

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: P453216

Luminaire Tested: **GALN-SA4B-727-U-SL4-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453216  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA4B-727-U-SL4-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15485 lumens  
Efficiency: N/A  
Efficacy: 94.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3

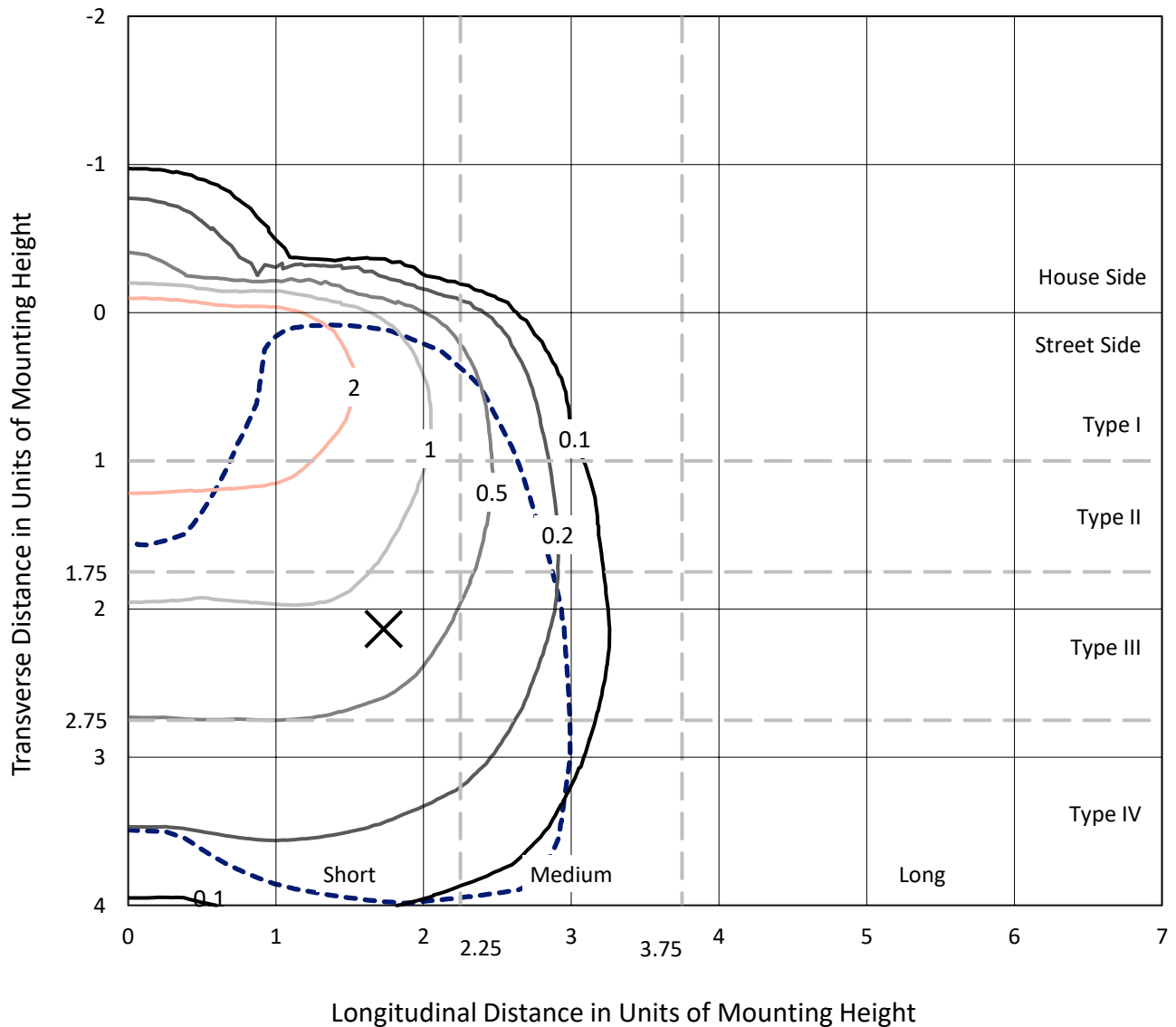
Input Watts (W): 164  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

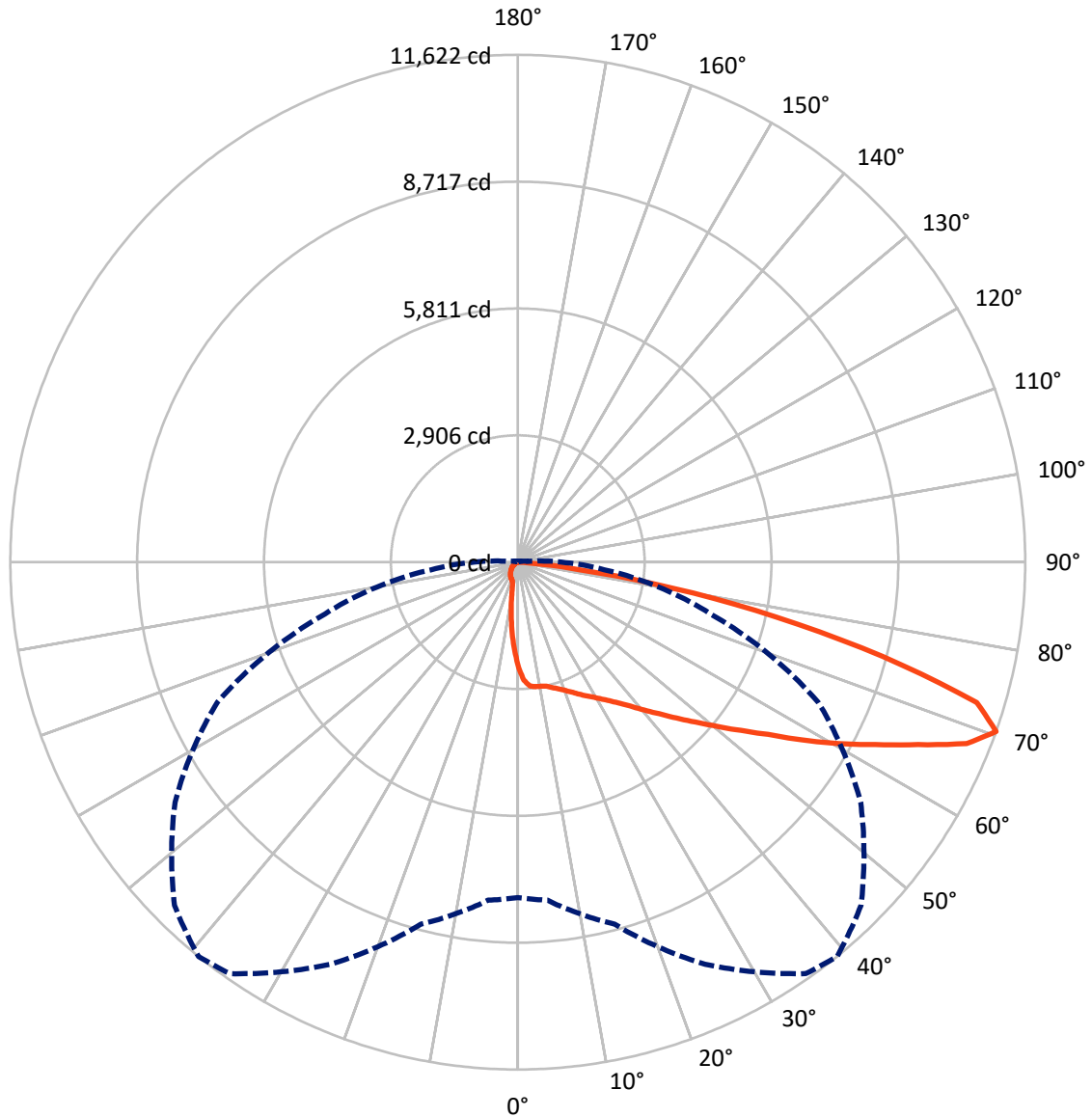
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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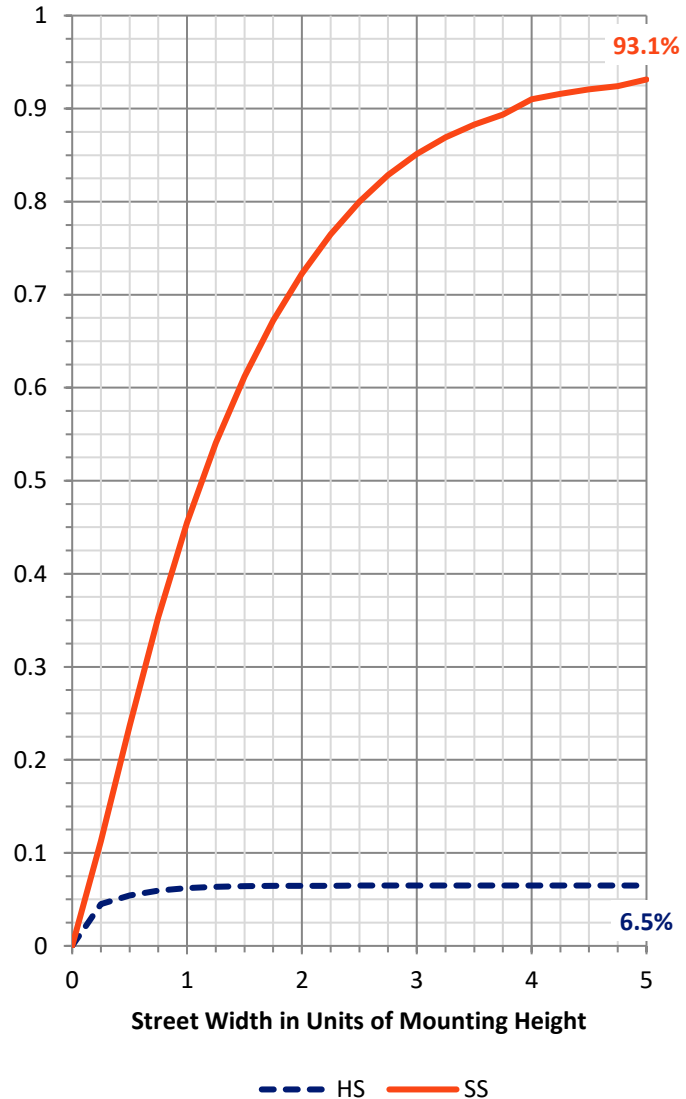
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1009.7	0.0	1009.7
	% Fixture	6.5	0.0	6.5
<b>Street Side</b>	Lumens	14475.3	0.0	14475.3
	% Fixture	93.5	0.0	93.5
<b>Total</b>	Lumens	15485.0	0.0	15485.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	206.1	1.3
10°-20°	535.6	3.5
20°-30°	897.2	5.8
30°-40°	1391.5	9.0
40°-50°	2205.0	14.2
50°-60°	3232.2	20.9
60°-70°	4142.9	26.8
70°-80°	2603.3	16.8
80°-90°	271.2	1.8
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°	15485.0	100.0
0°-180°	15485.0	100.0



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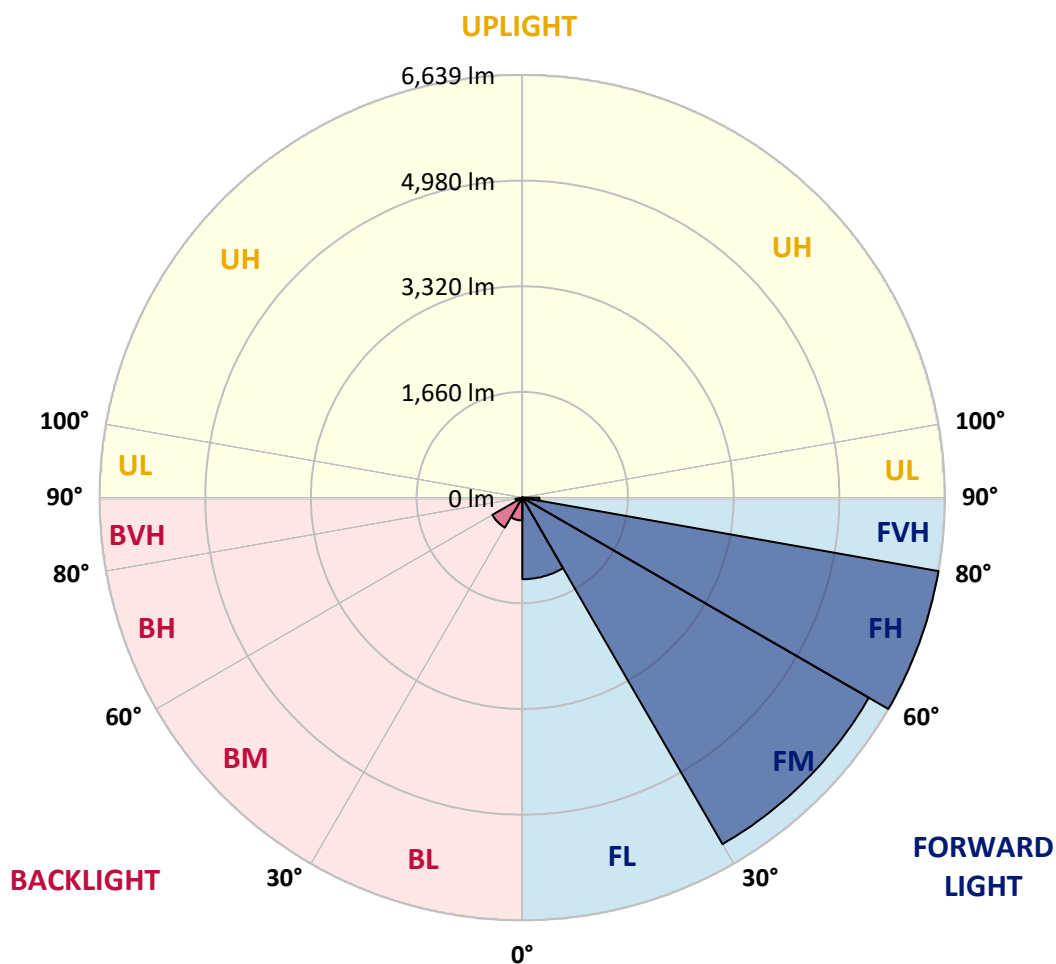
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1281.3	8.3			
FM (30°-60°)	6285.3	40.6			
FH (60°-80°)	6639.5	42.9			G3/7500
FVH (80°-90°)	269.2	1.7			G3/500
BL (0°-30°)	357.5	2.3	B1/500		
BM (30°-60°)	543.4	3.5	B1/1000		
BH (60°-80°)	106.8	0.7	B0/110		G0/110
BVH (80°-90°)	2.0	0.0			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°	39°	45°	55°	65°	75°	85°
0°	2416.2	2416.2	2416.2	2416.2	2416.2	2416.2	2416.2	2416.2	2416.2	2416.2	2416.2
2.5°	2791.8	2782.5	2770.0	2755.4	2713.8	2706.5	2681.5	2628.5	2565.0	2513.0	2441.2
5°	2924.0	2929.2	2919.8	2893.8	2863.6	2845.9	2814.7	2732.5	2650.3	2545.2	2427.6
7.5°	2954.2	2964.6	2953.1	2928.1	2899.0	2880.3	2855.3	2784.6	2688.8	2569.2	2407.9
10°	2951.0	2963.5	2956.2	2933.4	2909.4	2891.7	2864.7	2808.5	2731.5	2605.6	2414.1
12.5°	2945.8	2962.5	2961.4	2950.0	2930.2	2916.7	2900.1	2850.1	2778.3	2658.6	2448.4
15°	2931.3	2952.1	2970.8	2980.2	2981.2	2981.2	2960.4	2907.3	2838.7	2728.4	2493.2
17.5°	2937.5	2961.4	3008.3	3035.3	3054.1	3052.0	3030.1	2972.9	2896.9	2800.2	2540.0
20°	2976.0	3008.3	3073.8	3127.9	3146.7	3140.4	3111.3	3044.7	2958.3	2861.6	2585.8
22.5°	3070.7	3099.8	3182.0	3245.5	3259.0	3242.4	3200.8	3110.2	3032.2	2928.1	2641.0
25°	3212.2	3246.6	3322.5	3370.4	3370.4	3361.0	3302.8	3196.6	3115.5	3020.8	2712.8
27.5°	3383.9	3413.1	3488.0	3530.6	3505.7	3478.6	3420.3	3292.3	3214.3	3137.3	2799.1
30°	3557.7	3576.4	3655.5	3674.2	3648.2	3613.9	3551.4	3423.5	3354.8	3295.5	2924.0
32.5°	3722.1	3762.7	3828.2	3824.1	3788.7	3772.0	3714.8	3578.5	3540.0	3533.8	3098.8
35°	3886.5	3917.7	3976.0	3990.6	3959.3	3956.2	3914.6	3813.7	3814.7	3855.3	3371.4
37.5°	4028.0	4056.1	4124.8	4157.1	4163.3	4178.9	4162.3	4095.7	4190.4	4301.7	3732.5
40°	4146.7	4186.2	4273.6	4329.8	4394.3	4451.5	4454.7	4469.2	4659.6	4851.1	4203.9
42.5°	4239.3	4294.4	4421.4	4525.4	4673.2	4746.0	4804.3	4884.4	5204.9	5491.1	4759.5
45°	4360.0	4423.4	4581.6	4745.0	4976.0	5095.6	5176.8	5391.2	5845.9	6236.1	5329.8
47.5°	4559.8	4593.1	4754.3	4992.6	5296.5	5467.1	5625.3	5949.9	6533.7	6883.3	5804.3
50°	4816.8	4838.6	4960.4	5291.3	5684.6	5909.4	6197.6	6579.5	7247.5	7420.3	6072.7
52.5°	5100.8	5108.1	5199.7	5620.1	6119.6	6402.6	6725.2	7196.5	7829.2	7803.2	6250.7
55°	5430.7	5420.3	5498.3	5977.0	6634.6	6958.3	7333.9	7828.2	8333.9	8074.8	6352.6
57.5°	5808.4	5780.3	5856.3	6450.5	7294.4	7681.4	8063.3	8373.4	8725.1	8302.7	6401.6
60°	6203.8	6147.7	6238.2	6982.2	8071.7	8439.0	8756.4	8839.6	9137.2	8483.7	6317.3
62.5°	6519.1	6520.2	6688.7	7548.3	8870.8	9192.3	9360.9	9435.8	9492.0	8444.2	5874.0
65°	7011.3	7028.0	7297.5	8333.9	9795.9	10074.7	10190.2	9946.8	9507.6	7953.0	5208.0
67.5°	7519.1	7572.2	8065.4	9416.1	10864.5	11089.3	10940.5	10045.6	9083.1	6832.3	3948.9
70°	7684.6	7772.0	8584.7	10161.1	11505.5	11622.1	11118.4	9584.6	7593.0	4568.1	1987.5
72.5°	7041.5	7183.0	8286.0	9889.5	11096.6	10995.6	9947.8	8038.4	4827.2	1734.6	606.6
75°	4965.6	5028.0	6886.5	8203.8	8924.9	8638.8	7567.0	5182.0	1985.4	487.0	208.1
77.5°	2564.0	2533.8	4095.7	5443.2	6365.1	6068.6	4955.2	2682.6	752.3	202.9	129.0
80°	1325.7	1347.5	1772.1	2852.2	3885.5	3575.4	2642.0	1243.5	400.6	112.4	98.9
82.5°	743.0	697.2	1018.7	1245.6	1816.8	1424.5	1013.5	880.3	174.8	67.6	93.7
85°	135.3	141.5	558.8	673.2	630.6	400.6	326.7	587.9	51.0	37.5	65.6
87.5°	2.1	2.1	108.2	193.5	122.8	56.2	103.0	84.3	10.4	14.6	11.4
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°	2416.2	2416.2	2416.2	2416.2	2416.2	2416.2	2416.2	2416.2	2416.2	2416.2	2416.2
2.5°	2404.7	2365.2	2291.3	2218.5	2125.9	2049.9	1998.9	1945.9	1891.7	1895.9	1908.4
5°	2363.1	2294.4	2148.8	1994.8	1847.0	1713.8	1582.7	1465.1	1417.2	1373.5	1375.6
7.5°	2321.5	2224.7	2011.4	1770.0	1546.3	1319.4	1155.0	1019.8	948.0	893.8	878.2
10°	2302.8	2174.8	1885.5	1553.6	1236.2	988.5	777.3	667.0	581.7	554.6	561.9
12.5°	2311.1	2149.8	1772.1	1357.9	980.2	688.9	541.1	484.9	466.2	463.1	461.0
15°	2326.7	2132.1	1660.7	1141.5	720.1	512.0	454.7	444.3	442.2	440.2	441.2
17.5°	2347.5	2116.5	1542.1	938.6	552.5	447.4	430.8	425.6	424.6	424.6	424.6
20°	2368.3	2098.8	1410.0	757.5	461.0	422.5	412.1	408.9	407.9	407.9	406.9
22.5°	2392.3	2083.2	1275.7	595.2	424.6	404.8	395.4	393.3	392.3	391.3	391.3
25°	2426.6	2063.4	1133.2	487.0	401.7	388.1	378.8	376.7	375.6	371.5	372.5
27.5°	2472.4	2048.9	986.5	420.4	380.8	367.3	361.1	358.0	355.9	352.8	353.8
30°	2534.8	2036.4	830.4	384.0	356.9	345.5	339.2	337.1	335.1	331.9	331.9
32.5°	2643.0	2041.6	666.0	354.8	335.1	321.5	315.3	313.2	311.1	308.0	308.0
35°	2805.4	2071.8	532.8	329.9	309.0	295.5	289.3	289.3	286.2	282.0	281.0
37.5°	3070.7	2148.8	427.7	305.9	284.1	271.6	264.3	262.2	259.1	252.9	251.8
40°	3383.9	2268.4	360.0	282.0	261.2	248.7	242.5	236.2	227.9	221.6	220.6
42.5°	3777.2	2391.2	312.2	258.1	239.3	227.9	220.6	210.2	197.7	189.4	188.3
45°	4187.2	2503.6	279.9	236.2	218.5	209.2	200.8	184.2	168.6	158.2	157.1
47.5°	4493.2	2524.4	253.9	215.4	200.8	191.5	180.0	159.2	138.4	129.0	125.9
50°	4637.8	2423.5	226.8	194.6	183.1	172.7	158.2	134.2	111.3	99.9	97.8
52.5°	4688.8	2248.7	205.0	175.9	165.4	153.0	135.3	108.2	87.4	76.0	74.9
55°	4668.0	2028.1	185.2	158.2	144.6	130.1	112.4	86.4	64.5	55.1	53.1
57.5°	4558.7	1747.1	165.4	140.5	123.8	109.3	89.5	64.5	43.7	35.4	34.3
60°	4264.2	1364.2	145.7	120.7	105.1	89.5	70.8	45.8	27.1	19.8	19.8
62.5°	3766.8	1012.5	126.9	100.9	88.4	71.8	49.9	29.1	14.6	10.4	9.4
65°	3147.7	747.1	106.1	85.3	73.9	56.2	35.4	17.7	7.3	3.1	2.1
67.5°	2196.6	461.0	88.4	69.7	60.4	40.6	21.9	7.3	3.1	0.0	0.0
70°	997.9	219.6	67.6	53.1	45.8	29.1	11.4	4.2	2.1	0.0	0.0
72.5°	310.1	115.5	47.9	38.5	31.2	18.7	6.2	3.1	2.1	0.0	0.0
75°	143.6	73.9	30.2	20.8	17.7	9.4	4.2	2.1	1.0	0.0	0.0
77.5°	107.2	57.2	17.7	11.4	9.4	6.2	3.1	2.1	1.0	0.0	0.0
80°	93.7	29.1	10.4	7.3	5.2	4.2	2.1	1.0	0.0	0.0	0.0
82.5°	84.3	14.6	6.2	4.2	3.1	2.1	1.0	1.0	0.0	0.0	0.0
85°	45.8	8.3	4.2	3.1	2.1	1.0	1.0	0.0	0.0	0.0	0.0
87.5°	8.3	4.2	3.1	2.1	2.1	1.0	1.0	1.0	0.0	0.0	0.0
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)