

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: P237109

Luminaire Tested: **ARCH-L-AF72-160-D-U-T3-7050**

Issue Date: 2/14/2018

**Test Information**

Test Method: LM-79-08  
Report Number: P237109  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 2/14/2018  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-AF72-160-D-U-T3-7050  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 5000K, 705mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20975 lumens  
Efficiency: N/A  
Efficacy: 129.5 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4

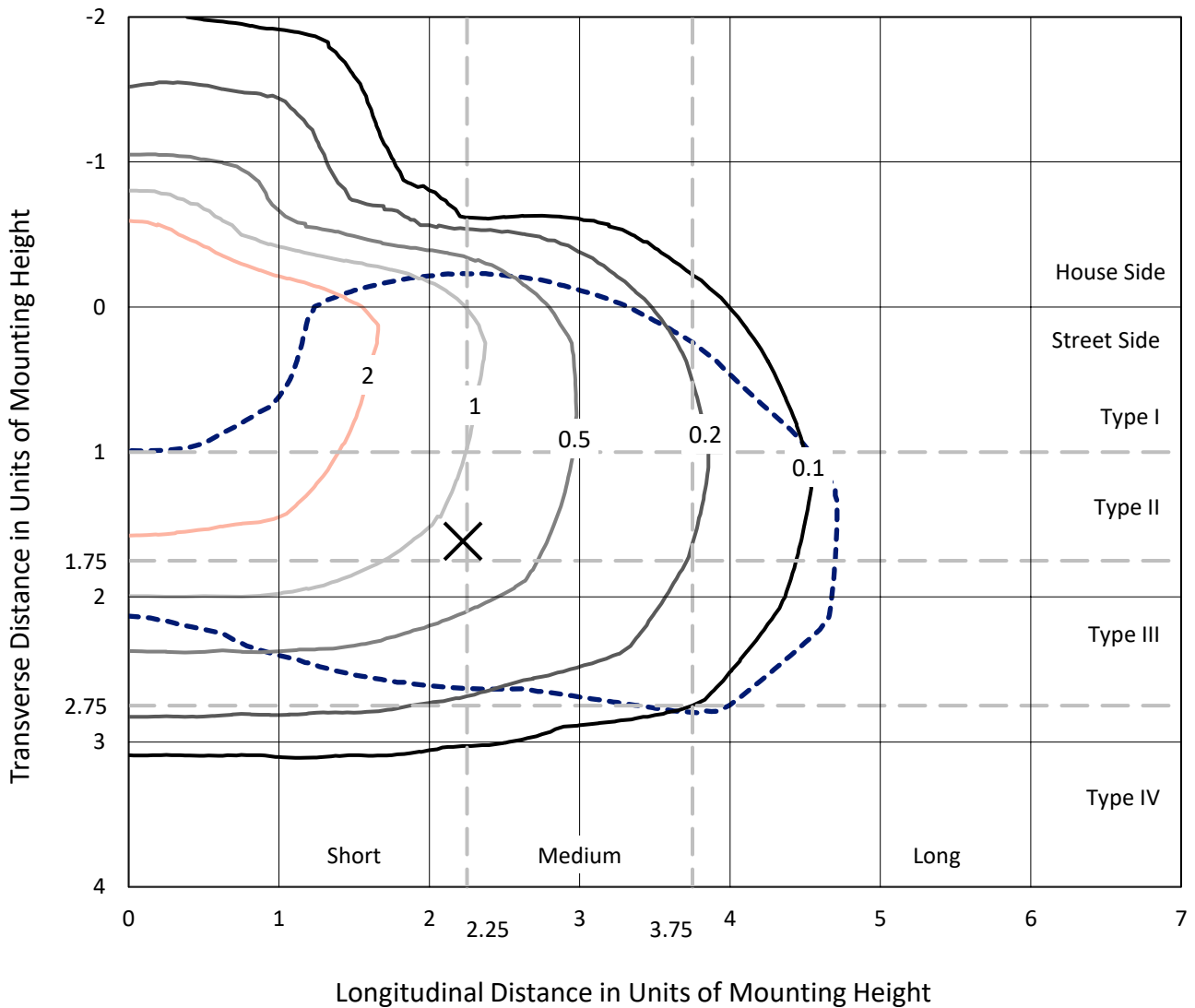
Input Watts (W): 162  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

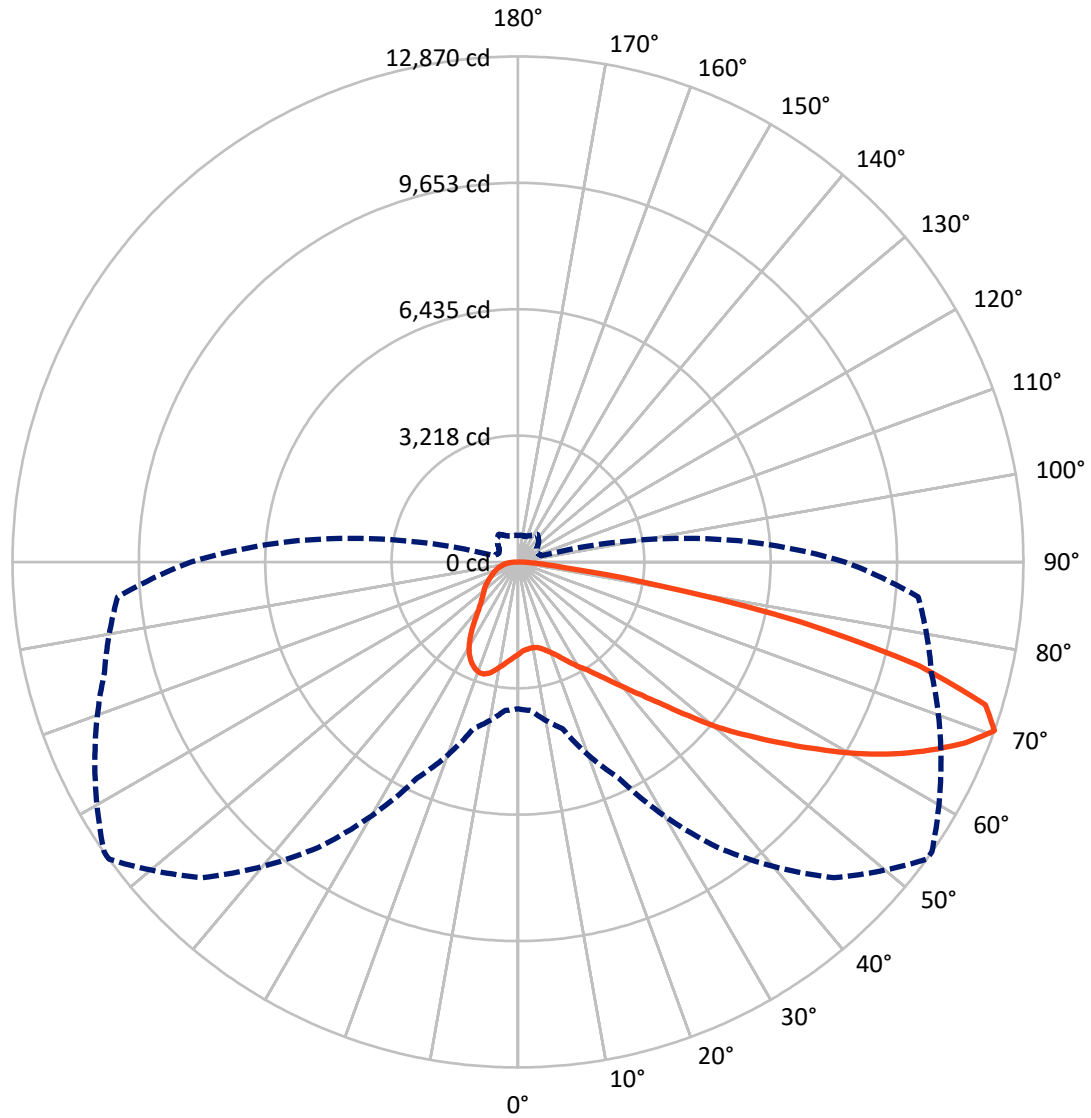
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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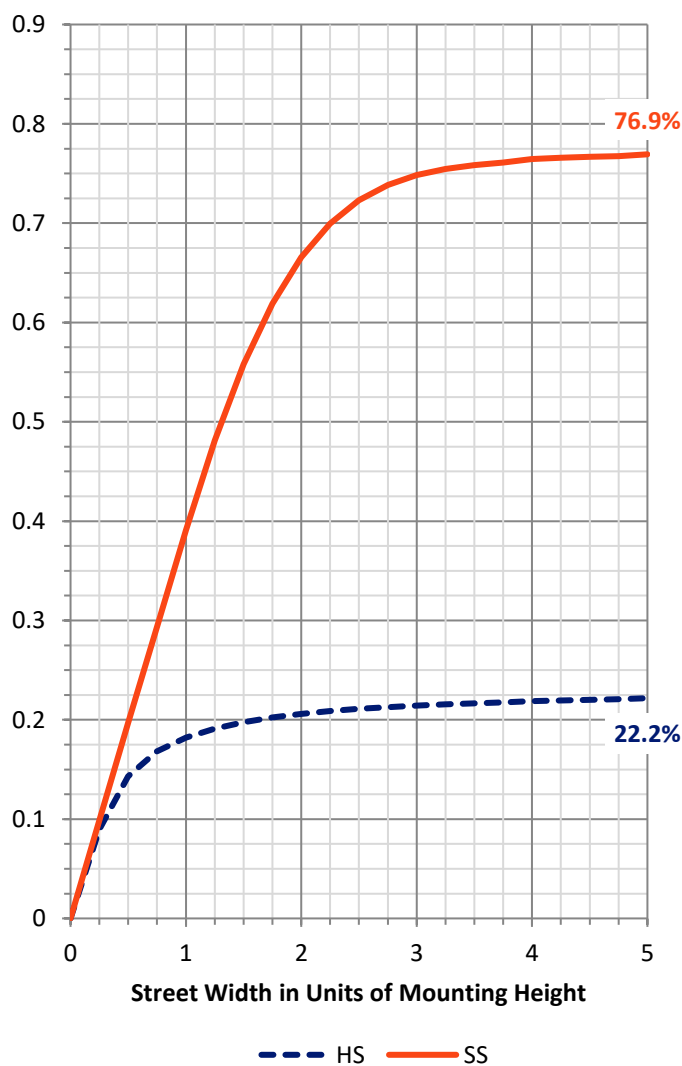
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4757.0   | 0.0    | 4757.0  |
|                    | % Fixture | 22.7     | 0.0    | 22.7    |
| <b>Street Side</b> | Lumens    | 16217.9  | 0.0    | 16217.9 |
|                    | % Fixture | 77.3     | 0.0    | 77.3    |
| <b>Total</b>       | Lumens    | 20975.0  | 0.0    | 20975.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 230.3   | 1.1       |
| 10°-20°   | 735.9   | 3.5       |
| 20°-30°   | 1278.5  | 6.1       |
| 30°-40°   | 1868.3  | 8.9       |
| 40°-50°   | 2932.2  | 14.0      |
| 50°-60°   | 4509.1  | 21.5      |
| 60°-70°   | 5509.0  | 26.3      |
| 70°-80°   | 3415.6  | 16.3      |
| 80°-90°   | 496.2   | 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°    | 20975.0 | 100.0     |
| 0°-180°   | 20975.0 | 100.0     |

**Coefficient of Utilization**



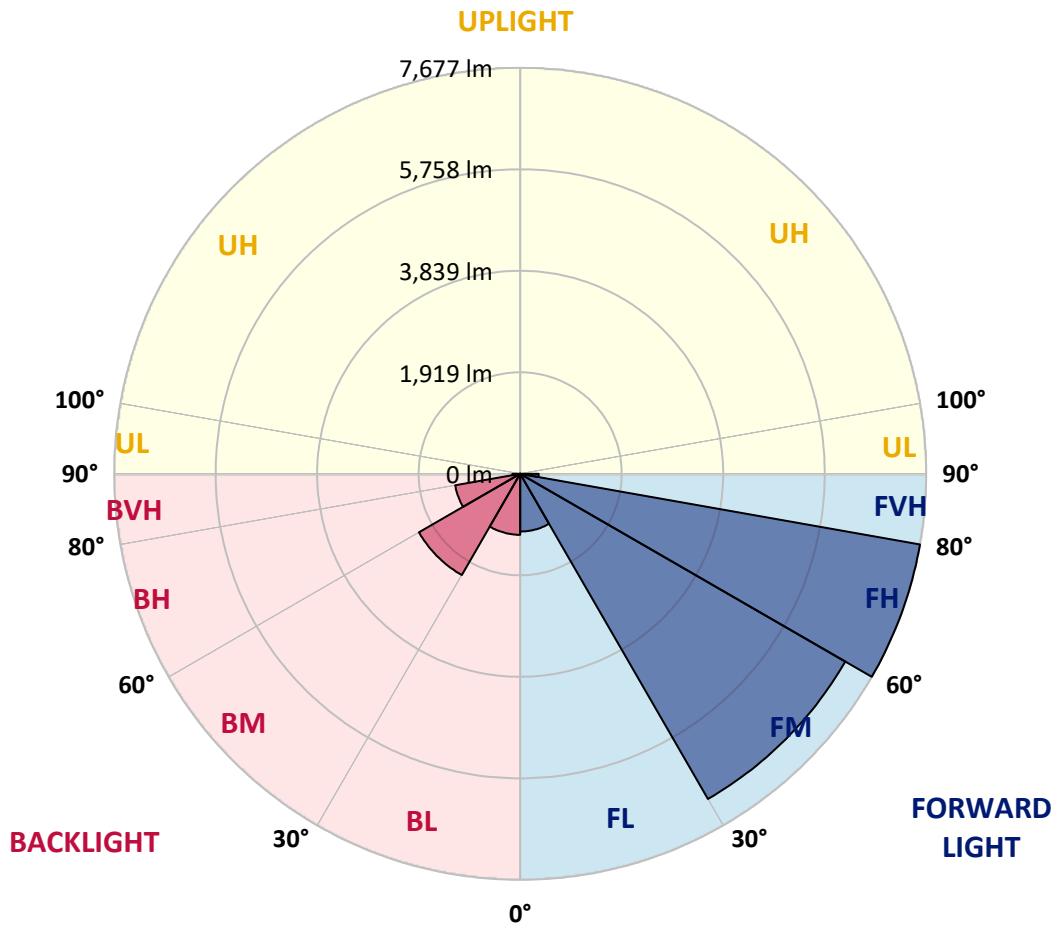
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|--------|-----------|-------------------------|------|----------|
|                |        |           | B                       | U    | G        |
| FL (0°-30°)    | 1091.3 | 5.2       |                         |      |          |
| FM (30°-60°)   | 7099.1 | 33.8      |                         |      |          |
| FH (60°-80°)   | 7677.2 | 36.6      |                         |      | G4/12000 |
| FVH (80°-90°)  | 350.4  | 1.7       |                         |      | G3/500   |
| BL (0°-30°)    | 1153.3 | 5.5       | B3/2500                 |      |          |
| BM (30°-60°)   | 2210.5 | 10.5      | B2/2500                 |      |          |
| BH (60°-80°)   | 1247.4 | 5.9       | B3/2500                 |      | G3/2500  |
| BVH (80°-90°)  | 145.8  | 0.7       |                         |      | G2/225   |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |          |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G4**

Type III Short





REPORT NUMBER: P237109

CATALOG NUMBER: ARCH-L-AF72-160-D-U-T3-7050

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°     | 45°     | 54°     | 55°     | 65°     | 75°     | 85°     |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2346.7 | 2346.7 | 2346.7 | 2346.7 | 2346.7  | 2346.7  | 2346.7  | 2346.7  | 2346.7  | 2346.7  | 2346.7  |
| 2.5°  | 2254.5 | 2246.8 | 2246.8 | 2258.3 | 2262.2  | 2273.7  | 2273.7  | 2277.5  | 2289.1  | 2308.3  | 2331.3  |
| 5°    | 2185.4 | 2181.5 | 2185.4 | 2200.7 | 2208.4  | 2231.5  | 2239.1  | 2243.0  | 2266.0  | 2296.7  | 2331.3  |
| 7.5°  | 2116.2 | 2112.4 | 2120.1 | 2143.1 | 2166.2  | 2200.7  | 2219.9  | 2223.8  | 2258.3  | 2300.6  | 2346.7  |
| 10°   | 2093.2 | 2089.4 | 2100.9 | 2120.1 | 2143.1  | 2181.5  | 2212.3  | 2216.1  | 2266.0  | 2316.0  | 2381.2  |
| 12.5° | 2123.9 | 2120.1 | 2131.6 | 2150.8 | 2173.8  | 2200.7  | 2235.3  | 2239.1  | 2304.4  | 2369.7  | 2438.9  |
| 15°   | 2200.7 | 2200.7 | 2204.6 | 2216.1 | 2239.1  | 2262.2  | 2292.9  | 2296.7  | 2365.9  | 2442.7  | 2511.8  |
| 17.5° | 2319.8 | 2312.1 | 2312.1 | 2308.3 | 2323.6  | 2335.2  | 2373.6  | 2377.4  | 2450.4  | 2519.5  | 2588.6  |
| 20°   | 2465.7 | 2461.9 | 2446.5 | 2427.3 | 2423.5  | 2431.2  | 2469.6  | 2473.4  | 2546.4  | 2604.0  | 2669.3  |
| 22.5° | 2642.4 | 2646.3 | 2611.7 | 2569.4 | 2550.2  | 2561.8  | 2596.3  | 2600.2  | 2653.9  | 2703.9  | 2761.5  |
| 25°   | 2876.7 | 2865.2 | 2815.2 | 2753.8 | 2715.4  | 2715.4  | 2750.0  | 2750.0  | 2799.9  | 2830.6  | 2869.0  |
| 27.5° | 3099.5 | 3076.4 | 3030.3 | 2942.0 | 2880.5  | 2892.1  | 2926.6  | 2926.6  | 2972.7  | 2984.2  | 3003.4  |
| 30°   | 3341.4 | 3318.4 | 3260.8 | 3149.4 | 3068.7  | 3061.1  | 3103.3  | 3099.5  | 3160.9  | 3157.1  | 3141.7  |
| 32.5° | 3637.2 | 3625.6 | 3529.6 | 3387.5 | 3280.0  | 3253.1  | 3291.5  | 3295.3  | 3333.7  | 3322.2  | 3272.3  |
| 35°   | 4052.0 | 4048.1 | 3959.8 | 3710.1 | 3568.0  | 3518.1  | 3541.1  | 3541.1  | 3568.0  | 3537.3  | 3452.8  |
| 37.5° | 4574.3 | 4582.0 | 4505.2 | 4136.5 | 3936.7  | 3852.2  | 3856.1  | 3852.2  | 3859.9  | 3825.4  | 3737.0  |
| 40°   | 5096.6 | 5115.8 | 5112.0 | 4666.5 | 4413.0  | 4267.0  | 4213.3  | 4205.6  | 4224.8  | 4209.4  | 4124.9  |
| 42.5° | 5784.1 | 5830.2 | 5722.7 | 5319.4 | 5035.2  | 4789.4  | 4643.4  | 4624.2  | 4666.5  | 4685.7  | 4605.0  |
| 45°   | 6498.5 | 6483.1 | 6314.1 | 6022.2 | 5764.9  | 5450.0  | 5173.4  | 5142.7  | 5173.4  | 5231.1  | 5146.6  |
| 47.5° | 6871.0 | 6859.5 | 6817.3 | 6671.3 | 6632.9  | 6271.9  | 5853.3  | 5826.4  | 5768.8  | 5849.4  | 5749.6  |
| 50°   | 7485.6 | 7497.1 | 7324.2 | 7308.9 | 7470.2  | 7270.5  | 6621.4  | 6559.9  | 6456.2  | 6521.5  | 6437.0  |
| 52.5° | 7931.1 | 7881.2 | 7773.6 | 7908.0 | 8411.2  | 8303.6  | 7343.5  | 7316.6  | 7220.6  | 7205.2  | 7166.8  |
| 55°   | 8111.6 | 8111.6 | 8130.8 | 8441.9 | 9160.1  | 9018.0  | 8127.0  | 8153.8  | 8023.3  | 7915.7  | 7965.6  |
| 57.5° | 8165.4 | 8188.4 | 8353.6 | 8868.2 | 10039.6 | 9574.9  | 8991.1  | 9029.5  | 8841.3  | 8626.3  | 8783.7  |
| 60°   | 7900.4 | 7969.5 | 8365.1 | 9110.2 | 10535.1 | 10166.4 | 9901.4  | 9912.9  | 9640.2  | 9325.3  | 9601.8  |
| 62.5° | 7220.6 | 7305.0 | 8011.7 | 9210.0 | 10454.4 | 10773.2 | 10761.7 | 10788.6 | 10416.0 | 10024.3 | 10369.9 |
| 65°   | 6387.1 | 6471.6 | 7224.4 | 8929.7 | 10393.0 | 11207.2 | 11549.0 | 11622.0 | 11141.9 | 10615.7 | 10850.0 |
| 67.5° | 5161.9 | 5273.3 | 5987.7 | 7984.9 | 10093.4 | 11564.4 | 12286.5 | 12363.3 | 11702.7 | 10923.0 | 10807.8 |
| 70°   | 3740.9 | 3794.6 | 4393.8 | 6068.3 | 8872.1  | 11368.5 | 12870.2 | 12866.4 | 11887.0 | 10900.0 | 10231.7 |
| 72.5° | 1801.3 | 1843.5 | 2362.0 | 3767.7 | 6344.9  | 9647.9  | 12447.8 | 12520.7 | 11633.5 | 10565.8 | 8914.3  |
| 75°   | 741.3  | 783.5  | 956.3  | 1590.1 | 3329.9  | 6375.6  | 10550.5 | 10723.3 | 10565.8 | 9482.7  | 6974.7  |
| 77.5° | 460.9  | 476.2  | 560.7  | 821.9  | 1520.9  | 2976.6  | 7385.7  | 7620.0  | 8372.8  | 7596.9  | 4605.0  |
| 80°   | 345.7  | 357.2  | 418.6  | 576.1  | 960.2   | 1098.4  | 3667.9  | 3963.6  | 5073.6  | 4359.2  | 2085.5  |
| 82.5° | 288.1  | 291.9  | 334.1  | 418.6  | 652.9   | 629.9   | 1175.3  | 1309.7  | 2365.9  | 1663.0  | 718.2   |
| 85°   | 268.9  | 276.5  | 299.6  | 299.6  | 414.8   | 395.6   | 487.8   | 510.8   | 687.5   | 568.4   | 249.6   |
| 87.5° | 138.3  | 130.6  | 265.0  | 234.3  | 215.1   | 192.0   | 207.4   | 222.8   | 257.3   | 272.7   | 111.4   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |



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**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2346.7 | 2346.7 | 2346.7 | 2346.7 | 2346.7 | 2346.7 | 2346.7 | 2346.7 | 2346.7 | 2346.7 | 2346.7 |
| 2.5°  | 2339.0 | 2350.5 | 2369.7 | 2388.9 | 2412.0 | 2438.9 | 2454.2 | 2473.4 | 2488.8 | 2481.1 | 2477.3 |
| 5°    | 2350.5 | 2369.7 | 2412.0 | 2450.4 | 2496.5 | 2550.2 | 2584.8 | 2623.2 | 2653.9 | 2661.6 | 2650.1 |
| 7.5°  | 2369.7 | 2404.3 | 2461.9 | 2531.0 | 2592.5 | 2661.6 | 2715.4 | 2769.2 | 2807.6 | 2815.2 | 2815.2 |
| 10°   | 2415.8 | 2454.2 | 2531.0 | 2623.2 | 2696.2 | 2769.2 | 2830.6 | 2872.9 | 2907.4 | 2922.8 | 2922.8 |
| 12.5° | 2481.1 | 2527.2 | 2619.4 | 2730.8 | 2811.4 | 2880.5 | 2915.1 | 2934.3 | 2949.7 | 2965.0 | 2968.9 |
| 15°   | 2557.9 | 2607.8 | 2719.2 | 2838.3 | 2922.8 | 2957.4 | 2957.4 | 2953.5 | 2953.5 | 2961.2 | 2968.9 |
| 17.5° | 2634.7 | 2688.5 | 2803.7 | 2930.5 | 2984.2 | 2965.0 | 2938.1 | 2926.6 | 2918.9 | 2915.1 | 2926.6 |
| 20°   | 2715.4 | 2769.2 | 2884.4 | 3003.4 | 2988.1 | 2907.4 | 2869.0 | 2842.1 | 2819.1 | 2807.6 | 2822.9 |
| 22.5° | 2803.7 | 2853.7 | 2972.7 | 3053.4 | 2938.1 | 2815.2 | 2742.3 | 2700.0 | 2661.6 | 2638.6 | 2653.9 |
| 25°   | 2907.4 | 2957.4 | 3072.6 | 3068.7 | 2849.8 | 2677.0 | 2561.8 | 2492.6 | 2450.4 | 2427.3 | 2427.3 |
| 27.5° | 3030.3 | 3072.6 | 3184.0 | 3030.3 | 2726.9 | 2492.6 | 2323.6 | 2258.3 | 2246.8 | 2227.6 | 2227.6 |
| 30°   | 3157.1 | 3191.6 | 3287.7 | 2942.0 | 2557.9 | 2250.7 | 2066.3 | 2035.6 | 2039.4 | 2020.2 | 2024.1 |
| 32.5° | 3287.7 | 3322.2 | 3349.1 | 2811.4 | 2339.0 | 1978.0 | 1855.1 | 1832.0 | 1828.2 | 1812.8 | 1797.5 |
| 35°   | 3472.0 | 3521.9 | 3356.8 | 2634.7 | 2074.0 | 1751.4 | 1663.0 | 1640.0 | 1616.9 | 1563.2 | 1563.2 |
| 37.5° | 3752.4 | 3806.2 | 3337.6 | 2415.8 | 1801.3 | 1574.7 | 1494.0 | 1463.3 | 1424.9 | 1371.1 | 1351.9 |
| 40°   | 4136.5 | 4136.5 | 3295.3 | 2170.0 | 1582.4 | 1432.6 | 1355.8 | 1317.4 | 1275.1 | 1221.3 | 1209.8 |
| 42.5° | 4589.7 | 4482.1 | 3230.0 | 1920.4 | 1421.1 | 1336.6 | 1267.4 | 1225.2 | 1175.3 | 1113.8 | 1106.1 |
| 45°   | 5119.7 | 4827.8 | 3137.9 | 1697.6 | 1302.0 | 1279.0 | 1236.7 | 1163.7 | 1079.2 | 1013.9 | 1002.4 |
| 47.5° | 5634.3 | 5138.9 | 3049.5 | 1540.1 | 1202.1 | 1255.9 | 1221.3 | 1098.4 | 983.2  | 891.0  | 879.5  |
| 50°   | 6198.9 | 5415.4 | 2945.8 | 1409.5 | 1125.3 | 1240.6 | 1202.1 | 1002.4 | 875.7  | 810.4  | 802.7  |
| 52.5° | 6763.5 | 5695.8 | 2834.5 | 1271.3 | 1060.0 | 1209.8 | 1156.1 | 933.3  | 871.8  | 783.5  | 772.0  |
| 55°   | 7358.8 | 6022.2 | 2703.9 | 1117.6 | 983.2  | 1148.4 | 1094.6 | 929.5  | 898.7  | 783.5  | 756.6  |
| 57.5° | 7938.8 | 6383.3 | 2492.6 | 967.9  | 898.7  | 1056.2 | 1071.6 | 906.4  | 841.1  | 775.8  | 745.1  |
| 60°   | 8580.2 | 6767.3 | 2143.1 | 841.1  | 825.8  | 979.4  | 1040.8 | 856.5  | 775.8  | 752.8  | 737.4  |
| 62.5° | 9094.8 | 7113.0 | 1674.6 | 752.8  | 764.3  | 917.9  | 1002.4 | 825.8  | 748.9  | 729.7  | 725.9  |
| 65°   | 9317.6 | 7120.7 | 1202.1 | 676.0  | 702.9  | 860.3  | 964.0  | 798.9  | 725.9  | 718.2  | 714.4  |
| 67.5° | 9083.3 | 6728.9 | 845.0  | 603.0  | 637.6  | 806.6  | 914.1  | 772.0  | 702.9  | 706.7  | 699.0  |
| 70°   | 8326.7 | 5903.2 | 618.4  | 533.9  | 576.1  | 748.9  | 860.3  | 737.4  | 676.0  | 683.6  | 672.1  |
| 72.5° | 6967.1 | 4601.2 | 495.5  | 476.2  | 526.2  | 687.5  | 806.6  | 699.0  | 633.7  | 637.6  | 614.5  |
| 75°   | 5146.6 | 3049.5 | 414.8  | 426.3  | 468.6  | 629.9  | 737.4  | 649.1  | 587.6  | 572.3  | 556.9  |
| 77.5° | 3061.1 | 1567.0 | 341.8  | 372.5  | 418.6  | 560.7  | 660.6  | 587.6  | 537.7  | 510.8  | 499.3  |
| 80°   | 1263.6 | 633.7  | 280.4  | 314.9  | 364.9  | 499.3  | 583.8  | 514.7  | 480.1  | 453.2  | 437.8  |
| 82.5° | 503.1  | 311.1  | 222.8  | 257.3  | 307.3  | 434.0  | 510.8  | 453.2  | 418.6  | 399.4  | 357.2  |
| 85°   | 192.0  | 153.6  | 149.8  | 180.5  | 230.4  | 334.1  | 422.5  | 380.2  | 353.3  | 303.4  | 291.9  |
| 87.5° | 76.8   | 69.1   | 69.1   | 88.3   | 130.6  | 211.2  | 303.4  | 265.0  | 276.5  | 218.9  | 222.8  |
| 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)