

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: P591385

Luminaire Tested: **CTN-CA10-210-740-U-T1-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591385
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-CA10-210-740-U-T1-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D 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: 29666 lumens
Efficiency: N/A
Efficacy: 139.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

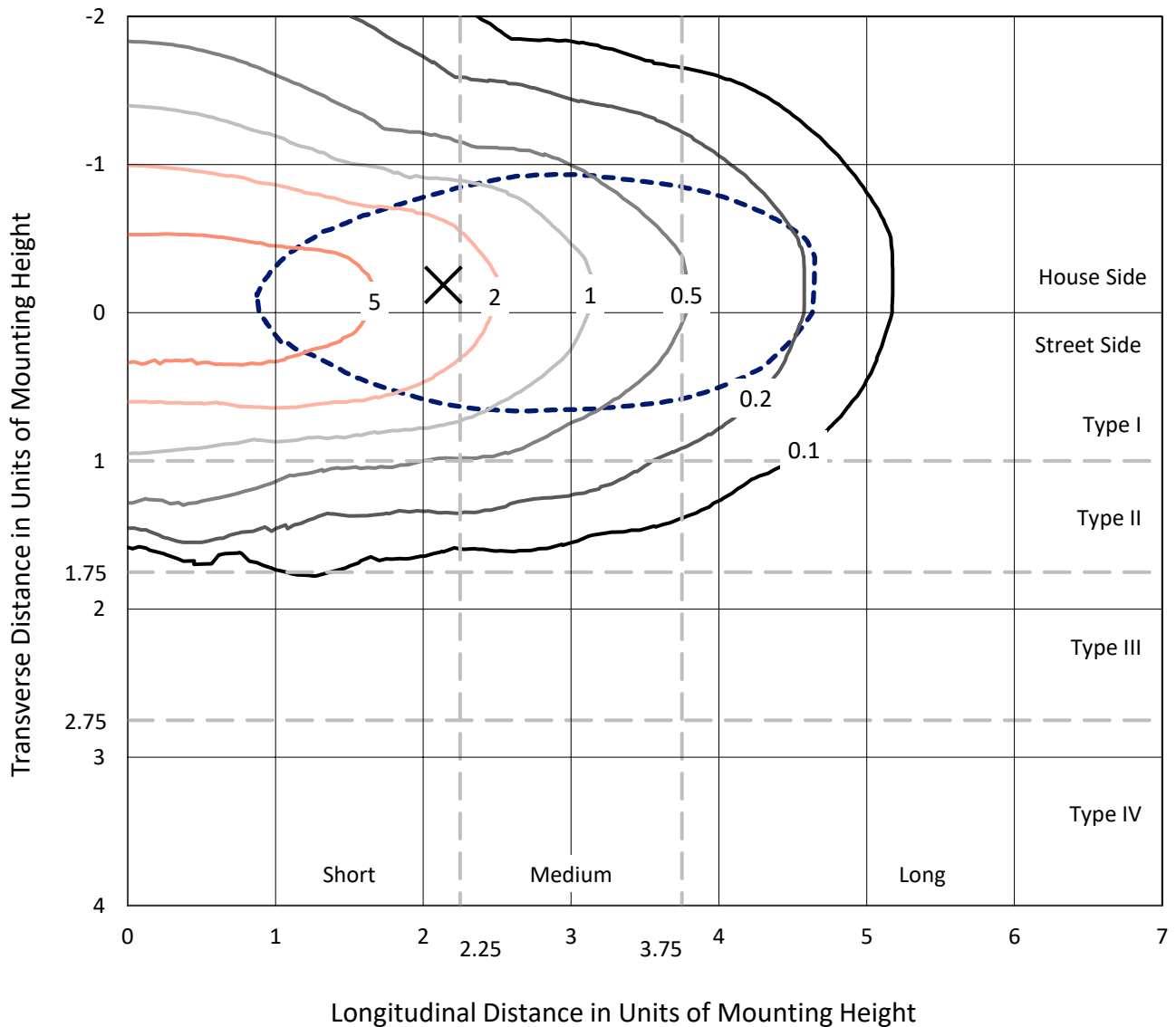
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

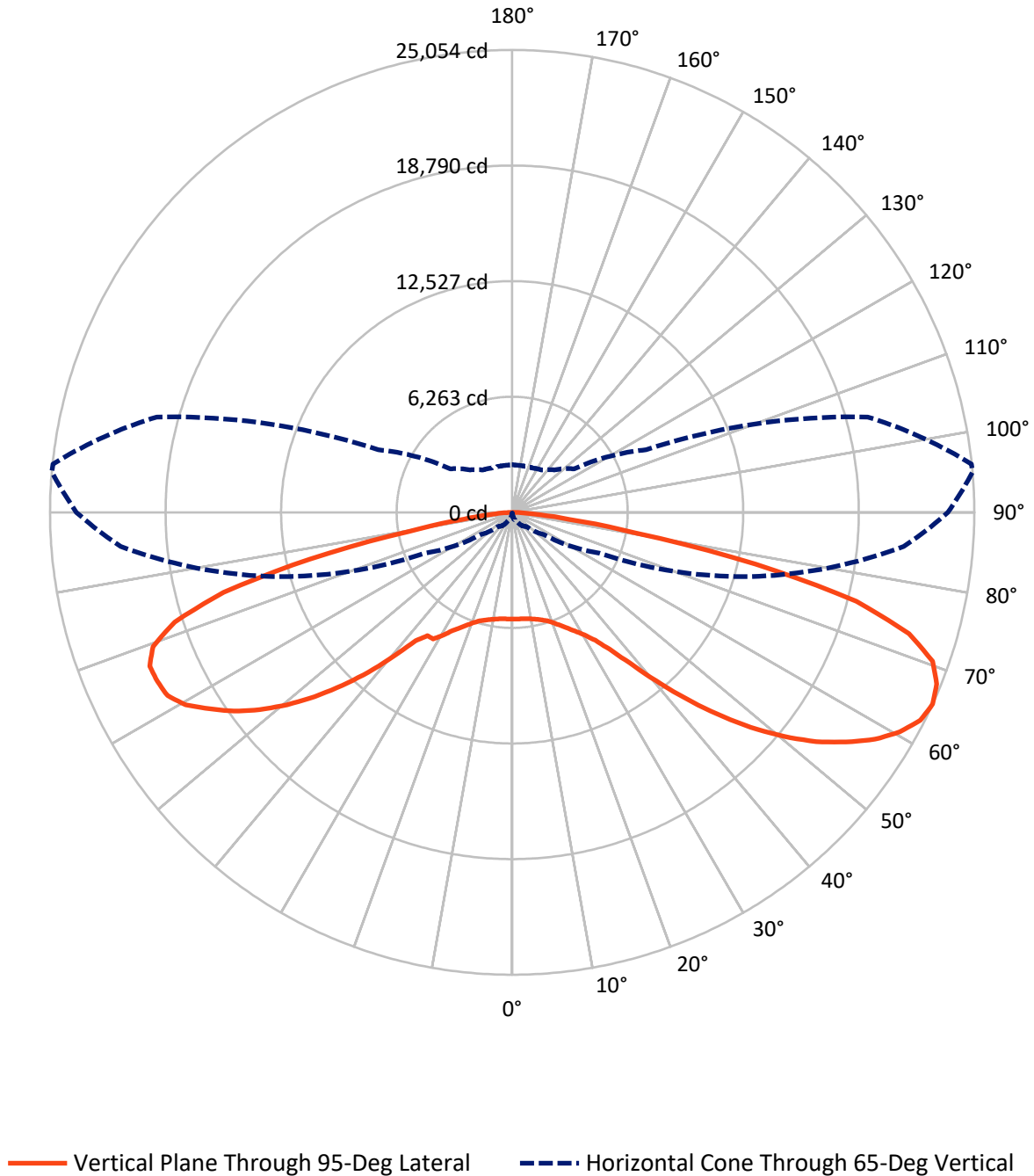
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.3 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



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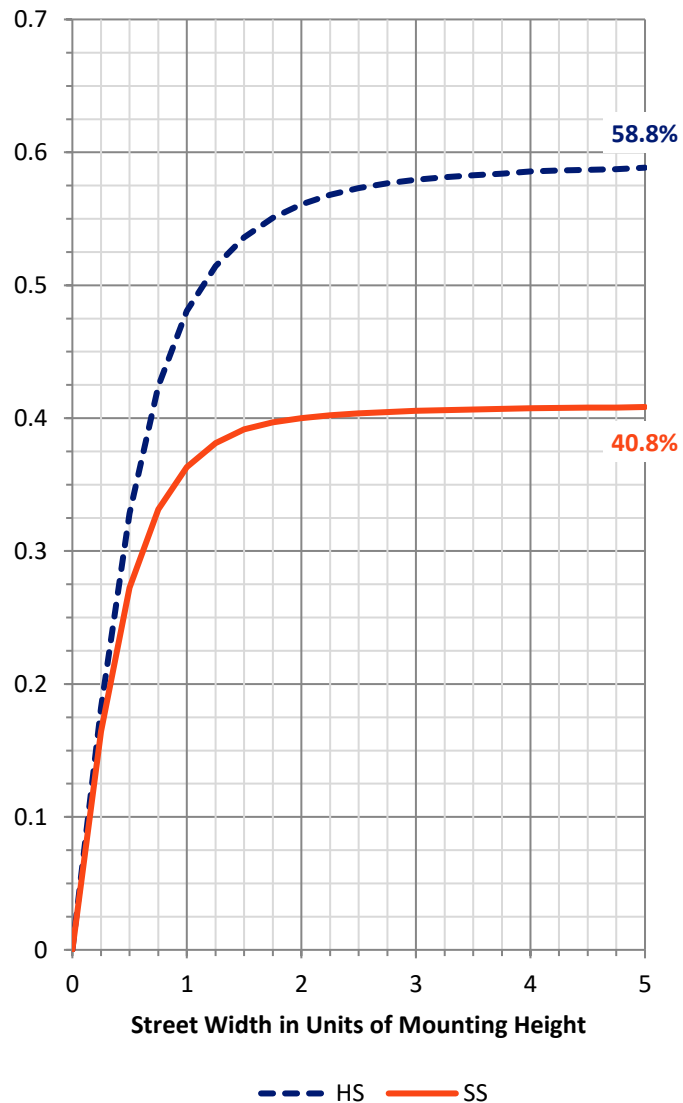
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17590.2	0.0	17590.2
	% Fixture	59.3	0.0	59.3
Street Side	Lumens	12075.8	0.0	12075.8
	% Fixture	40.7	0.0	40.7
Total	Lumens	29666.0	0.0	29666.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	550.4	1.9
10°-20°	1585.0	5.3
20°-30°	2382.3	8.0
30°-40°	3321.5	11.2
40°-50°	4768.7	16.1
50°-60°	6078.9	20.5
60°-70°	6329.4	21.3
70°-80°	4075.8	13.7
80°-90°	574.0	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°	29666.0	100.0
0°-180°	29666.0	100.0

Coefficient of Utilization

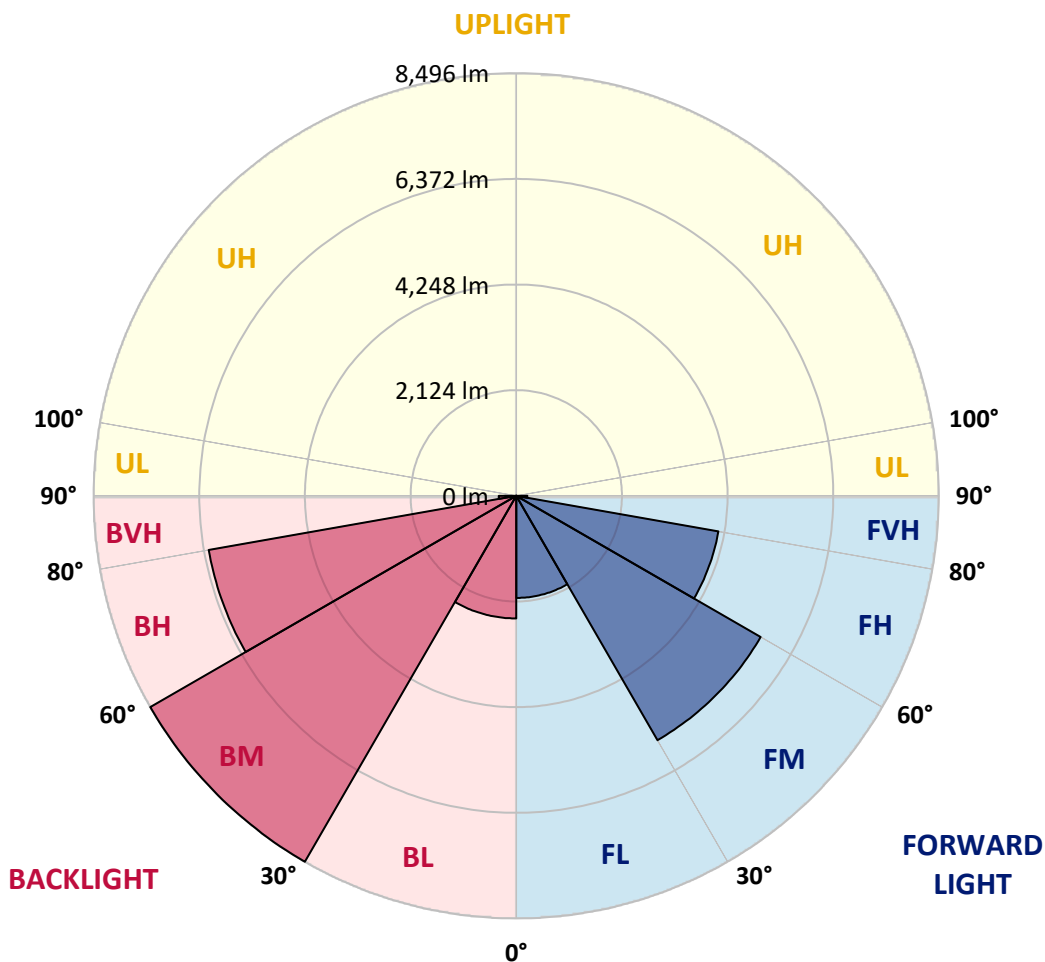


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2052.9	6.9			
FM (30°-60°)	5673.2	19.1			
FH (60°-80°)	4126.5	13.9			G2/5000
FVH (80°-90°)	223.2	0.8			G2/225
BL (0°-30°)	2464.8	8.3	B3/2500		
BM (30°-60°)	8495.9	28.6	B4/8500		
BH (60°-80°)	6278.7	21.2	B5		G5
BVH (80°-90°)	350.8	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°	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8
2.5°	5799.0	5751.6	5761.3	5807.7	5722.5	5768.8	5734.3	5790.4	5776.4	5780.7	5807.7
5°	5750.5	5702.0	5720.3	5777.5	5697.6	5753.7	5727.9	5774.2	5769.9	5786.1	5803.4
7.5°	5706.3	5654.5	5678.2	5720.3	5677.2	5725.7	5711.7	5769.9	5767.8	5815.2	5827.1
10°	5656.7	5609.2	5629.7	5681.5	5645.9	5704.1	5716.0	5785.0	5807.7	5872.4	5877.8
12.5°	5569.3	5522.9	5532.6	5598.4	5603.8	5692.3	5733.2	5842.2	5865.9	5940.4	5943.6
15°	5256.5	5245.7	5337.4	5443.1	5486.2	5617.8	5754.8	5903.7	5939.3	6033.1	6042.8
17.5°	4376.3	4268.4	4106.6	4234.9	4517.6	4881.1	5703.0	5995.4	6061.2	6155.0	6184.1
20°	2935.1	3033.3	3399.0	3562.9	3814.3	4426.9	5690.1	6094.6	6237.0	6350.3	6405.3
22.5°	2424.9	2419.5	2857.5	3409.7	3607.1	3888.7	5230.6	6212.2	6448.4	6596.2	6665.2
25°	2252.3	2254.5	2334.3	3032.2	3520.8	3818.6	4804.5	6057.9	6680.3	6891.8	6973.7
27.5°	2115.3	2123.9	2191.9	2428.1	3447.5	3803.5	4816.4	5616.7	6925.2	7207.8	7302.7
30°	2006.4	2002.1	2084.0	2281.4	2869.3	3808.9	4872.4	5705.2	6697.6	7656.5	7709.4
32.5°	1915.8	1903.9	1986.9	2185.4	2505.8	3766.8	4956.6	5953.3	6536.9	8088.0	8294.1
35°	1828.4	1824.1	1897.4	2092.7	2419.5	3128.2	5054.7	6260.7	7059.0	8102.0	9096.6
37.5°	1760.4	1757.2	1815.4	1999.9	2341.8	2849.9	5135.6	6648.0	7738.5	8700.7	9761.1
40°	1705.4	1696.8	1743.2	1917.9	2253.4	2803.5	4473.3	7052.5	8568.0	10097.6	11370.5
42.5°	1659.0	1647.2	1692.5	1837.0	2168.2	2751.7	4154.0	7460.2	9543.2	11653.1	12935.7
45°	1595.4	1594.3	1640.7	1775.5	2077.6	2676.2	4184.2	6779.6	10639.1	13141.7	14579.6
47.5°	1563.0	1555.5	1590.0	1718.4	1992.3	2561.9	4155.1	6488.3	11478.4	14635.7	16181.4
50°	1512.3	1505.9	1539.3	1652.6	1908.2	2417.3	4049.4	6667.4	10786.9	16050.9	17687.3
52.5°	1421.7	1170.4	1489.7	1597.5	1817.6	2260.9	3848.8	6766.6	11055.5	17362.6	19089.6
55°	558.8	749.7	1426.0	1528.5	1724.8	2114.2	3544.6	6738.6	11944.3	18537.3	20297.7
57.5°	486.5	488.6	947.1	1276.1	1614.8	1961.1	3173.5	6578.9	12728.6	19542.6	21474.6
60°	69.0	70.1	480.0	537.2	1059.3	1393.7	2796.0	6293.1	13193.5	20548.0	22489.6
62.5°	46.4	48.5	436.9	487.6	966.5	1236.2	2445.4	5785.0	13417.8	21158.5	23221.0
65°	33.4	34.5	395.9	441.2	860.8	1097.0	2119.6	5232.7	13438.3	21299.8	23622.3
67.5°	31.3	32.4	364.6	406.7	783.1	974.1	1838.1	4746.2	12872.0	21341.9	23606.1
70°	32.4	32.4	332.2	367.8	694.7	844.6	1525.3	4261.9	11443.8	20791.8	23075.4
72.5°	32.4	33.4	290.2	323.6	598.7	715.2	1250.2	3464.8	9268.1	19234.1	21793.9
75°	32.4	33.4	228.7	267.5	497.3	573.9	1025.8	2793.8	7137.7	16232.1	19068.0
77.5°	33.4	33.4	168.3	205.0	384.0	431.5	778.8	2146.6	5259.7	11251.8	13275.5
80°	33.4	35.6	118.7	151.0	283.7	311.7	565.2	1369.9	2832.6	5706.3	6590.8
82.5°	34.5	35.6	88.5	113.3	196.3	224.4	345.2	674.2	1309.5	2640.6	2991.2
85°	32.4	33.4	72.3	78.7	112.2	134.8	214.7	334.4	460.6	1038.8	1079.8
87.5°	22.7	21.6	22.7	25.9	36.7	59.3	101.4	113.3	111.1	279.4	324.7
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°	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8
2.5°	5791.5	5793.7	5785.0	5818.5	5785.0	5803.4	5754.8	5830.3	5822.8	5802.3	5828.2
5°	5790.4	5795.8	5793.7	5823.9	5781.8	5796.9	5748.3	5828.2	5801.2	5782.9	5814.1
7.5°	5816.3	5823.9	5820.6	5841.1	5792.6	5791.5	5744.0	5803.4	5777.5	5738.6	5777.5
10°	5873.5	5873.5	5863.8	5875.6	5805.5	5798.0	5718.1	5786.1	5741.9	5707.4	5754.8
12.5°	5946.8	5953.3	5928.5	5926.3	5829.2	5806.6	5706.3	5739.7	5676.1	5643.7	5690.1
15°	6054.7	6059.0	6026.6	6006.2	5887.5	5837.9	5676.1	5669.6	5581.1	5549.9	5583.3
17.5°	6179.8	6178.7	6133.4	6124.8	5985.7	5870.2	5651.3	5584.4	5471.1	5435.5	5464.6
20°	6380.5	6368.6	6319.0	6269.4	6066.6	5890.7	5615.7	5475.4	5317.9	5267.2	5291.0
22.5°	6650.1	6645.8	6568.2	6424.7	6152.9	5910.1	5555.3	5342.8	5133.5	5041.8	5056.9
25°	6945.7	6942.5	6831.4	6616.7	6228.4	5924.2	5485.1	5193.9	4911.3	4772.1	4768.9
27.5°	7288.7	7280.1	7130.1	6823.8	6333.0	5928.5	5409.6	5036.4	4691.2	4517.6	4525.1
30°	7706.2	7691.1	7486.1	7053.6	6465.7	5941.4	5344.9	4859.5	4486.3	4301.8	4297.5
32.5°	8259.5	8238.0	7919.8	7355.6	6637.2	5973.8	5267.2	4684.8	4295.3	4109.8	4093.6
35°	9102.0	9057.8	8531.4	7741.8	6828.1	5995.4	5143.2	4518.6	4110.9	3936.1	3923.2
37.5°	10349.0	10274.5	9301.6	8147.4	7018.0	5991.1	5001.9	4339.6	3961.0	3791.6	3788.4
40°	11992.9	11876.4	10226.0	8582.1	7200.3	5967.3	4849.8	4179.9	3835.8	3690.2	3701.0
42.5°	13791.1	13668.1	11321.9	9024.3	7337.3	5894.0	4686.9	4028.9	3720.4	3603.9	3605.0
45°	15603.3	15488.9	12582.9	9440.7	7405.2	5755.9	4517.6	3885.4	3598.5	3497.1	3509.0
47.5°	17407.9	17323.8	13832.1	9792.4	7371.8	5539.1	4313.7	3749.5	3477.7	3394.6	3421.6
50°	19086.4	18996.8	15163.2	10083.6	7203.5	5237.0	4104.4	3615.8	3379.5	3307.3	3329.9
52.5°	20641.8	20522.1	16589.2	10251.9	6900.4	4918.8	3920.0	3498.2	3284.6	3212.3	3236.1
55°	21963.2	21957.8	17894.4	10265.9	6426.8	4593.1	3742.0	3362.3	3191.8	3132.5	3137.9
57.5°	23200.5	23249.0	19017.3	10095.5	5865.9	4291.0	3538.1	3222.1	3085.1	3023.6	3029.0
60°	24145.4	24205.8	19778.9	9599.3	5268.3	3957.7	3319.1	3073.2	2952.4	2894.1	2911.4
62.5°	24823.9	24746.3	20182.3	8887.3	4669.7	3599.6	3081.8	2883.3	2787.3	2751.7	2752.8
65°	25053.7	25028.9	19946.1	8010.4	4104.4	3246.9	2801.4	2647.1	2587.8	2563.0	2581.3
67.5°	24818.5	24833.6	19026.0	7265.0	3567.2	2848.8	2486.4	2387.1	2356.9	2355.9	2375.3
70°	24174.5	24055.9	17117.7	6669.5	3063.5	2406.6	2147.7	2100.2	2090.5	2114.2	2130.4
72.5°	22491.8	22319.2	14195.6	5721.4	2351.5	1770.1	1626.7	1691.4	1689.2	1702.2	1717.3
75°	19268.7	18814.5	11119.1	4555.3	1742.1	1252.4	1085.2	1083.0	1079.8	1189.8	1229.7
77.5°	13505.2	13202.1	8208.8	3469.1	1158.5	749.7	744.3	802.5	812.3	740.0	754.0
80°	6775.3	6907.9	4737.6	2143.4	770.2	528.6	554.4	545.8	553.4	562.0	567.4
82.5°	3122.8	3189.7	2267.4	1044.2	496.2	401.3	379.7	413.1	428.2	427.2	423.9
85°	1107.8	1114.3	717.3	447.7	304.2	261.0	265.4	308.5	325.8	310.7	303.1
87.5°	321.4	305.3	146.7	132.7	140.2	139.2	143.5	152.1	164.0	161.8	149.9
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)