

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: P237519

Luminaire Tested: **CTN-8-3-D-E1-T4-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237519
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-T4-7050-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 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: 27724 lumens
Efficiency: N/A
Efficacy: 122.7 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

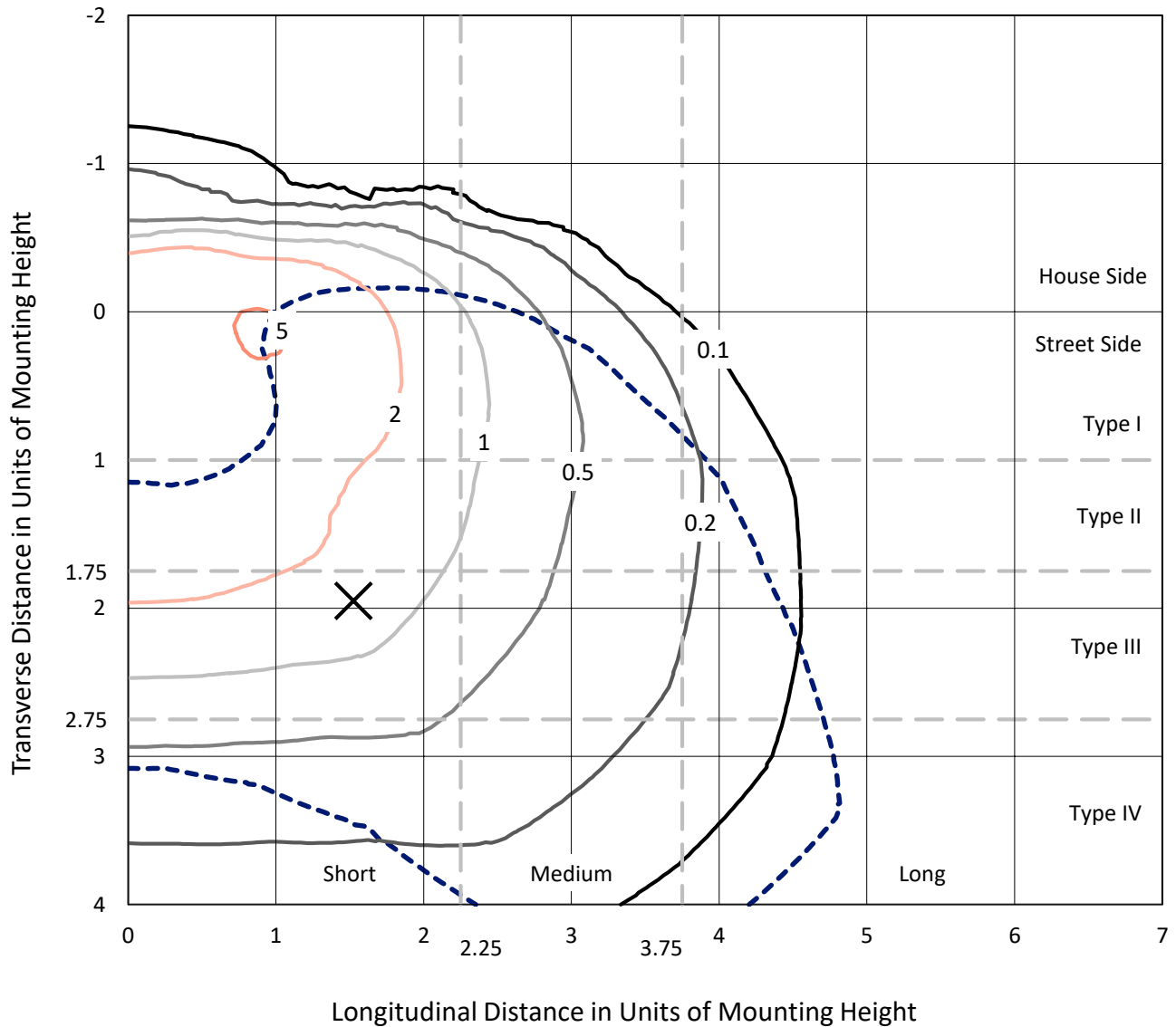
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

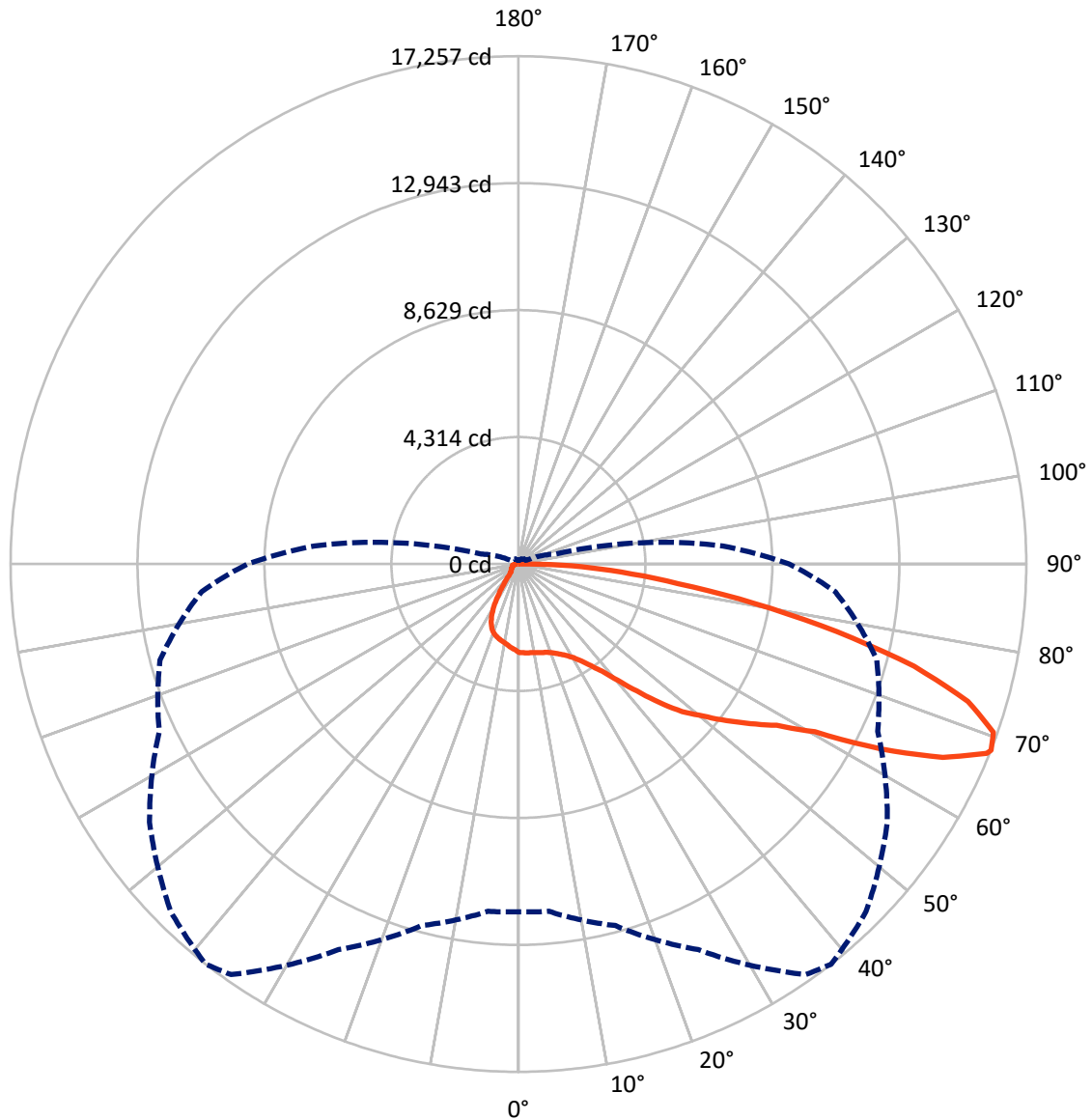
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 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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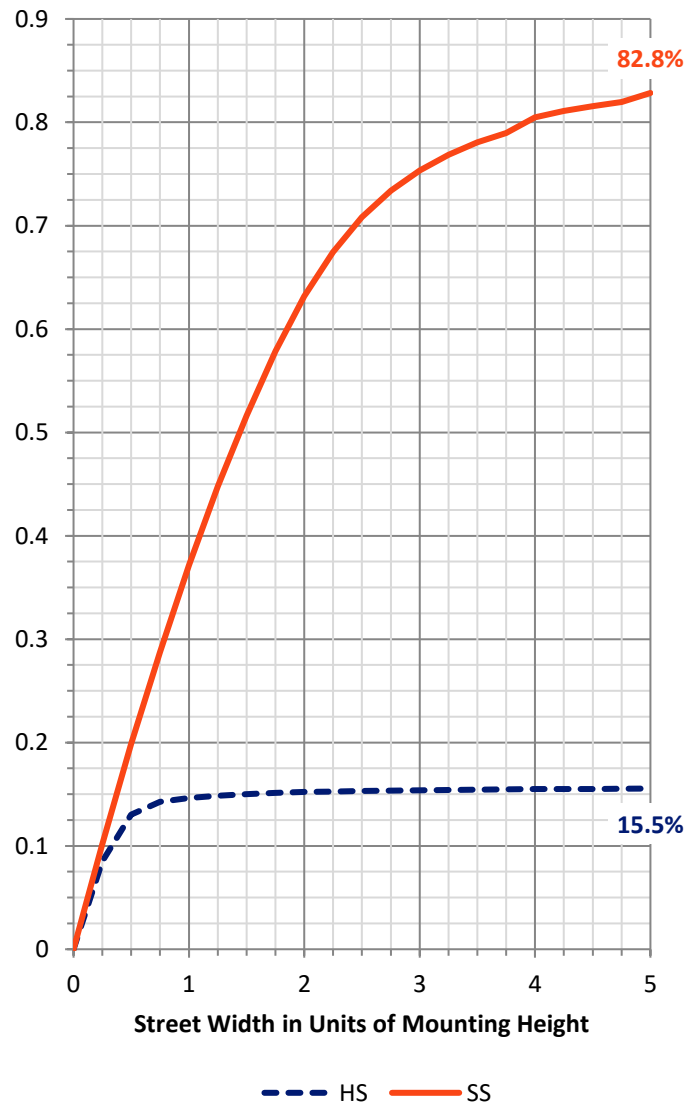
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4372.9	0.0	4372.9
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	23351.1	0.0	23351.1
	% Fixture	84.2	0.0	84.2
Total	Lumens	27724.0	0.0	27724.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.9	1.0
10°-20°	843.0	3.0
20°-30°	1407.0	5.1
30°-40°	2158.1	7.8
40°-50°	3715.4	13.4
50°-60°	5521.6	19.9
60°-70°	7304.5	26.3
70°-80°	5364.5	19.3
80°-90°	1126.1	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°	27724.0	100.0
0°-180°	27724.0	100.0



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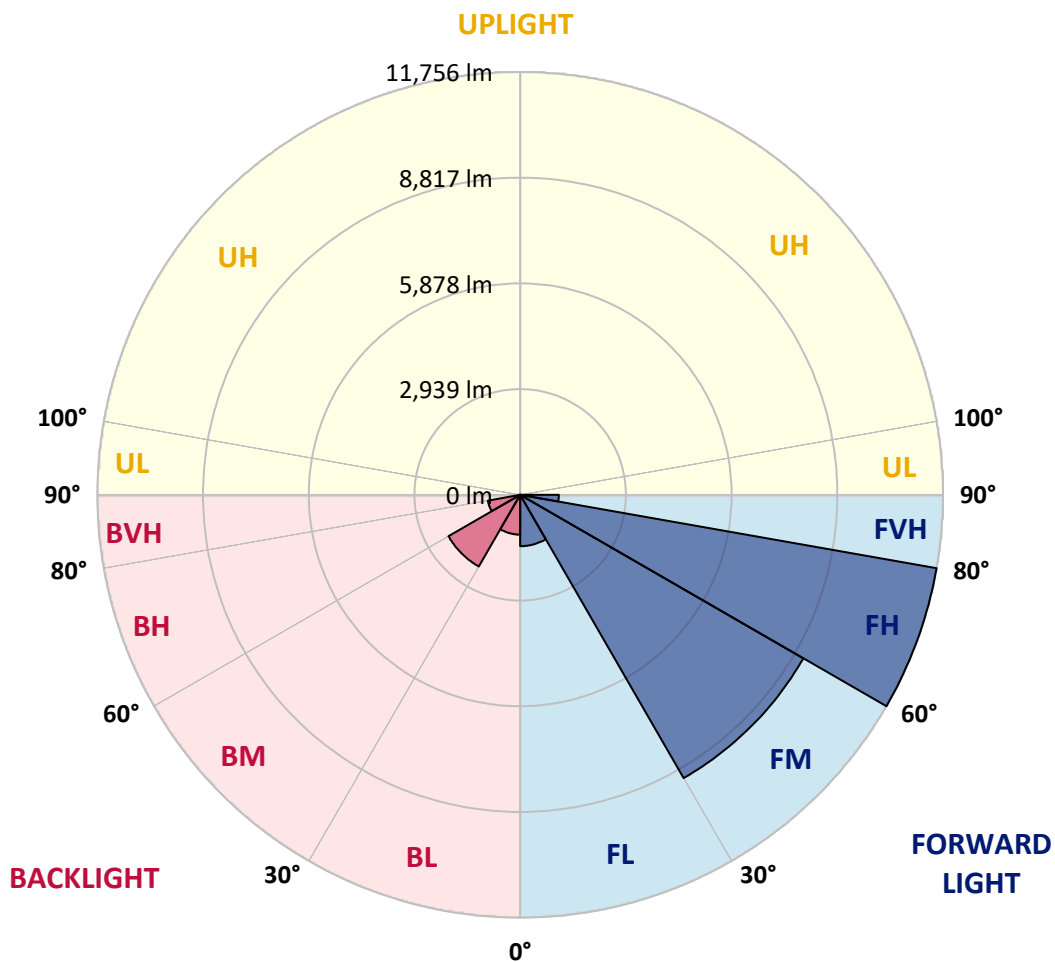
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1427.4	5.1			
FM	(30°-60°)	9093.0	32.8			
FH	(60°-80°)	11756.4	42.4			G4/12000
FVH	(80°-90°)	1074.3	3.9			G5
BL	(0°-30°)	1106.4	4.0	B3/2500		
BM	(30°-60°)	2302.0	8.3	B2/2500		
BH	(60°-80°)	912.7	3.3	B2/1000		G2/1000
BVH	(80°-90°)	51.8	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°	3010.8	3010.8	3010.8	3010.8	3010.8	3010.8	3010.8	3010.8	3010.8	3010.8	3010.8
2.5°	3074.7	3053.4	3057.5	3070.6	3016.9	3012.9	3030.1	3010.8	3036.2	3024.0	3025.0
5°	3082.8	3062.5	3070.6	3090.9	3040.2	3039.2	3058.5	3034.1	3053.4	3038.2	3034.1
7.5°	3075.7	3057.5	3063.5	3082.8	3039.2	3042.3	3067.6	3059.5	3087.9	3072.7	3061.5
10°	3072.7	3060.5	3061.5	3087.9	3053.4	3061.5	3093.9	3099.0	3144.6	3131.4	3126.4
12.5°	3045.3	3036.2	3045.3	3086.8	3075.7	3091.9	3135.5	3161.8	3215.5	3210.5	3220.6
15°	3029.1	3025.0	3032.1	3080.8	3093.9	3120.3	3178.0	3229.7	3294.6	3303.7	3327.0
17.5°	3048.3	3054.4	3067.6	3107.1	3125.4	3152.7	3217.6	3288.5	3380.7	3420.3	3447.6
20°	3129.4	3136.5	3148.7	3174.0	3194.3	3217.6	3275.3	3356.4	3479.0	3540.8	3584.4
22.5°	3247.0	3234.8	3252.0	3273.3	3279.4	3299.7	3358.4	3439.5	3578.3	3671.6	3732.4
25°	3338.2	3330.1	3347.3	3383.8	3382.8	3401.0	3458.8	3541.9	3691.8	3825.6	3933.0
27.5°	3433.4	3428.4	3435.5	3484.1	3503.4	3525.6	3576.3	3669.6	3838.8	4007.0	4176.3
30°	3571.3	3582.4	3570.2	3626.0	3667.5	3692.9	3744.5	3859.1	4040.5	4270.5	4484.3
32.5°	3785.1	3790.1	3769.9	3831.7	3891.5	3930.0	3979.7	4129.6	4328.3	4609.0	4884.6
35°	4241.1	4242.1	4159.0	4149.9	4183.3	4239.1	4312.1	4535.0	4830.9	5263.6	5575.8
37.5°	4932.3	4898.8	4819.8	4665.7	4616.1	4626.2	4730.6	5040.7	5489.6	6288.2	6587.2
40°	5724.7	5686.2	5547.4	5343.7	5197.8	5188.7	5224.1	5596.0	6252.7	7440.4	7591.4
42.5°	6580.1	6553.7	6328.7	6117.9	5931.5	5902.1	5822.0	6195.0	7093.9	8469.1	8468.0
45°	7369.5	7364.4	7089.8	6985.4	6787.8	6710.8	6615.5	6905.4	7958.3	9279.8	9182.5
47.5°	8110.3	8095.1	7803.2	7683.7	7532.7	7491.1	7378.6	7581.3	8697.1	10036.8	9794.6
50°	8896.7	8850.1	8416.4	8295.8	8146.8	8114.4	8055.6	8288.7	9501.7	10698.6	10297.2
52.5°	9810.8	9739.9	9148.0	8924.1	8817.7	8838.9	8801.5	9010.2	10401.6	11251.9	10708.7
55°	10892.1	10679.3	10113.8	9707.4	9471.3	9569.6	9496.6	9757.1	11265.0	11682.6	11008.7
57.5°	11685.6	11684.6	11454.6	10876.9	10341.8	10346.9	10200.0	10496.9	11963.3	12111.2	11184.0
60°	12593.6	12647.3	12726.4	12470.0	11838.6	11574.1	11057.3	11229.6	12524.7	12422.4	11262.0
62.5°	13383.1	13414.5	13764.1	13862.4	13911.1	13846.2	12697.0	12073.7	12983.8	12595.7	11284.3
65°	13354.7	13351.7	14107.7	14766.4	15789.9	15847.7	15516.3	13327.3	13339.5	12617.9	11168.8
67.5°	12051.5	12113.3	13124.7	14536.3	16977.6	17160.0	16703.0	15147.4	13471.2	12607.8	10893.1
68°	11818.4	11844.7	12719.3	14455.3	17028.3	17257.3	16705.0	15299.4	13467.2	12608.8	10808.0
70°	10333.7	10373.2	11392.7	13473.3	17042.5	17121.5	16454.7	15382.5	13333.4	12514.6	10193.9
72.5°	8157.9	8203.5	9132.8	11368.4	15980.4	15977.4	15332.9	14686.3	12880.4	11825.5	8647.4
75°	5910.2	6059.2	6871.9	8929.1	13680.0	13888.8	13805.7	13677.0	11591.4	9993.2	6102.7
77.5°	4143.8	4219.8	4985.0	6715.9	10750.2	11069.5	11629.9	11796.1	9662.8	7421.2	2748.4
80°	2613.6	2756.5	3389.9	4769.1	7831.6	8126.5	8805.5	9085.2	7132.4	3640.2	481.4
82.5°	1523.2	1608.3	2074.4	3088.9	5265.7	5471.4	5916.3	5572.7	2891.3	484.4	267.5
85°	737.8	815.8	1113.7	1757.2	3287.5	3495.2	3735.4	2430.2	478.3	190.5	180.4
87.5°	299.0	307.1	456.0	780.3	1638.7	1817.0	1758.3	797.6	124.6	68.9	56.8
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°	3010.8	3010.8	3010.8	3010.8	3010.8	3010.8	3010.8	3010.8	3010.8	3010.8	3010.8
2.5°	3030.1	3014.9	2996.6	2990.6	2948.0	2946.0	2910.5	2962.2	2947.0	2948.0	2960.2
5°	3032.1	3014.9	2979.4	2963.2	2917.6	2905.4	2846.7	2879.1	2844.6	2841.6	2861.9
7.5°	3053.4	3034.1	2983.5	2958.1	2873.0	2832.5	2776.7	2805.1	2752.4	2741.3	2745.3
10°	3110.2	3085.8	3024.0	2964.2	2858.8	2800.0	2690.6	2699.7	2653.1	2637.9	2651.1
12.5°	3196.3	3166.9	3092.9	3004.8	2871.0	2767.6	2633.8	2580.1	2509.2	2485.9	2493.0
15°	3313.8	3279.4	3182.1	3079.7	2897.3	2752.4	2570.0	2458.5	2320.7	2282.2	2268.0
17.5°	3442.5	3406.1	3293.6	3164.9	2944.0	2735.2	2497.0	2319.7	2121.1	2033.9	2028.8
20°	3593.5	3554.0	3436.5	3264.2	2981.4	2713.9	2405.8	2151.5	1893.0	1747.1	1737.0
22.5°	3766.8	3732.4	3599.6	3352.4	3000.7	2658.2	2268.0	1936.6	1613.3	1430.9	1421.8
25°	3970.5	3938.1	3751.6	3414.2	2979.4	2559.9	2079.5	1673.1	1284.0	1101.6	1093.5
27.5°	4213.8	4163.1	3871.2	3432.4	2916.6	2398.7	1843.4	1334.7	948.6	809.7	802.6
30°	4490.4	4400.2	3983.7	3427.3	2805.1	2193.0	1518.1	984.0	673.9	580.7	577.6
32.5°	4839.0	4680.9	4091.1	3386.8	2646.0	1923.4	1155.3	683.0	484.4	438.8	437.8
35°	5420.7	5082.2	4208.7	3313.8	2430.2	1569.8	800.6	465.2	394.2	385.1	385.1
37.5°	6288.2	5744.0	4375.9	3197.3	2150.5	1196.8	527.0	369.9	370.9	376.0	377.0
40°	7179.0	6505.1	4618.1	3024.0	1824.1	841.1	383.1	343.5	355.7	363.8	369.9
42.5°	7996.8	7194.2	4887.7	2786.9	1455.3	555.3	342.5	330.4	336.5	342.5	348.6
45°	8682.9	7798.2	5142.0	2516.3	1078.3	395.2	339.5	315.2	312.1	316.2	320.2
47.5°	9261.5	8289.7	5320.4	2211.3	733.7	338.5	331.4	299.0	288.8	289.8	291.9
50°	9703.4	8637.3	5399.4	1875.8	486.4	329.4	316.2	281.7	265.5	265.5	267.5
52.5°	10001.3	8855.2	5352.8	1497.8	349.6	324.3	304.0	263.5	244.2	247.3	249.3
55°	10222.2	8971.7	5169.4	1100.6	308.1	309.1	289.8	242.2	226.0	234.1	237.1
57.5°	10308.4	8968.7	4861.3	760.1	306.0	285.8	269.6	224.0	210.8	221.9	227.0
60°	10277.0	8820.7	4413.4	517.9	300.0	267.5	248.3	206.7	196.6	196.6	197.6
62.5°	10214.1	8613.0	3763.8	384.1	285.8	254.4	232.1	192.5	180.4	174.3	172.3
65°	9930.4	8109.3	2763.6	331.4	271.6	247.3	216.9	179.4	163.2	153.0	151.0
67.5°	9369.0	7242.8	1544.4	306.0	261.5	243.2	206.7	167.2	149.0	136.8	135.8
68°	9196.7	6972.2	1309.3	304.0	263.5	243.2	205.7	164.2	146.9	133.8	132.8
70°	8177.2	5624.4	541.2	285.8	277.7	244.2	200.7	155.1	138.8	125.7	124.6
72.5°	6184.8	3258.1	285.8	248.3	270.6	240.2	202.7	148.0	131.7	116.5	114.5
75°	3408.1	933.3	254.4	201.7	250.3	253.4	206.7	146.9	127.7	108.4	104.4
77.5°	757.0	304.0	237.1	176.3	215.9	233.1	191.5	139.9	129.7	99.3	95.3
80°	289.8	247.3	225.0	135.8	171.3	197.6	159.1	124.6	132.8	93.2	88.2
82.5°	242.2	216.9	206.7	105.4	118.6	144.9	127.7	106.4	122.6	86.1	82.1
85°	178.4	209.8	145.9	83.1	87.2	89.2	89.2	83.1	105.4	76.0	72.0
87.5°	72.0	101.3	61.8	38.5	44.6	41.5	36.5	44.6	60.8	53.7	53.7
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)