

Report No.:

Test Time: 2025-09-30 10:55

## Luminaire Property

Luminaire Manufacturer:

Luminaire Description: 24D

Luminous Width (mm): -90

Current: 0.121 A

Power Factor: 0.964

Luminous Length (mm): -90

Voltage: 226.1 V

Power: 26.50 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 3021.5 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(50%): H32

Vertical Diffuse Angle(50%): V32

Luminaire Efficacy Rating (LER): 114.07

Max. Intensity: 9880.68 cd

S/MH(C0/C180): 0.54

Total Rated Lamp Lumens: 3021.5 lm

Efficiency: 100%

Upward Ratio: 0%

Central Intensity: 9858.21 cd

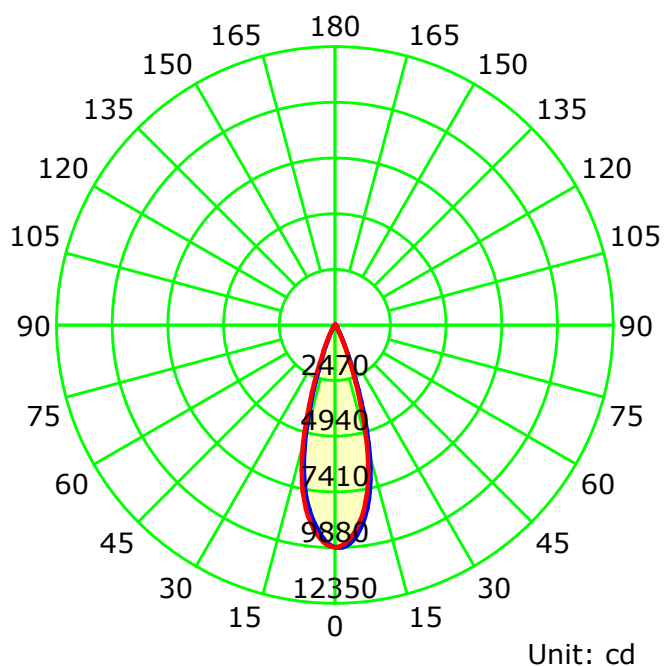
Pos of Max. Intensity: H0 V1

S/MH(C90/C270): 0.54

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

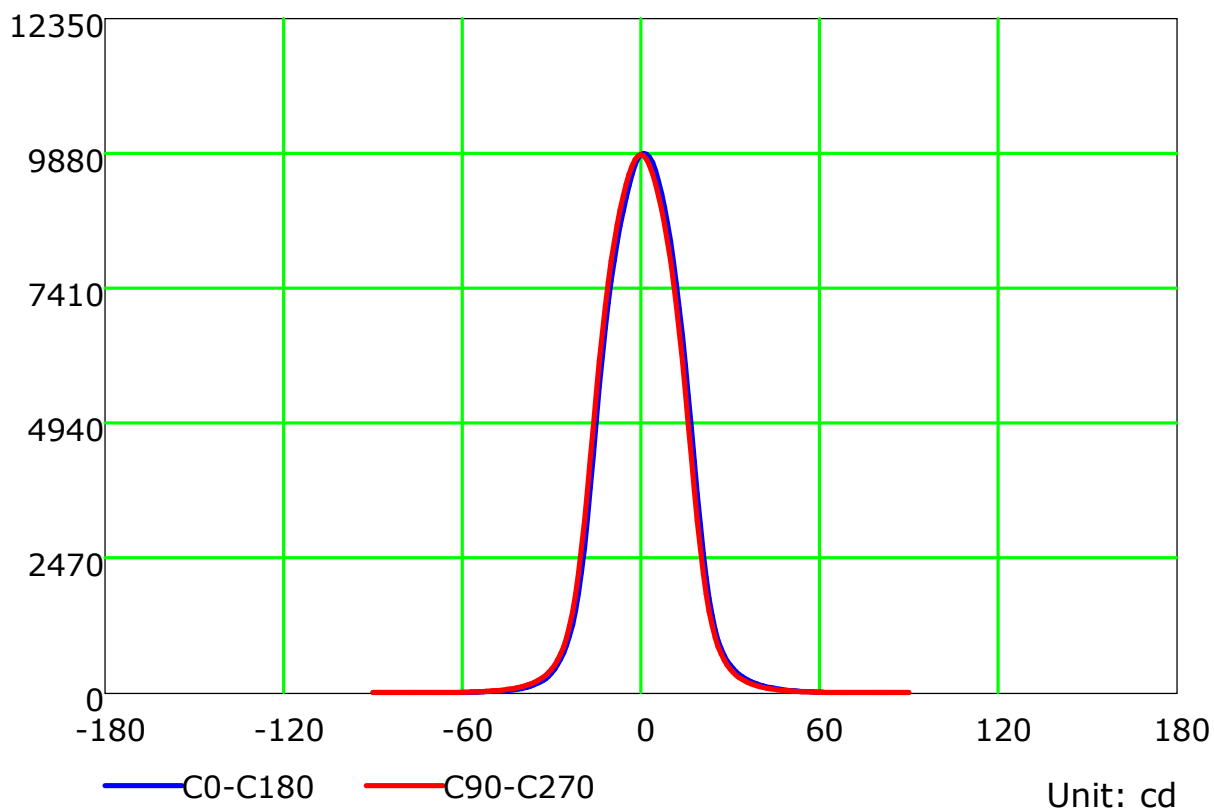
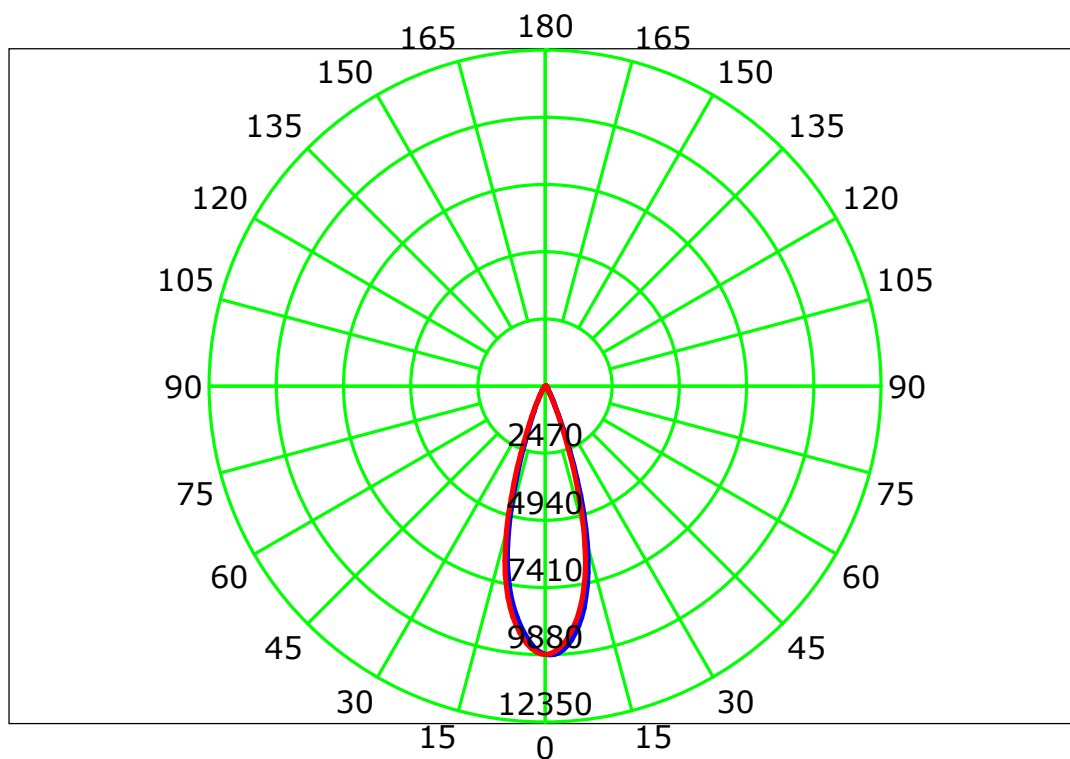
Test Device: CHL-6E

Distance: 2.905 m

Humidity:

Inspector:

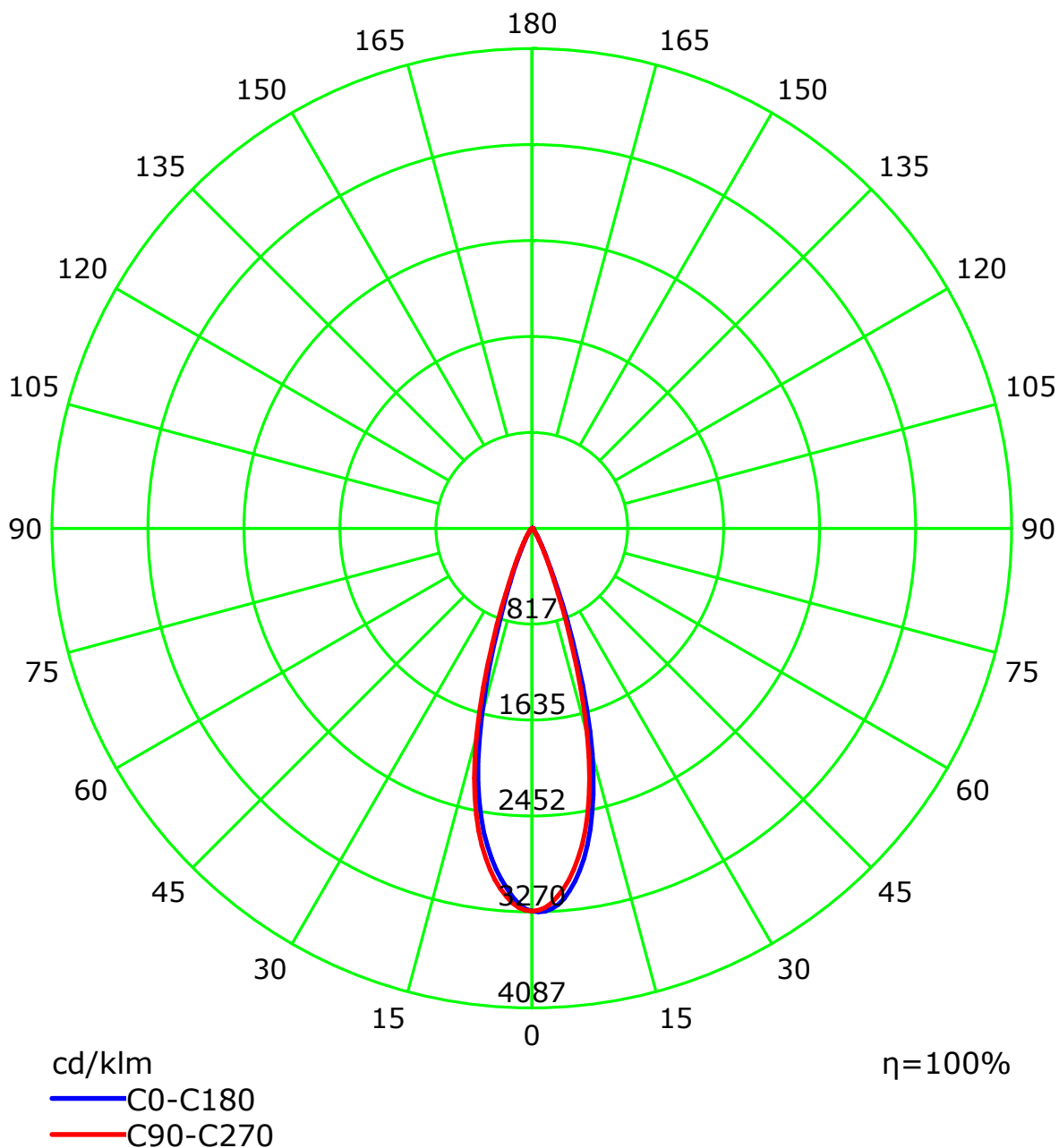
## Luminous Intensity Distribution Curve



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:

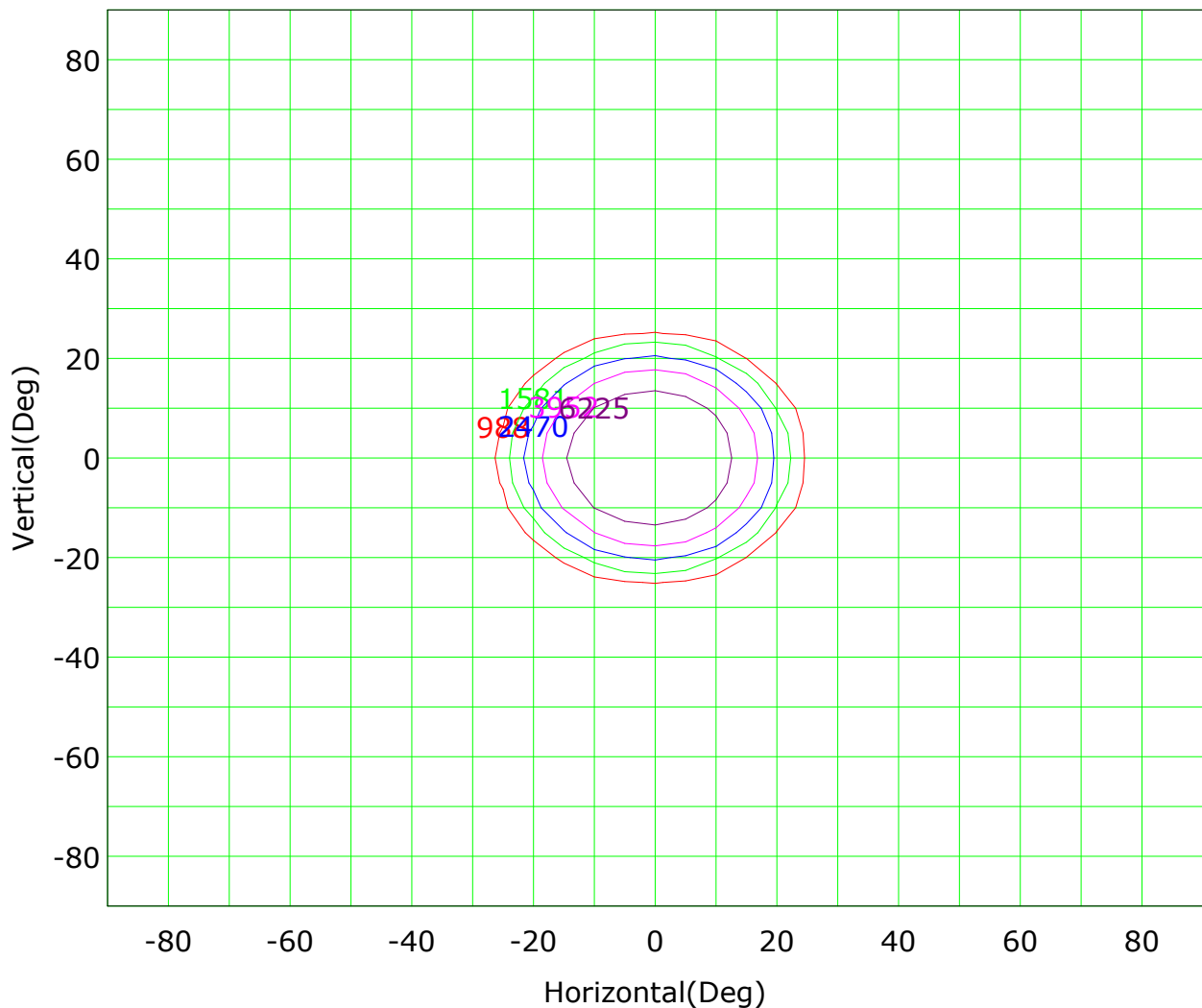
## Luminous Intensity Distribution Curve(cd/klm)



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%): 9881 cd

( 10%): 988 cd	( 16%): 1581 cd
( 25%): 2470 cd	( 40%): 3952 cd
( 63%): 6225 cd	(100%): 9881 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

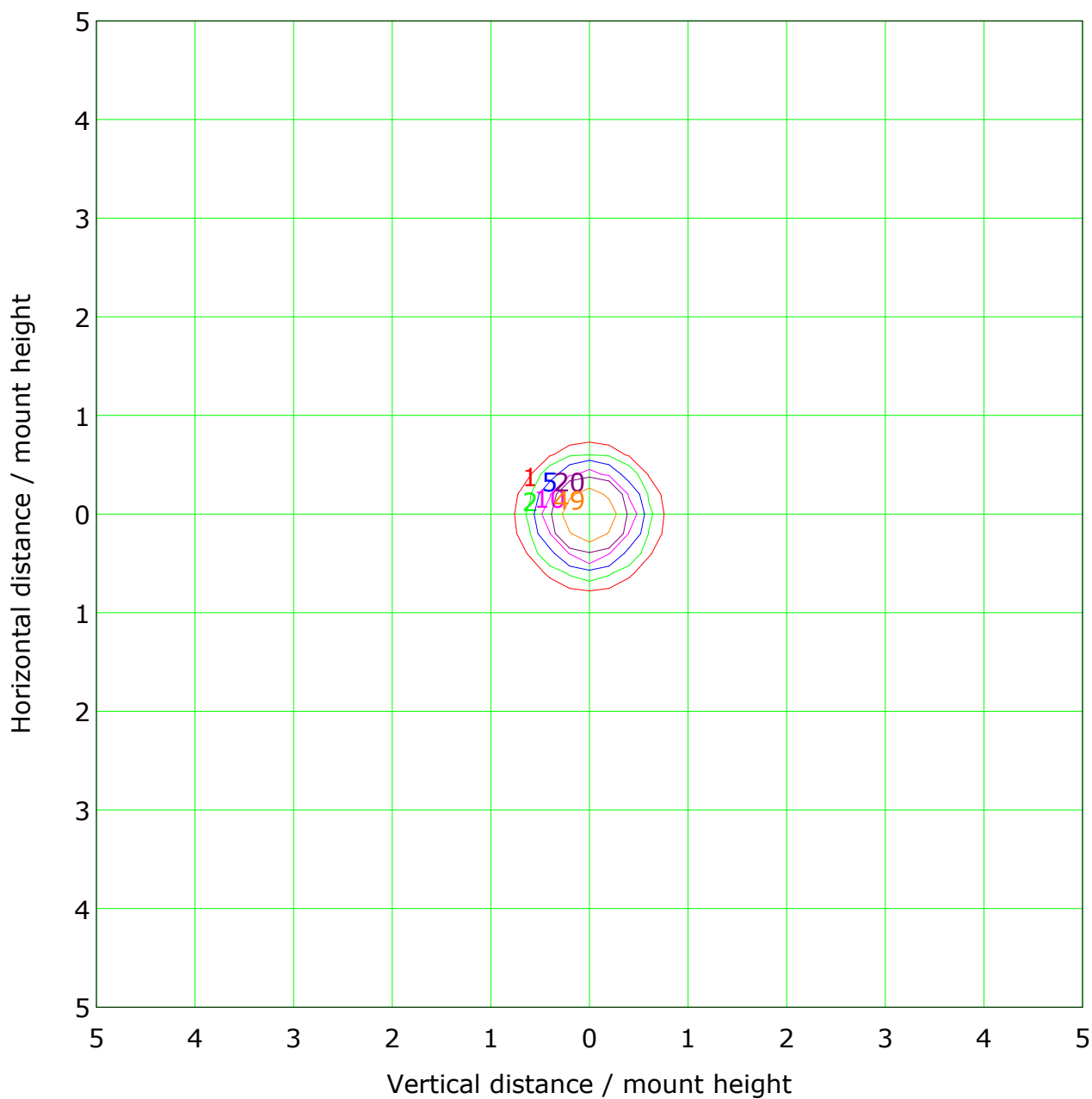
Test Device: CHL-6E

Distance: 2.905 m

Humidity:

Inspector:

## IsoLux Plot



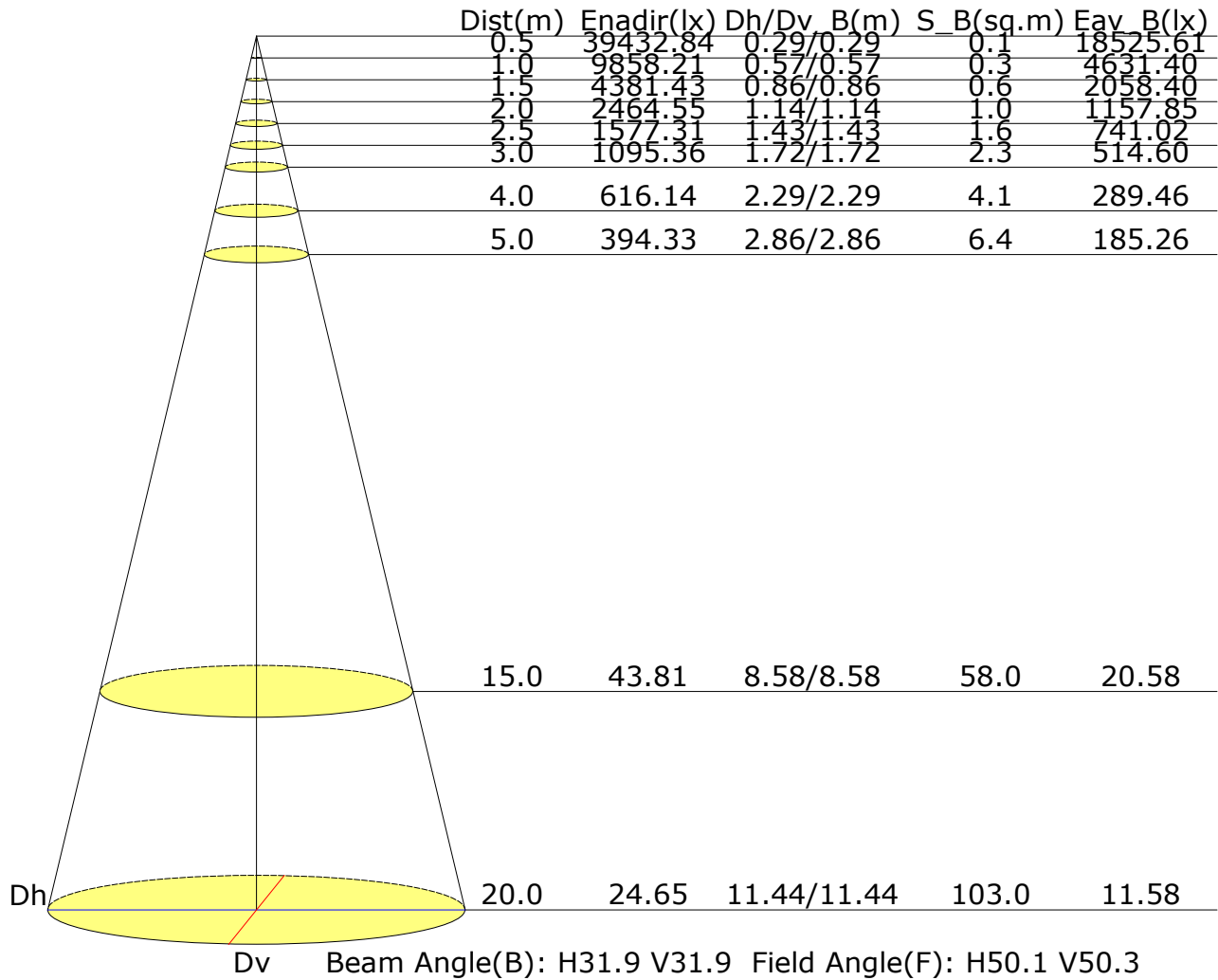
Mounting Height: 10.0m    Max Lux(100%): 98.8 lx

( 1%): 1.0 lx	( 2%): 2.0 lx
( 5%): 4.9 lx	( 10%): 9.9 lx
( 20%): 19.8 lx	( 50%): 49.4 lx
(100%): 98.8 lx	

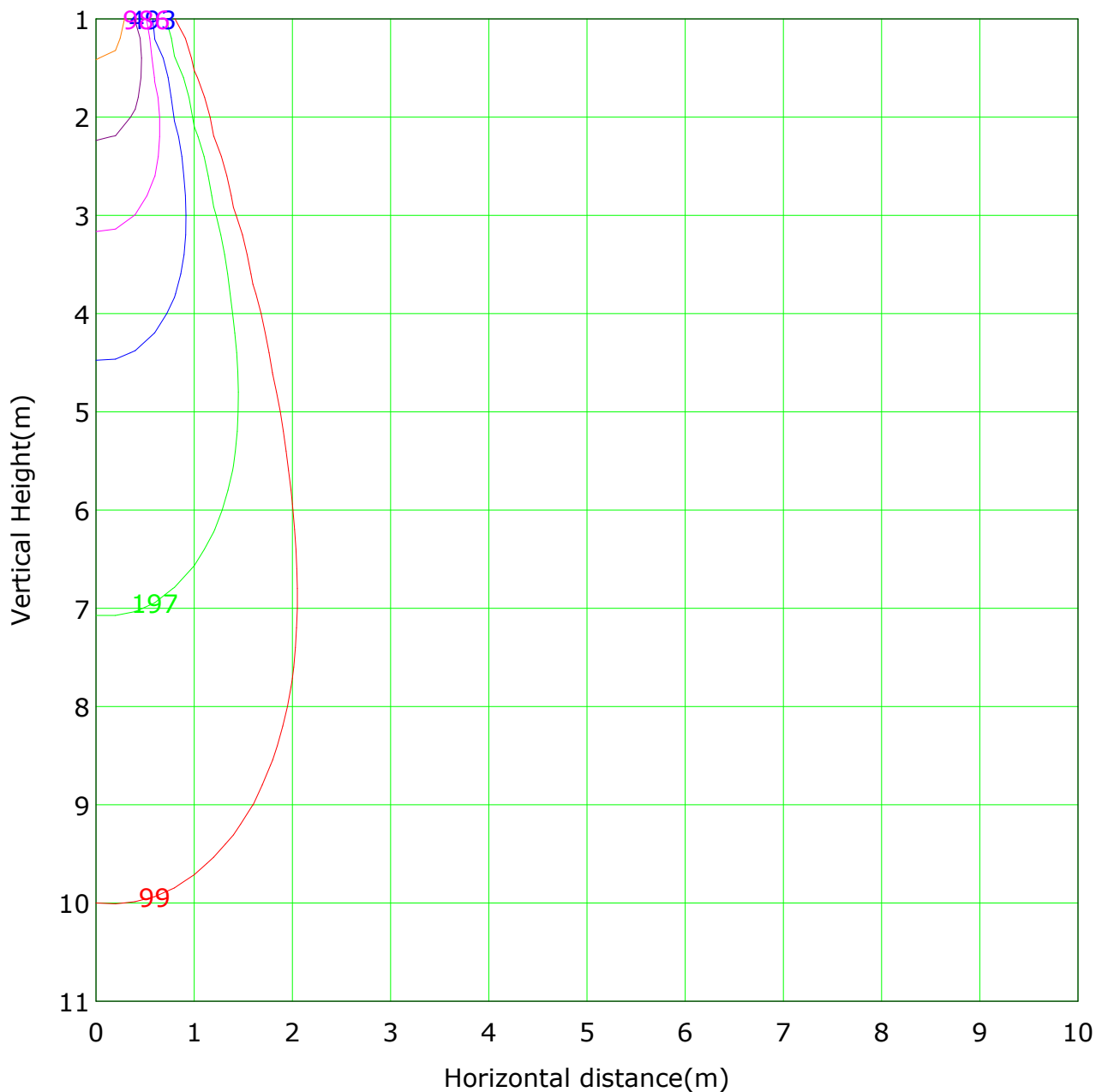
C Plane (°):0.0-180.0: 180.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

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

## Illuminance at a Distance



## Vertical IsoLux Plot



Lowest(m): 1.0m   Highest(m): 11.0m   Max Lux: 9858.2 lx  
— ( 1%): 98.6 lx   — ( 2%): 197.2 lx  
— ( 5%): 492.9 lx   — ( 10%): 985.8 lx  
— ( 20%): 1971.6 lx   — ( 50%): 4929.1 lx  
— (100%): 9858.2 lx

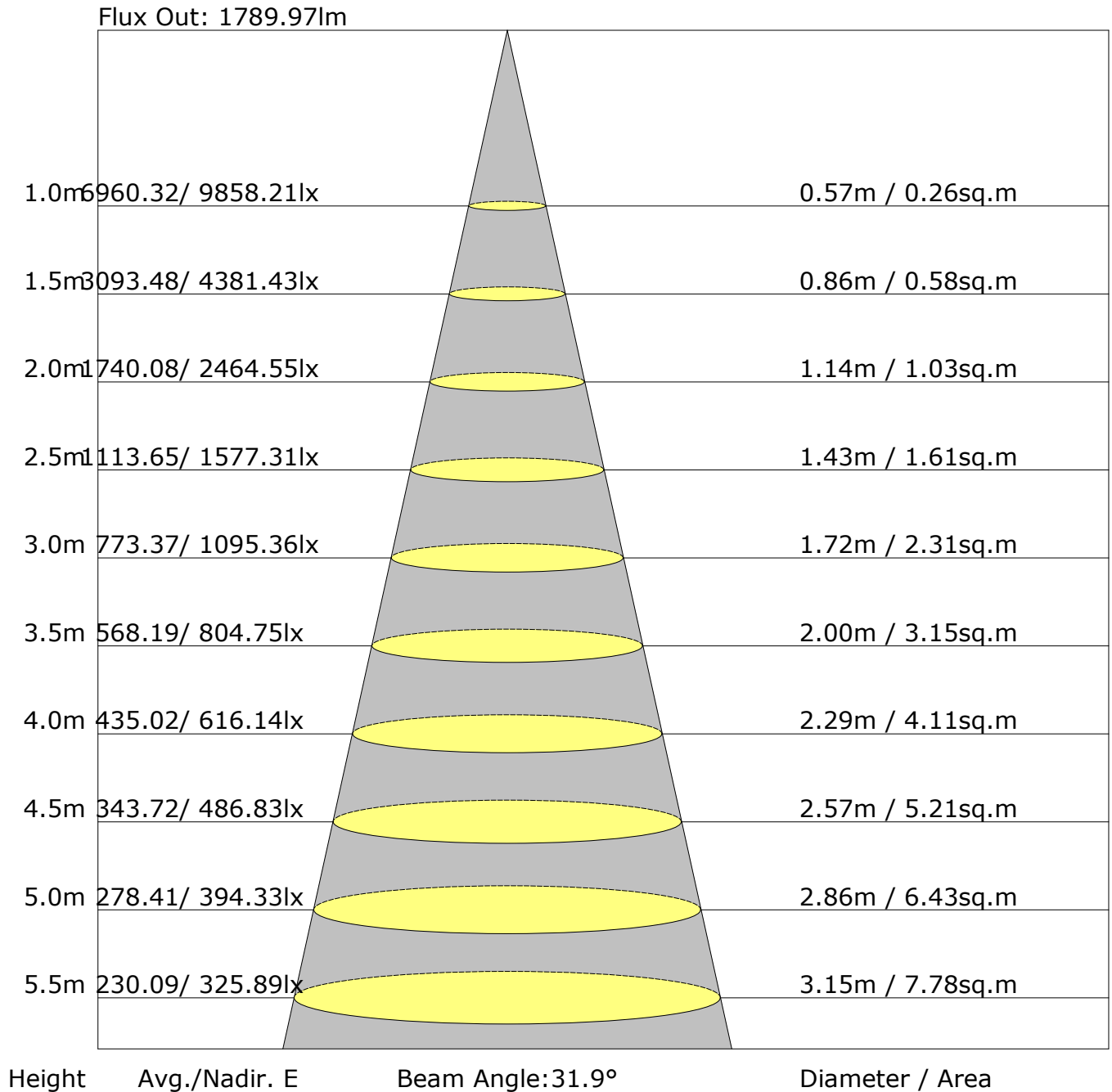
C Plane (°): 0.0-180.0: 180.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

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	13.2	13.8	13.4	14.0	14.2	12.3	12.9	12.5	13.1	13.3
3H	13.0	13.6	13.3	13.8	14.1	12.1	12.7	12.4	13.0	13.2
4H	13.0	13.5	13.3	13.8	14.0	12.1	12.6	12.4	12.9	13.1
6H	12.9	13.4	13.2	13.7	13.9	12.0	12.5	12.3	12.8	13.1
8H	12.8	13.3	13.2	13.6	13.9	12.0	12.4	12.3	12.7	13.0
12H	12.8	13.3	13.1	13.6	13.9	11.9	12.4	12.3	12.7	13.0
X=4H Y=2H	13.0	13.5	13.3	13.8	14.0	12.1	12.7	12.4	12.9	13.2
3H	12.8	13.3	13.2	13.6	13.9	12.0	12.4	12.3	12.7	13.0
4H	12.7	13.2	13.1	13.5	13.8	11.9	12.3	12.2	12.6	13.0
6H	12.7	13.0	13.1	13.4	13.8	11.8	12.2	12.2	12.5	12.9
8H	12.6	12.9	13.0	13.3	13.7	11.7	12.1	12.1	12.5	12.9
12H	12.6	12.9	13.0	13.3	13.7	11.7	12.0	12.1	12.4	12.8
X=8H Y=4H	12.6	12.9	13.0	13.3	13.7	11.7	12.1	12.1	12.5	12.9
6H	12.5	12.8	13.0	13.2	13.7	11.6	11.9	12.1	12.3	12.8
8H	12.5	12.7	12.9	13.1	13.6	11.6	11.8	12.0	12.3	12.7
12H	12.4	12.6	12.9	13.1	13.6	11.5	11.7	12.0	12.2	12.7
X=12H Y=4H	12.6	12.9	13.0	13.3	13.7	11.7	12.0	12.1	12.4	12.8
6H	12.5	12.7	12.9	13.1	13.6	11.6	11.8	12.0	12.3	12.7
8H	12.4	12.6	12.9	13.1	13.6	11.5	11.7	12.0	12.2	12.7
Variations with the observer position at spacings:										
S=1.0H	+4.4/-7.2					+4.3/-7.6				
S=1.5H	+7.1/-24.6					+7.0/-26.5				
S=2.0H	+9.1/-1.\$					+9.0/-1.\$				

Calculate in accordance with CIE Pub.117. The table is revised with 3021lm ( $8\log(F/F_0) = 3.8$ ).

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	1584	52.4
	FL ( 0°-30°)	1469	48.6
	FM (30°-60°)	114	3.8
	FH (60°-80°)	1	0.0
	FVH (80°-90°)	0	0.0
	BACK LIGHT	1438	47.6
	BL ( 0°-30°)	1348	44.6
	BM (30°-60°)	89	3.0
	BH (60°-80°)	0	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: 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	9848.0	9.4	9.4	0.31	0.31
1.0-2.0	9805.2	28.1	37.6	0.93	1.24
2.0-3.0	9715.7	46.5	84.0	1.54	2.78
3.0-4.0	9581.6	64.1	148.2	2.12	4.90
4.0-5.0	9411.3	81.0	229.2	2.68	7.58
5.0-6.0	9209.4	96.8	326.0	3.20	10.79
6.0-7.0	8976.0	111.4	437.4	3.69	14.48
7.0-8.0	8713.4	124.7	562.1	4.13	18.60
8.0-9.0	8419.5	136.5	698.6	4.52	23.12
9.0-10.0	8086.7	146.4	844.9	4.84	27.96
10.0-11.0	7712.4	154.1	999.1	5.10	33.07
11.0-12.0	7298.9	159.6	1158.6	5.28	38.35
12.0-13.0	6842.5	162.4	1321.0	5.38	43.72
13.0-14.0	6339.4	162.3	1483.3	5.37	49.09
14.0-15.0	5791.7	159.0	1642.4	5.26	54.36
15.0-16.0	5207.9	152.6	1795.0	5.05	59.41
16.0-17.0	4604.7	143.4	1938.4	4.75	64.15
17.0-18.0	4004.4	132.0	2070.4	4.37	68.52
18.0-19.0	3427.2	119.3	2189.7	3.95	72.47
19.0-20.0	2890.8	105.8	2295.5	3.50	75.97
20.0-21.0	2410.5	92.6	2388.1	3.06	79.04
21.0-22.0	1996.2	80.2	2468.3	2.66	81.69
22.0-23.0	1646.5	69.1	2537.4	2.29	83.98
23.0-24.0	1354.8	59.2	2596.6	1.96	85.94
24.0-25.0	1117.8	50.8	2647.5	1.68	87.62
25.0-26.0	927.9	43.8	2691.3	1.45	89.07
26.0-27.0	775.9	38.0	2729.3	1.26	90.33
27.0-28.0	654.1	33.1	2762.4	1.10	91.42
28.0-29.0	554.0	29.0	2791.4	0.96	92.38
29.0-30.0	470.8	25.4	2816.8	0.84	93.22
30.0-31.0	402.7	22.4	2839.2	0.74	93.97
31.0-32.0	346.5	19.9	2859.0	0.66	94.62
32.0-33.0	299.1	17.6	2876.7	0.58	95.21
33.0-34.0	260.1	15.7	2892.4	0.52	95.73
34.0-35.0	227.5	14.1	2906.5	0.47	96.20
35.0-36.0	198.7	12.7	2919.2	0.42	96.61

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	173.8	11.3	2930.5	0.38	96.99
37.0-38.0	151.7	10.1	2940.7	0.34	97.32
38.0-39.0	132.7	9.1	2949.7	0.30	97.62
39.0-40.0	115.9	8.1	2957.8	0.27	97.89
40.0-41.0	100.8	7.2	2965.0	0.24	98.13
41.0-42.0	89.2	6.5	2971.5	0.21	98.34
42.0-43.0	79.7	5.9	2977.4	0.20	98.54
43.0-44.0	71.6	5.4	2982.8	0.18	98.72
44.0-45.0	63.9	4.9	2987.7	0.16	98.88
45.0-46.0	56.2	4.4	2992.1	0.15	99.03
46.0-47.0	49.1	3.9	2996.0	0.13	99.16
47.0-48.0	42.8	3.5	2999.4	0.11	99.27
48.0-49.0	38.3	3.1	3002.6	0.10	99.37
49.0-50.0	34.4	2.9	3005.5	0.09	99.47
50.0-51.0	30.2	2.6	3008.0	0.08	99.55
51.0-52.0	26.7	2.3	3010.3	0.08	99.63
52.0-53.0	22.5	2.0	3012.3	0.06	99.69
53.0-54.0	18.6	1.6	3013.9	0.05	99.75
54.0-55.0	16.8	1.5	3015.4	0.05	99.80
55.0-56.0	15.1	1.4	3016.8	0.05	99.84
56.0-57.0	13.0	1.2	3018.0	0.04	99.88
57.0-58.0	10.5	1.0	3018.9	0.03	99.92
58.0-59.0	8.4	0.8	3019.7	0.03	99.94
59.0-60.0	7.4	0.7	3020.4	0.02	99.96
60.0-61.0	5.6	0.5	3020.9	0.02	99.98
61.0-62.0	3.5	0.3	3021.3	0.01	99.99
62.0-63.0	1.8	0.2	3021.5	0.01	100.00
63.0-64.0	0.3	0.0	3021.5	0.00	100.00
64.0-65.0	0.0	0.0	3021.5	0.00	100.00
65.0-66.0	0.0	0.0	3021.5	0.00	100.00
66.0-67.0	0.0	0.0	3021.5	0.00	100.00
67.0-68.0	0.0	0.0	3021.5	0.00	100.00
68.0-69.0	0.0	0.0	3021.5	0.00	100.00
69.0-70.0	0.0	0.0	3021.5	0.00	100.00
70.0-71.0	0.0	0.0	3021.5	0.00	100.00
71.0-72.0	0.0	0.0	3021.5	0.00	100.00

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:

## Candlepower Table

Unit: cd

G\C	C0.0	C180.0								
G0.0	9858.2	9858.2								
G1.0	9880.7	9795.0								
G2.0	9866.6	9678.5								
G3.0	9811.9	9505.7								
G4.0	9715.0	9293.7								
G5.0	9566.1	9070.4								
G6.0	9375.1	8826.0								
G7.0	9146.2	8556.4								
G8.0	8894.9	8255.9								
G9.0	8602.8	7924.5								
G10.0	8269.9	7549.5								
G11.0	7888.0	7142.3								
G12.0	7476.5	6688.7								
G13.0	7032.8	6171.9								
G14.0	6545.5	5607.4								
G15.0	6013.2	5000.7								
G16.0	5441.7	4375.8								
G17.0	4842.0	3759.3								
G18.0	4238.2	3177.9								
G19.0	3644.2	2648.5								
G20.0	3075.4	2194.9								
G21.0	2557.2	1814.4								
G22.0	2107.9	1505.4								
G23.0	1725.9	1247.0								
G24.0	1407.1	1039.2								
G25.0	1155.7	869.3								
G26.0	956.3	730.2								
G27.0	801.9	615.1								
G28.0	682.5	516.8								
G29.0	584.2	432.5								
G30.0	505.5	360.9								
G31.0	441.0	303.3								
G32.0	386.2	255.6								
G33.0	337.0	217.7								
G34.0	296.3	189.6								
G35.0	259.8	164.3								
G36.0	228.9	141.8								

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:

## Candlepower Table (Continue 1)

Unit: cd

G\C	C0.0	C180.0								
G37.0	202.2	122.2								
G38.0	176.9	105.3								
G39.0	158.7	89.9								
G40.0	140.4	74.4								
G41.0	123.6	64.6								
G42.0	110.9	57.6								
G43.0	99.7	50.5								
G44.0	89.9	46.3								
G45.0	78.6	40.7								
G46.0	68.8	36.5								
G47.0	59.0	32.3								
G48.0	50.5	29.5								
G49.0	46.3	26.7								
G50.0	39.3	25.3								
G51.0	33.7	22.5								
G52.0	29.5	21.1								
G53.0	23.9	15.4								
G54.0	22.5	12.6								
G55.0	21.1	11.2								
G56.0	18.3	9.8								
G57.0	15.4	8.4								
G58.0	14.0	4.2								
G59.0	11.2	4.2								
G60.0	11.2	2.8								
G61.0	7.0	1.4								
G62.0	4.2	1.4								
G63.0	1.4	0.0								
G64.0	0.0	0.0								
G65.0	0.0	0.0								
G66.0	0.0	0.0								
G67.0	0.0	0.0								
G68.0	0.0	0.0								
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  
Test Lab:  
Test Type: TYPE C  
Temperature:  
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Gamma Plane (°):0.0-90.0:1.0  
Test Device: CHL-6E  
Distance: 2.905 m  
Humidity:  
Inspector:



Unit: cd

Inspector: