

Report No.:AX-MG-FL-AC-F-20W-220

Test Time: 2025-09-20 17:25

## Luminaire Property

Luminaire Manufacturer:

Luminaire Description: 38D

Luminous Width (mm): -20

Current: 0.091 A

Power Factor: 0.942

Luminous Length (mm): -430

Voltage: 233.9 V

Power: 20.10 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 2041.1 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(50%): H40.9

Vertical Diffuse Angle(50%): V40.9

Luminaire Efficacy Rating (LER): 101.60

Max. Intensity: 3958.25 cd

S/MH(C0/C180): 0.66

Total Rated Lamp Lumens: 2041.1 lm

Efficiency: 100%

Upward Ratio: 0%

Central Intensity: 3951.96 cd

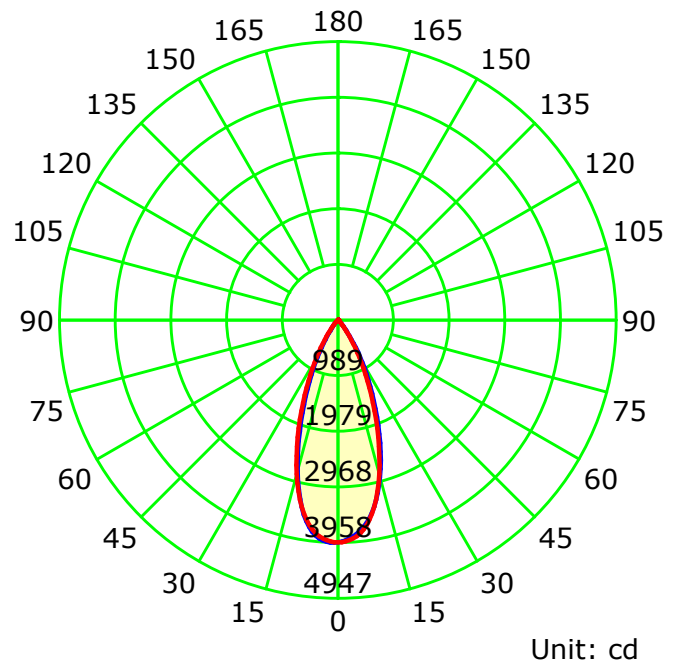
Pos of Max. Intensity: H180 V1

S/MH(C90/C270): 0.66

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

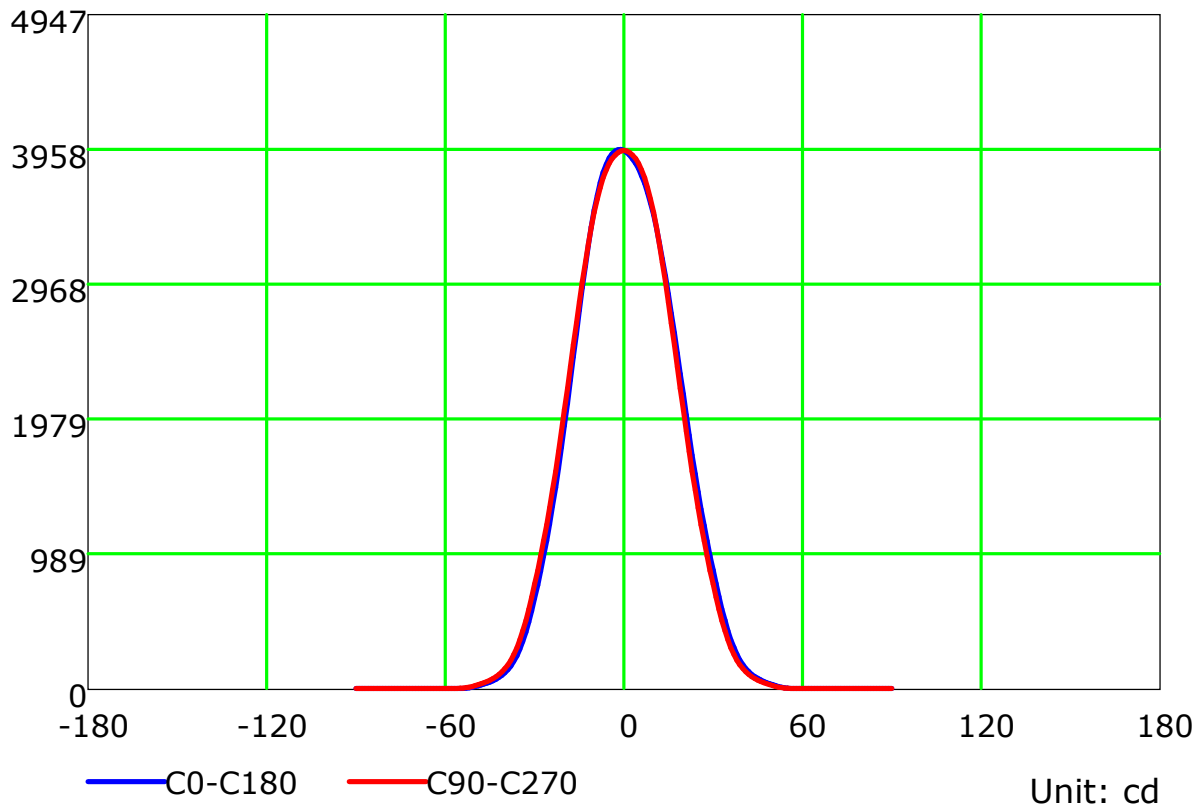
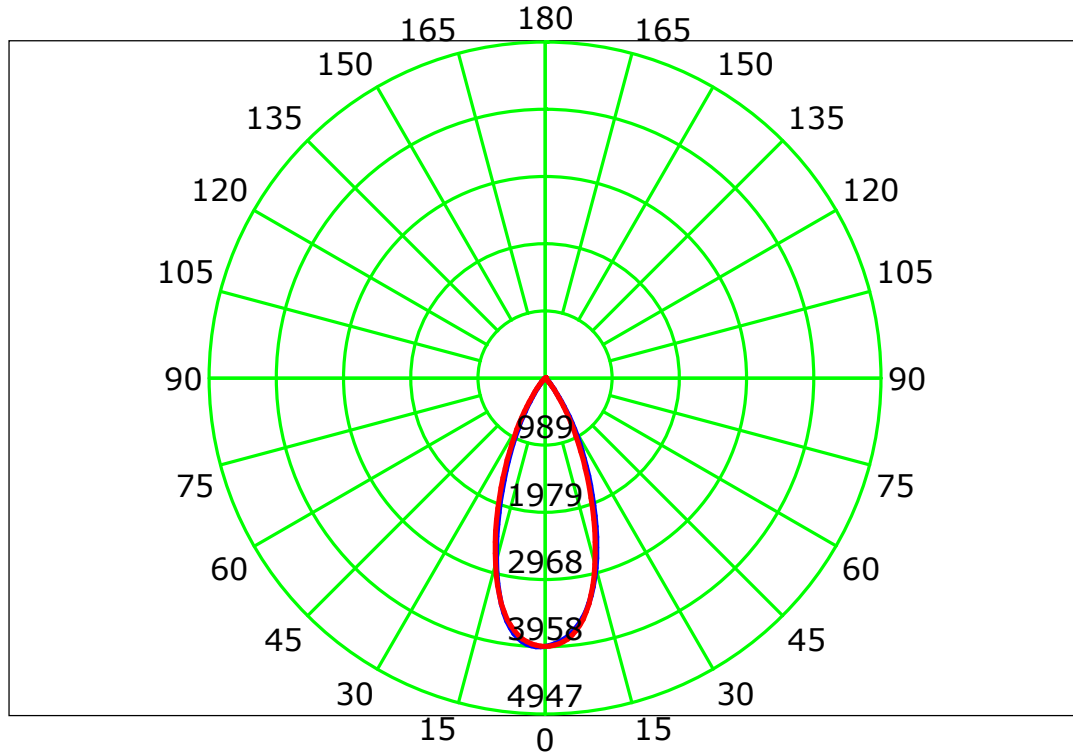
Test Device: CHL-6E

Distance: 2.905 m

Humidity:

Inspector:

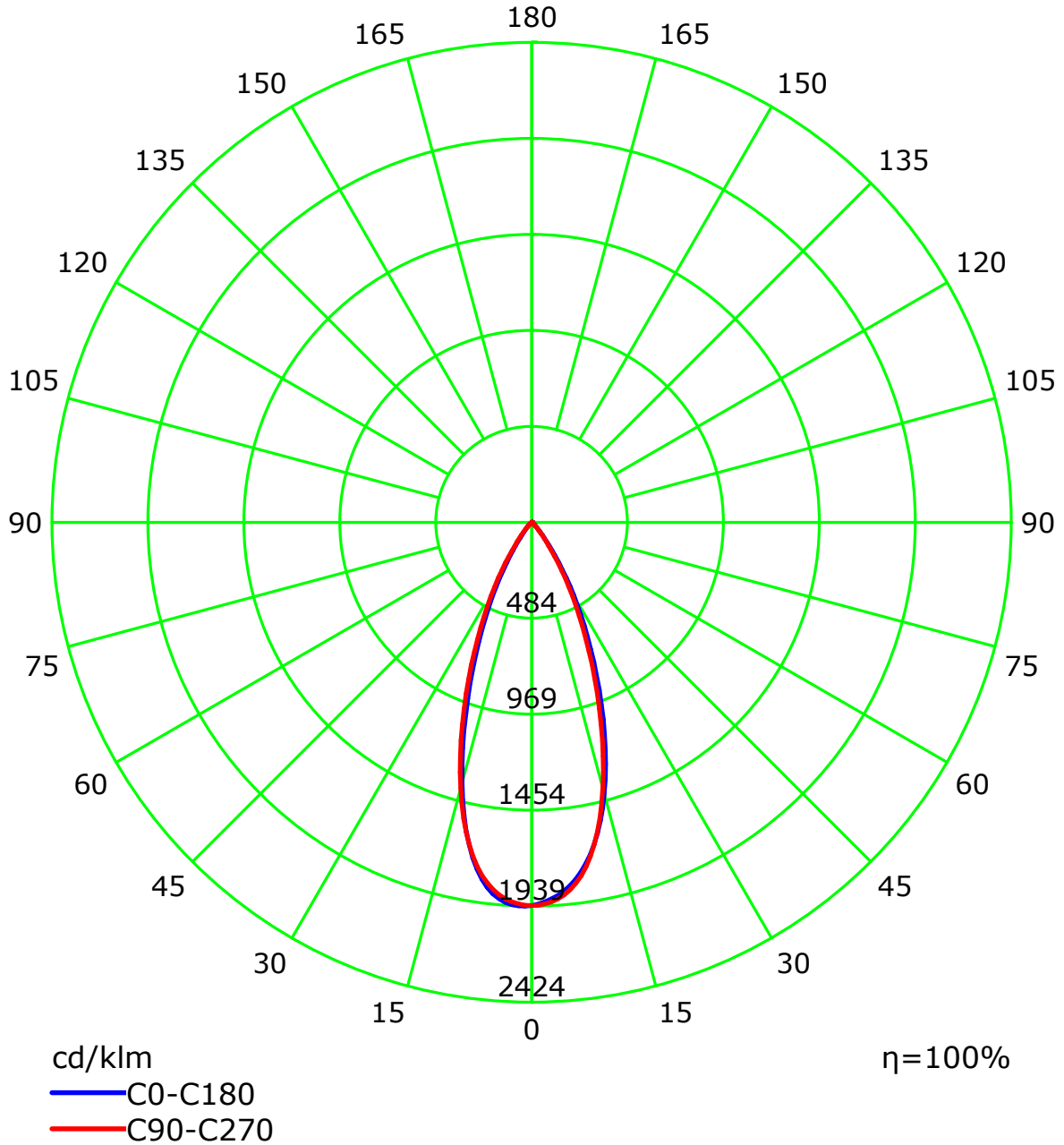
## Luminous Intensity Distribution Curve



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:

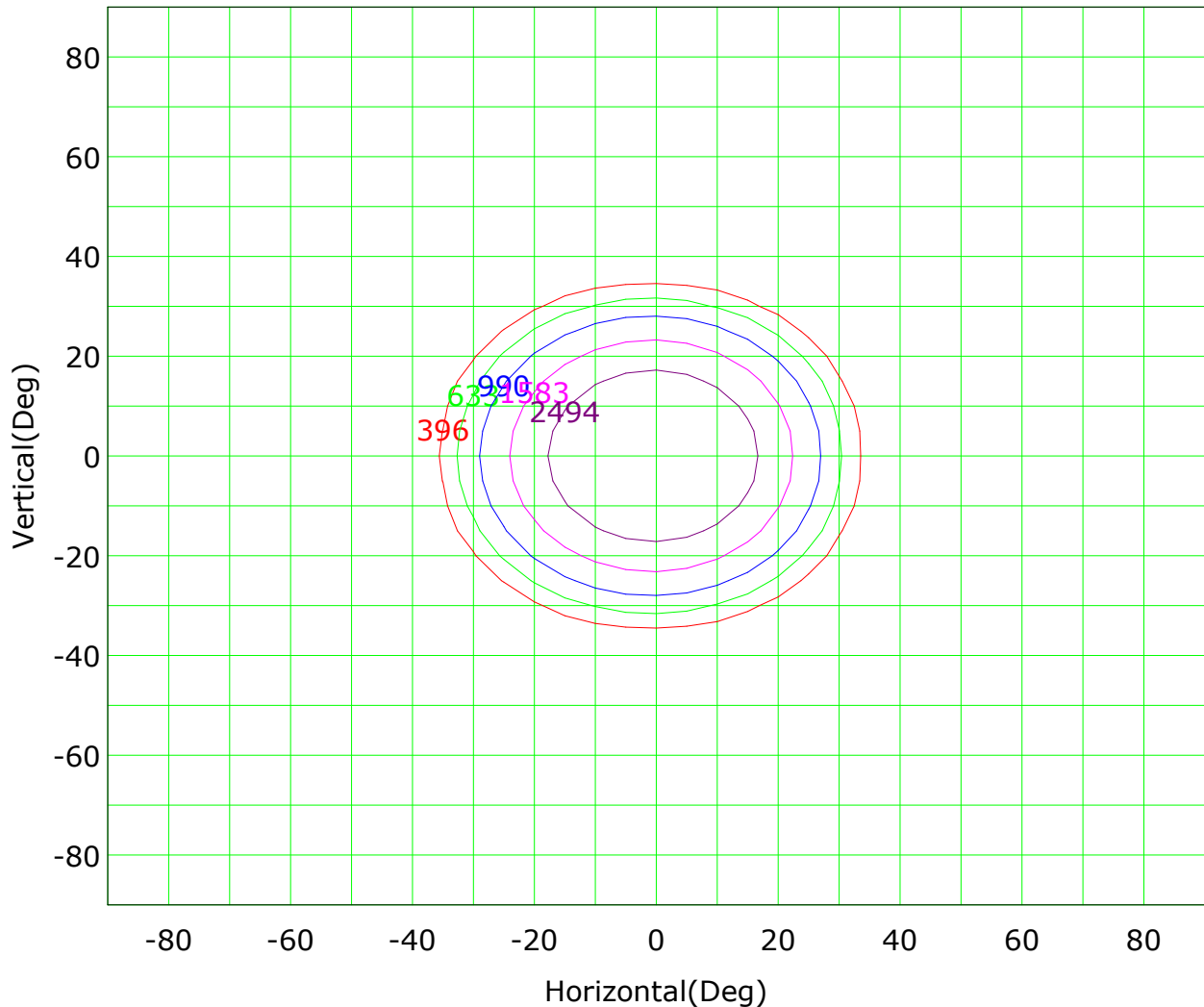
## Luminous Intensity Distribution Curve(cd/klm)



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%): 3958 cd

( 10%): 396 cd	( 16%): 633 cd
( 25%): 990 cd	( 40%): 1583 cd
( 63%): 2494 cd	(100%): 3958 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

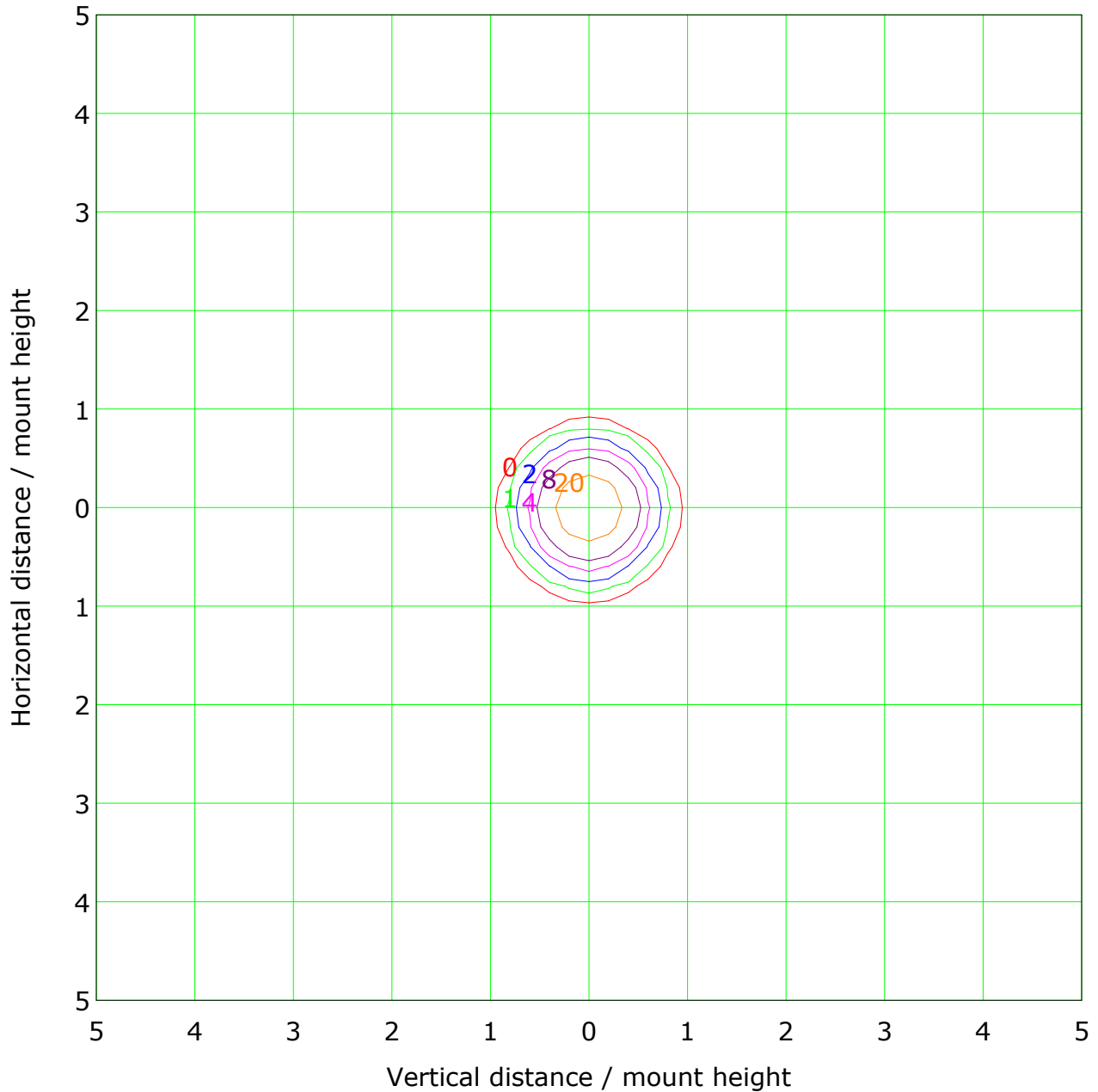
Test Device: CHL-6E

Distance: 2.905 m

Humidity:

Inspector:

## IsoLux Plot



Mounting Height: 10.0m		Max Lux(100%): 39.6 lx	
— ( 1%):	0.4 lx	— ( 2%):	0.8 lx
— ( 5%):	2.0 lx	— ( 10%):	4.0 lx
— ( 20%):	7.9 lx	— ( 50%):	19.8 lx
— (100%):	39.6 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

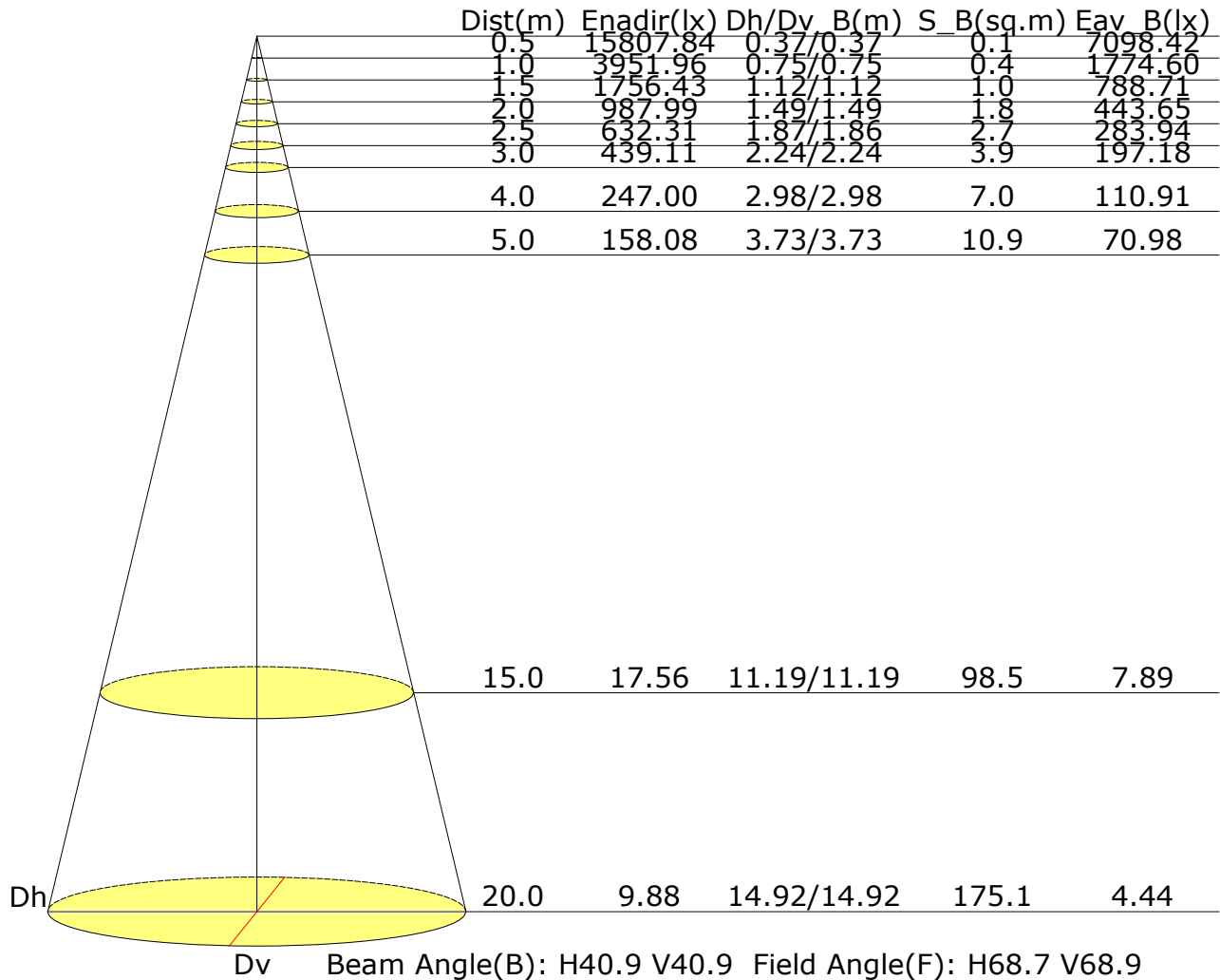
Test Device: CHL-6E

Distance: 2.905 m

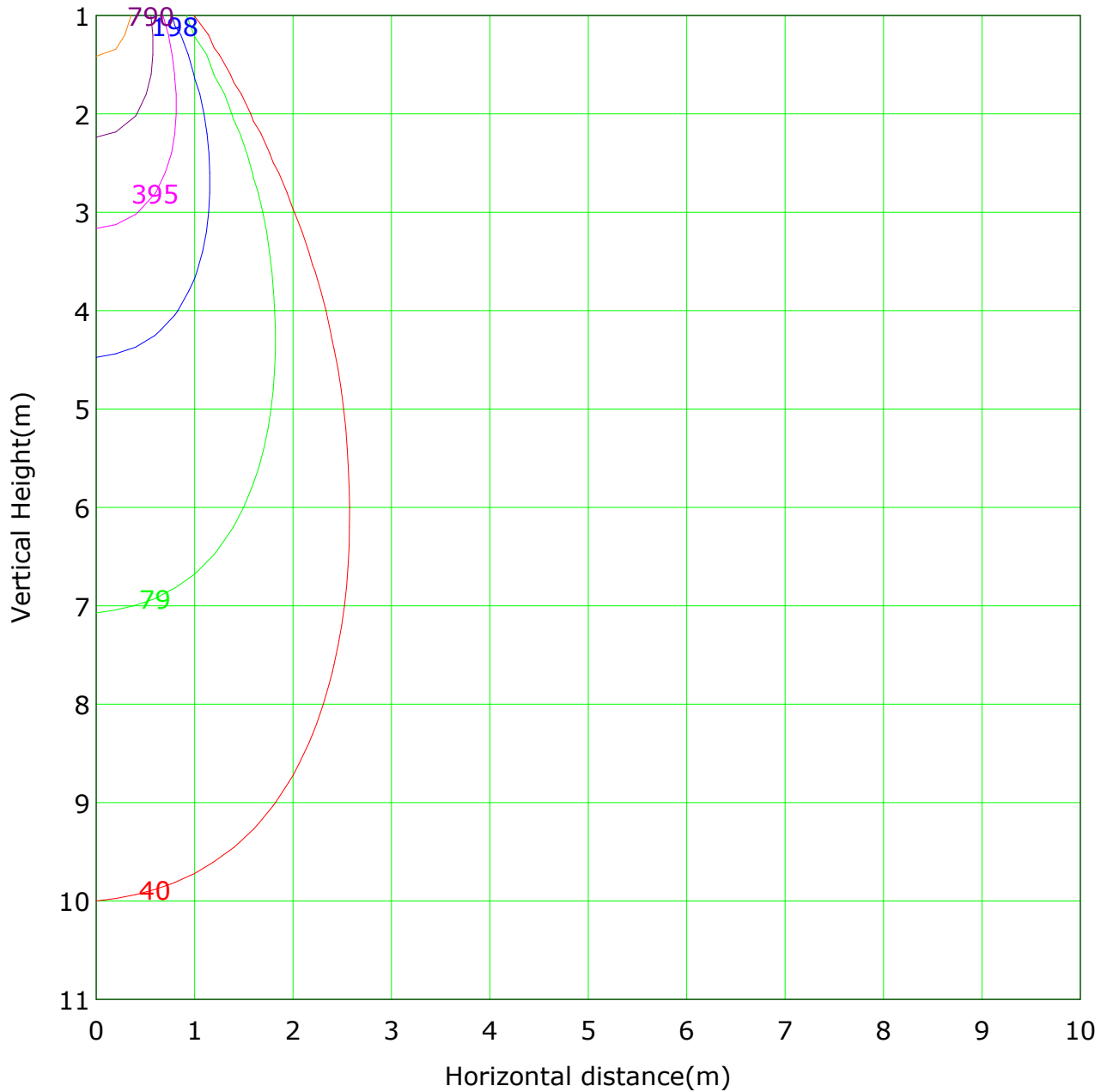
Humidity:

Inspector:

## Illuminance at a Distance



## Vertical IsoLux Plot



Lowest(m): 1.0m    Highest(m): 11.0m    Max Lux: 3952.0 lx

— ( 1%): 39.5 lx	— ( 2%): 79.0 lx
— ( 5%): 197.6 lx	— ( 10%): 395.2 lx
— ( 20%): 790.4 lx	— ( 50%): 1976.0 lx
— (100%): 3952.0 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:

## Area Flux Table

Unit: lm

		Vertical plane																		Unit: m		
		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	Flux(T)	Flux(E)
Horizontal plane	-90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
	-80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
	-70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
	-60	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.2	7.8	32.6	76.7	111.1	110.3	79.9	38.2	0.0	0.0	0.0
	-50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.2	7.8	32.6	76.7	111.1	110.3	79.9	38.2	0.0	0.0	0.0
	-40	0.0	0.0	0.0	0.0	0.0	0.1	0.9	2.5	5.3	10.0	25.0	53.3	80.1	111.1	110.3	79.9	38.2	0.0	0.0	0.0	0.0
	-30	0.0	0.0	0.0	0.0	0.0	0.1	0.9	2.5	5.3	10.0	25.0	53.3	80.1	111.1	110.3	79.9	38.2	0.0	0.0	0.0	0.0
	-20	0.0	0.0	0.0	0.0	0.0	0.1	0.9	2.5	5.3	10.0	25.0	53.3	80.1	111.1	110.3	79.9	38.2	0.0	0.0	0.0	0.0
	-10	0.0	0.0	0.0	0.0	0.0	0.1	0.9	2.5	5.3	10.0	25.0	53.3	80.1	111.1	110.3	79.9	38.2	0.0	0.0	0.0	0.0
	0	0.0	0.0	0.0	0.0	0.0	0.1	0.9	2.5	5.3	10.0	25.0	53.3	80.1	111.1	110.3	79.9	38.2	0.0	0.0	0.0	0.0
	10	0.0	0.0	0.0	0.0	0.0	0.1	0.9	2.5	5.3	10.0	25.0	53.3	80.1	111.1	110.3	79.9	38.2	0.0	0.0	0.0	0.0
	20	0.0	0.0	0.0	0.0	0.0	0.1	0.9	2.5	5.3	10.0	25.0	53.3	80.1	111.1	110.3	79.9	38.2	0.0	0.0	0.0	0.0
	30	0.0	0.0	0.0	0.0	0.0	0.1	0.9	2.5	5.3	10.0	25.0	53.3	80.1	111.1	110.3	79.9	38.2	0.0	0.0	0.0	0.0
	40	0.0	0.0	0.0	0.0	0.0	0.1	0.9	2.5	5.3	10.0	25.0	53.3	80.1	111.1	110.3	79.9	38.2	0.0	0.0	0.0	0.0
	50	0.0	0.0	0.0	0.0	0.0	0.1	0.9	2.5	5.3	10.0	25.0	53.3	80.1	111.1	110.3	79.9	38.2	0.0	0.0	0.0	0.0
	60	0.0	0.0	0.0	0.0	0.0	0.1	0.9	2.5	5.3	10.0	25.0	53.3	80.1	111.1	110.3	79.9	38.2	0.0	0.0	0.0	0.0
	70	0.0	0.0	0.0	0.0	0.0	0.1	0.9	2.5	5.3	10.0	25.0	53.3	80.1	111.1	110.3	79.9	38.2	0.0	0.0	0.0	0.0
	80	0.0	0.0	0.0	0.0	0.0	0.1	0.9	2.5	5.3	10.0	25.0	53.3	80.1	111.1	110.3	79.9	38.2	0.0	0.0	0.0	0.0
	90	0.0	0.0	0.0	0.0	0.0	0.1	0.9	2.5	5.3	10.0	25.0	53.3	80.1	111.1	110.3	79.9	38.2	0.0	0.0	0.0	0.0
Flux(T)	0.1	0.2	0.3	0.5	5.3	33.4	137.8	326.7	485.4	488.3	3346.0	162.1	45.2	7.8	0.7	0.0	0.0	0.0	0.3	0.2	0.1	2040
Flux(E)	0.0	0.0	0.0	0.0	0.0	9.1	120.7	312.3	471.7	474.3	3331.9	145.8	20.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1886

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

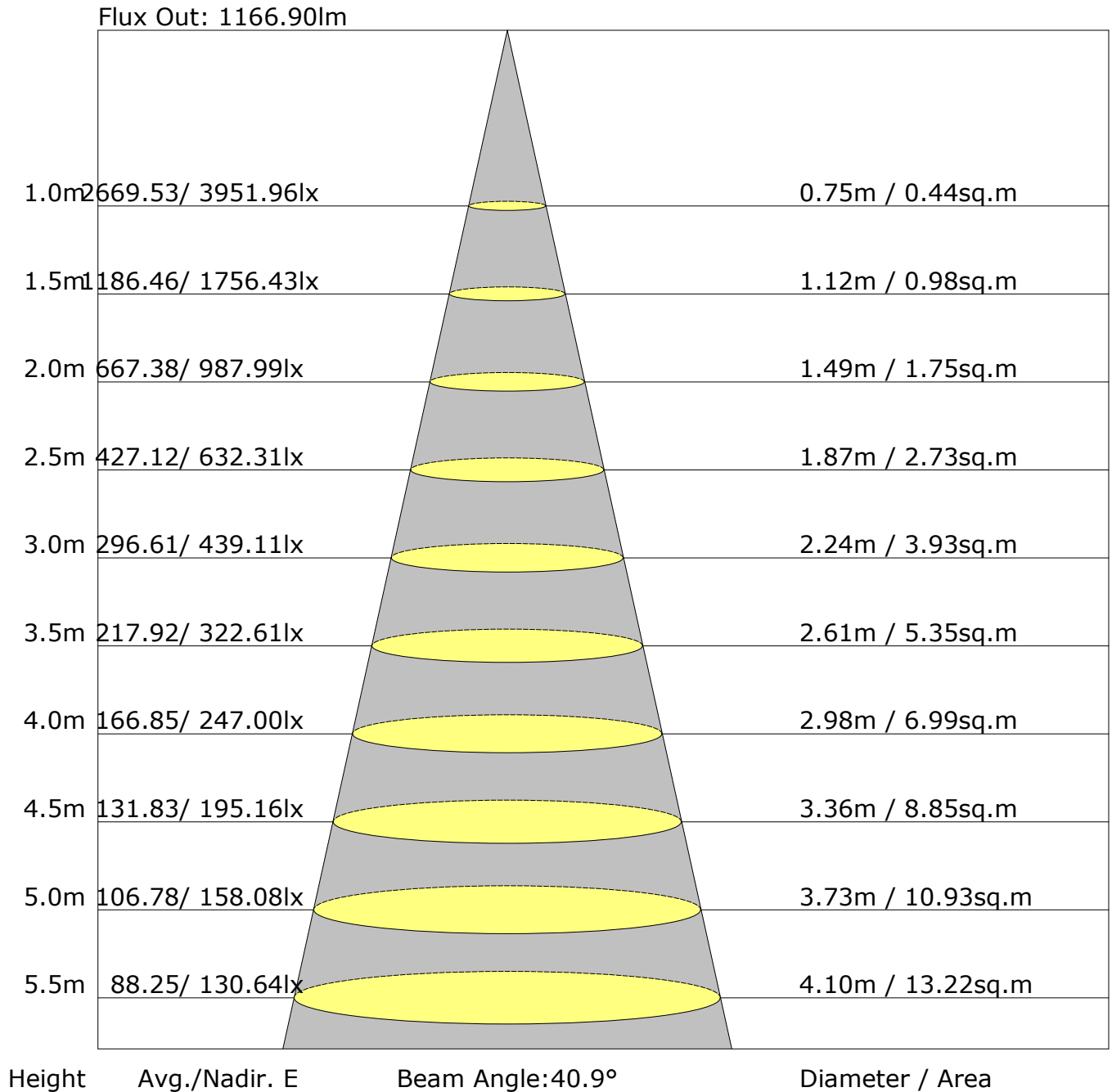
Distance: 2.905 m

Humidity:

Inspector:



## The Average Illuminance Effective Figure



## UGR Table

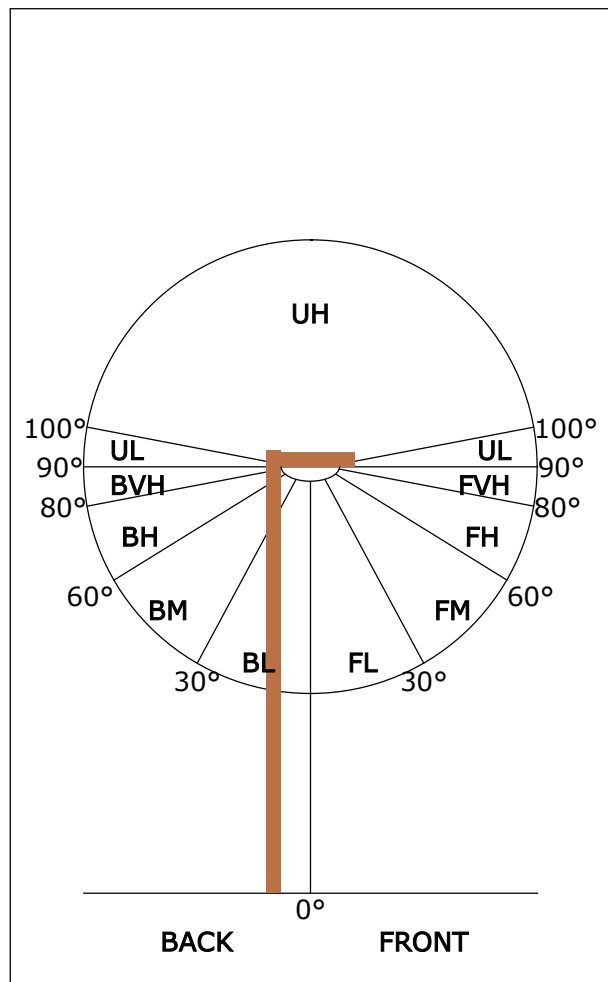
Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	16.9	17.6	17.1	17.8	18.0	16.2	16.9	16.4	17.1	17.3
3H	16.7	17.4	17.0	17.7	17.9	16.0	16.7	16.3	17.0	17.2
4H	16.7	17.3	17.0	17.6	17.8	16.0	16.6	16.3	16.9	17.1
6H	16.6	17.2	16.9	17.5	17.8	15.9	16.5	16.2	16.8	17.1
8H	16.6	17.1	16.9	17.4	17.7	15.9	16.4	16.2	16.7	17.0
12H	16.5	17.1	16.9	17.4	17.7	15.9	16.4	16.2	16.7	17.0
X=4H Y=2H	16.7	17.3	17.0	17.6	17.8	16.0	16.6	16.3	16.9	17.1
3H	16.5	17.1	16.9	17.4	17.7	15.8	16.4	16.2	16.7	17.0
4H	16.4	16.9	16.8	17.3	17.6	15.7	16.2	16.1	16.6	16.9
6H	16.4	16.8	16.8	17.2	17.5	15.7	16.1	16.1	16.5	16.9
8H	16.3	16.7	16.8	17.1	17.5	15.6	16.0	16.1	16.4	16.8
12H	16.3	16.7	16.7	17.1	17.5	15.6	16.0	16.1	16.4	16.8
X=8H Y=4H	16.3	16.7	16.7	17.1	17.5	15.6	16.0	16.0	16.4	16.8
6H	16.2	16.5	16.7	17.0	17.4	15.5	15.9	16.0	16.3	16.7
8H	16.2	16.5	16.7	16.9	17.4	15.5	15.8	16.0	16.3	16.7
12H	16.2	16.4	16.7	16.9	17.4	15.5	15.8	16.0	16.3	16.7
X=12H Y=4H	16.3	16.6	16.7	17.0	17.5	15.6	15.9	16.0	16.3	16.8
6H	16.2	16.5	16.7	16.9	17.4	15.5	15.8	16.0	16.2	16.7
8H	16.2	16.4	16.7	16.9	17.4	15.5	15.7	16.0	16.2	16.7
Variations with the observer position at spacings:										
S=1.0H	+5.6/-15.7					+5.5/-15.1				
S=1.5H	+8.4/-17.1					+8.3/-16.3				
S=2.0H	+10.4/-17.5					+10.3/-16.5				

Calculate in accordance with CIE Pub.117. The table is revised with 2041lm ( $8\log(F/F_0) = 2.5$ ).

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	1051	51.5
FL ( 0°-30°)	887	43.5
FM (30°-60°)	162	7.9
FH (60°-80°)	1	0.1
FVH (80°-90°)	1	0.0
BACK LIGHT	990	48.5
BL ( 0°-30°)	854	41.8
BM (30°-60°)	134	6.6
BH (60°-80°)	1	0.1
BVH (80°-90°)	1	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)	B2 U0 G0
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B2 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	3949.7	3.8	3.8	0.19	0.19
1.0-2.0	3941.9	11.3	15.1	0.55	0.74
2.0-3.0	3927.1	18.8	33.9	0.92	1.66
3.0-4.0	3905.0	26.1	60.0	1.28	2.94
4.0-5.0	3874.2	33.3	93.4	1.63	4.57
5.0-6.0	3832.5	40.3	133.6	1.97	6.55
6.0-7.0	3779.1	46.9	180.6	2.30	8.85
7.0-8.0	3713.9	53.2	233.7	2.60	11.45
8.0-9.0	3636.3	58.9	292.7	2.89	14.34
9.0-10.0	3545.1	64.2	356.8	3.14	17.48
10.0-11.0	3440.6	68.8	425.6	3.37	20.85
11.0-12.0	3324.1	72.7	498.2	3.56	24.41
12.0-13.0	3196.2	75.9	574.1	3.72	28.13
13.0-14.0	3058.3	78.3	652.4	3.84	31.96
14.0-15.0	2912.3	80.0	732.4	3.92	35.88
15.0-16.0	2759.9	80.9	813.2	3.96	39.84
16.0-17.0	2602.8	81.1	894.3	3.97	43.82
17.0-18.0	2443.6	80.6	974.9	3.95	47.76
18.0-19.0	2283.7	79.5	1054.3	3.89	51.66
19.0-20.0	2124.6	77.8	1132.1	3.81	55.47
20.0-21.0	1968.3	75.6	1207.7	3.70	59.17
21.0-22.0	1815.9	73.0	1280.7	3.58	62.75
22.0-23.0	1668.4	70.0	1350.7	3.43	66.18
23.0-24.0	1527.1	66.8	1417.5	3.27	69.45
24.0-25.0	1392.7	63.3	1480.8	3.10	72.55
25.0-26.0	1265.1	59.7	1540.5	2.93	75.48
26.0-27.0	1144.2	56.0	1596.5	2.74	78.22
27.0-28.0	1029.4	52.1	1648.7	2.55	80.77
28.0-29.0	920.1	48.1	1696.8	2.36	83.13
29.0-30.0	816.8	44.1	1740.9	2.16	85.29
30.0-31.0	719.4	40.0	1781.0	1.96	87.25
31.0-32.0	627.4	35.9	1816.9	1.76	89.02
32.0-33.0	541.1	31.9	1848.8	1.56	90.58
33.0-34.0	462.2	28.0	1876.8	1.37	91.95
34.0-35.0	391.2	24.3	1901.1	1.19	93.14
35.0-36.0	328.9	20.9	1922.0	1.03	94.17

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	275.3	18.0	1940.0	0.88	95.05
37.0-38.0	229.9	15.3	1955.3	0.75	95.80
38.0-39.0	191.7	13.1	1968.4	0.64	96.44
39.0-40.0	160.1	11.2	1979.6	0.55	96.99
40.0-41.0	134.3	9.6	1989.1	0.47	97.45
41.0-42.0	113.1	8.2	1997.3	0.40	97.86
42.0-43.0	95.5	7.1	2004.4	0.35	98.20
43.0-44.0	80.7	6.1	2010.5	0.30	98.50
44.0-45.0	68.1	5.2	2015.7	0.26	98.76
45.0-46.0	57.3	4.5	2020.2	0.22	98.98
46.0-47.0	47.8	3.8	2024.0	0.19	99.16
47.0-48.0	39.4	3.2	2027.2	0.16	99.32
48.0-49.0	31.9	2.6	2029.8	0.13	99.45
49.0-50.0	25.2	2.1	2031.9	0.10	99.55
50.0-51.0	19.0	1.6	2033.5	0.08	99.63
51.0-52.0	13.6	1.2	2034.7	0.06	99.69
52.0-53.0	9.1	0.8	2035.5	0.04	99.73
53.0-54.0	5.6	0.5	2036.0	0.02	99.75
54.0-55.0	3.2	0.3	2036.3	0.01	99.76
55.0-56.0	2.0	0.2	2036.5	0.01	99.77
56.0-57.0	1.4	0.1	2036.6	0.01	99.78
57.0-58.0	1.0	0.1	2036.7	0.00	99.78
58.0-59.0	1.0	0.1	2036.8	0.00	99.79
59.0-60.0	1.0	0.1	2036.9	0.00	99.79
60.0-61.0	1.0	0.1	2037.0	0.00	99.80
61.0-62.0	1.0	0.1	2037.1	0.00	99.80
62.0-63.0	1.1	0.1	2037.2	0.01	99.81
63.0-64.0	1.1	0.1	2037.3	0.01	99.81
64.0-65.0	1.2	0.1	2037.4	0.01	99.82
65.0-66.0	1.3	0.1	2037.5	0.01	99.83
66.0-67.0	1.4	0.1	2037.7	0.01	99.83
67.0-68.0	1.4	0.1	2037.8	0.01	99.84
68.0-69.0	1.3	0.1	2037.9	0.01	99.85
69.0-70.0	1.2	0.1	2038.1	0.01	99.85
70.0-71.0	1.1	0.1	2038.2	0.01	99.86
71.0-72.0	1.1	0.1	2038.3	0.01	99.86

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

Unit: cd

G\C	C0.0	C180.0								
G0.0	3952.0	3952.0								
G1.0	3936.7	3958.3								
G2.0	3916.2	3956.6								
G3.0	3889.3	3946.5								
G4.0	3857.1	3927.1								
G5.0	3817.7	3895.0								
G6.0	3767.5	3849.7								
G7.0	3709.3	3789.7								
G8.0	3642.8	3713.8								
G9.0	3566.8	3621.8								
G10.0	3479.4	3512.6								
G11.0	3380.8	3389.6								
G12.0	3271.7	3254.1								
G13.0	3155.4	3103.4								
G14.0	3029.4	2945.1								
G15.0	2895.8	2779.1								
G16.0	2756.0	2608.6								
G17.0	2609.7	2436.9								
G18.0	2461.9	2265.9								
G19.0	2311.8	2095.3								
G20.0	2160.2	1931.2								
G21.0	2009.5	1772.4								
G22.0	1861.1	1620.7								
G23.0	1715.4	1476.4								
G24.0	1576.8	1340.0								
G25.0	1444.2	1210.0								
G26.0	1318.1	1088.0								
G27.0	1197.9	972.8								
G28.0	1084.1	862.7								
G29.0	973.9	759.5								
G30.0	870.0	663.9								
G31.0	771.1	572.8								
G32.0	676.2	489.3								
G33.0	585.3	413.8								
G34.0	502.5	347.1								
G35.0	425.4	289.9								
G36.0	358.9	241.2								

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)

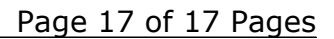
Unit: cd

G\C	C0.0	C180.0								
G37.0	301.2	200.0								
G38.0	251.9	166.4								
G39.0	209.9	138.7								
G40.0	175.6	116.2								
G41.0	147.7	97.6								
G42.0	124.6	82.5								
G43.0	105.4	69.6								
G44.0	89.2	58.6								
G45.0	75.2	49.2								
G46.0	63.5	41.1								
G47.0	53.1	33.6								
G48.0	44.0	27.0								
G49.0	35.8	20.8								
G50.0	28.4	15.7								
G51.0	21.3	10.8								
G52.0	15.4	6.8								
G53.0	10.1	4.2								
G54.0	5.9	2.2								
G55.0	3.4	1.4								
G56.0	2.1	1.1								
G57.0	1.4	0.8								
G58.0	1.1	0.8								
G59.0	1.1	0.8								
G60.0	1.1	0.8								
G61.0	1.1	0.8								
G62.0	1.1	1.1								
G63.0	1.1	1.0								
G64.0	1.1	1.1								
G65.0	1.1	1.3								
G66.0	1.1	1.5								
G67.0	1.5	1.5								
G68.0	1.5	1.1								
G69.0	1.3	1.1								
G70.0	1.1	1.1								
G71.0	1.1	1.1								
G72.0	1.1	1.1								
G73.0	1.1	1.1								

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:





## Unit: cd

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