

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P591168

Luminaire Tested: **CTN-CA8-330-722-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591168
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-330-722-U-T1-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25353 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B4 - U0 - G4

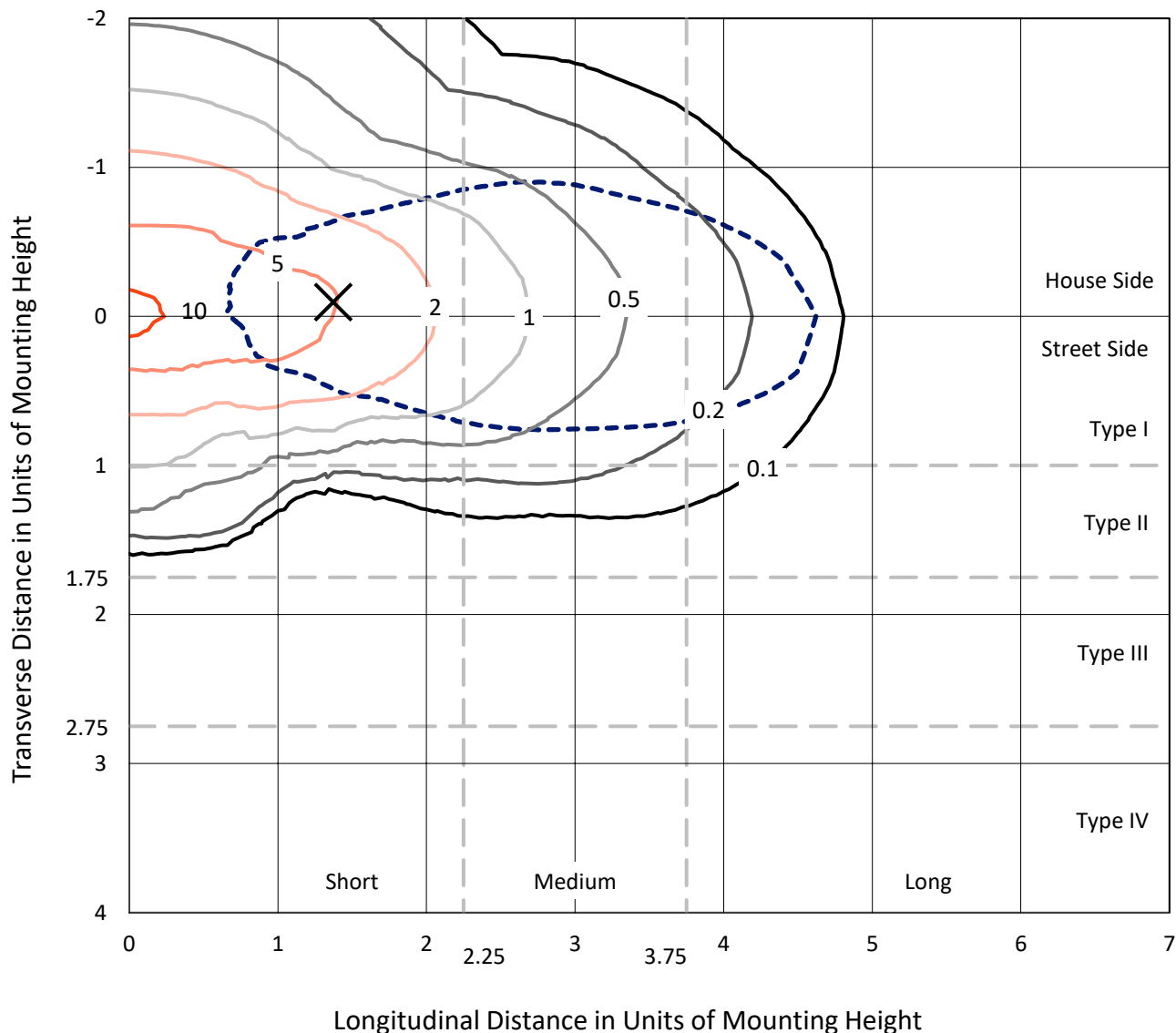
Input Watts (W): 331.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

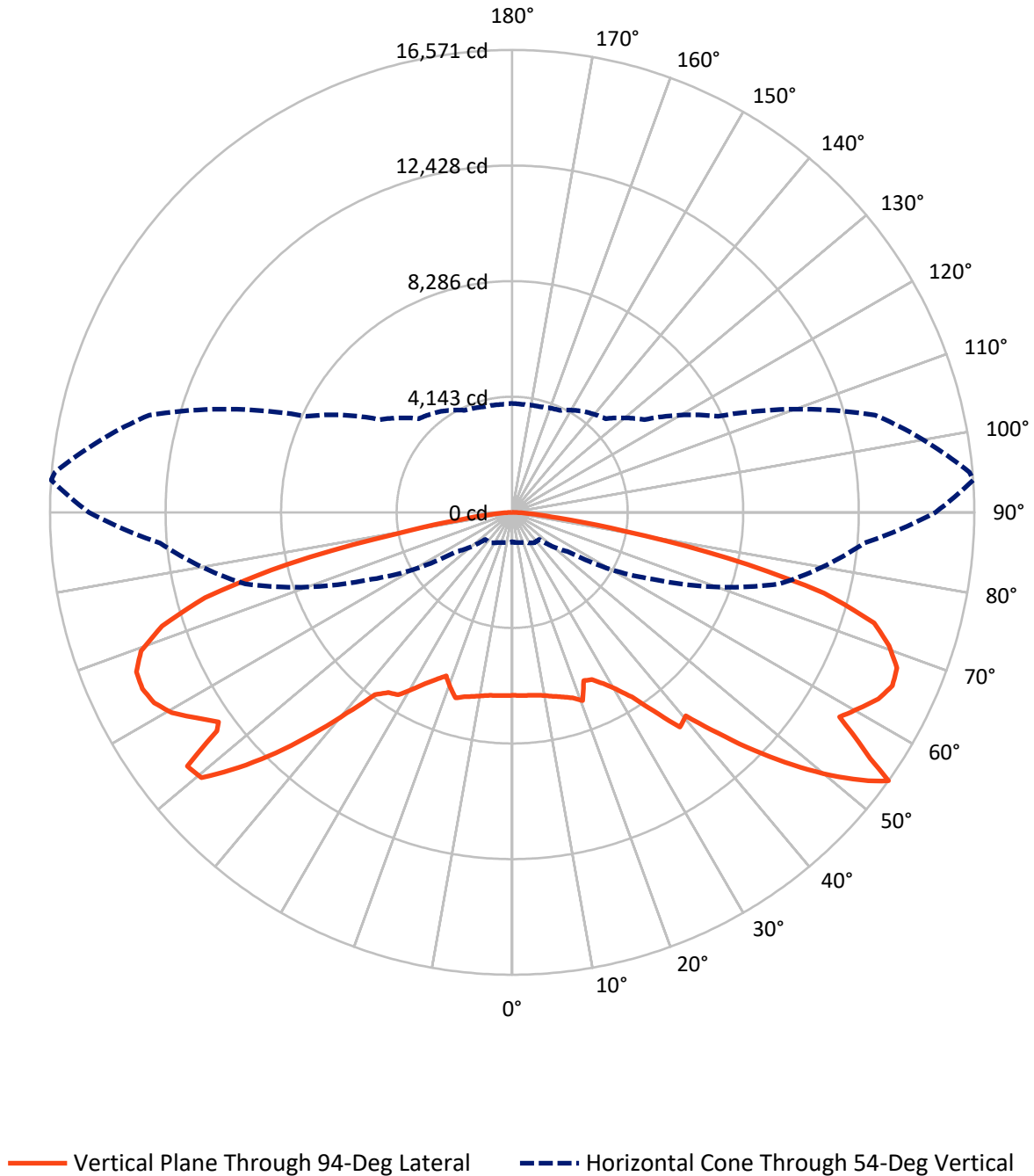
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.5 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



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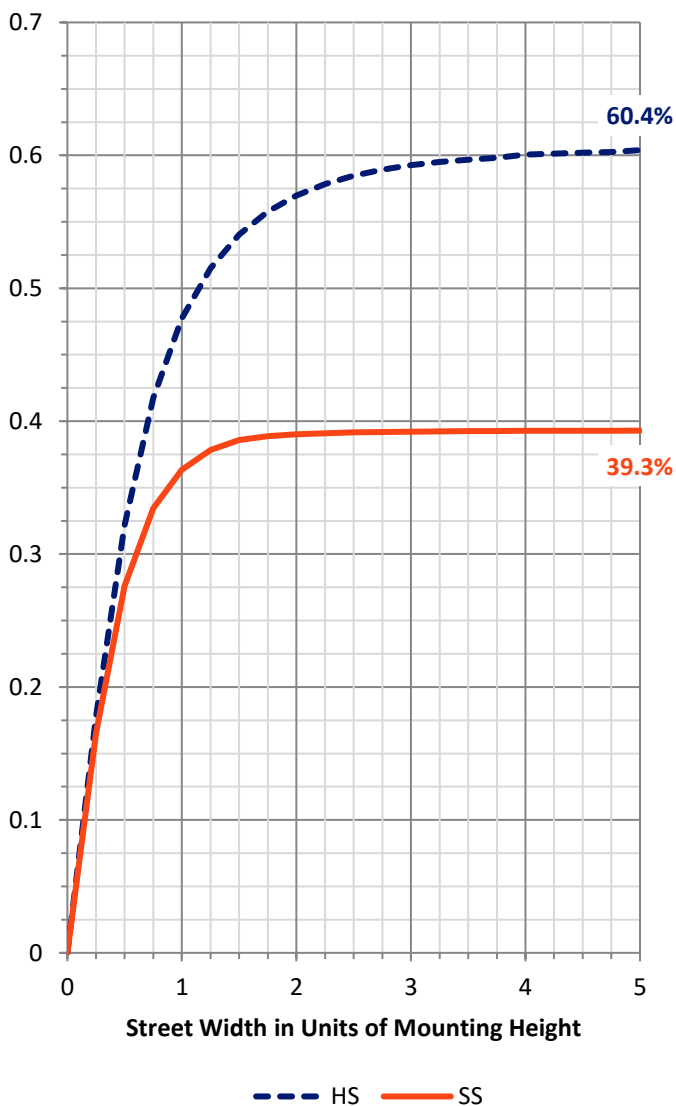
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	15442.1	0.0	15442.1
	% Fixture	60.9	0.0	60.9
Street Side	Lumens	9910.9	0.0	9910.9
	% Fixture	39.1	0.0	39.1
Total	Lumens	25353.0	0.0	25353.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	625.6	2.5
10°-20°	1790.1	7.1
20°-30°	2556.8	10.1
30°-40°	3382.9	13.3
40°-50°	4453.4	17.6
50°-60°	4913.3	19.4
60°-70°	4427.3	17.5
70°-80°	2800.0	11.0
80°-90°	403.5	1.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	25353.0	100.0
0°-180°	25353.0	100.0

Coefficient of Utilization

