

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: INVUE

Report Number: P565291

Luminaire Tested: **MSA-SA2C-827-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565291
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2108-334-1)
Test Lab: INNOVATIONS CENTER
Issue Date: 8/19/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2C-827-U-T1
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8199 lumens
Efficiency: N/A
Efficacy: 72.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B3 - U0 - G3

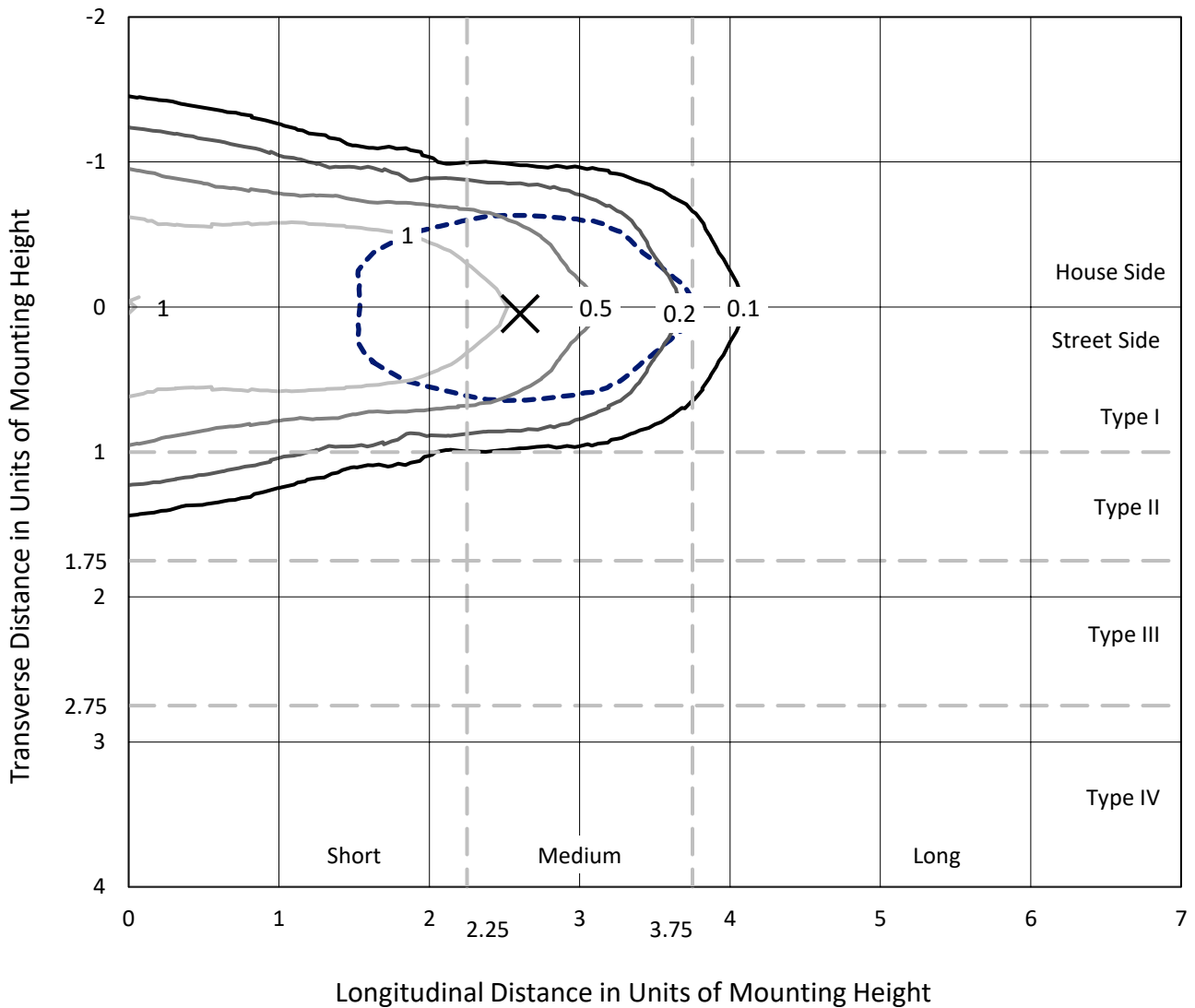
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

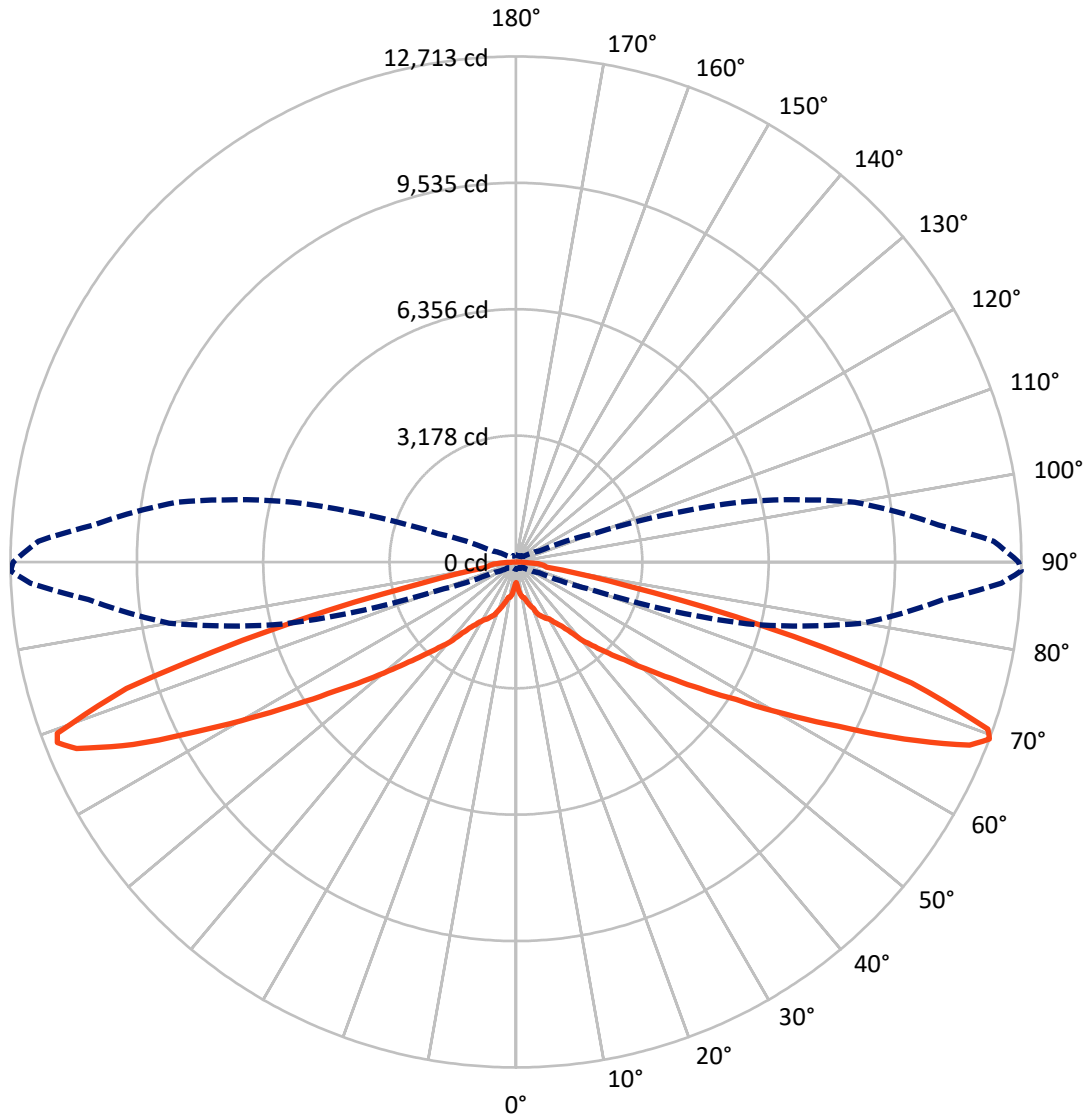
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc
 Type I - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 89-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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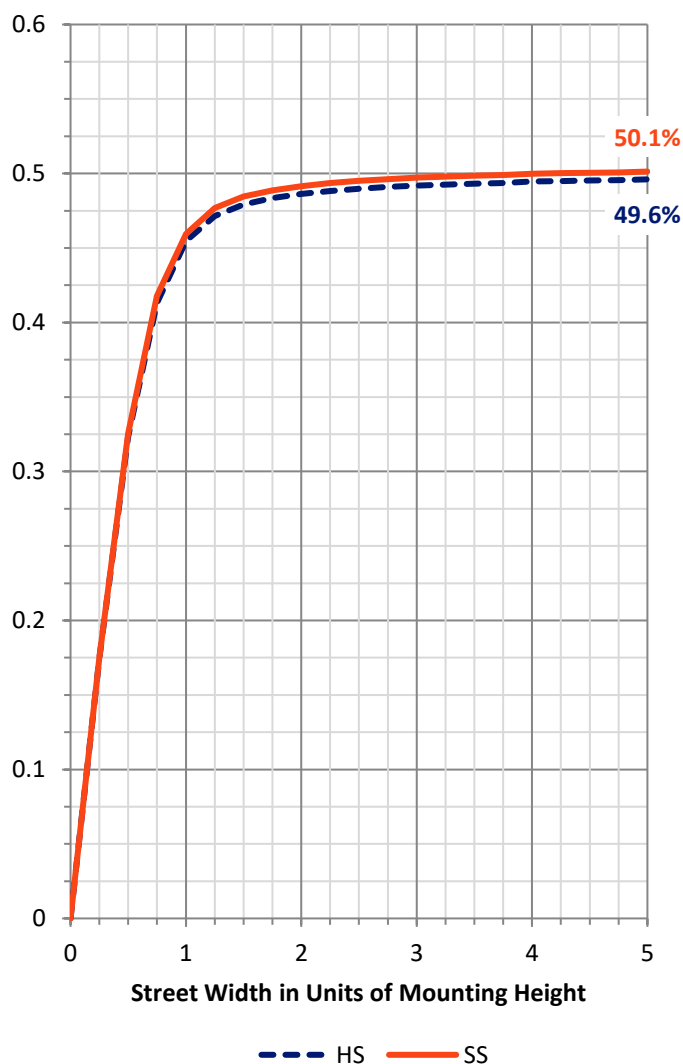
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4099.4	0.0	4099.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	4099.6	0.0	4099.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	8199.0	0.0	8199.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.3	0.8
10°-20°	300.6	3.7
20°-30°	599.8	7.3
30°-40°	907.2	11.1
40°-50°	1316.8	16.1
50°-60°	1730.1	21.1
60°-70°	2110.5	25.7
70°-80°	1067.0	13.0
80°-90°	101.7	1.2
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°	8199.0	100.0
0°-180°	8199.0	100.0

Coefficient of Utilization

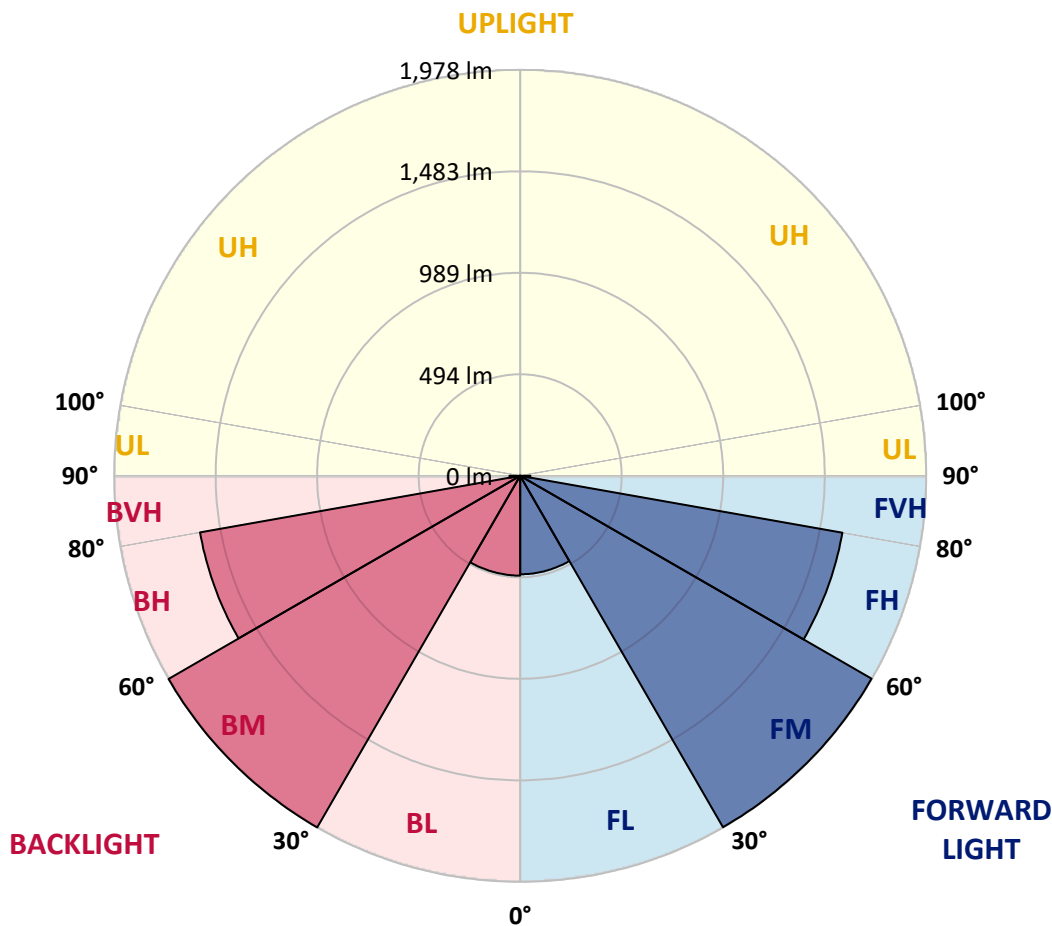


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	479.5	5.8			
FM (30°-60°)	1976.4	24.1			
FH (60°-80°)	1593.8	19.4			G1/1800
FVH (80°-90°)	49.9	0.6			G1/100
BL (0°-30°)	486.2	5.9	B1/500		
BM (30°-60°)	1977.7	24.1	B2/2500		
BH (60°-80°)	1583.7	19.3	B3/2500		G3/2500
BVH (80°-90°)	51.8	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
 Type I Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3
2.5°	609.4	539.2	533.1	516.3	528.5	533.1	522.4	507.1	523.9	533.1	516.3
5°	768.3	664.4	629.3	600.3	542.2	517.8	542.2	604.9	612.5	650.7	640.0
7.5°	846.2	829.4	785.1	688.9	595.7	543.8	609.4	699.6	745.4	782.0	820.2
10°	904.2	895.1	817.2	748.4	710.3	713.3	714.8	743.9	783.6	844.7	866.0
12.5°	918.0	914.9	927.1	911.9	914.9	931.7	914.9	907.3	930.2	950.1	928.7
15°	1006.6	1005.0	1009.6	1012.7	1073.8	1099.7	1073.8	1050.9	1034.1	1017.3	1052.4
17.5°	1067.7	1060.0	1061.6	1090.6	1159.3	1231.1	1217.4	1186.8	1148.6	1171.5	1200.6
20°	1101.3	1087.5	1096.7	1108.9	1225.0	1304.4	1313.6	1272.3	1249.4	1278.5	1302.9
22.5°	1133.3	1112.0	1079.9	1092.1	1199.0	1313.6	1357.9	1347.2	1364.0	1373.2	1368.6
25°	1095.2	1108.9	1073.8	1108.9	1217.4	1322.7	1411.3	1474.0	1475.5	1470.9	1504.5
27.5°	1072.3	1061.6	1002.0	1092.1	1182.2	1247.9	1474.0	1579.4	1611.4	1513.7	1579.4
30°	1032.5	1049.3	968.4	1043.2	1157.8	1267.8	1545.8	1697.0	1649.6	1637.4	1652.7
32.5°	1008.1	997.4	959.2	1000.5	1087.5	1327.3	1591.6	1765.7	1825.3	1796.3	1793.2
35°	968.4	976.0	916.5	960.8	1082.9	1276.9	1622.1	1938.3	2029.9	2007.0	1988.7
37.5°	974.5	948.5	905.8	937.8	1053.9	1304.4	1698.5	2104.8	2249.9	2262.1	2178.1
40°	928.7	913.4	849.2	902.7	998.9	1287.6	1716.8	2294.2	2540.1	2595.1	2474.4
42.5°	863.0	843.1	806.5	866.0	966.9	1205.1	1742.8	2521.8	2834.9	2949.5	2839.5
45°	768.3	742.3	724.0	803.4	896.6	1183.8	1715.3	2711.2	3117.5	3274.8	3271.7
47.5°	653.7	636.9	627.8	711.8	838.6	1130.3	1658.8	2830.3	3314.5	3717.8	3656.7
50°	523.9	511.7	510.2	598.8	740.8	1020.3	1594.6	2889.9	3613.9	4124.0	4177.5
52.5°	420.0	410.9	409.3	481.1	620.1	872.2	1460.2	2935.7	3899.5	4585.3	4860.3
55°	328.4	319.2	320.8	380.3	493.4	713.3	1255.5	2883.8	4150.0	5057.3	5578.2
57.5°	268.8	259.7	261.2	294.8	377.3	545.3	1000.5	2770.7	4263.0	5640.8	6415.2
60°	236.8	227.6	223.0	238.3	290.2	410.9	743.9	2330.9	4281.4	6125.0	7324.0
62.5°	219.9	210.8	206.2	210.8	239.8	314.6	536.1	1846.7	4176.0	6538.9	8156.4
65°	204.7	197.0	190.9	195.5	210.8	250.5	391.0	1264.7	3624.6	6728.3	8761.3
67.5°	187.9	181.8	175.7	181.8	192.5	210.8	304.0	800.4	2717.3	6482.4	9013.3
69°	178.7	169.5	166.5	171.1	181.8	194.0	262.7	638.5	2066.6	6015.0	8860.6
70°	169.5	163.4	158.9	166.5	175.7	184.8	236.8	542.2	1620.6	5414.7	8481.8
72.5°	149.7	145.1	142.1	149.7	157.3	163.4	194.0	386.4	939.4	3687.2	6726.8
75°	131.4	126.8	125.2	131.4	137.5	140.5	163.4	265.8	554.5	1929.1	4035.5
77.5°	110.0	103.9	105.4	113.0	117.6	119.1	137.5	190.9	326.9	873.7	1869.6
80°	81.0	81.0	87.1	93.2	93.2	93.2	110.0	139.0	198.6	401.7	775.9
82.5°	56.5	58.0	59.6	68.7	70.3	64.2	84.0	100.8	123.7	175.7	268.8
85°	32.1	33.6	35.1	41.2	42.8	38.2	55.0	64.2	71.8	87.1	140.5
87.5°	12.2	13.7	18.3	21.4	22.9	16.8	26.0	30.5	30.5	36.7	62.6
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):

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3
2.5°	551.4	562.1	581.9	586.5	569.7	551.4	510.2	536.1	546.8	527.0	533.1
5°	682.8	705.7	730.1	701.1	682.8	670.5	650.7	652.2	641.5	606.4	548.3
7.5°	830.9	805.0	823.3	843.1	814.1	815.6	834.0	795.8	766.8	707.2	598.8
10°	899.7	899.7	904.2	904.2	892.0	892.0	890.5	829.4	794.3	768.3	737.7
12.5°	904.2	902.7	921.0	907.3	910.3	913.4	921.0	948.5	939.4	905.8	933.3
15°	1031.0	1024.9	1031.0	1029.5	1034.1	1047.8	1041.7	1035.6	1037.1	1061.6	1102.8
17.5°	1150.2	1153.2	1147.1	1157.8	1157.8	1167.0	1188.3	1167.0	1148.6	1194.4	1226.5
20°	1287.6	1276.9	1252.5	1270.8	1275.4	1276.9	1312.1	1286.1	1260.1	1276.9	1315.1
22.5°	1426.6	1425.1	1428.1	1429.7	1435.8	1412.9	1365.5	1357.9	1374.7	1351.8	1356.4
25°	1512.2	1513.7	1521.3	1522.8	1496.9	1521.3	1538.1	1487.7	1487.7	1483.1	1452.6
27.5°	1616.0	1593.1	1602.3	1614.5	1603.8	1609.9	1590.0	1516.7	1594.6	1605.3	1483.1
30°	1686.3	1675.6	1664.9	1677.1	1687.8	1715.3	1658.8	1651.1	1657.3	1713.8	1553.4
32.5°	1834.4	1849.7	1829.9	1810.0	1829.9	1823.7	1799.3	1788.6	1865.0	1790.1	1602.3
35°	1971.9	1978.0	1979.5	1976.5	1988.7	1967.3	1967.3	2007.0	2029.9	1949.0	1617.5
37.5°	2303.4	2282.0	2237.7	2216.3	2254.5	2286.6	2191.9	2239.2	2230.0	2092.6	1732.1
40°	2541.6	2590.5	2604.3	2598.1	2604.3	2512.6	2532.5	2567.6	2526.4	2298.8	1692.4
42.5°	2889.9	2920.4	2909.7	2896.0	2902.1	2885.3	2825.7	2955.6	2807.4	2529.4	1753.5
45°	3207.6	3276.3	3280.9	3233.6	3271.7	3212.2	3236.6	3282.4	3132.7	2702.0	1736.7
47.5°	3586.4	3728.4	3675.0	3675.0	3713.2	3584.9	3642.9	3704.0	3306.9	2818.1	1645.0
50°	4147.0	4223.3	4220.3	4206.5	4223.3	4154.6	4145.4	4137.8	3574.2	2928.1	1588.5
52.5°	4780.8	4884.7	4845.0	4860.3	4883.2	4753.3	4855.7	4576.2	3908.7	2969.3	1460.2
55°	5590.4	5662.2	5622.5	5544.6	5648.4	5565.9	5599.5	5054.2	4140.8	2851.7	1246.4
57.5°	6554.2	6590.8	6525.2	6517.5	6586.3	6497.7	6441.2	5591.9	4261.5	2763.1	995.9
60°	7679.9	7794.4	7753.2	7687.5	7750.2	7672.3	7244.6	6048.6	4237.1	2349.2	771.3
62.5°	9030.1	9146.2	9100.4	9056.1	9095.8	8892.7	7999.1	6409.1	4127.1	1861.9	563.6
65°	10145.2	10669.1	10737.8	10739.3	10546.9	10076.4	8600.9	6549.6	3546.7	1299.8	412.4
67.5°	10878.3	11967.4	12306.5	12184.3	11742.8	10669.1	8843.8	6274.7	2738.7	821.8	308.5
69°	10794.3	12222.5	12712.8	12644.0	12023.9	10659.9	8654.4	5811.9	2092.6	653.7	261.2
70°	10406.3	12013.2	12595.1	12625.7	11845.2	10250.5	8316.8	5280.3	1692.4	557.5	239.8
72.5°	8304.6	9899.2	10410.9	10611.0	9836.6	8208.4	6820.0	3725.4	980.6	389.5	194.0
75°	5144.4	6002.8	6427.4	6543.5	6074.6	5112.3	4139.3	2072.7	597.2	274.9	163.4
77.5°	2306.4	2555.4	2799.8	2799.8	2616.5	2333.9	1897.1	1002.0	339.1	195.5	137.5
80°	772.9	801.9	780.5	788.2	757.6	728.6	762.2	432.3	209.3	146.6	111.5
82.5°	525.4	659.8	701.1	701.1	658.3	519.3	293.3	198.6	128.3	105.4	85.5
85°	427.7	522.4	560.6	577.4	543.8	438.4	154.3	96.2	76.4	67.2	58.0
87.5°	143.6	134.4	126.8	123.7	129.8	135.9	76.4	41.2	35.1	32.1	30.5
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):

	135°	145°	155°	165°	175°	180°
0°	519.3	519.3	519.3	519.3	519.3	519.3
2.5°	543.8	525.4	533.1	540.7	595.7	636.9
5°	540.7	566.7	624.7	698.0	731.6	814.1
7.5°	556.0	650.7	759.1	835.5	866.0	892.0
10°	743.9	760.7	797.3	870.6	931.7	942.4
12.5°	960.8	956.2	930.2	963.8	933.3	954.6
15°	1130.3	1079.9	1044.8	1040.2	1029.5	1029.5
17.5°	1223.5	1179.2	1130.3	1118.1	1086.0	1112.0
20°	1333.4	1257.1	1134.9	1122.7	1112.0	1087.5
22.5°	1312.1	1235.7	1108.9	1093.6	1150.2	1147.1
25°	1338.0	1235.7	1115.0	1098.2	1124.2	1124.2
27.5°	1273.9	1189.9	1102.8	1002.0	1081.4	1099.7
30°	1257.1	1162.4	1061.6	971.4	1052.4	1035.6
32.5°	1345.7	1093.6	994.4	966.9	1026.4	1014.2
35°	1276.9	1081.4	977.6	927.1	997.4	985.2
37.5°	1305.9	1066.1	948.5	905.8	962.3	980.6
40°	1299.8	994.4	914.9	859.9	916.5	925.6
42.5°	1197.5	939.4	858.4	803.4	832.4	863.0
45°	1167.0	905.8	803.4	727.1	728.6	763.7
47.5°	1110.4	829.4	702.6	632.4	632.4	661.4
50°	1015.7	727.1	588.1	523.9	522.4	545.3
52.5°	875.2	627.8	496.4	426.2	421.6	444.5
55°	716.4	505.6	391.0	345.2	336.0	345.2
57.5°	557.5	394.1	308.5	271.9	270.4	278.0
60°	432.3	308.5	245.9	224.5	227.6	239.8
62.5°	326.9	245.9	209.3	201.6	206.2	218.4
65°	259.7	212.3	190.9	186.3	190.9	203.1
67.5°	210.8	192.5	177.2	171.1	174.1	186.3
69°	194.0	181.8	169.5	161.9	165.0	174.1
70°	184.8	175.7	163.4	155.8	158.9	168.0
72.5°	161.9	157.3	148.2	140.5	142.1	149.7
75°	142.1	139.0	132.9	123.7	123.7	132.9
77.5°	119.1	120.7	114.6	105.4	103.9	108.4
80°	94.7	97.8	94.7	85.5	82.5	82.5
82.5°	68.7	74.8	71.8	62.6	61.1	61.1
85°	42.8	47.4	45.8	39.7	39.7	35.1
87.5°	19.9	26.0	24.4	21.4	19.9	13.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)