

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: P841471

Luminaire Tested: **ARCH4-180-740-U-T2U-HSS**

Issue Date: 5/27/2024

### Test Information

Test Method: LM-79-08  
Report Number: P841471  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2401-285-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/27/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH4-180-740-U-T2U-HSS  
Description: ARCHEON CONTEMPORARY ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 1455mA LIGHTSQUARES WITH 40 LEDS EACH AND TYPE II U  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 20953 lumens  
Efficiency: N/A  
Efficacy: 116.4 lumens/watt  
Luminous Opening: Rectangular (W 1.17' x L: 0.58' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G2

Input Watts (W): 180  
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



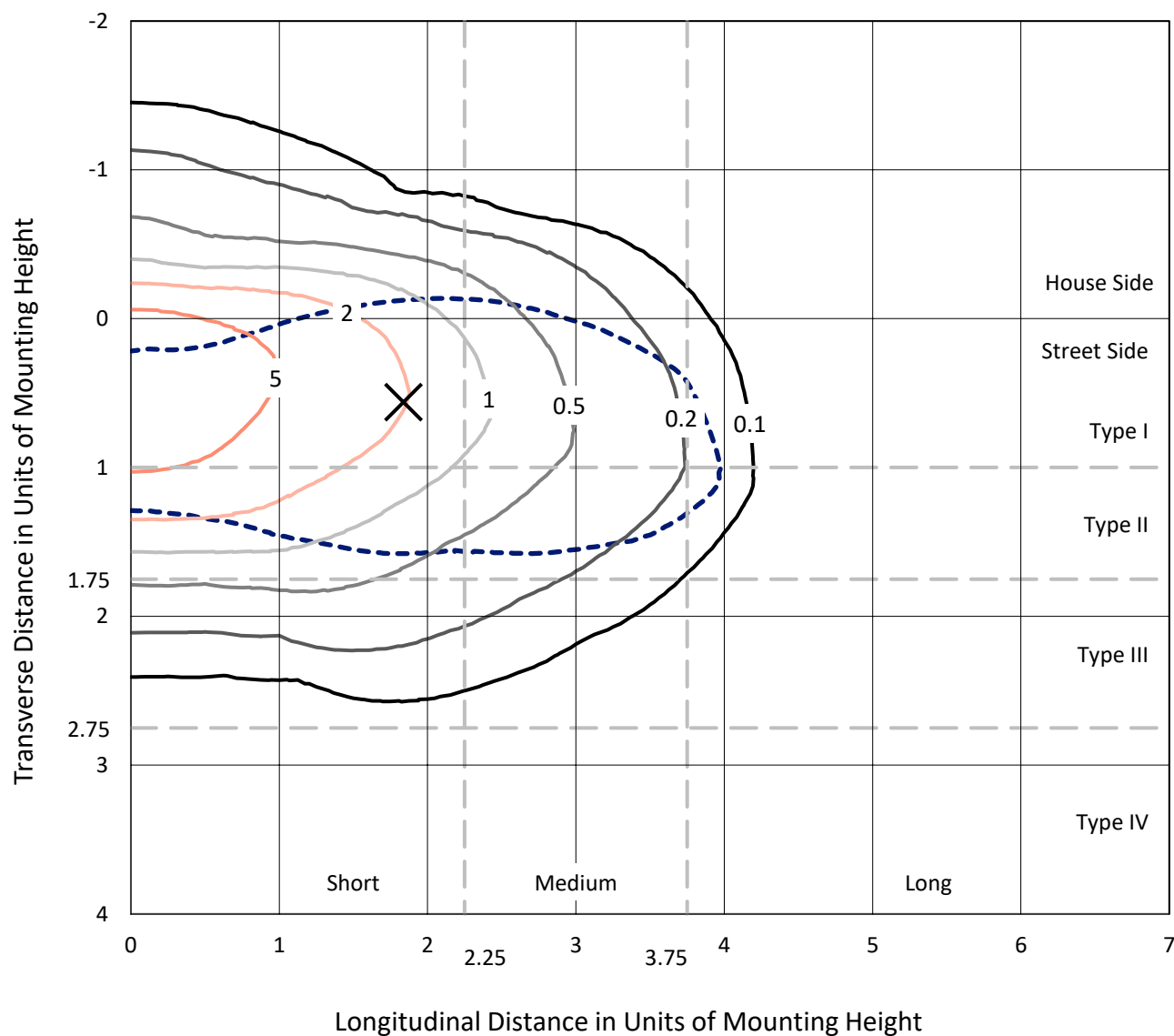
REPORT NUMBER: P841471

CATALOG NUMBER: ARCH4-180-740-U-T2U-HSS

## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

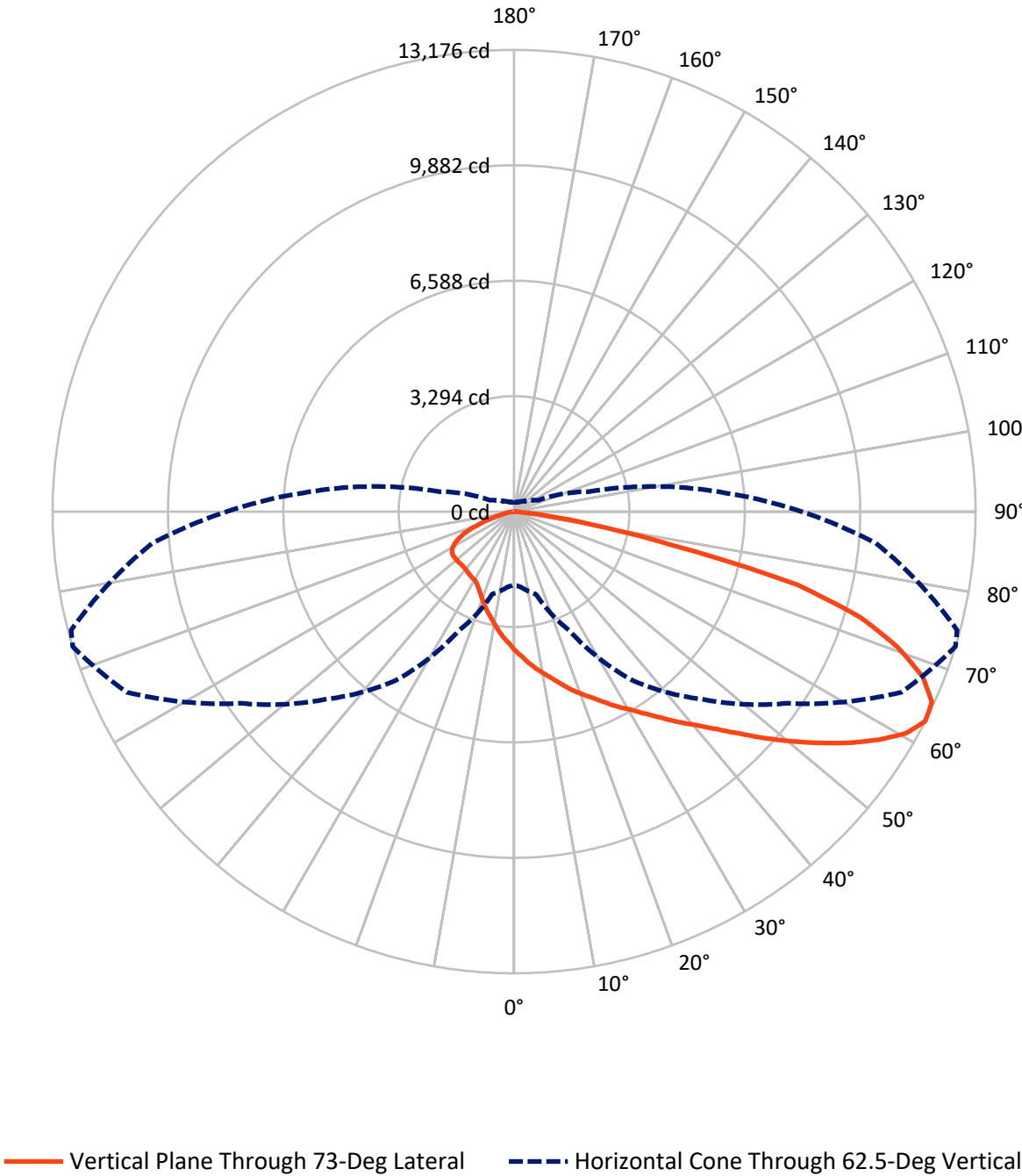


Based on 25 foot mounting height. Maximum calculated value = 10 fc

Type II - Short - N/A

REPORT NUMBER: P841471  
CATALOG NUMBER: ARCH4-180-740-U-T2U-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P841471

CATALOG NUMBER: ARCH4-180-740-U-T2U-HSS

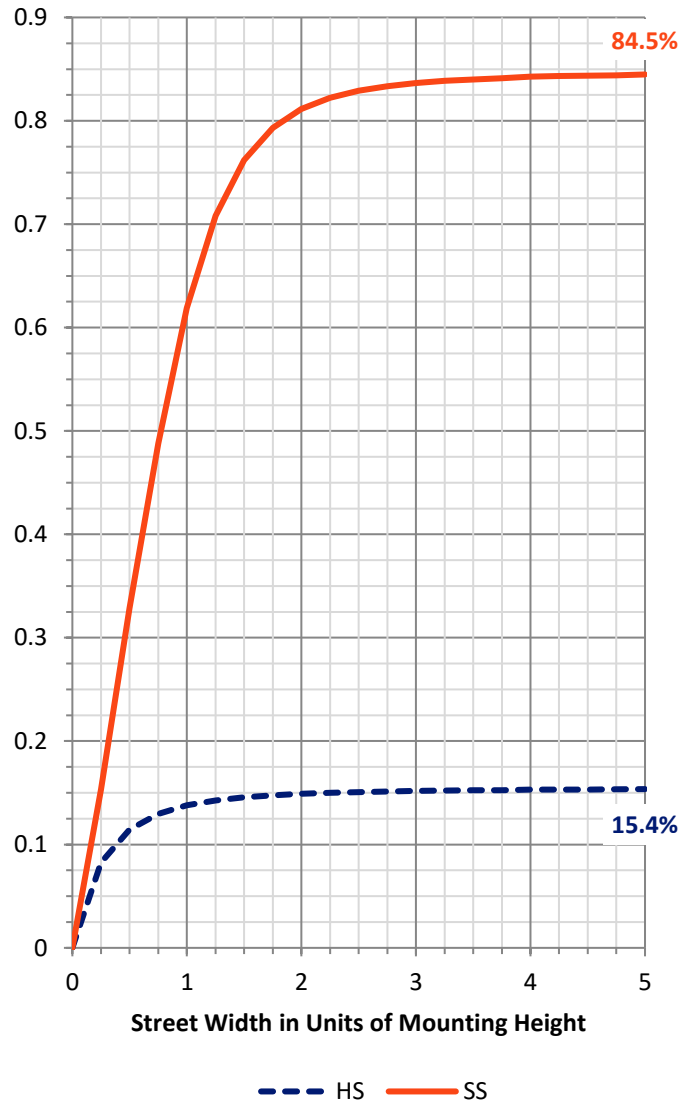
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3248.0   | 0.0    | 3248.0  |
|                    | % Fixture | 15.5     | 0.0    | 15.5    |
| <b>Street Side</b> | Lumens    | 17705.0  | 0.0    | 17705.0 |
|                    | % Fixture | 84.5     | 0.0    | 84.5    |
| <b>Total</b>       | Lumens    | 20953.0  | 0.0    | 20953.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 383.3   | 1.8       |
| 10°-20°   | 1156.6  | 5.5       |
| 20°-30°   | 1925.1  | 9.2       |
| 30°-40°   | 2904.8  | 13.9      |
| 40°-50°   | 4060.1  | 19.4      |
| 50°-60°   | 4484.6  | 21.4      |
| 60°-70°   | 3906.7  | 18.6      |
| 70°-80°   | 1973.4  | 9.4       |
| 80°-90°   | 158.4   | 0.8       |
| 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°    | 20953.0 | 100.0     |
| 0°-180°   | 20953.0 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P841471

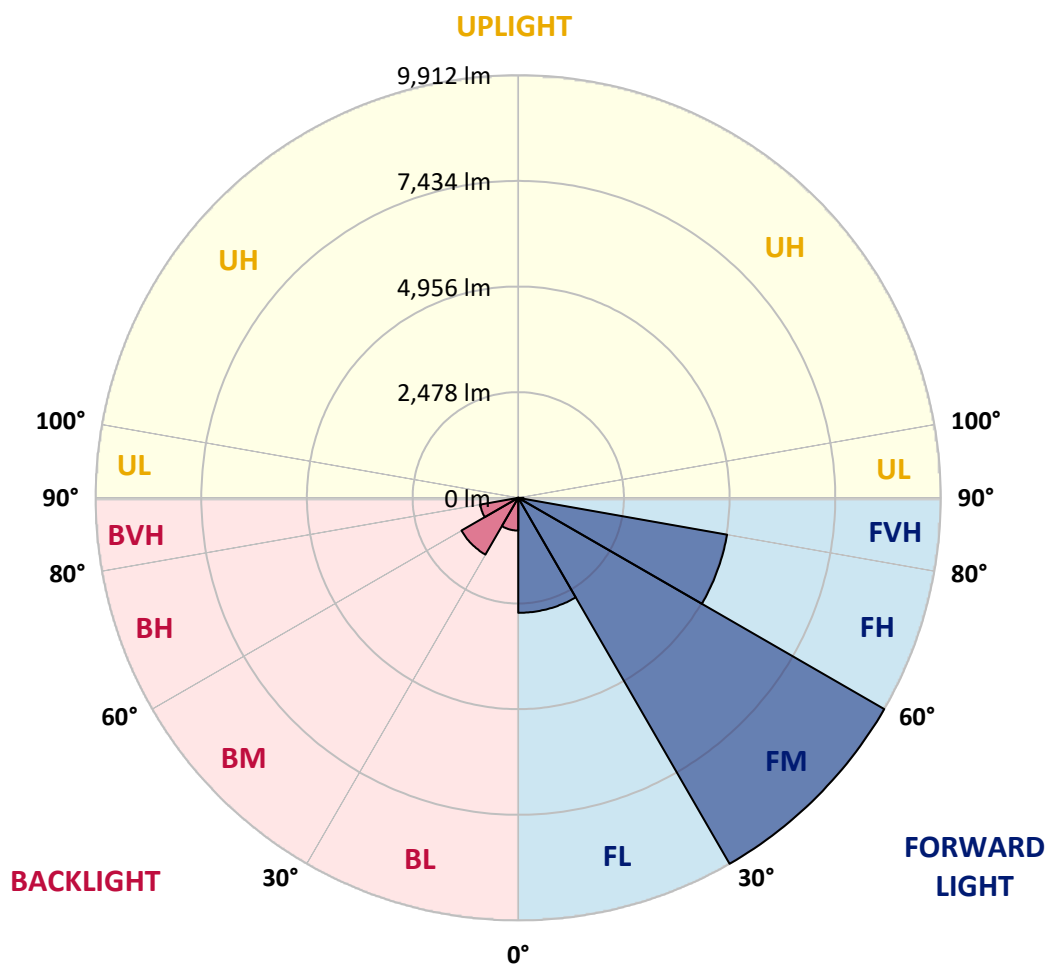
CATALOG NUMBER: ARCH4-180-740-U-T2U-HSS

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2697.3 | 12.9      |                         |      |         |
| FM   | (30°-60°)   | 9911.5 | 47.3      |                         |      |         |
| FH   | (60°-80°)   | 4973.6 | 23.7      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 122.6  | 0.6       |                         |      | G2/225  |
| BL   | (0°-30°)    | 767.7  | 3.7       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1537.9 | 7.3       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 906.6  | 4.3       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 35.8   | 0.2       |                         |      | 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: P841471

CATALOG NUMBER: ARCH4-180-740-U-T2U-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°     | 25°     | 35°    | 45°    | 55°     | 65°     | 73°     | 75°     | 85°     |
|-------|--------|--------|---------|---------|--------|--------|---------|---------|---------|---------|---------|
| 0°    | 3967.5 | 3967.5 | 3967.5  | 3967.5  | 3967.5 | 3967.5 | 3967.5  | 3967.5  | 3967.5  | 3967.5  | 3967.5  |
| 2.5°  | 4515.4 | 4565.6 | 4538.2  | 4556.5  | 4465.1 | 4405.8 | 4337.3  | 4204.9  | 4131.9  | 4122.7  | 4036.0  |
| 5°    | 5177.4 | 5232.2 | 5186.5  | 5172.8  | 5013.0 | 4876.0 | 4720.8  | 4488.0  | 4332.7  | 4305.3  | 4113.6  |
| 7.5°  | 5839.4 | 5889.6 | 5834.8  | 5793.7  | 5579.1 | 5337.2 | 5108.9  | 4766.5  | 4524.5  | 4478.8  | 4177.5  |
| 10°   | 6305.1 | 6350.7 | 6309.6  | 6268.6  | 6044.8 | 5798.3 | 5474.1  | 5026.7  | 4698.0  | 4624.9  | 4218.6  |
| 12.5° | 6656.6 | 6684.0 | 6665.8  | 6629.2  | 6419.2 | 6154.4 | 5844.0  | 5318.9  | 4894.3  | 4803.0  | 4282.5  |
| 15°   | 6944.3 | 6989.9 | 6967.1  | 6939.7  | 6738.8 | 6474.0 | 6177.2  | 5624.8  | 5122.6  | 5008.4  | 4378.4  |
| 17.5° | 7136.0 | 7168.0 | 7172.5  | 7172.5  | 6994.5 | 6734.2 | 6446.6  | 5903.3  | 5350.9  | 5204.8  | 4469.7  |
| 20°   | 7222.8 | 7259.3 | 7282.1  | 7318.6  | 7172.5 | 6948.8 | 6656.6  | 6140.7  | 5565.5  | 5401.1  | 4556.5  |
| 22.5° | 7263.8 | 7295.8 | 7355.2  | 7437.3  | 7318.6 | 7131.4 | 6862.1  | 6359.9  | 5780.0  | 5606.5  | 4656.9  |
| 25°   | 7295.8 | 7336.9 | 7423.6  | 7578.9  | 7496.7 | 7336.9 | 7104.1  | 6611.0  | 6035.7  | 5857.6  | 4803.0  |
| 27.5° | 7382.6 | 7432.8 | 7515.0  | 7702.1  | 7601.7 | 7524.1 | 7359.7  | 6880.3  | 6305.1  | 6122.5  | 4981.1  |
| 30°   | 7683.9 | 7725.0 | 7720.4  | 7839.1  | 7715.8 | 7693.0 | 7578.9  | 7140.6  | 6565.3  | 6382.7  | 5191.1  |
| 32.5° | 8231.8 | 8272.8 | 8172.4  | 8126.7  | 7857.4 | 7861.9 | 7816.3  | 7419.1  | 6875.8  | 6688.6  | 5433.0  |
| 35°   | 8820.7 | 8866.4 | 8734.0  | 8656.4  | 8204.4 | 8072.0 | 8094.8  | 7766.1  | 7222.8  | 7035.6  | 5734.4  |
| 37.5° | 9345.8 | 9400.5 | 9286.4  | 9172.3  | 8715.7 | 8409.8 | 8405.2  | 8154.1  | 7620.0  | 7428.2  | 6067.7  |
| 40°   | 9633.4 | 9697.3 | 9765.8  | 9701.9  | 9222.5 | 8884.6 | 8738.5  | 8551.3  | 8012.6  | 7816.3  | 6428.3  |
| 42.5° | 9770.4 | 9948.4 | 10071.7 | 10030.6 | 9638.0 | 9295.5 | 9122.0  | 8966.8  | 8492.0  | 8300.2  | 6857.5  |
| 45°   | 9386.8 | 9391.4 | 9651.7  | 9875.4  | 9802.3 | 9574.0 | 9542.1  | 9432.5  | 9039.9  | 8857.2  | 7341.5  |
| 47.5° | 8907.5 | 8870.9 | 9053.6  | 9450.8  | 9656.2 | 9715.6 | 9902.8  | 9948.4  | 9665.3  | 9482.7  | 7834.5  |
| 50°   | 7756.9 | 7779.8 | 8373.3  | 8944.0  | 9345.8 | 9729.3 | 10158.4 | 10478.0 | 10309.1 | 10135.6 | 8355.0  |
| 52.5° | 6309.6 | 6364.4 | 7044.7  | 8300.2  | 8934.9 | 9592.3 | 10309.1 | 11007.6 | 10966.5 | 10802.2 | 8875.5  |
| 55°   | 5058.7 | 5145.4 | 5866.8  | 7227.3  | 8409.8 | 9286.4 | 10373.0 | 11491.6 | 11646.8 | 11496.1 | 9386.8  |
| 57.5° | 3867.1 | 3958.4 | 4565.6  | 5962.7  | 7738.7 | 8788.8 | 10327.4 | 11916.2 | 12281.4 | 12185.6 | 9857.1  |
| 60°   | 2912.8 | 3004.2 | 3392.2  | 4835.0  | 6898.6 | 8231.8 | 10099.1 | 12194.7 | 12852.1 | 12751.7 | 10199.5 |
| 62.5° | 2086.5 | 2159.5 | 2447.2  | 3762.0  | 5875.9 | 7569.7 | 9537.5  | 12199.2 | 13176.3 | 13094.1 | 10363.9 |
| 65°   | 1502.1 | 1502.1 | 1734.9  | 2684.6  | 4917.1 | 6775.3 | 8688.3  | 11637.7 | 13107.8 | 13085.0 | 10249.7 |
| 67.5° | 1082.0 | 1091.2 | 1278.4  | 1876.5  | 3921.8 | 5812.0 | 7588.0  | 10637.8 | 12578.2 | 12692.3 | 9838.8  |
| 70°   | 767.0  | 789.8  | 876.6   | 1310.3  | 2963.1 | 4588.4 | 6410.1  | 9327.5  | 11624.0 | 11824.9 | 9044.4  |
| 72.5° | 593.5  | 607.2  | 666.6   | 913.1   | 2164.1 | 3410.5 | 5108.9  | 7866.5  | 10350.2 | 10578.5 | 7962.4  |
| 75°   | 456.6  | 470.3  | 515.9   | 671.1   | 1552.3 | 2392.4 | 3629.6  | 6104.2  | 8345.9  | 8752.2  | 6396.4  |
| 77.5° | 333.3  | 351.6  | 383.5   | 488.5   | 904.0  | 1520.3 | 2200.6  | 3433.3  | 4606.7  | 4798.4  | 3351.1  |
| 80°   | 155.2  | 178.1  | 223.7   | 315.0   | 488.5  | 716.8  | 780.7   | 1324.0  | 2214.3  | 2314.8  | 1817.1  |
| 82.5° | 86.7   | 109.6  | 127.8   | 191.8   | 246.5  | 255.7  | 264.8   | 333.3   | 835.5   | 922.2   | 762.5   |
| 85°   | 41.1   | 54.8   | 59.4    | 82.2    | 82.2   | 73.0   | 86.7    | 63.9    | 137.0   | 164.4   | 159.8   |
| 87.5° | 0.0    | 4.6    | 9.1     | 22.8    | 18.3   | 13.7   | 13.7    | 13.7    | 13.7    | 18.3    | 13.7    |
| 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: P841471

CATALOG NUMBER: ARCH4-180-740-U-T2U-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3967.5 | 3967.5 | 3967.5 | 3967.5 | 3967.5 | 3967.5 | 3967.5 | 3967.5 | 3967.5 | 3967.5 | 3967.5 |
| 2.5°  | 3994.9 | 3935.5 | 3798.6 | 3679.9 | 3602.2 | 3533.8 | 3442.5 | 3401.4 | 3328.3 | 3342.0 | 3300.9 |
| 5°    | 4017.7 | 3908.1 | 3666.2 | 3442.5 | 3278.1 | 3132.0 | 2972.2 | 2880.9 | 2780.4 | 2771.3 | 2739.4 |
| 7.5°  | 4031.4 | 3862.5 | 3515.5 | 3200.5 | 2949.4 | 2725.7 | 2511.1 | 2392.4 | 2269.1 | 2241.7 | 2214.3 |
| 10°   | 4017.7 | 3794.0 | 3360.3 | 2949.4 | 2616.1 | 2337.6 | 2095.6 | 1944.9 | 1817.1 | 1785.1 | 1757.8 |
| 12.5° | 4031.4 | 3757.5 | 3214.2 | 2716.5 | 2319.3 | 2004.3 | 1730.4 | 1575.1 | 1456.4 | 1424.5 | 1406.2 |
| 15°   | 4063.4 | 3734.7 | 3090.9 | 2506.5 | 2054.5 | 1703.0 | 1433.6 | 1301.2 | 1205.3 | 1173.4 | 1164.2 |
| 17.5° | 4090.8 | 3711.8 | 2958.5 | 2301.1 | 1789.7 | 1438.2 | 1205.3 | 1095.7 | 1013.6 | 981.6  | 972.5  |
| 20°   | 4127.3 | 3679.9 | 2826.1 | 2104.7 | 1556.9 | 1228.1 | 1022.7 | 926.8  | 862.9  | 840.1  | 835.5  |
| 22.5° | 4159.2 | 3657.0 | 2702.8 | 1908.4 | 1342.3 | 1059.2 | 885.7  | 808.1  | 762.5  | 739.6  | 739.6  |
| 25°   | 4241.4 | 3666.2 | 2597.8 | 1725.8 | 1182.5 | 926.8  | 780.7  | 721.4  | 684.8  | 671.1  | 671.1  |
| 27.5° | 4337.3 | 3702.7 | 2515.6 | 1570.6 | 1045.5 | 826.4  | 707.7  | 657.4  | 639.2  | 620.9  | 625.5  |
| 30°   | 4474.3 | 3775.7 | 2460.9 | 1442.7 | 945.1  | 748.8  | 648.3  | 611.8  | 593.5  | 589.0  | 589.0  |
| 32.5° | 4647.8 | 3894.4 | 2456.3 | 1360.5 | 872.0  | 689.4  | 607.2  | 575.3  | 566.1  | 561.6  | 561.6  |
| 35°   | 4853.2 | 3999.5 | 2428.9 | 1324.0 | 826.4  | 648.3  | 575.3  | 552.4  | 547.9  | 547.9  | 547.9  |
| 37.5° | 5099.8 | 4172.9 | 2410.6 | 1273.8 | 803.5  | 625.5  | 552.4  | 534.2  | 534.2  | 534.2  | 534.2  |
| 40°   | 5355.4 | 4314.5 | 2383.2 | 1228.1 | 794.4  | 611.8  | 538.7  | 515.9  | 515.9  | 515.9  | 515.9  |
| 42.5° | 5661.3 | 4519.9 | 2374.1 | 1205.3 | 780.7  | 602.7  | 520.5  | 493.1  | 497.6  | 497.6  | 502.2  |
| 45°   | 6031.1 | 4752.8 | 2369.5 | 1182.5 | 776.1  | 593.5  | 502.2  | 470.3  | 474.8  | 470.3  | 470.3  |
| 47.5° | 6405.5 | 5022.1 | 2383.2 | 1168.8 | 771.6  | 584.4  | 488.5  | 447.4  | 447.4  | 442.9  | 442.9  |
| 50°   | 6798.2 | 5268.7 | 2392.4 | 1155.1 | 762.5  | 566.1  | 465.7  | 429.2  | 420.0  | 410.9  | 415.5  |
| 52.5° | 7168.0 | 5497.0 | 2396.9 | 1132.3 | 735.1  | 538.7  | 447.4  | 406.3  | 392.6  | 378.9  | 383.5  |
| 55°   | 7537.8 | 5716.1 | 2406.1 | 1104.9 | 698.5  | 511.3  | 424.6  | 383.5  | 365.2  | 347.0  | 347.0  |
| 57.5° | 7871.1 | 5907.9 | 2383.2 | 1036.4 | 657.4  | 484.0  | 401.8  | 356.1  | 328.7  | 310.5  | 310.5  |
| 60°   | 8099.4 | 6044.8 | 2314.8 | 935.9  | 602.7  | 452.0  | 378.9  | 328.7  | 296.8  | 283.1  | 283.1  |
| 62.5° | 8208.9 | 6067.7 | 2191.5 | 771.6  | 534.2  | 420.0  | 351.6  | 301.3  | 273.9  | 264.8  | 264.8  |
| 65°   | 8103.9 | 5967.2 | 1999.7 | 579.8  | 461.1  | 383.5  | 324.2  | 278.5  | 251.1  | 228.3  | 228.3  |
| 67.5° | 7738.7 | 5684.2 | 1734.9 | 438.3  | 392.6  | 347.0  | 296.8  | 255.7  | 223.7  | 205.5  | 205.5  |
| 70°   | 7003.6 | 5095.2 | 1342.3 | 351.6  | 333.3  | 301.3  | 269.4  | 228.3  | 200.9  | 178.1  | 178.1  |
| 72.5° | 6040.3 | 4319.0 | 945.1  | 283.1  | 283.1  | 255.7  | 228.3  | 200.9  | 173.5  | 155.2  | 155.2  |
| 75°   | 4634.1 | 3195.9 | 634.6  | 228.3  | 232.8  | 214.6  | 187.2  | 164.4  | 146.1  | 132.4  | 132.4  |
| 77.5° | 2529.3 | 1579.7 | 388.1  | 168.9  | 173.5  | 164.4  | 146.1  | 132.4  | 123.3  | 109.6  | 109.6  |
| 80°   | 1228.1 | 694.0  | 223.7  | 118.7  | 123.3  | 118.7  | 109.6  | 95.9   | 95.9   | 86.7   | 86.7   |
| 82.5° | 515.9  | 260.2  | 118.7  | 82.2   | 82.2   | 73.0   | 68.5   | 68.5   | 68.5   | 63.9   | 63.9   |
| 85°   | 127.8  | 50.2   | 50.2   | 45.7   | 45.7   | 45.7   | 41.1   | 41.1   | 41.1   | 32.0   | 36.5   |
| 87.5° | 18.3   | 18.3   | 18.3   | 18.3   | 18.3   | 18.3   | 13.7   | 4.6    | 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)