

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: P591396

Luminaire Tested: **CTN-CA10-310-740-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591396
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-CA10-310-740-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: 30792 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

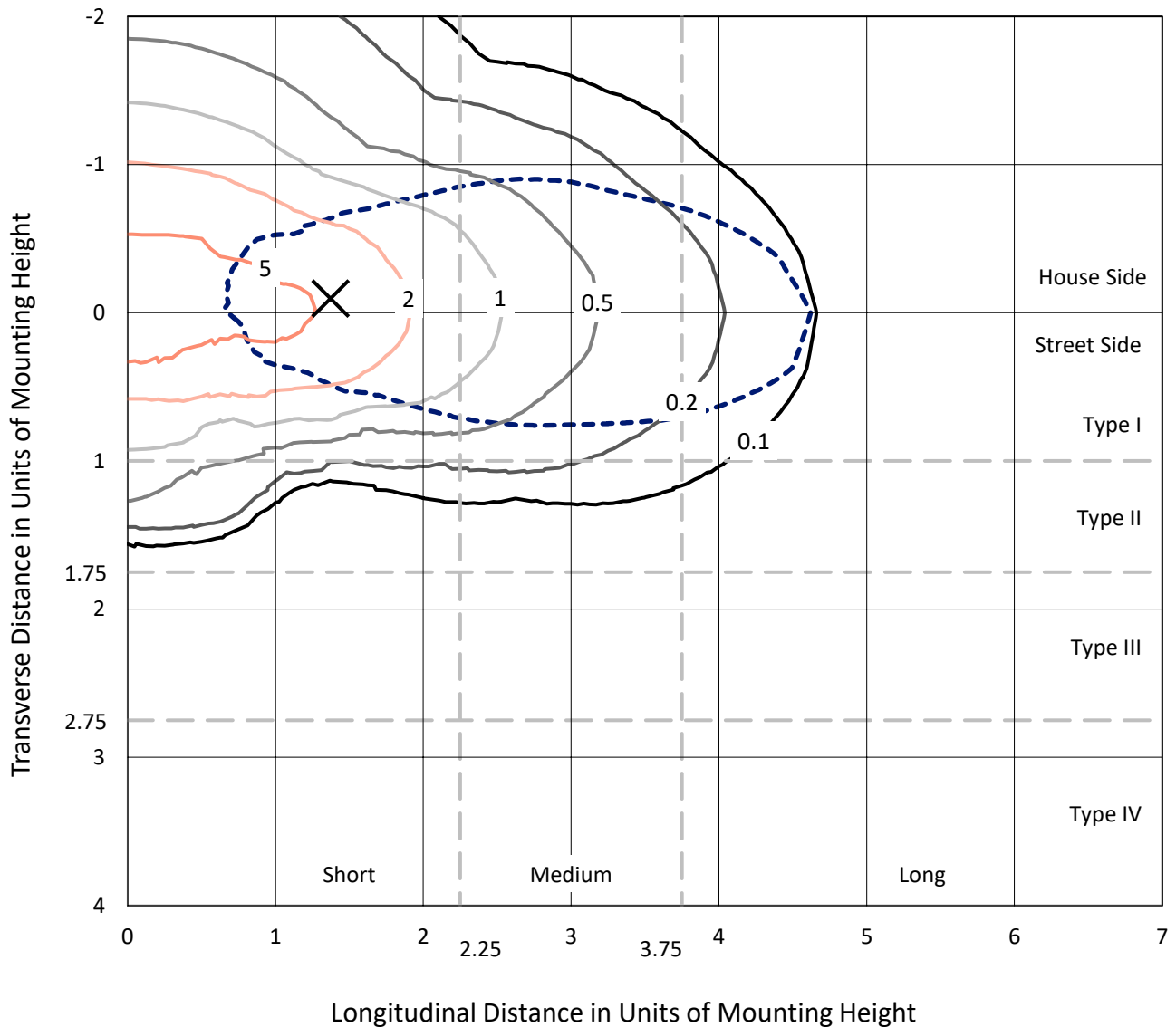
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

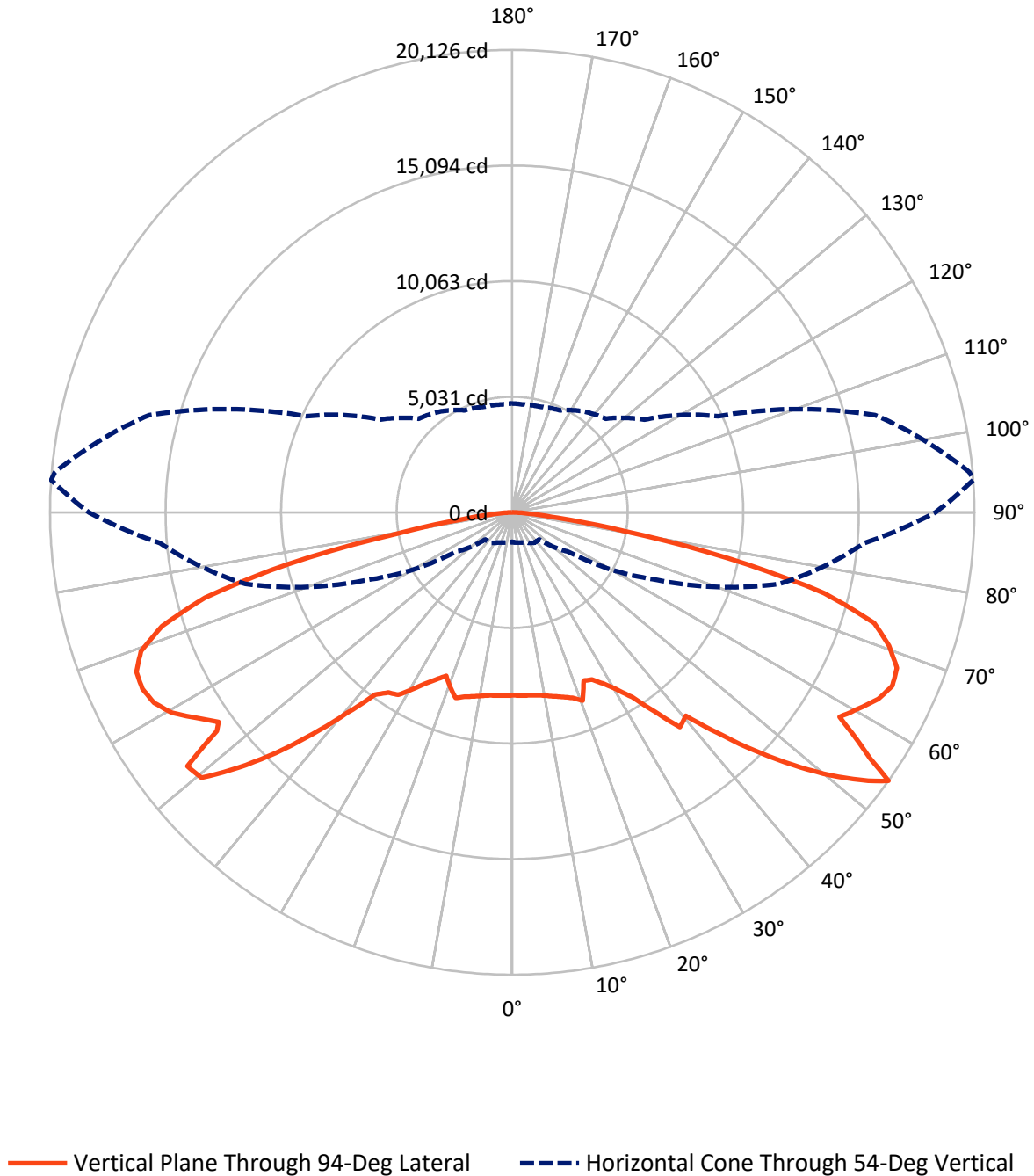
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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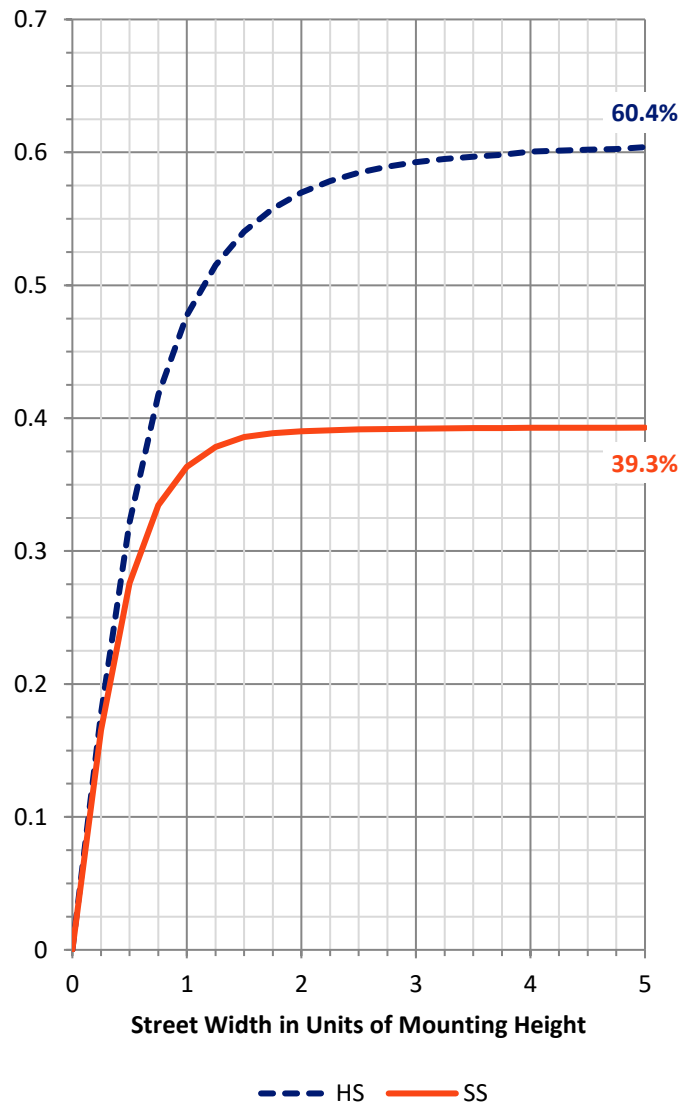
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	18754.9	0.0	18754.9
	% Fixture	60.9	0.0	60.9
Street Side	Lumens	12037.1	0.0	12037.1
	% Fixture	39.1	0.0	39.1
Total	Lumens	30792.0	0.0	30792.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	759.8	2.5
10°-20°	2174.1	7.1
20°-30°	3105.3	10.1
30°-40°	4108.7	13.3
40°-50°	5408.8	17.6
50°-60°	5967.4	19.4
60°-70°	5377.1	17.5
70°-80°	3400.6	11.0
80°-90°	490.1	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°	30792.0	100.0
0°-180°	30792.0	100.0

Coefficient of Utilization

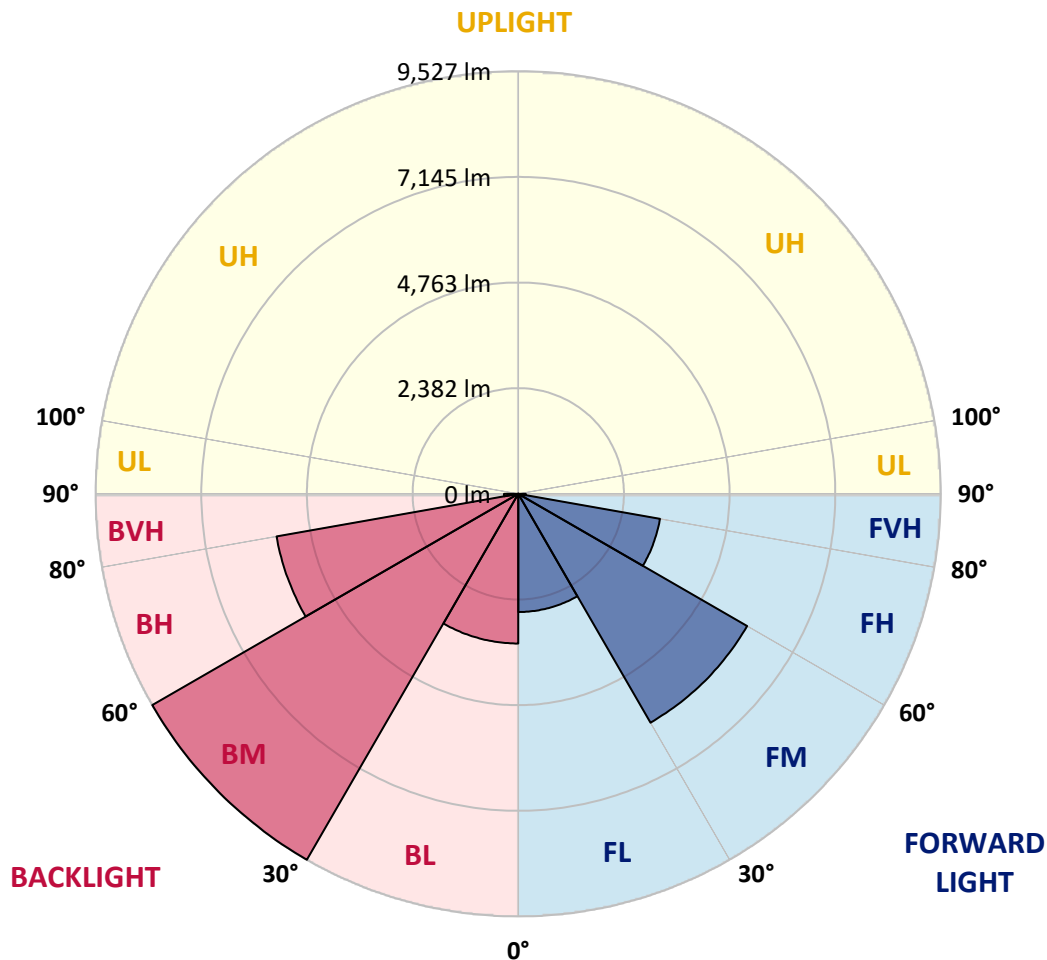


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2664.8	8.7			
