

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: P565343

Luminaire Tested: **MSA-SA3D-835-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565343
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-SA3D-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: 14837 lumens
Efficiency: N/A
Efficacy: 77.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B4 - U0 - G4

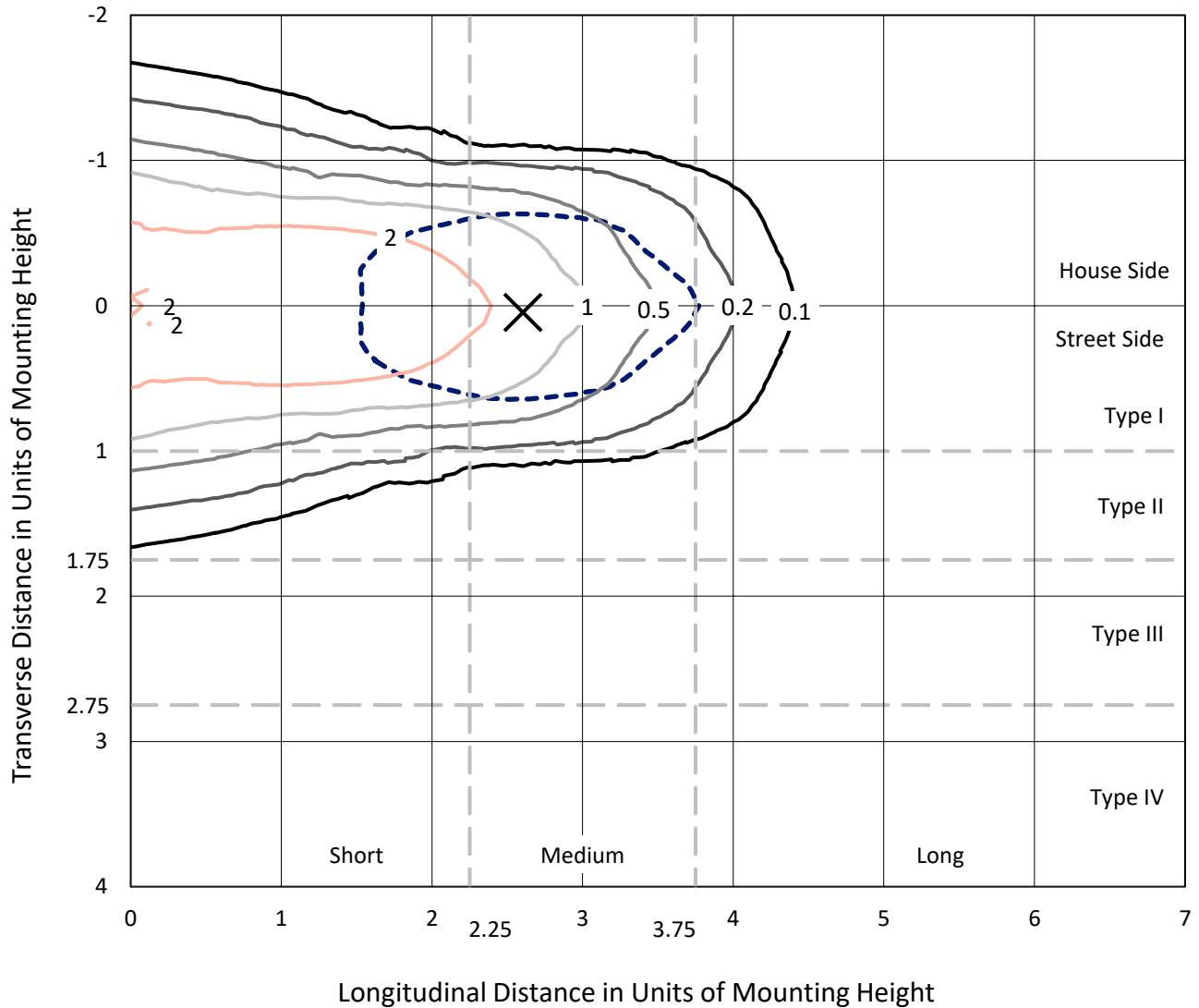
Input Watts (W): 192
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P565343
 CATALOG NUMBER: MSA-SA3D-835-U-T1

Iso-Footcandle Lines of Horizontal Illumination

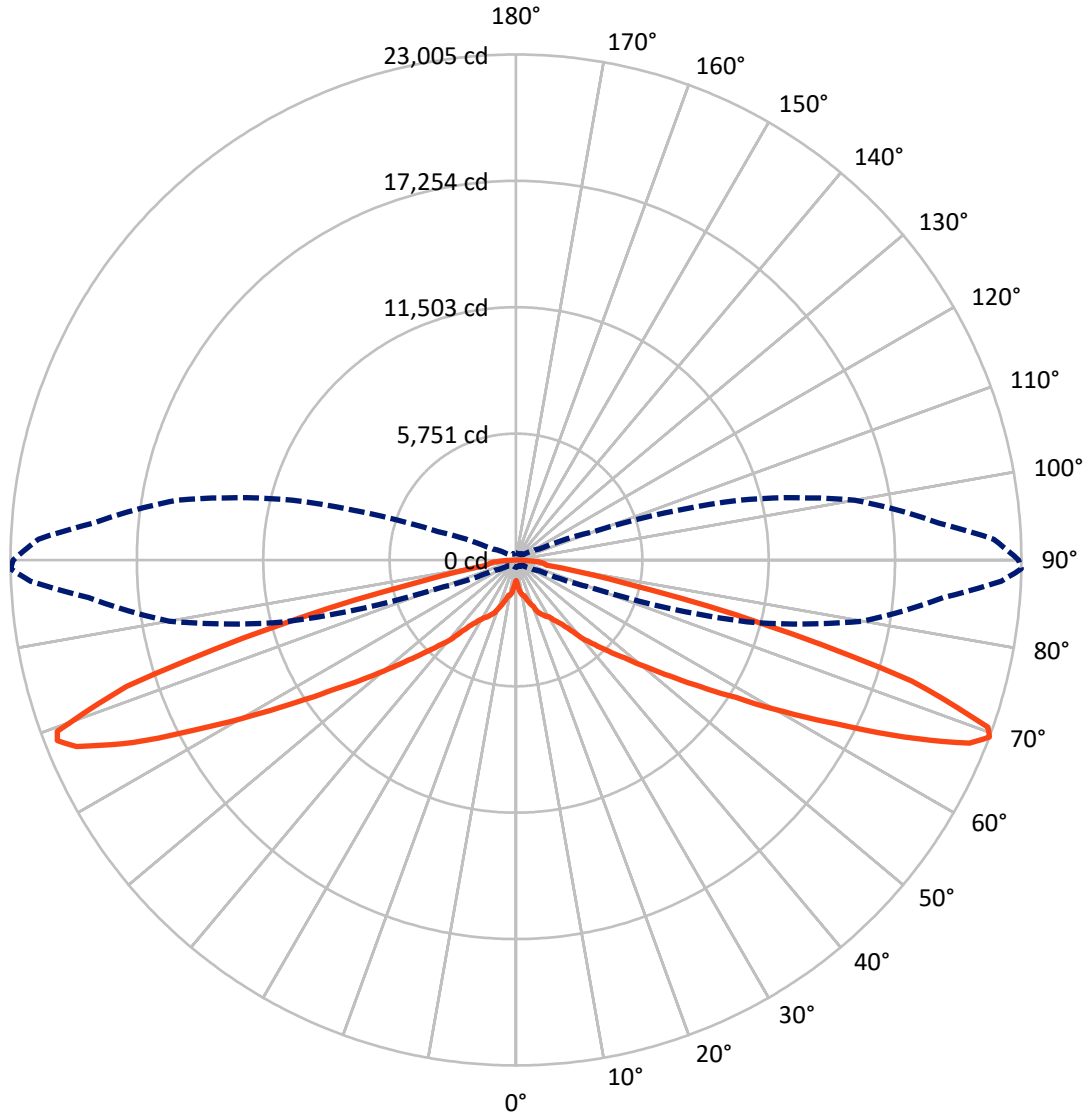
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type I - Medium - N/A

REPORT NUMBER: P565343
CATALOG NUMBER: MSA-SA3D-835-U-T1

Luminous Intensity Polar Plot



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

REPORT NUMBER: P565343
 CATALOG NUMBER: MSA-SA3D-835-U-T1

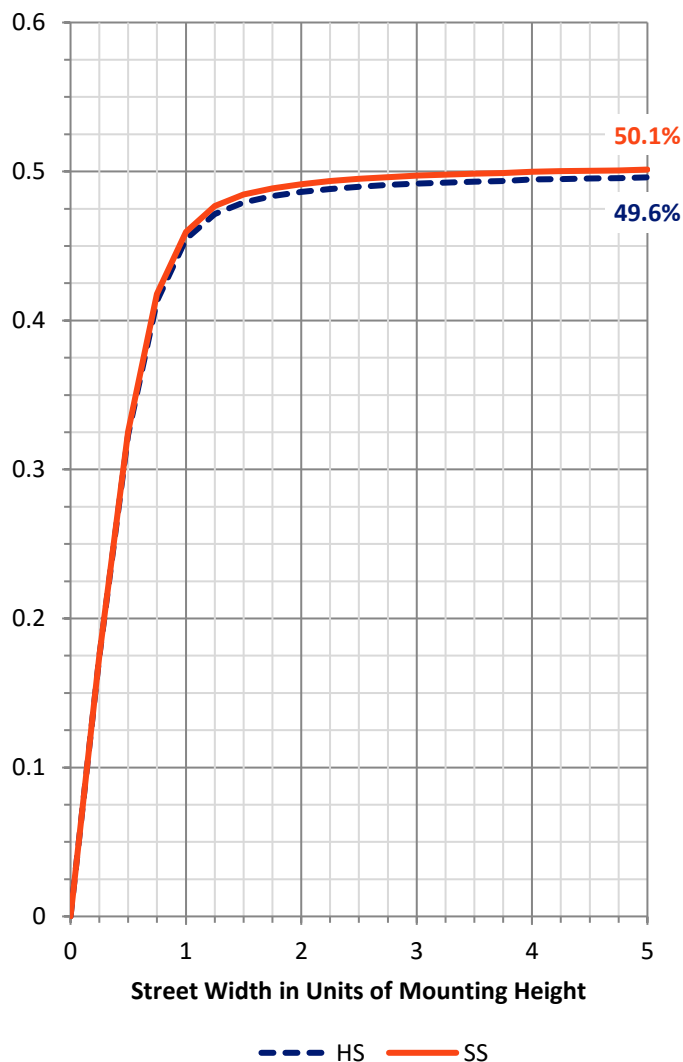
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7418.4	0.0	7418.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	7418.6	0.0	7418.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	14837.0	0.0	14837.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.1	0.8
10°-20°	544.0	3.7
20°-30°	1085.4	7.3
30°-40°	1641.6	11.1
40°-50°	2383.0	16.1
50°-60°	3130.8	21.1
60°-70°	3819.1	25.7
70°-80°	1930.9	13.0
80°-90°	184.0	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°	14837.0	100.0
0°-180°	14837.0	100.0

Coefficient of Utilization

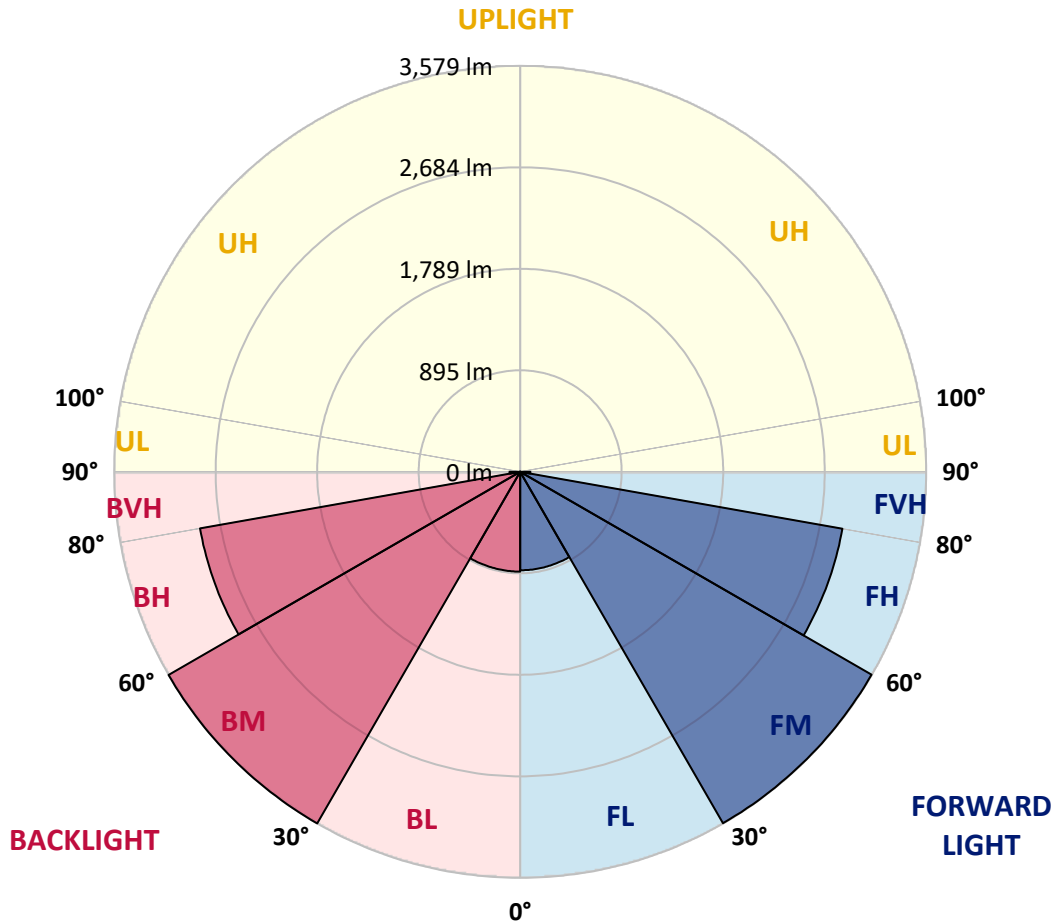


REPORT NUMBER: P565343
 CATALOG NUMBER: MSA-SA3D-835-U-T1

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	867.7	5.8			
FM (30°-60°)	3576.5	24.1			
FH (60°-80°)	2884.2	19.4			G2/5000
FVH (80°-90°)	90.3	0.6			G1/100
BL (0°-30°)	879.9	5.9	B2/1000		
BM (30°-60°)	3578.9	24.1	B3/5000		
BH (60°-80°)	2865.8	19.3	B4/5000		G4/5000
BVH (80°-90°)	93.8	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





REPORT NUMBER: P565343

CATALOG NUMBER: MSA-SA3D-835-U-T1

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	939.8	939.8	939.8	939.8	939.8	939.8	939.8	939.8	939.8	939.8	939.8
2.5°	1102.9	975.7	964.7	934.2	956.4	964.7	945.3	917.7	948.1	964.7	934.2
5°	1390.3	1202.4	1138.8	1086.3	981.2	937.0	981.2	1094.6	1108.4	1177.5	1158.1
7.5°	1531.3	1500.9	1420.7	1246.6	1078.0	984.0	1102.9	1265.9	1348.9	1415.2	1484.3
10°	1636.3	1619.7	1478.8	1354.4	1285.3	1290.8	1293.6	1346.1	1418.0	1528.5	1567.2
12.5°	1661.2	1655.7	1677.8	1650.1	1655.7	1686.1	1655.7	1641.8	1683.3	1719.2	1680.5
15°	1821.5	1818.7	1827.0	1832.6	1943.1	1990.1	1943.1	1901.7	1871.3	1840.9	1904.4
17.5°	1932.1	1918.2	1921.0	1973.5	2097.9	2227.8	2202.9	2147.7	2078.6	2120.0	2172.5
20°	1992.9	1968.0	1984.6	2006.7	2216.8	2360.5	2377.1	2302.4	2261.0	2313.5	2357.7
22.5°	2050.9	2012.2	1954.2	1976.3	2169.8	2377.1	2457.2	2437.9	2468.3	2484.9	2476.6
25°	1981.8	2006.7	1943.1	2006.7	2202.9	2393.7	2554.0	2667.3	2670.1	2661.8	2722.6
27.5°	1940.4	1921.0	1813.2	1976.3	2139.4	2258.2	2667.3	2858.0	2916.1	2739.2	2858.0
30°	1868.5	1898.9	1752.4	1887.8	2095.1	2294.2	2797.2	3070.9	2985.2	2963.1	2990.7
32.5°	1824.3	1804.9	1735.8	1810.4	1968.0	2402.0	2880.1	3195.2	3303.0	3250.5	3245.0
35°	1752.4	1766.2	1658.4	1738.6	1959.7	2310.7	2935.4	3507.6	3673.4	3632.0	3598.8
37.5°	1763.5	1716.5	1639.1	1697.1	1907.2	2360.5	3073.6	3808.9	4071.4	4093.6	3941.5
40°	1680.5	1652.9	1536.8	1633.6	1807.7	2330.1	3106.8	4151.6	4596.6	4696.1	4477.8
42.5°	1561.7	1525.8	1459.4	1567.2	1749.6	2180.8	3153.8	4563.4	5130.1	5337.4	5138.4
45°	1390.3	1343.3	1310.2	1453.9	1622.5	2142.1	3104.0	4906.2	5641.4	5926.1	5920.6
47.5°	1183.0	1152.6	1136.0	1288.0	1517.5	2045.4	3001.8	5121.8	5998.0	6727.7	6617.1
50°	948.1	926.0	923.2	1083.5	1340.6	1846.4	2885.7	5229.6	6539.7	7462.9	7559.7
52.5°	760.1	743.5	740.8	870.7	1122.2	1578.3	2642.4	5312.5	7056.6	8297.7	8795.2
55°	594.3	577.7	580.4	688.2	892.8	1290.8	2272.0	5218.5	7509.9	9151.8	10094.3
57.5°	486.5	469.9	472.7	533.5	682.7	986.8	1810.4	5014.0	7714.4	10207.6	11609.0
60°	428.4	411.8	403.6	431.2	525.2	743.5	1346.1	4217.9	7747.6	11083.8	13253.6
62.5°	398.0	381.4	373.1	381.4	434.0	569.4	970.2	3341.7	7556.9	11832.9	14760.0
65°	370.4	356.6	345.5	353.8	381.4	453.3	707.6	2288.6	6559.1	12175.6	15854.6
67.5°	340.0	328.9	317.9	328.9	348.3	381.4	550.0	1448.4	4917.2	11730.6	16310.6
69°	323.4	306.8	301.3	309.6	328.9	351.0	475.4	1155.4	3739.8	10884.8	16034.2
70°	306.8	295.8	287.5	301.3	317.9	334.4	428.4	981.2	2932.7	9798.5	15348.7
72.5°	270.9	262.6	257.1	270.9	284.7	295.8	351.0	699.3	1699.9	6672.4	12172.9
75°	237.7	229.4	226.7	237.7	248.8	254.3	295.8	480.9	1003.3	3491.0	7302.6
77.5°	199.0	188.0	190.7	204.5	212.8	215.6	248.8	345.5	591.5	1581.0	3383.2
80°	146.5	146.5	157.6	168.6	168.6	168.6	199.0	251.5	359.3	726.9	1404.1
82.5°	102.3	105.0	107.8	124.4	127.1	116.1	152.0	182.4	223.9	317.9	486.5
85°	58.0	60.8	63.6	74.6	77.4	69.1	99.5	116.1	129.9	157.6	254.3
87.5°	22.1	24.9	33.2	38.7	41.5	30.4	47.0	55.3	55.3	66.3	113.3
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: P565343

CATALOG NUMBER: MSA-SA3D-835-U-T1

CANDELA DISTRIBUTION (continued):

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	939.8	939.8	939.8	939.8	939.8	939.8	939.8	939.8	939.8	939.8	939.8
2.5°	997.8	1017.2	1053.1	1061.4	1031.0	997.8	923.2	970.2	989.5	953.6	964.7
5°	1235.5	1277.0	1321.2	1268.7	1235.5	1213.4	1177.5	1180.2	1160.9	1097.3	992.3
7.5°	1503.6	1456.7	1489.8	1525.8	1473.2	1476.0	1509.2	1440.1	1387.6	1279.8	1083.5
10°	1628.0	1628.0	1636.3	1636.3	1614.2	1614.2	1611.4	1500.9	1437.3	1390.3	1335.0
12.5°	1636.3	1633.6	1666.7	1641.8	1647.4	1652.9	1666.7	1716.5	1699.9	1639.1	1688.8
15°	1865.7	1854.7	1865.7	1863.0	1871.3	1896.1	1885.1	1874.0	1876.8	1921.0	1995.6
17.5°	2081.3	2086.9	2075.8	2095.1	2095.1	2111.7	2150.4	2111.7	2078.6	2161.5	2219.5
20°	2330.1	2310.7	2266.5	2299.7	2308.0	2310.7	2374.3	2327.3	2280.3	2310.7	2379.8
22.5°	2581.6	2578.9	2584.4	2587.1	2598.2	2556.7	2471.1	2457.2	2487.6	2446.2	2454.5
25°	2736.4	2739.2	2753.0	2755.8	2708.8	2753.0	2783.4	2692.2	2692.2	2683.9	2628.6
27.5°	2924.4	2882.9	2899.5	2921.6	2902.2	2913.3	2877.4	2744.7	2885.7	2905.0	2683.9
30°	3051.5	3032.2	3012.8	3034.9	3054.3	3104.0	3001.8	2987.9	2999.0	3101.3	2811.0
32.5°	3319.6	3347.3	3311.3	3275.4	3311.3	3300.3	3256.0	3236.7	3374.9	3239.5	2899.5
35°	3568.4	3579.4	3582.2	3576.7	3598.8	3560.1	3560.1	3632.0	3673.4	3526.9	2927.1
37.5°	4168.2	4129.5	4049.3	4010.6	4079.7	4137.8	3966.4	4052.1	4035.5	3786.7	3134.4
40°	4599.4	4687.8	4712.7	4701.6	4712.7	4546.9	4582.8	4646.4	4571.7	4159.9	3062.6
42.5°	5229.6	5284.9	5265.5	5240.6	5251.7	5221.3	5113.5	5348.4	5080.3	4577.3	3173.1
45°	5804.5	5928.9	5937.2	5851.5	5920.6	5812.8	5857.0	5939.9	5669.1	4889.6	3142.7
47.5°	6490.0	6747.0	6650.3	6650.3	6719.4	6487.2	6592.2	6702.8	5984.2	5099.7	2976.9
50°	7504.4	7642.6	7637.1	7612.2	7642.6	7518.2	7501.6	7487.8	6467.9	5298.7	2874.6
52.5°	8651.5	8839.4	8767.5	8795.2	8836.7	8601.7	8786.9	8281.1	7073.2	5373.3	2642.4
55°	10116.4	10246.3	10174.4	10033.5	10221.4	10072.2	10133.0	9146.2	7493.3	5160.5	2255.5
57.5°	11860.5	11926.9	11808.0	11794.2	11918.6	11758.2	11656.0	10119.2	7711.7	5000.2	1802.2
60°	13897.6	14104.9	14030.3	13911.4	14024.8	13883.8	13109.9	10945.6	7667.5	4251.1	1395.8
62.5°	16341.0	16551.1	16468.2	16388.0	16459.9	16092.3	14475.3	11597.9	7468.4	3369.4	1019.9
65°	18358.8	19306.9	19431.2	19434.0	19085.7	18234.4	15564.3	11852.2	6418.1	2352.2	746.3
67.5°	19685.5	21656.3	22269.9	22048.8	21250.0	19306.9	16003.8	11354.7	4955.9	1487.1	558.3
69°	19533.5	22117.9	23005.1	22880.8	21758.6	19290.3	15661.1	10517.2	3786.7	1183.0	472.7
70°	18831.4	21739.2	22792.3	22847.6	21435.2	18549.5	15050.2	9555.3	3062.6	1008.9	434.0
72.5°	15028.1	17913.8	18839.7	19201.8	17800.4	14854.0	12341.5	6741.5	1774.5	704.8	351.0
75°	9309.3	10862.7	11631.1	11841.2	10992.6	9251.3	7490.6	3750.8	1080.7	497.5	295.8
77.5°	4173.7	4624.2	5066.5	5066.5	4734.8	4223.5	3432.9	1813.2	613.6	353.8	248.8
80°	1398.6	1451.1	1412.4	1426.2	1371.0	1318.4	1379.3	782.2	378.7	265.3	201.8
82.5°	950.8	1194.1	1268.7	1268.7	1191.3	939.8	530.7	359.3	232.2	190.7	154.8
85°	773.9	945.3	1014.4	1044.8	984.0	793.3	279.2	174.1	138.2	121.6	105.0
87.5°	259.8	243.2	229.4	223.9	234.9	246.0	138.2	74.6	63.6	58.0	55.3
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: P565343

CATALOG NUMBER: MSA-SA3D-835-U-T1

CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
0°	939.8	939.8	939.8	939.8	939.8	939.8
2.5°	984.0	950.8	964.7	978.5	1078.0	1152.6
5°	978.5	1025.5	1130.5	1263.2	1324.0	1473.2
7.5°	1006.1	1177.5	1373.7	1511.9	1567.2	1614.2
10°	1346.1	1376.5	1442.8	1575.5	1686.1	1705.4
12.5°	1738.6	1730.3	1683.3	1744.1	1688.8	1727.5
15°	2045.4	1954.2	1890.6	1882.3	1863.0	1863.0
17.5°	2214.0	2133.8	2045.4	2023.3	1965.2	2012.2
20°	2413.0	2274.8	2053.7	2031.6	2012.2	1968.0
22.5°	2374.3	2236.1	2006.7	1979.1	2081.3	2075.8
25°	2421.3	2236.1	2017.8	1987.3	2034.3	2034.3
27.5°	2305.2	2153.2	1995.6	1813.2	1956.9	1990.1
30°	2274.8	2103.4	1921.0	1757.9	1904.4	1874.0
32.5°	2435.1	1979.1	1799.4	1749.6	1857.4	1835.3
35°	2310.7	1956.9	1769.0	1677.8	1804.9	1782.8
37.5°	2363.3	1929.3	1716.5	1639.1	1741.3	1774.5
40°	2352.2	1799.4	1655.7	1556.2	1658.4	1675.0
42.5°	2167.0	1699.9	1553.4	1453.9	1506.4	1561.7
45°	2111.7	1639.1	1453.9	1315.7	1318.4	1382.0
47.5°	2009.5	1500.9	1271.5	1144.3	1144.3	1196.8
50°	1838.1	1315.7	1064.2	948.1	945.3	986.8
52.5°	1583.8	1136.0	898.3	771.2	762.9	804.3
55°	1296.3	914.9	707.6	624.7	608.1	624.7
57.5°	1008.9	713.1	558.3	492.0	489.2	503.1
60°	782.2	558.3	445.0	406.3	411.8	434.0
62.5°	591.5	445.0	378.7	364.9	373.1	395.3
65°	469.9	384.2	345.5	337.2	345.5	367.6
67.5°	381.4	348.3	320.6	309.6	315.1	337.2
69°	351.0	328.9	306.8	293.0	298.5	315.1
70°	334.4	317.9	295.8	281.9	287.5	304.0
72.5°	293.0	284.7	268.1	254.3	257.1	270.9
75°	257.1	251.5	240.5	223.9	223.9	240.5
77.5°	215.6	218.4	207.3	190.7	188.0	196.2
80°	171.4	176.9	171.4	154.8	149.3	149.3
82.5°	124.4	135.4	129.9	113.3	110.6	110.6
85°	77.4	85.7	82.9	71.9	71.9	63.6
87.5°	35.9	47.0	44.2	38.7	35.9	24.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)