.0	7.4	7.3	7.3	7.2	7.3	7.4	7.7	7.6	7.5	7.4
G153.0	7.5	7.4	7.3	7.3	7.3	7.4	7.8	7.6	7.5	7.5
G154.0	7.5	7.5	7.4	7.3	7.3	7.5	7.8	7.8	7.5	7.6
G155.0	7.7	7.6	7.5	7.4	7.5	7.6	7.8	7.8	7.6	7.6
G156.0	7.7	7.6	7.6	7.4	7.5	7.7	7.9	7.8	7.6	7.6
G157.0	7.8	7.7	7.7	7.6	7.6	7.6	8.0	7.9	7.8	7.7
G158.0	7.8	7.8	7.6	7.6	7.6	7.7	8.0	7.9	7.8	7.8
G159.0	7.9	7.8	7.7	7.7	7.6	7.8	8.0	7.9	7.9	7.8
G160.0	7.9	7.8	7.7	7.7	7.7	7.8	8.0	8.0	7.9	7.9
G161.0	8.0	7.9	7.9	7.8	7.7	7.9	8.0	8.1	8.0	7.9
G162.0	8.0	7.9	8.0	7.8	7.9	7.9	8.1	8.1	8.1	7.9
G163.0	8.0	8.0	8.0	7.8	7.9	7.9	8.2	8.1	8.1	8.0
G164.0	8.0	8.1	8.0	7.9	8.0	8.0	8.2	8.1	8.1	8.1
G165.0	8.2	8.1	8.1	8.0	8.0	8.0	8.3	8.1	8.1	8.1
G166.0	8.2	8.2	8.1	8.0	8.0	8.1	8.3	8.2	8.2	8.2
G167.0	8.3	8.3	8.2	8.1	8.1	8.2	8.3	8.3	8.3	8.2
G168.0	8.3	8.3	8.3	8.1	8.2	8.2	8.4	8.3	8.3	8.3
G169.0	8.3	8.3	8.3	8.2	8.2	8.2	8.4	8.3	8.3	8.3
G170.0	8.3	8.4	8.3	8.2	8.2	8.2	8.4	8.3	8.4	8.3
G171.0	8.4	8.4	8.3	8.2	8.3	8.3	8.5	8.3	8.4	8.3
G172.0	8.4	8.5	8.3	8.2	8.3	8.3	8.5	8.4	8.4	8.4
G173.0	8.5	8.4	8.4	8.3	8.4	8.3	8.6	8.3	8.4	8.4
G174.0	8.5	8.5	8.4	8.3	8.3	8.3	8.5	8.4	8.4	8.4
G175.0	8.5	8.4	8.4	8.4	8.4	8.4	8.5	8.4	8.5	8.4
G176.0	8.5	8.5	8.4	8.4	8.5	8.4	8.6	8.4	8.5	8.4
G177.0	8.6	8.6	8.5	8.4	8.5	8.5	8.6	8.5	8.5	8.4
G178.0	8.6	8.5	8.5	8.4	8.5	8.5	8.6	8.5	8.5	8.5
G179.0	8.6	8.6	8.6	8.4	8.5	8.5	8.7	8.5	8.5	8.5
G180.0	8.6	8.5	8.5	8.4	8.5	8.5	8.6	8.5	8.5	8.4

