

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: P591430

Luminaire Tested: **CTN-CA10-760-740-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591430
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-10)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-760-740-U-T4-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 67575 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type IV - Short
BUG Rating: B5 - U0 - G5

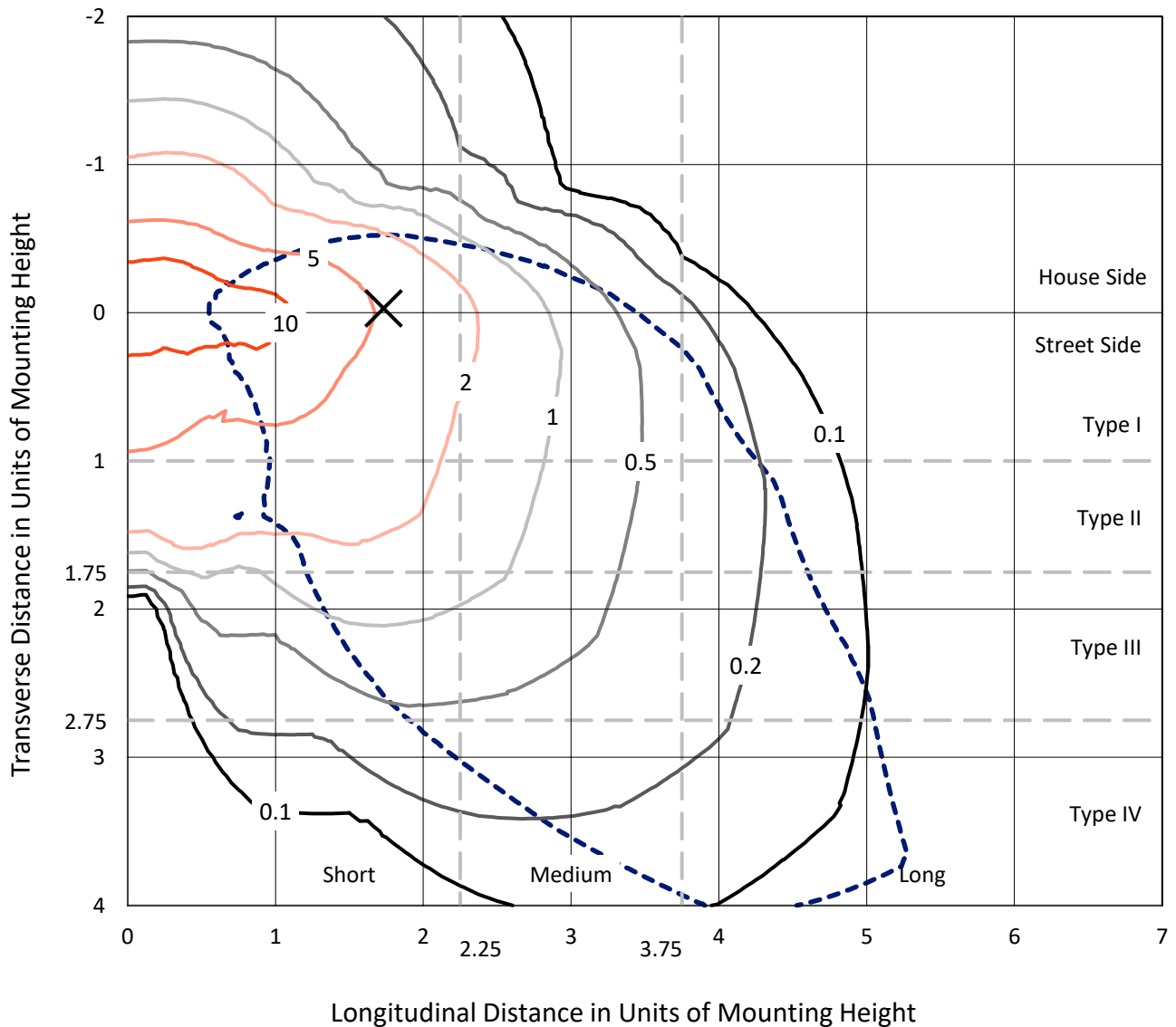
Input Watts (W): 761.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

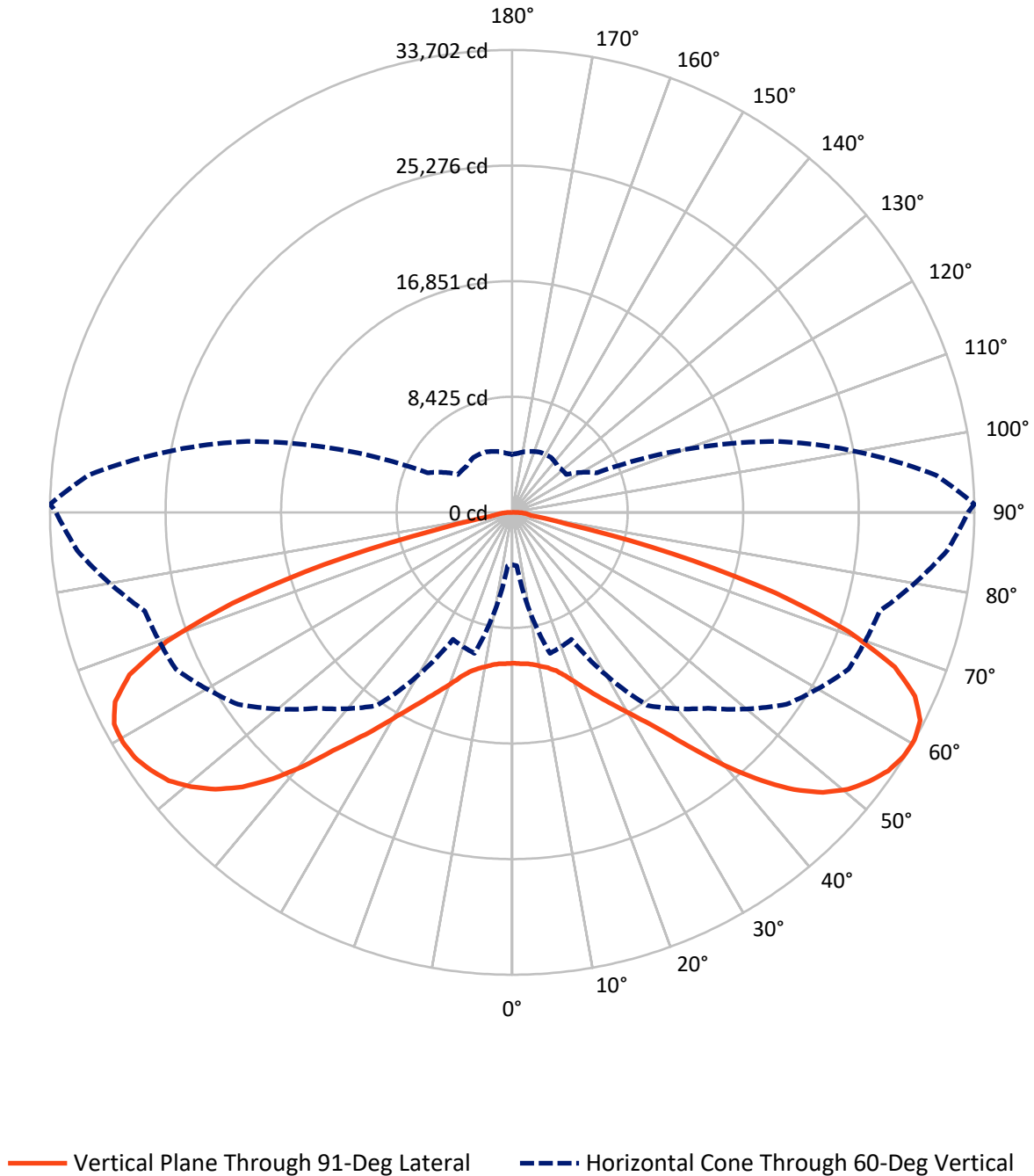
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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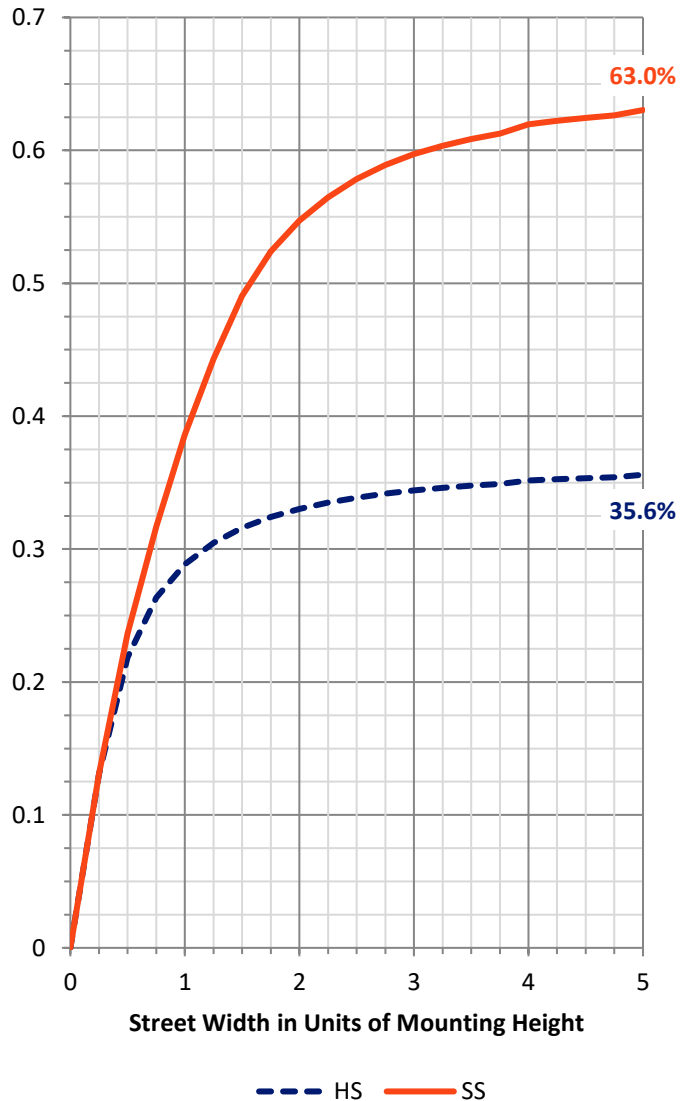
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	24540.7	0.0	24540.7
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	43034.3	0.0	43034.3
	% Fixture	63.7	0.0	63.7
Total	Lumens	67575.0	0.0	67575.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1071.6	1.6
10°-20°	3286.3	4.9
20°-30°	5387.0	8.0
30°-40°	7608.1	11.3
40°-50°	10710.0	15.8
50°-60°	13476.4	19.9
60°-70°	13564.9	20.1
70°-80°	9979.5	14.8
80°-90°	2491.2	3.7
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°	67575.0	100.0
0°-180°	67575.0	100.0

Coefficient of Utilization

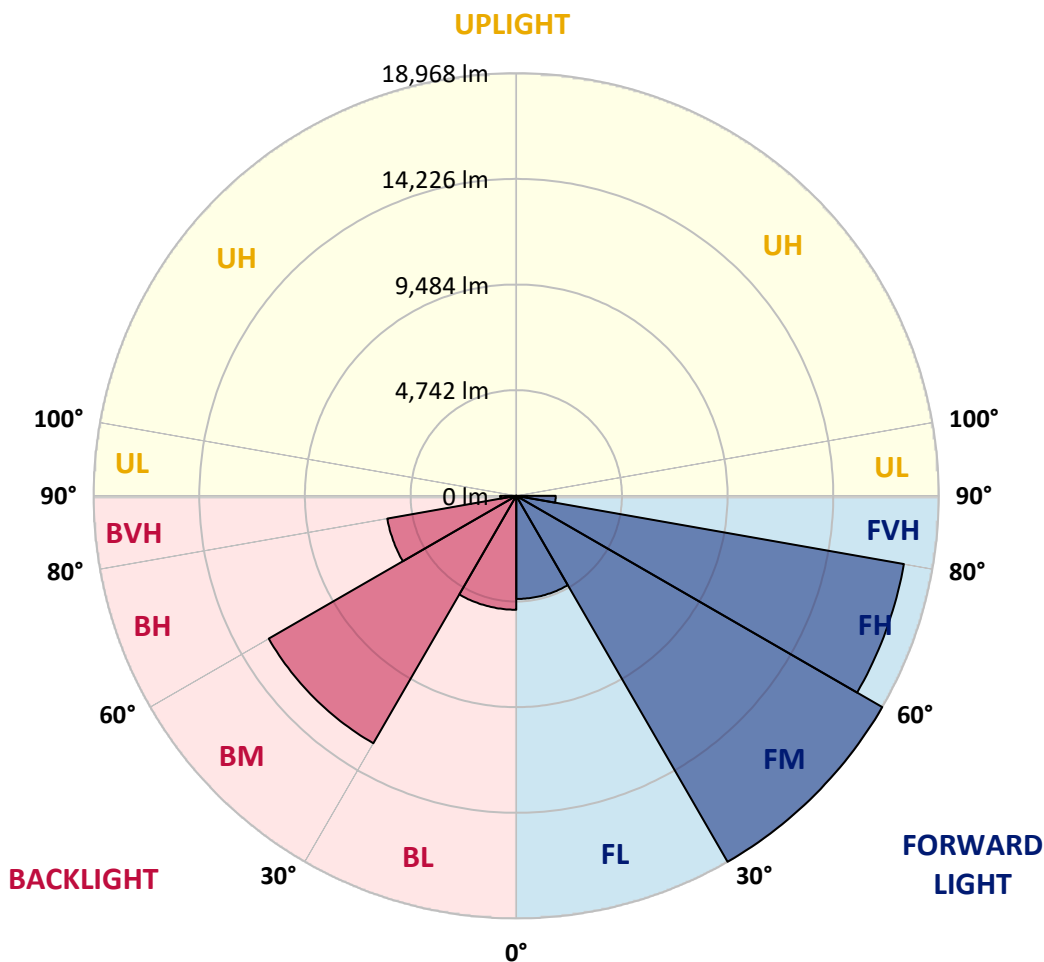


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4629.7	6.9			
FM	(30°-60°)	18968.2	28.1			
FH	(60°-80°)	17666.9	26.1			G5
FVH	(80°-90°)	1769.4	2.6			G5
BL	(0°-30°)	5115.2	7.6	B5		
BM	(30°-60°)	12826.3	19.0	B5		
BH	(60°-80°)	5877.5	8.7	B5		G5
BVH	(80°-90°)	721.8	1.1			G4/750
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	10990.2	10990.2	10990.2	10990.2	10990.2	10990.2	10990.2	10990.2	10990.2	10990.2	10990.2
2.5°	10881.6	10812.4	10815.7	10917.8	10763.0	10861.8	10838.8	10996.8	10967.2	11023.1	11036.3
5°	10805.8	10749.9	10749.9	10871.7	10766.3	10851.9	10779.5	10917.8	10967.2	11049.5	11065.9
7.5°	10835.5	10776.2	10799.3	10904.6	10786.1	10875.0	10868.4	10990.2	11019.9	11158.1	11177.9
10°	10888.2	10835.5	10842.1	10931.0	10851.9	11016.6	10986.9	11161.4	11158.1	11375.4	11391.9
12.5°	10796.0	10756.5	10756.5	10875.0	10921.1	11095.6	11154.8	11335.9	11355.7	11599.3	11619.1
15°	10651.1	10585.2	10684.0	10861.8	10957.3	11230.6	11332.6	11619.1	11671.8	11902.2	11951.6
17.5°	10348.2	10377.8	10654.4	10529.3	10094.7	10499.6	11622.4	11987.8	12103.1	12376.3	12494.9
20°	9409.8	9044.4	8320.0	8517.6	9413.1	10568.8	12027.3	12455.4	12708.9	13031.5	13232.4
22.5°	7108.4	7338.9	8692.1	8833.7	8873.2	9643.6	12593.6	13028.3	13364.1	13772.3	14039.0
25°	7371.8	7348.8	7813.0	9265.0	9304.5	9745.7	11856.1	13775.6	14078.5	14644.8	14911.5
27.5°	7615.5	7615.5	7589.1	8748.1	9752.3	10186.9	12241.4	13225.8	15016.9	15632.6	15945.4
30°	8020.4	8033.6	7885.4	7882.1	10121.0	10591.8	12985.5	13472.7	15846.6	17012.1	17084.6
32.5°	8823.8	8777.7	8593.3	8310.2	8754.6	11062.7	13713.1	14365.0	15046.5	18562.9	18497.0
35°	9403.3	9367.0	9235.3	9037.8	8833.7	11276.7	14394.6	15300.0	16416.2	19020.5	20284.8
37.5°	10104.6	10045.3	9897.1	9663.4	9531.7	9735.8	15095.9	16356.9	18128.3	19563.8	22303.1
40°	10871.7	10855.2	10628.1	10325.1	10144.1	10295.5	15632.6	17673.9	20251.9	21871.8	24528.8
42.5°	11461.0	11447.9	11260.2	11085.7	11000.1	11306.3	14299.1	19418.9	22681.7	23969.1	26672.2
45°	11991.1	11971.4	11964.8	11905.5	11974.7	12718.8	15761.0	20495.5	25068.8	25773.4	28621.3
47.5°	12392.8	12333.5	12165.6	12182.1	12376.3	13630.8	17282.1	18872.4	27004.7	27363.6	30142.4
50°	13347.6	13288.4	12708.9	12728.6	13104.0	14763.4	18592.5	20752.4	25203.8	28739.9	31308.0
52.5°	14200.4	13709.8	13393.7	13406.9	13920.5	15968.4	20080.7	22698.2	24775.7	29829.7	32249.6
55°	12264.4	11948.3	15023.5	14595.5	14878.6	17282.1	21526.1	24383.9	25951.1	30662.7	32789.6
57.5°	7197.3	7157.8	16534.7	16906.8	16577.5	18701.2	22987.9	25786.5	26981.7	31439.7	33151.8
60°	3819.3	3911.4	10634.6	10219.8	17183.3	20182.8	24403.7	27060.7	27745.5	31841.4	33250.5
62.5°	352.3	312.8	6989.9	7941.4	15402.1	22118.7	26082.8	28357.9	28262.5	32055.4	33076.0
65°	69.1	92.2	6858.2	7845.9	17114.2	25328.9	28825.5	29355.5	28542.3	31798.6	32160.7
67.5°	52.7	79.0	6479.6	7760.3	18164.5	26563.5	31982.9	29707.8	28558.8	30978.7	30145.7
70°	52.7	82.3	5719.0	7253.3	18661.6	26616.2	32730.3	29569.6	28190.0	29121.8	26349.5
72.5°	52.7	82.3	4803.7	6285.3	17815.5	25473.7	31419.9	28802.4	26817.1	25075.4	20551.5
75°	52.7	75.7	3769.9	5106.6	15398.8	23712.3	29171.2	25463.9	22573.1	18348.9	13186.3
77.5°	52.7	72.4	2778.8	3997.0	12850.5	20913.7	25368.4	20930.2	17015.4	9607.4	4853.1
80°	49.4	72.4	1692.3	2818.3	9900.4	16870.6	19935.8	15464.7	8942.3	2416.7	1402.6
82.5°	49.4	69.1	806.7	1804.3	6957.0	12053.7	13008.5	6624.4	1903.0	1116.1	1116.1
85°	42.8	62.6	431.3	981.2	4546.9	7901.9	6275.4	1122.7	744.1	754.0	859.3
87.5°	26.3	32.9	204.1	441.2	2620.8	4224.2	2416.7	411.6	309.5	326.0	487.3
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	10990.2	10990.2	10990.2	10990.2	10990.2	10990.2	10990.2	10990.2	10990.2	10990.2	10990.2
2.5°	11046.2	11029.7	11065.9	11181.2	11161.4	11243.7	11177.9	11293.1	11316.2	11283.3	11335.9
5°	11082.4	11105.5	11227.3	11335.9	11276.7	11408.4	11444.6	11605.9	11602.6	11573.0	11638.8
7.5°	11200.9	11263.5	11385.3	11520.3	11549.9	11655.3	11642.1	11846.3	11823.2	11810.0	11875.9
10°	11405.1	11500.6	11615.8	11839.7	11767.2	11945.0	11823.2	11961.5	11948.3	11915.4	11974.7
