

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: P565324

Luminaire Tested: **MSA-SA3A-830-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565324
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-SA3A-830-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: 8428 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B3 - U0 - G3

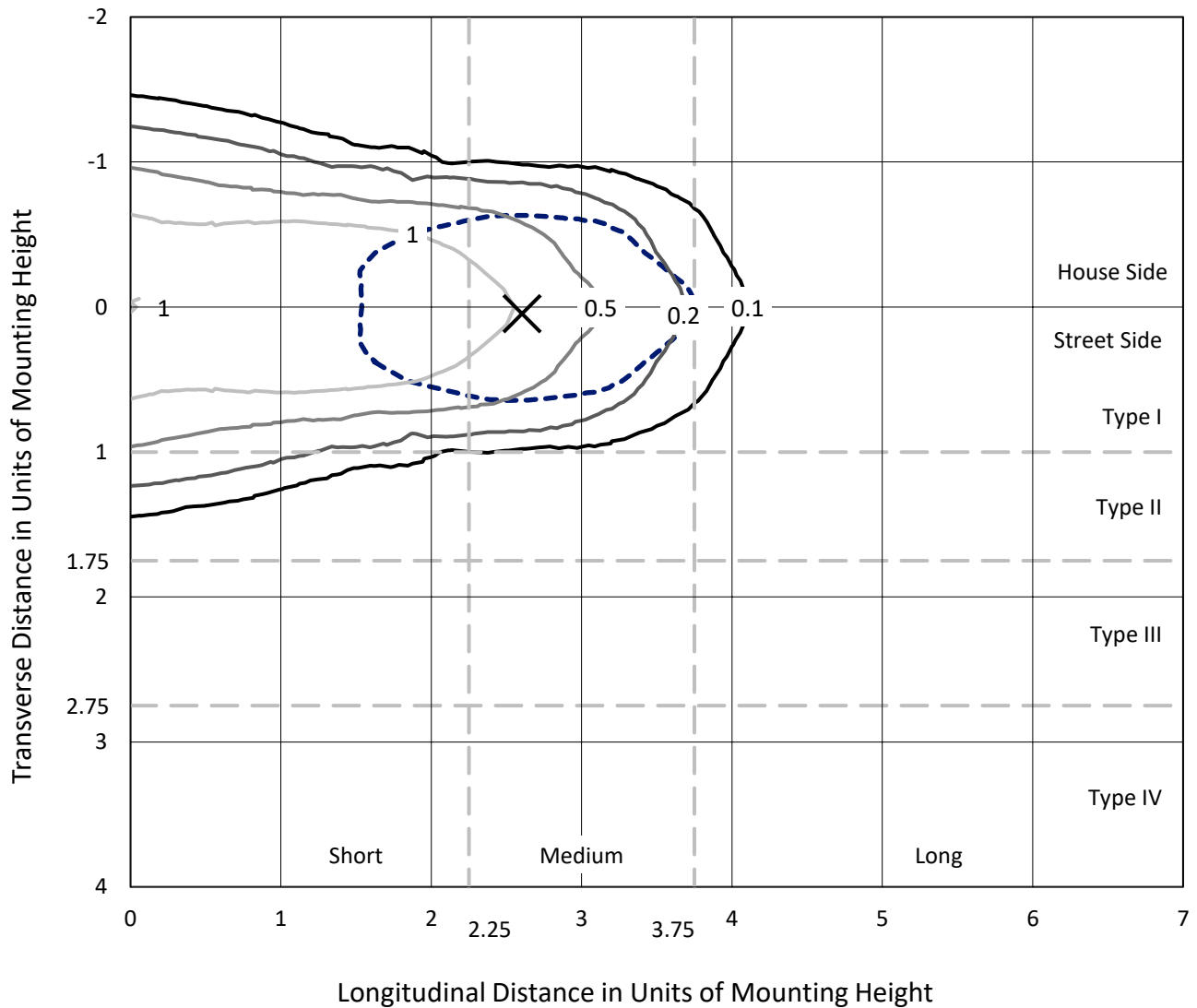
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P565324
 CATALOG NUMBER: MSA-SA3A-830-U-T1

Iso-Footcandle Lines of Horizontal Illumination

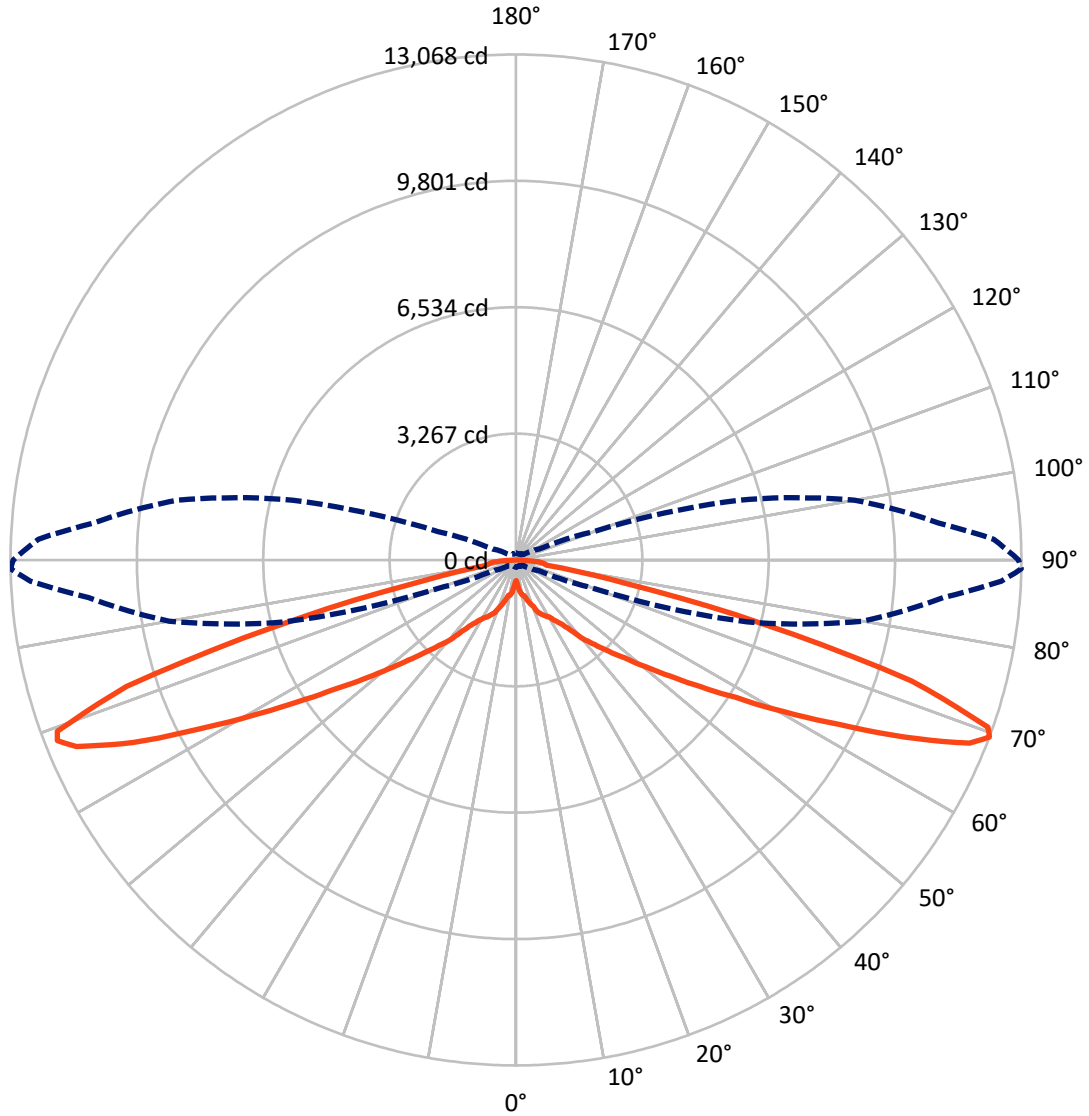
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc
 Type I - Medium - N/A

REPORT NUMBER: P565324
CATALOG NUMBER: MSA-SA3A-830-U-T1

Luminous Intensity Polar Plot



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

REPORT NUMBER: P565324

CATALOG NUMBER: MSA-SA3A-830-U-T1

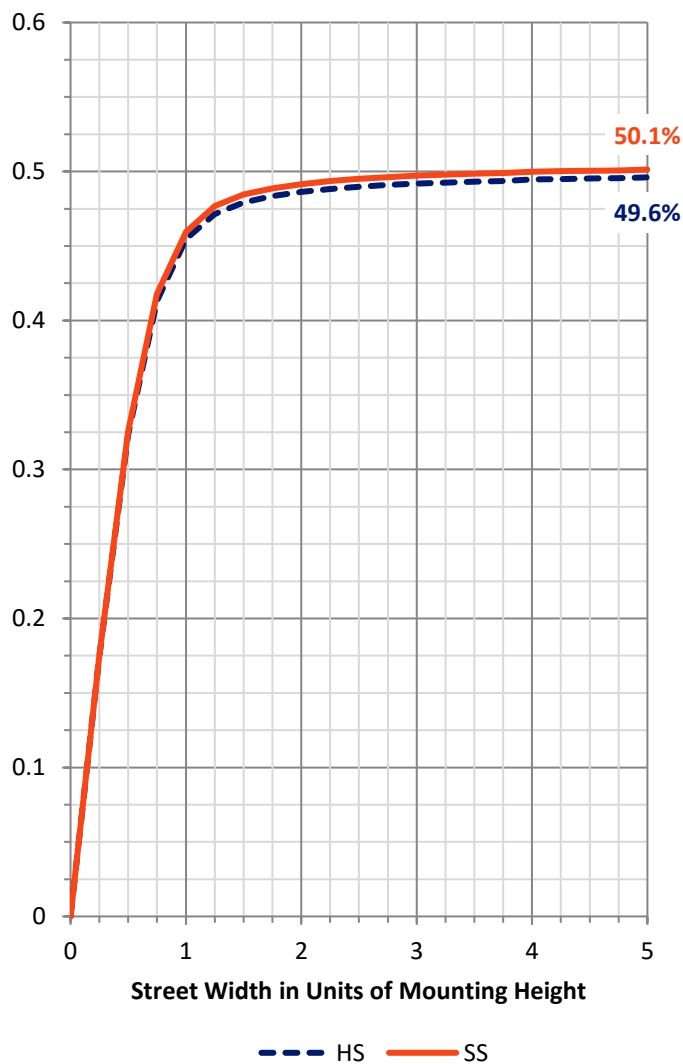
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4213.9	0.0	4213.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	4214.1	0.0	4214.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	8428.0	0.0	8428.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.1	0.8
10°-20°	309.0	3.7
20°-30°	616.6	7.3
30°-40°	932.5	11.1
40°-50°	1353.6	16.1
50°-60°	1778.4	21.1
60°-70°	2169.4	25.7
70°-80°	1096.8	13.0
80°-90°	104.5	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°	8428.0	100.0
0°-180°	8428.0	100.0

Coefficient of Utilization

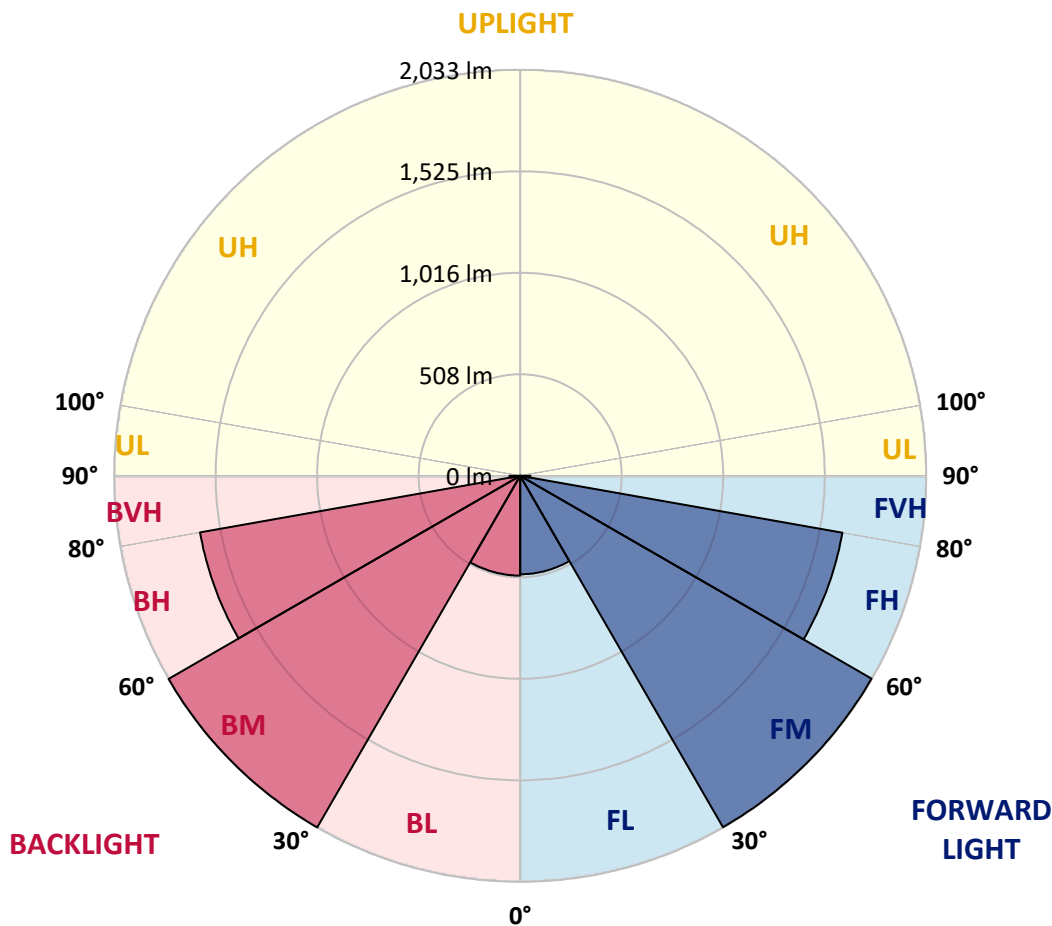


REPORT NUMBER: P565324
 CATALOG NUMBER: MSA-SA3A-830-U-T1

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	492.9	5.8			
FM (30°-60°)	2031.6	24.1			
FH (60°-80°)	1638.3	19.4			G1/1800
FVH (80°-90°)	51.3	0.6			G1/100
BL (0°-30°)	499.8	5.9	B1/500		
BM (30°-60°)	2033.0	24.1	B2/2500		
BH (60°-80°)	1627.9	19.3	B3/2500		G3/2500
BVH (80°-90°)	53.3	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: P565324

CATALOG NUMBER: MSA-SA3A-830-U-T1

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8
2.5°	626.5	554.2	548.0	530.7	543.2	548.0	537.0	521.3	538.5	548.0	530.7
5°	789.8	683.0	646.9	617.0	557.4	532.3	557.4	621.8	629.6	668.9	657.9
7.5°	869.8	852.6	807.0	708.1	612.3	559.0	626.5	719.1	766.2	803.9	843.1
10°	929.5	920.1	840.0	769.3	730.1	733.2	734.8	764.6	805.5	868.3	890.2
12.5°	943.6	940.5	953.0	937.3	940.5	957.8	940.5	932.6	956.2	976.6	954.6
15°	1034.7	1033.1	1037.8	1041.0	1103.8	1130.5	1103.8	1080.2	1062.9	1045.7	1081.8
17.5°	1097.5	1089.6	1091.2	1121.0	1191.7	1265.5	1251.4	1220.0	1180.7	1204.3	1234.1
20°	1132.0	1117.9	1127.3	1139.9	1259.2	1340.9	1350.3	1307.9	1284.3	1314.2	1339.3
22.5°	1165.0	1143.0	1110.1	1122.6	1232.5	1350.3	1395.8	1384.8	1402.1	1411.5	1406.8
25°	1125.8	1139.9	1103.8	1139.9	1251.4	1359.7	1450.8	1515.1	1516.7	1512.0	1546.5
27.5°	1102.2	1091.2	1030.0	1122.6	1215.2	1282.8	1515.1	1623.5	1656.4	1556.0	1623.5
30°	1061.4	1078.6	995.4	1072.4	1190.1	1303.2	1588.9	1744.4	1695.7	1683.1	1698.8
32.5°	1036.3	1025.3	986.0	1028.4	1117.9	1364.4	1636.0	1815.0	1876.3	1846.4	1843.3
35°	995.4	1003.3	942.1	987.6	1113.2	1312.6	1667.4	1992.4	2086.6	2063.1	2044.3
37.5°	1001.7	975.0	931.1	964.0	1083.4	1340.9	1745.9	2163.6	2312.7	2325.3	2238.9
40°	954.6	938.9	873.0	927.9	1026.8	1323.6	1764.8	2358.3	2611.1	2667.6	2543.5
42.5°	887.1	866.7	829.0	890.2	993.9	1238.8	1791.5	2592.2	2914.1	3031.8	2918.8
45°	789.8	763.1	744.2	825.9	921.6	1216.8	1763.2	2786.9	3204.5	3366.3	3363.1
47.5°	672.0	654.7	645.3	731.7	862.0	1161.9	1705.1	2909.4	3407.1	3821.6	3758.8
50°	538.5	526.0	524.4	615.5	761.5	1048.8	1639.2	2970.6	3714.8	4239.2	4294.2
52.5°	431.8	422.4	420.8	494.6	637.5	896.5	1501.0	3017.7	4008.4	4713.4	4996.0
55°	337.6	328.1	329.7	391.0	507.1	733.2	1290.6	2964.3	4265.9	5198.6	5734.0
57.5°	276.3	266.9	268.5	303.0	387.8	560.5	1028.4	2848.1	4382.1	5798.3	6594.4
60°	243.4	233.9	229.2	244.9	298.3	422.4	764.6	2396.0	4401.0	6296.0	7528.6
62.5°	226.1	216.7	212.0	216.7	246.5	323.4	551.1	1898.2	4292.6	6721.5	8384.3
65°	210.4	202.5	196.3	201.0	216.7	257.5	401.9	1300.0	3725.8	6916.2	9006.0
67.5°	193.1	186.8	180.6	186.8	197.8	216.7	312.4	822.7	2793.2	6663.4	9265.1
69°	183.7	174.3	171.1	175.8	186.8	199.4	270.1	656.3	2124.3	6183.0	9108.1
70°	174.3	168.0	163.3	171.1	180.6	190.0	243.4	557.4	1665.9	5566.0	8718.7
72.5°	153.9	149.2	146.0	153.9	161.7	168.0	199.4	397.2	965.6	3790.2	6914.7
75°	135.0	130.3	128.7	135.0	141.3	144.4	168.0	273.2	569.9	1983.0	4148.2
77.5°	113.0	106.8	108.3	116.2	120.9	122.5	141.3	196.3	336.0	898.1	1921.8
80°	83.2	83.2	89.5	95.8	95.8	95.8	113.0	142.9	204.1	412.9	797.6
82.5°	58.1	59.7	61.2	70.7	72.2	65.9	86.4	103.6	127.2	180.6	276.3
85°	33.0	34.5	36.1	42.4	44.0	39.3	56.5	65.9	73.8	89.5	144.4
87.5°	12.6	14.1	18.8	22.0	23.6	17.3	26.7	31.4	31.4	37.7	64.4
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: P565324

CATALOG NUMBER: MSA-SA3A-830-U-T1

CANDELA DISTRIBUTION (continued):

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8
2.5°	566.8	577.8	598.2	602.9	585.6	566.8	524.4	551.1	562.1	541.7	548.0
5°	701.8	725.4	750.5	720.7	701.8	689.3	668.9	670.4	659.4	623.3	563.7
7.5°	854.1	827.4	846.3	866.7	836.9	838.4	857.3	818.0	788.2	726.9	615.5
10°	924.8	924.8	929.5	929.5	916.9	916.9	915.4	852.6	816.4	789.8	758.4
12.5°	929.5	927.9	946.8	932.6	935.8	938.9	946.8	975.0	965.6	931.1	959.3
15°	1059.8	1053.5	1059.8	1058.2	1062.9	1077.1	1070.8	1064.5	1066.1	1091.2	1133.6
17.5°	1182.3	1185.4	1179.1	1190.1	1190.1	1199.5	1221.5	1199.5	1180.7	1227.8	1260.8
20°	1323.6	1312.6	1287.5	1306.3	1311.0	1312.6	1348.7	1322.0	1295.3	1312.6	1351.8
22.5°	1466.5	1464.9	1468.0	1469.6	1475.9	1452.3	1403.7	1395.8	1413.1	1389.5	1394.2
25°	1554.4	1556.0	1563.8	1565.4	1538.7	1563.8	1581.1	1529.3	1529.3	1524.6	1493.2
27.5°	1661.2	1637.6	1647.0	1659.6	1648.6	1654.9	1634.5	1559.1	1639.2	1650.2	1524.6
30°	1733.4	1722.4	1711.4	1724.0	1734.9	1763.2	1705.1	1697.3	1703.5	1761.6	1596.8
32.5°	1885.7	1901.4	1881.0	1860.6	1881.0	1874.7	1849.6	1838.6	1917.1	1840.1	1647.0
35°	2027.0	2033.3	2034.8	2031.7	2044.3	2022.3	2022.3	2063.1	2086.6	2003.4	1662.7
37.5°	2367.7	2345.7	2300.2	2278.2	2317.4	2350.4	2253.1	2301.7	2292.3	2151.0	1780.5
40°	2612.6	2662.9	2677.0	2670.7	2677.0	2582.8	2603.2	2639.3	2596.9	2363.0	1739.7
42.5°	2970.6	3002.0	2991.0	2976.9	2983.2	2965.9	2904.7	3038.1	2885.8	2600.1	1802.5
45°	3297.2	3367.8	3372.5	3323.9	3363.1	3301.9	3327.0	3374.1	3220.2	2777.5	1785.2
47.5°	3686.6	3832.6	3777.6	3777.6	3816.9	3685.0	3744.7	3807.5	3399.2	2896.8	1691.0
50°	4262.8	4341.3	4338.1	4324.0	4341.3	4270.6	4261.2	4253.4	3674.0	3009.9	1632.9
52.5°	4914.4	5021.1	4980.3	4996.0	5019.6	4886.1	4991.3	4704.0	4017.9	3052.2	1501.0
55°	5746.5	5820.3	5779.5	5699.4	5806.2	5721.4	5755.9	5195.4	4256.5	2931.4	1281.2
57.5°	6737.2	6774.9	6707.4	6699.6	6770.2	6679.1	6621.1	5748.1	4380.5	2840.3	1023.7
60°	7894.4	8012.1	7969.8	7902.2	7966.6	7886.5	7446.9	6217.5	4355.4	2414.8	792.9
62.5°	9282.3	9401.7	9354.6	9309.0	9349.9	9141.0	8222.5	6588.1	4242.4	1913.9	579.4
65°	10428.5	10967.1	11037.7	11039.3	10841.4	10357.9	8841.2	6732.5	3645.7	1336.1	423.9
67.5°	11182.2	12301.6	12650.2	12524.6	12070.8	10967.1	9090.8	6449.9	2815.2	844.7	317.2
69°	11095.8	12563.8	13067.8	12997.2	12359.7	10957.6	8896.1	5974.2	2151.0	672.0	268.5
70°	10697.0	12348.7	12946.9	12978.3	12176.0	10536.8	8549.1	5427.8	1739.7	573.1	246.5
72.5°	8536.6	10175.7	10701.7	10907.4	10111.4	8437.6	7010.4	3829.4	1008.0	400.4	199.4
75°	5288.1	6170.4	6606.9	6726.2	6244.2	5255.1	4254.9	2130.6	613.9	282.6	168.0
77.5°	2370.8	2626.8	2878.0	2878.0	2689.6	2399.1	1950.0	1030.0	348.6	201.0	141.3
80°	794.5	824.3	802.3	810.2	778.8	748.9	783.5	444.3	215.1	150.7	114.6
82.5°	540.1	678.3	720.7	720.7	676.7	533.8	301.5	204.1	131.9	108.3	87.9
85°	439.6	537.0	576.2	593.5	559.0	450.6	158.6	98.9	78.5	69.1	59.7
87.5°	147.6	138.2	130.3	127.2	133.5	139.7	78.5	42.4	36.1	33.0	31.4
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: P565324
 CATALOG NUMBER: MSA-SA3A-830-U-T1

CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
0°	533.8	533.8	533.8	533.8	533.8	533.8
2.5°	559.0	540.1	548.0	555.8	612.3	654.7
5°	555.8	582.5	642.2	717.5	752.1	836.9
7.5°	571.5	668.9	780.3	858.8	890.2	916.9
10°	764.6	781.9	819.6	894.9	957.8	968.7
12.5°	987.6	982.9	956.2	990.7	959.3	981.3
15°	1161.9	1110.1	1073.9	1069.2	1058.2	1058.2
17.5°	1257.6	1212.1	1161.9	1149.3	1116.3	1143.0
20°	1370.7	1292.2	1166.6	1154.0	1143.0	1117.9
22.5°	1348.7	1270.2	1139.9	1124.2	1182.3	1179.1
25°	1375.4	1270.2	1146.2	1128.9	1155.6	1155.6
27.5°	1309.5	1223.1	1133.6	1030.0	1111.6	1130.5
30°	1292.2	1194.8	1091.2	998.6	1081.8	1064.5
32.5°	1383.2	1124.2	1022.1	993.9	1055.1	1042.5
35°	1312.6	1111.6	1004.9	953.0	1025.3	1012.7
37.5°	1342.4	1095.9	975.0	931.1	989.2	1008.0
40°	1336.1	1022.1	940.5	884.0	942.1	951.5
42.5°	1230.9	965.6	882.4	825.9	855.7	887.1
45°	1199.5	931.1	825.9	747.4	748.9	785.0
47.5°	1141.5	852.6	722.2	650.0	650.0	679.8
50°	1044.1	747.4	604.5	538.5	537.0	560.5
52.5°	899.7	645.3	510.3	438.1	433.3	456.9
55°	736.4	519.7	401.9	354.8	345.4	354.8
57.5°	573.1	405.1	317.2	279.5	277.9	285.8
60°	444.3	317.2	252.8	230.8	233.9	246.5
62.5°	336.0	252.8	215.1	207.3	212.0	224.5
65°	266.9	218.2	196.3	191.6	196.3	208.8
67.5°	216.7	197.8	182.1	175.8	179.0	191.6
69°	199.4	186.8	174.3	166.4	169.6	179.0
70°	190.0	180.6	168.0	160.1	163.3	172.7
72.5°	166.4	161.7	152.3	144.4	146.0	153.9
75°	146.0	142.9	136.6	127.2	127.2	136.6
77.5°	122.5	124.0	117.8	108.3	106.8	111.5
80°	97.3	100.5	97.3	87.9	84.8	84.8
82.5°	70.7	76.9	73.8	64.4	62.8	62.8
85°	44.0	48.7	47.1	40.8	40.8	36.1
87.5°	20.4	26.7	25.1	22.0	20.4	14.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)