

Report No.:

Test Time: 2023-07-25 10:23

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog: LED

Number of Lamps:

Luminous Length (mm): 1200

Luminous Height (mm): 40

Current: 0.266 A

Power Factor: 0.991

Luminaire Description:

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 100

Voltage: 119.9 V

Power: 31.61 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 4434.8 lm

Downward Ratio: 93%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 209.8, 160.6, 188.2, 186.3

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 124.2, 105.4, 114.3, 113.8

Luminous Efficacy (lm/w): 140.30

Max. Intensity: 1341.68 cd

S/MH(C0/C180): 1.28

Total Rated Lamp Lumens: 4434.8 lm

Efficiency: 100%

Upward Ratio: 7%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 209.8, 160.6, 188.2, 186.3

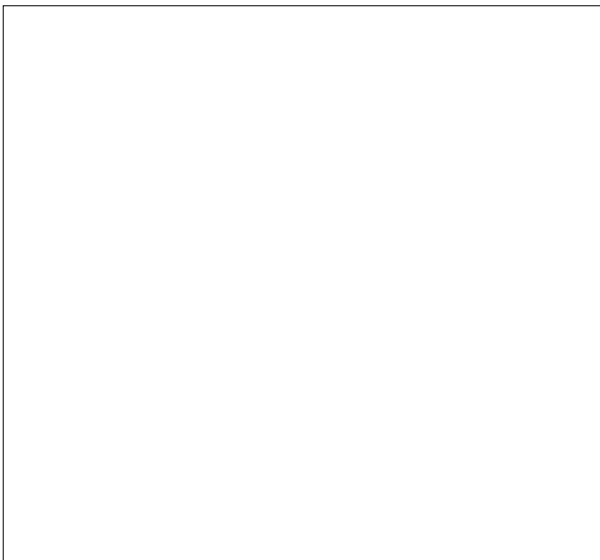
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 124.2, 105.4, 114.3, 113.8

C0r0 Intensity: 1341.41 cd

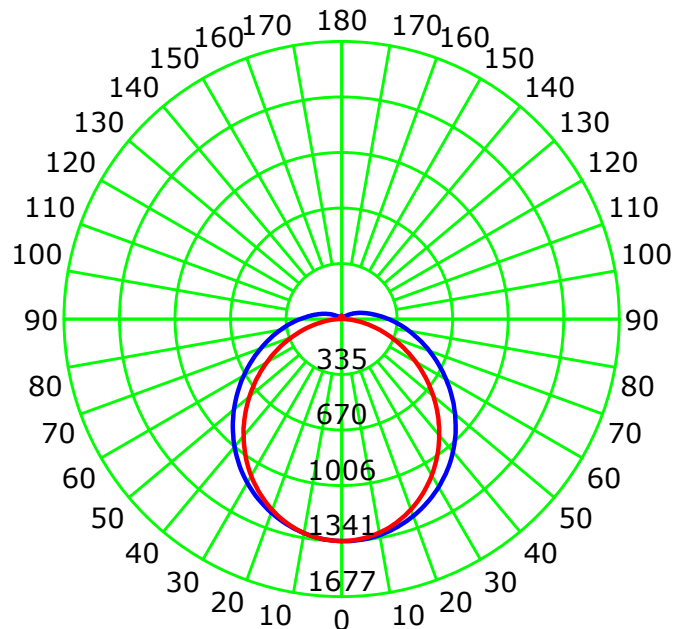
Pos of Max. Intensity: H0 V2

S/MH(C90/C270): 1.21

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

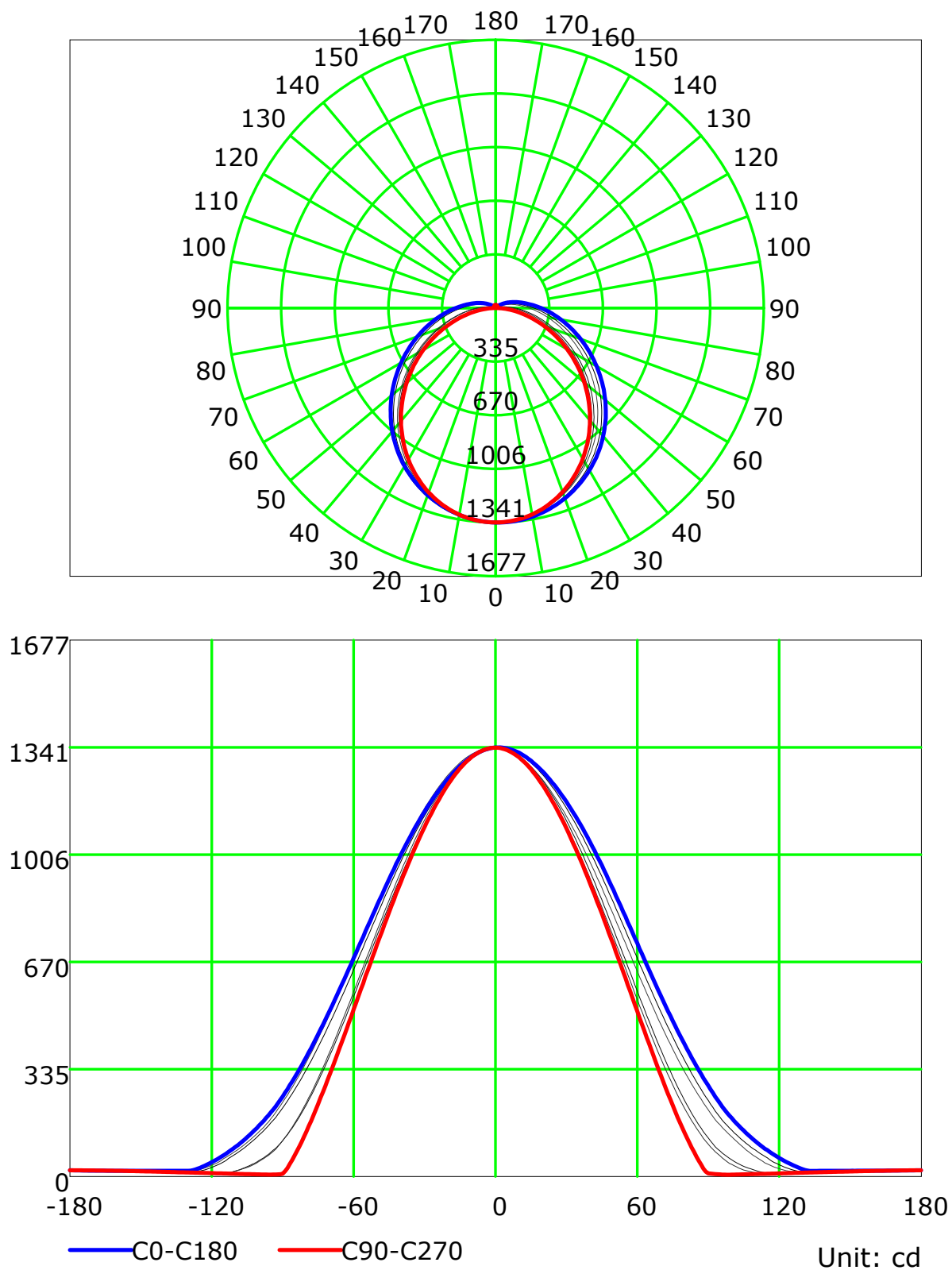
Test Device: GPM-1600L

Distance: 9.010 m

Humidity:

Inspector:

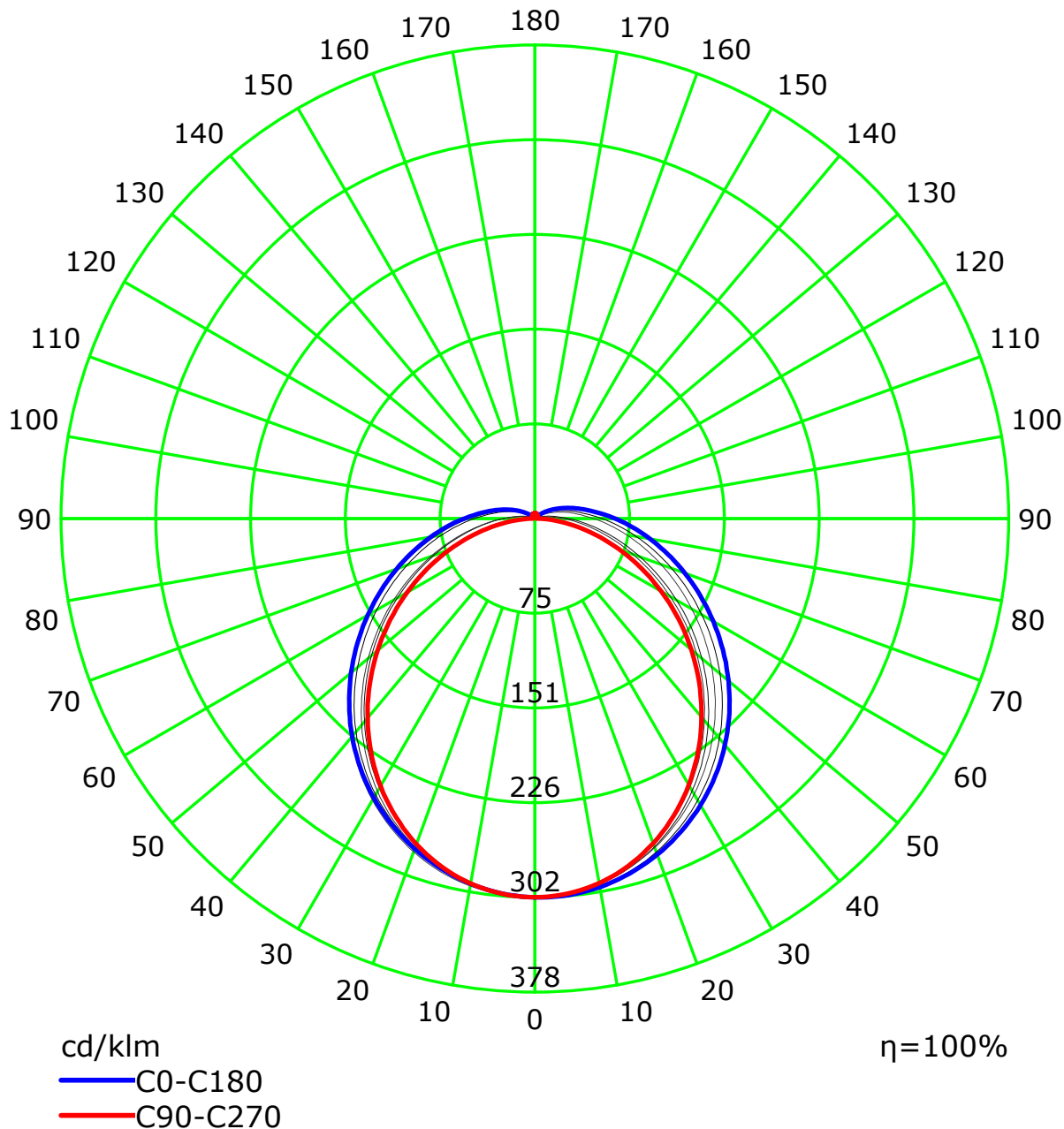
## Luminous Intensity Distribution Curve



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: 9.010 m  
Humidity:  
Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



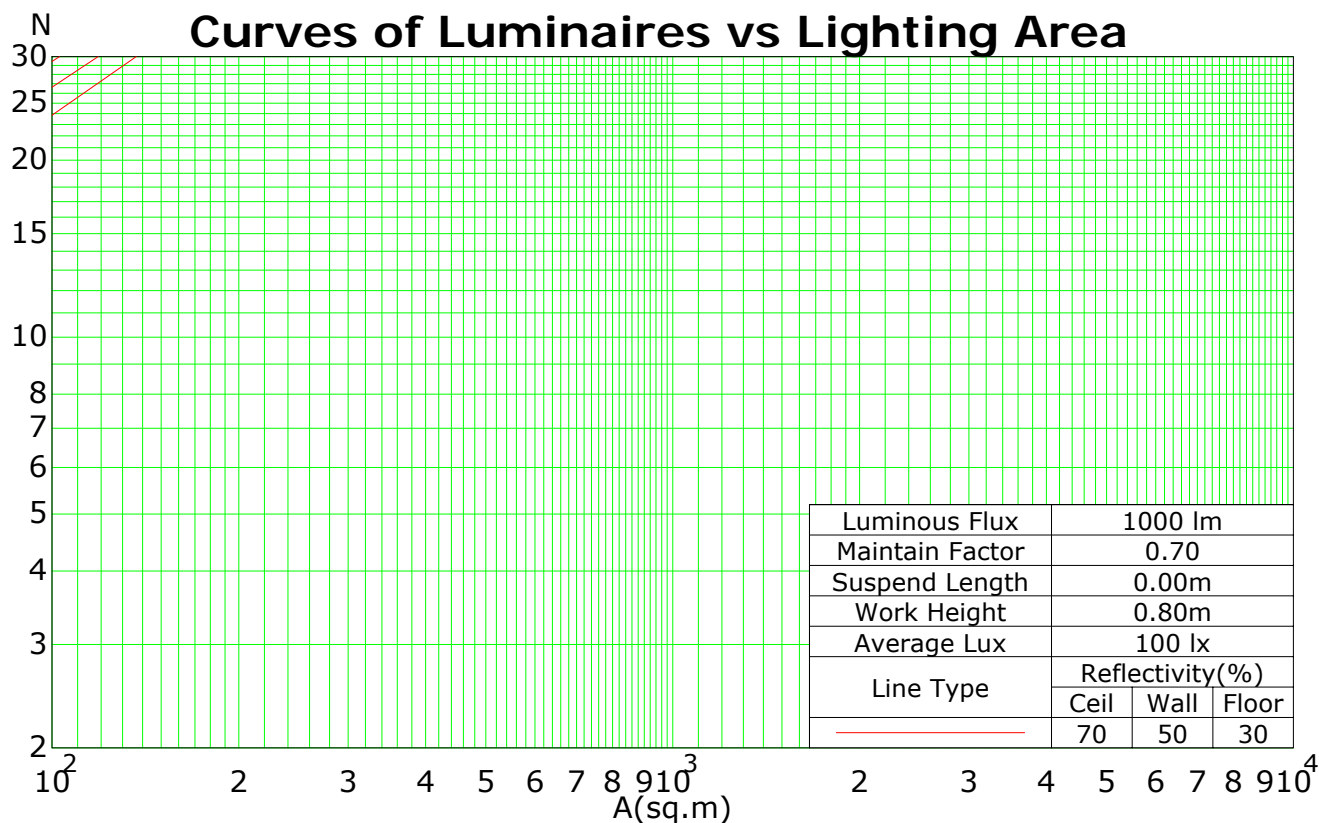
C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1600L  
Distance: 9.010 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	1.17	1.17	1.17	1.17	1.14	1.14	1.14	1.14	1.07	1.07	1.07	1.01	1.01	1.01	0.96	0.96	0.96	0.93
1	1.06	1.00	0.95	0.91	1.02	0.97	0.93	0.89	0.92	0.88	0.85	0.86	0.83	0.81	0.82	0.79	0.77	0.75
2	0.95	0.86	0.79	0.73	0.92	0.84	0.77	0.71	0.79	0.74	0.69	0.75	0.70	0.66	0.71	0.67	0.64	0.61
3	0.87	0.75	0.67	0.60	0.84	0.73	0.65	0.59	0.69	0.63	0.57	0.66	0.60	0.55	0.62	0.57	0.53	0.51
4	0.79	0.67	0.57	0.50	0.76	0.65	0.56	0.50	0.61	0.54	0.48	0.58	0.52	0.47	0.55	0.50	0.46	0.43
5	0.73	0.59	0.50	0.43	0.70	0.58	0.49	0.43	0.55	0.47	0.42	0.52	0.46	0.41	0.50	0.44	0.39	0.37
6	0.67	0.53	0.44	0.38	0.65	0.52	0.43	0.37	0.50	0.42	0.36	0.47	0.41	0.35	0.45	0.39	0.35	0.32
7	0.62	0.48	0.39	0.33	0.60	0.47	0.39	0.33	0.45	0.38	0.32	0.43	0.36	0.31	0.41	0.35	0.31	0.29
8	0.58	0.44	0.35	0.29	0.56	0.43	0.35	0.29	0.41	0.34	0.29	0.39	0.33	0.28	0.38	0.32	0.27	0.25
9	0.54	0.40	0.32	0.26	0.52	0.40	0.32	0.26	0.38	0.31	0.26	0.36	0.30	0.25	0.35	0.29	0.25	0.23
10	0.51	0.37	0.29	0.24	0.49	0.37	0.29	0.24	0.35	0.28	0.23	0.34	0.27	0.23	0.32	0.27	0.22	0.21

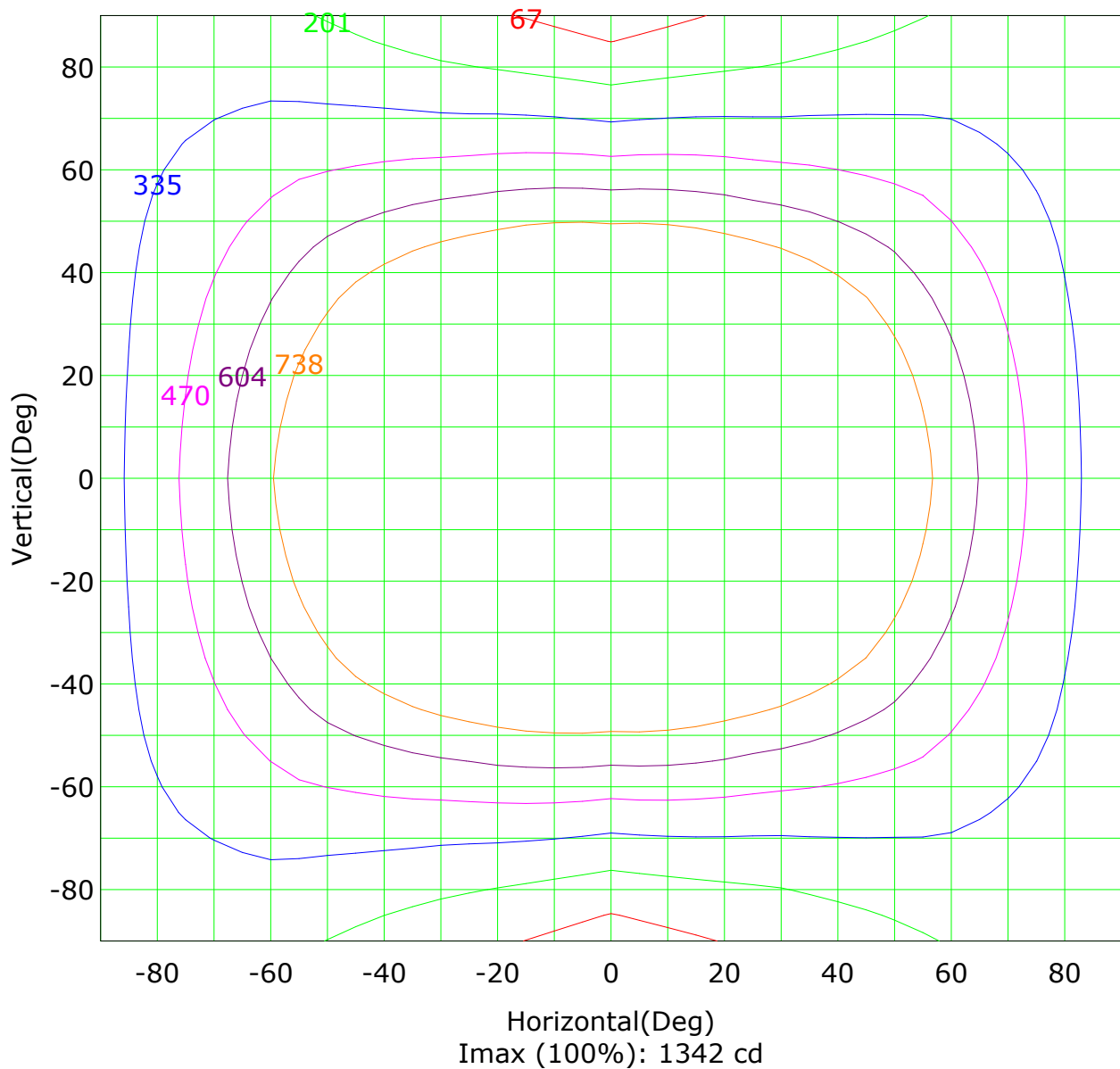
Spacing Criteria (0-180): 1.28  
Spacing Criteria (90-270): 1.21  
Spacing Criteria (Diagonal): 1.37



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: 9.010 m  
Humidity:  
Inspector:

## Isocandela (rectangle)

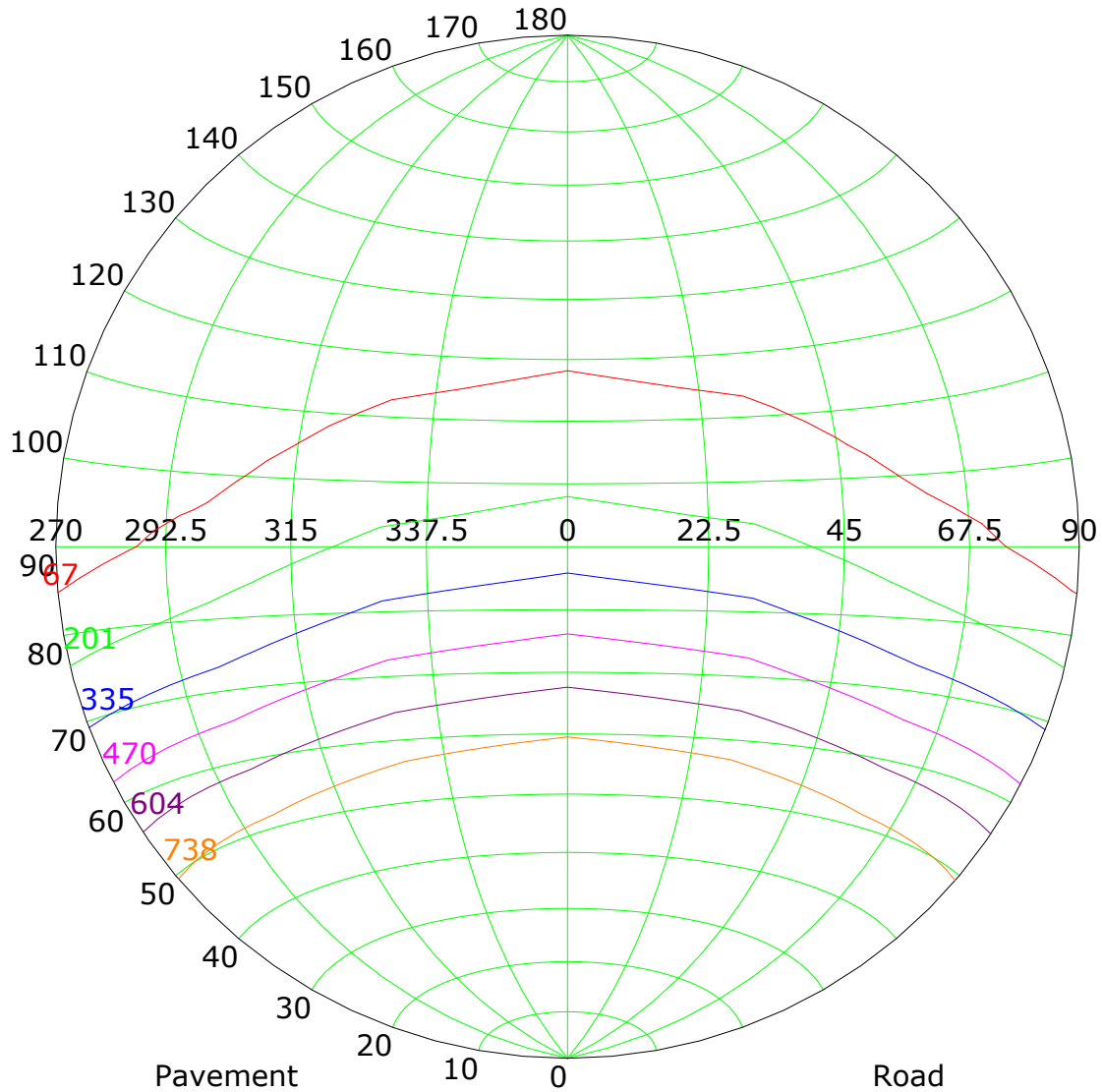


( 5%): 67 cd	( 15%): 201 cd
( 25%): 335 cd	( 35%): 470 cd
( 45%): 604 cd	( 55%): 738 cd

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: 9.010 m  
Humidity:  
Inspector:

## Isocandela (sphere)



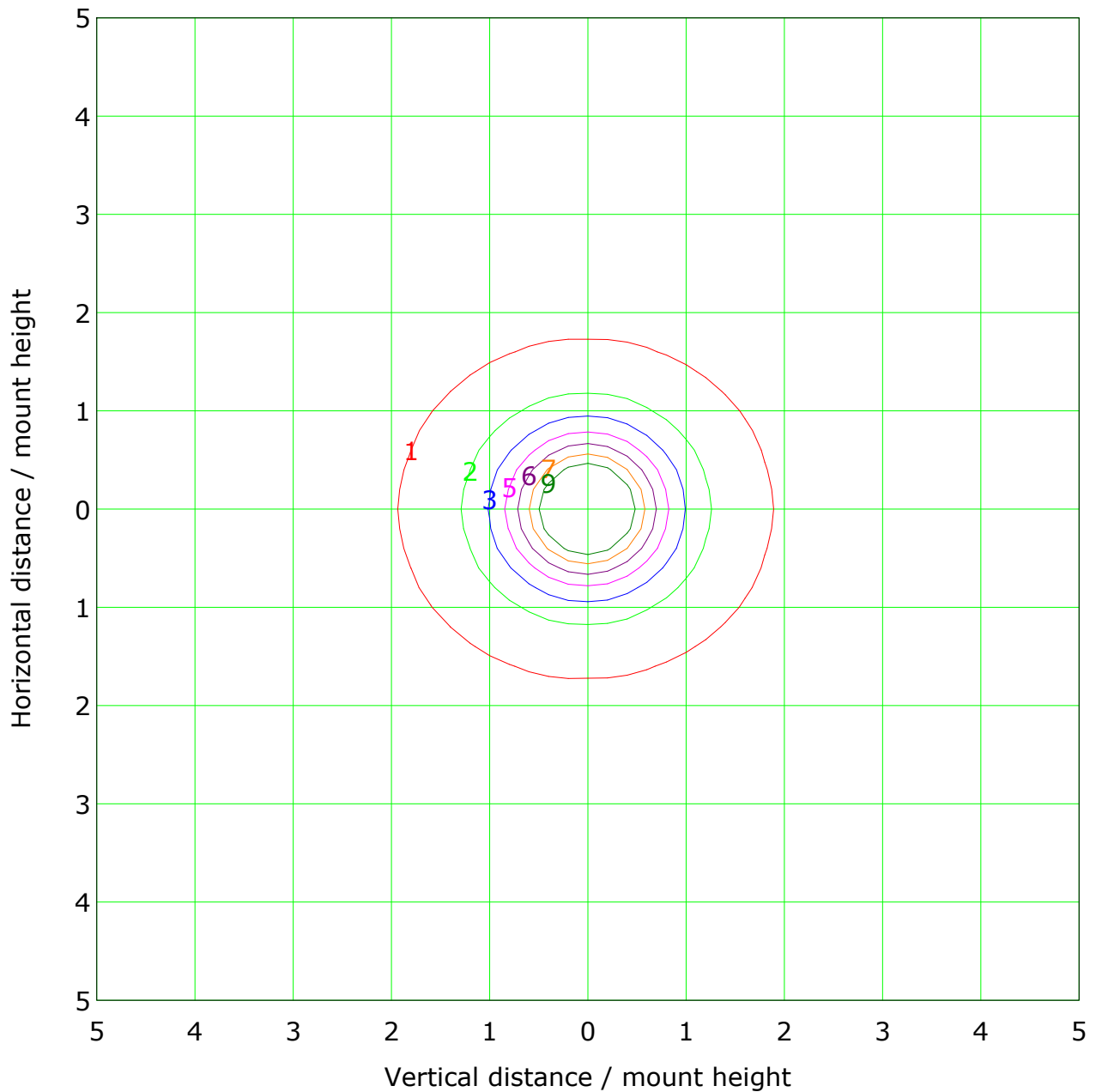
Imax (100%): 1342 cd

( 5%): 67 cd	( 15%): 201 cd
( 25%): 335 cd	( 35%): 470 cd
( 45%): 604 cd	( 55%): 738 cd

CIE: narrow - short  
CIE: Non-cut-off luminaire  
Max.At90: 64.165 cd/klm

IES: Non-cut-off  
Max.At80: 93.291 cd/klm  
Max.80-90: 93.291 cd/klm

## IsoLux Plot



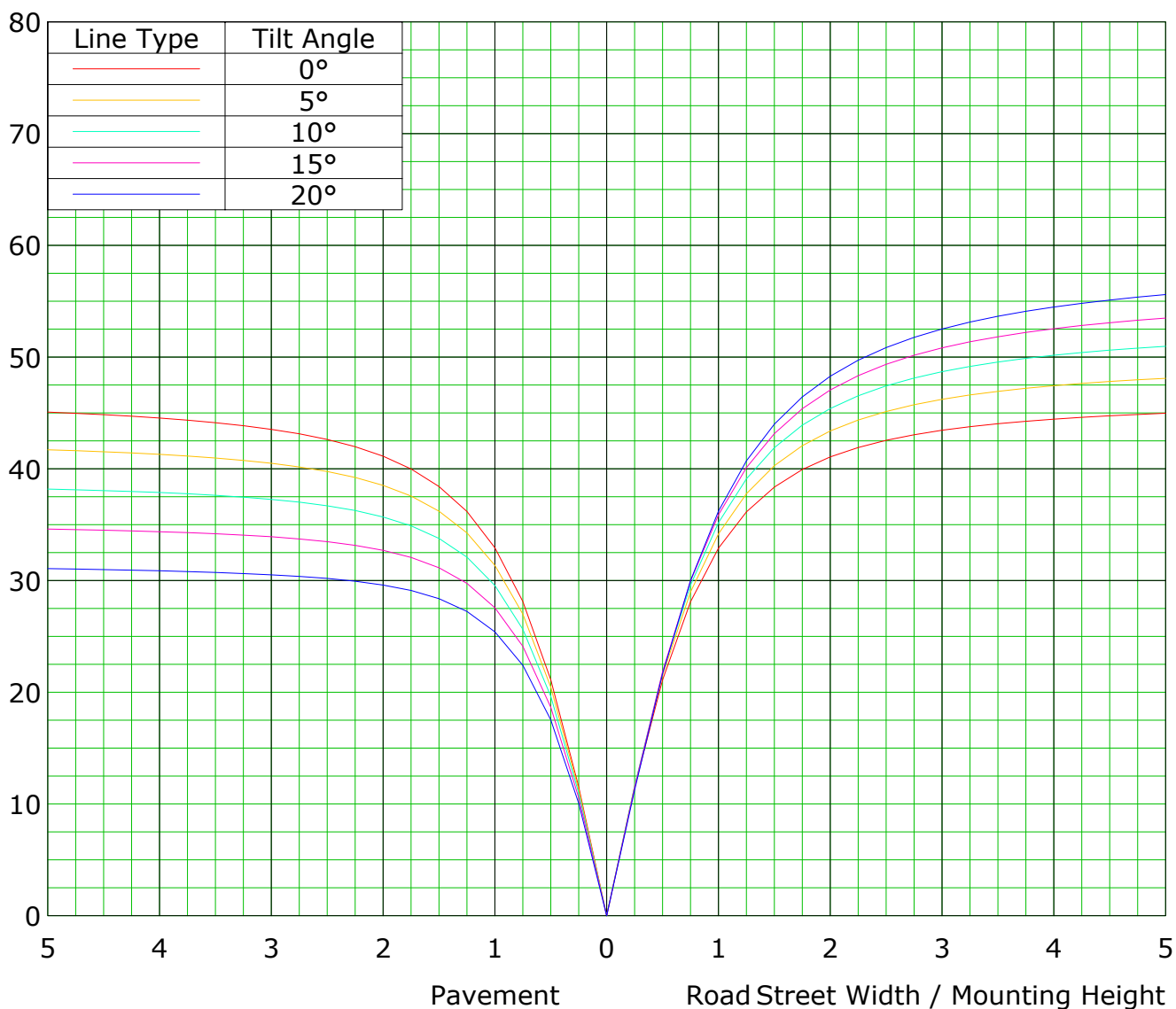
Mounting Height: 10.0m		Max Lux(100%): 13.4 lx	
— ( 5%):	0.7 lx	— ( 15%):	2.0 lx
— ( 25%):	3.4 lx	— ( 35%):	4.7 lx
— ( 45%):	6.0 lx	— ( 55%):	7.4 lx
— ( 65%):	8.7 lx		

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: 9.010 m  
Humidity:  
Inspector:

## Roadway CU Curve

Efficiency(%)



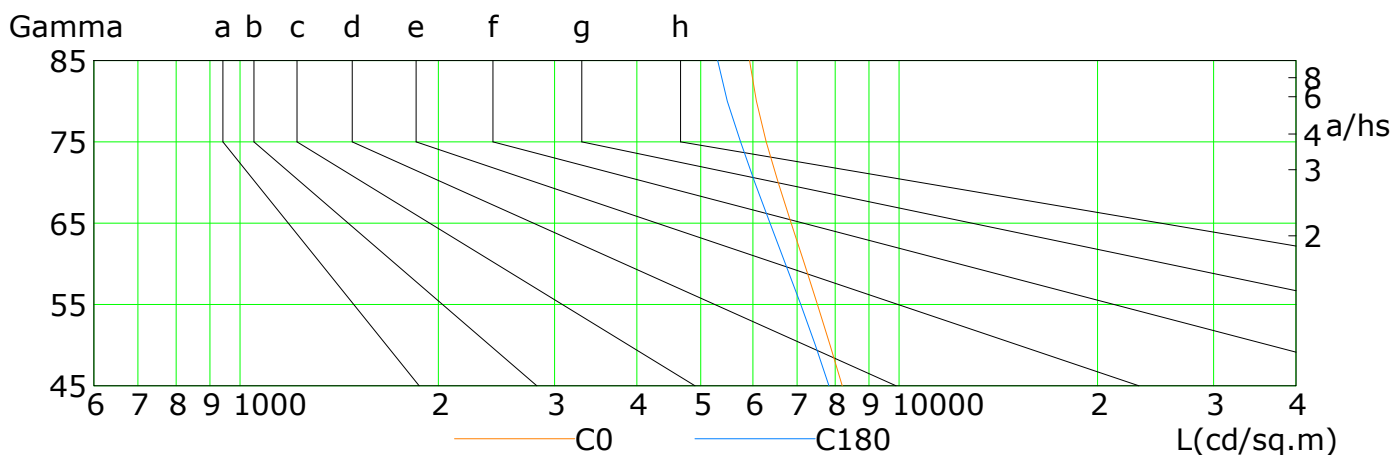
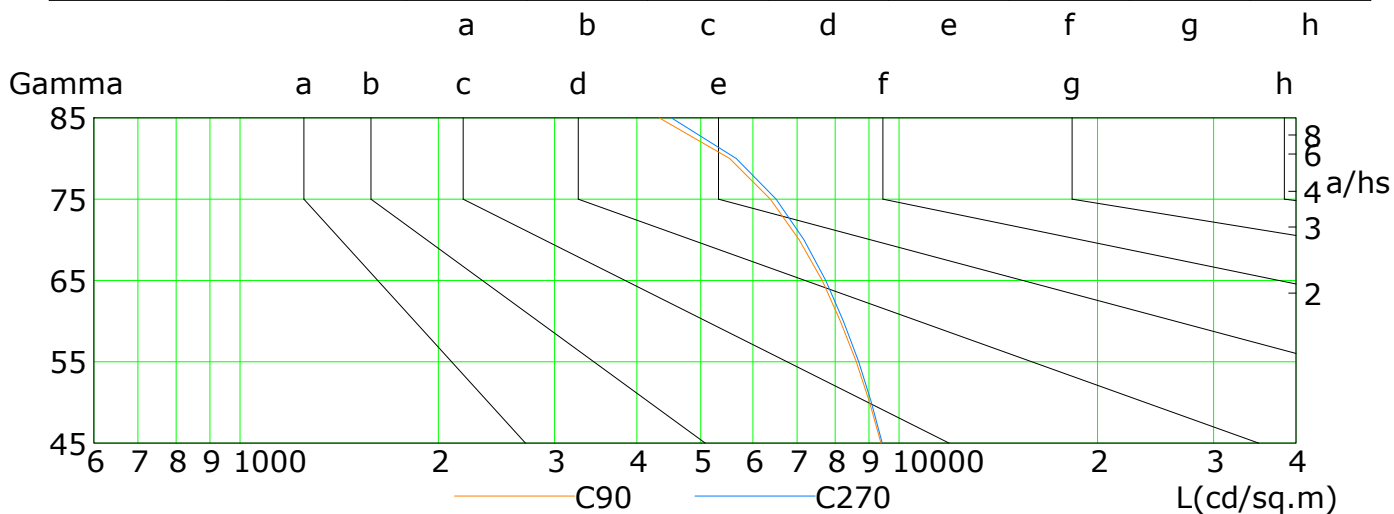
C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1600L  
Distance: 9.010 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

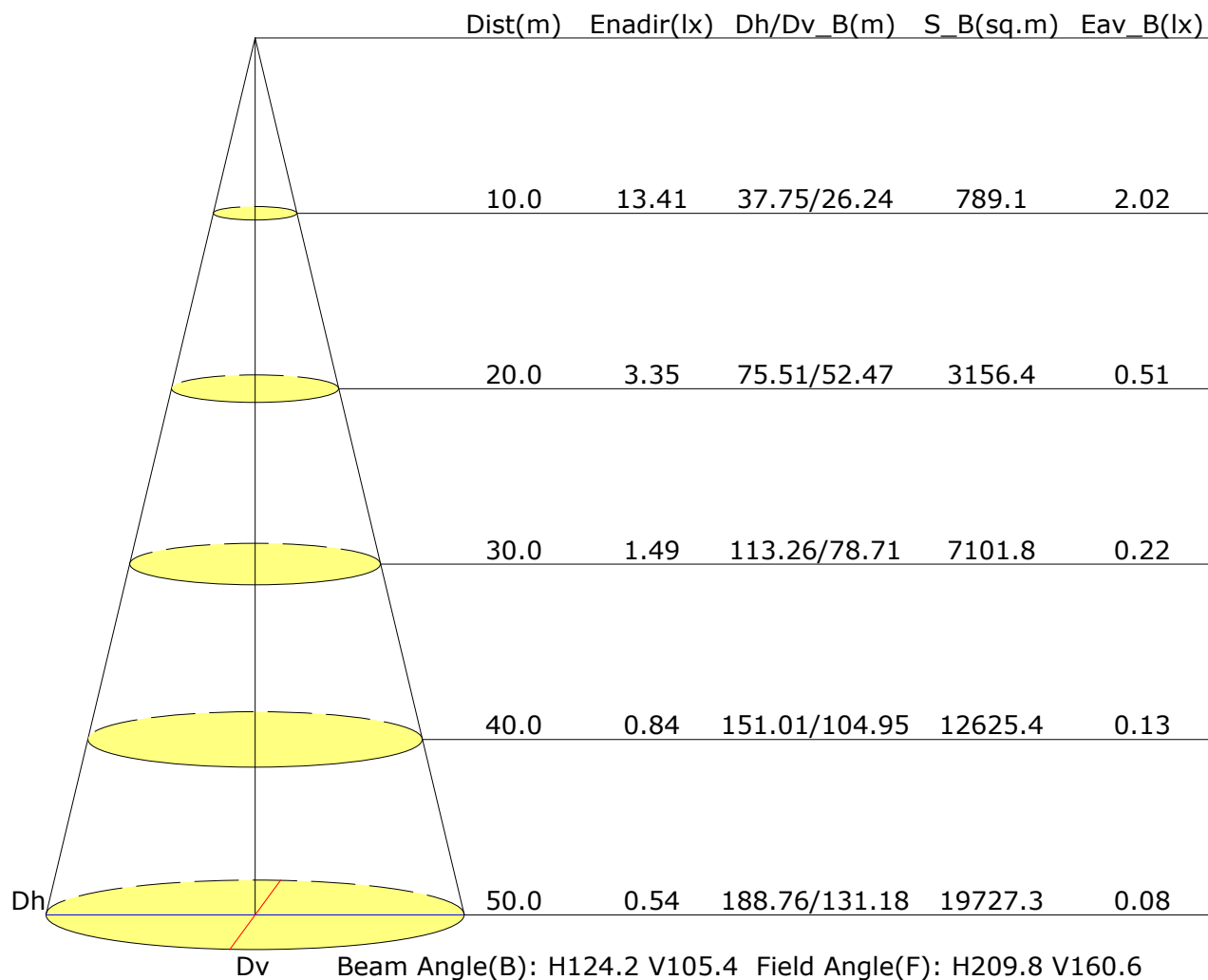


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	8196	7855	7516	7184	6856	6554	6284	6074	5928
C90	9384	9020	8612	8144	7643	7053	6375	5533	4327
C180	7825	7461	7091	6722	6370	6041	5747	5487	5305
C270	9427	9076	8682	8229	7737	7171	6507	5661	4515

