

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: P368437

Luminaire Tested: **MSA-SA4B-830-U-SLR-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368437
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-SA4B-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: 11262 lumens
Efficiency: N/A
Efficacy: 65.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

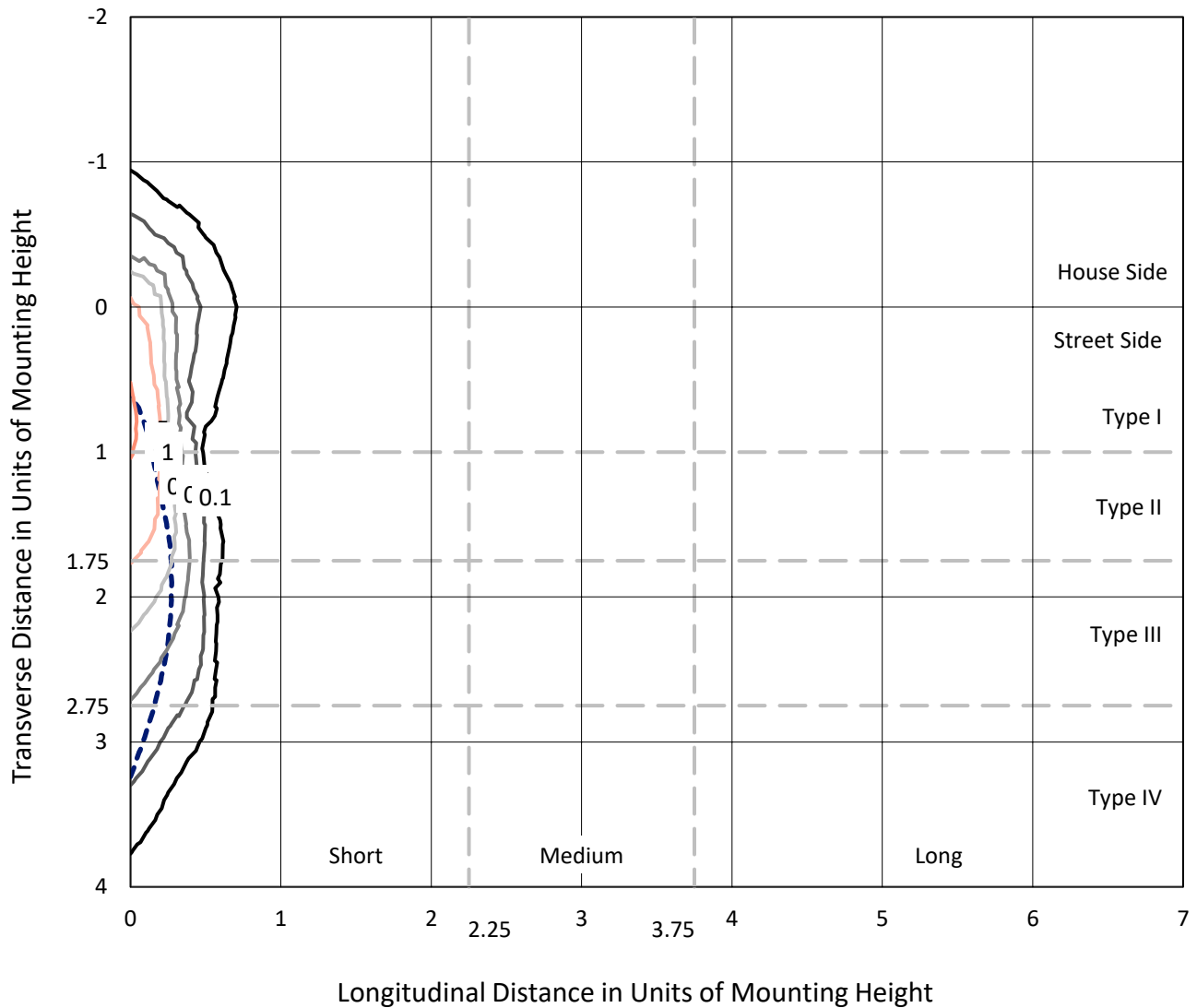
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P368437
 CATALOG NUMBER: MSA-SA4B-830-U-SLR-HSS

Iso-Footcandle Lines of Horizontal Illumination

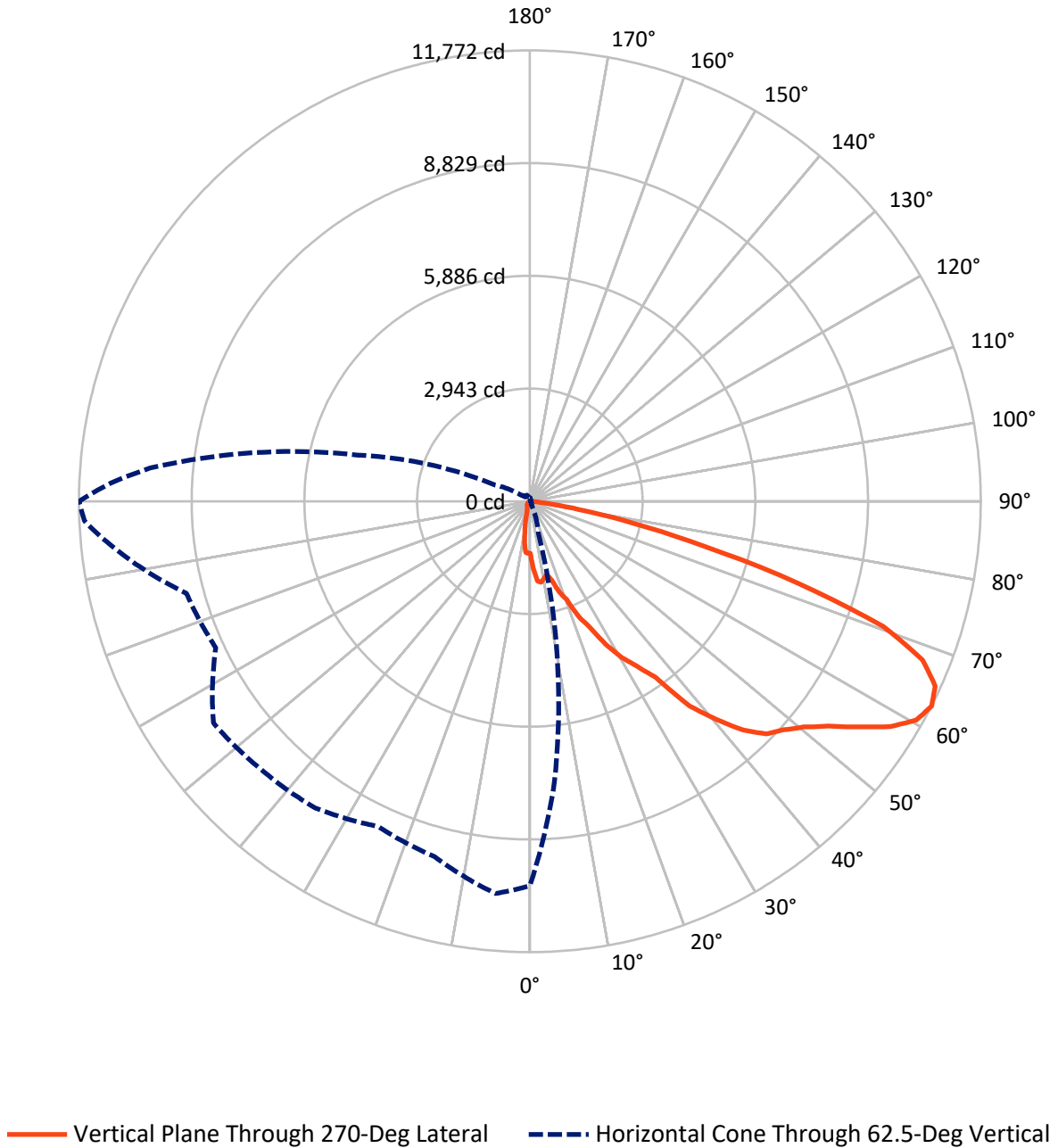
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1880.6 | 0.0 | 1880.6 |
| | % Fixture | 16.7 | 0.0 | 16.7 |
| Street Side | Lumens | 9381.4 | 0.0 | 9381.4 |
| | % Fixture | 83.3 | 0.0 | 83.3 |
| Total | Lumens | 11262.0 | 0.0 | 11262.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 151.6 | 1.3 |
| 10°-20° | 396.1 | 3.5 |
| 20°-30° | 640.2 | 5.7 |
| 30°-40° | 1072.2 | 9.5 |
| 40°-50° | 1752.9 | 15.6 |
| 50°-60° | 2594.8 | 23.0 |
| 60°-70° | 2978.9 | 26.5 |
| 70°-80° | 1472.9 | 13.1 |
| 80°-90° | 202.3 | 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° | 11262.0 | 100.0 |
| 0°-180° | 11262.0 | 100.0 |

Coefficient of Utilization



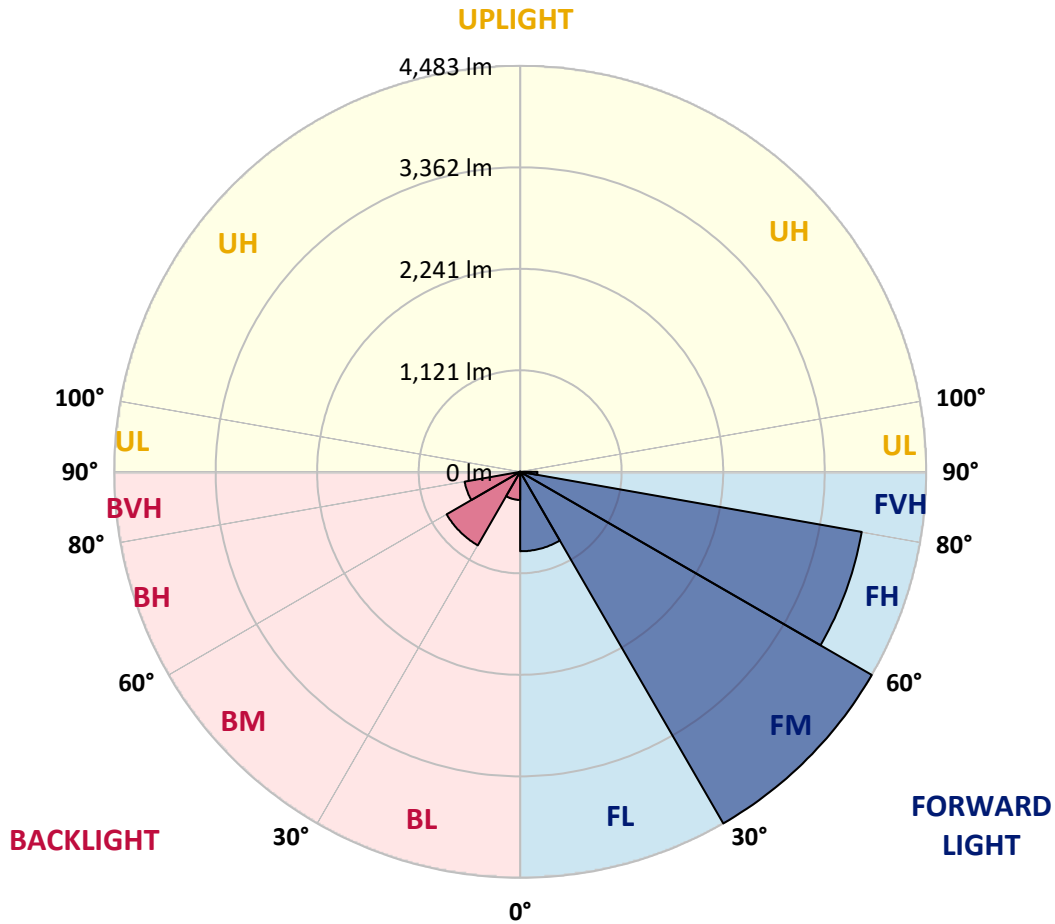
REPORT NUMBER: P368437
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 877.4 | 7.8 | | | |
| FM (30°-60°) | 4482.8 | 39.8 | | | |
| FH (60°-80°) | 3829.6 | 34.0 | | | G2/5000 |
| FVH (80°-90°) | 191.5 | 1.7 | | | G2/225 |
| BL (0°-30°) | 310.5 | 2.8 | B1/500 | | |
| BM (30°-60°) | 937.1 | 8.3 | B1/1000 | | |
| BH (60°-80°) | 622.2 | 5.5 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 10.8 | 0.1 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type IV Short





REPORT NUMBER: P368437

CATALOG NUMBER: MSA-SA4B-830-U-SLR-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 2.5° | 5° | 7.5° | 10° | 12.5° | 15° | 17.5° | 20° | 22.5° | 25° |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 |
| 2.5° | 1799.4 | 1821.9 | 1843.7 | 1802.0 | 1760.3 | 1718.6 | 1676.8 | 1639.6 | 1602.4 | 1564.5 | 1527.2 |
| 5° | 2315.6 | 2274.5 | 2233.4 | 2176.9 | 2120.4 | 2063.9 | 2007.4 | 1981.1 | 1954.8 | 1928.5 | 1902.2 |
| 7.5° | 2495.3 | 2422.2 | 2348.3 | 2298.3 | 2248.8 | 2198.7 | 2148.7 | 2069.7 | 1990.1 | 1911.1 | 1831.5 |
| 10° | 2354.1 | 2276.4 | 2198.1 | 2154.5 | 2110.8 | 2067.1 | 2023.5 | 1925.3 | 1826.4 | 1728.2 | 1629.3 |
| 12.5° | 2418.9 | 2334.8 | 2250.7 | 2160.9 | 2071.0 | 1981.1 | 1891.2 | 1816.1 | 1740.4 | 1665.3 | 1589.5 |
| 15° | 2463.9 | 2367.6 | 2270.6 | 2167.9 | 2065.2 | 1962.5 | 1859.8 | 1771.2 | 1683.2 | 1594.7 | 1506.1 |
| 17.5° | 2727.7 | 2589.7 | 2451.7 | 2293.8 | 2135.8 | 1977.9 | 1820.0 | 1717.3 | 1615.2 | 1512.5 | 1409.8 |
| 20° | 3066.7 | 2870.9 | 2674.4 | 2460.7 | 2246.9 | 2033.1 | 1819.3 | 1691.6 | 1563.8 | 1436.1 | 1308.3 |
| 22.5° | 3460.9 | 3216.3 | 2971.0 | 2707.2 | 2444.0 | 2180.1 | 1916.3 | 1732.7 | 1549.1 | 1365.5 | 1181.9 |
| 25° | 3857.6 | 3636.8 | 3415.9 | 3060.9 | 2705.9 | 2350.3 | 1995.2 | 1762.2 | 1528.5 | 1295.5 | 1061.8 |
| 27.5° | 4574.0 | 4179.2 | 3784.4 | 3332.5 | 2881.2 | 2429.2 | 1977.3 | 1710.2 | 1443.1 | 1175.4 | 908.4 |
| 30° | 5042.7 | 4739.0 | 4434.7 | 3837.7 | 3241.3 | 2644.3 | 2047.2 | 1708.9 | 1370.6 | 1031.6 | 693.3 |
| 32.5° | 5603.1 | 5158.9 | 4714.0 | 4066.2 | 3418.5 | 2770.7 | 2123.0 | 1725.6 | 1327.6 | 930.2 | 532.2 |
| 35° | 6232.9 | 5749.5 | 5266.1 | 4445.6 | 3625.2 | 2804.1 | 1983.7 | 1598.5 | 1213.3 | 828.1 | 443.0 |
| 37.5° | 7345.4 | 6536.5 | 5727.7 | 4771.1 | 3813.9 | 2857.4 | 1900.2 | 1515.7 | 1130.5 | 746.0 | 360.8 |
| 40° | 7977.1 | 7204.8 | 6432.5 | 5237.2 | 4041.8 | 2846.5 | 1651.1 | 1309.6 | 968.7 | 627.2 | 285.7 |
| 42.5° | 8798.8 | 7819.2 | 6838.9 | 5503.0 | 4167.0 | 2831.1 | 1495.1 | 1179.3 | 863.4 | 547.0 | 231.1 |
| 45° | 9286.1 | 8176.1 | 7066.2 | 5618.5 | 4170.9 | 2723.2 | 1275.6 | 1002.1 | 728.6 | 455.2 | 181.7 |
| 47.5° | 9593.6 | 8480.4 | 7367.2 | 5813.0 | 4259.5 | 2705.3 | 1151.1 | 899.4 | 647.7 | 396.1 | 144.4 |
| 50° | 9749.6 | 8633.2 | 7516.2 | 5919.0 | 4321.7 | 2723.9 | 1126.7 | 876.3 | 625.3 | 374.9 | 123.9 |
| 52.5° | 9912.0 | 8835.4 | 7758.2 | 6102.6 | 4446.9 | 2791.3 | 1135.6 | 880.1 | 625.3 | 369.8 | 114.3 |
| 55° | 10240.1 | 9178.2 | 8115.8 | 6365.8 | 4615.8 | 2865.8 | 1115.7 | 864.1 | 612.4 | 360.1 | 108.5 |
| 57.5° | 10643.2 | 9508.2 | 8372.6 | 6558.4 | 4744.2 | 2929.9 | 1115.7 | 862.8 | 609.9 | 356.3 | 103.4 |
| 60° | 10566.8 | 9334.9 | 8102.3 | 6342.0 | 4581.7 | 2820.8 | 1060.5 | 819.8 | 579.7 | 339.0 | 98.2 |
| 62.5° | 10042.3 | 8705.1 | 7367.2 | 5740.5 | 4113.1 | 2486.3 | 859.0 | 667.0 | 475.1 | 282.5 | 90.5 |
| 65° | 9426.0 | 8006.6 | 6586.6 | 5089.5 | 3591.8 | 2094.7 | 597.0 | 468.6 | 339.6 | 211.2 | 82.2 |
| 67.5° | 8683.9 | 7170.2 | 5656.4 | 4324.9 | 2994.1 | 1662.7 | 331.3 | 267.1 | 202.9 | 138.0 | 73.8 |
| 70° | 7396.1 | 5833.6 | 4270.4 | 3247.1 | 2224.4 | 1201.1 | 177.8 | 150.2 | 122.6 | 95.0 | 67.4 |
| 72.5° | 5552.4 | 4120.8 | 2689.2 | 2042.7 | 1396.9 | 750.5 | 104.0 | 93.7 | 82.8 | 72.5 | 61.6 |
| 75° | 3778.0 | 2705.3 | 1632.5 | 1242.9 | 853.8 | 464.1 | 74.5 | 69.3 | 63.6 | 58.4 | 52.6 |
| 77.5° | 2568.5 | 1857.9 | 1147.2 | 875.6 | 604.1 | 332.5 | 61.0 | 57.8 | 54.6 | 50.7 | 47.5 |
| 80° | 1603.6 | 1097.8 | 591.9 | 455.8 | 319.1 | 183.0 | 46.2 | 44.3 | 42.4 | 39.8 | 37.9 |
| 82.5° | 1121.5 | 670.9 | 220.2 | 172.0 | 123.9 | 75.1 | 27.0 | 27.6 | 28.2 | 28.2 | 28.9 |
| 85° | 470.6 | 254.2 | 37.9 | 32.1 | 26.3 | 20.5 | 14.8 | 16.0 | 18.0 | 19.3 | 20.5 |
| 87.5° | 8.3 | 4.5 | 0.0 | 1.3 | 3.2 | 4.5 | 5.8 | 7.7 | 9.0 | 10.9 | 12.2 |
| 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: P368437
 CATALOG NUMBER: MSA-SA4B-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: P368437

CATALOG NUMBER: MSA-SA4B-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° | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 |
| 2.5° | 1536.9 | 1546.5 | 1555.5 | 1565.1 | 1557.4 | 1550.4 | 1542.7 | 1534.9 | 1523.4 | 1512.5 | 1500.9 |
| 5° | 1870.1 | 1838.0 | 1805.9 | 1773.8 | 1725.0 | 1676.2 | 1626.8 | 1578.0 | 1572.2 | 1566.4 | 1560.0 |
| 7.5° | 1756.4 | 1681.3 | 1605.6 | 1530.5 | 1459.8 | 1389.2 | 1318.6 | 1248.0 | 1226.2 | 1205.0 | 1183.2 |
| 10° | 1571.5 | 1513.8 | 1455.3 | 1397.6 | 1346.9 | 1295.5 | 1244.8 | 1193.4 | 1140.1 | 1086.9 | 1032.9 |
| 12.5° | 1529.2 | 1468.8 | 1407.8 | 1347.5 | 1301.3 | 1255.1 | 1208.8 | 1162.6 | 1102.9 | 1043.2 | 983.5 |
| 15° | 1440.6 | 1375.1 | 1309.6 | 1244.1 | 1182.5 | 1120.9 | 1058.6 | 997.0 | 925.1 | 853.2 | 781.3 |
| 17.5° | 1332.1 | 1255.1 | 1177.4 | 1099.7 | 1018.8 | 937.9 | 857.0 | 776.1 | 693.3 | 611.2 | 528.3 |
| 20° | 1203.1 | 1097.8 | 991.8 | 886.6 | 786.4 | 686.3 | 585.5 | 485.3 | 433.3 | 382.0 | 330.0 |
| 22.5° | 1045.8 | 909.0 | 772.9 | 636.2 | 554.0 | 471.2 | 389.0 | 306.2 | 283.8 | 261.3 | 238.8 |
| 25° | 907.1 | 752.4 | 597.7 | 443.0 | 391.0 | 339.0 | 287.0 | 235.0 | 224.7 | 213.8 | 203.5 |
| 27.5° | 762.7 | 617.6 | 471.8 | 326.1 | 296.6 | 266.4 | 236.9 | 206.7 | 199.7 | 193.2 | 186.2 |
| 30° | 584.8 | 476.3 | 367.2 | 258.7 | 239.5 | 220.2 | 200.3 | 181.0 | 177.8 | 174.0 | 170.8 |
| 32.5° | 453.2 | 373.6 | 294.7 | 215.1 | 204.1 | 193.2 | 182.3 | 171.4 | 166.3 | 161.1 | 155.4 |
| 35° | 378.8 | 315.2 | 251.0 | 186.8 | 179.1 | 170.8 | 163.1 | 154.7 | 149.6 | 143.8 | 138.7 |
| 37.5° | 313.9 | 267.7 | 220.8 | 174.0 | 165.6 | 157.3 | 148.3 | 139.9 | 136.1 | 132.2 | 128.4 |
| 40° | 258.7 | 231.8 | 204.8 | 177.8 | 165.6 | 153.4 | 141.2 | 129.0 | 125.8 | 122.6 | 119.4 |
| 42.5° | 213.8 | 196.4 | 178.5 | 161.1 | 152.1 | 143.8 | 134.8 | 125.8 | 121.3 | 116.2 | 111.7 |
| 45° | 172.7 | 163.1 | 154.1 | 144.4 | 145.1 | 145.7 | 145.7 | 146.4 | 134.8 | 122.6 | 111.1 |
| 47.5° | 139.9 | 135.5 | 130.3 | 125.8 | 131.0 | 136.1 | 140.6 | 145.7 | 133.5 | 121.3 | 108.5 |
| 50° | 120.0 | 116.8 | 113.0 | 109.1 | 114.3 | 120.0 | 125.2 | 130.3 | 125.2 | 120.7 | 115.6 |
| 52.5° | 109.8 | 105.3 | 100.8 | 96.3 | 98.2 | 100.8 | 102.7 | 104.6 | 104.6 | 104.6 | 104.6 |
| 55° | 103.4 | 98.9 | 93.7 | 88.6 | 86.7 | 84.1 | 82.2 | 79.6 | 76.4 | 73.8 | 70.6 |
| 57.5° | 98.2 | 93.1 | 87.3 | 82.2 | 79.0 | 75.1 | 71.9 | 68.0 | 64.8 | 61.0 | 57.8 |
| 60° | 93.1 | 87.9 | 82.2 | 77.0 | 73.8 | 70.6 | 66.8 | 63.6 | 59.7 | 56.5 | 52.6 |
| 62.5° | 86.0 | 81.5 | 77.0 | 72.5 | 69.3 | 66.8 | 63.6 | 60.3 | 56.5 | 52.6 | 48.1 |
| 65° | 78.3 | 75.1 | 71.3 | 67.4 | 64.2 | 61.0 | 57.8 | 54.6 | 50.7 | 47.5 | 43.7 |
| 67.5° | 71.3 | 68.0 | 65.5 | 62.3 | 58.4 | 55.2 | 51.4 | 47.5 | 44.9 | 42.4 | 39.2 |
| 70° | 65.5 | 62.9 | 61.0 | 58.4 | 54.6 | 51.4 | 47.5 | 43.7 | 41.7 | 39.2 | 37.2 |
| 72.5° | 59.7 | 57.8 | 55.2 | 53.3 | 50.1 | 46.9 | 43.7 | 40.4 | 38.5 | 36.6 | 34.7 |
| 75° | 51.4 | 50.1 | 48.8 | 47.5 | 44.3 | 41.1 | 37.2 | 34.0 | 33.4 | 32.7 | 32.1 |
| 77.5° | 46.2 | 45.6 | 44.3 | 43.0 | 39.8 | 36.6 | 33.4 | 30.2 | 30.8 | 31.5 | 31.5 |
| 80° | 37.9 | 37.9 | 37.2 | 37.2 | 34.7 | 32.1 | 28.9 | 26.3 | 27.6 | 29.5 | 30.8 |
| 82.5° | 28.9 | 28.9 | 28.9 | 28.9 | 26.3 | 23.8 | 21.2 | 18.6 | 20.5 | 21.8 | 23.8 |
| 85° | 19.9 | 19.3 | 18.6 | 18.0 | 16.0 | 14.8 | 12.8 | 10.9 | 13.5 | 15.4 | 18.0 |
| 87.5° | 12.2 | 12.8 | 12.8 | 12.8 | 11.6 | 9.6 | 8.3 | 6.4 | 7.7 | 8.3 | 9.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 92.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 95° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 97.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 100° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 102.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 105° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 107.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 110° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P368437
 CATALOG NUMBER: MSA-SA4B-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: P368437
 CATALOG NUMBER: MSA-SA4B-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 55° | 57.5° | 60° | 62.5° | 65° | 67.5° | 70° | 72.5° | 75° | 77.5° | 80° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 |
| 2.5° | 1489.4 | 1470.1 | 1450.9 | 1431.0 | 1411.7 | 1366.8 | 1321.8 | 1276.9 | 1231.9 | 1265.3 | 1298.1 |
| 5° | 1554.2 | 1517.0 | 1479.1 | 1441.9 | 1404.0 | 1387.3 | 1371.2 | 1354.6 | 1337.9 | 1340.4 | 1343.6 |
| 7.5° | 1161.3 | 1136.9 | 1112.5 | 1087.5 | 1063.1 | 1058.0 | 1053.5 | 1048.3 | 1043.2 | 1054.1 | 1064.4 |
| 10° | 979.6 | 945.6 | 911.0 | 876.9 | 842.3 | 823.6 | 805.0 | 786.4 | 767.8 | 765.9 | 763.3 |
| 12.5° | 923.8 | 871.8 | 820.4 | 768.4 | 716.4 | 676.0 | 635.5 | 595.1 | 554.7 | 557.9 | 561.1 |
| 15° | 709.4 | 657.4 | 606.0 | 554.0 | 502.0 | 469.3 | 435.9 | 403.2 | 369.8 | 360.1 | 350.5 |
| 17.5° | 445.5 | 407.0 | 368.5 | 329.3 | 290.8 | 279.9 | 269.6 | 258.7 | 247.8 | 244.6 | 241.4 |
| 20° | 278.0 | 261.3 | 244.6 | 227.3 | 210.6 | 208.0 | 205.4 | 202.9 | 200.3 | 202.2 | 204.1 |
| 22.5° | 216.3 | 209.3 | 201.6 | 194.5 | 186.8 | 184.2 | 181.7 | 179.1 | 176.5 | 178.5 | 179.8 |
| 25° | 192.6 | 187.5 | 182.3 | 177.2 | 172.0 | 169.5 | 166.3 | 163.7 | 160.5 | 161.8 | 163.7 |
| 27.5° | 179.1 | 174.6 | 170.1 | 165.6 | 161.1 | 156.6 | 152.8 | 148.3 | 143.8 | 146.4 | 148.3 |
| 30° | 166.9 | 161.8 | 157.3 | 152.1 | 147.0 | 142.5 | 138.0 | 132.9 | 128.4 | 131.0 | 133.5 |
| 32.5° | 150.2 | 145.7 | 140.6 | 136.1 | 131.0 | 128.4 | 125.8 | 122.6 | 120.0 | 122.0 | 123.3 |
| 35° | 132.9 | 129.0 | 125.8 | 122.0 | 118.1 | 115.6 | 113.6 | 111.1 | 108.5 | 109.1 | 110.4 |
| 37.5° | 124.5 | 120.0 | 115.6 | 111.1 | 106.6 | 105.3 | 104.0 | 102.1 | 100.8 | 100.8 | 100.8 |
| 40° | 116.2 | 111.7 | 107.2 | 102.1 | 97.6 | 95.7 | 93.7 | 91.8 | 89.9 | 89.9 | 89.9 |
| 42.5° | 106.6 | 102.1 | 97.6 | 93.1 | 88.6 | 86.7 | 84.1 | 82.2 | 79.6 | 79.6 | 79.6 |
| 45° | 98.9 | 94.4 | 90.5 | 86.0 | 81.5 | 78.3 | 75.1 | 71.3 | 68.0 | 67.4 | 66.8 |
| 47.5° | 96.3 | 89.9 | 83.5 | 77.0 | 70.6 | 67.4 | 64.2 | 60.3 | 57.1 | 56.5 | 55.9 |
| 50° | 110.4 | 97.6 | 84.7 | 71.9 | 59.1 | 56.5 | 53.9 | 51.4 | 48.8 | 47.5 | 46.9 |
| 52.5° | 104.6 | 91.2 | 77.7 | 64.2 | 50.7 | 48.8 | 46.9 | 44.9 | 43.0 | 41.7 | 40.4 |
| 55° | 67.4 | 61.6 | 56.5 | 50.7 | 44.9 | 43.7 | 42.4 | 40.4 | 39.2 | 37.9 | 36.6 |
| 57.5° | 53.9 | 50.7 | 48.1 | 44.9 | 41.7 | 40.4 | 39.2 | 37.2 | 36.0 | 34.0 | 32.7 |
| 60° | 48.8 | 46.2 | 43.7 | 41.1 | 38.5 | 37.2 | 36.0 | 34.7 | 33.4 | 31.5 | 30.2 |
| 62.5° | 44.3 | 42.4 | 40.4 | 38.5 | 36.6 | 35.3 | 34.0 | 32.7 | 31.5 | 29.5 | 27.6 |
| 65° | 39.8 | 38.5 | 37.2 | 36.0 | 34.7 | 33.4 | 32.1 | 30.2 | 28.9 | 27.0 | 25.0 |
| 67.5° | 36.6 | 36.0 | 35.3 | 34.7 | 34.0 | 32.7 | 30.8 | 29.5 | 27.6 | 25.7 | 23.1 |
| 70° | 34.7 | 34.7 | 34.7 | 34.0 | 34.0 | 32.7 | 30.8 | 29.5 | 27.6 | 25.0 | 23.1 |
| 72.5° | 32.7 | 33.4 | 34.0 | 34.0 | 34.7 | 32.7 | 30.8 | 28.9 | 27.0 | 24.4 | 22.5 |
| 75° | 31.5 | 32.1 | 32.7 | 32.7 | 33.4 | 32.1 | 30.8 | 28.9 | 27.6 | 25.0 | 22.5 |
| 77.5° | 32.1 | 32.7 | 32.7 | 33.4 | 33.4 | 32.1 | 30.8 | 28.9 | 27.6 | 24.4 | 21.2 |
| 80° | 32.1 | 31.5 | 30.8 | 29.5 | 28.9 | 26.3 | 23.8 | 20.5 | 18.0 | 14.1 | 10.9 |
| 82.5° | 25.0 | 23.8 | 23.1 | 21.8 | 20.5 | 18.0 | 15.4 | 12.8 | 10.3 | 7.7 | 5.1 |
| 85° | 19.9 | 18.6 | 18.0 | 16.7 | 15.4 | 13.5 | 10.9 | 9.0 | 6.4 | 5.1 | 3.2 |
| 87.5° | 10.3 | 9.6 | 8.3 | 7.7 | 6.4 | 5.1 | 3.2 | 1.9 | 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: P368437
 CATALOG NUMBER: MSA-SA4B-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: P368437
 CATALOG NUMBER: MSA-SA4B-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° | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 |
| 2.5° | 1331.4 | 1364.2 | 1359.7 | 1355.2 | 1376.4 | 1397.6 | 1382.2 | 1367.4 | 1352.0 | 1336.6 | 1304.5 |
| 5° | 1346.2 | 1348.8 | 1344.3 | 1339.1 | 1339.8 | 1340.4 | 1330.2 | 1319.9 | 1309.6 | 1299.3 | 1297.4 |
| 7.5° | 1075.3 | 1085.6 | 1099.7 | 1113.2 | 1113.8 | 1113.8 | 1106.1 | 1098.4 | 1090.1 | 1082.4 | 1086.2 |
| 10° | 761.4 | 758.8 | 762.7 | 766.5 | 765.9 | 764.6 | 785.1 | 805.7 | 825.6 | 846.1 | 831.4 |
| 12.5° | 563.6 | 566.9 | 550.8 | 534.8 | 540.5 | 545.7 | 548.9 | 552.1 | 555.3 | 558.5 | 567.5 |
| 15° | 340.9 | 331.3 | 319.7 | 308.1 | 313.9 | 319.1 | 324.8 | 330.0 | 335.8 | 340.9 | 346.7 |
| 17.5° | 237.5 | 234.3 | 229.2 | 223.4 | 224.0 | 224.7 | 225.3 | 226.0 | 226.0 | 226.6 | 227.9 |
| 20° | 206.1 | 208.0 | 204.1 | 199.7 | 198.4 | 196.4 | 195.2 | 193.9 | 191.9 | 190.7 | 188.7 |
| 22.5° | 181.7 | 183.0 | 183.6 | 183.6 | 181.0 | 177.8 | 175.3 | 173.3 | 170.8 | 168.2 | 166.9 |
| 25° | 165.0 | 166.3 | 165.0 | 163.1 | 161.8 | 160.5 | 159.2 | 157.3 | 156.0 | 154.1 | 153.4 |
| 27.5° | 150.9 | 152.8 | 152.8 | 152.1 | 150.9 | 148.9 | 145.7 | 143.2 | 139.9 | 136.7 | 137.4 |
| 30° | 136.1 | 138.7 | 138.7 | 138.0 | 137.4 | 136.7 | 133.5 | 130.3 | 127.1 | 123.9 | 125.2 |
| 32.5° | 125.2 | 126.5 | 125.8 | 125.2 | 125.2 | 124.5 | 122.0 | 120.0 | 117.5 | 114.9 | 114.9 |
| 35° | 111.1 | 111.7 | 111.7 | 111.7 | 111.7 | 111.1 | 109.1 | 107.2 | 105.3 | 103.4 | 104.0 |
| 37.5° | 100.8 | 100.8 | 102.7 | 104.0 | 102.7 | 101.4 | 100.1 | 98.2 | 96.9 | 95.0 | 95.0 |
| 40° | 89.2 | 89.2 | 91.2 | 92.4 | 91.2 | 89.9 | 89.2 | 87.9 | 87.3 | 86.0 | 86.0 |
| 42.5° | 79.0 | 79.0 | 80.9 | 82.2 | 82.2 | 81.5 | 80.2 | 79.0 | 77.7 | 76.4 | 77.0 |
| 45° | 66.1 | 65.5 | 68.7 | 71.3 | 70.0 | 68.7 | 68.7 | 68.0 | 68.0 | 67.4 | 68.0 |
| 47.5° | 54.6 | 53.9 | 56.5 | 59.1 | 58.4 | 57.1 | 57.1 | 57.1 | 57.1 | 57.1 | 57.8 |
| 50° | 45.6 | 44.3 | 46.9 | 48.8 | 48.1 | 46.9 | 46.9 | 47.5 | 47.5 | 47.5 | 48.1 |
| 52.5° | 39.2 | 37.9 | 39.8 | 41.1 | 40.4 | 39.8 | 39.8 | 40.4 | 40.4 | 40.4 | 41.1 |
| 55° | 34.7 | 33.4 | 35.3 | 36.6 | 36.0 | 34.7 | 35.3 | 35.3 | 36.0 | 36.0 | 36.0 |
| 57.5° | 30.8 | 28.9 | 30.2 | 31.5 | 31.5 | 30.8 | 31.5 | 31.5 | 32.1 | 32.1 | 32.1 |
| 60° | 28.2 | 26.3 | 27.6 | 28.2 | 28.2 | 27.6 | 28.2 | 28.2 | 28.9 | 28.9 | 28.9 |
| 62.5° | 25.0 | 23.1 | 24.4 | 25.0 | 25.0 | 24.4 | 25.0 | 25.0 | 25.7 | 25.7 | 25.7 |
| 65° | 22.5 | 20.5 | 21.2 | 21.8 | 21.8 | 21.8 | 22.5 | 22.5 | 23.1 | 23.1 | 23.1 |
| 67.5° | 21.2 | 18.6 | 19.3 | 19.9 | 19.9 | 19.9 | 20.5 | 20.5 | 21.2 | 21.2 | 21.8 |
| 70° | 20.5 | 18.0 | 18.6 | 18.6 | 19.3 | 19.3 | 19.3 | 19.9 | 19.9 | 19.9 | 19.9 |
| 72.5° | 19.9 | 17.3 | 17.3 | 17.3 | 18.0 | 18.0 | 18.0 | 18.6 | 18.6 | 18.6 | 18.6 |
| 75° | 19.9 | 17.3 | 16.7 | 16.0 | 16.7 | 16.7 | 16.7 | 17.3 | 17.3 | 17.3 | 17.3 |
| 77.5° | 17.3 | 14.1 | 12.8 | 10.9 | 12.8 | 14.1 | 14.8 | 14.8 | 15.4 | 15.4 | 15.4 |
| 80° | 7.1 | 3.2 | 1.9 | 0.0 | 0.6 | 1.3 | 1.9 | 2.6 | 3.2 | 3.9 | 4.5 |
| 82.5° | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 1.9 | 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: P368437
 CATALOG NUMBER: MSA-SA4B-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: P368437
 CATALOG NUMBER: MSA-SA4B-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 110° | 112.5° | 115° | 117.5° | 120° | 122.5° | 125° | 127.5° | 130° | 132.5° | 135° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 |
| 2.5° | 1272.4 | 1240.3 | 1208.2 | 1223.6 | 1239.0 | 1254.4 | 1269.8 | 1268.5 | 1266.6 | 1265.3 | 1263.4 |
| 5° | 1296.1 | 1294.2 | 1292.3 | 1283.3 | 1275.0 | 1266.0 | 1257.0 | 1255.1 | 1252.5 | 1250.6 | 1248.0 |
| 7.5° | 1090.1 | 1093.3 | 1097.1 | 1086.9 | 1076.6 | 1066.3 | 1056.0 | 1029.7 | 1003.4 | 976.4 | 950.1 |
| 10° | 816.6 | 801.2 | 786.4 | 785.1 | 783.8 | 782.6 | 781.3 | 778.7 | 776.1 | 772.9 | 770.4 |
| 12.5° | 577.1 | 586.1 | 595.1 | 591.9 | 588.7 | 584.8 | 581.6 | 586.1 | 591.3 | 595.7 | 600.2 |
| 15° | 351.8 | 357.6 | 362.7 | 374.3 | 385.8 | 397.4 | 408.9 | 413.4 | 418.6 | 423.1 | 427.6 |
| 17.5° | 229.2 | 229.8 | 231.1 | 243.9 | 256.1 | 269.0 | 281.2 | 289.5 | 297.9 | 305.6 | 313.9 |
| 20° | 186.8 | 184.9 | 183.0 | 190.0 | 197.1 | 204.1 | 211.2 | 218.9 | 226.6 | 234.3 | 242.0 |
| 22.5° | 166.3 | 165.0 | 163.7 | 166.3 | 168.8 | 170.8 | 173.3 | 179.1 | 185.5 | 191.3 | 197.1 |
| 25° | 152.8 | 151.5 | 150.9 | 152.1 | 153.4 | 154.7 | 156.0 | 159.2 | 162.4 | 165.6 | 168.8 |
| 27.5° | 137.4 | 138.0 | 138.0 | 139.3 | 139.9 | 141.2 | 141.9 | 143.2 | 145.1 | 146.4 | 147.7 |
| 30° | 125.8 | 127.1 | 127.8 | 129.0 | 129.7 | 131.0 | 131.6 | 131.0 | 130.3 | 129.7 | 129.0 |
| 32.5° | 114.9 | 114.3 | 114.3 | 115.6 | 116.2 | 117.5 | 118.1 | 119.4 | 120.7 | 121.3 | 122.6 |
| 35° | 104.0 | 104.6 | 104.6 | 104.6 | 105.3 | 105.3 | 105.3 | 106.6 | 108.5 | 109.8 | 111.1 |
| 37.5° | 94.4 | 94.4 | 93.7 | 95.7 | 96.9 | 98.9 | 100.1 | 101.4 | 103.4 | 104.6 | 105.9 |
| 40° | 86.0 | 86.0 | 86.0 | 87.3 | 88.6 | 89.2 | 90.5 | 93.7 | 96.9 | 100.1 | 103.4 |
| 42.5° | 77.0 | 77.7 | 77.7 | 79.0 | 80.2 | 80.9 | 82.2 | 84.7 | 86.7 | 89.2 | 91.2 |
| 45° | 68.7 | 69.3 | 70.0 | 71.3 | 71.9 | 73.2 | 73.8 | 75.1 | 75.8 | 77.0 | 77.7 |
| 47.5° | 59.1 | 59.7 | 60.3 | 61.6 | 62.3 | 63.6 | 64.2 | 63.6 | 63.6 | 62.9 | 62.3 |
| 50° | 49.4 | 50.1 | 50.7 | 52.6 | 53.9 | 55.9 | 57.1 | 55.9 | 54.6 | 52.6 | 51.4 |
| 52.5° | 41.7 | 41.7 | 42.4 | 43.7 | 44.9 | 45.6 | 46.9 | 46.2 | 45.6 | 44.9 | 44.3 |
| 55° | 36.0 | 36.0 | 36.0 | 36.6 | 37.2 | 37.9 | 38.5 | 39.2 | 39.2 | 39.8 | 39.8 |
| 57.5° | 32.1 | 31.5 | 31.5 | 32.1 | 32.7 | 32.7 | 33.4 | 34.0 | 34.0 | 34.7 | 34.7 |
| 60° | 28.9 | 28.2 | 28.2 | 28.9 | 29.5 | 30.2 | 30.8 | 30.8 | 30.8 | 30.2 | 30.2 |
| 62.5° | 25.7 | 25.7 | 25.7 | 26.3 | 26.3 | 27.0 | 27.0 | 27.0 | 27.6 | 27.6 | 27.6 |
| 65° | 23.8 | 23.8 | 23.8 | 23.8 | 23.8 | 23.1 | 23.1 | 23.8 | 23.8 | 24.4 | 24.4 |
| 67.5° | 21.8 | 22.5 | 22.5 | 21.8 | 21.2 | 20.5 | 19.9 | 20.5 | 20.5 | 21.2 | 21.2 |
| 70° | 19.9 | 19.9 | 19.9 | 19.3 | 18.6 | 18.0 | 17.3 | 17.3 | 17.3 | 16.7 | 16.7 |
| 72.5° | 18.6 | 18.0 | 18.0 | 17.3 | 16.0 | 15.4 | 14.1 | 13.5 | 13.5 | 12.8 | 12.2 |
| 75° | 17.3 | 16.7 | 16.7 | 15.4 | 14.1 | 12.8 | 11.6 | 10.9 | 9.6 | 9.0 | 7.7 |
| 77.5° | 15.4 | 15.4 | 15.4 | 13.5 | 12.2 | 10.3 | 8.3 | 7.1 | 5.8 | 3.9 | 2.6 |
| 80° | 5.1 | 5.8 | 6.4 | 5.8 | 5.8 | 5.1 | 4.5 | 3.2 | 2.6 | 1.3 | 0.0 |
| 82.5° | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 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: P368437
 CATALOG NUMBER: MSA-SA4B-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: P368437
 CATALOG NUMBER: MSA-SA4B-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° | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 |
| 2.5° | 1270.5 | 1277.5 | 1284.6 | 1291.6 | 1292.3 | 1292.9 | 1293.6 | 1294.2 | 1278.2 | 1261.5 | 1245.4 |
| 5° | 1260.8 | 1274.3 | 1287.1 | 1300.0 | 1292.9 | 1285.9 | 1278.8 | 1271.7 | 1271.1 | 1271.1 | 1270.5 |
| 7.5° | 952.0 | 953.3 | 955.3 | 956.5 | 959.1 | 961.7 | 963.6 | 966.2 | 976.4 | 986.7 | 996.3 |
| 10° | 762.0 | 753.7 | 744.7 | 736.3 | 729.9 | 722.9 | 716.4 | 709.4 | 714.5 | 720.3 | 725.4 |
| 12.5° | 593.2 | 586.1 | 578.4 | 571.4 | 568.8 | 566.2 | 563.0 | 560.4 | 577.1 | 593.8 | 609.9 |
| 15° | 426.3 | 425.0 | 423.1 | 421.8 | 430.1 | 438.5 | 446.8 | 455.2 | 469.3 | 482.8 | 496.9 |
| 17.5° | 317.1 | 320.3 | 323.6 | 326.8 | 331.9 | 337.0 | 341.5 | 346.7 | 356.9 | 367.8 | 378.1 |
| 20° | 245.9 | 250.4 | 254.2 | 258.1 | 256.8 | 255.5 | 253.6 | 252.3 | 260.6 | 269.0 | 276.7 |
| 22.5° | 200.9 | 204.1 | 208.0 | 211.2 | 211.8 | 212.5 | 213.1 | 213.8 | 218.9 | 223.4 | 228.5 |
| 25° | 172.0 | 175.9 | 179.1 | 182.3 | 183.0 | 183.6 | 184.2 | 184.9 | 191.3 | 197.7 | 203.5 |
| 27.5° | 152.1 | 156.0 | 160.5 | 164.3 | 165.6 | 166.9 | 168.2 | 169.5 | 173.3 | 176.5 | 180.4 |
| 30° | 134.2 | 139.3 | 144.4 | 149.6 | 151.5 | 153.4 | 155.4 | 157.3 | 161.1 | 165.6 | 169.5 |
| 32.5° | 125.2 | 128.4 | 131.0 | 133.5 | 138.0 | 141.9 | 146.4 | 150.2 | 154.7 | 159.9 | 164.3 |
| 35° | 114.9 | 118.1 | 122.0 | 125.2 | 128.4 | 131.6 | 134.2 | 137.4 | 139.9 | 142.5 | 144.4 |
| 37.5° | 108.5 | 111.7 | 114.3 | 116.8 | 118.1 | 119.4 | 120.0 | 121.3 | 122.6 | 123.9 | 124.5 |
| 40° | 103.4 | 102.7 | 102.7 | 102.1 | 103.4 | 105.3 | 106.6 | 107.9 | 111.7 | 114.9 | 118.8 |
| 42.5° | 89.9 | 87.9 | 86.7 | 84.7 | 87.9 | 90.5 | 93.7 | 96.3 | 101.4 | 106.6 | 111.7 |
| 45° | 76.4 | 75.1 | 73.2 | 71.9 | 76.4 | 80.9 | 85.4 | 89.9 | 95.7 | 100.8 | 106.6 |
| 47.5° | 62.9 | 63.6 | 63.6 | 64.2 | 68.7 | 73.2 | 77.0 | 81.5 | 87.3 | 93.1 | 98.9 |
| 50° | 52.6 | 53.9 | 55.2 | 56.5 | 61.0 | 64.8 | 69.3 | 73.2 | 79.6 | 85.4 | 91.8 |
| 52.5° | 46.2 | 48.1 | 49.4 | 51.4 | 55.2 | 59.7 | 63.6 | 67.4 | 73.2 | 79.0 | 84.7 |
| 55° | 41.7 | 44.3 | 46.2 | 48.1 | 51.4 | 54.6 | 57.8 | 61.0 | 66.8 | 72.5 | 77.7 |
| 57.5° | 36.6 | 38.5 | 40.4 | 42.4 | 45.6 | 48.8 | 51.4 | 54.6 | 59.7 | 65.5 | 70.6 |
| 60° | 32.1 | 33.4 | 35.3 | 36.6 | 39.2 | 42.4 | 44.9 | 47.5 | 52.6 | 57.8 | 62.3 |
| 62.5° | 28.2 | 29.5 | 30.2 | 30.8 | 33.4 | 36.0 | 38.5 | 41.1 | 45.6 | 50.7 | 55.2 |
| 65° | 25.0 | 25.7 | 25.7 | 26.3 | 28.2 | 30.8 | 32.7 | 34.7 | 39.8 | 44.3 | 49.4 |
| 67.5° | 21.2 | 21.8 | 21.8 | 21.8 | 23.8 | 25.7 | 27.6 | 29.5 | 34.0 | 39.2 | 43.7 |
| 70° | 16.7 | 17.3 | 17.3 | 17.3 | 19.3 | 21.8 | 23.8 | 25.7 | 29.5 | 33.4 | 37.2 |
| 72.5° | 12.8 | 12.8 | 13.5 | 13.5 | 15.4 | 18.0 | 19.9 | 21.8 | 25.0 | 28.2 | 31.5 |
| 75° | 8.3 | 9.0 | 9.0 | 9.6 | 11.6 | 14.1 | 16.0 | 18.0 | 21.2 | 24.4 | 27.0 |
| 77.5° | 3.2 | 4.5 | 5.1 | 5.8 | 7.7 | 9.6 | 11.6 | 13.5 | 16.0 | 19.3 | 21.8 |
| 80° | 0.0 | 0.6 | 0.6 | 0.6 | 1.9 | 2.6 | 3.9 | 4.5 | 6.4 | 9.0 | 10.9 |
| 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: P368437
 CATALOG NUMBER: MSA-SA4B-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: P368437
 CATALOG NUMBER: MSA-SA4B-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 165° | 167.5° | 170° | 172.5° | 175° | 177.5° | 180° | 182.5° | 185° | 187.5° | 190° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 |
| 2.5° | 1228.7 | 1264.0 | 1299.3 | 1334.7 | 1370.0 | 1413.6 | 1457.3 | 1463.7 | 1470.1 | 1462.4 | 1455.3 |
| 5° | 1269.8 | 1287.1 | 1303.8 | 1321.2 | 1337.9 | 1387.9 | 1437.4 | 1438.0 | 1438.0 | 1438.7 | 1438.7 |
| 7.5° | 1006.6 | 1021.4 | 1036.1 | 1050.3 | 1065.0 | 1097.8 | 1130.5 | 1142.7 | 1154.3 | 1151.7 | 1149.1 |
| 10° | 730.6 | 749.8 | 768.4 | 787.7 | 806.3 | 836.5 | 866.7 | 878.2 | 889.1 | 924.4 | 960.4 |
| 12.5° | 626.6 | 645.2 | 663.8 | 681.8 | 700.4 | 731.2 | 762.0 | 784.5 | 806.3 | 828.1 | 850.0 |
| 15° | 510.4 | 525.1 | 540.5 | 555.3 | 570.1 | 584.2 | 598.3 | 625.9 | 652.9 | 674.7 | 696.5 |
| 17.5° | 388.4 | 394.8 | 400.6 | 407.0 | 412.8 | 419.2 | 425.6 | 437.2 | 448.1 | 467.4 | 486.0 |
| 20° | 285.0 | 290.2 | 295.3 | 299.8 | 304.9 | 311.4 | 317.8 | 326.1 | 333.8 | 338.3 | 342.2 |
| 22.5° | 233.0 | 240.7 | 248.4 | 255.5 | 263.2 | 267.7 | 272.2 | 274.8 | 277.3 | 279.3 | 281.2 |
| 25° | 209.9 | 217.0 | 223.4 | 230.5 | 236.9 | 238.8 | 240.7 | 245.9 | 251.0 | 251.0 | 251.0 |
| 27.5° | 183.6 | 193.2 | 203.5 | 213.1 | 222.8 | 225.3 | 227.3 | 229.2 | 230.5 | 227.9 | 224.7 |
| 30° | 173.3 | 183.0 | 192.6 | 201.6 | 211.2 | 215.1 | 218.3 | 220.2 | 222.1 | 218.9 | 215.7 |
| 32.5° | 168.8 | 177.8 | 186.2 | 195.2 | 203.5 | 208.6 | 213.1 | 218.3 | 222.8 | 223.4 | 224.7 |
| 35° | 147.0 | 152.8 | 159.2 | 165.0 | 170.8 | 173.3 | 175.9 | 177.8 | 179.1 | 179.1 | 179.1 |
| 37.5° | 125.8 | 133.5 | 141.9 | 149.6 | 157.3 | 163.1 | 168.8 | 169.5 | 169.5 | 170.8 | 172.7 |
| 40° | 122.0 | 129.7 | 137.4 | 144.4 | 152.1 | 158.6 | 164.3 | 165.0 | 165.6 | 166.9 | 168.2 |
| 42.5° | 116.8 | 125.2 | 133.5 | 141.9 | 150.2 | 156.6 | 162.4 | 162.4 | 161.8 | 163.7 | 165.0 |
| 45° | 111.7 | 120.0 | 127.8 | 136.1 | 143.8 | 152.1 | 159.9 | 157.9 | 155.4 | 158.6 | 161.1 |
| 47.5° | 104.6 | 113.6 | 122.6 | 131.0 | 139.9 | 147.7 | 154.7 | 153.4 | 151.5 | 154.7 | 157.9 |
| 50° | 97.6 | 106.6 | 115.6 | 124.5 | 133.5 | 141.9 | 149.6 | 148.3 | 147.0 | 150.9 | 154.1 |
| 52.5° | 90.5 | 99.5 | 109.1 | 118.1 | 127.1 | 134.2 | 140.6 | 139.9 | 139.3 | 143.2 | 147.7 |
| 55° | 83.5 | 91.8 | 100.8 | 109.1 | 117.5 | 125.2 | 132.2 | 131.0 | 129.7 | 132.9 | 136.1 |
| 57.5° | 75.8 | 84.1 | 91.8 | 100.1 | 107.9 | 114.3 | 120.0 | 118.1 | 116.2 | 120.0 | 123.9 |
| 60° | 67.4 | 75.1 | 82.8 | 89.9 | 97.6 | 102.7 | 107.2 | 105.9 | 104.0 | 107.9 | 111.7 |
| 62.5° | 59.7 | 66.8 | 73.8 | 80.2 | 87.3 | 91.2 | 95.0 | 93.7 | 92.4 | 96.3 | 100.8 |
| 65° | 53.9 | 59.7 | 64.8 | 70.6 | 75.8 | 79.6 | 83.5 | 81.5 | 79.6 | 84.1 | 87.9 |
| 67.5° | 48.1 | 52.6 | 57.8 | 62.3 | 66.8 | 70.0 | 73.2 | 71.9 | 70.0 | 73.2 | 76.4 |
| 70° | 41.1 | 45.6 | 50.1 | 53.9 | 58.4 | 61.6 | 64.8 | 62.9 | 60.3 | 63.6 | 66.8 |
| 72.5° | 34.7 | 38.5 | 42.4 | 45.6 | 49.4 | 52.0 | 54.6 | 52.6 | 50.7 | 53.3 | 55.9 |
| 75° | 30.2 | 33.4 | 36.6 | 39.2 | 42.4 | 43.7 | 44.9 | 44.3 | 43.0 | 45.6 | 47.5 |
| 77.5° | 24.4 | 27.0 | 30.2 | 32.7 | 35.3 | 35.3 | 35.3 | 36.0 | 36.0 | 38.5 | 41.7 |
| 80° | 12.8 | 15.4 | 18.0 | 19.9 | 22.5 | 22.5 | 21.8 | 23.1 | 23.8 | 27.0 | 30.2 |
| 82.5° | 0.0 | 1.9 | 3.9 | 5.8 | 7.7 | 7.1 | 5.8 | 6.4 | 6.4 | 7.7 | 9.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 1.3 |
| 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: P368437
 CATALOG NUMBER: MSA-SA4B-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: P368437
 CATALOG NUMBER: MSA-SA4B-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° | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 |
| 2.5° | 1447.6 | 1439.9 | 1434.8 | 1430.3 | 1425.2 | 1420.0 | 1426.5 | 1432.9 | 1438.7 | 1445.1 | 1464.3 |
| 5° | 1439.3 | 1439.3 | 1434.8 | 1430.3 | 1425.8 | 1421.3 | 1431.0 | 1439.9 | 1449.6 | 1458.6 | 1457.9 |
| 7.5° | 1145.9 | 1143.3 | 1170.3 | 1196.6 | 1223.6 | 1249.9 | 1257.0 | 1264.0 | 1270.5 | 1277.5 | 1275.6 |
| 10° | 995.7 | 1031.0 | 1042.6 | 1054.1 | 1065.7 | 1077.2 | 1091.3 | 1105.5 | 1119.6 | 1133.7 | 1138.9 |
| 12.5° | 871.8 | 893.6 | 930.9 | 967.4 | 1004.7 | 1041.3 | 1059.9 | 1079.2 | 1097.8 | 1116.4 | 1153.0 |
| 15° | 718.4 | 740.2 | 772.3 | 804.4 | 836.5 | 868.6 | 898.1 | 928.3 | 957.8 | 987.3 | 1031.6 |
| 17.5° | 505.2 | 523.8 | 548.2 | 572.6 | 596.4 | 620.8 | 666.4 | 711.9 | 757.5 | 803.1 | 850.0 |
| 20° | 346.7 | 350.5 | 362.1 | 374.3 | 385.8 | 397.4 | 438.5 | 480.2 | 521.3 | 562.4 | 624.0 |
| 22.5° | 282.5 | 284.4 | 290.2 | 295.9 | 301.1 | 306.9 | 328.0 | 349.9 | 371.1 | 392.2 | 442.3 |
| 25° | 250.4 | 250.4 | 254.2 | 258.1 | 261.9 | 265.8 | 277.3 | 288.9 | 299.8 | 311.4 | 343.5 |
| 27.5° | 222.1 | 218.9 | 224.7 | 230.5 | 236.2 | 242.0 | 250.4 | 259.4 | 267.7 | 276.0 | 297.9 |
| 30° | 212.5 | 209.3 | 216.3 | 223.4 | 230.5 | 237.5 | 245.9 | 254.2 | 261.9 | 270.3 | 285.0 |
| 32.5° | 225.3 | 226.0 | 228.5 | 231.1 | 233.0 | 235.6 | 239.5 | 243.9 | 247.8 | 251.7 | 264.5 |
| 35° | 179.1 | 179.1 | 183.6 | 188.1 | 191.9 | 196.4 | 203.5 | 210.6 | 217.6 | 224.7 | 238.2 |
| 37.5° | 174.0 | 175.3 | 179.1 | 183.6 | 187.5 | 191.3 | 200.3 | 209.9 | 218.9 | 227.9 | 238.8 |
| 40° | 168.8 | 170.1 | 175.3 | 180.4 | 185.5 | 190.7 | 199.7 | 208.0 | 217.0 | 225.3 | 235.6 |
| 42.5° | 166.9 | 168.2 | 174.6 | 181.7 | 188.1 | 194.5 | 202.2 | 209.9 | 217.0 | 224.7 | 238.8 |
| 45° | 164.3 | 166.9 | 174.6 | 183.0 | 190.7 | 198.4 | 205.4 | 212.5 | 219.6 | 226.6 | 243.9 |
| 47.5° | 160.5 | 163.7 | 172.7 | 181.0 | 190.0 | 198.4 | 211.8 | 226.0 | 239.5 | 252.9 | 261.3 |
| 50° | 157.9 | 161.1 | 170.8 | 180.4 | 190.0 | 199.7 | 221.5 | 243.3 | 264.5 | 286.3 | 281.8 |
| 52.5° | 151.5 | 155.4 | 167.6 | 179.8 | 191.9 | 204.1 | 223.4 | 242.7 | 261.9 | 281.2 | 272.2 |
| 55° | 139.3 | 142.5 | 156.6 | 170.8 | 184.2 | 198.4 | 212.5 | 226.6 | 240.1 | 254.2 | 243.9 |
| 57.5° | 127.1 | 131.0 | 144.4 | 157.9 | 170.8 | 184.2 | 191.3 | 198.4 | 205.4 | 212.5 | 208.6 |
| 60° | 115.6 | 119.4 | 137.4 | 155.4 | 173.3 | 191.3 | 184.9 | 178.5 | 171.4 | 165.0 | 169.5 |
| 62.5° | 104.6 | 108.5 | 125.8 | 142.5 | 159.9 | 176.5 | 167.6 | 158.6 | 149.6 | 140.6 | 147.7 |
| 65° | 92.4 | 96.3 | 102.7 | 109.8 | 116.2 | 122.6 | 122.0 | 120.7 | 120.0 | 118.8 | 126.5 |
| 67.5° | 79.6 | 82.8 | 86.0 | 89.9 | 93.1 | 96.3 | 98.2 | 100.8 | 102.7 | 104.6 | 111.1 |
| 70° | 69.3 | 72.5 | 76.4 | 79.6 | 83.5 | 86.7 | 87.9 | 89.2 | 89.9 | 91.2 | 96.9 |
| 72.5° | 57.8 | 60.3 | 65.5 | 70.6 | 75.1 | 80.2 | 80.9 | 80.9 | 81.5 | 81.5 | 86.0 |
| 75° | 50.1 | 52.0 | 55.9 | 59.7 | 62.9 | 66.8 | 68.7 | 70.6 | 71.9 | 73.8 | 76.4 |
| 77.5° | 44.3 | 46.9 | 48.1 | 48.8 | 50.1 | 50.7 | 52.0 | 53.3 | 54.6 | 55.9 | 56.5 |
| 80° | 32.7 | 36.0 | 37.2 | 37.9 | 39.2 | 39.8 | 39.8 | 39.2 | 39.2 | 38.5 | 39.2 |
| 82.5° | 10.3 | 11.6 | 13.5 | 15.4 | 17.3 | 19.3 | 19.9 | 20.5 | 20.5 | 21.2 | 20.5 |
| 85° | 1.9 | 2.6 | 3.9 | 5.1 | 5.8 | 7.1 | 6.4 | 5.1 | 4.5 | 3.2 | 2.6 |
| 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: P368437
 CATALOG NUMBER: MSA-SA4B-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: P368437

CATALOG NUMBER: MSA-SA4B-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 220° | 222.5° | 225° | 227.5° | 230° | 232.5° | 235° | 237.5° | 240° | 242.5° | 245° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 |
| 2.5° | 1483.6 | 1502.2 | 1521.5 | 1513.8 | 1506.1 | 1498.4 | 1490.7 | 1491.9 | 1493.9 | 1495.1 | 1496.4 |
| 5° | 1457.3 | 1456.0 | 1455.3 | 1477.2 | 1499.6 | 1521.5 | 1543.3 | 1567.0 | 1591.4 | 1615.2 | 1638.9 |
| 7.5° | 1273.7 | 1271.1 | 1269.2 | 1297.4 | 1325.7 | 1353.9 | 1382.2 | 1414.9 | 1448.3 | 1481.0 | 1513.8 |
| 10° | 1144.0 | 1149.1 | 1154.3 | 1165.8 | 1178.0 | 1189.6 | 1201.1 | 1232.6 | 1264.0 | 1294.9 | 1326.3 |
| 12.5° | 1189.6 | 1225.5 | 1262.1 | 1269.2 | 1275.6 | 1282.7 | 1289.1 | 1293.6 | 1298.1 | 1302.6 | 1307.1 |
| 15° | 1076.6 | 1120.9 | 1165.2 | 1183.8 | 1201.8 | 1220.4 | 1238.4 | 1285.9 | 1332.7 | 1380.2 | 1427.1 |
| 17.5° | 896.8 | 943.1 | 989.9 | 1045.8 | 1101.6 | 1157.5 | 1213.3 | 1264.7 | 1316.0 | 1367.4 | 1418.8 |
| 20° | 686.3 | 747.9 | 809.5 | 880.1 | 951.4 | 1022.0 | 1092.6 | 1144.0 | 1194.7 | 1246.1 | 1296.8 |
| 22.5° | 493.0 | 543.1 | 593.2 | 678.6 | 763.3 | 848.7 | 933.4 | 1022.7 | 1112.5 | 1201.8 | 1291.0 |
| 25° | 375.6 | 407.0 | 439.1 | 523.2 | 607.3 | 690.8 | 774.9 | 897.5 | 1020.1 | 1142.7 | 1265.3 |
| 27.5° | 319.1 | 340.9 | 362.1 | 437.8 | 513.6 | 588.7 | 664.4 | 810.2 | 955.9 | 1101.6 | 1247.3 |
| 30° | 300.4 | 315.2 | 330.0 | 394.2 | 459.0 | 523.2 | 587.4 | 735.1 | 882.7 | 1030.4 | 1178.0 |
| 32.5° | 277.3 | 289.5 | 302.4 | 358.9 | 415.4 | 471.2 | 527.7 | 672.1 | 816.6 | 960.4 | 1104.8 |
| 35° | 251.0 | 264.5 | 277.3 | 333.8 | 390.3 | 446.2 | 502.7 | 652.2 | 801.8 | 951.4 | 1101.0 |
| 37.5° | 249.1 | 260.0 | 270.3 | 335.8 | 401.9 | 467.4 | 532.8 | 682.4 | 832.0 | 980.9 | 1130.5 |
| 40° | 246.5 | 256.8 | 267.1 | 333.8 | 399.9 | 466.7 | 532.8 | 689.5 | 846.1 | 1002.8 | 1159.4 |
| 42.5° | 252.9 | 266.4 | 280.5 | 339.6 | 398.7 | 457.1 | 516.1 | 681.1 | 846.1 | 1010.5 | 1175.4 |
| 45° | 261.9 | 279.3 | 296.6 | 350.5 | 404.4 | 458.4 | 512.3 | 691.4 | 870.5 | 1049.0 | 1228.1 |
| 47.5° | 270.3 | 278.6 | 287.0 | 338.3 | 389.0 | 440.4 | 491.1 | 674.1 | 857.0 | 1040.0 | 1223.0 |
| 50° | 278.0 | 273.5 | 269.0 | 325.5 | 382.0 | 437.8 | 494.3 | 668.9 | 842.9 | 1017.5 | 1191.5 |
| 52.5° | 262.6 | 253.6 | 243.9 | 304.3 | 364.6 | 424.3 | 484.7 | 660.6 | 836.5 | 1012.4 | 1188.3 |
| 55° | 233.7 | 223.4 | 213.1 | 272.8 | 331.9 | 391.6 | 450.7 | 625.9 | 801.2 | 976.4 | 1151.7 |
| 57.5° | 204.1 | 200.3 | 195.8 | 241.4 | 287.0 | 331.9 | 377.5 | 572.0 | 767.2 | 961.7 | 1156.2 |
| 60° | 174.0 | 177.8 | 182.3 | 215.1 | 247.8 | 279.9 | 312.6 | 503.3 | 693.3 | 884.0 | 1074.0 |
| 62.5° | 154.1 | 161.1 | 167.6 | 195.2 | 223.4 | 251.0 | 278.6 | 458.4 | 638.1 | 817.9 | 997.6 |
| 65° | 134.8 | 142.5 | 150.2 | 183.0 | 216.3 | 249.1 | 281.8 | 434.0 | 586.1 | 738.3 | 890.4 |
| 67.5° | 117.5 | 123.3 | 129.7 | 172.7 | 215.7 | 258.7 | 301.7 | 426.3 | 550.2 | 674.7 | 798.6 |
| 70° | 102.7 | 107.9 | 113.6 | 163.7 | 213.8 | 263.8 | 313.9 | 419.8 | 526.4 | 632.3 | 738.3 |
| 72.5° | 90.5 | 95.0 | 99.5 | 150.2 | 200.9 | 251.7 | 302.4 | 396.7 | 490.5 | 584.8 | 678.6 |
| 75° | 79.0 | 80.9 | 83.5 | 126.5 | 168.8 | 211.8 | 254.2 | 317.1 | 380.7 | 443.6 | 506.5 |
| 77.5° | 57.1 | 57.1 | 57.8 | 70.6 | 82.8 | 95.7 | 107.9 | 147.0 | 186.2 | 224.7 | 263.8 |
| 80° | 39.2 | 39.8 | 39.8 | 44.9 | 49.4 | 54.6 | 59.1 | 67.4 | 75.1 | 83.5 | 91.2 |
| 82.5° | 19.9 | 18.6 | 18.0 | 23.1 | 28.2 | 33.4 | 38.5 | 40.4 | 41.7 | 43.7 | 44.9 |
| 85° | 1.9 | 0.6 | 0.0 | 3.2 | 6.4 | 9.6 | 12.8 | 15.4 | 18.0 | 20.5 | 23.1 |
| 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: P368437
 CATALOG NUMBER: MSA-SA4B-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: P368437

CATALOG NUMBER: MSA-SA4B-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° | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 |
| 2.5° | 1491.3 | 1486.2 | 1481.0 | 1475.9 | 1507.3 | 1539.4 | 1570.9 | 1602.4 | 1691.6 | 1750.0 | 1743.6 |
| 5° | 1662.1 | 1685.2 | 1708.3 | 1731.4 | 1768.6 | 1806.5 | 1843.7 | 1881.0 | 2013.2 | 2094.1 | 2105.7 |
| 7.5° | 1549.7 | 1585.0 | 1621.0 | 1656.3 | 1728.2 | 1799.4 | 1871.3 | 1942.6 | 2051.1 | 2135.2 | 2182.7 |
| 10° | 1366.8 | 1407.2 | 1447.0 | 1487.4 | 1568.3 | 1649.9 | 1730.8 | 1811.6 | 1933.6 | 2049.8 | 2109.5 |
| 12.5° | 1370.6 | 1434.2 | 1497.7 | 1561.3 | 1631.9 | 1702.5 | 1772.5 | 1843.1 | 1917.6 | 1956.7 | 2040.8 |
| 15° | 1477.2 | 1527.2 | 1577.3 | 1627.4 | 1719.8 | 1812.3 | 1904.1 | 1996.5 | 2040.8 | 2135.2 | 2233.4 |
| 17.5° | 1516.3 | 1614.6 | 1712.1 | 1809.7 | 1925.3 | 2040.2 | 2155.7 | 2270.6 | 2354.1 | 2485.1 | 2586.5 |
| 20° | 1443.8 | 1590.8 | 1737.2 | 1884.2 | 2042.7 | 2201.3 | 2359.9 | 2518.4 | 2609.6 | 2734.1 | 2890.8 |
| 22.5° | 1447.0 | 1603.0 | 1758.4 | 1914.4 | 2133.3 | 2351.5 | 2570.4 | 2788.7 | 3033.3 | 3273.4 | 3349.8 |
| 25° | 1469.5 | 1673.6 | 1877.1 | 2081.3 | 2334.2 | 2587.1 | 2840.1 | 3093.0 | 3388.3 | 3640.6 | 3742.0 |
| 27.5° | 1477.2 | 1707.0 | 1936.2 | 2166.0 | 2525.5 | 2885.0 | 3244.5 | 3604.0 | 3956.5 | 4241.5 | 4350.0 |
| 30° | 1458.6 | 1739.7 | 2020.3 | 2300.8 | 2741.9 | 3182.9 | 3623.9 | 4065.0 | 4399.4 | 4731.3 | 4866.1 |
| 32.5° | 1463.0 | 1821.3 | 2179.5 | 2537.7 | 3057.1 | 3577.1 | 4096.4 | 4615.8 | 4829.5 | 5128.7 | 5366.2 |
| 35° | 1493.9 | 1886.7 | 2279.0 | 2671.9 | 3246.4 | 3821.0 | 4395.6 | 4970.1 | 5320.6 | 5636.5 | 5838.1 |
| 37.5° | 1565.8 | 2001.0 | 2435.6 | 2870.9 | 3577.1 | 4283.9 | 4990.0 | 5696.2 | 6238.7 | 6781.1 | 6873.6 |
| 40° | 1619.0 | 2078.7 | 2538.3 | 2998.0 | 3817.8 | 4637.6 | 5457.4 | 6277.2 | 6890.9 | 7479.6 | 7542.5 |
| 42.5° | 1679.4 | 2182.7 | 2686.6 | 3189.9 | 4106.7 | 5023.4 | 5940.1 | 6856.9 | 7567.5 | 8167.8 | 8209.5 |
| 45° | 1745.5 | 2263.6 | 2781.0 | 3298.4 | 4258.8 | 5218.6 | 6179.0 | 7138.7 | 7968.8 | 8665.9 | 8508.7 |
| 47.5° | 1777.0 | 2331.0 | 2885.0 | 3439.0 | 4468.8 | 5497.8 | 6527.5 | 7556.6 | 8301.3 | 8916.3 | 8732.7 |
| 50° | 1801.4 | 2410.6 | 3020.5 | 3629.7 | 4709.5 | 5789.3 | 6869.1 | 7948.9 | 8695.5 | 9263.0 | 8975.4 |
| 52.5° | 1870.1 | 2551.2 | 3233.0 | 3914.1 | 5062.6 | 6210.4 | 7358.9 | 8506.7 | 9229.0 | 9750.2 | 9347.1 |
| 55° | 1936.8 | 2721.3 | 3506.4 | 4290.9 | 5526.1 | 6761.9 | 7997.0 | 9232.2 | 9951.2 | 10398.0 | 9850.4 |
| 57.5° | 2020.9 | 2886.3 | 3751.0 | 4615.8 | 5936.9 | 7258.1 | 8578.6 | 9899.8 | 10602.8 | 11096.4 | 10527.7 |
| 60° | 1999.1 | 2923.5 | 3848.6 | 4773.0 | 6118.6 | 7464.2 | 8809.7 | 10155.3 | 10990.5 | 11597.2 | 11211.4 |
| 62.5° | 1914.4 | 2831.1 | 3747.2 | 4663.9 | 5985.7 | 7306.9 | 8628.7 | 9949.9 | 10950.7 | 11772.4 | 11642.8 |
| 65° | 1742.9 | 2594.8 | 3447.4 | 4299.3 | 5561.4 | 6824.1 | 8086.2 | 9348.4 | 10583.5 | 11629.3 | 11675.5 |
| 67.5° | 1517.6 | 2236.6 | 2955.0 | 3674.0 | 4851.4 | 6028.7 | 7205.5 | 8382.8 | 9840.8 | 11060.5 | 11197.9 |
| 70° | 1278.8 | 1818.7 | 2359.2 | 2899.1 | 3935.3 | 4971.4 | 6006.9 | 7043.0 | 8558.7 | 9786.2 | 10045.5 |
| 72.5° | 1025.2 | 1372.5 | 1719.2 | 2065.9 | 2813.8 | 3561.0 | 4308.9 | 5056.2 | 6389.5 | 7342.2 | 7794.8 |
| 75° | 664.4 | 822.4 | 980.3 | 1138.2 | 1636.4 | 2133.9 | 2632.1 | 3129.6 | 4014.9 | 4716.6 | 5228.2 |
| 77.5° | 295.9 | 328.0 | 359.5 | 391.6 | 776.1 | 1160.7 | 1545.2 | 1929.8 | 2314.3 | 2738.0 | 2858.0 |
| 80° | 105.9 | 120.0 | 134.8 | 148.9 | 337.7 | 527.1 | 715.8 | 904.5 | 1090.7 | 1309.6 | 1362.9 |
| 82.5° | 44.3 | 44.3 | 43.7 | 43.0 | 110.4 | 177.8 | 245.2 | 312.6 | 361.4 | 415.4 | 425.6 |
| 85° | 18.0 | 13.5 | 8.3 | 3.2 | 14.1 | 25.7 | 36.6 | 47.5 | 76.4 | 69.3 | 128.4 |
| 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: P368437
 CATALOG NUMBER: MSA-SA4B-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: P368437

CATALOG NUMBER: MSA-SA4B-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 275° | 277.5° | 280° | 282.5° | 285° | 287.5° | 290° | 292.5° | 295° | 297.5° | 300° |
|--------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|
| 0° | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 |
| 2.5° | 1719.2 | 1717.9 | 1716.6 | 1715.3 | 1714.1 | 1690.9 | 1668.5 | 1645.4 | 1622.9 | 1651.1 | 1679.4 |
| 5° | 2087.0 | 2120.4 | 2153.8 | 2187.8 | 2221.2 | 2230.8 | 2240.5 | 2250.1 | 2259.7 | 2280.3 | 2300.8 |
| 7.5° | 2222.5 | 2279.0 | 2334.8 | 2391.3 | 2447.2 | 2499.2 | 2550.5 | 2602.5 | 2654.5 | 2641.7 | 2628.9 |
| 10° | 2175.6 | 2277.7 | 2379.8 | 2482.5 | 2584.6 | 2607.0 | 2629.5 | 2652.6 | 2675.1 | 2733.5 | 2791.9 |
| 12.5° | 2124.9 | 2247.5 | 2370.2 | 2492.8 | 2615.4 | 2683.4 | 2750.8 | 2818.9 | 2886.9 | 2946.0 | 3005.1 |
| 15° | 2365.7 | 2444.0 | 2522.3 | 2601.3 | 2679.6 | 2739.3 | 2798.3 | 2858.0 | 2917.1 | 2958.2 | 2998.6 |
| 17.5° | 2682.1 | 2720.7 | 2759.2 | 2798.3 | 2836.9 | 2883.7 | 2930.6 | 2977.5 | 3024.3 | 3048.7 | 3073.1 |
| 20° | 3016.6 | 3033.3 | 3050.0 | 3066.7 | 3083.4 | 3046.1 | 3008.9 | 2971.7 | 2934.4 | 2957.6 | 2980.0 |
| 22.5° | 3352.4 | 3358.1 | 3364.6 | 3370.3 | 3376.1 | 3289.5 | 3202.8 | 3116.1 | 3029.5 | 2992.9 | 2956.3 |
| 25° | 3869.2 | 3826.8 | 3784.4 | 3742.0 | 3699.7 | 3597.0 | 3494.2 | 3391.5 | 3288.8 | 3198.3 | 3107.8 |
| 27.5° | 4428.9 | 4285.1 | 4142.0 | 3998.2 | 3855.0 | 3752.3 | 3649.6 | 3546.9 | 3444.2 | 3308.1 | 3172.0 |
| 30° | 4993.2 | 4761.5 | 4530.4 | 4298.6 | 4067.5 | 3945.5 | 3823.6 | 3701.0 | 3579.0 | 3442.9 | 3307.4 |
| 32.5° | 5510.7 | 5232.1 | 4953.4 | 4674.2 | 4395.6 | 4190.1 | 3984.7 | 3779.3 | 3573.8 | 3478.8 | 3383.8 |
| 35° | 5939.5 | 5610.2 | 5280.8 | 4950.9 | 4621.5 | 4418.0 | 4214.5 | 4011.0 | 3807.5 | 3666.3 | 3525.7 |
| 37.5° | 6672.6 | 6302.2 | 5931.8 | 5561.4 | 5191.0 | 4913.0 | 4635.7 | 4357.7 | 4079.7 | 3985.3 | 3891.0 |
| 40° | 7348.6 | 6881.9 | 6415.2 | 5948.5 | 5481.8 | 5248.7 | 5016.4 | 4783.3 | 4550.9 | 4396.2 | 4242.1 |
| 42.5° | 7886.0 | 7394.2 | 6903.1 | 6411.4 | 5919.6 | 5689.1 | 5459.3 | 5228.8 | 4998.4 | 4895.0 | 4792.3 |
| 45° | 8002.2 | 7538.6 | 7075.8 | 6612.3 | 6148.8 | 6014.6 | 5881.1 | 5746.9 | 5613.4 | 5542.1 | 5471.5 |
| 47.5° | 8231.3 | 7728.7 | 7226.7 | 6724.0 | 6221.3 | 6161.0 | 6100.6 | 6039.7 | 5979.3 | 6013.3 | 6047.4 |
| 50° | 8359.7 | 7846.8 | 7333.9 | 6820.9 | 6308.0 | 6325.3 | 6342.0 | 6359.4 | 6376.7 | 6618.1 | 6858.8 |
| 52.5° | 8608.8 | 8090.7 | 7572.7 | 7054.6 | 6536.5 | 6645.7 | 6754.2 | 6863.3 | 6971.8 | 7304.3 | 7636.2 |
| 55° | 9053.7 | 8544.6 | 8035.5 | 7525.8 | 7016.7 | 7160.5 | 7304.3 | 7448.8 | 7592.6 | 7945.7 | 8298.1 |
| 57.5° | 9713.0 | 9207.8 | 8703.2 | 8198.0 | 7693.4 | 7836.5 | 7979.7 | 8122.8 | 8266.0 | 8585.1 | 8903.5 |
| 60° | 10543.1 | 10024.4 | 9506.3 | 8987.6 | 8469.5 | 8523.4 | 8576.7 | 8630.6 | 8684.6 | 9027.4 | 9369.5 |
| 62.5° | 11189.5 | 10712.5 | 10236.2 | 9759.2 | 9282.9 | 9223.2 | 9164.1 | 9104.4 | 9045.4 | 9306.0 | 9566.0 |
| 65° | 11339.8 | 11004.0 | 10668.9 | 10333.1 | 9997.4 | 9813.8 | 9630.8 | 9447.2 | 9263.6 | 9368.9 | 9474.2 |
| 67.5° | 10909.6 | 10683.0 | 10457.0 | 10230.4 | 10003.8 | 9620.6 | 9237.3 | 8853.4 | 8470.1 | 8414.3 | 8358.4 |
| 70° | 9911.4 | 9787.5 | 9664.2 | 9540.3 | 9417.1 | 8826.4 | 8236.5 | 7645.9 | 7055.9 | 6914.0 | 6772.1 |
| 72.5° | 7821.1 | 7898.2 | 7975.2 | 8052.9 | 8129.9 | 7497.6 | 6865.9 | 6233.5 | 5601.2 | 5421.4 | 5242.3 |
| 75° | 5515.2 | 5776.4 | 6037.7 | 6299.0 | 6560.3 | 5983.8 | 5408.0 | 4831.5 | 4255.0 | 4082.3 | 3910.2 |
| 77.5° | 2990.3 | 3480.1 | 3969.9 | 4459.8 | 4949.6 | 4473.9 | 3998.8 | 3523.1 | 3047.4 | 2927.4 | 2808.0 |
| 80° | 1417.5 | 1699.9 | 1981.8 | 2264.2 | 2546.7 | 2439.5 | 2332.3 | 2224.4 | 2117.2 | 2143.5 | 2169.9 |
| 82.5° | 434.6 | 638.8 | 842.9 | 1047.1 | 1251.2 | 1267.2 | 1282.7 | 1298.7 | 1314.8 | 1354.6 | 1393.7 |
| 85° | 145.7 | 199.7 | 253.6 | 307.5 | 361.4 | 456.4 | 551.5 | 647.1 | 742.1 | 680.5 | 619.5 |
| 87.5° | 0.0 | 1.9 | 3.2 | 5.1 | 6.4 | 19.9 | 33.4 | 46.9 | 60.3 | 52.0 | 44.3 |
| 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: P368437
 CATALOG NUMBER: MSA-SA4B-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: P368437

CATALOG NUMBER: MSA-SA4B-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° | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 |
| 2.5° | 1708.3 | 1736.5 | 1737.2 | 1738.5 | 1739.1 | 1739.7 | 1742.9 | 1746.2 | 1750.0 | 1753.2 | 1732.0 |
| 5° | 2322.0 | 2342.5 | 2304.7 | 2266.8 | 2228.3 | 2190.4 | 2224.4 | 2258.4 | 2292.5 | 2326.5 | 2311.7 |
| 7.5° | 2615.4 | 2602.5 | 2598.1 | 2594.2 | 2589.7 | 2585.9 | 2598.7 | 2611.5 | 2624.4 | 2637.2 | 2635.9 |
| 10° | 2850.3 | 2908.8 | 2922.9 | 2937.0 | 2951.8 | 2965.9 | 2936.4 | 2906.8 | 2877.3 | 2847.8 | 2835.6 |
| 12.5° | 3064.1 | 3123.2 | 3170.0 | 3216.9 | 3264.4 | 3311.3 | 3268.9 | 3227.2 | 3184.8 | 3143.1 | 3103.3 |
| 15° | 3039.7 | 3080.2 | 3118.7 | 3157.2 | 3195.7 | 3234.2 | 3220.1 | 3206.6 | 3192.5 | 3178.4 | 3172.0 |
| 17.5° | 3098.1 | 3122.5 | 3113.6 | 3104.6 | 3094.9 | 3085.9 | 3081.5 | 3077.6 | 3073.1 | 3068.6 | 3053.2 |
| 20° | 3003.1 | 3026.2 | 3020.5 | 3015.3 | 3009.6 | 3003.8 | 2999.9 | 2996.1 | 2992.2 | 2988.4 | 2976.2 |
| 22.5° | 2919.7 | 2883.1 | 2873.5 | 2864.5 | 2854.8 | 2845.9 | 2847.1 | 2848.4 | 2849.1 | 2850.3 | 2905.6 |
| 25° | 3017.3 | 2926.7 | 2891.4 | 2856.1 | 2820.2 | 2784.9 | 2800.9 | 2816.3 | 2832.4 | 2848.4 | 2928.0 |
| 27.5° | 3035.2 | 2899.1 | 2842.6 | 2786.1 | 2729.7 | 2673.2 | 2730.9 | 2788.7 | 2846.5 | 2904.3 | 3033.3 |
| 30° | 3171.3 | 3035.9 | 2956.9 | 2878.6 | 2799.6 | 2721.3 | 2795.1 | 2869.0 | 2942.8 | 3016.6 | 3156.6 |
| 32.5° | 3288.2 | 3193.2 | 3136.7 | 3080.2 | 3023.7 | 2967.2 | 2970.4 | 2973.0 | 2976.2 | 2979.4 | 3176.5 |
| 35° | 3384.5 | 3243.9 | 3192.5 | 3141.8 | 3090.4 | 3039.7 | 3116.1 | 3192.5 | 3268.9 | 3345.3 | 3522.5 |
| 37.5° | 3796.6 | 3702.2 | 3607.9 | 3514.1 | 3419.8 | 3326.0 | 3387.0 | 3448.0 | 3509.6 | 3570.6 | 3766.4 |
| 40° | 4087.4 | 3933.3 | 3909.0 | 3885.2 | 3860.8 | 3837.1 | 3868.5 | 3899.3 | 3930.8 | 3962.2 | 4133.6 |
| 42.5° | 4688.9 | 4585.6 | 4519.5 | 4454.0 | 4387.9 | 4322.4 | 4347.4 | 4372.5 | 4398.1 | 4423.2 | 4585.6 |
| 45° | 5400.2 | 5329.0 | 5285.3 | 5241.7 | 5197.4 | 5153.7 | 5115.9 | 5078.6 | 5040.7 | 5003.5 | 5168.5 |
| 47.5° | 6081.4 | 6115.4 | 6211.7 | 6307.4 | 6403.6 | 6499.3 | 6421.0 | 6342.7 | 6263.7 | 6185.4 | 6186.0 |
| 50° | 7100.2 | 7340.9 | 7389.7 | 7437.9 | 7486.6 | 7534.8 | 7367.9 | 7201.0 | 7033.4 | 6866.5 | 6846.6 |
| 52.5° | 7968.8 | 8300.7 | 8318.0 | 8335.3 | 8353.3 | 8370.6 | 8303.2 | 8235.8 | 8167.8 | 8100.4 | 7921.3 |
| 55° | 8651.2 | 9003.6 | 9027.4 | 9050.5 | 9074.2 | 9097.4 | 9038.3 | 8979.9 | 8920.8 | 8861.7 | 8680.7 |
| 57.5° | 9222.5 | 9541.0 | 9555.1 | 9568.6 | 9582.7 | 9596.8 | 9601.3 | 9605.8 | 9610.9 | 9615.4 | 9370.8 |
| 60° | 9712.4 | 10055.2 | 10026.9 | 9999.3 | 9971.1 | 9943.5 | 9901.1 | 9858.7 | 9816.4 | 9774.0 | 9616.1 |
| 62.5° | 9826.6 | 10087.3 | 10043.6 | 10000.6 | 9956.9 | 9913.9 | 9878.0 | 9842.7 | 9806.7 | 9770.8 | 9670.0 |
| 65° | 9579.5 | 9684.8 | 9639.8 | 9594.9 | 9549.3 | 9504.4 | 9481.2 | 9458.8 | 9435.7 | 9412.6 | 9399.7 |
| 67.5° | 8302.0 | 8246.1 | 8299.4 | 8352.7 | 8406.0 | 8459.2 | 8531.8 | 8604.3 | 8677.5 | 8750.0 | 8707.7 |
| 70° | 6629.6 | 6487.7 | 6546.8 | 6605.2 | 6664.3 | 6722.7 | 6832.5 | 6942.3 | 7052.7 | 7162.5 | 7132.9 |
| 72.5° | 5062.6 | 4882.8 | 4891.2 | 4899.5 | 4908.5 | 4916.8 | 4913.6 | 4911.1 | 4907.9 | 4904.6 | 4956.0 |
| 75° | 3737.5 | 3564.9 | 3483.3 | 3401.8 | 3320.3 | 3238.7 | 3218.8 | 3198.9 | 3179.0 | 3159.1 | 3254.8 |
| 77.5° | 2687.9 | 2568.5 | 2512.7 | 2457.5 | 2401.6 | 2346.4 | 2374.6 | 2402.9 | 2431.8 | 2460.0 | 2493.4 |
| 80° | 2196.8 | 2223.1 | 2180.1 | 2137.8 | 2094.7 | 2051.7 | 2083.8 | 2115.3 | 2147.4 | 2179.5 | 2080.0 |
| 82.5° | 1433.5 | 1472.7 | 1340.4 | 1208.2 | 1075.9 | 943.7 | 1023.9 | 1104.2 | 1185.1 | 1265.3 | 1224.2 |
| 85° | 557.9 | 496.9 | 423.7 | 351.2 | 278.0 | 204.8 | 266.4 | 328.0 | 389.7 | 451.3 | 492.4 |
| 87.5° | 36.0 | 28.2 | 22.5 | 16.7 | 10.3 | 4.5 | 9.6 | 14.8 | 20.5 | 25.7 | 43.0 |
| 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: P368437
 CATALOG NUMBER: MSA-SA4B-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: P368437

CATALOG NUMBER: MSA-SA4B-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 330° | 332.5° | 335° | 337.5° | 340° | 342.5° | 345° | 347.5° | 350° | 352.5° | 355° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| 0° | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 | 1357.1 |
| 2.5° | 1711.5 | 1690.3 | 1669.8 | 1629.3 | 1588.9 | 1548.4 | 1508.0 | 1564.5 | 1621.0 | 1677.5 | 1734.0 |
| 5° | 2297.6 | 2282.8 | 2268.7 | 2272.6 | 2276.4 | 2280.9 | 2284.8 | 2293.1 | 2301.5 | 2309.2 | 2317.5 |
| 7.5° | 2635.3 | 2634.0 | 2632.7 | 2603.2 | 2573.7 | 2543.5 | 2514.0 | 2528.7 | 2543.5 | 2558.2 | 2573.0 |
| 10° | 2824.0 | 2811.8 | 2799.6 | 2734.8 | 2670.0 | 2604.5 | 2539.6 | 2511.4 | 2482.5 | 2454.2 | 2426.0 |
| 12.5° | 3063.5 | 3023.0 | 2983.2 | 2913.9 | 2845.2 | 2775.9 | 2706.5 | 2680.9 | 2654.5 | 2628.9 | 2602.5 |
| 15° | 3166.2 | 3159.8 | 3154.0 | 3104.6 | 3054.5 | 3005.1 | 2955.0 | 2867.0 | 2778.4 | 2690.5 | 2602.5 |
| 17.5° | 3037.8 | 3021.8 | 3006.3 | 3084.7 | 3162.3 | 3240.7 | 3319.0 | 3227.8 | 3136.7 | 3045.5 | 2954.3 |
| 20° | 2964.0 | 2951.8 | 2939.6 | 3085.3 | 3230.4 | 3376.1 | 3521.2 | 3480.8 | 3439.7 | 3399.2 | 3358.8 |
| 22.5° | 2960.8 | 3016.6 | 3071.8 | 3199.6 | 3326.7 | 3454.4 | 3581.5 | 3651.5 | 3722.1 | 3792.1 | 3862.1 |
| 25° | 3007.6 | 3087.9 | 3167.5 | 3379.3 | 3591.2 | 3803.7 | 4015.5 | 4095.8 | 4175.4 | 4255.6 | 4335.2 |
| 27.5° | 3161.7 | 3290.7 | 3419.1 | 3604.0 | 3788.9 | 3974.4 | 4159.3 | 4334.6 | 4510.5 | 4685.7 | 4861.0 |
| 30° | 3295.9 | 3435.8 | 3575.8 | 3796.0 | 4015.5 | 4235.7 | 4455.3 | 4674.8 | 4894.4 | 5113.9 | 5333.5 |
| 32.5° | 3373.6 | 3571.3 | 3768.4 | 4036.1 | 4303.1 | 4570.8 | 4838.5 | 5079.3 | 5320.0 | 5560.1 | 5800.8 |
| 35° | 3699.7 | 3877.5 | 4054.7 | 4350.6 | 4646.6 | 4943.2 | 5239.1 | 5537.0 | 5834.9 | 6132.1 | 6430.0 |
| 37.5° | 3962.2 | 4158.7 | 4354.5 | 4678.0 | 5000.9 | 5324.5 | 5648.0 | 6059.6 | 6471.7 | 6883.2 | 7294.7 |
| 40° | 4305.0 | 4476.5 | 4647.9 | 4950.9 | 5253.2 | 5556.2 | 5859.3 | 6381.2 | 6903.1 | 7424.4 | 7946.3 |
| 42.5° | 4747.4 | 4909.8 | 5072.2 | 5396.4 | 5720.6 | 6044.8 | 6369.0 | 6946.8 | 7524.5 | 8101.7 | 8679.4 |
| 45° | 5333.5 | 5499.1 | 5664.1 | 5922.2 | 6180.2 | 6438.3 | 6696.4 | 7310.7 | 7924.5 | 8538.8 | 9152.6 |
| 47.5° | 6186.7 | 6187.3 | 6187.9 | 6374.1 | 6560.3 | 6747.1 | 6933.3 | 7552.1 | 8170.3 | 8789.2 | 9407.4 |
| 50° | 6826.7 | 6806.2 | 6786.3 | 6882.6 | 6978.2 | 7074.5 | 7170.8 | 7740.2 | 8310.3 | 8879.7 | 9449.2 |
| 52.5° | 7742.8 | 7563.7 | 7385.2 | 7442.4 | 7498.8 | 7556.0 | 7612.5 | 8094.6 | 8577.4 | 9059.5 | 9541.6 |
| 55° | 8500.3 | 8319.3 | 8138.2 | 8117.1 | 8095.9 | 8074.7 | 8053.5 | 8497.1 | 8940.7 | 9384.3 | 9827.9 |
| 57.5° | 9126.9 | 8882.3 | 8638.3 | 8589.6 | 8541.4 | 8492.6 | 8443.8 | 8911.8 | 9379.2 | 9847.2 | 10314.5 |
| 60° | 9458.8 | 9300.9 | 9142.9 | 9111.5 | 9079.4 | 9047.9 | 9015.8 | 9399.7 | 9783.6 | 10167.5 | 10551.4 |
| 62.5° | 9569.8 | 9469.1 | 9368.9 | 9428.0 | 9487.0 | 9546.7 | 9605.8 | 9774.6 | 9942.8 | 10111.7 | 10279.9 |
| 65° | 9387.5 | 9374.7 | 9361.8 | 9483.2 | 9603.9 | 9725.2 | 9846.5 | 9804.8 | 9762.4 | 9720.7 | 9679.0 |
| 67.5° | 8665.9 | 8623.6 | 8581.8 | 8848.3 | 9114.0 | 9380.5 | 9646.9 | 9444.7 | 9241.8 | 9039.6 | 8837.4 |
| 70° | 7103.4 | 7073.2 | 7043.7 | 7427.6 | 7811.5 | 8196.0 | 8579.9 | 8334.7 | 8089.5 | 7844.2 | 7599.0 |
| 72.5° | 5006.7 | 5058.1 | 5109.4 | 5562.0 | 6014.0 | 6466.6 | 6918.5 | 6671.3 | 6424.2 | 6177.0 | 5929.9 |
| 75° | 3349.8 | 3445.5 | 3541.1 | 4007.2 | 4473.2 | 4940.0 | 5406.0 | 5115.9 | 4825.7 | 4535.5 | 4245.3 |
| 77.5° | 2526.8 | 2560.2 | 2593.6 | 2888.2 | 3182.9 | 3478.2 | 3772.9 | 3533.4 | 3293.3 | 3053.8 | 2813.8 |
| 80° | 1980.5 | 1880.3 | 1780.8 | 1877.8 | 1974.7 | 2071.6 | 2168.6 | 2025.4 | 1882.3 | 1739.7 | 1596.6 |
| 82.5° | 1183.2 | 1142.1 | 1101.0 | 1153.6 | 1205.6 | 1258.3 | 1310.9 | 1249.3 | 1187.0 | 1125.4 | 1063.1 |
| 85° | 532.8 | 573.9 | 614.4 | 667.6 | 720.3 | 773.6 | 826.9 | 740.8 | 654.8 | 568.8 | 482.8 |
| 87.5° | 59.7 | 77.0 | 94.4 | 116.8 | 139.3 | 161.8 | 184.2 | 143.8 | 102.7 | 62.3 | 21.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 92.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 95° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 97.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 100° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 102.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 105° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 107.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 110° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P368437
 CATALOG NUMBER: MSA-SA4B-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: P368437
 CATALOG NUMBER: MSA-SA4B-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 357.5° | 360° |
|--------|---------|---------|
| 0° | 1357.1 | 1357.1 |
| 2.5° | 1766.7 | 1799.4 |
| 5° | 2316.9 | 2315.6 |
| 7.5° | 2534.5 | 2495.3 |
| 10° | 2390.1 | 2354.1 |
| 12.5° | 2510.7 | 2418.9 |
| 15° | 2533.2 | 2463.9 |
| 17.5° | 2841.4 | 2727.7 |
| 20° | 3213.1 | 3066.7 |
| 22.5° | 3661.8 | 3460.9 |
| 25° | 4096.4 | 3857.6 |
| 27.5° | 4717.8 | 4574.0 |
| 30° | 5188.4 | 5042.7 |
| 32.5° | 5702.0 | 5603.1 |
| 35° | 6331.7 | 6232.9 |
| 37.5° | 7320.4 | 7345.4 |
| 40° | 7961.7 | 7977.1 |
| 42.5° | 8739.1 | 8798.8 |
| 45° | 9219.3 | 9286.1 |
| 47.5° | 9500.5 | 9593.6 |
| 50° | 9599.4 | 9749.6 |
| 52.5° | 9727.1 | 9912.0 |
| 55° | 10034.0 | 10240.1 |
| 57.5° | 10478.9 | 10643.2 |
| 60° | 10559.1 | 10566.8 |
| 62.5° | 10161.1 | 10042.3 |
| 65° | 9552.5 | 9426.0 |
| 67.5° | 8761.0 | 8683.9 |
| 70° | 7497.6 | 7396.1 |
| 72.5° | 5741.1 | 5552.4 |
| 75° | 4011.7 | 3778.0 |
| 77.5° | 2691.1 | 2568.5 |
| 80° | 1600.4 | 1603.6 |
| 82.5° | 1092.6 | 1121.5 |
| 85° | 477.0 | 470.6 |
| 87.5° | 15.4 | 8.3 |
| 90° | 0.0 | 0.0 |
| 92.5° | 0.0 | 0.0 |
| 95° | 0.0 | 0.0 |
| 97.5° | 0.0 | 0.0 |
| 100° | 0.0 | 0.0 |
| 102.5° | 0.0 | 0.0 |
| 105° | 0.0 | 0.0 |
| 107.5° | 0.0 | 0.0 |
| 110° | 0.0 | 0.0 |

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CANDELA DISTRIBUTION (continued):

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

(END OF REPORT)