

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: P565321

Luminaire Tested: **MSA-SA2B-830-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565321
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-830-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: 7157 lumens
Efficiency: N/A
Efficacy: 84.2 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

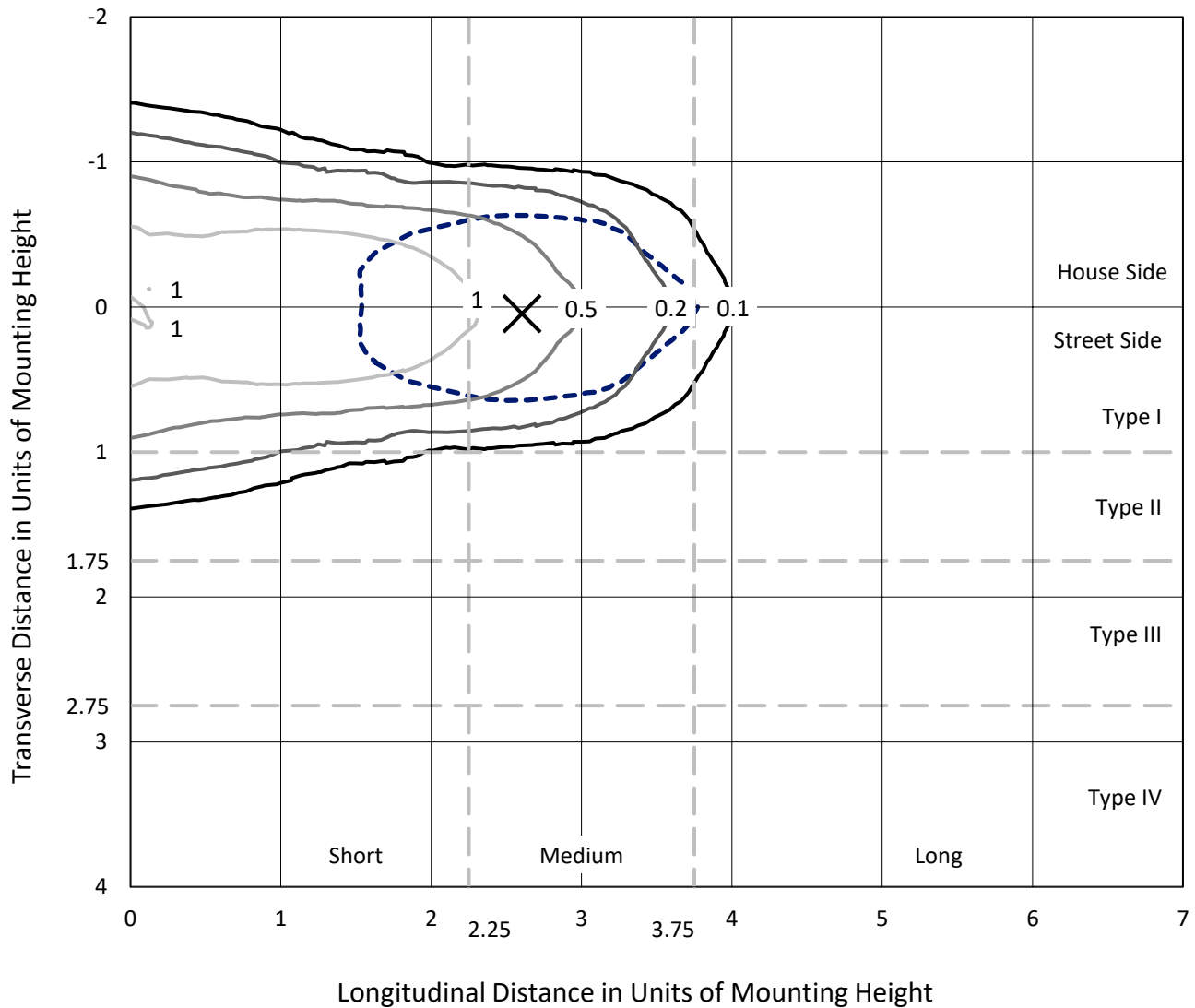


REPORT NUMBER: P565321

CATALOG NUMBER: MSA-SA2B-830-U-T1

Iso-Footcandle Lines of Horizontal Illumination

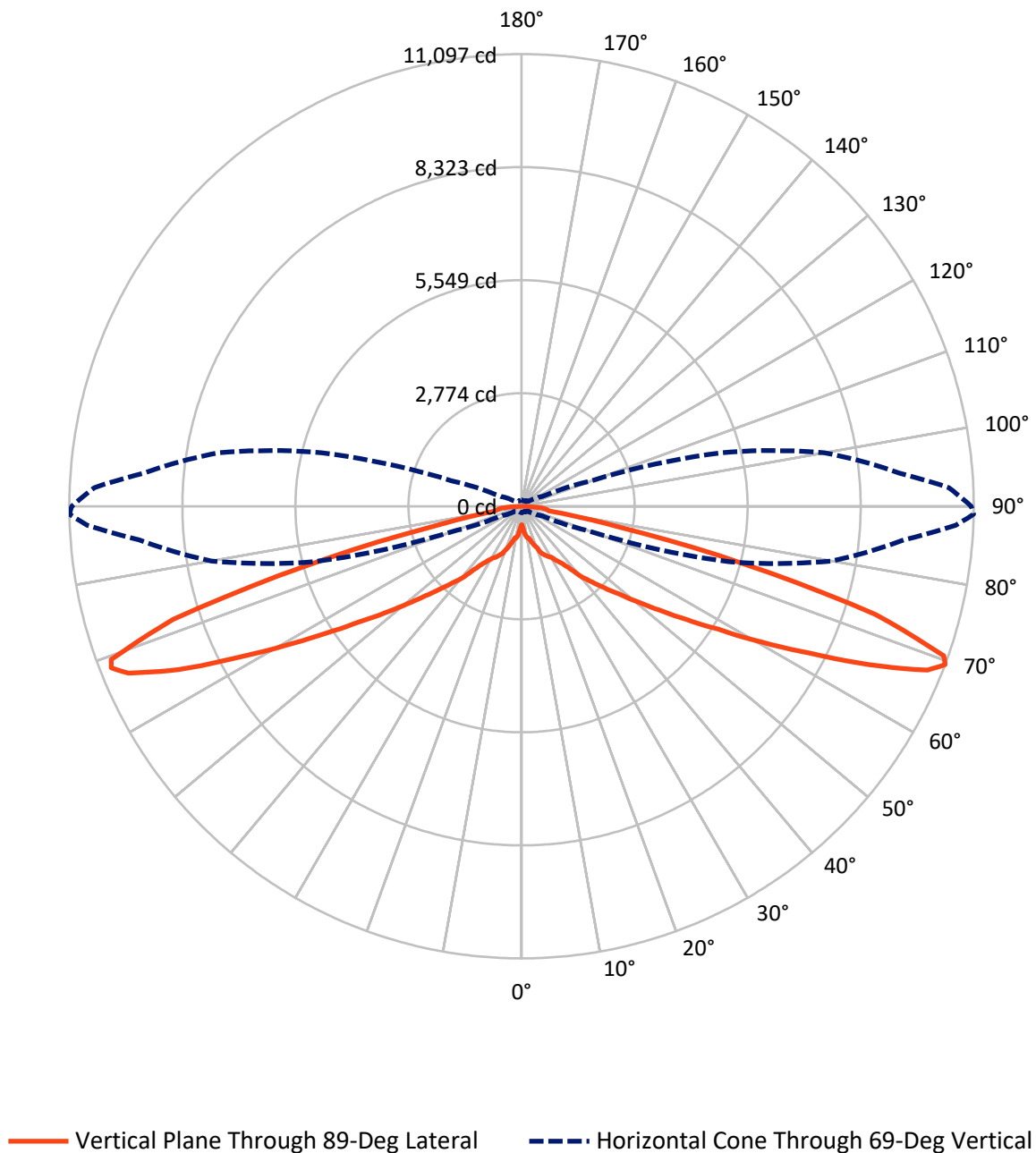
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 fc
 Type I - Medium - N/A

REPORT NUMBER: P565321
CATALOG NUMBER: MSA-SA2B-830-U-T1

Luminous Intensity Polar Plot



REPORT NUMBER: P565321

CATALOG NUMBER: MSA-SA2B-830-U-T1

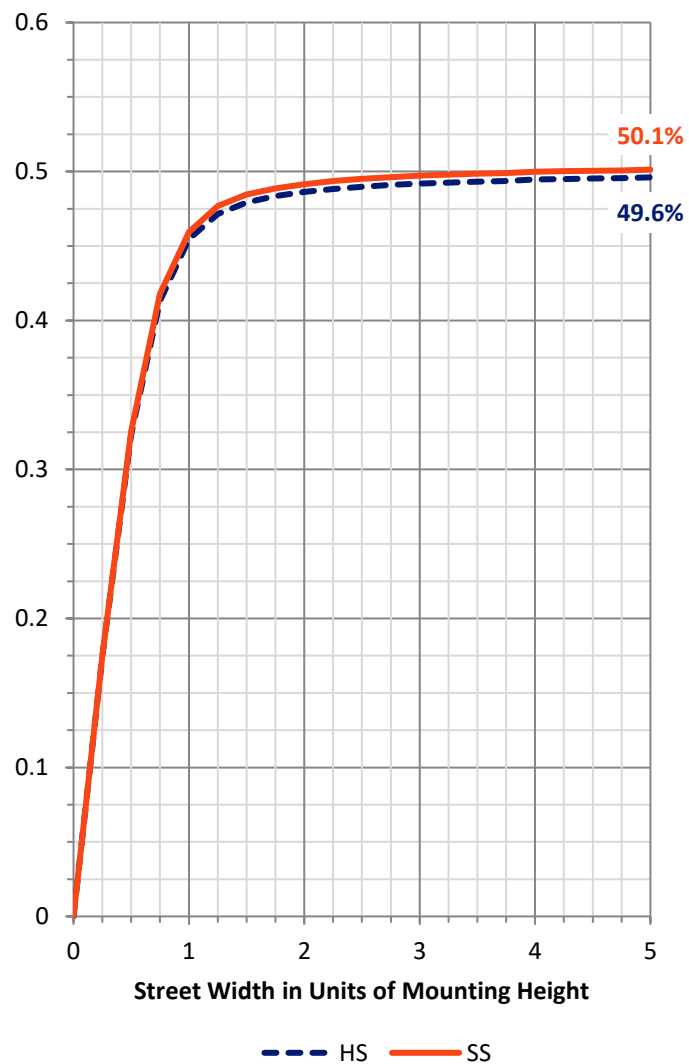
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3578.4	0.0	3578.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3578.6	0.0	3578.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	7157.0	0.0	7157.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.0	0.8
10°-20°	262.4	3.7
20°-30°	523.6	7.3
30°-40°	791.9	11.1
40°-50°	1149.5	16.1
50°-60°	1510.2	21.1
60°-70°	1842.3	25.7
70°-80°	931.4	13.0
80°-90°	88.8	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°	7157.0	100.0
0°-180°	7157.0	100.0

Coefficient of Utilization



REPORT NUMBER: P565321

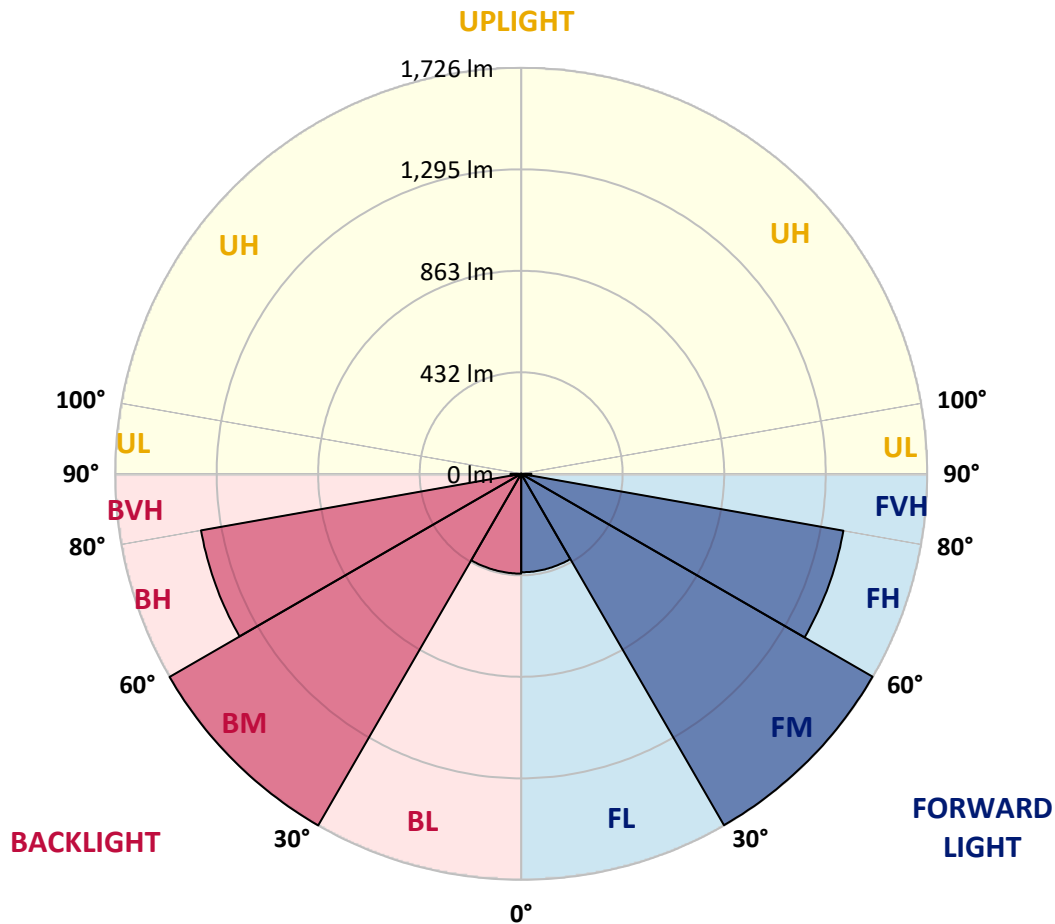
CATALOG NUMBER: MSA-SA2B-830-U-T1

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	418.5	5.8			
FM	(30°-60°)	1725.2	24.1			
FH	(60°-80°)	1391.3	19.4			G1/1800
FVH	(80°-90°)	43.5	0.6			G1/100
BL	(0°-30°)	424.4	5.9	B1/500		
BM	(30°-60°)	1726.4	24.1	B2/2500		
BH	(60°-80°)	1382.4	19.3	B3/2500		G3/2500
BVH	(80°-90°)	45.2	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: P565321

CATALOG NUMBER: MSA-SA2B-830-U-T1

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	453.3	453.3	453.3	453.3	453.3	453.3	453.3	453.3	453.3	453.3	453.3
2.5°	532.0	470.7	465.3	450.7	461.3	465.3	456.0	442.7	457.3	465.3	450.7
5°	670.7	580.0	549.3	524.0	473.3	452.0	473.3	528.0	534.7	568.0	558.7
7.5°	738.7	724.0	685.3	601.3	520.0	474.7	532.0	610.7	650.7	682.7	716.0
10°	789.3	781.3	713.3	653.3	620.0	622.7	624.0	649.3	684.0	737.3	756.0
12.5°	801.3	798.7	809.3	796.0	798.7	813.3	798.7	792.0	812.0	829.3	810.7
15°	878.6	877.3	881.3	884.0	937.3	960.0	937.3	917.3	902.6	888.0	918.6
17.5°	932.0	925.3	926.6	952.0	1012.0	1074.6	1062.6	1036.0	1002.6	1022.6	1048.0
20°	961.3	949.3	957.3	968.0	1069.3	1138.6	1146.6	1110.6	1090.6	1116.0	1137.3
22.5°	989.3	970.6	942.6	953.3	1046.6	1146.6	1185.3	1176.0	1190.6	1198.6	1194.6
25°	956.0	968.0	937.3	968.0	1062.6	1154.6	1232.0	1286.6	1288.0	1284.0	1313.3
27.5°	936.0	926.6	874.6	953.3	1032.0	1089.3	1286.6	1378.6	1406.6	1321.3	1378.6
30°	901.3	916.0	845.3	910.6	1010.6	1106.6	1349.3	1481.3	1440.0	1429.3	1442.6
32.5°	880.0	870.6	837.3	873.3	949.3	1158.6	1389.3	1541.3	1593.3	1568.0	1565.3
35°	845.3	852.0	800.0	838.6	945.3	1114.6	1416.0	1692.0	1772.0	1752.0	1736.0
37.5°	850.6	828.0	790.7	818.7	920.0	1138.6	1482.6	1837.3	1964.0	1974.6	1901.3
40°	810.7	797.3	741.3	788.0	872.0	1124.0	1498.6	2002.6	2217.3	2265.3	2160.0
42.5°	753.3	736.0	704.0	756.0	844.0	1052.0	1521.3	2201.3	2474.6	2574.6	2478.6
45°	670.7	648.0	632.0	701.3	782.7	1033.3	1497.3	2366.6	2721.3	2858.6	2855.9
47.5°	570.7	556.0	548.0	621.3	732.0	986.6	1448.0	2470.6	2893.3	3245.3	3191.9
50°	457.3	446.7	445.3	522.7	646.7	890.6	1392.0	2522.6	3154.6	3599.9	3646.6
52.5°	366.7	358.7	357.3	420.0	541.3	761.3	1274.6	2562.6	3403.9	4002.6	4242.6
55°	286.7	278.7	280.0	332.0	430.7	622.7	1096.0	2517.3	3622.6	4414.6	4869.2
57.5°	234.7	226.7	228.0	257.3	329.3	476.0	873.3	2418.6	3721.3	4923.9	5599.9
60°	206.7	198.7	194.7	208.0	253.3	358.7	649.3	2034.6	3737.3	5346.6	6393.2
62.5°	192.0	184.0	180.0	184.0	209.3	274.7	468.0	1612.0	3645.3	5707.9	7119.9
65°	178.7	172.0	166.7	170.7	184.0	218.7	341.3	1104.0	3163.9	5873.2	7647.8
67.5°	164.0	158.7	153.3	158.7	168.0	184.0	265.3	698.7	2372.0	5658.6	7867.8
69°	156.0	148.0	145.3	149.3	158.7	169.3	229.3	557.3	1804.0	5250.6	7734.5
70°	148.0	142.7	138.7	145.3	153.3	161.3	206.7	473.3	1414.6	4726.6	7403.9
72.5°	130.7	126.7	124.0	130.7	137.3	142.7	169.3	337.3	820.0	3218.6	5871.9
75°	114.7	110.7	109.3	114.7	120.0	122.7	142.7	232.0	484.0	1684.0	3522.6
77.5°	96.0	90.7	92.0	98.7	102.7	104.0	120.0	166.7	285.3	762.7	1632.0
80°	70.7	70.7	76.0	81.3	81.3	81.3	96.0	121.3	173.3	350.7	677.3
82.5°	49.3	50.7	52.0	60.0	61.3	56.0	73.3	88.0	108.0	153.3	234.7
85°	28.0	29.3	30.7	36.0	37.3	33.3	48.0	56.0	62.7	76.0	122.7
87.5°	10.7	12.0	16.0	18.7	20.0	14.7	22.7	26.7	26.7	32.0	54.7
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: P565321

CATALOG NUMBER: MSA-SA2B-830-U-T1

CANDELA DISTRIBUTION (continued):

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	453.3	453.3	453.3	453.3	453.3	453.3	453.3	453.3	453.3	453.3	453.3
2.5°	481.3	490.7	508.0	512.0	497.3	481.3	445.3	468.0	477.3	460.0	465.3
5°	596.0	616.0	637.3	612.0	596.0	585.3	568.0	569.3	560.0	529.3	478.7
7.5°	725.3	702.7	718.7	736.0	710.7	712.0	728.0	694.7	669.3	617.3	522.7
10°	785.3	785.3	789.3	789.3	778.7	778.7	777.3	724.0	693.3	670.7	644.0
12.5°	789.3	788.0	804.0	792.0	794.7	797.3	804.0	828.0	820.0	790.7	814.7
15°	900.0	894.6	900.0	898.6	902.6	914.6	909.3	904.0	905.3	926.6	962.6
17.5°	1004.0	1006.6	1001.3	1010.6	1010.6	1018.6	1037.3	1018.6	1002.6	1042.6	1070.6
20°	1124.0	1114.6	1093.3	1109.3	1113.3	1114.6	1145.3	1122.6	1100.0	1114.6	1148.0
22.5°	1245.3	1244.0	1246.6	1248.0	1253.3	1233.3	1192.0	1185.3	1200.0	1180.0	1184.0
25°	1320.0	1321.3	1328.0	1329.3	1306.6	1328.0	1342.6	1298.6	1298.6	1294.6	1268.0
27.5°	1410.6	1390.6	1398.6	1409.3	1400.0	1405.3	1388.0	1324.0	1392.0	1401.3	1294.6
30°	1472.0	1462.6	1453.3	1464.0	1473.3	1497.3	1448.0	1441.3	1446.6	1496.0	1356.0
32.5°	1601.3	1614.6	1597.3	1580.0	1597.3	1592.0	1570.6	1561.3	1628.0	1562.6	1398.6
35°	1721.3	1726.6	1728.0	1725.3	1736.0	1717.3	1717.3	1752.0	1772.0	1701.3	1412.0
37.5°	2010.6	1992.0	1953.3	1934.6	1968.0	1996.0	1913.3	1954.6	1946.6	1826.6	1512.0
40°	2218.6	2261.3	2273.3	2268.0	2273.3	2193.3	2210.6	2241.3	2205.3	2006.6	1477.3
42.5°	2522.6	2549.3	2539.9	2527.9	2533.3	2518.6	2466.6	2579.9	2450.6	2208.0	1530.6
45°	2799.9	2859.9	2863.9	2822.6	2855.9	2803.9	2825.3	2865.3	2734.6	2358.6	1516.0
47.5°	3130.6	3254.6	3207.9	3207.9	3241.3	3129.3	3179.9	3233.3	2886.6	2460.0	1436.0
50°	3619.9	3686.6	3683.9	3671.9	3686.6	3626.6	3618.6	3611.9	3119.9	2555.9	1386.6
52.5°	4173.2	4263.9	4229.2	4242.6	4262.6	4149.2	4238.6	3994.6	3411.9	2591.9	1274.6
55°	4879.9	4942.6	4907.9	4839.9	4930.6	4858.6	4887.9	4411.9	3614.6	2489.3	1088.0
57.5°	5721.2	5753.2	5695.9	5689.2	5749.2	5671.9	5622.6	4881.2	3719.9	2412.0	869.3
60°	6703.9	6803.9	6767.9	6710.5	6765.2	6697.2	6323.9	5279.9	3698.6	2050.6	673.3
62.5°	7882.5	7983.8	7943.8	7905.2	7939.8	7762.5	6982.5	5594.6	3602.6	1625.3	492.0
65°	8855.8	9313.1	9373.1	9374.5	9206.5	8795.8	7507.8	5717.2	3095.9	1134.6	360.0
67.5°	9495.8	10446.5	10742.5	10635.8	10250.5	9313.1	7719.8	5477.2	2390.6	717.3	269.3
69°	9422.5	10669.1	11097.1	11037.1	10495.8	9305.1	7554.5	5073.2	1826.6	570.7	228.0
70°	9083.8	10486.5	10994.4	11021.1	10339.8	8947.8	7259.9	4609.2	1477.3	486.7	209.3
72.5°	7249.2	8641.2	9087.8	9262.5	8586.5	7165.2	5953.2	3251.9	856.0	340.0	169.3
75°	4490.6	5239.9	5610.6	5711.9	5302.6	4462.6	3613.3	1809.3	521.3	240.0	142.7
77.5°	2013.3	2230.6	2444.0	2444.0	2284.0	2037.3	1656.0	874.6	296.0	170.7	120.0
80°	674.7	700.0	681.3	688.0	661.3	636.0	665.3	377.3	182.7	128.0	97.3
82.5°	458.7	576.0	612.0	612.0	574.7	453.3	256.0	173.3	112.0	92.0	74.7
85°	373.3	456.0	489.3	504.0	474.7	382.7	134.7	84.0	66.7	58.7	50.7
87.5°	125.3	117.3	110.7	108.0	113.3	118.7	66.7	36.0	30.7	28.0	26.7
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: P565321

CATALOG NUMBER: MSA-SA2B-830-U-T1

CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
0°	453.3	453.3	453.3	453.3	453.3	453.3
2.5°	474.7	458.7	465.3	472.0	520.0	556.0
5°	472.0	494.7	545.3	609.3	638.7	710.7
7.5°	485.3	568.0	662.7	729.3	756.0	778.7
10°	649.3	664.0	696.0	760.0	813.3	822.7
12.5°	838.6	834.6	812.0	841.3	814.7	833.3
15°	986.6	942.6	912.0	908.0	898.6	898.6
17.5°	1068.0	1029.3	986.6	976.0	948.0	970.6
20°	1164.0	1097.3	990.6	980.0	970.6	949.3
22.5°	1145.3	1078.6	968.0	954.6	1004.0	1001.3
25°	1168.0	1078.6	973.3	958.6	981.3	981.3
27.5°	1112.0	1038.6	962.6	874.6	944.0	960.0
30°	1097.3	1014.6	926.6	848.0	918.6	904.0
32.5°	1174.6	954.6	868.0	844.0	896.0	885.3
35°	1114.6	944.0	853.3	809.3	870.6	860.0
37.5°	1140.0	930.6	828.0	790.7	840.0	856.0
40°	1134.6	868.0	798.7	750.7	800.0	808.0
42.5°	1045.3	820.0	749.3	701.3	726.7	753.3
45°	1018.6	790.7	701.3	634.7	636.0	666.7
47.5°	969.3	724.0	613.3	552.0	552.0	577.3
50°	886.6	634.7	513.3	457.3	456.0	476.0
52.5°	764.0	548.0	433.3	372.0	368.0	388.0
55°	625.3	441.3	341.3	301.3	293.3	301.3
57.5°	486.7	344.0	269.3	237.3	236.0	242.7
60°	377.3	269.3	214.7	196.0	198.7	209.3
62.5°	285.3	214.7	182.7	176.0	180.0	190.7
65°	226.7	185.3	166.7	162.7	166.7	177.3
67.5°	184.0	168.0	154.7	149.3	152.0	162.7
69°	169.3	158.7	148.0	141.3	144.0	152.0
70°	161.3	153.3	142.7	136.0	138.7	146.7
72.5°	141.3	137.3	129.3	122.7	124.0	130.7
75°	124.0	121.3	116.0	108.0	108.0	116.0
77.5°	104.0	105.3	100.0	92.0	90.7	94.7
80°	82.7	85.3	82.7	74.7	72.0	72.0
82.5°	60.0	65.3	62.7	54.7	53.3	53.3
85°	37.3	41.3	40.0	34.7	34.7	30.7
87.5°	17.3	22.7	21.3	18.7	17.3	12.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)