

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: P591283

Luminaire Tested: **CTN-CA8-480-727-U-T3-SSS-HM-EX90**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591283  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-7)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA8-480-727-U-T3-SSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (8) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 41682 lumens  
Efficiency: N/A  
Efficacy: 86.7 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Medium  
BUG Rating: B4 - U0 - G4

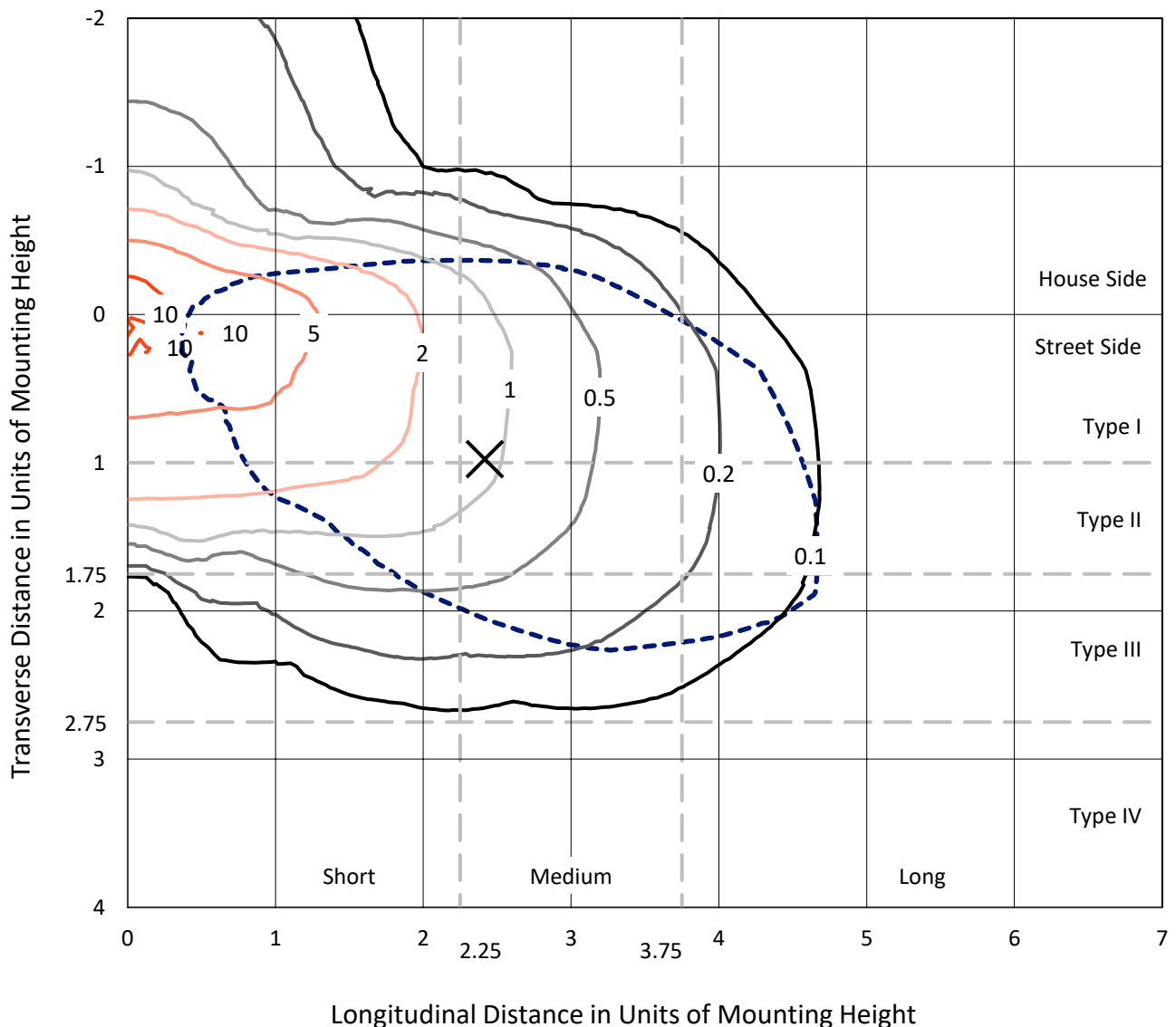
Input Watts (W): 480.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

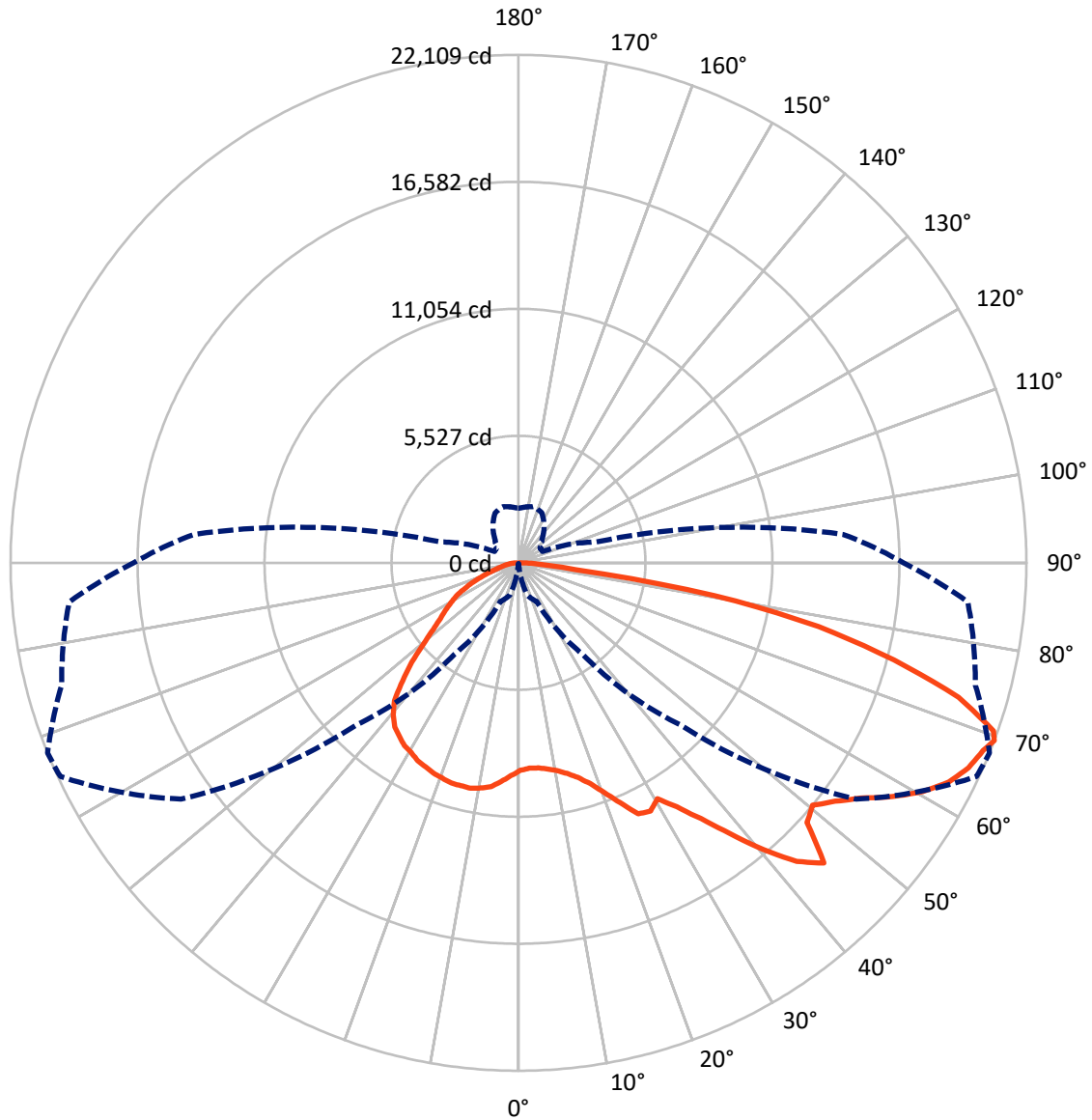
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.2 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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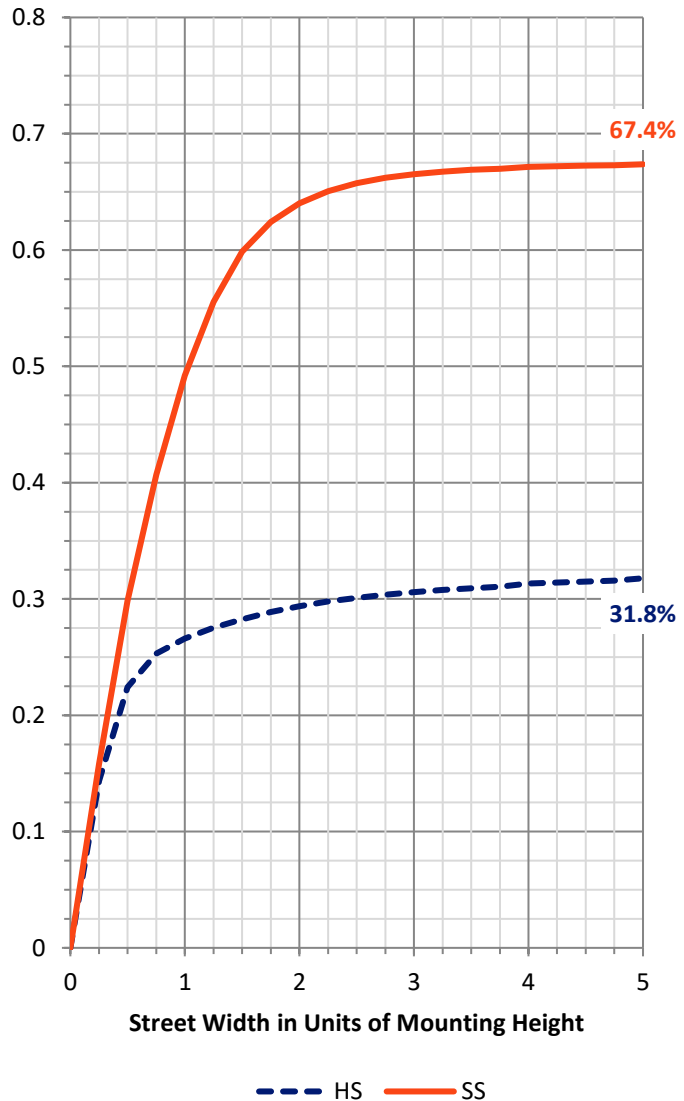
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	13596.0	0.0	13596.0
	% Fixture	32.6	0.0	32.6
<b>Street Side</b>	Lumens	28086.0	0.0	28086.0
	% Fixture	67.4	0.0	67.4
<b>Total</b>	Lumens	41682.0	0.0	41682.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	902.4	2.2
10°-20°	2792.2	6.7
20°-30°	4292.9	10.3
30°-40°	5575.7	13.4
40°-50°	6882.4	16.5
50°-60°	7729.6	18.5
60°-70°	7554.1	18.1
70°-80°	5072.8	12.2
80°-90°	879.8	2.1