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 5)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G0.0	687.3	687.3	687.3							
G1.0	687.1	687.0	687.1							
G2.0	686.6	686.7	686.7							
G3.0	685.6	685.8	686.0							
G4.0	684.8	684.9	685.4							
G5.0	683.5	683.6	684.0							
G6.0	681.8	681.9	682.6							
G7.0	679.8	680.1	680.9							
G8.0	677.6	678.2	679.1							
G9.0	675.3	675.9	676.9							
G10.0	672.7	673.5	674.4							
G11.0	669.6	670.5	671.7							
G12.0	666.4	667.7	668.8							
G13.0	663.1	664.4	665.6							
G14.0	659.2	660.8	661.9							
G15.0	655.2	657.1	658.6							
G16.0	650.6	653.1	654.4							
G17.0	646.2	649.0	650.3							
G18.0	641.5	644.4	646.2							
G19.0	636.4	639.6	641.5							
G20.0	631.3	635.0	637.1							
G21.0	626.3	629.9	632.3							
G22.0	620.2	624.3	626.7							
G23.0	614.4	619.1	621.7							
G24.0	607.8	612.7	615.8							
G25.0	601.7	607.1	610.4							
G26.0	595.2	601.3	604.4							
G27.0	588.4	594.5	598.2							
G28.0	581.6	588.2	592.2							
G29.0	574.6	581.7	585.6							
G30.0	567.0	574.3	578.7							
G31.0	559.8	567.6	571.8							
G32.0	551.3	559.7	564.6							
G33.0	544.0	552.3	557.4							
G34.0	535.9	545.3	550.6							
G35.0	527.1	536.8	542.5							
G36.0	519.2	529.3	535.2							

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 6)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G37.0	510.0	520.7	527.6							
G38.0	501.7	513.0	519.4							
G39.0	493.0	505.1	511.7							
G40.0	483.6	496.0	503.1							
G41.0	475.3	487.9	494.9							
G42.0	466.1	479.4	487.1							
G43.0	456.4	470.3	478.4							
G44.0	447.2	461.9	470.0							
G45.0	437.0	452.6	461.5							
G46.0	428.0	443.7	452.6							
G47.0	418.2	434.8	444.3							
G48.0	408.0	425.2	434.6							
G49.0	398.2	416.1	426.4							
G50.0	388.6	407.1	417.7							
G51.0	377.7	397.1	408.1							
G52.0	368.0	388.1	399.7							
G53.0	357.3	378.4	390.8							
G54.0	347.1	369.0	381.6							
G55.0	336.9	360.0	372.6							
G56.0	326.0	349.7	363.2							
G57.0	316.2	340.8	354.4							
G58.0	305.6	331.0	345.4							
G59.0	294.7	321.2	335.6							
G60.0	284.1	311.6	327.1							
G61.0	273.0	301.7	317.4							
G62.0	262.3	292.1	308.8							
G63.0	252.2	283.1	299.9							
G64.0	240.5	272.8	290.2							
G65.0	230.3	263.2	281.2							
G66.0	220.3	254.1	272.8							
G67.0	208.6	243.8	262.9							
G68.0	198.4	234.3	254.0							
G69.0	186.8	224.0	244.5							
G70.0	176.6	215.0	235.5							
G71.0	166.4	205.9	226.6							
G72.0	155.1	195.6	216.4							
G73.0	144.8	186.4	207.3							

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	134.8	176.7	198.0							
G75.0	123.8	166.6	187.9							
G76.0	114.2	157.1	178.2							
G77.0	103.7	146.2	168.0							
G78.0	94.7	136.9	157.9							
G79.0	85.6	127.1	146.4							
G80.0	76.4	116.3	132.1							
G81.0	67.8	104.0	116.3							
G82.0	59.1	89.5	98.8							
G83.0	50.5	73.6	74.6							
G84.0	42.1	55.6	48.7							
G85.0	32.0	31.7	17.5							
G86.0	22.1	11.6	3.1							
G87.0	12.7	4.6	2.6							
G88.0	6.2	3.6	2.2							
G89.0	4.1	2.7	2.1							
G90.0	2.2	2.4	2.1							
G91.0	2.3	2.5	2.2							
G92.0	2.4	2.5	2.2							
G93.0	2.5	2.7	2.3							
G94.0	2.6	2.7	2.4							
G95.0	2.6	2.7	2.5							
G96.0	2.7	2.9	2.6							
G97.0	2.9	2.9	2.6							
G98.0	2.9	3.1	2.7							
G99.0	3.0	3.1	2.9							
G100.0	3.1	3.2	2.9							
G101.0	3.2	3.2	3.0							
G102.0	3.3	3.3	3.1							
G103.0	3.3	3.4	3.2							
G104.0	3.4	3.5	3.3							
G105.0	3.5	3.6	3.3							
G106.0	3.6	3.7	3.5							
G107.0	3.7	3.7	3.5							
G108.0	3.7	3.8	3.6							
G109.0	3.9	3.9	3.7							
G110.0	4.0	4.0	3.7							

