

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: P237520

Luminaire Tested: **CTN-10-3-D-E1-T4-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237520
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-T4-7050-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 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: 28033 lumens
Efficiency: N/A
Efficacy: 132.2 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

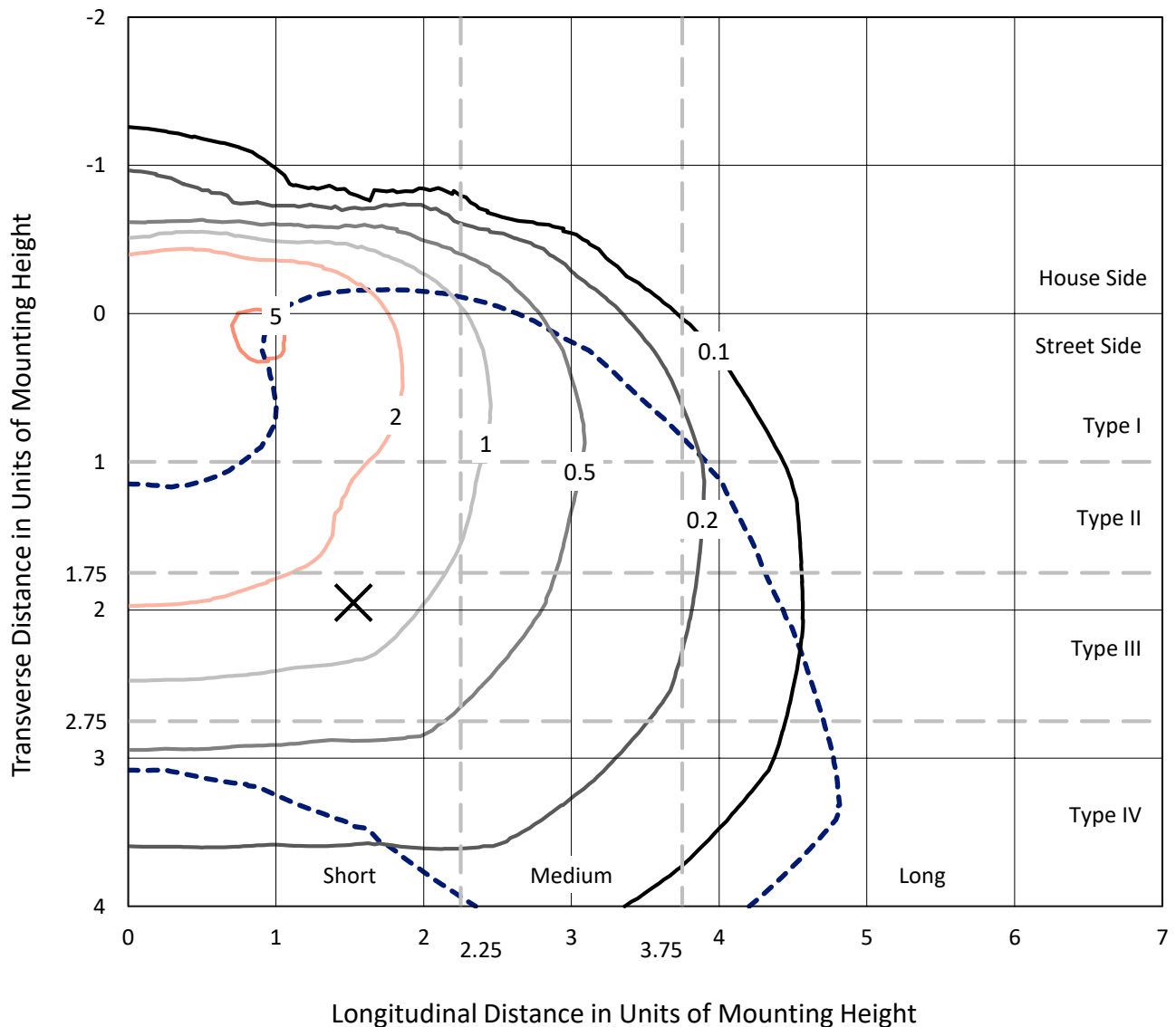
Input Watts (W): 212
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

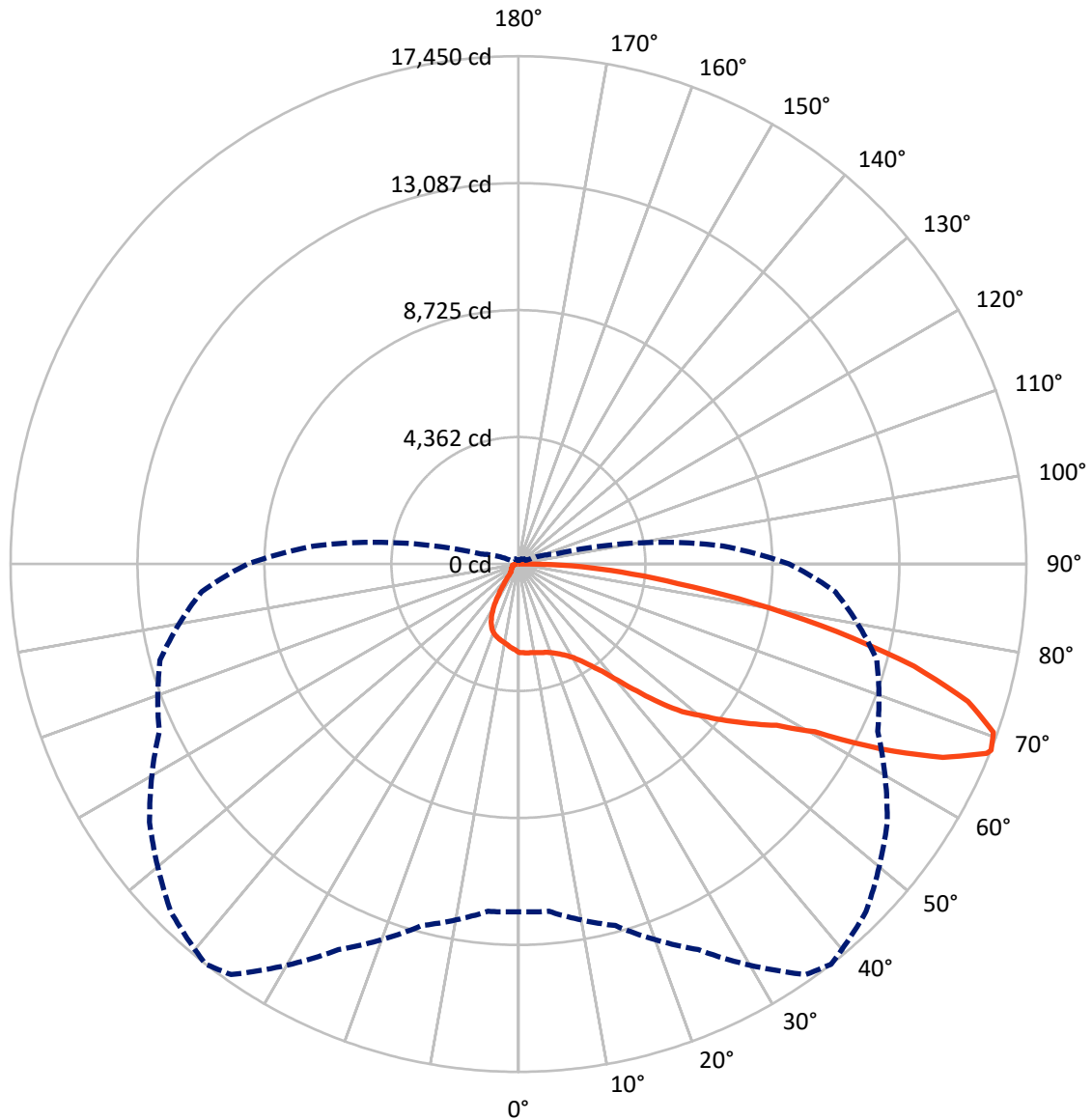
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 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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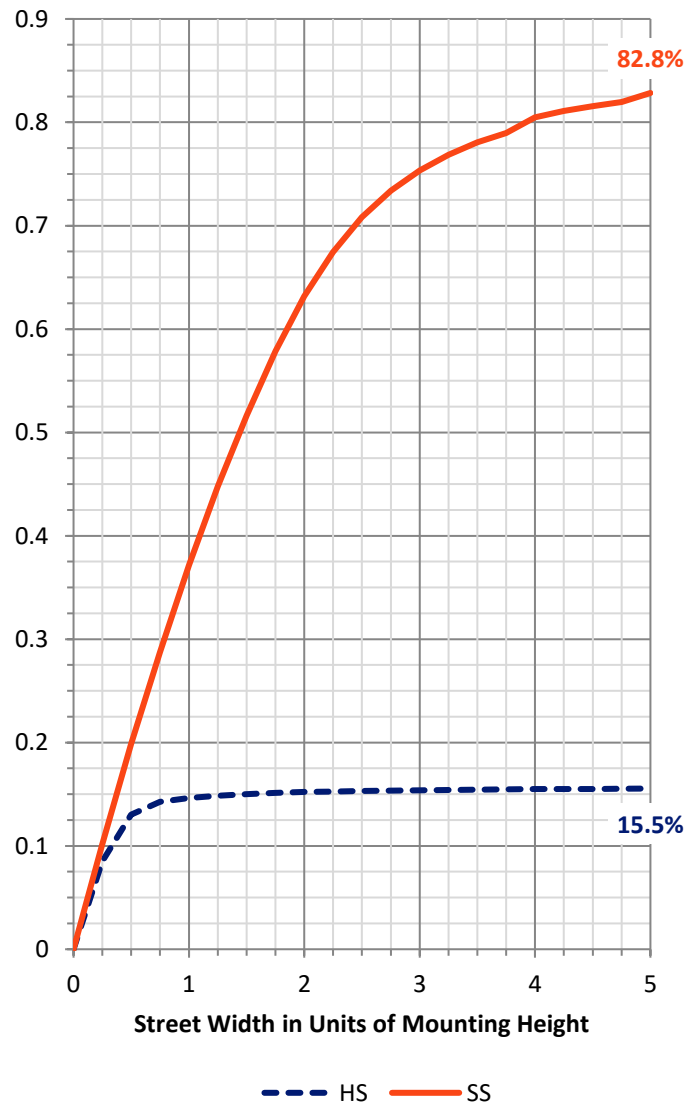
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4421.6	0.0	4421.6
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	23611.4	0.0	23611.4
	% Fixture	84.2	0.0	84.2
Total	Lumens	28033.0	0.0	28033.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	287.0	1.0
10°-20°	852.4	3.0
20°-30°	1422.6	5.1
30°-40°	2182.1	7.8
40°-50°	3756.8	13.4
50°-60°	5583.1	19.9
60°-70°	7386.0	26.3
70°-80°	5424.3	19.3
80°-90°	1138.6	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°	28033.0	100.0
0°-180°	28033.0	100.0

Coefficient of Utilization



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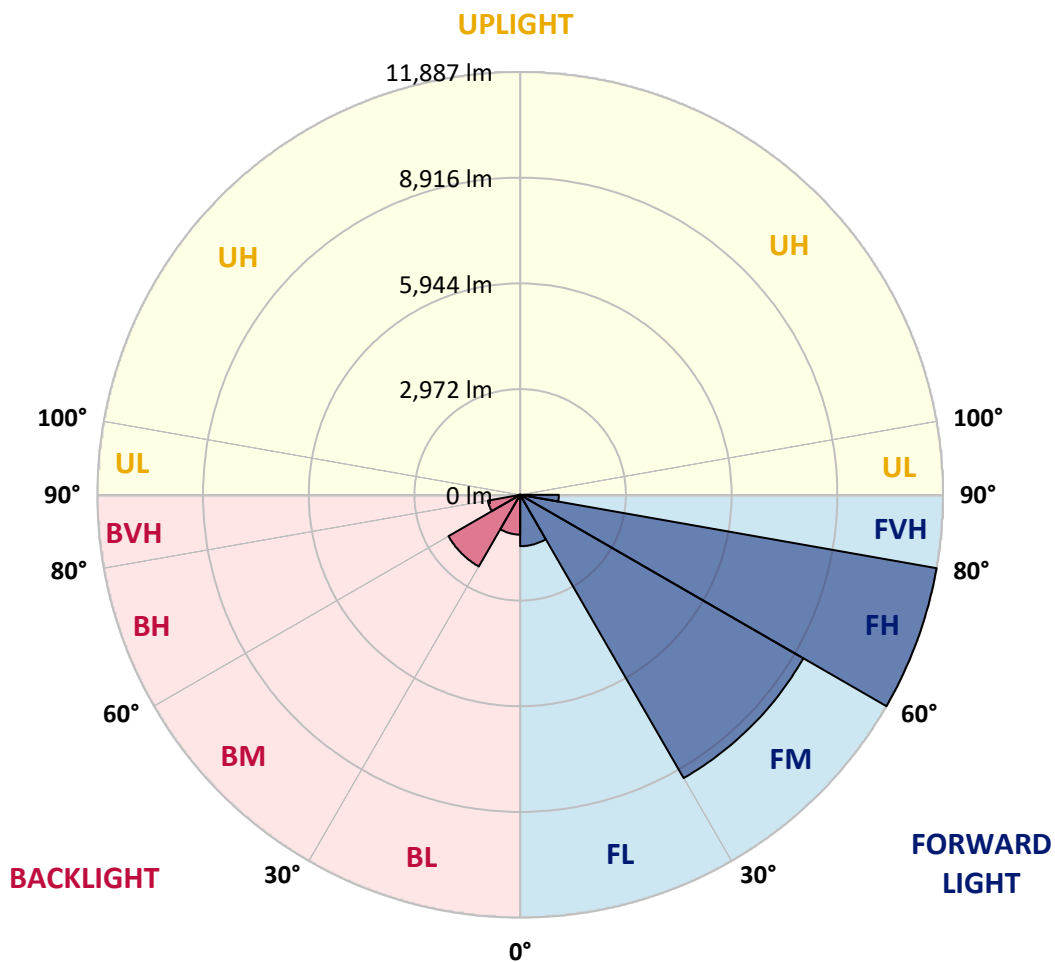
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1443.4	5.1			
FM	(30°-60°)	9194.4	32.8			
FH	(60°-80°)	11887.4	42.4			G4/12000
FVH	(80°-90°)	1086.2	3.9			G5
BL	(0°-30°)	1118.7	4.0	B3/2500		
BM	(30°-60°)	2327.6	8.3	B2/2500		
BH	(60°-80°)	922.9	3.3	B2/1000		G2/1000
BVH	(80°-90°)	52.4	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°	3044.4	3044.4	3044.4	3044.4	3044.4	3044.4	3044.4	3044.4	3044.4	3044.4	3044.4
2.5°	3108.9	3087.4	3091.5	3104.9	3050.5	3046.4	3063.9	3044.4	3070.0	3057.7	3058.7
5°	3117.1	3096.7	3104.9	3125.3	3074.1	3073.1	3092.6	3068.0	3087.4	3072.1	3068.0
7.5°	3110.0	3091.5	3097.7	3117.1	3073.1	3076.2	3101.8	3093.6	3122.3	3106.9	3095.6
10°	3106.9	3094.6	3095.6	3122.3	3087.4	3095.6	3128.4	3133.5	3179.7	3166.3	3161.2
12.5°	3079.2	3070.0	3079.2	3121.2	3110.0	3126.4	3170.4	3197.1	3251.4	3246.3	3256.5
15°	3062.8	3058.7	3065.9	3115.1	3128.4	3155.1	3213.5	3265.7	3331.3	3340.5	3364.1
17.5°	3082.3	3088.5	3101.8	3141.7	3160.2	3187.9	3253.4	3325.2	3418.4	3458.4	3486.0
20°	3164.3	3171.5	3183.8	3209.4	3229.9	3253.4	3311.8	3393.8	3517.8	3580.3	3624.4
22.5°	3283.1	3270.9	3288.3	3309.8	3315.9	3336.4	3395.9	3477.8	3618.2	3712.5	3774.0
25°	3375.4	3367.2	3384.6	3421.5	3420.5	3438.9	3497.3	3581.3	3733.0	3868.3	3976.9
27.5°	3471.7	3466.6	3473.7	3522.9	3542.4	3564.9	3616.2	3710.5	3881.6	4051.7	4222.8
30°	3611.1	3622.3	3610.0	3666.4	3708.4	3734.0	3786.3	3902.1	4085.5	4318.1	4534.3
32.5°	3827.3	3832.4	3811.9	3874.4	3934.9	3973.8	4024.0	4175.7	4376.5	4660.4	4939.1
35°	4288.4	4289.4	4205.4	4196.2	4230.0	4286.3	4360.1	4585.5	4884.8	5322.3	5637.9
37.5°	4987.2	4953.4	4873.5	4717.7	4667.5	4677.8	4783.3	5096.9	5550.8	6358.3	6660.6
40°	5788.5	5749.6	5609.2	5403.3	5255.7	5246.5	5282.3	5658.4	6322.4	7523.4	7676.1
42.5°	6653.4	6626.8	6399.3	6186.1	5997.6	5967.9	5886.9	6264.0	7172.9	8563.4	8562.4
45°	7451.6	7446.5	7168.8	7063.3	6863.5	6785.6	6689.3	6982.3	8047.0	9383.2	9284.8
47.5°	8200.7	8185.3	7890.2	7769.3	7616.6	7574.6	7460.9	7665.8	8794.0	10148.7	9903.8
50°	8995.9	8948.7	8510.2	8388.2	8237.6	8204.8	8145.4	8381.0	9607.6	10817.8	10412.0
52.5°	9920.2	9848.4	9250.0	9023.5	8915.9	8937.5	8899.5	9110.6	10517.6	11377.3	10828.0
55°	11013.5	10798.3	10226.5	9815.6	9576.9	9676.3	9602.5	9865.8	11390.6	11812.8	11131.4
57.5°	11815.9	11814.8	11582.2	10998.1	10457.1	10462.2	10313.6	10613.9	12096.6	12246.2	11308.6
60°	12734.0	12788.3	12868.2	12609.0	11970.6	11703.1	11180.5	11354.7	12664.3	12560.8	11387.5
62.5°	13532.2	13564.0	13917.5	14016.9	14066.1	14000.5	12838.5	12208.3	13128.5	12736.0	11410.1
65°	13503.5	13500.5	14264.9	14931.0	15965.9	16024.3	15689.2	13475.9	13488.2	12758.6	11293.3
67.5°	12185.8	12248.3	13270.9	14698.3	17166.9	17351.3	16889.2	15316.2	13621.4	12748.3	11014.5
68°	11950.1	11976.7	12861.1	14616.4	17218.1	17449.7	16891.2	15469.9	13617.3	12749.4	10928.5
70°	10448.9	10488.9	11519.7	13623.4	17232.4	17312.4	16638.1	15554.0	13482.0	12654.1	10307.5
72.5°	8248.9	8295.0	9234.6	11495.1	16158.5	16155.5	15503.8	14850.0	13024.0	11957.3	8743.8
75°	5976.1	6126.7	6948.5	9028.7	13832.5	14043.6	13959.5	13829.4	11720.6	10104.6	6170.8
77.5°	4190.0	4266.9	5040.5	6790.7	10870.1	11192.8	11759.5	11927.5	9770.5	7503.9	2779.0
80°	2642.7	2787.2	3427.6	4822.3	7918.9	8217.1	8903.6	9186.5	7211.9	3680.7	486.7
82.5°	1540.1	1626.2	2097.6	3123.3	5324.4	5532.4	5982.2	5634.8	2923.5	489.8	270.5
85°	746.0	824.9	1126.1	1776.8	3324.1	3534.2	3777.1	2457.2	483.7	192.6	182.4
87.5°	302.3	310.5	461.1	789.0	1656.9	1837.3	1777.9	806.4	126.0	69.7	57.4
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°	3044.4	3044.4	3044.4	3044.4	3044.4	3044.4	3044.4	3044.4	3044.4	3044.4	3044.4
2.5°	3063.9	3048.5	3030.0	3023.9	2980.9	2978.8	2942.9	2995.2	2979.8	2980.9	2993.2
5°	3065.9	3048.5	3012.6	2996.2	2950.1	2937.8	2878.4	2911.2	2876.3	2873.3	2893.8
7.5°	3087.4	3068.0	3016.7	2991.1	2905.0	2864.0	2807.7	2836.4	2783.1	2771.8	2775.9
10°	3144.8	3120.2	3057.7	2997.3	2890.7	2831.3	2720.6	2729.8	2682.7	2667.3	2680.6
12.5°	3231.9	3202.2	3127.4	3038.2	2903.0	2798.5	2663.2	2608.9	2537.2	2513.6	2520.8
15°	3350.8	3315.9	3217.6	3114.1	2929.6	2783.1	2598.6	2485.9	2346.6	2307.6	2293.3
17.5°	3480.9	3444.0	3330.3	3200.1	2976.8	2765.7	2524.9	2345.5	2144.7	2056.6	2051.5
20°	3633.6	3593.6	3474.8	3300.6	3014.7	2744.2	2432.6	2175.4	1914.1	1766.6	1756.3
22.5°	3808.8	3774.0	3639.7	3389.7	3034.1	2687.8	2293.3	1958.2	1631.3	1446.9	1437.7
25°	4014.8	3982.0	3793.5	3452.2	3012.6	2588.4	2102.7	1691.8	1298.3	1113.9	1105.7
27.5°	4260.7	4209.5	3914.4	3470.7	2949.1	2425.5	1863.9	1349.5	959.1	818.7	811.6
30°	4540.5	4449.3	4028.1	3465.5	2836.4	2217.5	1535.0	995.0	681.4	587.2	584.1
32.5°	4893.0	4733.1	4136.7	3424.6	2675.5	1944.9	1168.2	690.7	489.8	443.7	442.7
35°	5481.1	5138.9	4255.6	3350.8	2457.2	1587.3	809.5	470.3	398.6	389.4	389.4
37.5°	6358.3	5808.0	4424.7	3232.9	2174.4	1210.2	532.8	374.0	375.0	380.2	381.2
40°	7259.0	6577.6	4669.6	3057.7	1844.5	850.5	387.3	347.4	359.7	367.9	374.0
42.5°	8085.9	7274.4	4942.1	2817.9	1471.5	561.5	346.3	334.1	340.2	346.3	352.5
45°	8779.7	7885.1	5199.3	2544.3	1090.3	399.6	343.3	318.7	315.6	319.7	323.8
47.5°	9364.8	8382.1	5379.7	2235.9	741.9	342.3	335.1	302.3	292.0	293.1	295.1
50°	9811.5	8733.5	5459.6	1896.7	491.9	333.0	319.7	284.9	268.5	268.5	270.5
52.5°	10112.8	8953.9	5412.5	1514.5	353.5	327.9	307.4	266.4	247.0	250.0	252.1
55°	10336.2	9071.7	5227.0	1112.8	311.5	312.5	293.1	244.9	228.5	236.7	239.8
57.5°	10423.3	9068.6	4915.5	768.5	309.5	289.0	272.6	226.5	213.1	224.4	229.5
60°	10391.5	8919.0	4462.6	523.6	303.3	270.5	251.1	209.0	198.8	198.8	199.8
62.5°	10328.0	8709.0	3805.7	388.4	289.0	257.2	234.7	194.7	182.4	176.2	174.2
65°	10041.1	8199.7	2794.4	335.1	274.6	250.0	219.3	181.4	165.0	154.7	152.7
67.5°	9473.4	7323.6	1561.6	309.5	264.4	245.9	209.0	169.1	150.6	138.3	137.3
68°	9299.2	7050.0	1323.9	307.4	266.4	245.9	208.0	166.0	148.6	135.3	134.2
70°	8268.3	5687.1	547.2	289.0	280.8	247.0	202.9	156.8	140.4	127.1	126.0
72.5°	6253.8	3294.4	289.0	251.1	273.6	242.9	204.9	149.6	133.2	117.8	115.8
75°	3446.1	943.8	257.2	203.9	253.1	256.2	209.0	148.6	129.1	109.6	105.5
77.5°	765.5	307.4	239.8	178.3	218.3	235.7	193.7	141.4	131.2	100.4	96.3
80°	293.1	250.0	227.5	137.3	173.2	199.8	160.9	126.0	134.2	94.3	89.1
82.5°	244.9	219.3	209.0	106.6	119.9	146.5	129.1	107.6	124.0	87.1	83.0
85°	180.3	212.1	147.6	84.0	88.1	90.2	90.2	84.0	106.6	76.9	72.8
87.5°	72.8	102.5	62.5	38.9	45.1	42.0	36.9	45.1	61.5	54.3	54.3
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)