

Report No.:

Test Time: 2018-8-6 15:07

Luminaire Property

Luminaire Manufacturer:

Voltage: 120.2 V

Power: 45.79 W

Current: 0.3858 A

Power Factor: 0.989

Photometric Results

IES Classification: Type IV

Total Rated Lamp Lumens: 5202.2 lm

Efficiency: 100%

Upward Ratio: 19%

Central Intensity: 176.39 cd

Pos of Max. Intensity: H270 V63

Longitudinal Classification: Very Short

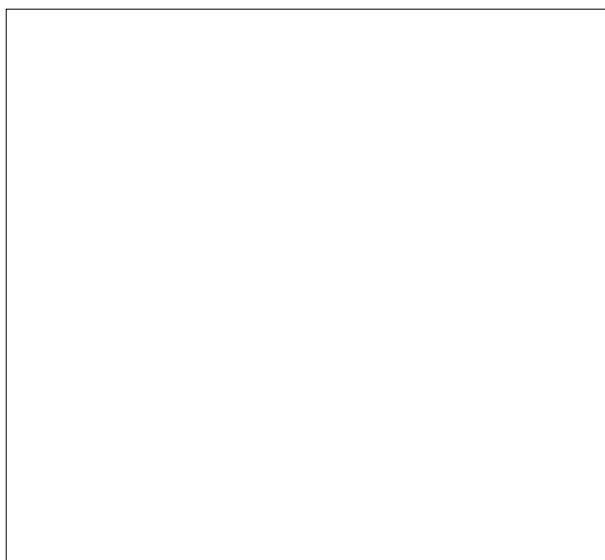
Measurement Flux: 5202.2 lm

Downward Ratio: 81%

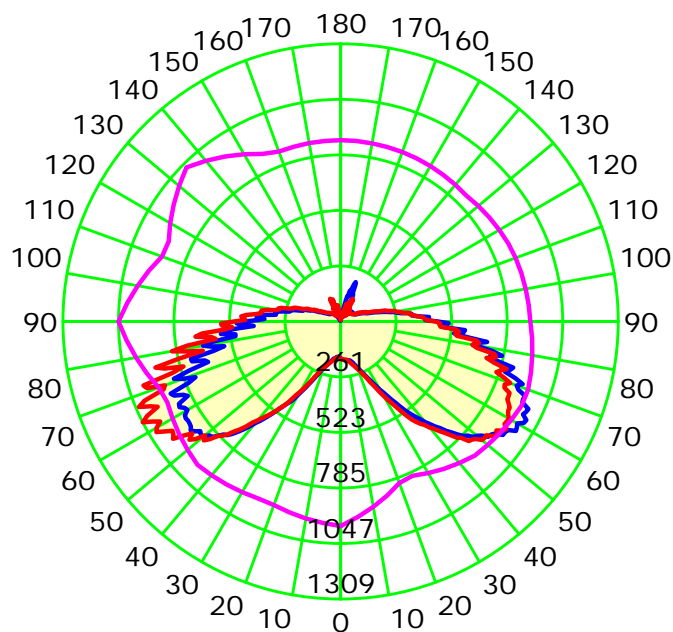
Luminaire Efficacy Rating (LER): 113.61

Max. Intensity: 1047.33 cd

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

Average Diffuse Angle(50%): 175.6°

— C0-C180 — C90-C270 — G63

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature: 28.4 °C

Operator:

