

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: P457786

Luminaire Tested: **GALN-SA9A-827-U-T4W-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P457786  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA9A-827-U-T4W-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22047 lumens  
Efficiency: N/A  
Efficacy: 80.5 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G4

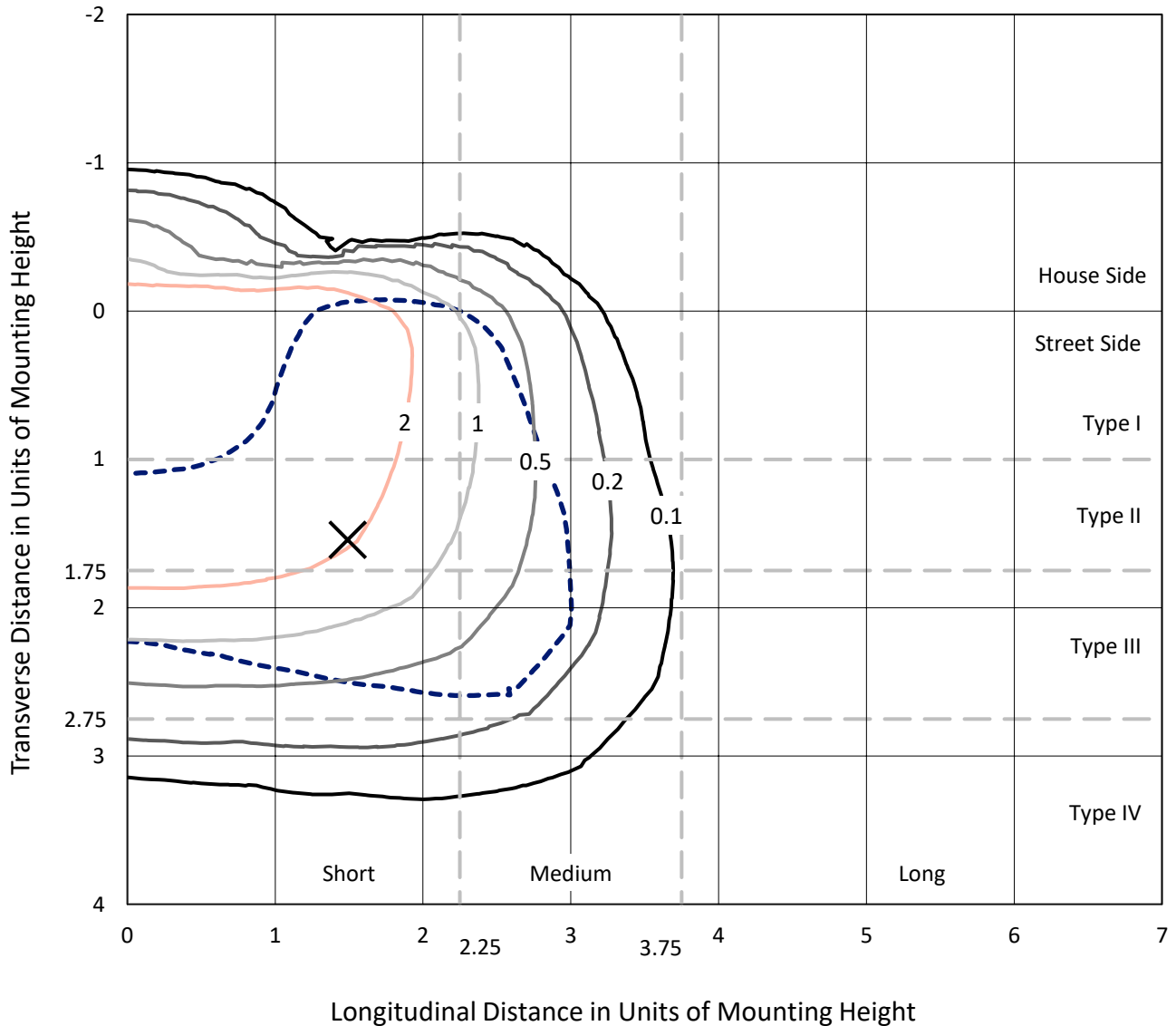
Input Watts (W): 274  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

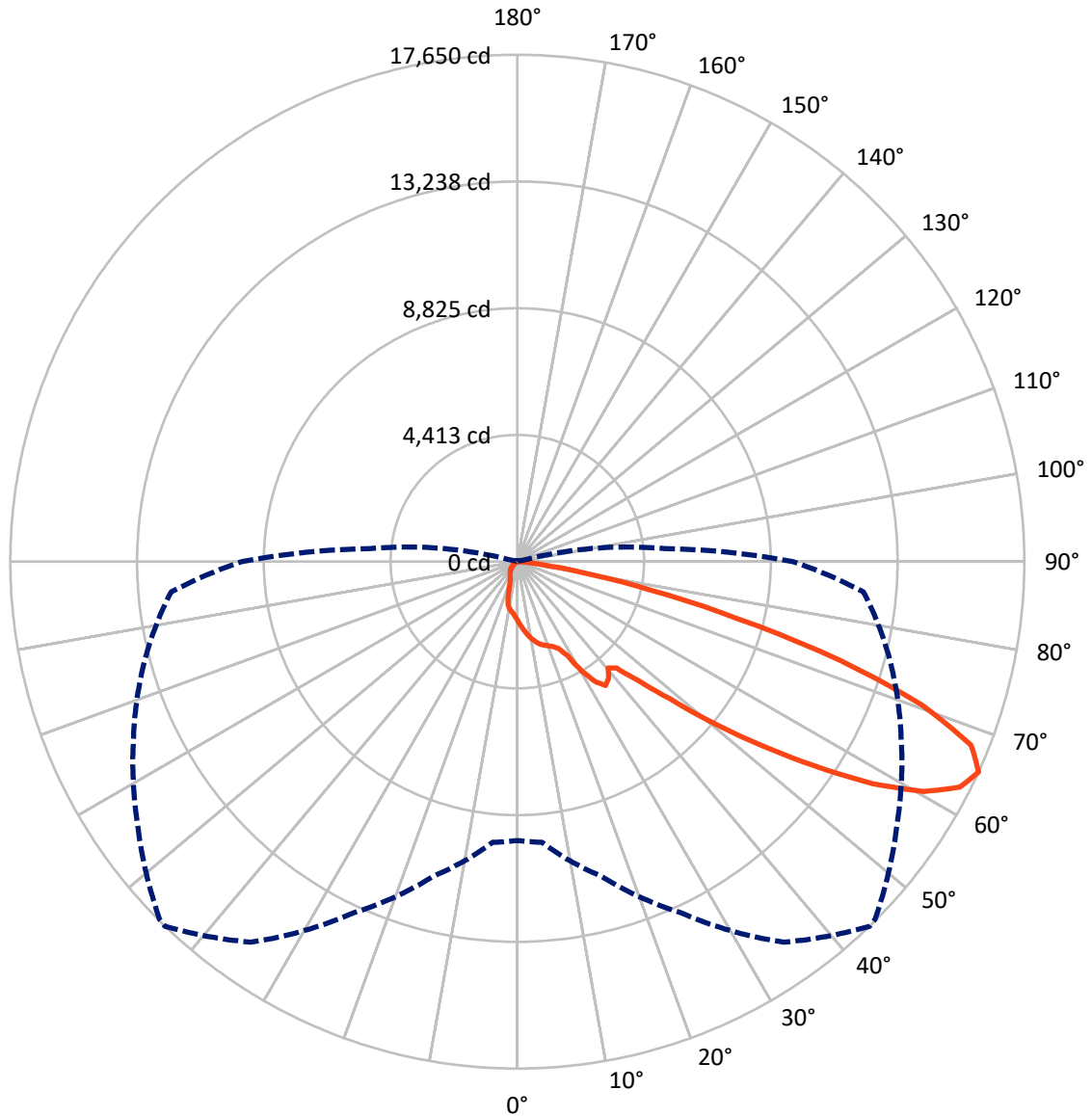
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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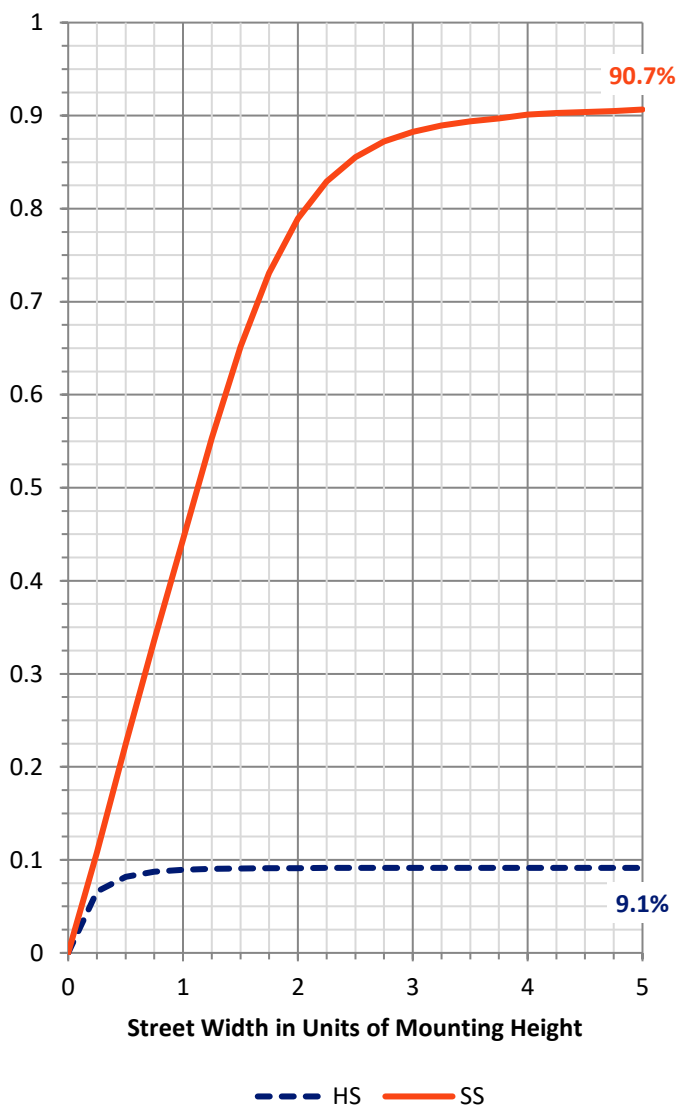
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2031.3	0.0	2031.3
	% Fixture	9.2	0.0	9.2
<b>Street Side</b>	Lumens	20015.7	0.0	20015.7
	% Fixture	90.8	0.0	90.8
<b>Total</b>	Lumens	22047.0	0.0	22047.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	204.1	0.9
10°-20°	614.2	2.8
20°-30°	1041.5	4.7
30°-40°	1731.7	7.9
40°-50°	3023.6	13.7
50°-60°	5907.0	26.8
60°-70°	6853.5	31.1
70°-80°	2495.7	11.3
80°-90°	175.8	0.8
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°	22047.0	100.0
0°-180°	22047.0	100.0

