

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: P565290

Luminaire Tested: **MSA-SA2B-827-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565290
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-SA2B-827-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: 6620 lumens
Efficiency: N/A
Efficacy: 77.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B3 - U0 - G3

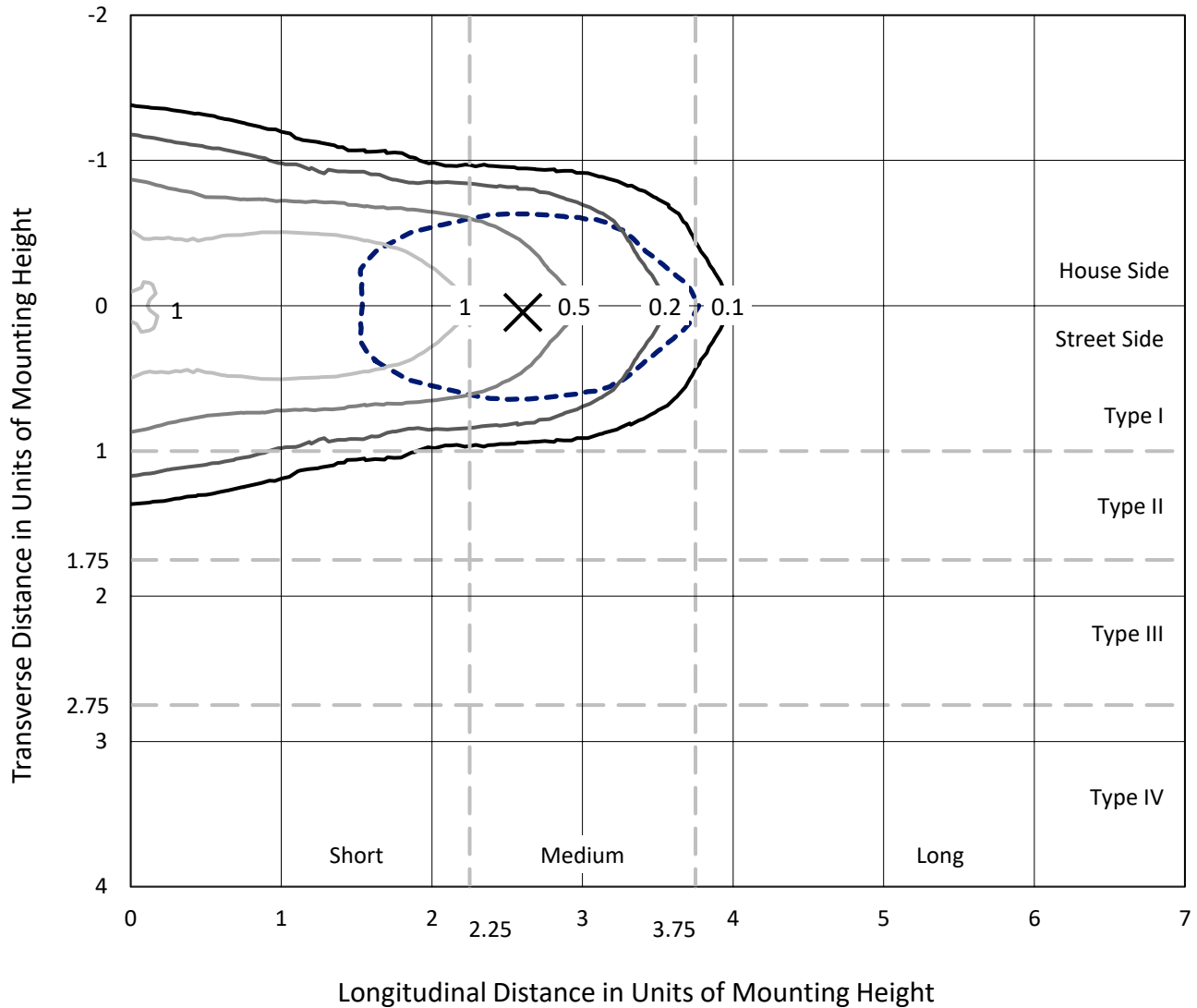
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P565290
 CATALOG NUMBER: MSA-SA2B-827-U-T1

Iso-Footcandle Lines of Horizontal Illumination

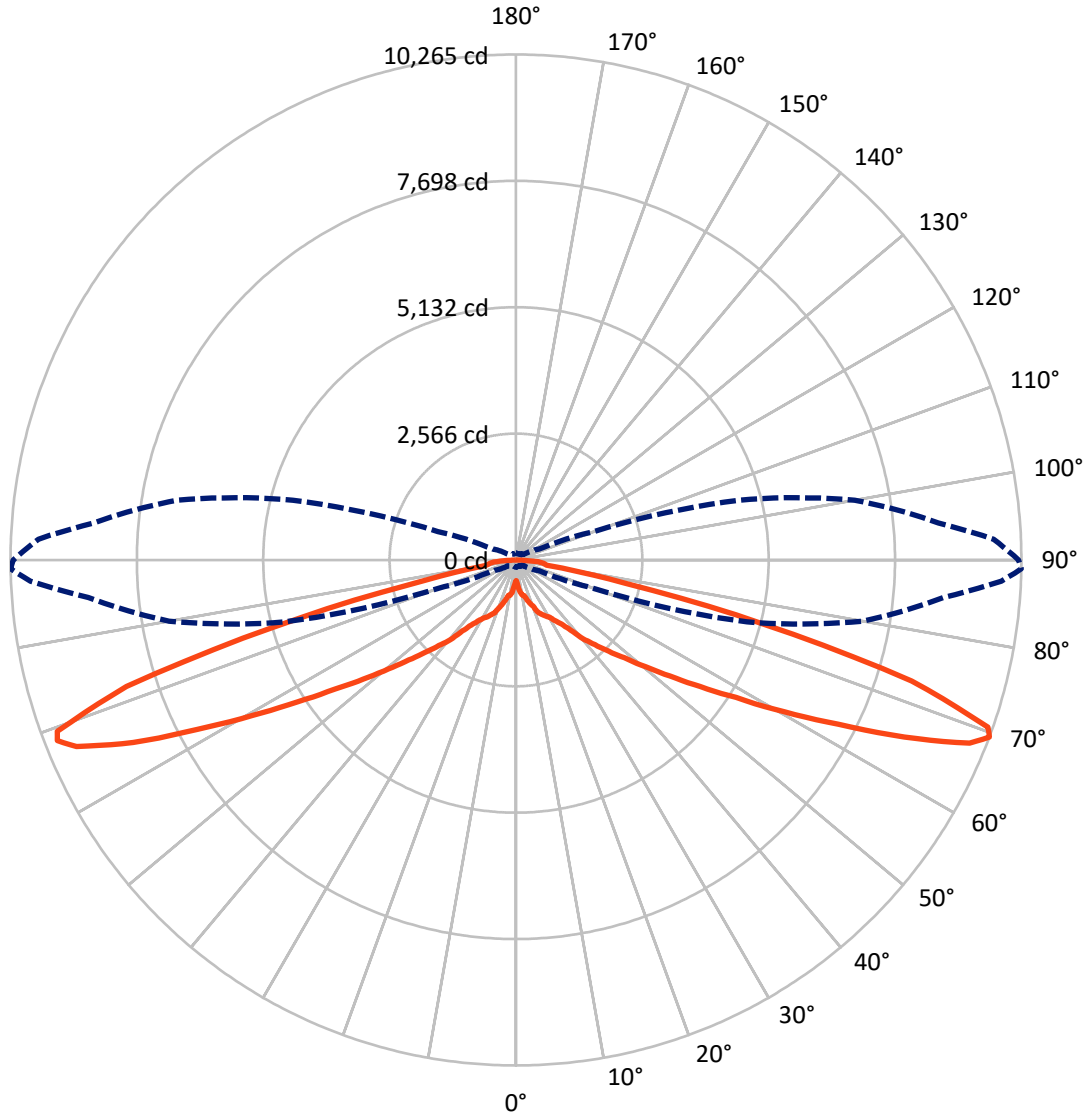
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.5 fc
 Type I - Medium - N/A

REPORT NUMBER: P565290
CATALOG NUMBER: MSA-SA2B-827-U-T1

Luminous Intensity Polar Plot



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

REPORT NUMBER: P565290

CATALOG NUMBER: MSA-SA2B-827-U-T1

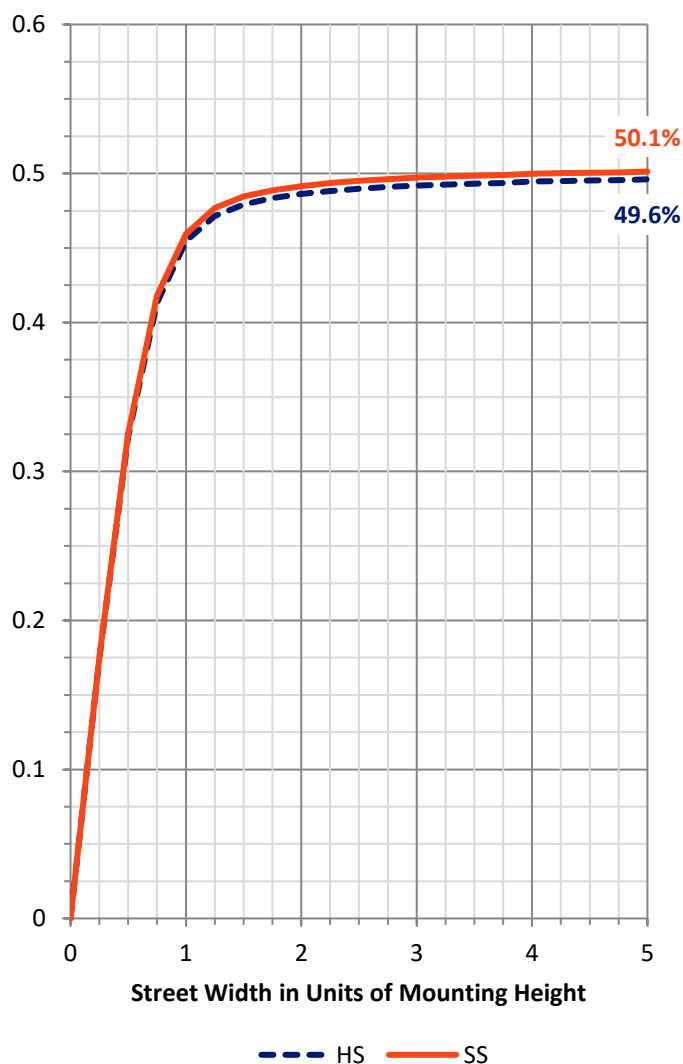
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3309.9	0.0	3309.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3310.1	0.0	3310.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	6620.0	0.0	6620.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.7	0.8
10°-20°	242.7	3.7
20°-30°	484.3	7.3
30°-40°	732.5	11.1
40°-50°	1063.2	16.1
50°-60°	1396.9	21.1
60°-70°	1704.0	25.7
70°-80°	861.5	13.0
80°-90°	82.1	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°	6620.0	100.0
0°-180°	6620.0	100.0

Coefficient of Utilization



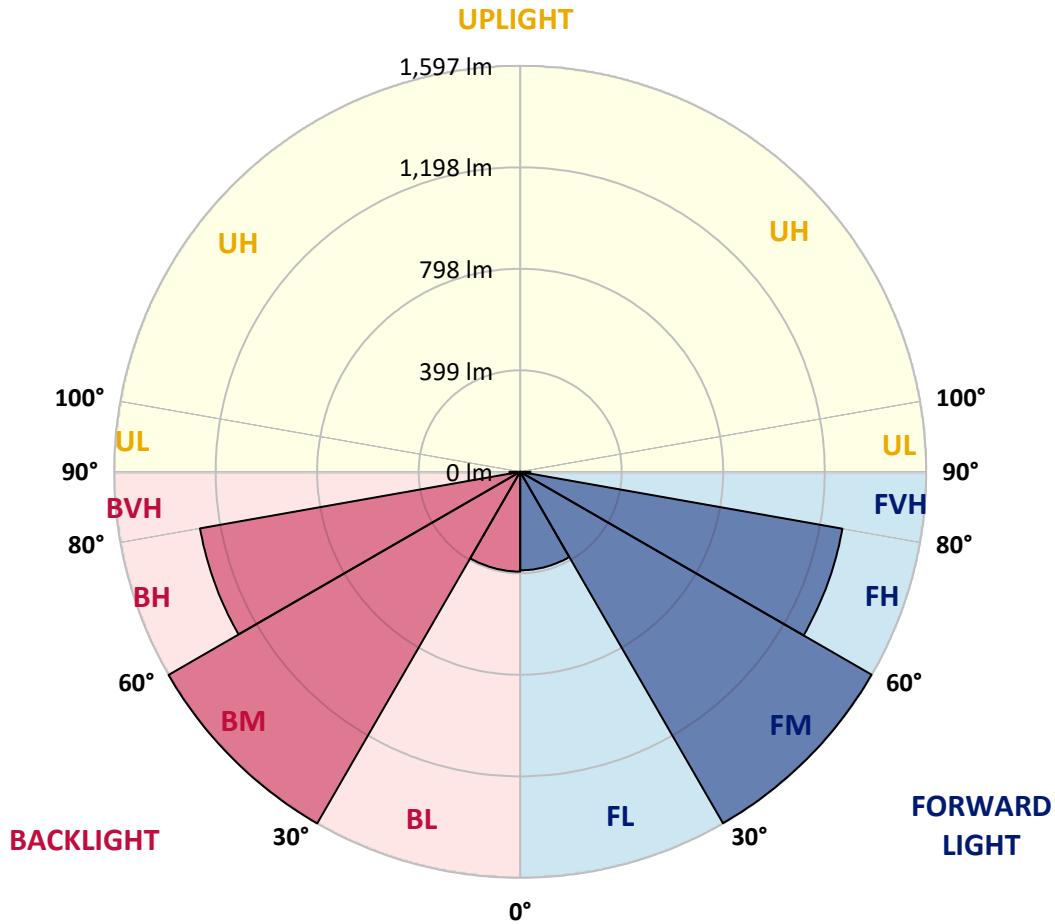
REPORT NUMBER: P565290
 CATALOG NUMBER: MSA-SA2B-827-U-T1

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	387.1	5.8			
FM (30°-60°)	1595.8	24.1			
FH (60°-80°)	1286.9	19.4			G1/1800
FVH (80°-90°)	40.3	0.6			G1/100
BL (0°-30°)	392.6	5.9	B1/500		
BM (30°-60°)	1596.8	24.1	B2/2500		
BH (60°-80°)	1278.7	19.3	B3/2500		G3/2500
BVH (80°-90°)	41.8	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type I Medium





REPORT NUMBER: P565290

CATALOG NUMBER: MSA-SA2B-827-U-T1

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3
2.5°	492.1	435.3	430.4	416.8	426.7	430.4	421.8	409.4	423.0	430.4	416.8
5°	620.3	536.5	508.1	484.7	437.8	418.1	437.8	488.4	494.5	525.4	516.7
7.5°	683.2	669.7	633.9	556.2	481.0	439.0	492.1	564.8	601.8	631.4	662.3
10°	730.1	722.7	659.8	604.3	573.5	575.9	577.2	600.6	632.7	682.0	699.3
12.5°	741.2	738.7	748.6	736.3	738.7	752.3	738.7	732.6	751.1	767.1	749.8
15°	812.7	811.5	815.2	817.7	867.0	888.0	867.0	848.5	834.9	821.4	849.7
17.5°	862.1	855.9	857.1	880.6	936.0	994.0	982.9	958.2	927.4	945.9	969.3
20°	889.2	878.1	885.5	895.4	989.1	1053.2	1060.6	1027.3	1008.8	1032.2	1052.0
22.5°	915.1	897.8	871.9	881.8	968.1	1060.6	1096.4	1087.7	1101.3	1108.7	1105.0
25°	884.3	895.4	867.0	895.4	982.9	1068.0	1139.5	1190.1	1191.3	1187.6	1214.8
27.5°	865.8	857.1	809.0	881.8	954.5	1007.6	1190.1	1275.2	1301.1	1222.2	1275.2
30°	833.7	847.3	781.9	842.3	934.8	1023.6	1248.1	1370.2	1331.9	1322.1	1334.4
32.5°	814.0	805.3	774.5	807.8	878.1	1071.7	1285.1	1425.7	1473.8	1450.3	1447.9
35°	781.9	788.1	740.0	775.7	874.4	1031.0	1309.7	1565.0	1639.0	1620.5	1605.7
37.5°	786.8	765.9	731.3	757.2	851.0	1053.2	1371.4	1699.4	1816.6	1826.5	1758.6
40°	749.8	737.5	685.7	728.9	806.6	1039.6	1386.2	1852.4	2050.9	2095.3	1997.9
42.5°	696.8	680.8	651.2	699.3	780.7	973.0	1407.2	2036.1	2288.9	2381.4	2292.6
45°	620.3	599.4	584.6	648.7	723.9	955.8	1385.0	2189.0	2517.1	2644.1	2641.7
47.5°	527.8	514.3	506.9	574.7	677.1	912.6	1339.3	2285.2	2676.2	3001.8	2952.4
50°	423.0	413.1	411.9	483.4	598.1	823.8	1287.5	2333.3	2917.9	3329.8	3373.0
52.5°	339.1	331.7	330.5	388.5	500.7	704.2	1179.0	2370.3	3148.5	3702.3	3924.3
55°	265.2	257.8	259.0	307.1	398.3	575.9	1013.7	2328.4	3350.8	4083.3	4503.9
57.5°	217.1	209.7	210.9	238.0	304.6	440.3	807.8	2237.1	3442.0	4554.5	5179.7
60°	191.2	183.8	180.1	192.4	234.3	331.7	600.6	1882.0	3456.8	4945.4	5913.5
62.5°	177.6	170.2	166.5	170.2	193.6	254.1	432.9	1491.0	3371.8	5279.6	6585.6
65°	165.3	159.1	154.2	157.9	170.2	202.3	315.7	1021.1	2926.5	5432.5	7074.0
67.5°	151.7	146.8	141.8	146.8	155.4	170.2	245.4	646.2	2194.0	5234.0	7277.5
69°	144.3	136.9	134.4	138.1	146.8	156.6	212.1	515.5	1668.6	4856.6	7154.2
70°	136.9	132.0	128.3	134.4	141.8	149.2	191.2	437.8	1308.5	4371.9	6848.3
72.5°	120.9	117.2	114.7	120.9	127.0	132.0	156.6	312.0	758.5	2977.1	5431.3
75°	106.1	102.4	101.1	106.1	111.0	113.5	132.0	214.6	447.7	1557.6	3258.3
77.5°	88.8	83.9	85.1	91.3	95.0	96.2	111.0	154.2	263.9	705.4	1509.5
80°	65.4	65.4	70.3	75.2	75.2	75.2	88.8	112.2	160.3	324.3	626.5
82.5°	45.6	46.9	48.1	55.5	56.7	51.8	67.8	81.4	99.9	141.8	217.1
85°	25.9	27.1	28.4	33.3	34.5	30.8	44.4	51.8	58.0	70.3	113.5
87.5°	9.9	11.1	14.8	17.3	18.5	13.6	21.0	24.7	24.7	29.6	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



REPORT NUMBER: P565290

CATALOG NUMBER: MSA-SA2B-827-U-T1

CANDELA DISTRIBUTION (continued):

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3
2.5°	445.2	453.8	469.9	473.6	460.0	445.2	411.9	432.9	441.5	425.5	430.4
5°	551.3	569.8	589.5	566.1	551.3	541.4	525.4	526.6	518.0	489.6	442.7
7.5°	670.9	649.9	664.7	680.8	657.3	658.6	673.4	642.5	619.1	571.0	483.4
10°	726.4	726.4	730.1	730.1	720.2	720.2	719.0	669.7	641.3	620.3	595.7
12.5°	730.1	728.9	743.7	732.6	735.0	737.5	743.7	765.9	758.5	731.3	753.5
15°	832.5	827.5	832.5	831.2	834.9	846.0	841.1	836.2	837.4	857.1	890.4
17.5°	928.6	931.1	926.2	934.8	934.8	942.2	959.5	942.2	927.4	964.4	990.3
20°	1039.6	1031.0	1011.3	1026.1	1029.8	1031.0	1059.4	1038.4	1017.4	1031.0	1061.8
22.5°	1151.9	1150.6	1153.1	1154.3	1159.3	1140.8	1102.5	1096.4	1109.9	1091.4	1095.1
25°	1220.9	1222.2	1228.3	1229.6	1208.6	1228.3	1241.9	1201.2	1201.2	1197.5	1172.8
27.5°	1304.8	1286.3	1293.7	1303.6	1294.9	1299.9	1283.8	1224.6	1287.5	1296.2	1197.5
30°	1361.5	1352.9	1344.3	1354.1	1362.8	1385.0	1339.3	1333.2	1338.1	1383.7	1254.2
32.5°	1481.2	1493.5	1477.5	1461.4	1477.5	1472.5	1452.8	1444.2	1505.8	1445.4	1293.7
35°	1592.1	1597.1	1598.3	1595.8	1605.7	1588.4	1588.4	1620.5	1639.0	1573.6	1306.0
37.5°	1859.8	1842.5	1806.7	1789.5	1820.3	1846.2	1769.7	1808.0	1800.6	1689.6	1398.5
40°	2052.2	2091.6	2102.7	2097.8	2102.7	2028.7	2044.8	2073.1	2039.8	1856.1	1366.5
42.5°	2333.3	2358.0	2349.4	2338.3	2343.2	2329.6	2281.5	2386.4	2266.7	2042.3	1415.8
45°	2589.9	2645.4	2649.1	2610.8	2641.7	2593.6	2613.3	2650.3	2529.4	2181.6	1402.2
47.5°	2895.7	3010.4	2967.2	2967.2	2998.1	2894.5	2941.3	2990.7	2670.0	2275.4	1328.2
50°	3348.3	3410.0	3407.5	3396.4	3410.0	3354.5	3347.1	3340.9	2885.8	2364.2	1282.6
52.5°	3860.1	3944.0	3911.9	3924.3	3942.8	3837.9	3920.6	3694.9	3155.9	2397.5	1179.0
55°	4513.8	4571.7	4539.7	4476.8	4560.6	4494.0	4521.2	4080.9	3343.4	2302.5	1006.3
57.5°	5291.9	5321.5	5268.5	5262.3	5317.8	5246.3	5200.7	4515.0	3440.8	2231.0	804.1
60°	6200.9	6293.4	6260.1	6207.0	6257.6	6194.7	5849.4	4883.7	3421.1	1896.8	622.8
62.5°	7291.1	7384.8	7347.8	7312.0	7344.1	7180.1	6458.6	5174.8	3332.3	1503.4	455.1
65°	8191.4	8614.4	8669.9	8671.1	8515.7	8135.9	6944.5	5288.2	2863.6	1049.5	333.0
67.5°	8783.3	9662.6	9936.4	9837.8	9481.4	8614.4	7140.6	5066.3	2211.2	663.5	249.1
69°	8715.5	9868.6	10264.5	10209.0	9708.3	8607.0	6987.7	4692.6	1689.6	527.8	210.9
70°	8402.2	9699.6	10169.5	10194.2	9564.0	8276.5	6715.1	4263.4	1366.5	450.1	193.6
72.5°	6705.3	7992.8	8405.9	8567.5	7942.2	6627.6	5506.5	3007.9	791.8	314.5	156.6
75°	4153.6	4846.7	5189.6	5283.3	4904.7	4127.7	3342.2	1673.5	482.2	222.0	132.0
77.5°	1862.2	2063.3	2260.6	2260.6	2112.6	1884.4	1531.7	809.0	273.8	157.9	111.0
80°	624.0	647.5	630.2	636.4	611.7	588.3	615.4	349.0	169.0	118.4	90.0
82.5°	424.2	532.8	566.1	566.1	531.5	419.3	236.8	160.3	103.6	85.1	69.1
85°	345.3	421.8	452.6	466.2	439.0	353.9	124.6	77.7	61.7	54.3	46.9
87.5°	115.9	108.5	102.4	99.9	104.8	109.8	61.7	33.3	28.4	25.9	24.7
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: P565290
 CATALOG NUMBER: MSA-SA2B-827-U-T1

CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
0°	419.3	419.3	419.3	419.3	419.3	419.3
2.5°	439.0	424.2	430.4	436.6	481.0	514.3
5°	436.6	457.5	504.4	563.6	590.7	657.3
7.5°	448.9	525.4	612.9	674.6	699.3	720.2
10°	600.6	614.2	643.8	703.0	752.3	760.9
12.5°	775.7	772.0	751.1	778.2	753.5	770.8
15°	912.6	871.9	843.6	839.9	831.2	831.2
17.5°	987.8	952.1	912.6	902.8	876.9	897.8
20°	1076.6	1015.0	916.3	906.5	897.8	878.1
22.5°	1059.4	997.7	895.4	883.0	928.6	926.2
25°	1080.3	997.7	900.3	886.7	907.7	907.7
27.5°	1028.5	960.7	890.4	809.0	873.2	888.0
30°	1015.0	938.5	857.1	784.4	849.7	836.2
32.5°	1086.5	883.0	802.9	780.7	828.8	818.9
35°	1031.0	873.2	789.3	748.6	805.3	795.5
37.5°	1054.4	860.8	765.9	731.3	777.0	791.8
40°	1049.5	802.9	738.7	694.3	740.0	747.4
42.5°	966.9	758.5	693.1	648.7	672.1	696.8
45°	942.2	731.3	648.7	587.0	588.3	616.6
47.5°	896.6	669.7	567.3	510.6	510.6	534.0
50°	820.1	587.0	474.8	423.0	421.8	440.3
52.5°	706.7	506.9	400.8	344.1	340.4	358.9
55°	578.4	408.2	315.7	278.7	271.3	278.7
57.5°	450.1	318.2	249.1	219.5	218.3	224.5
60°	349.0	249.1	198.6	181.3	183.8	193.6
62.5°	263.9	198.6	169.0	162.8	166.5	176.4
65°	209.7	171.4	154.2	150.5	154.2	164.0
67.5°	170.2	155.4	143.1	138.1	140.6	150.5
69°	156.6	146.8	136.9	130.7	133.2	140.6
70°	149.2	141.8	132.0	125.8	128.3	135.7
72.5°	130.7	127.0	119.6	113.5	114.7	120.9
75°	114.7	112.2	107.3	99.9	99.9	107.3
77.5°	96.2	97.4	92.5	85.1	83.9	87.6
80°	76.5	78.9	76.5	69.1	66.6	66.6
82.5°	55.5	60.4	58.0	50.6	49.3	49.3
85°	34.5	38.2	37.0	32.1	32.1	28.4
87.5°	16.0	21.0	19.7	17.3	16.0	11.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)