

Report No.:

Test Time: 2017-07-20 18:08

Luminaire Property

Luminaire Manufacturer:
Luminaire Category: LED DownLight
Lamp Catalog: 4000k
Luminous Width (mm): 130
Current: 0.144 A
Power Factor: 0.967

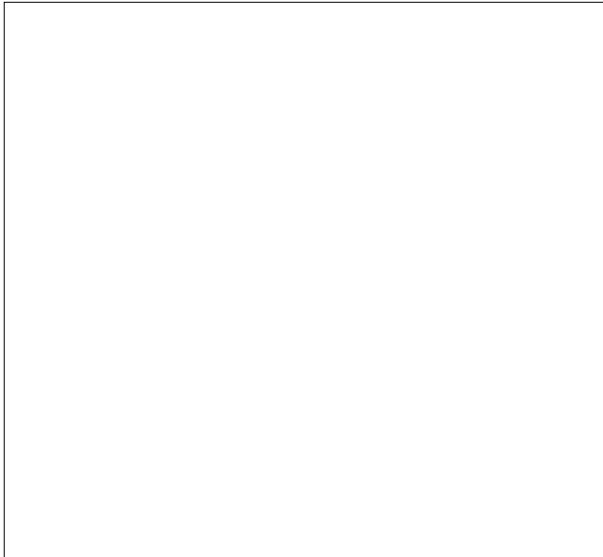
Luminaire Description: DLC0530-B840 24D
Luminous Length (mm): 130
Voltage: 220.0 V
Power: 30.60 W

Photometric Results

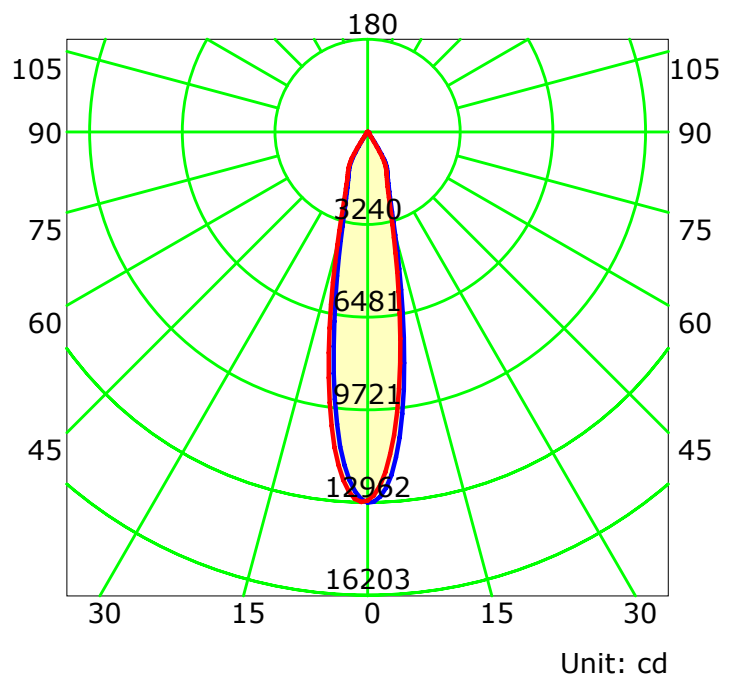
CIE Class: Direct
Measurement Flux: 3004.4 lm
Downward Ratio: 100%
Field Angle: H58.0 V57.6
Luminaire Efficacy Rating (LER): 98
Max. Intensity: 12962.45 cd

Total Rated Lamp Lumens: 3004.4 lm
Efficiency: 100%
Upward Ratio: 0%
Beam Angle: H21.3 V21.6
Central Intensity: 12962.44 cd
Pos of Max. Intensity: H0 V0

Picture Of Luminaire



Luminous Intensity Distribution Curve

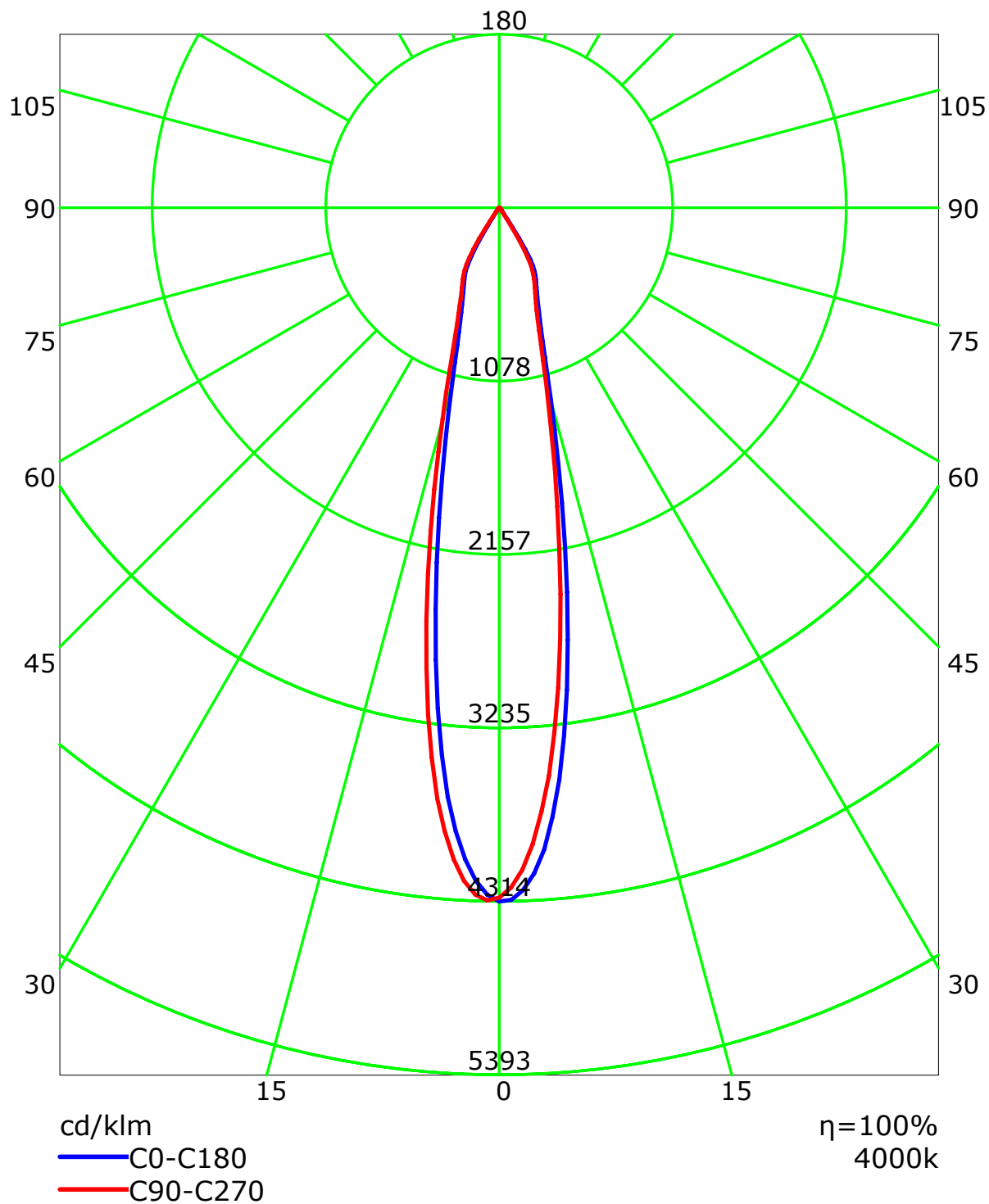


— C0-C180 — C90-C270

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:

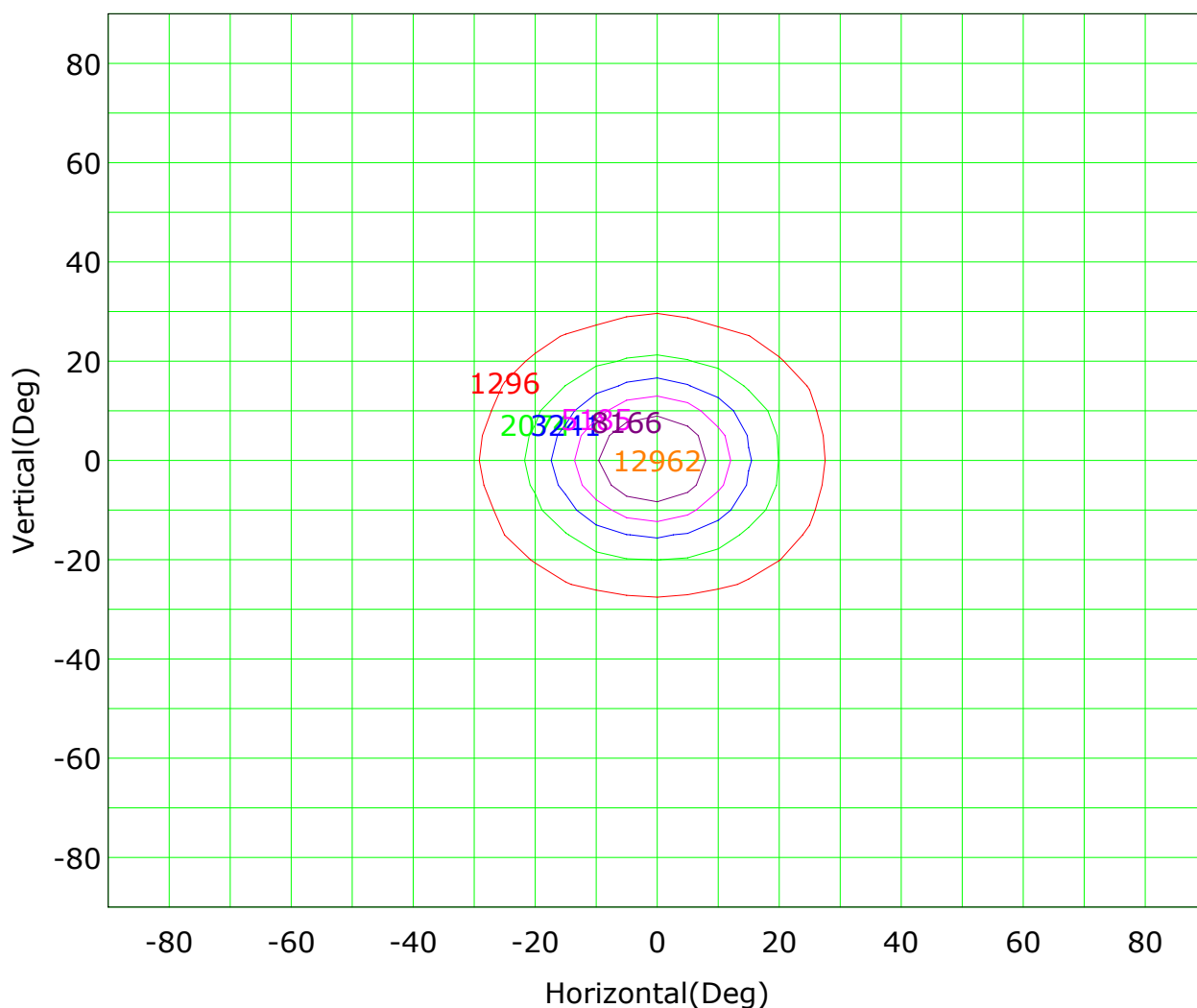
Luminous Intensity Distribution Curve(cd/klm)



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:

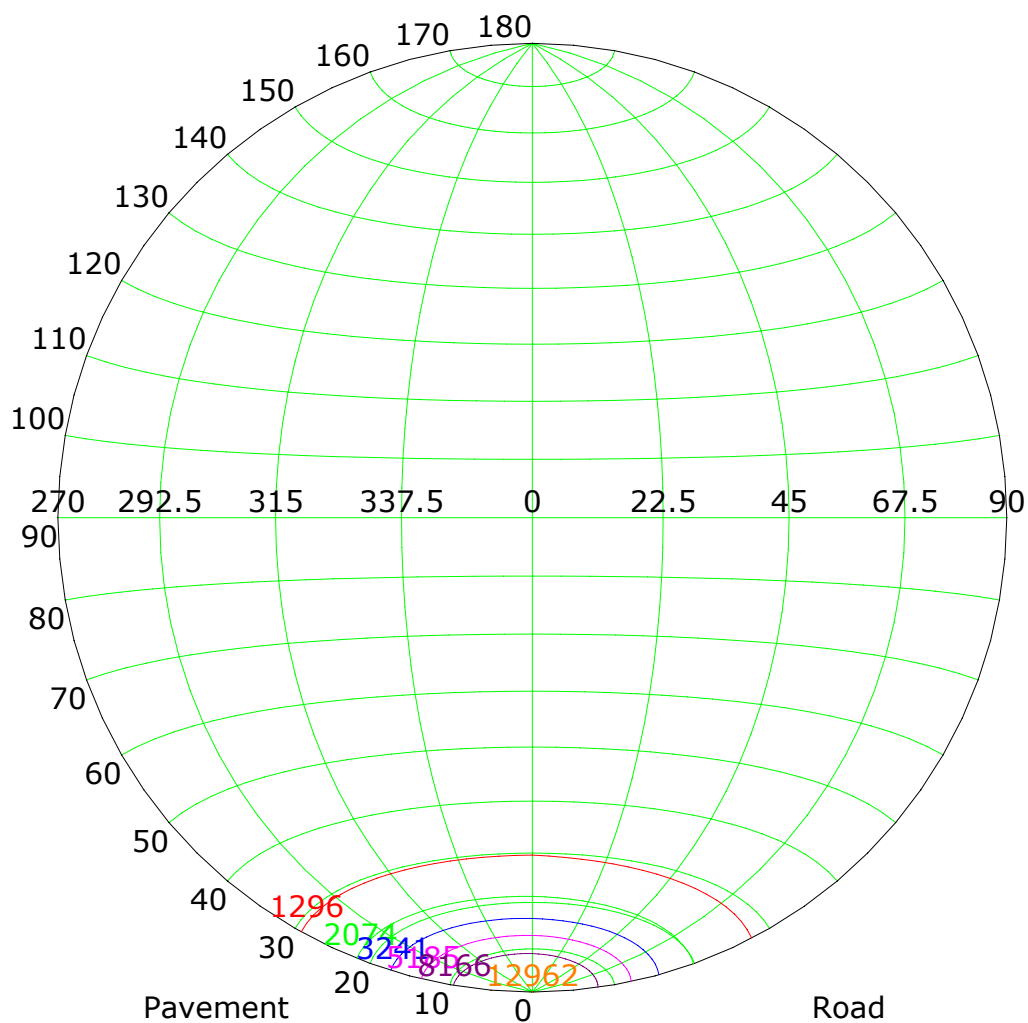
Isocandela (rectangle)



Imax (100%): 12962 cd

(10%): 1296 cd	(16%): 2074 cd
(25%): 3241 cd	(40%): 5185 cd
(63%): 8166 cd	(100%): 12962 cd

Isocandela (sphere)

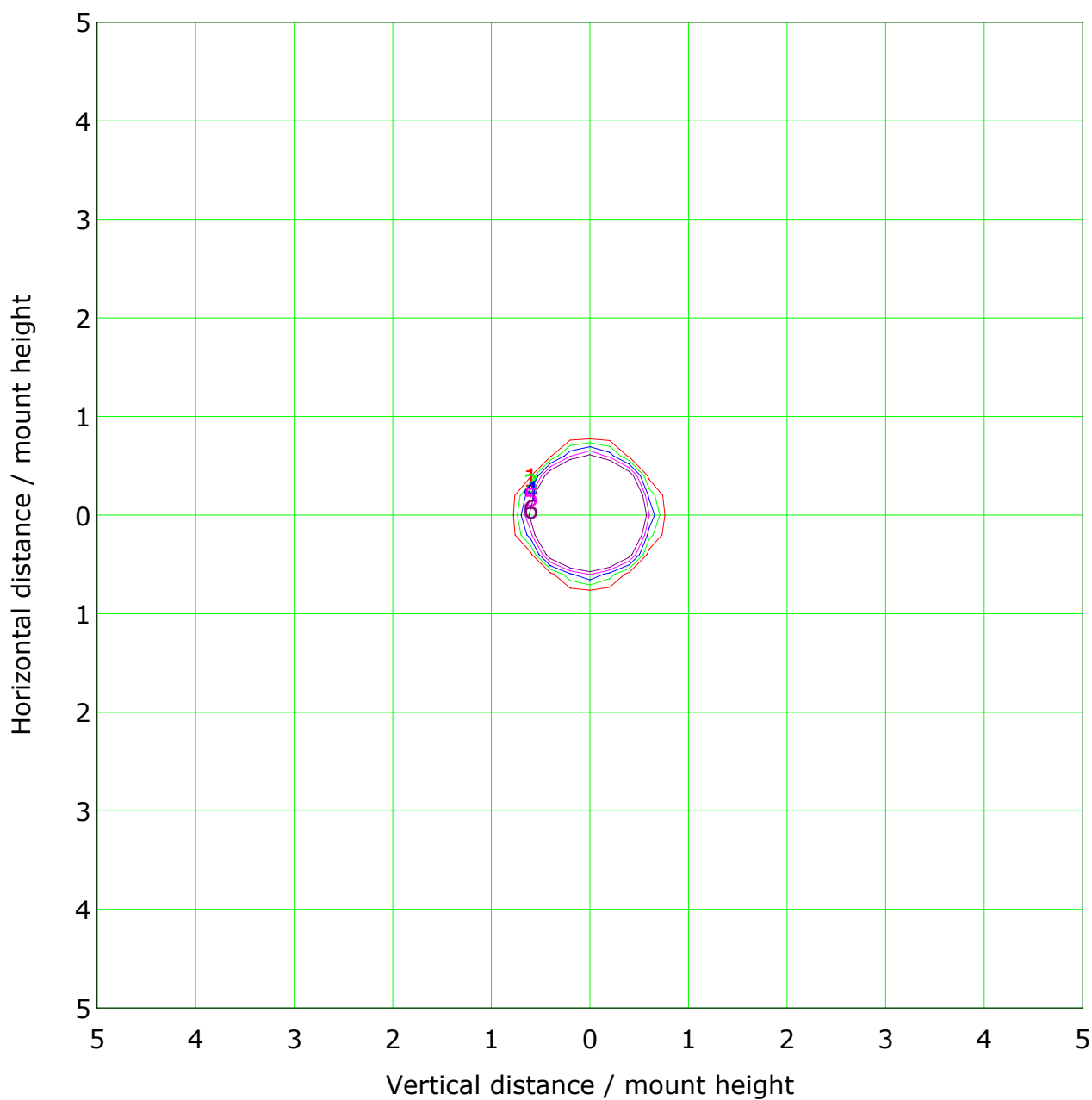


Imax (100%): 12962 cd

(10%): 1296 cd
(25%): 3241 cd
(63%): 8166 cd

(16%): 2074 cd
(40%): 5185 cd
(100%): 12962 cd

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 129.6 lx

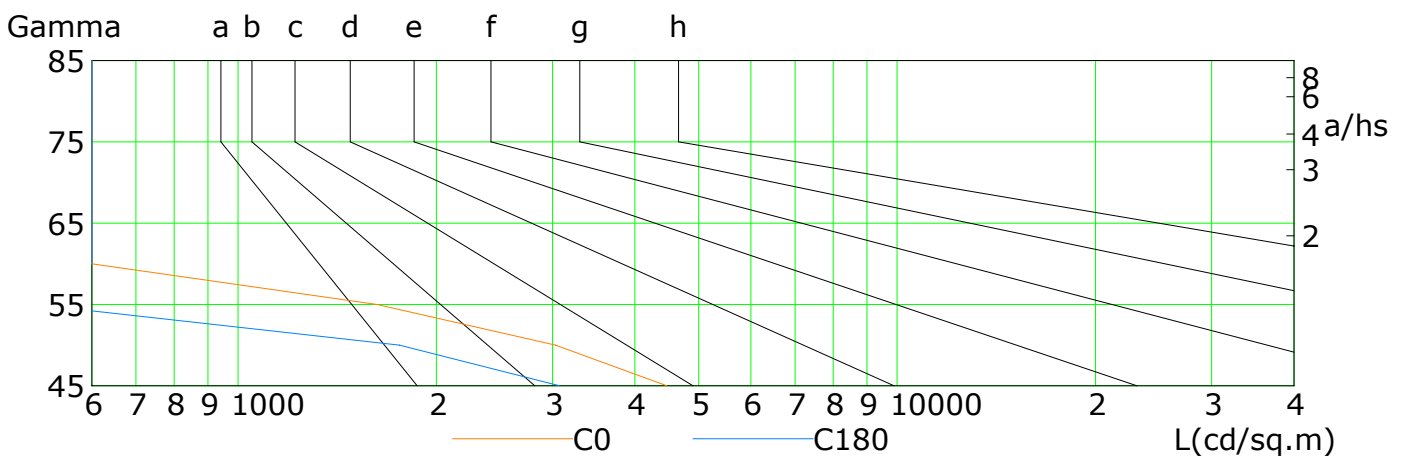
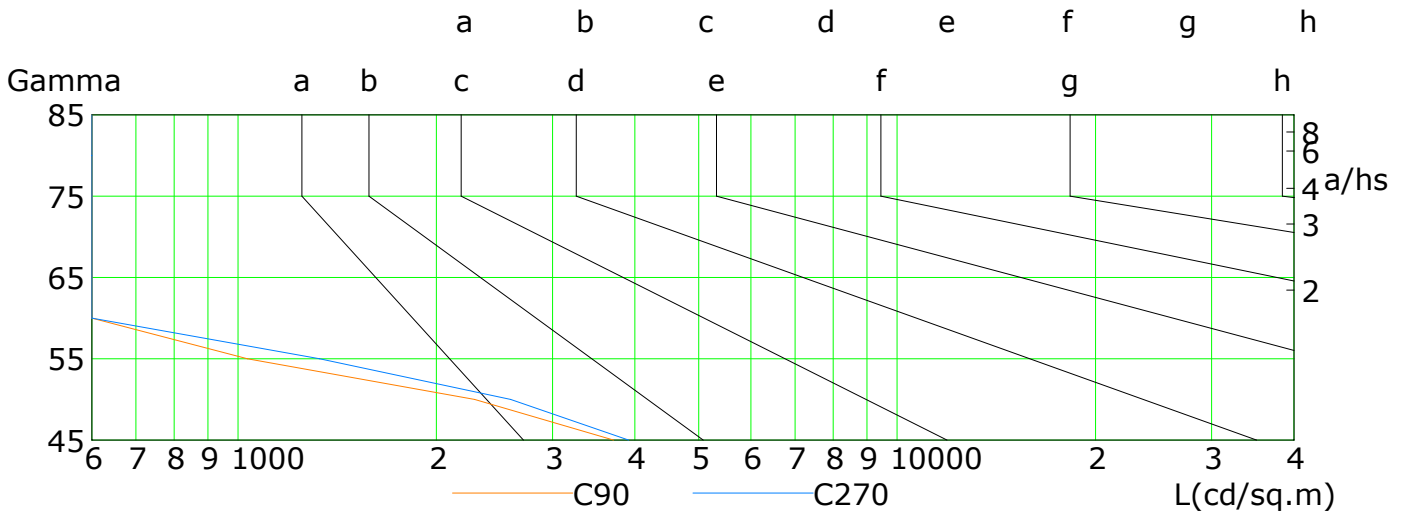
— (1%): 1.3 lx	— (2%): 2.6 lx
— (3%): 3.9 lx	— (4%): 5.2 lx
— (5%): 6.5 lx	

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	4473	3031	1625	0	0	0	0	0	0
C90	3714	2285	1034	0	0	0	0	0	0
C180	3075	1757	492	0	0	0	0	0	0
C270	3914	2592	1330	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

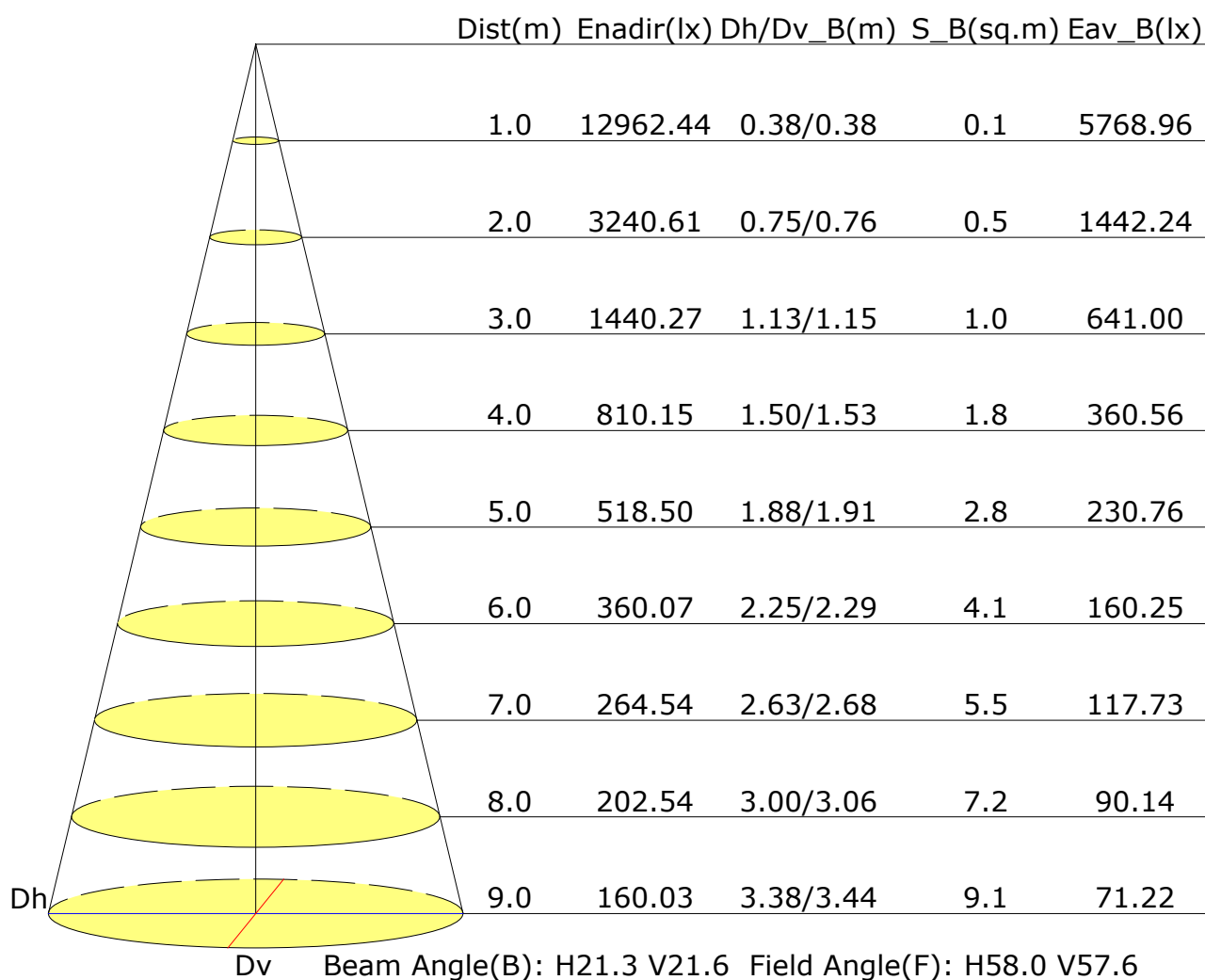
Humidity:

Inspector:

Tel:
Fax:

Page 7 of 16 Pages

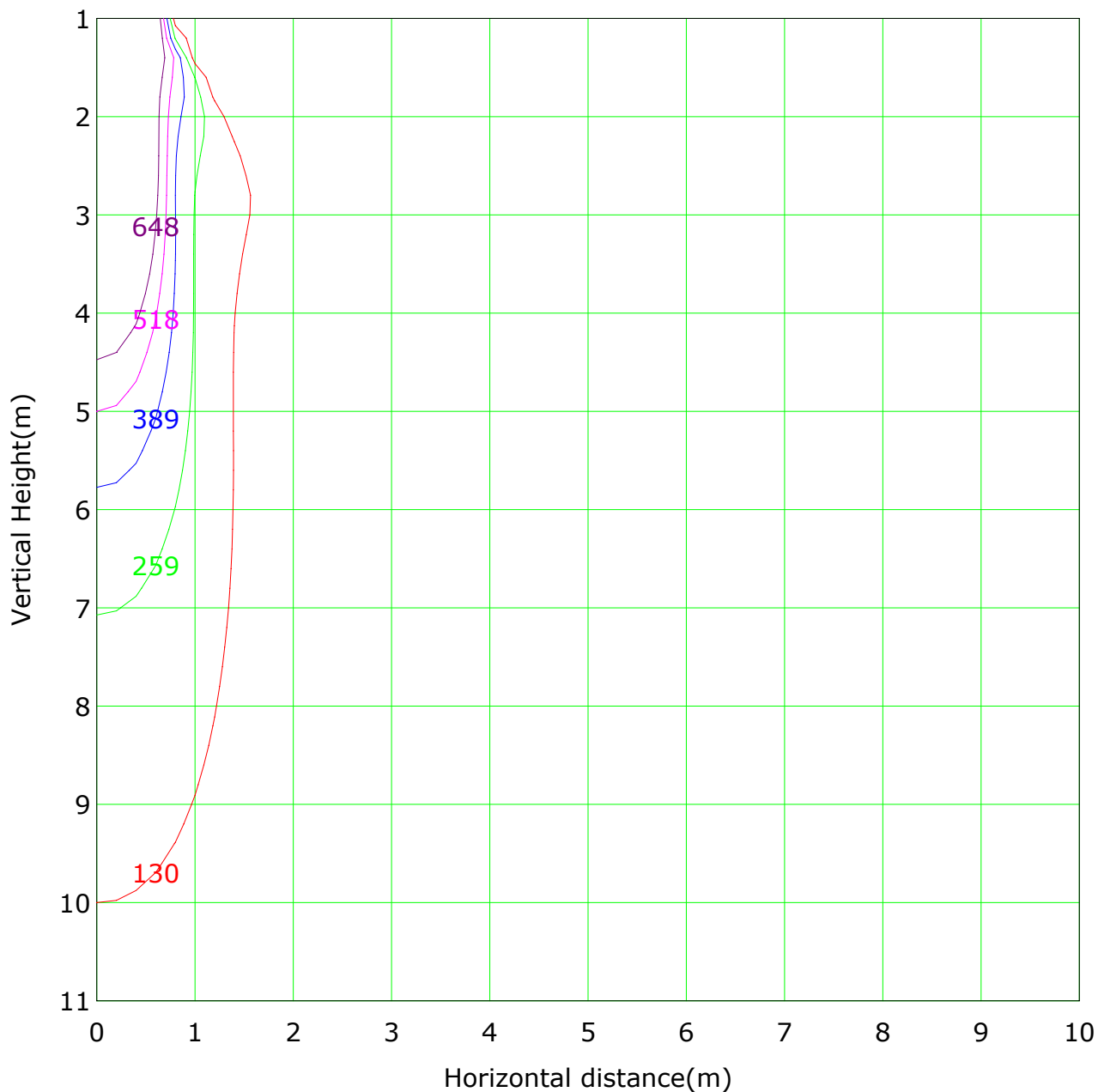
Illuminance at a Distance



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

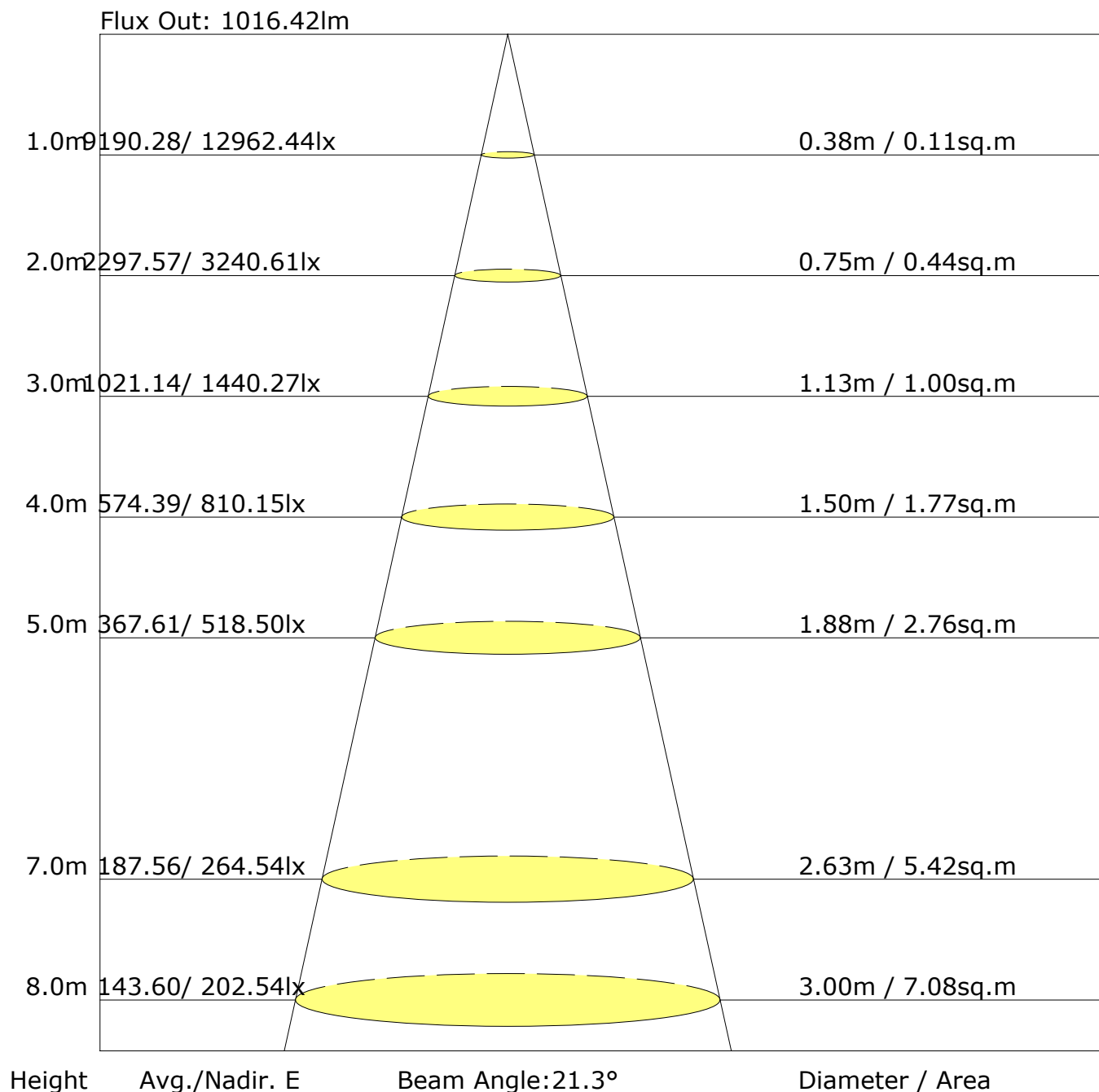
Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1600L
Distance: 7.990 m
Humidity:
Inspector:

Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 12962.4 lx
— (1%): 129.6 lx — (2%): 259.2 lx
— (3%): 388.9 lx — (4%): 518.5 lx
— (5%): 648.1 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	-7.9	-7.0	-7.5	-6.7	-6.4	-16.6	-15.7	-16.3	-15.4	-15.1	
3H	-8.1	-7.3	-7.7	-7.0	-6.6	-16.9	-16.1	-16.5	-15.7	-15.4	
4H	-8.2	-7.5	-7.8	-7.2	-6.8	-17.0	-16.2	-16.6	-15.9	-15.5	
6H	-8.3	-7.7	-7.9	-7.3	-6.9	-17.1	-16.4	-16.7	-16.0	-15.6	
8H	-8.4	-7.8	-8.0	-7.4	-7.0	-17.1	-16.5	-16.7	-16.1	-15.7	
12H	-8.5	-7.9	-8.0	-7.5	-7.1	-17.2	-16.6	-16.8	-16.2	-15.8	
X=4H Y=2H	-8.2	-7.5	-7.8	-7.2	-6.8	-17.0	-16.2	-16.6	-15.9	-15.5	
3H	-8.5	-7.9	-8.0	-7.5	-7.1	-17.2	-16.6	-16.8	-16.2	-15.8	
4H	-8.6	-8.1	-8.2	-7.6	-7.2	-17.3	-16.8	-16.9	-16.4	-15.9	
6H	-8.7	-8.3	-8.2	-7.8	-7.3	-17.4	-17.0	-17.0	-16.5	-16.1	
8H	-8.8	-8.4	-8.3	-7.9	-7.4	-17.5	-17.1	-17.0	-16.7	-16.2	
12H	-8.9	-8.5	-8.4	-8.0	-7.5	-17.6	-17.2	-17.1	-16.7	-16.3	
X=8H Y=4H	-8.8	-8.4	-8.3	-7.9	-7.4	-17.5	-17.1	-17.0	-16.7	-16.2	
6H	-8.9	-8.6	-8.4	-8.1	-7.6	-17.7	-17.3	-17.1	-16.8	-16.3	
8H	-9.0	-8.7	-8.5	-8.2	-7.7	-17.7	-17.4	-17.2	-16.9	-16.4	
12H	-9.1	-8.8	-8.5	-8.3	-7.7	-17.8	-17.5	-17.3	-17.0	-16.5	
X=12H Y=4H	-8.9	-8.5	-8.4	-8.0	-7.5	-17.6	-17.2	-17.1	-16.7	-16.3	
6H	-9.0	-8.7	-8.5	-8.2	-7.7	-17.7	-17.4	-17.2	-17.0	-16.4	
8H	-9.1	-8.8	-8.5	-8.3	-7.7	-17.8	-17.5	-17.3	-17.0	-16.5	

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:

Tel:
Fax:

Page 11 of 16 Pages

Zonal Lumen

Gamma [°]	I _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	12892.5	12.3	12.3	0.41	0.41
1.0-2.0	12749.7	36.6	48.9	1.22	1.63
2.0-3.0	12465.4	59.6	108.6	1.98	3.61
3.0-4.0	12048.0	80.7	189.2	2.68	6.30
4.0-5.0	11506.5	99.0	288.2	3.30	9.59
5.0-6.0	10850.0	114.0	402.3	3.80	13.39
6.0-7.0	10091.7	125.3	527.5	4.17	17.56
7.0-8.0	9264.4	132.6	660.1	4.41	21.97
8.0-9.0	8394.2	136.1	796.2	4.53	26.50
9.0-10.0	7515.5	136.0	932.2	4.53	31.03
10.0-11.0	6667.9	133.3	1065.5	4.44	35.46
11.0-12.0	5870.5	128.3	1193.8	4.27	39.74
12.0-13.0	5137.6	121.9	1315.8	4.06	43.80
13.0-14.0	4481.8	114.7	1430.5	3.82	47.61
14.0-15.0	3913.3	107.4	1537.9	3.58	51.19
15.0-16.0	3434.3	100.6	1638.6	3.35	54.54
16.0-17.0	3038.6	94.6	1733.2	3.15	57.69
17.0-18.0	2716.8	89.6	1822.8	2.98	60.67
18.0-19.0	2460.2	85.6	1908.4	2.85	63.52
19.0-20.0	2254.0	82.5	1990.9	2.75	66.27
20.0-21.0	2087.5	80.2	2071.1	2.67	68.94
21.0-22.0	1950.4	78.4	2149.5	2.61	71.55
22.0-23.0	1833.3	76.9	2226.4	2.56	74.11
23.0-24.0	1732.8	75.8	2302.2	2.52	76.63
24.0-25.0	1646.3	74.9	2377.1	2.49	79.12
25.0-26.0	1569.1	74.1	2451.1	2.47	81.59
26.0-27.0	1495.2	73.2	2524.3	2.44	84.02
27.0-28.0	1418.3	71.8	2596.1	2.39	86.41
28.0-29.0	1327.4	69.5	2665.6	2.31	88.72
29.0-30.0	1210.4	65.4	2730.9	2.18	90.90
30.0-31.0	1057.0	58.8	2789.8	1.96	92.86
31.0-32.0	863.6	49.5	2839.2	1.65	94.50
32.0-33.0	644.7	38.0	2877.2	1.26	95.77
33.0-34.0	438.4	26.5	2903.8	0.88	96.65
34.0-35.0	280.7	17.4	2921.2	0.58	97.23
35.0-36.0	180.1	11.5	2932.7	0.38	97.61

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:

Page 12 of 16 Pages

Zonal Lumen (Continue 1)

Gamma [°]	I _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	126.4	8.2	2940.9	0.27	97.89
37.0-38.0	100.6	6.7	2947.6	0.22	98.11
38.0-39.0	86.6	5.9	2953.5	0.20	98.31
39.0-40.0	77.3	5.4	2958.9	0.18	98.49
40.0-41.0	69.9	5.0	2963.9	0.17	98.65
41.0-42.0	63.2	4.6	2968.5	0.15	98.81
42.0-43.0	57.3	4.2	2972.7	0.14	98.95
43.0-44.0	52.0	3.9	2976.7	0.13	99.08
44.0-45.0	47.4	3.6	2980.3	0.12	99.20
45.0-46.0	43.0	3.4	2983.7	0.11	99.31
46.0-47.0	38.8	3.1	2986.8	0.10	99.41
47.0-48.0	35.2	2.8	2989.6	0.09	99.51
48.0-49.0	31.5	2.6	2992.2	0.09	99.60
49.0-50.0	27.9	2.3	2994.5	0.08	99.67
50.0-51.0	24.5	2.1	2996.6	0.07	99.74
51.0-52.0	21.1	1.8	2998.4	0.06	99.80
52.0-53.0	18.0	1.6	3000.0	0.05	99.85
53.0-54.0	15.2	1.3	3001.3	0.04	99.90
54.0-55.0	12.3	1.1	3002.4	0.04	99.94
55.0-56.0	9.5	0.9	3003.3	0.03	99.96
56.0-57.0	6.7	0.6	3003.9	0.02	99.98
57.0-58.0	3.8	0.3	3004.2	0.01	100.00
58.0-59.0	1.2	0.1	3004.3	0.00	100.00
59.0-60.0	0.1	0.0	3004.4	0.00	100.00
60.0-61.0	0.0	0.0	3004.4	0.00	100.00
61.0-62.0	0.0	0.0	3004.4	0.00	100.00
62.0-63.0	0.0	0.0	3004.4	0.00	100.00
63.0-64.0	0.0	0.0	3004.4	0.00	100.00
64.0-65.0	0.0	0.0	3004.4	0.00	100.00
65.0-66.0	0.0	0.0	3004.4	0.00	100.00
66.0-67.0	0.0	0.0	3004.4	0.00	100.00
67.0-68.0	0.0	0.0	3004.4	0.00	100.00
68.0-69.0	0.0	0.0	3004.4	0.00	100.00
69.0-70.0	0.0	0.0	3004.4	0.00	100.00
70.0-71.0	0.0	0.0	3004.4	0.00	100.00
71.0-72.0	0.0	0.0	3004.4	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:

Page 14 of 16 Pages

Candlepower Table

Unit: cd

G\C	C0.0	C90.0	C180.0	C270.0	C360.0					
G0.0	12962.4	12892.3	12962.4	12892.3	12962.4					
G1.0	12936.2	12707.1	12841.7	12945.3	12936.2					
G2.0	12760.6	12378.8	12584.5	12843.1	12760.6					
G3.0	12455.6	11912.5	12191.7	12596.4	12455.6					
G4.0	12028.0	11308.4	11681.1	12209.8	12028.0					
G5.0	11424.8	10651.7	11050.7	11697.8	11424.8					
G6.0	10740.9	9860.0	10276.1	11098.4	10740.9					
G7.0	9934.0	9039.6	9428.1	10356.3	9934.0					
G8.0	9095.5	8167.7	8529.5	9564.6	9095.5					
G9.0	8178.7	7315.9	7596.0	8705.6	8178.7					
G10.0	7296.8	6450.7	6731.8	7848.5	7296.8					
G11.0	6440.2	5686.2	5900.4	6989.0	6440.2					
G12.0	5638.4	4996.1	5145.0	6168.6	5638.4					
G13.0	4910.7	4352.8	4484.5	5404.6	4910.7					
G14.0	4281.2	3814.5	3900.4	4705.5	4281.2					
G15.0	3729.1	3369.7	3414.6	4091.7	3729.1					
G16.0	3275.7	2971.7	3013.2	3608.8	3275.7					
G17.0	2921.1	2667.2	2687.3	3164.0	2921.1					
G18.0	2629.0	2416.2	2446.3	2803.2	2629.0					
G19.0	2400.0	2209.6	2248.2	2528.8	2400.0					
G20.0	2218.6	2047.3	2084.1	2295.5	2218.6					
G21.0	2065.9	1918.9	1943.7	2126.1	2065.9					
G22.0	1934.7	1809.6	1827.8	1976.2	1934.7					
G23.0	1824.0	1720.9	1726.6	1846.9	1824.0					
G24.0	1731.4	1633.1	1640.2	1739.5	1731.4					
G25.0	1646.4	1562.0	1564.8	1652.6	1646.4					
G26.0	1574.4	1487.0	1490.9	1574.8	1574.4					
G27.0	1509.9	1405.4	1418.8	1500.4	1509.9					
G28.0	1443.6	1313.3	1331.5	1423.6	1443.6					
G29.0	1361.5	1198.3	1211.2	1336.2	1361.5					
G30.0	1266.6	1042.3	1041.8	1225.0	1266.6					
G31.0	1124.8	833.7	832.8	1089.0	1124.8					
G32.0	918.7	608.0	594.6	907.2	918.7					
G33.0	676.7	395.1	373.2	683.9	676.7					
G34.0	440.5	242.9	226.2	468.6	440.5					
G35.0	270.6	157.5	142.7	296.4	270.6					
G36.0	169.9	116.9	105.5	181.4	169.9					

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:

Page 15 of 16 Pages

Candlepower Table (Continue 1)

Unit: cd

G\C	C0.0	C90.0	C180.0	C270.0	C360.0					
G37.0	126.5	98.3	87.3	125.5	126.5					
G38.0	104.0	87.3	76.4	99.7	104.0					
G39.0	92.6	77.3	69.7	85.4	92.6					
G40.0	84.0	70.2	62.5	76.8	84.0					
G41.0	76.4	64.0	56.3	68.7	76.4					
G42.0	69.2	59.2	50.1	62.0	69.2					
G43.0	62.5	53.0	45.8	56.8	62.5					
G44.0	57.3	49.2	41.0	50.6	57.3					
G45.0	53.5	44.4	36.8	46.8	53.5					
G46.0	49.2	39.6	32.5	41.5	49.2					
G47.0	45.3	35.3	28.6	38.7	45.3					
G48.0	41.0	32.9	25.8	33.9	41.0					
G49.0	36.3	29.6	22.0	30.5	36.3					
G50.0	32.9	24.8	19.1	28.2	32.9					
G51.0	29.1	21.5	15.8	24.8	29.1					
G52.0	25.3	18.1	13.4	20.5	25.3					
G53.0	22.4	15.3	10.0	18.6	22.4					
G54.0	19.1	12.9	7.6	15.3	19.1					
G55.0	15.8	10.0	4.8	12.9	15.8					
G56.0	12.4	7.2	2.9	10.5	12.4					
G57.0	9.5	3.3	0.5	7.6	9.5					
G58.0	4.8	0.0	0.0	4.3	4.8					
G59.0	0.0	0.0	0.0	0.5	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:

Page 16 of 16 Pages

Unit: cd

[illegible]

Gamma Plane (°):0.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.990 m

Humidity:

Inspector: