

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: P565332

Luminaire Tested: **MSA-SA1A-835-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565332
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-SA1A-835-U-T1
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3012 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B2 - U0 - G2

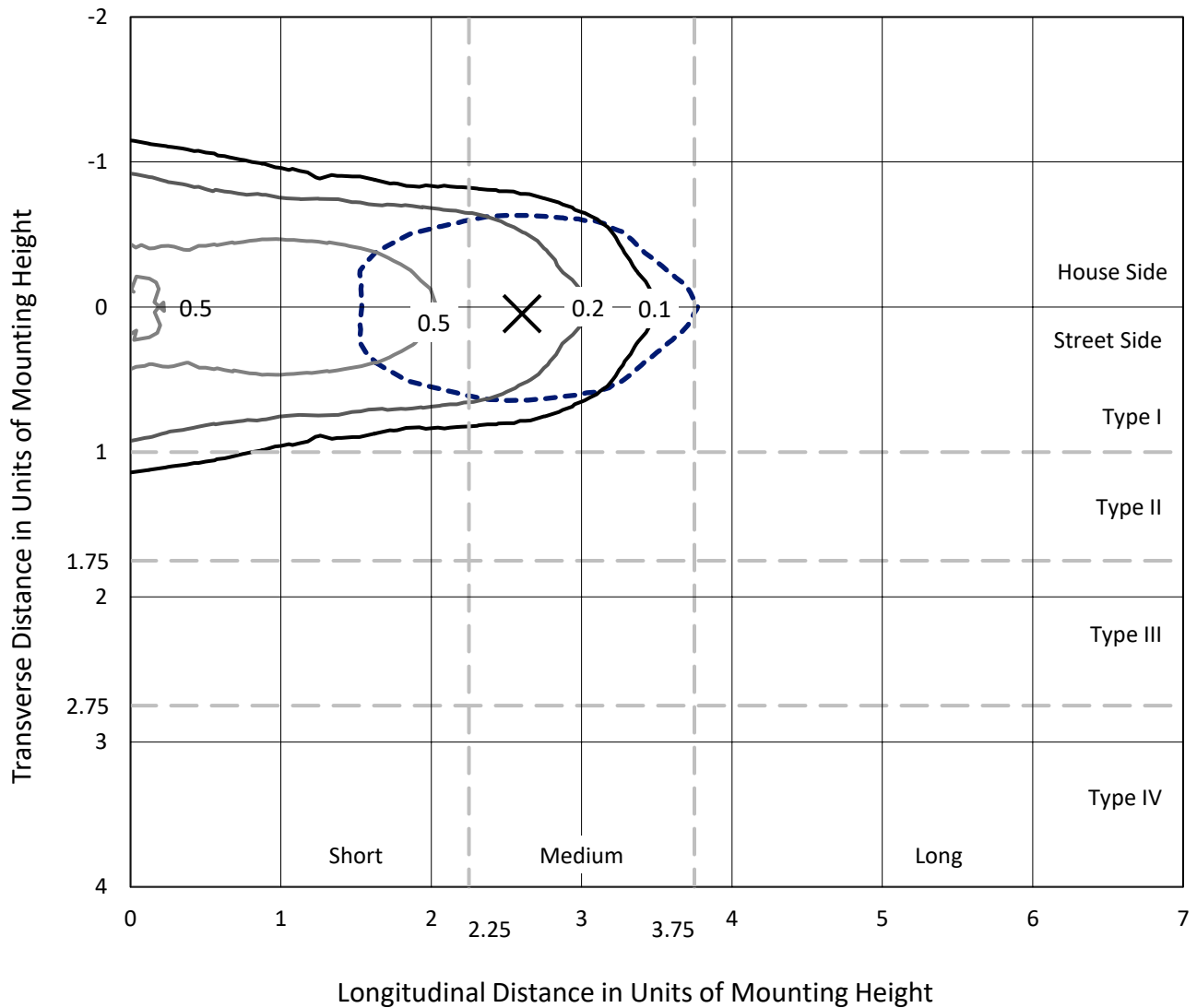
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P565332
 CATALOG NUMBER: MSA-SA1A-835-U-T1

Iso-Footcandle Lines of Horizontal Illumination

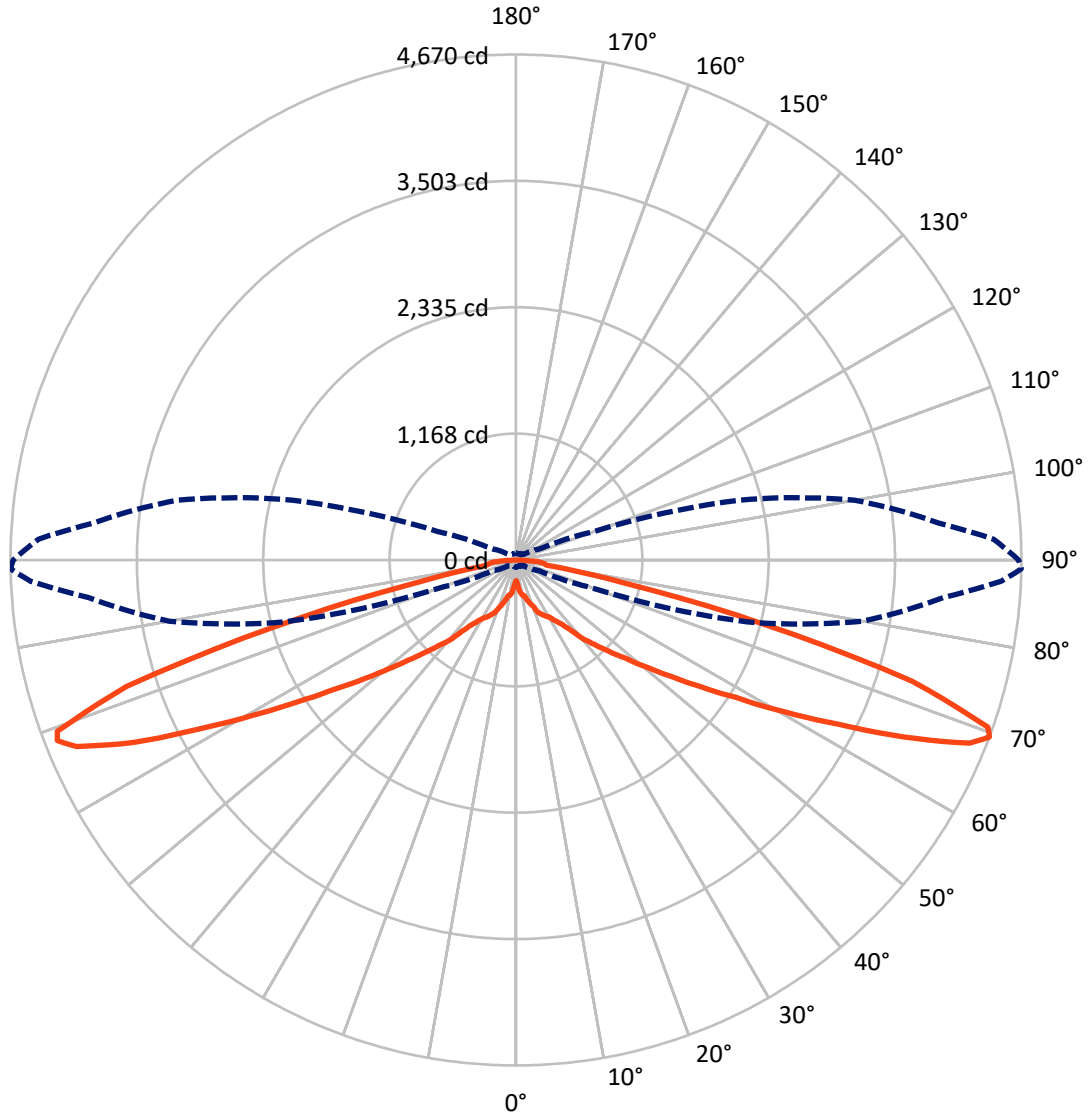
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 fc
 Type I - Medium - N/A

REPORT NUMBER: P565332
CATALOG NUMBER: MSA-SA1A-835-U-T1

Luminous Intensity Polar Plot



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

REPORT NUMBER: P565332
 CATALOG NUMBER: MSA-SA1A-835-U-T1

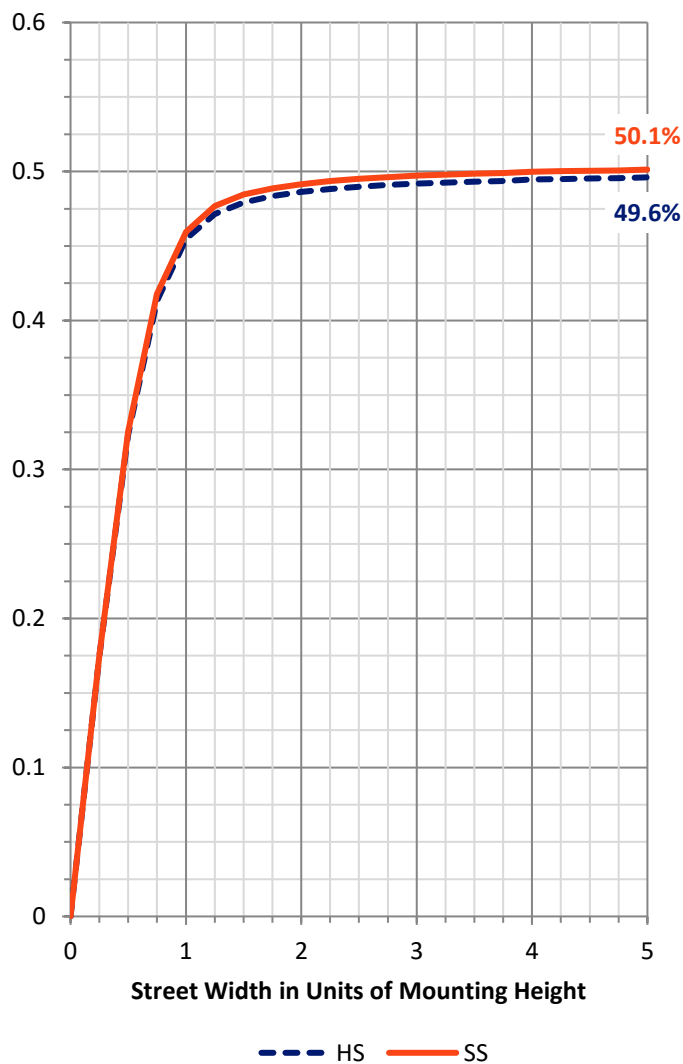
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1506.0	0.0	1506.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1506.0	0.0	1506.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	3012.0	0.0	3012.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.0	0.8
10°-20°	110.4	3.7
20°-30°	220.3	7.3
30°-40°	333.3	11.1
40°-50°	483.8	16.1
50°-60°	635.6	21.1
60°-70°	775.3	25.7
70°-80°	392.0	13.0
80°-90°	37.4	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°	3012.0	100.0
0°-180°	3012.0	100.0

Coefficient of Utilization

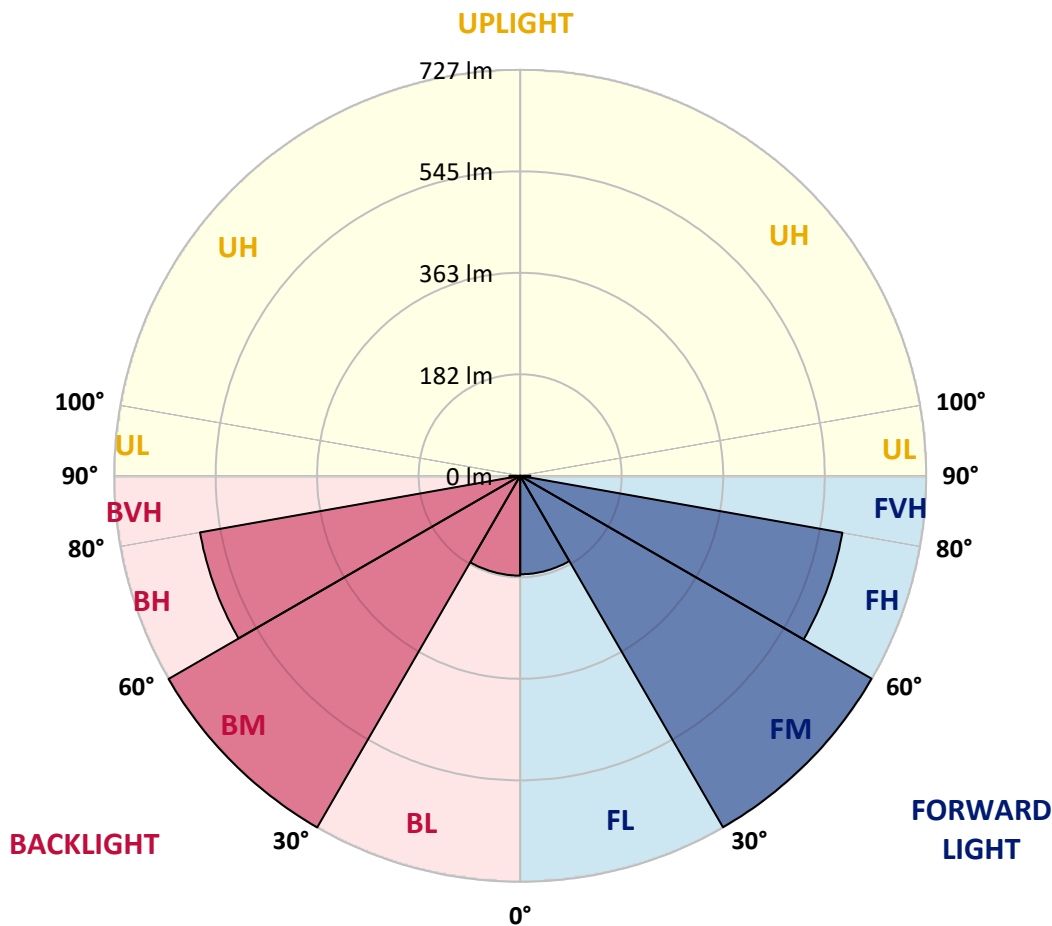


REPORT NUMBER: P565332
 CATALOG NUMBER: MSA-SA1A-835-U-T1

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	176.1	5.8			
FM (30°-60°)	726.1	24.1			
FH (60°-80°)	585.5	19.4			G0/660
FVH (80°-90°)	18.3	0.6			G1/100
BL (0°-30°)	178.6	5.9	B1/500		
BM (30°-60°)	726.5	24.1	B1/1000		
BH (60°-80°)	581.8	19.3	B2/1000		G2/1000
BVH (80°-90°)	19.0	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2
 Type I Medium





REPORT NUMBER: P565332
 CATALOG NUMBER: MSA-SA1A-835-U-T1

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	190.8	190.8	190.8	190.8	190.8	190.8	190.8	190.8	190.8	190.8	190.8
2.5°	223.9	198.1	195.8	189.7	194.1	195.8	191.9	186.3	192.5	195.8	189.7
5°	282.2	244.1	231.2	220.5	199.2	190.2	199.2	222.2	225.0	239.0	235.1
7.5°	310.9	304.7	288.4	253.1	218.8	199.8	223.9	257.0	273.8	287.3	301.3
10°	332.2	328.8	300.2	274.9	260.9	262.0	262.6	273.3	287.9	310.3	318.2
12.5°	337.2	336.1	340.6	335.0	336.1	342.3	336.1	333.3	341.7	349.0	341.2
15°	369.8	369.2	370.9	372.0	394.5	404.0	394.5	386.0	379.9	373.7	386.6
17.5°	392.2	389.4	390.0	400.6	425.9	452.3	447.2	436.0	422.0	430.4	441.0
20°	404.6	399.5	402.9	407.4	450.0	479.2	482.6	467.4	459.0	469.7	478.6
22.5°	416.3	408.5	396.7	401.2	440.5	482.6	498.8	494.9	501.1	504.4	502.8
25°	402.3	407.4	394.5	407.4	447.2	485.9	518.5	541.5	542.0	540.4	552.7
27.5°	393.9	390.0	368.1	401.2	434.3	458.4	541.5	580.2	592.0	556.1	580.2
30°	379.3	385.5	355.7	383.2	425.3	465.7	567.9	623.4	606.0	601.5	607.1
32.5°	370.3	366.4	352.4	367.5	399.5	487.6	584.7	648.7	670.5	659.9	658.8
35°	355.7	358.6	336.7	352.9	397.8	469.1	595.9	712.1	745.7	737.3	730.6
37.5°	358.0	348.5	332.7	344.5	387.2	479.2	624.0	773.2	826.5	831.0	800.2
40°	341.2	335.5	312.0	331.6	367.0	473.0	630.7	842.8	933.1	953.3	909.0
42.5°	317.0	309.7	296.3	318.2	355.2	442.7	640.2	926.4	1041.4	1083.5	1043.1
45°	282.2	272.7	266.0	295.1	329.4	434.9	630.1	996.0	1145.2	1203.0	1201.9
47.5°	240.2	234.0	230.6	261.5	308.1	415.2	609.4	1039.8	1217.6	1365.8	1343.3
50°	192.5	188.0	187.4	220.0	272.1	374.8	585.8	1061.6	1327.6	1515.0	1534.7
52.5°	154.3	150.9	150.4	176.8	227.8	320.4	536.4	1078.5	1432.5	1684.5	1785.5
55°	120.6	117.3	117.8	139.7	181.2	262.0	461.2	1059.4	1524.6	1857.9	2049.2
57.5°	98.8	95.4	96.0	108.3	138.6	200.3	367.5	1017.9	1566.1	2072.2	2356.7
60°	87.0	83.6	81.9	87.5	106.6	150.9	273.3	856.3	1572.8	2250.1	2690.6
62.5°	80.8	77.4	75.8	77.4	88.1	115.6	197.0	678.4	1534.1	2402.1	2996.4
65°	75.2	72.4	70.1	71.8	77.4	92.0	143.6	464.6	1331.5	2471.7	3218.6
67.5°	69.0	66.8	64.5	66.8	70.7	77.4	111.7	294.0	998.2	2381.4	3311.2
69°	65.7	62.3	61.2	62.8	66.8	71.3	96.5	234.5	759.2	2209.7	3255.0
70°	62.3	60.0	58.4	61.2	64.5	67.9	87.0	199.2	595.3	1989.2	3115.9
72.5°	55.0	53.3	52.2	55.0	57.8	60.0	71.3	142.0	345.1	1354.5	2471.2
75°	48.3	46.6	46.0	48.3	50.5	51.6	60.0	97.6	203.7	708.7	1482.5
77.5°	40.4	38.2	38.7	41.5	43.2	43.8	50.5	70.1	120.1	321.0	686.8
80°	29.7	29.7	32.0	34.2	34.2	34.2	40.4	51.1	72.9	147.6	285.0
82.5°	20.8	21.3	21.9	25.3	25.8	23.6	30.9	37.0	45.5	64.5	98.8
85°	11.8	12.3	12.9	15.2	15.7	14.0	20.2	23.6	26.4	32.0	51.6
87.5°	4.5	5.1	6.7	7.9	8.4	6.2	9.5	11.2	11.2	13.5	23.0
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: P565332

CATALOG NUMBER: MSA-SA1A-835-U-T1

CANDELA DISTRIBUTION (continued):

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	190.8	190.8	190.8	190.8	190.8	190.8	190.8	190.8	190.8	190.8	190.8
2.5°	202.6	206.5	213.8	215.5	209.3	202.6	187.4	197.0	200.9	193.6	195.8
5°	250.8	259.2	268.2	257.6	250.8	246.3	239.0	239.6	235.7	222.8	201.4
7.5°	305.2	295.7	302.4	309.7	299.1	299.6	306.4	292.3	281.7	259.8	220.0
10°	330.5	330.5	332.2	332.2	327.7	327.7	327.1	304.7	291.8	282.2	271.0
12.5°	332.2	331.6	338.4	333.3	334.4	335.5	338.4	348.5	345.1	332.7	342.8
15°	378.8	376.5	378.8	378.2	379.9	384.9	382.7	380.4	381.0	390.0	405.1
17.5°	422.5	423.6	421.4	425.3	425.3	428.7	436.5	428.7	422.0	438.8	450.6
20°	473.0	469.1	460.1	466.8	468.5	469.1	482.0	472.5	462.9	469.1	483.1
22.5°	524.1	523.5	524.6	525.2	527.5	519.0	501.6	498.8	505.0	496.6	498.3
25°	555.5	556.1	558.9	559.4	549.9	558.9	565.0	546.5	546.5	544.8	533.6
27.5°	593.7	585.2	588.6	593.1	589.2	591.4	584.1	557.2	585.8	589.7	544.8
30°	619.5	615.5	611.6	616.1	620.0	630.1	609.4	606.6	608.8	629.6	570.7
32.5°	673.9	679.5	672.2	664.9	672.2	670.0	661.0	657.1	685.1	657.6	588.6
35°	724.4	726.6	727.2	726.1	730.6	722.7	722.7	737.3	745.7	716.0	594.2
37.5°	846.2	838.3	822.0	814.2	828.2	840.0	805.2	822.6	819.2	768.7	636.3
40°	933.7	951.7	956.7	954.5	956.7	923.0	930.3	943.2	928.1	844.5	621.7
42.5°	1061.6	1072.9	1068.9	1063.9	1066.1	1060.0	1038.1	1085.8	1031.3	929.2	644.2
45°	1178.3	1203.6	1205.3	1187.9	1201.9	1180.0	1189.0	1205.8	1150.9	992.6	638.0
47.5°	1317.5	1369.7	1350.0	1350.0	1364.1	1316.9	1338.3	1360.7	1214.8	1035.3	604.3
50°	1523.4	1551.5	1550.4	1545.3	1551.5	1526.2	1522.9	1520.1	1313.0	1075.7	583.6
52.5°	1756.3	1794.5	1779.9	1785.5	1793.9	1746.2	1783.8	1681.1	1435.9	1090.8	536.4
55°	2053.7	2080.1	2065.5	2036.9	2075.0	2044.7	2057.1	1856.7	1521.2	1047.6	457.9
57.5°	2407.8	2421.2	2397.1	2394.3	2419.5	2387.0	2366.2	2054.3	1565.5	1015.1	365.8
60°	2821.3	2863.4	2848.2	2824.1	2847.1	2818.5	2661.4	2222.0	1556.5	863.0	283.4
62.5°	3317.3	3360.0	3343.1	3326.9	3341.5	3266.8	2938.6	2354.4	1516.1	684.0	207.1
65°	3726.9	3919.4	3944.7	3945.2	3874.5	3701.7	3159.7	2406.1	1302.9	477.5	151.5
67.5°	3996.3	4396.4	4520.9	4476.0	4313.9	3919.4	3248.9	2305.1	1006.1	301.9	113.3
69°	3965.4	4490.1	4670.2	4644.9	4417.1	3916.0	3179.3	2135.1	768.7	240.2	96.0
70°	3822.9	4413.2	4627.0	4638.2	4351.5	3765.7	3055.3	1939.8	621.7	204.8	88.1
72.5°	3050.8	3636.6	3824.6	3898.1	3613.6	3015.4	2505.4	1368.6	360.2	143.1	71.3
75°	1889.8	2205.2	2361.2	2403.8	2231.6	1878.1	1520.6	761.4	219.4	101.0	60.0
77.5°	847.3	938.7	1028.5	1028.5	961.2	857.4	696.9	368.1	124.6	71.8	50.5
80°	283.9	294.6	286.7	289.5	278.3	267.7	280.0	158.8	76.9	53.9	41.0
82.5°	193.0	242.4	257.6	257.6	241.8	190.8	107.7	72.9	47.1	38.7	31.4
85°	157.1	191.9	205.9	212.1	199.8	161.0	56.7	35.4	28.1	24.7	21.3
87.5°	52.7	49.4	46.6	45.5	47.7	49.9	28.1	15.2	12.9	11.8	11.2
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: P565332
 CATALOG NUMBER: MSA-SA1A-835-U-T1

CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
0°	190.8	190.8	190.8	190.8	190.8	190.8
2.5°	199.8	193.0	195.8	198.6	218.8	234.0
5°	198.6	208.2	229.5	256.4	268.8	299.1
7.5°	204.2	239.0	278.9	306.9	318.2	327.7
10°	273.3	279.4	292.9	319.8	342.3	346.2
12.5°	352.9	351.3	341.7	354.1	342.8	350.7
15°	415.2	396.7	383.8	382.1	378.2	378.2
17.5°	449.5	433.2	415.2	410.7	399.0	408.5
20°	489.9	461.8	416.9	412.4	408.5	399.5
22.5°	482.0	453.9	407.4	401.8	422.5	421.4
25°	491.5	453.9	409.6	403.4	413.0	413.0
27.5°	468.0	437.1	405.1	368.1	397.3	404.0
30°	461.8	427.0	390.0	356.9	386.6	380.4
32.5°	494.3	401.8	365.3	355.2	377.1	372.6
35°	469.1	397.3	359.1	340.6	366.4	361.9
37.5°	479.8	391.7	348.5	332.7	353.5	360.2
40°	477.5	365.3	336.1	315.9	336.7	340.0
42.5°	439.9	345.1	315.3	295.1	305.8	317.0
45°	428.7	332.7	295.1	267.1	267.7	280.6
47.5°	407.9	304.7	258.1	232.3	232.3	243.0
50°	373.1	267.1	216.0	192.5	191.9	200.3
52.5°	321.5	230.6	182.4	156.6	154.9	163.3
55°	263.2	185.7	143.6	126.8	123.4	126.8
57.5°	204.8	144.8	113.3	99.9	99.3	102.1
60°	158.8	113.3	90.3	82.5	83.6	88.1
62.5°	120.1	90.3	76.9	74.1	75.8	80.2
65°	95.4	78.0	70.1	68.5	70.1	74.6
67.5°	77.4	70.7	65.1	62.8	64.0	68.5
69°	71.3	66.8	62.3	59.5	60.6	64.0
70°	67.9	64.5	60.0	57.2	58.4	61.7
72.5°	59.5	57.8	54.4	51.6	52.2	55.0
75°	52.2	51.1	48.8	45.5	45.5	48.8
77.5°	43.8	44.3	42.1	38.7	38.2	39.8
80°	34.8	35.9	34.8	31.4	30.3	30.3
82.5°	25.3	27.5	26.4	23.0	22.4	22.4
85°	15.7	17.4	16.8	14.6	14.6	12.9
87.5°	7.3	9.5	9.0	7.9	7.3	5.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)