

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: P237348

Luminaire Tested: **ARCH-L-AF72-150-D-U-T4W-7050**

Issue Date: 2/14/2018

**Test Information**

Test Method: LM-79-08  
Report Number: P237348  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 2/14/2018  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-AF72-150-D-U-T4W-7050  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 5000K, 665mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19956 lumens  
Efficiency: N/A  
Efficacy: 130.4 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B3 - U0 - G4

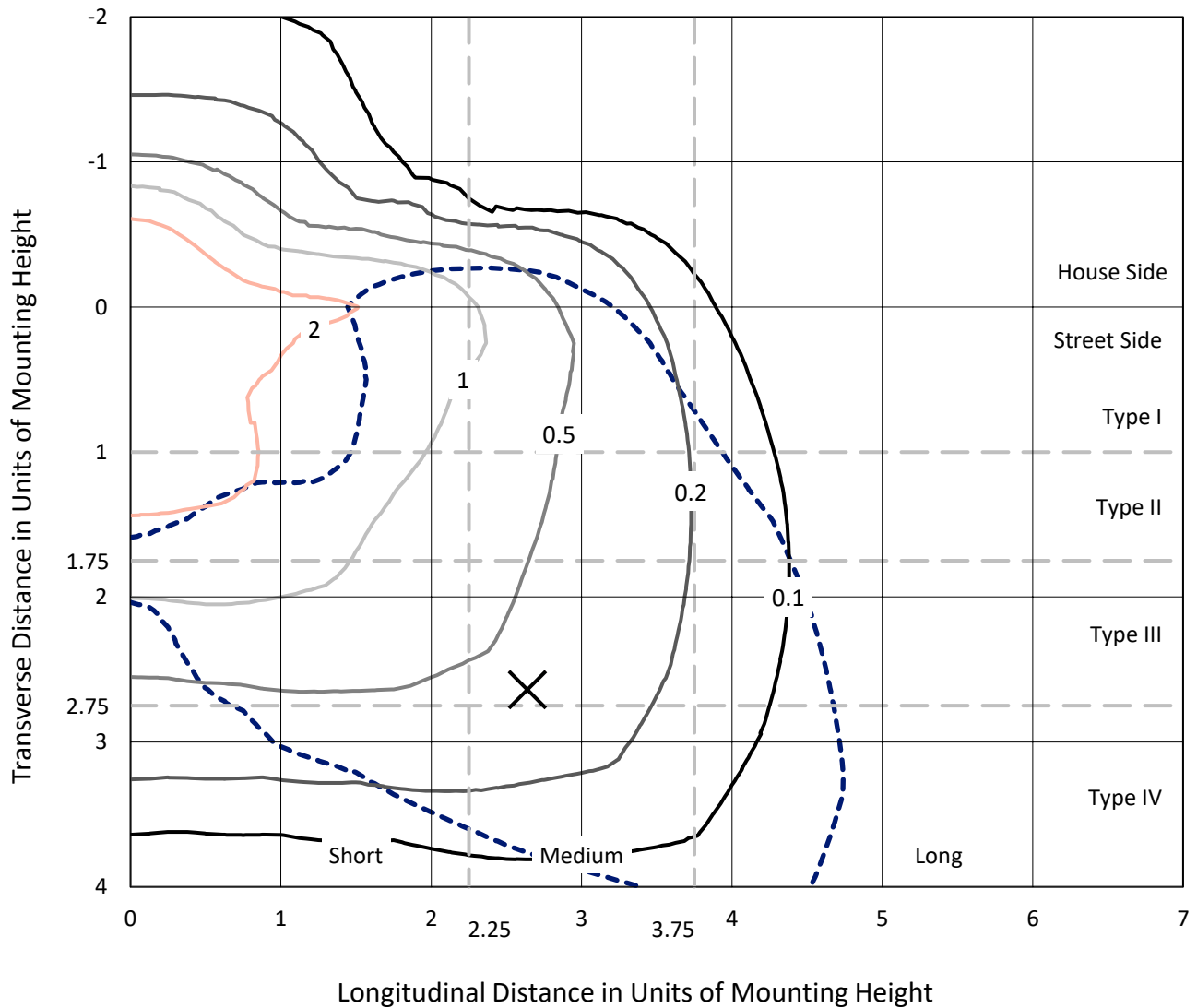
Input Watts (W): 153  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

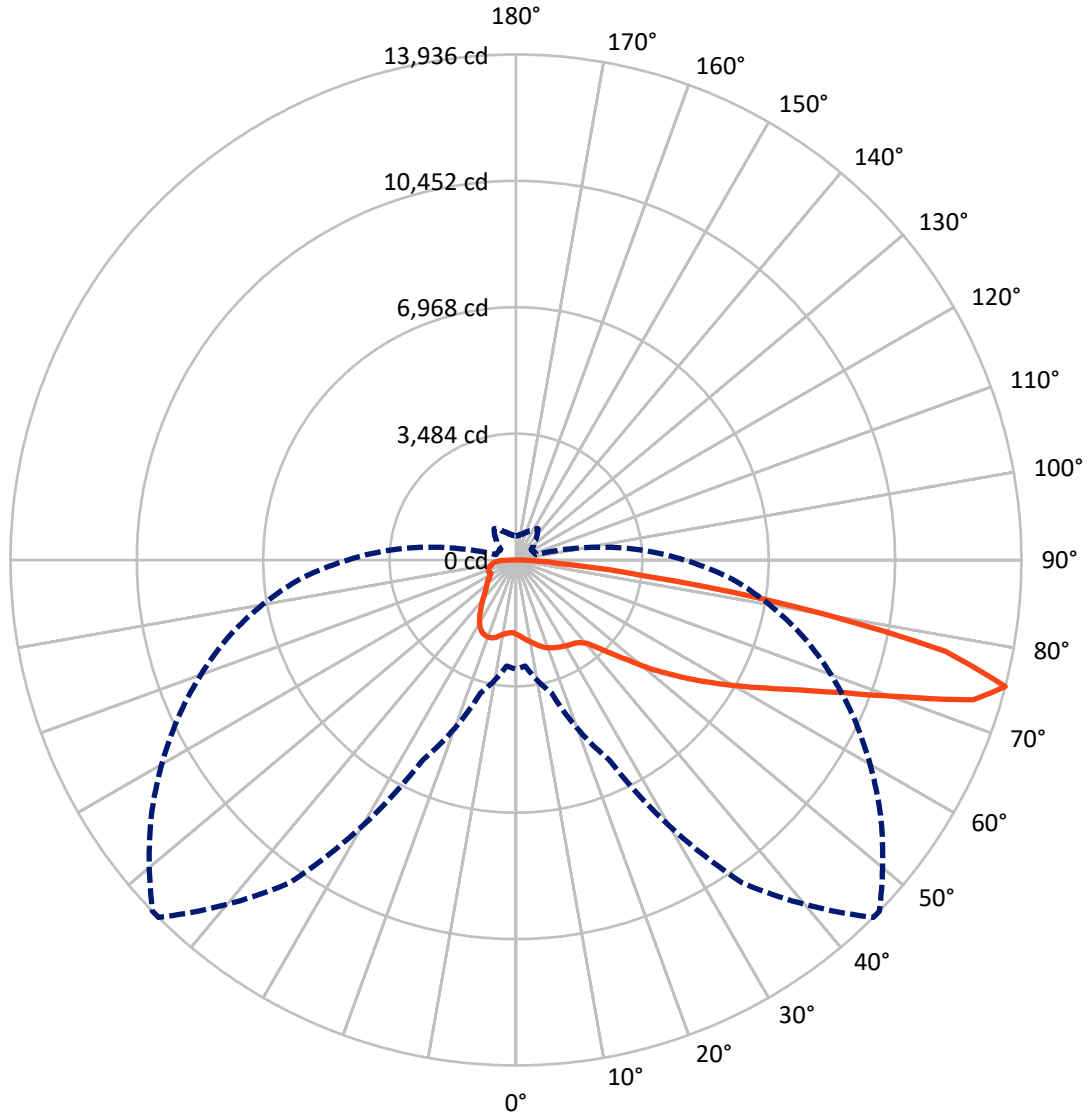
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc  
 Type IV - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical

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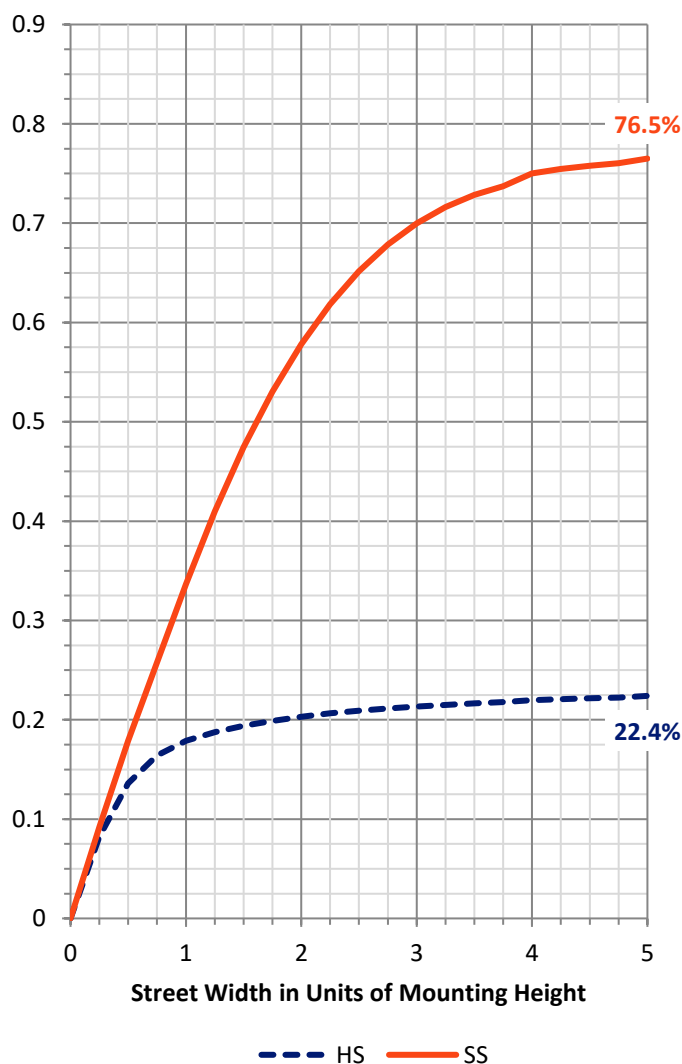
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4623.0   | 0.0    | 4623.0  |
|                    | % Fixture | 23.2     | 0.0    | 23.2    |
| <b>Street Side</b> | Lumens    | 15333.0  | 0.0    | 15333.0 |
|                    | % Fixture | 76.8     | 0.0    | 76.8    |
| <b>Total</b>       | Lumens    | 19956.0  | 0.0    | 19956.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 202.7   | 1.0       |
| 10°-20°   | 657.0   | 3.3       |
| 20°-30°   | 1127.4  | 5.6       |
| 30°-40°   | 1576.8  | 7.9       |
| 40°-50°   | 2313.0  | 11.6      |
| 50°-60°   | 3603.0  | 18.1      |
| 60°-70°   | 5184.4  | 26.0      |
| 70°-80°   | 4516.2  | 22.6      |
| 80°-90°   | 775.6   | 3.9       |
| 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°    | 19956.0 | 100.0     |
| 0°-180°   | 19956.0 | 100.0     |

**Coefficient of Utilization**



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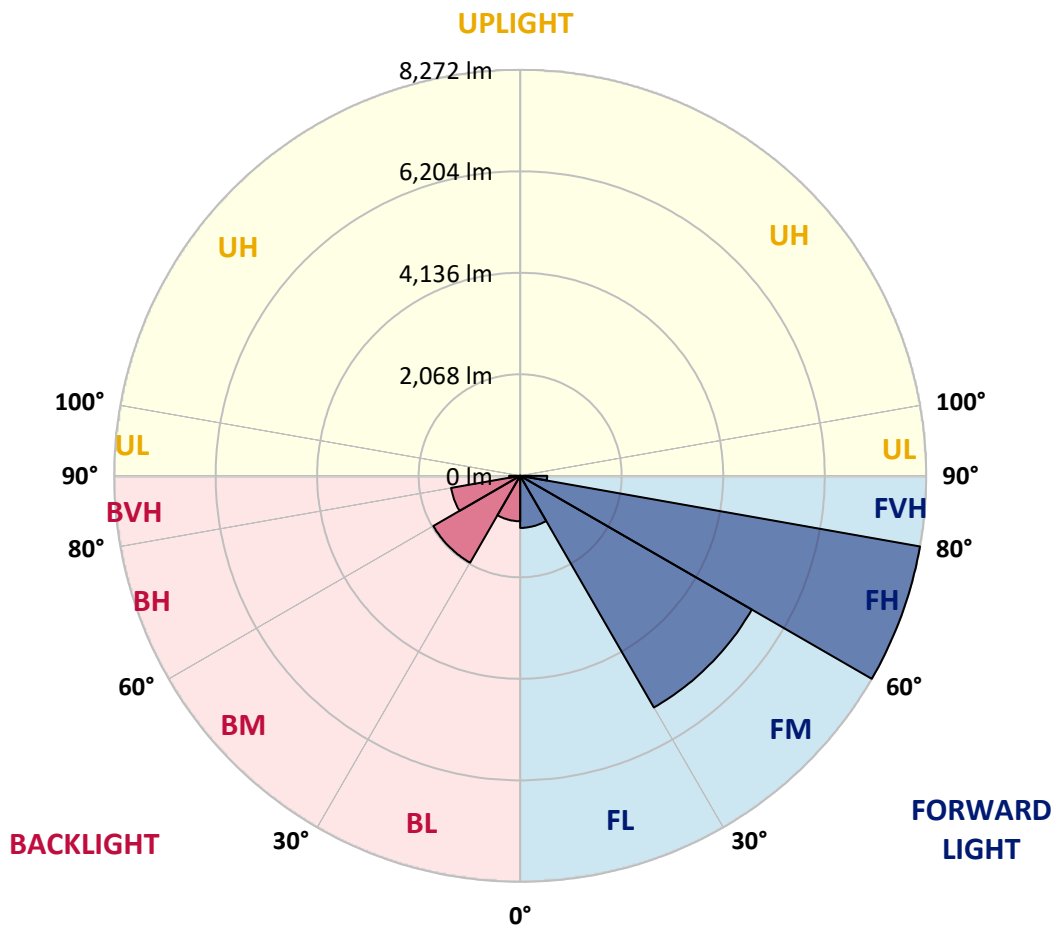
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|--------|-----------|-------------------------|------|----------|
|                |        |           | B                       | U    | G        |
| FL (0°-30°)    | 1061.2 | 5.3       |                         |      |          |
| FM (30°-60°)   | 5449.6 | 27.3      |                         |      |          |
| FH (60°-80°)   | 8271.9 | 41.5      |                         |      | G4/12000 |
| FVH (80°-90°)  | 550.3  | 2.8       |                         |      | G4/750   |
| BL (0°-30°)    | 925.9  | 4.6       | B2/1000                 |      |          |
| BM (30°-60°)   | 2043.1 | 10.2      | B2/2500                 |      |          |
| BH (60°-80°)   | 1428.6 | 7.2       | B3/2500                 |      | G3/2500  |
| BVH (80°-90°)  | 225.3  | 1.1       |                         |      | G3/500   |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |          |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |          |

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

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°     | 45°     | 46°     | 55°     | 65°     | 75°    | 85°     |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|--------|---------|
| 0°    | 2045.8 | 2045.8 | 2045.8 | 2045.8 | 2045.8  | 2045.8  | 2045.8  | 2045.8  | 2045.8  | 2045.8 | 2045.8  |
| 2.5°  | 2146.7 | 2131.2 | 2131.2 | 2119.5 | 2119.5  | 2100.1  | 2092.4  | 2088.5  | 2069.1  | 2057.4 | 2045.8  |
| 5°    | 2270.9 | 2251.5 | 2247.6 | 2220.5 | 2208.8  | 2166.1  | 2162.2  | 2135.1  | 2100.1  | 2065.2 | 2038.0  |
| 7.5°  | 2383.5 | 2371.9 | 2352.4 | 2325.3 | 2290.3  | 2236.0  | 2232.1  | 2189.4  | 2131.2  | 2084.6 | 2045.8  |
| 10°   | 2465.0 | 2457.3 | 2430.1 | 2395.1 | 2356.3  | 2302.0  | 2298.1  | 2251.5  | 2181.6  | 2127.3 | 2072.9  |
| 12.5° | 2562.1 | 2550.4 | 2515.5 | 2468.9 | 2426.2  | 2375.7  | 2371.9  | 2333.0  | 2255.4  | 2185.5 | 2115.6  |
| 15°   | 2655.2 | 2639.7 | 2597.0 | 2550.4 | 2503.8  | 2461.1  | 2461.1  | 2418.4  | 2336.9  | 2255.4 | 2173.9  |
| 17.5° | 2701.8 | 2694.1 | 2651.4 | 2600.9 | 2562.1  | 2531.0  | 2527.1  | 2488.3  | 2406.8  | 2321.4 | 2232.1  |
| 20°   | 2717.3 | 2721.2 | 2682.4 | 2628.1 | 2600.9  | 2585.4  | 2581.5  | 2554.3  | 2465.0  | 2383.5 | 2298.1  |
| 22.5° | 2713.5 | 2725.1 | 2694.1 | 2635.8 | 2628.1  | 2628.1  | 2628.1  | 2597.0  | 2527.1  | 2445.6 | 2360.2  |
| 25°   | 2729.0 | 2744.5 | 2721.2 | 2651.4 | 2651.4  | 2666.9  | 2666.9  | 2651.4  | 2589.2  | 2519.4 | 2434.0  |
| 27.5° | 2783.3 | 2795.0 | 2775.6 | 2678.5 | 2682.4  | 2705.7  | 2701.8  | 2705.7  | 2666.9  | 2600.9 | 2515.5  |
| 30°   | 2849.3 | 2864.9 | 2841.6 | 2721.2 | 2717.3  | 2740.6  | 2740.6  | 2760.0  | 2732.9  | 2663.0 | 2593.1  |
| 32.5° | 3027.9 | 3024.0 | 2950.3 | 2767.8 | 2756.2  | 2779.5  | 2779.5  | 2798.9  | 2783.3  | 2729.0 | 2663.0  |
| 35°   | 3559.7 | 3501.5 | 3338.5 | 2919.2 | 2802.7  | 2814.4  | 2814.4  | 2849.3  | 2857.1  | 2814.4 | 2756.2  |
| 37.5° | 4103.2 | 4083.8 | 3959.6 | 3322.9 | 2973.6  | 2888.2  | 2884.3  | 2934.7  | 2969.7  | 2934.7 | 2895.9  |
| 40°   | 4650.5 | 4635.0 | 4607.8 | 3862.5 | 3330.7  | 3020.1  | 3008.5  | 3051.2  | 3113.3  | 3090.0 | 3066.7  |
| 42.5° | 5159.1 | 5151.3 | 5178.5 | 4394.3 | 3784.9  | 3303.5  | 3268.6  | 3218.1  | 3307.4  | 3299.6 | 3299.6  |
| 45°   | 5558.9 | 5578.3 | 5593.9 | 4891.2 | 4277.9  | 3668.4  | 3625.7  | 3454.9  | 3575.3  | 3606.3 | 3629.6  |
| 47.5° | 5784.1 | 5799.6 | 5853.9 | 5376.5 | 4770.9  | 4091.5  | 4060.5  | 3781.0  | 3940.2  | 4033.3 | 4099.3  |
| 50°   | 6106.3 | 6063.6 | 6110.1 | 5850.1 | 5364.8  | 4642.8  | 4557.4  | 4219.6  | 4421.5  | 4584.6 | 4739.8  |
| 52.5° | 6416.8 | 6346.9 | 6385.8 | 6397.4 | 6040.3  | 5182.4  | 5093.1  | 4735.9  | 4988.3  | 5244.5 | 5520.1  |
| 55°   | 6696.3 | 6692.4 | 6731.3 | 6929.2 | 6692.4  | 5760.8  | 5659.8  | 5306.6  | 5671.5  | 5947.1 | 6412.9  |
| 57.5° | 6921.5 | 6960.3 | 7131.1 | 7546.5 | 7445.5  | 6389.6  | 6277.1  | 5970.4  | 6401.3  | 6676.9 | 7449.4  |
| 60°   | 7185.4 | 7247.5 | 7530.9 | 8070.5 | 8132.6  | 7049.6  | 6933.1  | 6711.8  | 7150.5  | 7430.0 | 8648.9  |
| 62.5° | 7274.7 | 7364.0 | 7946.3 | 8621.7 | 8850.8  | 7771.6  | 7666.8  | 7519.3  | 7938.5  | 8190.9 | 9844.6  |
| 65°   | 6680.8 | 6851.6 | 8175.3 | 8905.1 | 9623.3  | 8641.2  | 8551.9  | 8423.8  | 8722.7  | 8889.6 | 10655.9 |
| 67.5° | 6517.7 | 6595.4 | 7728.9 | 9312.7 | 10349.2 | 9759.2  | 9669.9  | 9448.6  | 9456.4  | 9386.5 | 10919.8 |
| 70°   | 6288.7 | 6374.1 | 7270.8 | 9619.4 | 11389.6 | 11288.6 | 11179.9 | 10527.8 | 10127.9 | 9704.8 | 10399.7 |
| 72.5° | 5357.1 | 5329.9 | 6265.4 | 8792.6 | 11890.3 | 13183.0 | 13054.9 | 11688.5 | 10624.8 | 9429.2 | 8777.0  |
| 75°   | 3008.5 | 2930.9 | 3800.4 | 6083.0 | 10857.7 | 13936.1 | 13932.2 | 12274.6 | 10275.4 | 8214.1 | 5974.3  |
| 77.5° | 873.4  | 850.1  | 1253.9 | 2550.4 | 7309.7  | 12107.7 | 12255.2 | 11071.2 | 8575.2  | 5900.5 | 3280.2  |
| 80°   | 411.5  | 419.2  | 539.6  | 842.4  | 3121.1  | 7814.3  | 8237.4  | 7290.3  | 5124.1  | 2721.2 | 1354.8  |
| 82.5° | 260.1  | 264.0  | 368.8  | 543.5  | 1319.9  | 3548.1  | 3897.5  | 3280.2  | 2030.2  | 1176.2 | 597.8   |
| 85°   | 163.0  | 163.0  | 244.6  | 357.1  | 788.0   | 1133.5  | 1230.6  | 1118.0  | 869.6   | 640.5  | 326.1   |
| 87.5° | 89.3   | 89.3   | 147.5  | 205.7  | 430.9   | 364.9   | 376.5   | 446.4   | 543.5   | 392.1  | 163.0   |
| 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°    | 2045.8  | 2045.8 | 2045.8 | 2045.8 | 2045.8 | 2045.8 | 2045.8 | 2045.8 | 2045.8 | 2045.8 | 2045.8 |
| 2.5°  | 2041.9  | 2034.1 | 2022.5 | 2018.6 | 2014.7 | 2010.8 | 2014.7 | 2022.5 | 2014.7 | 2014.7 | 2018.6 |
| 5°    | 2030.2  | 2022.5 | 2007.0 | 2007.0 | 2010.8 | 2014.7 | 2034.1 | 2045.8 | 2049.7 | 2049.7 | 2049.7 |
| 7.5°  | 2030.2  | 2018.6 | 2007.0 | 2010.8 | 2018.6 | 2034.1 | 2065.2 | 2084.6 | 2100.1 | 2104.0 | 2104.0 |
| 10°   | 2049.7  | 2034.1 | 2026.4 | 2034.1 | 2057.4 | 2069.1 | 2100.1 | 2131.2 | 2150.6 | 2158.3 | 2158.3 |
| 12.5° | 2084.6  | 2069.1 | 2069.1 | 2084.6 | 2115.6 | 2131.2 | 2158.3 | 2181.6 | 2204.9 | 2216.6 | 2216.6 |
| 15°   | 2142.8  | 2123.4 | 2127.3 | 2154.5 | 2189.4 | 2204.9 | 2224.3 | 2232.1 | 2251.5 | 2267.0 | 2267.0 |
| 17.5° | 2197.2  | 2177.8 | 2185.5 | 2216.6 | 2239.9 | 2247.6 | 2259.3 | 2255.4 | 2263.2 | 2274.8 | 2278.7 |
| 20°   | 2259.3  | 2239.9 | 2243.8 | 2263.2 | 2267.0 | 2259.3 | 2259.3 | 2247.6 | 2243.8 | 2263.2 | 2270.9 |
| 22.5° | 2321.4  | 2302.0 | 2298.1 | 2286.5 | 2267.0 | 2247.6 | 2236.0 | 2224.3 | 2216.6 | 2236.0 | 2243.8 |
| 25°   | 2395.1  | 2368.0 | 2348.6 | 2298.1 | 2247.6 | 2212.7 | 2197.2 | 2189.4 | 2185.5 | 2204.9 | 2212.7 |
| 27.5° | 2476.7  | 2449.5 | 2391.3 | 2282.6 | 2201.1 | 2142.8 | 2131.2 | 2131.2 | 2138.9 | 2150.6 | 2158.3 |
| 30°   | 2554.3  | 2527.1 | 2422.3 | 2247.6 | 2119.5 | 2034.1 | 2022.5 | 2034.1 | 2053.5 | 2065.2 | 2076.8 |
| 32.5° | 2631.9  | 2604.8 | 2441.7 | 2193.3 | 1999.2 | 1890.5 | 1882.7 | 1902.1 | 1933.2 | 1941.0 | 1948.7 |
| 35°   | 2736.8  | 2709.6 | 2465.0 | 2115.6 | 1847.8 | 1731.3 | 1723.6 | 1735.2 | 1762.4 | 1774.0 | 1785.7 |
| 37.5° | 2884.3  | 2868.7 | 2500.0 | 2030.2 | 1708.0 | 1579.9 | 1556.7 | 1548.9 | 1564.4 | 1560.5 | 1576.1 |
| 40°   | 3078.4  | 3090.0 | 2562.1 | 1917.7 | 1572.2 | 1440.2 | 1389.7 | 1366.4 | 1350.9 | 1319.9 | 1335.4 |
| 42.5° | 3361.7  | 3369.5 | 2631.9 | 1789.6 | 1455.7 | 1308.2 | 1242.2 | 1199.5 | 1168.5 | 1118.0 | 1125.8 |
| 45°   | 3777.1  | 3711.1 | 2713.5 | 1653.7 | 1350.9 | 1203.4 | 1125.8 | 1075.3 | 1032.6 | 989.9  | 993.8  |
| 47.5° | 4328.3  | 4126.5 | 2802.7 | 1541.1 | 1246.1 | 1118.0 | 1048.1 | 989.9  | 939.4  | 904.5  | 908.4  |
| 50°   | 5007.7  | 4642.8 | 2892.0 | 1436.3 | 1141.3 | 1052.0 | 989.9  | 927.8  | 877.3  | 842.4  | 838.5  |
| 52.5° | 5904.4  | 5263.9 | 2950.3 | 1319.9 | 1036.5 | 993.8  | 939.4  | 881.2  | 819.1  | 776.4  | 772.5  |
| 55°   | 6836.1  | 5985.9 | 3000.7 | 1180.1 | 935.5  | 927.8  | 900.6  | 834.6  | 760.9  | 706.5  | 698.7  |
| 57.5° | 7860.9  | 6758.4 | 3039.5 | 1044.2 | 857.9  | 873.4  | 865.7  | 788.0  | 706.5  | 656.0  | 652.2  |
| 60°   | 8792.6  | 7558.1 | 2915.3 | 923.9  | 788.0  | 819.1  | 826.8  | 760.9  | 718.2  | 729.8  | 733.7  |
| 62.5° | 9732.0  | 8175.3 | 2441.7 | 834.6  | 741.4  | 784.1  | 850.1  | 846.3  | 826.8  | 846.3  | 850.1  |
| 65°   | 10069.7 | 8303.4 | 1731.3 | 760.9  | 694.9  | 799.7  | 923.9  | 916.1  | 826.8  | 791.9  | 784.1  |
| 67.5° | 9879.5  | 7923.0 | 1164.6 | 702.6  | 659.9  | 819.1  | 1001.5 | 916.1  | 795.8  | 749.2  | 733.7  |
| 70°   | 8975.0  | 6987.5 | 854.0  | 644.4  | 628.9  | 815.2  | 1044.2 | 912.3  | 780.3  | 729.8  | 710.4  |
| 72.5° | 7158.3  | 5392.0 | 687.1  | 590.1  | 582.3  | 795.8  | 1067.5 | 904.5  | 764.7  | 710.4  | 687.1  |
| 75°   | 4635.0  | 3354.0 | 578.4  | 535.7  | 512.4  | 764.7  | 1055.9 | 881.2  | 745.3  | 675.5  | 659.9  |
| 77.5° | 2150.6  | 1444.1 | 493.0  | 473.6  | 446.4  | 718.2  | 1020.9 | 834.6  | 702.6  | 636.6  | 617.2  |
| 80°   | 1001.5  | 683.2  | 415.4  | 411.5  | 399.8  | 679.3  | 974.4  | 780.3  | 652.2  | 597.8  | 566.8  |
| 82.5° | 535.7   | 411.5  | 337.7  | 337.7  | 349.4  | 632.8  | 916.1  | 714.3  | 586.2  | 559.0  | 477.5  |
| 85°   | 283.4   | 236.8  | 244.6  | 264.0  | 298.9  | 559.0  | 838.5  | 644.4  | 512.4  | 427.0  | 415.4  |
| 87.5° | 143.6   | 151.4  | 151.4  | 178.6  | 229.0  | 454.2  | 691.0  | 531.8  | 434.8  | 349.4  | 341.6  |
| 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)