

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: P237504

Luminaire Tested: **CTN-10-3-D-E1-T4-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237504
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-10-3-D-E1-T4-7030-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 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: 27005 lumens
Efficiency: N/A
Efficacy: 127.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

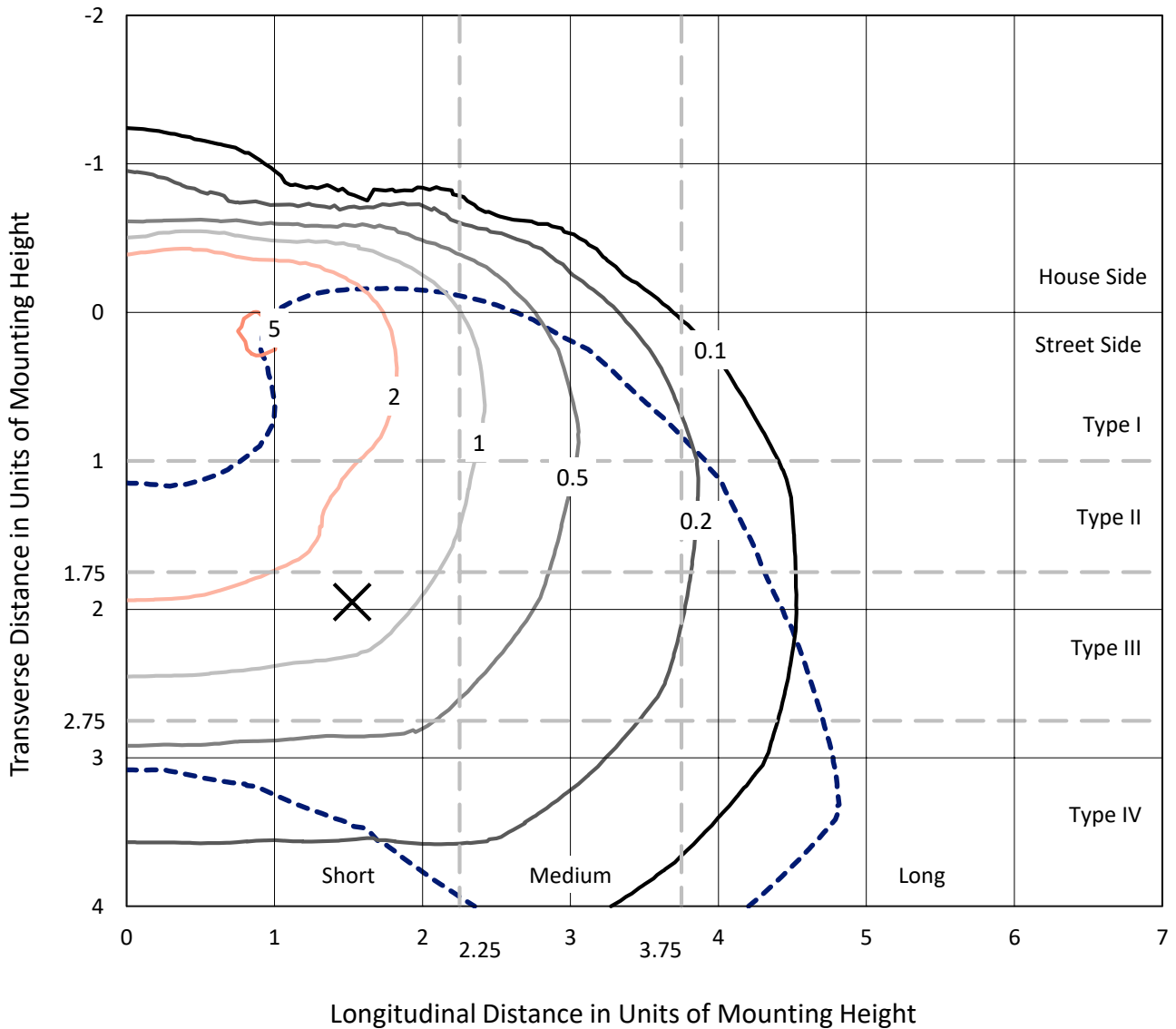
Input Watts (W): 212
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

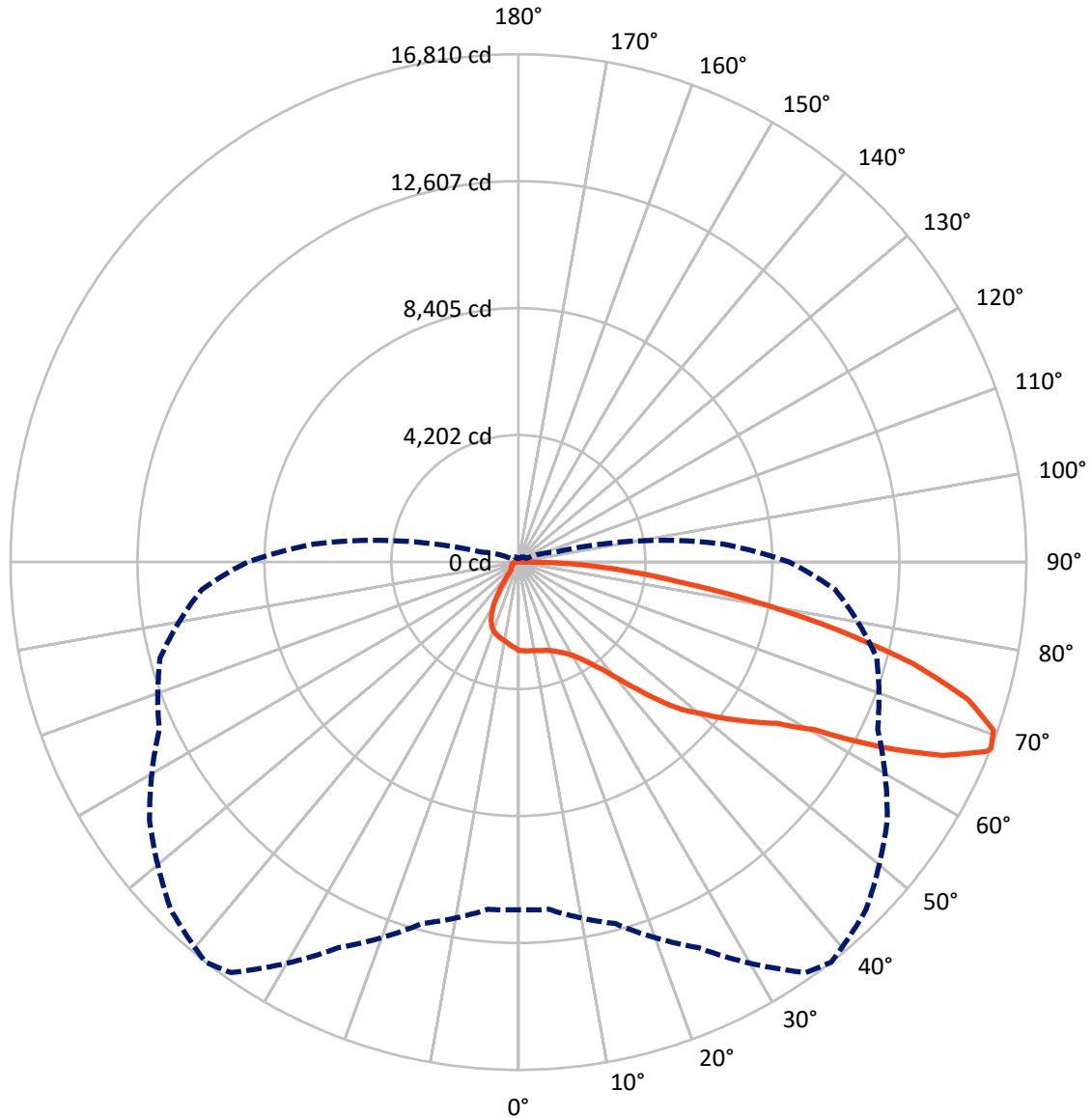
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 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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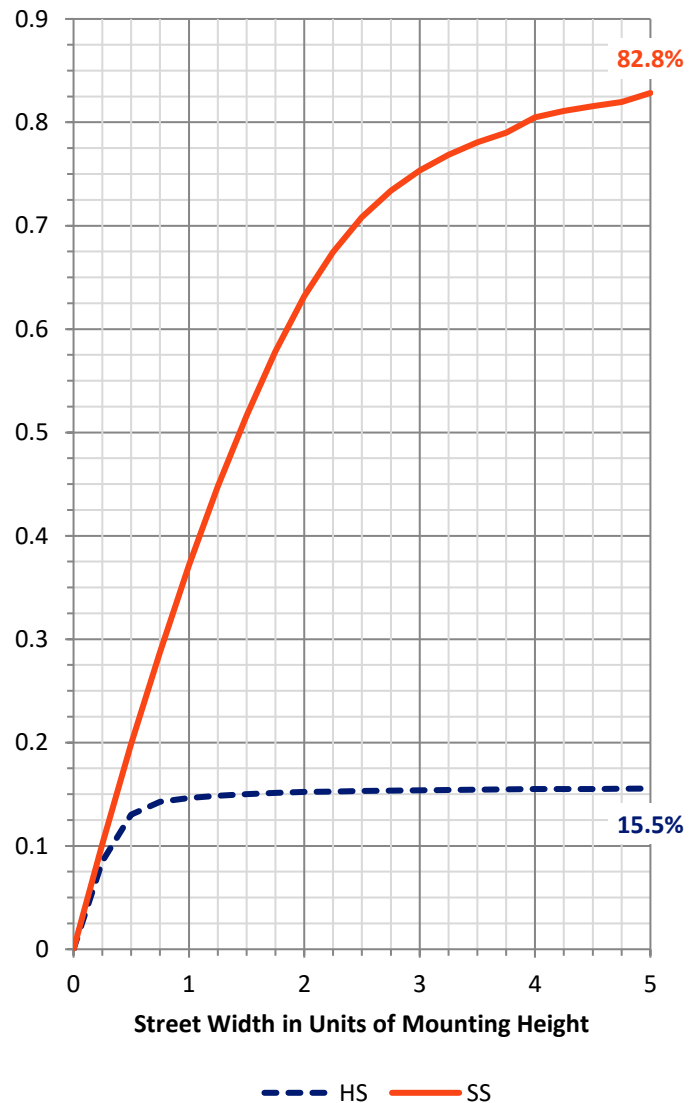
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4259.5	0.0	4259.5
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	22745.5	0.0	22745.5
	% Fixture	84.2	0.0	84.2
Total	Lumens	27005.0	0.0	27005.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.5	1.0
10°-20°	821.2	3.0
20°-30°	1370.5	5.1
30°-40°	2102.1	7.8
40°-50°	3619.0	13.4
50°-60°	5378.4	19.9
60°-70°	7115.1	26.3
70°-80°	5225.4	19.3
80°-90°	1096.9	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°	27005.0	100.0
0°-180°	27005.0	100.0



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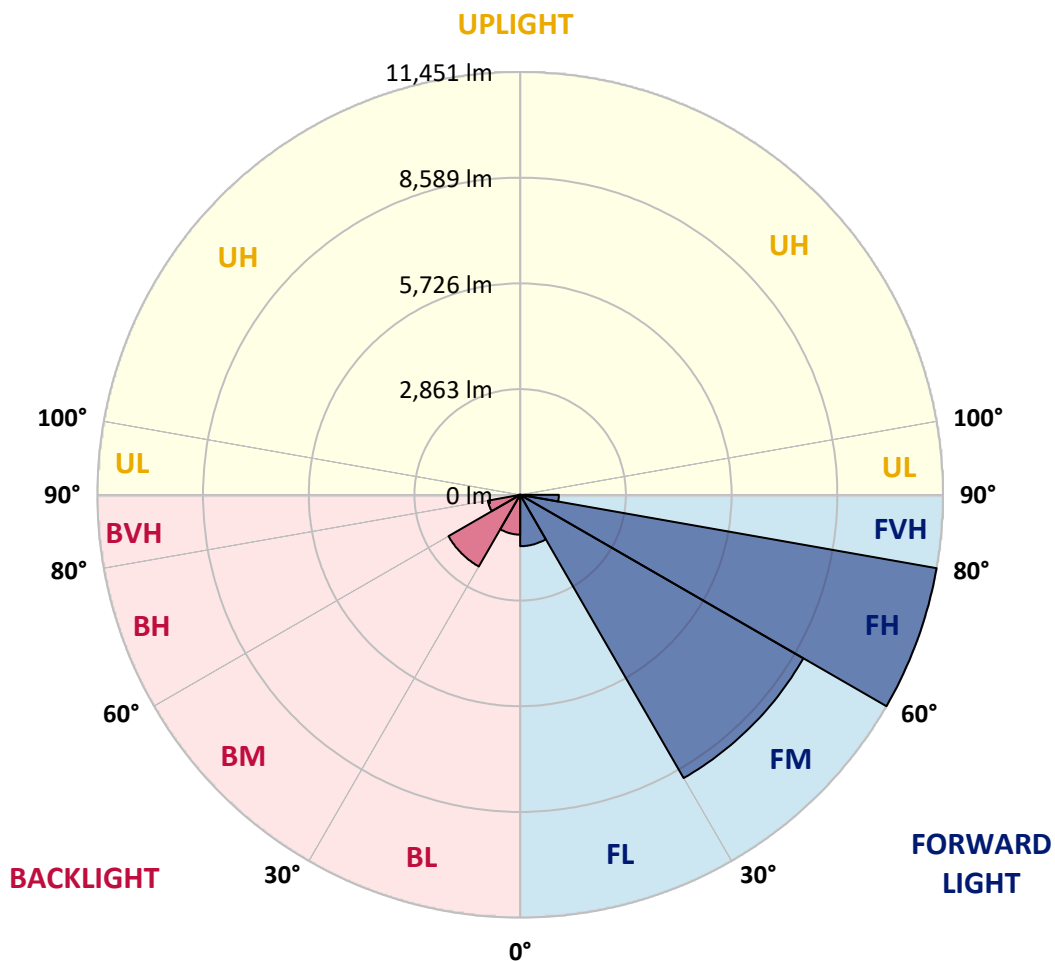
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1390.4	5.1			
FM	(30°-60°)	8857.2	32.8			
FH	(60°-80°)	11451.5	42.4			G4/12000
FVH	(80°-90°)	1046.4	3.9			G5
BL	(0°-30°)	1077.7	4.0	B3/2500		
BM	(30°-60°)	2242.3	8.3	B2/2500		
BH	(60°-80°)	889.0	3.3	B2/1000		G2/1000
BVH	(80°-90°)	50.4	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°	2932.8	2932.8	2932.8	2932.8	2932.8	2932.8	2932.8	2932.8	2932.8	2932.8	2932.8
2.5°	2994.9	2974.2	2978.2	2991.0	2938.7	2934.7	2951.5	2932.8	2957.4	2945.6	2946.6
5°	3002.8	2983.1	2991.0	3010.7	2961.4	2960.4	2979.1	2955.5	2974.2	2959.4	2955.5
7.5°	2995.9	2978.2	2984.1	3002.8	2960.4	2963.4	2988.0	2980.1	3007.8	2993.0	2982.1
10°	2993.0	2981.1	2982.1	3007.8	2974.2	2982.1	3013.7	3018.6	3063.1	3050.2	3045.3
12.5°	2966.3	2957.4	2966.3	3006.8	2995.9	3011.7	3054.2	3079.8	3132.2	3127.2	3137.1
15°	2950.5	2946.6	2953.5	3000.9	3013.7	3039.4	3095.6	3146.0	3209.1	3218.0	3240.7
17.5°	2969.3	2975.2	2988.0	3026.5	3044.3	3071.0	3134.1	3203.2	3293.1	3331.6	3358.2
20°	3048.2	3055.2	3067.0	3091.7	3111.4	3134.1	3190.4	3269.4	3388.8	3449.0	3491.5
22.5°	3162.8	3150.9	3167.7	3188.4	3194.3	3214.1	3271.3	3350.3	3485.5	3576.4	3635.6
25°	3251.6	3243.7	3260.5	3296.0	3295.0	3312.8	3369.1	3450.0	3596.1	3726.4	3831.0
27.5°	3344.4	3339.4	3346.4	3393.7	3412.5	3434.2	3483.6	3574.4	3739.2	3903.1	4067.9
30°	3478.6	3489.5	3477.6	3531.9	3572.4	3597.1	3647.4	3759.0	3935.7	4159.8	4368.0
32.5°	3686.9	3691.9	3672.1	3732.3	3790.6	3828.1	3876.4	4022.5	4216.0	4489.5	4757.9
35°	4131.1	4132.1	4051.2	4042.3	4074.9	4129.1	4200.2	4417.4	4705.6	5127.1	5431.2
37.5°	4804.3	4771.8	4694.8	4544.7	4496.4	4506.2	4607.9	4910.0	5347.3	6125.1	6416.3
40°	5576.3	5538.8	5403.5	5205.1	5063.0	5054.1	5088.6	5450.9	6090.6	7247.5	7394.6
42.5°	6409.4	6383.7	6164.6	5959.3	5777.7	5749.0	5671.0	6034.3	6909.9	8249.4	8248.4
45°	7178.4	7173.4	6905.9	6804.3	6611.8	6536.8	6444.0	6726.3	7751.9	9039.1	8944.4
47.5°	7900.0	7885.2	7600.9	7484.4	7337.3	7296.8	7187.3	7384.7	8471.5	9776.5	9540.6
50°	8666.0	8620.6	8198.1	8080.6	7935.5	7903.9	7846.7	8073.7	9255.3	10421.1	10030.2
52.5°	9556.4	9487.3	8910.8	8692.6	8589.0	8609.7	8573.2	8776.5	10131.9	10960.1	10431.0
55°	10609.6	10402.3	9851.5	9455.7	9225.7	9321.4	9250.4	9504.1	10972.9	11379.6	10723.2
57.5°	11382.6	11381.6	11157.5	10594.8	10073.6	10078.6	9935.4	10224.7	11653.0	11797.1	10893.9
60°	12267.0	12319.3	12396.3	12146.6	11531.6	11274.0	10770.5	10938.3	12199.9	12100.2	10969.9
62.5°	13036.0	13066.6	13407.2	13502.9	13550.3	13487.1	12367.7	11760.6	12647.1	12269.0	10991.7
65°	13008.4	13005.4	13741.8	14383.4	15380.4	15436.7	15113.9	12981.7	12993.5	12290.7	10879.1
67.5°	11738.9	11799.1	12784.3	14159.3	16537.3	16715.0	16269.8	14754.6	13121.9	12280.8	10610.6
68°	11511.9	11537.5	12389.4	14080.4	16586.7	16809.8	16271.8	14902.6	13117.9	12281.8	10527.7
70°	10065.7	10104.2	11097.3	13123.8	16600.5	16677.5	16028.0	14983.6	12987.6	12190.0	9929.5
72.5°	7946.4	7990.8	8896.0	11073.6	15566.0	15563.0	14935.2	14305.4	12546.4	11518.8	8423.1
75°	5756.9	5902.0	6693.7	8697.6	13325.2	13528.6	13447.6	13322.3	11290.8	9734.1	5944.5
77.5°	4036.4	4110.4	4855.7	6541.7	10471.4	10782.4	11328.3	11490.2	9412.2	7228.7	2677.1
80°	2545.8	2685.0	3301.9	4645.4	7628.5	7915.8	8577.1	8849.6	6947.4	3545.8	468.9
82.5°	1483.7	1566.6	2020.6	3008.8	5129.1	5329.5	5762.8	5428.2	2816.3	471.8	260.6
85°	718.6	794.6	1084.9	1711.7	3202.2	3404.6	3638.5	2367.1	465.9	185.6	175.7
87.5°	291.2	299.1	444.2	760.1	1596.2	1769.9	1712.7	776.9	121.4	67.1	55.3
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°	2932.8	2932.8	2932.8	2932.8	2932.8	2932.8	2932.8	2932.8	2932.8	2932.8	2932.8
2.5°	2951.5	2936.7	2918.9	2913.0	2871.6	2869.6	2835.0	2885.4	2870.6	2871.6	2883.4
5°	2953.5	2936.7	2902.2	2886.4	2841.9	2830.1	2772.8	2804.4	2770.9	2767.9	2787.6
7.5°	2974.2	2955.5	2906.1	2881.4	2798.5	2759.0	2704.7	2732.4	2681.0	2670.2	2674.1
10°	3029.5	3005.8	2945.6	2887.3	2784.7	2727.4	2620.8	2629.7	2584.3	2569.5	2582.3
12.5°	3113.4	3084.8	3012.7	2926.8	2796.5	2695.8	2565.5	2513.2	2444.1	2421.4	2428.3
15°	3227.9	3194.3	3099.6	2999.9	2822.2	2681.0	2503.4	2394.8	2260.5	2223.0	2209.2
17.5°	3353.3	3317.7	3208.2	3082.8	2867.6	2664.3	2432.3	2259.5	2066.1	1981.2	1976.2
20°	3500.4	3461.9	3347.3	3179.5	2904.1	2643.5	2343.4	2095.7	1844.0	1701.8	1691.9
22.5°	3669.1	3635.6	3506.3	3265.4	2922.9	2589.2	2209.2	1886.4	1571.5	1393.8	1384.9
25°	3867.6	3836.0	3654.3	3325.6	2902.2	2493.5	2025.6	1629.7	1250.7	1073.0	1065.1
27.5°	4104.5	4055.1	3770.8	3343.4	2840.9	2336.5	1795.6	1300.0	924.0	788.7	781.8
30°	4374.0	4286.1	3880.4	3338.5	2732.4	2136.1	1478.7	958.5	656.4	565.6	562.7
32.5°	4713.5	4559.5	3985.0	3299.0	2577.4	1873.6	1125.3	665.3	471.8	427.4	426.4
35°	5280.1	4950.4	4099.5	3227.9	2367.1	1529.1	779.8	453.1	384.0	375.1	375.1
37.5°	6125.1	5595.0	4262.4	3114.4	2094.7	1165.8	513.3	360.3	361.3	366.2	367.2
40°	6992.8	6336.4	4498.3	2945.6	1776.8	819.3	373.1	334.6	346.5	354.4	360.3
42.5°	7789.4	7007.6	4760.9	2714.6	1417.5	540.9	333.6	321.8	327.7	333.6	339.6
45°	8457.7	7595.9	5008.7	2451.0	1050.3	385.0	330.7	307.0	304.0	308.0	311.9
47.5°	9021.3	8074.7	5182.4	2153.9	714.7	329.7	322.8	291.2	281.3	282.3	284.3
50°	9451.7	8413.3	5259.4	1827.2	473.8	320.8	308.0	274.4	258.6	258.6	260.6
52.5°	9741.9	8625.5	5214.0	1459.0	340.6	315.9	296.1	256.7	237.9	240.9	242.8
55°	9957.1	8739.0	5035.3	1072.0	300.1	301.1	282.3	235.9	220.1	228.0	231.0
57.5°	10041.0	8736.1	4735.2	740.3	298.1	278.4	262.6	218.2	205.3	216.2	221.1
60°	10010.4	8591.9	4298.9	504.4	292.2	260.6	241.8	201.4	191.5	191.5	192.5
62.5°	9949.2	8389.6	3666.2	374.1	278.4	247.8	226.1	187.6	175.7	169.8	167.8
65°	9672.9	7899.0	2691.9	322.8	264.5	240.9	211.2	174.7	158.9	149.1	147.1
67.5°	9126.0	7055.0	1504.4	298.1	254.7	236.9	201.4	162.9	145.1	133.3	132.3
68°	8958.2	6791.4	1275.4	296.1	256.7	236.9	200.4	159.9	143.1	130.3	129.3
70°	7965.1	5478.6	527.1	278.4	270.5	237.9	195.5	151.0	135.2	122.4	121.4
72.5°	6024.4	3173.6	278.4	241.8	263.6	233.9	197.4	144.1	128.3	113.5	111.5
75°	3319.7	909.1	247.8	196.4	243.8	246.8	201.4	143.1	124.4	105.6	101.7
77.5°	737.4	296.1	231.0	171.8	210.3	227.0	186.6	136.2	126.4	96.7	92.8
80°	282.3	240.9	219.1	132.3	166.8	192.5	155.0	121.4	129.3	90.8	85.9
82.5°	235.9	211.2	201.4	102.7	115.5	141.2	124.4	103.6	119.4	83.9	80.0
85°	173.7	204.3	142.1	80.9	84.9	86.9	86.9	80.9	102.7	74.0	70.1
87.5°	70.1	98.7	60.2	37.5	43.4	40.5	35.5	43.4	59.2	52.3	52.3
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)