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: 9.010 m  
Humidity:  
Inspector:

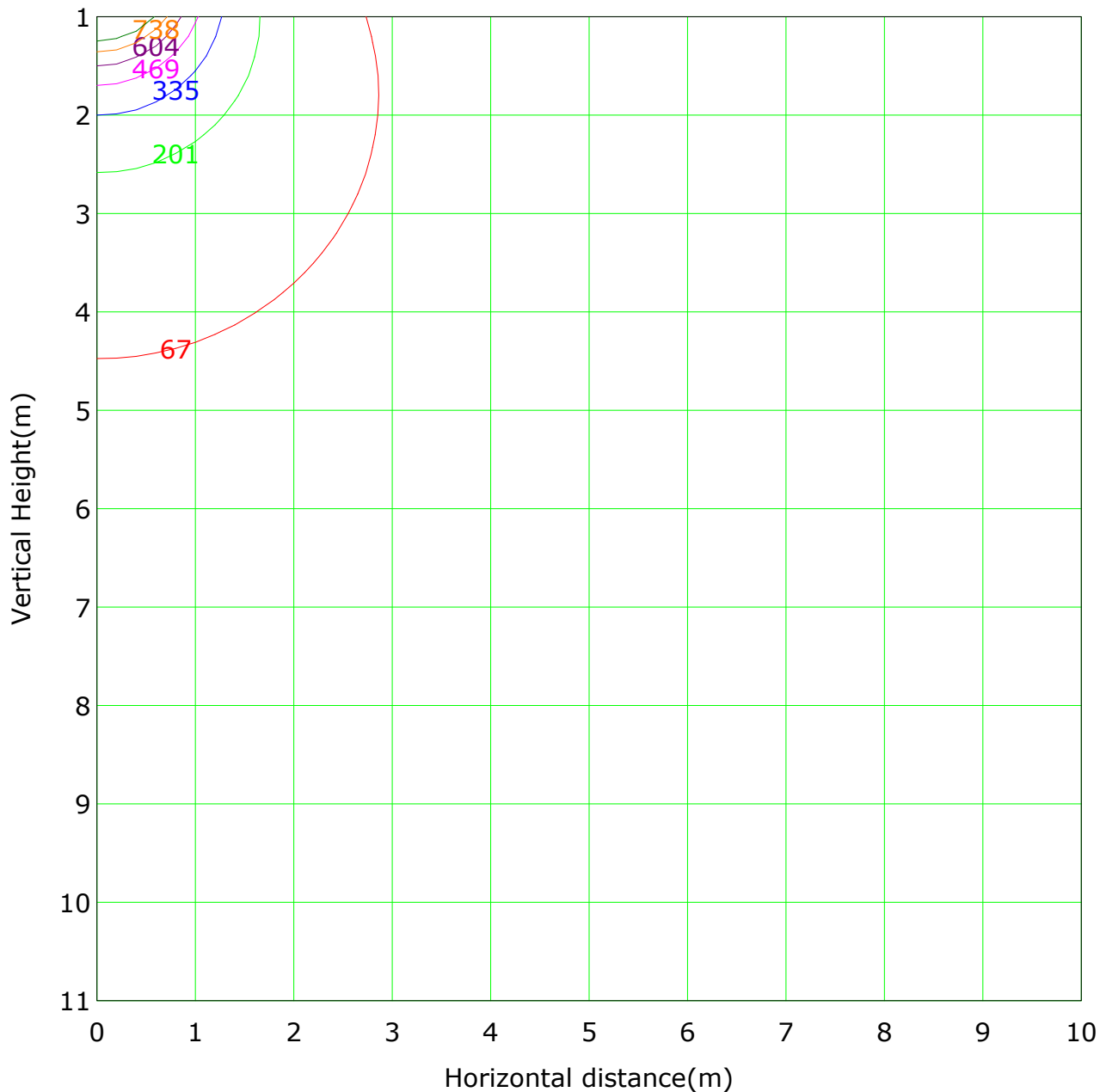
## Illuminance at a Distance



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: 9.010 m  
Humidity:  
Inspector:

## Vertical IsoLux Plot



Lowest(m): 1.0m   Highest(m): 11.0m   Max Lux: 1341.4 lx

( 5%): 67.1 lx	( 15%): 201.2 lx
( 25%): 335.4 lx	( 35%): 469.5 lx
( 45%): 603.6 lx	( 55%): 737.8 lx
( 65%): 871.9 lx	

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

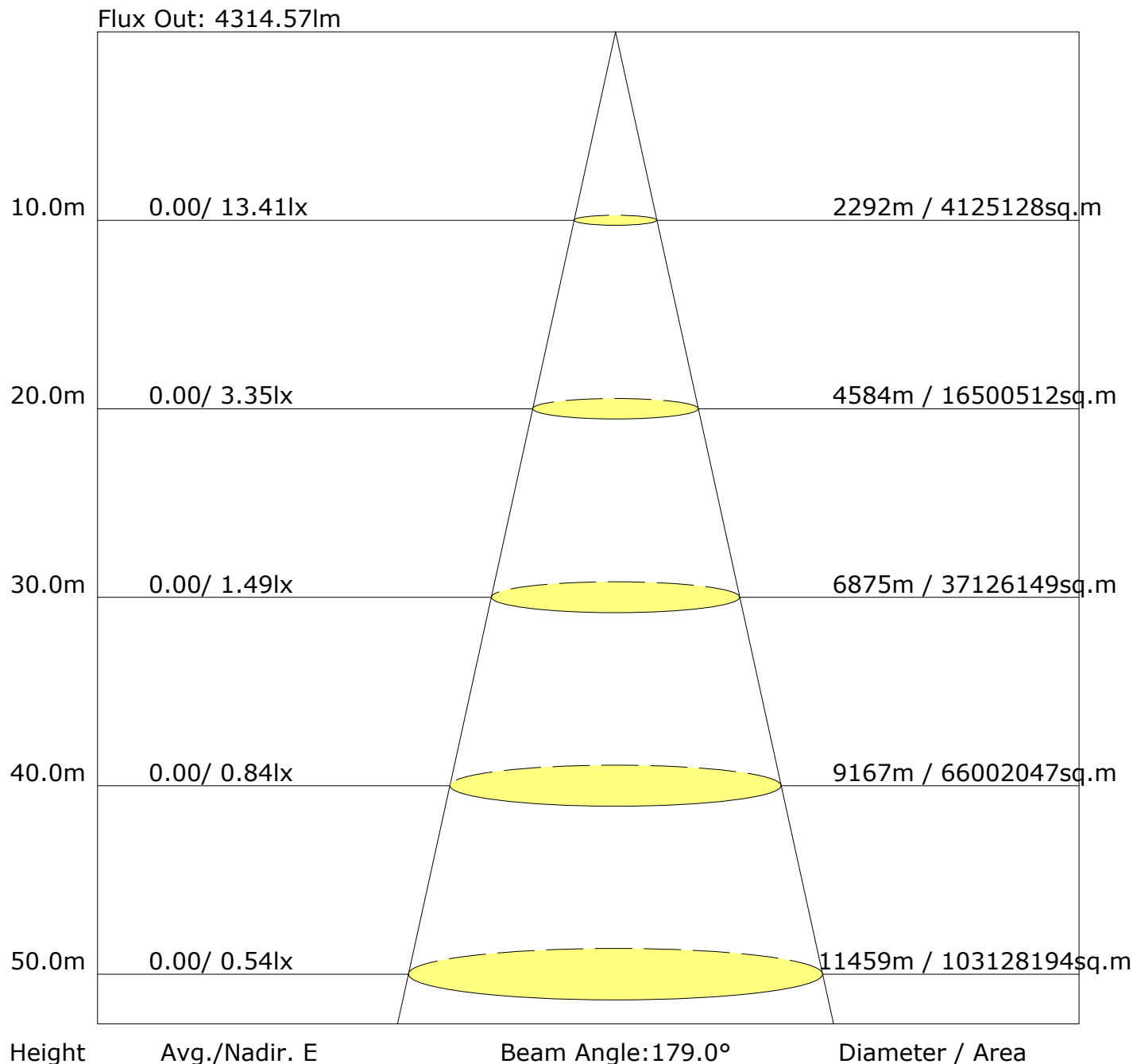
Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1600L  
Distance: 9.010 m  
Humidity:  
Inspector:

## Area Flux Table

Unit: lm

		Orbit, min																		
-90	0.7	1.9	3.1	4.0	4.3	4.3	3.9	3.4	2.5	2.6	3.4	4.0	4.4	4.6	4.3	3.4	2.2	0.7	57.8	47.2
-80	0.7	2.2	3.8	5.2	6.3	7.0	7.4	7.5	7.3	7.3	7.7	7.6	7.2	6.6	5.6	4.1	2.4	0.8	96.6	96.6
-70	0.7	2.4	4.5	6.7	8.6	10.2	11.6	12.6	13.0	13.0	12.9	11.9	10.6	9.0	7.1	4.8	2.7	0.8	143.2	143.2
-60	0.8	2.7	5.2	8.2	11.1	13.9	16.2	18.2	19.0	19.1	18.4	16.7	14.4	11.6	8.7	5.6	2.9	0.9	193.5	193.5
-50	0.8	2.9	5.9	9.6	13.6	17.5	20.9	23.6	25.0	25.1	23.9	21.4	18.1	14.2	10.2	6.3	3.2	0.9	243.3	243.3
-40	0.8	3.1	6.5	10.9	15.9	20.9	25.3	28.6	30.5	30.6	29.0	25.8	21.5	16.6	11.5	7.0	3.4	0.9	288.9	288.9
-30	0.8	3.3	7.1	12.0	17.7	23.6	28.9	32.8	35.1	35.2	33.2	29.4	24.3	18.5	12.7	7.6	3.6	0.9	326.9	326.9
-20	0.9	3.5	7.5	12.8	19.1	25.6	31.4	35.9	38.3	38.5	36.3	32.0	26.3	19.9	13.5	8.0	3.8	1.0	354.1	354.1
-10	0.9	3.5	7.7	13.3	19.9	26.6	32.7	37.4	40.0	40.2	37.9	33.4	27.4	20.7	14.1	8.3	3.9	1.0	368.9	368.9
0	0.9	3.5	7.7	13.3	19.8	26.6	32.7	37.4	40.0	40.2	37.9	33.4	27.5	20.7	14.1	8.3	3.9	1.0	368.9	368.9
10	0.9	3.5	7.5	12.8	19.1	25.5	31.4	35.8	38.3	38.4	36.2	32.1	26.4	19.9	13.6	8.0	3.8	1.0	354.0	354.0
20	0.8	3.3	7.0	12.0	17.7	23.6	28.8	32.7	35.0	35.1	33.2	29.5	24.4	18.6	12.7	7.6	3.6	0.9	326.6	326.6
30	0.8	3.1	6.5	10.8	15.8	20.8	25.1	28.5	30.4	30.5	29.0	25.8	21.6	16.7	11.6	7.0	3.4	0.9	288.4	288.4
40	0.8	2.9	5.9	9.5	13.5	17.4	20.7	23.4	24.9	25.0	23.9	21.4	18.2	14.3	10.2	6.4	3.2	0.9	242.6	242.6
50	0.8	2.7	5.2	8.1	10.9	13.7	16.0	18.0	18.9	19.0	18.4	16.7	14.4	11.7	8.7	5.6	3.0	0.9	192.6	192.6
60	0.7	2.4	4.4	6.6	8.4	10.0	11.3	12.4	12.8	12.9	12.8	12.0	10.7	9.1	7.2	4.9	2.7	0.8	142.1	142.1
70	0.7	2.2	3.7	5.1	6.1	6.7	7.1	7.3	7.1	7.2	7.7	7.7	7.4	6.7	5.7	4.2	2.4	0.8	95.7	95.7
80	0.7	1.9	3.1	3.9	4.1	4.0	3.7	3.2	2.4	2.5	3.5	4.2	4.6	4.7	4.4	3.5	2.2	0.7	57.3	46.3
90	14.1	51.2	102.3	164.7	231.9	297.8	355.1	398.7	420.4	422.7	405.2	364.9	309.5	244.2	175.7	110.7	56.3	15.7	4141	
Flux(T)	14.1	51.2	102.3	164.7	231.9	296.9	352.3	394.9	416.4	418.8	401.6	362.5	309.2	244.2	175.7	110.7	56.3	15.7		4119
Flux(E)	14.1	51.2	102.3	164.7	231.9	296.9	352.3	394.9	416.4	418.8	401.6	362.5	309.2	244.2	175.7	110.7	56.3	15.7		4119
-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	Flux(T)	Flux(E)

## 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: 9.010 m  
Humidity:  
Inspector:

## UGR Table

Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	19.4	20.7	19.8	21.1	21.5	18.9	20.3	19.3	20.6	21.0
3H	21.2	22.4	21.6	22.8	23.2	20.4	21.6	20.8	22.0	22.4
4H	22.1	23.2	22.5	23.6	24.1	21.0	22.1	21.4	22.5	23.0
6H	22.9	24.0	23.4	24.4	24.9	21.4	22.5	21.9	22.9	23.4
8H	23.3	24.3	23.8	24.8	25.3	21.6	22.6	22.0	23.1	23.5
12H	23.7	24.7	24.1	25.1	25.6	21.7	22.7	22.1	23.1	23.6
X=4H Y=2H	20.0	21.1	20.4	21.5	22.0	19.6	20.8	20.0	21.2	21.6
3H	22.0	23.0	22.5	23.5	23.9	21.2	22.3	21.7	22.7	23.2
4H	23.0	23.9	23.5	24.4	24.9	22.0	22.9	22.5	23.4	23.9
6H	24.0	24.8	24.6	25.3	25.9	22.6	23.4	23.1	23.9	24.4
8H	24.5	25.3	25.0	25.8	26.3	22.8	23.5	23.3	24.0	24.6
12H	25.0	25.7	25.5	26.2	26.8	22.9	23.6	23.5	24.1	24.7
X=8H Y=4H	23.3	24.1	23.9	24.6	25.2	22.4	23.1	22.9	23.7	24.2
6H	24.5	25.2	25.1	25.7	26.3	23.2	23.8	23.7	24.3	24.9
8H	25.2	25.7	25.7	26.3	26.9	23.5	24.0	24.1	24.6	25.2
12H	25.8	26.3	26.4	26.9	27.5	23.8	24.2	24.4	24.8	25.5
X=12H Y=4H	23.3	24.0	23.9	24.6	25.1	22.5	23.2	23.0	23.7	24.3
6H	24.6	25.2	25.2	25.7	26.4	23.3	23.9	23.9	24.5	25.1
8H	25.3	25.8	25.9	26.4	27.0	23.7	24.2	24.3	24.8	25.4
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.2					+0.2/-0.2				
S=1.5H	+0.4/-0.4					+0.3/-0.4				
S=2.0H	+0.5/-0.7					+0.5/-0.8				

Calculate in accordance with CIE Pub.117. The table is revised with 4435lm ( $8\log(F/F_0) = 5.2$ ).

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

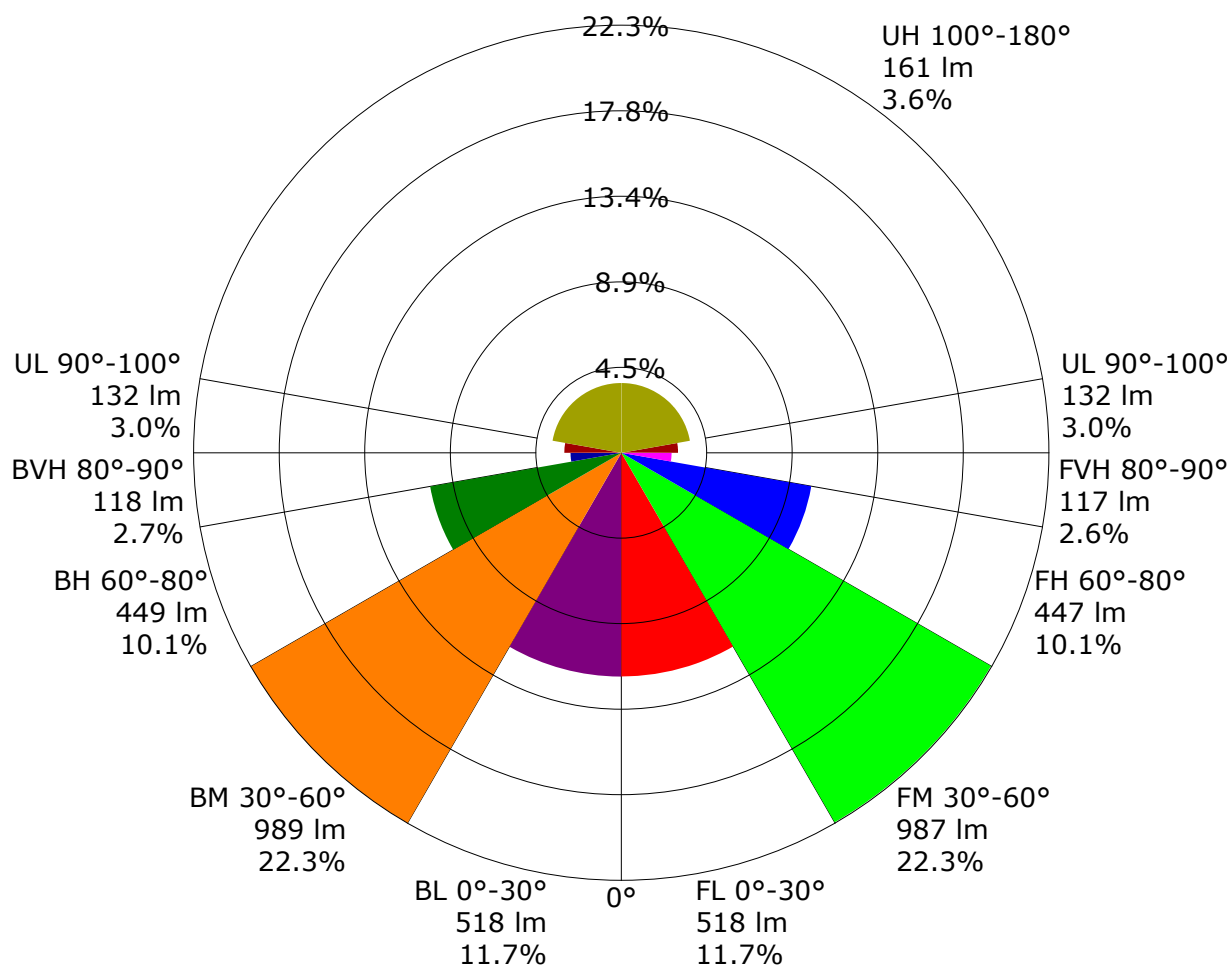
	ZONE	LUMENS	% LAMP LUMENS
	FORWARD LIGHT	2068	46.6
	FL ( 0°-30°)	518	11.7
	FM (30°-60°)	987	22.3
	FH (60°-80°)	447	10.1
	FVH (80°-90°)	117	2.6
	BACK LIGHT	2073	46.7
	BL ( 0°-30°)	518	11.7
	BM (30°-60°)	989	22.3
	BH (60°-80°)	449	10.1
	BVH (80°-90°)	118	2.7
	UP LIGHT	293	6.6
	UL (90°-100°)	132	3.0
	UH (100°-180°)	161	3.6
	TRAPPED LIGHT	NA	NA

BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B2 U3 G1
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B2 U3 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: 9.010 m  
Humidity:  
Inspector:

## LCS Graph



**Back Light**

**Forward Light**

Scale= MAX LCS%

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	0.52	0.62	0.69	0.74	0.82	0.87	0.90	0.95	0.98	
	0.30		0.44	0.54	0.61	0.67	0.75	0.81	0.85	0.90	0.94	
	0.20		0.38	0.48	0.55	0.61	0.69	0.75	0.80	0.86	0.91	
0.50	0.50	0.20	0.50	0.59	0.66	0.71	0.78	0.82	0.86	0.90	0.93	
	0.30		0.43	0.52	0.59	0.64	0.72	0.77	0.81	0.86	0.90	
	0.20		0.38	0.47	0.54	0.59	0.67	0.73	0.77	0.83	0.86	
0.30	0.50	0.20	0.48	0.57	0.63	0.67	0.74	0.78	0.81	0.85	0.88	
	0.30		0.42	0.51	0.57	0.62	0.69	0.74	0.77	0.82	0.85	
	0.20		0.37	0.46	0.52	0.58	0.65	0.70	0.74	0.79	0.83	
0.00	0.00	0.00	0.34	0.43	0.49	0.53	0.60	0.65	0.68	0.73	0.76	
Rating:32W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

## Utilisation Factor Table(Wall)

Utilisation Factors UF(W)			SHR NOM = 1.25									
Room Reflectance			Room Index(RI)									
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	
0.70	0.50	0.20	1.03	0.86	0.74	0.66	0.53	0.45	0.39	0.31	0.26	
	0.30		0.86	0.74	0.65	0.58	0.48	0.41	0.36	0.29	0.24	
	0.20		0.73	0.64	0.57	0.52	0.44	0.38	0.34	0.27	0.23	
0.50	0.50	0.20	0.98	0.82	0.70	0.62	0.50	0.45	0.37	0.29	0.24	
	0.30		0.83	0.71	0.62	0.56	0.46	0.39	0.35	0.28	0.23	
	0.20		0.72	0.63	0.56	0.50	0.42	0.37	0.32	0.26	0.22	
0.30	0.50	0.20	0.94	0.78	0.67	0.59	0.48	0.40	0.35	0.28	0.23	
	0.30		0.80	0.68	0.60	0.53	0.44	0.38	0.33	0.26	0.22	
	0.20		0.70	0.61	0.54	0.49	0.41	0.35	0.31	0.25	0.21	
0.00	0.00	0.00	0.59	0.51	0.45	0.40	0.33	0.29	0.25	0.20	0.17	
Rating:32W 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	0.23	0.24	0.25	0.26	0.27	0.27	0.28	0.28	0.28	
	0.30		0.16	0.17	0.19	0.20	0.21	0.22	0.23	0.25	0.25	
	0.20		0.11	0.12	0.14	0.15	0.17	0.18	0.20	0.21	0.22	
0.50	0.50	0.20	0.22	0.23	0.24	0.25	0.26	0.26	0.26	0.27	0.27	
	0.30		0.16	0.17	0.18	0.19	0.21	0.22	0.23	0.24	0.24	
	0.20		0.11	0.12	0.14	0.15	0.17	0.18	0.19	0.21	0.22	
0.30	0.50	0.20	0.21	0.23	0.23	0.24	0.25	0.25	0.25	0.26	0.26	
	0.30		0.15	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.23	
	0.20		0.11	0.12	0.13	0.14	0.16	0.18	0.19	0.20	0.21	
0.00	0.00	0.00	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	
Rating:32W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

## Zonal Lumen

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	1340.5	1.3	1.3	0.03	0.03
1.0-2.0	1340.1	3.8	5.1	0.09	0.12
2.0-3.0	1339.0	6.4	11.5	0.14	0.26
3.0-4.0	1337.4	9.0	20.5	0.20	0.46
4.0-5.0	1335.4	11.5	32.0	0.26	0.72
5.0-6.0	1332.8	14.0	46.0	0.32	1.04
6.0-7.0	1329.7	16.5	62.5	0.37	1.41
7.0-8.0	1326.2	19.0	81.5	0.43	1.84
8.0-9.0	1322.0	21.4	102.9	0.48	2.32
9.0-10.0	1317.5	23.8	126.7	0.54	2.86
10.0-11.0	1312.3	26.2	153.0	0.59	3.45
11.0-12.0	1306.7	28.6	181.5	0.64	4.09
12.0-13.0	1300.8	30.9	212.4	0.70	4.79
13.0-14.0	1294.2	33.1	245.5	0.75	5.54
14.0-15.0	1287.1	35.3	280.9	0.80	6.33
15.0-16.0	1279.5	37.5	318.4	0.85	7.18
16.0-17.0	1271.5	39.6	358.0	0.89	8.07
17.0-18.0	1263.3	41.7	399.6	0.94	9.01
18.0-19.0	1254.4	43.6	443.3	0.98	10.00
19.0-20.0	1245.0	45.6	488.9	1.03	11.02
20.0-21.0	1235.6	47.5	536.3	1.07	12.09
21.0-22.0	1225.3	49.2	585.6	1.11	13.20
22.0-23.0	1214.7	51.0	636.5	1.15	14.35
23.0-24.0	1203.7	52.6	689.2	1.19	15.54
24.0-25.0	1192.2	54.2	743.4	1.22	16.76
25.0-26.0	1180.8	55.7	799.1	1.26	18.02
26.0-27.0	1168.6	57.2	856.3	1.29	19.31
27.0-28.0	1156.1	58.5	914.9	1.32	20.63
28.0-29.0	1143.7	59.8	974.7	1.35	21.98
29.0-30.0	1130.3	61.0	1035.7	1.38	23.35
30.0-31.0	1116.7	62.1	1097.9	1.40	24.76
31.0-32.0	1102.8	63.2	1161.1	1.42	26.18
32.0-33.0	1088.4	64.1	1225.2	1.45	27.63
33.0-34.0	1074.2	65.0	1290.2	1.47	29.09
34.0-35.0	1059.2	65.8	1356.0	1.48	30.58
35.0-36.0	1043.8	66.5	1422.5	1.50	32.08

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

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600L  
 Distance: 9.010 m  
 Humidity:  
 Inspector:

