

Report No.:

Test Time: 2018-6-12 11:08

## Luminaire Property

Luminaire Manufacturer:

Voltage: 277.3 V

Power: 98.47 W

Current: 0.3885 A

Power Factor: 0.9151

## Photometric Results

IES Classification: Type II

Total Rated Lamp Lumens: 12359.3 lm

Efficiency: 100%

Upward Ratio: 1%

Central Intensity: 5196.36 cd

Pos of Max. Intensity: H0 V26

Longitudinal Classification: Very Short

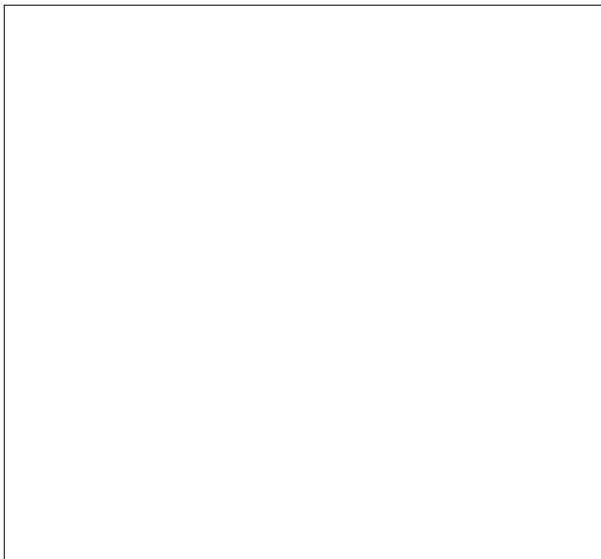
Measurement Flux: 12359.3 lm

Downward Ratio: 99%

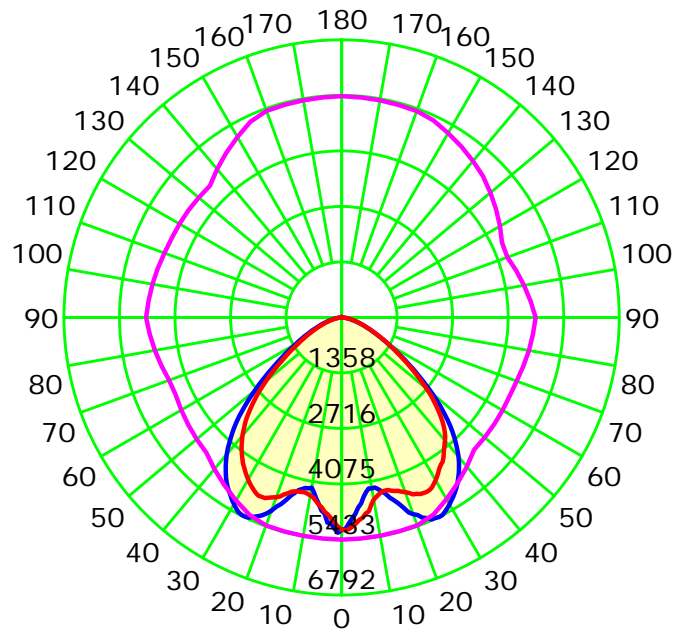
Luminaire Efficacy Rating (LER): 125.51

Max. Intensity: 5433.97 cd

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

Average Diffuse Angle(50%): 100.4°

— C0-C180 — C90-C270 — G26

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature: 27.9 °C

Operator:

Gamma Plane (°):0.0-180.0:1.0

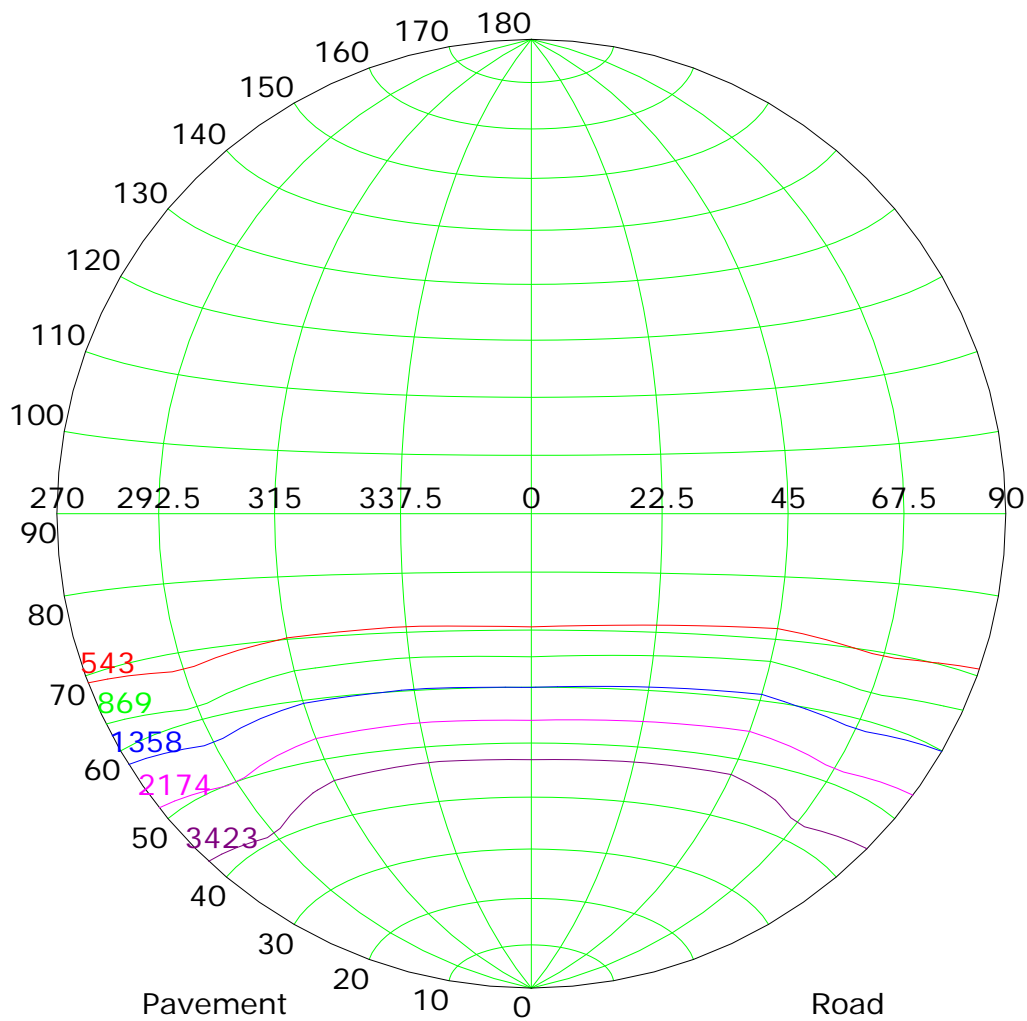
Test Device: GPM-3000

Distance: 17.398 m

Humidity:

Inspector:

## Isocandela (sphere)



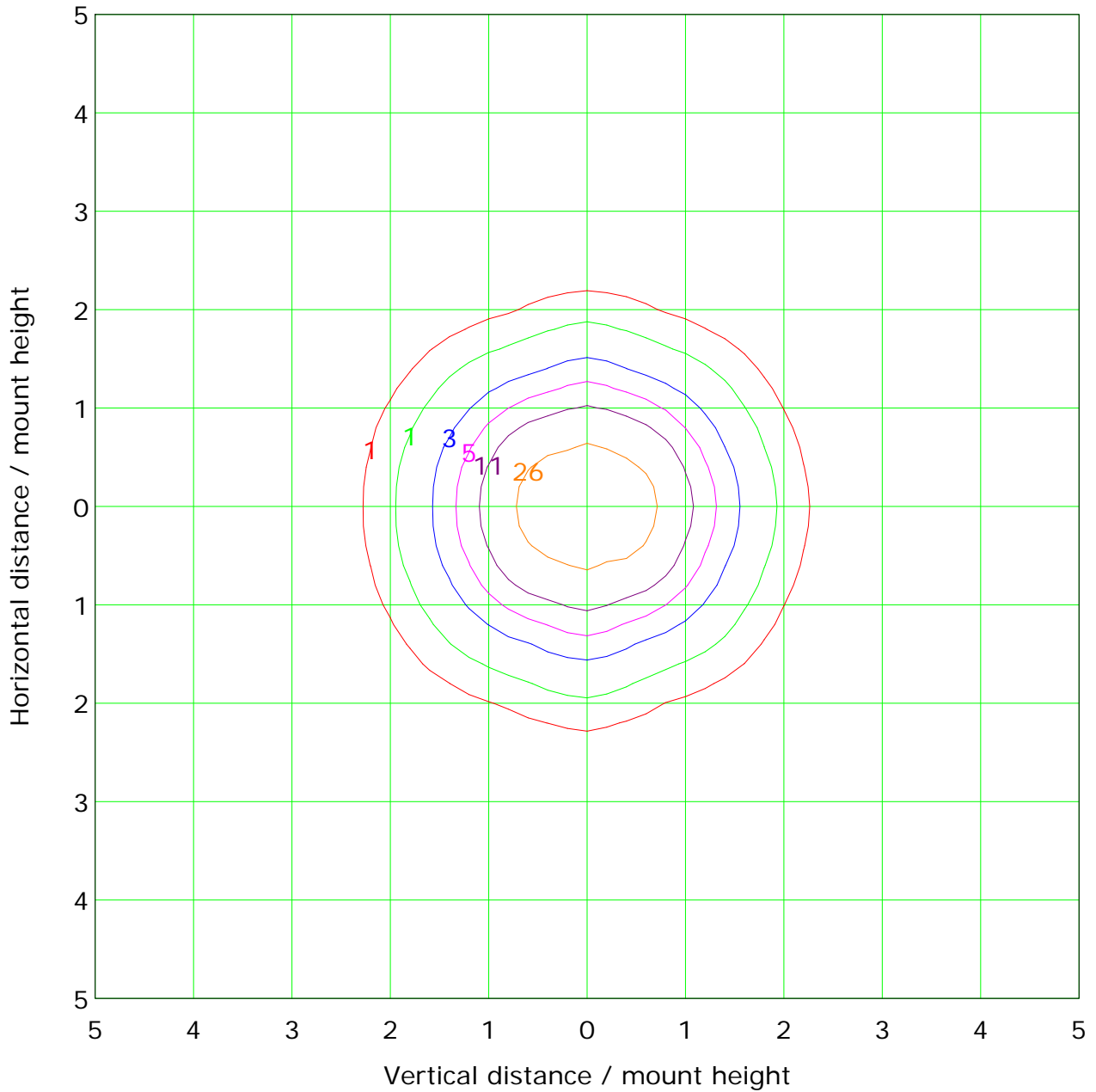
Imax (100%): 5434 cd

— ( 10%): 543 cd	— ( 16%): 869 cd
— ( 25%): 1358 cd	— ( 40%): 2174 cd
— ( 63%): 3423 cd	— (100%): 5434 cd

C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 27.9 °C  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-3000  
 Distance: 17.398 m  
 Humidity:  
 Inspector:

## IsoLux Plot



Mounting Height: 10.0m		Max Lux(100%): 52.9 lx	
— ( 1%):	0.5 lx	— ( 2%):	1.1 lx
— ( 5%):	2.6 lx	— ( 10%):	5.3 lx
— ( 20%):	10.6 lx	— ( 50%):	26.4 lx
— (100%):	52.9 lx		

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature: 27.9 °C

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-3000

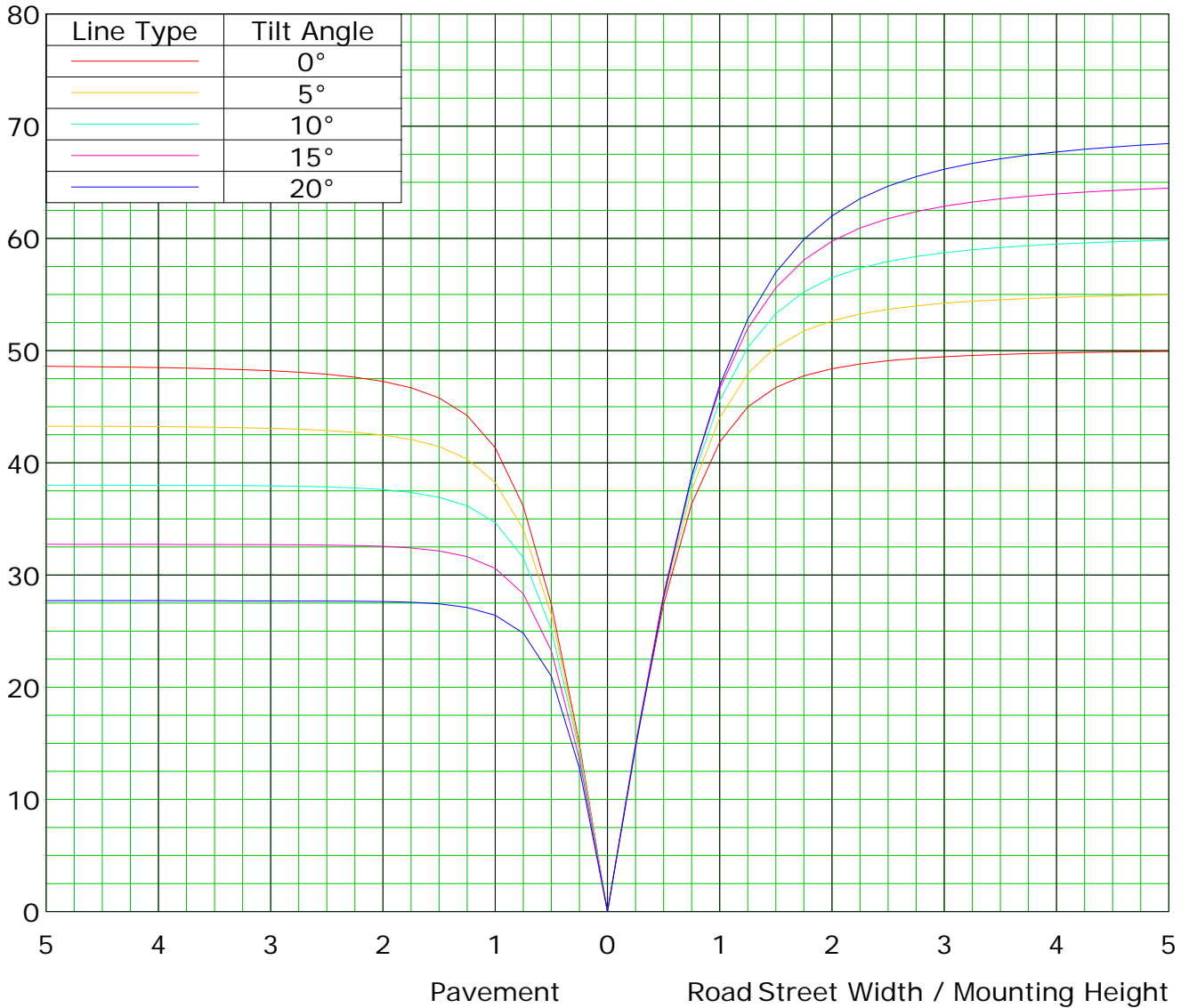
Distance: 17.398 m

Humidity:

Inspector:

## Roadway CU Curve

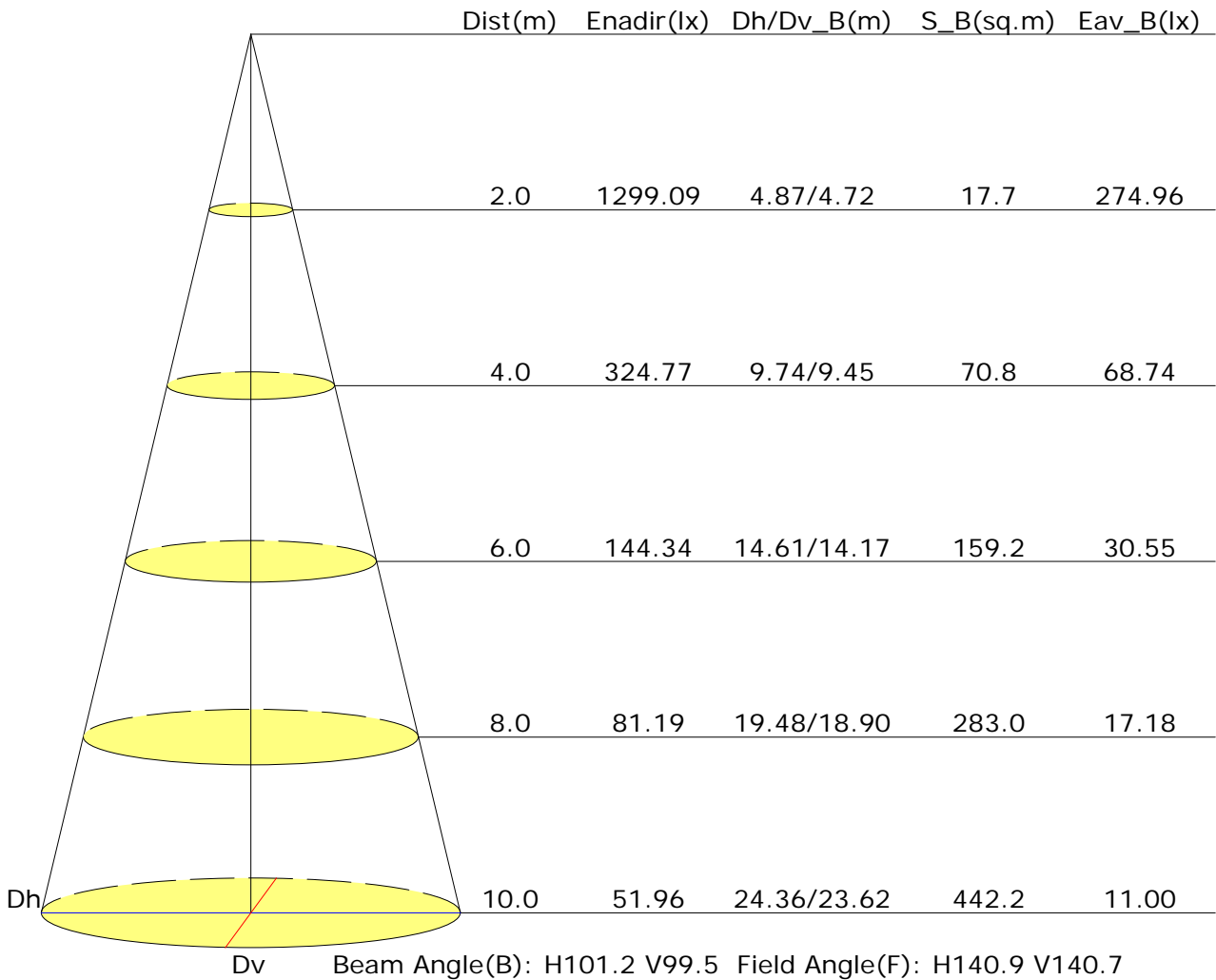
Efficiency(%)



C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 27.9 °C  
 Operator:

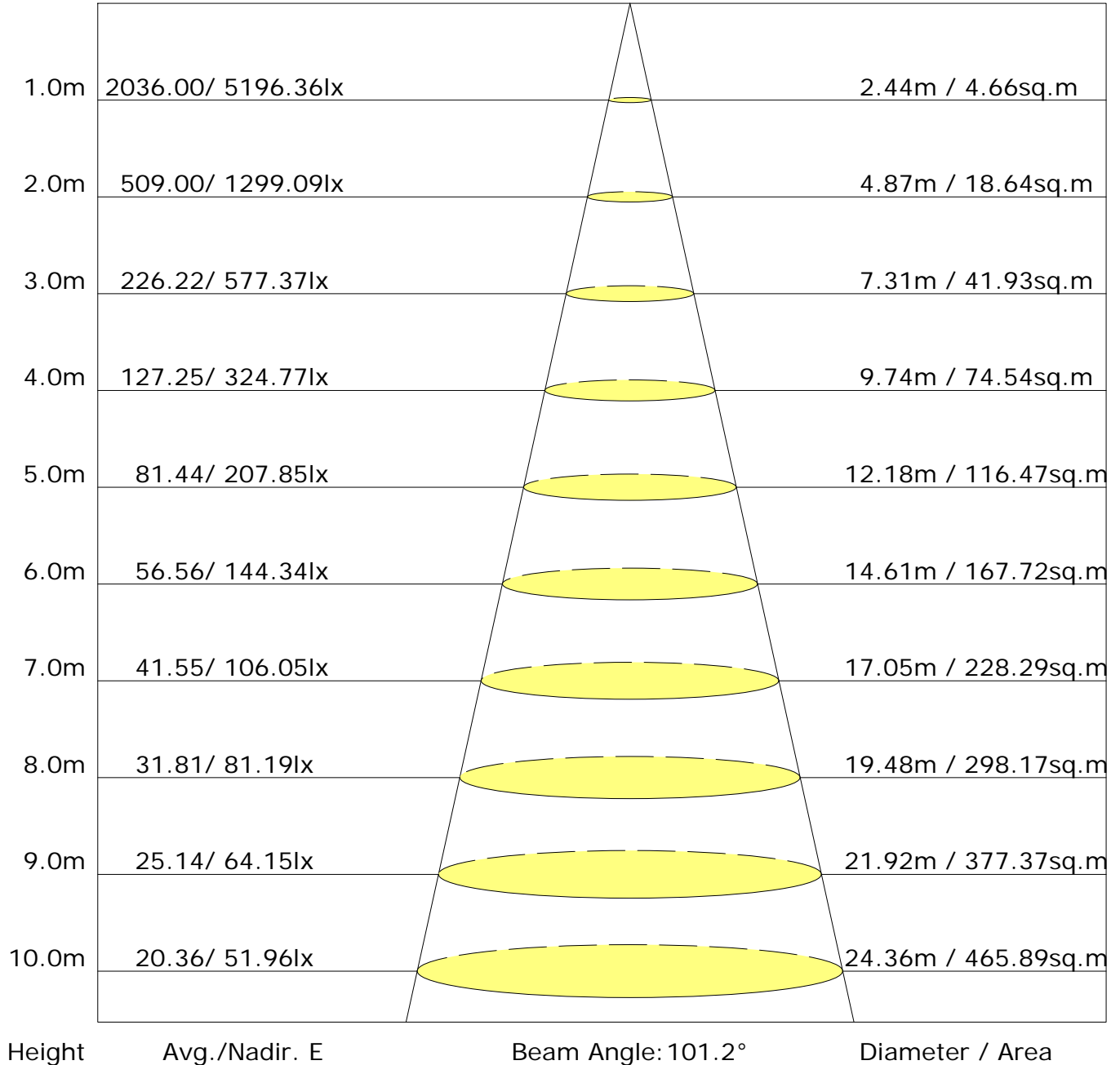
Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-3000  
 Distance: 17.398 m  
 Humidity:  
 Inspector:

## Illuminance at a Distance



## The Average Illuminance Effective Figure

Flux Out: 9485.58lm



C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 27.9 °C  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-3000  
 Distance: 17.398 m  
 Humidity:  
 Inspector:

### UGR Table

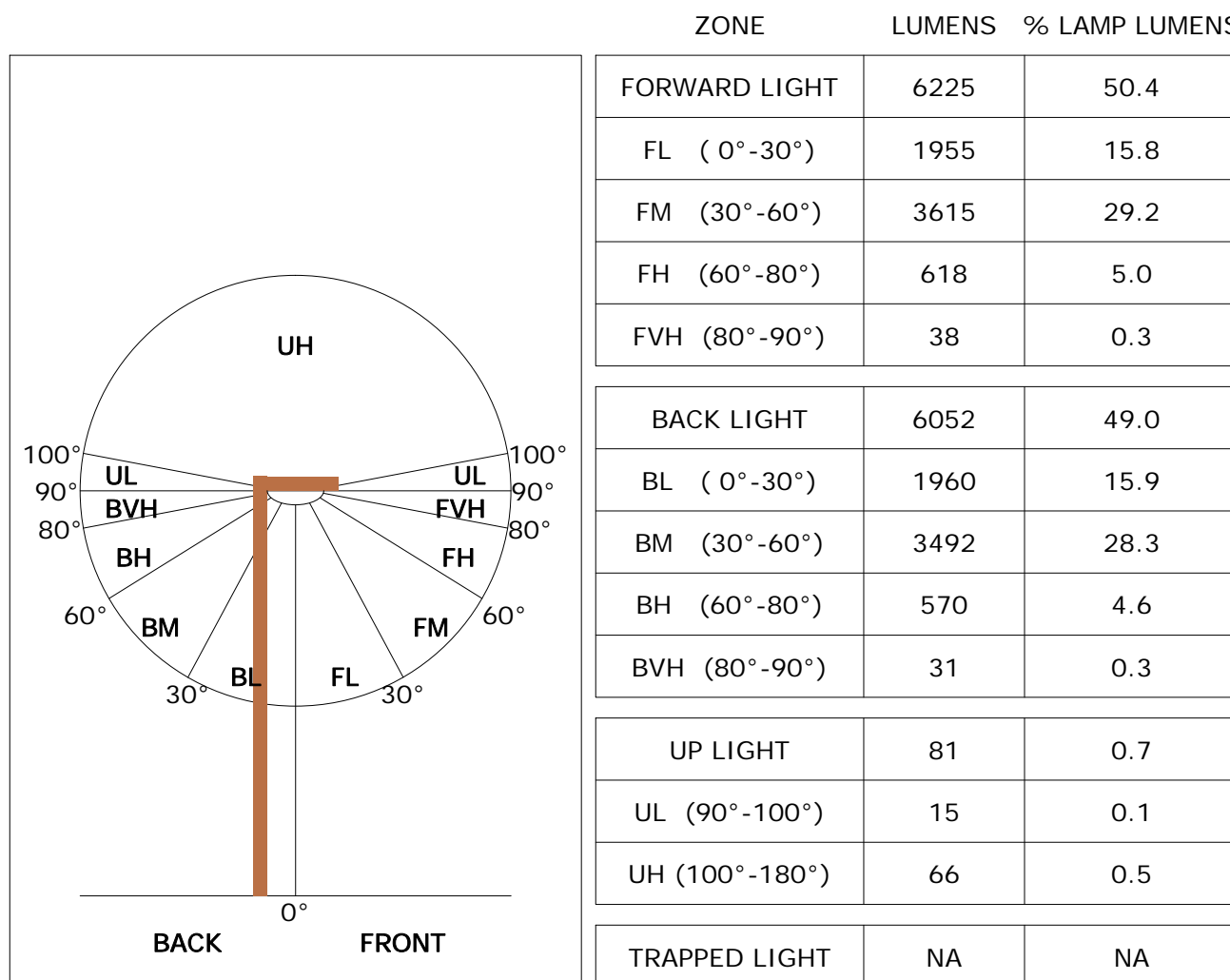
Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
3H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
4H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
6H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
8H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
12H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
X=4H Y=2H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
3H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
4H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
6H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
8H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
12H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
X=8H Y=4H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
6H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
8H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
12H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
X=12H Y=4H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
6H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
8H	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$	-1.\$
Variations with the observer position at spacings:										
S=1.0H	-1.\$/-1.\$					-1.\$/-1.\$				
S=1.5H	-1.\$/-1.\$					-1.\$/-1.\$				
S=2.0H	-1.\$/-1.\$					-1.\$/-1.\$				

Calculate in accordance with CIE Pub.117. The table is revised with 12359Im ( $8\log(F/F_0) = 8.7$ ).

C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 27.9 °C  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-3000  
 Distance: 17.398 m  
 Humidity:  
 Inspector:

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



BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B3 U2 G2
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B3 U2 G1

C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 27.9 °C  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-3000  
 Distance: 17.398 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	5180.7	5.0	5.0	0.04	0.04
1.0-2.0	5136.1	14.7	19.7	0.12	0.16
2.0-3.0	5054.6	24.2	43.9	0.20	0.36
3.0-4.0	4963.0	33.2	77.1	0.27	0.62
4.0-5.0	4870.5	41.9	119.0	0.34	0.96
5.0-6.0	4766.0	50.1	169.1	0.41	1.37
6.0-7.0	4658.1	57.8	226.9	0.47	1.84
7.0-8.0	4546.6	65.1	292.0	0.53	2.36
8.0-9.0	4437.2	71.9	363.9	0.58	2.94
9.0-10.0	4348.9	78.7	442.6	0.64	3.58
10.0-11.0	4305.1	86.0	528.7	0.70	4.28
11.0-12.0	4286.7	93.7	622.4	0.76	5.04
12.0-13.0	4282.5	101.6	724.0	0.82	5.86
13.0-14.0	4289.3	109.8	833.8	0.89	6.75
14.0-15.0	4303.6	118.2	952.0	0.96	7.70
15.0-16.0	4332.9	127.0	1079.0	1.03	8.73
16.0-17.0	4367.4	136.0	1215.0	1.10	9.83
17.0-18.0	4404.0	145.2	1360.2	1.18	11.01
18.0-19.0	4465.9	155.4	1515.6	1.26	12.26
19.0-20.0	4541.6	166.2	1681.9	1.35	13.61
20.0-21.0	4615.2	177.2	1859.1	1.43	15.04
21.0-22.0	4692.9	188.6	2047.7	1.53	16.57
22.0-23.0	4755.9	199.6	2247.3	1.61	18.18
23.0-24.0	4815.0	210.5	2457.9	1.70	19.89
24.0-25.0	4866.9	221.3	2679.2	1.79	21.68
25.0-26.0	4895.9	231.1	2910.3	1.87	23.55
26.0-27.0	4911.5	240.3	3150.7	1.94	25.49
27.0-28.0	4904.7	248.4	3399.0	2.01	27.50
28.0-29.0	4872.1	254.9	3653.9	2.06	29.56
29.0-30.0	4827.3	260.7	3914.6	2.11	31.67
30.0-31.0	4785.3	266.3	4181.0	2.15	33.83
31.0-32.0	4740.5	271.6	4452.6	2.20	36.03
32.0-33.0	4684.7	276.0	4728.6	2.23	38.26
33.0-34.0	4625.0	279.9	5008.5	2.26	40.52
34.0-35.0	4561.0	283.3	5291.8	2.29	42.82
35.0-36.0	4486.6	285.7	5577.5	2.31	45.13

C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 27.9 °C  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-3000  
 Distance: 17.398 m  
 Humidity:  
 Inspector:

### Zonal Lumen (Continue 1)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	4404.5	287.3	5864.8	2.32	47.45
37.0-38.0	4320.0	288.4	6153.2	2.33	49.79
38.0-39.0	4229.8	288.7	6442.0	2.34	52.12
39.0-40.0	4129.8	288.1	6730.0	2.33	54.45
40.0-41.0	4021.1	286.4	7016.4	2.32	56.77
41.0-42.0	3906.4	283.9	7300.3	2.30	59.07
42.0-43.0	3782.9	280.3	7580.5	2.27	61.33
43.0-44.0	3650.3	275.5	7856.1	2.23	63.56
44.0-45.0	3510.5	269.8	8125.9	2.18	65.75
45.0-46.0	3362.4	263.0	8388.9	2.13	67.88
46.0-47.0	3207.2	255.1	8644.0	2.06	69.94
47.0-48.0	3047.6	246.4	8890.4	1.99	71.93
48.0-49.0	2880.7	236.6	9127.0	1.91	73.85
49.0-50.0	2710.0	226.0	9353.0	1.83	75.68
50.0-51.0	2543.7	215.2	9568.2	1.74	77.42
51.0-52.0	2379.2	204.2	9772.4	1.65	79.07
52.0-53.0	2217.0	192.9	9965.3	1.56	80.63
53.0-54.0	2059.4	181.5	10146.8	1.47	82.10
54.0-55.0	1909.3	170.5	10317.3	1.38	83.48
55.0-56.0	1771.0	160.0	10477.3	1.29	84.77
56.0-57.0	1641.3	150.1	10627.4	1.21	85.99
57.0-58.0	1517.0	140.3	10767.7	1.14	87.12
58.0-59.0	1400.6	131.0	10898.7	1.06	88.18
59.0-60.0	1294.0	122.3	11021.0	0.99	89.17
60.0-61.0	1196.2	114.2	11135.1	0.92	90.10
61.0-62.0	1104.2	106.4	11241.6	0.86	90.96
62.0-63.0	1018.0	99.0	11340.6	0.80	91.76
63.0-64.0	938.3	92.1	11432.7	0.75	92.50
64.0-65.0	863.5	85.5	11518.1	0.69	93.19
65.0-66.0	794.0	79.2	11597.4	0.64	93.83
66.0-67.0	729.4	73.4	11670.7	0.59	94.43
67.0-68.0	669.5	67.8	11738.5	0.55	94.98
68.0-69.0	613.1	62.6	11801.1	0.51	95.48
69.0-70.0	561.2	57.6	11858.7	0.47	95.95
70.0-71.0	512.4	53.0	11911.7	0.43	96.38
71.0-72.0	465.7	48.4	11960.1	0.39	96.77

C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 27.9 °C  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-3000  
 Distance: 17.398 m  
 Humidity:  
 Inspector:

## Zonal Lumen (Continue 2)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
72.0-73.0	422.4	44.2	12004.3	0.36	97.13
73.0-74.0	381.9	40.2	12044.5	0.32	97.45
74.0-75.0	343.5	36.3	12080.8	0.29	97.75
75.0-76.0	306.5	32.5	12113.3	0.26	98.01
76.0-77.0	271.1	28.9	12142.2	0.23	98.24
77.0-78.0	238.2	25.5	12167.7	0.21	98.45
78.0-79.0	207.5	22.3	12190.0	0.18	98.63
79.0-80.0	177.7	19.2	12209.2	0.15	98.79
80.0-81.0	149.0	16.1	12225.3	0.13	98.92
81.0-82.0	122.1	13.2	12238.5	0.11	99.02
82.0-83.0	97.9	10.6	12249.2	0.09	99.11
83.0-84.0	76.3	8.3	12257.5	0.07	99.18
84.0-85.0	57.1	6.2	12263.7	0.05	99.23
85.0-86.0	41.2	4.5	12268.2	0.04	99.26
86.0-87.0	29.6	3.2	12271.5	0.03	99.29
87.0-88.0	22.6	2.5	12273.9	0.02	99.31
88.0-89.0	19.1	2.1	12276.0	0.02	99.33
89.0-90.0	16.9	1.9	12277.9	0.02	99.34
90.0-91.0	15.8	1.7	12279.6	0.01	99.36
91.0-92.0	15.2	1.7	12281.3	0.01	99.37
92.0-93.0	14.8	1.6	12282.9	0.01	99.38
93.0-94.0	14.4	1.6	12284.5	0.01	99.39
94.0-95.0	14.0	1.5	12286.0	0.01	99.41
95.0-96.0	13.6	1.5	12287.5	0.01	99.42
96.0-97.0	13.2	1.4	12288.9	0.01	99.43
97.0-98.0	13.1	1.4	12290.4	0.01	99.44
98.0-99.0	13.0	1.4	12291.8	0.01	99.45
99.0-100.0	12.8	1.4	12293.1	0.01	99.46
100.0-101.0	12.6	1.4	12294.5	0.01	99.48
101.0-102.0	12.5	1.3	12295.8	0.01	99.49
102.0-103.0	12.5	1.3	12297.2	0.01	99.50
103.0-104.0	12.2	1.3	12298.5	0.01	99.51
104.0-105.0	12.1	1.3	12299.8	0.01	99.52
105.0-106.0	12.2	1.3	12301.0	0.01	99.53
106.0-107.0	12.0	1.3	12302.3	0.01	99.54
107.0-108.0	11.9	1.2	12303.6	0.01	99.55

C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 27.9 °C  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-3000  
 Distance: 17.398 m  
 Humidity:  
 Inspector:

### Zonal Lumen (Continue 3)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
108.0-109.0	11.7	1.2	12304.8	0.01	99.56
109.0-110.0	11.7	1.2	12306.0	0.01	99.57
110.0-111.0	11.9	1.2	12307.2	0.01	99.58
111.0-112.0	11.8	1.2	12308.4	0.01	99.59
112.0-113.0	11.8	1.2	12309.6	0.01	99.60
113.0-114.0	12.0	1.2	12310.8	0.01	99.61
114.0-115.0	12.1	1.2	12312.0	0.01	99.62
115.0-116.0	12.0	1.2	12313.2	0.01	99.63
116.0-117.0	11.9	1.2	12314.4	0.01	99.64
117.0-118.0	11.9	1.2	12315.5	0.01	99.65
118.0-119.0	11.9	1.1	12316.7	0.01	99.66
119.0-120.0	11.9	1.1	12317.8	0.01	99.66
120.0-121.0	12.1	1.1	12319.0	0.01	99.67
121.0-122.0	12.3	1.1	12320.1	0.01	99.68
122.0-123.0	12.4	1.1	12321.2	0.01	99.69
123.0-124.0	12.5	1.1	12322.4	0.01	99.70
124.0-125.0	12.8	1.2	12323.5	0.01	99.71
125.0-126.0	13.0	1.2	12324.7	0.01	99.72
126.0-127.0	13.1	1.2	12325.9	0.01	99.73
127.0-128.0	13.2	1.2	12327.0	0.01	99.74
128.0-129.0	13.4	1.2	12328.2	0.01	99.75
129.0-130.0	13.6	1.2	12329.3	0.01	99.76
130.0-131.0	13.8	1.1	12330.5	0.01	99.77
131.0-132.0	13.9	1.1	12331.6	0.01	99.78
132.0-133.0	14.1	1.1	12332.7	0.01	99.79
133.0-134.0	14.4	1.1	12333.9	0.01	99.79
134.0-135.0	14.7	1.1	12335.0	0.01	99.80
135.0-136.0	15.0	1.2	12336.2	0.01	99.81
136.0-137.0	15.2	1.1	12337.3	0.01	99.82
137.0-138.0	15.3	1.1	12338.5	0.01	99.83
138.0-139.0	15.4	1.1	12339.6	0.01	99.84
139.0-140.0	15.5	1.1	12340.7	0.01	99.85
140.0-141.0	15.7	1.1	12341.8	0.01	99.86
141.0-142.0	15.9	1.1	12342.9	0.01	99.87
142.0-143.0	15.9	1.1	12343.9	0.01	99.88
143.0-144.0	15.8	1.0	12345.0	0.01	99.88

C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 27.9 °C  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-3000  
 Distance: 17.398 m  
 Humidity:  
 Inspector:

### Zonal Lumen (Continue 4)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
144.0-145.0	15.7	1.0	12346.0	0.01	99.89
145.0-146.0	15.3	1.0	12346.9	0.01	99.90
146.0-147.0	15.1	0.9	12347.8	0.01	99.91
147.0-148.0	14.8	0.9	12348.7	0.01	99.91
148.0-149.0	14.1	0.8	12349.5	0.01	99.92
149.0-150.0	13.6	0.8	12350.3	0.01	99.93
150.0-151.0	13.1	0.7	12351.0	0.01	99.93
151.0-152.0	12.4	0.6	12351.6	0.01	99.94
152.0-153.0	11.8	0.6	12352.2	0.00	99.94
153.0-154.0	11.3	0.6	12352.8	0.00	99.95
154.0-155.0	10.8	0.5	12353.3	0.00	99.95
155.0-156.0	10.6	0.5	12353.8	0.00	99.96
156.0-157.0	10.5	0.5	12354.2	0.00	99.96
157.0-158.0	10.3	0.4	12354.7	0.00	99.96
158.0-159.0	10.1	0.4	12355.1	0.00	99.97
159.0-160.0	10.1	0.4	12355.4	0.00	99.97
160.0-161.0	10.1	0.4	12355.8	0.00	99.97
161.0-162.0	10.1	0.4	12356.2	0.00	99.97
162.0-163.0	10.2	0.3	12356.5	0.00	99.98
163.0-164.0	10.2	0.3	12356.8	0.00	99.98
164.0-165.0	10.1	0.3	12357.1	0.00	99.98
165.0-166.0	10.2	0.3	12357.4	0.00	99.98
166.0-167.0	10.3	0.3	12357.7	0.00	99.99
167.0-168.0	10.3	0.2	12357.9	0.00	99.99
168.0-169.0	10.3	0.2	12358.1	0.00	99.99
169.0-170.0	10.6	0.2	12358.3	0.00	99.99
170.0-171.0	10.6	0.2	12358.5	0.00	99.99
171.0-172.0	10.5	0.2	12358.7	0.00	100.00
172.0-173.0	10.1	0.1	12358.8	0.00	100.00
173.0-174.0	10.1	0.1	12359.0	0.00	100.00
174.0-175.0	10.0	0.1	12359.1	0.00	100.00
175.0-176.0	9.9	0.1	12359.2	0.00	100.00
176.0-177.0	9.8	0.1	12359.2	0.00	100.00
177.0-178.0	9.5	0.0	12359.3	0.00	100.00
178.0-179.0	9.3	0.0	12359.3	0.00	100.00
179.0-180.0	9.1	0.0	12359.3	0.00	100.00

C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 27.9 °C  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-3000  
 Distance: 17.398 m  
 Humidity:  
 Inspector: