

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: P596262

Luminaire Tested: **MSA-SA2C-722-U-SL3**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596262
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-18)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2C-722-U-SL3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8898 lumens
Efficiency: N/A
Efficacy: 78.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

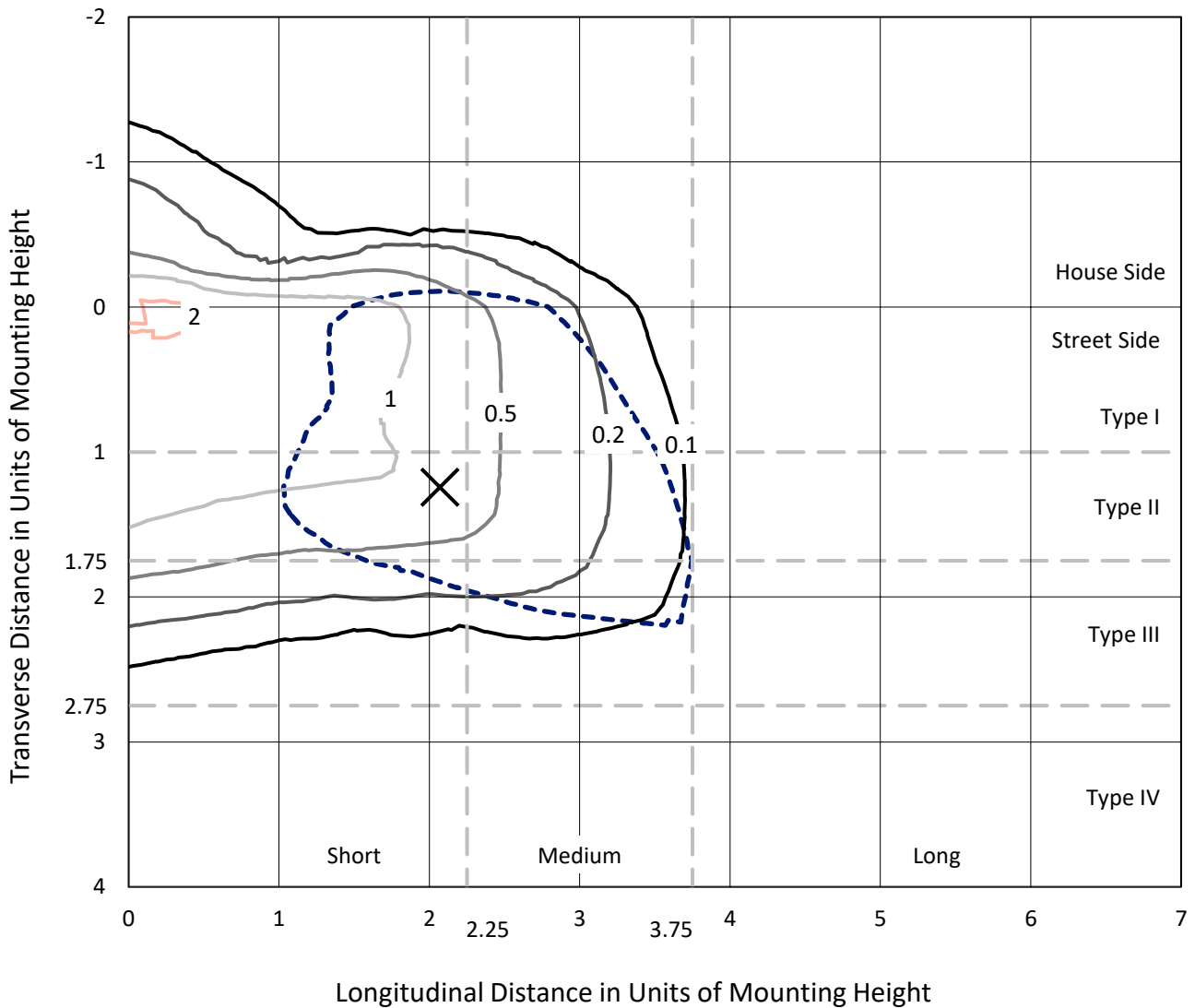
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596262
 CATALOG NUMBER: MSA-SA2C-722-U-SL3

Iso-Footcandle Lines of Horizontal Illumination

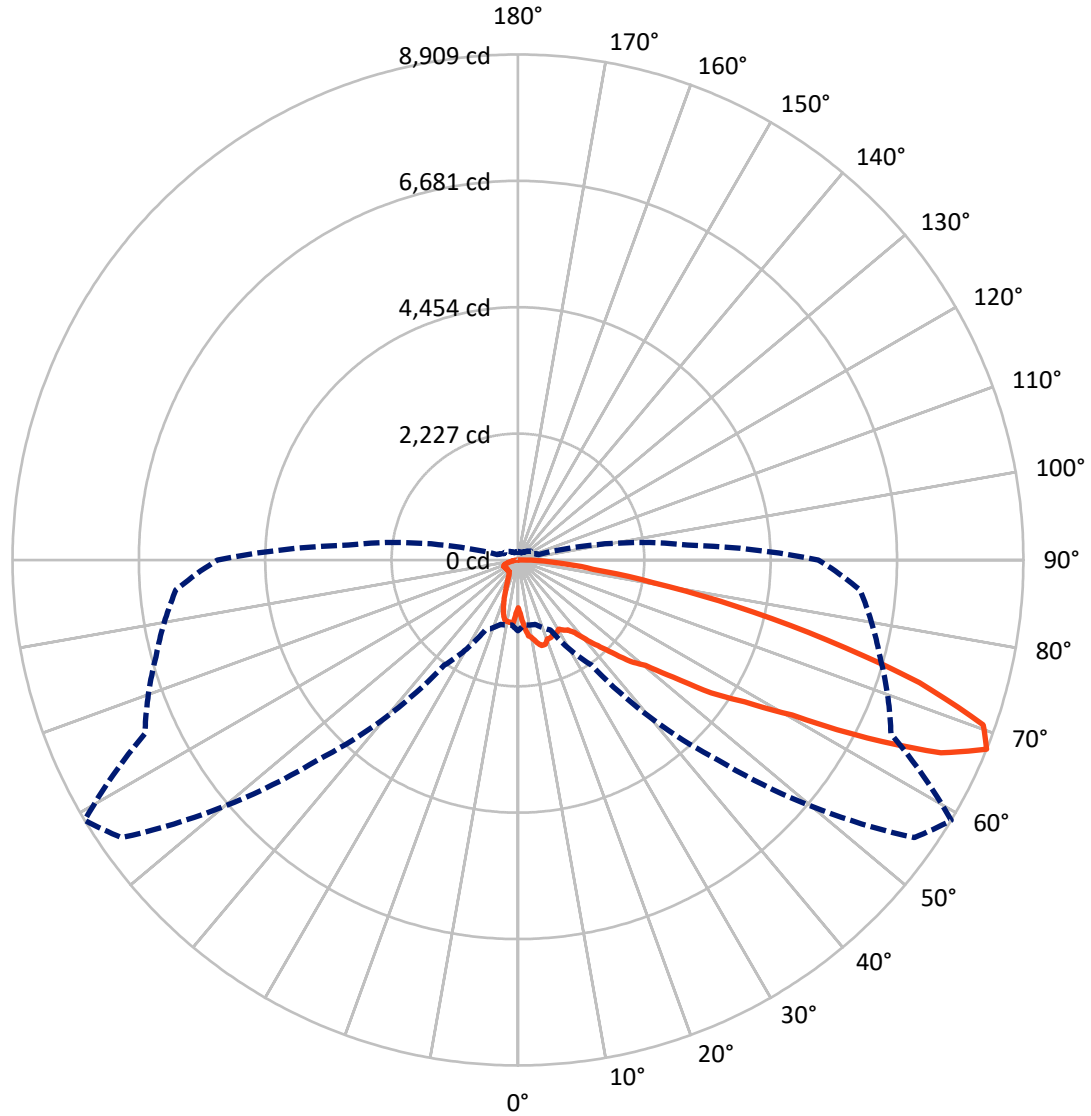
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc
 Type III - Short - N/A

REPORT NUMBER: P596262
CATALOG NUMBER: MSA-SA2C-722-U-SL3

Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P596262

CATALOG NUMBER: MSA-SA2C-722-U-SL3

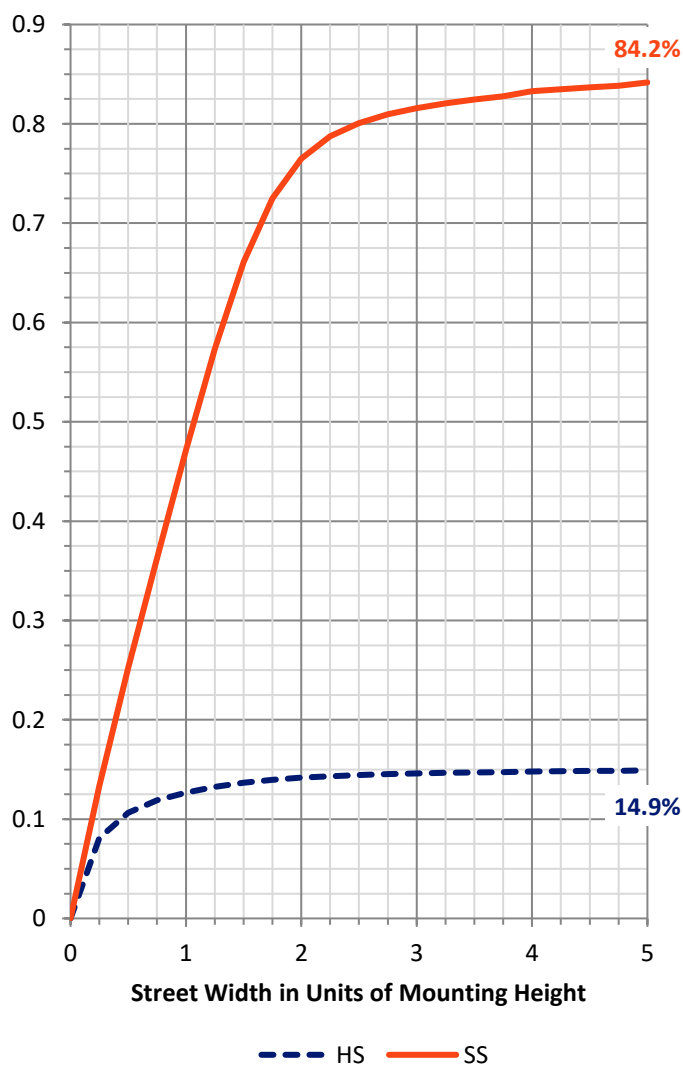
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1339.3 | 0.0 | 1339.3 |
| | % Fixture | 15.1 | 0.0 | 15.1 |
| Street Side | Lumens | 7558.7 | 0.0 | 7558.7 |
| | % Fixture | 84.9 | 0.0 | 84.9 |
| Total | Lumens | 8898.0 | 0.0 | 8898.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 110.0 | 1.2 |
| 10°-20° | 325.4 | 3.7 |
| 20°-30° | 464.7 | 5.2 |
| 30°-40° | 684.8 | 7.7 |
| 40°-50° | 1157.0 | 13.0 |
| 50°-60° | 2013.4 | 22.6 |
| 60°-70° | 2565.7 | 28.8 |
| 70°-80° | 1358.5 | 15.3 |
| 80°-90° | 218.5 | 2.5 |
| 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° | 8898.0 | 100.0 |
| 0°-180° | 8898.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P596262

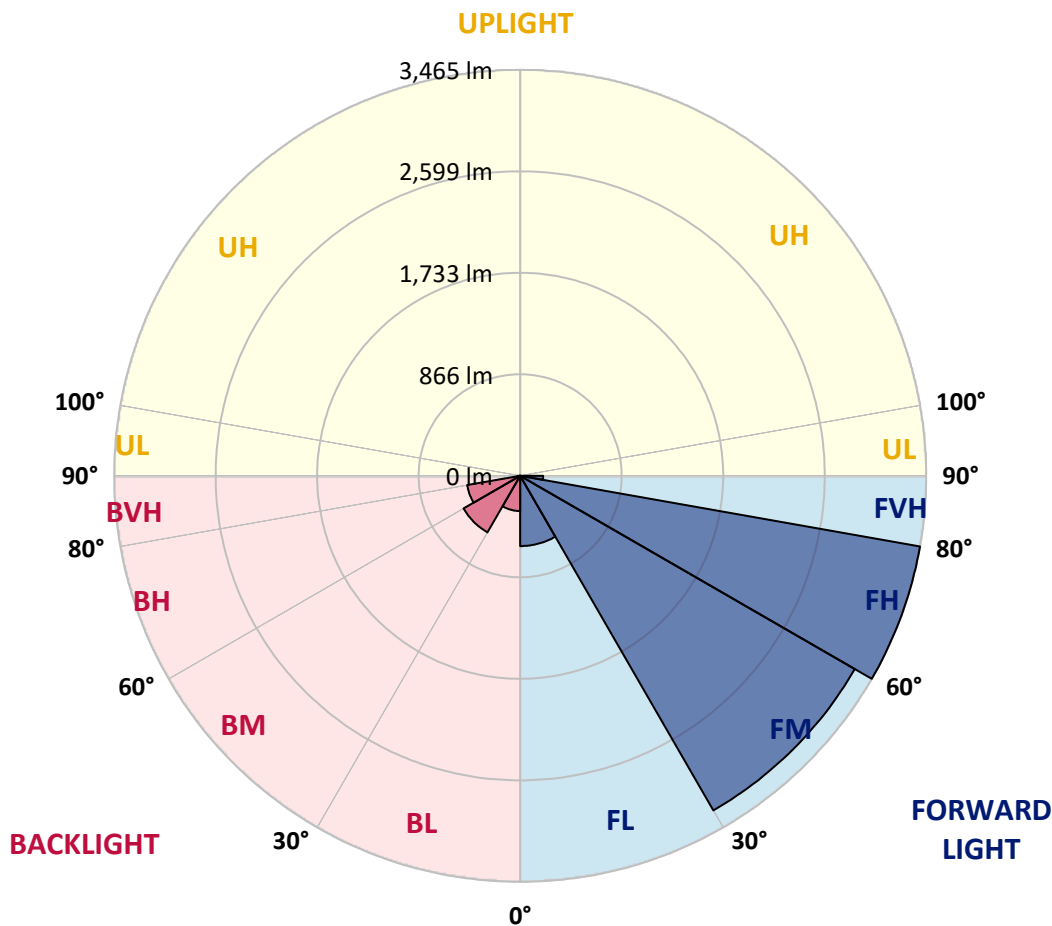
CATALOG NUMBER: MSA-SA2C-722-U-SL3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 599.7 | 6.7 | | | |
| FM (30°-60°) | 3297.5 | 37.1 | | | |
| FH (60°-80°) | 3465.2 | 38.9 | | | G2/5000 |
| FVH (80°-90°) | 196.3 | 2.2 | | | G2/225 |
| BL (0°-30°) | 300.4 | 3.4 | B1/500 | | |
| BM (30°-60°) | 557.7 | 6.3 | B1/1000 | | |
| BH (60°-80°) | 459.0 | 5.2 | B1/500 | | G1/500 |
| BVH (80°-90°) | 22.3 | 0.3 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type III Short





REPORT NUMBER: P596262
 CATALOG NUMBER: MSA-SA2C-722-U-SL3

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 842.0 | 842.0 | 842.0 | 842.0 | 842.0 | 842.0 | 842.0 | 842.0 | 842.0 | 842.0 | 842.0 |
| 2.5° | 1051.3 | 1002.2 | 950.2 | 964.9 | 994.7 | 1008.3 | 993.6 | 979.2 | 960.8 | 938.9 | 1013.5 |
| 5° | 1274.9 | 1202.1 | 1191.5 | 1191.1 | 1180.6 | 1138.4 | 1192.7 | 1188.9 | 1210.8 | 1233.4 | 1291.4 |
| 7.5° | 1338.6 | 1311.4 | 1282.0 | 1296.0 | 1242.8 | 1240.5 | 1325.0 | 1349.1 | 1391.4 | 1377.4 | 1455.5 |
| 10° | 1305.8 | 1275.2 | 1290.7 | 1285.0 | 1289.9 | 1345.7 | 1397.4 | 1398.9 | 1444.2 | 1488.7 | 1438.5 |
| 12.5° | 1248.1 | 1250.3 | 1311.8 | 1309.5 | 1388.7 | 1492.4 | 1507.9 | 1495.8 | 1569.7 | 1539.6 | 1582.5 |
| 15° | 1289.2 | 1316.7 | 1301.3 | 1314.4 | 1345.7 | 1477.7 | 1520.7 | 1564.4 | 1634.6 | 1661.7 | 1618.7 |
| 17.5° | 1354.8 | 1369.5 | 1300.1 | 1293.0 | 1357.4 | 1420.0 | 1526.7 | 1564.1 | 1575.0 | 1768.4 | 1707.7 |
| 20° | 1326.9 | 1356.7 | 1288.8 | 1201.7 | 1308.8 | 1391.7 | 1496.9 | 1485.6 | 1538.8 | 1776.7 | 1726.2 |
| 22.5° | 1406.1 | 1356.7 | 1270.3 | 1208.5 | 1246.2 | 1322.4 | 1411.7 | 1486.0 | 1549.0 | 1728.1 | 1753.0 |
| 25° | 1421.2 | 1397.8 | 1317.1 | 1255.6 | 1242.8 | 1270.0 | 1397.4 | 1446.0 | 1552.4 | 1794.5 | 1738.6 |
| 27.5° | 1513.2 | 1478.1 | 1313.7 | 1315.6 | 1251.9 | 1204.0 | 1352.2 | 1454.3 | 1590.8 | 1753.4 | 1773.7 |
| 30° | 1627.4 | 1600.6 | 1394.4 | 1401.9 | 1313.7 | 1225.5 | 1383.1 | 1414.0 | 1613.1 | 1817.5 | 1817.8 |
| 32.5° | 1713.0 | 1760.1 | 1553.1 | 1450.6 | 1419.3 | 1353.3 | 1335.6 | 1474.7 | 1587.1 | 1933.6 | 1893.2 |
| 35° | 1867.2 | 1903.8 | 1675.3 | 1593.1 | 1487.1 | 1412.9 | 1464.5 | 1514.7 | 1695.3 | 2086.3 | 2005.2 |
| 37.5° | 2152.7 | 2110.4 | 1902.3 | 1773.0 | 1733.4 | 1626.3 | 1654.9 | 1619.9 | 1812.9 | 2257.9 | 2224.7 |
| 40° | 2317.8 | 2281.2 | 2062.2 | 1990.5 | 1833.7 | 1847.2 | 1811.4 | 1837.1 | 1970.2 | 2440.4 | 2429.8 |
| 42.5° | 2480.7 | 2431.7 | 2246.6 | 2196.8 | 2040.3 | 1973.9 | 1980.3 | 2063.3 | 2212.6 | 2735.2 | 2700.2 |
| 45° | 2641.7 | 2516.2 | 2435.1 | 2448.3 | 2372.9 | 2236.7 | 2246.2 | 2324.2 | 2477.3 | 3072.3 | 2991.6 |
| 47.5° | 2765.0 | 2661.3 | 2598.0 | 2581.8 | 2544.4 | 2726.6 | 2645.1 | 2676.8 | 2744.3 | 3372.5 | 3341.9 |
| 50° | 2998.4 | 2877.4 | 2794.8 | 2771.4 | 2898.1 | 3151.5 | 2985.6 | 2917.3 | 3061.0 | 3760.5 | 3744.6 |
| 52.5° | 3372.1 | 3221.3 | 3083.6 | 3082.1 | 3265.4 | 3429.8 | 3546.7 | 3429.0 | 3481.8 | 4157.9 | 4203.1 |
| 55° | 3698.3 | 3523.7 | 3400.0 | 3468.2 | 3729.2 | 3829.8 | 4226.9 | 4134.9 | 4090.4 | 4559.1 | 4688.4 |
| 57.5° | 3820.0 | 3616.1 | 3535.4 | 3636.0 | 4020.6 | 4538.0 | 4957.6 | 4715.6 | 4672.2 | 5013.1 | 5284.2 |
| 60° | 3552.7 | 3337.0 | 3341.9 | 3531.6 | 4197.9 | 5057.9 | 5756.6 | 5551.1 | 5297.0 | 5578.3 | 5843.0 |
| 62.5° | 2791.0 | 2596.1 | 2723.2 | 3011.6 | 4049.3 | 5563.2 | 6827.5 | 6914.2 | 6010.8 | 6047.0 | 6152.9 |
| 65° | 1897.0 | 1762.0 | 1876.7 | 2159.1 | 3284.2 | 5838.8 | 7847.5 | 8195.1 | 6660.8 | 6353.9 | 6286.8 |
| 67.5° | 1248.5 | 1153.1 | 1175.3 | 1363.1 | 2260.9 | 4977.6 | 8529.6 | 8908.5 | 7255.1 | 6605.8 | 6050.8 |
| 70° | 966.8 | 889.9 | 880.1 | 978.5 | 1340.8 | 3458.1 | 8125.4 | 8701.5 | 7617.1 | 6369.8 | 5274.0 |
| 72.5° | 758.7 | 700.2 | 705.5 | 800.1 | 1038.4 | 1918.5 | 6287.6 | 7399.5 | 7071.8 | 5493.5 | 4051.9 |
| 75° | 591.6 | 543.7 | 570.5 | 678.7 | 960.4 | 1192.3 | 4338.1 | 5616.0 | 5467.4 | 4067.8 | 2311.0 |
| 77.5° | 429.5 | 398.6 | 436.6 | 578.0 | 902.7 | 1023.0 | 2700.5 | 3918.1 | 3502.6 | 2088.6 | 793.0 |
| 80° | 281.7 | 264.3 | 295.6 | 471.3 | 818.6 | 984.5 | 1668.9 | 2400.8 | 1730.7 | 586.7 | 300.1 |
| 82.5° | 165.9 | 158.4 | 184.4 | 319.0 | 658.0 | 922.7 | 1113.1 | 1334.1 | 708.1 | 248.1 | 159.5 |
| 85° | 87.1 | 81.4 | 109.3 | 183.3 | 453.6 | 842.4 | 876.3 | 798.6 | 342.0 | 107.8 | 76.2 |
| 87.5° | 29.0 | 28.3 | 46.4 | 70.9 | 171.6 | 447.2 | 467.6 | 379.3 | 141.0 | 31.3 | 16.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P596262
 CATALOG NUMBER: MSA-SA2C-722-U-SL3

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 842.0 | 842.0 | 842.0 | 842.0 | 842.0 | 842.0 | 842.0 | 842.0 | 842.0 | 842.0 | 842.0 |
| 2.5° | 1023.7 | 1008.6 | 921.9 | 934.0 | 945.3 | 939.6 | 936.3 | 897.0 | 893.3 | 949.1 | 944.5 |
| 5° | 1289.9 | 1227.3 | 1153.4 | 1150.0 | 1101.4 | 1051.6 | 1061.4 | 1045.6 | 1050.1 | 1073.1 | 1075.4 |
| 7.5° | 1430.6 | 1352.5 | 1282.0 | 1167.4 | 1070.1 | 991.3 | 1003.7 | 1000.0 | 989.8 | 1041.8 | 1055.8 |
| 10° | 1427.9 | 1358.6 | 1279.0 | 1140.2 | 1074.6 | 1010.5 | 933.6 | 860.8 | 839.3 | 813.7 | 816.0 |
| 12.5° | 1522.2 | 1460.7 | 1287.3 | 1145.9 | 1056.9 | 946.4 | 802.4 | 722.8 | 646.7 | 645.2 | 625.9 |
| 15° | 1551.6 | 1506.4 | 1305.0 | 1113.5 | 932.9 | 774.5 | 625.6 | 539.2 | 484.2 | 473.2 | 457.0 |
| 17.5° | 1625.9 | 1555.0 | 1251.1 | 1008.6 | 788.8 | 605.6 | 470.2 | 409.9 | 405.3 | 412.9 | 404.6 |
| 20° | 1630.8 | 1515.8 | 1153.8 | 853.7 | 633.8 | 458.9 | 383.5 | 353.3 | 369.5 | 388.0 | 387.2 |
| 22.5° | 1626.7 | 1466.4 | 1069.7 | 721.7 | 476.2 | 368.8 | 336.0 | 329.2 | 344.3 | 371.8 | 375.2 |
| 25° | 1584.4 | 1450.2 | 964.5 | 592.7 | 386.5 | 316.0 | 306.9 | 311.1 | 329.9 | 362.4 | 362.4 |
| 27.5° | 1628.5 | 1384.2 | 832.6 | 482.3 | 325.0 | 281.3 | 287.7 | 298.3 | 312.2 | 349.2 | 355.9 |
| 30° | 1614.2 | 1406.1 | 726.2 | 388.4 | 286.6 | 257.2 | 271.5 | 282.0 | 297.9 | 336.3 | 339.7 |
| 32.5° | 1652.7 | 1347.6 | 636.9 | 326.5 | 261.3 | 247.7 | 251.1 | 265.5 | 286.2 | 316.4 | 322.4 |
| 35° | 1711.5 | 1369.1 | 534.3 | 293.7 | 248.9 | 236.8 | 243.2 | 254.5 | 275.3 | 304.7 | 309.6 |
| 37.5° | 1899.3 | 1368.0 | 463.4 | 275.6 | 246.6 | 234.5 | 237.6 | 245.5 | 269.6 | 296.4 | 307.7 |
| 40° | 2019.9 | 1446.4 | 398.9 | 271.5 | 244.0 | 233.4 | 230.8 | 239.4 | 258.7 | 290.3 | 298.3 |
| 42.5° | 2246.6 | 1494.3 | 371.0 | 270.0 | 243.6 | 227.0 | 224.4 | 234.5 | 253.4 | 282.8 | 294.9 |
| 45° | 2486.0 | 1562.6 | 348.8 | 269.2 | 242.5 | 225.9 | 217.9 | 230.8 | 246.6 | 274.9 | 288.8 |
| 47.5° | 2767.7 | 1707.0 | 336.3 | 266.6 | 240.2 | 227.4 | 215.7 | 222.1 | 239.8 | 268.1 | 282.0 |
| 50° | 3136.4 | 1898.1 | 339.0 | 262.8 | 243.6 | 227.7 | 212.3 | 215.3 | 231.5 | 259.0 | 273.4 |
| 52.5° | 3584.8 | 2194.1 | 355.9 | 264.3 | 245.8 | 225.9 | 210.8 | 209.3 | 223.2 | 247.4 | 261.7 |
| 55° | 4125.1 | 2614.2 | 406.9 | 271.5 | 245.8 | 225.5 | 208.5 | 201.7 | 212.3 | 231.9 | 245.8 |
| 57.5° | 4777.0 | 3100.6 | 506.4 | 274.9 | 244.0 | 223.2 | 203.6 | 191.5 | 198.0 | 214.2 | 227.4 |
| 60° | 5337.0 | 3493.1 | 609.0 | 277.1 | 247.7 | 217.9 | 193.8 | 178.7 | 182.9 | 195.3 | 207.0 |
| 62.5° | 5622.4 | 3603.2 | 639.9 | 275.3 | 257.9 | 214.5 | 182.1 | 165.2 | 165.5 | 176.1 | 186.6 |
| 65° | 5676.0 | 3456.6 | 515.8 | 273.4 | 271.1 | 214.2 | 173.8 | 153.5 | 150.8 | 158.4 | 167.4 |
| 67.5° | 5294.4 | 3000.3 | 372.2 | 269.2 | 272.6 | 211.9 | 168.2 | 144.0 | 137.3 | 142.5 | 150.1 |
| 70° | 4495.4 | 2416.2 | 312.6 | 260.9 | 254.5 | 200.6 | 158.4 | 134.2 | 125.2 | 129.0 | 134.6 |
| 72.5° | 3351.4 | 1787.7 | 272.6 | 243.2 | 221.7 | 171.6 | 143.3 | 123.3 | 113.9 | 116.5 | 120.7 |
| 75° | 1861.9 | 953.6 | 228.1 | 211.5 | 181.0 | 138.8 | 122.2 | 109.3 | 101.1 | 102.2 | 106.7 |
| 77.5° | 618.4 | 351.8 | 167.4 | 167.8 | 136.9 | 107.1 | 100.7 | 93.5 | 87.1 | 87.5 | 91.2 |
| 80° | 280.2 | 194.6 | 119.9 | 120.7 | 95.4 | 77.7 | 77.3 | 75.0 | 70.9 | 69.8 | 72.4 |
| 82.5° | 162.5 | 118.0 | 82.2 | 78.4 | 61.5 | 50.5 | 56.2 | 55.1 | 53.9 | 49.8 | 50.5 |
| 85° | 79.9 | 63.3 | 43.0 | 40.7 | 33.9 | 25.3 | 30.2 | 31.3 | 30.2 | 25.6 | 25.3 |
| 87.5° | 19.6 | 20.7 | 10.6 | 9.8 | 5.7 | 2.6 | 4.5 | 4.5 | 5.7 | 3.8 | 1.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)