

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: P368305

Luminaire Tested: **MSA-SA4A-830-U-SLR-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368305
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-25)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4A-830-U-SLR-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8987 lumens
Efficiency: N/A
Efficacy: 69.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

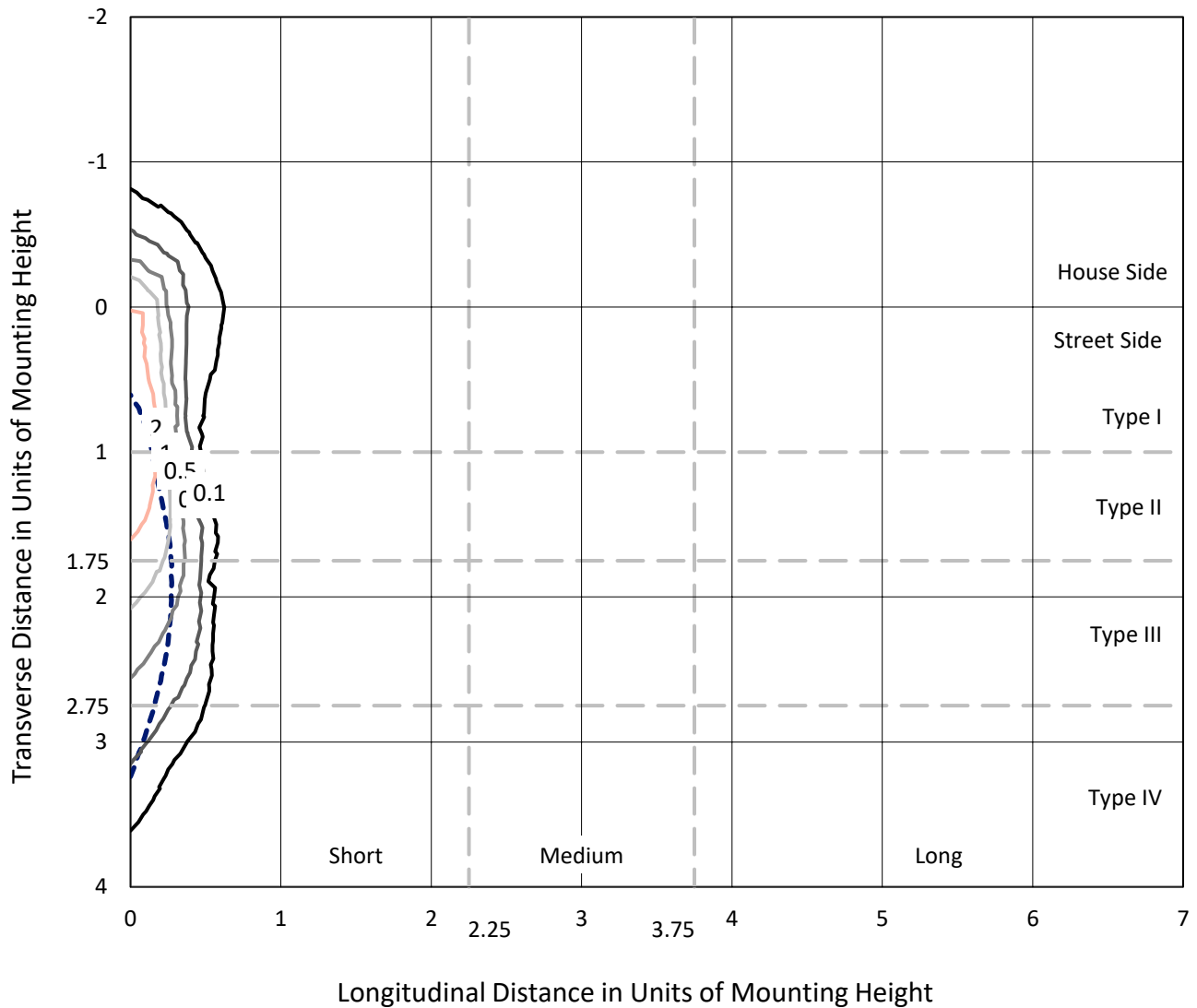
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P368305
 CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

Iso-Footcandle Lines of Horizontal Illumination

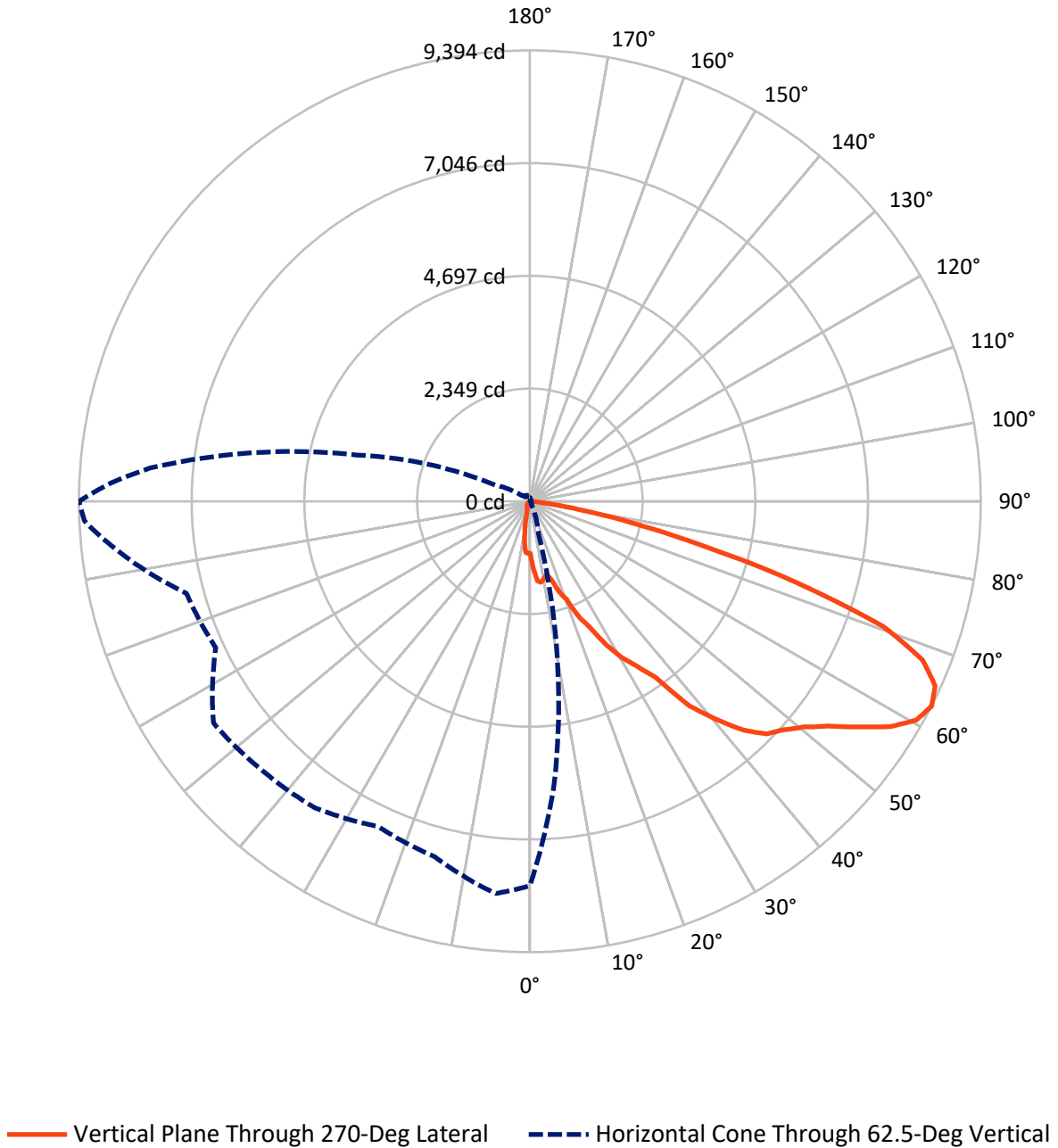
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
 Type IV - Short - N/A

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CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

Luminous Intensity Polar Plot



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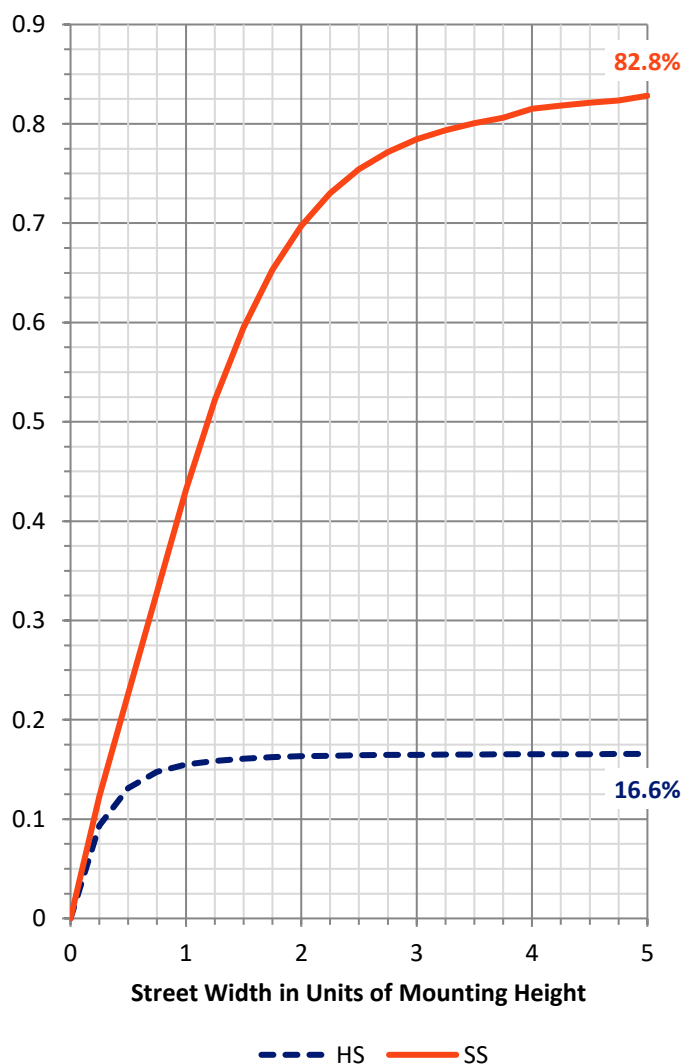
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1500.7 | 0.0 | 1500.7 |
| | % Fixture | 16.7 | 0.0 | 16.7 |
| Street Side | Lumens | 7486.3 | 0.0 | 7486.3 |
| | % Fixture | 83.3 | 0.0 | 83.3 |
| Total | Lumens | 8987.0 | 0.0 | 8987.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 121.0 | 1.3 |
| 10°-20° | 316.1 | 3.5 |
| 20°-30° | 510.9 | 5.7 |
| 30°-40° | 855.6 | 9.5 |
| 40°-50° | 1398.8 | 15.6 |
| 50°-60° | 2070.7 | 23.0 |
| 60°-70° | 2377.2 | 26.5 |
| 70°-80° | 1175.4 | 13.1 |
| 80°-90° | 161.4 | 1.8 |
| 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° | 8987.0 | 100.0 |
| 0°-180° | 8987.0 | 100.0 |

Coefficient of Utilization

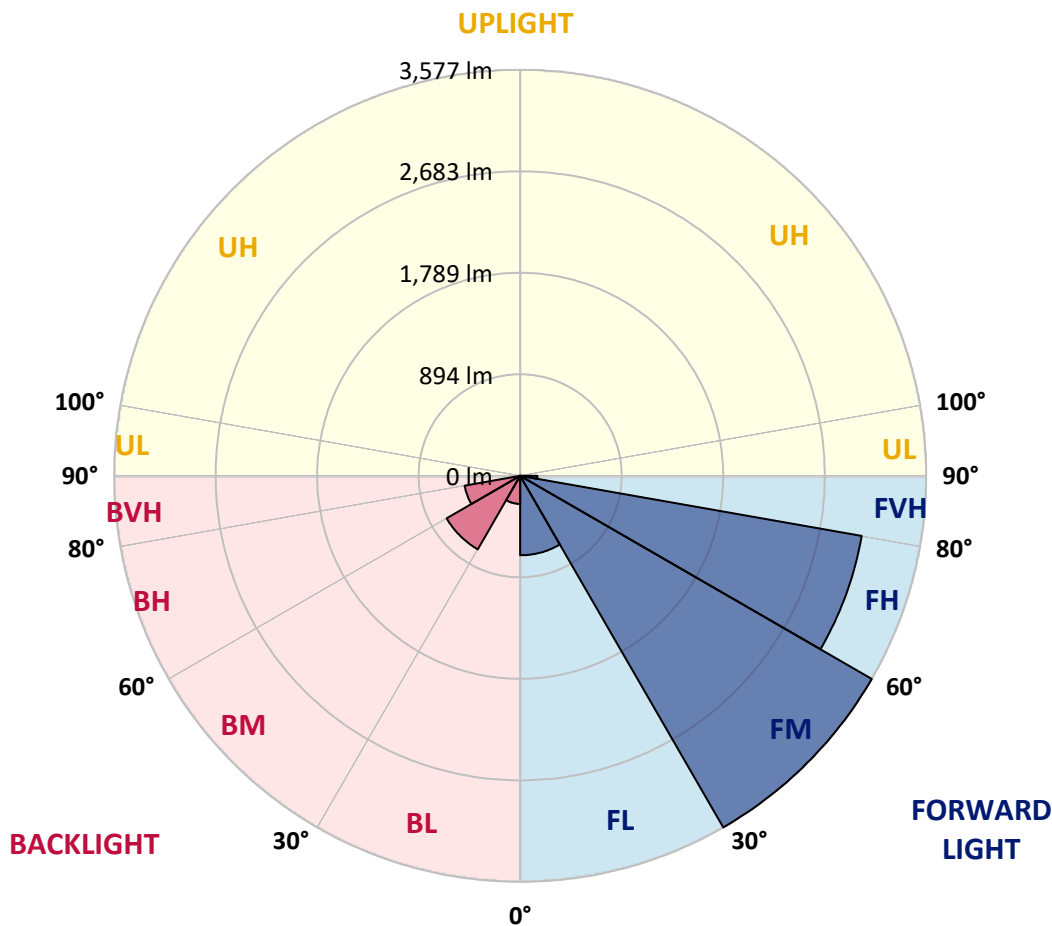


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 700.1 | 7.8 | | | |
| FM (30°-60°) | 3577.3 | 39.8 | | | |
| FH (60°-80°) | 3056.0 | 34.0 | | | G2/5000 |
| FVH (80°-90°) | 152.9 | 1.7 | | | G2/225 |
| BL (0°-30°) | 247.8 | 2.8 | B1/500 | | |
| BM (30°-60°) | 747.8 | 8.3 | B1/1000 | | |
| BH (60°-80°) | 496.5 | 5.5 | B1/500 | | G1/500 |
| BVH (80°-90°) | 8.6 | 0.1 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2
 Type IV Short





REPORT NUMBER: P368305

CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 2.5° | 5° | 7.5° | 10° | 12.5° | 15° | 17.5° | 20° | 22.5° | 25° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 |
| 2.5° | 1435.9 | 1453.9 | 1471.3 | 1438.0 | 1404.7 | 1371.4 | 1338.1 | 1308.4 | 1278.7 | 1248.4 | 1218.7 |
| 5° | 1847.8 | 1815.0 | 1782.2 | 1737.2 | 1692.1 | 1647.0 | 1601.9 | 1580.9 | 1559.9 | 1538.9 | 1517.9 |
| 7.5° | 1991.3 | 1932.9 | 1873.9 | 1834.0 | 1794.5 | 1754.6 | 1714.6 | 1651.6 | 1588.1 | 1525.1 | 1461.6 |
| 10° | 1878.6 | 1816.6 | 1754.1 | 1719.2 | 1684.4 | 1649.6 | 1614.7 | 1536.3 | 1457.5 | 1379.1 | 1300.2 |
| 12.5° | 1930.3 | 1863.2 | 1796.1 | 1724.4 | 1652.6 | 1580.9 | 1509.2 | 1449.3 | 1388.8 | 1328.9 | 1268.4 |
| 15° | 1966.2 | 1889.3 | 1812.0 | 1730.0 | 1648.0 | 1566.1 | 1484.1 | 1413.4 | 1343.2 | 1272.5 | 1201.8 |
| 17.5° | 2176.7 | 2066.6 | 1956.4 | 1830.4 | 1704.4 | 1578.4 | 1452.3 | 1370.4 | 1288.9 | 1206.9 | 1125.0 |
| 20° | 2447.2 | 2290.9 | 2134.2 | 1963.6 | 1793.0 | 1622.4 | 1451.8 | 1349.9 | 1247.9 | 1146.0 | 1044.0 |
| 22.5° | 2761.7 | 2566.6 | 2370.9 | 2160.3 | 1950.3 | 1739.7 | 1529.2 | 1382.7 | 1236.1 | 1089.6 | 943.1 |
| 25° | 3078.3 | 2902.1 | 2725.9 | 2442.6 | 2159.3 | 1875.5 | 1592.2 | 1406.2 | 1219.8 | 1033.8 | 847.3 |
| 27.5° | 3650.0 | 3335.0 | 3019.9 | 2659.3 | 2299.1 | 1938.5 | 1577.8 | 1364.7 | 1151.6 | 938.0 | 724.9 |
| 30° | 4024.0 | 3781.7 | 3538.9 | 3062.5 | 2586.5 | 2110.1 | 1633.7 | 1363.7 | 1093.7 | 823.2 | 553.3 |
| 32.5° | 4471.2 | 4116.7 | 3761.7 | 3244.8 | 2727.9 | 2211.0 | 1694.1 | 1377.0 | 1059.4 | 742.3 | 424.7 |
| 35° | 4973.8 | 4588.0 | 4202.3 | 3547.6 | 2892.9 | 2237.7 | 1583.0 | 1275.6 | 968.2 | 660.9 | 353.5 |
| 37.5° | 5861.6 | 5216.1 | 4570.6 | 3807.3 | 3043.5 | 2280.2 | 1516.4 | 1209.5 | 902.1 | 595.3 | 287.9 |
| 40° | 6365.7 | 5749.4 | 5133.1 | 4179.2 | 3225.4 | 2271.5 | 1317.6 | 1045.1 | 773.0 | 500.5 | 228.0 |
| 42.5° | 7021.4 | 6239.7 | 5457.4 | 4391.3 | 3325.3 | 2259.2 | 1193.1 | 941.1 | 689.0 | 436.5 | 184.4 |
| 45° | 7410.2 | 6524.5 | 5638.7 | 4483.5 | 3328.3 | 2173.1 | 1017.9 | 799.7 | 581.4 | 363.2 | 145.0 |
| 47.5° | 7655.6 | 6767.3 | 5879.0 | 4638.8 | 3399.0 | 2158.8 | 918.5 | 717.7 | 516.9 | 316.1 | 115.3 |
| 50° | 7780.1 | 6889.2 | 5997.9 | 4723.3 | 3448.7 | 2173.6 | 899.1 | 699.3 | 499.0 | 299.2 | 98.9 |
| 52.5° | 7909.7 | 7050.6 | 6191.0 | 4869.8 | 3548.6 | 2227.4 | 906.2 | 702.3 | 499.0 | 295.1 | 91.2 |
| 55° | 8171.5 | 7324.2 | 6476.3 | 5079.8 | 3683.3 | 2286.9 | 890.4 | 689.5 | 488.7 | 287.4 | 86.6 |
| 57.5° | 8493.2 | 7587.5 | 6681.3 | 5233.5 | 3785.8 | 2338.1 | 890.4 | 688.5 | 486.7 | 284.3 | 82.5 |
| 60° | 8432.3 | 7449.2 | 6465.6 | 5060.9 | 3656.2 | 2251.0 | 846.3 | 654.2 | 462.6 | 270.5 | 78.4 |
| 62.5° | 8013.7 | 6946.6 | 5879.0 | 4580.9 | 3282.2 | 1984.1 | 685.4 | 532.3 | 379.1 | 225.4 | 72.2 |
| 65° | 7521.9 | 6389.2 | 5256.1 | 4061.4 | 2866.2 | 1671.6 | 476.4 | 374.0 | 271.0 | 168.5 | 65.6 |
| 67.5° | 6929.7 | 5721.7 | 4513.8 | 3451.3 | 2389.3 | 1326.8 | 264.3 | 213.1 | 161.9 | 110.1 | 58.9 |
| 70° | 5902.1 | 4655.2 | 3407.7 | 2591.1 | 1775.1 | 958.5 | 141.9 | 119.9 | 97.8 | 75.8 | 53.8 |
| 72.5° | 4430.8 | 3288.4 | 2146.0 | 1630.1 | 1114.7 | 598.9 | 83.0 | 74.8 | 66.1 | 57.9 | 49.2 |
| 75° | 3014.8 | 2158.8 | 1302.7 | 991.8 | 681.3 | 370.4 | 59.4 | 55.3 | 50.7 | 46.6 | 42.0 |
| 77.5° | 2049.7 | 1482.6 | 915.5 | 698.8 | 482.1 | 265.4 | 48.7 | 46.1 | 43.5 | 40.5 | 37.9 |
| 80° | 1279.7 | 876.0 | 472.3 | 363.7 | 254.6 | 146.0 | 36.9 | 35.3 | 33.8 | 31.8 | 30.2 |
| 82.5° | 895.0 | 535.3 | 175.7 | 137.3 | 98.9 | 59.9 | 21.5 | 22.0 | 22.5 | 22.5 | 23.1 |
| 85° | 375.5 | 202.9 | 30.2 | 25.6 | 21.0 | 16.4 | 11.8 | 12.8 | 14.3 | 15.4 | 16.4 |
| 87.5° | 6.7 | 3.6 | 0.0 | 1.0 | 2.6 | 3.6 | 4.6 | 6.1 | 7.2 | 8.7 | 9.7 |
| 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 |



REPORT NUMBER: P368305
 CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

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 |



REPORT NUMBER: P368305

CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 27.5° | 30° | 32.5° | 35° | 37.5° | 40° | 42.5° | 45° | 47.5° | 50° | 52.5° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 |
| 2.5° | 1226.4 | 1234.1 | 1241.3 | 1249.0 | 1242.8 | 1237.2 | 1231.0 | 1224.9 | 1215.7 | 1206.9 | 1197.7 |
| 5° | 1492.3 | 1466.7 | 1441.1 | 1415.5 | 1376.5 | 1337.6 | 1298.1 | 1259.2 | 1254.6 | 1250.0 | 1244.9 |
| 7.5° | 1401.6 | 1341.7 | 1281.2 | 1221.3 | 1164.9 | 1108.6 | 1052.2 | 995.9 | 978.5 | 961.6 | 944.1 |
| 10° | 1254.1 | 1208.0 | 1161.4 | 1115.2 | 1074.8 | 1033.8 | 993.3 | 952.3 | 909.8 | 867.3 | 824.3 |
| 12.5° | 1220.3 | 1172.1 | 1123.4 | 1075.3 | 1038.4 | 1001.5 | 964.6 | 927.8 | 880.1 | 832.5 | 784.8 |
| 15° | 1149.6 | 1097.3 | 1045.1 | 992.8 | 943.6 | 894.5 | 844.8 | 795.6 | 738.2 | 680.8 | 623.5 |
| 17.5° | 1063.0 | 1001.5 | 939.5 | 877.5 | 813.0 | 748.5 | 683.9 | 619.4 | 553.3 | 487.7 | 421.6 |
| 20° | 960.0 | 876.0 | 791.5 | 707.5 | 627.6 | 547.6 | 467.2 | 387.3 | 345.8 | 304.8 | 263.3 |
| 22.5° | 834.5 | 725.4 | 616.8 | 507.7 | 442.1 | 376.0 | 310.4 | 244.4 | 226.4 | 208.5 | 190.6 |
| 25° | 723.9 | 600.4 | 476.9 | 353.5 | 312.0 | 270.5 | 229.0 | 187.5 | 179.3 | 170.6 | 162.4 |
| 27.5° | 608.6 | 492.8 | 376.5 | 260.2 | 236.7 | 212.6 | 189.0 | 165.0 | 159.3 | 154.2 | 148.6 |
| 30° | 466.7 | 380.1 | 293.0 | 206.5 | 191.1 | 175.7 | 159.8 | 144.5 | 141.9 | 138.8 | 136.3 |
| 32.5° | 361.7 | 298.2 | 235.1 | 171.6 | 162.9 | 154.2 | 145.5 | 136.8 | 132.7 | 128.6 | 124.0 |
| 35° | 302.2 | 251.5 | 200.3 | 149.1 | 142.9 | 136.3 | 130.1 | 123.5 | 119.4 | 114.8 | 110.7 |
| 37.5° | 250.5 | 213.6 | 176.2 | 138.8 | 132.2 | 125.5 | 118.3 | 111.7 | 108.6 | 105.5 | 102.5 |
| 40° | 206.5 | 184.9 | 163.4 | 141.9 | 132.2 | 122.4 | 112.7 | 103.0 | 100.4 | 97.8 | 95.3 |
| 42.5° | 170.6 | 156.8 | 142.4 | 128.6 | 121.4 | 114.8 | 107.6 | 100.4 | 96.8 | 92.7 | 89.1 |
| 45° | 137.8 | 130.1 | 122.9 | 115.3 | 115.8 | 116.3 | 116.3 | 116.8 | 107.6 | 97.8 | 88.6 |
| 47.5° | 111.7 | 108.1 | 104.0 | 100.4 | 104.5 | 108.6 | 112.2 | 116.3 | 106.6 | 96.8 | 86.6 |
| 50° | 95.8 | 93.2 | 90.2 | 87.1 | 91.2 | 95.8 | 99.9 | 104.0 | 99.9 | 96.3 | 92.2 |
| 52.5° | 87.6 | 84.0 | 80.4 | 76.8 | 78.4 | 80.4 | 82.0 | 83.5 | 83.5 | 83.5 | 83.5 |
| 55° | 82.5 | 78.9 | 74.8 | 70.7 | 69.2 | 67.1 | 65.6 | 63.5 | 61.0 | 58.9 | 56.4 |
| 57.5° | 78.4 | 74.3 | 69.7 | 65.6 | 63.0 | 59.9 | 57.4 | 54.3 | 51.7 | 48.7 | 46.1 |
| 60° | 74.3 | 70.2 | 65.6 | 61.5 | 58.9 | 56.4 | 53.3 | 50.7 | 47.6 | 45.1 | 42.0 |
| 62.5° | 68.6 | 65.1 | 61.5 | 57.9 | 55.3 | 53.3 | 50.7 | 48.2 | 45.1 | 42.0 | 38.4 |
| 65° | 62.5 | 59.9 | 56.9 | 53.8 | 51.2 | 48.7 | 46.1 | 43.5 | 40.5 | 37.9 | 34.8 |
| 67.5° | 56.9 | 54.3 | 52.3 | 49.7 | 46.6 | 44.1 | 41.0 | 37.9 | 35.9 | 33.8 | 31.2 |
| 70° | 52.3 | 50.2 | 48.7 | 46.6 | 43.5 | 41.0 | 37.9 | 34.8 | 33.3 | 31.2 | 29.7 |
| 72.5° | 47.6 | 46.1 | 44.1 | 42.5 | 40.0 | 37.4 | 34.8 | 32.3 | 30.7 | 29.2 | 27.7 |
| 75° | 41.0 | 40.0 | 38.9 | 37.9 | 35.3 | 32.8 | 29.7 | 27.2 | 26.6 | 26.1 | 25.6 |
| 77.5° | 36.9 | 36.4 | 35.3 | 34.3 | 31.8 | 29.2 | 26.6 | 24.1 | 24.6 | 25.1 | 25.1 |
| 80° | 30.2 | 30.2 | 29.7 | 29.7 | 27.7 | 25.6 | 23.1 | 21.0 | 22.0 | 23.6 | 24.6 |
| 82.5° | 23.1 | 23.1 | 23.1 | 23.1 | 21.0 | 19.0 | 16.9 | 14.9 | 16.4 | 17.4 | 19.0 |
| 85° | 15.9 | 15.4 | 14.9 | 14.3 | 12.8 | 11.8 | 10.2 | 8.7 | 10.8 | 12.3 | 14.3 |
| 87.5° | 9.7 | 10.2 | 10.2 | 10.2 | 9.2 | 7.7 | 6.7 | 5.1 | 6.1 | 6.7 | 7.7 |
| 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 |



REPORT NUMBER: P368305
 CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

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 |



REPORT NUMBER: P368305
 CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 55° | 57.5° | 60° | 62.5° | 65° | 67.5° | 70° | 72.5° | 75° | 77.5° | 80° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 |
| 2.5° | 1188.5 | 1173.1 | 1157.8 | 1141.9 | 1126.5 | 1090.7 | 1054.8 | 1018.9 | 983.1 | 1009.7 | 1035.8 |
| 5° | 1240.2 | 1210.5 | 1180.3 | 1150.6 | 1120.4 | 1107.1 | 1094.2 | 1080.9 | 1067.6 | 1069.7 | 1072.2 |
| 7.5° | 926.7 | 907.3 | 887.8 | 867.8 | 848.3 | 844.2 | 840.7 | 836.6 | 832.5 | 841.2 | 849.4 |
| 10° | 781.8 | 754.6 | 726.9 | 699.8 | 672.1 | 657.3 | 642.4 | 627.6 | 612.7 | 611.2 | 609.1 |
| 12.5° | 737.2 | 695.7 | 654.7 | 613.2 | 571.7 | 539.4 | 507.2 | 474.9 | 442.6 | 445.2 | 447.7 |
| 15° | 566.1 | 524.6 | 483.6 | 442.1 | 400.6 | 374.5 | 347.8 | 321.7 | 295.1 | 287.4 | 279.7 |
| 17.5° | 355.5 | 324.8 | 294.1 | 262.8 | 232.1 | 223.4 | 215.2 | 206.5 | 197.7 | 195.2 | 192.6 |
| 20° | 221.8 | 208.5 | 195.2 | 181.3 | 168.0 | 166.0 | 163.9 | 161.9 | 159.8 | 161.4 | 162.9 |
| 22.5° | 172.6 | 167.0 | 160.9 | 155.2 | 149.1 | 147.0 | 145.0 | 142.9 | 140.9 | 142.4 | 143.4 |
| 25° | 153.7 | 149.6 | 145.5 | 141.4 | 137.3 | 135.2 | 132.7 | 130.6 | 128.1 | 129.1 | 130.6 |
| 27.5° | 142.9 | 139.3 | 135.8 | 132.2 | 128.6 | 125.0 | 121.9 | 118.3 | 114.8 | 116.8 | 118.3 |
| 30° | 133.2 | 129.1 | 125.5 | 121.4 | 117.3 | 113.7 | 110.1 | 106.0 | 102.5 | 104.5 | 106.6 |
| 32.5° | 119.9 | 116.3 | 112.2 | 108.6 | 104.5 | 102.5 | 100.4 | 97.8 | 95.8 | 97.3 | 98.4 |
| 35° | 106.0 | 103.0 | 100.4 | 97.3 | 94.3 | 92.2 | 90.7 | 88.6 | 86.6 | 87.1 | 88.1 |
| 37.5° | 99.4 | 95.8 | 92.2 | 88.6 | 85.0 | 84.0 | 83.0 | 81.5 | 80.4 | 80.4 | 80.4 |
| 40° | 92.7 | 89.1 | 85.6 | 81.5 | 77.9 | 76.3 | 74.8 | 73.3 | 71.7 | 71.7 | 71.7 |
| 42.5° | 85.0 | 81.5 | 77.9 | 74.3 | 70.7 | 69.2 | 67.1 | 65.6 | 63.5 | 63.5 | 63.5 |
| 45° | 78.9 | 75.3 | 72.2 | 68.6 | 65.1 | 62.5 | 59.9 | 56.9 | 54.3 | 53.8 | 53.3 |
| 47.5° | 76.8 | 71.7 | 66.6 | 61.5 | 56.4 | 53.8 | 51.2 | 48.2 | 45.6 | 45.1 | 44.6 |
| 50° | 88.1 | 77.9 | 67.6 | 57.4 | 47.1 | 45.1 | 43.0 | 41.0 | 38.9 | 37.9 | 37.4 |
| 52.5° | 83.5 | 72.7 | 62.0 | 51.2 | 40.5 | 38.9 | 37.4 | 35.9 | 34.3 | 33.3 | 32.3 |
| 55° | 53.8 | 49.2 | 45.1 | 40.5 | 35.9 | 34.8 | 33.8 | 32.3 | 31.2 | 30.2 | 29.2 |
| 57.5° | 43.0 | 40.5 | 38.4 | 35.9 | 33.3 | 32.3 | 31.2 | 29.7 | 28.7 | 27.2 | 26.1 |
| 60° | 38.9 | 36.9 | 34.8 | 32.8 | 30.7 | 29.7 | 28.7 | 27.7 | 26.6 | 25.1 | 24.1 |
| 62.5° | 35.3 | 33.8 | 32.3 | 30.7 | 29.2 | 28.2 | 27.2 | 26.1 | 25.1 | 23.6 | 22.0 |
| 65° | 31.8 | 30.7 | 29.7 | 28.7 | 27.7 | 26.6 | 25.6 | 24.1 | 23.1 | 21.5 | 20.0 |
| 67.5° | 29.2 | 28.7 | 28.2 | 27.7 | 27.2 | 26.1 | 24.6 | 23.6 | 22.0 | 20.5 | 18.4 |
| 70° | 27.7 | 27.7 | 27.7 | 27.2 | 27.2 | 26.1 | 24.6 | 23.6 | 22.0 | 20.0 | 18.4 |
| 72.5° | 26.1 | 26.6 | 27.2 | 27.2 | 27.7 | 26.1 | 24.6 | 23.1 | 21.5 | 19.5 | 17.9 |
| 75° | 25.1 | 25.6 | 26.1 | 26.1 | 26.6 | 25.6 | 24.6 | 23.1 | 22.0 | 20.0 | 17.9 |
| 77.5° | 25.6 | 26.1 | 26.1 | 26.6 | 26.6 | 25.6 | 24.6 | 23.1 | 22.0 | 19.5 | 16.9 |
| 80° | 25.6 | 25.1 | 24.6 | 23.6 | 23.1 | 21.0 | 19.0 | 16.4 | 14.3 | 11.3 | 8.7 |
| 82.5° | 20.0 | 19.0 | 18.4 | 17.4 | 16.4 | 14.3 | 12.3 | 10.2 | 8.2 | 6.1 | 4.1 |
| 85° | 15.9 | 14.9 | 14.3 | 13.3 | 12.3 | 10.8 | 8.7 | 7.2 | 5.1 | 4.1 | 2.6 |
| 87.5° | 8.2 | 7.7 | 6.7 | 6.1 | 5.1 | 4.1 | 2.6 | 1.5 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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: P368305
 CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

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: P368305

CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 82.5° | 85° | 87.5° | 90° | 92.5° | 95° | 97.5° | 100° | 102.5° | 105° | 107.5° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 |
| 2.5° | 1062.5 | 1088.6 | 1085.0 | 1081.4 | 1098.3 | 1115.2 | 1103.0 | 1091.2 | 1078.9 | 1066.6 | 1041.0 |
| 5° | 1074.3 | 1076.3 | 1072.7 | 1068.6 | 1069.1 | 1069.7 | 1061.5 | 1053.3 | 1045.1 | 1036.9 | 1035.3 |
| 7.5° | 858.1 | 866.3 | 877.5 | 888.3 | 888.8 | 888.8 | 882.7 | 876.5 | 869.9 | 863.7 | 866.8 |
| 10° | 607.6 | 605.5 | 608.6 | 611.7 | 611.2 | 610.1 | 626.5 | 642.9 | 658.8 | 675.2 | 663.4 |
| 12.5° | 449.8 | 452.3 | 439.5 | 426.7 | 431.3 | 435.4 | 438.0 | 440.6 | 443.1 | 445.7 | 452.9 |
| 15° | 272.0 | 264.3 | 255.1 | 245.9 | 250.5 | 254.6 | 259.2 | 263.3 | 267.9 | 272.0 | 276.6 |
| 17.5° | 189.5 | 187.0 | 182.9 | 178.3 | 178.8 | 179.3 | 179.8 | 180.3 | 180.3 | 180.8 | 181.9 |
| 20° | 164.4 | 166.0 | 162.9 | 159.3 | 158.3 | 156.8 | 155.7 | 154.7 | 153.2 | 152.1 | 150.6 |
| 22.5° | 145.0 | 146.0 | 146.5 | 146.5 | 144.5 | 141.9 | 139.9 | 138.3 | 136.3 | 134.2 | 133.2 |
| 25° | 131.7 | 132.7 | 131.7 | 130.1 | 129.1 | 128.1 | 127.0 | 125.5 | 124.5 | 122.9 | 122.4 |
| 27.5° | 120.4 | 121.9 | 121.9 | 121.4 | 120.4 | 118.9 | 116.3 | 114.2 | 111.7 | 109.1 | 109.6 |
| 30° | 108.6 | 110.7 | 110.7 | 110.1 | 109.6 | 109.1 | 106.6 | 104.0 | 101.4 | 98.9 | 99.9 |
| 32.5° | 99.9 | 100.9 | 100.4 | 99.9 | 99.9 | 99.4 | 97.3 | 95.8 | 93.7 | 91.7 | 91.7 |
| 35° | 88.6 | 89.1 | 89.1 | 89.1 | 89.1 | 88.6 | 87.1 | 85.6 | 84.0 | 82.5 | 83.0 |
| 37.5° | 80.4 | 80.4 | 82.0 | 83.0 | 82.0 | 80.9 | 79.9 | 78.4 | 77.4 | 75.8 | 75.8 |
| 40° | 71.2 | 71.2 | 72.7 | 73.8 | 72.7 | 71.7 | 71.2 | 70.2 | 69.7 | 68.6 | 68.6 |
| 42.5° | 63.0 | 63.0 | 64.5 | 65.6 | 65.6 | 65.1 | 64.0 | 63.0 | 62.0 | 61.0 | 61.5 |
| 45° | 52.8 | 52.3 | 54.8 | 56.9 | 55.8 | 54.8 | 54.8 | 54.3 | 54.3 | 53.8 | 54.3 |
| 47.5° | 43.5 | 43.0 | 45.1 | 47.1 | 46.6 | 45.6 | 45.6 | 45.6 | 45.6 | 45.6 | 46.1 |
| 50° | 36.4 | 35.3 | 37.4 | 38.9 | 38.4 | 37.4 | 37.4 | 37.9 | 37.9 | 37.9 | 38.4 |
| 52.5° | 31.2 | 30.2 | 31.8 | 32.8 | 32.3 | 31.8 | 31.8 | 32.3 | 32.3 | 32.3 | 32.8 |
| 55° | 27.7 | 26.6 | 28.2 | 29.2 | 28.7 | 27.7 | 28.2 | 28.2 | 28.2 | 28.7 | 28.7 |
| 57.5° | 24.6 | 23.1 | 24.1 | 25.1 | 25.1 | 24.6 | 25.1 | 25.1 | 25.6 | 25.6 | 25.6 |
| 60° | 22.5 | 21.0 | 22.0 | 22.5 | 22.5 | 22.0 | 22.5 | 22.5 | 23.1 | 23.1 | 23.1 |
| 62.5° | 20.0 | 18.4 | 19.5 | 20.0 | 20.0 | 19.5 | 20.0 | 20.0 | 20.5 | 20.5 | 20.5 |
| 65° | 17.9 | 16.4 | 16.9 | 17.4 | 17.4 | 17.4 | 17.9 | 17.9 | 18.4 | 18.4 | 18.4 |
| 67.5° | 16.9 | 14.9 | 15.4 | 15.9 | 15.9 | 15.9 | 16.4 | 16.4 | 16.9 | 16.9 | 17.4 |
| 70° | 16.4 | 14.3 | 14.9 | 14.9 | 15.4 | 15.4 | 15.4 | 15.9 | 15.9 | 15.9 | 15.9 |
| 72.5° | 15.9 | 13.8 | 13.8 | 13.8 | 14.3 | 14.3 | 14.3 | 14.9 | 14.9 | 14.9 | 14.9 |
| 75° | 15.9 | 13.8 | 13.3 | 12.8 | 13.3 | 13.3 | 13.3 | 13.8 | 13.8 | 13.8 | 13.8 |
| 77.5° | 13.8 | 11.3 | 10.2 | 8.7 | 10.2 | 11.3 | 11.8 | 11.8 | 12.3 | 12.3 | 12.3 |
| 80° | 5.6 | 2.6 | 1.5 | 0.0 | 0.5 | 1.0 | 1.5 | 2.0 | 2.6 | 3.1 | 3.6 |
| 82.5° | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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: P368305
 CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

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: P368305
 CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 110° | 112.5° | 115° | 117.5° | 120° | 122.5° | 125° | 127.5° | 130° | 132.5° | 135° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 |
| 2.5° | 1015.4 | 989.7 | 964.1 | 976.4 | 988.7 | 1001.0 | 1013.3 | 1012.3 | 1010.7 | 1009.7 | 1008.2 |
| 5° | 1034.3 | 1032.8 | 1031.2 | 1024.1 | 1017.4 | 1010.2 | 1003.1 | 1001.5 | 999.5 | 997.9 | 995.9 |
| 7.5° | 869.9 | 872.4 | 875.5 | 867.3 | 859.1 | 850.9 | 842.7 | 821.7 | 800.7 | 779.2 | 758.2 |
| 10° | 651.6 | 639.3 | 627.6 | 626.5 | 625.5 | 624.5 | 623.5 | 621.4 | 619.4 | 616.8 | 614.7 |
| 12.5° | 460.5 | 467.7 | 474.9 | 472.3 | 469.8 | 466.7 | 464.1 | 467.7 | 471.8 | 475.4 | 479.0 |
| 15° | 280.7 | 285.3 | 289.4 | 298.7 | 307.9 | 317.1 | 326.3 | 329.9 | 334.0 | 337.6 | 341.2 |
| 17.5° | 182.9 | 183.4 | 184.4 | 194.7 | 204.4 | 214.6 | 224.4 | 231.0 | 237.7 | 243.8 | 250.5 |
| 20° | 149.1 | 147.5 | 146.0 | 151.6 | 157.3 | 162.9 | 168.5 | 174.7 | 180.8 | 187.0 | 193.1 |
| 22.5° | 132.7 | 131.7 | 130.6 | 132.7 | 134.7 | 136.3 | 138.3 | 142.9 | 148.1 | 152.7 | 157.3 |
| 25° | 121.9 | 120.9 | 120.4 | 121.4 | 122.4 | 123.5 | 124.5 | 127.0 | 129.6 | 132.2 | 134.7 |
| 27.5° | 109.6 | 110.1 | 110.1 | 111.2 | 111.7 | 112.7 | 113.2 | 114.2 | 115.8 | 116.8 | 117.8 |
| 30° | 100.4 | 101.4 | 101.9 | 103.0 | 103.5 | 104.5 | 105.0 | 104.5 | 104.0 | 103.5 | 103.0 |
| 32.5° | 91.7 | 91.2 | 91.2 | 92.2 | 92.7 | 93.7 | 94.3 | 95.3 | 96.3 | 96.8 | 97.8 |
| 35° | 83.0 | 83.5 | 83.5 | 83.5 | 84.0 | 84.0 | 84.0 | 85.0 | 86.6 | 87.6 | 88.6 |
| 37.5° | 75.3 | 75.3 | 74.8 | 76.3 | 77.4 | 78.9 | 79.9 | 80.9 | 82.5 | 83.5 | 84.5 |
| 40° | 68.6 | 68.6 | 68.6 | 69.7 | 70.7 | 71.2 | 72.2 | 74.8 | 77.4 | 79.9 | 82.5 |
| 42.5° | 61.5 | 62.0 | 62.0 | 63.0 | 64.0 | 64.5 | 65.6 | 67.6 | 69.2 | 71.2 | 72.7 |
| 45° | 54.8 | 55.3 | 55.8 | 56.9 | 57.4 | 58.4 | 58.9 | 59.9 | 60.4 | 61.5 | 62.0 |
| 47.5° | 47.1 | 47.6 | 48.2 | 49.2 | 49.7 | 50.7 | 51.2 | 50.7 | 50.7 | 50.2 | 49.7 |
| 50° | 39.4 | 40.0 | 40.5 | 42.0 | 43.0 | 44.6 | 45.6 | 44.6 | 43.5 | 42.0 | 41.0 |
| 52.5° | 33.3 | 33.3 | 33.8 | 34.8 | 35.9 | 36.4 | 37.4 | 36.9 | 36.4 | 35.9 | 35.3 |
| 55° | 28.7 | 28.7 | 28.7 | 29.2 | 29.7 | 30.2 | 30.7 | 31.2 | 31.2 | 31.8 | 31.8 |
| 57.5° | 25.6 | 25.1 | 25.1 | 25.6 | 26.1 | 26.1 | 26.6 | 27.2 | 27.2 | 27.7 | 27.7 |
| 60° | 23.1 | 22.5 | 22.5 | 23.1 | 23.6 | 24.1 | 24.6 | 24.6 | 24.6 | 24.1 | 24.1 |
| 62.5° | 20.5 | 20.5 | 20.5 | 21.0 | 21.0 | 21.5 | 21.5 | 21.5 | 22.0 | 22.0 | 22.0 |
| 65° | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 18.4 | 18.4 | 19.0 | 19.0 | 19.5 | 19.5 |
| 67.5° | 17.4 | 17.9 | 17.9 | 17.4 | 16.9 | 16.4 | 15.9 | 16.4 | 16.4 | 16.9 | 16.9 |
| 70° | 15.9 | 15.9 | 15.9 | 15.4 | 14.9 | 14.3 | 13.8 | 13.8 | 13.8 | 13.3 | 13.3 |
| 72.5° | 14.9 | 14.3 | 14.3 | 13.8 | 12.8 | 12.3 | 11.3 | 10.8 | 10.8 | 10.2 | 9.7 |
| 75° | 13.8 | 13.3 | 13.3 | 12.3 | 11.3 | 10.2 | 9.2 | 8.7 | 7.7 | 7.2 | 6.1 |
| 77.5° | 12.3 | 12.3 | 12.3 | 10.8 | 9.7 | 8.2 | 6.7 | 5.6 | 4.6 | 3.1 | 2.0 |
| 80° | 4.1 | 4.6 | 5.1 | 4.6 | 4.6 | 4.1 | 3.6 | 2.6 | 2.0 | 1.0 | 0.0 |
| 82.5° | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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: P368305
 CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

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 |



REPORT NUMBER: P368305

CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 137.5° | 140° | 142.5° | 145° | 147.5° | 150° | 152.5° | 155° | 157.5° | 160° | 162.5° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 |
| 2.5° | 1013.8 | 1019.5 | 1025.1 | 1030.7 | 1031.2 | 1031.7 | 1032.3 | 1032.8 | 1020.0 | 1006.6 | 993.8 |
| 5° | 1006.1 | 1016.9 | 1027.1 | 1037.4 | 1031.7 | 1026.1 | 1020.5 | 1014.8 | 1014.3 | 1014.3 | 1013.8 |
| 7.5° | 759.7 | 760.7 | 762.3 | 763.3 | 765.4 | 767.4 | 768.9 | 771.0 | 779.2 | 787.4 | 795.1 |
| 10° | 608.1 | 601.4 | 594.3 | 587.6 | 582.5 | 576.8 | 571.7 | 566.1 | 570.2 | 574.8 | 578.9 |
| 12.5° | 473.4 | 467.7 | 461.6 | 455.9 | 453.9 | 451.8 | 449.3 | 447.2 | 460.5 | 473.9 | 486.7 |
| 15° | 340.2 | 339.1 | 337.6 | 336.6 | 343.2 | 349.9 | 356.6 | 363.2 | 374.5 | 385.2 | 396.5 |
| 17.5° | 253.1 | 255.6 | 258.2 | 260.8 | 264.9 | 269.0 | 272.5 | 276.6 | 284.8 | 293.5 | 301.7 |
| 20° | 196.2 | 199.8 | 202.9 | 205.9 | 204.9 | 203.9 | 202.4 | 201.3 | 208.0 | 214.6 | 220.8 |
| 22.5° | 160.3 | 162.9 | 166.0 | 168.5 | 169.1 | 169.6 | 170.1 | 170.6 | 174.7 | 178.3 | 182.4 |
| 25° | 137.3 | 140.4 | 142.9 | 145.5 | 146.0 | 146.5 | 147.0 | 147.5 | 152.7 | 157.8 | 162.4 |
| 27.5° | 121.4 | 124.5 | 128.1 | 131.1 | 132.2 | 133.2 | 134.2 | 135.2 | 138.3 | 140.9 | 144.0 |
| 30° | 107.1 | 111.2 | 115.3 | 119.4 | 120.9 | 122.4 | 124.0 | 125.5 | 128.6 | 132.2 | 135.2 |
| 32.5° | 99.9 | 102.5 | 104.5 | 106.6 | 110.1 | 113.2 | 116.8 | 119.9 | 123.5 | 127.6 | 131.1 |
| 35° | 91.7 | 94.3 | 97.3 | 99.9 | 102.5 | 105.0 | 107.1 | 109.6 | 111.7 | 113.7 | 115.3 |
| 37.5° | 86.6 | 89.1 | 91.2 | 93.2 | 94.3 | 95.3 | 95.8 | 96.8 | 97.8 | 98.9 | 99.4 |
| 40° | 82.5 | 82.0 | 82.0 | 81.5 | 82.5 | 84.0 | 85.0 | 86.1 | 89.1 | 91.7 | 94.8 |
| 42.5° | 71.7 | 70.2 | 69.2 | 67.6 | 70.2 | 72.2 | 74.8 | 76.8 | 80.9 | 85.0 | 89.1 |
| 45° | 61.0 | 59.9 | 58.4 | 57.4 | 61.0 | 64.5 | 68.1 | 71.7 | 76.3 | 80.4 | 85.0 |
| 47.5° | 50.2 | 50.7 | 50.7 | 51.2 | 54.8 | 58.4 | 61.5 | 65.1 | 69.7 | 74.3 | 78.9 |
| 50° | 42.0 | 43.0 | 44.1 | 45.1 | 48.7 | 51.7 | 55.3 | 58.4 | 63.5 | 68.1 | 73.3 |
| 52.5° | 36.9 | 38.4 | 39.4 | 41.0 | 44.1 | 47.6 | 50.7 | 53.8 | 58.4 | 63.0 | 67.6 |
| 55° | 33.3 | 35.3 | 36.9 | 38.4 | 41.0 | 43.5 | 46.1 | 48.7 | 53.3 | 57.9 | 62.0 |
| 57.5° | 29.2 | 30.7 | 32.3 | 33.8 | 36.4 | 38.9 | 41.0 | 43.5 | 47.6 | 52.3 | 56.4 |
| 60° | 25.6 | 26.6 | 28.2 | 29.2 | 31.2 | 33.8 | 35.9 | 37.9 | 42.0 | 46.1 | 49.7 |
| 62.5° | 22.5 | 23.6 | 24.1 | 24.6 | 26.6 | 28.7 | 30.7 | 32.8 | 36.4 | 40.5 | 44.1 |
| 65° | 20.0 | 20.5 | 20.5 | 21.0 | 22.5 | 24.6 | 26.1 | 27.7 | 31.8 | 35.3 | 39.4 |
| 67.5° | 16.9 | 17.4 | 17.4 | 17.4 | 19.0 | 20.5 | 22.0 | 23.6 | 27.2 | 31.2 | 34.8 |
| 70° | 13.3 | 13.8 | 13.8 | 13.8 | 15.4 | 17.4 | 19.0 | 20.5 | 23.6 | 26.6 | 29.7 |
| 72.5° | 10.2 | 10.2 | 10.8 | 10.8 | 12.3 | 14.3 | 15.9 | 17.4 | 20.0 | 22.5 | 25.1 |
| 75° | 6.7 | 7.2 | 7.2 | 7.7 | 9.2 | 11.3 | 12.8 | 14.3 | 16.9 | 19.5 | 21.5 |
| 77.5° | 2.6 | 3.6 | 4.1 | 4.6 | 6.1 | 7.7 | 9.2 | 10.8 | 12.8 | 15.4 | 17.4 |
| 80° | 0.0 | 0.5 | 0.5 | 0.5 | 1.5 | 2.0 | 3.1 | 3.6 | 5.1 | 7.2 | 8.7 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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: P368305
 CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

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 |



REPORT NUMBER: P368305
 CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 165° | 167.5° | 170° | 172.5° | 175° | 177.5° | 180° | 182.5° | 185° | 187.5° | 190° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 |
| 2.5° | 980.5 | 1008.7 | 1036.9 | 1065.0 | 1093.2 | 1128.1 | 1162.9 | 1168.0 | 1173.1 | 1167.0 | 1161.4 |
| 5° | 1013.3 | 1027.1 | 1040.5 | 1054.3 | 1067.6 | 1107.6 | 1147.0 | 1147.5 | 1147.5 | 1148.0 | 1148.0 |
| 7.5° | 803.3 | 815.0 | 826.8 | 838.1 | 849.9 | 876.0 | 902.1 | 911.9 | 921.1 | 919.0 | 917.0 |
| 10° | 583.0 | 598.4 | 613.2 | 628.6 | 643.4 | 667.5 | 691.6 | 700.8 | 709.5 | 737.7 | 766.4 |
| 12.5° | 500.0 | 514.8 | 529.7 | 544.0 | 558.9 | 583.5 | 608.1 | 626.0 | 643.4 | 660.9 | 678.3 |
| 15° | 407.3 | 419.1 | 431.3 | 443.1 | 454.9 | 466.2 | 477.5 | 499.5 | 521.0 | 538.4 | 555.8 |
| 17.5° | 309.9 | 315.1 | 319.7 | 324.8 | 329.4 | 334.5 | 339.6 | 348.9 | 357.6 | 372.9 | 387.8 |
| 20° | 227.5 | 231.6 | 235.7 | 239.2 | 243.3 | 248.5 | 253.6 | 260.2 | 266.4 | 270.0 | 273.0 |
| 22.5° | 186.0 | 192.1 | 198.3 | 203.9 | 210.0 | 213.6 | 217.2 | 219.3 | 221.3 | 222.8 | 224.4 |
| 25° | 167.5 | 173.2 | 178.3 | 183.9 | 189.0 | 190.6 | 192.1 | 196.2 | 200.3 | 200.3 | 200.3 |
| 27.5° | 146.5 | 154.2 | 162.4 | 170.1 | 177.8 | 179.8 | 181.3 | 182.9 | 183.9 | 181.9 | 179.3 |
| 30° | 138.3 | 146.0 | 153.7 | 160.9 | 168.5 | 171.6 | 174.2 | 175.7 | 177.3 | 174.7 | 172.1 |
| 32.5° | 134.7 | 141.9 | 148.6 | 155.7 | 162.4 | 166.5 | 170.1 | 174.2 | 177.8 | 178.3 | 179.3 |
| 35° | 117.3 | 121.9 | 127.0 | 131.7 | 136.3 | 138.3 | 140.4 | 141.9 | 142.9 | 142.9 | 142.9 |
| 37.5° | 100.4 | 106.6 | 113.2 | 119.4 | 125.5 | 130.1 | 134.7 | 135.2 | 135.2 | 136.3 | 137.8 |
| 40° | 97.3 | 103.5 | 109.6 | 115.3 | 121.4 | 126.5 | 131.1 | 131.7 | 132.2 | 133.2 | 134.2 |
| 42.5° | 93.2 | 99.9 | 106.6 | 113.2 | 119.9 | 125.0 | 129.6 | 129.6 | 129.1 | 130.6 | 131.7 |
| 45° | 89.1 | 95.8 | 101.9 | 108.6 | 114.8 | 121.4 | 127.6 | 126.0 | 124.0 | 126.5 | 128.6 |
| 47.5° | 83.5 | 90.7 | 97.8 | 104.5 | 111.7 | 117.8 | 123.5 | 122.4 | 120.9 | 123.5 | 126.0 |
| 50° | 77.9 | 85.0 | 92.2 | 99.4 | 106.6 | 113.2 | 119.4 | 118.3 | 117.3 | 120.4 | 122.9 |
| 52.5° | 72.2 | 79.4 | 87.1 | 94.3 | 101.4 | 107.1 | 112.2 | 111.7 | 111.2 | 114.2 | 117.8 |
| 55° | 66.6 | 73.3 | 80.4 | 87.1 | 93.7 | 99.9 | 105.5 | 104.5 | 103.5 | 106.0 | 108.6 |
| 57.5° | 60.4 | 67.1 | 73.3 | 79.9 | 86.1 | 91.2 | 95.8 | 94.3 | 92.7 | 95.8 | 98.9 |
| 60° | 53.8 | 59.9 | 66.1 | 71.7 | 77.9 | 82.0 | 85.6 | 84.5 | 83.0 | 86.1 | 89.1 |
| 62.5° | 47.6 | 53.3 | 58.9 | 64.0 | 69.7 | 72.7 | 75.8 | 74.8 | 73.8 | 76.8 | 80.4 |
| 65° | 43.0 | 47.6 | 51.7 | 56.4 | 60.4 | 63.5 | 66.6 | 65.1 | 63.5 | 67.1 | 70.2 |
| 67.5° | 38.4 | 42.0 | 46.1 | 49.7 | 53.3 | 55.8 | 58.4 | 57.4 | 55.8 | 58.4 | 61.0 |
| 70° | 32.8 | 36.4 | 40.0 | 43.0 | 46.6 | 49.2 | 51.7 | 50.2 | 48.2 | 50.7 | 53.3 |
| 72.5° | 27.7 | 30.7 | 33.8 | 36.4 | 39.4 | 41.5 | 43.5 | 42.0 | 40.5 | 42.5 | 44.6 |
| 75° | 24.1 | 26.6 | 29.2 | 31.2 | 33.8 | 34.8 | 35.9 | 35.3 | 34.3 | 36.4 | 37.9 |
| 77.5° | 19.5 | 21.5 | 24.1 | 26.1 | 28.2 | 28.2 | 28.2 | 28.7 | 28.7 | 30.7 | 33.3 |
| 80° | 10.2 | 12.3 | 14.3 | 15.9 | 17.9 | 17.9 | 17.4 | 18.4 | 19.0 | 21.5 | 24.1 |
| 82.5° | 0.0 | 1.5 | 3.1 | 4.6 | 6.1 | 5.6 | 4.6 | 5.1 | 5.1 | 6.1 | 7.2 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 1.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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: P368305
 CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

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 |



REPORT NUMBER: P368305

CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 192.5° | 195° | 197.5° | 200° | 202.5° | 205° | 207.5° | 210° | 212.5° | 215° | 217.5° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 |
| 2.5° | 1155.2 | 1149.1 | 1145.0 | 1141.4 | 1137.3 | 1133.2 | 1138.3 | 1143.4 | 1148.0 | 1153.2 | 1168.5 |
| 5° | 1148.5 | 1148.5 | 1145.0 | 1141.4 | 1137.8 | 1134.2 | 1141.9 | 1149.1 | 1156.7 | 1163.9 | 1163.4 |
| 7.5° | 914.4 | 912.4 | 933.9 | 954.9 | 976.4 | 997.4 | 1003.1 | 1008.7 | 1013.8 | 1019.5 | 1017.9 |
| 10° | 794.6 | 822.7 | 832.0 | 841.2 | 850.4 | 859.6 | 870.9 | 882.2 | 893.4 | 904.7 | 908.8 |
| 12.5° | 695.7 | 713.1 | 742.8 | 772.0 | 801.7 | 830.9 | 845.8 | 861.2 | 876.0 | 890.9 | 920.1 |
| 15° | 573.2 | 590.7 | 616.3 | 641.9 | 667.5 | 693.1 | 716.7 | 740.8 | 764.3 | 787.9 | 823.2 |
| 17.5° | 403.2 | 418.0 | 437.5 | 457.0 | 475.9 | 495.4 | 531.8 | 568.1 | 604.5 | 640.9 | 678.3 |
| 20° | 276.6 | 279.7 | 288.9 | 298.7 | 307.9 | 317.1 | 349.9 | 383.2 | 416.0 | 448.8 | 497.9 |
| 22.5° | 225.4 | 226.9 | 231.6 | 236.2 | 240.3 | 244.9 | 261.8 | 279.2 | 296.1 | 313.0 | 353.0 |
| 25° | 199.8 | 199.8 | 202.9 | 205.9 | 209.0 | 212.1 | 221.3 | 230.5 | 239.2 | 248.5 | 274.1 |
| 27.5° | 177.3 | 174.7 | 179.3 | 183.9 | 188.5 | 193.1 | 199.8 | 207.0 | 213.6 | 220.3 | 237.7 |
| 30° | 169.6 | 167.0 | 172.6 | 178.3 | 183.9 | 189.5 | 196.2 | 202.9 | 209.0 | 215.7 | 227.5 |
| 32.5° | 179.8 | 180.3 | 182.4 | 184.4 | 186.0 | 188.0 | 191.1 | 194.7 | 197.7 | 200.8 | 211.1 |
| 35° | 142.9 | 142.9 | 146.5 | 150.1 | 153.2 | 156.8 | 162.4 | 168.0 | 173.7 | 179.3 | 190.1 |
| 37.5° | 138.8 | 139.9 | 142.9 | 146.5 | 149.6 | 152.7 | 159.8 | 167.5 | 174.7 | 181.9 | 190.6 |
| 40° | 134.7 | 135.8 | 139.9 | 144.0 | 148.1 | 152.1 | 159.3 | 166.0 | 173.2 | 179.8 | 188.0 |
| 42.5° | 133.2 | 134.2 | 139.3 | 145.0 | 150.1 | 155.2 | 161.4 | 167.5 | 173.2 | 179.3 | 190.6 |
| 45° | 131.1 | 133.2 | 139.3 | 146.0 | 152.1 | 158.3 | 163.9 | 169.6 | 175.2 | 180.8 | 194.7 |
| 47.5° | 128.1 | 130.6 | 137.8 | 144.5 | 151.6 | 158.3 | 169.1 | 180.3 | 191.1 | 201.8 | 208.5 |
| 50° | 126.0 | 128.6 | 136.3 | 144.0 | 151.6 | 159.3 | 176.7 | 194.2 | 211.1 | 228.5 | 224.9 |
| 52.5° | 120.9 | 124.0 | 133.7 | 143.4 | 153.2 | 162.9 | 178.3 | 193.6 | 209.0 | 224.4 | 217.2 |
| 55° | 111.2 | 113.7 | 125.0 | 136.3 | 147.0 | 158.3 | 169.6 | 180.8 | 191.6 | 202.9 | 194.7 |
| 57.5° | 101.4 | 104.5 | 115.3 | 126.0 | 136.3 | 147.0 | 152.7 | 158.3 | 163.9 | 169.6 | 166.5 |
| 60° | 92.2 | 95.3 | 109.6 | 124.0 | 138.3 | 152.7 | 147.5 | 142.4 | 136.8 | 131.7 | 135.2 |
| 62.5° | 83.5 | 86.6 | 100.4 | 113.7 | 127.6 | 140.9 | 133.7 | 126.5 | 119.4 | 112.2 | 117.8 |
| 65° | 73.8 | 76.8 | 82.0 | 87.6 | 92.7 | 97.8 | 97.3 | 96.3 | 95.8 | 94.8 | 100.9 |
| 67.5° | 63.5 | 66.1 | 68.6 | 71.7 | 74.3 | 76.8 | 78.4 | 80.4 | 82.0 | 83.5 | 88.6 |
| 70° | 55.3 | 57.9 | 61.0 | 63.5 | 66.6 | 69.2 | 70.2 | 71.2 | 71.7 | 72.7 | 77.4 |
| 72.5° | 46.1 | 48.2 | 52.3 | 56.4 | 59.9 | 64.0 | 64.5 | 64.5 | 65.1 | 65.1 | 68.6 |
| 75° | 40.0 | 41.5 | 44.6 | 47.6 | 50.2 | 53.3 | 54.8 | 56.4 | 57.4 | 58.9 | 61.0 |
| 77.5° | 35.3 | 37.4 | 38.4 | 38.9 | 40.0 | 40.5 | 41.5 | 42.5 | 43.5 | 44.6 | 45.1 |
| 80° | 26.1 | 28.7 | 29.7 | 30.2 | 31.2 | 31.8 | 31.8 | 31.2 | 31.2 | 30.7 | 31.2 |
| 82.5° | 8.2 | 9.2 | 10.8 | 12.3 | 13.8 | 15.4 | 15.9 | 16.4 | 16.4 | 16.9 | 16.4 |
| 85° | 1.5 | 2.0 | 3.1 | 4.1 | 4.6 | 5.6 | 5.1 | 4.1 | 3.6 | 2.6 | 2.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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: P368305
 CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

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: P368305

CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 220° | 222.5° | 225° | 227.5° | 230° | 232.5° | 235° | 237.5° | 240° | 242.5° | 245° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 |
| 2.5° | 1183.9 | 1198.8 | 1214.1 | 1208.0 | 1201.8 | 1195.7 | 1189.5 | 1190.6 | 1192.1 | 1193.1 | 1194.1 |
| 5° | 1162.9 | 1161.9 | 1161.4 | 1178.8 | 1196.7 | 1214.1 | 1231.5 | 1250.5 | 1270.0 | 1288.9 | 1307.9 |
| 7.5° | 1016.4 | 1014.3 | 1012.8 | 1035.3 | 1057.9 | 1080.4 | 1103.0 | 1129.1 | 1155.7 | 1181.8 | 1208.0 |
| 10° | 912.9 | 917.0 | 921.1 | 930.3 | 940.0 | 949.3 | 958.5 | 983.6 | 1008.7 | 1033.3 | 1058.4 |
| 12.5° | 949.3 | 978.0 | 1007.2 | 1012.8 | 1017.9 | 1023.6 | 1028.7 | 1032.3 | 1035.8 | 1039.4 | 1043.0 |
| 15° | 859.1 | 894.5 | 929.8 | 944.7 | 959.0 | 973.9 | 988.2 | 1026.1 | 1063.5 | 1101.4 | 1138.8 |
| 17.5° | 715.7 | 752.6 | 789.9 | 834.5 | 879.1 | 923.7 | 968.2 | 1009.2 | 1050.2 | 1091.2 | 1132.2 |
| 20° | 547.6 | 596.8 | 646.0 | 702.3 | 759.2 | 815.6 | 871.9 | 912.9 | 953.4 | 994.3 | 1034.8 |
| 22.5° | 393.4 | 433.4 | 473.4 | 541.5 | 609.1 | 677.2 | 744.9 | 816.1 | 887.8 | 959.0 | 1030.2 |
| 25° | 299.7 | 324.8 | 350.4 | 417.5 | 484.6 | 551.2 | 618.3 | 716.2 | 814.0 | 911.9 | 1009.7 |
| 27.5° | 254.6 | 272.0 | 288.9 | 349.4 | 409.8 | 469.8 | 530.2 | 646.5 | 762.8 | 879.1 | 995.4 |
| 30° | 239.8 | 251.5 | 263.3 | 314.5 | 366.3 | 417.5 | 468.7 | 586.6 | 704.4 | 822.2 | 940.0 |
| 32.5° | 221.3 | 231.0 | 241.3 | 286.4 | 331.4 | 376.0 | 421.1 | 536.4 | 651.6 | 766.4 | 881.6 |
| 35° | 200.3 | 211.1 | 221.3 | 266.4 | 311.5 | 356.0 | 401.1 | 520.5 | 639.8 | 759.2 | 878.6 |
| 37.5° | 198.8 | 207.5 | 215.7 | 267.9 | 320.7 | 372.9 | 425.2 | 544.6 | 663.9 | 782.8 | 902.1 |
| 40° | 196.7 | 204.9 | 213.1 | 266.4 | 319.2 | 372.4 | 425.2 | 550.2 | 675.2 | 800.2 | 925.2 |
| 42.5° | 201.8 | 212.6 | 223.9 | 271.0 | 318.1 | 364.7 | 411.9 | 543.5 | 675.2 | 806.3 | 938.0 |
| 45° | 209.0 | 222.8 | 236.7 | 279.7 | 322.7 | 365.8 | 408.8 | 551.7 | 694.7 | 837.1 | 980.0 |
| 47.5° | 215.7 | 222.3 | 229.0 | 270.0 | 310.4 | 351.4 | 391.9 | 537.9 | 683.9 | 829.9 | 975.9 |
| 50° | 221.8 | 218.2 | 214.6 | 259.7 | 304.8 | 349.4 | 394.5 | 533.8 | 672.6 | 812.0 | 950.8 |
| 52.5° | 209.5 | 202.4 | 194.7 | 242.8 | 291.0 | 338.6 | 386.8 | 527.1 | 667.5 | 807.9 | 948.2 |
| 55° | 186.5 | 178.3 | 170.1 | 217.7 | 264.9 | 312.5 | 359.6 | 499.5 | 639.3 | 779.2 | 919.0 |
| 57.5° | 162.9 | 159.8 | 156.2 | 192.6 | 229.0 | 264.9 | 301.2 | 456.4 | 612.2 | 767.4 | 922.6 |
| 60° | 138.8 | 141.9 | 145.5 | 171.6 | 197.7 | 223.4 | 249.5 | 401.6 | 553.3 | 705.4 | 857.1 |
| 62.5° | 122.9 | 128.6 | 133.7 | 155.7 | 178.3 | 200.3 | 222.3 | 365.8 | 509.2 | 652.7 | 796.1 |
| 65° | 107.6 | 113.7 | 119.9 | 146.0 | 172.6 | 198.8 | 224.9 | 346.3 | 467.7 | 589.1 | 710.5 |
| 67.5° | 93.7 | 98.4 | 103.5 | 137.8 | 172.1 | 206.5 | 240.8 | 340.2 | 439.0 | 538.4 | 637.3 |
| 70° | 82.0 | 86.1 | 90.7 | 130.6 | 170.6 | 210.6 | 250.5 | 335.0 | 420.1 | 504.6 | 589.1 |
| 72.5° | 72.2 | 75.8 | 79.4 | 119.9 | 160.3 | 200.8 | 241.3 | 316.6 | 391.4 | 466.7 | 541.5 |
| 75° | 63.0 | 64.5 | 66.6 | 100.9 | 134.7 | 169.1 | 202.9 | 253.1 | 303.8 | 354.0 | 404.2 |
| 77.5° | 45.6 | 45.6 | 46.1 | 56.4 | 66.1 | 76.3 | 86.1 | 117.3 | 148.6 | 179.3 | 210.6 |
| 80° | 31.2 | 31.8 | 31.8 | 35.9 | 39.4 | 43.5 | 47.1 | 53.8 | 59.9 | 66.6 | 72.7 |
| 82.5° | 15.9 | 14.9 | 14.3 | 18.4 | 22.5 | 26.6 | 30.7 | 32.3 | 33.3 | 34.8 | 35.9 |
| 85° | 1.5 | 0.5 | 0.0 | 2.6 | 5.1 | 7.7 | 10.2 | 12.3 | 14.3 | 16.4 | 18.4 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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: P368305
 CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

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 |



REPORT NUMBER: P368305

CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 247.5° | 250° | 252.5° | 255° | 257.5° | 260° | 262.5° | 265° | 267.5° | 270° | 272.5° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 |
| 2.5° | 1190.0 | 1185.9 | 1181.8 | 1177.7 | 1202.9 | 1228.5 | 1253.6 | 1278.7 | 1349.9 | 1396.5 | 1391.4 |
| 5° | 1326.3 | 1344.8 | 1363.2 | 1381.6 | 1411.4 | 1441.6 | 1471.3 | 1501.0 | 1606.5 | 1671.1 | 1680.3 |
| 7.5° | 1236.7 | 1264.8 | 1293.5 | 1321.7 | 1379.1 | 1435.9 | 1493.3 | 1550.2 | 1636.8 | 1703.9 | 1741.8 |
| 10° | 1090.7 | 1122.9 | 1154.7 | 1187.0 | 1251.5 | 1316.6 | 1381.1 | 1445.7 | 1543.0 | 1635.7 | 1683.4 |
| 12.5° | 1093.7 | 1144.5 | 1195.2 | 1245.9 | 1302.2 | 1358.6 | 1414.4 | 1470.8 | 1530.2 | 1561.5 | 1628.6 |
| 15° | 1178.8 | 1218.7 | 1258.7 | 1298.6 | 1372.4 | 1446.2 | 1519.4 | 1593.2 | 1628.6 | 1703.9 | 1782.2 |
| 17.5° | 1210.0 | 1288.4 | 1366.3 | 1444.1 | 1536.3 | 1628.0 | 1720.3 | 1812.0 | 1878.6 | 1983.1 | 2064.0 |
| 20° | 1152.1 | 1269.4 | 1386.2 | 1503.6 | 1630.1 | 1756.6 | 1883.2 | 2009.7 | 2082.4 | 2181.8 | 2306.8 |
| 22.5° | 1154.7 | 1279.2 | 1403.2 | 1527.6 | 1702.3 | 1876.5 | 2051.2 | 2225.4 | 2420.6 | 2612.2 | 2673.1 |
| 25° | 1172.6 | 1335.5 | 1497.9 | 1660.8 | 1862.7 | 2064.5 | 2266.4 | 2468.2 | 2703.9 | 2905.2 | 2986.1 |
| 27.5° | 1178.8 | 1362.2 | 1545.1 | 1728.5 | 2015.3 | 2302.2 | 2589.1 | 2876.0 | 3157.2 | 3384.7 | 3471.3 |
| 30° | 1163.9 | 1388.3 | 1612.2 | 1836.0 | 2188.0 | 2539.9 | 2891.9 | 3243.8 | 3510.7 | 3775.6 | 3883.1 |
| 32.5° | 1167.5 | 1453.4 | 1739.2 | 2025.1 | 2439.5 | 2854.5 | 3268.9 | 3683.3 | 3853.9 | 4092.7 | 4282.2 |
| 35° | 1192.1 | 1505.6 | 1818.6 | 2132.1 | 2590.6 | 3049.1 | 3507.6 | 3966.1 | 4245.8 | 4497.9 | 4658.7 |
| 37.5° | 1249.5 | 1596.8 | 1943.6 | 2290.9 | 2854.5 | 3418.5 | 3982.0 | 4545.5 | 4978.4 | 5411.3 | 5485.1 |
| 40° | 1292.0 | 1658.8 | 2025.6 | 2392.4 | 3046.6 | 3700.8 | 4355.0 | 5009.1 | 5498.9 | 5968.7 | 6018.9 |
| 42.5° | 1340.1 | 1741.8 | 2143.9 | 2545.6 | 3277.1 | 4008.6 | 4740.2 | 5471.7 | 6038.8 | 6517.8 | 6551.1 |
| 45° | 1392.9 | 1806.3 | 2219.2 | 2632.1 | 3398.5 | 4164.4 | 4930.8 | 5696.6 | 6359.0 | 6915.4 | 6789.9 |
| 47.5° | 1418.0 | 1860.1 | 2302.2 | 2744.3 | 3566.0 | 4387.2 | 5208.9 | 6030.1 | 6624.4 | 7115.2 | 6968.6 |
| 50° | 1437.5 | 1923.6 | 2410.3 | 2896.5 | 3758.1 | 4619.8 | 5481.5 | 6343.1 | 6938.9 | 7391.8 | 7162.3 |
| 52.5° | 1492.3 | 2035.8 | 2579.9 | 3123.4 | 4039.9 | 4955.9 | 5872.4 | 6788.3 | 7364.6 | 7780.6 | 7458.9 |
| 55° | 1545.6 | 2171.6 | 2798.1 | 3424.1 | 4409.8 | 5395.9 | 6381.6 | 7367.2 | 7941.0 | 8297.5 | 7860.5 |
| 57.5° | 1612.7 | 2303.2 | 2993.3 | 3683.3 | 4737.6 | 5791.9 | 6845.7 | 7900.0 | 8460.9 | 8854.9 | 8401.0 |
| 60° | 1595.3 | 2333.0 | 3071.2 | 3808.9 | 4882.6 | 5956.4 | 7030.1 | 8103.9 | 8770.4 | 9254.5 | 8946.6 |
| 62.5° | 1527.6 | 2259.2 | 2990.2 | 3721.8 | 4776.6 | 5830.9 | 6885.7 | 7939.9 | 8738.6 | 9394.3 | 9290.8 |
| 65° | 1390.9 | 2070.7 | 2751.0 | 3430.8 | 4437.9 | 5445.6 | 6452.8 | 7459.9 | 8445.6 | 9280.1 | 9317.0 |
| 67.5° | 1211.0 | 1784.8 | 2358.1 | 2931.8 | 3871.4 | 4810.9 | 5749.9 | 6689.4 | 7852.9 | 8826.2 | 8935.8 |
| 70° | 1020.5 | 1451.3 | 1882.7 | 2313.5 | 3140.3 | 3967.2 | 4793.5 | 5620.3 | 6829.8 | 7809.3 | 8016.3 |
| 72.5° | 818.1 | 1095.3 | 1371.9 | 1648.5 | 2245.4 | 2841.7 | 3438.5 | 4034.8 | 5098.8 | 5859.0 | 6220.2 |
| 75° | 530.2 | 656.2 | 782.3 | 908.3 | 1305.8 | 1702.8 | 2100.4 | 2497.4 | 3203.8 | 3763.8 | 4172.1 |
| 77.5° | 236.2 | 261.8 | 286.9 | 312.5 | 619.4 | 926.2 | 1233.1 | 1539.9 | 1846.8 | 2184.9 | 2280.7 |
| 80° | 84.5 | 95.8 | 107.6 | 118.9 | 269.5 | 420.6 | 571.2 | 721.8 | 870.4 | 1045.1 | 1087.6 |
| 82.5° | 35.3 | 35.3 | 34.8 | 34.3 | 88.1 | 141.9 | 195.7 | 249.5 | 288.4 | 331.4 | 339.6 |
| 85° | 14.3 | 10.8 | 6.7 | 2.6 | 11.3 | 20.5 | 29.2 | 37.9 | 61.0 | 55.3 | 102.5 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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: P368305
 CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

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: P368305

CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 275° | 277.5° | 280° | 282.5° | 285° | 287.5° | 290° | 292.5° | 295° | 297.5° | 300° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 |
| 2.5° | 1371.9 | 1370.9 | 1369.9 | 1368.8 | 1367.8 | 1349.4 | 1331.4 | 1313.0 | 1295.1 | 1317.6 | 1340.1 |
| 5° | 1665.4 | 1692.1 | 1718.7 | 1745.9 | 1772.5 | 1780.2 | 1787.9 | 1795.6 | 1803.3 | 1819.6 | 1836.0 |
| 7.5° | 1773.5 | 1818.6 | 1863.2 | 1908.3 | 1952.8 | 1994.3 | 2035.3 | 2076.8 | 2118.3 | 2108.1 | 2097.8 |
| 10° | 1736.1 | 1817.6 | 1899.0 | 1981.0 | 2062.5 | 2080.4 | 2098.3 | 2116.8 | 2134.7 | 2181.3 | 2227.9 |
| 12.5° | 1695.7 | 1793.5 | 1891.4 | 1989.2 | 2087.1 | 2141.4 | 2195.2 | 2249.5 | 2303.8 | 2350.9 | 2398.0 |
| 15° | 1887.8 | 1950.3 | 2012.8 | 2075.8 | 2138.3 | 2185.9 | 2233.1 | 2280.7 | 2327.8 | 2360.6 | 2392.9 |
| 17.5° | 2140.3 | 2171.1 | 2201.8 | 2233.1 | 2263.8 | 2301.2 | 2338.6 | 2376.0 | 2413.4 | 2432.9 | 2452.3 |
| 20° | 2407.2 | 2420.6 | 2433.9 | 2447.2 | 2460.5 | 2430.8 | 2401.1 | 2371.4 | 2341.7 | 2360.1 | 2378.0 |
| 22.5° | 2675.2 | 2679.8 | 2684.9 | 2689.5 | 2694.1 | 2625.0 | 2555.8 | 2486.6 | 2417.5 | 2388.3 | 2359.1 |
| 25° | 3087.6 | 3053.7 | 3019.9 | 2986.1 | 2952.3 | 2870.3 | 2788.4 | 2706.4 | 2624.4 | 2552.2 | 2480.0 |
| 27.5° | 3534.3 | 3419.5 | 3305.3 | 3190.5 | 3076.3 | 2994.3 | 2912.4 | 2830.4 | 2748.4 | 2639.8 | 2531.2 |
| 30° | 3984.6 | 3799.6 | 3615.2 | 3430.3 | 3245.9 | 3148.5 | 3051.2 | 2953.3 | 2856.0 | 2747.4 | 2639.3 |
| 32.5° | 4397.5 | 4175.1 | 3952.8 | 3730.0 | 3507.6 | 3343.7 | 3179.8 | 3015.8 | 2851.9 | 2776.1 | 2700.3 |
| 35° | 4739.7 | 4476.9 | 4214.1 | 3950.8 | 3688.0 | 3525.6 | 3363.2 | 3200.8 | 3038.4 | 2925.7 | 2813.5 |
| 37.5° | 5324.7 | 5029.1 | 4733.5 | 4437.9 | 4142.4 | 3920.5 | 3699.2 | 3477.4 | 3255.6 | 3180.3 | 3105.0 |
| 40° | 5864.2 | 5491.7 | 5119.3 | 4746.9 | 4374.4 | 4188.5 | 4003.0 | 3817.1 | 3631.6 | 3508.1 | 3385.2 |
| 42.5° | 6292.9 | 5900.5 | 5508.6 | 5116.2 | 4723.8 | 4539.9 | 4356.5 | 4172.6 | 3988.7 | 3906.2 | 3824.2 |
| 45° | 6385.7 | 6015.8 | 5646.4 | 5276.6 | 4906.7 | 4799.6 | 4693.1 | 4586.0 | 4479.4 | 4422.6 | 4366.2 |
| 47.5° | 6568.5 | 6167.4 | 5766.8 | 5365.7 | 4964.6 | 4916.4 | 4868.3 | 4819.6 | 4771.4 | 4798.6 | 4825.7 |
| 50° | 6671.0 | 6261.7 | 5852.4 | 5443.1 | 5033.7 | 5047.6 | 5060.9 | 5074.7 | 5088.6 | 5281.2 | 5473.3 |
| 52.5° | 6869.8 | 6456.4 | 6042.9 | 5629.5 | 5216.1 | 5303.2 | 5389.8 | 5476.9 | 5563.4 | 5828.8 | 6093.7 |
| 55° | 7224.8 | 6818.5 | 6412.3 | 6005.5 | 5599.3 | 5714.1 | 5828.8 | 5944.1 | 6058.8 | 6340.6 | 6621.8 |
| 57.5° | 7750.9 | 7347.7 | 6945.1 | 6541.9 | 6139.3 | 6253.5 | 6367.7 | 6482.0 | 6596.2 | 6850.8 | 7104.9 |
| 60° | 8413.3 | 7999.4 | 7586.0 | 7172.0 | 6758.6 | 6801.6 | 6844.2 | 6887.2 | 6930.2 | 7203.8 | 7476.8 |
| 62.5° | 8929.2 | 8548.5 | 8168.4 | 7787.8 | 7407.7 | 7360.0 | 7312.9 | 7265.3 | 7218.1 | 7426.1 | 7633.6 |
| 65° | 9049.0 | 8781.1 | 8513.7 | 8245.8 | 7977.9 | 7831.3 | 7685.3 | 7538.8 | 7392.3 | 7476.3 | 7560.3 |
| 67.5° | 8705.8 | 8525.0 | 8344.6 | 8163.8 | 7983.0 | 7677.1 | 7371.3 | 7065.0 | 6759.1 | 6714.6 | 6670.0 |
| 70° | 7909.2 | 7810.3 | 7712.0 | 7613.1 | 7514.7 | 7043.4 | 6572.6 | 6101.3 | 5630.6 | 5517.3 | 5404.1 |
| 72.5° | 6241.2 | 6302.7 | 6364.1 | 6426.1 | 6487.6 | 5983.0 | 5478.9 | 4974.3 | 4469.7 | 4326.3 | 4183.3 |
| 75° | 4401.1 | 4609.6 | 4818.1 | 5026.6 | 5235.1 | 4775.0 | 4315.5 | 3855.5 | 3395.4 | 3257.6 | 3120.3 |
| 77.5° | 2386.2 | 2777.1 | 3168.0 | 3558.9 | 3949.7 | 3570.1 | 3191.0 | 2811.4 | 2431.8 | 2336.0 | 2240.7 |
| 80° | 1131.1 | 1356.5 | 1581.4 | 1806.8 | 2032.2 | 1946.7 | 1861.1 | 1775.1 | 1689.5 | 1710.5 | 1731.5 |
| 82.5° | 346.8 | 509.7 | 672.6 | 835.5 | 998.4 | 1011.3 | 1023.6 | 1036.4 | 1049.2 | 1080.9 | 1112.2 |
| 85° | 116.3 | 159.3 | 202.4 | 245.4 | 288.4 | 364.2 | 440.1 | 516.4 | 592.2 | 543.0 | 494.4 |
| 87.5° | 0.0 | 1.5 | 2.6 | 4.1 | 5.1 | 15.9 | 26.6 | 37.4 | 48.2 | 41.5 | 35.3 |
| 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: P368305
 CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

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 |



REPORT NUMBER: P368305

CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 302.5° | 305° | 307.5° | 310° | 312.5° | 315° | 317.5° | 320° | 322.5° | 325° | 327.5° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 |
| 2.5° | 1363.2 | 1385.7 | 1386.2 | 1387.3 | 1387.8 | 1388.3 | 1390.9 | 1393.4 | 1396.5 | 1399.1 | 1382.2 |
| 5° | 1852.9 | 1869.3 | 1839.1 | 1808.9 | 1778.1 | 1747.9 | 1775.1 | 1802.2 | 1829.4 | 1856.5 | 1844.7 |
| 7.5° | 2087.1 | 2076.8 | 2073.2 | 2070.2 | 2066.6 | 2063.5 | 2073.7 | 2084.0 | 2094.2 | 2104.5 | 2103.5 |
| 10° | 2274.6 | 2321.2 | 2332.4 | 2343.7 | 2355.5 | 2366.8 | 2343.2 | 2319.6 | 2296.1 | 2272.5 | 2262.8 |
| 12.5° | 2445.1 | 2492.3 | 2529.7 | 2567.1 | 2605.0 | 2642.4 | 2608.6 | 2575.3 | 2541.5 | 2508.2 | 2476.4 |
| 15° | 2425.7 | 2458.0 | 2488.7 | 2519.4 | 2550.2 | 2580.9 | 2569.6 | 2558.9 | 2547.6 | 2536.3 | 2531.2 |
| 17.5° | 2472.3 | 2491.8 | 2484.6 | 2477.4 | 2469.7 | 2462.6 | 2459.0 | 2455.9 | 2452.3 | 2448.7 | 2436.4 |
| 20° | 2396.5 | 2414.9 | 2410.3 | 2406.2 | 2401.6 | 2397.0 | 2393.9 | 2390.8 | 2387.8 | 2384.7 | 2375.0 |
| 22.5° | 2329.9 | 2300.7 | 2293.0 | 2285.8 | 2278.1 | 2271.0 | 2272.0 | 2273.0 | 2273.5 | 2274.6 | 2318.6 |
| 25° | 2407.8 | 2335.5 | 2307.3 | 2279.2 | 2250.5 | 2222.3 | 2235.1 | 2247.4 | 2260.2 | 2273.0 | 2336.5 |
| 27.5° | 2422.1 | 2313.5 | 2268.4 | 2223.3 | 2178.2 | 2133.2 | 2179.3 | 2225.4 | 2271.5 | 2317.6 | 2420.6 |
| 30° | 2530.7 | 2422.6 | 2359.6 | 2297.1 | 2234.1 | 2171.6 | 2230.5 | 2289.4 | 2348.3 | 2407.2 | 2518.9 |
| 32.5° | 2623.9 | 2548.1 | 2503.0 | 2458.0 | 2412.9 | 2367.8 | 2370.4 | 2372.4 | 2375.0 | 2377.5 | 2534.8 |
| 35° | 2700.8 | 2588.6 | 2547.6 | 2507.1 | 2466.2 | 2425.7 | 2486.6 | 2547.6 | 2608.6 | 2669.5 | 2810.9 |
| 37.5° | 3029.7 | 2954.4 | 2879.1 | 2804.3 | 2729.0 | 2654.2 | 2702.8 | 2751.5 | 2800.7 | 2849.3 | 3005.6 |
| 40° | 3261.7 | 3138.8 | 3119.3 | 3100.4 | 3080.9 | 3061.9 | 3087.0 | 3111.6 | 3136.7 | 3161.8 | 3298.6 |
| 42.5° | 3741.7 | 3659.3 | 3606.5 | 3554.3 | 3501.5 | 3449.2 | 3469.2 | 3489.2 | 3509.7 | 3529.7 | 3659.3 |
| 45° | 4309.4 | 4252.5 | 4217.7 | 4182.8 | 4147.5 | 4112.6 | 4082.4 | 4052.7 | 4022.5 | 3992.8 | 4124.4 |
| 47.5° | 4852.9 | 4880.0 | 4956.9 | 5033.2 | 5110.1 | 5186.4 | 5123.9 | 5061.4 | 4998.4 | 4935.9 | 4936.4 |
| 50° | 5665.9 | 5858.0 | 5896.9 | 5935.4 | 5974.3 | 6012.7 | 5879.5 | 5746.3 | 5612.6 | 5479.4 | 5463.5 |
| 52.5° | 6359.0 | 6623.9 | 6637.7 | 6651.5 | 6665.9 | 6679.7 | 6625.9 | 6572.1 | 6517.8 | 6464.0 | 6321.1 |
| 55° | 6903.6 | 7184.8 | 7203.8 | 7222.2 | 7241.2 | 7259.6 | 7212.5 | 7165.9 | 7118.7 | 7071.6 | 6927.2 |
| 57.5° | 7359.5 | 7613.6 | 7624.9 | 7635.6 | 7646.9 | 7658.2 | 7661.8 | 7665.4 | 7669.5 | 7673.0 | 7477.9 |
| 60° | 7750.4 | 8024.0 | 8001.4 | 7979.4 | 7956.8 | 7934.8 | 7901.0 | 7867.2 | 7833.4 | 7799.6 | 7673.6 |
| 62.5° | 7841.6 | 8049.6 | 8014.7 | 7980.4 | 7945.6 | 7911.3 | 7882.6 | 7854.4 | 7825.7 | 7797.0 | 7716.6 |
| 65° | 7644.4 | 7728.4 | 7692.5 | 7656.6 | 7620.3 | 7584.4 | 7566.0 | 7548.0 | 7529.6 | 7511.2 | 7500.9 |
| 67.5° | 6624.9 | 6580.3 | 6622.9 | 6665.4 | 6707.9 | 6750.4 | 6808.3 | 6866.2 | 6924.6 | 6982.5 | 6948.7 |
| 70° | 5290.4 | 5177.2 | 5224.3 | 5270.9 | 5318.1 | 5364.7 | 5452.3 | 5539.9 | 5628.0 | 5715.6 | 5692.0 |
| 72.5° | 4039.9 | 3896.5 | 3903.1 | 3909.8 | 3916.9 | 3923.6 | 3921.0 | 3919.0 | 3916.4 | 3913.9 | 3954.9 |
| 75° | 2982.5 | 2844.7 | 2779.7 | 2714.6 | 2649.6 | 2584.5 | 2568.6 | 2552.7 | 2536.8 | 2521.0 | 2597.3 |
| 77.5° | 2144.9 | 2049.7 | 2005.1 | 1961.0 | 1916.5 | 1872.4 | 1895.0 | 1917.5 | 1940.5 | 1963.1 | 1989.7 |
| 80° | 1753.0 | 1774.1 | 1739.7 | 1705.9 | 1671.6 | 1637.3 | 1662.9 | 1688.0 | 1713.6 | 1739.2 | 1659.8 |
| 82.5° | 1143.9 | 1175.2 | 1069.7 | 964.1 | 858.6 | 753.1 | 817.1 | 881.1 | 945.7 | 1009.7 | 976.9 |
| 85° | 445.2 | 396.5 | 338.1 | 280.2 | 221.8 | 163.4 | 212.6 | 261.8 | 311.0 | 360.1 | 392.9 |
| 87.5° | 28.7 | 22.5 | 17.9 | 13.3 | 8.2 | 3.6 | 7.7 | 11.8 | 16.4 | 20.5 | 34.3 |
| 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: P368305
 CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

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: P368305

CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 330° | 332.5° | 335° | 337.5° | 340° | 342.5° | 345° | 347.5° | 350° | 352.5° | 355° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 | 1083.0 |
| 2.5° | 1365.8 | 1348.9 | 1332.5 | 1300.2 | 1267.9 | 1235.6 | 1203.4 | 1248.4 | 1293.5 | 1338.6 | 1383.7 |
| 5° | 1833.5 | 1821.7 | 1810.4 | 1813.5 | 1816.6 | 1820.2 | 1823.2 | 1829.9 | 1836.6 | 1842.7 | 1849.4 |
| 7.5° | 2102.9 | 2101.9 | 2100.9 | 2077.3 | 2053.8 | 2029.7 | 2006.1 | 2017.9 | 2029.7 | 2041.5 | 2053.2 |
| 10° | 2253.6 | 2243.8 | 2234.1 | 2182.3 | 2130.6 | 2078.4 | 2026.6 | 2004.1 | 1981.0 | 1958.5 | 1935.9 |
| 12.5° | 2444.6 | 2412.4 | 2380.6 | 2325.3 | 2270.5 | 2215.1 | 2159.8 | 2139.3 | 2118.3 | 2097.8 | 2076.8 |
| 15° | 2526.6 | 2521.5 | 2516.9 | 2477.4 | 2437.5 | 2398.0 | 2358.1 | 2287.9 | 2217.2 | 2147.0 | 2076.8 |
| 17.5° | 2424.1 | 2411.3 | 2399.0 | 2461.5 | 2523.5 | 2586.0 | 2648.5 | 2575.8 | 2503.0 | 2430.3 | 2357.5 |
| 20° | 2365.2 | 2355.5 | 2345.8 | 2462.1 | 2577.8 | 2694.1 | 2809.9 | 2777.6 | 2744.8 | 2712.6 | 2680.3 |
| 22.5° | 2362.7 | 2407.2 | 2451.3 | 2553.2 | 2654.7 | 2756.6 | 2858.1 | 2913.9 | 2970.2 | 3026.1 | 3081.9 |
| 25° | 2400.1 | 2464.1 | 2527.6 | 2696.7 | 2865.7 | 3035.3 | 3204.4 | 3268.4 | 3331.9 | 3396.0 | 3459.5 |
| 27.5° | 2523.0 | 2626.0 | 2728.4 | 2876.0 | 3023.5 | 3171.6 | 3319.1 | 3459.0 | 3599.3 | 3739.2 | 3879.0 |
| 30° | 2630.1 | 2741.8 | 2853.4 | 3029.2 | 3204.4 | 3380.1 | 3555.3 | 3730.5 | 3905.7 | 4080.9 | 4256.1 |
| 32.5° | 2692.1 | 2849.9 | 3007.1 | 3220.8 | 3433.9 | 3647.5 | 3861.1 | 4053.2 | 4245.3 | 4436.9 | 4629.0 |
| 35° | 2952.3 | 3094.2 | 3235.6 | 3471.8 | 3707.9 | 3944.6 | 4180.8 | 4418.5 | 4656.2 | 4893.4 | 5131.1 |
| 37.5° | 3161.8 | 3318.6 | 3474.8 | 3733.0 | 3990.7 | 4248.9 | 4507.1 | 4835.5 | 5164.4 | 5492.7 | 5821.1 |
| 40° | 3435.4 | 3572.2 | 3709.0 | 3950.8 | 4192.0 | 4433.8 | 4675.6 | 5092.1 | 5508.6 | 5924.6 | 6341.1 |
| 42.5° | 3788.4 | 3918.0 | 4047.6 | 4306.3 | 4565.0 | 4823.7 | 5082.4 | 5543.5 | 6004.5 | 6465.1 | 6926.1 |
| 45° | 4256.1 | 4388.3 | 4519.9 | 4725.9 | 4931.8 | 5137.7 | 5343.7 | 5833.9 | 6323.7 | 6813.9 | 7303.7 |
| 47.5° | 4936.9 | 4937.4 | 4937.9 | 5086.5 | 5235.1 | 5384.1 | 5532.7 | 6026.5 | 6519.9 | 7013.7 | 7507.1 |
| 50° | 5447.7 | 5431.3 | 5415.4 | 5492.2 | 5568.6 | 5645.4 | 5722.3 | 6176.6 | 6631.6 | 7086.0 | 7540.4 |
| 52.5° | 6178.7 | 6035.8 | 5893.4 | 5938.9 | 5984.0 | 6029.6 | 6074.7 | 6459.4 | 6844.7 | 7229.4 | 7614.1 |
| 55° | 6783.2 | 6638.7 | 6494.3 | 6477.4 | 6460.5 | 6443.6 | 6426.6 | 6780.6 | 7134.6 | 7488.6 | 7842.6 |
| 57.5° | 7283.2 | 7088.0 | 6893.3 | 6854.4 | 6816.0 | 6777.1 | 6738.1 | 7111.6 | 7484.5 | 7858.0 | 8230.9 |
| 60° | 7548.0 | 7422.0 | 7296.0 | 7270.9 | 7245.3 | 7220.2 | 7194.6 | 7500.9 | 7807.3 | 8113.6 | 8420.0 |
| 62.5° | 7636.7 | 7556.2 | 7476.3 | 7523.5 | 7570.6 | 7618.2 | 7665.4 | 7800.1 | 7934.3 | 8069.0 | 8203.3 |
| 65° | 7491.2 | 7480.9 | 7470.7 | 7567.5 | 7663.8 | 7760.6 | 7857.5 | 7824.2 | 7790.4 | 7757.1 | 7723.8 |
| 67.5° | 6915.4 | 6881.6 | 6848.3 | 7060.9 | 7272.9 | 7485.5 | 7698.1 | 7536.8 | 7374.9 | 7213.5 | 7052.1 |
| 70° | 5668.5 | 5644.4 | 5620.8 | 5927.2 | 6233.5 | 6540.4 | 6846.7 | 6651.0 | 6455.3 | 6259.6 | 6063.9 |
| 72.5° | 3995.3 | 4036.3 | 4077.3 | 4438.5 | 4799.1 | 5160.3 | 5520.9 | 5323.7 | 5126.5 | 4929.2 | 4732.0 |
| 75° | 2673.1 | 2749.4 | 2825.8 | 3197.7 | 3569.6 | 3942.1 | 4314.0 | 4082.4 | 3850.9 | 3619.3 | 3387.8 |
| 77.5° | 2016.4 | 2043.0 | 2069.6 | 2304.8 | 2539.9 | 2775.6 | 3010.7 | 2819.6 | 2628.0 | 2437.0 | 2245.4 |
| 80° | 1580.4 | 1500.5 | 1421.1 | 1498.4 | 1575.8 | 1653.2 | 1730.5 | 1616.3 | 1502.0 | 1388.3 | 1274.1 |
| 82.5° | 944.1 | 911.4 | 878.6 | 920.6 | 962.1 | 1004.1 | 1046.1 | 996.9 | 947.2 | 898.0 | 848.3 |
| 85° | 425.2 | 458.0 | 490.3 | 532.8 | 574.8 | 617.3 | 659.8 | 591.2 | 522.5 | 453.9 | 385.2 |
| 87.5° | 47.6 | 61.5 | 75.3 | 93.2 | 111.2 | 129.1 | 147.0 | 114.8 | 82.0 | 49.7 | 17.4 |
| 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: P368305
 CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

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 |



REPORT NUMBER: P368305
 CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 357.5° | 360° |
|--------|--------|--------|
| 0° | 1083.0 | 1083.0 |
| 2.5° | 1409.8 | 1435.9 |
| 5° | 1848.8 | 1847.8 |
| 7.5° | 2022.5 | 1991.3 |
| 10° | 1907.2 | 1878.6 |
| 12.5° | 2003.6 | 1930.3 |
| 15° | 2021.5 | 1966.2 |
| 17.5° | 2267.4 | 2176.7 |
| 20° | 2564.0 | 2447.2 |
| 22.5° | 2922.1 | 2761.7 |
| 25° | 3268.9 | 3078.3 |
| 27.5° | 3764.8 | 3650.0 |
| 30° | 4140.3 | 4024.0 |
| 32.5° | 4550.1 | 4471.2 |
| 35° | 5052.7 | 4973.8 |
| 37.5° | 5841.6 | 5861.6 |
| 40° | 6353.4 | 6365.7 |
| 42.5° | 6973.8 | 7021.4 |
| 45° | 7357.0 | 7410.2 |
| 47.5° | 7581.3 | 7655.6 |
| 50° | 7660.2 | 7780.1 |
| 52.5° | 7762.2 | 7909.7 |
| 55° | 8007.1 | 8171.5 |
| 57.5° | 8362.1 | 8493.2 |
| 60° | 8426.1 | 8432.3 |
| 62.5° | 8108.5 | 8013.7 |
| 65° | 7622.8 | 7521.9 |
| 67.5° | 6991.2 | 6929.7 |
| 70° | 5983.0 | 5902.1 |
| 72.5° | 4581.4 | 4430.8 |
| 75° | 3201.3 | 3014.8 |
| 77.5° | 2147.5 | 2049.7 |
| 80° | 1277.1 | 1279.7 |
| 82.5° | 871.9 | 895.0 |
| 85° | 380.6 | 375.5 |
| 87.5° | 12.3 | 6.7 |
| 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 |



REPORT NUMBER: P368305
CATALOG NUMBER: MSA-SA4A-830-U-SLR-HSS

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)