

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: P565342

Luminaire Tested: **MSA-SA3C-835-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565342
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-SA3C-835-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: 13570 lumens
Efficiency: N/A
Efficacy: 81.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B4 - U0 - G4

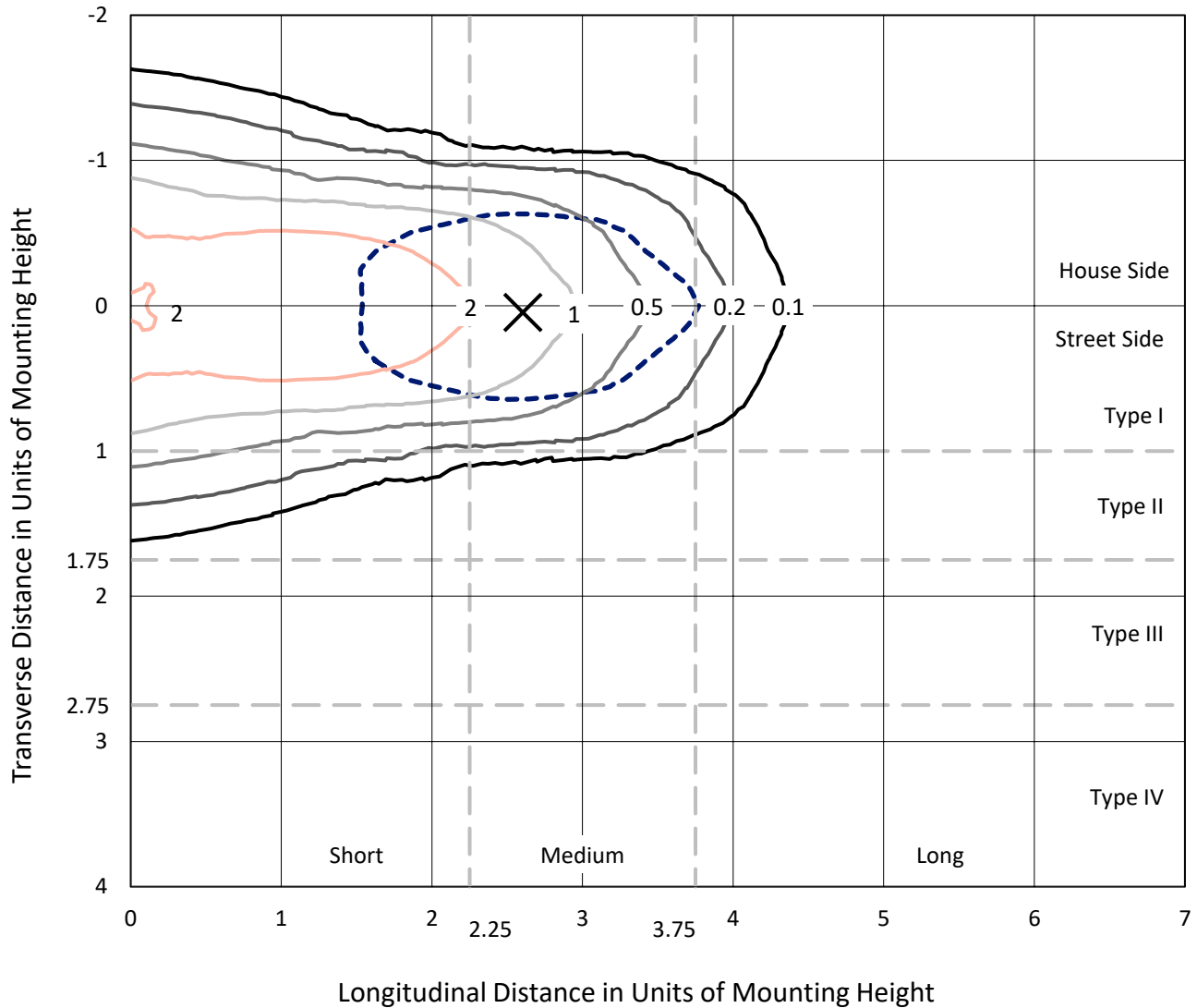
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

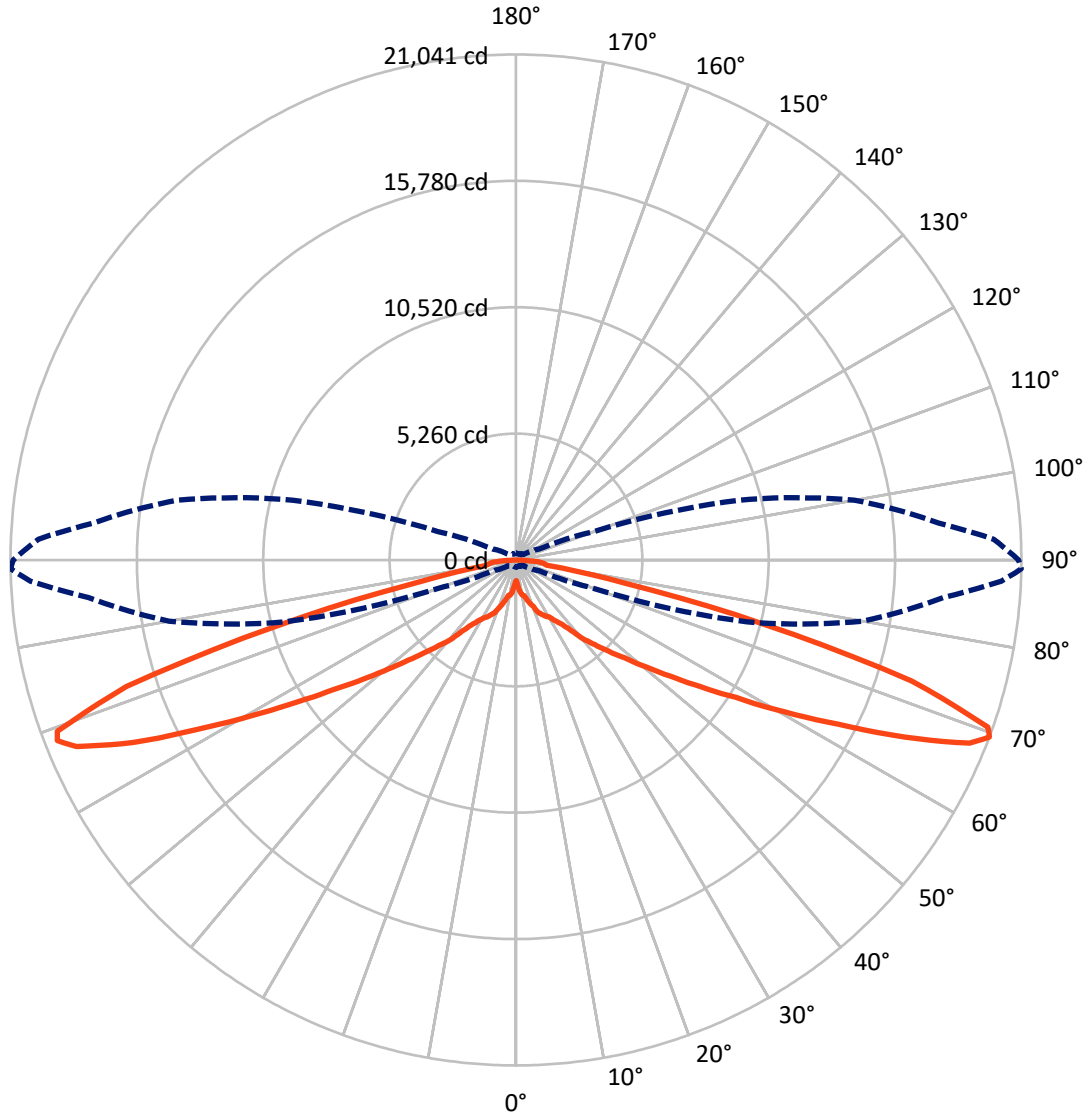
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 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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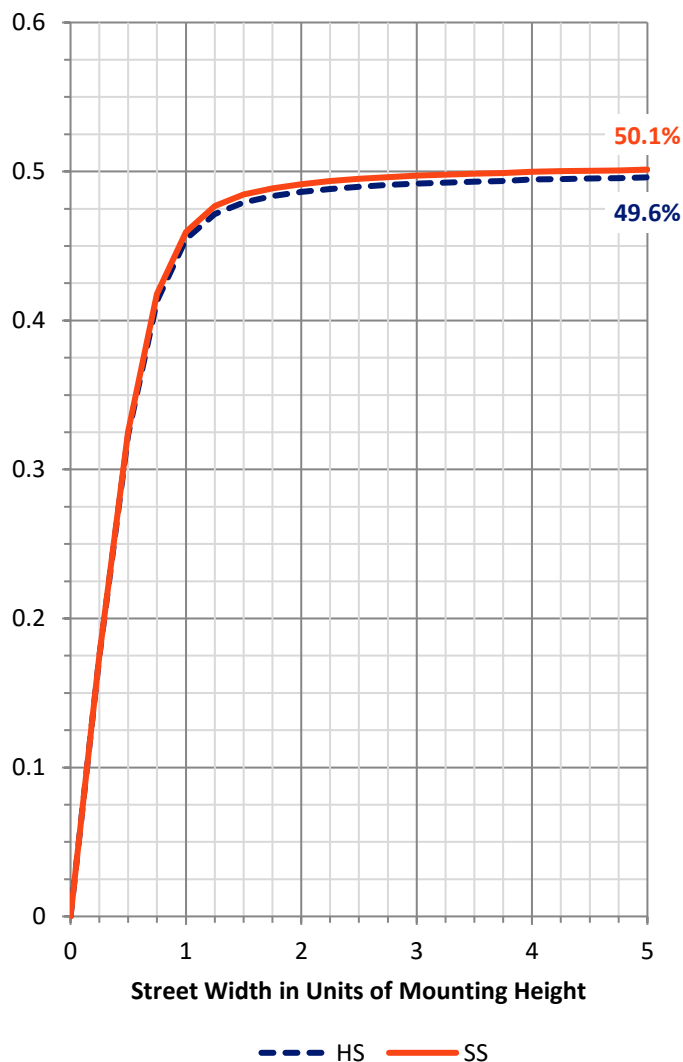
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6784.9	0.0	6784.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6785.1	0.0	6785.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	13570.0	0.0	13570.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.0	0.8
10°-20°	497.6	3.7
20°-30°	992.7	7.3
30°-40°	1501.5	11.1
40°-50°	2179.5	16.1
50°-60°	2863.4	21.1
60°-70°	3493.0	25.7
70°-80°	1766.0	13.0
80°-90°	168.3	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°	13570.0	100.0
0°-180°	13570.0	100.0

Coefficient of Utilization

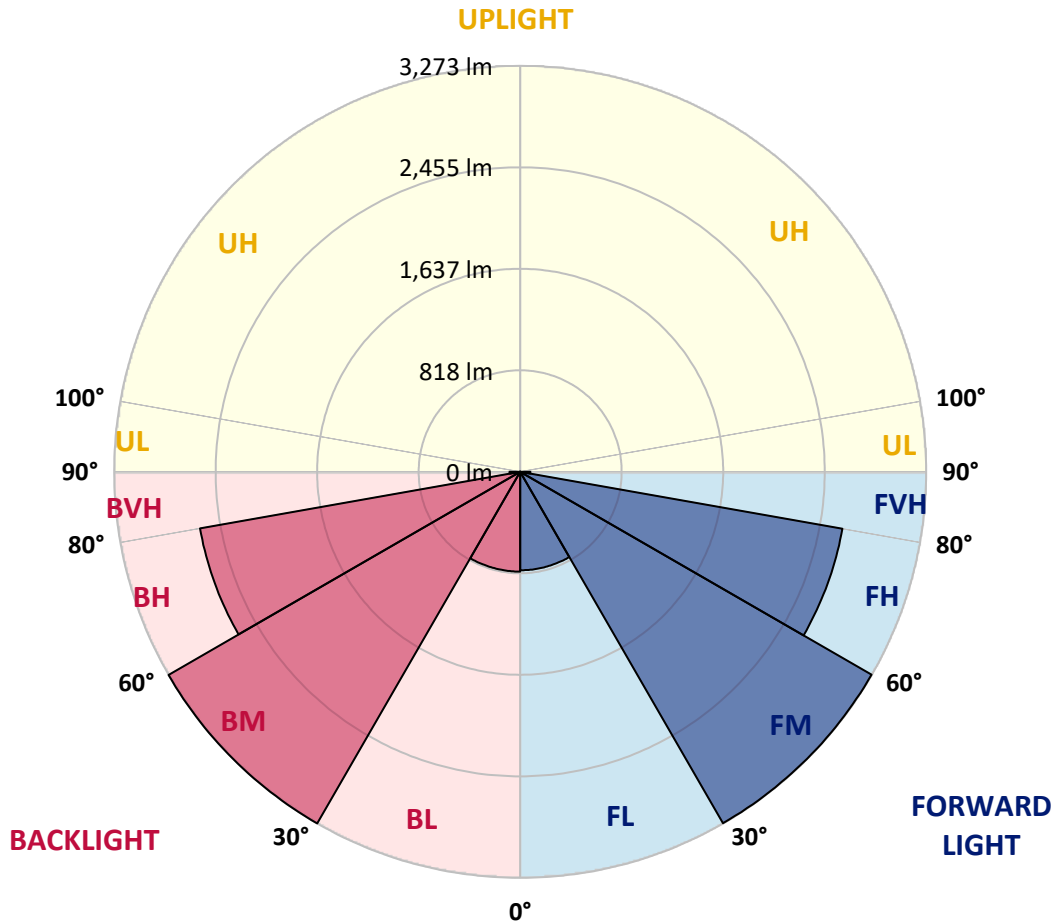


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	793.6	5.8			
FM (30°-60°)	3271.1	24.1			
FH (60°-80°)	2637.9	19.4			G2/5000
FVH (80°-90°)	82.6	0.6			G1/100
BL (0°-30°)	804.7	5.9	B2/1000		
BM (30°-60°)	3273.3	24.1	B3/5000		
BH (60°-80°)	2621.1	19.3	B4/5000		G4/5000
BVH (80°-90°)	85.8	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type I Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	859.5	859.5	859.5	859.5	859.5	859.5	859.5	859.5	859.5	859.5	859.5
2.5°	1008.7	892.4	882.3	854.5	874.7	882.3	864.6	839.3	867.1	882.3	854.5
5°	1271.6	1099.7	1041.5	993.5	897.4	857.0	897.4	1001.1	1013.7	1076.9	1059.2
7.5°	1400.5	1372.7	1299.4	1140.1	985.9	900.0	1008.7	1157.8	1233.7	1294.3	1357.5
10°	1496.6	1481.4	1352.5	1238.7	1175.5	1180.6	1183.1	1231.1	1296.9	1398.0	1433.4
12.5°	1519.3	1514.3	1534.5	1509.2	1514.3	1542.1	1514.3	1501.6	1539.6	1572.4	1537.0
15°	1666.0	1663.4	1671.0	1676.1	1777.2	1820.2	1777.2	1739.3	1711.5	1683.7	1741.8
17.5°	1767.1	1754.4	1757.0	1805.0	1918.8	2037.6	2014.8	1964.3	1901.1	1939.0	1987.0
20°	1822.7	1799.9	1815.1	1835.3	2027.5	2158.9	2174.1	2105.8	2067.9	2115.9	2156.4
22.5°	1875.8	1840.4	1787.3	1807.5	1984.5	2174.1	2247.4	2229.7	2257.5	2272.7	2265.1
25°	1812.6	1835.3	1777.2	1835.3	2014.8	2189.3	2335.9	2439.5	2442.1	2434.5	2490.1
27.5°	1774.7	1757.0	1658.4	1807.5	1956.7	2065.4	2439.5	2614.0	2667.1	2505.3	2614.0
30°	1708.9	1736.7	1602.8	1726.6	1916.2	2098.2	2558.3	2808.6	2730.3	2710.0	2735.3
32.5°	1668.5	1650.8	1587.6	1655.8	1799.9	2196.8	2634.2	2922.4	3021.0	2972.9	2967.9
35°	1602.8	1615.4	1516.8	1590.1	1792.4	2113.4	2684.7	3208.0	3359.7	3321.8	3291.5
37.5°	1612.9	1569.9	1499.1	1552.2	1744.3	2158.9	2811.1	3483.6	3723.8	3744.0	3604.9
40°	1537.0	1511.8	1405.6	1494.1	1653.3	2131.1	2841.5	3797.1	4204.1	4295.1	4095.4
42.5°	1428.3	1395.5	1334.8	1433.4	1600.2	1994.6	2884.5	4173.7	4692.0	4881.6	4699.6
45°	1271.6	1228.6	1198.3	1329.7	1483.9	1959.2	2839.0	4487.2	5159.7	5420.1	5415.0
47.5°	1082.0	1054.2	1039.0	1178.1	1387.9	1870.7	2745.4	4684.4	5485.8	6153.2	6052.1
50°	867.1	846.9	844.4	991.0	1226.1	1688.7	2639.2	4783.0	5981.3	6825.6	6914.1
52.5°	695.2	680.0	677.5	796.3	1026.4	1443.5	2416.8	4858.8	6454.0	7589.1	8044.1
55°	543.5	528.4	530.9	629.5	816.5	1180.6	2078.0	4772.9	6868.6	8370.2	9232.3
57.5°	444.9	429.8	432.3	487.9	624.4	902.5	1655.8	4585.8	7055.7	9335.9	10617.6
60°	391.8	376.7	369.1	394.4	480.3	680.0	1231.1	3857.7	7086.0	10137.3	12121.8
62.5°	364.0	348.9	341.3	348.9	396.9	520.8	887.3	3056.4	6911.6	10822.4	13499.6
65°	338.8	326.1	316.0	323.6	348.9	414.6	647.2	2093.2	5999.0	11135.9	14500.7
67.5°	310.9	300.8	290.7	300.8	318.5	348.9	503.1	1324.7	4497.3	10728.9	14917.8
69°	295.8	280.6	275.6	283.1	300.8	321.1	434.8	1056.7	3420.4	9955.3	14665.0
70°	280.6	270.5	262.9	275.6	290.7	305.9	391.8	897.4	2682.2	8961.8	14038.0
72.5°	247.7	240.2	235.1	247.7	260.4	270.5	321.1	639.6	1554.7	6102.6	11133.4
75°	217.4	209.8	207.3	217.4	227.5	232.6	270.5	439.9	917.7	3192.9	6679.0
77.5°	182.0	171.9	174.4	187.1	194.7	197.2	227.5	316.0	541.0	1446.0	3094.3
80°	134.0	134.0	144.1	154.2	154.2	154.2	182.0	230.0	328.6	664.9	1284.2
82.5°	93.5	96.1	98.6	113.8	116.3	106.2	139.0	166.8	204.8	290.7	444.9
85°	53.1	55.6	58.1	68.3	70.8	63.2	91.0	106.2	118.8	144.1	232.6
87.5°	20.2	22.8	30.3	35.4	37.9	27.8	43.0	50.6	50.6	60.7	103.6
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°	859.5	859.5	859.5	859.5	859.5	859.5	859.5	859.5	859.5	859.5	859.5
2.5°	912.6	930.3	963.2	970.8	942.9	912.6	844.4	887.3	905.0	872.2	882.3
5°	1130.0	1167.9	1208.4	1160.4	1130.0	1109.8	1076.9	1079.5	1061.8	1003.6	907.6
7.5°	1375.2	1332.3	1362.6	1395.5	1347.4	1350.0	1380.3	1317.1	1269.1	1170.5	991.0
10°	1489.0	1489.0	1496.6	1496.6	1476.4	1476.4	1473.8	1372.7	1314.6	1271.6	1221.0
12.5°	1496.6	1494.1	1524.4	1501.6	1506.7	1511.8	1524.4	1569.9	1554.7	1499.1	1544.6
15°	1706.4	1696.3	1706.4	1703.9	1711.5	1734.2	1724.1	1714.0	1716.5	1757.0	1825.2
17.5°	1903.6	1908.6	1898.5	1916.2	1916.2	1931.4	1966.8	1931.4	1901.1	1976.9	2030.0
20°	2131.1	2113.4	2073.0	2103.3	2110.9	2113.4	2171.6	2128.6	2085.6	2113.4	2176.6
22.5°	2361.2	2358.6	2363.7	2366.2	2376.3	2338.4	2260.0	2247.4	2275.2	2237.3	2244.9
25°	2502.7	2505.3	2517.9	2520.4	2477.4	2517.9	2545.7	2462.3	2462.3	2454.7	2404.1
27.5°	2674.6	2636.7	2651.9	2672.1	2654.4	2664.5	2631.7	2510.3	2639.2	2656.9	2454.7
30°	2790.9	2773.2	2755.5	2775.8	2793.5	2839.0	2745.4	2732.8	2742.9	2836.4	2571.0
32.5°	3036.1	3061.4	3028.6	2995.7	3028.6	3018.4	2978.0	2960.3	3086.7	2962.8	2651.9
35°	3263.7	3273.8	3276.3	3271.2	3291.5	3256.1	3256.1	3321.8	3359.7	3225.7	2677.2
37.5°	3812.2	3776.8	3703.5	3668.1	3731.3	3784.4	3627.7	3706.1	3690.9	3463.4	2866.8
40°	4206.6	4287.5	4310.3	4300.1	4310.3	4158.6	4191.4	4249.6	4181.3	3804.7	2801.0
42.5°	4783.0	4833.6	4815.9	4793.1	4803.2	4775.4	4676.8	4891.7	4646.5	4186.4	2902.2
45°	5308.8	5422.6	5430.2	5351.8	5415.0	5316.4	5356.9	5432.7	5184.9	4472.1	2874.3
47.5°	5935.8	6170.9	6082.4	6082.4	6145.6	5933.2	6029.3	6130.4	5473.1	4664.2	2722.7
50°	6863.5	6989.9	6984.9	6962.1	6989.9	6876.2	6861.0	6848.4	5915.5	4846.2	2629.1
52.5°	7912.7	8084.6	8018.8	8044.1	8082.0	7867.2	8036.5	7573.9	6469.2	4914.5	2416.8
55°	9252.5	9371.3	9305.6	9176.7	9348.6	9212.1	9267.7	8365.2	6853.4	4719.8	2062.9
57.5°	10847.7	10908.4	10799.7	10787.0	10900.8	10754.2	10660.6	9255.0	7053.1	4573.2	1648.3
60°	12710.8	12900.4	12832.2	12723.5	12827.1	12698.2	11990.4	10010.9	7012.7	3888.1	1276.6
62.5°	14945.6	15137.7	15061.9	14988.6	15054.3	14718.1	13239.2	10607.5	6830.7	3081.6	932.8
65°	16791.0	17658.2	17771.9	17774.4	17455.9	16677.3	14235.2	10840.1	5870.0	2151.3	682.6
67.5°	18004.5	19807.0	20368.2	20165.9	19435.3	17658.2	14637.2	10385.1	4532.7	1360.1	510.7
69°	17865.4	20229.1	21040.6	20926.9	19900.5	17643.0	14323.7	9619.1	3463.4	1082.0	432.3
70°	17223.3	19882.8	20846.0	20896.5	19604.7	16965.5	13765.0	8739.3	2801.0	922.7	396.9
72.5°	13744.8	16384.0	17230.9	17562.1	16280.4	13585.5	11287.6	6165.8	1623.0	644.6	321.1
75°	8514.3	9935.1	10637.9	10830.0	10053.9	8461.3	6850.9	3430.5	988.5	455.0	270.5
77.5°	3817.3	4229.4	4633.8	4633.8	4330.5	3862.8	3139.8	1658.4	561.2	323.6	227.5
80°	1279.2	1327.2	1291.8	1304.5	1253.9	1205.9	1261.5	715.4	346.3	242.7	184.5
82.5°	869.6	1092.1	1160.4	1160.4	1089.6	859.5	485.4	328.6	212.4	174.4	141.6
85°	707.8	864.6	927.8	955.6	900.0	725.5	255.3	159.3	126.4	111.2	96.1
87.5°	237.6	222.5	209.8	204.8	214.9	225.0	126.4	68.3	58.1	53.1	50.6
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°	859.5	859.5	859.5	859.5	859.5	859.5
2.5°	900.0	869.6	882.3	894.9	985.9	1054.2
5°	894.9	937.9	1034.0	1155.3	1210.9	1347.4
7.5°	920.2	1076.9	1256.4	1382.8	1433.4	1476.4
10°	1231.1	1258.9	1319.6	1441.0	1542.1	1559.8
12.5°	1590.1	1582.5	1539.6	1595.2	1544.6	1580.0
15°	1870.7	1787.3	1729.2	1721.6	1703.9	1703.9
17.5°	2024.9	1951.6	1870.7	1850.5	1797.4	1840.4
20°	2207.0	2080.6	1878.3	1858.1	1840.4	1799.9
22.5°	2171.6	2045.2	1835.3	1810.1	1903.6	1898.5
25°	2214.5	2045.2	1845.4	1817.6	1860.6	1860.6
27.5°	2108.4	1969.3	1825.2	1658.4	1789.8	1820.2
30°	2080.6	1923.8	1757.0	1607.8	1741.8	1714.0
32.5°	2227.2	1810.1	1645.7	1600.2	1698.8	1678.6
35°	2113.4	1789.8	1617.9	1534.5	1650.8	1630.6
37.5°	2161.4	1764.6	1569.9	1499.1	1592.6	1623.0
40°	2151.3	1645.7	1514.3	1423.3	1516.8	1532.0
42.5°	1982.0	1554.7	1420.7	1329.7	1377.8	1428.3
45°	1931.4	1499.1	1329.7	1203.3	1205.9	1264.0
47.5°	1837.9	1372.7	1162.9	1046.6	1046.6	1094.6
50°	1681.1	1203.3	973.3	867.1	864.6	902.5
52.5°	1448.5	1039.0	821.6	705.3	697.7	735.7
55°	1185.6	836.8	647.2	571.3	556.2	571.3
57.5°	922.7	652.2	510.7	450.0	447.5	460.1
60°	715.4	510.7	407.0	371.6	376.7	396.9
62.5°	541.0	407.0	346.3	333.7	341.3	361.5
65°	429.8	351.4	316.0	308.4	316.0	336.2
67.5°	348.9	318.5	293.2	283.1	288.2	308.4
69°	321.1	300.8	280.6	268.0	273.0	288.2
70°	305.9	290.7	270.5	257.9	262.9	278.1
72.5°	268.0	260.4	245.2	232.6	235.1	247.7
75°	235.1	230.0	219.9	204.8	204.8	219.9
77.5°	197.2	199.7	189.6	174.4	171.9	179.5
80°	156.7	161.8	156.7	141.6	136.5	136.5
82.5°	113.8	123.9	118.8	103.6	101.1	101.1
85°	70.8	78.4	75.8	65.7	65.7	58.1
87.5°	32.9	43.0	40.4	35.4	32.9	22.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)