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 8)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G111.0	4.0	4.0	3.9							
G112.0	4.2	4.1	3.9							
G113.0	4.3	4.3	4.1							
G114.0	4.4	4.4	4.1							
G115.0	4.4	4.4	4.2							
G116.0	4.6	4.5	4.4							
G117.0	4.5	4.6	4.4							
G118.0	4.6	4.7	4.5							
G119.0	4.7	4.8	4.6							
G120.0	4.8	5.0	4.7							
G121.0	4.9	5.0	4.8							
G122.0	5.0	5.1	4.9							
G123.0	5.0	5.2	5.0							
G124.0	5.2	5.3	5.1							
G125.0	5.2	5.3	5.2							
G126.0	5.3	5.4	5.3							
G127.0	5.5	5.6	5.5							
G128.0	5.5	5.6	5.5							
G129.0	5.6	5.7	5.6							
G130.0	5.8	5.8	5.7							
G131.0	5.8	5.9	5.8							
G132.0	5.9	6.0	5.8							
G133.0	5.9	6.2	6.0							
G134.0	6.1	6.2	6.1							
G135.0	6.1	6.3	6.2							
G136.0	6.3	6.4	6.2							
G137.0	6.3	6.5	6.4							
G138.0	6.3	6.6	6.4							
G139.0	6.5	6.7	6.6							
G140.0	6.6	6.7	6.6							
G141.0	6.7	6.9	6.7							
G142.0	6.8	7.0	6.8							
G143.0	6.9	7.0	6.9							
G144.0	6.9	7.1	6.9							
G145.0	7.0	7.1	7.0							
G146.0	7.0	7.2	7.0							
G147.0	7.2	7.3	7.2							

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 9)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G148.0	7.3	7.3	7.2							
G149.0	7.3	7.5	7.3							
G150.0	7.4	7.5	7.3							
G151.0	7.6	7.6	7.4							
G152.0	7.6	7.6	7.4							
G153.0	7.6	7.7	7.5							
G154.0	7.6	7.8	7.5							
G155.0	7.7	7.8	7.7							
G156.0	7.8	7.9	7.7							
G157.0	7.9	7.9	7.8							
G158.0	7.9	8.0	7.8							
G159.0	8.0	8.0	7.9							
G160.0	8.1	8.1	7.9							
G161.0	8.0	8.1	8.0							
G162.0	8.1	8.2	8.0							
G163.0	8.1	8.2	8.0							
G164.0	8.2	8.2	8.0							
G165.0	8.2	8.3	8.2							
G166.0	8.3	8.3	8.2							
G167.0	8.4	8.3	8.3							
G168.0	8.3	8.4	8.3							
G169.0	8.4	8.4	8.3							
G170.0	8.4	8.4	8.3							
G171.0	8.5	8.5	8.4							
G172.0	8.5	8.4	8.4							
G173.0	8.5	8.5	8.5							
G174.0	8.5	8.5	8.5							
G175.0	8.5	8.5	8.5							
G176.0	8.5	8.5	8.5							
G177.0	8.5	8.6	8.6							
G178.0	8.6	8.5	8.6							
G179.0	8.5	8.5	8.6							
G180.0	8.5	8.6	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:

## LED Average Luminance Report

Avg.L	cd/m <sup>2</sup>
L 0-180(65) av	1839.44
L 0-180(75) av	2028.00
L 0-180(85) av	900.37
L 90-270(65) av	1419.20
L 90-270(75) av	1146.54
L 90-270(85) av	607.80
L 45(65) av	1610.63
L 45(75) av	1564.09
L 45(85) av	1116.38

Standard: GB/T 29293-2012

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: