

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: P565333

Luminaire Tested: **MSA-SA1B-835-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565333
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-SA1B-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: 3775 lumens
Efficiency: N/A
Efficacy: 85.8 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

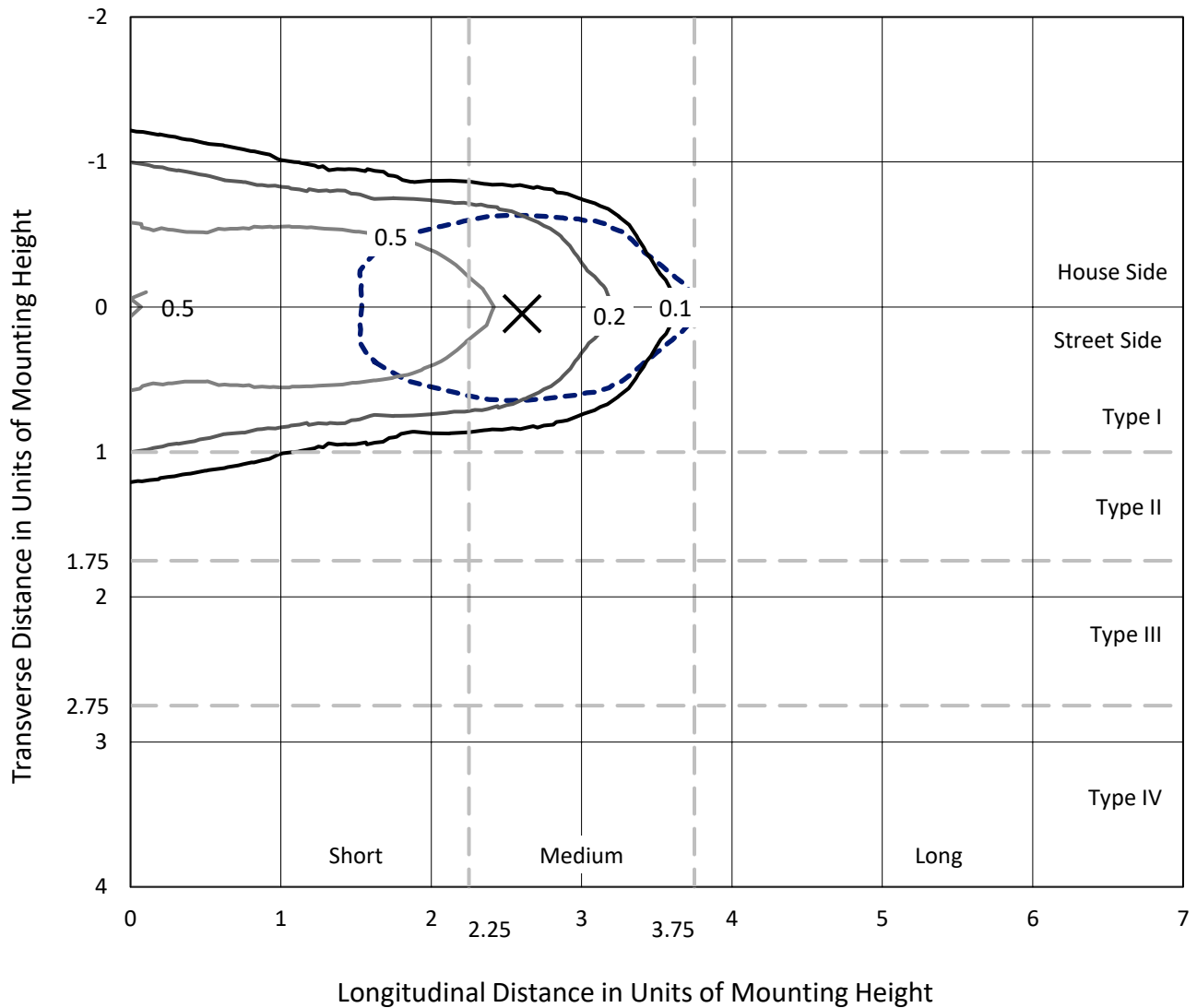
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

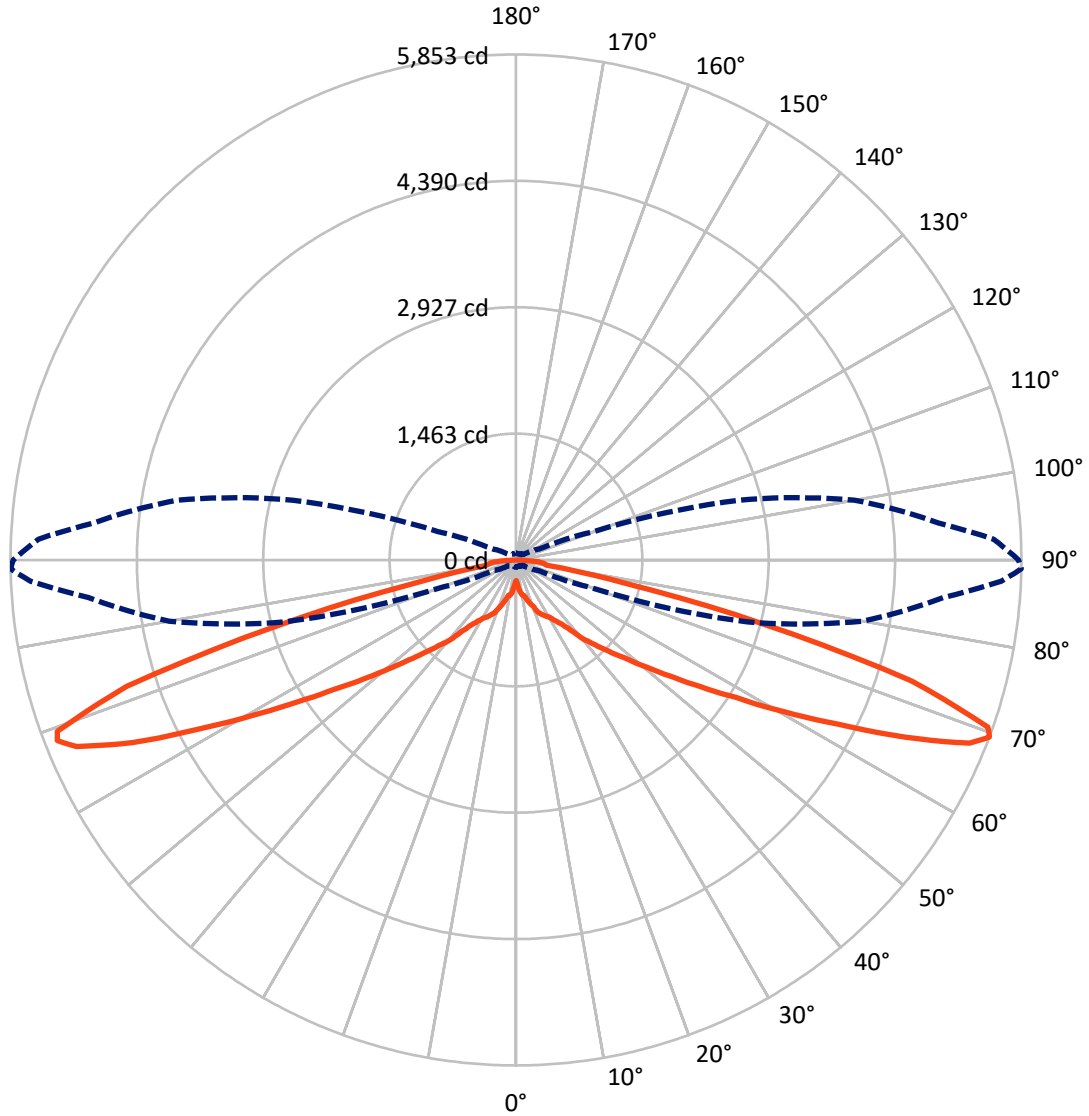
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 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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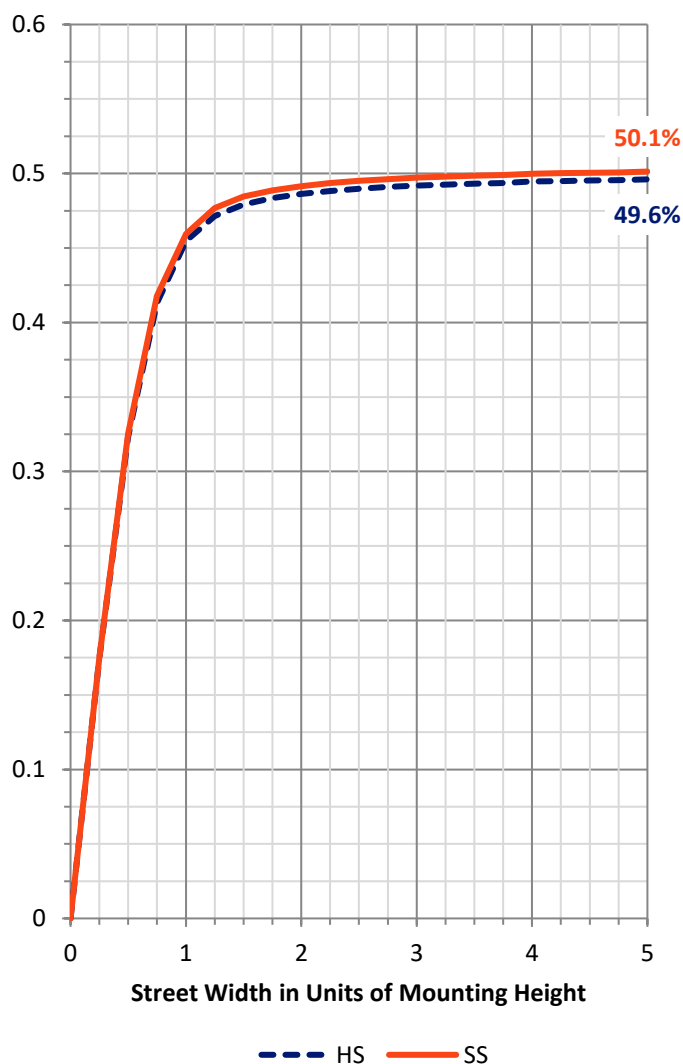
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1887.5	0.0	1887.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1887.5	0.0	1887.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	3775.0	0.0	3775.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.0	0.8
10°-20°	138.4	3.7
20°-30°	276.2	7.3
30°-40°	417.7	11.1
40°-50°	606.3	16.1
50°-60°	796.6	21.1
60°-70°	971.7	25.7
70°-80°	491.3	13.0
80°-90°	46.8	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°	3775.0	100.0
0°-180°	3775.0	100.0

Coefficient of Utilization

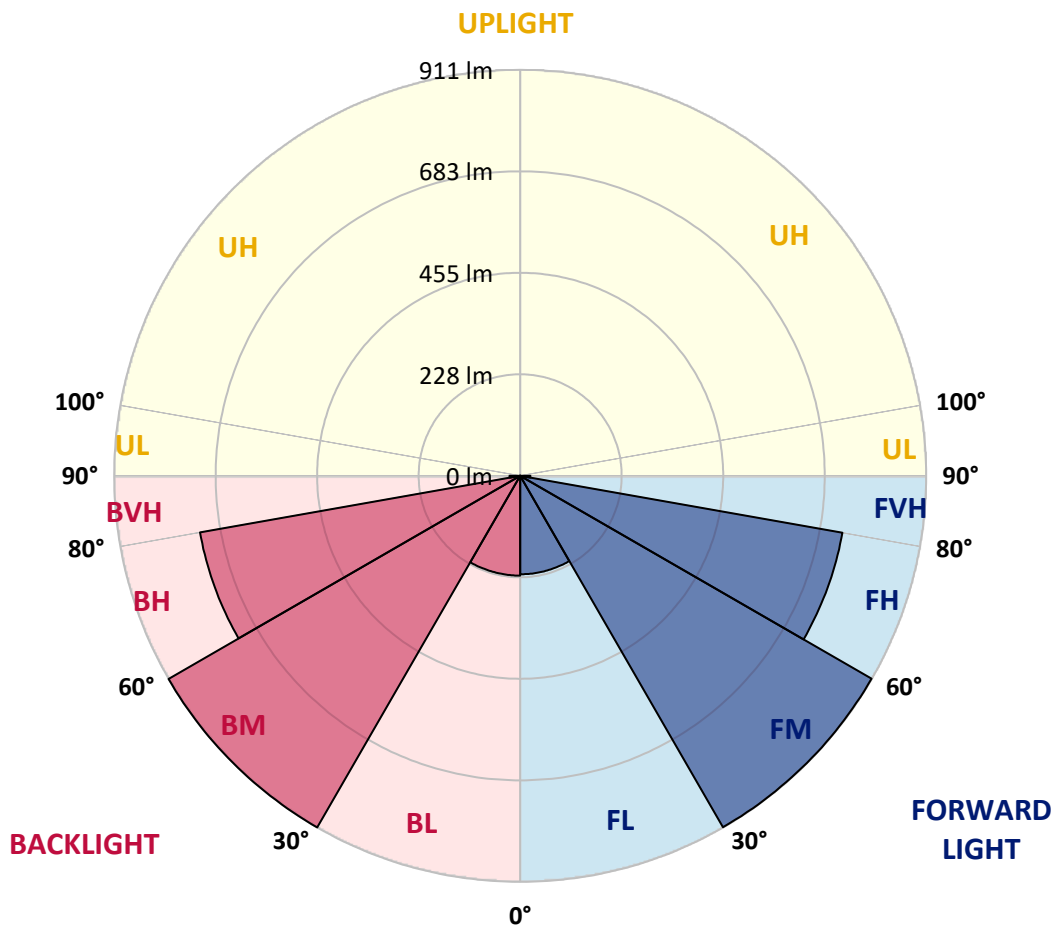


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	220.8	5.8			
FM (30°-60°)	910.0	24.1			
FH (60°-80°)	733.8	19.4			G1/1800
FVH (80°-90°)	23.0	0.6			G1/100
BL (0°-30°)	223.9	5.9	B1/500		
BM (30°-60°)	910.6	24.1	B1/1000		
BH (60°-80°)	729.1	19.3	B2/1000		G2/1000
BVH (80°-90°)	23.9	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	239.1	239.1	239.1	239.1	239.1	239.1	239.1	239.1	239.1	239.1	239.1
2.5°	280.6	248.3	245.4	237.7	243.3	245.4	240.5	233.5	241.2	245.4	237.7
5°	353.7	305.9	289.7	276.4	249.7	238.4	249.7	278.5	282.0	299.6	294.7
7.5°	389.6	381.9	361.5	317.2	274.3	250.4	280.6	322.1	343.2	360.1	377.7
10°	416.3	412.1	376.2	344.6	327.0	328.4	329.1	342.5	360.8	388.9	398.7
12.5°	422.7	421.3	426.9	419.8	421.3	429.0	421.3	417.7	428.3	437.4	427.6
15°	463.4	462.7	464.9	466.3	494.4	506.3	494.4	483.8	476.1	468.4	484.5
17.5°	491.6	488.1	488.8	502.1	533.8	566.8	560.5	546.4	528.9	539.4	552.8
20°	507.1	500.7	504.9	510.6	564.0	600.6	604.8	585.8	575.3	588.6	599.9
22.5°	521.8	512.0	497.2	502.8	552.1	604.8	625.2	620.3	628.0	632.2	630.1
25°	504.2	510.6	494.4	510.6	560.5	609.0	649.8	678.6	679.3	677.2	692.7
27.5°	493.7	488.8	461.3	502.8	544.3	574.6	678.6	727.2	741.9	696.9	727.2
30°	475.4	483.1	445.9	480.3	533.1	583.7	711.7	781.3	759.5	753.9	760.9
32.5°	464.2	459.2	441.6	460.6	500.7	611.1	732.8	813.0	840.4	827.0	825.6
35°	445.9	449.4	422.0	442.4	498.6	587.9	746.9	892.4	934.6	924.1	915.6
37.5°	448.7	436.7	417.0	431.8	485.2	600.6	782.0	969.1	1035.9	1041.5	1002.8
40°	427.6	420.5	391.0	415.6	459.9	592.8	790.5	1056.3	1169.5	1194.8	1139.3
42.5°	397.3	388.2	371.3	398.7	445.2	554.9	802.4	1161.1	1305.3	1358.0	1307.4
45°	353.7	341.8	333.3	369.9	412.8	545.0	789.8	1248.3	1435.4	1507.8	1506.4
47.5°	301.0	293.3	289.0	327.7	386.1	520.4	763.7	1303.1	1526.1	1711.7	1683.6
50°	241.2	235.6	234.9	275.7	341.1	469.8	734.2	1330.6	1663.9	1898.8	1923.4
52.5°	193.4	189.2	188.5	221.5	285.5	401.6	672.3	1351.7	1795.4	2111.2	2237.8
55°	151.2	147.0	147.7	175.1	227.2	328.4	578.1	1327.8	1910.8	2328.5	2568.3
57.5°	123.8	119.6	120.3	135.7	173.7	251.1	460.6	1275.7	1962.8	2597.1	2953.7
60°	109.0	104.8	102.7	109.7	133.6	189.2	342.5	1073.2	1971.2	2820.1	3372.1
62.5°	101.3	97.0	94.9	97.0	110.4	144.9	246.8	850.2	1922.7	3010.7	3755.4
65°	94.2	90.7	87.9	90.0	97.0	115.3	180.0	582.3	1668.8	3097.9	4033.9
67.5°	86.5	83.7	80.9	83.7	88.6	97.0	139.9	368.5	1251.1	2984.6	4149.9
69°	82.3	78.1	76.7	78.8	83.7	89.3	121.0	294.0	951.5	2769.4	4079.6
70°	78.1	75.2	73.1	76.7	80.9	85.1	109.0	249.7	746.2	2493.1	3905.2
72.5°	68.9	66.8	65.4	68.9	72.4	75.2	89.3	177.9	432.5	1697.7	3097.2
75°	60.5	58.4	57.7	60.5	63.3	64.7	75.2	122.4	255.3	888.2	1858.0
77.5°	50.6	47.8	48.5	52.0	54.2	54.9	63.3	87.9	150.5	402.3	860.8
80°	37.3	37.3	40.1	42.9	42.9	42.9	50.6	64.0	91.4	185.0	357.3
82.5°	26.0	26.7	27.4	31.6	32.3	29.5	38.7	46.4	57.0	80.9	123.8
85°	14.8	15.5	16.2	19.0	19.7	17.6	25.3	29.5	33.1	40.1	64.7
87.5°	5.6	6.3	8.4	9.8	10.5	7.7	12.0	14.1	14.1	16.9	28.8
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°	239.1	239.1	239.1	239.1	239.1	239.1	239.1	239.1	239.1	239.1	239.1
2.5°	253.9	258.8	267.9	270.1	262.3	253.9	234.9	246.8	251.8	242.6	245.4
5°	314.4	324.9	336.2	322.8	314.4	308.7	299.6	300.3	295.4	279.2	252.5
7.5°	382.6	370.6	379.1	388.2	374.8	375.5	384.0	366.4	353.0	325.6	275.7
10°	414.2	414.2	416.3	416.3	410.7	410.7	410.0	381.9	365.7	353.7	339.7
12.5°	416.3	415.6	424.1	417.7	419.1	420.5	424.1	436.7	432.5	417.0	429.7
15°	474.7	471.9	474.7	474.0	476.1	482.4	479.6	476.8	477.5	488.8	507.8
17.5°	529.6	531.0	528.1	533.1	533.1	537.3	547.1	537.3	528.9	549.9	564.7
20°	592.8	587.9	576.7	585.1	587.2	587.9	604.1	592.1	580.2	587.9	605.5
22.5°	656.8	656.1	657.5	658.3	661.1	650.5	628.7	625.2	632.9	622.4	624.5
25°	696.2	696.9	700.4	701.2	689.2	700.4	708.2	685.0	685.0	682.9	668.8
27.5°	744.0	733.5	737.7	743.3	738.4	741.2	732.1	698.3	734.2	739.1	682.9
30°	776.4	771.5	766.6	772.2	777.1	789.8	763.7	760.2	763.0	789.1	715.2
32.5°	844.6	851.6	842.5	833.4	842.5	839.7	828.4	823.5	858.7	824.2	737.7
35°	907.9	910.7	911.4	910.0	915.6	905.8	905.8	924.1	934.6	897.4	744.8
37.5°	1060.5	1050.7	1030.3	1020.4	1038.0	1052.8	1009.2	1031.0	1026.8	963.5	797.5
40°	1170.2	1192.7	1199.1	1196.2	1199.1	1156.9	1166.0	1182.2	1163.2	1058.4	779.2
42.5°	1330.6	1344.6	1339.7	1333.4	1336.2	1328.5	1301.0	1360.8	1292.6	1164.6	807.3
45°	1476.8	1508.5	1510.6	1488.8	1506.4	1479.0	1490.2	1511.3	1442.4	1244.1	799.6
47.5°	1651.3	1716.7	1692.0	1692.0	1709.6	1650.6	1677.3	1705.4	1522.6	1297.5	757.4
50°	1909.4	1944.5	1943.1	1936.8	1944.5	1912.9	1908.6	1905.1	1645.6	1348.1	731.4
52.5°	2201.2	2249.0	2230.7	2237.8	2248.3	2188.5	2235.7	2107.0	1799.6	1367.1	672.3
55°	2573.9	2607.0	2588.7	2552.8	2600.7	2562.7	2578.2	2327.1	1906.5	1313.0	573.9
57.5°	3017.7	3034.6	3004.3	3000.8	3032.5	2991.7	2965.6	2574.6	1962.1	1272.2	458.5
60°	3536.0	3588.7	3569.7	3539.5	3568.3	3532.5	3335.6	2784.9	1950.8	1081.6	355.1
62.5°	4157.7	4211.1	4190.0	4169.6	4187.9	4094.4	3683.0	2950.9	1900.2	857.3	259.5
65°	4671.1	4912.3	4943.9	4944.6	4856.0	4639.4	3960.1	3015.6	1633.0	598.5	189.9
67.5°	5008.6	5510.0	5666.2	5609.9	5406.7	4912.3	4071.9	2889.0	1260.9	378.4	142.1
69°	4969.9	5627.5	5853.2	5821.6	5536.1	4908.1	3984.7	2675.9	963.5	301.0	120.3
70°	4791.3	5531.1	5799.1	5813.1	5453.8	4719.6	3829.3	2431.2	779.2	256.7	110.4
72.5°	3823.6	4557.8	4793.4	4885.5	4529.0	3779.3	3140.1	1715.3	451.5	179.3	89.3
75°	2368.6	2763.8	2959.3	3012.8	2796.9	2353.8	1905.8	954.3	275.0	126.6	75.2
77.5°	1061.9	1176.6	1289.1	1289.1	1204.7	1074.6	873.4	461.3	156.1	90.0	63.3
80°	355.8	369.2	359.4	362.9	348.8	335.5	350.9	199.0	96.3	67.5	51.3
82.5°	241.9	303.8	322.8	322.8	303.1	239.1	135.0	91.4	59.1	48.5	39.4
85°	196.9	240.5	258.1	265.8	250.4	201.8	71.0	44.3	35.2	30.9	26.7
87.5°	66.1	61.9	58.4	57.0	59.8	62.6	35.2	19.0	16.2	14.8	14.1
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):

	135°	145°	155°	165°	175°	180°
0°	239.1	239.1	239.1	239.1	239.1	239.1
2.5°	250.4	241.9	245.4	249.0	274.3	293.3
5°	249.0	260.9	287.6	321.4	336.9	374.8
7.5°	256.0	299.6	349.5	384.7	398.7	410.7
10°	342.5	350.2	367.1	400.9	429.0	433.9
12.5°	442.4	440.2	428.3	443.8	429.7	439.5
15°	520.4	497.2	481.0	478.9	474.0	474.0
17.5°	563.3	542.9	520.4	514.8	500.0	512.0
20°	613.9	578.8	522.5	516.9	512.0	500.7
22.5°	604.1	568.9	510.6	503.5	529.6	528.1
25°	616.1	568.9	513.4	505.6	517.6	517.6
27.5°	586.5	547.8	507.8	461.3	497.9	506.3
30°	578.8	535.2	488.8	447.3	484.5	476.8
32.5°	619.6	503.5	457.8	445.2	472.6	467.0
35°	587.9	497.9	450.1	426.9	459.2	453.6
37.5°	601.3	490.9	436.7	417.0	443.1	451.5
40°	598.5	457.8	421.3	395.9	422.0	426.2
42.5°	551.4	432.5	395.2	369.9	383.3	397.3
45°	537.3	417.0	369.9	334.8	335.5	351.6
47.5°	511.3	381.9	323.5	291.1	291.1	304.5
50°	467.7	334.8	270.8	241.2	240.5	251.1
52.5°	403.0	289.0	228.6	196.2	194.1	204.6
55°	329.8	232.8	180.0	158.9	154.7	158.9
57.5°	256.7	181.4	142.1	125.2	124.5	128.0
60°	199.0	142.1	113.2	103.4	104.8	110.4
62.5°	150.5	113.2	96.3	92.8	94.9	100.6
65°	119.6	97.8	87.9	85.8	87.9	93.5
67.5°	97.0	88.6	81.6	78.8	80.2	85.8
69°	89.3	83.7	78.1	74.5	76.0	80.2
70°	85.1	80.9	75.2	71.7	73.1	77.4
72.5°	74.5	72.4	68.2	64.7	65.4	68.9
75°	65.4	64.0	61.2	57.0	57.0	61.2
77.5°	54.9	55.6	52.7	48.5	47.8	49.9
80°	43.6	45.0	43.6	39.4	38.0	38.0
82.5°	31.6	34.5	33.1	28.8	28.1	28.1
85°	19.7	21.8	21.1	18.3	18.3	16.2
87.5°	9.1	12.0	11.3	9.8	9.1	6.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)