

Report No.:

Test Time: 2017-12-29 16:38

## Luminaire Property

Luminaire Manufacturer: ASD Lighting Corp  
Voltage: 276.8 V  
Power: 30.4 W

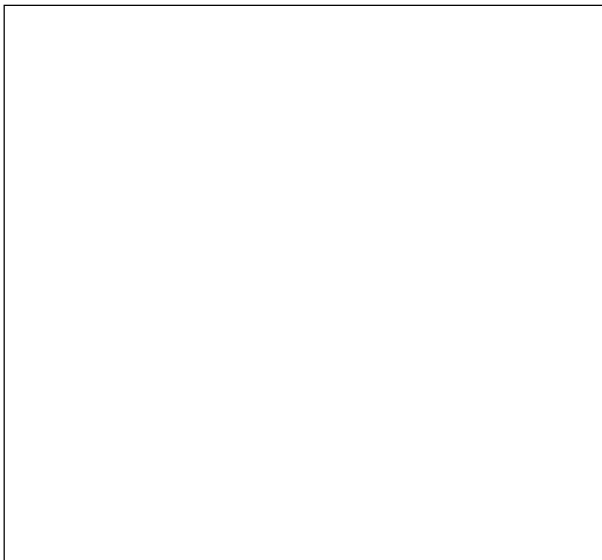
Current: 0.1218 A  
Power Factor: 0.9011

## Photometric Results

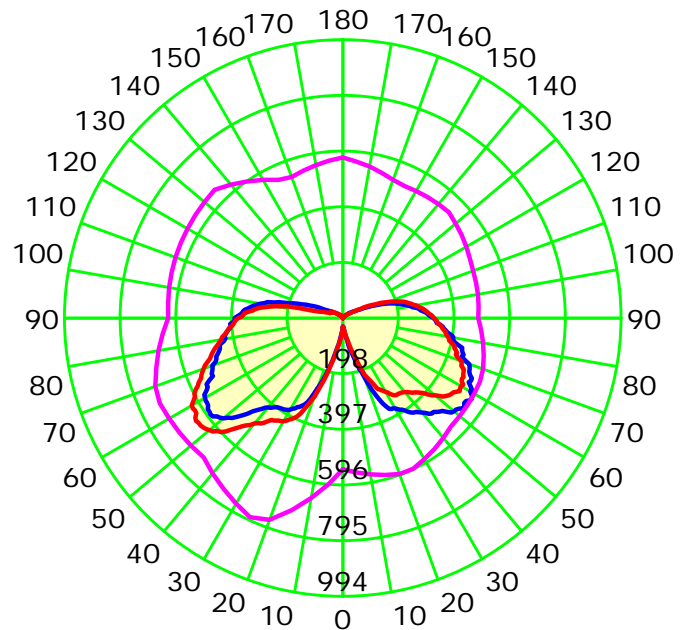
IES Classification: Type IV  
Total Rated Lamp Lumens: 3630 lm  
Efficiency: 100%  
Upward Ratio: 21%  
Central Intensity: 32.5 cd  
Pos of Max. Intensity: H337.5 V57

Longitudinal Classification: Short  
Measurement Flux: 3630 lm  
Downward Ratio: 79%  
Luminaire Efficacy Rating (LER): 116.71  
Max. Intensity: 795.84 cd

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

Average Diffuse Angle(50%): 190.9°

— C0-C180 — C90-C270 — G57

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature: 19.6 °C

Operator:

