

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: P565325

Luminaire Tested: **MSA-SA3B-830-U-T1**

Issue Date: 8/19/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P565325  
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-SA3B-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: 10562 lumens  
Efficiency: N/A  
Efficacy: 83.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type I - Medium  
BUG Rating: B3 - U0 - G3

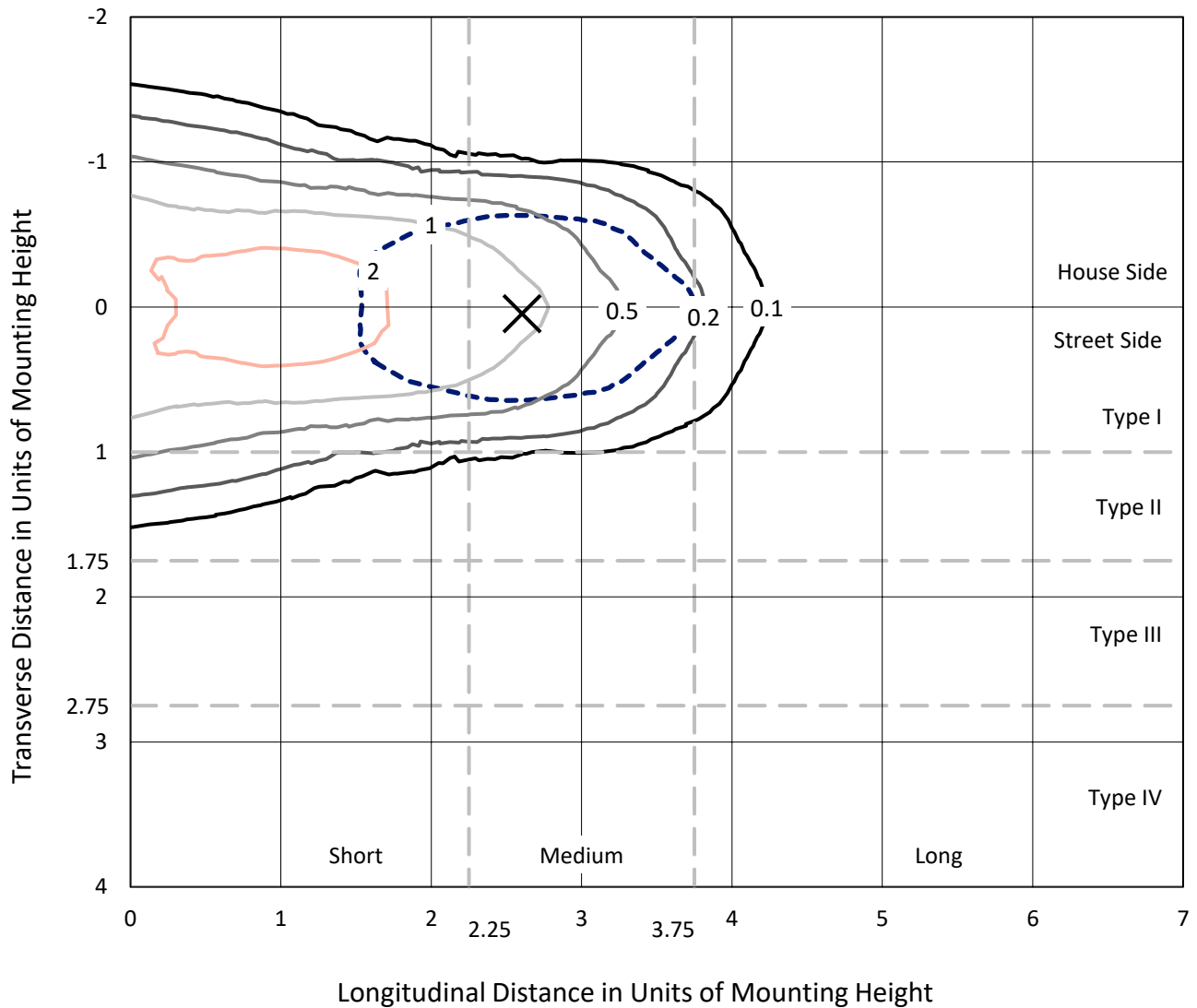
Input Watts (W): 126  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P565325  
 CATALOG NUMBER: MSA-SA3B-830-U-T1

### Iso-Footcandle Lines of Horizontal Illumination

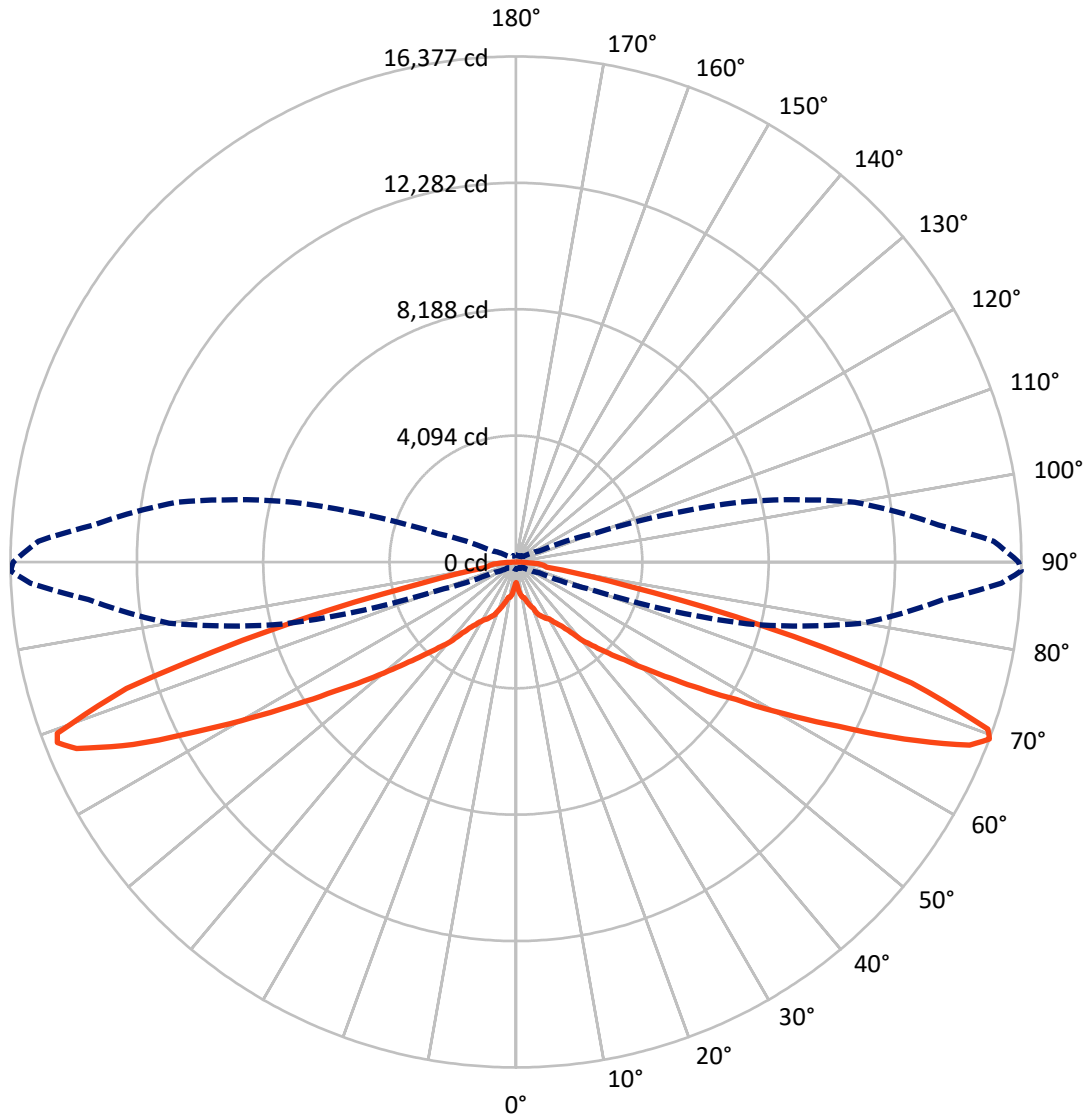
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 fc  
 Type I - Medium - N/A

REPORT NUMBER: P565325  
CATALOG NUMBER: MSA-SA3B-830-U-T1

### Luminous Intensity Polar Plot



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

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 CATALOG NUMBER: MSA-SA3B-830-U-T1

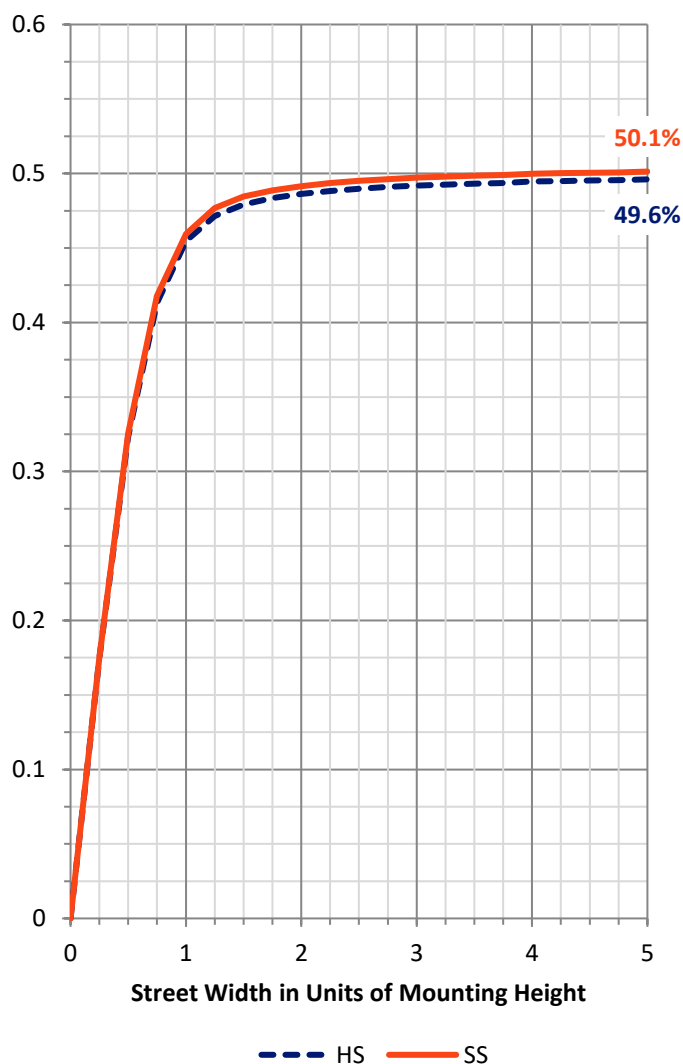
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5280.9	0.0	5280.9
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	5281.1	0.0	5281.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	10562.0	0.0	10562.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.1	0.8
10°-20°	387.3	3.7
20°-30°	772.7	7.3
30°-40°	1168.6	11.1
40°-50°	1696.4	16.1
50°-60°	2228.7	21.1
60°-70°	2718.7	25.7
70°-80°	1374.5	13.0
80°-90°	131.0	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°	10562.0	100.0
0°-180°	10562.0	100.0

**Coefficient of Utilization**

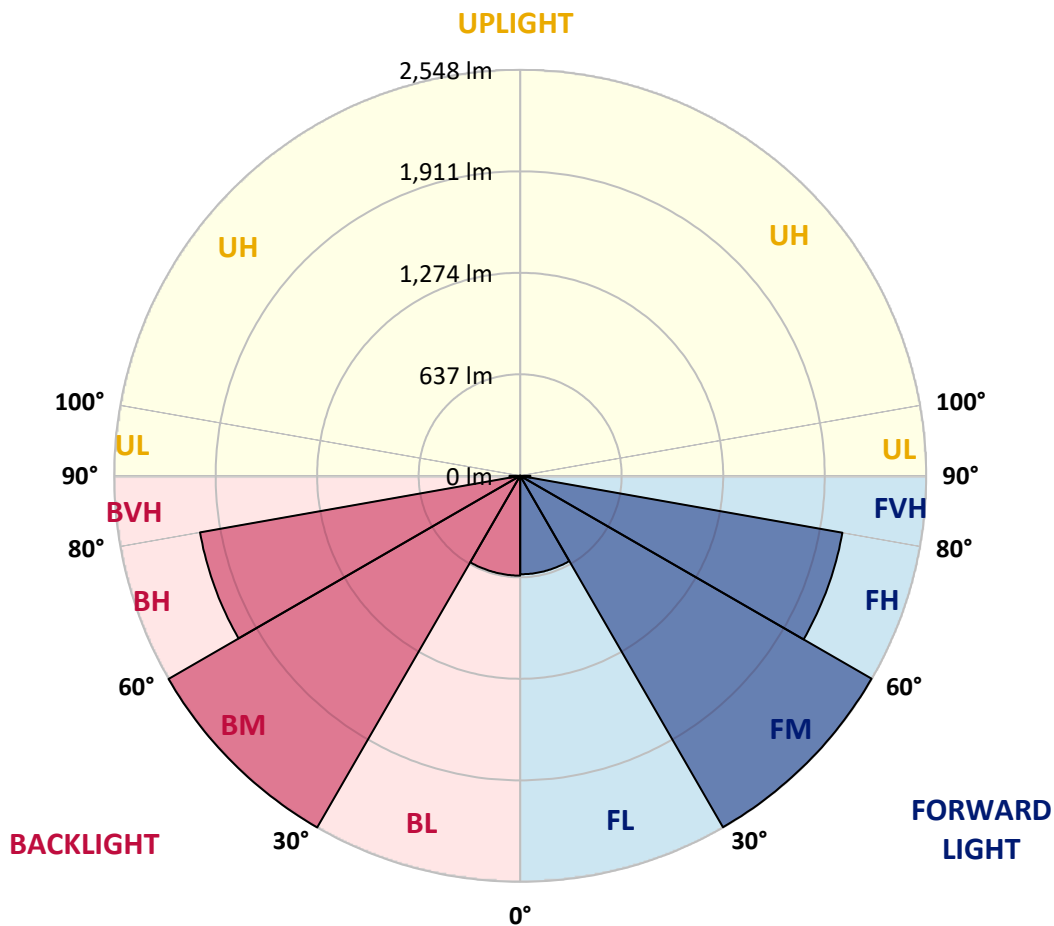


REPORT NUMBER: P565325  
 CATALOG NUMBER: MSA-SA3B-830-U-T1

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	617.7	5.8			
FM (30°-60°)	2546.0	24.1			
FH (60°-80°)	2053.2	19.4			G2/5000
FVH (80°-90°)	64.3	0.6			G1/100
BL (0°-30°)	626.4	5.9	B2/1000		
BM (30°-60°)	2547.7	24.1	B3/5000		
BH (60°-80°)	2040.1	19.3	B3/2500		G3/2500
BVH (80°-90°)	66.8	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: P565325

CATALOG NUMBER: MSA-SA3B-830-U-T1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
2.5°	785.1	694.6	686.7	665.1	680.8	686.7	672.9	653.3	674.9	686.7	665.1
5°	989.7	855.9	810.7	773.3	698.5	667.0	698.5	779.2	789.0	838.2	824.4
7.5°	1090.1	1068.4	1011.4	887.4	767.4	700.5	785.1	901.2	960.2	1007.4	1056.6
10°	1164.8	1153.0	1052.7	964.1	915.0	918.9	920.9	958.2	1009.4	1088.1	1115.7
12.5°	1182.6	1178.6	1194.4	1174.7	1178.6	1200.3	1178.6	1168.8	1198.3	1223.9	1196.3
15°	1296.7	1294.7	1300.6	1304.5	1383.2	1416.7	1383.2	1353.7	1332.1	1310.4	1355.7
17.5°	1375.4	1365.5	1367.5	1404.9	1493.4	1585.9	1568.2	1528.9	1479.7	1509.2	1546.6
20°	1418.7	1401.0	1412.8	1428.5	1578.0	1680.4	1692.2	1639.0	1609.5	1646.9	1678.4
22.5°	1460.0	1432.4	1391.1	1406.9	1544.6	1692.2	1749.2	1735.5	1757.1	1768.9	1763.0
25°	1410.8	1428.5	1383.2	1428.5	1568.2	1704.0	1818.1	1898.8	1900.7	1894.8	1938.1
27.5°	1381.3	1367.5	1290.8	1406.9	1523.0	1607.6	1898.8	2034.5	2075.9	1949.9	2034.5
30°	1330.1	1351.8	1247.5	1343.9	1491.5	1633.1	1991.2	2186.0	2125.0	2109.3	2129.0
32.5°	1298.6	1284.9	1235.7	1288.8	1401.0	1709.9	2050.3	2274.6	2351.3	2313.9	2310.0
35°	1247.5	1257.3	1180.6	1237.6	1395.1	1644.9	2089.6	2496.9	2615.0	2585.5	2561.9
37.5°	1255.4	1221.9	1166.8	1208.1	1357.7	1680.4	2188.0	2711.4	2898.3	2914.1	2805.9
40°	1196.3	1176.6	1094.0	1162.9	1286.8	1658.7	2211.6	2955.4	3272.2	3343.0	3187.6
42.5°	1111.7	1086.1	1038.9	1115.7	1245.5	1552.5	2245.1	3248.6	3651.9	3799.5	3657.8
45°	989.7	956.3	932.7	1035.0	1155.0	1524.9	2209.7	3492.6	4015.9	4218.6	4214.7
47.5°	842.1	820.5	808.7	916.9	1080.2	1456.1	2136.9	3646.0	4269.8	4789.2	4710.5
50°	674.9	659.2	657.2	771.3	954.3	1314.4	2054.2	3722.8	4655.4	5312.6	5381.5
52.5°	541.1	529.3	527.3	619.8	798.9	1123.5	1881.1	3781.8	5023.4	5906.8	6261.0
55°	423.0	411.2	413.2	489.9	635.5	918.9	1617.4	3714.9	5346.1	6514.8	7185.8
57.5°	346.3	334.5	336.5	379.8	486.0	702.4	1288.8	3569.3	5491.7	7266.5	8264.1
60°	305.0	293.2	287.3	307.0	373.9	529.3	958.2	3002.6	5515.3	7890.2	9434.8
62.5°	283.3	271.5	265.6	271.5	308.9	405.3	690.6	2378.9	5379.5	8423.5	10507.2
65°	263.7	253.8	246.0	251.9	271.5	322.7	503.7	1629.2	4669.2	8667.4	11286.4
67.5°	242.0	234.1	226.3	234.1	247.9	271.5	391.6	1031.0	3500.4	8350.7	11611.0
69°	230.2	218.4	214.5	220.4	234.1	249.9	338.4	822.5	2662.2	7748.6	11414.3
70°	218.4	210.5	204.6	214.5	226.3	238.1	305.0	698.5	2087.7	6975.3	10926.3
72.5°	192.8	186.9	183.0	192.8	202.7	210.5	249.9	497.8	1210.1	4749.9	8665.5
75°	169.2	163.3	161.3	169.2	177.1	181.0	210.5	342.4	714.3	2485.1	5198.5
77.5°	141.7	133.8	135.8	145.6	151.5	153.5	177.1	246.0	421.1	1125.5	2408.4
80°	104.3	104.3	112.2	120.0	120.0	120.0	141.7	179.1	255.8	517.5	999.6
82.5°	72.8	74.8	76.7	88.5	90.5	82.6	108.2	129.9	159.4	226.3	346.3
85°	41.3	43.3	45.3	53.1	55.1	49.2	70.8	82.6	92.5	112.2	181.0
87.5°	15.7	17.7	23.6	27.5	29.5	21.6	33.4	39.4	39.4	47.2	80.7
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: P565325

CATALOG NUMBER: MSA-SA3B-830-U-T1

**CANDELA DISTRIBUTION (continued):**

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
2.5°	710.3	724.1	749.7	755.6	733.9	710.3	657.2	690.6	704.4	678.8	686.7
5°	879.5	909.0	940.5	903.1	879.5	863.8	838.2	840.2	826.4	781.2	706.4
7.5°	1070.4	1036.9	1060.6	1086.1	1048.8	1050.7	1074.3	1025.1	987.8	911.0	771.3
10°	1158.9	1158.9	1164.8	1164.8	1149.1	1149.1	1147.1	1068.4	1023.2	989.7	950.4
12.5°	1164.8	1162.9	1186.5	1168.8	1172.7	1176.6	1186.5	1221.9	1210.1	1166.8	1202.2
15°	1328.2	1320.3	1328.2	1326.2	1332.1	1349.8	1341.9	1334.1	1336.0	1367.5	1420.6
17.5°	1481.6	1485.6	1477.7	1491.5	1491.5	1503.3	1530.8	1503.3	1479.7	1538.7	1580.0
20°	1658.7	1644.9	1613.5	1637.1	1643.0	1644.9	1690.2	1656.8	1623.3	1644.9	1694.1
22.5°	1837.8	1835.8	1839.7	1841.7	1849.6	1820.1	1759.1	1749.2	1770.9	1741.4	1747.3
25°	1948.0	1949.9	1959.8	1961.7	1928.3	1959.8	1981.4	1916.5	1916.5	1910.6	1871.2
27.5°	2081.8	2052.2	2064.1	2079.8	2066.0	2073.9	2048.3	1953.9	2054.2	2068.0	1910.6
30°	2172.3	2158.5	2144.7	2160.5	2174.2	2209.7	2136.9	2127.0	2134.9	2207.7	2001.1
32.5°	2363.1	2382.8	2357.2	2331.7	2357.2	2349.4	2317.9	2304.1	2402.5	2306.1	2064.1
35°	2540.2	2548.1	2550.1	2546.1	2561.9	2534.3	2534.3	2585.5	2615.0	2510.7	2083.7
37.5°	2967.2	2939.7	2882.6	2855.0	2904.2	2945.6	2823.6	2884.6	2872.8	2695.7	2231.3
40°	3274.1	3337.1	3354.8	3347.0	3354.8	3236.8	3262.3	3307.6	3254.5	2961.3	2180.1
42.5°	3722.8	3762.1	3748.3	3730.6	3738.5	3716.9	3640.1	3807.4	3616.5	3258.4	2258.8
45°	4132.0	4220.6	4226.5	4165.5	4214.7	4137.9	4169.4	4228.5	4035.6	3480.8	2237.2
47.5°	4620.0	4803.0	4734.1	4734.1	4783.3	4618.0	4692.8	4771.5	4259.9	3630.3	2119.1
50°	5342.1	5440.5	5436.6	5418.9	5440.5	5352.0	5340.2	5330.3	4604.3	3772.0	2046.3
52.5°	6158.7	6292.5	6241.3	6261.0	6290.5	6123.3	6255.1	5895.0	5035.2	3825.1	1881.1
55°	7201.6	7294.0	7242.9	7142.5	7276.3	7170.1	7213.4	6510.9	5334.3	3673.6	1605.6
57.5°	8443.1	8490.4	8405.7	8395.9	8484.5	8370.3	8297.5	7203.5	5489.7	3559.5	1282.9
60°	9893.3	10040.9	9987.7	9903.1	9983.8	9883.4	9332.5	7791.8	5458.2	3026.2	993.7
62.5°	11632.7	11782.2	11723.2	11666.1	11717.3	11455.6	10304.5	8256.2	5316.6	2398.6	726.1
65°	13069.0	13743.9	13832.5	13834.5	13586.5	12980.5	11079.8	8437.2	4568.9	1674.5	531.3
67.5°	14013.5	15416.4	15853.3	15695.8	15127.2	13743.9	11392.6	8083.1	3528.0	1058.6	397.5
69°	13905.3	15745.0	16376.6	16288.1	15489.2	13732.1	11148.6	7486.9	2695.7	842.1	336.5
70°	13405.5	15475.5	16225.1	16264.5	15259.0	13204.8	10713.8	6802.1	2180.1	718.2	308.9
72.5°	10698.0	12752.3	13411.4	13669.2	12671.6	10574.1	8785.5	4799.1	1263.2	501.7	249.9
75°	6627.0	7732.8	8279.8	8429.4	7825.3	6585.7	5332.3	2670.1	769.3	354.2	210.5
77.5°	2971.1	3291.9	3606.7	3606.7	3370.6	3006.6	2443.8	1290.8	436.8	251.9	177.1
80°	995.6	1033.0	1005.5	1015.3	975.9	938.6	981.9	556.8	269.6	188.9	143.6
82.5°	676.9	850.0	903.1	903.1	848.1	669.0	377.8	255.8	165.3	135.8	110.2
85°	550.9	672.9	722.1	743.8	700.5	564.7	198.7	124.0	98.4	86.6	74.8
87.5°	185.0	173.2	163.3	159.4	167.2	175.1	98.4	53.1	45.3	41.3	39.4
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: P565325

CATALOG NUMBER: MSA-SA3B-830-U-T1

**CANDELA DISTRIBUTION (continued):**

	135°	145°	155°	165°	175°	180°
0°	669.0	669.0	669.0	669.0	669.0	669.0
2.5°	700.5	676.9	686.7	696.5	767.4	820.5
5°	696.5	730.0	804.8	899.2	942.5	1048.8
7.5°	716.2	838.2	977.9	1076.3	1115.7	1149.1
10°	958.2	979.9	1027.1	1121.6	1200.3	1214.0
12.5°	1237.6	1231.7	1198.3	1241.6	1202.2	1229.8
15°	1456.1	1391.1	1345.9	1340.0	1326.2	1326.2
17.5°	1576.1	1519.0	1456.1	1440.3	1399.0	1432.4
20°	1717.7	1619.4	1462.0	1446.2	1432.4	1401.0
22.5°	1690.2	1591.8	1428.5	1408.8	1481.6	1477.7
25°	1723.7	1591.8	1436.4	1414.7	1448.2	1448.2
27.5°	1641.0	1532.8	1420.6	1290.8	1393.1	1416.7
30°	1619.4	1497.4	1367.5	1251.4	1355.7	1334.1
32.5°	1733.5	1408.8	1280.9	1245.5	1322.3	1306.5
35°	1644.9	1393.1	1259.3	1194.4	1284.9	1269.1
37.5°	1682.3	1373.4	1221.9	1166.8	1239.6	1263.2
40°	1674.5	1280.9	1178.6	1107.8	1180.6	1192.4
42.5°	1542.6	1210.1	1105.8	1035.0	1072.4	1111.7
45°	1503.3	1166.8	1035.0	936.6	938.6	983.8
47.5°	1430.5	1068.4	905.1	814.6	814.6	852.0
50°	1308.5	936.6	757.5	674.9	672.9	702.4
52.5°	1127.5	808.7	639.5	549.0	543.1	572.6
55°	922.8	651.3	503.7	444.7	432.9	444.7
57.5°	718.2	507.7	397.5	350.2	348.3	358.1
60°	556.8	397.5	316.8	289.2	293.2	308.9
62.5°	421.1	316.8	269.6	259.7	265.6	281.4
65°	334.5	273.5	246.0	240.1	246.0	261.7
67.5°	271.5	247.9	228.2	220.4	224.3	240.1
69°	249.9	234.1	218.4	208.6	212.5	224.3
70°	238.1	226.3	210.5	200.7	204.6	216.4
72.5°	208.6	202.7	190.9	181.0	183.0	192.8
75°	183.0	179.1	171.2	159.4	159.4	171.2
77.5°	153.5	155.4	147.6	135.8	133.8	139.7
80°	122.0	125.9	122.0	110.2	106.3	106.3
82.5°	88.5	96.4	92.5	80.7	78.7	78.7
85°	55.1	61.0	59.0	51.2	51.2	45.3
87.5°	25.6	33.4	31.5	27.5	25.6	17.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)