

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: P366896

Luminaire Tested: **MSA-SA1C-730-U-SLL**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366896
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-SA1C-730-U-SLL
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) 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: 4893 lumens
Efficiency: N/A
Efficacy: 82.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 59
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



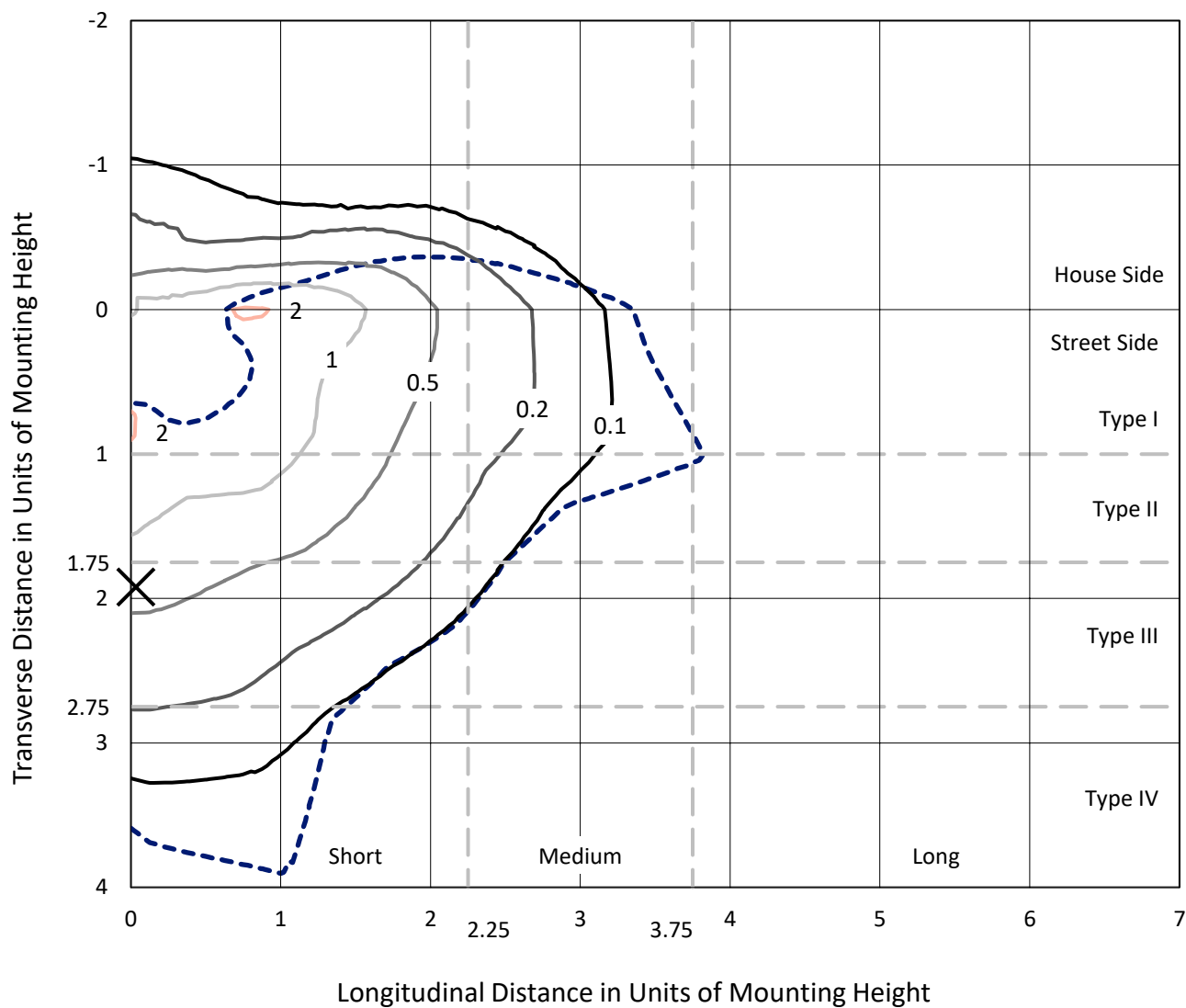
REPORT NUMBER: P366896

CATALOG NUMBER: MSA-SA1C-730-U-SLL

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

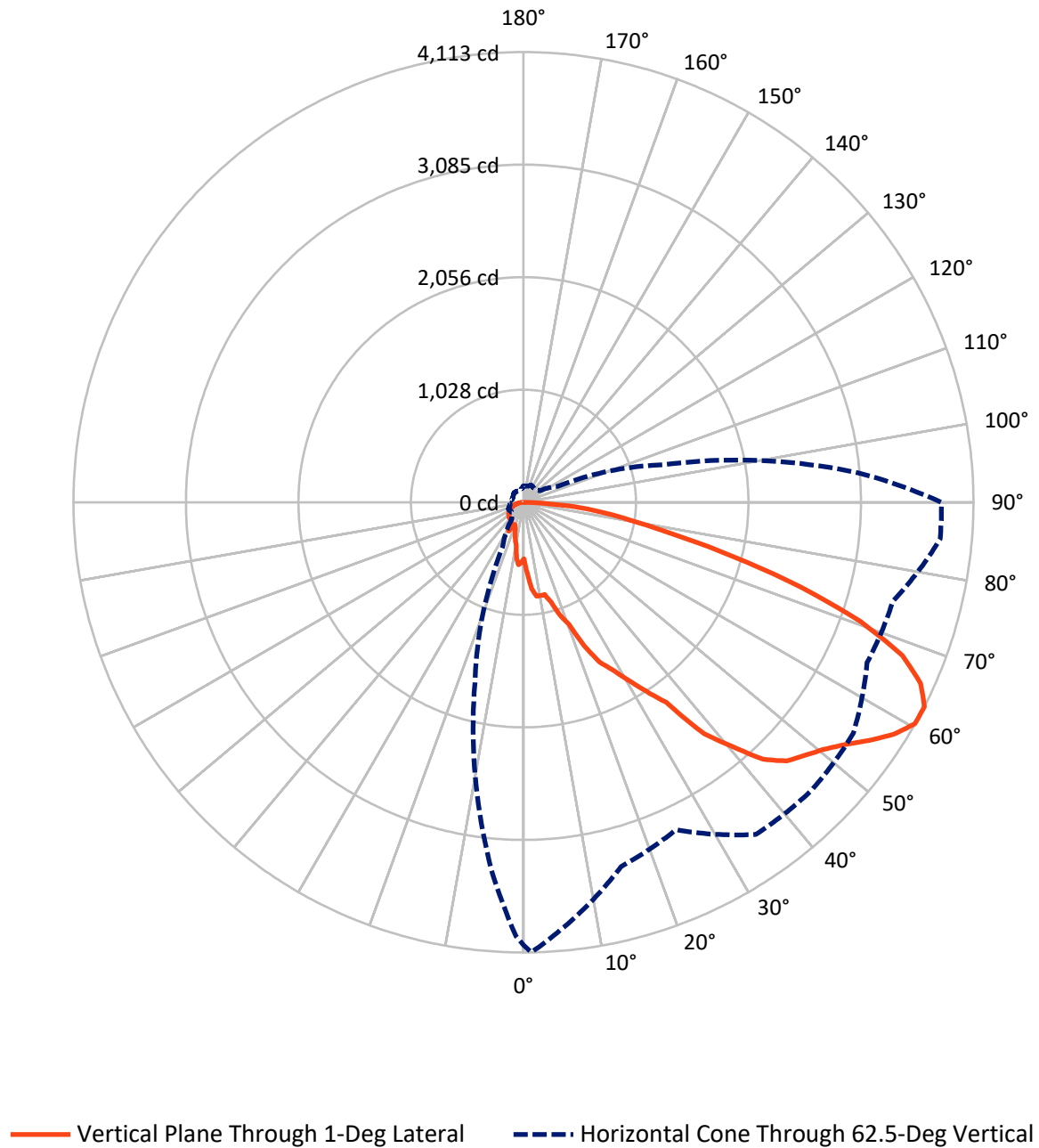


Based on 25 foot mounting height. Maximum calculated value = 2.1 fc

Type IV - Short - N/A

REPORT NUMBER: P366896
CATALOG NUMBER: MSA-SA1C-730-U-SLL

Luminous Intensity Polar Plot



REPORT NUMBER: P366896

CATALOG NUMBER: MSA-SA1C-730-U-SLL

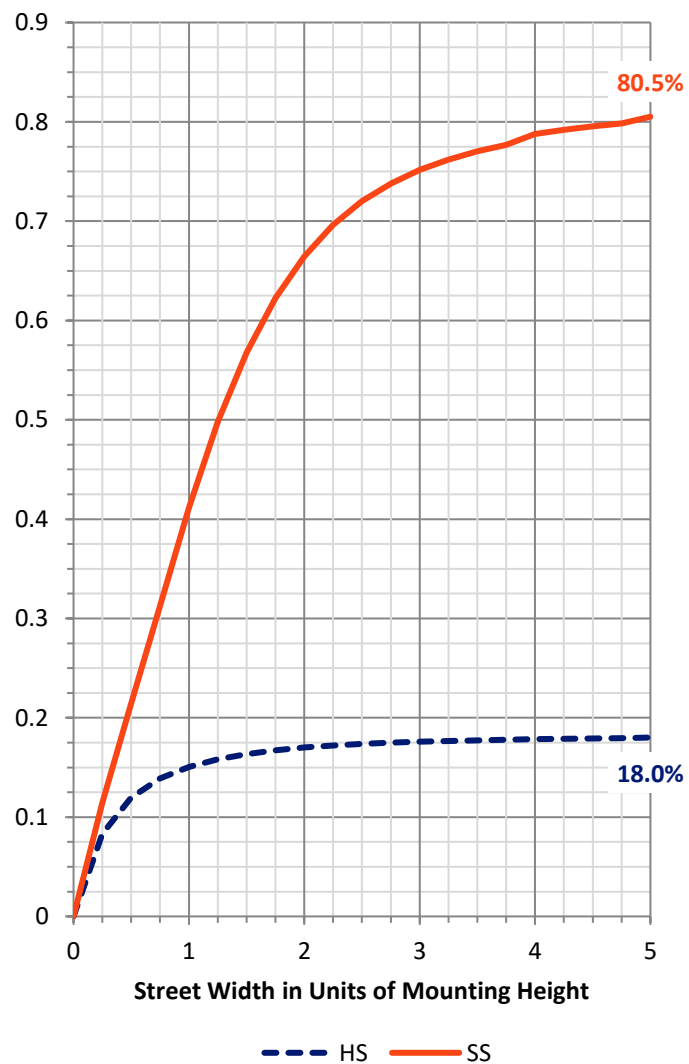
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	891.0	0.0	891.0
	% Fixture	18.2	0.0	18.2
Street Side	Lumens	4002.0	0.0	4002.0
	% Fixture	81.8	0.0	81.8
Total	Lumens	4893.0	0.0	4893.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.1	1.2
10°-20°	171.9	3.5
20°-30°	303.5	6.2
30°-40°	472.7	9.7
40°-50°	778.3	15.9
50°-60°	1110.8	22.7
60°-70°	1177.9	24.1
70°-80°	650.6	13.3
80°-90°	168.3	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°	4893.0	100.0
0°-180°	4893.0	100.0

Coefficient of Utilization



REPORT NUMBER: P366896

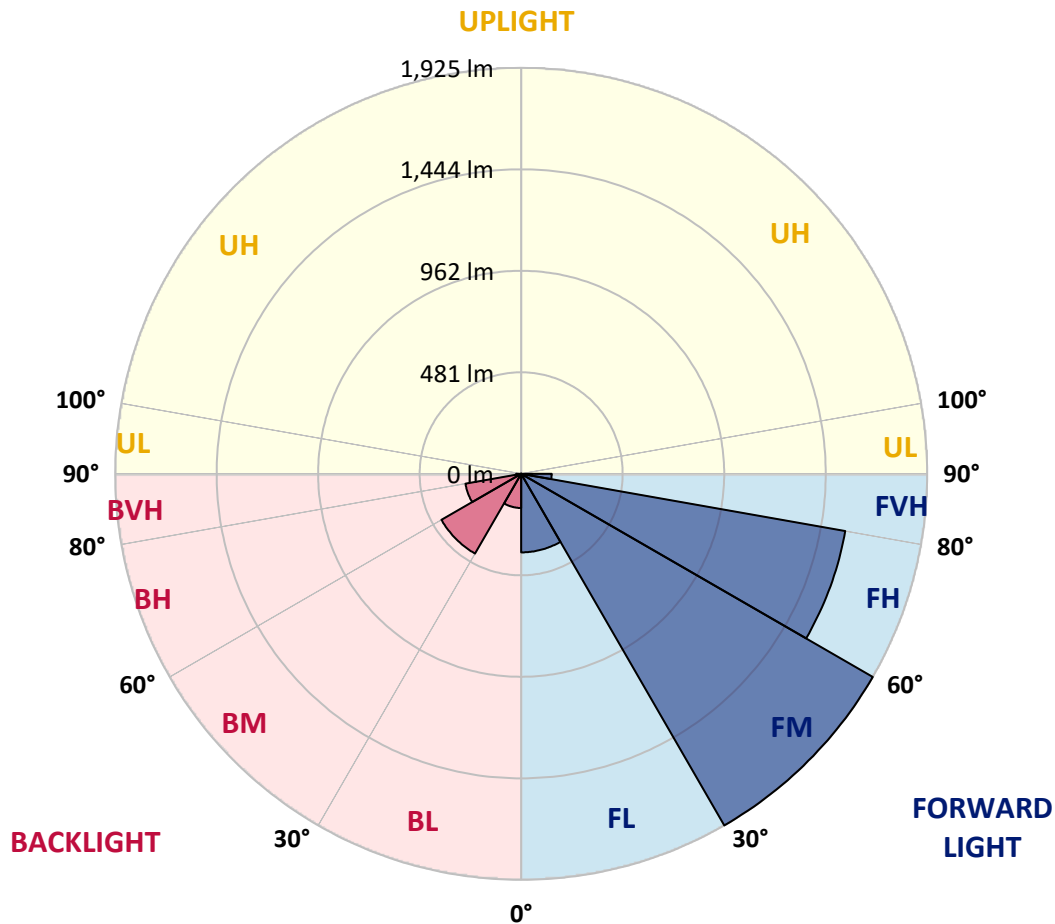
CATALOG NUMBER: MSA-SA1C-730-U-SLL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	372.4	7.6			
FM	(30°-60°)	1925.0	39.3			
FH	(60°-80°)	1560.1	31.9			G1/1800
FVH	(80°-90°)	144.5	3.0			G2/225
BL	(0°-30°)	162.0	3.3	B1/500		
BM	(30°-60°)	436.8	8.9	B1/1000		
BH	(60°-80°)	268.4	5.5	B1/500		G1/500
BVH	(80°-90°)	23.7	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short



REPORT NUMBER: P366896

CATALOG NUMBER: MSA-SA1C-730-U-SLL

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0
2.5°	634.4	639.9	628.7	616.2	564.2	614.3	599.3	627.1	618.1	557.8	668.2
5°	784.0	794.0	783.1	820.8	823.2	832.9	743.0	799.0	779.5	774.5	830.3
7.5°	856.2	866.4	894.2	961.4	1013.9	966.4	913.9	902.3	887.1	847.4	881.1
10°	860.7	866.4	903.7	1046.2	1071.6	1105.3	1071.3	991.3	958.3	872.1	846.5
12.5°	847.2	865.0	913.2	1086.8	1162.3	1199.1	1207.4	1118.4	1037.4	939.1	926.0
15°	938.1	944.5	1013.6	1115.7	1167.7	1198.8	1225.9	1171.1	1145.7	1067.8	963.1
17.5°	1068.5	1086.3	1142.8	1180.6	1215.7	1221.6	1199.3	1178.0	1137.6	1241.6	1130.2
20°	1156.8	1191.2	1260.6	1267.7	1193.9	1206.9	1203.8	1205.3	1182.2	1374.6	1313.3
22.5°	1390.5	1427.7	1437.2	1395.9	1256.8	1197.2	1209.1	1243.5	1334.2	1499.0	1568.3
25°	1602.0	1616.5	1703.2	1596.8	1375.0	1245.1	1225.7	1314.7	1462.6	1708.4	1757.8
27.5°	1712.4	1731.2	1788.9	1557.4	1389.7	1183.4	1137.8	1273.4	1424.2	1609.9	1826.6
30°	1853.7	1883.6	1962.2	1596.8	1434.2	1223.8	1122.9	1252.5	1419.2	1674.4	1972.4
32.5°	1999.3	2057.4	2115.8	1735.7	1428.0	1285.5	1218.6	1229.0	1464.3	1809.8	2123.4
35°	2192.1	2243.4	2293.7	1816.0	1552.4	1337.0	1270.6	1381.2	1580.2	1966.7	2334.1
37.5°	2604.3	2685.5	2552.7	2044.4	1687.7	1569.3	1449.3	1514.9	1702.7	2097.6	2678.1
40°	2866.9	2927.9	2799.7	2199.9	1926.1	1725.7	1706.0	1711.5	1871.5	2209.6	2909.6
42.5°	3127.8	3210.5	3006.5	2413.4	2214.4	2048.9	1947.3	1940.4	2060.5	2411.0	3172.9
45°	3322.5	3371.2	3077.5	2593.3	2523.5	2400.8	2324.6	2203.7	2308.9	2550.4	3335.8
47.5°	3415.1	3454.8	3191.7	2698.1	2723.9	2730.3	2867.8	2661.7	2525.9	2644.6	3421.3
50°	3530.8	3549.5	3258.9	2790.2	2914.4	3196.0	3229.0	2879.7	2737.2	2747.4	3471.9
52.5°	3669.0	3676.8	3357.0	2896.6	3106.9	3502.3	3451.2	3249.2	2938.3	2935.3	3567.1
55°	3842.8	3838.0	3480.0	3039.7	3244.4	3684.4	3645.7	3498.5	3157.5	3090.8	3715.3
57.5°	3997.3	3994.5	3643.1	3171.5	3360.0	3777.9	3789.3	3750.4	3306.6	3202.1	3875.8
60°	4073.1	4109.4	3828.8	3315.6	3367.4	3820.2	3824.5	3762.5	3473.3	3345.1	3918.5
62.5°	4043.6	4112.7	3919.9	3445.3	3299.7	3704.8	3722.6	3679.9	3465.7	3495.1	3823.1
65°	3909.7	3989.5	3840.9	3514.4	3258.2	3511.5	3516.0	3408.0	3357.2	3594.6	3599.4
67.5°	3658.5	3733.3	3589.2	3404.2	2973.7	2990.6	3091.3	3100.0	3026.0	3519.6	3285.3
70°	3218.8	3271.5	3181.3	3132.1	2485.5	2386.8	2496.0	2542.8	2576.5	3248.7	2908.2
72.5°	2548.2	2650.1	2664.3	2696.4	2001.2	1836.6	1917.6	1848.3	2067.9	2765.0	2376.1
75°	1885.3	1971.2	2063.6	2242.4	1577.3	1375.0	1365.1	1329.7	1534.8	2223.6	1762.3
77.5°	1332.3	1387.1	1458.1	1791.3	1190.3	1059.0	1065.2	1029.3	1108.4	1680.6	1217.4
80°	955.0	983.7	1016.7	1180.1	878.1	913.7	914.6	880.7	824.2	1141.4	812.5
82.5°	680.5	702.8	740.6	778.3	654.6	748.9	748.2	746.0	653.4	771.4	508.4
85°	379.0	408.9	474.4	609.8	472.7	535.4	470.8	518.6	479.6	513.6	257.4
87.5°	26.6	23.7	106.1	353.3	220.6	161.2	84.5	167.4	214.6	268.3	35.9
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: P366896

CATALOG NUMBER: MSA-SA1C-730-U-SLL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0
2.5°	691.0	699.3	666.7	617.8	631.1	616.6	598.4	569.9	511.2	547.5	547.8
5°	829.9	798.3	772.9	748.9	708.5	647.5	639.4	590.5	563.0	577.5	575.3
7.5°	873.3	828.4	790.2	704.5	629.7	535.0	506.5	477.5	465.4	500.5	514.5
10°	825.6	778.8	741.3	637.1	586.2	527.1	448.8	408.6	384.9	394.2	399.6
12.5°	864.1	816.3	698.3	640.1	556.3	520.2	451.6	392.7	357.6	366.1	355.9
15°	901.1	836.7	718.7	602.9	535.0	482.7	427.2	366.4	325.1	310.3	302.5
17.5°	1036.4	929.6	716.4	582.0	504.1	444.0	377.1	310.6	283.0	267.8	254.8
20°	1201.5	1052.6	729.2	560.4	471.3	395.6	322.7	260.9	241.7	231.7	228.2
22.5°	1397.8	1210.2	802.6	557.3	440.5	360.2	292.8	254.3	232.7	221.8	217.3
25°	1553.8	1373.4	856.7	578.2	438.8	331.0	274.7	282.6	272.6	275.9	249.6
27.5°	1705.3	1417.8	826.3	568.9	394.6	279.2	270.4	286.8	295.4	298.0	297.0
30°	1833.3	1605.3	832.9	516.7	333.4	227.5	207.0	215.1	238.6	275.9	283.0
32.5°	2020.6	1695.1	889.7	485.1	298.0	203.5	180.7	177.6	183.1	196.6	208.2
35°	2239.8	1901.7	905.6	476.8	273.5	192.8	176.9	169.8	172.6	182.8	185.2
37.5°	2648.4	2052.2	964.5	466.6	264.5	186.4	174.0	171.4	177.6	185.9	190.7
40°	2873.8	2322.9	967.3	457.8	252.9	183.8	175.9	174.8	178.6	190.0	192.8
42.5°	3174.1	2477.2	1012.0	447.6	248.8	187.3	179.7	179.3	182.6	189.2	194.5
45°	3357.2	2580.5	1014.4	441.6	247.9	203.0	184.7	183.1	182.4	186.4	191.1
47.5°	3475.2	2729.4	1043.3	435.0	253.6	207.0	190.7	183.5	181.2	182.8	186.4
50°	3587.0	2848.4	1098.2	434.0	259.5	203.0	201.1	183.3	178.6	177.8	180.5
52.5°	3724.3	3044.0	1165.8	443.1	258.1	197.1	208.9	182.4	173.8	172.1	174.8
55°	3924.0	3253.7	1237.8	435.5	243.4	185.7	201.4	181.6	168.8	165.7	168.1
57.5°	4053.4	3373.8	1318.3	429.1	221.1	177.1	194.5	182.1	169.3	162.4	163.8
60°	4010.4	3309.2	1349.9	389.9	199.9	170.5	178.1	178.3	165.0	158.6	159.8
62.5°	3820.4	3075.4	1320.4	344.3	184.3	161.0	161.2	171.2	152.7	148.2	150.1
65°	3555.0	2784.5	1201.2	314.6	176.9	151.0	147.2	150.3	136.1	132.7	136.5
67.5°	3229.2	2425.9	1023.9	283.3	174.3	137.5	133.0	131.8	122.8	119.0	122.8
70°	2820.6	2031.3	818.5	261.2	164.3	122.8	119.2	118.0	110.4	107.6	110.9
72.5°	2267.1	1586.1	631.6	244.3	153.4	109.2	106.1	104.7	98.3	94.3	98.3
75°	1612.5	1212.1	469.2	218.4	138.0	95.5	91.9	90.0	84.1	80.3	83.8
77.5°	1145.9	909.9	327.7	180.7	113.7	80.7	78.6	75.5	70.3	65.8	69.3
80°	847.2	650.1	211.3	139.4	86.9	64.6	63.4	61.3	56.3	50.8	53.4
82.5°	557.8	468.7	121.1	94.5	63.2	46.5	47.5	46.1	41.3	35.6	37.0
85°	249.8	277.6	64.3	52.0	41.1	28.0	30.6	29.7	26.1	20.7	21.1
87.5°	24.0	46.8	19.7	19.0	15.2	8.8	10.9	9.3	7.8	5.0	3.8
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: P366896

CATALOG NUMBER: MSA-SA1C-730-U-SLL

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0
2.5°	556.1	522.6	489.1	509.6	510.0	515.5	516.2	496.0	512.2	524.5	537.3
5°	564.9	543.0	544.2	524.5	513.8	527.6	524.7	519.3	529.0	542.6	558.9
7.5°	501.2	487.0	484.6	465.6	419.6	409.4	417.9	421.5	434.5	455.4	473.0
10°	391.3	419.6	387.7	380.4	368.3	344.5	330.8	329.1	356.9	373.7	388.5
12.5°	352.6	345.5	341.7	321.5	321.5	296.3	288.3	295.6	338.4	350.5	369.5
15°	300.4	295.1	277.6	267.6	262.8	252.6	261.2	268.3	308.2	309.1	329.1
17.5°	249.3	246.2	229.6	227.7	223.0	218.4	226.3	243.4	265.0	261.2	270.4
20°	223.0	212.3	197.1	202.5	197.6	194.0	190.7	214.9	230.1	235.1	240.5
22.5°	216.3	196.8	187.8	182.8	183.1	177.4	178.1	198.3	221.3	224.4	221.1
25°	247.2	212.5	183.3	168.8	163.4	161.5	166.9	184.7	212.5	219.2	221.8
27.5°	289.2	230.8	188.8	164.1	153.2	154.1	161.9	174.3	207.0	218.9	222.0
30°	277.6	217.0	189.0	160.5	147.0	152.0	154.8	166.7	202.8	220.6	236.0
32.5°	214.2	195.2	190.2	163.4	157.9	150.1	154.1	165.5	190.2	201.4	202.1
35°	181.4	166.9	163.6	156.9	149.4	146.0	150.5	160.5	176.7	183.5	182.6
37.5°	180.0	164.1	151.0	148.2	145.1	144.1	146.7	156.0	172.4	184.5	181.9
40°	182.4	162.6	149.4	144.4	145.6	141.3	143.9	155.3	173.1	184.5	182.1
42.5°	179.5	161.0	147.2	143.4	144.6	138.7	141.8	153.6	171.2	184.7	180.2
45°	173.8	157.2	146.0	139.6	145.1	136.3	140.1	149.4	165.5	180.2	175.0
47.5°	168.1	152.7	141.0	137.0	142.5	133.9	135.6	143.7	159.8	174.3	169.8
50°	161.9	147.0	137.0	135.8	139.6	133.4	130.8	137.5	152.9	167.4	163.6
52.5°	155.3	142.2	134.2	133.7	137.2	130.4	126.6	131.8	145.6	160.0	156.9
55°	148.9	137.0	130.6	131.8	135.8	127.7	123.0	126.3	137.7	152.0	147.7
57.5°	142.5	131.1	125.8	129.2	132.3	124.4	118.5	120.4	129.6	143.7	138.7
60°	136.8	125.8	120.6	124.7	127.5	119.4	112.5	113.7	122.0	134.6	130.1
62.5°	129.4	120.1	113.3	118.5	120.6	112.8	105.4	106.8	113.5	125.4	122.0
65°	119.0	113.0	106.6	110.2	113.0	104.9	98.1	99.7	104.7	115.9	113.5
67.5°	109.9	104.2	100.0	102.8	103.3	97.1	90.9	91.9	95.9	106.4	103.8
70°	100.0	94.5	91.2	93.3	93.1	87.9	83.1	83.3	86.7	96.2	92.6
72.5°	89.0	83.8	82.2	83.3	82.4	77.6	73.1	74.8	76.9	84.1	81.2
75°	77.4	72.7	71.7	72.9	71.5	67.0	62.9	64.6	66.5	72.4	68.9
77.5°	65.3	61.0	61.3	61.5	59.6	56.5	52.5	54.1	55.3	59.4	55.8
80°	52.0	48.7	49.6	49.6	47.5	45.4	41.6	42.0	42.7	44.2	41.6
82.5°	38.0	38.0	38.0	38.2	33.7	34.4	31.1	30.9	30.2	29.9	28.3
85°	22.6	23.5	24.0	24.7	18.3	21.4	18.5	17.8	16.4	15.0	14.5
87.5°	5.0	6.4	6.4	6.2	0.0	2.4	1.2	1.9	0.5	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: P366896

CATALOG NUMBER: MSA-SA1C-730-U-SLL

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0
2.5°	522.6	508.4	535.0	558.7	554.9	568.7	536.6	584.1	634.4	634.4
5°	554.7	542.6	549.4	563.2	573.7	621.6	661.5	701.2	783.1	784.0
7.5°	467.8	493.9	500.1	496.0	540.9	602.6	668.4	781.4	850.8	856.2
10°	437.4	449.2	468.0	478.4	496.7	557.5	639.2	773.3	847.0	860.7
12.5°	396.3	440.2	468.7	527.1	541.6	553.7	683.6	799.7	850.5	847.2
15°	351.4	384.7	425.7	490.3	527.1	619.7	710.0	884.2	913.0	938.1
17.5°	280.2	304.6	359.3	432.9	524.0	609.3	775.0	988.7	1042.4	1068.5
20°	230.6	230.8	285.4	383.0	482.2	565.6	799.7	1075.4	1143.5	1156.8
22.5°	218.0	207.0	235.8	315.1	436.2	591.5	849.6	1214.8	1357.0	1390.5
25°	211.1	197.8	215.8	278.0	403.2	605.0	950.0	1406.4	1589.0	1602.0
27.5°	213.9	220.1	225.8	247.9	361.4	579.6	926.7	1492.1	1687.7	1712.4
30°	233.2	243.1	230.1	237.7	327.0	542.8	968.3	1631.2	1812.2	1853.7
32.5°	194.0	190.2	189.0	205.6	292.5	509.6	1055.4	1827.1	1947.0	1999.3
35°	175.0	169.1	171.4	190.4	275.7	504.8	1104.3	1989.3	2160.0	2192.1
37.5°	174.3	167.4	170.5	184.7	281.6	513.4	1182.7	2249.5	2535.6	2604.3
40°	172.6	168.8	170.5	181.2	275.4	518.1	1227.8	2468.2	2797.3	2866.9
42.5°	172.4	170.5	172.1	184.0	269.0	520.2	1290.3	2665.8	3073.0	3127.8
45°	171.7	173.6	173.6	186.4	266.2	534.5	1327.1	2762.6	3254.9	3322.5
47.5°	168.3	174.0	183.3	185.7	254.5	527.8	1379.1	2909.6	3351.5	3415.1
50°	164.1	173.3	195.7	180.9	252.6	511.7	1439.8	3026.2	3475.4	3530.8
52.5°	158.4	172.1	192.8	171.7	249.3	508.8	1525.1	3177.7	3620.0	3669.0
55°	150.3	167.9	184.0	162.4	241.2	499.8	1655.4	3365.5	3809.3	3842.8
57.5°	142.9	161.5	171.2	157.2	222.0	501.7	1746.2	3518.7	3968.1	3997.3
60°	136.3	160.7	152.9	151.7	202.3	476.3	1775.6	3517.0	4027.3	4073.1
62.5°	129.2	151.7	140.1	144.4	185.0	450.2	1713.1	3366.2	3963.4	4043.6
65°	119.9	130.1	129.4	139.1	185.4	407.7	1570.0	3100.3	3804.1	3909.7
67.5°	109.0	115.2	119.2	130.6	191.4	374.7	1339.6	2780.4	3532.9	3658.5
70°	97.8	104.0	108.5	119.4	196.8	359.5	1066.4	2331.2	3091.3	3218.8
72.5°	86.4	92.8	96.4	105.9	189.5	327.0	789.3	1813.8	2481.3	2548.2
75°	74.6	80.7	83.6	92.4	164.5	270.4	544.9	1373.8	1817.4	1885.3
77.5°	62.4	69.1	70.0	77.2	125.6	206.8	349.3	1053.8	1286.9	1332.3
80°	49.9	56.5	56.5	60.3	88.3	142.2	209.2	795.0	937.2	955.0
82.5°	35.9	43.0	42.5	42.7	61.0	88.1	121.1	595.7	677.2	680.5
85°	21.1	26.1	25.9	23.7	36.1	47.5	65.5	369.9	378.0	379.0
87.5°	4.0	6.2	5.5	2.4	10.0	14.0	19.0	68.6	27.3	26.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)