

Report No.:

Test Time: 2023-07-30 12:19

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog:

Number of Lamps:

Luminous Length (mm): -281

Luminous Height (mm):

Current: 0.099 A

Power Factor: 1.000

Luminaire Description:

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): -281

Voltage: 21.5 V

Power: 2.12 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 295.7 lm

Downward Ratio: 100%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 157.9, 141.0, 124.7, 123.8

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 145.2, 47.6, 57.8, 56.3

Luminaire Efficacy Rating (LER): 139.53

Max. Intensity: 187.73 cd

S/MH(C0/C180): 1.93

Total Rated Lamp Lumens: 295.7 lm

Efficiency: 100%

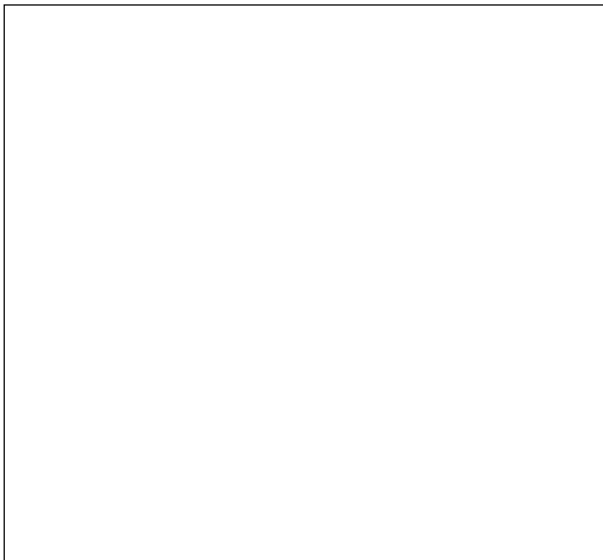
Upward Ratio: 0%

C0r0 Intensity: 69.79 cd

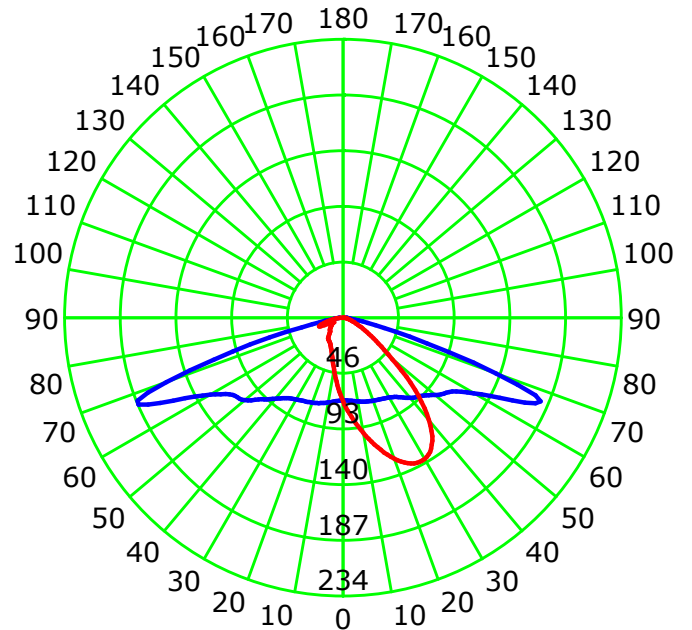
Pos of Max. Intensity: H10 V68

S/MH(C90/C270): 1.55

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

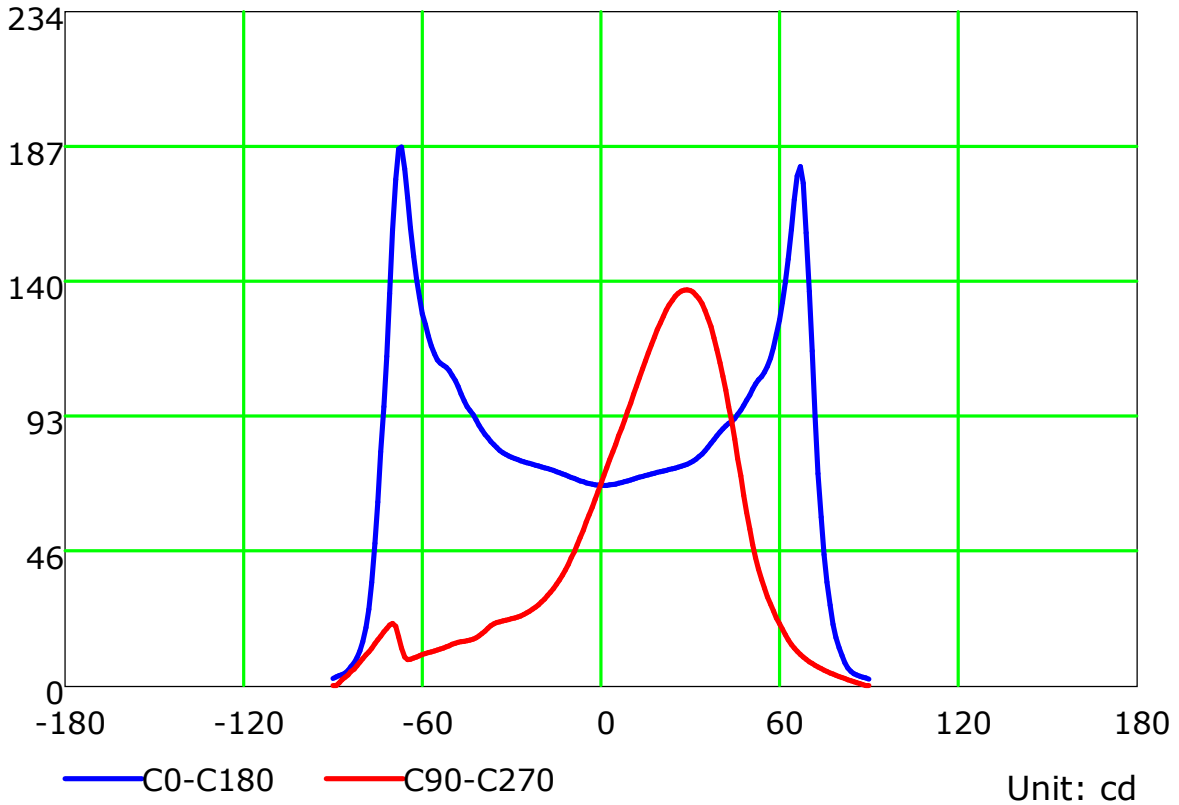
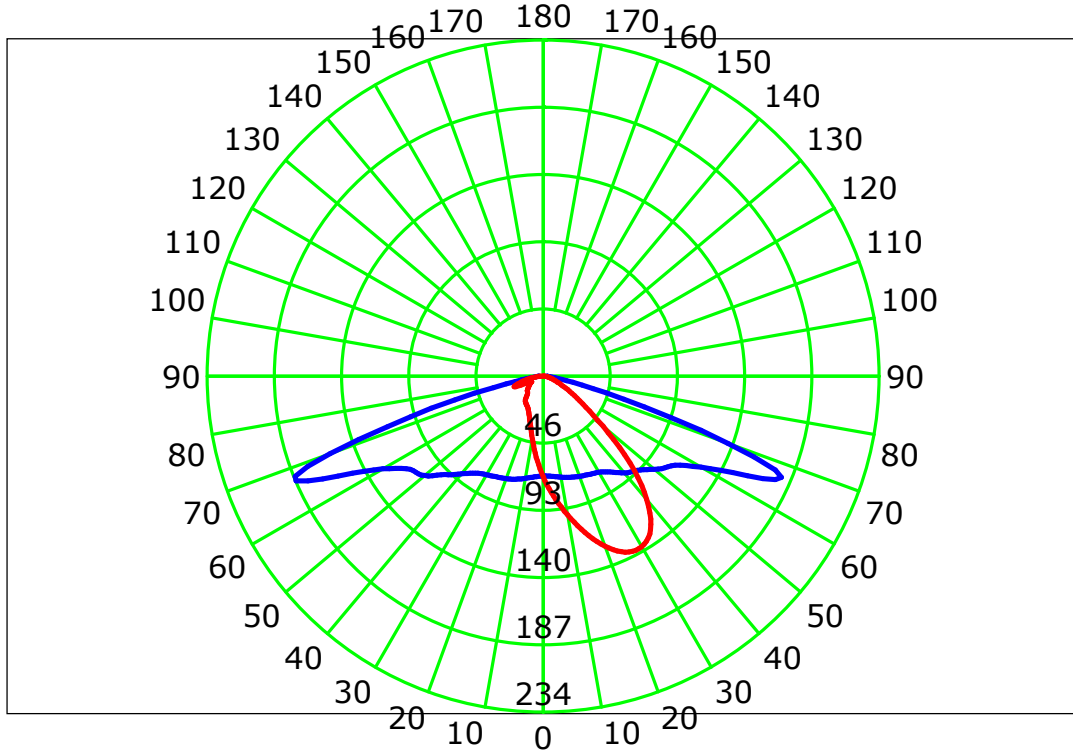
Test Device: GPM-1600L

Distance: 7.118 m [K=3.4818]

Humidity:

Inspector:

## Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

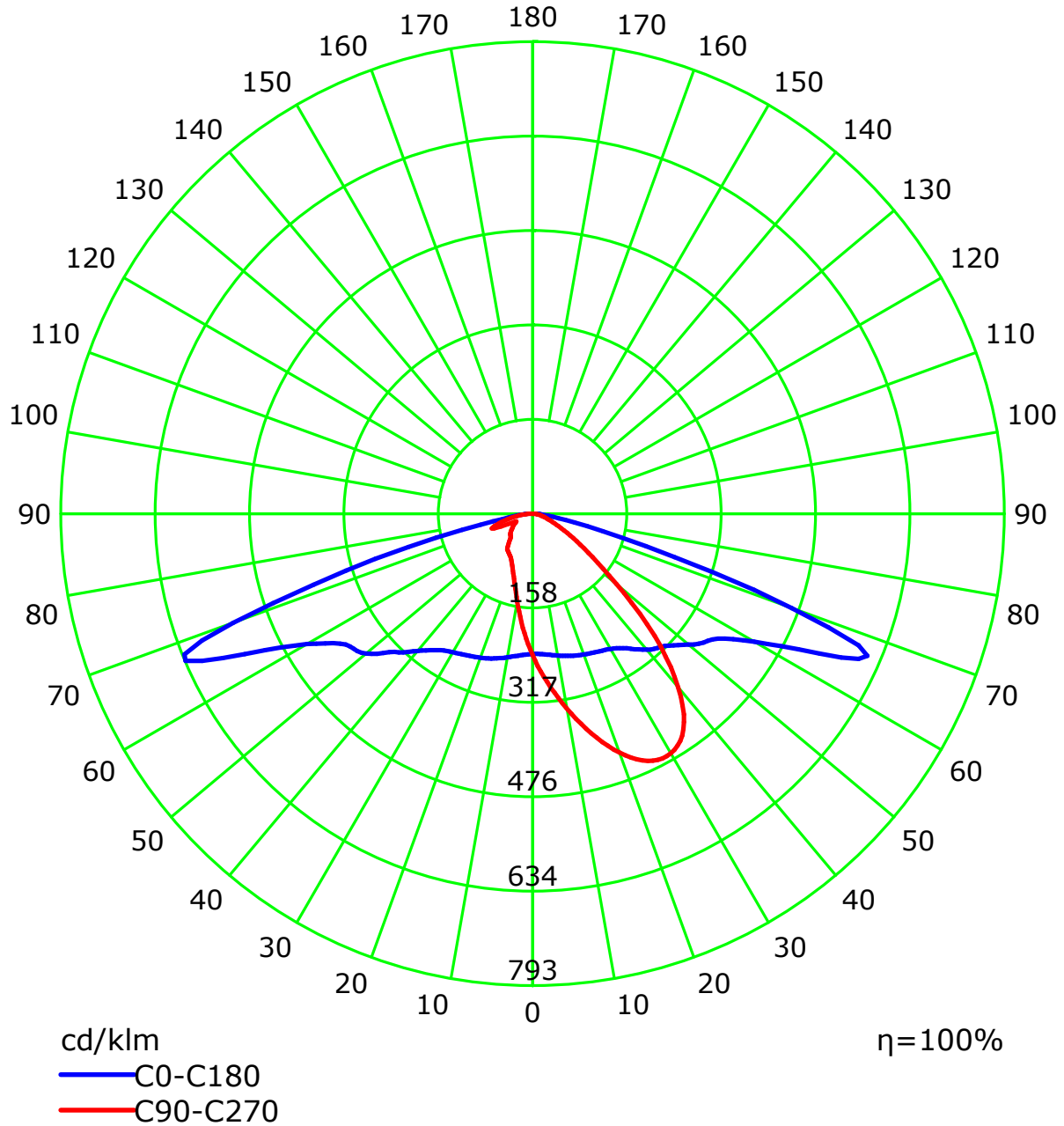
Test Device: GPM-1600L

Distance: 7.118 m [K=3.4818]

Humidity:

Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



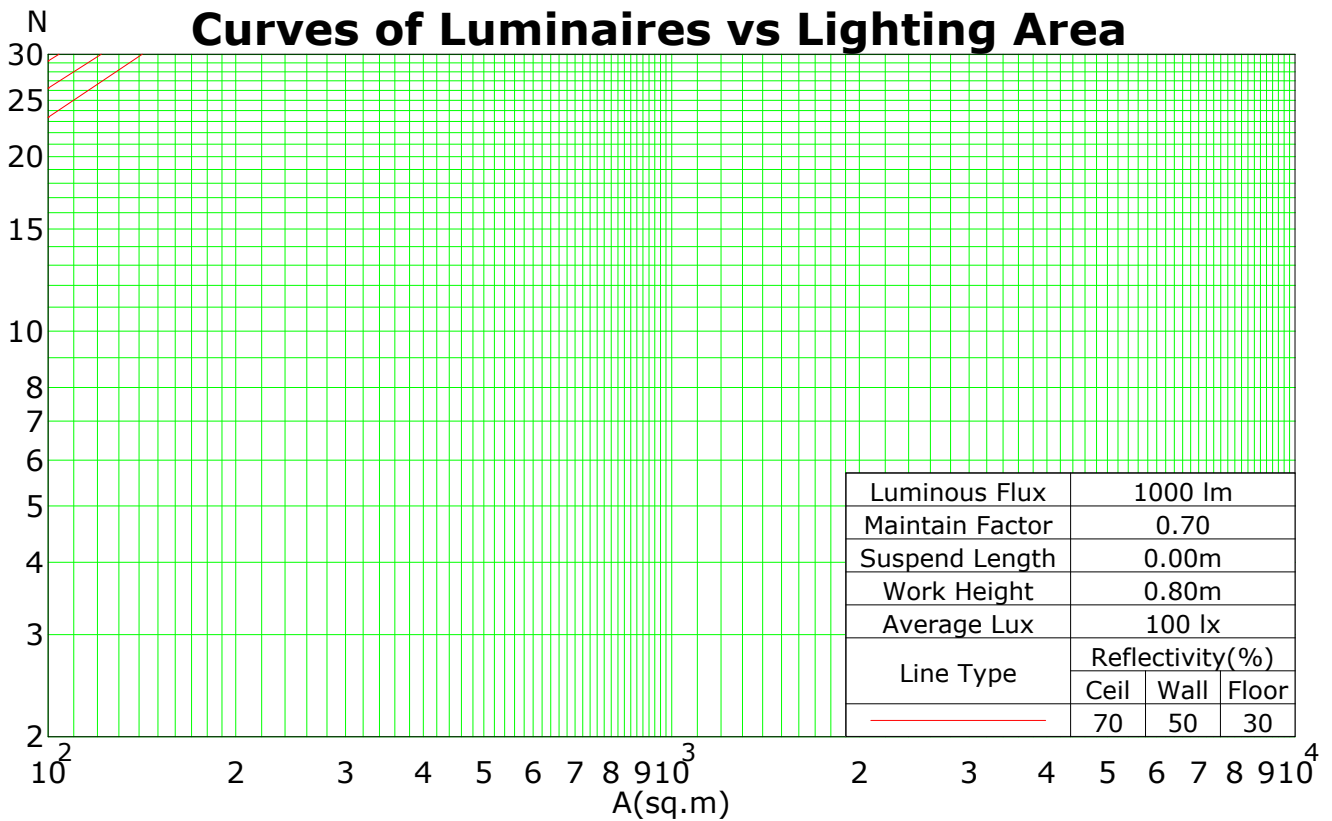
C Plane (°):0.0-360.0: 10.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.118 m [K=3.4818]  
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	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.08	1.03	0.99	0.95	1.06	1.01	0.97	0.93	0.97	0.93	0.90	0.93	0.90	0.88	0.89	0.87	0.85	0.83
2	0.98	0.89	0.82	0.76	0.95	0.87	0.81	0.75	0.84	0.78	0.73	0.80	0.76	0.72	0.77	0.73	0.70	0.68
3	0.89	0.77	0.69	0.62	0.86	0.76	0.68	0.61	0.73	0.66	0.60	0.70	0.64	0.59	0.67	0.62	0.58	0.56
4	0.81	0.68	0.59	0.52	0.78	0.67	0.58	0.51	0.64	0.57	0.51	0.62	0.55	0.50	0.59	0.54	0.49	0.47
5	0.74	0.60	0.51	0.44	0.72	0.59	0.50	0.44	0.57	0.49	0.43	0.55	0.48	0.43	0.53	0.47	0.42	0.40
6	0.68	0.54	0.44	0.38	0.66	0.53	0.44	0.38	0.51	0.43	0.37	0.49	0.42	0.37	0.48	0.41	0.36	0.34
7	0.63	0.48	0.39	0.33	0.61	0.48	0.39	0.33	0.46	0.38	0.32	0.45	0.37	0.32	0.43	0.37	0.32	0.30
8	0.58	0.44	0.35	0.29	0.56	0.43	0.35	0.29	0.42	0.34	0.29	0.41	0.34	0.28	0.39	0.33	0.28	0.26
9	0.54	0.40	0.32	0.26	0.53	0.39	0.31	0.26	0.38	0.31	0.26	0.37	0.30	0.25	0.36	0.30	0.25	0.23
10	0.51	0.37	0.29	0.23	0.49	0.36	0.28	0.23	0.35	0.28	0.23	0.34	0.28	0.23	0.33	0.27	0.23	0.21

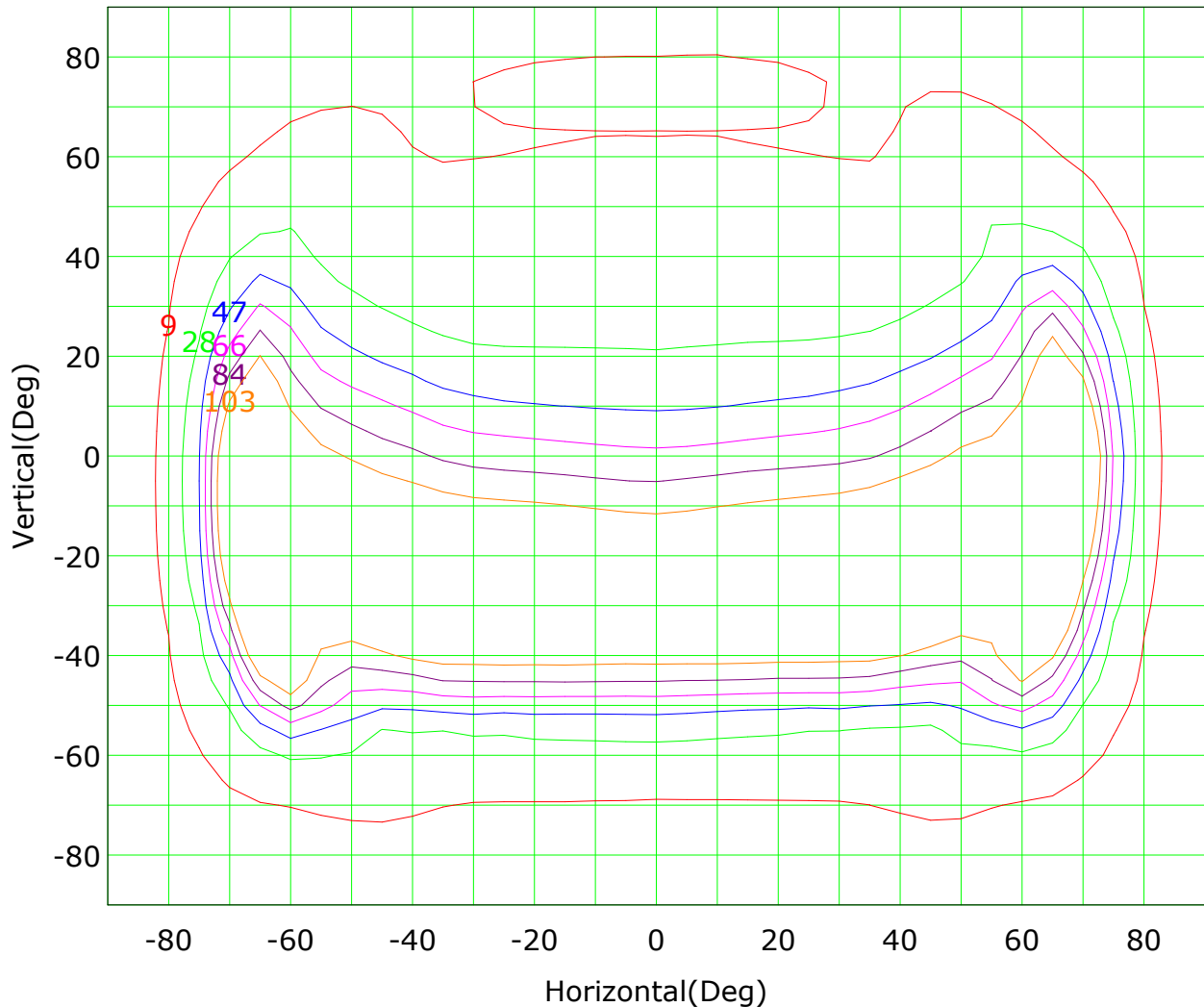
Spacing Criteria (0-180): 1.93  
 Spacing Criteria (90-270): 1.55  
 Spacing Criteria (Diagonal): 1.67



C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.118 m [K=3.4818]  
 Humidity:  
 Inspector:

## Isocandela (rectangle)



Imax (100%): 188 cd

— ( 5%):	9 cd	— ( 15%):	28 cd
— ( 25%):	47 cd	— ( 35%):	66 cd
— ( 45%):	84 cd	— ( 55%):	103 cd

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

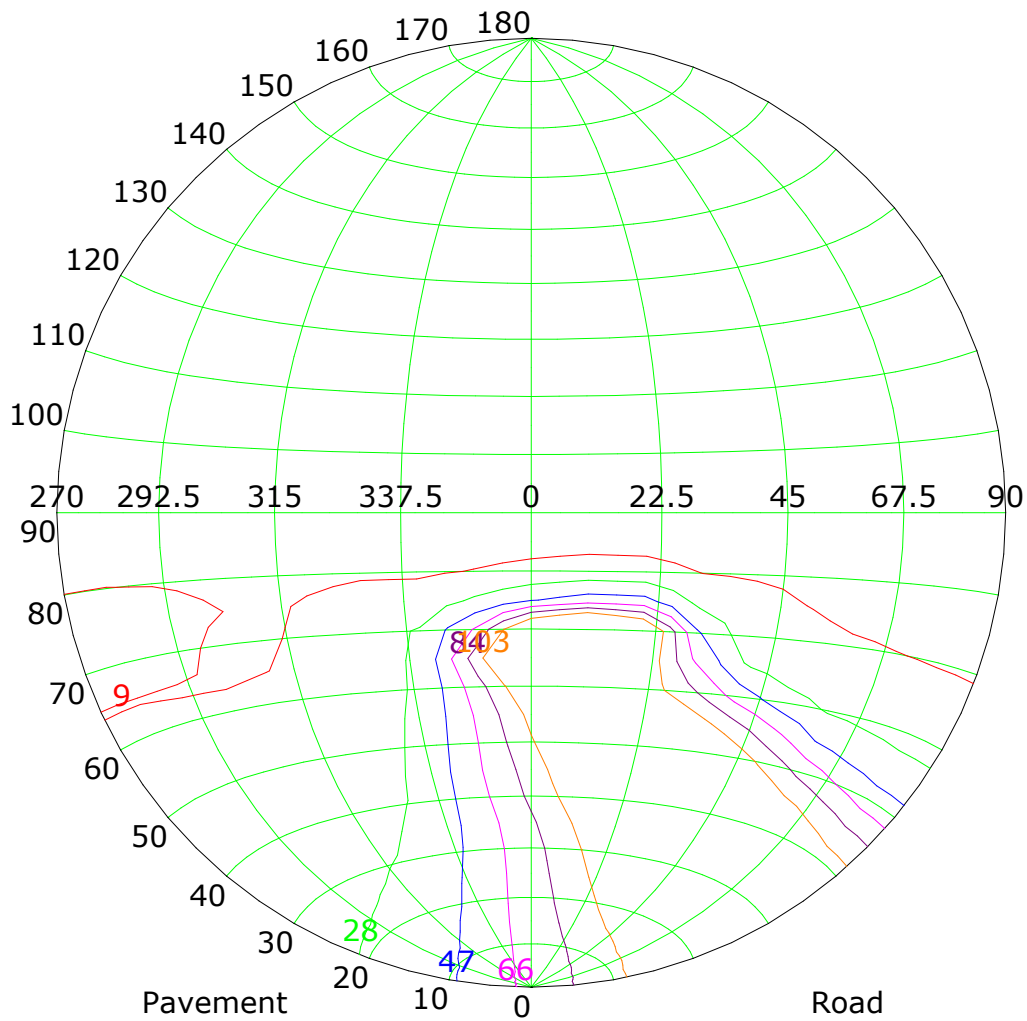
Test Device: GPM-1600L

Distance: 7.118 m [K=3.4818]

Humidity:

Inspector:

## Isocandela (sphere)



Imax (100%): 188 cd

— ( 5%):	9 cd	— ( 15%):	28 cd
— ( 25%):	47 cd	— ( 35%):	66 cd
— ( 45%):	84 cd	— ( 55%):	103 cd

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

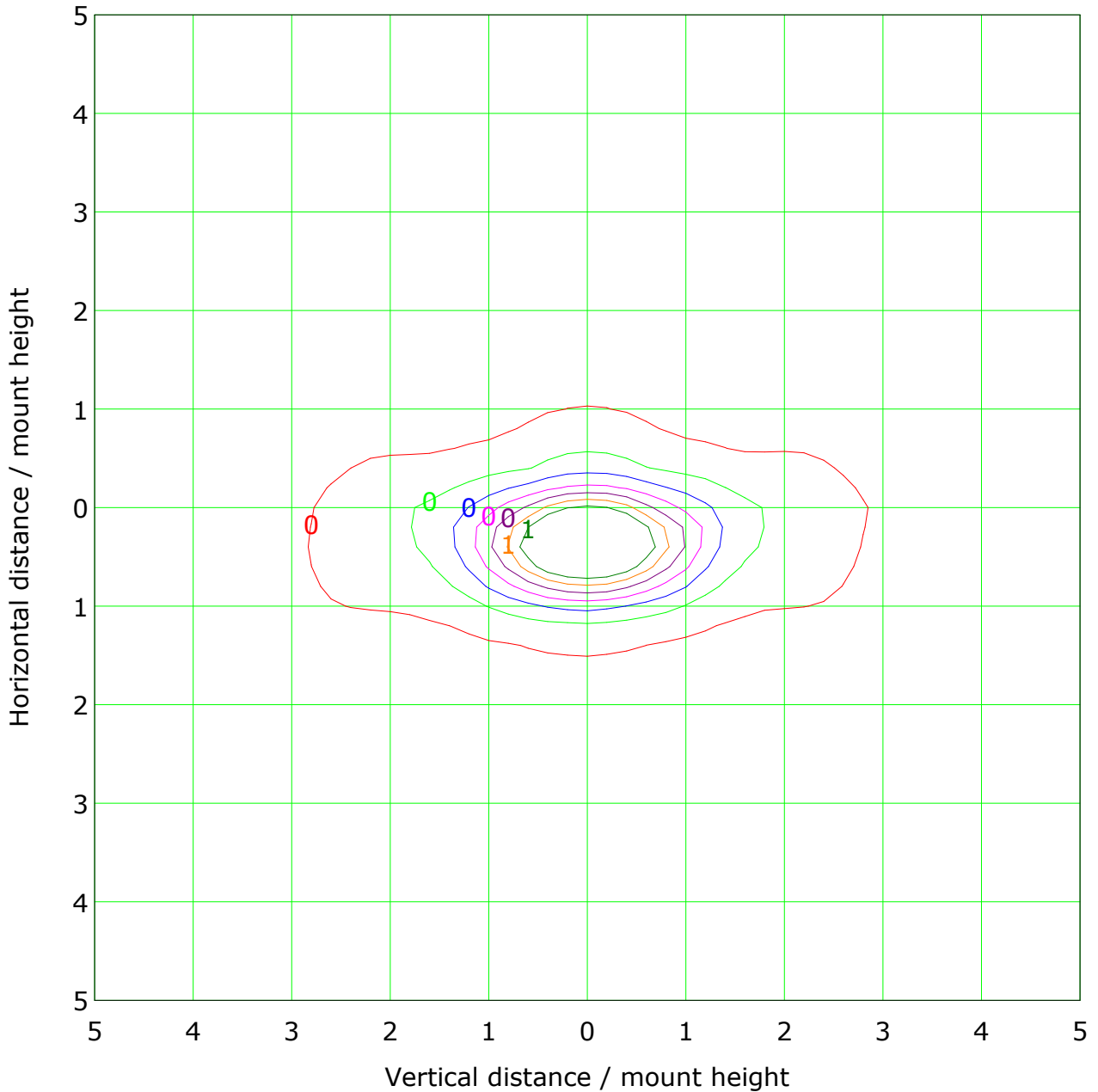
Test Device: GPM-1600L

Distance: 7.118 m [K=3.4818]

Humidity:

Inspector:

## IsoLux Plot



Mounting Height: 10.0m    Max Lux(100%): 1.1 lx

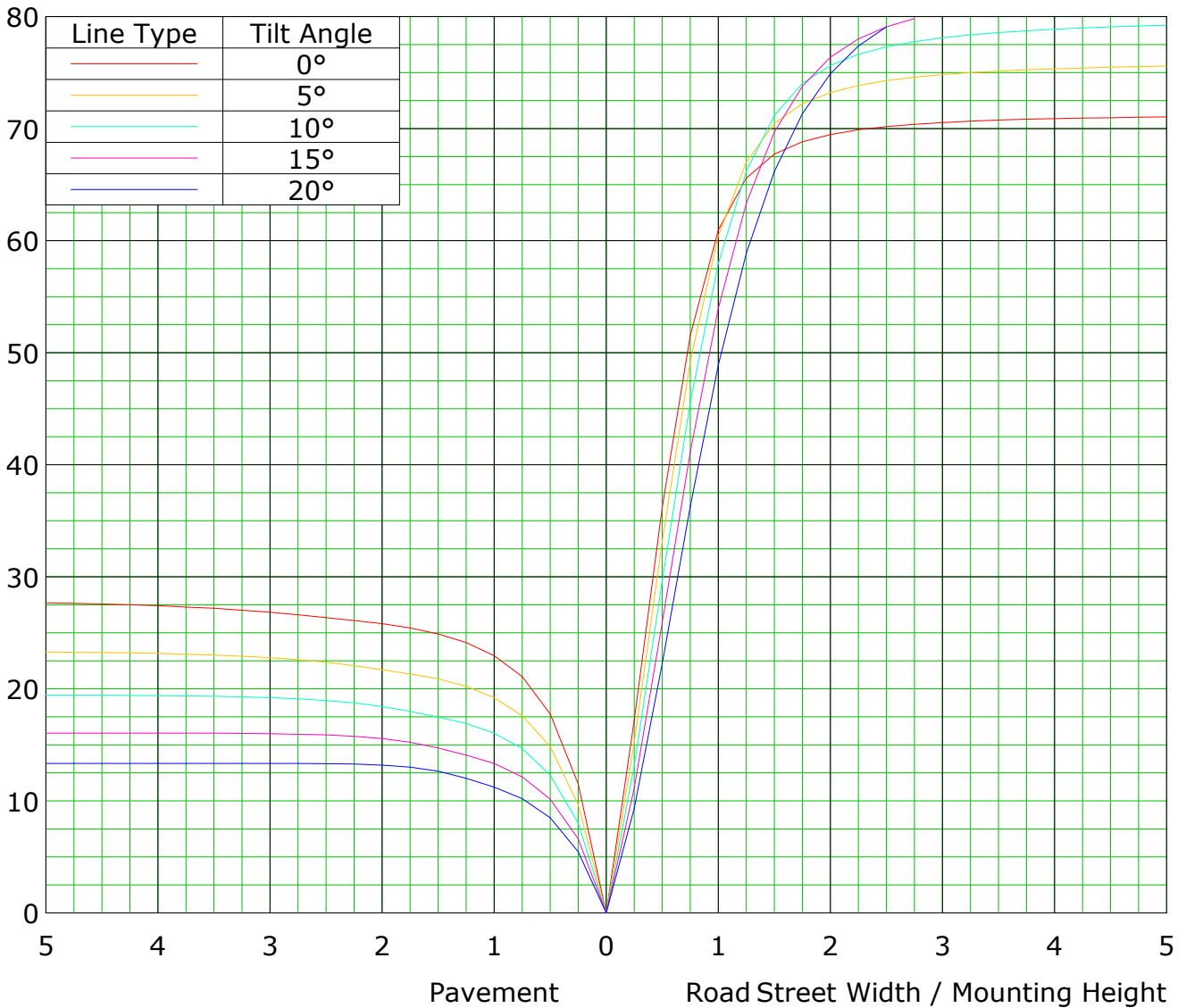
— ( 5%): 0.1 lx	— ( 15%): 0.2 lx
— ( 25%): 0.3 lx	— ( 35%): 0.4 lx
— ( 45%): 0.5 lx	— ( 55%): 0.6 lx
— ( 65%): 0.7 lx	

C Plane (°):0.0-360.0: 10.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.118 m [K=3.4818]  
Humidity:  
Inspector:

## Roadway CU Curve

Efficiency(%)



C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.118 m [K=3.4818]

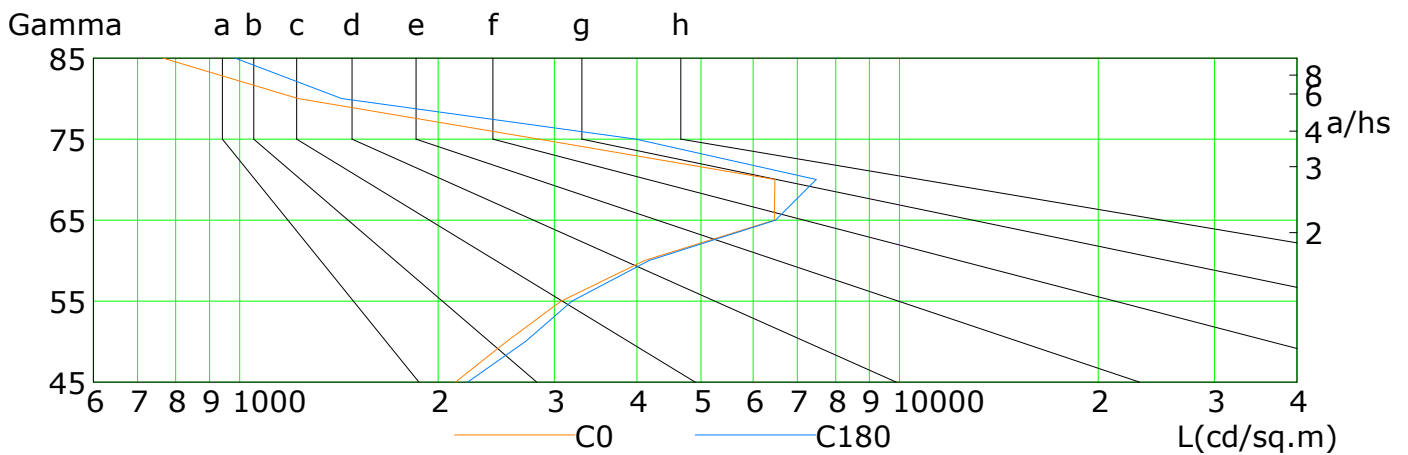
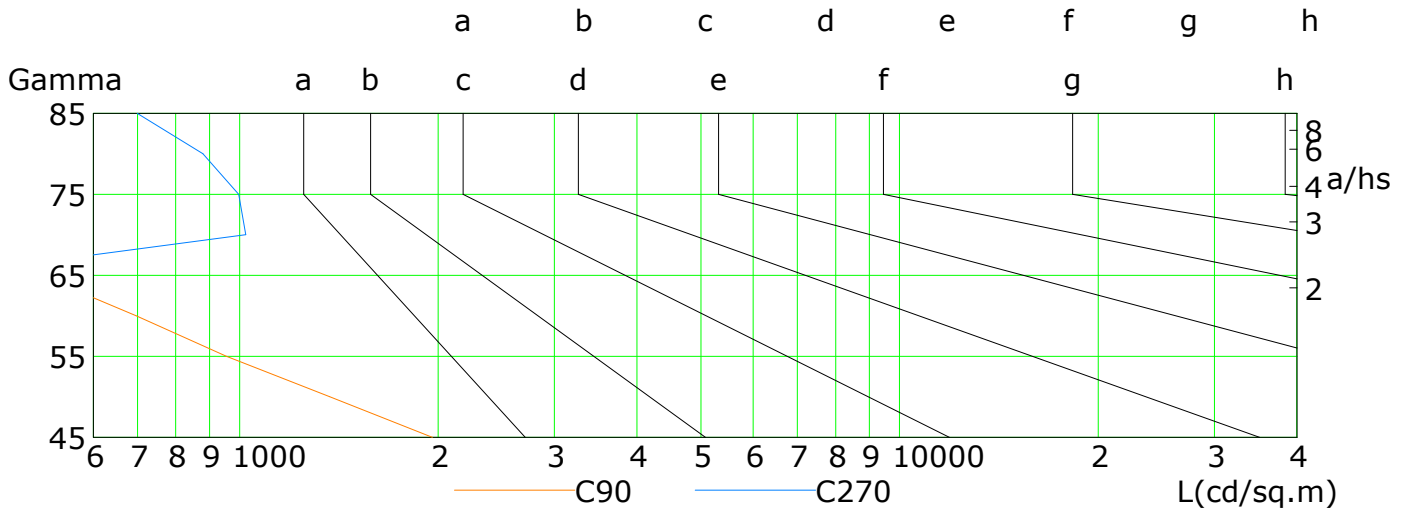
Humidity:

Inspector:



## Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
		a	b	c	d	e	f	g	h
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

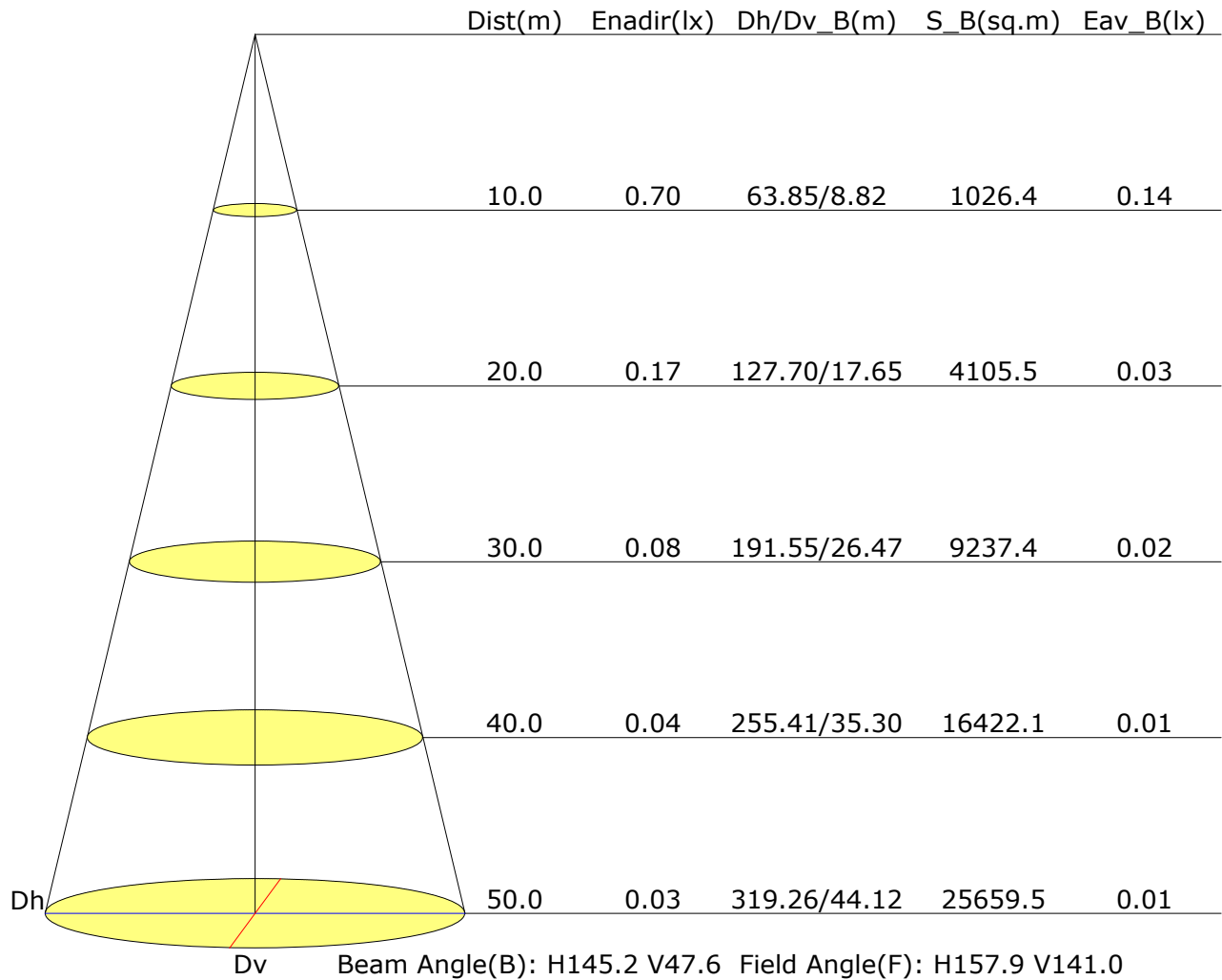


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	2123	2539	3069	4108	6460	6472	2842	1226	766
C90	1958	1369	955	696	501	391	338	296	252
C180	2215	2713	3188	4176	6488	7475	3986	1426	984
C270	357	362	348	349	345	1022	997	879	699

C Plane (°):0.0-360.0: 10.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.118 m [K=3.4818]  
Humidity:  
Inspector:

## Illuminance at a Distance



C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

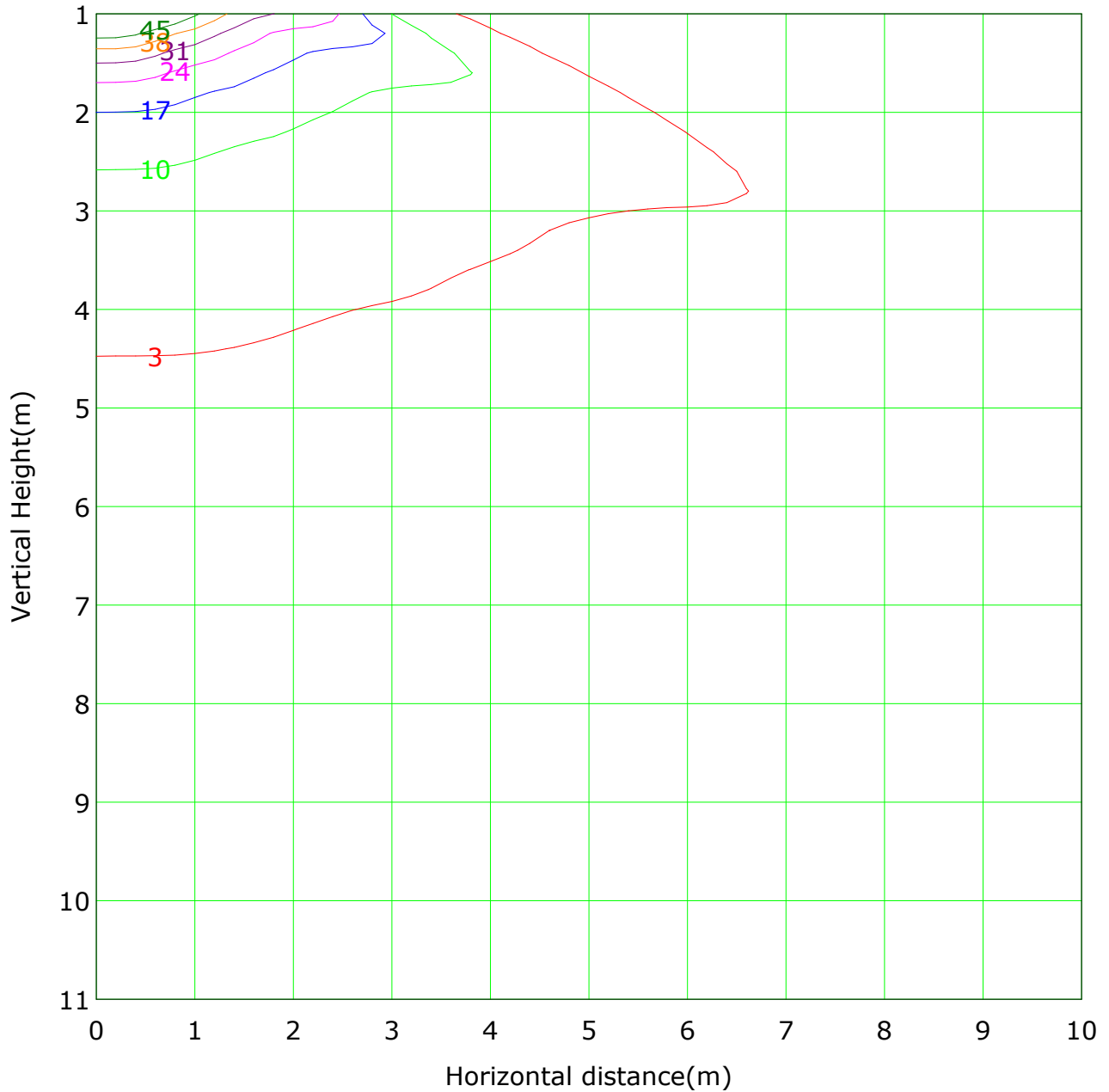
Test Device: GPM-1600L

Distance: 7.118 m [K=3.4818]

Humidity:

Inspector:

## Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 11.0m	Max Lux: 69.8 lx
— ( 5%): 3.5 lx	— ( 15%): 10.5 lx	
— ( 25%): 17.4 lx	— ( 35%): 24.4 lx	
— ( 45%): 31.4 lx	— ( 55%): 38.4 lx	
— ( 65%): 45.4 lx		

C Plane (°):0.0-360.0: 10.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.118 m [K=3.4818]  
Humidity:  
Inspector:

### Area Flux Table

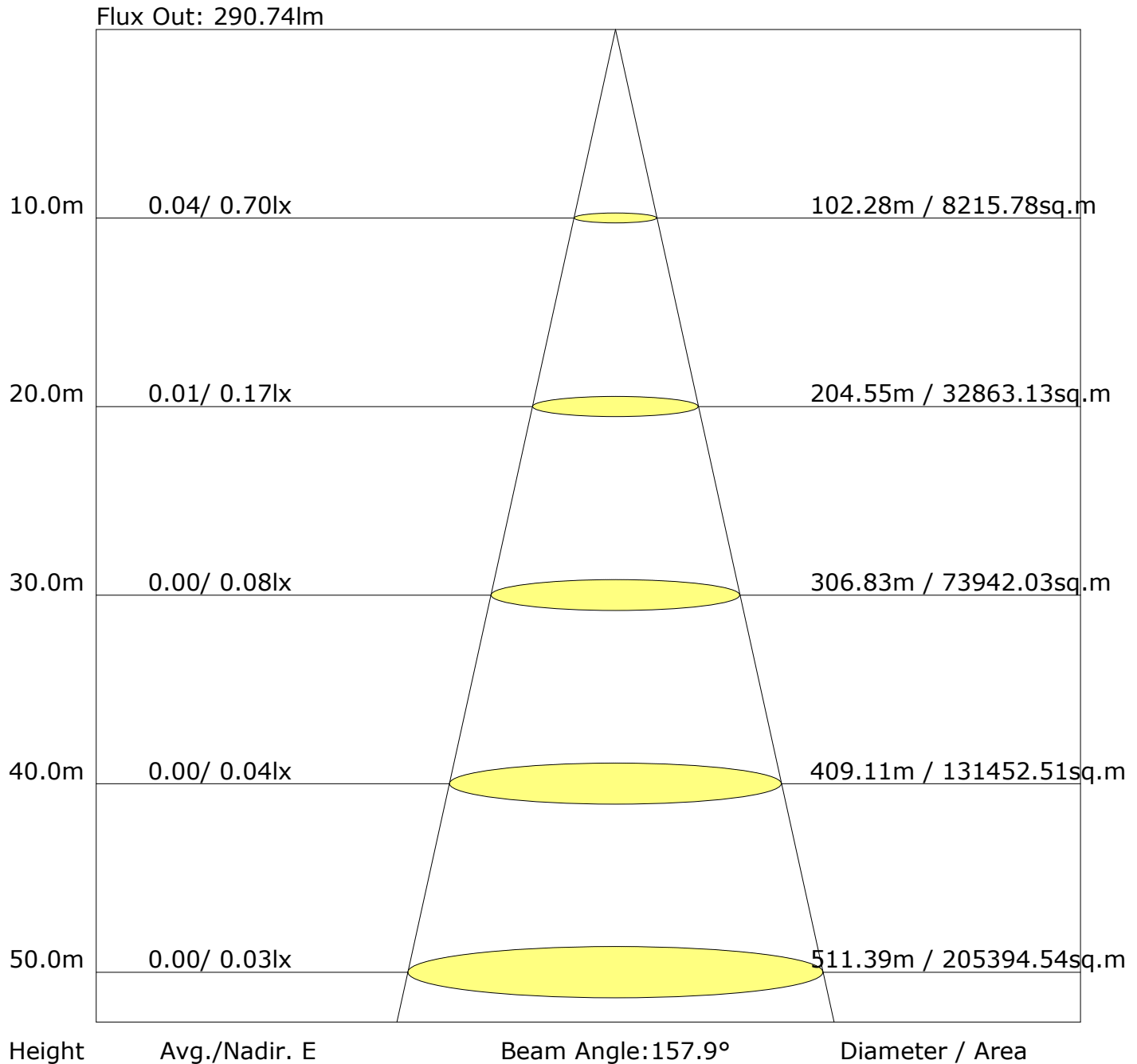
Unit: lm

		Vertical plane																				
		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	Flux(T)	Flux(E)
Horizontal plane	-90	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	296	271
	-80	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	296	271
	-70	0.0	0.0	0.1	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.6	296	271
	-60	0.0	0.1	0.2	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	296	271
	-50	0.0	0.1	0.2	0.4	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.1	296	271
	-40	0.0	0.2	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.6	296	271
	-30	0.0	0.3	1.1	0.9	0.8	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	2.1	296	271
	-20	0.0	0.4	1.5	1.4	1.3	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.6	296	271
	-10	0.0	0.6	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	3.1	296	271
	0	0.0	0.6	2.1	2.1	2.1	2.4	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.6	296	271
	10	0.0	0.5	2.1	2.3	3.0	3.3	3.3	3.4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.1	296	271
	20	0.0	0.4	2.0	2.2	3.1	3.6	3.6	3.9	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.6	296	271
	30	0.0	0.3	1.6	2.0	2.5	3.2	3.2	3.6	3.8	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	4.6	296	271
	40	0.0	0.2	1.0	1.4	1.5	2.0	2.2	2.2	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	4.2	296	271
	50	0.0	0.1	0.5	0.7	0.6	0.7	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	4.2	296	271
	60	0.0	0.1	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	4.2	296	271
	70	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	4.2	296	271
	80	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	4.2	296	271
90	0.2	3.9	15.5	17.2	19.2	21.0	22.7	24.1	24.5	24.4	24.2	22.7	20.9	18.8	17.0	15.5	14.9	14.9	2.9	296	271	

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.118 m [K=3.4818]  
 Humidity:  
 Inspector:

## The Average Illuminance Effective Figure



C Plane (°):0.0-360.0: 10.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.118 m [K=3.4818]  
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	18.6	20.1	19.0	20.3	20.6	11.6	13.0	11.9	13.3	13.5					
3H	23.1	24.4	23.4	24.7	25.0	12.2	13.5	12.5	13.8	14.0					
4H	23.7	24.9	24.0	25.2	25.5	12.8	14.0	13.1	14.3	14.6					
6H	23.7	24.9	24.1	25.2	25.5	13.2	14.4	13.6	14.7	15.0					
8H	23.7	24.8	24.1	25.1	25.5	13.3	14.5	13.7	14.8	15.1					
12H	23.7	24.7	24.0	25.1	25.4	13.4	14.5	13.8	14.8	15.2					
X=4H Y=2H	18.5	19.8	18.9	20.1	20.4	12.6	13.8	12.9	14.1	14.4					
3H	23.1	24.2	23.5	24.5	24.9	13.2	14.2	13.6	14.6	14.9					
4H	23.8	24.7	24.2	25.1	25.5	13.8	14.8	14.2	15.1	15.5					
6H	23.9	24.8	24.3	25.1	25.5	14.4	15.2	14.8	15.6	16.0					
8H	23.9	24.7	24.3	25.1	25.5	14.5	15.3	15.0	15.7	16.2					
12H	23.9	24.6	24.3	25.0	25.5	14.7	15.4	15.1	15.8	16.2					
X=8H Y=4H	23.7	24.5	24.1	24.9	25.3	14.5	15.3	15.0	15.7	16.1					
6H	23.9	24.5	24.3	24.9	25.4	15.1	15.7	15.6	16.2	16.6					
8H	23.9	24.4	24.4	24.9	25.4	15.3	15.9	15.8	16.3	16.8					
12H	23.9	24.4	24.4	24.8	25.3	15.5	16.0	16.0	16.4	16.9					
X=12H Y=4H	23.7	24.4	24.1	24.8	25.2	14.6	15.3	15.0	15.7	16.2					
6H	23.8	24.4	24.3	24.8	25.3	15.2	15.7	15.6	16.2	16.7					
8H	23.9	24.3	24.4	24.8	25.3	15.4	15.9	15.9	16.4	16.9					
Variations with the observer position at spacings:															
S=1.0H						+0.3/-0.3					+1.0/-1.0				
S=1.5H						+1.2/-1.2					+1.8/-1.7				
S=2.0H						+2.0/-2.8					+1.9/-2.2				

Calculate in accordance with CIE Pub.117. The table is revised with  $296lm$  ( $8\log(F/F_0) = -4.2$ ).

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.118 m [K=3.4818]  
 Humidity:  
 Inspector:

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

	ZONE	LUMENS	% LAMP LUMENS
	FORWARD LIGHT	213	72.1
	FL ( 0°-30°)	46	15.7
	FM (30°-60°)	122	41.3
	FH (60°-80°)	43	14.5
	FVH (80°-90°)	2	0.6
	BACK LIGHT	82	27.9
	BL ( 0°-30°)	19	6.3
	BM (30°-60°)	36	12.2
	BH (60°-80°)	26	8.7
	BVH (80°-90°)	2	0.7
	UP LIGHT	0	0.0
	UL (90°-100°)	0	0.0
	UH (100°-180°)	0	0.0
	TRAPPED LIGHT	NA	NA

BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B0 U0 G0
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B0 U0 G0

C Plane (°):0.0-360.0: 10.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
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Gamma Plane (°):0.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.118 m [K=3.4818]  
Humidity:  
Inspector:





## Utilisation Factor Table(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 1.75									
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	NA	0.67	0.75	0.80	0.88	0.92	0.96	1.00	1.03	
		0.30	NA	0.60	0.67	0.73	0.82	0.87	0.91	0.96	1.00	
		0.20	NA	0.54	0.62	0.68	0.77	0.82	0.87	0.93	0.97	
0.50	0.50	0.20	NA	0.65	0.72	0.77	0.84	0.89	0.92	0.96	0.99	
		0.30	NA	0.59	0.66	0.72	0.79	0.84	0.88	0.93	0.96	
		0.20	NA	0.54	0.61	0.67	0.75	0.81	0.85	0.90	0.94	
0.30	0.50	0.20	NA	0.63	0.70	0.75	0.82	0.86	0.89	0.93	0.95	
		0.30	NA	0.58	0.65	0.70	0.77	0.82	0.85	0.90	0.93	
		0.20	NA	0.53	0.60	0.66	0.74	0.79	0.83	0.88	0.91	
0.00	0.00	0.00	NA	0.51	0.57	0.63	0.70	0.75	0.79	0.83	0.86	

Rating:2W 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 = 1.75									
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	NA	0.81	0.69	0.59	0.47	0.39	0.33	0.26	0.21	
	0.30		NA	0.69	0.60	0.53	0.43	0.36	0.31	0.24	0.20	
	0.20		NA	0.60	0.53	0.47	0.39	0.33	0.29	0.23	0.19	
0.50	0.50	0.20	NA	0.78	0.66	0.57	0.45	0.41	0.32	0.24	0.20	
	0.30		NA	0.67	0.58	0.51	0.41	0.35	0.30	0.23	0.19	
	0.20		NA	0.60	0.52	0.46	0.38	0.32	0.28	0.22	0.18	
0.30	0.50	0.20	NA	0.75	0.63	0.55	0.43	0.36	0.30	0.23	0.19	
	0.30		NA	0.66	0.57	0.50	0.40	0.33	0.29	0.22	0.18	
	0.20		NA	0.59	0.51	0.45	0.37	0.31	0.27	0.21	0.18	
0.00	0.00	0.00	1.00	0.49	0.42	0.37	0.29	0.25	0.21	0.16	0.13	
<p>Rating:2W Photometrically tested without ceiling board.                      Multiply UF values by service correction factors                      Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>												

## Utilisation Factor Table(Ceiling cavity)

Utilisation Factors UF(C)			SHR NOM = 1.75									
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	NA	0.17	0.18	0.19	0.20	0.20	0.21	0.21	0.22	
	0.30		NA	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19	
	0.20		NA	0.06	0.08	0.09	0.11	0.13	0.14	0.16	0.17	
0.50	0.50	0.20	NA	0.17	0.18	0.18	0.19	0.19	0.20	0.20	0.21	
	0.30		NA	0.11	0.12	0.13	0.15	0.16	0.16	0.18	0.18	
	0.20		NA	0.06	0.08	0.09	0.11	0.12	0.14	0.15	0.16	
0.30	0.50	0.20	NA	0.16	0.17	0.17	0.18	0.19	0.19	0.20	0.20	
	0.30		NA	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18	
	0.20		NA	0.06	0.08	0.09	0.11	0.12	0.13	0.15	0.16	
0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	
<p>Rating:2W Photometrically tested without ceiling board.                      Multiply UF values by service correction factors                      Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>												

## 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	70.6	0.1	0.1	0.02	0.02
1.0-2.0	70.6	0.2	0.3	0.07	0.09
2.0-3.0	70.7	0.3	0.6	0.11	0.21
3.0-4.0	70.8	0.5	1.1	0.16	0.37
4.0-5.0	70.9	0.6	1.7	0.21	0.57
5.0-6.0	71.1	0.7	2.4	0.25	0.82
6.0-7.0	71.3	0.9	3.3	0.30	1.12
7.0-8.0	71.5	1.0	4.3	0.35	1.47
8.0-9.0	71.8	1.2	5.5	0.39	1.86
9.0-10.0	72.1	1.3	6.8	0.44	2.30
10.0-11.0	72.4	1.4	8.3	0.49	2.79
11.0-12.0	72.8	1.6	9.9	0.54	3.33
12.0-13.0	73.2	1.7	11.6	0.59	3.92
13.0-14.0	73.7	1.9	13.5	0.64	4.56
14.0-15.0	74.2	2.0	15.5	0.69	5.25
15.0-16.0	74.8	2.2	17.7	0.74	5.99
16.0-17.0	75.3	2.3	20.1	0.79	6.78
17.0-18.0	75.9	2.5	22.6	0.85	7.63
18.0-19.0	76.5	2.7	25.2	0.90	8.53
19.0-20.0	77.1	2.8	28.0	0.95	9.48
20.0-21.0	77.7	3.0	31.0	1.01	10.49
21.0-22.0	78.3	3.1	34.2	1.06	11.56
22.0-23.0	78.9	3.3	37.5	1.12	12.68
23.0-24.0	79.4	3.5	41.0	1.17	13.85
24.0-25.0	80.0	3.6	44.6	1.23	15.08
25.0-26.0	80.5	3.8	48.4	1.29	16.37
26.0-27.0	80.9	4.0	52.4	1.34	17.71
27.0-28.0	81.4	4.1	56.5	1.39	19.10
28.0-29.0	81.7	4.3	60.7	1.45	20.54
29.0-30.0	82.0	4.4	65.2	1.50	22.04
30.0-31.0	82.2	4.6	69.8	1.55	23.59
31.0-32.0	82.4	4.7	74.5	1.60	25.19
32.0-33.0	82.5	4.9	79.3	1.64	26.83
33.0-34.0	82.5	5.0	84.3	1.69	28.52
34.0-35.0	82.5	5.1	89.4	1.73	30.25
35.0-36.0	82.3	5.2	94.7	1.77	32.02

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.118 m [K=3.4818]  
 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	82.0	5.4	100.0	1.81	33.83
37.0-38.0	81.6	5.4	105.5	1.84	35.67
38.0-39.0	81.0	5.5	111.0	1.87	37.55
39.0-40.0	80.3	5.6	116.6	1.89	39.44
40.0-41.0	79.4	5.7	122.3	1.91	41.35
41.0-42.0	78.5	5.7	128.0	1.93	43.28
42.0-43.0	77.4	5.7	133.7	1.94	45.22
43.0-44.0	76.2	5.8	139.5	1.94	47.16
44.0-45.0	74.9	5.8	145.2	1.95	49.11
45.0-46.0	73.6	5.8	151.0	1.95	51.06
46.0-47.0	72.2	5.7	156.7	1.94	53.00
47.0-48.0	70.6	5.7	162.4	1.93	54.93
48.0-49.0	68.9	5.7	168.1	1.91	56.84
49.0-50.0	67.1	5.6	173.7	1.89	58.73
50.0-51.0	65.0	5.5	179.2	1.86	60.59
51.0-52.0	62.9	5.4	184.6	1.83	62.42
52.0-53.0	60.7	5.3	189.8	1.79	64.20
53.0-54.0	58.4	5.1	195.0	1.74	65.94
54.0-55.0	56.1	5.0	200.0	1.69	67.64
55.0-56.0	54.0	4.9	204.9	1.65	69.29
56.0-57.0	52.0	4.8	209.6	1.61	70.89
57.0-58.0	50.3	4.7	214.3	1.57	72.47
58.0-59.0	48.8	4.6	218.8	1.54	74.01
59.0-60.0	47.5	4.5	223.3	1.52	75.53
60.0-61.0	46.5	4.4	227.8	1.50	77.03
61.0-62.0	45.9	4.4	232.2	1.50	78.52
62.0-63.0	45.5	4.4	236.6	1.50	80.02
63.0-64.0	45.6	4.5	241.1	1.51	81.53
64.0-65.0	46.0	4.6	245.7	1.54	83.08
65.0-66.0	46.7	4.7	250.3	1.58	84.65
66.0-67.0	47.2	4.7	255.1	1.60	86.25
67.0-68.0	47.0	4.8	259.8	1.61	87.86
68.0-69.0	45.6	4.7	264.5	1.57	89.44
69.0-70.0	42.8	4.4	268.9	1.49	90.93
70.0-71.0	38.9	4.0	272.9	1.36	92.29
71.0-72.0	34.4	3.6	276.5	1.21	93.50

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.118 m [K=3.4818]  
 Humidity:  
 Inspector:



## Zonal Lumen (Continue 3)

cone flux(90°): 145.22 lm

%lum = 49.1%  
%lamp = 49.1%

cone flux(120°): 223.33 lm

%lum = 75.5%  
%lamp = 75.5%

## Candlepower Table

Unit: cd

G\C	C0.0	C10.0	C20.0	C30.0	C40.0	C50.0	C60.0	C70.0	C80.0	C90.0
G0.0	69.8	69.8	69.9	69.8	70.3	69.9	70.7	70.1	70.8	70.3
G1.0	69.7	70.3	70.8	71.3	71.9	72.1	72.9	72.8	73.5	73.1
G2.0	69.8	70.8	71.7	72.6	73.7	74.2	75.2	75.3	76.2	75.8
G3.0	69.9	71.4	72.9	74.1	75.7	76.4	77.7	78.1	79.0	78.7
G4.0	70.0	72.0	73.9	75.6	77.5	78.6	80.1	80.5	81.7	81.4
G5.0	70.2	72.6	75.1	77.1	79.4	80.7	82.5	83.1	84.3	84.0
G6.0	70.5	73.4	76.3	78.9	81.4	83.2	85.2	85.9	87.2	87.0
G7.0	70.7	74.2	77.5	80.4	83.4	85.4	87.7	88.5	90.0	89.7
G8.0	71.0	74.9	78.9	82.1	85.6	87.7	90.4	91.2	92.9	92.5
G9.0	71.3	75.8	80.1	83.9	87.6	90.2	93.0	94.0	95.7	95.5
G10.0	71.6	76.6	81.4	85.7	89.8	92.7	95.6	96.8	98.6	98.4
G11.0	72.0	77.6	82.9	87.6	92.1	95.3	98.7	99.9	101.6	101.5
G12.0	72.3	78.3	84.2	89.4	94.3	97.9	101.3	102.7	104.5	104.3
G13.0	72.6	79.3	85.6	91.2	96.7	100.4	104.1	105.6	107.5	107.2
G14.0	72.9	80.1	87.0	93.3	99.3	103.4	107.1	108.7	110.5	110.3
G15.0	73.2	81.0	88.4	95.3	101.7	106.0	110.1	111.7	113.4	113.0
G16.0	73.5	81.8	90.0	97.3	104.4	108.8	113.1	114.4	116.5	115.8
G17.0	73.7	82.7	91.4	99.4	106.8	111.7	116.0	117.5	119.1	118.8
G18.0	74.0	83.6	92.9	101.5	109.2	114.5	118.9	120.2	121.8	121.3
G19.0	74.3	84.5	94.4	103.7	111.9	117.6	121.8	123.2	124.5	124.1
G20.0	74.5	85.3	95.9	105.8	114.5	120.2	124.7	125.9	126.9	126.4
G21.0	74.8	86.2	97.4	107.8	117.0	122.9	127.3	128.3	129.2	128.6
G22.0	75.0	87.1	99.0	110.0	119.7	126.0	130.1	130.9	131.5	130.8
G23.0	75.3	87.9	100.5	112.1	122.2	128.5	132.6	133.0	133.4	132.6
G24.0	75.6	88.8	102.1	114.3	124.8	131.1	135.1	135.1	135.0	134.2
G25.0	75.8	89.8	103.6	116.5	127.3	133.7	137.1	137.0	136.4	135.6
G26.0	76.1	90.7	105.1	118.6	129.8	136.0	139.0	138.5	137.5	136.6
G27.0	76.4	91.6	106.7	121.0	132.4	138.2	140.8	139.7	138.2	137.4
G28.0	76.7	92.5	108.3	123.1	134.5	140.1	142.0	140.5	138.6	137.8
G29.0	77.1	93.5	109.9	125.1	136.7	141.8	143.1	141.0	138.7	137.8
G30.0	77.7	94.7	111.7	127.4	138.9	143.3	143.8	141.1	138.4	137.6
G31.0	78.2	95.8	113.4	129.6	140.7	144.4	144.2	140.9	138.0	137.0
G32.0	78.9	97.1	115.4	131.7	142.5	145.3	144.2	140.4	137.0	136.0
G33.0	79.7	98.4	117.3	133.7	143.8	145.9	143.8	139.6	135.7	134.8
G34.0	80.6	99.9	119.3	135.6	144.9	146.1	143.1	138.4	134.0	133.1
G35.0	81.7	101.6	121.5	137.6	145.9	145.9	142.0	136.6	131.7	130.7
G36.0	83.0	103.3	123.6	139.2	146.5	145.4	140.5	134.5	129.2	128.0

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.118 m [K=3.4818]  
 Humidity:  
 Inspector:



## Candlepower Table (Continue 1)

Unit: cd

G\C	C0.0	C10.0	C20.0	C30.0	C40.0	C50.0	C60.0	C70.0	C80.0	C90.0
G37.0	84.4	105.2	126.0	140.9	146.8	144.6	138.6	132.0	125.8	125.1
G38.0	85.6	107.3	128.2	142.4	146.7	143.3	136.4	128.6	122.3	121.1
G39.0	87.0	109.3	130.3	143.5	146.2	141.7	133.7	125.3	118.3	117.2
G40.0	88.3	111.3	132.3	144.5	145.4	139.8	130.4	121.1	113.8	112.5
G41.0	89.5	113.2	134.2	145.0	144.4	137.8	126.8	117.1	109.1	107.7
G42.0	90.5	114.8	135.9	145.3	143.2	135.4	123.2	112.6	104.4	102.9
G43.0	91.3	116.7	137.9	145.4	141.5	132.4	118.5	107.5	99.0	97.2
G44.0	92.0	118.7	139.6	145.4	139.8	129.2	114.1	102.4	93.6	91.8
G45.0	93.1	120.9	141.4	145.1	137.7	125.7	108.5	97.1	87.5	85.9
G46.0	94.5	123.4	142.7	144.6	135.6	121.5	103.3	90.9	81.5	79.1
G47.0	96.0	125.5	143.7	143.8	133.5	117.1	98.0	85.3	75.3	73.1
G48.0	97.6	127.4	144.2	142.5	130.6	111.8	91.7	78.6	68.3	66.3
G49.0	99.3	128.8	144.0	141.1	127.9	106.7	86.1	72.6	62.2	60.4
G50.0	101.2	130.1	142.9	139.0	124.4	101.0	80.1	66.0	56.1	54.6
G51.0	103.3	131.1	141.2	136.0	120.2	94.7	73.6	59.0	50.3	49.1
G52.0	105.0	131.6	139.2	132.6	115.5	88.7	67.1	52.7	45.4	44.5
G53.0	106.5	131.7	136.7	128.7	109.3	83.1	60.1	47.4	41.0	40.6
G54.0	107.7	131.4	134.1	124.0	102.8	76.6	53.5	42.1	37.4	36.9
G55.0	109.2	131.2	131.2	119.5	95.3	70.7	47.5	38.1	34.2	34.0
G56.0	111.2	131.3	127.9	114.0	87.2	63.8	41.4	34.3	31.4	31.0
G57.0	114.1	131.7	124.9	108.8	79.4	57.0	36.8	31.4	28.9	28.4
G58.0	117.8	132.6	122.1	103.2	72.6	50.4	32.8	28.8	26.5	26.0
G59.0	122.4	134.3	119.9	97.1	65.4	43.2	29.3	26.2	24.1	23.6
G60.0	127.4	136.7	118.7	91.5	59.2	37.0	26.4	24.1	22.1	21.6
G61.0	133.5	139.7	118.3	86.2	52.9	31.7	24.0	22.2	20.1	19.7
G62.0	140.4	144.1	118.6	80.6	47.0	27.4	22.0	20.2	18.4	17.7
G63.0	148.6	149.1	119.5	75.8	41.2	24.0	20.3	18.6	16.5	16.0
G64.0	158.8	156.5	121.6	71.6	35.0	21.3	18.6	16.8	14.8	14.4
G65.0	169.3	164.4	124.8	68.2	29.7	19.2	17.2	15.2	13.6	13.1
G66.0	177.5	173.9	128.3	65.4	25.0	17.5	15.9	13.9	12.5	12.0
G67.0	180.8	183.2	132.5	62.7	21.3	16.1	14.6	12.6	11.4	10.9
G68.0	174.9	187.7	136.5	59.8	18.8	14.9	13.4	11.5	10.4	10.0
G69.0	157.7	184.3	139.2	55.9	17.2	14.0	12.2	10.6	9.6	9.2
G70.0	137.3	168.2	137.0	49.9	16.5	13.1	11.1	9.6	8.8	8.3
G71.0	116.5	145.3	127.1	43.3	16.6	12.4	10.1	8.8	8.1	7.8
G72.0	93.7	116.4	107.9	37.3	16.8	11.7	9.1	8.1	7.4	7.1
G73.0	73.9	93.9	87.6	32.6	16.7	11.0	8.3	7.4	6.8	6.5

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.118 m [K=3.4818]  
 Humidity:  
 Inspector:



## Candlepower Table (Continue 3)

Unit: cd

G\C	C100.0	C110.0	C120.0	C130.0	C140.0	C150.0	C160.0	C170.0	C180.0	C190.0
G0.0	71.1	70.4	71.3	70.8	71.4	71.0	71.4	71.2	69.8	69.8
G1.0	73.8	73.3	73.7	73.1	73.1	72.6	72.4	71.8	69.8	69.4
G2.0	76.5	75.7	76.1	75.1	75.0	74.0	73.4	72.3	70.0	69.1
G3.0	79.3	78.5	78.6	77.5	77.0	75.6	74.6	73.0	70.2	68.8
G4.0	82.0	81.0	81.0	79.6	78.9	77.2	75.7	73.8	70.4	68.6
G5.0	84.6	83.6	83.4	81.8	80.8	78.8	76.9	74.5	70.7	68.4
G6.0	87.5	86.4	86.1	84.2	82.9	80.5	78.3	75.4	71.0	68.2
G7.0	90.3	89.1	88.5	86.5	84.9	82.1	79.5	76.2	71.3	68.0
G8.0	93.2	91.6	91.3	88.8	87.1	83.8	81.0	77.1	71.7	67.9
G9.0	96.0	94.6	93.9	91.4	89.2	85.7	82.3	78.0	72.1	67.8
G10.0	98.7	97.3	96.6	93.9	91.3	87.4	83.6	78.9	72.5	67.7
G11.0	101.9	100.4	99.4	96.5	93.7	89.4	85.1	79.9	72.9	67.6
G12.0	104.8	103.3	102.2	99.1	95.9	91.2	86.5	80.8	73.4	67.6
G13.0	107.8	106.1	105.0	101.7	98.2	93.1	87.9	81.7	73.7	67.4
G14.0	110.9	109.3	108.0	104.4	100.7	95.1	89.4	82.7	74.2	67.3
G15.0	113.8	112.0	110.9	107.0	103.1	97.1	90.8	83.6	74.5	67.1
G16.0	116.7	114.9	113.9	109.7	105.6	98.9	92.3	84.4	74.9	67.0
G17.0	119.4	117.9	116.6	112.6	108.0	101.0	93.8	85.3	75.3	66.9
G18.0	122.0	120.6	119.3	115.2	110.3	102.9	95.2	86.2	75.6	66.7
G19.0	124.7	123.4	122.2	118.1	112.9	105.0	96.6	87.1	75.9	66.5
G20.0	127.2	126.0	124.9	120.6	115.3	107.0	98.0	87.9	76.2	66.3
G21.0	129.5	128.6	127.4	123.2	117.7	108.9	99.4	88.7	76.5	66.1
G22.0	131.8	131.1	130.1	125.8	120.2	111.2	101.0	89.6	76.8	65.9
G23.0	133.7	133.4	132.4	128.2	122.5	113.2	102.4	90.4	77.1	65.7
G24.0	135.5	135.2	134.8	130.6	125.1	115.2	104.0	91.3	77.4	65.5
G25.0	136.9	137.2	136.8	133.1	127.4	117.5	105.5	92.3	77.7	65.3
G26.0	137.9	138.5	138.6	135.2	129.7	119.7	107.1	93.2	78.0	65.2
G27.0	138.7	139.7	140.2	137.4	132.1	122.0	108.9	94.2	78.3	65.0
G28.0	139.1	140.5	141.3	139.2	134.3	124.2	110.6	95.1	78.8	64.9
G29.0	139.3	140.9	142.2	140.6	136.3	126.4	112.3	96.1	79.1	64.8
G30.0	139.1	141.1	142.8	142.0	138.4	128.7	114.3	97.3	79.6	64.7
G31.0	138.6	141.0	143.1	143.0	140.2	130.8	116.2	98.4	80.0	64.6
G32.0	137.7	140.5	143.0	143.8	141.9	133.1	118.4	99.9	80.6	64.6
G33.0	136.5	139.6	142.7	144.1	143.3	135.0	120.5	101.3	81.1	64.6
G34.0	134.8	138.5	142.1	144.3	144.4	136.9	122.8	102.8	81.8	64.8
G35.0	132.6	136.6	140.8	144.1	145.4	138.9	125.2	104.8	82.9	65.1
G36.0	130.1	134.4	139.4	143.6	146.0	140.7	127.5	106.6	83.9	65.5

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.118 m [K=3.4818]  
 Humidity:  
 Inspector:

## Candlepower Table (Continue 4)

Unit: cd

G\C	C100.0	C110.0	C120.0	C130.0	C140.0	C150.0	C160.0	C170.0	C180.0	C190.0
G37.0	126.7	131.9	137.3	142.8	146.3	142.3	130.0	108.7	85.0	65.9
G38.0	123.1	128.5	134.9	141.6	146.2	143.9	132.4	111.1	86.3	66.3
G39.0	119.2	125.1	132.2	140.2	145.7	145.1	134.9	113.5	87.5	66.8
G40.0	114.3	120.6	128.8	138.1	144.8	146.1	137.5	116.2	89.1	67.2
G41.0	109.6	116.2	125.1	135.9	143.8	146.8	139.5	118.8	90.7	67.8
G42.0	104.4	111.3	121.2	133.3	142.6	147.0	141.5	121.2	92.5	68.5
G43.0	98.7	105.9	116.5	130.2	141.1	147.2	143.6	123.5	94.3	69.4
G44.0	92.9	100.3	111.6	126.8	139.5	147.1	145.6	126.2	95.8	70.3
G45.0	86.2	94.5	106.0	123.2	137.6	146.9	147.5	129.1	97.1	71.1
G46.0	80.1	88.1	100.5	118.9	135.4	146.3	148.9	132.2	99.2	71.7
G47.0	73.6	82.0	94.7	114.2	132.9	145.6	149.8	134.9	101.6	72.3
G48.0	66.5	74.7	88.4	108.9	129.9	144.3	150.0	137.2	104.2	73.2
G49.0	60.4	67.9	82.1	103.2	126.6	142.6	149.4	138.4	106.3	74.0
G50.0	54.7	61.4	75.9	97.3	123.0	140.2	147.8	138.9	108.1	74.8
G51.0	48.8	54.3	68.3	90.9	118.0	136.8	145.2	138.7	109.8	75.5
G52.0	44.3	48.8	61.4	85.1	112.6	132.6	141.8	137.7	110.9	75.8
G53.0	39.8	43.8	53.9	78.9	105.6	127.8	137.6	136.4	111.6	75.9
G54.0	36.3	39.1	48.0	72.0	98.4	121.8	133.5	134.9	112.4	75.8
G55.0	33.4	35.5	42.6	64.7	90.6	116.1	129.5	134.0	113.4	75.9
G56.0	30.5	32.2	37.8	56.6	82.5	109.7	125.5	133.8	115.6	76.6
G57.0	28.0	29.5	33.9	49.7	75.1	103.9	122.5	134.2	118.3	77.8
G58.0	25.8	27.1	30.8	42.9	68.2	98.4	120.4	135.1	121.7	79.5
G59.0	23.4	24.8	27.7	37.0	60.8	92.2	118.8	136.3	125.7	81.8
G60.0	21.4	22.7	25.4	32.5	54.5	86.8	117.7	137.9	129.5	84.3
G61.0	19.6	20.9	23.2	28.8	47.5	81.1	117.0	140.6	135.4	87.9
G62.0	17.8	19.1	21.4	25.5	41.2	74.6	117.1	145.4	141.6	91.8
G63.0	16.2	17.5	19.9	23.0	35.0	69.3	118.7	151.8	149.5	95.9
G64.0	14.4	15.9	18.3	20.9	29.1	64.2	121.9	160.2	159.4	101.2
G65.0	13.3	14.4	17.0	19.1	25.1	60.3	125.7	169.4	170.1	106.2
G66.0	12.2	13.2	15.7	17.6	21.9	57.3	129.7	177.3	180.0	110.3
G67.0	11.1	12.0	14.3	16.5	19.2	54.0	132.6	181.6	187.5	110.2
G68.0	10.2	11.1	13.1	15.3	17.6	50.4	131.6	178.2	186.9	104.8
G69.0	9.3	10.1	11.9	14.3	16.5	45.7	125.3	166.3	176.3	94.3
G70.0	8.6	9.3	10.8	13.4	15.8	39.3	114.3	144.4	158.6	82.9
G71.0	8.0	8.5	9.9	12.5	15.6	34.5	101.3	121.6	136.6	71.3
G72.0	7.3	7.9	8.9	11.6	15.5	29.8	86.2	100.6	114.7	61.2
G73.0	6.7	7.2	8.1	10.8	15.6	25.9	71.8	84.9	97.2	52.5

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.118 m [K=3.4818]  
 Humidity:  
 Inspector:



## Candlepower Table (Continue 6)

Unit: cd

G\C	C200.0	C210.0	C220.0	C230.0	C240.0	C250.0	C260.0	C270.0	C280.0	C290.0
G0.0	69.9	69.8	70.3	69.9	70.7	70.1	70.8	70.3	71.1	70.4
G1.0	69.0	68.6	68.5	68.0	68.2	67.6	68.1	67.6	68.3	68.0
G2.0	68.2	67.3	66.9	65.9	65.9	65.1	65.4	64.9	65.7	65.5
G3.0	67.4	66.0	65.1	63.9	63.5	62.4	62.7	62.2	62.9	62.7
G4.0	66.7	64.9	63.5	61.9	61.2	60.1	60.2	59.5	60.3	60.3
G5.0	66.0	63.8	62.0	60.1	59.2	57.7	57.7	57.0	57.7	57.8
G6.0	65.3	62.6	60.4	58.1	56.7	55.1	54.9	54.1	55.0	55.2
G7.0	64.7	61.5	59.0	56.2	54.7	52.9	52.4	51.6	52.6	52.9
G8.0	64.1	60.4	57.4	54.3	52.5	50.4	50.1	49.1	50.1	50.4
G9.0	63.5	59.3	55.9	52.5	50.4	48.2	47.6	46.7	47.6	48.1
G10.0	62.9	58.3	54.5	50.7	48.5	46.1	45.3	44.5	45.2	45.9
G11.0	62.3	57.1	52.9	48.9	46.3	44.0	43.1	42.2	43.0	43.7
G12.0	61.7	56.1	51.5	47.3	44.5	42.0	41.1	40.3	41.0	41.8
G13.0	61.1	55.1	50.2	45.6	42.8	40.2	39.3	38.5	39.2	39.9
G14.0	60.4	54.0	48.7	44.0	41.0	38.5	37.5	36.8	37.3	38.1
G15.0	59.8	52.9	47.4	42.5	39.4	37.0	36.0	35.3	35.8	36.6
G16.0	59.1	51.8	45.9	40.9	37.9	35.5	34.5	33.8	34.3	35.0
G17.0	58.5	50.8	44.7	39.6	36.5	34.2	33.2	32.5	33.0	33.7
G18.0	57.9	49.8	43.4	38.3	35.4	32.9	32.0	31.4	31.9	32.5
G19.0	57.2	48.7	42.1	37.1	34.1	31.8	30.8	30.2	30.6	31.3
G20.0	56.5	47.6	41.0	35.9	32.9	30.7	29.8	29.1	29.6	30.3
G21.0	55.9	46.6	39.8	34.7	31.8	29.6	28.8	28.2	28.6	29.2
G22.0	55.2	45.6	38.7	33.7	30.8	28.8	27.9	27.4	27.7	28.4
G23.0	54.5	44.5	37.6	32.8	29.9	27.9	27.1	26.7	27.0	27.6
G24.0	53.8	43.4	36.5	31.7	29.0	27.1	26.4	25.9	26.3	26.8
G25.0	53.1	42.4	35.5	30.8	28.3	26.5	25.8	25.3	25.7	26.2
G26.0	52.4	41.5	34.5	30.0	27.6	25.9	25.3	24.8	25.1	25.6
G27.0	51.8	40.5	33.5	29.1	26.9	25.4	24.7	24.3	24.5	25.1
G28.0	51.1	39.5	32.5	28.3	26.3	25.0	24.3	23.9	24.1	24.5
G29.0	50.5	38.6	31.7	27.5	25.8	24.5	23.9	23.6	23.8	24.1
G30.0	49.9	37.7	30.7	26.8	25.3	24.1	23.6	23.3	23.4	23.8
G31.0	49.3	36.8	29.9	26.1	24.8	23.8	23.3	23.0	23.1	23.4
G32.0	48.6	35.9	29.0	25.5	24.4	23.5	23.0	22.8	22.9	23.1
G33.0	48.0	35.0	28.2	24.9	24.0	23.2	22.7	22.5	22.7	22.8
G34.0	47.5	34.2	27.5	24.3	23.6	22.9	22.5	22.3	22.4	22.6
G35.0	47.0	33.3	26.6	23.6	23.2	22.7	22.2	22.0	22.1	22.2
G36.0	46.6	32.7	25.9	23.0	22.8	22.4	21.9	21.6	21.8	21.9

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.118 m [K=3.4818]  
 Humidity:  
 Inspector:

## Candlepower Table (Continue 7)

Unit: cd

G\C	C200.0	C210.0	C220.0	C230.0	C240.0	C250.0	C260.0	C270.0	C280.0	C290.0
G37.0	46.3	32.0	25.2	22.3	22.3	22.0	21.5	20.9	21.3	21.4
G38.0	46.0	31.5	24.4	21.7	21.7	21.4	20.7	20.0	20.5	20.8
G39.0	45.6	30.9	23.9	21.1	21.1	20.7	19.8	19.0	19.6	20.1
G40.0	45.1	30.2	23.2	20.4	20.2	19.8	18.8	18.1	18.5	19.1
G41.0	44.8	29.6	22.6	19.8	19.4	18.9	17.9	17.3	17.6	18.2
G42.0	44.4	28.9	22.0	19.2	18.5	18.0	17.2	16.6	16.9	17.4
G43.0	44.0	28.2	21.3	18.5	17.7	17.1	16.5	16.2	16.5	16.6
G44.0	43.7	27.6	20.7	17.8	16.9	16.5	16.1	15.9	16.0	16.1
G45.0	43.3	26.9	20.2	17.2	16.5	15.9	15.9	15.6	15.7	15.6
G46.0	42.9	26.2	19.6	16.5	15.8	15.5	15.6	15.5	15.5	15.3
G47.0	42.6	25.6	19.1	16.2	15.4	15.2	15.4	15.3	15.3	15.1
G48.0	42.3	25.0	18.6	15.6	14.9	15.0	15.2	15.1	15.1	14.9
G49.0	42.0	24.5	18.1	15.2	14.6	14.8	15.0	14.8	14.8	14.7
G50.0	41.9	23.9	17.7	14.8	14.3	14.6	14.7	14.4	14.5	14.5
G51.0	41.5	23.3	17.2	14.4	14.0	14.4	14.2	13.9	14.1	14.2
G52.0	41.3	22.9	16.8	14.0	13.8	14.0	13.8	13.5	13.7	13.9
G53.0	40.7	22.5	16.5	13.7	13.5	13.7	13.4	13.1	13.3	13.5
G54.0	40.0	22.2	15.9	13.4	13.2	13.3	13.0	12.7	12.9	13.1
G55.0	39.1	21.9	15.4	13.1	12.9	12.9	12.7	12.4	12.5	12.7
G56.0	38.2	21.5	15.0	12.7	12.5	12.5	12.3	12.1	12.2	12.3
G57.0	37.4	21.1	14.8	12.4	12.1	12.1	12.1	11.8	11.9	11.9
G58.0	36.9	20.6	14.5	12.1	11.7	11.7	11.8	11.5	11.6	11.6
G59.0	36.5	20.2	14.2	11.7	11.3	11.2	11.4	11.1	11.3	11.1
G60.0	36.3	19.9	14.0	11.3	10.9	10.8	11.1	10.8	10.9	10.8
G61.0	36.3	19.7	13.7	10.9	10.5	10.3	10.7	10.4	10.6	10.3
G62.0	36.7	19.8	13.4	10.5	10.1	9.9	10.3	10.0	10.2	9.9
G63.0	37.3	20.1	13.2	10.2	9.6	9.5	9.9	9.6	9.8	9.5
G64.0	37.9	20.8	13.0	9.8	9.1	9.1	9.5	9.2	9.4	9.1
G65.0	38.4	21.8	12.9	9.5	8.7	8.7	9.1	9.1	9.1	8.8
G66.0	38.3	23.1	13.0	9.1	8.3	8.3	9.2	10.0	9.1	8.4
G67.0	37.4	24.2	13.3	8.8	8.0	8.3	10.6	13.1	10.8	8.4
G68.0	35.4	24.9	13.8	8.3	7.6	9.0	13.8	17.0	13.8	9.5
G69.0	32.2	24.7	14.3	8.2	7.3	10.8	18.1	20.6	17.7	12.1
G70.0	29.1	24.0	14.8	7.9	7.1	13.8	20.7	21.7	20.1	15.1
G71.0	26.4	22.5	15.1	7.8	7.2	16.2	21.4	21.1	20.4	17.5
G72.0	23.7	20.6	15.3	7.8	7.4	18.0	20.5	19.9	19.6	18.3
G73.0	21.3	18.7	15.0	7.8	7.6	18.3	19.4	18.7	18.5	17.9

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.118 m [K=3.4818]  
 Humidity:  
 Inspector:





## Candlepower Table (Continue 9)

Unit: cd

G\C	C300.0	C310.0	C320.0	C330.0	C340.0	C350.0	C360.0			
G0.0	71.3	70.8	71.4	71.0	71.4	71.2	69.8			
G1.0	68.8	68.7	69.5	69.7	70.3	70.7	69.7			
G2.0	66.6	66.7	67.8	68.3	69.4	70.2	69.8			
G3.0	64.0	64.5	66.0	67.0	68.5	69.8	69.9			
G4.0	61.7	62.5	64.3	65.7	67.7	69.5	70.0			
G5.0	59.5	60.6	62.8	64.5	66.9	69.2	70.2			
G6.0	57.0	58.4	60.9	63.2	66.0	68.8	70.5			
G7.0	54.8	56.5	59.3	62.0	65.3	68.6	70.7			
G8.0	52.7	54.4	57.8	60.7	64.6	68.4	71.0			
G9.0	50.4	52.5	56.1	59.6	63.8	68.1	71.3			
G10.0	48.4	50.6	54.5	58.3	63.1	67.9	71.6			
G11.0	46.1	48.7	52.8	57.1	62.4	67.7	72.0			
G12.0	44.2	46.8	51.2	55.9	61.6	67.5	72.3			
G13.0	42.4	45.1	49.7	54.8	60.9	67.3	72.6			
G14.0	40.4	43.3	48.0	53.5	60.1	67.0	72.9			
G15.0	38.8	41.7	46.6	52.3	59.4	66.8	73.2			
G16.0	37.3	40.1	45.0	51.0	58.5	66.5	73.5			
G17.0	35.9	38.6	43.6	49.8	57.8	66.3	73.7			
G18.0	34.6	37.3	42.2	48.7	57.0	66.0	74.0			
G19.0	33.3	36.0	40.8	47.4	56.2	65.7	74.3			
G20.0	32.2	34.8	39.6	46.2	55.5	65.4	74.5			
G21.0	31.2	33.6	38.4	45.0	54.6	65.1	74.8			
G22.0	30.1	32.6	37.1	43.8	53.8	64.8	75.0			
G23.0	29.3	31.6	36.0	42.7	52.9	64.5	75.3			
G24.0	28.4	30.6	34.9	41.5	52.1	64.2	75.6			
G25.0	27.6	29.8	33.9	40.4	51.3	63.9	75.8			
G26.0	27.0	29.0	32.9	39.3	50.5	63.7	76.1			
G27.0	26.3	28.1	31.9	38.2	49.7	63.4	76.4			
G28.0	25.8	27.4	31.0	37.2	48.9	63.1	76.7			
G29.0	25.3	26.6	30.1	36.2	48.2	63.0	77.1			
G30.0	24.7	26.0	29.2	35.3	47.4	62.8	77.7			
G31.0	24.3	25.4	28.4	34.5	46.8	62.7	78.2			
G32.0	23.9	24.8	27.5	33.6	46.1	62.7	78.9			
G33.0	23.5	24.2	26.8	32.8	45.6	62.7	79.7			
G34.0	23.1	23.6	26.1	32.1	45.0	62.8	80.6			
G35.0	22.7	23.0	25.4	31.3	44.5	63.0	81.7			
G36.0	22.3	22.4	24.6	30.7	44.1	63.4	83.0			

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.118 m [K=3.4818]  
 Humidity:  
 Inspector:

## Candlepower Table (Continue 10)

Unit: cd

G\C	C300.0	C310.0	C320.0	C330.0	C340.0	C350.0	C360.0			
G37.0	21.8	21.7	24.1	30.0	43.8	64.0	84.4			
G38.0	21.2	21.2	23.4	29.5	43.6	64.6	85.6			
G39.0	20.5	20.5	22.9	29.1	43.4	65.1	87.0			
G40.0	19.7	19.8	22.3	28.5	43.1	65.9	88.3			
G41.0	18.9	19.2	21.8	28.0	43.0	66.5	89.5			
G42.0	18.1	18.6	21.4	27.5	42.9	67.2	90.5			
G43.0	17.3	18.0	20.8	26.9	42.7	67.7	91.3			
G44.0	16.6	17.4	20.3	26.4	42.5	68.0	92.0			
G45.0	16.1	16.9	19.8	25.8	42.1	68.2	93.1			
G46.0	15.6	16.5	19.3	25.2	41.7	68.3	94.5			
G47.0	15.1	16.0	18.8	24.5	41.2	68.4	96.0			
G48.0	14.8	15.5	18.2	23.9	40.7	68.6	97.6			
G49.0	14.5	15.1	17.6	23.4	40.3	68.7	99.3			
G50.0	14.3	14.6	17.2	22.9	39.9	68.9	101.2			
G51.0	14.0	14.3	16.6	22.5	39.2	69.4	103.3			
G52.0	13.7	13.9	16.3	22.0	38.6	70.1	105.0			
G53.0	13.5	13.5	15.9	21.6	38.0	70.6	106.5			
G54.0	13.1	13.2	15.4	21.1	37.5	70.9	107.7			
G55.0	12.8	12.9	15.1	20.8	37.0	71.1	109.2			
G56.0	12.4	12.5	14.7	20.4	36.4	71.4	111.2			
G57.0	12.1	12.2	14.4	20.0	35.7	72.1	114.1			
G58.0	11.7	11.9	14.1	19.6	35.1	73.5	117.8			
G59.0	11.2	11.5	13.8	19.1	34.5	75.5	122.4			
G60.0	10.8	11.2	13.5	18.6	34.1	78.0	127.4			
G61.0	10.4	10.8	13.2	18.2	33.8	81.1	133.5			
G62.0	9.9	10.5	12.9	18.0	33.8	84.1	140.4			
G63.0	9.5	10.2	12.7	18.0	33.6	87.4	148.6			
G64.0	9.1	9.8	12.4	18.1	33.3	91.6	158.8			
G65.0	8.7	9.4	12.2	18.5	32.9	95.2	169.3			
G66.0	8.3	9.0	12.0	19.0	32.8	97.0	177.5			
G67.0	8.0	8.7	11.8	19.7	32.9	94.8	180.8			
G68.0	7.6	8.3	11.8	20.4	32.6	88.8	174.9			
G69.0	7.3	8.1	11.7	21.0	31.5	78.7	157.7			
G70.0	7.4	7.8	11.7	21.4	29.6	68.1	137.3			
G71.0	7.8	7.5	11.6	21.0	27.2	59.2	116.5			
G72.0	8.7	7.3	11.6	19.8	24.4	51.1	93.7			
G73.0	9.9	7.1	11.5	18.0	21.9	43.9	73.9			

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.118 m [K=3.4818]  
 Humidity:  
 Inspector:



## LED Average Luminance Report

Avg.L	cd/m <sup>2</sup>
L 0-180(65) av	6474.11
L 0-180(75) av	3413.83
L 0-180(85) av	875.11
L 90-270(65) av	422.95
L 90-270(75) av	667.25
L 90-270(85) av	475.48
L 45(65) av	654.35
L 45(75) av	695.06
L 45(85) av	512.72

Standard: GB/T 29293-2012