## Zonal Lumen (Continue 1)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	1028.7	67.1	1489.6	1.51	33.59
37.0-38.0	1012.8	67.6	1557.2	1.52	35.11
38.0-39.0	997.0	68.1	1625.3	1.53	36.65
39.0-40.0	980.7	68.4	1693.7	1.54	38.19
40.0-41.0	964.0	68.7	1762.3	1.55	39.74
41.0-42.0	947.9	68.9	1831.2	1.55	41.29
42.0-43.0	930.8	69.0	1900.1	1.56	42.85
43.0-44.0	913.6	69.0	1969.1	1.56	44.40
44.0-45.0	896.5	68.9	2038.0	1.55	45.96
45.0-46.0	878.8	68.7	2106.8	1.55	47.51
46.0-47.0	861.2	68.5	2175.3	1.54	49.05
47.0-48.0	843.2	68.2	2243.4	1.54	50.59
48.0-49.0	825.3	67.8	2311.2	1.53	52.12
49.0-50.0	807.8	67.4	2378.6	1.52	53.63
50.0-51.0	789.4	66.8	2445.4	1.51	55.14
51.0-52.0	771.0	66.2	2511.5	1.49	56.63
52.0-53.0	752.9	65.5	2577.0	1.48	58.11
53.0-54.0	734.5	64.7	2641.8	1.46	59.57
54.0-55.0	716.3	64.0	2705.7	1.44	61.01
55.0-56.0	697.7	63.1	2768.8	1.42	62.43
56.0-57.0	679.0	62.1	2830.9	1.40	63.83
57.0-58.0	661.2	61.2	2892.0	1.38	65.21
58.0-59.0	642.4	60.1	2952.1	1.35	66.57
59.0-60.0	623.7	58.9	3011.0	1.33	67.90
60.0-61.0	605.2	57.8	3068.8	1.30	69.20
61.0-62.0	586.8	56.6	3125.4	1.28	70.47
62.0-63.0	569.2	55.4	3180.7	1.25	71.72
63.0-64.0	550.9	54.1	3234.8	1.22	72.94
64.0-65.0	532.7	52.7	3287.5	1.19	74.13
65.0-66.0	515.4	51.4	3339.0	1.16	75.29
66.0-67.0	497.6	50.0	3389.0	1.13	76.42
67.0-68.0	479.8	48.6	3437.6	1.10	77.51
68.0-69.0	462.3	47.2	3484.8	1.06	78.58
69.0-70.0	445.0	45.7	3530.5	1.03	79.61
70.0-71.0	428.5	44.3	3574.8	1.00	80.61
71.0-72.0	411.7	42.8	3617.6	0.97	81.57

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: 9.010 m  
 Humidity:  
 Inspector:

## Zonal Lumen (Continue 2)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
72.0-73.0	395.0	41.3	3658.9	0.93	82.50
73.0-74.0	379.3	39.9	3698.8	0.90	83.40
74.0-75.0	363.2	38.4	3737.2	0.87	84.27
75.0-76.0	347.2	36.9	3774.0	0.83	85.10
76.0-77.0	331.5	35.4	3809.4	0.80	85.90
77.0-78.0	316.2	33.9	3843.2	0.76	86.66
78.0-79.0	301.9	32.4	3875.7	0.73	87.39
79.0-80.0	287.2	31.0	3906.6	0.70	88.09
80.0-81.0	272.9	29.5	3936.1	0.67	88.76
81.0-82.0	259.2	28.1	3964.2	0.63	89.39
82.0-83.0	245.5	26.7	3990.9	0.60	89.99
83.0-84.0	232.6	25.3	4016.3	0.57	90.56
84.0-85.0	219.8	24.0	4040.3	0.54	91.10
85.0-86.0	207.4	22.7	4063.0	0.51	91.62
86.0-87.0	195.8	21.4	4084.4	0.48	92.10
87.0-88.0	184.2	20.2	4104.6	0.46	92.55
88.0-89.0	173.1	19.0	4123.5	0.43	92.98
89.0-90.0	163.0	17.9	4141.4	0.40	93.39
90.0-91.0	153.7	16.9	4158.3	0.38	93.77
91.0-92.0	145.3	15.9	4174.2	0.36	94.12
92.0-93.0	137.2	15.0	4189.2	0.34	94.46
93.0-94.0	129.5	14.2	4203.4	0.32	94.78
94.0-95.0	122.7	13.4	4216.8	0.30	95.09
95.0-96.0	115.9	12.7	4229.5	0.29	95.37
96.0-97.0	109.5	11.9	4241.4	0.27	95.64
97.0-98.0	103.7	11.3	4252.7	0.25	95.89
98.0-99.0	98.0	10.6	4263.3	0.24	96.13
99.0-100.0	92.7	10.0	4273.3	0.23	96.36
100.0-101.0	87.5	9.4	4282.8	0.21	96.57
101.0-102.0	82.4	8.9	4291.6	0.20	96.77
102.0-103.0	77.8	8.3	4300.0	0.19	96.96
103.0-104.0	73.3	7.8	4307.8	0.18	97.14
104.0-105.0	68.8	7.3	4315.1	0.16	97.30
105.0-106.0	64.7	6.8	4321.9	0.15	97.46
106.0-107.0	60.7	6.4	4328.3	0.14	97.60
107.0-108.0	57.0	6.0	4334.3	0.13	97.73

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: 9.010 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	53.4	5.5	4339.8	0.13	97.86
109.0-110.0	49.9	5.2	4345.0	0.12	97.98
110.0-111.0	46.8	4.8	4349.8	0.11	98.08
111.0-112.0	43.6	4.5	4354.2	0.10	98.18
112.0-113.0	40.8	4.1	4358.4	0.09	98.28
113.0-114.0	38.1	3.8	4362.2	0.09	98.36
114.0-115.0	35.7	3.6	4365.8	0.08	98.44
115.0-116.0	33.5	3.3	4369.1	0.07	98.52
116.0-117.0	31.2	3.1	4372.1	0.07	98.59
117.0-118.0	29.2	2.8	4375.0	0.06	98.65
118.0-119.0	27.5	2.6	4377.6	0.06	98.71
119.0-120.0	25.8	2.5	4380.1	0.06	98.77
120.0-121.0	24.2	2.3	4382.4	0.05	98.82
121.0-122.0	22.7	2.1	4384.5	0.05	98.87
122.0-123.0	21.3	2.0	4386.5	0.04	98.91
123.0-124.0	20.0	1.8	4388.3	0.04	98.95
124.0-125.0	18.8	1.7	4390.0	0.04	98.99
125.0-126.0	17.8	1.6	4391.6	0.04	99.03
126.0-127.0	17.0	1.5	4393.1	0.03	99.06
127.0-128.0	16.3	1.4	4394.5	0.03	99.09
128.0-129.0	15.9	1.4	4395.9	0.03	99.12
129.0-130.0	15.6	1.3	4397.2	0.03	99.15
130.0-131.0	15.4	1.3	4398.5	0.03	99.18
131.0-132.0	15.4	1.3	4399.7	0.03	99.21
132.0-133.0	15.3	1.2	4401.0	0.03	99.24
133.0-134.0	15.4	1.2	4402.2	0.03	99.27
134.0-135.0	15.5	1.2	4403.4	0.03	99.29
135.0-136.0	15.6	1.2	4404.6	0.03	99.32
136.0-137.0	15.7	1.2	4405.8	0.03	99.35
137.0-138.0	15.8	1.2	4407.0	0.03	99.37
138.0-139.0	15.9	1.2	4408.1	0.03	99.40
139.0-140.0	16.0	1.1	4409.3	0.03	99.43
140.0-141.0	16.1	1.1	4410.4	0.03	99.45
141.0-142.0	16.2	1.1	4411.5	0.02	99.48
142.0-143.0	16.3	1.1	4412.6	0.02	99.50
143.0-144.0	16.4	1.1	4413.7	0.02	99.52

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: 9.010 m  
 Humidity:  
 Inspector:

## Zonal Lumen (Continue 4)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
144.0-145.0	16.5	1.1	4414.7	0.02	99.55
145.0-146.0	16.7	1.0	4415.7	0.02	99.57
146.0-147.0	16.8	1.0	4416.8	0.02	99.59
147.0-148.0	16.9	1.0	4417.8	0.02	99.62
148.0-149.0	16.9	1.0	4418.7	0.02	99.64
149.0-150.0	17.0	0.9	4419.7	0.02	99.66
150.0-151.0	17.1	0.9	4420.6	0.02	99.68
151.0-152.0	17.2	0.9	4421.5	0.02	99.70
152.0-153.0	17.3	0.9	4422.4	0.02	99.72
153.0-154.0	17.4	0.9	4423.2	0.02	99.74
154.0-155.0	17.5	0.8	4424.1	0.02	99.76
155.0-156.0	17.5	0.8	4424.8	0.02	99.78
156.0-157.0	17.6	0.8	4425.6	0.02	99.79
157.0-158.0	17.7	0.7	4426.4	0.02	99.81
158.0-159.0	17.8	0.7	4427.1	0.02	99.83
159.0-160.0	17.9	0.7	4427.8	0.02	99.84
160.0-161.0	17.9	0.7	4428.4	0.01	99.86
161.0-162.0	18.0	0.6	4429.0	0.01	99.87
162.0-163.0	18.1	0.6	4429.6	0.01	99.88
163.0-164.0	18.2	0.6	4430.2	0.01	99.90
164.0-165.0	18.3	0.5	4430.7	0.01	99.91
165.0-166.0	18.4	0.5	4431.3	0.01	99.92
166.0-167.0	18.5	0.5	4431.7	0.01	99.93
167.0-168.0	18.5	0.4	4432.2	0.01	99.94
168.0-169.0	18.6	0.4	4432.6	0.01	99.95
169.0-170.0	18.7	0.4	4432.9	0.01	99.96
170.0-171.0	18.8	0.3	4433.3	0.01	99.97
171.0-172.0	18.9	0.3	4433.6	0.01	99.97
172.0-173.0	19.0	0.3	4433.9	0.01	99.98
173.0-174.0	19.1	0.2	4434.1	0.01	99.99
174.0-175.0	19.2	0.2	4434.3	0.00	99.99
175.0-176.0	19.3	0.2	4434.5	0.00	99.99
176.0-177.0	19.4	0.1	4434.6	0.00	100.00
177.0-178.0	19.4	0.1	4434.7	0.00	100.00
178.0-179.0	19.5	0.1	4434.7	0.00	100.00
179.0-180.0	19.5	0.0	4434.8	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: 9.010 m  
Humidity:  
Inspector:



## Zonal Lumen (Continue 5)

cone flux(90°): 2038.02 lm

%lum = 46.0%

%lamp = 46.0%

cone flux(120°): 3011.05 lm

%lum = 67.9%

%lamp = 67.9%

## 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	1341.4	1340.0	1339.9	1340.8	1341.1	1340.6	1341.4	1340.0	1339.9	1340.8
G1.0	1341.6	1340.4	1339.8	1340.7	1340.5	1340.2	1340.5	1339.3	1339.4	1340.6
G2.0	1341.7	1340.1	1339.5	1339.9	1339.4	1339.0	1339.5	1338.4	1338.6	1339.9
G3.0	1340.9	1339.3	1338.5	1337.9	1337.8	1337.0	1337.4	1336.7	1336.7	1338.5
G4.0	1340.1	1338.2	1336.6	1335.8	1335.2	1335.0	1335.7	1334.4	1334.9	1336.5
G5.0	1338.8	1336.5	1334.7	1333.2	1332.8	1332.5	1333.2	1331.9	1332.1	1333.6
G6.0	1336.7	1334.2	1331.9	1329.7	1328.9	1329.4	1329.9	1328.5	1329.0	1330.4
G7.0	1334.3	1331.9	1328.7	1325.7	1325.2	1326.4	1326.4	1325.0	1325.1	1326.8
G8.0	1331.5	1328.8	1325.0	1321.3	1321.1	1322.6	1322.5	1321.0	1320.9	1322.4
G9.0	1328.4	1324.8	1319.9	1316.2	1315.7	1317.7	1317.9	1316.9	1316.2	1317.5
G10.0	1325.3	1321.1	1315.3	1310.8	1310.2	1313.1	1313.2	1312.3	1310.5	1312.4
G11.0	1320.9	1316.4	1309.3	1304.2	1303.7	1307.3	1308.0	1306.6	1304.5	1305.8
G12.0	1316.2	1311.6	1303.3	1297.5	1297.4	1301.7	1302.4	1301.1	1298.0	1299.5
G13.0	1311.7	1306.4	1297.4	1290.8	1290.5	1295.6	1296.8	1294.9	1291.6	1292.4
G14.0	1305.8	1299.9	1290.0	1282.3	1282.6	1288.8	1289.8	1287.9	1283.6	1284.2
G15.0	1300.6	1294.0	1282.4	1274.1	1275.1	1281.8	1283.7	1281.4	1275.9	1276.4
G16.0	1293.8	1287.3	1273.9	1264.3	1265.9	1273.9	1276.1	1273.7	1266.9	1267.2
G17.0	1287.6	1280.4	1265.7	1255.4	1256.8	1265.8	1268.8	1266.1	1258.4	1257.9
G18.0	1281.1	1273.4	1257.0	1245.4	1247.1	1258.1	1261.3	1257.5	1249.2	1248.5
G19.0	1273.5	1264.6	1247.2	1234.2	1236.5	1249.2	1252.9	1248.3	1239.0	1237.4
G20.0	1266.2	1256.3	1237.3	1224.0	1226.7	1240.1	1244.4	1239.8	1228.7	1227.1
G21.0	1258.7	1248.2	1227.3	1212.6	1215.7	1230.8	1235.6	1230.6	1218.4	1216.0
G22.0	1249.8	1238.2	1215.8	1200.2	1203.7	1220.4	1225.9	1220.4	1205.9	1203.5
G23.0	1241.7	1229.1	1204.5	1188.4	1192.4	1210.5	1216.9	1210.4	1194.9	1191.7
G24.0	1231.9	1218.4	1192.1	1174.6	1179.1	1198.8	1206.7	1198.9	1182.4	1177.8
G25.0	1223.3	1209.0	1180.1	1162.0	1167.2	1187.7	1196.7	1188.5	1169.8	1165.4
G26.0	1213.8	1198.5	1168.3	1148.4	1153.8	1176.6	1186.7	1176.9	1157.4	1152.2
G27.0	1203.4	1187.1	1154.7	1133.7	1140.0	1164.5	1175.5	1164.9	1143.5	1137.0
G28.0	1193.1	1176.3	1141.2	1119.6	1126.7	1152.4	1164.6	1153.6	1130.1	1123.5
G29.0	1183.5	1164.5	1128.6	1105.2	1112.8	1140.6	1153.8	1141.2	1116.6	1109.2
G30.0	1172.0	1152.3	1112.8	1089.2	1097.4	1126.8	1140.9	1128.1	1101.1	1092.8
G31.0	1160.8	1140.0	1099.3	1073.5	1082.6	1114.5	1129.7	1116.0	1087.1	1078.1
G32.0	1148.8	1127.0	1083.7	1056.7	1066.4	1100.5	1116.5	1101.6	1071.1	1061.8
G33.0	1137.2	1114.8	1068.7	1040.4	1050.9	1087.1	1104.1	1088.6	1056.0	1045.4
G34.0	1125.8	1101.9	1054.1	1024.8	1035.9	1073.9	1091.5	1074.9	1040.2	1028.7
G35.0	1112.5	1087.6	1036.8	1006.5	1018.4	1058.5	1077.5	1059.4	1023.4	1011.3
G36.0	1100.6	1074.0	1021.5	990.1	1002.7	1044.8	1063.8	1045.9	1007.9	993.9