Gamma Plane (°):0.0-180.0: 1.0

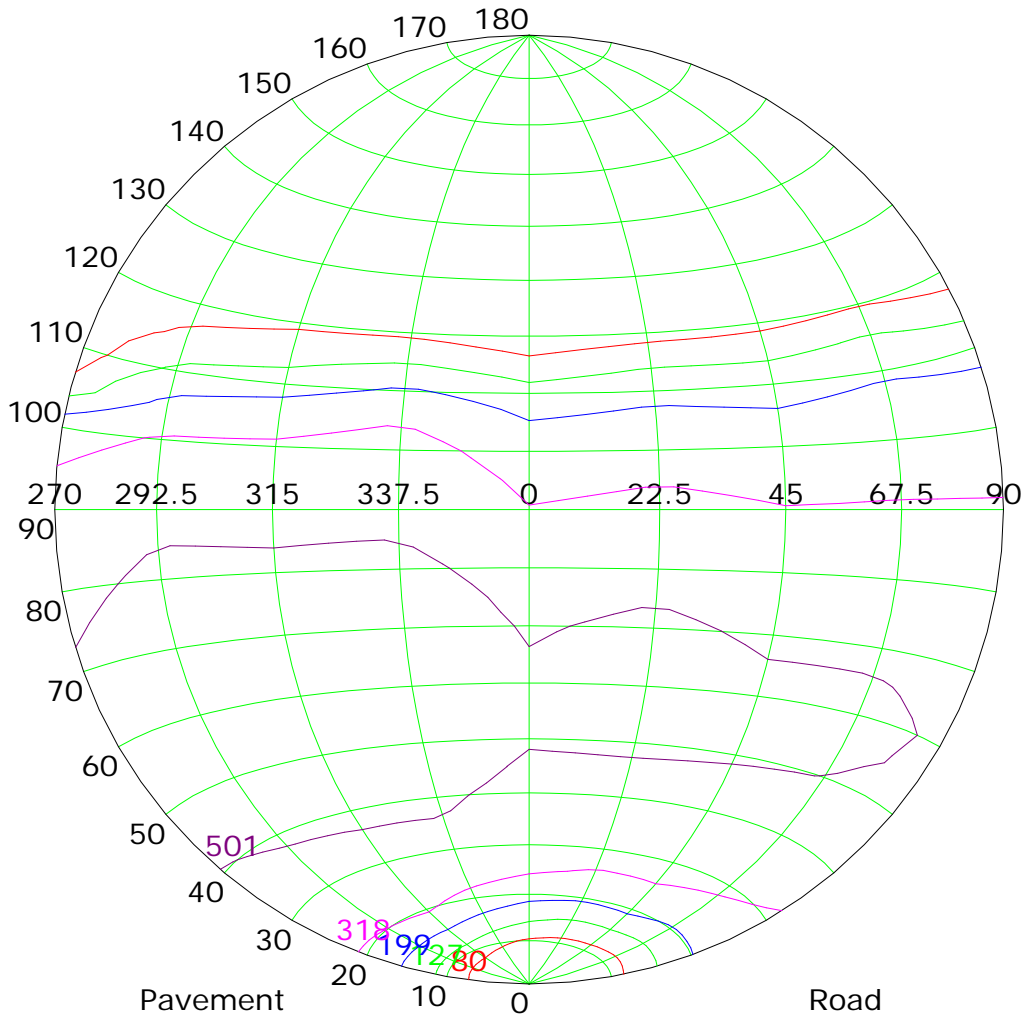
Test Device: GPM-3000

Distance: 1.558 m

Humidity:

Inspector:

## Isocandela (sphere)



Imax (100%): 796 cd

— ( 10%):	80 cd	— ( 16%):	127 cd
— ( 25%):	199 cd	— ( 40%):	318 cd
— ( 63%):	501 cd	— (100%):	796 cd

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature: 19.6 'C

Operator:

Gamma Plane (°):0.0-180.0:1.0

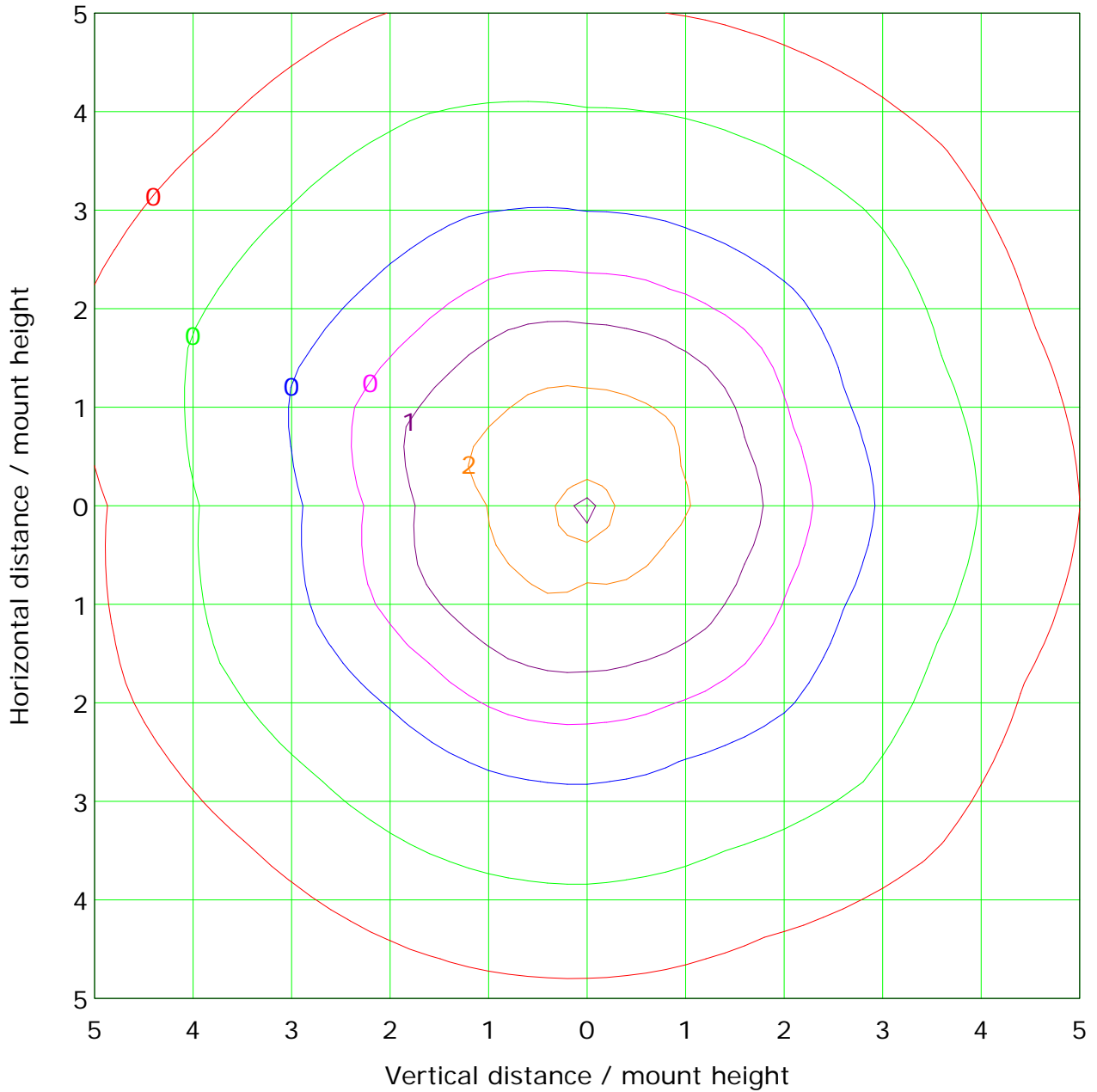
Test Device: GPM-3000

Distance: 1.558 m

Humidity:

Inspector:

## IsoLux Plot



Mounting Height: 10.0m		Max Lux(100%): 3.3 lx	
— ( 1%):	0.0 lx	— ( 2%):	0.1 lx
— ( 5%):	0.2 lx	— ( 10%):	0.3 lx
— ( 20%):	0.7 lx	— ( 50%):	1.7 lx
— (100%):	3.3 lx		

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature: 19.6 'C

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-3000

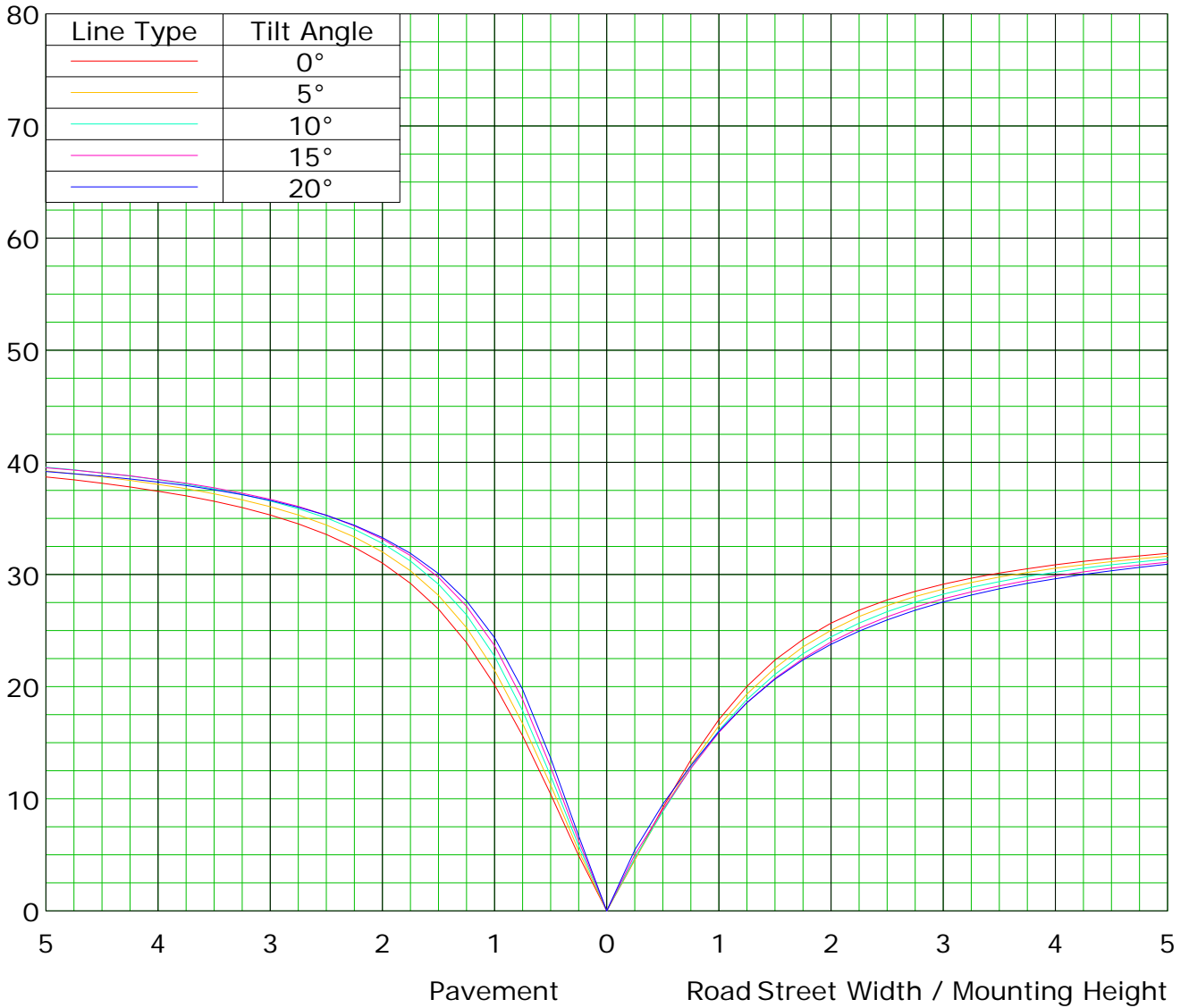
Distance: 1.558 m

Humidity:

Inspector:

## Roadway CU Curve

Efficiency(%)



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature: 19.6 'C

Operator:

