

Report No.:

Test Time: 2026-09-10 17:36

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: 51.09516 15D

Luminous Width (mm): -82

Current: 0.182 A

Power Factor: 0.962

Luminous Length (mm): -82

Voltage: 233.5 V

Power: 40.90 W

Photometric Results

CIE Class: Direct

Measurement Flux: 4167.9 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(50%): H22.1

Vertical Diffuse Angle(50%): V22.1

Luminaire Efficacy Rating (LER): 101.96

Max. Intensity: 21349.9 cd

S/MH(C0/C180): 0.38

Total Rated Lamp Lumens: 4167.9 lm

Efficiency: 100%

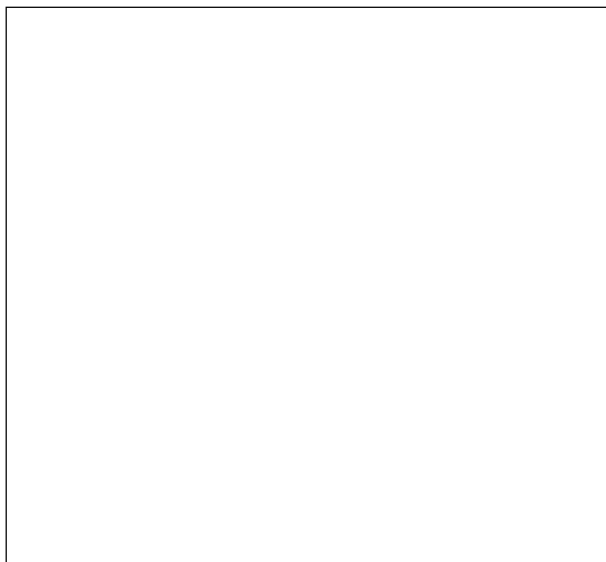
Upward Ratio: 0%

Central Intensity: 21285.06 cd

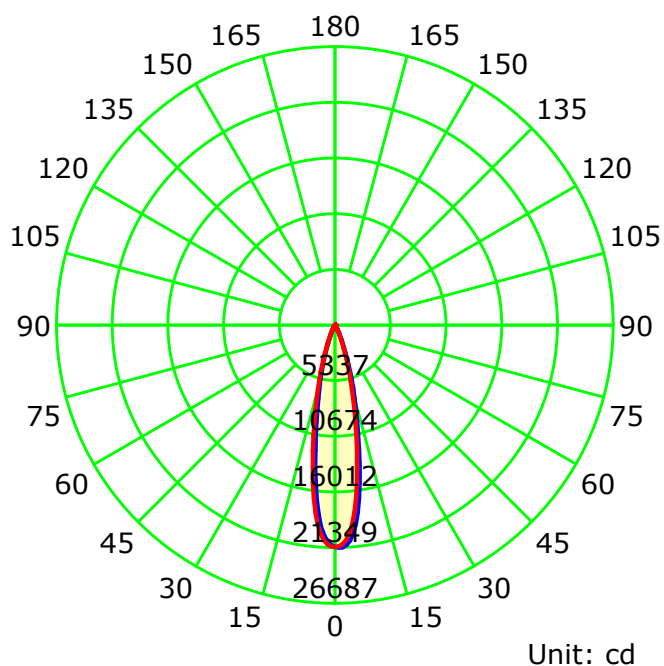
Pos of Max. Intensity: H0 V1

S/MH(C90/C270): 0.38

Picture Of Luminaire



Luminous Intensity Distribution Curve



— C0-C180 — C90-C270

C Plane (°):0.0-180.0: 180.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

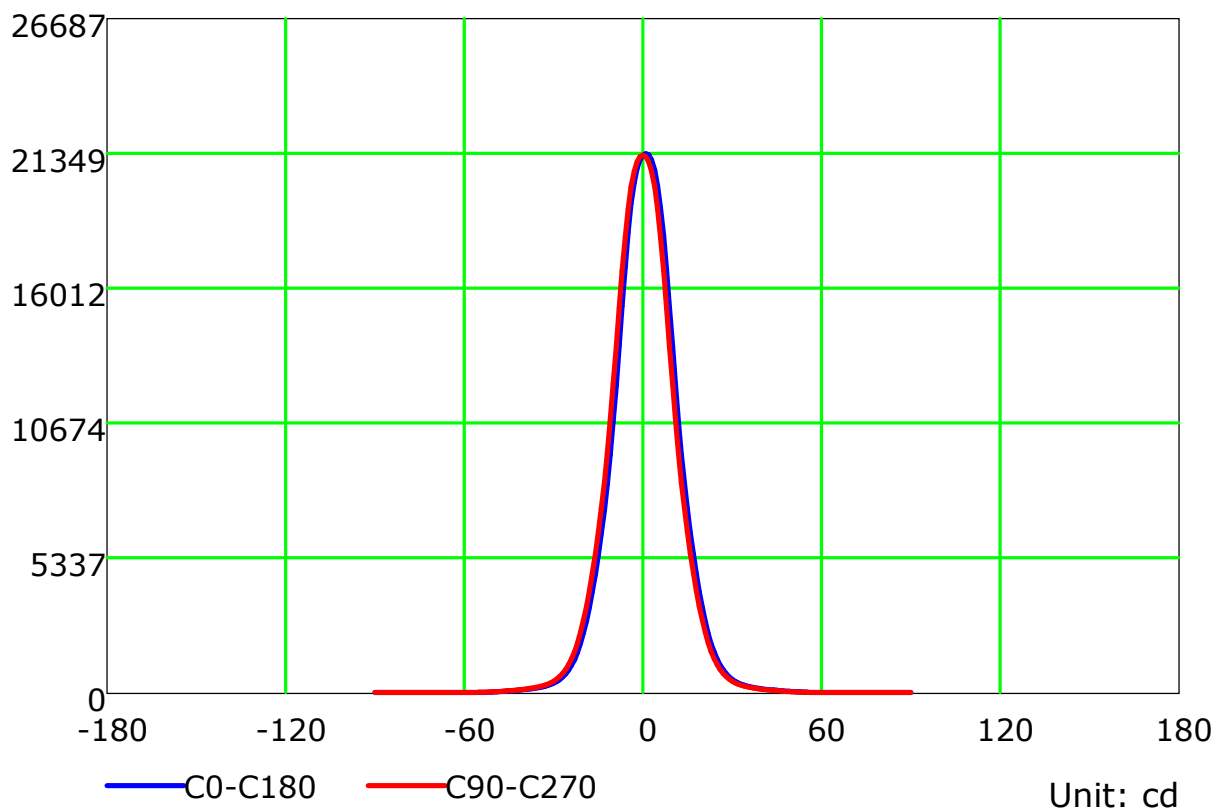
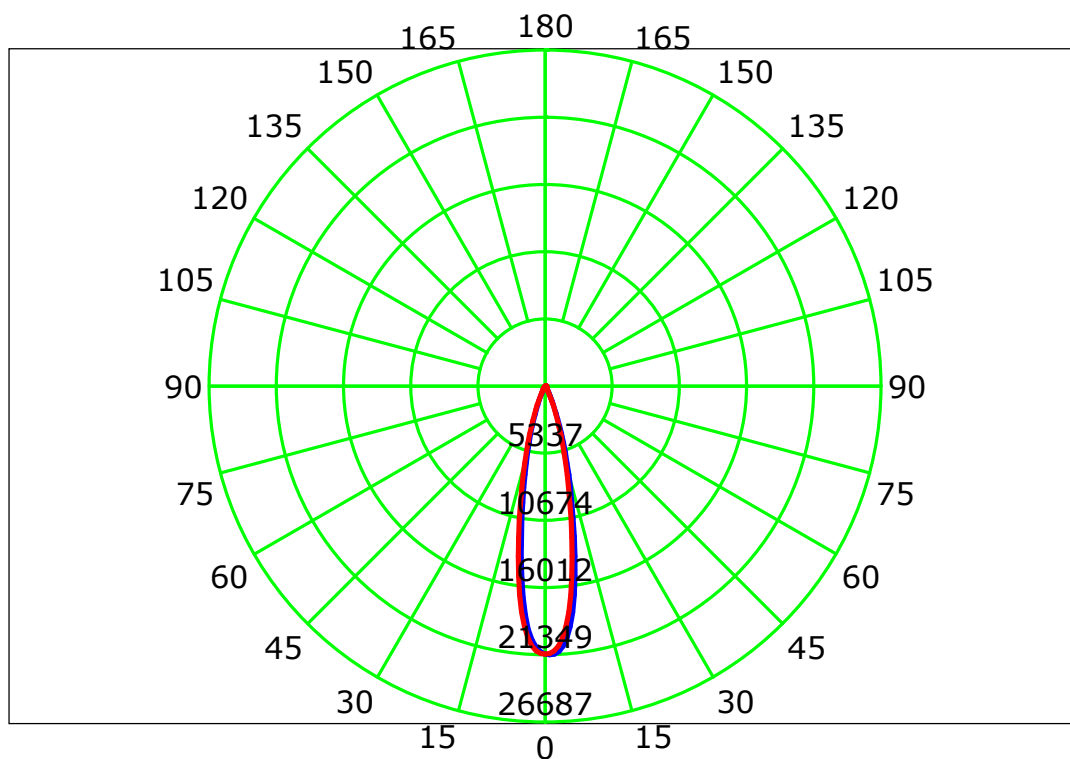
Test Device: CHL-6E

Distance: 3.010 m

Humidity:

Inspector:

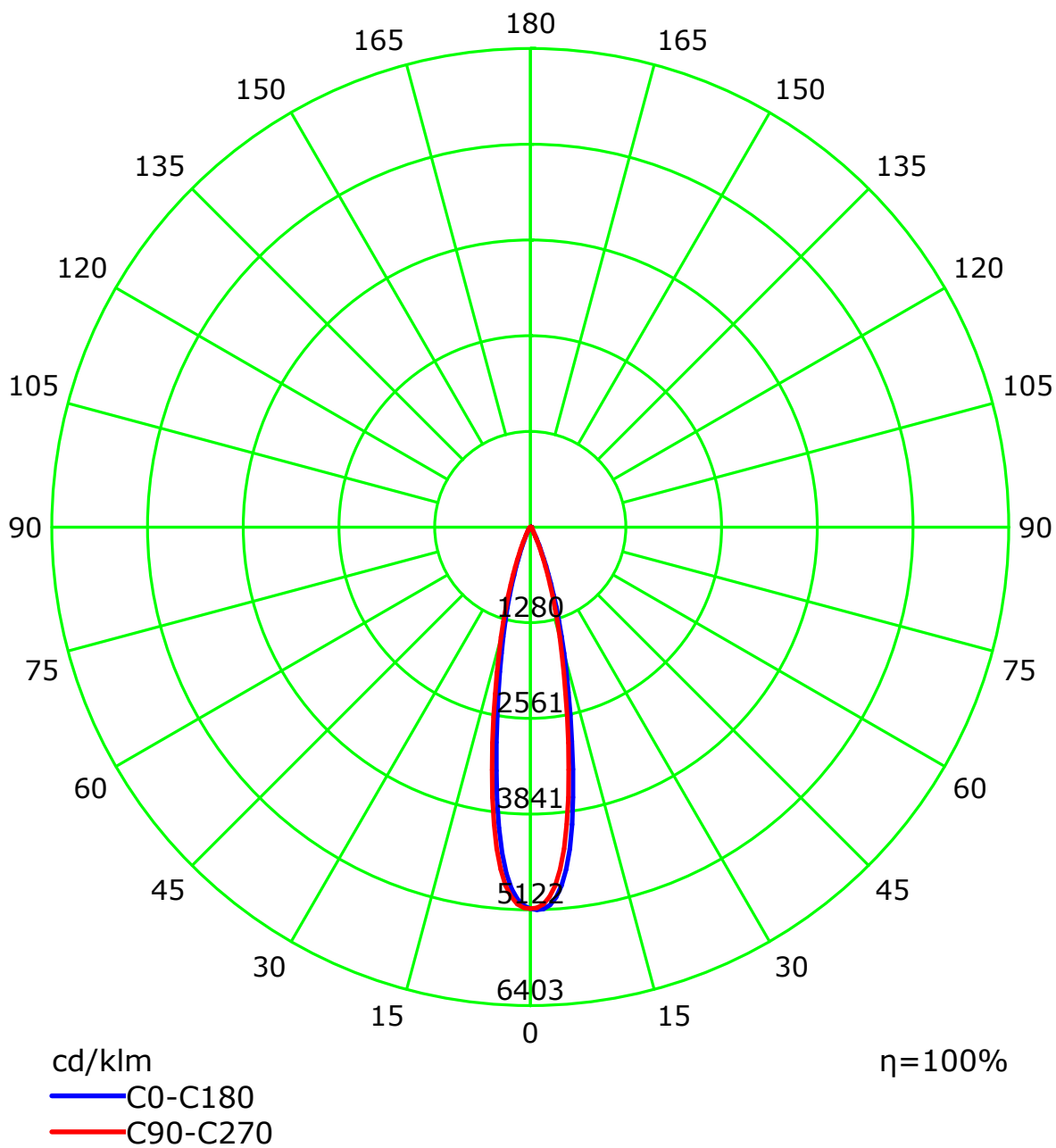
Luminous Intensity Distribution Curve



C Plane (°):0.0-180.0: 180.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-90.0:1.0
Test Device: CHL-6E
Distance: 3.010 m
Humidity:
Inspector:

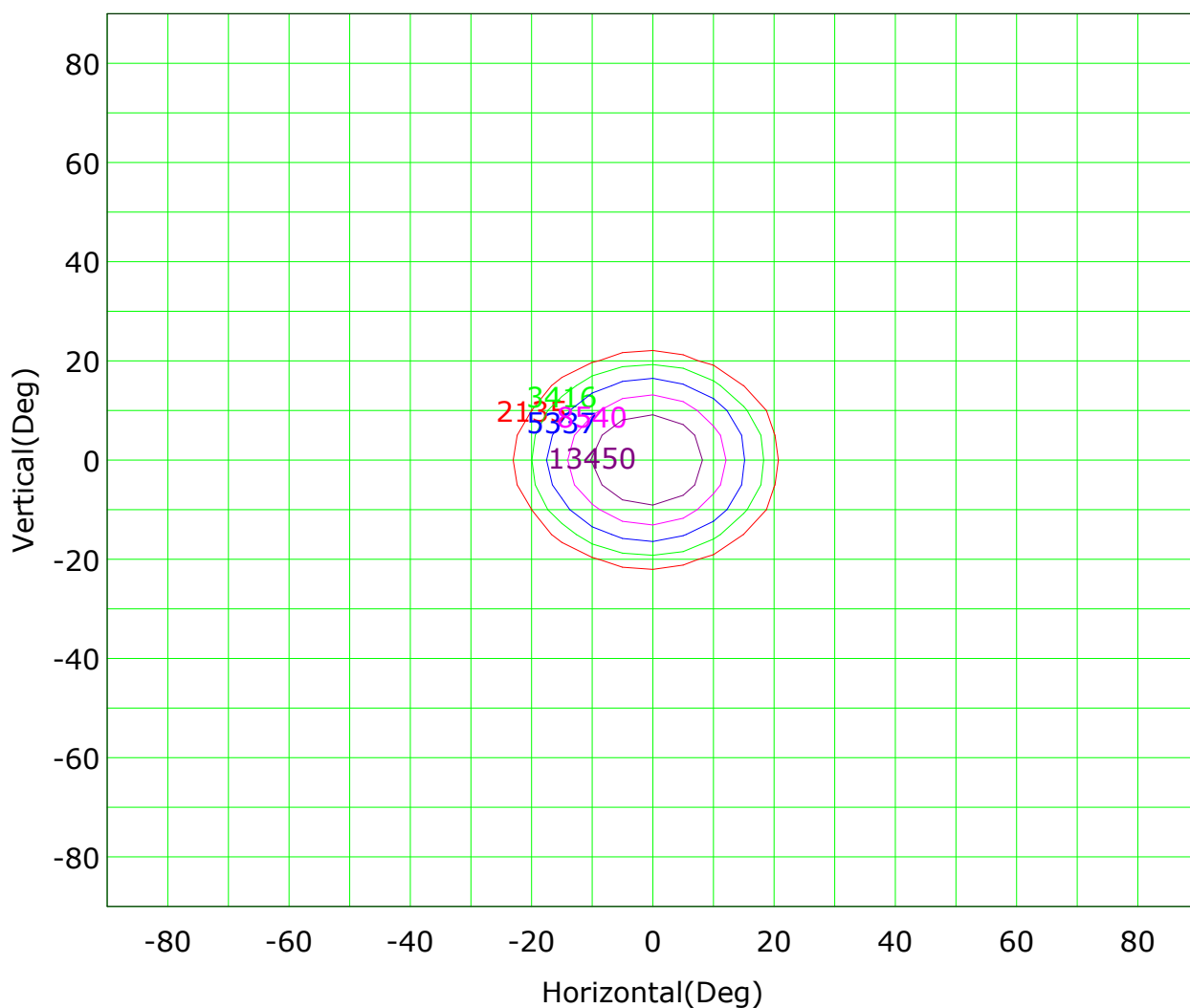
Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-180.0: 180.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-90.0:1.0
Test Device: CHL-6E
Distance: 3.010 m
Humidity:
Inspector:

Isocandela (rectangle)



Imax (100%): 21350 cd

(10%): 2135 cd	(16%): 3416 cd
(25%): 5337 cd	(40%): 8540 cd
(63%): 13450 cd	(100%): 21350 cd

C Plane (°):0.0-180.0: 180.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

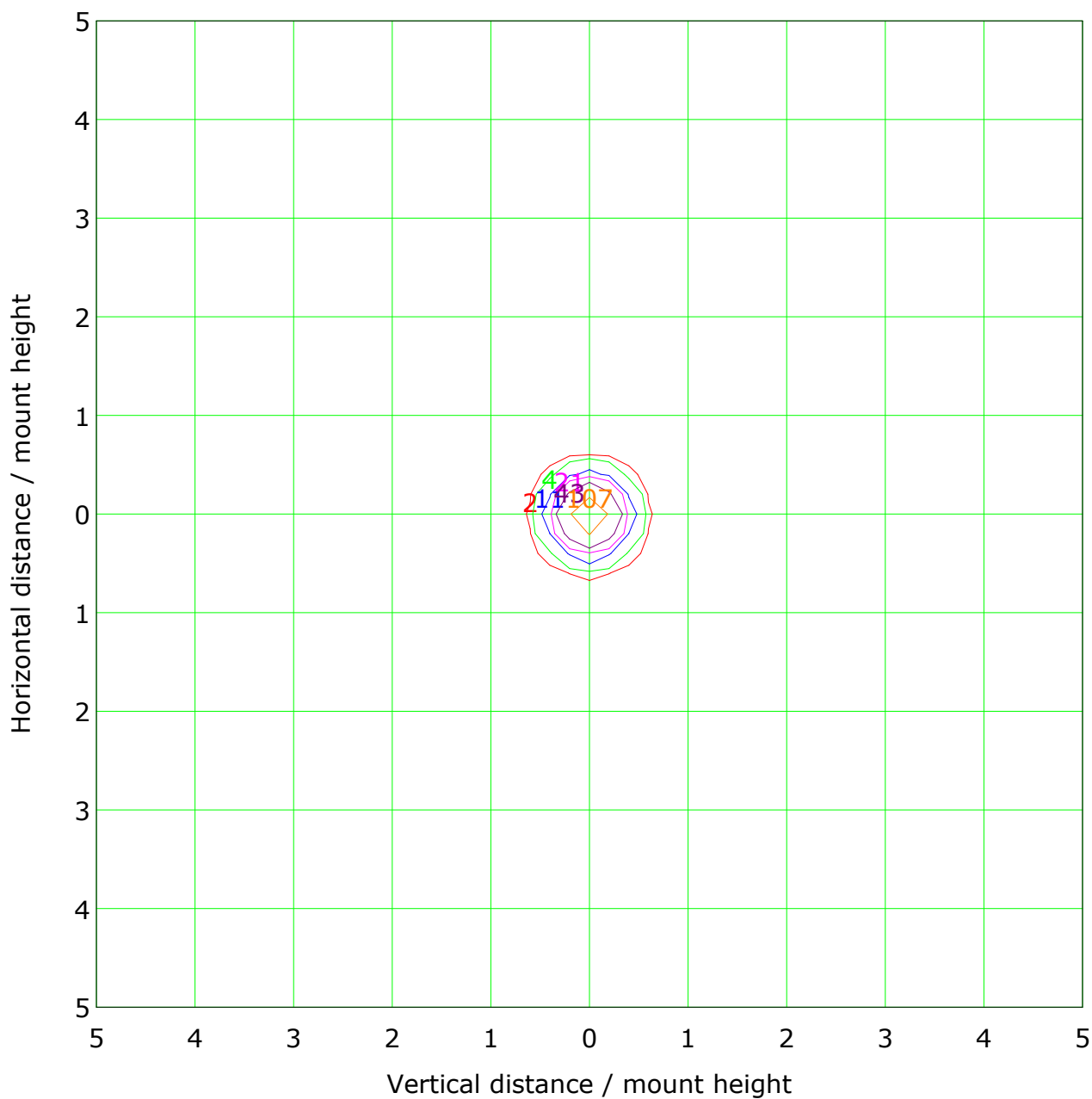
Test Device: CHL-6E

Distance: 3.010 m

Humidity:

Inspector:

IsoLux Plot



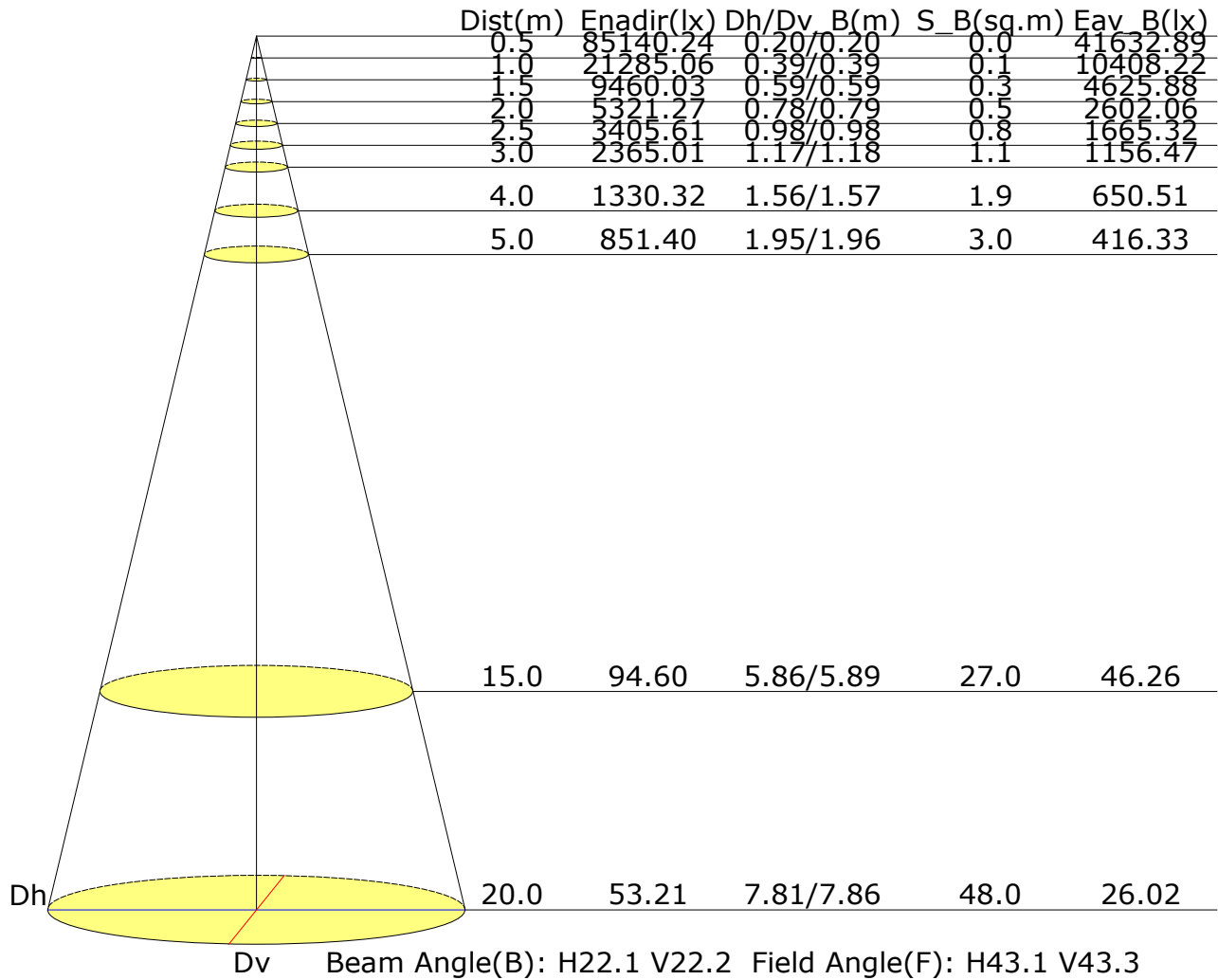
Mounting Height: 10.0m Max Lux(100%): 213.4 lx

(1%): 2.1 lx	(2%): 4.3 lx
(5%): 10.7 lx	(10%): 21.3 lx
(20%): 42.7 lx	(50%): 106.7 lx
(100%): 213.4 lx	

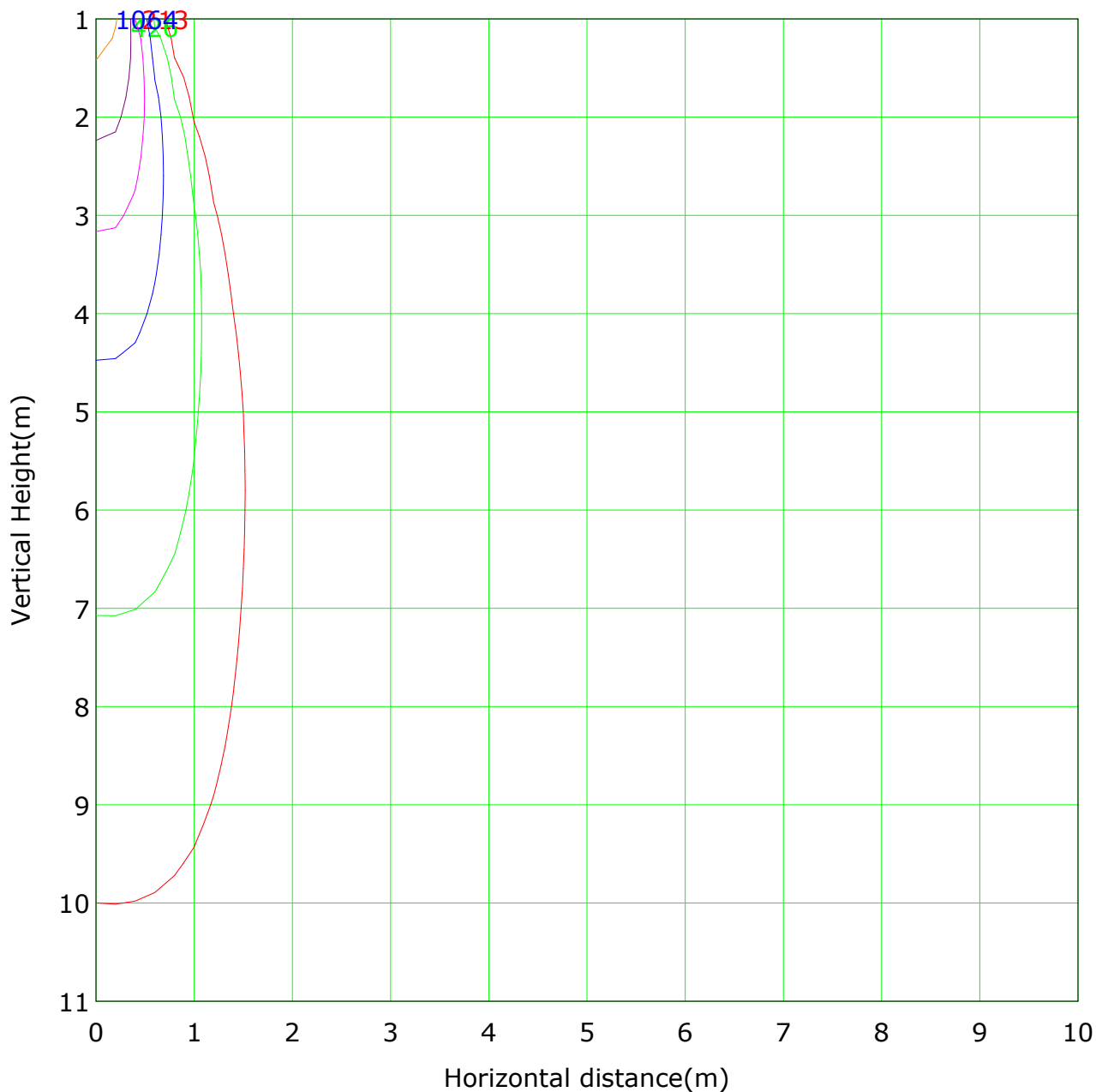
C Plane (°):0.0-180.0: 180.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-90.0:1.0
Test Device: CHL-6E
Distance: 3.010 m
Humidity:
Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



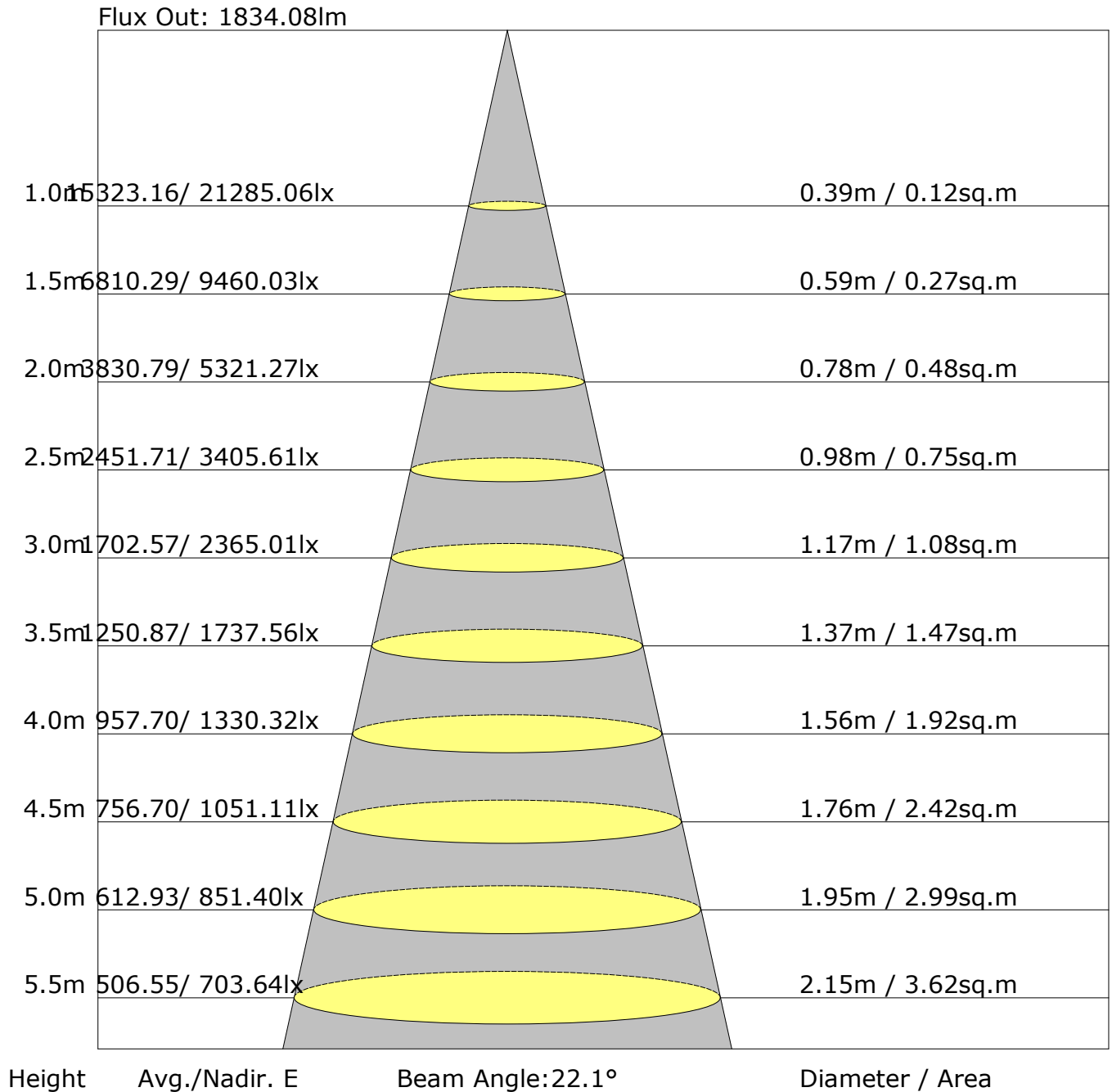
Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 21285.1 lx
— (1%): 212.9 lx — (2%): 425.7 lx
— (5%):1064.3 lx — (10%):2128.5 lx
— (20%):4257.0 lx — (50%):10642.5 lx
— (100%):21285.1 lx

C Plane (°):0.0-180.0: 180.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-90.0:1.0
Test Device: CHL-6E
Distance: 3.010 m
Humidity:
Inspector:

Gamma Plane (°):0.0-90.0:1.0
Test Device: CHL-6E
Distance: 3.010 m
Humidity:
Inspector:

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	13.2	13.8	13.4	13.9	14.1	12.6	13.2	12.8	13.4	13.5
3H	13.0	13.6	13.3	13.8	14.0	12.5	13.0	12.7	13.2	13.5
4H	13.0	13.5	13.3	13.7	14.0	12.4	12.9	12.7	13.1	13.4
6H	12.9	13.4	13.2	13.6	13.9	12.3	12.8	12.6	13.1	13.3
8H	12.9	13.3	13.2	13.6	13.9	12.3	12.7	12.6	13.0	13.3
12H	12.8	13.3	13.2	13.6	13.9	12.2	12.7	12.6	13.0	13.3
X=4H Y=2H	13.0	13.5	13.3	13.7	14.0	12.4	12.9	12.7	13.2	13.4
3H	12.8	13.3	13.2	13.6	13.9	12.3	12.7	12.6	13.0	13.3
4H	12.8	13.2	13.1	13.5	13.8	12.2	12.6	12.6	12.9	13.3
6H	12.7	13.0	13.1	13.4	13.8	12.1	12.4	12.5	12.8	13.2
8H	12.6	12.9	13.0	13.3	13.7	12.0	12.4	12.5	12.8	13.2
12H	12.6	12.9	13.0	13.3	13.7	12.0	12.3	12.4	12.7	13.1
X=8H Y=4H	12.6	12.9	13.0	13.3	13.7	12.0	12.4	12.5	12.8	13.2
6H	12.5	12.8	13.0	13.2	13.7	11.9	12.2	12.4	12.6	13.1
8H	12.5	12.7	12.9	13.1	13.6	11.9	12.1	12.4	12.6	13.0
12H	12.4	12.6	12.9	13.1	13.6	11.8	12.0	12.3	12.5	13.0
X=12H Y=4H	12.6	12.9	13.0	13.3	13.7	12.0	12.3	12.4	12.7	13.1
6H	12.5	12.7	12.9	13.1	13.6	11.9	12.1	12.4	12.6	13.0
8H	12.4	12.6	12.9	13.1	13.6	11.8	12.0	12.3	12.5	13.0
Variations with the observer position at spacings:										
S=1.0H	+4.0/-9.1					+3.9/-9.2				
S=1.5H	+6.7/-11.2					+6.6/-11.9				
S=2.0H	+8.7/-18.5					+8.6/-19.1				

Calculate in accordance with CIE Pub.117. The table is revised with 4168lm ($8\log(F/F_0) = 5.0$).

C Plane (°):0.0-180.0: 180.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-90.0:1.0
Test Device: CHL-6E
Distance: 3.010 m
Humidity:
Inspector:

FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM

	ZONE	LUMENS	% LAMP LUMENS
	FORWARD LIGHT	2211	53.1
	FL (0°-30°)	2086	50.0
	FM (30°-60°)	124	3.0
	FH (60°-80°)	2	0.1
	FVH (80°-90°)	0	0.0
	BACK LIGHT	1957	46.9
	BL (0°-30°)	1849	44.4
	BM (30°-60°)	106	2.5
	BH (60°-80°)	2	0.0
	BVH (80°-90°)	0	0.0
	UP LIGHT	0	0.0
	UL (90°-100°)	0	0.0
	UH (100°-180°)	0	0.0
	TRAPPED LIGHT	NA	NA

BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B3 U0 G0
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B3 U0 G0

C Plane (°):0.0-180.0: 180.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-90.0:1.0
Test Device: CHL-6E
Distance: 3.010 m
Humidity:
Inspector:

Zonal Lumen

Gamma [°]	I _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	21255.7	20.3	20.3	0.49	0.49
1.0-2.0	21129.4	60.7	81.0	1.46	1.94
2.0-3.0	20838.0	99.7	180.7	2.39	4.33
3.0-4.0	20338.3	136.2	316.8	3.27	7.60
4.0-5.0	19593.5	168.6	485.4	4.04	11.65
5.0-6.0	18593.1	195.4	680.8	4.69	16.33
6.0-7.0	17365.9	215.6	896.4	5.17	21.51
7.0-8.0	15966.1	228.5	1124.9	5.48	26.99
8.0-9.0	14469.3	234.5	1359.5	5.63	32.62
9.0-10.0	12961.7	234.6	1594.1	5.63	38.25
10.0-11.0	11504.5	229.9	1824.0	5.52	43.76
11.0-12.0	10145.8	221.8	2045.8	5.32	49.08
12.0-13.0	8919.3	211.7	2257.5	5.08	54.16
13.0-14.0	7819.4	200.2	2457.7	4.80	58.97
14.0-15.0	6832.3	187.6	2645.3	4.50	63.47
15.0-16.0	5942.8	174.2	2819.4	4.18	67.65
16.0-17.0	5130.9	159.8	2979.2	3.83	71.48
17.0-18.0	4391.8	144.8	3124.0	3.47	74.95
18.0-19.0	3730.3	129.8	3253.8	3.11	78.07
19.0-20.0	3140.8	115.0	3368.8	2.76	80.83
20.0-21.0	2624.1	100.8	3469.6	2.42	83.24
21.0-22.0	2179.7	87.6	3557.2	2.10	85.35
22.0-23.0	1800.9	75.6	3632.8	1.81	87.16
23.0-24.0	1483.5	64.9	3697.6	1.56	88.72
24.0-25.0	1224.2	55.7	3753.3	1.34	90.05
25.0-26.0	1012.4	47.8	3801.1	1.15	91.20
26.0-27.0	838.6	41.0	3842.1	0.98	92.18
27.0-28.0	698.8	35.4	3877.5	0.85	93.03
28.0-29.0	586.1	30.7	3908.2	0.74	93.77
29.0-30.0	495.3	26.7	3934.9	0.64	94.41
30.0-31.0	422.9	23.5	3958.5	0.56	94.97
31.0-32.0	364.8	20.9	3979.4	0.50	95.48
32.0-33.0	317.4	18.7	3998.1	0.45	95.92
33.0-34.0	277.8	16.8	4014.9	0.40	96.33
34.0-35.0	246.1	15.3	4030.2	0.37	96.70
35.0-36.0	220.1	14.0	4044.2	0.34	97.03

C Plane (°):0.0-180.0: 180.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-90.0:1.0
Test Device: CHL-6E
Distance: 3.010 m
Humidity:
Inspector:

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	196.7	12.8	4057.0	0.31	97.34
37.0-38.0	175.6	11.7	4068.8	0.28	97.62
38.0-39.0	157.6	10.8	4079.5	0.26	97.88
39.0-40.0	141.3	9.9	4089.4	0.24	98.12
40.0-41.0	126.6	9.0	4098.4	0.22	98.33
41.0-42.0	114.2	8.3	4106.7	0.20	98.53
42.0-43.0	102.1	7.6	4114.3	0.18	98.71
43.0-44.0	91.6	6.9	4121.2	0.17	98.88
44.0-45.0	82.2	6.3	4127.5	0.15	99.03
45.0-46.0	72.4	5.7	4133.1	0.14	99.17
46.0-47.0	63.7	5.1	4138.2	0.12	99.29
47.0-48.0	54.7	4.4	4142.6	0.11	99.39
48.0-49.0	47.9	3.9	4146.6	0.09	99.49
49.0-50.0	41.5	3.5	4150.0	0.08	99.57
50.0-51.0	33.2	2.8	4152.8	0.07	99.64
51.0-52.0	26.4	2.3	4155.1	0.05	99.69
52.0-53.0	21.1	1.8	4156.9	0.04	99.74
53.0-54.0	17.3	1.5	4158.5	0.04	99.77
54.0-55.0	14.3	1.3	4159.7	0.03	99.80
55.0-56.0	11.3	1.0	4160.8	0.02	99.83
56.0-57.0	9.4	0.9	4161.6	0.02	99.85
57.0-58.0	9.0	0.8	4162.5	0.02	99.87
58.0-59.0	8.3	0.8	4163.2	0.02	99.89
59.0-60.0	8.3	0.8	4164.0	0.02	99.91
60.0-61.0	7.5	0.7	4164.7	0.02	99.92
61.0-62.0	6.0	0.6	4165.3	0.01	99.94
62.0-63.0	6.0	0.6	4165.9	0.01	99.95
63.0-64.0	6.0	0.6	4166.5	0.01	99.97
64.0-65.0	4.5	0.4	4166.9	0.01	99.98
65.0-66.0	3.4	0.3	4167.3	0.01	99.98
66.0-67.0	2.6	0.3	4167.5	0.01	99.99
67.0-68.0	1.5	0.2	4167.7	0.00	99.99
68.0-69.0	1.5	0.2	4167.9	0.00	100.00
69.0-70.0	0.8	0.1	4167.9	0.00	100.00
70.0-71.0	0.0	0.0	4167.9	0.00	100.00
71.0-72.0	0.0	0.0	4167.9	0.00	100.00

C Plane (°):0.0-180.0: 180.0
Test Lab:
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Gamma Plane (°):0.0-90.0:1.0
Test Device: CHL-6E
Distance: 3.010 m
Humidity:
Inspector:

Gamma Plane (°):0.0-90.0:1.0
Test Device: CHL-6E
Distance: 3.010 m
Humidity:
Inspector:

Candlepower Table

Unit: cd

G\C	C0.0	C180.0								
G0.0	21285.1	21285.1								
G1.0	21349.9	21102.6								
G2.0	21301.6	20763.4								
G3.0	21102.6	20184.5								
G4.0	20698.6	19367.3								
G5.0	20066.9	18241.1								
G6.0	19204.5	16860.1								
G7.0	18090.3	15308.7								
G8.0	16747.0	13718.1								
G9.0	15256.0	12156.2								
G10.0	13712.1	10722.4								
G11.0	12174.3	9409.3								
G12.0	10743.5	8255.9								
G13.0	9457.5	7220.1								
G14.0	8302.7	6297.5								
G15.0	7275.9	5453.2								
G16.0	6347.2	4694.8								
G17.0	5481.8	3999.8								
G18.0	4706.9	3378.6								
G19.0	4004.3	2831.4								
G20.0	3371.1	2356.5								
G21.0	2819.3	1949.4								
G22.0	2344.4	1605.7								
G23.0	1937.3	1316.2								
G24.0	1598.1	1082.5								
G25.0	1323.7	892.5								
G26.0	1094.6	738.8								
G27.0	906.1	615.1								
G28.0	755.3	518.6								
G29.0	631.7	438.7								
G30.0	532.2	378.4								
G31.0	455.3	325.6								
G32.0	390.5	288.0								
G33.0	337.7	253.3								
G34.0	295.5	224.6								
G35.0	263.8	200.5								
G36.0	235.2	180.9								

C Plane (°):0.0-180.0: 180.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

Test Device: CHL-6E

Distance: 3.010 m

Humidity:

Inspector:

Candlepower Table (Continue 1)

Unit: cd

G\C	C0.0	C180.0								
G37.0	206.6	164.3								
G38.0	186.9	144.7								
G39.0	167.4	131.2								
G40.0	150.8	116.1								
G41.0	135.7	104.0								
G42.0	123.6	93.5								
G43.0	110.1	81.4								
G44.0	102.5	72.4								
G45.0	88.9	64.8								
G46.0	81.4	54.3								
G47.0	72.4	46.7								
G48.0	60.3	39.2								
G49.0	55.8	36.2								
G50.0	48.2	25.6								
G51.0	39.2	19.6								
G52.0	31.7	15.1								
G53.0	25.6	12.1								
G54.0	21.1	10.6								
G55.0	15.1	10.6								
G56.0	12.1	7.5								
G57.0	10.6	7.5								
G58.0	10.6	7.5								
G59.0	7.5	7.5								
G60.0	10.6	7.5								
G61.0	7.5	4.5								
G62.0	7.5	4.5								
G63.0	7.5	4.5								
G64.0	7.5	4.5								
G65.0	4.5	1.5								
G66.0	4.5	3.0								
G67.0	1.5	1.5								
G68.0	3.0	0.0								
G69.0	3.0	0.0								
G70.0	0.0	0.0								
G71.0	0.0	0.0								
G72.0	0.0	0.0								
G73.0	0.0	0.0								

C Plane (°):0.0-180.0: 180.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

Test Device: CHL-6E

Distance: 3.010 m

Humidity:

Inspector:

Unit: cd

Inspector: