

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: P565308

Luminaire Tested: **MSA-SA3A-730-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565308
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-SA3A-730-U-T1
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9659 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B3 - U0 - G3

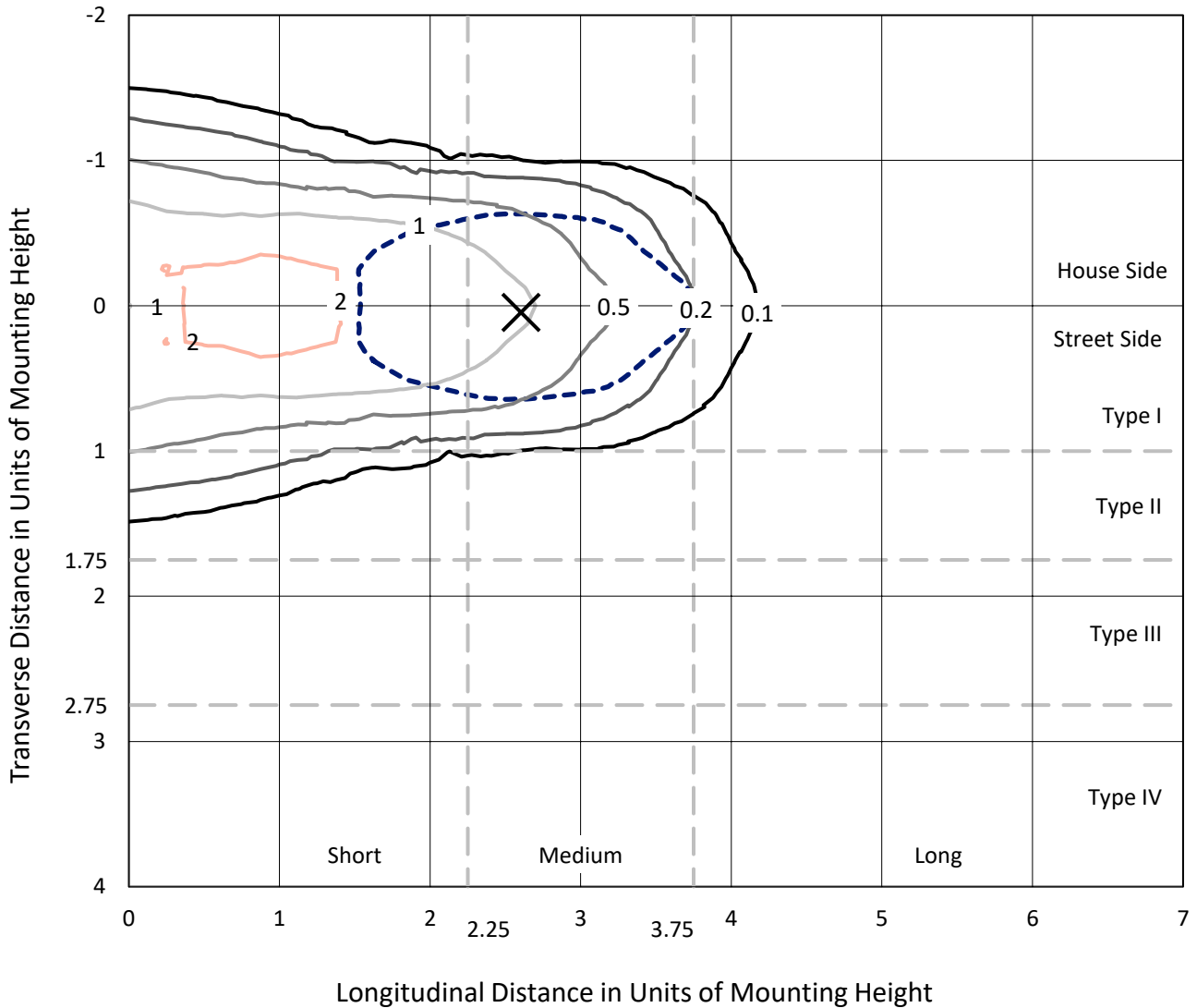
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

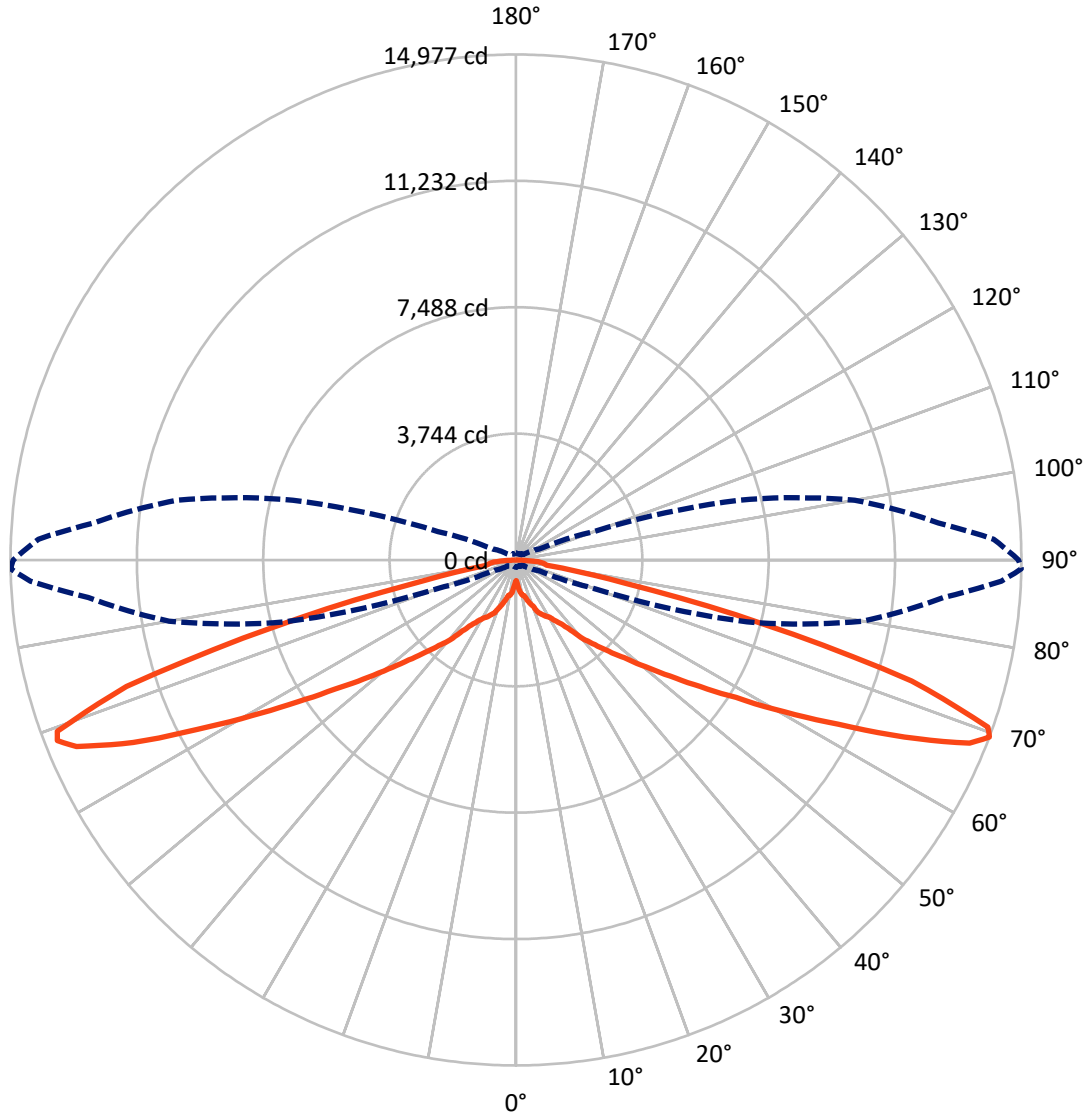
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 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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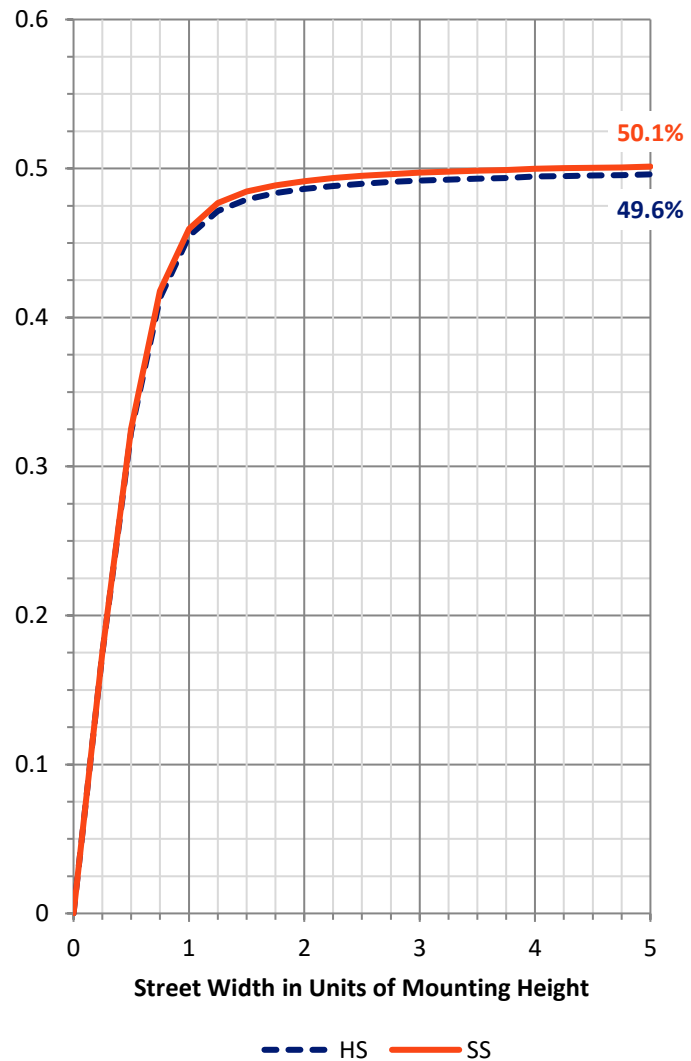
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4829.4	0.0	4829.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	4829.6	0.0	4829.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	9659.0	0.0	9659.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.9	0.8
10°-20°	354.2	3.7
20°-30°	706.6	7.3
30°-40°	1068.7	11.1
40°-50°	1551.3	16.1
50°-60°	2038.2	21.1
60°-70°	2486.3	25.7
70°-80°	1257.0	13.0
80°-90°	119.8	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°	9659.0	100.0
0°-180°	9659.0	100.0

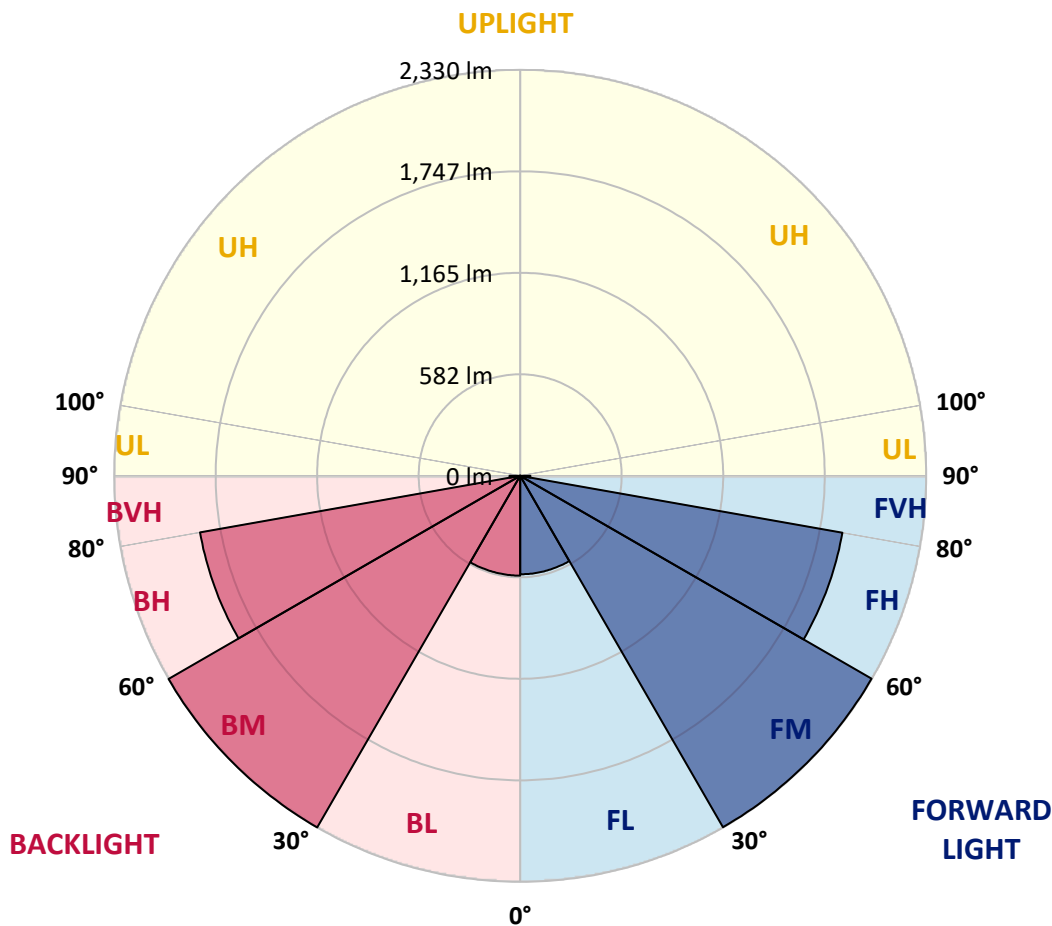


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	564.9	5.8			
FM (30°-60°)	2328.3	24.1			
FH (60°-80°)	1877.6	19.4			G2/5000
FVH (80°-90°)	58.8	0.6			G1/100
BL (0°-30°)	572.8	5.9	B2/1000		
BM (30°-60°)	2329.9	24.1	B2/2500		
BH (60°-80°)	1865.6	19.3	B3/2500		G3/2500
BVH (80°-90°)	61.1	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°	611.8	611.8	611.8	611.8	611.8	611.8	611.8	611.8	611.8	611.8	611.8
2.5°	718.0	635.2	628.0	608.2	622.6	628.0	615.4	597.4	617.2	628.0	608.2
5°	905.1	782.7	741.4	707.2	638.8	610.0	638.8	712.6	721.6	766.6	754.0
7.5°	996.9	977.1	924.9	811.5	701.8	640.6	718.0	824.1	878.1	921.3	966.3
10°	1065.3	1054.5	962.7	881.7	836.7	840.3	842.1	876.3	923.1	995.1	1020.3
12.5°	1081.4	1077.8	1092.2	1074.3	1077.8	1097.6	1077.8	1068.9	1095.8	1119.2	1094.0
15°	1185.8	1184.0	1189.4	1193.0	1265.0	1295.6	1265.0	1238.0	1218.2	1198.4	1239.8
17.5°	1257.8	1248.8	1250.6	1284.8	1365.8	1450.3	1434.1	1398.1	1353.2	1380.2	1414.3
20°	1297.4	1281.2	1292.0	1306.4	1443.1	1536.7	1547.5	1498.9	1471.9	1506.1	1534.9
22.5°	1335.2	1310.0	1272.2	1286.6	1412.5	1547.5	1599.7	1587.1	1606.9	1617.7	1612.3
25°	1290.2	1306.4	1265.0	1306.4	1434.1	1558.3	1662.7	1736.4	1738.2	1732.8	1772.4
27.5°	1263.2	1250.6	1180.4	1286.6	1392.7	1470.1	1736.4	1860.6	1898.4	1783.2	1860.6
30°	1216.4	1236.2	1140.8	1229.0	1364.0	1493.5	1821.0	1999.1	1943.4	1929.0	1947.0
32.5°	1187.6	1175.0	1130.0	1178.6	1281.2	1563.7	1875.0	2080.1	2150.3	2116.1	2112.5
35°	1140.8	1149.8	1079.6	1131.8	1275.8	1504.3	1911.0	2283.5	2391.4	2364.4	2342.8
37.5°	1148.0	1117.4	1067.1	1104.8	1241.6	1536.7	2000.9	2479.6	2650.5	2664.9	2566.0
40°	1094.0	1076.0	1000.5	1063.5	1176.8	1516.9	2022.5	2702.7	2992.4	3057.2	2915.1
42.5°	1016.7	993.3	950.1	1020.3	1139.0	1419.7	2053.1	2970.8	3339.7	3474.7	3345.1
45°	905.1	874.5	852.9	946.5	1056.3	1394.5	2020.7	3194.0	3672.6	3857.9	3854.3
47.5°	770.1	750.4	739.6	838.5	987.9	1331.6	1954.2	3334.3	3904.7	4379.8	4307.8
50°	617.2	602.8	601.0	705.4	872.7	1202.0	1878.6	3404.5	4257.4	4858.4	4921.4
52.5°	494.8	484.0	482.2	566.8	730.6	1027.5	1720.2	3458.5	4593.9	5401.8	5725.7
55°	386.9	376.1	377.9	448.1	581.2	840.3	1479.1	3397.3	4889.0	5957.9	6571.5
57.5°	316.7	305.9	307.7	347.3	444.5	642.4	1178.6	3264.1	5022.2	6645.2	7557.5
60°	278.9	268.1	262.7	280.7	341.9	484.0	876.3	2745.9	5043.8	7215.7	8628.2
62.5°	259.1	248.3	242.9	248.3	282.5	370.7	631.6	2175.5	4919.6	7703.3	9608.9
65°	241.1	232.1	224.9	230.3	248.3	295.1	460.7	1489.9	4270.0	7926.4	10321.4
67.5°	221.3	214.1	206.9	214.1	226.7	248.3	358.1	942.9	3201.2	7636.7	10618.3
69°	210.5	199.7	196.1	201.5	214.1	228.5	309.5	752.2	2434.6	7086.1	10438.4
70°	199.7	192.5	187.1	196.1	206.9	217.7	278.9	638.8	1909.2	6378.9	9992.1
72.5°	176.3	170.9	167.3	176.3	185.3	192.5	228.5	455.3	1106.6	4343.8	7924.6
75°	154.7	149.4	147.6	154.7	161.9	165.5	192.5	313.1	653.2	2272.7	4754.1
77.5°	129.6	122.4	124.2	133.2	138.6	140.4	161.9	224.9	385.1	1029.3	2202.5
80°	95.4	95.4	102.6	109.8	109.8	109.8	129.6	163.7	233.9	473.2	914.1
82.5°	66.6	68.4	70.2	81.0	82.8	75.6	99.0	118.8	145.8	206.9	316.7
85°	37.8	39.6	41.4	48.6	50.4	45.0	64.8	75.6	84.6	102.6	165.5
87.5°	14.4	16.2	21.6	25.2	27.0	19.8	30.6	36.0	36.0	43.2	73.8
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°	611.8	611.8	611.8	611.8	611.8	611.8	611.8	611.8	611.8	611.8	611.8
2.5°	649.6	662.2	685.6	691.0	671.2	649.6	601.0	631.6	644.2	620.8	628.0
5°	804.3	831.3	860.1	825.9	804.3	789.9	766.6	768.3	755.8	714.4	646.0
7.5°	978.9	948.3	969.9	993.3	959.1	960.9	982.5	937.5	903.3	833.1	705.4
10°	1059.9	1059.9	1065.3	1065.3	1050.9	1050.9	1049.1	977.1	935.7	905.1	869.1
12.5°	1065.3	1063.5	1085.0	1068.9	1072.5	1076.0	1085.0	1117.4	1106.6	1067.1	1099.4
15°	1214.6	1207.4	1214.6	1212.8	1218.2	1234.4	1227.2	1220.0	1221.8	1250.6	1299.2
17.5°	1355.0	1358.6	1351.4	1364.0	1364.0	1374.8	1399.9	1374.8	1353.2	1407.1	1444.9
20°	1516.9	1504.3	1475.5	1497.1	1502.5	1504.3	1545.7	1515.1	1484.5	1504.3	1549.3
22.5°	1680.7	1678.9	1682.5	1684.3	1691.4	1664.5	1608.7	1599.7	1619.5	1592.5	1597.9
25°	1781.4	1783.2	1792.2	1794.0	1763.4	1792.2	1812.0	1752.6	1752.6	1747.2	1711.2
27.5°	1903.8	1876.8	1887.6	1902.0	1889.4	1896.6	1873.2	1786.8	1878.6	1891.2	1747.2
30°	1986.6	1974.0	1961.4	1975.8	1988.4	2020.7	1954.2	1945.2	1952.4	2018.9	1830.0
32.5°	2161.1	2179.1	2155.7	2132.3	2155.7	2148.5	2119.7	2107.1	2197.1	2108.9	1887.6
35°	2323.0	2330.2	2332.0	2328.4	2342.8	2317.6	2317.6	2364.4	2391.4	2296.1	1905.6
37.5°	2713.5	2688.3	2636.1	2610.9	2655.9	2693.7	2582.2	2637.9	2627.1	2465.2	2040.5
40°	2994.2	3051.8	3068.0	3060.8	3068.0	2960.0	2983.4	3024.8	2976.2	2708.1	1993.8
42.5°	3404.5	3440.5	3427.9	3411.7	3418.9	3399.1	3328.9	3481.9	3307.3	2979.8	2065.7
45°	3778.8	3859.7	3865.1	3809.4	3854.3	3784.2	3813.0	3866.9	3690.6	3183.2	2045.9
47.5°	4225.0	4392.4	4329.4	4329.4	4374.4	4223.2	4291.6	4363.6	3895.7	3319.9	1938.0
50°	4885.4	4975.4	4971.8	4955.6	4975.4	4894.4	4883.6	4874.6	4210.6	3449.5	1871.4
52.5°	5632.2	5754.5	5707.7	5725.7	5752.7	5599.8	5720.3	5391.0	4604.7	3498.1	1720.2
55°	6585.9	6670.4	6623.6	6531.9	6654.2	6557.1	6596.7	5954.3	4878.2	3359.5	1468.3
57.5°	7721.3	7764.5	7687.1	7678.1	7759.1	7654.7	7588.1	6587.7	5020.4	3255.1	1173.2
60°	9047.5	9182.4	9133.8	9056.5	9130.2	9038.5	8534.6	7125.7	4991.6	2767.5	908.7
62.5°	10638.1	10774.9	10720.9	10668.7	10715.5	10476.2	9423.5	7550.3	4862.0	2193.5	664.0
65°	11951.7	12568.9	12649.9	12651.7	12425.0	11870.7	10132.5	7715.9	4178.2	1531.3	485.8
67.5°	12815.4	14098.4	14497.9	14353.9	13833.9	12568.9	10418.6	7392.0	3226.3	968.1	363.5
69°	12716.5	14398.9	14976.5	14895.6	14165.0	12558.1	10195.5	6846.8	2465.2	770.1	307.7
70°	12259.4	14152.4	14838.0	14874.0	13954.5	12075.9	9797.8	6220.6	1993.8	656.8	282.5
72.5°	9783.4	11662.0	12264.8	12500.5	11588.2	9670.1	8034.4	4388.8	1155.2	458.9	228.5
75°	6060.4	7071.7	7571.9	7708.7	7156.3	6022.6	4876.4	2441.8	703.6	323.9	192.5
77.5°	2717.1	3010.4	3298.3	3298.3	3082.4	2749.5	2234.9	1180.4	399.5	230.3	161.9
80°	910.5	944.7	919.5	928.5	892.5	858.3	897.9	509.2	246.5	172.7	131.4
82.5°	619.0	777.3	825.9	825.9	775.5	611.8	345.5	233.9	151.2	124.2	100.8
85°	503.8	615.4	660.4	680.2	640.6	516.4	181.7	113.4	90.0	79.2	68.4
87.5°	169.1	158.3	149.4	145.8	153.0	160.1	90.0	48.6	41.4	37.8	36.0
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):

	135°	145°	155°	165°	175°	180°
0°	611.8	611.8	611.8	611.8	611.8	611.8
2.5°	640.6	619.0	628.0	637.0	701.8	750.4
5°	637.0	667.6	736.0	822.3	861.9	959.1
7.5°	655.0	766.6	894.3	984.3	1020.3	1050.9
10°	876.3	896.1	939.3	1025.7	1097.6	1110.2
12.5°	1131.8	1126.4	1095.8	1135.4	1099.4	1124.6
15°	1331.6	1272.2	1230.8	1225.4	1212.8	1212.8
17.5°	1441.3	1389.1	1331.6	1317.2	1279.4	1310.0
20°	1570.9	1480.9	1337.0	1322.6	1310.0	1281.2
22.5°	1545.7	1455.7	1306.4	1288.4	1355.0	1351.4
25°	1576.3	1455.7	1313.6	1293.8	1324.4	1324.4
27.5°	1500.7	1401.7	1299.2	1180.4	1274.0	1295.6
30°	1480.9	1369.4	1250.6	1144.4	1239.8	1220.0
32.5°	1585.3	1288.4	1171.4	1139.0	1209.2	1194.8
35°	1504.3	1274.0	1151.6	1092.2	1175.0	1160.6
37.5°	1538.5	1256.0	1117.4	1067.1	1133.6	1155.2
40°	1531.3	1171.4	1077.8	1013.1	1079.6	1090.4
42.5°	1410.7	1106.6	1011.3	946.5	980.7	1016.7
45°	1374.8	1067.1	946.5	856.5	858.3	899.7
47.5°	1308.2	977.1	827.7	745.0	745.0	779.1
50°	1196.6	856.5	692.8	617.2	615.4	642.4
52.5°	1031.1	739.6	584.8	502.0	496.6	523.6
55°	843.9	595.6	460.7	406.7	395.9	406.7
57.5°	656.8	464.2	363.5	320.3	318.5	327.5
60°	509.2	363.5	289.7	264.5	268.1	282.5
62.5°	385.1	289.7	246.5	237.5	242.9	257.3
65°	305.9	250.1	224.9	219.5	224.9	239.3
67.5°	248.3	226.7	208.7	201.5	205.1	219.5
69°	228.5	214.1	199.7	190.7	194.3	205.1
70°	217.7	206.9	192.5	183.5	187.1	197.9
72.5°	190.7	185.3	174.5	165.5	167.3	176.3
75°	167.3	163.7	156.5	145.8	145.8	156.5
77.5°	140.4	142.2	135.0	124.2	122.4	127.8
80°	111.6	115.2	111.6	100.8	97.2	97.2
82.5°	81.0	88.2	84.6	73.8	72.0	72.0
85°	50.4	55.8	54.0	46.8	46.8	41.4
87.5°	23.4	30.6	28.8	25.2	23.4	16.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)