

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: P565304

Luminaire Tested: **MSA-SA2A-730-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565304
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-730-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: 6545 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B3 - U0 - G3

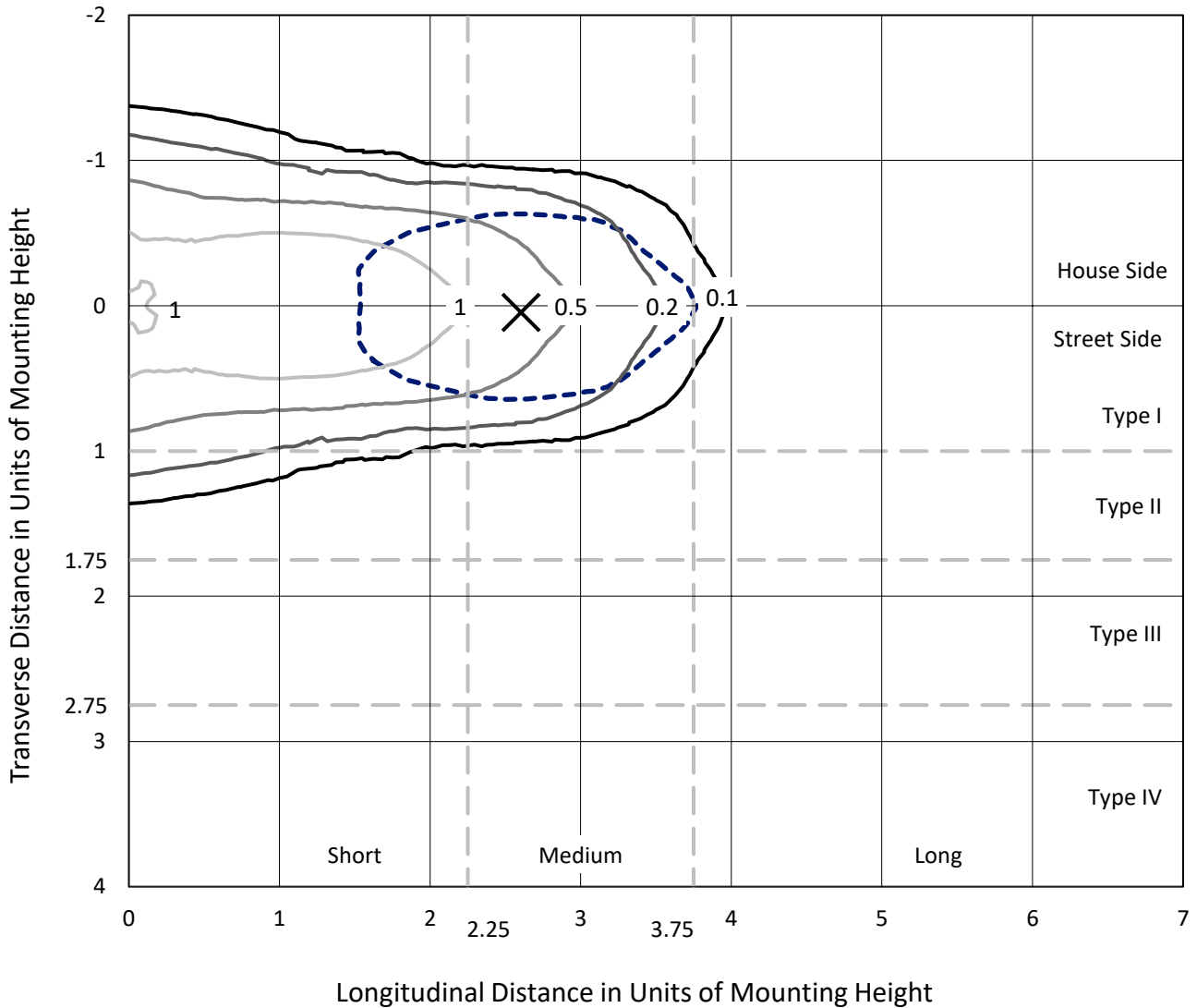
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

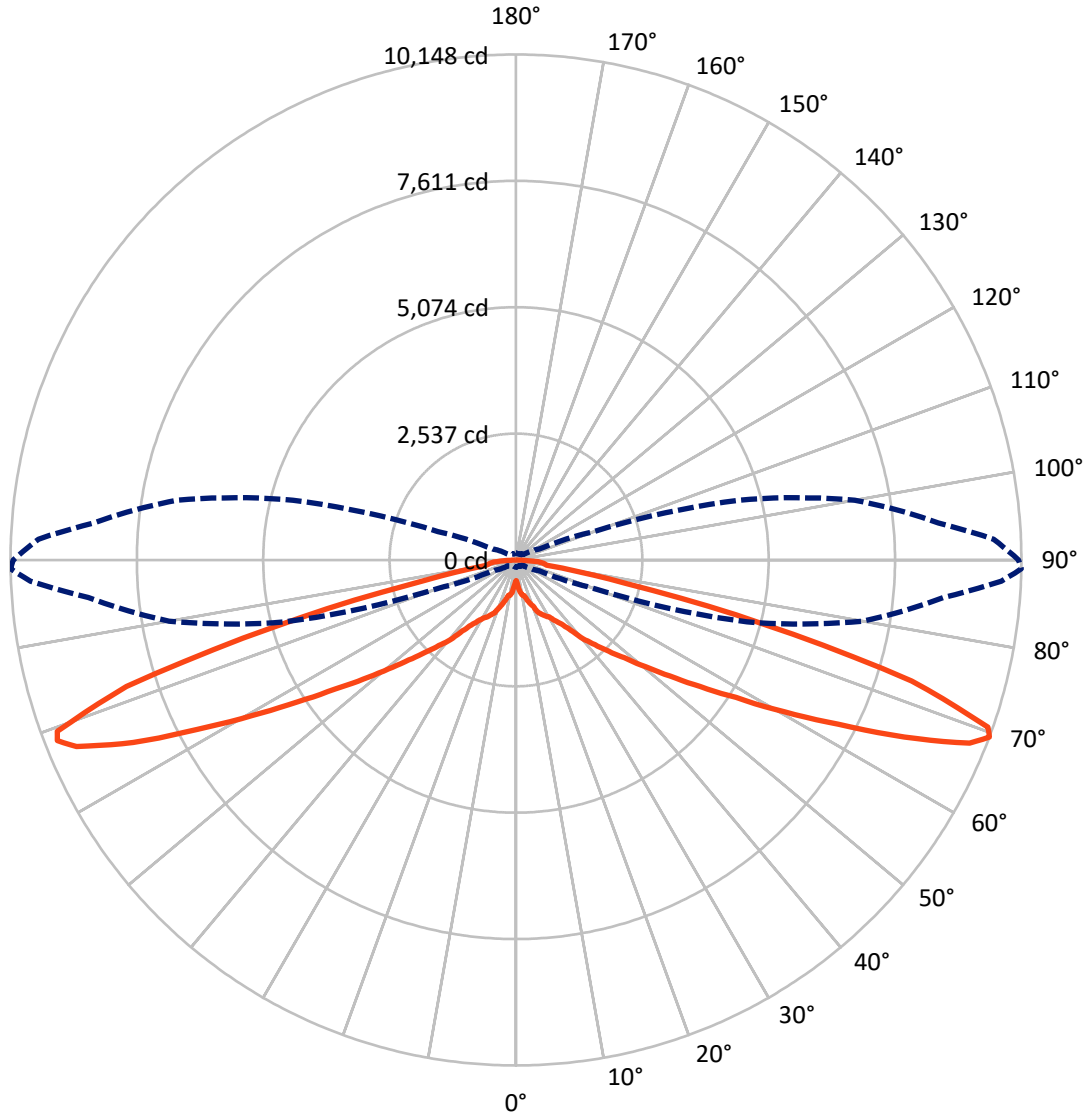
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.5 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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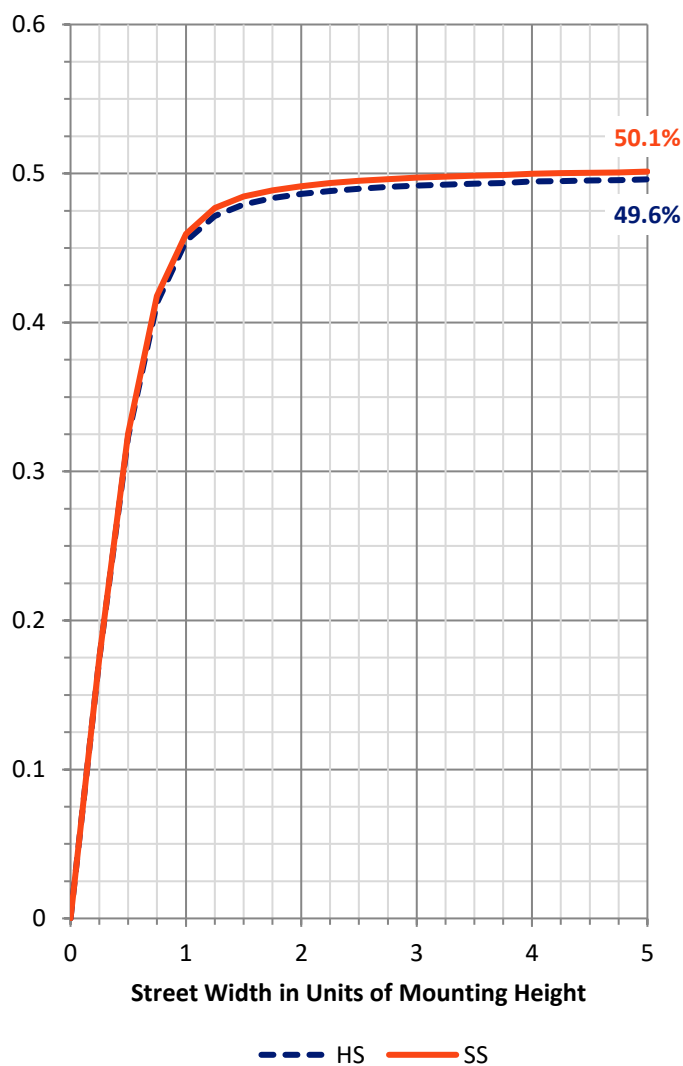
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3272.4	0.0	3272.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3272.6	0.0	3272.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	6545.0	0.0	6545.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.1	0.8
10°-20°	240.0	3.7
20°-30°	478.8	7.3
30°-40°	724.2	11.1
40°-50°	1051.2	16.1
50°-60°	1381.1	21.1
60°-70°	1684.7	25.7
70°-80°	851.8	13.0
80°-90°	81.2	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°	6545.0	100.0
0°-180°	6545.0	100.0

Coefficient of Utilization



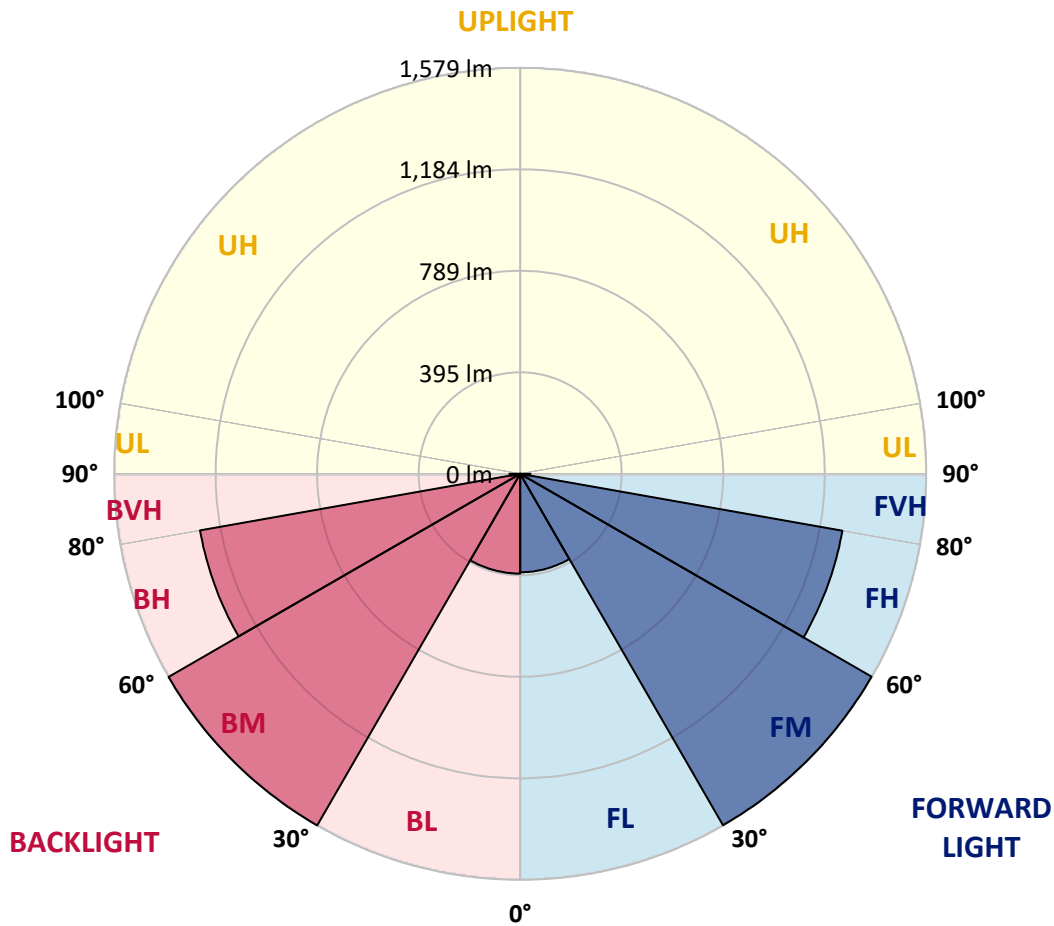
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	382.8	5.8			
FM (30°-60°)	1577.7	24.1			
FH (60°-80°)	1272.3	19.4			G1/1800
FVH (80°-90°)	39.8	0.6			G1/100
BL (0°-30°)	388.1	5.9	B1/500		
BM (30°-60°)	1578.7	24.1	B2/2500		
BH (60°-80°)	1264.2	19.3	B3/2500		G3/2500
BVH (80°-90°)	41.4	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°	414.6	414.6	414.6	414.6	414.6	414.6	414.6	414.6	414.6	414.6	414.6
2.5°	486.5	430.4	425.5	412.1	421.9	425.5	417.0	404.8	418.2	425.5	412.1
5°	613.3	530.4	502.3	479.2	432.8	413.3	432.8	482.8	488.9	519.4	510.9
7.5°	675.5	662.1	626.7	549.9	475.5	434.1	486.5	558.4	595.0	624.3	654.8
10°	721.8	714.5	652.3	597.5	567.0	569.4	570.6	593.8	625.5	674.3	691.3
12.5°	732.8	730.4	740.1	727.9	730.4	743.8	730.4	724.3	742.6	758.4	741.3
15°	803.5	802.3	806.0	808.4	857.2	877.9	857.2	838.9	825.5	812.1	840.1
17.5°	852.3	846.2	847.4	870.6	925.4	982.8	971.8	947.4	916.9	935.2	958.4
20°	879.1	868.1	875.5	885.2	977.9	1041.3	1048.6	1015.7	997.4	1020.5	1040.1
22.5°	904.7	887.6	862.0	871.8	957.1	1048.6	1084.0	1075.4	1088.8	1096.1	1092.5
25°	874.2	885.2	857.2	885.2	971.8	1055.9	1126.6	1176.6	1177.8	1174.2	1201.0
27.5°	855.9	847.4	799.9	871.8	943.7	996.2	1176.6	1260.8	1286.4	1208.3	1260.8
30°	824.2	837.7	773.0	832.8	924.2	1012.0	1233.9	1354.6	1316.8	1307.1	1319.3
32.5°	804.7	796.2	765.7	798.6	868.1	1059.6	1270.5	1409.5	1457.1	1433.9	1431.5
35°	773.0	779.1	731.6	766.9	864.5	1019.3	1294.9	1547.3	1620.4	1602.2	1587.5
37.5°	777.9	757.2	723.0	748.6	841.3	1041.3	1355.9	1680.2	1796.0	1805.8	1738.7
40°	741.3	729.1	677.9	720.6	797.4	1027.9	1370.5	1831.4	2027.7	2071.6	1975.3
42.5°	688.9	673.1	643.8	691.3	771.8	962.0	1391.2	2013.1	2263.0	2354.5	2266.7
45°	613.3	592.6	577.9	641.3	715.7	945.0	1369.3	2164.2	2488.6	2614.2	2611.7
47.5°	521.9	508.4	501.1	568.2	669.4	902.3	1324.2	2259.4	2645.9	2967.8	2919.0
50°	418.2	408.5	407.2	478.0	591.4	814.5	1272.9	2306.9	2884.9	3292.1	3334.8
52.5°	335.3	328.0	326.8	384.1	495.0	696.2	1165.6	2343.5	3112.9	3660.3	3879.8
55°	262.1	254.8	256.1	303.6	393.8	569.4	1002.3	2302.0	3312.8	4037.1	4452.9
57.5°	214.6	207.3	208.5	235.3	301.2	435.3	798.6	2211.8	3403.1	4502.9	5121.0
60°	189.0	181.7	178.0	190.2	231.7	328.0	593.8	1860.6	3417.7	4889.4	5846.5
62.5°	175.6	168.3	164.6	168.3	191.4	251.2	428.0	1474.1	3333.6	5219.8	6511.0
65°	163.4	157.3	152.4	156.1	168.3	200.0	312.1	1009.6	2893.4	5371.0	6993.9
67.5°	150.0	145.1	140.2	145.1	153.6	168.3	242.6	638.9	2169.1	5174.7	7195.1
69°	142.7	135.3	132.9	136.6	145.1	154.9	209.7	509.7	1649.7	4801.6	7073.1
70°	135.3	130.5	126.8	132.9	140.2	147.5	189.0	432.8	1293.7	4322.4	6770.7
72.5°	119.5	115.8	113.4	119.5	125.6	130.5	154.9	308.5	749.9	2943.4	5369.8
75°	104.9	101.2	100.0	104.9	109.7	112.2	130.5	212.2	442.6	1540.0	3221.4
77.5°	87.8	82.9	84.1	90.2	93.9	95.1	109.7	152.4	260.9	697.4	1492.4
80°	64.6	64.6	69.5	74.4	74.4	74.4	87.8	111.0	158.5	320.7	619.4
82.5°	45.1	46.3	47.6	54.9	56.1	51.2	67.1	80.5	98.8	140.2	214.6
85°	25.6	26.8	28.0	32.9	34.1	30.5	43.9	51.2	57.3	69.5	112.2
87.5°	9.8	11.0	14.6	17.1	18.3	13.4	20.7	24.4	24.4	29.3	50.0
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°	414.6	414.6	414.6	414.6	414.6	414.6	414.6	414.6	414.6	414.6	414.6
2.5°	440.2	448.7	464.6	468.2	454.8	440.2	407.2	428.0	436.5	420.7	425.5
5°	545.0	563.3	582.8	559.7	545.0	535.3	519.4	520.6	512.1	484.1	437.7
7.5°	663.3	642.6	657.2	673.1	649.9	651.1	665.7	635.3	612.1	564.5	478.0
10°	718.2	718.2	721.8	721.8	712.1	712.1	710.8	662.1	634.0	613.3	588.9
12.5°	721.8	720.6	735.2	724.3	726.7	729.1	735.2	757.2	749.9	723.0	745.0
15°	823.0	818.1	823.0	821.8	825.5	836.4	831.6	826.7	827.9	847.4	880.3
17.5°	918.1	920.6	915.7	924.2	924.2	931.5	948.6	931.5	916.9	953.5	979.1
20°	1027.9	1019.3	999.8	1014.5	1018.1	1019.3	1047.4	1026.6	1005.9	1019.3	1049.8
22.5°	1138.8	1137.6	1140.0	1141.3	1146.1	1127.8	1090.0	1084.0	1097.4	1079.1	1082.7
25°	1207.1	1208.3	1214.4	1215.6	1194.9	1214.4	1227.8	1187.6	1187.6	1183.9	1159.5
27.5°	1290.0	1271.7	1279.0	1288.8	1280.3	1285.1	1269.3	1210.8	1272.9	1281.5	1183.9
30°	1346.1	1337.6	1329.0	1338.8	1347.3	1369.3	1324.2	1318.1	1322.9	1368.0	1240.0
32.5°	1464.4	1476.6	1460.7	1444.9	1460.7	1455.8	1436.3	1427.8	1488.8	1429.0	1279.0
35°	1574.1	1579.0	1580.2	1577.8	1587.5	1570.5	1570.5	1602.2	1620.4	1555.8	1291.2
37.5°	1838.7	1821.6	1786.3	1769.2	1799.7	1825.3	1749.7	1787.5	1780.2	1670.4	1382.7
40°	2028.9	2067.9	2078.9	2074.0	2078.9	2005.7	2021.6	2049.6	2016.7	1835.0	1351.0
42.5°	2306.9	2331.3	2322.8	2311.8	2316.7	2303.2	2255.7	2359.3	2241.1	2019.2	1399.8
45°	2560.5	2615.4	2619.0	2581.2	2611.7	2564.2	2583.7	2620.3	2500.8	2156.9	1386.3
47.5°	2862.9	2976.3	2933.6	2933.6	2964.1	2861.7	2908.0	2956.8	2639.8	2249.6	1313.2
50°	3310.4	3371.3	3368.9	3357.9	3371.3	3316.5	3309.2	3303.1	2853.1	2337.4	1268.1
52.5°	3816.4	3899.3	3867.6	3879.8	3898.1	3794.4	3876.1	3653.0	3120.2	2370.3	1165.6
55°	4462.6	4519.9	4488.2	4426.0	4509.0	4443.1	4469.9	4034.6	3305.5	2276.4	994.9
57.5°	5232.0	5261.3	5208.8	5202.7	5257.6	5186.9	5141.8	4463.8	3401.8	2205.7	795.0
60°	6130.6	6222.1	6189.1	6136.7	6186.7	6124.5	5783.1	4828.4	3382.3	1875.3	615.7
62.5°	7208.5	7301.1	7264.6	7229.2	7260.9	7098.7	6385.4	5116.2	3294.5	1486.3	449.9
65°	8098.6	8516.8	8571.6	8572.9	8419.2	8043.7	6865.8	5228.3	2831.2	1037.6	329.2
67.5°	8683.8	9553.2	9823.9	9726.3	9373.9	8516.8	7059.7	5008.9	2186.2	656.0	246.3
69°	8616.8	9756.8	10148.2	10093.3	9598.3	8509.5	6908.5	4639.4	1670.4	521.9	208.5
70°	8307.1	9589.8	10054.3	10078.7	9455.6	8182.7	6639.1	4215.1	1351.0	445.0	191.4
72.5°	6629.3	7902.2	8310.7	8470.4	7852.3	6552.5	5444.2	2973.9	782.8	310.9	154.9
75°	4106.6	4791.8	5130.8	5223.5	4849.1	4081.0	3304.3	1654.6	476.7	219.5	130.5
77.5°	1841.1	2039.9	2235.0	2235.0	2088.7	1863.1	1514.4	799.9	270.7	156.1	109.7
80°	617.0	640.1	623.1	629.2	604.8	581.6	608.4	345.1	167.0	117.1	89.0
82.5°	419.4	526.7	559.7	559.7	525.5	414.6	234.1	158.5	102.4	84.1	68.3
85°	341.4	417.0	447.5	460.9	434.1	349.9	123.1	76.8	61.0	53.6	46.3
87.5°	114.6	107.3	101.2	98.8	103.6	108.5	61.0	32.9	28.0	25.6	24.4
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°	414.6	414.6	414.6	414.6	414.6	414.6
2.5°	434.1	419.4	425.5	431.6	475.5	508.4
5°	431.6	452.4	498.7	557.2	584.0	649.9
7.5°	443.8	519.4	606.0	667.0	691.3	712.1
10°	593.8	607.2	636.5	695.0	743.8	752.3
12.5°	766.9	763.3	742.6	769.4	745.0	762.1
15°	902.3	862.0	834.0	830.3	821.8	821.8
17.5°	976.7	941.3	902.3	892.5	866.9	887.6
20°	1064.4	1003.5	905.9	896.2	887.6	868.1
22.5°	1047.4	986.4	885.2	873.0	918.1	915.7
25°	1068.1	986.4	890.1	876.7	897.4	897.4
27.5°	1016.9	949.8	880.3	799.9	863.3	877.9
30°	1003.5	927.9	847.4	775.5	840.1	826.7
32.5°	1074.2	873.0	793.8	771.8	819.4	809.6
35°	1019.3	863.3	780.3	740.1	796.2	786.4
37.5°	1042.5	851.1	757.2	723.0	768.2	782.8
40°	1037.6	793.8	730.4	686.5	731.6	738.9
42.5°	955.9	749.9	685.2	641.3	664.5	688.9
45°	931.5	723.0	641.3	580.4	581.6	609.6
47.5°	886.4	662.1	560.9	504.8	504.8	528.0
50°	810.8	580.4	469.4	418.2	417.0	435.3
52.5°	698.7	501.1	396.3	340.2	336.5	354.8
55°	571.8	403.6	312.1	275.6	268.2	275.6
57.5°	445.0	314.6	246.3	217.0	215.8	221.9
60°	345.1	246.3	196.3	179.2	181.7	191.4
62.5°	260.9	196.3	167.0	160.9	164.6	174.4
65°	207.3	169.5	152.4	148.8	152.4	162.2
67.5°	168.3	153.6	141.4	136.6	139.0	148.8
69°	154.9	145.1	135.3	129.2	131.7	139.0
70°	147.5	140.2	130.5	124.4	126.8	134.1
72.5°	129.2	125.6	118.3	112.2	113.4	119.5
75°	113.4	111.0	106.1	98.8	98.8	106.1
77.5°	95.1	96.3	91.4	84.1	82.9	86.6
80°	75.6	78.0	75.6	68.3	65.8	65.8
82.5°	54.9	59.7	57.3	50.0	48.8	48.8
85°	34.1	37.8	36.6	31.7	31.7	28.0
87.5°	15.9	20.7	19.5	17.1	15.9	11.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)