

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: P565336

Luminaire Tested: **MSA-SA2A-835-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565336
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-835-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: 5925 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B3 - U0 - G3

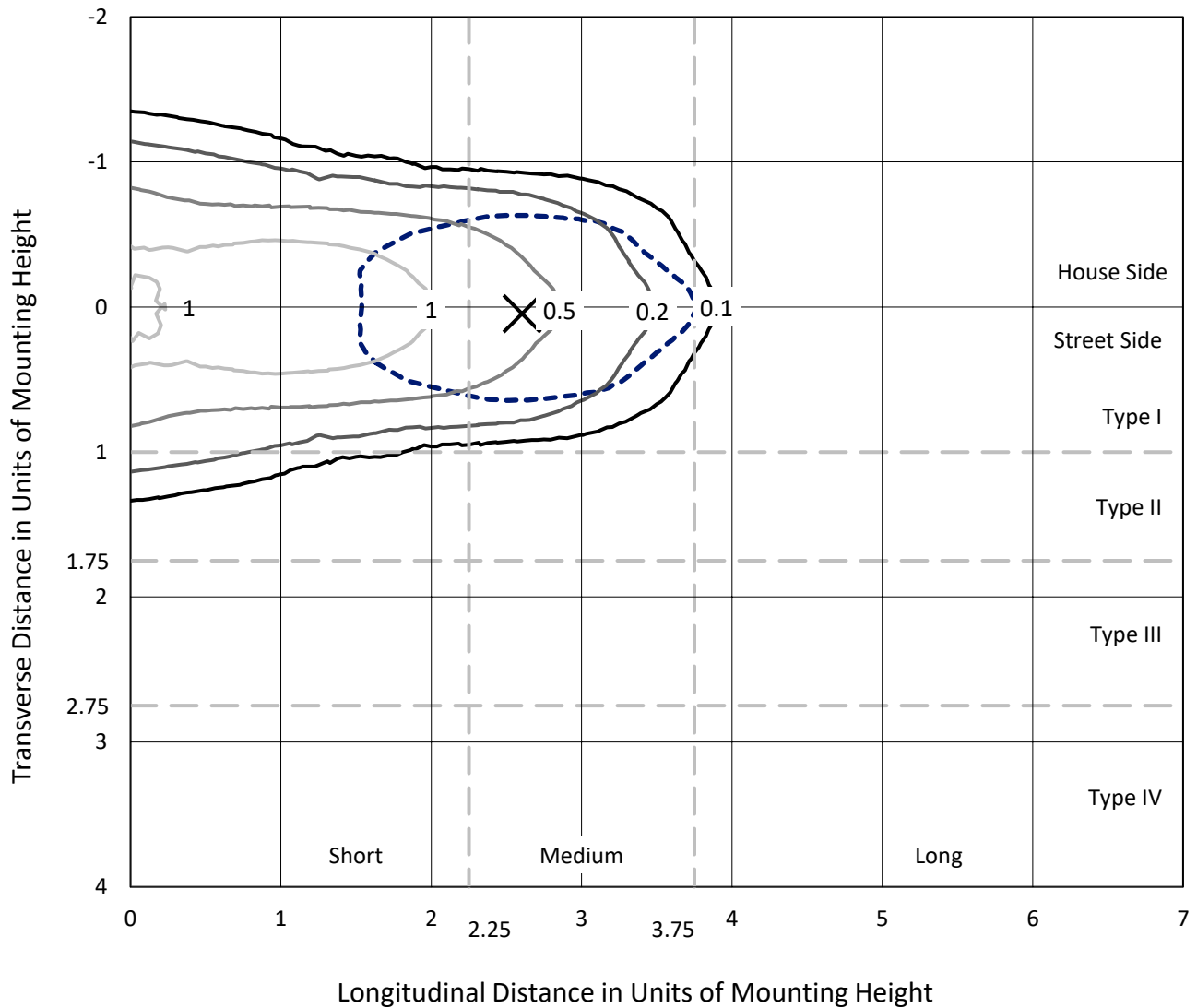
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

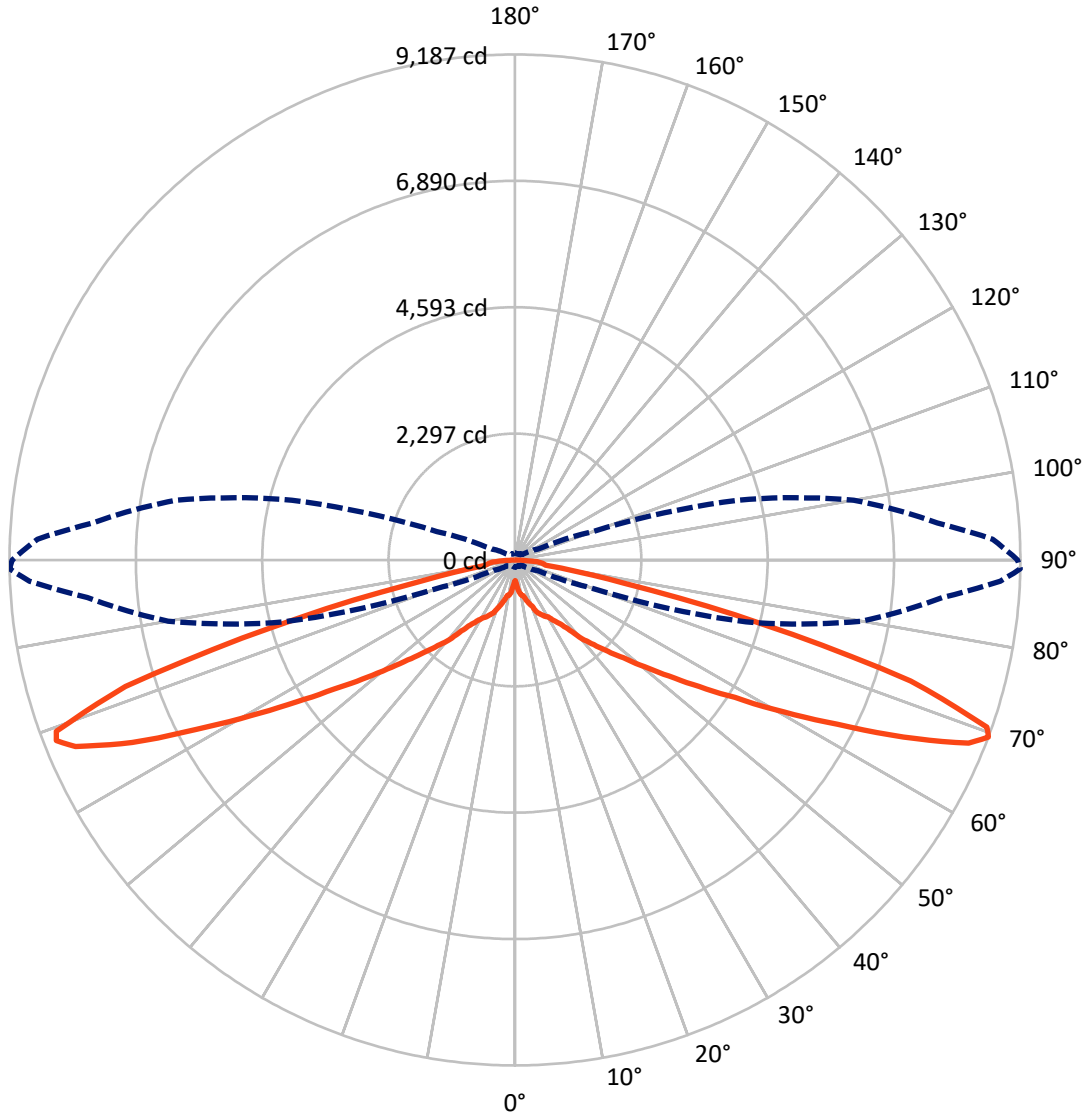
× Max cd
 - - - 1/2 Max cd



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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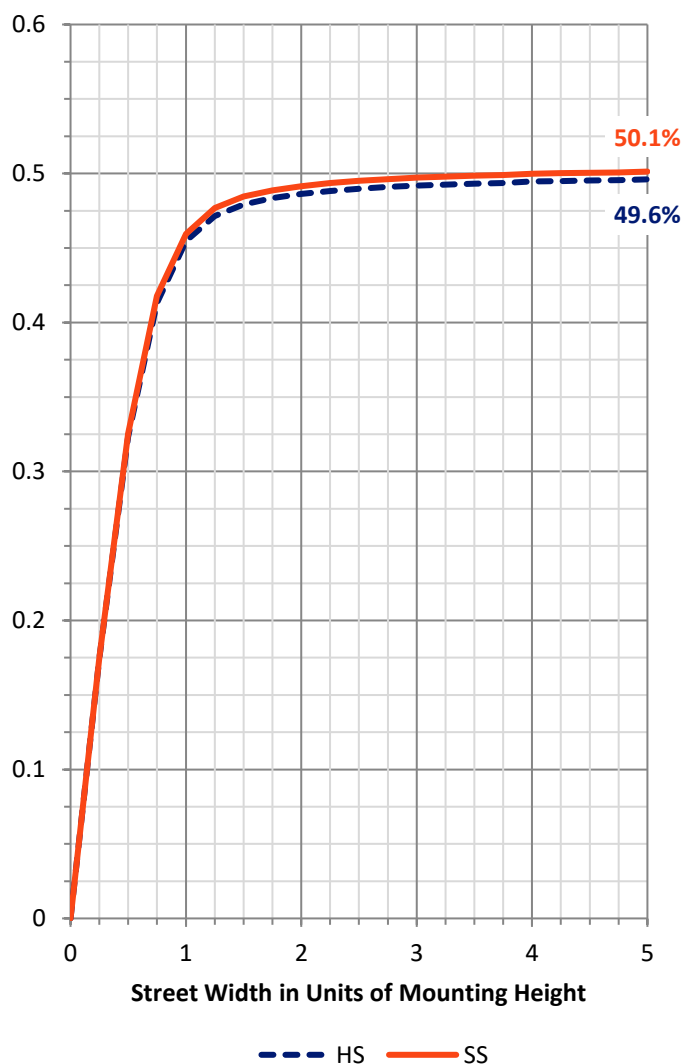
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2962.5	0.0	2962.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2962.6	0.0	2962.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	5925.0	0.0	5925.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.2	0.8
10°-20°	217.3	3.7
20°-30°	433.5	7.3
30°-40°	655.6	11.1
40°-50°	951.6	16.1
50°-60°	1250.3	21.1
60°-70°	1525.1	25.7
70°-80°	771.1	13.0
80°-90°	73.5	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°	5925.0	100.0
0°-180°	5925.0	100.0

Coefficient of Utilization

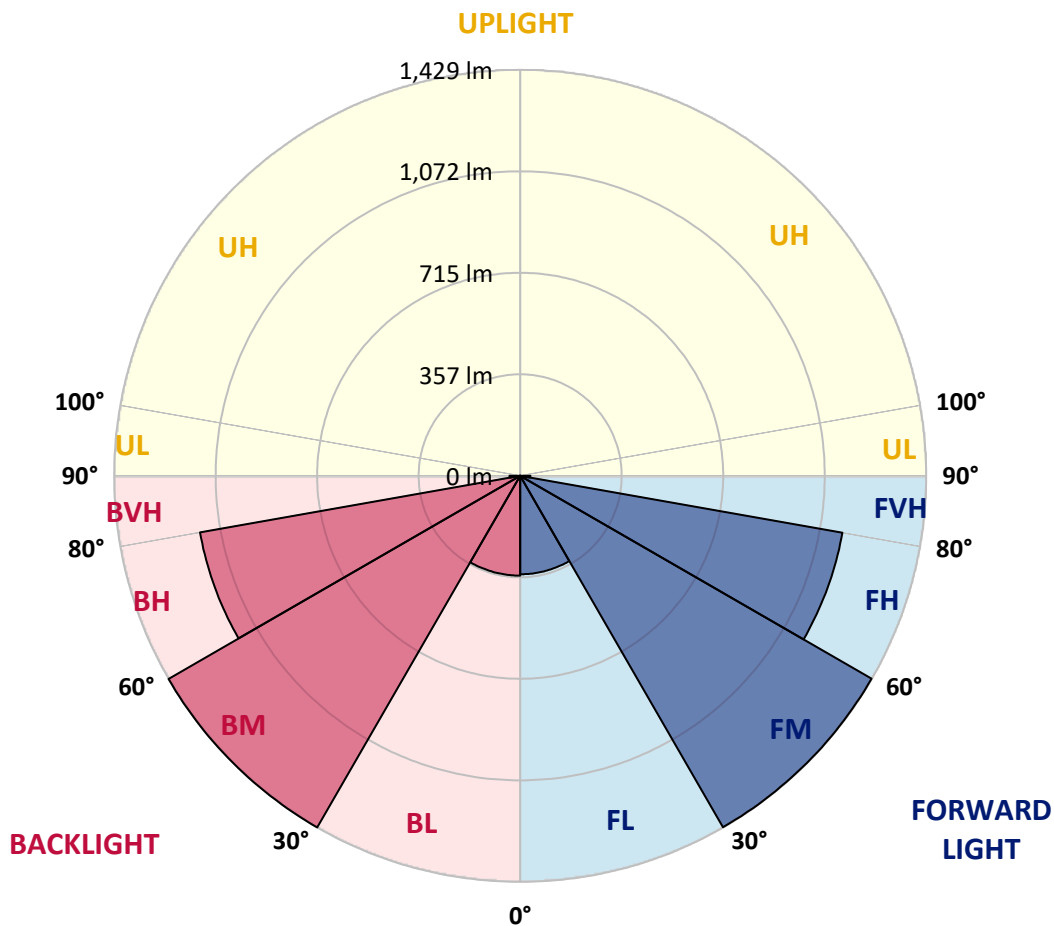


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	346.5	5.8			
FM (30°-60°)	1428.2	24.1			
FH (60°-80°)	1151.8	19.4			G1/1800
FVH (80°-90°)	36.0	0.6			G1/100
BL (0°-30°)	351.4	5.9	B1/500		
BM (30°-60°)	1429.2	24.1	B2/2500		
BH (60°-80°)	1144.4	19.3	B3/2500		G3/2500
BVH (80°-90°)	37.5	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°	375.3	375.3	375.3	375.3	375.3	375.3	375.3	375.3	375.3	375.3	375.3
2.5°	440.4	389.6	385.2	373.1	381.9	385.2	377.5	366.5	378.6	385.2	373.1
5°	555.2	480.1	454.8	433.8	391.8	374.2	391.8	437.1	442.6	470.2	462.5
7.5°	611.5	599.4	567.3	497.8	430.5	393.0	440.4	505.5	538.7	565.1	592.7
10°	653.4	646.8	590.5	540.9	513.3	515.5	516.6	537.5	566.2	610.4	625.9
12.5°	663.4	661.2	670.0	659.0	661.2	673.3	661.2	655.7	672.2	686.6	671.1
15°	727.4	726.3	729.6	731.8	776.0	794.7	776.0	759.4	747.3	735.1	760.5
17.5°	771.6	766.0	767.1	788.1	837.8	889.7	879.7	857.6	830.1	846.6	867.6
20°	795.8	785.9	792.5	801.4	885.2	942.6	949.3	919.5	902.9	923.9	941.5
22.5°	819.0	803.6	780.4	789.2	866.5	949.3	981.3	973.5	985.7	992.3	989.0
25°	791.4	801.4	776.0	801.4	879.7	955.9	1019.9	1065.2	1066.3	1063.0	1087.2
27.5°	774.9	767.1	724.1	789.2	854.3	901.8	1065.2	1141.3	1164.5	1093.9	1141.3
30°	746.2	758.3	699.8	753.9	836.7	916.1	1117.0	1226.3	1192.1	1183.3	1194.3
32.5°	728.5	720.8	693.2	723.0	785.9	959.2	1150.2	1276.0	1319.0	1298.1	1295.9
35°	699.8	705.3	662.3	694.3	782.6	922.8	1172.2	1400.7	1466.9	1450.4	1437.1
37.5°	704.2	685.5	654.5	677.7	761.6	942.6	1227.4	1521.0	1625.9	1634.7	1574.0
40°	671.1	660.1	613.7	652.3	721.9	930.5	1240.7	1657.9	1835.6	1875.3	1788.1
42.5°	623.6	609.3	582.8	625.9	698.7	870.9	1259.4	1822.4	2048.6	2131.4	2051.9
45°	555.2	536.4	523.2	580.6	647.9	855.4	1239.6	1959.2	2252.8	2366.5	2364.3
47.5°	472.4	460.3	453.7	514.4	606.0	816.8	1198.7	2045.3	2395.2	2686.6	2642.5
50°	378.6	369.8	368.7	432.7	535.3	737.3	1152.4	2088.4	2611.6	2980.2	3018.9
52.5°	303.5	296.9	295.8	347.7	448.1	630.3	1055.2	2121.5	2818.0	3313.6	3512.3
55°	237.3	230.7	231.8	274.8	356.5	515.5	907.3	2084.0	2999.0	3654.7	4031.0
57.5°	194.3	187.6	188.7	213.0	272.6	394.1	723.0	2002.3	3080.7	4076.3	4635.9
60°	171.1	164.5	161.2	172.2	209.7	296.9	537.5	1684.4	3093.9	4426.2	5292.7
62.5°	158.9	152.3	149.0	152.3	173.3	227.4	387.4	1334.5	3017.8	4725.3	5894.3
65°	147.9	142.4	138.0	141.3	152.3	181.0	282.6	913.9	2619.3	4862.2	6331.4
67.5°	135.8	131.4	126.9	131.4	139.1	152.3	219.7	578.4	1963.6	4684.5	6513.5
69°	129.1	122.5	120.3	123.6	131.4	140.2	189.9	461.4	1493.4	4346.7	6403.1
70°	122.5	118.1	114.8	120.3	126.9	133.6	171.1	391.8	1171.1	3912.9	6129.4
72.5°	108.2	104.9	102.7	108.2	113.7	118.1	140.2	279.3	678.8	2664.6	4861.1
75°	94.9	91.6	90.5	94.9	99.3	101.5	118.1	192.1	400.7	1394.1	2916.2
77.5°	79.5	75.1	76.2	81.7	85.0	86.1	99.3	138.0	236.2	631.4	1351.0
80°	58.5	58.5	62.9	67.3	67.3	67.3	79.5	100.4	143.5	290.3	560.7
82.5°	40.8	41.9	43.0	49.7	50.8	46.4	60.7	72.9	89.4	126.9	194.3
85°	23.2	24.3	25.4	29.8	30.9	27.6	39.7	46.4	51.9	62.9	101.5
87.5°	8.8	9.9	13.2	15.5	16.6	12.1	18.8	22.1	22.1	26.5	45.3
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°	375.3	375.3	375.3	375.3	375.3	375.3	375.3	375.3	375.3	375.3	375.3
2.5°	398.5	406.2	420.5	423.9	411.7	398.5	368.7	387.4	395.2	380.8	385.2
5°	493.4	510.0	527.6	506.6	493.4	484.6	470.2	471.3	463.6	438.2	396.3
7.5°	600.5	581.7	594.9	609.3	588.3	589.4	602.7	575.1	554.1	511.1	432.7
10°	650.1	650.1	653.4	653.4	644.6	644.6	643.5	599.4	574.0	555.2	533.1
12.5°	653.4	652.3	665.6	655.7	657.9	660.1	665.6	685.5	678.8	654.5	674.4
15°	745.1	740.6	745.1	744.0	747.3	757.2	752.8	748.4	749.5	767.1	796.9
17.5°	831.2	833.4	828.9	836.7	836.7	843.3	858.8	843.3	830.1	863.2	886.3
20°	930.5	922.8	905.1	918.4	921.7	922.8	948.2	929.4	910.6	922.8	950.4
22.5°	1030.9	1029.8	1032.0	1033.1	1037.6	1021.0	986.8	981.3	993.4	976.9	980.2
25°	1092.8	1093.9	1099.4	1100.5	1081.7	1099.4	1111.5	1075.1	1075.1	1071.8	1049.7
27.5°	1167.8	1151.3	1157.9	1166.7	1159.0	1163.4	1149.0	1096.1	1152.4	1160.1	1071.8
30°	1218.6	1210.9	1203.1	1212.0	1219.7	1239.6	1198.7	1193.2	1197.6	1238.5	1122.6
32.5°	1325.7	1336.7	1322.3	1308.0	1322.3	1317.9	1300.3	1292.5	1347.7	1293.6	1157.9
35°	1425.0	1429.4	1430.5	1428.3	1437.1	1421.7	1421.7	1450.4	1466.9	1408.4	1168.9
37.5°	1664.5	1649.1	1617.1	1601.6	1629.2	1652.4	1583.9	1618.2	1611.5	1512.2	1251.7
40°	1836.7	1872.0	1882.0	1877.6	1882.0	1815.7	1830.1	1855.5	1825.7	1661.2	1223.0
42.5°	2088.4	2110.5	2102.7	2092.8	2097.2	2085.1	2042.0	2135.8	2028.8	1827.9	1267.2
45°	2318.0	2367.6	2370.9	2336.7	2364.3	2321.3	2338.9	2372.0	2263.9	1952.6	1255.0
47.5°	2591.7	2694.4	2655.7	2655.7	2683.3	2590.6	2632.5	2676.7	2389.7	2036.5	1188.8
50°	2996.8	3052.0	3049.8	3039.8	3052.0	3002.3	2995.7	2990.2	2582.9	2116.0	1147.9
52.5°	3454.9	3529.9	3501.2	3512.3	3528.8	3435.0	3509.0	3307.0	2824.6	2145.8	1055.2
55°	4039.9	4091.8	4063.1	4006.8	4081.8	4022.2	4046.5	3652.4	2992.4	2060.8	900.7
57.5°	4736.4	4762.9	4715.4	4709.9	4759.6	4695.5	4654.7	4041.0	3079.6	1996.8	719.7
60°	5549.9	5632.7	5602.8	5555.4	5600.6	5544.3	5235.3	4371.0	3061.9	1697.6	557.4
62.5°	6525.6	6609.5	6576.4	6544.4	6573.1	6426.3	5780.6	4631.5	2982.4	1345.5	407.3
65°	7331.4	7710.0	7759.7	7760.8	7621.7	7281.7	6215.5	4733.1	2563.0	939.3	298.0
67.5°	7861.2	8648.2	8893.3	8805.0	8486.0	7710.0	6391.0	4534.4	1979.1	593.8	223.0
69°	7800.5	8832.5	9186.9	9137.2	8689.1	7703.4	6254.1	4199.9	1512.2	472.4	188.7
70°	7520.1	8681.3	9101.9	9123.9	8559.9	7407.5	6010.1	3815.8	1223.0	402.9	173.3
72.5°	6001.3	7153.7	7523.4	7668.0	7108.4	5931.8	4928.4	2692.1	708.6	281.5	140.2
75°	3717.6	4337.9	4644.8	4728.6	4389.8	3694.4	2991.3	1497.8	431.6	198.7	118.1
77.5°	1666.7	1846.6	2023.3	2023.3	1890.8	1686.6	1370.9	724.1	245.0	141.3	99.3
80°	558.5	579.5	564.0	569.6	547.5	526.5	550.8	312.4	151.2	106.0	80.6
82.5°	379.7	476.8	506.6	506.6	475.7	375.3	211.9	143.5	92.7	76.2	61.8
85°	309.1	377.5	405.1	417.2	393.0	316.8	111.5	69.5	55.2	48.6	41.9
87.5°	103.8	97.1	91.6	89.4	93.8	98.2	55.2	29.8	25.4	23.2	22.1
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°	375.3	375.3	375.3	375.3	375.3	375.3
2.5°	393.0	379.7	385.2	390.7	430.5	460.3
5°	390.7	409.5	451.5	504.4	528.7	588.3
7.5°	401.8	470.2	548.6	603.8	625.9	644.6
10°	537.5	549.7	576.2	629.2	673.3	681.0
12.5°	694.3	691.0	672.2	696.5	674.4	689.9
15°	816.8	780.4	755.0	751.7	744.0	744.0
17.5°	884.1	852.1	816.8	808.0	784.8	803.6
20°	963.6	908.4	820.1	811.3	803.6	785.9
22.5°	948.2	893.0	801.4	790.3	831.2	828.9
25°	966.9	893.0	805.8	793.6	812.4	812.4
27.5°	920.6	859.9	796.9	724.1	781.5	794.7
30°	908.4	840.0	767.1	702.0	760.5	748.4
32.5°	972.4	790.3	718.6	698.7	741.7	732.9
35°	922.8	781.5	706.4	670.0	720.8	711.9
37.5°	943.7	770.4	685.5	654.5	695.4	708.6
40°	939.3	718.6	661.2	621.4	662.3	668.9
42.5°	865.4	678.8	620.3	580.6	601.6	623.6
45°	843.3	654.5	580.6	525.4	526.5	551.9
47.5°	802.5	599.4	507.7	457.0	457.0	477.9
50°	734.0	525.4	425.0	378.6	377.5	394.1
52.5°	632.5	453.7	358.7	308.0	304.6	321.2
55°	517.7	365.4	282.6	249.5	242.8	249.5
57.5°	402.9	284.8	223.0	196.5	195.4	200.9
60°	312.4	223.0	177.7	162.3	164.5	173.3
62.5°	236.2	177.7	151.2	145.7	149.0	157.8
65°	187.6	153.4	138.0	134.7	138.0	146.8
67.5°	152.3	139.1	128.0	123.6	125.8	134.7
69°	140.2	131.4	122.5	117.0	119.2	125.8
70°	133.6	126.9	118.1	112.6	114.8	121.4
72.5°	117.0	113.7	107.1	101.5	102.7	108.2
75°	102.7	100.4	96.0	89.4	89.4	96.0
77.5°	86.1	87.2	82.8	76.2	75.1	78.4
80°	68.4	70.6	68.4	61.8	59.6	59.6
82.5°	49.7	54.1	51.9	45.3	44.2	44.2
85°	30.9	34.2	33.1	28.7	28.7	25.4
87.5°	14.3	18.8	17.7	15.5	14.3	9.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)