

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: P399716

Luminaire Tested: **ARCH-L-PA3-180-740-U-T2U-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P399716  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/19/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-PA3-180-740-U-T2U-HSS  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 4000K, 775mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18480 lumens  
Efficiency: N/A  
Efficacy: 102.1 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G3

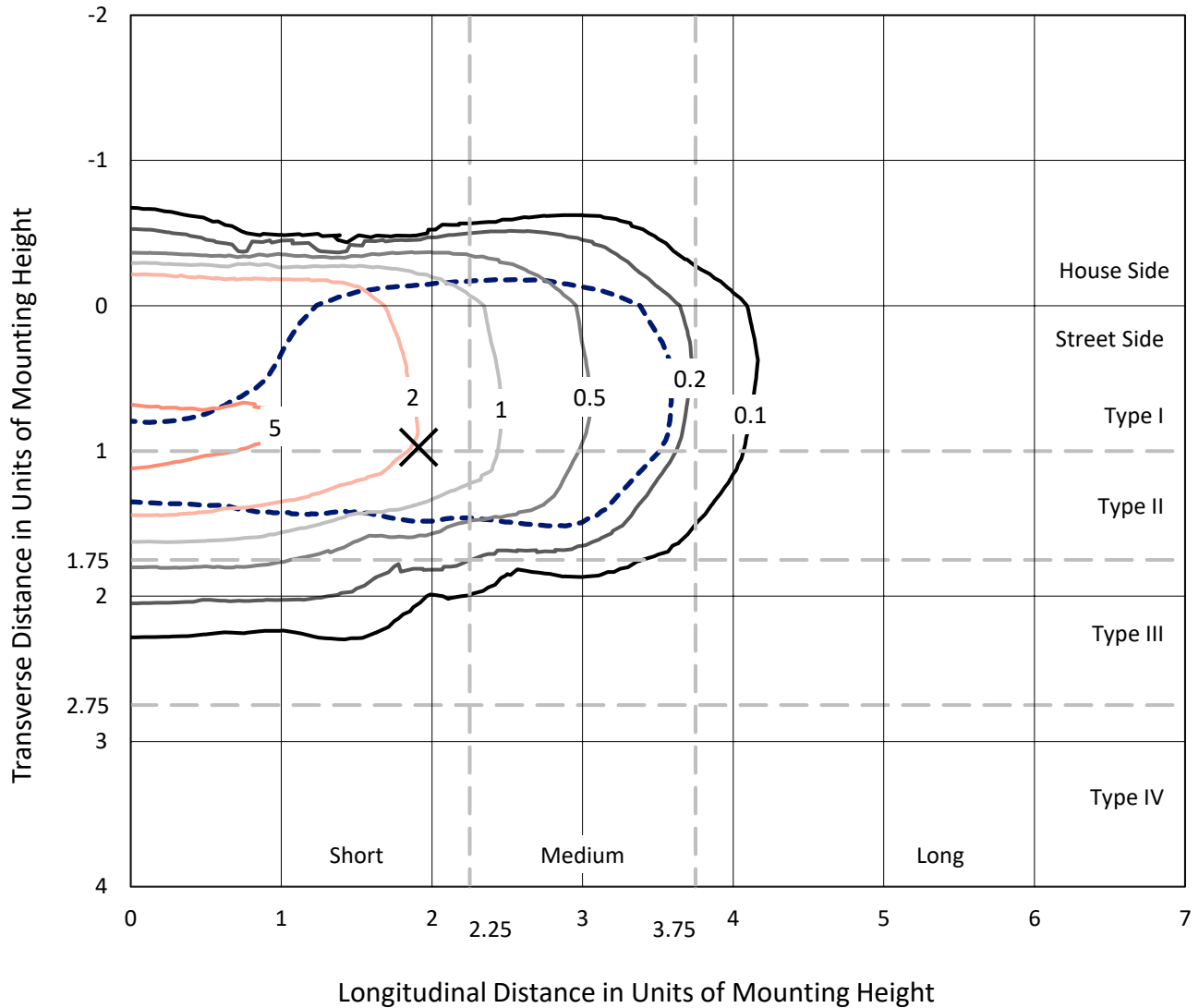
Input Watts (W): 181  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P399716  
 CATALOG NUMBER: ARCH-L-PA3-180-740-U-T2U-HSS

### Iso-Footcandle Lines of Horizontal Illumination

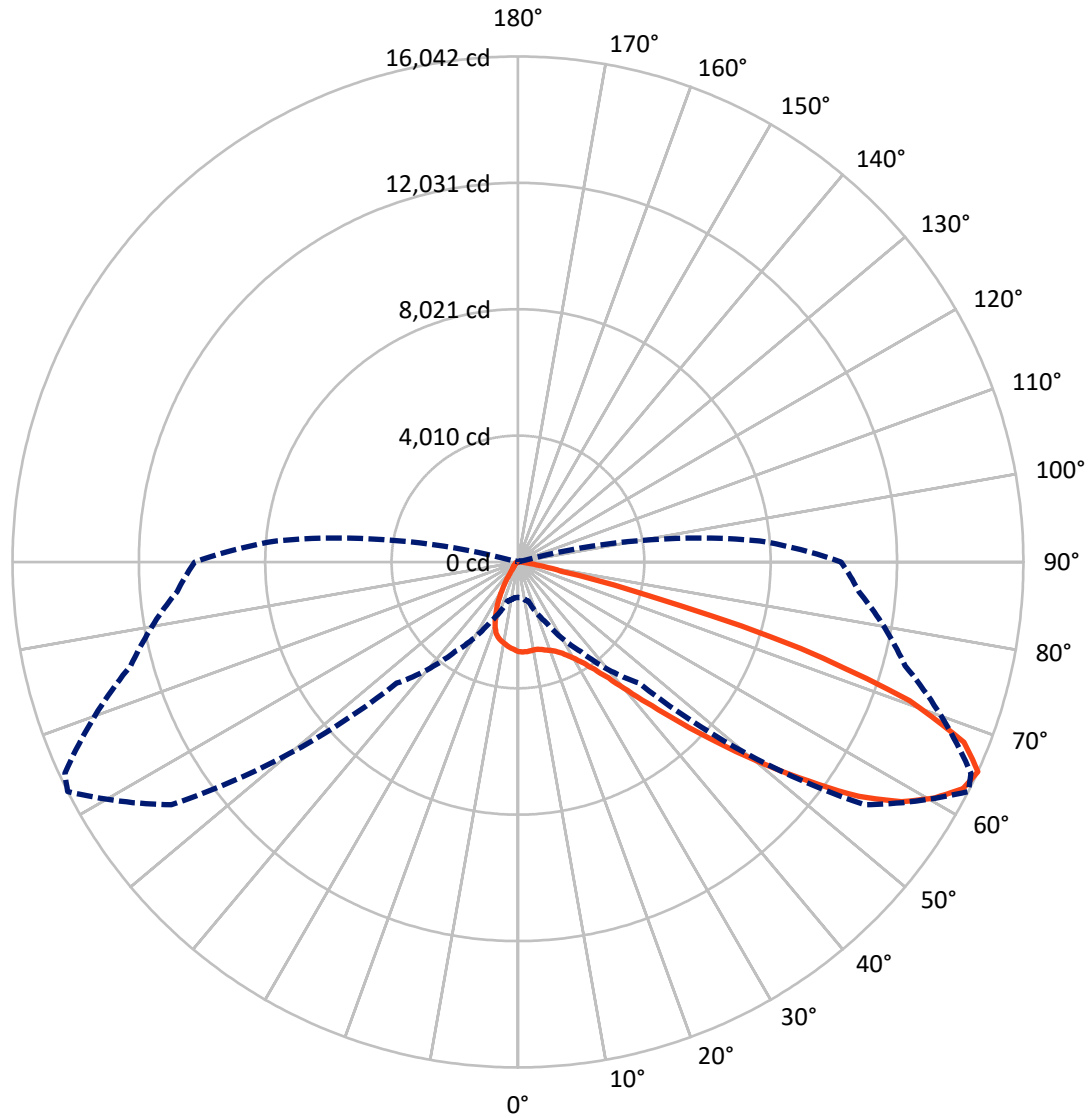
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.4 fc  
 Type II - Short - N/A

REPORT NUMBER: P399716  
CATALOG NUMBER: ARCH-L-PA3-180-740-U-T2U-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 63-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P399716  
 CATALOG NUMBER: ARCH-L-PA3-180-740-U-T2U-HSS

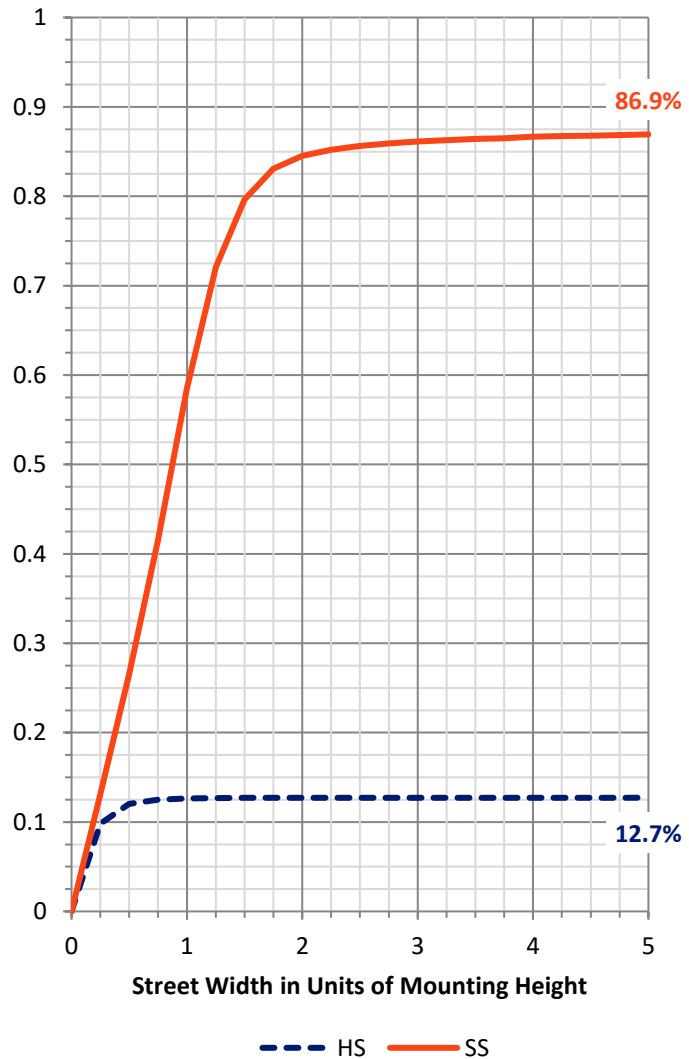
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2378.4   | 0.0    | 2378.4  |
|                    | % Fixture | 12.9     | 0.0    | 12.9    |
| <b>Street Side</b> | Lumens    | 16101.6  | 0.0    | 16101.6 |
|                    | % Fixture | 87.1     | 0.0    | 87.1    |
| <b>Total</b>       | Lumens    | 18480.0  | 0.0    | 18480.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 259.8   | 1.4       |
| 10°-20°   | 640.8   | 3.5       |
| 20°-30°   | 949.8   | 5.1       |
| 30°-40°   | 1763.6  | 9.5       |
| 40°-50°   | 3736.0  | 20.2      |
| 50°-60°   | 5165.9  | 28.0      |
| 60°-70°   | 4135.5  | 22.4      |
| 70°-80°   | 1718.2  | 9.3       |
| 80°-90°   | 110.3   | 0.6       |
| 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°    | 18480.0 | 100.0     |
| 0°-180°   | 18480.0 | 100.0     |

**Coefficient of Utilization**

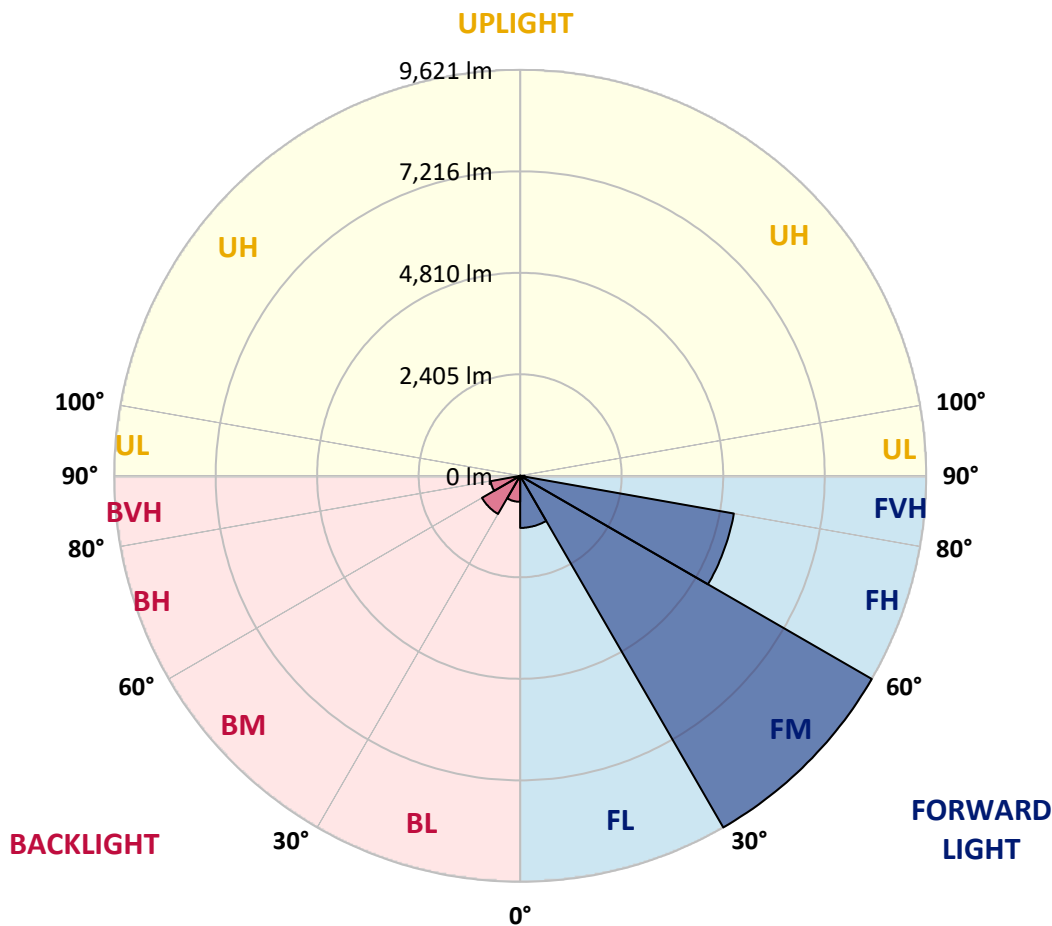


REPORT NUMBER: P399716  
 CATALOG NUMBER: ARCH-L-PA3-180-740-U-T2U-HSS

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

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1234.0 | 6.7       |                         |      |         |
| FM (30°-60°)   | 9620.8 | 52.1      |                         |      |         |
| FH (60°-80°)   | 5141.5 | 27.8      |                         |      | G3/7500 |
| FVH (80°-90°)  | 105.3  | 0.6       |                         |      | G2/225  |
| BL (0°-30°)    | 616.4  | 3.3       | B2/1000                 |      |         |
| BM (30°-60°)   | 1044.8 | 5.7       | B2/2500                 |      |         |
| BH (60°-80°)   | 712.2  | 3.9       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 5.0    | 0.0       |                         |      | G0/10   |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G3**  
 Type II Short





REPORT NUMBER: P399716

CATALOG NUMBER: ARCH-L-PA3-180-740-U-T2U-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 63°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2846.9  | 2846.9  | 2846.9  | 2846.9  | 2846.9  | 2846.9  | 2846.9  | 2846.9  | 2846.9  | 2846.9  | 2846.9  |
| 2.5°  | 2895.7  | 2888.7  | 2881.7  | 2878.3  | 2878.3  | 2874.8  | 2860.8  | 2857.3  | 2850.3  | 2843.4  | 2836.4  |
| 5°    | 2867.8  | 2857.3  | 2853.8  | 2857.3  | 2860.8  | 2867.8  | 2860.8  | 2860.8  | 2853.8  | 2846.9  | 2832.9  |
| 7.5°  | 2798.0  | 2791.0  | 2794.5  | 2805.0  | 2808.5  | 2832.9  | 2836.4  | 2846.9  | 2846.9  | 2839.9  | 2829.4  |
| 10°   | 2714.3  | 2710.8  | 2710.8  | 2728.2  | 2745.7  | 2780.6  | 2805.0  | 2832.9  | 2836.4  | 2836.4  | 2818.9  |
| 12.5° | 2651.5  | 2648.0  | 2658.5  | 2679.4  | 2714.3  | 2759.6  | 2801.5  | 2843.4  | 2850.3  | 2853.8  | 2825.9  |
| 15°   | 2613.1  | 2613.1  | 2627.1  | 2668.9  | 2717.8  | 2780.6  | 2829.4  | 2885.2  | 2892.2  | 2888.7  | 2850.3  |
| 17.5° | 2578.2  | 2581.7  | 2609.6  | 2679.4  | 2735.2  | 2818.9  | 2878.3  | 2941.1  | 2944.5  | 2941.1  | 2878.3  |
| 20°   | 2564.3  | 2571.2  | 2613.1  | 2703.8  | 2766.6  | 2860.8  | 2937.6  | 3000.4  | 3003.8  | 2989.9  | 2906.2  |
| 22.5° | 2602.6  | 2606.1  | 2658.5  | 2756.1  | 2815.5  | 2920.1  | 3017.8  | 3077.1  | 3080.6  | 3059.7  | 2948.0  |
| 25°   | 2735.2  | 2735.2  | 2780.6  | 2864.3  | 2916.6  | 3021.3  | 3126.0  | 3195.7  | 3195.7  | 3171.3  | 3042.2  |
| 27.5° | 3045.7  | 3017.8  | 3007.3  | 3031.8  | 3049.2  | 3160.8  | 3272.5  | 3359.7  | 3356.2  | 3321.3  | 3164.3  |
| 30°   | 3645.8  | 3576.0  | 3464.4  | 3338.8  | 3276.0  | 3352.7  | 3457.4  | 3569.0  | 3565.5  | 3509.7  | 3314.4  |
| 32.5° | 4654.0  | 4552.9  | 4287.7  | 3956.3  | 3687.7  | 3600.4  | 3698.1  | 3820.2  | 3823.7  | 3757.4  | 3555.1  |
| 35°   | 6067.0  | 5906.5  | 5432.0  | 4971.5  | 4357.5  | 4026.1  | 4054.0  | 4186.5  | 4228.4  | 4193.5  | 3959.8  |
| 37.5° | 7427.6  | 7281.1  | 6827.6  | 6189.1  | 5355.3  | 4678.5  | 4559.9  | 4675.0  | 4723.8  | 4723.8  | 4476.1  |
| 40°   | 8798.7  | 8627.8  | 8226.6  | 7584.6  | 6705.5  | 5697.2  | 5271.6  | 5365.8  | 5418.1  | 5428.6  | 5104.1  |
| 42.5° | 9897.7  | 9786.1  | 9479.0  | 8980.1  | 8156.8  | 7483.5  | 6297.3  | 6244.9  | 6293.8  | 6255.4  | 5833.3  |
| 45°   | 10658.3 | 10571.0 | 10358.2 | 10169.8 | 9768.6  | 9430.2  | 7668.4  | 7316.0  | 7347.4  | 7214.8  | 6653.1  |
| 47.5° | 10815.3 | 10717.6 | 10672.2 | 10933.9 | 11220.0 | 11303.7 | 9353.5  | 8589.4  | 8558.0  | 8264.9  | 7504.4  |
| 50°   | 10131.5 | 10141.9 | 10309.4 | 11056.0 | 12249.1 | 13002.7 | 11307.2 | 10026.8 | 9911.7  | 9259.3  | 8296.3  |
| 52.5° | 8655.7  | 8823.2  | 9245.3  | 10455.9 | 12563.1 | 14237.8 | 13260.9 | 11551.4 | 11373.5 | 10225.6 | 8889.4  |
| 55°   | 6771.7  | 6988.0  | 7682.3  | 9074.3  | 11907.2 | 14789.0 | 14907.6 | 13135.3 | 12730.6 | 10951.3 | 9350.0  |
| 57.5° | 5034.3  | 5100.6  | 5910.0  | 7179.9  | 10354.7 | 14248.2 | 15751.9 | 14356.4 | 13836.5 | 11530.5 | 9807.0  |
| 60°   | 3136.4  | 3178.3  | 4033.0  | 5466.9  | 7842.8  | 12249.1 | 15751.9 | 15197.2 | 14701.8 | 12050.3 | 10225.6 |
| 62.5° | 1950.2  | 1964.2  | 2285.2  | 3747.0  | 5330.9  | 9084.8  | 15099.5 | 15849.6 | 15451.9 | 12423.6 | 10585.0 |
| 65°   | 1123.4  | 1137.3  | 1287.4  | 2117.7  | 3467.9  | 5439.0  | 13431.8 | 16041.5 | 15863.5 | 12720.1 | 10864.1 |
| 67.5° | 819.9   | 826.8   | 886.2   | 1189.7  | 2267.7  | 2794.5  | 10089.6 | 15270.4 | 15493.7 | 12866.7 | 10857.1 |
| 70°   | 711.7   | 722.2   | 798.9   | 928.0   | 1636.2  | 1716.5  | 5135.5  | 13187.6 | 13812.1 | 12657.3 | 10532.7 |
| 72.5° | 547.7   | 561.7   | 676.8   | 872.2   | 1200.1  | 1235.0  | 1859.5  | 9384.8  | 10330.3 | 11349.0 | 9643.0  |
| 75°   | 376.8   | 390.7   | 505.9   | 718.7   | 990.8   | 924.5   | 1022.2  | 4319.1  | 5449.5  | 7612.5  | 7340.4  |
| 77.5° | 240.7   | 244.2   | 317.5   | 523.3   | 854.8   | 655.9   | 701.2   | 1409.5  | 1978.1  | 3443.4  | 3464.4  |
| 80°   | 160.5   | 164.0   | 195.4   | 338.4   | 586.1   | 607.0   | 432.6   | 652.4   | 715.2   | 1004.8  | 697.8   |
| 82.5° | 97.7    | 97.7    | 132.6   | 212.8   | 355.9   | 502.4   | 282.6   | 341.9   | 366.3   | 387.3   | 181.4   |
| 85°   | 38.4    | 38.4    | 80.2    | 139.6   | 223.3   | 233.7   | 177.9   | 198.9   | 209.3   | 226.8   | 83.7    |
| 87.5° | 10.5    | 10.5    | 45.4    | 76.8    | 97.7    | 108.2   | 108.2   | 97.7    | 104.7   | 129.1   | 41.9    |
| 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: P399716  
 CATALOG NUMBER: ARCH-L-PA3-180-740-U-T2U-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2846.9  | 2846.9 | 2846.9 | 2846.9 | 2846.9 | 2846.9 | 2846.9 | 2846.9 | 2846.9 | 2846.9 | 2846.9 |
| 2.5°  | 2832.9  | 2822.4 | 2808.5 | 2794.5 | 2780.6 | 2770.1 | 2759.6 | 2759.6 | 2752.7 | 2742.2 | 2735.2 |
| 5°    | 2825.9  | 2808.5 | 2777.1 | 2752.7 | 2714.3 | 2686.4 | 2665.4 | 2648.0 | 2637.5 | 2613.1 | 2609.6 |
| 7.5°  | 2815.5  | 2794.5 | 2749.2 | 2700.3 | 2637.5 | 2588.7 | 2539.8 | 2505.0 | 2470.1 | 2442.2 | 2435.2 |
| 10°   | 2798.0  | 2773.6 | 2707.3 | 2637.5 | 2550.3 | 2459.6 | 2344.5 | 2211.9 | 2089.8 | 2020.0 | 1999.1 |
| 12.5° | 2798.0  | 2766.6 | 2679.4 | 2585.2 | 2459.6 | 2236.3 | 1943.3 | 1650.2 | 1423.4 | 1322.3 | 1294.3 |
| 15°   | 2815.5  | 2773.6 | 2658.5 | 2529.4 | 2295.6 | 1842.1 | 1367.6 | 980.4  | 732.6  | 655.9  | 638.4  |
| 17.5° | 2832.9  | 2773.6 | 2627.1 | 2452.6 | 1995.6 | 1336.2 | 778.0  | 516.3  | 436.1  | 418.7  | 418.7  |
| 20°   | 2839.9  | 2766.6 | 2585.2 | 2309.6 | 1594.4 | 830.3  | 464.0  | 387.3  | 355.9  | 345.4  | 345.4  |
| 22.5° | 2867.8  | 2770.1 | 2553.8 | 2103.7 | 1158.3 | 488.4  | 366.3  | 324.5  | 293.1  | 282.6  | 282.6  |
| 25°   | 2937.6  | 2812.0 | 2560.8 | 1842.1 | 743.1  | 369.8  | 310.5  | 268.6  | 237.2  | 223.3  | 223.3  |
| 27.5° | 3049.2  | 2906.2 | 2599.1 | 1538.6 | 467.5  | 317.5  | 261.7  | 216.3  | 191.9  | 177.9  | 177.9  |
| 30°   | 3174.8  | 3010.8 | 2616.6 | 1189.7 | 348.9  | 268.6  | 212.8  | 171.0  | 153.5  | 143.0  | 139.6  |
| 32.5° | 3394.6  | 3192.2 | 2602.6 | 816.4  | 286.1  | 226.8  | 171.0  | 136.1  | 122.1  | 118.6  | 118.6  |
| 35°   | 3747.0  | 3509.7 | 2574.7 | 512.9  | 237.2  | 181.4  | 136.1  | 111.6  | 101.2  | 97.7   | 94.2   |
| 37.5° | 4224.9  | 3973.7 | 2491.0 | 338.4  | 195.4  | 143.0  | 111.6  | 94.2   | 83.7   | 80.2   | 80.2   |
| 40°   | 4807.6  | 4504.0 | 2330.5 | 258.2  | 167.5  | 115.1  | 94.2   | 80.2   | 73.3   | 69.8   | 69.8   |
| 42.5° | 5473.9  | 5093.6 | 2075.8 | 223.3  | 139.6  | 97.7   | 80.2   | 66.3   | 62.8   | 59.3   | 59.3   |
| 45°   | 6203.1  | 5711.2 | 1723.5 | 198.9  | 118.6  | 80.2   | 66.3   | 59.3   | 52.3   | 52.3   | 48.8   |
| 47.5° | 6977.6  | 6332.2 | 1325.7 | 174.4  | 101.2  | 69.8   | 59.3   | 48.8   | 45.4   | 41.9   | 41.9   |
| 50°   | 7724.2  | 6886.9 | 931.5  | 150.0  | 83.7   | 59.3   | 48.8   | 41.9   | 38.4   | 34.9   | 34.9   |
| 52.5° | 8251.0  | 7221.8 | 659.4  | 129.1  | 69.8   | 52.3   | 38.4   | 31.4   | 27.9   | 27.9   | 27.9   |
| 55°   | 8673.1  | 7431.1 | 460.5  | 108.2  | 59.3   | 45.4   | 31.4   | 24.4   | 24.4   | 20.9   | 20.9   |
| 57.5° | 9070.9  | 7567.2 | 338.4  | 90.7   | 48.8   | 34.9   | 24.4   | 17.4   | 17.4   | 14.0   | 14.0   |
| 60°   | 9482.5  | 7640.5 | 258.2  | 73.3   | 41.9   | 27.9   | 17.4   | 14.0   | 10.5   | 10.5   | 10.5   |
| 62.5° | 9897.7  | 7685.8 | 198.9  | 59.3   | 34.9   | 20.9   | 14.0   | 10.5   | 7.0    | 3.5    | 3.5    |
| 65°   | 10260.5 | 7699.8 | 153.5  | 45.4   | 27.9   | 14.0   | 10.5   | 3.5    | 0.0    | 0.0    | 0.0    |
| 67.5° | 10368.7 | 7539.3 | 118.6  | 34.9   | 20.9   | 10.5   | 7.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 70°   | 10075.6 | 7113.6 | 90.7   | 27.9   | 17.4   | 7.0    | 3.5    | 0.0    | 0.0    | 0.0    | 0.0    |
| 72.5° | 8941.8  | 5965.8 | 69.8   | 17.4   | 14.0   | 7.0    | 3.5    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°   | 6398.4  | 3181.8 | 48.8   | 14.0   | 10.5   | 3.5    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 2944.5  | 1231.5 | 34.9   | 10.5   | 7.0    | 3.5    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 575.7   | 307.0  | 14.0   | 7.0    | 3.5    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 132.6   | 52.3   | 7.0    | 7.0    | 3.5    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 45.4    | 17.4   | 3.5    | 3.5    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 17.4    | 7.0    | 3.5    | 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)