FM (30°-60°)	5958.0	19.3			
FH (60°-80°)	3244.7	10.5			G2/5000
FVH (80°-90°)	169.7	0.6			G2/225
BL (0°-30°)	3374.5	11.0	B4/5000		
BM (30°-60°)	9527.0	30.9	B5		
BH (60°-80°)	5533.1	18.0	B5		G5
BVH (80°-90°)	320.4	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°	7962.0	7962.0	7962.0	7962.0	7962.0	7962.0	7962.0	7962.0	7962.0	7962.0	7962.0
2.5°	7977.0	7921.6	7929.1	7987.5	7863.2	7941.1	7905.1	7969.5	7944.1	7980.0	8006.9
5°	7906.6	7854.2	7867.7	7939.6	7840.7	7929.1	7878.2	7941.1	7950.0	7993.5	8018.9
7.5°	7848.2	7797.3	7806.3	7873.7	7810.8	7888.6	7858.7	7942.6	7944.1	8020.4	8039.9
10°	7789.8	7737.4	7749.4	7807.8	7767.4	7851.2	7870.7	7969.5	7992.0	8098.3	8099.8
12.5°	7665.5	7619.1	7625.1	7706.0	7707.5	7828.7	7867.7	8020.4	8066.8	8186.6	8198.6
15°	7175.9	7208.8	7334.6	7436.4	7530.8	7694.0	7827.3	8077.3	8140.2	8285.5	8319.9
17.5°	5989.9	5938.9	5664.9	5810.2	6263.9	6698.2	6928.8	7451.4	8036.9	8436.7	8481.6
20°	4200.4	4281.3	4711.0	4908.7	5232.1	6018.3	6740.1	7041.1	7231.3	7954.5	8519.1
22.5°	3331.9	3355.8	3971.3	4709.5	4952.1	5290.5	6147.1	7151.9	7449.9	7659.5	7752.4
25°	3101.3	3119.2	3218.1	4183.9	4845.8	5205.2	5581.1	6888.3	7707.5	7968.0	8078.8
27.5°	2908.1	2927.5	3024.9	3349.8	4748.5	5205.2	5632.0	6235.4	7957.5	8352.9	8447.2
30°	2764.3	2764.3	2864.7	3141.7	3980.3	5221.7	5738.3	6308.8	7568.2	8838.0	8921.9
32.5°	2632.5	2634.0	2743.4	3009.9	3448.7	5151.3	5888.0	6578.4	7265.7	9323.2	9540.4
35°	2514.2	2518.7	2617.6	2887.1	3313.9	4152.5	6054.3	6924.3	7846.7	9269.3	10480.8
37.5°	2413.9	2416.9	2502.3	2765.8	3200.1	3008.4	6162.1	7340.6	8626.9	9750.0	10676.9
40°	2342.0	2337.5	2398.9	2638.5	3033.9	2749.3	5215.7	7773.3	9553.8	11255.0	11599.4
42.5°	2270.2	2262.7	2324.1	2505.3	2075.5	2677.5	4832.3	8195.6	10621.5	12908.2	13215.1
45°	2186.3	2189.3	2249.2	2247.7	1964.7	2581.6	4874.3	7217.8	11764.1	14598.8	14989.6
47.5°	2141.4	2127.9	2157.8	1632.2	1873.3	2449.9	4856.3	6701.2	12771.9	16214.6	16602.4
50°	2057.5	2054.5	1512.4	1546.9	1782.0	2298.6	4574.8	6886.8	11524.5	17712.0	18104.4
52.5°	1931.7	1705.6	1403.1	1487.0	1690.6	2120.4	3267.5	6963.2	11493.0	17563.8	19504.5
54°	1283.3	1314.8	1358.2	1445.1	1624.8	1666.7	2988.9	6957.2	12039.6	15386.5	18433.8
55°	735.3	1030.3	1322.3	1410.6	1578.3	1166.5	2881.1	6925.8	12388.5	15480.8	16617.4
57.5°	636.4	639.4	727.8	1177.0	810.1	1000.3	2575.6	6669.7	13041.4	16347.8	16672.8
60°	55.4	53.9	61.4	83.9	106.3	233.6	1296.8	4278.3	12584.7	17092.1	17596.7
62.5°	22.5	24.0	29.9	40.4	64.4	104.8	1072.2	3791.6	12777.9	17545.8	18098.4
65°	4.5	4.5	7.5	13.5	24.0	62.9	913.5	3376.8	12679.0	17694.1	18432.3
67.5°	0.0	0.0	4.5	10.5	19.5	50.9	790.7	3107.2	12114.5	17643.1	18308.0
70°	0.0	0.0	4.5	10.5	18.0	49.4	676.9	2867.6	10714.4	17110.0	17846.8
72.5°	0.0	0.0	4.5	9.0	16.5	44.9	579.5	2532.2	9082.1	15826.7	16830.0
75°	0.0	0.0	4.5	9.0	15.0	40.4	488.2	2172.8	7587.7	13640.4	14845.9
77.5°	0.0	0.0	4.5	9.0	13.5	35.9	383.4	1735.6	5958.4	9890.8	10537.7
80°	0.0	0.0	4.5	9.0	12.0	28.5	283.0	1096.1	3304.9	5016.5	5283.1
82.5°	0.0	0.0	3.0	7.5	10.5	18.0	134.8	414.8	1557.4	2297.1	2228.2
85°	0.0	0.0	3.0	7.5	9.0	13.5	58.4	104.8	518.1	762.2	709.8
87.5°	0.0	0.0	3.0	6.0	7.5	9.0	15.0	18.0	164.7	220.1	227.6
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°	7962.0	7962.0	7962.0	7962.0	7962.0	7962.0	7962.0	7962.0	7962.0	7962.0	7962.0
2.5°	7989.0	7989.0	7987.5	8026.4	7977.0	7981.5	7935.1	8054.9	8041.4	8004.0	8048.9
5°	7998.0	8005.5	8004.0	8023.4	7984.5	8008.4	7944.1	8062.4	8042.9	8012.9	8059.4
7.5°	8035.4	8048.9	8038.4	8072.8	7995.0	8018.9	7953.0	8056.4	8036.9	7993.5	8042.9
10°	8116.3	8129.7	8108.8	8125.2	8042.9	8030.9	7950.0	8057.9	8015.9	7983.0	8044.4
12.5°	8221.1	8237.6	8195.6	8192.6	8087.8	8063.9	7947.0	8020.4	7959.0	7932.1	7987.5
15°	8337.9	8357.4	8307.9	8297.5	8182.2	8102.8	7935.1	7951.5	7863.2	7827.3	7885.7
17.5°	8490.6	8508.6	8471.2	8465.2	8315.4	8180.7	7918.6	7864.7	7740.4	7710.4	7741.9
20°	8746.7	8758.7	8709.3	8664.3	8444.2	8222.6	7891.6	7750.9	7560.7	7497.8	7533.7
22.5°	7960.5	8056.4	9028.2	8860.5	8540.0	8266.0	7824.3	7589.2	7322.6	7204.3	7228.3
25°	8063.9	8072.8	8441.2	9092.6	8644.9	8294.5	7744.9	7388.5	7021.6	6849.4	6879.4
27.5°	8438.2	8427.7	8282.5	9118.1	8769.2	8310.9	7646.1	7177.4	6723.6	6517.0	6524.5
30°	8923.4	8906.9	8686.8	8243.5	8947.4	8316.9	7559.2	6934.8	6458.6	6238.4	6232.5
32.5°	9586.8	9540.4	9198.9	8586.5	8194.1	8357.4	7436.4	6704.2	6205.5	5988.4	5971.9
35°	10605.1	10519.7	9898.2	9022.2	8063.9	8357.4	7268.7	6455.6	5971.9	5765.2	5753.3
37.5°	11867.4	11889.9	10792.2	9510.4	8264.5	7574.2	7068.0	6223.5	5769.7	5587.0	5587.0
40°	11641.3	11939.3	11830.0	10010.6	8471.2	7448.4	6852.4	6000.3	5602.0	5462.8	5480.7
42.5°	13134.3	13019.0	13033.9	10512.2	8616.4	7319.6	6618.8	5793.7	5453.8	5335.5	5348.9
45°	14790.5	14660.2	11931.8	10961.4	8683.8	7127.9	6382.2	5581.1	5290.5	5191.7	5227.7
47.5°	16425.7	16308.9	13102.8	10852.1	8620.9	6834.4	6090.2	5396.9	5118.3	5048.0	5101.9
50°	18008.5	17843.8	14365.2	9700.6	8397.8	6428.6	5792.2	5203.7	4968.6	4926.7	4967.1
52.5°	19420.6	19202.0	15644.0	9874.3	7336.1	6018.3	5527.1	5018.0	4832.3	4785.9	4826.3
54°	20125.9	19992.7	16358.3	9893.8	7032.1	5763.7	5368.4	4899.7	4756.0	4717.0	4739.5
55°	18925.0	19191.5	16782.1	9877.3	6812.0	5609.5	5263.6	4821.8	4702.0	4660.1	4682.6
57.5°	16806.1	16518.5	15690.4	9675.1	6213.0	5223.2	4956.6	4624.2	4541.8	4487.9	4519.4
60°	17339.2	17286.7	14323.3	9230.4	5558.6	4790.4	4654.1	4393.6	4338.2	4293.2	4335.2
62.5°	17896.2	17861.8	14541.9	8540.0	4907.2	4365.1	4306.7	4124.0	4091.1	4071.6	4082.1
65°	18197.2	17977.1	14535.9	7616.1	4309.7	3929.3	3920.4	3784.1	3799.1	3790.1	3833.5
67.5°	18069.9	17834.8	13893.5	6949.7	3748.2	3432.2	3460.6	3403.7	3459.1	3475.6	3508.6
70°	17405.0	17481.4	12493.4	6307.3	3189.6	2890.1	2980.0	2972.5	3053.3	3116.2	3168.6
72.5°	16485.6	16192.1	10471.8	5360.9	2334.5	2056.0	2211.8	2316.6	2406.4	2481.3	2530.7
75°	14031.3	13686.8	7731.4	4179.4	1690.6	1418.1	1460.0	1506.5	1564.9	1737.1	1838.9
77.5°	9619.7	9476.0	5560.1	3152.2	1076.7	855.1	1018.3	1111.1	1160.5	1153.0	1171.0
80°	4932.7	4907.2	3291.4	1885.3	726.3	625.9	741.2	750.2	829.6	891.0	894.0
82.5°	1988.6	2087.5	1314.8	1033.3	504.6	473.2	522.6	588.5	655.9	691.8	700.8
85°	703.8	687.3	399.8	485.2	320.5	330.9	369.9	444.7	515.1	524.1	504.6
87.5°	188.7	196.2	85.4	178.2	175.2	191.7	212.6	242.6	293.5	308.5	293.5
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)