

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: P301819

Luminaire Tested: **GLNA-AF-04-LED-E1-SL4-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301819
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-04-LED-E1-SL4-7030-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17127.1 lumens
Efficiency: N/A
Efficacy: 76.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G3

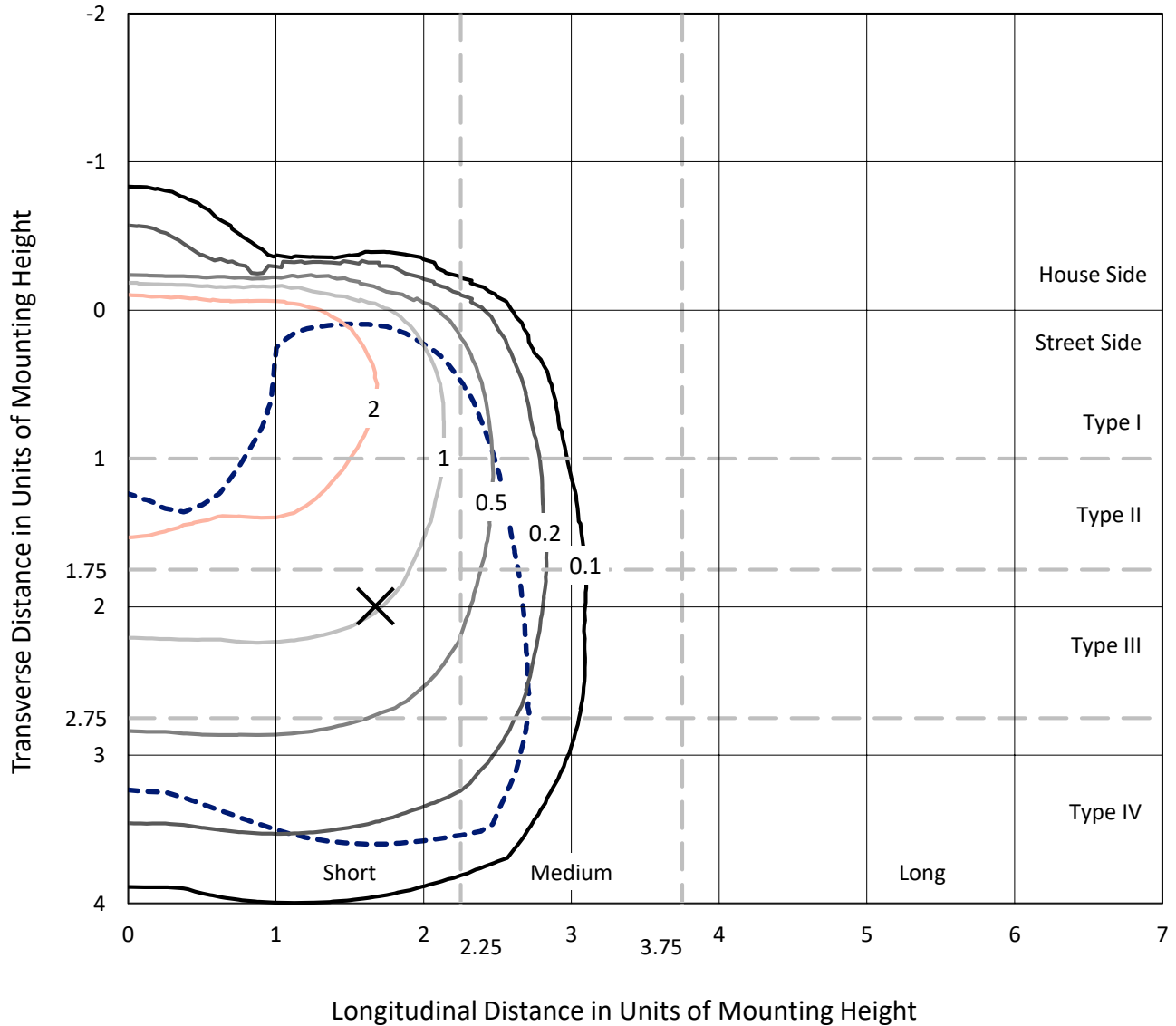
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

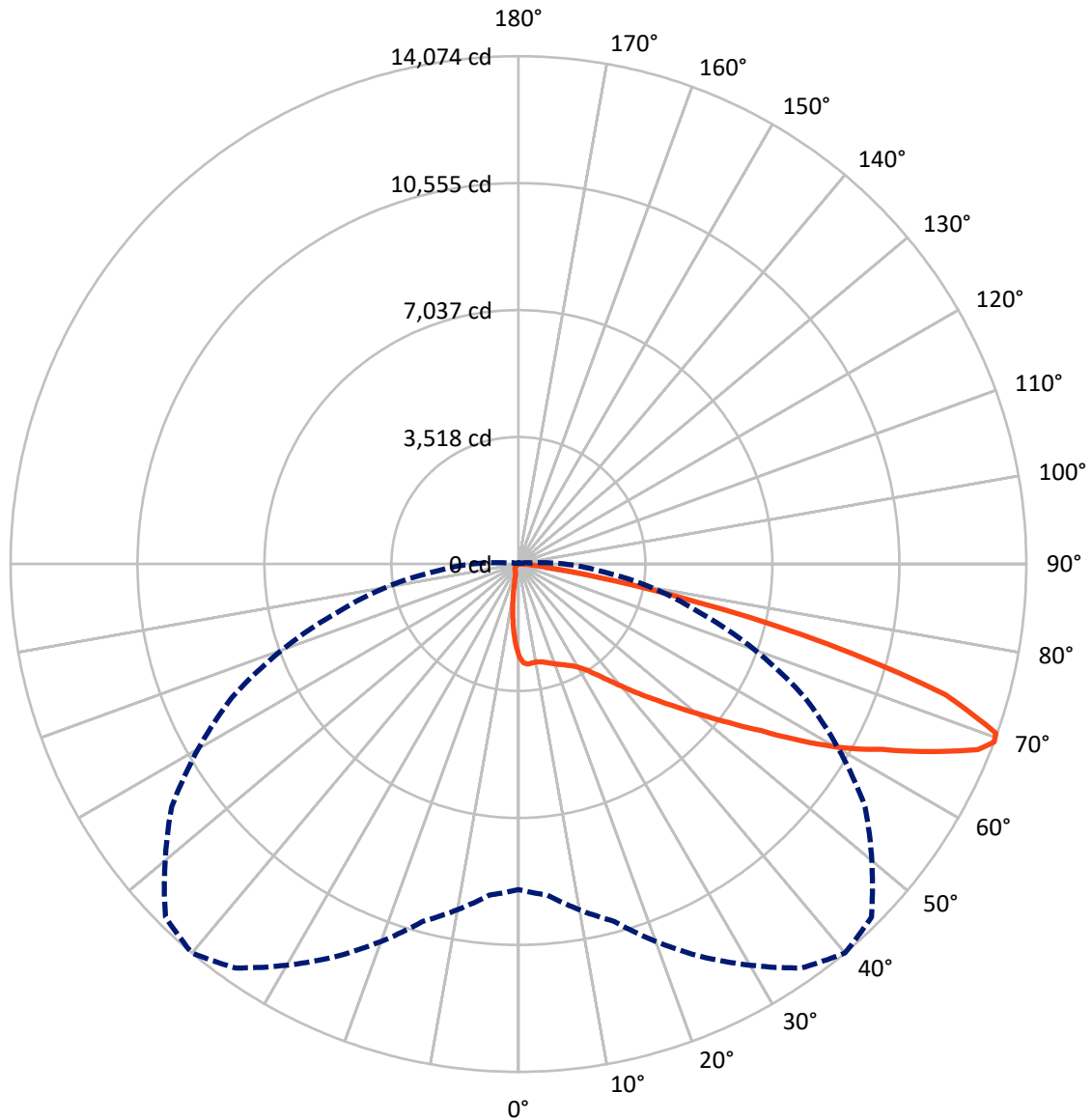
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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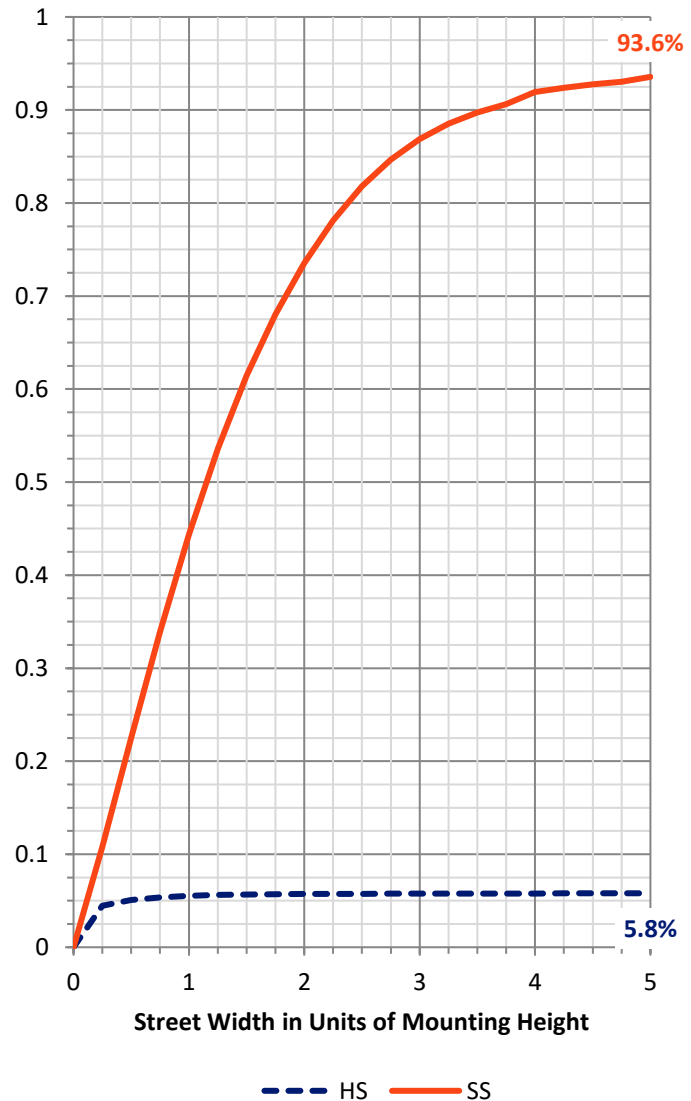
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1002.0	0.0	1002.0
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	16125.0	0.0	16125.0
	% Fixture	94.1	0.0	94.1
Total	Lumens	17127.1	0.0	17127.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.5	1.2
10°-20°	510.2	3.0
20°-30°	859.4	5.0
30°-40°	1406.8	8.2
40°-50°	2435.9	14.2
50°-60°	3836.8	22.4
60°-70°	5010.7	29.3
70°-80°	2580.7	15.1
80°-90°	279.2	1.6
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°	17127.1	100.0
0°-180°	17127.1	100.0



