

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: P565286

Luminaire Tested: **MSA-SA1B-827-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565286
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-827-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: 3366 lumens
Efficiency: N/A
Efficacy: 76.5 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

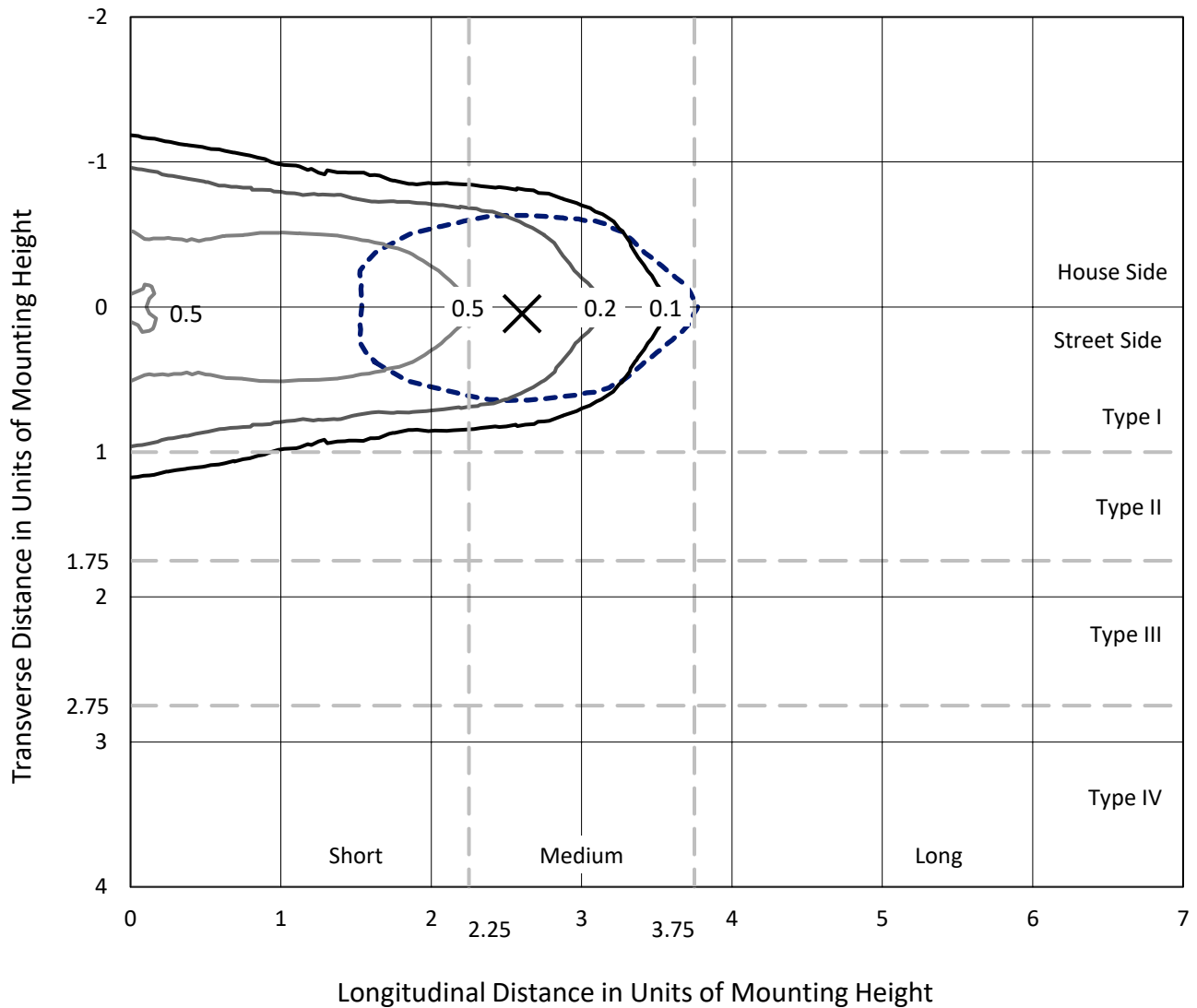
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

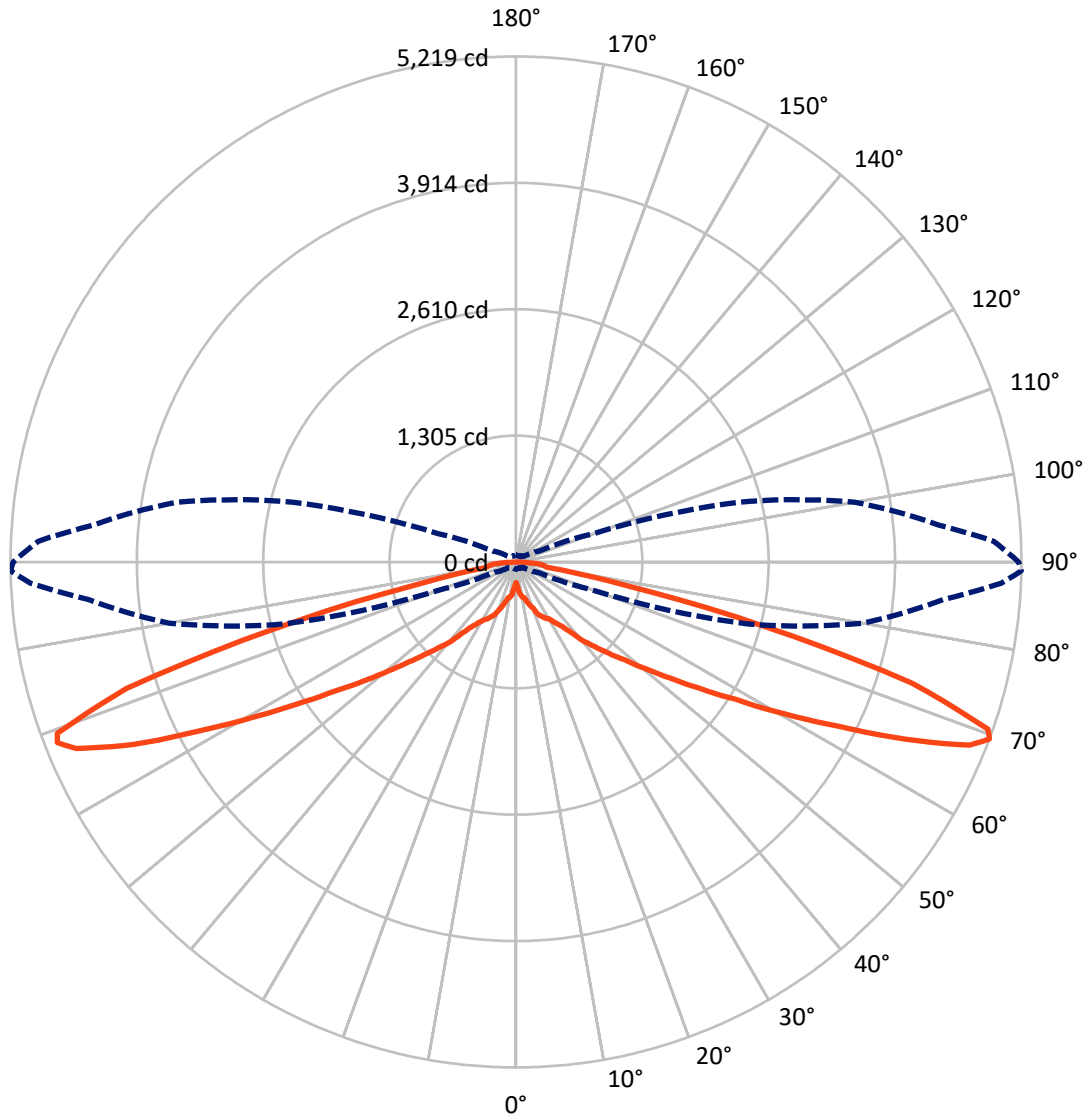
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 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	1683.0	0.0	1683.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1683.0	0.0	1683.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	3366.0	0.0	3366.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.8	0.8
10°-20°	123.4	3.7
20°-30°	246.2	7.3
30°-40°	372.4	11.1
40°-50°	540.6	16.1
50°-60°	710.3	21.1
60°-70°	866.4	25.7
70°-80°	438.0	13.0
80°-90°	41.8	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°	3366.0	100.0
0°-180°	3366.0	100.0

Coefficient of Utilization



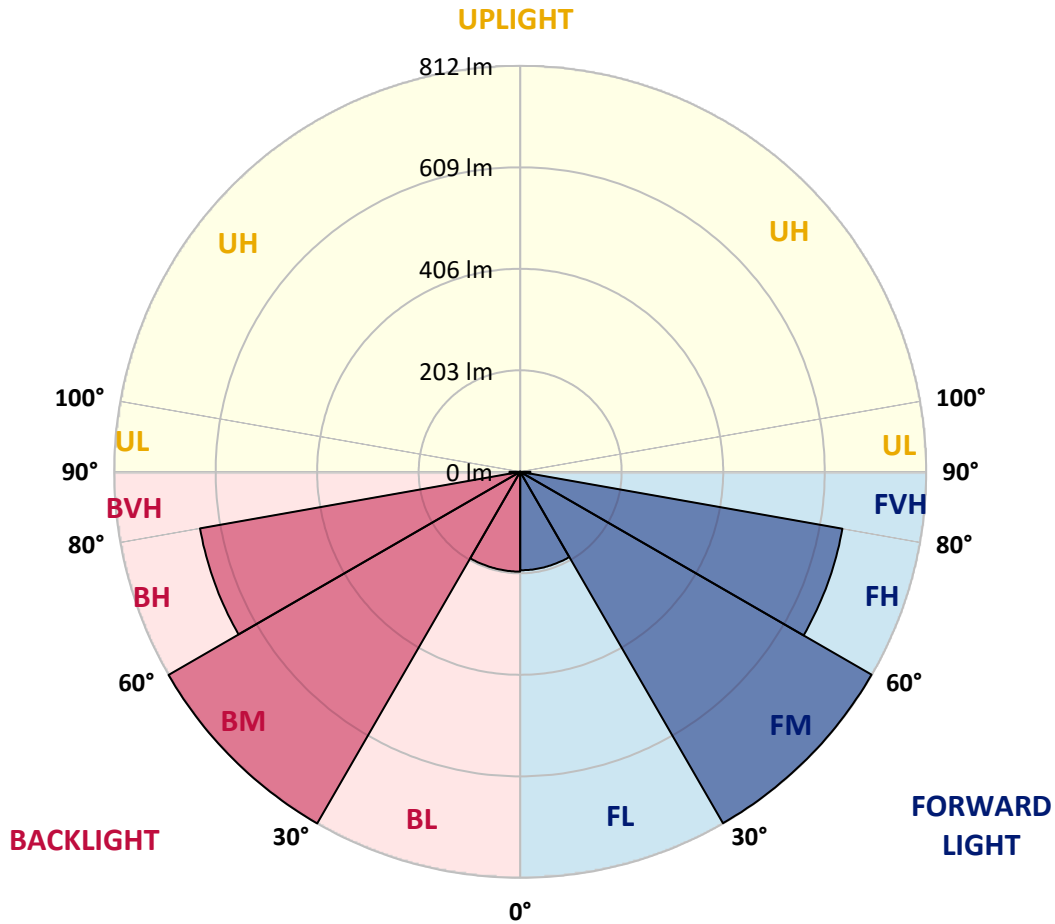
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	196.8	5.8			
FM (30°-60°)	811.4	24.1			
FH (60°-80°)	654.3	19.4			G0/660
FVH (80°-90°)	20.5	0.6			G1/100
BL (0°-30°)	199.6	5.9	B1/500		
BM (30°-60°)	811.9	24.1	B1/1000		
BH (60°-80°)	650.2	19.3	B2/1000		G2/1000
BVH (80°-90°)	21.3	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°	213.2	213.2	213.2	213.2	213.2	213.2	213.2	213.2	213.2	213.2	213.2
2.5°	250.2	221.4	218.8	211.9	217.0	218.8	214.5	208.2	215.1	218.8	211.9
5°	315.4	272.8	258.4	246.4	222.6	212.6	222.6	248.3	251.5	267.1	262.7
7.5°	347.4	340.5	322.3	282.8	244.6	223.2	250.2	287.2	306.0	321.1	336.7
10°	371.2	367.5	335.5	307.3	291.6	292.8	293.5	305.4	321.7	346.8	355.5
12.5°	376.9	375.6	380.6	374.4	375.6	382.5	375.6	372.5	381.9	390.0	381.3
15°	413.2	412.6	414.5	415.7	440.8	451.5	440.8	431.4	424.5	417.6	432.0
17.5°	438.3	435.2	435.8	447.7	475.9	505.4	499.8	487.2	471.6	481.0	492.9
20°	452.1	446.5	450.2	455.2	502.9	535.5	539.3	522.3	512.9	524.9	534.9
22.5°	465.3	456.5	443.3	448.4	492.2	539.3	557.5	553.1	560.0	563.7	561.9
25°	449.6	455.2	440.8	455.2	499.8	543.0	579.4	605.1	605.7	603.9	617.7
27.5°	440.2	435.8	411.4	448.4	485.3	512.3	605.1	648.4	661.6	621.4	648.4
30°	423.9	430.8	397.6	428.3	475.3	520.5	634.6	696.7	677.2	672.2	678.5
32.5°	413.9	409.5	393.8	410.7	446.5	544.9	653.4	724.9	749.3	737.4	736.2
35°	397.6	400.7	376.2	394.4	444.6	524.2	665.9	795.7	833.4	824.0	816.4
37.5°	400.1	389.4	371.8	385.0	432.7	535.5	697.3	864.1	923.7	928.7	894.2
40°	381.3	375.0	348.6	370.6	410.1	528.6	704.8	941.9	1042.8	1065.4	1015.8
42.5°	354.3	346.1	331.1	355.5	396.9	494.8	715.5	1035.3	1163.8	1210.9	1165.7
45°	315.4	304.8	297.2	329.8	368.1	486.0	704.2	1113.0	1279.8	1344.4	1343.2
47.5°	268.4	261.5	257.7	292.2	344.3	464.0	681.0	1162.0	1360.7	1526.3	1501.2
50°	215.1	210.1	209.4	245.8	304.1	418.9	654.7	1186.4	1483.6	1693.1	1715.0
52.5°	172.4	168.7	168.1	197.5	254.6	358.1	599.5	1205.2	1600.9	1882.5	1995.3
55°	134.8	131.1	131.7	156.1	202.5	292.8	515.4	1183.9	1703.7	2076.2	2290.0
57.5°	110.4	106.6	107.2	121.0	154.9	223.9	410.7	1137.5	1750.1	2315.8	2633.7
60°	97.2	93.4	91.6	97.8	119.1	168.7	305.4	956.9	1757.7	2514.5	3006.8
62.5°	90.3	86.5	84.7	86.5	98.4	129.2	220.1	758.1	1714.4	2684.5	3348.5
65°	84.0	80.9	78.4	80.3	86.5	102.8	160.5	519.2	1488.0	2762.2	3596.8
67.5°	77.1	74.6	72.1	74.6	79.0	86.5	124.8	328.6	1115.5	2661.3	3700.3
69°	73.4	69.6	68.4	70.2	74.6	79.6	107.9	262.1	848.4	2469.4	3637.6
70°	69.6	67.1	65.2	68.4	72.1	75.9	97.2	222.6	665.3	2222.9	3482.1
72.5°	61.5	59.6	58.3	61.5	64.6	67.1	79.6	158.6	385.6	1513.7	2761.6
75°	53.9	52.0	51.4	53.9	56.4	57.7	67.1	109.1	227.6	792.0	1656.7
77.5°	45.1	42.6	43.3	46.4	48.3	48.9	56.4	78.4	134.2	358.7	767.5
80°	33.2	33.2	35.7	38.3	38.3	38.3	45.1	57.1	81.5	164.9	318.5
82.5°	23.2	23.8	24.5	28.2	28.8	26.3	34.5	41.4	50.8	72.1	110.4
85°	13.2	13.8	14.4	16.9	17.6	15.7	22.6	26.3	29.5	35.7	57.7
87.5°	5.0	5.6	7.5	8.8	9.4	6.9	10.7	12.5	12.5	15.0	25.7
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°	213.2	213.2	213.2	213.2	213.2	213.2	213.2	213.2	213.2	213.2	213.2
2.5°	226.4	230.8	238.9	240.8	233.9	226.4	209.4	220.1	224.5	216.3	218.8
5°	280.3	289.7	299.7	287.8	280.3	275.3	267.1	267.8	263.4	248.9	225.1
7.5°	341.1	330.5	338.0	346.1	334.2	334.9	342.4	326.7	314.8	290.3	245.8
10°	369.3	369.3	371.2	371.2	366.2	366.2	365.6	340.5	326.1	315.4	302.9
12.5°	371.2	370.6	378.1	372.5	373.7	375.0	378.1	389.4	385.6	371.8	383.1
15°	423.3	420.8	423.3	422.6	424.5	430.2	427.7	425.2	425.8	435.8	452.7
17.5°	472.2	473.4	470.9	475.3	475.3	479.1	487.9	479.1	471.6	490.4	503.5
20°	528.6	524.2	514.2	521.7	523.6	524.2	538.6	528.0	517.3	524.2	539.9
22.5°	585.7	585.1	586.3	586.9	589.4	580.0	560.6	557.5	564.4	555.0	556.8
25°	620.8	621.4	624.6	625.2	614.5	624.6	631.5	610.8	610.8	608.9	596.3
27.5°	663.4	654.0	657.8	662.8	658.4	660.9	652.8	622.7	654.7	659.0	608.9
30°	692.3	687.9	683.5	688.5	692.9	704.2	681.0	677.9	680.4	703.6	637.7
32.5°	753.1	759.4	751.2	743.1	751.2	748.7	738.7	734.3	765.6	734.9	657.8
35°	809.5	812.1	812.7	811.4	816.4	807.7	807.7	824.0	833.4	800.1	664.1
37.5°	945.6	936.8	918.7	909.9	925.5	938.7	899.8	919.3	915.5	859.1	711.1
40°	1043.4	1063.5	1069.1	1066.6	1069.1	1031.5	1039.7	1054.1	1037.2	943.7	694.8
42.5°	1186.4	1198.9	1194.6	1188.9	1191.4	1184.5	1160.1	1213.4	1152.5	1038.4	719.9
45°	1316.8	1345.1	1346.9	1327.5	1343.2	1318.7	1328.8	1347.6	1286.1	1109.3	713.0
47.5°	1472.4	1530.7	1508.7	1508.7	1524.4	1471.7	1495.6	1520.6	1357.6	1156.9	675.3
50°	1702.5	1733.8	1732.6	1726.9	1733.8	1705.6	1701.9	1698.7	1467.3	1202.1	652.1
52.5°	1962.7	2005.4	1989.1	1995.3	2004.7	1951.4	1993.4	1878.7	1604.7	1219.0	599.5
55°	2295.1	2324.5	2308.2	2276.2	2318.9	2285.0	2298.8	2075.0	1700.0	1170.7	511.7
57.5°	2690.7	2705.8	2678.8	2675.7	2703.9	2667.5	2644.3	2295.7	1749.5	1134.4	408.8
60°	3152.9	3199.9	3183.0	3156.0	3181.7	3149.8	2974.2	2483.2	1739.5	964.4	316.7
62.5°	3707.2	3754.9	3736.1	3717.9	3734.2	3650.8	3283.9	2631.2	1694.3	764.4	231.4
65°	4165.0	4380.1	4408.3	4408.9	4329.9	4136.8	3531.0	2688.9	1456.0	533.6	169.3
67.5°	4466.0	4913.1	5052.3	5002.1	4820.9	4380.1	3630.7	2576.0	1124.3	337.4	126.7
69°	4431.5	5017.8	5219.1	5190.9	4936.3	4376.3	3553.0	2386.0	859.1	268.4	107.2
70°	4272.2	4931.9	5170.8	5183.3	4862.9	4208.2	3414.4	2167.8	694.8	228.9	98.4
72.5°	3409.4	4064.0	4274.1	4356.2	4038.3	3369.9	2799.8	1529.4	402.6	159.9	79.6
75°	2112.0	2464.4	2638.7	2686.3	2493.8	2098.8	1699.3	850.9	245.2	112.9	67.1
77.5°	946.9	1049.1	1149.4	1149.4	1074.2	958.2	778.8	411.4	139.2	80.3	56.4
80°	317.3	329.2	320.4	323.6	311.0	299.1	312.9	177.5	85.9	60.2	45.8
82.5°	215.7	270.9	287.8	287.8	270.3	213.2	120.4	81.5	52.7	43.3	35.1
85°	175.6	214.5	230.1	237.0	223.2	180.0	63.3	39.5	31.4	27.6	23.8
87.5°	58.9	55.2	52.0	50.8	53.3	55.8	31.4	16.9	14.4	13.2	12.5
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°	213.2	213.2	213.2	213.2	213.2	213.2
2.5°	223.2	215.7	218.8	222.0	244.6	261.5
5°	222.0	232.6	256.5	286.6	300.4	334.2
7.5°	228.3	267.1	311.7	343.0	355.5	366.2
10°	305.4	312.3	327.3	357.4	382.5	386.9
12.5°	394.4	392.5	381.9	395.7	383.1	391.9
15°	464.0	443.3	428.9	427.0	422.6	422.6
17.5°	502.3	484.1	464.0	459.0	445.8	456.5
20°	547.4	516.1	465.9	460.9	456.5	446.5
22.5°	538.6	507.3	455.2	449.0	472.2	470.9
25°	549.3	507.3	457.8	450.9	461.5	461.5
27.5°	523.0	488.5	452.7	411.4	444.0	451.5
30°	516.1	477.2	435.8	398.8	432.0	425.2
32.5°	552.4	449.0	408.2	396.9	421.4	416.4
35°	524.2	444.0	401.3	380.6	409.5	404.5
37.5°	536.1	437.7	389.4	371.8	395.1	402.6
40°	533.6	408.2	375.6	353.0	376.2	380.0
42.5°	491.6	385.6	352.4	329.8	341.8	354.3
45°	479.1	371.8	329.8	298.5	299.1	313.5
47.5°	455.9	340.5	288.5	259.6	259.6	271.5
50°	417.0	298.5	241.4	215.1	214.5	223.9
52.5°	359.3	257.7	203.8	175.0	173.1	182.5
55°	294.1	207.6	160.5	141.7	138.0	141.7
57.5°	228.9	161.8	126.7	111.6	111.0	114.1
60°	177.5	126.7	101.0	92.2	93.4	98.4
62.5°	134.2	101.0	85.9	82.8	84.7	89.7
65°	106.6	87.2	78.4	76.5	78.4	83.4
67.5°	86.5	79.0	72.7	70.2	71.5	76.5
69°	79.6	74.6	69.6	66.5	67.7	71.5
70°	75.9	72.1	67.1	64.0	65.2	69.0
72.5°	66.5	64.6	60.8	57.7	58.3	61.5
75°	58.3	57.1	54.6	50.8	50.8	54.6
77.5°	48.9	49.5	47.0	43.3	42.6	44.5
80°	38.9	40.1	38.9	35.1	33.9	33.9
82.5°	28.2	30.7	29.5	25.7	25.1	25.1
85°	17.6	19.4	18.8	16.3	16.3	14.4
87.5°	8.2	10.7	10.0	8.8	8.2	5.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)