

Report No.:

Test Time: 2025-09-18 17:21

## Luminaire Property

Luminaire Manufacturer:

Luminaire Description: 50D

Luminous Width (mm): -58

Current: 0.111 A

Power Factor: 0.533

Luminous Length (mm): -58

Voltage: 228.6 V

Power: 13.60 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 1175.8 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(50%): H51.5

Vertical Diffuse Angle(50%): V51.5

Luminaire Efficacy Rating (LER): 86.51

Max. Intensity: 1810.06 cd

S/MH(C0/C180): 0.85

Total Rated Lamp Lumens: 1175.8 lm

Efficiency: 100%

Upward Ratio: 0%

Central Intensity: 1800.82 cd

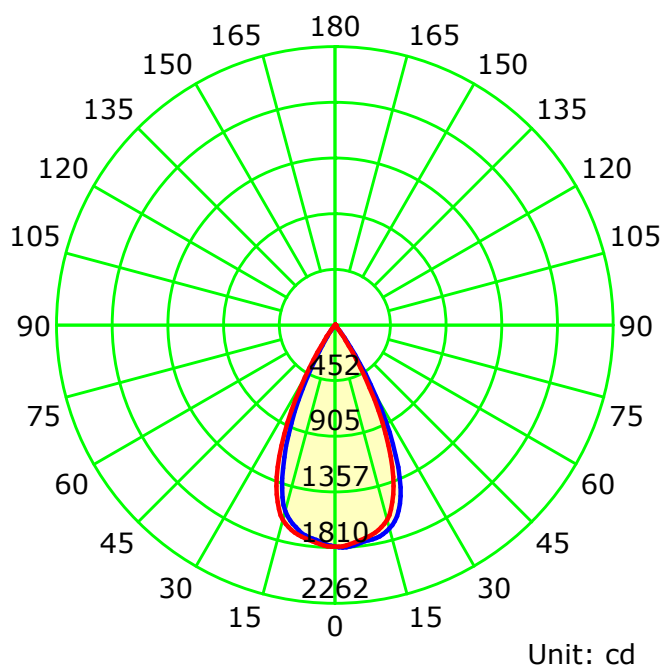
Pos of Max. Intensity: H0 V2

S/MH(C90/C270): 0.85

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

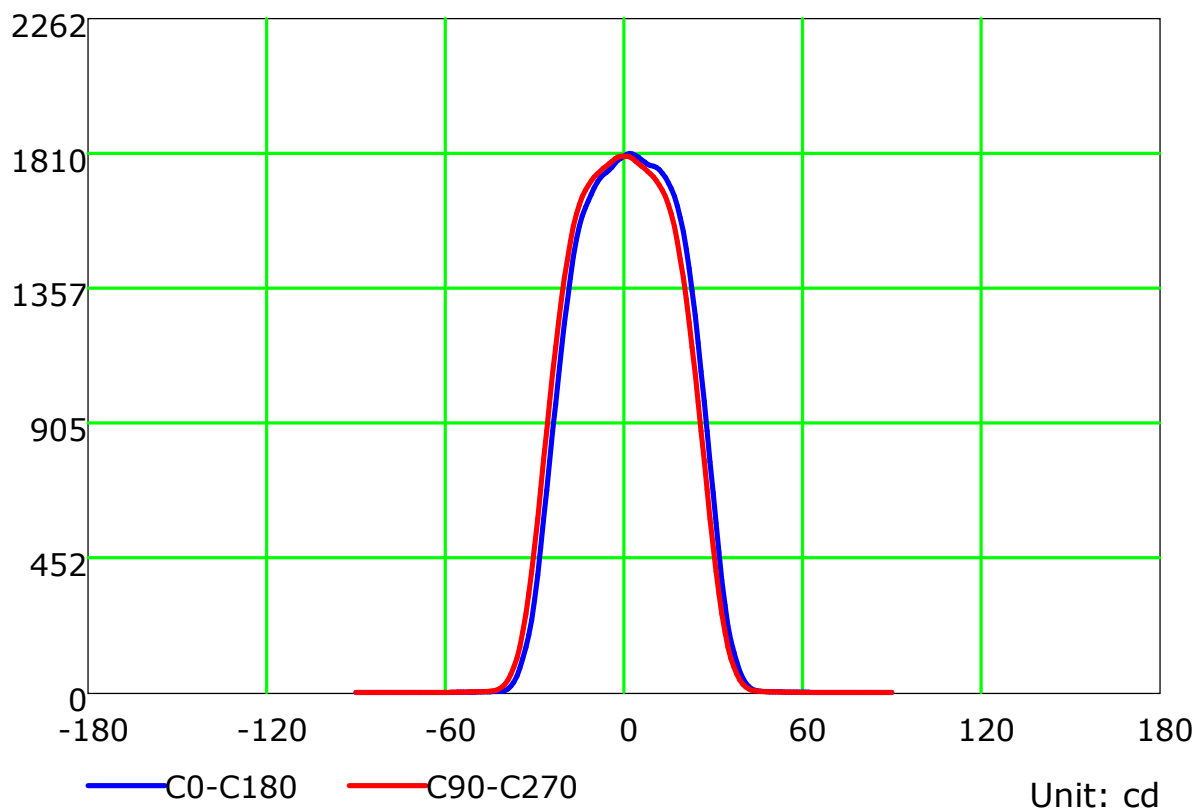
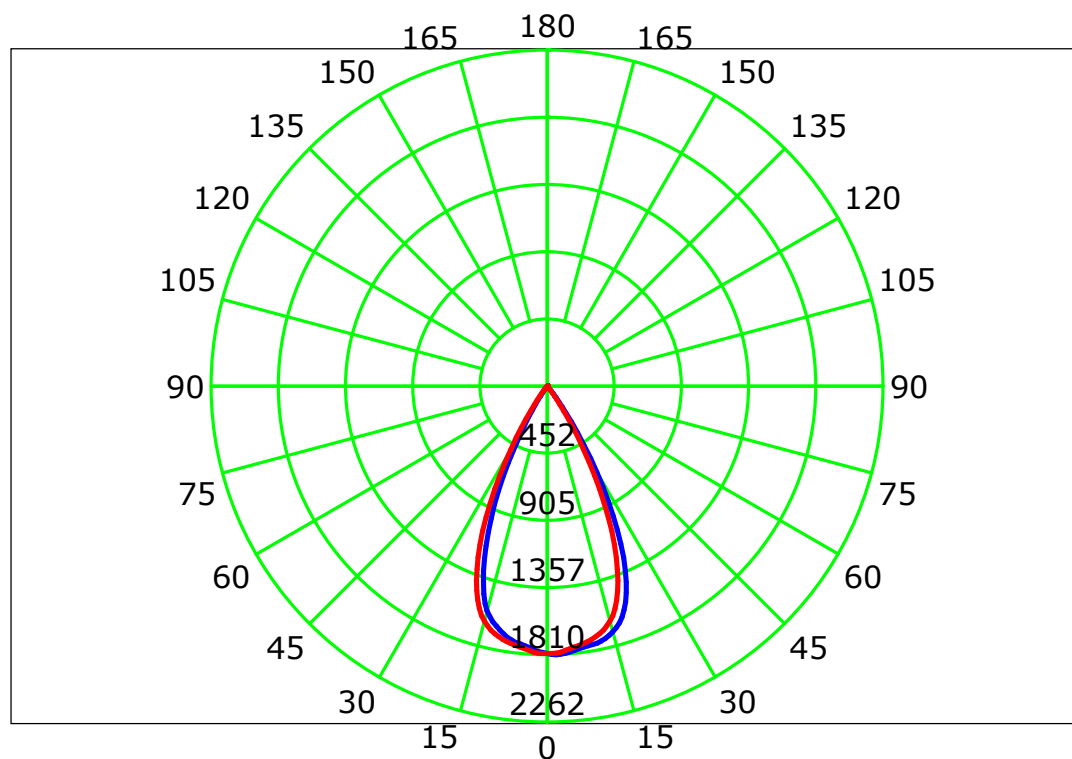
Test Device: CHL-6E