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: 9.010 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	1087.4	1060.7	1005.5	972.7	985.9	1030.1	1049.6	1030.8	990.0	975.8
G38.0	1074.0	1045.4	987.9	953.8	968.2	1014.5	1036.1	1015.5	974.0	958.1
G39.0	1060.5	1031.6	971.2	936.0	951.1	999.6	1021.8	1001.6	956.7	940.9
G40.0	1045.9	1015.4	953.4	916.8	932.6	983.3	1006.7	984.8	938.4	920.9
G41.0	1031.8	1001.3	936.4	898.4	914.9	967.7	991.9	970.1	921.1	903.3
G42.0	1018.0	986.3	919.8	880.4	897.9	952.5	977.7	954.1	904.2	885.5
G43.0	1002.1	969.9	900.6	860.2	878.5	934.9	960.9	937.7	885.5	864.8
G44.0	988.3	954.1	882.9	842.0	861.1	919.5	946.2	921.9	867.7	846.6
G45.0	973.7	938.4	865.7	822.8	842.7	903.0	929.6	904.1	848.6	826.5
G46.0	957.6	921.5	845.8	802.5	823.4	885.1	914.1	888.3	830.0	806.9
G47.0	942.2	905.8	828.3	782.7	804.8	868.8	898.0	871.6	811.7	787.4
G48.0	925.9	888.2	809.0	762.2	785.4	850.3	881.4	853.8	792.2	766.8
G49.0	910.0	872.2	790.7	742.5	766.5	834.3	866.1	836.9	774.4	747.9
G50.0	894.8	855.7	771.9	723.4	748.5	817.1	849.8	819.8	755.5	727.9
G51.0	877.4	837.6	752.3	701.7	727.9	798.9	832.7	801.7	736.0	707.0
G52.0	861.4	821.3	733.6	681.7	709.7	781.6	816.5	785.5	716.9	686.9
G53.0	846.3	804.2	715.7	662.5	690.6	765.2	799.4	767.7	697.0	665.6
G54.0	828.4	786.5	695.3	641.3	670.6	746.6	783.5	750.6	678.6	645.4
G55.0	812.9	769.5	677.3	621.0	651.5	730.4	766.9	734.5	659.6	626.0
G56.0	795.2	751.7	656.5	599.1	631.6	711.6	748.8	715.6	639.7	603.6
G57.0	779.3	734.8	638.6	579.6	612.2	695.2	733.0	699.2	620.4	584.5
G58.0	762.9	717.6	619.6	559.1	593.0	677.0	717.4	682.2	602.3	564.1
G59.0	745.2	700.0	598.9	537.1	572.2	659.2	699.4	664.2	581.4	542.7
G60.0	729.7	683.2	580.0	516.9	554.0	642.1	682.8	647.1	563.3	522.3
G61.0	711.5	664.4	560.3	495.7	533.4	624.3	665.5	629.5	542.9	501.1
G62.0	695.9	648.6	541.7	475.7	515.5	607.5	649.7	612.5	524.7	481.7
G63.0	679.3	631.8	523.9	456.3	496.9	591.5	633.4	596.5	505.8	461.3
G64.0	661.7	614.1	503.4	434.5	477.3	573.2	616.3	578.3	486.4	440.4
G65.0	646.0	597.5	486.0	415.3	458.6	557.2	600.2	562.5	469.1	420.4
G66.0	629.8	581.8	467.8	395.6	440.1	540.8	585.0	546.7	451.0	401.4
G67.0	613.1	563.7	448.8	374.9	421.7	523.7	568.2	529.0	432.5	380.6
G68.0	597.1	548.0	431.2	355.1	403.9	507.6	552.4	513.7	415.0	361.0
G69.0	580.5	530.6	412.9	335.0	385.6	490.1	535.9	497.0	396.8	340.7
G70.0	564.6	514.5	395.8	316.0	368.5	475.2	520.4	481.3	380.5	321.3
G71.0	549.2	499.5	378.9	297.0	351.8	459.7	505.8	466.5	363.5	303.0
G72.0	532.9	482.4	361.6	277.4	334.4	443.8	489.8	449.6	346.4	282.5
G73.0	517.4	467.4	345.1	258.8	318.8	428.4	474.9	435.3	330.2	264.5

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: 9.010 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	503.0	452.4	329.6	241.4	303.0	414.3	460.3	420.3	314.9	247.1
G75.0	486.5	436.7	312.4	222.6	286.7	398.4	444.9	405.0	298.0	227.2
G76.0	472.1	421.7	297.6	205.1	271.3	384.7	430.6	390.9	283.5	209.4
G77.0	456.2	406.4	281.2	186.4	255.3	369.3	415.8	376.0	267.4	191.3
G78.0	442.4	391.9	267.3	170.2	241.6	355.3	401.7	361.9	253.5	174.0
G79.0	428.2	378.5	252.8	153.8	227.5	342.4	388.6	348.9	239.3	158.1
G80.0	413.7	363.4	237.8	137.1	213.4	327.8	373.7	334.3	224.5	140.3
G81.0	399.7	350.3	224.8	121.6	200.3	315.4	360.9	321.6	212.0	125.1
G82.0	386.1	336.8	211.5	106.4	187.7	302.4	346.7	307.9	198.7	108.2
G83.0	372.0	322.4	198.2	91.0	174.9	289.4	334.5	295.6	186.4	94.0
G84.0	358.9	310.0	185.7	77.6	164.0	277.1	321.8	283.6	174.4	79.8
G85.0	345.5	296.5	173.4	62.5	151.6	264.8	309.2	270.7	162.8	65.2
G86.0	332.7	284.8	162.1	50.0	141.3	253.2	297.2	259.4	151.7	51.9
G87.0	320.9	272.8	151.6	37.5	130.5	242.5	285.9	248.1	141.9	39.5
G88.0	307.7	260.6	140.1	24.8	119.6	230.5	273.4	236.5	131.1	27.0
G89.0	296.3	249.1	130.6	15.3	110.2	219.8	262.4	225.7	122.1	16.9
G90.0	284.6	238.6	121.0	10.1	101.6	208.9	250.3	214.8	112.5	9.1
G91.0	272.8	226.7	111.3	9.3	92.7	198.1	240.1	204.9	103.8	7.3
G92.0	261.6	216.5	102.2	8.6	85.2	187.8	229.7	195.0	96.1	7.0
G93.0	249.8	205.1	93.3	7.9	77.9	177.7	219.1	184.5	88.4	6.6
G94.0	239.4	195.3	86.1	7.3	71.3	169.3	209.6	176.2	82.8	6.5
G95.0	228.8	185.4	80.1	6.8	64.9	161.9	201.0	168.3	76.1	6.3
G96.0	217.8	176.0	73.2	6.3	58.2	153.3	191.6	159.5	69.7	6.3
G97.0	208.4	167.7	67.8	6.2	52.4	145.6	183.6	151.8	64.6	6.4
G98.0	199.5	160.3	62.4	5.9	46.7	138.6	174.6	143.9	59.2	6.5
G99.0	190.7	151.9	57.0	5.9	41.1	131.1	166.9	136.6	54.6	6.7
G100.0	182.4	144.9	52.2	6.1	38.0	124.4	159.6	130.0	50.1	6.8
G101.0	173.9	137.1	47.5	6.2	34.0	116.9	151.4	122.5	45.6	7.0
G102.0	166.0	130.4	42.9	6.4	30.3	110.4	144.5	116.0	41.2	7.3
G103.0	158.8	123.9	39.4	6.6	26.5	103.7	137.3	109.9	38.4	7.5
G104.0	150.8	116.8	35.5	6.8	23.5	96.9	130.2	103.3	34.5	7.6
G105.0	144.2	110.9	32.1	7.0	20.5	90.6	123.5	97.3	31.2	7.8
G106.0	136.4	104.3	29.1	7.2	18.9	83.6	116.7	91.2	28.0	7.9
G107.0	129.6	98.6	26.5	7.5	17.1	78.1	110.3	85.6	25.1	8.1
G108.0	123.4	92.9	24.3	7.6	15.1	72.6	104.4	80.6	22.1	8.3
G109.0	116.6	87.2	21.5	7.8	13.4	66.7	98.1	75.2	19.3	8.6
G110.0	110.3	82.8	19.3	8.0	12.1	62.1	92.6	70.2	17.0	8.7

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: 9.010 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	104.2	77.3	17.1	8.2	10.9	57.4	87.2	65.8	15.1	8.9
G112.0	98.2	72.1	15.0	8.4	10.8	52.7	82.0	60.8	13.5	9.1
G113.0	92.6	67.8	13.4	8.6	10.9	48.4	76.8	56.5	13.0	9.4
G114.0	87.0	62.9	12.1	8.7	11.1	42.9	71.4	50.1	12.8	9.5
G115.0	82.8	58.7	11.3	9.0	11.1	39.6	66.6	45.9	12.9	9.8
G116.0	77.3	53.2	11.3	9.1	11.3	36.3	62.2	42.0	12.9	10.0
G117.0	72.3	48.0	11.5	9.4	11.4	32.7	57.4	38.4	12.8	10.1
G118.0	67.6	43.9	11.6	9.5	11.5	29.5	53.2	35.1	13.0	10.3
G119.0	62.9	41.2	11.7	9.8	11.7	27.3	49.1	32.0	13.0	10.5
G120.0	58.2	36.9	11.8	10.0	11.9	24.8	45.1	28.8	13.1	10.7
G121.0	54.1	33.9	12.0	10.2	12.0	22.4	41.2	26.1	13.3	11.0
G122.0	49.7	30.6	12.3	10.4	12.2	20.4	37.7	23.2	13.4	11.2
G123.0	46.0	27.8	12.4	10.6	12.3	18.6	34.1	20.9	13.4	11.4
G124.0	42.2	25.1	12.5	10.9	12.3	17.3	30.8	19.1	13.4	11.6
G125.0	38.7	22.6	12.8	11.1	12.6	16.1	27.3	17.5	13.4	11.8
G126.0	35.3	20.3	12.8	11.2	12.7	15.7	24.7	16.7	13.6	12.1
G127.0	31.9	18.6	13.0	11.6	12.8	15.8	22.0	16.7	13.7	12.3
G128.0	28.6	16.8	13.1	11.7	13.0	15.7	20.2	16.6	13.9	12.5
G129.0	25.8	16.1	13.4	11.9	13.1	15.7	18.5	16.7	14.0	12.7
G130.0	23.0	16.0	13.4	12.2	13.3	15.5	18.0	16.7	14.1	12.9
G131.0	20.4	16.1	13.4	12.4	13.4	16.0	18.0	16.7	14.2	13.1
G132.0	18.8	16.1	13.6	12.6	13.4	16.0	18.1	16.9	14.3	13.3
G133.0	17.8	16.2	13.8	12.9	13.4	16.1	18.0	17.0	14.4	13.5
G134.0	17.7	16.3	14.0	13.0	13.8	16.0	18.1	16.9	14.6	13.5
G135.0	17.8	16.3	14.1	13.3	13.8	16.3	18.0	17.0	14.6	13.8
G136.0	17.8	16.5	14.3	13.5	14.0	16.4	18.1	17.1	14.7	13.9
G137.0	17.9	16.5	14.4	13.6	14.1	16.4	18.2	17.2	14.9	14.1
G138.0	17.9	16.6	14.6	13.8	14.1	16.5	18.2	17.2	15.0	14.4
G139.0	17.9	16.7	14.8	14.0	14.3	16.6	18.2	17.3	15.1	14.6
G140.0	17.9	16.7	14.8	14.2	14.4	16.5	18.1	17.3	15.1	14.7
G141.0	17.9	16.9	15.0	14.4	14.5	16.6	18.2	17.3	15.3	15.0
G142.0	18.0	17.0	15.2	14.6	14.6	16.7	18.2	17.4	15.5	15.2
G143.0	18.0	17.1	15.3	14.7	14.7	16.7	18.2	17.4	15.5	15.3
G144.0	18.1	17.2	15.5	15.0	14.9	16.9	18.2	17.5	15.7	15.5
G145.0	18.1	17.1	15.6	15.1	15.0	16.9	18.2	17.5	15.9	15.7
G146.0	18.2	17.3	15.8	15.3	15.2	17.1	18.3	17.6	15.9	15.9
G147.0	18.3	17.4	16.0	15.5	15.3	17.0	18.2	17.6	16.1	16.1

