

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: P597058

Luminaire Tested: **MSA-SA3C-835-U-SLL**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597058
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-24)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-835-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: 12857 lumens
Efficiency: N/A
Efficacy: 77.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

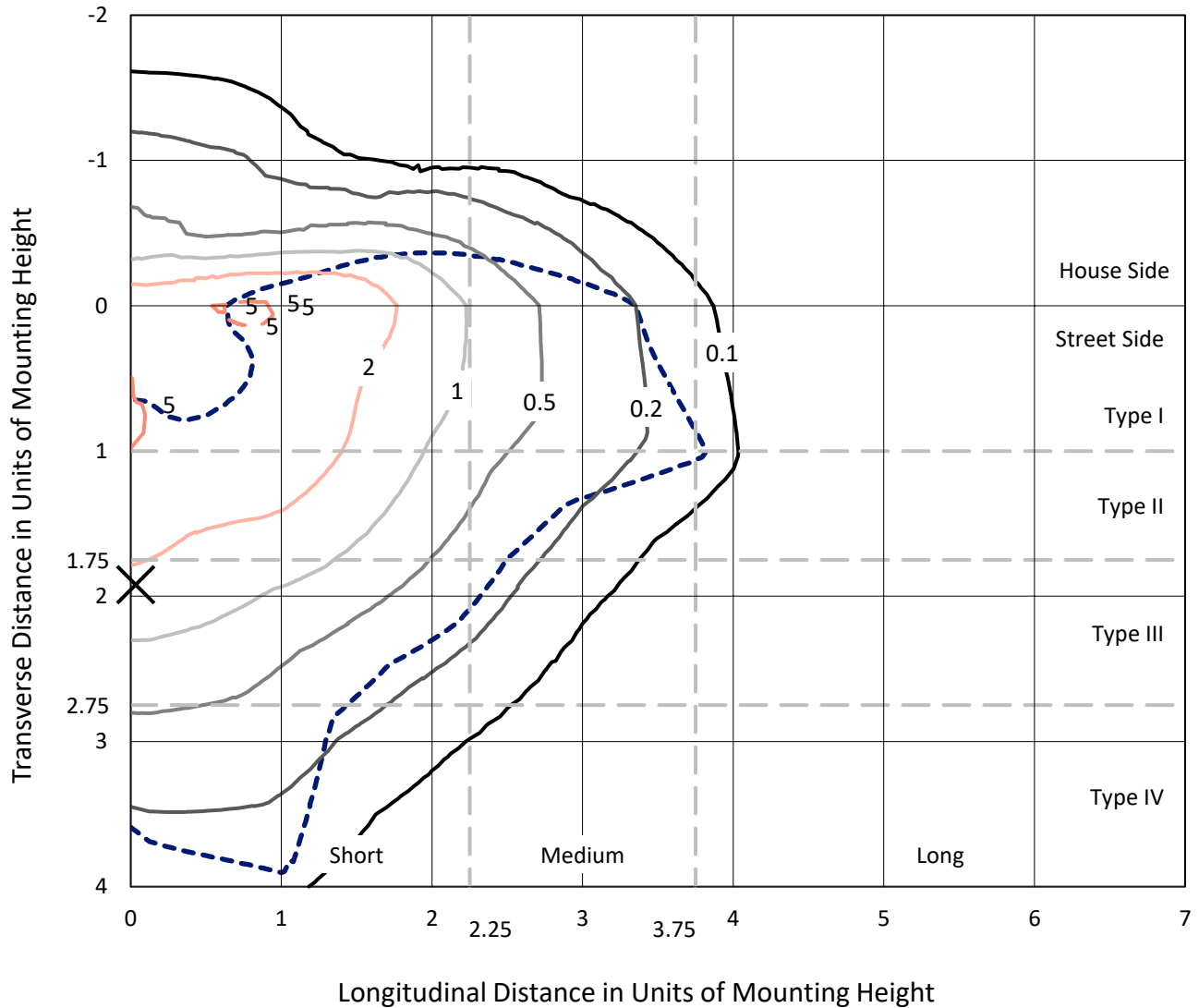
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

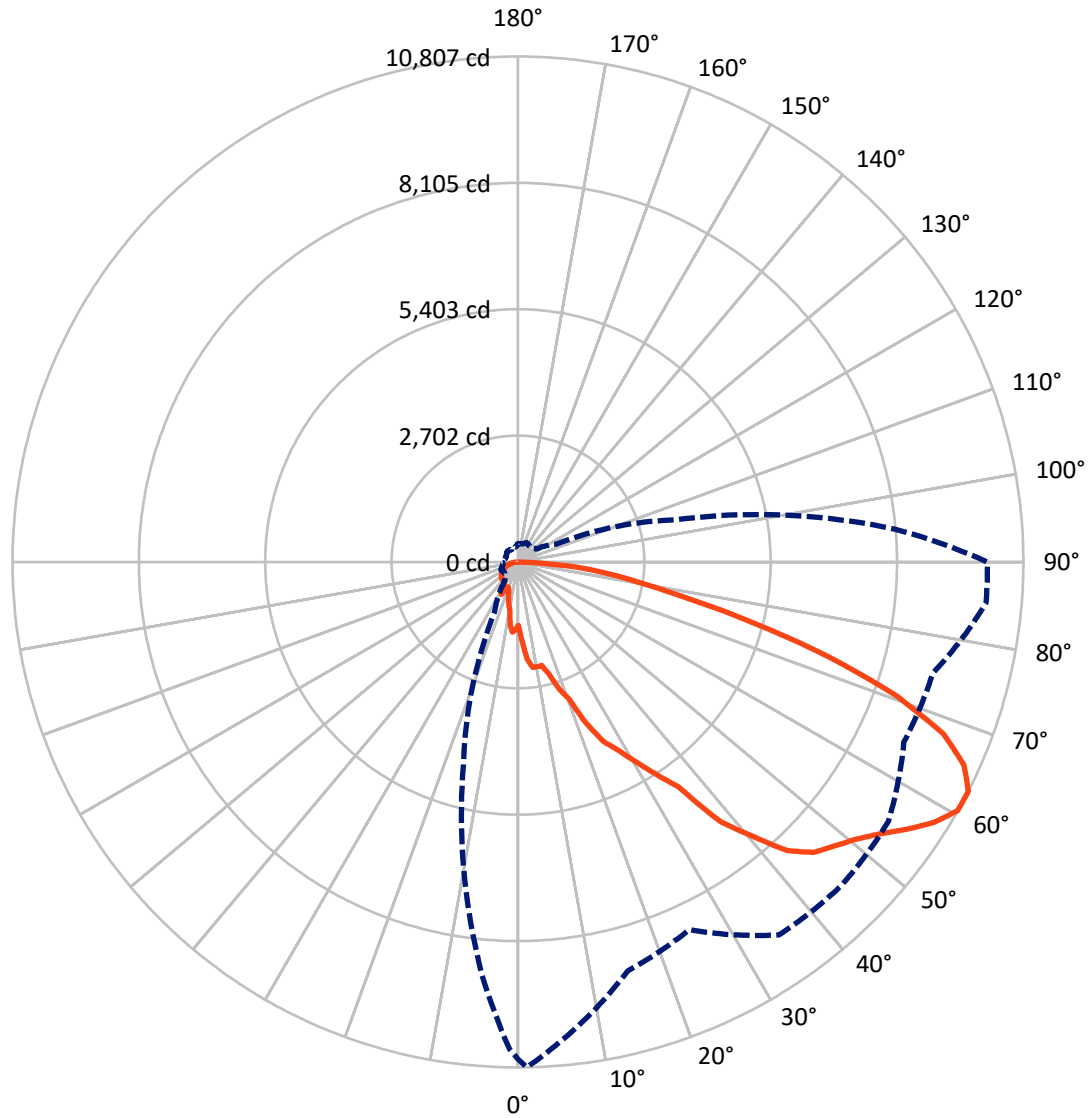
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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

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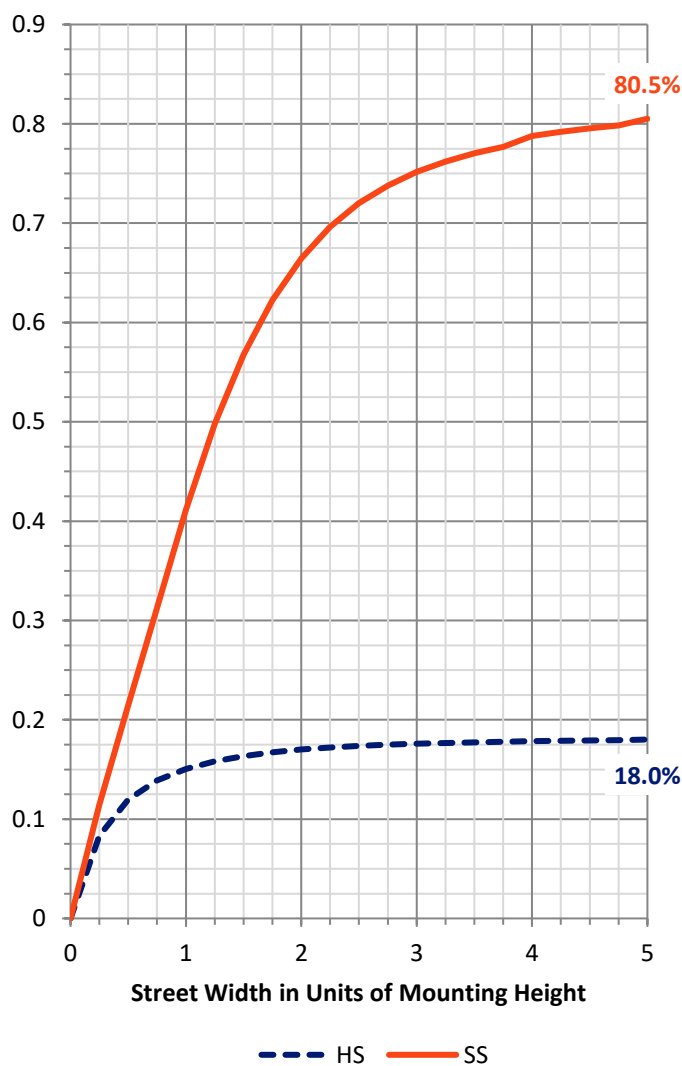
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2341.2	0.0	2341.2
	% Fixture	18.2	0.0	18.2
Street Side	Lumens	10515.8	0.0	10515.8
	% Fixture	81.8	0.0	81.8
Total	Lumens	12857.0	0.0	12857.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.4	1.2
10°-20°	451.6	3.5
20°-30°	797.4	6.2
30°-40°	1242.0	9.7
40°-50°	2045.0	15.9
50°-60°	2918.8	22.7
60°-70°	3095.1	24.1
70°-80°	1709.6	13.3
80°-90°	442.2	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°	12857.0	100.0
0°-180°	12857.0	100.0

Coefficient of Utilization



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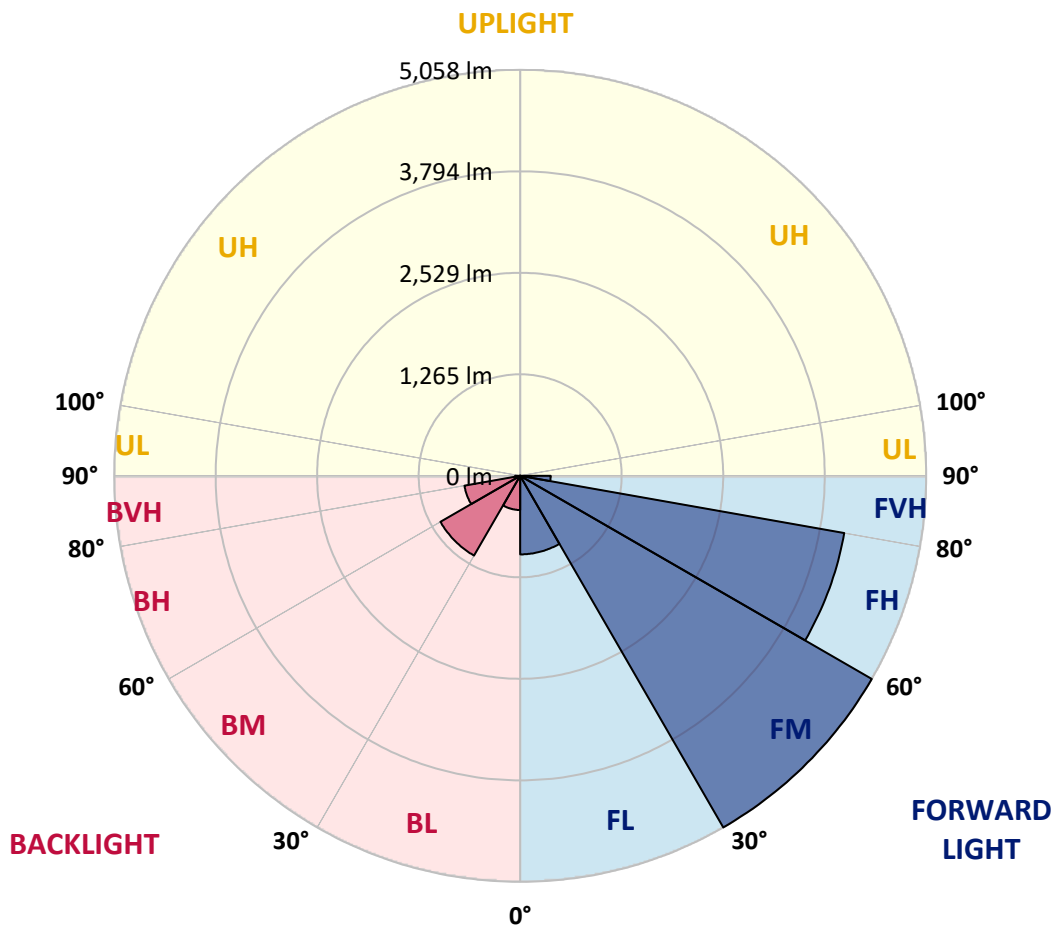
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	978.6	7.6			
FM (30°-60°)	5058.1	39.3			
FH (60°-80°)	4099.3	31.9			G2/5000
FVH (80°-90°)	379.8	3.0			G3/500
BL (0°-30°)	425.8	3.3	B1/500		
BM (30°-60°)	1147.7	8.9	B2/2500		
BH (60°-80°)	705.3	5.5	B2/1000		G2/1000
BVH (80°-90°)	62.4	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





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8
2.5°	1667.1	1681.4	1652.1	1619.0	1482.4	1614.1	1574.8	1647.7	1624.0	1465.6	1755.7
5°	2060.2	2086.4	2057.7	2156.9	2163.1	2188.7	1952.2	2099.5	2048.3	2035.2	2181.8
7.5°	2249.8	2276.6	2349.6	2526.2	2664.1	2539.3	2401.4	2370.9	2330.9	2226.7	2315.3
10°	2261.7	2276.6	2374.6	2749.0	2815.7	2904.3	2815.1	2604.8	2518.1	2291.6	2224.2
12.5°	2226.1	2272.9	2399.6	2855.6	3054.0	3150.7	3172.6	2938.6	2725.9	2467.6	2433.3
15°	2465.1	2481.9	2663.5	2931.8	3068.4	3150.1	3221.3	3077.1	3010.4	2805.7	2530.6
17.5°	2807.6	2854.4	3002.9	3102.1	3194.4	3210.0	3151.4	3095.2	2989.2	3262.4	2969.8
20°	3039.7	3130.2	3312.3	3331.1	3137.0	3171.3	3163.2	3167.0	3106.5	3611.8	3450.8
22.5°	3653.6	3751.6	3776.5	3668.0	3302.4	3145.8	3177.0	3267.4	3505.8	3938.7	4120.9
25°	4209.5	4247.6	4475.3	4195.8	3613.1	3271.8	3220.6	3454.6	3843.3	4489.0	4618.8
27.5°	4499.6	4548.9	4700.5	4092.2	3651.7	3109.6	2989.8	3346.0	3742.2	4230.1	4799.7
30°	4870.9	4949.5	5156.0	4195.8	3768.4	3215.6	2950.5	3291.1	3729.1	4399.8	5182.8
32.5°	5253.3	5406.2	5559.7	4560.8	3752.2	3377.9	3201.9	3229.4	3847.7	4755.4	5579.6
35°	5759.9	5894.7	6027.0	4771.7	4079.1	3513.2	3338.5	3629.3	4152.1	5167.9	6133.0
37.5°	6843.1	7056.4	6707.7	5371.9	4434.8	4123.4	3808.4	3980.5	4474.1	5511.6	7037.1
40°	7533.1	7693.4	7356.5	5780.5	5061.2	4534.6	4482.8	4497.1	4917.7	5806.1	7645.4
42.5°	8218.8	8435.9	7900.0	6341.4	5818.6	5383.7	5116.7	5098.6	5414.3	6335.2	8337.3
45°	8730.4	8858.3	8086.5	6814.4	6630.9	6308.4	6108.1	5790.5	6066.9	6701.4	8765.3
47.5°	8973.7	9077.9	8386.6	7089.5	7157.5	7174.3	7535.6	6994.0	6637.2	6949.1	8989.9
50°	9277.6	9326.8	8563.2	7331.6	7657.9	8397.8	8484.6	7566.8	7192.4	7219.3	9122.8
52.5°	9640.7	9661.3	8820.8	7611.1	8163.9	9202.7	9068.5	8537.6	7720.9	7712.8	9373.0
55°	10097.4	10084.9	9144.0	7987.3	8525.1	9681.2	9579.5	9192.7	8296.8	8121.4	9762.3
57.5°	10503.5	10496.0	9572.7	8333.6	8829.0	9927.0	9957.0	9854.7	8688.6	8414.1	10184.1
60°	10702.6	10798.0	10060.6	8712.3	8848.3	10038.1	10049.3	9886.5	9126.6	8789.7	10296.4
62.5°	10625.2	10806.8	10300.1	9052.9	8670.5	9734.9	9781.7	9669.4	9106.6	9184.0	10045.6
65°	10273.3	10482.9	10092.4	9234.5	8561.3	9227.0	9238.9	8955.0	8821.5	9445.4	9457.9
67.5°	9613.2	9809.7	9431.0	8945.0	7813.9	7858.2	8122.7	8145.8	7951.1	9248.2	8632.4
70°	8457.7	8596.2	8359.2	8230.0	6531.1	6271.5	6558.5	6681.5	6770.1	8536.3	7641.7
72.5°	6695.8	6963.5	7000.9	7085.1	5258.3	4825.9	5038.7	4856.5	5433.6	7265.4	6243.5
75°	4953.9	5179.7	5422.4	5892.2	4144.6	3613.1	3586.9	3493.9	4033.0	5842.9	4630.7
77.5°	3500.8	3644.9	3831.4	4706.8	3127.7	2782.6	2798.9	2704.7	2912.4	4416.0	3198.8
80°	2509.4	2584.9	2671.6	3100.8	2307.2	2400.8	2403.3	2314.1	2165.6	2999.1	2135.0
82.5°	1788.1	1846.8	1946.0	2045.2	1720.1	1967.8	1965.9	1960.3	1717.0	2027.1	1335.8
85°	995.8	1074.4	1246.6	1602.2	1242.2	1406.9	1237.2	1362.6	1260.3	1349.5	676.3
87.5°	69.9	62.4	278.9	928.4	579.6	423.6	222.1	439.9	564.0	705.0	94.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8
2.5°	1815.6	1837.4	1751.9	1623.4	1658.4	1620.3	1572.3	1497.4	1343.3	1438.7	1439.4
5°	2180.6	2097.6	2030.8	1967.8	1861.7	1701.4	1680.2	1551.7	1479.3	1517.4	1511.7
7.5°	2294.7	2176.8	2076.4	1851.1	1654.6	1405.7	1330.8	1254.7	1222.9	1315.2	1352.0
10°	2169.3	2046.4	1947.8	1674.0	1540.4	1385.1	1179.2	1073.8	1011.4	1035.7	1050.0
12.5°	2270.4	2145.0	1834.9	1682.1	1461.8	1367.0	1186.7	1031.9	939.6	962.1	935.2
15°	2367.7	2198.7	1888.6	1584.1	1405.7	1268.4	1122.4	962.7	854.1	815.5	794.9
17.5°	2723.4	2442.6	1882.3	1529.2	1324.6	1166.7	990.8	816.1	743.7	703.8	669.5
20°	3157.0	2765.8	1916.0	1472.4	1238.5	1039.4	847.9	685.7	635.1	608.9	599.6
22.5°	3673.0	3180.1	2108.8	1464.3	1157.4	946.5	769.3	668.2	611.4	582.7	570.9
25°	4082.9	3608.7	2251.1	1519.2	1153.0	869.7	721.9	742.5	716.2	725.0	655.7
27.5°	4480.9	3725.4	2171.2	1494.9	1036.9	733.7	710.6	753.7	776.1	783.0	780.5
30°	4817.2	4218.3	2188.7	1357.6	876.0	597.7	544.1	565.3	627.0	725.0	743.7
32.5°	5309.5	4454.1	2337.8	1274.6	783.0	534.7	474.8	466.7	481.0	516.6	547.2
35°	5885.3	4996.9	2379.6	1252.8	718.7	506.6	464.8	446.1	453.6	480.4	486.7
37.5°	6959.1	5392.5	2534.3	1226.0	695.0	489.8	457.3	450.5	466.7	488.5	501.0
40°	7551.2	6103.7	2541.8	1202.9	664.5	482.9	462.3	459.2	469.2	499.1	506.6
42.5°	8340.4	6509.3	2659.1	1176.1	653.9	492.3	472.3	471.1	479.8	497.3	511.0
45°	8821.5	6780.7	2665.3	1160.5	651.4	533.4	485.4	481.0	479.2	489.8	502.2
47.5°	9131.6	7171.9	2741.5	1143.0	666.3	544.1	501.0	482.3	476.0	480.4	489.8
50°	9425.4	7484.4	2885.6	1140.5	681.9	533.4	528.5	481.7	469.2	467.3	474.2
52.5°	9786.0	7998.5	3063.4	1164.2	678.2	517.8	549.0	479.2	456.7	452.3	459.2
55°	10310.7	8549.4	3252.4	1144.3	639.5	487.9	529.1	477.3	443.6	435.5	441.7
57.5°	10650.8	8865.1	3464.0	1127.4	580.9	465.4	511.0	478.5	444.8	426.8	430.5
60°	10537.8	8695.4	3546.9	1024.5	525.3	448.0	467.9	468.6	433.6	416.8	419.9
62.5°	10038.7	8080.9	3469.6	904.7	484.2	423.0	423.6	449.8	401.2	389.3	394.3
65°	9341.2	7316.6	3156.4	826.7	464.8	396.8	386.8	394.9	357.5	348.8	358.7
67.5°	8485.2	6374.5	2690.3	744.3	458.0	361.2	349.4	346.3	322.6	312.6	322.6
70°	7411.4	5337.6	2150.6	686.3	431.7	322.6	313.2	310.1	290.1	282.6	291.4
72.5°	5957.1	4167.7	1659.6	642.0	403.0	287.0	278.9	275.1	258.3	247.7	258.3
75°	4237.0	3185.1	1232.8	574.0	362.5	250.8	241.5	236.5	220.9	210.9	220.2
77.5°	3011.0	2390.8	861.0	474.8	298.9	212.1	206.5	198.4	184.7	172.8	182.2
80°	2226.1	1708.3	555.3	366.2	228.4	169.7	166.6	161.0	147.9	133.5	140.4
82.5°	1465.6	1231.6	318.2	248.3	166.0	122.3	124.8	121.0	108.6	93.6	97.3
85°	656.4	729.4	169.1	136.6	107.9	73.6	80.5	78.0	68.6	54.3	55.5
87.5°	63.0	122.9	51.8	49.9	39.9	23.1	28.7	24.3	20.6	13.1	10.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8
2.5°	1461.2	1373.2	1285.3	1338.9	1340.2	1354.5	1356.4	1303.3	1345.8	1378.2	1411.9
5°	1484.3	1426.9	1430.0	1378.2	1350.1	1386.3	1378.8	1364.5	1390.1	1425.6	1468.7
7.5°	1317.1	1279.6	1273.4	1223.5	1102.5	1075.6	1098.1	1107.4	1141.8	1196.7	1242.8
10°	1028.2	1102.5	1018.8	999.5	967.7	905.3	869.1	864.7	937.7	982.0	1020.7
12.5°	926.5	907.8	897.8	844.8	844.8	778.6	757.4	776.8	889.1	920.9	970.8
15°	789.2	775.5	729.4	703.1	690.7	663.8	686.3	705.0	809.8	812.3	864.7
17.5°	655.1	647.0	603.3	598.3	585.9	574.0	594.6	639.5	696.3	686.3	710.6
20°	585.9	557.8	517.8	532.2	519.1	509.7	501.0	564.6	604.6	617.7	632.0
22.5°	568.4	517.2	493.5	480.4	481.0	466.1	467.9	521.0	581.5	589.6	580.9
25°	649.5	558.4	481.7	443.6	429.3	424.3	438.6	485.4	558.4	575.9	582.7
27.5°	759.9	606.4	496.0	431.1	402.4	404.9	425.5	458.0	544.1	575.2	583.4
30°	729.4	570.3	496.6	421.8	386.2	399.3	406.8	438.0	532.8	579.6	620.2
32.5°	562.8	512.9	499.8	429.3	414.9	394.3	404.9	434.9	499.8	529.1	530.9
35°	476.7	438.6	429.9	412.4	392.4	383.7	395.6	421.8	464.2	482.3	479.8
37.5°	472.9	431.1	396.8	389.3	381.2	378.7	385.6	409.9	453.0	484.8	477.9
40°	479.2	427.4	392.4	379.3	382.5	371.2	378.1	408.0	454.8	484.8	478.5
42.5°	471.7	423.0	386.8	376.8	380.0	364.4	372.5	403.7	449.8	485.4	473.5
45°	456.7	413.0	383.7	366.9	381.2	358.1	368.1	392.4	434.9	473.5	459.8
47.5°	441.7	401.2	370.6	360.0	374.3	351.9	356.3	377.5	419.9	458.0	446.1
50°	425.5	386.2	360.0	356.9	366.9	350.6	343.8	361.2	401.8	439.9	429.9
52.5°	408.0	373.7	352.5	351.3	360.6	342.5	332.5	346.3	382.5	420.5	412.4
55°	391.2	360.0	343.2	346.3	356.9	335.7	323.2	331.9	361.9	399.3	388.1
57.5°	374.3	344.4	330.7	339.4	347.5	326.9	311.3	316.3	340.7	377.5	364.4
60°	359.4	330.7	316.9	327.6	335.0	313.8	295.7	298.9	320.7	353.8	341.9
62.5°	340.0	315.7	297.6	311.3	316.9	296.4	277.0	280.8	298.2	329.4	320.7
65°	312.6	297.0	280.1	289.5	297.0	275.8	257.7	262.0	275.1	304.5	298.2
67.5°	288.9	273.9	262.7	270.2	271.4	255.2	239.0	241.5	252.1	279.5	272.6
70°	262.7	248.3	239.6	245.2	244.6	230.8	218.4	219.0	227.7	252.7	243.3
72.5°	234.0	220.2	215.9	219.0	216.5	204.0	192.2	196.5	202.1	220.9	213.4
75°	203.4	190.9	188.4	191.5	187.8	175.9	165.3	169.7	174.7	190.3	180.9
77.5°	171.6	160.3	161.0	161.6	156.6	148.5	137.9	142.3	145.4	156.0	146.6
80°	136.6	127.9	130.4	130.4	124.8	119.2	109.2	110.4	112.3	116.0	109.2
82.5°	99.8	99.8	99.8	100.4	88.6	90.5	81.7	81.1	79.2	78.6	74.2
85°	59.3	61.8	63.0	64.9	48.0	56.2	48.7	46.8	43.0	39.3	38.1
87.5°	13.1	16.8	16.8	16.2	0.0	6.2	3.1	5.0	1.2	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



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 CATALOG NUMBER: MSA-SA3C-835-U-SLL

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8
2.5°	1373.2	1335.8	1405.7	1468.1	1458.1	1494.3	1410.0	1534.8	1667.1	1667.1
5°	1457.5	1425.6	1443.7	1479.9	1507.4	1633.4	1738.2	1842.4	2057.7	2060.2
7.5°	1229.1	1297.7	1314.0	1303.3	1421.3	1583.5	1756.3	2053.3	2235.5	2249.8
10°	1149.2	1180.4	1229.7	1257.2	1305.2	1464.9	1679.6	2032.1	2225.5	2261.7
12.5°	1041.3	1156.7	1231.6	1385.1	1423.1	1455.0	1796.2	2101.3	2234.8	2226.1
15°	923.4	1010.7	1118.7	1288.4	1385.1	1628.4	1865.5	2323.4	2398.9	2465.1
17.5°	736.2	800.5	944.0	1137.4	1377.0	1601.0	2036.4	2598.0	2739.0	2807.6
20°	605.8	606.4	749.9	1006.4	1267.2	1486.2	2101.3	2825.7	3004.8	3039.7
22.5°	572.7	544.1	619.5	827.9	1146.1	1554.2	2232.4	3191.9	3565.6	3653.6
25°	554.7	519.7	567.1	730.6	1059.4	1589.7	2496.3	3695.4	4175.2	4209.5
27.5°	562.1	578.4	593.3	651.4	949.6	1523.0	2435.1	3920.7	4434.8	4499.6
30°	612.7	638.9	604.6	624.5	859.1	1426.3	2544.3	4286.3	4761.7	4870.9
32.5°	509.7	499.8	496.6	540.3	768.7	1338.9	2773.3	4801.0	5116.1	5253.3
35°	459.8	444.2	450.5	500.4	724.4	1326.4	2901.8	5227.1	5675.7	5759.9
37.5°	458.0	439.9	448.0	485.4	740.0	1348.9	3107.7	5910.9	6662.7	6843.1
40°	453.6	443.6	448.0	476.0	723.7	1361.4	3226.2	6485.6	7350.3	7533.1
42.5°	453.0	448.0	452.3	483.5	706.9	1367.0	3390.3	7004.6	8074.7	8218.8
45°	451.1	456.1	456.1	489.8	699.4	1404.4	3487.0	7259.2	8552.6	8730.4
47.5°	442.4	457.3	481.7	487.9	668.8	1387.0	3623.7	7645.4	8806.5	8973.7
50°	431.1	455.5	514.1	475.4	663.8	1344.5	3783.4	7951.7	9132.2	9277.6
52.5°	416.1	452.3	506.6	451.1	655.1	1337.0	4007.4	8349.8	9512.1	9640.7
55°	394.9	441.1	483.5	426.8	633.9	1313.3	4349.9	8843.3	10009.4	10097.4
57.5°	375.6	424.3	449.8	413.0	583.4	1318.3	4588.2	9245.7	10426.8	10503.5
60°	358.1	422.4	401.8	398.7	531.6	1251.6	4665.6	9241.4	10582.1	10702.6
62.5°	339.4	398.7	368.1	379.3	486.0	1182.9	4501.5	8845.2	10414.3	10625.2
65°	315.1	341.9	340.0	365.6	487.3	1071.3	4125.3	8146.4	9995.7	10273.3
67.5°	286.4	302.6	313.2	343.2	502.9	984.5	3520.1	7306.0	9283.2	9613.2
70°	257.1	273.3	285.1	313.8	517.2	944.6	2802.0	6125.6	8122.7	8457.7
72.5°	227.1	243.9	253.3	278.3	497.9	859.1	2073.9	4766.1	6519.9	6695.8
75°	195.9	212.1	219.6	242.7	432.4	710.6	1431.9	3609.9	4775.4	4953.9
77.5°	164.1	181.6	184.1	202.8	330.0	543.4	917.8	2768.9	3381.6	3500.8
80°	131.0	148.5	148.5	158.5	232.1	373.7	549.7	2088.9	2462.6	2509.4
82.5°	94.2	112.9	111.7	112.3	160.3	231.5	318.2	1565.4	1779.4	1788.1
85°	55.5	68.6	68.0	62.4	94.8	124.8	172.2	972.1	993.3	995.8
87.5°	10.6	16.2	14.3	6.2	26.2	36.8	49.9	180.3	71.7	69.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)