Distance: 2.905 m

Humidity:

Inspector:

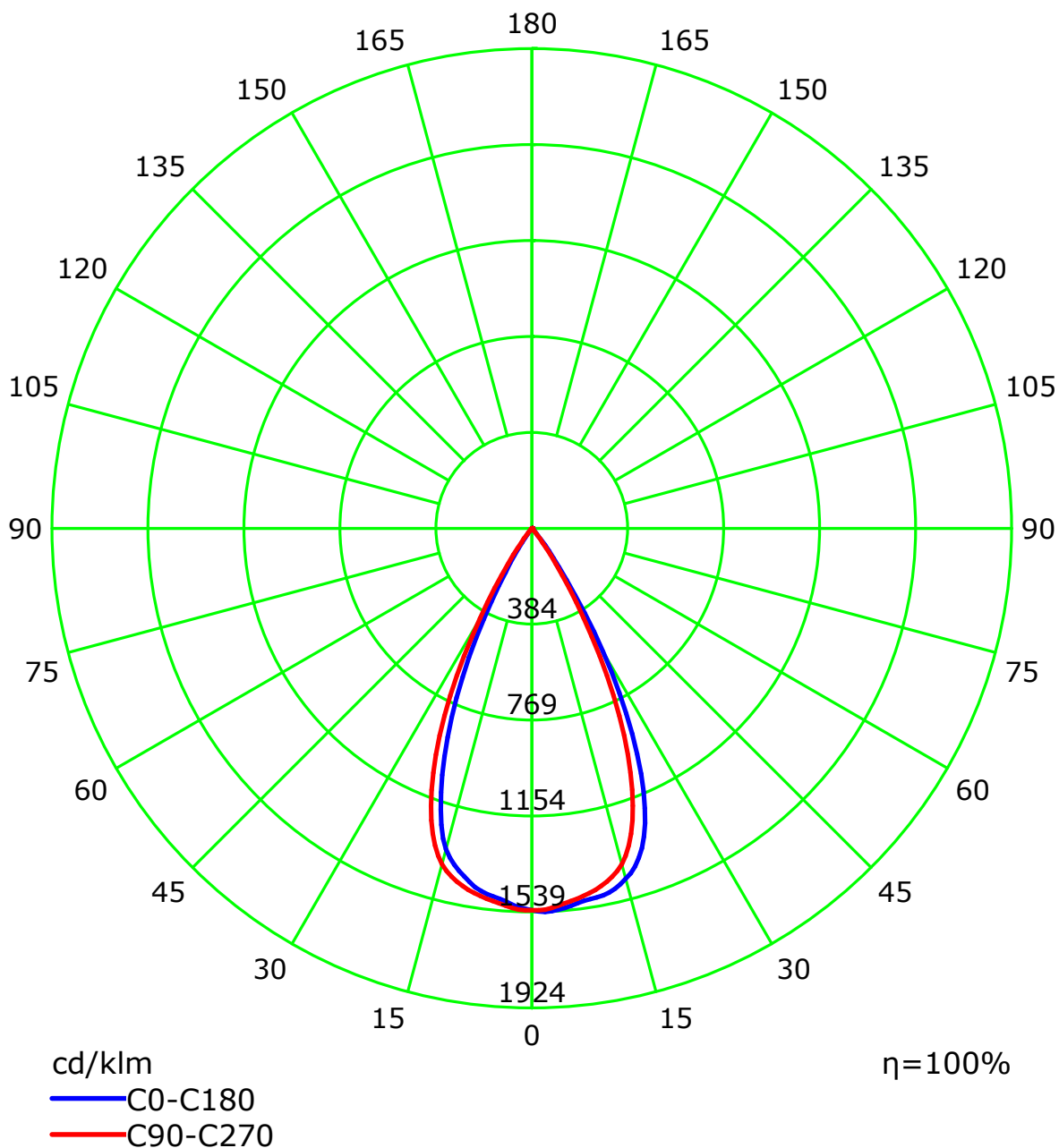
## Luminous Intensity Distribution Curve



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:

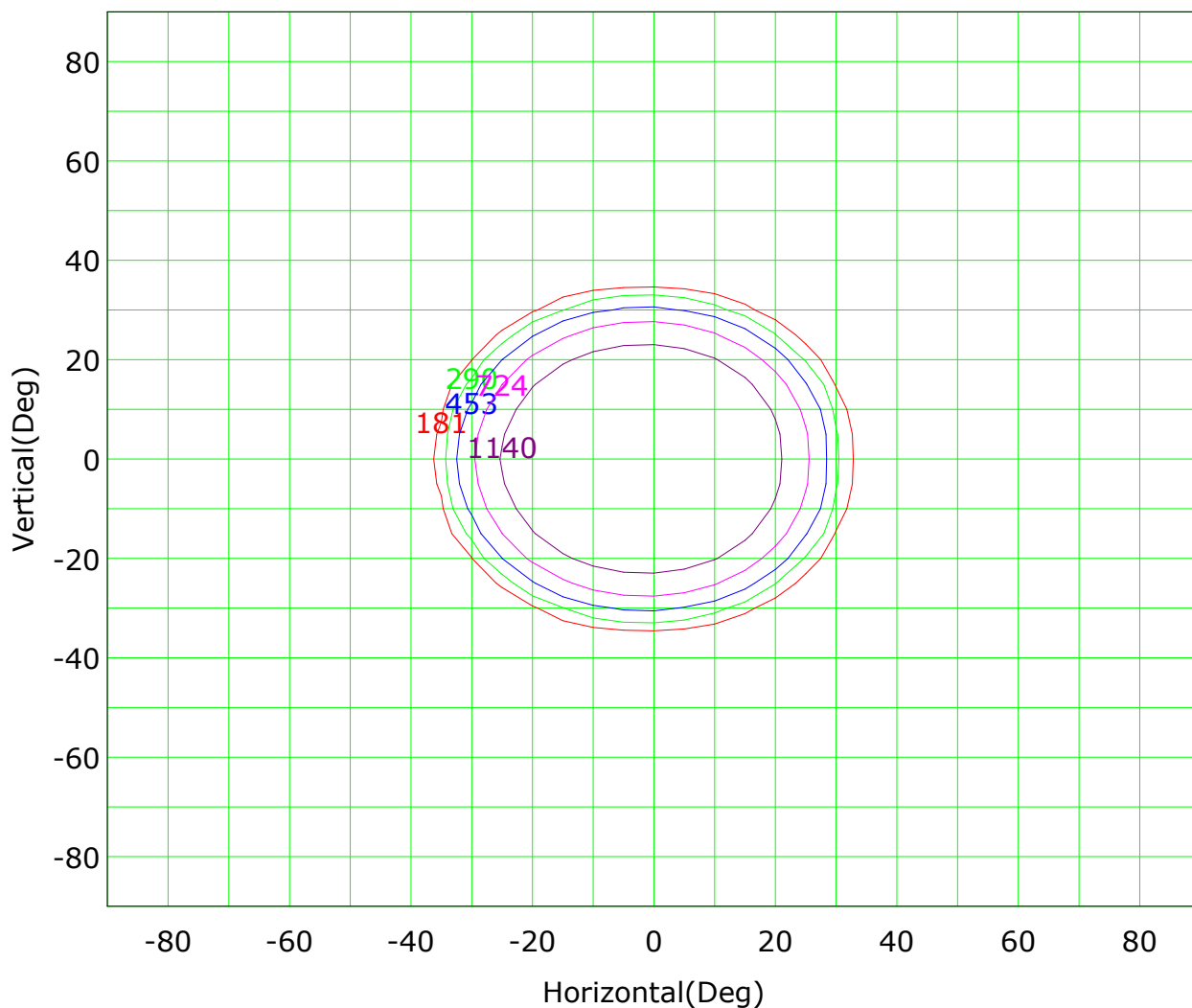
## Luminous Intensity Distribution Curve(cd/klm)



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%): 1810 cd

( 10%): 181 cd	( 16%): 290 cd
( 25%): 453 cd	( 40%): 724 cd
( 63%): 1140 cd	(100%): 1810 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

