

Report No.:

Test Time: 2023-07-31 13:09

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog: LED

Number of Lamps:

Luminous Length (mm): 1200

Luminous Height (mm): 40

Current: 0.423 A

Power Factor: 0.995

Luminaire Description:

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 100

Voltage: 119.8 V

Power: 50.38 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 7020.8 lm

Downward Ratio: 93%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 209.4, 161.2, 188.5, 188.4

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 125.8, 105.7, 115.0, 115.1

Luminous Efficacy (lm/w): 139.36

Max. Intensity: 2129.66 cd

S/MH(C0/C180): 1.29

Total Rated Lamp Lumens: 7020.8 lm

Efficiency: 100%

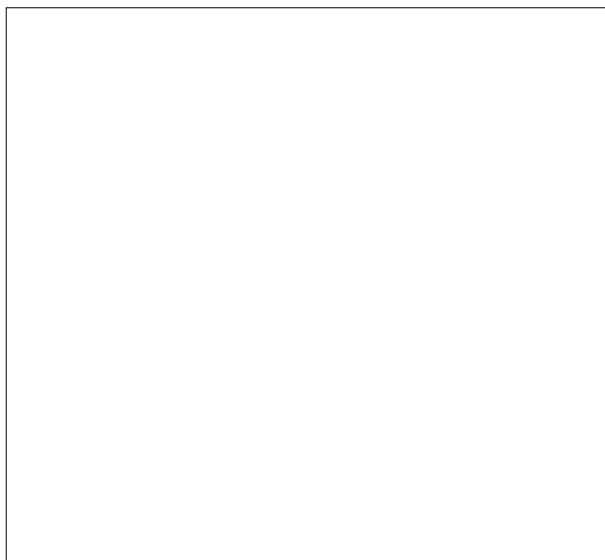
Upward Ratio: 7%

C0r0 Intensity: 2129.66 cd

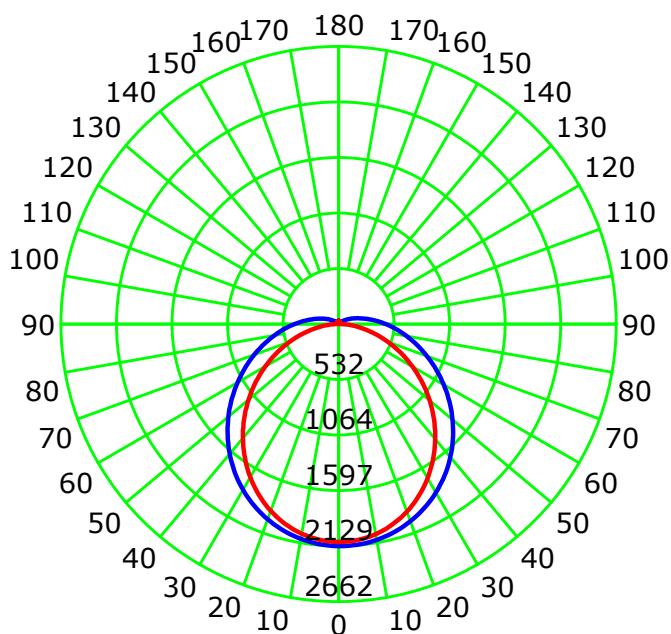
Pos of Max. Intensity: H0 V0

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

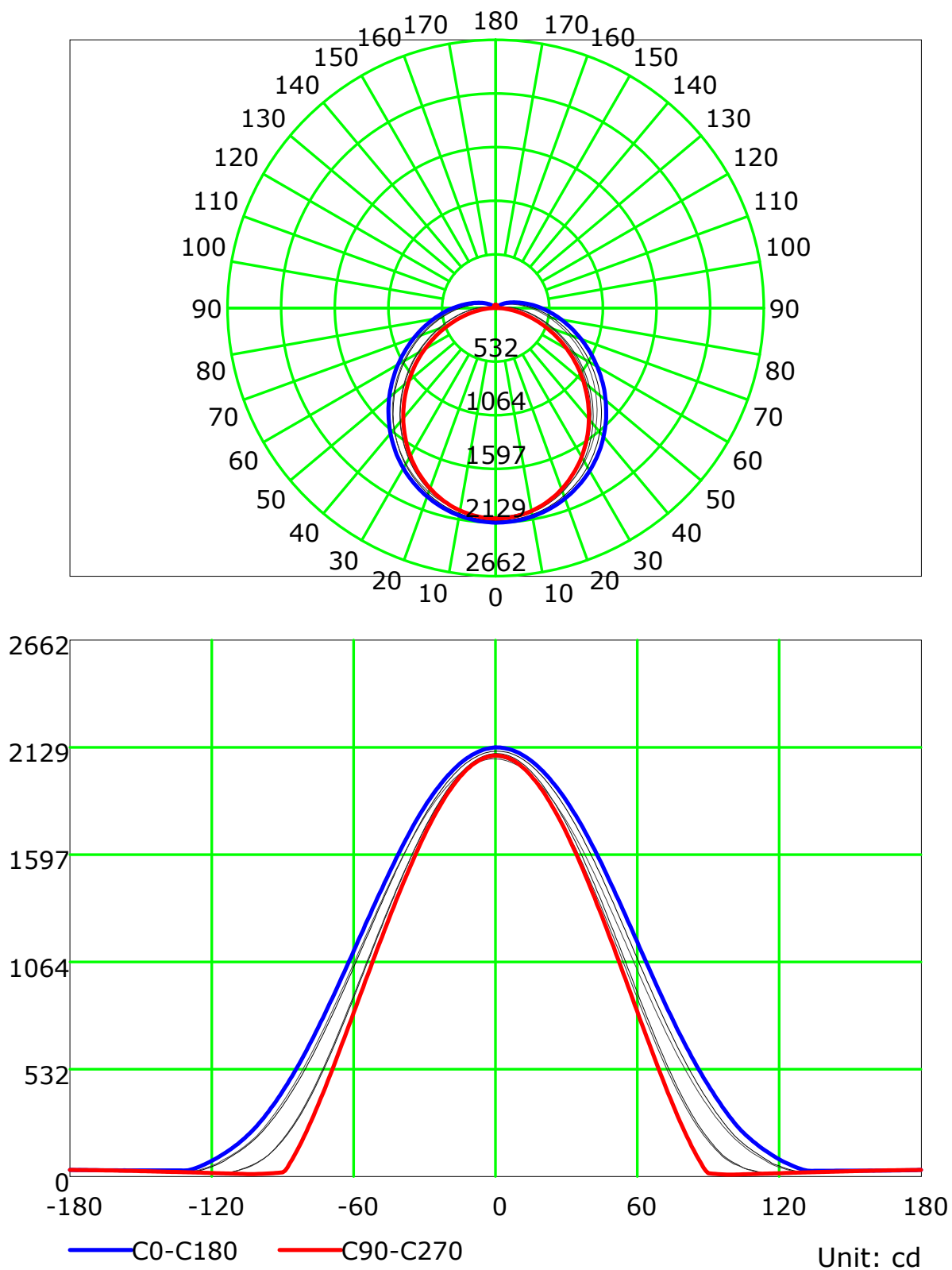
Test Device: GPM-1600L

Distance: 9.010 m

Humidity:

Inspector:

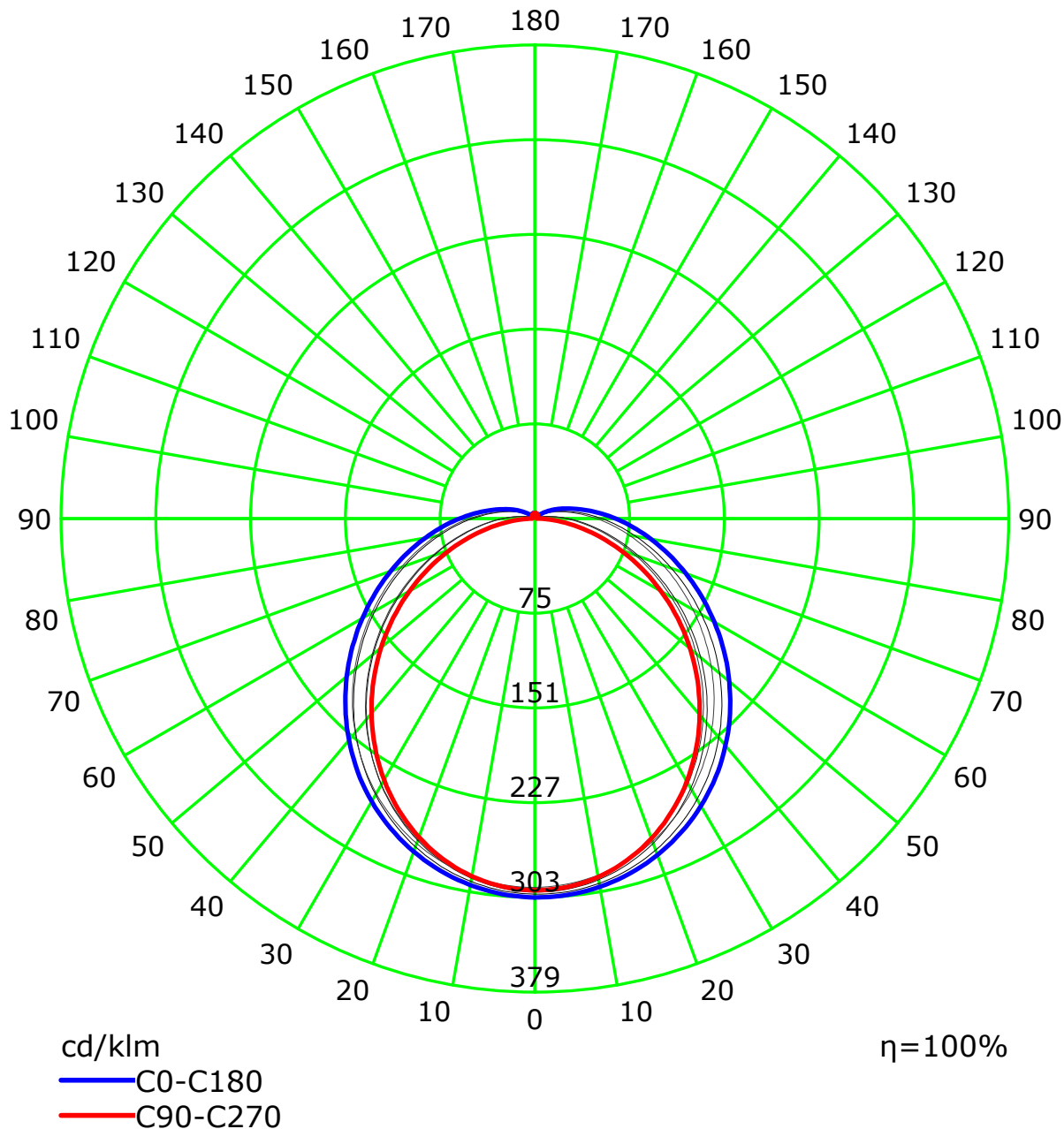
## Luminous Intensity Distribution Curve



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)



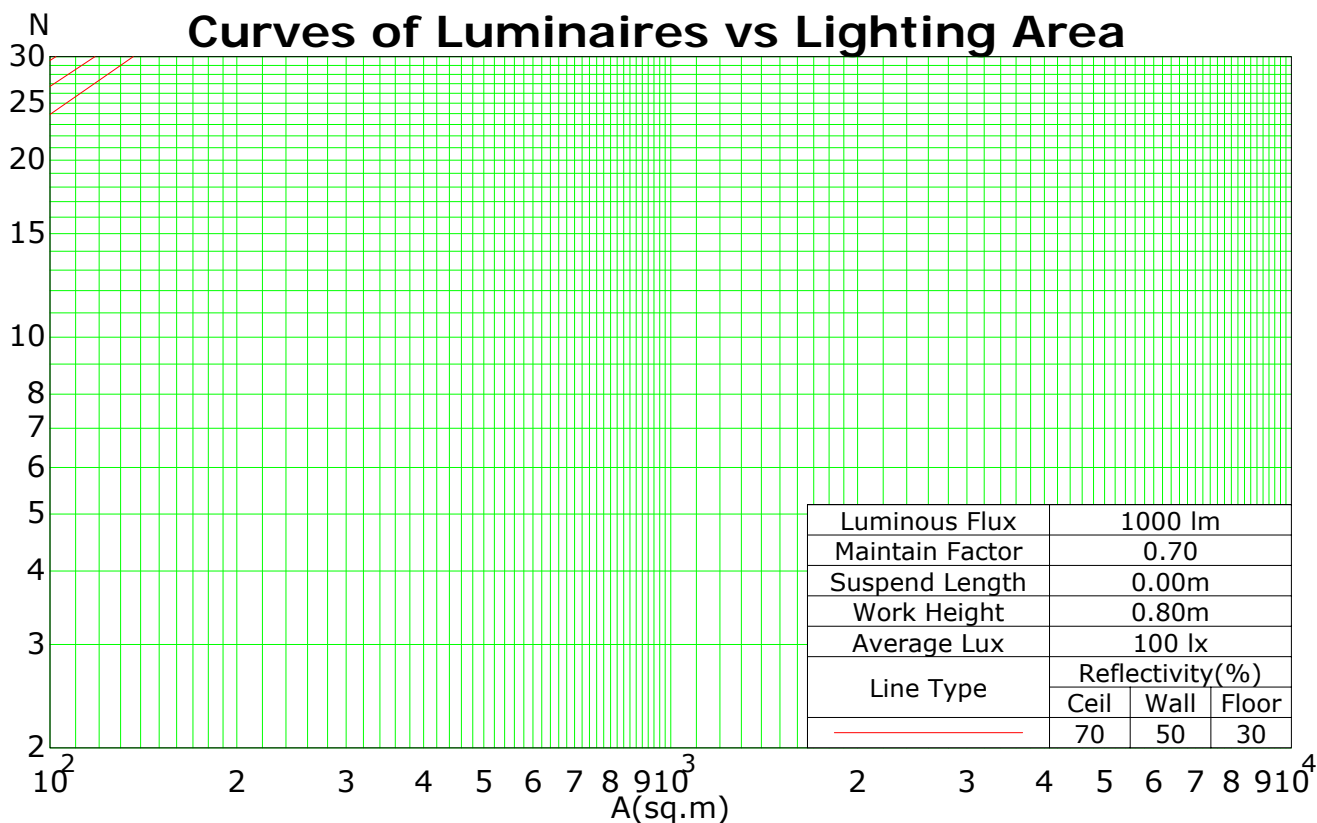
C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

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	0.81	0.82	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	0.66	0.57	0.50	0.76	0.65	0.56	0.49	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	0.42	0.55	0.47	0.41	0.52	0.45	0.40	0.50	0.44	0.39	0.37
6	0.67	0.53	0.44	0.37	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	0.30	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	0.31	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	0.26	0.22	0.20

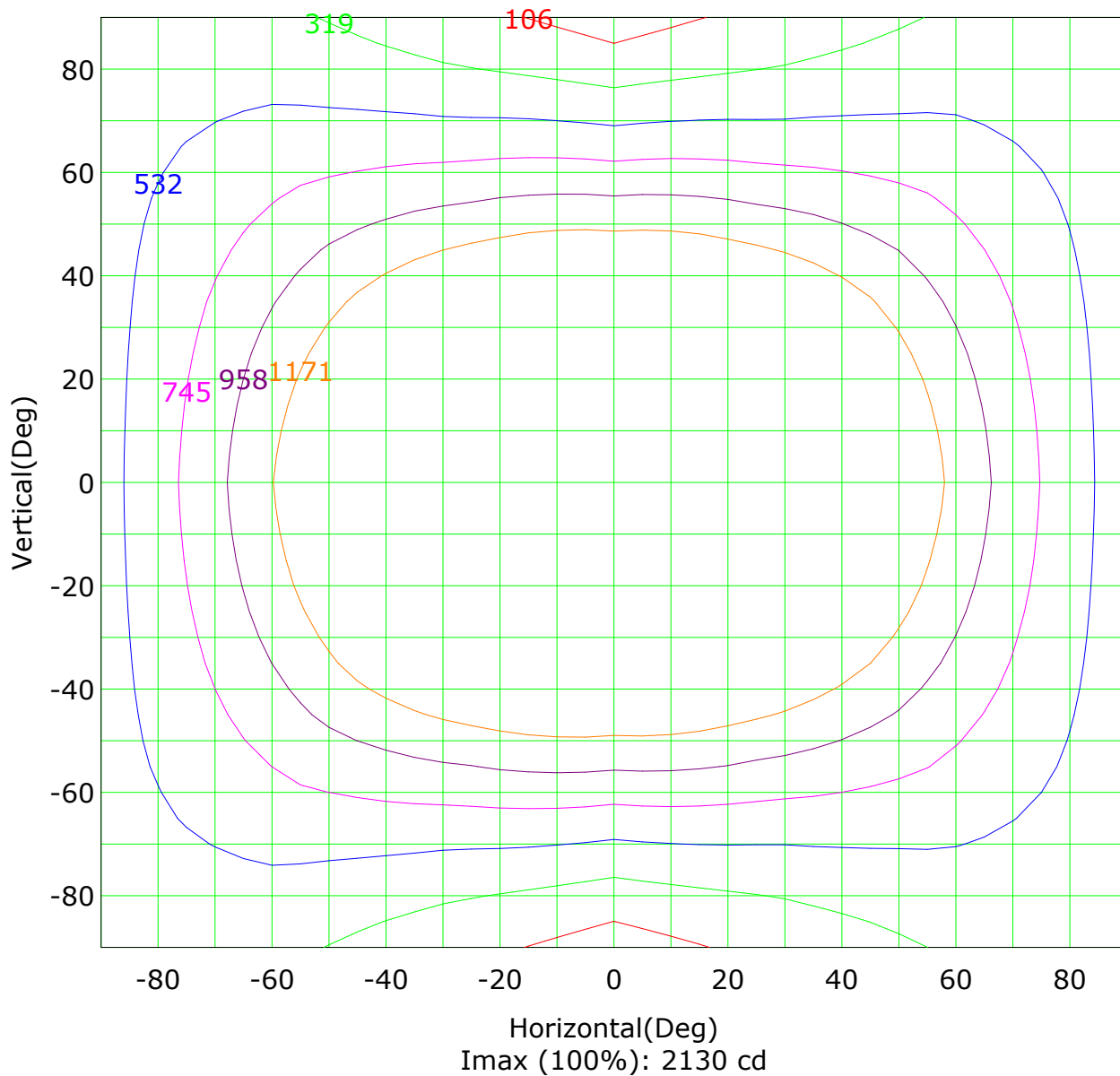
Spacing Criteria (0-180): 1.29  
Spacing Criteria (90-270): 1.21  
Spacing Criteria (Diagonal): 1.36



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

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

## Isocandela (rectangle)

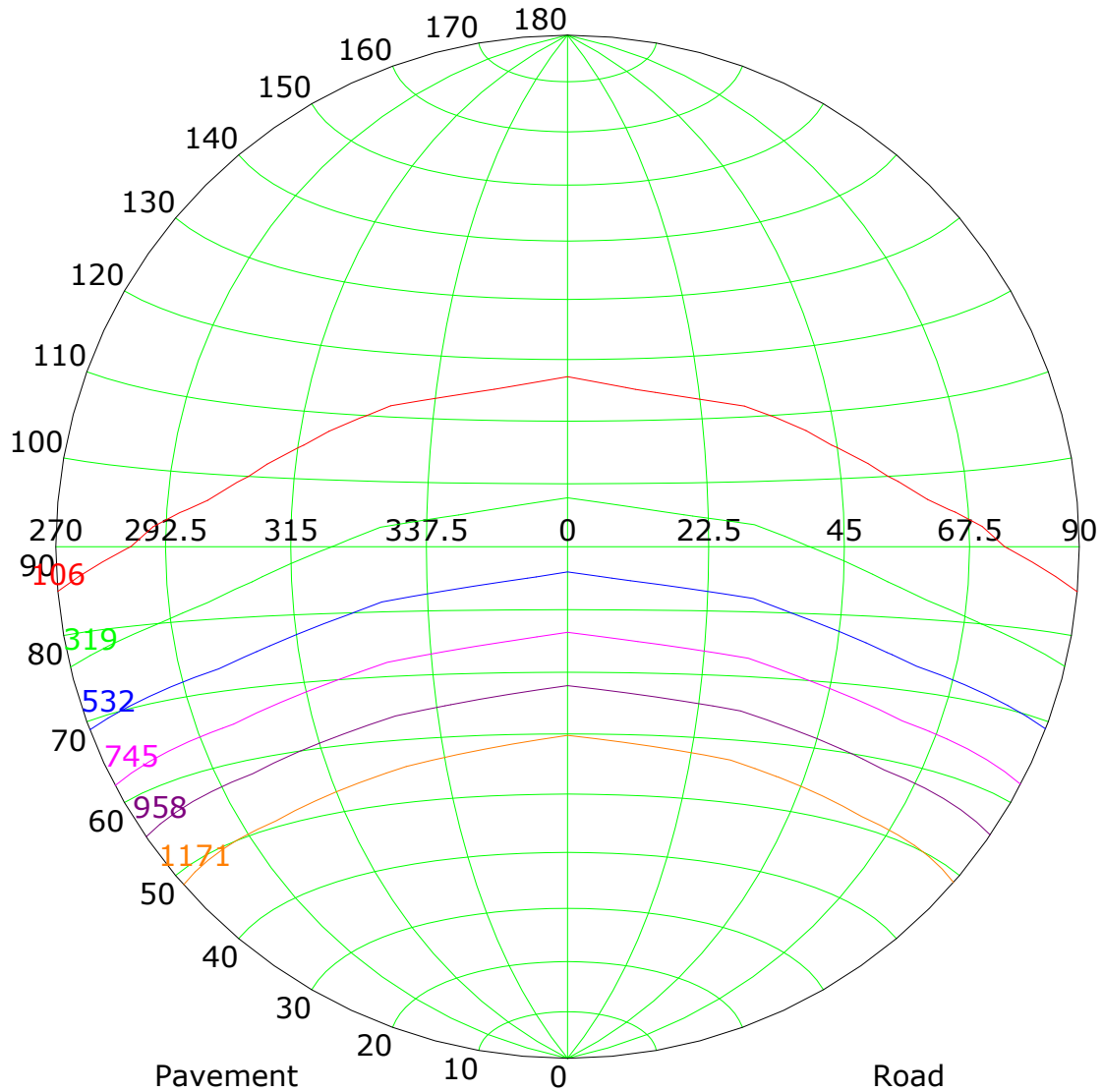


( 5%): 106 cd	( 15%): 319 cd
( 25%): 532 cd	( 35%): 745 cd
( 45%): 958 cd	( 55%): 1171 cd

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%): 2130 cd

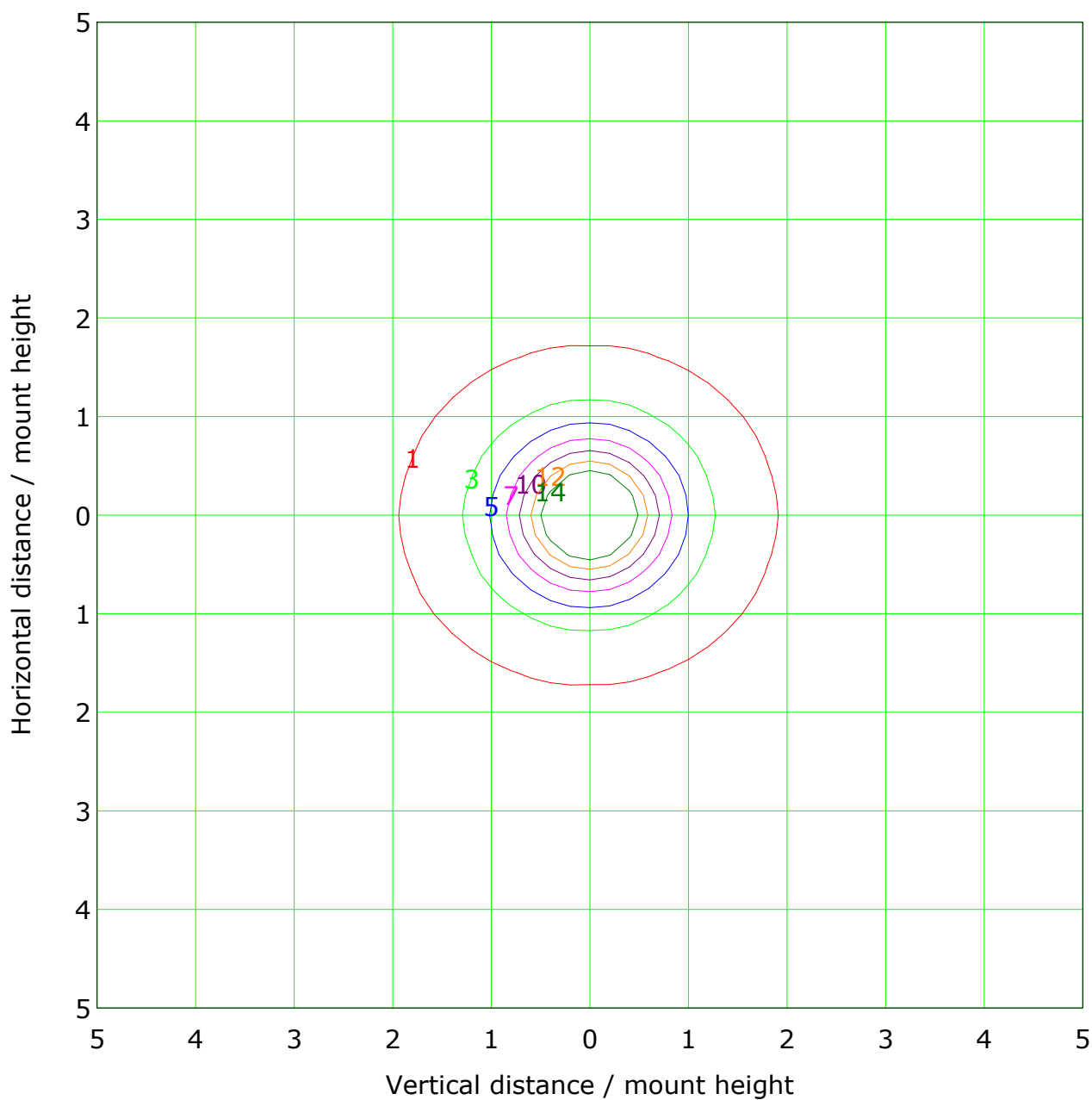
( 5%): 106 cd  
( 25%): 532 cd  
( 45%): 958 cd

( 15%): 319 cd  
( 35%): 745 cd  
( 55%): 1171 cd

CIE: narrow - short  
CIE: Non-cut-off luminaire  
Max.At90: 64.684 cd/klm

IES: Non-cut-off  
Max.At80: 94.159 cd/klm  
Max.80-90: 94.159 cd/klm

## IsoLux Plot



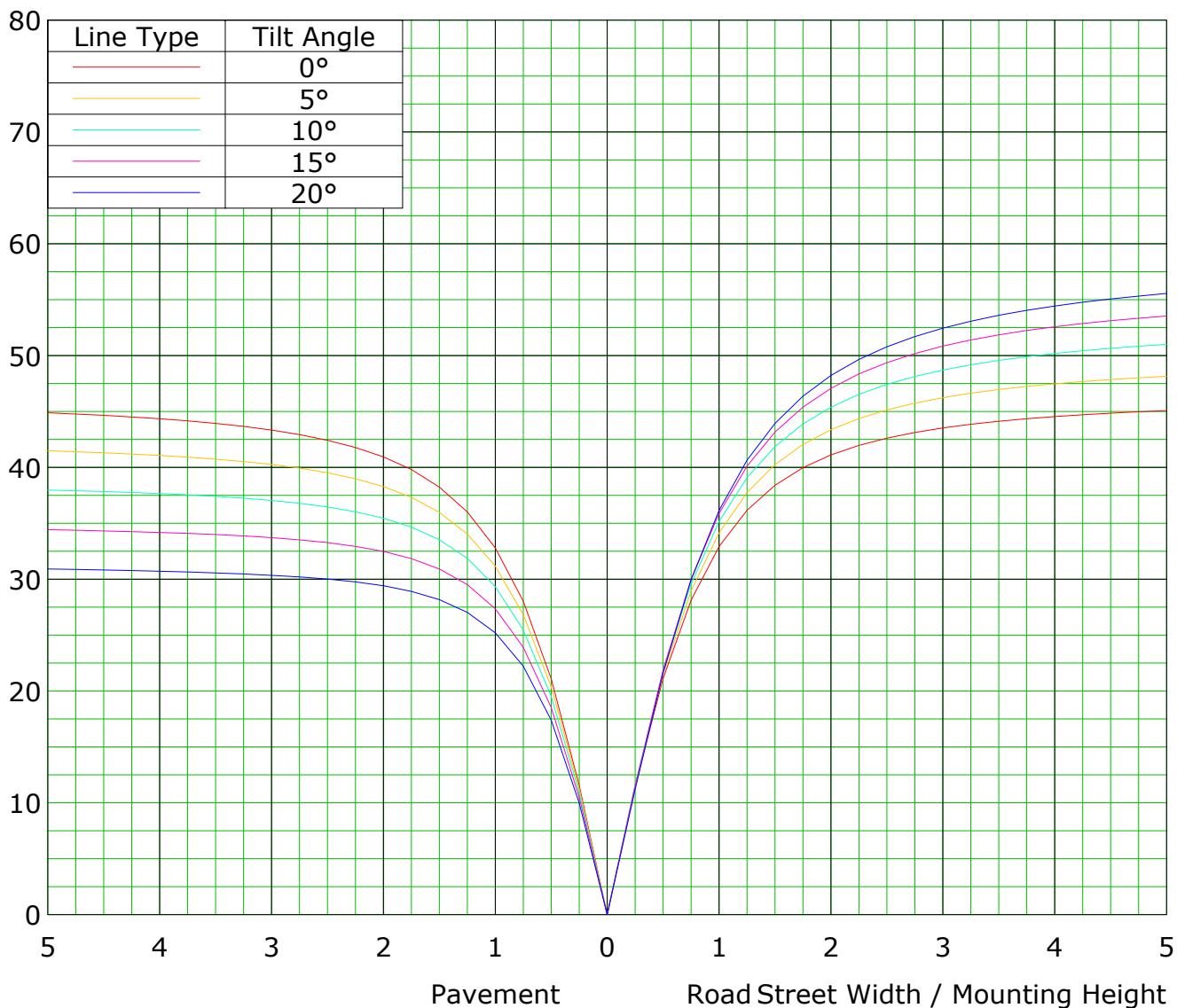
Mounting Height: 10.0m		Max Lux(100%): 21.3 lx	
— ( 5%):	1.1 lx	— ( 15%):	3.2 lx
— ( 25%):	5.3 lx	— ( 35%):	7.5 lx
— ( 45%):	9.6 lx	— ( 55%):	11.7 lx
— ( 65%):	13.8 lx		

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(%)



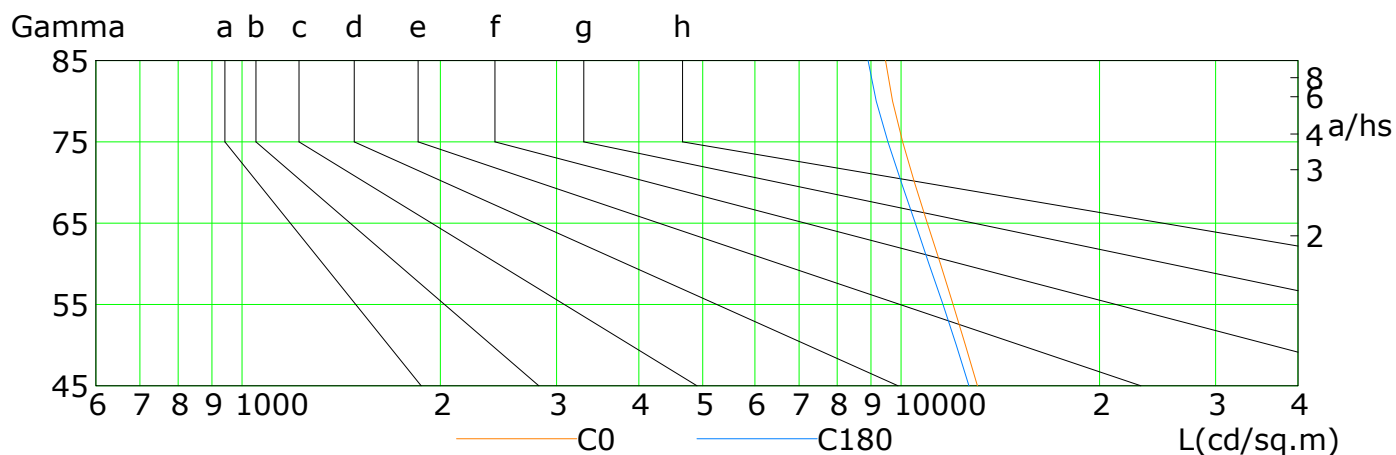
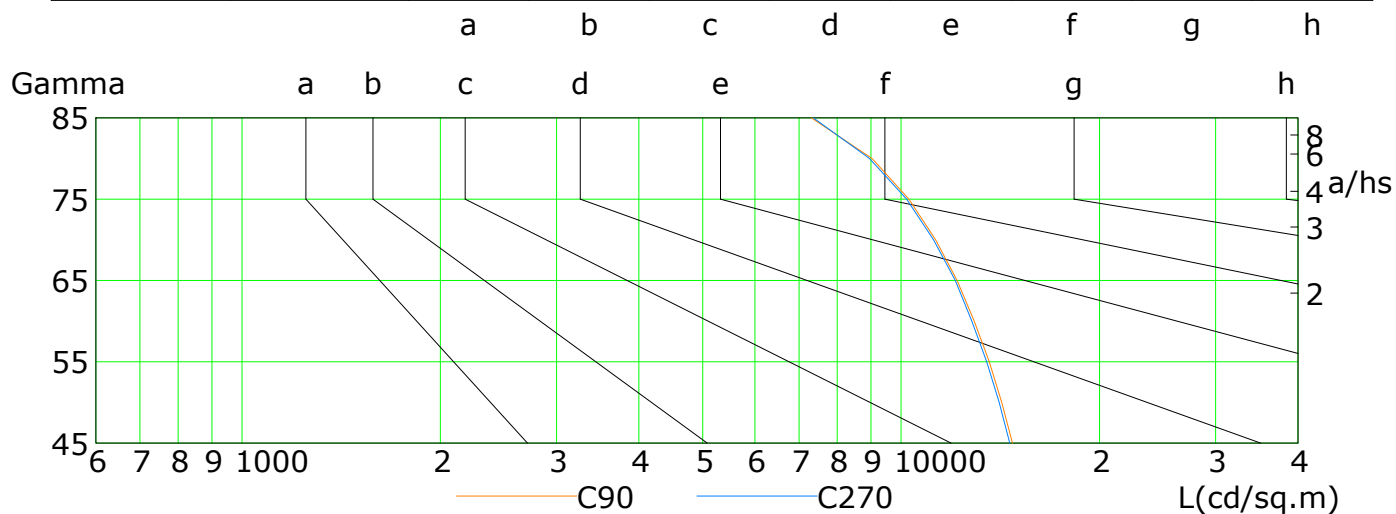
C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

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

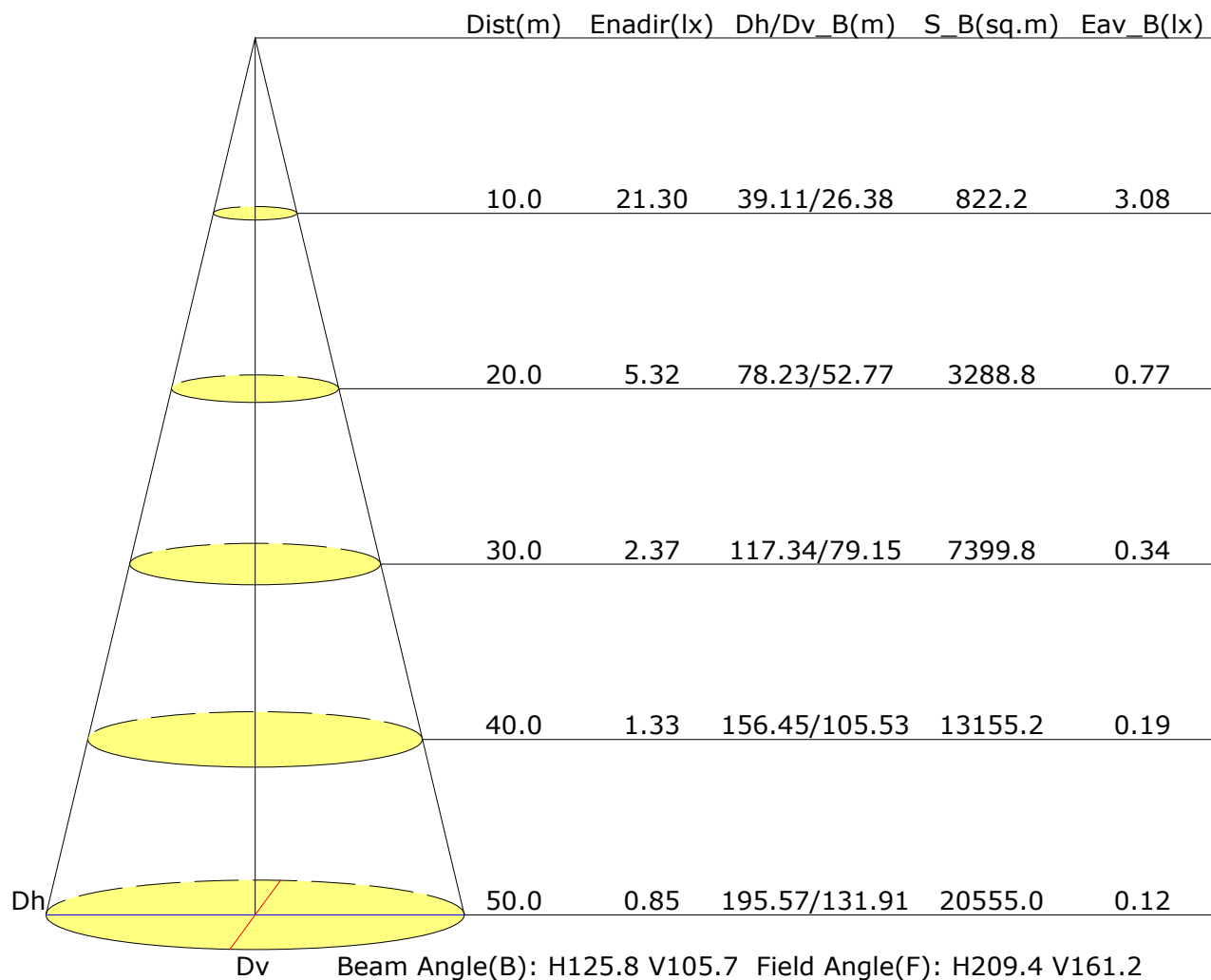


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	13053	12518	11992	11469	10956	10477	10055	9706	9469
C90	14753	14213	13603	12906	12157	11278	10275	9035	7311
C180	12671	12124	11573	11016	10505	10010	9550	9167	8912
C270	14611	14083	13484	12804	12083	11199	10194	8955	7360

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:

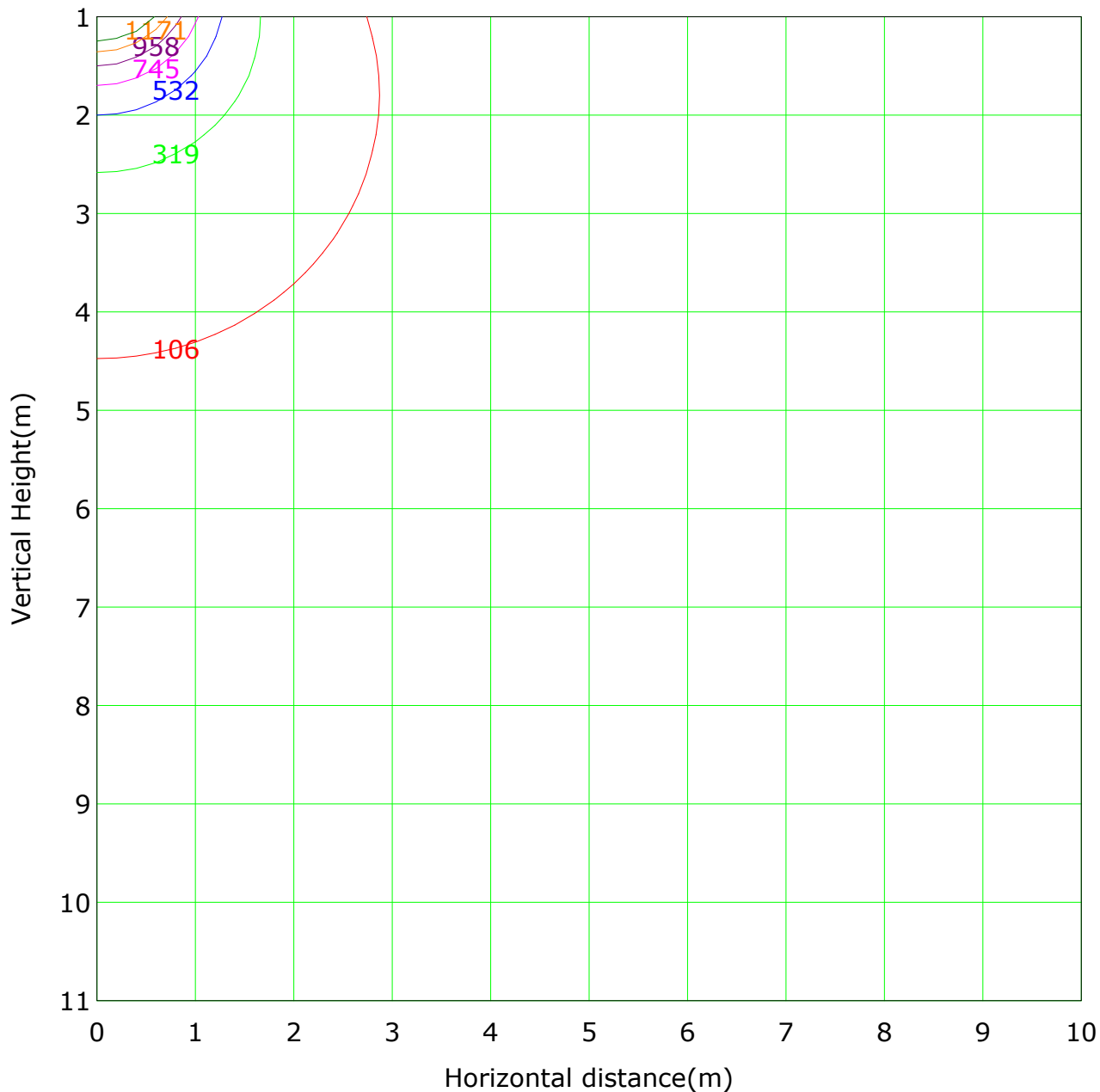
## Illuminance at a Distance



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: 2129.7 lx

( 5%): 106.5 lx	( 15%): 319.4 lx
( 25%): 532.4 lx	( 35%): 745.4 lx
( 45%): 958.3 lx	( 55%): 1171.3 lx
( 65%): 1384.3 lx	

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

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

## Area Flux Table

Unit: lm

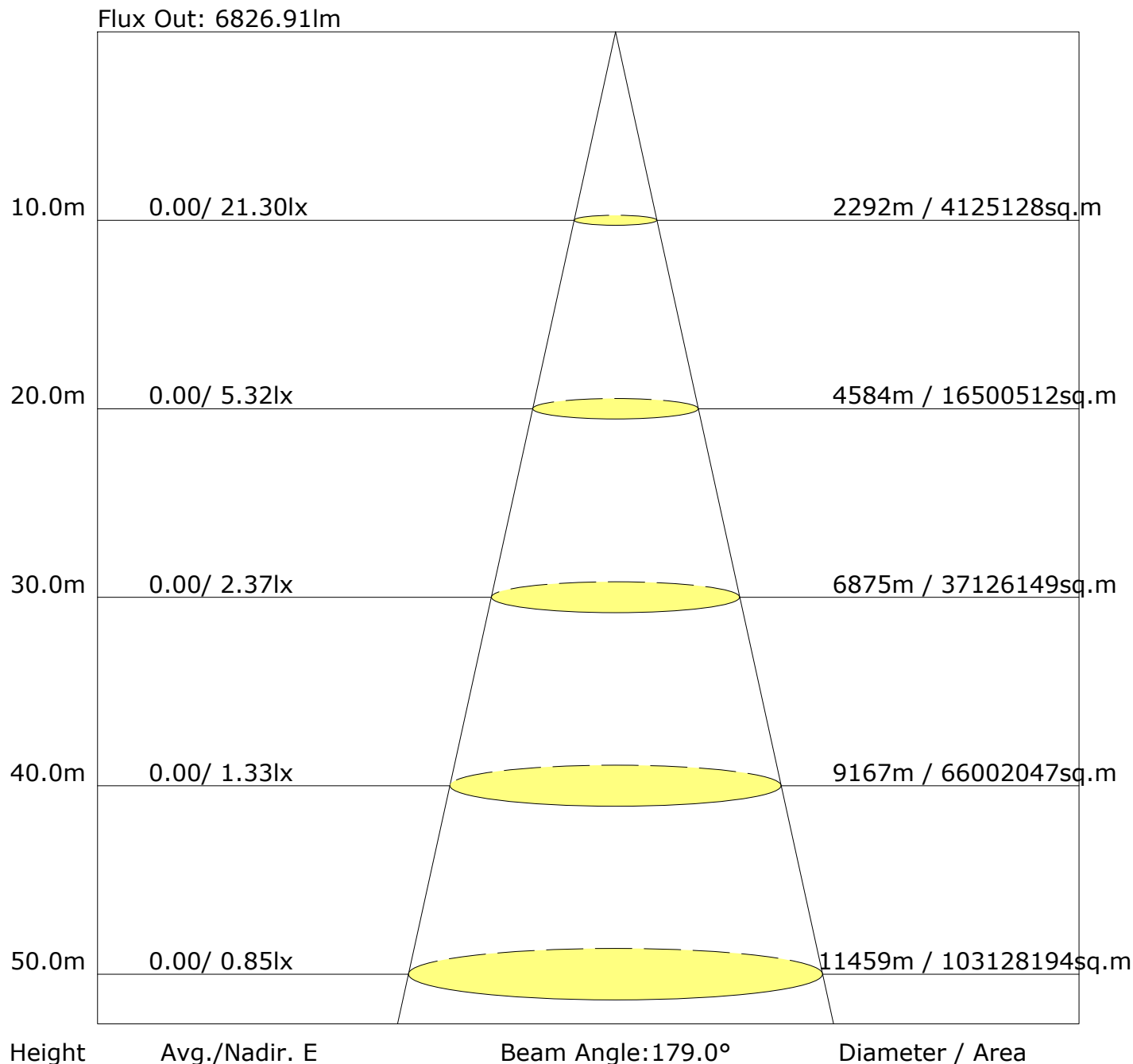
Vertical plane		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90
Flux(E)	Flux(T)	23.6	85.0	167.7	267.2	372.8	474.2	558.8	622.3	652.3	654.5	628.8	556.9	486.5	385.3	278.3	175.9	89.7	25.1	6517
1.1	3.2	5.2	6.5	7.0	6.9	6.3	5.4	4.1	4.1	5.5	6.5	7.1	7.3	6.8	5.4	3.4	1.2	93.1	76.2	
1.2	3.6	6.2	8.5	10.1	11.1	11.7	11.9	11.4	11.5	12.1	11.9	11.4	10.4	8.8	6.5	3.8	1.2	153.5	153.5	
1.2	4.0	7.3	10.8	13.8	16.3	18.3	19.9	20.2	20.3	20.1	18.6	16.7	14.2	11.2	7.7	4.3	1.3	226.1	226.1	
1.3	4.5	8.5	13.2	17.8	22.0	25.6	28.4	29.6	29.7	28.6	25.9	22.4	18.2	13.6	8.8	4.7	1.4	304.2	304.2	
1.3	4.8	9.7	15.5	21.8	27.8	32.9	36.9	38.9	39.0	37.1	33.2	28.1	22.2	15.9	10.0	5.1	1.4	381.7	381.7	
1.4	5.2	10.7	17.6	25.5	33.1	39.8	44.8	47.4	47.5	44.9	40.0	33.4	25.8	18.1	11.1	5.5	1.5	453.1	453.1	
1.4	5.5	11.6	19.4	28.5	37.6	45.6	51.5	54.7	54.6	51.4	45.6	37.8	28.9	20.0	12.0	5.8	1.5	513.4	513.4	
1.4	5.7	12.3	20.8	30.7	40.8	49.9	56.5	59.9	59.7	56.1	49.8	41.2	31.3	21.4	12.7	6.0	1.5	557.8	557.8	
1.5	5.9	12.7	21.7	32.1	42.8	52.3	59.4	63.0	62.5	59.2	52.6	43.4	32.9	22.4	13.2	6.2	1.6	585.1	585.1	
1.5	5.9	12.7	21.6	32.0	42.6	52.0	58.9	62.4	63.2	59.9	53.0	43.6	33.0	22.5	13.2	6.2	1.6	585.7	585.7	
1.4	5.7	12.2	20.7	30.5	40.5	49.2	55.9	59.7	60.2	57.1	50.7	41.8	31.6	21.6	12.8	6.0	1.5	559.3	559.3	
1.4	5.5	11.5	19.3	28.2	37.2	45.2	51.3	54.7	55.1	52.2	46.5	38.6	29.4	20.2	12.1	5.8	1.5	515.7	515.7	
1.4	5.2	10.6	17.5	25.2	32.8	39.6	44.8	47.7	47.9	45.5	40.7	34.1	26.4	18.4	11.2	5.5	1.5	455.9	455.9	
1.3	4.8	9.6	15.4	21.6	27.6	32.9	37.0	39.1	39.4	37.7	33.8	28.7	22.7	16.3	10.1	5.1	1.4	384.4	384.4	
1.3	4.4	8.4	13.0	17.6	21.9	25.6	28.5	29.8	30.0	29.0	26.4	22.8	18.5	13.9	9.0	4.7	1.4	306.3	306.3	
1.2	4.0	7.3	10.7	13.6	16.2	18.3	19.9	20.3	20.5	20.3	18.9	17.0	14.4	11.4	7.8	4.3	1.3	227.4	227.4	
1.2	3.6	6.1	8.4	10.0	11.0	11.6	11.9	11.5	11.6	12.2	12.1	11.6	10.6	9.0	6.6	3.9	1.2	154.2	154.2	
1.1	3.2	5.1	6.4	6.9	6.8	6.2	5.3	4.1	4.2	5.6	6.6	7.2	7.4	6.9	5.5	3.5	1.2	93.3	93.3	
23.6	85.0	167.7	267.2	372.8	474.2	558.8	622.3	652.3	654.5	628.8	556.9	486.5	385.3	278.3	175.9	89.7	25.1	6550	6550	
Flux(E)	Flux(T)	23.6	85.0	167.7	267.2	372.8	474.2	558.8	622.3	652.3	654.5	628.8	556.9	486.5	385.3	278.3	175.9	89.7	25.1	6517

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	21.0	22.3	21.4	22.7	23.1	20.4	21.8	20.8	22.2	22.5
3H	22.8	24.0	23.2	24.4	24.8	21.9	23.2	22.3	23.5	24.0
4H	23.7	24.8	24.1	25.3	25.7	22.5	23.7	23.0	24.1	24.5
6H	24.5	25.6	25.0	26.0	26.5	23.0	24.1	23.4	24.5	25.0
8H	24.9	26.0	25.4	26.4	26.9	23.1	24.2	23.6	24.6	25.1
12H	25.3	26.3	25.8	26.7	27.2	23.2	24.2	23.7	24.7	25.2
X=4H Y=2H	21.5	22.7	22.0	23.1	23.6	21.1	22.3	21.6	22.7	23.1
3H	23.6	24.6	24.1	25.1	25.5	22.8	23.8	23.3	24.2	24.7
4H	24.6	25.5	25.1	26.0	26.5	23.5	24.4	24.0	24.9	25.4
6H	25.6	26.5	26.2	27.0	27.5	24.1	24.9	24.6	25.4	26.0
8H	26.1	26.9	26.7	27.4	28.0	24.3	25.1	24.9	25.6	26.2
12H	26.6	27.3	27.1	27.8	28.4	24.5	25.2	25.1	25.7	26.3
X=8H Y=4H	24.9	25.7	25.5	26.2	26.8	23.9	24.7	24.5	25.2	25.8
6H	26.1	26.8	26.7	27.3	27.9	24.7	25.4	25.3	25.9	26.5
8H	26.8	27.3	27.4	27.9	28.5	25.1	25.6	25.7	26.2	26.8
12H	27.4	27.9	28.0	28.5	29.1	25.3	25.8	25.9	26.4	27.1
X=12H Y=4H	24.9	25.6	25.5	26.2	26.7	24.0	24.7	24.6	25.2	25.8
6H	26.2	26.8	26.8	27.3	28.0	24.9	25.5	25.5	26.0	26.7
8H	26.9	27.4	27.5	28.0	28.6	25.3	25.8	25.9	26.4	27.0
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.2					+0.2/-0.2				
S=1.5H	+0.4/-0.4					+0.3/-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 7021lm ( $8\log(F/F_0) = 6.8$ ).

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

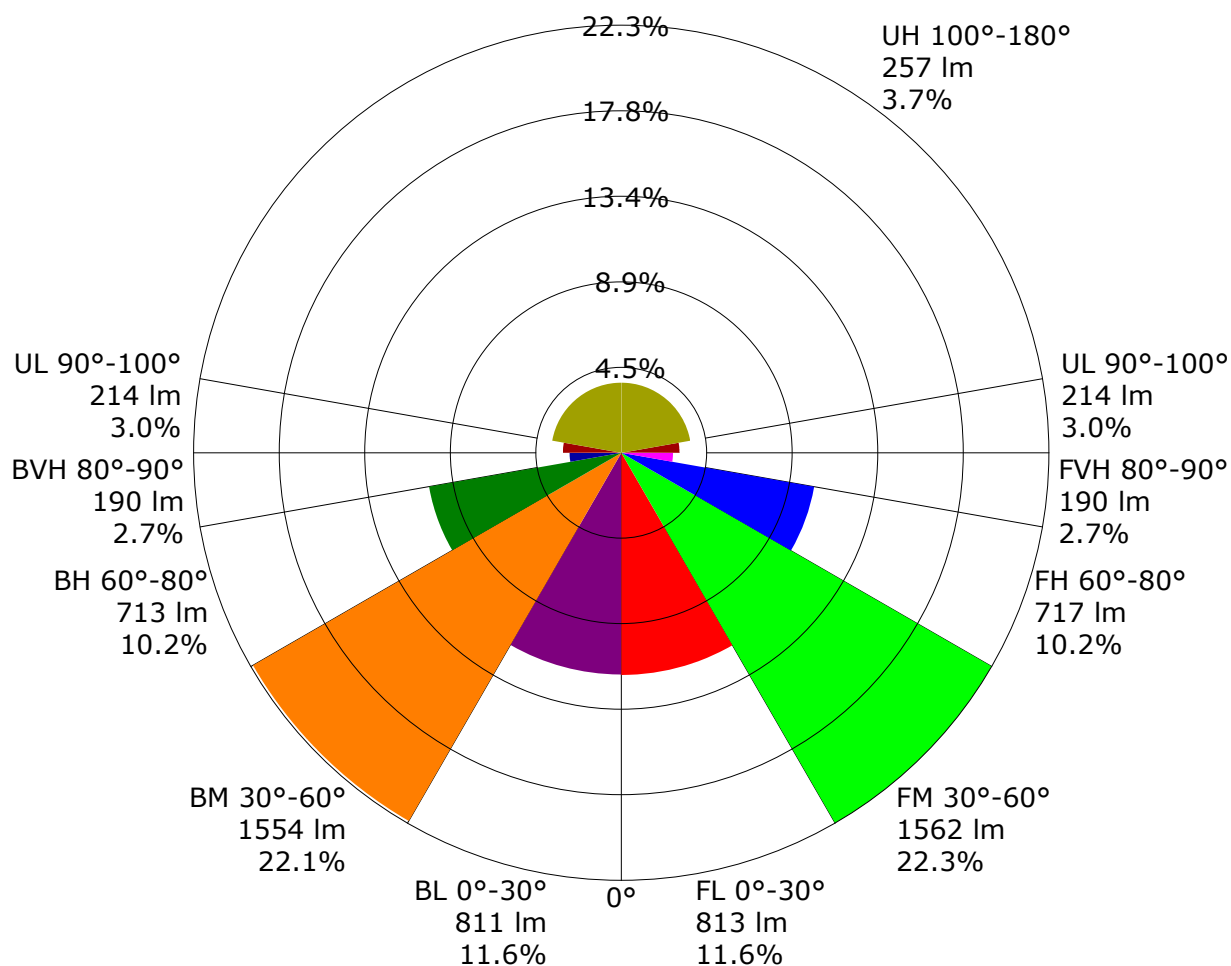
	ZONE	LUMENS	% LAMP LUMENS
	FORWARD LIGHT	3283	46.8
	FL ( 0°-30°)	813	11.6
	FM (30°-60°)	1562	22.3
	FH (60°-80°)	717	10.2
	FVH (80°-90°)	190	2.7
	BACK LIGHT	3268	46.6
	BL ( 0°-30°)	811	11.6
	BM (30°-60°)	1554	22.1
	BH (60°-80°)	713	10.2
	BVH (80°-90°)	190	2.7
	UP LIGHT	470	6.7
	UL (90°-100°)	214	3.0
	UH (100°-180°)	257	3.7
	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		0.37	0.47	0.54	0.59	0.67	0.72	0.76	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	0.50	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	0.48	0.53	0.60	0.65	0.68	0.73	0.76	
Rating:50W 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	0.75	0.66	0.54	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		0.74	0.65	0.58	0.52	0.44	0.38	0.34	0.28	0.23	
0.50	0.50	0.20	0.98	0.82	0.71	0.62	0.51	0.46	0.37	0.29	0.24	
	0.30		0.83	0.71	0.62	0.56	0.46	0.40	0.35	0.28	0.23	
	0.20		0.72	0.63	0.56	0.51	0.43	0.37	0.33	0.27	0.22	
0.30	0.50	0.20	0.94	0.78	0.67	0.59	0.48	0.41	0.35	0.28	0.23	
	0.30		0.80	0.69	0.60	0.54	0.44	0.38	0.33	0.27	0.22	
	0.20		0.70	0.61	0.54	0.49	0.41	0.36	0.31	0.25	0.22	
0.00	0.00	0.00	0.60	0.51	0.45	0.40	0.34	0.29	0.25	0.20	0.17	
Rating:50W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

## Utilisation Factor Table(Ceiling cavity)

Utilisation Factors UF(C)			SHR NOM = 1.25									
Room Reflectance			Room Index(RI)									
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	
0.70	0.50	0.20	0.23	0.24	0.25	0.26	0.27	0.27	0.28	0.28	0.28	
	0.30		0.16	0.18	0.19	0.20	0.21	0.23	0.23	0.25	0.25	
	0.20		0.11	0.12	0.14	0.15	0.17	0.18	0.20	0.21	0.23	
0.50	0.50	0.20	0.22	0.23	0.24	0.25	0.26	0.26	0.27	0.27	0.27	
	0.30		0.16	0.17	0.18	0.19	0.21	0.22	0.23	0.24	0.24	
	0.20		0.11	0.12	0.14	0.15	0.17	0.18	0.19	0.21	0.22	
0.30	0.50	0.20	0.22	0.23	0.23	0.24	0.25	0.25	0.26	0.26	0.26	
	0.30		0.15	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.24	
	0.20		0.11	0.12	0.13	0.15	0.16	0.18	0.19	0.20	0.21	
0.00	0.00	0.00	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	
Rating:50W 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	2096.9	2.0	2.0	0.03	0.03
1.0-2.0	2096.1	6.0	8.0	0.09	0.11
2.0-3.0	2094.5	10.0	18.0	0.14	0.26
3.0-4.0	2092.2	14.0	32.0	0.20	0.46
4.0-5.0	2089.2	18.0	50.0	0.26	0.71
5.0-6.0	2085.2	21.9	71.9	0.31	1.02
6.0-7.0	2080.5	25.8	97.8	0.37	1.39
7.0-8.0	2075.2	29.7	127.5	0.42	1.82
8.0-9.0	2069.0	33.5	161.0	0.48	2.29
9.0-10.0	2062.2	37.3	198.3	0.53	2.82
10.0-11.0	2054.5	41.1	239.4	0.58	3.41
11.0-12.0	2046.0	44.7	284.1	0.64	4.05
12.0-13.0	2037.3	48.4	332.5	0.69	4.74
13.0-14.0	2027.3	51.9	384.4	0.74	5.47
14.0-15.0	2016.5	55.4	439.7	0.79	6.26
15.0-16.0	2005.0	58.8	498.5	0.84	7.10
16.0-17.0	1992.7	62.1	560.6	0.88	7.98
17.0-18.0	1980.4	65.3	625.9	0.93	8.91
18.0-19.0	1966.8	68.4	694.3	0.97	9.89
19.0-20.0	1952.5	71.5	765.8	1.02	10.91
20.0-21.0	1938.2	74.4	840.2	1.06	11.97
21.0-22.0	1922.4	77.3	917.5	1.10	13.07
22.0-23.0	1906.1	80.0	997.5	1.14	14.21
23.0-24.0	1889.2	82.6	1080.1	1.18	15.38
24.0-25.0	1871.6	85.1	1165.2	1.21	16.60
25.0-26.0	1854.2	87.5	1252.7	1.25	17.84
26.0-27.0	1835.5	89.8	1342.5	1.28	19.12
27.0-28.0	1816.1	92.0	1434.5	1.31	20.43
28.0-29.0	1796.9	94.0	1528.5	1.34	21.77
29.0-30.0	1776.4	95.9	1624.5	1.37	23.14
30.0-31.0	1755.1	97.7	1722.1	1.39	24.53
31.0-32.0	1733.4	99.3	1821.5	1.41	25.94
32.0-33.0	1711.1	100.8	1922.3	1.44	27.38
33.0-34.0	1689.2	102.2	2024.5	1.46	28.84
34.0-35.0	1665.8	103.5	2128.0	1.47	30.31
35.0-36.0	1642.1	104.6	2232.6	1.49	31.80

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	1618.4	105.6	2338.1	1.50	33.30
37.0-38.0	1593.8	106.4	2444.5	1.52	34.82
38.0-39.0	1569.2	107.1	2551.6	1.53	36.34
39.0-40.0	1543.6	107.7	2659.3	1.53	37.88
40.0-41.0	1517.9	108.1	2767.4	1.54	39.42
41.0-42.0	1492.9	108.5	2875.9	1.55	40.96
42.0-43.0	1466.4	108.6	2984.5	1.55	42.51
43.0-44.0	1439.6	108.7	3093.2	1.55	44.06
44.0-45.0	1413.2	108.6	3201.8	1.55	45.61
45.0-46.0	1385.9	108.4	3310.2	1.54	47.15
46.0-47.0	1358.6	108.1	3418.3	1.54	48.69
47.0-48.0	1330.6	107.6	3525.9	1.53	50.22
48.0-49.0	1302.6	107.0	3632.9	1.52	51.74
49.0-50.0	1275.5	106.4	3739.2	1.51	53.26
50.0-51.0	1247.2	105.5	3844.7	1.50	54.76
51.0-52.0	1218.6	104.6	3949.3	1.49	56.25
52.0-53.0	1190.6	103.6	4052.9	1.48	57.73
53.0-54.0	1161.9	102.4	4155.3	1.46	59.19
54.0-55.0	1133.7	101.2	4256.5	1.44	60.63
55.0-56.0	1104.7	99.8	4356.4	1.42	62.05
56.0-57.0	1075.8	98.4	4454.8	1.40	63.45
57.0-58.0	1048.2	96.9	4551.7	1.38	64.83
58.0-59.0	1018.9	95.3	4647.0	1.36	66.19
59.0-60.0	989.9	93.5	4740.5	1.33	67.52
60.0-61.0	961.1	91.7	4832.2	1.31	68.83
61.0-62.0	932.3	89.8	4922.1	1.28	70.11
62.0-63.0	904.8	88.0	5010.1	1.25	71.36
63.0-64.0	876.3	86.0	5096.1	1.22	72.59
64.0-65.0	848.0	83.9	5180.0	1.20	73.78
65.0-66.0	820.9	81.9	5261.9	1.17	74.95
66.0-67.0	793.1	79.8	5341.7	1.14	76.08
67.0-68.0	765.4	77.5	5419.2	1.10	77.19
68.0-69.0	737.9	75.3	5494.5	1.07	78.26
69.0-70.0	710.8	73.0	5567.5	1.04	79.30
70.0-71.0	684.9	70.8	5638.3	1.01	80.31
71.0-72.0	658.4	68.5	5706.8	0.98	81.28

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	632.0	66.1	5772.9	0.94	82.23
73.0-74.0	607.3	63.9	5836.8	0.91	83.14
74.0-75.0	582.1	61.5	5898.3	0.88	84.01
75.0-76.0	556.9	59.1	5957.4	0.84	84.85
76.0-77.0	532.2	56.7	6014.1	0.81	85.66
77.0-78.0	508.1	54.4	6068.5	0.77	86.44
78.0-79.0	485.6	52.2	6120.7	0.74	87.18
79.0-80.0	462.3	49.8	6170.6	0.71	87.89
80.0-81.0	439.7	47.6	6218.1	0.68	88.57
81.0-82.0	418.2	45.4	6263.5	0.65	89.21
82.0-83.0	396.7	43.1	6306.6	0.61	89.83
83.0-84.0	376.2	41.0	6347.6	0.58	90.41
84.0-85.0	355.9	38.9	6386.4	0.55	90.97
85.0-86.0	336.1	36.7	6423.2	0.52	91.49
86.0-87.0	317.9	34.8	6458.0	0.50	91.98
87.0-88.0	299.4	32.8	6490.8	0.47	92.45
88.0-89.0	281.5	30.9	6521.6	0.44	92.89
89.0-90.0	265.4	29.1	6550.7	0.41	93.31
90.0-91.0	250.6	27.5	6578.2	0.39	93.70
91.0-92.0	237.4	26.0	6604.2	0.37	94.07
92.0-93.0	224.2	24.6	6628.8	0.35	94.42
93.0-94.0	211.3	23.1	6651.9	0.33	94.75
94.0-95.0	199.5	21.8	6673.8	0.31	95.06
95.0-96.0	187.6	20.5	6694.2	0.29	95.35
96.0-97.0	176.2	19.2	6713.4	0.27	95.62
97.0-98.0	165.9	18.0	6731.5	0.26	95.88
98.0-99.0	156.0	16.9	6748.4	0.24	96.12
99.0-100.0	146.7	15.9	6764.3	0.23	96.35
100.0-101.0	137.7	14.8	6779.1	0.21	96.56
101.0-102.0	129.3	13.9	6793.0	0.20	96.76
102.0-103.0	121.9	13.1	6806.0	0.19	96.94
103.0-104.0	114.6	12.2	6818.3	0.17	97.12
104.0-105.0	107.4	11.4	6829.7	0.16	97.28
105.0-106.0	100.8	10.7	6840.3	0.15	97.43
106.0-107.0	94.7	10.0	6850.3	0.14	97.57
107.0-108.0	89.2	9.3	6859.6	0.13	97.70

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	83.7	8.7	6868.3	0.12	97.83
109.0-110.0	78.4	8.1	6876.4	0.12	97.94
110.0-111.0	73.6	7.6	6884.0	0.11	98.05
111.0-112.0	68.8	7.0	6891.0	0.10	98.15
112.0-113.0	64.4	6.5	6897.5	0.09	98.24
113.0-114.0	60.3	6.1	6903.6	0.09	98.33
114.0-115.0	56.4	5.6	6909.2	0.08	98.41
115.0-116.0	53.0	5.2	6914.4	0.07	98.49
116.0-117.0	49.6	4.9	6919.3	0.07	98.55
117.0-118.0	46.4	4.5	6923.8	0.06	98.62
118.0-119.0	43.7	4.2	6928.0	0.06	98.68
119.0-120.0	41.2	3.9	6932.0	0.06	98.74
120.0-121.0	38.8	3.7	6935.6	0.05	98.79
121.0-122.0	36.5	3.4	6939.0	0.05	98.84
122.0-123.0	34.4	3.2	6942.2	0.05	98.88
123.0-124.0	32.5	3.0	6945.2	0.04	98.92
124.0-125.0	30.6	2.8	6948.0	0.04	98.96
125.0-126.0	28.9	2.6	6950.5	0.04	99.00
126.0-127.0	27.5	2.4	6953.0	0.03	99.03
127.0-128.0	26.5	2.3	6955.3	0.03	99.07
128.0-129.0	25.7	2.2	6957.5	0.03	99.10
129.0-130.0	25.2	2.1	6959.6	0.03	99.13
130.0-131.0	24.9	2.1	6961.7	0.03	99.16
131.0-132.0	24.8	2.0	6963.7	0.03	99.19
132.0-133.0	24.9	2.0	6965.7	0.03	99.22
133.0-134.0	25.0	2.0	6967.7	0.03	99.24
134.0-135.0	25.1	2.0	6969.7	0.03	99.27
135.0-136.0	25.3	1.9	6971.6	0.03	99.30
136.0-137.0	25.5	1.9	6973.6	0.03	99.33
137.0-138.0	25.6	1.9	6975.5	0.03	99.35
138.0-139.0	25.8	1.9	6977.3	0.03	99.38
139.0-140.0	26.0	1.9	6979.2	0.03	99.41
140.0-141.0	26.2	1.8	6981.0	0.03	99.43
141.0-142.0	26.3	1.8	6982.8	0.03	99.46
142.0-143.0	26.5	1.8	6984.6	0.03	99.48
143.0-144.0	26.7	1.7	6986.3	0.02	99.51

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	26.8	1.7	6988.0	0.02	99.53
145.0-146.0	27.0	1.7	6989.7	0.02	99.56
146.0-147.0	27.2	1.6	6991.3	0.02	99.58
147.0-148.0	27.4	1.6	6993.0	0.02	99.60
148.0-149.0	27.5	1.6	6994.5	0.02	99.63
149.0-150.0	27.7	1.5	6996.1	0.02	99.65
150.0-151.0	27.9	1.5	6997.6	0.02	99.67
151.0-152.0	28.1	1.5	6999.0	0.02	99.69
152.0-153.0	28.2	1.4	7000.5	0.02	99.71
153.0-154.0	28.3	1.4	7001.9	0.02	99.73
154.0-155.0	28.5	1.3	7003.2	0.02	99.75
155.0-156.0	28.6	1.3	7004.5	0.02	99.77
156.0-157.0	28.8	1.3	7005.8	0.02	99.79
157.0-158.0	28.9	1.2	7007.0	0.02	99.80
158.0-159.0	29.1	1.2	7008.1	0.02	99.82
159.0-160.0	29.2	1.1	7009.3	0.02	99.84
160.0-161.0	29.3	1.1	7010.3	0.02	99.85
161.0-162.0	29.5	1.0	7011.4	0.01	99.87
162.0-163.0	29.6	1.0	7012.3	0.01	99.88
163.0-164.0	29.8	0.9	7013.3	0.01	99.89
164.0-165.0	29.9	0.9	7014.1	0.01	99.91
165.0-166.0	30.1	0.8	7015.0	0.01	99.92
166.0-167.0	30.2	0.8	7015.7	0.01	99.93
167.0-168.0	30.4	0.7	7016.5	0.01	99.94
168.0-169.0	30.6	0.7	7017.1	0.01	99.95
169.0-170.0	30.8	0.6	7017.8	0.01	99.96
170.0-171.0	30.9	0.6	7018.3	0.01	99.97
171.0-172.0	31.1	0.5	7018.8	0.01	99.97
172.0-173.0	31.3	0.4	7019.3	0.01	99.98
173.0-174.0	31.5	0.4	7019.7	0.01	99.98
174.0-175.0	31.7	0.3	7020.0	0.00	99.99
175.0-176.0	31.9	0.3	7020.3	0.00	99.99
176.0-177.0	32.1	0.2	7020.5	0.00	100.00
177.0-178.0	32.3	0.2	7020.6	0.00	100.00
178.0-179.0	32.5	0.1	7020.7	0.00	100.00
179.0-180.0	32.7	0.0	7020.8	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°): 3201.82 lm

%lum = 45.6%

%lamp = 45.6%

cone flux(120°): 4740.50 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	2129.7	2111.1	2099.7	2089.5	2080.5	2072.9	2129.7	2111.1	2099.7	2089.5
G1.0	2129.1	2111.2	2099.0	2089.1	2080.6	2072.0	2128.9	2110.0	2098.3	2088.7
G2.0	2129.3	2110.7	2098.5	2087.9	2078.9	2070.7	2126.6	2109.0	2096.7	2087.2
G3.0	2127.3	2109.3	2097.0	2085.6	2076.9	2068.5	2124.5	2106.2	2094.5	2084.5
G4.0	2125.4	2107.5	2094.3	2082.8	2073.7	2065.7	2122.4	2103.5	2090.7	2081.1
G5.0	2123.2	2105.2	2090.9	2079.2	2070.3	2062.7	2119.0	2100.4	2086.8	2076.4
G6.0	2120.4	2102.0	2086.9	2073.7	2064.9	2058.4	2114.1	2095.0	2081.3	2070.8
G7.0	2116.5	2098.0	2081.4	2068.1	2059.9	2053.8	2109.5	2090.5	2076.0	2065.2
G8.0	2112.4	2093.4	2076.1	2062.3	2054.4	2048.4	2104.0	2083.9	2068.5	2057.6
G9.0	2107.3	2087.5	2069.4	2054.2	2045.6	2042.8	2098.1	2078.3	2061.0	2049.8
G10.0	2102.0	2082.3	2061.6	2046.2	2038.7	2036.7	2091.9	2071.1	2053.0	2041.5
G11.0	2095.5	2074.9	2052.4	2036.1	2028.8	2028.6	2083.7	2063.0	2043.6	2031.1
G12.0	2088.1	2067.7	2044.0	2025.8	2019.8	2020.8	2076.7	2055.2	2034.0	2021.3
G13.0	2081.6	2059.6	2034.7	2015.8	2009.9	2012.2	2068.8	2046.7	2023.6	2010.0
G14.0	2073.2	2050.6	2023.0	2002.9	1998.0	2002.5	2059.3	2036.3	2010.5	1996.0
G15.0	2064.7	2041.6	2011.8	1990.0	1986.5	1992.5	2049.6	2026.5	1999.1	1984.2
G16.0	2055.2	2030.2	1998.8	1975.3	1972.6	1980.8	2039.1	2014.1	1984.8	1969.7
G17.0	2045.8	2020.0	1986.0	1962.0	1959.6	1969.7	2027.9	2002.4	1971.2	1954.7
G18.0	2035.5	2008.5	1972.3	1947.6	1945.1	1958.6	2017.3	1990.5	1957.5	1939.7
G19.0	2023.5	1995.8	1957.8	1930.0	1929.6	1945.1	2003.9	1976.4	1941.2	1921.8
G20.0	2012.6	1983.6	1942.6	1914.1	1914.7	1932.4	1991.8	1963.5	1925.2	1905.9
G21.0	2000.1	1970.7	1926.5	1897.0	1898.1	1918.2	1979.1	1949.6	1909.1	1888.8
G22.0	1987.2	1955.3	1908.7	1877.2	1880.8	1903.1	1964.5	1933.1	1890.4	1868.6
G23.0	1974.8	1941.9	1891.0	1859.6	1863.0	1887.6	1951.1	1917.8	1873.1	1849.8
G24.0	1959.1	1925.2	1871.9	1838.1	1844.0	1870.8	1935.3	1901.1	1852.8	1829.2
G25.0	1945.4	1909.8	1854.9	1817.9	1826.3	1854.7	1920.4	1884.1	1834.1	1809.2
G26.0	1931.4	1894.0	1835.3	1797.4	1806.3	1839.0	1904.6	1868.0	1815.0	1788.4
G27.0	1915.0	1876.6	1814.7	1775.2	1785.7	1819.6	1888.0	1848.6	1792.9	1765.1
G28.0	1899.6	1859.1	1793.5	1754.1	1764.6	1802.4	1870.7	1830.7	1771.8	1742.8
G29.0	1883.1	1840.8	1773.4	1731.1	1743.4	1785.1	1854.3	1812.8	1751.0	1720.9
G30.0	1865.1	1822.2	1751.0	1706.2	1720.7	1764.6	1834.4	1791.1	1727.2	1694.8
G31.0	1847.7	1803.0	1728.1	1681.8	1698.0	1745.6	1816.6	1772.2	1704.2	1672.1
G32.0	1828.8	1782.2	1703.8	1655.6	1673.3	1724.2	1797.3	1750.5	1679.6	1646.0
G33.0	1810.3	1762.7	1680.8	1630.7	1650.1	1704.2	1777.8	1730.1	1655.4	1620.4
G34.0	1792.4	1743.1	1657.8	1606.3	1626.9	1684.0	1758.0	1708.1	1630.6	1594.5
G35.0	1771.5	1719.6	1630.9	1579.0	1599.6	1661.0	1736.5	1684.7	1604.5	1566.2
G36.0	1752.5	1699.5	1607.1	1552.4	1575.8	1640.2	1714.8	1662.7	1579.1	1540.3

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 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	1732.1	1677.8	1581.8	1525.4	1550.2	1617.7	1692.3	1638.8	1551.8	1511.9
G38.0	1710.0	1653.9	1554.3	1496.6	1523.0	1594.6	1671.3	1615.4	1526.6	1485.4
G39.0	1688.1	1631.2	1528.2	1468.7	1496.6	1571.2	1648.8	1592.6	1499.9	1457.5
G40.0	1665.2	1606.7	1500.4	1439.5	1469.0	1545.3	1625.3	1567.5	1470.3	1428.2
G41.0	1643.2	1583.8	1473.5	1410.6	1441.9	1522.9	1602.4	1543.4	1444.7	1399.8
G42.0	1621.3	1560.5	1447.4	1383.0	1416.0	1498.6	1579.7	1519.7	1418.1	1372.0
G43.0	1597.6	1534.1	1417.4	1350.9	1386.0	1473.3	1553.8	1492.3	1387.9	1340.4
G44.0	1574.1	1510.5	1391.1	1323.3	1359.6	1448.7	1531.0	1467.8	1360.9	1312.1
G45.0	1550.6	1485.8	1363.0	1293.5	1330.8	1424.7	1505.2	1441.1	1331.3	1281.2
G46.0	1525.4	1459.4	1333.1	1262.4	1301.7	1397.4	1480.6	1415.3	1302.6	1251.2
G47.0	1500.7	1433.4	1304.1	1231.7	1272.8	1372.6	1457.0	1390.1	1275.1	1221.1
G48.0	1475.2	1406.7	1273.8	1199.9	1243.0	1344.7	1429.9	1361.5	1243.8	1189.2
G49.0	1449.8	1380.5	1245.0	1169.3	1213.6	1319.6	1406.4	1336.8	1214.4	1160.0
G50.0	1425.9	1355.2	1217.1	1139.9	1185.9	1293.6	1381.0	1310.0	1186.7	1129.4
G51.0	1399.0	1326.8	1185.2	1106.4	1154.1	1266.2	1354.4	1281.7	1156.4	1097.2
G52.0	1374.8	1300.0	1157.3	1075.2	1126.6	1239.9	1329.9	1255.0	1126.8	1066.2
G53.0	1349.5	1274.2	1127.8	1045.2	1097.4	1215.2	1301.7	1227.0	1095.7	1033.7
G54.0	1322.8	1246.5	1096.8	1010.9	1065.3	1186.5	1277.3	1200.4	1067.4	1002.0
G55.0	1297.0	1219.8	1066.8	980.9	1037.0	1161.5	1251.6	1174.8	1037.7	972.3
G56.0	1269.1	1190.3	1034.6	947.9	1006.0	1132.6	1222.8	1146.8	1005.6	938.1
G57.0	1244.5	1165.1	1006.3	916.3	976.6	1107.9	1198.1	1120.3	977.3	908.2
G58.0	1218.3	1138.0	976.7	884.6	947.1	1080.2	1173.6	1093.7	947.6	877.1
G59.0	1189.9	1108.7	944.0	850.3	914.8	1052.7	1145.2	1065.5	916.8	844.0
G60.0	1164.9	1083.3	915.6	819.1	887.0	1026.5	1118.9	1038.4	888.5	812.6
G61.0	1136.6	1054.3	883.6	785.9	855.3	999.2	1091.7	1010.8	856.2	779.7
G62.0	1110.5	1027.6	854.0	754.6	826.0	973.0	1066.7	985.4	828.4	750.2
G63.0	1085.5	1002.1	826.1	724.4	798.5	947.1	1041.0	959.0	799.1	718.7
G64.0	1058.3	972.9	793.9	691.8	766.9	920.1	1013.8	931.7	769.0	685.9
G65.0	1032.3	947.9	766.3	660.6	739.5	894.3	989.8	905.4	741.7	656.6
G66.0	1006.4	921.7	737.5	629.7	711.3	870.3	963.8	880.9	713.4	625.6
G67.0	979.7	894.4	707.9	597.6	682.0	842.5	937.4	854.1	684.6	593.6
G68.0	954.2	868.6	679.7	567.2	654.8	818.6	912.0	828.8	656.9	563.0
G69.0	927.8	841.6	651.2	535.3	626.7	791.8	885.9	802.4	628.6	531.7
G70.0	902.6	816.0	623.8	505.3	599.5	768.2	862.3	777.6	601.7	501.7
G71.0	877.6	791.1	598.2	476.8	573.4	743.9	837.8	754.0	576.5	473.3
G72.0	851.4	764.9	569.2	445.0	546.4	717.8	811.9	728.6	549.3	441.4
G73.0	827.0	740.5	543.2	415.7	520.8	695.2	787.8	704.6	523.8	413.8

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 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	803.8	717.3	518.7	388.2	496.8	671.9	765.3	681.8	500.0	386.6
G75.0	778.5	691.9	492.6	358.8	470.1	647.5	739.4	656.4	473.3	356.0
G76.0	754.6	668.5	467.9	331.3	447.1	625.0	717.4	633.5	449.5	329.9
G77.0	729.2	643.3	442.1	301.7	421.7	601.7	692.2	609.8	424.7	300.6
G78.0	707.4	621.4	419.6	276.3	400.2	579.8	670.6	587.8	402.1	275.4
G79.0	684.6	599.0	396.7	250.2	378.0	559.4	648.3	566.9	380.9	249.6
G80.0	661.1	576.0	373.8	223.9	355.6	536.3	624.3	543.4	357.6	221.9
G81.0	639.0	554.2	352.2	199.0	334.6	516.6	603.5	523.5	337.6	198.8
G82.0	618.1	533.0	332.1	176.0	315.4	496.3	581.6	501.3	315.4	173.0
G83.0	594.6	511.2	310.3	150.7	294.1	475.4	560.7	482.0	297.1	151.0
G84.0	574.3	491.6	291.8	129.2	275.4	456.0	540.3	462.3	278.5	128.7
G85.0	551.8	469.8	271.2	105.6	256.6	436.1	519.3	442.2	259.8	106.3
G86.0	531.5	450.5	253.5	86.1	239.4	417.5	499.6	423.5	242.3	85.7
G87.0	512.6	432.0	237.1	65.8	223.6	399.5	481.1	406.0	226.9	66.3
G88.0	491.5	411.9	219.0	44.9	206.5	381.0	460.7	386.5	209.6	45.6
G89.0	473.1	394.5	203.8	28.5	191.8	364.1	443.0	369.9	195.0	29.3
G90.0	454.1	376.4	188.6	16.6	177.4	347.8	423.9	351.4	179.4	21.3
G91.0	435.3	358.2	173.0	15.2	162.7	330.6	405.9	335.5	166.4	20.0
G92.0	417.9	341.8	159.8	14.2	150.1	314.7	388.9	319.3	153.4	18.9
G93.0	398.4	323.5	144.9	13.3	136.5	298.3	371.3	303.0	140.4	17.9
G94.0	381.5	307.8	132.0	12.5	125.3	283.4	355.0	288.0	128.8	17.0
G95.0	364.2	292.0	120.5	11.7	113.2	269.5	339.5	274.1	118.4	16.1
G96.0	345.9	275.7	107.8	11.0	100.4	254.2	322.4	258.6	107.4	15.3
G97.0	330.3	260.9	98.4	10.5	90.9	240.6	308.2	245.6	98.7	14.6
G98.0	314.5	246.5	89.7	10.1	83.7	228.3	292.1	231.1	89.7	14.0
G99.0	298.2	231.7	81.6	9.9	76.2	214.4	278.6	218.4	82.8	13.6
G100.0	283.3	218.3	74.3	9.8	68.2	202.9	264.7	206.7	75.7	13.3
G101.0	268.2	204.9	67.8	10.0	61.8	190.3	250.9	194.3	68.5	12.8
G102.0	254.0	193.4	61.9	10.4	57.5	180.1	238.0	184.1	62.8	12.5
G103.0	241.3	183.3	56.1	10.6	53.5	170.2	226.4	173.7	57.2	12.4
G104.0	228.1	172.4	48.8	11.0	48.3	159.9	214.1	163.7	51.8	12.5
G105.0	216.9	162.6	42.8	11.4	42.7	150.4	203.1	154.3	47.1	12.6
G106.0	205.5	153.0	37.9	11.7	38.7	140.3	192.1	145.0	42.8	12.9
G107.0	194.9	144.0	34.6	12.1	35.2	131.8	181.8	136.4	38.5	13.3
G108.0	185.1	135.8	33.0	12.5	31.6	123.5	172.6	128.2	34.5	13.6
G109.0	174.2	127.0	30.6	12.8	27.4	115.4	162.1	120.2	30.2	14.0
G110.0	165.3	119.4	27.4	13.1	23.8	108.1	153.7	113.0	26.9	14.3

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 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	156.1	111.8	24.1	13.5	22.1	101.5	145.1	105.9	24.2	14.8
G112.0	146.9	104.2	21.1	14.0	20.1	94.3	136.0	98.4	21.5	15.0
G113.0	138.4	96.5	19.2	14.2	18.4	88.1	128.5	91.8	20.4	15.4
G114.0	130.0	88.5	17.8	14.6	18.2	81.2	120.1	83.0	20.1	15.7
G115.0	122.5	81.3	17.5	14.9	18.4	72.9	112.8	75.6	20.3	16.0
G116.0	115.0	75.0	17.6	15.2	18.5	66.5	105.5	69.8	20.3	16.4
G117.0	106.9	66.2	17.9	15.5	18.8	60.3	98.0	63.8	20.7	16.7
G118.0	99.8	61.1	18.1	15.9	19.0	55.2	91.3	58.6	20.7	17.0
G119.0	92.6	57.0	18.4	16.3	19.2	50.8	85.1	53.9	21.1	17.3
G120.0	86.0	53.0	18.6	16.6	19.6	46.6	78.2	49.2	21.1	17.7
G121.0	79.3	48.4	19.0	17.0	19.8	42.8	72.4	44.7	21.1	18.0
G122.0	73.2	43.7	19.2	17.4	20.1	39.1	66.6	40.7	21.5	18.4
G123.0	67.8	40.1	19.6	17.7	20.2	35.7	60.8	36.8	21.6	18.8
G124.0	62.9	36.5	19.8	18.1	20.5	32.2	55.8	33.4	21.9	19.2
G125.0	57.0	32.9	20.2	18.6	20.9	29.1	50.4	30.3	22.1	19.6
G126.0	52.1	30.0	20.4	19.0	21.1	26.9	45.8	28.3	22.3	19.9
G127.0	47.2	27.6	20.7	19.4	21.1	25.7	41.5	27.4	22.5	20.3
G128.0	42.7	25.7	21.1	19.7	21.1	25.4	37.6	27.3	22.7	20.7
G129.0	38.5	25.2	21.1	20.1	21.4	25.7	34.1	27.4	22.9	21.2
G130.0	34.7	25.3	21.1	20.5	21.6	25.8	31.4	27.4	23.1	21.3
G131.0	31.7	25.4	21.4	20.8	21.9	25.9	30.4	27.5	23.3	21.5
G132.0	29.5	25.5	21.8	21.2	22.1	26.0	30.2	27.7	23.4	21.8
G133.0	28.6	25.7	22.1	21.2	22.3	26.1	30.3	27.8	23.8	22.1
G134.0	28.4	25.8	22.2	21.7	22.6	25.8	30.3	27.9	23.9	22.5
G135.0	28.5	26.0	22.5	22.0	22.8	26.2	30.4	28.0	24.0	22.8
G136.0	28.6	26.1	22.7	22.4	23.0	26.4	30.4	28.3	24.3	23.1
G137.0	28.6	26.3	23.0	22.7	23.1	26.4	30.5	28.2	24.5	23.3
G138.0	28.7	26.4	23.2	22.9	23.3	26.2	30.5	28.2	24.6	23.7
G139.0	28.8	26.5	23.4	23.3	23.5	26.7	30.5	28.4	24.8	23.9
G140.0	28.8	26.7	23.7	23.5	23.6	26.9	30.6	28.5	25.0	24.1
G141.0	28.9	26.8	24.0	23.9	23.8	27.0	30.6	28.5	25.1	24.5
G142.0	28.9	26.9	24.1	24.0	24.0	27.2	30.6	28.8	25.3	24.8
G143.0	29.0	27.1	24.4	24.5	24.1	27.4	30.7	28.8	25.5	25.0
G144.0	29.1	27.2	24.6	24.8	24.3	27.5	30.8	28.9	25.7	25.4
G145.0	29.1	27.3	24.9	25.0	24.6	27.6	30.8	29.1	25.9	25.7
G146.0	29.2	27.5	25.1	25.4	24.8	27.8	30.8	29.1	26.3	26.0
G147.0	29.2	27.6	25.4	25.6	25.0	27.9	30.8	29.1	26.4	26.3

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 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	29.3	27.7	25.6	26.0	25.2	28.0	30.8	29.2	26.7	26.5
G149.0	29.3	27.9	26.0	26.3	25.6	28.1	30.9	29.1	26.9	26.8
G150.0	29.3	28.1	26.1	26.6	25.8	28.0	30.9	29.2	27.3	27.1
G151.0	29.4	28.2	26.5	27.0	26.1	28.2	30.9	29.4	27.5	27.5
G152.0	29.4	28.2	26.7	27.3	26.4	28.2	30.9	29.3	27.8	27.8
G153.0	29.4	28.2	26.9	27.5	26.7	28.2	30.9	29.4	28.0	28.1
G154.0	29.4	28.2	27.1	27.9	26.9	28.4	30.9	29.3	28.3	28.5
G155.0	29.5	28.4	27.4	28.1	27.1	28.3	30.8	29.3	28.4	28.6
G156.0	29.5	28.5	27.6	28.5	27.4	28.4	30.9	29.4	28.6	28.9
G157.0	29.5	28.6	27.9	28.7	27.7	28.4	31.0	29.4	28.9	29.0
G158.0	29.7	28.7	28.0	29.0	28.0	28.4	30.9	29.4	29.1	29.3
G159.0	29.7	28.8	28.4	29.2	28.3	28.5	30.9	29.4	29.3	29.6
G160.0	29.6	29.0	28.4	29.4	28.4	28.6	31.0	29.5	29.4	29.8
G161.0	29.8	29.1	28.6	29.7	28.6	28.7	31.0	29.8	29.5	30.1
G162.0	29.8	29.2	28.8	30.0	28.7	28.9	31.1	29.8	29.7	30.3
G163.0	30.0	29.4	29.0	30.2	28.9	29.0	31.2	30.0	29.8	30.5
G164.0	30.0	29.5	29.2	30.4	29.1	29.2	31.2	30.2	30.0	30.7
G165.0	30.1	29.6	29.4	30.6	29.3	29.4	31.4	30.4	30.2	30.9
G166.0	30.1	29.8	29.6	31.0	29.4	29.5	31.5	30.5	30.3	31.0
G167.0	30.3	29.9	29.8	31.1	29.7	29.7	31.5	30.8	30.5	31.1
G168.0	30.4	30.0	30.0	31.3	29.9	29.8	31.7	30.9	30.8	31.4
G169.0	30.6	30.1	30.2	31.5	30.2	29.9	31.8	31.0	30.9	31.6
G170.0	30.8	30.3	30.5	31.7	30.5	30.0	31.9	31.1	31.2	31.7
G171.0	30.9	30.5	30.7	31.8	30.6	30.1	32.1	31.3	31.3	32.0
G172.0	31.0	30.6	30.9	32.1	31.0	30.3	32.1	31.4	31.6	32.1
G173.0	31.2	30.8	31.3	32.1	31.3	30.4	32.3	31.5	31.8	32.3
G174.0	31.3	31.0	31.6	32.4	31.5	30.6	32.4	31.6	32.1	32.3
G175.0	31.5	31.3	31.9	32.4	31.8	31.1	32.8	31.8	32.2	32.5
G176.0	31.6	31.6	32.1	32.5	32.1	31.4	32.9	32.1	32.4	32.6
G177.0	31.9	32.0	32.3	32.7	32.2	31.6	32.7	32.4	32.7	32.7
G178.0	32.1	32.3	32.5	32.7	32.2	32.0	32.8	32.7	32.8	32.8
G179.0	32.8	32.5	32.7	32.8	32.3	32.1	33.4	32.8	32.9	32.9
G180.0	33.0	32.8	32.8	32.8	32.3	32.2	33.3	32.9	32.9	32.9

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 5)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G0.0	2080.5	2072.9	2129.7							
G1.0	2080.1	2073.0	2129.1							
G2.0	2078.7	2072.4	2129.3							
G3.0	2076.1	2070.9	2127.3							
G4.0	2074.3	2068.7	2125.4							
G5.0	2071.1	2065.9	2123.2							
G6.0	2065.4	2061.8	2120.4							
G7.0	2059.9	2057.9	2116.5							
G8.0	2053.4	2052.9	2112.4							
G9.0	2046.7	2047.5	2107.3							
G10.0	2039.3	2041.6	2102.0							
G11.0	2030.5	2034.3	2095.5							
G12.0	2020.8	2027.3	2088.1							
G13.0	2010.9	2019.1	2081.6							
G14.0	1999.4	2010.1	2073.2							
G15.0	1988.3	2000.3	2064.7							
G16.0	1974.7	1990.1	2055.2							
G17.0	1961.9	1979.2	2045.8							
G18.0	1948.3	1968.9	2035.5							
G19.0	1932.8	1956.0	2023.5							
G20.0	1917.5	1942.8	2012.6							
G21.0	1902.2	1930.9	2000.1							
G22.0	1883.5	1915.6	1987.2							
G23.0	1867.7	1901.9	1974.8							
G24.0	1848.1	1886.0	1959.1							
G25.0	1829.3	1871.3	1945.4							
G26.0	1810.5	1854.3	1931.4							
G27.0	1789.6	1837.3	1915.0							
G28.0	1768.7	1820.1	1899.6							
G29.0	1748.5	1803.3	1883.1							
G30.0	1724.6	1783.9	1865.1							
G31.0	1703.3	1764.6	1847.7							
G32.0	1679.1	1744.9	1828.8							
G33.0	1655.0	1724.7	1810.3							
G34.0	1631.8	1704.3	1792.4							
G35.0	1606.1	1682.0	1771.5							
G36.0	1581.4	1662.3	1752.5							

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 6)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G37.0	1554.2	1638.6	1732.1							
G38.0	1530.3	1617.6	1710.0							
G39.0	1504.0	1595.1	1688.1							
G40.0	1476.7	1571.0	1665.2							
G41.0	1449.9	1547.7	1643.2							
G42.0	1423.7	1525.2	1621.3							
G43.0	1394.0	1500.3	1597.6							
G44.0	1367.4	1475.9	1574.1							
G45.0	1338.1	1449.7	1550.6							
G46.0	1310.3	1426.1	1525.4							
G47.0	1281.9	1401.1	1500.7							
G48.0	1252.1	1373.2	1475.2							
G49.0	1224.5	1348.9	1449.8							
G50.0	1195.7	1323.1	1425.9							
G51.0	1165.4	1295.7	1399.0							
G52.0	1136.2	1270.6	1374.8							
G53.0	1105.8	1242.1	1349.5							
G54.0	1077.8	1217.0	1322.8							
G55.0	1048.5	1190.7	1297.0							
G56.0	1016.6	1163.3	1269.1							
G57.0	988.6	1137.2	1244.5							
G58.0	960.8	1112.0	1218.3							
G59.0	928.6	1083.5	1189.9							
G60.0	899.4	1058.7	1164.9							
G61.0	868.7	1031.0	1136.6							
G62.0	840.9	1004.7	1110.5							
G63.0	812.3	979.6	1085.5							
G64.0	781.8	951.3	1058.3							
G65.0	753.0	926.8	1032.3							
G66.0	726.0	901.5	1006.4							
G67.0	696.7	874.8	979.7							
G68.0	669.0	850.8	954.2							
G69.0	640.7	823.5	927.8							
G70.0	613.6	799.7	902.6							
G71.0	588.3	774.8	877.6							
G72.0	559.7	749.3	851.4							
G73.0	535.1	725.2	827.0							

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 7)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G74.0	511.0	702.5	803.8							
G75.0	484.0	677.1	778.5							
G76.0	459.9	655.1	754.6							
G77.0	435.0	630.3	729.2							
G78.0	412.9	609.1	707.4							
G79.0	390.5	587.0	684.6							
G80.0	366.5	564.3	661.1							
G81.0	346.2	543.2	639.0							
G82.0	324.7	521.5	618.1							
G83.0	304.9	501.0	594.6							
G84.0	285.8	481.9	574.3							
G85.0	266.8	460.8	551.8							
G86.0	249.1	442.5	531.5							
G87.0	232.9	423.9	512.6							
G88.0	215.2	404.8	491.5							
G89.0	200.2	386.6	473.1							
G90.0	183.9	368.6	454.1							
G91.0	170.4	351.6	435.3							
G92.0	157.3	335.7	417.9							
G93.0	142.8	317.8	398.4							
G94.0	130.4	302.4	381.5							
G95.0	119.0	286.9	364.2							
G96.0	106.9	270.9	345.9							
G97.0	98.0	256.3	330.3							
G98.0	88.5	241.4	314.5							
G99.0	81.0	227.8	298.2							
G100.0	73.7	215.0	283.3							
G101.0	66.5	201.8	268.2							
G102.0	60.2	190.7	254.0							
G103.0	54.2	181.1	241.3							
G104.0	48.6	170.3	228.1							
G105.0	43.9	161.3	216.9							
G106.0	40.2	151.2	205.5							
G107.0	36.7	142.8	194.9							
G108.0	33.5	134.3	185.1							
G109.0	30.2	126.1	174.2							
G110.0	27.1	118.5	165.3							

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.010 m

Humidity:

Inspector:

## Candlepower Table (Continue 8)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G111.0	24.5	111.1	156.1							
G112.0	21.7	103.8	146.9							
G113.0	20.0	97.1	138.4							
G114.0	18.7	90.2	130.0							
G115.0	18.5	84.2	122.5							
G116.0	18.6	77.7	115.0							
G117.0	18.8	69.8	106.9							
G118.0	19.0	64.2	99.8							
G119.0	19.1	59.2	92.6							
G120.0	19.5	53.8	86.0							
G121.0	19.7	49.5	79.3							
G122.0	20.0	44.9	73.2							
G123.0	20.2	41.1	67.8							
G124.0	20.5	37.5	62.9							
G125.0	20.8	33.9	57.0							
G126.0	21.0	30.9	52.1							
G127.0	21.0	28.4	47.2							
G128.0	21.3	26.8	42.7							
G129.0	21.6	26.3	38.5							
G130.0	21.9	26.2	34.7							
G131.0	22.1	26.2	31.7							
G132.0	22.2	26.2	29.5							
G133.0	22.6	26.4	28.6							
G134.0	22.7	26.5	28.4							
G135.0	23.0	26.5	28.5							
G136.0	23.2	26.7	28.6							
G137.0	23.4	26.8	28.6							
G138.0	23.7	26.9	28.7							
G139.0	23.9	27.0	28.8							
G140.0	24.1	27.1	28.8							
G141.0	24.4	27.3	28.9							
G142.0	24.6	27.4	28.9							
G143.0	24.9	27.6	29.0							
G144.0	25.2	27.7	29.1							
G145.0	25.4	27.8	29.1							
G146.0	25.7	27.9	29.2							
G147.0	25.9	28.0	29.2							

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	26.2	28.1	29.3							
G149.0	26.3	28.3	29.3							
G150.0	26.6	28.4	29.3							
G151.0	26.8	28.4	29.4							
G152.0	27.0	28.4	29.4							
G153.0	27.3	28.5	29.4							
G154.0	27.5	28.6	29.4							
G155.0	27.6	28.6	29.5							
G156.0	27.9	28.7	29.5							
G157.0	28.1	28.8	29.5							
G158.0	28.3	28.9	29.7							
G159.0	28.5	29.1	29.7							
G160.0	28.5	29.1	29.6							
G161.0	28.8	29.2	29.8							
G162.0	28.9	29.3	29.8							
G163.0	29.2	29.4	30.0							
G164.0	29.3	29.5	30.0							
G165.0	29.4	29.6	30.1							
G166.0	29.7	29.7	30.1							
G167.0	29.8	29.8	30.3							
G168.0	29.9	29.9	30.4							
G169.0	30.1	30.1	30.6							
G170.0	30.4	30.1	30.8							
G171.0	30.5	30.3	30.9							
G172.0	30.7	30.4	31.0							
G173.0	31.0	30.6	31.2							
G174.0	31.3	30.7	31.3							
G175.0	31.7	30.9	31.5							
G176.0	31.8	31.4	31.6							
G177.0	32.0	31.6	31.9							
G178.0	32.3	32.0	32.1							
G179.0	32.4	32.1	32.8							
G180.0	32.4	32.3	33.0							

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:

## LED Average Luminance Report

Avg.L	cd/m <sup>2</sup>
L 0-180(65) av	19935.64
L 0-180(75) av	24436.64
L 0-180(85) av	51208.64
L 90-270(65) av	12986.31
L 90-270(75) av	11507.88
L 90-270(85) av	10130.81
L 45(65) av	16452.54
L 45(75) av	18485.25
L 45(85) av	34221.92

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