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Report No.:

Test Time: 2017-07-20 18:18

## Luminaire Property

Luminaire Manufacturer:  
Luminaire Category: LED DownLight  
Lamp Catalog: 4000k  
Luminous Width (mm): 130  
Current: 0.143 A  
Power Factor: 0.967

Luminaire Description: DLC0530-B840 38D  
Luminous Length (mm): 130  
Voltage: 220.0 V  
Power: 30.40 W

## Photometric Results

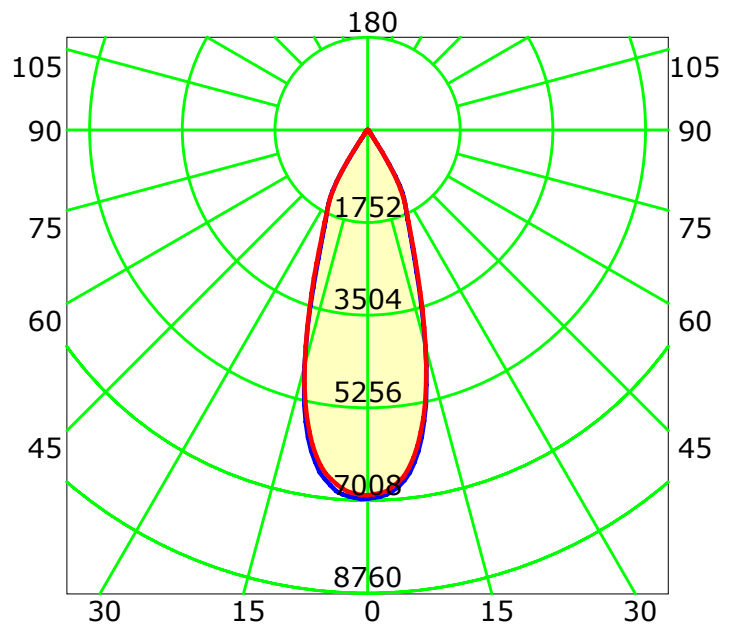
CIE Class: Direct  
Measurement Flux: 2986.2 lm  
Downward Ratio: 100%  
Field Angle: H65.0 V65.3  
Luminaire Efficacy Rating (LER): 98  
Max. Intensity: 6979.92 cd

Total Rated Lamp Lumens: 2986.2 lm  
Efficiency: 100%  
Upward Ratio: 0%  
Beam Angle: H35.0 V35.7  
Central Intensity: 6972.28 cd  
Pos of Max. Intensity: H180 V1

Picture Of Luminaire



Luminous Intensity Distribution Curve



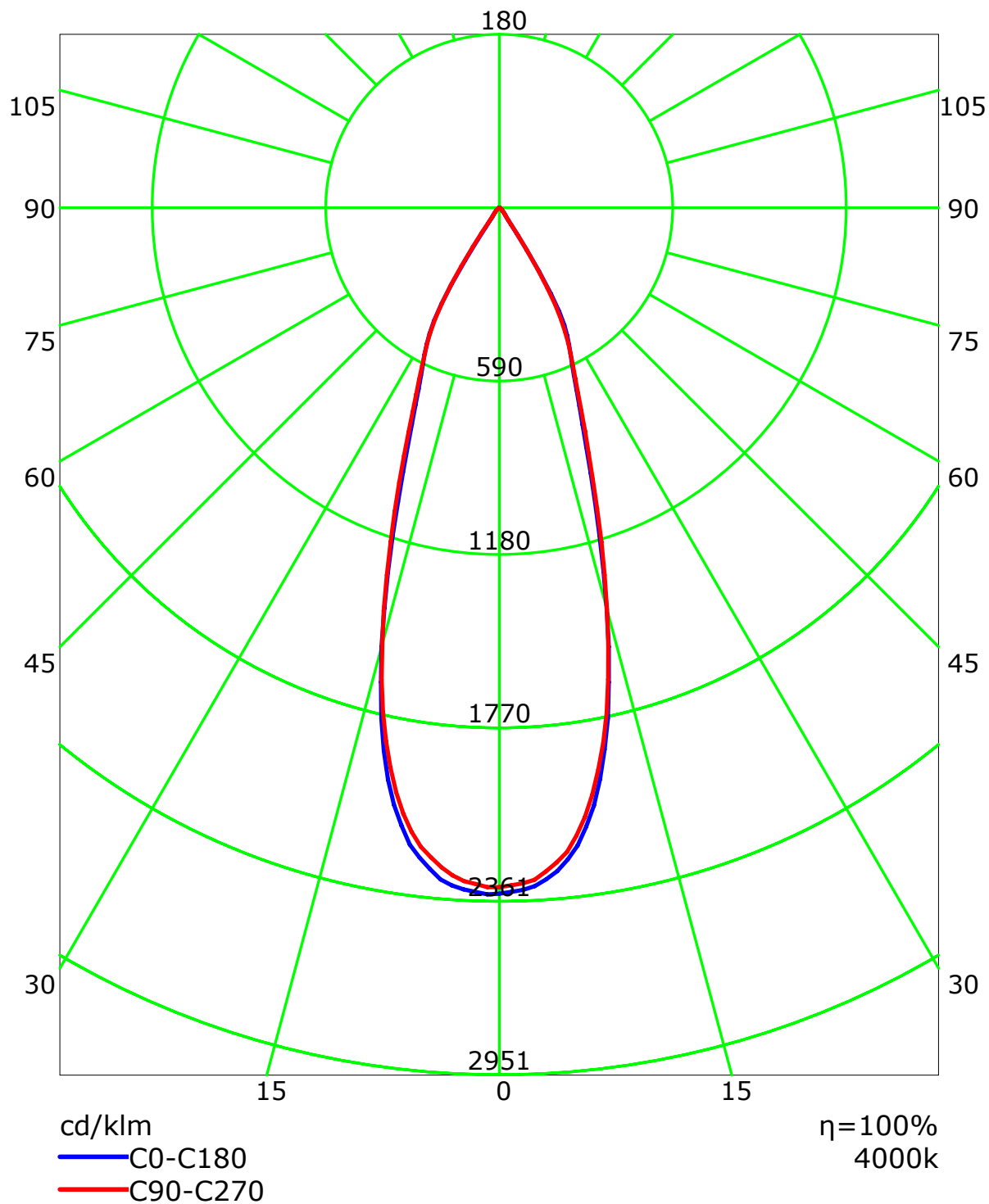
Unit: cd

— C0-C180 — C90-C270

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

Gamma Plane (°):0.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.990 m  
Humidity:  
Inspector:

