

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: P565273

Luminaire Tested: **MSA-SA2A-727-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565273
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-727-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: 6010 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B3 - U0 - G3

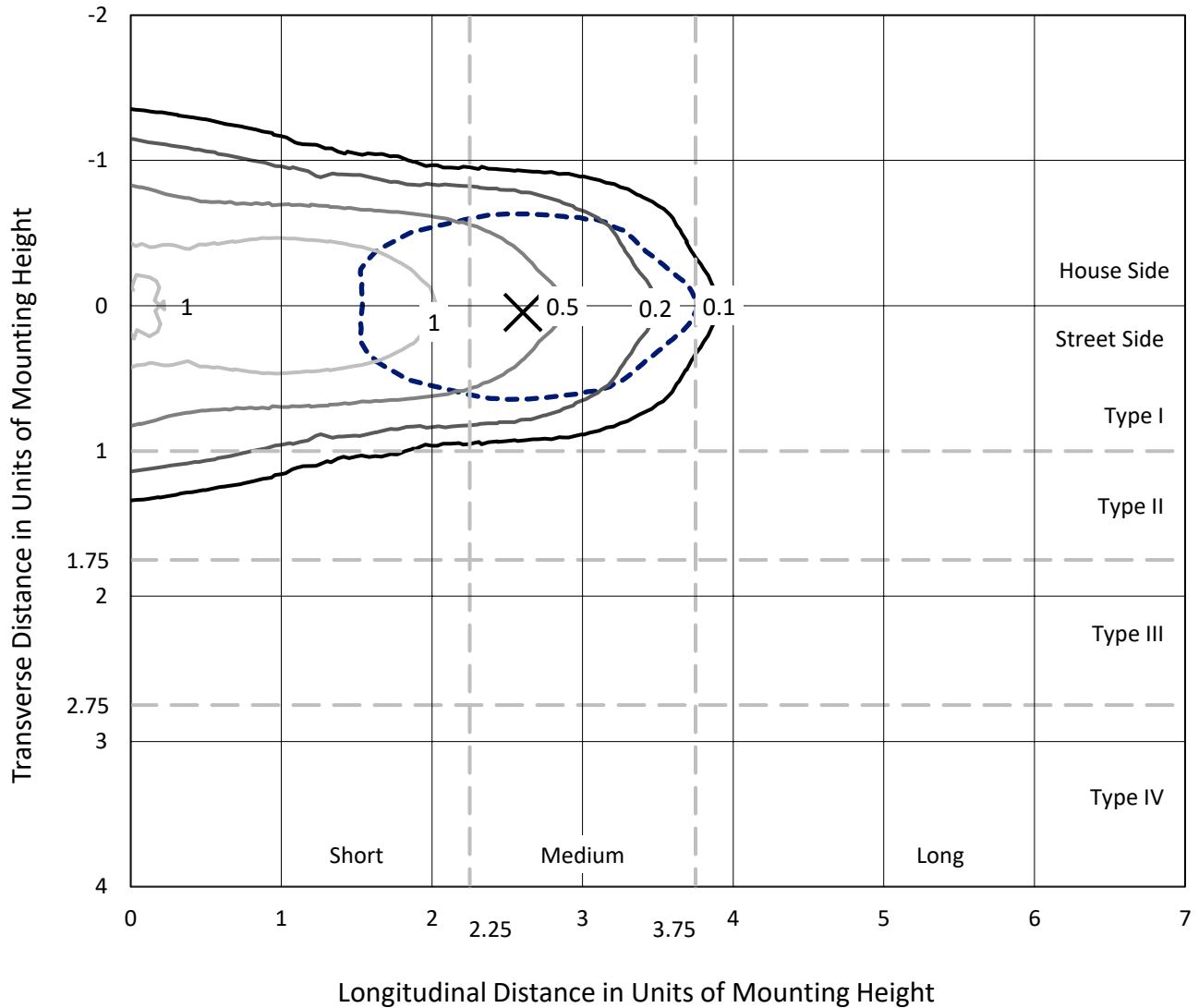
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

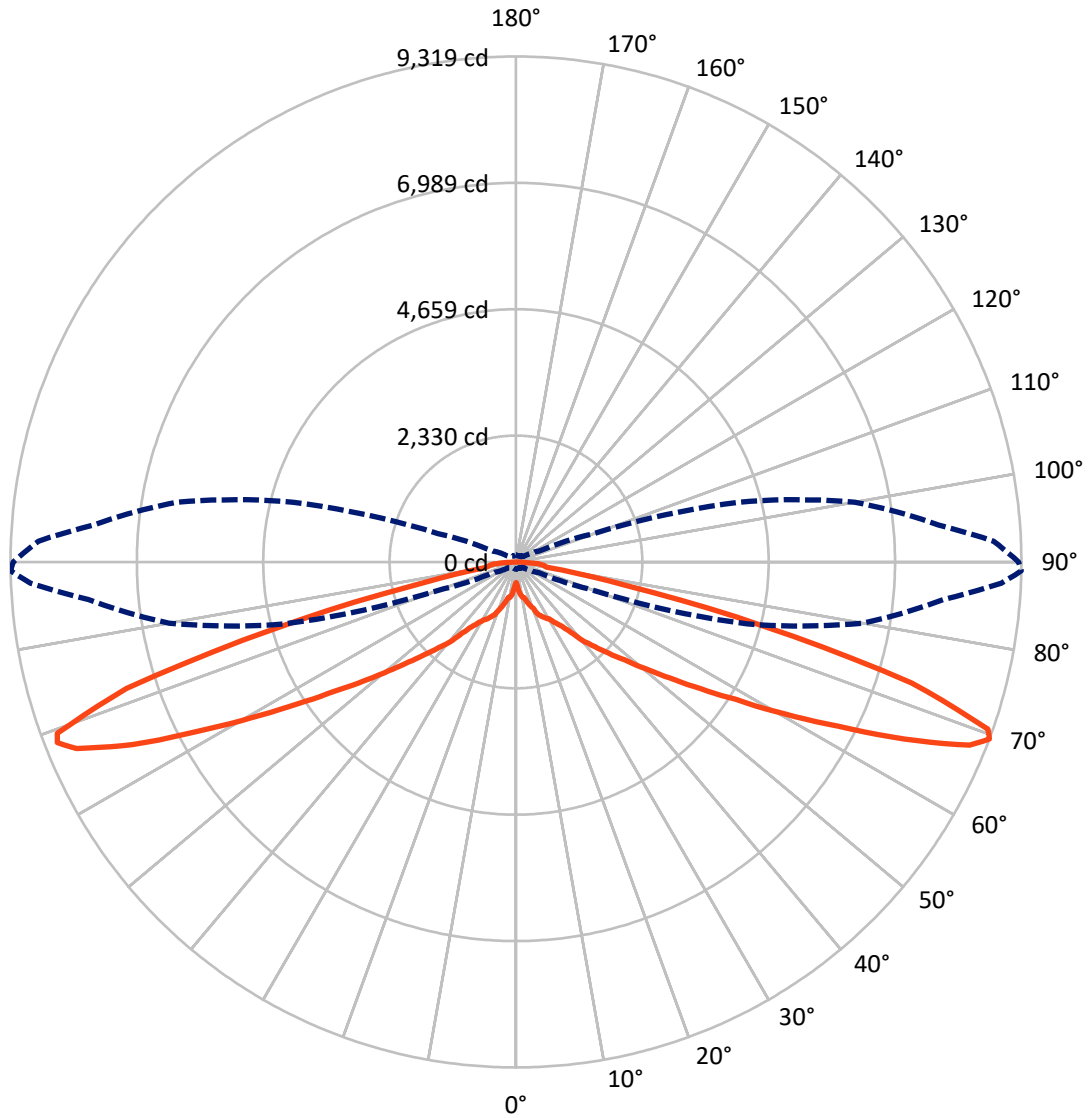
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 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	3005.0	0.0	3005.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3005.1	0.0	3005.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	6010.0	0.0	6010.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.8	0.8
10°-20°	220.4	3.7
20°-30°	439.7	7.3
30°-40°	665.0	11.1
40°-50°	965.3	16.1
50°-60°	1268.2	21.1
60°-70°	1547.0	25.7
70°-80°	782.1	13.0
80°-90°	74.6	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°	6010.0	100.0
0°-180°	6010.0	100.0

Coefficient of Utilization

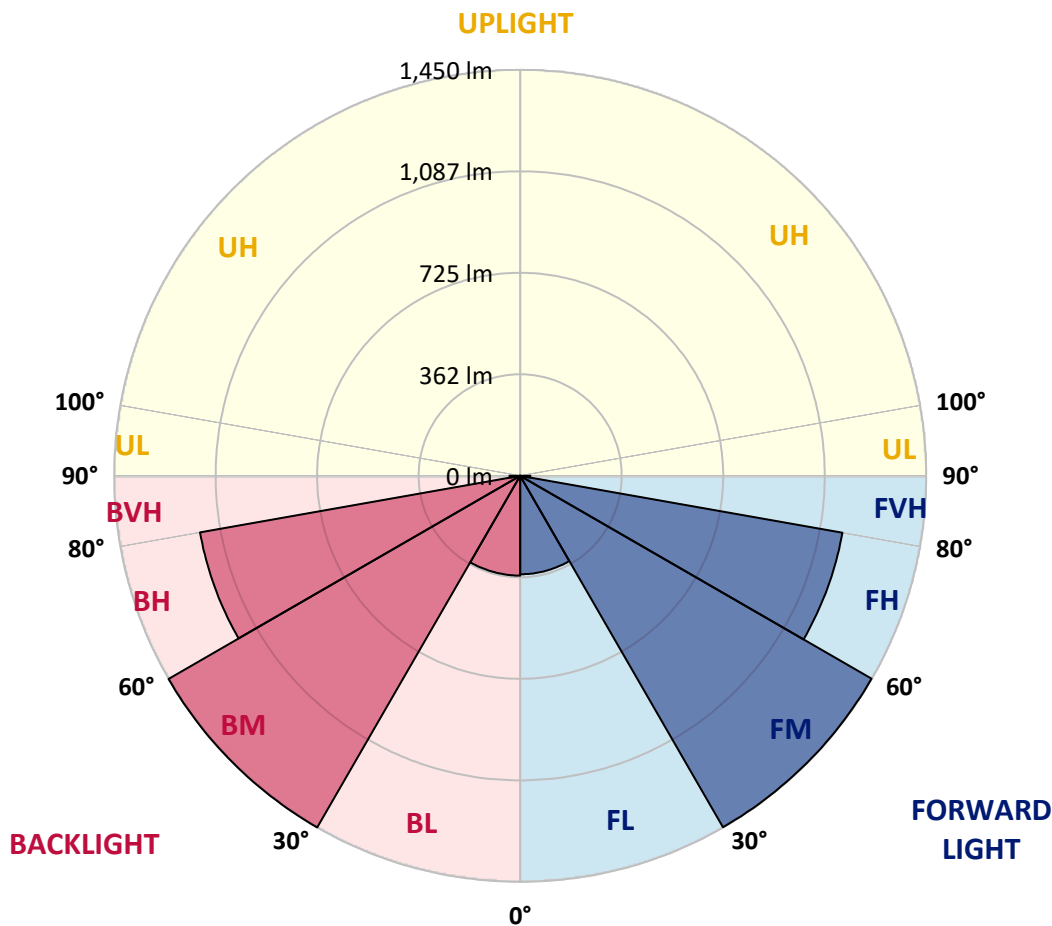


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	351.5	5.8			
FM (30°-60°)	1448.7	24.1			
FH (60°-80°)	1168.3	19.4			G1/1800
FVH (80°-90°)	36.6	0.6			G1/100
BL (0°-30°)	356.4	5.9	B1/500		
BM (30°-60°)	1449.7	24.1	B2/2500		
BH (60°-80°)	1160.8	19.3	B3/2500		G3/2500
BVH (80°-90°)	38.0	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	380.7	380.7	380.7	380.7	380.7	380.7	380.7	380.7	380.7	380.7	380.7
2.5°	446.7	395.2	390.7	378.4	387.4	390.7	382.9	371.7	384.0	390.7	378.4
5°	563.2	487.0	461.3	440.0	397.5	379.6	397.5	443.4	449.0	477.0	469.1
7.5°	620.3	608.0	575.5	505.0	436.7	398.6	446.7	512.8	546.4	573.2	601.2
10°	662.8	656.1	599.0	548.6	520.6	522.9	524.0	545.3	574.4	619.2	634.8
12.5°	672.9	670.7	679.6	668.4	670.7	683.0	670.7	665.1	681.9	696.4	680.7
15°	737.8	736.7	740.1	742.3	787.1	806.1	787.1	770.3	758.0	745.7	771.4
17.5°	782.6	777.0	778.1	799.4	849.8	902.4	892.3	870.0	842.0	858.8	880.0
20°	807.3	797.2	803.9	812.8	897.9	956.2	962.9	932.6	915.9	937.1	955.0
22.5°	830.8	815.1	791.6	800.5	878.9	962.9	995.3	987.5	999.8	1006.5	1003.2
25°	802.8	812.8	787.1	812.8	892.3	969.6	1034.5	1080.4	1081.6	1078.2	1102.8
27.5°	786.0	778.1	734.5	800.5	866.6	914.7	1080.4	1157.7	1181.2	1109.6	1157.7
30°	756.9	769.2	709.8	764.7	848.7	929.3	1133.1	1243.9	1209.2	1200.2	1211.4
32.5°	739.0	731.1	703.1	733.4	797.2	973.0	1166.7	1294.3	1338.0	1316.7	1314.4
35°	709.8	715.4	671.8	704.2	793.8	936.0	1189.0	1420.8	1488.0	1471.2	1457.8
37.5°	714.3	695.3	663.9	687.5	772.5	956.2	1245.0	1542.8	1649.2	1658.2	1596.6
40°	680.7	669.5	622.5	661.7	732.2	943.8	1258.5	1681.7	1861.9	1902.2	1813.8
42.5°	632.6	618.0	591.2	634.8	708.7	883.4	1277.5	1848.5	2078.0	2162.0	2081.4
45°	563.2	544.1	530.7	588.9	657.2	867.7	1257.3	1987.3	2285.2	2400.5	2398.2
47.5°	479.2	466.9	460.2	521.7	614.7	828.5	1215.9	2074.7	2429.6	2725.2	2680.4
50°	384.0	375.1	374.0	438.9	543.0	747.9	1168.9	2118.3	2649.0	3023.0	3062.2
52.5°	307.9	301.2	300.1	352.7	454.6	639.3	1070.4	2151.9	2858.4	3361.1	3562.7
55°	240.7	234.0	235.1	278.8	361.6	522.9	920.3	2113.9	3042.0	3707.1	4088.9
57.5°	197.1	190.3	191.5	216.1	276.5	399.7	733.4	2031.0	3124.9	4134.8	4702.4
60°	173.5	166.8	163.5	174.7	212.7	301.2	545.3	1708.6	3138.3	4489.7	5368.6
62.5°	161.2	154.5	151.1	154.5	175.8	230.6	393.0	1353.6	3061.1	4793.1	5978.8
65°	150.0	144.4	140.0	143.3	154.5	183.6	286.6	927.1	2656.9	4932.0	6422.2
67.5°	137.7	133.2	128.8	133.2	141.1	154.5	222.8	586.7	1991.8	4751.7	6606.9
69°	131.0	124.3	122.0	125.4	133.2	142.2	192.6	468.0	1514.9	4409.1	6495.0
70°	124.3	119.8	116.4	122.0	128.8	135.5	173.5	397.5	1187.9	3969.1	6217.3
72.5°	109.7	106.4	104.1	109.7	115.3	119.8	142.2	283.3	688.6	2702.8	4930.8
75°	96.3	92.9	91.8	96.3	100.8	103.0	119.8	194.8	406.4	1414.1	2958.1
77.5°	80.6	76.1	77.3	82.9	86.2	87.3	100.8	140.0	239.6	640.4	1370.4
80°	59.3	59.3	63.8	68.3	68.3	68.3	80.6	101.9	145.6	294.5	568.8
82.5°	41.4	42.5	43.7	50.4	51.5	47.0	61.6	73.9	90.7	128.8	197.1
85°	23.5	24.6	25.8	30.2	31.3	28.0	40.3	47.0	52.6	63.8	103.0
87.5°	9.0	10.1	13.4	15.7	16.8	12.3	19.0	22.4	22.4	26.9	45.9
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°	380.7	380.7	380.7	380.7	380.7	380.7	380.7	380.7	380.7	380.7	380.7
2.5°	404.2	412.0	426.6	429.9	417.6	404.2	374.0	393.0	400.8	386.3	390.7
5°	500.5	517.3	535.2	513.9	500.5	491.5	477.0	478.1	470.2	444.5	401.9
7.5°	609.1	590.0	603.5	618.0	596.8	597.9	611.3	583.3	562.1	518.4	438.9
10°	659.5	659.5	662.8	662.8	653.9	653.9	652.7	608.0	582.2	563.2	540.8
12.5°	662.8	661.7	675.1	665.1	667.3	669.5	675.1	695.3	688.6	663.9	684.1
15°	755.7	751.3	755.7	754.6	758.0	768.1	763.6	759.1	760.2	778.1	808.4
17.5°	843.1	845.3	840.8	848.7	848.7	855.4	871.1	855.4	842.0	875.5	899.1
20°	943.8	936.0	918.1	931.5	934.9	936.0	961.8	942.7	923.7	936.0	964.0
22.5°	1045.7	1044.6	1046.9	1048.0	1052.4	1035.7	1000.9	995.3	1007.7	990.9	994.2
25°	1108.4	1109.6	1115.1	1116.3	1097.2	1115.1	1127.5	1090.5	1090.5	1087.2	1064.8
27.5°	1184.6	1167.8	1174.5	1183.4	1175.6	1180.1	1165.5	1111.8	1168.9	1176.7	1087.2
30°	1236.1	1228.2	1220.4	1229.4	1237.2	1257.3	1215.9	1210.3	1214.8	1256.2	1138.7
32.5°	1344.7	1355.9	1341.3	1326.8	1341.3	1336.8	1318.9	1311.1	1367.1	1312.2	1174.5
35°	1445.4	1449.9	1451.0	1448.8	1457.8	1442.1	1442.1	1471.2	1488.0	1428.6	1185.7
37.5°	1688.4	1672.7	1640.3	1624.6	1652.6	1676.1	1606.7	1641.4	1634.7	1533.9	1269.7
40°	1863.1	1898.9	1909.0	1904.5	1909.0	1841.8	1856.3	1882.1	1851.9	1685.0	1240.5
42.5°	2118.3	2140.7	2132.9	2122.8	2127.3	2115.0	2071.3	2166.5	2057.9	1854.1	1285.3
45°	2351.2	2401.6	2405.0	2370.3	2398.2	2354.6	2372.5	2406.1	2296.4	1980.6	1273.0
47.5°	2628.9	2733.0	2693.8	2693.8	2721.8	2627.8	2670.3	2715.1	2424.0	2065.7	1205.8
50°	3039.8	3095.8	3093.5	3083.5	3095.8	3045.4	3038.7	3033.1	2619.9	2146.3	1164.4
52.5°	3504.4	3580.6	3551.5	3562.7	3579.4	3484.3	3559.3	3354.4	2865.1	2176.6	1070.4
55°	4097.8	4150.5	4121.3	4064.2	4140.4	4079.9	4104.6	3704.8	3035.3	2090.3	913.6
57.5°	4804.3	4831.2	4783.0	4777.4	4827.8	4762.9	4721.5	4099.0	3123.8	2025.4	730.0
60°	5629.5	5713.5	5683.2	5635.1	5681.0	5623.9	5310.4	4433.7	3105.8	1722.0	565.4
62.5°	6619.2	6704.3	6670.7	6638.3	6667.4	6518.5	5863.5	4698.0	3025.2	1364.8	413.1
65°	7436.6	7820.6	7871.0	7872.1	7731.0	7386.2	6304.6	4801.0	2599.8	952.8	302.3
67.5°	7974.0	8772.3	9020.8	8931.3	8607.7	7820.6	6482.6	4599.4	2007.5	602.4	226.2
69°	7912.4	8959.3	9318.7	9268.3	8813.7	7813.9	6343.8	4260.2	1533.9	479.2	191.5
70°	7628.0	8805.9	9232.4	9254.8	8682.7	7513.8	6096.4	3870.6	1240.5	408.7	175.8
72.5°	6087.4	7256.3	7631.4	7778.1	7210.4	6016.9	4999.1	2730.8	718.8	285.5	142.2
75°	3770.9	4400.1	4711.4	4796.5	4452.8	3747.4	3034.2	1519.3	437.8	201.5	119.8
77.5°	1690.6	1873.1	2052.3	2052.3	1917.9	1710.8	1390.6	734.5	248.6	143.3	100.8
80°	566.5	587.8	572.1	577.7	555.3	534.1	558.7	316.9	153.4	107.5	81.7
82.5°	385.2	483.7	513.9	513.9	482.6	380.7	215.0	145.6	94.0	77.3	62.7
85°	313.5	382.9	410.9	423.2	398.6	321.3	113.1	70.5	56.0	49.3	42.5
87.5°	105.2	98.5	92.9	90.7	95.2	99.6	56.0	30.2	25.8	23.5	22.4
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°	380.7	380.7	380.7	380.7	380.7	380.7
2.5°	398.6	385.2	390.7	396.3	436.7	466.9
5°	396.3	415.4	457.9	511.7	536.3	596.8
7.5°	407.5	477.0	556.5	612.4	634.8	653.9
10°	545.3	557.6	584.4	638.2	683.0	690.8
12.5°	704.2	700.9	681.9	706.5	684.1	699.8
15°	828.5	791.6	765.8	762.5	754.6	754.6
17.5°	896.8	864.4	828.5	819.6	796.1	815.1
20°	977.4	921.5	831.9	822.9	815.1	797.2
22.5°	961.8	905.8	812.8	801.7	843.1	840.8
25°	980.8	905.8	817.3	805.0	824.0	824.0
27.5°	933.8	872.2	808.4	734.5	792.7	806.1
30°	921.5	852.0	778.1	712.1	771.4	759.1
32.5°	986.4	801.7	728.9	708.7	752.4	743.4
35°	936.0	792.7	716.6	679.6	731.1	722.2
37.5°	957.3	781.5	695.3	663.9	705.4	718.8
40°	952.8	728.9	670.7	630.4	671.8	678.5
42.5°	877.8	688.6	629.2	588.9	610.2	632.6
45°	855.4	663.9	588.9	532.9	534.1	559.8
47.5°	814.0	608.0	515.0	463.5	463.5	484.8
50°	744.6	532.9	431.1	384.0	382.9	399.7
52.5°	641.5	460.2	363.9	312.4	309.0	325.8
55°	525.1	370.6	286.6	253.0	246.3	253.0
57.5°	408.7	288.9	226.2	199.3	198.2	203.8
60°	316.9	226.2	180.3	164.6	166.8	175.8
62.5°	239.6	180.3	153.4	147.8	151.1	160.1
65°	190.3	155.6	140.0	136.6	140.0	148.9
67.5°	154.5	141.1	129.9	125.4	127.6	136.6
69°	142.2	133.2	124.3	118.7	120.9	127.6
70°	135.5	128.8	119.8	114.2	116.4	123.2
72.5°	118.7	115.3	108.6	103.0	104.1	109.7
75°	104.1	101.9	97.4	90.7	90.7	97.4
77.5°	87.3	88.5	84.0	77.3	76.1	79.5
80°	69.4	71.7	69.4	62.7	60.5	60.5
82.5°	50.4	54.9	52.6	45.9	44.8	44.8
85°	31.3	34.7	33.6	29.1	29.1	25.8
87.5°	14.6	19.0	17.9	15.7	14.6	10.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)