

Report No.:

Test Time: 2023-07-31 11:33

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog: LED

Number of Lamps:

Luminous Length (mm): 1191

Luminous Height (mm): 40

Current: 0.475 A

Power Factor: 0.994

Luminaire Description:

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 66

Voltage: 119.7 V

Power: 56.51 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 7768.5 lm

Downward Ratio: 93%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 209.4, 160.9, 188.4, 187.3

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 125.6, 105.5, 115.0, 114.7

Luminous Efficacy (lm/w): 137.47

Max. Intensity: 2330.78 cd

S/MH(C0/C180): 1.29

Total Rated Lamp Lumens: 7768.5 lm

Efficiency: 100%

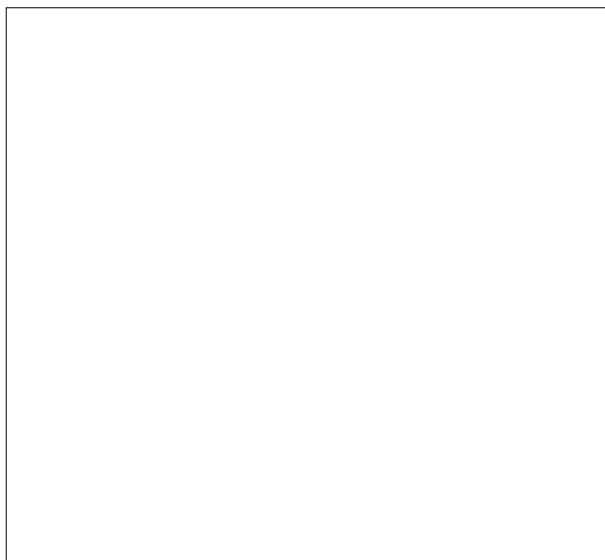
Upward Ratio: 7%

C0r0 Intensity: 2326.41 cd

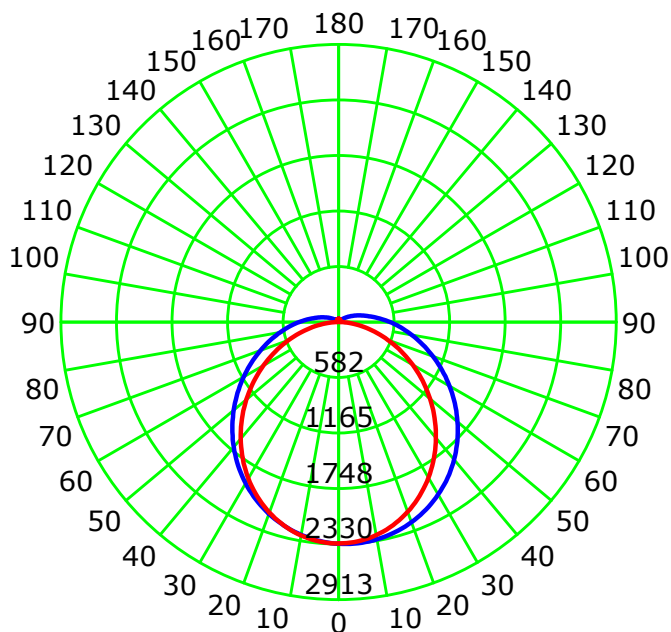
Pos of Max. Intensity: H0 V3

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

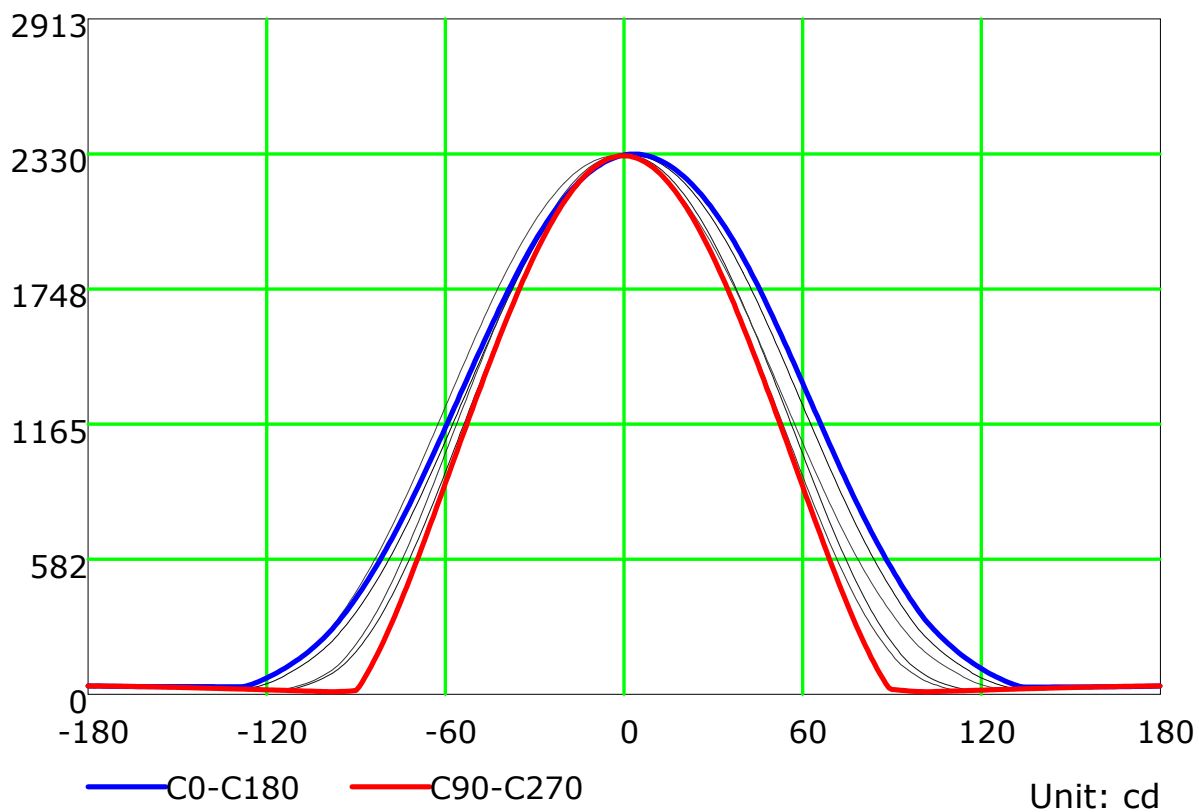
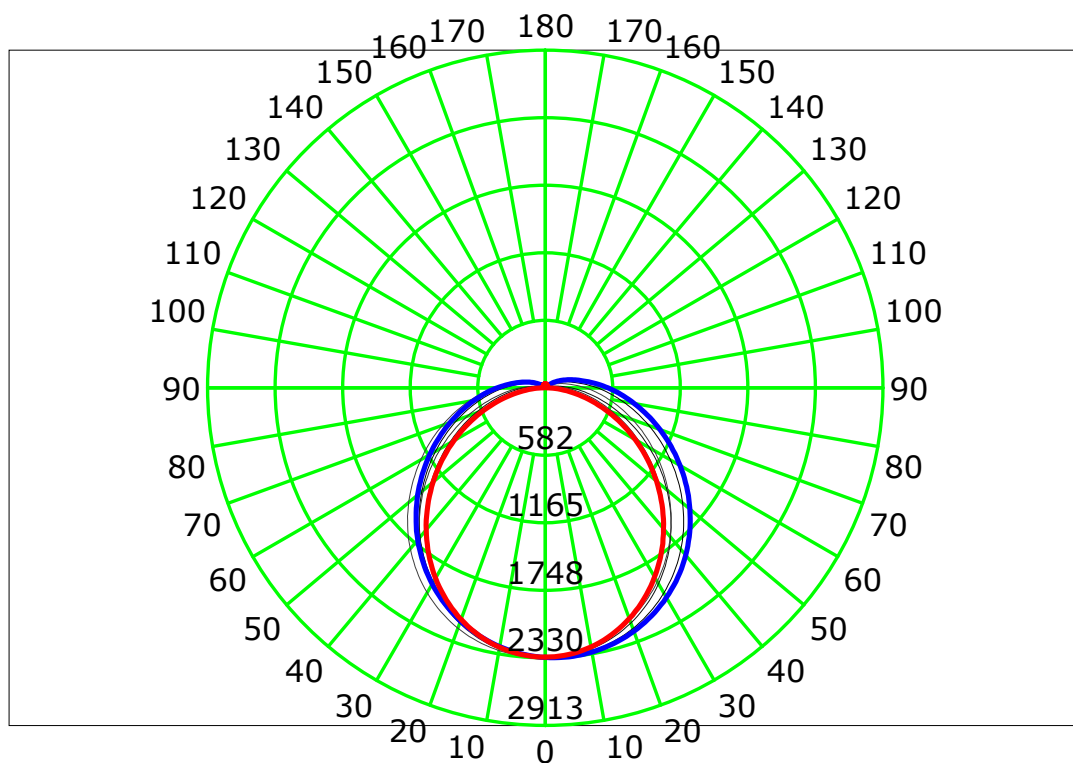
Test Device: GPM-1600L

Distance: 9.010 m

Humidity:

Inspector:

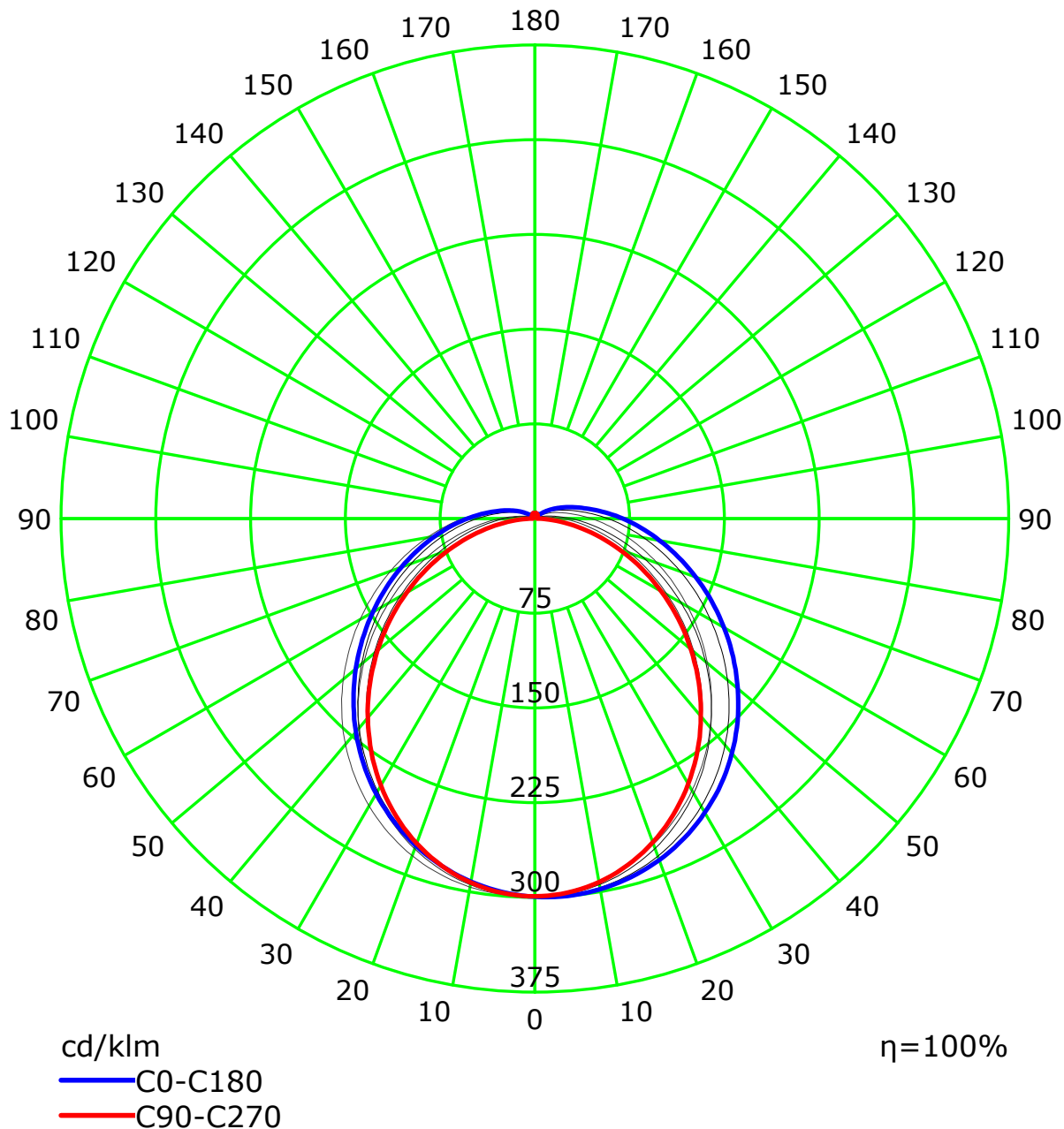
## Luminous Intensity Distribution Curve



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)



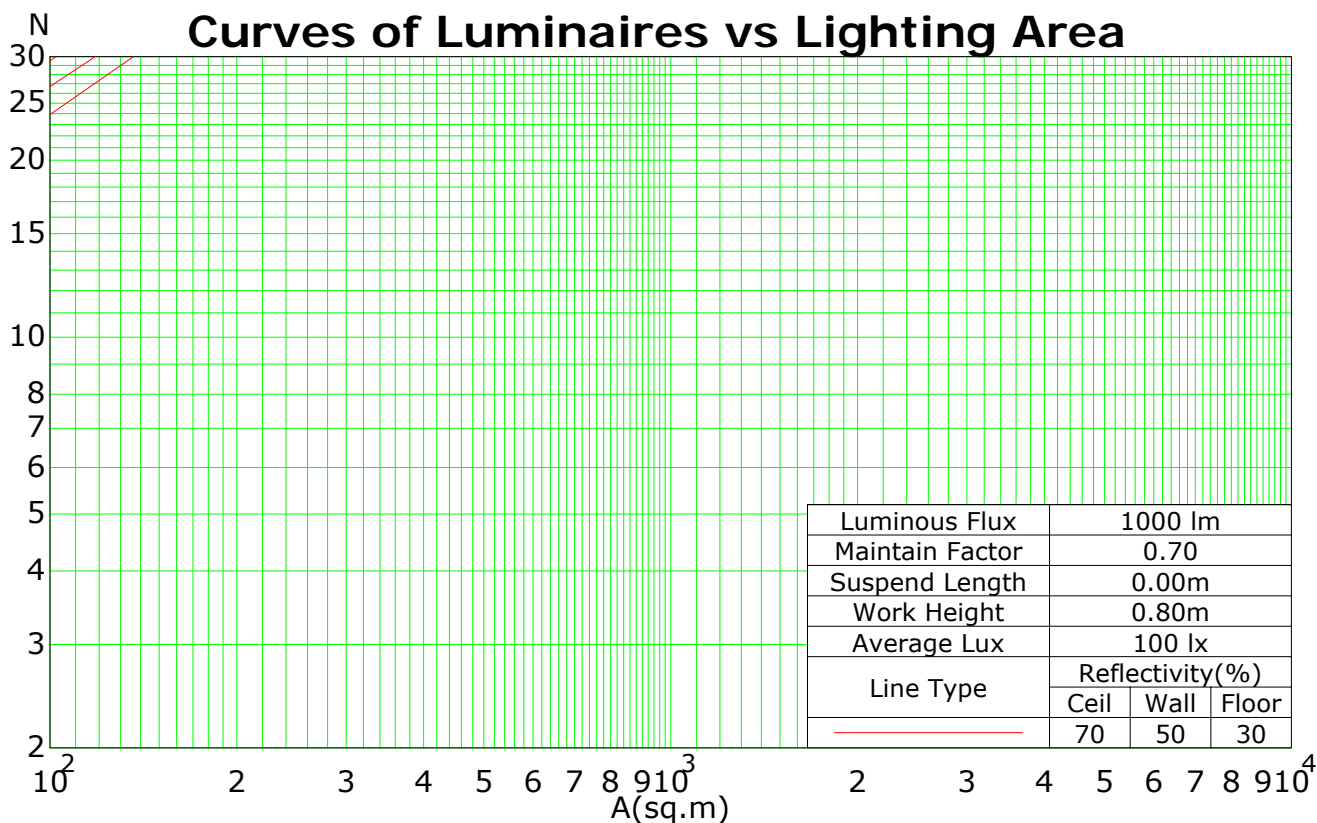
C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

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	0.66	0.60	0.55	0.62	0.57	0.53	0.51
4	0.79	0.67	0.57	0.50	0.76	0.65	0.56	0.50	0.61	0.54	0.48	0.58	0.52	0.47	0.55	0.50	0.45	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	0.46	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	0.31	0.28
8	0.58	0.44	0.35	0.29	0.56	0.43	0.35	0.29	0.41	0.34	0.28	0.39	0.33	0.28	0.38	0.32	0.27	0.25
9	0.54	0.40	0.32	0.26	0.52	0.39	0.31	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	0.27	0.22	0.21

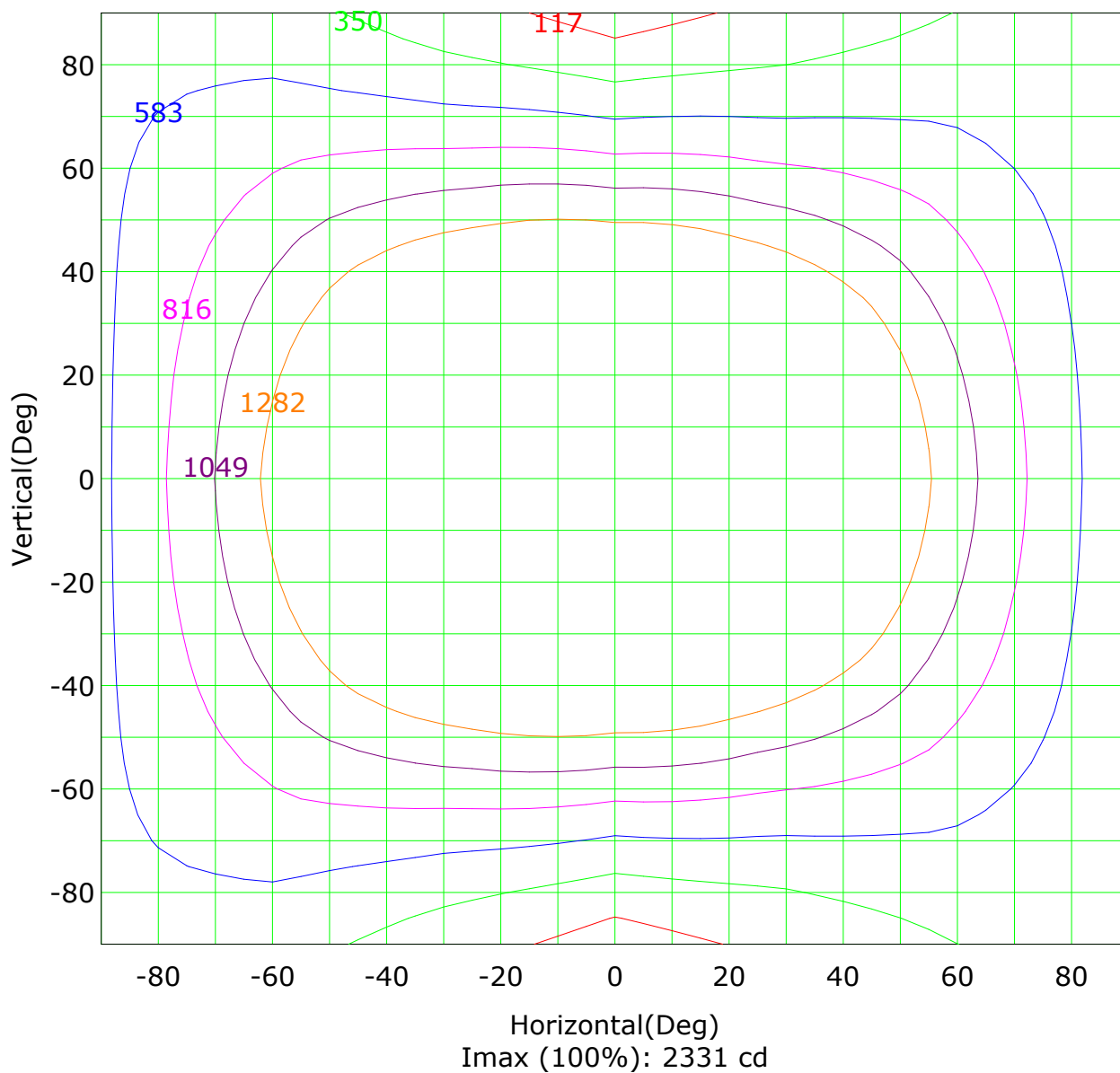
Spacing Criteria (0-180): 1.29  
Spacing Criteria (90-270): 1.21  
Spacing Criteria (Diagonal): 1.37



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)

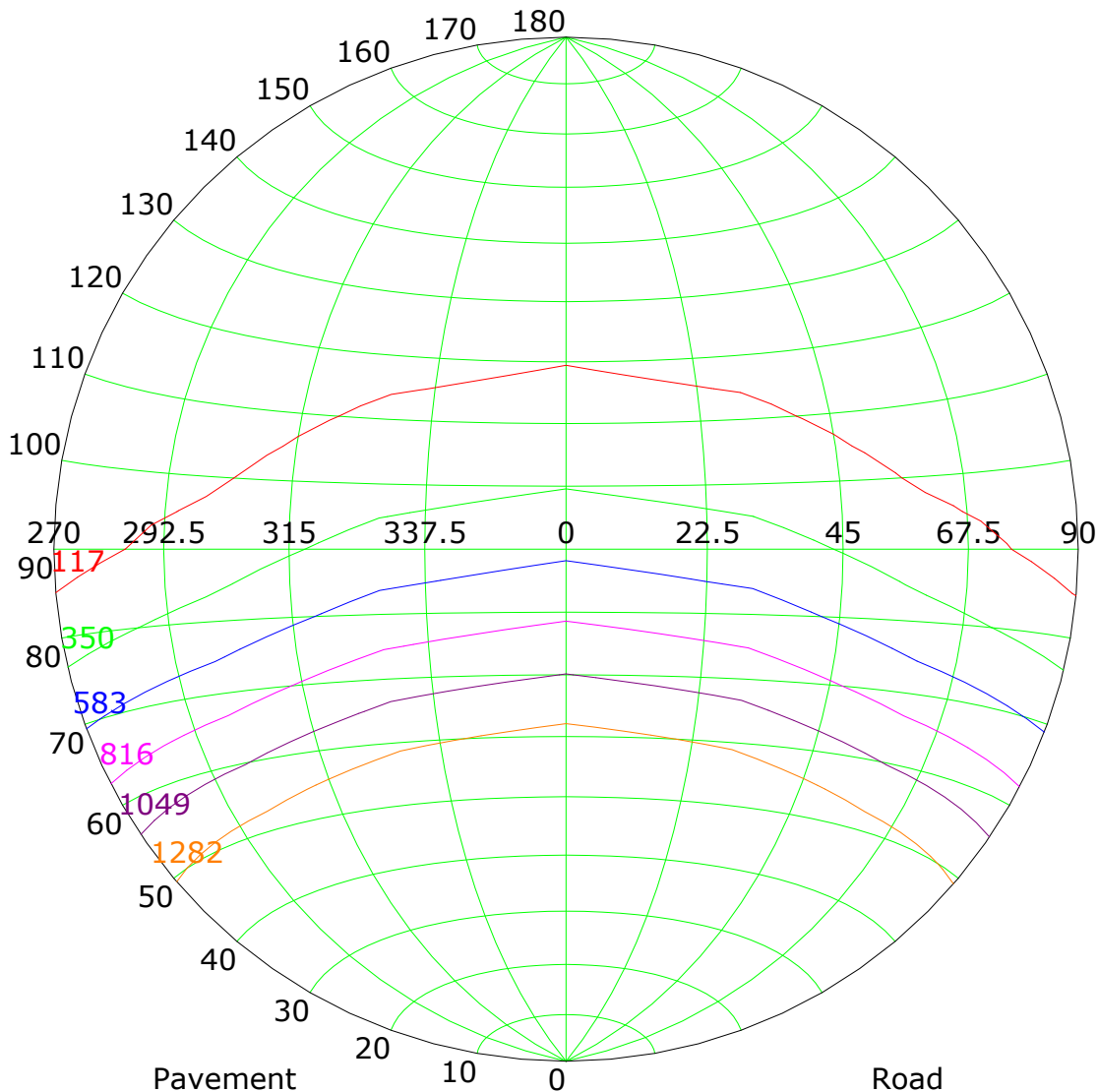


( 5%): 117 cd	( 15%): 350 cd
( 25%): 583 cd	( 35%): 816 cd
( 45%): 1049 cd	( 55%): 1282 cd

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%): 2331 cd

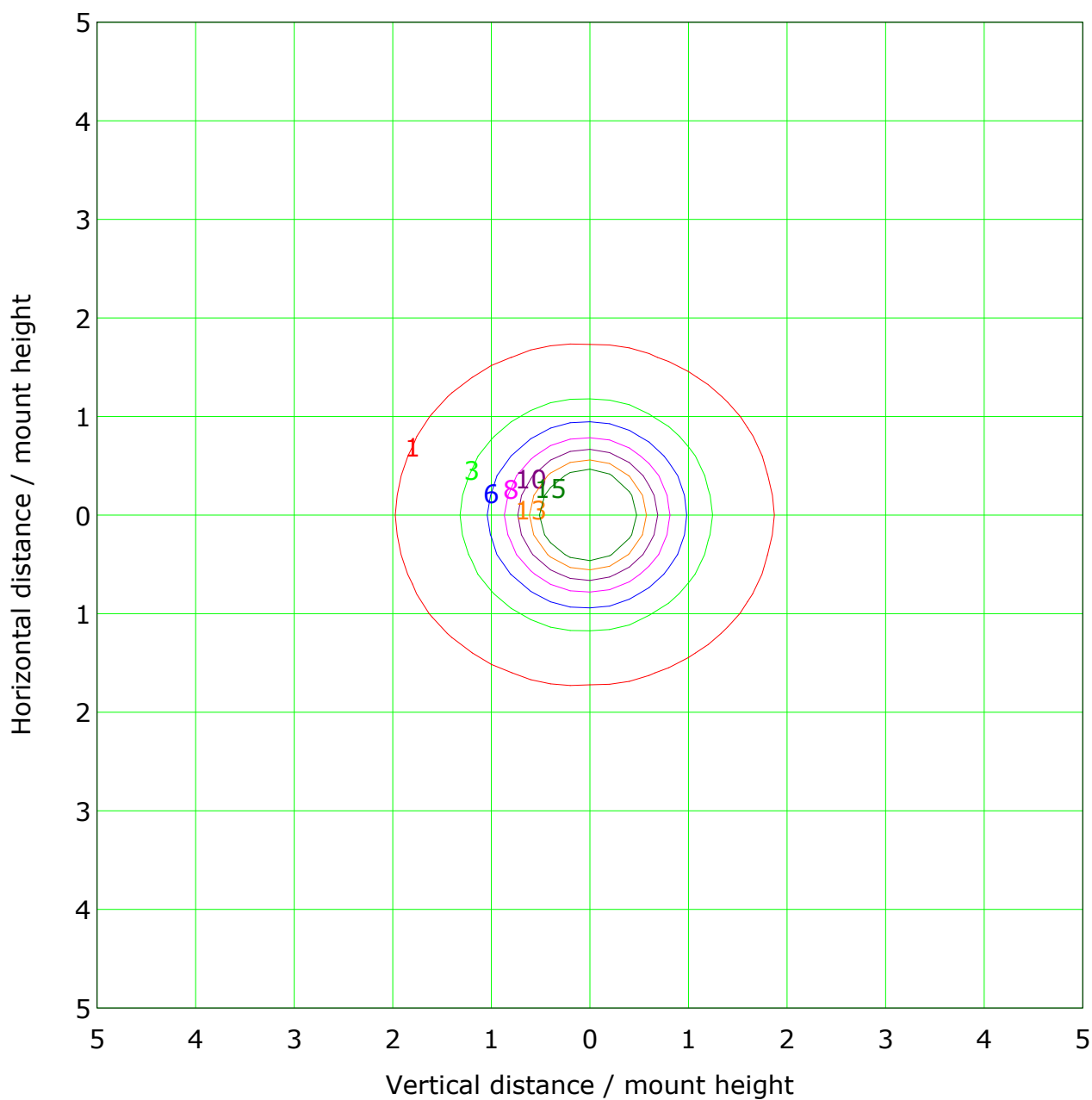
( 5%): 117 cd  
( 25%): 583 cd  
( 45%): 1049 cd

( 15%): 350 cd  
( 35%): 816 cd  
( 55%): 1282 cd

CIE: narrow - short  
CIE: Non-cut-off luminaire  
Max.At90: 69.679 cd/klm

IES: Non-cut-off  
Max.At80: 100.115 cd/klm  
Max.80-90: 100.115 cd/klm

## IsoLux Plot



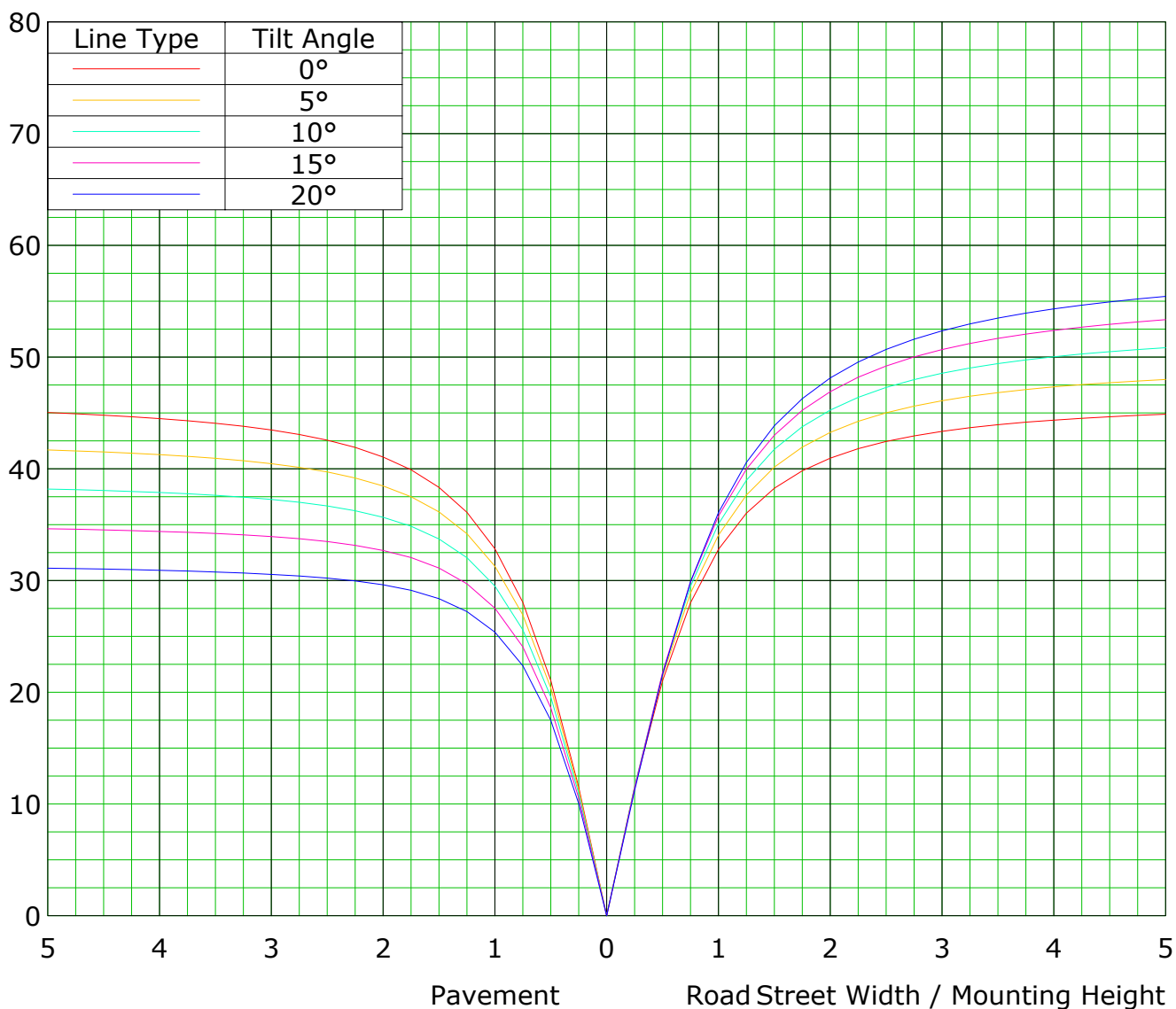
Mounting Height: 10.0m		Max Lux(100%): 23.3 lx	
— ( 5%):	1.2 lx	— ( 15%):	3.5 lx
— ( 25%):	5.8 lx	— ( 35%):	8.1 lx
— ( 45%):	10.5 lx	— ( 55%):	12.8 lx
— ( 65%):	15.1 lx		

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(%)



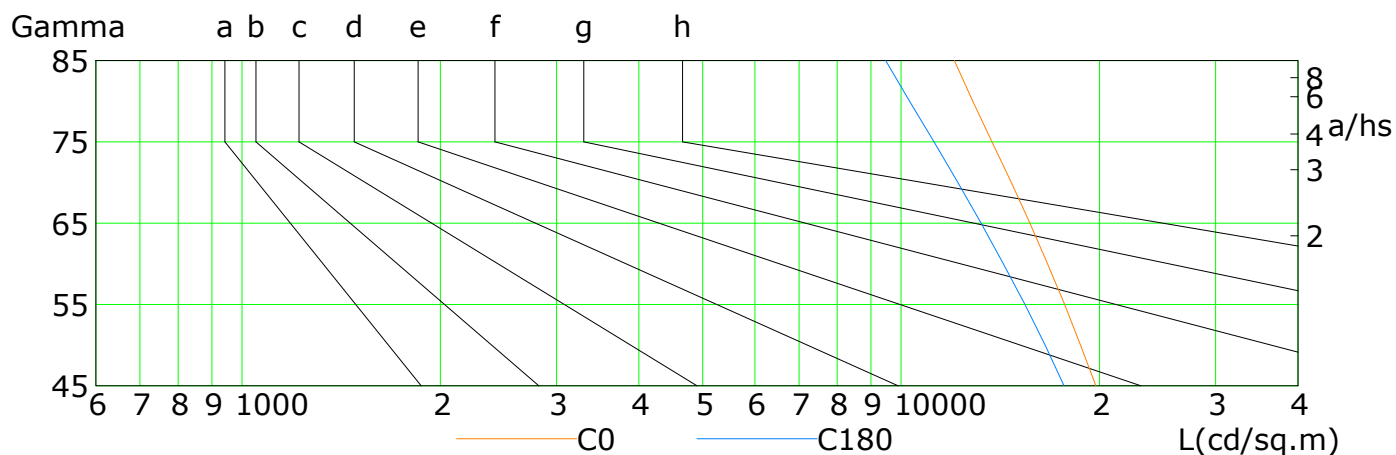
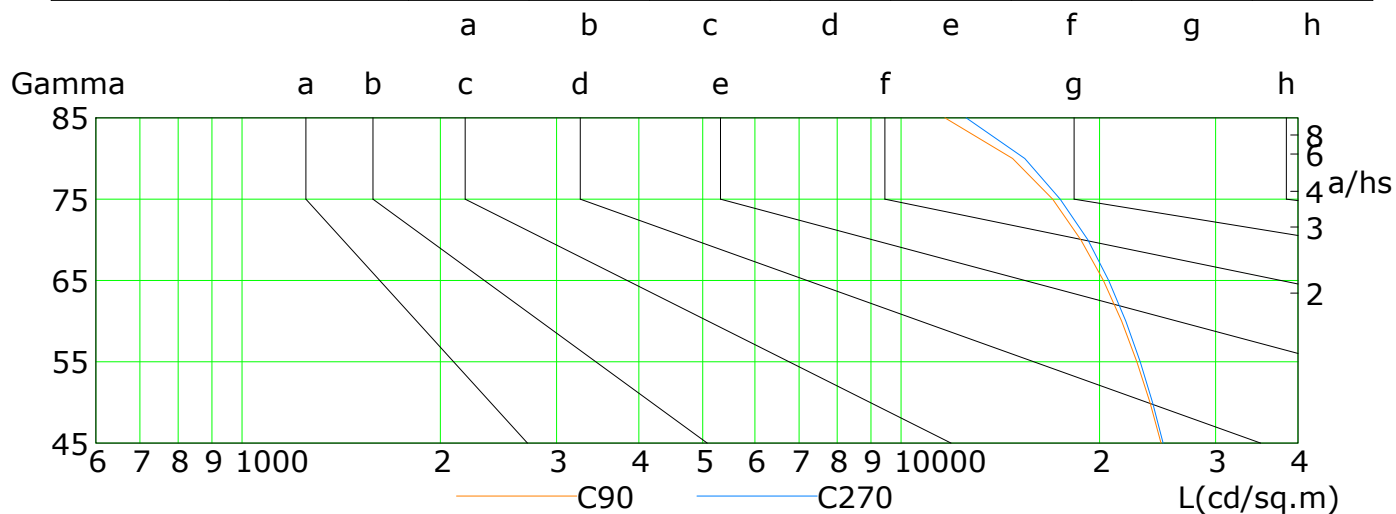
C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator:

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	19749	18715	17701	16672	15681	14695	13737	12841	12047
C90	24791	23846	22786	21607	20274	18734	16975	14762	11650
C180	17668	16537	15408	14294	13220	12191	11216	10296	9475
C270	24968	24070	23050	21919	20648	19198	17433	15399	12553

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

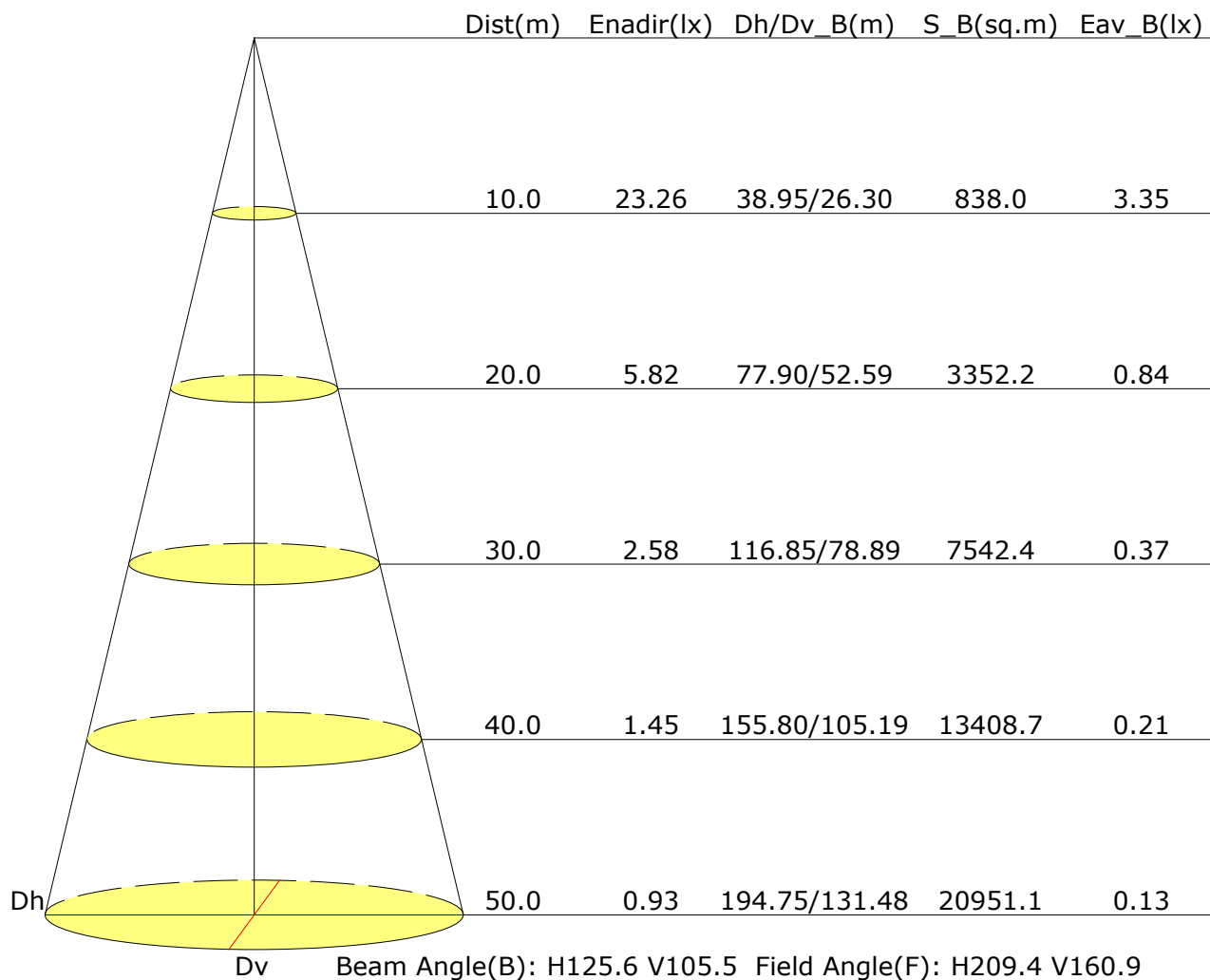
Test Device: GPM-1600L

Distance: 9.010 m

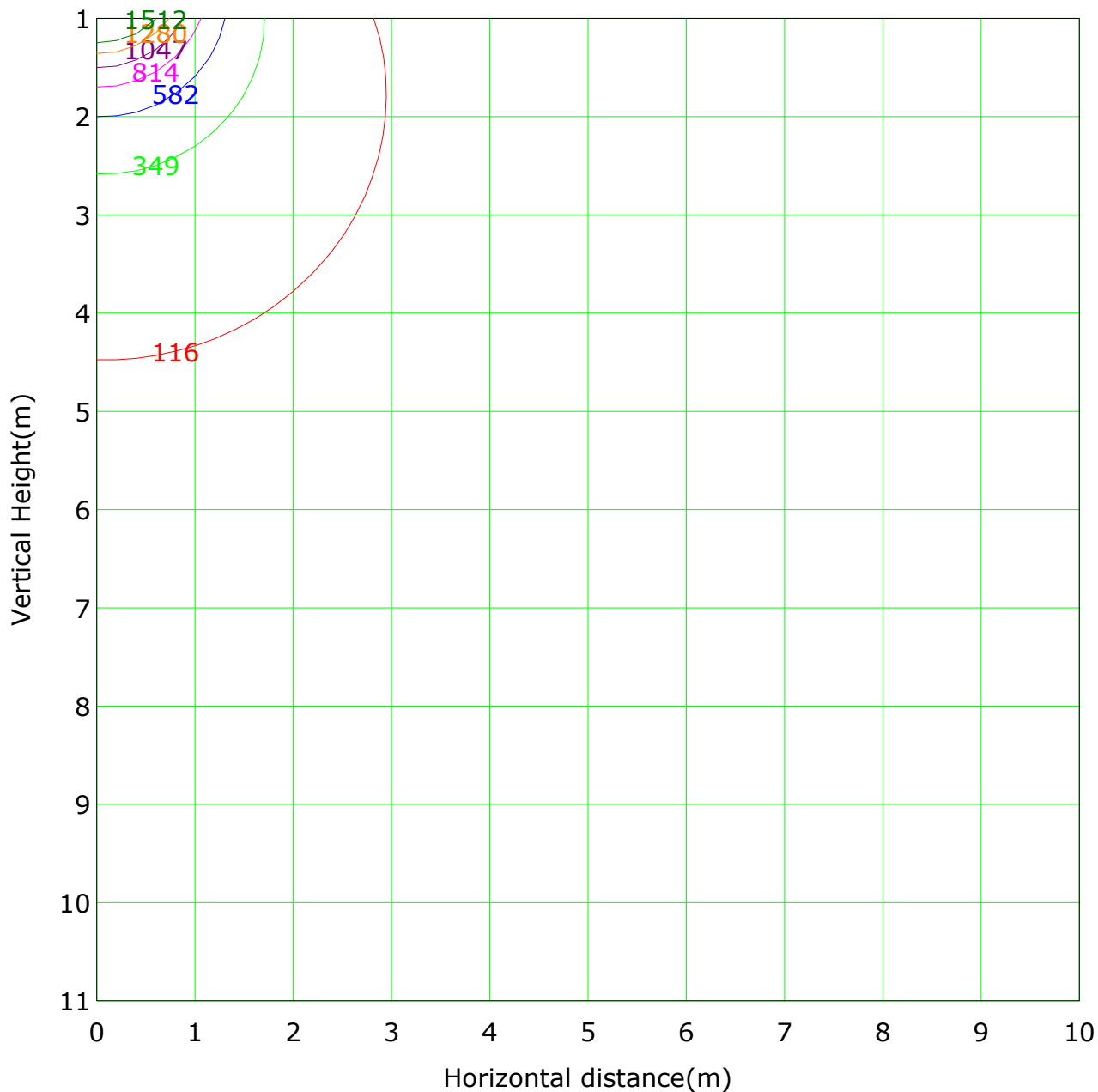
Humidity:

Inspector:

## Illuminance at a Distance



## Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 2326.4 lx

( 5%): 116.3 lx	( 15%): 349.0 lx
( 25%): 581.6 lx	( 35%): 814.2 lx
( 45%): 1046.9 lx	( 55%): 1279.5 lx
( 65%): 1512.2 lx	

Area Flux Table

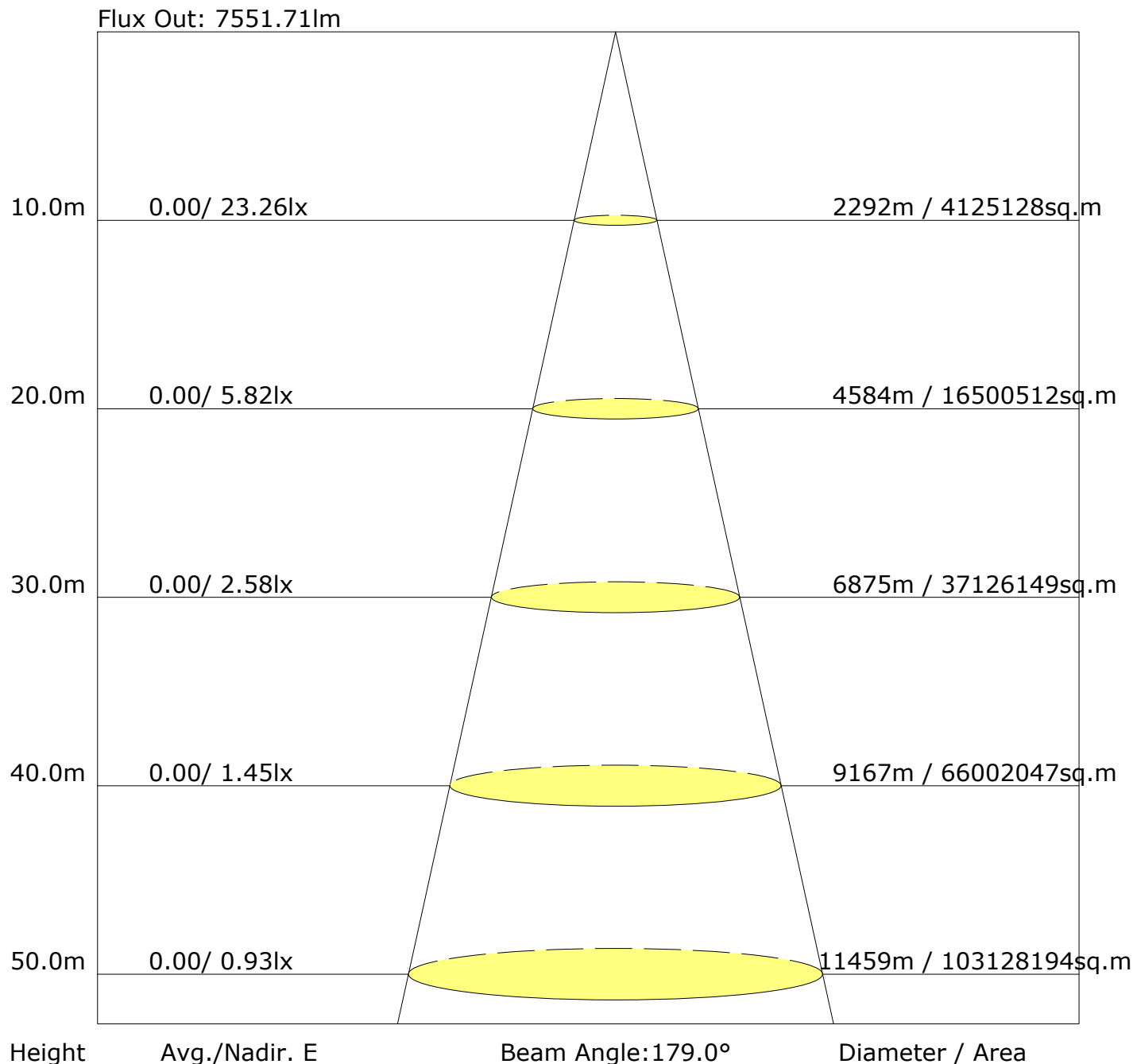
Unit: lm

		Orbit, m																		F <sub>0</sub> ux(T)		F <sub>0</sub> ux(E)	
		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80				
Vertical plane	-90	1.1	3.2	5.2	6.6	7.2	7.1	6.6	5.7	4.5	4.7	6.4	7.6	8.4	8.7	8.1	6.5	4.1	1.4	103.1	85.3		
	-80	1.2	3.6	6.3	8.7	10.5	11.7	12.5	12.9	12.7	13.0	13.9	13.9	13.4	12.4	10.5	7.7	4.6	1.5	170.9	170.9		
	-70	1.2	4.1	7.5	11.2	14.4	17.3	19.7	21.7	22.5	22.9	23.0	21.6	19.5	16.7	13.2	9.1	5.1	1.5	252.2	252.2		
	-60	1.3	4.5	8.7	13.7	18.7	23.5	27.7	31.2	33.0	33.5	32.7	29.9	26.1	21.3	16.1	10.5	5.5	1.6	339.6	339.6		
	-50	1.3	4.9	9.9	16.2	23.0	29.8	35.8	40.6	43.3	43.9	42.2	38.2	32.6	25.9	18.8	11.8	6.0	1.7	425.9	425.9		
	-40	1.4	5.3	11.0	18.4	26.9	35.5	43.2	49.3	52.8	53.4	51.0	45.8	38.6	30.1	21.2	13.0	6.4	1.7	505.0	505.0		
	-30	1.4	5.6	11.9	20.3	30.1	40.3	49.5	56.5	60.7	61.3	58.3	52.2	43.6	33.5	23.2	14.0	6.8	1.8	571.0	571.0		
	-20	1.4	5.8	12.6	21.7	32.4	43.6	53.9	61.8	66.3	66.9	63.6	56.7	47.1	35.9	24.8	14.8	7.1	1.8	618.3	618.3		
	-10	1.5	5.9	13.0	22.5	33.7	45.4	56.2	64.5	69.3	69.9	66.4	59.2	49.1	37.5	25.8	15.4	7.3	1.8	644.2	644.2		
	0	1.5	5.9	13.0	22.5	33.7	45.4	56.1	64.4	69.2	69.9	66.4	59.2	49.2	37.5	25.8	15.4	7.3	1.8	644.1	644.1		
Horizontal plane	10	1.4	5.8	12.6	21.6	32.3	43.6	53.8	61.6	66.1	66.8	63.6	56.8	47.2	36.0	24.8	14.9	7.1	1.8	617.9	617.9		
	20	1.4	5.6	11.9	20.2	30.0	40.2	49.3	56.3	60.4	61.1	58.2	52.2	43.8	33.6	23.3	14.1	6.8	1.8	570.0	570.0		
	30	1.4	5.2	10.9	18.3	26.8	35.3	42.9	48.9	52.5	53.1	50.9	45.8	38.7	30.3	21.3	13.1	6.5	1.7	503.6	503.6		
	40	1.3	4.9	9.8	16.1	22.8	29.5	35.4	40.2	42.9	43.6	42.1	38.2	32.7	26.1	18.9	11.9	6.0	1.7	424.0	424.0		
	50	1.3	4.5	8.6	13.6	18.5	23.2	27.3	30.8	32.6	33.2	32.5	29.9	26.1	21.4	16.2	10.5	5.6	1.6	337.3	337.3		
	60	1.2	4.0	7.4	11.0	14.2	17.0	19.3	21.3	22.1	22.6	22.8	21.5	19.5	16.8	13.3	9.2	5.1	1.6	249.9	249.9		
	70	1.2	3.6	6.2	8.6	10.2	11.3	12.1	12.5	12.3	12.7	13.8	13.9	13.5	12.5	10.6	7.8	4.6	1.5	169.0	169.0		
	80	1.1	3.2	5.1	6.5	7.0	6.8	6.3	5.5	4.3	4.6	6.3	7.7	8.5	8.8	8.2	6.6	4.1	1.4	102.0	102.0		
	90	23.4	85.6	171.7	227.6	392.6	504.6	602.3	679.2	720.5	730.4	708.1	647.1	557.7	445.0	323.9	206.1	105.8	29.8	7248	7248		
	Flux(T)	23.4	85.6	171.7	227.6	392.6	504.6	602.3	679.2	720.5	730.4	708.1	647.1	557.7	445.0	323.9	206.1	105.8	29.8				
Flux(E)	23.4	85.6	171.7	227.6	392.6	504.6	602.3	679.2	720.5	730.4	708.1	647.1	557.7	445.0	323.9	206.1	105.8	29.8					

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:

## 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	22.5	23.9	22.9	24.2	24.6	22.2	23.5	22.6	23.9	24.3
3H	24.3	25.5	24.7	25.9	26.3	23.6	24.9	24.1	25.3	25.7
4H	25.1	26.3	25.6	26.7	27.1	24.2	25.4	24.7	25.8	26.2
6H	25.9	27.0	26.4	27.4	27.9	24.7	25.8	25.1	26.2	26.7
8H	26.3	27.3	26.7	27.8	28.2	24.8	25.9	25.3	26.3	26.8
12H	26.6	27.6	27.1	28.1	28.6	24.9	25.9	25.4	26.4	26.9
X=4H Y=2H	23.1	24.2	23.5	24.7	25.1	22.8	24.0	23.3	24.4	24.8
3H	25.1	26.1	25.6	26.5	27.0	24.4	25.5	24.9	25.9	26.4
4H	26.1	27.0	26.6	27.5	28.0	25.2	26.1	25.7	26.6	27.1
6H	27.0	27.8	27.6	28.3	28.9	25.8	26.6	26.3	27.1	27.6
8H	27.5	28.2	28.0	28.8	29.3	26.0	26.7	26.5	27.3	27.8
12H	27.9	28.6	28.5	29.1	29.7	26.1	26.8	26.7	27.4	27.9
X=8H Y=4H	26.4	27.1	26.9	27.6	28.2	25.6	26.3	26.1	26.8	27.4
6H	27.5	28.1	28.1	28.7	29.3	26.3	27.0	26.9	27.5	28.1
8H	28.1	28.7	28.7	29.2	29.9	26.7	27.2	27.2	27.8	28.4
12H	28.7	29.2	29.3	29.8	30.4	26.9	27.4	27.5	28.0	28.6
X=12H Y=4H	26.4	27.1	26.9	27.6	28.2	25.6	26.3	26.2	26.9	27.5
6H	27.6	28.2	28.2	28.7	29.4	26.5	27.0	27.1	27.6	28.2
8H	28.3	28.8	28.9	29.3	30.0	26.9	27.4	27.5	27.9	28.6
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/-0.8					+0.5/-0.8				

Calculate in accordance with CIE Pub.117. The table is revised with 7768lm ( $8\log(F/F_0) = 7.1$ ).

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

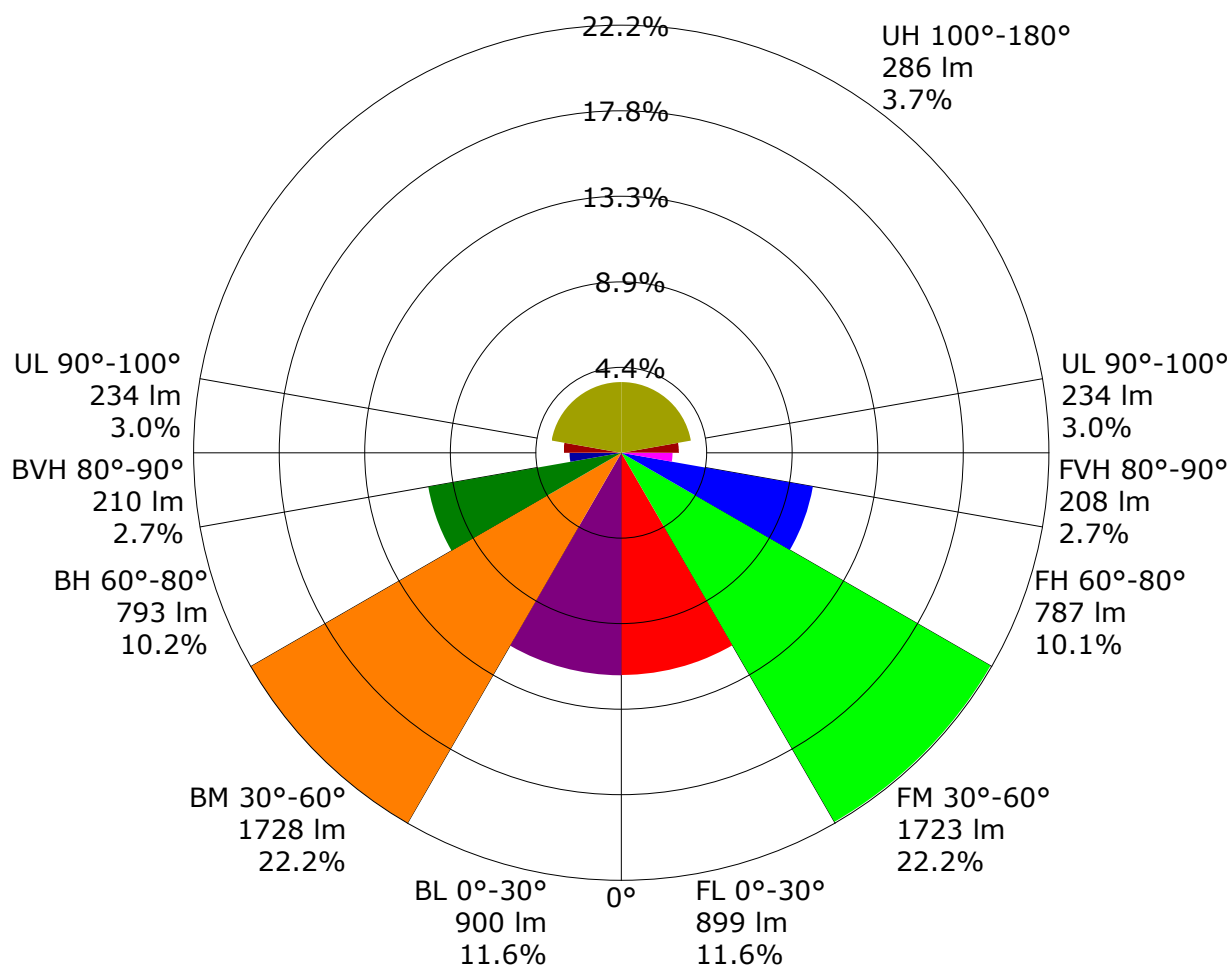
	ZONE	LUMENS	% LAMP LUMENS
	FORWARD LIGHT	3618	46.6
	FL ( 0°-30°)	899	11.6
	FM (30°-60°)	1723	22.2
	FH (60°-80°)	787	10.1
	FVH (80°-90°)	208	2.7
	BACK LIGHT	3631	46.7
	BL ( 0°-30°)	900	11.6
	BM (30°-60°)	1728	22.2
	BH (60°-80°)	793	10.2
	BVH (80°-90°)	210	2.7
	UP LIGHT	520	6.7
	UL (90°-100°)	234	3.0
	UH (100°-180°)	286	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		0.38	0.47	0.54	0.59	0.67	0.72	0.77	0.82	0.86	
0.30	0.50	0.20	0.48	0.57	0.63	0.67	0.73	0.78	0.81	0.85	0.88	
	0.30		0.42	0.50	0.57	0.62	0.69	0.74	0.77	0.82	0.85	
	0.20		0.37	0.46	0.52	0.57	0.65	0.70	0.74	0.79	0.82	
0.00	0.00	0.00	0.34	0.42	0.49	0.53	0.60	0.65	0.68	0.73	0.76	
<p>Rating:57W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>												

## 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	0.64	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	0.26	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	0.69	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	0.35	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:57W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

## Utilisation Factor Table(Ceiling cavity)

Utilisation Factors UF(C)			SHR NOM = 1.25									
Room Reflectance			Room Index(RI)									
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	
0.70	0.50	0.20	0.23	0.24	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:57W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

## Zonal Lumen

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	2323.2	2.2	2.2	0.03	0.03
1.0-2.0	2322.5	6.7	8.9	0.09	0.11
2.0-3.0	2320.7	11.1	20.0	0.14	0.26
3.0-4.0	2318.1	15.5	35.5	0.20	0.46
4.0-5.0	2314.8	19.9	55.4	0.26	0.71
5.0-6.0	2310.6	24.3	79.7	0.31	1.03
6.0-7.0	2305.4	28.6	108.3	0.37	1.39
7.0-8.0	2299.4	32.9	141.2	0.42	1.82
8.0-9.0	2292.4	37.2	178.4	0.48	2.30
9.0-10.0	2284.9	41.4	219.8	0.53	2.83
10.0-11.0	2276.3	45.5	265.2	0.59	3.41
11.0-12.0	2267.0	49.6	314.8	0.64	4.05
12.0-13.0	2257.1	53.6	368.4	0.69	4.74
13.0-14.0	2246.0	57.5	425.9	0.74	5.48
14.0-15.0	2234.1	61.3	487.2	0.79	6.27
15.0-16.0	2221.4	65.1	552.3	0.84	7.11
16.0-17.0	2207.8	68.8	621.1	0.89	7.99
17.0-18.0	2194.1	72.4	693.4	0.93	8.93
18.0-19.0	2179.0	75.8	769.3	0.98	9.90
19.0-20.0	2163.1	79.2	848.4	1.02	10.92
20.0-21.0	2147.2	82.5	930.9	1.06	11.98
21.0-22.0	2129.9	85.6	1016.5	1.10	13.08
22.0-23.0	2111.8	88.6	1105.1	1.14	14.23
23.0-24.0	2093.0	91.5	1196.6	1.18	15.40
24.0-25.0	2073.5	94.3	1290.9	1.21	16.62
25.0-26.0	2054.1	97.0	1387.9	1.25	17.87
26.0-27.0	2033.2	99.5	1487.4	1.28	19.15
27.0-28.0	2011.8	101.9	1589.3	1.31	20.46
28.0-29.0	1990.6	104.2	1693.4	1.34	21.80
29.0-30.0	1967.7	106.3	1799.7	1.37	23.17
30.0-31.0	1944.3	108.2	1907.9	1.39	24.56
31.0-32.0	1920.3	110.0	2017.9	1.42	25.98
32.0-33.0	1895.7	111.7	2129.6	1.44	27.41
33.0-34.0	1871.5	113.3	2242.9	1.46	28.87
34.0-35.0	1845.6	114.6	2357.5	1.48	30.35
35.0-36.0	1819.3	115.9	2473.4	1.49	31.84

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

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

## Zonal Lumen (Continue 1)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	1793.1	117.0	2590.3	1.51	33.34
37.0-38.0	1765.7	117.9	2708.2	1.52	34.86
38.0-39.0	1738.5	118.7	2826.9	1.53	36.39
39.0-40.0	1710.1	119.3	2946.2	1.54	37.92
40.0-41.0	1681.5	119.8	3065.9	1.54	39.47
41.0-42.0	1653.8	120.2	3186.1	1.55	41.01
42.0-43.0	1624.4	120.3	3306.5	1.55	42.56
43.0-44.0	1594.7	120.4	3426.8	1.55	44.11
44.0-45.0	1565.1	120.3	3547.1	1.55	45.66
45.0-46.0	1534.7	120.0	3667.2	1.55	47.21
46.0-47.0	1504.6	119.7	3786.8	1.54	48.75
47.0-48.0	1473.5	119.1	3906.0	1.53	50.28
48.0-49.0	1442.4	118.5	4024.4	1.52	51.80
49.0-50.0	1412.3	117.8	4142.2	1.52	53.32
50.0-51.0	1380.7	116.8	4259.0	1.50	54.82
51.0-52.0	1349.2	115.8	4374.8	1.49	56.32
52.0-53.0	1318.1	114.7	4489.5	1.48	57.79
53.0-54.0	1286.1	113.4	4602.9	1.46	59.25
54.0-55.0	1254.8	112.0	4714.9	1.44	60.69
55.0-56.0	1222.6	110.5	4825.4	1.42	62.11
56.0-57.0	1190.6	108.9	4934.3	1.40	63.52
57.0-58.0	1159.8	107.3	5041.5	1.38	64.90
58.0-59.0	1127.3	105.4	5146.9	1.36	66.25
59.0-60.0	1095.2	103.5	5250.4	1.33	67.59
60.0-61.0	1063.3	101.5	5351.9	1.31	68.89
61.0-62.0	1031.4	99.4	5451.3	1.28	70.17
62.0-63.0	1000.9	97.4	5548.7	1.25	71.43
63.0-64.0	969.3	95.1	5643.8	1.22	72.65
64.0-65.0	937.8	92.8	5736.6	1.19	73.84
65.0-66.0	907.7	90.6	5827.2	1.17	75.01
66.0-67.0	876.7	88.2	5915.3	1.13	76.15
67.0-68.0	846.1	85.7	6001.1	1.10	77.25
68.0-69.0	815.6	83.2	6084.3	1.07	78.32
69.0-70.0	785.3	80.7	6164.9	1.04	79.36
70.0-71.0	756.7	78.2	6243.2	1.01	80.37
71.0-72.0	727.1	75.6	6318.8	0.97	81.34

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	697.9	73.0	6391.8	0.94	82.28
73.0-74.0	670.5	70.5	6462.3	0.91	83.19
74.0-75.0	642.3	67.9	6530.1	0.87	84.06
75.0-76.0	614.5	65.2	6595.4	0.84	84.90
76.0-77.0	587.1	62.6	6658.0	0.81	85.70
77.0-78.0	560.3	60.0	6718.0	0.77	86.48
78.0-79.0	535.1	57.5	6775.5	0.74	87.22
79.0-80.0	509.5	54.9	6830.4	0.71	87.92
80.0-81.0	484.3	52.4	6882.8	0.67	88.60
81.0-82.0	460.3	49.9	6932.7	0.64	89.24
82.0-83.0	436.7	47.5	6980.2	0.61	89.85
83.0-84.0	414.0	45.1	7025.3	0.58	90.43
84.0-85.0	391.5	42.7	7068.0	0.55	90.98
85.0-86.0	369.8	40.4	7108.5	0.52	91.50
86.0-87.0	349.5	38.3	7146.7	0.49	92.00
87.0-88.0	328.9	36.0	7182.8	0.46	92.46
88.0-89.0	309.1	33.9	7216.6	0.44	92.90
89.0-90.0	291.1	31.9	7248.6	0.41	93.31
90.0-91.0	274.7	30.1	7278.7	0.39	93.69
91.0-92.0	259.8	28.5	7307.2	0.37	94.06
92.0-93.0	245.2	26.9	7334.0	0.35	94.41
93.0-94.0	231.1	25.3	7359.3	0.33	94.73
94.0-95.0	218.1	23.8	7383.2	0.31	95.04
95.0-96.0	205.3	22.4	7405.6	0.29	95.33
96.0-97.0	193.1	21.0	7426.6	0.27	95.60
97.0-98.0	181.9	19.8	7446.4	0.25	95.85
98.0-99.0	171.0	18.5	7464.9	0.24	96.09
99.0-100.0	161.1	17.4	7482.3	0.22	96.32
100.0-101.0	151.6	16.3	7498.7	0.21	96.53
101.0-102.0	142.8	15.3	7514.0	0.20	96.72
102.0-103.0	134.8	14.4	7528.5	0.19	96.91
103.0-104.0	126.9	13.5	7542.0	0.17	97.08
104.0-105.0	119.5	12.7	7554.7	0.16	97.25
105.0-106.0	112.5	11.9	7566.6	0.15	97.40
106.0-107.0	105.6	11.1	7577.7	0.14	97.54
107.0-108.0	99.4	10.4	7588.1	0.13	97.68

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	93.4	9.7	7597.8	0.12	97.80
109.0-110.0	87.5	9.0	7606.8	0.12	97.92
110.0-111.0	82.2	8.4	7615.3	0.11	98.03
111.0-112.0	77.0	7.9	7623.1	0.10	98.13
112.0-113.0	72.3	7.3	7630.5	0.09	98.22
113.0-114.0	67.8	6.8	7637.3	0.09	98.31
114.0-115.0	63.4	6.3	7643.6	0.08	98.39
115.0-116.0	59.6	5.9	7649.5	0.08	98.47
116.0-117.0	55.7	5.5	7655.0	0.07	98.54
117.0-118.0	52.1	5.1	7660.0	0.07	98.60
118.0-119.0	49.1	4.7	7664.8	0.06	98.66
119.0-120.0	46.1	4.4	7669.2	0.06	98.72
120.0-121.0	43.5	4.1	7673.3	0.05	98.77
121.0-122.0	40.9	3.8	7677.1	0.05	98.82
122.0-123.0	38.5	3.6	7680.7	0.05	98.87
123.0-124.0	36.3	3.3	7684.0	0.04	98.91
124.0-125.0	34.4	3.1	7687.1	0.04	98.95
125.0-126.0	32.9	2.9	7690.0	0.04	98.99
126.0-127.0	31.6	2.8	7692.8	0.04	99.03
127.0-128.0	30.4	2.6	7695.5	0.03	99.06
128.0-129.0	29.4	2.5	7698.0	0.03	99.09
129.0-130.0	28.7	2.4	7700.4	0.03	99.12
130.0-131.0	28.3	2.4	7702.8	0.03	99.15
131.0-132.0	28.1	2.3	7705.1	0.03	99.18
132.0-133.0	28.0	2.3	7707.3	0.03	99.21
133.0-134.0	27.9	2.2	7709.6	0.03	99.24
134.0-135.0	27.9	2.2	7711.7	0.03	99.27
135.0-136.0	28.1	2.2	7713.9	0.03	99.30
136.0-137.0	28.3	2.1	7716.0	0.03	99.32
137.0-138.0	28.5	2.1	7718.1	0.03	99.35
138.0-139.0	28.6	2.1	7720.2	0.03	99.38
139.0-140.0	28.8	2.1	7722.3	0.03	99.41
140.0-141.0	29.0	2.0	7724.3	0.03	99.43
141.0-142.0	29.2	2.0	7726.3	0.03	99.46
142.0-143.0	29.4	2.0	7728.3	0.03	99.48
143.0-144.0	29.6	1.9	7730.2	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 [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
144.0-145.0	29.8	1.9	7732.1	0.02	99.53
145.0-146.0	30.0	1.9	7734.0	0.02	99.56
146.0-147.0	30.2	1.8	7735.8	0.02	99.58
147.0-148.0	30.4	1.8	7737.6	0.02	99.60
148.0-149.0	30.5	1.8	7739.3	0.02	99.62
149.0-150.0	30.7	1.7	7741.0	0.02	99.65
150.0-151.0	30.9	1.7	7742.7	0.02	99.67
151.0-152.0	31.1	1.6	7744.3	0.02	99.69
152.0-153.0	31.3	1.6	7745.9	0.02	99.71
153.0-154.0	31.5	1.5	7747.5	0.02	99.73
154.0-155.0	31.6	1.5	7749.0	0.02	99.75
155.0-156.0	31.8	1.4	7750.4	0.02	99.77
156.0-157.0	32.0	1.4	7751.8	0.02	99.79
157.0-158.0	32.1	1.3	7753.1	0.02	99.80
158.0-159.0	32.3	1.3	7754.4	0.02	99.82
159.0-160.0	32.5	1.2	7755.7	0.02	99.84
160.0-161.0	32.6	1.2	7756.9	0.02	99.85
161.0-162.0	32.8	1.1	7758.0	0.01	99.87
162.0-163.0	33.0	1.1	7759.1	0.01	99.88
163.0-164.0	33.1	1.0	7760.1	0.01	99.89
164.0-165.0	33.3	1.0	7761.1	0.01	99.91
165.0-166.0	33.5	0.9	7762.0	0.01	99.92
166.0-167.0	33.7	0.9	7762.9	0.01	99.93
167.0-168.0	33.9	0.8	7763.7	0.01	99.94
168.0-169.0	34.1	0.7	7764.5	0.01	99.95
169.0-170.0	34.3	0.7	7765.1	0.01	99.96
170.0-171.0	34.5	0.6	7765.8	0.01	99.96
171.0-172.0	34.7	0.6	7766.3	0.01	99.97
172.0-173.0	34.9	0.5	7766.8	0.01	99.98
173.0-174.0	35.1	0.4	7767.3	0.01	99.98
174.0-175.0	35.3	0.4	7767.6	0.00	99.99
175.0-176.0	35.5	0.3	7767.9	0.00	99.99
176.0-177.0	35.7	0.2	7768.2	0.00	100.00
177.0-178.0	35.8	0.2	7768.3	0.00	100.00
178.0-179.0	36.0	0.1	7768.5	0.00	100.00
179.0-180.0	36.1	0.0	7768.5	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°): 3547.12 lm

%lum = 45.7%  
%lamp = 45.7%

cone flux(120°): 5250.41 lm

%lum = 67.6%  
%lamp = 67.6%

## 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	2326.4	2323.6	2323.1	2323.1	2322.6	2321.0	2326.4	2323.6	2323.1	2323.1
G1.0	2328.8	2325.1	2324.4	2322.6	2320.9	2318.9	2324.5	2321.3	2322.3	2323.4
G2.0	2330.4	2325.9	2323.9	2321.2	2318.3	2315.9	2320.7	2318.5	2319.9	2322.2
G3.0	2330.8	2325.9	2323.0	2317.8	2314.4	2312.3	2316.2	2314.3	2316.3	2319.0
G4.0	2330.7	2325.5	2320.1	2314.7	2309.7	2307.9	2311.3	2309.8	2312.1	2315.6
G5.0	2330.1	2324.0	2316.8	2309.4	2304.9	2302.6	2305.7	2305.3	2307.2	2311.6
G6.0	2328.5	2321.7	2313.0	2303.6	2297.9	2295.6	2299.8	2298.8	2300.9	2306.1
G7.0	2325.9	2318.8	2308.1	2297.2	2290.8	2289.2	2292.9	2292.2	2293.3	2299.3
G8.0	2323.4	2315.1	2302.2	2289.3	2282.4	2282.0	2284.4	2284.3	2285.3	2291.5
G9.0	2319.2	2310.2	2294.6	2280.0	2272.9	2273.1	2276.3	2276.3	2276.9	2283.1
G10.0	2315.0	2305.0	2287.1	2270.9	2263.1	2264.0	2267.9	2267.4	2267.5	2273.6
G11.0	2309.9	2298.7	2278.0	2259.4	2251.4	2253.6	2257.8	2257.1	2256.0	2263.4
G12.0	2304.4	2291.5	2268.0	2248.2	2240.5	2243.8	2248.0	2246.8	2245.2	2252.6
G13.0	2298.2	2284.8	2258.3	2235.3	2227.9	2232.3	2237.0	2235.9	2233.2	2239.8
G14.0	2290.9	2275.3	2245.7	2220.8	2213.7	2219.6	2224.6	2223.0	2219.1	2226.3
G15.0	2283.8	2266.9	2234.3	2206.4	2199.3	2207.4	2213.0	2210.7	2205.2	2211.8
G16.0	2275.2	2256.4	2219.9	2190.4	2183.3	2192.9	2198.6	2196.1	2189.7	2195.7
G17.0	2266.2	2246.2	2206.7	2174.2	2167.2	2178.7	2185.4	2182.3	2173.8	2180.6
G18.0	2256.7	2235.6	2191.9	2157.2	2151.1	2164.6	2172.1	2167.9	2157.9	2163.6
G19.0	2245.6	2222.6	2175.3	2137.8	2131.2	2147.9	2157.1	2150.9	2138.9	2144.9
G20.0	2235.3	2210.4	2159.9	2119.4	2113.8	2131.3	2141.1	2135.0	2121.4	2126.7
G21.0	2223.8	2196.6	2142.9	2100.4	2095.6	2115.4	2125.6	2118.5	2102.4	2108.0
G22.0	2211.2	2182.1	2123.7	2078.4	2073.7	2096.7	2107.8	2099.9	2082.1	2085.9
G23.0	2198.6	2167.9	2105.8	2058.1	2053.6	2078.6	2091.2	2082.4	2062.6	2065.7
G24.0	2183.7	2150.9	2084.9	2035.1	2031.0	2058.6	2072.7	2061.9	2038.9	2042.7
G25.0	2169.9	2135.8	2065.3	2011.6	2008.7	2039.1	2054.4	2043.2	2017.8	2020.7
G26.0	2156.2	2119.0	2045.1	1987.8	1986.1	2019.3	2036.5	2023.4	1996.3	1996.8
G27.0	2139.6	2100.7	2022.6	1962.2	1961.2	1997.3	2015.2	2000.8	1970.8	1971.9
G28.0	2123.3	2083.5	2000.9	1938.4	1938.5	1976.9	1996.3	1980.3	1947.9	1948.3
G29.0	2107.8	2064.8	1977.5	1912.7	1913.4	1955.8	1976.5	1959.5	1924.4	1922.6
G30.0	2088.6	2044.5	1953.0	1885.4	1886.3	1930.7	1953.6	1935.2	1897.3	1895.4
G31.0	2071.7	2025.0	1928.5	1858.7	1861.4	1908.8	1933.0	1913.3	1872.4	1869.1
G32.0	2052.7	2003.3	1902.9	1829.3	1832.7	1883.2	1909.7	1888.9	1843.5	1840.4
G33.0	2034.4	1982.6	1878.4	1802.6	1806.5	1860.2	1886.8	1865.0	1816.6	1812.2
G34.0	2015.8	1962.1	1852.6	1773.9	1779.3	1836.0	1863.9	1840.7	1790.3	1784.7
G35.0	1993.9	1938.7	1823.5	1742.9	1749.2	1810.2	1839.0	1813.1	1759.5	1753.4
G36.0	1974.2	1916.3	1797.7	1713.3	1720.8	1784.6	1814.7	1788.8	1732.1	1725.1

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600L

Distance: 9.010 m

Humidity:

Inspector:

## Candlepower Table (Continue 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	1953.1	1893.2	1770.1	1684.6	1692.7	1759.7	1789.5	1761.7	1701.7	1691.8
G38.0	1930.2	1868.3	1740.2	1650.7	1659.8	1732.3	1764.2	1735.3	1672.3	1662.6
G39.0	1908.0	1844.4	1711.7	1620.8	1631.0	1705.1	1740.2	1709.7	1643.8	1631.8
G40.0	1884.1	1818.8	1681.6	1586.5	1597.9	1675.0	1712.1	1679.8	1610.2	1599.0
G41.0	1861.1	1793.3	1652.1	1556.1	1568.8	1648.8	1686.8	1653.6	1581.3	1568.3
G42.0	1838.4	1769.1	1623.3	1523.9	1537.9	1621.1	1661.4	1625.7	1550.5	1535.8
G43.0	1811.8	1740.8	1590.3	1490.0	1505.1	1591.3	1632.1	1596.2	1517.7	1502.2
G44.0	1788.1	1715.5	1561.6	1457.4	1473.6	1563.1	1606.0	1568.9	1487.8	1468.8
G45.0	1763.0	1688.7	1530.7	1424.3	1441.9	1535.9	1577.2	1537.3	1453.0	1434.4
G46.0	1736.4	1659.5	1498.0	1389.4	1408.0	1504.1	1550.2	1510.0	1422.5	1402.3
G47.0	1710.0	1631.9	1466.5	1357.0	1377.4	1476.1	1522.4	1480.7	1390.3	1368.7
G48.0	1682.6	1602.6	1433.6	1319.8	1342.0	1443.8	1493.5	1450.3	1356.7	1331.5
G49.0	1655.5	1574.4	1402.0	1287.6	1310.9	1415.5	1467.2	1420.7	1324.0	1299.1
G50.0	1628.6	1547.0	1371.3	1253.1	1278.4	1385.8	1439.1	1392.1	1293.1	1264.8
G51.0	1600.0	1515.8	1336.1	1215.7	1242.7	1355.0	1409.4	1360.5	1259.0	1228.7
G52.0	1572.6	1488.2	1305.4	1182.6	1211.5	1325.9	1381.3	1332.4	1226.1	1195.4
G53.0	1546.1	1459.2	1272.9	1147.9	1178.3	1296.5	1351.9	1301.3	1191.2	1157.4
G54.0	1515.7	1428.8	1238.8	1111.7	1144.0	1265.7	1323.1	1271.8	1158.1	1123.8
G55.0	1488.9	1398.8	1206.3	1076.6	1110.8	1236.1	1296.0	1243.6	1126.8	1089.1
G56.0	1458.7	1366.8	1170.7	1039.9	1076.3	1204.9	1264.7	1210.9	1090.6	1052.2
G57.0	1431.5	1338.6	1139.6	1005.2	1045.2	1177.0	1237.9	1182.9	1058.8	1017.0
G58.0	1402.7	1309.1	1106.9	970.1	1010.5	1146.0	1209.5	1153.5	1025.9	983.6
G59.0	1371.9	1276.7	1071.0	933.5	974.8	1115.4	1179.8	1122.7	991.6	945.2
G60.0	1343.1	1248.8	1040.0	898.6	943.7	1086.2	1151.5	1093.4	959.1	911.6
G61.0	1313.4	1216.4	1004.4	860.6	908.3	1054.5	1121.8	1063.1	924.6	874.9
G62.0	1284.7	1188.4	971.8	827.2	877.3	1026.8	1094.8	1033.9	893.5	839.6
G63.0	1257.1	1158.9	940.8	792.6	845.1	998.2	1066.8	1006.4	861.2	806.4
G64.0	1225.4	1127.8	906.9	756.5	811.8	968.3	1037.7	976.7	828.1	768.4
G65.0	1198.0	1098.8	874.6	722.0	780.4	939.8	1010.0	948.2	796.7	735.3
G66.0	1169.4	1069.5	842.6	689.4	751.0	913.0	983.7	921.2	766.9	700.8
G67.0	1139.3	1039.1	809.4	652.0	717.5	882.5	955.3	892.2	733.5	664.8
G68.0	1110.9	1010.3	778.2	619.9	688.8	856.3	928.0	864.4	704.6	632.4
G69.0	1081.1	980.0	746.2	583.4	656.4	826.8	900.1	836.0	672.0	595.5
G70.0	1052.9	951.4	715.9	550.1	627.1	801.3	873.5	809.0	643.8	563.8
G71.0	1024.7	924.6	686.0	518.7	599.6	774.5	848.4	783.7	616.0	530.3
G72.0	995.6	893.9	655.1	483.3	568.8	745.9	820.0	754.7	584.6	496.2
G73.0	967.7	866.2	626.0	452.8	542.2	721.0	795.5	730.0	558.1	463.8

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	941.6	839.8	598.7	421.0	515.1	695.6	770.4	704.4	530.8	433.4
G75.0	911.6	811.4	569.3	388.6	487.2	669.6	744.3	678.4	502.7	399.1
G76.0	885.8	784.4	541.6	357.9	461.3	644.9	720.1	653.8	476.6	369.8
G77.0	857.0	757.0	512.5	326.7	435.1	619.9	694.7	628.5	449.9	336.9
G78.0	831.5	730.9	487.2	297.5	410.5	596.3	670.8	604.8	425.2	308.7
G79.0	805.9	705.2	461.5	268.9	386.7	574.1	648.6	582.6	402.3	279.8
G80.0	777.7	679.3	435.4	239.9	362.8	549.5	623.6	557.7	376.5	250.2
G81.0	753.9	654.3	411.0	212.7	340.2	527.2	602.0	536.3	354.8	222.7
G82.0	729.0	631.0	387.1	187.5	319.8	506.4	577.9	512.7	330.8	194.8
G83.0	703.1	605.0	363.1	159.7	298.0	484.2	557.3	492.3	310.9	170.4
G84.0	679.0	582.3	342.1	136.1	278.4	463.6	536.2	471.5	290.5	145.3
G85.0	654.3	557.3	318.8	110.4	257.6	441.9	514.6	450.6	270.6	119.0
G86.0	631.8	536.0	299.2	88.6	240.5	422.9	494.2	430.8	252.0	96.7
G87.0	608.7	513.9	279.5	67.1	223.0	404.6	473.9	411.4	235.2	74.3
G88.0	584.4	491.3	259.1	45.7	205.1	384.1	453.8	391.8	216.6	52.1
G89.0	563.2	470.2	241.6	28.0	188.2	365.9	435.5	373.3	200.3	32.3
G90.0	541.3	450.4	224.3	21.1	172.8	349.0	415.9	354.6	184.3	17.2
G91.0	518.8	428.2	206.6	20.3	154.7	330.5	397.7	338.2	170.3	15.3
G92.0	498.9	409.4	191.1	19.1	141.7	313.4	380.0	321.2	156.1	14.4
G93.0	476.0	387.6	173.3	17.7	129.0	296.1	361.9	304.3	142.7	13.7
G94.0	455.4	369.1	159.4	16.6	119.0	280.0	345.4	288.7	130.2	13.0
G95.0	436.3	350.5	145.2	15.5	109.6	264.5	329.9	274.2	119.4	12.5
G96.0	414.7	331.4	132.1	14.4	100.0	248.8	312.5	258.1	108.6	11.9
G97.0	396.5	314.1	121.9	13.7	91.1	234.2	297.9	243.9	99.9	11.7
G98.0	377.9	297.2	112.4	13.0	83.5	220.9	281.7	229.7	90.9	11.6
G99.0	358.8	280.1	102.4	12.3	74.0	207.1	268.3	217.1	84.0	11.6
G100.0	341.3	266.3	93.7	11.8	65.9	196.1	254.6	205.9	76.9	11.9
G101.0	324.0	251.8	85.5	11.6	59.1	184.0	241.0	193.5	69.9	12.2
G102.0	309.2	238.9	76.8	11.5	54.1	174.0	229.4	183.4	64.1	12.6
G103.0	295.6	227.2	69.8	11.7	48.6	164.3	217.9	173.1	58.5	13.0
G104.0	281.0	214.5	63.2	12.2	42.9	154.3	205.9	162.5	52.9	13.4
G105.0	267.7	203.6	58.0	12.5	40.1	145.2	194.9	153.0	48.0	13.9
G106.0	254.2	191.7	52.5	12.9	35.2	136.4	183.9	143.4	42.9	14.2
G107.0	241.9	181.4	47.9	13.3	30.5	128.2	173.6	134.7	38.9	14.4
G108.0	230.3	171.2	43.4	13.7	26.9	120.3	164.6	126.9	34.9	14.9
G109.0	217.6	161.0	39.6	14.0	24.0	112.4	154.5	118.1	30.6	15.3
G110.0	206.6	151.5	35.7	14.3	21.1	105.1	145.7	110.3	27.4	15.8

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 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	195.5	142.5	31.9	14.7	19.8	98.3	137.4	103.4	24.4	16.1
G112.0	184.3	133.6	28.4	15.1	20.0	90.6	128.6	95.4	22.5	16.5
G113.0	174.0	125.7	25.7	15.4	20.1	84.2	120.8	88.6	22.2	16.8
G114.0	163.9	117.0	23.0	15.8	20.3	75.1	112.3	80.3	22.4	17.3
G115.0	154.6	109.7	21.2	16.2	20.6	68.5	105.0	72.9	22.4	17.6
G116.0	145.8	101.8	20.0	16.6	20.9	62.4	97.4	67.3	22.6	18.0
G117.0	136.4	91.1	20.2	17.0	21.2	56.3	90.1	61.2	22.7	18.4
G118.0	128.3	84.2	20.3	17.3	21.2	50.9	83.8	55.8	23.0	18.8
G119.0	120.1	77.5	20.6	17.7	21.5	46.3	77.4	50.9	23.2	19.1
G120.0	111.7	70.9	21.0	18.2	21.9	42.8	71.1	46.1	23.3	19.6
G121.0	104.1	65.7	21.2	18.5	22.1	38.4	65.2	42.5	23.7	19.9
G122.0	95.9	60.2	21.3	19.0	22.5	34.7	59.2	37.8	23.9	20.4
G123.0	88.8	55.4	21.8	19.4	22.8	31.5	53.5	34.3	24.0	20.8
G124.0	82.8	50.4	22.1	19.9	23.0	29.0	48.7	31.4	24.3	21.1
G125.0	75.8	45.4	22.4	20.2	23.3	28.4	43.5	30.3	24.5	21.6
G126.0	70.0	41.9	22.7	20.8	23.6	28.4	39.9	30.1	24.8	21.9
G127.0	64.1	37.9	23.0	21.1	23.8	28.4	35.6	30.1	25.1	22.4
G128.0	57.8	34.2	23.3	21.5	24.0	28.4	33.3	30.1	25.3	22.8
G129.0	52.4	31.0	23.5	21.9	24.2	28.7	32.8	30.2	25.5	23.1
G130.0	47.2	28.8	23.8	22.4	24.5	28.8	32.7	30.3	25.7	23.4
G131.0	42.7	28.5	24.1	22.7	24.7	29.0	32.8	30.5	26.0	23.8
G132.0	38.7	28.4	24.3	23.1	25.0	29.1	32.9	30.6	26.1	24.1
G133.0	34.5	28.6	24.6	23.5	25.2	29.3	32.9	30.8	26.3	24.5
G134.0	31.8	28.8	24.9	23.9	25.5	29.4	32.9	30.8	26.5	24.8
G135.0	31.2	29.0	25.1	24.2	25.7	29.2	33.0	31.0	26.7	25.1
G136.0	31.2	29.1	25.5	24.6	26.0	29.6	33.0	31.1	26.9	25.4
G137.0	31.3	29.2	25.7	24.9	26.1	29.8	33.0	31.2	27.1	25.9
G138.0	31.4	29.4	26.0	25.4	26.3	29.6	33.2	31.3	27.4	26.2
G139.0	31.4	29.6	26.2	25.6	26.5	29.8	33.2	31.4	27.5	26.5
G140.0	31.6	29.8	26.5	26.0	26.8	30.0	33.2	31.5	27.8	26.7
G141.0	31.7	29.9	26.8	26.2	26.9	30.1	33.2	31.6	27.9	27.1
G142.0	31.6	30.1	27.0	26.7	27.1	30.5	33.3	31.7	28.1	27.5
G143.0	31.7	30.2	27.4	26.9	27.3	30.6	33.3	31.8	28.4	27.8
G144.0	31.8	30.4	27.6	27.4	27.5	30.6	33.3	32.0	28.5	28.1
G145.0	31.8	30.5	28.0	27.8	27.8	30.9	33.3	32.1	28.8	28.4
G146.0	31.9	30.6	28.3	28.1	28.0	30.9	33.3	32.2	29.1	28.7
G147.0	31.8	30.8	28.4	28.4	28.4	31.0	33.3	32.3	29.3	29.0

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 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	32.0	31.0	28.7	28.7	28.5	31.1	33.4	32.3	29.5	29.4
G149.0	32.1	31.0	29.0	29.0	29.0	31.2	33.3	32.4	29.9	29.7
G150.0	32.2	31.2	29.3	29.3	29.3	31.4	33.3	32.4	30.2	30.0
G151.0	32.1	31.4	29.7	29.7	29.5	31.5	33.4	32.5	30.5	30.4
G152.0	32.2	31.5	29.9	30.0	29.9	31.5	33.4	32.5	30.7	30.7
G153.0	32.3	31.5	30.1	30.5	30.1	31.5	33.4	32.6	31.0	31.0
G154.0	32.3	31.7	30.4	30.8	30.5	31.6	33.4	32.5	31.3	31.3
G155.0	32.3	31.8	30.6	31.1	30.8	31.6	33.4	32.5	31.6	31.7
G156.0	32.4	32.0	30.9	31.4	31.0	31.6	33.3	32.6	31.8	31.9
G157.0	32.4	32.1	31.2	31.7	31.4	31.7	33.4	32.5	32.1	32.3
G158.0	32.5	32.2	31.4	32.0	31.6	31.8	33.4	32.6	32.3	32.5
G159.0	32.5	32.3	31.7	32.2	31.8	32.0	33.4	32.7	32.5	32.9
G160.0	32.6	32.4	31.9	32.7	32.1	32.1	33.4	32.8	32.7	33.1
G161.0	32.7	32.5	32.1	32.9	32.2	32.2	33.6	32.9	32.9	33.3
G162.0	32.8	32.7	32.3	33.1	32.4	32.4	33.7	33.0	32.9	33.5
G163.0	32.8	32.9	32.6	33.3	32.5	32.6	33.8	33.2	33.1	33.8
G164.0	32.9	32.9	32.8	33.5	32.8	32.8	33.8	33.4	33.2	34.0
G165.0	33.1	33.2	33.0	33.8	33.0	33.0	34.0	33.6	33.4	34.2
G166.0	33.2	33.3	33.2	34.0	33.2	33.3	34.1	33.8	33.6	34.3
G167.0	33.3	33.4	33.4	34.3	33.3	33.4	34.3	34.1	33.8	34.6
G168.0	33.4	33.5	33.6	34.6	34.3	33.5	34.4	34.2	34.7	34.8
G169.0	33.5	33.6	33.7	34.8	34.7	33.6	34.6	34.3	35.0	35.0
G170.0	33.7	33.8	33.9	34.9	35.0	33.7	34.7	34.5	35.4	35.2
G171.0	33.9	34.0	34.1	35.2	35.4	33.9	34.9	34.6	35.7	35.3
G172.0	34.0	34.1	34.2	35.3	35.8	33.8	35.0	34.6	36.0	35.5
G173.0	34.2	34.3	34.3	35.5	35.9	34.5	35.0	35.4	36.1	35.6
G174.0	34.3	34.5	34.6	35.7	36.1	35.0	35.6	35.7	36.3	35.8
G175.0	34.6	34.6	34.8	35.8	36.3	35.6	35.9	36.1	36.4	35.9
G176.0	34.7	34.8	35.2	36.0	36.4	35.9	36.1	36.3	36.4	36.0
G177.0	34.8	35.0	35.3	36.1	36.4	36.1	35.9	36.4	36.5	36.1
G178.0	35.2	35.3	35.7	36.2	36.5	36.1	35.6	36.4	36.4	36.2
G179.0	35.6	35.7	35.9	36.3	36.4	36.1	36.2	36.3	36.4	36.3
G180.0	36.0	36.0	36.3	36.2	36.2	35.9	36.0	36.0	36.3	36.3

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 5)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G0.0	2322.6	2321.0	2326.4							
G1.0	2323.0	2322.8	2328.8							
G2.0	2322.8	2323.5	2330.4							
G3.0	2321.6	2322.9	2330.8							
G4.0	2319.6	2322.6	2330.7							
G5.0	2317.3	2321.2	2330.1							
G6.0	2312.9	2318.9	2328.5							
G7.0	2308.3	2315.8	2325.9							
G8.0	2302.1	2311.7	2323.4							
G9.0	2295.6	2306.9	2319.2							
G10.0	2287.9	2302.3	2315.0							
G11.0	2279.6	2295.4	2309.9							
G12.0	2270.4	2288.3	2304.4							
G13.0	2259.4	2281.4	2298.2							
G14.0	2248.2	2272.8	2290.9							
G15.0	2236.3	2263.3	2283.8							
G16.0	2222.7	2253.6	2275.2							
G17.0	2208.6	2243.8	2266.2							
G18.0	2194.8	2232.6	2256.7							
G19.0	2178.6	2219.6	2245.6							
G20.0	2162.3	2207.1	2235.3							
G21.0	2146.0	2194.0	2223.8							
G22.0	2127.3	2179.0	2211.2							
G23.0	2108.4	2163.6	2198.6							
G24.0	2088.4	2147.6	2183.7							
G25.0	2068.8	2132.3	2169.9							
G26.0	2048.4	2115.6	2156.2							
G27.0	2025.9	2097.2	2139.6							
G28.0	2004.3	2078.9	2123.3							
G29.0	1981.4	2060.9	2107.8							
G30.0	1956.5	2040.4	2088.6							
G31.0	1933.6	2020.1	2071.7							
G32.0	1906.7	1998.8	2052.7							
G33.0	1881.6	1977.8	2034.4							
G34.0	1856.2	1956.2	2015.8							
G35.0	1826.9	1932.5	1993.9							
G36.0	1801.3	1910.7	1974.2							

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 6)

Unit: cd

G\C	C300.0	C330.0	C360.0						
G37.0	1771.3	1885.4	1953.1						
G38.0	1744.1	1862.6	1930.2						
G39.0	1715.6	1838.4	1908.0						
G40.0	1685.2	1812.7	1884.1						
G41.0	1656.7	1787.3	1861.1						
G42.0	1626.9	1762.5	1838.4						
G43.0	1595.2	1735.4	1811.8						
G44.0	1565.6	1708.2	1788.1						
G45.0	1531.7	1679.7	1763.0						
G46.0	1501.8	1652.1	1736.4						
G47.0	1469.9	1625.8	1710.0						
G48.0	1435.7	1594.7	1682.6						
G49.0	1405.2	1567.6	1655.5						
G50.0	1372.8	1539.4	1628.6						
G51.0	1338.9	1509.3	1600.0						
G52.0	1308.1	1479.9	1572.6						
G53.0	1272.2	1448.8	1546.1						
G54.0	1241.0	1420.8	1515.7						
G55.0	1208.2	1391.3	1488.9						
G56.0	1173.5	1360.6	1458.7						
G57.0	1140.8	1330.6	1431.5						
G58.0	1109.2	1302.5	1402.7						
G59.0	1073.1	1269.9	1371.9						
G60.0	1041.7	1241.8	1343.1						
G61.0	1007.0	1210.8	1313.4						
G62.0	974.1	1180.9	1284.7						
G63.0	942.3	1152.9	1257.1						
G64.0	906.8	1120.3	1225.4						
G65.0	875.8	1092.3	1198.0						
G66.0	843.5	1062.9	1169.4						
G67.0	810.0	1032.3	1139.3						
G68.0	779.8	1004.3	1110.9						
G69.0	745.6	972.8	1081.1						
G70.0	716.1	945.6	1052.9						
G71.0	687.0	917.3	1024.7						
G72.0	654.3	887.7	995.6						
G73.0	626.1	859.8	967.7						

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 7)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G74.0	597.2	833.6	941.6							
G75.0	567.5	803.7	911.6							
G76.0	539.6	778.0	885.8							
G77.0	509.6	749.2	857.0							
G78.0	484.0	724.2	831.5							
G79.0	457.8	698.5	805.9							
G80.0	431.2	671.9	777.7							
G81.0	406.2	647.2	753.9							
G82.0	381.1	621.9	729.0							
G83.0	358.0	597.9	703.1							
G84.0	336.5	575.8	679.0							
G85.0	313.0	550.8	654.3							
G86.0	293.1	529.3	631.8							
G87.0	273.1	507.5	608.7							
G88.0	253.2	484.8	584.4							
G89.0	234.8	463.5	563.2							
G90.0	216.1	442.1	541.3							
G91.0	200.1	422.0	518.8							
G92.0	183.8	403.2	498.9							
G93.0	167.4	382.1	476.0							
G94.0	152.7	364.0	455.4							
G95.0	138.6	345.5	436.3							
G96.0	126.0	326.7	414.7							
G97.0	115.3	309.5	396.5							
G98.0	105.5	291.8	377.9							
G99.0	97.0	276.0	358.8							
G100.0	89.7	262.4	341.3							
G101.0	81.8	248.0	324.0							
G102.0	74.9	235.4	309.2							
G103.0	67.9	223.9	295.6							
G104.0	61.2	211.1	281.0							
G105.0	55.9	200.2	267.7							
G106.0	50.4	188.5	254.2							
G107.0	45.7	178.4	241.9							
G108.0	42.1	168.4	230.3							
G109.0	38.5	157.7	217.6							
G110.0	34.8	148.9	206.6							

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	31.0	139.9	195.5							
G112.0	27.7	131.2	184.3							
G113.0	24.9	123.2	174.0							
G114.0	22.5	114.9	163.9							
G115.0	21.2	107.3	154.6							
G116.0	20.5	99.1	145.8							
G117.0	20.9	88.8	136.4							
G118.0	21.2	81.7	128.3							
G119.0	21.1	75.3	120.1							
G120.0	21.1	68.6	111.7							
G121.0	21.7	63.6	104.1							
G122.0	22.1	58.1	95.9							
G123.0	22.4	53.2	88.8							
G124.0	22.8	48.4	82.8							
G125.0	23.0	43.8	75.8							
G126.0	23.3	40.2	70.0							
G127.0	23.7	36.4	64.1							
G128.0	23.9	33.2	57.8							
G129.0	24.2	30.4	52.4							
G130.0	24.5	29.2	47.2							
G131.0	24.8	29.2	42.7							
G132.0	25.0	29.2	38.7							
G133.0	25.2	29.3	34.5							
G134.0	25.6	29.3	31.8							
G135.0	25.8	29.5	31.2							
G136.0	26.1	29.7	31.2							
G137.0	26.4	29.9	31.3							
G138.0	26.6	29.9	31.4							
G139.0	26.9	30.2	31.4							
G140.0	27.1	30.3	31.6							
G141.0	27.5	30.4	31.7							
G142.0	27.8	30.6	31.6							
G143.0	28.0	30.8	31.7							
G144.0	28.5	30.8	31.8							
G145.0	28.6	31.1	31.8							
G146.0	28.8	31.1	31.9							
G147.0	29.1	31.4	31.8							

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 9)

Unit: cd

G\C	C300.0	C330.0	C360.0							
G148.0	29.3	31.5	32.0							
G149.0	29.7	31.6	32.1							
G150.0	29.9	31.6	32.2							
G151.0	30.2	31.8	32.1							
G152.0	30.5	31.9	32.2							
G153.0	30.7	32.0	32.3							
G154.0	31.0	32.1	32.3							
G155.0	31.2	32.2	32.3							
G156.0	31.4	32.3	32.4							
G157.0	31.6	32.3	32.4							
G158.0	31.9	32.5	32.5							
G159.0	32.1	32.6	32.5							
G160.0	32.3	32.7	32.6							
G161.0	32.5	32.9	32.7							
G162.0	32.7	33.0	32.8							
G163.0	32.9	33.1	32.8							
G164.0	33.1	33.2	32.9							
G165.0	33.4	33.3	33.1							
G166.0	33.5	33.4	33.2							
G167.0	33.6	33.6	33.3							
G168.0	33.8	33.8	33.4							
G169.0	33.9	33.8	33.5							
G170.0	34.1	33.9	33.7							
G171.0	34.2	34.1	33.9							
G172.0	34.5	34.2	34.0							
G173.0	34.6	34.4	34.2							
G174.0	34.7	34.5	34.3							
G175.0	34.9	34.5	34.6							
G176.0	35.2	34.6	34.7							
G177.0	35.4	35.0	34.8							
G178.0	35.8	35.3	35.2							
G179.0	36.0	35.7	35.6							
G180.0	36.3	36.0	36.0							

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	33231.76
L 0-180(75) av	40697.52
L 0-180(85) av	85305.55
L 90-270(65) av	21934.61
L 90-270(75) av	19360.54
L 90-270(85) av	16746.55
L 45(65) av	27868.74
L 45(75) av	31271.37
L 45(85) av	57667.64

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