

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: P591205

Luminaire Tested: **CTN-CA10-310-727-U-T1-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591205
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-310-727-U-T1-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D 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: 34874 lumens
Efficiency: N/A
Efficacy: 111.6 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

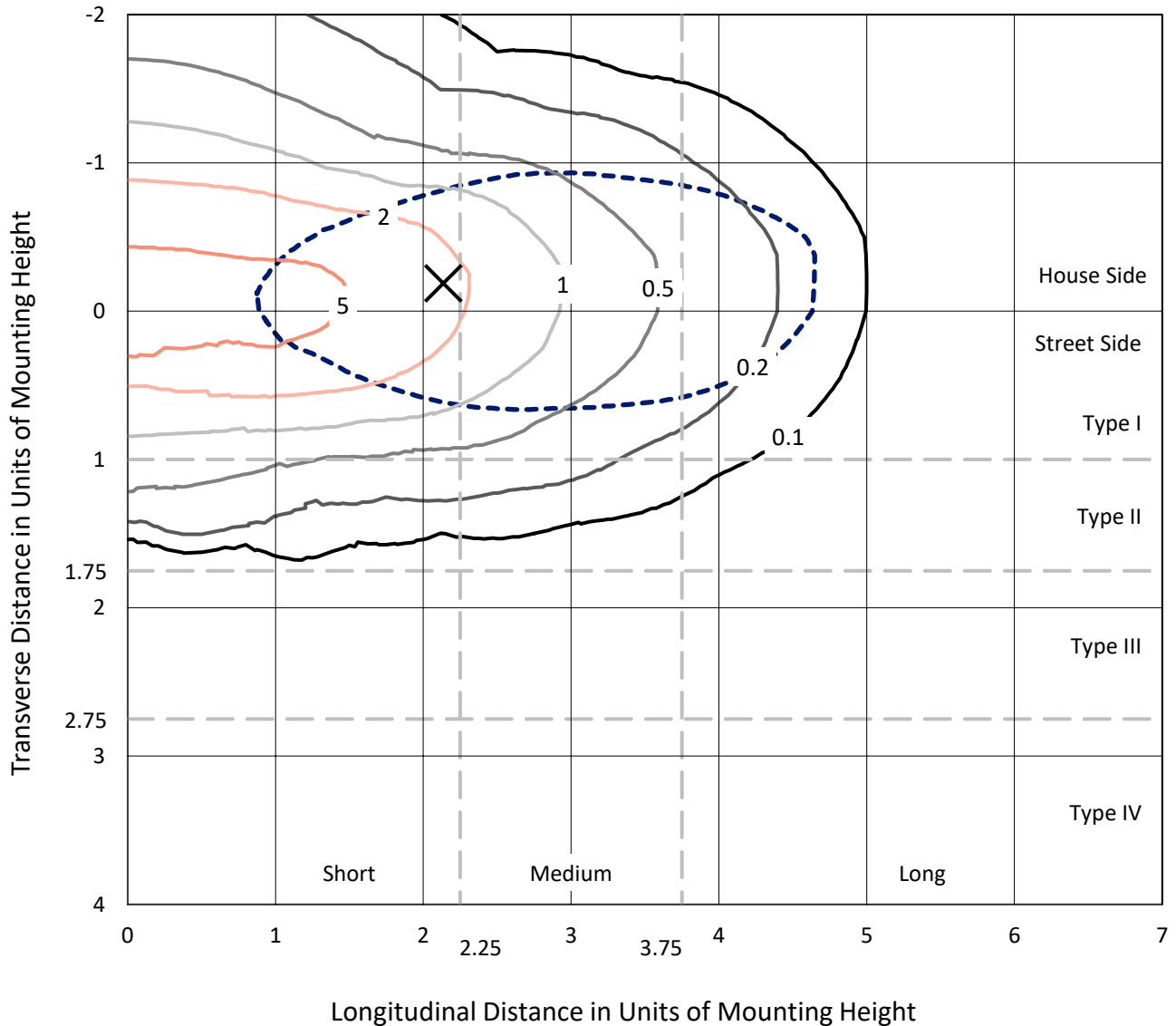
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

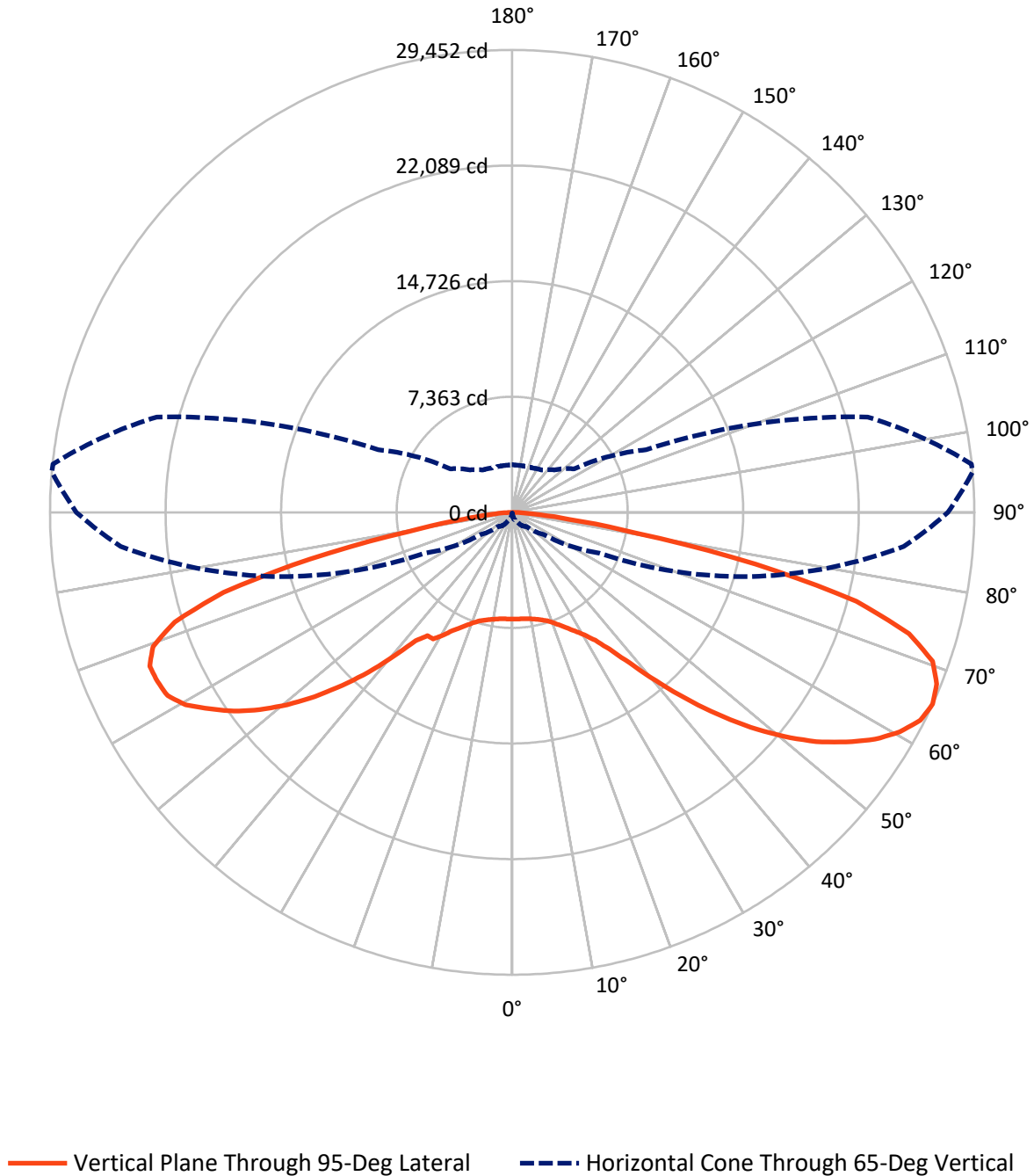
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.6 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



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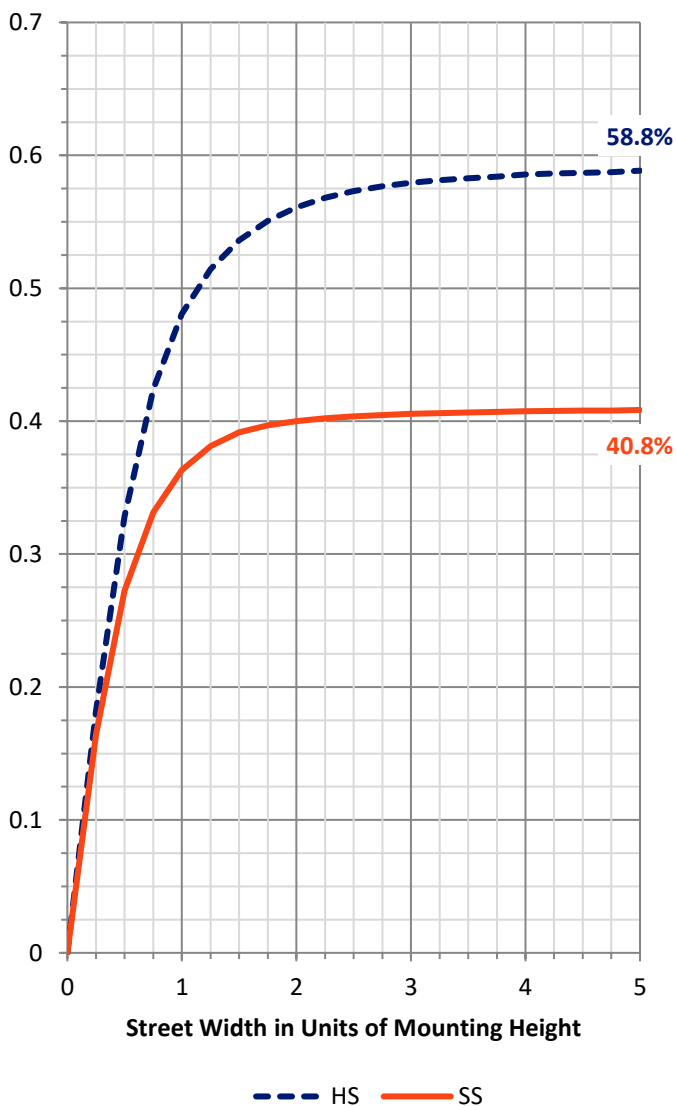
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	20678.2	0.0	20678.2
	% Fixture	59.3	0.0	59.3
Street Side	Lumens	14195.8	0.0	14195.8
	% Fixture	40.7	0.0	40.7
Total	Lumens	34874.0	0.0	34874.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	647.0	1.9
10°-20°	1863.3	5.3
20°-30°	2800.5	8.0
30°-40°	3904.6	11.2
40°-50°	5605.9	16.1
50°-60°	7146.0	20.5
60°-70°	7440.5	21.3
70°-80°	4791.3	13.7
80°-90°	674.8	1.9
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°	34874.0	100.0
0°-180°	34874.0	100.0

Coefficient of Utilization

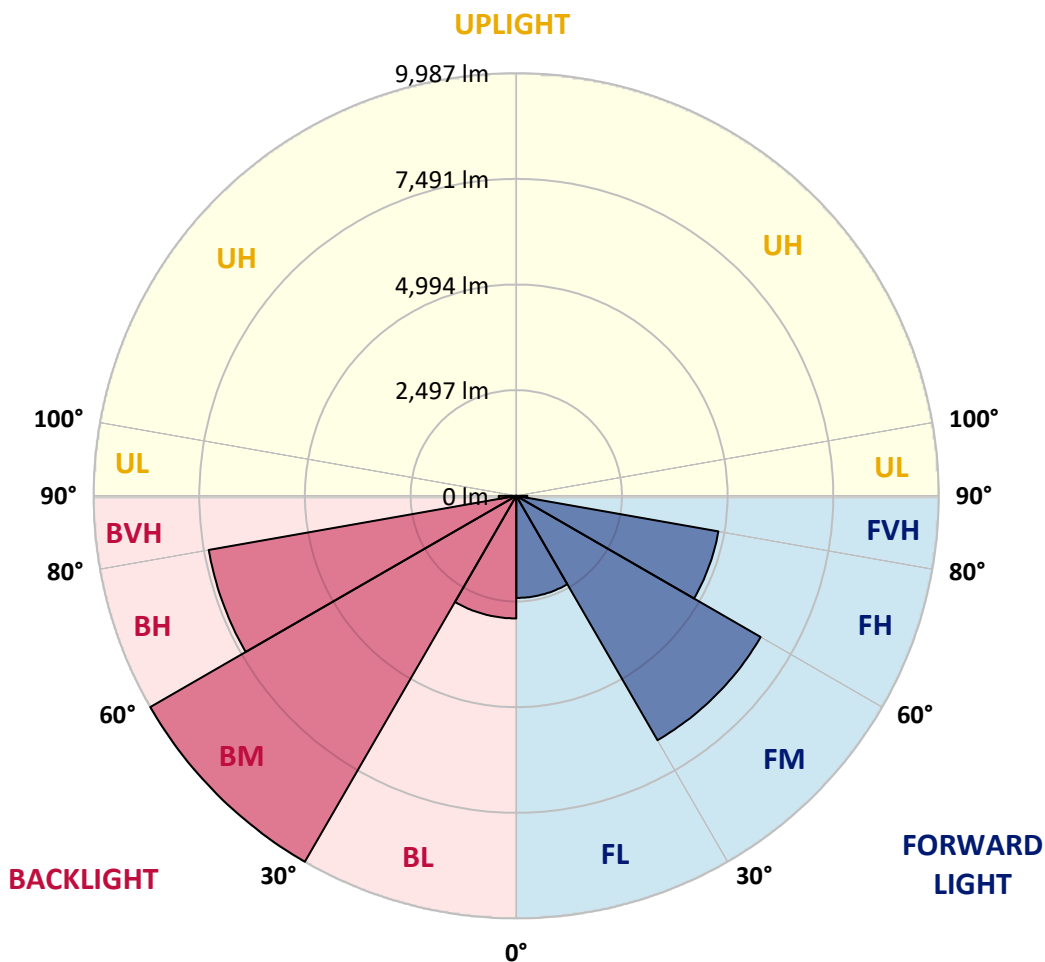


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2413.3	6.9			
FM (30°-60°)	6669.2	19.1			
FH (60°-80°)	4850.9	13.9			G2/5000
FVH (80°-90°)	262.4	0.8			G3/500
BL (0°-30°)	2897.5	8.3	B4/5000		
BM (30°-60°)	9987.3	28.6	B5		
BH (60°-80°)	7381.0	21.2	B5		G5
BVH (80°-90°)	412.4	1.2			G3/500
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°	6796.8	6796.8	6796.8	6796.8	6796.8	6796.8	6796.8	6796.8	6796.8	6796.8	6796.8
2.5°	6817.1	6761.3	6772.7	6827.2	6727.1	6781.6	6741.0	6806.9	6790.5	6795.5	6827.2
5°	6760.0	6703.0	6724.5	6791.7	6697.9	6763.8	6733.4	6787.9	6782.9	6801.9	6822.2
7.5°	6708.0	6647.2	6675.1	6724.5	6673.8	6730.9	6714.4	6782.9	6780.3	6836.1	6850.1
10°	6649.7	6593.9	6618.0	6678.9	6637.0	6705.5	6719.5	6800.6	6827.2	6903.3	6909.7
12.5°	6547.0	6492.5	6503.9	6581.2	6587.6	6691.6	6739.7	6867.8	6895.7	6983.2	6987.0
15°	6179.3	6166.6	6274.4	6398.6	6449.4	6604.1	6765.1	6940.1	6981.9	7092.3	7103.7
17.5°	5144.5	5017.7	4827.5	4978.4	5310.6	5738.0	6704.2	7047.9	7125.2	7235.6	7269.8
20°	3450.4	3565.8	3995.7	4188.4	4483.9	5204.1	6689.0	7164.5	7331.9	7465.1	7529.7
22.5°	2850.6	2844.3	3359.1	4008.3	4240.4	4571.4	6148.8	7302.8	7580.5	7754.2	7835.3
25°	2647.7	2650.2	2744.1	3564.5	4138.9	4488.9	5647.9	7121.4	7853.1	8101.6	8198.0
27.5°	2486.7	2496.8	2576.7	2854.4	4052.7	4471.2	5661.9	6602.8	8140.9	8473.2	8584.8
30°	2358.6	2353.5	2449.9	2681.9	3373.0	4477.5	5727.8	6706.8	7873.4	9000.7	9062.8
32.5°	2252.1	2238.1	2335.8	2569.1	2945.7	4428.1	5826.7	6998.4	7684.4	9507.9	9750.1
35°	2149.4	2144.3	2230.5	2460.0	2844.3	3677.4	5942.1	7359.8	8298.2	9524.4	10693.6
37.5°	2069.5	2065.7	2134.1	2351.0	2753.0	3350.2	6037.2	7815.1	9097.1	10228.2	11474.7
40°	2004.8	1994.7	2049.2	2254.6	2649.0	3295.7	5258.6	8290.6	10072.2	11870.3	13366.6
42.5°	1950.3	1936.3	1989.6	2159.5	2548.8	3234.8	4883.3	8769.9	11218.5	13698.9	15206.6
45°	1875.5	1874.2	1928.7	2087.2	2442.3	3146.1	4918.8	7969.8	12506.9	15448.8	17139.1
47.5°	1837.4	1828.5	1869.1	2020.0	2342.1	3011.6	4884.6	7627.4	13493.4	17205.0	19022.2
50°	1777.8	1770.2	1809.5	1942.7	2243.2	2841.7	4760.3	7837.9	12680.6	18868.7	20792.4
52.5°	1671.3	1375.8	1751.2	1878.0	2136.7	2657.9	4524.4	7954.5	12996.3	20410.7	22440.9
55°	656.9	881.3	1676.4	1796.8	2027.6	2485.4	4166.8	7921.6	14041.2	21791.6	23861.1
57.5°	571.9	574.4	1113.4	1500.1	1898.3	2305.3	3730.6	7733.9	14963.1	22973.4	25244.5
60°	81.2	82.4	564.3	631.5	1245.2	1638.3	3286.8	7397.9	15509.6	24155.3	26437.8
62.5°	54.5	57.1	513.6	573.2	1136.2	1453.2	2874.7	6800.6	15773.4	24873.0	27297.5
65°	39.3	40.6	465.4	518.6	1011.9	1289.6	2491.7	6151.4	15797.5	25039.1	27769.3
67.5°	36.8	38.0	428.6	478.1	920.6	1145.1	2160.8	5579.5	15131.8	25088.6	27750.2
70°	38.0	38.0	390.6	432.4	816.6	992.9	1793.0	5010.1	13452.9	24441.9	27126.3
72.5°	38.0	39.3	341.1	380.4	703.8	840.7	1469.7	4073.0	10895.2	22610.8	25619.9
75°	38.0	39.3	268.8	314.5	584.6	674.6	1205.9	3284.3	8390.8	19081.8	22415.5
77.5°	39.3	39.3	197.8	240.9	451.4	507.2	915.5	2523.4	6183.1	13227.1	15606.0
80°	39.3	41.8	139.5	177.5	333.5	366.5	664.5	1610.4	3329.9	6708.0	7747.8
82.5°	40.6	41.8	104.0	133.1	230.8	263.8	405.8	792.5	1539.4	3104.2	3516.3
85°	38.0	39.3	85.0	92.6	131.9	158.5	252.3	393.1	541.5	1221.1	1269.3
87.5°	26.6	25.4	26.6	30.4	43.1	69.7	119.2	133.1	130.6	328.4	381.7
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):

	95°	96°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6796.8	6796.8	6796.8	6796.8	6796.8	6796.8	6796.8	6796.8	6796.8	6796.8	6796.8
2.5°	6808.2	6810.8	6800.6	6839.9	6800.6	6822.2	6765.1	6853.9	6845.0	6820.9	6851.3
5°	6806.9	6813.3	6810.8	6846.3	6796.8	6814.6	6757.5	6851.3	6819.6	6798.1	6834.8
7.5°	6837.4	6846.3	6842.5	6866.5	6809.5	6808.2	6752.4	6822.2	6791.7	6746.1	6791.7
10°	6904.6	6904.6	6893.2	6907.1	6824.7	6815.8	6722.0	6801.9	6749.9	6709.3	6765.1
12.5°	6990.8	6998.4	6969.3	6966.7	6852.6	6826.0	6708.0	6747.3	6672.5	6634.5	6689.0
15°	7117.6	7122.7	7084.7	7060.6	6921.1	6862.7	6672.5	6664.9	6560.9	6524.2	6563.5
17.5°	7264.7	7263.4	7210.2	7200.0	7036.5	6900.8	6643.4	6564.7	6431.6	6389.8	6424.0
20°	7500.6	7486.6	7428.3	7370.0	7131.6	6924.9	6601.5	6436.7	6251.5	6191.9	6219.8
22.5°	7817.6	7812.5	7721.2	7552.6	7233.0	6947.7	6530.5	6280.7	6034.7	5926.9	5944.7
25°	8165.0	8161.2	8030.6	7778.3	7321.8	6964.2	6448.1	6105.7	5773.5	5609.9	5606.1
27.5°	8568.3	8558.1	8381.9	8021.7	7444.8	6969.3	6359.3	5920.6	5514.8	5310.6	5319.5
30°	9059.0	9041.3	8800.3	8291.8	7600.8	6984.5	6283.2	5712.6	5273.9	5057.0	5052.0
32.5°	9709.5	9684.2	9310.1	8646.9	7802.4	7022.5	6191.9	5507.2	5049.4	4831.3	4812.3
35°	10699.9	10647.9	10029.1	9100.9	8026.8	7047.9	6046.1	5311.9	4832.6	4627.2	4611.9
37.5°	12165.8	12078.3	10934.5	9577.7	8250.0	7042.8	5880.0	5101.4	4656.3	4457.2	4453.4
40°	14098.3	13961.3	12021.2	10088.7	8464.3	7014.9	5701.2	4913.7	4509.2	4338.0	4350.7
42.5°	16212.2	16067.6	13309.6	10608.6	8625.3	6928.7	5509.7	4736.2	4373.5	4236.6	4237.9
45°	18342.5	18208.1	14791.9	11098.1	8705.2	6766.4	5310.6	4567.6	4230.2	4111.1	4125.0
47.5°	20464.0	20365.0	16260.3	11511.5	8665.9	6511.5	5071.0	4407.8	4088.2	3990.6	4022.3
50°	22437.1	22331.8	17825.1	11853.8	8468.1	6156.4	4825.0	4250.5	3972.8	3887.9	3914.5
52.5°	24265.6	24124.8	19501.5	12051.6	8111.8	5782.4	4608.1	4112.3	3861.2	3776.3	3804.2
55°	25819.0	25812.6	21035.9	12068.1	7555.1	5399.4	4398.9	3952.5	3752.2	3682.4	3688.8
57.5°	27273.4	27330.5	22355.9	11867.8	6895.7	5044.3	4159.2	3787.7	3626.7	3554.4	3560.7
60°	28384.3	28455.3	23251.2	11284.5	6193.2	4652.5	3901.8	3612.7	3470.7	3402.2	3422.5
62.5°	29181.9	29090.6	23725.4	10447.5	5489.4	4231.5	3622.8	3389.5	3276.7	3234.8	3236.1
65°	29452.0	29422.8	23447.7	9416.6	4825.0	3816.9	3293.2	3111.8	3042.1	3012.9	3034.5
67.5°	29175.5	29193.3	22366.0	8540.4	4193.5	3348.9	2922.9	2806.2	2770.7	2769.4	2792.3
70°	28418.5	28279.0	20122.8	7840.4	3601.3	2829.0	2524.7	2468.9	2457.5	2485.4	2504.4
72.5°	26440.3	26237.4	16687.7	6725.8	2764.4	2080.9	1912.2	1988.3	1985.8	2001.0	2018.8
75°	22651.4	22117.5	13071.2	5355.0	2047.9	1472.2	1275.7	1273.1	1269.3	1398.7	1445.6
77.5°	15876.1	15519.8	9649.9	4078.1	1361.9	881.3	875.0	943.4	954.8	869.9	886.4
80°	7964.7	8120.7	5569.3	2519.6	905.4	621.3	651.8	641.6	650.5	660.7	667.0
82.5°	3671.0	3749.7	2665.5	1227.5	583.3	471.7	446.4	485.7	503.4	502.2	498.3
85°	1302.3	1309.9	843.3	526.2	357.6	306.9	311.9	362.7	383.0	365.2	356.3
87.5°	377.9	358.9	172.5	156.0	164.8	163.6	168.7	178.8	192.7	190.2	176.3
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)