

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: P565301

Luminaire Tested: **MSA-SA1B-730-U-T1**

Issue Date: 8/19/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P565301  
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-SA1B-730-U-T1  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.  
Light Source: -  
Ballast/Driver: -

**Summary**

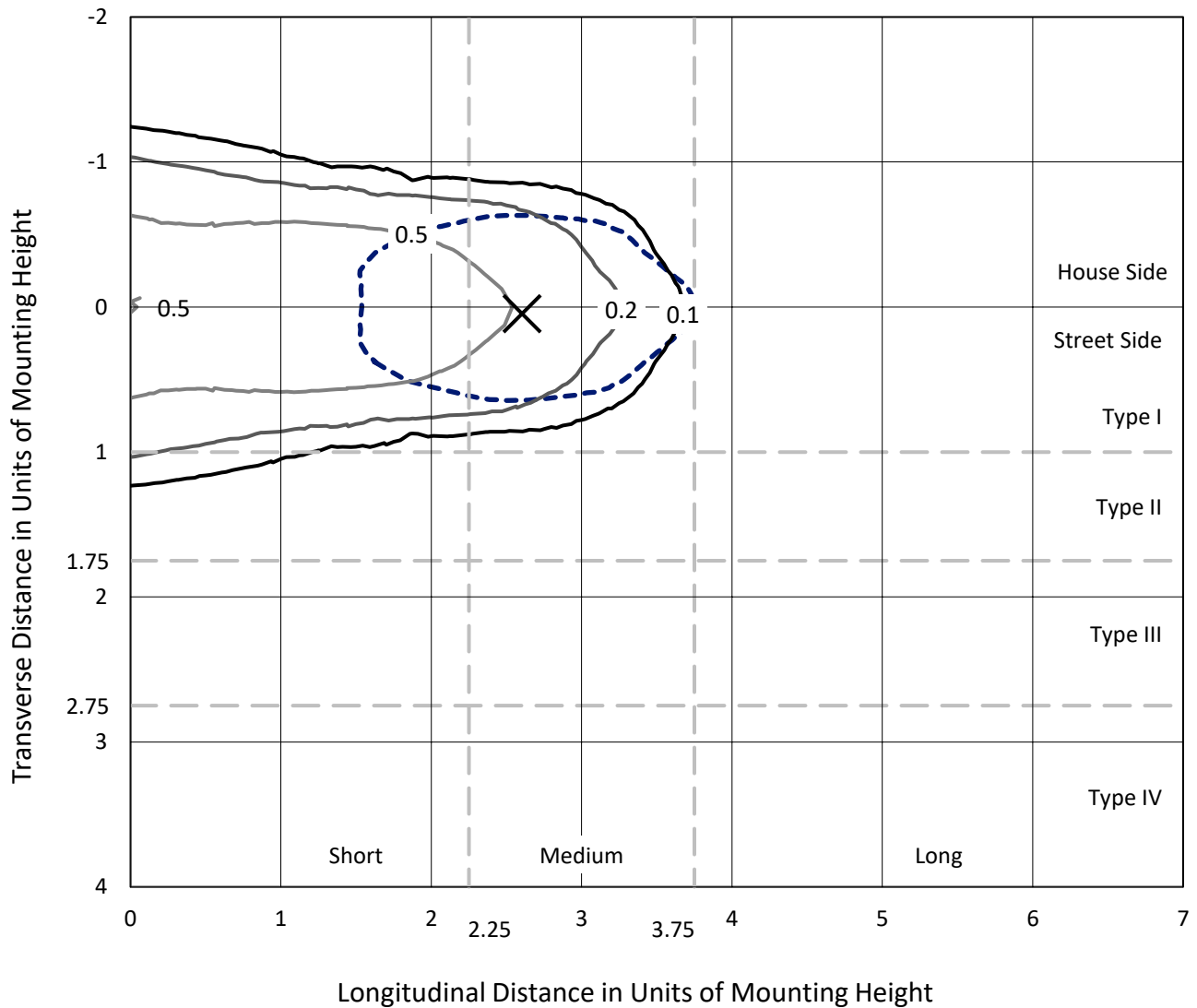
Lumens per Lamp: N/A  
Luminaire Lumens: 4170 lumens  
Efficiency: N/A  
Efficacy: 94.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type I - Medium  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
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: P565301  
 CATALOG NUMBER: MSA-SA1B-730-U-T1

### Iso-Footcandle Lines of Horizontal Illumination

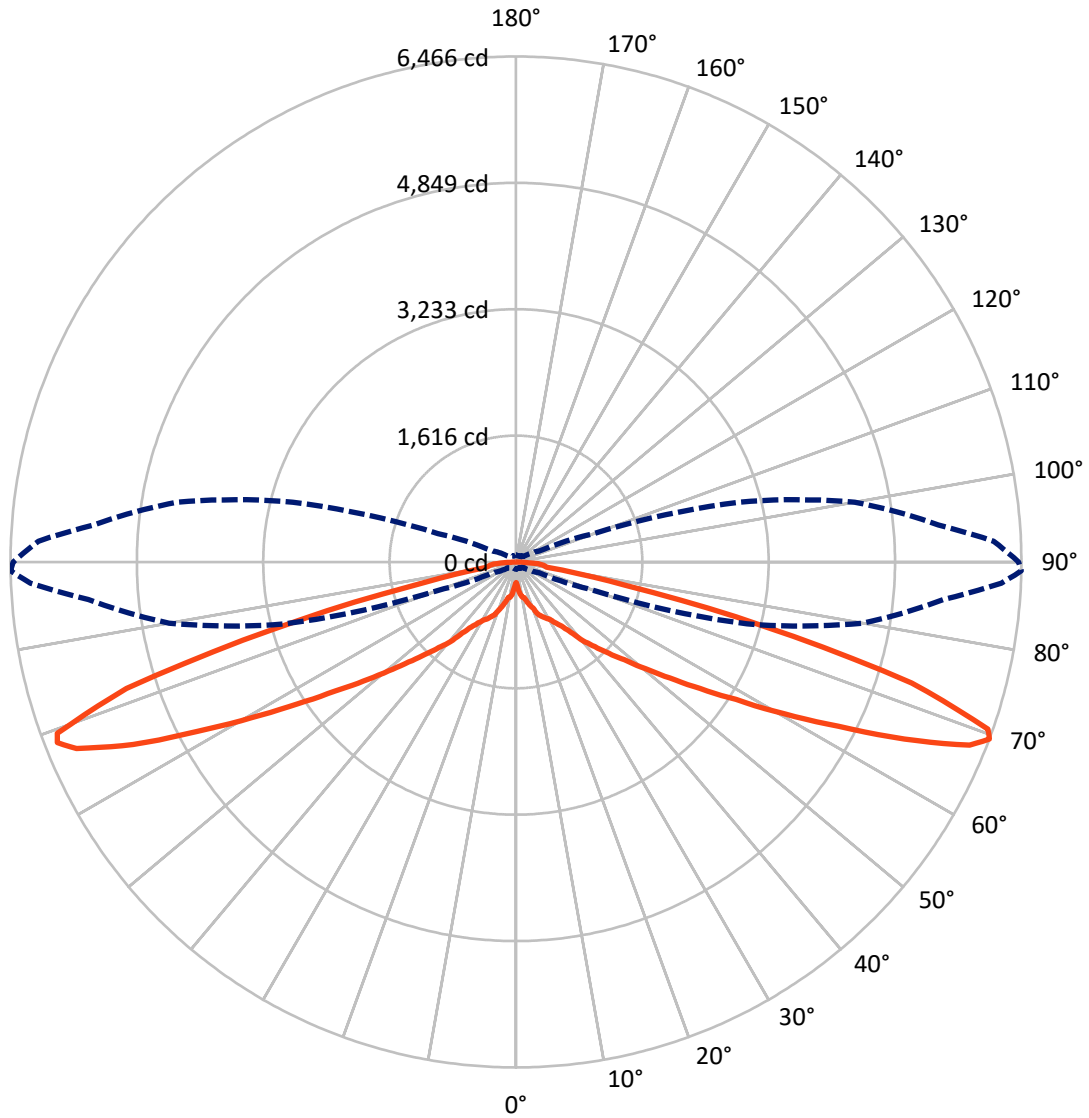
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 fc  
 Type I - Medium - N/A

REPORT NUMBER: P565301  
CATALOG NUMBER: MSA-SA1B-730-U-T1

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P565301  
 CATALOG NUMBER: MSA-SA1B-730-U-T1

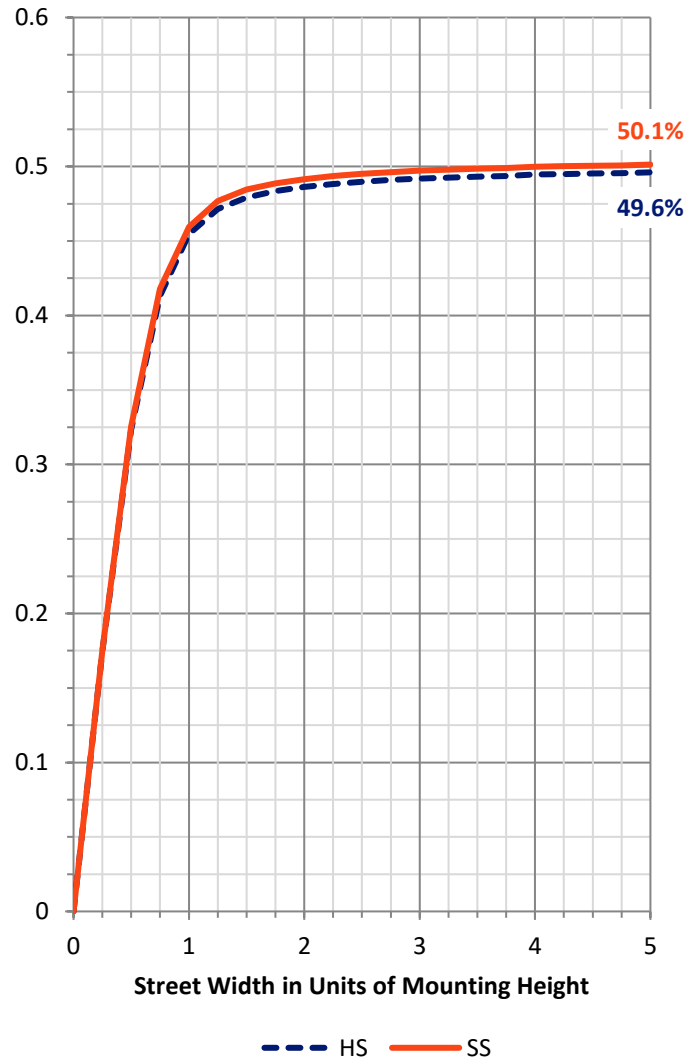
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2085.0	0.0	2085.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2085.0	0.0	2085.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	4170.0	0.0	4170.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.2	0.8
10°-20°	152.9	3.7
20°-30°	305.1	7.3
30°-40°	461.4	11.1
40°-50°	669.7	16.1
50°-60°	879.9	21.1
60°-70°	1073.4	25.7
70°-80°	542.7	13.0
80°-90°	51.7	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°	4170.0	100.0
0°-180°	4170.0	100.0

**Coefficient of Utilization**

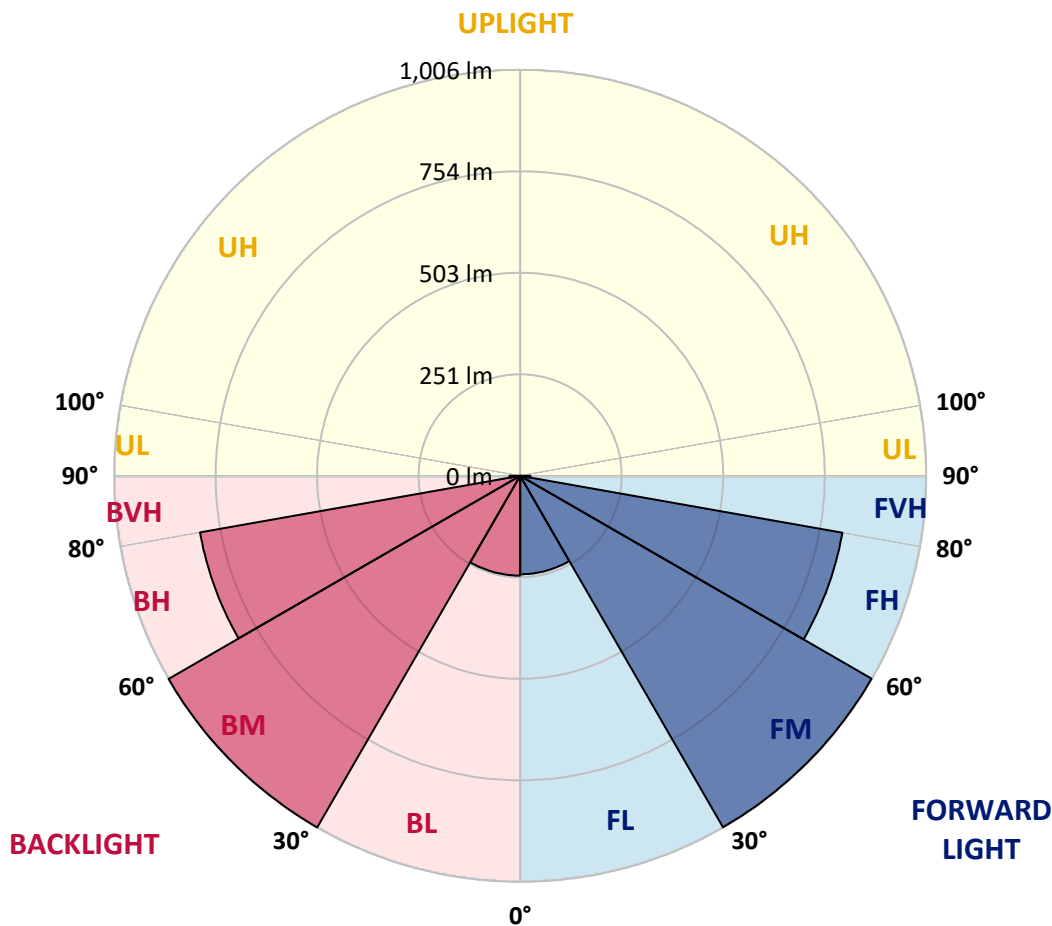


REPORT NUMBER: P565301  
 CATALOG NUMBER: MSA-SA1B-730-U-T1

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	243.9	5.8			
FM (30°-60°)	1005.2	24.1			
FH (60°-80°)	810.6	19.4			G1/1800
FVH (80°-90°)	25.4	0.6			G1/100
BL (0°-30°)	247.3	5.9	B1/500		
BM (30°-60°)	1005.9	24.1	B2/2500		
BH (60°-80°)	805.4	19.3	B2/1000		G2/1000
BVH (80°-90°)	26.4	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: P565301  
 CATALOG NUMBER: MSA-SA1B-730-U-T1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	264.1	264.1	264.1	264.1	264.1	264.1	264.1	264.1	264.1	264.1	264.1
2.5°	310.0	274.2	271.1	262.6	268.8	271.1	265.7	257.9	266.5	271.1	262.6
5°	390.8	337.9	320.1	305.3	275.8	263.4	275.8	307.6	311.5	330.9	325.5
7.5°	430.4	421.8	399.3	350.4	303.0	276.6	310.0	355.8	379.1	397.7	417.2
10°	459.9	455.2	415.6	380.7	361.2	362.8	363.6	378.3	398.5	429.6	440.5
12.5°	466.9	465.3	471.5	463.8	465.3	473.9	465.3	461.4	473.1	483.2	472.3
15°	511.9	511.2	513.5	515.0	546.1	559.3	546.1	534.5	525.9	517.4	535.2
17.5°	543.0	539.1	539.9	554.7	589.6	626.1	619.1	603.6	584.2	595.8	610.6
20°	560.1	553.1	557.8	564.0	623.0	663.4	668.1	647.1	635.5	650.2	662.6
22.5°	576.4	565.5	549.2	555.4	609.8	668.1	690.6	685.2	693.7	698.4	696.1
25°	557.0	564.0	546.1	564.0	619.1	672.7	717.8	749.7	750.4	748.1	765.2
27.5°	545.3	539.9	509.6	555.4	601.3	634.7	749.7	803.3	819.6	769.9	803.3
30°	525.1	533.7	492.5	530.6	588.8	644.8	786.2	863.1	839.0	832.8	840.5
32.5°	512.7	507.3	487.9	508.8	553.1	675.1	809.5	898.0	928.3	913.6	912.0
35°	492.5	496.4	466.1	488.6	550.8	649.4	825.0	985.8	1032.4	1020.8	1011.5
37.5°	495.6	482.4	460.7	477.0	536.0	663.4	863.9	1070.5	1144.3	1150.5	1107.8
40°	472.3	464.6	431.9	459.1	508.1	654.9	873.2	1166.8	1291.9	1319.9	1258.5
42.5°	438.9	428.8	410.2	440.5	491.7	612.9	886.4	1282.6	1441.8	1500.1	1444.2
45°	390.8	377.5	368.2	408.6	456.0	602.1	872.4	1378.9	1585.5	1665.6	1664.0
47.5°	332.5	323.9	319.3	362.0	426.5	574.9	843.7	1439.5	1685.8	1890.8	1859.8
50°	266.5	260.2	259.5	304.5	376.8	518.9	811.0	1469.8	1838.0	2097.5	2124.7
52.5°	213.6	209.0	208.2	244.7	315.4	443.6	742.7	1493.1	1983.3	2332.1	2471.9
55°	167.0	162.4	163.1	193.4	250.9	362.8	638.6	1466.7	2110.7	2572.1	2837.0
57.5°	136.7	132.1	132.8	149.9	191.9	277.3	508.8	1409.2	2168.2	2868.9	3262.8
60°	120.4	115.8	113.4	121.2	147.6	209.0	378.3	1185.5	2177.5	3115.2	3725.0
62.5°	111.9	107.2	104.9	107.2	122.0	160.0	272.7	939.2	2123.9	3325.7	4148.4
65°	104.1	100.2	97.1	99.4	107.2	127.4	198.9	643.2	1843.5	3422.0	4456.0
67.5°	95.6	92.4	89.3	92.4	97.9	107.2	154.6	407.1	1382.0	3296.9	4584.2
69°	90.9	86.2	84.7	87.0	92.4	98.7	133.6	324.7	1051.1	3059.2	4506.5
70°	86.2	83.1	80.8	84.7	89.3	94.0	120.4	275.8	824.2	2753.9	4313.8
72.5°	76.1	73.8	72.2	76.1	80.0	83.1	98.7	196.5	477.8	1875.3	3421.2
75°	66.8	64.5	63.7	66.8	69.9	71.5	83.1	135.2	282.0	981.2	2052.4
77.5°	55.9	52.8	53.6	57.5	59.8	60.6	69.9	97.1	166.2	444.4	950.9
80°	41.2	41.2	44.3	47.4	47.4	47.4	55.9	70.7	101.0	204.3	394.6
82.5°	28.7	29.5	30.3	35.0	35.7	32.6	42.7	51.3	62.9	89.3	136.7
85°	16.3	17.1	17.9	21.0	21.8	19.4	28.0	32.6	36.5	44.3	71.5
87.5°	6.2	7.0	9.3	10.9	11.7	8.5	13.2	15.5	15.5	18.6	31.9
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: P565301

CATALOG NUMBER: MSA-SA1B-730-U-T1

**CANDELA DISTRIBUTION (continued):**

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	264.1	264.1	264.1	264.1	264.1	264.1	264.1	264.1	264.1	264.1	264.1
2.5°	280.4	285.9	296.0	298.3	289.8	280.4	259.5	272.7	278.1	268.0	271.1
5°	347.3	358.9	371.3	356.6	347.3	341.0	330.9	331.7	326.3	308.4	278.9
7.5°	422.6	409.4	418.7	428.8	414.1	414.8	424.2	404.7	390.0	359.7	304.5
10°	457.6	457.6	459.9	459.9	453.7	453.7	452.9	421.8	404.0	390.8	375.2
12.5°	459.9	459.1	468.4	461.4	463.0	464.6	468.4	482.4	477.8	460.7	474.7
15°	524.4	521.3	524.4	523.6	525.9	532.9	529.8	526.7	527.5	539.9	560.9
17.5°	585.0	586.5	583.4	588.8	588.8	593.5	604.4	593.5	584.2	607.5	623.8
20°	654.9	649.4	637.0	646.3	648.7	649.4	667.3	654.1	640.9	649.4	668.9
22.5°	725.6	724.8	726.4	727.1	730.2	718.6	694.5	690.6	699.2	687.5	689.8
25°	769.1	769.9	773.7	774.5	761.3	773.7	782.3	756.6	756.6	754.3	738.8
27.5°	821.9	810.3	814.9	821.1	815.7	818.8	808.7	771.4	811.0	816.5	754.3
30°	857.6	852.2	846.8	853.0	858.4	872.4	843.7	839.8	842.9	871.6	790.1
32.5°	933.0	940.8	930.7	920.6	930.7	927.6	915.1	909.7	948.5	910.5	814.9
35°	1002.9	1006.0	1006.8	1005.2	1011.5	1000.6	1000.6	1020.8	1032.4	991.3	822.7
37.5°	1171.5	1160.6	1138.1	1127.2	1146.6	1162.9	1114.8	1138.9	1134.2	1064.3	880.9
40°	1292.7	1317.5	1324.5	1321.4	1324.5	1277.9	1288.0	1305.9	1284.9	1169.2	860.7
42.5°	1469.8	1485.3	1479.9	1472.9	1476.0	1467.5	1437.2	1503.2	1427.8	1286.5	891.8
45°	1631.4	1666.3	1668.7	1644.6	1664.0	1633.7	1646.1	1669.4	1593.3	1374.2	883.3
47.5°	1824.0	1896.3	1869.1	1869.1	1888.5	1823.3	1852.8	1883.9	1681.9	1433.3	836.7
50°	2109.1	2148.0	2146.4	2139.4	2148.0	2113.0	2108.4	2104.5	1817.8	1489.2	807.9
52.5°	2431.5	2484.4	2464.2	2471.9	2483.6	2417.5	2469.6	2327.4	1987.9	1510.2	742.7
55°	2843.3	2879.8	2859.6	2820.0	2872.8	2830.8	2847.9	2570.6	2106.0	1450.4	633.9
57.5°	3333.4	3352.1	3318.7	3314.8	3349.8	3304.7	3276.0	2844.0	2167.4	1405.3	506.5
60°	3906.0	3964.2	3943.3	3909.9	3941.7	3902.1	3684.6	3076.3	2155.0	1194.8	392.3
62.5°	4592.7	4651.8	4628.4	4605.9	4626.1	4522.8	4068.3	3259.6	2099.0	947.0	286.7
65°	5159.8	5426.3	5461.2	5462.0	5364.1	5124.9	4374.4	3331.1	1803.8	661.1	209.7
67.5°	5532.7	6086.6	6259.0	6196.9	5972.4	5426.3	4497.9	3191.3	1392.9	417.9	156.9
69°	5490.0	6216.3	6465.7	6430.7	6115.3	5421.6	4401.6	2955.9	1064.3	332.5	132.8
70°	5292.7	6109.9	6405.9	6421.4	6024.4	5213.4	4229.9	2685.6	860.7	283.5	122.0
72.5°	4223.7	5034.7	5295.0	5396.8	5002.9	4174.8	3468.6	1894.7	498.7	198.1	98.7
75°	2616.4	3053.0	3269.0	3328.0	3089.5	2600.1	2105.3	1054.2	303.7	139.8	83.1
77.5°	1173.0	1299.7	1424.0	1424.0	1330.7	1187.0	964.8	509.6	172.5	99.4	69.9
80°	393.1	407.8	397.0	400.9	385.3	370.6	387.6	219.8	106.4	74.6	56.7
82.5°	267.2	335.6	356.6	356.6	334.8	264.1	149.2	101.0	65.3	53.6	43.5
85°	217.5	265.7	285.1	293.6	276.6	223.0	78.5	48.9	38.8	34.2	29.5
87.5°	73.0	68.4	64.5	62.9	66.0	69.1	38.8	21.0	17.9	16.3	15.5
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: P565301  
 CATALOG NUMBER: MSA-SA1B-730-U-T1

**CANDELA DISTRIBUTION (continued):**

	135°	145°	155°	165°	175°	180°
0°	264.1	264.1	264.1	264.1	264.1	264.1
2.5°	276.6	267.2	271.1	275.0	303.0	323.9
5°	275.0	288.2	317.7	355.0	372.1	414.1
7.5°	282.8	330.9	386.1	424.9	440.5	453.7
10°	378.3	386.9	405.5	442.8	473.9	479.3
12.5°	488.6	486.3	473.1	490.2	474.7	485.5
15°	574.9	549.2	531.4	529.0	523.6	523.6
17.5°	622.3	599.7	574.9	568.7	552.3	565.5
20°	678.2	639.3	577.2	571.0	565.5	553.1
22.5°	667.3	628.5	564.0	556.2	585.0	583.4
25°	680.5	628.5	567.1	558.6	571.8	571.8
27.5°	647.9	605.2	560.9	509.6	550.0	559.3
30°	639.3	591.2	539.9	494.1	535.2	526.7
32.5°	684.4	556.2	505.7	491.7	522.0	515.8
35°	649.4	550.0	497.2	471.5	507.3	501.1
37.5°	664.2	542.2	482.4	460.7	489.4	498.7
40°	661.1	505.7	465.3	437.4	466.1	470.8
42.5°	609.0	477.8	436.6	408.6	423.4	438.9
45°	593.5	460.7	408.6	369.8	370.6	388.4
47.5°	564.8	421.8	357.3	321.6	321.6	336.4
50°	516.6	369.8	299.1	266.5	265.7	277.3
52.5°	445.1	319.3	252.5	216.7	214.4	226.1
55°	364.3	257.1	198.9	175.6	170.9	175.6
57.5°	283.5	200.4	156.9	138.3	137.5	141.4
60°	219.8	156.9	125.1	114.2	115.8	122.0
62.5°	166.2	125.1	106.4	102.5	104.9	111.1
65°	132.1	108.0	97.1	94.8	97.1	103.3
67.5°	107.2	97.9	90.1	87.0	88.6	94.8
69°	98.7	92.4	86.2	82.3	83.9	88.6
70°	94.0	89.3	83.1	79.2	80.8	85.5
72.5°	82.3	80.0	75.4	71.5	72.2	76.1
75°	72.2	70.7	67.6	62.9	62.9	67.6
77.5°	60.6	61.4	58.3	53.6	52.8	55.2
80°	48.2	49.7	48.2	43.5	41.9	41.9
82.5°	35.0	38.1	36.5	31.9	31.1	31.1
85°	21.8	24.1	23.3	20.2	20.2	17.9
87.5°	10.1	13.2	12.4	10.9	10.1	7.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)