

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: P596065

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

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596065
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-23)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-AMB-U-SLL
Description: POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH
AND SPILL LIGHT ELIMINATOR LEFT OPTICS.
Light Source: (32) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1334 lumens
Efficiency: N/A
Efficacy: 32.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G1

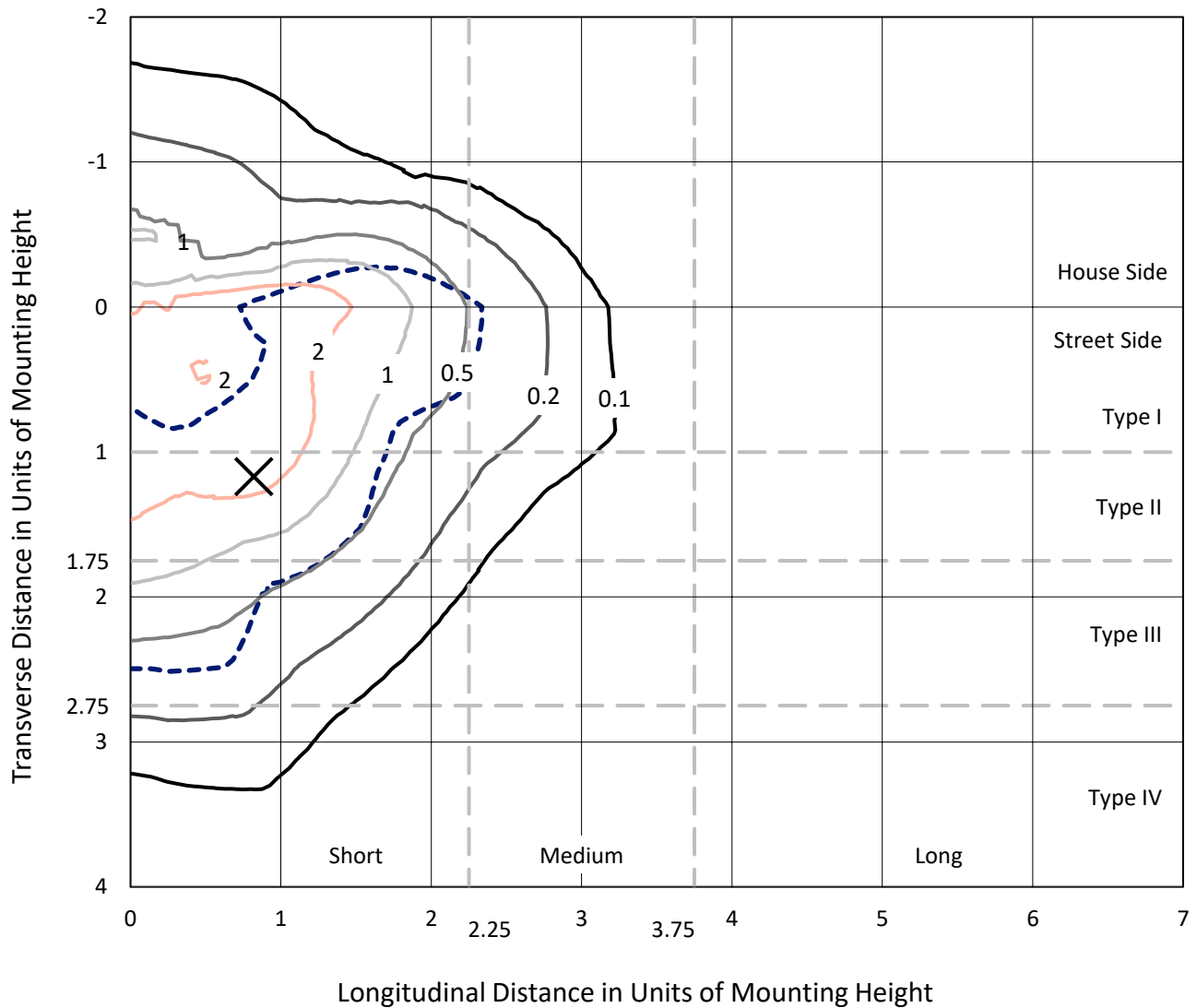
Input Watts (W): 41.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596065
 CATALOG NUMBER: MSA-SA2A-AMB-U-SLL

Iso-Footcandle Lines of Horizontal Illumination

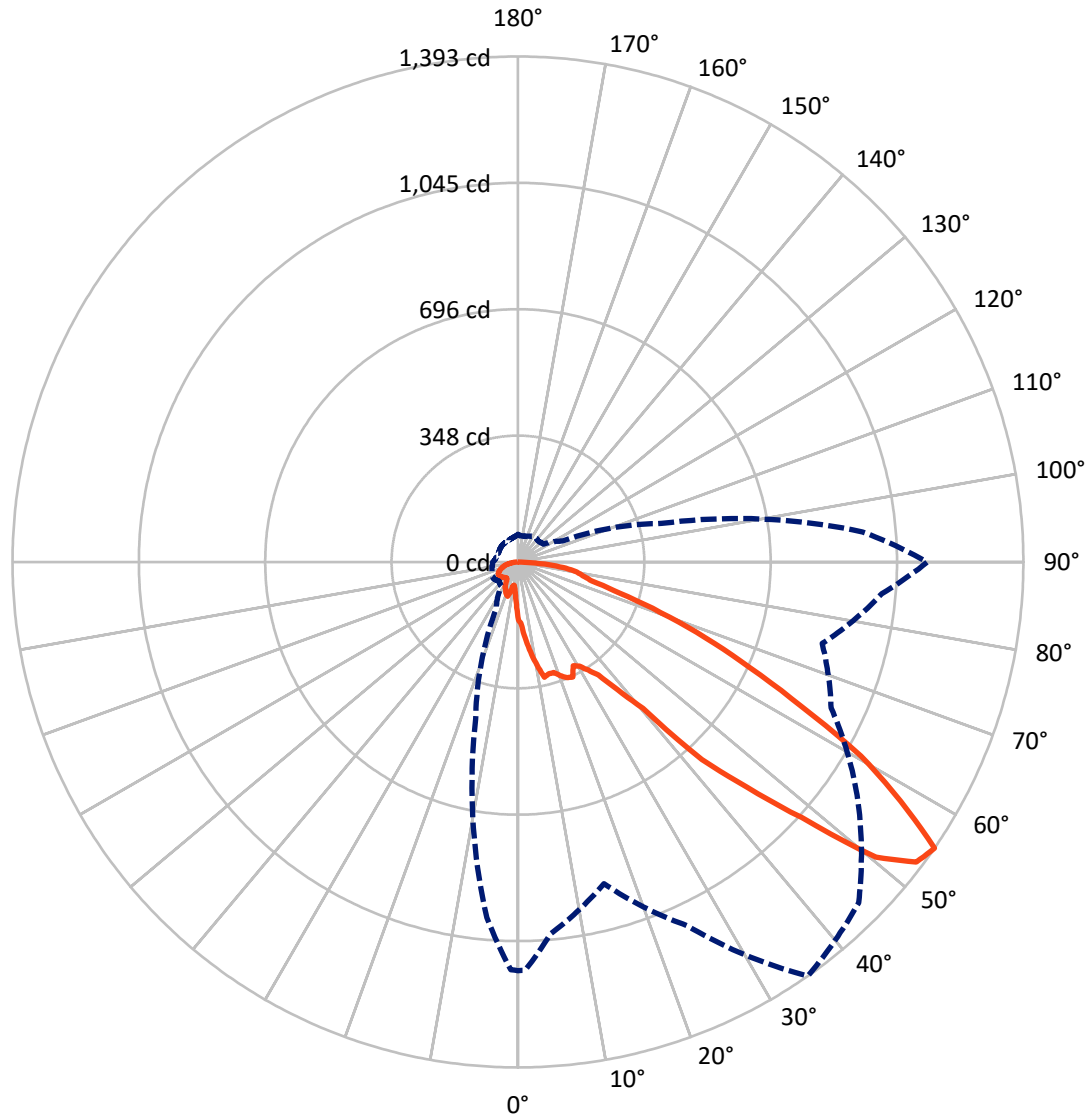
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.2 fc
 Type III - Short - N/A

REPORT NUMBER: P596065
CATALOG NUMBER: MSA-SA2A-AMB-U-SLL

Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

REPORT NUMBER: P596065
 CATALOG NUMBER: MSA-SA2A-AMB-U-SLL

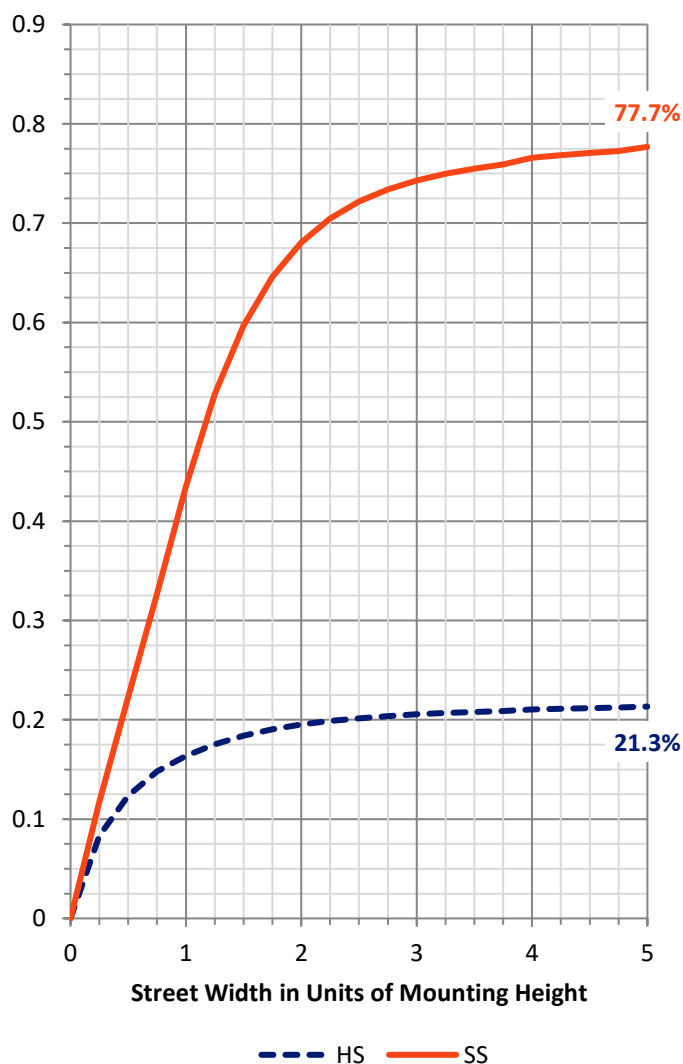
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	287.9	0.0	287.9
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	1046.1	0.0	1046.1
	% Fixture	78.4	0.0	78.4
Total	Lumens	1334.0	0.0	1334.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	14.8	1.1
10°-20°	44.5	3.3
20°-30°	102.5	7.7
30°-40°	139.3	10.4
40°-50°	247.9	18.6
50°-60°	348.1	26.1
60°-70°	275.8	20.7
70°-80°	127.6	9.6
80°-90°	33.5	2.5
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°	1334.0	100.0
0°-180°	1334.0	100.0

Coefficient of Utilization



REPORT NUMBER: P596065

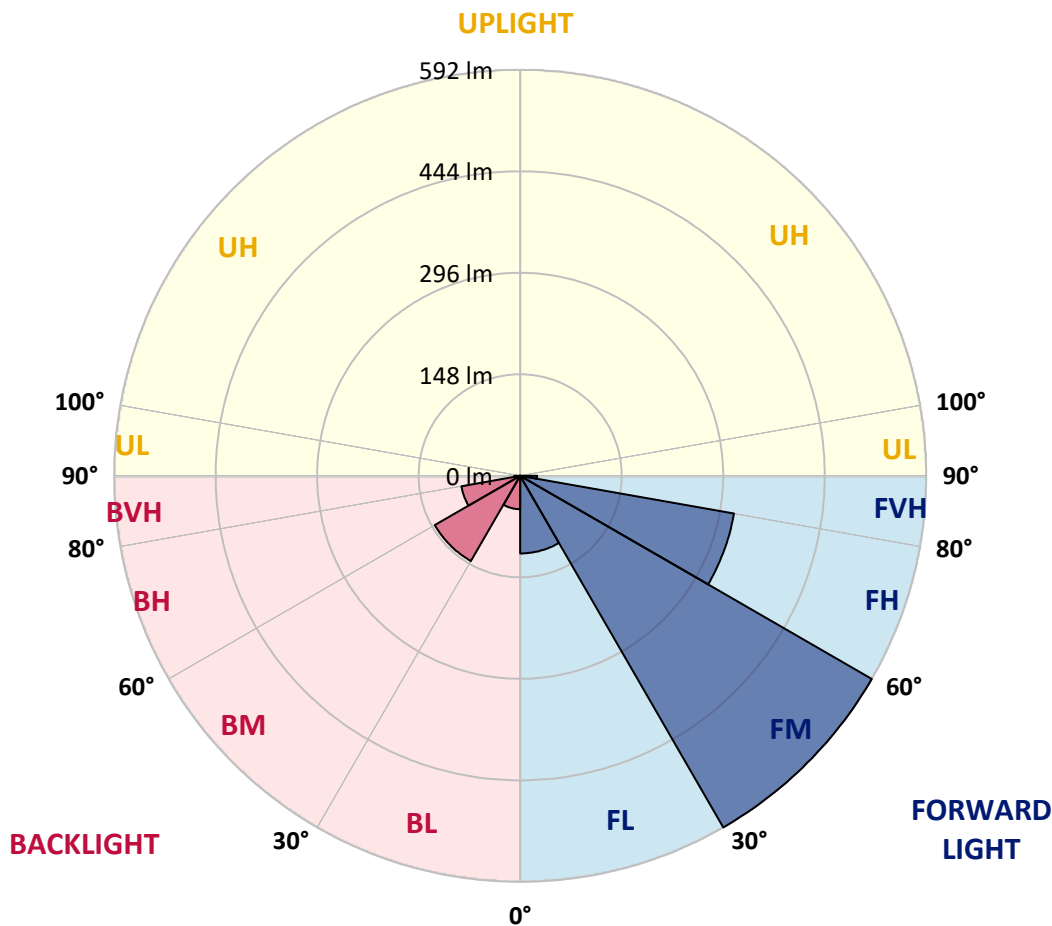
CATALOG NUMBER: MSA-SA2A-AMB-U-SLL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	113.1	8.5			
FM (30°-60°)	591.7	44.4			
FH (60°-80°)	316.5	23.7			G0/660
FVH (80°-90°)	24.8	1.9			G1/100
BL (0°-30°)	48.7	3.6	B0/110		
BM (30°-60°)	143.6	10.8	B0/220		
BH (60°-80°)	86.9	6.5	B0/110		G0/110
BVH (80°-90°)	8.7	0.7			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 III Short





REPORT NUMBER: P596065
 CATALOG NUMBER: MSA-SA2A-AMB-U-SLL

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	159.9	159.9	159.9	159.9	159.9	159.9	159.9	159.9	159.9	159.9	159.9
2.5°	222.4	222.4	215.3	196.4	179.9	170.5	176.4	172.8	155.1	165.8	174.0
5°	264.3	256.6	254.8	252.5	228.9	210.6	186.4	181.7	195.2	238.9	214.7
7.5°	262.5	259.5	256.0	283.1	273.7	250.7	231.8	235.4	256.0	253.1	229.5
10°	244.8	240.7	245.4	265.4	276.1	289.0	299.1	271.9	258.4	252.5	212.4
12.5°	223.0	220.0	234.8	284.9	307.9	325.6	329.2	310.3	274.9	242.4	211.8
15°	254.8	250.1	267.2	293.8	315.0	319.7	325.6	313.8	291.4	266.0	224.7
17.5°	307.3	303.2	317.4	329.2	329.2	320.3	317.4	319.7	307.9	312.6	288.5
20°	401.1	379.3	405.8	370.4	334.5	334.5	329.7	334.5	346.8	407.6	381.7
22.5°	576.9	576.3	578.7	464.2	389.9	346.3	342.7	361.6	430.6	527.4	521.5
25°	647.1	637.7	668.9	563.9	421.8	351.0	338.0	365.7	517.9	602.9	576.3
27.5°	558.0	555.1	566.3	489.0	404.1	323.8	293.2	327.4	453.6	492.5	529.7
30°	555.7	550.9	566.9	458.3	394.6	332.7	292.6	335.1	404.7	459.5	556.3
32.5°	623.5	615.2	602.3	499.0	405.2	355.1	316.2	328.0	414.7	503.2	597.5
35°	670.1	665.4	648.3	536.2	446.5	382.8	345.7	371.0	445.4	537.4	640.0
37.5°	770.4	772.7	724.4	592.2	492.5	446.5	425.3	447.1	506.7	579.3	719.1
40°	852.4	859.5	788.1	663.6	585.7	530.3	542.1	540.3	569.2	625.3	805.2
42.5°	943.8	941.4	882.5	745.6	694.9	743.8	689.6	637.7	662.4	674.8	869.5
45°	1024.6	1031.7	919.6	793.4	805.2	886.0	865.4	769.2	732.6	725.5	899.0
47.5°	1061.8	1060.6	958.0	828.8	917.8	1052.3	1068.3	913.7	817.0	769.2	933.2
50°	1083.0	1082.4	981.6	857.7	1006.3	1278.3	1232.8	993.9	852.4	807.0	956.2
52.5°	1107.2	1103.1	1001.6	892.5	1081.8	1373.8	1338.4	1101.3	904.9	831.7	980.4
55°	1126.1	1125.5	1028.7	917.3	1106.0	1392.7	1327.8	1143.2	952.1	867.7	1006.3
57.5°	1119.0	1112.5	1030.5	929.6	1024.6	1243.5	1213.4	1086.6	933.2	863.6	999.3
60°	1074.8	1067.7	1019.3	925.5	903.1	1086.0	1015.8	907.2	827.0	839.4	958.6
62.5°	988.0	979.8	952.7	872.4	755.0	876.6	837.0	739.1	696.1	805.2	884.8
65°	869.5	848.8	844.7	809.3	680.1	702.0	697.8	599.9	573.4	745.0	778.6
67.5°	729.1	722.0	733.2	737.9	585.7	556.3	530.3	482.5	479.0	643.6	652.4
70°	569.2	557.4	602.3	631.2	459.5	417.0	372.8	340.9	383.4	564.5	531.5
72.5°	391.1	392.3	441.2	520.9	352.2	292.6	253.1	240.1	293.2	453.0	379.9
75°	267.2	260.7	314.4	404.1	248.3	210.0	190.5	185.2	228.3	363.4	276.1
77.5°	210.0	204.7	225.3	270.2	187.6	182.9	172.8	162.2	178.1	274.9	216.5
80°	169.3	170.5	171.7	180.5	145.1	162.2	152.8	142.8	143.9	182.3	143.9
82.5°	122.1	119.7	132.7	139.2	105.6	125.6	123.9	119.7	112.7	129.2	96.2
85°	57.2	56.0	82.6	125.6	73.7	74.3	70.2	63.7	71.4	93.8	43.1
87.5°	2.4	1.8	2.9	20.1	10.6	8.8	5.9	11.8	11.2	12.4	5.9
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: P596065
 CATALOG NUMBER: MSA-SA2A-AMB-U-SLL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	159.9	159.9	159.9	159.9	159.9	159.9	159.9	159.9	159.9	159.9	159.9
2.5°	200.6	176.4	197.0	172.8	159.9	165.2	165.2	150.4	149.2	133.9	159.3
5°	239.5	214.7	198.8	174.0	151.6	132.7	128.6	127.4	133.9	126.2	139.2
7.5°	234.8	204.1	184.6	149.2	126.8	113.3	105.6	108.5	115.6	113.3	116.2
10°	200.6	183.5	156.3	133.3	127.4	115.0	103.2	95.0	94.4	88.5	87.9
12.5°	195.8	177.6	156.9	137.4	122.7	110.9	96.7	86.1	79.6	73.7	72.6
15°	207.0	187.0	158.7	134.5	113.8	98.5	86.1	74.9	66.1	62.5	62.5
17.5°	246.0	219.4	165.2	125.1	101.5	89.1	74.3	63.7	58.4	60.2	59.0
20°	362.8	277.8	175.2	115.0	93.2	78.5	65.5	60.2	59.6	64.9	69.0
22.5°	467.2	358.6	185.2	117.4	90.8	78.5	68.4	67.8	69.0	80.8	84.9
25°	509.7	401.1	210.0	136.9	115.0	106.8	109.1	102.0	102.6	122.1	128.6
27.5°	512.6	397.6	197.0	133.3	115.0	115.6	135.7	157.5	167.5	197.6	187.6
30°	521.5	446.5	175.2	93.8	73.7	72.0	76.1	85.5	98.5	149.2	155.1
32.5°	600.5	473.1	185.8	86.7	66.7	61.9	58.4	58.4	63.1	78.5	81.4
35°	640.0	523.2	191.1	93.8	68.4	61.3	59.6	58.4	60.8	67.8	69.6
37.5°	734.4	558.6	200.6	103.2	71.4	63.7	60.8	60.2	63.7	69.6	72.0
40°	817.0	596.4	215.3	112.7	73.7	66.1	63.7	63.7	66.1	72.0	73.1
42.5°	904.9	677.8	238.3	120.3	76.1	68.4	67.2	67.2	69.0	72.6	74.9
45°	979.8	737.9	265.4	124.5	76.7	74.3	70.8	70.8	70.8	72.6	75.5
47.5°	1041.7	808.7	304.4	126.8	79.0	76.7	74.9	73.1	72.6	73.1	75.5
50°	1068.9	880.1	346.3	127.4	81.4	78.5	79.0	75.5	73.1	73.7	76.7
52.5°	1104.3	929.1	379.3	132.7	83.8	80.8	82.0	76.7	72.6	72.6	76.1
55°	1127.8	952.7	410.0	136.3	86.1	80.2	83.8	78.5	73.1	72.6	76.1
57.5°	1117.2	945.6	427.1	139.8	90.3	80.8	84.9	79.0	73.7	72.6	76.1
60°	1040.0	876.0	420.0	141.0	92.6	79.6	80.8	79.6	72.6	71.4	74.3
62.5°	933.8	763.3	381.1	132.1	90.8	77.3	77.3	76.1	69.6	69.0	71.4
65°	791.0	639.4	316.8	123.3	84.4	73.1	73.7	70.2	66.1	64.3	67.2
67.5°	648.3	513.2	254.8	115.0	77.9	67.2	69.0	66.7	61.9	60.2	62.5
70°	513.8	400.5	197.0	100.9	69.6	61.3	63.1	60.8	56.6	54.9	57.2
72.5°	365.7	276.7	159.3	89.1	60.8	53.1	56.0	54.3	51.3	48.4	50.1
75°	272.5	205.9	115.0	73.1	52.5	46.0	49.0	48.4	45.4	43.1	44.8
77.5°	212.9	167.5	80.2	58.4	44.8	39.5	41.3	40.7	37.8	34.2	35.4
80°	156.3	132.7	56.6	43.7	36.0	32.4	33.6	32.4	29.5	25.4	26.0
82.5°	105.6	97.9	38.3	30.1	26.0	24.2	24.8	24.8	21.8	17.7	17.1
85°	33.0	37.8	23.6	18.9	15.9	13.0	14.2	15.3	13.6	10.6	10.0
87.5°	5.3	6.5	6.5	6.5	5.3	4.7	5.9	5.9	5.3	4.1	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: P596065
 CATALOG NUMBER: MSA-SA2A-AMB-U-SLL

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	159.9	159.9	159.9	159.9	159.9	159.9	159.9	159.9	159.9	159.9	159.9
2.5°	146.9	135.7	118.0	117.4	104.4	101.5	100.3	118.6	118.0	148.6	144.5
5°	133.9	124.5	110.9	86.7	74.3	80.2	95.0	115.6	123.3	140.4	140.4
7.5°	109.7	98.5	87.3	71.4	61.3	62.5	81.4	95.6	104.4	114.4	115.0
10°	82.0	76.7	69.0	64.9	65.5	63.1	70.8	80.8	88.5	92.0	94.4
12.5°	70.8	67.2	66.7	69.0	77.9	79.6	80.8	78.5	77.9	80.2	80.2
15°	63.7	66.1	74.9	87.3	95.0	97.3	89.7	82.6	73.7	69.6	70.8
17.5°	61.9	77.9	92.0	98.5	103.2	101.5	93.2	88.5	79.0	70.8	69.6
20°	69.6	83.8	91.4	95.0	89.1	84.9	92.0	91.4	86.7	80.2	73.1
22.5°	88.5	103.2	100.9	89.7	71.4	70.8	93.2	104.4	105.0	93.2	82.6
25°	130.4	122.7	110.9	82.0	59.6	61.3	93.8	116.2	134.5	120.9	112.1
27.5°	181.1	150.4	120.9	77.9	56.6	59.0	91.4	127.4	171.1	187.0	183.5
30°	159.3	130.4	100.9	67.2	54.9	55.4	80.2	121.5	175.2	201.1	202.3
32.5°	81.4	79.6	69.0	56.6	53.7	53.7	61.3	79.6	109.1	105.6	107.4
35°	69.0	63.1	58.4	54.9	53.1	53.7	56.0	61.9	70.2	71.4	72.6
37.5°	69.0	63.1	57.8	54.9	54.3	54.3	56.6	60.2	67.8	71.4	72.0
40°	70.2	63.1	58.4	56.0	56.0	55.4	57.2	60.2	67.8	72.6	73.1
42.5°	70.2	64.3	59.6	57.2	57.8	57.8	57.8	60.8	67.8	73.1	73.7
45°	70.2	64.9	61.3	59.0	61.3	60.2	59.6	60.8	67.2	73.1	74.3
47.5°	70.8	66.1	62.5	60.8	62.5	61.3	61.3	60.8	66.7	73.7	74.9
50°	72.0	67.2	63.1	62.5	63.7	62.5	60.8	61.3	66.7	73.1	74.3
52.5°	72.0	67.8	64.3	63.1	63.1	61.9	60.2	60.8	64.9	71.4	72.6
55°	71.4	67.2	64.3	63.7	63.1	60.8	59.0	60.2	63.7	69.6	70.2
57.5°	72.0	66.7	63.7	63.7	63.1	59.6	57.8	58.4	63.1	68.4	69.0
60°	70.2	64.9	61.9	62.5	60.8	57.8	54.9	56.0	60.8	67.2	68.4
62.5°	67.2	62.5	59.6	60.2	59.0	55.4	51.9	53.7	58.4	64.3	66.1
65°	63.7	59.6	56.0	56.0	54.9	51.3	49.0	51.3	55.4	60.8	62.5
67.5°	59.6	55.4	52.5	52.5	50.1	47.8	46.0	47.8	51.3	56.0	58.4
70°	54.3	50.7	47.8	47.2	44.8	43.1	42.5	43.7	47.8	51.3	52.5
72.5°	49.0	46.6	43.1	42.5	40.1	38.3	37.8	38.9	43.1	46.0	47.2
75°	43.7	41.3	38.9	37.8	35.4	34.2	33.6	35.4	38.9	40.7	41.3
77.5°	35.4	34.2	32.4	31.9	30.1	29.5	29.5	30.7	33.0	33.6	34.8
80°	27.7	27.1	26.5	26.0	23.6	24.2	24.2	24.8	26.0	25.4	26.5
82.5°	20.1	20.1	18.9	18.9	16.5	17.7	18.3	18.3	17.7	16.5	17.7
85°	11.2	12.4	11.8	11.8	9.4	11.8	11.2	11.2	10.6	8.8	11.2
87.5°	4.1	4.1	4.1	3.5	1.2	3.5	4.7	4.7	4.7	2.9	5.3
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: P596065
 CATALOG NUMBER: MSA-SA2A-AMB-U-SLL

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	159.9	159.9	159.9	159.9	159.9	159.9	159.9	159.9	159.9	159.9
2.5°	151.6	149.2	153.4	164.6	156.9	155.7	176.4	174.0	209.4	222.4
5°	149.8	141.6	136.9	138.0	145.7	173.4	208.8	208.2	248.3	264.3
7.5°	116.8	119.7	118.6	119.2	128.0	168.1	207.6	230.1	253.1	262.5
10°	102.0	106.2	113.8	123.9	131.0	147.5	187.6	215.9	234.8	244.8
12.5°	87.9	99.1	109.1	124.5	139.8	151.6	185.2	205.9	218.8	223.0
15°	74.3	80.2	93.2	112.7	129.8	151.0	188.2	230.1	246.0	254.8
17.5°	71.4	72.6	79.0	97.3	123.3	155.1	199.4	277.2	292.6	307.3
20°	70.8	70.8	77.3	87.9	113.8	150.4	248.9	356.9	366.3	401.1
22.5°	74.9	74.9	81.4	99.1	123.9	168.7	310.9	499.0	566.9	576.9
25°	93.8	104.4	120.3	142.2	158.7	195.2	328.6	546.2	617.6	647.1
27.5°	183.5	191.1	191.1	168.7	162.2	172.8	273.7	479.0	540.9	558.0
30°	189.9	170.5	142.8	119.2	118.0	125.1	252.5	503.8	540.9	555.7
32.5°	88.5	77.9	76.7	79.0	90.8	112.7	265.4	563.9	594.6	623.5
35°	68.4	67.2	69.0	74.3	86.7	116.2	272.5	624.7	656.5	670.1
37.5°	68.4	66.7	68.4	72.0	86.7	120.9	279.6	712.6	776.3	770.4
40°	70.8	68.4	68.4	70.8	84.9	130.4	292.0	778.0	855.9	852.4
42.5°	72.6	70.8	70.2	70.2	83.2	133.3	310.3	848.8	942.0	943.8
45°	75.5	73.7	72.0	71.4	80.8	136.9	329.2	882.5	1021.7	1024.6
47.5°	77.9	77.3	74.9	73.1	78.5	137.4	368.1	926.1	1056.5	1061.8
50°	78.5	78.5	79.0	73.7	79.0	132.7	398.8	959.7	1083.0	1083.0
52.5°	76.1	78.5	80.2	74.3	79.0	136.3	423.5	975.1	1107.8	1107.2
55°	74.3	78.5	81.4	74.3	80.8	141.6	448.9	983.3	1123.7	1126.1
57.5°	74.3	79.6	80.2	74.9	84.9	149.2	458.9	936.7	1101.3	1119.0
60°	73.7	79.6	77.3	74.3	89.1	152.2	447.7	863.6	1032.9	1074.8
62.5°	71.4	77.3	73.7	72.6	89.7	152.2	411.1	756.2	930.8	988.0
65°	67.2	72.0	69.6	69.0	87.3	145.1	345.1	627.6	817.0	869.5
67.5°	63.1	66.1	65.5	64.3	82.0	138.6	271.3	488.4	664.8	729.1
70°	58.4	61.3	60.8	59.0	75.5	126.8	211.8	368.1	500.2	569.2
72.5°	51.3	55.4	54.3	52.5	66.1	105.6	163.4	247.2	344.5	391.1
75°	46.0	48.4	46.6	44.8	53.7	80.8	115.6	188.8	240.1	267.2
77.5°	40.1	42.5	39.5	37.8	43.1	62.5	83.2	166.3	196.4	210.0
80°	31.9	35.4	31.9	29.5	32.4	41.3	56.0	130.4	162.8	169.3
82.5°	22.4	24.8	22.4	20.6	23.6	28.3	36.0	93.2	116.2	122.1
85°	13.6	14.2	12.4	11.2	14.2	16.5	21.2	47.2	55.4	57.2
87.5°	4.7	5.3	4.7	1.8	3.5	4.1	4.7	2.9	2.9	2.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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