

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: P565295

Luminaire Tested: **MSA-SA3C-827-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565295
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-827-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: 12100 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B3 - U0 - G3

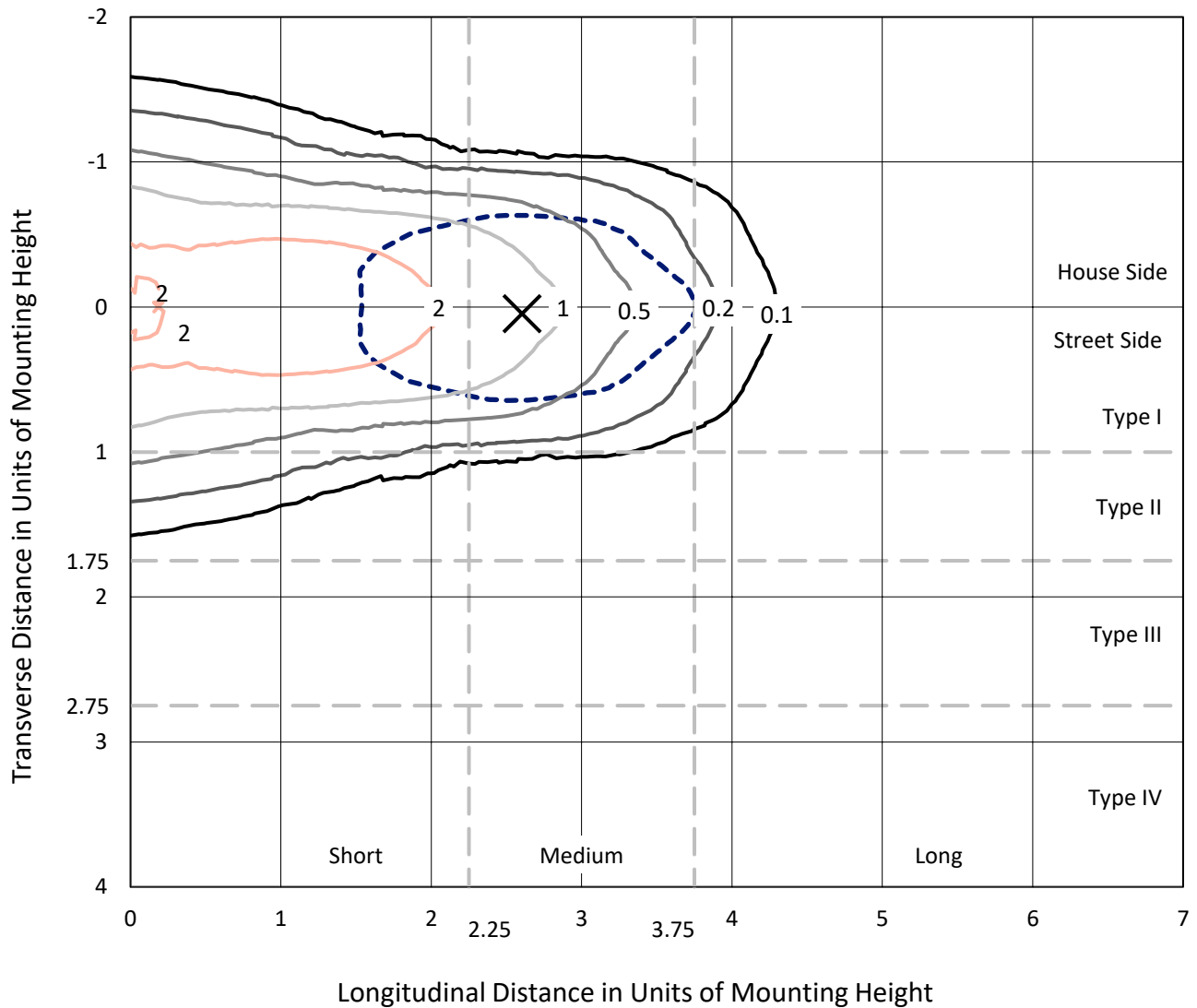
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

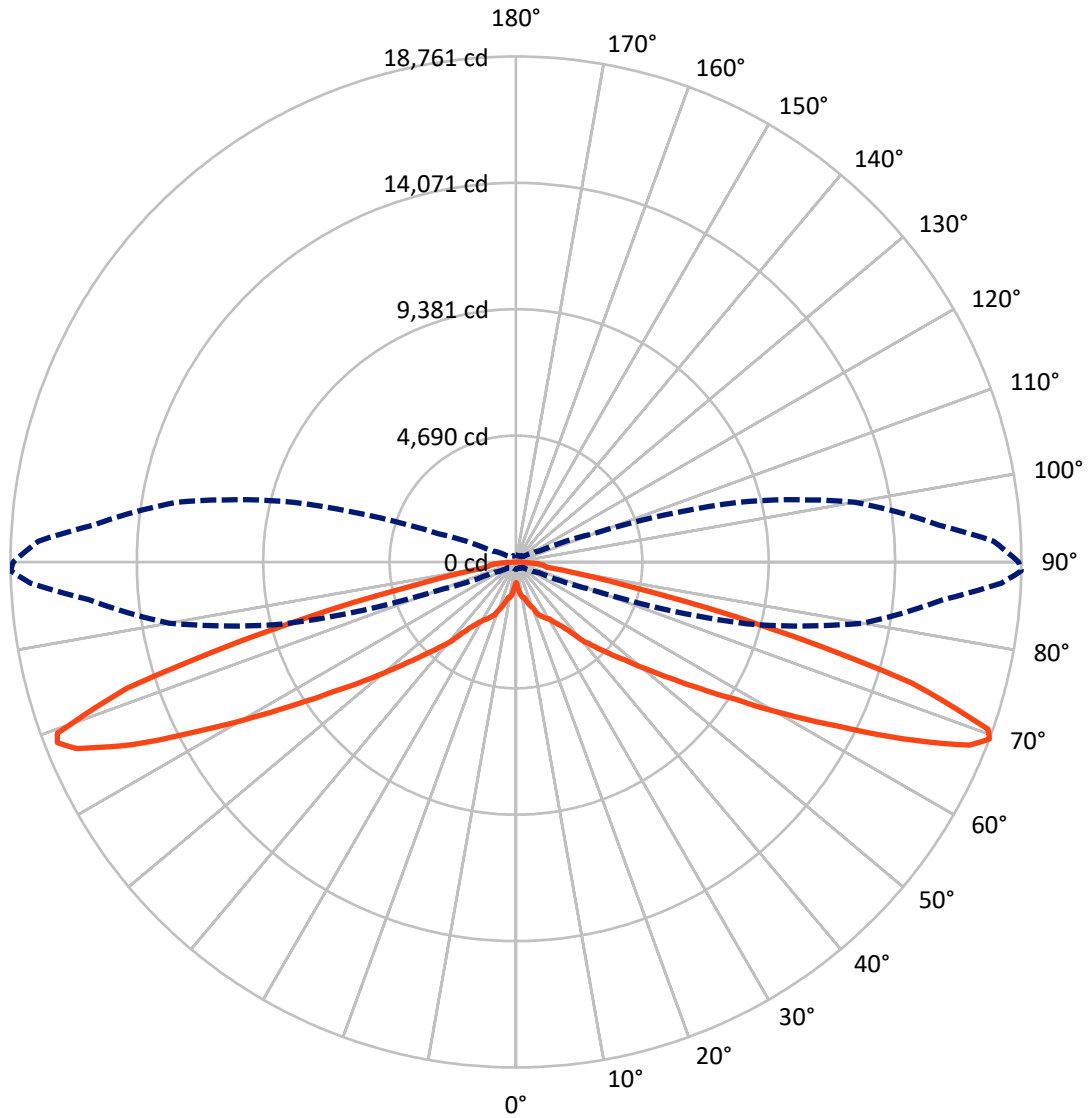
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 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	6049.9	0.0	6049.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6050.1	0.0	6050.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	12100.0	0.0	12100.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.3	0.8
10°-20°	443.7	3.7
20°-30°	885.2	7.3
30°-40°	1338.8	11.1
40°-50°	1943.4	16.1
50°-60°	2553.3	21.1
60°-70°	3114.6	25.7
70°-80°	1574.7	13.0
80°-90°	150.1	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°	12100.0	100.0
0°-180°	12100.0	100.0

Coefficient of Utilization

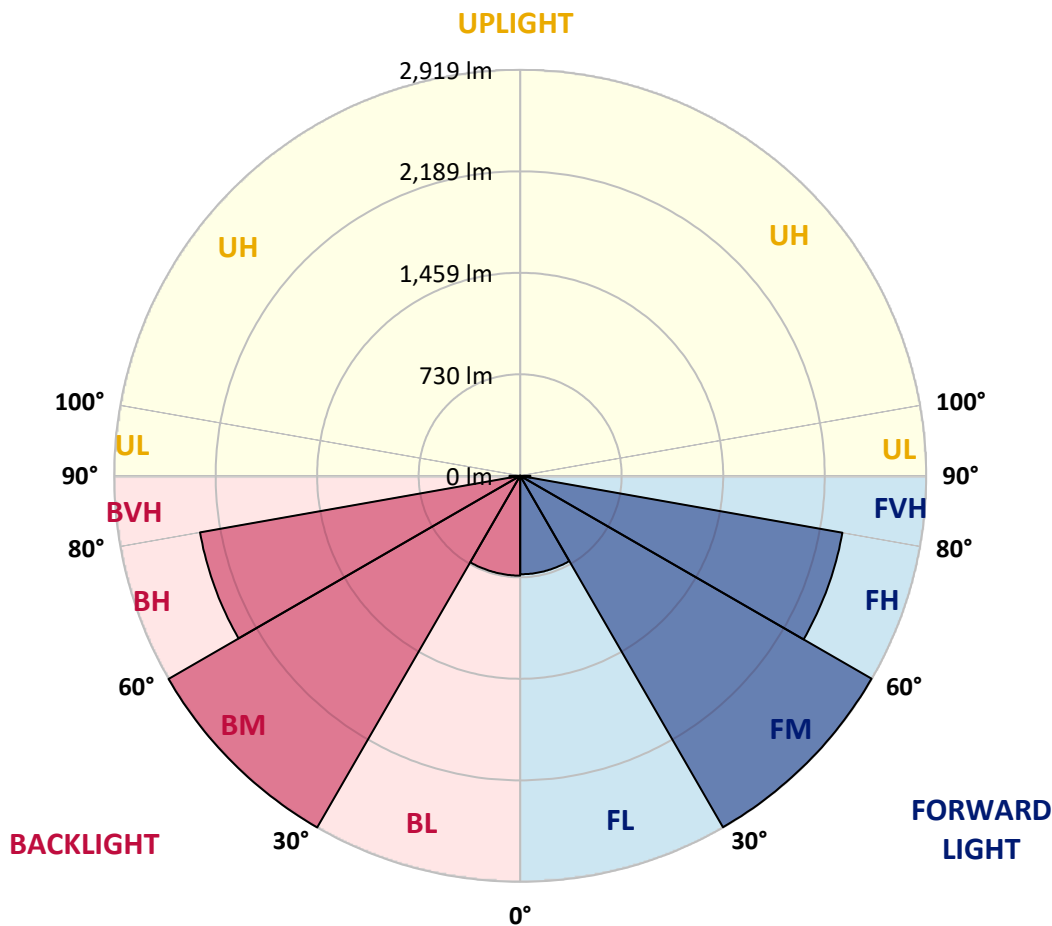


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	707.6	5.8			
FM (30°-60°)	2916.8	24.1			
FH (60°-80°)	2352.1	19.4			G2/5000
FVH (80°-90°)	73.6	0.6			G1/100
BL (0°-30°)	717.6	5.9	B2/1000		
BM (30°-60°)	2918.7	24.1	B3/5000		
BH (60°-80°)	2337.1	19.3	B3/2500		G3/2500
BVH (80°-90°)	76.5	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°	766.4	766.4	766.4	766.4	766.4	766.4	766.4	766.4	766.4	766.4	766.4
2.5°	899.4	795.7	786.7	761.9	779.9	786.7	770.9	748.4	773.2	786.7	761.9
5°	1133.8	980.6	928.7	885.9	800.2	764.2	800.2	892.6	903.9	960.3	944.5
7.5°	1248.8	1224.0	1158.6	1016.6	879.1	802.5	899.4	1032.4	1100.0	1154.1	1210.5
10°	1334.5	1320.9	1206.0	1104.5	1048.2	1052.7	1054.9	1097.8	1156.4	1246.5	1278.1
12.5°	1354.7	1350.2	1368.3	1345.7	1350.2	1375.0	1350.2	1339.0	1372.8	1402.1	1370.5
15°	1485.5	1483.2	1490.0	1494.5	1584.7	1623.0	1584.7	1550.9	1526.1	1501.3	1553.1
17.5°	1575.7	1564.4	1566.6	1609.5	1710.9	1816.9	1796.6	1751.5	1695.1	1728.9	1771.8
20°	1625.2	1605.0	1618.5	1636.5	1807.8	1925.1	1938.6	1877.7	1843.9	1886.7	1922.8
22.5°	1672.6	1641.0	1593.7	1611.7	1769.5	1938.6	2003.9	1988.2	2013.0	2026.5	2019.7
25°	1616.2	1636.5	1584.7	1636.5	1796.6	1952.1	2082.8	2175.3	2177.5	2170.8	2220.3
27.5°	1582.4	1566.6	1478.7	1611.7	1744.7	1841.6	2175.3	2330.8	2378.1	2233.9	2330.8
30°	1523.8	1548.6	1429.1	1539.6	1708.7	1871.0	2281.2	2504.4	2434.5	2416.5	2439.0
32.5°	1487.7	1472.0	1415.6	1476.5	1605.0	1958.9	2348.8	2605.8	2693.7	2650.9	2646.4
35°	1429.1	1440.4	1352.5	1417.9	1598.2	1884.5	2393.9	2860.5	2995.8	2962.0	2934.9
37.5°	1438.2	1399.8	1336.7	1384.1	1555.4	1925.1	2506.6	3106.2	3320.4	3338.4	3214.4
40°	1370.5	1348.0	1253.3	1332.2	1474.2	1900.3	2533.7	3385.7	3748.7	3829.8	3651.7
42.5°	1273.6	1244.3	1190.2	1278.1	1426.9	1778.5	2572.0	3721.6	4183.7	4352.8	4190.5
45°	1133.8	1095.5	1068.5	1185.7	1323.2	1747.0	2531.4	4001.1	4600.7	4832.9	4828.4
47.5°	964.8	940.0	926.5	1050.4	1237.5	1668.1	2448.0	4177.0	4891.5	5486.6	5396.5
50°	773.2	755.1	752.9	883.6	1093.3	1505.8	2353.3	4264.9	5333.3	6086.2	6165.1
52.5°	619.9	606.4	604.1	710.1	915.2	1287.1	2155.0	4332.5	5754.9	6767.0	7172.7
55°	484.6	471.1	473.4	561.3	728.1	1052.7	1852.9	4255.9	6124.5	7463.5	8232.2
57.5°	396.7	383.2	385.5	435.1	556.8	804.7	1476.5	4089.0	6291.4	8324.6	9467.5
60°	349.4	335.9	329.1	351.6	428.3	606.4	1097.8	3439.8	6318.4	9039.2	10808.7
62.5°	324.6	311.1	304.3	311.1	353.9	464.4	791.2	2725.3	6162.9	9650.1	12037.2
65°	302.1	290.8	281.8	288.5	311.1	369.7	577.1	1866.4	5349.1	9929.6	12929.9
67.5°	277.3	268.2	259.2	268.2	284.0	311.1	448.6	1181.2	4010.1	9566.6	13301.8
69°	263.7	250.2	245.7	252.5	268.2	286.3	387.7	942.2	3049.9	8876.9	13076.4
70°	250.2	241.2	234.4	245.7	259.2	272.8	349.4	800.2	2391.7	7991.0	12517.3
72.5°	220.9	214.1	209.6	220.9	232.2	241.2	286.3	570.3	1386.3	5441.5	9927.3
75°	193.9	187.1	184.8	193.9	202.9	207.4	241.2	392.2	818.3	2847.0	5955.5
77.5°	162.3	153.3	155.5	166.8	173.6	175.8	202.9	281.8	482.4	1289.4	2759.1
80°	119.5	119.5	128.5	137.5	137.5	137.5	162.3	205.1	293.0	592.8	1145.1
82.5°	83.4	85.7	87.9	101.4	103.7	94.7	124.0	148.8	182.6	259.2	396.7
85°	47.3	49.6	51.8	60.9	63.1	56.4	81.1	94.7	105.9	128.5	207.4
87.5°	18.0	20.3	27.0	31.6	33.8	24.8	38.3	45.1	45.1	54.1	92.4
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):

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	766.4	766.4	766.4	766.4	766.4	766.4	766.4	766.4	766.4	766.4	766.4
2.5°	813.8	829.5	858.8	865.6	840.8	813.8	752.9	791.2	807.0	777.7	786.7
5°	1007.6	1041.4	1077.5	1034.7	1007.6	989.6	960.3	962.5	946.7	894.9	809.2
7.5°	1226.3	1187.9	1215.0	1244.3	1201.5	1203.7	1230.8	1174.4	1131.6	1043.7	883.6
10°	1327.7	1327.7	1334.5	1334.5	1316.4	1316.4	1314.2	1224.0	1172.2	1133.8	1088.8
12.5°	1334.5	1332.2	1359.3	1339.0	1343.5	1348.0	1359.3	1399.8	1386.3	1336.7	1377.3
15°	1521.6	1512.5	1521.6	1519.3	1526.1	1546.4	1537.3	1528.3	1530.6	1566.6	1627.5
17.5°	1697.4	1701.9	1692.9	1708.7	1708.7	1722.2	1753.7	1722.2	1695.1	1762.8	1810.1
20°	1900.3	1884.5	1848.4	1875.5	1882.2	1884.5	1936.3	1898.0	1859.7	1884.5	1940.8
22.5°	2105.4	2103.1	2107.6	2109.9	2118.9	2085.1	2015.2	2003.9	2028.7	1994.9	2001.7
25°	2231.6	2233.9	2245.1	2247.4	2209.1	2245.1	2269.9	2195.5	2195.5	2188.8	2143.7
27.5°	2384.9	2351.1	2364.6	2382.6	2366.9	2375.9	2346.6	2238.4	2353.3	2369.1	2188.8
30°	2488.6	2472.8	2457.0	2475.1	2490.8	2531.4	2448.0	2436.7	2445.8	2529.2	2292.5
32.5°	2707.2	2729.8	2700.5	2671.2	2700.5	2691.5	2655.4	2639.6	2752.3	2641.9	2364.6
35°	2910.1	2919.1	2921.4	2916.9	2934.9	2903.4	2903.4	2962.0	2995.8	2876.3	2387.2
37.5°	3399.3	3367.7	3302.3	3270.8	3327.1	3374.5	3234.7	3304.6	3291.1	3088.2	2556.2
40°	3750.9	3823.1	3843.3	3834.3	3843.3	3708.1	3737.4	3789.2	3728.4	3392.5	2497.6
42.5°	4264.9	4310.0	4294.2	4273.9	4282.9	4258.1	4170.2	4361.8	4143.1	3732.9	2587.8
45°	4733.7	4835.2	4841.9	4772.1	4828.4	4740.5	4776.6	4844.2	4623.3	3987.6	2563.0
47.5°	5292.8	5502.4	5423.5	5423.5	5479.9	5290.5	5376.2	5466.3	4880.3	4158.9	2427.7
50°	6120.0	6232.7	6228.2	6208.0	6232.7	6131.3	6117.8	6106.5	5274.7	4321.2	2344.3
52.5°	7055.5	7208.8	7150.2	7172.7	7206.5	7014.9	7166.0	6753.5	5768.4	4382.1	2155.0
55°	8250.2	8356.2	8297.6	8182.6	8335.9	8214.2	8263.7	7459.0	6111.0	4208.5	1839.4
57.5°	9672.6	9726.7	9629.8	9618.5	9719.9	9589.2	9505.8	8252.5	6289.1	4077.8	1469.7
60°	11333.9	11503.0	11442.1	11345.2	11437.6	11322.6	10691.5	8926.5	6253.0	3466.9	1138.3
62.5°	13326.6	13497.9	13430.3	13364.9	13423.5	13123.7	11805.0	9458.4	6090.7	2747.8	831.8
65°	14972.1	15745.3	15846.7	15849.0	15565.0	14870.7	12693.2	9665.8	5234.2	1918.3	608.6
67.5°	16054.1	17661.3	18161.8	17981.4	17330.0	15745.3	13051.6	9260.1	4041.7	1212.7	455.3
69°	15930.1	18037.8	18761.4	18659.9	17744.7	15731.8	12772.1	8577.1	3088.2	964.8	385.5
70°	15357.6	17729.0	18587.8	18632.9	17481.0	15127.7	12273.9	7792.6	2497.6	822.8	353.9
72.5°	12255.9	14609.2	15364.3	15659.6	14516.8	12113.8	10064.8	5497.9	1447.2	574.8	286.3
75°	7592.0	8858.8	9485.5	9656.8	8964.8	7544.7	6108.8	3058.9	881.4	405.7	241.2
77.5°	3403.8	3771.2	4131.9	4131.9	3861.4	3444.4	2799.7	1478.7	500.4	288.5	202.9
80°	1140.6	1183.4	1151.9	1163.1	1118.1	1075.2	1124.8	637.9	308.8	216.4	164.6
82.5°	775.4	973.8	1034.7	1034.7	971.5	766.4	432.8	293.0	189.3	155.5	126.2
85°	631.2	770.9	827.3	852.1	802.5	646.9	227.7	142.0	112.7	99.2	85.7
87.5°	211.9	198.4	187.1	182.6	191.6	200.6	112.7	60.9	51.8	47.3	45.1
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°	766.4	766.4	766.4	766.4	766.4	766.4
2.5°	802.5	775.4	786.7	798.0	879.1	940.0
5°	798.0	836.3	922.0	1030.2	1079.7	1201.5
7.5°	820.5	960.3	1120.3	1233.0	1278.1	1316.4
10°	1097.8	1122.6	1176.7	1284.9	1375.0	1390.8
12.5°	1417.9	1411.1	1372.8	1422.4	1377.3	1408.8
15°	1668.1	1593.7	1541.8	1535.1	1519.3	1519.3
17.5°	1805.6	1740.2	1668.1	1650.0	1602.7	1641.0
20°	1967.9	1855.2	1674.8	1656.8	1641.0	1605.0
22.5°	1936.3	1823.6	1636.5	1614.0	1697.4	1692.9
25°	1974.6	1823.6	1645.5	1620.7	1659.1	1659.1
27.5°	1880.0	1756.0	1627.5	1478.7	1595.9	1623.0
30°	1855.2	1715.4	1566.6	1433.6	1553.1	1528.3
32.5°	1985.9	1614.0	1467.5	1426.9	1514.8	1496.8
35°	1884.5	1595.9	1442.7	1368.3	1472.0	1453.9
37.5°	1927.3	1573.4	1399.8	1336.7	1420.1	1447.2
40°	1918.3	1467.5	1350.2	1269.1	1352.5	1366.0
42.5°	1767.3	1386.3	1266.8	1185.7	1228.5	1273.6
45°	1722.2	1336.7	1185.7	1073.0	1075.2	1127.1
47.5°	1638.8	1224.0	1036.9	933.2	933.2	976.1
50°	1499.0	1073.0	867.9	773.2	770.9	804.7
52.5°	1291.6	926.5	732.6	628.9	622.1	656.0
55°	1057.2	746.1	577.1	509.4	495.9	509.4
57.5°	822.8	581.6	455.3	401.2	399.0	410.3
60°	637.9	455.3	362.9	331.4	335.9	353.9
62.5°	482.4	362.9	308.8	297.5	304.3	322.3
65°	383.2	313.3	281.8	275.0	281.8	299.8
67.5°	311.1	284.0	261.5	252.5	257.0	275.0
69°	286.3	268.2	250.2	238.9	243.4	257.0
70°	272.8	259.2	241.2	229.9	234.4	248.0
72.5°	238.9	232.2	218.7	207.4	209.6	220.9
75°	209.6	205.1	196.1	182.6	182.6	196.1
77.5°	175.8	178.1	169.1	155.5	153.3	160.0
80°	139.8	144.3	139.8	126.2	121.7	121.7
82.5°	101.4	110.5	105.9	92.4	90.2	90.2
85°	63.1	69.9	67.6	58.6	58.6	51.8
87.5°	29.3	38.3	36.1	31.6	29.3	20.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)