

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: P565355

Luminaire Tested: **MSA-SA2D-740-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565355
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-SA2D-740-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: 12194 lumens
Efficiency: N/A
Efficacy: 94.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B3 - U0 - G3

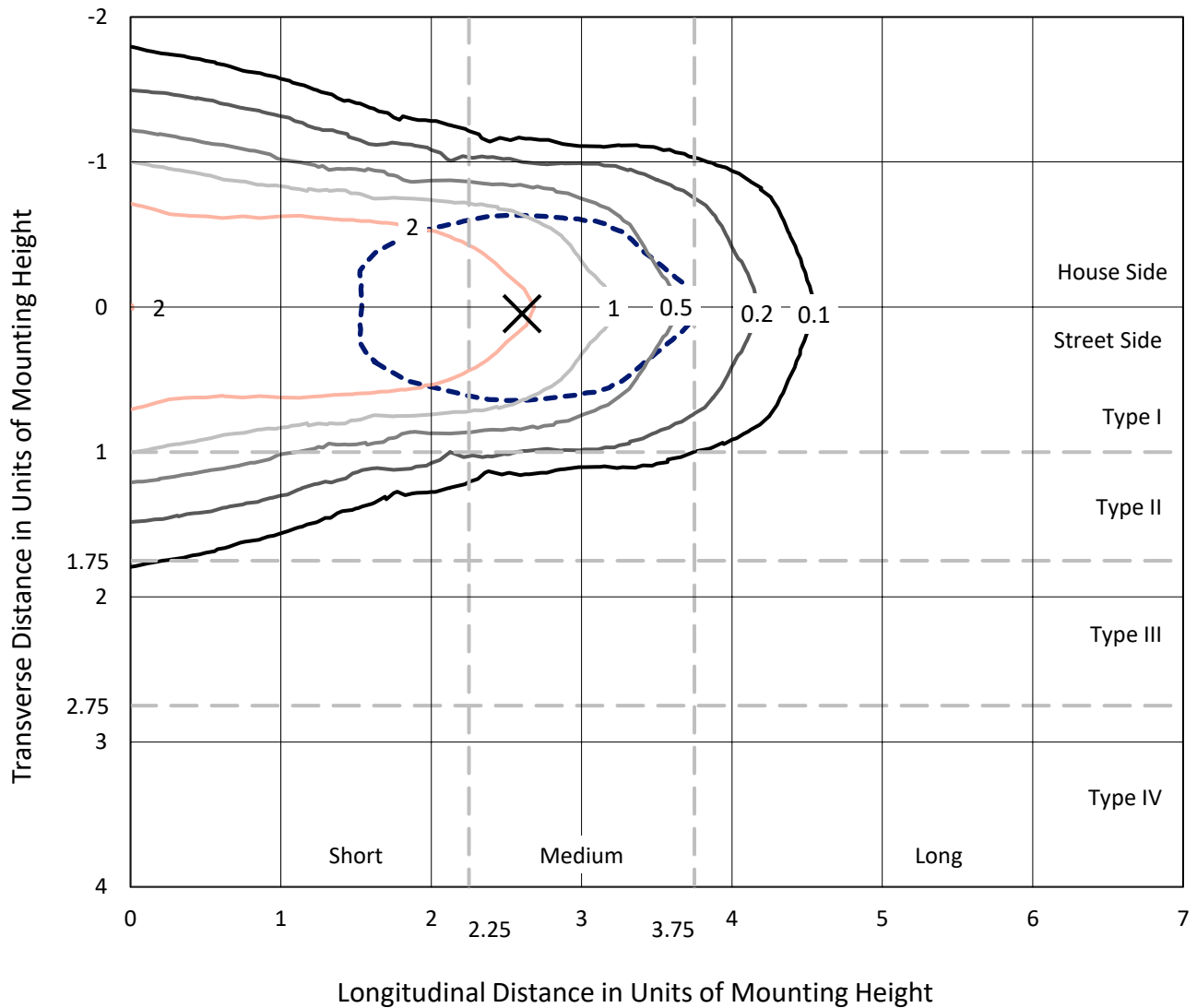
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P565355
 CATALOG NUMBER: MSA-SA2D-740-U-T1

Iso-Footcandle Lines of Horizontal Illumination

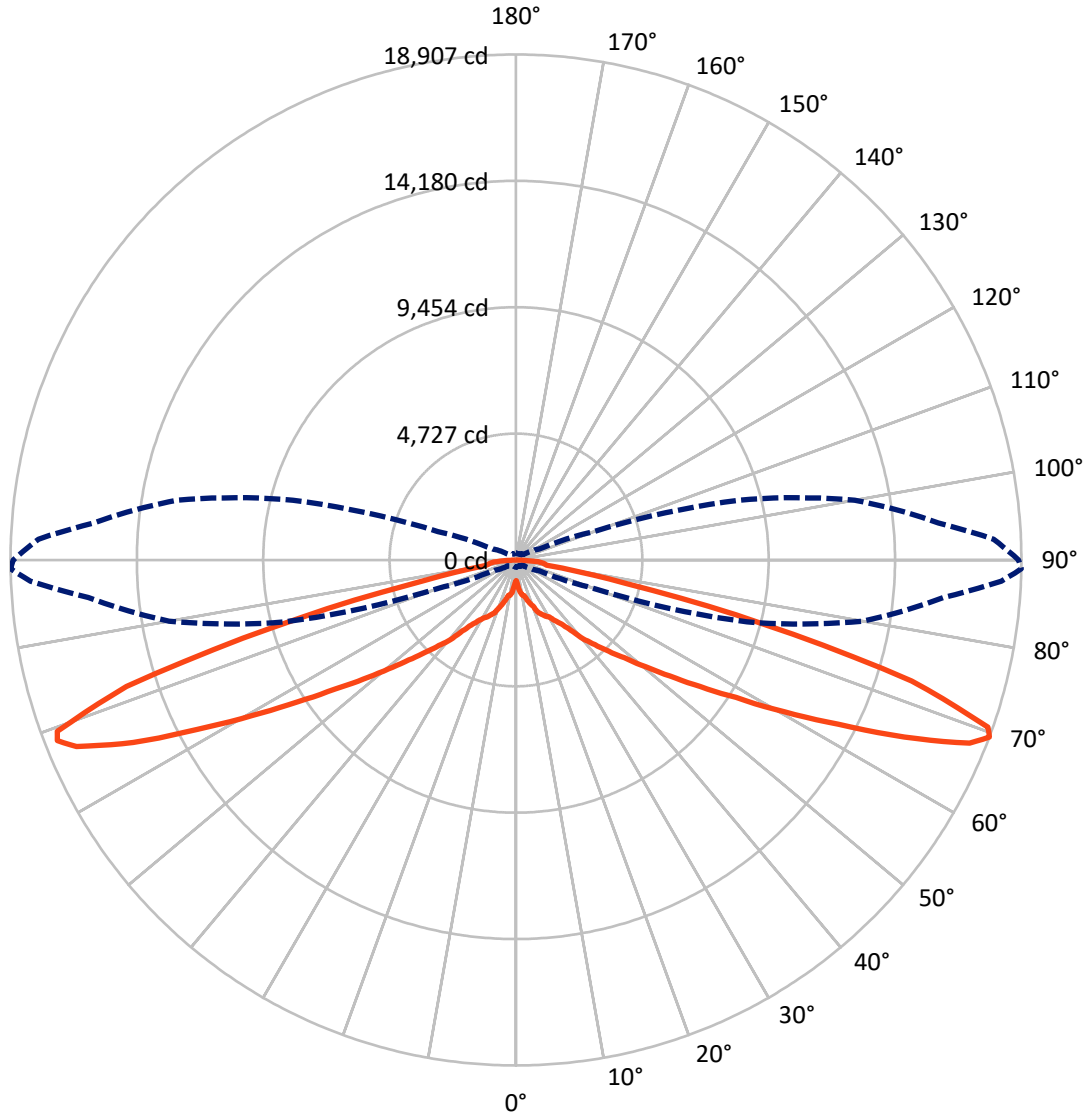
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.4 fc
 Type I - Medium - N/A

REPORT NUMBER: P565355
CATALOG NUMBER: MSA-SA2D-740-U-T1

Luminous Intensity Polar Plot



— Vertical Plane Through 89-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P565355
 CATALOG NUMBER: MSA-SA2D-740-U-T1

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6096.9	0.0	6096.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6097.1	0.0	6097.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	12194.0	0.0	12194.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.1	0.8
10°-20°	447.1	3.7
20°-30°	892.1	7.3
30°-40°	1349.2	11.1
40°-50°	1958.5	16.1
50°-60°	2573.1	21.1
60°-70°	3138.8	25.7
70°-80°	1586.9	13.0
80°-90°	151.3	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°	12194.0	100.0
0°-180°	12194.0	100.0

Coefficient of Utilization

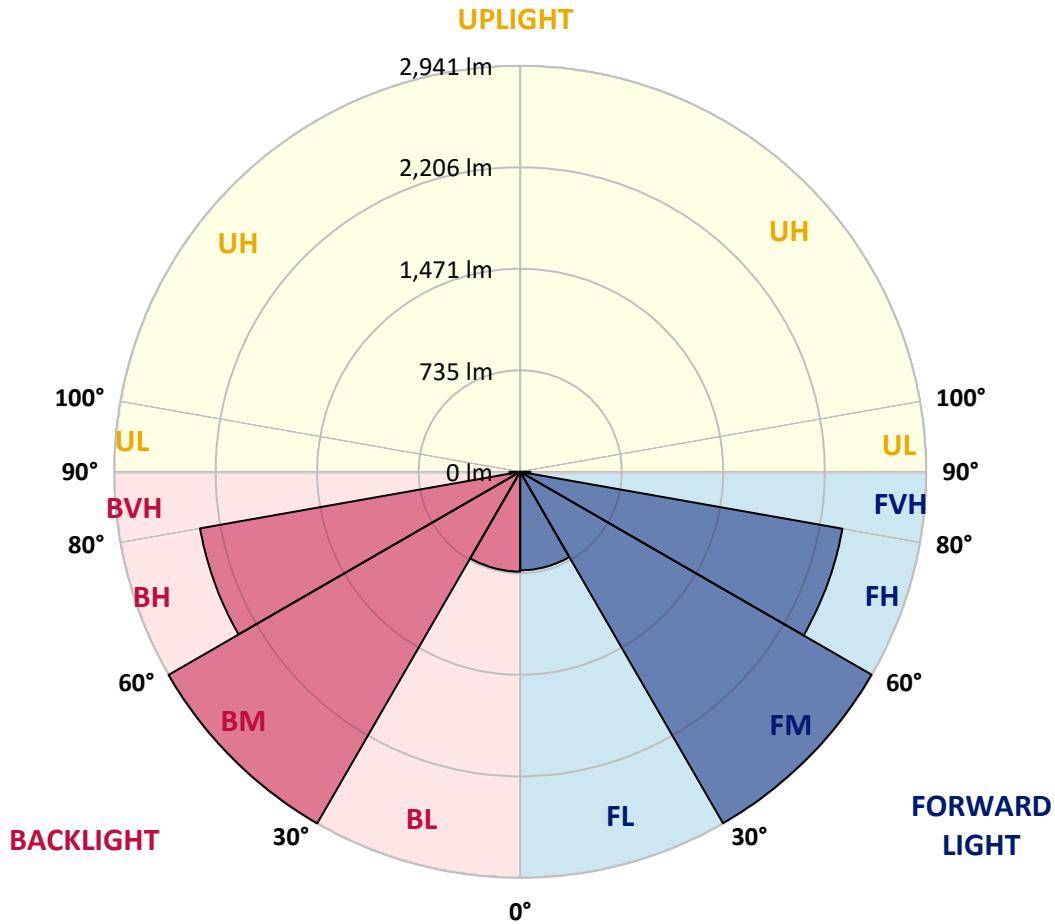


REPORT NUMBER: P565355
 CATALOG NUMBER: MSA-SA2D-740-U-T1

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	713.1	5.8			
FM (30°-60°)	2939.4	24.1			
FH (60°-80°)	2370.4	19.4			G2/5000
FVH (80°-90°)	74.2	0.6			G1/100
BL (0°-30°)	723.1	5.9	B2/1000		
BM (30°-60°)	2941.4	24.1	B3/5000		
BH (60°-80°)	2355.3	19.3	B3/2500		G3/2500
BVH (80°-90°)	77.1	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





REPORT NUMBER: P565355

CATALOG NUMBER: MSA-SA2D-740-U-T1

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	772.4	772.4	772.4	772.4	772.4	772.4	772.4	772.4	772.4	772.4	772.4
2.5°	906.4	801.9	792.8	767.8	786.0	792.8	776.9	754.2	779.2	792.8	767.8
5°	1142.6	988.2	935.9	892.8	806.4	770.1	806.4	899.6	910.9	967.7	951.8
7.5°	1258.5	1233.5	1167.6	1024.5	886.0	808.7	906.4	1040.4	1108.6	1163.1	1219.9
10°	1344.8	1331.2	1215.3	1113.1	1056.3	1060.9	1063.1	1106.3	1165.4	1256.2	1288.0
12.5°	1365.3	1360.7	1378.9	1356.2	1360.7	1385.7	1360.7	1349.4	1383.4	1413.0	1381.2
15°	1497.0	1494.8	1501.6	1506.1	1597.0	1635.6	1597.0	1562.9	1537.9	1512.9	1565.2
17.5°	1587.9	1576.5	1578.8	1622.0	1724.2	1831.0	1810.5	1765.1	1708.3	1742.4	1785.5
20°	1637.9	1617.4	1631.1	1649.2	1821.9	1940.0	1953.6	1892.3	1858.2	1901.4	1937.7
22.5°	1685.6	1653.8	1606.1	1624.2	1783.3	1953.6	2019.5	2003.6	2028.6	2042.2	2035.4
25°	1628.8	1649.2	1597.0	1649.2	1810.5	1967.3	2099.0	2192.2	2194.4	2187.6	2237.6
27.5°	1594.7	1578.8	1490.2	1624.2	1758.3	1856.0	2192.2	2348.9	2396.6	2251.2	2348.9
30°	1535.6	1560.6	1440.2	1551.6	1721.9	1885.5	2298.9	2523.8	2453.4	2435.2	2457.9
32.5°	1499.3	1483.4	1426.6	1487.9	1617.4	1974.1	2367.1	2626.1	2714.6	2671.5	2666.9
35°	1440.2	1451.6	1363.0	1428.9	1610.6	1899.1	2412.5	2882.7	3019.0	2985.0	2957.7
37.5°	1449.3	1410.7	1347.1	1394.8	1567.5	1940.0	2526.1	3130.4	3346.2	3364.3	3239.4
40°	1381.2	1358.5	1263.0	1342.6	1485.7	1915.0	2553.4	3412.0	3777.8	3859.6	3680.1
42.5°	1283.5	1254.0	1199.4	1288.0	1438.0	1792.3	2592.0	3750.5	4216.2	4386.6	4223.0
45°	1142.6	1104.0	1076.8	1194.9	1333.5	1760.5	2551.1	4032.2	4636.5	4870.5	4865.9
47.5°	972.3	947.3	933.7	1058.6	1247.1	1681.0	2467.0	4209.4	4929.5	5529.2	5438.4
50°	779.2	761.0	758.7	890.5	1101.8	1517.5	2371.6	4298.0	5374.8	6133.5	6213.0
52.5°	624.7	611.1	608.8	715.6	922.3	1297.1	2171.7	4366.1	5799.6	6819.6	7228.5
55°	488.4	474.8	477.1	565.6	733.7	1060.9	1867.3	4288.9	6172.1	7521.5	8296.1
57.5°	399.8	386.2	388.5	438.4	561.1	811.0	1487.9	4120.8	6340.2	8389.3	9541.0
60°	352.1	338.5	331.7	354.4	431.6	611.1	1106.3	3466.6	6367.5	9109.4	10892.7
62.5°	327.1	313.5	306.7	313.5	356.7	468.0	797.4	2746.4	6210.7	9725.0	12130.7
65°	304.4	293.0	284.0	290.8	313.5	372.6	581.5	1880.9	5390.7	10006.7	13030.3
67.5°	279.4	270.3	261.2	270.3	286.2	313.5	452.1	1190.4	4041.3	9641.0	13405.1
69°	265.8	252.2	247.6	254.4	270.3	288.5	390.7	949.6	3073.6	8945.8	13178.0
70°	252.2	243.1	236.3	247.6	261.2	274.9	352.1	806.4	2410.2	8053.1	12614.6
72.5°	222.6	215.8	211.3	222.6	234.0	243.1	288.5	574.7	1397.1	5483.8	10004.4
75°	195.4	188.5	186.3	195.4	204.5	209.0	243.1	395.3	824.6	2869.1	6001.8
77.5°	163.6	154.5	156.7	168.1	174.9	177.2	204.5	284.0	486.1	1299.4	2780.5
80°	120.4	120.4	129.5	138.6	138.6	138.6	163.6	206.7	295.3	597.4	1154.0
82.5°	84.1	86.3	88.6	102.2	104.5	95.4	124.9	149.9	184.0	261.2	399.8
85°	47.7	50.0	52.2	61.3	63.6	56.8	81.8	95.4	106.8	129.5	209.0
87.5°	18.2	20.4	27.3	31.8	34.1	25.0	38.6	45.4	45.4	54.5	93.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P565355

CATALOG NUMBER: MSA-SA2D-740-U-T1

CANDELA DISTRIBUTION (continued):

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	772.4	772.4	772.4	772.4	772.4	772.4	772.4	772.4	772.4	772.4	772.4
2.5°	820.1	836.0	865.5	872.3	847.3	820.1	758.7	797.4	813.3	783.7	792.8
5°	1015.4	1049.5	1085.9	1042.7	1015.4	997.3	967.7	970.0	954.1	901.9	815.5
7.5°	1235.8	1197.2	1224.4	1254.0	1210.8	1213.1	1240.3	1183.5	1140.4	1051.8	890.5
10°	1338.0	1338.0	1344.8	1344.8	1326.7	1326.7	1324.4	1233.5	1181.3	1142.6	1097.2
12.5°	1344.8	1342.6	1369.8	1349.4	1353.9	1358.5	1369.8	1410.7	1397.1	1347.1	1388.0
15°	1533.4	1524.3	1533.4	1531.1	1537.9	1558.4	1549.3	1540.2	1542.5	1578.8	1640.1
17.5°	1710.6	1715.1	1706.0	1721.9	1721.9	1735.6	1767.4	1735.6	1708.3	1776.4	1824.2
20°	1915.0	1899.1	1862.8	1890.0	1896.8	1899.1	1951.4	1912.7	1874.1	1899.1	1955.9
22.5°	2121.7	2119.5	2124.0	2126.3	2135.4	2101.3	2030.9	2019.5	2044.5	2010.4	2017.2
25°	2249.0	2251.2	2262.6	2264.9	2226.2	2262.6	2287.6	2212.6	2212.6	2205.8	2160.4
27.5°	2403.4	2369.4	2383.0	2401.2	2385.3	2394.3	2364.8	2255.8	2371.6	2387.5	2205.8
30°	2507.9	2492.0	2476.1	2494.3	2510.2	2551.1	2467.0	2455.7	2464.8	2548.8	2310.3
32.5°	2728.3	2751.0	2721.5	2691.9	2721.5	2712.4	2676.0	2660.1	2773.7	2662.4	2383.0
35°	2932.7	2941.8	2944.1	2939.5	2957.7	2925.9	2925.9	2985.0	3019.0	2898.7	2405.7
37.5°	3425.7	3393.9	3328.0	3296.2	3353.0	3400.7	3259.8	3330.3	3316.6	3112.2	2576.1
40°	3780.1	3852.8	3873.2	3864.1	3873.2	3736.9	3766.4	3818.7	3757.3	3418.9	2517.0
42.5°	4298.0	4343.4	4327.5	4307.1	4316.2	4291.2	4202.6	4395.7	4175.3	3761.9	2607.9
45°	4770.5	4872.7	4879.5	4809.1	4865.9	4777.3	4813.7	4881.8	4659.2	4018.6	2582.9
47.5°	5333.9	5545.1	5465.6	5465.6	5522.4	5331.6	5417.9	5508.8	4918.2	4191.2	2446.6
50°	6167.6	6281.2	6276.6	6256.2	6281.2	6178.9	6165.3	6154.0	5315.7	4354.8	2362.5
52.5°	7110.3	7264.8	7205.7	7228.5	7262.5	7069.4	7221.6	6805.9	5813.2	4416.1	2171.7
55°	8314.3	8421.1	8362.0	8246.2	8400.6	8278.0	8327.9	7517.0	6158.5	4241.2	1853.7
57.5°	9747.7	9802.3	9704.6	9693.2	9795.4	9663.7	9579.6	8316.6	6338.0	4109.5	1481.1
60°	11422.0	11592.3	11531.0	11433.3	11526.5	11410.6	10774.5	8995.8	6301.6	3493.8	1147.2
62.5°	13430.1	13602.8	13534.6	13468.7	13527.8	13225.7	11896.7	9531.9	6138.1	2769.2	838.2
65°	15088.4	15867.6	15969.8	15972.1	15685.9	14986.2	12791.8	9740.9	5274.8	1933.2	613.4
67.5°	16178.8	17798.5	18302.8	18121.1	17464.6	15867.6	13153.0	9332.0	4073.1	1222.2	458.9
69°	16053.9	18177.9	18907.1	18804.9	17882.6	15854.0	12871.3	8643.7	3112.2	972.3	388.5
70°	15476.9	17866.7	18732.2	18777.6	17616.8	15245.2	12369.2	7853.2	2517.0	829.2	356.7
72.5°	12351.1	14722.7	15483.7	15781.3	14629.6	12208.0	10143.0	5540.6	1458.4	579.3	288.5
75°	7651.0	8927.7	9559.2	9731.8	9034.4	7603.3	6156.2	3082.7	888.2	408.9	243.1
77.5°	3430.2	3800.5	4164.0	4164.0	3891.4	3471.1	2821.4	1490.2	504.3	290.8	204.5
80°	1149.5	1192.6	1160.8	1172.2	1126.7	1083.6	1133.6	642.9	311.2	218.1	165.8
82.5°	781.5	981.4	1042.7	1042.7	979.1	772.4	436.2	295.3	190.8	156.7	127.2
85°	636.1	776.9	833.7	858.7	808.7	652.0	229.4	143.1	113.6	100.0	86.3
87.5°	213.5	199.9	188.5	184.0	193.1	202.2	113.6	61.3	52.2	47.7	45.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P565355

CATALOG NUMBER: MSA-SA2D-740-U-T1

CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
0°	772.4	772.4	772.4	772.4	772.4	772.4
2.5°	808.7	781.5	792.8	804.2	886.0	947.3
5°	804.2	842.8	929.1	1038.2	1088.1	1210.8
7.5°	826.9	967.7	1129.0	1242.6	1288.0	1326.7
10°	1106.3	1131.3	1185.8	1294.9	1385.7	1401.6
12.5°	1428.9	1422.1	1383.4	1433.4	1388.0	1419.8
15°	1681.0	1606.1	1553.8	1547.0	1531.1	1531.1
17.5°	1819.6	1753.7	1681.0	1662.9	1615.2	1653.8
20°	1983.2	1869.6	1687.9	1669.7	1653.8	1617.4
22.5°	1951.4	1837.8	1649.2	1626.5	1710.6	1706.0
25°	1990.0	1837.8	1658.3	1633.3	1671.9	1671.9
27.5°	1894.6	1769.6	1640.1	1490.2	1608.3	1635.6
30°	1869.6	1728.7	1578.8	1444.8	1565.2	1540.2
32.5°	2001.3	1626.5	1478.9	1438.0	1526.6	1508.4
35°	1899.1	1608.3	1453.9	1378.9	1483.4	1465.2
37.5°	1942.3	1585.6	1410.7	1347.1	1431.2	1458.4
40°	1933.2	1478.9	1360.7	1278.9	1363.0	1376.6
42.5°	1781.0	1397.1	1276.7	1194.9	1238.1	1283.5
45°	1735.6	1347.1	1194.9	1081.3	1083.6	1135.8
47.5°	1651.5	1233.5	1045.0	940.5	940.5	983.6
50°	1510.7	1081.3	874.6	779.2	776.9	811.0
52.5°	1301.7	933.7	738.3	633.8	627.0	661.1
55°	1065.4	751.9	581.5	513.4	499.8	513.4
57.5°	829.2	586.1	458.9	404.4	402.1	413.4
60°	642.9	458.9	365.7	333.9	338.5	356.7
62.5°	486.1	365.7	311.2	299.9	306.7	324.8
65°	386.2	315.8	284.0	277.1	284.0	302.1
67.5°	313.5	286.2	263.5	254.4	259.0	277.1
69°	288.5	270.3	252.2	240.8	245.3	259.0
70°	274.9	261.2	243.1	231.7	236.3	249.9
72.5°	240.8	234.0	220.4	209.0	211.3	222.6
75°	211.3	206.7	197.6	184.0	184.0	197.6
77.5°	177.2	179.5	170.4	156.7	154.5	161.3
80°	140.8	145.4	140.8	127.2	122.7	122.7
82.5°	102.2	111.3	106.8	93.1	90.9	90.9
85°	63.6	70.4	68.2	59.1	59.1	52.2
87.5°	29.5	38.6	36.3	31.8	29.5	20.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)