

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: P591322

Luminaire Tested: **CTN-CA10-630-730-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591322
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-10)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-630-730-U-T4-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 57469 lumens
Efficiency: N/A
Efficacy: 91.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type IV - Short
BUG Rating: B5 - U0 - G5

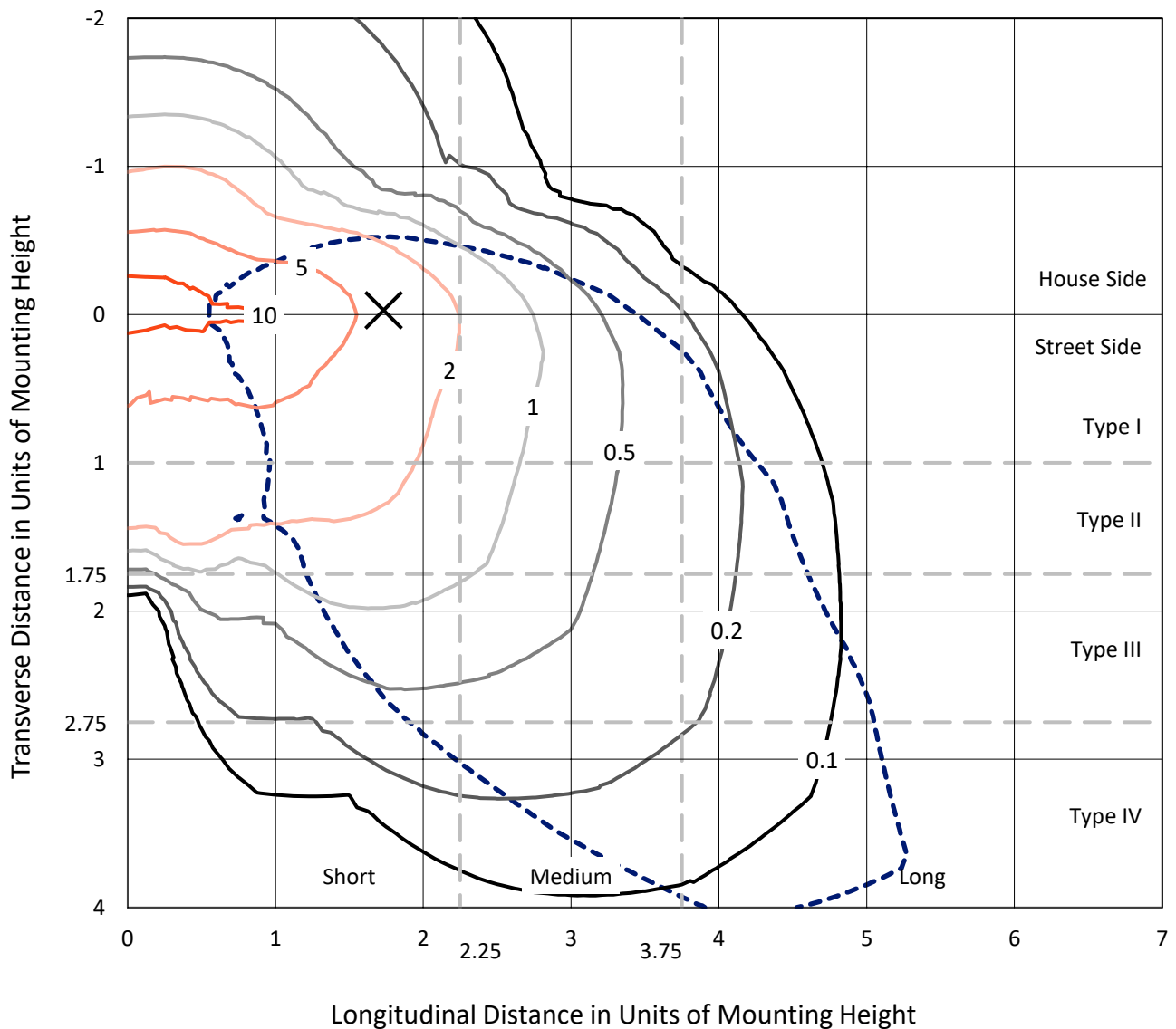
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

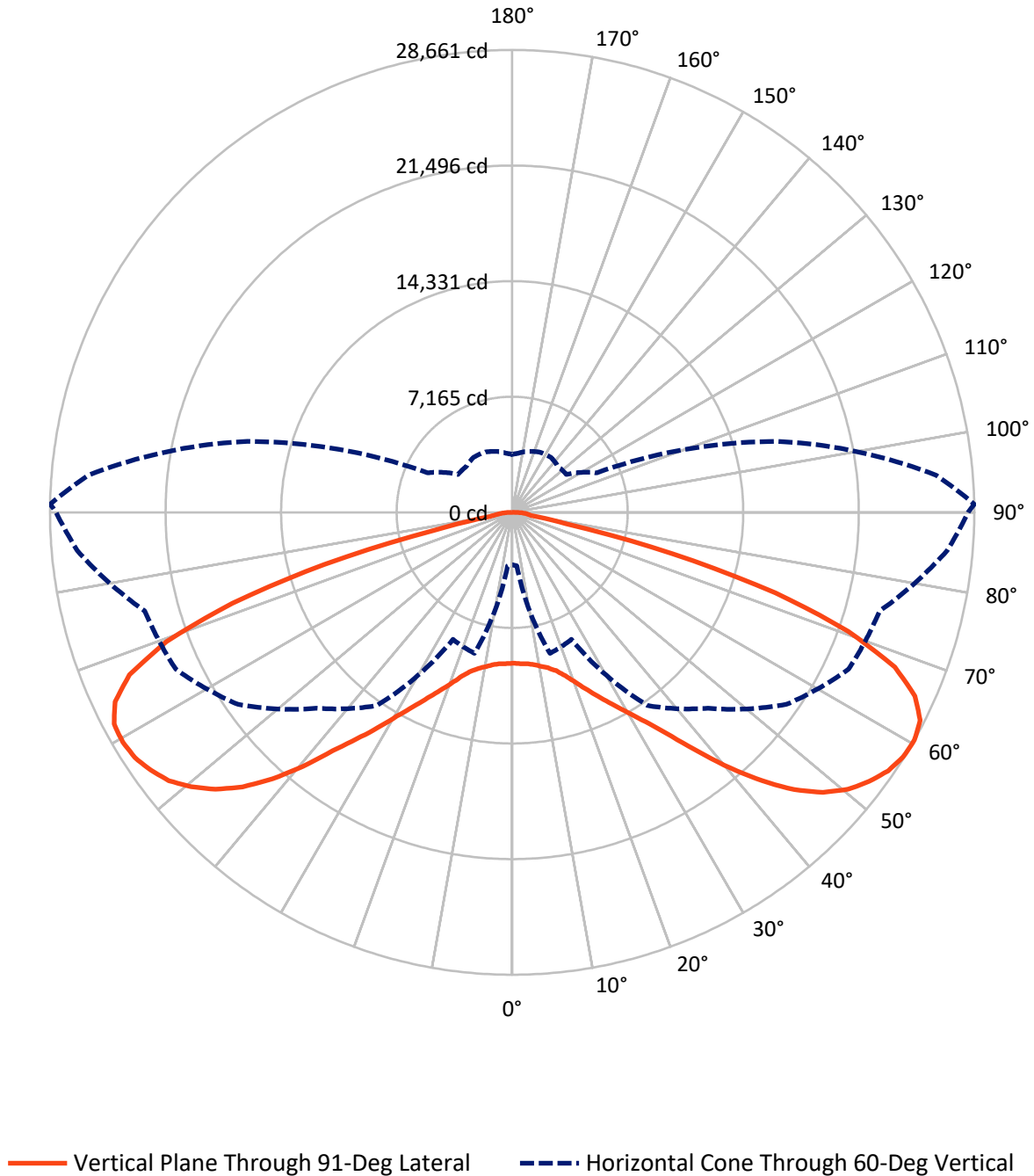
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.9 fc
 Type IV - Short - N/A

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CATALOG NUMBER: CTN-CA10-630-730-U-T4-SSS-HM-EX90

Luminous Intensity Polar Plot



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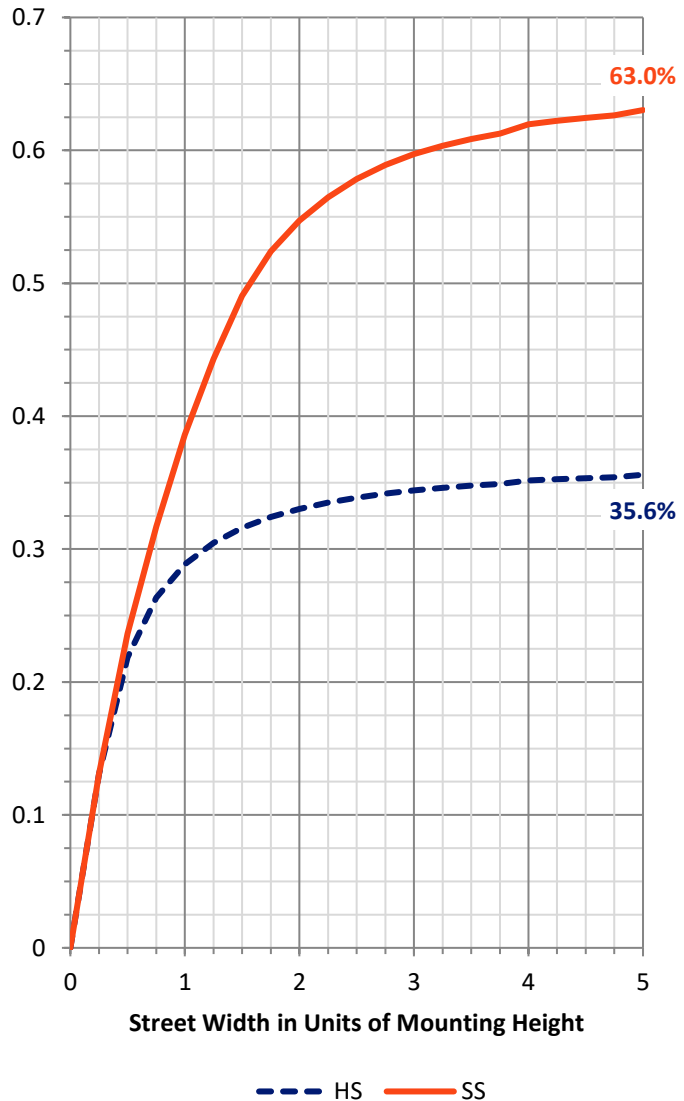
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	20870.6	0.0	20870.6
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	36598.4	0.0	36598.4
	% Fixture	63.7	0.0	63.7
Total	Lumens	57469.0	0.0	57469.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	911.3	1.6
10°-20°	2794.8	4.9
20°-30°	4581.3	8.0
30°-40°	6470.3	11.3
40°-50°	9108.3	15.8
50°-60°	11461.0	19.9
60°-70°	11536.3	20.1
70°-80°	8487.0	14.8
80°-90°	2118.6	3.7
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°	57469.0	100.0
0°-180°	57469.0	100.0

Coefficient of Utilization

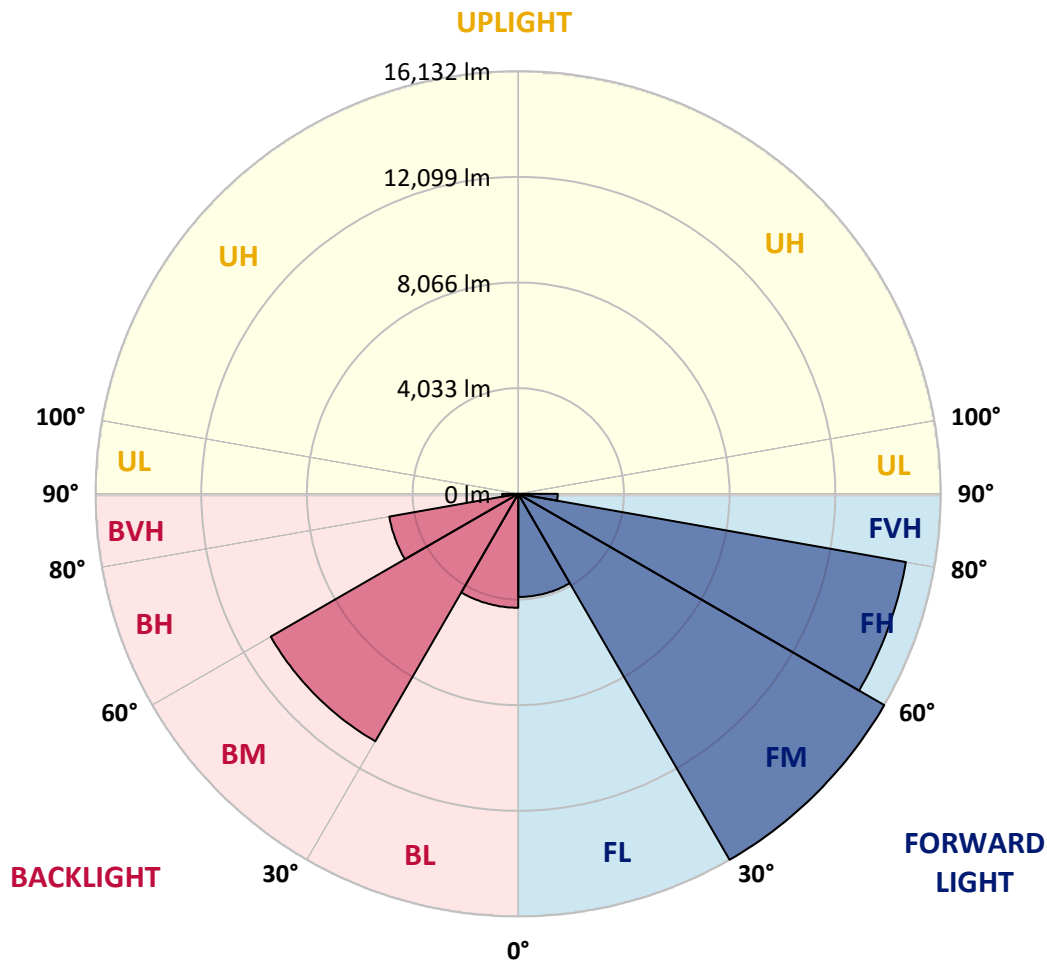


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3937.3	6.9			
FM (30°-60°)	16131.5	28.1			
FH (60°-80°)	15024.8	26.1			G5
FVH (80°-90°)	1504.8	2.6			G5
BL (0°-30°)	4350.2	7.6	B4/5000		
BM (30°-60°)	10908.1	19.0	B5		
BH (60°-80°)	4998.5	8.7	B4/5000		G4/5000
BVH (80°-90°)	613.8	1.1			G4/750
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	9346.6	9346.6	9346.6	9346.6	9346.6	9346.6	9346.6	9346.6	9346.6	9346.6	9346.6
2.5°	9254.2	9195.4	9198.2	9285.0	9153.4	9237.4	9217.8	9352.2	9327.0	9374.6	9385.8
5°	9189.8	9142.2	9142.2	9245.8	9156.2	9229.0	9167.4	9285.0	9327.0	9397.0	9411.0
7.5°	9215.0	9164.6	9184.2	9273.8	9173.0	9248.6	9243.0	9346.6	9371.8	9489.4	9506.2
10°	9259.8	9215.0	9220.6	9296.2	9229.0	9369.0	9343.8	9492.2	9489.4	9674.2	9688.2
12.5°	9181.4	9147.8	9147.8	9248.6	9287.8	9436.2	9486.6	9640.6	9657.4	9864.6	9881.4
15°	9058.2	9002.2	9086.2	9237.4	9318.6	9551.0	9637.8	9881.4	9926.2	10122.2	10164.2
17.5°	8800.6	8825.8	9061.0	8954.6	8585.0	8929.4	9884.2	10195.0	10293.0	10525.4	10626.2
20°	8002.6	7691.8	7075.8	7243.8	8005.4	8988.2	10228.6	10592.6	10808.2	11082.6	11253.5
22.5°	6045.3	6241.3	7392.2	7512.6	7546.2	8201.4	10710.2	11079.8	11365.5	11712.7	11939.5
25°	6269.3	6249.7	6644.5	7879.4	7913.0	8288.2	10083.0	11715.5	11973.1	12454.7	12681.5
27.5°	6476.5	6476.5	6454.1	7439.8	8293.8	8663.4	10410.6	11247.9	12771.1	13294.7	13560.7
30°	6821.0	6832.2	6706.1	6703.3	8607.4	9007.8	11043.4	11457.9	13476.7	14467.9	14529.5
32.5°	7504.2	7465.0	7308.2	7067.4	7445.4	9408.2	11662.3	12216.7	12796.3	15786.8	15730.8
35°	7997.0	7966.2	7854.2	7686.2	7512.6	9590.2	12241.9	13011.9	13961.1	16176.0	17251.2
37.5°	8593.4	8543.0	8417.0	8218.2	8106.2	8279.8	12838.3	13910.7	15417.1	16638.0	18967.6
40°	9245.8	9231.8	9038.6	8781.0	8627.0	8755.8	13294.7	15030.7	17223.2	18600.8	20860.5
42.5°	9747.0	9735.8	9576.2	9427.8	9355.0	9615.4	12160.7	16514.8	19289.6	20384.5	22683.3
45°	10197.8	10181.0	10175.4	10125.0	10183.8	10816.6	13403.9	17430.4	21319.7	21918.9	24340.9
47.5°	10539.4	10489.0	10346.2	10360.2	10525.4	11592.3	14697.5	16050.0	22966.1	23271.3	25634.6
50°	11351.5	11301.1	10808.2	10825.0	11144.2	12555.5	15812.0	17648.8	21434.5	24441.7	26625.8
52.5°	12076.7	11659.5	11390.7	11401.9	11838.7	13580.3	17077.6	19303.6	21070.5	25368.6	27426.6
55°	10430.2	10161.4	12776.7	12412.7	12653.5	14697.5	18306.8	20737.3	22070.1	26077.0	27885.8
57.5°	6120.9	6087.3	14061.9	14378.3	14098.3	15904.4	19550.0	21930.1	22946.5	26737.8	28193.8
60°	3248.1	3326.5	9044.2	8691.4	14613.5	17164.4	20754.1	23013.7	23596.1	27079.4	28277.8
62.5°	299.6	266.0	5944.5	6753.8	13098.7	18810.8	22182.1	24116.9	24035.7	27261.4	28129.4
65°	58.8	78.4	5832.5	6672.5	14554.7	21540.9	24514.5	24965.4	24273.7	27043.0	27351.0
67.5°	44.8	67.2	5510.5	6599.7	15447.9	22590.9	27199.8	25265.0	24287.7	26345.8	25637.4
70°	44.8	70.0	4863.7	6168.5	15870.8	22635.7	27835.4	25147.4	23974.1	24766.6	22408.9
72.5°	44.8	70.0	4085.3	5345.3	15151.1	21664.1	26721.0	24494.9	22806.5	21325.3	17478.0
75°	44.8	64.4	3206.1	4342.9	13095.9	20166.1	24808.6	21655.7	19197.2	15604.7	11214.3
77.5°	44.8	61.6	2363.3	3399.3	10928.6	17786.0	21574.5	17800.0	14470.7	8170.6	4127.3
80°	42.0	61.6	1439.2	2396.9	8419.8	14347.5	16954.4	13151.9	7605.0	2055.2	1192.8
82.5°	42.0	58.8	686.0	1534.4	5916.5	10251.0	11063.0	5633.7	1618.4	949.2	949.2
85°	36.4	53.2	366.8	834.4	3866.9	6720.1	5336.9	954.8	632.8	641.2	730.8
87.5°	22.4	28.0	173.6	375.2	2228.8	3592.5	2055.2	350.0	263.2	277.2	414.4
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9346.6	9346.6	9346.6	9346.6	9346.6	9346.6	9346.6	9346.6	9346.6	9346.6	9346.6
2.5°	9394.2	9380.2	9411.0	9509.0	9492.2	9562.2	9506.2	9604.2	9623.8	9595.8	9640.6
5°	9425.0	9444.6	9548.2	9640.6	9590.2	9702.2	9733.0	9870.2	9867.4	9842.2	9898.2
7.5°	9525.8	9579.0	9682.6	9797.4	9822.6	9912.2	9901.0	10074.6	10055.0	10043.8	10099.8
10°	9699.4	9780.6	9878.6	10069.0	10007.4	10158.6	10055.0	10172.6	10161.4	10133.4	10183.8
12.5°	9892.6	10004.6	10122.2	10295.8	10270.6	10267.8	10175.4	10211.8	10181.0	10113.8	10155.8
15°	10183.8	10321.0	10483.4	10595.4	10447.0	10391.0	10245.4	10167.0	10060.6	9903.8	9929.0
17.5°	10637.4	10799.8	10973.4	10993.0	10763.4	10617.8	10265.0	9985.0	9707.8	9497.8	9517.4
20°	11247.9	11396.3	11525.1	11432.7	11121.8	10797.0	10265.0	9822.6	9304.6	8918.2	8890.2
22.5°	11961.9	12006.7	12129.9	11903.1	11368.3	10914.6	10237.0	9579.0	8736.2	8221.0	8159.4
25°	12731.9	12726.3	12673.1	12202.7	11522.3	10850.2	10024.2	9161.8	8086.6	7549.0	7504.2
27.5°	13569.1	13499.1	13135.1	12454.7	11457.9	10617.8	9621.0	8459.0	7495.8	7033.8	7019.8
30°	14512.7	14327.9	13591.5	12479.9	11217.1	10158.6	8965.8	7750.6	6969.4	6557.7	6518.5
32.5°	15613.1	15251.9	13955.5	12398.7	10783.0	9458.6	8167.8	7193.4	6538.1	6087.3	6000.5
35°	17049.6	16416.8	14291.5	12132.7	10139.0	8627.0	7431.4	6697.7	6137.7	5675.7	5583.3
37.5°	18855.6	17926.0	14798.3	11743.5	9402.6	7885.0	6921.8	6370.1	5860.5	5314.5	5202.5
40°	20860.5	19701.2	15391.9	11365.5	8702.6	7333.4	6588.5	6216.1	5681.3	5082.1	4975.7
42.5°	22758.9	21487.7	16282.4	10875.4	8036.2	6891.0	6468.1	6171.3	5597.3	4981.3	4866.5
45°	24511.7	23058.5	17200.8	10382.6	7358.6	6529.7	6367.3	6039.7	5468.5	4863.7	4732.1
47.5°	25942.6	24296.1	18012.8	9873.0	6762.2	6246.9	6174.1	5787.7	5241.7	4673.3	4550.1
50°	26981.4	25245.4	18488.8	9399.8	6188.1	5964.1	5835.3	5429.3	4922.5	4449.3	4359.7
52.5°	27717.8	26065.8	18726.8	9346.6	5667.3	5583.3	5440.5	5059.7	4653.7	4286.9	4180.5
55°	28286.2	26513.8	18522.4	9035.8	5174.5	5104.5	4956.1	4720.9	4477.3	4135.7	4065.7
57.5°	28594.2	26718.2	18054.8	7621.8	4650.9	4530.5	4510.9	4460.5	4247.7	3908.9	3855.7
60°	28661.4	26393.4	16996.4	5796.1	4102.1	4023.7	4172.1	4107.7	3917.3	3665.3	3589.7
62.5°	28398.2	25699.0	14988.7	4334.5	3645.7	3774.5	3925.7	3827.7	3606.5	3360.1	3312.5
65°	27449.0	24105.7	12079.5	3374.1	3435.7	3656.9	3791.3	3673.7	3404.9	3124.9	3094.1
67.5°	25592.6	21624.9	7952.2	3035.3	3337.7	3558.9	3710.1	3522.5	3250.9	2948.5	2912.1
70°	22112.1	17094.4	3788.5	2830.9	3150.1	3368.5	3488.9	3276.1	3012.9	2716.1	2676.9
72.5°	17077.6	11617.5	2091.6	2606.9	2917.7	3119.3	3206.1	2954.1	2710.5	2587.3	2576.1
75°	10279.0	4992.5	1890.0	2385.7	2618.1	2805.7	2959.7	2769.3	2556.5	2315.7	2254.1
77.5°	3393.7	1450.4	1778.0	2122.4	2385.7	2612.5	2685.3	2500.5	2234.4	2030.0	2013.2
80°	1190.0	1215.2	1657.6	1766.8	2077.6	2268.1	2349.3	2136.4	2010.4	1797.6	1755.6
82.5°	968.8	1089.2	1338.4	1332.8	1640.8	1864.8	1988.0	1934.8	1769.6	1598.8	1582.0
85°	792.4	996.8	848.4	932.4	1176.0	1419.6	1654.8	1660.4	1534.4	1360.8	1246.0
87.5°	470.4	509.6	422.8	476.0	621.6	798.0	924.0	882.0	722.4	610.4	596.4
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)