

Report No.:

Test Time: 2023-07-27 16:24

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog: LED

Number of Lamps:

Luminous Length (mm): 1200

Luminous Height (mm): 40

Current: 0.482 A

Power Factor: 0.994

Luminaire Description:

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 100

Voltage: 119.7 V

Power: 57.38 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 7886.7 lm

Downward Ratio: 93%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 211.4, 160.4, 189.2, 188.1

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 124.6, 105.3, 114.4, 113.2

Luminous Efficacy (lm/w): 137.45

Max. Intensity: 2375.59 cd

S/MH(C0/C180): 1.28

Total Rated Lamp Lumens: 7886.7 lm

Efficiency: 100%

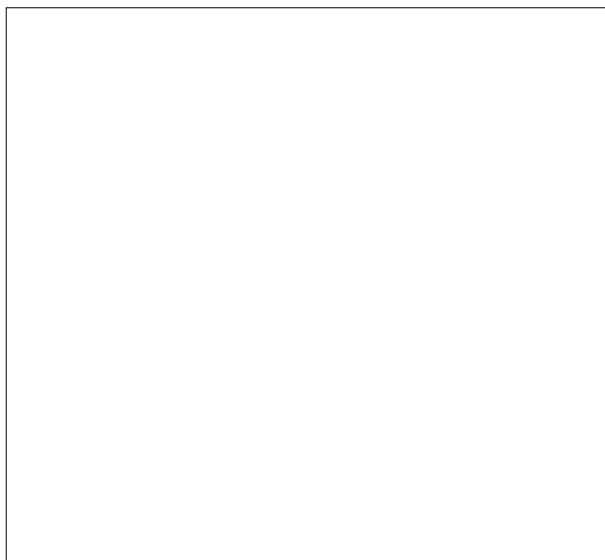
Upward Ratio: 7%

C0r0 Intensity: 2374.49 cd

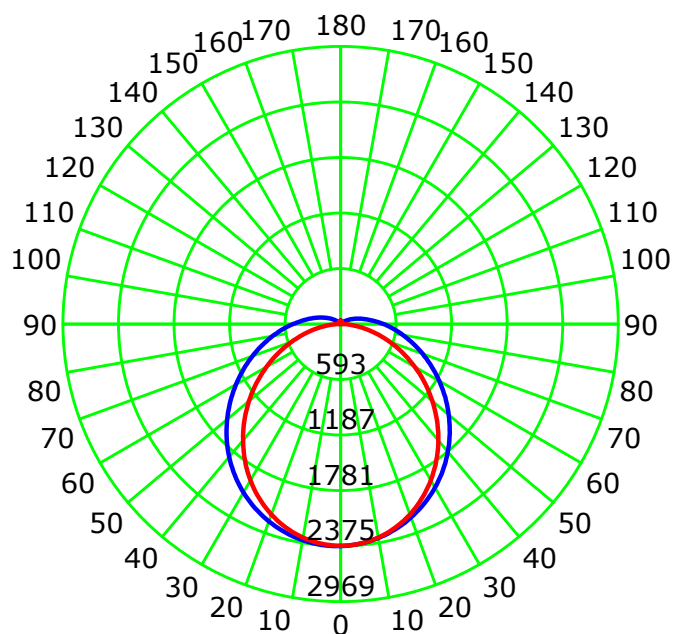
Pos of Max. Intensity: H180 V1

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

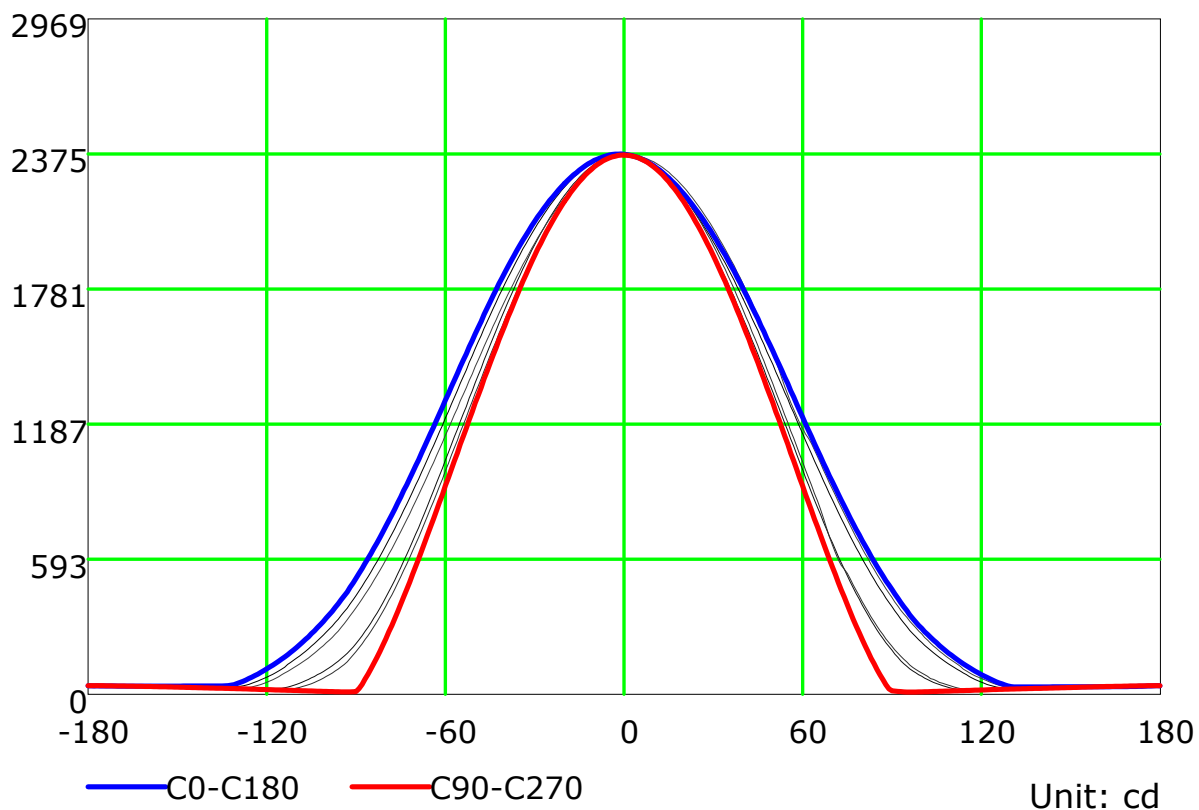
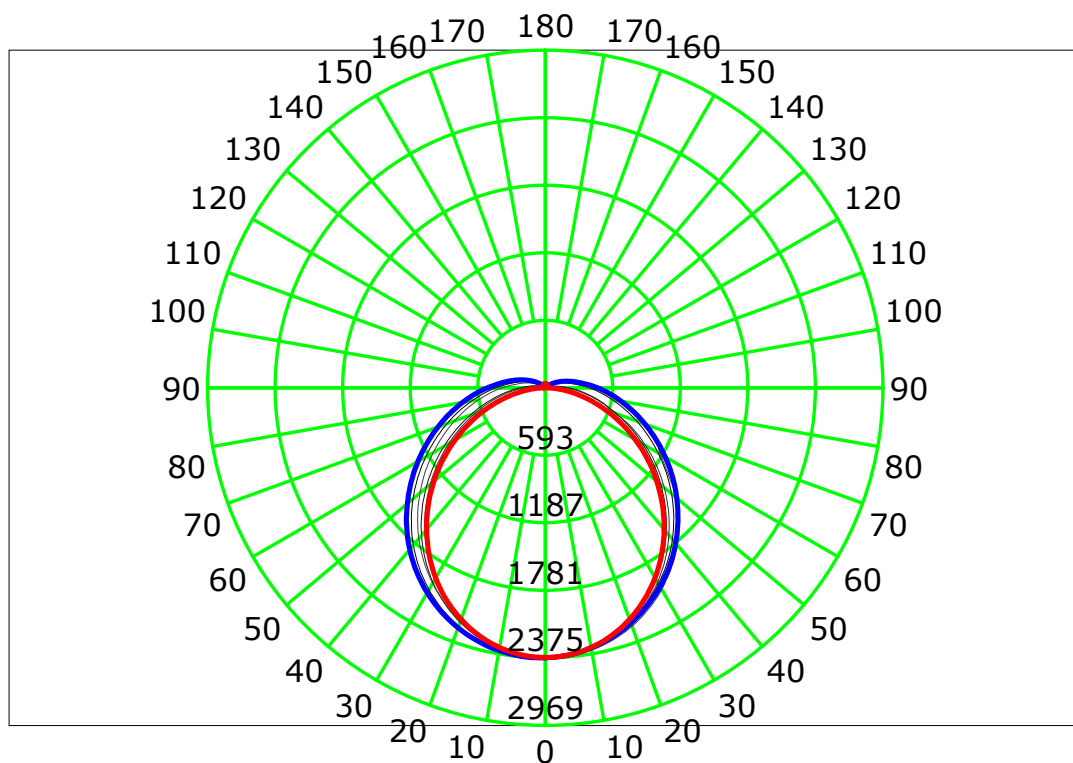
Test Device: GPM-1600L

Distance: 9.010 m

Humidity:

Inspector:

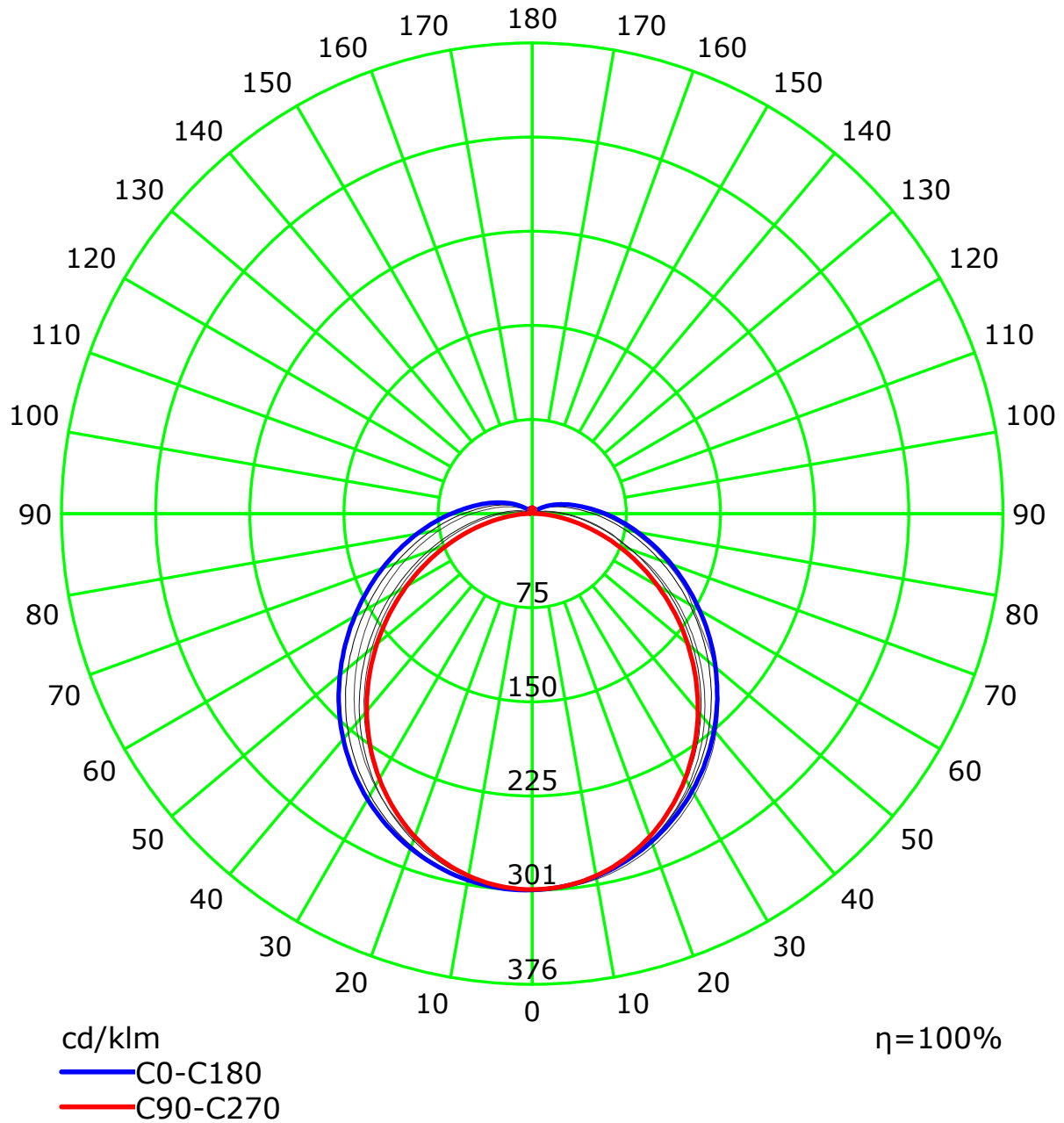
## Luminous Intensity Distribution Curve



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)



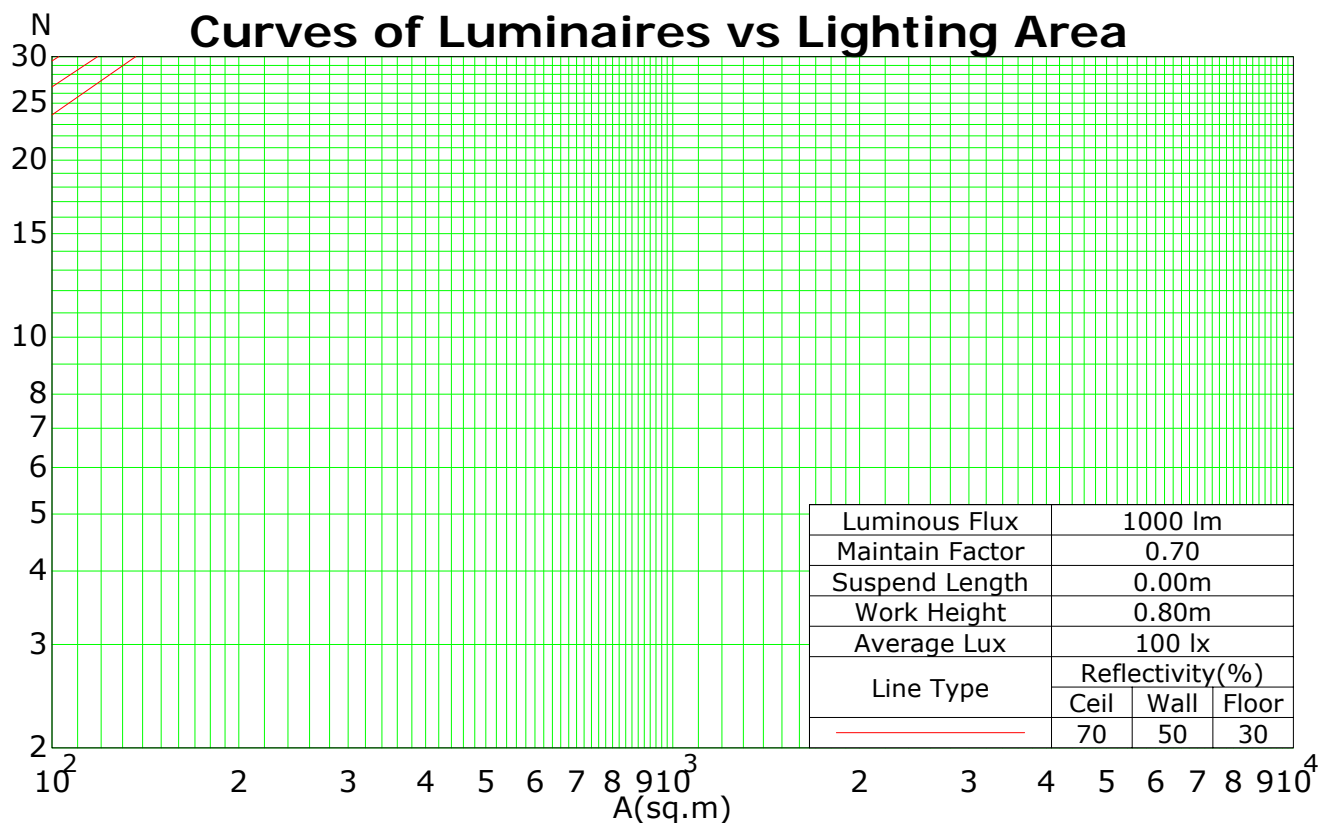
C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

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	1.05	1.00	0.95	0.91	1.02	0.97	0.92	0.88	0.91	0.88	0.84	0.86	0.83	0.80	0.81	0.79	0.77	0.74
2	0.95	0.86	0.79	0.73	0.92	0.84	0.77	0.71	0.79	0.73	0.68	0.75	0.70	0.66	0.71	0.67	0.63	0.61
3	0.87	0.75	0.67	0.60	0.83	0.73	0.65	0.59	0.69	0.62	0.57	0.65	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	0.45	0.43
5	0.73	0.59	0.50	0.43	0.70	0.58	0.49	0.43	0.55	0.47	0.41	0.52	0.46	0.40	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	0.49	0.42	0.36	0.47	0.40	0.35	0.45	0.39	0.34	0.32
7	0.62	0.48	0.39	0.33	0.60	0.47	0.39	0.33	0.45	0.37	0.32	0.43	0.36	0.31	0.41	0.35	0.31	0.28
8	0.58	0.44	0.35	0.29	0.56	0.43	0.35	0.29	0.41	0.34	0.28	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	0.39	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	0.36	0.29	0.24	0.35	0.28	0.23	0.34	0.27	0.23	0.32	0.27	0.22	0.21

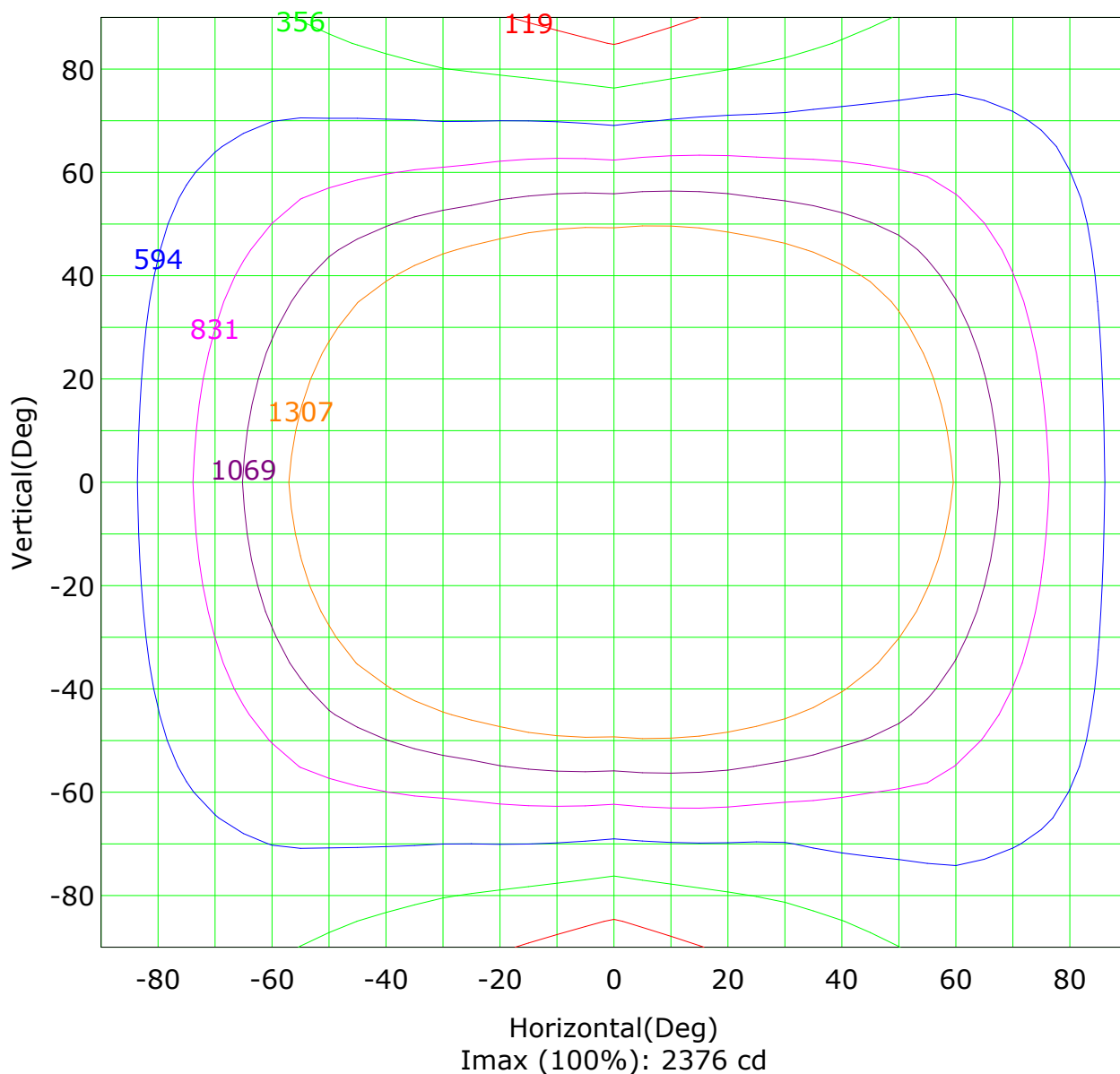
Spacing Criteria (0-180): 1.28  
Spacing Criteria (90-270): 1.21  
Spacing Criteria (Diagonal): 1.37



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)

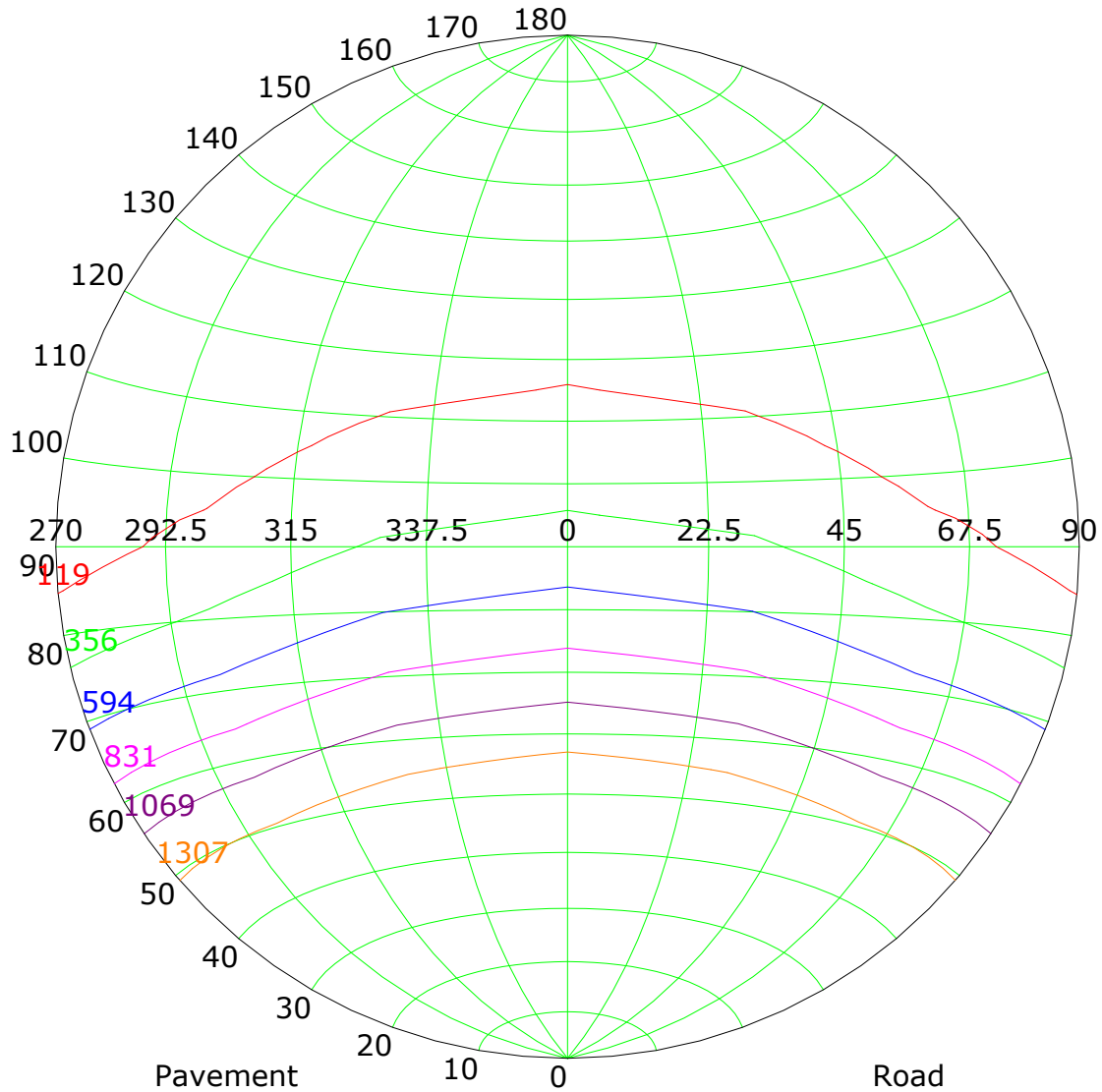


( 5%): 119 cd	( 15%): 356 cd
( 25%): 594 cd	( 35%): 831 cd
( 45%): 1069 cd	( 55%): 1307 cd

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%): 2376 cd

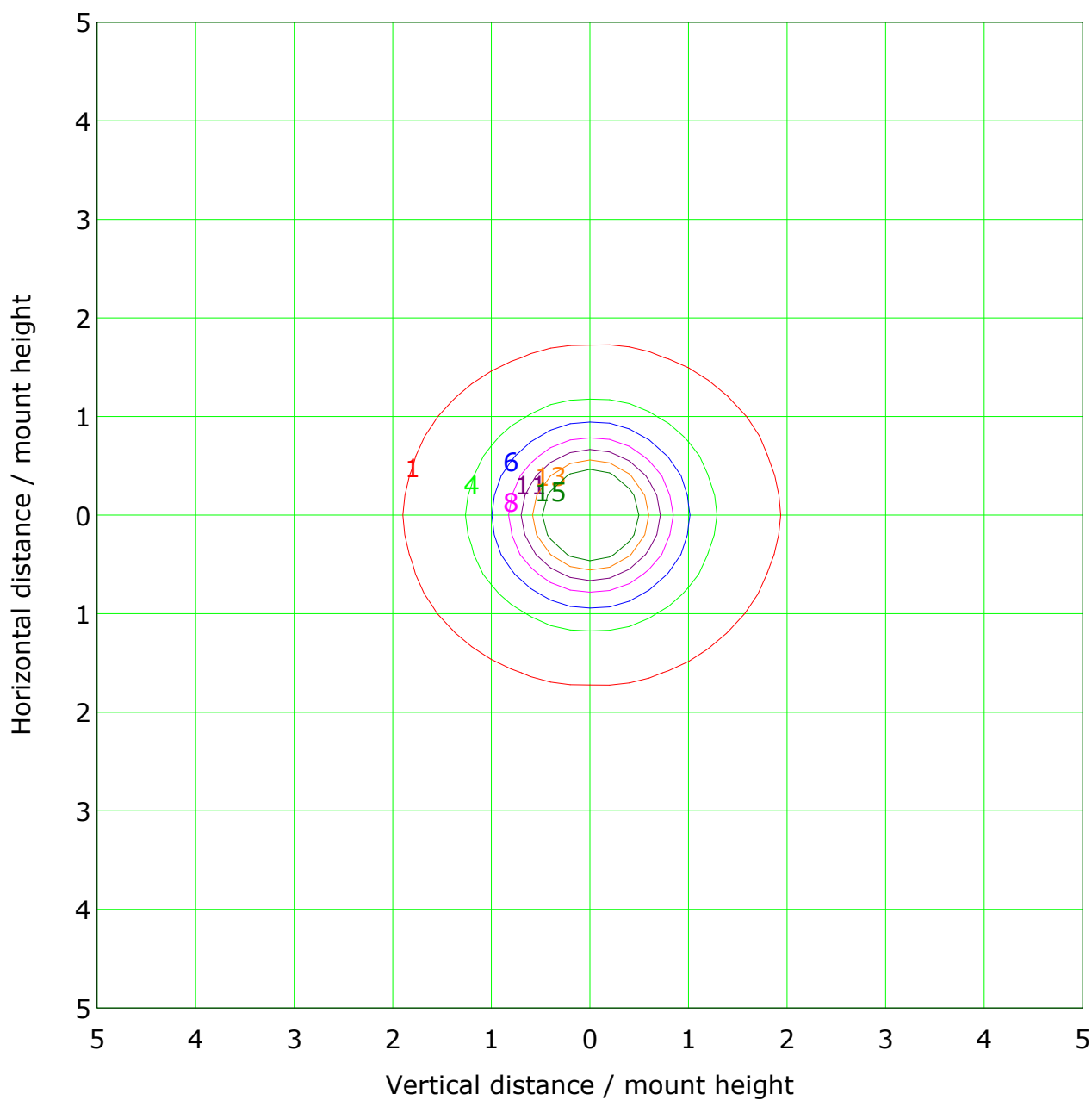
( 5%): 119 cd  
( 25%): 594 cd  
( 45%): 1069 cd

( 15%): 356 cd  
( 35%): 831 cd  
( 55%): 1307 cd

CIE: narrow - short  
CIE: Non-cut-off luminaire  
Max.At90: 64.715 cd/klm

IES: Non-cut-off  
Max.At80: 93.714 cd/klm  
Max.80-90: 93.714 cd/klm

## IsoLux Plot



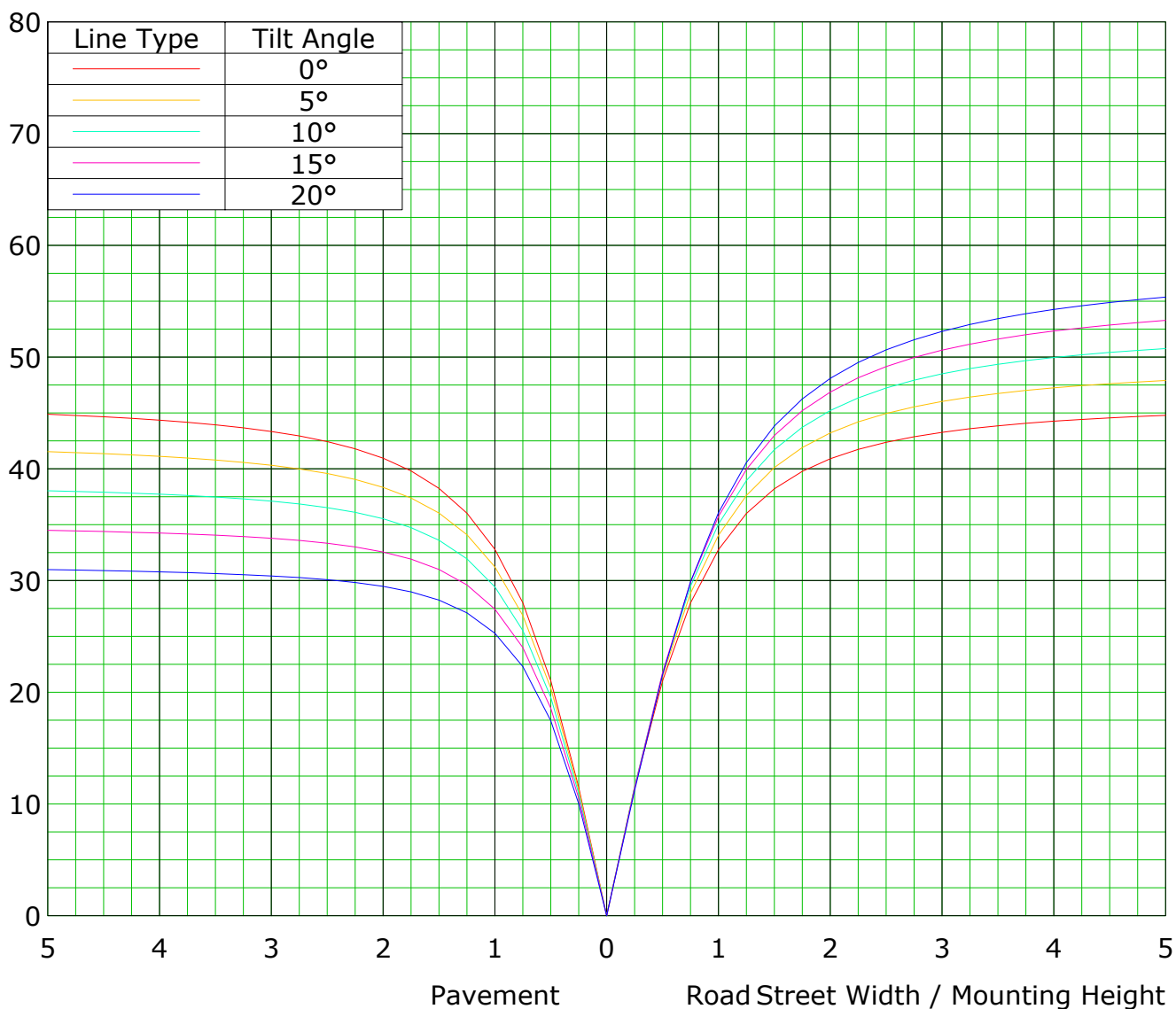
Mounting Height: 10.0m		Max Lux(100%): 23.7 lx	
— ( 5%):	1.2 lx	— ( 15%):	3.6 lx
— ( 25%):	5.9 lx	— ( 35%):	8.3 lx
— ( 45%):	10.7 lx	— ( 55%):	13.1 lx
— ( 65%):	15.4 lx		

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(%)



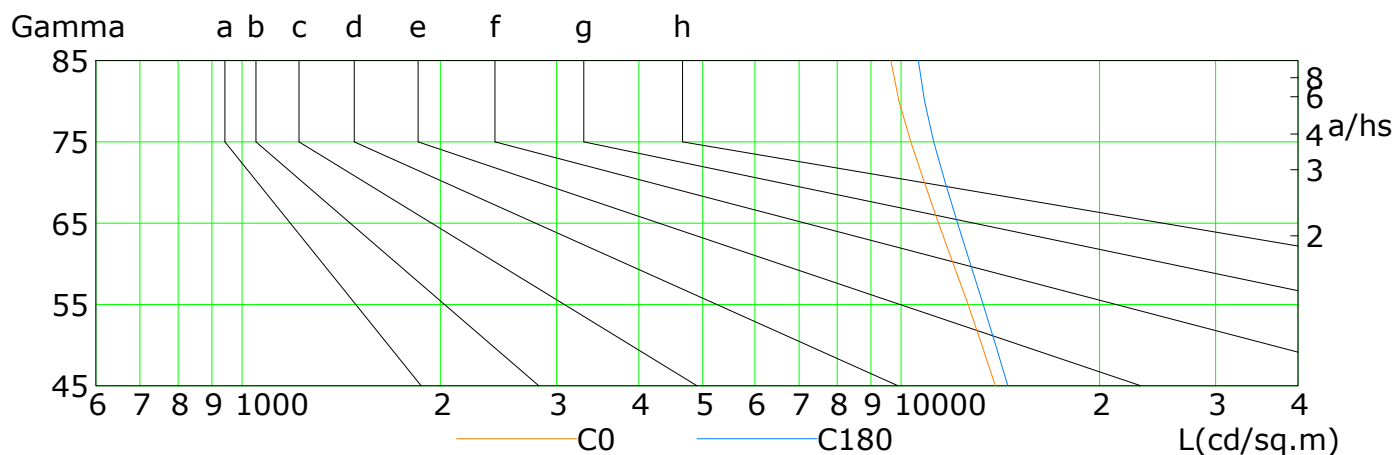
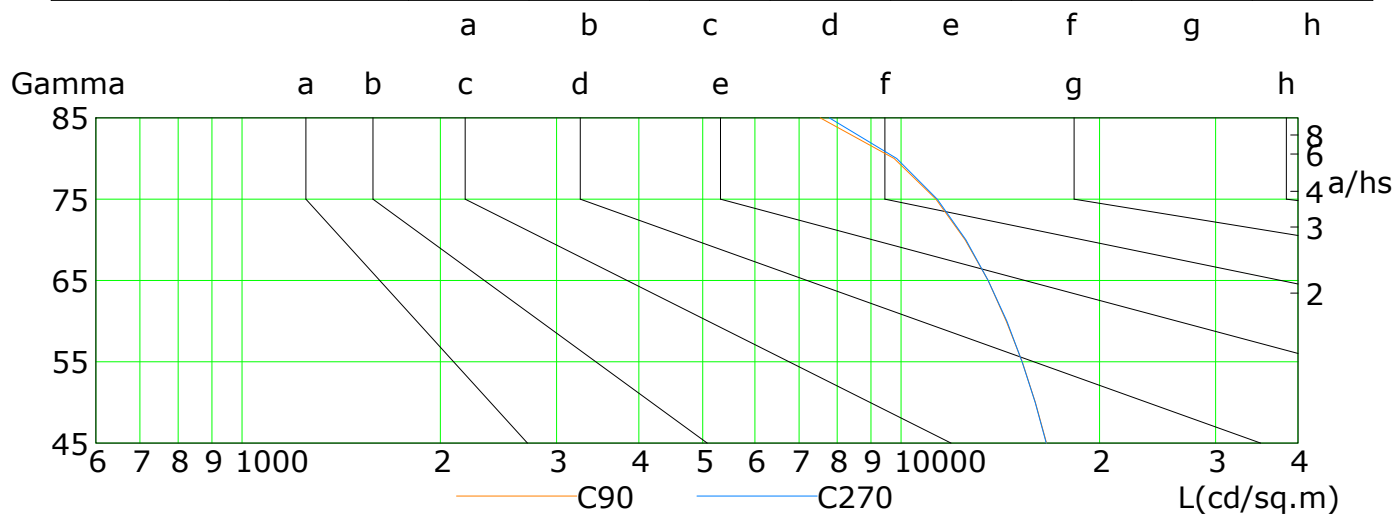
C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

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	13900	13257	12637	11999	11396	10847	10345	9925	9647
C90	16624	15983	15267	14437	13551	12501	11296	9758	7538
C180	14517	13911	13322	12737	12176	11664	11202	10852	10619
C270	16599	15973	15258	14467	13550	12536	11346	9849	7783

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

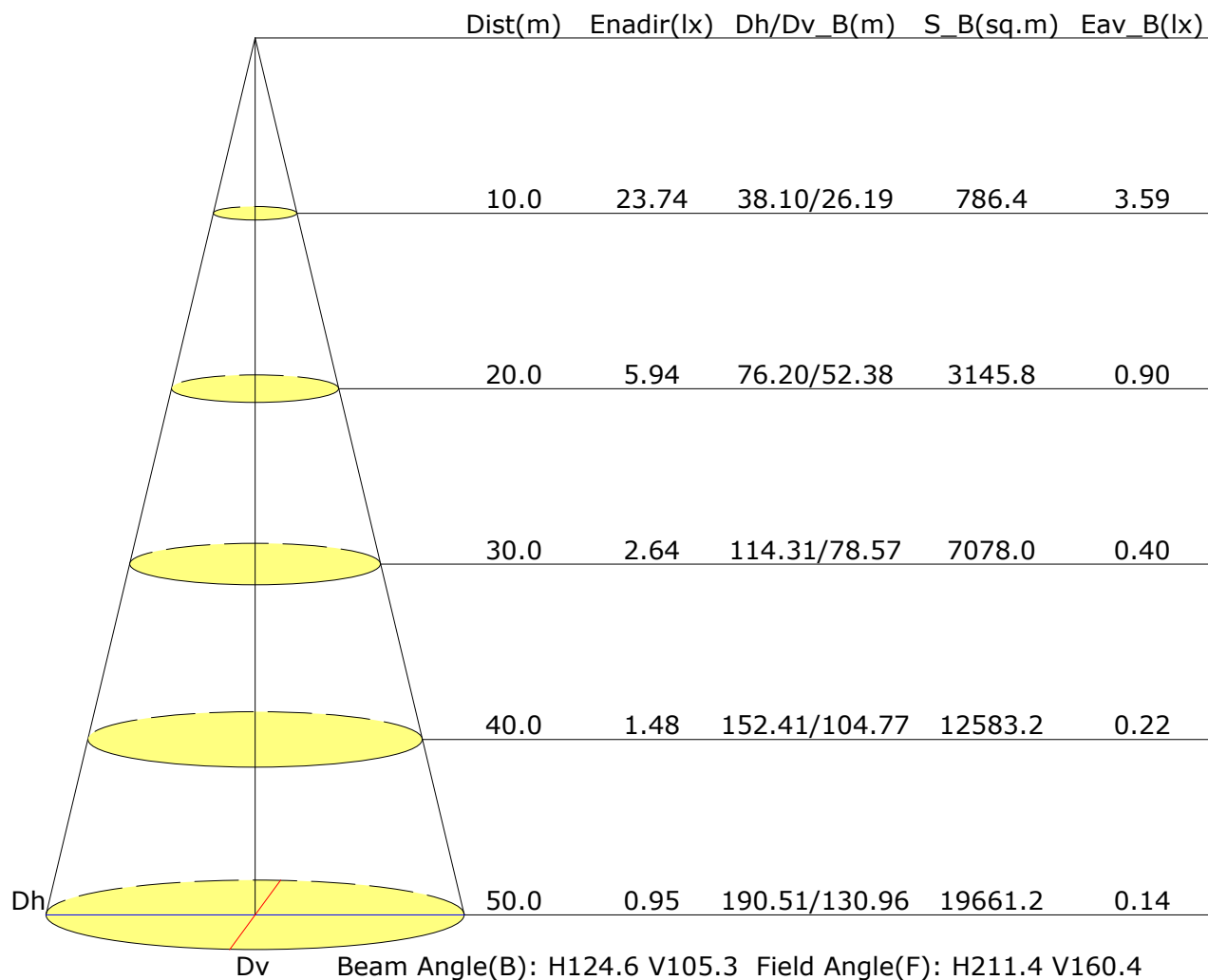
Test Device: GPM-1600L

Distance: 9.010 m

Humidity:

Inspector:

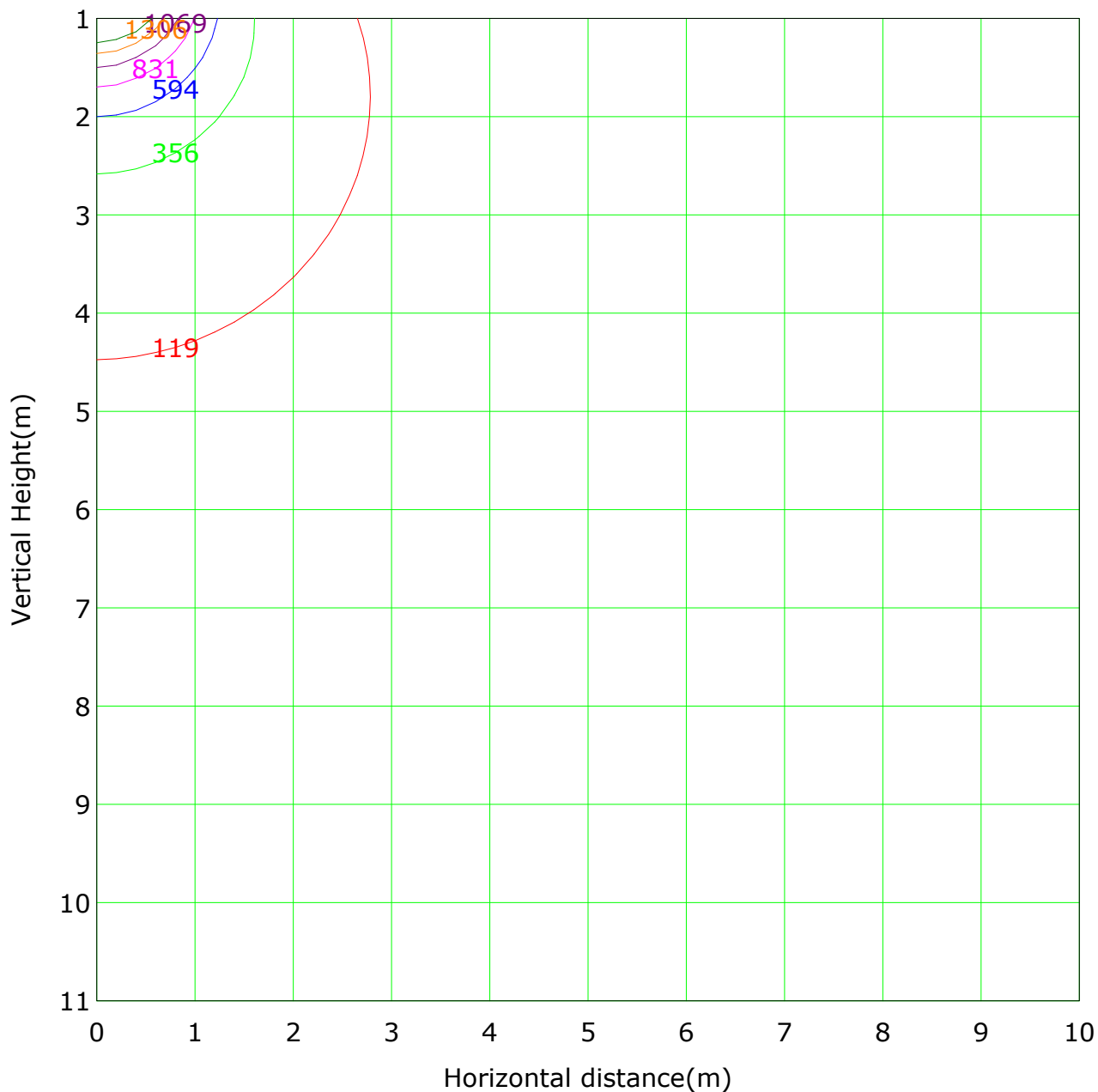
## Illuminance at a Distance



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: 2374.5 lx

— ( 5%): 118.7 lx	— ( 15%): 356.2 lx
— ( 25%): 593.6 lx	— ( 35%): 831.1 lx
— ( 45%): 1068.5 lx	— ( 55%): 1306.0 lx
— ( 65%): 1543.4 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

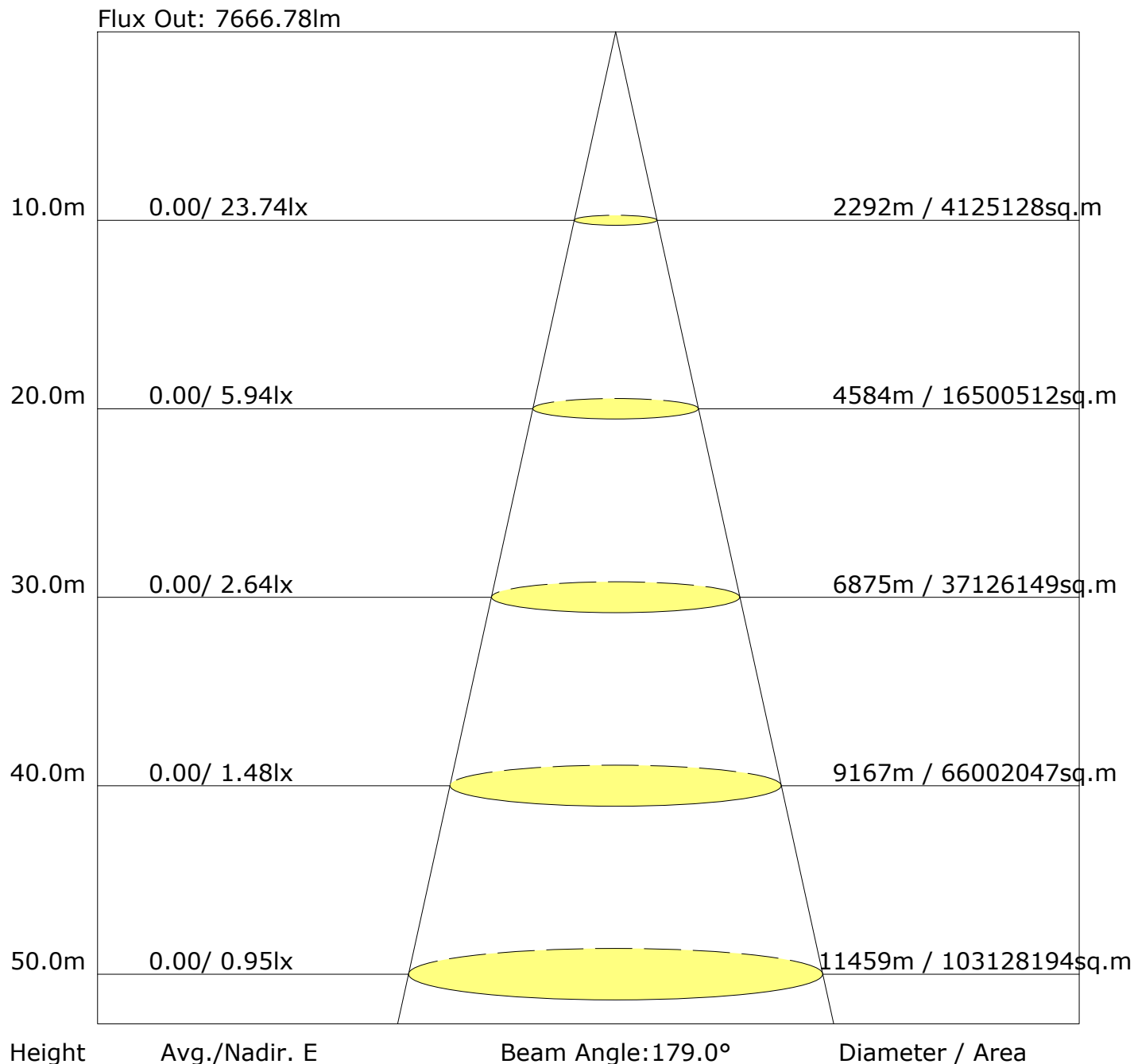
Vertical plane		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90
Flux(E)	Flux(T)	1.3	3.9	6.3	8.0	8.6	8.4	7.6	6.3	4.6	4.4	5.8	6.7	7.4	7.6	7.0	5.6	3.5	1.2	104.1
		1.4	4.4	7.5	10.3	12.1	13.2	13.7	13.7	12.9	12.6	13.1	12.8	12.1	11.0	9.3	6.7	3.9	1.3	171.9
		1.5	4.8	8.8	12.9	16.3	19.1	21.3	22.8	22.9	22.7	22.1	20.2	17.9	15.1	11.8	8.0	4.4	1.3	253.7
		1.5	5.3	10.1	15.6	20.9	25.7	29.6	32.6	33.7	33.4	31.8	28.4	24.3	19.5	14.4	9.3	4.8	1.4	342.3
		1.6	5.8	11.4	18.2	25.4	32.2	38.0	42.4	44.4	44.0	41.5	36.6	30.7	23.9	17.0	10.5	5.3	1.4	430.4
		1.6	6.2	12.5	20.6	29.6	38.3	45.8	51.4	54.1	53.8	50.3	44.3	36.6	28.0	19.3	11.6	5.6	1.5	511.3
		1.7	6.5	13.5	22.6	32.9	43.4	52.3	58.9	62.3	61.9	57.8	50.7	41.5	31.3	21.2	12.6	6.0	1.5	578.7
		1.7	6.7	14.3	24.1	35.3	46.8	56.9	64.3	68.1	67.7	63.2	55.3	45.0	33.7	22.7	13.3	6.2	1.6	627.0
		1.7	6.9	14.7	25.0	36.8	48.7	59.3	67.1	71.2	70.7	66.0	57.8	47.0	35.2	23.7	13.8	6.4	1.6	653.6
		1.7	6.9	14.7	24.9	36.8	48.7	59.3	67.1	71.1	70.8	66.1	57.8	47.1	35.2	23.7	13.8	6.4	1.6	653.8
		1.7	6.7	14.2	23.8	35.3	46.8	57.0	64.3	68.1	67.7	63.3	55.4	45.2	33.8	22.8	13.4	6.2	1.6	627.2
		1.7	6.5	13.4	22.1	32.6	43.3	52.3	58.8	62.2	61.9	57.9	50.9	41.7	31.4	21.3	12.6	6.0	1.5	578.4
		1.6	6.1	12.4	20.2	28.8	38.1	45.8	51.3	54.1	53.8	50.4	44.5	36.8	28.1	19.4	11.7	5.7	1.5	510.4
		1.6	5.7	11.3	17.9	24.7	31.7	37.9	42.3	44.3	44.1	41.6	36.8	30.9	24.1	17.1	10.5	5.3	1.4	429.2
		1.5	5.3	10.0	15.3	20.4	25.2	29.4	32.5	33.7	33.5	31.9	28.5	24.4	19.6	14.5	9.3	4.8	1.4	341.4
		1.5	4.8	8.7	12.6	15.7	18.3	20.5	22.4	22.8	22.7	22.1	20.3	18.0	15.2	11.9	8.0	4.4	1.3	251.2
		1.4	4.3	7.4	10.0	11.8	12.7	13.0	13.2	12.6	12.6	13.1	12.9	12.2	11.1	9.3	6.8	4.0	1.3	169.8
		1.3	3.9	6.2	7.8	8.3	8.0	7.2	6.0	4.4	4.3	5.8	6.9	7.5	7.7	7.1	5.6	3.5	1.2	102.9
		28.2	100.8	197.5	311.8	432.3	548.7	647.1	717.7	747.5	742.6	703.8	626.9	526.4	411.3	293.5	183.2	92.4	25.6	7337
		28.2	100.8	197.5	311.8	432.3	548.7	647.1	717.7	747.5	742.6	703.8	626.9	526.4	411.3	293.5	183.2	92.4	25.6	7300

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: 9.010 m  
Humidity:  
Inspector:

## The Average Illuminance Effective Figure



## 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	21.0	22.3	21.4	22.7	23.1	20.7	22.1	21.1	22.4	22.8
3H	22.8	24.0	23.2	24.4	24.8	22.2	23.4	22.6	23.8	24.2
4H	23.6	24.8	24.1	25.2	25.6	22.8	23.9	23.2	24.4	24.8
6H	24.4	25.5	24.9	25.9	26.4	23.2	24.3	23.7	24.7	25.2
8H	24.8	25.8	25.3	26.3	26.8	23.4	24.4	23.8	24.9	25.3
12H	25.1	26.2	25.6	26.6	27.1	23.5	24.5	23.9	24.9	25.4
X=4H Y=2H	21.6	22.7	22.0	23.2	23.6	21.4	22.5	21.8	22.9	23.4
3H	23.6	24.6	24.0	25.0	25.5	23.0	24.0	23.5	24.5	25.0
4H	24.6	25.5	25.1	26.0	26.5	23.7	24.6	24.2	25.1	25.6
6H	25.5	26.3	26.1	26.9	27.4	24.3	25.1	24.8	25.6	26.2
8H	26.0	26.8	26.5	27.3	27.8	24.5	25.3	25.1	25.8	26.4
12H	26.5	27.1	27.0	27.7	28.3	24.7	25.3	25.2	25.9	26.5
X=8H Y=4H	24.9	25.6	25.4	26.1	26.7	24.1	24.9	24.7	25.4	26.0
6H	26.0	26.7	26.6	27.2	27.8	24.9	25.5	25.4	26.0	26.7
8H	26.6	27.2	27.2	27.8	28.4	25.2	25.7	25.8	26.3	27.0
12H	27.3	27.7	27.9	28.3	29.0	25.5	25.9	26.1	26.5	27.2
X=12H Y=4H	24.9	25.6	25.4	26.1	26.7	24.2	24.9	24.7	25.4	26.0
6H	26.1	26.7	26.7	27.2	27.9	25.0	25.6	25.6	26.1	26.8
8H	26.8	27.3	27.4	27.9	28.5	25.4	25.9	26.0	26.5	27.1
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/-0.8					+0.5/-0.8				

Calculate in accordance with CIE Pub.117. The table is revised with 7887lm ( $8\log(F/F_0) = 7.2$ ).

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

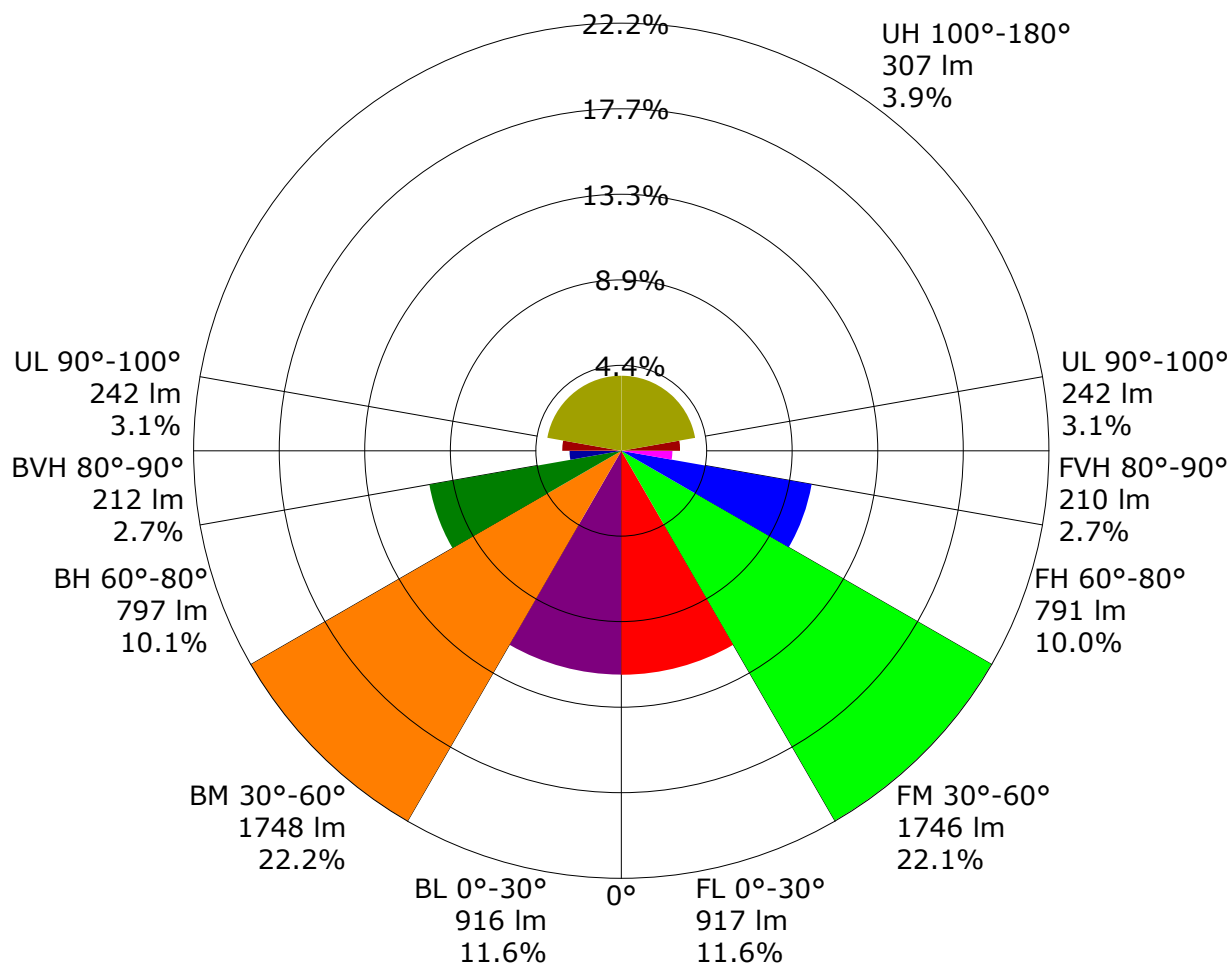
	ZONE	LUMENS	% LAMP LUMENS
	FORWARD LIGHT	3665	46.5
	FL ( 0°-30°)	917	11.6
	FM (30°-60°)	1746	22.1
	FH (60°-80°)	791	10.0
	FVH (80°-90°)	210	2.7
	BACK LIGHT	3673	46.6
	BL ( 0°-30°)	916	11.6
	BM (30°-60°)	1748	22.2
	BH (60°-80°)	797	10.1
	BVH (80°-90°)	212	2.7
	UP LIGHT	549	7.0
	UL (90°-100°)	242	3.1
	UH (100°-180°)	307	3.9
	TRAPPED LIGHT	NA	NA

BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B2 U5 G2
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B2 U5 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	0.80	0.85	0.90	0.94	
	0.20		0.38	0.48	0.55	0.61	0.69	0.75	0.80	0.86	0.90	
0.50	0.50	0.20	0.50	0.59	0.66	0.71	0.77	0.82	0.85	0.90	0.93	
	0.30		0.43	0.52	0.59	0.64	0.72	0.77	0.81	0.86	0.89	
	0.20		0.38	0.47	0.54	0.59	0.67	0.72	0.77	0.82	0.86	
0.30	0.50	0.20	0.48	0.57	0.63	0.67	0.73	0.78	0.81	0.85	0.88	
	0.30		0.42	0.51	0.57	0.62	0.69	0.73	0.77	0.82	0.85	
	0.20		0.37	0.46	0.52	0.57	0.65	0.70	0.74	0.79	0.82	
0.00	0.00	0.00	0.34	0.42	0.49	0.53	0.60	0.65	0.68	0.73	0.76	
Rating:57W 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	0.25	
	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	0.93	0.77	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:57W 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	0.25	0.25	0.26	0.27	0.28	0.28	0.28	0.29	
	0.30		0.16	0.18	0.19	0.20	0.22	0.23	0.24	0.25	0.26	
	0.20		0.11	0.13	0.14	0.15	0.17	0.19	0.20	0.22	0.23	
0.50	0.50	0.20	0.22	0.24	0.25	0.25	0.26	0.26	0.27	0.27	0.27	
	0.30		0.16	0.17	0.19	0.20	0.21	0.22	0.23	0.24	0.25	
	0.20		0.11	0.13	0.14	0.15	0.17	0.18	0.19	0.21	0.22	
0.30	0.50	0.20	0.22	0.23	0.24	0.24	0.25	0.25	0.26	0.26	0.26	
	0.30		0.16	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.24	
	0.20		0.11	0.12	0.14	0.15	0.17	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:57W 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	2371.3	2.3	2.3	0.03	0.03
1.0-2.0	2370.5	6.8	9.1	0.09	0.12
2.0-3.0	2368.6	11.3	20.4	0.14	0.26
3.0-4.0	2365.9	15.8	36.2	0.20	0.46
4.0-5.0	2362.5	20.3	56.6	0.26	0.72
5.0-6.0	2357.8	24.8	81.4	0.31	1.03
6.0-7.0	2352.3	29.2	110.6	0.37	1.40
7.0-8.0	2346.1	33.6	144.1	0.43	1.83
8.0-9.0	2338.8	37.9	182.0	0.48	2.31
9.0-10.0	2330.8	42.2	224.2	0.53	2.84
10.0-11.0	2321.8	46.4	270.6	0.59	3.43
11.0-12.0	2311.9	50.5	321.2	0.64	4.07
12.0-13.0	2301.5	54.6	375.8	0.69	4.76
13.0-14.0	2289.7	58.6	434.4	0.74	5.51
14.0-15.0	2277.1	62.5	496.9	0.79	6.30
15.0-16.0	2263.7	66.3	563.3	0.84	7.14
16.0-17.0	2249.7	70.1	633.3	0.89	8.03
17.0-18.0	2235.3	73.7	707.1	0.93	8.97
18.0-19.0	2219.5	77.2	784.3	0.98	9.94
19.0-20.0	2203.0	80.6	864.9	1.02	10.97
20.0-21.0	2186.4	84.0	948.9	1.06	12.03
21.0-22.0	2168.3	87.1	1036.0	1.10	13.14
22.0-23.0	2149.5	90.2	1126.2	1.14	14.28
23.0-24.0	2130.0	93.1	1219.4	1.18	15.46
24.0-25.0	2109.7	95.9	1315.3	1.22	16.68
25.0-26.0	2089.7	98.7	1414.0	1.25	17.93
26.0-27.0	2068.2	101.2	1515.2	1.28	19.21
27.0-28.0	2045.9	103.6	1618.8	1.31	20.53
28.0-29.0	2024.1	105.9	1724.7	1.34	21.87
29.0-30.0	2000.6	108.0	1832.7	1.37	23.24
30.0-31.0	1976.5	110.0	1942.7	1.39	24.63
31.0-32.0	1951.8	111.8	2054.6	1.42	26.05
32.0-33.0	1926.3	113.5	2168.1	1.44	27.49
33.0-34.0	1901.4	115.1	2283.1	1.46	28.95
34.0-35.0	1874.9	116.5	2399.6	1.48	30.43
35.0-36.0	1847.8	117.7	2517.3	1.49	31.92

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 [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	1820.9	118.8	2636.0	1.51	33.42
37.0-38.0	1792.9	119.7	2755.7	1.52	34.94
38.0-39.0	1764.9	120.5	2876.2	1.53	36.47
39.0-40.0	1735.9	121.1	2997.3	1.54	38.00
40.0-41.0	1706.4	121.5	3118.8	1.54	39.55
41.0-42.0	1677.8	121.9	3240.7	1.55	41.09
42.0-43.0	1647.6	122.1	3362.8	1.55	42.64
43.0-44.0	1617.0	122.1	3484.9	1.55	44.19
44.0-45.0	1586.7	122.0	3606.8	1.55	45.73
45.0-46.0	1555.5	121.7	3728.5	1.54	47.28
46.0-47.0	1524.5	121.3	3849.7	1.54	48.81
47.0-48.0	1492.6	120.7	3970.4	1.53	50.34
48.0-49.0	1460.3	119.9	4090.4	1.52	51.86
49.0-50.0	1429.2	119.2	4209.5	1.51	53.38
50.0-51.0	1396.4	118.2	4327.7	1.50	54.87
51.0-52.0	1363.5	117.0	4444.7	1.48	56.36
52.0-53.0	1330.9	115.8	4560.5	1.47	57.83
53.0-54.0	1297.5	114.4	4674.9	1.45	59.28
54.0-55.0	1265.1	112.9	4787.8	1.43	60.71
55.0-56.0	1232.0	111.3	4899.2	1.41	62.12
56.0-57.0	1199.2	109.7	5008.8	1.39	63.51
57.0-58.0	1167.7	108.0	5116.8	1.37	64.88
58.0-59.0	1134.6	106.1	5222.9	1.35	66.22
59.0-60.0	1102.1	104.1	5327.0	1.32	67.54
60.0-61.0	1070.0	102.1	5429.2	1.29	68.84
61.0-62.0	1038.2	100.1	5529.2	1.27	70.11
62.0-63.0	1007.8	98.0	5627.2	1.24	71.35
63.0-64.0	976.0	95.8	5723.0	1.21	72.57
64.0-65.0	944.0	93.4	5816.5	1.18	73.75
65.0-66.0	913.4	91.1	5907.6	1.16	74.91
66.0-67.0	881.7	88.7	5996.3	1.12	76.03
67.0-68.0	850.1	86.1	6082.4	1.09	77.12
68.0-69.0	818.7	83.5	6165.9	1.06	78.18
69.0-70.0	787.6	80.9	6246.8	1.03	79.21
70.0-71.0	758.5	78.4	6325.2	0.99	80.20
71.0-72.0	728.7	75.8	6401.0	0.96	81.16

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	699.6	73.2	6474.2	0.93	82.09
73.0-74.0	672.6	70.7	6544.9	0.90	82.99
74.0-75.0	645.2	68.2	6613.1	0.86	83.85
75.0-76.0	617.9	65.6	6678.7	0.83	84.68
76.0-77.0	590.7	63.0	6741.7	0.80	85.48
77.0-78.0	563.9	60.4	6802.0	0.77	86.25
78.0-79.0	538.9	57.9	6860.0	0.73	86.98
79.0-80.0	513.3	55.3	6915.3	0.70	87.68
80.0-81.0	488.2	52.8	6968.1	0.67	88.35
81.0-82.0	464.2	50.4	7018.5	0.64	88.99
82.0-83.0	440.5	47.9	7066.3	0.61	89.60
83.0-84.0	417.8	45.5	7111.9	0.58	90.18
84.0-85.0	395.2	43.1	7155.0	0.55	90.72
85.0-86.0	373.3	40.8	7195.8	0.52	91.24
86.0-87.0	353.2	38.7	7234.5	0.49	91.73
87.0-88.0	333.0	36.5	7271.0	0.46	92.19
88.0-89.0	313.5	34.4	7305.3	0.44	92.63
89.0-90.0	295.7	32.4	7337.8	0.41	93.04
90.0-91.0	279.5	30.7	7368.4	0.39	93.43
91.0-92.0	265.0	29.0	7397.5	0.37	93.80
92.0-93.0	250.7	27.5	7424.9	0.35	94.15
93.0-94.0	237.2	26.0	7450.9	0.33	94.47
94.0-95.0	225.0	24.6	7475.5	0.31	94.79
95.0-96.0	212.9	23.2	7498.7	0.29	95.08
96.0-97.0	201.4	21.9	7520.7	0.28	95.36
97.0-98.0	191.1	20.8	7541.4	0.26	95.62
98.0-99.0	181.0	19.6	7561.1	0.25	95.87
99.0-100.0	171.6	18.6	7579.6	0.24	96.11
100.0-101.0	162.5	17.5	7597.1	0.22	96.33
101.0-102.0	153.5	16.5	7613.6	0.21	96.54
102.0-103.0	145.1	15.5	7629.2	0.20	96.73
103.0-104.0	136.8	14.6	7643.8	0.19	96.92
104.0-105.0	129.1	13.7	7657.5	0.17	97.09
105.0-106.0	121.5	12.8	7670.3	0.16	97.26
106.0-107.0	114.4	12.0	7682.3	0.15	97.41
107.0-108.0	107.8	11.3	7693.6	0.14	97.55

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 [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
108.0-109.0	101.3	10.5	7704.1	0.13	97.69
109.0-110.0	95.0	9.8	7714.0	0.12	97.81
110.0-111.0	89.2	9.2	7723.1	0.12	97.93
111.0-112.0	83.6	8.5	7731.6	0.11	98.03
112.0-113.0	78.3	7.9	7739.6	0.10	98.13
113.0-114.0	73.2	7.4	7746.9	0.09	98.23
114.0-115.0	68.4	6.8	7753.8	0.09	98.31
115.0-116.0	64.3	6.4	7760.1	0.08	98.40
116.0-117.0	60.2	5.9	7766.0	0.07	98.47
117.0-118.0	56.7	5.5	7771.5	0.07	98.54
118.0-119.0	53.5	5.2	7776.7	0.07	98.61
119.0-120.0	50.4	4.8	7781.5	0.06	98.67
120.0-121.0	47.5	4.5	7786.0	0.06	98.72
121.0-122.0	44.7	4.2	7790.2	0.05	98.78
122.0-123.0	42.0	3.9	7794.1	0.05	98.83
123.0-124.0	39.7	3.6	7797.7	0.05	98.87
124.0-125.0	37.3	3.4	7801.1	0.04	98.91
125.0-126.0	35.2	3.1	7804.2	0.04	98.95
126.0-127.0	33.5	3.0	7807.2	0.04	98.99
127.0-128.0	32.2	2.8	7810.0	0.04	99.03
128.0-129.0	31.1	2.7	7812.6	0.03	99.06
129.0-130.0	30.3	2.6	7815.2	0.03	99.09
130.0-131.0	29.8	2.5	7817.7	0.03	99.12
131.0-132.0	29.6	2.4	7820.1	0.03	99.16
132.0-133.0	29.6	2.4	7822.5	0.03	99.19
133.0-134.0	29.6	2.4	7824.8	0.03	99.22
134.0-135.0	29.7	2.3	7827.2	0.03	99.25
135.0-136.0	29.9	2.3	7829.5	0.03	99.27
136.0-137.0	30.0	2.3	7831.7	0.03	99.30
137.0-138.0	30.2	2.2	7834.0	0.03	99.33
138.0-139.0	30.4	2.2	7836.2	0.03	99.36
139.0-140.0	30.5	2.2	7838.3	0.03	99.39
140.0-141.0	30.7	2.1	7840.5	0.03	99.41
141.0-142.0	30.8	2.1	7842.6	0.03	99.44
142.0-143.0	31.0	2.1	7844.7	0.03	99.47
143.0-144.0	31.2	2.0	7846.7	0.03	99.49

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 [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
144.0-145.0	31.3	2.0	7848.7	0.03	99.52
145.0-146.0	31.5	2.0	7850.7	0.02	99.54
146.0-147.0	31.7	1.9	7852.6	0.02	99.57
147.0-148.0	31.9	1.9	7854.4	0.02	99.59
148.0-149.0	32.0	1.8	7856.3	0.02	99.61
149.0-150.0	32.2	1.8	7858.1	0.02	99.64
150.0-151.0	32.4	1.7	7859.8	0.02	99.66
151.0-152.0	32.6	1.7	7861.5	0.02	99.68
152.0-153.0	32.7	1.7	7863.2	0.02	99.70
153.0-154.0	32.9	1.6	7864.8	0.02	99.72
154.0-155.0	33.0	1.6	7866.4	0.02	99.74
155.0-156.0	33.2	1.5	7867.9	0.02	99.76
156.0-157.0	33.3	1.5	7869.3	0.02	99.78
157.0-158.0	33.5	1.4	7870.7	0.02	99.80
158.0-159.0	33.6	1.4	7872.1	0.02	99.81
159.0-160.0	33.8	1.3	7873.4	0.02	99.83
160.0-161.0	34.0	1.2	7874.6	0.02	99.85
161.0-162.0	34.1	1.2	7875.8	0.02	99.86
162.0-163.0	34.3	1.1	7876.9	0.01	99.88
163.0-164.0	34.4	1.1	7878.0	0.01	99.89
164.0-165.0	34.6	1.0	7879.0	0.01	99.90
165.0-166.0	34.8	1.0	7880.0	0.01	99.91
166.0-167.0	35.0	0.9	7880.9	0.01	99.93
167.0-168.0	35.2	0.8	7881.7	0.01	99.94
168.0-169.0	35.4	0.8	7882.5	0.01	99.95
169.0-170.0	35.6	0.7	7883.2	0.01	99.96
170.0-171.0	35.9	0.6	7883.8	0.01	99.96
171.0-172.0	36.1	0.6	7884.4	0.01	99.97
172.0-173.0	36.4	0.5	7885.0	0.01	99.98
173.0-174.0	36.7	0.5	7885.4	0.01	99.98
174.0-175.0	36.9	0.4	7885.8	0.00	99.99
175.0-176.0	37.2	0.3	7886.1	0.00	99.99
176.0-177.0	37.4	0.3	7886.4	0.00	100.00
177.0-178.0	37.7	0.2	7886.5	0.00	100.00
178.0-179.0	37.9	0.1	7886.7	0.00	100.00
179.0-180.0	38.0	0.0	7886.7	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°): 3606.82 lm

%lum = 45.7%

%lamp = 45.7%

cone flux(120°): 5327.03 lm

%lum = 67.5%

%lamp = 67.5%

## 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	2374.5	2371.3	2371.6	2371.1	2370.7	2370.0	2374.5	2371.3	2371.6	2371.1
G1.0	2372.9	2369.8	2370.4	2370.5	2371.1	2370.7	2375.6	2372.3	2371.9	2371.0
G2.0	2370.6	2367.4	2368.4	2368.9	2370.4	2370.4	2375.4	2372.2	2371.4	2369.3
G3.0	2367.3	2363.7	2364.9	2366.3	2368.1	2369.7	2375.3	2370.8	2370.0	2366.4
G4.0	2363.4	2360.4	2360.9	2363.0	2365.7	2368.5	2373.5	2369.4	2367.0	2363.6
G5.0	2358.7	2355.6	2356.4	2358.5	2361.8	2366.8	2371.0	2367.0	2363.5	2358.4
G6.0	2353.4	2349.3	2349.5	2352.3	2356.9	2362.4	2367.4	2363.5	2357.9	2352.5
G7.0	2347.3	2343.8	2342.8	2345.5	2352.0	2358.4	2363.6	2359.0	2352.8	2346.2
G8.0	2340.9	2336.6	2335.2	2338.7	2345.5	2353.4	2358.3	2354.1	2345.9	2337.8
G9.0	2332.3	2328.3	2326.6	2328.8	2337.4	2347.2	2352.7	2347.9	2338.9	2329.2
G10.0	2324.2	2319.9	2317.0	2319.3	2329.1	2341.2	2347.4	2341.9	2330.5	2319.6
G11.0	2314.1	2309.3	2306.1	2308.2	2318.8	2333.5	2340.0	2334.3	2320.4	2307.7
G12.0	2305.1	2299.3	2294.8	2296.6	2308.5	2325.6	2332.9	2326.1	2309.8	2296.7
G13.0	2294.4	2287.9	2282.4	2284.5	2298.1	2316.6	2324.4	2317.4	2298.9	2284.2
G14.0	2282.4	2275.3	2267.9	2268.8	2284.9	2306.6	2314.7	2306.7	2286.3	2269.1
G15.0	2270.8	2263.0	2253.1	2254.9	2271.8	2296.3	2304.8	2296.0	2273.0	2255.2
G16.0	2257.7	2249.1	2237.7	2238.3	2257.0	2284.1	2293.8	2284.1	2258.0	2239.4
G17.0	2244.7	2235.4	2222.3	2222.2	2242.8	2271.7	2283.6	2272.2	2244.1	2222.8
G18.0	2232.1	2220.4	2206.1	2205.5	2227.0	2259.9	2271.6	2259.6	2228.8	2206.0
G19.0	2216.3	2204.0	2186.9	2185.9	2210.0	2245.2	2258.9	2244.9	2210.8	2185.9
G20.0	2201.3	2188.4	2168.7	2167.6	2193.4	2230.9	2245.8	2230.6	2193.6	2167.8
G21.0	2186.5	2172.1	2150.6	2147.6	2174.7	2216.8	2232.5	2216.0	2176.1	2147.8
G22.0	2168.8	2154.2	2128.6	2125.2	2155.0	2199.4	2217.4	2198.9	2156.0	2126.3
G23.0	2153.0	2135.4	2108.9	2104.5	2134.6	2183.5	2202.4	2183.0	2136.6	2105.1
G24.0	2134.8	2116.4	2086.3	2079.9	2113.4	2165.6	2186.0	2165.3	2115.5	2081.6
G25.0	2116.9	2096.2	2064.2	2056.8	2091.9	2147.4	2170.9	2148.0	2094.5	2058.2
G26.0	2099.3	2077.3	2042.8	2034.0	2070.6	2129.6	2153.9	2129.1	2072.7	2035.5
G27.0	2079.4	2055.2	2016.5	2007.9	2046.5	2108.9	2135.8	2108.9	2048.7	2009.4
G28.0	2060.1	2035.2	1993.5	1982.2	2023.1	2090.0	2117.7	2089.3	2026.9	1983.6
G29.0	2040.8	2014.3	1969.8	1957.2	2000.4	2070.7	2099.8	2069.9	2002.5	1958.8
G30.0	2018.3	1989.9	1941.8	1929.4	1973.4	2048.0	2079.6	2047.4	1976.9	1929.7
G31.0	1998.8	1968.5	1916.7	1901.9	1948.9	2027.1	2060.5	2026.2	1952.9	1902.9
G32.0	1975.0	1942.8	1887.4	1872.3	1921.4	2002.4	2038.5	2002.8	1924.7	1873.4
G33.0	1953.9	1920.3	1861.4	1843.6	1894.7	1981.1	2018.0	1980.7	1897.6	1844.8
G34.0	1932.9	1896.4	1833.7	1816.0	1869.0	1957.6	1996.9	1958.3	1870.4	1815.5
G35.0	1907.0	1870.7	1804.1	1783.5	1838.6	1933.0	1973.8	1932.0	1841.1	1784.0
G36.0	1883.8	1845.8	1775.2	1754.1	1811.5	1908.6	1952.5	1908.5	1814.2	1753.0

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: 9.010 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	1860.7	1821.1	1747.3	1723.2	1782.6	1884.9	1927.6	1882.6	1782.6	1720.8
G38.0	1834.8	1793.5	1714.7	1690.6	1751.8	1857.3	1905.4	1857.6	1754.4	1689.1
G39.0	1810.4	1767.3	1685.8	1659.4	1721.5	1832.4	1880.7	1832.3	1724.7	1658.6
G40.0	1783.8	1738.8	1652.0	1624.5	1689.7	1803.6	1855.0	1805.4	1693.3	1623.2
G41.0	1758.2	1711.5	1622.7	1591.8	1659.0	1776.9	1830.3	1778.5	1663.6	1591.8
G42.0	1732.4	1684.0	1591.3	1560.3	1629.3	1751.0	1805.8	1752.7	1632.3	1560.0
G43.0	1704.3	1653.9	1558.6	1523.8	1595.1	1720.4	1779.0	1723.6	1599.8	1523.8
G44.0	1677.4	1625.9	1526.7	1491.6	1564.6	1693.1	1752.2	1695.4	1567.7	1491.0
G45.0	1651.2	1599.2	1494.4	1457.6	1532.5	1664.1	1724.5	1665.7	1534.2	1455.4
G46.0	1621.0	1567.3	1460.5	1421.8	1497.4	1633.4	1698.2	1638.6	1502.9	1420.9
G47.0	1594.6	1539.1	1429.2	1386.7	1466.2	1605.0	1670.7	1609.6	1470.5	1387.7
G48.0	1564.4	1507.5	1393.6	1350.2	1431.9	1571.6	1640.2	1577.9	1434.7	1349.5
G49.0	1538.2	1478.8	1362.3	1315.4	1398.7	1540.9	1612.8	1549.7	1403.1	1314.4
G50.0	1510.0	1450.3	1329.1	1281.8	1365.2	1506.4	1584.5	1519.7	1369.8	1281.0
G51.0	1480.6	1418.2	1294.5	1243.4	1330.4	1466.2	1555.5	1488.4	1334.7	1243.3
G52.0	1452.4	1388.4	1261.2	1209.6	1296.7	1430.2	1528.2	1459.6	1302.6	1207.8
G53.0	1425.1	1359.5	1227.3	1173.8	1264.7	1391.8	1496.7	1426.1	1265.9	1170.5
G54.0	1394.0	1327.6	1192.4	1136.4	1227.9	1352.8	1469.7	1397.4	1233.6	1134.4
G55.0	1366.6	1299.3	1159.0	1100.9	1195.9	1318.0	1440.7	1367.6	1200.0	1100.2
G56.0	1335.4	1266.5	1123.7	1061.3	1158.9	1284.0	1410.3	1335.8	1165.0	1060.8
G57.0	1307.9	1238.4	1091.6	1027.1	1126.6	1253.2	1381.1	1305.8	1132.4	1026.2
G58.0	1277.3	1207.2	1056.8	991.2	1092.7	1223.4	1353.6	1277.1	1099.1	990.6
G59.0	1247.6	1176.3	1021.4	951.9	1055.6	1194.0	1321.6	1244.0	1063.5	952.4
G60.0	1218.7	1146.4	988.6	916.2	1021.8	1169.2	1293.7	1215.3	1029.7	918.1
G61.0	1188.6	1115.5	952.3	878.6	986.3	1144.6	1263.3	1182.8	994.8	878.8
G62.0	1160.3	1086.3	920.8	843.0	952.5	1125.3	1234.0	1154.1	961.5	844.6
G63.0	1133.1	1058.2	888.0	808.9	920.0	1103.0	1205.9	1124.0	929.6	808.8
G64.0	1102.2	1026.1	853.9	770.2	883.1	1074.0	1174.7	1093.3	895.4	771.7
G65.0	1073.7	997.4	821.7	736.4	850.6	1045.0	1147.2	1064.7	862.5	736.3
G66.0	1046.8	970.2	791.6	701.2	815.1	1017.8	1119.0	1035.6	830.0	702.7
G67.0	1016.5	939.1	757.6	664.6	774.3	986.5	1089.4	1005.5	796.9	666.3
G68.0	990.1	912.3	728.3	630.2	734.0	959.7	1062.4	977.9	766.8	631.5
G69.0	960.3	881.9	695.2	594.2	692.7	929.4	1031.4	946.9	733.2	595.5
G70.0	934.4	855.5	666.6	560.0	656.7	902.2	1004.8	919.9	704.3	561.6
G71.0	907.8	828.4	637.1	528.0	623.5	876.4	977.4	892.1	674.2	529.4
G72.0	879.7	800.0	605.7	491.7	592.1	847.1	948.7	863.1	643.5	493.0
G73.0	853.6	773.4	578.5	458.9	567.5	821.5	921.7	836.0	615.7	461.7

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 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	827.7	747.4	550.7	427.9	550.4	795.1	896.5	810.5	587.4	429.4
G75.0	801.0	720.3	522.1	394.5	532.2	768.2	867.3	781.7	556.8	396.2
G76.0	775.4	695.2	495.3	363.1	508.4	742.4	842.6	757.1	530.9	365.0
G77.0	749.5	669.4	468.4	329.6	481.1	715.8	814.3	729.0	502.0	333.2
G78.0	725.0	644.7	443.0	301.1	457.6	691.0	789.7	704.8	477.5	303.2
G79.0	701.8	621.6	419.4	271.8	433.6	667.9	764.9	680.2	452.3	275.2
G80.0	676.0	596.1	393.2	241.8	407.8	641.7	739.1	654.7	426.7	244.0
G81.0	653.7	573.8	370.9	214.0	385.9	618.3	714.5	630.9	403.1	217.4
G82.0	630.7	551.0	348.2	187.0	363.5	596.1	689.5	606.4	379.1	188.0
G83.0	607.0	528.0	325.6	159.6	340.9	571.4	665.9	583.4	357.0	163.1
G84.0	584.7	506.3	304.5	135.5	320.2	550.2	643.7	562.2	336.7	137.9
G85.0	562.2	483.2	282.4	108.9	299.3	526.5	618.8	538.3	314.2	112.4
G86.0	541.1	463.4	263.8	86.3	280.2	506.2	597.6	516.6	295.4	88.7
G87.0	520.5	444.3	245.4	64.6	262.6	485.5	575.8	496.7	276.8	67.3
G88.0	499.6	423.0	226.7	42.9	243.6	464.6	553.2	475.4	257.8	43.7
G89.0	480.6	404.0	210.9	24.1	227.7	444.8	532.0	455.3	240.6	25.5
G90.0	461.0	386.0	194.3	15.5	211.6	426.3	510.4	434.8	223.2	12.3
G91.0	441.4	367.1	177.1	14.3	195.3	405.8	490.2	416.0	207.6	11.6
G92.0	422.9	349.2	162.6	13.2	181.1	388.3	471.4	398.1	193.6	11.2
G93.0	403.5	330.9	147.5	12.1	167.5	369.7	450.3	378.6	180.2	10.9
G94.0	385.1	314.0	134.5	11.2	154.8	353.4	432.9	363.1	168.2	10.9
G95.0	368.3	298.3	123.6	10.4	142.6	338.6	416.0	347.1	157.1	11.1
G96.0	349.6	280.9	112.4	10.0	129.2	322.0	398.5	330.3	145.9	11.4
G97.0	333.2	266.9	103.0	10.0	118.8	307.5	382.2	316.4	136.0	11.7
G98.0	318.7	254.1	95.3	10.3	109.8	293.9	365.9	300.6	126.0	12.2
G99.0	303.1	240.1	86.4	10.6	101.6	278.4	350.5	287.4	117.2	12.4
G100.0	290.1	228.6	79.7	11.1	94.2	265.4	336.3	273.8	108.5	12.9
G101.0	275.5	215.7	71.7	11.4	86.9	250.4	320.7	260.4	100.0	13.4
G102.0	263.3	204.7	64.9	11.8	79.1	238.0	306.7	247.9	92.6	13.7
G103.0	250.8	193.8	58.5	12.3	69.3	225.2	293.8	236.2	86.6	14.0
G104.0	238.2	182.6	52.7	12.7	65.6	212.0	279.2	223.3	78.6	14.4
G105.0	226.6	172.3	47.3	13.1	59.2	201.3	266.9	212.3	72.7	14.9
G106.0	214.0	161.9	43.0	13.6	52.5	189.4	253.2	200.1	66.0	15.3
G107.0	203.1	152.2	38.4	14.0	49.0	179.6	241.6	189.2	60.3	15.7
G108.0	192.3	143.0	34.6	14.3	44.4	169.4	229.5	179.3	54.3	16.0
G109.0	181.3	134.0	30.5	14.8	40.5	159.6	217.6	168.5	48.8	16.5
G110.0	171.7	125.9	26.9	15.2	36.2	150.3	206.1	159.1	43.7	16.9

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 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	162.0	117.9	23.9	15.5	32.1	141.9	195.2	149.9	39.8	17.2
G112.0	152.1	109.3	21.3	16.0	28.6	132.4	184.5	140.4	35.7	17.7
G113.0	143.4	102.1	19.7	16.4	25.8	123.8	174.4	131.8	32.3	18.1
G114.0	134.3	94.0	19.7	16.7	23.7	111.2	164.5	119.4	29.2	18.5
G115.0	125.9	87.2	20.0	17.1	23.0	103.3	155.2	110.8	27.1	18.9
G116.0	118.2	78.7	20.2	17.5	22.7	95.5	146.1	103.1	26.3	19.2
G117.0	109.5	71.1	20.5	17.9	23.1	87.5	137.0	95.1	26.2	19.6
G118.0	102.0	65.0	20.9	18.3	23.3	81.3	128.7	88.0	26.3	20.1
G119.0	94.5	59.4	21.3	18.8	23.5	75.8	120.7	82.3	26.4	20.4
G120.0	87.0	53.6	21.3	19.2	23.8	69.9	112.0	75.8	26.6	21.0
G121.0	80.7	48.7	21.7	19.7	24.0	65.0	104.2	70.1	26.8	21.3
G122.0	74.0	43.3	22.1	20.3	24.3	59.3	96.4	64.2	26.9	21.6
G123.0	67.8	40.1	22.3	20.7	24.4	54.1	89.0	58.7	27.1	22.1
G124.0	61.9	36.3	22.7	21.3	24.6	49.1	82.8	53.9	27.2	22.6
G125.0	55.5	32.6	23.0	21.3	25.0	44.3	75.9	48.8	27.3	23.0
G126.0	50.3	30.1	23.2	21.9	25.1	40.1	69.7	44.3	27.5	23.5
G127.0	45.7	29.3	23.5	22.2	25.3	37.2	63.3	40.7	27.7	23.9
G128.0	41.1	29.3	23.8	22.7	25.5	34.0	57.6	37.7	27.8	24.4
G129.0	37.2	29.1	24.0	23.1	25.7	32.8	52.5	35.4	27.9	24.6
G130.0	33.9	29.3	24.4	23.4	25.9	32.1	47.4	34.6	28.1	25.0
G131.0	32.7	29.4	24.6	23.7	26.1	32.0	42.8	34.5	28.3	25.4
G132.0	32.5	29.5	24.8	24.0	26.3	32.2	40.5	34.4	28.5	25.8
G133.0	32.6	29.7	25.0	24.4	26.6	32.2	38.0	34.3	28.6	26.2
G134.0	32.8	29.8	25.4	24.7	26.8	32.0	37.3	34.4	28.7	26.5
G135.0	32.7	30.0	25.6	25.1	27.0	32.0	37.3	34.5	29.0	26.8
G136.0	32.8	30.0	25.8	25.4	27.1	32.2	37.2	34.6	29.0	27.1
G137.0	32.8	30.3	26.1	25.7	27.3	32.3	37.2	34.6	29.2	27.4
G138.0	32.8	30.4	26.4	26.1	27.5	32.6	37.2	34.7	29.3	27.8
G139.0	32.8	30.6	26.7	26.3	27.5	32.7	37.1	34.7	29.6	28.0
G140.0	32.9	30.6	26.9	26.7	27.8	32.9	37.0	34.7	29.7	28.5
G141.0	32.9	30.9	27.1	27.0	28.0	32.7	37.1	34.8	29.9	28.7
G142.0	33.0	31.0	27.5	27.3	28.1	32.8	37.0	35.0	30.0	29.1
G143.0	33.0	31.1	27.8	27.6	28.2	32.9	37.0	35.0	30.3	29.4
G144.0	33.1	31.2	28.1	28.0	28.4	33.3	36.9	35.0	30.4	29.8
G145.0	33.1	31.3	28.4	28.4	28.6	33.4	36.8	35.0	30.6	30.1
G146.0	33.1	31.4	28.5	28.5	28.7	33.5	36.8	35.2	31.0	30.4
G147.0	33.2	31.6	28.9	29.0	29.1	33.6	36.7	35.2	31.2	30.9

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 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	33.2	31.7	29.2	29.3	29.3	33.7	36.7	35.0	31.5	31.2
G149.0	33.2	31.8	29.4	29.7	29.7	33.8	36.6	35.0	31.8	31.5
G150.0	33.1	32.0	29.7	30.1	30.0	33.8	36.6	35.0	32.1	31.7
G151.0	33.2	32.1	30.1	30.4	30.5	33.8	36.5	35.0	32.3	32.2
G152.0	33.2	32.2	30.3	30.9	30.8	33.9	36.5	35.0	32.5	32.5
G153.0	33.3	32.3	30.5	31.3	31.1	33.8	36.4	35.0	32.9	32.8
G154.0	33.3	32.3	30.9	31.7	31.4	33.7	36.3	34.9	33.2	33.3
G155.0	33.3	32.4	31.1	32.1	31.7	33.7	36.3	34.8	33.4	33.5
G156.0	33.3	32.6	31.4	32.4	32.0	33.7	36.2	34.7	33.5	33.8
G157.0	33.4	32.7	31.7	32.9	32.3	33.6	36.1	34.7	33.9	34.1
G158.0	33.4	32.8	31.9	33.2	32.7	33.5	36.1	34.7	34.1	34.3
G159.0	33.4	33.0	32.1	33.6	32.9	33.6	36.1	34.7	34.3	34.7
G160.0	33.5	33.1	32.4	33.9	33.2	33.6	36.0	34.8	34.5	34.9
G161.0	33.6	33.2	32.6	34.2	33.4	33.8	36.0	34.9	34.6	35.2
G162.0	33.6	33.4	32.8	34.5	33.4	33.9	36.0	35.0	34.7	35.5
G163.0	33.8	33.5	33.2	34.8	33.6	34.1	36.1	35.2	34.8	35.8
G164.0	33.9	33.6	33.3	35.0	33.9	34.3	36.0	35.3	34.9	35.9
G165.0	33.9	33.8	33.7	35.4	34.1	34.6	36.1	35.4	35.1	36.1
G166.0	34.0	33.9	34.0	35.5	34.3	34.7	36.2	35.5	35.3	36.3
G167.0	34.1	34.2	34.3	35.9	34.5	34.8	36.3	35.8	35.4	36.5
G168.0	34.2	34.2	35.0	36.2	34.8	34.9	36.4	36.0	35.7	36.6
G169.0	34.3	34.5	35.3	36.4	35.1	35.1	36.5	36.1	35.8	36.8
G170.0	34.6	34.6	35.9	36.7	35.3	35.1	36.6	36.3	35.9	37.1
G171.0	34.7	34.8	36.3	37.0	35.6	35.1	36.7	36.4	36.2	37.3
G172.0	35.0	35.2	36.8	37.2	35.8	35.3	37.0	36.4	36.4	37.5
G173.0	35.3	35.8	37.3	37.4	36.0	35.3	37.0	36.4	36.6	37.7
G174.0	35.7	36.5	37.6	37.7	36.3	35.4	37.1	36.4	36.7	37.8
G175.0	36.2	37.1	37.9	37.8	36.6	35.7	37.3	36.4	36.8	38.0
G176.0	36.6	37.6	38.0	38.0	36.8	35.9	37.3	36.5	37.1	38.1
G177.0	37.0	38.0	38.2	38.2	37.2	36.1	37.5	36.7	37.4	38.3
G178.0	37.7	38.2	38.4	38.3	37.5	36.7	37.3	37.1	37.8	38.3
G179.0	38.0	38.2	38.3	38.4	37.9	37.0	37.3	37.6	38.1	38.4
G180.0	37.8	38.0	38.3	38.4	38.2	37.7	37.9	38.0	38.3	38.4

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 5)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G0.0	2370.7	2370.0	2374.5							
G1.0	2369.6	2367.6	2372.9							
G2.0	2368.1	2365.6	2370.6							
G3.0	2364.0	2362.1	2367.3							
G4.0	2360.2	2357.6	2363.4							
G5.0	2355.1	2352.7	2358.7							
G6.0	2348.6	2346.6	2353.4							
G7.0	2341.9	2340.6	2347.3							
G8.0	2333.6	2332.8	2340.9							
G9.0	2325.1	2324.7	2332.3							
G10.0	2315.3	2315.4	2324.2							
G11.0	2303.9	2305.2	2314.1							
G12.0	2292.6	2295.1	2305.1							
G13.0	2280.3	2283.8	2294.4							
G14.0	2266.1	2271.1	2282.4							
G15.0	2251.9	2259.1	2270.8							
G16.0	2235.9	2244.4	2257.7							
G17.0	2220.3	2230.1	2244.7							
G18.0	2203.6	2215.5	2232.1							
G19.0	2185.1	2198.9	2216.3							
G20.0	2166.9	2183.0	2201.3							
G21.0	2148.6	2166.4	2186.5							
G22.0	2126.5	2148.0	2168.8							
G23.0	2106.2	2129.2	2153.0							
G24.0	2082.9	2109.3	2134.8							
G25.0	2061.2	2090.6	2116.9							
G26.0	2039.3	2071.4	2099.3							
G27.0	2014.5	2049.1	2079.4							
G28.0	1990.6	2029.1	2060.1							
G29.0	1966.5	2007.2	2040.8							
G30.0	1938.8	1983.6	2018.3							
G31.0	1913.9	1961.8	1998.8							
G32.0	1886.0	1936.3	1975.0							
G33.0	1858.4	1912.8	1953.9							
G34.0	1830.4	1889.8	1932.9							
G35.0	1800.3	1862.4	1907.0							
G36.0	1771.3	1838.2	1883.8							

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: 9.010 m

Humidity:

Inspector:



## Candlepower Table (Continue 6)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G37.0	1740.4	1810.2	1860.7							
G38.0	1710.5	1785.1	1834.8							
G39.0	1681.2	1759.0	1810.4							
G40.0	1648.8	1730.4	1783.8							
G41.0	1617.2	1703.8	1758.2							
G42.0	1587.2	1675.9	1732.4							
G43.0	1552.6	1646.0	1704.3							
G44.0	1522.0	1618.6	1677.4							
G45.0	1488.3	1587.4	1651.2							
G46.0	1455.4	1559.5	1621.0							
G47.0	1422.6	1530.4	1594.6							
G48.0	1388.1	1499.6	1564.4							
G49.0	1354.8	1469.4	1538.2							
G50.0	1323.1	1440.9	1510.0							
G51.0	1287.9	1408.7	1480.6							
G52.0	1254.8	1380.2	1452.4							
G53.0	1219.1	1348.8	1425.1							
G54.0	1185.5	1319.0	1394.0							
G55.0	1153.0	1290.6	1366.6							
G56.0	1116.3	1258.0	1335.4							
G57.0	1084.0	1229.6	1307.9							
G58.0	1052.0	1199.7	1277.3							
G59.0	1015.0	1167.4	1247.6							
G60.0	983.1	1139.1	1218.7							
G61.0	947.0	1107.9	1188.6							
G62.0	915.1	1078.5	1160.3							
G63.0	882.1	1050.3	1133.1							
G64.0	848.0	1018.8	1102.2							
G65.0	817.1	991.1	1073.7							
G66.0	785.6	962.3	1046.8							
G67.0	752.9	932.7	1016.5							
G68.0	722.0	905.9	990.1							
G69.0	690.1	876.8	960.3							
G70.0	660.2	849.0	934.4							
G71.0	632.0	823.2	907.8							
G72.0	601.5	793.5	879.7							
G73.0	573.1	768.5	853.6							

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 7)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G74.0	546.5	742.4	827.7							
G75.0	516.6	715.6	801.0							
G76.0	491.1	690.4	775.4							
G77.0	462.8	664.3	749.5							
G78.0	437.3	639.9	725.0							
G79.0	413.8	617.0	701.8							
G80.0	387.5	591.2	676.0							
G81.0	365.1	568.3	653.7							
G82.0	341.7	544.7	630.7							
G83.0	319.8	523.6	607.0							
G84.0	299.0	502.0	584.7							
G85.0	277.9	479.0	562.2							
G86.0	258.5	459.3	541.1							
G87.0	241.0	439.6	520.5							
G88.0	222.3	419.5	499.6							
G89.0	205.4	400.3	480.6							
G90.0	188.6	381.0	461.0							
G91.0	173.3	363.8	441.4							
G92.0	158.0	346.1	422.9							
G93.0	143.2	327.9	403.5							
G94.0	130.9	311.0	385.1							
G95.0	121.1	294.8	368.3							
G96.0	111.2	278.6	349.6							
G97.0	103.0	264.6	333.2							
G98.0	94.2	251.0	318.7							
G99.0	86.5	238.5	303.1							
G100.0	79.4	226.9	290.1							
G101.0	71.7	214.3	275.5							
G102.0	64.5	203.5	263.3							
G103.0	58.6	192.4	250.8							
G104.0	52.4	181.0	238.2							
G105.0	47.0	171.0	226.6							
G106.0	42.8	160.2	214.0							
G107.0	38.3	151.2	203.1							
G108.0	34.8	142.2	192.3							
G109.0	30.9	133.1	181.3							
G110.0	27.6	124.7	171.7							

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 8)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G111.0	24.6	117.1	162.0							
G112.0	21.9	108.7	152.1							
G113.0	20.9	101.2	143.4							
G114.0	21.1	93.6	134.3							
G115.0	21.1	86.5	125.9							
G116.0	21.1	77.6	118.2							
G117.0	21.6	70.5	109.5							
G118.0	22.0	64.6	102.0							
G119.0	22.2	58.8	94.5							
G120.0	22.6	53.0	87.0							
G121.0	22.8	48.4	80.7							
G122.0	23.1	43.0	74.0							
G123.0	23.4	39.9	67.8							
G124.0	23.8	36.1	61.9							
G125.0	24.0	32.8	55.5							
G126.0	24.3	30.6	50.3							
G127.0	24.6	30.1	45.7							
G128.0	24.9	30.0	41.1							
G129.0	25.2	30.1	37.2							
G130.0	25.4	30.2	33.9							
G131.0	25.6	30.4	32.7							
G132.0	25.8	30.5	32.5							
G133.0	26.3	30.6	32.6							
G134.0	26.4	30.8	32.8							
G135.0	26.5	31.0	32.7							
G136.0	26.9	31.1	32.8							
G137.0	27.1	31.4	32.8							
G138.0	27.3	31.5	32.8							
G139.0	27.8	31.6	32.8							
G140.0	28.0	31.8	32.9							
G141.0	28.2	31.8	32.9							
G142.0	28.4	31.8	33.0							
G143.0	28.7	31.9	33.0							
G144.0	29.1	32.1	33.1							
G145.0	29.3	32.1	33.1							
G146.0	29.5	32.2	33.1							
G147.0	29.8	32.4	33.2							

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: 9.010 m

Humidity:

Inspector:

## Candlepower Table (Continue 9)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G148.0	30.1	32.4	33.2							
G149.0	30.5	32.5	33.2							
G150.0	30.8	32.7	33.1							
G151.0	31.0	32.8	33.2							
G152.0	31.2	32.9	33.2							
G153.0	31.6	33.0	33.3							
G154.0	31.7	33.0	33.3							
G155.0	32.0	33.1	33.3							
G156.0	32.2	33.2	33.3							
G157.0	32.5	33.3	33.4							
G158.0	32.6	33.4	33.4							
G159.0	32.9	33.5	33.4							
G160.0	33.0	33.7	33.5							
G161.0	33.3	33.7	33.6							
G162.0	33.5	33.9	33.6							
G163.0	33.7	34.1	33.8							
G164.0	33.9	34.1	33.9							
G165.0	34.2	34.2	33.9							
G166.0	34.5	34.4	34.0							
G167.0	34.9	34.6	34.1							
G168.0	35.2	34.6	34.2							
G169.0	35.8	34.8	34.3							
G170.0	36.1	34.9	34.6							
G171.0	36.6	35.2	34.7							
G172.0	37.0	35.6	35.0							
G173.0	37.3	36.1	35.3							
G174.0	37.7	36.7	35.7							
G175.0	37.9	37.2	36.2							
G176.0	38.1	37.7	36.6							
G177.0	38.2	38.0	37.0							
G178.0	38.3	38.1	37.7							
G179.0	38.3	38.0	38.0							
G180.0	38.2	37.7	37.8							

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: 9.010 m  
Humidity:  
Inspector:

## LED Average Luminance Report

Avg.L	cd/m <sup>2</sup>
L 0-180(65) av	21895.84
L 0-180(75) av	26857.25
L 0-180(85) av	56460.25
L 90-270(65) av	14519.31
L 90-270(75) av	12729.62
L 90-270(85) av	10578.77
L 45(65) av	18362.96
L 45(75) av	20580.22
L 45(85) av	38256.24

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: