

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: P591192

Luminaire Tested: **CTN-CA10-210-727-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591192
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-CA10-210-727-U-T1-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18782 lumens
Efficiency: N/A
Efficacy: 88.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B4 - U0 - G4

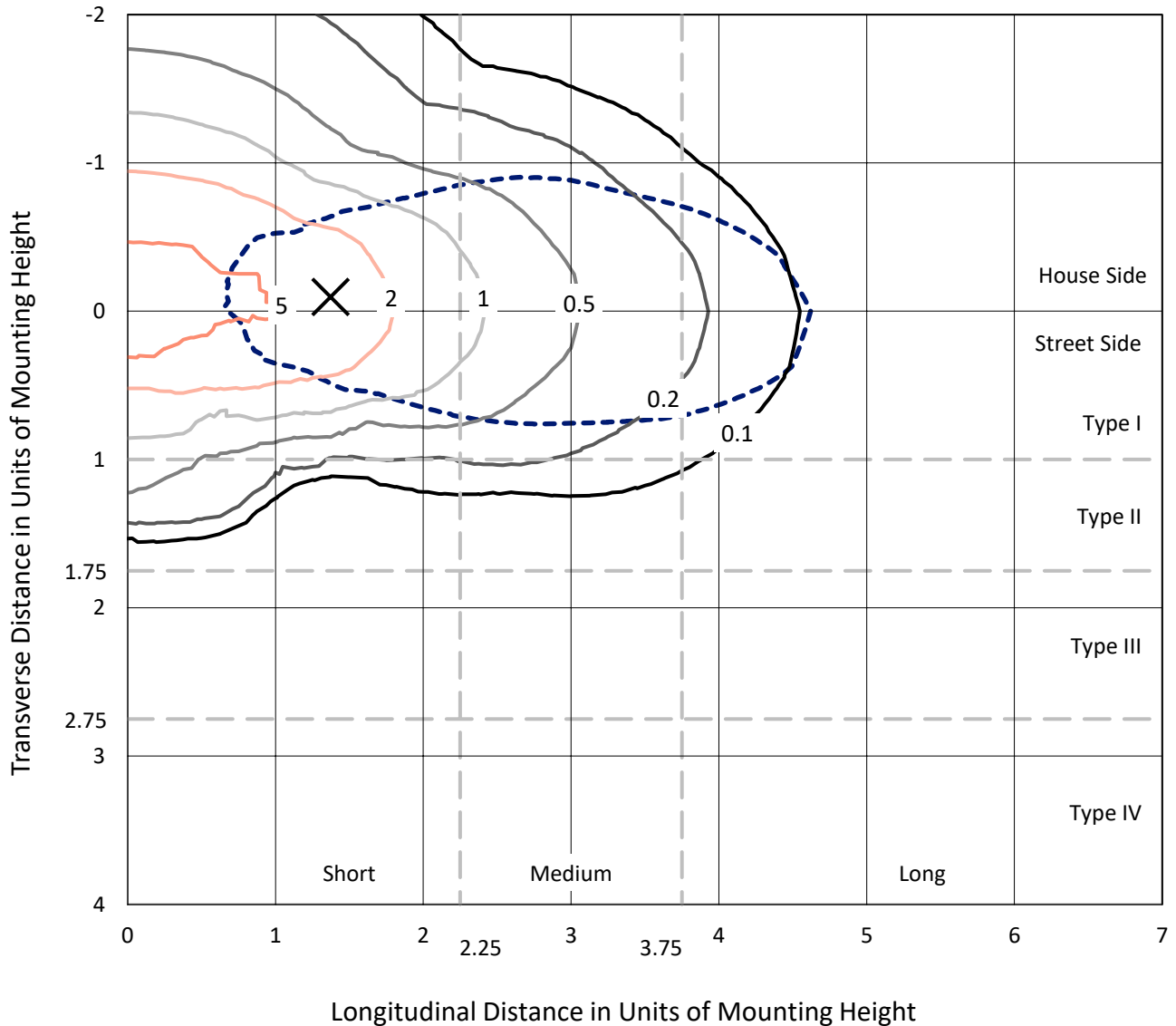
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

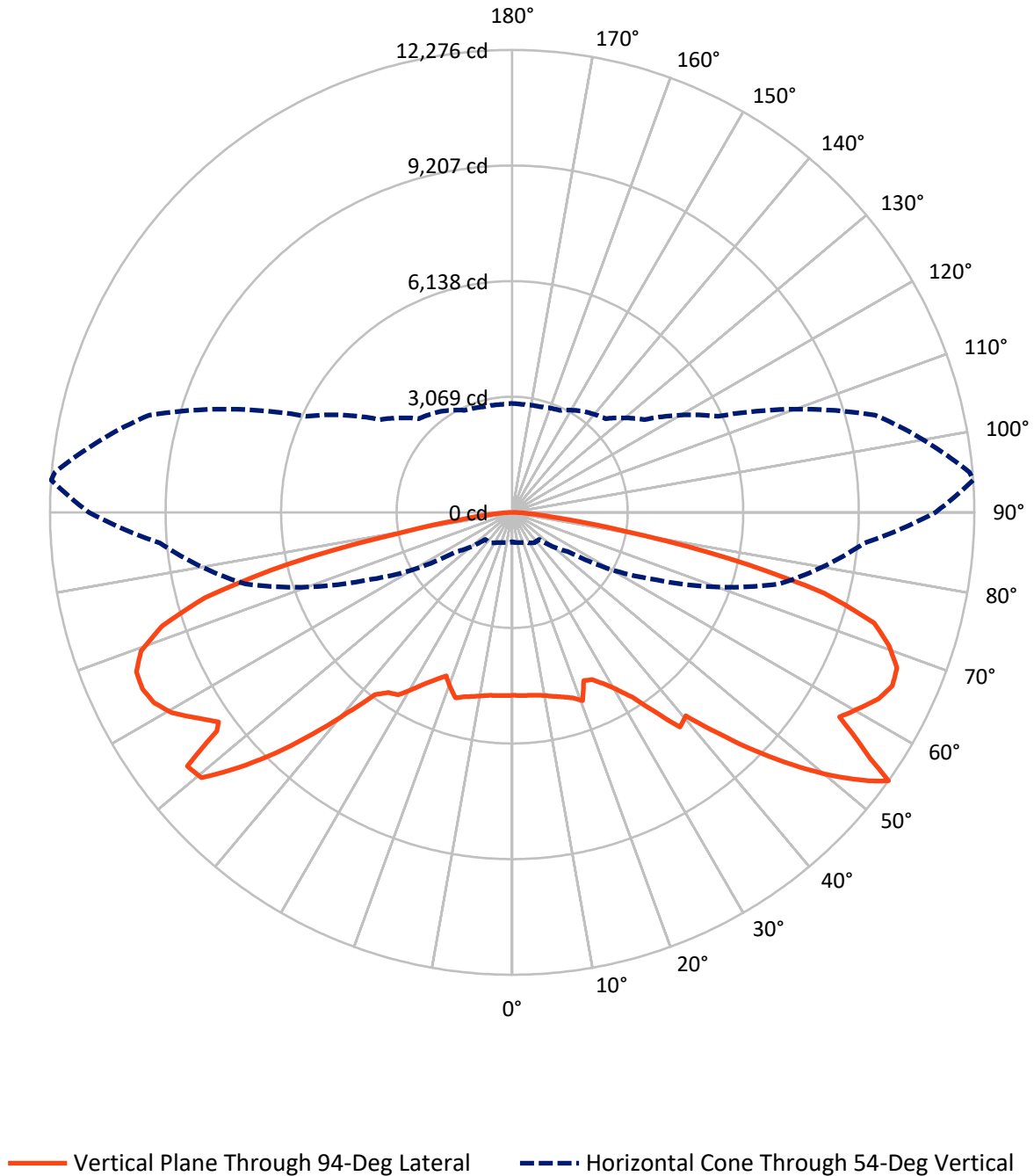
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



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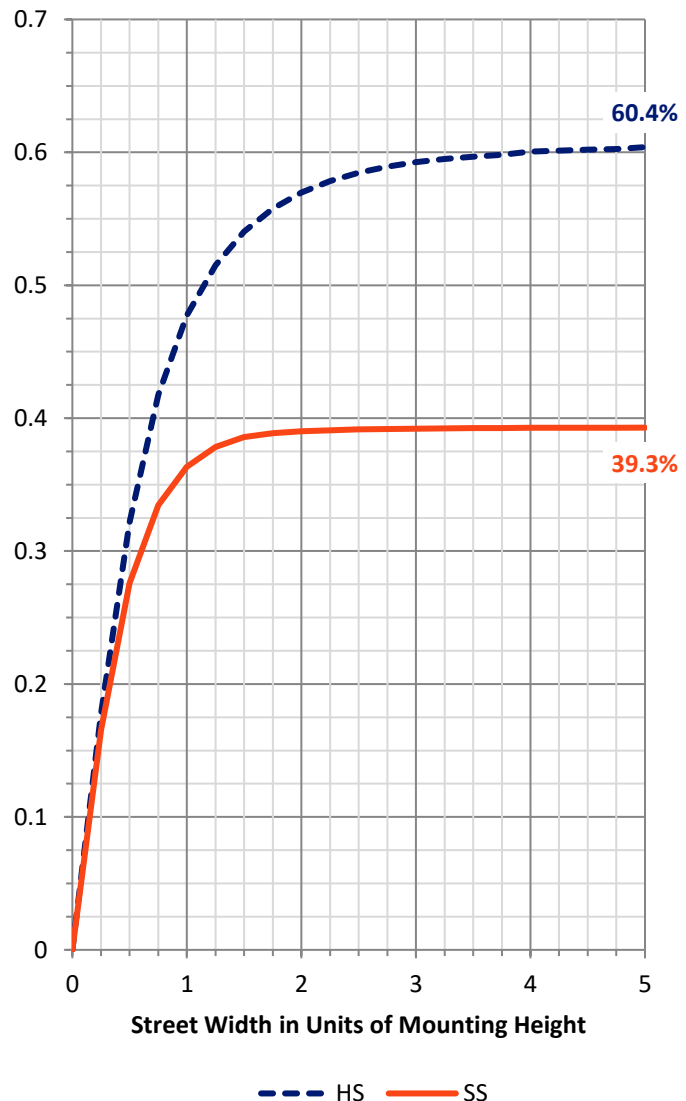
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11439.8	0.0	11439.8
	% Fixture	60.9	0.0	60.9
Street Side	Lumens	7342.2	0.0	7342.2
	% Fixture	39.1	0.0	39.1
Total	Lumens	18782.0	0.0	18782.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	463.5	2.5
10°-20°	1326.1	7.1
20°-30°	1894.1	10.1
30°-40°	2506.2	13.3
40°-50°	3299.2	17.6
50°-60°	3639.9	19.4
60°-70°	3279.8	17.5
70°-80°	2074.3	11.0
80°-90°	298.9	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°	18782.0	100.0
0°-180°	18782.0	100.0

Coefficient of Utilization

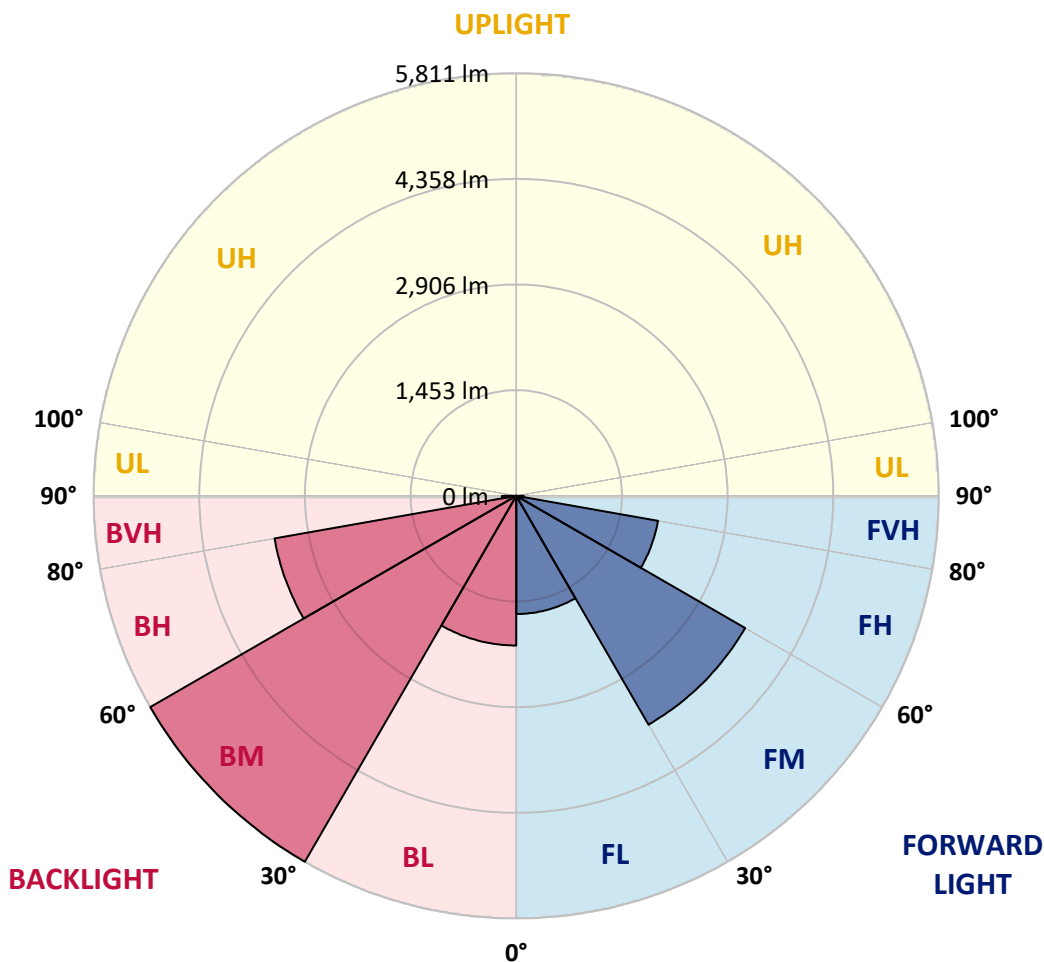


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1625.4	8.7			
FM (30°-60°)	3634.1	19.3			
FH (60°-80°)	1979.1	10.5			G2/5000
FVH (80°-90°)	103.5	0.6			G2/225
BL (0°-30°)	2058.3	11.0	B3/2500		
BM (30°-60°)	5811.1	30.9	B4/8500		
BH (60°-80°)	3375.0	18.0	B4/5000		G4/5000
BVH (80°-90°)	195.4	1.0			G2/225
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°	4856.5	4856.5	4856.5	4856.5	4856.5	4856.5	4856.5	4856.5	4856.5	4856.5	4856.5
2.5°	4865.7	4831.9	4836.5	4872.1	4796.3	4843.8	4821.8	4861.1	4845.6	4867.5	4883.9
5°	4822.7	4790.8	4799.0	4842.8	4782.6	4836.5	4805.4	4843.8	4849.2	4875.7	4891.3
7.5°	4787.1	4756.1	4761.6	4802.7	4764.3	4811.8	4793.5	4844.7	4845.6	4892.2	4904.0
10°	4751.5	4719.5	4726.8	4762.5	4737.8	4789.0	4800.8	4861.1	4874.8	4939.7	4940.6
12.5°	4675.7	4647.4	4651.0	4700.4	4701.3	4775.3	4799.0	4892.2	4920.5	4993.6	5000.9
15°	4377.0	4397.1	4473.8	4535.9	4593.5	4693.0	4774.3	4926.9	4965.2	5053.8	5074.8
17.5°	3653.6	3622.5	3455.4	3544.0	3820.7	4085.6	4226.3	4545.1	4902.2	5146.1	5173.5
20°	2562.1	2611.4	2873.6	2994.1	3191.4	3671.0	4111.2	4294.8	4410.8	4852.0	5196.3
22.5°	2032.3	2046.9	2422.3	2872.6	3020.6	3227.0	3749.5	4362.4	4544.2	4672.0	4728.7
25°	1891.7	1902.6	1962.9	2552.0	2955.8	3175.0	3404.2	4201.6	4701.3	4860.2	4927.8
27.5°	1773.8	1785.7	1845.1	2043.3	2896.4	3175.0	3435.3	3803.4	4853.8	5094.9	5152.5
30°	1686.1	1686.1	1747.3	1916.3	2427.8	3185.0	3500.1	3848.2	4616.3	5390.9	5442.0
32.5°	1605.8	1606.7	1673.3	1835.9	2103.6	3142.1	3591.5	4012.6	4431.8	5686.8	5819.3
35°	1533.6	1536.3	1596.6	1761.0	2021.4	2532.9	3692.9	4223.6	4786.2	5653.9	6392.9
37.5°	1472.4	1474.2	1526.3	1687.0	1951.9	1835.0	3758.6	4477.5	5262.1	5947.1	6512.5
40°	1428.6	1425.8	1463.3	1609.4	1850.5	1677.0	3181.4	4741.5	5827.5	6865.1	7075.2
42.5°	1384.7	1380.1	1417.6	1528.1	1266.0	1633.2	2947.5	4999.0	6478.7	7873.5	8060.8
45°	1333.6	1335.4	1371.9	1371.0	1198.4	1574.7	2973.1	4402.6	7175.7	8904.7	9143.1
47.5°	1306.2	1297.9	1316.2	995.6	1142.7	1494.3	2962.2	4087.5	7790.4	9890.3	10126.9
50°	1255.0	1253.2	922.5	943.5	1086.9	1402.1	2790.4	4200.7	7029.5	10803.7	11043.0
52.5°	1178.3	1040.4	855.9	907.0	1031.2	1293.4	1993.0	4247.3	7010.3	10713.3	11897.0
54°	782.8	802.0	828.5	881.4	991.0	1016.6	1823.1	4243.7	7343.7	9385.2	11243.9
55°	448.5	628.4	806.5	860.4	962.7	711.5	1757.4	4224.5	7556.6	9442.7	10136.0
57.5°	388.2	390.0	443.9	717.9	494.1	610.2	1571.0	4068.3	7954.8	9971.6	10169.8
60°	33.8	32.9	37.4	51.2	64.9	142.5	791.0	2609.6	7676.2	10425.5	10733.4
62.5°	13.7	14.6	18.3	24.7	39.3	63.9	654.0	2312.7	7794.0	10702.3	11039.3
65°	2.7	2.7	4.6	8.2	14.6	38.4	557.2	2059.7	7733.8	10792.7	11243.0
67.5°	0.0	0.0	2.7	6.4	11.9	31.1	482.3	1895.3	7389.4	10761.7	11167.2
70°	0.0	0.0	2.7	6.4	11.0	30.1	412.9	1749.2	6535.4	10436.5	10885.9
72.5°	0.0	0.0	2.7	5.5	10.0	27.4	353.5	1544.6	5539.8	9653.7	10265.7
75°	0.0	0.0	2.7	5.5	9.1	24.7	297.8	1325.3	4628.2	8320.2	9055.4
77.5°	0.0	0.0	2.7	5.5	8.2	21.9	233.8	1058.6	3634.4	6033.0	6427.6
80°	0.0	0.0	2.7	5.5	7.3	17.4	172.6	668.6	2015.9	3059.9	3222.5
82.5°	0.0	0.0	1.8	4.6	6.4	11.0	82.2	253.0	949.9	1401.2	1359.1
85°	0.0	0.0	1.8	4.6	5.5	8.2	35.6	63.9	316.0	464.9	433.0
87.5°	0.0	0.0	1.8	3.7	4.6	5.5	9.1	11.0	100.5	134.3	138.8
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°	4856.5	4856.5	4856.5	4856.5	4856.5	4856.5	4856.5	4856.5	4856.5	4856.5	4856.5
2.5°	4873.0	4873.0	4872.1	4895.8	4865.7	4868.4	4840.1	4913.2	4905.0	4882.1	4909.5
5°	4878.5	4883.0	4882.1	4894.0	4870.2	4884.9	4845.6	4917.7	4905.9	4887.6	4915.9
7.5°	4901.3	4909.5	4903.1	4924.1	4876.6	4891.3	4851.1	4914.1	4902.2	4875.7	4905.9
10°	4950.6	4958.8	4946.1	4956.1	4905.9	4898.6	4849.2	4915.0	4889.4	4869.3	4906.8
12.5°	5014.6	5024.6	4999.0	4997.2	4933.3	4918.7	4847.4	4892.2	4854.7	4838.3	4872.1
15°	5085.8	5097.7	5067.5	5061.1	4990.8	4942.4	4840.1	4850.2	4796.3	4774.3	4810.0
17.5°	5179.0	5189.9	5167.1	5163.4	5072.1	4989.9	4830.1	4797.2	4721.4	4703.1	4722.3
20°	5335.2	5342.5	5312.3	5284.9	5150.7	5015.5	4813.6	4727.8	4611.8	4573.4	4595.3
22.5°	4855.6	4914.1	5506.9	5404.6	5209.1	5042.0	4772.5	4629.1	4466.5	4394.4	4409.0
25°	4918.7	4924.1	5148.8	5546.2	5273.1	5059.3	4724.1	4506.7	4282.9	4177.9	4196.2
27.5°	5147.0	5140.6	5052.0	5561.7	5348.9	5069.4	4663.8	4377.9	4101.2	3975.1	3979.7
30°	5442.9	5432.9	5298.6	5028.3	5457.6	5073.0	4610.8	4230.0	3939.5	3805.2	3801.6
32.5°	5847.6	5819.3	5611.0	5237.4	4998.1	5097.7	4535.9	4089.3	3785.1	3652.7	3642.6
35°	6468.7	6416.6	6037.6	5503.2	4918.7	5097.7	4433.6	3937.7	3642.6	3516.6	3509.3
37.5°	7238.7	7252.4	6582.9	5801.0	5041.1	4620.0	4311.2	3796.1	3519.3	3407.9	3407.9
40°	7100.8	7282.5	7215.9	6106.1	5167.1	4543.2	4179.7	3660.0	3417.0	3332.1	3343.0
42.5°	8011.4	7941.1	7950.2	6412.1	5255.7	4464.7	4037.2	3533.9	3326.6	3254.4	3262.7
45°	9021.6	8942.2	7278.0	6686.1	5296.8	4347.8	3892.9	3404.2	3227.0	3166.8	3188.7
47.5°	10019.1	9947.8	7992.2	6619.4	5258.4	4168.8	3714.8	3291.9	3122.0	3079.1	3112.0
50°	10984.5	10884.1	8762.2	5917.0	5122.3	3921.2	3533.0	3174.1	3030.7	3005.1	3029.7
52.5°	11845.9	11712.5	9542.3	6023.0	4474.7	3671.0	3371.4	3060.8	2947.5	2919.2	2943.9
54°	12276.1	12194.8	9978.0	6034.8	4289.3	3515.7	3274.5	2988.6	2901.0	2877.2	2890.9
55°	11543.5	11706.1	10236.5	6024.8	4155.1	3421.6	3210.6	2941.1	2868.1	2842.5	2856.2
57.5°	10251.1	10075.7	9570.6	5901.5	3789.7	3185.9	3023.4	2820.6	2770.3	2737.5	2756.6
60°	10576.3	10544.3	8736.7	5630.2	3390.5	2922.0	2838.8	2679.9	2646.1	2618.7	2644.3
62.5°	10916.0	10895.0	8870.0	5209.1	2993.2	2662.6	2626.9	2515.5	2495.4	2483.5	2489.9
65°	11099.6	10965.4	8866.4	4645.5	2628.8	2396.8	2391.3	2308.2	2317.3	2311.8	2338.3
67.5°	11022.0	10878.6	8474.5	4239.1	2286.2	2093.5	2110.9	2076.2	2110.0	2120.0	2140.1
70°	10616.4	10663.0	7620.5	3847.2	1945.5	1762.9	1817.7	1813.1	1862.4	1900.8	1932.8
72.5°	10055.6	9876.6	6387.4	3270.0	1424.0	1254.1	1349.1	1413.0	1467.8	1513.5	1543.6
75°	8558.6	8348.5	4715.9	2549.3	1031.2	865.0	890.6	918.9	954.5	1059.5	1121.7
77.5°	5867.7	5780.0	3391.5	1922.7	656.7	521.6	621.1	677.7	707.9	703.3	714.3
80°	3008.7	2993.2	2007.7	1150.0	443.0	381.8	452.1	457.6	506.0	543.5	545.3
82.5°	1213.0	1273.3	802.0	630.2	307.8	288.6	318.8	359.0	400.1	422.0	427.5
85°	429.3	419.3	243.9	295.9	195.5	201.9	225.6	271.3	314.2	319.7	307.8
87.5°	115.1	119.7	52.1	108.7	106.9	116.9	129.7	148.0	179.0	188.2	179.0
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)