

Report No.:

Test Time: 2020-09-29 09:56

## Luminaire Property

Luminaire Manufacturer: ASD Lighting Corp

Luminaire Description: ASD-LMPJBR-6D15CC-BK-5K

Voltage: 120.2 V

Current: 0.118 A

Power: 14.93 W

Power Factor: 0.984

## Photometric Results

CIE Class: Direct

Total Rated Lamp Lumens: 932.7 lm

Measurement Flux: 932.7 lm

Efficiency: 100%

Downward Ratio: 100%

Upward Ratio: 0%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 161.3, 162.8, 162.4, 161.6

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 115.0, 115.3, 115.1, 115.0

Luminaire Efficacy Rating (LER): 62.52

Central Intensity: 315.94 cd

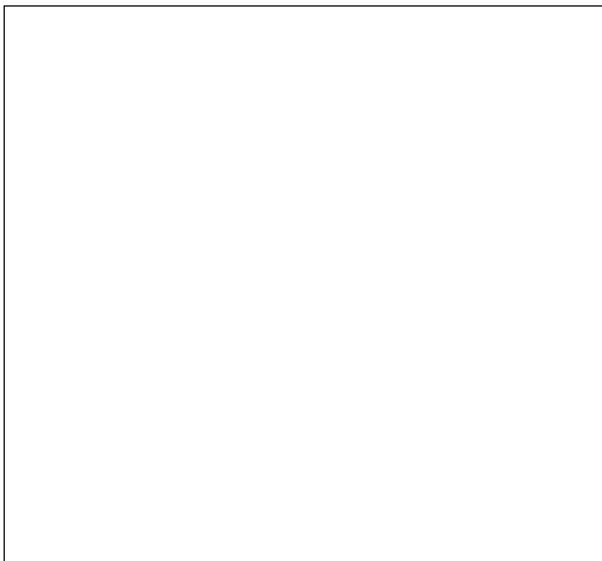
Max. Intensity: 317.55 cd

Pos of Max. Intensity: H180 V3

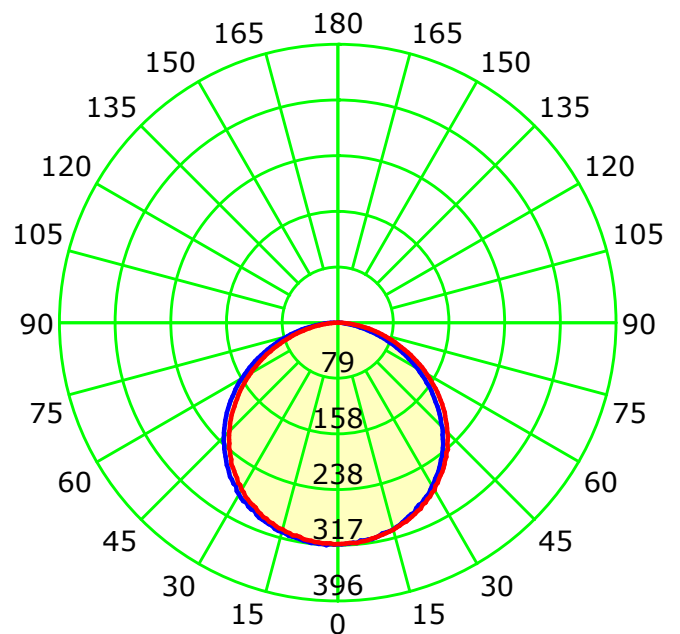
S/MH(C0/C180): 1.29

S/MH(C90/C270): 1.29

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 30.0

Gamma Plane (°):0.0-90.0:1.0

Test Lab:

Test Device: GPM-1600L

Test Type: TYPE C

Distance: 6.935 m

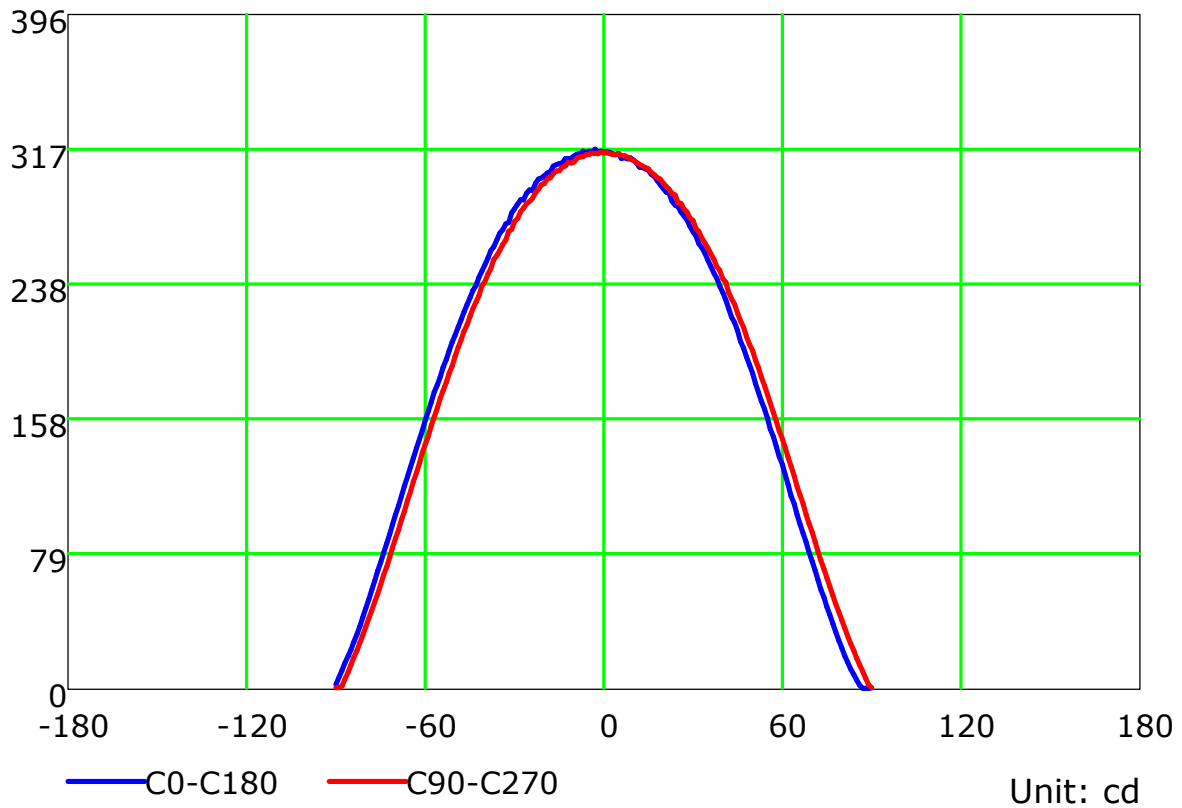
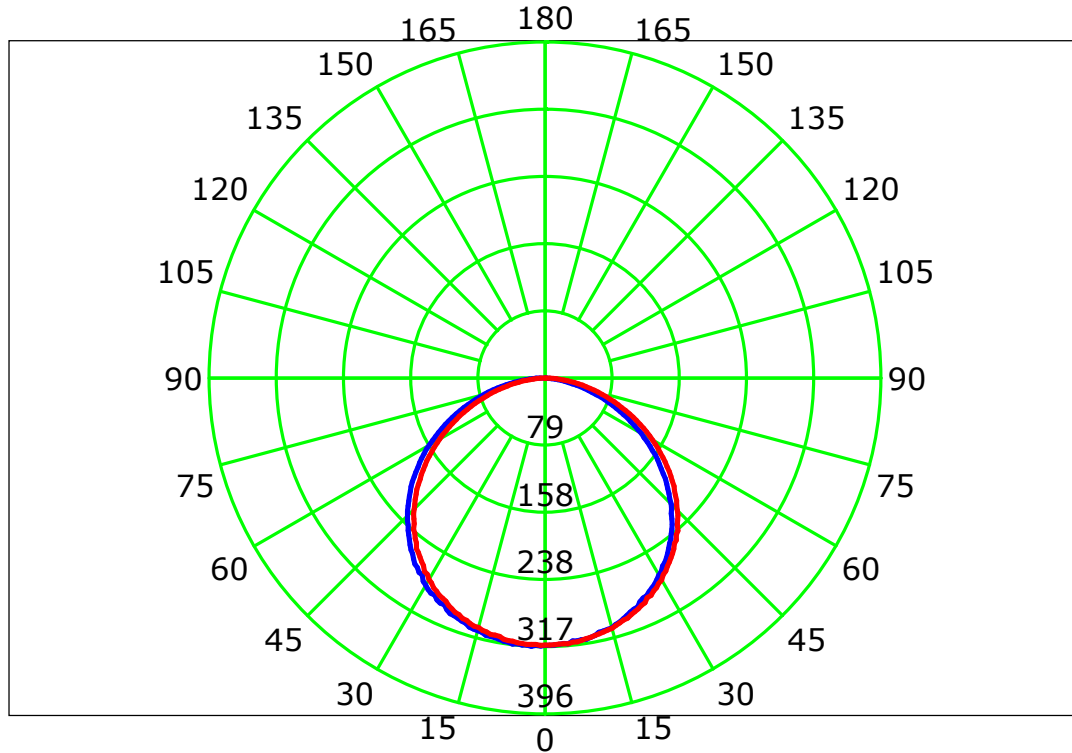
Temperature:

Humidity:

Operator:

Inspector:

## Luminous Intensity Distribution Curve

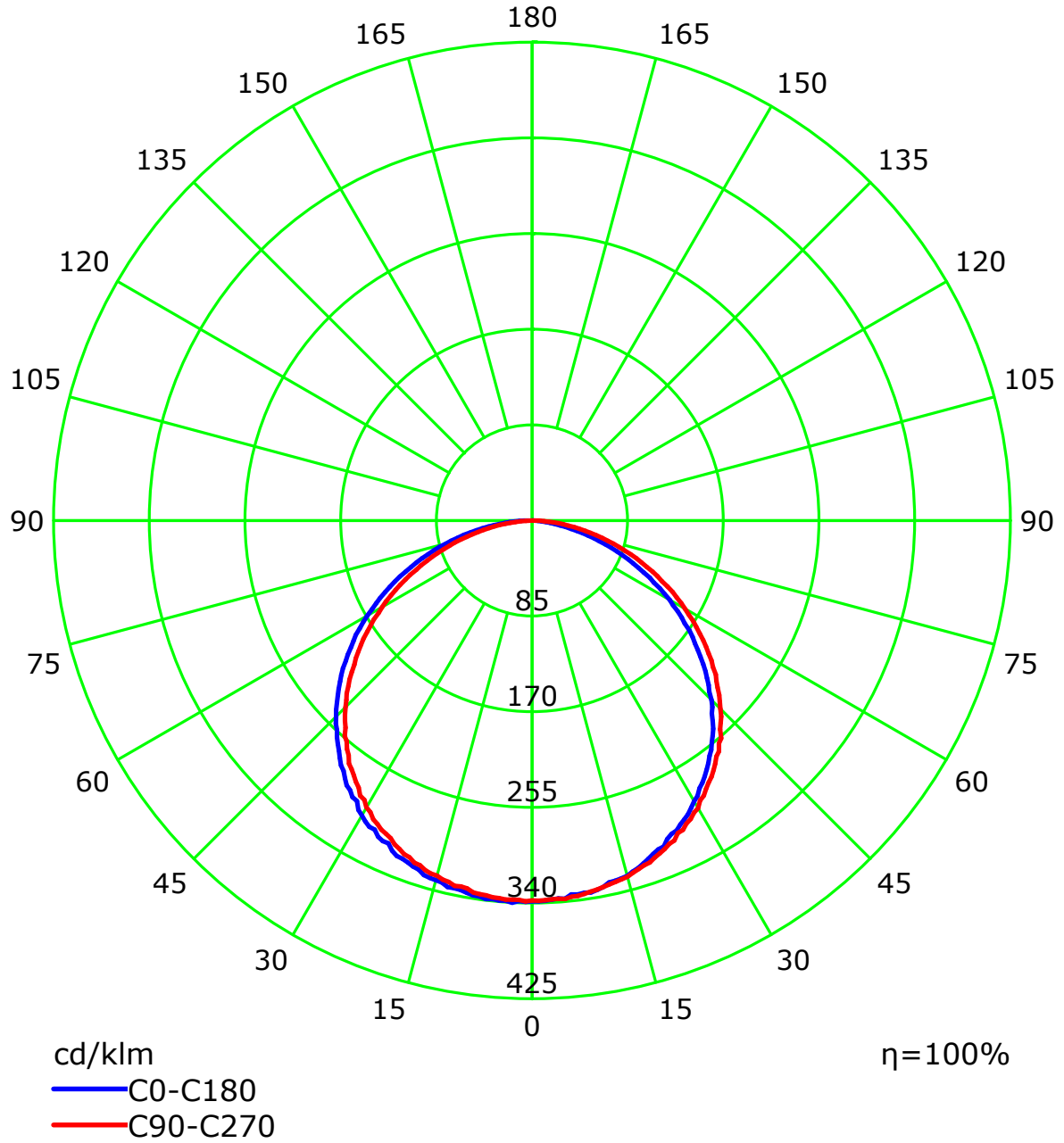


C Plane (°):0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 6.935 m  
 Humidity:  
 Inspector:

Unit: cd

## Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

Test Device: GPM-1600L

Distance: 6.935 m

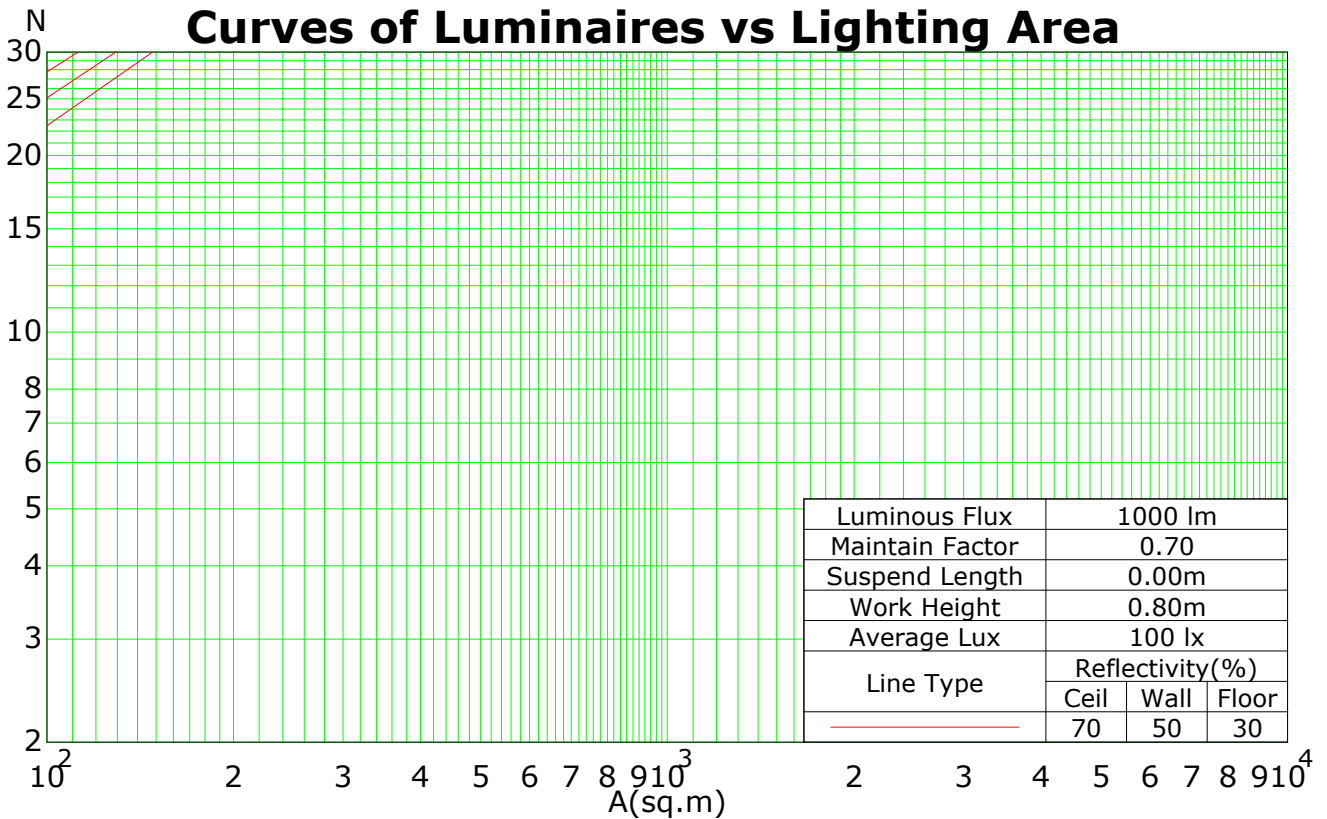
Humidity:

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	80	75	82	77	73	79	75	72	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	62	69	65	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50
5	76	63	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	35	47	40	35	46	40	35	33
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

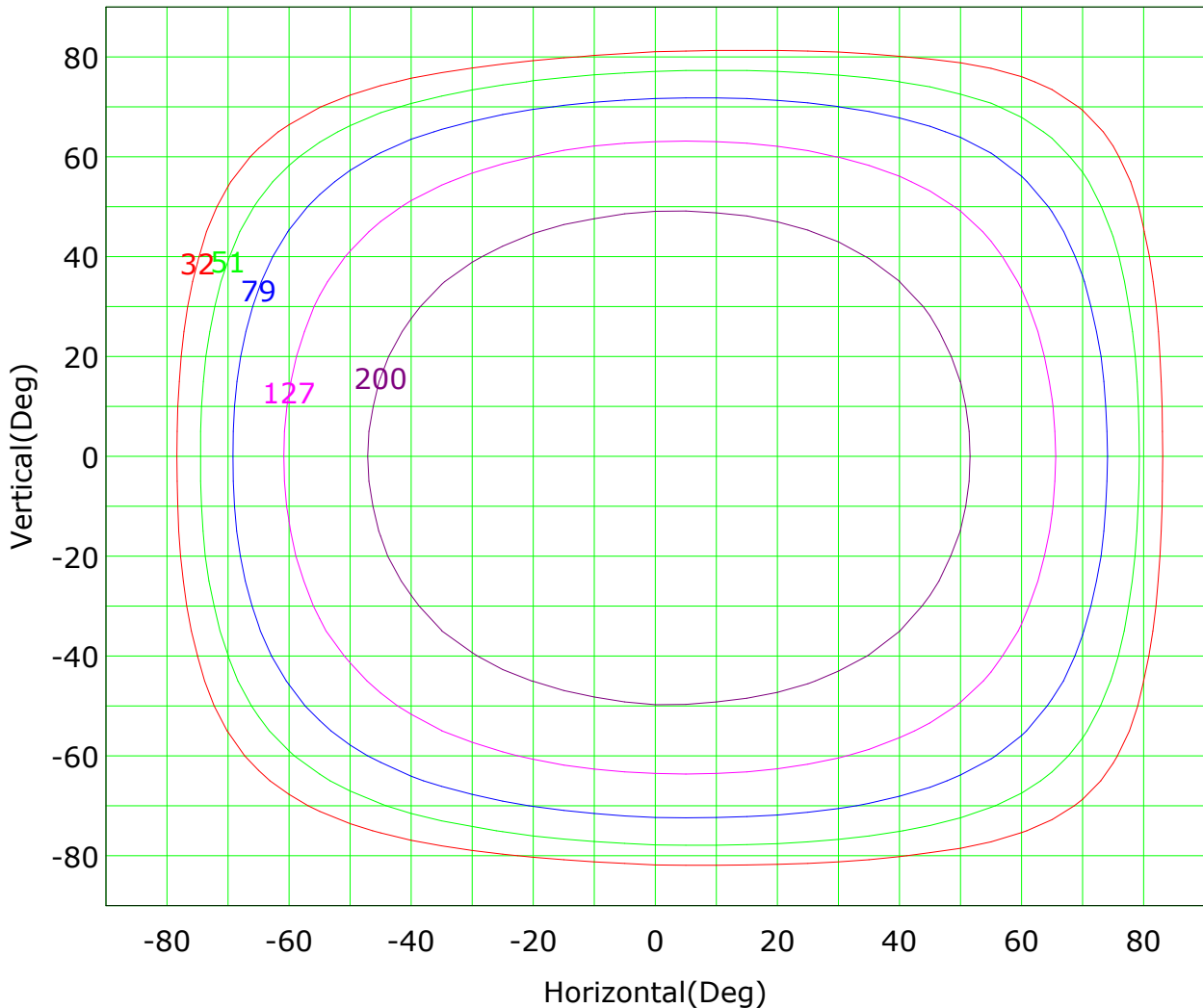
Spacing Criteria (0-180): 1.29  
 Spacing Criteria (90-270): 1.29  
 Spacing Criteria (Diagonal): 1.40



