

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: P591433

Luminaire Tested: **CTN-CA6-230-740-U-T1-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591433
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-CA6-230-740-U-T1-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (6) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29286 lumens
Efficiency: N/A
Efficacy: 128.6 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

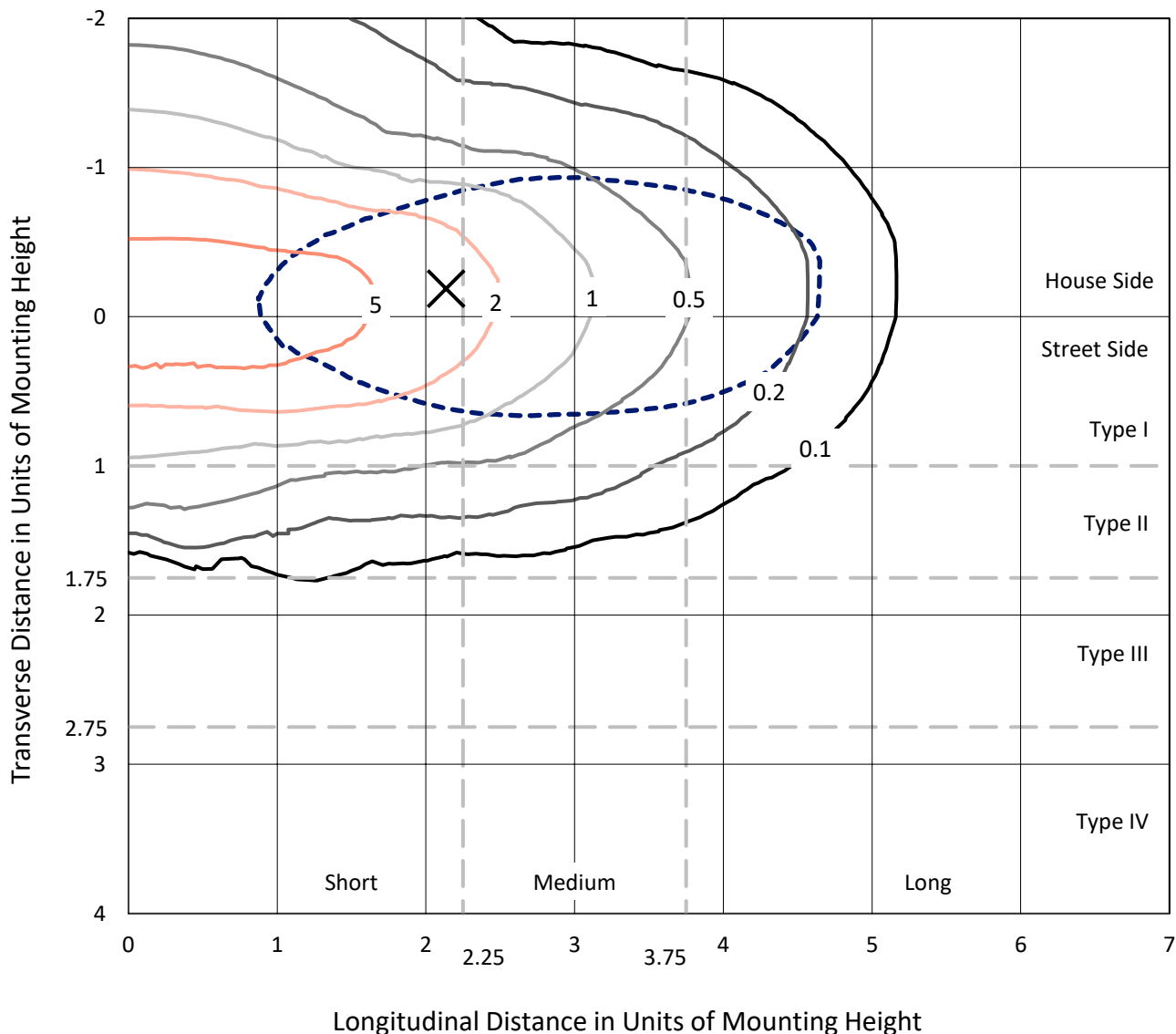
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

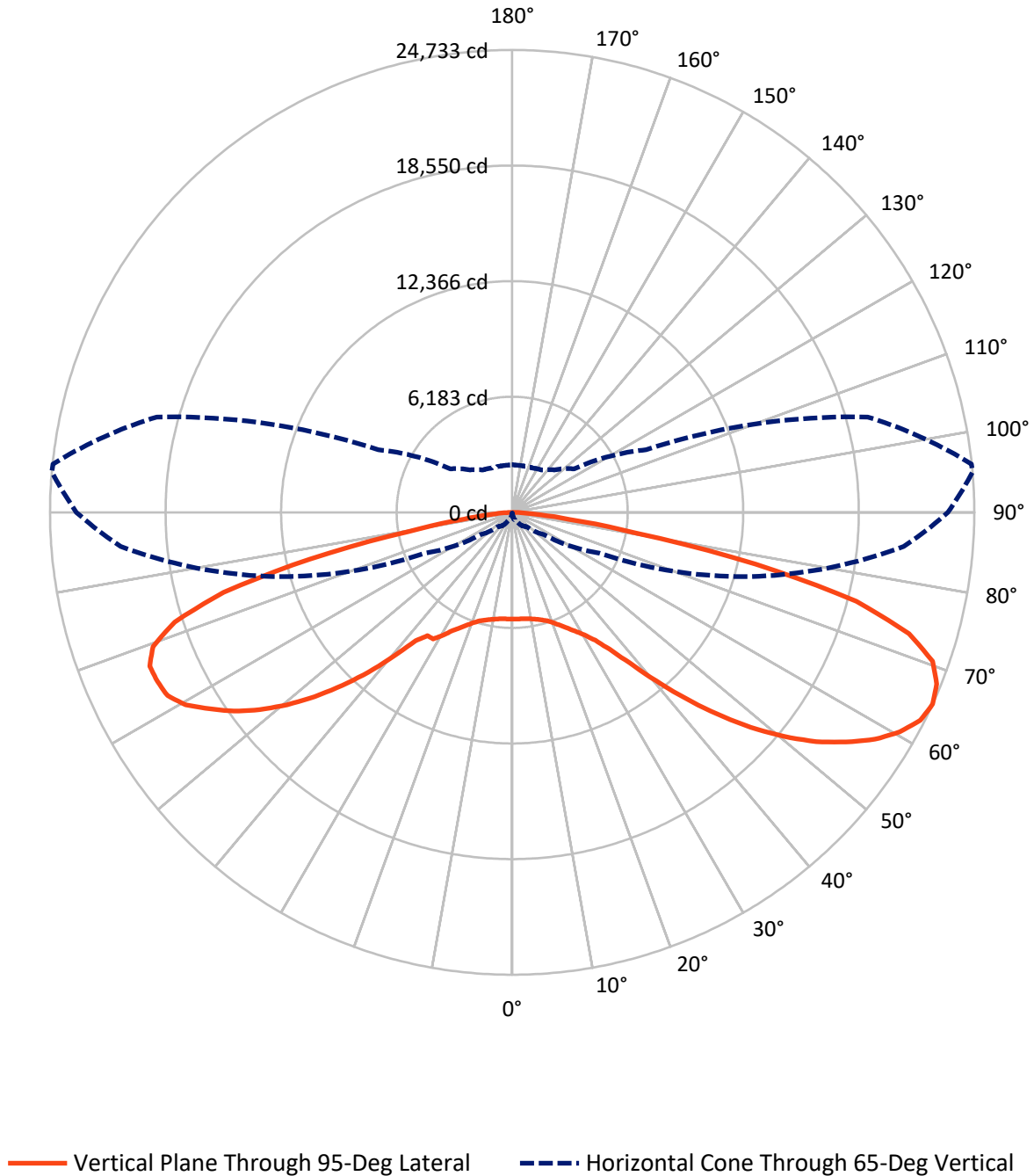
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.1 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot





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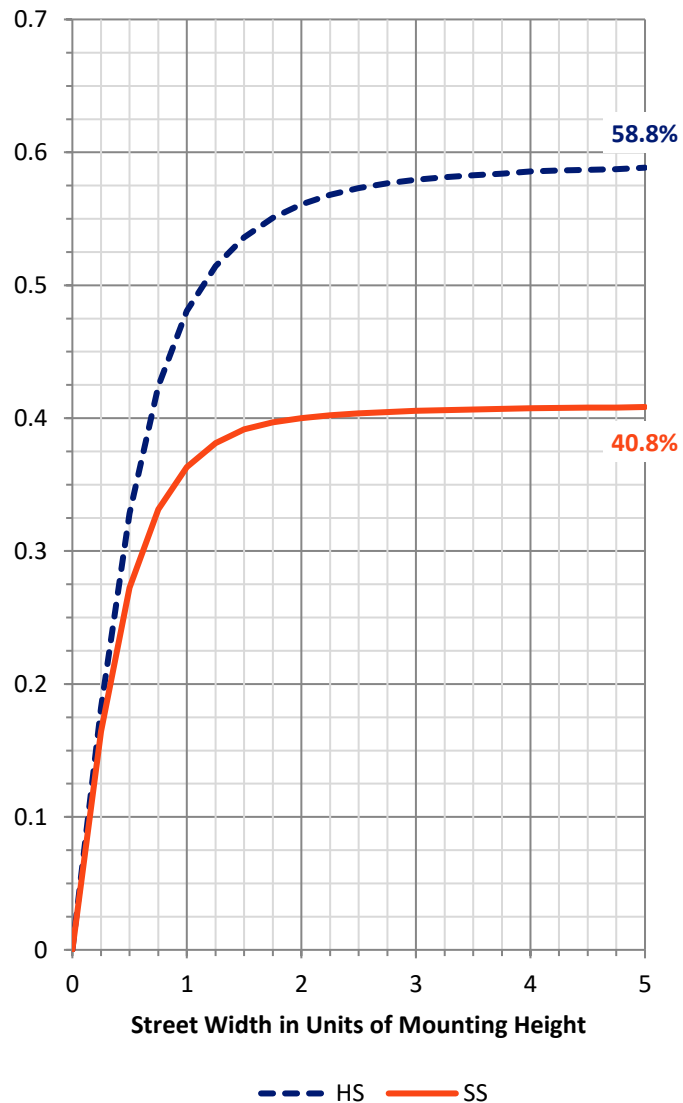
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17364.9	0.0	17364.9
	% Fixture	59.3	0.0	59.3
Street Side	Lumens	11921.1	0.0	11921.1
	% Fixture	40.7	0.0	40.7
Total	Lumens	29286.0	0.0	29286.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	543.4	1.9
10°-20°	1564.7	5.3
20°-30°	2351.8	8.0
30°-40°	3279.0	11.2
40°-50°	4707.6	16.1
50°-60°	6001.0	20.5
60°-70°	6248.3	21.3
70°-80°	4023.6	13.7
80°-90°	566.7	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°	29286.0	100.0
0°-180°	29286.0	100.0

Coefficient of Utilization

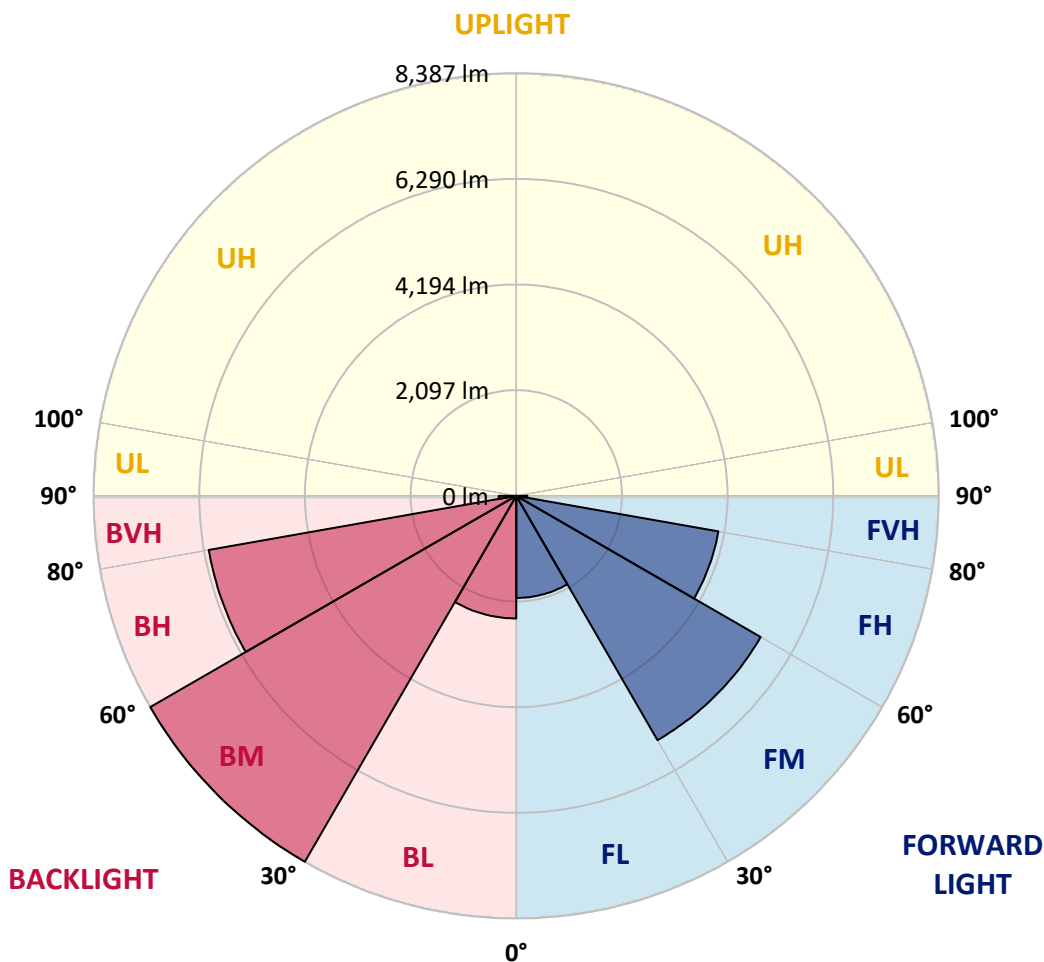


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2026.6	6.9			
FM (30°-60°)	5600.6	19.1			
FH (60°-80°)	4073.6	13.9			G2/5000
FVH (80°-90°)	220.4	0.8			G2/225
BL (0°-30°)	2433.3	8.3	B3/2500		
BM (30°-60°)	8387.0	28.6	B4/8500		
BH (60°-80°)	6198.3	21.2	B5		G5
BVH (80°-90°)	346.3	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°	5707.7	5707.7	5707.7	5707.7	5707.7	5707.7	5707.7	5707.7	5707.7	5707.7	5707.7
2.5°	5724.8	5677.9	5687.5	5733.3	5649.2	5694.9	5660.9	5716.2	5702.4	5706.7	5733.3
5°	5676.8	5628.9	5647.0	5703.5	5624.7	5680.0	5654.5	5700.3	5696.0	5712.0	5729.0
7.5°	5633.2	5582.1	5605.5	5647.0	5604.4	5652.4	5638.5	5696.0	5693.9	5740.7	5752.4
10°	5584.2	5537.3	5557.6	5608.7	5573.5	5631.1	5642.8	5710.9	5733.3	5797.2	5802.5
12.5°	5497.9	5452.2	5461.7	5526.7	5532.0	5619.3	5659.8	5767.4	5790.8	5864.3	5867.5
15°	5189.1	5178.5	5269.0	5373.4	5415.9	5545.9	5681.1	5828.1	5863.2	5955.8	5965.4
17.5°	4320.2	4213.7	4054.0	4180.7	4459.7	4818.6	5630.0	5918.6	5983.5	6076.2	6104.9
20°	2897.5	2994.4	3355.4	3517.3	3765.4	4370.2	5617.2	6016.5	6157.1	6268.9	6323.2
22.5°	2393.8	2388.5	2820.9	3366.1	3560.9	3838.9	5163.6	6132.6	6365.8	6511.7	6579.9
25°	2223.5	2225.6	2304.4	2993.4	3475.7	3769.7	4742.9	5980.3	6594.8	6803.5	6884.4
27.5°	2088.2	2096.7	2163.8	2397.0	3403.3	3754.7	4754.7	5544.8	6836.5	7115.5	7209.2
30°	1980.7	1976.4	2057.3	2252.2	2832.6	3760.1	4810.0	5632.1	6611.8	7558.5	7610.7
32.5°	1891.2	1879.5	1961.5	2157.4	2473.7	3718.5	4893.1	5877.0	6453.1	7984.4	8187.8
35°	1805.0	1800.7	1873.1	2065.9	2388.5	3088.1	4990.0	6180.5	6968.5	7998.3	8980.1
37.5°	1737.9	1734.7	1792.2	1974.3	2311.8	2813.4	5069.9	6562.8	7639.4	8589.3	9636.0
40°	1683.6	1675.0	1720.8	1893.3	2224.5	2767.6	4416.0	6962.1	8458.3	9968.3	11224.8
42.5°	1637.8	1626.1	1670.8	1813.5	2140.4	2716.5	4100.8	7364.7	9420.9	11503.8	12770.0
45°	1574.9	1573.9	1619.7	1752.8	2050.9	2642.0	4130.6	6692.7	10502.9	12973.4	14392.8
47.5°	1543.0	1535.5	1569.6	1696.3	1966.8	2529.1	4101.9	6405.2	11331.3	14448.2	15974.2
50°	1493.0	1486.6	1519.6	1631.4	1883.8	2386.4	3997.5	6582.0	10648.7	15845.3	17460.7
52.5°	1403.5	1155.4	1470.6	1577.1	1794.3	2232.0	3799.5	6680.0	10913.9	17140.2	18845.1
55°	551.6	740.1	1407.8	1508.9	1702.7	2087.2	3499.2	6652.3	11791.3	18299.9	20037.7
57.5°	480.3	482.4	935.0	1259.7	1594.1	1935.9	3132.9	6494.7	12565.5	19292.3	21199.5
60°	68.2	69.2	473.9	530.3	1045.7	1375.8	2760.2	6212.5	13024.5	20284.8	22201.6
62.5°	45.8	47.9	431.3	481.3	954.1	1220.3	2414.1	5710.9	13246.0	20887.5	22923.5
65°	33.0	34.1	390.8	435.5	849.8	1083.0	2092.5	5165.7	13266.2	21027.0	23319.7
67.5°	30.9	31.9	359.9	401.5	773.1	961.6	1814.5	4685.4	12707.1	21068.5	23303.7
70°	31.9	31.9	328.0	363.1	685.8	833.8	1505.7	4207.3	11297.2	20525.4	22779.8
72.5°	31.9	33.0	286.5	319.5	591.0	706.0	1234.2	3420.4	9149.4	18987.8	21514.7
75°	31.9	33.0	225.8	264.1	490.9	566.5	1012.7	2758.0	7046.3	16024.2	18823.8
77.5°	33.0	33.0	166.1	202.3	379.1	425.9	768.8	2119.1	5192.3	11107.7	13105.4
80°	33.0	35.1	117.1	149.1	280.1	307.7	558.0	1352.4	2796.4	5633.2	6506.4
82.5°	34.1	35.1	87.3	111.8	193.8	221.5	340.8	665.5	1292.8	2606.8	2952.9
85°	31.9	33.0	71.3	77.7	110.7	133.1	211.9	330.1	454.7	1025.5	1065.9
87.5°	22.4	21.3	22.4	25.6	36.2	58.6	100.1	111.8	109.7	275.8	320.5
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°	5707.7	5707.7	5707.7	5707.7	5707.7	5707.7	5707.7	5707.7	5707.7	5707.7	5707.7
2.5°	5717.3	5719.4	5710.9	5743.9	5710.9	5729.0	5681.1	5755.6	5748.2	5728.0	5753.5
5°	5716.2	5721.6	5719.4	5749.3	5707.7	5722.6	5674.7	5753.5	5726.9	5708.8	5739.7
7.5°	5741.8	5749.3	5746.1	5766.3	5718.4	5717.3	5670.5	5729.0	5703.5	5665.1	5703.5
10°	5798.2	5798.2	5788.7	5800.4	5731.2	5723.7	5644.9	5712.0	5668.3	5634.2	5681.1
12.5°	5870.6	5877.0	5852.5	5850.4	5754.6	5732.2	5633.2	5666.2	5603.4	5571.4	5617.2
15°	5977.1	5981.4	5949.5	5929.2	5812.1	5763.1	5603.4	5597.0	5509.7	5478.8	5511.8
17.5°	6100.7	6099.6	6054.9	6046.4	5909.0	5795.0	5578.9	5512.9	5401.0	5365.9	5394.7
20°	6298.7	6287.0	6238.0	6189.0	5988.9	5815.3	5543.7	5405.3	5249.8	5199.8	5223.2
22.5°	6564.9	6560.7	6484.0	6342.4	6074.0	5834.4	5484.1	5274.3	5067.7	4977.2	4992.1
25°	6856.7	6853.5	6743.8	6531.9	6148.6	5848.3	5414.9	5127.4	4848.4	4711.0	4707.8
27.5°	7195.4	7186.8	7038.8	6736.4	6251.9	5852.5	5340.3	4971.9	4631.1	4459.7	4467.1
30°	7607.5	7592.6	7390.2	6963.2	6382.9	5865.3	5276.5	4797.3	4428.8	4246.7	4242.5
32.5°	8153.7	8132.4	7818.3	7261.4	6552.2	5897.3	5199.8	4624.7	4240.3	4057.2	4041.2
35°	8985.4	8941.7	8422.1	7642.6	6740.7	5918.6	5077.3	4460.8	4058.2	3885.7	3872.9
37.5°	10216.4	10142.9	9182.4	8043.0	6928.1	5914.3	4937.8	4284.0	3910.2	3743.0	3739.8
40°	11839.3	11724.3	10095.0	8472.1	7108.0	5890.9	4787.7	4126.4	3786.7	3642.9	3653.6
42.5°	13614.4	13493.0	11176.9	8908.7	7243.3	5818.5	4626.9	3977.3	3672.8	3557.7	3558.8
45°	15403.4	15290.5	12421.8	9319.8	7310.4	5682.2	4459.7	3835.7	3552.4	3452.3	3464.0
47.5°	17184.9	17101.9	13654.9	9666.9	7277.3	5468.1	4258.4	3701.5	3433.2	3351.2	3377.8
50°	18841.9	18753.5	14968.9	9954.4	7111.2	5170.0	4051.8	3569.5	3336.2	3264.9	3287.3
52.5°	20377.4	20259.2	16376.7	10120.6	6812.0	4855.8	3869.8	3453.4	3242.5	3171.2	3194.6
55°	21681.9	21676.6	17665.2	10134.4	6344.5	4534.2	3694.0	3319.2	3151.0	3092.4	3097.7
57.5°	22903.3	22951.2	18773.7	9966.2	5790.8	4236.1	3492.8	3180.8	3045.5	2984.8	2990.2
60°	23836.1	23895.8	19525.5	9476.3	5200.8	3907.0	3276.6	3033.8	2914.6	2857.1	2874.1
62.5°	24505.9	24429.3	19923.8	8773.5	4609.8	3553.5	3042.3	2846.4	2751.6	2716.5	2717.6
65°	24732.8	24708.3	19690.6	7907.8	4051.8	3205.3	2765.5	2613.2	2554.6	2530.1	2548.2
67.5°	24500.6	24515.5	18782.2	7171.9	3521.5	2812.3	2454.5	2356.6	2326.7	2325.7	2344.9
70°	23864.9	23747.8	16898.5	6584.1	3024.2	2375.7	2120.2	2073.3	2063.7	2087.2	2103.1
72.5°	22203.7	22033.3	14013.7	5648.1	2321.4	1747.5	1605.8	1669.7	1667.6	1680.4	1695.3
75°	19021.8	18573.5	10976.7	4497.0	1719.8	1236.3	1071.3	1069.1	1065.9	1174.6	1214.0
77.5°	13332.2	13033.0	8103.7	3424.6	1143.7	740.1	734.8	792.3	801.9	730.5	744.3
80°	6688.5	6819.5	4676.9	2115.9	760.3	521.8	547.3	538.8	546.3	554.8	560.1
82.5°	3082.8	3148.8	2238.4	1030.8	489.8	396.1	374.8	407.8	422.8	421.7	418.5
85°	1093.6	1100.0	708.1	441.9	300.3	257.7	262.0	304.6	321.6	306.7	299.2
87.5°	317.3	301.4	144.8	131.0	138.4	137.4	141.6	150.1	161.9	159.7	148.0
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)