

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: P452984

Luminaire Tested: **GALN-SA4A-727-U-SL4-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P452984  
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-SA4A-727-U-SL4-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 2700K, 615mA 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: 12445 lumens  
Efficiency: N/A  
Efficacy: 102.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3

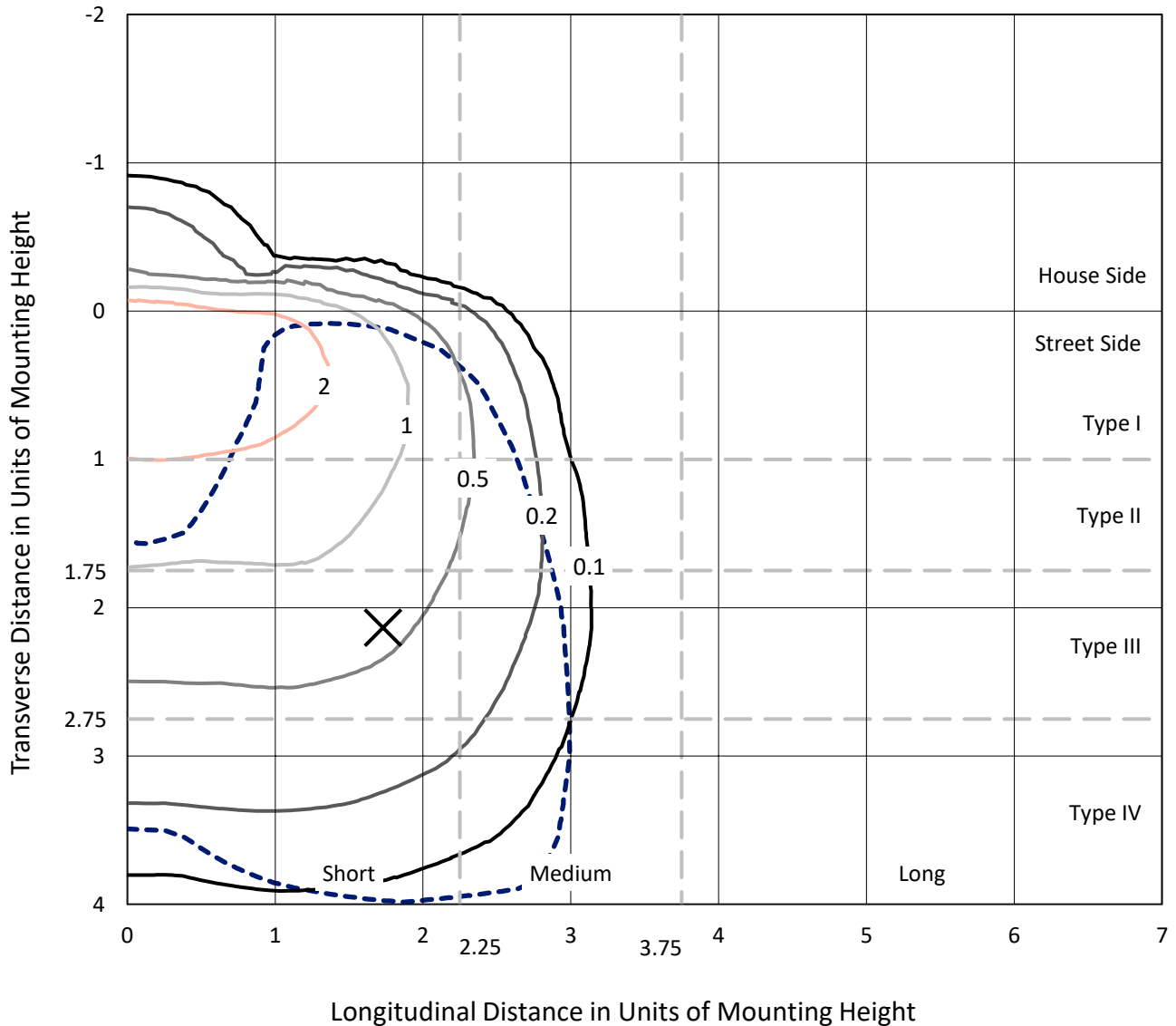
Input Watts (W): 121  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

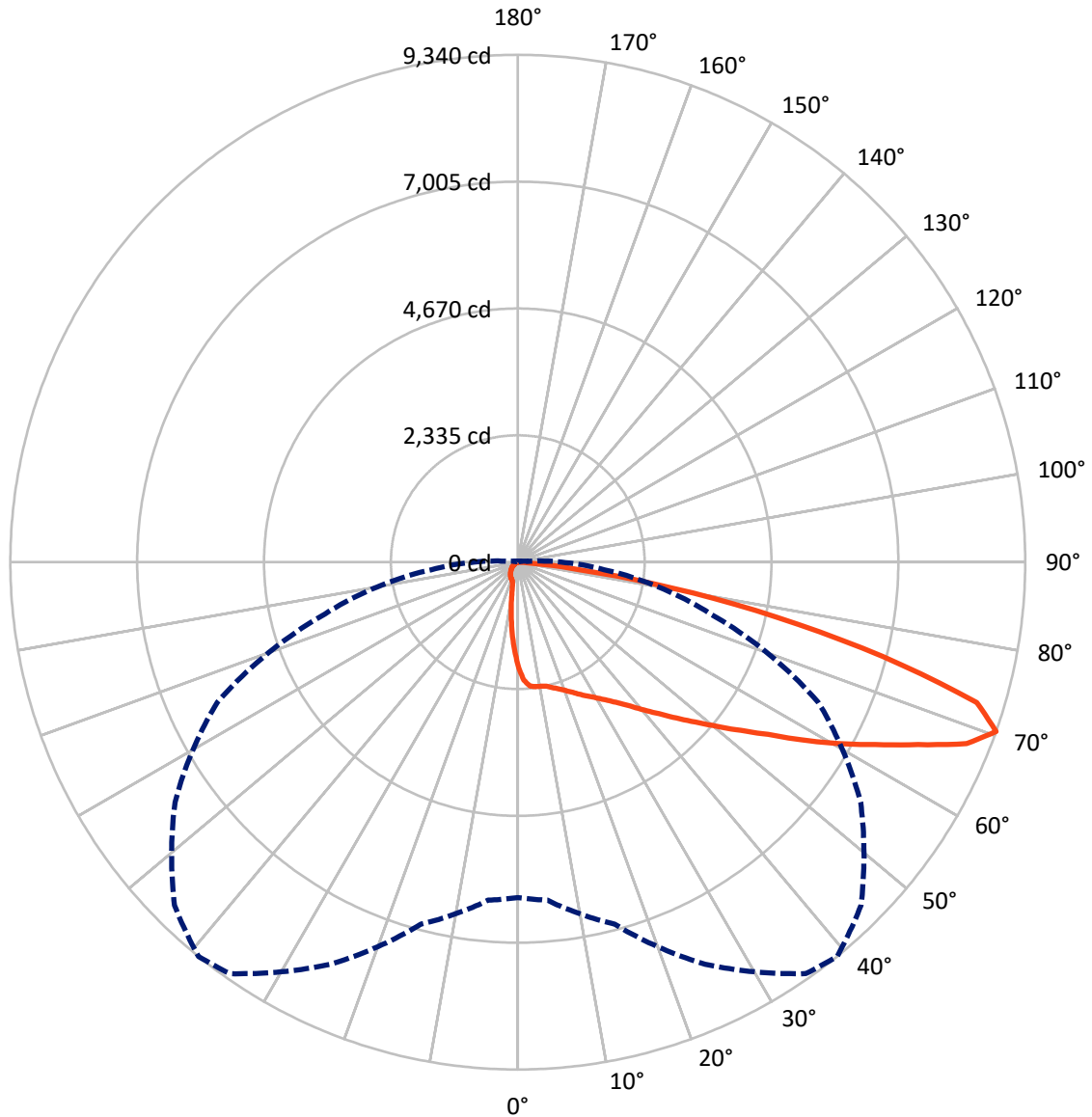
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 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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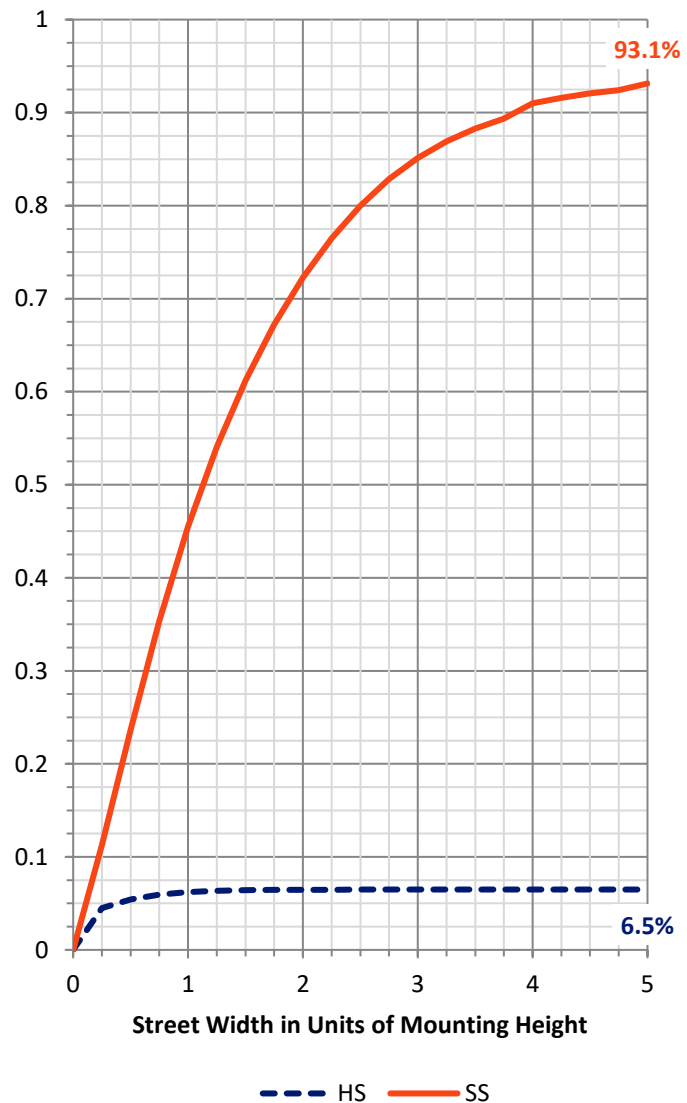
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	811.5	0.0	811.5
	% Fixture	6.5	0.0	6.5
<b>Street Side</b>	Lumens	11633.5	0.0	11633.5
	% Fixture	93.5	0.0	93.5
<b>Total</b>	Lumens	12445.0	0.0	12445.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	165.6	1.3
10°-20°	430.4	3.5
20°-30°	721.1	5.8
30°-40°	1118.3	9.0
40°-50°	1772.1	14.2
50°-60°	2597.7	20.9
60°-70°	3329.6	26.8
70°-80°	2092.2	16.8
80°-90°	218.0	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°	12445.0	100.0
0°-180°	12445.0	100.0



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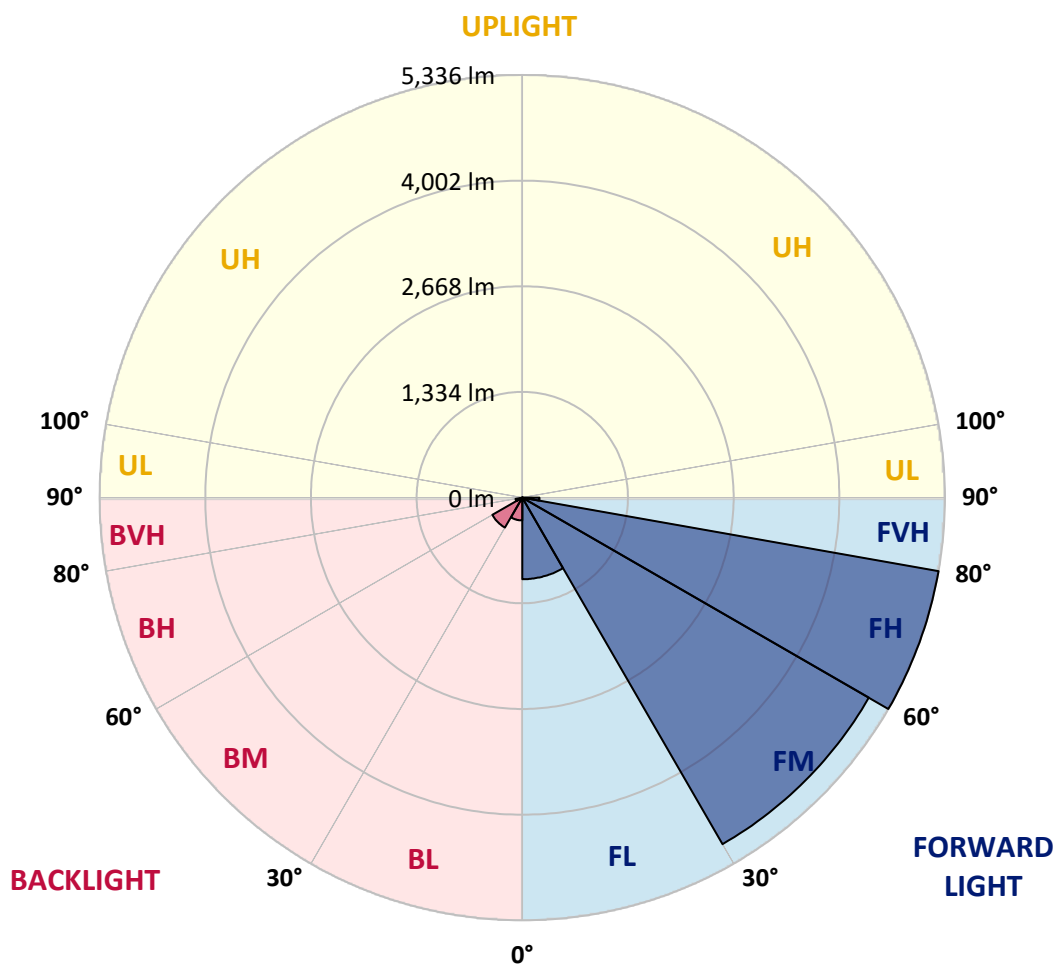
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1029.8	8.3			
FM (30°-60°)	5051.4	40.6			
FH (60°-80°)	5336.0	42.9			G3/7500
FVH (80°-90°)	216.4	1.7			G2/225
BL (0°-30°)	287.3	2.3	B1/500		
BM (30°-60°)	436.7	3.5	B1/1000		
BH (60°-80°)	85.8	0.7	B0/110		G0/110
BVH (80°-90°)	1.6	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°	1941.8	1941.8	1941.8	1941.8	1941.8	1941.8	1941.8	1941.8	1941.8	1941.8	1941.8
2.5°	2243.7	2236.2	2226.2	2214.5	2181.0	2175.2	2155.1	2112.4	2061.4	2019.6	1961.9
5°	2350.0	2354.1	2346.6	2325.7	2301.4	2287.2	2262.1	2196.1	2130.0	2045.5	1951.0
7.5°	2374.2	2382.6	2373.4	2353.3	2329.9	2314.8	2294.8	2237.9	2161.0	2064.8	1935.2
10°	2371.7	2381.7	2375.9	2357.5	2338.2	2324.0	2302.3	2257.1	2195.2	2094.1	1940.2
12.5°	2367.5	2380.9	2380.1	2370.9	2355.0	2344.1	2330.7	2290.6	2232.9	2136.7	1967.8
15°	2355.8	2372.5	2387.6	2395.1	2395.9	2395.9	2379.2	2336.6	2281.4	2192.7	2003.7
17.5°	2360.8	2380.1	2417.7	2439.4	2454.5	2452.8	2435.3	2389.3	2328.2	2250.4	2041.4
20°	2391.8	2417.7	2470.4	2513.9	2528.9	2523.9	2500.5	2447.0	2377.5	2299.8	2078.2
22.5°	2467.9	2491.3	2557.4	2608.4	2619.2	2605.9	2572.4	2499.6	2436.9	2353.3	2122.5
25°	2581.6	2609.2	2670.2	2708.7	2708.7	2701.2	2654.4	2569.1	2503.8	2427.7	2180.2
27.5°	2719.6	2743.0	2803.2	2837.5	2817.4	2795.7	2748.9	2646.0	2583.3	2521.4	2249.6
30°	2859.2	2874.3	2937.9	2952.9	2932.0	2904.4	2854.2	2751.4	2696.2	2648.5	2350.0
32.5°	2991.4	3024.0	3076.7	3073.3	3044.9	3031.5	2985.5	2876.0	2845.0	2840.0	2490.4
35°	3123.5	3148.6	3195.4	3207.1	3182.1	3179.5	3146.1	3065.0	3065.8	3098.4	2709.6
37.5°	3237.2	3259.8	3315.0	3340.9	3346.0	3358.5	3345.1	3291.6	3367.7	3457.2	2999.7
40°	3332.6	3364.4	3434.6	3479.8	3531.6	3577.6	3580.1	3591.8	3744.9	3898.7	3378.6
42.5°	3407.0	3451.3	3553.4	3637.0	3755.7	3814.3	3861.1	3925.5	4183.1	4413.1	3825.2
45°	3504.0	3555.0	3682.1	3813.4	3999.1	4095.3	4160.5	4332.8	4698.2	5011.8	4283.4
47.5°	3664.6	3691.3	3821.0	4012.5	4256.7	4393.8	4520.9	4781.9	5251.0	5532.0	4664.8
50°	3871.1	3888.7	3986.6	4252.5	4568.6	4749.2	4980.9	5287.8	5824.7	5963.5	4880.5
52.5°	4099.5	4105.3	4178.9	4516.8	4918.2	5145.6	5404.9	5783.7	6292.2	6271.3	5023.5
55°	4364.6	4356.2	4418.9	4803.6	5332.1	5592.2	5894.1	6291.3	6697.8	6489.5	5105.5
57.5°	4668.1	4645.5	4706.6	5184.1	5862.3	6173.4	6480.3	6729.6	7012.2	6672.7	5144.8
60°	4985.9	4940.8	5013.5	5611.5	6487.0	6782.2	7037.3	7104.2	7343.4	6818.2	5077.1
62.5°	5239.3	5240.1	5375.6	6066.4	7129.3	7387.7	7523.2	7583.4	7628.6	6786.4	4720.8
65°	5634.9	5648.2	5864.8	6697.8	7872.8	8096.9	8189.7	7994.0	7641.1	6391.7	4185.6
67.5°	6043.0	6085.6	6482.0	7567.5	8731.6	8912.3	8792.7	8073.5	7299.9	5491.0	3173.7
70°	6175.9	6246.2	6899.3	8166.3	9246.8	9340.4	8935.7	7703.0	6102.3	3671.3	1597.3
72.5°	5659.1	5772.9	6659.3	7948.0	8918.1	8837.0	7994.9	6460.3	3879.5	1394.1	487.6
75°	3990.7	4040.9	5534.5	6593.2	7172.8	6942.8	6081.4	4164.7	1595.6	391.4	167.3
77.5°	2060.6	2036.3	3291.6	4374.6	5115.5	4877.2	3982.4	2155.9	604.6	163.1	103.7
80°	1065.4	1083.0	1424.2	2292.2	3122.7	2873.5	2123.3	999.4	322.0	90.3	79.4
82.5°	597.1	560.3	818.7	1001.0	1460.1	1144.9	814.5	707.5	140.5	54.4	75.3
85°	108.7	113.7	449.1	541.1	506.8	322.0	262.6	472.5	41.0	30.1	52.7
87.5°	1.7	1.7	87.0	155.5	98.7	45.2	82.8	67.7	8.4	11.7	9.2
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°	1941.8	1941.8	1941.8	1941.8	1941.8	1941.8	1941.8	1941.8	1941.8	1941.8	1941.8
2.5°	1932.6	1900.9	1841.5	1783.0	1708.5	1647.5	1606.5	1563.8	1520.4	1523.7	1533.7
5°	1899.2	1844.0	1726.9	1603.2	1484.4	1377.4	1272.0	1177.5	1139.0	1103.9	1105.6
7.5°	1865.7	1788.0	1616.5	1422.5	1242.7	1060.4	928.3	819.6	761.9	718.4	705.8
10°	1850.7	1747.8	1515.3	1248.6	993.5	794.5	624.7	536.1	467.5	445.7	451.6
12.5°	1857.4	1727.8	1424.2	1091.3	787.8	553.6	434.9	389.7	374.7	372.1	370.5
15°	1869.9	1713.5	1334.7	917.4	578.7	411.5	365.5	357.1	355.4	353.7	354.6
17.5°	1886.7	1701.0	1239.4	754.3	444.1	359.6	346.2	342.0	341.2	341.2	341.2
20°	1903.4	1686.8	1133.2	608.8	370.5	339.5	331.2	328.7	327.8	327.8	327.0
22.5°	1922.6	1674.2	1025.3	478.4	341.2	325.3	317.8	316.1	315.3	314.4	314.4
25°	1950.2	1658.3	910.7	391.4	322.8	311.9	304.4	302.7	301.9	298.6	299.4
27.5°	1987.0	1646.6	792.8	337.9	306.1	295.2	290.2	287.7	286.0	283.5	284.3
30°	2037.2	1636.6	667.4	308.6	286.8	277.6	272.6	271.0	269.3	266.8	266.8
32.5°	2124.2	1640.8	535.2	285.2	269.3	258.4	253.4	251.7	250.0	247.5	247.5
35°	2254.6	1665.0	428.2	265.1	248.4	237.5	232.5	232.5	230.0	226.6	225.8
37.5°	2467.9	1726.9	343.7	245.9	228.3	218.3	212.4	210.7	208.2	203.2	202.4
40°	2719.6	1823.1	289.4	226.6	209.9	199.9	194.9	189.8	183.1	178.1	177.3
42.5°	3035.7	1921.8	250.9	207.4	192.3	183.1	177.3	168.9	158.9	152.2	151.4
45°	3365.2	2012.1	225.0	189.8	175.6	168.1	161.4	148.0	135.5	127.1	126.3
47.5°	3611.1	2028.8	204.1	173.1	161.4	153.9	144.7	128.0	111.2	103.7	101.2
50°	3727.3	1947.7	182.3	156.4	147.2	138.8	127.1	107.9	89.5	80.3	78.6
52.5°	3768.3	1807.2	164.7	141.3	133.0	122.9	108.7	87.0	70.2	61.0	60.2
55°	3751.6	1629.9	148.9	127.1	116.2	104.5	90.3	69.4	51.8	44.3	42.7
57.5°	3663.8	1404.1	133.0	112.9	99.5	87.8	71.9	51.8	35.1	28.4	27.6
60°	3427.1	1096.4	117.1	97.0	84.5	71.9	56.9	36.8	21.7	15.9	15.9
62.5°	3027.3	813.7	102.0	81.1	71.1	57.7	40.1	23.4	11.7	8.4	7.5
65°	2529.8	600.5	85.3	68.6	59.4	45.2	28.4	14.2	5.9	2.5	1.7
67.5°	1765.4	370.5	71.1	56.0	48.5	32.6	17.6	5.9	2.5	0.0	0.0
70°	802.0	176.5	54.4	42.7	36.8	23.4	9.2	3.3	1.7	0.0	0.0
72.5°	249.2	92.8	38.5	30.9	25.1	15.1	5.0	2.5	1.7	0.0	0.0
75°	115.4	59.4	24.3	16.7	14.2	7.5	3.3	1.7	0.8	0.0	0.0
77.5°	86.1	46.0	14.2	9.2	7.5	5.0	2.5	1.7	0.8	0.0	0.0
80°	75.3	23.4	8.4	5.9	4.2	3.3	1.7	0.8	0.0	0.0	0.0
82.5°	67.7	11.7	5.0	3.3	2.5	1.7	0.8	0.8	0.0	0.0	0.0
85°	36.8	6.7	3.3	2.5	1.7	0.8	0.8	0.0	0.0	0.0	0.0
87.5°	6.7	3.3	2.5	1.7	1.7	0.8	0.8	0.8	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)