

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: P237503

Luminaire Tested: **CTN-8-3-D-E1-T4-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237503
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-8-3-D-E1-T4-7030-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 3000K LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26707 lumens
Efficiency: N/A
Efficacy: 118.2 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

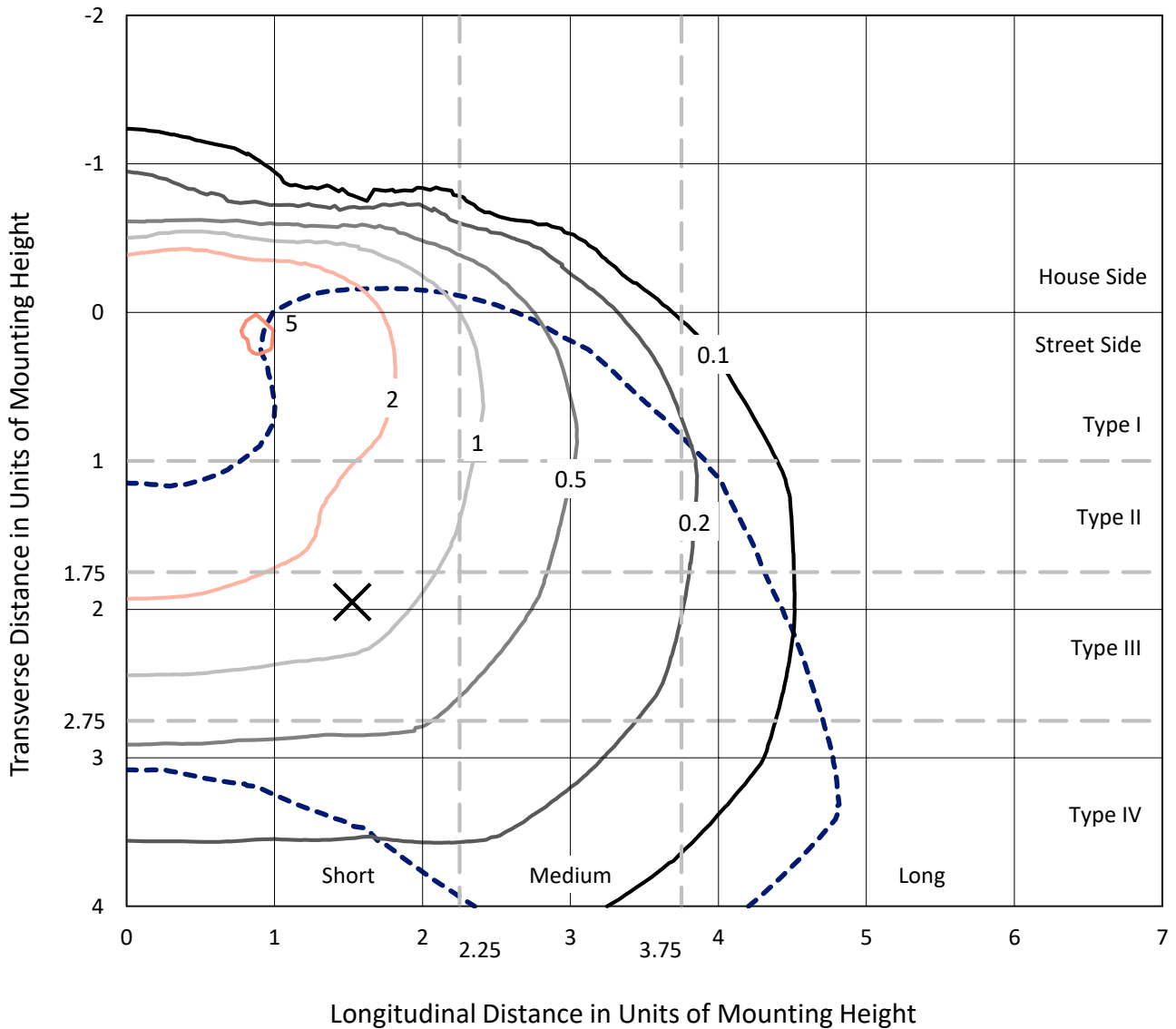
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

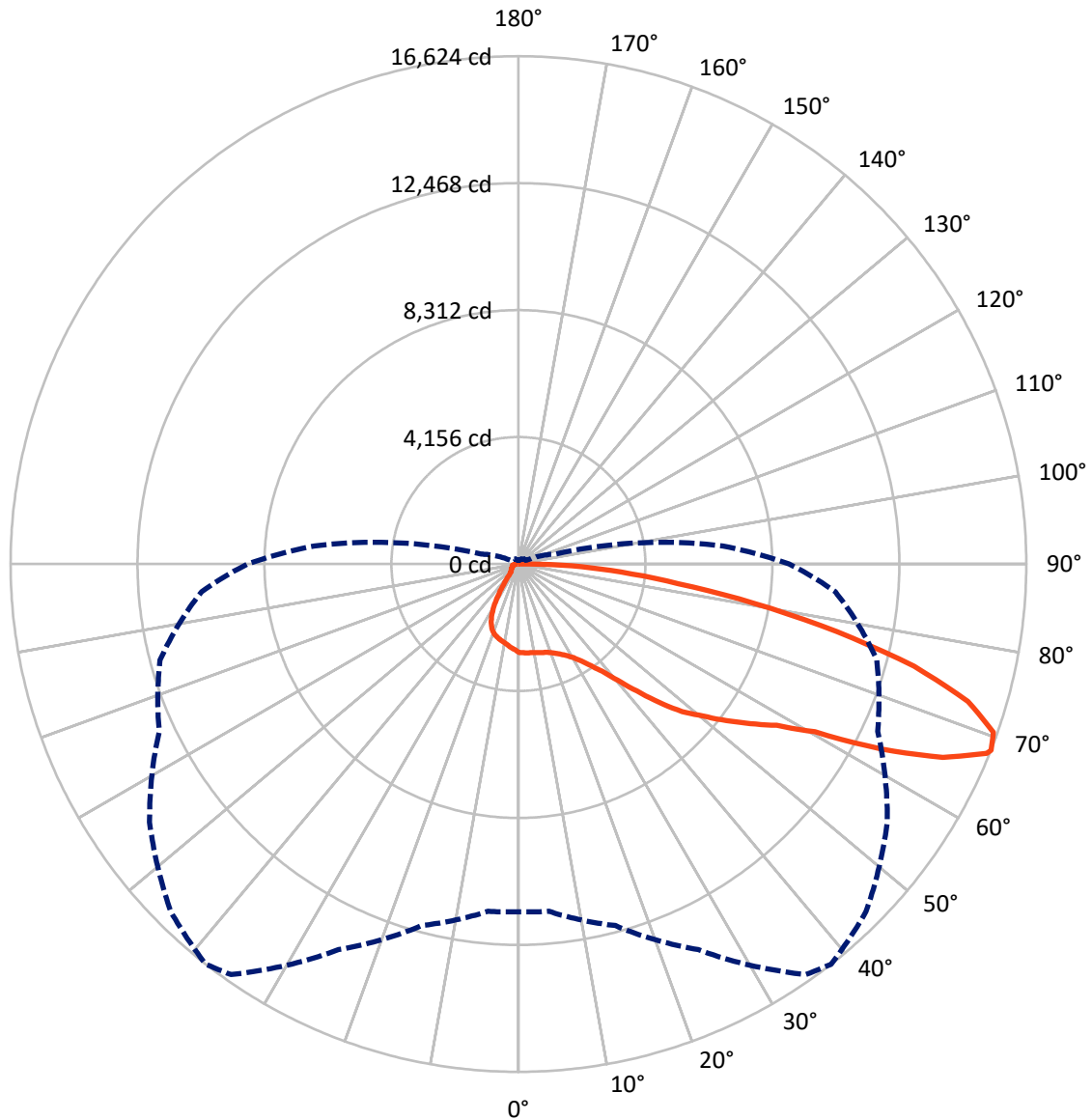
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 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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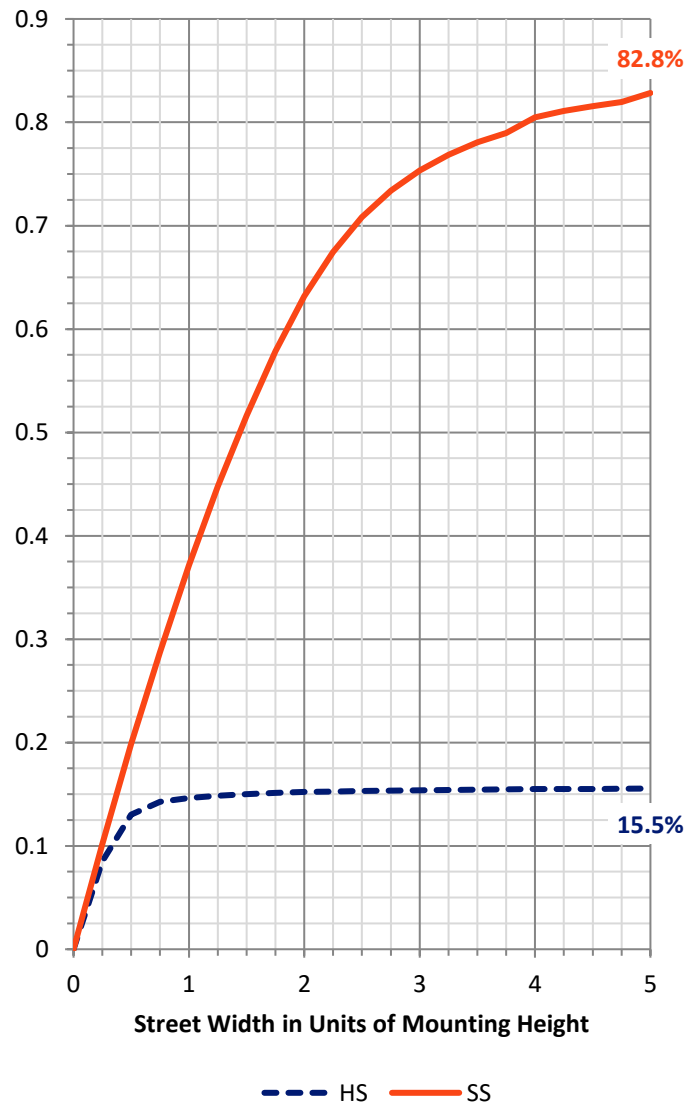
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4212.5	0.0	4212.5
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	22494.5	0.0	22494.5
	% Fixture	84.2	0.0	84.2
Total	Lumens	26707.0	0.0	26707.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.5	1.0
10°-20°	812.1	3.0
20°-30°	1355.3	5.1
30°-40°	2078.9	7.8
40°-50°	3579.1	13.4
50°-60°	5319.0	19.9
60°-70°	7036.6	26.3
70°-80°	5167.8	19.3
80°-90°	1084.8	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°	26707.0	100.0
0°-180°	26707.0	100.0



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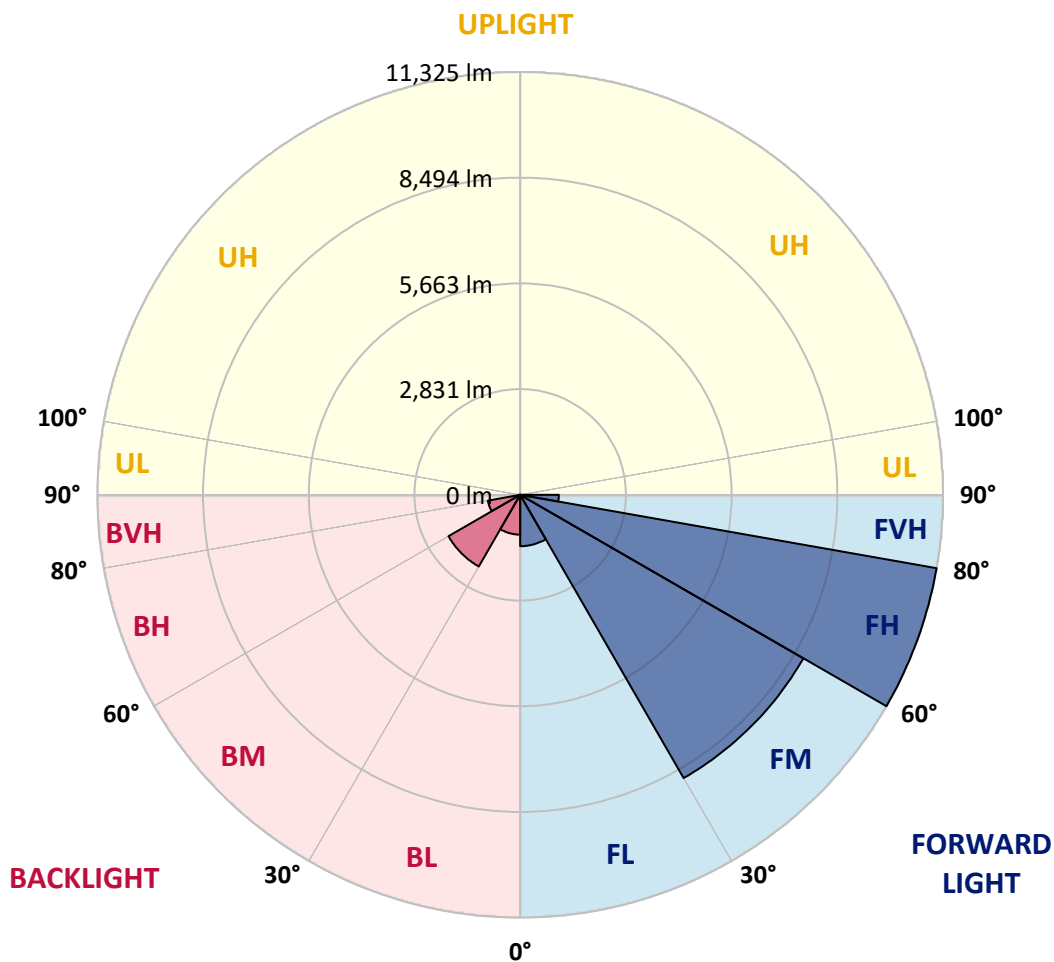
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1375.1	5.1			
FM	(30°-60°)	8759.5	32.8			
FH	(60°-80°)	11325.1	42.4			G4/12000
FVH	(80°-90°)	1034.9	3.9			G5
BL	(0°-30°)	1065.8	4.0	B3/2500		
BM	(30°-60°)	2217.5	8.3	B2/2500		
BH	(60°-80°)	879.2	3.3	B2/1000		G2/1000
BVH	(80°-90°)	49.9	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°	2900.4	2900.4	2900.4	2900.4	2900.4	2900.4	2900.4	2900.4	2900.4	2900.4	2900.4
2.5°	2961.9	2941.4	2945.3	2958.0	2906.2	2902.3	2918.9	2900.4	2924.8	2913.1	2914.1
5°	2969.7	2950.2	2958.0	2977.5	2928.7	2927.7	2946.3	2922.8	2941.4	2926.7	2922.8
7.5°	2962.9	2945.3	2951.2	2969.7	2927.7	2930.7	2955.1	2947.2	2974.6	2959.9	2949.2
10°	2959.9	2948.2	2949.2	2974.6	2941.4	2949.2	2980.4	2985.3	3029.3	3016.6	3011.7
12.5°	2933.6	2924.8	2933.6	2973.6	2962.9	2978.5	3020.5	3045.8	3097.6	3092.7	3102.5
15°	2918.0	2914.1	2920.9	2967.7	2980.4	3005.8	3061.5	3111.3	3173.7	3182.5	3205.0
17.5°	2936.5	2942.4	2955.1	2993.1	3010.7	3037.1	3099.5	3167.9	3256.7	3294.8	3321.1
20°	3014.6	3021.4	3033.2	3057.6	3077.1	3099.5	3155.2	3233.3	3351.4	3411.0	3452.9
22.5°	3127.9	3116.1	3132.7	3153.2	3159.1	3178.6	3235.2	3313.3	3447.1	3536.9	3595.5
25°	3215.7	3207.9	3224.5	3259.6	3258.7	3276.2	3331.9	3411.9	3556.4	3685.3	3788.8
27.5°	3307.5	3302.6	3309.4	3356.3	3374.8	3396.3	3445.1	3534.9	3698.0	3860.0	4023.1
30°	3440.2	3451.0	3439.3	3493.0	3533.0	3557.4	3607.2	3717.5	3892.2	4113.8	4319.8
32.5°	3646.2	3651.1	3631.6	3691.1	3748.7	3785.8	3833.7	3978.2	4169.5	4439.9	4705.4
35°	4085.5	4086.5	4006.5	3997.7	4029.9	4083.6	4153.9	4368.6	4653.7	5070.6	5371.2
37.5°	4751.3	4719.1	4643.0	4494.6	4446.7	4456.5	4557.1	4855.8	5288.3	6057.5	6345.5
40°	5514.7	5477.6	5343.9	5147.7	5007.1	4998.3	5032.5	5390.8	6023.4	7167.5	7313.0
42.5°	6338.7	6313.3	6096.6	5893.5	5713.9	5685.6	5608.5	5967.7	6833.6	8158.4	8157.4
45°	7099.2	7094.3	6829.7	6729.2	6538.8	6464.6	6372.9	6652.1	7666.4	8939.4	8845.7
47.5°	7812.8	7798.2	7517.0	7401.8	7256.3	7216.3	7108.0	7303.2	8378.0	9668.6	9435.3
50°	8570.4	8525.4	8107.6	7991.4	7847.9	7816.7	7760.1	7984.6	9153.2	10306.1	9919.5
52.5°	9450.9	9382.6	8812.5	8596.7	8494.2	8514.7	8478.6	8679.7	10020.1	10839.1	10315.9
55°	10492.6	10287.5	9742.8	9351.3	9123.9	9218.6	9148.3	9399.2	10851.8	11254.0	10604.8
57.5°	11256.9	11256.0	11034.4	10477.9	9962.5	9967.3	9825.8	10111.8	11524.4	11667.0	10773.7
60°	12131.7	12183.4	12259.5	12012.6	11404.4	11149.6	10651.7	10817.6	12065.3	11966.7	10848.9
62.5°	12892.1	12922.4	13259.2	13353.9	13400.8	13338.3	12231.2	11630.8	12507.5	12133.6	10870.4
65°	12864.8	12861.9	13590.1	14224.7	15210.7	15266.3	14947.1	12838.4	12850.2	12155.1	10759.1
67.5°	11609.4	11668.9	12643.2	14003.1	16354.8	16530.6	16090.3	14591.8	12977.1	12145.3	10493.5
68°	11384.8	11410.2	12252.7	13925.0	16403.7	16624.3	16092.2	14738.2	12973.2	12146.3	10411.5
70°	9954.7	9992.7	10974.8	12979.0	16417.3	16493.5	15851.1	14818.2	12844.3	12055.5	9819.9
72.5°	7858.7	7902.6	8797.8	10951.4	15394.2	15391.3	14770.4	14147.6	12407.9	11391.7	8330.2
75°	5693.4	5836.9	6619.8	8601.6	13178.2	13379.3	13299.2	13175.2	11166.2	9626.6	5878.9
77.5°	3991.8	4065.0	4802.1	6469.5	10355.9	10663.4	11203.3	11363.4	9308.4	7149.0	2647.5
80°	2517.7	2655.4	3265.5	4594.2	7544.3	7828.4	8482.5	8751.9	6870.7	3506.6	463.7
82.5°	1467.3	1549.3	1998.3	2975.6	5072.5	5270.7	5699.3	5368.3	2785.2	466.6	257.7
85°	710.7	785.9	1072.9	1692.8	3166.9	3367.0	3598.4	2341.0	460.8	183.5	173.8
87.5°	288.0	295.8	439.3	751.7	1578.6	1750.4	1693.8	768.3	120.1	66.4	54.7
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2900.4	2900.4	2900.4	2900.4	2900.4	2900.4	2900.4	2900.4	2900.4	2900.4	2900.4
2.5°	2918.9	2904.3	2886.7	2880.9	2839.9	2837.9	2803.7	2853.5	2838.9	2839.9	2851.6
5°	2920.9	2904.3	2870.1	2854.5	2810.6	2798.9	2742.2	2773.5	2740.3	2737.4	2756.9
7.5°	2941.4	2922.8	2874.0	2849.6	2767.6	2728.6	2674.9	2702.2	2651.4	2640.7	2644.6
10°	2996.1	2972.6	2913.1	2855.5	2754.0	2697.3	2591.9	2600.7	2555.8	2541.1	2553.8
12.5°	3079.0	3050.7	2979.5	2894.5	2765.7	2666.1	2537.2	2485.5	2417.2	2394.7	2401.5
15°	3192.3	3159.1	3065.4	2966.8	2791.1	2651.4	2475.7	2368.3	2235.6	2198.5	2184.8
17.5°	3316.3	3281.1	3172.8	3048.8	2836.0	2634.9	2405.4	2234.6	2043.3	1959.3	1954.4
20°	3461.7	3423.7	3310.4	3144.4	2872.1	2614.4	2317.6	2072.5	1823.6	1683.0	1673.3
22.5°	3628.7	3595.5	3467.6	3229.4	2890.6	2560.7	2184.8	1865.6	1554.2	1378.4	1369.7
25°	3824.9	3793.6	3614.0	3288.9	2870.1	2466.0	2003.2	1611.8	1236.9	1061.2	1053.4
27.5°	4059.2	4010.4	3729.2	3306.5	2809.6	2310.7	1775.8	1285.7	913.8	780.0	773.2
30°	4325.7	4238.8	3837.6	3301.6	2702.2	2112.6	1462.4	947.9	649.2	559.4	556.5
32.5°	4661.5	4509.2	3941.1	3262.6	2548.9	1852.9	1112.9	658.0	466.6	422.7	421.7
35°	5221.9	4895.8	4054.3	3192.3	2341.0	1512.2	771.2	448.1	379.8	371.0	371.0
37.5°	6057.5	5533.3	4215.4	3080.0	2071.6	1152.9	507.6	356.3	357.3	362.2	363.2
40°	6915.6	6266.4	4448.7	2913.1	1757.2	810.3	369.0	330.9	342.7	350.5	356.3
42.5°	7703.5	6930.3	4708.4	2684.6	1401.9	535.0	330.0	318.3	324.1	330.0	335.8
45°	8364.4	7512.1	4953.4	2424.0	1038.7	380.7	327.0	303.6	300.7	304.6	308.5
47.5°	8921.8	7985.6	5125.2	2130.1	706.8	326.1	319.2	288.0	278.2	279.2	281.2
50°	9347.4	8320.4	5201.4	1807.0	468.6	317.3	304.6	271.4	255.8	255.8	257.7
52.5°	9634.4	8530.3	5156.5	1442.9	336.8	312.4	292.9	253.8	235.3	238.2	240.2
55°	9847.3	8642.6	4979.8	1060.2	296.8	297.8	279.2	233.3	217.7	225.5	228.4
57.5°	9930.2	8639.7	4683.0	732.2	294.8	275.3	259.7	215.7	203.1	213.8	218.7
60°	9900.0	8497.1	4251.5	498.9	289.0	257.7	239.2	199.2	189.4	189.4	190.4
62.5°	9839.5	8297.0	3625.7	370.0	275.3	245.0	223.6	185.5	173.8	167.9	166.0
65°	9566.1	7811.8	2662.2	319.2	261.6	238.2	208.9	172.8	157.2	147.4	145.5
67.5°	9025.3	6977.1	1487.8	294.8	251.9	234.3	199.2	161.1	143.5	131.8	130.8
68°	8859.3	6716.5	1261.3	292.9	253.8	234.3	198.2	158.1	141.6	128.9	127.9
70°	7877.2	5418.1	521.3	275.3	267.5	235.3	193.3	149.4	133.7	121.1	120.1
72.5°	5958.0	3138.6	275.3	239.2	260.7	231.4	195.2	142.5	126.9	112.3	110.3
75°	3283.1	899.1	245.0	194.3	241.1	244.1	199.2	141.6	123.0	104.5	100.6
77.5°	729.2	292.9	228.4	169.9	207.9	224.5	184.5	134.7	125.0	95.7	91.8
80°	279.2	238.2	216.7	130.8	165.0	190.4	153.3	120.1	127.9	89.8	84.9
82.5°	233.3	208.9	199.2	101.5	114.2	139.6	123.0	102.5	118.1	83.0	79.1
85°	171.8	202.1	140.6	80.1	84.0	85.9	85.9	80.1	101.5	73.2	69.3
87.5°	69.3	97.6	59.6	37.1	43.0	40.0	35.1	43.0	58.6	51.7	51.7
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)