

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: P651638

Luminaire Tested: **GALN-SA9D-840-U-T2R-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P651638  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA9D-840-U-T2R-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 80 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 47220.5 lumens  
Efficiency: N/A  
Efficacy: 85.5 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G4

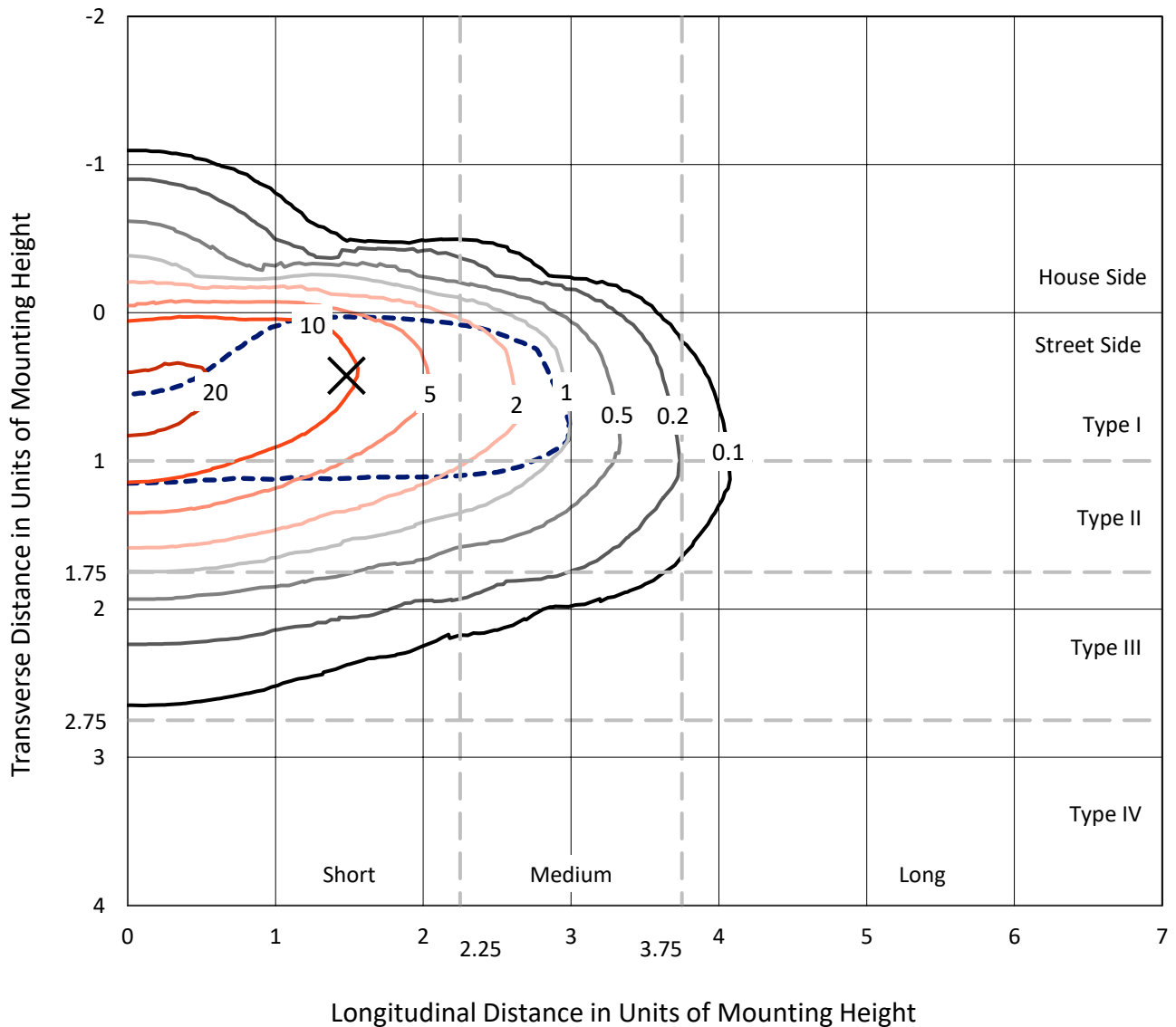
Input Watts (W): 552  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

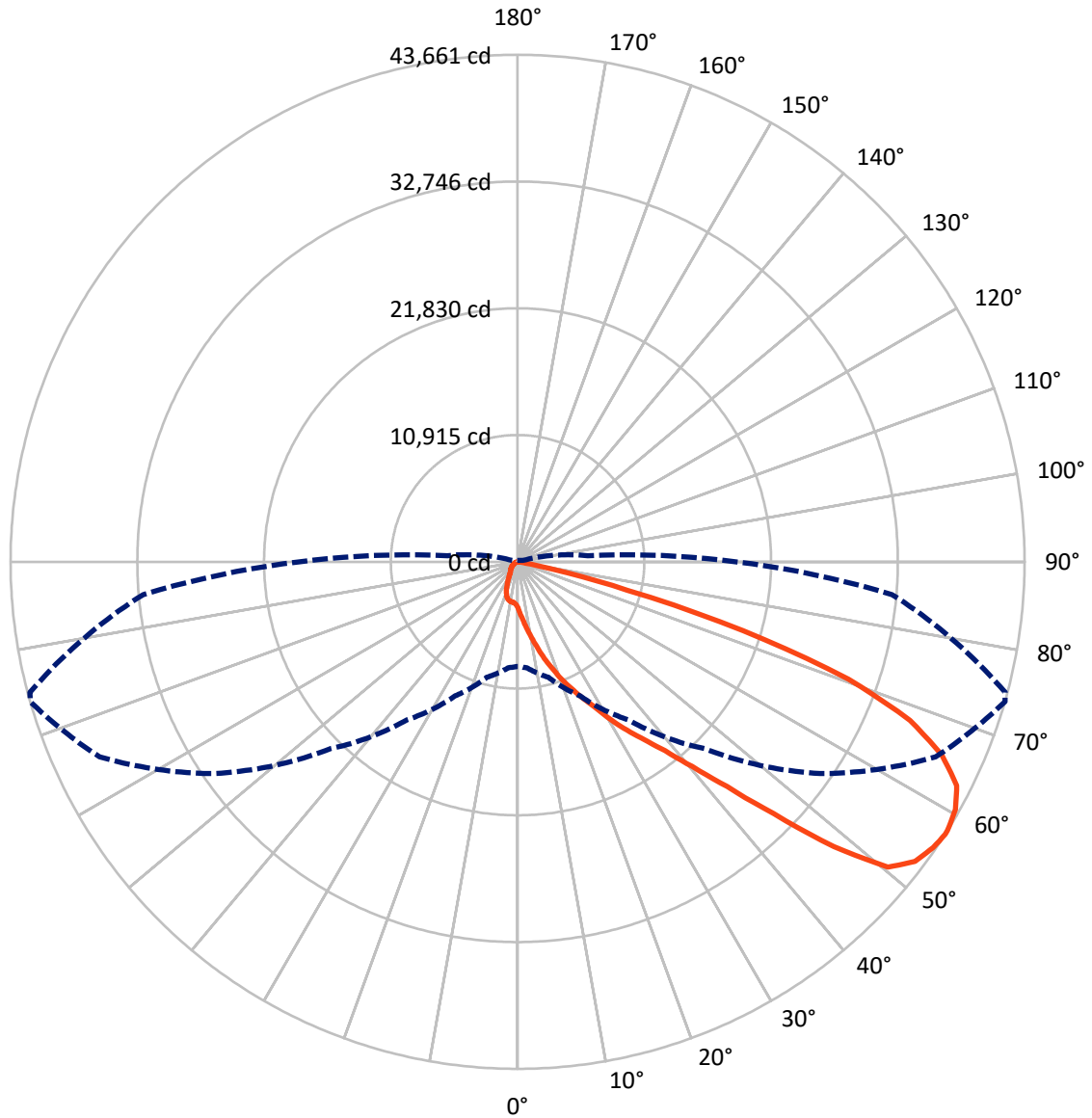
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 24 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 74-Deg Lateral      - - - Horizontal Cone Through 57-Deg Vertical

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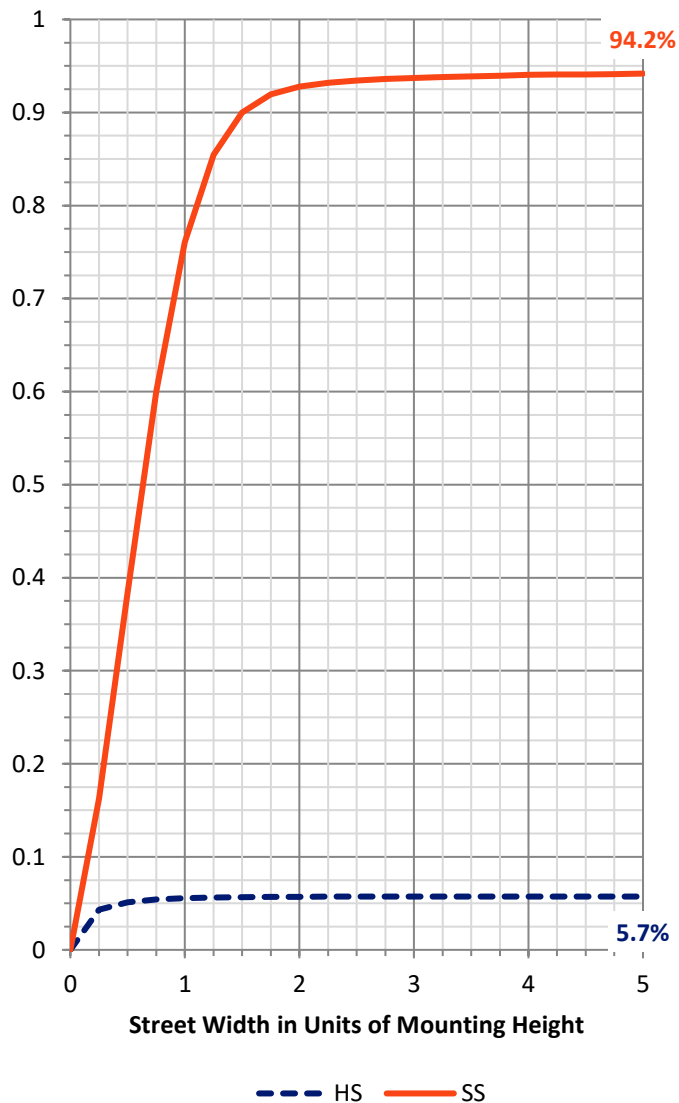
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2723.5	0.0	2723.5
	% Fixture	5.8	0.0	5.8
<b>Street Side</b>	Lumens	44496.9	0.0	44496.9
	% Fixture	94.2	0.0	94.2
<b>Total</b>	Lumens	47220.5	0.0	47220.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	477.3	1.0
10°-20°	1881.5	4.0
20°-30°	4025.9	8.5
30°-40°	7399.5	15.7
40°-50°	11343.6	24.0
50°-60°	12000.0	25.4
60°-70°	7836.3	16.6
70°-80°	2141.2	4.5
80°-90°	115.3	0.2
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°	47220.5	100.0
0°-180°	47220.5	100.0

**Coefficient of Utilization**



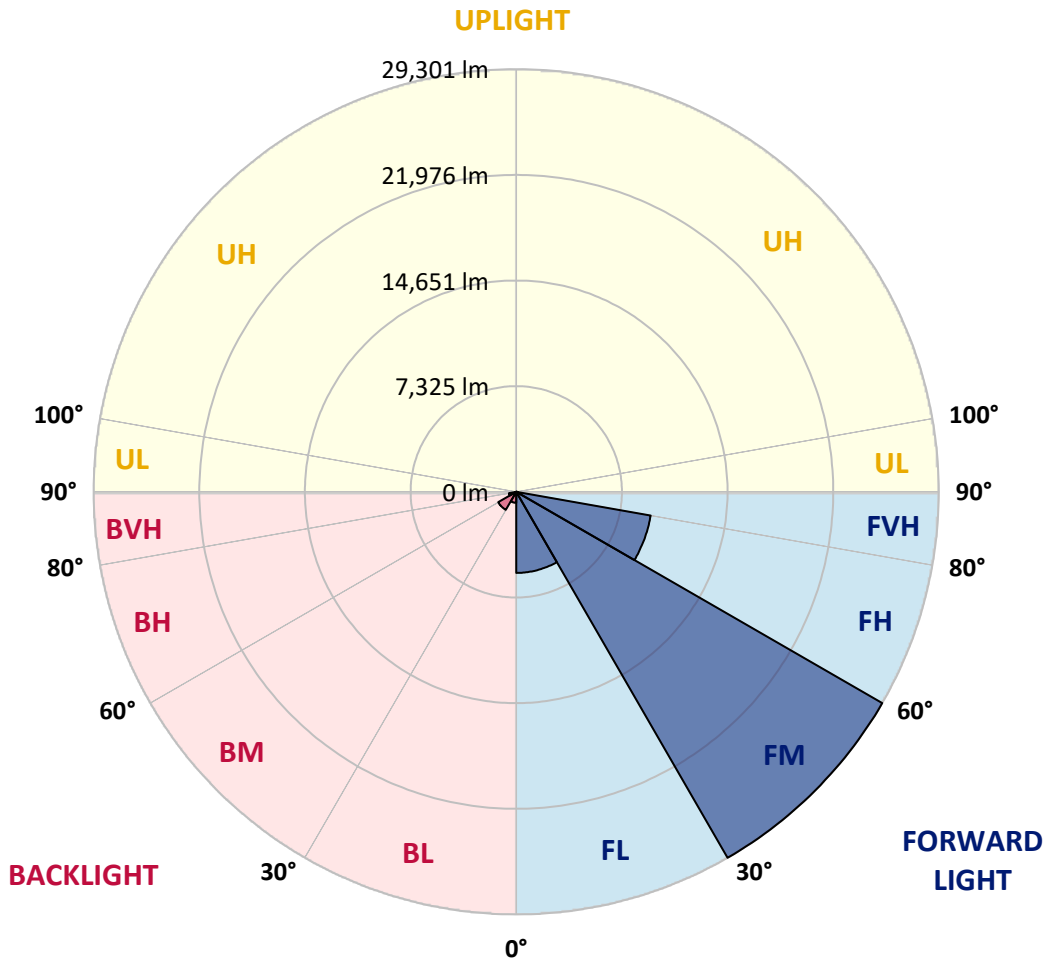
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5623.9	11.9			
FM (30°-60°)	29301.2	62.1			
FH (60°-80°)	9466.1	20.0			G4/12000
FVH (80°-90°)	105.7	0.2			G2/225
BL (0°-30°)	760.8	1.6	B2/1000		
BM (30°-60°)	1441.9	3.1	B2/2500		
BH (60°-80°)	511.3	1.1	B2/1000		G2/1000
BVH (80°-90°)	9.5	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 II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	3954.6	3954.6	3954.6	3954.6	3954.6	3954.6	3954.6	3954.6	3954.6	3954.6	3954.6
2.5°	5786.9	5734.7	5630.4	5594.6	5441.4	5203.4	4994.7	4714.3	4492.6	4469.7	4202.4
5°	7749.6	7632.2	7583.3	7348.6	6980.1	6634.6	6041.2	5591.3	5072.9	5033.8	4495.8
7.5°	9640.5	9477.5	9428.5	9206.8	8776.5	8232.0	7462.6	6644.3	5822.7	5747.8	4890.3
10°	11009.8	11032.6	10944.6	10797.9	10449.0	9894.8	8946.1	7827.8	6657.4	6562.8	5333.7
12.5°	11991.1	11987.9	12004.2	12000.9	11815.0	11394.5	10396.9	9109.0	7576.7	7391.0	5842.3
15°	12630.1	12639.9	12688.8	12858.3	12877.9	12617.1	11785.7	10334.9	8642.9	8411.3	6393.3
17.5°	13275.6	13344.1	13422.4	13582.1	13725.5	13621.3	13034.4	11612.9	9607.9	9435.1	6983.4
20°	14341.7	14436.3	14390.6	14488.4	14563.4	14573.2	14120.1	12793.1	10778.3	10488.1	7658.2
22.5°	16046.8	16043.6	15926.2	15750.2	15603.4	15596.9	15186.1	14005.9	11841.1	11560.7	8336.4
25°	18201.8	18211.6	17983.4	17481.4	17116.2	16669.5	16196.8	15068.8	12979.0	12633.3	9050.4
27.5°	20673.1	20611.1	20265.6	19574.4	18850.6	18087.7	17406.3	16304.4	14185.2	13898.4	9868.7
30°	22893.3	22870.5	22466.2	21621.8	20669.8	19903.7	18915.9	17853.0	15746.9	15394.8	10784.8
32.5°	24960.3	24992.9	24432.1	23558.3	22639.0	21755.5	20712.2	19333.2	17279.2	16780.4	11782.5
35°	26574.1	26606.7	26026.3	25299.4	24353.8	23620.3	22625.9	20911.0	18792.0	18371.4	12930.0
37.5°	27434.8	27477.2	27141.3	26593.7	26003.6	25635.1	24709.3	22942.2	20630.7	20376.4	14286.3
40°	27597.8	27646.7	27500.0	27353.3	27320.6	27584.8	27314.2	25335.2	23180.2	22782.4	16307.7
42.5°	27108.8	27174.0	27239.1	27565.2	28230.3	29198.6	30140.8	28582.4	26463.2	25928.5	18778.9
45°	25824.3	25817.7	26075.3	26919.7	28409.6	30476.6	33094.5	32647.9	30936.3	30300.6	22270.6
47.5°	23626.9	23594.3	24151.8	25354.8	27676.0	30711.3	35503.8	37583.9	36644.9	36058.1	26023.1
50°	20278.6	20438.3	21315.3	22994.4	25853.6	30000.6	36247.2	40821.3	41329.9	40707.2	29055.1
52.5°	16356.5	16350.0	17725.8	20004.7	23154.1	28435.6	35728.8	41408.1	42852.4	42376.4	30548.3
55°	12105.2	12190.0	13621.3	15919.7	19649.4	25579.7	34036.8	40805.0	43432.7	43096.9	31532.9
57°	9004.8	9154.7	10302.3	12734.4	16597.8	22753.1	31783.9	39725.8	43660.9	43478.4	32351.3
57.5°	8404.9	8411.3	9529.6	11740.1	15704.5	21667.4	31138.4	39276.0	43654.4	43553.4	32484.9
60°	5174.0	5337.0	6109.7	7935.4	11495.5	16910.8	26812.1	36690.6	43315.4	43462.0	33055.4
62.5°	3097.2	3165.7	3667.8	4782.8	7410.5	12343.2	21941.4	33381.5	42431.8	42878.5	33016.3
65°	1992.0	2008.3	2236.6	2895.1	4632.8	8342.9	16907.5	29009.5	40146.4	40968.0	31725.2
67.5°	1538.9	1564.9	1656.2	1900.7	2686.4	5196.8	11958.5	24344.1	36449.3	37508.9	28595.4
70°	1366.0	1379.1	1411.7	1489.9	1776.8	2934.2	7439.8	19016.9	30225.5	30525.5	22378.2
72.5°	1115.0	1150.8	1251.9	1278.0	1408.4	1832.3	4140.5	12763.8	20308.0	20382.9	12519.3
75°	864.0	870.5	1020.5	1095.4	1186.7	1261.7	1848.5	6435.7	9754.6	9232.9	4825.2
77.5°	645.6	674.9	743.4	837.9	968.3	903.1	828.1	2425.6	3028.8	2973.4	1401.9
80°	414.0	430.3	518.4	629.2	753.1	590.1	466.3	710.7	665.1	684.7	335.8
82.5°	208.7	211.9	332.5	511.8	479.3	296.7	293.4	290.1	247.8	244.5	156.5
85°	22.8	48.9	215.2	293.4	215.2	97.8	136.9	133.6	130.4	133.6	91.2
87.5°	3.3	3.3	35.8	42.4	29.4	32.6	39.1	42.4	52.1	48.9	39.1
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°	3954.6	3954.6	3954.6	3954.6	3954.6	3954.6	3954.6	3954.6	3954.6	3954.6	3954.6
2.5°	4072.0	3941.6	3700.3	3468.9	3296.0	3185.2	3041.8	2989.6	2914.7	2904.9	2869.0
5°	4248.1	4000.3	3579.7	3247.2	2979.8	2777.7	2601.6	2455.0	2337.6	2311.5	2324.5
7.5°	4499.1	4130.7	3543.9	3090.7	2719.0	2373.5	2093.1	1920.3	1796.4	1750.7	1757.3
10°	4782.8	4303.5	3537.3	2924.4	2357.2	1933.3	1626.8	1473.6	1401.9	1375.8	1346.4
12.5°	5118.6	4502.4	3521.0	2666.9	1959.4	1542.1	1323.6	1232.4	1163.9	1144.3	1144.3
15°	5496.8	4714.3	3442.8	2347.4	1591.0	1274.8	1128.0	1056.3	1033.5	1013.9	1013.9
17.5°	5891.2	4923.0	3279.8	1952.9	1320.4	1092.2	1000.9	958.5	925.9	903.1	903.1
20°	6341.1	5128.3	3018.9	1604.0	1115.0	974.8	903.1	854.2	828.1	808.5	802.0
22.5°	6768.2	5294.6	2686.4	1317.1	971.5	877.0	811.8	759.6	733.5	723.8	723.8
25°	7211.7	5395.7	2285.4	1088.9	886.8	795.5	723.8	681.4	658.6	652.0	648.7
27.5°	7642.0	5454.4	1933.3	952.0	808.5	720.5	652.0	619.5	596.6	590.1	593.3
30°	8163.6	5464.1	1591.0	854.2	740.1	648.7	586.8	557.5	544.5	537.9	534.7
32.5°	8691.7	5451.1	1336.7	795.5	674.9	586.8	534.7	511.8	502.1	492.3	492.3
35°	9285.1	5382.7	1137.8	736.8	612.9	534.7	489.0	469.4	456.4	446.7	443.4
37.5°	10021.9	5346.7	1023.7	671.6	557.5	485.8	443.4	423.9	414.0	401.0	397.7
40°	11182.6	5506.5	987.8	612.9	502.1	440.1	401.0	378.2	365.2	352.1	348.8
42.5°	12630.1	5786.9	929.1	554.2	453.1	397.7	358.6	332.5	309.7	293.4	286.9
45°	14504.7	6155.3	837.9	492.3	410.8	352.1	316.2	283.7	254.3	241.3	238.0
47.5°	16470.6	6510.7	756.4	443.4	365.2	313.0	273.8	238.0	211.9	202.1	198.9
50°	17677.0	6582.4	704.2	388.0	319.5	270.6	231.4	198.9	182.6	172.8	172.8
52.5°	18227.9	6468.3	632.5	339.1	277.1	238.0	198.9	172.8	163.0	156.5	153.2
55°	18612.6	6292.2	537.9	293.4	238.0	202.1	176.0	156.5	143.5	136.9	133.6
57°	18837.6	6054.3	466.3	257.6	205.4	176.0	156.5	140.2	127.2	114.1	114.1
57.5°	18847.4	5962.9	446.7	254.3	195.6	169.5	153.2	136.9	120.6	107.6	104.4
60°	18557.2	5337.0	358.6	215.2	156.5	143.5	127.2	107.6	84.8	71.7	68.5
62.5°	17624.8	4541.5	296.7	182.6	127.2	110.8	91.2	81.5	58.7	42.4	42.4
65°	16213.1	3684.1	254.3	146.7	104.4	81.5	62.0	58.7	35.8	19.6	16.3
67.5°	14172.2	2869.0	215.2	120.6	88.1	58.7	42.4	39.1	19.6	6.6	0.0
70°	10797.9	1956.2	179.3	97.8	65.2	42.4	29.4	22.8	13.0	3.3	0.0
72.5°	6223.7	1075.9	150.0	75.0	48.9	32.6	22.8	13.0	13.0	0.0	0.0
75°	2223.4	463.0	114.1	55.4	39.1	26.1	16.3	6.6	9.8	3.3	0.0
77.5°	707.4	247.8	75.0	42.4	32.6	19.6	13.0	6.6	6.6	3.3	0.0
80°	208.7	130.4	45.7	35.8	22.8	16.3	9.8	3.3	6.6	3.3	0.0
82.5°	114.1	65.2	35.8	26.1	22.8	13.0	9.8	3.3	3.3	3.3	0.0
85°	58.7	39.1	29.4	26.1	22.8	13.0	9.8	3.3	0.0	3.3	3.3
87.5°	32.6	29.4	29.4	26.1	22.8	16.3	9.8	3.3	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)