**Coefficient of Utilization**



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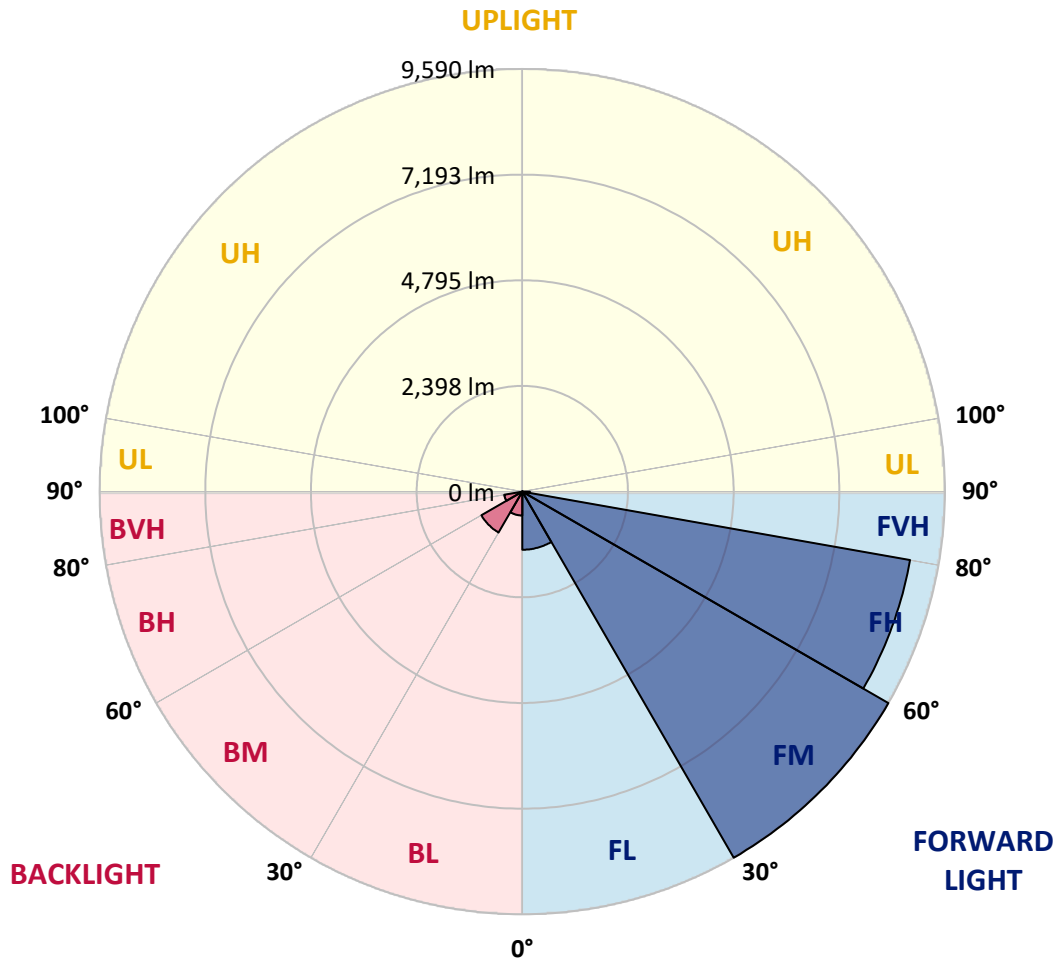
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1318.6	6.0			
FM	(30°-60°)	9590.5	43.5			
FH	(60°-80°)	8933.2	40.5			G4/12000
FVH	(80°-90°)	173.5	0.8			G2/225
BL	(0°-30°)	541.2	2.5	B2/1000		
BM	(30°-60°)	1071.7	4.9	B2/2500		
BH	(60°-80°)	416.0	1.9	B1/500		G1/500
BVH	(80°-90°)	2.4	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G4**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9
2.5°	2309.7	2299.6	2294.5	2267.6	2247.3	2222.1	2222.1	2190.1	2153.0	2112.6	2075.5
5°	2567.4	2550.6	2528.7	2505.1	2457.9	2390.5	2390.5	2323.1	2245.7	2176.6	2100.8
7.5°	2815.1	2799.9	2762.8	2717.4	2639.9	2569.1	2564.1	2466.3	2373.7	2269.2	2161.4
10°	3032.4	3020.6	2988.6	2901.0	2820.1	2727.5	2725.8	2616.3	2508.5	2380.4	2247.3
12.5°	3184.0	3185.7	3143.6	3059.3	2954.9	2867.3	2860.6	2752.7	2639.9	2501.7	2338.3
15°	3291.8	3291.8	3248.0	3153.7	3059.3	2981.9	2975.1	2880.8	2764.5	2614.6	2437.7
17.5°	3322.2	3332.3	3285.1	3200.9	3125.0	3057.7	3056.0	2976.8	2884.1	2739.3	2538.8
20°	3310.4	3320.5	3283.4	3217.7	3165.5	3126.7	3121.7	3089.7	3003.8	2867.3	2646.6
22.5°	3285.1	3295.2	3268.2	3229.5	3204.2	3216.0	3207.6	3234.6	3189.1	3024.0	2774.6
25°	3290.1	3300.3	3280.0	3258.1	3280.0	3352.5	3374.4	3490.6	3450.2	3222.8	2912.8
27.5°	3448.5	3468.7	3440.1	3450.2	3527.7	3696.1	3738.3	3938.7	3760.2	3475.5	3128.4
30°	3800.6	3787.1	3733.2	3782.1	4051.6	4408.8	4397.0	4365.0	4085.3	3766.9	3384.5
32.5°	4120.7	4108.9	4105.5	4316.1	4804.7	4978.2	4969.8	4659.8	4376.8	4100.5	3637.2
35°	4250.4	4204.9	4194.8	4705.3	5522.3	5293.2	5241.0	4781.1	4730.5	4464.4	3894.9
37.5°	4641.2	4609.2	4452.6	4769.3	5235.9	5160.1	5119.7	4990.0	5107.9	4786.1	4186.4
40°	5446.5	5357.2	5215.7	4905.7	4829.9	4861.9	4902.4	5257.8	5554.3	5225.8	4575.5
42.5°	6447.2	6427.0	6164.2	5586.3	5018.6	5062.4	5114.6	5817.1	6196.2	5887.9	5210.7
45°	7648.4	7677.0	7298.0	6615.7	5871.0	5908.1	5983.9	6642.6	7065.5	6917.2	6209.7
47.5°	8740.0	8718.1	8590.1	7880.8	7193.5	7111.0	7233.9	7702.3	8268.3	8291.9	7449.6
50°	9838.4	9954.7	9764.3	9486.3	8975.9	8802.4	8756.9	8986.0	9848.5	9735.7	8938.8
52.5°	11417.0	11477.6	11120.5	11049.7	11165.9	10603.3	10557.8	10613.4	11384.9	10997.5	10054.1
55°	12409.2	12373.8	12240.8	12793.3	13253.2	12550.7	12493.5	12269.4	12660.2	11888.7	11127.2
57.5°	12722.6	12773.1	13083.1	14082.1	15170.4	14574.0	14469.6	13832.8	13580.1	12719.2	12114.4
60°	12582.7	12675.4	13344.2	14830.1	16339.5	16250.2	16161.0	15091.2	14240.4	13413.3	12806.8
62.5°	11587.1	11716.8	12786.6	14697.0	16735.4	17293.1	17181.9	15876.3	14680.1	13750.2	12928.1
65°	9710.4	9806.4	11342.8	13489.1	16172.8	17650.2	17609.8	16122.2	14749.2	13441.9	12097.6
67.5°	6922.3	7249.1	8672.6	11368.1	14508.3	17040.4	17109.4	15827.4	14100.6	12109.3	10018.7
70°	4351.5	4573.9	5594.8	8138.6	11630.9	14949.7	15177.1	14478.0	12237.4	9439.2	6706.6
72.5°	2075.5	2240.6	2968.4	5151.7	8209.4	11762.3	11942.6	11885.3	9462.7	5946.9	3460.3
75°	924.9	987.2	1416.8	2629.8	5299.9	7906.1	8372.8	8450.3	5913.2	2909.4	1346.0
77.5°	471.7	473.4	663.8	1273.6	2646.6	4717.1	4809.7	5080.9	3205.9	1282.0	468.3
80°	251.0	267.9	352.1	601.4	1373.0	2323.1	2311.4	2540.5	1421.9	628.4	156.7
82.5°	112.9	124.7	198.8	315.0	670.5	881.1	950.1	1039.4	609.8	400.9	69.1
85°	33.7	40.4	97.7	158.4	242.6	254.4	284.7	367.3	345.4	284.7	35.4
87.5°	5.1	5.1	40.4	43.8	35.4	45.5	47.2	52.2	111.2	104.4	18.5
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°	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9	2051.9
2.5°	2055.3	2043.5	2001.4	1966.0	1935.7	1917.1	1895.2	1881.8	1875.0	1870.0	1871.7
5°	2063.7	2035.1	1962.6	1905.4	1861.6	1814.4	1782.4	1763.8	1755.4	1741.9	1741.9
7.5°	2110.9	2065.4	1964.3	1876.7	1800.9	1736.9	1676.2	1654.3	1639.2	1635.8	1632.4
10°	2178.3	2121.0	1982.8	1861.6	1753.7	1666.1	1580.2	1504.4	1445.4	1410.1	1405.0
12.5°	2262.5	2180.0	2011.5	1851.4	1713.3	1558.3	1330.9	1177.6	1074.8	1042.8	1047.9
15°	2340.0	2250.7	2040.1	1843.0	1639.2	1292.1	1034.4	859.2	807.0	801.9	803.6
17.5°	2432.7	2326.5	2073.8	1831.2	1435.3	987.2	768.2	721.0	731.1	748.0	746.3
20°	2528.7	2407.4	2114.3	1760.5	1145.6	742.9	678.9	684.0	699.1	714.3	717.7
22.5°	2631.4	2500.0	2161.4	1590.3	874.3	646.9	643.5	650.3	665.4	682.3	685.7
25°	2773.0	2616.3	2196.8	1367.9	662.1	598.1	604.8	616.6	630.1	648.6	652.0
27.5°	2954.9	2773.0	2215.3	1078.2	572.8	554.3	555.9	572.8	589.6	606.5	606.5
30°	3190.7	2960.0	2178.3	815.4	529.0	512.1	505.4	515.5	537.4	554.3	555.9
32.5°	3401.3	3136.8	2080.6	623.3	497.0	473.4	456.5	458.2	466.7	476.8	478.4
35°	3611.9	3308.7	1913.8	523.9	463.3	436.3	411.1	397.6	390.8	385.8	390.8
37.5°	3881.5	3522.6	1691.4	476.8	434.6	400.9	365.6	336.9	313.3	298.2	301.6
40°	4228.5	3819.1	1428.6	446.4	407.7	367.3	320.1	283.0	242.6	229.1	222.4
42.5°	4801.3	4268.9	1152.3	421.2	380.7	331.9	272.9	222.4	185.3	171.8	175.2
45°	5705.9	4836.7	887.8	394.2	353.8	293.1	229.1	175.2	144.9	138.1	141.5
47.5°	6905.4	5571.2	684.0	363.9	320.1	251.0	180.3	138.1	119.6	117.9	116.2
50°	8034.2	6255.1	571.1	330.2	279.7	208.9	148.3	116.2	104.4	102.8	102.8
52.5°	9055.1	6745.4	465.0	291.4	235.9	171.8	124.7	102.8	92.7	87.6	87.6
55°	9963.1	7065.5	377.4	244.3	185.3	136.5	107.8	92.7	80.9	74.1	72.4
57.5°	10648.7	7104.2	283.0	195.4	138.1	106.1	92.7	80.9	67.4	59.0	55.6
60°	10941.9	6769.0	208.9	148.3	102.8	84.2	74.1	65.7	50.5	42.1	40.4
62.5°	10647.1	6117.0	155.0	112.9	79.2	62.3	52.2	48.9	35.4	25.3	23.6
65°	9590.8	5175.3	123.0	85.9	59.0	45.5	33.7	32.0	21.9	11.8	10.1
67.5°	7683.7	4053.3	97.7	64.0	42.1	30.3	21.9	20.2	11.8	3.4	3.4
70°	4996.7	2591.0	79.2	47.2	27.0	20.2	13.5	10.1	6.7	1.7	0.0
72.5°	2471.4	1211.3	64.0	37.1	18.5	10.1	5.1	3.4	5.1	0.0	0.0
75°	958.6	431.3	47.2	25.3	10.1	5.1	3.4	0.0	1.7	0.0	0.0
77.5°	318.4	143.2	28.6	13.5	6.7	3.4	0.0	0.0	0.0	0.0	0.0
80°	117.9	55.6	15.2	8.4	3.4	1.7	0.0	0.0	0.0	0.0	0.0
82.5°	47.2	21.9	10.1	6.7	3.4	0.0	0.0	0.0	0.0	0.0	0.0
85°	23.6	13.5	6.7	5.1	3.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	16.8	10.1	6.7	5.1	3.4	1.7	0.0	0.0	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)