

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: P565344

Luminaire Tested: **MSA-SA4A-835-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565344
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-SA4A-835-U-T1
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11556 lumens
Efficiency: N/A
Efficacy: 89.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B3 - U0 - G3

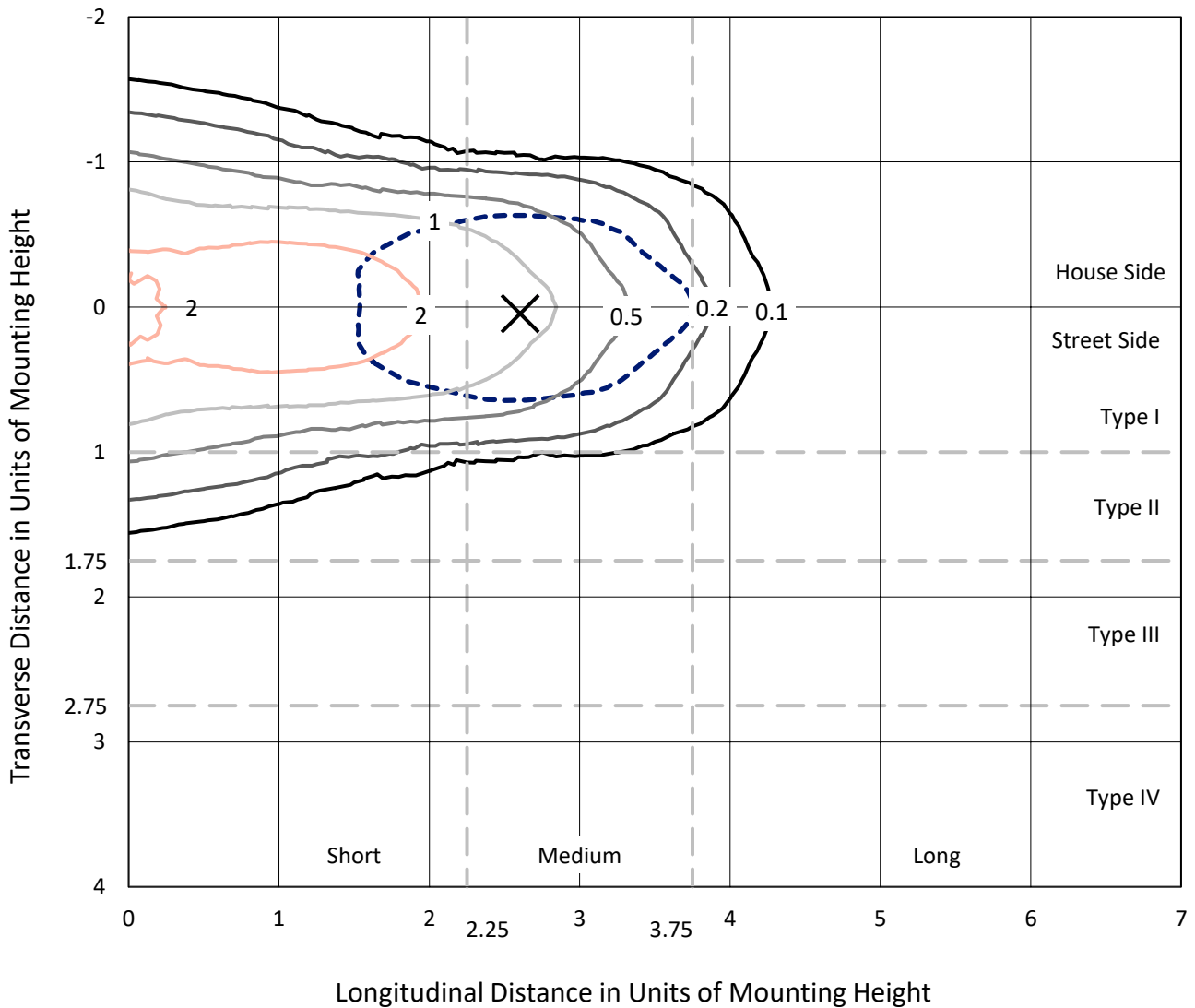
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

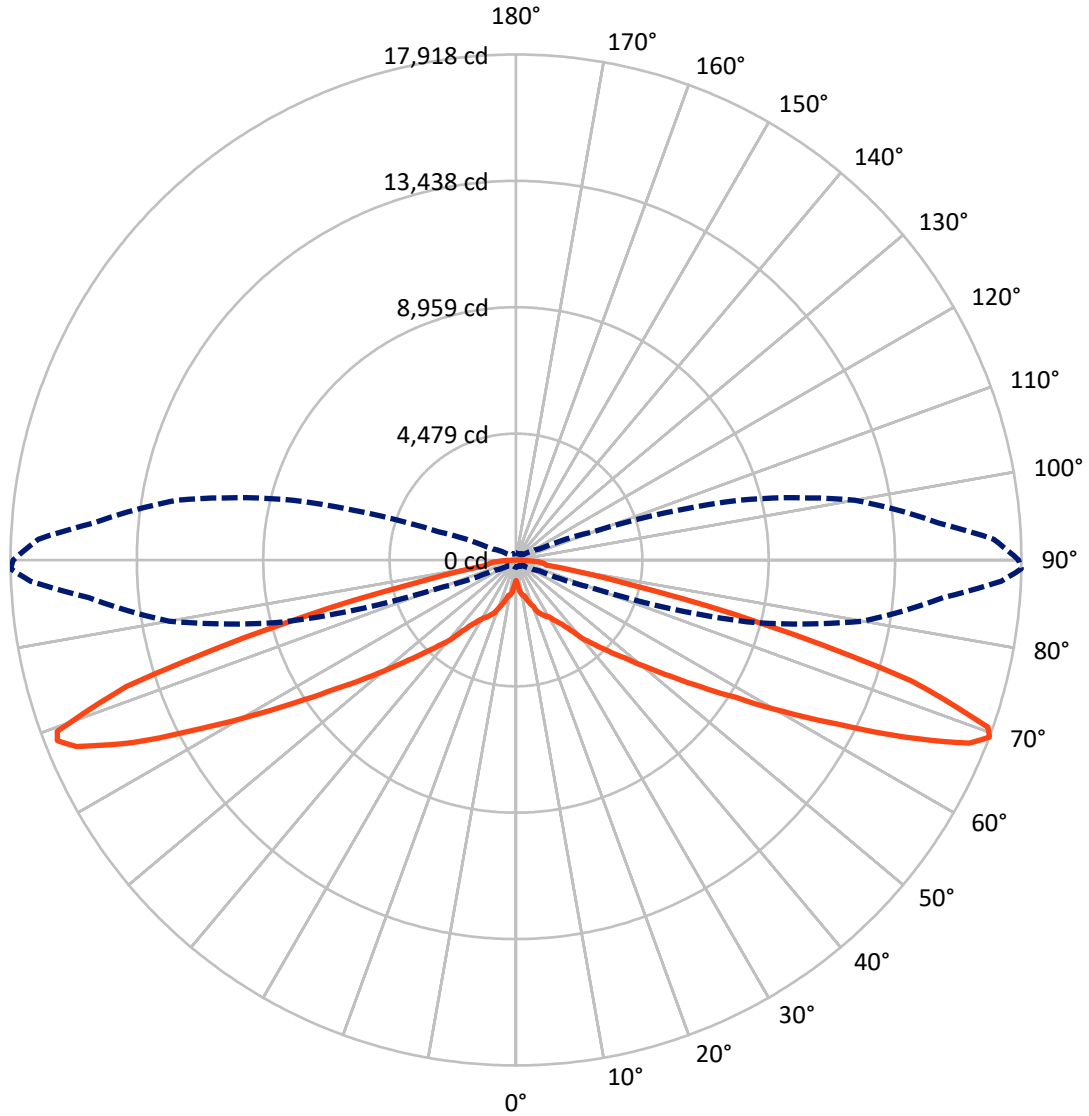
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 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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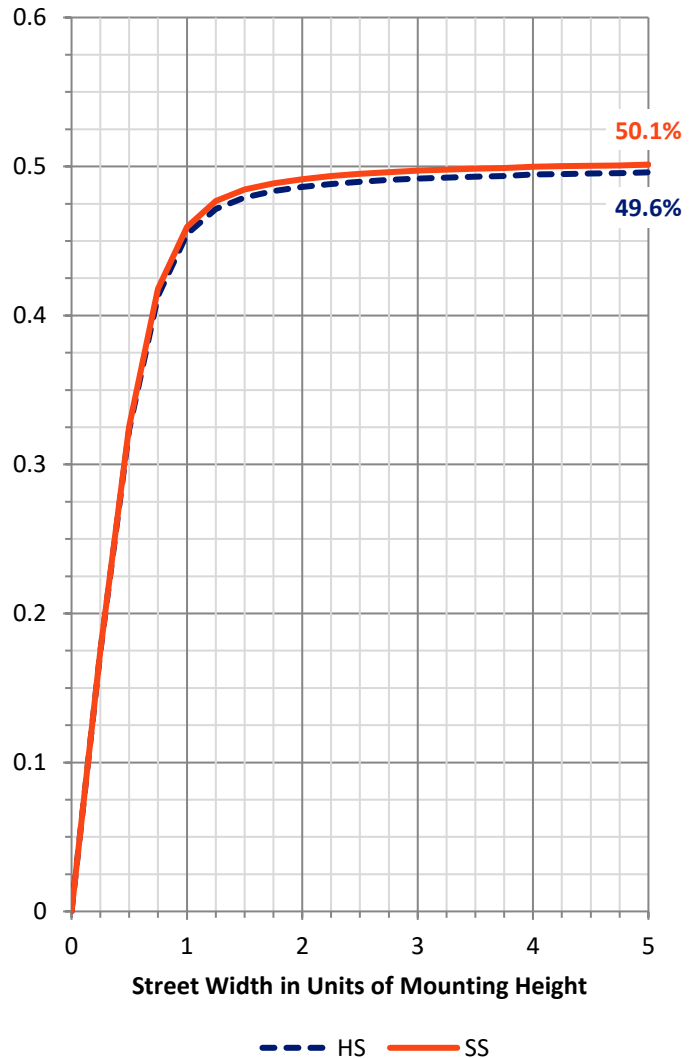
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5777.9	0.0	5777.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	5778.1	0.0	5778.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	11556.0	0.0	11556.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.0	0.8
10°-20°	423.7	3.7
20°-30°	845.4	7.3
30°-40°	1278.6	11.1
40°-50°	1856.0	16.1
50°-60°	2438.5	21.1
60°-70°	2974.6	25.7
70°-80°	1503.9	13.0
80°-90°	143.3	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°	11556.0	100.0
0°-180°	11556.0	100.0

Coefficient of Utilization



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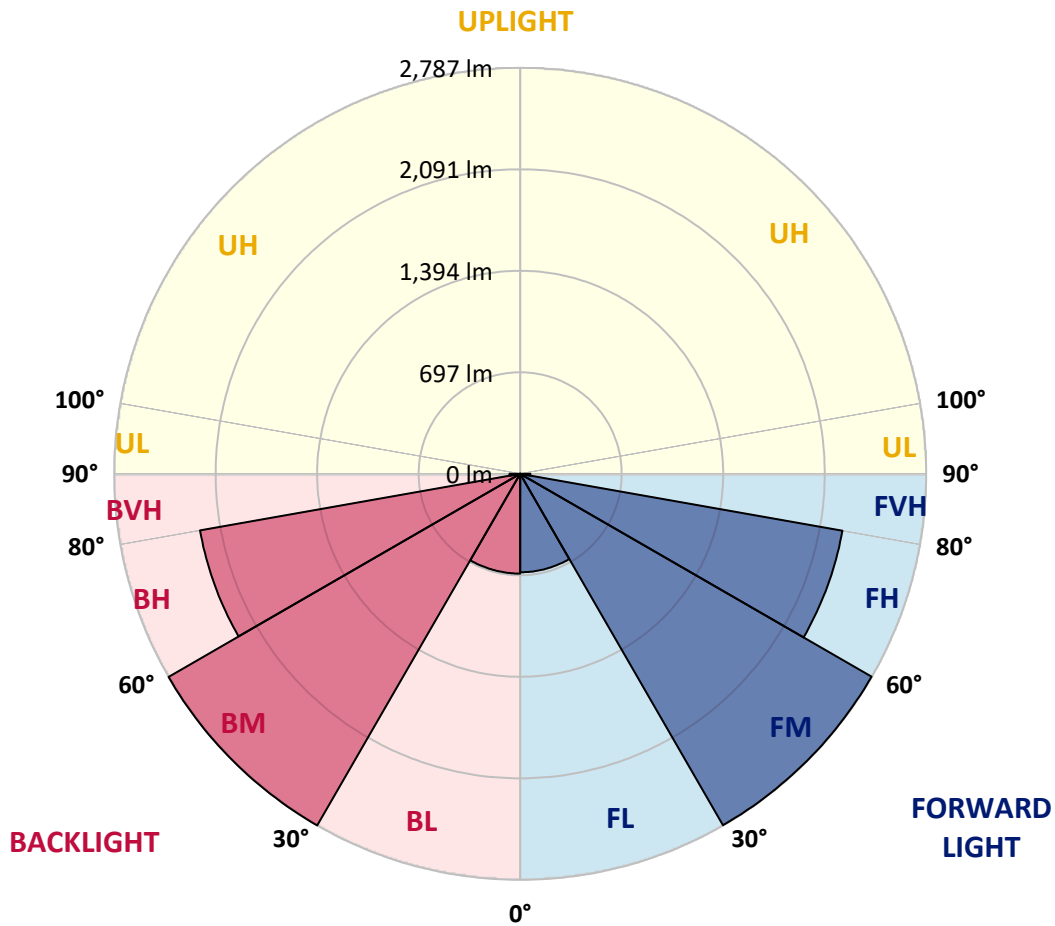
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	675.8	5.8			
FM (30°-60°)	2785.6	24.1			
FH (60°-80°)	2246.4	19.4			G2/5000
FVH (80°-90°)	70.3	0.6			G1/100
BL (0°-30°)	685.3	5.9	B2/1000		
BM (30°-60°)	2787.5	24.1	B3/5000		
BH (60°-80°)	2232.1	19.3	B3/2500		G3/2500
BVH (80°-90°)	73.0	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°	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0
2.5°	859.0	759.9	751.3	727.7	744.9	751.3	736.3	714.7	738.4	751.3	727.7
5°	1082.9	936.5	887.0	846.1	764.2	729.8	764.2	852.5	863.3	917.1	902.0
7.5°	1192.7	1169.0	1106.5	970.9	839.6	766.4	859.0	986.0	1050.6	1102.2	1156.1
10°	1274.5	1261.5	1151.8	1054.9	1001.1	1005.4	1007.5	1048.4	1104.4	1190.5	1220.6
12.5°	1293.8	1289.5	1306.8	1285.2	1289.5	1313.2	1289.5	1278.8	1311.1	1339.1	1308.9
15°	1418.7	1416.6	1423.0	1427.3	1513.4	1550.0	1513.4	1481.1	1457.5	1433.8	1483.3
17.5°	1504.8	1494.1	1496.2	1537.1	1634.0	1735.2	1715.8	1672.7	1618.9	1651.2	1692.1
20°	1552.2	1532.8	1545.7	1562.9	1726.6	1838.5	1851.4	1793.3	1761.0	1801.9	1836.4
22.5°	1597.4	1567.2	1522.0	1539.3	1690.0	1851.4	1913.9	1898.8	1922.5	1935.4	1928.9
25°	1543.6	1562.9	1513.4	1562.9	1715.8	1864.3	1989.2	2077.5	2079.6	2073.2	2120.5
27.5°	1511.3	1496.2	1412.2	1539.3	1666.3	1758.8	2077.5	2226.0	2271.2	2133.4	2226.0
30°	1455.3	1479.0	1364.9	1470.4	1631.8	1786.8	2178.6	2391.8	2325.0	2307.8	2329.3
32.5°	1420.9	1405.8	1352.0	1410.1	1532.8	1870.8	2243.2	2488.7	2572.6	2531.7	2527.4
35°	1364.9	1375.6	1291.7	1354.1	1526.3	1799.8	2286.3	2731.9	2861.1	2828.8	2803.0
37.5°	1373.5	1336.9	1276.6	1321.8	1485.4	1838.5	2393.9	2966.6	3171.1	3188.3	3069.9
40°	1308.9	1287.4	1197.0	1272.3	1407.9	1814.8	2419.8	3233.5	3580.1	3657.6	3487.6
42.5°	1216.3	1188.4	1136.7	1220.6	1362.7	1698.6	2456.4	3554.3	3995.6	4157.1	4002.1
45°	1082.9	1046.3	1020.4	1132.4	1263.7	1668.4	2417.6	3821.2	4393.9	4615.6	4611.3
47.5°	921.4	897.7	884.8	1003.2	1181.9	1593.1	2338.0	3989.2	4671.6	5239.9	5153.8
50°	738.4	721.2	719.0	843.9	1044.1	1438.1	2247.5	4073.1	5093.6	5812.6	5887.9
52.5°	592.0	579.1	577.0	678.1	874.0	1229.3	2058.1	4137.7	5496.1	6462.7	6850.3
55°	462.9	449.9	452.1	536.1	695.4	1005.4	1769.6	4064.5	5849.2	7128.0	7862.1
57.5°	378.9	366.0	368.1	415.5	531.7	768.6	1410.1	3905.2	6008.5	7950.3	9041.8
60°	333.7	320.8	314.3	335.8	409.0	579.1	1048.4	3285.2	6034.3	8632.8	10322.7
62.5°	310.0	297.1	290.6	297.1	338.0	443.5	755.6	2602.8	5885.8	9216.2	11496.0
65°	288.5	277.7	269.1	275.6	297.1	353.1	551.1	1782.5	5108.6	9483.1	12348.5
67.5°	264.8	256.2	247.6	256.2	271.3	297.1	428.4	1128.1	3829.9	9136.5	12703.8
69°	251.9	239.0	234.7	241.1	256.2	273.4	370.3	899.9	2912.8	8477.8	12488.5
70°	239.0	230.4	223.9	234.7	247.6	260.5	333.7	764.2	2284.1	7631.7	11954.6
72.5°	211.0	204.5	200.2	211.0	221.7	230.4	273.4	544.7	1324.0	5196.9	9481.0
75°	185.1	178.7	176.5	185.1	193.8	198.1	230.4	374.6	781.5	2719.0	5687.7
77.5°	155.0	146.4	148.5	159.3	165.8	167.9	193.8	269.1	460.7	1231.4	2635.0
80°	114.1	114.1	122.7	131.3	131.3	131.3	155.0	195.9	279.9	566.2	1093.6
82.5°	79.7	81.8	84.0	96.9	99.0	90.4	118.4	142.1	174.4	247.6	378.9
85°	45.2	47.4	49.5	58.1	60.3	53.8	77.5	90.4	101.2	122.7	198.1
87.5°	17.2	19.4	25.8	30.1	32.3	23.7	36.6	43.1	43.1	51.7	88.3
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°	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0
2.5°	777.2	792.2	820.2	826.7	803.0	777.2	719.0	755.6	770.7	742.7	751.3
5°	962.3	994.6	1029.0	988.1	962.3	945.1	917.1	919.3	904.2	854.7	772.9
7.5°	1171.1	1134.5	1160.4	1188.4	1147.4	1149.6	1175.4	1121.6	1080.7	996.8	843.9
10°	1268.0	1268.0	1274.5	1274.5	1257.2	1257.2	1255.1	1169.0	1119.5	1082.9	1039.8
12.5°	1274.5	1272.3	1298.1	1278.8	1283.1	1287.4	1298.1	1336.9	1324.0	1276.6	1315.4
15°	1453.1	1444.5	1453.1	1451.0	1457.5	1476.8	1468.2	1459.6	1461.8	1496.2	1554.3
17.5°	1621.1	1625.4	1616.8	1631.8	1631.8	1644.7	1674.9	1644.7	1618.9	1683.5	1728.7
20°	1814.8	1799.8	1765.3	1791.1	1797.6	1799.8	1849.3	1812.7	1776.1	1799.8	1853.6
22.5°	2010.7	2008.6	2012.9	2015.0	2023.6	1991.4	1924.6	1913.9	1937.5	1905.2	1911.7
25°	2131.3	2133.4	2144.2	2146.4	2109.8	2144.2	2167.9	2096.8	2096.8	2090.4	2047.3
27.5°	2277.7	2245.4	2258.3	2275.5	2260.5	2269.1	2241.1	2137.7	2247.5	2262.6	2090.4
30°	2376.7	2361.6	2346.6	2363.8	2378.9	2417.6	2338.0	2327.2	2335.8	2415.5	2189.4
32.5°	2585.5	2607.1	2579.1	2551.1	2579.1	2570.5	2536.0	2520.9	2628.6	2523.1	2258.3
35°	2779.3	2787.9	2790.0	2785.7	2803.0	2772.8	2772.8	2828.8	2861.1	2747.0	2279.8
37.5°	3246.4	3216.3	3153.9	3123.7	3177.6	3222.8	3089.3	3156.0	3143.1	2949.4	2441.3
40°	3582.3	3651.2	3670.5	3661.9	3670.5	3541.4	3569.4	3618.9	3560.8	3240.0	2385.3
42.5°	4073.1	4116.2	4101.1	4081.7	4090.3	4066.7	3982.7	4165.7	3956.9	3565.1	2471.4
45°	4520.9	4617.8	4624.2	4557.5	4611.3	4527.4	4561.8	4626.4	4415.4	3808.3	2447.7
47.5°	5054.8	5255.0	5179.7	5179.7	5233.5	5052.7	5134.5	5220.6	4660.8	3971.9	2318.6
50°	5844.9	5952.5	5948.2	5928.8	5952.5	5855.7	5842.7	5832.0	5037.6	4126.9	2238.9
52.5°	6738.3	6884.7	6828.7	6850.3	6882.5	6699.6	6843.8	6449.8	5509.1	4185.1	2058.1
55°	7879.3	7980.5	7924.5	7814.7	7961.1	7844.9	7892.2	7123.7	5836.3	4019.3	1756.7
57.5°	9237.7	9289.4	9196.8	9186.1	9282.9	9158.1	9078.4	7881.5	6006.4	3894.4	1403.6
60°	10824.3	10985.8	10927.7	10835.1	10923.4	10813.6	10210.8	8525.1	5971.9	3311.0	1087.2
62.5°	12727.4	12891.1	12826.5	12764.0	12820.0	12533.7	11274.3	9033.2	5816.9	2624.3	794.4
65°	14299.0	15037.4	15134.3	15136.4	14865.2	14202.1	12122.5	9231.3	4998.8	1832.0	581.3
67.5°	15332.3	16867.3	17345.2	17173.0	16550.8	15037.4	12464.8	8843.8	3860.0	1158.2	434.9
69°	15213.9	17226.8	17917.9	17821.0	16947.0	15024.5	12197.8	8191.5	2949.4	921.4	368.1
70°	14667.1	16931.9	17752.1	17795.2	16695.1	14447.5	11722.1	7442.3	2385.3	785.8	338.0
72.5°	11704.8	13952.4	14673.6	14955.6	13864.1	11569.2	9612.3	5250.7	1382.1	549.0	273.4
75°	7250.7	8460.6	9059.0	9222.7	8561.7	7205.5	5834.1	2921.4	841.8	387.5	230.4
77.5°	3250.7	3601.7	3946.1	3946.1	3687.8	3289.5	2673.8	1412.2	477.9	275.6	193.8
80°	1089.3	1130.2	1100.1	1110.9	1067.8	1026.9	1074.3	609.2	294.9	206.7	157.2
82.5°	740.6	930.0	988.1	988.1	927.9	732.0	413.3	279.9	180.8	148.5	120.6
85°	602.8	736.3	790.1	813.8	766.4	617.9	217.4	135.6	107.6	94.7	81.8
87.5°	202.4	189.4	178.7	174.4	183.0	191.6	107.6	58.1	49.5	45.2	43.1
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°	732.0	732.0	732.0	732.0	732.0	732.0
2.5°	766.4	740.6	751.3	762.1	839.6	897.7
5°	762.1	798.7	880.5	983.8	1031.2	1147.4
7.5°	783.6	917.1	1069.9	1177.6	1220.6	1257.2
10°	1048.4	1072.1	1123.8	1227.1	1313.2	1328.3
12.5°	1354.1	1347.7	1311.1	1358.4	1315.4	1345.5
15°	1593.1	1522.0	1472.5	1466.1	1451.0	1451.0
17.5°	1724.4	1662.0	1593.1	1575.9	1530.7	1567.2
20°	1879.4	1771.8	1599.5	1582.3	1567.2	1532.8
22.5°	1849.3	1741.6	1562.9	1541.4	1621.1	1616.8
25°	1885.9	1741.6	1571.6	1547.9	1584.5	1584.5
27.5°	1795.4	1677.0	1554.3	1412.2	1524.2	1550.0
30°	1771.8	1638.3	1496.2	1369.2	1483.3	1459.6
32.5°	1896.6	1541.4	1401.5	1362.7	1446.7	1429.5
35°	1799.8	1524.2	1377.8	1306.8	1405.8	1388.6
37.5°	1840.7	1502.7	1336.9	1276.6	1356.3	1382.1
40°	1832.0	1401.5	1289.5	1212.0	1291.7	1304.6
42.5°	1687.8	1324.0	1209.9	1132.4	1173.3	1216.3
45°	1644.7	1276.6	1132.4	1024.7	1026.9	1076.4
47.5°	1565.1	1169.0	990.3	891.3	891.3	932.2
50°	1431.6	1024.7	828.8	738.4	736.3	768.6
52.5°	1233.6	884.8	699.7	600.6	594.2	626.5
55°	1009.7	712.6	551.1	486.5	473.6	486.5
57.5°	785.8	555.4	434.9	383.2	381.0	391.8
60°	609.2	434.9	346.6	316.5	320.8	338.0
62.5°	460.7	346.6	294.9	284.2	290.6	307.9
65°	366.0	299.2	269.1	262.6	269.1	286.3
67.5°	297.1	271.3	249.7	241.1	245.4	262.6
69°	273.4	256.2	239.0	228.2	232.5	245.4
70°	260.5	247.6	230.4	219.6	223.9	236.8
72.5°	228.2	221.7	208.8	198.1	200.2	211.0
75°	200.2	195.9	187.3	174.4	174.4	187.3
77.5°	167.9	170.1	161.5	148.5	146.4	152.8
80°	133.5	137.8	133.5	120.6	116.3	116.3
82.5°	96.9	105.5	101.2	88.3	86.1	86.1
85°	60.3	66.7	64.6	56.0	56.0	49.5
87.5°	28.0	36.6	34.4	30.1	28.0	19.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)