

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: P565289

Luminaire Tested: **MSA-SA2A-827-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565289
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-SA2A-827-U-T1
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5283 lumens
Efficiency: N/A
Efficacy: 80.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B3 - U0 - G3

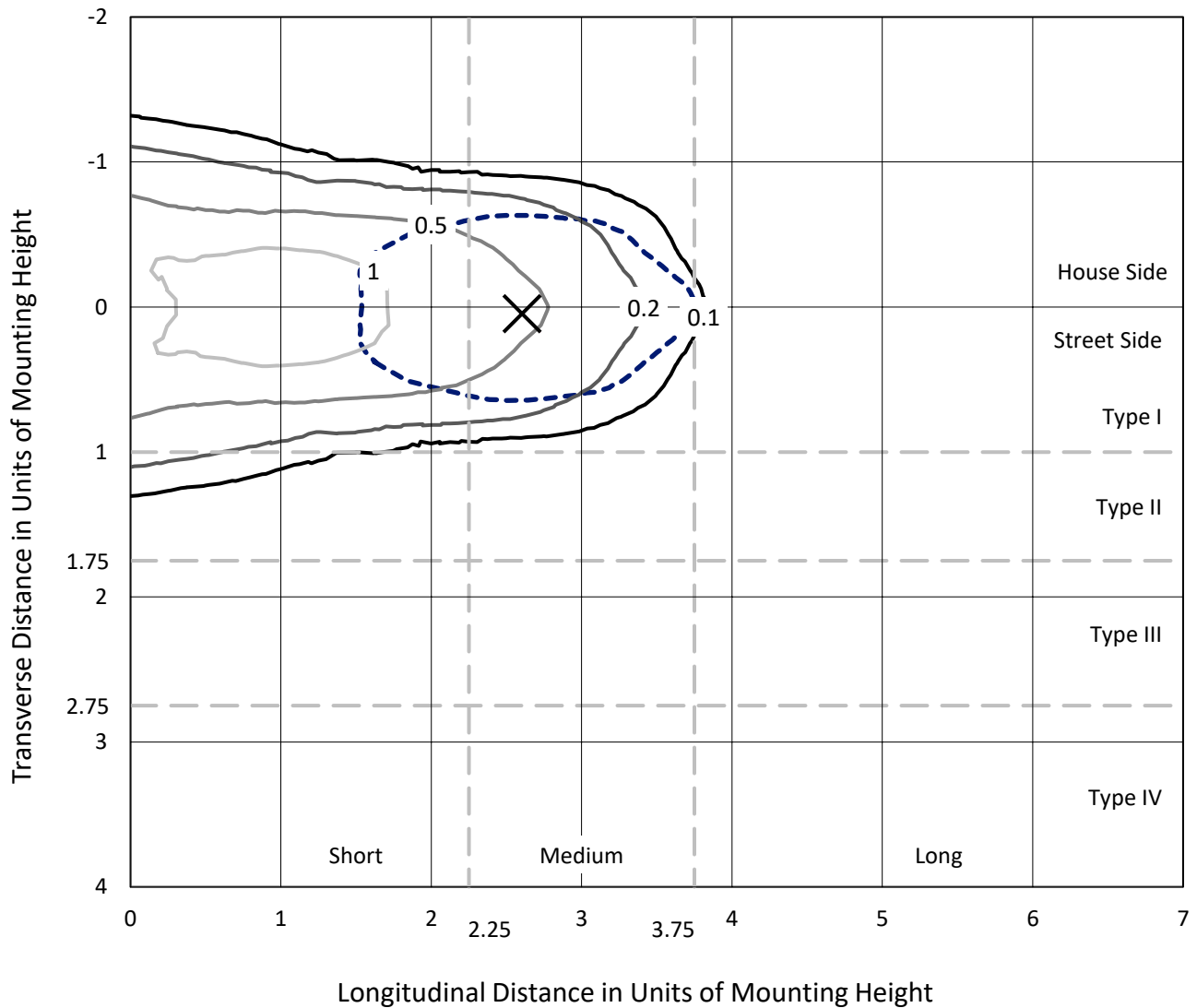
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

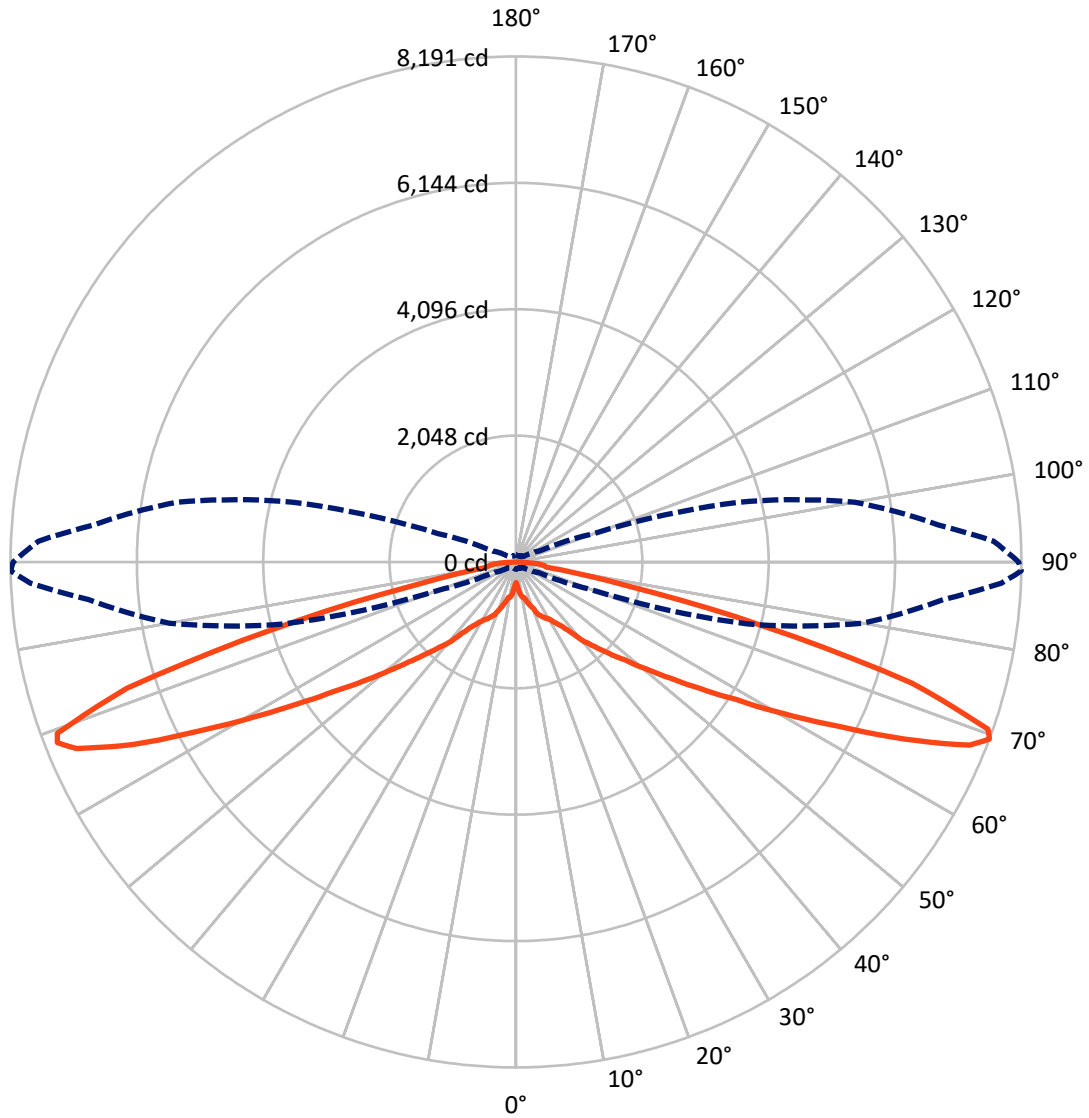
✕ Max cd
 - - - 1/2 Max cd



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	2641.4	0.0	2641.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2641.5	0.0	2641.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	5283.0	0.0	5283.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.1	0.8
10°-20°	193.7	3.7
20°-30°	386.5	7.3
30°-40°	584.5	11.1
40°-50°	848.5	16.1
50°-60°	1114.8	21.1
60°-70°	1359.9	25.7
70°-80°	687.5	13.0
80°-90°	65.5	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°	5283.0	100.0
0°-180°	5283.0	100.0

Coefficient of Utilization



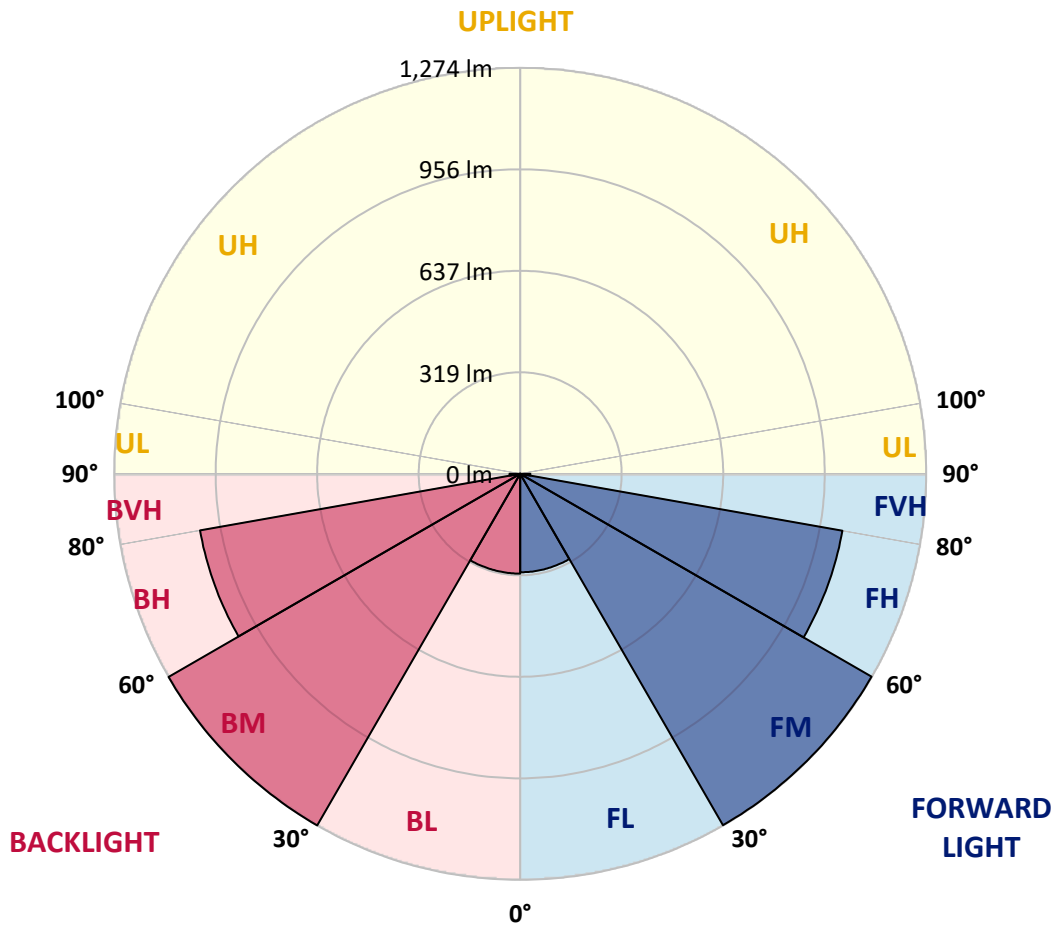
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	309.0	5.8			
FM (30°-60°)	1273.5	24.1			
FH (60°-80°)	1027.0	19.4			G1/1800
FVH (80°-90°)	32.1	0.6			G1/100
BL (0°-30°)	313.3	5.9	B1/500		
BM (30°-60°)	1274.3	24.1	B2/2500		
BH (60°-80°)	1020.4	19.3	B3/2500		G3/2500
BVH (80°-90°)	33.4	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type I Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	334.6	334.6	334.6	334.6	334.6	334.6	334.6	334.6	334.6	334.6	334.6
2.5°	392.7	347.4	343.5	332.7	340.5	343.5	336.6	326.8	337.6	343.5	332.7
5°	495.0	428.1	405.5	386.8	349.4	333.6	349.4	389.7	394.7	419.3	412.4
7.5°	545.2	534.4	505.9	443.9	383.8	350.4	392.7	450.8	480.3	503.9	528.5
10°	582.6	576.7	526.5	482.3	457.6	459.6	460.6	479.3	504.9	544.3	558.0
12.5°	591.5	589.5	597.4	587.6	589.5	600.4	589.5	584.6	599.4	612.2	598.4
15°	648.6	647.6	650.6	652.5	691.9	708.6	691.9	677.1	666.3	655.5	678.1
17.5°	687.9	683.0	684.0	702.7	747.0	793.3	784.4	764.7	740.1	754.9	773.6
20°	709.6	700.7	706.6	714.5	789.3	840.5	846.4	819.8	805.1	823.8	839.5
22.5°	730.3	716.5	695.8	703.7	772.6	846.4	874.9	868.1	878.9	884.8	881.8
25°	705.7	714.5	691.9	714.5	784.4	852.3	909.4	949.7	950.7	947.8	969.4
27.5°	690.9	684.0	645.6	703.7	761.8	804.1	949.7	1017.7	1038.3	975.3	1017.7
30°	665.3	676.1	624.0	672.2	746.0	816.9	996.0	1093.4	1062.9	1055.1	1064.9
32.5°	649.6	642.7	618.1	644.6	700.7	855.3	1025.5	1137.7	1176.1	1157.4	1155.4
35°	624.0	628.9	590.5	619.1	697.8	822.8	1045.2	1248.9	1308.0	1293.2	1281.4
37.5°	627.9	611.2	583.6	604.3	679.1	840.5	1094.4	1356.2	1449.7	1457.6	1403.5
40°	598.4	588.5	547.2	581.7	643.7	829.7	1106.2	1478.3	1636.7	1672.1	1594.4
42.5°	556.1	543.3	519.7	558.0	623.0	776.5	1123.0	1624.9	1826.7	1900.5	1829.6
45°	495.0	478.3	466.5	517.7	577.7	762.7	1105.2	1746.9	2008.7	2110.1	2108.1
47.5°	421.2	410.4	404.5	458.6	540.3	728.3	1068.8	1823.7	2135.7	2395.5	2356.2
50°	337.6	329.7	328.7	385.8	477.3	657.4	1027.5	1862.1	2328.6	2657.3	2691.8
52.5°	270.7	264.7	263.8	310.0	399.6	562.0	940.9	1891.6	2512.6	2954.5	3131.7
55°	211.6	205.7	206.7	245.1	317.9	459.6	809.0	1858.2	2674.0	3258.7	3594.3
57.5°	173.2	167.3	168.3	189.9	243.1	351.4	644.6	1785.3	2746.9	3634.6	4133.6
60°	152.5	146.6	143.7	153.5	187.0	264.7	479.3	1501.9	2758.7	3946.6	4719.2
62.5°	141.7	135.8	132.9	135.8	154.5	202.7	345.5	1189.9	2690.8	4213.3	5255.6
65°	131.9	127.0	123.0	126.0	135.8	161.4	252.0	814.9	2335.5	4335.4	5645.3
67.5°	121.1	117.1	113.2	117.1	124.0	135.8	195.9	515.7	1750.9	4176.9	5807.7
69°	115.2	109.2	107.3	110.2	117.1	125.0	169.3	411.4	1331.6	3875.7	5709.3
70°	109.2	105.3	102.4	107.3	113.2	119.1	152.5	349.4	1044.2	3489.0	5465.2
72.5°	96.5	93.5	91.5	96.5	101.4	105.3	125.0	249.0	605.3	2375.8	4334.4
75°	84.6	81.7	80.7	84.6	88.6	90.5	105.3	171.2	357.3	1243.0	2600.2
77.5°	70.9	66.9	67.9	72.8	75.8	76.8	88.6	123.0	210.6	563.0	1204.7
80°	52.2	52.2	56.1	60.0	60.0	60.0	70.9	89.6	127.9	258.8	500.0
82.5°	36.4	37.4	38.4	44.3	45.3	41.3	54.1	65.0	79.7	113.2	173.2
85°	20.7	21.7	22.6	26.6	27.6	24.6	35.4	41.3	46.3	56.1	90.5
87.5°	7.9	8.9	11.8	13.8	14.8	10.8	16.7	19.7	19.7	23.6	40.4
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°	334.6	334.6	334.6	334.6	334.6	334.6	334.6	334.6	334.6	334.6	334.6
2.5°	355.3	362.2	375.0	377.9	367.1	355.3	328.7	345.5	352.3	339.5	343.5
5°	439.9	454.7	470.4	451.7	439.9	432.1	419.3	420.2	413.4	390.7	353.3
7.5°	535.4	518.7	530.5	543.3	524.6	525.6	537.4	512.8	494.1	455.7	385.8
10°	579.7	579.7	582.6	582.6	574.8	574.8	573.8	534.4	511.8	495.0	475.4
12.5°	582.6	581.7	593.5	584.6	586.6	588.5	593.5	611.2	605.3	583.6	601.3
15°	664.3	660.4	664.3	663.3	666.3	675.2	671.2	667.3	668.3	684.0	710.6
17.5°	741.1	743.1	739.1	746.0	746.0	751.9	765.7	751.9	740.1	769.6	790.3
20°	829.7	822.8	807.0	818.8	821.8	822.8	845.4	828.7	812.0	822.8	847.4
22.5°	919.2	918.3	920.2	921.2	925.1	910.4	879.9	874.9	885.8	871.0	874.0
25°	974.3	975.3	980.3	981.2	964.5	980.3	991.1	958.6	958.6	955.6	936.0
27.5°	1041.3	1026.5	1032.4	1040.3	1033.4	1037.3	1024.5	977.3	1027.5	1034.4	955.6
30°	1086.5	1079.7	1072.8	1080.6	1087.5	1105.2	1068.8	1063.9	1067.8	1104.3	1000.9
32.5°	1182.0	1191.9	1179.1	1166.3	1179.1	1175.1	1159.4	1152.5	1201.7	1153.5	1032.4
35°	1270.6	1274.5	1275.5	1273.5	1281.4	1267.6	1267.6	1293.2	1308.0	1255.8	1042.3
37.5°	1484.2	1470.4	1441.8	1428.1	1452.7	1473.3	1412.3	1442.8	1436.9	1348.3	1116.1
40°	1637.7	1669.2	1678.0	1674.1	1678.0	1619.0	1631.8	1654.4	1627.9	1481.2	1090.5
42.5°	1862.1	1881.8	1874.9	1866.0	1870.0	1859.1	1820.8	1904.4	1808.9	1629.8	1129.9
45°	2066.8	2111.1	2114.0	2083.5	2108.1	2069.8	2085.5	2115.0	2018.6	1741.0	1119.0
47.5°	2310.9	2402.4	2368.0	2368.0	2392.6	2309.9	2347.3	2386.7	2130.8	1815.8	1060.0
50°	2672.1	2721.3	2719.3	2710.5	2721.3	2677.0	2671.1	2666.2	2303.0	1886.7	1023.6
52.5°	3080.5	3147.4	3121.9	3131.7	3146.5	3062.8	3128.7	2948.6	2518.5	1913.3	940.9
55°	3602.1	3648.4	3622.8	3572.6	3639.5	3586.4	3608.0	3256.7	2668.1	1837.5	803.1
57.5°	4223.2	4246.8	4204.5	4199.5	4243.8	4186.8	4150.3	3603.1	2745.9	1780.4	641.7
60°	4948.5	5022.3	4995.8	4953.4	4993.8	4943.6	4668.0	3897.4	2730.1	1513.7	497.0
62.5°	5818.5	5893.3	5863.8	5835.3	5860.9	5730.0	5154.2	4129.7	2659.3	1199.7	363.2
65°	6537.0	6874.6	6918.9	6919.9	6795.8	6492.7	5542.0	4220.2	2285.3	837.5	265.7
67.5°	7009.4	7711.1	7929.6	7850.9	7566.5	6874.6	5698.5	4043.1	1764.7	529.5	198.8
69°	6955.3	7875.5	8191.4	8147.1	7747.6	6868.7	5576.4	3744.8	1348.3	421.2	168.3
70°	6705.3	7740.7	8115.6	8135.3	7632.4	6604.9	5358.9	3402.3	1090.5	359.2	154.5
72.5°	5351.0	6378.5	6708.2	6837.2	6338.2	5289.0	4394.4	2400.4	631.9	251.0	125.0
75°	3314.8	3867.9	4141.5	4216.3	3914.1	3294.1	2667.2	1335.5	384.8	177.2	105.3
77.5°	1486.1	1646.6	1804.0	1804.0	1685.9	1503.8	1222.4	645.6	218.5	126.0	88.6
80°	498.0	516.7	502.9	507.8	488.2	469.5	491.1	278.5	134.8	94.5	71.8
82.5°	338.6	425.2	451.7	451.7	424.2	334.6	189.0	127.9	82.7	67.9	55.1
85°	275.6	336.6	361.2	372.0	350.4	282.5	99.4	62.0	49.2	43.3	37.4
87.5°	92.5	86.6	81.7	79.7	83.7	87.6	49.2	26.6	22.6	20.7	19.7
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):

	135°	145°	155°	165°	175°	180°
0°	334.6	334.6	334.6	334.6	334.6	334.6
2.5°	350.4	338.6	343.5	348.4	383.8	410.4
5°	348.4	365.1	402.5	449.8	471.4	524.6
7.5°	358.2	419.3	489.1	538.4	558.0	574.8
10°	479.3	490.1	513.7	561.0	600.4	607.2
12.5°	619.1	616.1	599.4	621.0	601.3	615.1
15°	728.3	695.8	673.2	670.2	663.3	663.3
17.5°	788.3	759.8	728.3	720.4	699.8	716.5
20°	859.2	810.0	731.3	723.4	716.5	700.7
22.5°	845.4	796.2	714.5	704.7	741.1	739.1
25°	862.2	796.2	718.5	707.6	724.4	724.4
27.5°	820.8	766.7	710.6	645.6	696.8	708.6
30°	810.0	749.0	684.0	625.9	678.1	667.3
32.5°	867.1	704.7	640.7	623.0	661.4	653.5
35°	822.8	696.8	629.9	597.4	642.7	634.8
37.5°	841.5	687.0	611.2	583.6	620.0	631.9
40°	837.5	640.7	589.5	554.1	590.5	596.4
42.5°	771.6	605.3	553.1	517.7	536.4	556.1
45°	751.9	583.6	517.7	468.5	469.5	492.1
47.5°	715.5	534.4	452.7	407.5	407.5	426.2
50°	654.5	468.5	378.9	337.6	336.6	351.4
52.5°	563.9	404.5	319.9	274.6	271.6	286.4
55°	461.6	325.8	252.0	222.4	216.5	222.4
57.5°	359.2	253.9	198.8	175.2	174.2	179.1
60°	278.5	198.8	158.5	144.7	146.6	154.5
62.5°	210.6	158.5	134.8	129.9	132.9	140.7
65°	167.3	136.8	123.0	120.1	123.0	130.9
67.5°	135.8	124.0	114.2	110.2	112.2	120.1
69°	125.0	117.1	109.2	104.3	106.3	112.2
70°	119.1	113.2	105.3	100.4	102.4	108.3
72.5°	104.3	101.4	95.5	90.5	91.5	96.5
75°	91.5	89.6	85.6	79.7	79.7	85.6
77.5°	76.8	77.8	73.8	67.9	66.9	69.9
80°	61.0	63.0	61.0	55.1	53.1	53.1
82.5°	44.3	48.2	46.3	40.4	39.4	39.4
85°	27.6	30.5	29.5	25.6	25.6	22.6
87.5°	12.8	16.7	15.7	13.8	12.8	8.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)