

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: P836243

Luminaire Tested: **ARCH3-160-727-U-T2R-HSS**

Issue Date: 5/16/2024

### Test Information

Test Method: LM-79-08  
Report Number: P836243  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2403-329-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/16/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH3-160-727-U-T2R-HSS  
Description: ARCHEON CONTEMPORARY ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 1245mA LIGHTSQUARE WITH 40 LEDS AND TYPE II ROADWAY  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 15123 lumens  
Efficiency: N/A  
Efficacy: 93.9 lumens/watt  
Luminous Opening: Rectangular (W 0.58' x L: 0.58' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G2

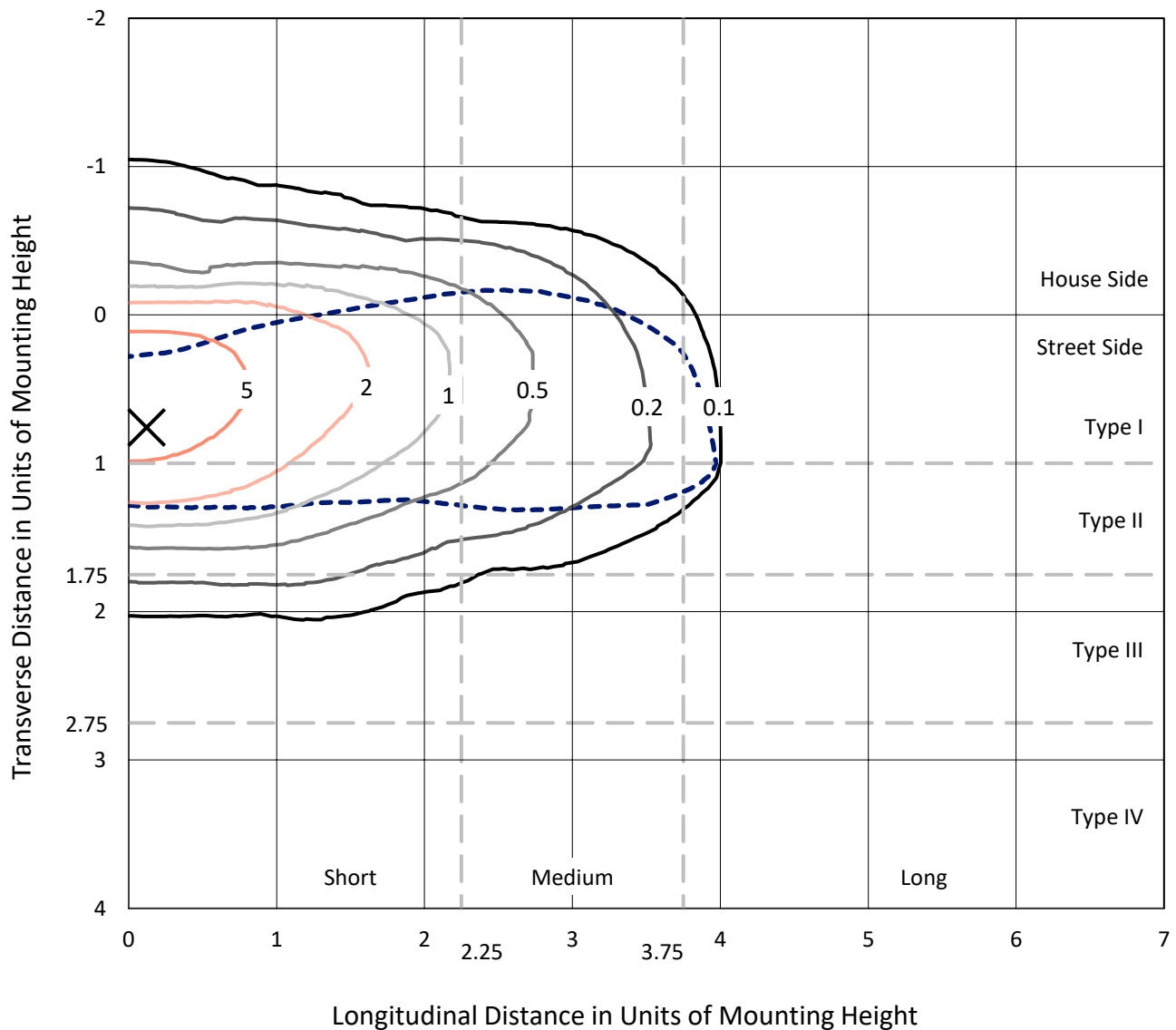
Input Watts (W): 161  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P836243  
CATALOG NUMBER: ARCH3-160-727-U-T2R-HSS

## Iso-Footcandle Lines of Horizontal Illumination

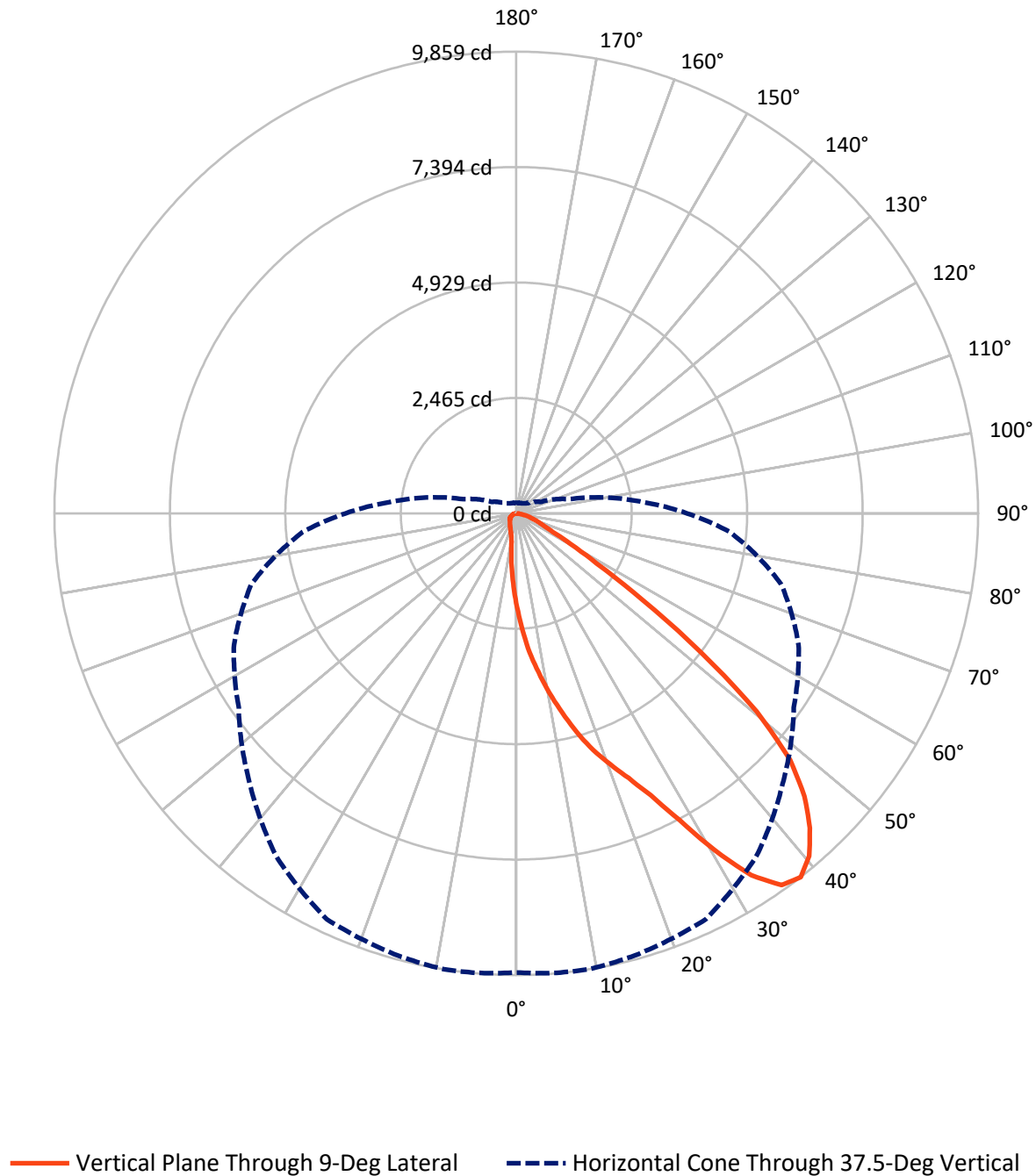
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.8 fc  
Type II - Short - N/A

REPORT NUMBER: P836243  
CATALOG NUMBER: ARCH3-160-727-U-T2R-HSS

## Luminous Intensity Polar Plot



REPORT NUMBER: P836243

CATALOG NUMBER: ARCH3-160-727-U-T2R-HSS

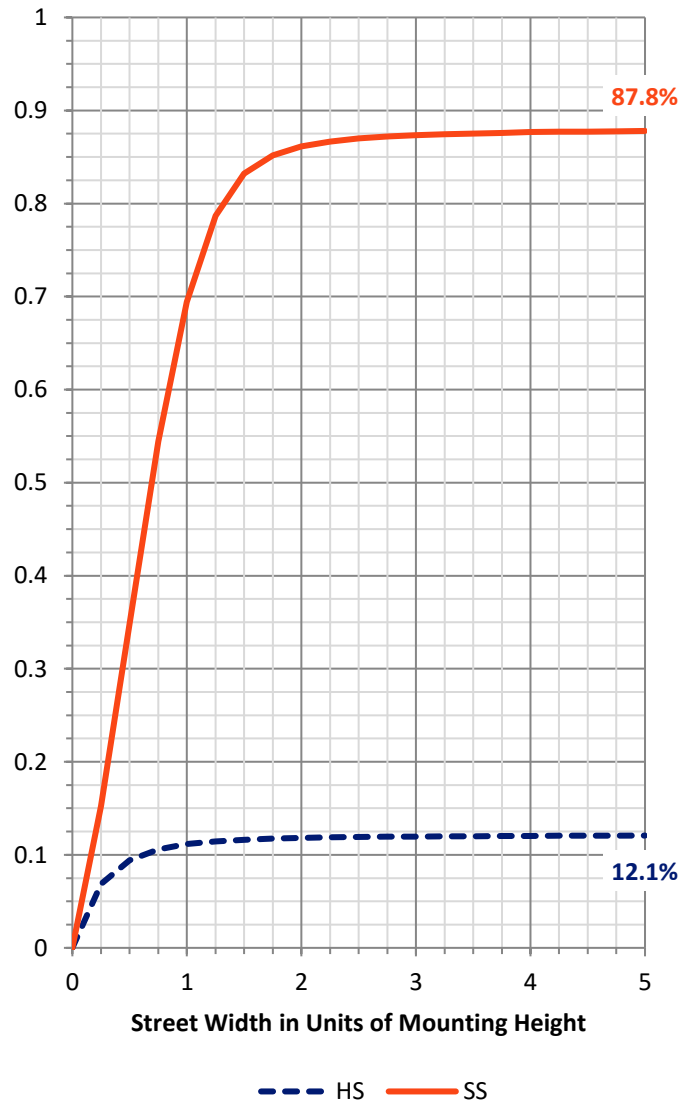
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1839.2   | 0.0    | 1839.2  |
|                    | % Fixture | 12.2     | 0.0    | 12.2    |
| <b>Street Side</b> | Lumens    | 13283.8  | 0.0    | 13283.8 |
|                    | % Fixture | 87.8     | 0.0    | 87.8    |
| <b>Total</b>       | Lumens    | 15123.0  | 0.0    | 15123.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 200.9   | 1.3       |
| 10°-20°   | 698.4   | 4.6       |
| 20°-30°   | 1435.0  | 9.5       |
| 30°-40°   | 2536.5  | 16.8      |
| 40°-50°   | 3369.6  | 22.3      |
| 50°-60°   | 3195.8  | 21.1      |
| 60°-70°   | 2438.1  | 16.1      |
| 70°-80°   | 1182.0  | 7.8       |
| 80°-90°   | 66.5    | 0.4       |
| 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°    | 15123.0 | 100.0     |
| 0°-180°   | 15123.0 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P836243

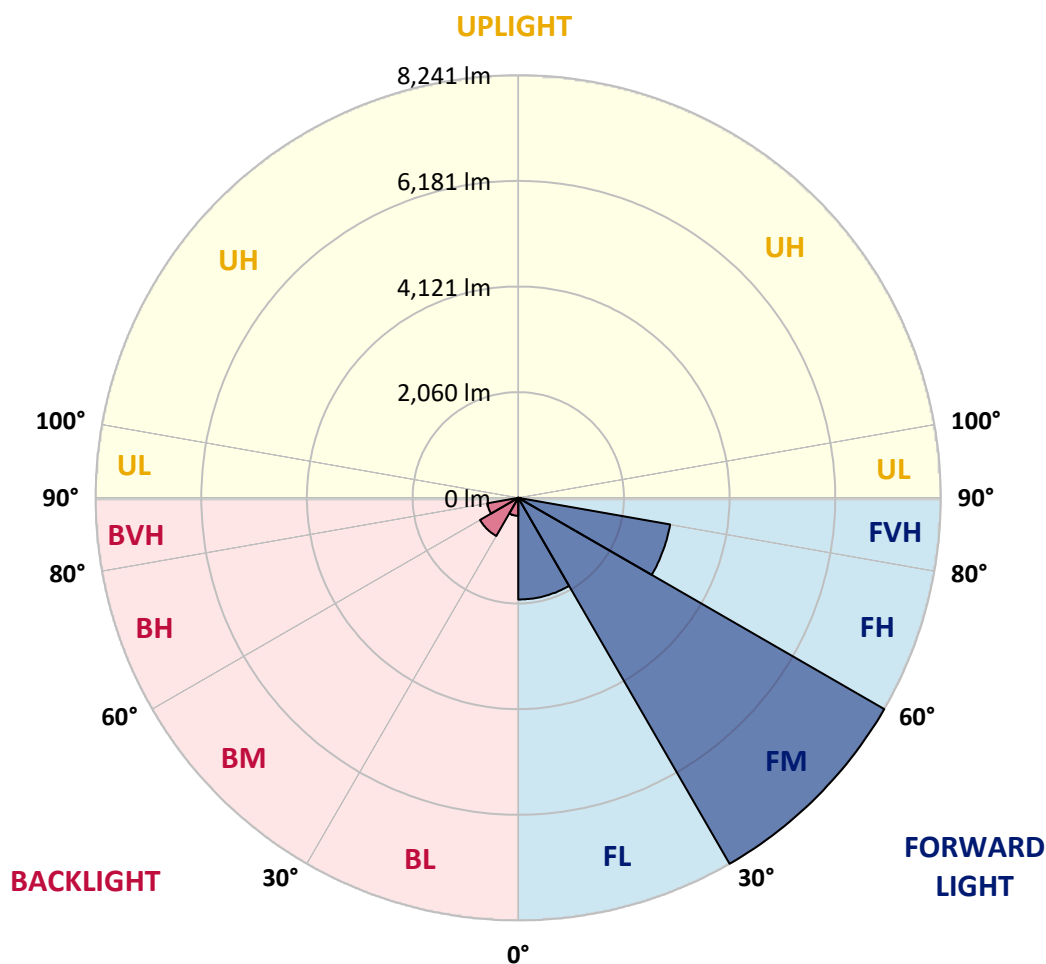
CATALOG NUMBER: ARCH3-160-727-U-T2R-HSS

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1983.4 | 13.1      |                         |      |         |
| FM   | (30°-60°)   | 8241.3 | 54.5      |                         |      |         |
| FH   | (60°-80°)   | 3006.4 | 19.9      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 52.7   | 0.3       |                         |      | G1/100  |
| BL   | (0°-30°)    | 351.0  | 2.3       | B1/500                  |      |         |
| BM   | (30°-60°)   | 860.6  | 5.7       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 613.7  | 4.1       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 13.8   | 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 II Short



REPORT NUMBER: P836243

CATALOG NUMBER: ARCH3-160-727-U-T2R-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 9°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1999.1 | 1999.1 | 1999.1 | 1999.1 | 1999.1 | 1999.1 | 1999.1 | 1999.1 | 1999.1 | 1999.1 | 1999.1 |
| 2.5°  | 2477.1 | 2433.7 | 2483.3 | 2477.1 | 2433.7 | 2405.7 | 2318.8 | 2290.9 | 2188.4 | 2113.9 | 2048.7 |
| 5°    | 2986.2 | 2942.7 | 2986.2 | 2973.8 | 2911.7 | 2843.4 | 2700.6 | 2607.5 | 2424.3 | 2262.9 | 2117.0 |
| 7.5°  | 3408.4 | 3408.4 | 3427.0 | 3430.1 | 3355.6 | 3250.1 | 3073.1 | 2933.4 | 2675.8 | 2427.5 | 2194.6 |
| 10°   | 3864.7 | 3867.8 | 3908.1 | 3880.2 | 3780.9 | 3638.1 | 3414.6 | 3237.6 | 2927.2 | 2601.3 | 2269.1 |
| 12.5° | 4352.0 | 4355.1 | 4367.6 | 4355.1 | 4237.2 | 4054.0 | 3784.0 | 3551.2 | 3194.2 | 2800.0 | 2371.6 |
| 15°   | 4839.4 | 4842.5 | 4858.0 | 4836.3 | 4705.9 | 4491.7 | 4184.4 | 3898.8 | 3476.7 | 3023.4 | 2495.7 |
| 17.5° | 5295.7 | 5301.9 | 5314.3 | 5286.4 | 5149.8 | 4895.3 | 4581.7 | 4237.2 | 3777.8 | 3262.5 | 2635.4 |
| 20°   | 5705.4 | 5711.7 | 5721.0 | 5683.7 | 5547.1 | 5292.6 | 4954.2 | 4594.2 | 4085.1 | 3507.7 | 2787.5 |
| 22.5° | 6118.3 | 6124.5 | 6140.0 | 6090.4 | 5938.3 | 5646.5 | 5314.3 | 4941.8 | 4411.0 | 3777.8 | 2964.5 |
| 25°   | 6646.0 | 6652.2 | 6664.6 | 6593.2 | 6385.3 | 6043.8 | 5693.0 | 5311.2 | 4764.9 | 4082.0 | 3181.8 |
| 27.5° | 7418.9 | 7412.7 | 7412.7 | 7282.4 | 6925.4 | 6481.5 | 6074.8 | 5686.8 | 5146.7 | 4407.9 | 3420.8 |
| 30°   | 8375.0 | 8359.5 | 8350.2 | 8173.2 | 7664.2 | 6975.0 | 6466.0 | 6037.6 | 5513.0 | 4752.5 | 3678.4 |
| 32.5° | 9231.8 | 9231.8 | 9213.1 | 9026.9 | 8486.8 | 7639.3 | 6881.9 | 6379.0 | 5866.9 | 5100.1 | 3945.4 |
| 35°   | 9737.7 | 9759.5 | 9750.2 | 9610.5 | 9216.2 | 8353.3 | 7443.8 | 6788.8 | 6239.4 | 5463.3 | 4265.1 |
| 37.5° | 9806.0 | 9849.5 | 9858.8 | 9775.0 | 9567.0 | 8936.9 | 8067.7 | 7232.7 | 6649.1 | 5854.4 | 4575.5 |
| 40°   | 9529.8 | 9622.9 | 9622.9 | 9610.5 | 9536.0 | 9213.1 | 8592.3 | 7748.0 | 7071.3 | 6261.1 | 4889.0 |
| 42.5° | 9104.5 | 9200.7 | 9188.3 | 9234.9 | 9216.2 | 9148.0 | 8887.2 | 8229.1 | 7493.4 | 6680.1 | 5174.6 |
| 45°   | 8548.9 | 8648.2 | 8623.4 | 8707.2 | 8744.4 | 8818.9 | 8856.2 | 8564.4 | 7909.4 | 7136.5 | 5494.4 |
| 47.5° | 7658.0 | 7825.6 | 7862.8 | 8011.8 | 8167.0 | 8399.9 | 8576.8 | 8685.4 | 8297.4 | 7626.9 | 5842.0 |
| 50°   | 6341.8 | 6577.7 | 6652.2 | 6965.7 | 7391.0 | 7872.1 | 8157.7 | 8536.4 | 8570.6 | 8129.8 | 6217.6 |
| 52.5° | 4541.4 | 4814.5 | 4929.4 | 5444.7 | 6320.1 | 7158.2 | 7673.5 | 8207.4 | 8676.1 | 8610.9 | 6624.3 |
| 55°   | 2936.5 | 3169.3 | 3281.1 | 3765.3 | 4929.4 | 6245.6 | 7102.3 | 7782.1 | 8617.1 | 9051.7 | 7089.9 |
| 57.5° | 1809.7 | 1943.2 | 2017.7 | 2433.7 | 3504.6 | 5075.3 | 6354.2 | 7391.0 | 8437.1 | 9433.5 | 7574.1 |
| 60°   | 1219.9 | 1297.5 | 1334.8 | 1530.3 | 2380.9 | 3793.3 | 5326.7 | 6981.3 | 8201.2 | 9691.2 | 8014.9 |
| 62.5° | 810.2  | 835.0  | 872.3  | 993.3  | 1570.7 | 2663.4 | 4091.3 | 6248.7 | 8024.2 | 9706.7 | 8340.9 |
| 65°   | 627.0  | 639.5  | 655.0  | 707.7  | 968.5  | 1862.5 | 2877.6 | 5062.9 | 7760.4 | 9377.7 | 8443.3 |
| 67.5° | 493.6  | 506.0  | 524.6  | 552.5  | 701.5  | 1263.4 | 1958.7 | 3709.5 | 7220.3 | 8862.4 | 8275.7 |
| 70°   | 388.0  | 397.3  | 409.7  | 434.6  | 546.3  | 915.7  | 1294.4 | 2464.7 | 6130.7 | 8371.9 | 7748.0 |
| 72.5° | 307.3  | 316.6  | 329.0  | 353.9  | 443.9  | 670.5  | 887.8  | 1536.6 | 4727.6 | 7772.8 | 6732.9 |
| 75°   | 242.1  | 248.3  | 257.6  | 282.5  | 357.0  | 521.5  | 602.2  | 918.8  | 3212.8 | 6677.0 | 5246.0 |
| 77.5° | 121.1  | 149.0  | 170.7  | 195.6  | 260.7  | 360.1  | 400.4  | 509.1  | 1356.5 | 3427.0 | 2502.0 |
| 80°   | 71.4   | 86.9   | 93.1   | 108.6  | 170.7  | 217.3  | 217.3  | 204.9  | 428.4  | 1316.2 | 1021.3 |
| 82.5° | 40.4   | 55.9   | 59.0   | 62.1   | 102.4  | 124.2  | 99.3   | 74.5   | 86.9   | 440.8  | 298.0  |
| 85°   | 12.4   | 18.6   | 21.7   | 24.8   | 34.1   | 37.2   | 34.1   | 31.0   | 24.8   | 43.5   | 27.9   |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 3.1    | 6.2    | 6.2    | 6.2    | 9.3    | 9.3    | 9.3    |
| 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: P836243

CATALOG NUMBER: ARCH3-160-727-U-T2R-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1999.1 | 1999.1 | 1999.1 | 1999.1 | 1999.1 | 1999.1 | 1999.1 | 1999.1 | 1999.1 | 1999.1 | 1999.1 |
| 2.5°  | 2011.5 | 1971.1 | 1893.5 | 1822.1 | 1753.8 | 1704.2 | 1657.6 | 1614.2 | 1583.1 | 1558.3 | 1555.2 |
| 5°    | 2039.4 | 1958.7 | 1809.7 | 1670.0 | 1542.8 | 1437.2 | 1347.2 | 1275.8 | 1223.0 | 1185.8 | 1182.7 |
| 7.5°  | 2076.7 | 1952.5 | 1725.9 | 1517.9 | 1328.6 | 1176.5 | 1046.1 | 949.9  | 881.6  | 853.6  | 831.9  |
| 10°   | 2107.7 | 1946.3 | 1642.1 | 1365.8 | 1117.5 | 925.0  | 769.8  | 673.6  | 623.9  | 605.3  | 596.0  |
| 12.5° | 2160.5 | 1952.5 | 1570.7 | 1226.1 | 934.4  | 707.7  | 589.8  | 537.0  | 515.3  | 499.8  | 496.7  |
| 15°   | 2238.1 | 1980.5 | 1502.4 | 1089.6 | 748.1  | 571.2  | 502.9  | 468.7  | 447.0  | 443.9  | 440.8  |
| 17.5° | 2315.7 | 2005.3 | 1440.3 | 949.9  | 620.8  | 496.7  | 450.1  | 422.2  | 406.6  | 403.5  | 403.5  |
| 20°   | 2405.7 | 2036.3 | 1372.0 | 816.4  | 530.8  | 447.0  | 409.7  | 388.0  | 369.4  | 366.3  | 366.3  |
| 22.5° | 2511.3 | 2079.8 | 1306.9 | 698.4  | 471.8  | 409.7  | 378.7  | 353.9  | 338.4  | 335.2  | 335.2  |
| 25°   | 2654.1 | 2145.0 | 1254.1 | 611.5  | 431.5  | 378.7  | 350.8  | 329.0  | 316.6  | 310.4  | 310.4  |
| 27.5° | 2812.4 | 2235.0 | 1216.8 | 558.7  | 403.5  | 353.9  | 325.9  | 307.3  | 294.9  | 288.7  | 288.7  |
| 30°   | 2989.3 | 2334.3 | 1192.0 | 537.0  | 388.0  | 332.1  | 307.3  | 288.7  | 273.2  | 270.1  | 270.1  |
| 32.5° | 3184.9 | 2449.2 | 1176.5 | 540.1  | 384.9  | 316.6  | 288.7  | 270.1  | 257.6  | 251.4  | 251.4  |
| 35°   | 3402.2 | 2576.5 | 1167.2 | 558.7  | 391.1  | 304.2  | 273.2  | 254.5  | 242.1  | 235.9  | 235.9  |
| 37.5° | 3644.3 | 2725.5 | 1167.2 | 577.4  | 406.6  | 301.1  | 257.6  | 239.0  | 229.7  | 223.5  | 223.5  |
| 40°   | 3870.9 | 2883.8 | 1179.6 | 599.1  | 422.2  | 301.1  | 245.2  | 229.7  | 217.3  | 211.1  | 211.1  |
| 42.5° | 4047.8 | 2973.8 | 1188.9 | 620.8  | 431.5  | 298.0  | 232.8  | 217.3  | 208.0  | 201.8  | 201.8  |
| 45°   | 4249.6 | 3070.0 | 1170.3 | 630.1  | 431.5  | 291.8  | 223.5  | 208.0  | 198.7  | 192.5  | 192.5  |
| 47.5° | 4473.1 | 3188.0 | 1167.2 | 636.4  | 422.2  | 279.4  | 214.2  | 198.7  | 192.5  | 186.2  | 186.2  |
| 50°   | 4699.7 | 3318.3 | 1173.4 | 633.2  | 409.7  | 260.7  | 201.8  | 192.5  | 183.1  | 176.9  | 176.9  |
| 52.5° | 4957.3 | 3454.9 | 1185.8 | 627.0  | 381.8  | 239.0  | 192.5  | 183.1  | 173.8  | 167.6  | 164.5  |
| 55°   | 5242.9 | 3603.9 | 1210.6 | 614.6  | 344.6  | 217.3  | 183.1  | 173.8  | 161.4  | 155.2  | 152.1  |
| 57.5° | 5572.0 | 3787.1 | 1238.6 | 589.8  | 304.2  | 198.7  | 173.8  | 161.4  | 142.8  | 133.5  | 130.4  |
| 60°   | 5885.5 | 3995.1 | 1269.6 | 530.8  | 263.9  | 180.0  | 164.5  | 145.9  | 127.3  | 121.1  | 118.0  |
| 62.5° | 6180.4 | 4199.9 | 1285.1 | 425.3  | 223.5  | 164.5  | 155.2  | 133.5  | 114.9  | 108.6  | 105.5  |
| 65°   | 6369.7 | 4423.4 | 1251.0 | 288.7  | 183.1  | 152.1  | 142.8  | 124.2  | 105.5  | 96.2   | 96.2   |
| 67.5° | 6382.1 | 4529.0 | 1133.0 | 189.4  | 149.0  | 136.6  | 130.4  | 111.7  | 93.1   | 86.9   | 83.8   |
| 70°   | 6068.6 | 4370.7 | 866.1  | 149.0  | 124.2  | 118.0  | 118.0  | 99.3   | 80.7   | 74.5   | 71.4   |
| 72.5° | 5348.5 | 3870.9 | 552.5  | 121.1  | 105.5  | 99.3   | 99.3   | 83.8   | 71.4   | 62.1   | 59.0   |
| 75°   | 4221.7 | 2986.2 | 294.9  | 99.3   | 86.9   | 83.8   | 77.6   | 68.3   | 59.0   | 52.8   | 49.7   |
| 77.5° | 1940.1 | 1316.2 | 136.6  | 71.4   | 65.2   | 65.2   | 59.0   | 49.7   | 46.6   | 40.4   | 40.4   |
| 80°   | 766.7  | 447.0  | 68.3   | 46.6   | 43.5   | 43.5   | 43.5   | 34.1   | 34.1   | 27.9   | 24.8   |
| 82.5° | 211.1  | 93.1   | 34.1   | 27.9   | 27.9   | 27.9   | 24.8   | 21.7   | 21.7   | 18.6   | 18.6   |
| 85°   | 21.7   | 15.5   | 15.5   | 15.5   | 15.5   | 12.4   | 12.4   | 9.3    | 6.2    | 6.2    | 6.2    |
| 87.5° | 9.3    | 9.3    | 9.3    | 9.3    | 9.3    | 6.2    | 3.1    | 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)