

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: P597014

Luminaire Tested: **MSA-SA3A-835-U-SLL**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597014  
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-SA3A-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: 8284 lumens  
Efficiency: N/A  
Efficacy: 86.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3

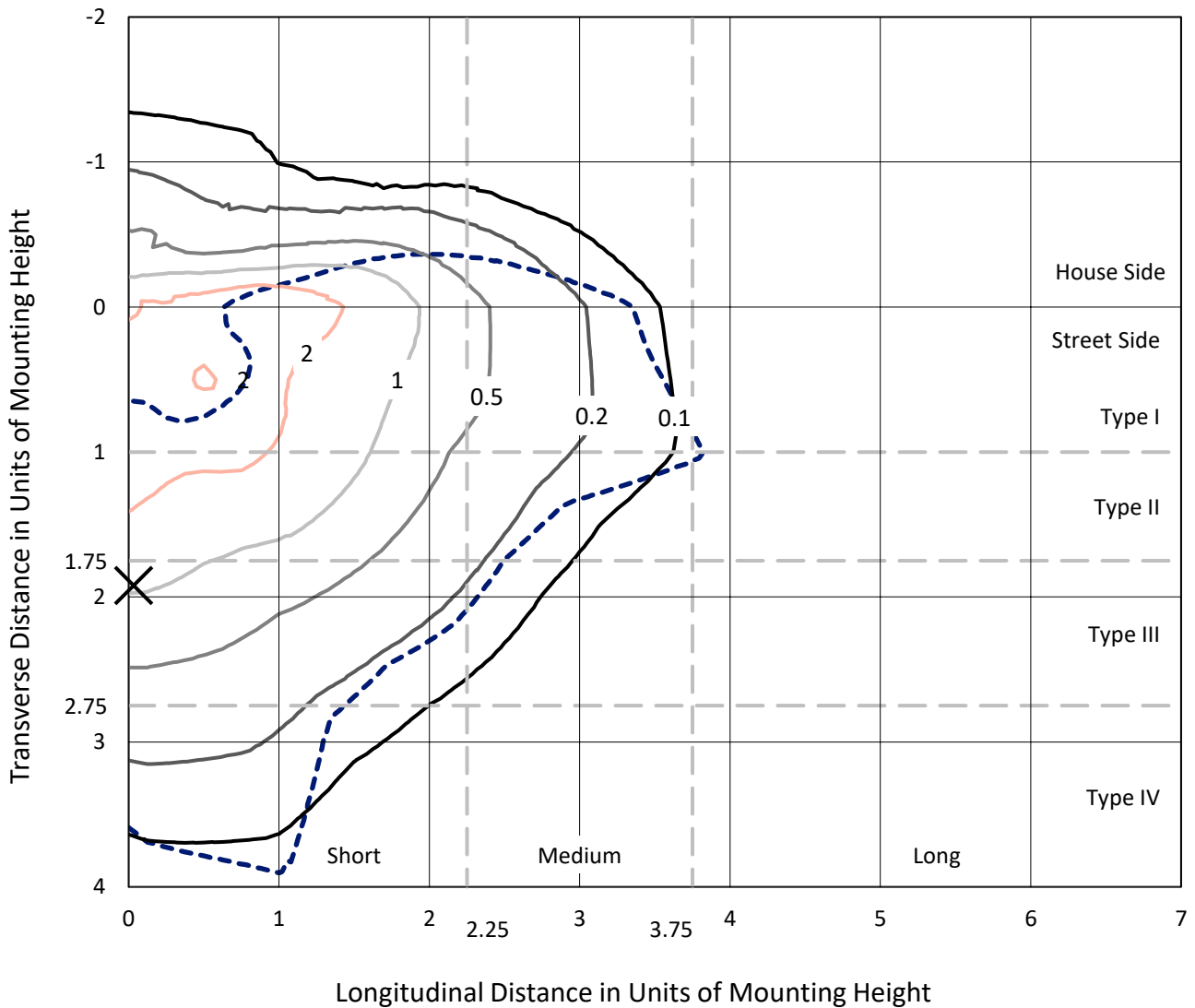
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P597014  
 CATALOG NUMBER: MSA-SA3A-835-U-SLL

### Iso-Footcandle Lines of Horizontal Illumination

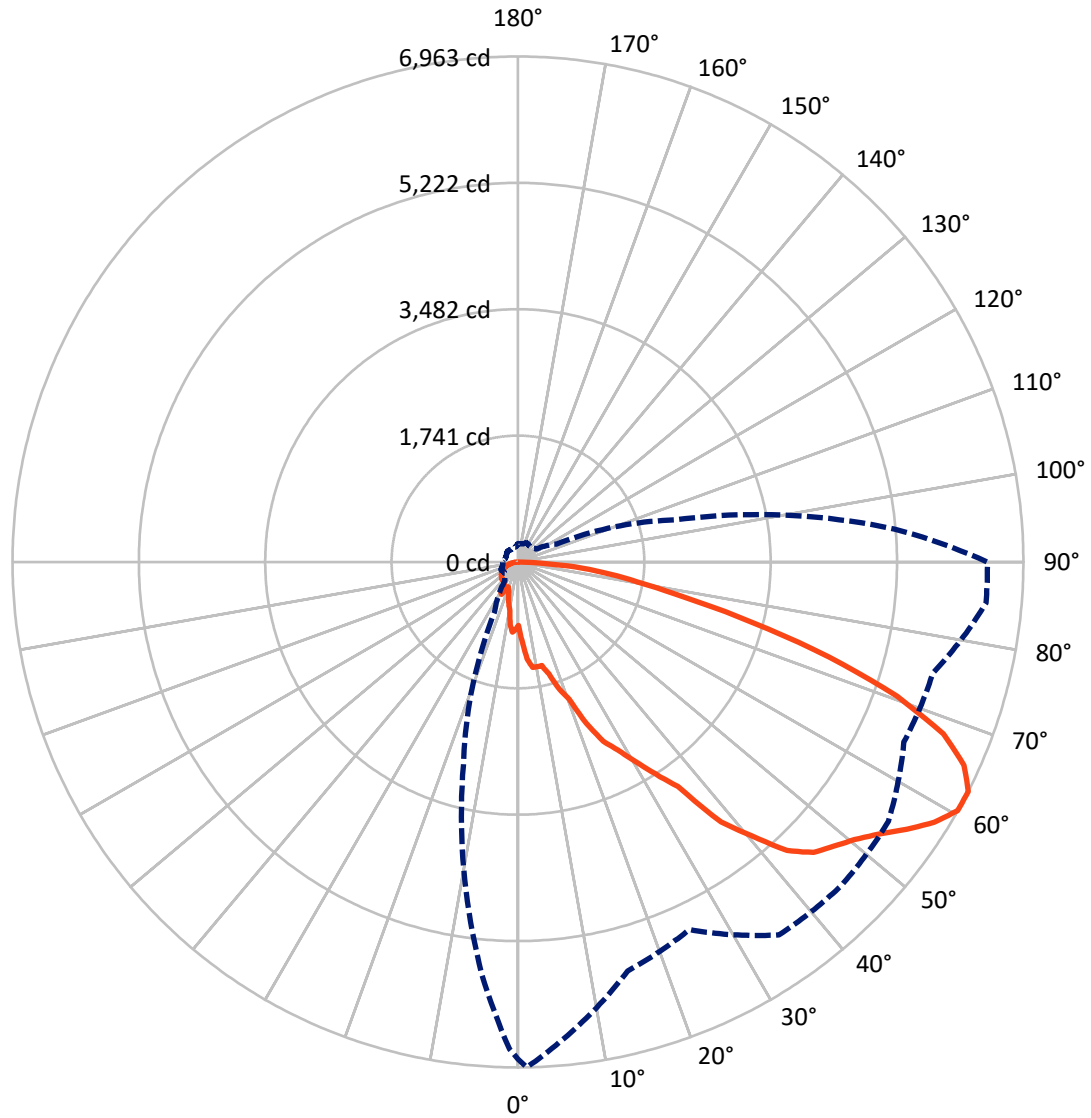
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 fc  
 Type IV - Short - N/A

REPORT NUMBER: P597014  
CATALOG NUMBER: MSA-SA3A-835-U-SLL

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P597014

CATALOG NUMBER: MSA-SA3A-835-U-SLL

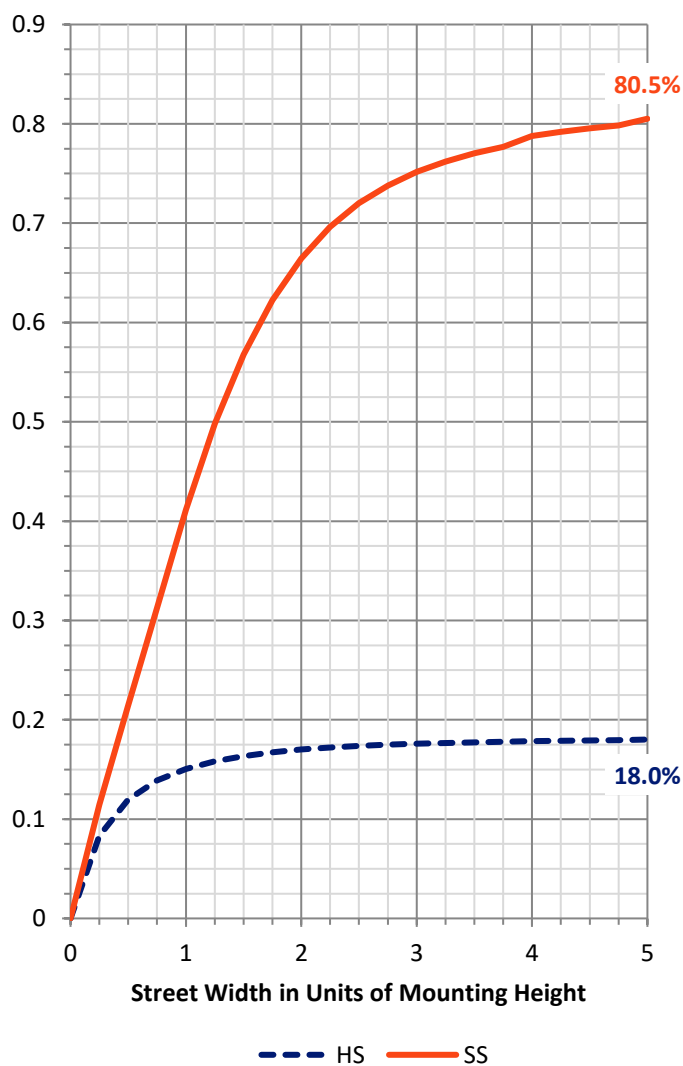
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1508.5	0.0	1508.5
	% Fixture	18.2	0.0	18.2
<b>Street Side</b>	Lumens	6775.5	0.0	6775.5
	% Fixture	81.8	0.0	81.8
<b>Total</b>	Lumens	8284.0	0.0	8284.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.1	1.2
10°-20°	291.0	3.5
20°-30°	513.8	6.2
30°-40°	800.2	9.7
40°-50°	1317.6	15.9
50°-60°	1880.6	22.7
60°-70°	1994.2	24.1
70°-80°	1101.5	13.3
80°-90°	284.9	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°	8284.0	100.0
0°-180°	8284.0	100.0

**Coefficient of Utilization**

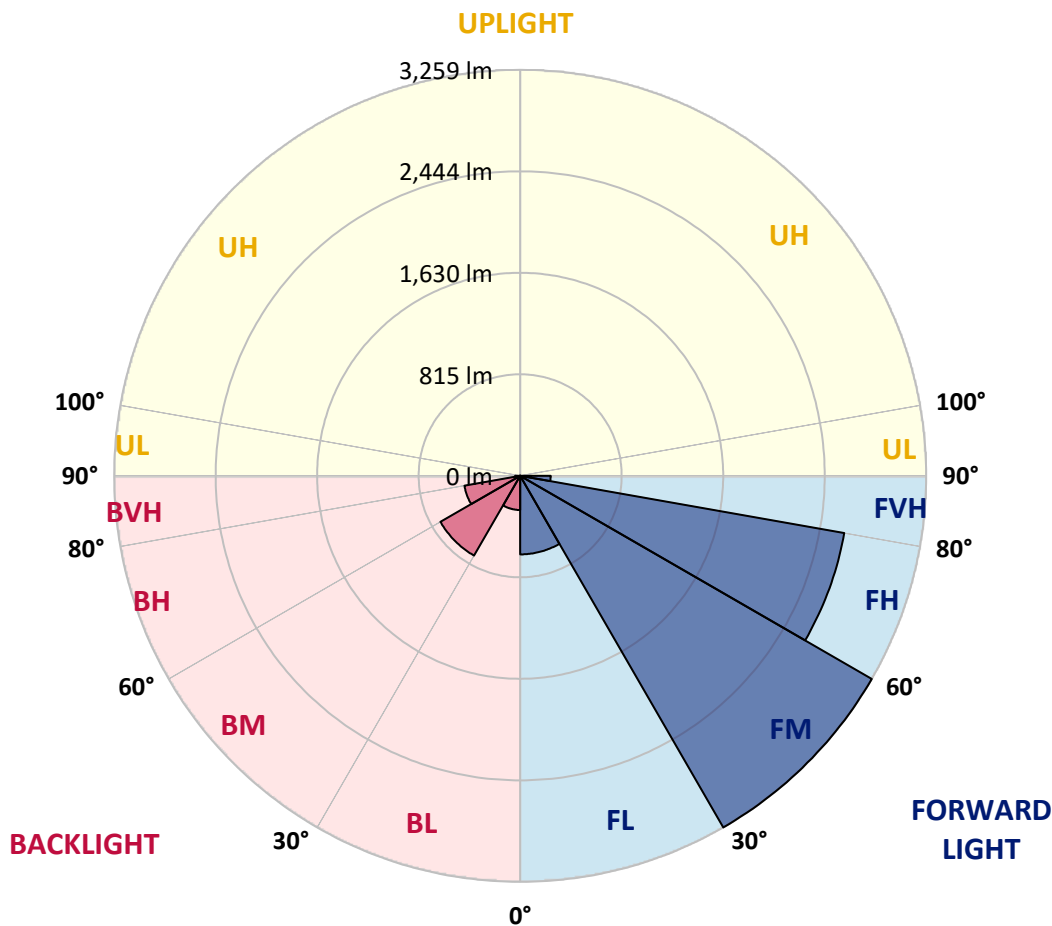


REPORT NUMBER: P597014  
 CATALOG NUMBER: MSA-SA3A-835-U-SLL

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	630.5	7.6			
FM (30°-60°)	3259.0	39.3			
FH (60°-80°)	2641.3	31.9			G2/5000
FVH (80°-90°)	244.7	3.0			G3/500
BL (0°-30°)	274.3	3.3	B1/500		
BM (30°-60°)	739.5	8.9	B1/1000		
BH (60°-80°)	454.5	5.5	B1/500		G1/500
BVH (80°-90°)	40.2	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-G3**  
 Type IV Short





REPORT NUMBER: P597014

CATALOG NUMBER: MSA-SA3A-835-U-SLL

**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	873.5	873.5	873.5	873.5	873.5	873.5	873.5	873.5	873.5	873.5	873.5
2.5°	1074.1	1083.4	1064.5	1043.2	955.1	1040.0	1014.6	1061.7	1046.4	944.3	1131.2
5°	1327.4	1344.3	1325.8	1389.7	1393.7	1410.2	1257.8	1352.7	1319.8	1311.3	1405.8
7.5°	1449.6	1466.9	1513.9	1627.7	1716.5	1636.1	1547.3	1527.6	1501.9	1434.7	1491.8
10°	1457.2	1466.9	1530.0	1771.2	1814.2	1871.3	1813.8	1678.3	1622.5	1476.5	1433.1
12.5°	1434.3	1464.5	1546.1	1839.9	1967.8	2030.1	2044.2	1893.4	1756.3	1589.9	1567.8
15°	1588.3	1599.1	1716.1	1889.0	1977.0	2029.7	2075.5	1982.6	1939.6	1807.8	1630.5
17.5°	1809.0	1839.1	1934.8	1998.7	2058.2	2068.3	2030.5	1994.3	1926.0	2102.0	1913.5
20°	1958.5	2016.8	2134.2	2146.3	2021.2	2043.4	2038.1	2040.5	2001.5	2327.2	2223.4
22.5°	2354.1	2417.2	2433.3	2363.3	2127.8	2026.9	2047.0	2105.3	2258.8	2537.8	2655.2
25°	2712.3	2736.8	2883.5	2703.4	2328.0	2108.1	2075.1	2225.9	2476.3	2892.4	2976.0
27.5°	2899.2	2931.0	3028.6	2636.7	2352.9	2003.6	1926.4	2155.9	2411.2	2725.5	3092.6
30°	3138.4	3189.0	3322.1	2703.4	2428.1	2071.9	1901.0	2120.5	2402.7	2834.9	3339.4
32.5°	3384.8	3483.3	3582.2	2938.6	2417.6	2176.4	2063.0	2080.7	2479.1	3064.0	3595.1
35°	3711.2	3798.1	3883.3	3074.5	2628.3	2263.6	2151.1	2338.4	2675.3	3329.7	3951.6
37.5°	4409.1	4546.6	4321.9	3461.2	2857.4	2656.8	2453.8	2564.7	2882.7	3551.2	4534.1
40°	4853.7	4957.0	4739.9	3724.5	3261.0	2921.7	2888.3	2897.6	3168.5	3741.0	4926.1
42.5°	5295.5	5435.4	5090.1	4085.9	3749.0	3468.8	3296.8	3285.1	3488.5	4081.9	5371.9
45°	5625.1	5707.6	5210.3	4390.6	4272.4	4064.6	3935.6	3730.9	3909.0	4317.8	5647.7
47.5°	5781.9	5849.1	5403.6	4567.9	4611.7	4622.6	4855.3	4506.4	4276.4	4477.4	5792.4
50°	5977.7	6009.5	5517.4	4723.9	4934.1	5410.9	5466.8	4875.4	4634.2	4651.5	5878.0
52.5°	6211.7	6224.9	5683.4	4904.0	5260.1	5929.5	5843.0	5500.9	4974.7	4969.5	6039.2
55°	6505.9	6497.9	5891.7	5146.4	5492.9	6237.8	6172.3	5923.0	5345.8	5232.8	6290.0
57.5°	6767.6	6762.8	6167.8	5369.5	5688.7	6396.2	6415.5	6349.5	5598.2	5421.3	6561.8
60°	6895.9	6957.4	6482.2	5613.5	5701.1	6467.7	6475.0	6370.0	5880.4	5663.3	6634.2
62.5°	6846.0	6963.0	6636.6	5833.0	5586.6	6272.4	6302.5	6230.1	5867.5	5917.4	6472.6
65°	6619.3	6754.4	6502.7	5950.0	5516.2	5945.1	5952.8	5769.9	5683.8	6085.8	6093.9
67.5°	6194.0	6320.6	6076.6	5763.4	5034.6	5063.2	5233.6	5248.5	5123.0	5958.8	5562.0
70°	5449.5	5538.7	5386.0	5302.7	4208.1	4040.9	4225.8	4305.0	4362.1	5500.1	4923.7
72.5°	4314.2	4486.7	4510.8	4565.1	3388.0	3109.4	3246.5	3129.1	3501.0	4681.3	4022.8
75°	3191.9	3337.4	3493.8	3796.5	2670.5	2328.0	2311.1	2251.2	2598.5	3764.7	2983.6
77.5°	2255.6	2348.5	2468.7	3032.7	2015.2	1792.9	1803.4	1742.7	1876.5	2845.3	2061.0
80°	1616.8	1665.5	1721.4	1997.9	1486.6	1546.9	1548.5	1491.0	1395.3	1932.4	1375.6
82.5°	1152.1	1189.9	1253.8	1317.7	1108.3	1267.9	1266.7	1263.1	1106.3	1306.1	860.7
85°	641.6	692.2	803.2	1032.3	800.4	906.5	797.2	878.0	812.0	869.5	435.8
87.5°	45.0	40.2	179.7	598.2	373.5	273.0	143.1	283.4	363.4	454.3	60.7
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: P597014  
 CATALOG NUMBER: MSA-SA3A-835-U-SLL

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	873.5	873.5	873.5	873.5	873.5	873.5	873.5	873.5	873.5	873.5	873.5
2.5°	1169.8	1183.9	1128.8	1046.0	1068.5	1044.0	1013.0	964.8	865.5	927.0	927.4
5°	1405.0	1351.5	1308.5	1267.9	1199.6	1096.2	1082.6	999.8	953.1	977.7	974.0
7.5°	1478.5	1402.6	1337.8	1192.7	1066.1	905.7	857.5	808.4	787.9	847.4	871.1
10°	1397.7	1318.6	1255.0	1078.6	992.5	892.4	759.8	691.8	651.6	667.3	676.6
12.5°	1462.9	1382.1	1182.3	1083.8	941.9	880.8	764.6	664.9	605.4	619.9	602.6
15°	1525.6	1416.6	1216.8	1020.7	905.7	817.3	723.2	620.3	550.3	525.4	512.1
17.5°	1754.7	1573.8	1212.8	985.3	853.4	751.7	638.4	525.8	479.2	453.5	431.3
20°	2034.1	1782.1	1234.5	948.7	798.0	669.7	546.3	441.8	409.2	392.3	386.3
22.5°	2366.6	2049.0	1358.7	943.5	745.7	609.8	495.7	430.5	394.0	375.5	367.8
25°	2630.7	2325.2	1450.4	978.9	742.9	560.4	465.1	478.4	461.5	467.1	422.5
27.5°	2887.1	2400.3	1398.9	963.2	668.1	472.7	457.9	485.6	500.1	504.5	502.9
30°	3103.8	2717.9	1410.2	874.7	564.4	385.1	350.5	364.2	404.0	467.1	479.2
32.5°	3421.0	2869.9	1506.3	821.3	504.5	344.5	305.9	300.7	309.9	332.9	352.6
35°	3792.0	3219.6	1533.2	807.2	463.1	326.4	299.5	287.4	292.3	309.5	313.6
37.5°	4483.9	3474.5	1632.9	789.9	447.8	315.6	294.7	290.2	300.7	314.8	322.8
40°	4865.4	3932.7	1637.7	775.1	428.1	311.1	297.9	295.9	302.3	321.6	326.4
42.5°	5373.9	4194.0	1713.3	757.8	421.3	317.2	304.3	303.5	309.1	320.4	329.2
45°	5683.8	4368.9	1717.3	747.7	419.7	343.7	312.8	309.9	308.7	315.6	323.6
47.5°	5883.6	4621.0	1766.4	736.5	429.3	350.5	322.8	310.7	306.7	309.5	315.6
50°	6073.0	4822.4	1859.2	734.9	439.4	343.7	340.5	310.3	302.3	301.1	305.5
52.5°	6305.3	5153.6	1973.8	750.1	437.0	333.7	353.8	308.7	294.3	291.4	295.9
55°	6643.4	5508.6	2095.6	737.3	412.0	314.4	340.9	307.5	285.8	280.6	284.6
57.5°	6862.5	5712.0	2231.9	726.4	374.3	299.9	329.2	308.3	286.6	275.0	277.4
60°	6789.7	5602.6	2285.4	660.1	338.5	288.6	301.5	301.9	279.4	268.5	270.5
62.5°	6468.1	5206.7	2235.5	582.9	311.9	272.6	273.0	289.8	258.5	250.8	254.1
65°	6018.7	4714.2	2033.7	532.6	299.5	255.7	249.2	254.5	230.3	224.7	231.1
67.5°	5467.2	4107.2	1733.4	479.6	295.1	232.8	225.1	223.1	207.8	201.4	207.8
70°	4775.3	3439.1	1385.7	442.2	278.2	207.8	201.8	199.8	186.9	182.1	187.7
72.5°	3838.3	2685.3	1069.3	413.7	259.7	184.9	179.7	177.3	166.4	159.6	166.4
75°	2730.0	2052.2	794.3	369.8	233.6	161.6	155.6	152.4	142.3	135.9	141.9
77.5°	1940.0	1540.5	554.8	305.9	192.6	136.7	133.1	127.8	119.0	111.4	117.4
80°	1434.3	1100.7	357.8	236.0	147.1	109.3	107.3	103.7	95.3	86.0	90.4
82.5°	944.3	793.5	205.0	160.0	106.9	78.8	80.4	78.0	69.9	60.3	62.7
85°	422.9	469.9	108.9	88.0	69.5	47.4	51.9	50.2	44.2	35.0	35.8
87.5°	40.6	79.2	33.4	32.2	25.7	14.9	18.5	15.7	13.3	8.4	6.4
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: P597014  
 CATALOG NUMBER: MSA-SA3A-835-U-SLL

**CANDELA DISTRIBUTION (continued):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	873.5	873.5	873.5	873.5	873.5	873.5	873.5	873.5	873.5	873.5	873.5
2.5°	941.5	884.8	828.1	862.7	863.5	872.7	873.9	839.8	867.1	888.0	909.7
5°	956.4	919.4	921.4	888.0	869.9	893.2	888.4	879.2	895.6	918.6	946.3
7.5°	848.6	824.5	820.5	788.3	710.3	693.0	707.5	713.5	735.7	771.0	800.8
10°	662.5	710.3	656.5	644.0	623.5	583.3	560.0	557.2	604.2	632.7	657.7
12.5°	597.0	584.9	578.5	544.3	544.3	501.7	488.0	500.5	572.8	593.3	625.5
15°	508.5	499.7	469.9	453.1	445.0	427.7	442.2	454.3	521.8	523.4	557.2
17.5°	422.1	416.9	388.7	385.5	377.5	369.8	383.1	412.0	448.6	442.2	457.9
20°	377.5	359.4	333.7	342.9	334.5	328.4	322.8	363.8	389.5	398.0	407.2
22.5°	366.2	333.3	318.0	309.5	309.9	300.3	301.5	335.7	374.7	379.9	374.3
25°	418.5	359.8	310.3	285.8	276.6	273.4	282.6	312.8	359.8	371.0	375.5
27.5°	489.6	390.7	319.6	277.8	259.3	260.9	274.2	295.1	350.5	370.6	375.9
30°	469.9	367.4	320.0	271.7	248.8	257.3	262.1	282.2	343.3	373.5	399.6
32.5°	362.6	330.4	322.0	276.6	267.3	254.1	260.9	280.2	322.0	340.9	342.1
35°	307.1	282.6	277.0	265.7	252.9	247.2	254.9	271.7	299.1	310.7	309.1
37.5°	304.7	277.8	255.7	250.8	245.6	244.0	248.4	264.1	291.8	312.4	307.9
40°	308.7	275.4	252.9	244.4	246.4	239.2	243.6	262.9	293.1	312.4	308.3
42.5°	303.9	272.6	249.2	242.8	244.8	234.8	240.0	260.1	289.8	312.8	305.1
45°	294.3	266.1	247.2	236.4	245.6	230.7	237.2	252.9	280.2	305.1	296.3
47.5°	284.6	258.5	238.8	232.0	241.2	226.7	229.5	243.2	270.5	295.1	287.4
50°	274.2	248.8	232.0	229.9	236.4	225.9	221.5	232.8	258.9	283.4	277.0
52.5°	262.9	240.8	227.1	226.3	232.4	220.7	214.3	223.1	246.4	270.9	265.7
55°	252.1	232.0	221.1	223.1	229.9	216.3	208.2	213.9	233.2	257.3	250.0
57.5°	241.2	221.9	213.1	218.7	223.9	210.6	200.6	203.8	219.5	243.2	234.8
60°	231.6	213.1	204.2	211.0	215.9	202.2	190.5	192.6	206.6	227.9	220.3
62.5°	219.1	203.4	191.8	200.6	204.2	190.9	178.5	180.9	192.2	212.3	206.6
65°	201.4	191.4	180.5	186.5	191.4	177.7	166.0	168.8	177.3	196.2	192.2
67.5°	186.1	176.5	169.2	174.1	174.9	164.4	154.0	155.6	162.4	180.1	175.7
70°	169.2	160.0	154.4	158.0	157.6	148.7	140.7	141.1	146.7	162.8	156.8
72.5°	150.7	141.9	139.1	141.1	139.5	131.5	123.8	126.6	130.2	142.3	137.5
75°	131.1	123.0	121.4	123.4	121.0	113.4	106.5	109.3	112.6	122.6	116.6
77.5°	110.5	103.3	103.7	104.1	100.9	95.7	88.8	91.7	93.7	100.5	94.5
80°	88.0	82.4	84.0	84.0	80.4	76.8	70.3	71.2	72.4	74.8	70.3
82.5°	64.3	64.3	64.3	64.7	57.1	58.3	52.7	52.3	51.1	50.7	47.8
85°	38.2	39.8	40.6	41.8	31.0	36.2	31.4	30.1	27.7	25.3	24.5
87.5°	8.4	10.9	10.9	10.5	0.0	4.0	2.0	3.2	0.8	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: P597014  
 CATALOG NUMBER: MSA-SA3A-835-U-SLL

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	873.5	873.5	873.5	873.5	873.5	873.5	873.5	873.5	873.5	873.5
2.5°	884.8	860.7	905.7	945.9	939.5	962.8	908.5	988.9	1074.1	1074.1
5°	939.1	918.6	930.2	953.5	971.2	1052.4	1120.0	1187.1	1325.8	1327.4
7.5°	791.9	836.2	846.6	839.8	915.7	1020.3	1131.6	1323.0	1440.4	1449.6
10°	740.5	760.6	792.3	810.0	841.0	943.9	1082.2	1309.3	1433.9	1457.2
12.5°	670.9	745.3	793.5	892.4	917.0	937.5	1157.3	1353.9	1440.0	1434.3
15°	595.0	651.2	720.8	830.1	892.4	1049.2	1202.0	1497.0	1545.7	1588.3
17.5°	474.4	515.8	608.2	732.8	887.2	1031.5	1312.1	1673.9	1764.8	1809.0
20°	390.3	390.7	483.2	648.4	816.5	957.6	1353.9	1820.6	1936.0	1958.5
22.5°	369.0	350.5	399.2	533.5	738.5	1001.4	1438.3	2056.6	2297.4	2354.1
25°	357.4	334.9	365.4	470.7	682.6	1024.3	1608.4	2381.0	2690.2	2712.3
27.5°	362.2	372.7	382.3	419.7	611.8	981.3	1569.0	2526.1	2857.4	2899.2
30°	394.8	411.6	389.5	402.4	553.5	919.0	1639.3	2761.7	3068.0	3138.4
32.5°	328.4	322.0	320.0	348.1	495.3	862.7	1786.9	3093.4	3296.4	3384.8
35°	296.3	286.2	290.2	322.4	466.7	854.6	1869.7	3367.9	3657.0	3711.2
37.5°	295.1	283.4	288.6	312.8	476.8	869.1	2002.3	3808.5	4292.9	4409.1
40°	292.3	285.8	288.6	306.7	466.3	877.2	2078.7	4178.8	4735.9	4853.7
42.5°	291.8	288.6	291.4	311.5	455.5	880.8	2184.5	4513.2	5202.6	5295.5
45°	290.6	293.9	293.9	315.6	450.6	904.9	2246.8	4677.2	5510.6	5625.1
47.5°	285.0	294.7	310.3	314.4	430.9	893.6	2334.8	4926.1	5674.2	5781.9
50°	277.8	293.5	331.2	306.3	427.7	866.3	2437.7	5123.5	5884.0	5977.7
52.5°	268.1	291.4	326.4	290.6	422.1	861.5	2582.0	5379.9	6128.8	6211.7
55°	254.5	284.2	311.5	275.0	408.4	846.2	2802.7	5697.9	6449.2	6505.9
57.5°	242.0	273.4	289.8	266.1	375.9	849.4	2956.3	5957.2	6718.2	6767.6
60°	230.7	272.2	258.9	256.9	342.5	806.4	3006.1	5954.4	6818.3	6895.9
62.5°	218.7	256.9	237.2	244.4	313.2	762.2	2900.4	5699.1	6710.1	6846.0
65°	203.0	220.3	219.1	235.6	314.0	690.2	2658.0	5248.9	6440.4	6619.3
67.5°	184.5	195.0	201.8	221.1	324.0	634.4	2268.1	4707.4	5981.3	6194.0
70°	165.6	176.1	183.7	202.2	333.3	608.6	1805.4	3946.8	5233.6	5449.5
72.5°	146.3	157.2	163.2	179.3	320.8	553.5	1336.2	3070.9	4200.9	4314.2
75°	126.2	136.7	141.5	156.4	278.6	457.9	922.6	2326.0	3076.9	3191.9
77.5°	105.7	117.0	118.6	130.6	212.7	350.1	591.3	1784.1	2178.8	2255.6
80°	84.4	95.7	95.7	102.1	149.5	240.8	354.2	1345.9	1586.7	1616.8
82.5°	60.7	72.8	72.0	72.4	103.3	149.1	205.0	1008.6	1146.5	1152.1
85°	35.8	44.2	43.8	40.2	61.1	80.4	111.0	626.3	640.0	641.6
87.5°	6.8	10.5	9.2	4.0	16.9	23.7	32.2	116.2	46.2	45.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)