Gamma Plane (°):0.0-180.0:1.0

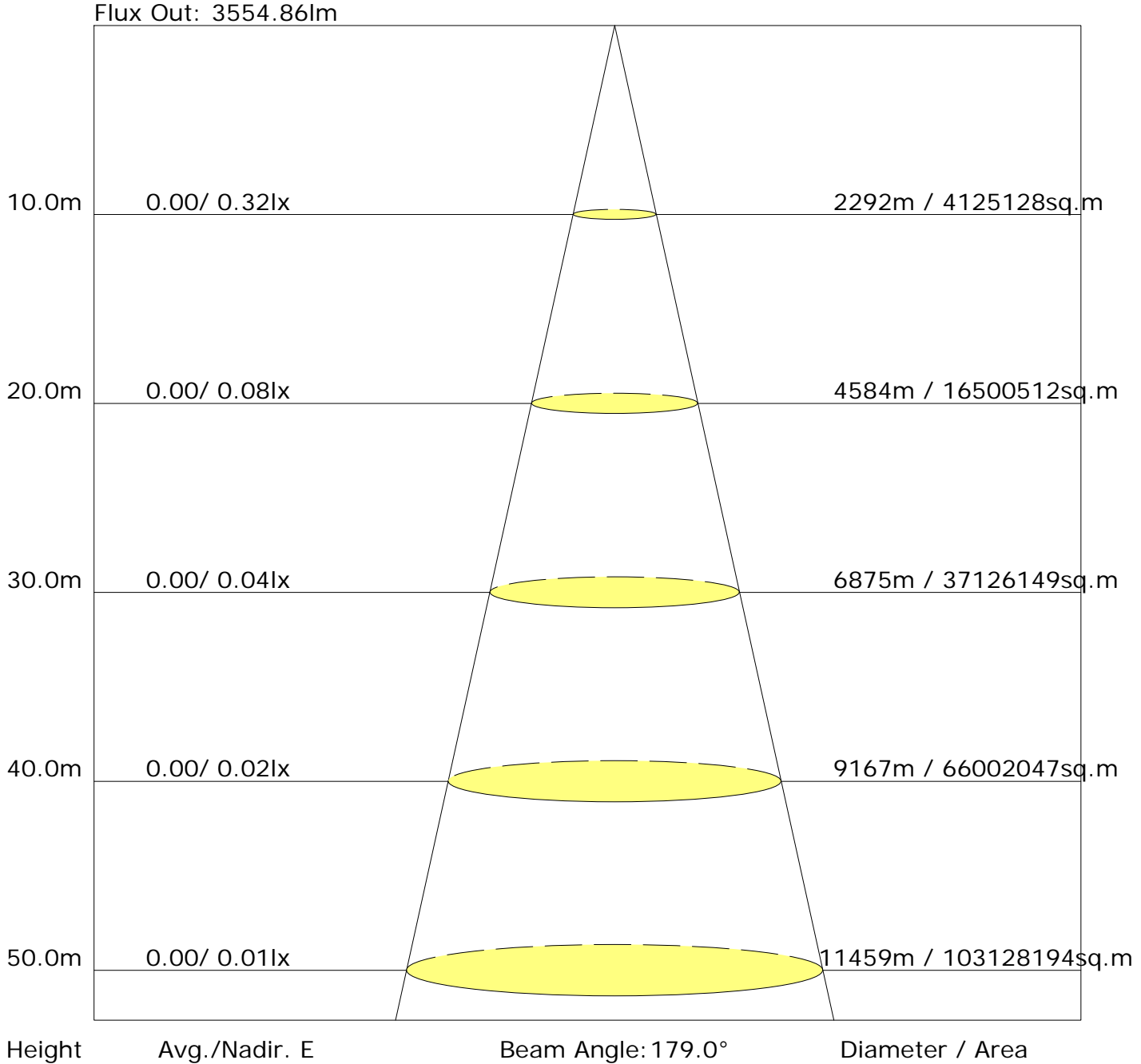
Test Device: GPM-3000

Distance: 1.558 m

Humidity:

Inspector:

## The Average Illuminance Effective Figure



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature: 19.6 'C

Operator:

Gamma Plane (°):0.0-180.0: 1.0

Test Device: GPM-3000

Distance: 1.558 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 3630lm ( $8\log(F/F_0) = 4.5$ ).

C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 19.6 'C  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-3000  
 Distance: 1.558 m  
 Humidity:  
 Inspector:

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

	ZONE	LUMENS	% LAMP LUMENS
	FORWARD LIGHT	1296	35.7
	FL ( 0°-30°)	95	2.6
	FM (30°-60°)	525	14.5
	FH (60°-80°)	477	13.2
	FVH (80°-90°)	199	5.5
	BACK LIGHT	1579	43.5
	BL ( 0°-30°)	118	3.3
	BM (30°-60°)	648	17.8
	BH (60°-80°)	572	15.8
	BVH (80°-90°)	241	6.6
	UP LIGHT	755	20.8
	UL (90°-100°)	363	10.0
	UH (100°-180°)	392	10.8
	TRAPPED LIGHT	NA	NA

BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B2 U5 G2
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B2 U5 G1

C Plane (°):0.0-360.0: 22.5  
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 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-3000  
 Distance: 1.558 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	32.6	0.0	0.0	0.00	0.00
1.0-2.0	33.5	0.1	0.1	0.00	0.00
2.0-3.0	35.5	0.2	0.3	0.00	0.01
3.0-4.0	38.8	0.3	0.6	0.01	0.02
4.0-5.0	43.3	0.4	0.9	0.01	0.03
5.0-6.0	48.8	0.5	1.4	0.01	0.04
6.0-7.0	55.5	0.7	2.1	0.02	0.06
7.0-8.0	63.3	0.9	3.0	0.02	0.08
8.0-9.0	72.0	1.2	4.2	0.03	0.12
9.0-10.0	81.8	1.5	5.7	0.04	0.16
10.0-11.0	92.9	1.9	7.5	0.05	0.21
11.0-12.0	105.4	2.3	9.8	0.06	0.27
12.0-13.0	119.3	2.8	12.7	0.08	0.35
13.0-14.0	133.8	3.4	16.1	0.09	0.44
14.0-15.0	149.1	4.1	20.2	0.11	0.56
15.0-16.0	165.9	4.9	25.1	0.13	0.69
16.0-17.0	185.0	5.8	30.8	0.16	0.85
17.0-18.0	205.4	6.8	37.6	0.19	1.04
18.0-19.0	224.9	7.8	45.4	0.22	1.25
19.0-20.0	245.5	9.0	54.4	0.25	1.50
20.0-21.0	266.6	10.2	64.6	0.28	1.78
21.0-22.0	287.0	11.5	76.2	0.32	2.10
22.0-23.0	307.0	12.9	89.1	0.35	2.45
23.0-24.0	325.3	14.2	103.3	0.39	2.85
24.0-25.0	340.5	15.5	118.8	0.43	3.27
25.0-26.0	353.1	16.7	135.4	0.46	3.73
26.0-27.0	363.4	17.8	153.2	0.49	4.22
27.0-28.0	372.2	18.8	172.1	0.52	4.74
28.0-29.0	380.5	19.9	192.0	0.55	5.29
29.0-30.0	387.7	20.9	212.9	0.58	5.86
30.0-31.0	393.7	21.9	234.8	0.60	6.47
31.0-32.0	398.5	22.8	257.7	0.63	7.10
32.0-33.0	402.4	23.7	281.4	0.65	7.75
33.0-34.0	406.2	24.6	306.0	0.68	8.43
34.0-35.0	410.3	25.5	331.4	0.70	9.13
35.0-36.0	414.2	26.4	357.8	0.73	9.86

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Operator:

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Test Device: GPM-3000

Distance: 1.558 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	418.8	27.3	385.1	0.75	10.61
37.0-38.0	424.6	28.3	413.5	0.78	11.39
38.0-39.0	431.0	29.4	442.9	0.81	12.20
39.0-40.0	437.6	30.5	473.4	0.84	13.04
40.0-41.0	445.3	31.7	505.2	0.87	13.91
41.0-42.0	454.0	33.0	538.1	0.91	14.82
42.0-43.0	463.2	34.3	572.5	0.95	15.77
43.0-44.0	473.9	35.8	608.2	0.99	16.75
44.0-45.0	486.2	37.4	645.6	1.03	17.78
45.0-46.0	500.2	39.1	684.7	1.08	18.86
46.0-47.0	515.3	41.0	725.7	1.13	19.99
47.0-48.0	529.6	42.8	768.5	1.18	21.17
48.0-49.0	543.3	44.6	813.1	1.23	22.40
49.0-50.0	555.4	46.3	859.5	1.28	23.67
50.0-51.0	565.3	47.8	907.3	1.32	24.99
51.0-52.0	574.7	49.3	956.6	1.36	26.35
52.0-53.0	582.7	50.7	1007.3	1.40	27.75
53.0-54.0	588.2	51.8	1059.2	1.43	29.18
54.0-55.0	591.3	52.8	1111.9	1.45	30.63
55.0-56.0	592.6	53.6	1165.5	1.48	32.10
56.0-57.0	593.5	54.3	1219.8	1.50	33.60
57.0-58.0	593.5	54.9	1274.7	1.51	35.11
58.0-59.0	590.5	55.2	1329.9	1.52	36.63
59.0-60.0	587.5	55.5	1385.4	1.53	38.16
60.0-61.0	583.6	55.7	1441.1	1.53	39.70
61.0-62.0	576.6	55.6	1496.7	1.53	41.23
62.0-63.0	570.0	55.4	1552.1	1.53	42.75
63.0-64.0	563.6	55.3	1607.4	1.52	44.28
64.0-65.0	556.5	55.1	1662.5	1.52	45.80
65.0-66.0	550.8	55.0	1717.5	1.51	47.31
66.0-67.0	542.6	54.6	1772.0	1.50	48.81
67.0-68.0	533.3	54.0	1826.1	1.49	50.30
68.0-69.0	526.1	53.7	1879.7	1.48	51.78
69.0-70.0	517.8	53.2	1932.9	1.47	53.24
70.0-71.0	509.9	52.7	1985.6	1.45	54.70
71.0-72.0	502.0	52.2	2037.8	1.44	56.13

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

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-3000  
 Distance: 1.558 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	492.9	51.5	2089.4	1.42	57.55
73.0-74.0	485.3	51.0	2140.4	1.41	58.96
74.0-75.0	478.6	50.6	2191.0	1.39	60.35
75.0-76.0	471.7	50.1	2241.1	1.38	61.73
76.0-77.0	464.8	49.6	2290.6	1.37	63.10
77.0-78.0	456.1	48.8	2339.4	1.35	64.44
78.0-79.0	446.9	48.0	2387.5	1.32	65.77
79.0-80.0	439.9	47.4	2434.9	1.31	67.07
80.0-81.0	434.0	46.9	2481.8	1.29	68.36
81.0-82.0	427.3	46.3	2528.2	1.28	69.64
82.0-83.0	419.8	45.6	2573.8	1.26	70.90
83.0-84.0	412.2	44.9	2618.7	1.24	72.14
84.0-85.0	406.3	44.4	2663.1	1.22	73.36
85.0-86.0	400.4	43.8	2706.9	1.21	74.56
86.0-87.0	393.3	43.0	2749.9	1.19	75.75
87.0-88.0	386.9	42.4	2792.3	1.17	76.92
88.0-89.0	381.1	41.8	2834.1	1.15	78.07
89.0-90.0	374.4	41.1	2875.1	1.13	79.20
90.0-91.0	367.8	40.3	2915.5	1.11	80.31
91.0-92.0	361.9	39.7	2955.2	1.09	81.40
92.0-93.0	355.4	38.9	2994.1	1.07	82.48
93.0-94.0	347.0	38.0	3032.1	1.05	83.52
94.0-95.0	338.6	37.0	3069.1	1.02	84.54
95.0-96.0	331.1	36.1	3105.2	1.00	85.54
96.0-97.0	322.6	35.2	3140.4	0.97	86.51
97.0-98.0	312.4	34.0	3174.4	0.94	87.44
98.0-99.0	301.6	32.7	3207.1	0.90	88.34
99.0-100.0	290.7	31.4	3238.5	0.87	89.21
100.0-101.0	277.9	30.0	3268.5	0.83	90.03
101.0-102.0	264.4	28.4	3296.9	0.78	90.82
102.0-103.0	249.9	26.7	3323.6	0.74	91.55
103.0-104.0	234.5	25.0	3348.6	0.69	92.24
104.0-105.0	219.9	23.3	3372.0	0.64	92.88
105.0-106.0	206.0	21.8	3393.8	0.60	93.48
106.0-107.0	193.0	20.3	3414.1	0.56	94.04
107.0-108.0	180.4	18.9	3432.9	0.52	94.56

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 Test Device: GPM-3000  
 Distance: 1.558 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	167.6	17.4	3450.3	0.48	95.04
109.0-110.0	154.7	16.0	3466.3	0.44	95.48
110.0-111.0	142.4	14.6	3481.0	0.40	95.89
111.0-112.0	131.0	13.4	3494.3	0.37	96.25
112.0-113.0	120.7	12.2	3506.5	0.34	96.59
113.0-114.0	110.7	11.1	3517.7	0.31	96.90
114.0-115.0	101.4	10.1	3527.8	0.28	97.18
115.0-116.0	92.6	9.2	3537.0	0.25	97.43
116.0-117.0	84.0	8.2	3545.2	0.23	97.66
117.0-118.0	76.0	7.4	3552.6	0.20	97.86
118.0-119.0	69.1	6.7	3559.3	0.18	98.04
119.0-120.0	63.0	6.0	3565.3	0.17	98.21
120.0-121.0	57.7	5.4	3570.7	0.15	98.36
121.0-122.0	52.7	4.9	3575.6	0.14	98.49
122.0-123.0	48.2	4.5	3580.1	0.12	98.62
123.0-124.0	44.6	4.1	3584.2	0.11	98.73
124.0-125.0	41.5	3.8	3587.9	0.10	98.83
125.0-126.0	38.6	3.4	3591.4	0.10	98.93
126.0-127.0	36.1	3.2	3594.6	0.09	99.02
127.0-128.0	33.7	2.9	3597.5	0.08	99.10
128.0-129.0	31.6	2.7	3600.2	0.07	99.17
129.0-130.0	29.9	2.5	3602.7	0.07	99.24
130.0-131.0	28.3	2.4	3605.1	0.06	99.31
131.0-132.0	26.7	2.2	3607.3	0.06	99.37
132.0-133.0	25.3	2.0	3609.3	0.06	99.42
133.0-134.0	23.9	1.9	3611.2	0.05	99.48
134.0-135.0	22.6	1.8	3613.0	0.05	99.52
135.0-136.0	21.3	1.6	3614.7	0.05	99.57
136.0-137.0	20.0	1.5	3616.2	0.04	99.61
137.0-138.0	18.7	1.4	3617.6	0.04	99.65
138.0-139.0	17.5	1.3	3618.8	0.03	99.68
139.0-140.0	16.2	1.2	3620.0	0.03	99.72
140.0-141.0	15.2	1.1	3621.0	0.03	99.74
141.0-142.0	14.2	1.0	3622.0	0.03	99.77
142.0-143.0	13.3	0.9	3622.9	0.02	99.80
143.0-144.0	12.6	0.8	3623.7	0.02	99.82

C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
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 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-3000  
 Distance: 1.558 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	11.9	0.8	3624.5	0.02	99.84
145.0-146.0	11.1	0.7	3625.2	0.02	99.86
146.0-147.0	10.5	0.6	3625.8	0.02	99.88
147.0-148.0	9.9	0.6	3626.4	0.02	99.89
148.0-149.0	9.2	0.5	3626.9	0.01	99.91
149.0-150.0	8.5	0.5	3627.4	0.01	99.92
150.0-151.0	7.8	0.4	3627.8	0.01	99.93
151.0-152.0	7.0	0.4	3628.1	0.01	99.94
152.0-153.0	6.1	0.3	3628.5	0.01	99.95
153.0-154.0	5.1	0.3	3628.7	0.01	99.96
154.0-155.0	4.6	0.2	3628.9	0.01	99.96
155.0-156.0	4.2	0.2	3629.1	0.01	99.97
156.0-157.0	3.8	0.2	3629.3	0.00	99.97
157.0-158.0	3.5	0.1	3629.4	0.00	99.98
158.0-159.0	3.2	0.1	3629.6	0.00	99.98
159.0-160.0	2.9	0.1	3629.7	0.00	99.98
160.0-161.0	2.6	0.1	3629.8	0.00	99.99
161.0-162.0	2.4	0.1	3629.9	0.00	99.99
162.0-163.0	2.1	0.1	3629.9	0.00	99.99
163.0-164.0	1.9	0.1	3630.0	0.00	99.99
164.0-165.0	1.7	0.1	3630.0	0.00	99.99
165.0-166.0	1.6	0.0	3630.1	0.00	99.99
166.0-167.0	1.5	0.0	3630.1	0.00	99.99
167.0-168.0	1.4	0.0	3630.1	0.00	100.00
168.0-169.0	1.4	0.0	3630.2	0.00	100.00
169.0-170.0	1.3	0.0	3630.2	0.00	100.00
170.0-171.0	1.2	0.0	3630.2	0.00	100.00
171.0-172.0	1.1	0.0	3630.2	0.00	100.00
172.0-173.0	1.1	0.0	3630.3	0.00	100.00
173.0-174.0	1.0	0.0	3630.3	0.00	100.00
174.0-175.0	1.0	0.0	3630.3	0.00	100.00
175.0-176.0	0.9	0.0	3630.3	0.00	100.00
176.0-177.0	0.8	0.0	3630.3	0.00	100.00
177.0-178.0	0.7	0.0	3630.3	0.00	100.00
178.0-179.0	0.6	0.0	3630.3	0.00	100.00
179.0-180.0	0.3	0.0	3630.3	0.00	100.00

C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 19.6 'C  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-3000  
 Distance: 1.558 m  
 Humidity:  
 Inspector: