

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: P591337

Luminaire Tested: **CTN-CA6-230-730-U-T1-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591337
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-CA6-230-730-U-T1-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (6) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28756 lumens
Efficiency: N/A
Efficacy: 126.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

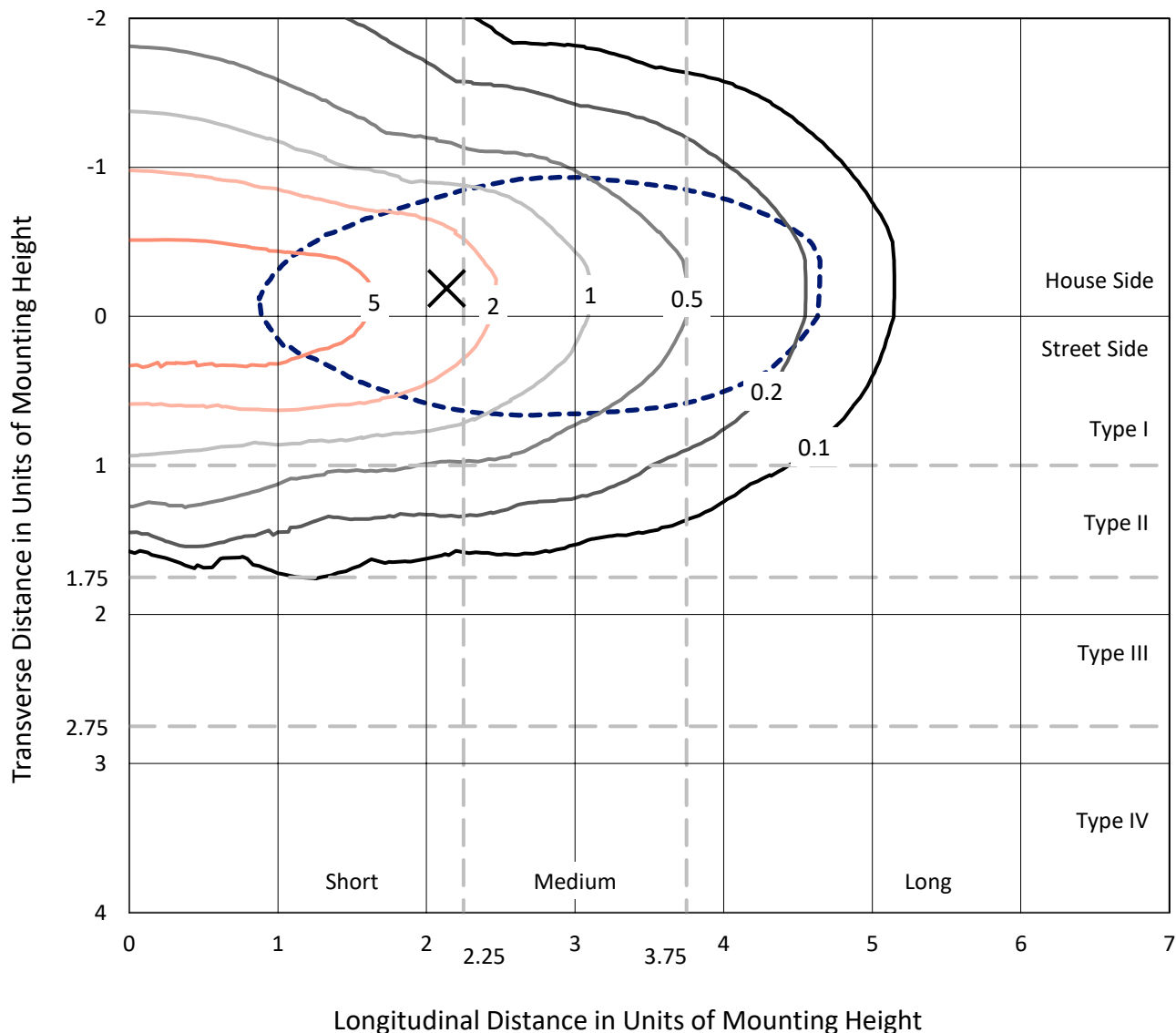
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

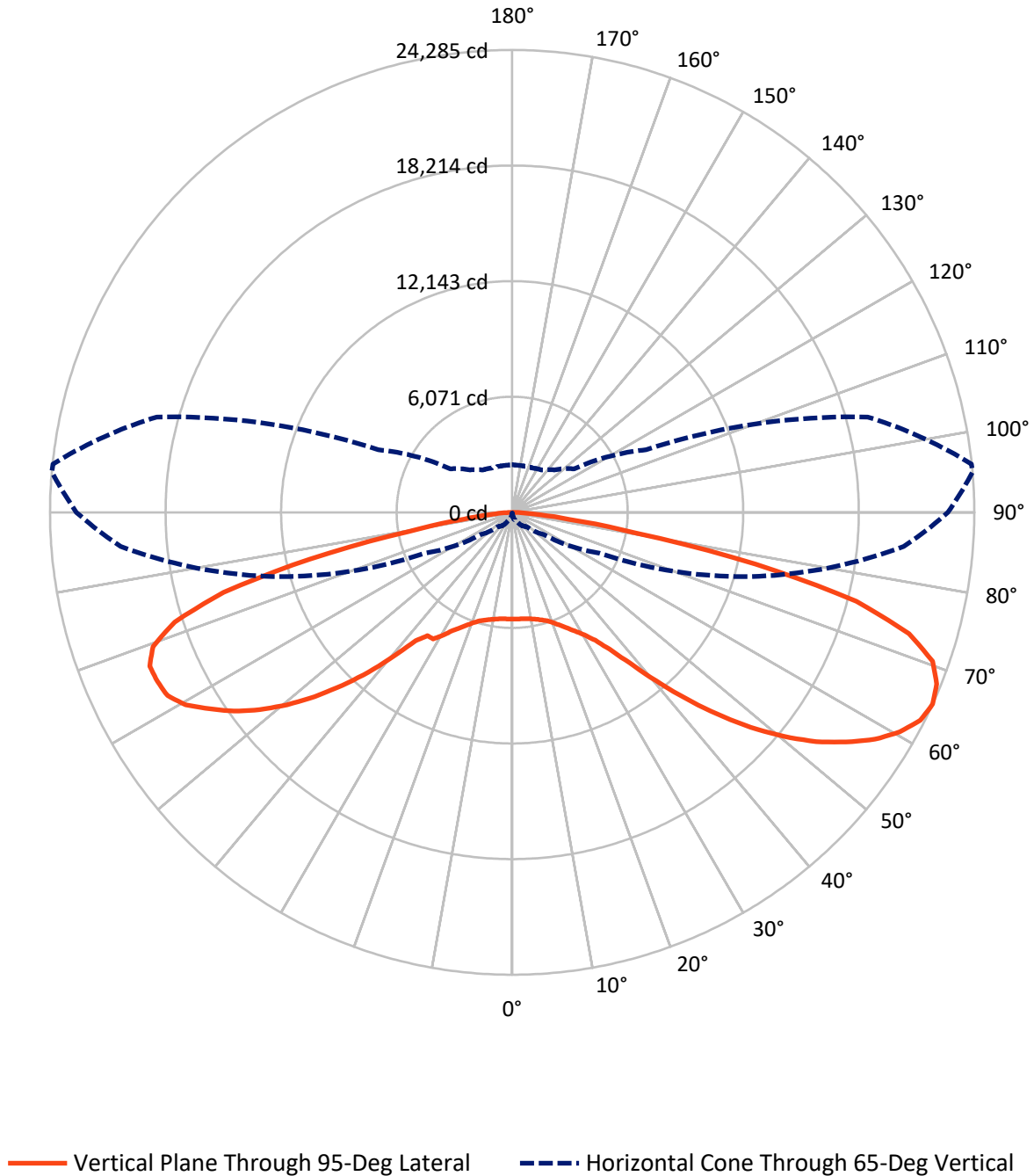
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



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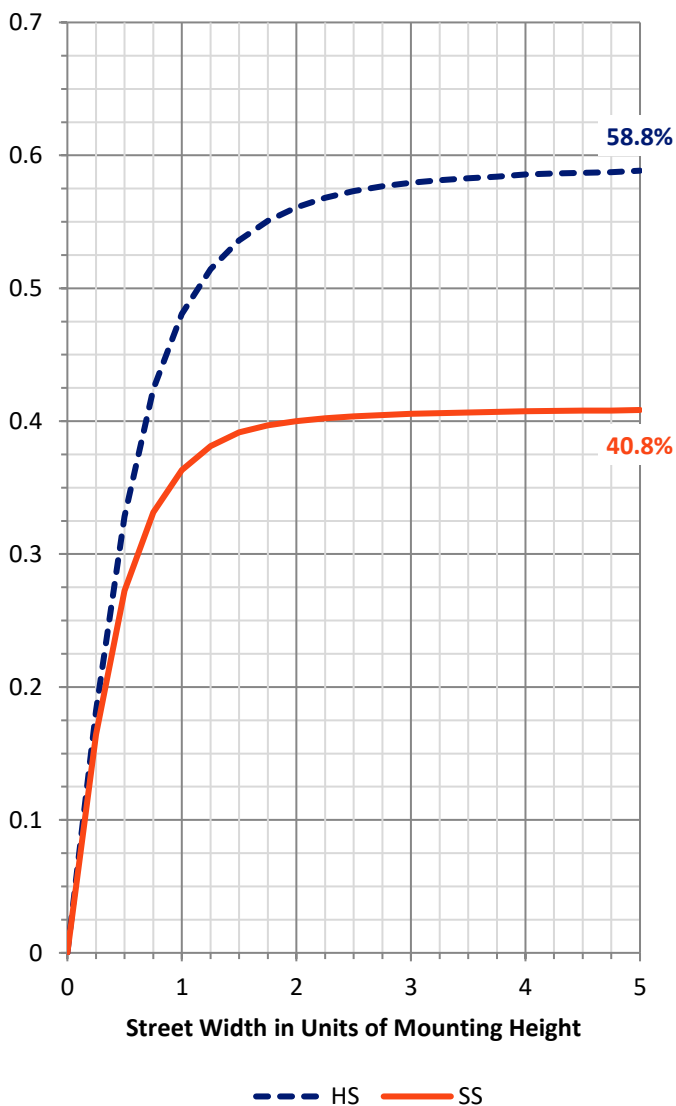
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17050.6	0.0	17050.6
	% Fixture	59.3	0.0	59.3
Street Side	Lumens	11705.4	0.0	11705.4
	% Fixture	40.7	0.0	40.7
Total	Lumens	28756.0	0.0	28756.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	533.5	1.9
10°-20°	1536.4	5.3
20°-30°	2309.2	8.0
30°-40°	3219.6	11.2
40°-50°	4622.4	16.1
50°-60°	5892.4	20.5
60°-70°	6135.2	21.3
70°-80°	3950.8	13.7
80°-90°	556.4	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°	28756.0	100.0
0°-180°	28756.0	100.0

Coefficient of Utilization



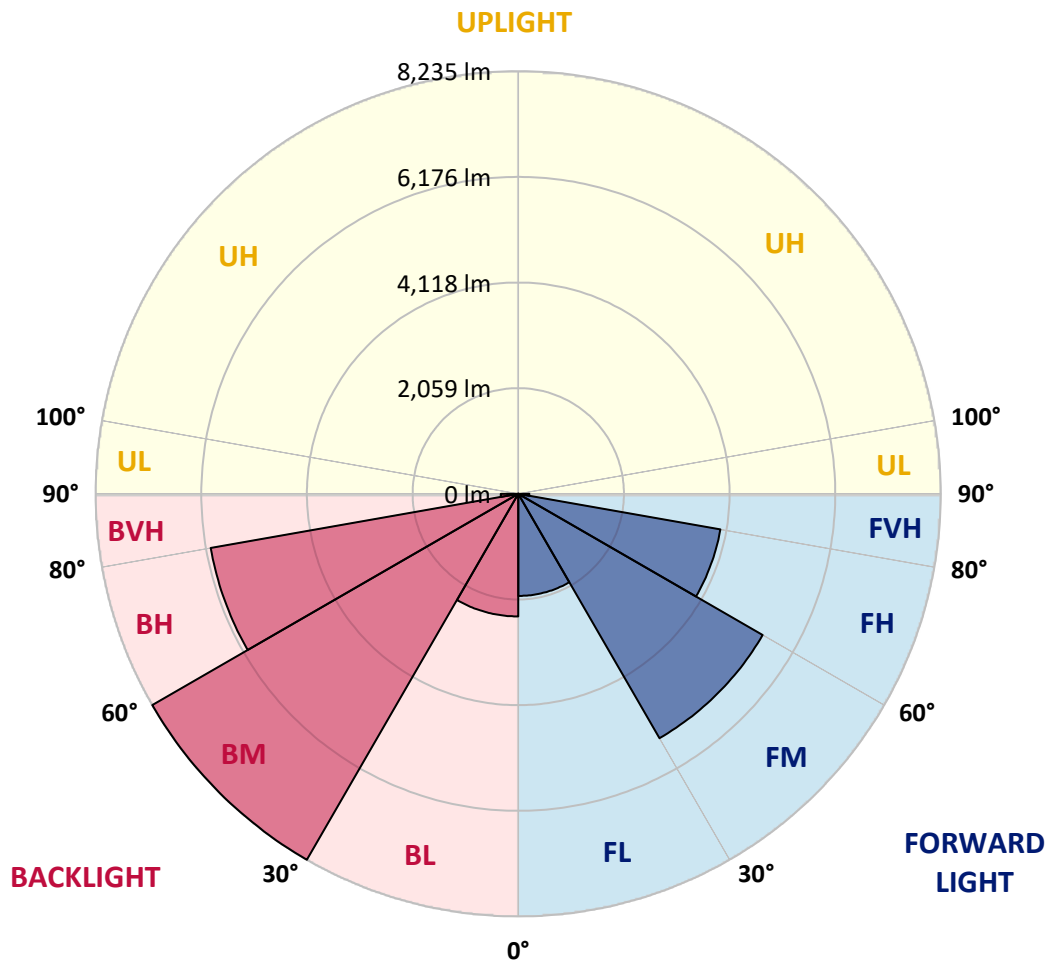
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1989.9	6.9			
FM (30°-60°)	5499.2	19.1			
FH (60°-80°)	3999.9	13.9			G2/5000
FVH (80°-90°)	216.4	0.8			G2/225
BL (0°-30°)	2389.2	8.3	B3/2500		
BM (30°-60°)	8235.3	28.6	B4/8500		
BH (60°-80°)	6086.1	21.2	B5		G5
BVH (80°-90°)	340.0	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°	5604.4	5604.4	5604.4	5604.4	5604.4	5604.4	5604.4	5604.4	5604.4	5604.4	5604.4
2.5°	5621.2	5575.2	5584.6	5629.5	5546.9	5591.9	5558.4	5612.8	5599.2	5603.4	5629.5
5°	5574.1	5527.1	5544.8	5600.2	5522.9	5577.2	5552.1	5597.1	5592.9	5608.6	5625.3
7.5°	5531.2	5481.0	5504.1	5544.8	5503.0	5550.1	5536.5	5592.9	5590.8	5636.8	5648.3
10°	5483.1	5437.1	5457.0	5507.2	5472.7	5529.1	5540.6	5607.6	5629.5	5692.3	5697.5
12.5°	5398.4	5353.5	5362.9	5426.7	5431.9	5517.6	5557.4	5663.0	5686.0	5758.1	5761.3
15°	5095.2	5084.8	5173.6	5276.1	5317.9	5445.5	5578.3	5722.6	5757.1	5848.1	5857.5
17.5°	4242.0	4137.4	3980.6	4105.0	4379.0	4731.4	5528.1	5811.5	5875.2	5966.2	5994.4
20°	2845.1	2940.2	3294.7	3453.6	3697.3	4291.2	5515.6	5907.7	6045.7	6155.5	6208.8
22.5°	2350.5	2345.3	2769.8	3305.1	3496.5	3769.4	5070.1	6021.6	6250.6	6393.9	6460.8
25°	2183.2	2185.3	2262.7	2939.2	3412.8	3701.4	4657.1	5872.1	6475.4	6680.4	6759.8
27.5°	2050.4	2058.8	2124.7	2353.7	3341.7	3686.8	4668.6	5444.5	6712.8	6986.7	7078.7
30°	1944.8	1940.6	2020.1	2211.4	2781.3	3692.0	4723.0	5530.2	6492.1	7421.7	7472.9
32.5°	1857.0	1845.5	1926.0	2118.4	2428.9	3651.2	4804.5	5770.7	6336.4	7839.9	8039.6
35°	1772.3	1768.1	1839.2	2028.5	2345.3	3032.2	4899.7	6068.7	6842.4	7853.5	8817.6
37.5°	1706.4	1703.3	1759.7	1938.5	2270.0	2762.5	4978.1	6444.0	7501.2	8433.8	9461.7
40°	1653.1	1644.7	1689.7	1859.1	2184.3	2717.5	4336.1	6836.1	8305.2	9787.9	11021.7
42.5°	1608.1	1596.6	1640.6	1780.7	2101.7	2667.3	4026.6	7231.4	9250.4	11295.6	12538.9
45°	1546.4	1545.4	1590.4	1721.1	2013.8	2594.1	4055.9	6571.6	10312.8	12738.6	14132.4
47.5°	1515.1	1507.8	1541.2	1665.6	1931.2	2483.3	4027.7	6289.3	11126.3	14186.7	15685.1
50°	1465.9	1459.7	1492.1	1601.9	1849.7	2343.2	3925.2	6462.9	10456.0	15558.6	17144.7
52.5°	1378.1	1134.5	1444.0	1548.5	1761.8	2191.6	3730.7	6559.1	10716.4	16830.0	18504.0
55°	541.6	726.7	1382.3	1481.6	1671.9	2049.4	3435.8	6531.9	11578.0	17968.7	19675.1
57.5°	471.6	473.7	918.0	1236.9	1565.3	1900.9	3076.2	6377.1	12338.1	18943.2	20815.9
60°	66.9	68.0	465.3	520.7	1026.8	1350.9	2710.2	6100.0	12788.8	19917.7	21799.8
62.5°	45.0	47.1	423.5	472.6	936.9	1198.3	2370.4	5607.6	13006.2	20509.5	22508.7
65°	32.4	33.5	383.7	427.7	834.4	1063.4	2054.6	5072.2	13026.1	20646.5	22897.6
67.5°	30.3	31.4	353.4	394.2	759.1	944.2	1781.7	4600.7	12477.2	20687.2	22882.0
70°	31.4	31.4	322.0	356.6	673.4	818.7	1478.5	4131.2	11092.8	20154.0	22367.5
72.5°	31.4	32.4	281.3	313.7	580.3	693.2	1211.9	3358.5	8983.8	18644.1	21125.4
75°	31.4	32.4	221.7	259.3	482.0	556.3	994.4	2708.1	6918.8	15734.2	18483.1
77.5°	32.4	32.4	163.1	198.7	372.2	418.2	754.9	2080.7	5098.4	10906.7	12868.2
80°	32.4	34.5	115.0	146.4	275.0	302.2	547.9	1327.9	2745.8	5531.2	6388.6
82.5°	33.5	34.5	85.7	109.8	190.3	217.5	334.6	653.5	1269.4	2559.6	2899.5
85°	31.4	32.4	70.1	76.3	108.7	130.7	208.1	324.1	446.5	1006.9	1046.6
87.5°	22.0	20.9	22.0	25.1	35.6	57.5	98.3	109.8	107.7	270.8	314.7
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°	5604.4	5604.4	5604.4	5604.4	5604.4	5604.4	5604.4	5604.4	5604.4	5604.4	5604.4
2.5°	5613.8	5615.9	5607.6	5640.0	5607.6	5625.3	5578.3	5651.5	5644.2	5624.3	5649.4
5°	5612.8	5618.0	5615.9	5645.2	5604.4	5619.1	5572.0	5649.4	5623.3	5605.5	5635.8
7.5°	5637.9	5645.2	5642.1	5661.9	5614.9	5613.8	5567.8	5625.3	5600.2	5562.6	5600.2
10°	5693.3	5693.3	5683.9	5695.4	5627.4	5620.1	5542.7	5608.6	5565.7	5532.3	5578.3
12.5°	5764.4	5770.7	5746.6	5744.5	5650.4	5628.5	5531.2	5563.7	5502.0	5470.6	5515.6
15°	5869.0	5873.1	5841.8	5821.9	5706.9	5658.8	5502.0	5495.7	5409.9	5379.6	5412.0
17.5°	5990.3	5989.2	5945.3	5936.9	5802.0	5690.2	5477.9	5413.1	5303.3	5268.8	5297.0
20°	6184.7	6173.2	6125.1	6077.0	5880.5	5710.0	5443.4	5307.5	5154.8	5105.7	5128.7
22.5°	6446.1	6442.0	6366.7	6227.6	5964.1	5728.9	5384.9	5178.9	4976.0	4887.1	4901.8
25°	6732.6	6729.5	6621.8	6413.7	6037.3	5742.4	5316.9	5034.6	4760.6	4625.7	4622.6
27.5°	7065.1	7056.8	6911.4	6614.5	6138.7	5746.6	5243.7	4881.9	4547.3	4379.0	4386.3
30°	7469.8	7455.1	7256.5	6837.2	6267.3	5759.2	5181.0	4710.4	4348.7	4169.9	4165.7
32.5°	8006.2	7985.3	7676.8	7130.0	6433.6	5790.5	5105.7	4541.1	4163.6	3983.7	3968.1
35°	8822.8	8779.9	8269.7	7504.3	6618.7	5811.5	4985.4	4380.0	3984.8	3815.4	3802.9
37.5°	10031.5	9959.4	9016.2	7897.4	6802.7	5807.3	4848.5	4206.5	3839.5	3675.3	3672.2
40°	11625.0	11512.1	9912.3	8318.8	6979.4	5784.3	4701.0	4051.7	3718.2	3577.0	3587.5
42.5°	13368.0	13248.8	10974.6	8747.5	7112.2	5713.2	4543.1	3905.3	3606.3	3493.4	3494.4
45°	15124.6	15013.8	12197.0	9151.1	7178.1	5579.3	4379.0	3766.3	3488.1	3389.8	3401.3
47.5°	16873.9	16792.4	13407.8	9492.0	7145.6	5369.2	4181.4	3634.5	3371.0	3290.5	3316.7
50°	18500.9	18414.1	14698.0	9774.3	6982.5	5076.4	3978.5	3504.9	3275.9	3205.8	3227.8
52.5°	20008.6	19892.6	16080.3	9937.4	6688.7	4767.9	3799.7	3390.9	3183.9	3113.8	3136.8
55°	21289.5	21284.3	17345.5	9951.0	6229.7	4452.2	3627.2	3259.1	3093.9	3036.4	3041.7
57.5°	22488.8	22535.9	18434.0	9785.8	5686.0	4159.4	3429.6	3123.2	2990.4	2930.8	2936.1
60°	23404.8	23463.3	19172.2	9304.8	5106.7	3836.3	3217.3	2978.9	2861.8	2805.4	2822.1
62.5°	24062.4	23987.2	19563.2	8614.7	4526.4	3489.2	2987.3	2794.9	2701.8	2667.3	2668.4
65°	24285.2	24261.1	19334.2	7764.6	3978.5	3147.3	2715.4	2565.9	2508.4	2484.4	2502.1
67.5°	24057.2	24071.9	18442.3	7042.1	3457.8	2761.4	2410.1	2313.9	2284.6	2283.6	2302.4
70°	23433.0	23318.0	16592.7	6465.0	2969.5	2332.7	2081.8	2035.8	2026.4	2049.4	2065.1
72.5°	21801.9	21634.6	13760.1	5545.9	2279.4	1715.8	1576.8	1639.5	1637.4	1650.0	1664.6
75°	18677.6	18237.4	10778.1	4415.6	1688.6	1213.9	1051.9	1049.8	1046.6	1153.3	1192.0
77.5°	13090.9	12797.1	7957.0	3362.7	1123.0	726.7	721.5	777.9	787.3	717.3	730.9
80°	6567.4	6696.0	4592.3	2077.6	746.6	512.3	537.4	529.1	536.4	544.8	550.0
82.5°	3027.0	3091.8	2197.9	1012.1	481.0	389.0	368.1	400.5	415.1	414.1	410.9
85°	1073.8	1080.1	695.3	433.9	294.9	253.0	257.2	299.0	315.8	301.1	293.8
87.5°	311.6	295.9	142.2	128.6	135.9	134.9	139.1	147.4	158.9	156.8	145.3
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)