

Report No.:

Test Time: 2025-08-24 19:15

## Luminaire Property

Luminaire Manufacturer:

Lamp Catalog: V18C F90 930

Luminous Width (mm): -133

Current: 0.262 A

Power Factor: 0.961

Luminous Length (mm): -133

Voltage: 237.1 V

Power: 59.90 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 7360.3 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(50%): H66.2

Vertical Diffuse Angle(50%): V66.2

Luminaire Efficacy Rating (LER): 122.93

Max. Intensity: 7028.55 cd

S/MH(C0/C180): 1.06

Total Rated Lamp Lumens: 7360.3 lm

Efficiency: 100%

Upward Ratio: 0%

Central Intensity: 6883.89 cd

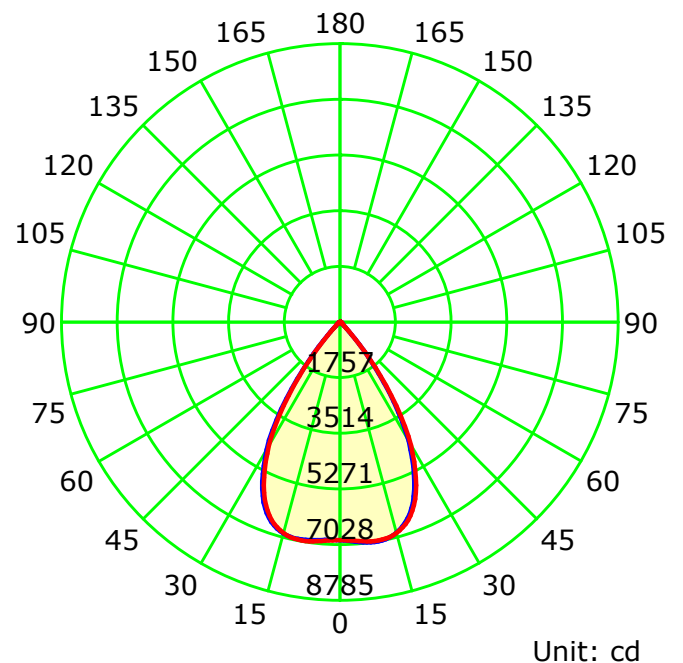
Pos of Max. Intensity: H0 V9

S/MH(C90/C270): 1.06

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

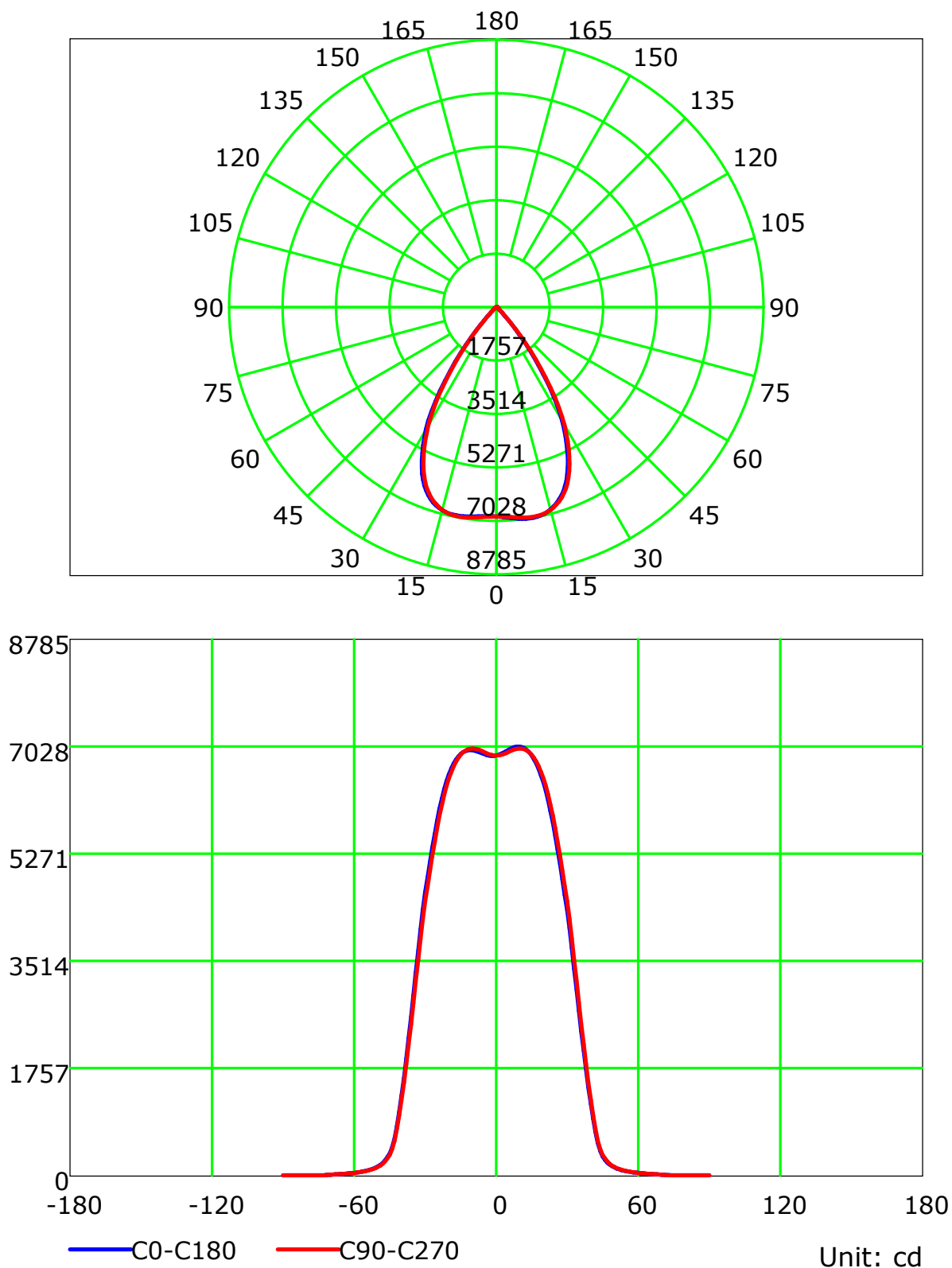
Test Device: CHL-6E

Distance: 2.905 m

Humidity:

Inspector:

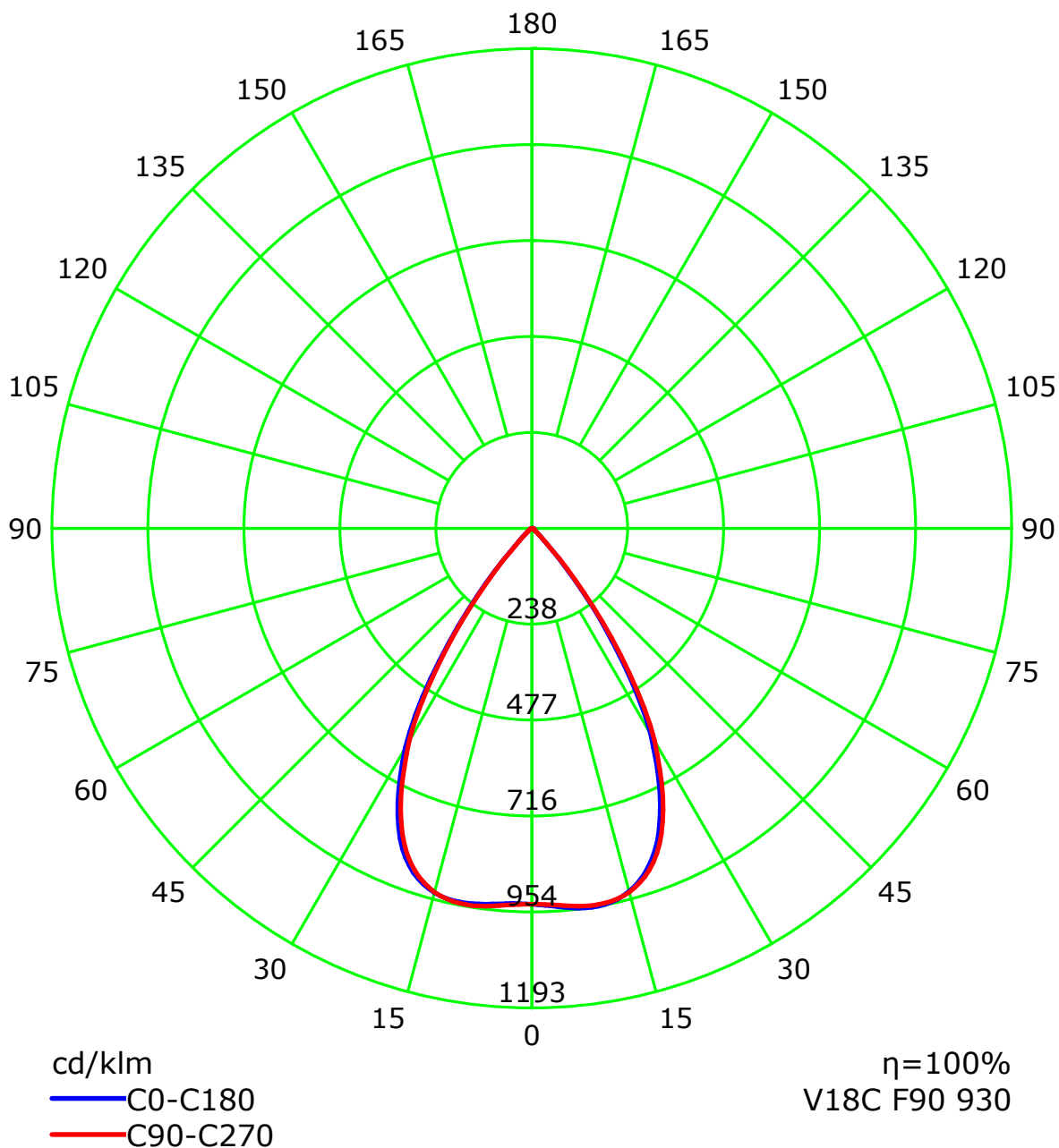
## Luminous Intensity Distribution Curve



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:

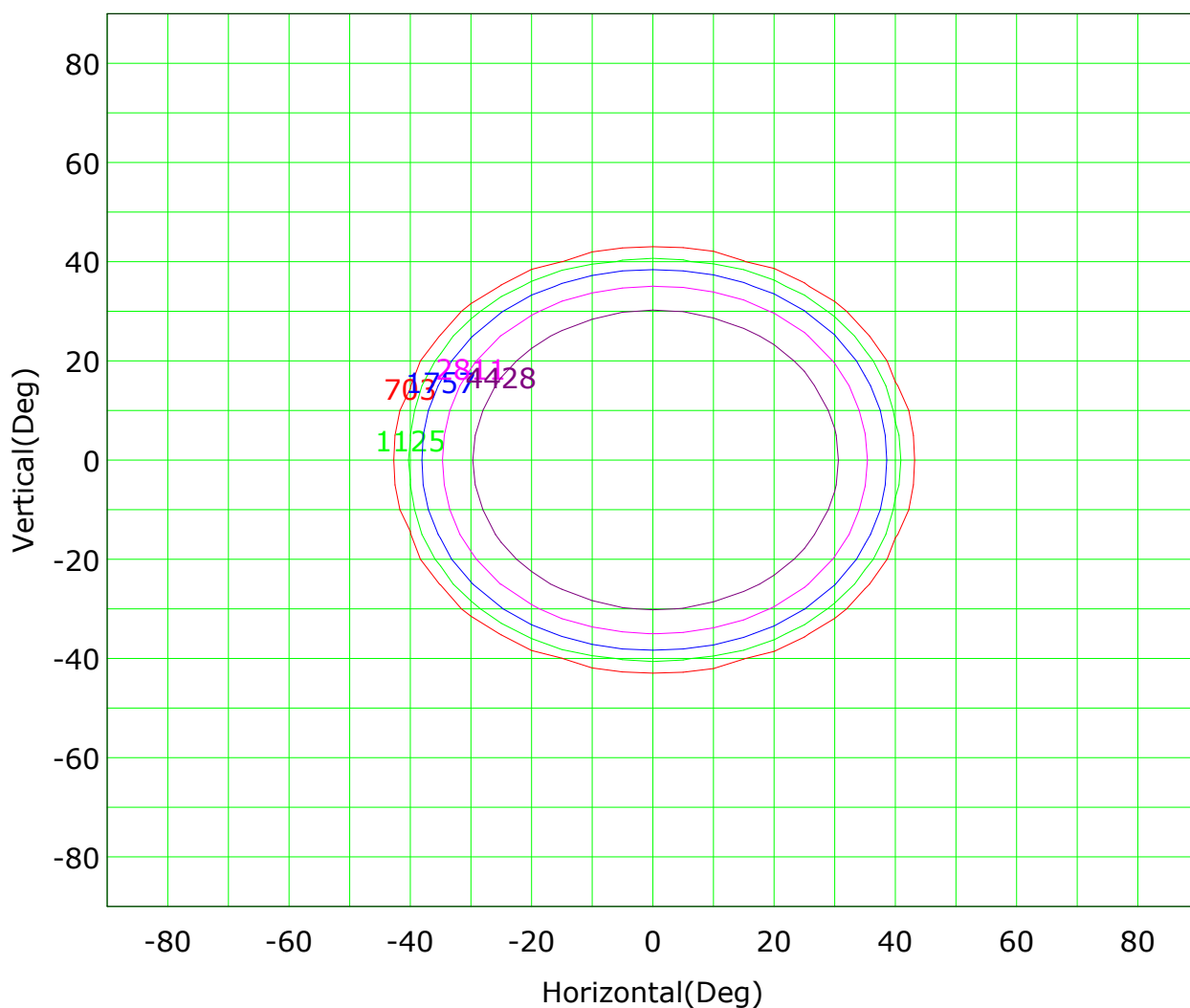
## Luminous Intensity Distribution Curve(cd/klm)



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%): 7029 cd

( 10%): 703 cd	( 16%): 1125 cd
( 25%): 1757 cd	( 40%): 2811 cd
( 63%): 4428 cd	(100%): 7029 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

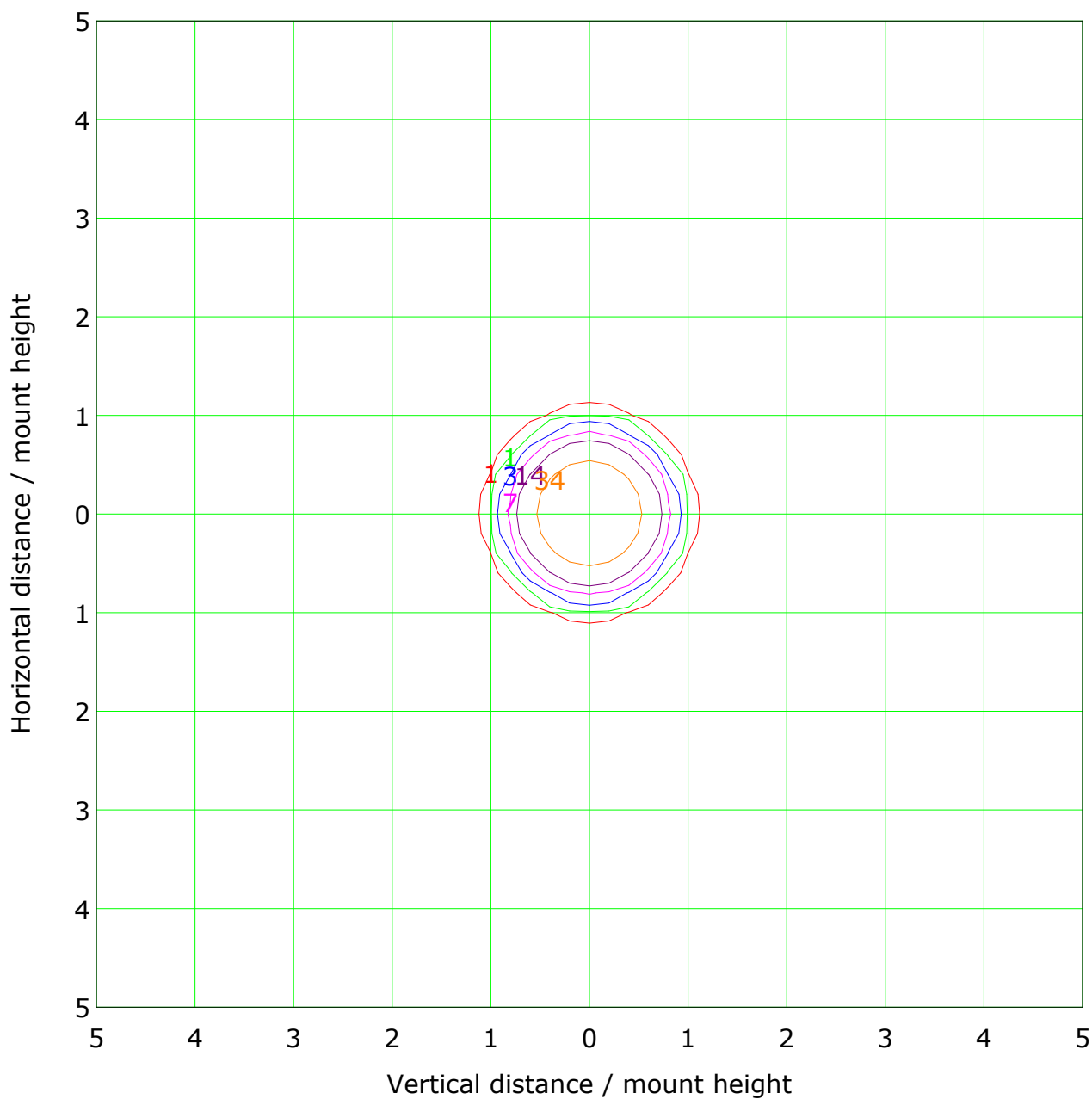
Test Device: CHL-6E

Distance: 2.905 m

Humidity:

Inspector:

## IsoLux Plot



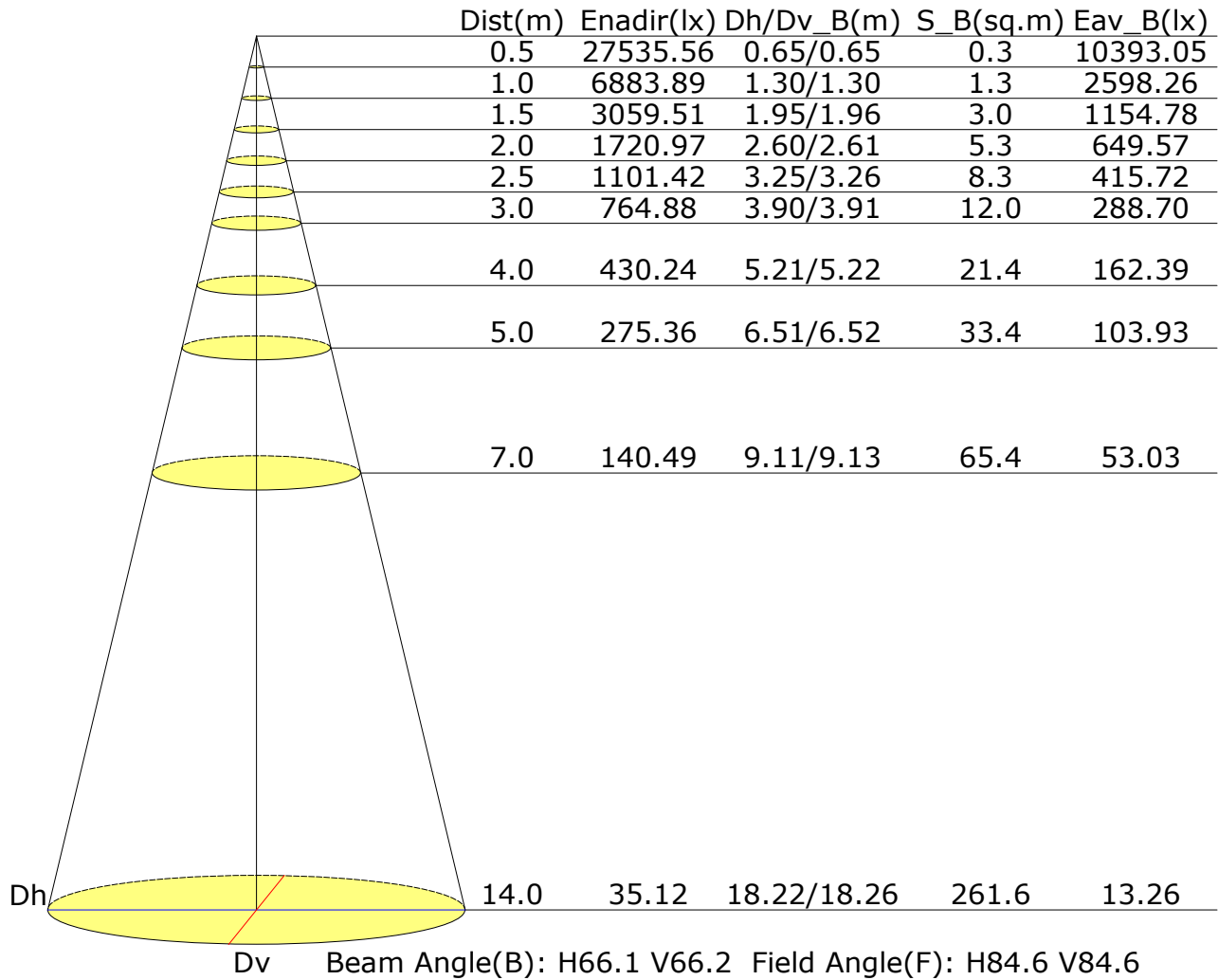
Mounting Height: 10.0m    Max Lux(100%): 69.0 lx

( 1%): 0.7 lx	( 2%): 1.4 lx
( 5%): 3.4 lx	( 10%): 6.9 lx
( 20%): 13.8 lx	( 50%): 34.5 lx
(100%): 69.0 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:

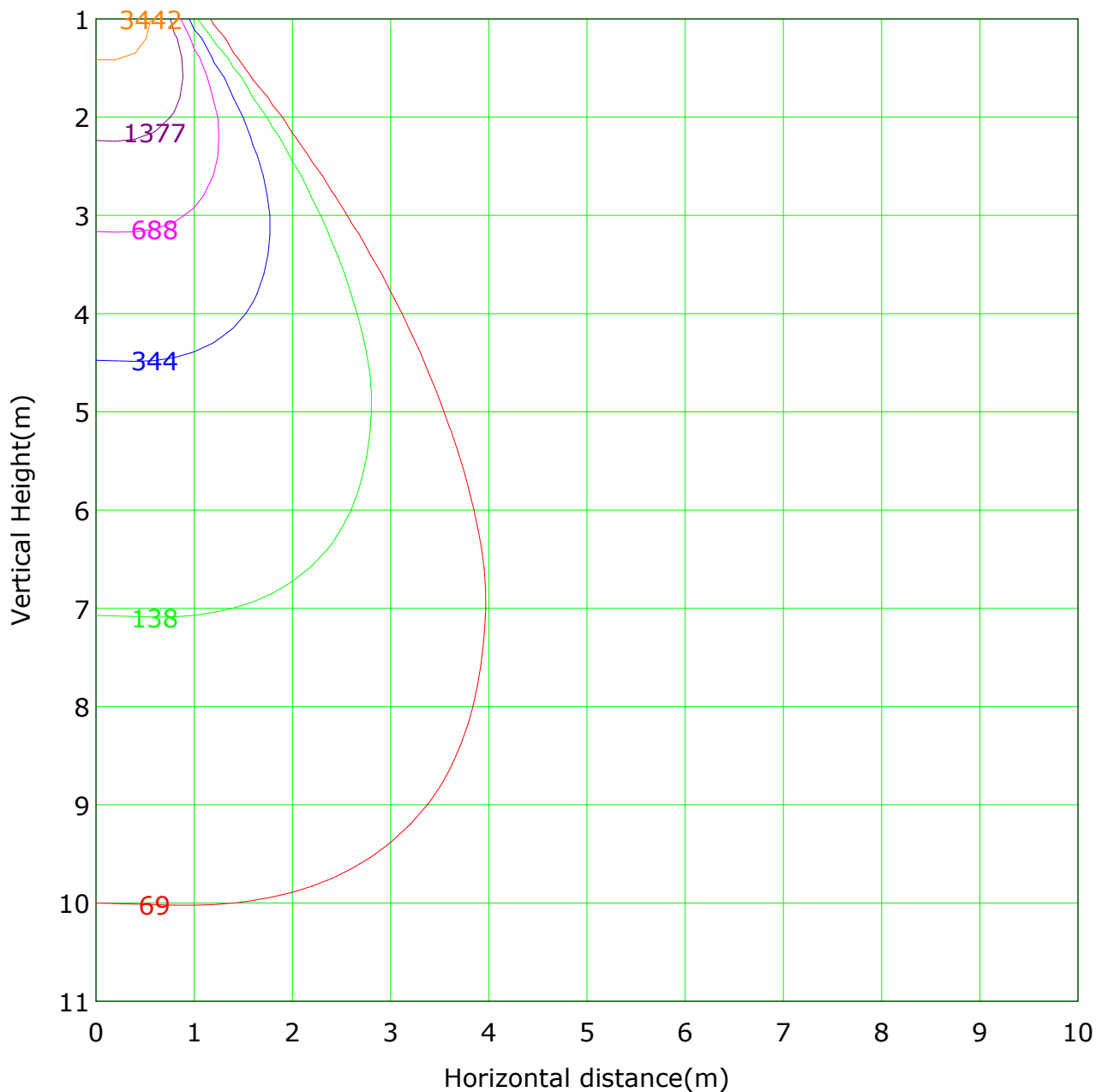
## Illuminance at a Distance



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: 6883.9 lx  
— ( 1%): 68.8 lx   — ( 2%): 137.7 lx  
— ( 5%): 344.2 lx   — ( 10%): 688.4 lx  
— ( 20%): 1376.8 lx   — ( 50%): 3441.9 lx  
— (100%): 6883.9 lx

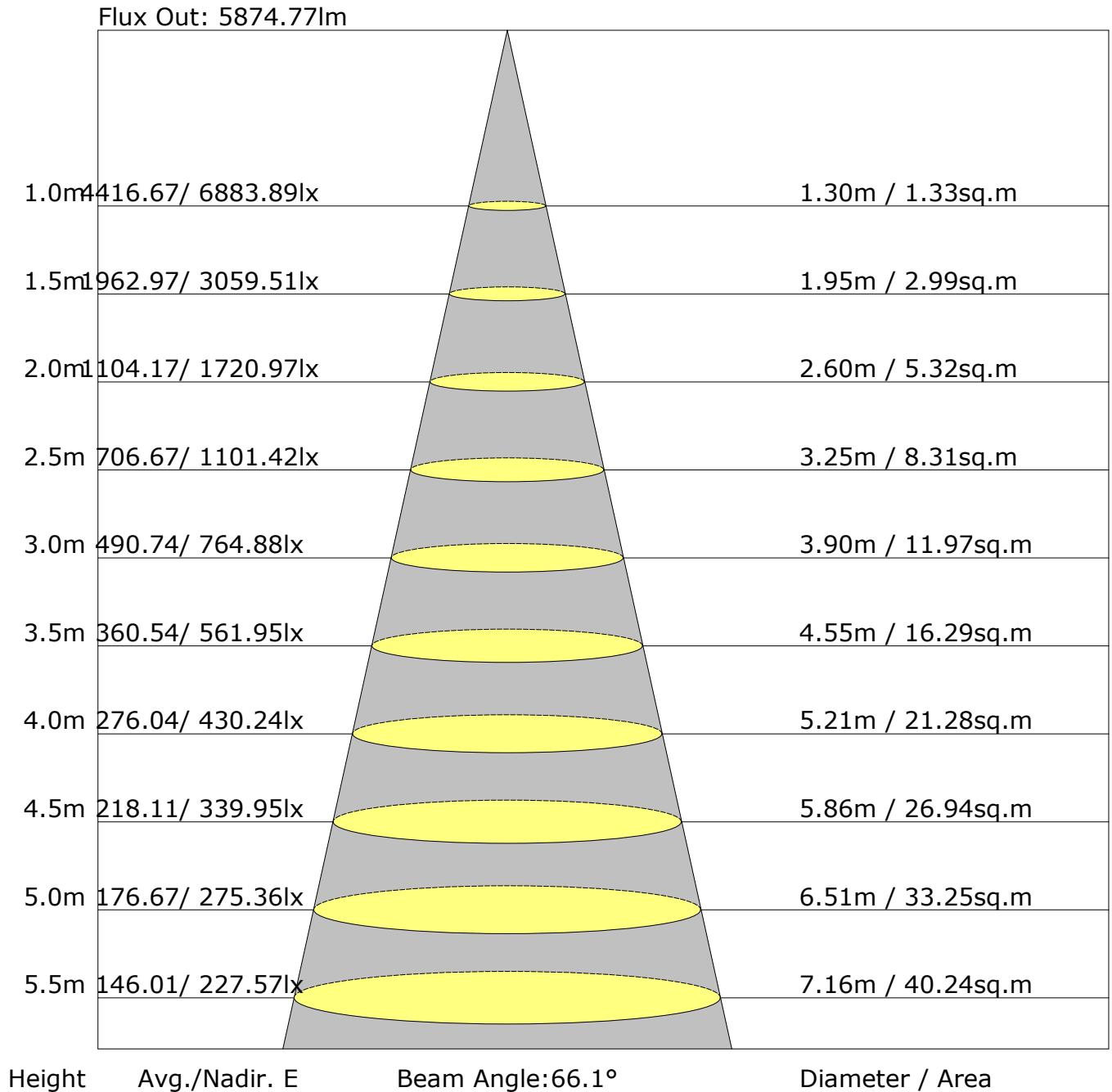
C Plane (°): 0.0-180.0: 180.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

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



## 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	22.5	23.3	22.7	23.5	23.7	22.6	23.5	22.9	23.7	23.9
3H	22.3	23.1	22.6	23.3	23.6	22.5	23.3	22.8	23.5	23.8
4H	22.2	23.0	22.6	23.2	23.5	22.4	23.2	22.7	23.4	23.7
6H	22.2	22.8	22.5	23.1	23.4	22.4	23.0	22.7	23.3	23.6
8H	22.1	22.8	22.5	23.1	23.4	22.3	23.0	22.7	23.3	23.6
12H	22.1	22.7	22.4	23.0	23.3	22.3	22.9	22.6	23.2	23.5
X=4H Y=2H	22.2	23.0	22.6	23.2	23.5	22.4	23.2	22.7	23.4	23.7
3H	22.1	22.7	22.5	23.0	23.4	22.3	22.9	22.6	23.2	23.5
4H	22.0	22.6	22.4	22.9	23.3	22.2	22.8	22.6	23.1	23.5
6H	21.9	22.4	22.4	22.8	23.2	22.1	22.6	22.5	23.0	23.4
8H	21.9	22.3	22.3	22.7	23.1	22.1	22.5	22.5	22.9	23.3
12H	21.9	22.3	22.3	22.7	23.1	22.0	22.4	22.5	22.9	23.3
X=8H Y=4H	21.9	22.3	22.3	22.7	23.1	22.1	22.5	22.5	22.9	23.3
6H	21.8	22.2	22.3	22.6	23.1	22.0	22.4	22.5	22.8	23.2
8H	21.8	22.1	22.2	22.5	23.0	22.0	22.3	22.4	22.7	23.2
12H	21.7	22.0	22.2	22.5	23.0	21.9	22.2	22.4	22.6	23.1
X=12H Y=4H	21.9	22.3	22.3	22.7	23.1	22.0	22.4	22.5	22.9	23.3
6H	21.8	22.1	22.2	22.5	23.0	22.0	22.3	22.4	22.7	23.2
8H	21.7	22.0	22.2	22.5	23.0	21.9	22.2	22.4	22.6	23.1
Variations with the observer position at spacings:										
S=1.0H	+5.2/-12.5					+5.2/-12.5				
S=1.5H	+8.0/-14.8					+8.0/-15.0				
S=2.0H	+10.0/-17.1					+10.0/-17.3				

Calculate in accordance with CIE Pub.117. The table is revised with 7360lm ( $8\log(F/F_0) = 6.9$ ).

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: 2.905 m  
Humidity:  
Inspector:

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

	ZONE	LUMENS	% LAMP LUMENS
	FORWARD LIGHT	3640	49.5
	FL ( 0°-30°)	2571	34.9
	FM (30°-60°)	1056	14.3
	FH (60°-80°)	13	0.2
	FVH (80°-90°)	0	0.0
	BACK LIGHT	3720	50.5
	BL ( 0°-30°)	2600	35.3
	BM (30°-60°)	1106	15.0
	BH (60°-80°)	13	0.2
	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)	B4 U0 G0
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B4 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: 2.905 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	6884.9	6.6	6.6	0.09	0.09
1.0-2.0	6888.8	19.8	26.4	0.27	0.36
2.0-3.0	6896.9	33.0	59.4	0.45	0.81
3.0-4.0	6910.6	46.3	105.6	0.63	1.43
4.0-5.0	6927.8	59.6	165.2	0.81	2.24
5.0-6.0	6945.3	73.0	238.2	0.99	3.24
6.0-7.0	6962.9	86.4	324.7	1.17	4.41
7.0-8.0	6978.7	99.9	424.5	1.36	5.77
8.0-9.0	6989.9	113.3	537.8	1.54	7.31
9.0-10.0	6996.2	126.6	664.5	1.72	9.03
10.0-11.0	6996.2	139.8	804.3	1.90	10.93
11.0-12.0	6989.9	152.8	957.1	2.08	13.00
12.0-13.0	6975.5	165.6	1122.7	2.25	15.25
13.0-14.0	6950.6	177.9	1300.6	2.42	17.67
14.0-15.0	6916.2	189.9	1490.5	2.58	20.25
15.0-16.0	6870.9	201.4	1691.9	2.74	22.99
16.0-17.0	6812.3	212.2	1904.0	2.88	25.87
17.0-18.0	6742.1	222.3	2126.4	3.02	28.89
18.0-19.0	6658.9	231.7	2358.1	3.15	32.04
19.0-20.0	6559.5	240.1	2598.2	3.26	35.30
20.0-21.0	6444.0	247.5	2845.6	3.36	38.66
21.0-22.0	6310.9	253.6	3099.3	3.45	42.11
22.0-23.0	6157.5	258.4	3357.7	3.51	45.62
23.0-24.0	5983.7	261.7	3619.3	3.55	49.17
24.0-25.0	5790.6	263.3	3882.7	3.58	52.75
25.0-26.0	5579.3	263.4	4146.1	3.58	56.33
26.0-27.0	5354.3	262.0	4408.1	3.56	59.89
27.0-28.0	5116.2	259.1	4667.1	3.52	63.41
28.0-29.0	4869.8	254.8	4921.9	3.46	66.87
29.0-30.0	4619.8	249.5	5171.4	3.39	70.26
30.0-31.0	4350.5	242.1	5413.5	3.29	73.55
31.0-32.0	4045.4	231.8	5645.3	3.15	76.70
32.0-33.0	3709.5	218.6	5863.9	2.97	79.67
33.0-34.0	3360.1	203.4	6067.3	2.76	82.43
34.0-35.0	3006.6	186.7	6254.0	2.54	84.97
35.0-36.0	2655.5	169.1	6423.1	2.30	87.27

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 <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	2315.0	151.0	6574.1	2.05	89.32
37.0-38.0	1986.7	132.6	6706.8	1.80	91.12
38.0-39.0	1673.6	114.2	6821.0	1.55	92.67
39.0-40.0	1379.7	96.2	6917.3	1.31	93.98
40.0-41.0	1111.5	79.2	6996.4	1.08	95.06
41.0-42.0	872.8	63.4	7059.8	0.86	95.92
42.0-43.0	664.9	49.3	7109.1	0.67	96.59
43.0-44.0	498.2	37.6	7146.7	0.51	97.10
44.0-45.0	381.3	29.3	7176.0	0.40	97.50
45.0-46.0	307.5	24.1	7200.1	0.33	97.82
46.0-47.0	252.8	20.1	7220.2	0.27	98.10
47.0-48.0	207.1	16.7	7236.9	0.23	98.32
48.0-49.0	175.2	14.4	7251.3	0.20	98.52
49.0-50.0	151.0	12.6	7263.9	0.17	98.69
50.0-51.0	130.2	11.0	7274.9	0.15	98.84
51.0-52.0	113.0	9.7	7284.6	0.13	98.97
52.0-53.0	99.0	8.6	7293.2	0.12	99.09
53.0-54.0	87.1	7.7	7300.9	0.10	99.19
54.0-55.0	77.6	6.9	7307.8	0.09	99.29
55.0-56.0	69.5	6.3	7314.1	0.09	99.37
56.0-57.0	62.1	5.7	7319.8	0.08	99.45
57.0-58.0	54.4	5.0	7324.8	0.07	99.52
58.0-59.0	49.2	4.6	7329.4	0.06	99.58
59.0-60.0	44.6	4.2	7333.6	0.06	99.64
60.0-61.0	39.3	3.8	7337.4	0.05	99.69
61.0-62.0	35.5	3.4	7340.8	0.05	99.73
62.0-63.0	31.6	3.1	7343.9	0.04	99.78
63.0-64.0	28.4	2.8	7346.7	0.04	99.81
64.0-65.0	25.6	2.5	7349.2	0.03	99.85
65.0-66.0	22.5	2.2	7351.4	0.03	99.88
66.0-67.0	19.7	2.0	7353.4	0.03	99.91
67.0-68.0	17.6	1.8	7355.2	0.02	99.93
68.0-69.0	14.7	1.5	7356.7	0.02	99.95
69.0-70.0	11.9	1.2	7357.9	0.02	99.97
70.0-71.0	10.2	1.1	7359.0	0.01	99.98
71.0-72.0	7.4	0.8	7359.8	0.01	99.99

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

## Candlepower Table

Unit: cd

G\C	C0.0	C180.0								
G0.0	6883.9	6883.9								
G1.0	6893.7	6878.3								
G2.0	6907.8	6875.5								
G3.0	6924.6	6879.7								
G4.0	6948.5	6889.5								
G5.0	6969.6	6903.6								
G6.0	6992.0	6916.2								
G7.0	7008.9	6934.5								
G8.0	7022.9	6948.5								
G9.0	7028.5	6959.7								
G10.0	7027.1	6969.6								
G11.0	7017.3	6971.0								
G12.0	7001.9	6969.6								
G13.0	6973.8	6956.9								
G14.0	6934.5	6937.3								
G15.0	6885.3	6907.8								
G16.0	6823.5	6867.0								
G17.0	6746.3	6812.3								
G18.0	6659.2	6750.5								
G19.0	6555.3	6670.4								
G20.0	6438.7	6573.5								
G21.0	6302.5	6461.2								
G22.0	6148.0	6332.0								
G23.0	5969.7	6180.3								
G24.0	5777.3	6007.6								
G25.0	5565.3	5812.4								
G26.0	5339.2	5600.4								
G27.0	5101.8	5375.7								
G28.0	4850.5	5136.9								
G29.0	4597.7	4894.0								
G30.0	4346.3	4641.2								
G31.0	4057.0	4357.5								
G32.0	3731.2	4036.0								
G33.0	3387.2	3683.5								
G34.0	3044.5	3325.4								
G35.0	2697.7	2958.9								
G36.0	2362.0	2603.6								

C Plane (°):0.0-180.0: 180.0  
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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	2041.9	2252.5								
G38.0	1734.3	1918.3								
G39.0	1440.8	1600.9								
G40.0	1171.2	1306.0								
G41.0	926.8	1042.0								
G42.0	713.4	808.9								
G43.0	530.8	606.7								
G44.0	397.4	457.8								
G45.0	310.4	359.5								
G46.0	258.4	301.9								
G47.0	206.4	244.4								
G48.0	175.5	202.2								
G49.0	151.7	171.3								
G50.0	132.0	148.9								
G51.0	112.3	127.8								
G52.0	101.1	110.9								
G53.0	87.1	96.9								
G54.0	78.6	85.7								
G55.0	70.2	75.8								
G56.0	64.6	67.4								
G57.0	56.2	60.4								
G58.0	49.2	52.0								
G59.0	46.3	49.2								
G60.0	42.1	40.7								
G61.0	36.5	37.9								
G62.0	33.7	33.7								
G63.0	29.5	29.5								
G64.0	26.7	28.1								
G65.0	25.3	22.5								
G66.0	21.1	21.1								
G67.0	18.3	18.3								
G68.0	16.9	16.9								
G69.0	12.6	12.6								
G70.0	11.2	11.2								
G71.0	9.8	8.4								
G72.0	4.2	7.0								
G73.0	4.2	1.4								

C Plane (°):0.0-180.0: 180.0  
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Gamma Plane (°):0.0-90.0:1.0  
Test Device: CHL-6E  
Distance: 2.905 m  
Humidity:  
Inspector:



Unit: cd

[illegible]

Inspector: