

Report No.:

Test Time: 2025-08-24 18:44

Luminaire Property

Luminaire Manufacturer:

Lamp Catalog: V13C F90 930

Luminous Width (mm): -108

Current: 0.176 A

Power Factor: 0.975

Luminous Length (mm): -108

Voltage: 238.7 V

Power: 41.10 W

Photometric Results

CIE Class: Direct

Measurement Flux: 4630.4 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(50%): H41.4

Vertical Diffuse Angle(50%): V41.4

Luminaire Efficacy Rating (LER): 112.71

Max. Intensity: 8937 cd

S/MH(C0/C180): 0.68

Total Rated Lamp Lumens: 4630.4 lm

Efficiency: 100%

Upward Ratio: 0%

Central Intensity: 8936.99 cd

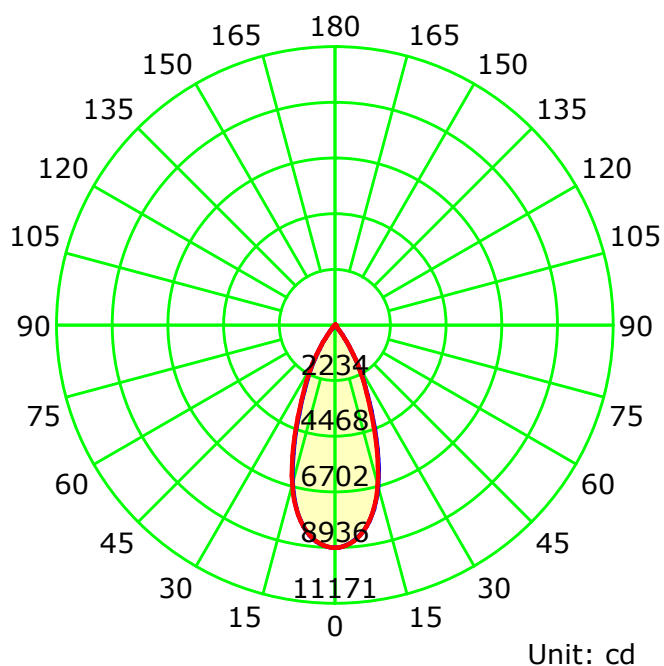
Pos of Max. Intensity: H0 V0

S/MH(C90/C270): 0.68

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

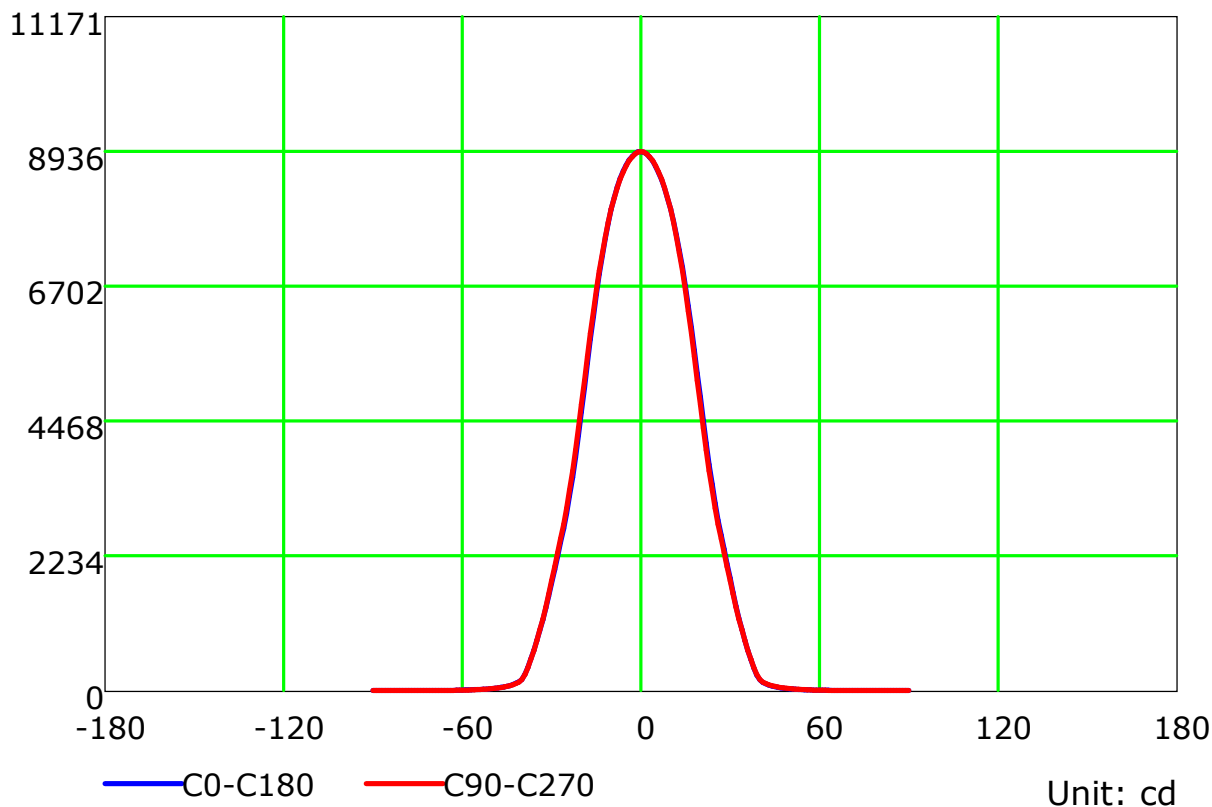
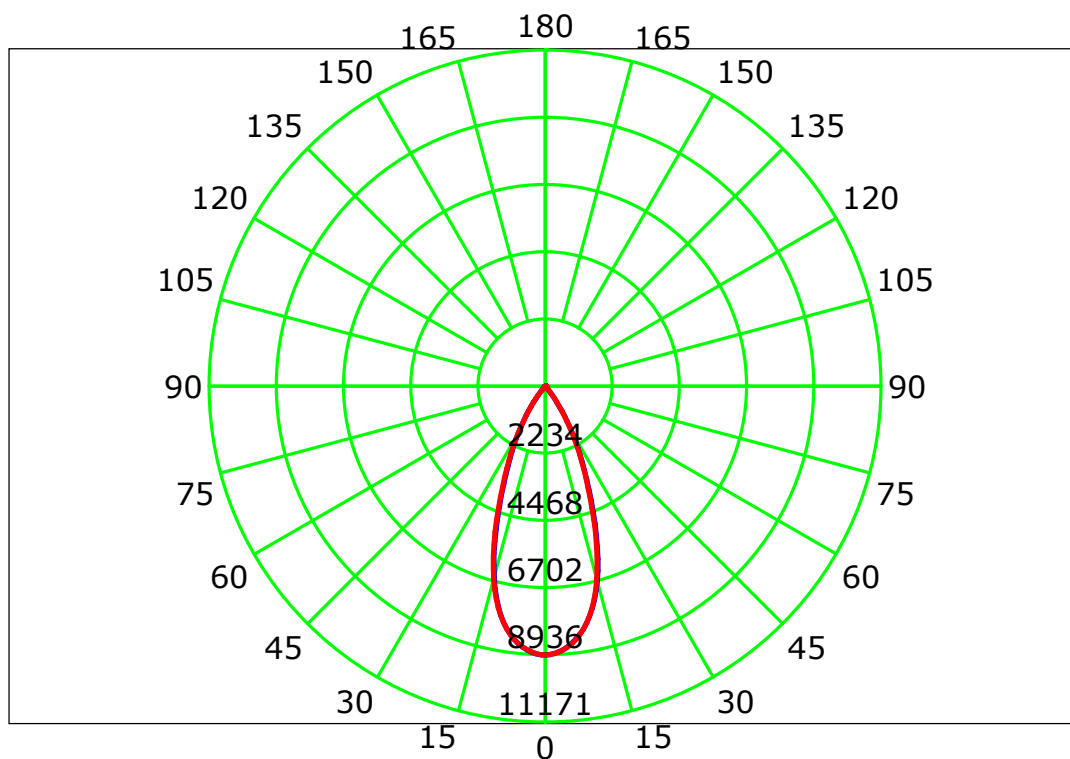
Test Device: CHL-6E

Distance: 2.905 m

Humidity:

Inspector:

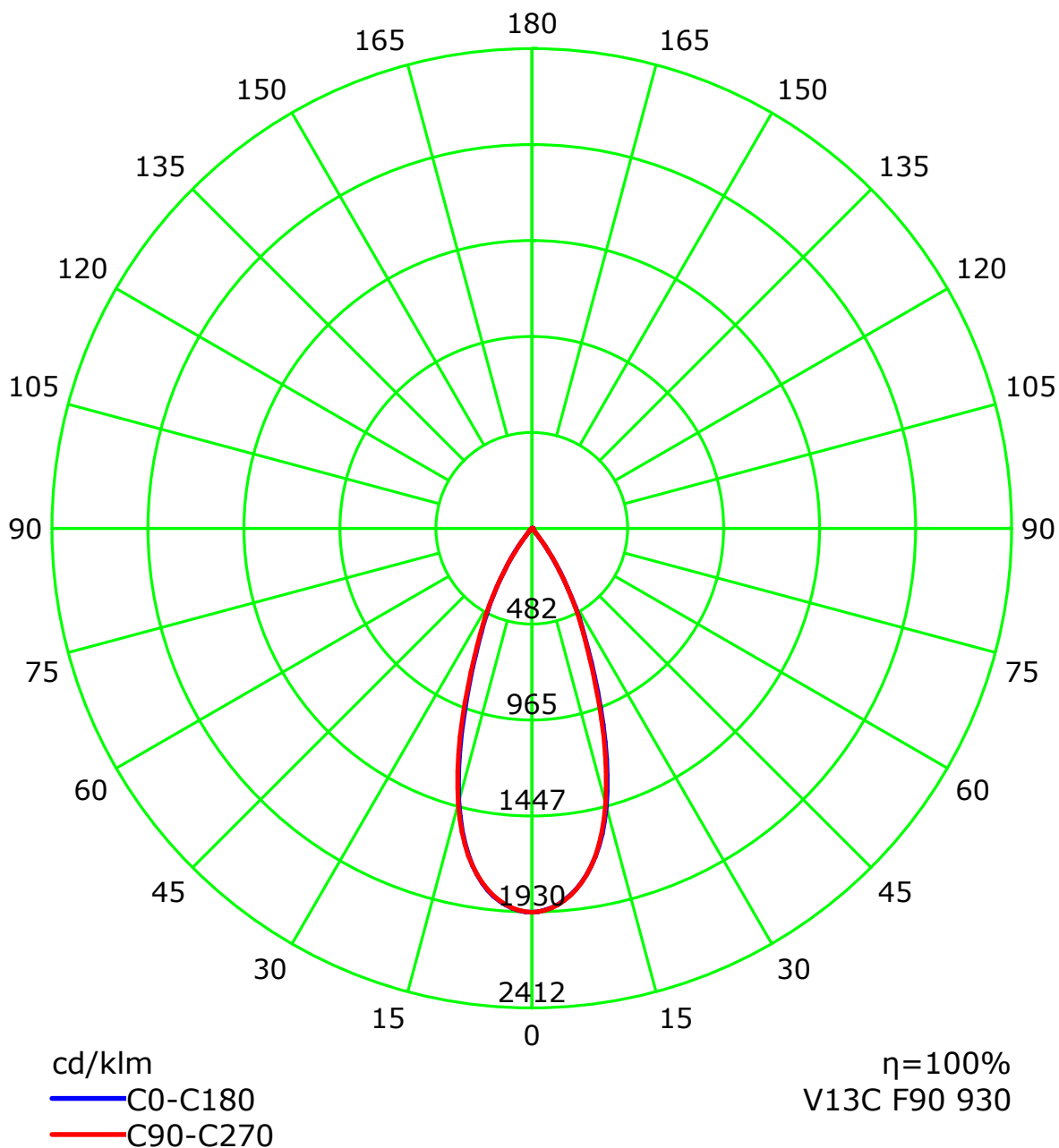
Luminous Intensity Distribution Curve



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: 2.905 m
Humidity:
Inspector:

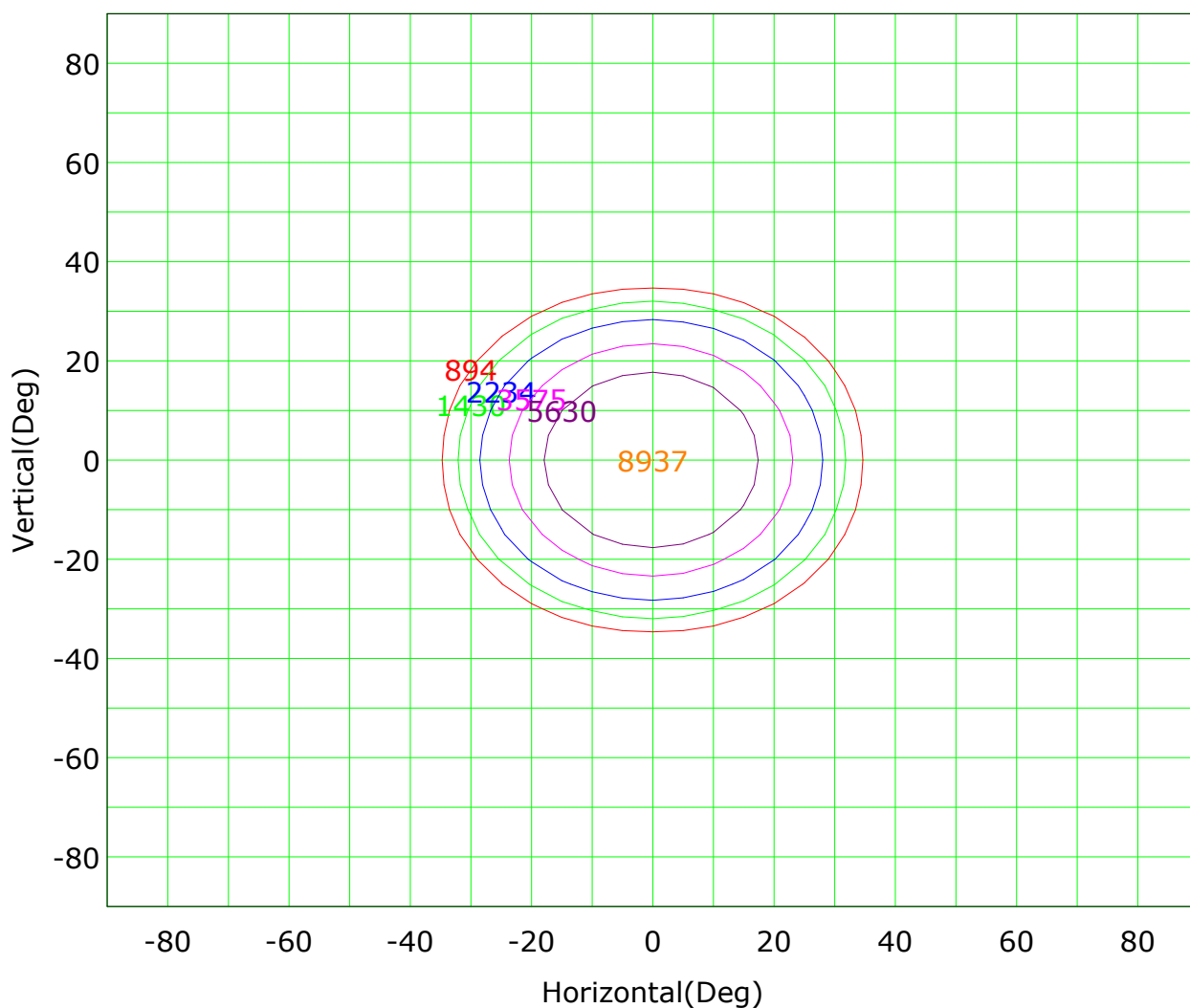
Luminous Intensity Distribution Curve(cd/klm)



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: 2.905 m
Humidity:
Inspector:

Isocandela (rectangle)



Imax (100%): 8937 cd

(10%): 894 cd	(16%): 1430 cd
(25%): 2234 cd	(40%): 3575 cd
(63%): 5630 cd	(100%): 8937 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

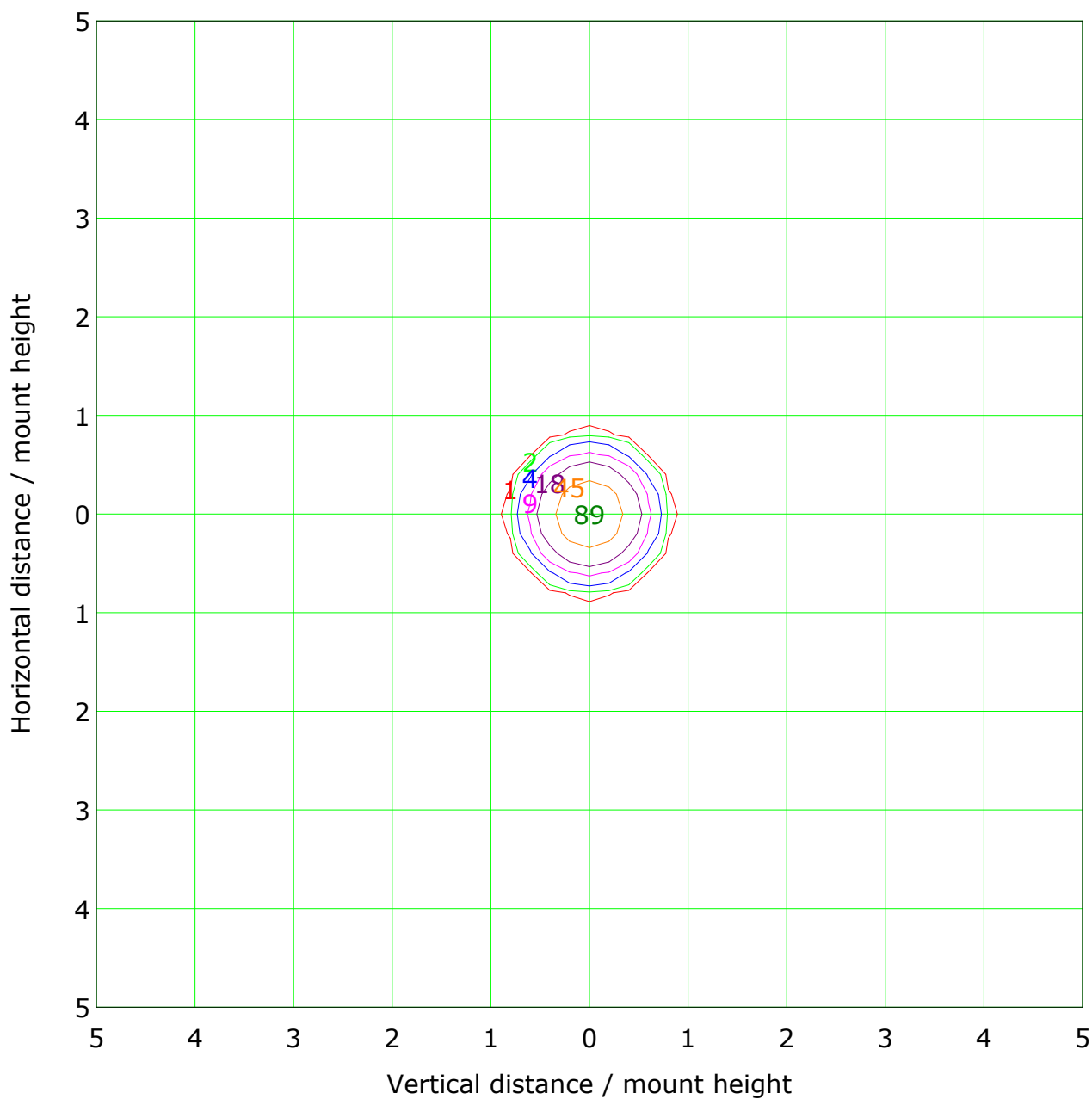
Test Device: CHL-6E

Distance: 2.905 m

Humidity:

Inspector:

IsoLux Plot



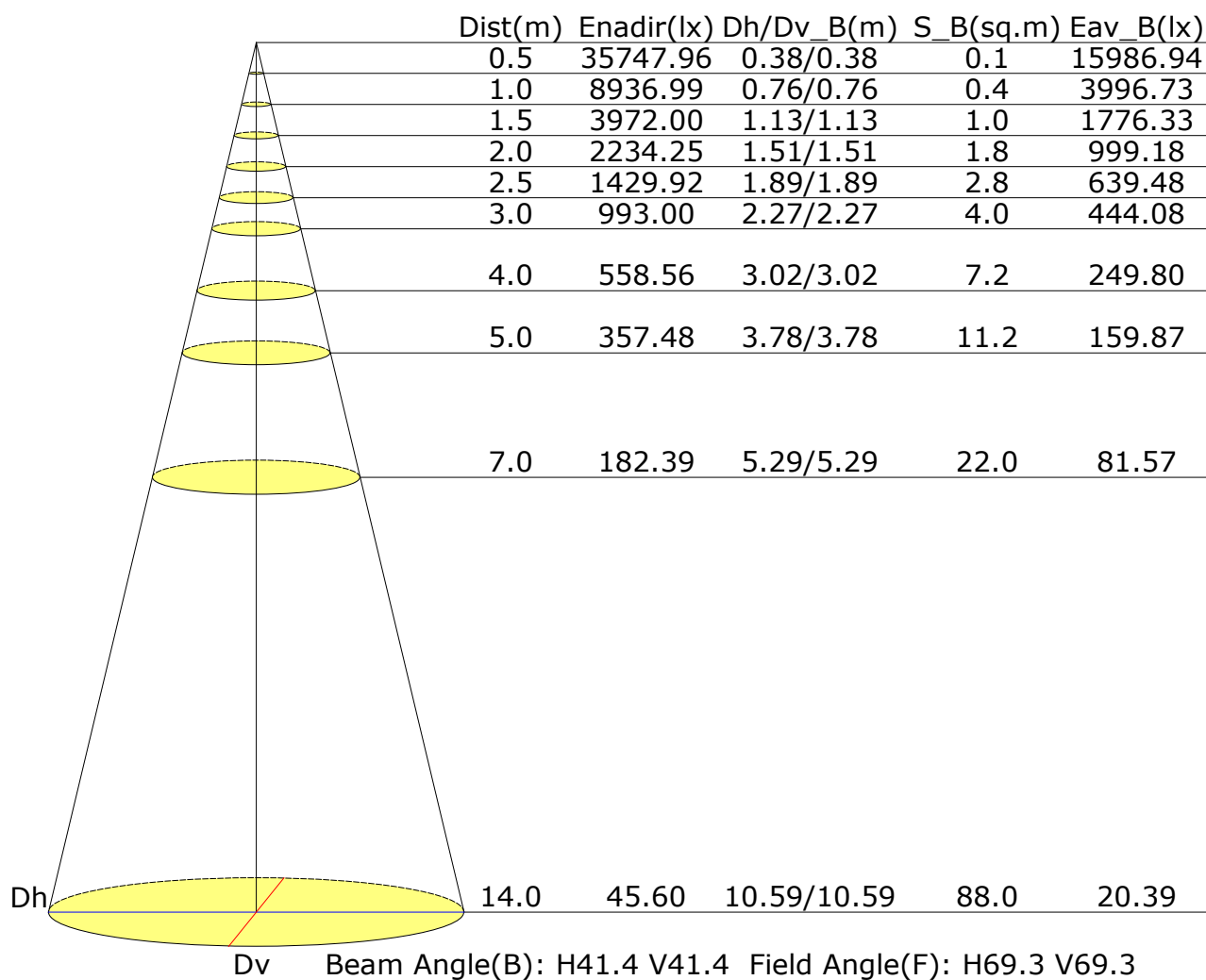
Mounting Height: 10.0m Max Lux(100%): 89.4 lx

(1%): 0.9 lx	(2%): 1.8 lx
(5%): 4.5 lx	(10%): 8.9 lx
(20%): 17.9 lx	(50%): 44.7 lx
(100%): 89.4 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: 2.905 m
Humidity:
Inspector:

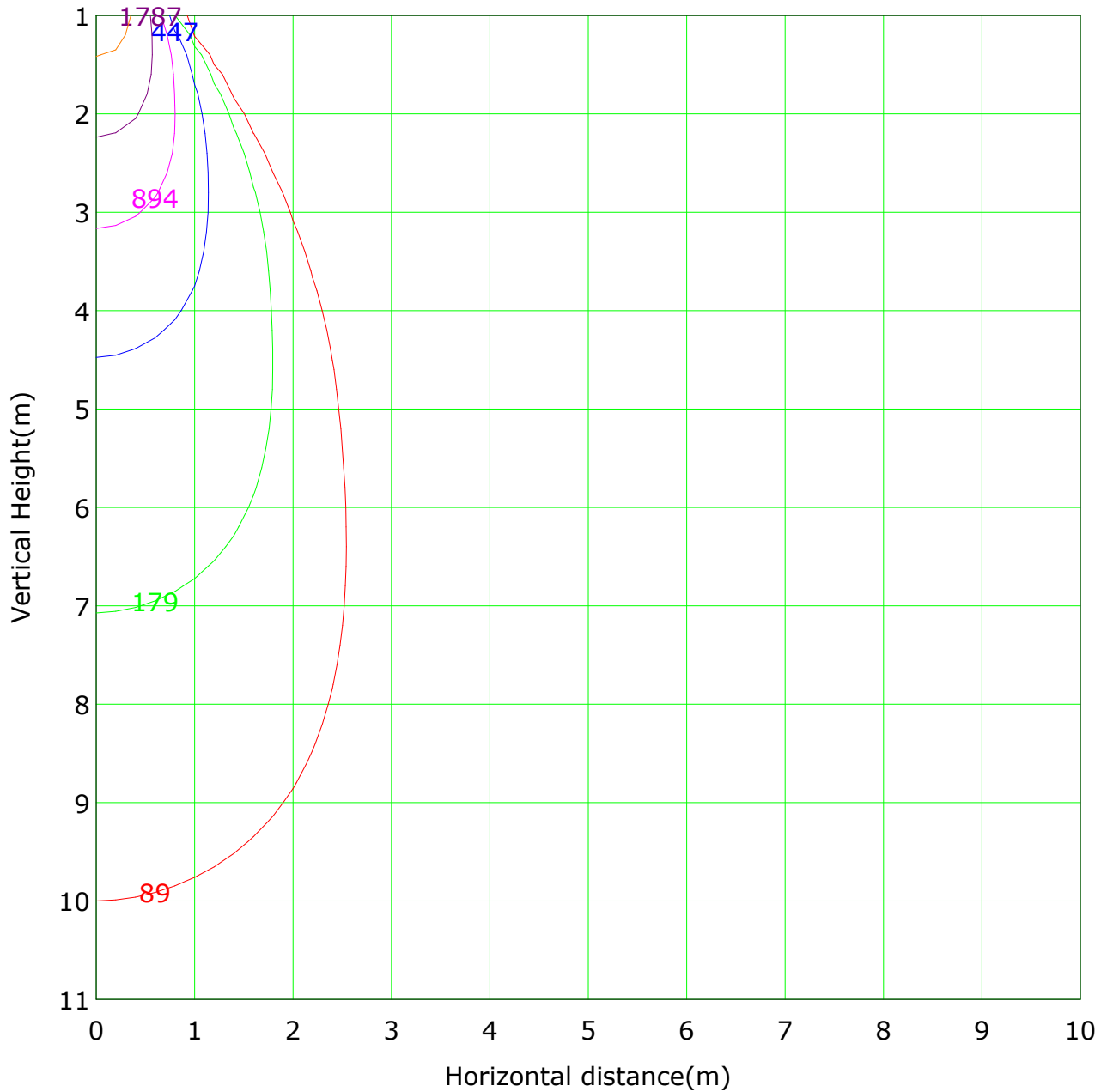
Illuminance at a Distance



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: 2.905 m
Humidity:
Inspector:

Vertical IsoLux Plot



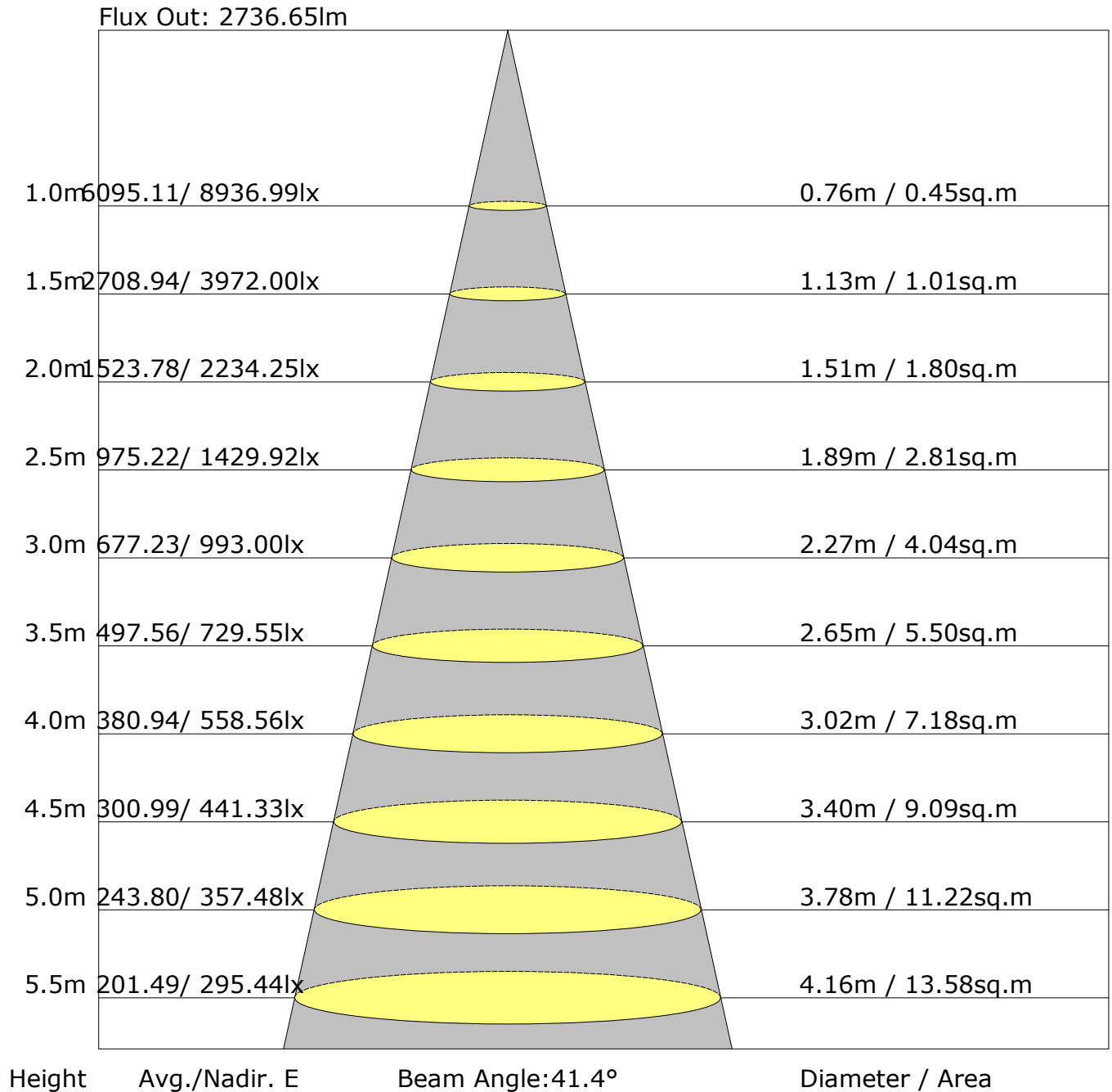
Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 8937.0 lx
— (1%): 89.4 lx — (2%): 178.7 lx
— (5%): 446.8 lx — (10%): 893.7 lx
— (20%): 1787.4 lx — (50%): 4468.5 lx
— (100%): 8937.0 lx

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: 2.905 m
Humidity:
Inspector:

Gamma Plane (°):0.0-90.0:1.0
Test Device: CHL-6E
Distance: 2.905 m
Humidity:
Inspector:

The Average Illuminance Effective Figure



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: 2.905 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	17.5	18.3	17.8	18.5	18.7	17.5	18.2	17.7	18.4	18.6
3H	17.4	18.1	17.7	18.3	18.5	17.4	18.0	17.6	18.3	18.5
4H	17.3	17.9	17.6	18.2	18.5	17.3	17.9	17.6	18.2	18.4
6H	17.2	17.8	17.6	18.1	18.4	17.2	17.8	17.5	18.1	18.4
8H	17.2	17.8	17.5	18.1	18.4	17.2	17.7	17.5	18.0	18.3
12H	17.2	17.7	17.5	18.0	18.3	17.1	17.7	17.5	18.0	18.3
X=4H Y=2H	17.3	17.9	17.6	18.2	18.5	17.3	17.9	17.6	18.2	18.4
3H	17.2	17.7	17.5	18.0	18.3	17.1	17.7	17.5	18.0	18.3
4H	17.1	17.6	17.5	17.9	18.2	17.0	17.5	17.4	17.9	18.2
6H	17.0	17.4	17.4	17.8	18.2	17.0	17.4	17.4	17.8	18.1
8H	17.0	17.3	17.4	17.7	18.1	16.9	17.3	17.3	17.7	18.1
12H	16.9	17.3	17.3	17.7	18.1	16.9	17.2	17.3	17.6	18.1
X=8H Y=4H	17.0	17.3	17.4	17.7	18.1	16.9	17.3	17.3	17.7	18.1
6H	16.9	17.2	17.3	17.6	18.0	16.8	17.1	17.3	17.6	18.0
8H	16.8	17.1	17.3	17.5	18.0	16.8	17.0	17.2	17.5	18.0
12H	16.8	17.0	17.3	17.5	18.0	16.7	17.0	17.2	17.4	17.9
X=12H Y=4H	16.9	17.3	17.3	17.7	18.1	16.9	17.2	17.3	17.6	18.1
6H	16.8	17.1	17.3	17.5	18.0	16.8	17.0	17.2	17.5	18.0
8H	16.8	17.0	17.3	17.5	18.0	16.7	17.0	17.2	17.4	17.9
Variations with the observer position at spacings:										
S=1.0H	+6.2/-15.5					+6.2/-15.1				
S=1.5H	+9.0/-20.7					+9.0/-20.6				
S=2.0H	+11.0/-55.3					+11.0/-37.7				

Calculate in accordance with CIE Pub.117. The table is revised with 4630lm ($8\log(F/F_0) = 5.3$).

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Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-90.0:1.0
Test Device: CHL-6E
Distance: 2.905 m
Humidity:
Inspector:

FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM

	ZONE	LUMENS	% LAMP LUMENS
	FORWARD LIGHT	2330	50.3
	FL (0°-30°)	2023	43.7
	FM (30°-60°)	305	6.6
	FH (60°-80°)	1	0.0
	FVH (80°-90°)	0	0.0
	BACK LIGHT	2301	49.7
	BL (0°-30°)	1994	43.1
	BM (30°-60°)	305	6.6
	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

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Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-90.0:1.0
Test Device: CHL-6E
Distance: 2.905 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	8933.1	8.5	8.5	0.18	0.18
1.0-2.0	8914.2	25.6	34.1	0.55	0.74
2.0-3.0	8875.2	42.5	76.6	0.92	1.65
3.0-4.0	8819.0	59.0	135.6	1.28	2.93
4.0-5.0	8744.2	75.2	210.9	1.62	4.55
5.0-6.0	8651.9	90.9	301.8	1.96	6.52
6.0-7.0	8540.3	106.0	407.8	2.29	8.81
7.0-8.0	8407.6	120.3	528.2	2.60	11.41
8.0-9.0	8253.1	133.8	661.9	2.89	14.30
9.0-10.0	8075.8	146.2	808.1	3.16	17.45
10.0-11.0	7874.3	157.4	965.5	3.40	20.85
11.0-12.0	7645.4	167.1	1132.6	3.61	24.46
12.0-13.0	7391.6	175.4	1308.1	3.79	28.25
13.0-14.0	7110.3	182.0	1490.1	3.93	32.18
14.0-15.0	6800.7	186.7	1676.8	4.03	36.21
15.0-16.0	6465.1	189.5	1866.3	4.09	40.30
16.0-17.0	6105.9	190.2	2056.4	4.11	44.41
17.0-18.0	5729.6	188.9	2245.4	4.08	48.49
18.0-19.0	5339.9	185.8	2431.2	4.01	52.51
19.0-20.0	4942.8	180.9	2612.1	3.91	56.41
20.0-21.0	4549.6	174.7	2786.8	3.77	60.19
21.0-22.0	4170.8	167.6	2954.5	3.62	63.81
22.0-23.0	3813.7	160.0	3114.5	3.46	67.26
23.0-24.0	3482.3	152.3	3266.8	3.29	70.55
24.0-25.0	3173.0	144.3	3411.1	3.12	73.67
25.0-26.0	2889.4	136.4	3547.5	2.95	76.61
26.0-27.0	2636.9	129.0	3676.5	2.79	79.40
27.0-28.0	2402.8	121.7	3798.2	2.63	82.03
28.0-29.0	2172.5	113.7	3911.8	2.46	84.48
29.0-30.0	1940.4	104.8	4016.6	2.26	86.75
30.0-31.0	1710.8	95.2	4111.8	2.06	88.80
31.0-32.0	1491.4	85.5	4197.3	1.85	90.65
32.0-33.0	1286.0	75.8	4273.1	1.64	92.28
33.0-34.0	1095.4	66.3	4339.4	1.43	93.72
34.0-35.0	916.7	56.9	4396.3	1.23	94.95
35.0-36.0	749.2	47.7	4444.0	1.03	95.98

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: 2.905 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	593.0	38.7	4482.7	0.84	96.81
37.0-38.0	449.4	30.0	4512.7	0.65	97.46
38.0-39.0	323.7	22.1	4534.8	0.48	97.94
39.0-40.0	223.3	15.6	4550.4	0.34	98.27
40.0-41.0	160.1	11.4	4561.8	0.25	98.52
41.0-42.0	128.5	9.3	4571.1	0.20	98.72
42.0-43.0	108.1	8.0	4579.1	0.17	98.89
43.0-44.0	90.2	6.8	4585.9	0.15	99.04
44.0-45.0	75.8	5.8	4591.7	0.13	99.17
45.0-46.0	64.9	5.1	4596.8	0.11	99.28
46.0-47.0	55.5	4.4	4601.2	0.10	99.37
47.0-48.0	47.0	3.8	4605.0	0.08	99.45
48.0-49.0	40.4	3.3	4608.4	0.07	99.53
49.0-50.0	35.1	2.9	4611.3	0.06	99.59
50.0-51.0	30.5	2.6	4613.9	0.06	99.64
51.0-52.0	26.3	2.3	4616.1	0.05	99.69
52.0-53.0	22.8	2.0	4618.1	0.04	99.74
53.0-54.0	20.7	1.8	4619.9	0.04	99.78
54.0-55.0	18.3	1.6	4621.6	0.04	99.81
55.0-56.0	16.2	1.5	4623.0	0.03	99.84
56.0-57.0	13.7	1.3	4624.3	0.03	99.87
57.0-58.0	11.2	1.0	4625.3	0.02	99.89
58.0-59.0	10.2	1.0	4626.3	0.02	99.91
59.0-60.0	8.8	0.8	4627.1	0.02	99.93
60.0-61.0	8.1	0.8	4627.9	0.02	99.95
61.0-62.0	7.4	0.7	4628.6	0.02	99.96
62.0-63.0	5.6	0.5	4629.1	0.01	99.97
63.0-64.0	3.9	0.4	4629.5	0.01	99.98
64.0-65.0	2.8	0.3	4629.8	0.01	99.99
65.0-66.0	2.8	0.3	4630.1	0.01	99.99
66.0-67.0	1.8	0.2	4630.2	0.00	100.00
67.0-68.0	0.7	0.1	4630.3	0.00	100.00
68.0-69.0	0.3	0.0	4630.4	0.00	100.00
69.0-70.0	0.0	0.0	4630.4	0.00	100.00
70.0-71.0	0.0	0.0	4630.4	0.00	100.00
71.0-72.0	0.0	0.0	4630.4	0.00	100.00

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Gamma Plane (°):0.0-90.0:1.0
Test Device: CHL-6E
Distance: 2.905 m
Humidity:
Inspector:

Candlepower Table

Unit: cd

G\C	C0.0	C180.0								
G0.0	8937.0	8937.0								
G1.0	8925.8	8932.8								
G2.0	8894.9	8903.3								
G3.0	8845.7	8856.9								
G4.0	8779.7	8793.8								
G5.0	8689.8	8713.7								
G6.0	8588.7	8615.4								
G7.0	8468.0	8489.0								
G8.0	8330.3	8343.0								
G9.0	8166.0	8173.0								
G10.0	7986.3	7977.9								
G11.0	7781.2	7751.8								
G12.0	7549.5	7499.0								
G13.0	7299.6	7218.1								
G14.0	7017.3	6906.4								
G15.0	6707.0	6572.1								
G16.0	6375.5	6205.6								
G17.0	6017.4	5825.0								
G18.0	5643.9	5431.9								
G19.0	5260.5	5023.2								
G20.0	4868.7	4618.8								
G21.0	4479.7	4231.2								
G22.0	4106.2	3866.1								
G23.0	3748.1	3534.6								
G24.0	3419.5	3227.1								
G25.0	3107.7	2937.8								
G26.0	2825.5	2686.4								
G27.0	2576.9	2458.9								
G28.0	2346.6	2228.6								
G29.0	2105.1	2009.6								
G30.0	1866.3	1780.7								
G31.0	1627.6	1568.6								
G32.0	1404.3	1365.0								
G33.0	1200.7	1174.0								
G34.0	1011.1	995.7								
G35.0	831.3	828.5								
G36.0	667.0	669.8								

C Plane (°):0.0-180.0: 180.0

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Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

Test Device: CHL-6E

Distance: 2.905 m

Humidity:

Inspector:

Candlepower Table (Continue 1)

Unit: cd

G\C	C0.0	C180.0								
G37.0	514.0	521.0								
G38.0	376.4	386.2								
G39.0	258.4	273.8								
G40.0	175.5	185.4								
G41.0	134.8	144.6								
G42.0	112.3	122.2								
G43.0	94.1	103.9								
G44.0	78.6	84.3								
G45.0	67.4	73.0								
G46.0	56.2	63.2								
G47.0	47.8	54.8								
G48.0	40.7	44.9								
G49.0	33.7	42.1								
G50.0	30.9	33.7								
G51.0	28.1	29.5								
G52.0	22.5	25.3								
G53.0	21.1	22.5								
G54.0	18.3	21.1								
G55.0	15.4	18.3								
G56.0	14.0	16.9								
G57.0	11.2	12.6								
G58.0	9.8	11.2								
G59.0	8.4	11.2								
G60.0	7.0	8.4								
G61.0	7.0	9.8								
G62.0	5.6	7.0								
G63.0	5.6	4.2								
G64.0	1.4	4.2								
G65.0	1.4	4.2								
G66.0	2.8	2.8								
G67.0	0.0	1.4								
G68.0	0.0	1.4								
G69.0	0.0	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

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Humidity:

Inspector:

