

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: P367820

Luminaire Tested: **MSA-SA3B-730-U-SLL**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367820
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-24)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-730-U-SLL
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11468 lumens
Efficiency: N/A
Efficacy: 91.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

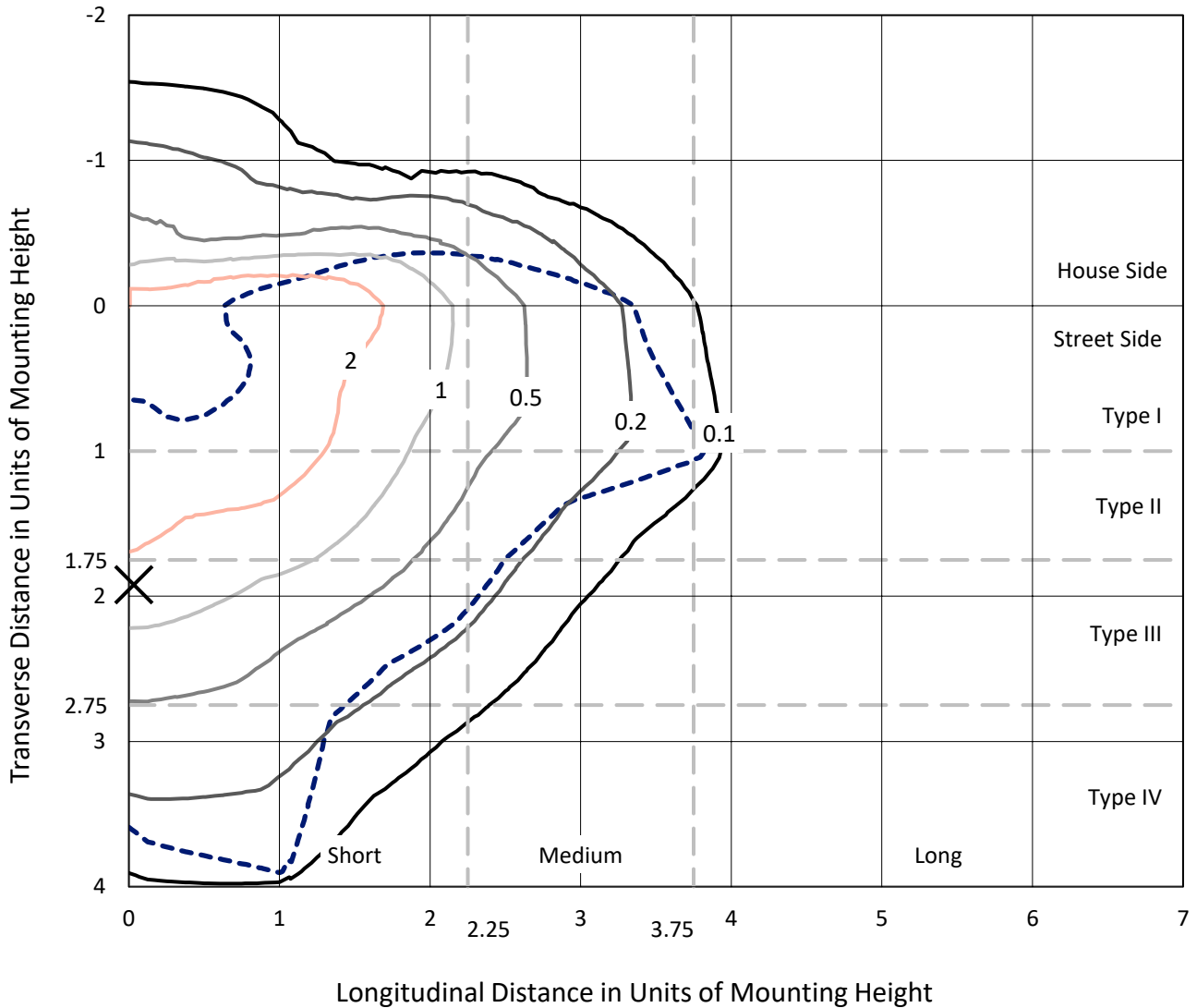
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P367820
 CATALOG NUMBER: MSA-SA3B-730-U-SLL

Iso-Footcandle Lines of Horizontal Illumination

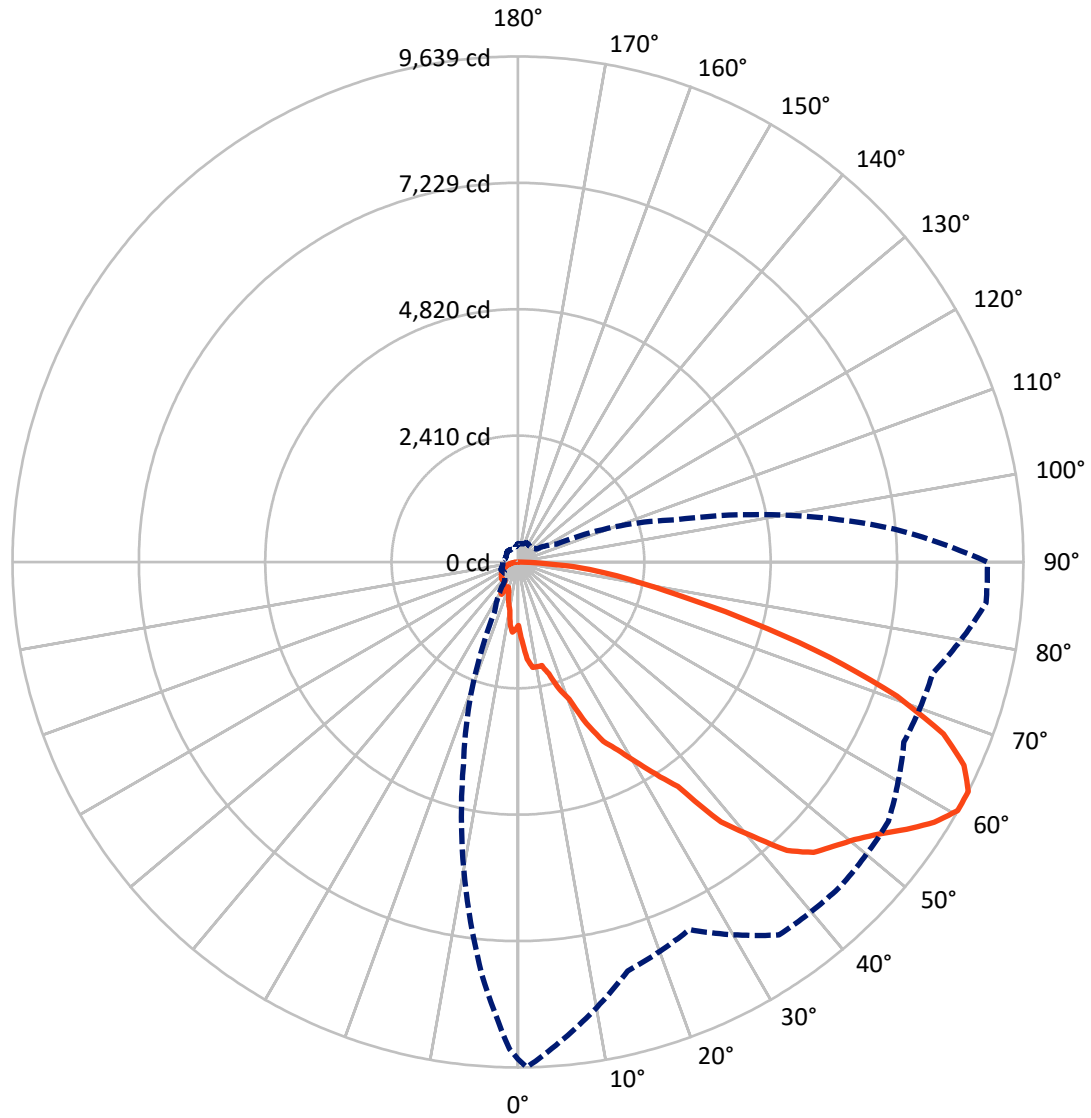
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type IV - Short - N/A

REPORT NUMBER: P367820
CATALOG NUMBER: MSA-SA3B-730-U-SLL

Luminous Intensity Polar Plot



— Vertical Plane Through 1-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

REPORT NUMBER: P367820
 CATALOG NUMBER: MSA-SA3B-730-U-SLL

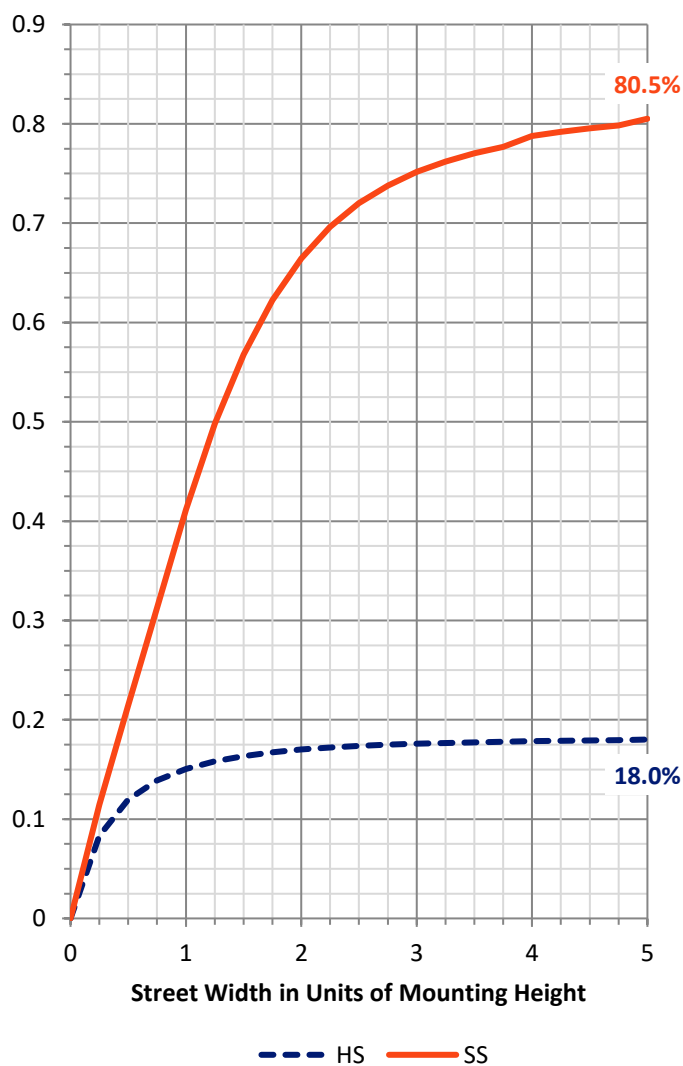
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2088.3	0.0	2088.3
	% Fixture	18.2	0.0	18.2
Street Side	Lumens	9379.8	0.0	9379.8
	% Fixture	81.8	0.0	81.8
Total	Lumens	11468.0	0.0	11468.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.6	1.2
10°-20°	402.8	3.5
20°-30°	711.2	6.2
30°-40°	1107.8	9.7
40°-50°	1824.1	15.9
50°-60°	2603.4	22.7
60°-70°	2760.7	24.1
70°-80°	1524.9	13.3
80°-90°	394.4	3.4
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°	11468.0	100.0
0°-180°	11468.0	100.0

Coefficient of Utilization



REPORT NUMBER: P367820

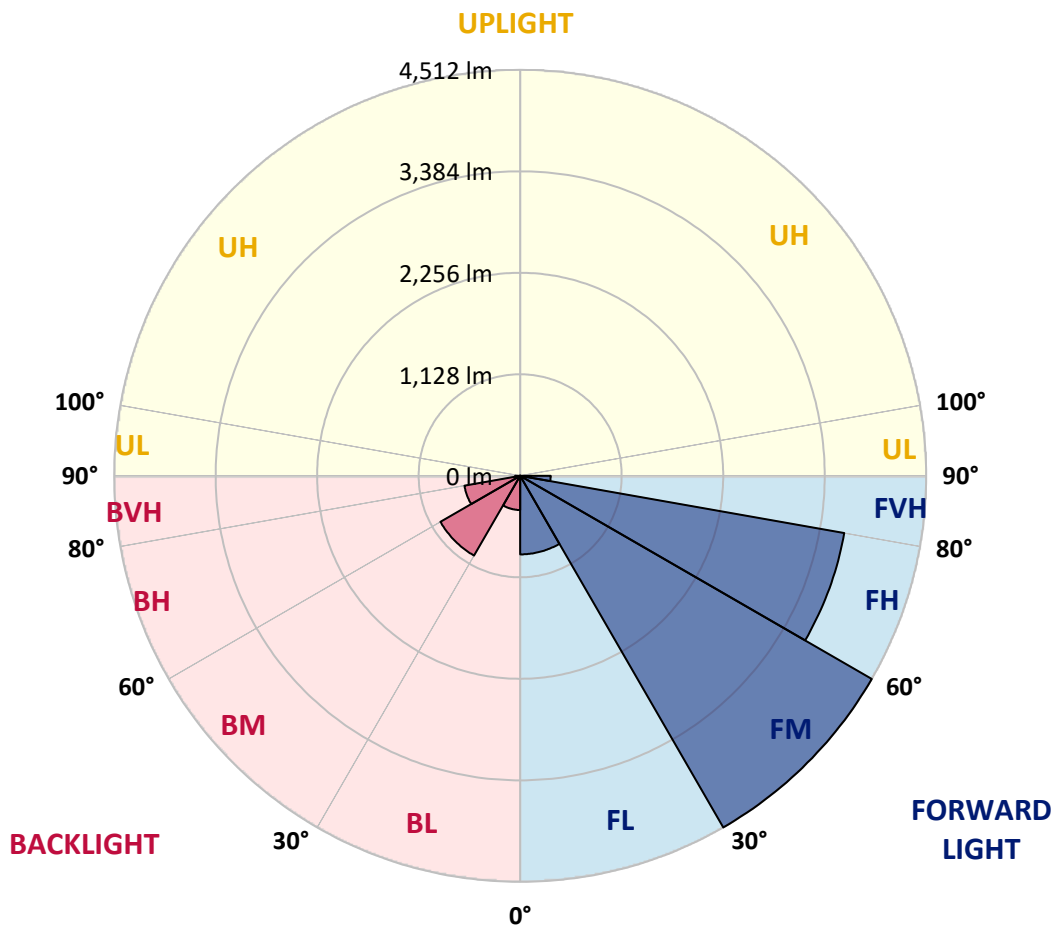
CATALOG NUMBER: MSA-SA3B-730-U-SLL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	872.9	7.6			
FM (30°-60°)	4511.6	39.3			
FH (60°-80°)	3656.5	31.9			G2/5000
FVH (80°-90°)	338.8	3.0			G3/500
BL (0°-30°)	379.8	3.3	B1/500		
BM (30°-60°)	1023.7	8.9	B2/2500		
BH (60°-80°)	629.1	5.5	B2/1000		G2/1000
BVH (80°-90°)	55.6	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





REPORT NUMBER: P367820

CATALOG NUMBER: MSA-SA3B-730-U-SLL

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3
2.5°	1487.0	1499.8	1473.6	1444.1	1322.3	1439.7	1404.6	1469.7	1448.6	1307.2	1566.0
5°	1837.6	1861.0	1835.4	1923.8	1929.4	1952.2	1741.3	1872.6	1827.0	1815.3	1946.1
7.5°	2006.8	2030.7	2095.8	2253.3	2376.3	2265.0	2142.0	2114.7	2079.1	1986.2	2065.2
10°	2017.3	2030.7	2118.1	2452.0	2511.5	2590.5	2511.0	2323.4	2246.1	2044.0	1983.9
12.5°	1985.6	2027.4	2140.3	2547.1	2724.1	2810.4	2829.8	2621.1	2431.4	2201.0	2170.4
15°	2198.8	2213.8	2375.7	2615.0	2736.9	2809.8	2873.2	2744.7	2685.1	2502.6	2257.2
17.5°	2504.3	2546.0	2678.5	2767.0	2849.3	2863.2	2810.9	2760.8	2666.2	2910.0	2649.0
20°	2711.3	2792.0	2954.5	2971.2	2798.1	2828.7	2821.5	2824.8	2770.8	3221.6	3078.0
22.5°	3258.9	3346.3	3368.5	3271.7	2945.6	2805.9	2833.7	2914.4	3127.0	3513.2	3675.7
25°	3754.8	3788.7	3991.8	3742.5	3222.7	2918.3	2872.7	3081.4	3428.1	4004.1	4119.8
27.5°	4013.5	4057.5	4192.7	3650.1	3257.2	2773.6	2666.8	2984.5	3337.9	3773.1	4281.2
30°	4344.6	4414.8	4599.0	3742.5	3361.3	2868.2	2631.7	2935.6	3326.2	3924.5	4622.9
32.5°	4685.8	4822.1	4959.0	4068.1	3346.8	3012.9	2856.0	2880.5	3432.0	4241.7	4976.8
35°	5137.7	5257.9	5375.9	4256.2	3638.4	3133.7	2977.9	3237.2	3703.6	4609.5	5470.5
37.5°	6103.8	6294.1	5983.0	4791.5	3955.6	3678.0	3396.9	3550.5	3990.7	4916.2	6276.8
40°	6719.3	6862.3	6561.8	5156.0	4514.4	4044.7	3998.5	4011.3	4386.4	5178.9	6819.4
42.5°	7330.9	7524.5	7046.5	5656.3	5190.0	4802.1	4563.9	4547.8	4829.4	5650.8	7436.6
45°	7787.2	7901.3	7212.9	6078.2	5914.6	5626.8	5448.2	5164.9	5411.5	5977.4	7818.4
47.5°	8004.2	8097.2	7480.6	6323.6	6384.2	6399.3	6721.5	6238.4	5920.1	6198.4	8018.7
50°	8275.3	8319.2	7638.1	6539.5	6830.6	7490.6	7567.9	6749.3	6415.4	6439.3	8137.2
52.5°	8599.1	8617.5	7867.9	6788.8	7281.9	8208.5	8088.8	7615.2	6886.8	6879.5	8360.4
55°	9006.5	8995.4	8156.2	7124.4	7604.1	8635.3	8544.6	8199.6	7400.4	7244.0	8707.7
57.5°	9368.8	9362.1	8538.5	7433.3	7875.1	8854.6	8881.3	8790.0	7749.9	7505.0	9083.9
60°	9546.3	9631.5	8973.7	7771.1	7892.4	8953.6	8963.7	8818.4	8140.6	7840.1	9184.0
62.5°	9477.3	9639.3	9187.4	8074.9	7733.8	8683.2	8724.9	8624.7	8122.8	8191.8	8960.3
65°	9163.4	9350.4	9002.1	8236.9	7636.4	8230.2	8240.8	7987.5	7868.4	8425.0	8436.1
67.5°	8574.7	8750.0	8412.2	7978.6	6969.7	7009.2	7245.2	7265.8	7092.1	8249.1	7699.8
70°	7544.0	7667.5	7456.1	7340.9	5825.5	5594.0	5850.0	5959.6	6038.7	7614.1	6816.1
72.5°	5972.4	6211.2	6244.6	6319.7	4690.2	4304.6	4494.3	4331.8	4846.6	6480.5	5569.0
75°	4418.7	4620.1	4836.6	5255.6	3696.9	3222.7	3199.4	3116.4	3597.3	5211.7	4130.4
77.5°	3122.6	3251.1	3417.5	4198.3	2789.8	2482.0	2496.5	2412.5	2597.8	3939.0	2853.2
80°	2238.3	2305.6	2383.0	2765.8	2058.0	2141.4	2143.7	2064.1	1931.6	2675.1	1904.4
82.5°	1594.9	1647.3	1735.7	1824.2	1534.3	1755.2	1753.6	1748.5	1531.5	1808.1	1191.5
85°	888.2	958.3	1111.9	1429.1	1108.0	1254.9	1103.6	1215.4	1124.1	1203.7	603.3
87.5°	62.3	55.7	248.8	828.1	517.0	377.9	198.1	392.3	503.1	628.9	84.0
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: P367820

CATALOG NUMBER: MSA-SA3B-730-U-SLL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3
2.5°	1619.4	1638.9	1562.7	1448.0	1479.2	1445.2	1402.4	1335.6	1198.2	1283.3	1283.9
5°	1945.0	1871.0	1811.4	1755.2	1660.6	1517.6	1498.7	1384.0	1319.5	1353.4	1348.4
7.5°	2046.8	1941.7	1852.1	1651.2	1475.9	1253.8	1187.0	1119.1	1090.8	1173.1	1206.0
10°	1935.0	1825.3	1737.4	1493.1	1374.0	1235.4	1051.8	957.7	902.1	923.8	936.6
12.5°	2025.1	1913.3	1636.7	1500.3	1303.9	1219.3	1058.5	920.5	838.1	858.1	834.2
15°	2111.9	1961.1	1684.5	1413.0	1253.8	1131.4	1001.2	858.7	761.9	727.4	709.0
17.5°	2429.2	2178.7	1679.0	1364.0	1181.5	1040.7	883.7	727.9	663.4	627.7	597.1
20°	2815.9	2467.0	1709.0	1313.4	1104.7	927.1	756.3	611.6	566.5	543.2	534.8
22.5°	3276.2	2836.5	1881.0	1306.1	1032.3	844.2	686.2	596.0	545.4	519.8	509.2
25°	3641.8	3218.8	2007.9	1355.1	1028.4	775.8	643.9	662.2	638.9	646.7	584.9
27.5°	3996.8	3322.9	1936.6	1333.4	924.9	654.5	633.9	672.3	692.3	698.4	696.2
30°	4296.8	3762.5	1952.2	1211.0	781.3	533.1	485.3	504.2	559.3	646.7	663.4
32.5°	4735.9	3972.9	2085.2	1136.9	698.4	476.9	423.5	416.3	429.1	460.8	488.1
35°	5249.5	4457.1	2122.5	1117.5	641.1	451.9	414.6	397.9	404.6	428.5	434.1
37.5°	6207.3	4809.9	2260.5	1093.5	619.9	436.9	407.9	401.8	416.3	435.7	446.9
40°	6735.4	5444.3	2267.2	1072.9	592.7	430.7	412.4	409.6	418.5	445.2	451.9
42.5°	7439.4	5806.0	2371.8	1049.0	583.2	439.1	421.3	420.2	428.0	443.5	455.8
45°	7868.4	6048.1	2377.4	1035.1	581.0	475.8	433.0	429.1	427.4	436.9	448.0
47.5°	8145.0	6397.0	2445.3	1019.5	594.3	485.3	446.9	430.2	424.6	428.5	436.9
50°	8407.1	6675.9	2573.8	1017.3	608.3	475.8	471.4	429.6	418.5	416.8	422.9
52.5°	8728.8	7134.4	2732.4	1038.4	604.9	461.9	489.7	427.4	407.4	403.5	409.6
55°	9196.8	7625.8	2901.1	1020.6	570.4	435.2	471.9	425.7	395.7	388.4	394.0
57.5°	9500.1	7907.4	3089.7	1005.6	518.1	415.2	455.8	426.8	396.8	380.7	384.0
60°	9399.4	7756.0	3163.7	913.8	468.6	399.6	417.4	417.9	386.8	371.7	374.5
62.5°	8954.2	7207.9	3094.7	806.9	431.8	377.3	377.9	401.2	357.8	347.3	351.7
65°	8332.0	6526.2	2815.4	737.4	414.6	353.9	345.0	352.3	318.9	311.1	320.0
67.5°	7568.5	5685.8	2399.7	663.9	408.5	322.2	311.6	308.9	287.7	278.8	287.7
70°	6610.7	4760.9	1918.3	612.2	385.1	287.7	279.4	276.6	258.8	252.1	259.9
72.5°	5313.5	3717.5	1480.3	572.6	359.5	256.0	248.8	245.4	230.4	220.9	230.4
75°	3779.2	2841.0	1099.7	512.0	323.3	223.7	215.4	210.9	197.0	188.1	196.4
77.5°	2685.7	2132.5	768.0	423.5	266.6	189.2	184.2	177.0	164.7	154.2	162.5
80°	1985.6	1523.7	495.3	326.7	203.7	151.4	148.6	143.6	131.9	119.1	125.2
82.5°	1307.2	1098.5	283.8	221.5	148.0	109.1	111.3	108.0	96.8	83.5	86.8
85°	585.4	650.6	150.8	121.9	96.3	65.7	71.8	69.6	61.2	48.4	49.5
87.5°	56.2	109.6	46.2	44.5	35.6	20.6	25.6	21.7	18.4	11.7	8.9
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: P367820
 CATALOG NUMBER: MSA-SA3B-730-U-SLL

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3
2.5°	1303.3	1224.9	1146.4	1194.3	1195.4	1208.2	1209.8	1162.5	1200.4	1229.3	1259.4
5°	1323.9	1272.7	1275.5	1229.3	1204.3	1236.6	1229.9	1217.1	1239.9	1271.6	1310.0
7.5°	1174.8	1141.4	1135.8	1091.3	983.3	959.4	979.5	987.8	1018.4	1067.4	1108.6
10°	917.1	983.3	908.8	891.5	863.1	807.5	775.2	771.3	836.4	875.9	910.4
12.5°	826.4	809.7	800.8	753.5	753.5	694.5	675.6	692.9	793.0	821.4	865.9
15°	704.0	691.7	650.6	627.2	616.1	592.1	612.2	628.9	722.3	724.6	771.3
17.5°	584.3	577.1	538.1	533.7	522.6	512.0	530.4	570.4	621.1	612.2	633.9
20°	522.6	497.5	461.9	474.7	463.0	454.7	446.9	503.6	539.3	550.9	563.7
22.5°	507.0	461.3	440.2	428.5	429.1	415.7	417.4	464.7	518.7	525.9	518.1
25°	579.3	498.1	429.6	395.7	382.9	378.4	391.2	433.0	498.1	513.7	519.8
27.5°	677.8	540.9	442.4	384.5	358.9	361.2	379.5	408.5	485.3	513.1	520.3
30°	650.6	508.6	443.0	376.2	344.5	356.2	362.8	390.7	475.3	517.0	553.2
32.5°	502.0	457.4	445.8	382.9	370.1	351.7	361.2	387.9	445.8	471.9	473.6
35°	425.2	391.2	383.4	367.9	350.0	342.3	352.8	376.2	414.0	430.2	428.0
37.5°	421.8	384.5	353.9	347.3	340.0	337.8	343.9	365.6	404.0	432.4	426.3
40°	427.4	381.2	350.0	338.4	341.1	331.1	337.2	364.0	405.7	432.4	426.8
42.5°	420.7	377.3	345.0	336.1	338.9	325.0	332.2	360.1	401.2	433.0	422.4
45°	407.4	368.4	342.3	327.2	340.0	319.4	328.3	350.0	387.9	422.4	410.1
47.5°	394.0	357.8	330.6	321.1	333.9	313.9	317.8	336.7	374.5	408.5	397.9
50°	379.5	344.5	321.1	318.3	327.2	312.8	306.6	322.2	358.4	392.3	383.4
52.5°	364.0	333.3	314.4	313.3	321.7	305.5	296.6	308.9	341.1	375.1	367.9
55°	348.9	321.1	306.1	308.9	318.3	299.4	288.3	296.1	322.8	356.2	346.1
57.5°	333.9	307.2	294.9	302.7	310.0	291.6	277.7	282.1	303.9	336.7	325.0
60°	320.5	294.9	282.7	292.2	298.8	279.9	263.8	266.6	286.0	315.5	305.0
62.5°	303.3	281.6	265.5	277.7	282.7	264.3	247.1	250.4	266.0	293.8	286.0
65°	278.8	264.9	249.9	258.2	264.9	246.0	229.8	233.7	245.4	271.6	266.0
67.5°	257.7	244.3	234.3	241.0	242.1	227.6	213.1	215.4	224.8	249.3	243.2
70°	234.3	221.5	213.7	218.7	218.2	205.9	194.8	195.3	203.1	225.4	217.0
72.5°	208.7	196.4	192.6	195.3	193.1	182.0	171.4	175.3	180.3	197.0	190.3
75°	181.4	170.3	168.1	170.8	167.5	156.9	147.5	151.4	155.8	169.7	161.4
77.5°	153.0	143.0	143.6	144.1	139.7	132.4	123.0	126.9	129.7	139.1	130.8
80°	121.9	114.1	116.3	116.3	111.3	106.3	97.4	98.5	100.2	103.5	97.4
82.5°	89.0	89.0	89.0	89.6	79.0	80.7	72.9	72.3	70.7	70.1	66.2
85°	52.9	55.1	56.2	57.9	42.9	50.1	43.4	41.7	38.4	35.1	33.9
87.5°	11.7	15.0	15.0	14.5	0.0	5.6	2.8	4.5	1.1	0.0	0.0
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: P367820
 CATALOG NUMBER: MSA-SA3B-730-U-SLL

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3	1209.3
2.5°	1224.9	1191.5	1253.8	1309.5	1300.6	1332.8	1257.7	1369.0	1487.0	1487.0
5°	1300.0	1271.6	1287.8	1320.0	1344.5	1456.9	1550.4	1643.4	1835.4	1837.6
7.5°	1096.3	1157.5	1172.0	1162.5	1267.7	1412.4	1566.6	1831.5	1994.0	2006.8
10°	1025.1	1052.9	1096.9	1121.4	1164.2	1306.7	1498.1	1812.5	1985.1	2017.3
12.5°	928.8	1031.8	1098.5	1235.4	1269.4	1297.8	1602.2	1874.3	1993.4	1985.6
15°	823.6	901.5	997.8	1149.2	1235.4	1452.5	1664.0	2072.4	2139.8	2198.8
17.5°	656.7	714.0	842.0	1014.5	1228.2	1428.0	1816.4	2317.3	2443.1	2504.3
20°	540.4	540.9	668.9	897.6	1130.3	1325.6	1874.3	2520.4	2680.1	2711.3
22.5°	510.9	485.3	552.6	738.5	1022.3	1386.3	1991.2	2847.1	3180.4	3258.9
25°	494.7	463.6	505.9	651.7	944.9	1418.0	2226.6	3296.2	3724.1	3754.8
27.5°	501.4	515.9	529.2	581.0	847.0	1358.4	2172.0	3497.1	3955.6	4013.5
30°	546.5	569.9	539.3	557.1	766.3	1272.2	2269.4	3823.2	4247.3	4344.6
32.5°	454.7	445.8	443.0	481.9	685.6	1194.3	2473.7	4282.3	4563.4	4685.8
35°	410.1	396.2	401.8	446.3	646.1	1183.1	2588.3	4662.4	5062.5	5137.7
37.5°	408.5	392.3	399.6	433.0	660.0	1203.2	2772.0	5272.3	5942.9	6103.8
40°	404.6	395.7	399.6	424.6	645.5	1214.3	2877.7	5784.9	6556.2	6719.3
42.5°	404.0	399.6	403.5	431.3	630.5	1219.3	3024.1	6247.9	7202.3	7330.9
45°	402.4	406.8	406.8	436.9	623.8	1252.7	3110.3	6475.0	7628.6	7787.2
47.5°	394.6	407.9	429.6	435.2	596.6	1237.1	3232.2	6819.4	7855.1	8004.2
50°	384.5	406.2	458.6	424.1	592.1	1199.3	3374.7	7092.7	8145.6	8275.3
52.5°	371.2	403.5	451.9	402.4	584.3	1192.6	3574.4	7447.7	8484.5	8599.1
55°	352.3	393.5	431.3	380.7	565.4	1171.4	3880.0	7887.9	8928.0	9006.5
57.5°	335.0	378.4	401.2	368.4	520.3	1175.9	4092.6	8246.9	9300.3	9368.8
60°	319.4	376.8	358.4	355.6	474.1	1116.4	4161.6	8243.0	9438.9	9546.3
62.5°	302.7	355.6	328.3	338.4	433.5	1055.1	4015.2	7889.6	9289.2	9477.3
65°	281.0	305.0	303.3	326.1	434.6	955.5	3679.6	7266.3	8915.8	9163.4
67.5°	255.4	269.9	279.4	306.1	448.5	878.2	3139.8	6516.7	8280.3	8574.7
70°	229.3	243.7	254.3	279.9	461.3	842.6	2499.3	5463.8	7245.2	7544.0
72.5°	202.6	217.6	225.9	248.2	444.1	766.3	1849.8	4251.2	5815.5	5972.4
75°	174.7	189.2	195.9	216.5	385.7	633.9	1277.2	3219.9	4259.5	4418.7
77.5°	146.4	161.9	164.2	180.9	294.4	484.7	818.6	2469.8	3016.3	3122.6
80°	116.9	132.4	132.4	141.4	207.0	333.3	490.3	1863.2	2196.5	2238.3
82.5°	84.0	100.7	99.6	100.2	143.0	206.5	283.8	1396.3	1587.2	1594.9
85°	49.5	61.2	60.7	55.7	84.6	111.3	153.6	867.0	886.0	888.2
87.5°	9.5	14.5	12.8	5.6	23.4	32.8	44.5	160.8	64.0	62.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)