

Report No.:

Test Time: 2022-06-29 17:12

## Luminaire Property

Luminaire Manufacturer:

Luminaire Description: VMC33223BL

Current: 0.353 A

Power Factor: 0.992

Voltage: 119.9 V

Power: 41.96 W

## Photometric Results

CIE Class: Semi-Direct

Measurement Flux: 2207 lm

Downward Ratio: 76%

Horizontal Diffuse Angle(50%): H71.3

Vertical Diffuse Angle(50%): V35.9

Luminaire Efficacy Rating (LER): 52.65

Max. Intensity: 1494.93 cd

S/MH(C0/C180): 0.97

Total Rated Lamp Lumens: 2207.0 lm

Efficiency: 100%

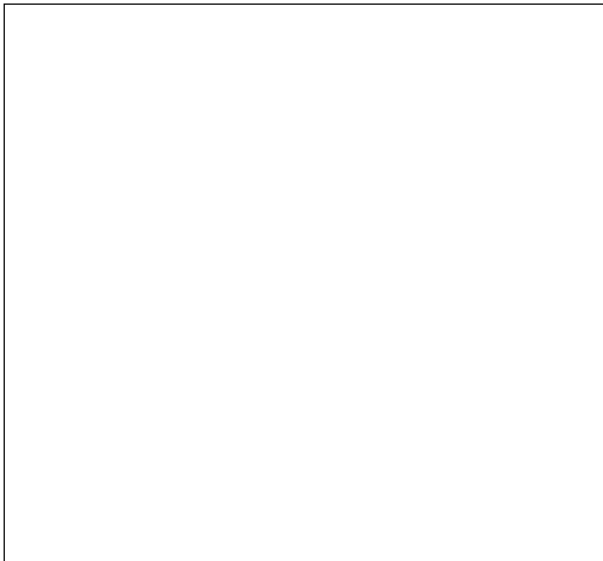
Upward Ratio: 24%

Central Intensity: 1491.61 cd

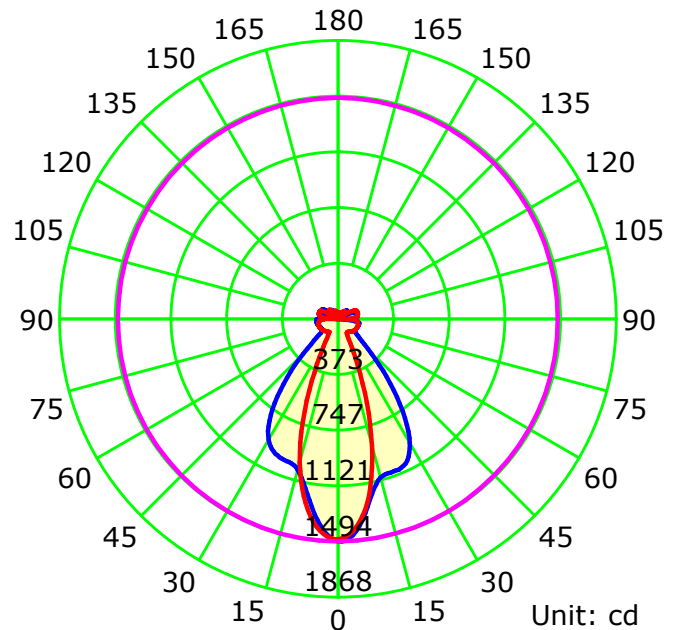
Pos of Max. Intensity: H0 V1

S/MH(C90/C270): 0.59

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 53.6°

— C0-C180 — C90-C270 — G1

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

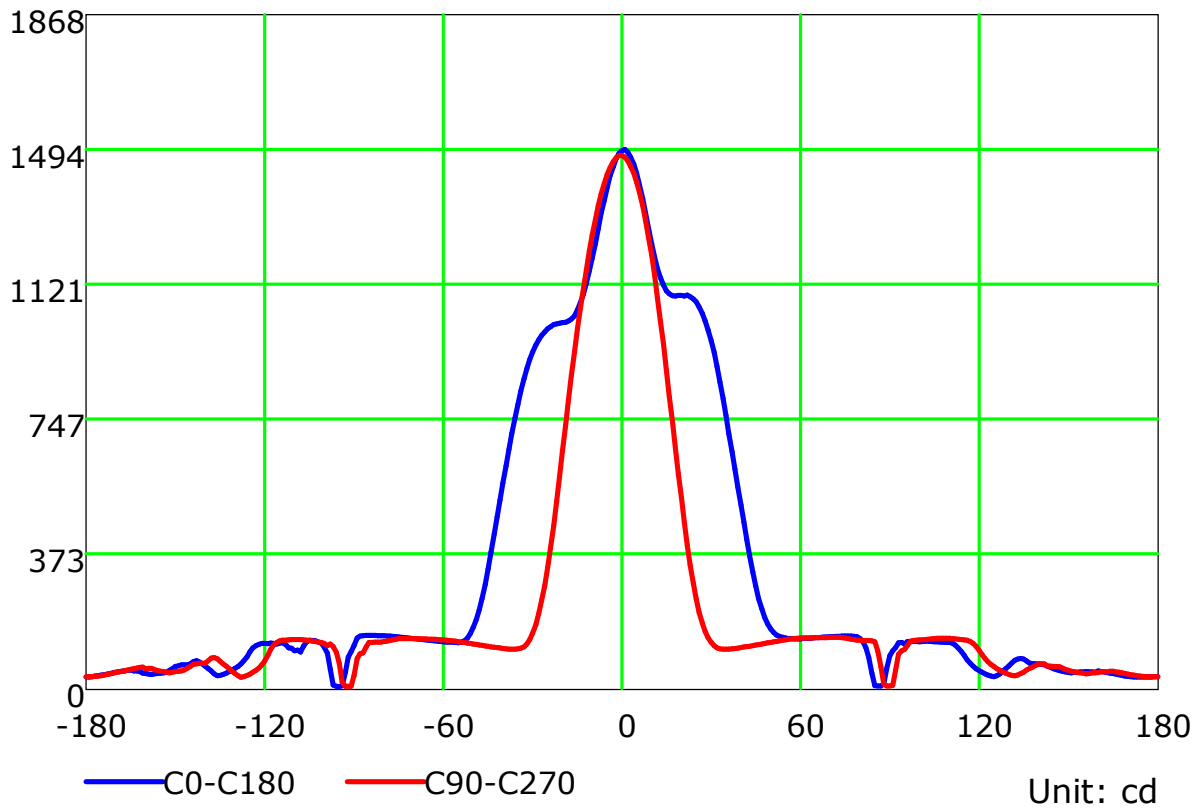
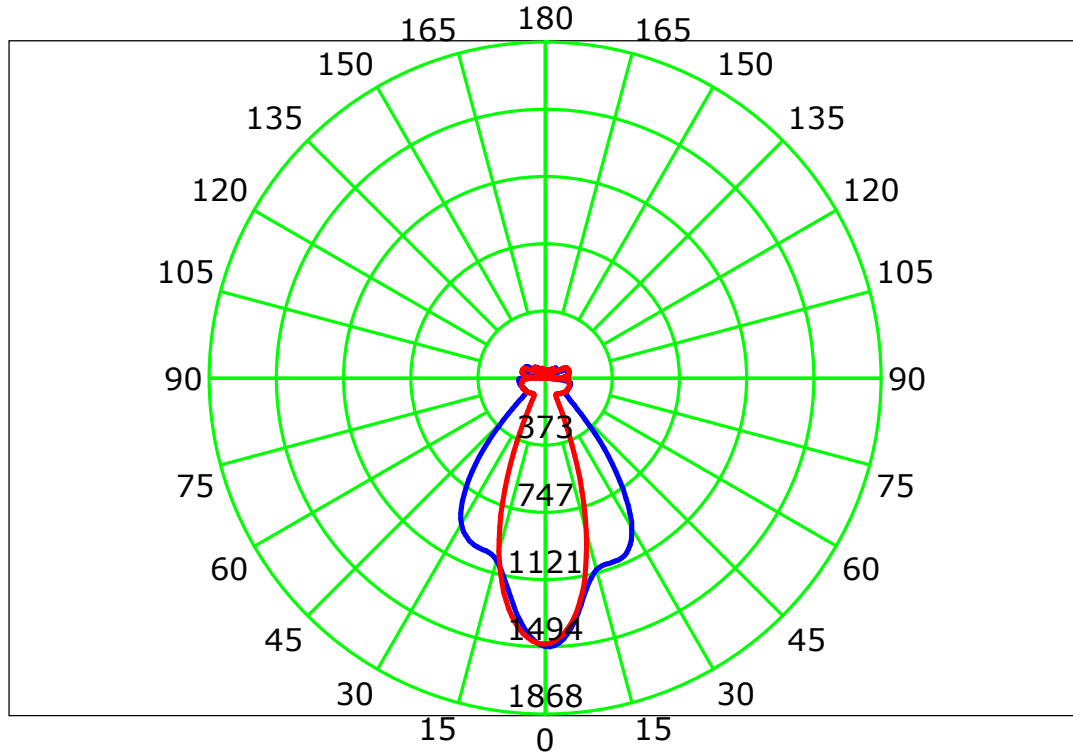
Test Device: GPM-1600

Distance: 6.500 m

Humidity:

Inspector:

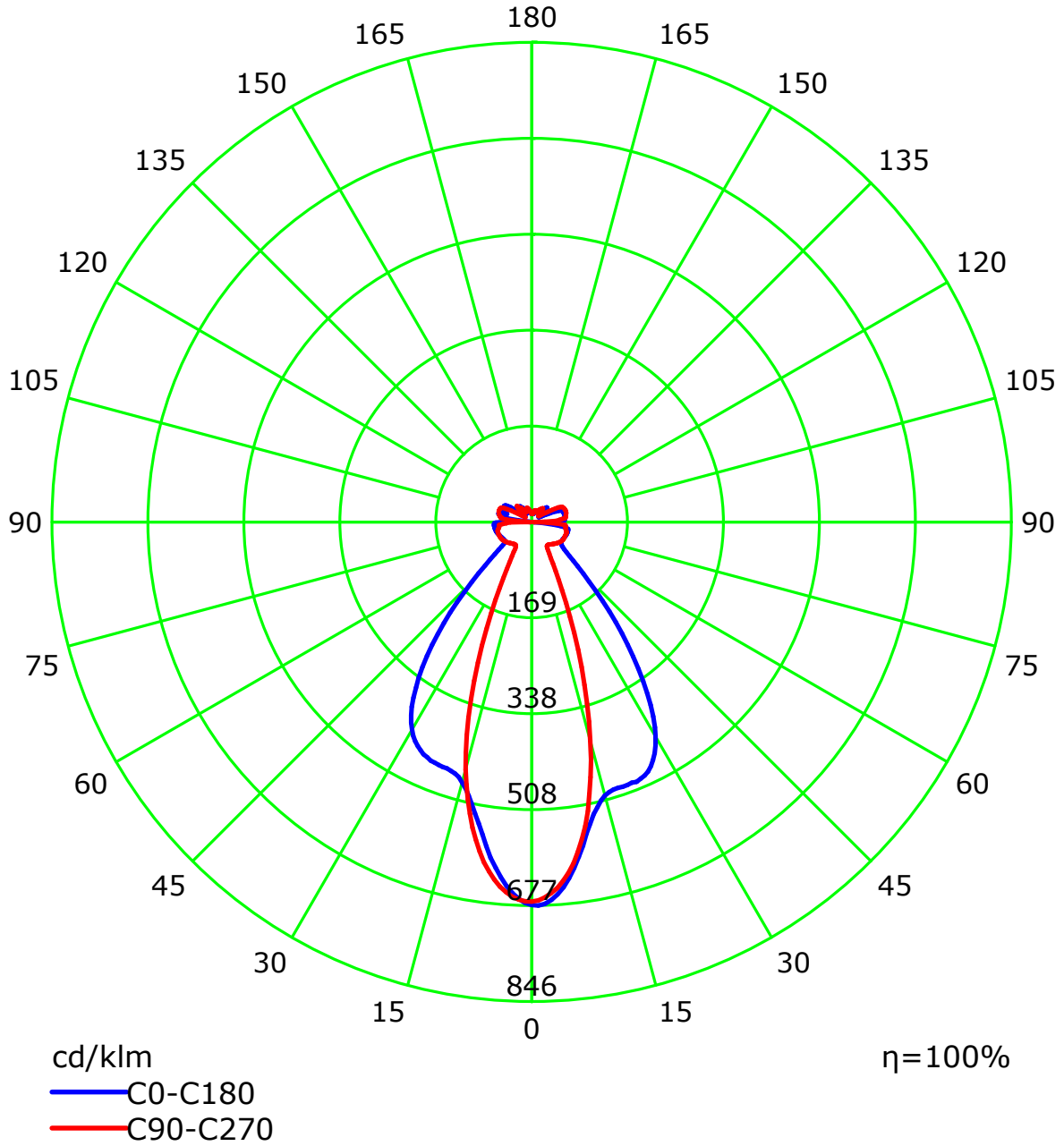
## Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600  
 Distance: 6.500 m  
 Humidity:  
 Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600

Distance: 6.500 m

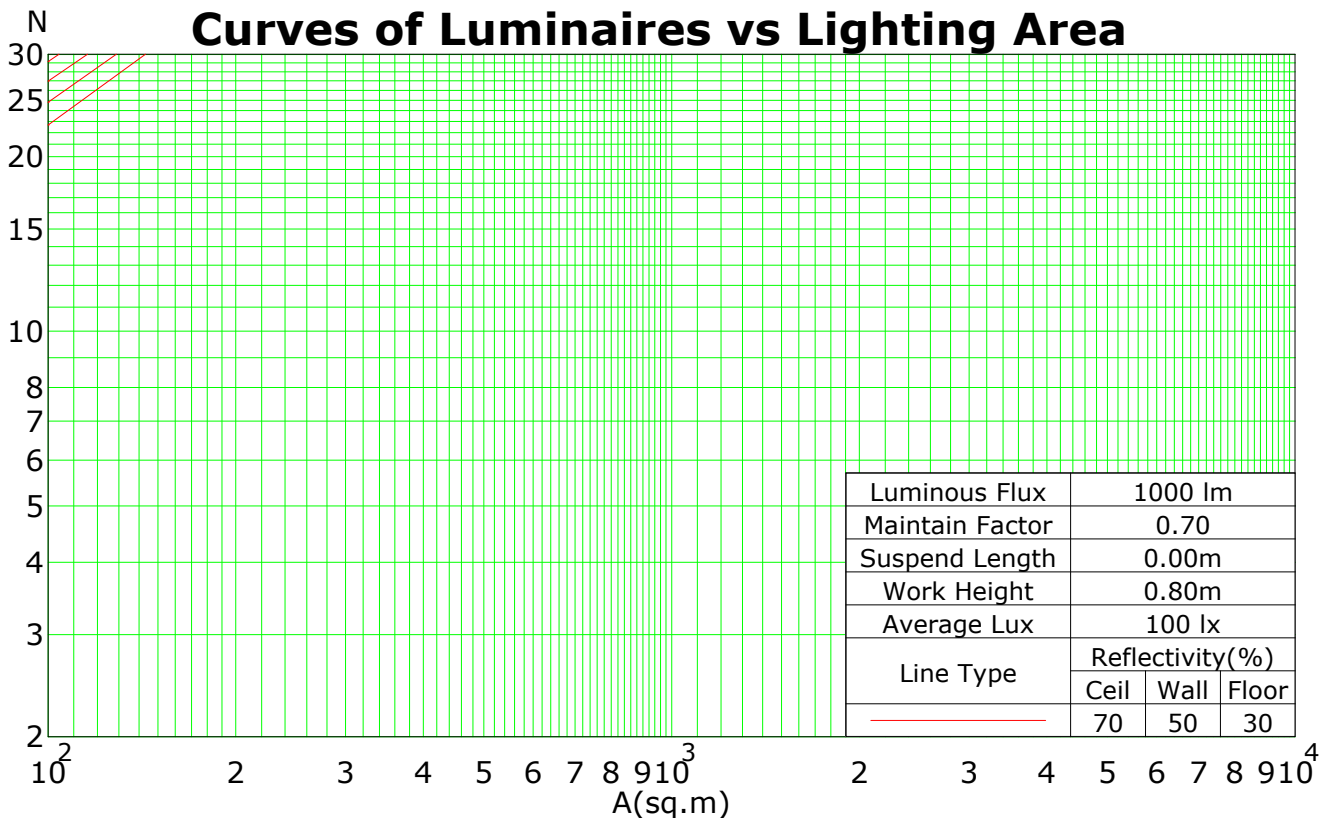
Humidity:

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	113	113	113	113	108	108	108	108	98	98	98	89	89	89	80	80	80	76
1	103	98	93	89	98	93	89	86	85	82	79	77	74	72	69	68	66	62
2	94	86	80	74	89	82	77	72	75	70	66	68	65	61	62	59	57	53
3	87	77	70	64	82	74	67	62	68	62	58	62	57	54	56	53	50	47
4	81	70	62	56	76	67	60	54	61	55	51	56	51	48	52	48	45	42
5	75	63	55	49	71	61	54	48	56	50	45	52	47	43	48	44	40	38
6	70	58	50	44	67	56	49	43	52	46	41	48	43	39	44	40	37	34
7	66	53	46	40	62	52	44	39	48	42	37	45	39	36	41	37	34	32
8	62	49	42	37	59	48	41	36	45	39	34	42	37	33	39	34	31	29
9	58	46	39	34	55	45	38	33	42	36	32	39	34	30	37	32	29	27
10	55	43	36	31	52	42	35	31	39	33	29	37	32	28	34	30	27	25

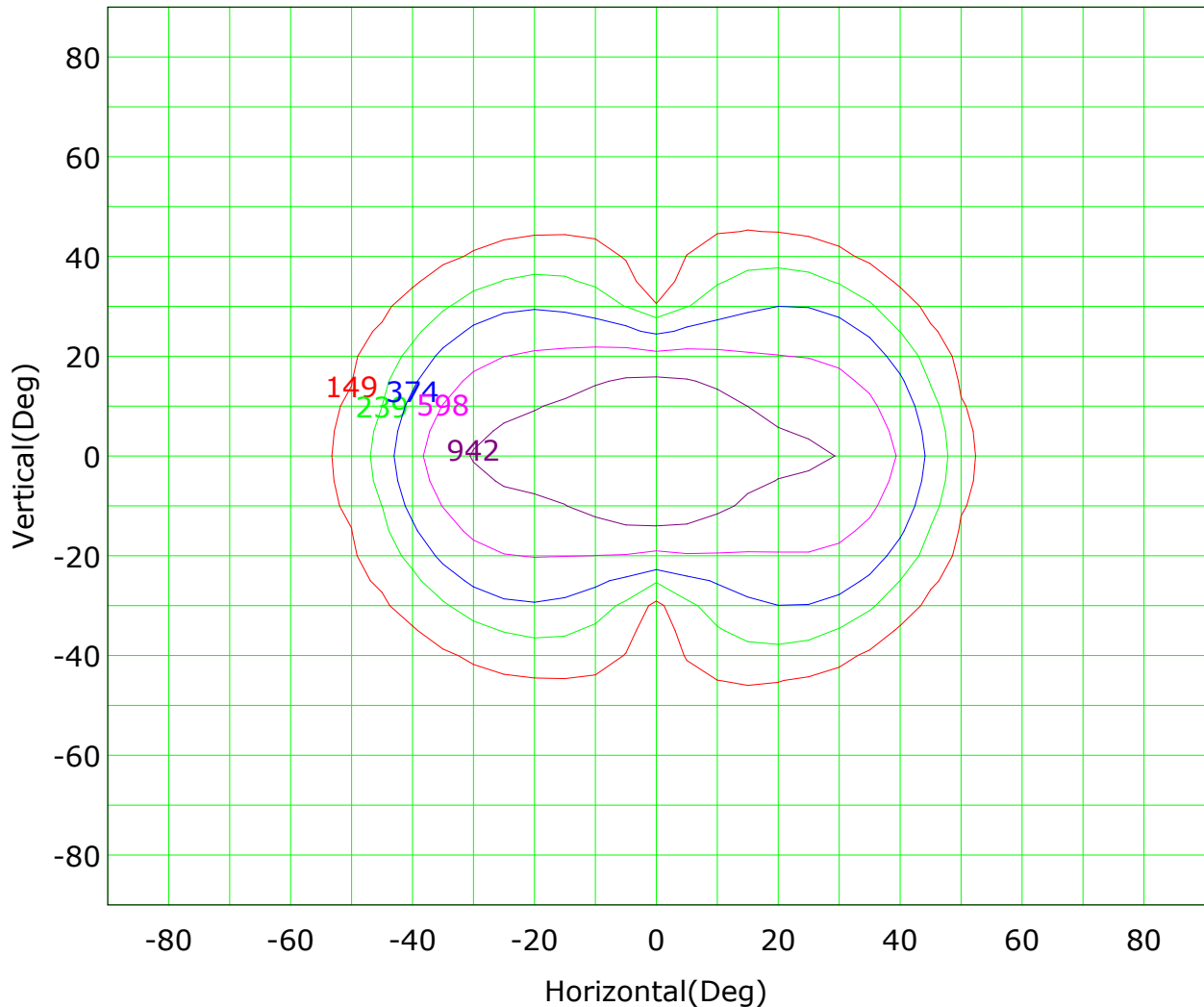
Spacing Criteria (0-180): 0.97  
 Spacing Criteria (90-270): 0.59  
 Spacing Criteria (Diagonal): 0.79



C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600  
 Distance: 6.500 m  
 Humidity:  
 Inspector:

## Isocandela (rectangle)



Imax (100%): 1495 cd

— ( 10%):	149 cd	— ( 16%):	239 cd
— ( 25%):	374 cd	— ( 40%):	598 cd
— ( 63%):	942 cd	— (100%):	1495 cd

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

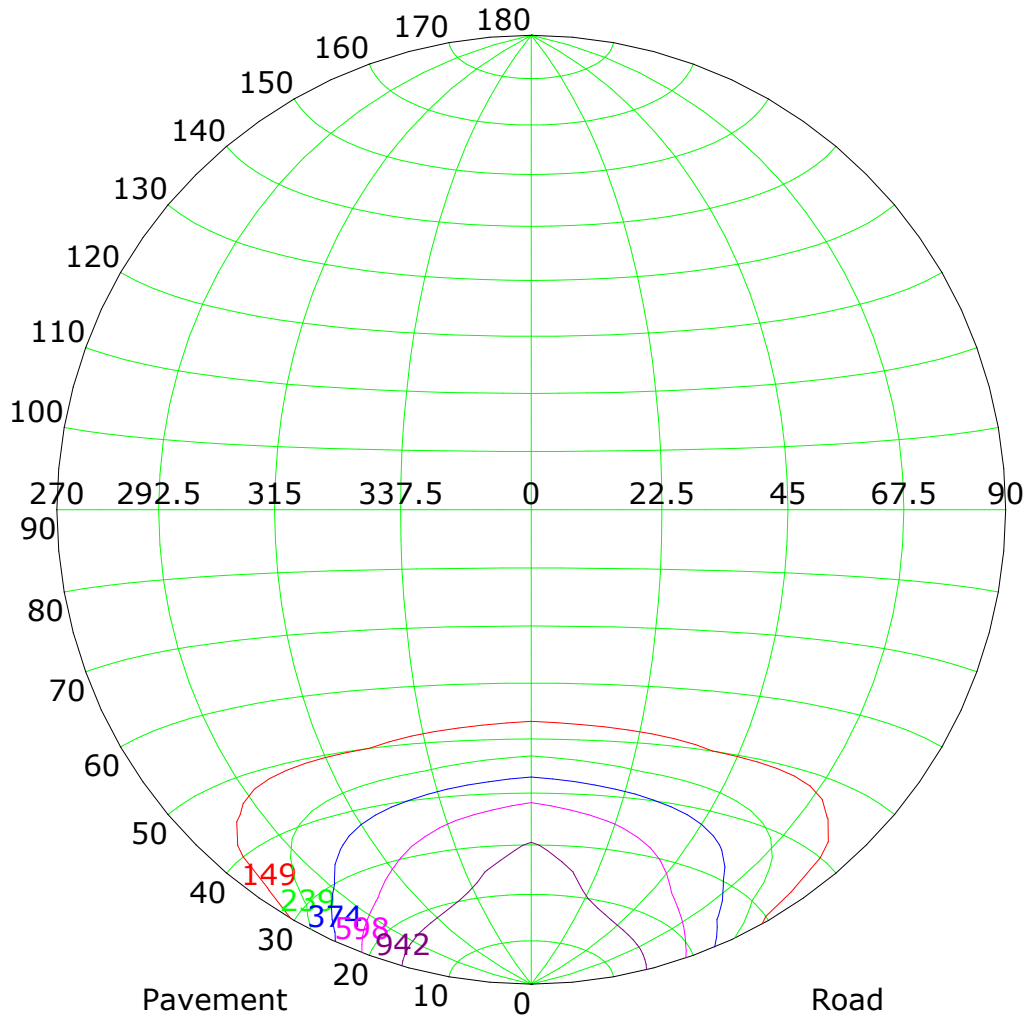
Test Device: GPM-1600

Distance: 6.500 m

Humidity:

Inspector:

## Isocandela (sphere)



Imax (100%): 1495 cd

— ( 10%):	149 cd	— ( 16%):	239 cd
— ( 25%):	374 cd	— ( 40%):	598 cd
— ( 63%):	942 cd	— (100%):	1495 cd

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

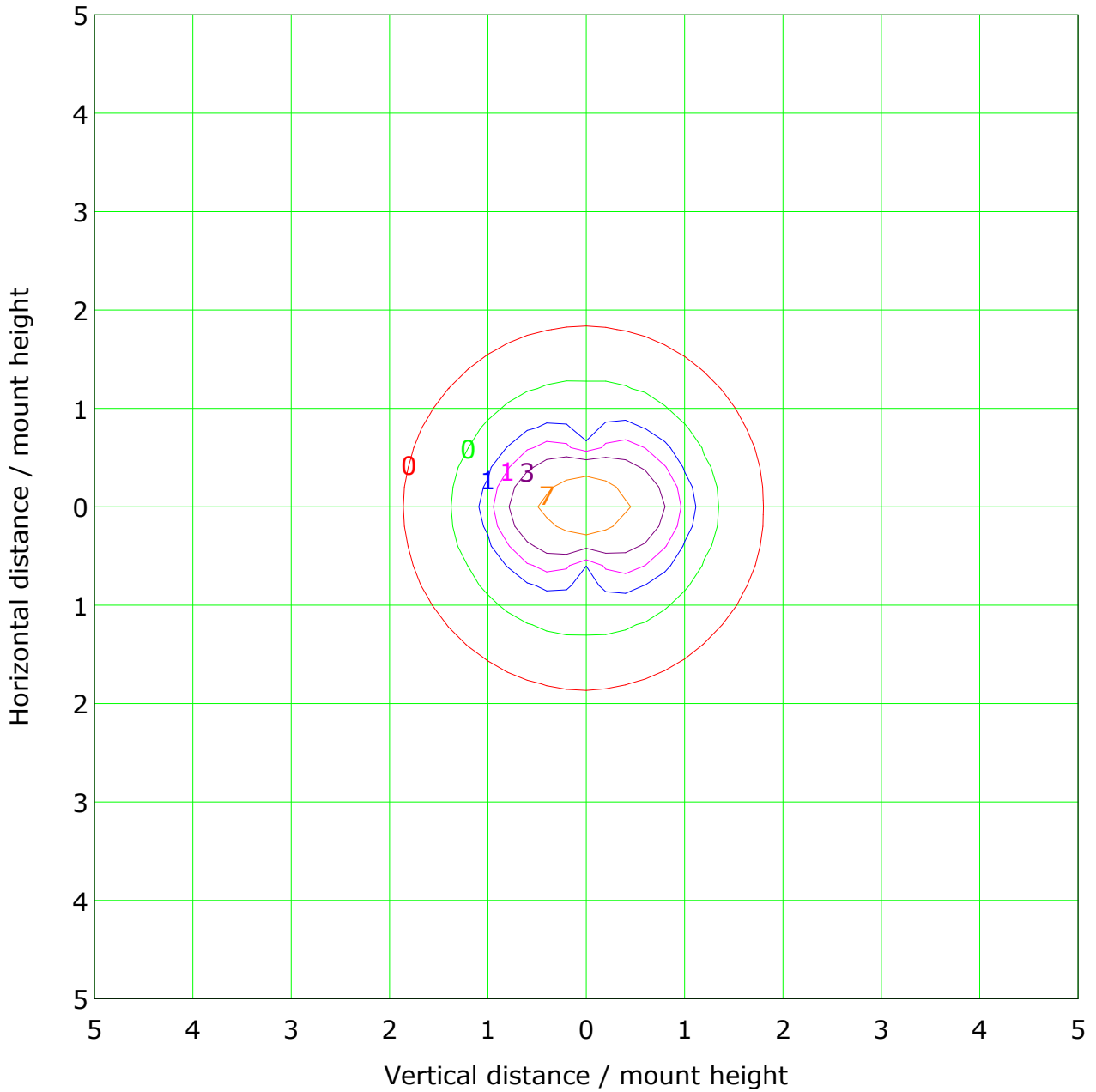
Test Device: GPM-1600

Distance: 6.500 m

Humidity:

Inspector:

## IsoLux Plot



Mounting Height: 10.0m		Max Lux(100%): 14.9 lx	
<ul style="list-style-type: none"> <li><span style="color: red;">—</span> ( 1%): 0.1 lx</li> <li><span style="color: blue;">—</span> ( 5%): 0.7 lx</li> <li><span style="color: purple;">—</span> ( 20%): 3.0 lx</li> <li><span style="color: green;">—</span> (100%): 14.9 lx</li> </ul>	<ul style="list-style-type: none"> <li><span style="color: green;">—</span> ( 2%): 0.3 lx</li> <li><span style="color: purple;">—</span> ( 10%): 1.5 lx</li> <li><span style="color: orange;">—</span> ( 50%): 7.5 lx</li> </ul>		

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600

Distance: 6.500 m

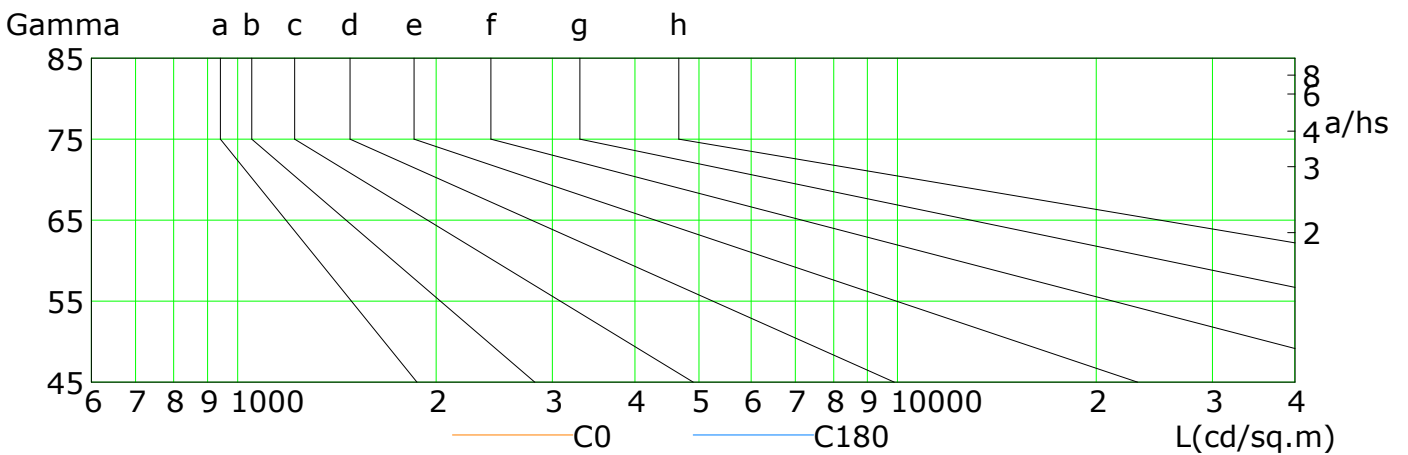
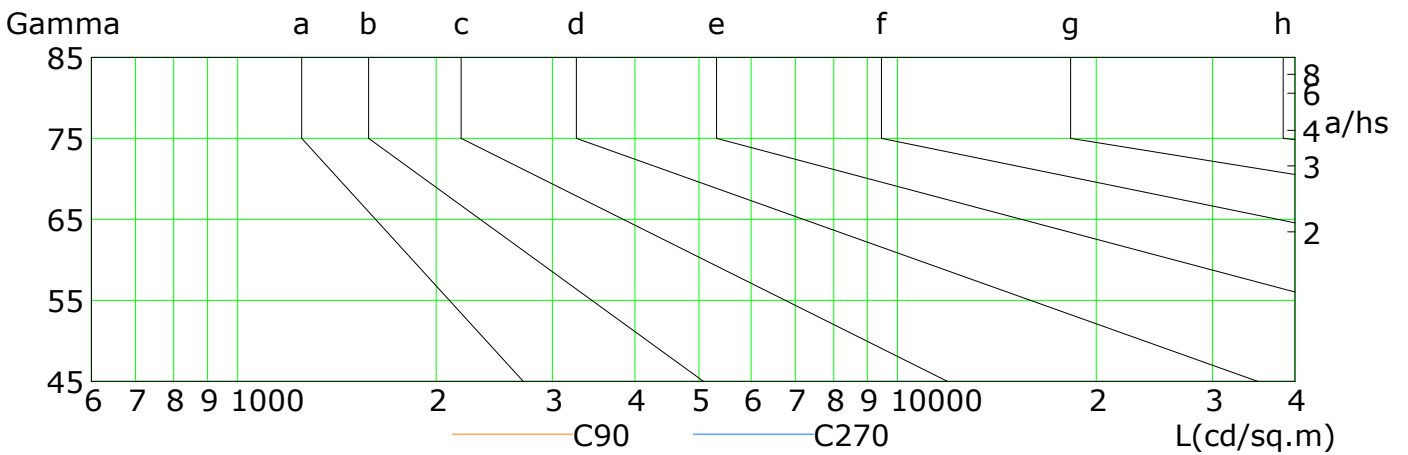
Humidity:

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	284	166	140	138	141	144	146	139	9
C90	121	129	136	140	141	142	140	134	130
C180	332	169	128	130	134	139	144	147	148
C270	117	124	130	135	137	139	139	131	128

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600

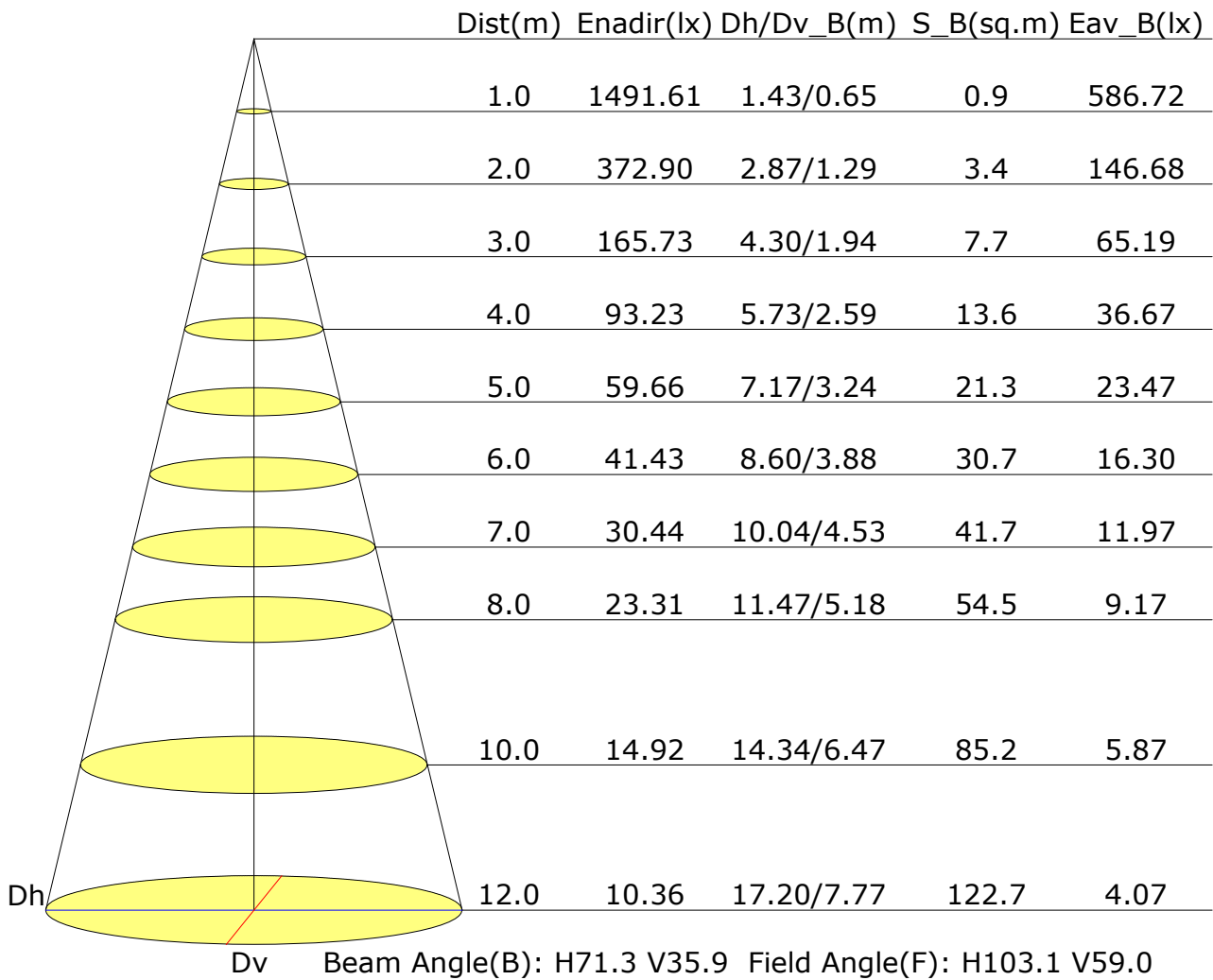
Distance: 6.500 m

Humidity:

Inspector:



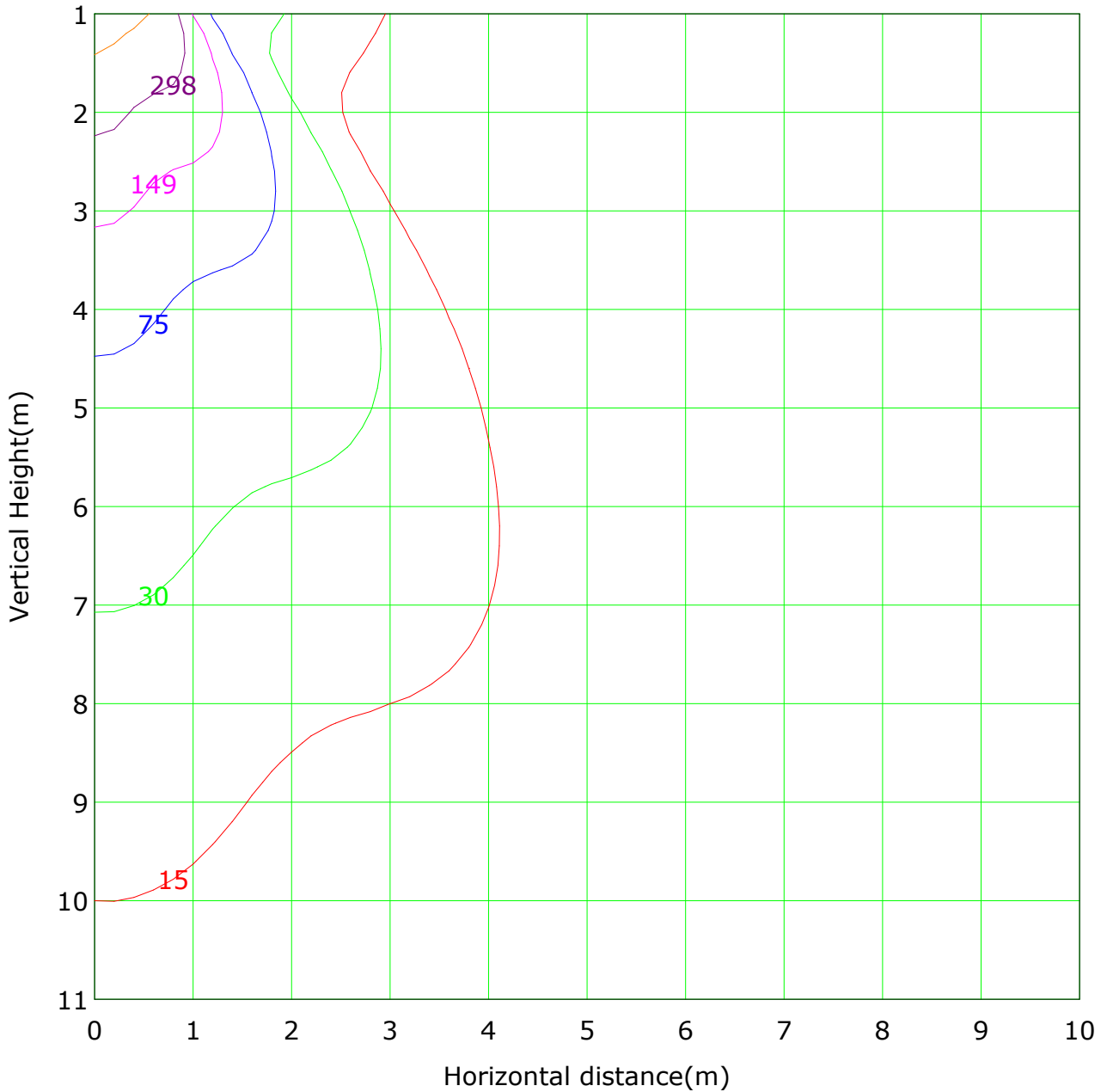
## Illuminance at a Distance



C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600  
 Distance: 6.500 m  
 Humidity:  
 Inspector:

## Vertical IsoLux Plot



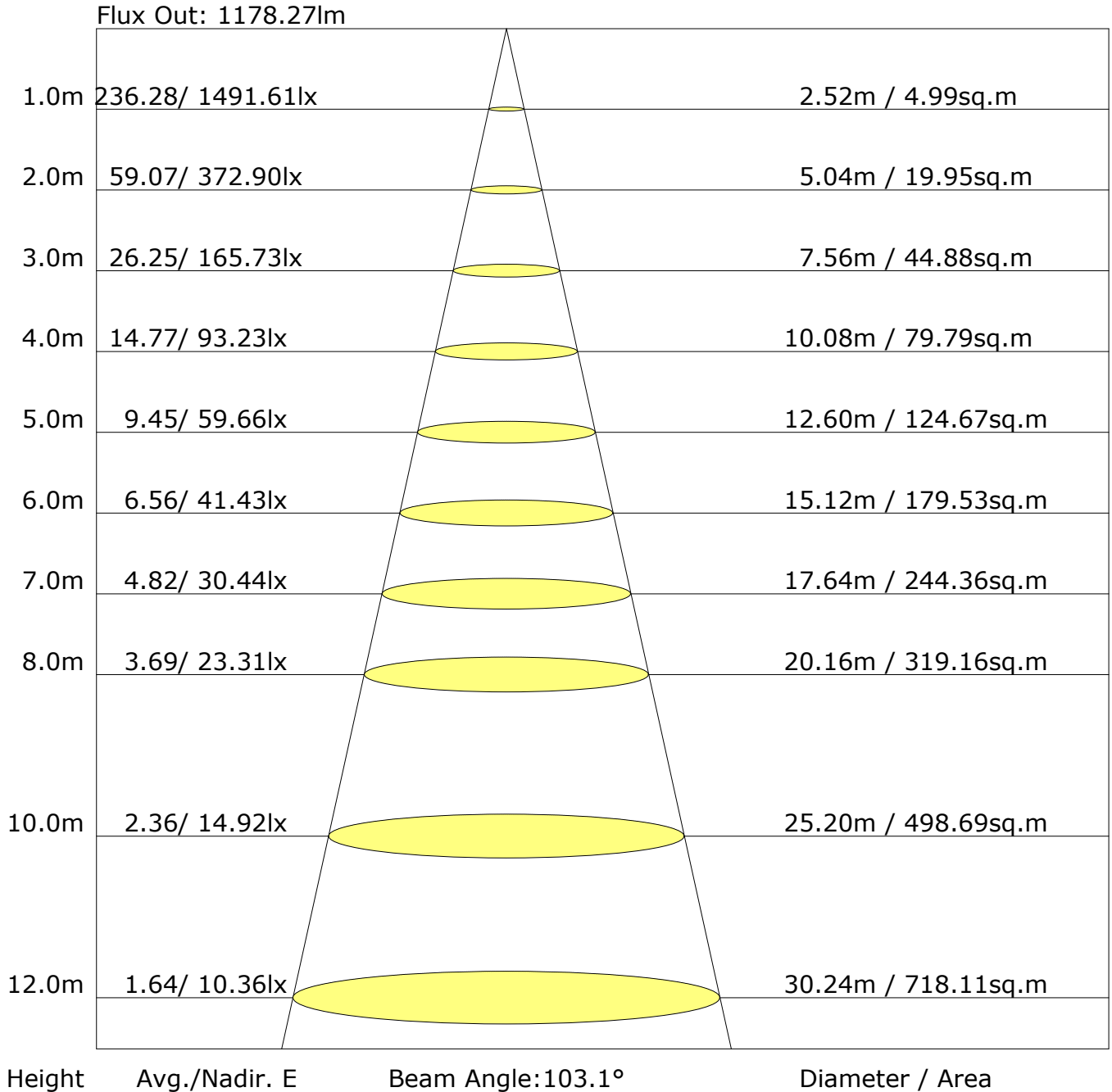
Lowest(m): 1.0m    Highest(m): 11.0m    Max Lux: 1491.6 lx  
 ( 1%): 14.9 lx                      ( 2%): 29.8 lx  
 ( 5%): 74.6 lx                        ( 10%): 149.2 lx  
 ( 20%): 298.3 lx                      ( 50%): 745.8 lx  
 (100%):1491.6 lx

C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600  
 Distance: 6.500 m  
 Humidity:  
 Inspector:



## The Average Illuminance Effective Figure



C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600  
 Distance: 6.500 m  
 Humidity:  
 Inspector:

## UGR Table

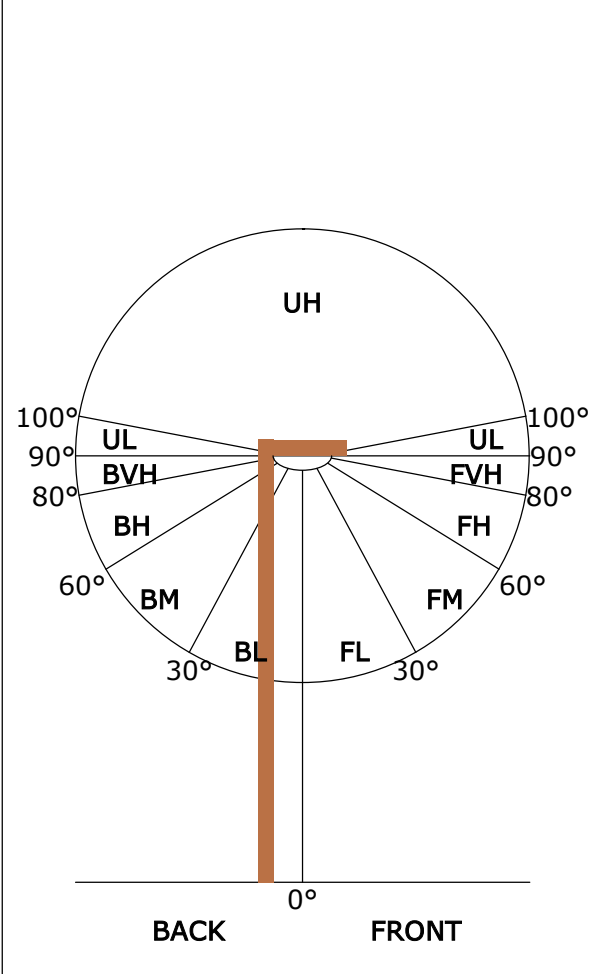
Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-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.\$					-1.\$/-1.\$				
S=1.5H	-1.\$/-1.\$					-1.\$/-1.\$				
S=2.0H	-1.\$/-1.\$					-1.\$/-1.\$				

Calculate in accordance with CIE Pub.117. The table is revised with 2207lm ( $8\log(F/F_0) = 2.8$ ).

C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600  
 Distance: 6.500 m  
 Humidity:  
 Inspector:

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

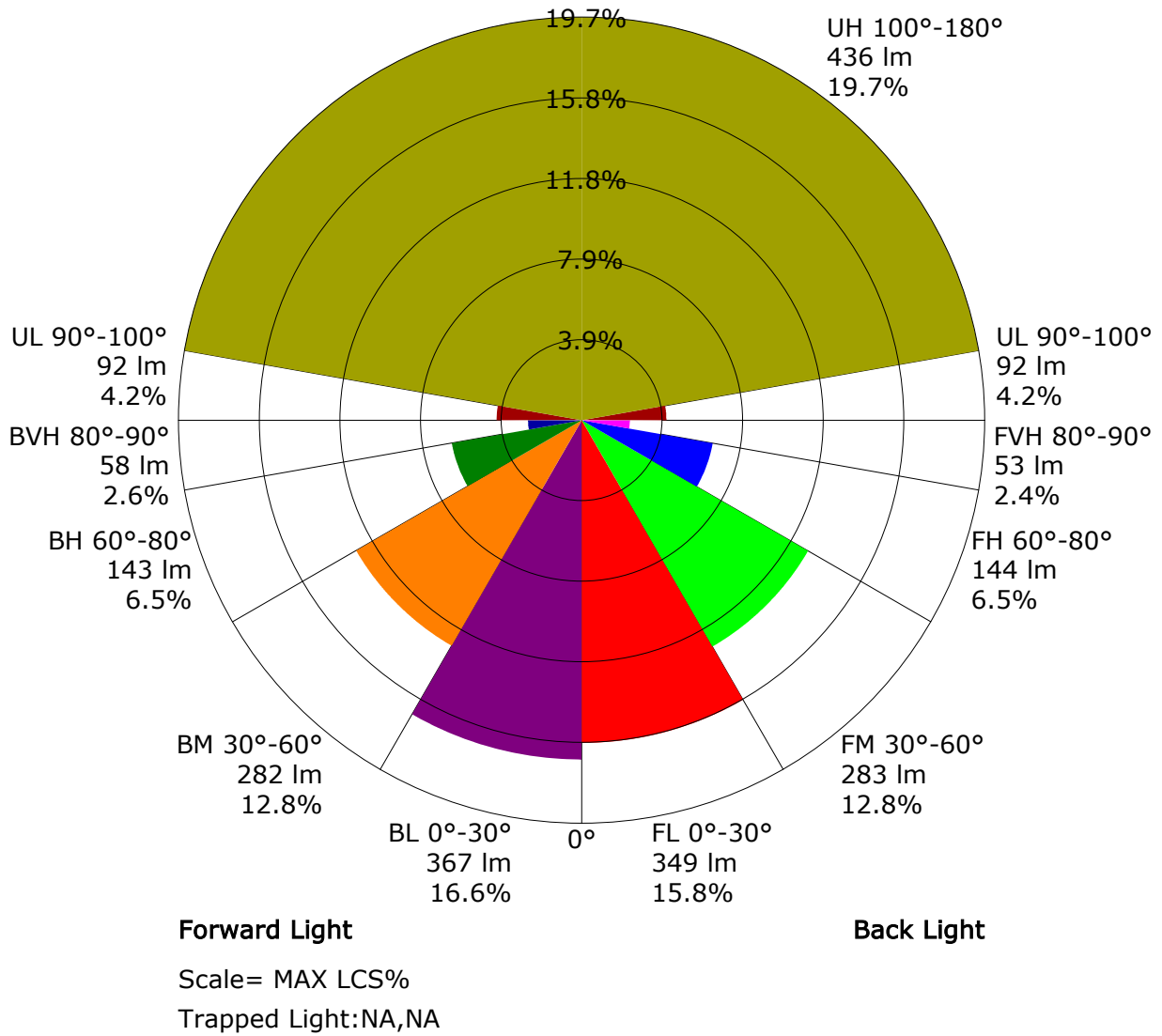
	ZONE	LUMENS	% LAMP LUMENS
	FORWARD LIGHT	829	37.6
	FL ( 0°-30°)	349	15.8
	FM (30°-60°)	283	12.8
	FH (60°-80°)	144	6.5
	FVH (80°-90°)	53	2.4
	BACK LIGHT	850	38.5
	BL ( 0°-30°)	367	16.6
	BM (30°-60°)	282	12.8
	BH (60°-80°)	143	6.5
	BVH (80°-90°)	58	2.6
	UP LIGHT	528	23.9
	UL (90°-100°)	92	4.2
	UH (100°-180°)	436	19.7
	TRAPPED LIGHT	NA	NA

BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B1 U3 G1
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B1 U3 G1

C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600  
 Distance: 6.500 m  
 Humidity:  
 Inspector:

### LCS Graph



## Utilisation Factor Table(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 0.75									
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	0.56	0.64	0.69	0.74	0.80	0.84	0.87	0.91	0.94	
	0.30		0.49	0.57	0.63	0.67	0.74	0.79	0.82	0.87	0.90	
	0.20		0.44	0.51	0.57	0.62	0.69	0.74	0.78	0.83	0.87	
0.50	0.50	0.20	0.52	0.59	0.64	0.68	0.73	0.77	0.80	0.83	0.86	
	0.30		0.46	0.53	0.58	0.62	0.68	0.72	0.76	0.80	0.83	
	0.20		0.42	0.49	0.54	0.58	0.64	0.69	0.72	0.77	0.80	
0.30	0.50	0.20	0.49	0.55	0.59	0.62	0.67	0.70	0.73	0.76	0.78	
	0.30		0.44	0.50	0.54	0.58	0.63	0.67	0.69	0.73	0.76	
	0.20		0.40	0.46	0.51	0.54	0.60	0.64	0.67	0.71	0.73	
0.00	0.00	0.00	0.36	0.41	0.45	0.48	0.52	0.56	0.58	0.61	0.64	
<p>Rating:42W 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 = 0.75									
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	0.88	0.75	0.65	0.58	0.47	0.40	0.35	0.28	0.23	
	0.30		0.74	0.64	0.57	0.51	0.43	0.37	0.32	0.26	0.22	
	0.20		0.63	0.56	0.50	0.46	0.39	0.34	0.30	0.25	0.21	
0.50	0.50	0.20	0.80	0.68	0.59	0.52	0.43	0.39	0.32	0.25	0.21	
	0.30		0.68	0.59	0.52	0.47	0.39	0.34	0.30	0.24	0.20	
	0.20		0.59	0.52	0.47	0.42	0.36	0.31	0.28	0.23	0.19	
0.30	0.50	0.20	0.73	0.61	0.53	0.47	0.39	0.33	0.29	0.23	0.19	
	0.30		0.62	0.54	0.48	0.43	0.36	0.31	0.27	0.22	0.18	
	0.20		0.54	0.48	0.43	0.39	0.33	0.29	0.25	0.21	0.18	
0.00	0.00	0.00	0.41	0.36	0.32	0.29	0.24	0.21	0.19	0.15	0.13	
<p>Rating:42W 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(Ceiling cavity)

Utilisation Factors UF(C)			SHR NOM = 0.75									
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	0.39	0.40	0.41	0.42	0.43	0.43	0.44	0.44	0.44	
	0.30		0.32	0.34	0.35	0.36	0.38	0.39	0.40	0.41	0.42	
	0.20		0.28	0.30	0.31	0.32	0.34	0.35	0.36	0.38	0.39	
0.50	0.50	0.20	0.37	0.39	0.39	0.40	0.41	0.41	0.42	0.42	0.42	
	0.30		0.32	0.33	0.34	0.35	0.37	0.38	0.38	0.39	0.40	
	0.20		0.28	0.29	0.30	0.32	0.33	0.34	0.35	0.37	0.38	
0.30	0.50	0.20	0.36	0.37	0.38	0.39	0.39	0.40	0.40	0.40	0.41	
	0.30		0.31	0.33	0.34	0.34	0.36	0.37	0.37	0.38	0.39	
	0.20		0.28	0.29	0.30	0.31	0.32	0.34	0.35	0.36	0.37	
0.00	0.00	0.00	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	
<p>Rating:42W 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>												

## 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	1484.0	1.4	1.4	0.06	0.06
1.0-2.0	1478.2	4.2	5.7	0.19	0.26
2.0-3.0	1465.8	7.0	12.7	0.32	0.57
3.0-4.0	1448.0	9.7	22.4	0.44	1.01
4.0-5.0	1425.0	12.3	34.6	0.56	1.57
5.0-6.0	1396.8	14.7	49.3	0.67	2.23
6.0-7.0	1364.3	16.9	66.2	0.77	3.00
7.0-8.0	1327.1	19.0	85.2	0.86	3.86
8.0-9.0	1286.2	20.8	106.1	0.94	4.81
9.0-10.0	1243.5	22.5	128.6	1.02	5.83
10.0-11.0	1200.4	24.0	152.6	1.09	6.91
11.0-12.0	1156.3	25.3	177.9	1.15	8.06
12.0-13.0	1112.6	26.4	204.3	1.20	9.26
13.0-14.0	1070.4	27.4	231.7	1.24	10.50
14.0-15.0	1028.9	28.3	259.9	1.28	11.78
15.0-16.0	988.4	29.0	288.9	1.31	13.09
16.0-17.0	949.5	29.6	318.5	1.34	14.43
17.0-18.0	912.6	30.1	348.6	1.36	15.79
18.0-19.0	876.3	30.5	379.0	1.38	17.17
19.0-20.0	840.9	30.8	409.8	1.39	18.57
20.0-21.0	805.6	30.9	440.8	1.40	19.97
21.0-22.0	771.5	31.0	471.8	1.40	21.38
22.0-23.0	739.2	31.0	502.8	1.41	22.78
23.0-24.0	707.5	30.9	533.7	1.40	24.18
24.0-25.0	678.0	30.8	564.6	1.40	25.58
25.0-26.0	650.3	30.7	595.3	1.39	26.97
26.0-27.0	624.2	30.5	625.8	1.38	28.36
27.0-28.0	600.3	30.4	656.2	1.38	29.73
28.0-29.0	577.6	30.2	686.4	1.37	31.10
29.0-30.0	555.7	30.0	716.4	1.36	32.46
30.0-31.0	535.2	29.8	746.2	1.35	33.81
31.0-32.0	515.0	29.5	775.7	1.34	35.15
32.0-33.0	494.2	29.1	804.8	1.32	36.47
33.0-34.0	473.4	28.7	833.5	1.30	37.77
34.0-35.0	452.0	28.1	861.6	1.27	39.04
35.0-36.0	430.1	27.4	889.0	1.24	40.28

C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600  
 Distance: 6.500 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	407.8	26.6	915.6	1.21	41.48
37.0-38.0	385.0	25.7	941.3	1.16	42.65
38.0-39.0	361.6	24.7	966.0	1.12	43.77
39.0-40.0	338.1	23.6	989.5	1.07	44.84
40.0-41.0	314.8	22.4	1012.0	1.02	45.85
41.0-42.0	291.6	21.2	1033.1	0.96	46.81
42.0-43.0	268.6	19.9	1053.0	0.90	47.71
43.0-44.0	245.8	18.6	1071.6	0.84	48.55
44.0-45.0	224.1	17.2	1088.8	0.78	49.33
45.0-46.0	204.2	16.0	1104.8	0.72	50.06
46.0-47.0	186.8	14.9	1119.7	0.67	50.73
47.0-48.0	172.2	13.9	1133.6	0.63	51.36
48.0-49.0	160.4	13.2	1146.8	0.60	51.96
49.0-50.0	151.0	12.6	1159.3	0.57	52.53
50.0-51.0	143.8	12.2	1171.5	0.55	53.08
51.0-52.0	138.7	11.9	1183.4	0.54	53.62
52.0-53.0	135.6	11.8	1195.2	0.53	54.15
53.0-54.0	134.1	11.8	1207.0	0.54	54.69
54.0-55.0	133.6	11.9	1218.9	0.54	55.23
55.0-56.0	133.7	12.1	1231.0	0.55	55.78
56.0-57.0	134.2	12.3	1243.3	0.56	56.33
57.0-58.0	134.7	12.5	1255.8	0.56	56.90
58.0-59.0	135.2	12.6	1268.4	0.57	57.47
59.0-60.0	135.7	12.8	1281.2	0.58	58.05
60.0-61.0	136.3	13.0	1294.2	0.59	58.64
61.0-62.0	137.0	13.2	1307.4	0.60	59.24
62.0-63.0	137.4	13.4	1320.8	0.61	59.85
63.0-64.0	137.9	13.5	1334.3	0.61	60.46
64.0-65.0	138.4	13.7	1348.0	0.62	61.08
65.0-66.0	138.9	13.9	1361.9	0.63	61.71
66.0-67.0	139.3	14.0	1375.9	0.63	62.34
67.0-68.0	139.8	14.2	1390.1	0.64	62.98
68.0-69.0	140.3	14.3	1404.4	0.65	63.63
69.0-70.0	140.8	14.5	1418.8	0.66	64.29
70.0-71.0	141.2	14.6	1433.4	0.66	64.95
71.0-72.0	141.6	14.7	1448.2	0.67	65.62

C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600  
 Distance: 6.500 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	142.0	14.9	1463.0	0.67	66.29
73.0-74.0	142.2	15.0	1478.0	0.68	66.97
74.0-75.0	142.2	15.0	1493.0	0.68	67.65
75.0-76.0	141.9	15.1	1508.1	0.68	68.33
76.0-77.0	141.4	15.1	1523.1	0.68	69.01
77.0-78.0	140.7	15.1	1538.2	0.68	69.70
78.0-79.0	139.9	15.0	1553.2	0.68	70.38
79.0-80.0	138.6	14.9	1568.2	0.68	71.05
80.0-81.0	136.4	14.8	1582.9	0.67	71.72
81.0-82.0	133.2	14.4	1597.4	0.65	72.38
82.0-83.0	127.7	13.9	1611.3	0.63	73.01
83.0-84.0	118.4	12.9	1624.2	0.58	73.59
84.0-85.0	108.3	11.8	1636.0	0.54	74.13
85.0-86.0	98.9	10.8	1646.8	0.49	74.62
86.0-87.0	86.3	9.4	1656.2	0.43	75.04
87.0-88.0	72.9	8.0	1664.2	0.36	75.41
88.0-89.0	69.7	7.6	1671.9	0.35	75.75
89.0-90.0	67.8	7.4	1679.3	0.34	76.09
90.0-91.0	59.8	6.6	1685.9	0.30	76.39
91.0-92.0	60.6	6.6	1692.5	0.30	76.69
92.0-93.0	67.0	7.3	1699.8	0.33	77.02
93.0-94.0	66.9	7.3	1707.2	0.33	77.35
94.0-95.0	71.2	7.8	1714.9	0.35	77.70
95.0-96.0	83.4	9.1	1724.0	0.41	78.12
96.0-97.0	93.5	10.2	1734.2	0.46	78.58
97.0-98.0	104.0	11.3	1745.5	0.51	79.09
98.0-99.0	115.7	12.5	1758.1	0.57	79.66
99.0-100.0	123.8	13.4	1771.5	0.61	80.27
100.0-101.0	128.6	13.9	1785.3	0.63	80.89
101.0-102.0	131.0	14.1	1799.4	0.64	81.53
102.0-103.0	132.4	14.2	1813.6	0.64	82.17
103.0-104.0	133.5	14.2	1827.8	0.64	82.82
104.0-105.0	134.0	14.2	1842.1	0.64	83.46
105.0-106.0	133.8	14.1	1856.2	0.64	84.10
106.0-107.0	132.0	13.9	1870.1	0.63	84.73
107.0-108.0	128.6	13.4	1883.5	0.61	85.34

C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600  
 Distance: 6.500 m  
 Humidity:  
 Inspector:

### Zonal Lumen (Continue 3)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
108.0-109.0	127.3	13.2	1896.8	0.60	85.94
109.0-110.0	127.6	13.2	1909.9	0.60	86.54
110.0-111.0	127.8	13.1	1923.1	0.59	87.13
111.0-112.0	127.7	13.0	1936.1	0.59	87.72
112.0-113.0	126.9	12.9	1949.0	0.58	88.31
113.0-114.0	126.1	12.7	1961.6	0.57	88.88
114.0-115.0	123.6	12.3	1974.0	0.56	89.44
115.0-116.0	119.2	11.8	1985.8	0.53	89.97
116.0-117.0	114.5	11.2	1997.0	0.51	90.48
117.0-118.0	109.0	10.6	2007.6	0.48	90.96
118.0-119.0	101.8	9.8	2017.4	0.44	91.41
119.0-120.0	93.8	9.0	2026.4	0.41	91.81
120.0-121.0	86.3	8.2	2034.5	0.37	92.18
121.0-122.0	79.7	7.4	2042.0	0.34	92.52
122.0-123.0	73.7	6.8	2048.8	0.31	92.83
123.0-124.0	68.1	6.2	2055.0	0.28	93.11
124.0-125.0	62.4	5.6	2060.7	0.26	93.37
125.0-126.0	56.7	5.1	2065.7	0.23	93.60
126.0-127.0	52.5	4.6	2070.4	0.21	93.81
127.0-128.0	50.0	4.4	2074.7	0.20	94.00
128.0-129.0	49.2	4.2	2078.9	0.19	94.20
129.0-130.0	49.7	4.2	2083.1	0.19	94.39
130.0-131.0	51.1	4.3	2087.4	0.19	94.58
131.0-132.0	53.1	4.4	2091.8	0.20	94.78
132.0-133.0	55.4	4.5	2096.2	0.20	94.98
133.0-134.0	57.5	4.6	2100.8	0.21	95.19
134.0-135.0	59.3	4.6	2105.4	0.21	95.40
135.0-136.0	61.0	4.7	2110.1	0.21	95.61
136.0-137.0	62.9	4.7	2114.9	0.22	95.82
137.0-138.0	64.8	4.8	2119.7	0.22	96.04
138.0-139.0	66.3	4.8	2124.5	0.22	96.26
139.0-140.0	67.0	4.8	2129.3	0.22	96.48
140.0-141.0	68.2	4.8	2134.0	0.22	96.69
141.0-142.0	69.6	4.8	2138.8	0.22	96.91
142.0-143.0	68.9	4.6	2143.4	0.21	97.12
143.0-144.0	66.8	4.4	2147.7	0.20	97.31

C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600  
 Distance: 6.500 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	63.8	4.1	2151.8	0.18	97.50
145.0-146.0	60.7	3.8	2155.6	0.17	97.67
146.0-147.0	58.4	3.5	2159.1	0.16	97.83
147.0-148.0	56.4	3.3	2162.4	0.15	97.98
148.0-149.0	54.2	3.1	2165.5	0.14	98.12
149.0-150.0	52.1	2.9	2168.4	0.13	98.25
150.0-151.0	49.8	2.7	2171.1	0.12	98.37
151.0-152.0	47.7	2.5	2173.6	0.11	98.49
152.0-153.0	46.2	2.3	2175.9	0.11	98.59
153.0-154.0	45.4	2.2	2178.2	0.10	98.69
154.0-155.0	45.3	2.1	2180.3	0.10	98.79
155.0-156.0	45.3	2.1	2182.4	0.09	98.88
156.0-157.0	45.5	2.0	2184.4	0.09	98.97
157.0-158.0	46.0	1.9	2186.3	0.09	99.06
158.0-159.0	46.4	1.9	2188.2	0.08	99.14
159.0-160.0	47.3	1.8	2190.0	0.08	99.23
160.0-161.0	48.7	1.8	2191.8	0.08	99.31
161.0-162.0	49.7	1.7	2193.5	0.08	99.39
162.0-163.0	49.8	1.6	2195.1	0.07	99.46
163.0-164.0	49.4	1.5	2196.7	0.07	99.53
164.0-165.0	49.1	1.4	2198.1	0.07	99.60
165.0-166.0	48.3	1.3	2199.4	0.06	99.66
166.0-167.0	46.7	1.2	2200.6	0.05	99.71
167.0-168.0	45.2	1.1	2201.7	0.05	99.76
168.0-169.0	43.6	1.0	2202.6	0.04	99.80
169.0-170.0	42.0	0.8	2203.5	0.04	99.84
170.0-171.0	40.5	0.7	2204.2	0.03	99.87
171.0-172.0	39.1	0.6	2204.9	0.03	99.90
172.0-173.0	37.8	0.5	2205.4	0.02	99.93
173.0-174.0	36.6	0.5	2205.8	0.02	99.95
174.0-175.0	35.6	0.4	2206.2	0.02	99.96
175.0-176.0	34.6	0.3	2206.5	0.01	99.98
176.0-177.0	33.9	0.2	2206.7	0.01	99.99
177.0-178.0	33.4	0.2	2206.9	0.01	99.99
178.0-179.0	33.2	0.1	2207.0	0.00	100.00
179.0-180.0	33.1	0.0	2207.0	0.00	100.00

C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600  
 Distance: 6.500 m  
 Humidity:  
 Inspector:

## Candlepower Table

Unit: cd

G\C	C0.0	C90.0	C180.0	C270.0	C360.0					
G0.0	1491.6	1478.3	1491.6	1478.3	1491.6					
G1.0	1494.9	1474.4	1484.4	1478.1	1494.9					
G2.0	1488.1	1464.4	1469.6	1472.1	1488.1					
G3.0	1474.1	1448.6	1447.9	1461.5	1474.1					
G4.0	1454.7	1430.0	1422.2	1445.0	1454.7					
G5.0	1428.7	1404.0	1389.6	1425.8	1428.7					
G6.0	1395.9	1375.1	1354.5	1400.9	1395.9					
G7.0	1358.5	1338.8	1318.3	1372.3	1358.5					
G8.0	1317.4	1297.7	1275.0	1338.8	1317.4					
G9.0	1276.7	1251.4	1233.1	1299.7	1276.7					
G10.0	1233.4	1202.4	1193.9	1257.6	1233.4					
G11.0	1197.5	1147.8	1157.7	1213.0	1197.5					
G12.0	1164.3	1083.0	1125.0	1161.8	1164.3					
G13.0	1140.6	1020.4	1095.1	1110.7	1140.6					
G14.0	1118.6	954.9	1069.8	1053.5	1118.6					
G15.0	1103.2	881.9	1051.0	998.4	1103.2					
G16.0	1094.9	809.5	1033.5	934.5	1094.9					
G17.0	1090.0	739.9	1024.7	869.1	1090.0					
G18.0	1088.8	667.5	1019.7	800.8	1088.8					
G19.0	1090.9	597.4	1015.7	729.4	1090.9					
G20.0	1090.1	529.9	1015.5	658.5	1090.1					
G21.0	1088.6	461.5	1013.4	587.6	1088.6					
G22.0	1091.8	398.2	1011.6	518.9	1091.8					
G23.0	1086.9	343.3	1010.1	452.4	1086.9					
G24.0	1081.2	292.3	1003.3	390.7	1081.2					
G25.0	1072.7	249.1	998.6	335.7	1072.7					
G26.0	1058.8	211.9	989.4	285.9	1058.8					
G27.0	1041.2	182.8	979.4	244.5	1041.2					
G28.0	1019.8	158.8	967.5	208.3	1019.8					
G29.0	994.5	141.2	952.8	177.5	994.5					
G30.0	964.5	128.0	933.1	154.1	964.5					
G31.0	933.2	119.1	913.0	136.5	933.2					
G32.0	893.2	113.0	887.7	124.0	893.2					
G33.0	850.6	110.5	858.7	116.1	850.6					
G34.0	805.0	109.4	825.1	112.1	805.0					
G35.0	757.4	109.6	787.4	110.1	757.4					
G36.0	706.6	109.9	750.4	109.4	706.6					

C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600  
 Distance: 6.500 m  
 Humidity:  
 Inspector:



## Candlepower Table (Continue 1)

Unit: cd

G\C	C0.0	C90.0	C180.0	C270.0	C360.0					
G37.0	657.4	110.8	708.4	109.6	657.4					
G38.0	608.5	111.6	663.8	109.9	608.5					
G39.0	558.5	112.7	617.2	110.6	558.5					
G40.0	509.5	114.1	570.4	111.7	509.5					
G41.0	462.1	115.5	522.8	112.8	462.1					
G42.0	413.4	116.7	475.5	113.8	413.4					
G43.0	367.8	118.0	428.5	115.0	367.8					
G44.0	322.8	119.4	378.9	116.2	322.8					
G45.0	284.5	121.1	332.1	117.4	284.5					
G46.0	248.8	122.5	288.9	118.6	248.8					
G47.0	221.8	123.9	249.6	120.1	221.8					
G48.0	197.3	125.5	218.3	121.5	197.3					
G49.0	179.8	127.0	191.0	122.8	179.8					
G50.0	165.6	128.6	169.2	124.0	165.6					
G51.0	155.9	129.9	151.9	125.3	155.9					
G52.0	149.0	131.3	139.6	126.6	149.0					
G53.0	144.8	132.8	132.6	127.8	144.8					
G54.0	142.2	134.2	129.2	129.1	142.2					
G55.0	140.4	135.6	127.8	130.0	140.4					
G56.0	139.3	136.8	128.1	131.5	139.3					
G57.0	138.7	138.0	129.1	132.5	138.7					
G58.0	138.4	138.9	128.9	133.5	138.4					
G59.0	138.1	139.8	129.5	134.4	138.1					
G60.0	138.3	140.3	130.2	135.1	138.3					
G61.0	139.5	140.7	130.9	135.8	139.5					
G62.0	139.6	140.9	131.7	136.4	139.6					
G63.0	140.1	140.9	132.6	136.8	140.1					
G64.0	140.7	141.1	133.4	137.3	140.7					
G65.0	141.4	141.4	134.3	137.5	141.4					
G66.0	141.9	141.5	135.2	137.9	141.9					
G67.0	142.6	141.7	136.0	138.1	142.6					
G68.0	143.1	142.0	137.0	138.4	143.1					
G69.0	143.4	142.0	138.0	138.5	143.4					
G70.0	144.2	142.3	139.1	138.7	144.2					
G71.0	144.6	142.4	140.1	138.6	144.6					
G72.0	145.1	142.6	140.9	138.7	145.1					
G73.0	145.6	142.4	141.9	138.8	145.6					

C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600  
 Distance: 6.500 m  
 Humidity:  
 Inspector:

## Candlepower Table (Continue 2)

Unit: cd

G\C	C0.0	C90.0	C180.0	C270.0	C360.0					
G74.0	145.8	141.5	142.8	138.8	145.8					
G75.0	145.9	140.4	143.7	138.5	145.9					
G76.0	146.0	138.9	144.5	137.3	146.0					
G77.0	146.1	137.3	145.1	135.6	146.1					
G78.0	145.4	136.0	145.9	134.0	145.4					
G79.0	144.6	134.8	146.4	132.2	144.6					
G80.0	139.3	134.2	146.6	130.6	139.3					
G81.0	130.5	133.8	146.9	129.5	130.5					
G82.0	114.5	133.9	147.3	129.1	114.5					
G83.0	86.8	133.4	147.6	128.9	86.8					
G84.0	42.0	132.6	147.8	128.4	42.0					
G85.0	8.8	130.2	148.0	128.2	8.8					
G86.0	7.7	104.9	147.8	115.5	7.7					
G87.0	7.4	60.5	147.4	99.0	7.4					
G88.0	12.4	13.0	146.4	97.2	12.4					
G89.0	55.4	7.6	141.1	84.2	55.4					
G90.0	92.1	7.2	119.0	36.2	92.1					
G91.0	105.0	9.0	102.9	6.8	105.0					
G92.0	114.1	52.4	87.8	6.8	114.1					
G93.0	127.6	95.2	44.9	6.9	127.6					
G94.0	128.6	104.9	8.4	18.4	128.6					
G95.0	123.5	108.7	6.2	70.9	123.5					
G96.0	130.6	120.6	6.3	100.7	130.6					
G97.0	131.3	131.8	9.9	116.6	131.3					
G98.0	131.1	133.6	53.8	123.4	131.1					
G99.0	131.0	134.6	98.2	119.6	131.0					
G100.0	130.5	135.4	115.4	126.0	130.5					
G101.0	131.2	135.3	126.7	128.4	131.2					
G102.0	132.0	136.4	128.9	129.3	132.0					
G103.0	132.2	137.3	132.6	130.7	132.2					
G104.0	131.1	138.3	133.6	132.1	131.1					
G105.0	130.0	139.2	134.2	133.2	130.0					
G106.0	130.0	139.6	129.9	134.2	130.0					
G107.0	129.6	139.8	117.5	135.3	129.6					
G108.0	129.2	139.8	101.7	135.9	129.2					
G109.0	128.6	139.6	107.2	136.2	128.6					
G110.0	128.4	139.4	104.8	136.2	128.4					

C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1600  
 Distance: 6.500 m  
 Humidity:  
 Inspector:

## Candlepower Table (Continue 3)

Unit: cd

G\C	C0.0	C90.0	C180.0	C270.0	C360.0					
G111.0	126.4	138.7	112.6	135.9	126.4					
G112.0	121.2	138.1	113.0	135.4	121.2					
G113.0	113.6	137.1	122.1	134.9	113.6					
G114.0	103.7	136.3	127.3	134.1	103.7					
G115.0	92.6	135.4	126.6	132.6	92.6					
G116.0	80.6	134.2	123.7	128.3	80.6					
G117.0	70.4	131.4	125.8	121.5	70.4					
G118.0	62.2	125.8	126.1	109.2	62.2					
G119.0	55.5	118.0	124.8	92.9	55.5					
G120.0	50.0	106.4	125.8	76.8	50.0					
G121.0	45.4	94.4	125.6	66.1	45.4					
G122.0	41.3	83.7	123.1	57.6	41.3					
G123.0	37.9	75.1	119.8	51.0	37.9					
G124.0	35.0	67.4	113.6	45.4	35.0					
G125.0	33.4	61.3	102.1	40.7	33.4					
G126.0	35.6	55.6	88.5	36.7	35.6					
G127.0	41.6	51.0	77.7	33.4	41.6					
G128.0	49.3	46.6	69.2	31.7	49.3					
G129.0	55.6	43.1	62.1	35.9	55.6					
G130.0	63.3	39.8	56.1	41.8	63.3					
G131.0	71.3	37.0	51.5	48.0	71.3					
G132.0	78.8	35.6	47.0	55.4	78.8					
G133.0	82.6	38.0	43.0	62.5	82.6					
G134.0	83.5	41.8	39.8	68.5	83.5					
G135.0	81.7	45.5	36.9	76.2	81.7					
G136.0	76.7	51.6	36.4	82.9	76.7					
G137.0	70.7	56.6	41.5	86.5	70.7					
G138.0	69.3	60.0	49.0	85.1	69.3					
G139.0	69.2	64.3	55.3	78.1	69.2					
G140.0	68.6	67.5	62.2	70.9	68.6					
G141.0	68.0	69.2	68.7	70.8	68.0					
G142.0	66.5	68.8	73.9	70.9	66.5					
G143.0	62.2	62.6	77.6	68.6	62.2					
G144.0	58.6	62.2	74.6	67.6	58.6					
G145.0	55.5	62.1	68.4	61.5	55.5					
G146.0	52.9	61.6	66.4	57.1	52.9					
G147.0	50.4	60.8	66.3	52.1	50.4					

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600

Distance: 6.500 m

Humidity:

Inspector:

## Candlepower Table (Continue 4)

Unit: cd

G\C	C0.0	C90.0	C180.0	C270.0	C360.0					
G148.0	48.3	57.4	66.1	49.7	48.3					
G149.0	46.5	54.0	63.3	48.4	46.5					
G150.0	44.8	51.2	61.3	47.2	44.8					
G151.0	43.8	48.8	55.7	46.0	43.8					
G152.0	45.3	46.9	51.2	44.3	45.3					
G153.0	45.7	45.2	46.0	45.3	45.7					
G154.0	46.2	43.6	44.0	47.5	46.2					
G155.0	46.2	42.6	43.2	48.8	46.2					
G156.0	47.8	41.5	42.1	49.8	47.8					
G157.0	46.7	42.4	40.9	53.0	46.7					
G158.0	46.2	43.5	39.2	56.0	46.2					
G159.0	45.8	44.3	40.6	56.0	45.8					
G160.0	49.2	44.4	42.5	55.8	49.2					
G161.0	47.8	47.0	43.2	59.9	47.8					
G162.0	46.5	47.7	47.2	58.6	46.5					
G163.0	44.6	47.0	49.4	57.3	44.6					
G164.0	43.2	48.4	49.6	55.7	43.2					
G165.0	41.8	48.4	52.0	53.9	41.8					
G166.0	40.0	47.0	51.0	52.1	40.0					
G167.0	38.4	45.3	49.6	50.3	38.4					
G168.0	36.9	43.7	48.5	48.5	36.9					
G169.0	35.4	42.0	47.1	46.5	35.4					
G170.0	34.3	40.4	45.4	44.5	34.3					
G171.0	33.4	39.0	44.0	42.6	33.4					
G172.0	32.8	37.7	42.3	40.9	32.8					
G173.0	32.6	36.2	40.6	39.2	32.6					
G174.0	32.8	35.1	39.0	37.6	32.8					
G175.0	32.4	34.1	37.4	36.2	32.4					
G176.0	32.4	33.5	36.0	34.9	32.4					
G177.0	32.5	33.1	34.7	34.0	32.5					
G178.0	32.8	33.3	33.5	33.5	32.8					
G179.0	33.0	33.4	32.7	33.4	33.0					
G180.0	33.1	33.2	32.7	33.4	33.1					

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1600

Distance: 6.500 m

Humidity:

Inspector: