

Report No.:

Test Time: 2023-07-25 11:30

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog: LED

Number of Lamps:

Luminous Length (mm): 1200

Luminous Height (mm): 40

Current: 0.356 A

Power Factor: 0.994

Luminaire Description:

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 100

Voltage: 119.8 V

Power: 42.38 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 6062.8 lm

Downward Ratio: 93%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 209.4, 160.7, 188.3, 185.6

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 124.5, 105.4, 114.8, 113.9

Luminous Efficacy (lm/w): 143.06

Max. Intensity: 1831.07 cd

S/MH(C0/C180): 1.29

Total Rated Lamp Lumens: 6062.8 lm

Efficiency: 100%

Upward Ratio: 7%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 209.4, 160.7, 188.3, 185.6

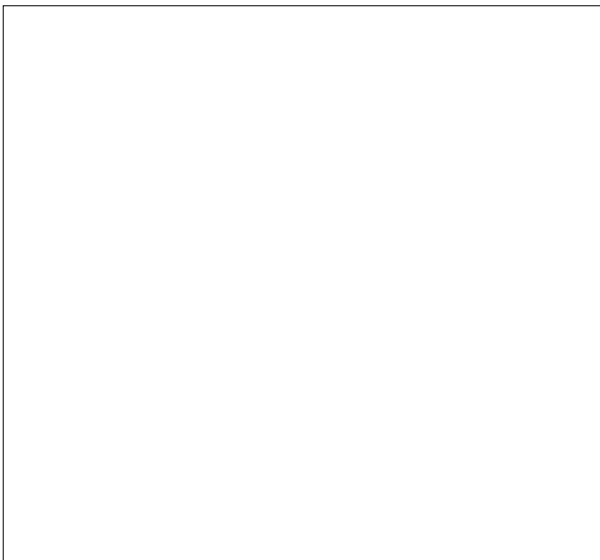
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 124.5, 105.4, 114.8, 113.9

C0r0 Intensity: 1829.54 cd

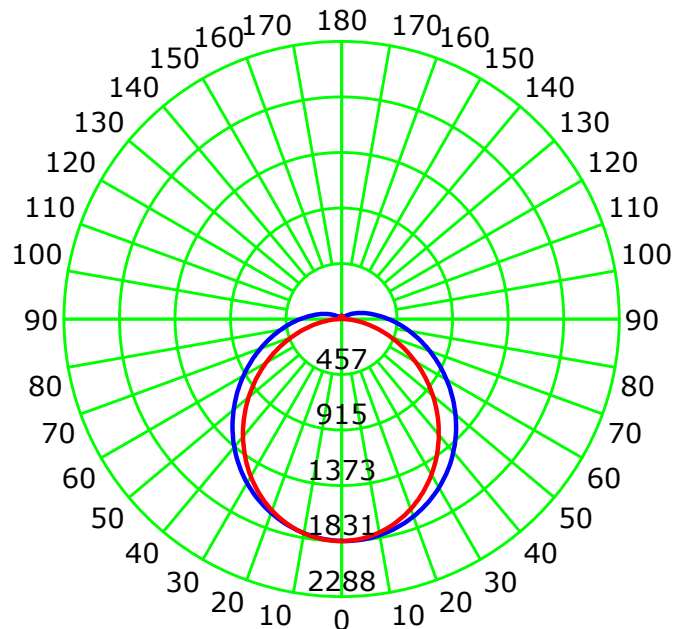
Pos of Max. Intensity: H300 V1

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

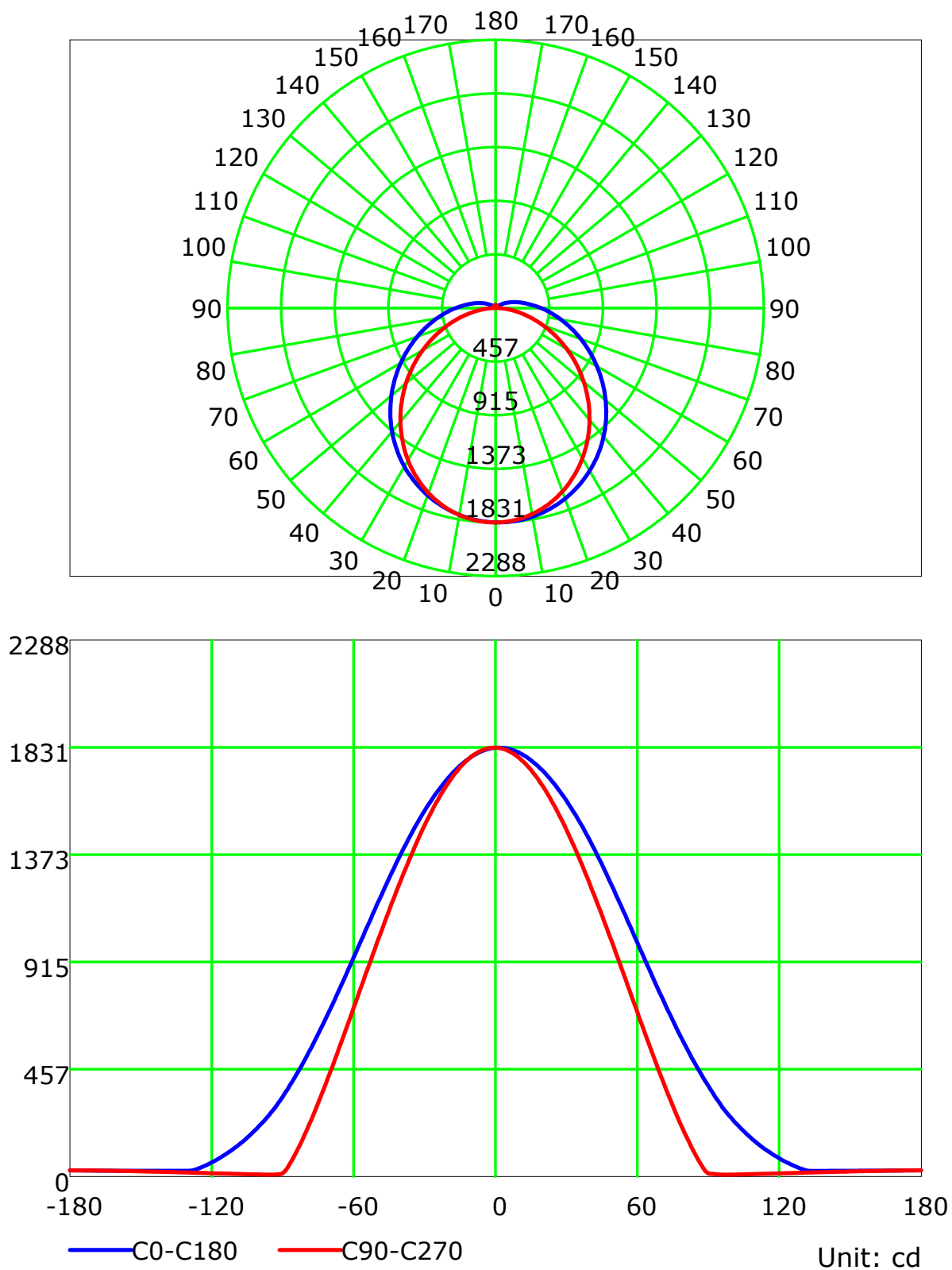
Test Device: GPM-1600L

Distance: 9.010 m

Humidity:

Inspector:

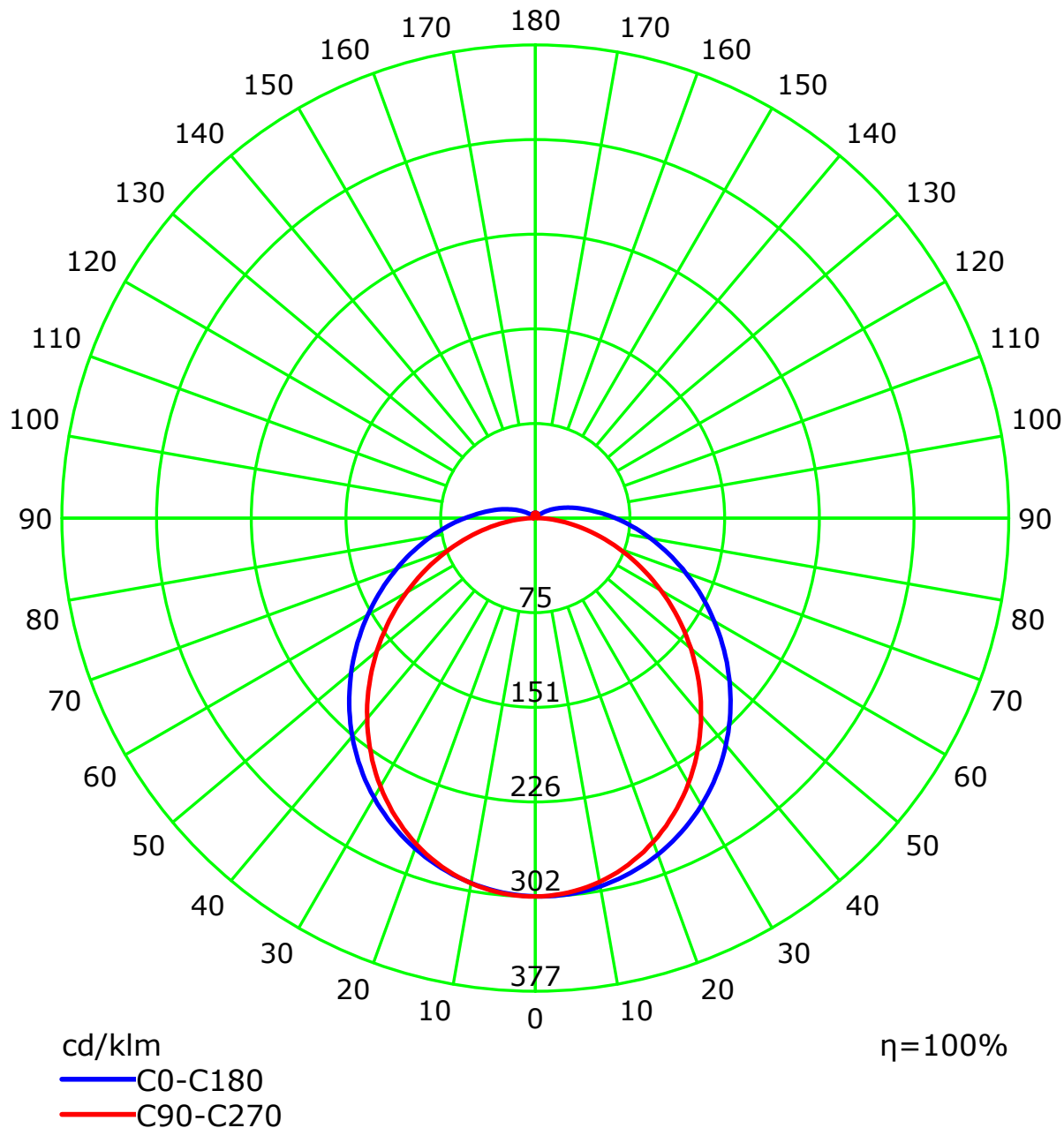
## Luminous Intensity Distribution Curve



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)



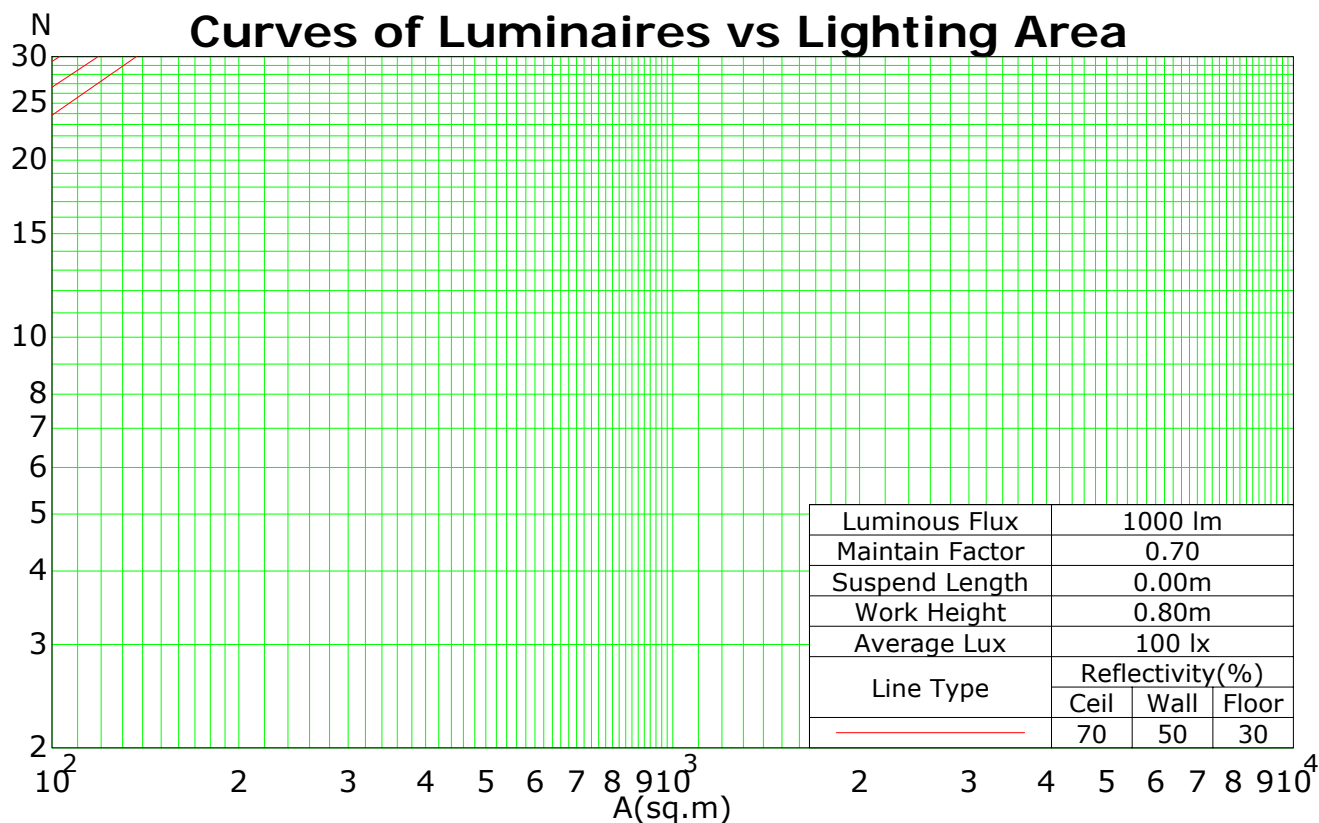
C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

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	1.02	1.02	1.02	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	0.87	0.84	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	0.58	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	0.40	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	0.36	0.29	0.24	0.35	0.28	0.23	0.34	0.27	0.23	0.32	0.27	0.22	0.21

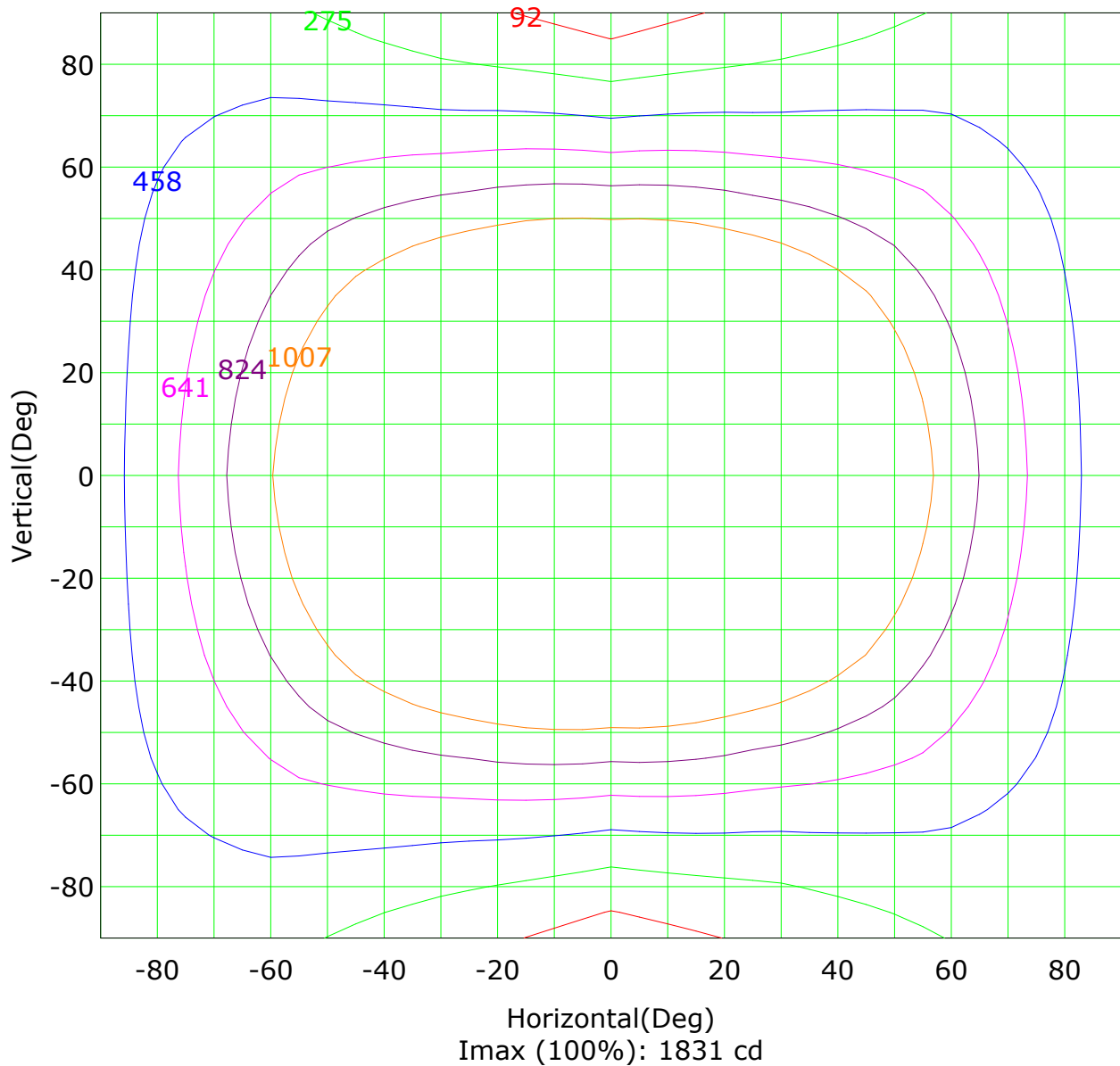
Spacing Criteria (0-180): 1.29  
Spacing Criteria (90-270): 1.21  
Spacing Criteria (Diagonal): 1.37



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)

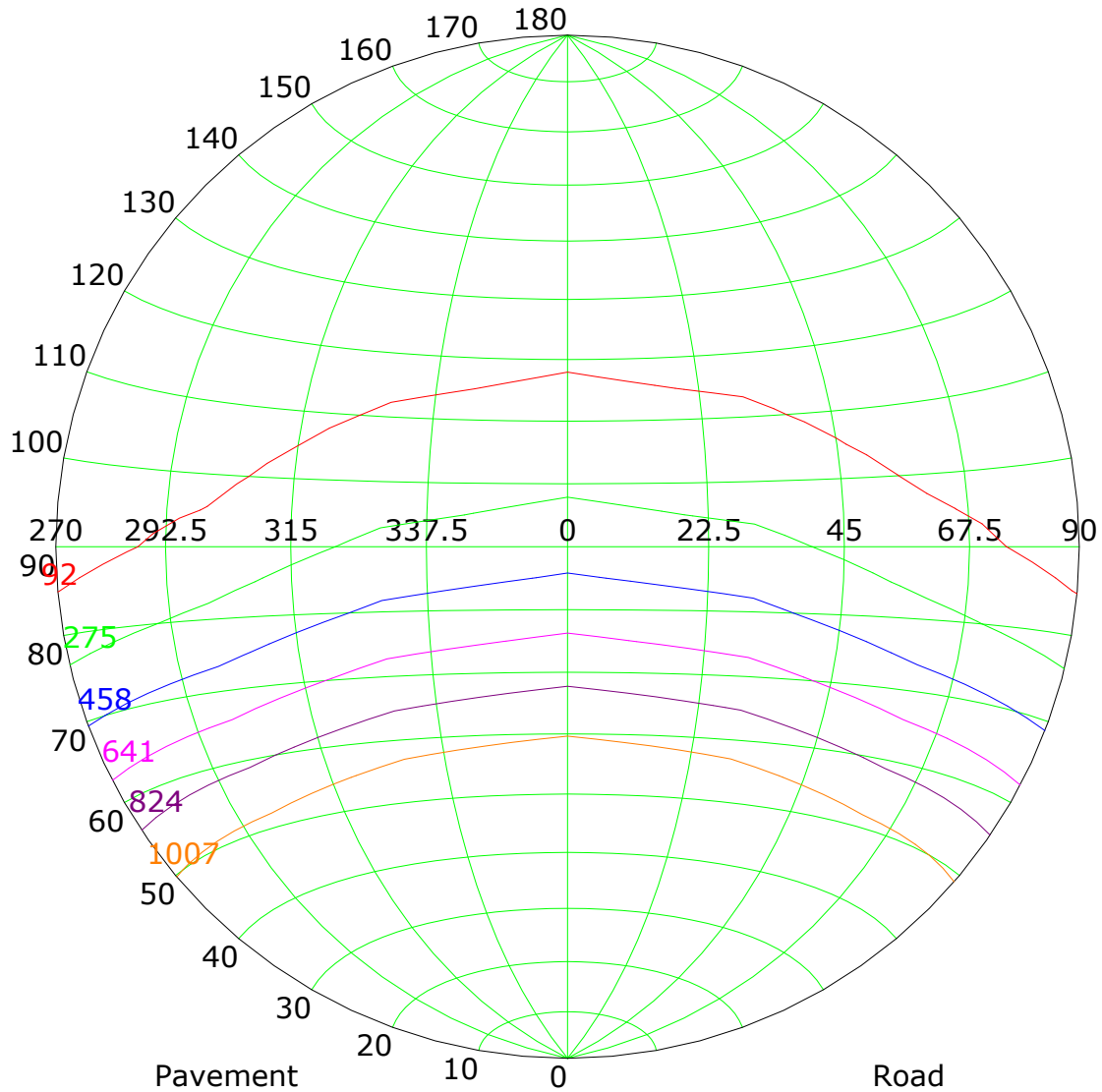


( 5%): 92 cd	( 15%): 275 cd
( 25%): 458 cd	( 35%): 641 cd
( 45%): 824 cd	( 55%): 1007 cd

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%): 1831 cd

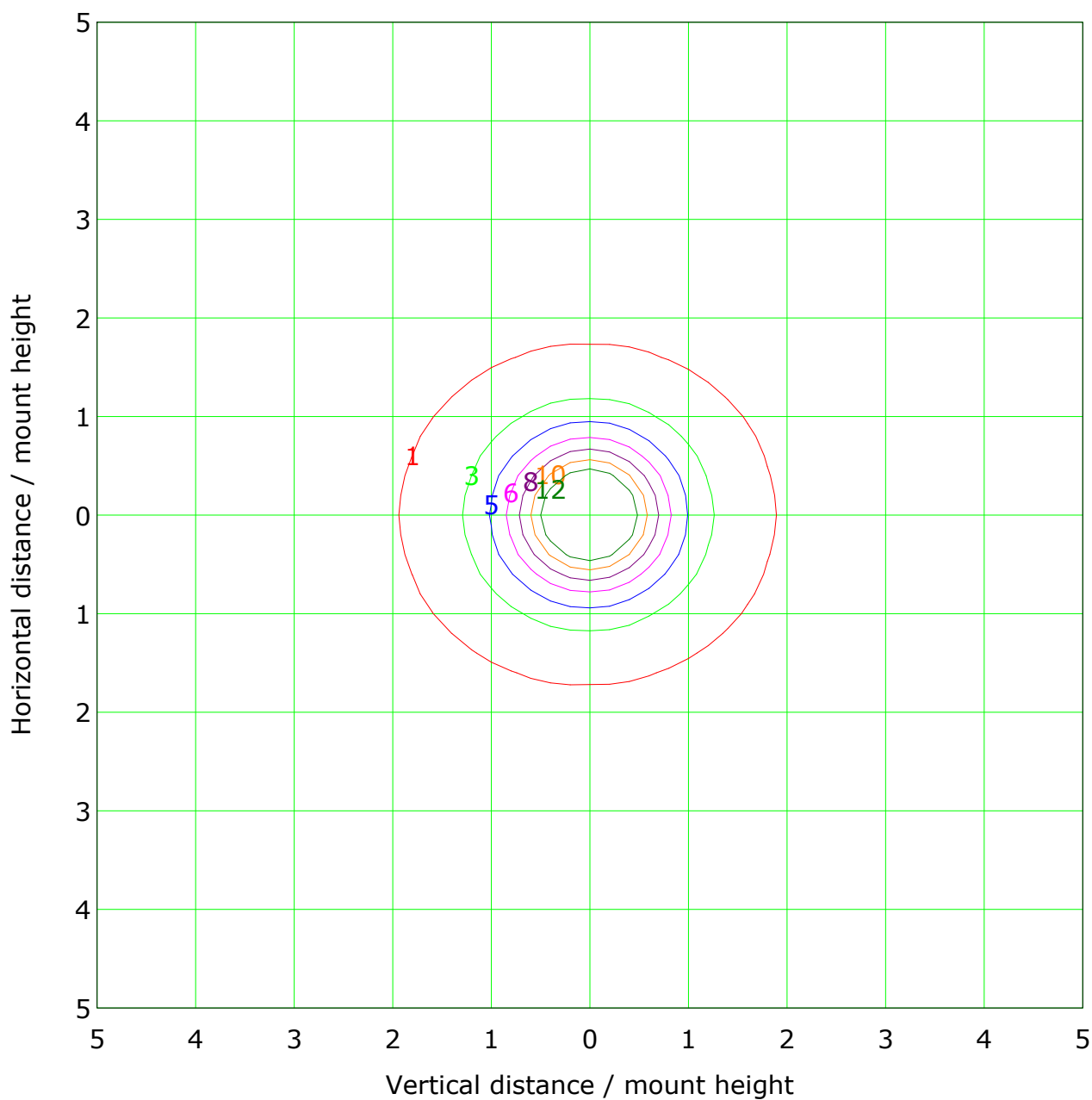
( 5%): 92 cd  
( 25%): 458 cd  
( 45%): 824 cd

( 15%): 275 cd  
( 35%): 641 cd  
( 55%): 1007 cd

CIE: narrow - short  
CIE: Non-cut-off luminaire  
Max.At90: 63.969 cd/klm

IES: Non-cut-off  
Max.At80: 93.276 cd/klm  
Max.80-90: 93.276 cd/klm

## IsoLux Plot



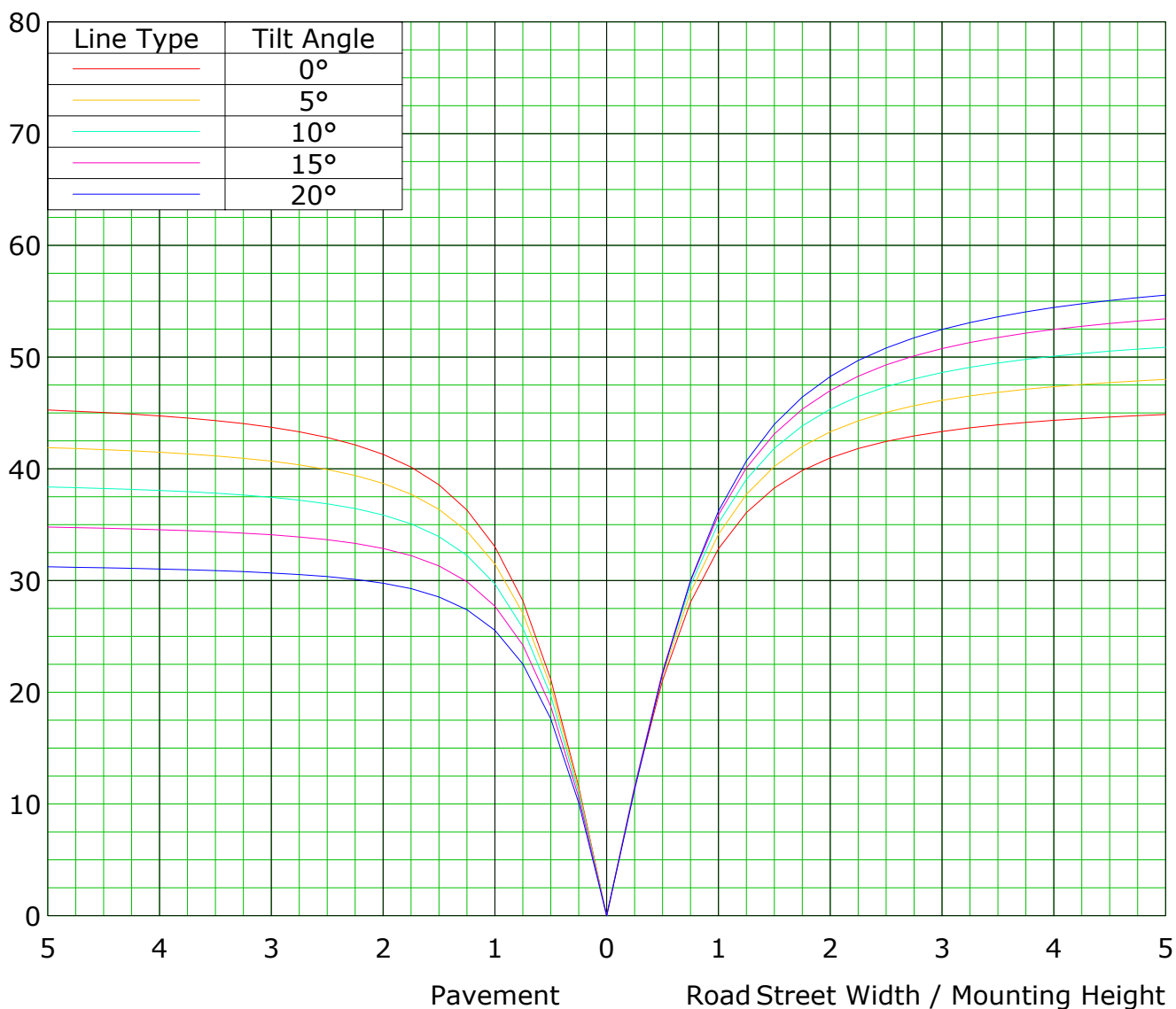
Mounting Height: 10.0m		Max Lux(100%): 18.3 lx	
— ( 5%):	0.9 lx	— ( 15%):	2.7 lx
— ( 25%):	4.6 lx	— ( 35%):	6.4 lx
— ( 45%):	8.2 lx	— ( 55%):	10.1 lx
— ( 65%):	11.9 lx		

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:

## Roadway CU Curve

Efficiency(%)



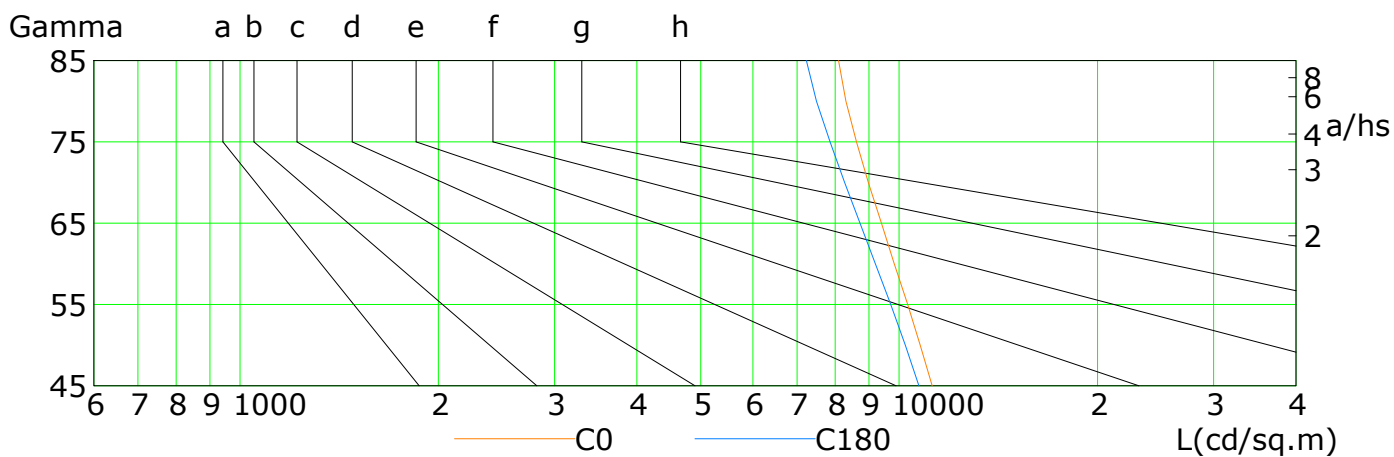
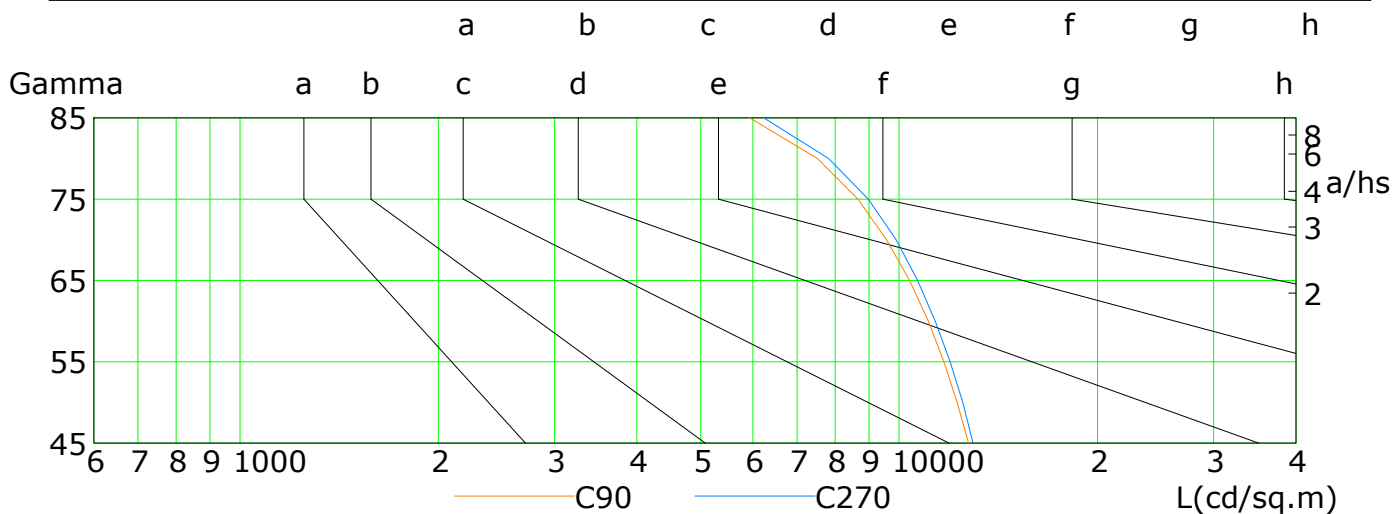
C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

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	11224	10761	10302	9831	9399	8979	8614	8303	8090
C90	12741	12246	11694	11074	10376	9573	8658	7516	5933
C180	10714	10217	9710	9205	8720	8265	7855	7490	7231
C270	12942	12488	11953	11342	10669	9898	8979	7815	6232

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

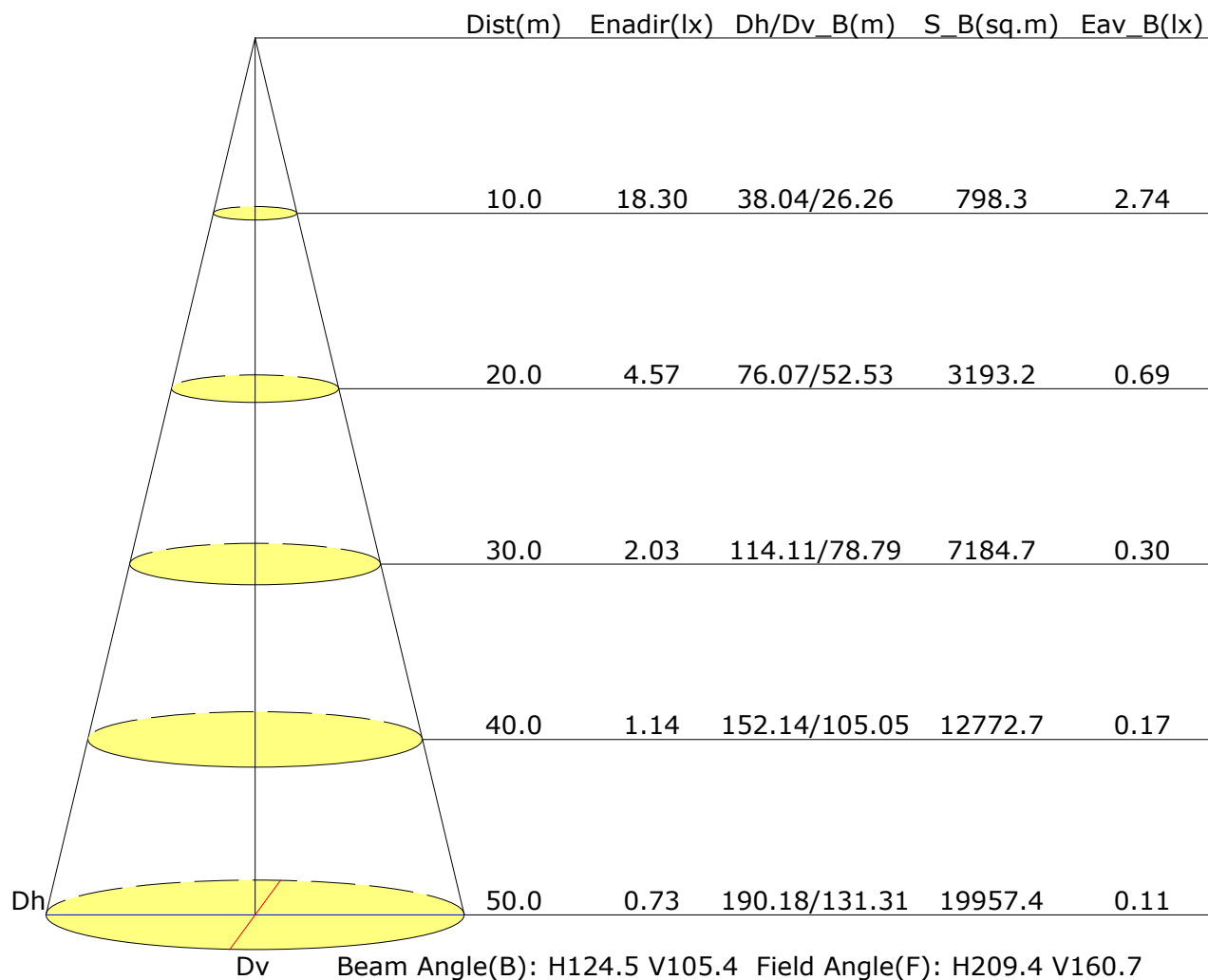
Test Device: GPM-1600L

Distance: 9.010 m

Humidity:

Inspector:

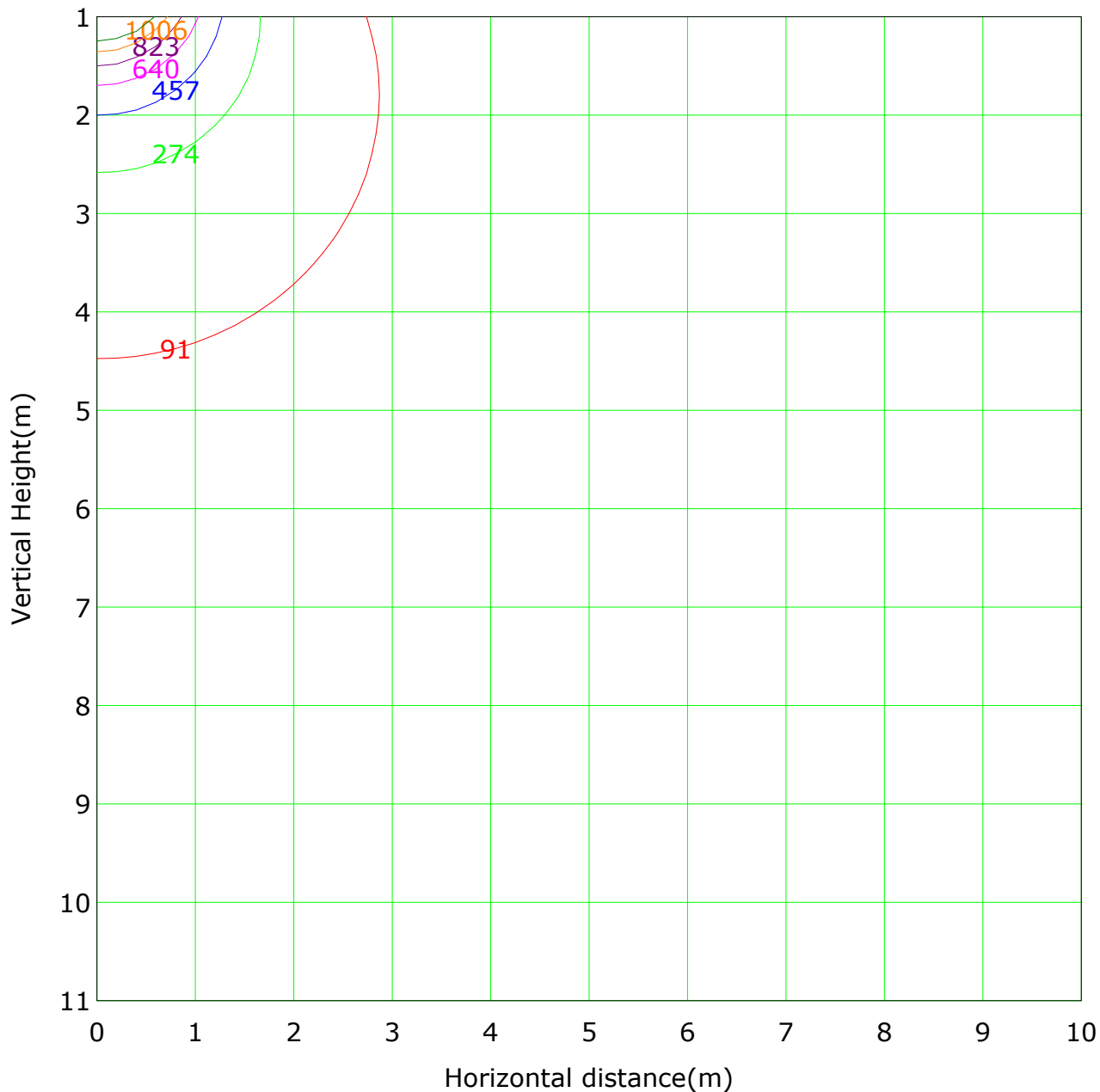
## Illuminance at a Distance



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: 1829.5 lx

( 5%): 91.5 lx	( 15%): 274.4 lx
( 25%): 457.4 lx	( 35%): 640.3 lx
( 45%): 823.3 lx	( 55%): 1006.2 lx
( 65%): 1189.2 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

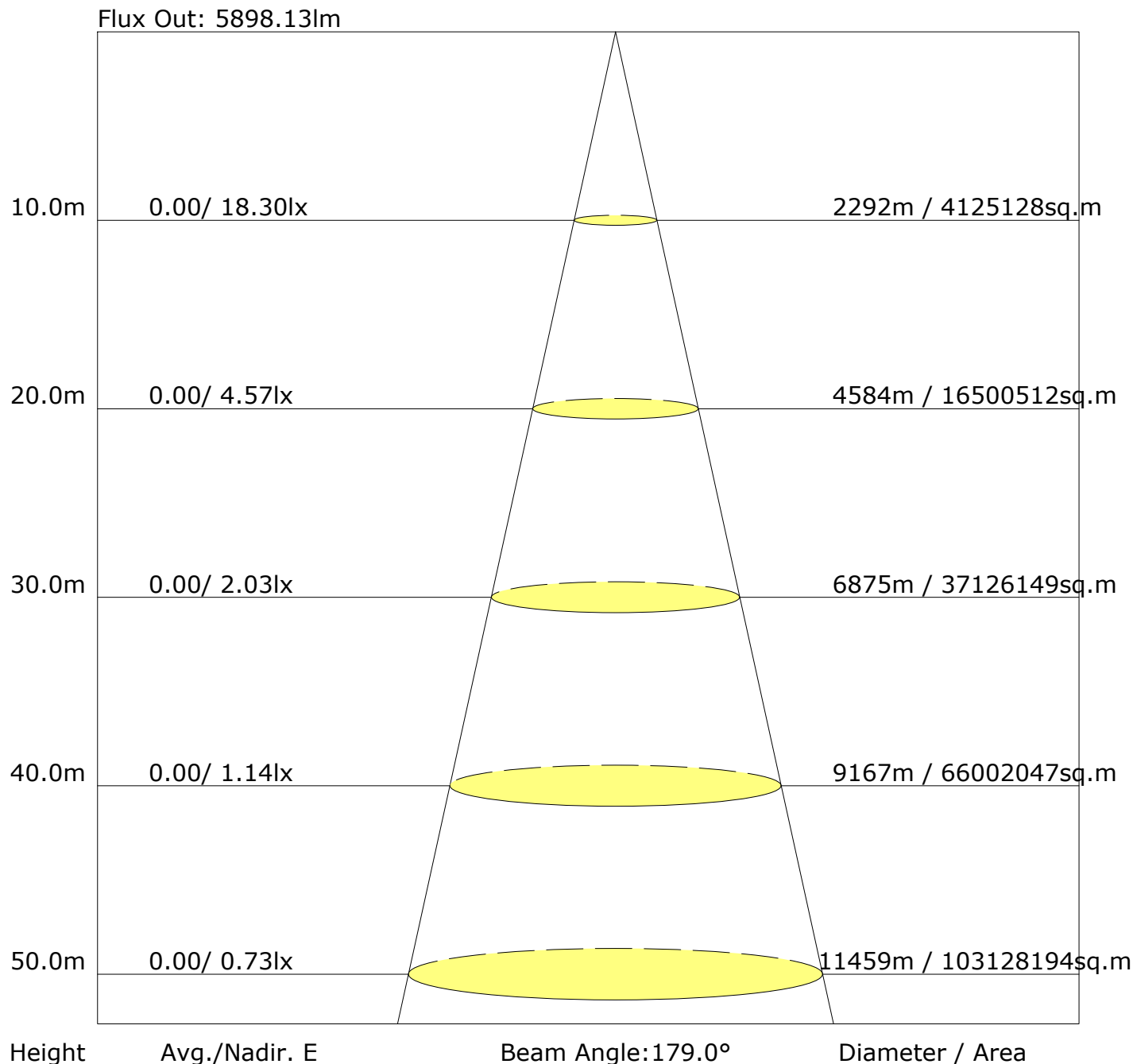
Vertical plane		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90
Flux(E)	Flux(T)	19.2	69.9	139.9	225.4	317.4	406.1	481.8	553.9	656.9	1572.3	3549.4	4496.4	4423.6	3334.6	240.8	151.6	77.0	21.5	5636
0.9	2.7	4.3	5.5	6.0	5.9	5.5	4.7	3.5	3.5	4.6	5.4	6.0	6.2	5.8	4.7	2.9	1.0	79.1	64.7	
0.9	3.0	5.2	7.2	8.7	9.6	10.2	10.4	10.0	10.1	10.5	10.4	9.9	9.0	7.7	5.6	3.3	1.1	132.8	132.8	
1.0	3.3	6.2	9.2	11.9	14.2	16.0	17.5	17.9	17.9	17.7	16.4	14.6	12.4	9.7	6.6	3.7	1.1	197.2	197.2	
1.0	3.7	7.2	11.3	15.3	19.1	22.4	25.0	26.2	26.3	25.4	22.9	19.8	16.0	11.9	7.7	4.0	1.2	266.4	266.4	
1.1	4.0	8.1	13.2	18.8	24.1	28.8	32.5	34.4	34.5	32.9	29.4	24.9	19.6	14.0	8.7	4.4	1.2	334.7	334.7	
1.1	4.3	9.0	15.0	21.9	28.7	34.7	39.3	41.9	42.0	39.8	35.4	29.6	22.8	15.8	9.6	4.7	1.2	397.0	397.0	
1.2	4.6	9.7	16.5	24.4	32.5	39.6	45.0	48.1	48.3	45.6	40.4	33.5	25.4	17.4	10.4	5.0	1.3	448.6	448.6	
1.2	4.7	10.3	17.6	26.2	35.1	43.1	49.1	52.5	52.7	49.7	43.9	36.1	27.3	18.6	11.0	5.2	1.3	485.3	485.3	
1.2	4.9	10.6	18.2	27.2	36.4	44.8	51.1	54.7	54.9	51.8	45.7	37.6	28.4	19.3	11.4	5.3	1.3	504.8	504.8	
1.2	4.8	10.6	18.2	27.1	36.4	44.7	51.1	54.6	54.8	51.7	45.7	37.6	28.4	19.3	11.4	5.3	1.3	504.2	504.2	
1.2	4.7	10.2	17.5	26.0	34.9	42.8	48.8	52.2	52.4	49.5	43.8	36.1	27.3	18.6	11.0	5.2	1.3	483.4	483.4	
1.1	4.5	9.6	16.3	24.2	32.2	39.2	44.6	47.6	47.8	45.2	40.2	33.4	25.4	17.4	10.4	5.0	1.3	445.5	445.5	
1.1	4.3	8.9	14.8	21.6	28.3	34.2	38.7	41.3	41.5	39.5	35.2	29.5	22.8	15.9	9.6	4.7	1.3	393.1	393.1	
1.1	4.0	8.0	13.0	18.4	23.6	28.2	31.9	33.8	34.0	32.6	29.3	24.8	19.6	14.0	8.7	4.4	1.2	330.4	330.4	
1.0	3.6	7.0	10.9	14.9	18.5	21.7	24.4	25.6	25.9	25.1	22.8	19.7	16.0	12.0	7.7	4.0	1.2	262.1	262.1	
1.0	3.3	6.0	8.9	11.4	13.5	15.3	16.8	17.3	17.6	17.5	16.4	14.7	12.5	9.8	6.7	3.7	1.1	193.4	193.4	
0.9	2.9	5.0	6.9	8.2	9.0	9.5	9.9	9.6	9.8	10.5	10.5	10.1	9.2	7.8	5.7	3.3	1.1	130.0	130.0	
0.9	2.6	4.1	5.2	5.5	5.4	4.9	4.2	3.3	3.5	4.8	5.7	6.3	6.4	6.0	4.7	3.0	1.0	77.6	77.6	
19.2	69.9	139.9	225.4	317.4	406.1	481.8	553.9	656.9	1572.3	3549.4	4496.4	4423.6	3334.6	240.8	151.6	77.0	21.5	5666	5666	
Flux(E)	Flux(T)	19.2	69.9	139.9	225.4	317.4	406.1	481.8	553.9	656.9	1572.3	3549.4	4496.4	4423.6	3334.6	240.8	151.6	77.0	21.5	5636

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



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	20.5	21.8	20.9	22.2	22.6	20.0	21.4	20.4	21.7	22.1
3H	22.3	23.5	22.7	23.9	24.3	21.5	22.7	21.9	23.1	23.5
4H	23.2	24.3	23.6	24.7	25.2	22.1	23.2	22.5	23.6	24.1
6H	24.0	25.1	24.5	25.5	26.0	22.5	23.6	23.0	24.0	24.5
8H	24.4	25.4	24.9	25.9	26.4	22.7	23.7	23.1	24.2	24.6
12H	24.7	25.8	25.2	26.2	26.7	22.8	23.8	23.2	24.2	24.7
X=4H Y=2H	21.1	22.2	21.5	22.6	23.1	20.7	21.9	21.1	22.3	22.7
3H	23.1	24.1	23.6	24.6	25.1	22.3	23.4	22.8	23.8	24.3
4H	24.1	25.0	24.6	25.5	26.0	23.1	24.0	23.6	24.5	25.0
6H	25.1	25.9	25.7	26.4	27.0	23.7	24.5	24.2	25.0	25.5
8H	25.6	26.4	26.1	26.9	27.4	23.9	24.6	24.4	25.1	25.7
12H	26.1	26.8	26.6	27.3	27.9	24.0	24.7	24.6	25.2	25.8
X=8H Y=4H	24.4	25.2	25.0	25.7	26.3	23.5	24.3	24.0	24.8	25.3
6H	25.6	26.3	26.2	26.8	27.4	24.3	24.9	24.8	25.4	26.0
8H	26.3	26.8	26.8	27.4	28.0	24.6	25.2	25.2	25.7	26.3
12H	26.9	27.4	27.5	28.0	28.6	24.9	25.3	25.5	25.9	26.6
X=12H Y=4H	24.4	25.1	25.0	25.7	26.2	23.6	24.3	24.1	24.8	25.4
6H	25.7	26.3	26.3	26.8	27.5	24.4	25.0	25.0	25.6	26.2
8H	26.4	26.9	27.0	27.5	28.1	24.8	25.3	25.4	25.9	26.5
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.2					+0.2/-0.1				
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 6063lm ( $8\log(F/F_0) = 6.3$ ).

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

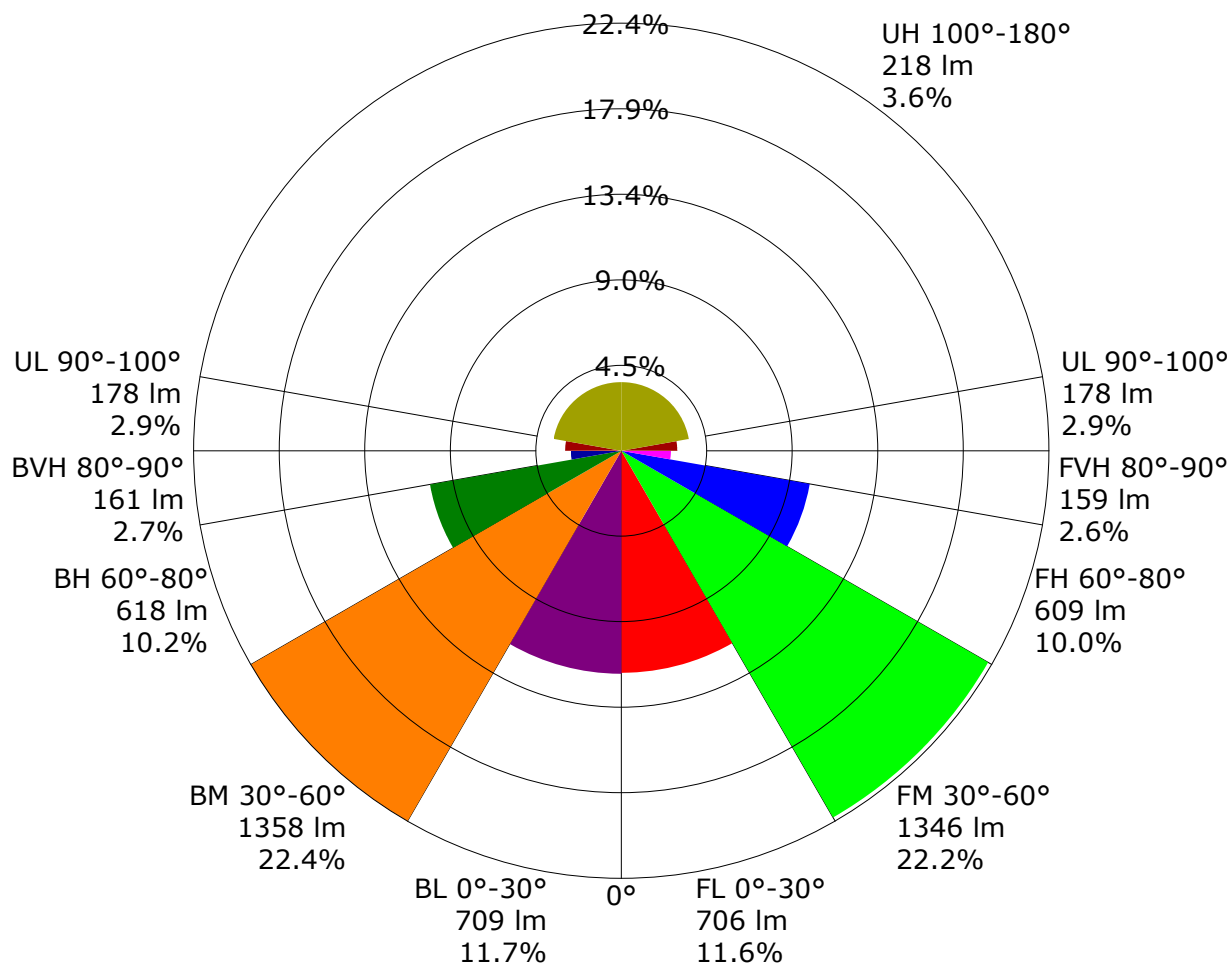
	ZONE	LUMENS	% LAMP LUMENS
	FORWARD LIGHT	2820	46.5
	FL ( 0°-30°)	706	11.6
	FM (30°-60°)	1346	22.2
	FH (60°-80°)	609	10.0
	FVH (80°-90°)	159	2.6
	BACK LIGHT	2846	46.9
	BL ( 0°-30°)	709	11.7
	BM (30°-60°)	1358	22.4
	BH (60°-80°)	618	10.2
	BVH (80°-90°)	161	2.7
	UP LIGHT	397	6.5
	UL (90°-100°)	178	2.9
	UH (100°-180°)	218	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 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	0.81	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	0.53	0.58	0.65	0.70	0.74	0.79	0.83	
0.00	0.00	0.00	0.34	0.43	0.49	0.54	0.60	0.65	0.69	0.73	0.77	
Rating:42W 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	0.43	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:42W 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	0.27	0.28	0.28	
	0.30		0.16	0.17	0.19	0.20	0.21	0.22	0.23	0.24	0.25	
	0.20		0.11	0.12	0.14	0.15	0.17	0.18	0.19	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	0.22	0.24	0.24	
	0.20		0.11	0.12	0.14	0.15	0.16	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	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	
Rating:42W 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	1829.6	1.8	1.8	0.03	0.03
1.0-2.0	1829.0	5.3	7.0	0.09	0.12
2.0-3.0	1827.5	8.7	15.7	0.14	0.26
3.0-4.0	1825.4	12.2	28.0	0.20	0.46
4.0-5.0	1822.8	15.7	43.6	0.26	0.72
5.0-6.0	1819.3	19.1	62.8	0.32	1.04
6.0-7.0	1815.2	22.5	85.3	0.37	1.41
7.0-8.0	1810.5	25.9	111.2	0.43	1.83
8.0-9.0	1805.0	29.3	140.5	0.48	2.32
9.0-10.0	1799.0	32.6	173.0	0.54	2.85
10.0-11.0	1792.1	35.8	208.8	0.59	3.44
11.0-12.0	1784.5	39.0	247.9	0.64	4.09
12.0-13.0	1776.6	42.2	290.0	0.70	4.78
13.0-14.0	1767.7	45.3	335.3	0.75	5.53
14.0-15.0	1758.2	48.3	383.6	0.80	6.33
15.0-16.0	1748.0	51.2	434.8	0.84	7.17
16.0-17.0	1737.1	54.1	488.9	0.89	8.06
17.0-18.0	1726.3	56.9	545.8	0.94	9.00
18.0-19.0	1714.2	59.6	605.5	0.98	9.99
19.0-20.0	1701.4	62.3	667.7	1.03	11.01
20.0-21.0	1688.7	64.9	732.6	1.07	12.08
21.0-22.0	1674.8	67.3	799.9	1.11	13.19
22.0-23.0	1660.5	69.7	869.6	1.15	14.34
23.0-24.0	1645.5	72.0	941.5	1.19	15.53
24.0-25.0	1629.9	74.1	1015.7	1.22	16.75
25.0-26.0	1614.5	76.2	1091.9	1.26	18.01
26.0-27.0	1597.7	78.2	1170.1	1.29	19.30
27.0-28.0	1580.7	80.0	1250.1	1.32	20.62
28.0-29.0	1563.9	81.8	1331.9	1.35	21.97
29.0-30.0	1545.7	83.5	1415.4	1.38	23.35
30.0-31.0	1527.3	85.0	1500.4	1.40	24.75
31.0-32.0	1508.3	86.4	1586.8	1.43	26.17
32.0-33.0	1488.8	87.7	1674.5	1.45	27.62
33.0-34.0	1469.6	88.9	1763.5	1.47	29.09
34.0-35.0	1449.0	90.0	1853.5	1.48	30.57
35.0-36.0	1428.1	90.9	1944.4	1.50	32.07

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	1407.5	91.8	2036.2	1.51	33.59
37.0-38.0	1385.9	92.5	2128.8	1.53	35.11
38.0-39.0	1364.5	93.1	2221.9	1.54	36.65
39.0-40.0	1342.2	93.6	2315.5	1.54	38.19
40.0-41.0	1319.4	94.0	2409.5	1.55	39.74
41.0-42.0	1297.3	94.3	2503.8	1.55	41.30
42.0-43.0	1274.2	94.4	2598.2	1.56	42.85
43.0-44.0	1250.8	94.4	2692.6	1.56	44.41
44.0-45.0	1227.3	94.3	2786.9	1.56	45.97
45.0-46.0	1203.2	94.1	2881.0	1.55	47.52
46.0-47.0	1179.2	93.8	2974.8	1.55	49.07
47.0-48.0	1154.7	93.4	3068.2	1.54	50.61
48.0-49.0	1130.1	92.8	3161.0	1.53	52.14
49.0-50.0	1106.3	92.2	3253.3	1.52	53.66
50.0-51.0	1081.2	91.5	3344.7	1.51	55.17
51.0-52.0	1056.0	90.6	3435.4	1.49	56.66
52.0-53.0	1031.3	89.7	3525.1	1.48	58.14
53.0-54.0	1006.0	88.7	3613.8	1.46	59.61
54.0-55.0	981.3	87.6	3701.4	1.44	61.05
55.0-56.0	955.8	86.4	3787.7	1.42	62.48
56.0-57.0	930.4	85.1	3872.8	1.40	63.88
57.0-58.0	905.8	83.8	3956.6	1.38	65.26
58.0-59.0	880.1	82.3	4038.9	1.36	66.62
59.0-60.0	854.6	80.8	4119.6	1.33	67.95
60.0-61.0	829.2	79.1	4198.8	1.31	69.26
61.0-62.0	804.0	77.5	4276.3	1.28	70.53
62.0-63.0	779.9	75.9	4352.1	1.25	71.78
63.0-64.0	754.9	74.1	4426.2	1.22	73.01
64.0-65.0	730.0	72.3	4498.5	1.19	74.20
65.0-66.0	706.2	70.5	4568.9	1.16	75.36
66.0-67.0	681.7	68.6	4637.5	1.13	76.49
67.0-68.0	657.4	66.6	4704.1	1.10	77.59
68.0-69.0	633.4	64.6	4768.7	1.07	78.66
69.0-70.0	609.4	62.6	4831.3	1.03	79.69
70.0-71.0	587.0	60.7	4892.0	1.00	80.69
71.0-72.0	563.7	58.6	4950.6	0.97	81.66

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	540.8	56.6	5007.2	0.93	82.59
73.0-74.0	519.2	54.6	5061.8	0.90	83.49
74.0-75.0	496.9	52.5	5114.3	0.87	84.36
75.0-76.0	475.1	50.4	5164.7	0.83	85.19
76.0-77.0	453.6	48.4	5213.1	0.80	85.99
77.0-78.0	432.5	46.3	5259.4	0.76	86.75
78.0-79.0	412.6	44.3	5303.7	0.73	87.48
79.0-80.0	392.5	42.3	5346.0	0.70	88.18
80.0-81.0	372.7	40.3	5386.4	0.66	88.84
81.0-82.0	353.9	38.4	5424.7	0.63	89.48
82.0-83.0	335.2	36.4	5461.2	0.60	90.08
83.0-84.0	317.3	34.6	5495.8	0.57	90.65
84.0-85.0	299.7	32.7	5528.5	0.54	91.19
85.0-86.0	282.6	30.9	5559.4	0.51	91.70
86.0-87.0	266.7	29.2	5588.6	0.48	92.18
87.0-88.0	250.7	27.5	5616.0	0.45	92.63
88.0-89.0	235.4	25.8	5641.8	0.43	93.06
89.0-90.0	221.4	24.3	5666.1	0.40	93.46
90.0-91.0	208.7	22.9	5689.0	0.38	93.84
91.0-92.0	197.1	21.6	5710.6	0.36	94.19
92.0-93.0	185.9	20.4	5731.0	0.34	94.53
93.0-94.0	175.3	19.2	5750.2	0.32	94.84
94.0-95.0	166.0	18.1	5768.3	0.30	95.14
95.0-96.0	156.7	17.1	5785.4	0.28	95.43
96.0-97.0	147.9	16.1	5801.5	0.27	95.69
97.0-98.0	140.0	15.2	5816.7	0.25	95.94
98.0-99.0	132.3	14.3	5831.1	0.24	96.18
99.0-100.0	125.1	13.5	5844.6	0.22	96.40
100.0-101.0	118.0	12.7	5857.3	0.21	96.61
101.0-102.0	111.1	11.9	5869.3	0.20	96.81
102.0-103.0	104.9	11.2	5880.5	0.19	96.99
103.0-104.0	98.7	10.5	5891.0	0.17	97.17
104.0-105.0	92.7	9.8	5900.9	0.16	97.33
105.0-106.0	87.1	9.2	5910.1	0.15	97.48
106.0-107.0	81.8	8.6	5918.7	0.14	97.62
107.0-108.0	76.8	8.0	5926.7	0.13	97.76

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	71.8	7.5	5934.2	0.12	97.88
109.0-110.0	67.2	6.9	5941.1	0.11	97.99
110.0-111.0	62.9	6.5	5947.6	0.11	98.10
111.0-112.0	58.8	6.0	5953.6	0.10	98.20
112.0-113.0	55.0	5.6	5959.2	0.09	98.29
113.0-114.0	51.5	5.2	5964.3	0.09	98.38
114.0-115.0	48.1	4.8	5969.1	0.08	98.46
115.0-116.0	45.1	4.5	5973.6	0.07	98.53
116.0-117.0	42.1	4.1	5977.7	0.07	98.60
117.0-118.0	39.4	3.8	5981.6	0.06	98.66
118.0-119.0	37.1	3.6	5985.2	0.06	98.72
119.0-120.0	34.8	3.3	5988.5	0.05	98.77
120.0-121.0	32.6	3.1	5991.6	0.05	98.83
121.0-122.0	30.6	2.9	5994.4	0.05	98.87
122.0-123.0	28.7	2.7	5997.1	0.04	98.92
123.0-124.0	27.0	2.5	5999.5	0.04	98.96
124.0-125.0	25.5	2.3	6001.8	0.04	99.00
125.0-126.0	24.1	2.1	6004.0	0.04	99.03
126.0-127.0	23.0	2.0	6006.0	0.03	99.06
127.0-128.0	22.1	1.9	6008.0	0.03	99.10
128.0-129.0	21.5	1.8	6009.8	0.03	99.13
129.0-130.0	21.1	1.8	6011.6	0.03	99.16
130.0-131.0	20.9	1.7	6013.3	0.03	99.18
131.0-132.0	20.8	1.7	6015.0	0.03	99.21
132.0-133.0	20.8	1.7	6016.7	0.03	99.24
133.0-134.0	20.9	1.7	6018.4	0.03	99.27
134.0-135.0	21.1	1.6	6020.0	0.03	99.30
135.0-136.0	21.2	1.6	6021.7	0.03	99.32
136.0-137.0	21.4	1.6	6023.3	0.03	99.35
137.0-138.0	21.5	1.6	6024.9	0.03	99.38
138.0-139.0	21.7	1.6	6026.4	0.03	99.40
139.0-140.0	21.8	1.6	6028.0	0.03	99.43
140.0-141.0	22.0	1.5	6029.5	0.03	99.45
141.0-142.0	22.1	1.5	6031.0	0.02	99.48
142.0-143.0	22.3	1.5	6032.5	0.02	99.50
143.0-144.0	22.4	1.5	6034.0	0.02	99.53

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	22.5	1.4	6035.4	0.02	99.55
145.0-146.0	22.6	1.4	6036.8	0.02	99.57
146.0-147.0	22.8	1.4	6038.2	0.02	99.60
147.0-148.0	22.9	1.4	6039.6	0.02	99.62
148.0-149.0	23.1	1.3	6040.9	0.02	99.64
149.0-150.0	23.2	1.3	6042.2	0.02	99.66
150.0-151.0	23.3	1.3	6043.4	0.02	99.68
151.0-152.0	23.5	1.2	6044.7	0.02	99.70
152.0-153.0	23.6	1.2	6045.9	0.02	99.72
153.0-154.0	23.7	1.2	6047.0	0.02	99.74
154.0-155.0	23.8	1.1	6048.1	0.02	99.76
155.0-156.0	23.9	1.1	6049.2	0.02	99.78
156.0-157.0	24.0	1.1	6050.3	0.02	99.79
157.0-158.0	24.1	1.0	6051.3	0.02	99.81
158.0-159.0	24.3	1.0	6052.3	0.02	99.83
159.0-160.0	24.4	0.9	6053.2	0.02	99.84
160.0-161.0	24.5	0.9	6054.1	0.01	99.86
161.0-162.0	24.6	0.9	6054.9	0.01	99.87
162.0-163.0	24.7	0.8	6055.8	0.01	99.88
163.0-164.0	24.8	0.8	6056.5	0.01	99.90
164.0-165.0	25.0	0.7	6057.3	0.01	99.91
165.0-166.0	25.1	0.7	6058.0	0.01	99.92
166.0-167.0	25.2	0.6	6058.6	0.01	99.93
167.0-168.0	25.3	0.6	6059.2	0.01	99.94
168.0-169.0	25.4	0.6	6059.8	0.01	99.95
169.0-170.0	25.5	0.5	6060.3	0.01	99.96
170.0-171.0	25.7	0.5	6060.7	0.01	99.97
171.0-172.0	25.8	0.4	6061.2	0.01	99.97
172.0-173.0	25.9	0.4	6061.5	0.01	99.98
173.0-174.0	26.0	0.3	6061.8	0.01	99.99
174.0-175.0	26.2	0.3	6062.1	0.00	99.99
175.0-176.0	26.3	0.2	6062.3	0.00	99.99
176.0-177.0	26.4	0.2	6062.5	0.00	100.00
177.0-178.0	26.4	0.1	6062.6	0.00	100.00
178.0-179.0	26.5	0.1	6062.7	0.00	100.00
179.0-180.0	26.6	0.0	6062.8	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°): 2786.92 lm

%lum = 46.0%

%lamp = 46.0%

cone flux(120°): 4119.64 lm

%lum = 68.0%

%lamp = 68.0%

## Candlepower Table

Unit: cd

G\C	C0.0	C30.0	C60.0	C90.0	C120.0	C150.0	C180.0	C210.0	C240.0	C270.0
G0.0	1829.5	1828.4	1829.4	1830.1	1830.7	1830.6	1829.5	1828.4	1829.4	1830.1
G1.0	1830.3	1828.4	1829.2	1829.3	1829.5	1829.5	1828.6	1827.6	1828.8	1830.1
G2.0	1829.9	1828.1	1828.1	1828.2	1827.7	1827.8	1827.0	1826.2	1827.7	1829.4
G3.0	1829.6	1826.7	1826.5	1825.2	1825.1	1825.3	1824.3	1824.1	1825.8	1827.5
G4.0	1827.8	1825.4	1823.7	1822.4	1822.0	1822.9	1821.5	1821.5	1823.2	1825.1
G5.0	1826.5	1823.4	1820.7	1818.4	1818.0	1819.4	1818.4	1818.3	1819.8	1821.7
G6.0	1824.0	1820.2	1816.6	1813.4	1813.1	1814.8	1814.0	1813.9	1815.5	1817.3
G7.0	1821.0	1817.2	1812.2	1808.2	1807.5	1810.5	1809.6	1810.1	1810.6	1812.9
G8.0	1817.7	1812.9	1806.9	1801.8	1801.7	1805.1	1804.1	1804.8	1804.7	1806.9
G9.0	1813.5	1807.9	1800.5	1794.5	1794.7	1798.7	1798.6	1799.4	1798.6	1801.0
G10.0	1808.8	1803.0	1794.0	1786.5	1786.8	1792.4	1792.7	1793.0	1791.9	1794.1
G11.0	1803.1	1796.5	1785.7	1777.9	1778.1	1784.5	1785.2	1785.8	1783.5	1785.3
G12.0	1797.2	1790.1	1777.8	1768.4	1769.0	1776.7	1778.0	1778.8	1775.5	1776.8
G13.0	1791.5	1783.1	1769.2	1758.7	1759.5	1768.8	1770.8	1770.6	1766.6	1767.3
G14.0	1784.0	1775.0	1759.3	1747.3	1748.3	1759.4	1761.5	1761.7	1756.2	1756.5
G15.0	1776.8	1766.8	1748.7	1735.8	1737.5	1749.7	1753.4	1752.4	1745.7	1746.1
G16.0	1768.3	1757.4	1736.6	1722.1	1725.1	1739.2	1743.3	1742.3	1733.6	1733.3
G17.0	1760.3	1747.8	1725.8	1709.7	1712.2	1728.4	1733.5	1731.9	1722.1	1721.3
G18.0	1751.8	1738.7	1713.4	1696.9	1700.0	1717.6	1723.7	1721.2	1710.5	1708.7
G19.0	1741.5	1727.2	1699.7	1680.7	1684.7	1704.6	1711.8	1709.4	1696.1	1693.8
G20.0	1731.9	1716.0	1686.7	1666.3	1670.6	1692.8	1700.8	1697.1	1682.9	1679.6
G21.0	1721.5	1705.0	1672.6	1651.2	1655.9	1680.2	1689.1	1684.9	1668.4	1664.5
G22.0	1709.8	1691.7	1656.8	1633.3	1639.2	1665.2	1676.3	1671.1	1652.7	1647.8
G23.0	1698.9	1679.5	1642.4	1617.6	1623.7	1651.7	1663.9	1658.0	1638.0	1632.3
G24.0	1685.8	1665.6	1625.3	1598.0	1605.5	1636.6	1649.8	1642.5	1620.1	1613.7
G25.0	1674.3	1651.5	1608.8	1580.8	1589.0	1621.5	1636.6	1628.0	1604.1	1596.3
G26.0	1661.3	1638.0	1591.9	1561.8	1570.9	1605.9	1622.9	1613.1	1587.8	1578.9
G27.0	1647.2	1621.7	1573.7	1541.8	1551.8	1589.2	1606.9	1596.9	1568.1	1558.0
G28.0	1633.3	1607.2	1556.1	1522.8	1533.7	1573.6	1592.5	1580.9	1550.6	1539.6
G29.0	1619.6	1592.3	1537.7	1502.6	1514.3	1556.6	1577.7	1565.0	1531.9	1519.6
G30.0	1604.4	1574.8	1517.4	1480.6	1493.4	1538.3	1560.3	1547.3	1511.7	1498.1
G31.0	1589.1	1558.9	1498.0	1459.5	1473.9	1521.3	1545.1	1530.0	1492.6	1478.1
G32.0	1573.2	1540.4	1477.0	1436.6	1451.3	1501.7	1527.5	1511.4	1470.5	1455.9
G33.0	1557.1	1523.5	1456.5	1415.4	1431.0	1484.0	1510.4	1493.2	1450.7	1433.7
G34.0	1541.6	1506.0	1436.8	1392.8	1409.4	1465.3	1492.9	1474.8	1429.4	1411.2
G35.0	1523.3	1486.9	1413.4	1368.6	1386.4	1444.9	1473.1	1454.7	1405.9	1385.9
G36.0	1507.0	1468.3	1392.5	1345.3	1363.8	1425.3	1455.5	1436.4	1384.9	1363.7

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 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	1489.5	1450.3	1370.7	1321.3	1341.0	1405.2	1436.1	1414.8	1361.3	1339.1
G38.0	1470.4	1430.1	1347.1	1296.0	1316.5	1383.8	1416.7	1395.6	1338.3	1315.2
G39.0	1452.0	1410.5	1325.1	1272.4	1294.3	1364.0	1398.1	1375.1	1316.6	1291.7
G40.0	1432.4	1389.4	1299.9	1245.6	1268.4	1341.0	1376.6	1353.3	1290.9	1264.6
G41.0	1413.1	1368.9	1276.6	1220.2	1244.2	1319.6	1357.4	1333.0	1268.1	1240.8
G42.0	1394.4	1349.2	1253.8	1195.9	1221.0	1298.9	1337.0	1311.4	1244.1	1215.2
G43.0	1372.8	1326.2	1228.8	1169.3	1195.2	1275.8	1315.2	1288.7	1218.6	1188.3
G44.0	1353.6	1305.7	1204.6	1143.6	1170.6	1253.5	1295.2	1266.4	1195.1	1163.4
G45.0	1333.3	1284.2	1180.1	1117.2	1145.6	1231.1	1272.8	1243.3	1169.2	1134.8
G46.0	1311.6	1260.3	1154.3	1089.6	1119.3	1207.2	1251.0	1220.8	1144.1	1109.3
G47.0	1290.5	1239.0	1129.3	1062.9	1093.7	1184.4	1229.4	1199.1	1119.0	1082.6
G48.0	1268.3	1214.8	1103.2	1035.0	1067.1	1160.2	1206.4	1174.0	1092.3	1054.5
G49.0	1246.7	1193.5	1078.0	1009.3	1042.5	1137.9	1184.6	1152.0	1066.8	1027.5
G50.0	1225.7	1170.5	1053.8	982.1	1016.7	1114.4	1163.8	1128.6	1042.3	1001.5
G51.0	1202.2	1146.6	1026.2	952.8	988.6	1089.6	1140.4	1104.1	1015.2	971.5
G52.0	1180.1	1123.4	1001.6	926.6	963.7	1066.0	1118.1	1081.7	989.4	945.2
G53.0	1159.3	1101.3	976.4	899.1	937.6	1042.4	1094.4	1056.3	961.9	915.1
G54.0	1135.4	1076.1	949.6	870.6	910.4	1018.1	1072.0	1034.0	935.9	888.6
G55.0	1114.1	1053.8	923.9	843.2	884.2	995.7	1050.2	1010.6	911.1	861.9
G56.0	1089.6	1028.3	896.8	814.3	857.0	969.8	1025.6	986.0	882.3	831.6
G57.0	1068.3	1006.4	871.1	786.7	830.7	947.5	1003.9	962.6	857.4	805.0
G58.0	1045.6	982.1	845.2	758.9	804.5	922.7	981.4	940.3	831.2	776.9
G59.0	1021.2	957.9	817.0	730.2	776.2	897.2	957.6	914.6	803.8	747.8
G60.0	998.5	934.9	792.7	702.8	751.5	874.9	934.9	892.3	778.0	719.8
G61.0	975.0	910.5	764.7	672.7	723.3	849.5	911.5	867.2	750.8	690.6
G62.0	953.7	887.8	740.5	646.6	698.7	827.5	889.7	844.8	724.8	662.8
G63.0	931.2	864.7	715.2	619.4	673.2	804.5	866.9	821.7	700.2	636.3
G64.0	907.7	840.4	688.8	591.0	646.6	780.5	843.8	797.8	673.6	607.4
G65.0	885.5	817.7	663.8	563.8	621.2	757.8	821.6	776.0	648.3	579.7
G66.0	863.2	796.3	639.0	536.9	597.5	735.9	800.4	753.4	624.7	553.6
G67.0	840.0	771.5	613.3	508.8	570.5	711.6	777.7	729.9	598.2	523.9
G68.0	818.0	750.2	590.3	483.5	546.4	690.5	756.0	708.8	575.0	498.1
G69.0	795.0	726.0	564.5	455.0	521.5	666.6	733.3	684.8	550.1	468.7
G70.0	773.5	705.2	541.1	428.9	498.1	644.9	712.0	664.1	526.5	443.4
G71.0	753.1	683.7	518.1	404.3	476.0	624.5	691.9	642.5	504.3	418.1
G72.0	729.7	660.1	494.3	376.7	451.2	601.6	669.9	620.3	479.3	389.6
G73.0	708.6	639.9	472.9	352.5	430.1	581.9	649.6	599.4	457.8	365.3

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 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	688.5	618.9	451.0	327.8	408.1	561.1	629.4	579.7	435.9	339.7
G75.0	666.9	597.2	428.5	302.4	385.8	540.2	608.2	557.8	413.4	313.6
G76.0	646.3	576.8	407.1	278.6	364.9	520.5	588.5	538.9	392.4	289.2
G77.0	624.3	555.9	385.6	254.1	343.7	500.3	568.1	517.4	371.0	263.8
G78.0	605.3	535.9	365.6	231.3	323.8	481.2	548.7	498.9	350.8	240.3
G79.0	585.7	517.4	346.0	209.0	304.7	462.5	530.6	480.0	332.3	218.4
G80.0	565.5	496.7	326.0	186.2	285.3	443.3	510.1	460.6	311.5	193.6
G81.0	546.3	478.5	307.3	166.2	267.3	425.5	492.5	442.6	294.1	173.3
G82.0	527.5	460.1	290.3	145.6	250.7	408.6	473.1	424.0	274.9	149.5
G83.0	508.0	441.4	271.0	123.9	232.5	389.9	456.3	406.5	258.6	130.0
G84.0	489.9	423.6	255.0	105.5	217.1	373.9	439.0	390.5	242.2	110.0
G85.0	471.5	404.7	237.1	85.7	200.5	356.1	421.4	372.5	225.6	90.0
G86.0	454.7	388.7	222.2	68.2	186.6	341.1	404.8	357.0	210.4	71.9
G87.0	437.6	372.8	207.2	51.3	172.2	325.6	389.2	341.4	196.0	54.6
G88.0	420.2	355.5	192.2	35.0	157.7	309.7	372.0	325.3	181.5	37.8
G89.0	403.9	339.6	178.3	21.6	144.2	294.7	357.3	310.3	169.0	23.6
G90.0	387.8	325.1	165.8	14.0	133.1	280.5	340.5	295.1	155.3	13.7
G91.0	371.6	309.4	151.8	12.3	120.8	265.0	326.5	280.8	143.8	10.4
G92.0	356.6	294.8	140.1	11.4	110.5	251.5	312.1	267.8	132.6	9.5
G93.0	339.8	279.6	127.2	10.4	100.8	237.3	297.5	253.3	122.4	9.0
G94.0	325.6	265.7	118.0	9.8	91.8	226.4	284.3	241.6	113.2	8.6
G95.0	310.8	252.6	109.0	9.2	83.2	216.1	272.6	230.3	105.1	8.4
G96.0	295.3	238.9	100.3	8.6	74.3	204.4	259.8	218.6	96.4	8.2
G97.0	282.7	227.7	92.5	8.3	66.6	194.1	248.1	207.9	89.3	8.4
G98.0	270.7	217.5	86.5	8.0	59.7	184.4	236.3	197.0	81.8	8.7
G99.0	258.4	206.0	78.1	8.2	53.3	173.7	226.2	187.0	75.3	8.9
G100.0	247.5	196.5	71.7	8.2	48.6	164.9	215.7	177.8	69.4	9.1
G101.0	235.4	185.9	65.2	8.5	42.9	154.9	204.6	167.5	63.2	9.4
G102.0	224.7	176.7	59.3	8.8	38.7	145.9	195.1	158.7	58.0	9.6
G103.0	214.9	167.9	54.0	9.1	34.1	137.4	185.4	150.1	53.0	9.8
G104.0	203.8	158.6	48.7	9.3	30.0	128.2	175.4	140.9	48.0	10.1
G105.0	194.5	150.1	44.5	9.6	26.7	119.6	166.3	133.0	43.1	10.3
G106.0	184.2	141.5	40.4	9.9	24.2	110.7	157.3	124.5	39.3	10.7
G107.0	175.2	133.4	36.9	10.2	22.1	103.2	148.6	117.3	35.2	10.8
G108.0	166.2	125.8	33.8	10.4	19.0	95.7	140.7	110.0	31.2	11.1
G109.0	156.7	118.3	30.2	10.6	17.6	88.2	132.1	102.4	27.2	11.3
G110.0	148.6	111.4	26.9	10.9	15.6	81.8	124.8	96.0	23.9	11.7

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	140.4	104.7	24.0	11.1	14.7	76.0	117.5	89.6	21.3	11.9
G112.0	132.1	97.9	21.3	11.4	14.6	69.9	109.8	83.3	19.3	12.2
G113.0	124.6	91.7	19.0	11.7	14.8	64.1	103.3	77.3	18.0	12.5
G114.0	117.1	86.4	17.1	12.0	14.9	57.0	96.1	68.8	17.7	12.8
G115.0	110.6	79.7	15.9	12.2	15.1	52.5	89.8	63.3	17.6	13.0
G116.0	103.9	73.2	15.6	12.4	15.2	48.1	83.7	57.9	17.7	13.3
G117.0	97.0	65.4	15.8	12.8	15.4	43.0	77.1	52.8	17.7	13.5
G118.0	90.6	60.1	15.9	13.1	15.7	39.4	71.5	48.1	17.8	13.9
G119.0	85.1	55.1	16.2	13.4	15.8	36.5	66.1	43.9	17.8	14.0
G120.0	78.2	50.3	16.4	13.6	16.1	32.8	60.7	39.8	18.0	14.4
G121.0	72.6	46.1	16.6	13.9	16.3	29.8	55.7	35.9	18.1	14.6
G122.0	66.7	42.6	16.9	14.1	16.5	26.7	50.4	32.2	18.1	14.9
G123.0	61.6	38.3	17.1	14.4	16.7	24.6	45.6	28.8	18.4	15.3
G124.0	57.0	34.8	17.2	14.7	16.9	23.0	41.6	26.2	18.4	15.5
G125.0	51.7	31.1	17.5	15.1	17.1	21.4	37.0	24.1	18.5	15.9
G126.0	47.2	28.2	17.7	15.4	17.2	21.3	33.4	23.0	18.6	16.1
G127.0	43.0	25.5	17.9	15.7	17.5	21.3	29.7	22.6	18.8	16.5
G128.0	38.7	23.1	18.1	16.1	17.7	21.3	27.0	22.6	18.9	16.7
G129.0	34.6	22.0	18.3	16.3	17.8	21.3	25.1	22.6	19.1	17.0
G130.0	31.0	21.8	18.4	16.6	18.0	21.3	24.5	22.7	19.2	17.3
G131.0	27.8	21.9	18.7	16.9	18.2	21.6	24.4	22.7	19.5	17.5
G132.0	25.4	22.0	18.9	17.2	18.5	21.6	24.4	22.8	19.6	17.7
G133.0	24.0	22.1	19.0	17.5	18.5	21.7	24.5	23.1	19.8	18.0
G134.0	24.0	22.2	19.2	17.8	18.8	22.0	24.5	23.0	19.8	18.3
G135.0	24.0	22.4	19.5	18.0	19.0	22.0	24.5	23.1	20.1	18.6
G136.0	24.1	22.5	19.7	18.3	19.1	22.1	24.5	23.2	20.2	18.9
G137.0	24.1	22.6	20.0	18.5	19.2	22.2	24.6	23.2	20.3	19.2
G138.0	24.2	22.7	20.1	18.8	19.4	22.4	24.6	23.3	20.4	19.4
G139.0	24.3	22.9	20.2	19.1	19.5	22.4	24.6	23.4	20.7	19.6
G140.0	24.3	23.0	20.5	19.4	19.7	22.6	24.7	23.5	20.8	20.0
G141.0	24.4	23.2	20.8	19.6	19.9	22.6	24.6	23.6	21.0	20.2
G142.0	24.4	23.2	21.0	20.0	20.1	22.7	24.7	23.7	21.3	20.4
G143.0	24.5	23.3	21.3	20.2	20.2	22.8	24.9	23.8	21.3	20.8
G144.0	24.5	23.5	21.3	20.4	20.3	23.0	24.8	23.8	21.3	21.1
G145.0	24.6	23.5	21.3	20.7	20.5	23.0	24.8	23.9	21.3	21.0
G146.0	24.6	23.7	21.5	21.1	20.7	23.1	24.9	24.0	21.8	21.4
G147.0	24.7	23.8	21.9	21.1	21.1	23.2	24.9	24.0	21.9	21.6

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 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	24.8	23.9	22.1	21.1	21.1	23.3	24.9	24.1	22.2	21.8
G149.0	24.9	23.9	22.4	21.5	21.1	23.4	24.8	24.1	22.3	22.1
G150.0	24.9	24.0	22.5	21.9	21.4	23.4	24.8	24.1	22.5	22.4
G151.0	24.9	24.1	22.7	22.1	21.7	23.4	24.9	24.1	22.6	22.6
G152.0	24.9	24.1	22.8	22.5	22.0	23.5	24.9	24.2	22.8	22.9
G153.0	24.9	24.3	23.1	22.6	22.1	23.4	24.9	24.3	23.0	23.1
G154.0	25.0	24.3	23.3	22.9	22.4	23.4	24.8	24.2	23.2	23.3
G155.0	25.0	24.4	23.4	23.1	22.6	23.5	24.8	24.1	23.3	23.5
G156.0	25.0	24.5	23.6	23.3	22.8	23.5	24.8	24.1	23.4	23.8
G157.0	25.1	24.6	23.8	23.5	23.0	23.5	24.8	24.1	23.7	23.9
G158.0	25.1	24.7	23.9	23.7	23.2	23.6	24.8	24.2	23.8	24.2
G159.0	25.1	24.7	24.0	23.9	23.4	23.7	24.8	24.4	24.0	24.3
G160.0	25.1	24.8	24.3	24.1	23.5	23.8	24.9	24.4	24.1	24.5
G161.0	25.2	24.9	24.4	24.3	23.7	24.0	24.9	24.5	24.3	24.6
G162.0	25.3	25.0	24.6	24.4	23.9	24.0	25.0	24.5	24.4	24.9
G163.0	25.3	25.1	24.8	24.6	24.1	24.2	25.0	24.7	24.5	25.0
G164.0	25.3	25.2	24.9	24.8	24.3	24.3	25.1	24.7	24.6	25.1
G165.0	25.4	25.2	25.0	25.0	24.4	24.4	25.1	24.9	24.8	25.2
G166.0	25.5	25.4	25.2	25.1	24.5	24.5	25.1	25.0	24.9	25.4
G167.0	25.6	25.4	25.3	25.4	24.8	24.7	25.2	25.1	25.0	25.5
G168.0	25.7	25.5	25.5	25.5	24.8	24.8	25.3	25.2	25.2	25.7
G169.0	25.7	25.6	25.6	25.6	25.1	24.9	25.4	25.2	25.3	25.8
G170.0	25.9	25.7	25.7	25.7	25.3	25.0	25.6	25.4	25.6	25.9
G171.0	25.9	25.8	25.8	25.9	25.5	25.1	25.6	25.5	25.7	26.1
G172.0	26.1	26.0	26.0	26.0	25.8	25.4	25.7	25.5	26.0	26.1
G173.0	26.2	26.0	26.0	26.2	26.0	25.4	25.8	25.7	26.1	26.2
G174.0	26.3	26.1	26.1	26.3	26.1	25.7	25.8	25.9	26.3	26.3
G175.0	26.4	26.2	26.2	26.3	26.2	26.0	26.1	26.1	26.4	26.3
G176.0	26.4	26.2	26.3	26.4	26.4	26.3	26.3	26.3	26.4	26.3
G177.0	26.5	26.3	26.4	26.4	26.4	26.4	26.4	26.4	26.5	26.4
G178.0	26.7	26.3	26.5	26.4	26.5	26.5	26.4	26.6	26.6	26.5
G179.0	26.7	26.4	26.6	26.5	26.4	26.5	26.4	26.5	26.7	26.5
G180.0	26.8	26.5	26.5	26.5	26.5	26.6	26.9	26.5	26.6	26.5

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 5)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G0.0	1830.7	1830.6	1829.5							
G1.0	1831.1	1830.9	1830.3							
G2.0	1830.6	1830.8	1829.9							
G3.0	1829.2	1829.6	1829.6							
G4.0	1827.3	1828.4	1827.8							
G5.0	1824.5	1826.6	1826.5							
G6.0	1821.0	1823.7	1824.0							
G7.0	1817.1	1820.6	1821.0							
G8.0	1811.8	1816.2	1817.7							
G9.0	1806.2	1811.8	1813.5							
G10.0	1800.4	1807.0	1808.8							
G11.0	1792.7	1800.7	1803.1							
G12.0	1785.2	1794.4	1797.2							
G13.0	1776.6	1787.6	1791.5							
G14.0	1766.8	1779.7	1784.0							
G15.0	1757.5	1771.8	1776.8							
G16.0	1746.0	1762.1	1768.3							
G17.0	1735.0	1753.4	1760.3							
G18.0	1722.8	1743.2	1751.8							
G19.0	1709.8	1732.1	1741.5							
G20.0	1697.0	1721.5	1731.9							
G21.0	1683.1	1709.7	1721.5							
G22.0	1667.7	1696.9	1709.8							
G23.0	1653.1	1685.0	1698.9							
G24.0	1635.7	1670.2	1685.8							
G25.0	1620.1	1657.0	1674.3							
G26.0	1603.6	1643.2	1661.3							
G27.0	1584.6	1626.8	1647.2							
G28.0	1567.5	1612.0	1633.3							
G29.0	1549.7	1596.3	1619.6							
G30.0	1529.1	1579.3	1604.4							
G31.0	1510.6	1563.4	1589.1							
G32.0	1489.5	1544.7	1573.2							
G33.0	1469.1	1527.8	1557.1							
G34.0	1447.9	1509.8	1541.6							
G35.0	1424.5	1489.6	1523.3							
G36.0	1403.5	1471.8	1507.0							

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 6)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G37.0	1380.4	1451.8	1489.5							
G38.0	1357.8	1432.2	1470.4							
G39.0	1335.7	1413.3	1452.0							
G40.0	1310.2	1391.2	1432.4							
G41.0	1287.7	1371.4	1413.1							
G42.0	1263.6	1350.6	1394.4							
G43.0	1238.1	1328.3	1372.8							
G44.0	1214.4	1307.6	1353.6							
G45.0	1187.7	1283.4	1333.3							
G46.0	1163.6	1262.2	1311.6							
G47.0	1138.5	1240.1	1290.5							
G48.0	1111.8	1216.3	1268.3							
G49.0	1086.0	1193.4	1246.7							
G50.0	1061.4	1171.6	1225.7							
G51.0	1033.3	1146.1	1202.2							
G52.0	1008.3	1123.8	1180.1							
G53.0	979.7	1098.9	1159.3							
G54.0	954.7	1075.3	1135.4							
G55.0	928.4	1052.9	1114.1							
G56.0	901.0	1027.0	1089.6							
G57.0	875.8	1004.6	1068.3							
G58.0	849.7	981.1	1045.6							
G59.0	822.3	956.4	1021.2							
G60.0	795.8	933.1	998.5							
G61.0	768.3	908.5	975.0							
G62.0	742.0	884.9	953.7							
G63.0	717.1	862.5	931.2							
G64.0	690.2	838.2	907.7							
G65.0	664.3	814.9	885.5							
G66.0	639.9	793.1	863.2							
G67.0	613.4	768.3	840.0							
G68.0	588.3	746.6	818.0							
G69.0	561.3	722.1	795.0							
G70.0	538.2	700.9	773.5							
G71.0	515.4	678.7	753.1							
G72.0	489.7	655.7	729.7							
G73.0	467.6	635.3	708.6							

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	445.0	614.1	688.5							
G75.0	421.6	592.1	666.9							
G76.0	399.8	571.4	646.3							
G77.0	377.3	549.9	624.3							
G78.0	356.5	529.7	605.3							
G79.0	337.1	510.9	585.7							
G80.0	315.3	490.0	565.5							
G81.0	297.1	470.8	546.3							
G82.0	276.7	451.4	527.5							
G83.0	259.5	433.9	508.0							
G84.0	241.9	416.0	489.9							
G85.0	224.4	397.9	471.5							
G86.0	208.4	381.0	454.7							
G87.0	193.1	364.3	437.6							
G88.0	177.6	347.4	420.2							
G89.0	163.7	331.5	403.9							
G90.0	149.9	315.6	387.8							
G91.0	137.8	301.4	371.6							
G92.0	125.4	286.6	356.6							
G93.0	113.2	271.8	339.8							
G94.0	103.4	257.8	325.6							
G95.0	95.1	244.9	310.8							
G96.0	86.5	231.5	295.3							
G97.0	80.4	220.3	282.7							
G98.0	73.5	209.0	270.7							
G99.0	67.8	198.7	258.4							
G100.0	61.7	189.2	247.5							
G101.0	55.2	178.9	235.4							
G102.0	49.9	170.2	224.7							
G103.0	45.1	161.4	214.9							
G104.0	41.2	151.8	203.8							
G105.0	37.4	143.9	194.5							
G106.0	33.8	135.5	184.2							
G107.0	30.9	127.7	175.2							
G108.0	28.1	120.1	166.2							
G109.0	25.0	112.5	156.7							
G110.0	22.2	105.7	148.6							

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 8)

Unit: cd

G\C	C300.0	C330.0	C360.0						
G111.0	19.8	99.4	140.4						
G112.0	17.4	92.6	132.1						
G113.0	15.8	86.6	124.6						
G114.0	15.3	80.6	117.1						
G115.0	15.3	74.6	110.6						
G116.0	15.5	67.3	103.9						
G117.0	15.7	61.2	97.0						
G118.0	16.0	56.5	90.6						
G119.0	16.2	51.8	85.1						
G120.0	16.4	47.0	78.2						
G121.0	16.6	43.0	72.6						
G122.0	16.9	39.3	66.7						
G123.0	17.2	35.5	61.6						
G124.0	17.4	32.3	57.0						
G125.0	17.6	29.0	51.7						
G126.0	17.8	26.2	47.2						
G127.0	18.1	23.7	43.0						
G128.0	18.3	22.5	38.7						
G129.0	18.5	22.4	34.6						
G130.0	18.7	22.4	31.0						
G131.0	19.0	22.4	27.8						
G132.0	19.1	22.5	25.4						
G133.0	19.4	22.5	24.0						
G134.0	19.6	22.7	24.0						
G135.0	19.7	22.8	24.0						
G136.0	19.9	23.1	24.1						
G137.0	20.3	23.0	24.1						
G138.0	20.5	23.2	24.2						
G139.0	20.7	23.3	24.3						
G140.0	20.9	23.4	24.3						
G141.0	21.1	23.5	24.4						
G142.0	21.1	23.7	24.4						
G143.0	21.1	23.8	24.5						
G144.0	21.5	23.9	24.5						
G145.0	21.8	24.0	24.6						
G146.0	22.0	24.1	24.6						
G147.0	22.2	24.1	24.7						

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 9)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G148.0	22.4	24.3	24.8							
G149.0	22.6	24.3	24.9							
G150.0	22.8	24.4	24.9							
G151.0	23.0	24.5	24.9							
G152.0	23.2	24.6	24.9							
G153.0	23.3	24.6	24.9							
G154.0	23.5	24.8	25.0							
G155.0	23.6	24.8	25.0							
G156.0	23.8	24.9	25.0							
G157.0	24.0	24.9	25.1							
G158.0	24.2	25.0	25.1							
G159.0	24.3	25.1	25.1							
G160.0	24.4	25.1	25.1							
G161.0	24.6	25.2	25.2							
G162.0	24.8	25.2	25.3							
G163.0	24.9	25.5	25.3							
G164.0	25.1	25.4	25.3							
G165.0	25.2	25.5	25.4							
G166.0	25.4	25.5	25.5							
G167.0	25.5	25.6	25.6							
G168.0	25.6	25.7	25.7							
G169.0	25.7	25.8	25.7							
G170.0	25.7	25.8	25.9							
G171.0	25.8	26.0	25.9							
G172.0	25.9	26.0	26.1							
G173.0	26.0	26.1	26.2							
G174.0	26.1	26.2	26.3							
G175.0	26.2	26.2	26.4							
G176.0	26.2	26.2	26.4							
G177.0	26.3	26.3	26.5							
G178.0	26.3	26.4	26.7							
G179.0	26.4	26.5	26.7							
G180.0	26.5	26.5	26.8							

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	16830.50
L 0-180(75) av	20527.53
L 0-180(85) av	42686.06
L 90-270(65) av	11274.46
L 90-270(75) av	9915.71
L 90-270(85) av	8400.20
L 45(65) av	14207.17
L 45(75) av	15842.79
L 45(85) av	28910.06

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: