

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: P591420

Luminaire Tested: **CTN-CA10-760-740-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591420
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-CA10-760-740-U-T1-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D 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: 67702 lumens
Efficiency: N/A
Efficacy: 88.9 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

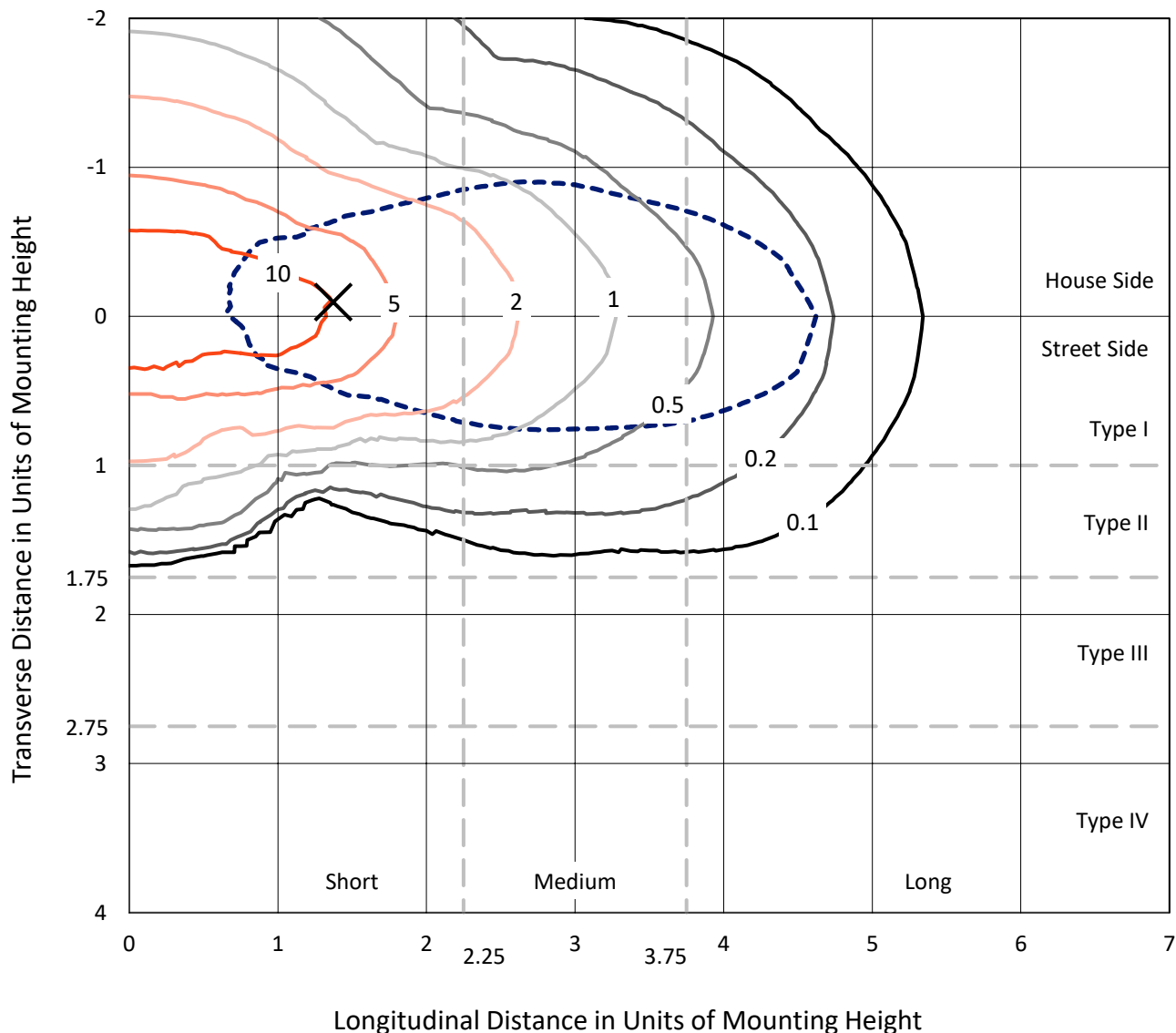
Input Watts (W): 761.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

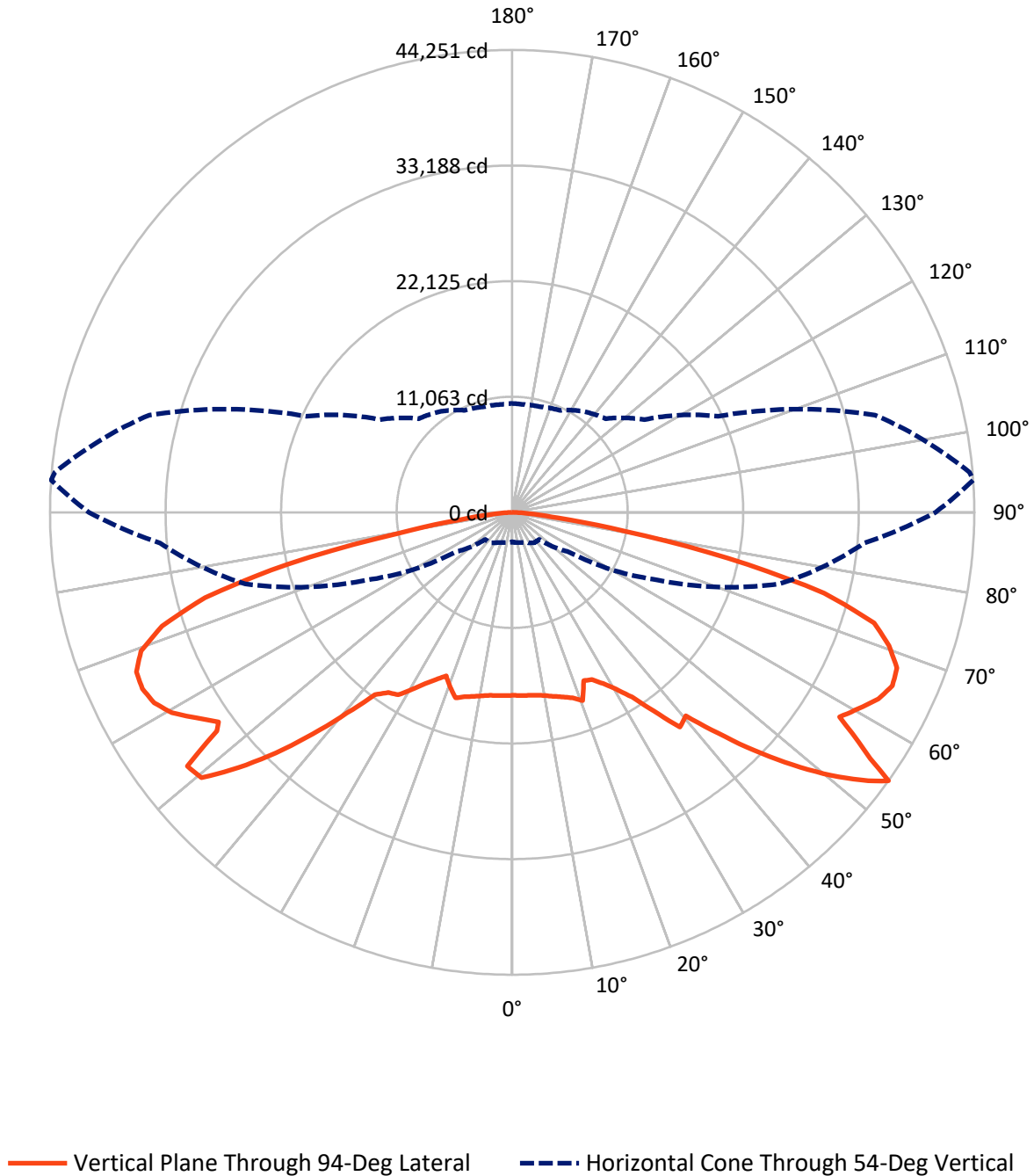
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 19.5 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



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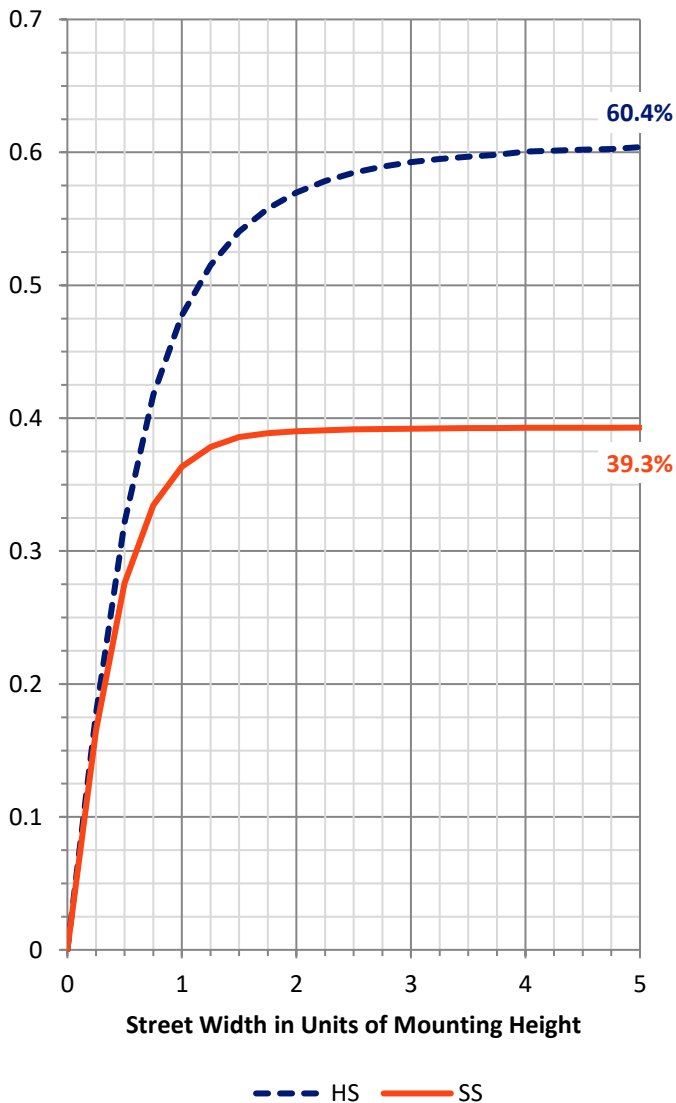
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	41236.1	0.0	41236.1
	% Fixture	60.9	0.0	60.9
Street Side	Lumens	26465.9	0.0	26465.9
	% Fixture	39.1	0.0	39.1
Total	Lumens	67702.0	0.0	67702.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1670.7	2.5
10°-20°	4780.3	7.1
20°-30°	6827.6	10.1
30°-40°	9033.7	13.3
40°-50°	11892.3	17.6
50°-60°	13120.5	19.4
60°-70°	11822.6	17.5
70°-80°	7476.9	11.0
80°-90°	1077.5	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°	67702.0	100.0
0°-180°	67702.0	100.0

Coefficient of Utilization

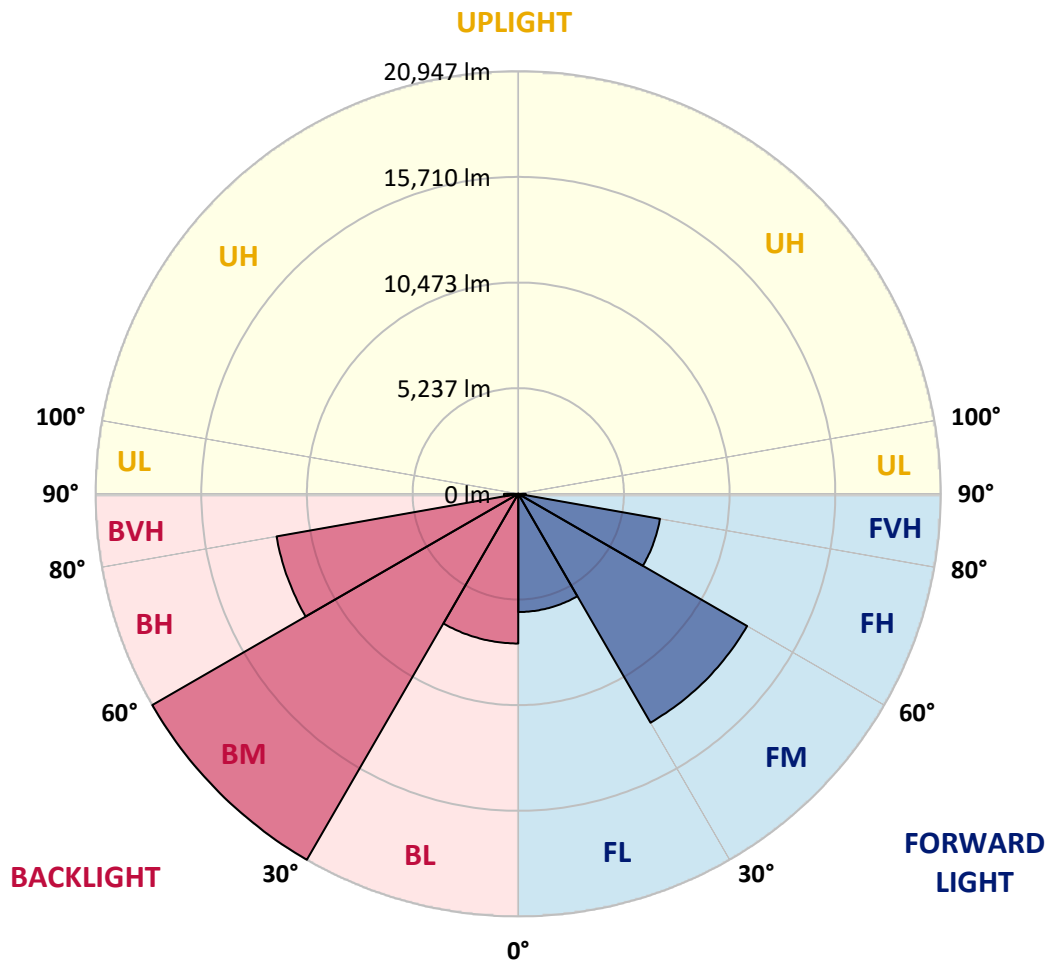


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5859.1	8.7			
FM (30°-60°)	13099.7	19.3			
FH (60°-80°)	7134.0	10.5			G3/7500
FVH (80°-90°)	373.1	0.6			G3/500
BL (0°-30°)	7419.5	11.0	B5		
BM (30°-60°)	20946.8	30.9	B5		
BH (60°-80°)	12165.5	18.0	B5		G5
BVH (80°-90°)	704.4	1.0			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 I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	17506.0	17506.0	17506.0	17506.0	17506.0	17506.0	17506.0	17506.0	17506.0	17506.0	17506.0
2.5°	17538.9	17417.1	17433.6	17562.0	17288.7	17459.9	17380.9	17522.5	17466.5	17545.5	17604.8
5°	17384.2	17268.9	17298.6	17456.6	17239.3	17433.6	17321.6	17459.9	17479.7	17575.1	17631.1
7.5°	17255.8	17143.8	17163.6	17311.8	17173.5	17344.7	17278.8	17463.2	17466.5	17634.4	17677.2
10°	17127.4	17012.1	17038.5	17166.9	17078.0	17262.4	17305.2	17522.5	17571.9	17805.6	17808.9
12.5°	16854.1	16752.0	16765.2	16943.0	16946.3	17213.0	17298.6	17634.4	17736.5	17999.9	18026.2
15°	15777.5	15849.9	16126.5	16350.4	16557.8	16916.7	17209.7	17759.5	17897.8	18217.2	18292.9
17.5°	13169.8	13057.9	12455.4	12774.7	13772.4	14727.2	15234.2	16383.3	17670.6	18549.7	18648.5
20°	9235.3	9413.1	10358.1	10792.7	11503.9	13232.4	14819.4	15481.1	15899.3	17489.5	18730.8
22.5°	7325.7	7378.4	8731.6	10354.8	10888.2	11632.3	13515.5	15724.8	16380.0	16840.9	17045.1
25°	6818.7	6858.2	7075.5	9199.1	10654.4	11444.6	12271.0	15145.3	16946.3	17519.2	17762.8
27.5°	6394.0	6436.8	6650.8	7365.2	10440.4	11444.6	12382.9	13709.8	17496.1	18365.3	18572.8
30°	6077.9	6077.9	6298.5	6907.6	8751.4	11480.8	12616.7	13871.1	16640.1	19432.1	19616.5
32.5°	5788.1	5791.4	6031.8	6617.8	7582.5	11326.1	12945.9	14463.8	15975.0	20498.9	20976.3
35°	5528.0	5537.9	5755.2	6347.9	7286.2	9130.0	13311.4	15224.3	17252.5	20380.3	23043.9
37.5°	5307.4	5314.0	5501.7	6081.2	7036.0	6614.6	13548.5	16139.6	18967.9	21437.2	23475.2
40°	5149.4	5139.5	5274.5	5801.3	6670.5	6045.0	11467.6	17091.2	21005.9	24746.1	25503.4
42.5°	4991.4	4974.9	5109.9	5508.3	4563.3	5886.9	10624.8	18019.6	23353.4	28381.0	29056.0
45°	4807.0	4813.6	4945.3	4942.0	4319.7	5676.2	10717.0	15869.7	25865.6	32098.2	32957.5
47.5°	4708.2	4678.6	4744.4	3588.8	4118.9	5386.5	10677.4	14733.8	28081.4	35650.7	36503.5
50°	4523.8	4517.3	3325.4	3401.1	3918.0	5053.9	10058.5	15142.0	25338.8	38943.2	39805.8
52.5°	4247.3	3750.1	3085.0	3269.4	3717.2	4662.1	7184.1	15309.9	25269.6	38617.3	42884.3
54°	2821.6	2890.8	2986.3	3177.2	3572.3	3664.5	6571.7	15296.8	26471.4	33830.0	40530.2
55°	1616.6	2265.2	2907.2	3101.5	3470.3	2564.8	6334.7	15227.6	27238.5	34037.4	36536.4
57.5°	1399.3	1405.9	1600.1	2587.9	1781.2	2199.4	5663.0	14664.6	28674.0	35943.8	36658.2
60°	121.8	118.5	135.0	184.4	233.8	513.6	2851.3	9406.6	27669.8	37580.1	38689.7
62.5°	49.4	52.7	65.8	88.9	141.6	230.5	2357.4	8336.5	28094.6	38577.7	39792.7
65°	9.9	9.9	16.5	29.6	52.7	138.3	2008.4	7424.5	27877.3	38903.7	40526.9
67.5°	0.0	0.0	9.9	23.0	42.8	111.9	1738.4	6831.9	26636.0	38791.8	40253.6
70°	0.0	0.0	9.9	23.0	39.5	108.7	1488.2	6305.1	23557.5	37619.6	39239.5
72.5°	0.0	0.0	9.9	19.8	36.2	98.8	1274.2	5567.5	19968.8	34798.0	37003.9
75°	0.0	0.0	9.9	19.8	32.9	88.9	1073.3	4777.4	16682.9	29991.0	32641.4
77.5°	0.0	0.0	9.9	19.8	29.6	79.0	842.9	3816.0	13100.7	21746.7	23169.0
80°	0.0	0.0	9.9	19.8	26.3	62.6	622.3	2410.1	7266.5	11029.7	11615.8
82.5°	0.0	0.0	6.6	16.5	23.0	39.5	296.3	912.0	3424.2	5050.6	4899.2
85°	0.0	0.0	6.6	16.5	19.8	29.6	128.4	230.5	1139.2	1675.9	1560.6
87.5°	0.0	0.0	6.6	13.2	16.5	19.8	32.9	39.5	362.2	484.0	500.5
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°	17506.0	17506.0	17506.0	17506.0	17506.0	17506.0	17506.0	17506.0	17506.0	17506.0	17506.0
2.5°	17565.3	17565.3	17562.0	17647.6	17538.9	17548.8	17446.7	17710.1	17680.5	17598.2	17697.0
5°	17585.0	17601.5	17598.2	17641.0	17555.4	17608.1	17466.5	17726.6	17683.8	17617.9	17720.0
7.5°	17667.3	17697.0	17673.9	17749.6	17578.4	17631.1	17486.3	17713.4	17670.6	17575.1	17683.8
10°	17845.1	17874.8	17828.7	17864.9	17683.8	17657.5	17479.7	17716.7	17624.5	17552.1	17687.1
12.5°	18075.6	18111.8	18019.6	18013.0	17782.6	17729.9	17473.1	17634.4	17499.4	17440.2	17562.0
15°	18332.4	18375.2	18266.6	18243.5	17990.0	17815.5	17446.7	17483.0	17288.7	17209.7	17338.1
17.5°	18668.2	18707.8	18625.4	18612.3	18283.0	17986.7	17410.5	17292.0	17018.7	16952.9	17022.0
20°	19231.3	19257.6	19148.9	19050.2	18566.2	18078.9	17351.3	17041.8	16623.6	16485.3	16564.4
22.5°	17502.7	17713.4	19850.2	19481.5	18776.9	18174.4	17203.1	16686.2	16100.1	15840.0	15892.7
25°	17729.9	17749.6	18559.6	19991.8	19007.4	18236.9	17028.6	16245.0	15438.3	15059.7	15125.6
27.5°	18553.0	18530.0	18210.6	20047.8	19280.6	18273.1	16811.3	15780.8	14783.1	14328.8	14345.2
30°	19619.8	19583.5	19099.6	18125.0	19672.4	18286.3	16620.3	15247.4	14200.4	13716.4	13703.2
32.5°	21078.3	20976.3	20225.6	18879.0	18016.3	18375.2	16350.4	14740.3	13644.0	13166.5	13130.3
35°	23317.2	23129.5	21763.2	19837.1	17729.9	18375.2	15981.6	14193.8	13130.3	12676.0	12649.6
37.5°	26092.7	26142.1	23728.8	20910.4	18171.1	16653.3	15540.4	13683.5	12685.8	12284.2	12284.2
40°	25595.6	26250.8	26010.4	22010.1	18625.4	16376.7	15066.3	13192.9	12317.1	12010.9	12050.4
42.5°	28878.2	28624.6	28657.6	23113.1	18944.8	16093.5	14552.7	12738.5	11991.1	11731.0	11760.7
45°	32519.6	32233.2	26234.3	24100.8	19093.0	15672.1	14032.5	12271.0	11632.3	11415.0	11494.0
47.5°	36115.0	35858.2	28809.0	23860.5	18954.7	15026.8	13390.4	11866.0	11253.6	11098.9	11217.4
50°	39595.1	39232.9	31584.6	21328.6	18464.1	14134.5	12735.2	11441.3	10924.4	10832.2	10921.1
52.5°	42699.9	42219.2	34396.3	21710.5	16129.8	13232.4	12152.5	11033.0	10624.8	10522.7	10611.6
54°	44250.7	43957.6	35966.8	21753.3	15461.4	12672.7	11803.5	10772.9	10456.9	10371.2	10420.6
55°	41610.1	42196.2	36898.6	21717.1	14977.4	12333.6	11573.0	10601.7	10338.3	10246.1	10295.5
57.5°	36951.3	36319.1	34498.4	21272.6	13660.4	11484.1	10898.0	10167.1	9986.0	9867.5	9936.6
60°	38123.4	38008.1	31492.4	20294.7	12221.6	10532.6	10233.0	9660.1	9538.3	9439.5	9531.7
62.5°	39348.2	39272.5	31973.1	18776.9	10789.4	9597.5	9469.1	9067.4	8995.0	8952.2	8975.2
65°	40010.0	39526.0	31959.9	16745.4	9475.7	8639.4	8619.7	8320.0	8353.0	8333.2	8428.7
67.5°	39730.1	39213.2	30547.4	15280.3	8241.0	7546.3	7608.9	7483.8	7605.6	7641.8	7714.2
70°	38268.3	38436.2	27469.0	13867.8	7012.9	6354.4	6552.0	6535.5	6713.3	6851.6	6966.8
72.5°	36246.7	35601.4	23024.2	11787.0	5132.9	4520.5	4863.0	5093.4	5291.0	5455.6	5564.3
75°	30850.3	30093.1	16999.0	9189.3	3717.2	3118.0	3210.1	3312.2	3440.6	3819.3	4043.1
77.5°	21150.8	20834.7	12224.9	6930.6	2367.3	1880.0	2238.9	2443.0	2551.7	2535.2	2574.7
80°	10845.4	10789.4	7236.8	4145.2	1596.8	1376.2	1629.8	1649.5	1824.0	1959.0	1965.6
82.5°	4372.4	4589.7	2890.8	2271.8	1109.6	1040.4	1149.1	1293.9	1442.1	1521.1	1540.9
85°	1547.5	1511.2	879.1	1066.8	704.6	727.6	813.2	977.9	1132.6	1152.4	1109.6
87.5°	414.8	431.3	187.7	391.8	385.2	421.4	467.5	533.4	645.3	678.2	645.3
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)