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

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 6.935 m  
 Humidity:  
 Inspector:

## Isocandela (rectangle)



Imax (100%): 318 cd

— ( 10%):	32 cd	— ( 16%):	51 cd
— ( 25%):	79 cd	— ( 40%):	127 cd
— ( 63%):	200 cd	— (100%):	318 cd

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

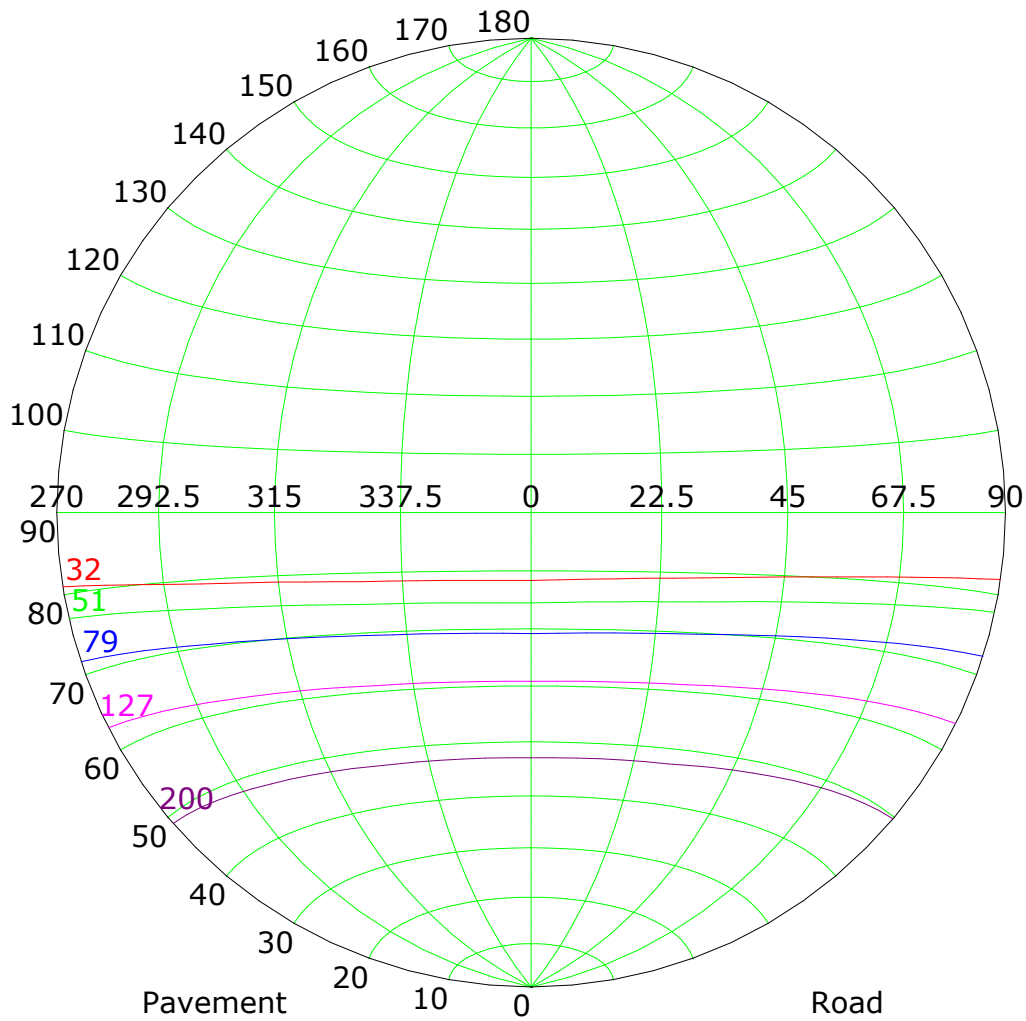
Test Device: GPM-1600L

Distance: 6.935 m

Humidity:

Inspector:

## Isocandela (sphere)



Imax (100%): 318 cd

— ( 10%):	32 cd	— ( 16%):	51 cd
— ( 25%):	79 cd	— ( 40%):	127 cd
— ( 63%):	200 cd	— (100%):	318 cd

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

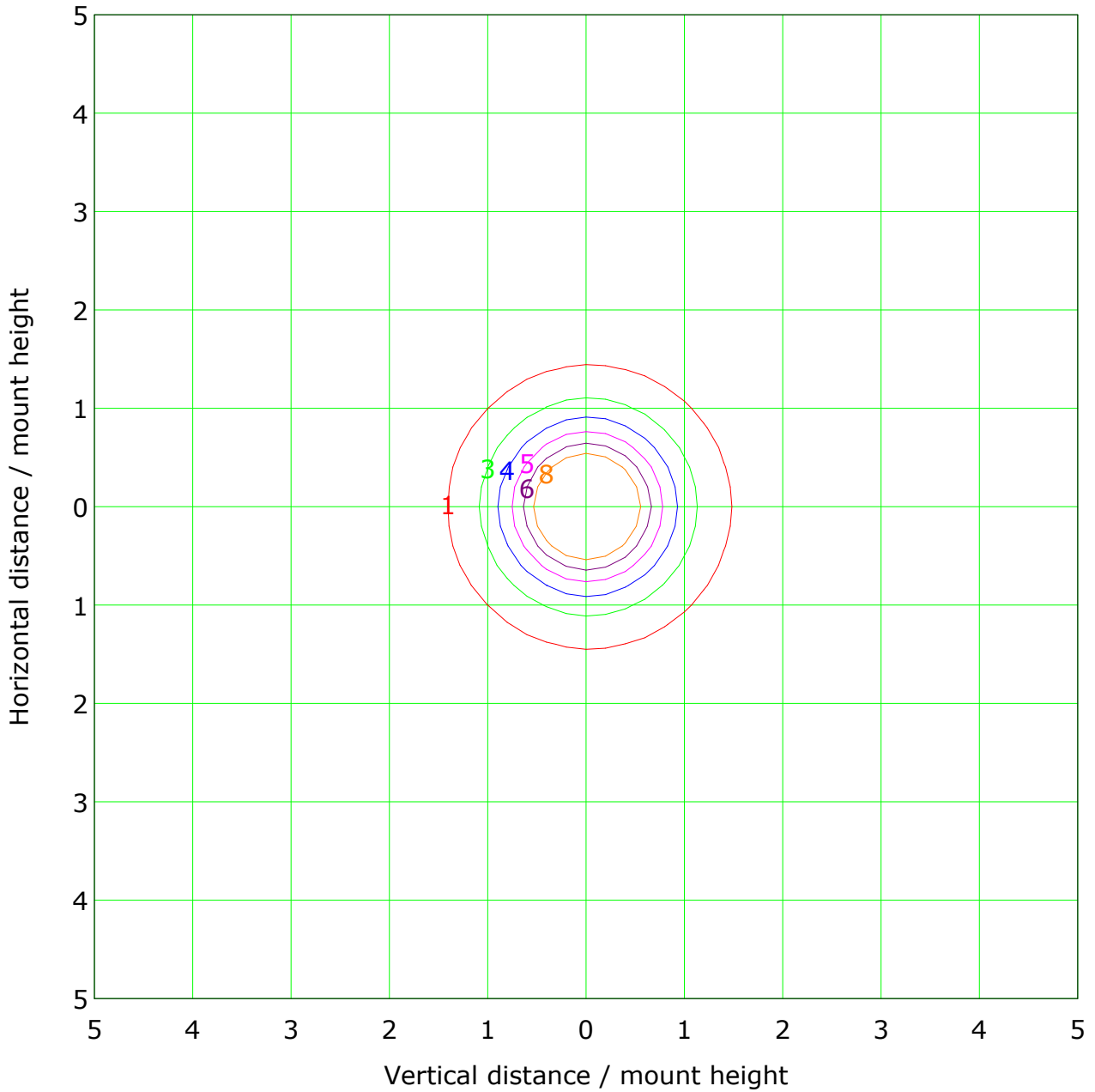
Test Device: GPM-1600L

Distance: 6.935 m

Humidity:

Inspector:

## IsoLux Plot



Mounting Height: 5.0m		Max Lux(100%): 12.7 lx
<ul style="list-style-type: none"> <li><span style="color: red;">—</span> ( 10%): 1.3 lx</li> <li><span style="color: blue;">—</span> ( 30%): 3.8 lx</li> <li><span style="color: purple;">—</span> ( 50%): 6.3 lx</li> <li><span style="color: green;">—</span> (100%): 12.7 lx</li> </ul>	<ul style="list-style-type: none"> <li><span style="color: lightgreen;">—</span> ( 20%): 2.5 lx</li> <li><span style="color: magenta;">—</span> ( 40%): 5.1 lx</li> <li><span style="color: orange;">—</span> ( 60%): 7.6 lx</li> </ul>	

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

Test Device: GPM-1600L

Distance: 6.935 m

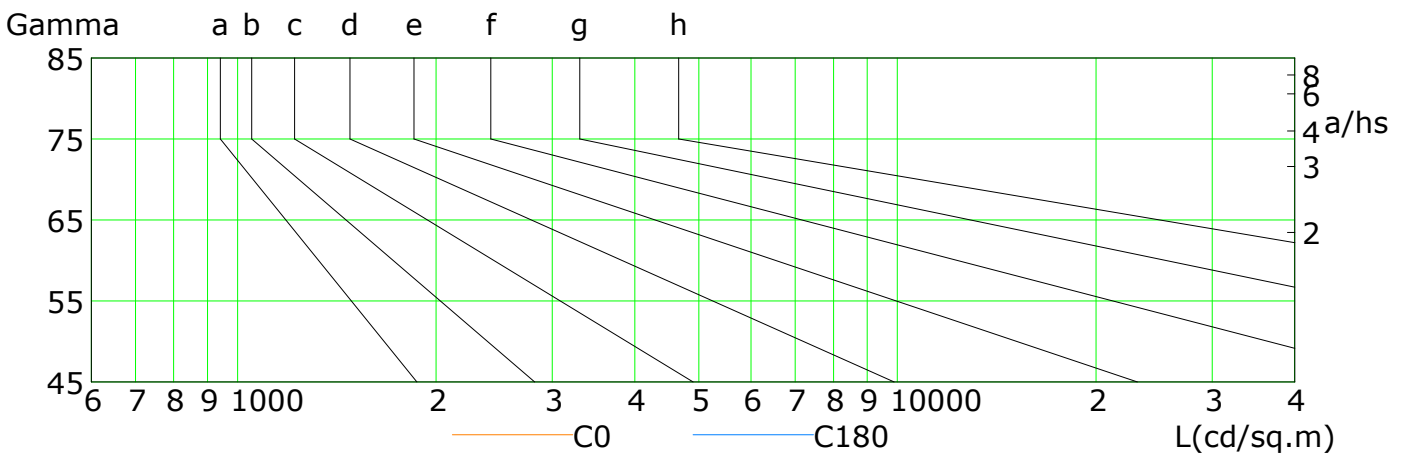
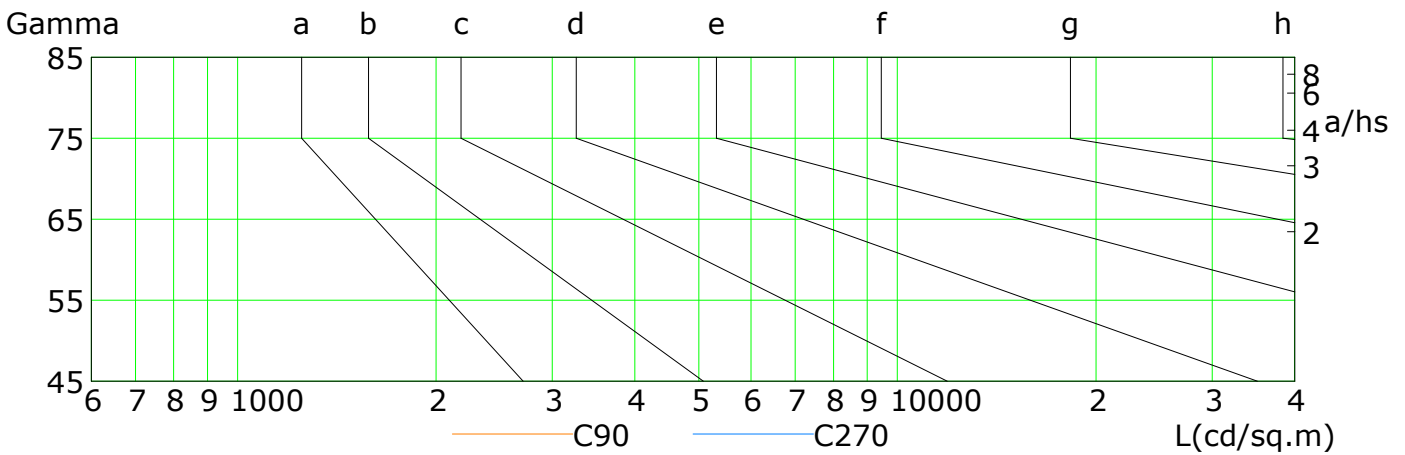
Humidity:

Inspector:

## Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
		2000	1000	500	<=300				
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

a b c d e f g h



L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	211	186	159	132	102	75	48	24	5
C90	221	199	173	147	119	92	65	40	18
C180	230	208	184	158	130	102	74	47	23
C270	219	195	171	144	116	88	61	36	14

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

Test Device: GPM-1600L

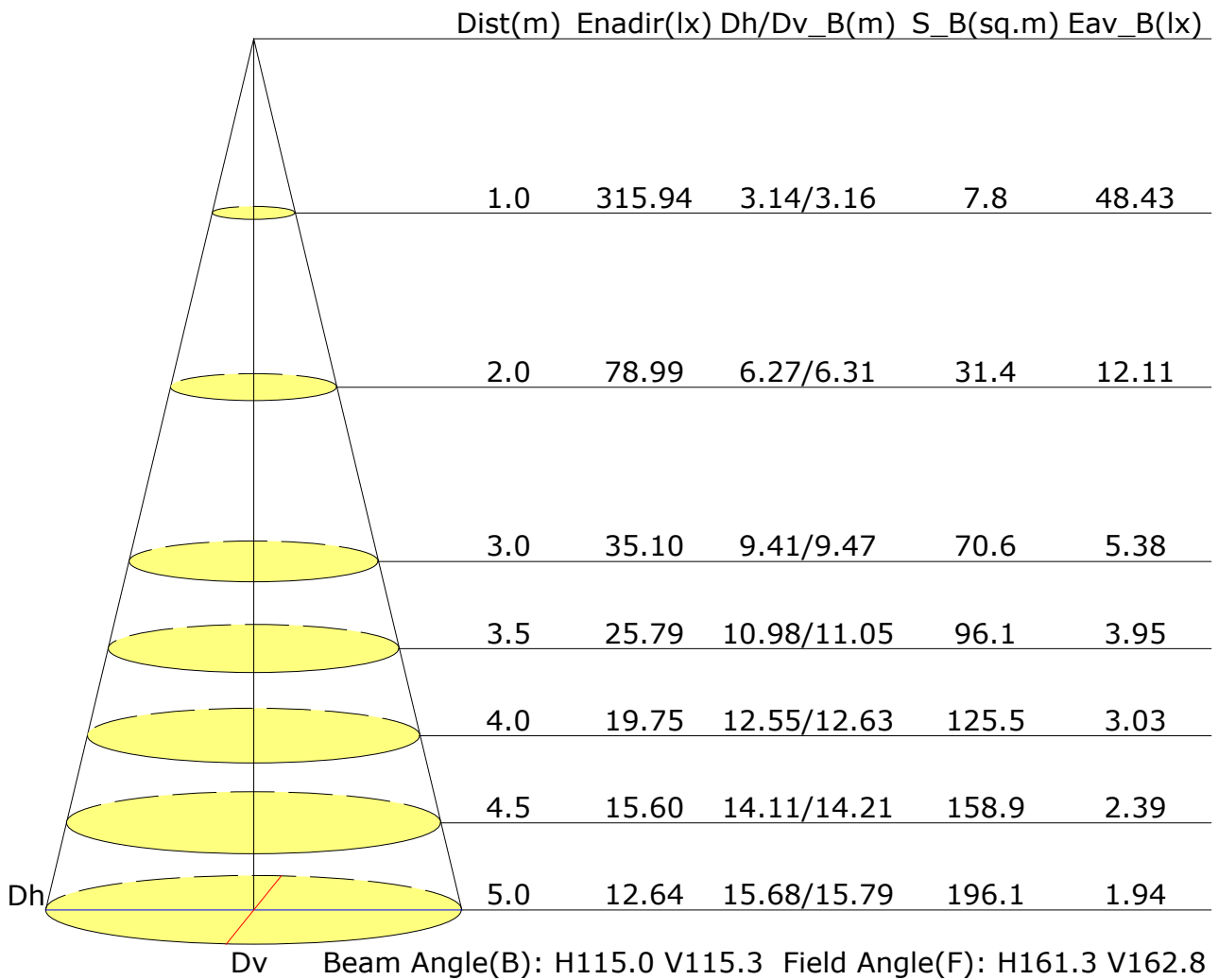
Distance: 6.935 m

Humidity:

Inspector:



## Illuminance at a Distance



C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

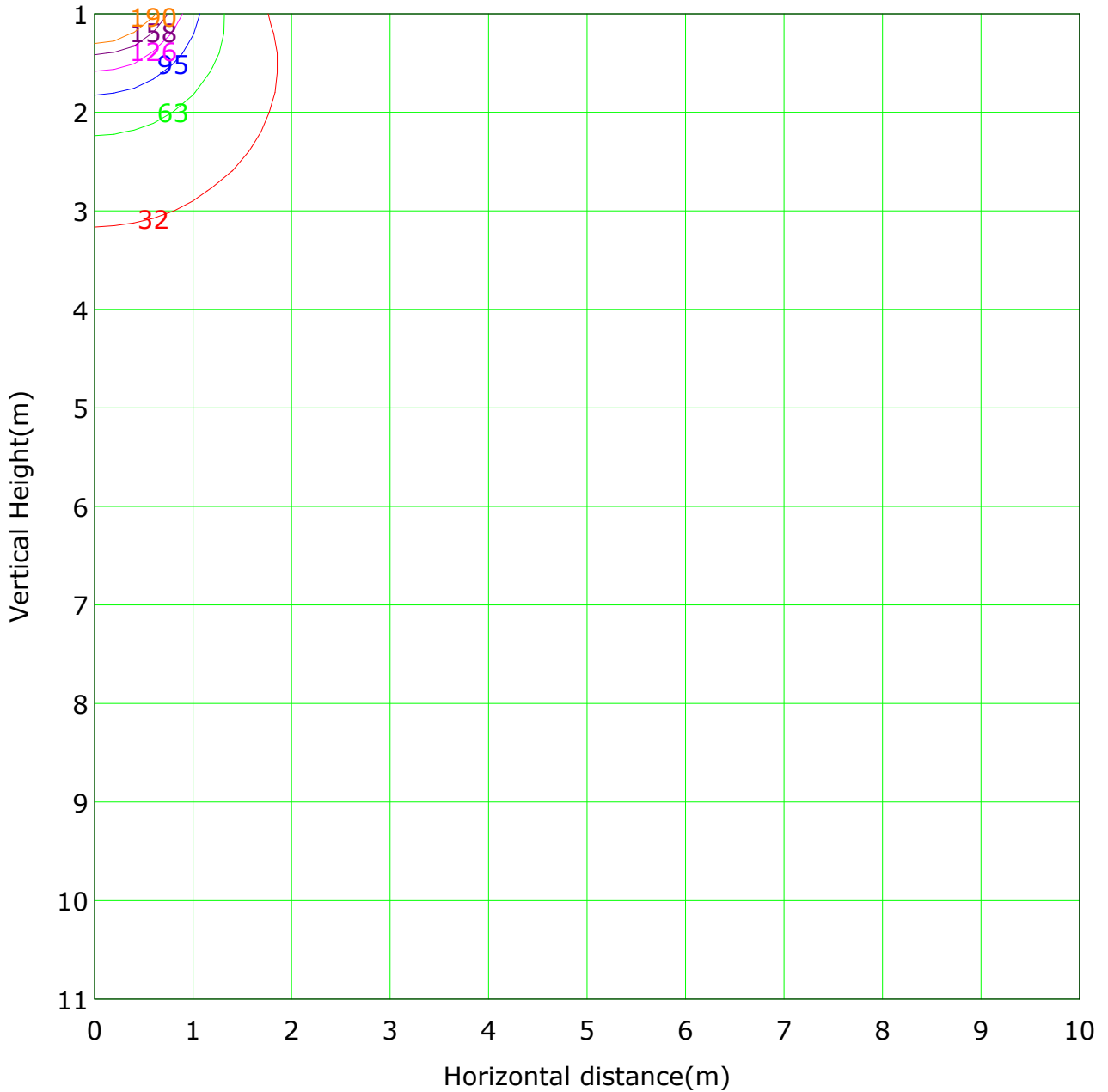
Test Device: GPM-1600L

Distance: 6.935 m

Humidity:

Inspector:

## Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 11.0m	Max Lux: 315.9 lx
— ( 10%): 31.6 lx	— ( 20%): 63.2 lx	
— ( 30%): 94.8 lx	— ( 40%): 126.4 lx	
— ( 50%): 158.0 lx	— ( 60%): 189.6 lx	
— (100%): 315.9 lx		

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

Test Device: GPM-1600L

Distance: 6.935 m

Humidity:

Inspector:

# Area Flux Table

Unit: lm

-90	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	3.9	0.4	
-80	0.0	0.1	0.4	0.7	1.0	1.3	1.6	1.8	1.9	1.8	1.6	1.3	1.0	0.6	0.3	0.1	0.0	0.0	15.8	14.2	
-70	0.0	0.2	0.6	1.2	1.8	2.4	3.0	3.4	3.5	3.5	3.1	2.6	2.0	1.4	0.8	0.3	0.1	0.0	30.0	29.5	
-60	0.0	0.3	0.9	1.7	2.6	3.5	4.3	4.9	5.2	5.1	4.7	4.0	3.1	2.2	1.3	0.6	0.2	0.0	44.4	44.1	
-50	0.1	0.4	1.1	2.1	3.3	4.5	5.5	6.3	6.6	6.6	6.0	5.2	4.1	2.9	1.7	0.8	0.2	0.0	57.5	57.4	
-40	0.1	0.5	1.3	2.5	4.0	5.4	6.5	7.4	7.8	7.7	7.2	6.2	4.9	3.5	2.1	1.0	0.3	0.0	68.5	68.4	
-30	0.1	0.5	1.5	2.9	4.4	6.0	7.3	8.2	8.7	8.6	8.0	7.0	5.6	4.0	2.4	1.2	0.3	0.0	76.8	76.7	
-20	0.1	0.6	1.6	3.1	4.8	6.4	7.8	8.8	9.2	9.2	8.6	7.5	6.0	4.3	2.7	1.3	0.4	0.0	82.3	82.2	
-10	0.1	0.6	1.7	3.2	4.9	6.6	8.0	9.0	9.5	9.4	8.9	7.8	6.3	4.5	2.8	1.3	0.4	0.0	85.0	85.0	
0	0.1	0.6	1.7	3.2	4.9	6.6	8.0	9.0	9.5	9.5	8.9	7.8	6.3	4.5	2.8	1.3	0.4	0.0	85.1	85.0	
10	0.1	0.6	1.6	3.1	4.8	6.4	7.8	8.7	9.2	9.2	8.6	7.5	6.0	4.3	2.7	1.3	0.4	0.0	82.3	82.2	
20	0.1	0.6	1.6	3.1	4.8	6.4	7.8	8.7	9.2	9.2	8.6	7.5	6.0	4.3	2.7	1.3	0.4	0.0	82.3	82.2	
30	0.1	0.5	1.5	2.9	4.4	6.0	7.3	8.2	8.7	8.6	8.1	7.0	5.6	4.0	2.5	1.2	0.3	0.0	76.9	76.8	
40	0.1	0.5	1.3	2.5	4.0	5.3	6.6	7.4	7.8	7.8	7.2	6.3	5.0	3.5	2.1	1.0	0.3	0.0	68.8	68.6	
50	0.1	0.4	1.1	2.1	3.3	4.5	5.6	6.3	6.7	6.6	6.1	5.3	4.1	2.9	1.7	0.8	0.2	0.0	58.0	57.8	
60	0.0	0.3	0.9	1.7	2.6	3.6	4.4	5.0	5.2	5.2	4.8	4.0	3.2	2.2	1.3	0.6	0.2	0.0	45.0	44.8	
70	0.0	0.2	0.6	1.2	1.8	2.5	3.1	3.4	3.6	3.6	3.2	2.7	2.1	1.4	0.8	0.4	0.1	0.0	30.8	30.3	
80	0.0	0.1	0.4	0.7	1.0	1.4	1.7	1.9	2.0	1.9	1.7	1.4	1.1	0.7	0.4	0.2	0.0	0.0	16.7	15.2	
90	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.6	0.5	0.5	0.3	0.2	0.1	0.1	0.0	0.0	0.0	4.6	0.9	
Flux(T)	1.0	6.8	18.5	35.2	54.3	73.3	89.4	100.8	106.3	105.2	97.6	84.2	66.7	47.2	28.5	13.4	3.9	0.3	933		
Flux(E)	0.3	6.0	17.8	34.5	53.6	72.5	88.7	100.1	105.6	104.5	96.9	83.5	66.0	46.5	27.8	12.6	2.8	0.0		920	
	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	Flux(T)	Flux(E)

Gamma Plane (°):0.0-90.0:1.0

Test Device: GPM-1600L

Distance: 6.935 m

Humidity:

Inspector:

C Plane (°):0.0-360.0: 30.0

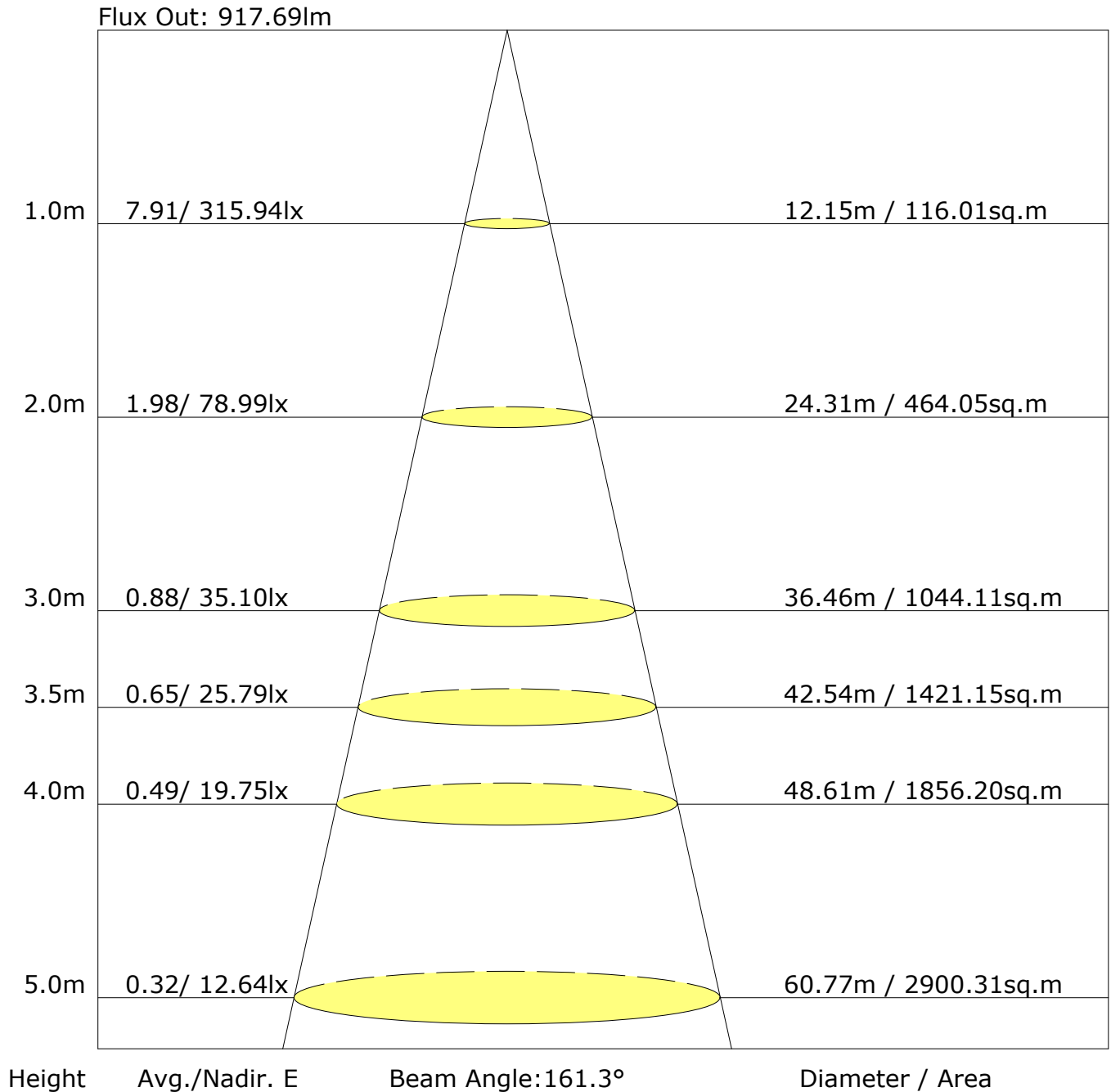
Test Lab:

Test Type: TYPE C

Temperature:

Operator:

## The Average Illuminance Effective Figure



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

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 6.935 m  
 Humidity:  
 Inspector:

## UGR Table

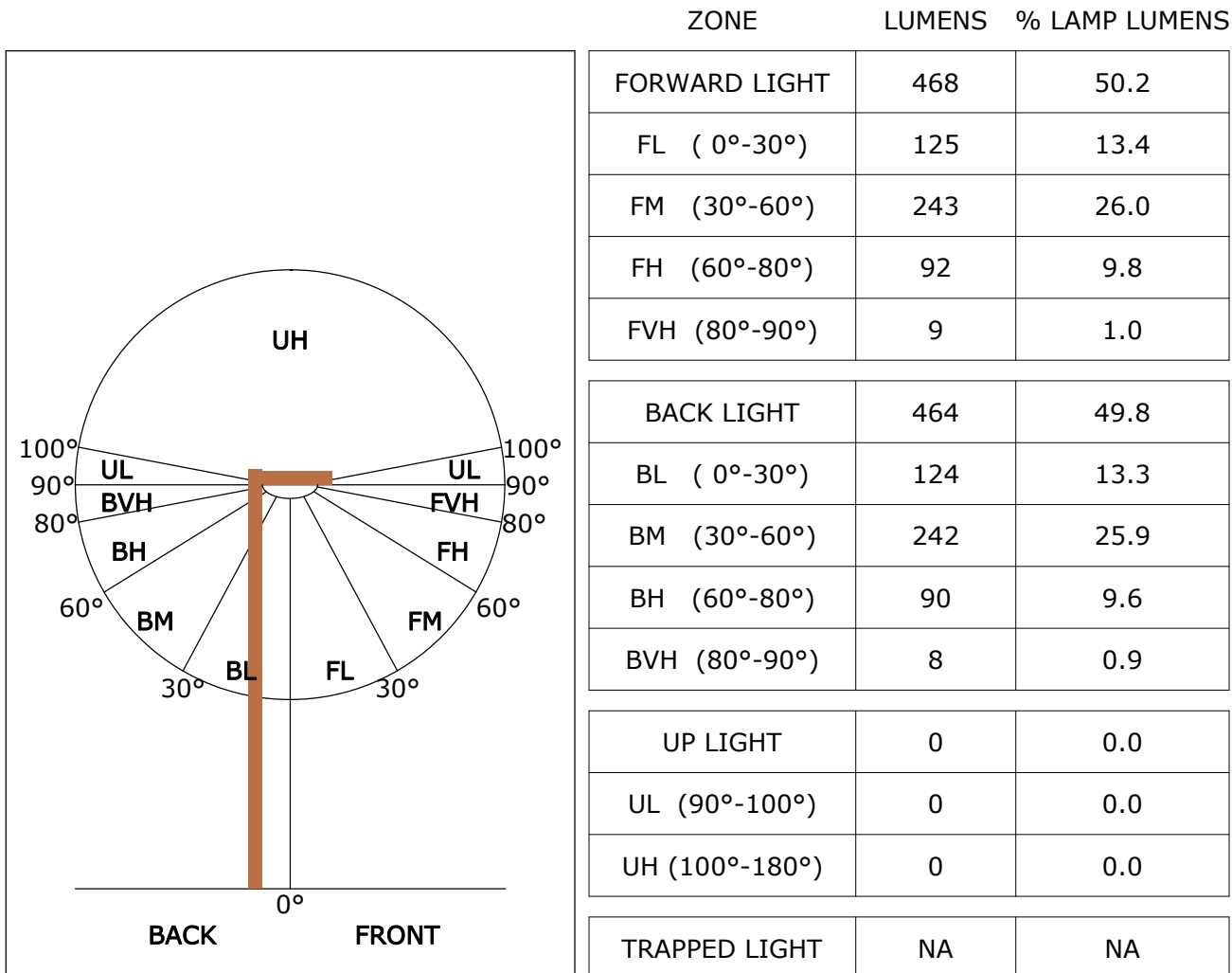
Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
3H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
4H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
6H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
8H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
12H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
X=4H Y=2H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
3H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
4H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
6H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
8H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
12H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
X=8H Y=4H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
6H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
8H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
12H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
X=12H Y=4H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
6H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
8H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
Variations with the observer position at spacings:										
S=1.0H										-1.\$/-1.\$
S=1.5H										-1.\$/-1.\$
S=2.0H										-1.\$/-1.\$

Calculate in accordance with CIE Pub.117. The table is revised with  $933lm$  ( $8\log(F/F_0) = -0.2$ ).

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

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 6.935 m  
 Humidity:  
 Inspector:

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

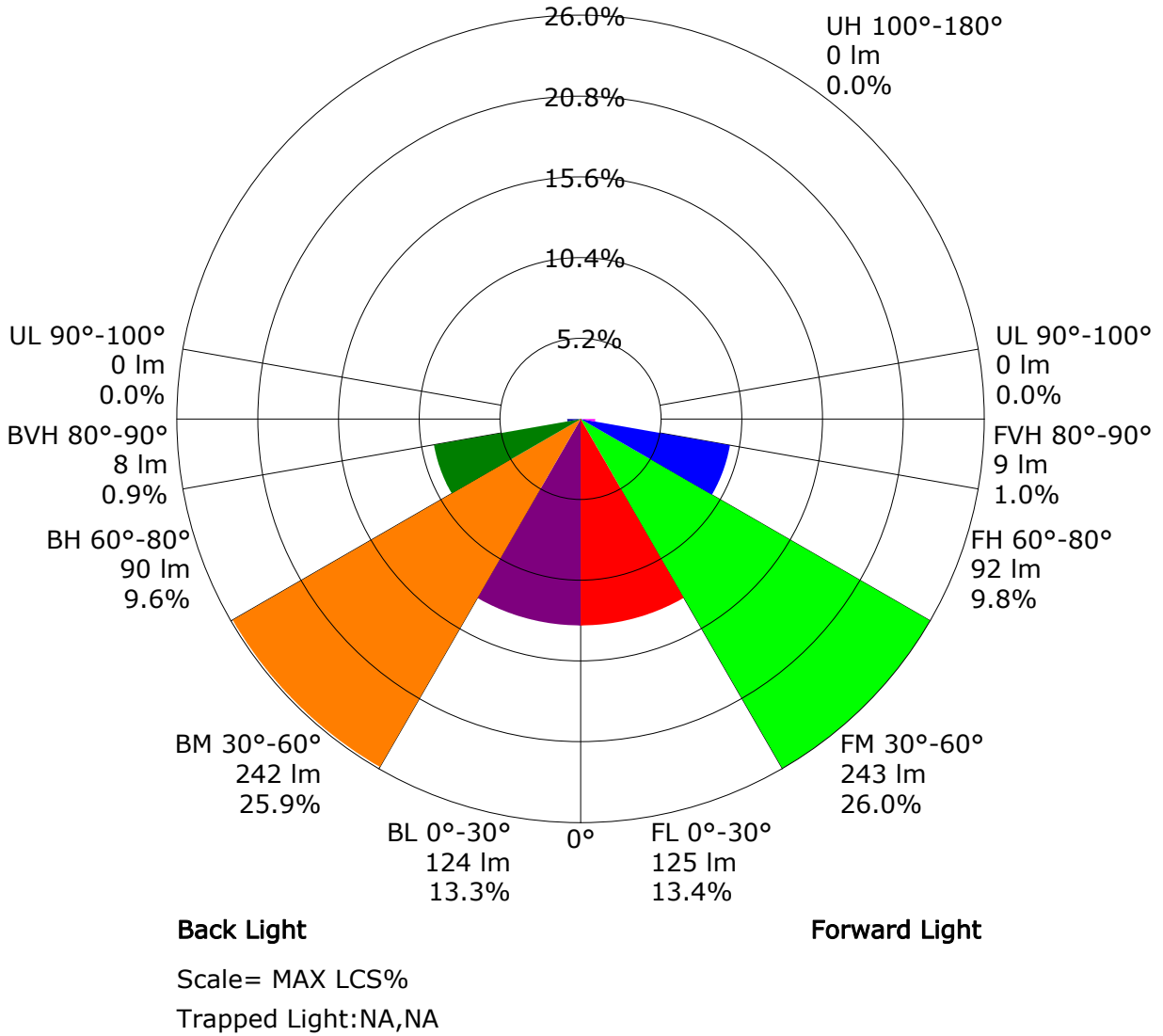


BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B1 U0 G0
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B1 U0 G0

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

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 6.935 m  
 Humidity:  
 Inspector:

### LCS Graph



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

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 6.935 m  
 Humidity:  
 Inspector:

## 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	0.56	0.67	0.74	0.79	0.87	0.92	0.96	1.00	1.03	
	0.30		0.48	0.59	0.66	0.72	0.81	0.86	0.90	0.96	1.00	
	0.20		0.42	0.53	0.61	0.67	0.75	0.82	0.86	0.92	0.96	
0.50	0.50	0.20	0.54	0.64	0.72	0.77	0.84	0.88	0.92	0.96	0.99	
	0.30		0.47	0.58	0.65	0.71	0.78	0.84	0.88	0.93	0.96	
	0.20		0.42	0.52	0.60	0.66	0.74	0.80	0.84	0.90	0.93	
0.30	0.50	0.20	0.53	0.63	0.69	0.74	0.81	0.85	0.88	0.92	0.95	
	0.30		0.46	0.56	0.64	0.69	0.76	0.81	0.85	0.90	0.93	
	0.20		0.42	0.52	0.59	0.65	0.72	0.78	0.82	0.87	0.90	
0.00	0.00	0.00	0.39	0.49	0.56	0.62	0.69	0.74	0.78	0.83	0.86	
<p>Rating:15W 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>												

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

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 6.935 m  
 Humidity:  
 Inspector:



## 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	1.01	0.83	0.71	0.62	0.49	0.41	0.35	0.27	0.22	
	0.30		0.84	0.71	0.62	0.55	0.45	0.38	0.32	0.26	0.21	
	0.20		0.72	0.62	0.55	0.49	0.41	0.35	0.30	0.24	0.20	
0.50	0.50	0.20	0.97	0.80	0.68	0.59	0.47	0.42	0.33	0.26	0.21	
	0.30		0.82	0.70	0.60	0.53	0.43	0.36	0.31	0.24	0.20	
	0.20		0.72	0.61	0.54	0.48	0.40	0.34	0.29	0.23	0.19	
0.30	0.50	0.20	0.95	0.77	0.65	0.57	0.45	0.37	0.32	0.25	0.20	
	0.30		0.81	0.68	0.59	0.52	0.42	0.35	0.30	0.24	0.19	
	0.20		0.71	0.61	0.53	0.47	0.39	0.33	0.28	0.22	0.19	
0.00	0.00	0.00	0.61	0.51	0.44	0.39	0.31	0.26	0.22	0.18	0.14	
<p>Rating:15W 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>												

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

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 6.935 m  
 Humidity:  
 Inspector:

## 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	0.16	0.18	0.19	0.19	0.20	0.21	0.21	0.22	0.22
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.05	0.06	0.08	0.09	0.11	0.13	0.14	0.16	0.17
0.50	0.50	0.20	0.16	0.17	0.18	0.18	0.19	0.20	0.20	0.21	0.21
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.04	0.06	0.08	0.09	0.11	0.12	0.13	0.15	0.16
0.30	0.50	0.20	0.15	0.16	0.17	0.18	0.19	0.19	0.19	0.20	0.20
	0.30		0.09	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18
	0.20		0.04	0.06	0.07	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:15W 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>											

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

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 6.935 m  
 Humidity:  
 Inspector:

## 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	315.7	0.3	0.3	0.03	0.03
1.0-2.0	315.4	0.9	1.2	0.10	0.13
2.0-3.0	315.2	1.5	2.7	0.16	0.29
3.0-4.0	315.0	2.1	4.8	0.23	0.52
4.0-5.0	314.8	2.7	7.5	0.29	0.81
5.0-6.0	314.4	3.3	10.8	0.35	1.16
6.0-7.0	313.8	3.9	14.7	0.42	1.58
7.0-8.0	313.2	4.5	19.2	0.48	2.06
8.0-9.0	312.4	5.1	24.3	0.54	2.60
9.0-10.0	311.9	5.6	29.9	0.61	3.21
10.0-11.0	311.1	6.2	36.1	0.67	3.88
11.0-12.0	310.1	6.8	42.9	0.73	4.60
12.0-13.0	309.0	7.3	50.3	0.79	5.39
13.0-14.0	307.7	7.9	58.1	0.84	6.23
14.0-15.0	306.5	8.4	66.5	0.90	7.14
15.0-16.0	305.2	8.9	75.5	0.96	8.09
16.0-17.0	303.8	9.5	85.0	1.01	9.11
17.0-18.0	302.3	10.0	94.9	1.07	10.18
18.0-19.0	300.6	10.5	105.4	1.12	11.30
19.0-20.0	298.9	10.9	116.3	1.17	12.47
20.0-21.0	297.0	11.4	127.7	1.22	13.70
21.0-22.0	295.2	11.9	139.6	1.27	14.97
22.0-23.0	293.3	12.3	151.9	1.32	16.29
23.0-24.0	290.9	12.7	164.6	1.36	17.65
24.0-25.0	288.6	13.1	177.7	1.41	19.06
25.0-26.0	286.5	13.5	191.3	1.45	20.51
26.0-27.0	284.1	13.9	205.2	1.49	22.00
27.0-28.0	281.9	14.3	219.4	1.53	23.53
28.0-29.0	279.5	14.6	234.1	1.57	25.10
29.0-30.0	276.6	14.9	249.0	1.60	26.70
30.0-31.0	273.6	15.2	264.2	1.63	28.33
31.0-32.0	270.5	15.5	279.7	1.66	29.99
32.0-33.0	267.4	15.8	295.5	1.69	31.68
33.0-34.0	264.4	16.0	311.5	1.72	33.40
34.0-35.0	261.0	16.2	327.7	1.74	35.14
35.0-36.0	257.4	16.4	344.1	1.76	36.89

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

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 6.935 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	253.9	16.6	360.7	1.78	38.67
37.0-38.0	250.5	16.7	377.4	1.79	40.46
38.0-39.0	246.9	16.9	394.2	1.81	42.27
39.0-40.0	242.9	16.9	411.2	1.82	44.09
40.0-41.0	238.9	17.0	428.2	1.82	45.91
41.0-42.0	234.9	17.1	445.3	1.83	47.74
42.0-43.0	230.8	17.1	462.4	1.83	49.57
43.0-44.0	226.6	17.1	479.5	1.83	51.41
44.0-45.0	222.2	17.1	496.6	1.83	53.24
45.0-46.0	217.7	17.0	513.6	1.83	55.07
46.0-47.0	213.2	17.0	530.5	1.82	56.88
47.0-48.0	208.7	16.9	547.4	1.81	58.69
48.0-49.0	203.8	16.7	564.1	1.79	60.49
49.0-50.0	199.1	16.6	580.7	1.78	62.27
50.0-51.0	194.2	16.4	597.2	1.76	64.03
51.0-52.0	189.2	16.2	613.4	1.74	65.77
52.0-53.0	184.3	16.0	629.4	1.72	67.49
53.0-54.0	179.2	15.8	645.2	1.69	69.18
54.0-55.0	174.2	15.5	660.8	1.67	70.85
55.0-56.0	168.9	15.3	676.1	1.64	72.49
56.0-57.0	163.5	14.9	691.0	1.60	74.09
57.0-58.0	158.2	14.6	705.6	1.57	75.66
58.0-59.0	152.8	14.3	719.9	1.53	77.19
59.0-60.0	147.4	13.9	733.8	1.49	78.68
60.0-61.0	142.0	13.6	747.4	1.45	80.14
61.0-62.0	136.4	13.1	760.5	1.41	81.55
62.0-63.0	130.9	12.7	773.3	1.37	82.91
63.0-64.0	125.3	12.3	785.6	1.32	84.23
64.0-65.0	119.7	11.8	797.4	1.27	85.50
65.0-66.0	114.2	11.4	808.8	1.22	86.72
66.0-67.0	108.6	10.9	819.7	1.17	87.89
67.0-68.0	103.0	10.4	830.2	1.12	89.01
68.0-69.0	97.4	9.9	840.1	1.07	90.08
69.0-70.0	91.9	9.4	849.6	1.01	91.09
70.0-71.0	86.5	8.9	858.5	0.96	92.05
71.0-72.0	80.9	8.4	866.9	0.90	92.95

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

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 6.935 m  
 Humidity:  
 Inspector:

### Zonal Lumen (Continue 2)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
72.0-73.0	75.4	7.9	874.8	0.85	93.80
73.0-74.0	70.0	7.4	882.2	0.79	94.59
74.0-75.0	64.7	6.8	889.0	0.73	95.32
75.0-76.0	59.4	6.3	895.3	0.68	95.99
76.0-77.0	54.1	5.8	901.1	0.62	96.61
77.0-78.0	48.9	5.2	906.3	0.56	97.17
78.0-79.0	44.0	4.7	911.0	0.51	97.68
79.0-80.0	39.0	4.2	915.3	0.45	98.13
80.0-81.0	34.1	3.7	918.9	0.40	98.53
81.0-82.0	29.5	3.2	922.1	0.34	98.87
82.0-83.0	25.0	2.7	924.9	0.29	99.16
83.0-84.0	20.8	2.3	927.1	0.24	99.41
84.0-85.0	16.7	1.8	929.0	0.20	99.60
85.0-86.0	12.8	1.4	930.4	0.15	99.75
86.0-87.0	9.3	1.0	931.4	0.11	99.86
87.0-88.0	6.1	0.7	932.0	0.07	99.93
88.0-89.0	3.7	0.4	932.5	0.04	99.98
89.0-90.0	2.0	0.2	932.7	0.02	100.00

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

Gamma Plane (°):0.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 6.935 m  
Humidity:  
Inspector:

## 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	315.9	317.4	316.0	315.3	315.2	315.5	315.9	317.4	316.0	315.3
G1.0	316.1	315.8	315.1	315.6	314.0	315.2	316.5	316.3	315.8	315.9
G2.0	315.7	315.3	315.1	315.2	315.2	315.0	315.9	315.3	314.1	315.0
G3.0	315.1	314.0	315.3	314.7	316.0	315.2	317.5	316.3	314.6	315.1
G4.0	314.5	314.9	314.0	314.7	314.5	315.3	316.2	316.0	314.9	315.3
G5.0	315.1	314.2	314.3	315.2	314.9	315.0	316.5	316.4	315.6	314.6
G6.0	312.1	312.8	314.2	313.9	314.2	315.2	315.7	315.3	314.0	314.5
G7.0	312.8	313.3	313.0	313.9	314.2	314.1	316.5	315.2	314.0	313.3
G8.0	311.9	311.9	312.2	312.8	312.8	312.9	315.0	314.4	313.5	313.1
G9.0	312.5	311.0	311.4	311.7	313.3	313.7	314.8	313.0	311.9	312.5
G10.0	311.2	310.9	311.2	311.0	312.2	312.6	313.6	313.7	311.9	310.0
G11.0	309.8	310.7	310.1	309.9	311.6	312.4	312.4	312.3	312.1	309.5
G12.0	307.0	309.0	308.1	308.8	310.5	311.5	312.0	311.3	310.7	309.9
G13.0	306.9	306.7	308.1	307.8	309.2	310.0	312.2	310.0	309.5	307.8
G14.0	306.2	305.0	306.2	306.9	306.6	309.5	309.5	310.0	308.9	307.1
G15.0	305.4	304.9	305.1	306.0	306.4	307.9	309.1	308.3	306.5	305.0
G16.0	303.0	302.6	302.2	304.1	305.4	306.3	308.5	306.4	306.6	304.9
G17.0	301.5	301.3	301.8	302.5	304.0	305.1	307.6	304.8	305.0	303.4
G18.0	299.1	299.1	300.6	300.8	302.8	303.3	304.5	304.1	304.3	300.9
G19.0	296.8	297.1	297.3	300.1	301.7	301.8	303.7	303.0	301.6	300.3
G20.0	294.5	296.1	295.9	297.7	299.5	300.6	302.0	302.5	299.4	297.5
G21.0	292.4	293.2	294.0	295.8	297.6	298.2	300.7	299.2	297.9	296.7
G22.0	291.9	291.0	293.1	294.1	296.2	297.7	300.1	297.6	295.6	294.0
G23.0	287.1	289.0	290.6	291.6	293.9	297.0	297.7	296.5	292.8	292.1
G24.0	284.6	287.0	288.2	290.6	291.0	293.5	293.3	294.5	290.7	288.7
G25.0	283.9	284.1	286.1	286.2	290.1	291.2	293.6	292.7	288.8	287.0
G26.0	280.6	281.4	283.9	285.8	287.1	289.0	291.9	289.0	287.3	285.5
G27.0	278.3	279.6	281.0	282.3	284.3	286.3	287.8	289.0	285.2	282.9
G28.0	276.0	276.6	280.0	280.6	283.5	284.5	287.8	285.5	283.2	280.9
G29.0	272.4	272.9	276.4	277.2	280.5	282.8	285.5	282.8	281.0	276.9
G30.0	269.0	269.8	272.5	275.6	277.5	280.4	282.6	280.5	278.4	274.9
G31.0	266.5	267.5	269.7	271.0	274.7	276.2	280.1	277.4	275.6	270.4
G32.0	262.1	264.6	266.4	269.2	271.7	273.0	274.5	275.4	272.6	269.4
G33.0	259.7	261.1	263.9	265.4	268.6	270.9	273.8	272.7	269.3	264.4
G34.0	256.4	256.8	260.1	262.3	266.6	267.7	270.1	270.1	266.1	261.5
G35.0	252.5	252.2	256.5	259.6	262.6	264.9	268.3	265.5	262.5	258.1
G36.0	248.8	248.6	252.1	256.2	260.1	262.0	264.4	262.5	259.1	254.9

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

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 6.935 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	244.7	245.7	249.3	252.8	256.8	258.4	260.1	259.8	255.4	252.6
G38.0	241.6	242.2	245.4	248.5	252.7	255.8	257.9	255.7	252.0	247.3
G39.0	237.2	238.9	242.0	246.4	249.0	251.7	253.5	251.9	249.3	244.2
G40.0	233.2	234.0	237.1	241.3	245.0	248.3	249.4	248.7	245.3	239.4
G41.0	229.1	228.6	233.3	239.4	240.9	245.7	245.8	244.2	241.1	237.0
G42.0	223.8	226.2	228.7	233.4	237.3	240.3	242.1	241.6	237.2	231.5
G43.0	218.8	221.0	225.7	229.6	233.9	236.8	237.5	237.8	233.4	227.8
G44.0	215.4	216.2	220.2	226.1	229.6	232.2	234.5	233.6	228.9	223.8
G45.0	210.7	211.1	216.3	221.0	225.1	228.3	230.1	229.4	223.8	219.1
G46.0	204.5	206.9	211.5	216.5	220.7	223.6	226.2	225.1	220.0	214.3
G47.0	200.4	201.7	206.8	212.5	216.9	220.0	221.6	221.2	215.5	210.4
G48.0	195.3	198.1	201.5	207.1	212.3	215.5	217.1	215.8	210.7	205.2
G49.0	190.8	191.4	197.1	202.8	207.2	210.0	212.8	211.4	206.4	200.9
G50.0	185.6	187.4	192.9	199.0	202.7	206.6	207.9	206.6	201.2	195.4
G51.0	179.6	182.5	186.5	193.3	197.9	201.6	203.9	201.4	196.6	189.8
G52.0	174.5	177.1	182.4	188.9	192.8	196.4	199.1	197.2	192.3	185.8
G53.0	169.4	171.5	177.2	183.7	188.7	191.5	193.7	192.5	186.7	180.4
G54.0	164.7	166.6	171.8	178.4	183.1	186.9	189.1	187.3	181.6	175.5
G55.0	159.5	161.4	166.9	173.3	177.8	182.4	183.6	182.0	177.6	170.9
G56.0	152.9	156.1	161.0	168.0	173.4	176.4	178.8	176.7	171.6	165.2
G57.0	148.2	149.5	155.5	162.5	167.7	171.3	174.4	172.2	166.3	159.8
G58.0	142.5	145.2	150.8	157.6	162.9	166.0	168.7	166.1	160.3	154.8
G59.0	136.5	138.5	145.0	151.8	157.1	160.6	163.7	161.1	156.0	148.7
G60.0	131.9	133.6	139.5	146.9	152.2	156.1	157.9	156.0	150.1	143.8
G61.0	125.6	128.1	134.5	141.6	146.9	150.3	151.9	149.8	144.5	138.8
G62.0	120.0	123.1	128.6	136.0	141.5	144.3	146.7	144.6	139.0	132.7
G63.0	113.4	117.1	123.4	130.9	136.1	139.7	141.6	139.6	133.6	127.2
G64.0	108.6	111.2	117.3	125.2	130.4	133.7	135.6	133.7	127.8	121.9
G65.0	102.3	105.6	112.1	118.9	125.2	128.3	130.5	128.3	121.9	115.9
G66.0	96.9	100.2	107.3	114.1	119.7	123.1	124.9	122.4	116.8	110.9
G67.0	91.2	94.1	100.7	108.7	113.8	116.8	119.3	116.6	111.3	104.4
G68.0	86.2	89.1	95.3	102.5	108.7	111.7	113.4	111.3	105.9	99.4
G69.0	80.3	83.3	89.8	97.1	102.9	105.6	107.8	105.6	99.9	93.6
G70.0	74.9	78.2	84.7	92.1	97.2	100.2	102.3	100.2	94.7	88.3
G71.0	69.7	73.1	79.3	86.6	91.7	94.8	96.7	94.3	88.9	83.1
G72.0	64.0	67.2	73.9	80.8	86.5	88.3	90.8	88.9	83.6	77.2
G73.0	58.4	61.8	68.1	75.6	80.7	83.4	85.5	83.3	77.8	71.8

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

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 6.935 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	53.7	56.6	63.5	70.3	75.7	77.1	79.9	78.4	72.6	66.9
G75.0	48.1	51.6	58.0	65.1	69.8	71.9	74.3	72.5	67.3	61.2
G76.0	43.4	46.8	53.0	60.1	64.5	66.6	69.6	67.4	62.0	56.0
G77.0	38.1	41.6	47.7	54.6	58.7	60.9	63.3	61.5	56.5	50.9
G78.0	33.1	37.0	42.8	49.6	53.3	55.8	57.9	56.6	51.9	46.0
G79.0	28.4	32.4	38.6	45.1	48.3	50.4	52.6	51.9	46.8	41.3
G80.0	23.6	27.9	33.6	40.0	42.9	45.2	47.1	46.5	41.6	36.2
G81.0	19.2	23.6	29.3	35.6	38.3	40.2	41.9	41.3	37.0	31.5
G82.0	15.3	19.4	25.0	30.8	33.6	35.2	36.7	36.8	32.1	27.1
G83.0	11.6	15.4	20.4	26.5	28.6	30.6	31.9	31.9	27.9	22.3
G84.0	8.2	11.6	16.5	22.3	24.1	26.1	27.4	27.7	23.4	18.4
G85.0	5.0	7.6	12.2	17.8	19.7	21.5	22.8	23.1	19.0	13.8
G86.0	2.0	4.4	8.7	14.0	16.0	17.0	18.9	18.8	15.0	9.5
G87.0	0.2	1.4	4.8	10.1	12.6	13.1	14.9	14.9	10.9	5.3
G88.0	0.2	0.2	1.1	6.1	9.0	9.6	10.6	10.5	6.6	1.3
G89.0	0.2	0.2	0.4	2.2	5.9	6.4	6.7	6.5	2.9	0.5
G90.0	0.2	0.2	0.4	0.4	2.6	3.0	2.3	3.0	0.6	0.4

C Plane (°):0.0-360.0: 30.0 Test Lab: Test Type: TYPE C Temperature: Operator:	Gamma Plane (°):0.0-90.0:1.0 Test Device: GPM-1600L Distance: 6.935 m Humidity: Inspector:
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### Candlepower Table (Continue 3)

Unit: cd

G\C	C300.0	C330.0	C360.0						
G0.0	315.2	315.5	315.9						
G1.0	315.5	314.9	316.1						
G2.0	315.7	315.1	315.7						
G3.0	315.0	314.1	315.1						
G4.0	313.2	313.8	314.5						
G5.0	312.7	313.4	315.1						
G6.0	312.3	312.8	312.1						
G7.0	312.6	311.6	312.8						
G8.0	311.5	310.9	311.9						
G9.0	310.6	309.0	312.5						
G10.0	311.1	309.9	311.2						
G11.0	308.6	307.8	309.8						
G12.0	308.3	307.2	307.0						
G13.0	306.4	305.9	306.9						
G14.0	304.2	304.8	306.2						
G15.0	304.5	302.5	305.4						
G16.0	302.6	300.9	303.0						
G17.0	301.8	299.9	301.5						
G18.0	298.8	298.4	299.1						
G19.0	297.2	296.5	296.8						
G20.0	295.2	295.2	294.5						
G21.0	293.6	293.5	292.4						
G22.0	290.6	290.2	291.9						
G23.0	289.8	287.8	287.1						
G24.0	287.7	285.2	284.6						
G25.0	284.7	283.2	283.9						
G26.0	282.5	281.2	280.6						
G27.0	279.2	277.6	278.3						
G28.0	277.3	275.6	276.0						
G29.0	274.8	273.0	272.4						
G30.0	270.7	269.7	269.0						
G31.0	268.2	266.6	266.5						
G32.0	264.9	263.7	262.1						
G33.0	262.2	259.4	259.7						
G34.0	258.5	257.3	256.4						
G35.0	255.1	253.0	252.5						
G36.0	250.5	247.7	248.8						

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

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 6.935 m  
 Humidity:  
 Inspector:

### Candlepower Table (Continue 4)

Unit: cd

G\C	C300.0	C330.0	C360.0						
G37.0	247.7	244.3	244.7						
G38.0	243.6	241.8	241.6						
G39.0	239.9	236.7	237.2						
G40.0	234.7	232.9	233.2						
G41.0	232.1	228.0	229.1						
G42.0	226.7	224.7	223.8						
G43.0	222.4	220.7	218.8						
G44.0	218.2	215.1	215.4						
G45.0	213.7	211.2	210.7						
G46.0	208.4	206.3	204.5						
G47.0	204.3	201.0	200.4						
G48.0	199.8	197.0	195.3						
G49.0	194.3	191.3	190.8						
G50.0	190.4	186.5	185.6						
G51.0	183.3	181.4	179.6						
G52.0	179.5	176.0	174.5						
G53.0	174.4	171.2	169.4						
G54.0	169.4	165.0	164.7						
G55.0	163.9	161.1	159.5						
G56.0	158.5	154.8	152.9						
G57.0	153.1	148.9	148.2						
G58.0	148.0	144.0	142.5						
G59.0	142.1	138.6	136.5						
G60.0	136.6	133.0	131.9						
G61.0	131.3	127.4	125.6						
G62.0	125.1	121.8	120.0						
G63.0	120.2	115.9	113.4						
G64.0	114.2	110.0	108.6						
G65.0	108.8	104.5	102.3						
G66.0	103.3	99.5	96.9						
G67.0	97.7	93.4	91.2						
G68.0	92.2	87.8	86.2						
G69.0	86.7	82.1	80.3						
G70.0	81.1	76.8	74.9						
G71.0	75.9	71.2	69.7						
G72.0	70.7	65.5	64.0						
G73.0	65.0	60.2	58.4						

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

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 6.935 m  
 Humidity:  
 Inspector:

## Candlepower Table (Continue 5)

Unit: cd

G\C	C300.0	C330.0	C360.0						
G74.0	59.2	54.8	53.7						
G75.0	54.1	49.5	48.1						
G76.0	49.2	44.5	43.4						
G77.0	43.6	39.0	38.1						
G78.0	38.5	34.0	33.1						
G79.0	33.8	29.5	28.4						
G80.0	28.6	24.4	23.6						
G81.0	24.0	19.8	19.2						
G82.0	19.1	15.7	15.3						
G83.0	15.1	11.5	11.6						
G84.0	11.5	8.3	8.2						
G85.0	8.1	5.4	5.0						
G86.0	4.8	2.9	2.0						
G87.0	1.9	0.5	0.2						
G88.0	0.5	0.5	0.2						
G89.0	0.5	0.4	0.2						
G90.0	0.5	0.5	0.2						

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

Gamma Plane (°):0.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 6.935 m  
 Humidity:  
 Inspector: