

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: P237518

Luminaire Tested: **CTN-6-3-D-E1-T4-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237518
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-27)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-6-3-D-E1-T4-7050-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(6) 70 CRI, 5000K LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27635 lumens
Efficiency: N/A
Efficacy: 118.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

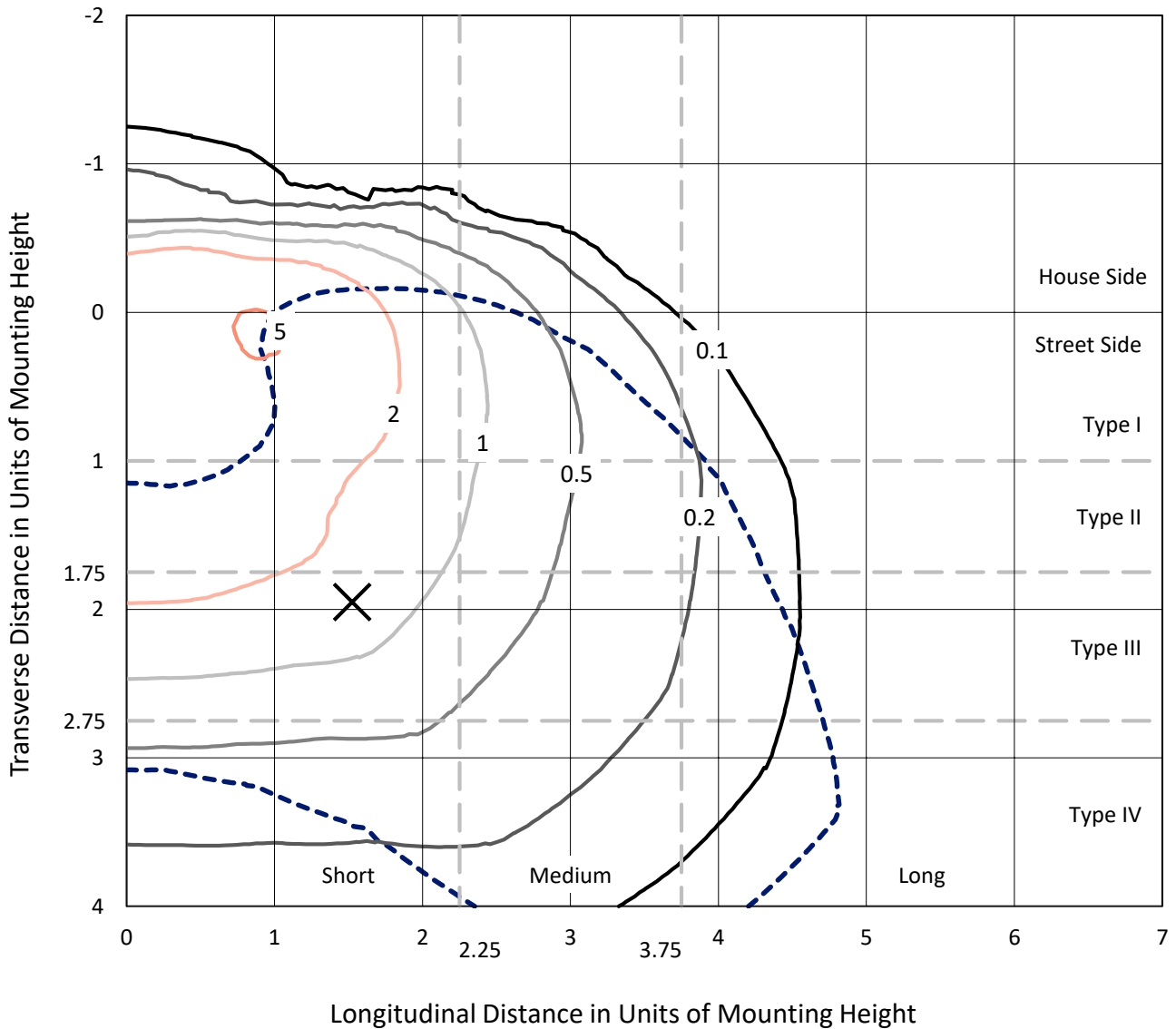
Input Watts (W): 234
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

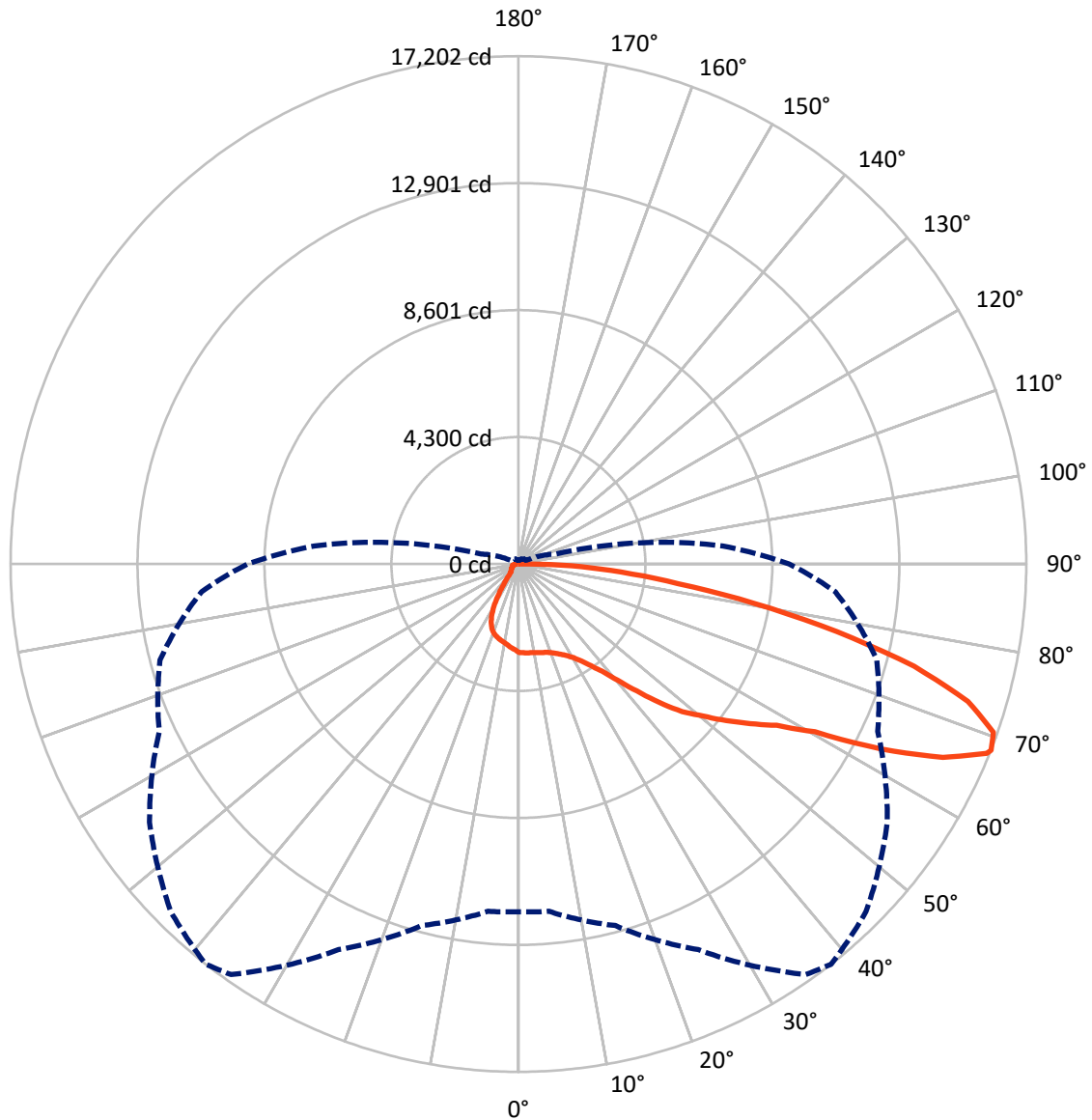
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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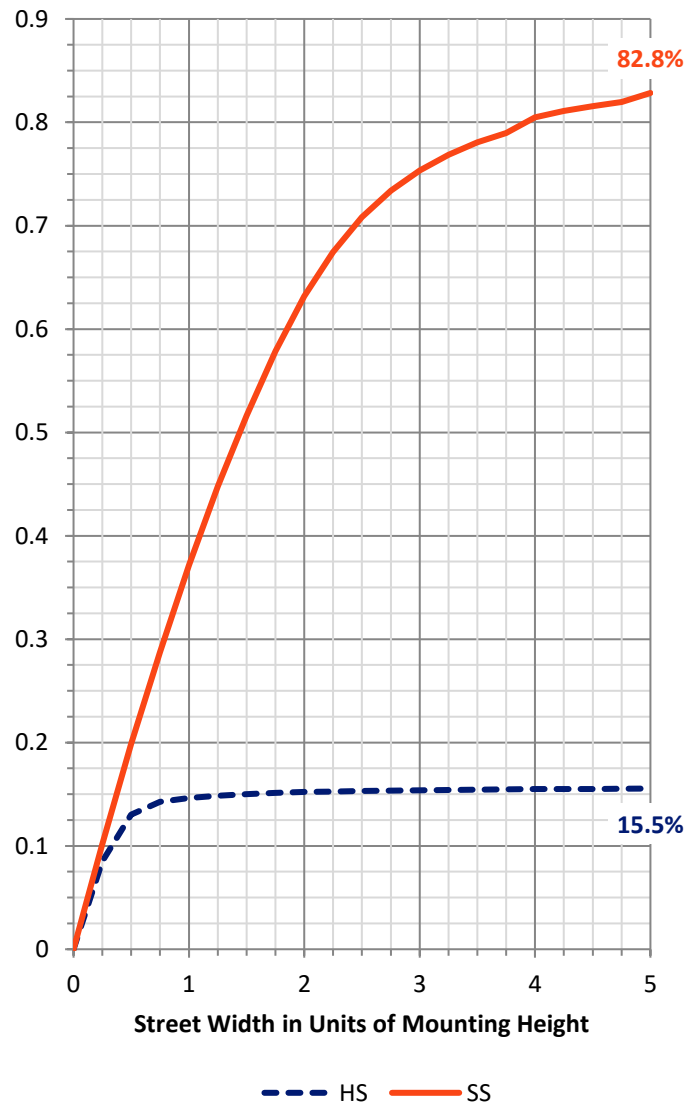
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4358.8	0.0	4358.8
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	23276.2	0.0	23276.2
	% Fixture	84.2	0.0	84.2
Total	Lumens	27635.0	0.0	27635.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.0	1.0
10°-20°	840.3	3.0
20°-30°	1402.4	5.1
30°-40°	2151.1	7.8
40°-50°	3703.5	13.4
50°-60°	5503.8	19.9
60°-70°	7281.1	26.3
70°-80°	5347.3	19.3
80°-90°	1122.5	4.1
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°	27635.0	100.0
0°-180°	27635.0	100.0

Coefficient of Utilization



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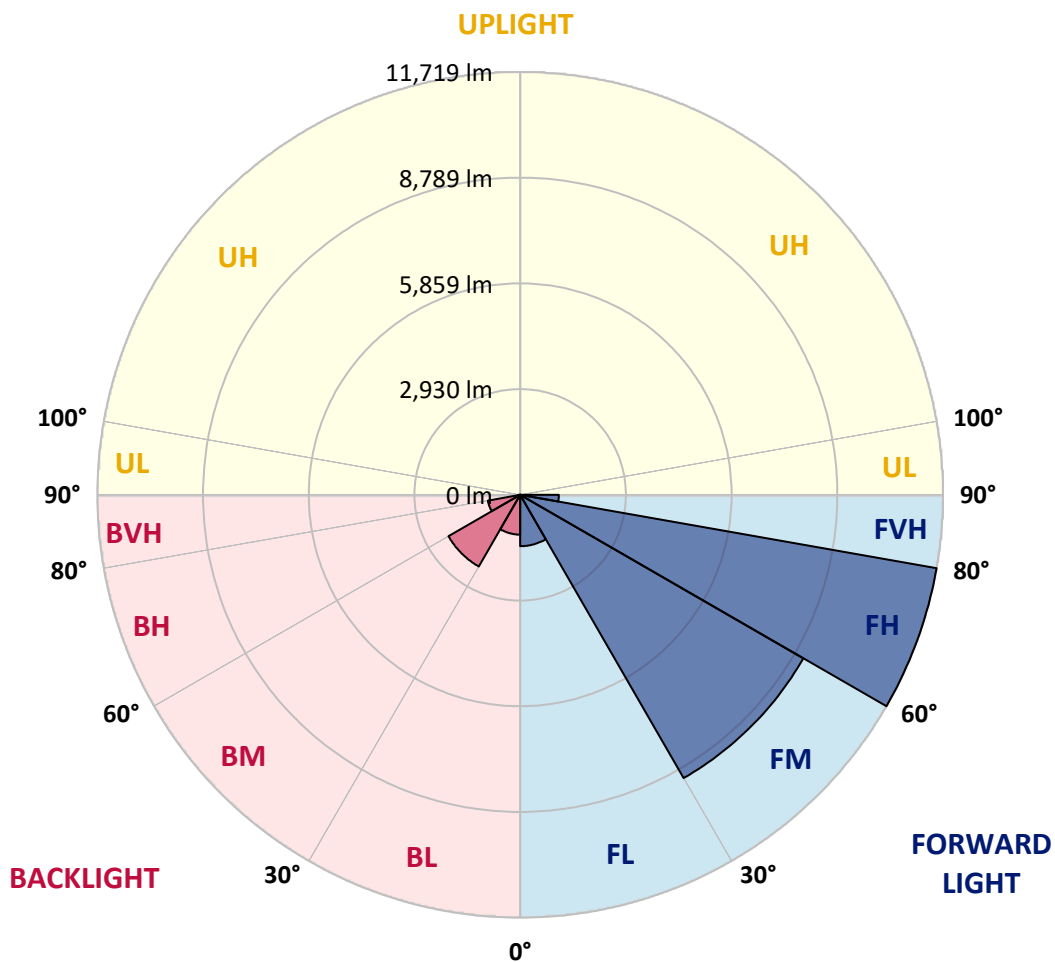
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1422.9	5.1			
FM	(30°-60°)	9063.8	32.8			
FH	(60°-80°)	11718.6	42.4			G4/12000
FVH	(80°-90°)	1070.8	3.9			G5
BL	(0°-30°)	1102.9	4.0	B3/2500		
BM	(30°-60°)	2294.6	8.3	B2/2500		
BH	(60°-80°)	909.8	3.3	B2/1000		G2/1000
BVH	(80°-90°)	51.6	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	3001.2	3001.2	3001.2	3001.2	3001.2	3001.2	3001.2	3001.2	3001.2	3001.2	3001.2
2.5°	3064.8	3043.6	3047.6	3060.8	3007.2	3003.2	3020.4	3001.2	3026.4	3014.3	3015.3
5°	3072.9	3052.7	3060.8	3081.0	3030.5	3029.5	3048.6	3024.4	3043.6	3028.4	3024.4
7.5°	3065.8	3047.6	3053.7	3072.9	3029.5	3032.5	3057.7	3049.7	3077.9	3062.8	3051.7
10°	3062.8	3050.7	3051.7	3077.9	3043.6	3051.7	3084.0	3089.1	3134.5	3121.4	3116.3
12.5°	3035.5	3026.4	3035.5	3076.9	3065.8	3082.0	3125.4	3151.7	3205.2	3200.2	3210.3
15°	3019.4	3015.3	3022.4	3070.9	3084.0	3110.3	3167.8	3219.4	3284.0	3293.1	3316.3
17.5°	3038.5	3044.6	3057.7	3097.1	3115.3	3142.6	3207.2	3278.0	3369.9	3409.3	3436.5
20°	3119.4	3126.4	3138.6	3163.8	3184.0	3207.2	3264.8	3345.6	3467.9	3529.5	3572.9
22.5°	3236.5	3224.4	3241.6	3262.8	3268.9	3289.1	3347.7	3428.5	3566.9	3659.8	3720.4
25°	3327.5	3319.4	3336.5	3372.9	3371.9	3390.1	3447.7	3530.5	3680.0	3813.3	3920.4
27.5°	3422.4	3417.4	3424.4	3472.9	3492.1	3514.3	3564.8	3657.8	3826.5	3994.2	4162.8
30°	3559.8	3570.9	3558.8	3614.3	3655.8	3681.0	3732.5	3846.7	4027.5	4256.8	4469.9
32.5°	3772.9	3778.0	3757.8	3819.4	3879.0	3917.4	3966.9	4116.4	4314.4	4594.2	4868.9
35°	4227.5	4228.5	4145.7	4136.6	4169.9	4225.5	4298.2	4520.4	4815.4	5246.7	5557.9
37.5°	4916.4	4883.1	4804.3	4650.8	4601.3	4611.4	4715.4	5024.5	5472.0	6268.0	6566.0
40°	5706.4	5668.0	5529.6	5326.5	5181.1	5172.0	5207.3	5578.1	6232.7	7416.6	7567.1
42.5°	6558.9	6532.7	6308.4	6098.3	5912.4	5883.1	5803.3	6175.1	7071.1	8441.9	8440.9
45°	7345.8	7340.8	7067.0	6963.0	6766.0	6689.2	6594.3	6883.2	7932.7	9250.0	9153.0
47.5°	8084.3	8069.1	7778.2	7659.0	7508.5	7467.1	7354.9	7557.0	8669.2	10004.6	9763.1
50°	8868.2	8821.7	8389.3	8269.1	8120.6	8088.3	8029.7	8262.1	9471.2	10664.2	10264.2
52.5°	9779.3	9708.6	9118.7	8895.4	8789.4	8810.6	8773.2	8981.3	10368.2	11215.8	10674.3
55°	10857.1	10645.0	10081.3	9676.3	9440.9	9538.9	9466.2	9725.8	11228.9	11645.1	10973.3
57.5°	11648.1	11647.1	11417.8	10842.0	10308.6	10313.7	10167.2	10463.2	11924.9	12072.4	11148.1
60°	12553.2	12606.7	12685.5	12430.0	11800.6	11537.0	11021.8	11193.5	12484.5	12382.5	11225.9
62.5°	13340.1	13371.4	13719.9	13817.9	13866.4	13801.7	12656.2	12035.0	12942.1	12555.2	11248.1
65°	13311.8	13308.8	14062.4	14719.0	15739.2	15796.8	15466.5	13284.5	13296.7	12577.4	11132.9
67.5°	12012.8	12074.4	13082.5	14489.7	16923.1	17105.0	16649.4	15098.8	13428.0	12567.3	10858.2
68°	11780.4	11806.7	12678.5	14408.9	16973.6	17201.9	16651.4	15250.3	13424.0	12568.3	10773.3
70°	10300.6	10339.9	11356.2	13430.0	16987.8	17066.6	16401.9	15333.1	13290.6	12474.4	10161.1
72.5°	8131.7	8177.2	9103.5	11331.9	15929.1	15926.1	15283.6	14639.2	12839.1	11787.5	8619.7
75°	5891.2	6039.7	6849.9	8900.5	13636.1	13844.2	13761.3	13633.1	11554.2	9961.1	6083.2
77.5°	4130.5	4206.3	4969.0	6694.3	10715.7	11033.9	11592.5	11758.2	9631.8	7397.4	2739.5
80°	2605.2	2747.6	3379.0	4753.8	7806.5	8100.4	8777.2	9056.0	7109.5	3628.5	479.8
82.5°	1518.3	1603.1	2067.8	3079.0	5248.8	5453.8	5897.3	5554.8	2882.0	482.9	266.7
85°	735.4	813.2	1110.2	1751.6	3276.9	3484.0	3723.4	2422.4	476.8	189.9	179.8
87.5°	298.0	306.1	454.6	777.8	1633.4	1811.2	1752.6	795.0	124.2	68.7	56.6
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3001.2	3001.2	3001.2	3001.2	3001.2	3001.2	3001.2	3001.2	3001.2	3001.2	3001.2
2.5°	3020.4	3005.2	2987.0	2981.0	2938.5	2936.5	2901.2	2952.7	2937.5	2938.5	2950.7
5°	3022.4	3005.2	2969.9	2953.7	2908.2	2896.1	2837.5	2869.9	2835.5	2832.5	2852.7
7.5°	3043.6	3024.4	2973.9	2948.6	2863.8	2823.4	2767.8	2796.1	2743.6	2732.5	2736.5
10°	3100.2	3075.9	3014.3	2954.7	2849.6	2791.1	2682.0	2691.1	2644.6	2629.4	2642.6
12.5°	3186.0	3156.7	3083.0	2995.1	2861.8	2758.7	2625.4	2571.9	2501.1	2477.9	2485.0
15°	3303.2	3268.9	3171.9	3069.9	2888.0	2743.6	2561.8	2450.6	2313.3	2274.9	2260.7
17.5°	3431.5	3395.1	3283.0	3154.7	2934.5	2726.4	2489.0	2312.2	2114.3	2027.4	2022.3
20°	3582.0	3542.6	3425.4	3253.7	2971.9	2705.2	2398.1	2144.6	1887.0	1741.5	1731.4
22.5°	3754.7	3720.4	3588.1	3341.6	2991.1	2649.6	2260.7	1930.4	1608.2	1426.3	1417.2
25°	3957.8	3925.5	3739.6	3403.2	2969.9	2551.7	2072.8	1667.8	1279.9	1098.0	1090.0
27.5°	4200.2	4149.7	3858.8	3421.4	2907.2	2391.0	1837.5	1330.4	945.5	807.1	800.0
30°	4476.0	4386.1	3970.9	3416.3	2796.1	2186.0	1513.2	980.9	671.8	578.8	575.8
32.5°	4823.5	4665.9	4078.0	3375.9	2637.5	1917.3	1151.6	680.8	482.9	437.4	436.4
35°	5403.3	5065.9	4195.2	3303.2	2422.4	1564.7	798.0	463.7	393.0	383.9	383.9
37.5°	6268.0	5725.6	4361.8	3187.0	2143.5	1193.0	525.3	368.7	369.7	374.8	375.8
40°	7155.9	6484.2	4603.3	3014.3	1818.3	838.4	381.8	342.4	354.6	362.6	368.7
42.5°	7971.1	7171.1	4872.0	2777.9	1450.6	553.6	341.4	329.3	335.4	341.4	347.5
45°	8655.0	7773.1	5125.5	2508.2	1074.8	394.0	338.4	314.2	311.1	315.2	319.2
47.5°	9231.8	8263.1	5303.3	2204.2	731.4	337.4	330.3	298.0	287.9	288.9	290.9
50°	9672.2	8609.6	5382.1	1869.8	484.9	328.3	315.2	280.8	264.7	264.7	266.7
52.5°	9969.2	8826.7	5335.6	1493.0	348.5	323.2	303.0	262.6	243.4	246.5	248.5
55°	10189.4	8942.9	5152.8	1097.0	307.1	308.1	288.9	241.4	225.3	233.3	236.4
57.5°	10275.3	8939.9	4845.7	757.6	305.1	284.9	268.7	223.2	210.1	221.2	226.3
60°	10244.0	8792.4	4399.2	516.2	299.0	266.7	247.5	206.1	196.0	196.0	197.0
62.5°	10181.4	8585.3	3751.7	382.8	284.9	253.5	231.3	191.9	179.8	173.7	171.7
65°	9898.5	8083.3	2754.7	330.3	270.7	246.5	216.2	178.8	162.6	152.5	150.5
67.5°	9338.9	7219.6	1539.5	305.1	260.6	242.4	206.1	166.7	148.5	136.4	135.4
68°	9167.2	6949.9	1305.1	303.0	262.6	242.4	205.1	163.6	146.5	133.3	132.3
70°	8150.9	5606.4	539.4	284.9	276.8	243.4	200.0	154.6	138.4	125.3	124.2
72.5°	6165.0	3247.6	284.9	247.5	269.7	239.4	202.0	147.5	131.3	116.2	114.1
75°	3397.2	930.4	253.5	201.0	249.5	252.5	206.1	146.5	127.3	108.1	104.0
77.5°	754.6	303.0	236.4	175.8	215.2	232.3	190.9	139.4	129.3	99.0	95.0
80°	288.9	246.5	224.3	135.4	170.7	197.0	158.6	124.2	132.3	92.9	87.9
82.5°	241.4	216.2	206.1	105.1	118.2	144.5	127.3	106.1	122.2	85.9	81.8
85°	177.8	209.1	145.5	82.8	86.9	88.9	88.9	82.8	105.1	75.8	71.7
87.5°	71.7	101.0	61.6	38.4	44.4	41.4	36.4	44.4	60.6	53.5	53.5
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)