Gamma Plane (°):0.0-180.0:1.0

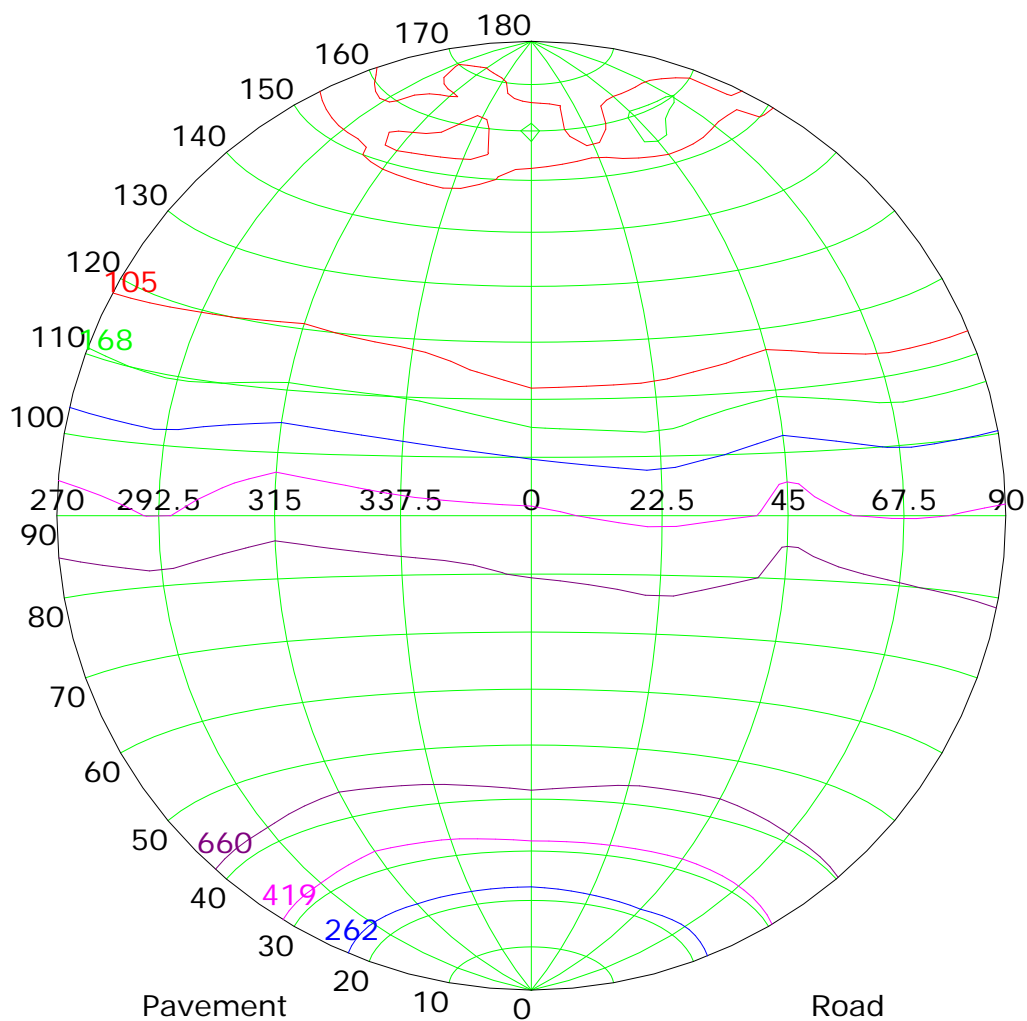
Test Device: GPM-3000

Distance: 17.398 m

Humidity:

Inspector:

Isocandela (sphere)



Imax (100%): 1047 cd

(10%):	105 cd	(16%):	168 cd
(25%):	262 cd	(40%):	419 cd
(63%):	660 cd	(100%):	1047 cd

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature: 28.4 'C

Operator:

Gamma Plane (°):0.0-180.0:1.0

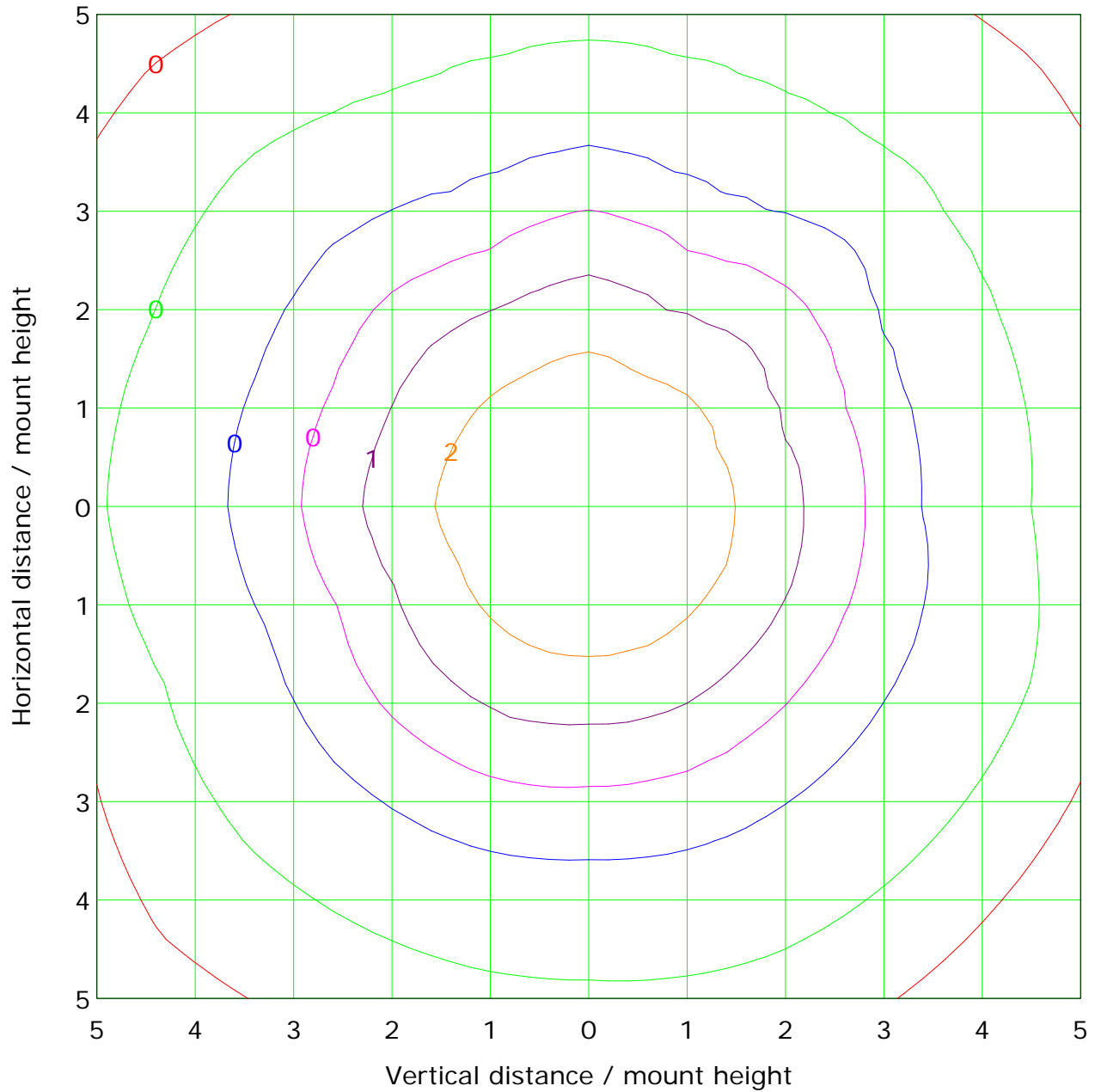
Test Device: GPM-3000

Distance: 17.398 m

Humidity:

Inspector:

IsoLux Plot



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature: 28.4 'C

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-3000

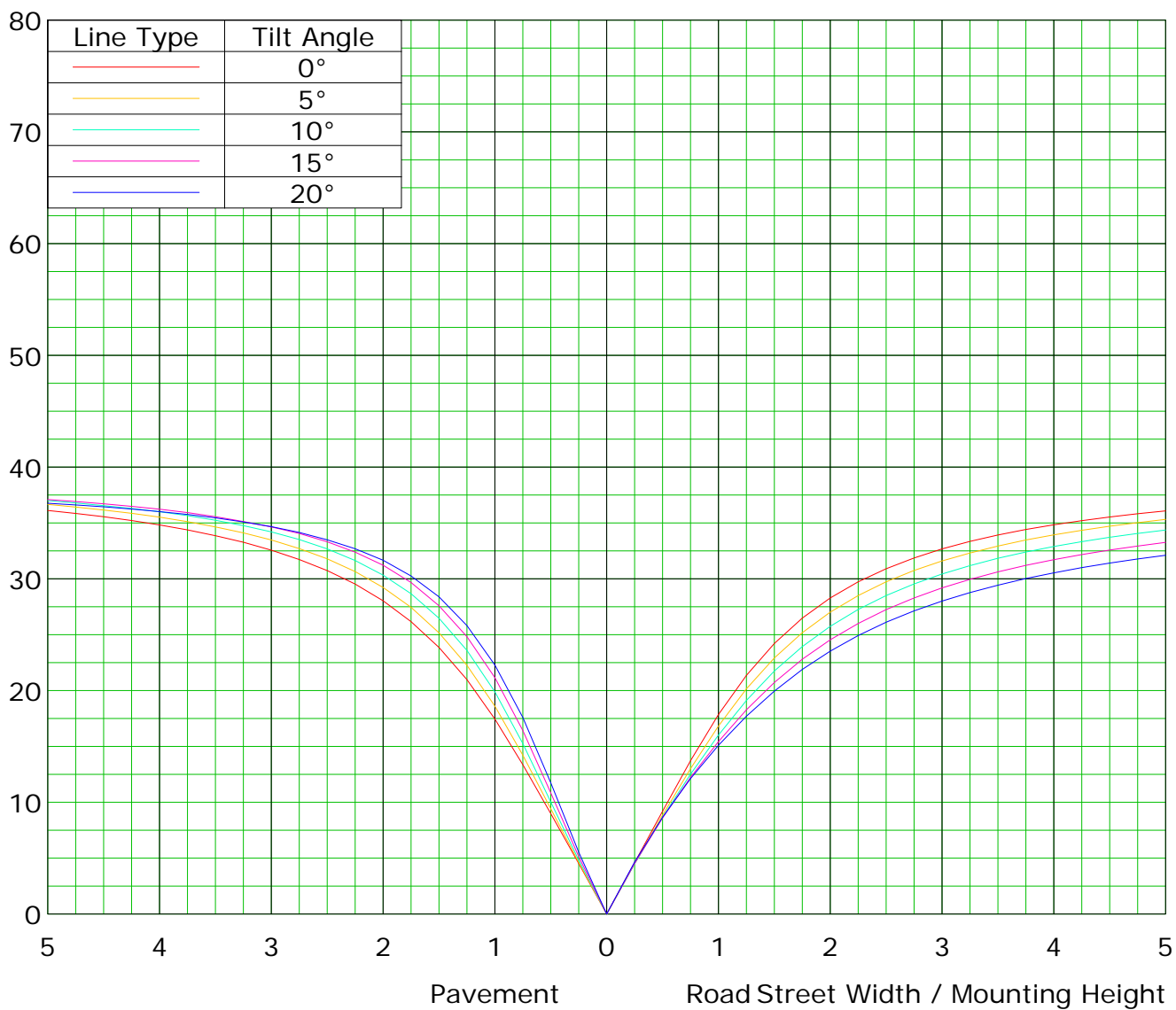
Distance: 17.398 m

Humidity:

Inspector:

Roadway CU Curve

Efficiency(%)



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature: 28.4 'C

Operator:

Gamma Plane (°):0.0-180.0:1.0

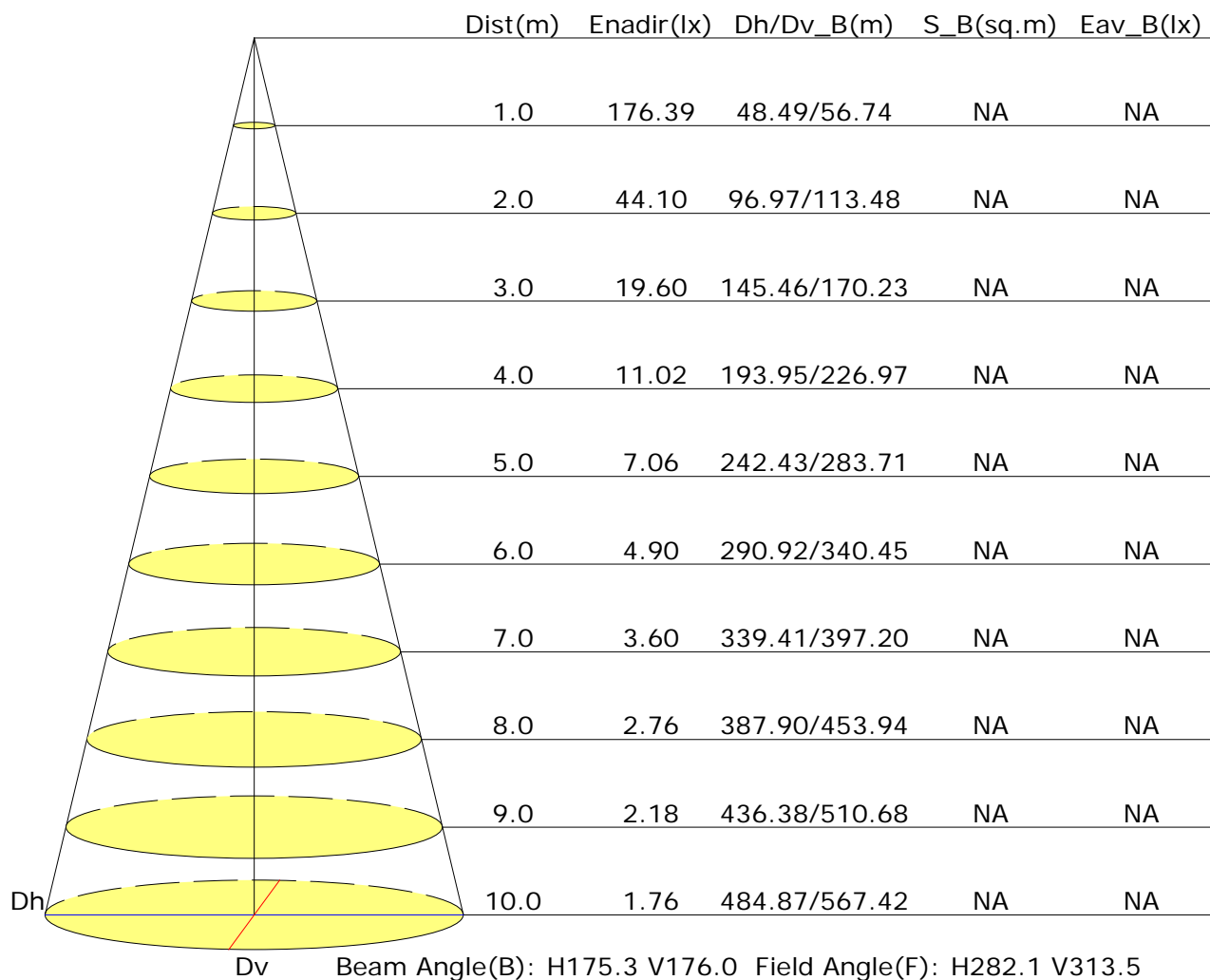
Test Device: GPM-3000

Distance: 17.398 m

Humidity:

Inspector:

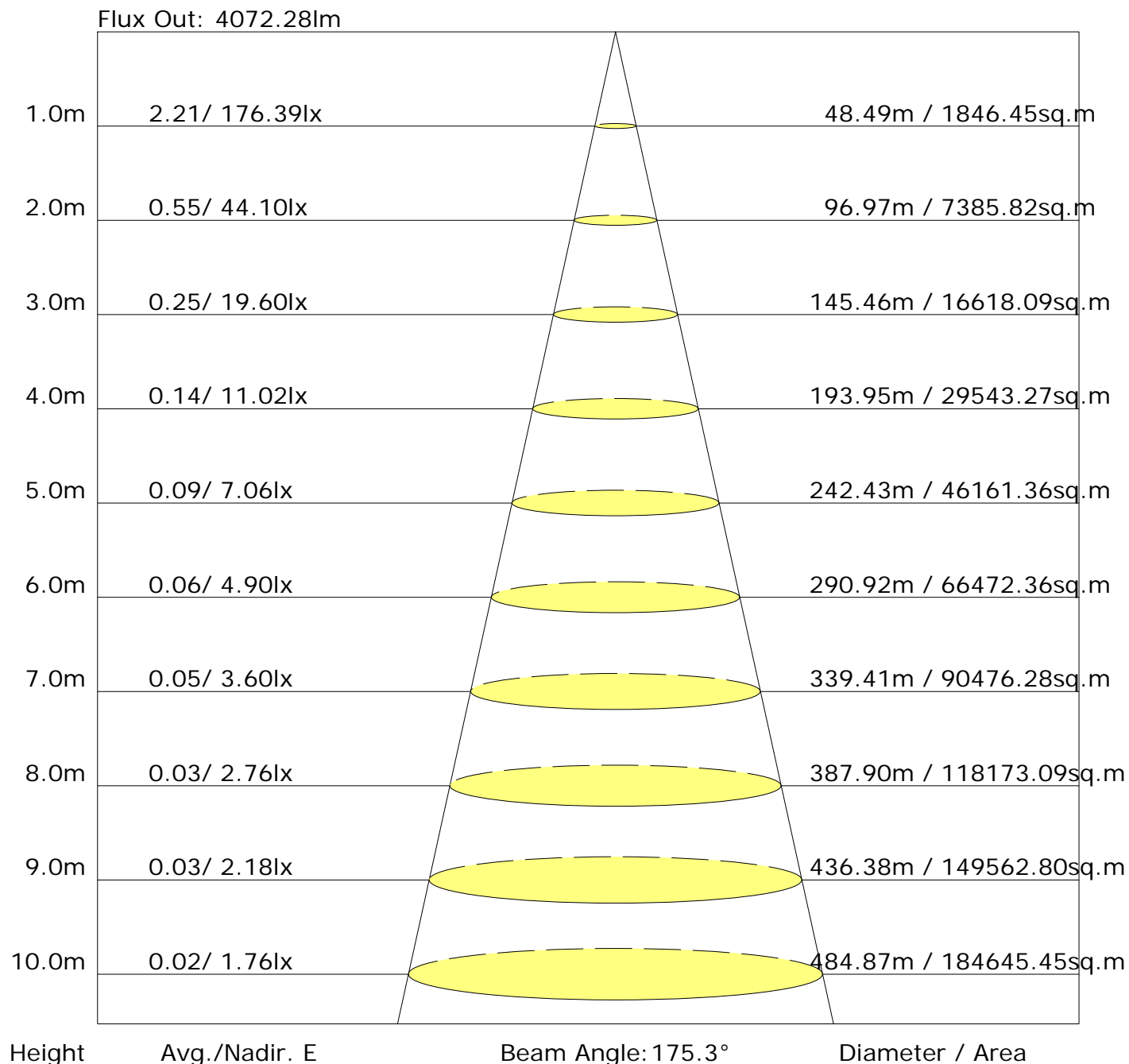
Illuminance at a Distance



C Plane (°):0.0-360.0: 22.5
 Test Lab:
 Test Type: TYPE C
 Temperature: 28.4 'C
 Operator:

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

The Average Illuminance Effective Figure



C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature: 28.4 '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 5202Im ($8\log(F/F_0) = 5.7$).

C Plane (°):0.0-360.0: 22.5
 Test Lab:
 Test Type: TYPE C
 Temperature: 28.4 °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

	ZONE	LUMENS	% LAMP LUMENS
	FORWARD LIGHT	2092	40.2
	FL (0°-30°)	113	2.2
	FM (30°-60°)	838	16.1
	FH (60°-80°)	838	16.1
	FVH (80°-90°)	304	5.8
	BACK LIGHT	2112	40.6
	BL (0°-30°)	107	2.1
	BM (30°-60°)	811	15.6
	BH (60°-80°)	865	16.6
	BVH (80°-90°)	331	6.4
	UP LIGHT	998	19.2
	UL (90°-100°)	428	8.2
	UH (100°-180°)	569	10.9
	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 G2

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature: 28.4 'C

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-3000

Distance: 17.398 m

Humidity:

Inspector:

Zonal Lumen

Gamma [°]	I _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	176.0	0.2	0.2	0.00	0.00
1.0-2.0	175.3	0.5	0.7	0.01	0.01
2.0-3.0	174.8	0.8	1.5	0.02	0.03
3.0-4.0	175.1	1.2	2.7	0.02	0.05
4.0-5.0	176.3	1.5	4.2	0.03	0.08
5.0-6.0	177.7	1.9	6.1	0.04	0.12
6.0-7.0	178.9	2.2	8.3	0.04	0.16
7.0-8.0	180.1	2.6	10.9	0.05	0.21
8.0-9.0	181.7	2.9	13.8	0.06	0.27
9.0-10.0	183.7	3.3	17.1	0.06	0.33
10.0-11.0	186.3	3.7	20.9	0.07	0.40
11.0-12.0	189.9	4.2	25.0	0.08	0.48
12.0-13.0	194.4	4.6	29.6	0.09	0.57
13.0-14.0	199.4	5.1	34.7	0.10	0.67
14.0-15.0	204.6	5.6	40.3	0.11	0.78
15.0-16.0	210.6	6.2	46.5	0.12	0.89
16.0-17.0	216.9	6.8	53.3	0.13	1.02
17.0-18.0	223.6	7.4	60.6	0.14	1.17
18.0-19.0	230.5	8.0	68.7	0.15	1.32
19.0-20.0	238.0	8.7	77.4	0.17	1.49
20.0-21.0	246.5	9.5	86.8	0.18	1.67
21.0-22.0	256.3	10.3	97.1	0.20	1.87
22.0-23.0	267.3	11.2	108.4	0.22	2.08
23.0-24.0	278.9	12.2	120.6	0.23	2.32
24.0-25.0	291.3	13.2	133.8	0.25	2.57
25.0-26.0	305.2	14.4	148.2	0.28	2.85
26.0-27.0	320.8	15.7	163.9	0.30	3.15
27.0-28.0	337.8	17.1	181.0	0.33	3.48
28.0-29.0	356.0	18.6	199.6	0.36	3.84
29.0-30.0	374.6	20.2	219.9	0.39	4.23
30.0-31.0	393.7	21.9	241.8	0.42	4.65
31.0-32.0	413.5	23.7	265.5	0.46	5.10
32.0-33.0	433.8	25.6	291.0	0.49	5.59
33.0-34.0	455.5	27.6	318.6	0.53	6.12
34.0-35.0	478.7	29.7	348.3	0.57	6.70
35.0-36.0	502.3	32.0	380.3	0.61	7.31

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Temperature: 28.4 'C

Operator:

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Test Device: GPM-3000

Distance: 17.398 m

Humidity:

Inspector:

Zonal Lumen (Continue 1)

Gamma [°]	I _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	525.2	34.3	414.6	0.66	7.97
37.0-38.0	546.8	36.5	451.1	0.70	8.67
38.0-39.0	567.1	38.7	489.8	0.74	9.42
39.0-40.0	588.6	41.1	530.8	0.79	10.20
40.0-41.0	611.7	43.6	574.4	0.84	11.04
41.0-42.0	635.3	46.2	620.6	0.89	11.93
42.0-43.0	659.6	48.9	669.4	0.94	12.87
43.0-44.0	683.1	51.6	721.0	0.99	13.86
44.0-45.0	705.2	54.2	775.2	1.04	14.90
45.0-46.0	727.2	56.9	832.1	1.09	16.00
46.0-47.0	748.4	59.5	891.6	1.14	17.14
47.0-48.0	769.9	62.2	953.9	1.20	18.34
48.0-49.0	789.5	64.8	1018.7	1.25	19.58
49.0-50.0	803.2	67.0	1085.7	1.29	20.87
50.0-51.0	820.2	69.4	1155.1	1.33	22.20
51.0-52.0	836.0	71.7	1226.8	1.38	23.58
52.0-53.0	844.3	73.5	1300.3	1.41	25.00
53.0-54.0	859.0	75.7	1376.0	1.46	26.45
54.0-55.0	874.8	78.1	1454.1	1.50	27.95
55.0-56.0	881.3	79.6	1533.8	1.53	29.48
56.0-57.0	887.7	81.2	1614.9	1.56	31.04
57.0-58.0	898.8	83.1	1698.1	1.60	32.64
58.0-59.0	905.8	84.7	1782.8	1.63	34.27
59.0-60.0	901.8	85.2	1868.0	1.64	35.91
60.0-61.0	899.3	85.8	1953.8	1.65	37.56
61.0-62.0	905.5	87.3	2041.1	1.68	39.23
62.0-63.0	907.5	88.3	2129.3	1.70	40.93
63.0-64.0	898.3	88.2	2217.5	1.69	42.63
64.0-65.0	885.6	87.7	2305.1	1.68	44.31
65.0-66.0	881.8	88.0	2393.1	1.69	46.00
66.0-67.0	884.4	88.9	2482.1	1.71	47.71
67.0-68.0	876.7	88.8	2570.9	1.71	49.42
68.0-69.0	856.3	87.4	2658.3	1.68	51.10
69.0-70.0	846.6	87.0	2745.2	1.67	52.77
70.0-71.0	852.9	88.2	2833.4	1.69	54.47
71.0-72.0	849.6	88.4	2921.7	1.70	56.16

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature: 28.4 '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 _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
72.0-73.0	826.5	86.4	3008.2	1.66	57.83
73.0-74.0	801.6	84.3	3092.5	1.62	59.45
74.0-75.0	789.5	83.4	3175.9	1.60	61.05
75.0-76.0	783.1	83.1	3259.0	1.60	62.65
76.0-77.0	770.5	82.2	3341.2	1.58	64.23
77.0-78.0	736.3	78.8	3420.0	1.52	65.74
78.0-79.0	700.5	75.3	3495.3	1.45	67.19
79.0-80.0	694.9	74.9	3570.2	1.44	68.63
80.0-81.0	695.9	75.3	3645.5	1.45	70.08
81.0-82.0	661.9	71.8	3717.3	1.38	71.46
82.0-83.0	607.1	66.0	3783.3	1.27	72.72
83.0-84.0	595.9	64.9	3848.2	1.25	73.97
84.0-85.0	609.3	66.5	3914.7	1.28	75.25
85.0-86.0	584.7	63.9	3978.7	1.23	76.48
86.0-87.0	532.0	58.2	4036.9	1.12	77.60
87.0-88.0	509.9	55.9	4092.7	1.07	78.67
88.0-89.0	518.0	56.8	4149.5	1.09	79.76
89.0-90.0	501.5	55.0	4204.5	1.06	80.82
90.0-91.0	468.5	51.4	4255.9	0.99	81.81
91.0-92.0	446.1	48.9	4304.8	0.94	82.75
92.0-93.0	434.0	47.5	4352.3	0.91	83.66
93.0-94.0	419.9	46.0	4398.3	0.88	84.55
94.0-95.0	405.2	44.3	4442.6	0.85	85.40
95.0-96.0	385.9	42.1	4484.7	0.81	86.21
96.0-97.0	359.6	39.2	4523.9	0.75	86.96
97.0-98.0	344.1	37.4	4561.3	0.72	87.68
98.0-99.0	338.5	36.7	4598.0	0.71	88.39
99.0-100.0	323.1	34.9	4633.0	0.67	89.06
100.0-101.0	294.8	31.8	4664.8	0.61	89.67
101.0-102.0	277.5	29.8	4694.6	0.57	90.24
102.0-103.0	271.5	29.1	4723.7	0.56	90.80
103.0-104.0	257.0	27.4	4751.1	0.53	91.33
104.0-105.0	234.3	24.9	4775.9	0.48	91.81
105.0-106.0	217.3	23.0	4798.9	0.44	92.25
106.0-107.0	208.3	21.9	4820.8	0.42	92.67
107.0-108.0	195.6	20.5	4841.3	0.39	93.06

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Test Device: GPM-3000

Distance: 17.398 m

Humidity:

Inspector:

Zonal Lumen (Continue 3)

Gamma [°]	I _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
108.0-109.0	179.1	18.6	4859.9	0.36	93.42
109.0-110.0	168.0	17.4	4877.3	0.33	93.75
110.0-111.0	161.6	16.6	4893.9	0.32	94.07
111.0-112.0	151.8	15.5	4909.3	0.30	94.37
112.0-113.0	140.8	14.3	4923.6	0.27	94.64
113.0-114.0	134.5	13.5	4937.1	0.26	94.90
114.0-115.0	126.5	12.6	4949.7	0.24	95.15
115.0-116.0	116.9	11.6	4961.3	0.22	95.37
116.0-117.0	110.9	10.9	4972.2	0.21	95.58
117.0-118.0	104.5	10.2	4982.4	0.20	95.77
118.0-119.0	97.7	9.4	4991.8	0.18	95.95
119.0-120.0	94.1	9.0	5000.8	0.17	96.13
120.0-121.0	89.8	8.5	5009.2	0.16	96.29
121.0-122.0	84.7	7.9	5017.2	0.15	96.44
122.0-123.0	81.7	7.6	5024.7	0.15	96.59
123.0-124.0	79.3	7.3	5032.0	0.14	96.73
124.0-125.0	77.3	7.0	5039.0	0.13	96.86
125.0-126.0	75.6	6.7	5045.7	0.13	96.99
126.0-127.0	73.9	6.5	5052.2	0.13	97.12
127.0-128.0	72.6	6.3	5058.5	0.12	97.24
128.0-129.0	71.2	6.1	5064.7	0.12	97.36
129.0-130.0	69.7	5.9	5070.6	0.11	97.47
130.0-131.0	67.9	5.7	5076.2	0.11	97.58
131.0-132.0	66.0	5.4	5081.6	0.10	97.68
132.0-133.0	64.1	5.2	5086.8	0.10	97.78
133.0-134.0	61.9	4.9	5091.8	0.09	97.88
134.0-135.0	59.6	4.7	5096.4	0.09	97.97
135.0-136.0	57.0	4.4	5100.8	0.08	98.05
136.0-137.0	55.3	4.2	5105.0	0.08	98.13
137.0-138.0	53.1	3.9	5108.9	0.08	98.21
138.0-139.0	48.9	3.6	5112.5	0.07	98.27
139.0-140.0	46.1	3.3	5115.7	0.06	98.34
140.0-141.0	47.6	3.3	5119.1	0.06	98.40
141.0-142.0	46.5	3.2	5122.2	0.06	98.46
142.0-143.0	42.6	2.8	5125.1	0.05	98.52
143.0-144.0	40.4	2.6	5127.7	0.05	98.57

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Temperature: 28.4 '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 _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
144.0-145.0	41.6	2.6	5130.4	0.05	98.62
145.0-146.0	43.4	2.7	5133.1	0.05	98.67
146.0-147.0	44.7	2.7	5135.8	0.05	98.72
147.0-148.0	50.8	3.0	5138.8	0.06	98.78
148.0-149.0	55.3	3.2	5141.9	0.06	98.84
149.0-150.0	61.2	3.4	5145.3	0.07	98.91
150.0-151.0	68.6	3.7	5149.0	0.07	98.98
151.0-152.0	73.9	3.9	5152.9	0.07	99.05
152.0-153.0	77.0	3.9	5156.8	0.07	99.13
153.0-154.0	78.2	3.8	5160.6	0.07	99.20
154.0-155.0	80.4	3.8	5164.4	0.07	99.27
155.0-156.0	81.3	3.7	5168.1	0.07	99.34
156.0-157.0	81.8	3.6	5171.7	0.07	99.41
157.0-158.0	80.0	3.4	5175.1	0.06	99.48
158.0-159.0	79.2	3.2	5178.2	0.06	99.54
159.0-160.0	81.4	3.1	5181.4	0.06	99.60
160.0-161.0	80.2	2.9	5184.3	0.06	99.66
161.0-162.0	76.9	2.7	5187.0	0.05	99.71
162.0-163.0	75.4	2.5	5189.5	0.05	99.76
163.0-164.0	70.2	2.2	5191.6	0.04	99.80
164.0-165.0	64.9	1.9	5193.5	0.04	99.83
165.0-166.0	62.8	1.7	5195.3	0.03	99.87
166.0-167.0	56.6	1.5	5196.7	0.03	99.89
167.0-168.0	52.3	1.2	5198.0	0.02	99.92
168.0-169.0	49.0	1.1	5199.0	0.02	99.94
169.0-170.0	47.9	1.0	5200.0	0.02	99.96
170.0-171.0	43.1	0.8	5200.8	0.02	99.97
171.0-172.0	31.6	0.5	5201.3	0.01	99.98
172.0-173.0	24.1	0.3	5201.6	0.01	99.99
173.0-174.0	17.1	0.2	5201.8	0.00	99.99
174.0-175.0	12.2	0.1	5202.0	0.00	100.00
175.0-176.0	10.6	0.1	5202.1	0.00	100.00
176.0-177.0	9.6	0.1	5202.1	0.00	100.00
177.0-178.0	9.1	0.0	5202.2	0.00	100.00
178.0-179.0	8.7	0.0	5202.2	0.00	100.00
179.0-180.0	8.6	0.0	5202.2	0.00	100.00

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature: 28.4 'C

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-3000

Distance: 17.398 m

Humidity:

Inspector: