

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

Test Time: 2025-09-20 17:13

## Luminaire Property

Luminaire Manufacturer:

Luminaire Description: 24D

Luminous Width (mm): -20

Current: 0.092 A

Power Factor: 0.945

Luminous Length (mm): -430

Voltage: 230.9 V

Power: 20.10 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 1968.5 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(50%): H28.5

Vertical Diffuse Angle(50%): V28.5

Luminaire Efficacy Rating (LER): 97.99

Max. Intensity: 6834.75 cd

S/MH(C0/C180): 0.48

Total Rated Lamp Lumens: 1968.5 lm

Efficiency: 100%

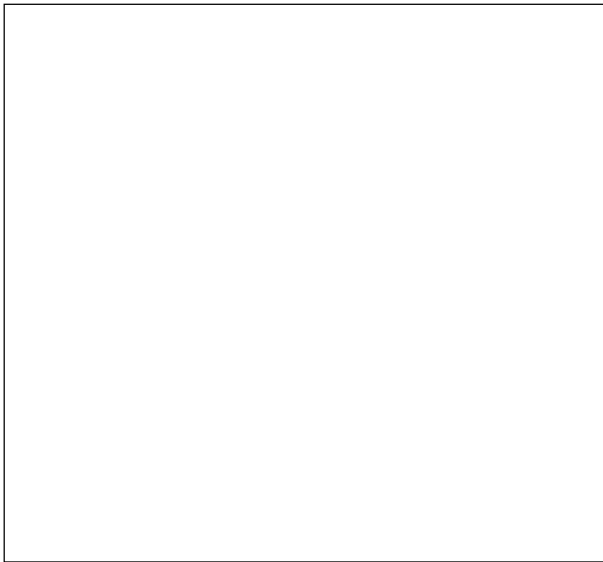
Upward Ratio: 0%

Central Intensity: 6815.08 cd

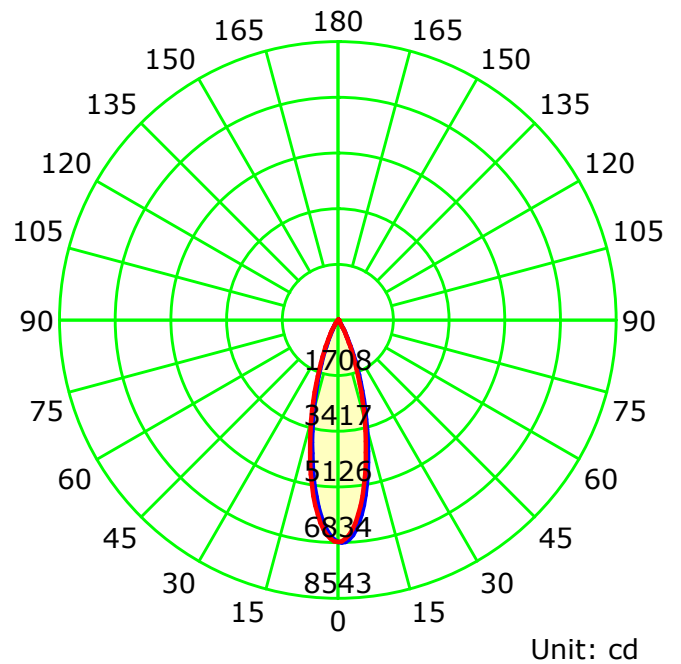
Pos of Max. Intensity: H0 V1

S/MH(C90/C270): 0.48

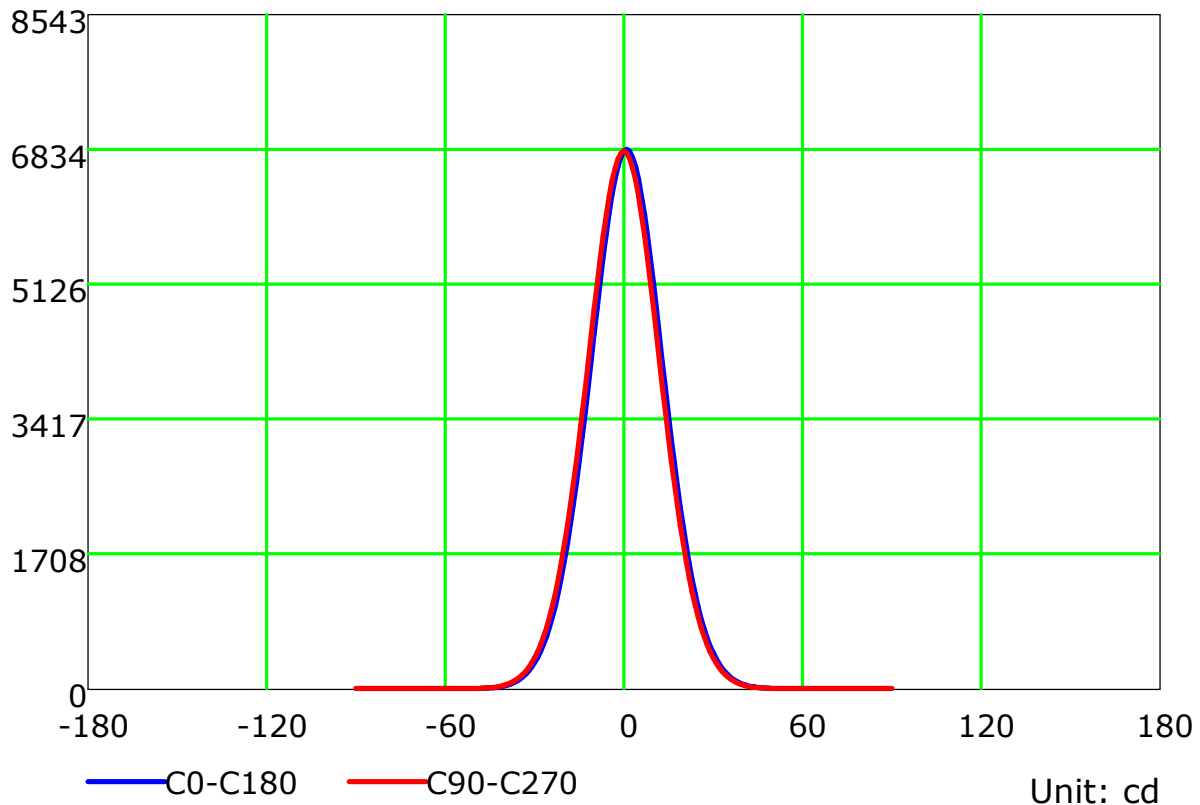
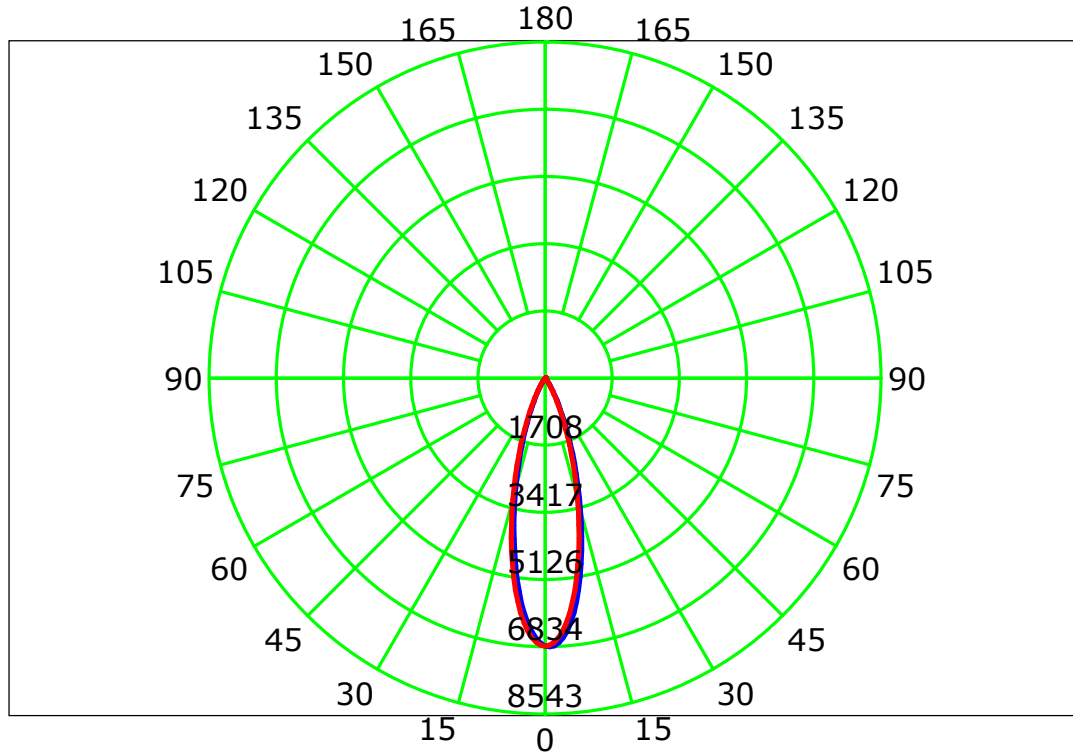
Picture Of Luminaire



Luminous Intensity Distribution Curve



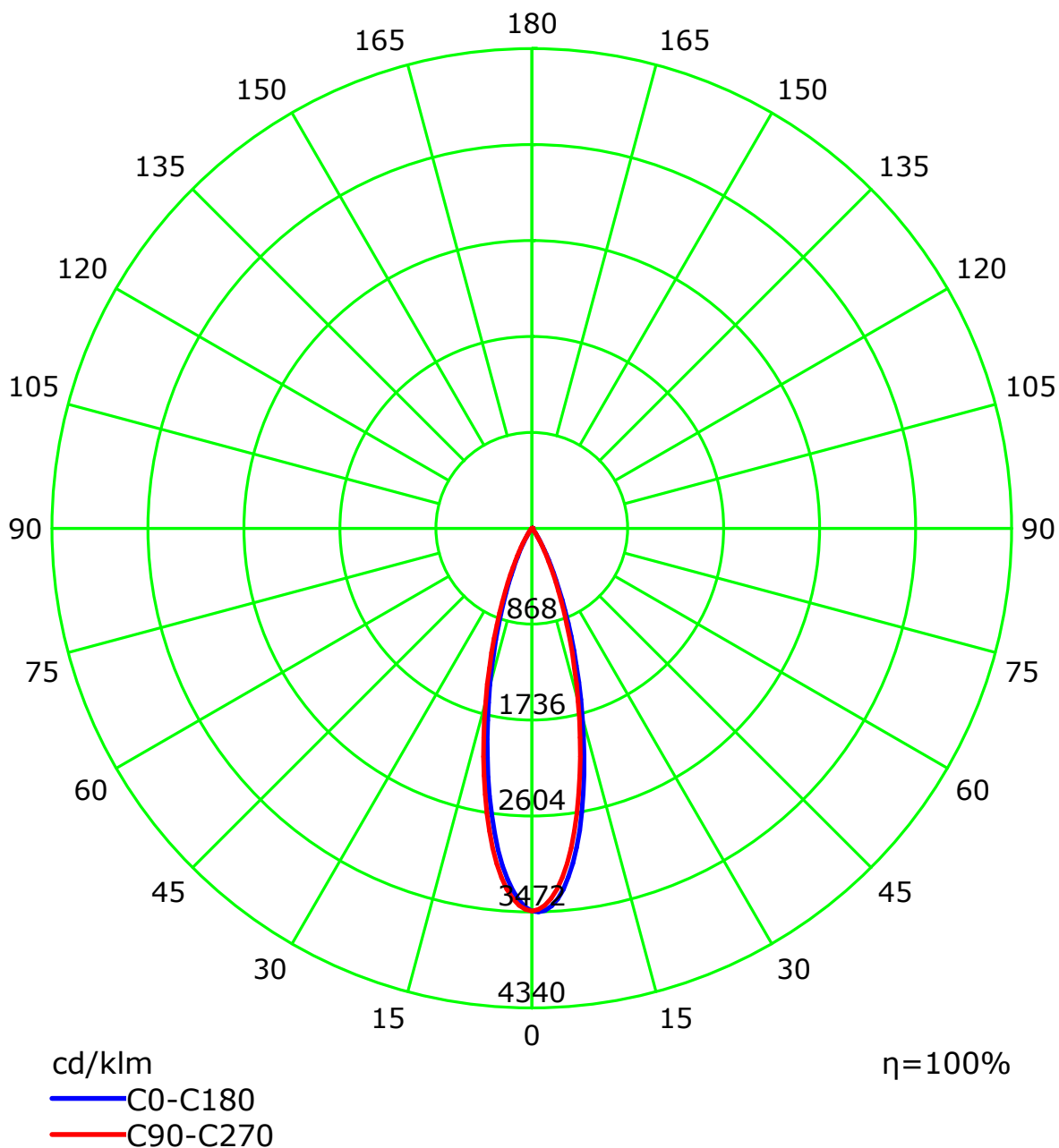
## Luminous Intensity Distribution Curve



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:

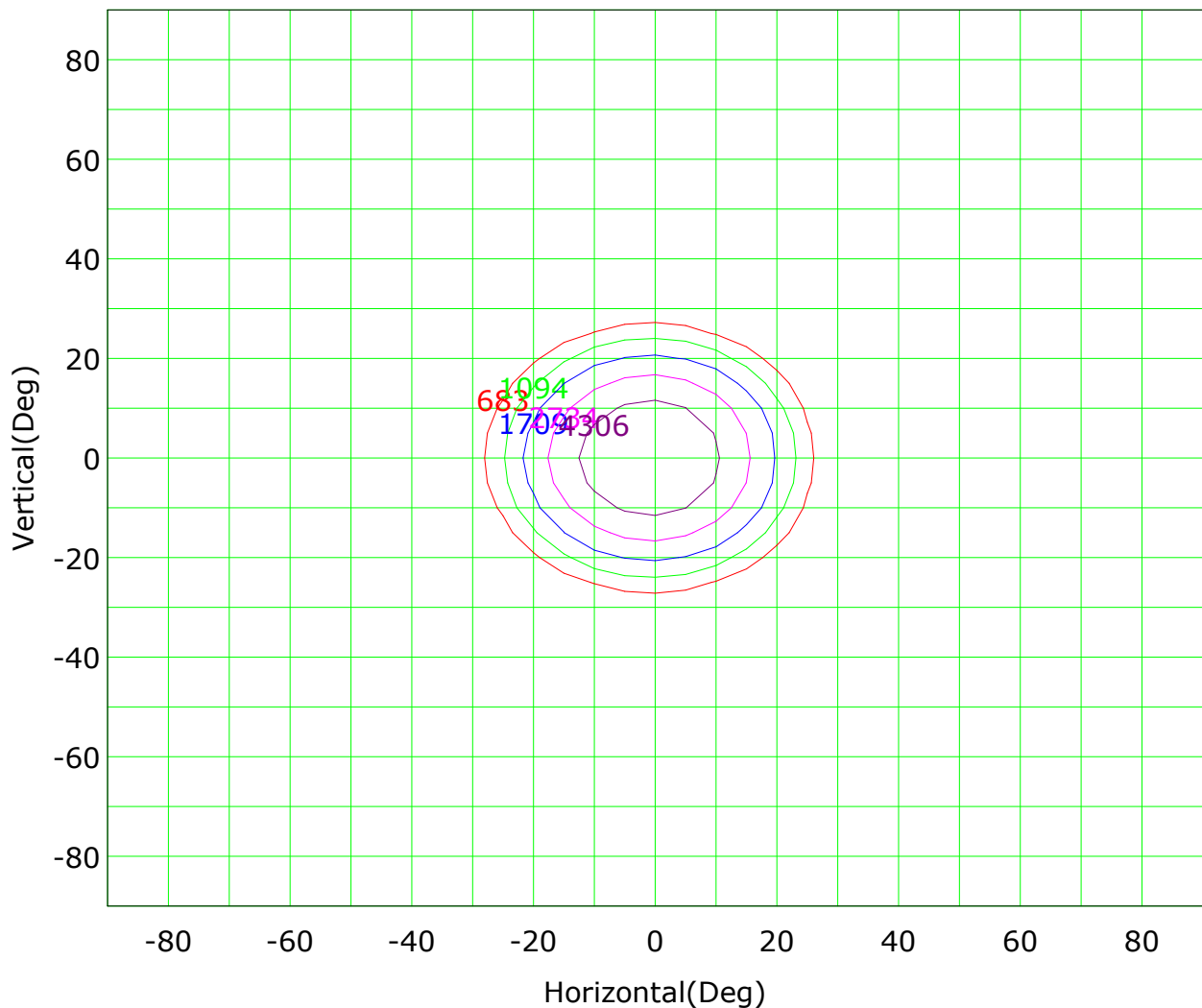
## Luminous Intensity Distribution Curve(cd/klm)



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%): 6835 cd

( 10%): 683 cd	( 16%): 1094 cd
( 25%): 1709 cd	( 40%): 2734 cd
( 63%): 4306 cd	(100%): 6835 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

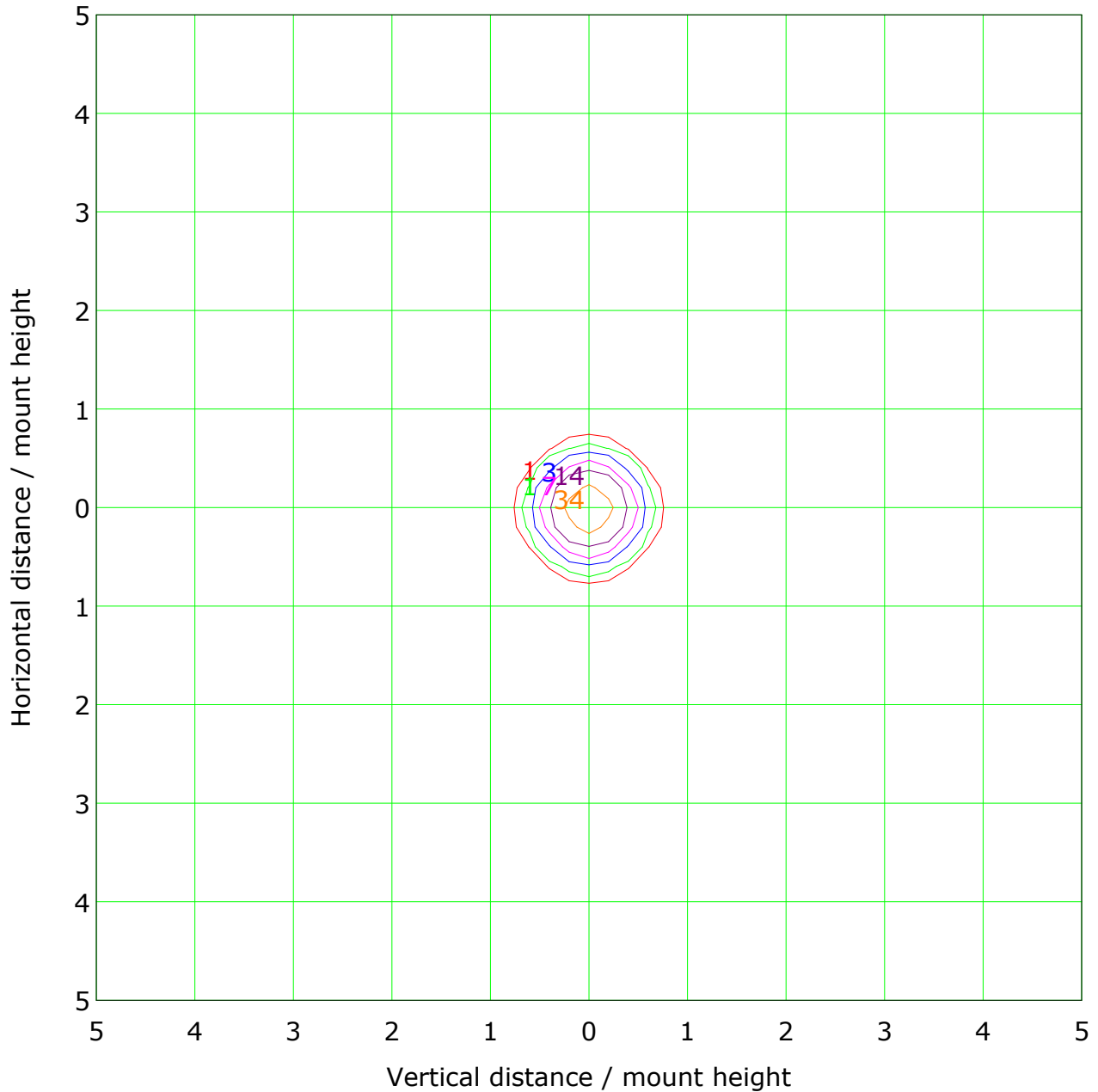
Test Device: CHL-6E

Distance: 2.905 m

Humidity:

Inspector:

## IsoLux Plot



Mounting Height: 10.0m    Max Lux(100%): 68.3 lx

( 1%): 0.7 lx	( 2%): 1.4 lx
( 5%): 3.4 lx	( 10%): 6.8 lx
( 20%): 13.7 lx	( 50%): 34.2 lx
(100%): 68.3 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

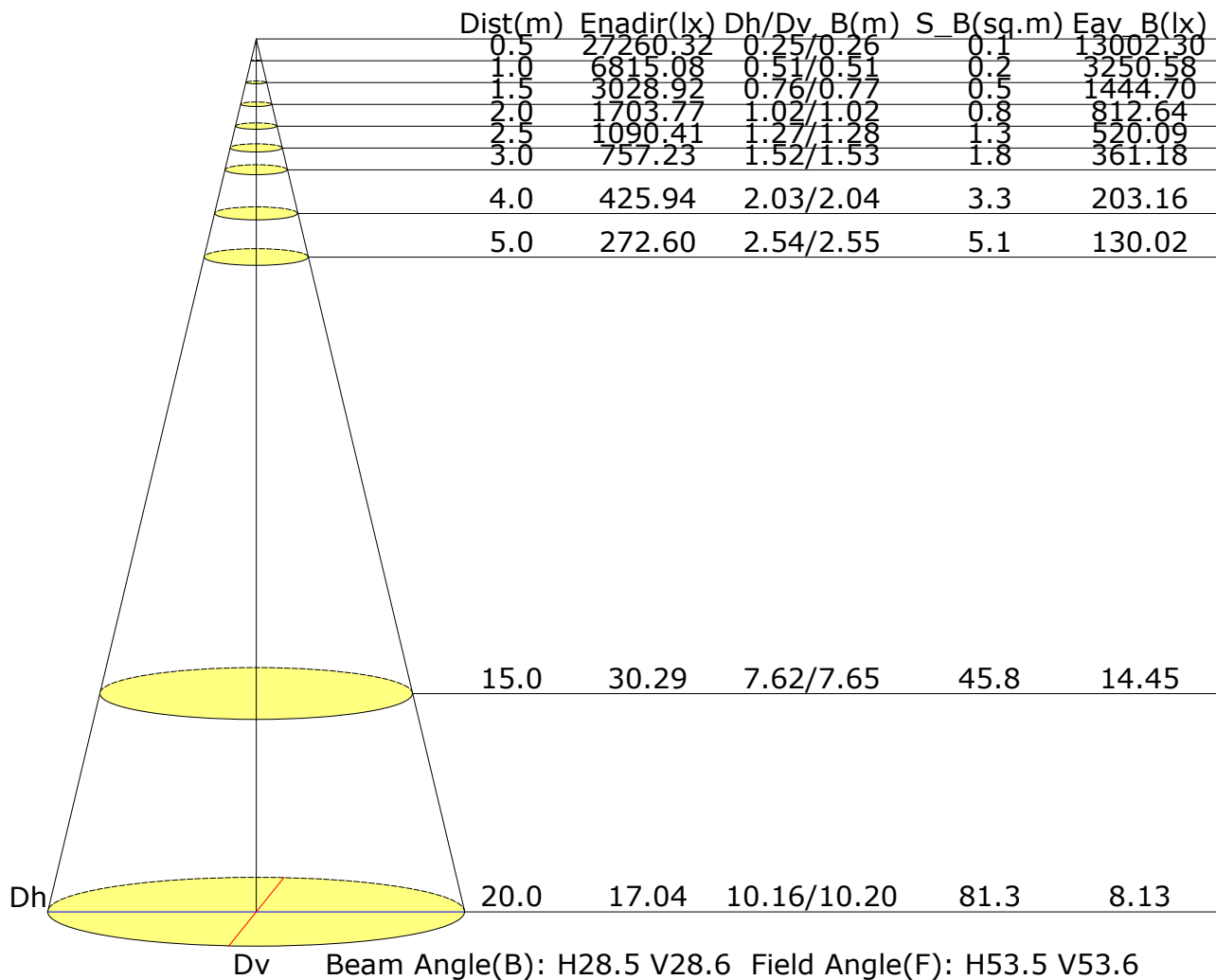
Test Device: CHL-6E

Distance: 2.905 m

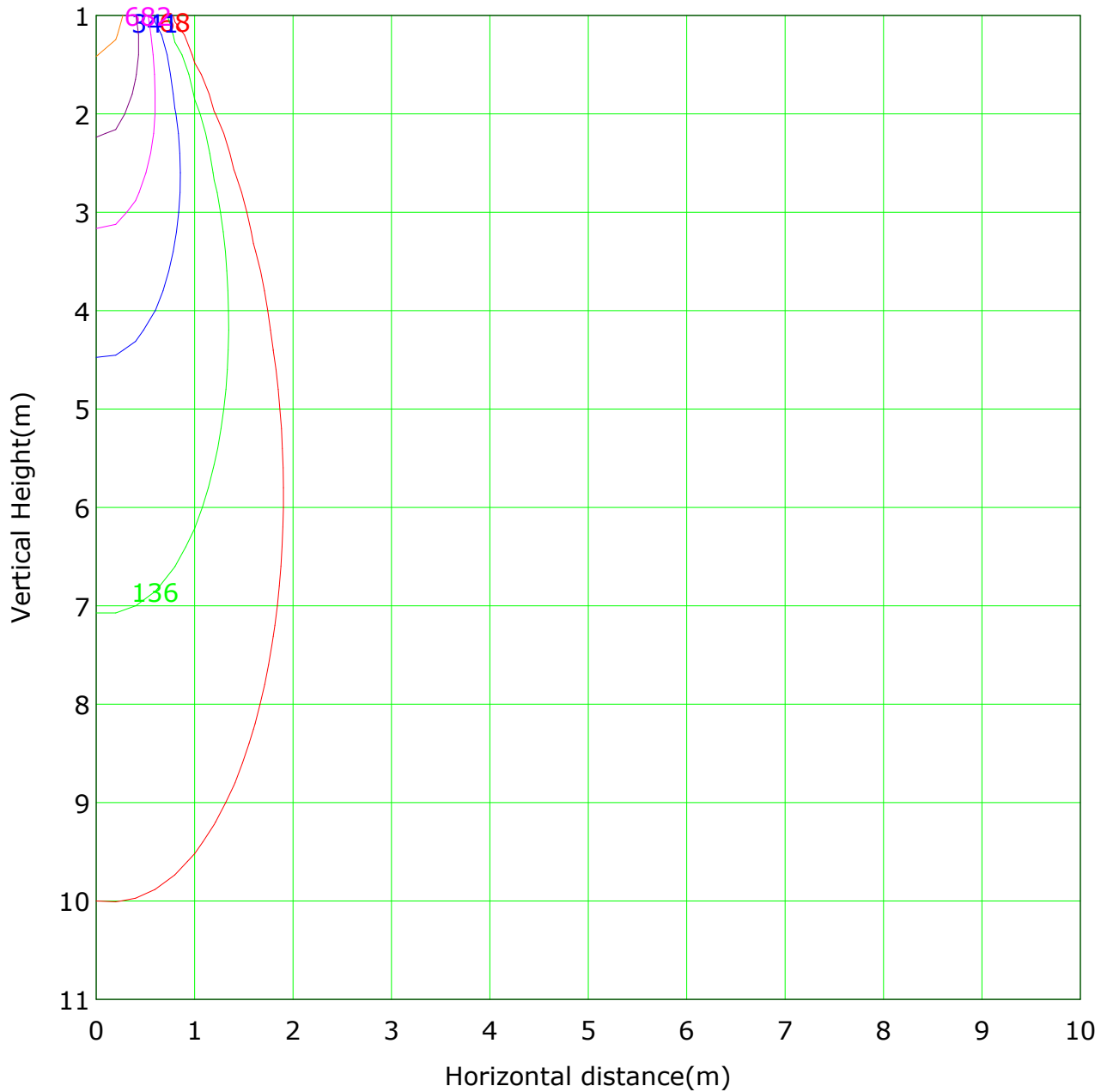
Humidity:

Inspector:

## Illuminance at a Distance



## Vertical IsoLux Plot



Lowest(m): 1.0m   Highest(m): 11.0m   Max Lux: 6815.1 lx

( 1%): 68.2 lx   ( 2%): 136.3 lx  
 ( 5%): 340.8 lx   ( 10%): 681.5 lx  
 ( 20%): 1363.0 lx   ( 50%): 3407.5 lx  
 (100%): 6815.1 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: 2.905 m  
 Humidity:  
 Inspector:

## Area Flux Table

Unit: lm

Vertical plane		-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	0.0	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	0.0	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	0.0	0.0	0.0
	-60	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	0.0	0.0	0.0
	-50	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	0.0	0.0	0.0
	-40	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	0.0	0.0	0.0
	-30	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	0.0	0.0	0.0
	-20	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	0.0	0.0	0.0
	-10	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	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0
	10	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	0.0	0.0	0.0
	20	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	0.0	0.0	0.0
	30	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	0.0	0.0	0.0
	40	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	0.0	0.0	0.0
	50	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	0.0	0.0	0.0
	60	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	0.0	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	0.0	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	0.0	0.0	0.0
	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	0.0	0.0	0.0
	Flux(T)	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	0.0	0.0	0.0
	Flux(E)	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	0.0	0.0	0.0
	Flux(T)	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	0.0	0.0	0.0
	Flux(E)	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	0.0	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

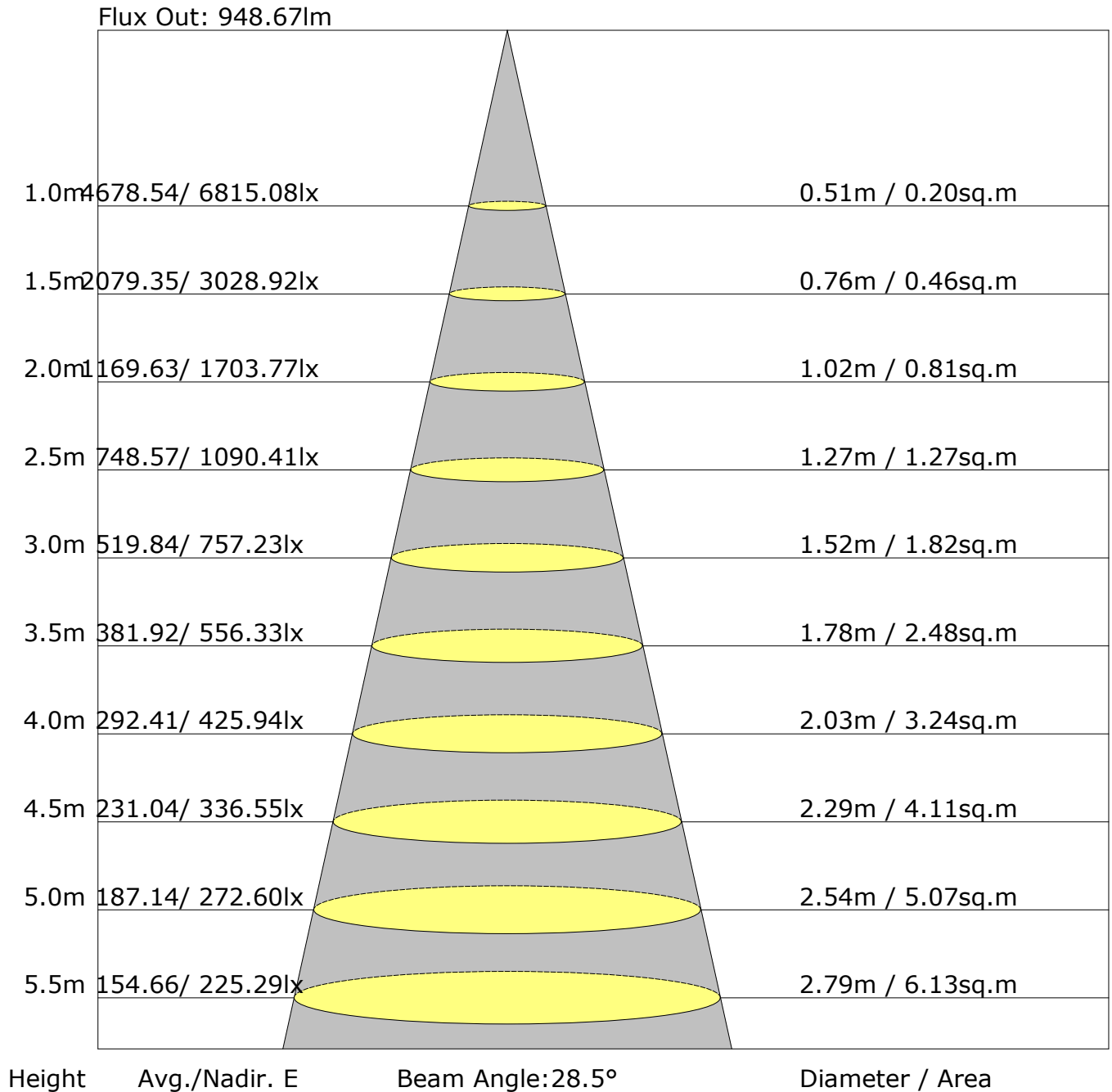
Distance: 2.905 m

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

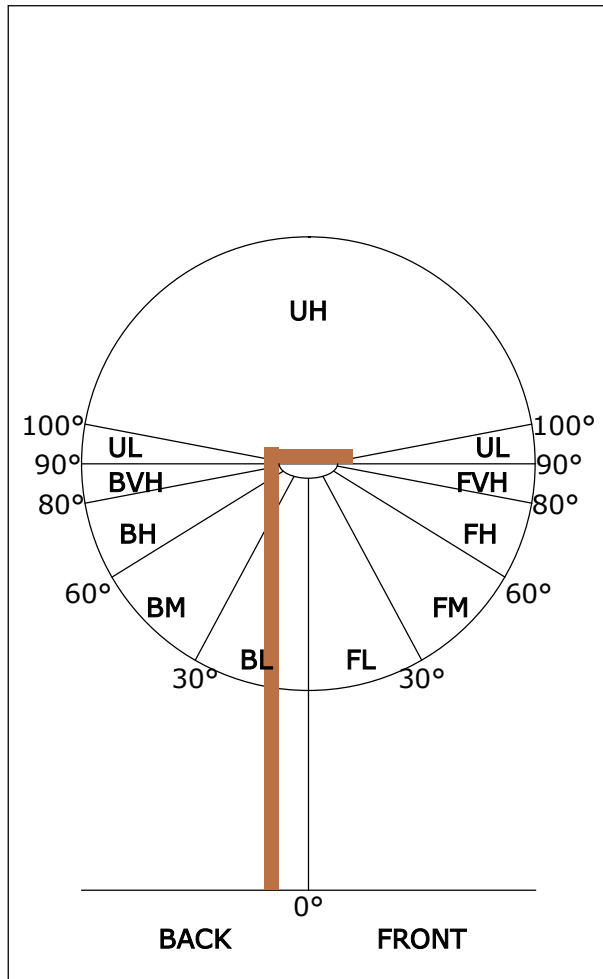
Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	10.9	11.6	11.2	11.8	12.0	10.2	10.8	10.4	11.0	11.2
3H	10.8	11.4	11.1	11.6	11.9	10.1	10.7	10.3	10.9	11.1
4H	10.7	11.3	11.0	11.5	11.8	10.0	10.5	10.3	10.8	11.1
6H	10.7	11.2	11.0	11.5	11.7	9.9	10.4	10.2	10.7	11.0
8H	10.6	11.1	11.0	11.4	11.7	9.9	10.4	10.2	10.7	11.0
12H	10.6	11.1	10.9	11.4	11.7	9.8	10.3	10.2	10.6	10.9
X=4H Y=2H	10.7	11.3	11.0	11.5	11.8	10.0	10.5	10.3	10.8	11.1
3H	10.6	11.1	10.9	11.4	11.7	9.8	10.3	10.2	10.6	10.9
4H	10.5	10.9	10.9	11.3	11.6	9.8	10.2	10.1	10.5	10.9
6H	10.4	10.8	10.8	11.2	11.5	9.7	10.0	10.1	10.4	10.8
8H	10.4	10.7	10.8	11.1	11.5	9.6	10.0	10.0	10.3	10.8
12H	10.3	10.6	10.7	11.0	11.5	9.6	9.9	10.0	10.3	10.7
X=8H Y=4H	10.4	10.7	10.8	11.1	11.5	9.6	10.0	10.0	10.3	10.8
6H	10.3	10.5	10.7	11.0	11.4	9.5	9.8	10.0	10.2	10.7
8H	10.2	10.5	10.7	10.9	11.4	9.5	9.7	9.9	10.2	10.6
12H	10.2	10.4	10.6	10.8	11.3	9.4	9.6	9.9	10.1	10.6
X=12H Y=4H	10.3	10.6	10.7	11.0	11.5	9.6	9.9	10.0	10.3	10.7
6H	10.2	10.5	10.7	10.9	11.4	9.5	9.7	9.9	10.2	10.6
8H	10.2	10.4	10.6	10.8	11.3	9.4	9.6	9.9	10.1	10.6
Variations with the observer position at spacings:										
S=1.0H	+6.3/-1.\$					+6.2/-1.\$				
S=1.5H	+9.1/-1.\$					+9.0/-1.\$				
S=2.0H	+11.1/-1.\$					+11.0/-1.\$				

Calculate in accordance with CIE Pub.117. The table is revised with 1969Im ( $8\log(F/F_0) = 2.4$ ).

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	1030	52.3
FL ( 0°-30°)	967	49.1
FM (30°-60°)	63	3.2
FH (60°-80°)	0	0.0
FVH (80°-90°)	0	0.0
BACK LIGHT	939	47.7
BL ( 0°-30°)	887	45.0
BM (30°-60°)	52	2.6
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)	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	6802.4	6.5	6.5	0.33	0.33
1.0-2.0	6754.3	19.4	25.9	0.98	1.32
2.0-3.0	6659.9	31.9	57.8	1.62	2.93
3.0-4.0	6521.2	43.7	101.4	2.22	5.15
4.0-5.0	6341.5	54.6	156.0	2.77	7.92
5.0-6.0	6122.1	64.3	220.3	3.27	11.19
6.0-7.0	5869.6	72.9	293.2	3.70	14.89
7.0-8.0	5591.9	80.0	373.2	4.07	18.96
8.0-9.0	5293.9	85.8	459.0	4.36	23.32
9.0-10.0	4977.9	90.1	549.1	4.58	27.90
10.0-11.0	4651.1	92.9	642.1	4.72	32.62
11.0-12.0	4321.4	94.5	736.6	4.80	37.42
12.0-13.0	3990.3	94.7	831.3	4.81	42.23
13.0-14.0	3663.8	93.8	925.1	4.76	46.99
14.0-15.0	3346.8	91.9	1017.0	4.67	51.66
15.0-16.0	3039.6	89.1	1106.0	4.53	56.19
16.0-17.0	2743.7	85.5	1191.5	4.34	60.53
17.0-18.0	2464.2	81.3	1272.7	4.13	64.65
18.0-19.0	2201.6	76.6	1349.3	3.89	68.55
19.0-20.0	1953.0	71.5	1420.8	3.63	72.18
20.0-21.0	1722.7	66.2	1487.0	3.36	75.54
21.0-22.0	1512.1	60.8	1547.8	3.09	78.63
22.0-23.0	1317.9	55.3	1603.1	2.81	81.44
23.0-24.0	1141.0	49.9	1653.0	2.53	83.97
24.0-25.0	983.4	44.7	1697.7	2.27	86.24
25.0-26.0	842.6	39.8	1737.5	2.02	88.26
26.0-27.0	717.6	35.1	1772.6	1.78	90.05
27.0-28.0	608.4	30.8	1803.4	1.57	91.61
28.0-29.0	512.6	26.8	1830.2	1.36	92.97
29.0-30.0	430.4	23.2	1853.5	1.18	94.15
30.0-31.0	360.6	20.1	1873.5	1.02	95.17
31.0-32.0	299.5	17.2	1890.7	0.87	96.05
32.0-33.0	246.8	14.5	1905.2	0.74	96.78
33.0-34.0	202.2	12.2	1917.5	0.62	97.41
34.0-35.0	165.0	10.2	1927.7	0.52	97.93
35.0-36.0	133.8	8.5	1936.2	0.43	98.36

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	106.7	7.0	1943.2	0.35	98.71
37.0-38.0	83.9	5.6	1948.8	0.28	99.00
38.0-39.0	66.4	4.5	1953.3	0.23	99.23
39.0-40.0	52.0	3.6	1956.9	0.18	99.41
40.0-41.0	40.0	2.9	1959.8	0.14	99.56
41.0-42.0	30.9	2.2	1962.0	0.11	99.67
42.0-43.0	22.8	1.7	1963.7	0.09	99.76
43.0-44.0	17.6	1.3	1965.1	0.07	99.82
44.0-45.0	14.4	1.1	1966.2	0.06	99.88
45.0-46.0	10.9	0.9	1967.0	0.04	99.92
46.0-47.0	8.1	0.6	1967.7	0.03	99.96
47.0-48.0	5.6	0.5	1968.1	0.02	99.98
48.0-49.0	3.2	0.3	1968.4	0.01	99.99
49.0-50.0	1.4	0.1	1968.5	0.01	100.00
50.0-51.0	0.3	0.0	1968.5	0.00	100.00
51.0-52.0	0.0	0.0	1968.5	0.00	100.00
52.0-53.0	0.0	0.0	1968.5	0.00	100.00
53.0-54.0	0.0	0.0	1968.5	0.00	100.00
54.0-55.0	0.0	0.0	1968.5	0.00	100.00
55.0-56.0	0.0	0.0	1968.5	0.00	100.00
56.0-57.0	0.0	0.0	1968.5	0.00	100.00
57.0-58.0	0.0	0.0	1968.5	0.00	100.00
58.0-59.0	0.0	0.0	1968.5	0.00	100.00
59.0-60.0	0.0	0.0	1968.5	0.00	100.00
60.0-61.0	0.0	0.0	1968.5	0.00	100.00
61.0-62.0	0.0	0.0	1968.5	0.00	100.00
62.0-63.0	0.0	0.0	1968.5	0.00	100.00
63.0-64.0	0.0	0.0	1968.5	0.00	100.00
64.0-65.0	0.0	0.0	1968.5	0.00	100.00
65.0-66.0	0.0	0.0	1968.5	0.00	100.00
66.0-67.0	0.0	0.0	1968.5	0.00	100.00
67.0-68.0	0.0	0.0	1968.5	0.00	100.00
68.0-69.0	0.0	0.0	1968.5	0.00	100.00
69.0-70.0	0.0	0.0	1968.5	0.00	100.00
70.0-71.0	0.0	0.0	1968.5	0.00	100.00
71.0-72.0	0.0	0.0	1968.5	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	6815.1	6815.1								
G1.0	6834.7	6744.9								
G2.0	6810.9	6626.9								
G3.0	6736.4	6465.4								
G4.0	6617.1	6266.0								
G5.0	6454.2	6028.7								
G6.0	6243.5	5761.9								
G7.0	6009.0	5464.1								
G8.0	5739.4	5155.2								
G9.0	5447.3	4833.6								
G10.0	5134.1	4496.6								
G11.0	4809.7	4163.8								
G12.0	4474.1	3838.0								
G13.0	4138.5	3510.8								
G14.0	3808.5	3197.6								
G15.0	3484.1	2897.1								
G16.0	3168.1	2609.2								
G17.0	2864.8	2332.6								
G18.0	2574.1	2085.4								
G19.0	2304.5	1842.4								
G20.0	2046.1	1619.2								
G21.0	1808.7	1416.9								
G22.0	1588.3	1234.4								
G23.0	1386.1	1063.1								
G24.0	1202.1	912.8								
G25.0	1035.0	783.6								
G26.0	887.5	664.2								
G27.0	756.9	561.7								
G28.0	641.8	473.3								
G29.0	540.7	394.6								
G30.0	455.0	331.4								
G31.0	382.0	273.8								
G32.0	317.4	224.7								
G33.0	261.2	184.0								
G34.0	214.9	148.9								
G35.0	176.9	119.4								
G36.0	141.8	96.9								

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:

## Candlepower Table (Continue 1)

Unit: cd

G\C	C0.0	C180.0								
G37.0	112.3	75.8								
G38.0	89.9	57.6								
G39.0	71.6	46.3								
G40.0	56.2	33.7								
G41.0	44.9	25.3								
G42.0	32.3	21.1								
G43.0	25.3	12.6								
G44.0	21.1	11.2								
G45.0	15.4	9.8								
G46.0	11.2	7.0								
G47.0	9.8	4.2								
G48.0	7.0	1.4								
G49.0	4.2	0.0								
G50.0	1.4	0.0								
G51.0	0.0	0.0								
G52.0	0.0	0.0								
G53.0	0.0	0.0								
G54.0	0.0	0.0								
G55.0	0.0	0.0								
G56.0	0.0	0.0								
G57.0	0.0	0.0								
G58.0	0.0	0.0								
G59.0	0.0	0.0								
G60.0	0.0	0.0								
G61.0	0.0	0.0								
G62.0	0.0	0.0								
G63.0	0.0	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:

Operator:

Gamma Plane (°):0.0-90.0:1.0

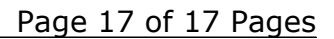
Test Device: CHL-6E

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: