

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: P397765

Luminaire Tested: **ARCH-S-PA1-40-730-U-T3-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397765  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/19/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-S-PA1-40-730-U-T3-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 500mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3987 lumens  
Efficiency: N/A  
Efficacy: 99.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G1

Input Watts (W): 40  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

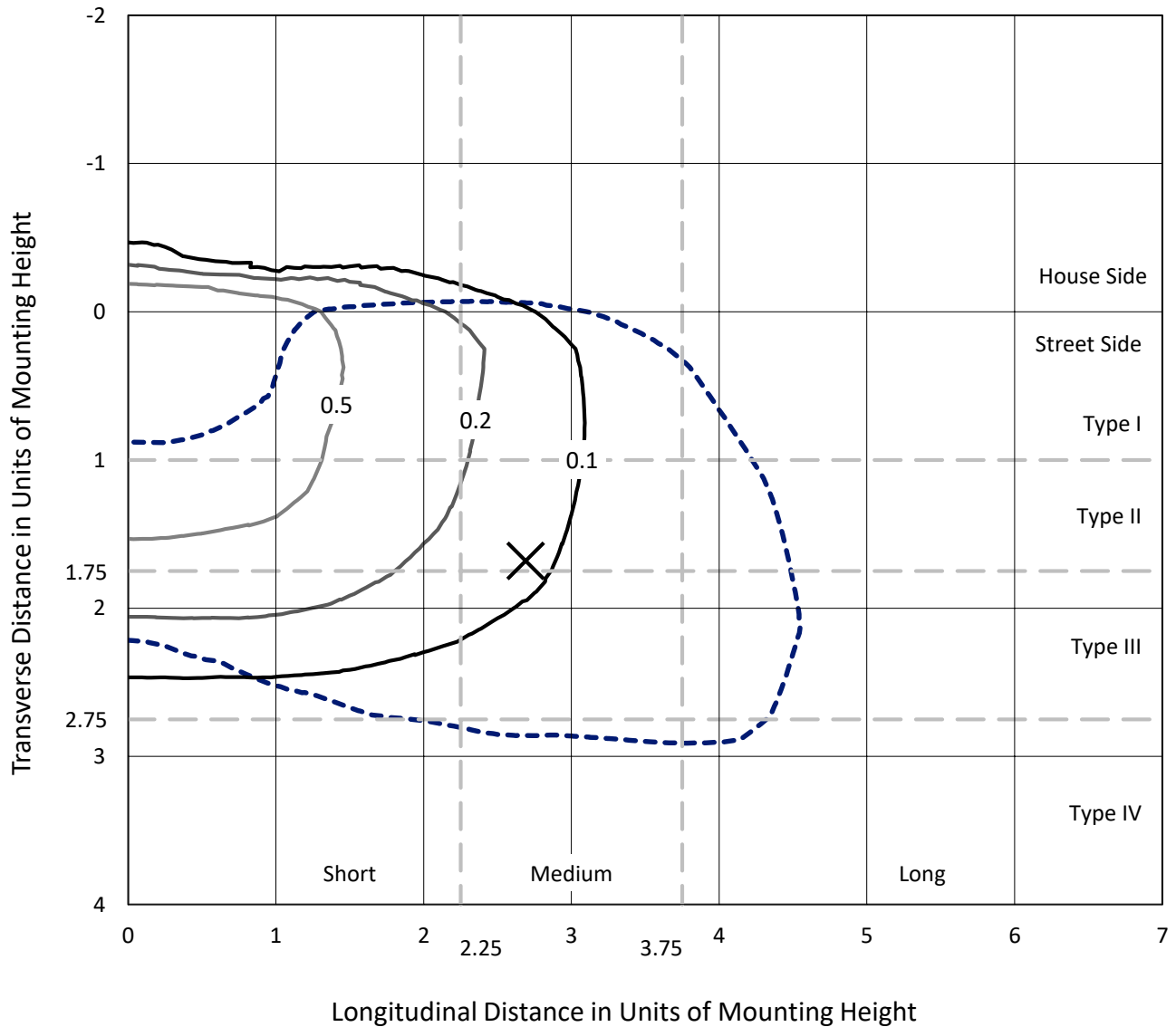


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

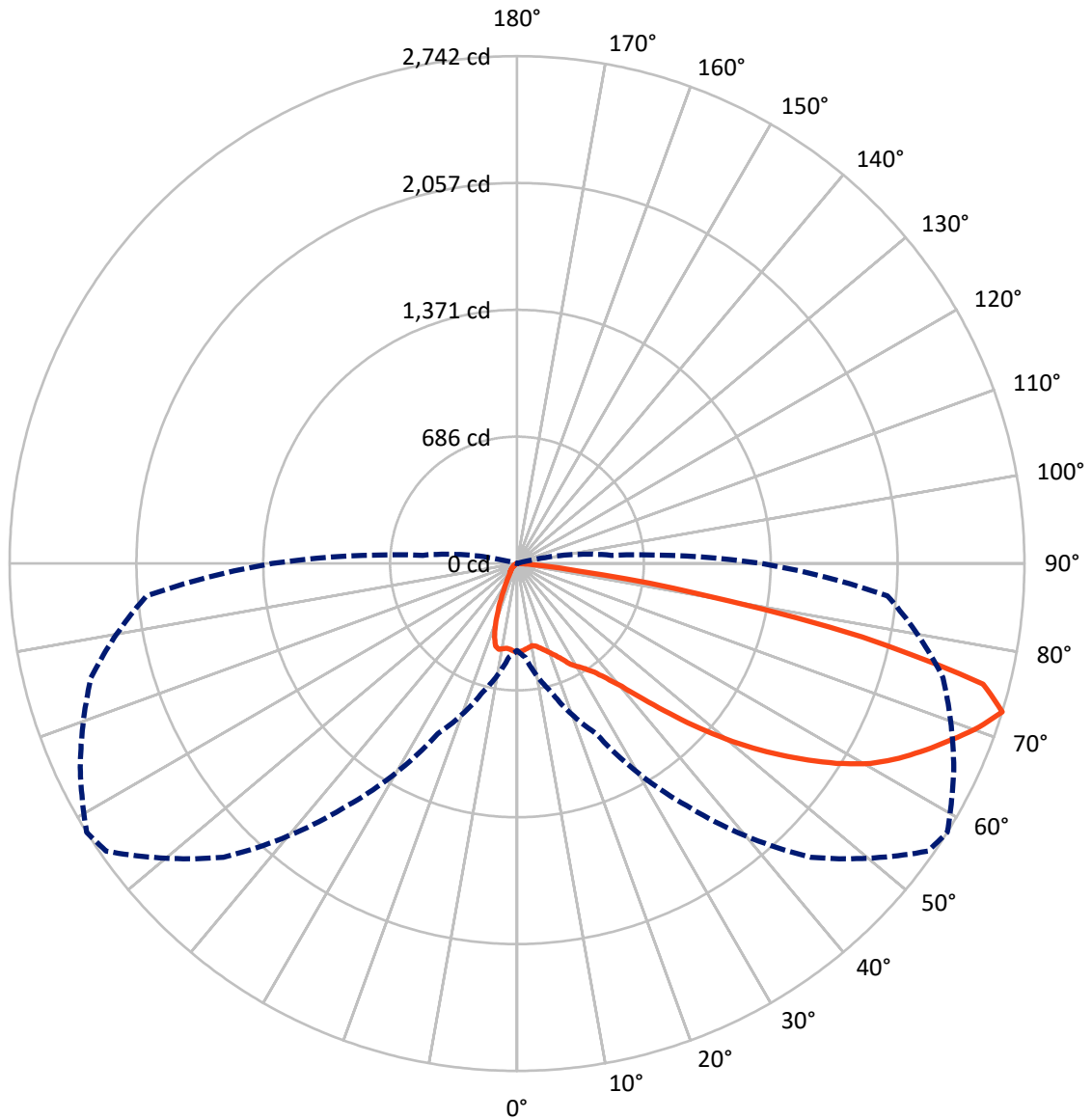


Based on 25 foot mounting height. Maximum calculated value = 0.9 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical



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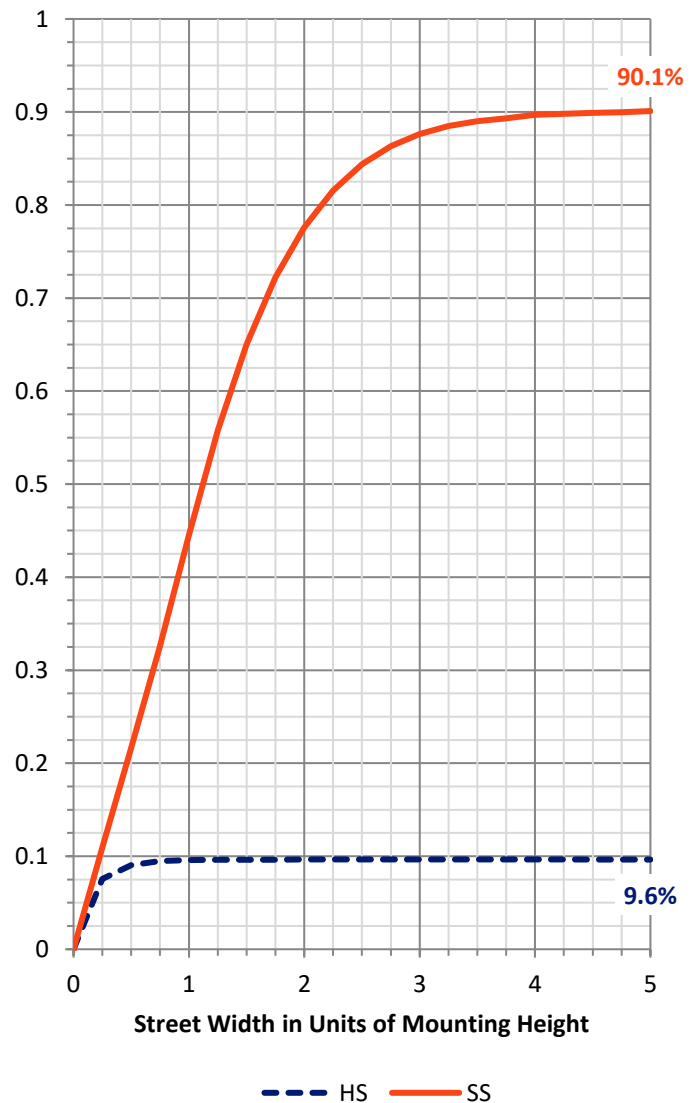
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 387.7    | 0.0    | 387.7  |
|                    | % Fixture | 9.7      | 0.0    | 9.7    |
| <b>Street Side</b> | Lumens    | 3599.3   | 0.0    | 3599.3 |
|                    | % Fixture | 90.3     | 0.0    | 90.3   |
| <b>Total</b>       | Lumens    | 3987.0   | 0.0    | 3987.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 43.9   | 1.1       |
| 10°-20°   | 114.4  | 2.9       |
| 20°-30°   | 179.6  | 4.5       |
| 30°-40°   | 309.8  | 7.8       |
| 40°-50°   | 589.4  | 14.8      |
| 50°-60°   | 933.5  | 23.4      |
| 60°-70°   | 1089.3 | 27.3      |
| 70°-80°   | 682.2  | 17.1      |
| 80°-90°   | 44.8   | 1.1       |
| 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°    | 3987.0 | 100.0     |
| 0°-180°   | 3987.0 | 100.0     |



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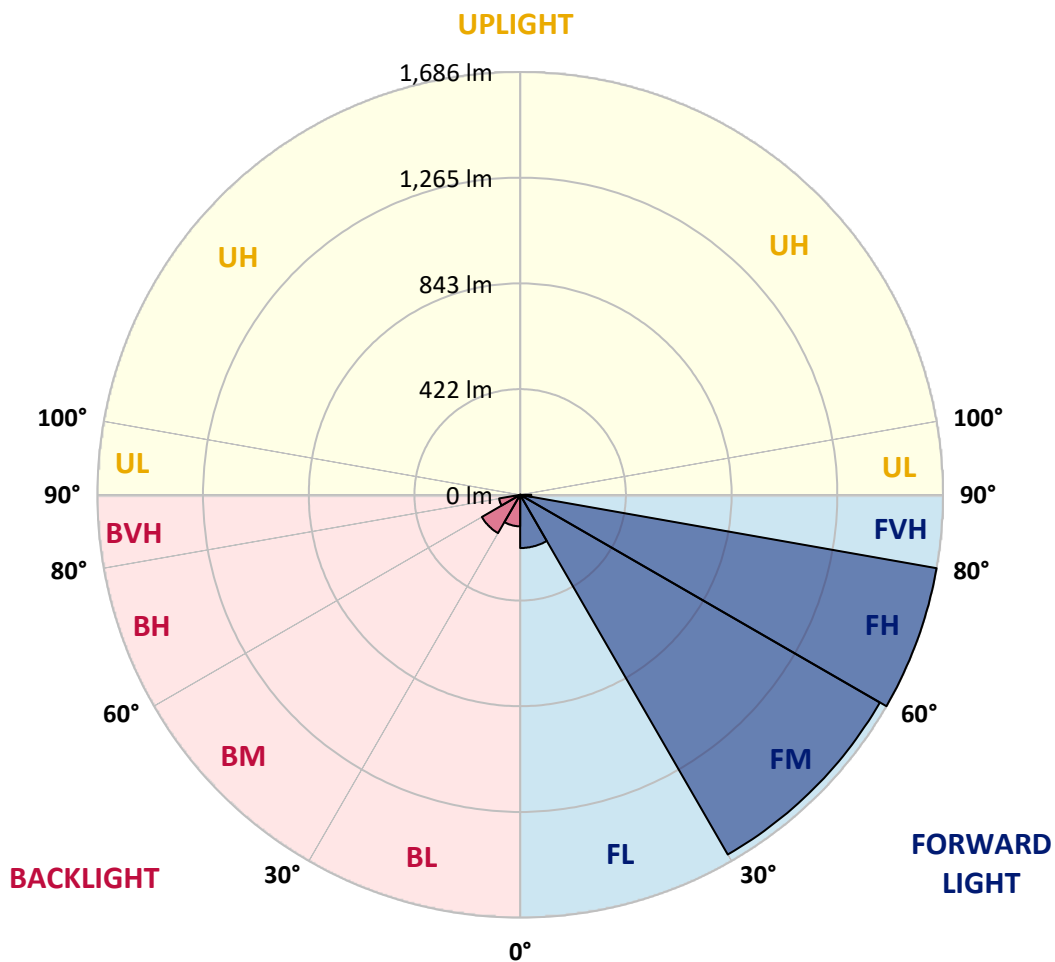
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 212.4  | 5.3       |                         |      |         |
| FM   | (30°-60°)   | 1656.4 | 41.5      |                         |      |         |
| FH   | (60°-80°)   | 1686.2 | 42.3      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 44.4   | 1.1       |                         |      | G1/100  |
| BL   | (0°-30°)    | 125.6  | 3.1       | B1/500                  |      |         |
| BM   | (30°-60°)   | 176.4  | 4.4       | B0/220                  |      |         |
| BH   | (60°-80°)   | 85.3   | 2.1       | 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: B1-U0-G1**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 58°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 478.4  | 478.4  | 478.4  | 478.4  | 478.4  | 478.4  | 478.4  | 478.4  | 478.4  | 478.4  | 478.4  |
| 2.5°  | 476.3  | 474.1  | 473.4  | 472.7  | 473.4  | 474.1  | 472.0  | 474.1  | 472.7  | 473.4  | 474.9  |
| 5°    | 459.2  | 457.0  | 456.3  | 457.0  | 459.2  | 462.7  | 464.2  | 466.3  | 466.3  | 468.4  | 469.1  |
| 7.5°  | 439.9  | 438.5  | 437.8  | 439.2  | 443.5  | 451.3  | 455.6  | 458.5  | 461.3  | 465.6  | 469.9  |
| 10°   | 429.2  | 428.5  | 427.8  | 429.9  | 434.2  | 441.3  | 447.0  | 451.3  | 462.0  | 474.1  | 482.0  |
| 12.5° | 422.1  | 422.1  | 423.5  | 427.8  | 433.5  | 439.2  | 452.7  | 458.5  | 474.9  | 493.4  | 504.1  |
| 15°   | 416.4  | 416.4  | 418.5  | 426.4  | 434.2  | 447.8  | 467.7  | 474.1  | 493.4  | 516.2  | 530.5  |
| 17.5° | 412.1  | 413.5  | 415.0  | 422.8  | 437.8  | 460.6  | 484.1  | 493.4  | 516.9  | 541.9  | 557.6  |
| 20°   | 412.8  | 414.2  | 415.0  | 422.8  | 444.2  | 475.6  | 505.5  | 516.2  | 543.3  | 569.7  | 585.4  |
| 22.5° | 417.1  | 419.2  | 420.0  | 430.6  | 455.6  | 491.2  | 529.8  | 541.9  | 571.1  | 598.9  | 611.0  |
| 25°   | 434.9  | 436.3  | 432.1  | 441.3  | 472.0  | 515.5  | 561.1  | 574.0  | 603.2  | 628.9  | 638.8  |
| 27.5° | 495.5  | 497.0  | 473.4  | 462.7  | 484.8  | 535.5  | 599.6  | 617.4  | 653.8  | 670.9  | 672.3  |
| 30°   | 626.7  | 628.1  | 581.8  | 531.2  | 515.5  | 552.6  | 621.0  | 646.0  | 693.0  | 712.3  | 703.7  |
| 32.5° | 795.7  | 794.3  | 730.8  | 655.9  | 588.2  | 582.5  | 651.7  | 678.1  | 729.4  | 747.9  | 741.5  |
| 35°   | 965.4  | 967.5  | 913.3  | 800.7  | 703.7  | 638.8  | 690.9  | 721.5  | 783.6  | 810.0  | 798.5  |
| 37.5° | 1081.6 | 1095.9 | 1072.3 | 950.4  | 845.6  | 742.9  | 754.3  | 787.1  | 864.9  | 900.5  | 876.3  |
| 40°   | 1245.6 | 1242.0 | 1185.0 | 1095.2 | 1002.5 | 896.9  | 857.0  | 872.7  | 961.8  | 1009.6 | 971.8  |
| 42.5° | 1465.9 | 1458.8 | 1361.8 | 1274.1 | 1170.7 | 1084.5 | 1003.2 | 1000.3 | 1073.0 | 1128.7 | 1073.8 |
| 45°   | 1665.5 | 1654.8 | 1588.5 | 1503.7 | 1390.3 | 1291.2 | 1181.4 | 1156.5 | 1207.1 | 1254.1 | 1190.0 |
| 47.5° | 1824.5 | 1806.7 | 1759.7 | 1714.7 | 1686.9 | 1532.9 | 1368.2 | 1330.4 | 1356.1 | 1391.0 | 1300.5 |
| 50°   | 2012.8 | 1963.6 | 1895.1 | 1868.0 | 1925.8 | 1806.7 | 1547.9 | 1511.5 | 1510.1 | 1530.1 | 1414.6 |
| 52.5° | 2098.3 | 2009.2 | 1970.7 | 1993.5 | 2095.5 | 2061.3 | 1741.8 | 1689.8 | 1669.1 | 1671.2 | 1520.8 |
| 55°   | 1994.9 | 1985.0 | 2005.6 | 2076.9 | 2210.3 | 2190.3 | 1927.9 | 1863.8 | 1833.1 | 1794.6 | 1622.8 |
| 57.5° | 1877.3 | 1908.0 | 1990.0 | 2126.1 | 2355.7 | 2325.1 | 2111.2 | 2038.4 | 1982.1 | 1893.7 | 1736.1 |
| 60°   | 1768.9 | 1800.3 | 1935.8 | 2137.5 | 2435.6 | 2454.8 | 2263.7 | 2194.6 | 2111.2 | 1994.9 | 1860.9 |
| 62.5° | 1604.2 | 1628.5 | 1818.8 | 2121.1 | 2400.6 | 2530.4 | 2370.0 | 2317.9 | 2240.2 | 2091.2 | 2004.2 |
| 65°   | 1418.8 | 1434.5 | 1622.8 | 1990.0 | 2332.2 | 2521.8 | 2457.7 | 2428.4 | 2352.9 | 2191.7 | 2146.1 |
| 67.5° | 1215.6 | 1234.2 | 1391.0 | 1754.0 | 2198.1 | 2481.9 | 2540.4 | 2537.5 | 2451.3 | 2303.0 | 2248.8 |
| 70°   | 981.8  | 983.2  | 1113.0 | 1454.5 | 1964.3 | 2402.1 | 2643.1 | 2649.5 | 2545.4 | 2386.4 | 2253.0 |
| 72.5° | 469.9  | 508.4  | 721.5  | 1015.3 | 1596.4 | 2245.2 | 2710.1 | 2742.2 | 2604.5 | 2383.5 | 2009.9 |
| 75°   | 107.7  | 111.2  | 210.3  | 482.7  | 936.2  | 1723.3 | 2542.5 | 2602.4 | 2460.5 | 2061.3 | 1416.0 |
| 77.5° | 39.2   | 41.4   | 59.2   | 141.2  | 360.1  | 890.5  | 1819.5 | 1907.2 | 1818.8 | 1332.6 | 669.5  |
| 80°   | 26.4   | 25.7   | 30.7   | 62.7   | 165.4  | 252.4  | 930.5  | 982.5  | 896.9  | 454.9  | 160.4  |
| 82.5° | 13.5   | 14.3   | 21.4   | 34.9   | 111.2  | 87.7   | 310.9  | 338.0  | 278.1  | 91.3   | 29.9   |
| 85°   | 6.4    | 6.4    | 12.1   | 22.1   | 47.1   | 30.7   | 69.2   | 83.4   | 74.9   | 39.9   | 10.0   |
| 87.5° | 6.4    | 6.4    | 11.4   | 14.3   | 24.2   | 12.8   | 17.1   | 21.4   | 20.0   | 21.4   | 3.6    |
| 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°    | 478.4  | 478.4  | 478.4 | 478.4 | 478.4 | 478.4 | 478.4 | 478.4 | 478.4 | 478.4 | 478.4 |
| 2.5°  | 474.9  | 474.1  | 473.4 | 474.9 | 474.1 | 475.6 | 475.6 | 477.0 | 477.0 | 475.6 | 474.9 |
| 5°    | 468.4  | 467.0  | 465.6 | 465.6 | 464.9 | 466.3 | 470.6 | 474.1 | 474.9 | 472.7 | 472.0 |
| 7.5°  | 469.1  | 469.1  | 467.7 | 464.9 | 459.9 | 459.9 | 459.9 | 464.2 | 466.3 | 464.9 | 464.2 |
| 10°   | 482.0  | 482.7  | 479.1 | 472.7 | 464.2 | 456.3 | 441.3 | 419.2 | 398.6 | 392.9 | 390.7 |
| 12.5° | 504.1  | 504.8  | 497.7 | 486.3 | 468.4 | 422.1 | 365.1 | 312.3 | 271.6 | 260.2 | 258.1 |
| 15°   | 530.5  | 531.2  | 518.3 | 499.8 | 445.6 | 338.0 | 253.1 | 193.2 | 157.6 | 149.0 | 148.3 |
| 17.5° | 557.6  | 556.1  | 536.9 | 501.2 | 377.9 | 239.6 | 154.0 | 123.3 | 114.1 | 111.9 | 112.7 |
| 20°   | 583.9  | 579.7  | 553.3 | 474.9 | 290.9 | 156.9 | 112.7 | 105.5 | 103.4 | 102.0 | 102.0 |
| 22.5° | 608.2  | 599.6  | 566.8 | 422.8 | 203.9 | 112.7 | 100.5 | 99.1  | 96.3  | 94.1  | 93.4  |
| 25°   | 632.4  | 620.3  | 575.4 | 355.1 | 136.9 | 98.4  | 94.8  | 92.0  | 88.4  | 85.6  | 84.8  |
| 27.5° | 661.7  | 644.5  | 571.1 | 269.5 | 102.7 | 91.3  | 88.4  | 84.1  | 79.1  | 74.9  | 73.4  |
| 30°   | 689.5  | 670.2  | 546.9 | 186.1 | 87.7  | 84.1  | 79.9  | 73.4  | 67.0  | 62.0  | 60.6  |
| 32.5° | 724.4  | 702.3  | 503.4 | 121.9 | 76.3  | 73.4  | 69.2  | 61.3  | 52.8  | 47.1  | 45.6  |
| 35°   | 774.3  | 749.4  | 447.8 | 85.6  | 67.0  | 62.0  | 56.3  | 47.8  | 38.5  | 34.2  | 33.5  |
| 37.5° | 844.2  | 810.7  | 377.9 | 69.2  | 59.2  | 52.0  | 43.5  | 34.9  | 28.5  | 25.0  | 24.2  |
| 40°   | 929.7  | 878.4  | 300.2 | 61.3  | 52.8  | 43.5  | 32.8  | 25.0  | 20.7  | 17.8  | 17.8  |
| 42.5° | 1022.4 | 941.9  | 221.0 | 56.3  | 46.3  | 35.6  | 24.2  | 17.8  | 15.0  | 13.5  | 12.8  |
| 45°   | 1118.0 | 998.2  | 149.0 | 52.0  | 40.6  | 27.1  | 17.1  | 12.1  | 10.0  | 10.0  | 9.3   |
| 47.5° | 1217.1 | 1036.0 | 96.3  | 47.1  | 34.2  | 20.0  | 11.4  | 8.6   | 7.1   | 7.1   | 7.1   |
| 50°   | 1315.5 | 1055.9 | 68.4  | 42.8  | 27.8  | 13.5  | 8.6   | 6.4   | 5.7   | 5.7   | 5.7   |
| 52.5° | 1386.8 | 1043.1 | 54.9  | 37.1  | 21.4  | 10.0  | 6.4   | 5.0   | 4.3   | 4.3   | 4.3   |
| 55°   | 1448.8 | 1021.0 | 47.8  | 32.1  | 15.7  | 7.1   | 5.0   | 4.3   | 3.6   | 3.6   | 3.6   |
| 57.5° | 1512.2 | 992.5  | 42.8  | 27.1  | 11.4  | 5.0   | 3.6   | 2.9   | 2.9   | 2.9   | 2.9   |
| 60°   | 1570.0 | 944.0  | 37.1  | 21.4  | 7.8   | 3.6   | 2.9   | 2.1   | 2.1   | 2.1   | 2.1   |
| 62.5° | 1626.3 | 902.6  | 32.1  | 16.4  | 5.7   | 2.9   | 1.4   | 1.4   | 0.7   | 0.7   | 0.7   |
| 65°   | 1658.4 | 847.0  | 25.7  | 10.7  | 3.6   | 2.1   | 0.7   | 0.7   | 0.0   | 0.0   | 0.0   |
| 67.5° | 1648.4 | 780.7  | 17.8  | 6.4   | 2.1   | 1.4   | 0.7   | 0.0   | 0.0   | 0.0   | 0.0   |
| 70°   | 1579.3 | 691.6  | 10.7  | 3.6   | 2.1   | 1.4   | 0.7   | 0.0   | 0.0   | 0.0   | 0.0   |
| 72.5° | 1322.6 | 511.9  | 6.4   | 2.9   | 1.4   | 0.7   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 75°   | 883.4  | 235.3  | 3.6   | 2.1   | 0.7   | 0.7   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 77.5° | 404.3  | 70.6   | 2.1   | 1.4   | 0.7   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 80°   | 81.3   | 18.5   | 1.4   | 0.7   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 82.5° | 17.1   | 3.6    | 0.7   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 3.6    | 1.4    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 1.4    | 0.7    | 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)