

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: P397860

Luminaire Tested: **ARCH-S-PA1-50-760-U-T2R-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397860  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/19/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-S-PA1-50-760-U-T2R-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5700K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6097 lumens  
Efficiency: N/A  
Efficacy: 112.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B0 - U0 - G1

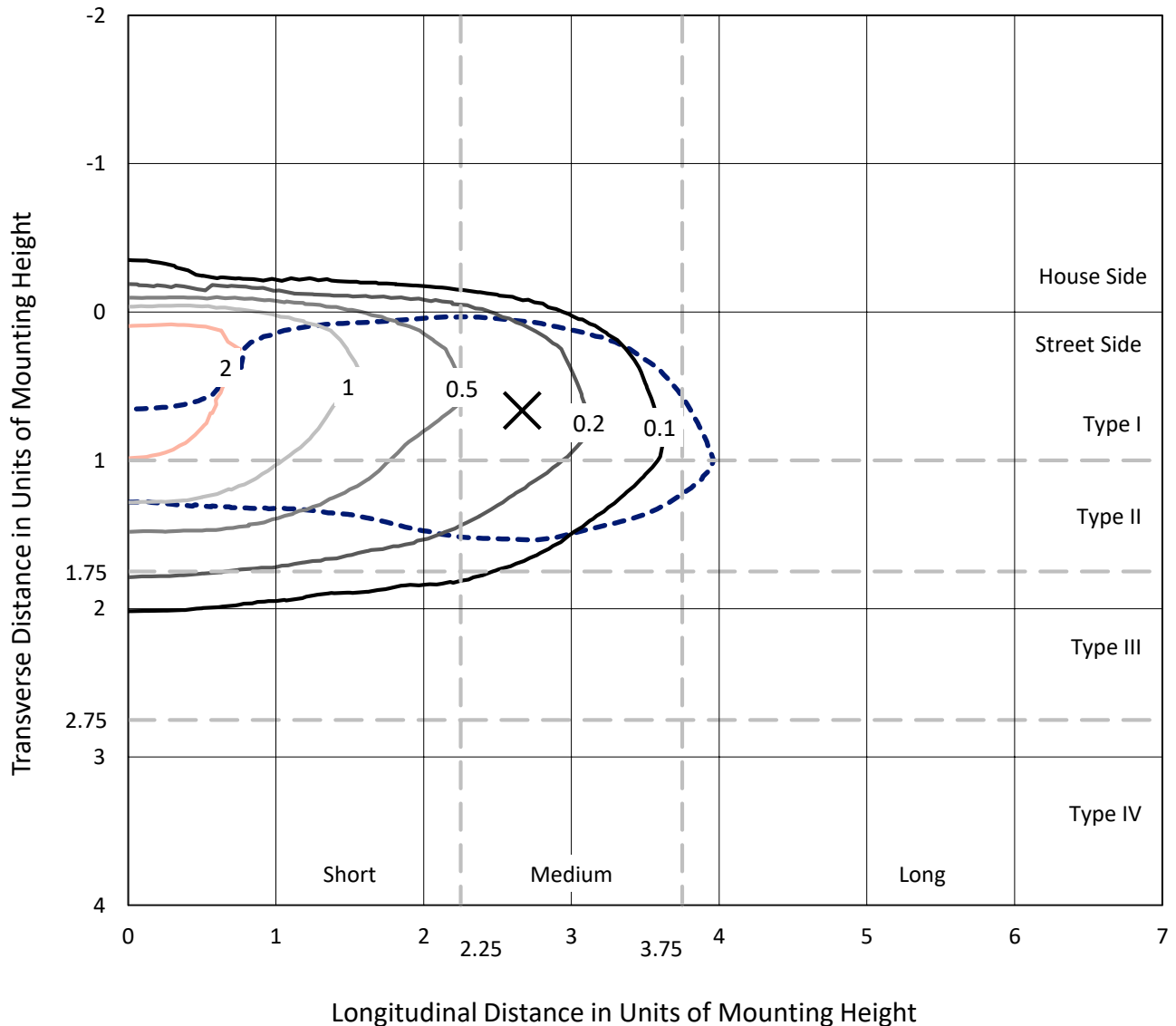
Input Watts (W): 54  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

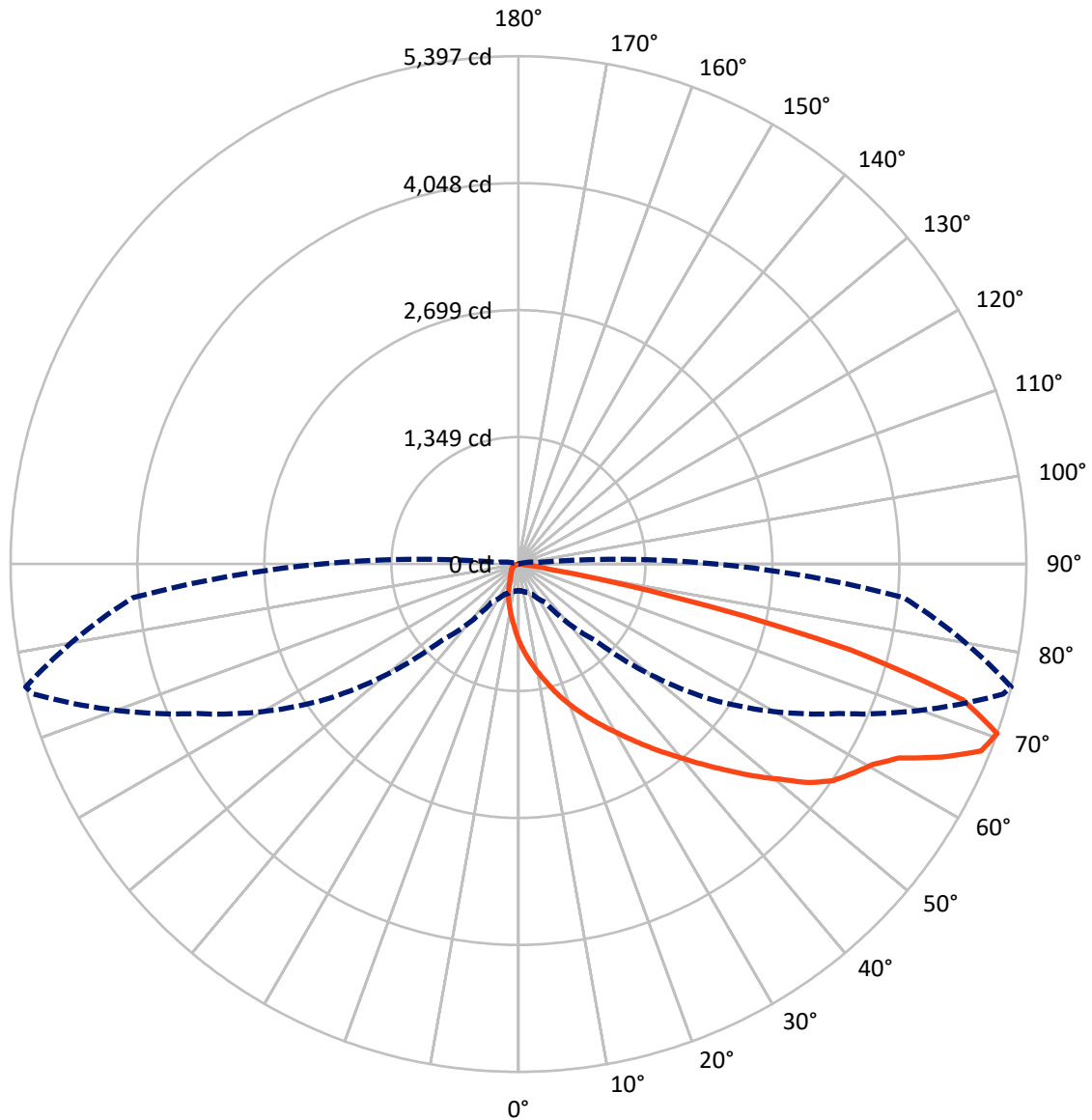
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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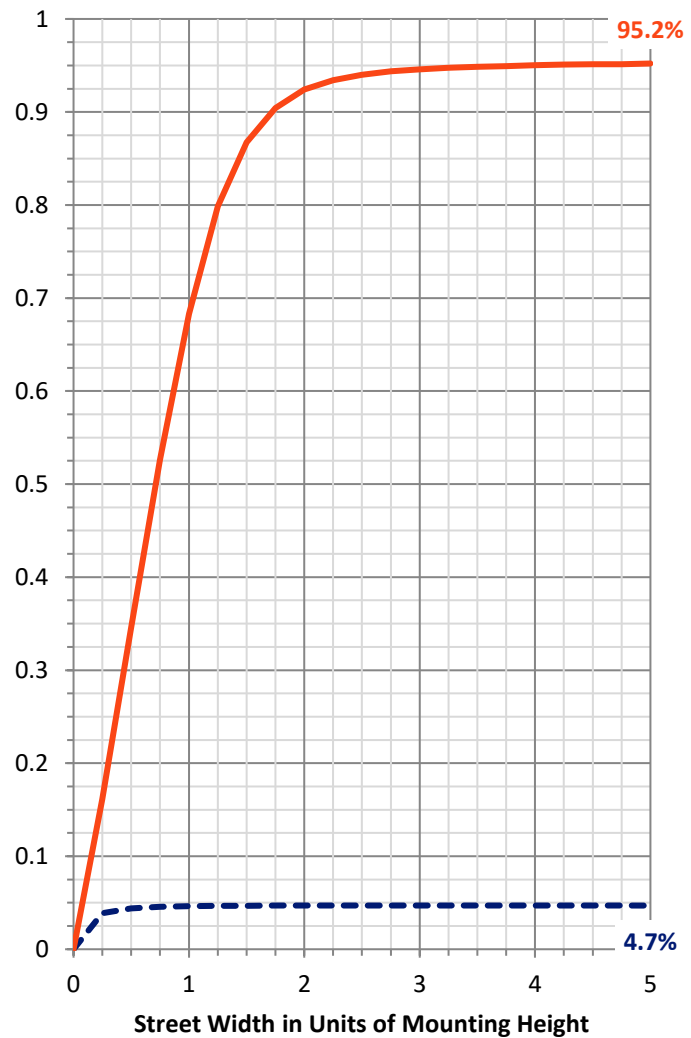
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 287.6    | 0.0    | 287.6  |
|                    | % Fixture | 4.7      | 0.0    | 4.7    |
| <b>Street Side</b> | Lumens    | 5809.5   | 0.0    | 5809.5 |
|                    | % Fixture | 95.3     | 0.0    | 95.3   |
| <b>Total</b>       | Lumens    | 6097.0   | 0.0    | 6097.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 76.9   | 1.3       |
| 10°-20°   | 248.1  | 4.1       |
| 20°-30°   | 462.1  | 7.6       |
| 30°-40°   | 817.4  | 13.4      |
| 40°-50°   | 1250.0 | 20.5      |
| 50°-60°   | 1417.2 | 23.2      |
| 60°-70°   | 1214.9 | 19.9      |
| 70°-80°   | 588.4  | 9.7       |
| 80°-90°   | 21.8   | 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°    | 6097.0 | 100.0     |
| 0°-180°   | 6097.0 | 100.0     |



--- HS    — SS

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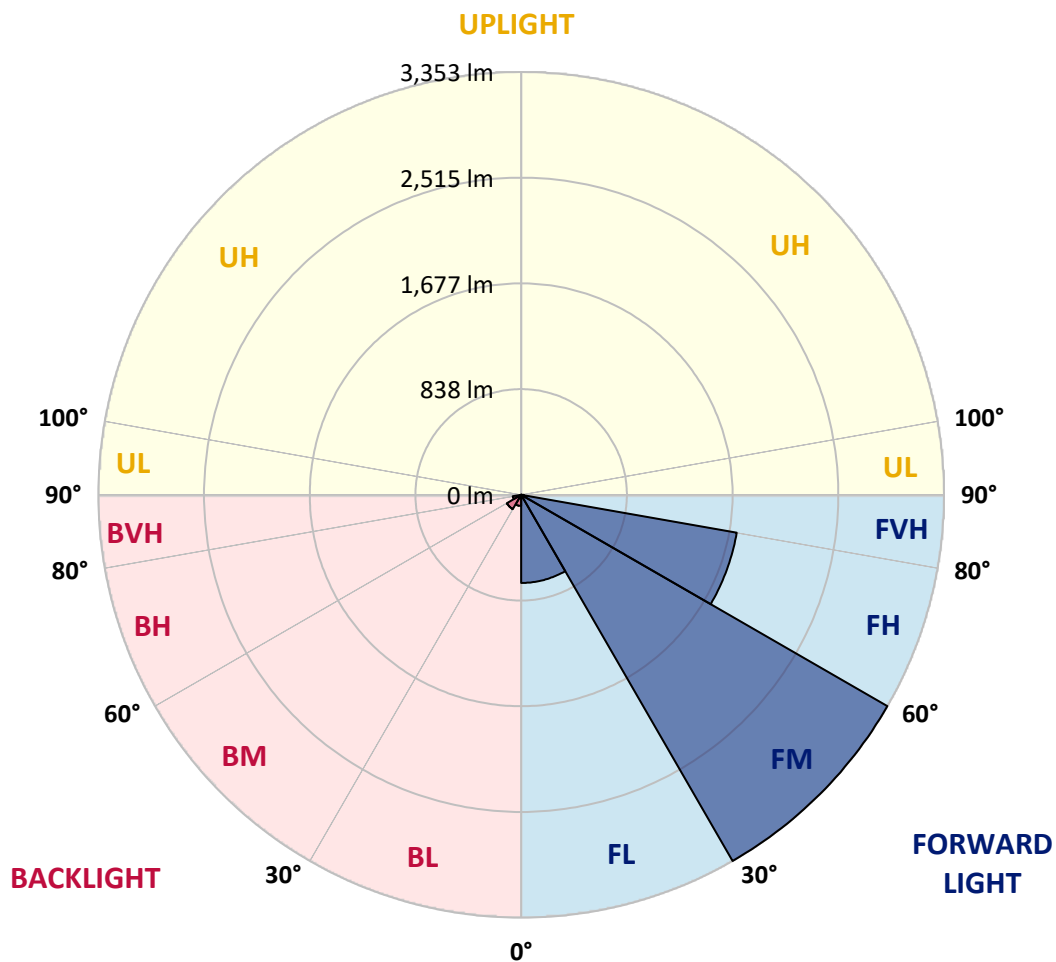
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 699.0  | 11.5      |                         |      |         |
| FM   | (30°-60°)   | 3353.4 | 55.0      |                         |      |         |
| FH   | (60°-80°)   | 1735.6 | 28.5      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 21.5   | 0.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 88.2   | 1.4       | B0/110                  |      |         |
| BM   | (30°-60°)   | 131.3  | 2.2       | B0/220                  |      |         |
| BH   | (60°-80°)   | 67.7   | 1.1       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 0.4    | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B0-U0-G1**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 76°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 816.1  | 816.1  | 816.1  | 816.1  | 816.1  | 816.1  | 816.1  | 816.1  | 816.1  | 816.1  | 816.1  |
| 2.5°  | 1115.6 | 1109.5 | 1103.4 | 1080.0 | 1058.7 | 1039.4 | 1002.9 | 955.2  | 912.6  | 903.4  | 853.7  |
| 5°    | 1310.5 | 1303.4 | 1294.2 | 1270.9 | 1243.5 | 1211.0 | 1157.2 | 1084.1 | 1009.0 | 992.7  | 900.4  |
| 7.5°  | 1442.4 | 1436.3 | 1423.1 | 1412.0 | 1384.6 | 1353.1 | 1293.2 | 1207.9 | 1104.4 | 1084.1 | 954.2  |
| 10°   | 1532.8 | 1528.7 | 1526.7 | 1517.5 | 1497.2 | 1471.9 | 1412.0 | 1322.6 | 1200.8 | 1177.5 | 1011.0 |
| 12.5° | 1565.3 | 1565.3 | 1575.4 | 1590.6 | 1593.7 | 1585.6 | 1530.7 | 1441.4 | 1302.3 | 1278.0 | 1078.0 |
| 15°   | 1521.6 | 1526.7 | 1549.0 | 1597.7 | 1648.5 | 1682.0 | 1647.5 | 1564.2 | 1414.0 | 1387.6 | 1157.2 |
| 17.5° | 1509.4 | 1514.5 | 1529.7 | 1572.4 | 1640.4 | 1729.7 | 1746.9 | 1683.0 | 1519.6 | 1497.2 | 1238.4 |
| 20°   | 1543.9 | 1549.0 | 1562.2 | 1598.7 | 1650.5 | 1740.9 | 1812.9 | 1797.7 | 1631.2 | 1607.9 | 1320.6 |
| 22.5° | 1626.2 | 1629.2 | 1629.2 | 1657.6 | 1703.3 | 1770.3 | 1854.5 | 1906.3 | 1745.9 | 1720.6 | 1401.8 |
| 25°   | 1802.8 | 1796.7 | 1772.3 | 1758.1 | 1787.6 | 1842.4 | 1907.3 | 2001.7 | 1873.8 | 1839.3 | 1489.1 |
| 27.5° | 2034.2 | 2054.5 | 1995.6 | 1927.6 | 1905.3 | 1936.8 | 1981.4 | 2086.0 | 1997.7 | 1961.1 | 1568.3 |
| 30°   | 2347.9 | 2339.8 | 2262.6 | 2165.2 | 2068.7 | 2057.6 | 2072.8 | 2158.1 | 2121.5 | 2087.0 | 1656.6 |
| 32.5° | 2605.7 | 2620.9 | 2539.7 | 2421.0 | 2276.8 | 2208.8 | 2192.6 | 2244.3 | 2253.5 | 2231.1 | 1761.2 |
| 35°   | 2870.6 | 2886.9 | 2807.7 | 2675.7 | 2504.2 | 2390.5 | 2343.8 | 2350.9 | 2416.9 | 2388.5 | 1870.8 |
| 37.5° | 3108.2 | 3122.4 | 3044.2 | 2909.2 | 2737.7 | 2598.6 | 2531.6 | 2476.8 | 2575.3 | 2549.9 | 1986.5 |
| 40°   | 3288.9 | 3290.9 | 3238.1 | 3117.3 | 2954.9 | 2810.8 | 2734.6 | 2627.0 | 2742.7 | 2725.5 | 2107.3 |
| 42.5° | 3416.8 | 3420.8 | 3382.2 | 3278.7 | 3128.5 | 2994.5 | 2932.6 | 2804.7 | 2935.6 | 2920.4 | 2247.4 |
| 45°   | 3476.6 | 3483.7 | 3479.7 | 3384.3 | 3259.4 | 3143.7 | 3123.4 | 2993.5 | 3146.7 | 3132.5 | 2408.8 |
| 47.5° | 3419.8 | 3419.8 | 3471.6 | 3458.4 | 3343.7 | 3266.5 | 3289.9 | 3190.4 | 3376.1 | 3363.0 | 2573.2 |
| 50°   | 3183.3 | 3186.3 | 3291.9 | 3443.1 | 3376.1 | 3358.9 | 3432.0 | 3383.3 | 3584.2 | 3592.4 | 2770.1 |
| 52.5° | 2562.1 | 2557.0 | 2913.3 | 3203.6 | 3353.8 | 3400.5 | 3562.9 | 3580.2 | 3833.9 | 3858.3 | 2966.1 |
| 55°   | 1914.4 | 1911.4 | 2252.5 | 2779.3 | 3197.5 | 3379.2 | 3636.0 | 3755.8 | 4047.1 | 4062.3 | 3112.2 |
| 57.5° | 1515.5 | 1507.4 | 1695.2 | 2240.3 | 2844.2 | 3283.8 | 3639.1 | 3789.3 | 4165.9 | 4192.3 | 3254.3 |
| 60°   | 1165.3 | 1158.2 | 1298.3 | 1666.8 | 2343.8 | 3030.0 | 3551.8 | 3791.3 | 4280.6 | 4327.3 | 3445.2 |
| 62.5° | 833.4  | 841.5  | 949.1  | 1195.8 | 1802.8 | 2671.7 | 3438.1 | 3819.7 | 4484.6 | 4537.4 | 3716.2 |
| 65°   | 562.4  | 558.3  | 647.6  | 814.1  | 1282.0 | 2189.5 | 3263.5 | 3879.6 | 4852.1 | 4944.4 | 4041.0 |
| 67.5° | 390.8  | 393.9  | 434.5  | 529.9  | 814.1  | 1681.0 | 2973.2 | 3913.1 | 5231.7 | 5303.8 | 4268.4 |
| 70°   | 282.2  | 286.3  | 308.6  | 356.3  | 497.4  | 1139.9 | 2513.3 | 3759.8 | 5334.2 | 5397.2 | 4110.1 |
| 72.5° | 185.8  | 193.9  | 227.4  | 252.8  | 317.7  | 713.6  | 1851.5 | 3239.1 | 4892.7 | 4939.4 | 3448.2 |
| 75°   | 100.5  | 102.5  | 146.2  | 188.8  | 226.4  | 444.6  | 1104.4 | 2184.4 | 3660.4 | 3645.1 | 2273.8 |
| 77.5° | 78.2   | 81.2   | 90.3   | 135.0  | 152.3  | 244.6  | 436.5  | 986.7  | 1733.8 | 1687.1 | 775.5  |
| 80°   | 47.7   | 49.7   | 62.9   | 80.2   | 106.6  | 142.1  | 127.9  | 268.0  | 352.2  | 329.9  | 113.7  |
| 82.5° | 28.4   | 30.5   | 37.6   | 67.0   | 84.3   | 67.0   | 44.7   | 65.0   | 66.0   | 65.0   | 28.4   |
| 85°   | 5.1    | 5.1    | 26.4   | 46.7   | 44.7   | 19.3   | 26.4   | 21.3   | 19.3   | 20.3   | 6.1    |
| 87.5° | 0.0    | 0.0    | 10.2   | 14.2   | 20.3   | 7.1    | 10.2   | 5.1    | 5.1    | 5.1    | 3.0    |
| 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°    | 816.1  | 816.1 | 816.1 | 816.1 | 816.1 | 816.1 | 816.1 | 816.1 | 816.1 | 816.1 | 816.1 |
| 2.5°  | 823.2  | 788.7 | 717.7 | 655.7 | 593.8 | 548.1 | 513.6 | 478.1 | 465.9 | 450.7 | 442.6 |
| 5°    | 837.4  | 769.4 | 628.3 | 515.7 | 420.2 | 347.2 | 300.5 | 272.0 | 253.8 | 240.6 | 237.5 |
| 7.5°  | 858.8  | 754.2 | 556.3 | 404.0 | 299.4 | 226.4 | 187.8 | 168.5 | 158.4 | 152.3 | 150.2 |
| 10°   | 884.1  | 741.0 | 485.2 | 314.7 | 211.1 | 159.4 | 138.1 | 129.9 | 125.9 | 123.8 | 122.8 |
| 12.5° | 919.7  | 735.9 | 425.3 | 242.6 | 159.4 | 130.9 | 119.8 | 114.7 | 111.7 | 108.6 | 107.6 |
| 15°   | 966.4  | 738.0 | 370.5 | 187.8 | 132.0 | 116.7 | 107.6 | 102.5 | 98.5  | 95.4  | 95.4  |
| 17.5° | 1015.1 | 741.0 | 316.7 | 152.3 | 119.8 | 106.6 | 96.4  | 89.3  | 86.3  | 83.2  | 82.2  |
| 20°   | 1060.8 | 740.0 | 264.9 | 129.9 | 108.6 | 95.4  | 85.3  | 78.2  | 73.1  | 70.0  | 70.0  |
| 22.5° | 1104.4 | 733.9 | 216.2 | 116.7 | 99.5  | 84.3  | 73.1  | 66.0  | 61.9  | 58.9  | 58.9  |
| 25°   | 1151.1 | 721.7 | 176.6 | 106.6 | 88.3  | 74.1  | 62.9  | 55.8  | 52.8  | 49.7  | 49.7  |
| 27.5° | 1187.6 | 701.4 | 144.1 | 97.4  | 78.2  | 63.9  | 53.8  | 47.7  | 44.7  | 42.6  | 42.6  |
| 30°   | 1227.2 | 672.0 | 119.8 | 87.3  | 68.0  | 54.8  | 45.7  | 40.6  | 37.6  | 36.5  | 36.5  |
| 32.5° | 1270.9 | 639.5 | 102.5 | 77.1  | 57.9  | 46.7  | 38.6  | 35.5  | 32.5  | 31.5  | 31.5  |
| 35°   | 1321.6 | 611.1 | 92.4  | 67.0  | 50.8  | 39.6  | 33.5  | 30.5  | 28.4  | 28.4  | 28.4  |
| 37.5° | 1379.5 | 581.6 | 83.2  | 58.9  | 43.6  | 33.5  | 28.4  | 27.4  | 26.4  | 25.4  | 25.4  |
| 40°   | 1442.4 | 550.2 | 75.1  | 51.8  | 37.6  | 28.4  | 24.4  | 24.4  | 23.3  | 23.3  | 23.3  |
| 42.5° | 1513.5 | 522.8 | 68.0  | 45.7  | 32.5  | 24.4  | 21.3  | 21.3  | 20.3  | 20.3  | 20.3  |
| 45°   | 1590.6 | 497.4 | 61.9  | 40.6  | 28.4  | 21.3  | 19.3  | 18.3  | 17.3  | 17.3  | 17.3  |
| 47.5° | 1682.0 | 483.2 | 56.8  | 35.5  | 24.4  | 18.3  | 16.2  | 15.2  | 14.2  | 13.2  | 13.2  |
| 50°   | 1798.7 | 489.3 | 51.8  | 29.4  | 21.3  | 15.2  | 13.2  | 12.2  | 11.2  | 10.2  | 10.2  |
| 52.5° | 1891.1 | 486.2 | 44.7  | 25.4  | 17.3  | 12.2  | 10.2  | 9.1   | 8.1   | 7.1   | 7.1   |
| 55°   | 1958.1 | 474.0 | 38.6  | 21.3  | 13.2  | 10.2  | 8.1   | 6.1   | 5.1   | 5.1   | 5.1   |
| 57.5° | 2024.1 | 461.9 | 32.5  | 17.3  | 10.2  | 7.1   | 5.1   | 4.1   | 4.1   | 4.1   | 4.1   |
| 60°   | 2126.6 | 444.6 | 28.4  | 14.2  | 8.1   | 5.1   | 3.0   | 3.0   | 2.0   | 2.0   | 2.0   |
| 62.5° | 2251.4 | 423.3 | 23.3  | 12.2  | 6.1   | 4.1   | 2.0   | 2.0   | 0.0   | 0.0   | 0.0   |
| 65°   | 2388.5 | 385.7 | 19.3  | 9.1   | 5.1   | 3.0   | 2.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 67.5° | 2357.0 | 309.6 | 16.2  | 6.1   | 4.1   | 2.0   | 1.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 70°   | 2085.0 | 209.1 | 13.2  | 5.1   | 3.0   | 2.0   | 1.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 72.5° | 1633.3 | 123.8 | 9.1   | 4.1   | 2.0   | 1.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 75°   | 1045.5 | 61.9  | 6.1   | 3.0   | 2.0   | 1.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 77.5° | 350.2  | 30.5  | 4.1   | 2.0   | 1.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 80°   | 49.7   | 10.2  | 2.0   | 1.0   | 1.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 82.5° | 11.2   | 4.1   | 1.0   | 1.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 4.1    | 2.0   | 1.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 2.0    | 1.0   | 0.0   | 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)