

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: P565300

Luminaire Tested: **MSA-SA1A-730-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565300
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-SA1A-730-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: 3328 lumens
Efficiency: N/A
Efficacy: 97.9 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

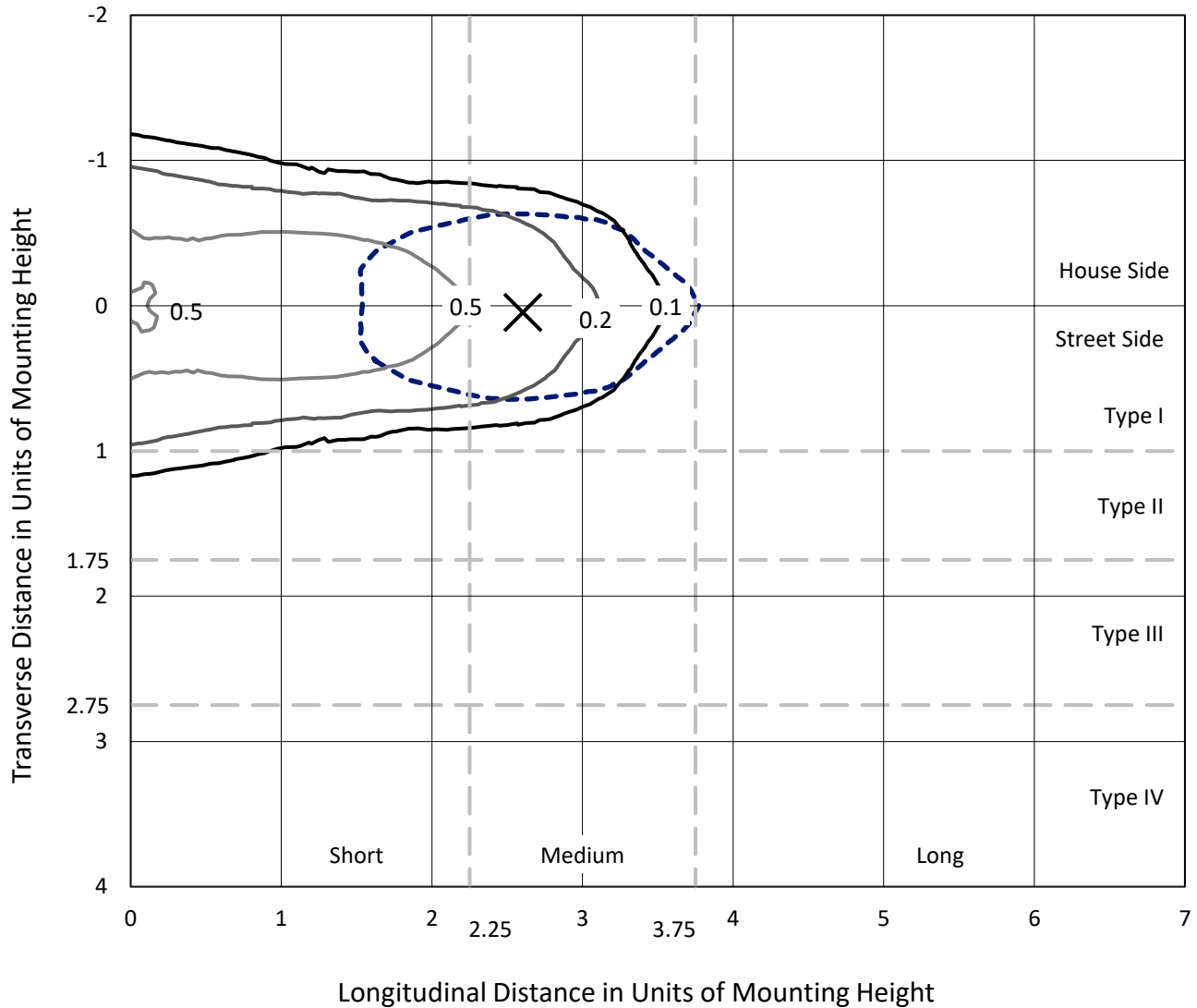
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

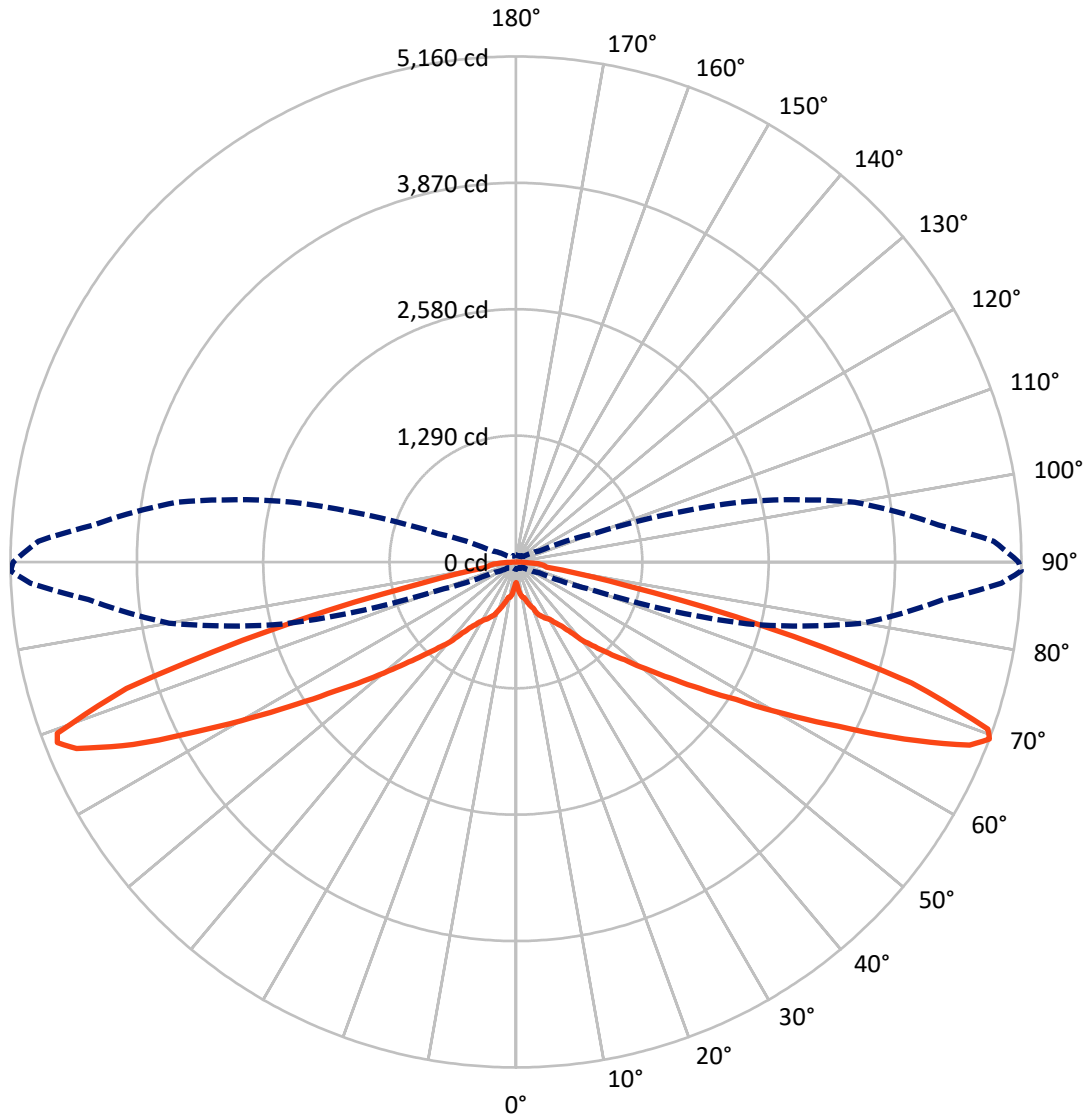
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 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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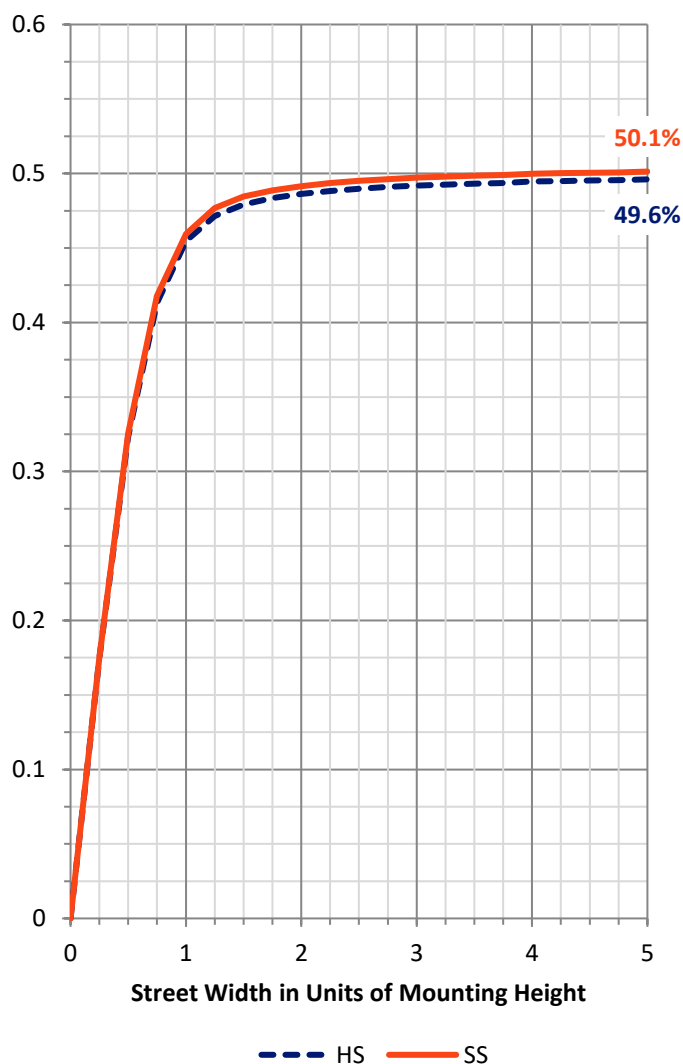
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1664.0	0.0	1664.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1664.0	0.0	1664.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	3328.0	0.0	3328.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.5	0.8
10°-20°	122.0	3.7
20°-30°	243.5	7.3
30°-40°	368.2	11.1
40°-50°	534.5	16.1
50°-60°	702.3	21.1
60°-70°	856.6	25.7
70°-80°	433.1	13.0
80°-90°	41.3	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°	3328.0	100.0
0°-180°	3328.0	100.0

Coefficient of Utilization



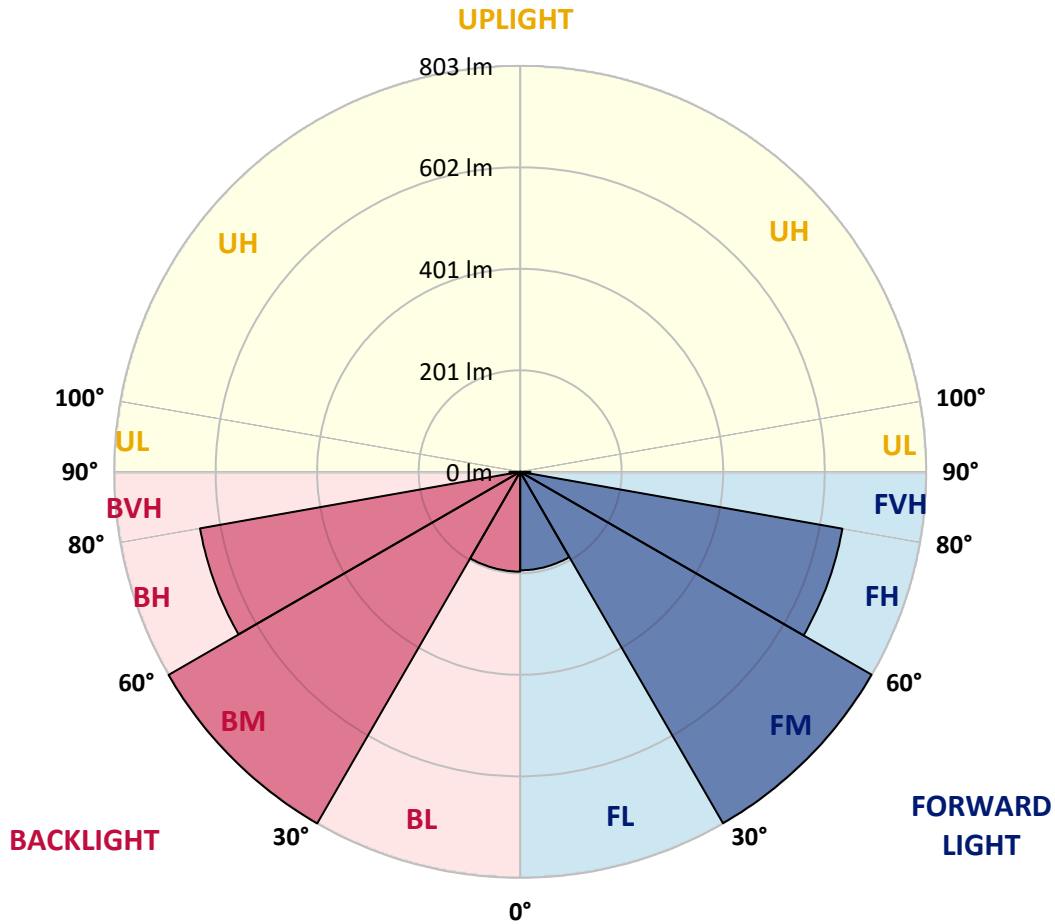
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	194.6	5.8			
FM (30°-60°)	802.2	24.1			
FH (60°-80°)	646.9	19.4			G0/660
FVH (80°-90°)	20.2	0.6			G1/100
BL (0°-30°)	197.4	5.9	B1/500		
BM (30°-60°)	802.8	24.1	B1/1000		
BH (60°-80°)	642.8	19.3	B2/1000		G2/1000
BVH (80°-90°)	21.0	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°	210.8	210.8	210.8	210.8	210.8	210.8	210.8	210.8	210.8	210.8	210.8
2.5°	247.4	218.9	216.4	209.6	214.5	216.4	212.0	205.8	212.7	216.4	209.6
5°	311.9	269.7	255.4	243.7	220.1	210.2	220.1	245.5	248.6	264.1	259.8
7.5°	343.5	336.7	318.7	279.6	241.8	220.7	247.4	284.0	302.6	317.4	332.9
10°	367.0	363.3	331.7	303.8	288.3	289.5	290.2	301.9	318.1	342.9	351.5
12.5°	372.6	371.4	376.3	370.1	371.4	378.2	371.4	368.3	377.6	385.6	377.0
15°	408.6	408.0	409.8	411.1	435.9	446.4	435.9	426.6	419.7	412.9	427.2
17.5°	433.4	430.3	430.9	442.7	470.6	499.7	494.1	481.7	466.2	475.5	487.3
20°	447.0	441.4	445.2	450.1	497.2	529.5	533.2	516.4	507.1	518.9	528.8
22.5°	460.0	451.4	438.3	443.3	486.7	533.2	551.2	546.8	553.6	557.4	555.5
25°	444.5	450.1	435.9	450.1	494.1	536.9	572.9	598.3	598.9	597.0	610.7
27.5°	435.2	430.9	406.7	443.3	479.9	506.5	598.3	641.1	654.1	614.4	641.1
30°	419.1	425.9	393.1	423.5	469.9	514.6	627.4	688.8	669.6	664.6	670.8
32.5°	409.2	404.9	389.4	406.1	441.4	538.8	646.0	716.7	740.9	729.1	727.9
35°	393.1	396.2	372.0	390.0	439.6	518.3	658.4	786.8	824.0	814.7	807.2
37.5°	395.6	385.0	367.7	380.7	427.8	529.5	689.4	854.3	913.2	918.2	884.1
40°	377.0	370.8	344.7	366.4	405.5	522.6	696.9	931.2	1031.0	1053.4	1004.4
42.5°	350.3	342.2	327.4	351.5	392.5	489.2	707.4	1023.6	1150.7	1197.2	1152.6
45°	311.9	301.3	293.9	326.1	363.9	480.5	696.2	1100.5	1265.4	1329.3	1328.0
47.5°	265.4	258.5	254.8	288.9	340.4	458.8	673.3	1148.8	1345.4	1509.0	1484.2
50°	212.7	207.7	207.1	243.0	300.7	414.2	647.3	1173.0	1466.9	1674.0	1695.7
52.5°	170.5	166.8	166.2	195.3	251.7	354.0	592.7	1191.6	1582.8	1861.2	1972.8
55°	133.3	129.6	130.2	154.4	200.3	289.5	509.6	1170.5	1684.5	2052.8	2264.2
57.5°	109.1	105.4	106.0	119.7	153.1	221.3	406.1	1124.7	1730.4	2289.6	2603.9
60°	96.1	92.4	90.5	96.7	117.8	166.8	301.9	946.1	1737.8	2486.1	2972.8
62.5°	89.3	85.6	83.7	85.6	97.3	127.7	217.6	749.6	1695.0	2654.2	3310.7
65°	83.1	80.0	77.5	79.4	85.6	101.7	158.7	513.3	1471.2	2731.0	3556.2
67.5°	76.3	73.8	71.3	73.8	78.1	85.6	123.4	324.9	1103.0	2631.2	3658.5
69°	72.5	68.8	67.6	69.4	73.8	78.7	106.6	259.2	838.8	2441.5	3596.5
70°	68.8	66.3	64.5	67.6	71.3	75.0	96.1	220.1	657.8	2197.9	3442.8
72.5°	60.8	58.9	57.7	60.8	63.9	66.3	78.7	156.9	381.3	1496.6	2730.4
75°	53.3	51.5	50.8	53.3	55.8	57.0	66.3	107.9	225.1	783.0	1638.0
77.5°	44.6	42.2	42.8	45.9	47.7	48.4	55.8	77.5	132.7	354.6	758.9
80°	32.9	32.9	35.3	37.8	37.8	37.8	44.6	56.4	80.6	163.1	315.0
82.5°	22.9	23.6	24.2	27.9	28.5	26.0	34.1	40.9	50.2	71.3	109.1
85°	13.0	13.6	14.3	16.7	17.4	15.5	22.3	26.0	29.1	35.3	57.0
87.5°	5.0	5.6	7.4	8.7	9.3	6.8	10.5	12.4	12.4	14.9	25.4
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°	210.8	210.8	210.8	210.8	210.8	210.8	210.8	210.8	210.8	210.8	210.8
2.5°	223.8	228.2	236.2	238.1	231.3	223.8	207.1	217.6	222.0	213.9	216.4
5°	277.1	286.4	296.4	284.6	277.1	272.2	264.1	264.7	260.4	246.1	222.6
7.5°	337.3	326.7	334.2	342.2	330.5	331.1	338.5	323.0	311.2	287.1	243.0
10°	365.2	365.2	367.0	367.0	362.1	362.1	361.5	336.7	322.4	311.9	299.5
12.5°	367.0	366.4	373.9	368.3	369.5	370.8	373.9	385.0	381.3	367.7	378.8
15°	418.5	416.0	418.5	417.9	419.7	425.3	422.8	420.4	421.0	430.9	447.6
17.5°	466.8	468.1	465.6	469.9	469.9	473.7	482.3	473.7	466.2	484.8	497.8
20°	522.6	518.3	508.4	515.8	517.7	518.3	532.6	522.0	511.5	518.3	533.8
22.5°	579.1	578.4	579.7	580.3	582.8	573.5	554.3	551.2	558.0	548.7	550.5
25°	613.8	614.4	617.5	618.1	607.6	617.5	624.3	603.9	603.9	602.0	589.6
27.5°	655.9	646.6	650.4	655.3	651.0	653.5	645.4	615.6	647.3	651.6	602.0
30°	684.5	680.1	675.8	680.7	685.1	696.2	673.3	670.2	672.7	695.6	630.5
32.5°	744.6	750.8	742.7	734.7	742.7	740.3	730.3	726.0	757.0	726.6	650.4
35°	800.4	802.9	803.5	802.3	807.2	798.5	798.5	814.7	824.0	791.1	656.6
37.5°	934.9	926.3	908.3	899.6	915.1	928.1	889.7	908.9	905.2	849.4	703.1
40°	1031.7	1051.5	1057.1	1054.6	1057.1	1019.9	1027.9	1042.2	1025.5	933.1	686.9
42.5°	1173.0	1185.4	1181.1	1175.5	1178.0	1171.2	1147.0	1199.7	1139.5	1026.7	711.7
45°	1302.0	1329.9	1331.7	1312.5	1328.0	1303.8	1313.8	1332.4	1271.6	1096.8	704.9
47.5°	1455.7	1513.4	1491.7	1491.7	1507.2	1455.1	1478.7	1503.5	1342.3	1143.9	667.7
50°	1683.3	1714.3	1713.0	1707.4	1714.3	1686.4	1682.6	1679.5	1450.8	1188.5	644.8
52.5°	1940.6	1982.7	1966.6	1972.8	1982.1	1929.4	1970.9	1857.5	1586.5	1205.3	592.7
55°	2269.2	2298.3	2282.2	2250.6	2292.7	2259.2	2272.9	2051.5	1680.8	1157.5	505.9
57.5°	2660.4	2675.2	2648.6	2645.5	2673.4	2637.4	2614.5	2269.8	1729.8	1121.6	404.2
60°	3117.3	3163.8	3147.1	3120.4	3145.8	3114.2	2940.6	2455.1	1719.8	953.5	313.1
62.5°	3665.4	3712.5	3693.9	3675.9	3692.0	3609.6	3246.9	2601.5	1675.2	755.8	228.8
65°	4118.0	4330.6	4358.5	4359.1	4281.0	4090.1	3491.1	2658.5	1439.6	527.6	167.4
67.5°	4415.5	4857.6	4995.2	4945.6	4766.5	4330.6	3589.7	2546.9	1111.6	333.6	125.2
69°	4381.4	4961.1	5160.1	5132.2	4880.5	4326.9	3512.8	2359.0	849.4	265.4	106.0
70°	4224.0	4876.2	5112.4	5124.8	4808.0	4160.7	3375.8	2143.3	686.9	226.3	97.3
72.5°	3370.9	4018.1	4225.8	4307.0	3992.7	3331.8	2768.2	1512.1	398.0	158.1	78.7
75°	2088.1	2436.5	2608.9	2656.0	2465.7	2075.1	1680.2	841.3	242.4	111.6	66.3
77.5°	936.2	1037.2	1136.4	1136.4	1062.0	947.3	770.0	406.7	137.6	79.4	55.8
80°	313.7	325.5	316.8	319.9	307.5	295.7	309.4	175.5	84.9	59.5	45.3
82.5°	213.3	267.8	284.6	284.6	267.2	210.8	119.0	80.6	52.1	42.8	34.7
85°	173.6	212.0	227.5	234.4	220.7	177.9	62.6	39.1	31.0	27.3	23.6
87.5°	58.3	54.6	51.5	50.2	52.7	55.2	31.0	16.7	14.3	13.0	12.4
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°	210.8	210.8	210.8	210.8	210.8	210.8
2.5°	220.7	213.3	216.4	219.5	241.8	258.5
5°	219.5	230.0	253.6	283.3	297.0	330.5
7.5°	225.7	264.1	308.1	339.1	351.5	362.1
10°	301.9	308.8	323.6	353.4	378.2	382.5
12.5°	390.0	388.1	377.6	391.2	378.8	387.5
15°	458.8	438.3	424.1	422.2	417.9	417.9
17.5°	496.6	478.6	458.8	453.8	440.8	451.4
20°	541.2	510.2	460.7	455.7	451.4	441.4
22.5°	532.6	501.6	450.1	443.9	466.8	465.6
25°	543.1	501.6	452.6	445.8	456.3	456.3
27.5°	517.1	483.0	447.6	406.7	439.0	446.4
30°	510.2	471.8	430.9	394.3	427.2	420.4
32.5°	546.2	443.9	403.6	392.5	416.6	411.7
35°	518.3	439.0	396.8	376.3	404.9	399.9
37.5°	530.1	432.8	385.0	367.7	390.6	398.0
40°	527.6	403.6	371.4	349.1	372.0	375.7
42.5°	486.1	381.3	348.4	326.1	337.9	350.3
45°	473.7	367.7	326.1	295.1	295.7	310.0
47.5°	450.7	336.7	285.2	256.7	256.7	268.5
50°	412.3	295.1	238.7	212.7	212.0	221.3
52.5°	355.3	254.8	201.5	173.0	171.1	180.4
55°	290.8	205.2	158.7	140.1	136.4	140.1
57.5°	226.3	160.0	125.2	110.4	109.7	112.8
60°	175.5	125.2	99.8	91.1	92.4	97.3
62.5°	132.7	99.8	84.9	81.8	83.7	88.7
65°	105.4	86.2	77.5	75.6	77.5	82.5
67.5°	85.6	78.1	71.9	69.4	70.7	75.6
69°	78.7	73.8	68.8	65.7	67.0	70.7
70°	75.0	71.3	66.3	63.2	64.5	68.2
72.5°	65.7	63.9	60.1	57.0	57.7	60.8
75°	57.7	56.4	53.9	50.2	50.2	53.9
77.5°	48.4	49.0	46.5	42.8	42.2	44.0
80°	38.4	39.7	38.4	34.7	33.5	33.5
82.5°	27.9	30.4	29.1	25.4	24.8	24.8
85°	17.4	19.2	18.6	16.1	16.1	14.3
87.5°	8.1	10.5	9.9	8.7	8.1	5.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)