

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: P368196

Luminaire Tested: **MSA-SA4A-727-U-SLR**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368196  
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-SA4A-727-U-SLR  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR RIGHT OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11107 lumens  
Efficiency: N/A  
Efficacy: 86.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3

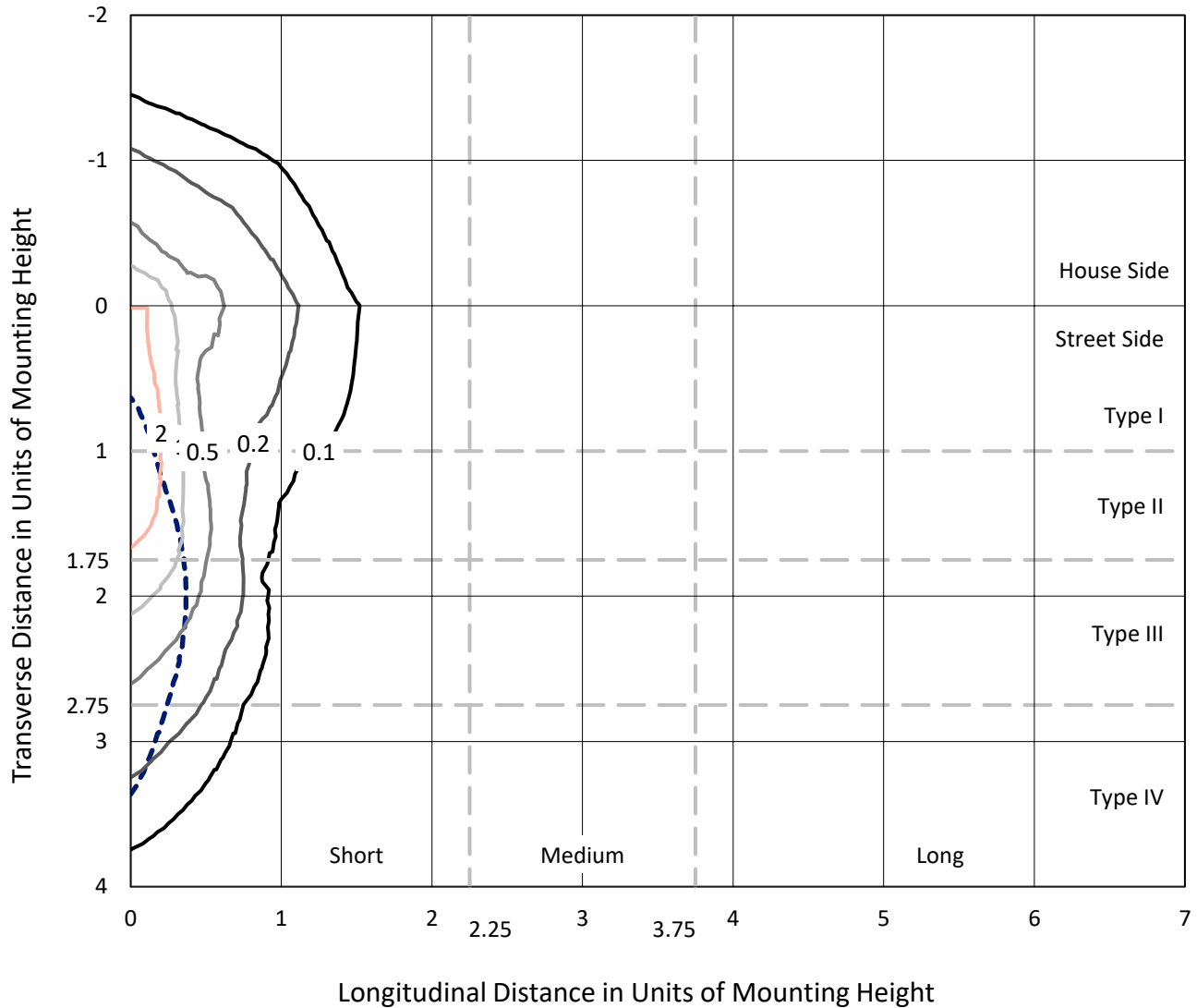
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

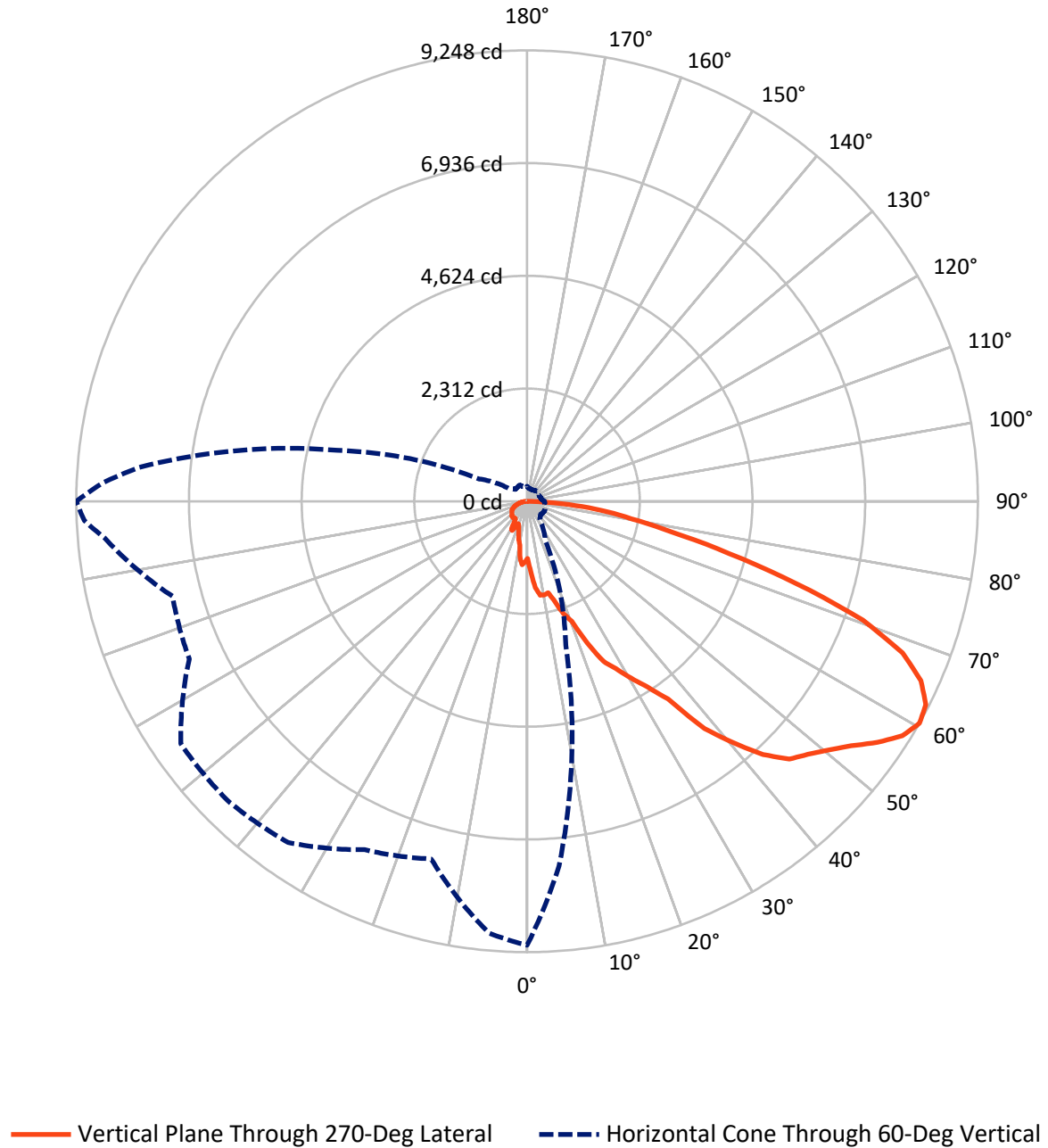
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2151.2   | 0.0    | 2151.2  |
|                    | % Fixture | 19.4     | 0.0    | 19.4    |
| <b>Street Side</b> | Lumens    | 8955.8   | 0.0    | 8955.8  |
|                    | % Fixture | 80.6     | 0.0    | 80.6    |
| <b>Total</b>       | Lumens    | 11107.0  | 0.0    | 11107.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 134.3   | 1.2       |
| 10°-20°   | 390.3   | 3.5       |
| 20°-30°   | 689.0   | 6.2       |
| 30°-40°   | 1073.0  | 9.7       |
| 40°-50°   | 1766.6  | 15.9      |
| 50°-60°   | 2521.5  | 22.7      |
| 60°-70°   | 2673.7  | 24.1      |
| 70°-80°   | 1476.7  | 13.3      |
| 80°-90°   | 382.1   | 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°    | 11107.0 | 100.0     |
| 0°-180°   | 11107.0 | 100.0     |

**Coefficient of Utilization**



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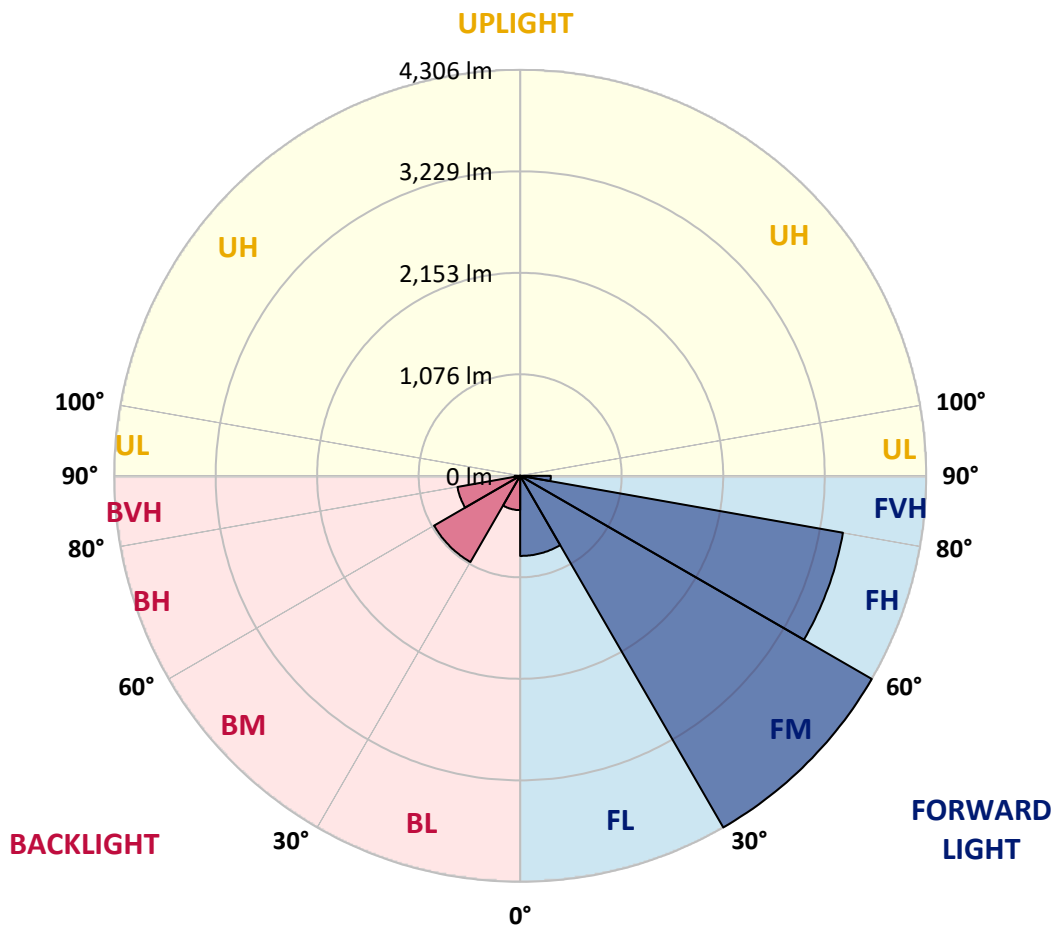
CATALOG NUMBER: MSA-SA4A-727-U-SLR

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

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 849.9  | 7.7       |                         |      |         |
| FM (30°-60°)   | 4305.8 | 38.8      |                         |      |         |
| FH (60°-80°)   | 3475.4 | 31.3      |                         |      | G2/5000 |
| FVH (80°-90°)  | 324.7  | 2.9       |                         |      | G3/500  |
| BL (0°-30°)    | 363.6  | 3.3       | B1/500                  |      |         |
| BM (30°-60°)   | 1055.2 | 9.5       | B2/2500                 |      |         |
| BH (60°-80°)   | 675.0  | 6.1       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 57.3   | 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°     | 2.5°   | 5°     | 7.5°   | 10°    | 12.5°  | 15°    | 17.5°  | 20°    | 22.5°  | 25°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 |
| 2.5°   | 1568.8 | 1578.5 | 1587.7 | 1569.4 | 1551.0 | 1532.2 | 1513.8 | 1486.3 | 1458.3 | 1430.8 | 1402.8 |
| 5°     | 1884.2 | 1848.6 | 1812.5 | 1798.0 | 1783.9 | 1769.4 | 1754.8 | 1741.3 | 1727.9 | 1713.8 | 1700.4 |
| 7.5°   | 1982.9 | 1932.2 | 1881.0 | 1859.4 | 1837.8 | 1815.7 | 1794.2 | 1745.7 | 1697.1 | 1648.1 | 1599.6 |
| 10°    | 1874.5 | 1821.7 | 1768.3 | 1747.3 | 1725.7 | 1704.7 | 1683.1 | 1623.8 | 1565.1 | 1505.8 | 1446.4 |
| 12.5°  | 1961.8 | 1907.9 | 1853.5 | 1786.6 | 1719.8 | 1652.4 | 1585.5 | 1552.7 | 1519.8 | 1486.3 | 1453.5 |
| 15°    | 2045.9 | 1973.2 | 1899.8 | 1833.0 | 1766.1 | 1698.8 | 1631.9 | 1566.1 | 1500.4 | 1434.6 | 1368.8 |
| 17.5°  | 2353.2 | 2231.9 | 2110.6 | 1989.9 | 1868.6 | 1747.8 | 1626.5 | 1550.5 | 1473.9 | 1397.9 | 1321.4 |
| 20°    | 2727.9 | 2559.2 | 2389.9 | 2206.6 | 2022.8 | 1839.5 | 1655.6 | 1559.7 | 1464.2 | 1368.3 | 1272.3 |
| 22.5°  | 3173.8 | 2960.8 | 2747.9 | 2516.6 | 2285.3 | 2053.5 | 1822.2 | 1683.1 | 1544.0 | 1404.4 | 1265.3 |
| 25°    | 3528.0 | 3323.1 | 3118.2 | 2825.0 | 2531.7 | 2238.4 | 1945.1 | 1787.2 | 1629.2 | 1470.7 | 1312.7 |
| 27.5°  | 3871.9 | 3545.8 | 3219.1 | 2883.2 | 2547.9 | 2212.0 | 1876.1 | 1730.0 | 1583.9 | 1437.8 | 1291.7 |
| 30°    | 4162.5 | 3903.7 | 3645.0 | 3206.7 | 2768.4 | 2329.5 | 1891.2 | 1711.7 | 1532.2 | 1352.6 | 1173.1 |
| 32.5°  | 4587.9 | 4218.6 | 3848.7 | 3391.6 | 2934.4 | 2477.2 | 2020.1 | 1790.4 | 1560.7 | 1331.1 | 1101.4 |
| 35°    | 5085.5 | 4701.6 | 4317.8 | 3752.2 | 3187.3 | 2621.7 | 2056.2 | 1813.0 | 1569.4 | 1326.2 | 1082.5 |
| 37.5°  | 6013.3 | 5336.7 | 4659.6 | 4042.3 | 3425.0 | 2807.2 | 2189.9 | 1907.4 | 1624.9 | 1341.9 | 1059.4 |
| 40°    | 6524.9 | 5899.5 | 5274.2 | 4504.9 | 3735.5 | 2965.7 | 2196.4 | 1907.4 | 1617.9 | 1328.9 | 1039.4 |
| 42.5°  | 7206.9 | 6416.0 | 5624.6 | 4792.7 | 3961.4 | 3129.6 | 2297.7 | 1977.5 | 1657.2 | 1336.5 | 1016.2 |
| 45°    | 7622.6 | 6741.1 | 5859.1 | 4970.1 | 4081.1 | 3192.1 | 2303.1 | 1978.0 | 1652.9 | 1327.8 | 1002.8 |
| 47.5°  | 7890.5 | 7044.1 | 6197.1 | 5240.2 | 4283.3 | 3325.8 | 2368.9 | 2023.8 | 1678.3 | 1333.2 | 987.7  |
| 50°    | 8144.4 | 7306.1 | 6467.2 | 5473.6 | 4480.6 | 3487.0 | 2493.4 | 2116.6 | 1739.7 | 1362.3 | 985.5  |
| 52.5°  | 8456.0 | 7684.0 | 6911.5 | 5845.6 | 4779.3 | 3713.4 | 2647.1 | 2236.8 | 1826.5 | 1416.3 | 1006.0 |
| 55°    | 8909.4 | 8148.7 | 7387.5 | 6243.5 | 5099.0 | 3955.0 | 2810.4 | 2354.9 | 1899.8 | 1444.3 | 988.7  |
| 57.5°  | 9203.2 | 8431.8 | 7660.3 | 6493.7 | 5327.0 | 4159.8 | 2993.2 | 2488.6 | 1983.9 | 1478.8 | 974.2  |
| 60°    | 9105.7 | 8309.9 | 7513.7 | 6401.5 | 5289.3 | 4177.1 | 3064.9 | 2519.8 | 1975.3 | 1430.3 | 885.2  |
| 62.5°  | 8674.4 | 7828.5 | 6982.6 | 5986.3 | 4990.6 | 3994.3 | 2998.0 | 2443.8 | 1890.1 | 1335.9 | 781.7  |
| 65°    | 8071.6 | 7197.2 | 6322.2 | 5423.5 | 4524.8 | 3626.1 | 2727.4 | 2224.4 | 1720.9 | 1217.9 | 714.3  |
| 67.5°  | 7332.0 | 6420.3 | 5508.1 | 4712.4 | 3916.7 | 3120.4 | 2324.7 | 1904.2 | 1484.2 | 1063.7 | 643.2  |
| 70°    | 6404.2 | 5508.1 | 4612.1 | 3923.7 | 3235.2 | 2546.8 | 1858.3 | 1541.9 | 1225.9 | 909.5  | 593.0  |
| 72.5°  | 5147.5 | 4374.4 | 3601.3 | 3059.5 | 2517.7 | 1975.9 | 1434.0 | 1214.1 | 994.7  | 774.7  | 554.8  |
| 75°    | 3661.1 | 3206.7 | 2752.2 | 2330.6 | 1909.0 | 1486.9 | 1065.3 | 923.0  | 780.6  | 638.3  | 496.0  |
| 77.5°  | 2601.8 | 2333.8 | 2065.9 | 1735.4 | 1404.9 | 1074.5 | 744.0  | 660.4  | 577.4  | 493.8  | 410.3  |
| 80°    | 1923.6 | 1699.8 | 1476.1 | 1227.0 | 978.0  | 728.9  | 479.8  | 438.8  | 398.4  | 357.4  | 316.5  |
| 82.5°  | 1266.4 | 1165.6 | 1064.2 | 866.9  | 669.6  | 472.3  | 274.9  | 259.9  | 244.8  | 229.7  | 214.6  |
| 85°    | 567.1  | 599.0  | 630.2  | 509.5  | 388.2  | 267.4  | 146.1  | 139.1  | 132.1  | 125.1  | 118.1  |
| 87.5°  | 54.5   | 80.3   | 106.2  | 91.1   | 75.5   | 60.4   | 44.7   | 44.2   | 44.2   | 43.7   | 43.1   |
| 90°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 92.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 95°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 97.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 100°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 102.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 105°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 107.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 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):**

|        | 0°  | 2.5° | 5°  | 7.5° | 10° | 12.5° | 15° | 17.5° | 20° | 22.5° | 25° |
|--------|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|
| 112.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 115°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 117.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 120°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 122.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 125°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 127.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 130°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 132.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 135°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 137.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 140°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 142.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 145°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 147.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 150°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 152.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 155°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 157.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 160°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 162.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 165°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 167.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 170°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 172.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 175°   | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 177.5° | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 180°   | 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):**

|        | 27.5°  | 30°    | 32.5°  | 35°    | 37.5°  | 40°    | 42.5°  | 45°    | 47.5°  | 50°    | 52.5°  |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 |
| 2.5°   | 1410.3 | 1417.9 | 1425.4 | 1433.0 | 1424.9 | 1416.8 | 1408.2 | 1400.1 | 1389.8 | 1379.6 | 1368.8 |
| 5°     | 1677.7 | 1654.5 | 1631.9 | 1608.7 | 1574.2 | 1539.7 | 1504.7 | 1470.2 | 1465.9 | 1461.0 | 1456.7 |
| 7.5°   | 1557.0 | 1514.9 | 1472.3 | 1429.7 | 1375.8 | 1322.5 | 1268.5 | 1214.6 | 1198.5 | 1182.3 | 1166.1 |
| 10°    | 1417.9 | 1388.8 | 1360.2 | 1331.1 | 1297.7 | 1264.2 | 1230.3 | 1196.8 | 1152.6 | 1107.9 | 1063.7 |
| 12.5°  | 1406.0 | 1358.6 | 1310.6 | 1263.1 | 1242.7 | 1222.2 | 1201.7 | 1181.2 | 1142.4 | 1103.6 | 1064.2 |
| 15°    | 1330.5 | 1291.7 | 1253.4 | 1214.6 | 1185.0 | 1155.3 | 1125.7 | 1096.0 | 1064.8 | 1032.9 | 1001.7 |
| 17.5°  | 1277.2 | 1233.0 | 1188.8 | 1144.5 | 1110.6 | 1076.6 | 1042.1 | 1008.1 | 970.4  | 932.1  | 894.4  |
| 20°    | 1221.6 | 1171.5 | 1120.8 | 1070.1 | 1027.0 | 984.4  | 941.3  | 898.2  | 856.7  | 815.7  | 774.2  |
| 22.5°  | 1199.0 | 1132.7 | 1066.4 | 1000.1 | 954.8  | 908.9  | 863.7  | 817.8  | 779.6  | 741.3  | 703.0  |
| 25°    | 1233.5 | 1154.8 | 1075.5 | 996.3  | 935.4  | 873.9  | 813.0  | 751.5  | 719.7  | 687.9  | 655.6  |
| 27.5°  | 1193.1 | 1093.9 | 995.2  | 896.0  | 830.8  | 765.0  | 699.8  | 634.0  | 629.1  | 624.3  | 618.9  |
| 30°    | 1069.1 | 965.0  | 861.0  | 756.9  | 697.1  | 636.7  | 576.9  | 516.5  | 505.2  | 493.3  | 482.0  |
| 32.5°  | 995.2  | 889.0  | 782.8  | 676.6  | 623.2  | 569.3  | 515.9  | 462.0  | 449.1  | 436.1  | 423.2  |
| 35°    | 967.2  | 851.8  | 736.4  | 621.1  | 575.2  | 529.4  | 483.6  | 437.8  | 428.6  | 420.0  | 410.8  |
| 37.5°  | 944.5  | 830.2  | 715.4  | 600.6  | 556.4  | 512.2  | 467.4  | 423.2  | 416.2  | 409.2  | 402.2  |
| 40°    | 923.0  | 807.1  | 690.6  | 574.2  | 534.8  | 496.0  | 456.6  | 417.3  | 413.0  | 408.6  | 403.8  |
| 42.5°  | 903.6  | 790.9  | 677.7  | 565.0  | 530.0  | 495.4  | 460.4  | 425.4  | 421.0  | 416.7  | 412.4  |
| 45°    | 892.8  | 782.8  | 672.8  | 562.8  | 537.5  | 512.2  | 486.3  | 460.9  | 450.7  | 440.5  | 429.7  |
| 47.5°  | 884.7  | 781.7  | 678.7  | 575.8  | 549.4  | 522.9  | 496.5  | 470.1  | 460.9  | 451.8  | 442.1  |
| 50°    | 886.3  | 787.6  | 688.5  | 589.3  | 557.4  | 525.1  | 493.3  | 460.9  | 459.9  | 458.8  | 457.7  |
| 52.5°  | 900.9  | 796.3  | 691.1  | 586.0  | 551.5  | 517.0  | 482.0  | 447.5  | 454.5  | 460.9  | 468.0  |
| 55°    | 879.8  | 770.9  | 661.5  | 552.6  | 519.7  | 487.4  | 454.5  | 421.6  | 430.8  | 439.4  | 448.5  |
| 57.5°  | 856.1  | 738.0  | 620.0  | 501.9  | 477.1  | 452.3  | 427.0  | 402.2  | 411.9  | 422.1  | 431.8  |
| 60°    | 777.4  | 669.6  | 561.8  | 453.9  | 437.2  | 420.5  | 403.8  | 387.1  | 391.4  | 395.7  | 400.0  |
| 62.5°  | 691.1  | 600.0  | 509.5  | 418.4  | 405.4  | 391.9  | 379.0  | 365.5  | 365.5  | 366.1  | 366.1  |
| 65°    | 636.2  | 558.0  | 479.8  | 401.6  | 387.1  | 372.5  | 357.4  | 342.9  | 340.7  | 338.6  | 336.4  |
| 67.5°  | 581.2  | 519.7  | 457.7  | 395.7  | 374.7  | 354.2  | 333.2  | 312.1  | 309.5  | 307.3  | 304.6  |
| 70°    | 538.0  | 483.0  | 428.1  | 373.1  | 349.3  | 326.2  | 302.4  | 278.7  | 276.6  | 274.9  | 272.8  |
| 72.5°  | 503.0  | 451.8  | 400.0  | 348.3  | 323.5  | 298.1  | 273.3  | 248.0  | 246.4  | 244.8  | 242.6  |
| 75°    | 450.2  | 404.9  | 359.1  | 313.2  | 289.0  | 265.2  | 241.0  | 216.7  | 214.6  | 213.0  | 210.8  |
| 77.5°  | 372.5  | 334.3  | 296.5  | 258.2  | 239.4  | 221.0  | 202.2  | 183.3  | 182.2  | 181.1  | 179.5  |
| 80°    | 286.8  | 257.2  | 227.0  | 197.3  | 184.9  | 172.0  | 159.6  | 146.6  | 146.1  | 145.6  | 144.5  |
| 82.5°  | 196.8  | 179.0  | 161.2  | 143.4  | 134.2  | 124.5  | 115.4  | 105.7  | 106.2  | 106.7  | 107.3  |
| 85°    | 112.1  | 105.7  | 99.7   | 93.3   | 85.7   | 78.7   | 71.2   | 63.6   | 65.2   | 66.9   | 67.9   |
| 87.5°  | 41.0   | 38.8   | 36.7   | 34.5   | 30.7   | 27.5   | 23.7   | 19.9   | 21.0   | 22.6   | 23.7   |
| 90°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 92.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 95°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 97.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 100°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 102.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 105°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 107.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 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-SA4A-727-U-SLR

**CANDELA DISTRIBUTION (continued):**

|        | 27.5° | 30° | 32.5° | 35° | 37.5° | 40° | 42.5° | 45° | 47.5° | 50° | 52.5° |
|--------|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| 112.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 115°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 117.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 120°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 122.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 125°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 127.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 130°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 132.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 135°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 137.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 140°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 142.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 145°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 147.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 150°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 152.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 155°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 157.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 160°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 162.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 165°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 167.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 170°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 172.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 175°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 177.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   |
| 180°   | 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):**

|        | 55°    | 57.5°  | 60°    | 62.5°  | 65°    | 67.5°  | 70°    | 72.5°  | 75°    | 77.5°  | 80°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 |
| 2.5°   | 1358.6 | 1342.4 | 1326.2 | 1310.1 | 1293.9 | 1260.5 | 1227.6 | 1194.1 | 1160.7 | 1181.2 | 1202.2 |
| 5°     | 1451.8 | 1424.3 | 1396.3 | 1368.8 | 1340.8 | 1325.1 | 1309.5 | 1293.9 | 1278.2 | 1286.3 | 1295.0 |
| 7.5°   | 1149.9 | 1133.8 | 1117.0 | 1100.9 | 1084.2 | 1077.2 | 1070.7 | 1063.7 | 1056.7 | 1076.6 | 1096.6 |
| 10°    | 1018.9 | 996.3  | 973.6  | 950.5  | 927.8  | 914.3  | 900.9  | 887.4  | 873.9  | 879.3  | 884.7  |
| 12.5°  | 1025.4 | 992.0  | 958.5  | 925.1  | 891.7  | 871.8  | 851.8  | 831.9  | 811.9  | 816.8  | 821.6  |
| 15°    | 969.9  | 935.4  | 900.9  | 866.4  | 831.9  | 808.7  | 785.0  | 761.8  | 738.0  | 730.0  | 721.3  |
| 17.5°  | 856.1  | 818.4  | 780.6  | 742.9  | 705.2  | 689.5  | 673.9  | 658.3  | 642.6  | 634.0  | 625.4  |
| 20°    | 732.7  | 697.6  | 662.6  | 627.5  | 592.5  | 581.7  | 570.9  | 559.6  | 548.8  | 543.4  | 537.5  |
| 22.5°  | 664.7  | 643.2  | 621.1  | 599.5  | 577.4  | 565.0  | 553.1  | 540.7  | 528.3  | 522.4  | 515.9  |
| 25°    | 623.8  | 628.1  | 632.9  | 637.2  | 641.5  | 636.2  | 630.2  | 624.8  | 618.9  | 621.1  | 622.7  |
| 27.5°  | 614.1  | 623.2  | 632.9  | 642.1  | 651.3  | 656.1  | 661.0  | 665.8  | 670.7  | 672.3  | 673.9  |
| 30°    | 470.1  | 475.0  | 479.3  | 484.1  | 488.4  | 501.9  | 515.4  | 528.3  | 541.8  | 562.8  | 584.4  |
| 32.5°  | 410.3  | 408.6  | 407.0  | 404.9  | 403.3  | 406.5  | 409.7  | 412.4  | 415.7  | 423.2  | 431.3  |
| 35°    | 401.6  | 397.9  | 393.6  | 389.8  | 385.5  | 387.1  | 388.7  | 390.3  | 391.9  | 397.9  | 403.8  |
| 37.5°  | 395.2  | 393.6  | 392.5  | 390.9  | 389.2  | 393.0  | 396.3  | 400.0  | 403.3  | 408.1  | 413.0  |
| 40°    | 399.5  | 398.9  | 398.4  | 397.3  | 396.8  | 398.9  | 401.1  | 403.3  | 405.4  | 411.9  | 418.4  |
| 42.5°  | 408.1  | 408.1  | 407.6  | 407.6  | 407.0  | 409.2  | 410.8  | 413.0  | 414.6  | 418.4  | 422.1  |
| 45°    | 419.4  | 418.4  | 417.8  | 416.7  | 415.7  | 415.1  | 415.1  | 414.6  | 414.0  | 416.2  | 418.9  |
| 47.5°  | 432.9  | 429.1  | 424.8  | 421.0  | 416.7  | 415.7  | 414.0  | 413.0  | 411.3  | 412.4  | 413.5  |
| 50°    | 456.6  | 446.4  | 436.7  | 426.4  | 416.2  | 413.5  | 410.8  | 408.1  | 405.4  | 404.9  | 404.9  |
| 52.5°  | 474.4  | 459.3  | 444.2  | 429.1  | 414.0  | 409.2  | 404.3  | 399.5  | 394.6  | 393.6  | 393.0  |
| 55°    | 457.2  | 445.8  | 435.1  | 423.7  | 412.4  | 405.4  | 397.9  | 390.9  | 383.3  | 381.7  | 380.1  |
| 57.5°  | 441.5  | 434.5  | 427.5  | 420.5  | 413.5  | 406.5  | 398.9  | 391.9  | 384.4  | 380.6  | 376.8  |
| 60°    | 404.3  | 404.3  | 404.9  | 404.9  | 404.9  | 397.3  | 389.8  | 382.2  | 374.7  | 370.9  | 367.7  |
| 62.5°  | 366.1  | 372.0  | 377.4  | 383.3  | 388.7  | 378.5  | 367.7  | 357.4  | 346.7  | 344.0  | 341.8  |
| 65°    | 334.3  | 335.9  | 338.0  | 339.6  | 341.3  | 333.2  | 325.1  | 317.0  | 308.9  | 307.3  | 305.1  |
| 67.5°  | 301.9  | 301.4  | 300.8  | 299.7  | 299.2  | 294.4  | 289.0  | 284.1  | 278.7  | 276.6  | 274.4  |
| 70°    | 270.6  | 270.1  | 269.6  | 268.5  | 267.9  | 263.6  | 259.3  | 255.0  | 250.7  | 249.1  | 247.5  |
| 72.5°  | 241.0  | 240.4  | 239.4  | 238.8  | 237.8  | 234.0  | 230.7  | 227.0  | 223.2  | 221.0  | 218.9  |
| 75°    | 208.6  | 207.6  | 206.5  | 205.4  | 204.3  | 201.1  | 197.9  | 194.1  | 190.8  | 188.7  | 186.5  |
| 77.5°  | 178.4  | 176.8  | 175.2  | 173.1  | 171.4  | 168.7  | 165.5  | 162.8  | 159.6  | 156.9  | 154.7  |
| 80°    | 143.9  | 142.9  | 141.8  | 140.2  | 139.1  | 136.4  | 133.7  | 130.5  | 127.8  | 124.5  | 121.8  |
| 82.5°  | 107.8  | 107.3  | 106.2  | 105.7  | 104.6  | 101.9  | 99.2   | 96.5   | 93.8   | 90.6   | 87.3   |
| 85°    | 69.5   | 69.0   | 68.5   | 67.9   | 67.4   | 65.2   | 63.6   | 61.5   | 59.3   | 56.1   | 53.4   |
| 87.5°  | 24.8   | 23.7   | 23.2   | 22.1   | 21.0   | 20.5   | 19.4   | 18.9   | 17.8   | 16.2   | 14.6   |
| 90°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 92.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 95°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 97.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 100°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 102.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 105°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 107.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



REPORT NUMBER: P368196  
 CATALOG NUMBER: MSA-SA4A-727-U-SLR

**CANDELA DISTRIBUTION (continued):**

|        | 55° | 57.5° | 60° | 62.5° | 65° | 67.5° | 70° | 72.5° | 75° | 77.5° | 80° |
|--------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|
| 112.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 115°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 117.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 120°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 122.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 125°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 127.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 130°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 132.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 135°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 137.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 140°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 142.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 145°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 147.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 150°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 152.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 155°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 157.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 160°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 162.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 165°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 167.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 170°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 172.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 175°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 177.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 180°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |



REPORT NUMBER: P368196

CATALOG NUMBER: MSA-SA4A-727-U-SLR

**CANDELA DISTRIBUTION (continued):**

|        | 82.5°  | 85°    | 87.5°  | 90°    | 92.5°  | 95°    | 97.5°  | 100°   | 102.5° | 105°   | 107.5° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 |
| 2.5°   | 1222.7 | 1243.2 | 1243.7 | 1243.7 | 1253.4 | 1262.6 | 1243.7 | 1224.9 | 1205.5 | 1186.6 | 1167.7 |
| 5°     | 1303.0 | 1311.1 | 1309.0 | 1306.3 | 1294.4 | 1282.6 | 1270.2 | 1257.8 | 1245.4 | 1233.0 | 1233.5 |
| 7.5°   | 1116.5 | 1136.5 | 1152.6 | 1168.3 | 1153.2 | 1138.1 | 1130.0 | 1121.9 | 1113.8 | 1105.7 | 1104.6 |
| 10°    | 889.5  | 894.9  | 901.4  | 907.3  | 898.2  | 888.5  | 904.6  | 920.8  | 936.4  | 952.6  | 934.8  |
| 12.5°  | 826.5  | 831.3  | 820.0  | 808.1  | 804.4  | 800.6  | 796.8  | 792.5  | 788.7  | 784.4  | 782.3  |
| 15°    | 713.3  | 704.6  | 696.0  | 686.8  | 684.7  | 682.0  | 679.3  | 676.1  | 673.4  | 670.1  | 660.4  |
| 17.5°  | 616.7  | 608.1  | 593.6  | 578.5  | 572.5  | 566.1  | 564.5  | 562.8  | 560.7  | 559.1  | 549.9  |
| 20°    | 532.1  | 526.2  | 522.4  | 518.1  | 512.2  | 506.2  | 500.3  | 494.4  | 487.9  | 482.0  | 473.3  |
| 22.5°  | 510.0  | 503.5  | 498.7  | 493.3  | 492.2  | 491.1  | 480.4  | 469.0  | 458.2  | 446.9  | 442.1  |
| 25°    | 624.8  | 626.5  | 596.8  | 566.6  | 563.9  | 561.2  | 541.8  | 521.9  | 502.5  | 482.5  | 465.8  |
| 27.5°  | 675.0  | 676.6  | 675.5  | 674.4  | 665.8  | 656.6  | 623.8  | 590.3  | 557.4  | 524.0  | 500.3  |
| 30°    | 605.4  | 626.5  | 634.5  | 642.6  | 636.7  | 630.2  | 595.7  | 561.8  | 527.3  | 492.8  | 477.1  |
| 32.5°  | 438.8  | 446.4  | 459.9  | 472.8  | 479.8  | 486.3  | 475.5  | 464.7  | 453.9  | 443.2  | 440.5  |
| 35°    | 409.2  | 415.1  | 417.8  | 420.5  | 416.2  | 411.9  | 403.8  | 395.7  | 387.1  | 379.0  | 377.4  |
| 37.5°  | 417.3  | 422.1  | 427.5  | 432.9  | 421.0  | 408.6  | 399.5  | 390.9  | 381.7  | 372.5  | 365.0  |
| 40°    | 424.8  | 431.3  | 434.5  | 437.8  | 425.9  | 414.0  | 402.7  | 391.9  | 380.6  | 369.3  | 361.7  |
| 42.5°  | 425.9  | 429.7  | 435.6  | 441.5  | 424.8  | 407.6  | 397.3  | 386.5  | 376.3  | 365.5  | 358.0  |
| 45°    | 421.0  | 423.2  | 428.6  | 434.0  | 414.6  | 394.6  | 385.5  | 375.8  | 366.6  | 356.9  | 350.4  |
| 47.5°  | 414.0  | 415.1  | 419.4  | 423.2  | 402.7  | 381.7  | 373.1  | 364.4  | 355.3  | 346.7  | 340.2  |
| 50°    | 404.3  | 403.8  | 407.0  | 409.7  | 388.7  | 367.7  | 359.1  | 351.0  | 342.3  | 333.7  | 328.3  |
| 52.5°  | 391.9  | 390.9  | 394.1  | 396.8  | 374.7  | 352.6  | 345.0  | 338.0  | 330.5  | 322.9  | 318.6  |
| 55°    | 377.9  | 376.3  | 379.0  | 381.7  | 360.1  | 338.0  | 331.6  | 324.5  | 318.1  | 311.1  | 307.3  |
| 57.5°  | 372.5  | 368.8  | 370.4  | 372.0  | 347.7  | 323.5  | 317.0  | 310.5  | 304.1  | 297.6  | 294.9  |
| 60°    | 363.9  | 360.1  | 361.7  | 362.8  | 336.9  | 310.5  | 304.6  | 298.1  | 292.2  | 285.7  | 283.0  |
| 62.5°  | 339.1  | 336.4  | 338.6  | 340.7  | 317.5  | 293.8  | 288.4  | 283.6  | 278.2  | 272.8  | 269.0  |
| 65°    | 303.5  | 301.4  | 305.7  | 310.0  | 290.0  | 270.1  | 266.9  | 263.6  | 259.9  | 256.6  | 252.8  |
| 67.5°  | 272.3  | 270.1  | 274.4  | 278.7  | 264.2  | 249.6  | 246.4  | 243.1  | 239.9  | 236.7  | 234.5  |
| 70°    | 245.8  | 244.2  | 248.0  | 251.8  | 239.4  | 227.0  | 223.7  | 221.0  | 217.8  | 214.6  | 213.0  |
| 72.5°  | 216.2  | 214.0  | 218.9  | 223.2  | 213.0  | 202.2  | 199.5  | 196.2  | 193.5  | 190.3  | 189.2  |
| 75°    | 184.4  | 182.2  | 186.5  | 190.3  | 183.3  | 175.8  | 173.1  | 170.4  | 167.7  | 165.0  | 164.4  |
| 77.5°  | 152.0  | 149.3  | 153.6  | 157.4  | 153.1  | 148.3  | 146.1  | 143.4  | 141.2  | 138.6  | 138.6  |
| 80°    | 118.6  | 115.4  | 118.6  | 121.3  | 119.7  | 118.1  | 116.4  | 114.3  | 112.7  | 110.5  | 111.1  |
| 82.5°  | 84.1   | 80.9   | 82.5   | 84.1   | 85.2   | 86.3   | 86.3   | 86.3   | 86.3   | 86.3   | 86.3   |
| 85°    | 50.1   | 46.9   | 47.4   | 48.0   | 49.6   | 51.2   | 51.8   | 52.3   | 52.8   | 53.4   | 53.9   |
| 87.5°  | 12.9   | 11.3   | 10.2   | 8.6    | 10.2   | 11.3   | 12.4   | 12.9   | 14.0   | 14.6   | 14.6   |
| 90°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 92.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 95°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 97.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 100°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 102.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 105°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 107.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 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-SA4A-727-U-SLR

**CANDELA DISTRIBUTION (continued):**

|        | 82.5° | 85° | 87.5° | 90° | 92.5° | 95° | 97.5° | 100° | 102.5° | 105° | 107.5° |
|--------|-------|-----|-------|-----|-------|-----|-------|------|--------|------|--------|
| 112.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 115°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 117.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 120°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 122.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 125°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 127.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 130°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 132.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 135°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 137.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 140°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 142.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 145°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 147.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 150°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 152.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 155°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 157.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 160°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 162.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 165°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 167.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 170°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 172.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 175°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 177.5° | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |
| 180°   | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0  | 0.0    | 0.0  | 0.0    |



REPORT NUMBER: P368196  
 CATALOG NUMBER: MSA-SA4A-727-U-SLR

**CANDELA DISTRIBUTION (continued):**

|        | 110°   | 112.5° | 115°   | 117.5° | 120°   | 122.5° | 125°   | 127.5° | 130°   | 132.5° | 135°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 |
| 2.5°   | 1148.9 | 1129.4 | 1110.6 | 1122.4 | 1133.8 | 1145.6 | 1156.9 | 1157.5 | 1157.5 | 1158.0 | 1158.0 |
| 5°     | 1234.6 | 1235.1 | 1235.7 | 1224.3 | 1213.6 | 1202.2 | 1190.9 | 1185.0 | 1179.0 | 1172.6 | 1166.6 |
| 7.5°   | 1103.0 | 1102.0 | 1100.3 | 1089.6 | 1078.8 | 1068.0 | 1057.2 | 1031.3 | 1004.9 | 979.0  | 952.6  |
| 10°    | 916.5  | 898.7  | 880.4  | 876.1  | 872.3  | 868.0  | 863.7  | 856.7  | 850.2  | 843.2  | 836.2  |
| 12.5°  | 780.1  | 777.9  | 775.8  | 764.5  | 753.1  | 741.3  | 730.0  | 730.0  | 730.0  | 730.0  | 730.0  |
| 15°    | 650.2  | 640.5  | 630.2  | 624.8  | 618.9  | 613.5  | 607.6  | 604.9  | 602.2  | 599.5  | 596.8  |
| 17.5°  | 540.2  | 531.0  | 521.3  | 520.2  | 519.2  | 518.1  | 517.0  | 514.3  | 511.6  | 508.9  | 506.2  |
| 20°    | 464.7  | 456.1  | 447.5  | 450.7  | 453.9  | 456.6  | 459.9  | 457.2  | 454.5  | 451.2  | 448.5  |
| 22.5°  | 436.7  | 431.8  | 426.4  | 423.7  | 421.0  | 417.8  | 415.1  | 415.1  | 415.7  | 415.7  | 415.7  |
| 25°    | 449.6  | 432.9  | 416.2  | 408.1  | 400.0  | 391.4  | 383.3  | 380.1  | 377.4  | 374.1  | 370.9  |
| 27.5°  | 476.6  | 452.3  | 428.6  | 414.6  | 400.6  | 386.5  | 372.5  | 366.6  | 360.1  | 354.2  | 347.7  |
| 30°    | 460.9  | 445.3  | 429.1  | 413.0  | 396.8  | 380.6  | 364.4  | 356.9  | 349.3  | 341.3  | 333.7  |
| 32.5°  | 437.8  | 434.5  | 431.8  | 416.7  | 401.6  | 386.0  | 370.9  | 367.7  | 365.0  | 361.7  | 358.5  |
| 35°    | 375.2  | 373.6  | 371.5  | 367.7  | 363.9  | 360.1  | 356.4  | 352.0  | 347.7  | 343.4  | 339.1  |
| 37.5°  | 358.0  | 350.4  | 342.9  | 341.3  | 339.6  | 338.0  | 336.4  | 334.8  | 333.2  | 331.0  | 329.4  |
| 40°    | 354.2  | 346.7  | 339.1  | 336.4  | 333.7  | 330.5  | 327.8  | 328.3  | 329.4  | 329.9  | 330.5  |
| 42.5°  | 349.9  | 342.3  | 334.3  | 332.1  | 329.9  | 327.8  | 325.6  | 326.2  | 327.2  | 327.8  | 328.3  |
| 45°    | 344.5  | 338.0  | 331.6  | 327.8  | 324.5  | 320.8  | 317.0  | 320.2  | 323.5  | 326.2  | 329.4  |
| 47.5°  | 333.7  | 326.7  | 320.2  | 318.1  | 315.9  | 313.2  | 311.1  | 314.3  | 317.5  | 320.2  | 323.5  |
| 50°    | 322.4  | 317.0  | 311.1  | 310.5  | 310.0  | 308.9  | 308.4  | 310.5  | 312.7  | 314.8  | 317.0  |
| 52.5°  | 313.8  | 309.5  | 304.6  | 304.6  | 304.1  | 304.1  | 303.5  | 305.7  | 307.8  | 309.5  | 311.6  |
| 55°    | 304.1  | 300.3  | 296.5  | 297.1  | 298.1  | 298.7  | 299.2  | 301.4  | 304.1  | 306.2  | 308.4  |
| 57.5°  | 291.7  | 289.0  | 285.7  | 287.9  | 289.5  | 291.7  | 293.3  | 294.9  | 297.1  | 298.7  | 300.3  |
| 60°    | 279.8  | 277.1  | 273.9  | 276.0  | 278.7  | 280.9  | 283.0  | 284.7  | 286.3  | 287.9  | 289.5  |
| 62.5°  | 265.2  | 260.9  | 257.2  | 260.4  | 263.1  | 266.3  | 269.0  | 270.1  | 271.7  | 272.8  | 273.9  |
| 65°    | 249.6  | 245.8  | 242.1  | 244.2  | 246.4  | 248.0  | 250.1  | 251.8  | 253.4  | 255.0  | 256.6  |
| 67.5°  | 231.8  | 229.7  | 227.0  | 228.6  | 230.2  | 231.8  | 233.4  | 234.0  | 234.0  | 234.5  | 234.5  |
| 70°    | 210.8  | 209.2  | 207.0  | 208.1  | 209.7  | 210.8  | 211.9  | 211.9  | 211.9  | 211.3  | 211.3  |
| 72.5°  | 188.7  | 187.6  | 186.5  | 187.1  | 188.2  | 188.7  | 189.2  | 188.7  | 188.2  | 187.6  | 187.1  |
| 75°    | 163.9  | 163.4  | 162.8  | 163.4  | 164.4  | 165.0  | 165.5  | 165.0  | 163.9  | 163.4  | 162.3  |
| 77.5°  | 139.1  | 139.1  | 139.1  | 139.1  | 139.6  | 139.6  | 139.6  | 138.6  | 137.5  | 136.4  | 135.3  |
| 80°    | 111.6  | 112.1  | 112.7  | 112.7  | 112.7  | 112.7  | 112.7  | 111.6  | 110.5  | 108.9  | 107.8  |
| 82.5°  | 86.3   | 86.3   | 86.3   | 86.3   | 86.8   | 86.8   | 86.8   | 84.1   | 81.9   | 79.3   | 76.6   |
| 85°    | 53.9   | 54.5   | 54.5   | 55.0   | 55.5   | 55.5   | 56.1   | 52.3   | 49.1   | 45.3   | 41.5   |
| 87.5°  | 14.6   | 14.6   | 14.6   | 14.6   | 14.6   | 14.0   | 14.0   | 10.8   | 7.0    | 3.8    | 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    |
| 92.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 95°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 97.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 100°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 102.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 105°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 107.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 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):**

|        | 110° | 112.5° | 115° | 117.5° | 120° | 122.5° | 125° | 127.5° | 130° | 132.5° | 135° |
|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|
| 112.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 115°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 117.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 120°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 122.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 125°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 127.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 130°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 132.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 135°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 137.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 140°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 142.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 145°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 147.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 150°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 152.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 155°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 157.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 160°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 162.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 165°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 167.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 170°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 172.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 175°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 177.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 180°   | 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):**

|        | 137.5° | 140°   | 142.5° | 145°   | 147.5° | 150°   | 152.5° | 155°   | 157.5° | 160°   | 162.5° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 |
| 2.5°   | 1161.3 | 1164.5 | 1167.2 | 1170.4 | 1171.0 | 1171.5 | 1171.5 | 1172.0 | 1160.7 | 1149.4 | 1137.5 |
| 5°     | 1174.7 | 1182.3 | 1190.4 | 1197.9 | 1196.3 | 1194.7 | 1193.1 | 1191.4 | 1188.2 | 1185.5 | 1182.3 |
| 7.5°   | 946.7  | 941.3  | 935.4  | 929.4  | 934.3  | 939.1  | 944.0  | 948.8  | 951.0  | 953.2  | 954.8  |
| 10°    | 822.7  | 809.2  | 795.7  | 782.3  | 774.7  | 766.6  | 759.1  | 751.0  | 749.9  | 749.4  | 748.3  |
| 12.5°  | 715.9  | 701.4  | 687.4  | 672.8  | 668.5  | 663.7  | 659.3  | 654.5  | 658.8  | 663.1  | 666.9  |
| 15°    | 590.9  | 585.5  | 579.5  | 573.6  | 578.5  | 583.3  | 588.2  | 593.0  | 597.3  | 601.1  | 605.4  |
| 17.5°  | 503.5  | 501.4  | 498.7  | 496.0  | 500.3  | 505.2  | 509.5  | 513.8  | 523.5  | 533.2  | 542.9  |
| 20°    | 446.4  | 444.8  | 442.6  | 440.5  | 438.8  | 436.7  | 435.1  | 432.9  | 446.9  | 460.4  | 474.4  |
| 22.5°  | 412.4  | 409.2  | 406.0  | 402.7  | 403.3  | 403.8  | 403.8  | 404.3  | 415.7  | 427.5  | 438.8  |
| 25°    | 369.8  | 368.8  | 367.7  | 366.6  | 369.8  | 373.1  | 375.8  | 379.0  | 389.2  | 399.5  | 409.2  |
| 27.5°  | 348.3  | 348.8  | 349.3  | 349.9  | 354.2  | 359.1  | 363.4  | 367.7  | 374.7  | 381.7  | 388.7  |
| 30°    | 336.4  | 339.6  | 342.3  | 345.0  | 346.7  | 348.3  | 349.9  | 351.5  | 358.5  | 365.0  | 372.0  |
| 32.5°  | 354.2  | 349.9  | 345.0  | 340.7  | 342.9  | 345.6  | 347.7  | 349.9  | 356.4  | 362.8  | 369.3  |
| 35°    | 337.5  | 335.3  | 333.7  | 331.6  | 334.3  | 336.9  | 339.1  | 341.8  | 347.7  | 353.1  | 359.1  |
| 37.5°  | 328.9  | 328.3  | 327.8  | 327.2  | 328.9  | 330.5  | 331.6  | 333.2  | 338.6  | 344.0  | 348.8  |
| 40°    | 328.3  | 325.6  | 323.5  | 320.8  | 322.4  | 324.0  | 325.1  | 326.7  | 333.2  | 339.6  | 346.1  |
| 42.5°  | 325.1  | 321.9  | 318.1  | 314.8  | 316.5  | 318.6  | 320.2  | 321.9  | 328.9  | 335.3  | 342.3  |
| 45°    | 324.5  | 319.7  | 314.3  | 309.5  | 311.6  | 313.8  | 315.9  | 318.1  | 323.5  | 328.9  | 333.7  |
| 47.5°  | 318.6  | 313.8  | 308.9  | 304.1  | 305.1  | 306.2  | 306.8  | 307.8  | 312.7  | 317.0  | 321.9  |
| 50°    | 313.8  | 310.0  | 306.8  | 303.0  | 301.4  | 300.3  | 298.7  | 297.1  | 300.8  | 304.6  | 308.4  |
| 52.5°  | 307.8  | 304.1  | 299.7  | 296.0  | 293.8  | 291.7  | 289.5  | 287.3  | 290.6  | 293.3  | 296.5  |
| 55°    | 304.1  | 299.2  | 294.9  | 290.0  | 287.3  | 284.7  | 282.0  | 279.3  | 281.4  | 283.0  | 285.2  |
| 57.5°  | 296.0  | 291.7  | 286.8  | 282.5  | 279.3  | 276.0  | 272.3  | 269.0  | 270.1  | 271.2  | 272.3  |
| 60°    | 285.2  | 280.3  | 276.0  | 271.2  | 267.4  | 263.6  | 259.3  | 255.5  | 256.1  | 257.2  | 257.7  |
| 62.5°  | 269.6  | 265.2  | 260.4  | 256.1  | 251.8  | 248.0  | 243.7  | 239.4  | 240.4  | 241.0  | 242.1  |
| 65°    | 252.3  | 247.5  | 243.1  | 238.3  | 234.5  | 230.7  | 226.4  | 222.7  | 223.7  | 224.8  | 225.4  |
| 67.5°  | 231.3  | 227.5  | 224.3  | 220.5  | 217.3  | 213.5  | 210.3  | 206.5  | 207.0  | 207.6  | 208.1  |
| 70°    | 208.6  | 205.4  | 202.7  | 199.5  | 196.8  | 194.1  | 191.4  | 188.7  | 188.7  | 189.2  | 189.2  |
| 72.5°  | 184.4  | 181.7  | 179.0  | 176.3  | 173.6  | 171.4  | 168.7  | 166.0  | 167.1  | 168.2  | 168.7  |
| 75°    | 159.6  | 157.4  | 154.7  | 152.0  | 149.9  | 147.7  | 145.0  | 142.9  | 143.9  | 145.0  | 145.6  |
| 77.5°  | 133.7  | 132.1  | 129.9  | 128.3  | 126.2  | 124.0  | 121.3  | 119.1  | 120.2  | 121.3  | 121.8  |
| 80°    | 106.7  | 105.7  | 104.0  | 103.0  | 100.8  | 98.7   | 96.5   | 94.3   | 94.9   | 94.9   | 95.4   |
| 82.5°  | 77.1   | 77.6   | 77.6   | 78.2   | 76.6   | 74.4   | 72.8   | 70.6   | 70.6   | 70.6   | 70.1   |
| 85°    | 43.1   | 45.3   | 46.9   | 48.5   | 46.9   | 45.3   | 43.7   | 42.1   | 41.5   | 41.5   | 41.0   |
| 87.5°  | 1.6    | 2.7    | 4.3    | 5.4    | 4.9    | 4.3    | 3.2    | 2.7    | 3.2    | 3.8    | 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    |
| 92.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 95°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 97.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 100°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 102.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 105°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 107.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 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-SA4A-727-U-SLR

**CANDELA DISTRIBUTION (continued):**

|        | 137.5° | 140° | 142.5° | 145° | 147.5° | 150° | 152.5° | 155° | 157.5° | 160° | 162.5° |
|--------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|
| 112.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 115°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 117.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 120°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 122.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 125°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 127.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 130°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 132.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 135°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 137.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 140°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 142.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 145°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 147.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 150°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 152.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 155°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 157.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 160°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 162.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 165°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 167.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 170°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 172.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 175°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 177.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 180°   | 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):**

|        | 165°   | 167.5° | 170°   | 172.5° | 175°   | 177.5° | 180°   | 182.5° | 185°   | 187.5° | 190°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 |
| 2.5°   | 1126.2 | 1135.4 | 1144.5 | 1153.7 | 1162.9 | 1176.9 | 1190.9 | 1205.5 | 1220.0 | 1211.9 | 1203.3 |
| 5°     | 1179.0 | 1184.4 | 1190.4 | 1195.8 | 1201.2 | 1216.8 | 1231.9 | 1250.7 | 1269.1 | 1266.9 | 1264.2 |
| 7.5°   | 956.9  | 964.5  | 972.0  | 979.0  | 986.6  | 1010.3 | 1034.0 | 1054.0 | 1073.9 | 1071.2 | 1068.0 |
| 10°    | 747.2  | 762.8  | 779.0  | 794.7  | 810.3  | 829.7  | 848.6  | 865.3  | 882.0  | 910.0  | 937.5  |
| 12.5°  | 671.2  | 695.5  | 719.7  | 744.0  | 768.2  | 782.3  | 795.7  | 817.3  | 838.9  | 854.0  | 869.6  |
| 15°    | 609.2  | 631.8  | 654.5  | 677.1  | 699.8  | 700.9  | 701.9  | 724.6  | 747.2  | 760.2  | 772.6  |
| 17.5°  | 552.6  | 565.0  | 577.4  | 589.3  | 601.7  | 597.3  | 593.0  | 603.8  | 614.1  | 619.4  | 625.4  |
| 20°    | 487.9  | 496.5  | 505.2  | 513.8  | 522.4  | 528.3  | 533.7  | 540.2  | 546.1  | 540.7  | 534.8  |
| 22.5°  | 450.2  | 463.1  | 476.6  | 489.5  | 502.5  | 506.2  | 509.5  | 505.7  | 501.9  | 500.3  | 498.7  |
| 25°    | 419.4  | 435.1  | 451.2  | 466.9  | 482.5  | 490.1  | 497.6  | 500.8  | 503.5  | 497.6  | 491.7  |
| 27.5°  | 395.7  | 414.6  | 432.9  | 451.8  | 470.1  | 483.6  | 497.1  | 500.8  | 504.1  | 499.8  | 494.9  |
| 30°    | 378.5  | 398.9  | 419.4  | 439.9  | 460.4  | 480.9  | 500.8  | 518.6  | 535.9  | 534.3  | 532.6  |
| 32.5°  | 375.8  | 389.8  | 403.8  | 417.8  | 431.8  | 444.8  | 457.2  | 458.2  | 458.8  | 454.5  | 449.6  |
| 35°    | 364.4  | 373.6  | 382.8  | 391.9  | 401.1  | 409.2  | 416.7  | 415.7  | 414.6  | 410.3  | 406.0  |
| 37.5°  | 354.2  | 363.4  | 373.1  | 382.2  | 391.4  | 405.4  | 418.9  | 416.2  | 413.0  | 408.6  | 404.3  |
| 40°    | 352.6  | 362.8  | 373.1  | 382.8  | 393.0  | 406.0  | 418.9  | 416.2  | 413.5  | 408.1  | 402.7  |
| 42.5°  | 348.8  | 359.1  | 368.8  | 379.0  | 388.7  | 404.3  | 419.4  | 414.6  | 409.2  | 404.9  | 400.6  |
| 45°    | 339.1  | 348.3  | 357.4  | 366.6  | 375.8  | 392.5  | 409.2  | 403.3  | 397.3  | 395.7  | 393.6  |
| 47.5°  | 326.2  | 335.3  | 344.5  | 353.7  | 362.8  | 379.5  | 395.7  | 390.9  | 385.5  | 384.9  | 383.9  |
| 50°    | 312.1  | 320.8  | 329.9  | 338.6  | 347.2  | 363.9  | 380.1  | 375.8  | 371.5  | 372.0  | 372.0  |
| 52.5°  | 299.2  | 307.3  | 314.8  | 322.9  | 330.5  | 347.2  | 363.4  | 360.1  | 356.4  | 357.4  | 358.0  |
| 55°    | 286.8  | 293.3  | 299.7  | 306.2  | 312.7  | 328.9  | 345.0  | 340.2  | 335.3  | 336.9  | 338.6  |
| 57.5°  | 273.3  | 278.7  | 284.1  | 289.0  | 294.4  | 310.5  | 326.2  | 320.8  | 314.8  | 317.5  | 319.7  |
| 60°    | 258.2  | 263.1  | 267.9  | 272.3  | 277.1  | 291.7  | 305.7  | 300.8  | 295.4  | 299.2  | 302.4  |
| 62.5°  | 242.6  | 246.4  | 250.1  | 253.9  | 257.7  | 271.2  | 284.7  | 280.9  | 277.1  | 281.4  | 285.2  |
| 65°    | 226.4  | 229.1  | 232.4  | 235.1  | 237.8  | 250.7  | 263.1  | 260.4  | 257.7  | 261.5  | 265.2  |
| 67.5°  | 208.6  | 210.8  | 213.5  | 215.6  | 217.8  | 229.7  | 241.5  | 238.8  | 235.6  | 238.8  | 241.5  |
| 70°    | 189.2  | 191.4  | 193.0  | 195.2  | 196.8  | 207.6  | 218.3  | 214.6  | 210.3  | 213.5  | 216.2  |
| 72.5°  | 169.8  | 170.9  | 172.5  | 173.6  | 174.7  | 182.8  | 190.8  | 187.6  | 184.4  | 187.6  | 190.3  |
| 75°    | 146.6  | 147.7  | 148.8  | 149.9  | 151.0  | 158.0  | 164.4  | 160.7  | 156.3  | 159.6  | 162.8  |
| 77.5°  | 122.9  | 123.5  | 124.5  | 125.1  | 125.6  | 130.5  | 134.8  | 131.0  | 126.7  | 130.5  | 134.2  |
| 80°    | 95.4   | 96.0   | 96.5   | 96.5   | 97.0   | 98.7   | 100.3  | 97.6   | 94.3   | 99.2   | 104.0  |
| 82.5°  | 70.1   | 69.5   | 69.5   | 69.0   | 68.5   | 68.5   | 67.9   | 66.3   | 64.2   | 68.5   | 72.8   |
| 85°    | 40.4   | 39.9   | 38.8   | 38.3   | 37.2   | 35.6   | 34.0   | 33.4   | 32.9   | 36.7   | 40.4   |
| 87.5°  | 4.3    | 3.8    | 2.7    | 2.2    | 1.1    | 0.5    | 0.0    | 0.0    | 0.0    | 2.2    | 4.9    |
| 90°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 92.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 95°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 97.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 100°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 102.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 105°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 107.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 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):**

|        | 165° | 167.5° | 170° | 172.5° | 175° | 177.5° | 180° | 182.5° | 185° | 187.5° | 190° |
|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|
| 112.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 115°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 117.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 120°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 122.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 125°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 127.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 130°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 132.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 135°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 137.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 140°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 142.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 145°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 147.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 150°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 152.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 155°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 157.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 160°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 162.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 165°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 167.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 170°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 172.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 175°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 177.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 180°   | 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-SA4A-727-U-SLR

**CANDELA DISTRIBUTION (continued):**

|        | 192.5° | 195°   | 197.5° | 200°   | 202.5° | 205°   | 207.5° | 210°   | 212.5° | 215°   | 217.5° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 |
| 2.5°   | 1195.2 | 1186.6 | 1178.5 | 1170.4 | 1162.3 | 1154.2 | 1169.3 | 1184.4 | 1199.5 | 1214.6 | 1228.1 |
| 5°     | 1262.1 | 1259.4 | 1252.4 | 1245.9 | 1238.9 | 1231.9 | 1235.7 | 1240.0 | 1243.7 | 1247.5 | 1255.6 |
| 7.5°   | 1065.3 | 1062.1 | 1077.2 | 1091.7 | 1106.8 | 1121.4 | 1125.1 | 1128.4 | 1132.1 | 1135.4 | 1133.2 |
| 10°    | 965.6  | 993.1  | 1000.1 | 1006.5 | 1013.5 | 1020.0 | 1030.8 | 1041.6 | 1051.8 | 1062.6 | 1068.5 |
| 12.5°  | 884.7  | 899.8  | 924.6  | 949.9  | 974.7  | 999.5  | 1015.7 | 1031.9 | 1048.0 | 1064.2 | 1097.6 |
| 15°    | 785.5  | 797.9  | 816.8  | 835.6  | 854.5  | 873.4  | 896.5  | 920.3  | 943.5  | 966.6  | 1003.3 |
| 17.5°  | 630.8  | 636.2  | 650.2  | 664.2  | 677.7  | 691.7  | 723.0  | 753.7  | 785.0  | 815.7  | 857.7  |
| 20°    | 529.4  | 523.5  | 523.5  | 524.0  | 524.0  | 524.0  | 555.3  | 586.0  | 617.3  | 648.0  | 703.5  |
| 22.5°  | 496.5  | 494.9  | 489.0  | 482.5  | 476.6  | 470.1  | 486.3  | 503.0  | 519.2  | 535.3  | 580.6  |
| 25°    | 485.2  | 479.3  | 471.7  | 464.2  | 456.6  | 449.1  | 459.3  | 469.6  | 479.8  | 490.1  | 525.6  |
| 27.5°  | 490.6  | 485.7  | 489.5  | 492.8  | 496.5  | 499.8  | 503.0  | 506.2  | 509.5  | 512.7  | 525.1  |
| 30°    | 531.0  | 529.4  | 535.3  | 540.7  | 546.7  | 552.1  | 544.5  | 537.5  | 530.0  | 522.4  | 526.7  |
| 32.5°  | 445.3  | 440.5  | 438.3  | 436.1  | 434.0  | 431.8  | 431.3  | 430.8  | 429.7  | 429.1  | 438.8  |
| 35°    | 401.6  | 397.3  | 394.1  | 390.9  | 387.1  | 383.9  | 385.5  | 386.5  | 388.2  | 389.2  | 400.0  |
| 37.5°  | 400.0  | 395.7  | 391.9  | 388.2  | 383.9  | 380.1  | 381.7  | 383.9  | 385.5  | 387.1  | 395.2  |
| 40°    | 397.3  | 391.9  | 389.8  | 387.6  | 385.5  | 383.3  | 384.4  | 385.5  | 386.0  | 387.1  | 393.0  |
| 42.5°  | 395.7  | 391.4  | 390.3  | 389.2  | 388.2  | 387.1  | 388.2  | 389.2  | 389.8  | 390.9  | 397.9  |
| 45°    | 391.9  | 389.8  | 390.9  | 391.9  | 393.0  | 394.1  | 394.1  | 394.1  | 394.1  | 394.1  | 401.6  |
| 47.5°  | 383.3  | 382.2  | 385.5  | 388.7  | 391.9  | 395.2  | 400.6  | 406.0  | 410.8  | 416.2  | 417.8  |
| 50°    | 372.5  | 372.5  | 377.9  | 383.3  | 388.2  | 393.6  | 406.5  | 418.9  | 431.8  | 444.2  | 436.1  |
| 52.5°  | 359.1  | 359.6  | 367.7  | 375.2  | 383.3  | 390.9  | 402.7  | 414.6  | 425.9  | 437.8  | 425.9  |
| 55°    | 339.6  | 341.3  | 351.5  | 361.2  | 371.5  | 381.2  | 390.3  | 399.5  | 408.6  | 417.8  | 405.4  |
| 57.5°  | 322.4  | 324.5  | 335.3  | 345.6  | 356.4  | 366.6  | 372.0  | 377.9  | 383.3  | 388.7  | 380.6  |
| 60°    | 306.2  | 309.5  | 323.5  | 337.5  | 351.0  | 365.0  | 360.7  | 356.4  | 351.5  | 347.2  | 346.7  |
| 62.5°  | 289.5  | 293.3  | 306.2  | 319.2  | 331.6  | 344.5  | 338.0  | 331.6  | 324.5  | 318.1  | 320.8  |
| 65°    | 268.5  | 272.3  | 278.2  | 284.1  | 289.5  | 295.4  | 294.9  | 294.9  | 294.4  | 293.8  | 299.2  |
| 67.5°  | 244.8  | 247.5  | 251.2  | 254.5  | 258.2  | 261.5  | 263.6  | 266.3  | 268.5  | 270.6  | 277.1  |
| 70°    | 219.4  | 222.1  | 225.9  | 229.1  | 232.9  | 236.1  | 238.8  | 241.5  | 243.7  | 246.4  | 252.8  |
| 72.5°  | 193.5  | 196.2  | 200.0  | 203.8  | 207.0  | 210.8  | 213.0  | 215.1  | 216.7  | 218.9  | 224.3  |
| 75°    | 166.0  | 169.3  | 173.1  | 176.3  | 180.1  | 183.3  | 184.9  | 186.5  | 188.2  | 189.8  | 194.6  |
| 77.5°  | 138.0  | 141.8  | 145.6  | 149.3  | 153.1  | 156.9  | 157.4  | 158.0  | 158.5  | 159.0  | 163.4  |
| 80°    | 108.4  | 113.2  | 117.0  | 120.8  | 124.5  | 128.3  | 128.3  | 128.3  | 128.3  | 128.3  | 130.5  |
| 82.5°  | 77.1   | 81.4   | 85.7   | 89.5   | 93.8   | 97.6   | 97.6   | 97.0   | 97.0   | 96.5   | 96.5   |
| 85°    | 44.2   | 48.0   | 50.7   | 53.9   | 56.6   | 59.3   | 59.3   | 59.3   | 58.8   | 58.8   | 57.7   |
| 87.5°  | 7.0    | 9.2    | 10.2   | 11.9   | 12.9   | 14.0   | 13.5   | 13.5   | 12.9   | 12.4   | 10.8   |
| 90°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 92.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 95°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 97.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 100°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 102.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 105°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 107.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 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-SA4A-727-U-SLR

**CANDELA DISTRIBUTION (continued):**

|        | 192.5° | 195° | 197.5° | 200° | 202.5° | 205° | 207.5° | 210° | 212.5° | 215° | 217.5° |
|--------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|
| 112.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 115°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 117.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 120°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 122.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 125°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 127.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 130°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 132.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 135°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 137.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 140°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 142.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 145°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 147.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 150°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 152.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 155°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 157.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 160°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 162.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 165°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 167.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 170°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 172.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 175°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 177.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 180°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |



REPORT NUMBER: P368196

CATALOG NUMBER: MSA-SA4A-727-U-SLR

**CANDELA DISTRIBUTION (continued):**

|        | 220°   | 222.5° | 225°   | 227.5° | 230°   | 232.5° | 235°   | 237.5° | 240°   | 242.5° | 245°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 |
| 2.5°   | 1241.6 | 1255.1 | 1268.5 | 1266.4 | 1264.2 | 1262.1 | 1259.9 | 1268.0 | 1275.5 | 1283.6 | 1291.2 |
| 5°     | 1263.1 | 1271.2 | 1278.8 | 1284.7 | 1290.6 | 1296.6 | 1302.5 | 1330.0 | 1357.0 | 1384.4 | 1411.4 |
| 7.5°   | 1131.1 | 1128.4 | 1126.2 | 1151.6 | 1177.4 | 1202.8 | 1228.1 | 1263.1 | 1298.2 | 1333.2 | 1368.3 |
| 10°    | 1074.5 | 1080.4 | 1086.3 | 1096.6 | 1107.3 | 1117.6 | 1127.8 | 1162.3 | 1196.8 | 1231.3 | 1265.8 |
| 12.5°  | 1130.5 | 1164.0 | 1196.8 | 1204.9 | 1213.6 | 1221.6 | 1229.7 | 1236.7 | 1243.7 | 1250.2 | 1257.2 |
| 15°    | 1040.0 | 1076.6 | 1113.3 | 1134.3 | 1155.3 | 1175.8 | 1196.8 | 1249.7 | 1302.0 | 1354.8 | 1407.1 |
| 17.5°  | 899.2  | 941.3  | 982.8  | 1034.6 | 1086.3 | 1138.1 | 1189.8 | 1238.3 | 1286.9 | 1334.9 | 1383.4 |
| 20°    | 759.1  | 814.1  | 869.6  | 926.2  | 982.3  | 1038.9 | 1094.9 | 1142.4 | 1189.8 | 1236.7 | 1284.2 |
| 22.5°  | 625.4  | 670.7  | 715.4  | 784.4  | 852.9  | 921.9  | 990.4  | 1078.8 | 1166.6 | 1255.1 | 1342.9 |
| 25°    | 560.7  | 596.3  | 631.3  | 702.5  | 773.6  | 844.3  | 915.4  | 1030.3 | 1144.5 | 1259.4 | 1373.7 |
| 27.5°  | 538.0  | 550.4  | 562.8  | 627.5  | 691.7  | 756.4  | 820.5  | 944.5  | 1068.5 | 1192.0 | 1316.0 |
| 30°    | 531.0  | 535.3  | 539.7  | 590.3  | 641.0  | 691.7  | 742.4  | 864.7  | 987.7  | 1110.0 | 1232.4 |
| 32.5°  | 448.0  | 457.7  | 466.9  | 516.5  | 565.5  | 615.1  | 664.2  | 787.6  | 910.6  | 1034.0 | 1156.9 |
| 35°    | 410.8  | 421.6  | 432.4  | 480.9  | 529.4  | 577.4  | 625.9  | 755.8  | 886.3  | 1016.2 | 1146.2 |
| 37.5°  | 403.3  | 411.3  | 419.4  | 474.4  | 529.4  | 584.4  | 639.4  | 770.9  | 902.5  | 1034.0 | 1165.6 |
| 40°    | 399.5  | 405.4  | 411.3  | 464.7  | 518.6  | 572.0  | 625.4  | 763.4  | 900.9  | 1038.9 | 1176.4 |
| 42.5°  | 404.3  | 411.3  | 417.8  | 466.3  | 514.3  | 562.8  | 610.8  | 753.7  | 896.0  | 1038.9 | 1181.2 |
| 45°    | 408.6  | 416.2  | 423.2  | 468.5  | 513.8  | 559.1  | 604.3  | 756.9  | 908.9  | 1061.5 | 1213.6 |
| 47.5°  | 418.9  | 420.5  | 421.6  | 460.9  | 499.8  | 539.1  | 577.9  | 733.2  | 888.5  | 1043.2 | 1198.5 |
| 50°    | 427.5  | 419.4  | 410.8  | 451.8  | 492.2  | 533.2  | 573.6  | 720.8  | 868.0  | 1014.6 | 1161.8 |
| 52.5°  | 414.0  | 401.6  | 389.8  | 434.0  | 478.2  | 521.9  | 566.1  | 713.3  | 861.0  | 1008.1 | 1155.3 |
| 55°    | 393.6  | 381.2  | 368.8  | 413.5  | 458.2  | 503.0  | 547.7  | 694.4  | 841.6  | 988.2  | 1134.8 |
| 57.5°  | 373.1  | 365.0  | 356.9  | 393.6  | 430.8  | 467.4  | 504.1  | 663.1  | 821.6  | 980.7  | 1139.2 |
| 60°    | 346.1  | 345.0  | 344.5  | 373.1  | 402.2  | 430.8  | 459.3  | 615.1  | 770.4  | 926.2  | 1081.5 |
| 62.5°  | 322.9  | 325.6  | 327.8  | 351.0  | 374.1  | 396.8  | 420.0  | 570.4  | 721.3  | 871.8  | 1022.2 |
| 65°    | 305.1  | 310.5  | 315.9  | 342.3  | 368.8  | 394.6  | 421.0  | 547.2  | 673.4  | 799.5  | 925.7  |
| 67.5°  | 283.6  | 290.0  | 296.5  | 331.0  | 365.5  | 400.0  | 434.5  | 538.6  | 642.6  | 746.7  | 850.7  |
| 70°    | 258.8  | 265.2  | 271.2  | 315.4  | 359.1  | 403.3  | 446.9  | 539.1  | 631.8  | 724.0  | 816.2  |
| 72.5°  | 229.7  | 235.1  | 240.4  | 287.9  | 335.3  | 382.8  | 430.2  | 508.4  | 586.6  | 664.2  | 742.4  |
| 75°    | 200.0  | 204.9  | 209.7  | 250.7  | 291.7  | 332.6  | 373.6  | 434.0  | 493.8  | 554.2  | 614.1  |
| 77.5°  | 167.1  | 171.4  | 175.2  | 202.7  | 230.2  | 257.7  | 285.2  | 331.6  | 377.4  | 423.7  | 469.6  |
| 80°    | 132.6  | 134.8  | 136.9  | 153.1  | 168.7  | 184.9  | 200.6  | 231.3  | 262.0  | 292.2  | 322.9  |
| 82.5°  | 97.0   | 97.0   | 97.0   | 107.3  | 118.1  | 128.3  | 138.6  | 154.2  | 169.3  | 184.9  | 200.0  |
| 85°    | 56.6   | 55.0   | 53.9   | 60.9   | 67.9   | 74.9   | 81.9   | 88.4   | 94.9   | 101.4  | 107.8  |
| 87.5°  | 9.2    | 7.0    | 5.4    | 9.7    | 14.0   | 18.3   | 22.6   | 24.8   | 27.5   | 29.7   | 31.8   |
| 90°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 92.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 95°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 97.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 100°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 102.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 105°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 107.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 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-SA4A-727-U-SLR

**CANDELA DISTRIBUTION (continued):**

|        | 220° | 222.5° | 225° | 227.5° | 230° | 232.5° | 235° | 237.5° | 240° | 242.5° | 245° |
|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|
| 112.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 115°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 117.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 120°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 122.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 125°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 127.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 130°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 132.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 135°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 137.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 140°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 142.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 145°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 147.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 150°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 152.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 155°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 157.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 160°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 162.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 165°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 167.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 170°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 172.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 175°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 177.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 180°   | 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-SA4A-727-U-SLR

**CANDELA DISTRIBUTION (continued):**

|        | 247.5° | 250°   | 252.5° | 255°   | 257.5° | 260°   | 262.5° | 265°   | 267.5° | 270°   | 272.5° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 |
| 2.5°   | 1272.9 | 1255.1 | 1236.7 | 1218.4 | 1245.4 | 1272.3 | 1299.3 | 1326.2 | 1397.9 | 1440.5 | 1443.2 |
| 5°     | 1434.0 | 1456.7 | 1479.3 | 1502.0 | 1524.6 | 1547.3 | 1569.4 | 1592.0 | 1708.5 | 1780.2 | 1793.6 |
| 7.5°   | 1405.5 | 1443.2 | 1480.4 | 1517.6 | 1581.8 | 1645.9 | 1710.1 | 1774.2 | 1872.9 | 1944.1 | 1991.0 |
| 10°    | 1312.2 | 1358.6 | 1404.9 | 1451.3 | 1527.3 | 1603.9 | 1679.9 | 1755.9 | 1860.5 | 1954.3 | 1999.0 |
| 12.5°  | 1331.1 | 1404.9 | 1478.3 | 1552.1 | 1617.9 | 1684.2 | 1750.0 | 1815.7 | 1888.0 | 1923.6 | 2005.0 |
| 15°    | 1458.3 | 1509.5 | 1560.7 | 1612.0 | 1711.2 | 1809.8 | 1909.0 | 2007.7 | 2048.6 | 2130.0 | 2203.4 |
| 17.5°  | 1477.7 | 1571.5 | 1665.9 | 1759.7 | 1881.0 | 2002.3 | 2123.6 | 2244.9 | 2320.9 | 2426.0 | 2514.4 |
| 20°    | 1417.3 | 1550.0 | 1683.1 | 1815.7 | 1972.1 | 2129.0 | 2285.3 | 2441.7 | 2538.2 | 2626.6 | 2763.5 |
| 22.5°  | 1489.6 | 1636.2 | 1782.3 | 1929.0 | 2136.5 | 2343.5 | 2551.1 | 2758.1 | 2959.7 | 3157.1 | 3249.8 |
| 25°    | 1569.4 | 1765.6 | 1961.3 | 2157.0 | 2416.3 | 2675.1 | 2934.4 | 3193.2 | 3452.5 | 3637.4 | 3744.2 |
| 27.5°  | 1513.3 | 1710.1 | 1907.4 | 2104.2 | 2424.9 | 2746.3 | 3067.0 | 3387.8 | 3665.4 | 3888.1 | 3979.8 |
| 30°    | 1473.9 | 1715.5 | 1957.0 | 2198.5 | 2574.8 | 2951.1 | 3327.4 | 3703.7 | 3960.3 | 4208.9 | 4343.7 |
| 32.5°  | 1466.9 | 1776.9 | 2086.4 | 2396.4 | 2834.7 | 3272.4 | 3710.7 | 4148.5 | 4318.9 | 4539.4 | 4721.0 |
| 35°    | 1486.3 | 1827.1 | 2167.2 | 2507.4 | 3009.9 | 3512.3 | 4014.3 | 4516.7 | 4758.8 | 4977.1 | 5136.2 |
| 37.5°  | 1545.6 | 1925.7 | 2305.3 | 2685.3 | 3290.8 | 3896.7 | 4502.2 | 5107.6 | 5513.5 | 5913.0 | 5984.2 |
| 40°    | 1579.1 | 1982.3 | 2385.0 | 2787.8 | 3491.9 | 4195.9 | 4900.0 | 5604.1 | 6071.0 | 6509.3 | 6538.9 |
| 42.5°  | 1618.4 | 2055.6 | 2492.3 | 2929.6 | 3710.2 | 4491.4 | 5272.0 | 6052.7 | 6630.6 | 7101.8 | 7115.8 |
| 45°    | 1663.7 | 2113.3 | 2563.5 | 3013.1 | 3828.3 | 4642.9 | 5458.0 | 6272.6 | 6971.3 | 7543.8 | 7404.2 |
| 47.5°  | 1681.5 | 2165.1 | 2648.1 | 3131.2 | 4000.2 | 4868.8 | 5737.8 | 6606.3 | 7233.3 | 7754.1 | 7620.4 |
| 50°    | 1688.5 | 2215.8 | 2742.5 | 3269.2 | 4169.5 | 5070.4 | 5970.7 | 6871.0 | 7508.8 | 8016.7 | 7811.8 |
| 52.5°  | 1732.2 | 2309.0 | 2885.9 | 3462.7 | 4400.8 | 5338.9 | 6276.9 | 7215.0 | 7842.5 | 8330.4 | 8076.0 |
| 55°    | 1790.9 | 2447.0 | 3102.6 | 3758.7 | 4729.7 | 5700.1 | 6671.0 | 7641.4 | 8271.1 | 8725.1 | 8409.7 |
| 57.5°  | 1845.4 | 2552.2 | 3258.4 | 3964.7 | 4970.6 | 5977.2 | 6983.2 | 7989.2 | 8626.9 | 9076.0 | 8770.3 |
| 60°    | 1819.0 | 2556.5 | 3294.0 | 4031.5 | 5020.2 | 6008.4 | 6997.2 | 7985.4 | 8709.4 | 9248.0 | 9091.7 |
| 62.5°  | 1739.2 | 2456.2 | 3172.7 | 3889.7 | 4828.3 | 5766.4 | 6705.0 | 7643.0 | 8490.5 | 9181.1 | 9174.1 |
| 65°    | 1585.5 | 2245.4 | 2904.8 | 3564.6 | 4433.2 | 5302.2 | 6170.7 | 7039.2 | 8038.2 | 8877.1 | 8931.5 |
| 67.5°  | 1398.5 | 1946.2 | 2494.0 | 3041.7 | 3859.5 | 4677.4 | 5495.2 | 6313.0 | 7381.0 | 8306.7 | 8353.6 |
| 70°    | 1217.3 | 1619.0 | 2020.1 | 2421.2 | 3139.3 | 3857.4 | 4574.9 | 5293.0 | 6371.8 | 7308.3 | 7351.4 |
| 72.5°  | 1004.9 | 1267.5 | 1529.5 | 1792.0 | 2373.7 | 2955.4 | 3536.6 | 4118.3 | 5065.5 | 5785.8 | 6028.9 |
| 75°    | 769.9  | 925.7  | 1081.5 | 1237.3 | 1707.9 | 2178.6 | 2648.7 | 3119.3 | 3749.0 | 4280.6 | 4554.5 |
| 77.5°  | 550.4  | 631.3  | 712.2  | 793.0  | 1193.1 | 1593.1 | 1992.6 | 2392.6 | 2723.6 | 3025.0 | 3209.9 |
| 80°    | 361.2  | 398.9  | 437.2  | 475.0  | 807.6  | 1140.2 | 1472.3 | 1805.0 | 2006.6 | 2168.3 | 2261.6 |
| 82.5°  | 218.9  | 237.8  | 256.1  | 274.9  | 544.5  | 814.1  | 1083.1 | 1352.6 | 1468.0 | 1545.1 | 1628.1 |
| 85°    | 118.1  | 128.3  | 138.6  | 148.8  | 321.9  | 494.4  | 667.4  | 839.9  | 851.3  | 860.4  | 983.9  |
| 87.5°  | 34.5   | 37.7   | 40.4   | 43.1   | 71.2   | 99.7   | 127.8  | 155.8  | 97.0   | 60.4   | 124.0  |
| 90°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 92.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 95°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 97.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 100°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 102.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 105°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 107.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 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-SA4A-727-U-SLR

**CANDELA DISTRIBUTION (continued):**

|        | 247.5° | 250° | 252.5° | 255° | 257.5° | 260° | 262.5° | 265° | 267.5° | 270° | 272.5° |
|--------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|
| 112.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 115°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 117.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 120°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 122.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 125°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 127.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 130°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 132.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 135°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 137.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 140°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 142.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 145°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 147.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 150°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 152.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 155°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 157.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 160°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 162.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 165°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 167.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 170°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 172.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 175°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 177.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 180°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |



REPORT NUMBER: P368196

CATALOG NUMBER: MSA-SA4A-727-U-SLR

**CANDELA DISTRIBUTION (continued):**

|        | 275°   | 277.5° | 280°   | 282.5° | 285°   | 287.5° | 290°   | 292.5° | 295°   | 297.5° | 300°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 |
| 2.5°   | 1427.6 | 1420.6 | 1413.6 | 1406.0 | 1399.0 | 1369.4 | 1340.2 | 1310.6 | 1280.9 | 1309.5 | 1337.5 |
| 5°     | 1778.0 | 1799.6 | 1820.6 | 1842.2 | 1863.7 | 1865.3 | 1866.4 | 1868.0 | 1869.1 | 1874.5 | 1879.9 |
| 7.5°   | 2030.3 | 2068.6 | 2106.3 | 2144.6 | 2182.9 | 2212.5 | 2242.2 | 2272.4 | 2302.0 | 2275.1 | 2248.1 |
| 10°    | 2051.9 | 2132.7 | 2213.6 | 2294.5 | 2375.3 | 2389.9 | 2403.9 | 2418.5 | 2433.0 | 2452.4 | 2471.3 |
| 12.5°  | 2073.4 | 2172.1 | 2270.2 | 2368.9 | 2467.5 | 2510.7 | 2553.3 | 2596.4 | 2639.0 | 2660.0 | 2680.5 |
| 15°    | 2301.5 | 2359.7 | 2417.4 | 2475.6 | 2533.3 | 2563.0 | 2592.1 | 2621.7 | 2651.4 | 2669.2 | 2686.4 |
| 17.5°  | 2594.8 | 2616.3 | 2637.4 | 2658.9 | 2680.5 | 2700.4 | 2720.4 | 2740.3 | 2760.3 | 2763.5 | 2766.7 |
| 20°    | 2862.2 | 2866.5 | 2870.3 | 2874.6 | 2878.3 | 2836.3 | 2794.8 | 2752.7 | 2710.7 | 2718.2 | 2725.2 |
| 22.5°  | 3263.3 | 3239.5 | 3216.4 | 3192.6 | 3169.5 | 3090.2 | 3011.5 | 2932.3 | 2853.5 | 2819.6 | 2786.2 |
| 25°    | 3867.1 | 3806.7 | 3746.3 | 3685.9 | 3625.6 | 3499.4 | 3373.8 | 3247.6 | 3122.0 | 3048.2 | 2974.8 |
| 27.5°  | 4061.7 | 3930.2 | 3799.2 | 3667.6 | 3536.1 | 3440.6 | 3345.8 | 3250.3 | 3155.4 | 3038.5 | 2921.5 |
| 30°    | 4455.3 | 4247.7 | 4040.7 | 3833.1 | 3625.6 | 3533.4 | 3441.2 | 3348.4 | 3256.3 | 3136.6 | 3017.4 |
| 32.5°  | 4804.1 | 4588.4 | 4372.8 | 4156.6 | 3940.9 | 3766.3 | 3591.6 | 3416.9 | 3242.2 | 3161.4 | 3080.5 |
| 35°    | 5207.9 | 4936.7 | 4665.5 | 4394.3 | 4123.2 | 3973.3 | 3823.9 | 3674.1 | 3524.7 | 3402.4 | 3280.5 |
| 37.5°  | 5796.0 | 5507.6 | 5219.2 | 4930.2 | 4641.8 | 4439.1 | 4236.9 | 4034.2 | 3832.0 | 3764.6 | 3697.8 |
| 40°    | 6356.7 | 6016.0 | 5675.8 | 5335.1 | 4994.9 | 4839.6 | 4684.4 | 4528.6 | 4373.3 | 4259.6 | 4145.8 |
| 42.5°  | 6826.3 | 6489.3 | 6152.9 | 5816.0 | 5479.6 | 5366.4 | 5253.7 | 5140.5 | 5027.8 | 4934.0 | 4840.2 |
| 45°    | 6987.5 | 6712.5 | 6438.1 | 6163.2 | 5888.2 | 5848.3 | 5809.0 | 5769.1 | 5729.7 | 5660.2 | 5590.6 |
| 47.5°  | 7246.8 | 6966.5 | 6686.7 | 6406.3 | 6126.0 | 6140.5 | 6155.1 | 6170.2 | 6184.7 | 6188.5 | 6191.7 |
| 50°    | 7399.4 | 7133.0 | 6867.3 | 6600.9 | 6335.2 | 6405.8 | 6475.9 | 6546.5 | 6617.1 | 6777.2 | 6936.8 |
| 52.5°  | 7622.0 | 7360.6 | 7099.6 | 6838.1 | 6576.7 | 6696.4 | 6815.5 | 6935.2 | 7054.3 | 7278.6 | 7502.9 |
| 55°    | 7901.3 | 7651.1 | 7401.5 | 7151.4 | 6901.8 | 7018.2 | 7134.1 | 7250.6 | 7366.5 | 7616.1 | 7865.7 |
| 57.5°  | 8271.7 | 8003.7 | 7736.3 | 7468.4 | 7201.0 | 7308.3 | 7415.0 | 7522.3 | 7629.0 | 7866.2 | 8103.5 |
| 60°    | 8693.2 | 8402.1 | 8111.0 | 7819.3 | 7528.2 | 7557.9 | 7587.0 | 7616.6 | 7645.7 | 7902.9 | 8159.5 |
| 62.5°  | 8900.3 | 8630.7 | 8361.7 | 8092.1 | 7822.6 | 7740.1 | 7657.6 | 7574.6 | 7492.1 | 7722.3 | 7952.0 |
| 65°    | 8720.7 | 8535.3 | 8350.4 | 8164.9 | 7979.5 | 7833.9 | 7688.9 | 7543.3 | 7397.7 | 7541.7 | 7685.1 |
| 67.5°  | 8149.3 | 8044.1 | 7939.6 | 7834.4 | 7729.3 | 7485.1 | 7240.9 | 6996.1 | 6751.9 | 6761.6 | 6770.8 |
| 70°    | 7223.1 | 7195.0 | 7167.5 | 7139.5 | 7111.5 | 6744.3 | 6377.7 | 6010.6 | 5643.5 | 5587.4 | 5531.3 |
| 72.5°  | 6049.4 | 6067.8 | 6085.5 | 6103.9 | 6122.2 | 5727.6 | 5332.9 | 4938.3 | 4543.7 | 4450.4 | 4357.1 |
| 75°    | 4685.5 | 4786.8 | 4888.2 | 4990.1 | 5091.4 | 4714.0 | 4336.6 | 3958.7 | 3581.3 | 3466.5 | 3351.7 |
| 77.5°  | 3310.7 | 3499.9 | 3688.6 | 3877.9 | 4067.1 | 3725.8 | 3385.1 | 3043.8 | 2702.6 | 2628.2 | 2553.8 |
| 80°    | 2308.5 | 2401.2 | 2494.0 | 2586.7 | 2679.4 | 2508.0 | 2336.5 | 2165.1 | 1993.7 | 2014.1 | 2034.1 |
| 82.5°  | 1681.5 | 1703.1 | 1724.1 | 1745.7 | 1767.2 | 1697.1 | 1627.1 | 1556.4 | 1486.3 | 1539.7 | 1593.1 |
| 85°    | 1077.2 | 1154.2 | 1230.8 | 1307.9 | 1384.4 | 1306.8 | 1229.2 | 1151.0 | 1073.4 | 1109.0 | 1144.5 |
| 87.5°  | 241.0  | 381.2  | 521.3  | 662.0  | 802.2  | 726.7  | 651.8  | 576.3  | 500.8  | 466.9  | 433.4  |
| 90°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 92.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 95°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 97.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 100°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 102.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 105°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 107.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



REPORT NUMBER: P368196  
 CATALOG NUMBER: MSA-SA4A-727-U-SLR

**CANDELA DISTRIBUTION (continued):**

|        | 275° | 277.5° | 280° | 282.5° | 285° | 287.5° | 290° | 292.5° | 295° | 297.5° | 300° |
|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|
| 112.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 115°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 117.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 120°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 122.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 125°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 127.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 130°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 132.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 135°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 137.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 140°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 142.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 145°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 147.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 150°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 152.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 155°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 157.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 160°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 162.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 165°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 167.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 170°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 172.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 175°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 177.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 180°   | 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-SA4A-727-U-SLR

**CANDELA DISTRIBUTION (continued):**

|        | 302.5° | 305°   | 307.5° | 310°   | 312.5° | 315°   | 317.5° | 320°   | 322.5° | 325°   | 327.5° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 |
| 2.5°   | 1366.1 | 1394.7 | 1386.1 | 1378.0 | 1369.4 | 1360.7 | 1376.4 | 1392.0 | 1408.2 | 1423.8 | 1418.4 |
| 5°     | 1885.8 | 1891.2 | 1840.0 | 1789.3 | 1738.1 | 1686.9 | 1718.7 | 1750.5 | 1782.3 | 1814.1 | 1802.8 |
| 7.5°   | 2221.2 | 2194.2 | 2164.6 | 2134.9 | 2104.7 | 2075.1 | 2068.6 | 2062.1 | 2055.1 | 2048.6 | 2040.0 |
| 10°    | 2490.7 | 2509.6 | 2490.2 | 2471.3 | 2451.9 | 2432.5 | 2387.2 | 2341.9 | 2296.1 | 2250.8 | 2231.9 |
| 12.5°  | 2701.5 | 2722.5 | 2727.4 | 2731.7 | 2736.6 | 2741.4 | 2690.7 | 2640.6 | 2589.9 | 2539.2 | 2493.4 |
| 15°    | 2704.2 | 2722.0 | 2737.6 | 2752.7 | 2768.4 | 2783.5 | 2752.2 | 2721.5 | 2690.2 | 2658.9 | 2644.4 |
| 17.5°  | 2770.5 | 2773.8 | 2760.8 | 2748.4 | 2735.5 | 2723.1 | 2710.7 | 2698.8 | 2686.4 | 2674.6 | 2651.4 |
| 20°    | 2732.8 | 2740.3 | 2738.7 | 2737.1 | 2734.9 | 2733.3 | 2734.4 | 2734.9 | 2736.0 | 2736.6 | 2723.6 |
| 22.5°  | 2752.2 | 2718.2 | 2725.2 | 2731.7 | 2738.7 | 2745.2 | 2764.6 | 2784.0 | 2803.9 | 2823.4 | 2875.1 |
| 25°    | 2901.0 | 2827.1 | 2815.8 | 2805.0 | 2793.7 | 2782.9 | 2833.6 | 2883.7 | 2934.4 | 2985.1 | 3069.2 |
| 27.5°  | 2803.9 | 2687.0 | 2661.1 | 2635.2 | 2609.3 | 2583.4 | 2660.5 | 2737.1 | 2814.2 | 2891.3 | 2977.0 |
| 30°    | 2897.7 | 2778.6 | 2721.5 | 2664.3 | 2606.6 | 2549.5 | 2623.3 | 2696.7 | 2770.5 | 2843.8 | 2938.7 |
| 32.5°  | 2999.6 | 2918.8 | 2880.5 | 2842.8 | 2804.5 | 2766.7 | 2772.7 | 2778.6 | 2784.5 | 2790.5 | 2924.2 |
| 35°    | 3158.1 | 3035.8 | 2998.0 | 2960.3 | 2922.5 | 2884.8 | 2947.9 | 3010.4 | 3073.5 | 3136.0 | 3249.3 |
| 37.5°  | 3630.4 | 3563.0 | 3495.1 | 3427.2 | 3358.7 | 3290.8 | 3328.0 | 3365.2 | 3402.4 | 3439.6 | 3546.3 |
| 40°    | 4032.0 | 3918.3 | 3907.0 | 3896.2 | 3884.9 | 3873.5 | 3876.8 | 3879.5 | 3882.7 | 3885.9 | 3977.1 |
| 42.5°  | 4745.8 | 4652.0 | 4594.3 | 4536.7 | 4479.0 | 4421.3 | 4417.5 | 4413.7 | 4409.4 | 4405.7 | 4474.1 |
| 45°    | 5520.5 | 5451.0 | 5407.9 | 5364.7 | 5321.1 | 5277.9 | 5209.5 | 5141.0 | 5072.0 | 5003.5 | 5063.4 |
| 47.5°  | 6195.5 | 6199.3 | 6277.5 | 6355.1 | 6433.3 | 6511.4 | 6394.5 | 6277.5 | 6160.5 | 6043.5 | 5966.4 |
| 50°    | 7096.9 | 7256.5 | 7275.4 | 7293.7 | 7312.6 | 7331.4 | 7133.0 | 6935.2 | 6736.8 | 6538.4 | 6457.5 |
| 52.5°  | 7727.7 | 7952.0 | 7922.8 | 7894.3 | 7865.2 | 7836.1 | 7721.2 | 7606.9 | 7492.1 | 7377.3 | 7201.0 |
| 55°    | 8115.9 | 8365.5 | 8343.4 | 8321.8 | 8299.7 | 8277.6 | 8194.0 | 8110.5 | 8026.9 | 7943.3 | 7749.8 |
| 57.5°  | 8340.7 | 8577.9 | 8584.3 | 8590.8 | 8597.3 | 8603.8 | 8581.6 | 8559.5 | 8537.4 | 8515.3 | 8263.6 |
| 60°    | 8416.7 | 8673.8 | 8676.5 | 8678.7 | 8681.4 | 8683.5 | 8648.5 | 8613.5 | 8577.9 | 8542.8 | 8378.4 |
| 62.5°  | 8182.2 | 8411.8 | 8422.1 | 8431.8 | 8442.0 | 8452.3 | 8428.0 | 8403.7 | 8379.5 | 8355.2 | 8233.4 |
| 65°    | 7829.0 | 7973.0 | 7975.7 | 7977.8 | 7980.5 | 7983.2 | 7921.8 | 7860.8 | 7799.4 | 7737.9 | 7708.8 |
| 67.5°  | 6780.5 | 6790.2 | 6847.3 | 6904.5 | 6961.6 | 7018.8 | 7023.6 | 7028.5 | 7033.8 | 7038.7 | 6996.6 |
| 70°    | 5475.3 | 5419.2 | 5481.2 | 5543.2 | 5605.2 | 5667.2 | 5693.6 | 5720.0 | 5747.0 | 5773.4 | 5792.8 |
| 72.5°  | 4263.3 | 4170.1 | 4215.9 | 4261.7 | 4308.1 | 4353.9 | 4314.5 | 4275.2 | 4235.8 | 4196.5 | 4321.0 |
| 75°    | 3236.9 | 3122.0 | 3116.1 | 3110.7 | 3104.8 | 3099.4 | 3079.4 | 3059.5 | 3039.0 | 3019.0 | 3135.5 |
| 77.5°  | 2478.9 | 2404.5 | 2408.2 | 2411.5 | 2415.2 | 2418.5 | 2398.0 | 2378.0 | 2357.6 | 2337.1 | 2381.8 |
| 80°    | 2054.6 | 2074.5 | 2075.1 | 2075.6 | 2076.1 | 2076.7 | 2057.3 | 2038.4 | 2019.0 | 1999.6 | 1967.2 |
| 82.5°  | 1647.0 | 1700.4 | 1699.8 | 1699.8 | 1699.3 | 1698.8 | 1697.7 | 1696.6 | 1695.0 | 1693.9 | 1641.1 |
| 85°    | 1180.1 | 1215.7 | 1179.0 | 1142.4 | 1105.7 | 1069.1 | 1096.0 | 1123.0 | 1150.5 | 1177.4 | 1155.3 |
| 87.5°  | 399.5  | 366.1  | 322.4  | 279.3  | 235.6  | 191.9  | 238.8  | 285.7  | 333.2  | 380.1  | 407.0  |
| 90°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 92.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 95°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 97.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 100°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 102.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 105°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 107.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



REPORT NUMBER: P368196  
 CATALOG NUMBER: MSA-SA4A-727-U-SLR

**CANDELA DISTRIBUTION (continued):**

|        | 302.5° | 305° | 307.5° | 310° | 312.5° | 315° | 317.5° | 320° | 322.5° | 325° | 327.5° |
|--------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|
| 112.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 115°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 117.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 120°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 122.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 125°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 127.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 130°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 132.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 135°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 137.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 140°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 142.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 145°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 147.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 150°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 152.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 155°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 157.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 160°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 162.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 165°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 167.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 170°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 172.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 175°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 177.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |
| 180°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    |



REPORT NUMBER: P368196

CATALOG NUMBER: MSA-SA4A-727-U-SLR

**CANDELA DISTRIBUTION (continued):**

|        | 330°   | 332.5° | 335°   | 337.5° | 340°   | 342.5° | 345°   | 347.5° | 350°   | 352.5° | 355°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 | 1171.5 |
| 2.5°   | 1413.6 | 1408.2 | 1403.3 | 1369.4 | 1334.9 | 1300.9 | 1266.4 | 1328.9 | 1392.0 | 1454.5 | 1517.1 |
| 5°     | 1792.0 | 1780.7 | 1769.9 | 1767.2 | 1764.5 | 1761.3 | 1758.6 | 1790.4 | 1822.2 | 1853.5 | 1885.3 |
| 7.5°   | 2031.4 | 2022.8 | 2014.1 | 1991.5 | 1969.4 | 1946.7 | 1924.1 | 1943.5 | 1962.4 | 1981.8 | 2000.7 |
| 10°    | 2213.6 | 2194.7 | 2175.9 | 2126.8 | 2078.3 | 2029.2 | 1980.2 | 1965.6 | 1951.1 | 1936.5 | 1921.9 |
| 12.5°  | 2447.6 | 2401.2 | 2355.4 | 2299.9 | 2243.8 | 2188.3 | 2132.2 | 2124.7 | 2117.1 | 2110.1 | 2102.6 |
| 15°    | 2630.3 | 2615.8 | 2601.2 | 2557.0 | 2512.8 | 2468.6 | 2424.4 | 2365.1 | 2305.3 | 2246.0 | 2186.7 |
| 17.5°  | 2628.7 | 2605.5 | 2582.9 | 2642.2 | 2701.0 | 2760.3 | 2819.0 | 2756.0 | 2692.3 | 2629.3 | 2566.2 |
| 20°    | 2710.7 | 2697.2 | 2684.3 | 2793.7 | 2902.6 | 3012.0 | 3120.9 | 3086.4 | 3051.4 | 3016.9 | 2981.9 |
| 22.5°  | 2926.3 | 2978.1 | 3029.3 | 3123.1 | 3216.4 | 3310.2 | 3403.4 | 3442.8 | 3482.1 | 3521.5 | 3560.9 |
| 25°    | 3152.8 | 3236.9 | 3321.0 | 3460.6 | 3599.7 | 3739.3 | 3878.9 | 3907.0 | 3935.0 | 3963.0 | 3991.1 |
| 27.5°  | 3062.2 | 3147.9 | 3233.6 | 3339.3 | 3444.4 | 3550.1 | 3655.2 | 3778.1 | 3901.6 | 4024.5 | 4147.4 |
| 30°    | 3033.1 | 3128.0 | 3222.3 | 3367.3 | 3511.8 | 3656.8 | 3801.8 | 3971.1 | 4140.4 | 4309.2 | 4478.4 |
| 32.5°  | 3057.3 | 3191.0 | 3324.7 | 3521.0 | 3716.7 | 3912.9 | 4109.1 | 4287.1 | 4465.5 | 4643.4 | 4821.3 |
| 35°    | 3361.9 | 3475.1 | 3587.8 | 3807.2 | 4026.7 | 4246.1 | 4465.5 | 4674.1 | 4882.8 | 5090.9 | 5299.5 |
| 37.5°  | 3652.5 | 3759.3 | 3866.0 | 4090.3 | 4314.0 | 4538.3 | 4762.6 | 5092.0 | 5421.9 | 5751.3 | 6080.7 |
| 40°    | 4067.6 | 4158.7 | 4249.3 | 4441.2 | 4633.2 | 4825.1 | 5017.0 | 5414.3 | 5811.7 | 6209.0 | 6606.3 |
| 42.5°  | 4542.1 | 4610.5 | 4678.4 | 4877.4 | 5076.3 | 5275.2 | 5474.2 | 5906.6 | 6339.5 | 6771.8 | 7204.2 |
| 45°    | 5122.7 | 5182.5 | 5242.4 | 5379.3 | 5516.2 | 5653.7 | 5790.6 | 6236.5 | 6682.3 | 7128.2 | 7574.0 |
| 47.5°  | 5889.3 | 5812.2 | 5735.1 | 5802.5 | 5869.9 | 5937.3 | 6004.7 | 6445.7 | 6886.7 | 7327.1 | 7768.1 |
| 50°    | 6376.7 | 6295.8 | 6214.9 | 6220.9 | 6226.3 | 6232.2 | 6238.1 | 6649.5 | 7060.8 | 7471.6 | 7883.0 |
| 52.5°  | 7024.7 | 6847.9 | 6671.6 | 6669.9 | 6668.3 | 6666.2 | 6664.6 | 7023.1 | 7382.1 | 7740.6 | 8099.1 |
| 55°    | 7556.2 | 7362.7 | 7169.2 | 7131.4 | 7093.7 | 7055.4 | 7017.7 | 7372.4 | 7726.6 | 8081.3 | 8435.5 |
| 57.5°  | 8011.8 | 7759.5 | 7507.7 | 7448.4 | 7389.1 | 7329.8 | 7270.5 | 7652.8 | 8035.5 | 8417.8 | 8800.0 |
| 60°    | 8214.5 | 8050.1 | 7886.2 | 7813.4 | 7740.6 | 7667.8 | 7595.1 | 7920.7 | 8246.3 | 8571.4 | 8897.0 |
| 62.5°  | 8112.1 | 7990.2 | 7868.9 | 7885.6 | 7902.4 | 7919.1 | 7935.8 | 8121.8 | 8308.3 | 8494.3 | 8680.3 |
| 65°    | 7680.2 | 7651.1 | 7622.6 | 7757.3 | 7892.1 | 8026.9 | 8161.7 | 8164.4 | 8167.1 | 8169.8 | 8172.5 |
| 67.5°  | 6954.6 | 6912.5 | 6870.5 | 7150.8 | 7430.6 | 7711.0 | 7991.3 | 7858.2 | 7725.0 | 7592.4 | 7459.2 |
| 70°    | 5811.7 | 5831.1 | 5849.9 | 6231.6 | 6612.8 | 6994.5 | 7376.2 | 7183.2 | 6989.6 | 6796.6 | 6603.1 |
| 72.5°  | 4445.6 | 4570.6 | 4695.2 | 5090.9 | 5486.6 | 5882.3 | 6278.0 | 6057.5 | 5836.5 | 5616.0 | 5394.9 |
| 75°    | 3251.9 | 3368.4 | 3484.8 | 3875.7 | 4266.6 | 4658.0 | 5048.8 | 4786.8 | 4524.8 | 4263.3 | 4001.3 |
| 77.5°  | 2426.6 | 2471.8 | 2516.6 | 2841.7 | 3166.2 | 3491.3 | 3815.9 | 3552.8 | 3289.7 | 3027.1 | 2764.0 |
| 80°    | 1935.4 | 1903.1 | 1871.3 | 2051.3 | 2231.4 | 2411.5 | 2591.5 | 2405.0 | 2217.9 | 2031.4 | 1844.9 |
| 82.5°  | 1588.8 | 1535.9 | 1483.6 | 1550.5 | 1617.3 | 1684.7 | 1751.6 | 1602.3 | 1452.9 | 1303.6 | 1154.2 |
| 85°    | 1133.2 | 1111.1 | 1089.0 | 1108.4 | 1127.3 | 1146.7 | 1166.1 | 1020.5 | 875.0  | 730.0  | 584.4  |
| 87.5°  | 433.4  | 460.4  | 487.4  | 518.1  | 548.3  | 579.0  | 609.2  | 477.1  | 345.0  | 213.5  | 81.4   |
| 90°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 92.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 95°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 97.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 100°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 102.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 105°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 107.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



REPORT NUMBER: P368196  
 CATALOG NUMBER: MSA-SA4A-727-U-SLR

**CANDELA DISTRIBUTION (continued):**

|        | 330° | 332.5° | 335° | 337.5° | 340° | 342.5° | 345° | 347.5° | 350° | 352.5° | 355° |
|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|
| 112.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 115°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 117.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 120°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 122.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 125°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 127.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 130°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 132.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 135°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 137.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 140°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 142.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 145°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 147.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 150°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 152.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 155°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 157.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 160°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 162.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 165°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 167.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 170°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 172.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 175°   | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 177.5° | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 180°   | 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):**

|        | 357.5° | 360°   |
|--------|--------|--------|
| 0°     | 1171.5 | 1171.5 |
| 2.5°   | 1542.9 | 1568.8 |
| 5°     | 1884.7 | 1884.2 |
| 7.5°   | 1992.0 | 1982.9 |
| 10°    | 1898.2 | 1874.5 |
| 12.5°  | 2032.5 | 1961.8 |
| 15°    | 2116.6 | 2045.9 |
| 17.5°  | 2460.0 | 2353.2 |
| 20°    | 2855.2 | 2727.9 |
| 22.5°  | 3367.3 | 3173.8 |
| 25°    | 3759.8 | 3528.0 |
| 27.5°  | 4009.9 | 3871.9 |
| 30°    | 4320.5 | 4162.5 |
| 32.5°  | 4704.9 | 4587.9 |
| 35°    | 5192.8 | 5085.5 |
| 37.5°  | 6047.3 | 6013.3 |
| 40°    | 6565.9 | 6524.9 |
| 42.5°  | 7205.8 | 7206.9 |
| 45°    | 7598.3 | 7622.6 |
| 47.5°  | 7829.6 | 7890.5 |
| 50°    | 8014.0 | 8144.4 |
| 52.5°  | 8277.6 | 8456.0 |
| 55°    | 8672.8 | 8909.4 |
| 57.5°  | 9001.6 | 9203.2 |
| 60°    | 9001.6 | 9105.7 |
| 62.5°  | 8677.6 | 8674.4 |
| 65°    | 8122.3 | 8071.6 |
| 67.5°  | 7395.6 | 7332.0 |
| 70°    | 6503.9 | 6404.2 |
| 72.5°  | 5271.5 | 5147.5 |
| 75°    | 3831.5 | 3661.1 |
| 77.5°  | 2683.2 | 2601.8 |
| 80°    | 1884.2 | 1923.6 |
| 82.5°  | 1210.3 | 1266.4 |
| 85°    | 575.8  | 567.1  |
| 87.5°  | 67.9   | 54.5   |
| 90°    | 0.0    | 0.0    |
| 92.5°  | 0.0    | 0.0    |
| 95°    | 0.0    | 0.0    |
| 97.5°  | 0.0    | 0.0    |
| 100°   | 0.0    | 0.0    |
| 102.5° | 0.0    | 0.0    |
| 105°   | 0.0    | 0.0    |
| 107.5° | 0.0    | 0.0    |
| 110°   | 0.0    | 0.0    |

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**CANDELA DISTRIBUTION (continued):**

|        | 357.5° | 360° |
|--------|--------|------|
| 112.5° | 0.0    | 0.0  |
| 115°   | 0.0    | 0.0  |
| 117.5° | 0.0    | 0.0  |
| 120°   | 0.0    | 0.0  |
| 122.5° | 0.0    | 0.0  |
| 125°   | 0.0    | 0.0  |
| 127.5° | 0.0    | 0.0  |
| 130°   | 0.0    | 0.0  |
| 132.5° | 0.0    | 0.0  |
| 135°   | 0.0    | 0.0  |
| 137.5° | 0.0    | 0.0  |
| 140°   | 0.0    | 0.0  |
| 142.5° | 0.0    | 0.0  |
| 145°   | 0.0    | 0.0  |
| 147.5° | 0.0    | 0.0  |
| 150°   | 0.0    | 0.0  |
| 152.5° | 0.0    | 0.0  |
| 155°   | 0.0    | 0.0  |
| 157.5° | 0.0    | 0.0  |
| 160°   | 0.0    | 0.0  |
| 162.5° | 0.0    | 0.0  |
| 165°   | 0.0    | 0.0  |
| 167.5° | 0.0    | 0.0  |
| 170°   | 0.0    | 0.0  |
| 172.5° | 0.0    | 0.0  |
| 175°   | 0.0    | 0.0  |
| 177.5° | 0.0    | 0.0  |
| 180°   | 0.0    | 0.0  |

(END OF REPORT)