

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: P565337

Luminaire Tested: **MSA-SA2B-835-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565337
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-SA2B-835-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: 7424 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B3 - U0 - G3

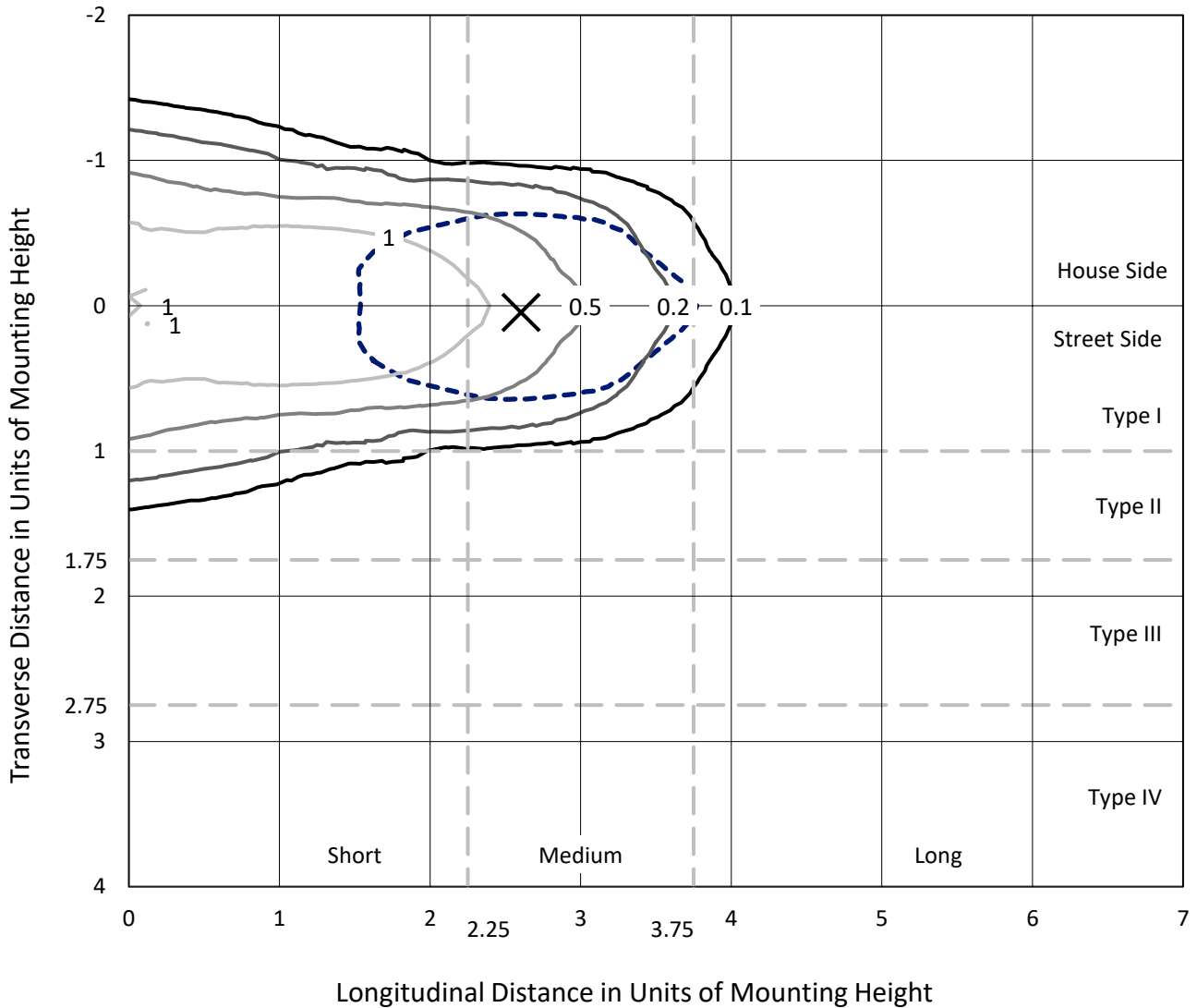
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

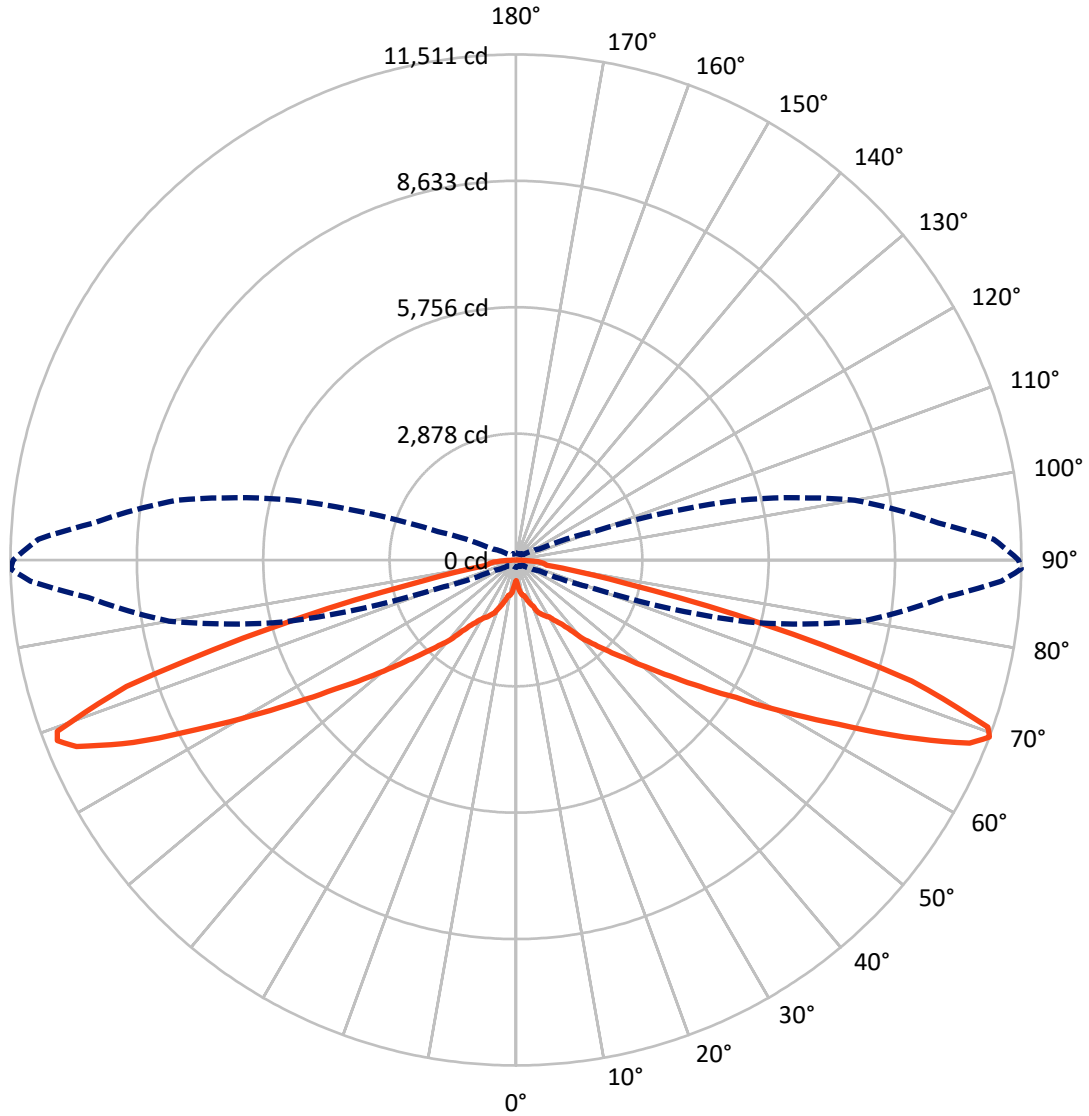
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 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	3711.9	0.0	3711.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3712.1	0.0	3712.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	7424.0	0.0	7424.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.1	0.8
10°-20°	272.2	3.7
20°-30°	543.1	7.3
30°-40°	821.4	11.1
40°-50°	1192.4	16.1
50°-60°	1566.6	21.1
60°-70°	1911.0	25.7
70°-80°	966.1	13.0
80°-90°	92.1	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°	7424.0	100.0
0°-180°	7424.0	100.0

Coefficient of Utilization



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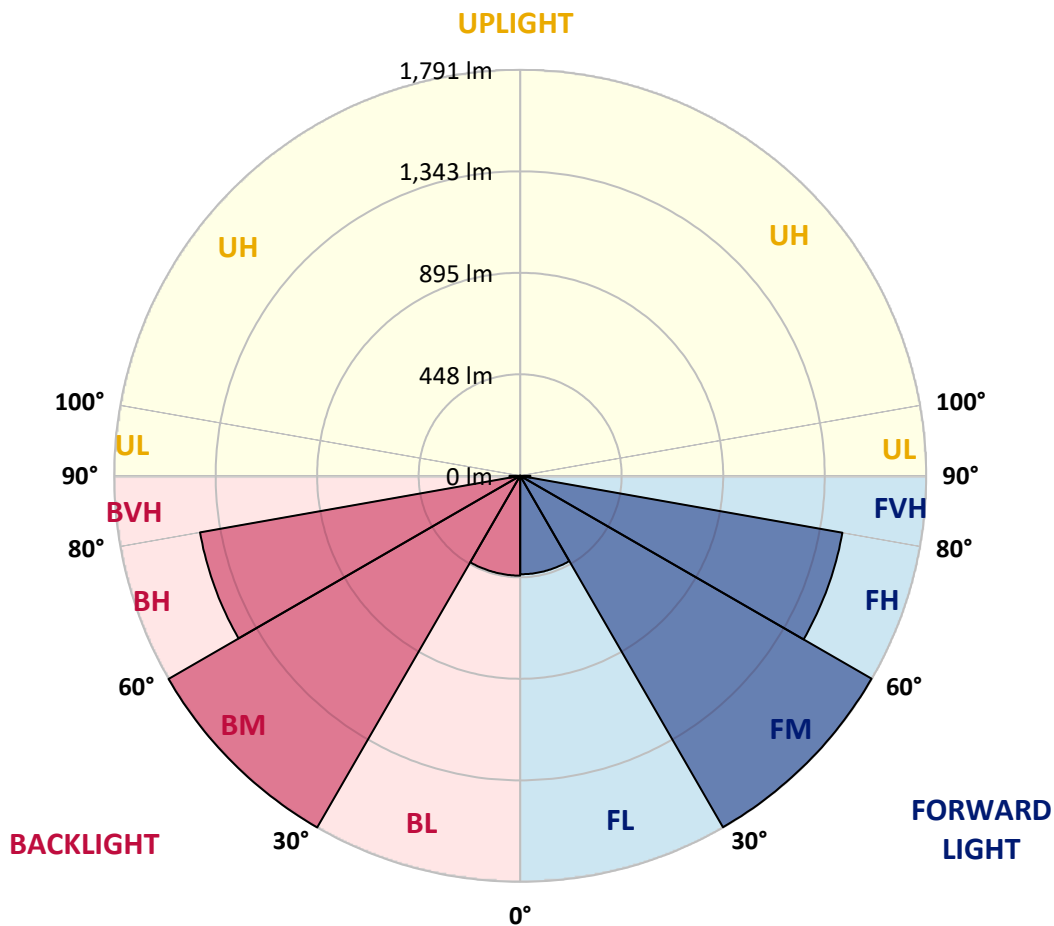
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	434.2	5.8			
FM (30°-60°)	1789.6	24.1			
FH (60°-80°)	1443.2	19.4			G1/1800
FVH (80°-90°)	45.2	0.6			G1/100
BL (0°-30°)	440.3	5.9	B1/500		
BM (30°-60°)	1790.8	24.1	B2/2500		
BH (60°-80°)	1434.0	19.3	B3/2500		G3/2500
BVH (80°-90°)	46.9	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°	470.2	470.2	470.2	470.2	470.2	470.2	470.2	470.2	470.2	470.2	470.2
2.5°	551.8	488.2	482.7	467.5	478.5	482.7	473.0	459.2	474.4	482.7	467.5
5°	695.7	601.6	569.8	543.5	491.0	468.9	491.0	547.7	554.6	589.2	579.5
7.5°	766.2	751.0	710.9	623.8	539.4	492.4	551.8	633.4	674.9	708.1	742.7
10°	818.8	810.5	739.9	677.7	643.1	645.9	647.3	673.5	709.5	764.8	784.2
12.5°	831.2	828.4	839.5	825.7	828.4	843.7	828.4	821.5	842.3	860.3	840.9
15°	911.4	910.0	914.2	917.0	972.3	995.8	972.3	951.5	936.3	921.1	952.9
17.5°	966.7	959.8	961.2	987.5	1049.7	1114.7	1102.3	1074.6	1040.1	1060.8	1087.1
20°	997.2	984.7	993.0	1004.1	1109.2	1181.1	1189.4	1152.1	1131.3	1157.6	1179.7
22.5°	1026.2	1006.9	977.8	988.9	1085.7	1189.4	1229.5	1219.8	1235.1	1243.4	1239.2
25°	991.6	1004.1	972.3	1004.1	1102.3	1197.7	1277.9	1334.6	1336.0	1331.9	1362.3
27.5°	970.9	961.2	907.3	988.9	1070.5	1129.9	1334.6	1430.1	1459.1	1370.6	1430.1
30°	934.9	950.2	876.9	944.6	1048.3	1147.9	1399.6	1536.6	1493.7	1482.6	1496.5
32.5°	912.8	903.1	868.6	905.9	984.7	1201.9	1441.1	1598.8	1652.7	1626.5	1623.7
35°	876.9	883.8	829.8	869.9	980.6	1156.2	1468.8	1755.1	1838.1	1817.3	1800.7
37.5°	882.4	858.9	820.1	849.2	954.3	1181.1	1537.9	1905.8	2037.2	2048.3	1972.2
40°	840.9	827.1	769.0	817.4	904.5	1165.9	1554.5	2077.3	2300.0	2349.8	2240.5
42.5°	781.4	763.4	730.2	784.2	875.5	1091.2	1578.1	2283.4	2566.9	2670.7	2571.1
45°	695.7	672.2	655.6	727.5	811.8	1071.9	1553.2	2454.9	2822.8	2965.3	2962.5
47.5°	591.9	576.7	568.4	644.5	759.3	1023.5	1502.0	2562.8	3001.2	3366.3	3311.0
50°	474.4	463.3	461.9	542.2	670.8	923.9	1443.9	2616.7	3272.3	3734.2	3782.6
52.5°	380.3	372.0	370.7	435.7	561.5	789.7	1322.2	2658.2	3530.9	4151.9	4400.9
55°	297.4	289.1	290.4	344.4	446.7	645.9	1136.9	2611.2	3757.7	4579.3	5050.9
57.5°	243.4	235.1	236.5	266.9	341.6	493.7	905.9	2508.8	3860.1	5107.6	5808.8
60°	214.4	206.1	201.9	215.8	262.8	372.0	673.5	2110.5	3876.7	5546.0	6631.7
62.5°	199.2	190.9	186.7	190.9	217.1	284.9	485.4	1672.1	3781.3	5920.8	7385.5
65°	185.3	178.4	172.9	177.0	190.9	226.8	354.1	1145.2	3282.0	6092.3	7933.2
67.5°	170.1	164.6	159.1	164.6	174.3	190.9	275.2	724.7	2460.4	5869.7	8161.4
69°	161.8	153.5	150.8	154.9	164.6	175.6	237.9	578.1	1871.3	5446.4	8023.1
70°	153.5	148.0	143.8	150.8	159.1	167.3	214.4	491.0	1467.4	4902.9	7680.1
72.5°	135.5	131.4	128.6	135.5	142.5	148.0	175.6	349.9	850.6	3338.7	6090.9
75°	118.9	114.8	113.4	118.9	124.5	127.2	148.0	240.7	502.0	1746.8	3654.0
77.5°	99.6	94.0	95.4	102.3	106.5	107.9	124.5	172.9	296.0	791.1	1692.8
80°	73.3	73.3	78.8	84.4	84.4	84.4	99.6	125.9	179.8	363.7	702.6
82.5°	51.2	52.6	53.9	62.2	63.6	58.1	76.1	91.3	112.0	159.1	243.4
85°	29.0	30.4	31.8	37.3	38.7	34.6	49.8	58.1	65.0	78.8	127.2
87.5°	11.1	12.4	16.6	19.4	20.7	15.2	23.5	27.7	27.7	33.2	56.7
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°	470.2	470.2	470.2	470.2	470.2	470.2	470.2	470.2	470.2	470.2	470.2
2.5°	499.3	509.0	526.9	531.1	515.9	499.3	461.9	485.4	495.1	477.2	482.7
5°	618.2	639.0	661.1	634.8	618.2	607.2	589.2	590.6	580.9	549.1	496.5
7.5°	752.4	728.9	745.5	763.4	737.2	738.5	755.1	720.6	694.3	640.4	542.2
10°	814.6	814.6	818.8	818.8	807.7	807.7	806.3	751.0	719.2	695.7	668.0
12.5°	818.8	817.4	834.0	821.5	824.3	827.1	834.0	858.9	850.6	820.1	845.0
15°	933.6	928.0	933.6	932.2	936.3	948.8	943.2	937.7	939.1	961.2	998.6
17.5°	1041.4	1044.2	1038.7	1048.3	1048.3	1056.6	1076.0	1056.6	1040.1	1081.5	1110.6
20°	1165.9	1156.2	1134.1	1150.7	1154.8	1156.2	1188.0	1164.5	1141.0	1156.2	1190.8
22.5°	1291.8	1290.4	1293.1	1294.5	1300.1	1279.3	1236.4	1229.5	1244.7	1224.0	1228.1
25°	1369.2	1370.6	1377.5	1378.9	1355.4	1377.5	1392.7	1347.1	1347.1	1342.9	1315.3
27.5°	1463.3	1442.5	1450.8	1461.9	1452.2	1457.7	1439.8	1373.4	1443.9	1453.6	1342.9
30°	1526.9	1517.2	1507.5	1518.6	1528.3	1553.2	1502.0	1495.1	1500.6	1551.8	1406.6
32.5°	1661.0	1674.9	1656.9	1638.9	1656.9	1651.4	1629.2	1619.5	1688.7	1620.9	1450.8
35°	1785.5	1791.0	1792.4	1789.7	1800.7	1781.4	1781.4	1817.3	1838.1	1764.8	1464.6
37.5°	2085.6	2066.3	2026.2	2006.8	2041.4	2070.4	1984.7	2027.5	2019.2	1894.8	1568.4
40°	2301.4	2345.6	2358.1	2352.6	2358.1	2275.1	2293.1	2324.9	2287.6	2081.5	1532.4
42.5°	2616.7	2644.4	2634.7	2622.3	2627.8	2612.6	2558.6	2676.2	2542.0	2290.3	1587.7
45°	2904.4	2966.6	2970.8	2927.9	2962.5	2908.5	2930.7	2972.2	2836.6	2446.6	1572.5
47.5°	3247.4	3376.0	3327.6	3327.6	3362.2	3246.0	3298.6	3353.9	2994.3	2551.7	1489.5
50°	3755.0	3824.1	3821.4	3808.9	3824.1	3761.9	3753.6	3746.7	3236.3	2651.3	1438.4
52.5°	4328.9	4423.0	4387.0	4400.9	4421.6	4304.0	4396.7	4143.6	3539.2	2688.6	1322.2
55°	5062.0	5127.0	5091.0	5020.5	5114.5	5039.8	5070.3	4576.5	3749.4	2582.1	1128.6
57.5°	5934.7	5967.8	5908.4	5901.5	5963.7	5883.5	5832.3	5063.3	3858.7	2501.9	901.7
60°	6954.0	7057.7	7020.3	6960.9	7017.6	6947.0	6559.8	5476.9	3836.6	2127.1	698.4
62.5°	8176.6	8281.7	8240.2	8200.1	8236.0	8052.1	7243.0	5803.3	3737.0	1685.9	510.3
65°	9186.2	9660.6	9722.8	9724.2	9549.9	9124.0	7787.9	5930.5	3211.4	1177.0	373.4
67.5°	9850.1	10836.2	11143.2	11032.6	10632.9	9660.6	8007.8	5681.6	2479.8	744.1	279.4
69°	9774.0	11067.1	11511.1	11448.9	10887.3	9652.3	7836.3	5262.5	1894.8	591.9	236.5
70°	9422.7	10877.7	11404.6	11432.3	10725.5	9281.6	7530.7	4781.2	1532.4	504.8	217.1
72.5°	7519.6	8963.5	9426.8	9608.0	8906.8	7432.5	6175.3	3373.3	887.9	352.7	175.6
75°	4658.1	5435.4	5819.9	5925.0	5500.4	4629.1	3748.1	1876.8	540.8	248.9	148.0
77.5°	2088.4	2313.8	2535.1	2535.1	2369.2	2113.3	1717.7	907.3	307.0	177.0	124.5
80°	699.8	726.1	706.7	713.7	686.0	659.7	690.1	391.4	189.5	132.8	101.0
82.5°	475.8	597.5	634.8	634.8	596.1	470.2	265.5	179.8	116.2	95.4	77.5
85°	387.3	473.0	507.6	522.8	492.4	396.9	139.7	87.1	69.2	60.9	52.6
87.5°	130.0	121.7	114.8	112.0	117.6	123.1	69.2	37.3	31.8	29.0	27.7
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°	470.2	470.2	470.2	470.2	470.2	470.2
2.5°	492.4	475.8	482.7	489.6	539.4	576.7
5°	489.6	513.1	565.7	632.1	662.5	737.2
7.5°	503.4	589.2	687.4	756.5	784.2	807.7
10°	673.5	688.8	722.0	788.3	843.7	853.3
12.5°	869.9	865.8	842.3	872.7	845.0	864.4
15°	1023.5	977.8	946.0	941.9	932.2	932.2
17.5°	1107.8	1067.7	1023.5	1012.4	983.3	1006.9
20°	1207.4	1138.2	1027.6	1016.5	1006.9	984.7
22.5°	1188.0	1118.9	1004.1	990.3	1041.4	1038.7
25°	1211.5	1118.9	1009.6	994.4	1017.9	1017.9
27.5°	1153.5	1077.4	998.6	907.3	979.2	995.8
30°	1138.2	1052.5	961.2	879.6	952.9	937.7
32.5°	1218.5	990.3	900.4	875.5	929.4	918.3
35°	1156.2	979.2	885.2	839.5	903.1	892.1
37.5°	1182.5	965.4	858.9	820.1	871.3	887.9
40°	1177.0	900.4	828.4	778.7	829.8	838.1
42.5°	1084.3	850.6	777.3	727.5	753.8	781.4
45°	1056.6	820.1	727.5	658.3	659.7	691.5
47.5°	1005.5	751.0	636.2	572.6	572.6	598.9
50°	919.7	658.3	532.5	474.4	473.0	493.7
52.5°	792.5	568.4	449.5	385.9	381.7	402.5
55°	648.6	457.8	354.1	312.6	304.3	312.6
57.5°	504.8	356.8	279.4	246.2	244.8	251.7
60°	391.4	279.4	222.7	203.3	206.1	217.1
62.5°	296.0	222.7	189.5	182.6	186.7	197.8
65°	235.1	192.2	172.9	168.7	172.9	183.9
67.5°	190.9	174.3	160.4	154.9	157.7	168.7
69°	175.6	164.6	153.5	146.6	149.4	157.7
70°	167.3	159.1	148.0	141.1	143.8	152.1
72.5°	146.6	142.5	134.2	127.2	128.6	135.5
75°	128.6	125.9	120.3	112.0	112.0	120.3
77.5°	107.9	109.3	103.7	95.4	94.0	98.2
80°	85.7	88.5	85.7	77.5	74.7	74.7
82.5°	62.2	67.8	65.0	56.7	55.3	55.3
85°	38.7	42.9	41.5	36.0	36.0	31.8
87.5°	18.0	23.5	22.1	19.4	18.0	12.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)