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°	41682.0	100.0
0°-180°	41682.0	100.0

**Coefficient of Utilization**

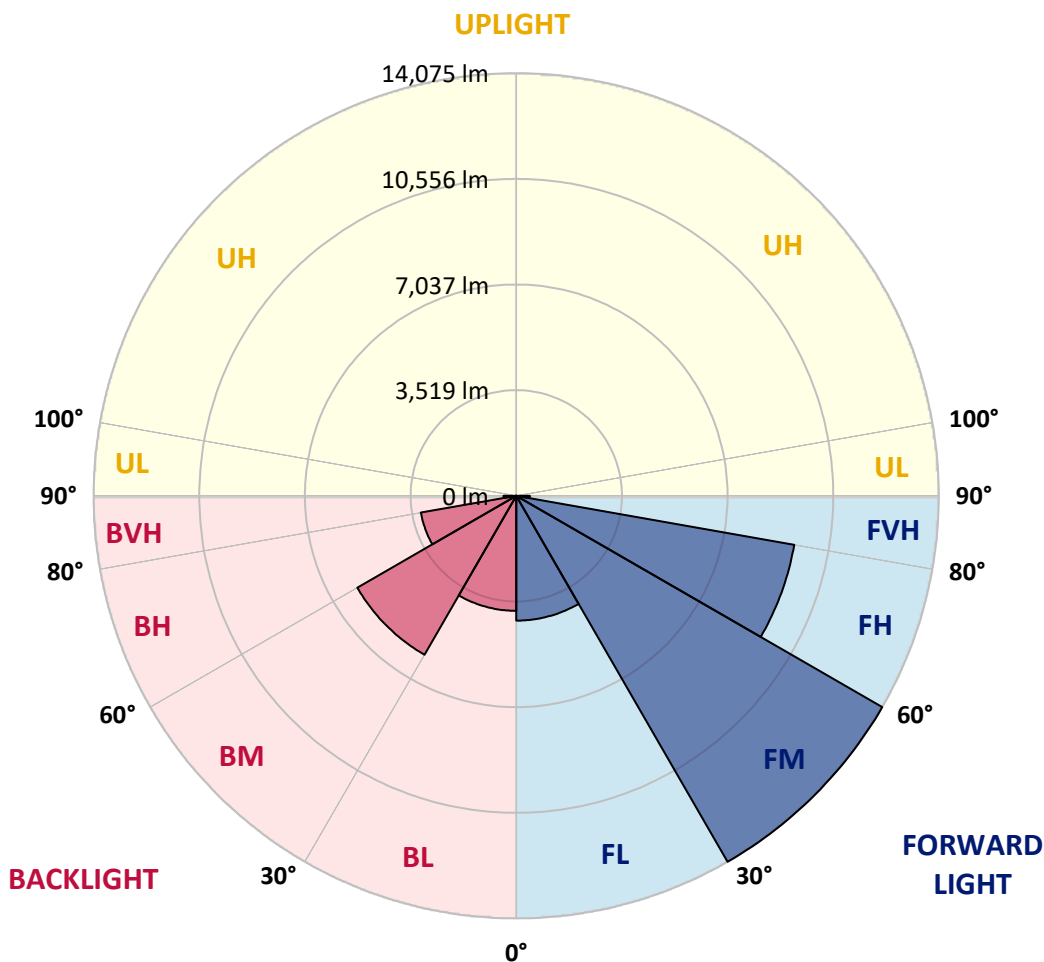


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4156.1	10.0			
FM	(30°-60°)	14075.0	33.8			
FH	(60°-80°)	9401.4	22.6			G4/12000
FVH	(80°-90°)	453.5	1.1			G3/500
BL	(0°-30°)	3831.5	9.2	B4/5000		
BM	(30°-60°)	6112.7	14.7	B4/8500		
BH	(60°-80°)	3225.5	7.7	B4/5000		G4/5000
BVH	(80°-90°)	426.3	1.0			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**  
 Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	9035.4	9035.4	9035.4	9035.4	9035.4	9035.4	9035.4	9035.4	9035.4	9035.4	9035.4
2.5°	8853.1	8799.2	8819.7	8894.1	8743.4	8842.0	8795.5	8895.9	8948.0	8925.7	9067.0
5°	8936.8	8877.3	8881.0	8933.1	8771.3	8855.0	8802.9	8910.8	8968.5	8936.8	9126.5
7.5°	9191.6	9126.5	9107.9	9104.2	8951.7	9015.0	8910.8	8998.2	9057.7	9041.0	9254.9
10°	9582.2	9504.1	9468.8	9448.3	9266.0	9247.4	9117.2	9156.3	9200.9	9219.5	9450.2
12.5°	10011.9	9905.8	9883.5	9822.2	9587.8	9546.9	9388.8	9407.4	9407.4	9450.2	9678.9
15°	10376.4	10289.0	10289.0	10225.8	9997.0	9939.3	9721.7	9699.4	9695.7	9729.2	9933.7
17.5°	10142.1	10093.7	10050.9	10019.3	9665.9	9572.9	10162.5	10123.5	10104.9	10138.3	10257.4
20°	9355.3	9485.5	9210.2	8821.5	8877.3	9997.0	10729.8	10659.1	10670.3	10703.7	10670.3
22.5°	8233.8	7912.0	8417.9	8557.4	8789.9	9617.6	11246.8	11321.2	11343.6	11345.4	11170.6
25°	7056.5	7235.0	7921.3	8985.2	8955.4	9645.5	10932.5	11990.8	12102.4	12091.2	11788.1
27.5°	7395.0	7361.5	7891.6	8590.9	9474.3	10236.9	11125.9	11596.5	12236.3	12944.9	12533.9
30°	7690.7	7662.8	7718.6	8696.9	9816.6	10828.4	11849.4	11773.2	11909.0	13192.3	13413.6
32.5°	7954.8	7934.3	7999.4	8107.3	9247.4	11466.3	12625.0	12610.1	12656.6	12757.1	14451.5
35°	8204.0	8205.9	8285.9	8462.6	9320.0	11598.4	13391.3	13549.4	13672.2	13893.5	14272.9
37.5°	8375.1	8378.9	8442.1	8656.0	9015.0	10945.5	14166.9	14730.4	14949.9	15347.9	14810.4
40°	8373.3	8401.2	8553.7	8832.7	9312.5	10514.0	14406.8	16069.6	16423.0	16713.1	15809.2
42.5°	8198.5	8213.3	8497.9	9001.9	9576.6	10841.4	13661.0	17375.2	17767.7	17687.7	16635.0
45°	8038.5	8034.8	8358.4	8979.6	9812.9	11291.5	13761.4	17338.0	18641.8	18545.1	17393.8
47.5°	7824.6	7830.2	8172.4	8882.9	10028.6	11773.2	14505.4	15766.4	16895.4	19281.6	18011.3
50°	7556.8	7590.3	7938.1	8736.0	10136.5	12223.3	15148.9	16456.4	16590.3	17317.6	18615.8
52.5°	7112.3	7052.8	7687.0	8566.7	10212.7	12550.6	15762.7	17118.6	17245.0	16980.9	19231.4
55°	4037.9	5010.6	7372.7	8369.6	10235.1	12747.8	16238.8	17871.8	18069.0	17819.7	19731.7
57.5°	2536.9	2615.0	6386.9	7846.9	10047.2	12870.5	16822.8	18905.9	19197.9	18604.6	20111.1
60°	898.3	969.0	3106.0	3602.6	8235.7	12532.0	17711.9	20124.2	20220.9	19343.0	20390.1
62.5°	94.9	124.6	2105.4	2644.8	6394.3	11564.9	18325.6	21104.3	21016.9	19889.8	20540.8
65°	33.5	46.5	1850.6	2365.8	5951.7	11263.6	18528.4	21522.8	21520.9	20239.5	20432.9
67.5°	26.0	35.3	1608.8	2055.2	5311.9	10618.2	18191.7	21837.1	21807.4	20585.4	20148.3
69°	26.0	37.2	1448.9	1852.5	4848.8	10000.7	17931.3	22002.7	22108.7	20591.0	19633.1
70°	26.0	37.2	1346.6	1711.1	4471.2	9435.3	17557.5	21876.2	21930.1	20412.4	19099.4
72.5°	26.0	37.2	1043.4	1324.3	3399.9	7262.9	15381.4	19934.4	20036.7	18844.5	17165.1
75°	26.0	37.2	734.7	963.4	2231.9	4872.9	12247.5	16603.4	16880.5	15926.4	14064.6
77.5°	26.0	37.2	438.9	658.4	1400.5	2674.5	8427.2	12725.5	13352.2	12463.2	10052.8
80°	26.0	35.3	206.4	359.0	797.9	1417.2	3861.2	7833.9	8650.4	7796.7	5257.9
82.5°	26.0	35.3	169.3	258.5	403.6	704.9	1508.4	2566.7	2520.2	2263.5	1694.4
85°	24.2	31.6	139.5	189.7	290.1	446.4	840.7	1045.3	996.9	881.6	887.2
87.5°	16.7	18.6	48.4	85.6	117.2	221.3	407.3	442.7	452.0	377.6	396.2
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°	9035.4	9035.4	9035.4	9035.4	9035.4	9035.4	9035.4	9035.4	9035.4	9035.4	9035.4
2.5°	9134.0	9145.1	9199.1	9295.8	9293.9	9398.1	9370.2	9612.0	9621.3	9617.6	9636.2
5°	9217.7	9280.9	9400.0	9606.4	9725.4	9881.7	9851.9	10095.6	10110.4	10090.0	10142.1
7.5°	9362.8	9440.9	9636.2	9891.0	9922.6	10119.7	10078.8	10276.0	10266.7	10229.5	10318.7
10°	9567.3	9660.3	9837.0	9982.1	10073.2	10188.6	10143.9	10311.3	10279.7	10238.8	10324.3
12.5°	9775.7	9820.3	9918.9	10082.5	10090.0	10116.0	10063.9	10199.7	10164.4	10103.0	10192.3
15°	9974.7	9980.2	9963.5	10037.9	9959.8	9976.5	9863.1	9948.6	9887.2	9859.3	9917.0
17.5°	10233.2	10166.2	10047.2	10015.6	9831.5	9753.3	9585.9	9582.2	9474.3	9435.3	9474.3
20°	10543.8	10398.7	10123.5	9861.2	9543.2	9383.2	9098.6	9022.4	8935.0	8851.3	8897.8
22.5°	10973.4	10692.6	10218.3	9729.2	9202.8	8888.5	8538.8	8323.1	8159.4	7997.6	8045.9
25°	11462.6	11070.1	10352.2	9504.1	8795.5	8239.4	7785.6	7417.3	7182.9	6946.7	7052.8
27.5°	12124.7	11583.5	10434.1	9336.7	8265.4	7519.6	6796.1	6316.2	6072.6	5903.3	5849.4
30°	12896.6	12247.5	10581.0	9007.5	7642.3	6634.3	5715.5	5179.8	4921.3	4841.3	4874.8
32.5°	13837.7	13054.7	10880.4	8732.2	7010.0	5695.0	4623.7	4205.2	4019.3	4006.2	4002.5
35°	15096.8	14085.1	11137.1	8304.5	6173.0	4599.5	3678.9	3332.9	3325.5	3319.9	3332.9
37.5°	16064.0	15134.0	11410.5	7886.0	5179.8	3591.5	2942.4	2732.2	2709.9	2775.0	2791.7
40°	16826.5	15885.4	11819.7	7179.2	4015.5	2682.0	2259.8	2181.7	2339.8	2483.0	2512.7
42.5°	17514.7	16517.8	11909.0	6426.0	2925.6	2058.9	1872.9	2003.1	2246.8	2410.4	2442.1
45°	18160.1	17181.8	11568.6	5306.3	2092.4	1744.6	1781.8	1977.1	2250.5	2425.3	2443.9
47.5°	18865.0	17626.3	11200.3	4266.6	1720.4	1672.1	1763.2	1986.4	2272.8	2449.5	2458.8
50°	19330.0	17944.4	10279.7	3336.7	1612.5	1627.4	1755.7	2006.8	2276.5	2403.0	2410.4
52.5°	19519.7	18199.2	9446.5	2670.8	1558.6	1593.9	1765.0	2042.2	2267.2	2337.9	2334.2
55°	19638.7	18316.3	8730.4	2222.6	1510.2	1567.9	1781.8	2068.2	2287.7	2360.2	2360.2
57.5°	19562.5	18054.1	8198.5	1893.4	1461.9	1549.3	1802.2	2107.3	2481.1	2609.4	2596.4
60°	19506.7	17563.1	7443.3	1672.1	1404.2	1528.8	1828.3	2243.0	2894.0	3024.2	2981.4
62.5°	19218.4	17148.3	6625.0	1530.7	1339.1	1517.7	1850.6	2425.3	2951.7	2944.2	2860.5
65°	18483.7	16303.9	5334.2	1387.5	1272.2	1502.8	1858.0	2505.3	2715.5	2598.3	2574.1
67.5°	17442.2	15085.7	4209.0	1244.3	1197.8	1471.2	1919.4	2410.4	2583.4	2483.0	2445.8
69°	16761.5	14183.6	3496.6	1155.0	1149.4	1445.1	1943.6	2401.1	2535.0	2421.6	2373.2
70°	16212.8	13402.5	3018.6	1097.3	1112.2	1424.7	1919.4	2399.3	2514.6	2373.2	2319.3
72.5°	13858.1	10858.1	1949.2	959.7	1002.5	1370.7	1828.3	2337.9	2471.8	2378.8	2304.4
75°	10739.1	7904.6	1261.0	829.5	887.2	1279.6	1737.2	2298.8	2510.9	2341.6	2181.7
77.5°	6890.9	4229.4	976.4	697.5	762.6	1151.3	1573.5	2140.7	2438.3	2285.8	2079.4
80°	3001.9	1569.8	753.3	565.4	617.5	935.5	1350.3	1902.7	2311.9	2295.1	2155.6
82.5°	1274.0	1011.8	580.3	433.4	491.0	691.9	1058.3	1631.1	2042.2	2122.2	2274.7
85°	721.6	606.3	386.9	297.6	364.5	509.6	753.3	1251.7	1662.8	1843.2	1971.5
87.5°	310.6	252.9	178.6	160.0	206.4	264.1	323.6	587.7	887.2	1082.5	1164.3
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)