

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: P565335

Luminaire Tested: **MSA-SA1D-835-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565335
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-SA1D-835-U-T1
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5112 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B2 - U0 - G2

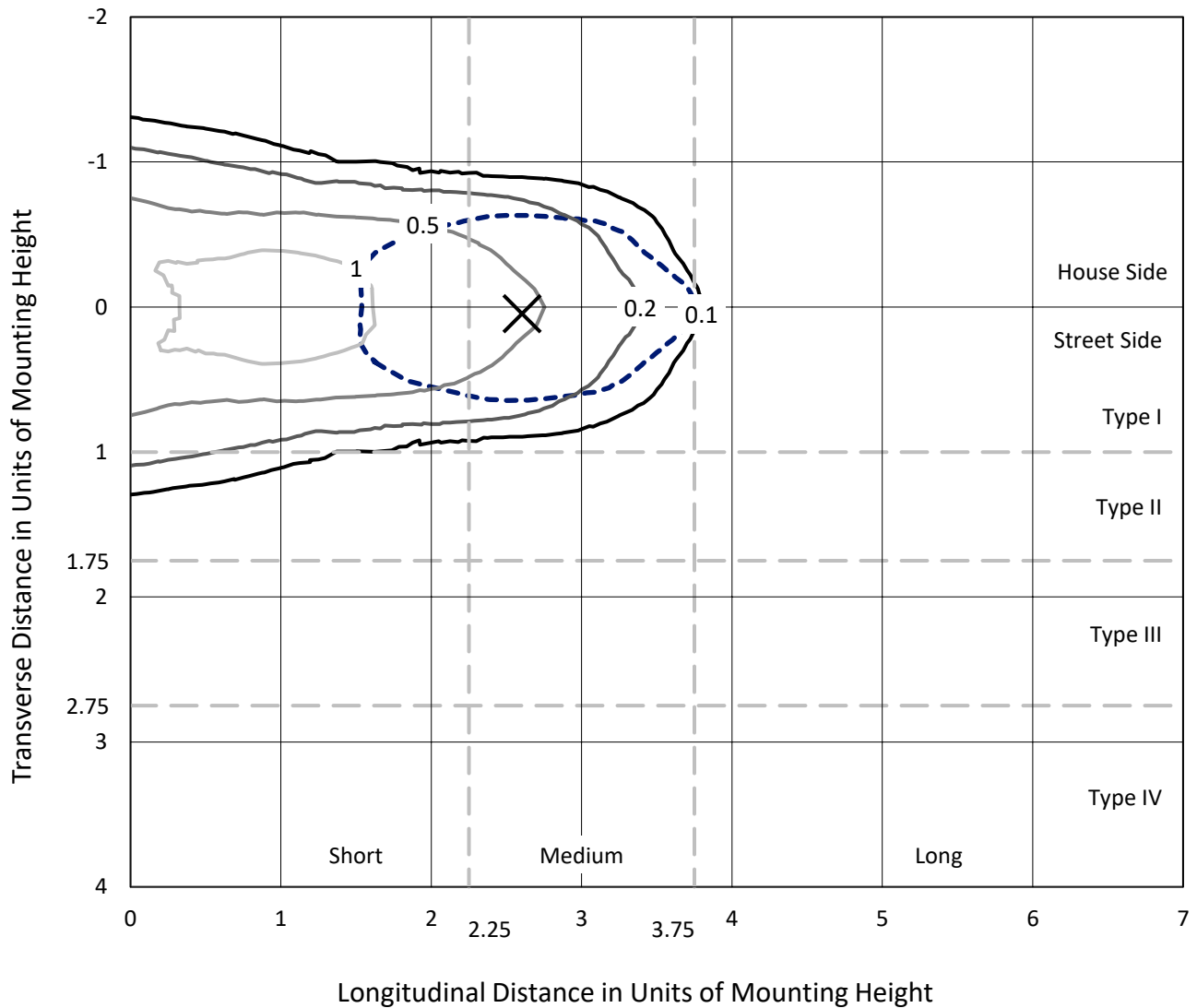
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

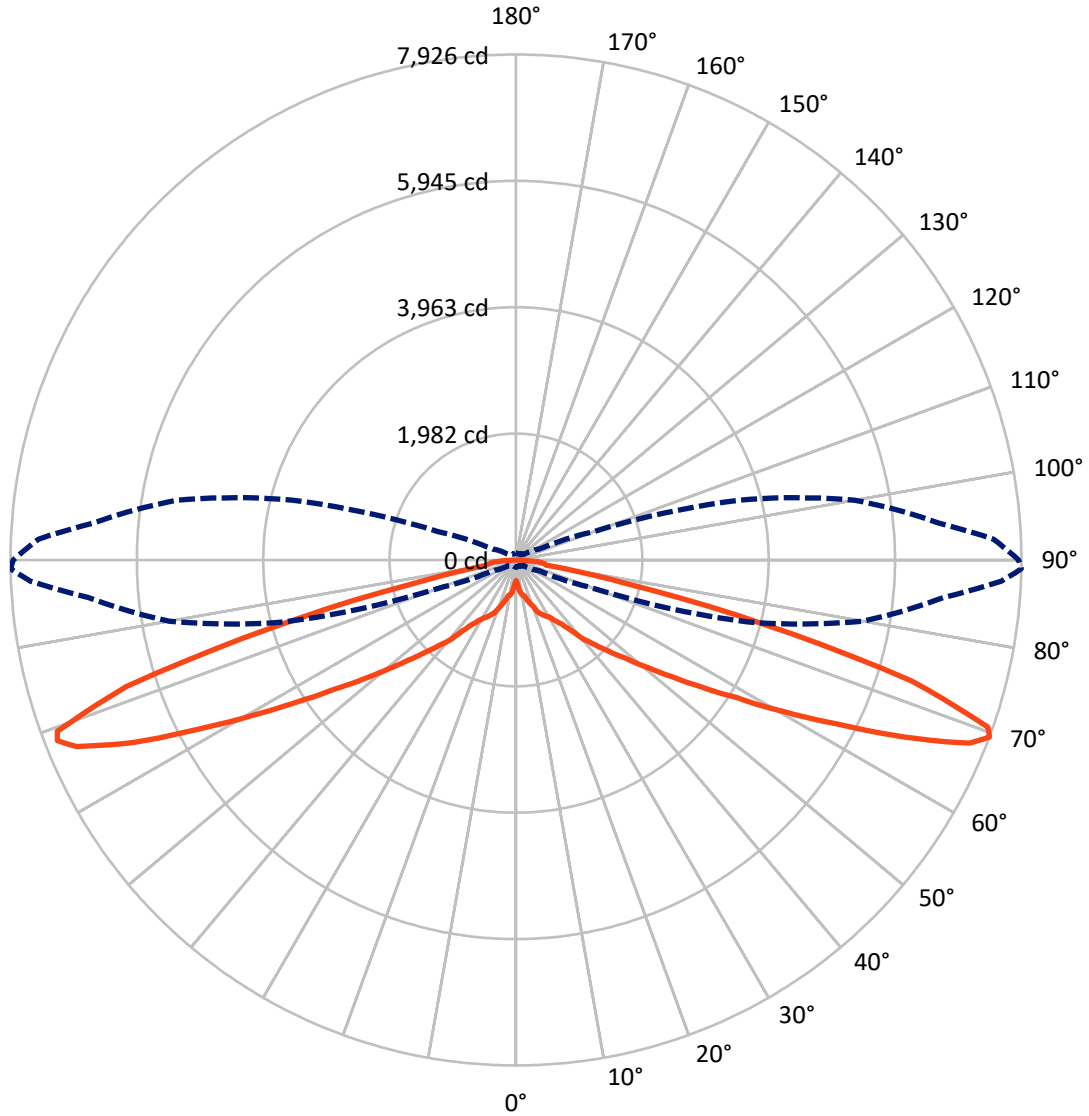
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 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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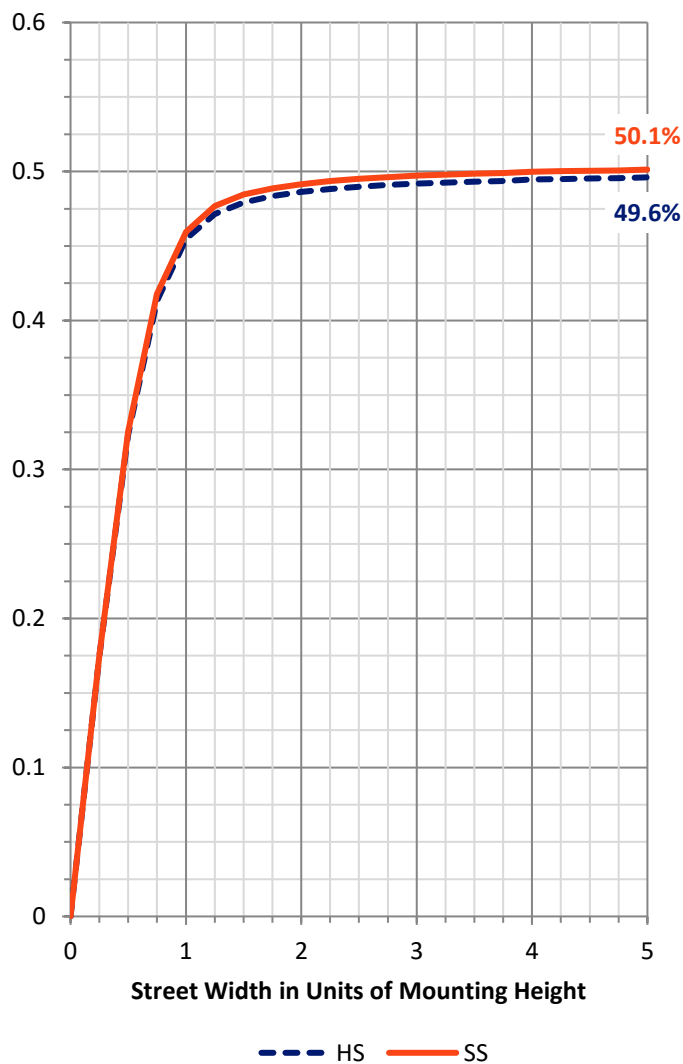
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2555.9	0.0	2555.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2556.0	0.0	2556.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	5112.0	0.0	5112.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.7	0.8
10°-20°	187.4	3.7
20°-30°	374.0	7.3
30°-40°	565.6	11.1
40°-50°	821.0	16.1
50°-60°	1078.7	21.1
60°-70°	1315.9	25.7
70°-80°	665.3	13.0
80°-90°	63.4	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°	5112.0	100.0
0°-180°	5112.0	100.0

Coefficient of Utilization

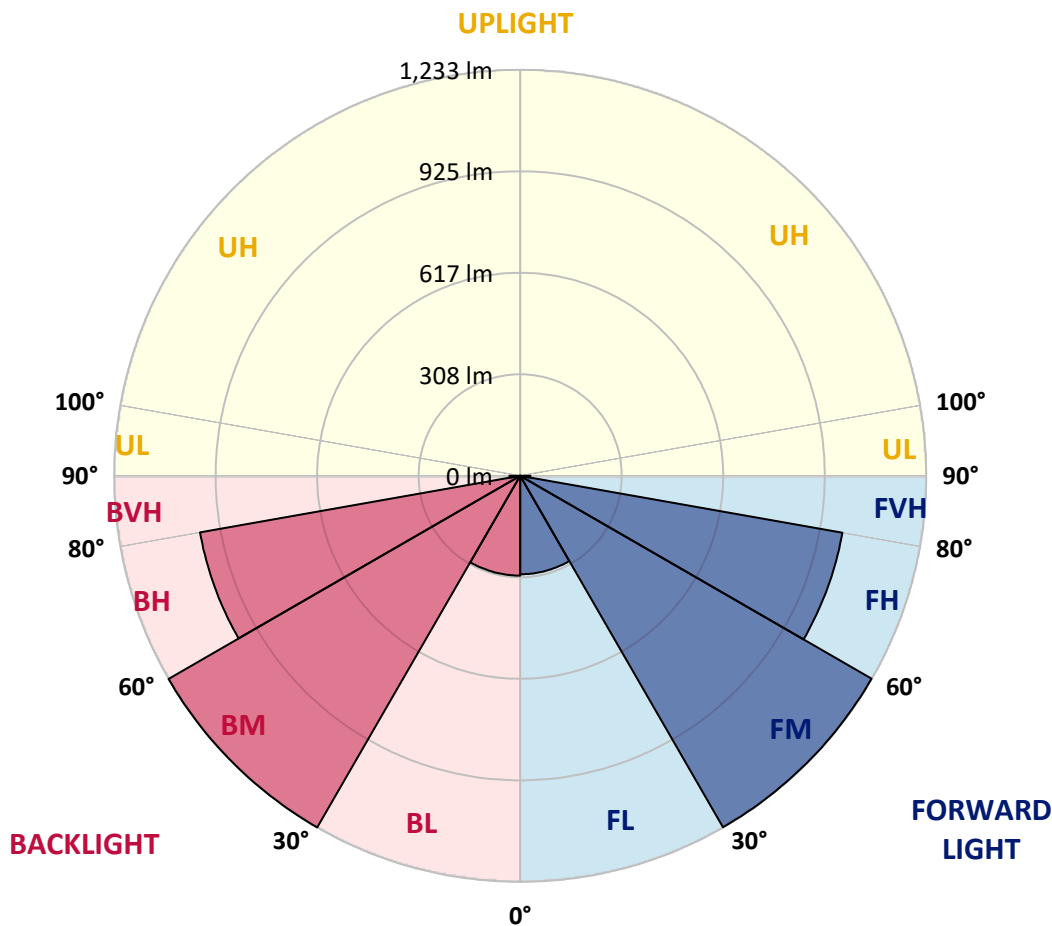


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	299.0	5.8			
FM (30°-60°)	1232.3	24.1			
FH (60°-80°)	993.7	19.4			G1/1800
FVH (80°-90°)	31.1	0.6			G1/100
BL (0°-30°)	303.2	5.9	B1/500		
BM (30°-60°)	1233.1	24.1	B2/2500		
BH (60°-80°)	987.4	19.3	B2/1000		G2/1000
BVH (80°-90°)	32.3	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2
 Type I Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	323.8	323.8	323.8	323.8	323.8	323.8	323.8	323.8	323.8	323.8	323.8
2.5°	380.0	336.2	332.4	321.9	329.5	332.4	325.7	316.2	326.7	332.4	321.9
5°	479.0	414.3	392.4	374.3	338.1	322.8	338.1	377.1	381.9	405.7	399.0
7.5°	527.6	517.1	489.5	429.5	371.4	339.0	380.0	436.2	464.7	487.6	511.4
10°	563.8	558.1	509.5	466.6	442.8	444.7	445.7	463.8	488.5	526.6	540.0
12.5°	572.4	570.4	578.1	568.5	570.4	580.9	570.4	565.7	580.0	592.4	579.0
15°	627.6	626.6	629.5	631.4	669.5	685.7	669.5	655.2	644.7	634.3	656.2
17.5°	665.7	660.9	661.9	680.0	722.8	767.6	759.0	740.0	716.2	730.4	748.5
20°	686.6	678.1	683.8	691.4	763.8	813.3	819.0	793.3	779.0	797.1	812.3
22.5°	706.6	693.3	673.3	680.9	747.6	819.0	846.6	840.0	850.4	856.1	853.3
25°	682.8	691.4	669.5	691.4	759.0	824.7	880.0	919.0	920.0	917.1	938.1
27.5°	668.5	661.9	624.7	680.9	737.1	778.1	919.0	984.7	1004.7	943.8	984.7
30°	643.8	654.3	603.8	650.4	721.9	790.4	963.8	1058.0	1028.5	1020.9	1030.4
32.5°	628.5	621.9	598.1	623.8	678.1	827.6	992.3	1100.9	1138.0	1119.9	1118.0
35°	603.8	608.5	571.4	599.0	675.2	796.2	1011.4	1208.5	1265.7	1251.4	1239.9
37.5°	607.6	591.4	564.7	584.7	657.1	813.3	1059.0	1312.3	1402.8	1410.4	1358.0
40°	579.0	569.5	529.5	562.8	622.8	802.8	1070.4	1430.4	1583.7	1618.0	1542.8
42.5°	538.1	525.7	502.8	540.0	602.8	751.4	1086.6	1572.3	1767.5	1839.0	1770.4
45°	479.0	462.8	451.4	500.9	559.0	738.1	1069.5	1690.4	1943.7	2041.8	2039.9
47.5°	407.6	397.1	391.4	443.8	522.8	704.7	1034.2	1764.7	2066.6	2318.0	2279.9
50°	326.7	319.0	318.1	373.3	461.9	636.2	994.2	1801.8	2253.2	2571.3	2604.6
52.5°	261.9	256.2	255.2	300.0	386.6	543.8	910.4	1830.4	2431.3	2858.9	3030.3
55°	204.8	199.0	200.0	237.1	307.6	444.7	782.8	1798.0	2587.5	3153.2	3477.9
57.5°	167.6	161.9	162.8	183.8	235.2	340.0	623.8	1727.5	2658.0	3517.0	3999.8
60°	147.6	141.9	139.0	148.6	180.9	256.2	463.8	1453.3	2669.4	3818.9	4566.4
62.5°	137.1	131.4	128.6	131.4	149.5	196.2	334.3	1151.4	2603.7	4076.9	5085.5
65°	127.6	122.9	119.0	121.9	131.4	156.2	243.8	788.5	2259.9	4195.0	5462.6
67.5°	117.1	113.3	109.5	113.3	120.0	131.4	189.5	499.0	1694.2	4041.7	5619.7
69°	111.4	105.7	103.8	106.7	113.3	120.9	163.8	398.1	1288.5	3750.3	5524.5
70°	105.7	101.9	99.0	103.8	109.5	115.2	147.6	338.1	1010.4	3376.0	5288.3
72.5°	93.3	90.5	88.6	93.3	98.1	101.9	120.9	240.9	585.7	2298.9	4194.1
75°	81.9	79.0	78.1	81.9	85.7	87.6	101.9	165.7	345.7	1202.8	2516.1
77.5°	68.6	64.8	65.7	70.5	73.3	74.3	85.7	119.0	203.8	544.7	1165.7
80°	50.5	50.5	54.3	58.1	58.1	58.1	68.6	86.7	123.8	250.5	483.8
82.5°	35.2	36.2	37.1	42.9	43.8	40.0	52.4	62.9	77.1	109.5	167.6
85°	20.0	21.0	21.9	25.7	26.7	23.8	34.3	40.0	44.8	54.3	87.6
87.5°	7.6	8.6	11.4	13.3	14.3	10.5	16.2	19.0	19.0	22.9	39.0
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°	323.8	323.8	323.8	323.8	323.8	323.8	323.8	323.8	323.8	323.8	323.8
2.5°	343.8	350.5	362.8	365.7	355.2	343.8	318.1	334.3	340.9	328.6	332.4
5°	425.7	440.0	455.2	437.1	425.7	418.1	405.7	406.6	400.0	378.1	341.9
7.5°	518.1	501.9	513.3	525.7	507.6	508.5	520.0	496.2	478.1	440.9	373.3
10°	560.9	560.9	563.8	563.8	556.2	556.2	555.2	517.1	495.2	479.0	460.0
12.5°	563.8	562.8	574.3	565.7	567.6	569.5	574.3	591.4	585.7	564.7	581.9
15°	642.8	639.0	642.8	641.9	644.7	653.3	649.5	645.7	646.6	661.9	687.6
17.5°	717.1	719.0	715.2	721.9	721.9	727.6	740.9	727.6	716.2	744.7	764.7
20°	802.8	796.2	780.9	792.3	795.2	796.2	818.1	801.9	785.7	796.2	820.0
22.5°	889.5	888.5	890.4	891.4	895.2	880.9	851.4	846.6	857.1	842.8	845.7
25°	942.8	943.8	948.5	949.5	933.3	948.5	959.0	927.6	927.6	924.7	905.7
27.5°	1007.6	993.3	999.0	1006.6	1000.0	1003.8	991.4	945.7	994.2	1000.9	924.7
30°	1051.4	1044.7	1038.0	1045.7	1052.3	1069.5	1034.2	1029.5	1033.3	1068.5	968.5
32.5°	1143.8	1153.3	1140.9	1128.5	1140.9	1137.1	1121.9	1115.2	1162.8	1116.1	999.0
35°	1229.5	1233.3	1234.2	1232.3	1239.9	1226.6	1226.6	1251.4	1265.7	1215.2	1008.5
37.5°	1436.1	1422.8	1395.2	1381.8	1405.6	1425.6	1366.6	1396.1	1390.4	1304.7	1079.9
40°	1584.7	1615.2	1623.7	1619.9	1623.7	1566.6	1579.0	1600.9	1575.2	1433.3	1055.2
42.5°	1801.8	1820.9	1814.2	1805.6	1809.4	1799.0	1761.8	1842.8	1750.4	1577.1	1093.3
45°	1999.9	2042.8	2045.6	2016.1	2039.9	2002.8	2018.0	2046.6	1953.2	1684.7	1082.8
47.5°	2236.1	2324.7	2291.3	2291.3	2315.1	2235.1	2271.3	2309.4	2061.8	1757.1	1025.7
50°	2585.6	2633.2	2631.3	2622.7	2633.2	2590.4	2584.6	2579.9	2228.5	1825.6	990.4
52.5°	2980.8	3045.6	3020.8	3030.3	3044.6	2963.7	3027.5	2853.2	2437.0	1851.3	910.4
55°	3485.5	3530.3	3505.5	3457.0	3521.7	3470.3	3491.3	3151.3	2581.8	1778.0	777.1
57.5°	4086.5	4109.3	4068.4	4063.6	4106.5	4051.2	4016.0	3486.5	2657.0	1722.8	620.9
60°	4788.3	4859.8	4834.1	4793.1	4832.1	4783.6	4516.9	3771.2	2641.8	1464.7	480.9
62.5°	5630.2	5702.6	5674.0	5646.4	5671.2	5544.5	4987.4	3996.0	2573.2	1160.9	351.4
65°	6325.4	6652.1	6694.9	6695.9	6575.9	6282.6	5362.6	4083.6	2211.3	810.4	257.1
67.5°	6782.5	7461.5	7673.0	7596.8	7321.6	6652.1	5514.0	3912.2	1707.5	512.4	192.4
69°	6730.2	7620.6	7926.3	7883.4	7496.8	6646.3	5395.9	3623.6	1304.7	407.6	162.8
70°	6488.3	7490.1	7853.0	7872.0	7385.4	6391.1	5185.5	3292.2	1055.2	347.6	149.5
72.5°	5177.8	6172.1	6491.1	6615.9	6133.0	5117.8	4252.2	2322.7	611.4	242.8	120.9
75°	3207.5	3742.7	4007.4	4079.8	3787.4	3187.5	2580.8	1292.3	372.4	171.4	101.9
77.5°	1438.0	1593.3	1745.6	1745.6	1631.4	1455.2	1182.8	624.7	211.4	121.9	85.7
80°	481.9	500.0	486.6	491.4	472.4	454.3	475.2	269.5	130.5	91.4	69.5
82.5°	327.6	411.4	437.1	437.1	410.5	323.8	182.8	123.8	80.0	65.7	53.3
85°	266.7	325.7	349.5	360.0	339.0	273.3	96.2	60.0	47.6	41.9	36.2
87.5°	89.5	83.8	79.0	77.1	80.9	84.8	47.6	25.7	21.9	20.0	19.0
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°	323.8	323.8	323.8	323.8	323.8	323.8
2.5°	339.0	327.6	332.4	337.1	371.4	397.1
5°	337.1	353.3	389.5	435.2	456.2	507.6
7.5°	346.6	405.7	473.3	520.9	540.0	556.2
10°	463.8	474.3	497.1	542.8	580.9	587.6
12.5°	599.0	596.2	580.0	600.9	581.9	595.2
15°	704.7	673.3	651.4	648.5	641.9	641.9
17.5°	762.8	735.2	704.7	697.1	677.1	693.3
20°	831.4	783.8	707.6	700.0	693.3	678.1
22.5°	818.1	770.4	691.4	681.9	717.1	715.2
25°	834.2	770.4	695.2	684.7	700.9	700.9
27.5°	794.2	741.9	687.6	624.7	674.3	685.7
30°	783.8	724.7	661.9	605.7	656.2	645.7
32.5°	839.0	681.9	620.0	602.8	640.0	632.4
35°	796.2	674.3	609.5	578.1	621.9	614.3
37.5°	814.2	664.7	591.4	564.7	600.0	611.4
40°	810.4	620.0	570.4	536.2	571.4	577.1
42.5°	746.6	585.7	535.2	500.9	519.0	538.1
45°	727.6	564.7	500.9	453.3	454.3	476.2
47.5°	692.3	517.1	438.1	394.3	394.3	412.4
50°	633.3	453.3	366.6	326.7	325.7	340.0
52.5°	545.7	391.4	309.5	265.7	262.8	277.1
55°	446.6	315.2	243.8	215.2	209.5	215.2
57.5°	347.6	245.7	192.4	169.5	168.6	173.3
60°	269.5	192.4	153.3	140.0	141.9	149.5
62.5°	203.8	153.3	130.5	125.7	128.6	136.2
65°	161.9	132.4	119.0	116.2	119.0	126.7
67.5°	131.4	120.0	110.5	106.7	108.6	116.2
69°	120.9	113.3	105.7	100.9	102.9	108.6
70°	115.2	109.5	101.9	97.1	99.0	104.8
72.5°	100.9	98.1	92.4	87.6	88.6	93.3
75°	88.6	86.7	82.9	77.1	77.1	82.9
77.5°	74.3	75.2	71.4	65.7	64.8	67.6
80°	59.0	60.9	59.0	53.3	51.4	51.4
82.5°	42.9	46.7	44.8	39.0	38.1	38.1
85°	26.7	29.5	28.6	24.8	24.8	21.9
87.5°	12.4	16.2	15.2	13.3	12.4	8.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)