

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: STREETWORKS

Report Number: P842456

Luminaire Tested: **ARCH4-50-727-U-T4W-HSS**

Issue Date: 5/27/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P842456  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2401-285-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/27/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH4-50-727-U-T4W-HSS  
Description: ARCHEON CONTEMPORARY ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 435mA LIGHTSQUARES WITH 40 LEDS EACH AND TYPE IV WIDE  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

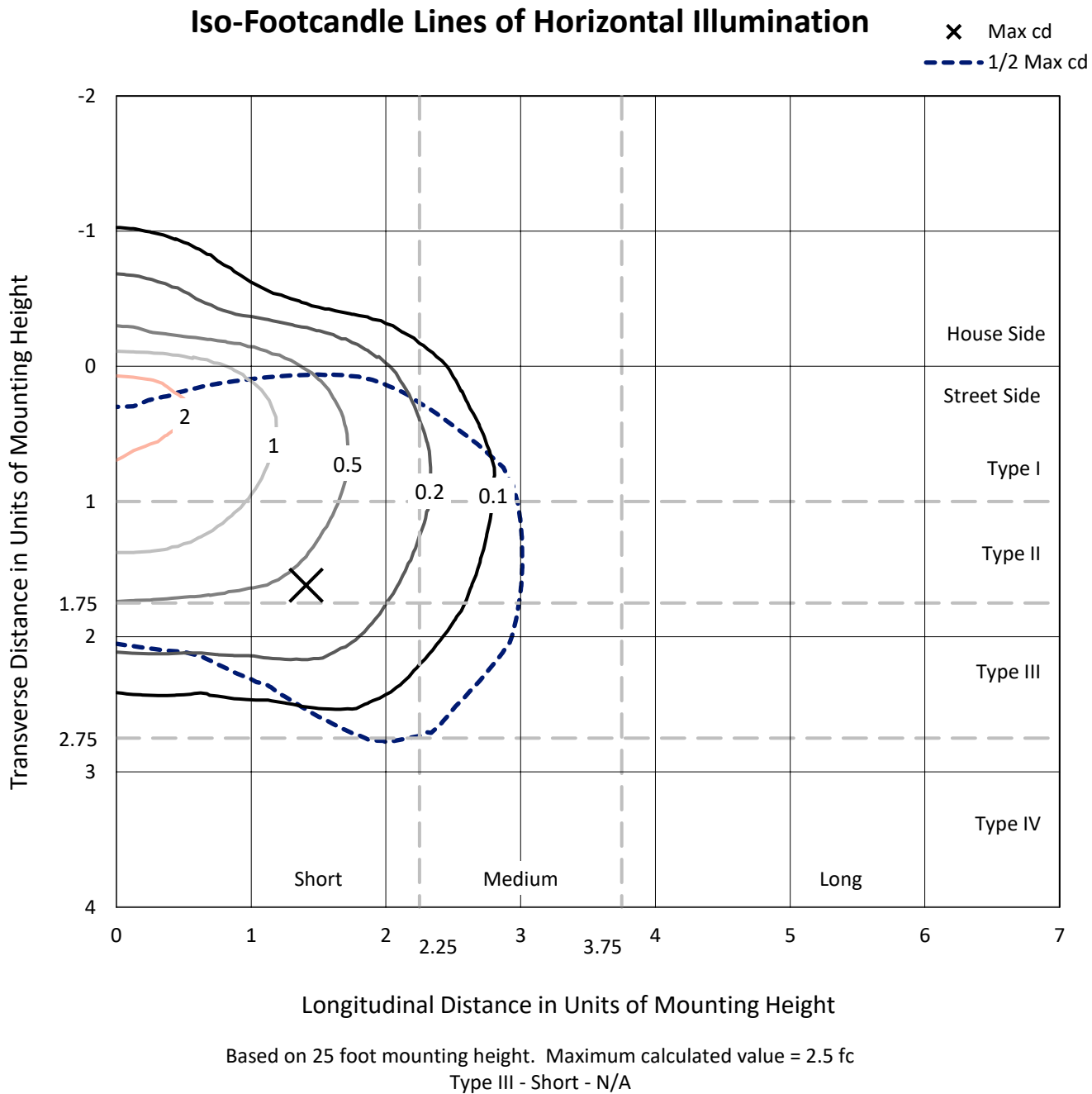
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6231 lumens  
Efficiency: N/A  
Efficacy: 117.1 lumens/watt  
Luminous Opening: Rectangular (W 1.17' x L: 0.58' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G1

Input Watts (W): 53.2  
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: 24 FT

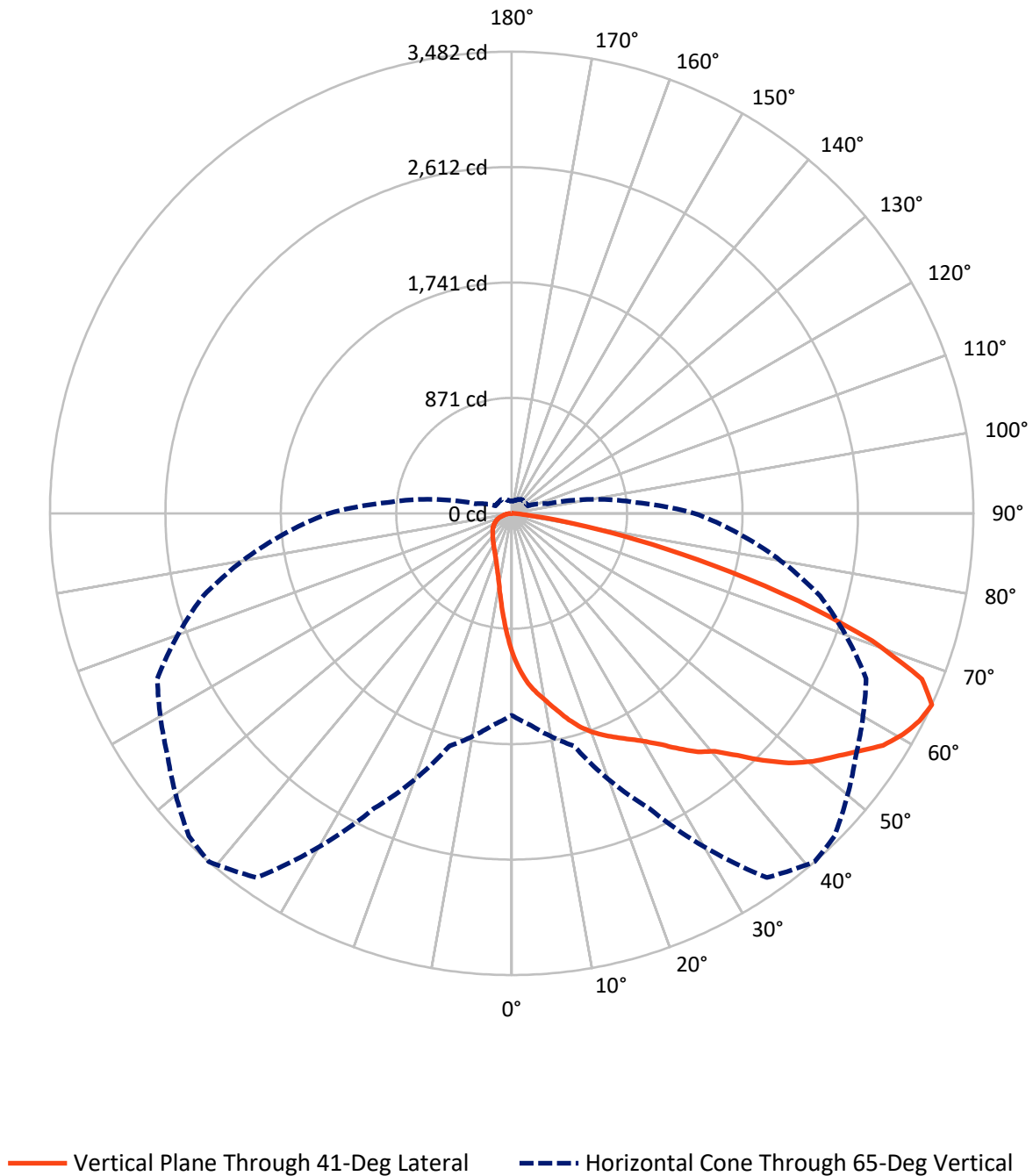


REPORT NUMBER: P842456  
CATALOG NUMBER: ARCH4-50-727-U-T4W-HSS



REPORT NUMBER: P842456  
CATALOG NUMBER: ARCH4-50-727-U-T4W-HSS

## Luminous Intensity Polar Plot



REPORT NUMBER: P842456

CATALOG NUMBER: ARCH4-50-727-U-T4W-HSS

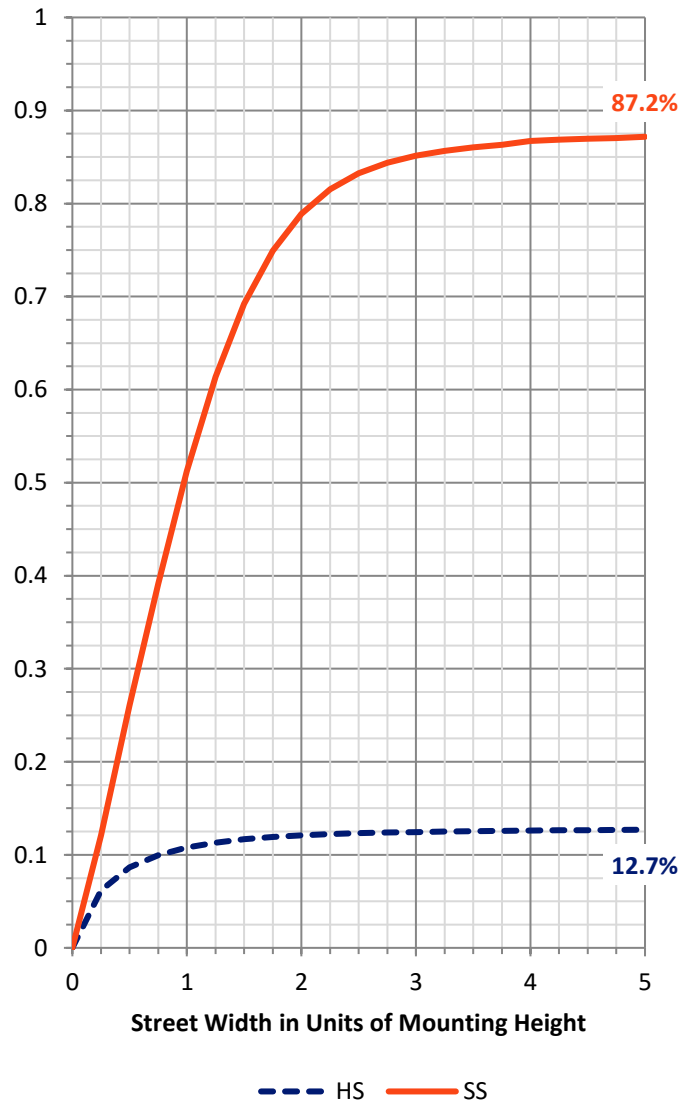
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 800.0    | 0.0    | 800.0  |
|                    | % Fixture | 12.8     | 0.0    | 12.8   |
| <b>Street Side</b> | Lumens    | 5431.0   | 0.0    | 5431.0 |
|                    | % Fixture | 87.2     | 0.0    | 87.2   |
| <b>Total</b>       | Lumens    | 6231.0   | 0.0    | 6231.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 98.9   | 1.6       |
| 10°-20°   | 296.6  | 4.8       |
| 20°-30°   | 510.3  | 8.2       |
| 30°-40°   | 774.0  | 12.4      |
| 40°-50°   | 1133.9 | 18.2      |
| 50°-60°   | 1431.9 | 23.0      |
| 60°-70°   | 1342.6 | 21.5      |
| 70°-80°   | 598.4  | 9.6       |
| 80°-90°   | 44.3   | 0.7       |
| 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°    | 6231.0 | 100.0     |
| 0°-180°   | 6231.0 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P842456

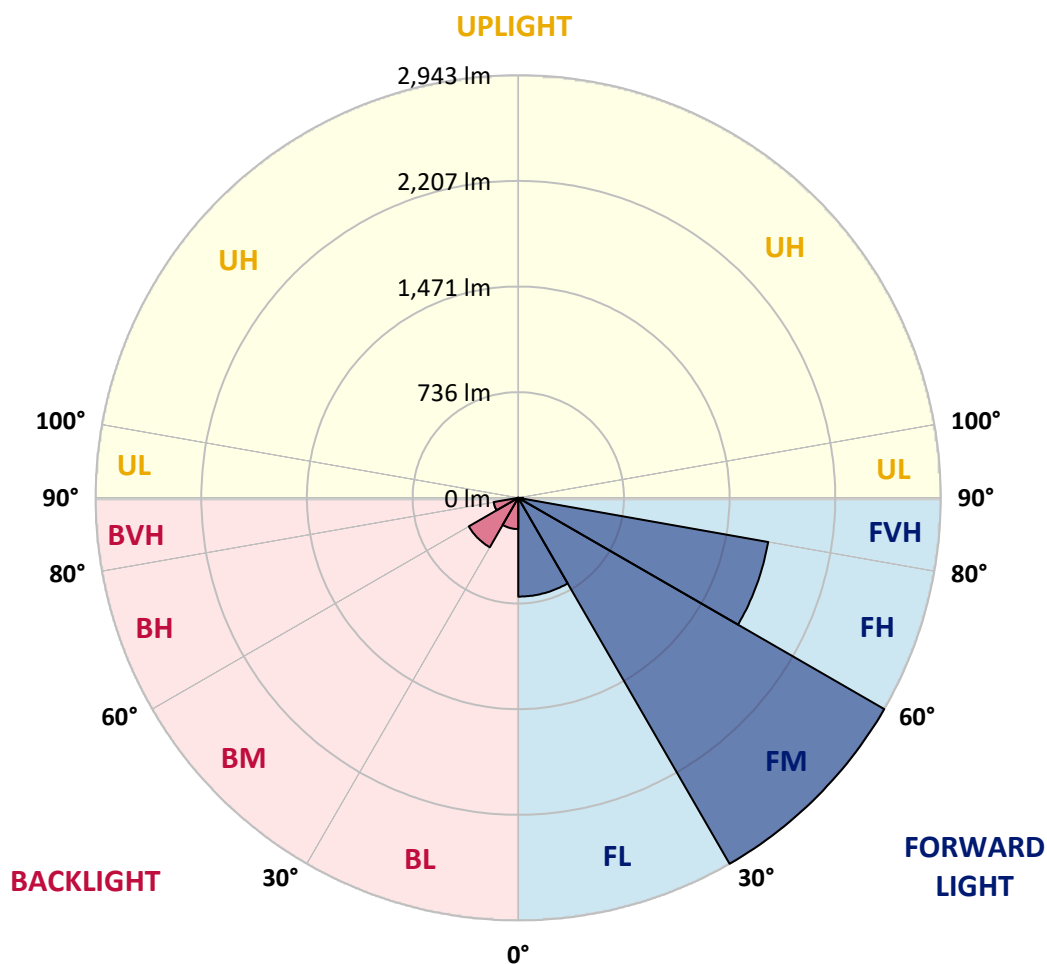
CATALOG NUMBER: ARCH4-50-727-U-T4W-HSS

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 688.1  | 11.0      |                         |      |         |
| FM   | (30°-60°)   | 2942.5 | 47.2      |                         |      |         |
| FH   | (60°-80°)   | 1767.3 | 28.4      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 33.1   | 0.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 217.7  | 3.5       | B1/500                  |      |         |
| BM   | (30°-60°)   | 397.2  | 6.4       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 173.8  | 2.8       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 11.2   | 0.2       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G1**

Type III Short



REPORT NUMBER: P842456

CATALOG NUMBER: ARCH4-50-727-U-T4W-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 41°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1061.7 | 1061.7 | 1061.7 | 1061.7 | 1061.7 | 1061.7 | 1061.7 | 1061.7 | 1061.7 | 1061.7 | 1061.7 |
| 2.5°  | 1224.7 | 1220.7 | 1218.1 | 1203.6 | 1203.6 | 1183.9 | 1185.2 | 1166.9 | 1144.5 | 1109.0 | 1070.9 |
| 5°    | 1340.3 | 1335.0 | 1328.5 | 1314.0 | 1308.8 | 1289.1 | 1286.4 | 1260.1 | 1222.0 | 1160.3 | 1092.0 |
| 7.5°  | 1441.5 | 1436.2 | 1427.0 | 1406.0 | 1391.5 | 1367.9 | 1361.3 | 1327.2 | 1285.1 | 1208.9 | 1113.0 |
| 10°   | 1533.5 | 1529.5 | 1517.7 | 1491.4 | 1471.7 | 1442.8 | 1431.0 | 1385.0 | 1332.4 | 1248.3 | 1130.1 |
| 12.5° | 1626.8 | 1621.5 | 1605.7 | 1583.4 | 1559.7 | 1525.6 | 1511.1 | 1452.0 | 1385.0 | 1291.7 | 1155.0 |
| 15°   | 1713.5 | 1705.6 | 1693.8 | 1670.1 | 1649.1 | 1616.2 | 1600.5 | 1530.8 | 1449.4 | 1340.3 | 1187.9 |
| 17.5° | 1770.0 | 1763.4 | 1752.9 | 1739.8 | 1722.7 | 1697.7 | 1681.9 | 1613.6 | 1513.8 | 1387.6 | 1222.0 |
| 20°   | 1804.2 | 1801.5 | 1797.6 | 1789.7 | 1781.8 | 1764.7 | 1752.9 | 1688.5 | 1583.4 | 1433.6 | 1254.9 |
| 22.5° | 1830.4 | 1827.8 | 1826.5 | 1826.5 | 1827.8 | 1821.2 | 1813.4 | 1758.2 | 1650.4 | 1482.2 | 1285.1 |
| 25°   | 1871.2 | 1869.9 | 1867.2 | 1864.6 | 1873.8 | 1875.1 | 1872.5 | 1834.4 | 1734.5 | 1546.6 | 1323.2 |
| 27.5° | 1927.7 | 1923.7 | 1918.5 | 1915.8 | 1925.0 | 1931.6 | 1936.9 | 1910.6 | 1823.9 | 1612.3 | 1366.6 |
| 30°   | 2014.4 | 2002.6 | 1989.4 | 1980.2 | 1986.8 | 1997.3 | 2009.1 | 1993.4 | 1915.8 | 1693.8 | 1411.3 |
| 32.5° | 2116.9 | 2102.4 | 2072.2 | 2055.1 | 2072.2 | 2080.1 | 2089.3 | 2081.4 | 2011.8 | 1781.8 | 1455.9 |
| 35°   | 2241.7 | 2224.6 | 2193.1 | 2168.1 | 2198.4 | 2181.3 | 2177.3 | 2169.5 | 2102.4 | 1868.5 | 1505.9 |
| 37.5° | 2449.3 | 2424.4 | 2374.4 | 2319.2 | 2319.2 | 2282.5 | 2268.0 | 2244.3 | 2183.9 | 1946.1 | 1554.5 |
| 40°   | 2689.8 | 2657.0 | 2592.6 | 2511.1 | 2436.2 | 2360.0 | 2350.8 | 2333.7 | 2279.8 | 2035.4 | 1609.7 |
| 42.5° | 2953.9 | 2890.8 | 2801.5 | 2702.9 | 2582.1 | 2495.3 | 2474.3 | 2425.7 | 2373.1 | 2126.1 | 1664.9 |
| 45°   | 3246.9 | 3115.5 | 2985.5 | 2935.5 | 2735.8 | 2657.0 | 2617.5 | 2529.5 | 2470.4 | 2220.7 | 1722.7 |
| 47.5° | 3294.3 | 3191.8 | 3105.0 | 3097.1 | 2879.0 | 2813.3 | 2768.6 | 2642.5 | 2575.5 | 2321.9 | 1783.1 |
| 50°   | 3268.0 | 3206.2 | 3215.4 | 3183.9 | 2984.1 | 2940.8 | 2906.6 | 2763.4 | 2679.3 | 2419.1 | 1838.3 |
| 52.5° | 3157.6 | 3191.8 | 3244.3 | 3186.5 | 3084.0 | 3048.5 | 3031.4 | 2893.5 | 2776.5 | 2508.5 | 1888.2 |
| 55°   | 3026.2 | 3049.8 | 3162.9 | 3233.8 | 3199.6 | 3168.1 | 3152.3 | 3044.6 | 2872.5 | 2583.4 | 1934.2 |
| 57.5° | 2834.3 | 2823.8 | 2948.7 | 3225.9 | 3320.5 | 3302.1 | 3285.1 | 3193.1 | 2961.8 | 2637.2 | 1963.1 |
| 60°   | 2546.6 | 2524.2 | 2681.9 | 3068.2 | 3360.0 | 3388.9 | 3381.0 | 3291.6 | 3030.1 | 2635.9 | 1951.3 |
| 62.5° | 2048.6 | 2103.7 | 2321.9 | 2810.7 | 3377.0 | 3450.6 | 3436.2 | 3299.5 | 3052.5 | 2559.7 | 1876.4 |
| 65°   | 1523.0 | 1601.8 | 1816.0 | 2455.9 | 3353.4 | 3482.2 | 3442.7 | 3170.7 | 2948.7 | 2408.6 | 1712.2 |
| 67.5° | 1097.2 | 1166.9 | 1323.2 | 2021.0 | 3126.1 | 3337.6 | 3291.6 | 2960.5 | 2709.5 | 2194.4 | 1484.8 |
| 70°   | 750.3  | 800.2  | 906.7  | 1471.7 | 2668.8 | 2885.6 | 2856.7 | 2646.4 | 2332.4 | 1939.5 | 1206.3 |
| 72.5° | 529.6  | 550.6  | 618.9  | 971.1  | 2027.5 | 2264.1 | 2229.9 | 2177.3 | 1873.8 | 1612.3 | 938.2  |
| 75°   | 396.8  | 410.0  | 446.8  | 628.1  | 1367.9 | 1568.9 | 1537.4 | 1567.6 | 1399.4 | 1220.7 | 683.3  |
| 77.5° | 149.8  | 162.9  | 253.6  | 400.8  | 809.4  | 963.2  | 931.6  | 950.0  | 777.9  | 616.3  | 340.3  |
| 80°   | 40.7   | 43.4   | 84.1   | 190.5  | 367.9  | 479.6  | 436.3  | 374.5  | 289.1  | 283.8  | 180.0  |
| 82.5° | 17.1   | 19.7   | 38.1   | 102.5  | 131.4  | 131.4  | 110.4  | 136.7  | 110.4  | 132.7  | 86.7   |
| 85°   | 6.6    | 7.9    | 9.2    | 26.3   | 17.1   | 18.4   | 19.7   | 26.3   | 22.3   | 27.6   | 19.7   |
| 87.5° | 0.0    | 0.0    | 0.0    | 1.3    | 1.3    | 2.6    | 1.3    | 2.6    | 3.9    | 3.9    | 3.9    |
| 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: P842456

CATALOG NUMBER: ARCH4-50-727-U-T4W-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1061.7 | 1061.7 | 1061.7 | 1061.7 | 1061.7 | 1061.7 | 1061.7 | 1061.7 | 1061.7 | 1061.7 | 1061.7 |
| 2.5°  | 1055.2 | 1040.7 | 1019.7 | 985.5  | 950.0  | 930.3  | 905.4  | 901.4  | 875.1  | 872.5  | 862.0  |
| 5°    | 1061.7 | 1031.5 | 977.6  | 911.9  | 847.5  | 797.6  | 760.8  | 741.1  | 703.0  | 703.0  | 692.5  |
| 7.5°  | 1067.0 | 1019.7 | 933.0  | 835.7  | 747.7  | 680.7  | 630.7  | 609.7  | 575.5  | 572.9  | 565.0  |
| 10°   | 1068.3 | 1005.2 | 884.3  | 758.2  | 650.4  | 582.1  | 533.5  | 509.8  | 479.6  | 477.0  | 471.7  |
| 12.5° | 1078.8 | 997.3  | 841.0  | 691.2  | 580.8  | 507.2  | 459.9  | 440.2  | 416.5  | 413.9  | 408.7  |
| 15°   | 1095.9 | 997.3  | 804.2  | 634.7  | 519.0  | 450.7  | 410.0  | 391.6  | 374.5  | 371.9  | 369.2  |
| 17.5° | 1113.0 | 994.7  | 767.4  | 582.1  | 467.8  | 406.0  | 370.6  | 356.1  | 343.0  | 341.6  | 339.0  |
| 20°   | 1128.7 | 993.4  | 730.6  | 537.4  | 428.4  | 369.2  | 341.6  | 328.5  | 318.0  | 318.0  | 316.7  |
| 22.5° | 1144.5 | 990.8  | 695.1  | 495.4  | 394.2  | 341.6  | 318.0  | 303.5  | 295.7  | 295.7  | 294.3  |
| 25°   | 1168.2 | 990.8  | 662.3  | 459.9  | 366.6  | 320.6  | 297.0  | 286.5  | 279.9  | 278.6  | 278.6  |
| 27.5° | 1195.8 | 998.7  | 633.4  | 428.4  | 343.0  | 299.6  | 281.2  | 270.7  | 262.8  | 260.2  | 261.5  |
| 30°   | 1226.0 | 1005.2 | 607.1  | 400.8  | 320.6  | 283.8  | 264.1  | 253.6  | 245.7  | 243.1  | 244.4  |
| 32.5° | 1256.2 | 1013.1 | 583.4  | 375.8  | 298.3  | 269.4  | 249.7  | 237.8  | 230.0  | 228.6  | 228.6  |
| 35°   | 1289.1 | 1021.0 | 559.8  | 354.8  | 279.9  | 254.9  | 236.5  | 223.4  | 218.1  | 215.5  | 216.8  |
| 37.5° | 1321.9 | 1034.1 | 537.4  | 335.1  | 266.7  | 241.8  | 224.7  | 211.6  | 207.6  | 206.3  | 206.3  |
| 40°   | 1361.3 | 1053.8 | 528.2  | 321.9  | 254.9  | 230.0  | 215.5  | 202.4  | 198.4  | 198.4  | 198.4  |
| 42.5° | 1394.2 | 1069.6 | 520.4  | 307.5  | 245.7  | 219.4  | 206.3  | 195.8  | 193.2  | 191.8  | 193.2  |
| 45°   | 1427.0 | 1084.1 | 509.8  | 294.3  | 233.9  | 208.9  | 198.4  | 187.9  | 185.3  | 185.3  | 185.3  |
| 47.5° | 1459.9 | 1092.0 | 495.4  | 281.2  | 223.4  | 199.7  | 190.5  | 181.3  | 178.7  | 178.7  | 178.7  |
| 50°   | 1486.2 | 1098.5 | 474.4  | 266.7  | 211.6  | 191.8  | 182.6  | 173.5  | 170.8  | 170.8  | 170.8  |
| 52.5° | 1512.4 | 1099.8 | 452.0  | 249.7  | 199.7  | 182.6  | 174.8  | 165.6  | 162.9  | 161.6  | 161.6  |
| 55°   | 1536.1 | 1098.5 | 425.7  | 230.0  | 186.6  | 172.1  | 165.6  | 157.7  | 152.4  | 147.2  | 149.8  |
| 57.5° | 1553.2 | 1097.2 | 395.5  | 210.2  | 173.5  | 161.6  | 159.0  | 148.5  | 138.0  | 124.8  | 127.5  |
| 60°   | 1546.6 | 1082.8 | 362.7  | 185.3  | 159.0  | 151.1  | 151.1  | 136.7  | 118.3  | 111.7  | 113.0  |
| 62.5° | 1504.6 | 1042.0 | 328.5  | 159.0  | 144.5  | 140.6  | 139.3  | 123.5  | 109.1  | 102.5  | 103.8  |
| 65°   | 1378.4 | 939.5  | 278.6  | 135.3  | 130.1  | 128.8  | 128.8  | 114.3  | 101.2  | 93.3   | 94.6   |
| 67.5° | 1186.6 | 788.4  | 227.3  | 114.3  | 115.6  | 118.3  | 118.3  | 105.1  | 92.0   | 84.1   | 85.4   |
| 70°   | 951.4  | 616.3  | 181.3  | 98.6   | 99.9   | 103.8  | 106.4  | 94.6   | 82.8   | 74.9   | 74.9   |
| 72.5° | 716.1  | 467.8  | 145.9  | 82.8   | 89.4   | 89.4   | 93.3   | 84.1   | 72.3   | 64.4   | 65.7   |
| 75°   | 519.0  | 335.1  | 115.6  | 69.6   | 77.5   | 76.2   | 76.2   | 71.0   | 61.8   | 56.5   | 56.5   |
| 77.5° | 245.7  | 176.1  | 92.0   | 49.9   | 60.4   | 59.1   | 60.4   | 56.5   | 52.6   | 47.3   | 48.6   |
| 80°   | 120.9  | 86.7   | 59.1   | 35.5   | 42.0   | 43.4   | 47.3   | 44.7   | 43.4   | 39.4   | 39.4   |
| 82.5° | 57.8   | 34.2   | 27.6   | 25.0   | 28.9   | 30.2   | 32.9   | 32.9   | 34.2   | 31.5   | 31.5   |
| 85°   | 15.8   | 9.2    | 11.8   | 15.8   | 18.4   | 19.7   | 22.3   | 23.7   | 23.7   | 22.3   | 23.7   |
| 87.5° | 3.9    | 3.9    | 5.3    | 7.9    | 9.2    | 10.5   | 11.8   | 11.8   | 5.3    | 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    |

(END OF REPORT)