

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: P591360

Luminaire Tested: **CTN-CA8-330-730-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591360  
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-CA8-330-730-U-T1-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D 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: 30544 lumens  
Efficiency: N/A  
Efficacy: 92.1 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type I - Short  
BUG Rating: B5 - U0 - G5

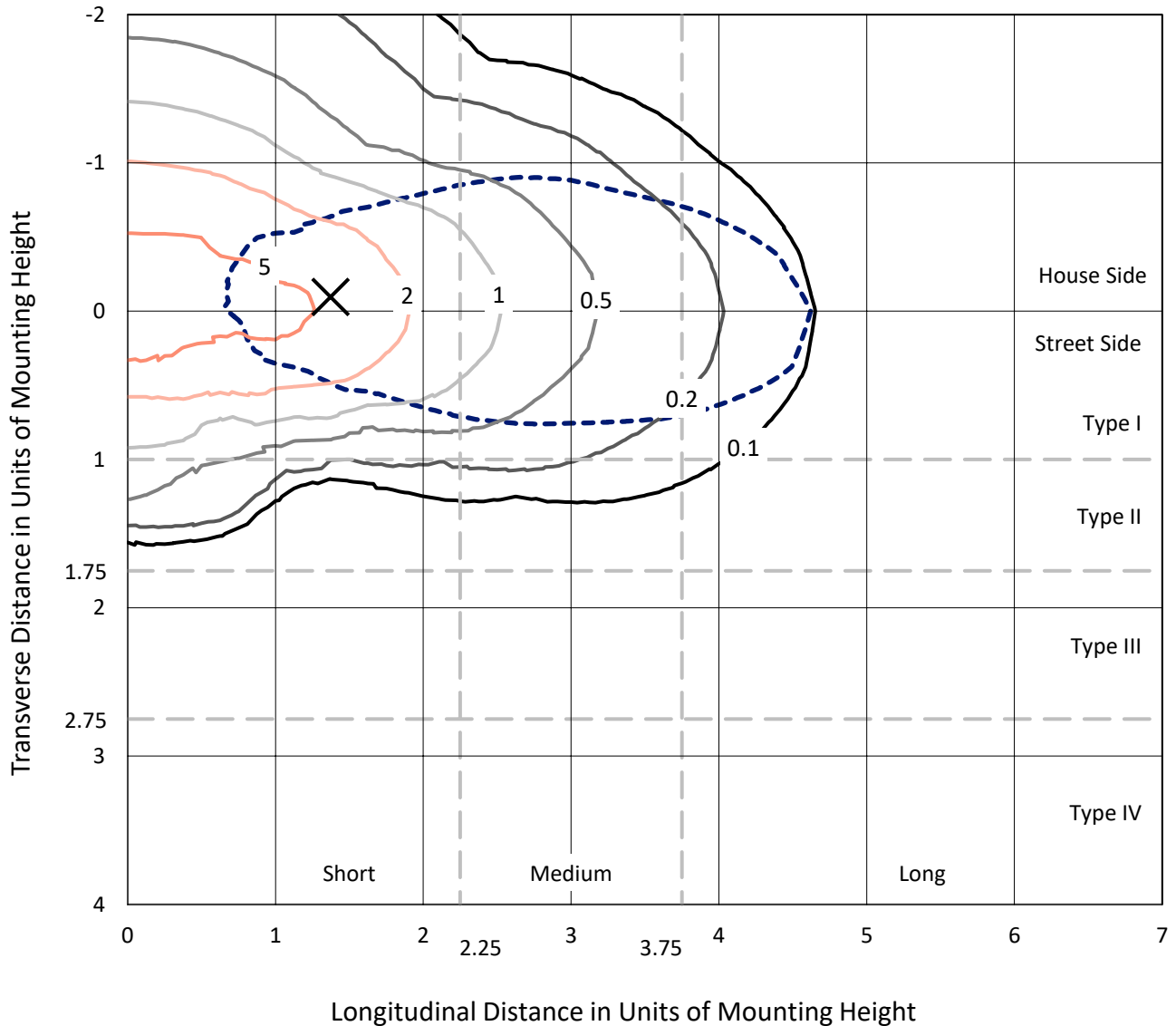
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

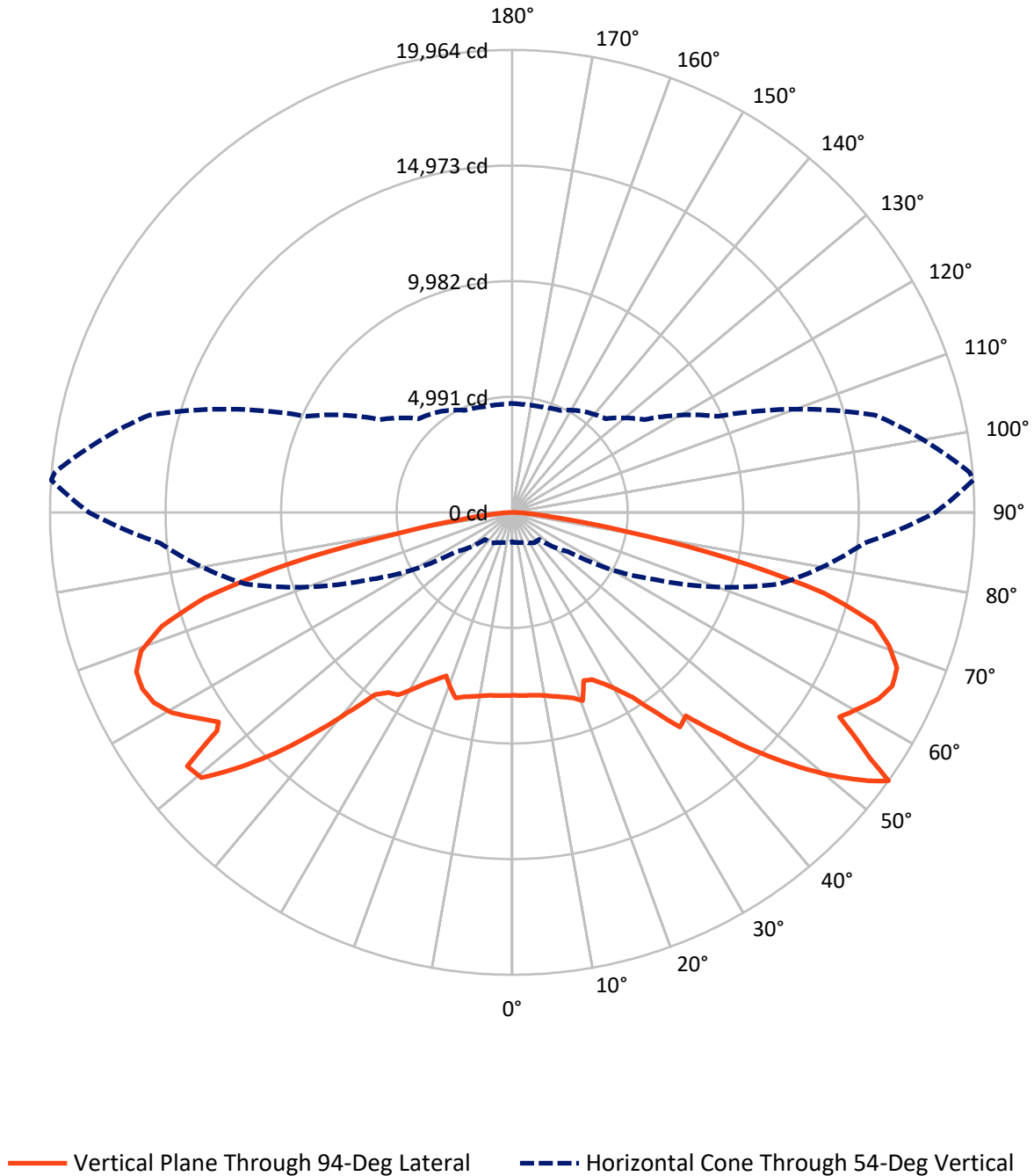
× Max cd  
 - - - 1/2 Max cd



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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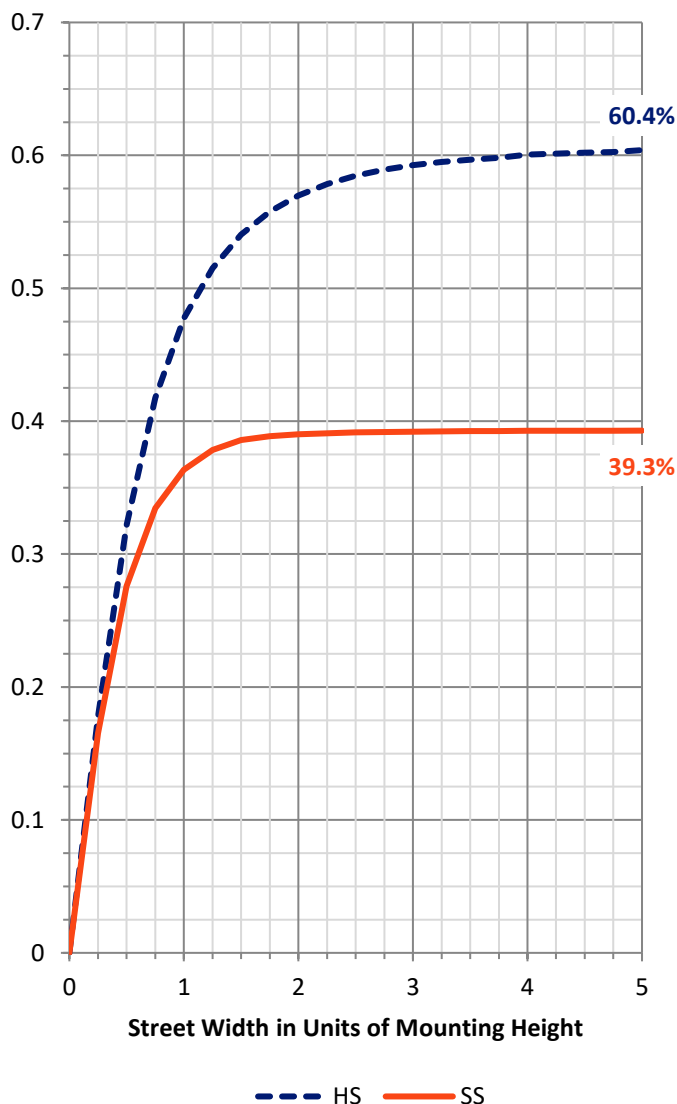
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	18603.8	0.0	18603.8
	% Fixture	60.9	0.0	60.9
<b>Street Side</b>	Lumens	11940.2	0.0	11940.2
	% Fixture	39.1	0.0	39.1
<b>Total</b>	Lumens	30544.0	0.0	30544.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	753.7	2.5
10°-20°	2156.6	7.1
20°-30°	3080.3	10.1
30°-40°	4075.6	13.3
40°-50°	5365.2	17.6
50°-60°	5919.3	19.4
60°-70°	5333.8	17.5
70°-80°	3373.2	11.0
80°-90°	486.1	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°	30544.0	100.0
0°-180°	30544.0	100.0

**Coefficient of Utilization**

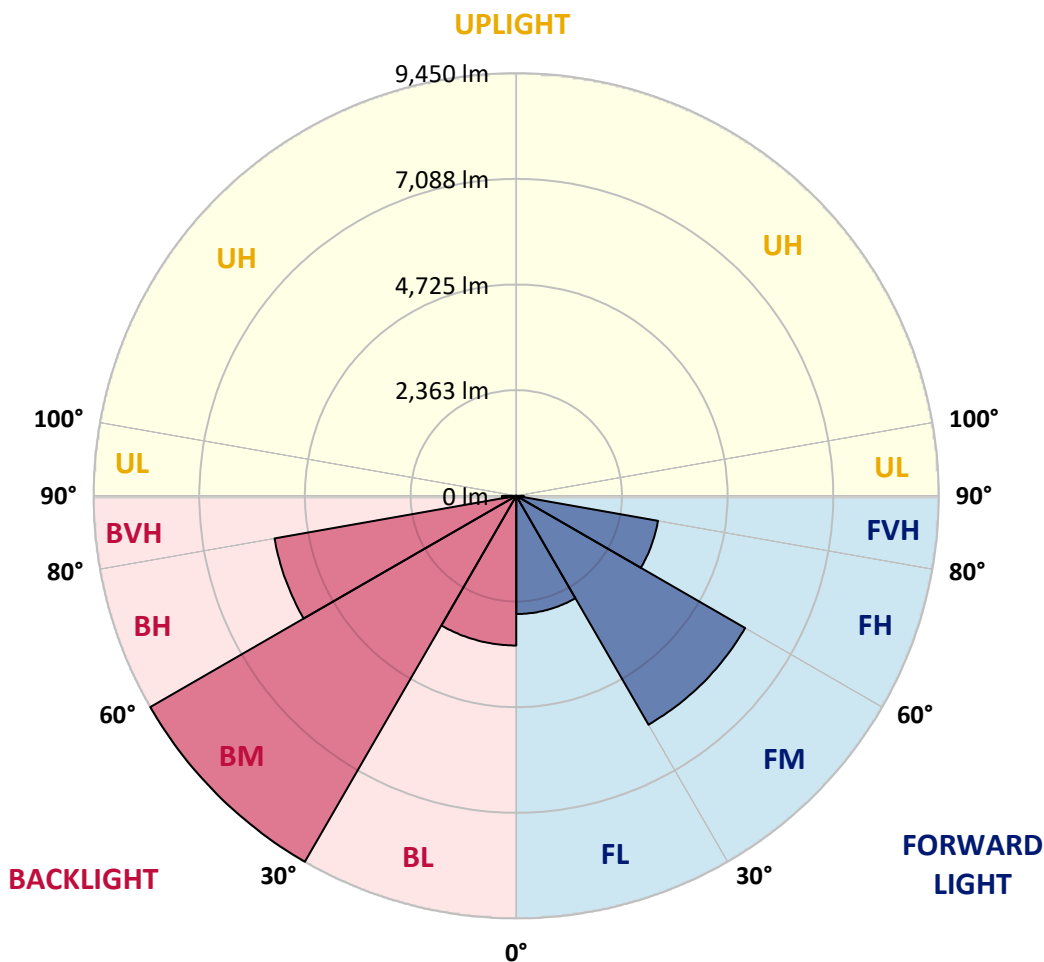


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2643.3	8.7			
FM (30°-60°)	5910.0	19.3			
FH (60°-80°)	3218.5	10.5			G2/5000
FVH (80°-90°)	168.3	0.6			G2/225
BL (0°-30°)	3347.3	11.0	B4/5000		
BM (30°-60°)	9450.2	30.9	B5		
BH (60°-80°)	5488.5	18.0	B5		G5
BVH (80°-90°)	317.8	1.0			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°	7897.9	7897.9	7897.9	7897.9	7897.9	7897.9	7897.9	7897.9	7897.9	7897.9	7897.9
2.5°	7912.8	7857.8	7865.2	7923.1	7799.9	7877.1	7841.5	7905.3	7880.1	7915.7	7942.5
5°	7842.9	7790.9	7804.3	7875.6	7777.6	7865.2	7814.7	7877.1	7886.0	7929.1	7954.3
7.5°	7785.0	7734.5	7743.4	7810.3	7747.9	7825.1	7795.4	7878.6	7880.1	7955.8	7975.1
10°	7727.1	7675.1	7687.0	7744.9	7704.8	7788.0	7807.3	7905.3	7927.6	8033.1	8034.6
12.5°	7603.8	7557.7	7563.7	7643.9	7645.4	7765.7	7804.3	7955.8	8001.9	8120.7	8132.6
15°	7118.1	7150.7	7275.5	7376.5	7470.1	7632.0	7764.2	8012.3	8074.7	8218.7	8252.9
17.5°	5941.6	5891.1	5619.3	5763.4	6213.4	6644.2	6873.0	7391.4	7972.2	8368.8	8413.3
20°	4166.6	4246.8	4673.1	4869.2	5190.0	5969.8	6685.8	6984.4	7173.0	7890.5	8450.5
22.5°	3305.0	3328.8	3939.3	4671.6	4912.2	5247.9	6097.6	7094.3	7389.9	7597.8	7689.9
25°	3076.3	3094.1	3192.1	4150.2	4806.8	5163.3	5536.1	6832.9	7645.4	7903.8	8013.8
27.5°	2884.7	2904.0	3000.5	3322.9	4710.2	5163.3	5586.6	6185.2	7893.4	8285.6	8379.2
30°	2742.1	2742.1	2841.6	3116.4	3948.2	5179.6	5692.1	6258.0	7507.2	8766.9	8850.0
32.5°	2611.3	2612.8	2721.3	2985.7	3420.9	5109.8	5840.6	6525.4	7207.2	9248.1	9463.5
35°	2494.0	2498.5	2596.5	2863.9	3287.2	4119.0	6005.5	6868.5	7783.5	9194.7	10396.3
37.5°	2394.5	2397.4	2482.1	2743.5	3174.3	2984.2	6112.4	7281.5	8557.4	9671.5	10590.9
40°	2323.2	2318.7	2379.6	2617.3	3009.4	2727.2	5173.7	7710.7	9476.9	11164.3	11505.9
42.5°	2251.9	2244.4	2305.3	2485.1	2058.8	2655.9	4793.4	8129.6	10536.0	12804.2	13108.7
45°	2168.7	2171.7	2231.1	2229.6	1948.9	2560.8	4835.0	7159.7	11669.3	14481.2	14868.9
47.5°	2124.1	2110.8	2140.5	1619.1	1858.2	2430.1	4817.2	6647.2	12669.0	16084.0	16468.7
50°	2040.9	2038.0	1500.3	1534.4	1767.6	2280.1	4537.9	6831.4	11431.7	17569.4	17958.5
52.5°	1916.2	1691.9	1391.8	1475.0	1677.0	2103.3	3241.2	6907.1	11400.5	17422.3	19347.4
54°	1273.0	1304.2	1347.3	1433.4	1611.7	1653.3	2964.9	6901.2	11942.7	15262.5	18285.3
55°	729.3	1022.0	1311.6	1399.3	1565.6	1157.1	2857.9	6870.0	12288.8	15356.1	16483.5
57.5°	631.3	634.3	721.9	1167.5	803.6	992.3	2554.9	6616.0	12936.4	16216.2	16538.5
60°	55.0	53.5	60.9	83.2	105.5	231.7	1286.4	4243.8	12483.3	16954.4	17455.0
62.5°	22.3	23.8	29.7	40.1	63.9	104.0	1063.5	3761.0	12675.0	17404.5	17952.6
65°	4.5	4.5	7.4	13.4	23.8	62.4	906.1	3349.6	12576.9	17551.5	18283.8
67.5°	0.0	0.0	4.5	10.4	19.3	50.5	784.3	3082.2	12016.9	17501.0	18160.6
70°	0.0	0.0	4.5	10.4	17.8	49.0	671.4	2844.6	10628.1	16972.2	17703.1
72.5°	0.0	0.0	4.5	8.9	16.3	44.6	574.9	2511.8	9009.0	15699.2	16694.5
75°	0.0	0.0	4.5	8.9	14.9	40.1	484.2	2155.3	7526.5	13530.6	14726.3
77.5°	0.0	0.0	4.5	8.9	13.4	35.6	380.3	1721.6	5910.4	9811.1	10452.8
80°	0.0	0.0	4.5	8.9	11.9	28.2	280.7	1087.3	3278.3	4976.1	5240.5
82.5°	0.0	0.0	3.0	7.4	10.4	17.8	133.7	411.5	1544.8	2278.6	2210.3
85°	0.0	0.0	3.0	7.4	8.9	13.4	57.9	104.0	514.0	756.1	704.1
87.5°	0.0	0.0	3.0	5.9	7.4	8.9	14.9	17.8	163.4	218.4	225.8
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°	7897.9	7897.9	7897.9	7897.9	7897.9	7897.9	7897.9	7897.9	7897.9	7897.9	7897.9
2.5°	7924.6	7924.6	7923.1	7961.8	7912.8	7917.2	7871.2	7990.0	7976.6	7939.5	7984.1
5°	7933.5	7941.0	7939.5	7958.8	7920.2	7943.9	7880.1	7997.4	7978.1	7948.4	7994.4
7.5°	7970.7	7984.1	7973.7	8007.8	7930.6	7954.3	7889.0	7991.5	7972.2	7929.1	7978.1
10°	8050.9	8064.3	8043.5	8059.8	7978.1	7966.2	7886.0	7993.0	7951.4	7918.7	7979.6
12.5°	8154.9	8171.2	8129.6	8126.6	8022.7	7998.9	7883.0	7955.8	7894.9	7868.2	7923.1
15°	8270.7	8290.0	8241.0	8230.6	8116.3	8037.5	7871.2	7887.5	7799.9	7764.2	7822.1
17.5°	8422.2	8440.1	8402.9	8397.0	8248.5	8114.8	7854.8	7801.3	7678.1	7648.3	7679.5
20°	8676.2	8688.1	8639.1	8594.6	8376.2	8156.4	7828.1	7688.5	7499.8	7437.4	7473.1
22.5°	7896.4	7991.5	8955.5	8789.1	8471.3	8199.4	7761.2	7528.0	7263.6	7146.3	7170.0
25°	7998.9	8007.8	8373.2	9019.4	8575.2	8227.7	7682.5	7329.0	6965.1	6794.2	6823.9
27.5°	8370.3	8359.9	8215.8	9044.6	8698.5	8244.0	7584.5	7119.5	6669.5	6464.5	6471.9
30°	8851.5	8835.2	8616.8	8177.2	8875.3	8249.9	7498.3	6878.9	6406.6	6188.2	6182.3
32.5°	9509.6	9463.5	9124.8	8517.3	8128.1	8290.0	7376.5	6650.2	6155.5	5940.1	5923.8
35°	10519.6	10435.0	9818.5	8949.6	7998.9	8290.0	7210.2	6403.6	5923.8	5718.8	5706.9
37.5°	11771.8	11794.1	10705.3	9433.8	8197.9	7513.2	7011.1	6173.3	5723.3	5542.0	5542.0
40°	11547.5	11843.1	11734.7	9929.9	8402.9	7388.4	6797.2	5952.0	5556.9	5418.8	5436.6
42.5°	13028.5	12914.1	12929.0	10427.5	8547.0	7260.7	6565.5	5747.0	5409.8	5292.5	5305.9
45°	14671.3	14542.1	11835.7	10873.2	8613.9	7070.5	6330.8	5536.1	5247.9	5149.9	5185.5
47.5°	16293.4	16177.5	12997.3	10764.7	8551.5	6779.4	6041.1	5353.4	5077.1	5007.3	5060.8
50°	17863.5	17700.1	14249.5	9622.5	8330.2	6376.8	5745.5	5161.8	4928.6	4887.0	4927.1
52.5°	19264.2	19047.3	15518.0	9794.8	7277.0	5969.8	5482.6	4977.6	4793.4	4747.4	4787.5
54°	19963.8	19831.6	16226.6	9814.1	6975.5	5717.3	5325.2	4860.2	4717.6	4679.0	4701.3
55°	18772.5	19036.9	16646.9	9797.7	6757.1	5564.3	5221.2	4783.0	4664.2	4622.6	4644.9
57.5°	16670.7	16385.5	15564.1	9597.2	6162.9	5181.1	4916.7	4586.9	4505.2	4451.8	4483.0
60°	17199.5	17147.5	14207.9	9156.0	5513.8	4751.8	4616.6	4358.2	4303.2	4258.7	4300.2
62.5°	17752.1	17717.9	14424.8	8471.3	4867.7	4330.0	4272.0	4090.8	4058.1	4038.8	4049.2
65°	18050.6	17832.3	14418.8	7554.8	4275.0	3897.7	3888.8	3753.6	3768.5	3759.6	3802.6
67.5°	17924.4	17691.2	13781.6	6893.8	3718.0	3404.5	3432.8	3376.3	3431.3	3447.6	3480.3
70°	17264.9	17340.6	12392.7	6256.5	3163.9	2866.8	2956.0	2948.5	3028.7	3091.1	3143.1
72.5°	16352.8	16061.7	10387.4	5317.7	2315.7	2039.5	2193.9	2297.9	2387.0	2461.3	2510.3
75°	13918.2	13576.6	7669.1	4145.8	1677.0	1406.7	1448.3	1494.3	1552.2	1723.1	1824.1
77.5°	9542.2	9399.6	5515.3	3126.8	1068.0	848.2	1010.1	1102.2	1151.2	1143.8	1161.6
80°	4892.9	4867.7	3264.9	1870.1	720.4	620.9	735.3	744.2	822.9	883.8	886.8
82.5°	1972.6	2070.7	1304.2	1024.9	500.6	469.4	518.4	583.8	650.6	686.3	695.2
85°	698.1	681.8	396.6	481.3	317.9	328.3	366.9	441.2	511.0	519.9	500.6
87.5°	187.2	194.6	84.7	176.8	173.8	190.1	210.9	240.6	291.1	306.0	291.1
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)