

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: P591361

Luminaire Tested: **CTN-CA8-330-730-U-T1-SSS-HM-EX90**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591361  
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-CA8-330-730-U-T1-SSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (8) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 40852 lumens  
Efficiency: N/A  
Efficacy: 123.2 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type I - Short  
BUG Rating: B5 - U0 - G5

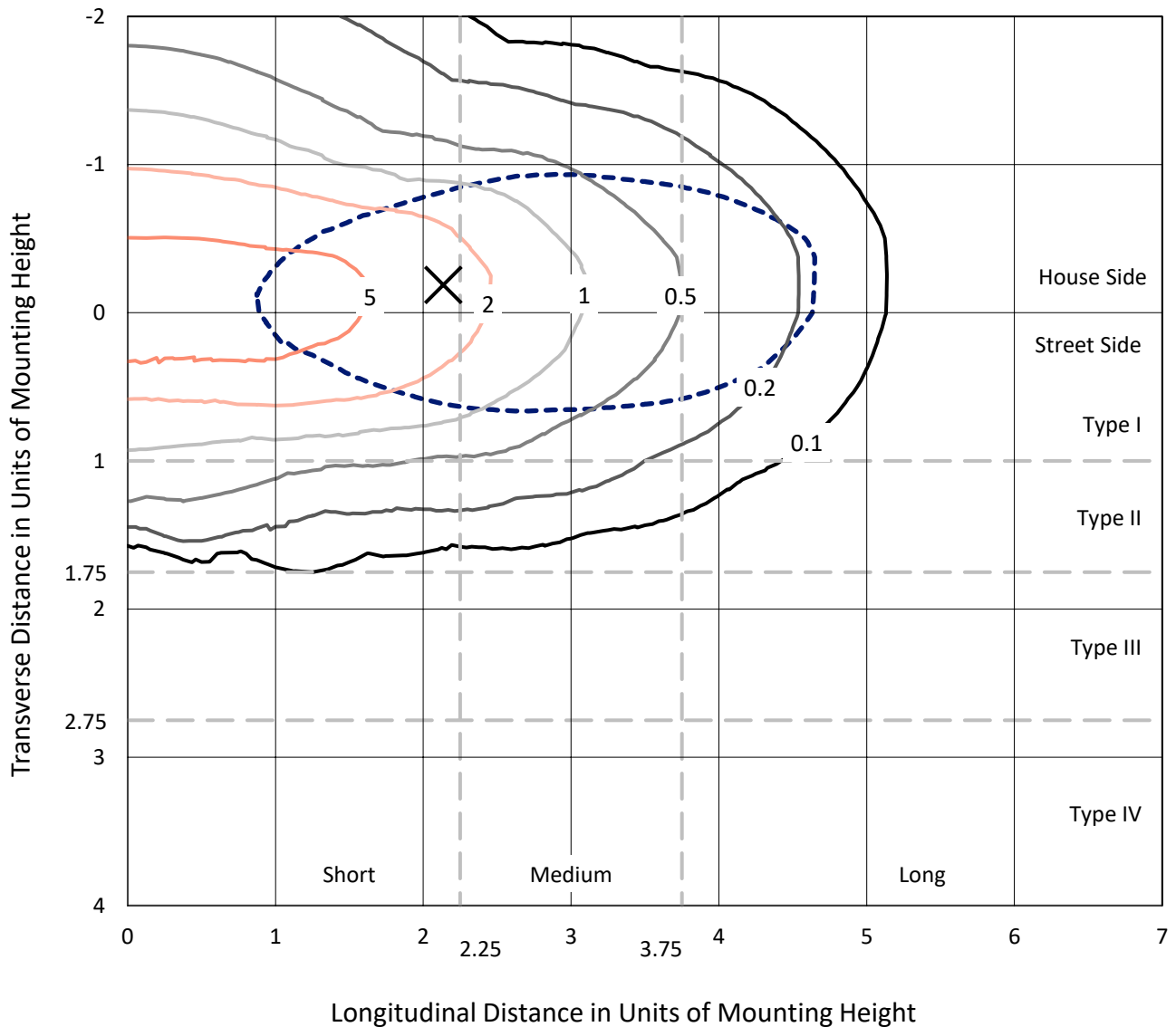
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

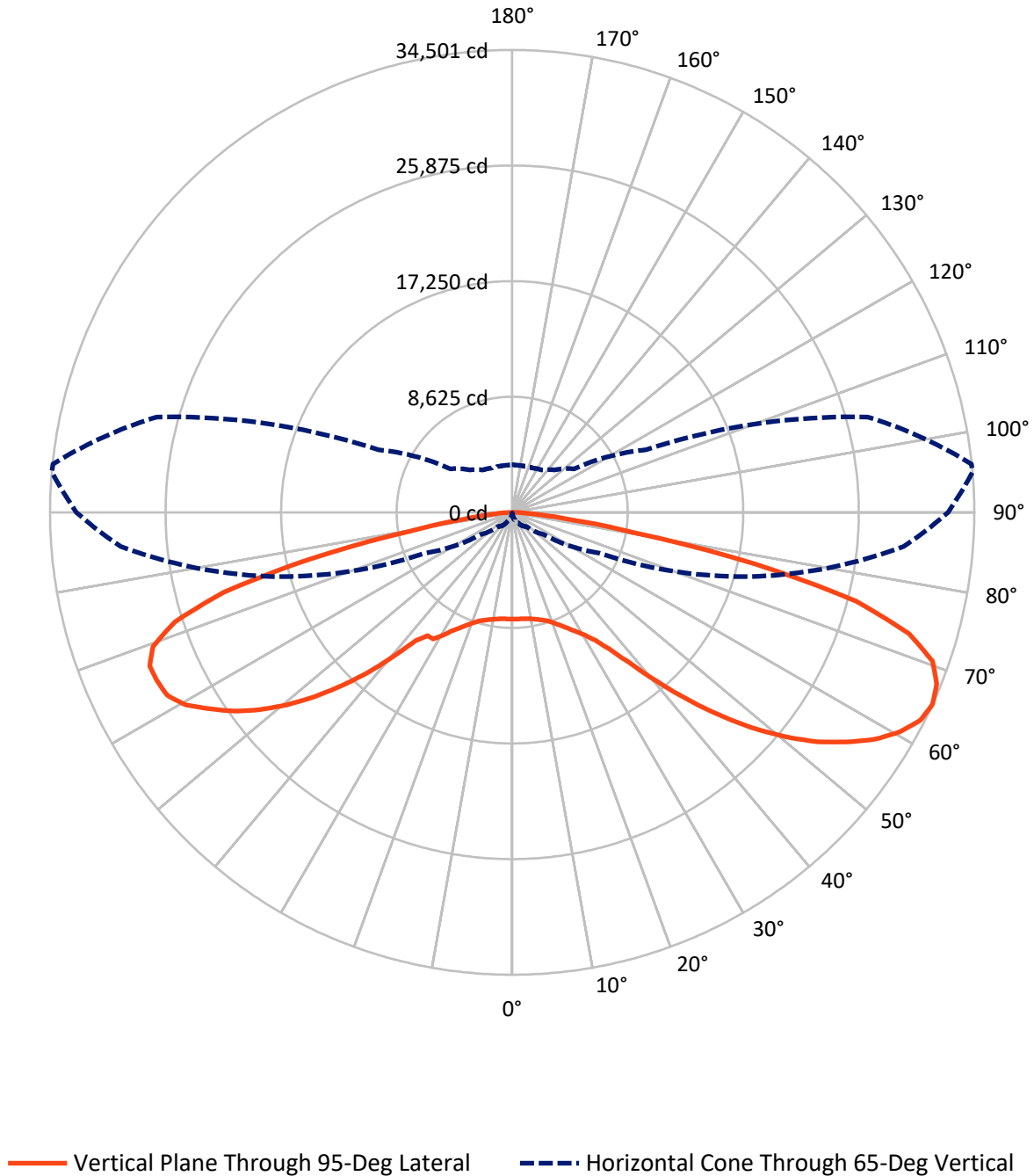
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.8 fc  
 Type I - Short - N/A

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### Luminous Intensity Polar Plot



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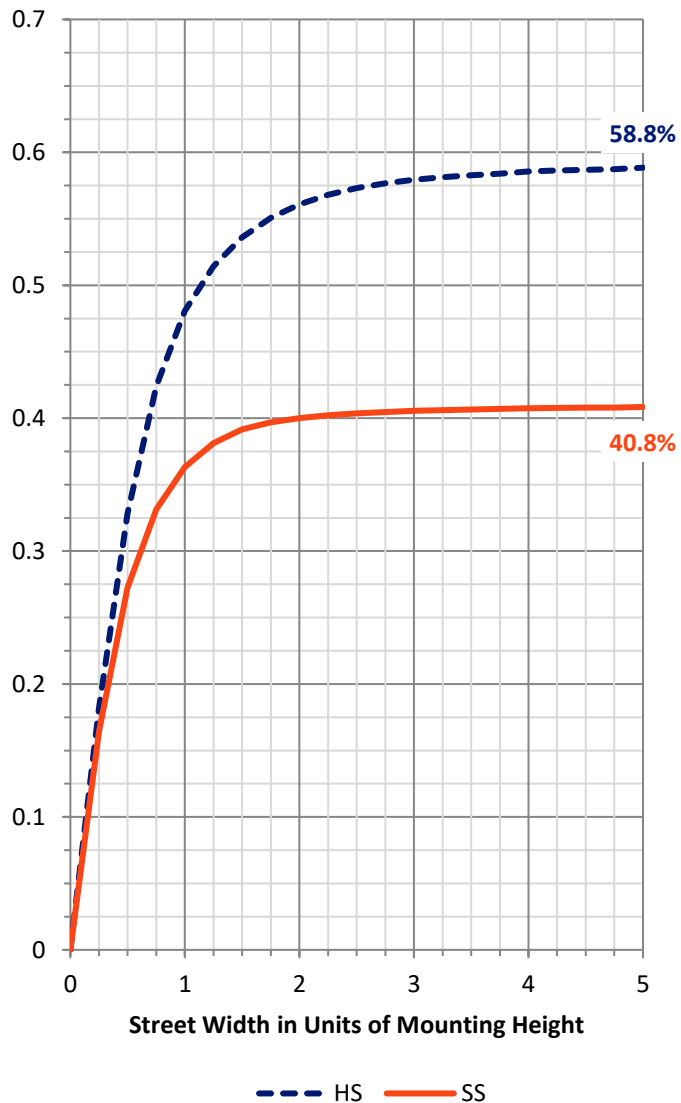
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	24222.8	0.0	24222.8
	% Fixture	59.3	0.0	59.3
<b>Street Side</b>	Lumens	16629.2	0.0	16629.2
	% Fixture	40.7	0.0	40.7
<b>Total</b>	Lumens	40852.0	0.0	40852.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	758.0	1.9
10°-20°	2182.7	5.3
20°-30°	3280.6	8.0
30°-40°	4573.9	11.2
40°-50°	6566.8	16.1
50°-60°	8371.0	20.5
60°-70°	8716.0	21.3
70°-80°	5612.6	13.7
80°-90°	790.4	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°	40852.0	100.0
0°-180°	40852.0	100.0

**Coefficient of Utilization**

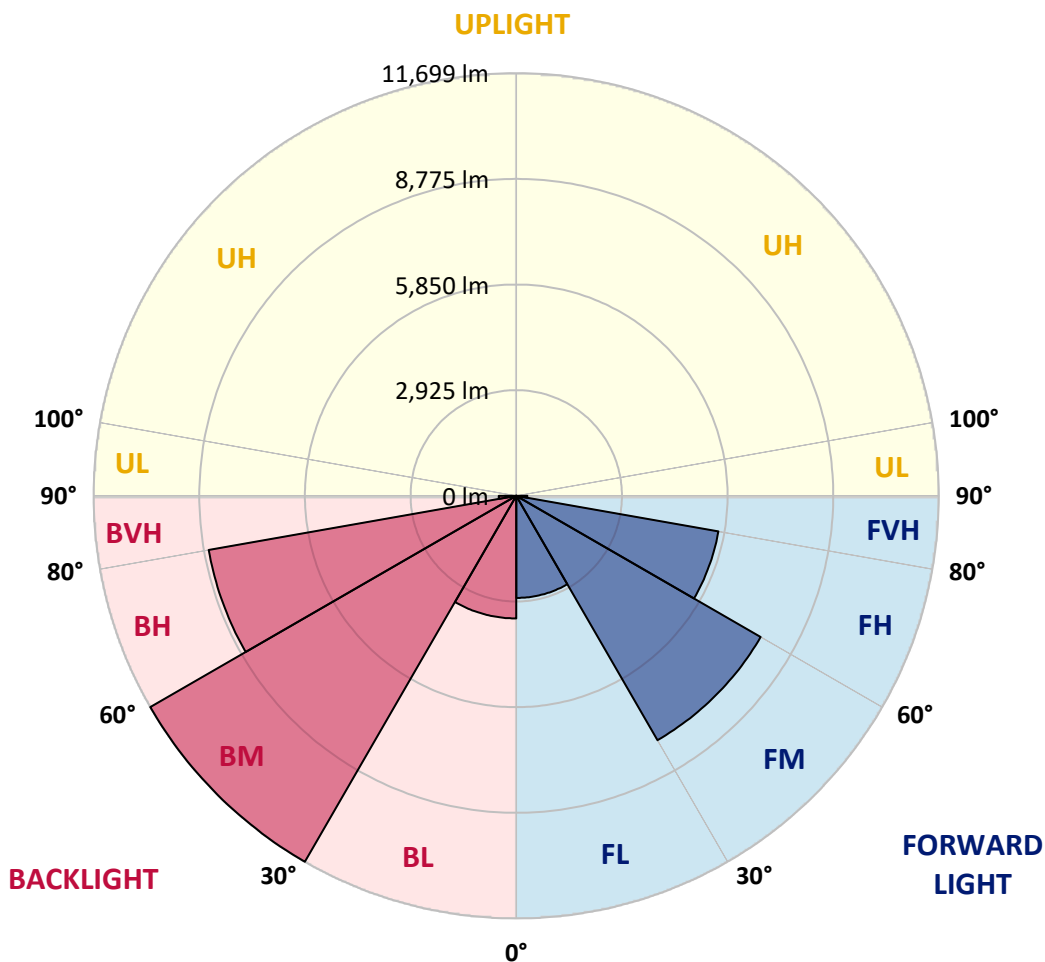


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2827.0	6.9			
FM (30°-60°)	7812.4	19.1			
FH (60°-80°)	5682.4	13.9			G3/7500
FVH (80°-90°)	307.4	0.8			G3/500
BL (0°-30°)	3394.2	8.3	B4/5000		
BM (30°-60°)	11699.4	28.6	B5		
BH (60°-80°)	8646.2	21.2	B5		G5
BVH (80°-90°)	483.1	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°	7961.9	7961.9	7961.9	7961.9	7961.9	7961.9	7961.9	7961.9	7961.9	7961.9	7961.9
2.5°	7985.7	7920.3	7933.7	7997.5	7880.2	7944.1	7896.5	7973.8	7954.5	7960.4	7997.5
5°	7918.8	7852.0	7877.2	7955.9	7846.0	7923.3	7887.6	7951.5	7945.6	7967.8	7991.6
7.5°	7857.9	7786.6	7819.3	7877.2	7817.8	7884.6	7865.3	7945.6	7942.6	8007.9	8024.3
10°	7789.6	7724.2	7752.4	7823.7	7774.7	7854.9	7871.3	7966.3	7997.5	8086.7	8094.1
12.5°	7669.3	7605.4	7618.8	7709.4	7716.8	7838.6	7895.0	8045.1	8077.8	8180.2	8184.7
15°	7238.5	7223.6	7349.9	7495.5	7554.9	7736.1	7924.8	8129.7	8178.8	8308.0	8321.4
17.5°	6026.4	5877.8	5655.0	5831.8	6221.0	6721.6	7853.5	8256.0	8346.6	8475.8	8516.0
20°	4041.8	4177.0	4680.6	4906.4	5252.5	6096.2	7835.6	8392.7	8588.7	8744.7	8820.5
22.5°	3339.2	3331.8	3934.9	4695.4	4967.3	5355.0	7202.8	8554.6	8879.9	9083.4	9178.5
25°	3101.6	3104.5	3214.5	4175.5	4848.4	5258.4	6616.1	8342.2	9199.3	9490.4	9603.3
27.5°	2912.9	2924.8	3018.4	3343.7	4747.4	5237.6	6632.4	7734.6	9536.4	9925.6	10056.3
30°	2762.9	2757.0	2869.8	3141.7	3951.2	5245.0	6709.7	7856.4	9223.0	10543.6	10616.4
32.5°	2638.1	2621.8	2736.2	3009.5	3450.6	5187.1	6825.5	8198.1	9001.7	11137.7	11421.5
35°	2517.8	2511.9	2612.9	2881.7	3331.8	4307.7	6960.7	8621.4	9720.6	11157.0	12526.6
37.5°	2424.2	2419.8	2500.0	2754.0	3224.9	3924.5	7072.1	9154.7	10656.5	11981.5	13441.6
40°	2348.5	2336.6	2400.5	2641.1	3103.1	3860.6	6160.1	9711.7	11798.8	13905.1	15657.9
42.5°	2284.6	2268.2	2330.6	2529.7	2985.7	3789.3	5720.4	10273.2	13141.6	16047.1	17813.2
45°	2196.9	2195.5	2259.3	2445.0	2860.9	3685.3	5762.0	9335.9	14650.8	18097.0	20077.0
47.5°	2152.4	2142.0	2189.5	2366.3	2743.6	3527.9	5721.9	8934.8	15806.4	20154.3	22282.9
50°	2082.6	2073.7	2119.7	2275.7	2627.7	3328.8	5576.3	9181.4	14854.3	22103.2	24356.6
52.5°	1957.8	1611.7	2051.4	2199.9	2502.9	3113.5	5300.0	9318.1	15224.1	23909.4	26287.6
55°	769.5	1032.4	1963.7	2104.9	2375.2	2911.4	4881.1	9279.5	16448.1	25527.1	27951.3
57.5°	669.9	672.9	1304.2	1757.3	2223.7	2700.5	4370.1	9059.6	17528.0	26911.5	29571.9
60°	95.1	96.6	661.0	739.7	1458.7	1919.2	3850.2	8666.0	18168.3	28295.9	30969.7
62.5°	63.9	66.8	601.6	671.4	1330.9	1702.3	3367.5	7966.3	18477.2	29136.7	31976.8
65°	46.0	47.5	545.2	607.5	1185.4	1510.7	2918.9	7205.8	18505.5	29331.3	32529.4
67.5°	43.1	44.6	502.1	560.0	1078.4	1341.3	2531.2	6535.9	17725.6	29389.2	32507.1
70°	44.6	44.6	457.5	506.5	956.6	1163.1	2100.4	5868.9	15758.9	28631.6	31776.3
72.5°	44.6	46.0	399.6	445.6	824.4	984.8	1721.6	4771.2	12762.8	26486.7	30011.6
75°	44.6	46.0	314.9	368.4	684.8	790.2	1412.6	3847.3	9829.1	22352.7	26257.9
77.5°	46.0	46.0	231.7	282.2	528.8	594.2	1072.5	2956.0	7242.9	15494.5	18281.2
80°	46.0	49.0	163.4	208.0	390.7	429.3	778.4	1886.5	3900.7	7857.9	9076.0
82.5°	47.5	49.0	121.8	156.0	270.3	309.0	475.3	928.4	1803.3	3636.3	4119.1
85°	44.6	46.0	99.5	108.4	154.5	185.7	295.6	460.5	634.3	1430.5	1486.9
87.5°	31.2	29.7	31.2	35.7	50.5	81.7	139.6	156.0	153.0	384.7	447.1
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°	7961.9	7961.9	7961.9	7961.9	7961.9	7961.9	7961.9	7961.9	7961.9	7961.9	7961.9
2.5°	7975.3	7978.2	7966.3	8012.4	7966.3	7991.6	7924.8	8028.7	8018.3	7990.1	8025.8
5°	7973.8	7981.2	7978.2	8019.8	7961.9	7982.7	7915.8	8025.8	7988.6	7963.4	8006.5
7.5°	8009.4	8019.8	8015.4	8043.6	7976.7	7975.3	7909.9	7991.6	7955.9	7902.5	7955.9
10°	8088.2	8088.2	8074.8	8091.1	7994.6	7984.2	7874.3	7967.8	7906.9	7859.4	7924.8
12.5°	8189.2	8198.1	8163.9	8160.9	8027.2	7996.1	7857.9	7904.0	7816.3	7771.8	7835.6
15°	8337.7	8343.6	8299.1	8270.9	8107.5	8039.1	7816.3	7807.4	7685.6	7642.5	7688.6
17.5°	8510.0	8508.5	8446.1	8434.3	8242.6	8083.7	7782.2	7690.1	7534.1	7485.1	7525.2
20°	8786.3	8770.0	8701.6	8633.3	8354.0	8111.9	7733.1	7540.0	7323.2	7253.3	7286.0
22.5°	9157.7	9151.7	9044.8	8847.2	8472.9	8138.7	7650.0	7357.3	7069.1	6942.9	6963.7
25°	9564.7	9560.2	9407.2	9111.6	8576.9	8158.0	7553.4	7152.3	6763.2	6571.5	6567.1
27.5°	10037.0	10025.1	9818.7	9396.8	8720.9	8163.9	7449.4	6935.5	6460.1	6221.0	6231.4
30°	10611.9	10591.1	10308.9	9713.2	8903.7	8181.7	7360.3	6691.9	6177.9	5923.9	5917.9
32.5°	11373.9	11344.2	10906.0	10129.1	9139.8	8226.3	7253.3	6451.2	5915.0	5659.5	5637.2
35°	12534.0	12473.1	11748.2	10660.9	9402.8	8256.0	7082.5	6222.5	5661.0	5420.3	5402.5
37.5°	14251.2	14148.7	12808.8	11219.4	9664.2	8250.1	6887.9	5975.9	5454.5	5221.3	5216.8
40°	16515.0	16354.6	14081.9	11818.1	9915.2	8217.4	6678.5	5756.0	5282.2	5081.6	5096.5
42.5°	18991.2	18821.9	15591.0	12427.1	10103.9	8116.4	6454.2	5548.1	5123.2	4962.8	4964.3
45°	21486.7	21329.3	17327.5	13000.5	10197.5	7926.2	6221.0	5350.5	4955.4	4815.8	4832.1
47.5°	23971.8	23856.0	19047.6	13484.7	10151.4	7627.7	5940.2	5163.3	4789.0	4674.6	4711.8
50°	26283.2	26159.9	20880.7	13885.8	9919.7	7211.8	5652.1	4979.2	4653.8	4554.3	4585.5
52.5°	28425.1	28260.3	22844.4	14117.5	9502.3	6773.5	5398.0	4817.2	4523.1	4423.6	4456.3
55°	30244.8	30237.4	24641.8	14136.8	8850.2	6325.0	5152.9	4630.1	4395.4	4313.7	4321.1
57.5°	31948.6	32015.4	26188.1	13902.1	8077.8	5909.0	4872.2	4437.0	4248.3	4163.7	4171.1
60°	33249.8	33333.0	27236.8	13218.8	7254.8	5450.0	4570.7	4232.0	4065.6	3985.4	4009.2
62.5°	34184.1	34077.2	27792.3	12238.4	6430.4	4956.9	4243.9	3970.5	3838.3	3789.3	3790.8
65°	34500.5	34466.4	27467.0	11030.8	5652.1	4471.1	3857.7	3645.2	3563.5	3529.4	3554.6
67.5°	34176.7	34197.5	26200.0	10004.4	4912.3	3923.0	3423.9	3287.3	3245.7	3244.2	3270.9
70°	33289.9	33126.5	23572.2	9184.4	4218.6	3314.0	2957.5	2892.1	2878.8	2911.4	2933.7
72.5°	30972.6	30735.0	19548.2	7878.7	3238.2	2437.6	2240.0	2329.2	2326.2	2344.0	2364.8
75°	26534.2	25908.8	15311.8	6273.0	2399.0	1724.6	1494.3	1491.4	1486.9	1638.4	1693.4
77.5°	18597.6	18180.1	11304.1	4777.1	1595.3	1032.4	1024.9	1105.2	1118.5	1019.0	1038.3
80°	9330.0	9512.7	6524.0	2951.5	1060.6	727.9	763.5	751.6	762.0	773.9	781.3
82.5°	4300.3	4392.4	3122.4	1437.9	683.3	552.6	522.9	568.9	589.7	588.2	583.8
85°	1525.5	1534.4	987.8	616.5	418.9	359.5	365.4	424.8	448.6	427.8	417.4
87.5°	442.7	420.4	202.0	182.7	193.1	191.6	197.6	209.4	225.8	222.8	206.5
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)