

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: P596067

Luminaire Tested: **MSA-SA2A-AMB-U-SLR**

Issue Date: 4/29/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P596067  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-25)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 4/29/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA2A-AMB-U-SLR  
Description: POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH  
AND SPILL LIGHT ELIMINATOR RIGHT OPTICS.  
Light Source: (32) 1549K CCT, -21.5 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1318 lumens  
Efficiency: N/A  
Efficacy: 32.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B0 - U0 - G1

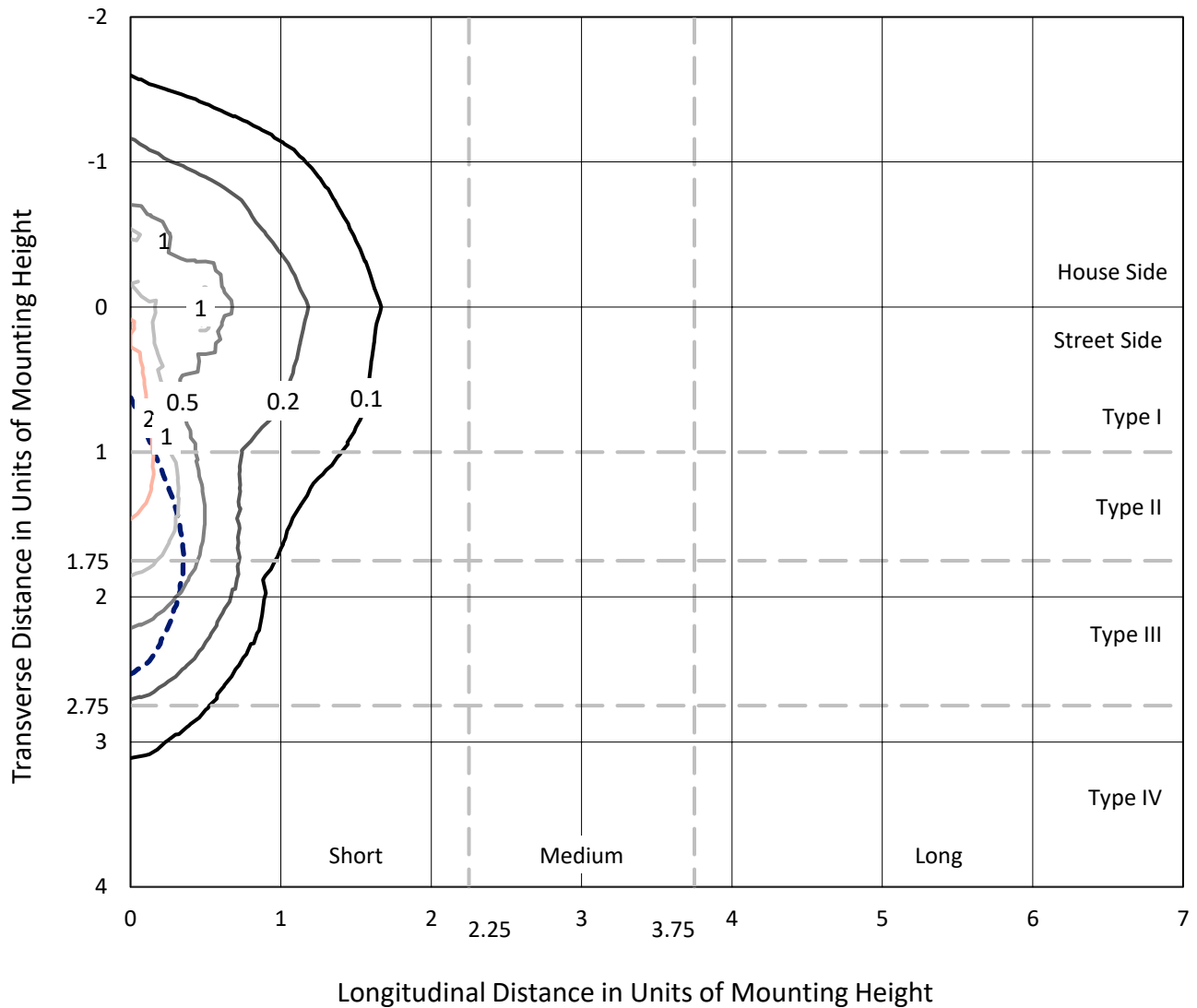
Input Watts (W): 41.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P596067  
 CATALOG NUMBER: MSA-SA2A-AMB-U-SLR

### Iso-Footcandle Lines of Horizontal Illumination

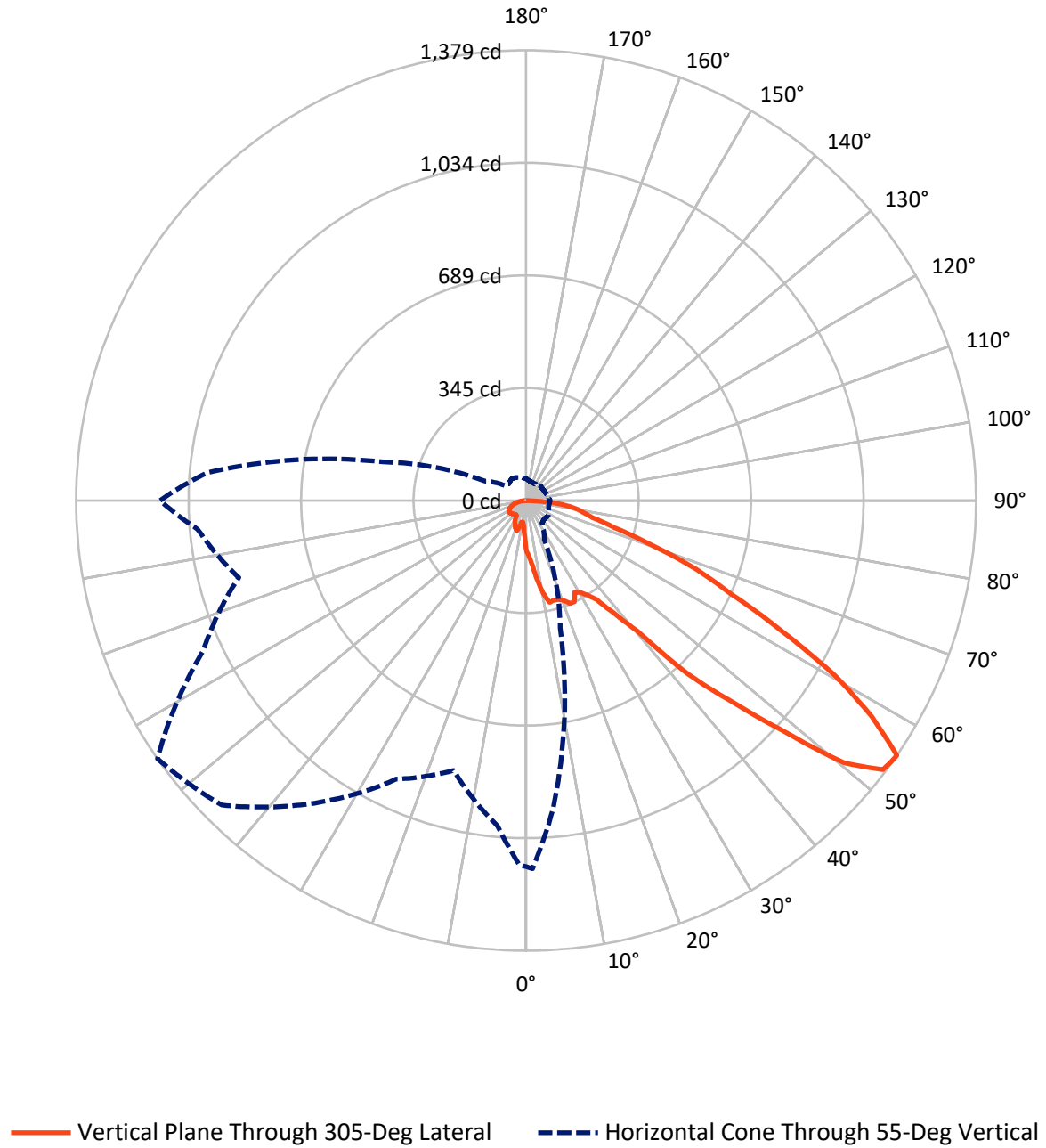
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.5 fc  
 Type II - Short - N/A

REPORT NUMBER: P596067  
CATALOG NUMBER: MSA-SA2A-AMB-U-SLR

### Luminous Intensity Polar Plot



REPORT NUMBER: P596067

CATALOG NUMBER: MSA-SA2A-AMB-U-SLR

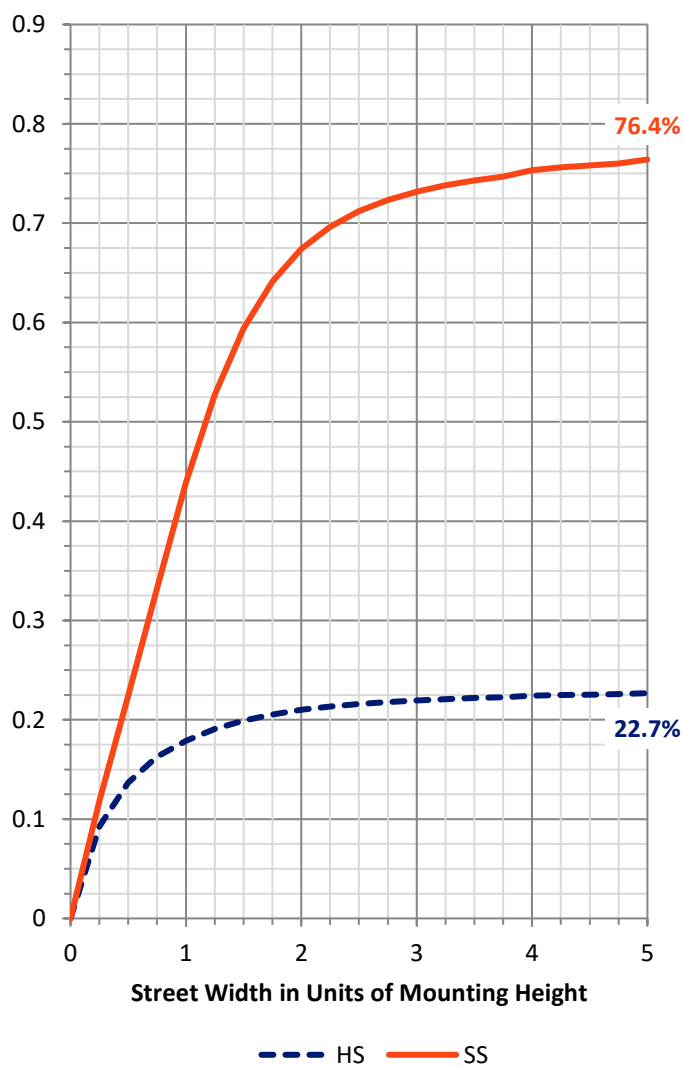
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	301.9	0.0	301.9
	% Fixture	22.9	0.0	22.9
<b>Street Side</b>	Lumens	1016.1	0.0	1016.1
	% Fixture	77.1	0.0	77.1
<b>Total</b>	Lumens	1318.0	0.0	1318.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	14.6	1.1
10°-20°	43.8	3.3
20°-30°	100.9	7.7
30°-40°	137.7	10.4
40°-50°	245.2	18.6
50°-60°	345.2	26.2
60°-70°	273.5	20.7
70°-80°	125.3	9.5
80°-90°	31.7	2.4
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°	1318.0	100.0
0°-180°	1318.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P596067

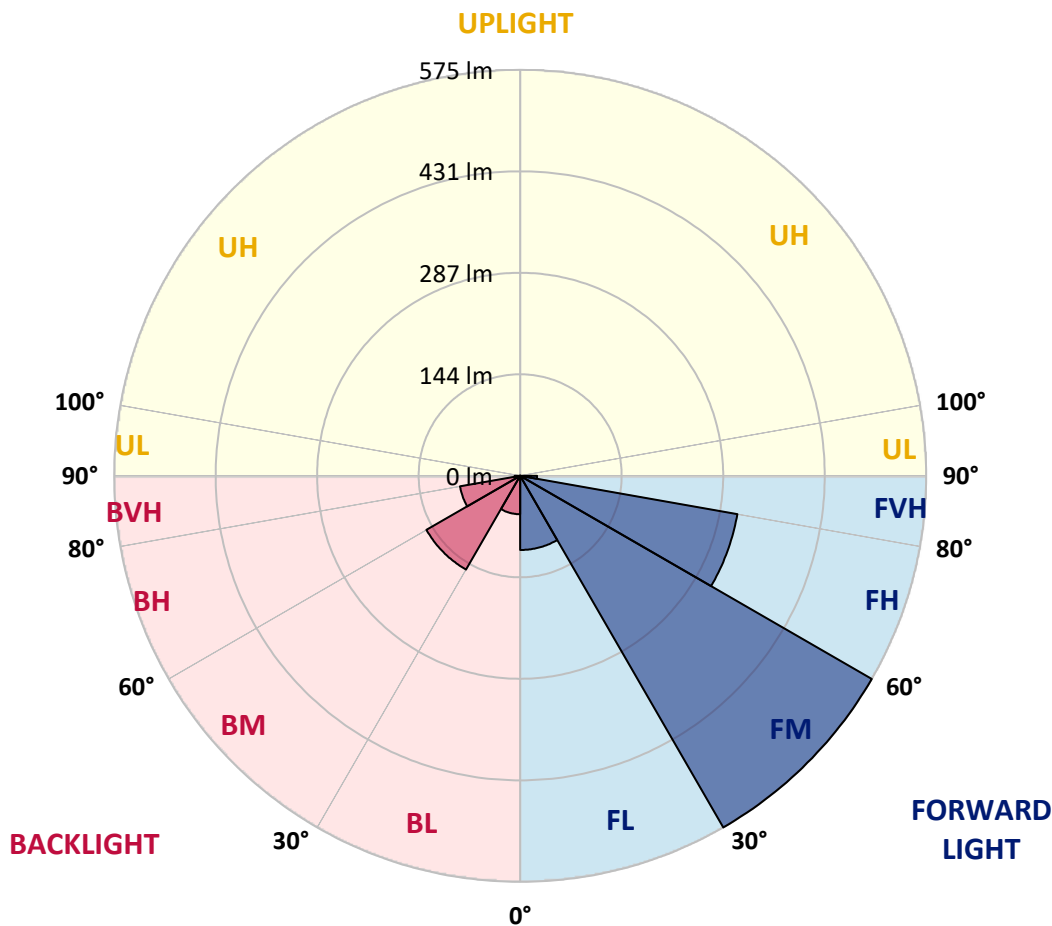
CATALOG NUMBER: MSA-SA2A-AMB-U-SLR

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	105.0	8.0			
FM (30°-60°)	574.8	43.6			
FH (60°-80°)	312.3	23.7			G0/660
FVH (80°-90°)	24.0	1.8			G1/100
BL (0°-30°)	54.4	4.1	B0/110		
BM (30°-60°)	153.3	11.6	B0/220		
BH (60°-80°)	86.5	6.6	B0/110		G0/110
BVH (80°-90°)	7.7	0.6			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**

Type II Short





REPORT NUMBER: P596067  
 CATALOG NUMBER: MSA-SA2A-AMB-U-SLR

**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
2.5°	191.7	195.3	175.2	195.3	165.8	160.5	162.2	160.5	144.5	150.4	130.4
5°	234.8	234.8	210.6	197.6	175.2	148.1	130.4	126.2	123.9	130.4	123.3
7.5°	224.7	227.7	200.0	180.5	147.5	123.3	110.3	103.8	107.4	113.8	113.3
10°	194.7	197.0	184.6	154.6	131.0	123.9	113.8	102.6	93.8	93.2	86.7
12.5°	188.2	188.2	174.0	152.8	133.9	121.5	109.7	96.2	84.9	78.5	73.7
15°	198.8	200.0	185.2	156.3	132.1	111.5	96.2	83.8	73.7	64.9	61.9
17.5°	233.6	236.0	215.3	163.4	122.1	101.5	87.3	74.3	61.9	57.2	58.4
20°	326.8	334.5	277.8	171.7	112.7	91.4	76.7	64.3	58.4	58.4	63.7
22.5°	434.8	447.1	359.2	188.2	113.8	87.9	74.9	66.7	64.3	66.7	79.6
25°	472.5	482.5	392.9	205.3	134.5	112.1	104.4	102.1	99.7	100.9	122.7
27.5°	472.5	483.1	397.6	191.7	131.5	114.4	114.4	133.3	155.7	164.6	192.3
30°	513.2	522.1	440.6	171.7	91.4	72.6	73.1	75.5	82.0	100.9	146.9
32.5°	572.2	584.0	467.8	180.5	84.9	65.5	60.2	56.6	57.2	60.8	75.5
35°	615.3	623.5	520.9	186.4	91.4	67.2	60.2	58.4	56.6	59.6	66.7
37.5°	699.6	712.0	552.7	198.2	100.3	69.0	61.9	59.6	58.4	61.9	67.8
40°	768.6	786.3	593.4	209.4	109.7	72.0	64.3	61.9	61.9	64.3	70.2
42.5°	855.3	868.9	669.5	234.2	117.4	74.9	67.2	66.1	65.5	67.2	70.8
45°	933.8	953.9	727.9	257.2	122.1	74.9	72.6	69.6	69.0	69.6	70.8
47.5°	1010.5	1022.3	799.9	296.1	125.6	77.3	74.3	72.6	71.4	70.8	71.4
50°	1058.3	1060.0	868.3	336.8	124.5	79.6	76.7	77.3	74.3	71.4	72.0
52.5°	1087.8	1089.5	922.0	371.6	128.6	82.6	79.0	80.8	74.9	70.8	71.4
55°	1120.8	1127.9	948.0	404.1	132.7	84.4	79.0	82.0	76.7	71.4	71.4
57.5°	1106.6	1114.9	936.7	415.3	136.3	87.9	79.0	83.2	77.9	72.0	70.8
60°	1022.3	1031.1	879.5	411.2	137.4	90.8	78.5	78.5	77.9	70.8	69.6
62.5°	891.9	911.4	752.7	373.4	129.2	89.1	76.1	76.1	74.3	67.8	66.7
65°	752.1	763.3	637.7	312.6	120.3	81.4	71.4	72.0	69.0	64.3	63.1
67.5°	614.7	624.7	514.4	250.7	112.1	75.5	65.5	67.8	64.9	60.8	59.0
70°	460.1	476.6	381.1	192.9	98.5	67.2	60.2	60.8	59.0	55.4	53.1
72.5°	332.1	343.3	267.2	151.6	87.3	58.4	51.9	53.7	51.9	49.6	47.2
75°	246.6	251.3	207.6	112.7	70.2	50.7	44.8	47.2	46.6	44.2	41.9
77.5°	197.6	206.5	165.8	77.3	57.2	43.7	38.3	40.1	38.9	36.6	32.4
80°	147.5	154.0	129.8	55.4	41.9	34.2	30.7	32.4	31.3	27.7	24.2
82.5°	98.5	96.2	95.0	37.8	28.9	24.8	21.8	23.0	23.6	20.6	15.9
85°	34.8	31.3	33.6	20.6	17.1	14.7	11.2	13.6	12.4	11.2	8.8
87.5°	5.3	4.1	3.5	4.7	5.3	3.5	3.5	4.1	4.1	3.5	2.9
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: P596067  
 CATALOG NUMBER: MSA-SA2A-AMB-U-SLR

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
2.5°	155.1	152.2	132.1	116.8	112.1	109.1	99.7	98.5	116.8	118.0	145.7
5°	137.4	129.2	124.5	109.7	84.4	75.5	78.5	95.6	112.7	120.9	137.4
7.5°	116.8	102.6	100.3	87.3	70.2	58.4	60.8	79.0	92.6	104.4	112.1
10°	85.5	77.9	74.3	66.7	66.7	63.7	61.9	69.0	79.6	87.3	90.8
12.5°	71.4	69.6	66.1	66.1	69.0	76.7	77.9	79.0	76.7	76.7	78.5
15°	60.2	62.5	64.3	72.0	85.5	93.8	96.2	87.9	81.4	71.4	69.0
17.5°	57.2	60.8	76.1	90.3	96.7	99.7	99.1	92.0	86.1	77.9	69.6
20°	68.4	70.2	82.6	89.1	93.2	86.7	83.2	90.3	89.1	84.9	77.3
22.5°	83.2	87.3	102.6	97.9	88.5	70.8	69.6	90.3	102.1	101.5	91.4
25°	122.7	127.4	119.2	108.5	80.2	58.4	59.6	92.0	113.3	130.4	120.9
27.5°	183.5	174.6	147.5	118.0	76.1	55.4	58.4	89.7	124.5	164.6	177.0
30°	159.9	161.0	128.6	98.5	67.2	53.7	54.9	78.5	117.4	175.2	194.7
32.5°	83.2	79.0	79.6	67.2	54.9	52.5	52.5	59.6	77.3	102.1	105.6
35°	67.8	67.2	61.3	56.6	53.7	51.9	52.5	54.9	60.8	69.0	70.2
37.5°	70.8	67.8	61.3	56.0	53.7	53.1	52.5	55.4	59.0	66.1	70.2
40°	72.0	68.4	61.9	56.6	54.3	54.3	54.3	55.4	58.4	66.1	70.8
42.5°	73.1	69.0	62.5	57.8	56.0	56.6	56.6	56.6	59.0	66.1	72.0
45°	73.7	69.0	63.7	59.6	57.8	59.6	58.4	58.4	59.6	65.5	72.0
47.5°	73.7	69.6	64.9	60.8	59.0	61.3	60.2	59.6	59.6	65.5	72.6
50°	74.3	70.2	65.5	61.9	60.8	61.9	60.8	59.0	60.2	65.5	72.0
52.5°	74.3	70.2	66.1	63.1	61.3	61.3	60.2	58.4	59.6	63.7	69.6
55°	74.3	69.6	66.1	63.1	61.9	61.9	59.0	57.2	59.0	62.5	68.4
57.5°	74.3	70.2	64.9	61.9	61.9	60.8	57.8	56.0	57.2	61.3	67.2
60°	72.6	67.8	63.1	60.2	60.8	59.6	56.0	53.7	54.9	59.6	65.5
62.5°	69.6	65.5	60.8	57.8	58.4	57.2	53.1	50.7	52.5	56.6	62.5
65°	65.5	61.9	57.8	54.3	54.9	53.1	50.1	47.8	49.6	53.7	58.4
67.5°	60.8	58.4	53.7	50.7	50.7	48.4	46.0	44.2	46.0	50.1	55.4
70°	55.4	53.1	49.0	46.6	46.6	43.7	41.3	40.7	42.5	46.0	50.1
72.5°	49.0	47.8	44.2	41.3	41.3	38.3	37.2	36.6	37.8	41.3	44.2
75°	43.1	42.5	40.1	37.2	36.6	33.6	32.4	32.4	33.6	37.2	38.9
77.5°	33.6	34.2	32.4	31.3	30.7	28.3	27.7	28.3	29.5	32.4	31.9
80°	24.2	26.0	26.0	24.8	24.8	22.4	23.0	23.0	23.6	24.2	24.2
82.5°	15.9	18.3	18.3	17.7	17.7	14.7	15.9	16.5	17.1	16.5	15.3
85°	8.3	9.4	11.2	10.0	10.0	7.1	9.4	10.0	10.0	8.8	7.1
87.5°	1.2	2.4	2.9	2.4	1.8	0.0	1.8	2.4	2.9	2.9	1.2
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: P596067  
 CATALOG NUMBER: MSA-SA2A-AMB-U-SLR

**CANDELA DISTRIBUTION (continued):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
2.5°	148.1	150.4	146.9	156.9	162.8	153.4	155.1	174.6	174.0	215.3	212.4
5°	135.7	146.9	139.8	134.5	134.5	143.3	166.9	202.9	208.8	251.3	248.3
7.5°	113.8	115.6	118.0	119.7	116.8	126.8	165.8	207.1	228.3	258.4	257.2
10°	96.2	98.5	104.4	112.7	123.3	128.6	143.9	187.0	214.7	239.5	246.0
12.5°	79.0	87.9	97.3	108.0	123.9	137.4	151.0	185.2	202.3	217.1	238.9
15°	69.0	73.1	78.5	92.0	112.1	127.4	150.4	184.0	226.5	246.6	263.1
17.5°	67.8	70.2	71.4	77.9	95.6	120.9	154.6	198.2	276.1	293.2	312.6
20°	71.4	69.0	69.6	76.1	86.7	112.7	148.7	241.3	351.6	373.4	394.0
22.5°	81.4	73.7	73.7	79.6	97.3	122.1	167.5	315.0	482.5	568.1	573.4
25°	111.5	89.1	96.7	118.6	136.9	156.3	189.9	330.3	549.8	628.8	665.4
27.5°	176.4	187.6	185.8	185.8	166.3	157.5	169.9	269.0	476.0	551.0	566.3
30°	207.6	194.7	170.5	134.5	112.7	112.7	121.5	254.2	496.7	546.2	553.3
32.5°	105.6	93.8	79.0	77.3	77.9	88.5	110.9	268.4	563.9	599.9	595.8
35°	70.8	66.7	66.1	67.8	72.6	85.5	115.0	275.5	618.8	660.7	637.7
37.5°	70.2	67.2	64.9	67.2	70.8	85.5	119.7	280.8	709.0	772.8	705.5
40°	71.4	69.0	66.7	67.2	69.6	83.8	128.6	293.8	785.7	856.5	784.6
42.5°	72.6	71.4	69.0	69.0	69.0	82.0	132.1	313.8	844.7	945.6	864.8
45°	72.6	73.7	72.6	70.8	70.2	79.6	135.7	332.7	885.4	1023.5	906.1
47.5°	73.1	76.1	75.5	74.3	71.4	77.3	135.1	371.0	929.7	1054.7	948.0
50°	73.1	76.7	77.3	77.3	72.0	77.9	131.5	405.8	965.7	1086.0	961.5
52.5°	70.8	74.9	77.3	79.0	73.1	77.9	135.1	428.9	972.1	1104.9	991.6
55°	68.4	73.1	77.3	79.6	73.1	79.6	141.0	456.0	979.8	1122.0	1009.9
57.5°	67.8	73.1	77.9	79.0	73.7	83.8	148.7	464.8	944.4	1106.6	1019.9
60°	66.7	72.6	77.9	76.1	73.1	87.9	149.8	454.2	851.2	1049.4	1001.6
62.5°	64.9	70.2	76.1	72.0	70.8	89.1	149.8	420.0	756.2	959.2	944.4
65°	60.8	66.1	69.6	67.8	67.2	85.5	143.9	346.9	634.1	838.8	831.7
67.5°	57.2	61.9	64.9	63.1	62.5	80.8	135.7	275.5	492.6	689.0	722.6
70°	51.3	56.6	59.6	59.0	57.2	73.7	125.1	214.7	358.7	527.4	595.8
72.5°	45.4	50.7	53.1	51.9	51.3	64.3	106.2	164.0	242.4	371.0	450.1
75°	39.5	44.8	47.2	44.8	43.1	51.3	82.6	114.4	187.0	257.8	312.1
77.5°	33.0	38.9	41.3	37.8	35.4	41.3	58.4	82.6	164.0	202.3	219.4
80°	25.4	30.1	33.6	30.1	27.7	31.3	41.9	54.9	128.6	162.8	166.3
82.5°	15.9	20.1	23.0	21.2	19.5	21.8	25.4	34.8	87.9	122.7	128.6
85°	9.4	11.8	12.4	11.8	8.8	13.0	14.7	19.5	45.4	59.0	81.4
87.5°	2.9	3.5	3.5	2.4	0.6	1.8	2.4	3.5	1.8	0.6	1.8
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: P596067  
 CATALOG NUMBER: MSA-SA2A-AMB-U-SLR

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
2.5°	197.0	176.4	169.3	171.1	172.8	158.7	162.2	173.4	198.8	191.7
5°	247.2	225.3	197.6	183.5	182.9	194.7	239.5	214.1	237.7	234.8
7.5°	277.8	269.0	244.2	230.6	227.1	253.1	251.9	226.5	231.8	224.7
10°	262.5	271.4	288.5	290.8	265.5	251.3	248.3	208.8	203.5	194.7
12.5°	284.9	296.1	320.3	335.1	305.6	270.8	241.9	210.0	196.4	188.2
15°	289.0	310.3	316.8	322.1	308.5	289.6	261.9	222.4	208.8	198.8
17.5°	323.9	325.0	319.1	313.8	316.2	305.6	313.2	282.6	248.3	233.6
20°	365.7	328.0	326.2	323.9	327.4	342.1	401.7	374.6	366.3	326.8
22.5°	455.4	384.0	342.1	338.0	360.4	427.1	521.5	502.6	460.7	434.8
25°	551.0	415.9	343.9	335.1	362.8	510.8	595.2	569.2	518.5	472.5
27.5°	480.2	395.8	318.0	289.6	327.4	453.0	488.4	526.2	517.9	472.5
30°	453.6	390.5	326.2	288.5	331.5	399.9	452.4	551.5	516.2	513.2
32.5°	491.4	402.9	345.1	309.7	323.3	411.7	493.1	596.4	599.9	572.2
35°	529.1	439.5	372.2	341.5	375.2	440.6	535.0	633.5	637.7	615.3
37.5°	594.6	490.2	436.5	418.8	446.0	507.3	575.1	713.2	733.2	699.6
40°	661.3	582.2	524.4	538.6	520.3	565.1	617.6	792.8	817.6	768.6
42.5°	739.7	686.0	726.2	667.2	632.4	653.0	671.3	862.4	901.4	855.3
45°	784.6	789.3	870.7	880.7	753.3	716.7	710.2	899.6	982.8	933.8
47.5°	821.7	916.7	1045.3	1050.0	906.1	814.1	759.2	940.9	1028.2	1010.5
50°	849.4	992.8	1263.0	1232.3	983.3	843.5	798.7	958.0	1055.3	1058.3
52.5°	886.0	1068.9	1369.7	1317.2	1076.0	890.1	827.0	978.6	1088.9	1087.8
55°	911.4	1091.9	1378.6	1319.0	1131.4	941.5	855.9	1000.5	1117.3	1120.8
57.5°	924.4	1032.3	1249.4	1191.6	1087.8	917.3	859.5	1001.0	1106.0	1106.6
60°	920.2	907.3	1086.6	1019.9	919.6	824.7	831.2	958.6	1038.2	1022.3
62.5°	870.7	758.0	875.4	833.5	730.3	703.7	801.7	883.7	944.4	891.9
65°	811.1	676.0	690.8	687.8	598.1	571.6	746.2	770.4	805.8	752.1
67.5°	732.1	580.5	562.8	517.9	476.0	479.0	639.4	649.5	661.9	614.7
70°	622.9	457.8	408.2	364.6	339.2	379.9	559.8	519.1	523.2	460.1
72.5°	503.8	346.3	283.1	250.1	238.9	294.9	456.0	387.0	386.4	332.1
75°	401.1	244.8	210.0	187.0	184.0	220.6	358.7	281.4	277.2	246.6
77.5°	280.2	179.9	181.1	169.3	158.1	174.6	261.9	206.5	213.5	197.6
80°	176.4	139.2	158.1	150.4	142.2	140.4	180.5	145.7	156.3	147.5
82.5°	136.3	104.4	122.1	120.9	115.6	112.1	126.8	95.6	99.1	98.5
85°	122.1	70.2	75.5	60.8	64.3	67.2	93.2	43.7	33.6	34.8
87.5°	10.0	7.7	6.5	3.5	8.3	10.0	12.4	2.9	3.5	5.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)