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: 9.010 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	18.2	17.4	16.1	15.7	15.4	17.1	18.3	17.6	16.2	16.3
G149.0	18.3	17.5	16.2	15.9	15.6	17.1	18.2	17.6	16.3	16.5
G150.0	18.3	17.5	16.3	16.1	15.7	17.2	18.2	17.7	16.5	16.6
G151.0	18.3	17.6	16.5	16.2	16.0	17.2	18.2	17.6	16.6	16.7
G152.0	18.3	17.6	16.7	16.4	16.1	17.3	18.2	17.6	16.7	17.0
G153.0	18.4	17.6	16.7	16.6	16.2	17.3	18.2	17.7	16.9	17.1
G154.0	18.3	17.7	17.0	16.7	16.4	17.2	18.2	17.6	17.1	17.3
G155.0	18.4	17.8	17.0	17.0	16.5	17.2	18.2	17.6	17.1	17.4
G156.0	18.4	17.8	17.2	17.1	16.6	17.3	18.0	17.6	17.2	17.6
G157.0	18.4	17.9	17.3	17.2	16.8	17.3	18.1	17.7	17.3	17.8
G158.0	18.4	18.0	17.4	17.5	17.0	17.3	18.1	17.7	17.4	17.9
G159.0	18.5	18.0	17.6	17.6	17.1	17.3	18.1	17.7	17.5	18.0
G160.0	18.5	18.1	17.6	17.7	17.2	17.4	18.1	17.8	17.6	18.2
G161.0	18.5	18.2	17.8	17.9	17.3	17.5	18.1	17.8	17.7	18.2
G162.0	18.5	18.2	17.9	18.0	17.4	17.6	18.2	17.9	17.8	18.4
G163.0	18.5	18.3	18.0	18.2	17.6	17.7	18.2	18.0	17.9	18.5
G164.0	18.6	18.3	18.2	18.3	17.7	17.8	18.3	18.1	17.9	18.6
G165.0	18.6	18.4	18.2	18.4	17.8	17.8	18.3	18.2	18.1	18.7
G166.0	18.7	18.5	18.4	18.6	17.9	17.9	18.3	18.3	18.2	18.8
G167.0	18.7	18.5	18.4	18.7	18.0	18.1	18.4	18.4	18.3	18.9
G168.0	18.8	18.6	18.6	18.8	18.2	18.1	18.4	18.4	18.4	19.0
G169.0	18.8	18.7	18.7	18.9	18.4	18.3	18.5	18.5	18.5	19.0
G170.0	18.9	18.7	18.8	19.0	18.6	18.3	18.6	18.5	18.7	19.1
G171.0	19.0	18.8	18.8	19.1	18.7	18.5	18.7	18.5	18.8	19.2
G172.0	19.1	18.9	18.9	19.3	18.9	18.5	18.7	18.7	18.9	19.3
G173.0	19.1	19.0	19.0	19.3	19.0	18.6	18.8	18.7	19.1	19.4
G174.0	19.3	19.0	19.1	19.5	19.2	18.9	18.8	18.9	19.2	19.4
G175.0	19.3	19.1	19.1	19.5	19.3	19.0	19.0	19.0	19.3	19.5
G176.0	19.4	19.1	19.3	19.5	19.4	19.3	19.1	19.3	19.5	19.5
G177.0	19.5	19.2	19.3	19.6	19.5	19.4	19.3	19.5	19.5	19.6
G178.0	19.5	19.3	19.4	19.6	19.5	19.5	19.3	19.4	19.6	19.6
G179.0	19.5	19.5	19.4	19.6	19.5	19.6	19.5	19.5	19.5	19.6
G180.0	19.7	19.5	19.4	19.5	19.5	19.5	19.7	19.4	19.5	19.6

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: 9.010 m

Humidity:

Inspector:

## Candlepower Table (Continue 5)

Unit: cd

G\C	C300.0	C330.0	C360.0						
G0.0	1341.1	1340.6	1341.4						
G1.0	1341.1	1340.8	1341.6						
G2.0	1340.4	1340.4	1341.7						
G3.0	1339.2	1339.7	1340.9						
G4.0	1338.1	1338.3	1340.1						
G5.0	1335.6	1336.8	1338.8						
G6.0	1333.2	1334.4	1336.7						
G7.0	1329.4	1332.0	1334.3						
G8.0	1325.3	1328.5	1331.5						
G9.0	1321.4	1324.9	1328.4						
G10.0	1316.7	1321.0	1325.3						
G11.0	1310.5	1316.5	1320.9						
G12.0	1305.4	1311.8	1316.2						
G13.0	1299.2	1306.5	1311.7						
G14.0	1291.4	1300.6	1305.8						
G15.0	1284.2	1294.3	1300.6						
G16.0	1275.1	1287.0	1293.8						
G17.0	1267.3	1280.0	1287.6						
G18.0	1258.7	1272.5	1281.1						
G19.0	1248.3	1264.3	1273.5						
G20.0	1238.6	1255.9	1266.2						
G21.0	1228.4	1247.6	1258.7						
G22.0	1217.1	1237.4	1249.8						
G23.0	1206.5	1228.4	1241.7						
G24.0	1193.7	1218.1	1231.9						
G25.0	1181.9	1207.8	1223.3						
G26.0	1170.1	1197.3	1213.8						
G27.0	1156.6	1186.1	1203.4						
G28.0	1143.0	1174.7	1193.1						
G29.0	1129.8	1163.4	1183.5						
G30.0	1114.7	1150.5	1172.0						
G31.0	1100.9	1138.8	1160.8						
G32.0	1085.2	1125.7	1148.8						
G33.0	1070.2	1112.5	1137.2						
G34.0	1054.6	1099.3	1125.8						
G35.0	1037.5	1084.9	1112.5						
G36.0	1022.0	1070.9	1100.6						

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: 9.010 m

Humidity:

Inspector:



## Candlepower Table (Continue 6)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G37.0	1004.7	1056.4	1087.4							
G38.0	988.2	1042.1	1074.0							
G39.0	972.1	1028.3	1060.5							
G40.0	953.4	1012.7	1045.9							
G41.0	936.8	997.5	1031.8							
G42.0	919.3	982.9	1018.0							
G43.0	900.7	966.0	1002.1							
G44.0	883.4	950.8	988.3							
G45.0	863.6	933.7	973.7							
G46.0	846.2	917.7	957.6							
G47.0	827.8	901.1	942.2							
G48.0	808.3	884.0	925.9							
G49.0	789.5	868.4	910.0							
G50.0	771.6	851.7	894.8							
G51.0	751.6	833.8	877.4							
G52.0	732.7	816.6	861.4							
G53.0	712.8	798.7	846.3							
G54.0	693.7	781.6	828.4							
G55.0	675.4	765.0	812.9							
G56.0	654.6	746.3	795.2							
G57.0	635.6	730.1	779.3							
G58.0	617.3	713.2	762.9							
G59.0	597.2	695.2	745.2							
G60.0	578.0	678.1	729.7							
G61.0	558.2	660.1	711.5							
G62.0	539.2	644.0	695.9							
G63.0	521.1	627.0	679.3							
G64.0	501.6	609.4	661.7							
G65.0	483.0	592.4	646.0							
G66.0	465.0	576.6	629.8							
G67.0	445.0	559.3	613.1							
G68.0	427.8	542.7	597.1							
G69.0	409.1	526.0	580.5							
G70.0	391.6	509.8	564.6							
G71.0	375.2	494.5	549.2							
G72.0	356.7	478.0	532.9							
G73.0	340.7	462.4	517.4							

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: 9.010 m

Humidity:

Inspector:



## Candlepower Table (Continue 7)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G74.0	324.4	447.8	503.0							
G75.0	307.6	431.3	486.5							
G76.0	291.8	416.3	472.1							
G77.0	275.7	400.9	456.2							
G78.0	260.6	386.4	442.4							
G79.0	246.9	373.0	428.2							
G80.0	231.2	357.7	413.7							
G81.0	218.3	344.6	399.7							
G82.0	203.5	329.9	386.1							
G83.0	191.0	317.4	372.0							
G84.0	178.6	304.5	358.9							
G85.0	166.1	291.3	345.5							
G86.0	154.5	279.1	332.7							
G87.0	143.3	267.7	320.9							
G88.0	132.3	255.0	307.7							
G89.0	122.7	244.0	296.3							
G90.0	112.3	232.5	284.6							
G91.0	103.5	221.7	272.8							
G92.0	94.5	211.6	261.6							
G93.0	85.6	200.4	249.8							
G94.0	78.7	190.2	239.4							
G95.0	72.7	180.9	228.8							
G96.0	66.5	171.2	217.8							
G97.0	61.6	163.5	208.4							
G98.0	56.5	154.9	199.5							
G99.0	52.2	147.8	190.7							
G100.0	47.6	140.5	182.4							
G101.0	42.6	133.2	173.9							
G102.0	38.7	126.6	166.0							
G103.0	35.1	120.1	158.8							
G104.0	31.8	113.5	150.8							
G105.0	29.0	107.3	144.2							
G106.0	26.2	101.0	136.4							
G107.0	23.9	95.3	129.6							
G108.0	21.7	89.8	123.4							
G109.0	19.5	83.9	116.6							
G110.0	17.5	79.4	110.3							

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: 9.010 m

Humidity:

Inspector:

## Candlepower Table (Continue 8)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G111.0	15.4	74.4	104.2							
G112.0	13.5	69.4	98.2							
G113.0	12.3	65.2	92.6							
G114.0	11.5	60.4	87.0							
G115.0	11.5	56.2	82.8							
G116.0	11.6	50.4	77.3							
G117.0	11.8	46.0	72.3							
G118.0	11.9	41.9	67.6							
G119.0	12.1	38.9	62.9							
G120.0	12.3	35.5	58.2							
G121.0	12.5	32.5	54.1							
G122.0	12.7	29.5	49.7							
G123.0	12.9	26.8	46.0							
G124.0	13.1	24.3	42.2							
G125.0	13.2	21.7	38.7							
G126.0	13.4	19.8	35.3							
G127.0	13.4	17.8	31.9							
G128.0	13.6	16.9	28.6							
G129.0	13.8	16.6	25.8							
G130.0	13.9	16.6	23.0							
G131.0	14.1	16.6	20.4							
G132.0	14.2	16.8	18.8							
G133.0	14.3	16.7	17.8							
G134.0	14.5	16.9	17.7							
G135.0	14.6	17.0	17.8							
G136.0	14.8	17.1	17.8							
G137.0	14.9	17.2	17.9							
G138.0	15.2	17.2	17.9							
G139.0	15.2	17.3	17.9							
G140.0	15.4	17.4	17.9							
G141.0	15.6	17.4	17.9							
G142.0	15.7	17.5	18.0							
G143.0	16.0	17.6	18.0							
G144.0	16.0	17.7	18.1							
G145.0	16.2	17.7	18.1							
G146.0	16.4	17.8	18.2							
G147.0	16.5	17.9	18.3							

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: 9.010 m

Humidity:

Inspector:

## Candlepower Table (Continue 9)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G148.0	16.6	17.9	18.2							
G149.0	16.8	17.9	18.3							
G150.0	16.9	18.0	18.3							
G151.0	17.0	18.2	18.3							
G152.0	17.1	18.2	18.3							
G153.0	17.3	18.2	18.4							
G154.0	17.4	18.3	18.3							
G155.0	17.5	18.3	18.4							
G156.0	17.6	18.3	18.4							
G157.0	17.7	18.4	18.4							
G158.0	17.8	18.4	18.4							
G159.0	17.9	18.5	18.5							
G160.0	18.0	18.6	18.5							
G161.0	18.2	18.6	18.5							
G162.0	18.4	18.6	18.5							
G163.0	18.4	18.7	18.5							
G164.0	18.4	18.7	18.6							
G165.0	18.5	18.8	18.6							
G166.0	18.7	18.8	18.7							
G167.0	18.7	18.8	18.7							
G168.0	18.8	19.0	18.8							
G169.0	18.9	19.0	18.8							
G170.0	19.0	19.0	18.9							
G171.0	19.0	19.0	19.0							
G172.0	19.0	19.1	19.1							
G173.0	19.1	19.1	19.1							
G174.0	19.1	19.3	19.3							
G175.0	19.3	19.3	19.3							
G176.0	19.3	19.4	19.4							
G177.0	19.4	19.3	19.5							
G178.0	19.4	19.4	19.5							
G179.0	19.5	19.5	19.5							
G180.0	19.5	19.5	19.7							

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: 9.010 m  
Humidity:  
Inspector:

## LED Average Luminance Report

Avg.L	cd/m <sup>2</sup>
L 0-180(65) av	12285.64
L 0-180(75) av	14994.48
L 0-180(85) av	31297.71
L 90-270(65) av	8240.17
L 90-270(75) av	7242.38
L 90-270(85) av	6105.02
L 45(65) av	10367.88
L 45(75) av	11575.23
L 45(85) av	21241.31

Standard: GB/T 29293-2012

## Preheating curve

Preheating curve

Max.										
Min.										

Preheat time: 0 h      Sample interval:1 s      Stable range: 0.00 %      Stable time: 00:00:00

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: 9.010 m  
Humidity:  
Inspector: