

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: P565287

Luminaire Tested: **MSA-SA1C-827-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565287
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-SA1C-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: 4169 lumens
Efficiency: N/A
Efficacy: 70.7 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

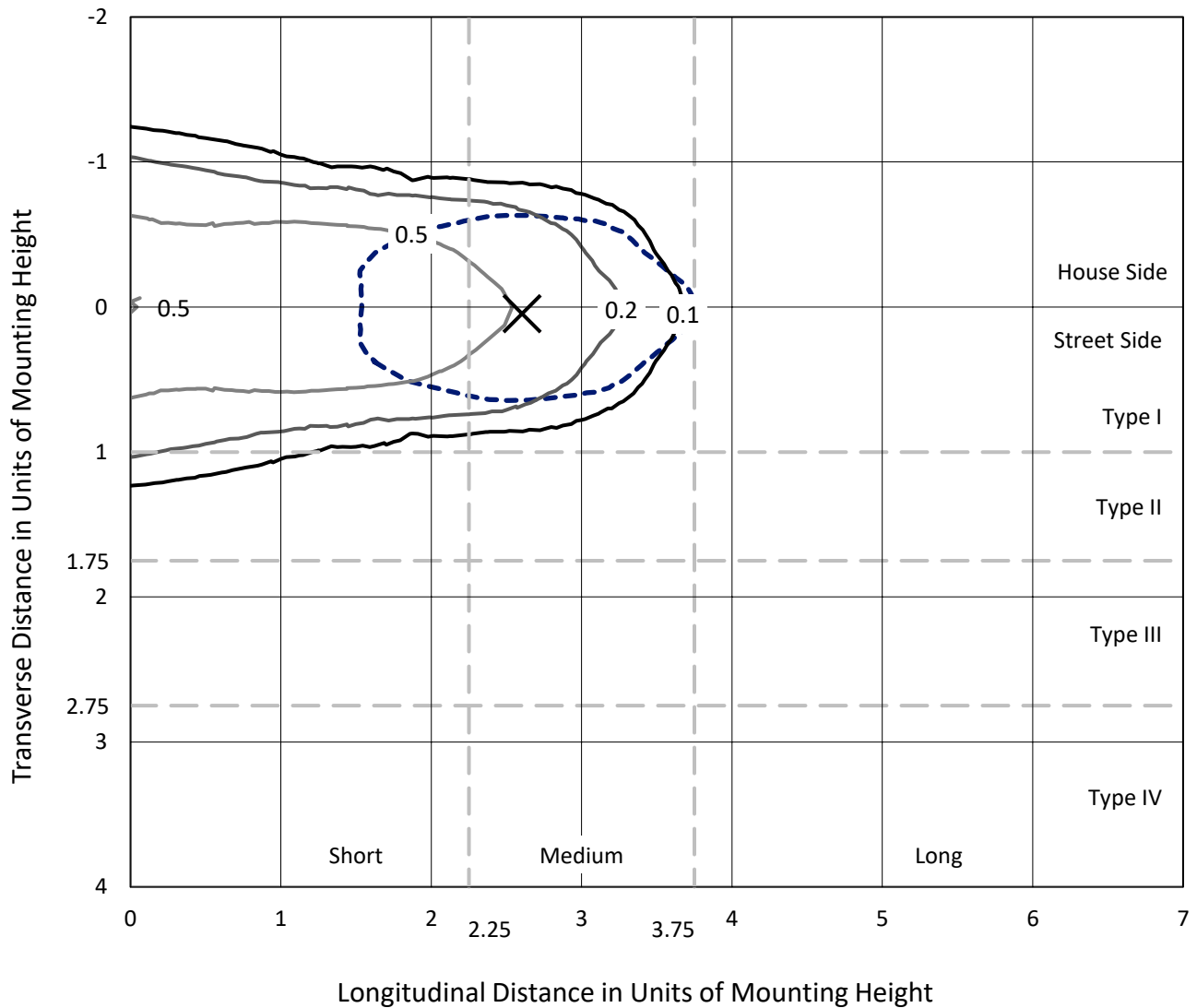
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

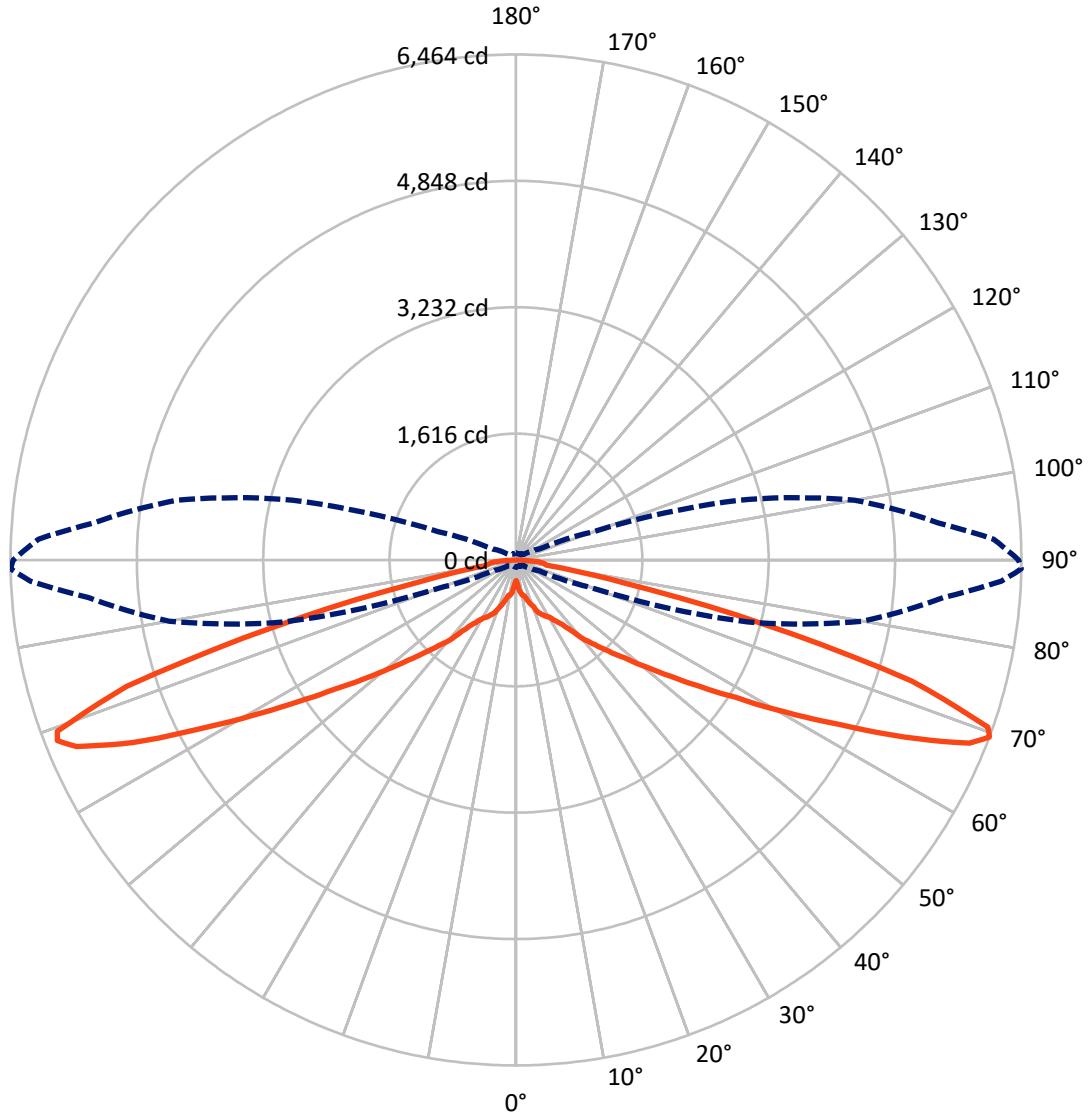
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 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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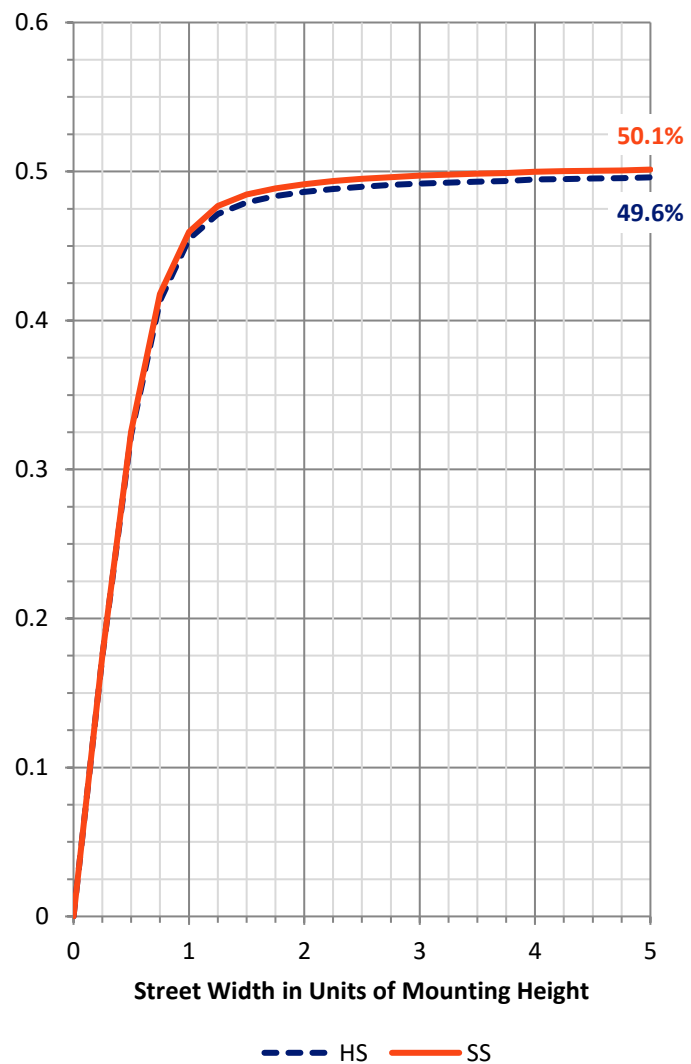
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2084.5	0.0	2084.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2084.5	0.0	2084.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	4169.0	0.0	4169.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.2	0.8
10°-20°	152.9	3.7
20°-30°	305.0	7.3
30°-40°	461.3	11.1
40°-50°	669.6	16.1
50°-60°	879.7	21.1
60°-70°	1073.1	25.7
70°-80°	542.5	13.0
80°-90°	51.7	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°	4169.0	100.0
0°-180°	4169.0	100.0

Coefficient of Utilization

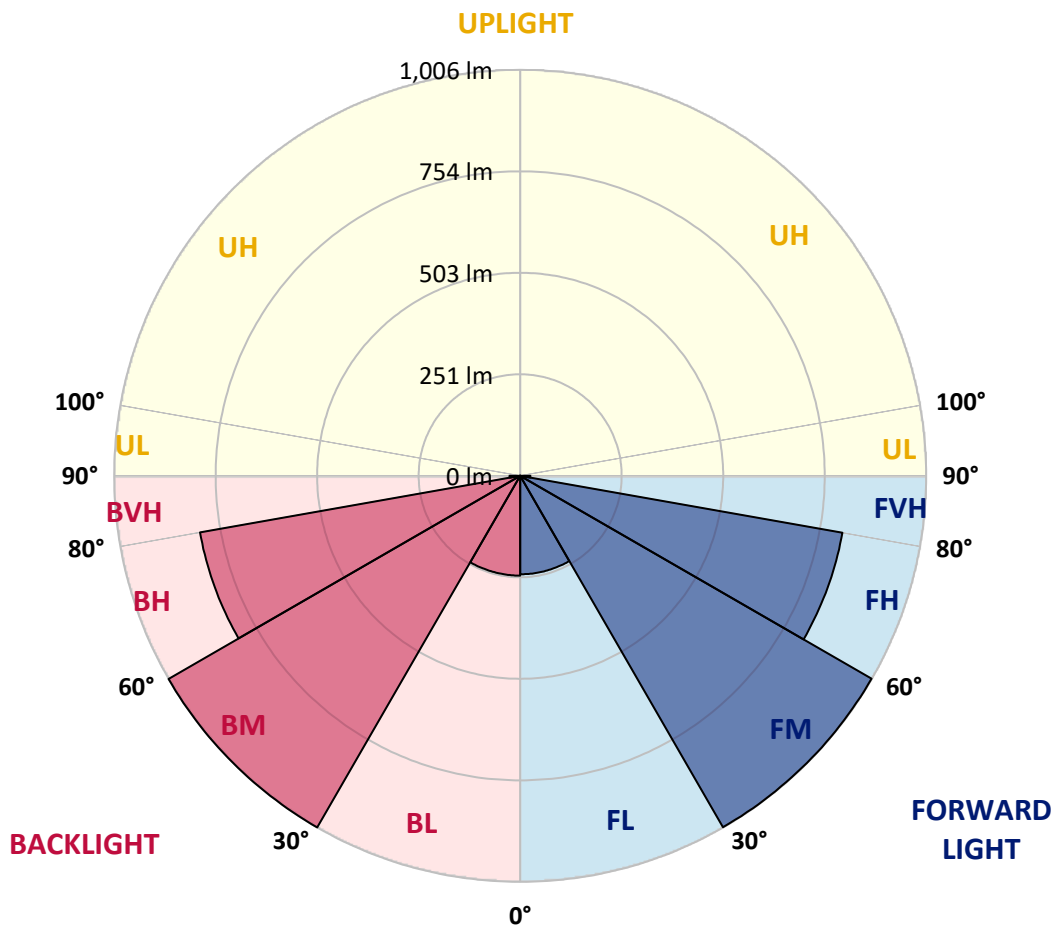


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	243.8	5.8			
FM (30°-60°)	1005.0	24.1			
FH (60°-80°)	810.4	19.4			G1/1800
FVH (80°-90°)	25.4	0.6			G1/100
BL (0°-30°)	247.2	5.9	B1/500		
BM (30°-60°)	1005.6	24.1	B2/2500		
BH (60°-80°)	805.3	19.3	B2/1000		G2/1000
BVH (80°-90°)	26.4	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°	264.1	264.1	264.1	264.1	264.1	264.1	264.1	264.1	264.1	264.1	264.1
2.5°	309.9	274.2	271.1	262.5	268.7	271.1	265.6	257.9	266.4	271.1	262.5
5°	390.7	337.8	320.0	305.2	275.7	263.3	275.7	307.6	311.4	330.9	325.4
7.5°	430.3	421.7	399.2	350.3	302.9	276.5	309.9	355.7	379.0	397.6	417.1
10°	459.8	455.1	415.5	380.6	361.1	362.7	363.5	378.2	398.4	429.5	440.4
12.5°	466.8	465.2	471.4	463.7	465.2	473.8	465.2	461.3	473.0	483.1	472.2
15°	511.8	511.0	513.4	514.9	546.0	559.2	546.0	534.3	525.8	517.3	535.1
17.5°	542.9	539.0	539.8	554.5	589.5	626.0	619.0	603.5	584.0	595.7	610.5
20°	560.0	553.0	557.6	563.9	622.9	663.3	667.9	647.0	635.3	650.1	662.5
22.5°	576.3	565.4	549.1	555.3	609.7	667.9	690.5	685.0	693.6	698.2	695.9
25°	556.9	563.9	546.0	563.9	619.0	672.6	717.6	749.5	750.3	747.9	765.0
27.5°	545.2	539.8	509.5	555.3	601.1	634.5	749.5	803.1	819.4	769.7	803.1
30°	525.0	533.6	492.4	530.5	588.7	644.6	786.0	862.9	838.8	832.6	840.3
32.5°	512.6	507.2	487.7	508.7	553.0	674.9	809.3	897.8	928.1	913.4	911.8
35°	492.4	496.3	466.0	488.5	550.7	649.3	824.8	985.6	1032.2	1020.5	1011.2
37.5°	495.5	482.3	460.6	476.9	535.9	663.3	863.6	1070.2	1144.0	1150.2	1107.5
40°	472.2	464.4	431.8	459.0	507.9	654.7	873.0	1166.5	1291.6	1319.5	1258.2
42.5°	438.8	428.7	410.1	440.4	491.6	612.8	886.2	1282.3	1441.5	1499.7	1443.8
45°	390.7	377.5	368.1	408.5	455.9	601.9	872.2	1378.6	1585.2	1665.2	1663.6
47.5°	332.4	323.9	319.2	361.9	426.4	574.7	843.5	1439.2	1685.4	1890.4	1859.3
50°	266.4	260.2	259.4	304.5	376.7	518.8	810.8	1469.4	1837.6	2097.0	2124.2
52.5°	213.6	208.9	208.1	244.6	315.3	443.5	742.5	1492.7	1982.8	2331.5	2471.3
55°	167.0	162.3	163.1	193.4	250.9	362.7	638.4	1466.3	2110.2	2571.5	2836.4
57.5°	136.7	132.0	132.8	149.9	191.8	277.3	508.7	1408.9	2167.7	2868.2	3262.0
60°	120.4	115.7	113.4	121.2	147.6	208.9	378.2	1185.2	2177.0	3114.4	3724.1
62.5°	111.8	107.2	104.8	107.2	121.9	160.0	272.6	939.0	2123.4	3324.9	4147.4
65°	104.1	100.2	97.1	99.4	107.2	127.4	198.8	643.1	1843.0	3421.2	4454.9
67.5°	95.5	92.4	89.3	92.4	97.9	107.2	154.6	407.0	1381.7	3296.1	4583.1
69°	90.9	86.2	84.7	87.0	92.4	98.6	133.6	324.6	1050.8	3058.5	4505.4
70°	86.2	83.1	80.8	84.7	89.3	94.0	120.4	275.7	824.0	2753.3	4312.8
72.5°	76.1	73.8	72.2	76.1	80.0	83.1	98.6	196.5	477.6	1874.9	3420.4
75°	66.8	64.5	63.7	66.8	69.9	71.5	83.1	135.1	281.9	980.9	2051.9
77.5°	55.9	52.8	53.6	57.5	59.8	60.6	69.9	97.1	166.2	444.2	950.6
80°	41.2	41.2	44.3	47.4	47.4	47.4	55.9	70.7	101.0	204.3	394.5
82.5°	28.7	29.5	30.3	34.9	35.7	32.6	42.7	51.3	62.9	89.3	136.7
85°	16.3	17.1	17.9	21.0	21.7	19.4	28.0	32.6	36.5	44.3	71.5
87.5°	6.2	7.0	9.3	10.9	11.6	8.5	13.2	15.5	15.5	18.6	31.8
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°	264.1	264.1	264.1	264.1	264.1	264.1	264.1	264.1	264.1	264.1	264.1
2.5°	280.4	285.8	295.9	298.2	289.7	280.4	259.4	272.6	278.0	267.9	271.1
5°	347.2	358.8	371.2	356.5	347.2	341.0	330.9	331.6	326.2	308.3	278.8
7.5°	422.5	409.3	418.6	428.7	414.0	414.7	424.1	404.6	389.9	359.6	304.5
10°	457.5	457.5	459.8	459.8	453.6	453.6	452.8	421.7	403.9	390.7	375.1
12.5°	459.8	459.0	468.3	461.3	462.9	464.4	468.3	482.3	477.6	460.6	474.5
15°	524.2	521.1	524.2	523.5	525.8	532.8	529.7	526.6	527.4	539.8	560.7
17.5°	584.8	586.4	583.3	588.7	588.7	593.4	604.2	593.4	584.0	607.3	623.7
20°	654.7	649.3	636.9	646.2	648.5	649.3	667.2	653.9	640.7	649.3	668.7
22.5°	725.4	724.6	726.2	727.0	730.1	718.4	694.3	690.5	699.0	687.3	689.7
25°	768.9	769.7	773.6	774.3	761.1	773.6	782.1	756.5	756.5	754.1	738.6
27.5°	821.7	810.1	814.7	820.9	815.5	818.6	808.5	771.2	810.8	816.3	754.1
30°	857.4	852.0	846.6	852.8	858.2	872.2	843.5	839.6	842.7	871.4	789.9
32.5°	932.8	940.5	930.4	920.3	930.4	927.3	914.9	909.5	948.3	910.2	814.7
35°	1002.7	1005.8	1006.6	1005.0	1011.2	1000.3	1000.3	1020.5	1032.2	991.0	822.5
37.5°	1171.2	1160.3	1137.8	1126.9	1146.3	1162.7	1114.5	1138.6	1133.9	1064.0	880.7
40°	1292.4	1317.2	1324.2	1321.1	1324.2	1277.6	1287.7	1305.6	1284.6	1168.9	860.5
42.5°	1469.4	1485.0	1479.5	1472.5	1475.7	1467.1	1436.8	1502.8	1427.5	1286.1	891.6
45°	1631.0	1665.9	1668.3	1644.2	1663.6	1633.3	1645.7	1669.0	1592.9	1373.9	883.1
47.5°	1823.6	1895.8	1868.6	1868.6	1888.1	1822.8	1852.3	1883.4	1681.5	1432.9	836.5
50°	2108.6	2147.5	2145.9	2138.9	2147.5	2112.5	2107.9	2104.0	1817.4	1488.9	807.7
52.5°	2430.9	2483.8	2463.6	2471.3	2483.0	2417.0	2469.0	2326.9	1987.5	1509.8	742.5
55°	2842.6	2879.1	2858.9	2819.3	2872.1	2830.1	2847.2	2570.0	2105.5	1450.0	633.8
57.5°	3332.6	3351.3	3317.9	3314.0	3349.0	3303.9	3275.2	2843.4	2166.9	1405.0	506.4
60°	3905.0	3963.3	3942.3	3908.9	3940.8	3901.2	3683.7	3075.6	2154.5	1194.5	392.2
62.5°	4591.6	4650.6	4627.3	4604.8	4625.0	4521.7	4067.4	3258.9	2098.5	946.7	286.6
65°	5158.6	5425.0	5459.9	5460.7	5362.8	5123.6	4373.4	3330.3	1803.4	660.9	209.7
67.5°	5531.4	6085.1	6257.5	6195.4	5971.0	5425.0	4496.9	3190.5	1392.6	417.8	156.9
69°	5488.7	6214.8	6464.1	6429.2	6113.9	5420.3	4400.6	2955.2	1064.0	332.4	132.8
70°	5291.4	6108.4	6404.3	6419.9	6023.0	5212.2	4228.9	2684.9	860.5	283.5	121.9
72.5°	4222.7	5033.5	5293.7	5395.5	5001.7	4173.8	3467.8	1894.3	498.6	198.0	98.6
75°	2615.8	3052.3	3268.2	3327.2	3088.8	2599.5	2104.7	1053.9	303.7	139.8	83.1
77.5°	1172.8	1299.4	1423.6	1423.6	1330.4	1186.7	964.6	509.5	172.4	99.4	69.9
80°	393.0	407.7	396.9	400.8	385.2	370.5	387.6	219.8	106.4	74.6	56.7
82.5°	267.2	335.5	356.5	356.5	334.7	264.1	149.1	101.0	65.2	53.6	43.5
85°	217.5	265.6	285.0	293.6	276.5	222.9	78.4	48.9	38.8	34.2	29.5
87.5°	73.0	68.3	64.5	62.9	66.0	69.1	38.8	21.0	17.9	16.3	15.5
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°	264.1	264.1	264.1	264.1	264.1	264.1
2.5°	276.5	267.2	271.1	274.9	302.9	323.9
5°	274.9	288.1	317.7	354.9	372.0	414.0
7.5°	282.7	330.9	386.0	424.8	440.4	453.6
10°	378.2	386.8	405.4	442.7	473.8	479.2
12.5°	488.5	486.2	473.0	490.1	474.5	485.4
15°	574.7	549.1	531.2	528.9	523.5	523.5
17.5°	622.1	599.6	574.7	568.5	552.2	565.4
20°	678.0	639.2	577.1	570.8	565.4	553.0
22.5°	667.2	628.3	563.9	556.1	584.8	583.3
25°	680.4	628.3	567.0	558.4	571.6	571.6
27.5°	647.7	605.0	560.7	509.5	549.9	559.2
30°	639.2	591.0	539.8	494.0	535.1	526.6
32.5°	684.2	556.1	505.6	491.6	521.9	515.7
35°	649.3	549.9	497.1	471.4	507.2	500.9
37.5°	664.0	542.1	482.3	460.6	489.3	498.6
40°	660.9	505.6	465.2	437.3	466.0	470.7
42.5°	608.9	477.6	436.5	408.5	423.3	438.8
45°	593.4	460.6	408.5	369.7	370.5	388.3
47.5°	564.6	421.7	357.3	321.5	321.5	336.3
50°	516.5	369.7	299.0	266.4	265.6	277.3
52.5°	445.0	319.2	252.4	216.7	214.4	226.0
55°	364.3	257.1	198.8	175.5	170.9	175.5
57.5°	283.5	200.4	156.9	138.2	137.5	141.4
60°	219.8	156.9	125.0	114.2	115.7	121.9
62.5°	166.2	125.0	106.4	102.5	104.8	111.1
65°	132.0	108.0	97.1	94.8	97.1	103.3
67.5°	107.2	97.9	90.1	87.0	88.5	94.8
69°	98.6	92.4	86.2	82.3	83.9	88.5
70°	94.0	89.3	83.1	79.2	80.8	85.4
72.5°	82.3	80.0	75.3	71.5	72.2	76.1
75°	72.2	70.7	67.6	62.9	62.9	67.6
77.5°	60.6	61.4	58.2	53.6	52.8	55.1
80°	48.2	49.7	48.2	43.5	41.9	41.9
82.5°	34.9	38.1	36.5	31.8	31.1	31.1
85°	21.7	24.1	23.3	20.2	20.2	17.9
87.5°	10.1	13.2	12.4	10.9	10.1	7.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)