

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: P572648

Luminaire Tested: **ARCH-S-PA2-100-727-U-T3-HSS**

Issue Date: 10/13/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P572648  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2108-332-18)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/13/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-S-PA2-100-727-U-T3-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 1010mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8655 lumens  
Efficiency: N/A  
Efficacy: 83.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G2

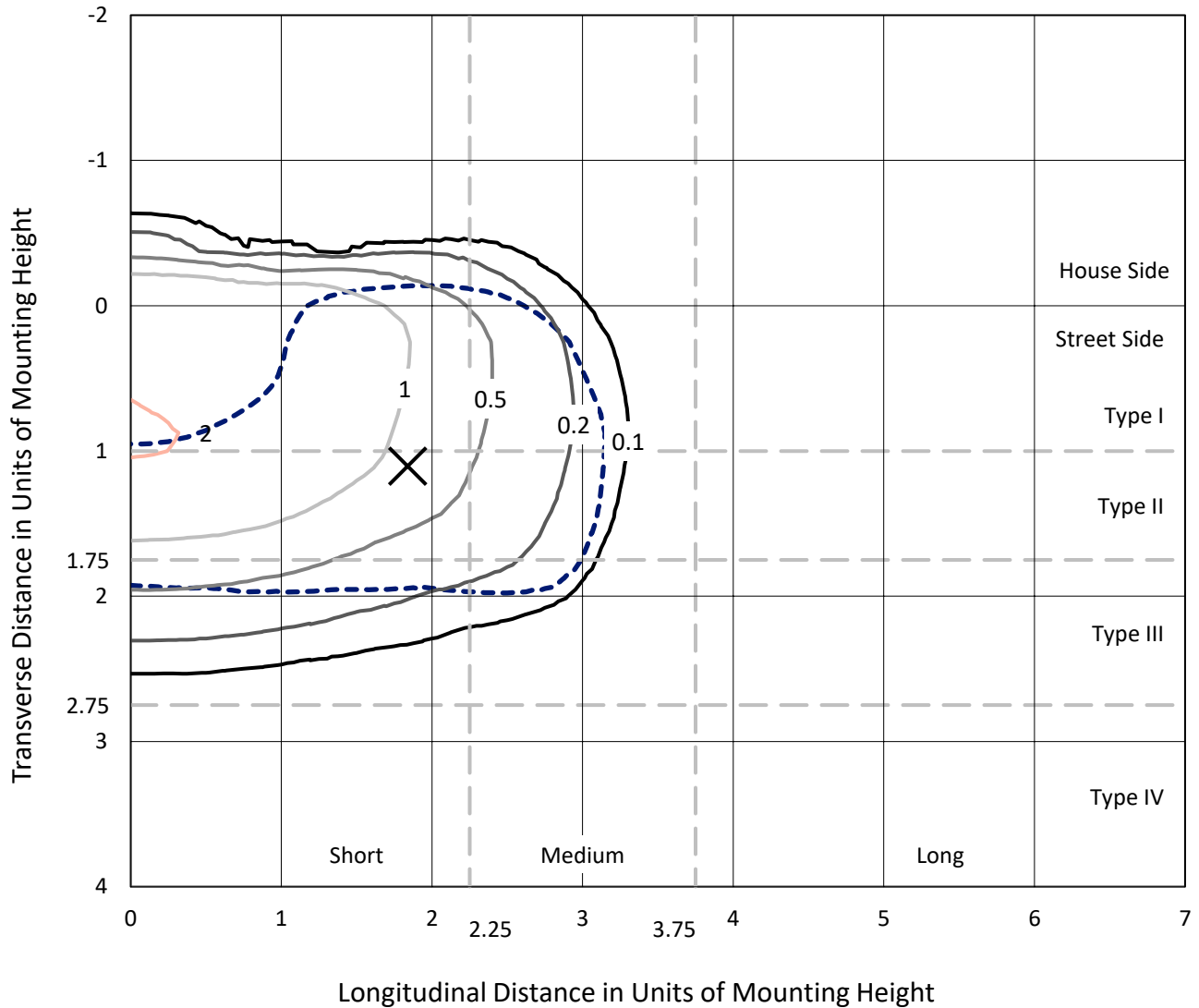
Input Watts (W): 103.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

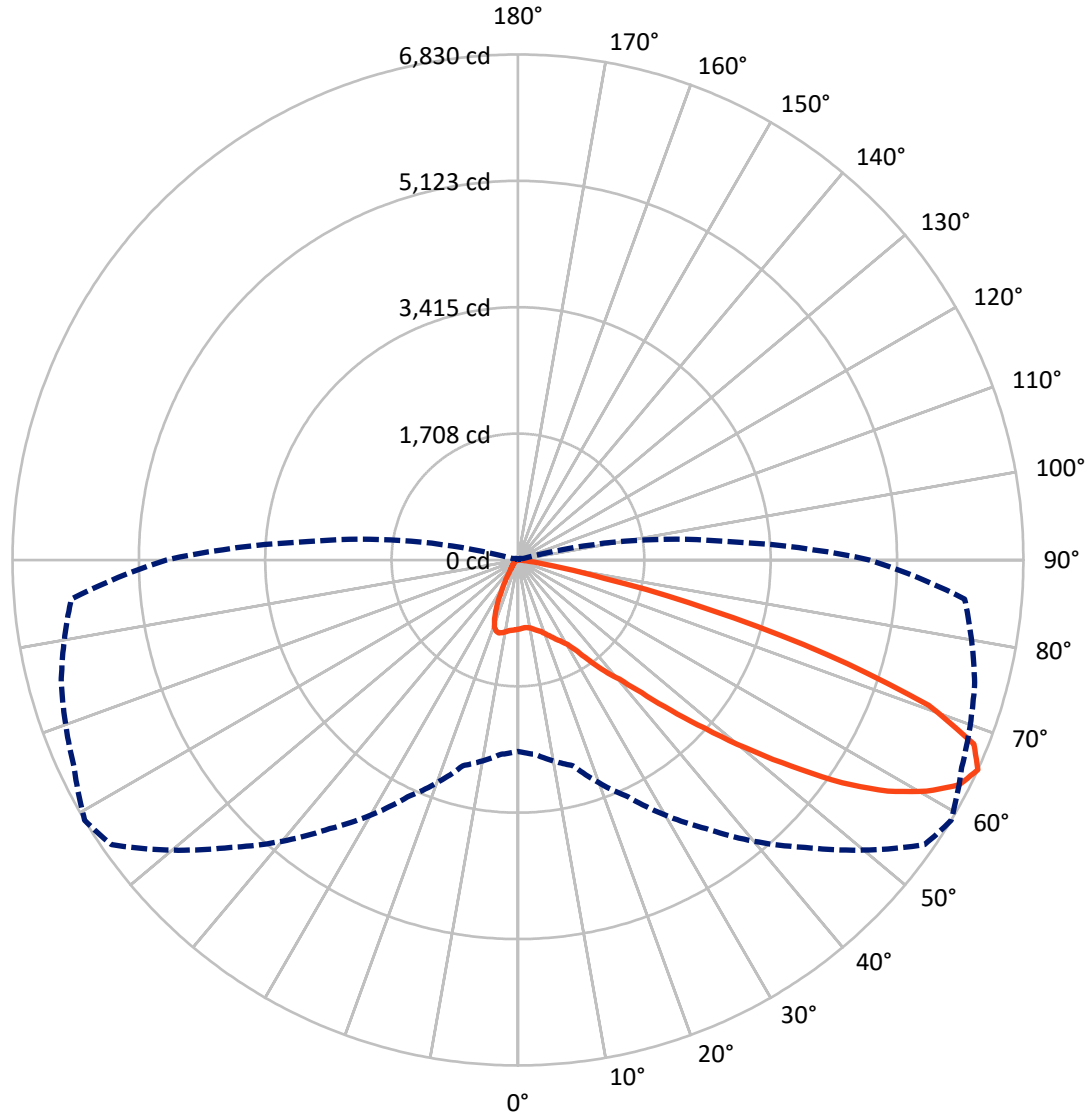
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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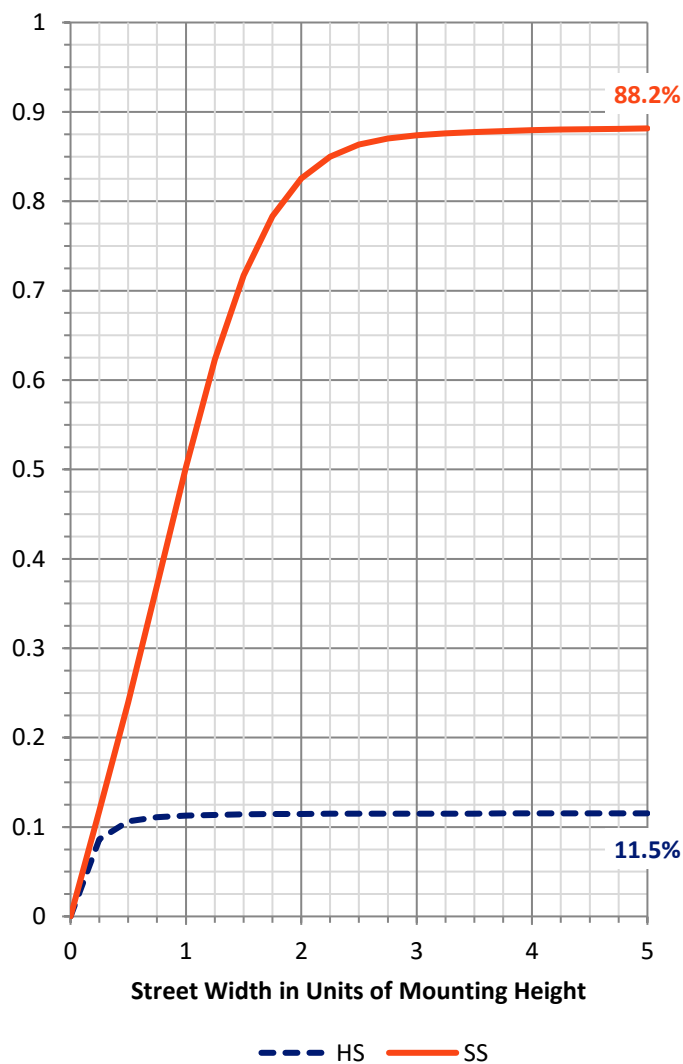
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1009.7   | 0.0    | 1009.7 |
|                    | % Fixture | 11.7     | 0.0    | 11.7   |
| <b>Street Side</b> | Lumens    | 7645.3   | 0.0    | 7645.3 |
|                    | % Fixture | 88.3     | 0.0    | 88.3   |
| <b>Total</b>       | Lumens    | 8655.0   | 0.0    | 8655.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 88.4   | 1.0       |
| 10°-20°   | 251.1  | 2.9       |
| 20°-30°   | 426.4  | 4.9       |
| 30°-40°   | 755.4  | 8.7       |
| 40°-50°   | 1425.0 | 16.5      |
| 50°-60°   | 2411.0 | 27.9      |
| 60°-70°   | 2506.7 | 29.0      |
| 70°-80°   | 751.7  | 8.7       |
| 80°-90°   | 39.4   | 0.5       |
| 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°    | 8655.0 | 100.0     |
| 0°-180°   | 8655.0 | 100.0     |

**Coefficient of Utilization**



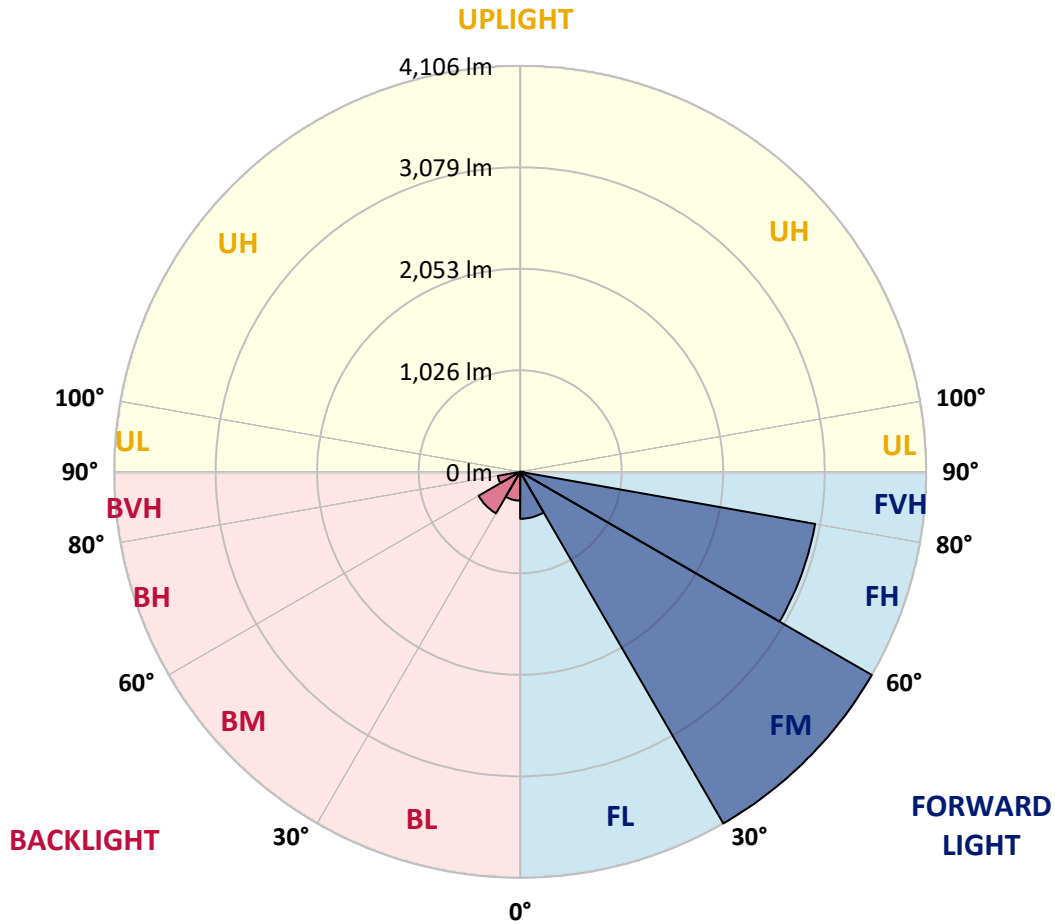
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 CATALOG NUMBER: ARCH-S-PA2-100-727-U-T3-HSS

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

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 474.6  | 5.5       |                         |      |         |
| FM (30°-60°)   | 4106.0 | 47.4      |                         |      |         |
| FH (60°-80°)   | 3028.6 | 35.0      |                         |      | G2/5000 |
| FVH (80°-90°)  | 36.1   | 0.4       |                         |      | G1/100  |
| BL (0°-30°)    | 291.3  | 3.4       | B1/500                  |      |         |
| BM (30°-60°)   | 485.4  | 5.6       | B1/1000                 |      |         |
| BH (60°-80°)   | 229.7  | 2.7       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 3.3    | 0.0       |                         |      | G0/10   |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**

Type III Short





REPORT NUMBER: P572648

CATALOG NUMBER: ARCH-S-PA2-100-727-U-T3-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 59°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 935.3  | 935.3  | 935.3  | 935.3  | 935.3  | 935.3  | 935.3  | 935.3  | 935.3  | 935.3  | 935.3  |
| 2.5°  | 910.1  | 906.9  | 906.9  | 913.2  | 916.4  | 919.5  | 925.8  | 925.8  | 925.8  | 932.1  | 935.3  |
| 5°    | 866.0  | 866.0  | 869.1  | 875.4  | 888.0  | 897.5  | 916.4  | 919.5  | 922.7  | 938.4  | 944.7  |
| 7.5°  | 837.6  | 837.6  | 840.8  | 853.4  | 869.1  | 891.2  | 916.4  | 922.7  | 932.1  | 954.2  | 969.9  |
| 10°   | 834.5  | 831.3  | 837.6  | 850.2  | 869.1  | 897.5  | 925.8  | 935.3  | 954.2  | 982.5  | 1004.5 |
| 12.5° | 843.9  | 840.8  | 847.1  | 859.7  | 878.6  | 906.9  | 944.7  | 960.5  | 982.5  | 1020.3 | 1051.8 |
| 15°   | 850.2  | 847.1  | 853.4  | 869.1  | 891.2  | 925.8  | 969.9  | 988.8  | 1017.1 | 1070.7 | 1102.2 |
| 17.5° | 869.1  | 866.0  | 869.1  | 881.7  | 903.8  | 941.6  | 998.2  | 1017.1 | 1064.4 | 1124.2 | 1158.8 |
| 20°   | 954.2  | 951.0  | 932.1  | 925.8  | 929.0  | 963.6  | 1036.0 | 1067.5 | 1124.2 | 1199.8 | 1225.0 |
| 22.5° | 1130.5 | 1117.9 | 1083.3 | 1026.6 | 988.8  | 1001.4 | 1083.3 | 1117.9 | 1193.5 | 1278.5 | 1297.4 |
| 25°   | 1366.7 | 1357.2 | 1306.8 | 1209.2 | 1102.2 | 1070.7 | 1136.8 | 1184.0 | 1275.4 | 1369.8 | 1363.5 |
| 27.5° | 1634.3 | 1615.4 | 1568.2 | 1432.8 | 1287.9 | 1184.0 | 1202.9 | 1243.9 | 1344.6 | 1445.4 | 1413.9 |
| 30°   | 1867.4 | 1861.1 | 1807.5 | 1694.2 | 1524.1 | 1369.8 | 1303.7 | 1325.7 | 1417.1 | 1524.1 | 1486.3 |
| 32.5° | 2081.5 | 2062.6 | 2018.5 | 1911.5 | 1754.0 | 1596.6 | 1464.3 | 1464.3 | 1539.9 | 1665.8 | 1609.1 |
| 35°   | 2317.7 | 2305.1 | 2251.5 | 2144.5 | 1993.3 | 1807.5 | 1687.9 | 1675.3 | 1738.3 | 1880.0 | 1757.2 |
| 37.5° | 2560.2 | 2528.7 | 2503.5 | 2393.3 | 2242.1 | 2081.5 | 1936.6 | 1908.3 | 1939.8 | 2043.7 | 1892.6 |
| 40°   | 2862.5 | 2862.5 | 2805.8 | 2705.0 | 2563.3 | 2393.3 | 2191.7 | 2119.3 | 2109.8 | 2245.3 | 2128.7 |
| 42.5° | 3215.1 | 3205.7 | 3158.5 | 3064.0 | 2928.6 | 2771.1 | 2516.1 | 2449.9 | 2443.6 | 2607.4 | 2468.8 |
| 45°   | 3621.4 | 3615.1 | 3558.4 | 3479.7 | 3385.2 | 3212.0 | 2960.1 | 2893.9 | 2856.2 | 3045.1 | 2881.4 |
| 47.5° | 3993.0 | 3970.9 | 3952.0 | 3961.5 | 3907.9 | 3712.7 | 3476.5 | 3397.8 | 3394.6 | 3542.6 | 3331.7 |
| 50°   | 4248.0 | 4235.4 | 4301.6 | 4364.5 | 4465.3 | 4342.5 | 4062.2 | 3993.0 | 3939.4 | 4134.7 | 3800.9 |
| 52.5° | 4414.9 | 4408.6 | 4540.9 | 4720.4 | 4928.2 | 4918.8 | 4670.0 | 4629.1 | 4585.0 | 4638.5 | 4219.7 |
| 55°   | 4481.1 | 4481.1 | 4638.5 | 4969.2 | 5334.4 | 5491.9 | 5375.4 | 5318.7 | 5164.4 | 5054.2 | 4679.4 |
| 57.5° | 4402.3 | 4392.9 | 4597.6 | 5029.0 | 5586.4 | 5910.7 | 5961.1 | 5895.0 | 5652.5 | 5529.7 | 5189.6 |
| 60°   | 4068.5 | 4074.8 | 4317.3 | 4862.1 | 5567.5 | 6080.8 | 6405.1 | 6345.3 | 6102.8 | 5920.2 | 5617.9 |
| 62.5° | 3445.0 | 3498.6 | 3753.6 | 4345.6 | 5164.4 | 5945.3 | 6660.2 | 6691.7 | 6430.3 | 6203.6 | 5998.9 |
| 65°   | 2588.5 | 2635.7 | 2878.2 | 3533.2 | 4430.7 | 5491.9 | 6707.4 | 6830.2 | 6619.2 | 6389.4 | 6058.7 |
| 67.5° | 1574.5 | 1590.3 | 1886.3 | 2380.7 | 3262.4 | 4575.5 | 6376.8 | 6644.4 | 6493.3 | 6115.4 | 5466.7 |
| 70°   | 733.7  | 774.7  | 919.5  | 1300.5 | 2065.8 | 3369.5 | 5510.8 | 5888.7 | 5718.6 | 5249.4 | 4156.7 |
| 72.5° | 286.6  | 299.2  | 390.5  | 601.5  | 1095.9 | 2119.3 | 4112.6 | 4364.5 | 4248.0 | 3728.4 | 2478.3 |
| 75°   | 141.7  | 151.2  | 188.9  | 286.6  | 500.7  | 875.4  | 2512.9 | 2676.7 | 2484.6 | 1873.7 | 1048.6 |
| 77.5° | 103.9  | 103.9  | 126.0  | 176.3  | 274.0  | 324.3  | 1058.1 | 1187.2 | 1121.1 | 724.3  | 286.6  |
| 80°   | 69.3   | 75.6   | 88.2   | 119.7  | 173.2  | 157.5  | 399.9  | 475.5  | 396.8  | 223.6  | 100.8  |
| 82.5° | 40.9   | 44.1   | 66.1   | 85.0   | 116.5  | 91.3   | 135.4  | 151.2  | 163.7  | 110.2  | 47.2   |
| 85°   | 22.0   | 22.0   | 44.1   | 63.0   | 63.0   | 40.9   | 47.2   | 53.5   | 63.0   | 66.1   | 25.2   |
| 87.5° | 6.3    | 6.3    | 28.3   | 37.8   | 25.2   | 22.0   | 25.2   | 25.2   | 28.3   | 34.6   | 12.6   |
| 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: P572648

CATALOG NUMBER: ARCH-S-PA2-100-727-U-T3-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°  | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|-------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 935.3  | 935.3  | 935.3  | 935.3  | 935.3 | 935.3 | 935.3 | 935.3 | 935.3 | 935.3 | 935.3 |
| 2.5°  | 938.4  | 938.4  | 941.6  | 941.6  | 944.7 | 944.7 | 944.7 | 944.7 | 947.9 | 951.0 | 951.0 |
| 5°    | 947.9  | 951.0  | 951.0  | 951.0  | 951.0 | 944.7 | 941.6 | 938.4 | 938.4 | 941.6 | 941.6 |
| 7.5°  | 973.0  | 976.2  | 973.0  | 966.7  | 957.3 | 944.7 | 932.1 | 932.1 | 929.0 | 932.1 | 929.0 |
| 10°   | 1010.8 | 1010.8 | 1007.7 | 991.9  | 976.2 | 951.0 | 925.8 | 906.9 | 894.3 | 891.2 | 884.9 |
| 12.5° | 1058.1 | 1058.1 | 1048.6 | 1020.3 | 991.9 | 944.7 | 878.6 | 815.6 | 765.2 | 743.2 | 736.9 |
| 15°   | 1105.3 | 1105.3 | 1092.7 | 1051.8 | 995.1 | 881.7 | 743.2 | 610.9 | 535.3 | 503.8 | 484.9 |
| 17.5° | 1162.0 | 1155.7 | 1133.6 | 1077.0 | 960.5 | 755.8 | 532.2 | 396.8 | 336.9 | 308.6 | 308.6 |
| 20°   | 1221.8 | 1215.5 | 1174.6 | 1080.1 | 872.3 | 541.6 | 346.4 | 274.0 | 258.2 | 251.9 | 251.9 |
| 22.5° | 1287.9 | 1272.2 | 1209.2 | 1054.9 | 686.5 | 368.4 | 261.4 | 242.5 | 236.2 | 233.0 | 233.0 |
| 25°   | 1341.5 | 1316.3 | 1234.4 | 985.6  | 491.2 | 258.2 | 229.9 | 223.6 | 211.0 | 207.8 | 201.5 |
| 27.5° | 1382.4 | 1344.6 | 1243.9 | 837.6  | 324.3 | 214.1 | 204.7 | 192.1 | 179.5 | 166.9 | 166.9 |
| 30°   | 1436.0 | 1388.7 | 1250.2 | 651.8  | 220.4 | 185.8 | 176.3 | 160.6 | 144.9 | 132.3 | 132.3 |
| 32.5° | 1543.0 | 1473.7 | 1253.3 | 456.6  | 182.6 | 163.7 | 144.9 | 126.0 | 110.2 | 103.9 | 100.8 |
| 35°   | 1659.5 | 1565.1 | 1218.7 | 296.0  | 160.6 | 138.6 | 116.5 | 100.8 | 85.0  | 81.9  | 81.9  |
| 37.5° | 1788.6 | 1700.5 | 1143.1 | 201.5  | 141.7 | 116.5 | 94.5  | 78.7  | 69.3  | 66.1  | 66.1  |
| 40°   | 2005.9 | 1902.0 | 1017.1 | 160.6  | 122.8 | 97.6  | 78.7  | 66.1  | 59.8  | 56.7  | 56.7  |
| 42.5° | 2317.7 | 2138.2 | 859.7  | 138.6  | 107.1 | 81.9  | 63.0  | 53.5  | 50.4  | 47.2  | 47.2  |
| 45°   | 2676.7 | 2402.7 | 677.0  | 126.0  | 94.5  | 69.3  | 53.5  | 47.2  | 44.1  | 40.9  | 40.9  |
| 47.5° | 3089.2 | 2676.7 | 535.3  | 110.2  | 81.9  | 59.8  | 47.2  | 40.9  | 37.8  | 34.6  | 34.6  |
| 50°   | 3479.7 | 2890.8 | 403.1  | 97.6   | 72.4  | 50.4  | 40.9  | 37.8  | 34.6  | 31.5  | 31.5  |
| 52.5° | 3800.9 | 3035.7 | 305.5  | 85.0   | 63.0  | 44.1  | 37.8  | 34.6  | 28.3  | 28.3  | 28.3  |
| 55°   | 4188.2 | 3149.0 | 233.0  | 75.6   | 56.7  | 40.9  | 34.6  | 28.3  | 25.2  | 22.0  | 22.0  |
| 57.5° | 4525.1 | 3190.0 | 170.0  | 66.1   | 50.4  | 37.8  | 31.5  | 25.2  | 18.9  | 15.7  | 15.7  |
| 60°   | 4751.9 | 3155.3 | 122.8  | 56.7   | 44.1  | 31.5  | 25.2  | 18.9  | 12.6  | 9.4   | 9.4   |
| 62.5° | 4912.5 | 3079.7 | 94.5   | 50.4   | 37.8  | 28.3  | 22.0  | 15.7  | 9.4   | 6.3   | 6.3   |
| 65°   | 4751.9 | 2846.7 | 75.6   | 44.1   | 31.5  | 25.2  | 15.7  | 12.6  | 6.3   | 3.1   | 3.1   |
| 67.5° | 4109.5 | 2387.0 | 59.8   | 37.8   | 28.3  | 22.0  | 15.7  | 9.4   | 3.1   | 0.0   | 0.0   |
| 70°   | 2953.8 | 1703.6 | 50.4   | 34.6   | 25.2  | 18.9  | 12.6  | 6.3   | 3.1   | 0.0   | 0.0   |
| 72.5° | 1646.9 | 878.6  | 47.2   | 31.5   | 25.2  | 18.9  | 12.6  | 6.3   | 3.1   | 0.0   | 0.0   |
| 75°   | 667.6  | 302.3  | 44.1   | 31.5   | 25.2  | 15.7  | 12.6  | 6.3   | 3.1   | 0.0   | 0.0   |
| 77.5° | 195.2  | 103.9  | 37.8   | 28.3   | 25.2  | 18.9  | 12.6  | 6.3   | 3.1   | 0.0   | 0.0   |
| 80°   | 69.3   | 47.2   | 28.3   | 25.2   | 18.9  | 15.7  | 12.6  | 9.4   | 3.1   | 0.0   | 0.0   |
| 82.5° | 31.5   | 18.9   | 12.6   | 9.4    | 9.4   | 9.4   | 9.4   | 6.3   | 3.1   | 0.0   | 0.0   |
| 85°   | 12.6   | 9.4    | 6.3    | 3.1    | 3.1   | 3.1   | 3.1   | 3.1   | 3.1   | 0.0   | 0.0   |
| 87.5° | 9.4    | 6.3    | 3.1    | 3.1    | 3.1   | 3.1   | 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   |

(END OF REPORT)