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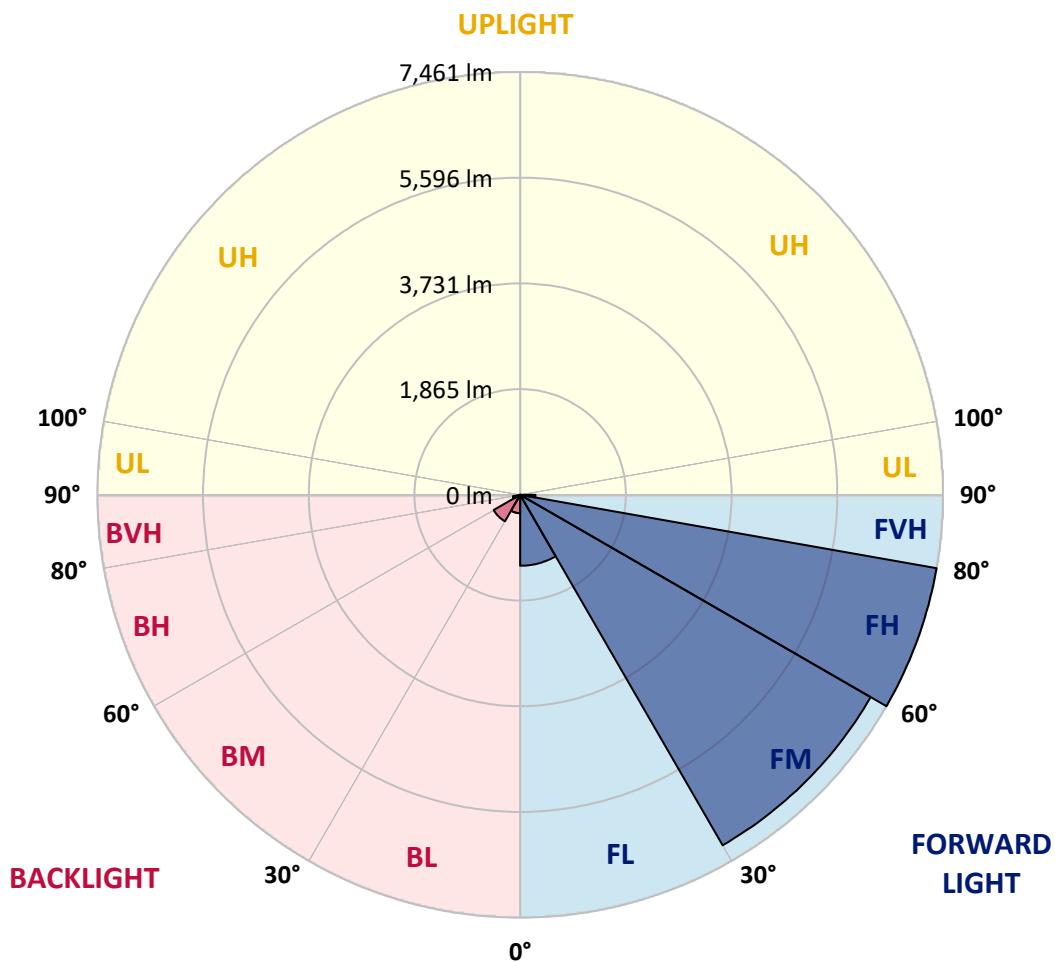
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1252.5	7.3			
FM	(30°-60°)	7140.9	41.7			
FH	(60°-80°)	7461.3	43.6			G3/7500
FVH	(80°-90°)	270.4	1.6			G3/500
BL	(0°-30°)	324.6	1.9	B1/500		
BM	(30°-60°)	538.6	3.1	B1/1000		
BH	(60°-80°)	130.1	0.8	B1/500		G1/500
BVH	(80°-90°)	8.8	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2558.9	2558.9	2558.9	2558.9	2558.9	2558.9	2558.9	2558.9	2558.9	2558.9	2558.9
2.5°	2809.7	2794.4	2785.2	2773.0	2757.7	2744.4	2739.3	2701.6	2665.9	2617.0	2560.9
5°	2861.7	2856.6	2840.2	2823.9	2805.6	2785.2	2774.0	2729.1	2678.2	2606.8	2508.9
7.5°	2866.8	2860.6	2840.2	2817.8	2792.3	2767.9	2748.5	2703.6	2656.7	2584.4	2465.1
10°	2858.6	2851.5	2836.2	2811.7	2780.1	2756.7	2737.3	2694.5	2654.7	2589.5	2456.9
12.5°	2849.4	2842.3	2835.1	2822.9	2795.4	2779.1	2762.8	2722.0	2686.3	2631.3	2486.5
15°	2858.6	2854.5	2862.7	2857.6	2842.3	2828.0	2811.7	2775.0	2742.4	2696.5	2540.5
17.5°	2897.3	2897.3	2922.8	2925.9	2911.6	2891.2	2867.8	2831.1	2803.5	2764.8	2604.7
20°	2988.1	2985.0	3017.6	3023.8	2989.1	2957.5	2922.8	2878.0	2856.6	2832.1	2668.0
22.5°	3144.0	3129.8	3149.1	3143.0	3074.7	3025.8	2983.0	2927.9	2916.7	2905.5	2738.3
25°	3346.9	3338.8	3352.0	3291.9	3171.6	3105.3	3054.3	2992.1	2992.1	3003.4	2817.8
27.5°	3641.6	3611.0	3566.1	3460.1	3279.6	3195.0	3140.0	3073.7	3091.0	3132.8	2922.8
30°	3943.3	3909.7	3806.7	3643.6	3411.2	3322.5	3258.2	3188.9	3229.7	3306.1	3063.5
32.5°	4241.0	4203.3	4057.5	3851.6	3599.8	3511.1	3448.9	3372.4	3440.7	3569.2	3269.4
35°	4529.5	4495.9	4327.7	4085.0	3850.5	3777.1	3720.1	3653.8	3741.5	3920.9	3560.0
37.5°	4853.7	4817.0	4612.1	4349.1	4155.4	4102.4	4060.6	3994.3	4147.2	4410.2	3964.7
40°	5252.3	5190.1	4913.9	4651.8	4508.1	4482.6	4454.1	4444.9	4682.4	5046.4	4504.0
42.5°	5709.0	5607.1	5229.9	4970.9	4895.5	4913.9	4906.7	4947.5	5352.2	5837.5	5160.6
45°	6165.8	6034.3	5581.6	5311.4	5321.6	5385.9	5425.6	5588.7	6191.2	6744.8	5867.1
47.5°	6553.2	6423.7	5919.1	5679.5	5801.8	5928.2	6036.3	6345.2	7053.7	7637.9	6416.6
50°	6884.5	6762.2	6276.9	6084.2	6359.5	6563.4	6738.7	7196.4	7981.4	8317.9	6801.9
52.5°	7155.7	7074.1	6648.0	6548.1	6996.6	7295.3	7552.2	8100.7	8803.1	8870.4	7101.6
55°	7419.7	7361.6	7046.6	7099.6	7744.9	8151.7	8476.9	9060.0	9510.6	9331.2	7389.1
57.5°	7723.5	7670.5	7501.3	7799.0	8728.7	9240.5	9595.3	9910.3	10133.5	9802.2	7660.3
60°	8033.4	8002.8	8006.9	8575.8	9858.3	10349.7	10545.4	10627.0	10745.2	10245.7	7675.6
62.5°	8329.1	8387.2	8585.0	9440.3	10939.9	11317.2	11416.0	11496.6	11357.9	10316.0	7091.4
65°	8829.6	8924.5	9396.5	10597.4	12129.7	12533.4	12635.3	12359.1	11454.8	9406.7	5768.2
67.5°	9074.3	9247.6	10089.7	11676.0	13283.7	13732.3	13694.6	12415.1	10279.3	7173.0	3701.7
69°	9023.3	9207.9	10249.8	12006.3	13667.0	14073.8	13834.2	11729.0	8757.3	5196.2	2272.4
70°	8821.5	9008.0	10167.2	11994.1	13716.0	14038.1	13575.3	10881.8	7404.4	3799.6	1421.1
72.5°	7366.7	7527.8	9026.4	10841.1	12635.3	12373.3	11356.9	7539.0	3607.9	1034.8	320.1
75°	4534.6	4624.3	6476.7	8167.0	9543.3	8870.4	7566.5	3750.6	1075.5	292.6	177.4
77.5°	2395.8	2436.5	3545.7	4813.9	6049.5	5005.6	3878.1	1462.9	495.5	183.5	128.5
80°	1416.0	1446.6	1909.5	2201.0	2618.0	2186.8	1550.6	898.2	354.8	115.2	114.2
82.5°	810.5	829.8	1384.4	1223.4	1031.7	880.8	771.7	851.3	213.1	77.5	118.3
85°	297.7	301.8	778.9	930.8	613.7	365.0	383.3	705.5	57.1	48.9	92.8
87.5°	138.6	135.6	400.7	569.9	358.9	231.4	298.7	155.0	22.4	31.6	25.5
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°	2558.9	2558.9	2558.9	2558.9	2558.9	2558.9	2558.9	2558.9	2558.9	2558.9	2558.9
2.5°	2528.3	2490.6	2422.3	2351.9	2280.6	2225.5	2171.5	2128.7	2114.4	2087.9	2089.9
5°	2450.8	2381.5	2238.8	2094.0	1943.1	1818.7	1701.5	1606.7	1560.8	1513.9	1513.9
7.5°	2383.5	2282.6	2059.3	1823.8	1580.2	1375.3	1190.7	1052.1	975.6	914.5	913.4
10°	2358.0	2221.4	1909.5	1572.0	1232.5	953.2	734.0	593.3	520.9	474.1	472.0
12.5°	2369.3	2200.0	1794.3	1339.6	913.4	612.7	425.1	334.4	303.8	289.5	289.5
15°	2401.9	2193.9	1679.1	1112.2	645.3	383.3	282.4	257.9	255.9	255.9	255.9
17.5°	2441.6	2195.9	1560.8	891.0	439.4	274.2	243.7	240.6	242.6	242.6	242.6
20°	2482.4	2197.0	1433.4	686.1	309.9	238.6	229.4	228.4	230.4	230.4	231.4
22.5°	2532.4	2202.1	1305.9	512.8	255.9	225.3	218.2	218.2	219.2	219.2	218.2
25°	2589.5	2212.3	1173.4	380.3	233.5	216.1	210.0	209.0	210.0	209.0	208.0
27.5°	2660.8	2226.5	1025.6	297.7	223.3	207.0	201.9	201.9	200.8	199.8	198.8
30°	2750.5	2242.8	859.4	252.8	213.1	198.8	193.7	192.7	191.7	189.6	189.6
32.5°	2887.1	2278.5	695.3	229.4	201.9	187.6	183.5	183.5	181.5	179.4	178.4
35°	3097.2	2348.9	548.5	215.1	189.6	175.3	170.3	170.3	168.2	167.2	166.2
37.5°	3387.7	2455.9	426.1	201.9	177.4	162.1	157.0	156.0	153.9	151.9	150.9
40°	3774.1	2588.4	335.4	189.6	165.2	148.8	144.8	142.7	138.6	135.6	135.6
42.5°	4259.4	2739.3	272.2	176.4	150.9	136.6	133.6	130.5	123.4	120.3	119.3
45°	4767.0	2874.9	230.4	161.1	136.6	124.4	122.3	117.2	108.1	105.0	105.0
47.5°	5133.0	2906.5	202.9	146.8	123.4	111.1	110.1	100.9	92.8	90.7	89.7
50°	5361.4	2844.3	180.4	132.5	111.1	98.9	95.8	84.6	79.5	77.5	76.5
52.5°	5515.3	2733.2	162.1	120.3	99.9	87.7	80.5	72.4	68.3	66.3	66.3
55°	5638.7	2576.2	143.7	109.1	90.7	78.5	68.3	62.2	58.1	56.1	56.1
57.5°	5673.4	2363.1	125.4	99.9	81.6	69.3	58.1	54.0	48.9	47.9	47.9
60°	5421.5	1978.8	111.1	88.7	73.4	60.1	51.0	45.9	40.8	39.8	38.7
62.5°	4757.9	1531.2	97.9	78.5	64.2	52.0	43.8	37.7	33.6	33.6	33.6
65°	3629.3	1026.6	85.6	68.3	56.1	43.8	37.7	30.6	28.5	28.5	29.6
67.5°	2172.5	558.7	73.4	58.1	47.9	36.7	31.6	26.5	25.5	26.5	26.5
69°	1273.3	328.3	66.3	52.0	41.8	32.6	27.5	23.4	25.5	26.5	26.5
70°	786.0	221.2	61.2	46.9	37.7	29.6	25.5	22.4	24.5	25.5	25.5
72.5°	219.2	114.2	48.9	36.7	30.6	24.5	20.4	20.4	23.4	24.5	24.5
75°	142.7	84.6	37.7	27.5	23.4	19.4	17.3	19.4	22.4	23.4	23.4
77.5°	118.3	69.3	30.6	22.4	19.4	18.4	16.3	17.3	20.4	21.4	21.4
80°	108.1	48.9	24.5	20.4	17.3	16.3	15.3	14.3	18.4	19.4	19.4
82.5°	103.0	38.7	21.4	18.4	16.3	14.3	13.3	14.3	16.3	17.3	18.4
85°	64.2	25.5	19.4	17.3	14.3	13.3	13.3	13.3	15.3	16.3	16.3
87.5°	23.4	20.4	17.3	14.3	12.2	12.2	12.2	12.2	13.3	15.3	15.3
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)