12.5°	11632.3	11763.9	11902.2	12106.4	12076.7	12073.4	11964.8	12007.6	11971.4	11892.4	11941.7
15°	11974.7	12136.0	12327.0	12458.7	12284.2	12218.3	12047.1	11954.9	11829.8	11645.4	11675.1
17.5°	12508.0	12699.0	12903.1	12926.2	12656.2	12485.0	12070.1	11740.9	11414.9	11168.0	11191.1
20°	13225.8	13400.3	13551.8	13443.1	13077.6	12695.7	12070.1	11549.9	10940.8	10486.5	10453.6
22.5°	14065.4	14118.1	14262.9	13996.2	13367.4	12834.0	12037.2	11263.5	10272.5	9666.7	9594.2
25°	14970.8	14964.2	14901.7	14348.5	13548.5	12758.3	11787.0	10772.9	9508.6	8876.5	8823.8
27.5°	15955.2	15872.9	15444.9	14644.8	13472.7	12485.0	11312.9	9946.5	8813.9	8270.7	8254.2
30°	17064.8	16847.5	15981.6	14674.5	13189.6	11945.0	10542.4	9113.5	8194.9	7710.9	7664.8
32.5°	18358.7	17934.0	16409.6	14579.0	12679.3	11121.9	9604.1	8458.3	7687.9	7157.8	7055.7
35°	20047.8	19303.7	16804.7	14266.2	11922.0	10144.1	8738.2	7875.6	7217.1	6673.8	6565.2
37.5°	22171.4	21078.3	17400.6	13808.6	11056.1	9271.6	8139.0	7490.3	6891.1	6249.1	6117.4
40°	24528.8	23165.7	18098.6	13364.1	10233.0	8622.9	7747.2	7309.3	6680.4	5975.8	5850.7
42.5°	26761.1	25266.3	19145.6	12787.9	9449.4	8102.7	7605.6	7256.6	6581.6	5857.3	5722.3
45°	28822.2	27113.4	20225.6	12208.4	8652.6	7678.0	7487.0	7101.8	6430.2	5719.0	5564.3
47.5°	30504.6	28568.7	21180.4	11609.2	7951.3	7345.5	7259.9	6805.5	6163.5	5495.1	5350.2
50°	31726.1	29684.8	21740.1	11052.8	7276.3	7012.9	6861.5	6384.1	5788.1	5231.7	5126.4
52.5°	32592.0	30649.5	22020.0	10990.2	6663.9	6565.2	6397.2	5949.5	5472.1	5040.8	4915.6
55°	33260.4	31176.3	21779.6	10624.8	6084.5	6002.1	5827.6	5551.1	5264.6	4863.0	4780.6
57.5°	33622.6	31416.6	21229.8	8962.1	5468.8	5327.2	5304.1	5244.9	4994.7	4596.3	4533.7
60°	33701.6	31034.7	19985.2	6815.4	4823.4	4731.3	4905.8	4830.0	4606.1	4309.8	4220.9
62.5°	33392.1	30218.2	17624.5	5096.7	4286.8	4438.2	4616.0	4500.8	4240.7	3950.9	3895.0
65°	32276.0	28344.8	14203.7	3967.4	4039.8	4299.9	4458.0	4319.7	4003.6	3674.4	3638.2
67.5°	30093.1	25427.6	9350.6	3569.0	3924.6	4184.7	4362.5	4141.9	3822.5	3467.0	3424.2
70°	26000.5	20100.5	4454.7	3328.7	3704.0	3960.8	4102.4	3852.2	3542.7	3193.7	3147.6
72.5°	20080.7	13660.4	2459.5	3065.3	3430.7	3667.8	3769.9	3473.5	3187.1	3042.2	3029.1
75°	12086.6	5870.5	2222.4	2805.2	3078.4	3299.0	3480.1	3256.2	3006.0	2722.9	2650.4
77.5°	3990.5	1705.5	2090.7	2495.7	2805.2	3071.9	3157.5	2940.2	2627.4	2387.0	2367.3
80°	1399.3	1428.9	1949.1	2077.5	2443.0	2666.9	2762.4	2512.1	2364.0	2113.8	2064.4
82.5°	1139.2	1280.8	1573.8	1567.2	1929.4	2192.8	2337.6	2275.1	2080.8	1880.0	1860.2
85°	931.8	1172.1	997.6	1096.4	1382.8	1669.3	1945.8	1952.4	1804.3	1600.1	1465.1
87.5°	553.1	599.2	497.2	559.7	730.9	938.4	1086.5	1037.1	849.5	717.8	701.3
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)