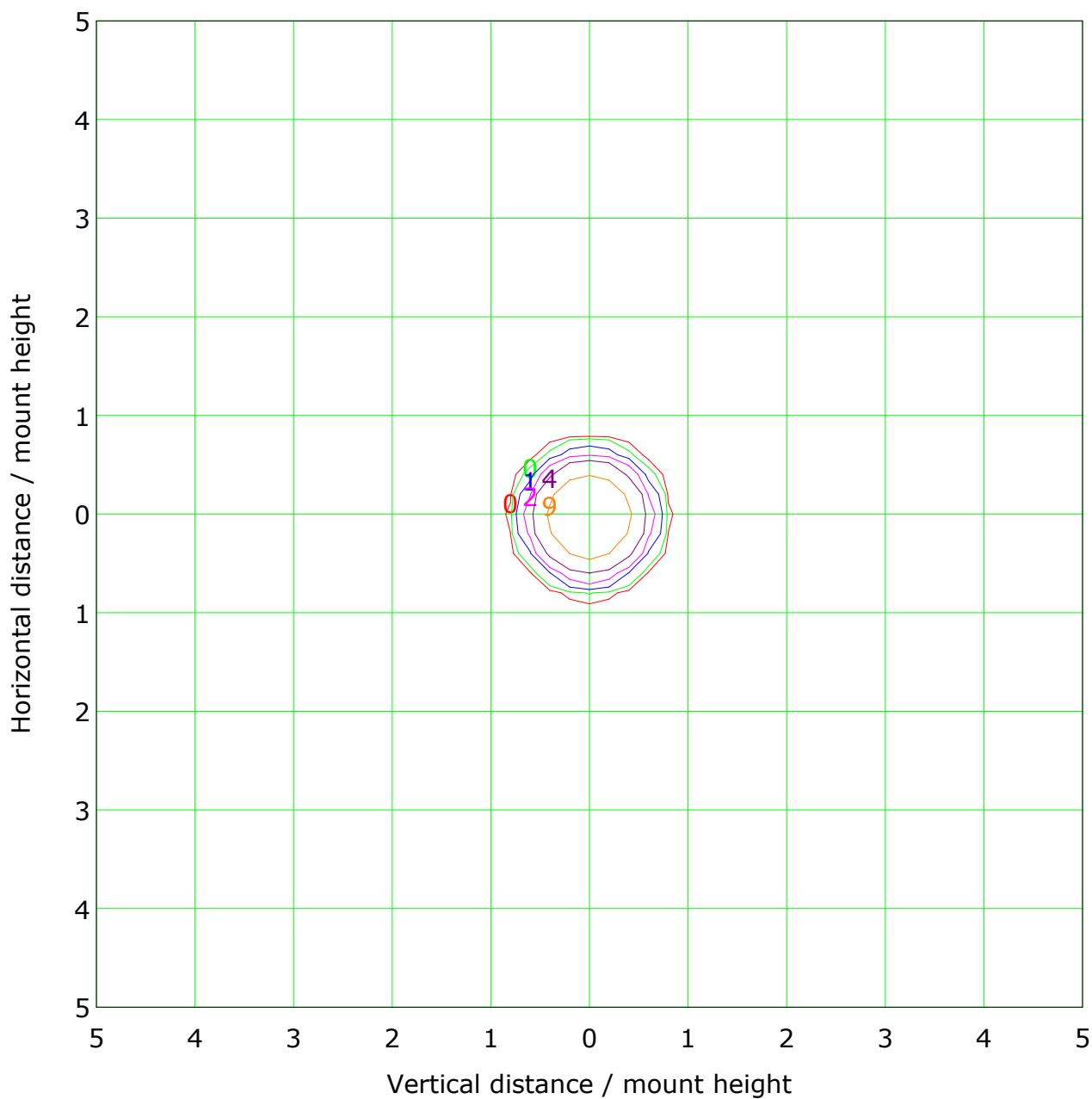
Test Device: CHL-6E

Distance: 2.905 m

Humidity:

Inspector:

## IsoLux Plot



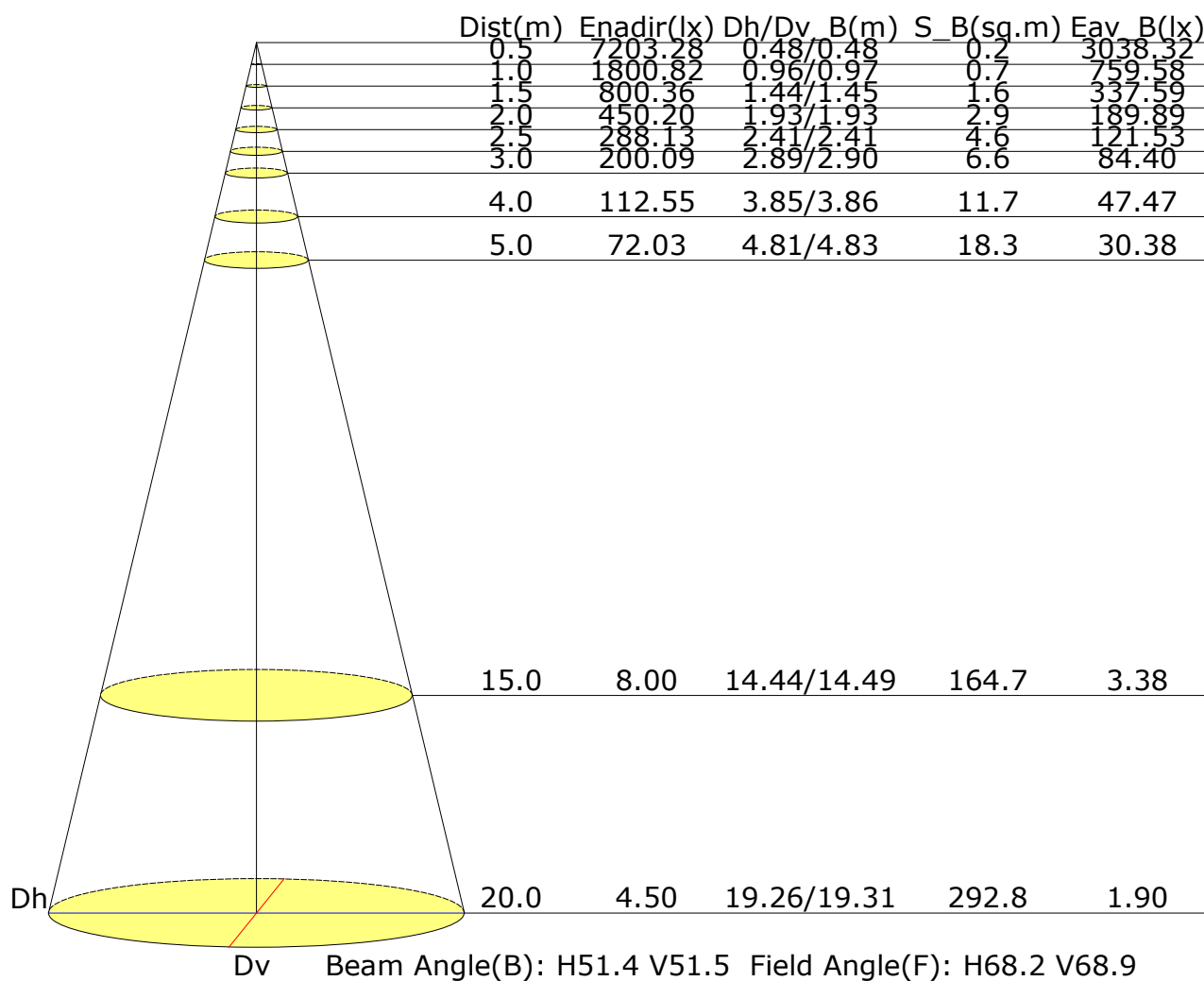
Mounting Height: 10.0m    Max Lux(100%): 18.1 lx

( 1%): 0.2 lx	( 2%): 0.4 lx
( 5%): 0.9 lx	( 10%): 1.8 lx
( 20%): 3.6 lx	( 50%): 9.0 lx
(100%): 18.1 lx	

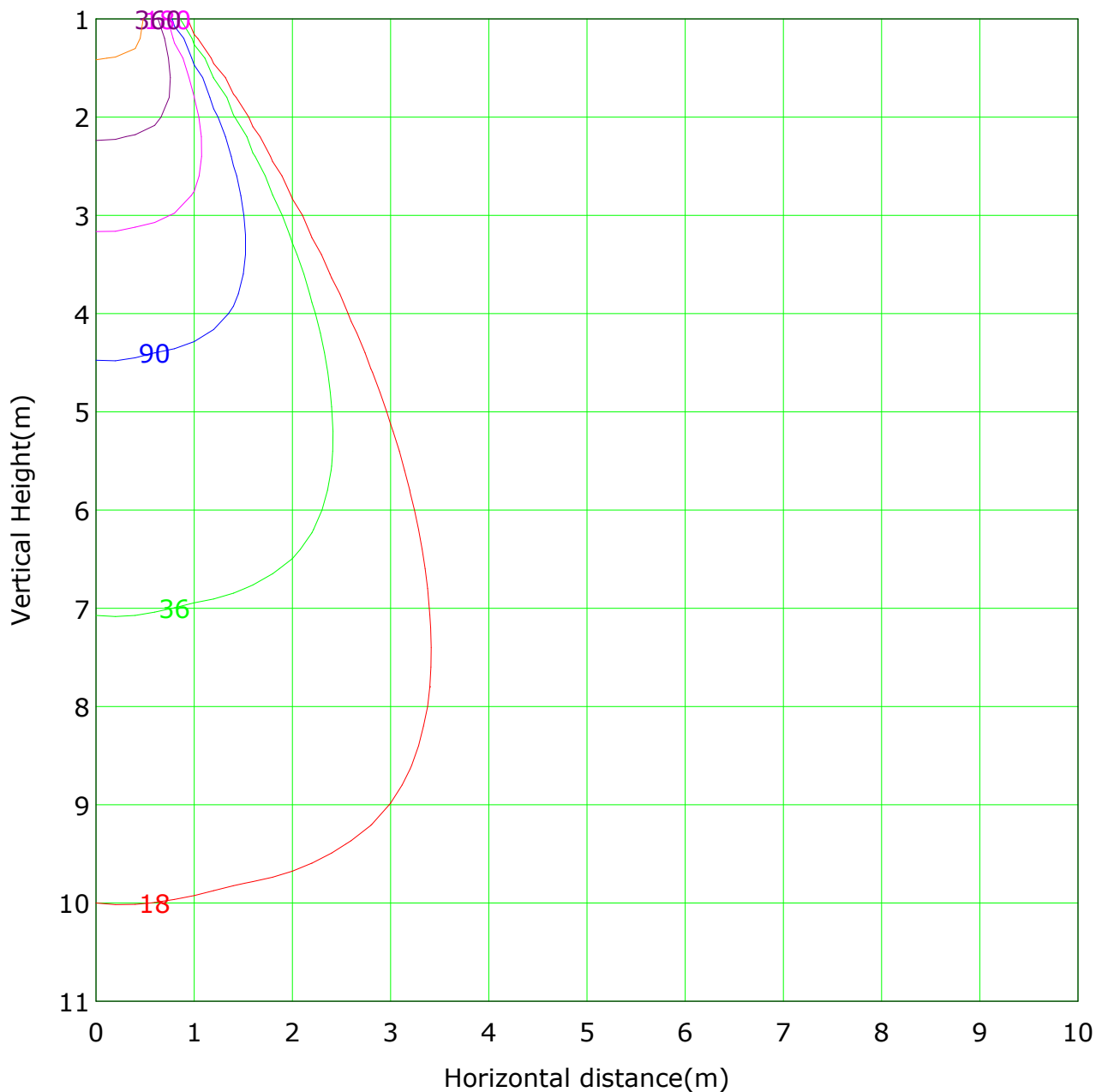
C Plane (°):0.0-180.0: 180.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

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

## Illuminance at a Distance



## Vertical IsoLux Plot



Lowest(m): 1.0m   Highest(m): 11.0m   Max Lux: 1800.8 lx

( 1%): 18.0 lx	( 2%): 36.0 lx
( 5%): 90.0 lx	( 10%): 180.1 lx
( 20%): 360.2 lx	( 50%): 900.4 lx
(100%):1800.8 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:

## Area Flux Table

Unit: lm

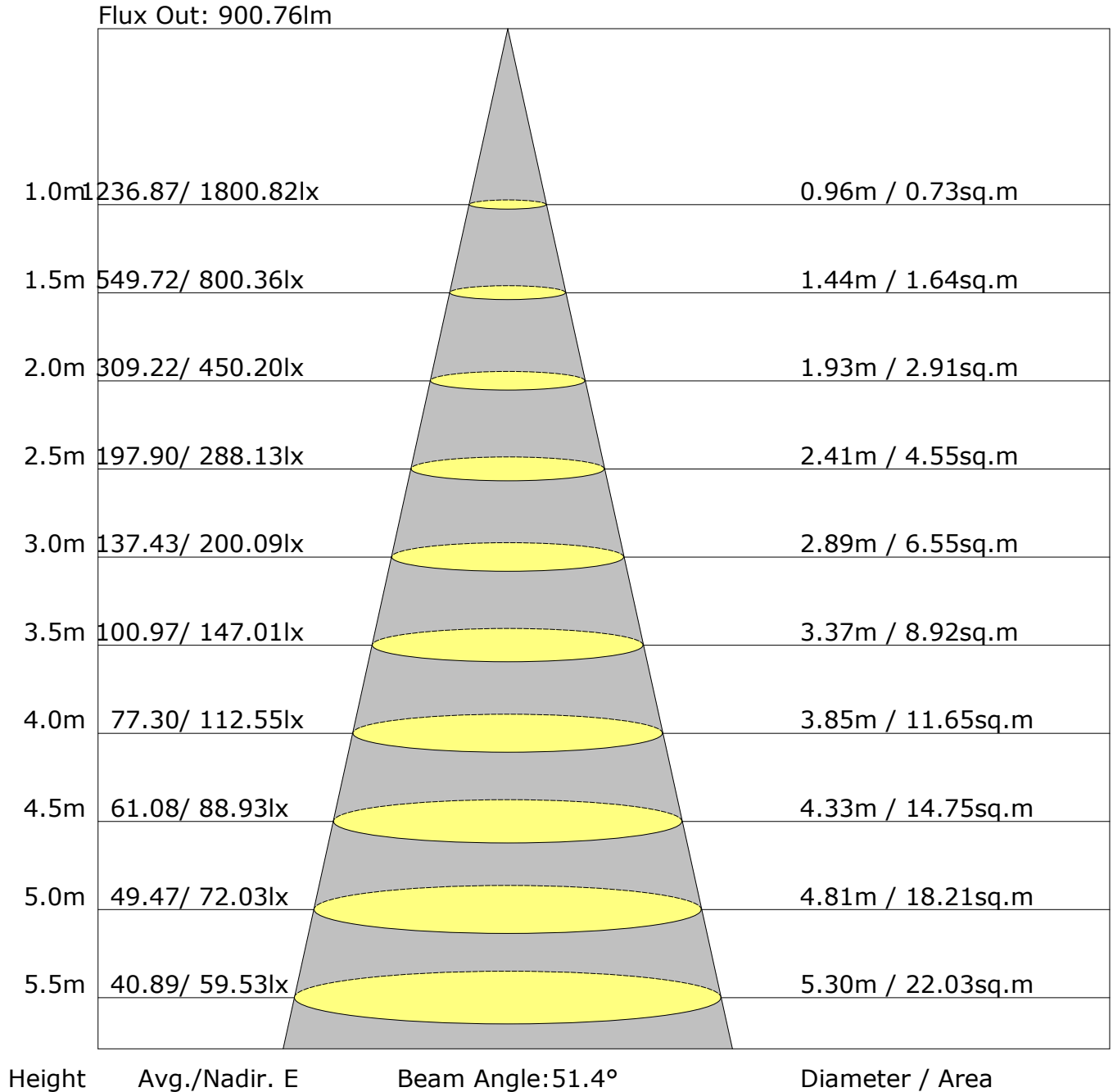
Vertical plane																			Horizontal plane																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							</

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	18.1	18.8	18.3	19.0	19.2	16.4	17.1	16.6	17.3	17.5
3H	17.9	18.6	18.2	18.8	19.1	16.2	16.9	16.5	17.2	17.4
4H	17.8	18.5	18.2	18.7	19.0	16.2	16.8	16.5	17.1	17.3
6H	17.8	18.4	18.1	18.6	18.9	16.1	16.7	16.4	17.0	17.2
8H	17.7	18.3	18.1	18.6	18.9	16.1	16.6	16.4	16.9	17.2
12H	17.7	18.2	18.0	18.5	18.9	16.0	16.6	16.4	16.9	17.2
X=4H Y=2H	17.8	18.5	18.2	18.7	19.0	16.2	16.8	16.5	17.1	17.3
3H	17.7	18.2	18.0	18.5	18.9	16.0	16.6	16.4	16.9	17.2
4H	17.6	18.1	18.0	18.4	18.8	15.9	16.4	16.3	16.7	17.1
6H	17.5	18.0	17.9	18.3	18.7	15.8	16.3	16.3	16.6	17.0
8H	17.5	17.9	17.9	18.3	18.7	15.8	16.2	16.2	16.6	17.0
12H	17.4	17.8	17.9	18.2	18.6	15.8	16.1	16.2	16.5	16.9
X=8H Y=4H	17.5	17.9	17.9	18.3	18.7	15.8	16.2	16.2	16.6	17.0
6H	17.4	17.7	17.8	18.1	18.6	15.7	16.0	16.2	16.4	16.9
8H	17.3	17.6	17.8	18.1	18.5	15.7	15.9	16.1	16.4	16.9
12H	17.3	17.5	17.8	18.0	18.5	15.6	15.9	16.1	16.3	16.8
X=12H Y=4H	17.4	17.8	17.9	18.2	18.6	15.8	16.1	16.2	16.5	16.9
6H	17.3	17.6	17.8	18.1	18.5	15.7	15.9	16.1	16.4	16.9
8H	17.3	17.5	17.8	18.0	18.5	15.6	15.9	16.1	16.3	16.8
Variations with the observer position at spacings:										
S=1.0H	+6.7/-20.6					+6.5/-20.1				
S=1.5H	+9.5/-21.9					+9.4/-22.2				
S=2.0H	+11.5/-26.0					+11.4/-26.2				

Calculate in accordance with CIE Pub.117. The table is revised with  $1176\text{lm}$  ( $8\log(F/F_0) = 0.6$ ).

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	631	53.6
	FL ( 0°-30°)	555	47.2
	FM (30°-60°)	75	6.4
	FH (60°-80°)	0	0.0
	FVH (80°-90°)	0	0.0
	BACK LIGHT	545	46.4
	BL ( 0°-30°)	498	42.3
	BM (30°-60°)	47	4.0
	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)	B1 U0 G0
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B1 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	1800.9	1.7	1.7	0.15	0.15
1.0-2.0	1800.0	5.2	6.9	0.44	0.59
2.0-3.0	1796.1	8.6	15.5	0.73	1.32
3.0-4.0	1788.3	12.0	27.5	1.02	2.33
4.0-5.0	1779.6	15.3	42.8	1.30	3.64
5.0-6.0	1771.7	18.6	61.4	1.58	5.22
6.0-7.0	1763.8	21.9	83.3	1.86	7.08
7.0-8.0	1755.3	25.1	108.4	2.14	9.22
8.0-9.0	1746.3	28.3	136.7	2.41	11.63
9.0-10.0	1736.7	31.4	168.1	2.67	14.30
10.0-11.0	1724.6	34.5	202.6	2.93	17.23
11.0-12.0	1710.8	37.4	240.0	3.18	20.41
12.0-13.0	1695.1	40.2	280.2	3.42	23.83
13.0-14.0	1675.9	42.9	323.1	3.65	27.48
14.0-15.0	1652.2	45.4	368.5	3.86	31.34
15.0-16.0	1623.2	47.6	416.1	4.05	35.39
16.0-17.0	1586.2	49.4	465.5	4.20	39.59
17.0-18.0	1539.6	50.8	516.3	4.32	43.91
18.0-19.0	1485.3	51.7	567.9	4.40	48.30
19.0-20.0	1424.6	52.1	620.1	4.43	52.74
20.0-21.0	1356.9	52.1	672.2	4.43	57.17
21.0-22.0	1282.3	51.5	723.7	4.38	61.55
22.0-23.0	1201.5	50.4	774.1	4.29	65.84
23.0-24.0	1115.0	48.8	822.9	4.15	69.99
24.0-25.0	1022.8	46.5	869.4	3.96	73.94
25.0-26.0	926.9	43.8	913.2	3.72	77.66
26.0-27.0	829.6	40.6	953.8	3.45	81.12
27.0-28.0	731.5	37.0	990.8	3.15	84.27
28.0-29.0	633.5	33.1	1024.0	2.82	87.09
29.0-30.0	537.9	29.0	1053.0	2.47	89.56
30.0-31.0	448.9	25.0	1078.0	2.12	91.68
31.0-32.0	369.7	21.2	1099.2	1.80	93.48
32.0-33.0	298.5	17.6	1116.8	1.50	94.98
33.0-34.0	234.1	14.2	1130.9	1.21	96.18
34.0-35.0	178.6	11.1	1142.0	0.94	97.13
35.0-36.0	134.2	8.5	1150.6	0.73	97.85

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	100.1	6.5	1157.1	0.56	98.41
37.0-38.0	73.2	4.9	1162.0	0.42	98.82
38.0-39.0	51.8	3.5	1165.5	0.30	99.13
39.0-40.0	34.9	2.4	1168.0	0.21	99.33
40.0-41.0	23.1	1.6	1169.6	0.14	99.47
41.0-42.0	15.6	1.1	1170.7	0.10	99.57
42.0-43.0	10.4	0.8	1171.5	0.07	99.63
43.0-44.0	6.9	0.5	1172.0	0.04	99.68
44.0-45.0	4.9	0.4	1172.4	0.03	99.71
45.0-46.0	4.1	0.3	1172.7	0.03	99.74
46.0-47.0	3.6	0.3	1173.0	0.02	99.76
47.0-48.0	3.2	0.3	1173.3	0.02	99.78
48.0-49.0	2.9	0.2	1173.5	0.02	99.80
49.0-50.0	2.7	0.2	1173.7	0.02	99.82
50.0-51.0	2.6	0.2	1173.9	0.02	99.84
51.0-52.0	2.3	0.2	1174.1	0.02	99.86
52.0-53.0	2.0	0.2	1174.3	0.02	99.87
53.0-54.0	1.8	0.2	1174.5	0.01	99.89
54.0-55.0	1.6	0.1	1174.6	0.01	99.90
55.0-56.0	1.5	0.1	1174.8	0.01	99.91
56.0-57.0	1.4	0.1	1174.9	0.01	99.92
57.0-58.0	1.3	0.1	1175.0	0.01	99.93
58.0-59.0	1.2	0.1	1175.1	0.01	99.94
59.0-60.0	1.0	0.1	1175.2	0.01	99.95
60.0-61.0	0.9	0.1	1175.3	0.01	99.96
61.0-62.0	0.8	0.1	1175.4	0.01	99.96
62.0-63.0	0.7	0.1	1175.4	0.01	99.97
63.0-64.0	0.7	0.1	1175.5	0.01	99.97
64.0-65.0	0.5	0.1	1175.6	0.00	99.98
65.0-66.0	0.4	0.0	1175.6	0.00	99.98
66.0-67.0	0.4	0.0	1175.6	0.00	99.99
67.0-68.0	0.3	0.0	1175.7	0.00	99.99
68.0-69.0	0.3	0.0	1175.7	0.00	99.99
69.0-70.0	0.2	0.0	1175.7	0.00	99.99
70.0-71.0	0.1	0.0	1175.7	0.00	99.99
71.0-72.0	0.1	0.0	1175.8	0.00	100.00

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:

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	1800.8	1800.8								
G1.0	1807.3	1794.5								
G2.0	1810.1	1788.2								
G3.0	1808.1	1778.2								
G4.0	1802.6	1764.3								
G5.0	1797.2	1754.3								
G6.0	1789.3	1745.9								
G7.0	1781.1	1739.0								
G8.0	1773.6	1727.5								
G9.0	1770.1	1714.3								
G10.0	1767.8	1694.5								
G11.0	1763.1	1673.0								
G12.0	1755.4	1651.9								
G13.0	1744.5	1628.5								
G14.0	1729.5	1601.0								
G15.0	1711.3	1566.8								
G16.0	1692.0	1522.7								
G17.0	1666.8	1463.2								
G18.0	1634.5	1393.7								
G19.0	1594.5	1318.2								
G20.0	1547.0	1238.5								
G21.0	1489.5	1152.8								
G22.0	1423.9	1063.0								
G23.0	1349.8	969.3								
G24.0	1266.5	874.3								
G25.0	1174.2	776.3								
G26.0	1078.5	678.7								
G27.0	980.0	581.1								
G28.0	878.9	486.0								
G29.0	774.6	394.5								
G30.0	670.7	311.6								
G31.0	569.9	243.3								
G32.0	471.4	194.1								
G33.0	376.9	151.7								
G34.0	293.7	114.3								
G35.0	224.3	81.9								
G36.0	175.6	55.0								

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:

## Candlepower Table (Continue 1)

Unit: cd

G\C	C0.0	C180.0								
G37.0	134.9	35.0								
G38.0	101.1	22.0								
G39.0	71.6	12.4								
G40.0	48.3	7.1								
G41.0	31.8	5.3								
G42.0	20.6	4.6								
G43.0	12.6	3.9								
G44.0	7.6	3.4								
G45.0	5.6	3.2								
G46.0	4.6	2.9								
G47.0	4.1	2.8								
G48.0	3.6	2.4								
G49.0	3.2	2.2								
G50.0	3.2	2.1								
G51.0	3.1	1.8								
G52.0	2.5	1.8								
G53.0	2.2	1.5								
G54.0	2.1	1.3								
G55.0	2.1	1.1								
G56.0	1.8	1.1								
G57.0	1.5	1.0								
G58.0	1.5	1.0								
G59.0	1.4	0.7								
G60.0	1.4	0.7								
G61.0	1.1	0.4								
G62.0	1.1	0.4								
G63.0	1.0	0.4								
G64.0	1.0	0.3								
G65.0	0.7	0.1								
G66.0	0.7	0.1								
G67.0	0.7	0.1								
G68.0	0.4	0.1								
G69.0	0.6	0.1								
G70.0	0.1	0.0								
G71.0	0.1	0.3								
G72.0	0.1	0.0								
G73.0	0.1	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

[illegible]

Inspector: