

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: P397749

Luminaire Tested: **ARCH-S-PA1-40-722-U-T4W-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397749  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/19/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-S-PA1-40-722-U-T4W-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2200K, 500mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3160 lumens  
Efficiency: N/A  
Efficacy: 79.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G1

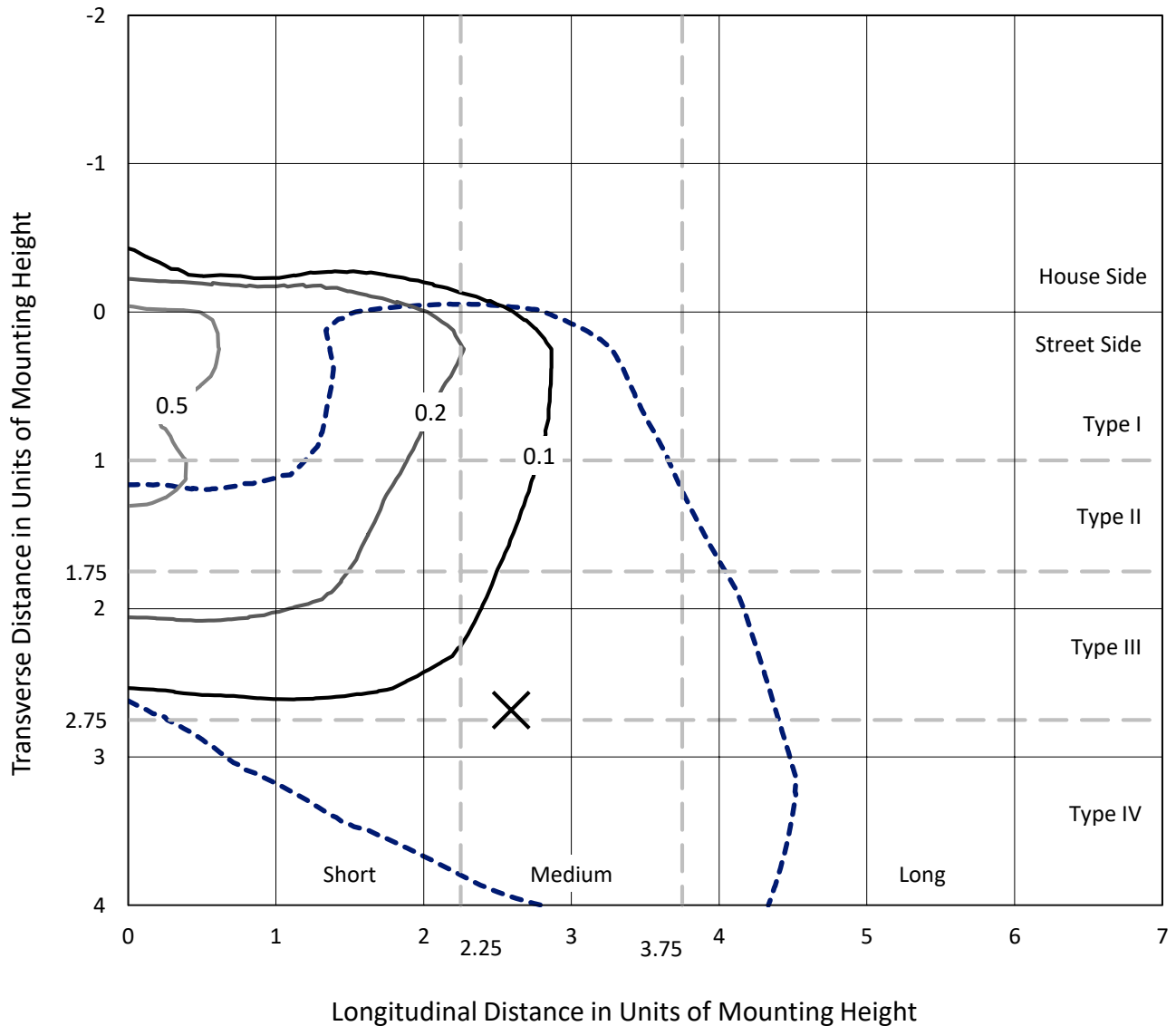
Input Watts (W): 40  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P397749  
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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

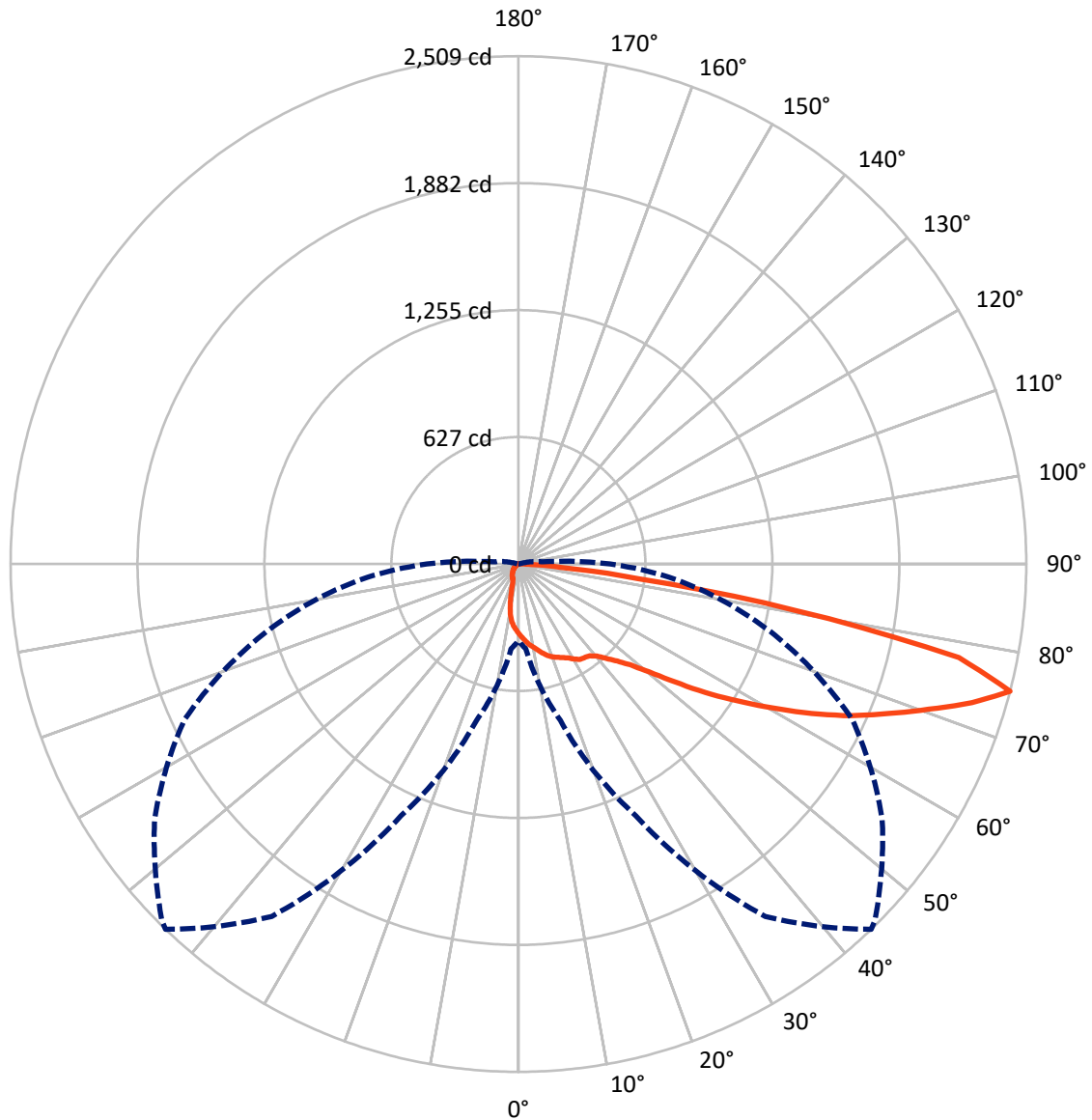


Based on 25 foot mounting height. Maximum calculated value = 0.7 fc  
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P397749

CATALOG NUMBER: ARCH-S-PA1-40-722-U-T4W-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P397749

CATALOG NUMBER: ARCH-S-PA1-40-722-U-T4W-HSS

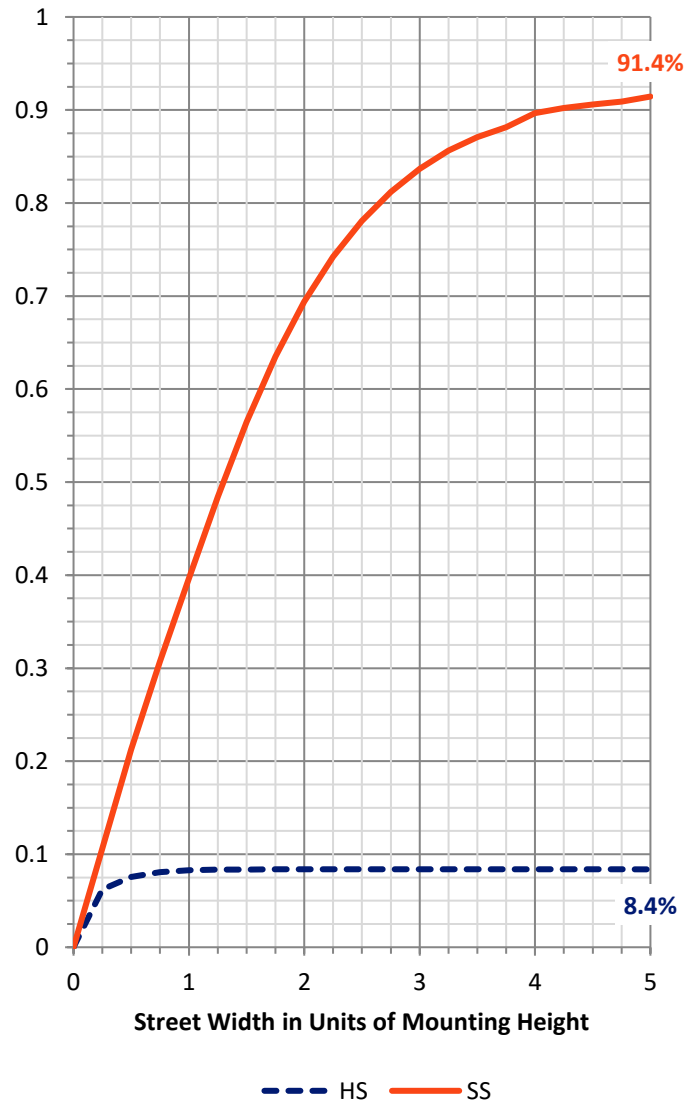
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 266.5    | 0.0    | 266.5  |
|                    | % Fixture | 8.4      | 0.0    | 8.4    |
| <b>Street Side</b> | Lumens    | 2893.5   | 0.0    | 2893.5 |
|                    | % Fixture | 91.6     | 0.0    | 91.6   |
| <b>Total</b>       | Lumens    | 3160.0   | 0.0    | 3160.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 32.4   | 1.0       |
| 10°-20°   | 90.9   | 2.9       |
| 20°-30°   | 150.0  | 4.7       |
| 30°-40°   | 217.7  | 6.9       |
| 40°-50°   | 353.9  | 11.2      |
| 50°-60°   | 623.9  | 19.7      |
| 60°-70°   | 896.7  | 28.4      |
| 70°-80°   | 718.0  | 22.7      |
| 80°-90°   | 76.5   | 2.4       |
| 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°    | 3160.0 | 100.0     |
| 0°-180°   | 3160.0 | 100.0     |



REPORT NUMBER: P397749

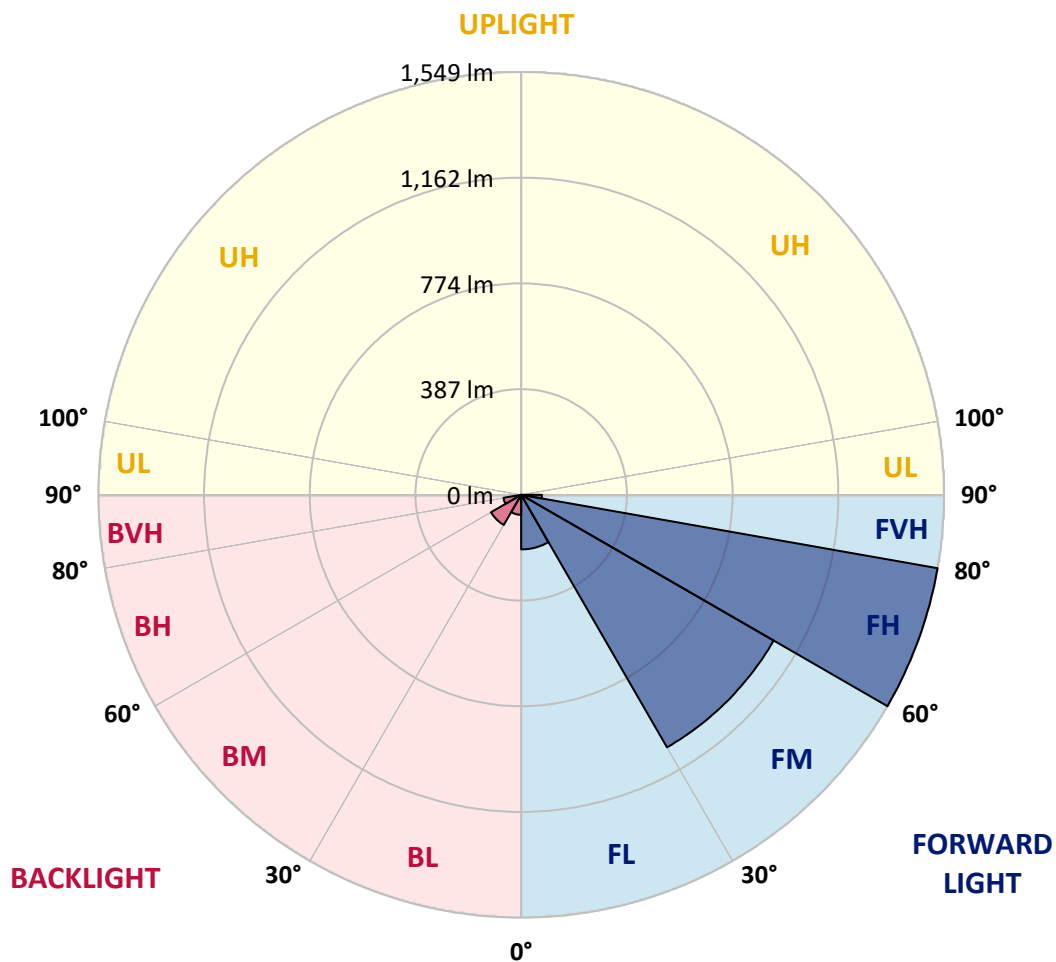
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 200.1  | 6.3       |                         |      |         |
| FM   | (30°-60°)   | 1068.1 | 33.8      |                         |      |         |
| FH   | (60°-80°)   | 1549.0 | 49.0      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 76.3   | 2.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 73.2   | 2.3       | B0/110                  |      |         |
| BM   | (30°-60°)   | 127.4  | 4.0       | B0/220                  |      |         |
| BH   | (60°-80°)   | 65.7   | 2.1       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 0.2    | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B0-U0-G1**

Type IV Medium





REPORT NUMBER: P397749

CATALOG NUMBER: ARCH-S-PA1-40-722-U-T4W-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 44°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 344.0  | 344.0  | 344.0  | 344.0  | 344.0  | 344.0  | 344.0  | 344.0  | 344.0  | 344.0  | 344.0  |
| 2.5°  | 374.9  | 374.3  | 372.5  | 369.6  | 366.7  | 363.8  | 363.2  | 358.5  | 353.3  | 349.2  | 345.7  |
| 5°    | 408.1  | 407.5  | 404.6  | 398.2  | 391.8  | 384.2  | 383.6  | 372.5  | 362.6  | 351.5  | 342.2  |
| 7.5°  | 442.5  | 441.3  | 436.1  | 426.2  | 415.1  | 403.4  | 402.3  | 385.9  | 371.4  | 356.8  | 343.4  |
| 10°   | 469.3  | 468.1  | 460.5  | 448.9  | 433.7  | 419.2  | 417.4  | 400.5  | 385.9  | 367.3  | 349.2  |
| 12.5° | 495.5  | 493.2  | 483.3  | 470.5  | 451.8  | 437.8  | 436.1  | 418.6  | 401.1  | 381.8  | 359.7  |
| 15°   | 520.0  | 517.1  | 507.8  | 491.4  | 471.6  | 458.2  | 457.1  | 438.4  | 420.3  | 398.2  | 373.7  |
| 17.5° | 536.9  | 535.8  | 524.7  | 506.6  | 487.4  | 476.3  | 475.1  | 455.9  | 437.8  | 414.5  | 388.3  |
| 20°   | 545.7  | 545.7  | 535.2  | 515.3  | 497.9  | 490.3  | 488.5  | 470.5  | 453.0  | 430.8  | 403.4  |
| 22.5° | 547.4  | 549.2  | 541.0  | 519.4  | 506.6  | 500.2  | 499.0  | 483.3  | 466.4  | 446.0  | 420.3  |
| 25°   | 550.9  | 550.9  | 546.8  | 523.5  | 514.2  | 512.4  | 511.9  | 497.9  | 482.7  | 462.3  | 437.2  |
| 27.5° | 555.0  | 555.0  | 552.1  | 529.3  | 525.8  | 525.3  | 524.7  | 518.3  | 506.0  | 482.1  | 457.1  |
| 30°   | 565.5  | 566.1  | 563.7  | 541.0  | 538.7  | 545.1  | 546.2  | 542.7  | 527.6  | 497.9  | 477.5  |
| 32.5° | 591.7  | 586.5  | 580.1  | 549.2  | 553.2  | 561.4  | 562.0  | 555.0  | 538.7  | 514.8  | 501.9  |
| 35°   | 657.6  | 626.7  | 597.5  | 556.2  | 557.9  | 566.1  | 567.2  | 566.6  | 556.7  | 536.3  | 529.9  |
| 37.5° | 718.8  | 675.1  | 633.7  | 572.5  | 566.6  | 575.4  | 577.7  | 587.6  | 580.1  | 566.1  | 567.8  |
| 40°   | 754.4  | 737.5  | 708.3  | 617.4  | 584.1  | 597.5  | 599.9  | 615.0  | 612.1  | 606.3  | 617.4  |
| 42.5° | 864.0  | 865.1  | 833.7  | 684.4  | 616.2  | 637.8  | 640.7  | 652.9  | 657.0  | 659.9  | 686.7  |
| 45°   | 991.1  | 995.1  | 987.6  | 805.1  | 676.8  | 683.8  | 687.9  | 704.2  | 719.4  | 738.0  | 787.0  |
| 47.5° | 1143.8 | 1140.3 | 1112.3 | 952.6  | 782.3  | 743.3  | 746.2  | 777.7  | 803.9  | 844.7  | 914.7  |
| 50°   | 1279.0 | 1287.8 | 1234.7 | 1090.2 | 931.0  | 837.1  | 834.2  | 865.1  | 912.4  | 969.5  | 1057.5 |
| 52.5° | 1415.5 | 1402.6 | 1330.9 | 1226.6 | 1107.1 | 964.8  | 956.1  | 973.0  | 1039.4 | 1107.1 | 1197.4 |
| 55°   | 1451.6 | 1452.8 | 1428.3 | 1375.8 | 1254.0 | 1119.9 | 1105.3 | 1104.2 | 1186.9 | 1233.0 | 1344.3 |
| 57.5° | 1522.7 | 1525.6 | 1531.5 | 1542.0 | 1484.2 | 1275.0 | 1259.8 | 1243.5 | 1323.9 | 1350.7 | 1491.8 |
| 60°   | 1595.0 | 1598.5 | 1634.1 | 1690.6 | 1652.1 | 1442.3 | 1426.0 | 1387.5 | 1432.4 | 1468.5 | 1646.9 |
| 62.5° | 1585.7 | 1610.2 | 1713.4 | 1825.9 | 1821.2 | 1625.9 | 1605.5 | 1512.8 | 1541.4 | 1572.9 | 1789.1 |
| 65°   | 1431.8 | 1458.0 | 1690.0 | 1863.2 | 1990.9 | 1807.2 | 1774.0 | 1642.2 | 1644.0 | 1681.9 | 1926.1 |
| 67.5° | 1294.2 | 1322.8 | 1544.3 | 1847.4 | 2102.8 | 1969.9 | 1935.5 | 1772.2 | 1744.8 | 1807.8 | 1999.6 |
| 70°   | 1214.9 | 1243.5 | 1428.3 | 1798.5 | 2134.3 | 2150.0 | 2120.3 | 1920.9 | 1864.9 | 1922.6 | 1917.4 |
| 72.5° | 950.8  | 995.7  | 1280.2 | 1705.2 | 2168.1 | 2343.0 | 2319.6 | 2109.2 | 1967.0 | 1802.6 | 1459.8 |
| 75°   | 378.9  | 420.3  | 799.3  | 1372.3 | 2125.5 | 2509.1 | 2491.0 | 2193.7 | 1820.6 | 1287.2 | 747.4  |
| 77.5° | 114.3  | 122.4  | 222.1  | 678.6  | 1558.3 | 2224.6 | 2218.8 | 1844.5 | 1288.4 | 597.5  | 204.0  |
| 80°   | 37.9   | 42.0   | 68.2   | 187.1  | 711.2  | 1389.8 | 1416.0 | 1175.3 | 585.3  | 137.0  | 41.4   |
| 82.5° | 15.7   | 17.5   | 34.4   | 75.2   | 251.8  | 598.7  | 590.0  | 526.4  | 204.0  | 85.1   | 15.2   |
| 85°   | 4.1    | 5.2    | 15.7   | 43.1   | 92.1   | 206.4  | 216.9  | 176.6  | 115.4  | 70.5   | 4.7    |
| 87.5° | 0.0    | 0.0    | 7.6    | 17.5   | 41.4   | 62.4   | 65.3   | 53.6   | 65.3   | 53.1   | 2.3    |
| 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: P397749

CATALOG NUMBER: ARCH-S-PA1-40-722-U-T4W-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°   | 105°  | 115°  | 125°  | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 344.0  | 344.0 | 344.0 | 344.0 | 344.0 | 344.0 | 344.0 | 344.0 | 344.0 | 344.0 | 344.0 |
| 2.5°  | 342.8  | 339.9 | 334.6 | 331.1 | 326.5 | 325.3 | 323.0 | 320.1 | 319.5 | 316.6 | 317.1 |
| 5°    | 337.0  | 332.3 | 323.0 | 316.6 | 309.0 | 306.6 | 302.6 | 299.6 | 297.3 | 293.2 | 293.8 |
| 7.5°  | 335.8  | 328.8 | 316.0 | 303.7 | 291.5 | 282.7 | 270.5 | 260.6 | 252.4 | 243.7 | 245.4 |
| 10°   | 339.9  | 331.1 | 313.1 | 296.2 | 274.0 | 246.0 | 214.0 | 193.0 | 182.5 | 172.0 | 173.1 |
| 12.5° | 348.0  | 337.5 | 314.2 | 288.6 | 243.7 | 195.9 | 151.6 | 123.0 | 115.4 | 110.8 | 111.3 |
| 15°   | 360.3  | 347.5 | 317.7 | 274.0 | 202.9 | 141.7 | 100.9 | 88.6  | 91.5  | 93.3  | 93.3  |
| 17.5° | 373.1  | 358.5 | 320.6 | 247.8 | 156.8 | 99.1  | 82.2  | 81.0  | 85.1  | 89.2  | 89.2  |
| 20°   | 388.8  | 370.2 | 321.2 | 214.5 | 113.1 | 80.5  | 77.5  | 77.5  | 80.5  | 85.1  | 85.1  |
| 22.5° | 404.0  | 383.0 | 316.0 | 176.6 | 86.3  | 74.6  | 74.6  | 74.6  | 76.4  | 81.0  | 81.6  |
| 25°   | 422.1  | 398.8 | 304.9 | 136.4 | 74.0  | 71.1  | 71.1  | 71.7  | 72.9  | 77.0  | 77.5  |
| 27.5° | 441.3  | 415.1 | 286.2 | 99.7  | 67.6  | 67.0  | 67.6  | 68.2  | 68.8  | 72.9  | 74.0  |
| 30°   | 463.5  | 433.1 | 262.3 | 74.6  | 61.8  | 61.8  | 63.5  | 64.7  | 64.7  | 68.2  | 69.4  |
| 32.5° | 489.1  | 457.1 | 233.8 | 61.8  | 56.0  | 55.4  | 58.3  | 60.0  | 60.0  | 63.0  | 64.1  |
| 35°   | 521.2  | 481.5 | 199.4 | 54.8  | 51.3  | 50.1  | 51.3  | 54.2  | 55.4  | 57.7  | 58.3  |
| 37.5° | 563.7  | 510.7 | 162.6 | 50.7  | 47.8  | 45.5  | 45.5  | 46.1  | 48.4  | 50.7  | 51.3  |
| 40°   | 618.0  | 542.7 | 126.5 | 47.8  | 44.3  | 42.0  | 40.2  | 39.6  | 39.1  | 40.8  | 42.0  |
| 42.5° | 686.2  | 578.9 | 94.4  | 44.9  | 41.4  | 37.9  | 35.6  | 33.2  | 30.3  | 29.7  | 30.3  |
| 45°   | 773.6  | 623.2 | 70.0  | 42.6  | 39.6  | 34.4  | 30.3  | 26.2  | 21.0  | 19.2  | 19.8  |
| 47.5° | 876.8  | 669.3 | 54.8  | 40.2  | 38.5  | 30.3  | 25.1  | 18.1  | 12.8  | 11.7  | 12.2  |
| 50°   | 986.4  | 713.6 | 46.6  | 37.3  | 36.1  | 26.2  | 18.1  | 11.1  | 7.6   | 7.6   | 8.2   |
| 52.5° | 1079.7 | 738.6 | 42.6  | 35.0  | 32.6  | 21.6  | 11.7  | 6.4   | 4.7   | 4.7   | 5.2   |
| 55°   | 1170.0 | 752.0 | 39.6  | 32.6  | 28.0  | 15.2  | 6.4   | 4.1   | 2.9   | 2.9   | 2.9   |
| 57.5° | 1263.3 | 757.9 | 36.1  | 29.7  | 22.2  | 9.3   | 3.5   | 2.3   | 1.7   | 1.7   | 1.7   |
| 60°   | 1346.1 | 746.8 | 30.9  | 24.5  | 14.6  | 4.7   | 1.7   | 1.7   | 1.2   | 0.6   | 0.6   |
| 62.5° | 1415.5 | 725.8 | 21.6  | 17.5  | 8.7   | 2.3   | 1.2   | 0.6   | 0.0   | 0.0   | 0.0   |
| 65°   | 1458.0 | 692.0 | 14.0  | 11.7  | 5.2   | 1.7   | 0.6   | 0.0   | 0.0   | 0.0   | 0.0   |
| 67.5° | 1445.8 | 628.4 | 8.7   | 7.6   | 2.3   | 1.2   | 0.6   | 0.0   | 0.0   | 0.0   | 0.0   |
| 70°   | 1304.7 | 515.3 | 6.4   | 4.7   | 1.7   | 0.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 72.5° | 940.3  | 348.6 | 4.7   | 2.9   | 1.2   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 75°   | 452.4  | 124.2 | 2.9   | 2.3   | 0.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 77.5° | 110.8  | 27.4  | 1.7   | 1.2   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 80°   | 24.5   | 5.2   | 1.2   | 0.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 82.5° | 8.2    | 2.3   | 0.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 2.9    | 1.2   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 1.7    | 0.6   | 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   |

(END OF REPORT)