

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: P591421

Luminaire Tested: **CTN-CA10-760-740-U-T1-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591421
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-CA10-760-740-U-T1-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: 90548 lumens
Efficiency: N/A
Efficacy: 118.8 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

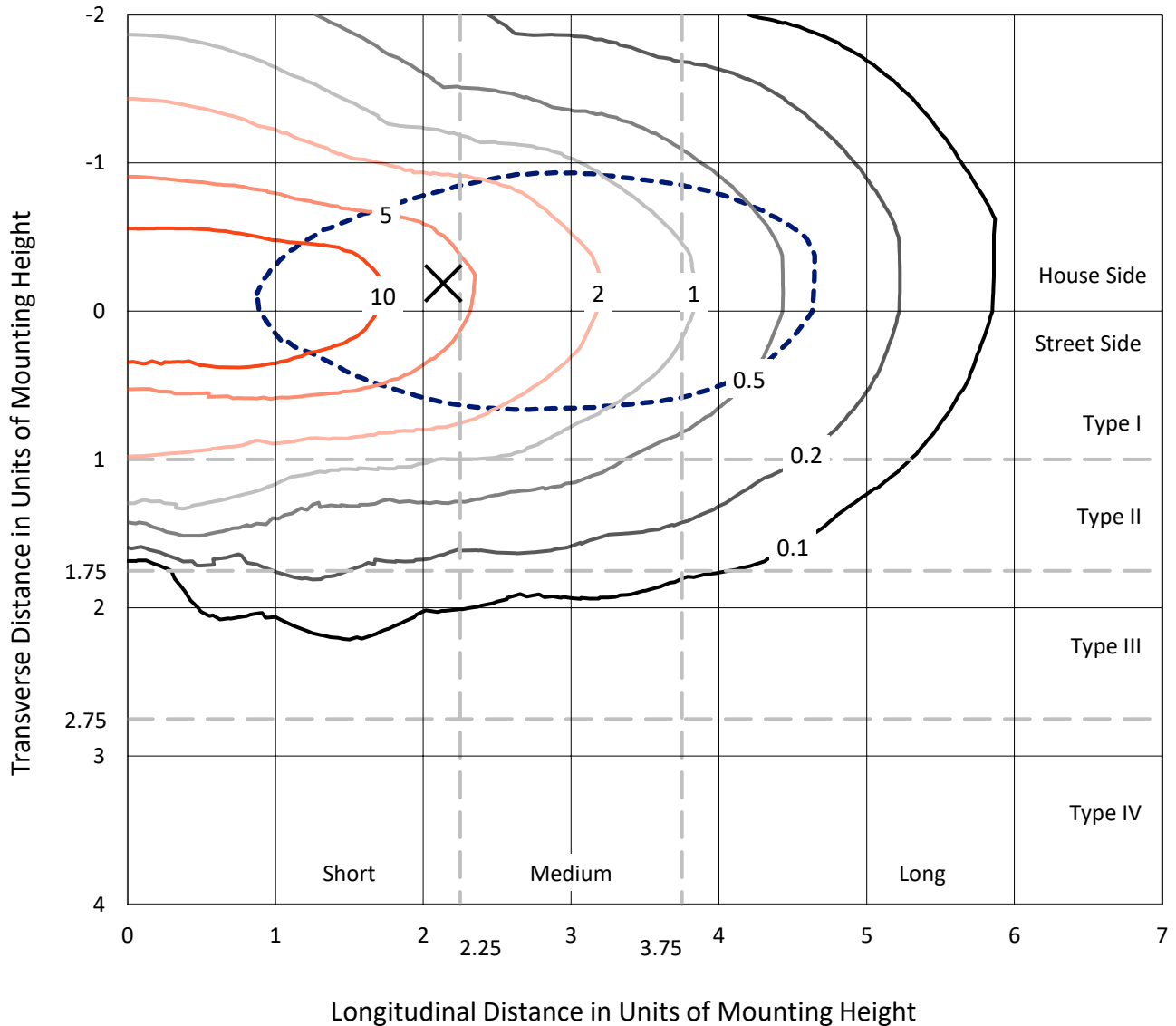
Input Watts (W): 761.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

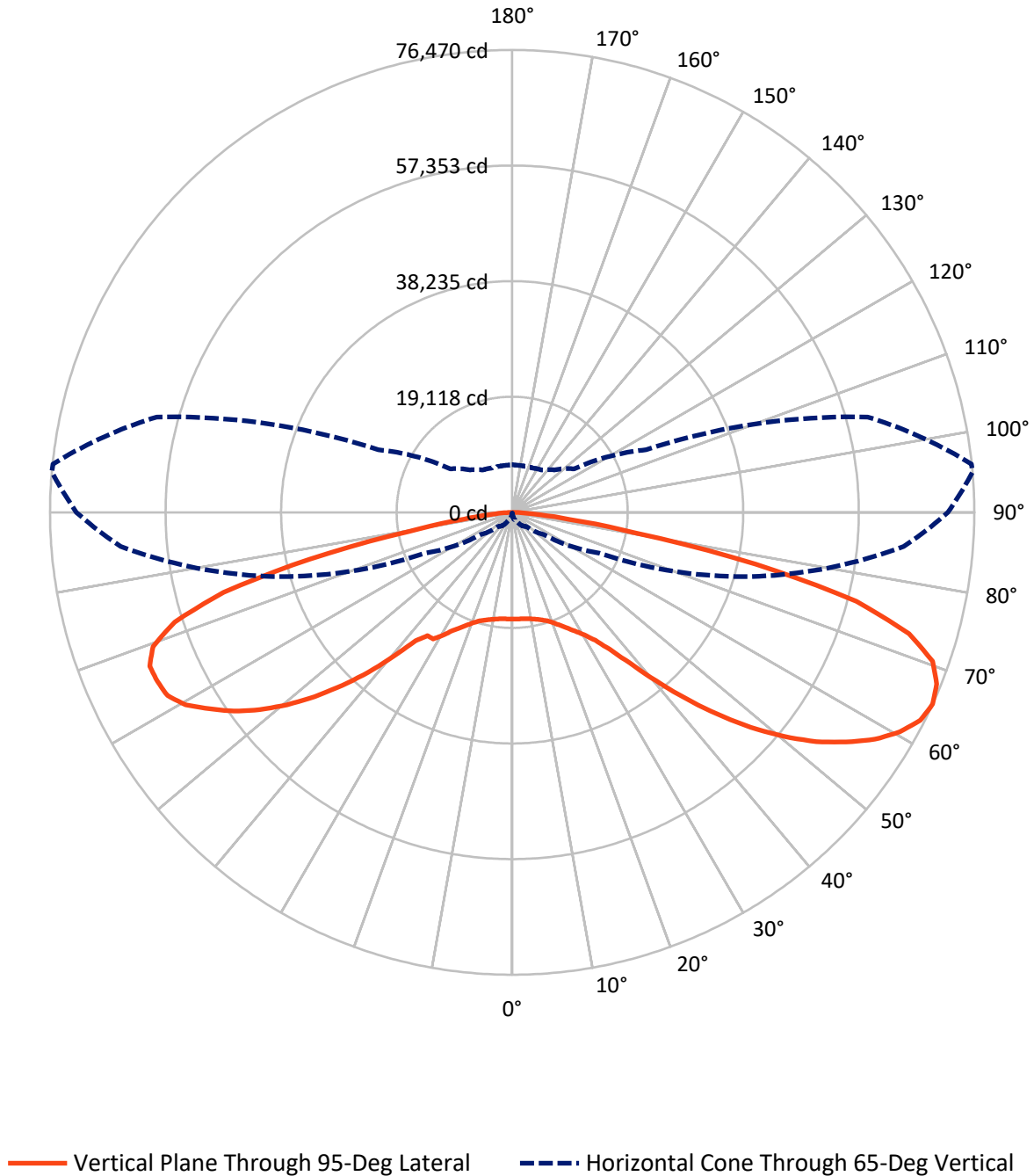
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 19.6 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



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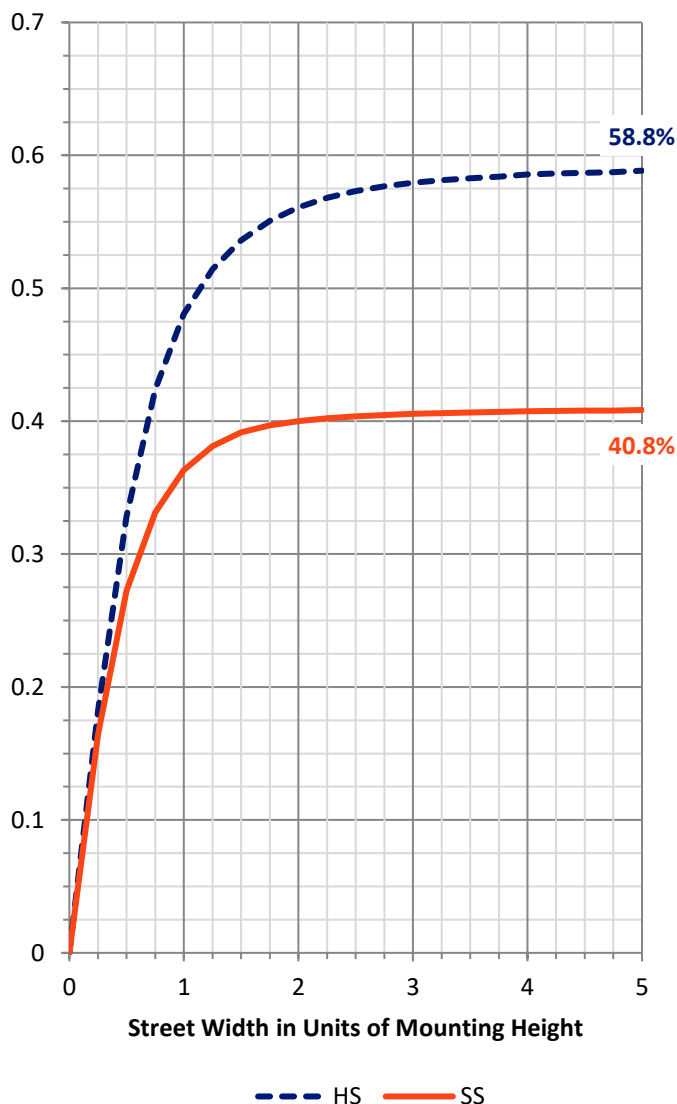
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	53689.6	0.0	53689.6
	% Fixture	59.3	0.0	59.3
Street Side	Lumens	36858.4	0.0	36858.4
	% Fixture	40.7	0.0	40.7
Total	Lumens	90548.0	0.0	90548.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1680.0	1.9
10°-20°	4837.9	5.3
20°-30°	7271.4	8.0
30°-40°	10138.1	11.2
40°-50°	14555.3	16.1
50°-60°	18554.2	20.5
60°-70°	19318.8	21.3
70°-80°	12440.3	13.7
80°-90°	1752.0	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°	90548.0	100.0
0°-180°	90548.0	100.0

Coefficient of Utilization

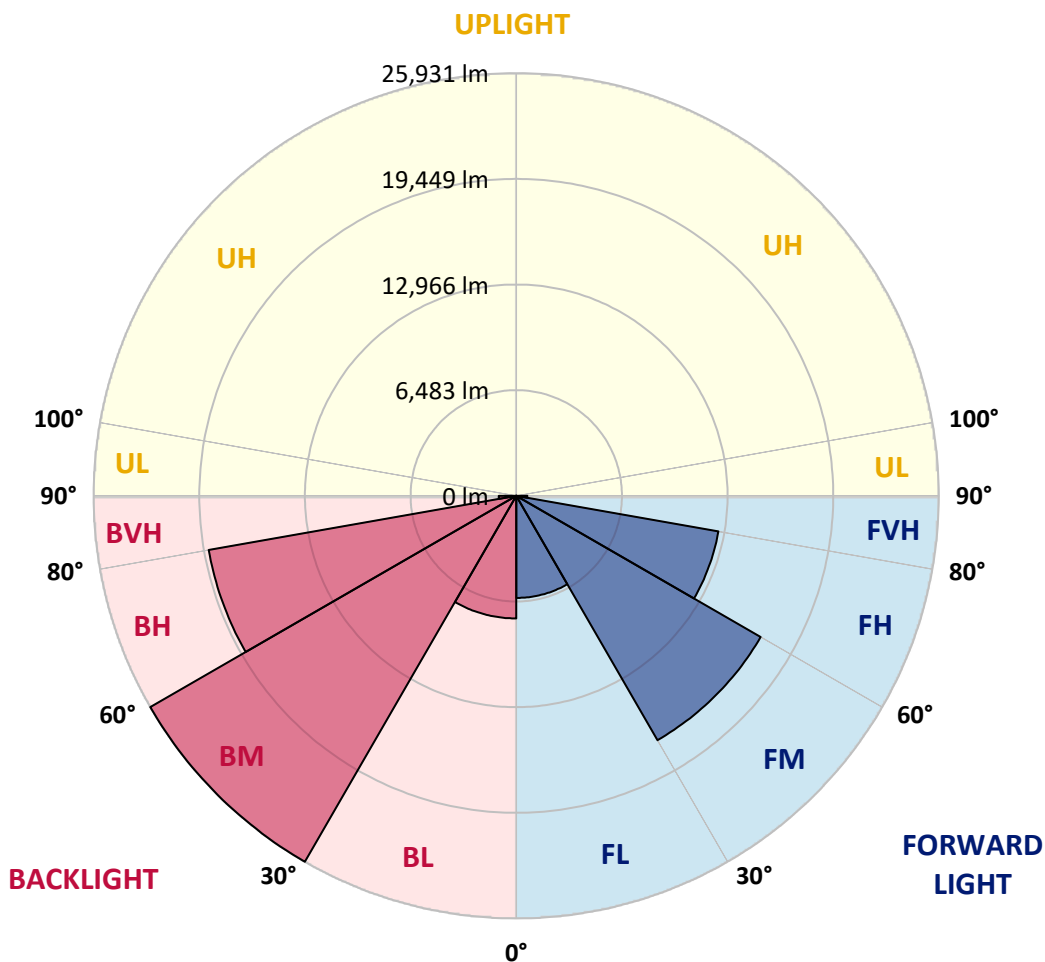


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	6265.9	6.9			
FM	(30°-60°)	17316.2	19.1			
FH	(60°-80°)	12595.0	13.9			G5
FVH	(80°-90°)	681.3	0.8			G4/750
BL	(0°-30°)	7523.3	8.3	B5		
BM	(30°-60°)	25931.5	28.6	B5		
BH	(60°-80°)	19164.2	21.2	B5		G5
BVH	(80°-90°)	1070.7	1.2			G5
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°	17647.4	17647.4	17647.4	17647.4	17647.4	17647.4	17647.4	17647.4	17647.4	17647.4	17647.4
2.5°	17700.1	17555.3	17584.9	17726.5	17466.4	17607.9	17502.6	17673.8	17631.0	17644.2	17726.5
5°	17552.0	17403.8	17459.8	17634.3	17390.6	17561.8	17482.8	17624.4	17611.2	17660.6	17713.3
7.5°	17417.0	17258.9	17331.4	17459.8	17328.1	17476.2	17433.4	17611.2	17604.6	17749.5	17785.7
10°	17265.5	17120.7	17183.2	17341.2	17232.6	17410.4	17446.6	17657.3	17726.5	17924.0	17940.5
12.5°	16998.8	16857.3	16886.9	17087.7	17104.2	17374.2	17499.3	17831.8	17904.3	18131.4	18141.3
15°	16044.0	16011.1	16291.0	16613.6	16745.3	17147.0	17565.1	18019.5	18128.1	18414.6	18444.2
17.5°	13357.4	13028.2	12534.3	12926.1	13788.7	14898.3	17407.1	18299.3	18500.2	18786.6	18875.5
20°	8958.7	9258.3	10374.5	10874.9	11642.0	13512.1	17367.6	18602.2	19036.8	19382.6	19550.5
22.5°	7401.4	7384.9	8721.7	10407.4	11009.9	11869.2	15965.0	18961.1	19682.2	20133.2	20343.9
25°	6874.6	6881.2	7124.8	9255.0	10746.5	11655.2	14664.5	18490.3	20390.0	21035.4	21285.6
27.5°	6456.5	6482.8	6690.2	7411.3	10522.6	11609.1	14700.7	17143.7	21137.4	22000.0	22289.8
30°	6123.9	6110.8	6361.0	6963.5	8757.9	11625.6	14871.9	17413.7	20442.7	23369.7	23531.0
32.5°	5847.4	5811.1	6064.7	6670.5	7648.3	11497.2	15128.7	18170.9	19952.1	24686.7	25315.5
35°	5580.7	5567.5	5791.4	6387.3	7384.9	9548.1	15428.3	19109.3	21545.7	24729.5	27765.1
37.5°	5373.3	5363.4	5541.2	6104.2	7147.9	8698.6	15675.3	20291.3	23619.9	26556.8	29793.2
40°	5205.3	5179.0	5320.6	5853.9	6877.9	8557.0	13653.7	21525.9	26151.8	30820.5	34705.5
42.5°	5063.8	5027.5	5165.8	5607.0	6617.8	8399.0	12679.2	22770.5	29128.2	35568.2	39482.9
45°	4869.5	4866.2	5007.8	5419.3	6341.2	8168.5	12771.3	20692.9	32473.3	40111.7	44500.5
47.5°	4770.7	4747.7	4853.0	5244.8	6081.1	7819.5	12682.5	19804.0	35034.8	44671.7	49389.8
50°	4616.0	4596.2	4698.3	5044.0	5824.3	7378.3	12359.8	20350.5	32924.3	48991.4	53986.0
52.5°	4339.4	3572.3	4546.9	4876.1	5547.8	6900.9	11747.4	20653.4	33744.1	52995.0	58266.2
55°	1705.5	2288.2	4352.6	4665.4	5264.6	6453.2	10818.9	20567.8	36457.1	56580.5	61953.7
57.5°	1484.9	1491.5	2890.8	3894.9	4928.8	5985.6	9686.3	20080.6	38850.7	59649.0	65545.8
60°	210.7	214.0	1465.1	1639.6	3233.2	4253.8	8534.0	19208.1	40269.8	62717.6	68643.9
62.5°	141.6	148.2	1333.4	1488.2	2950.0	3773.1	7463.9	17657.3	40954.6	64581.1	70876.2
65°	102.1	105.4	1208.3	1346.6	2627.4	3348.4	6469.6	15971.6	41017.1	65012.4	72101.0
67.5°	95.5	98.8	1112.8	1241.2	2390.3	2973.1	5610.3	14486.7	39288.6	65140.8	72051.6
70°	98.8	98.8	1014.1	1122.7	2120.3	2578.0	4655.5	13008.4	34929.4	63461.7	70431.7
72.5°	98.8	102.1	885.7	987.7	1827.3	2182.9	3815.9	10575.3	28288.6	58707.4	66520.3
75°	98.8	102.1	698.0	816.5	1517.8	1751.6	3131.1	8527.4	21786.0	49544.5	58200.3
77.5°	102.1	102.1	513.6	625.6	1172.1	1317.0	2377.1	6551.9	16053.9	34343.4	40520.0
80°	102.1	108.7	362.2	460.9	865.9	951.5	1725.2	4181.4	8645.9	17417.0	20116.8
82.5°	105.4	108.7	270.0	345.7	599.2	684.8	1053.6	2057.8	3997.0	8059.9	9129.9
85°	98.8	102.1	220.6	240.3	342.4	411.6	655.2	1020.7	1405.9	3170.6	3295.7
87.5°	69.1	65.8	69.1	79.0	111.9	181.1	309.5	345.7	339.1	852.7	991.0
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°	17647.4	17647.4	17647.4	17647.4	17647.4	17647.4	17647.4	17647.4	17647.4	17647.4	17647.4
2.5°	17677.1	17683.7	17657.3	17759.4	17657.3	17713.3	17565.1	17795.6	17772.6	17710.0	17789.0
5°	17673.8	17690.2	17683.7	17775.8	17647.4	17693.5	17545.4	17789.0	17706.7	17650.7	17746.2
7.5°	17752.8	17775.8	17766.0	17828.5	17680.4	17677.1	17532.2	17713.3	17634.3	17515.7	17634.3
10°	17927.3	17927.3	17897.7	17933.9	17719.9	17696.8	17453.2	17660.6	17525.6	17420.3	17565.1
12.5°	18151.2	18170.9	18095.2	18088.6	17792.3	17723.2	17417.0	17519.0	17324.8	17226.0	17367.6
15°	18480.4	18493.6	18394.8	18332.3	17970.1	17818.6	17324.8	17305.0	17035.0	16939.6	17041.6
17.5°	18862.4	18859.1	18720.8	18694.4	18269.7	17917.4	17249.1	17044.9	16699.2	16590.6	16679.5
20°	19474.7	19438.5	19287.1	19135.6	18516.6	17980.0	17140.4	16712.4	16231.7	16077.0	16149.4
22.5°	20297.9	20284.7	20047.6	19609.7	18780.0	18039.2	16956.0	16307.4	15668.7	15388.8	15434.9
25°	21200.0	21190.1	20851.0	20195.8	19010.5	18082.0	16742.0	15853.1	14990.4	14565.7	14555.8
27.5°	22247.0	22220.6	21763.0	20827.9	19329.9	18095.2	16511.6	15372.4	14318.8	13788.7	13811.8
30°	23521.1	23475.0	22849.5	21529.2	19734.8	18134.7	16314.0	14832.4	13693.2	13130.2	13117.1
32.5°	25210.2	25144.3	24173.0	22451.1	20258.3	18233.5	16077.0	14299.0	13110.5	12544.2	12494.8
35°	27781.6	27646.6	26039.9	23629.8	20841.1	18299.3	15698.3	13792.0	12547.5	12014.1	11974.6
37.5°	31587.6	31360.4	28390.7	24867.7	21420.6	18286.2	15267.0	13245.5	12089.8	11572.9	11563.0
40°	36605.3	36249.7	31212.3	26194.6	21977.0	18213.7	14802.8	12758.2	11707.9	11263.4	11296.3
42.5°	42093.8	41718.4	34557.4	27544.5	22395.1	17989.9	14305.6	12297.2	11355.6	11000.0	11003.3
45°	47625.0	47276.0	38406.2	28815.4	22602.6	17568.4	13788.7	11859.3	10983.6	10674.1	10710.3
47.5°	53133.3	52876.5	42218.9	29888.7	22500.5	16906.6	13166.4	11444.5	10614.8	10361.3	10443.6
50°	58256.3	57983.0	46281.7	30777.7	21986.9	15984.8	12527.7	11036.2	10315.2	10094.6	10163.7
52.5°	63004.0	62638.5	50634.3	31291.3	21061.7	15013.5	11964.7	10677.4	10025.5	9804.9	9877.3
55°	67037.2	67020.8	54618.2	31334.1	19616.3	14019.2	11421.5	10262.5	9742.3	9561.2	9577.7
57.5°	70813.7	70961.8	58045.6	30813.9	17904.3	13097.3	10799.2	9834.5	9416.4	9228.7	9245.2
60°	73697.8	73882.2	60370.1	29299.4	16080.2	12079.9	10130.8	9380.1	9011.4	8833.6	8886.3
62.5°	75768.8	75531.7	61601.4	27126.4	14252.9	10986.8	9406.5	8800.7	8507.6	8399.0	8402.3
65°	76470.1	76394.3	60880.4	24449.6	12527.7	9910.2	8550.4	8079.6	7898.5	7822.8	7878.8
67.5°	75752.3	75798.4	58071.9	22174.5	10888.1	8695.3	7589.1	7286.2	7194.0	7190.7	7249.9
70°	73786.7	73424.6	52247.6	20357.1	9350.5	7345.4	6555.2	6410.4	6380.7	6453.2	6502.6
72.5°	68650.5	68123.7	43328.4	17463.1	7177.5	5402.9	4965.0	5162.5	5156.0	5195.5	5241.6
75°	58812.7	57426.6	33938.4	13903.9	5317.3	3822.5	3312.2	3305.6	3295.7	3631.6	3753.4
77.5°	41221.3	40296.1	25055.4	10588.5	3536.1	2288.2	2271.8	2449.6	2479.2	2258.6	2301.4
80°	20679.8	21084.7	14460.4	6542.1	2350.8	1613.3	1692.3	1666.0	1689.0	1715.4	1731.8
82.5°	9531.6	9735.7	6920.7	3187.1	1514.5	1224.8	1158.9	1261.0	1307.1	1303.8	1293.9
85°	3381.3	3401.1	2189.5	1366.4	928.5	796.8	809.9	941.6	994.3	948.2	925.2
87.5°	981.1	931.8	447.8	405.0	428.0	424.7	437.9	464.2	500.4	493.9	457.6
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)