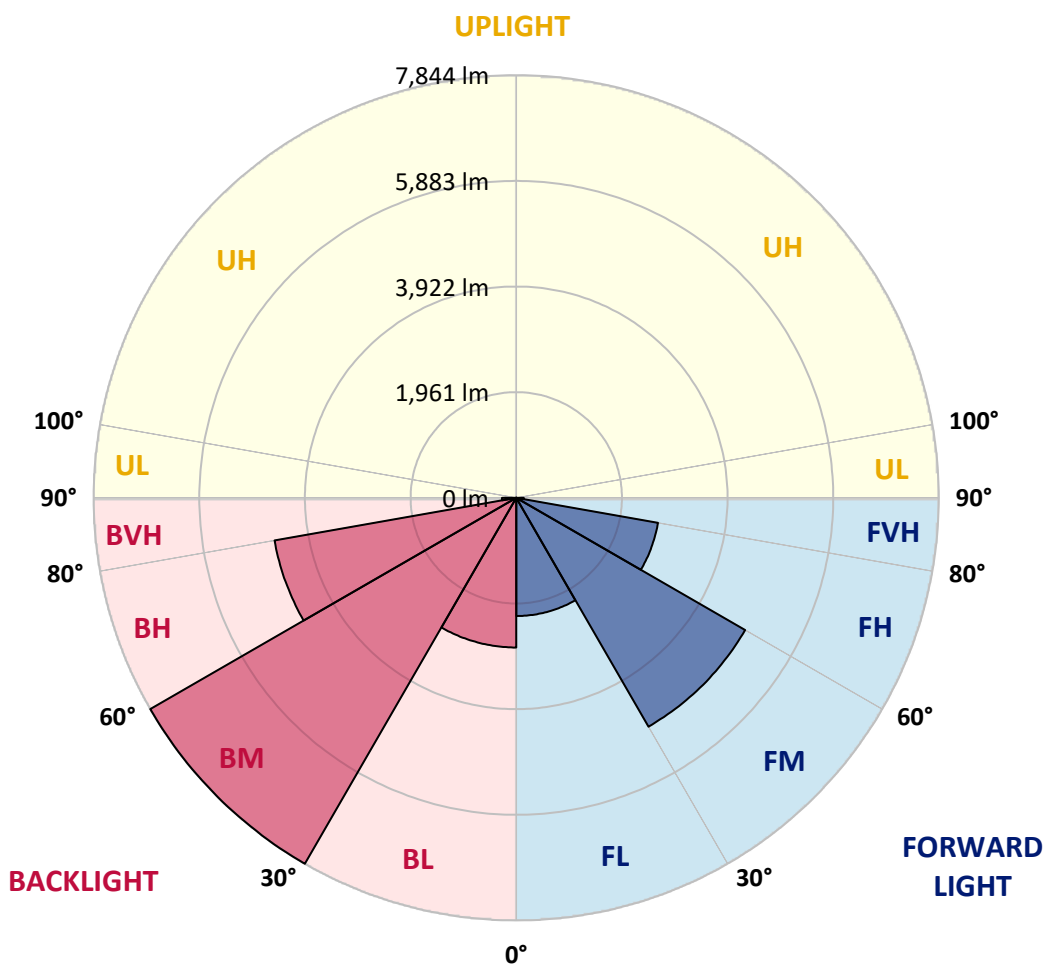


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2194.1	8.7			
FM (30°-60°)	4905.6	19.3			
FH (60°-80°)	2671.5	10.5			G2/5000
FVH (80°-90°)	139.7	0.6			G2/225
BL (0°-30°)	2778.4	11.0	B4/5000		
BM (30°-60°)	7844.2	30.9	B4/8500		
BH (60°-80°)	4555.7	18.0	B4/5000		G4/5000
BVH (80°-90°)	263.8	1.0			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6555.6	6555.6	6555.6	6555.6	6555.6	6555.6	6555.6	6555.6	6555.6	6555.6	6555.6
2.5°	6568.0	6522.3	6528.5	6576.6	6474.3	6538.4	6508.8	6561.8	6540.8	6570.4	6592.6
5°	6510.0	6466.9	6478.0	6537.1	6455.8	6528.5	6486.6	6538.4	6545.8	6581.5	6602.5
7.5°	6461.9	6420.0	6427.4	6482.9	6431.1	6495.2	6470.6	6539.6	6540.8	6603.7	6619.8
10°	6413.8	6370.7	6380.6	6428.6	6395.4	6464.4	6480.4	6561.8	6580.3	6667.8	6669.1
12.5°	6311.5	6273.3	6278.2	6344.8	6346.0	6445.9	6478.0	6603.7	6641.9	6740.6	6750.4
15°	5908.3	5935.5	6039.0	6122.9	6200.5	6334.9	6444.7	6650.6	6702.4	6822.0	6850.3
17.5°	4931.8	4889.9	4664.3	4783.9	5157.5	5515.0	5704.9	6135.2	6617.3	6946.5	6983.5
20°	3458.4	3525.0	3878.9	4041.6	4308.0	4955.3	5549.5	5797.4	5954.0	6549.5	7014.3
22.5°	2743.3	2763.1	3269.8	3877.7	4077.4	4356.0	5061.3	5888.6	6134.0	6306.6	6383.0
25°	2553.5	2568.3	2649.6	3444.9	3989.9	4285.8	4595.2	5671.6	6346.0	6560.6	6651.8
27.5°	2394.4	2410.4	2490.6	2758.1	3909.7	4285.8	4637.2	5134.0	6551.9	6877.4	6955.1
30°	2276.0	2276.0	2358.6	2586.7	3277.2	4299.3	4724.7	5194.5	6231.4	7276.9	7346.0
32.5°	2167.5	2168.8	2258.8	2478.2	2839.5	4241.4	4848.0	5416.4	5982.3	7676.4	7855.2
35°	2070.1	2073.8	2155.2	2377.1	2728.5	3419.0	4984.8	5701.2	6460.7	7632.0	8629.5
37.5°	1987.5	1990.0	2060.3	2277.3	2634.8	2477.0	5073.6	6044.0	7103.1	8027.8	8791.0
40°	1928.3	1924.6	1975.2	2172.5	2498.0	2263.7	4294.4	6400.3	7866.3	9266.9	9550.5
42.5°	1869.2	1863.0	1913.6	2062.7	1708.9	2204.5	3978.8	6748.0	8745.4	10628.1	10880.9
45°	1800.1	1802.6	1851.9	1850.7	1617.6	2125.6	4013.3	5942.9	9686.1	12020.1	12341.9
47.5°	1763.1	1752.0	1776.7	1343.9	1542.4	2017.1	3998.5	5517.5	10515.9	13350.5	13669.8
50°	1694.1	1691.6	1245.3	1273.6	1467.2	1892.6	3766.7	5670.4	9488.8	14583.4	14906.5
52.5°	1590.5	1404.3	1155.3	1224.3	1392.0	1745.9	2690.3	5733.3	9463.0	14461.4	16059.3
54°	1056.6	1082.5	1118.3	1189.8	1337.8	1372.3	2461.0	5728.3	9913.0	12668.6	15177.7
55°	605.4	848.3	1088.7	1161.4	1299.5	960.5	2372.2	5702.4	10200.3	12746.3	13682.1
57.5°	524.0	526.5	599.2	969.1	667.0	823.6	2120.7	5491.6	10737.8	13460.2	13727.8
60°	45.6	44.4	50.6	69.0	87.5	192.3	1067.7	3522.6	10361.8	14073.0	14488.5
62.5°	18.5	19.7	24.7	33.3	53.0	86.3	882.8	3121.8	10520.8	14446.6	14901.5
65°	3.7	3.7	6.2	11.1	19.7	51.8	752.1	2780.3	10439.5	14568.6	15176.5
67.5°	0.0	0.0	3.7	8.6	16.0	41.9	651.0	2558.4	9974.6	14526.7	15074.1
70°	0.0	0.0	3.7	8.6	14.8	40.7	557.3	2361.1	8821.8	14087.8	14694.4
72.5°	0.0	0.0	3.7	7.4	13.6	37.0	477.2	2084.9	7477.9	13031.1	13857.2
75°	0.0	0.0	3.7	7.4	12.3	33.3	401.9	1789.0	6247.4	11231.0	12223.5
77.5°	0.0	0.0	3.7	7.4	11.1	29.6	315.6	1429.0	4905.9	8143.7	8676.3
80°	0.0	0.0	3.7	7.4	9.9	23.4	233.0	902.5	2721.1	4130.4	4349.9
82.5°	0.0	0.0	2.5	6.2	8.6	14.8	111.0	341.5	1282.3	1891.4	1834.6
85°	0.0	0.0	2.5	6.2	7.4	11.1	48.1	86.3	426.6	627.6	584.4
87.5°	0.0	0.0	2.5	4.9	6.2	7.4	12.3	14.8	135.6	181.2	187.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6555.6	6555.6	6555.6	6555.6	6555.6	6555.6	6555.6	6555.6	6555.6	6555.6	6555.6
2.5°	6577.8	6577.8	6576.6	6608.7	6568.0	6571.7	6533.4	6632.1	6621.0	6590.2	6627.1
5°	6585.2	6591.4	6590.2	6606.2	6574.1	6593.9	6540.8	6638.2	6622.2	6597.6	6635.8
7.5°	6616.1	6627.1	6618.5	6646.9	6582.8	6602.5	6548.2	6633.3	6617.3	6581.5	6622.2
10°	6682.6	6693.7	6676.5	6690.0	6622.2	6612.4	6545.8	6634.5	6600.0	6572.9	6623.5
12.5°	6768.9	6782.5	6748.0	6745.5	6659.2	6639.5	6543.3	6603.7	6553.2	6531.0	6576.6
15°	6865.1	6881.1	6840.5	6831.8	6736.9	6671.5	6533.4	6547.0	6474.3	6444.7	6492.8
17.5°	6990.9	7005.7	6974.8	6969.9	6846.6	6735.6	6519.9	6475.5	6373.2	6348.5	6374.4
20°	7201.7	7211.6	7170.9	7133.9	6952.6	6770.2	6497.7	6381.8	6225.2	6173.4	6203.0
22.5°	6554.4	6633.3	7433.5	7295.4	7031.6	6805.9	6442.2	6248.6	6029.2	5931.8	5951.5
25°	6639.5	6646.9	6950.2	7486.5	7117.9	6829.4	6376.9	6083.4	5781.3	5639.5	5664.2
27.5°	6947.7	6939.1	6819.5	7507.5	7220.2	6842.9	6295.5	5909.6	5536.0	5365.8	5372.0
30°	7347.2	7333.6	7152.4	6787.4	7366.9	6847.8	6224.0	5709.8	5317.7	5136.5	5131.6
32.5°	7893.4	7855.2	7574.1	7069.8	6746.7	6881.1	6122.9	5520.0	5109.4	4930.6	4917.0
35°	8731.8	8661.5	8149.9	7428.6	6639.5	6881.1	5984.8	5315.3	4917.0	4746.9	4737.0
37.5°	9771.2	9789.7	8885.9	7830.5	6804.7	6236.3	5819.6	5124.2	4750.6	4600.2	4600.2
40°	9585.0	9830.4	9740.4	8242.3	6974.8	6132.7	5642.0	4940.5	4612.5	4497.8	4512.6
42.5°	10814.3	10719.3	10731.7	8655.4	7094.4	6026.7	5449.7	4770.3	4490.4	4393.0	4404.1
45°	12177.9	12070.7	9824.2	9025.3	7149.9	5868.9	5254.9	4595.2	4356.0	4274.7	4304.3
47.5°	13524.3	13428.1	10788.4	8935.2	7098.1	5627.2	5014.4	4443.6	4214.3	4156.3	4200.7
50°	14827.6	14691.9	11827.8	7987.1	6914.4	5293.1	4769.1	4284.5	4091.0	4056.4	4089.7
52.5°	15990.2	15810.2	12880.7	8130.1	6040.3	4955.3	4550.8	4131.6	3978.8	3940.5	3973.8
54°	16571.0	16461.2	13468.8	8146.2	5790.0	4745.7	4420.2	4034.2	3915.9	3883.8	3902.3
55°	15582.1	15801.6	13817.8	8132.6	5608.7	4618.7	4333.8	3970.1	3871.5	3837.0	3855.5
57.5°	13837.5	13600.8	12918.9	7966.1	5115.5	4300.6	4081.1	3807.4	3739.6	3695.2	3721.1
60°	14276.4	14233.3	11793.2	7600.0	4576.7	3944.2	3832.0	3617.5	3571.9	3534.9	3569.4
62.5°	14735.1	14706.7	11973.3	7031.6	4040.4	3594.1	3546.0	3395.6	3368.4	3352.4	3361.0
65°	14982.9	14801.7	11968.3	6270.8	3548.5	3235.3	3227.9	3115.7	3128.0	3120.6	3156.4
67.5°	14878.1	14684.5	11439.4	5722.2	3086.1	2825.9	2849.4	2802.5	2848.1	2861.7	2888.8
70°	14330.7	14393.6	10286.6	5193.2	2626.2	2379.6	2453.6	2447.4	2514.0	2565.8	2608.9
72.5°	13573.6	13332.0	8622.1	4414.0	1922.2	1692.9	1821.1	1907.4	1981.4	2043.0	2083.7
75°	11552.8	11269.2	6365.8	3441.2	1392.0	1167.6	1202.1	1240.4	1288.4	1430.2	1514.1
77.5°	7920.5	7802.2	4578.0	2595.4	886.5	704.0	838.4	914.9	955.5	949.4	964.2
80°	4061.4	4040.4	2710.0	1552.3	598.0	515.4	610.3	617.7	683.1	733.6	736.1
82.5°	1637.4	1718.7	1082.5	850.7	415.5	389.6	430.3	484.6	540.0	569.6	577.0
85°	579.5	565.9	329.2	399.5	263.9	272.5	304.5	366.2	424.1	431.5	415.5
87.5°	155.4	161.5	70.3	146.7	144.3	157.8	175.1	199.7	241.7	254.0	241.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)