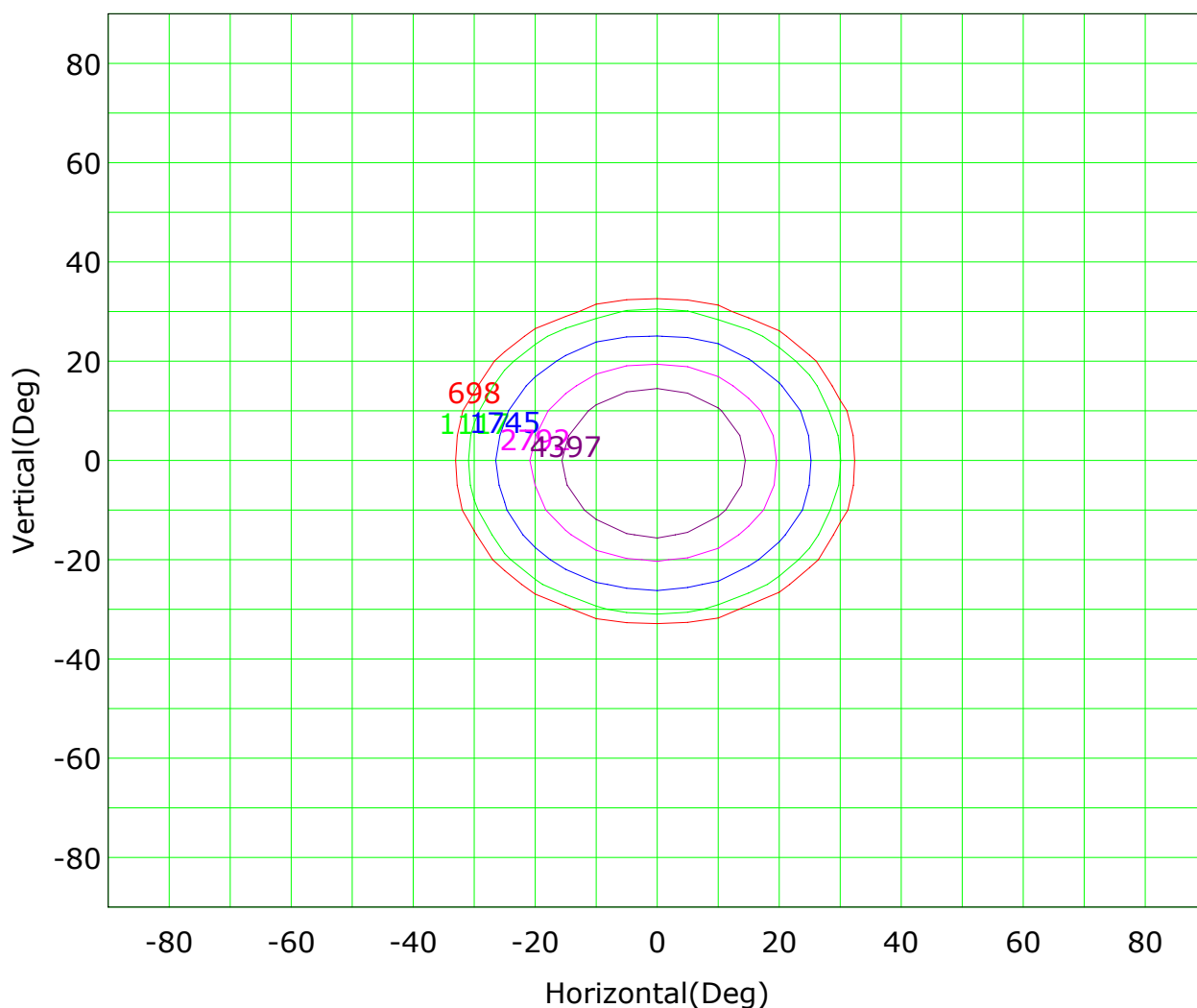
## Luminous Intensity Distribution Curve(cd/klm)



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

Gamma Plane (°):0.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.990 m  
Humidity:  
Inspector:

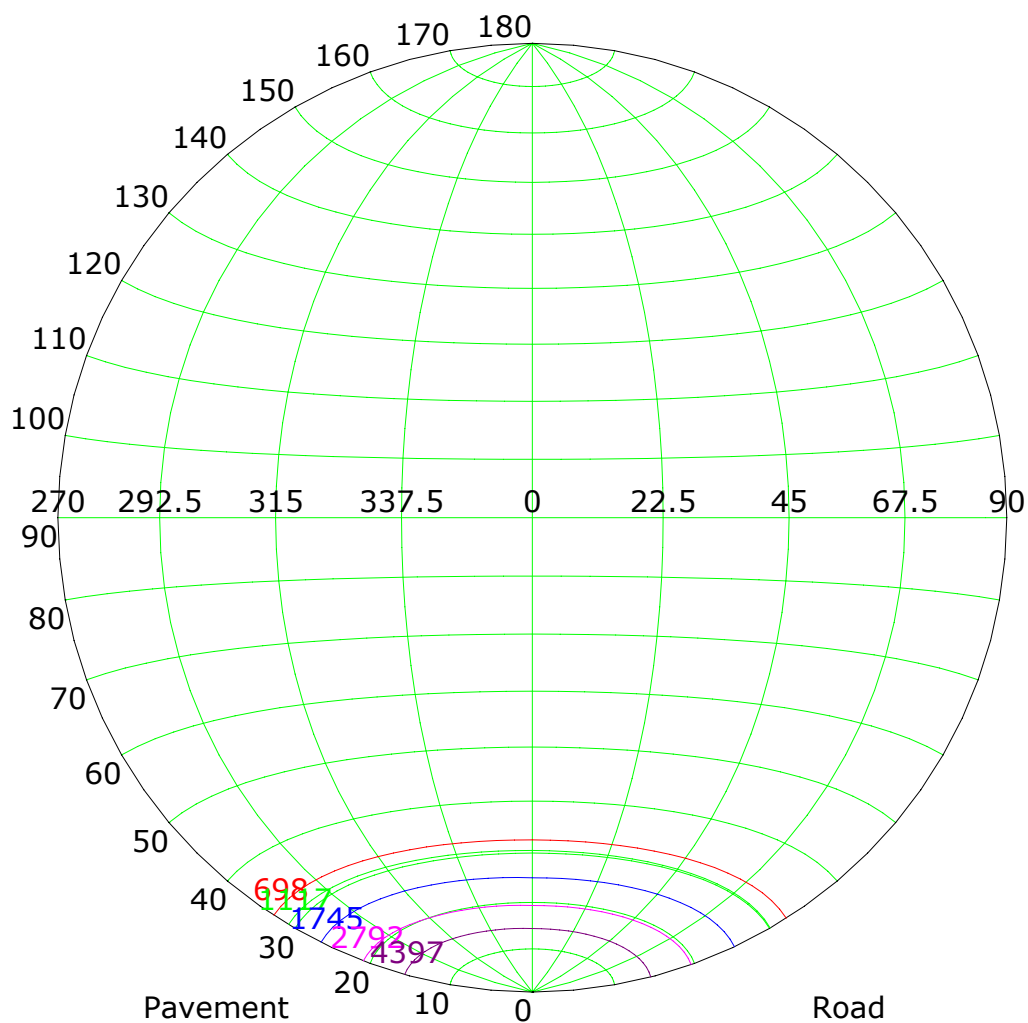
## Isocandela (rectangle)



Imax (100%): 6980 cd

( 10%): 698 cd	( 16%): 1117 cd
( 25%): 1745 cd	( 40%): 2792 cd
( 63%): 4397 cd	(100%): 6980 cd

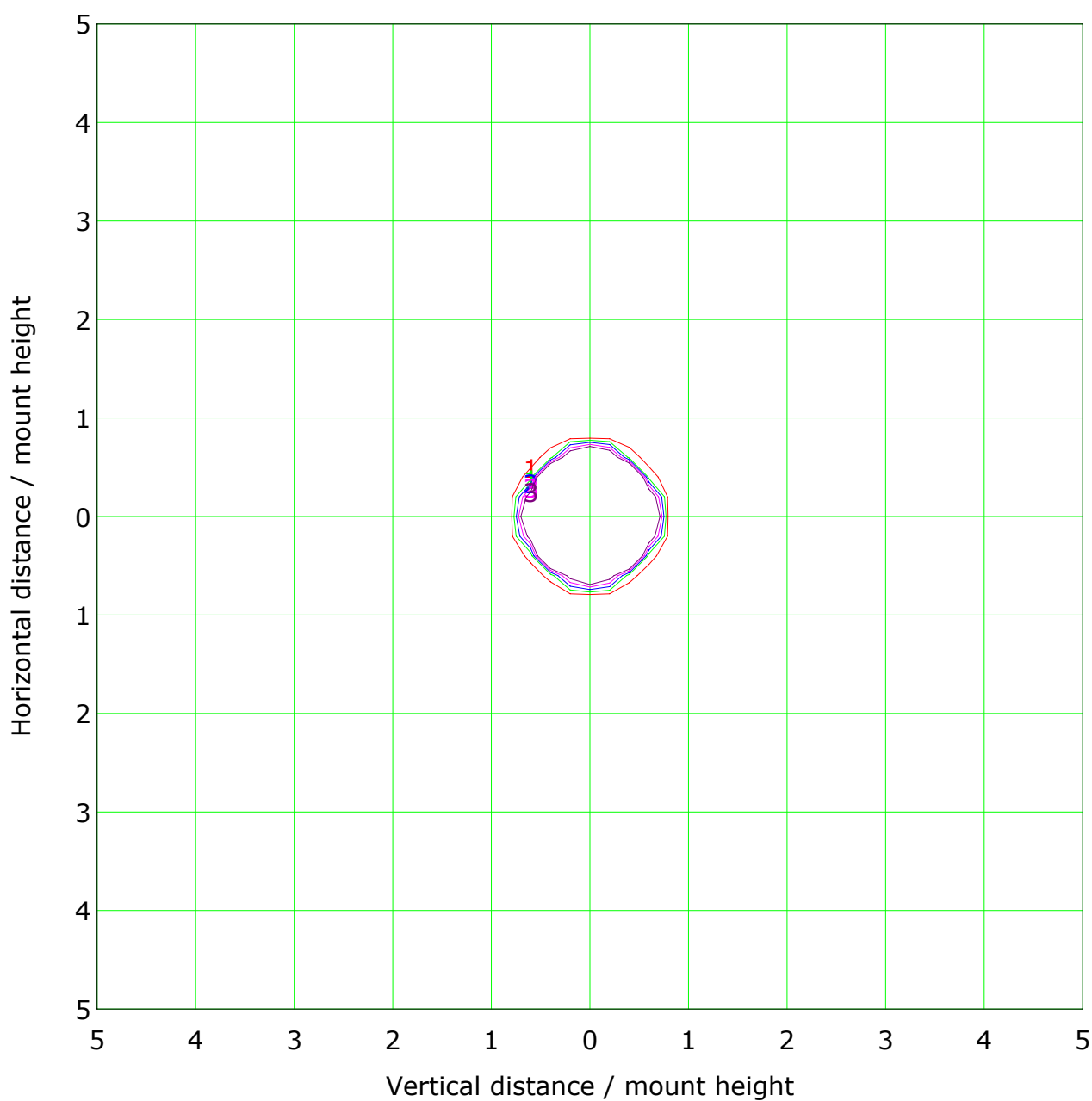
## Isocandela (sphere)



Imax (100%): 6980 cd

( 10%): 698 cd	( 16%): 1117 cd
( 25%): 1745 cd	( 40%): 2792 cd
( 63%): 4397 cd	(100%): 6980 cd

## IsoLux Plot



Mounting Height: 10.0m    Max Lux(100%): 69.8 lx

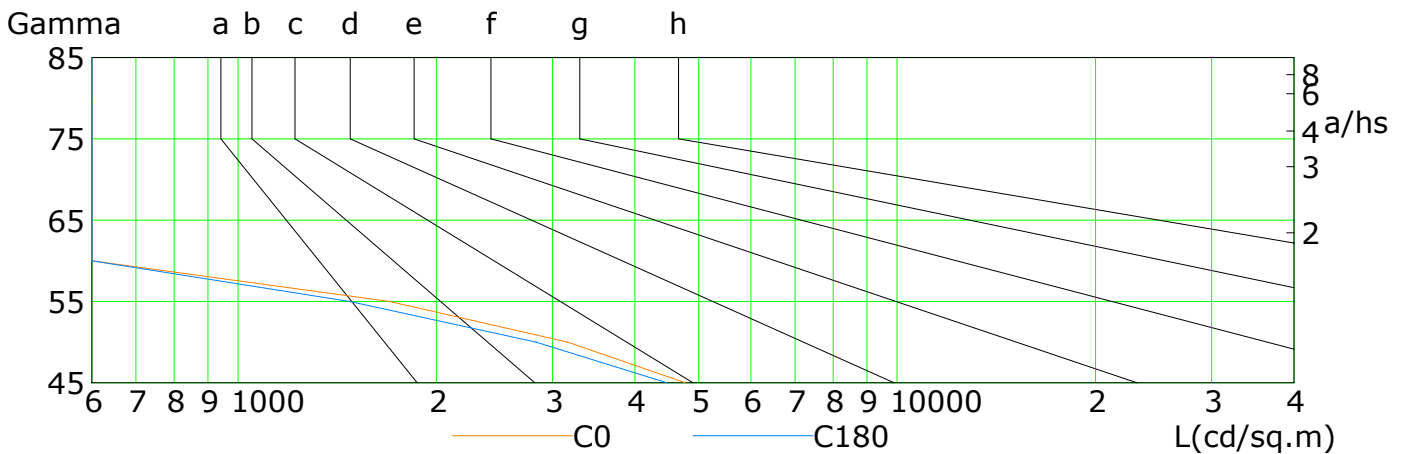
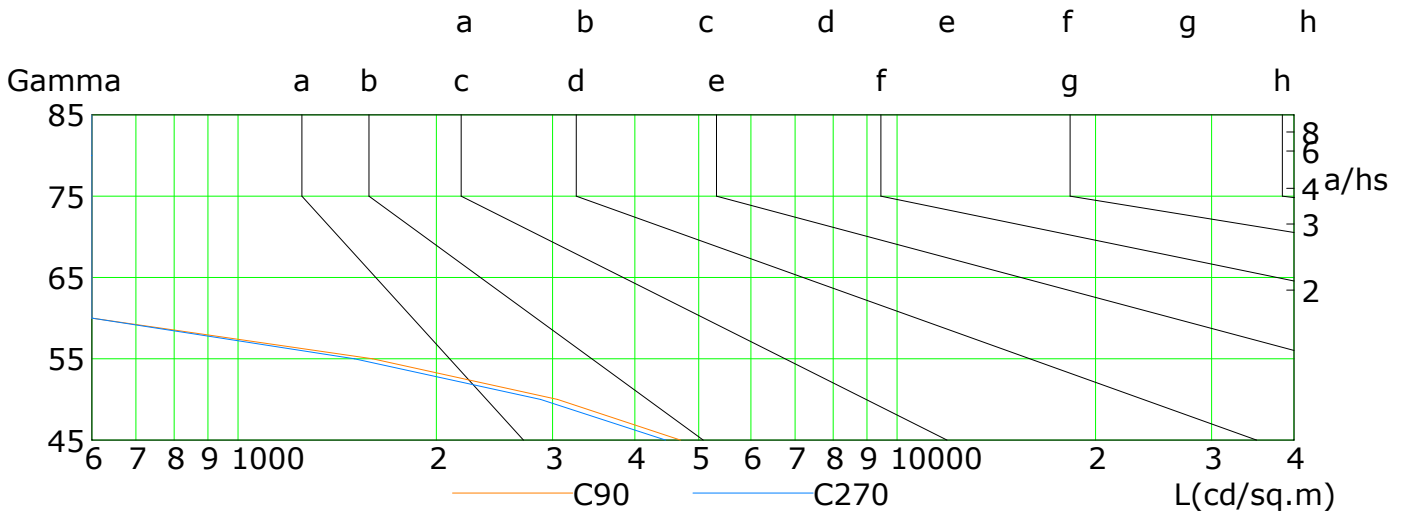
— ( 1%): 0.7 lx	— ( 2%): 1.4 lx
— ( 3%): 2.1 lx	— ( 4%): 2.8 lx
— ( 5%): 3.5 lx	

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

Gamma Plane (°):0.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.990 m  
Humidity:  
Inspector:

## Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300



L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	4772	3163	1698	0	0	0	0	0	0
C90	4692	3053	1600	0	0	0	0	0	0
C180	4473	2833	1477	0	0	0	0	0	0
C270	4453	2878	1502	0	0	0	0	0	0

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.990 m

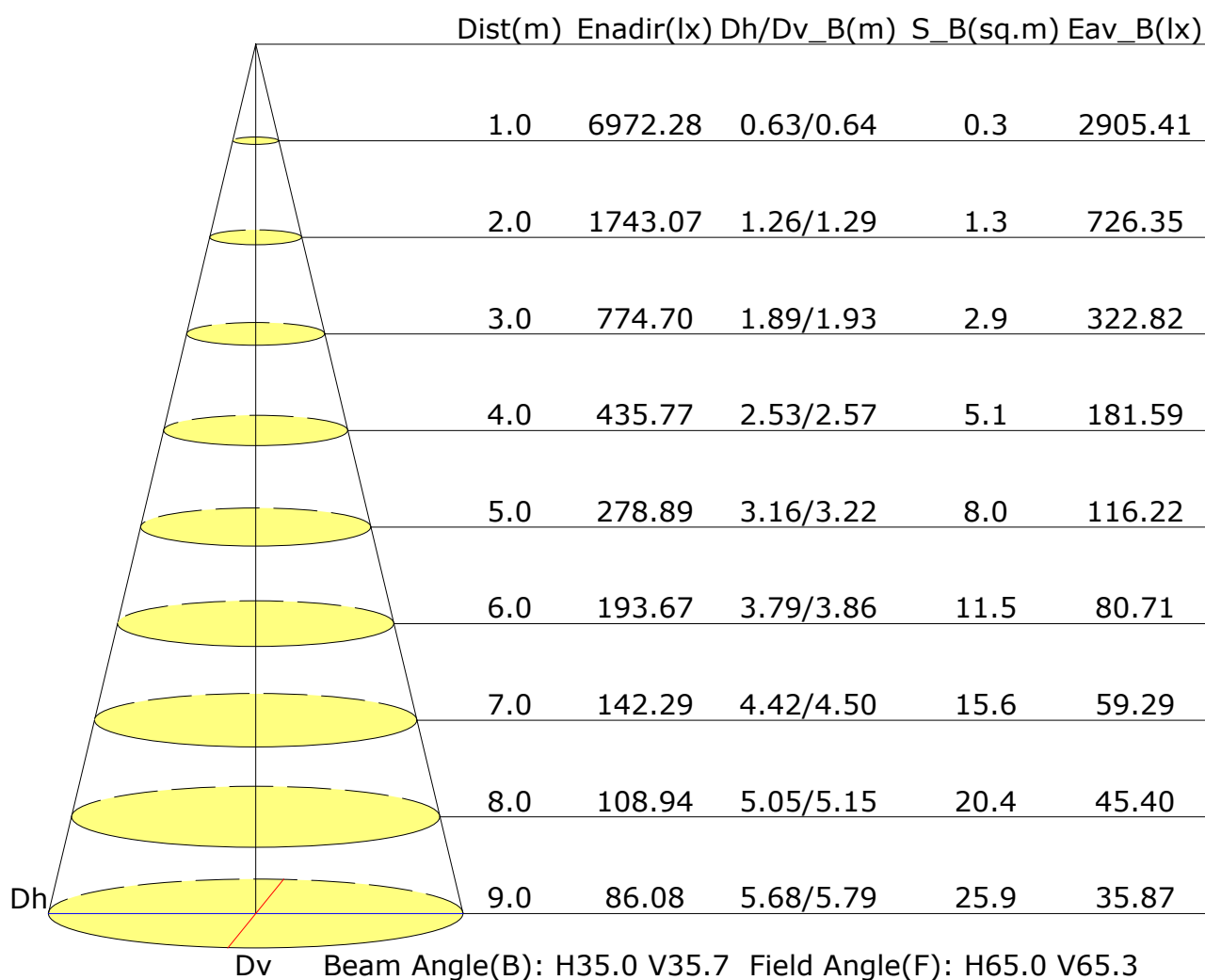
Humidity:

Inspector:

Tel:  
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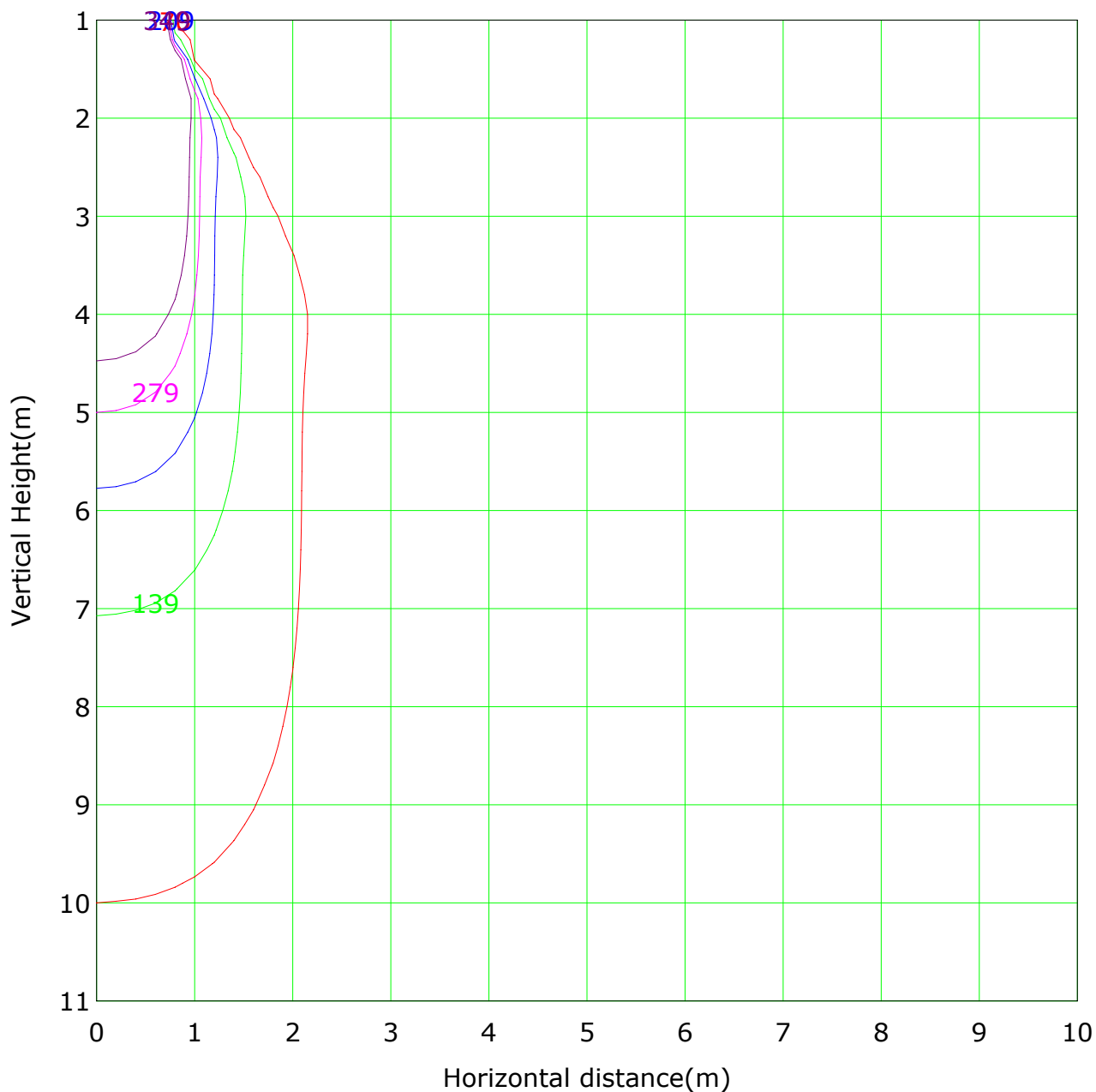
## Illuminance at a Distance



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

Gamma Plane (°):0.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.990 m  
Humidity:  
Inspector:

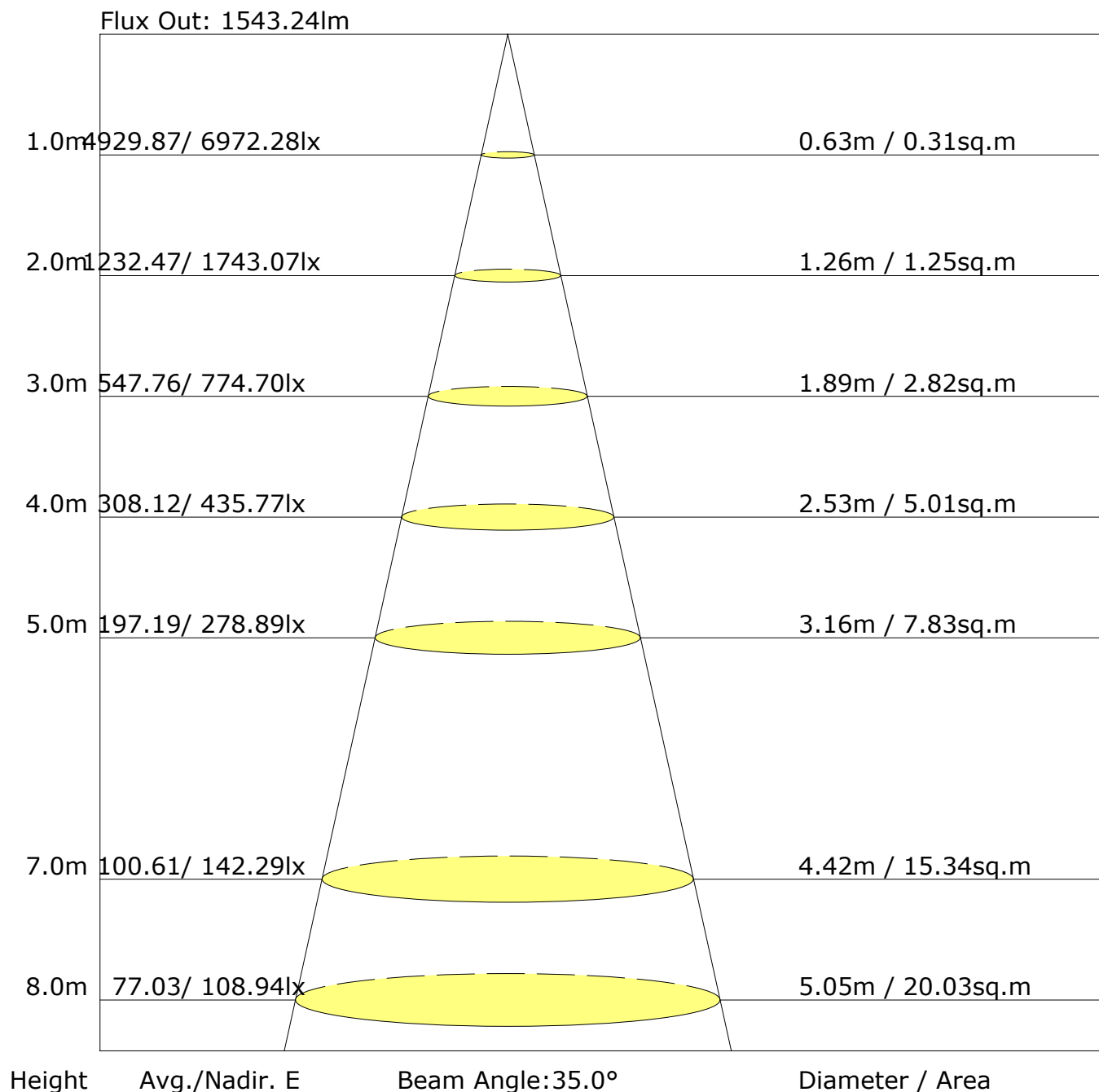
## Vertical IsoLux Plot



Lowest(m): 1.0m   Highest(m): 11.0m   Max Lux: 6972.3 lx  
— ( 1%): 69.7 lx   — ( 2%): 139.4 lx  
— ( 3%): 209.2 lx   — ( 4%): 278.9 lx  
— ( 5%): 348.6 lx



## The Average Illuminance Effective Figure



## 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	-9.2	-8.3	-8.9	-8.0	-7.7	-10.3	-9.4	-9.9	-9.1	-8.8
3H	-9.4	-8.7	-9.1	-8.3	-8.0	-10.5	-9.7	-10.1	-9.4	-9.0
4H	-9.6	-8.8	-9.1	-8.5	-8.1	-10.6	-9.9	-10.2	-9.5	-9.1
6H	-9.7	-9.0	-9.3	-8.6	-8.2	-10.7	-10.1	-10.3	-9.7	-9.3
8H	-9.7	-9.1	-9.3	-8.7	-8.3	-10.8	-10.2	-10.4	-9.8	-9.4
12H	-9.8	-9.2	-9.4	-8.8	-8.4	-10.9	-10.3	-10.4	-9.9	-9.5
X=4H Y=2H	-9.6	-8.8	-9.1	-8.5	-8.1	-10.6	-9.9	-10.2	-9.5	-9.1
3H	-9.8	-9.2	-9.4	-8.8	-8.4	-10.9	-10.3	-10.4	-9.8	-9.4
4H	-9.9	-9.4	-9.5	-9.0	-8.5	-11.0	-10.5	-10.5	-10.0	-9.6
6H	-10.0	-9.6	-9.6	-9.1	-8.7	-11.1	-10.7	-10.6	-10.2	-9.7
8H	-10.1	-9.7	-9.6	-9.2	-8.8	-11.2	-10.8	-10.7	-10.3	-9.8
12H	-10.2	-9.8	-9.7	-9.3	-8.9	-11.2	-10.9	-10.8	-10.4	-9.9
X=8H Y=4H	-10.1	-9.7	-9.6	-9.2	-8.8	-11.2	-10.8	-10.7	-10.3	-9.8
6H	-10.2	-9.9	-9.7	-9.4	-8.9	-11.3	-11.0	-10.8	-10.5	-10.0
8H	-10.3	-10.0	-9.8	-9.5	-9.0	-11.4	-11.1	-10.8	-10.6	-10.1
12H	-10.4	-10.1	-9.9	-9.6	-9.0	-11.4	-11.2	-10.9	-10.7	-10.1
X=12H Y=4H	-10.2	-9.8	-9.7	-9.3	-8.9	-11.2	-10.9	-10.8	-10.4	-9.9
6H	-10.3	-10.0	-9.8	-9.6	-9.0	-11.4	-11.1	-10.8	-10.6	-10.1
8H	-10.4	-10.1	-9.9	-9.6	-9.0	-11.4	-11.2	-10.9	-10.7	-10.1

Calculate in accordance with CIE 190:2010

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

Gamma Plane (°):0.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.990 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	6935.9	6.6	6.6	0.22	0.22
1.0-2.0	6922.1	19.9	26.5	0.67	0.89
2.0-3.0	6897.8	33.0	59.5	1.10	1.99
3.0-4.0	6856.4	45.9	105.4	1.54	3.53
4.0-5.0	6793.6	58.5	163.9	1.96	5.49
5.0-6.0	6709.6	70.5	234.4	2.36	7.85
6.0-7.0	6600.6	81.9	316.3	2.74	10.59
7.0-8.0	6464.0	92.5	408.8	3.10	13.69
8.0-9.0	6291.4	102.0	510.8	3.41	17.11
9.0-10.0	6084.3	110.1	620.9	3.69	20.79
10.0-11.0	5845.0	116.8	737.7	3.91	24.71
11.0-12.0	5576.3	121.9	859.7	4.08	28.79
12.0-13.0	5275.1	125.2	984.9	4.19	32.98
13.0-14.0	4943.6	126.6	1111.4	4.24	37.22
14.0-15.0	4594.5	126.2	1237.6	4.22	41.44
15.0-16.0	4236.6	124.2	1361.7	4.16	45.60
16.0-17.0	3879.8	120.8	1482.6	4.05	49.65
17.0-18.0	3532.7	116.5	1599.1	3.90	53.55
18.0-19.0	3206.1	111.6	1710.6	3.74	57.28
19.0-20.0	2909.7	106.5	1817.1	3.57	60.85
20.0-21.0	2646.6	101.6	1918.8	3.40	64.26
21.0-22.0	2415.3	97.1	2015.8	3.25	67.51
22.0-23.0	2214.7	92.9	2108.8	3.11	70.62
23.0-24.0	2043.3	89.3	2198.1	2.99	73.61
24.0-25.0	1899.1	86.4	2284.5	2.89	76.50
25.0-26.0	1775.5	83.8	2368.3	2.81	79.31
26.0-27.0	1664.7	81.5	2449.8	2.73	82.04
27.0-28.0	1559.1	78.9	2528.7	2.64	84.68
28.0-29.0	1447.5	75.7	2604.4	2.54	87.22
29.0-30.0	1317.5	71.1	2675.6	2.38	89.60
30.0-31.0	1152.3	64.1	2739.7	2.15	91.75
31.0-32.0	946.9	54.3	2794.0	1.82	93.56
32.0-33.0	714.5	42.1	2836.1	1.41	94.97
33.0-34.0	489.2	29.6	2865.7	0.99	95.97
34.0-35.0	313.9	19.5	2885.2	0.65	96.62
35.0-36.0	204.9	13.1	2898.2	0.44	97.06

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.990 m

Humidity:

Inspector:

Tel:  
Fax:

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## 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	148.4	9.7	2907.9	0.32	97.38
37.0-38.0	120.8	8.1	2916.0	0.27	97.65
38.0-39.0	104.8	7.2	2923.1	0.24	97.89
39.0-40.0	93.3	6.5	2929.6	0.22	98.11
40.0-41.0	84.2	6.0	2935.6	0.20	98.31
41.0-42.0	76.6	5.6	2941.2	0.19	98.49
42.0-43.0	69.6	5.2	2946.4	0.17	98.67
43.0-44.0	63.3	4.8	2951.1	0.16	98.83
44.0-45.0	57.7	4.4	2955.6	0.15	98.98
45.0-46.0	52.5	4.1	2959.7	0.14	99.11
46.0-47.0	47.5	3.8	2963.5	0.13	99.24
47.0-48.0	42.9	3.5	2966.9	0.12	99.36
48.0-49.0	38.7	3.2	2970.1	0.11	99.46
49.0-50.0	34.5	2.9	2973.0	0.10	99.56
50.0-51.0	30.4	2.6	2975.5	0.09	99.64
51.0-52.0	26.9	2.3	2977.9	0.08	99.72
52.0-53.0	23.7	2.1	2979.9	0.07	99.79
53.0-54.0	20.3	1.8	2981.7	0.06	99.85
54.0-55.0	16.9	1.5	2983.2	0.05	99.90
55.0-56.0	13.6	1.2	2984.4	0.04	99.94
56.0-57.0	10.3	0.9	2985.4	0.03	99.97
57.0-58.0	6.2	0.6	2986.0	0.02	99.99
58.0-59.0	1.9	0.2	2986.1	0.01	100.00
59.0-60.0	0.2	0.0	2986.2	0.00	100.00
60.0-61.0	0.0	0.0	2986.2	0.00	100.00
61.0-62.0	0.0	0.0	2986.2	0.00	100.00
62.0-63.0	0.0	0.0	2986.2	0.00	100.00
63.0-64.0	0.0	0.0	2986.2	0.00	100.00
64.0-65.0	0.0	0.0	2986.2	0.00	100.00
65.0-66.0	0.0	0.0	2986.2	0.00	100.00
66.0-67.0	0.0	0.0	2986.2	0.00	100.00
67.0-68.0	0.0	0.0	2986.2	0.00	100.00
68.0-69.0	0.0	0.0	2986.2	0.00	100.00
69.0-70.0	0.0	0.0	2986.2	0.00	100.00
70.0-71.0	0.0	0.0	2986.2	0.00	100.00
71.0-72.0	0.0	0.0	2986.2	0.00	100.00

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.990 m

Humidity:

Inspector:

Fax:

## Zonal Lumen (Continue 2)

[illegible]

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.990 m

Humidity:

Inspector:

Tel:  
Fax:

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## Candlepower Table

Unit: cd

G\C	C0.0	C90.0	C180.0	C270.0	C360.0					
G0.0	6972.3	6905.7	6972.3	6905.7	6972.3					
G1.0	6955.3	6888.3	6979.9	6907.6	6955.3					
G2.0	6938.4	6871.1	6958.4	6877.8	6938.4					
G3.0	6904.3	6840.1	6937.7	6854.4	6904.3					
G4.0	6842.5	6764.2	6905.2	6802.6	6842.5					
G5.0	6769.5	6681.4	6853.2	6730.3	6769.5					
G6.0	6661.4	6584.8	6756.3	6639.7	6661.4					
G7.0	6532.5	6431.6	6654.2	6544.7	6532.5					
G8.0	6352.8	6253.8	6537.3	6404.9	6352.8					
G9.0	6150.7	6040.5	6356.4	6235.0	6150.7					
G10.0	5899.0	5797.1	6161.2	6034.8	5899.0					
G11.0	5610.0	5538.9	5923.6	5795.7	5610.0					
G12.0	5310.1	5248.8	5644.4	5538.9	5310.1					
G13.0	4950.3	4920.2	5329.9	5258.6	4950.3					
G14.0	4598.6	4578.0	4968.4	4945.0	4598.6					
G15.0	4218.0	4227.0	4624.6	4596.6	4218.0					
G16.0	3845.5	3884.6	4236.8	4259.3	3845.5					
G17.0	3482.8	3550.3	3873.2	3905.9	3482.8					
G18.0	3154.0	3218.2	3506.2	3571.1	3154.0					
G19.0	2852.9	2921.8	3162.6	3262.3	2852.9					
G20.0	2585.1	2655.3	2861.4	2975.8	2585.1					
G21.0	2362.8	2433.1	2598.0	2701.3	2362.8					
G22.0	2173.3	2224.1	2371.3	2458.4	2173.3					
G23.0	2010.3	2046.8	2179.5	2253.5	2010.3					
G24.0	1865.2	1897.9	2017.5	2075.7	1865.2					
G25.0	1752.4	1773.6	1882.2	1928.0	1752.4					
G26.0	1652.4	1655.7	1771.2	1788.2	1652.4					
G27.0	1562.7	1545.3	1673.4	1668.6	1562.7					
G28.0	1469.4	1424.5	1567.2	1561.5	1469.4					
G29.0	1363.7	1290.4	1461.3	1441.9	1363.7					
G30.0	1219.1	1133.4	1329.6	1300.9	1219.1					
G31.0	1018.2	946.6	1142.0	1128.9	1018.2					
G32.0	766.2	735.9	909.1	928.2	766.2					
G33.0	512.3	522.8	635.2	706.5	512.3					
G34.0	315.0	341.5	399.2	481.5	315.0					
G35.0	205.9	216.9	243.6	307.3	205.9					
G36.0	149.9	154.9	164.6	196.4	149.9					

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.990 m

Humidity:

Inspector:

Tel:  
Fax:

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## Candlepower Table (Continue 1)

Unit: cd

G\C	C0.0	C90.0	C180.0	C270.0	C360.0					
G37.0	124.8	126.0	130.3	140.5	124.8					
G38.0	109.3	110.7	111.0	113.6	109.3					
G39.0	98.3	99.3	97.1	99.3	98.3					
G40.0	89.2	88.1	87.6	87.6	89.2					
G41.0	81.6	79.9	80.7	78.7	81.6					
G42.0	74.2	72.5	73.0	72.1	74.2					
G43.0	68.2	66.1	65.6	65.1	68.2					
G44.0	62.5	60.6	59.2	59.2	62.5					
G45.0	57.0	56.1	53.5	53.2	57.0					
G46.0	52.0	50.6	48.7	48.7	52.0					
G47.0	47.3	45.3	44.4	43.2	47.3					
G48.0	43.0	41.5	39.8	38.7	43.0					
G49.0	38.9	37.5	34.6	35.3	38.9					
G50.0	34.4	33.2	30.8	31.3	34.4					
G51.0	30.3	29.4	26.5	27.2	30.3					
G52.0	27.4	25.8	24.3	24.1	27.4					
G53.0	24.1	22.2	21.0	21.0	24.1					
G54.0	19.8	18.9	17.9	17.7	19.8					
G55.0	16.5	15.5	14.3	14.6	16.5					
G56.0	13.1	11.7	11.2	11.7	13.1					
G57.0	9.1	8.4	8.8	8.8	9.1					
G58.0	2.4	1.4	5.0	5.5	2.4					
G59.0	0.0	0.0	0.5	0.7	0.0					
G60.0	0.0	0.0	0.0	0.0	0.0					
G61.0	0.0	0.0	0.0	0.0	0.0					
G62.0	0.0	0.0	0.0	0.0	0.0					
G63.0	0.0	0.0	0.0	0.0	0.0					
G64.0	0.0	0.0	0.0	0.0	0.0					
G65.0	0.0	0.0	0.0	0.0	0.0					
G66.0	0.0	0.0	0.0	0.0	0.0					
G67.0	0.0	0.0	0.0	0.0	0.0					
G68.0	0.0	0.0	0.0	0.0	0.0					
G69.0	0.0	0.0	0.0	0.0	0.0					
G70.0	0.0	0.0	0.0	0.0	0.0					
G71.0	0.0	0.0	0.0	0.0	0.0					
G72.0	0.0	0.0	0.0	0.0	0.0					
G73.0	0.0	0.0	0.0	0.0	0.0					

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.990 m

Humidity:

Inspector:

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## Unit: cd

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

Gamma Plane (°):0.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.990 m  
Humidity:  
Inspector: