

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: P348629

Luminaire Tested: **ARCH-N-PA1-50-830-U-T3**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P348629  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-N-PA1-50-830-U-T3  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 3000K, 980mA LIGHT ENGINE WITH 16 LEDS AND  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5391 lumens  
Efficiency: N/A  
Efficacy: 103.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

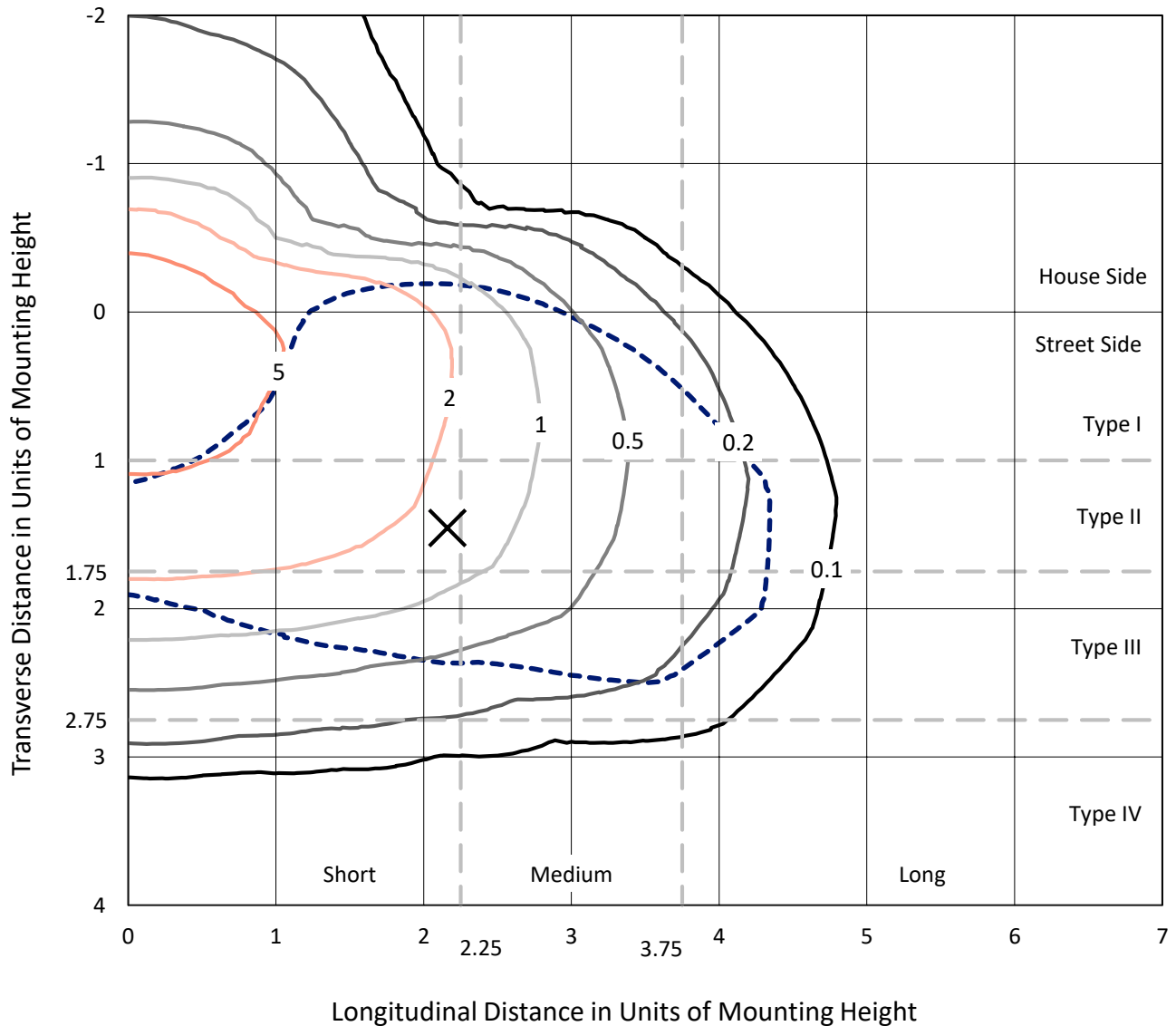
Input Watts (W): 52  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

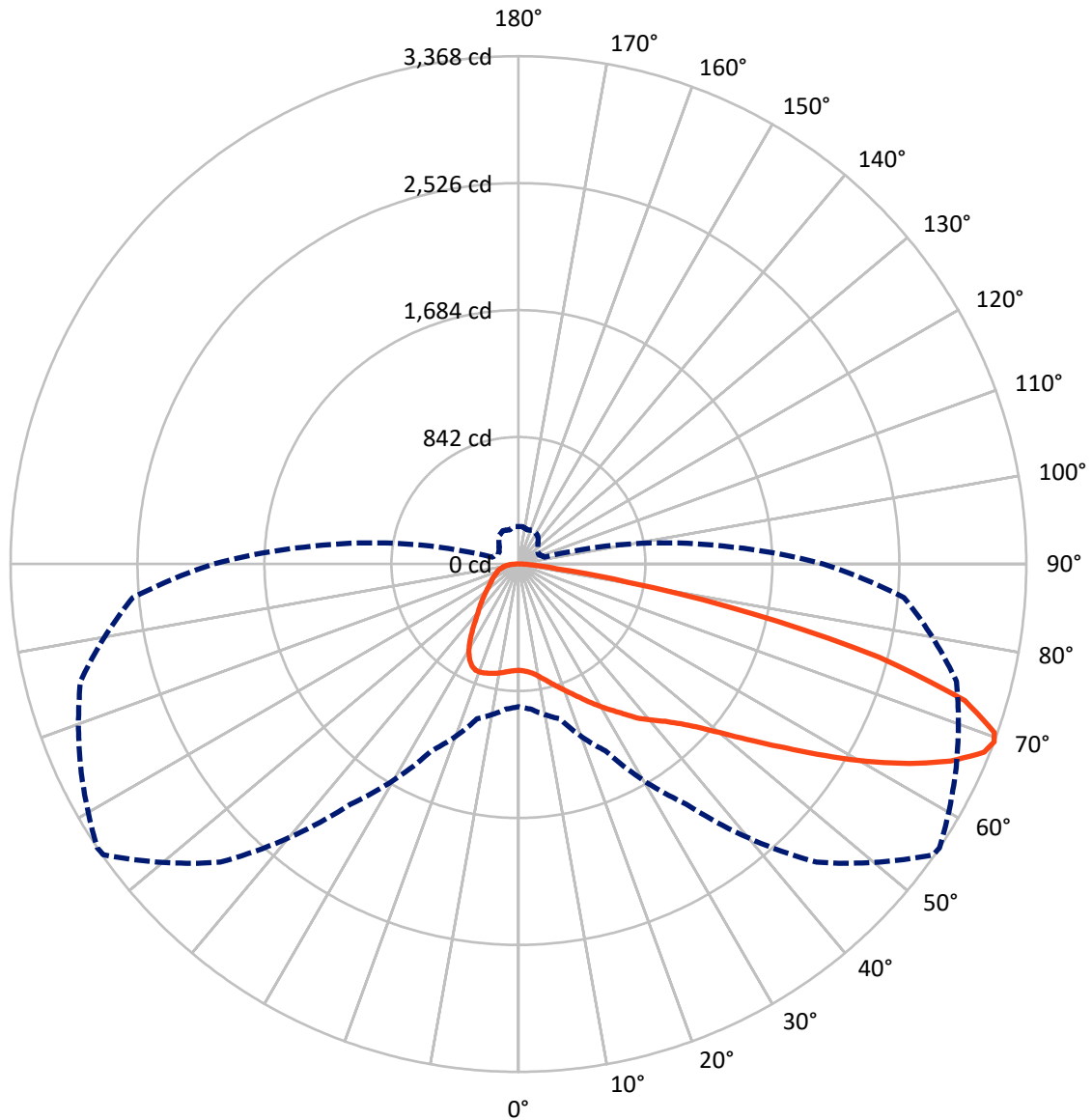


Based on 10 foot mounting height. Maximum calculated value = 7.7 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 56-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical



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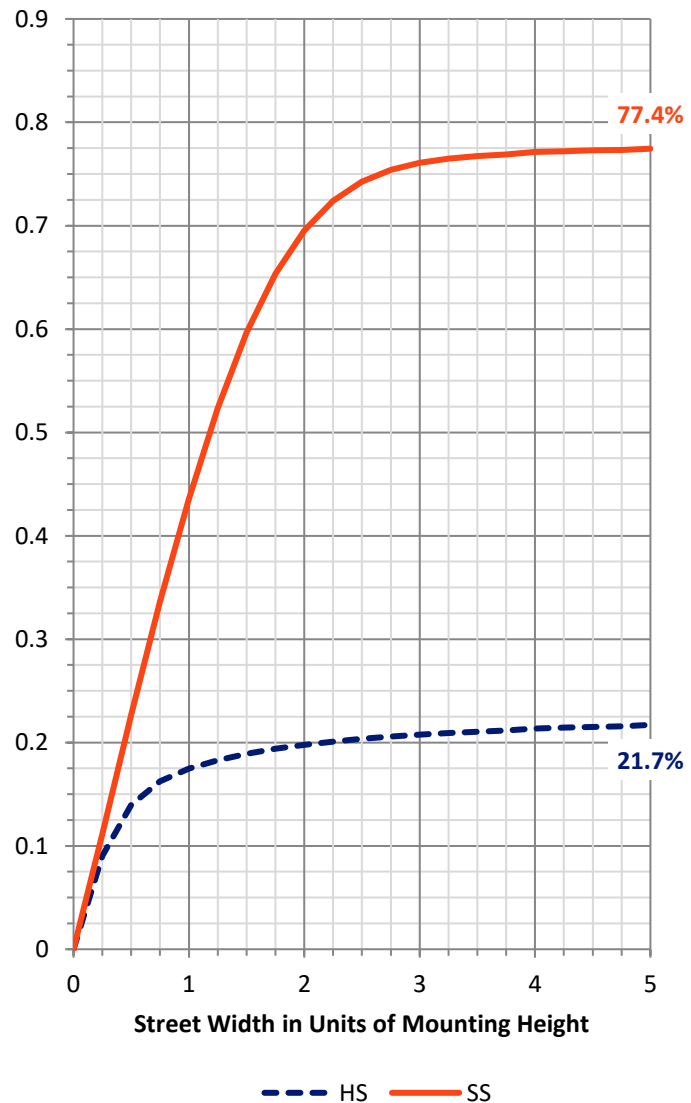
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1200.6   | 0.0    | 1200.6 |
|                    | % Fixture | 22.3     | 0.0    | 22.3   |
| <b>Street Side</b> | Lumens    | 4190.4   | 0.0    | 4190.4 |
|                    | % Fixture | 77.7     | 0.0    | 77.7   |
| <b>Total</b>       | Lumens    | 5391.0   | 0.0    | 5391.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 69.2   | 1.3       |
| 10°-20°   | 222.6  | 4.1       |
| 20°-30°   | 388.6  | 7.2       |
| 30°-40°   | 558.1  | 10.4      |
| 40°-50°   | 772.4  | 14.3      |
| 50°-60°   | 1131.7 | 21.0      |
| 60°-70°   | 1379.8 | 25.6      |
| 70°-80°   | 762.8  | 14.2      |
| 80°-90°   | 105.7  | 2.0       |
| 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°    | 5391.0 | 100.0     |
| 0°-180°   | 5391.0 | 100.0     |



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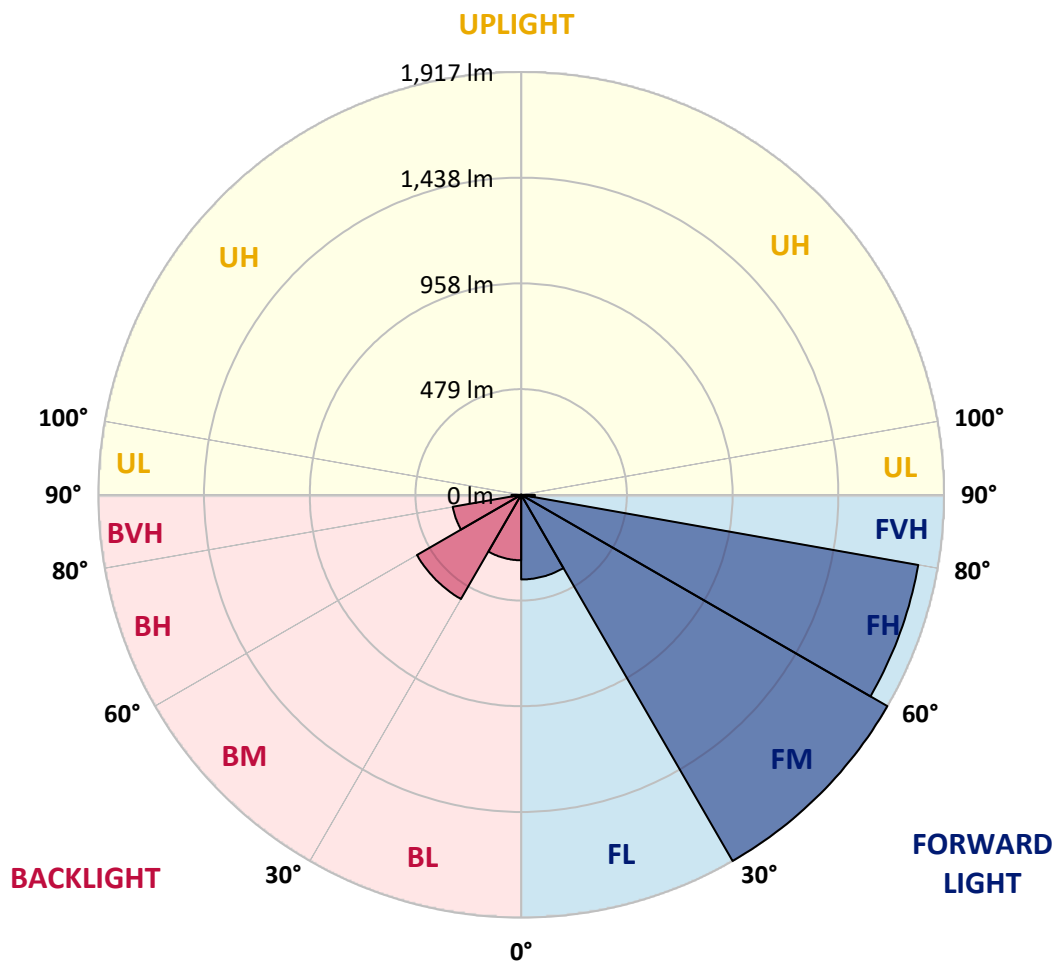
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 383.7  | 7.1       |                         |      |         |
| FM   | (30°-60°)   | 1916.7 | 35.6      |                         |      |         |
| FH   | (60°-80°)   | 1827.8 | 33.9      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 62.2   | 1.2       |                         |      | G1/100  |
| BL   | (0°-30°)    | 296.7  | 5.5       | B1/500                  |      |         |
| BM   | (30°-60°)   | 545.6  | 10.1      | B1/1000                 |      |         |
| BH   | (60°-80°)   | 314.8  | 5.8       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 43.4   | 0.8       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 56°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 704.8  | 704.8  | 704.8  | 704.8  | 704.8  | 704.8  | 704.8  | 704.8  | 704.8  | 704.8  | 704.8  |
| 2.5°  | 709.2  | 710.0  | 709.4  | 710.9  | 709.2  | 710.4  | 709.4  | 709.4  | 708.9  | 707.2  | 705.3  |
| 5°    | 720.4  | 721.9  | 720.9  | 722.4  | 720.4  | 720.8  | 719.1  | 719.1  | 717.4  | 713.9  | 710.2  |
| 7.5°  | 737.8  | 739.5  | 738.8  | 740.3  | 737.5  | 737.5  | 735.2  | 735.1  | 731.7  | 726.0  | 721.7  |
| 10°   | 758.6  | 760.9  | 760.1  | 762.4  | 760.1  | 760.9  | 758.6  | 758.6  | 754.2  | 746.0  | 740.6  |
| 12.5° | 788.9  | 791.7  | 789.7  | 789.5  | 788.6  | 790.0  | 788.2  | 787.8  | 783.7  | 772.6  | 765.1  |
| 15°   | 829.4  | 832.4  | 828.1  | 827.7  | 822.5  | 822.0  | 822.0  | 821.4  | 818.8  | 805.5  | 793.2  |
| 17.5° | 876.0  | 877.0  | 873.2  | 867.3  | 860.6  | 856.3  | 855.8  | 857.3  | 857.3  | 841.7  | 822.2  |
| 20°   | 921.7  | 923.4  | 920.4  | 913.7  | 905.2  | 898.9  | 894.4  | 897.4  | 897.2  | 878.6  | 851.0  |
| 22.5° | 971.5  | 975.4  | 970.9  | 962.4  | 952.4  | 945.3  | 937.5  | 940.1  | 940.3  | 917.4  | 879.2  |
| 25°   | 1035.9 | 1032.4 | 1029.6 | 1017.5 | 1003.2 | 996.0  | 988.8  | 991.4  | 990.6  | 959.2  | 908.3  |
| 27.5° | 1092.9 | 1093.7 | 1090.0 | 1077.2 | 1060.6 | 1044.7 | 1044.3 | 1046.0 | 1043.2 | 1002.7 | 935.8  |
| 30°   | 1159.2 | 1159.6 | 1154.4 | 1142.9 | 1124.9 | 1104.3 | 1099.4 | 1102.2 | 1096.3 | 1043.9 | 964.8  |
| 32.5° | 1225.2 | 1227.0 | 1221.3 | 1207.3 | 1192.9 | 1167.8 | 1158.1 | 1160.0 | 1145.1 | 1086.1 | 994.7  |
| 35°   | 1282.9 | 1285.5 | 1283.7 | 1274.4 | 1258.6 | 1237.1 | 1225.5 | 1224.4 | 1206.0 | 1137.7 | 1034.3 |
| 37.5° | 1341.8 | 1344.2 | 1342.2 | 1334.4 | 1328.1 | 1305.2 | 1299.1 | 1299.1 | 1267.1 | 1190.4 | 1084.6 |
| 40°   | 1402.3 | 1406.1 | 1403.6 | 1392.9 | 1387.5 | 1377.1 | 1362.4 | 1358.9 | 1324.3 | 1253.8 | 1166.7 |
| 42.5° | 1458.6 | 1463.4 | 1473.1 | 1466.8 | 1455.8 | 1457.3 | 1427.8 | 1425.9 | 1400.7 | 1347.4 | 1269.7 |
| 45°   | 1538.5 | 1545.5 | 1561.9 | 1557.0 | 1554.8 | 1546.6 | 1511.5 | 1509.9 | 1500.2 | 1473.3 | 1397.7 |
| 47.5° | 1625.6 | 1635.2 | 1664.8 | 1665.7 | 1689.6 | 1674.2 | 1626.5 | 1620.7 | 1623.0 | 1624.1 | 1553.9 |
| 50°   | 1705.8 | 1716.4 | 1764.9 | 1787.7 | 1844.2 | 1847.5 | 1771.2 | 1766.0 | 1774.7 | 1800.3 | 1735.9 |
| 52.5° | 1769.9 | 1783.2 | 1843.8 | 1914.4 | 2011.1 | 2038.6 | 1949.3 | 1945.4 | 1951.9 | 1996.1 | 1941.7 |
| 55°   | 1816.9 | 1831.3 | 1897.3 | 2025.8 | 2180.3 | 2228.8 | 2154.3 | 2150.6 | 2154.7 | 2210.9 | 2165.4 |
| 57.5° | 1827.8 | 1831.3 | 1927.0 | 2100.8 | 2323.1 | 2439.6 | 2405.2 | 2397.8 | 2377.7 | 2426.8 | 2412.5 |
| 60°   | 1776.4 | 1790.5 | 1902.5 | 2127.2 | 2433.6 | 2647.4 | 2667.4 | 2658.2 | 2601.9 | 2642.0 | 2630.5 |
| 62.5° | 1672.0 | 1697.3 | 1810.9 | 2087.1 | 2476.9 | 2817.1 | 2924.7 | 2913.5 | 2816.6 | 2842.6 | 2787.2 |
| 65°   | 1501.5 | 1512.3 | 1631.7 | 1948.7 | 2421.9 | 2925.8 | 3154.0 | 3148.4 | 3026.4 | 2985.8 | 2816.2 |
| 67.5° | 1196.6 | 1216.8 | 1318.2 | 1659.6 | 2197.0 | 2913.0 | 3331.4 | 3330.8 | 3163.5 | 3038.9 | 2713.5 |
| 69°   | 945.3  | 966.3  | 1062.9 | 1367.1 | 1944.1 | 2795.8 | 3361.1 | 3367.6 | 3202.1 | 3006.6 | 2566.8 |
| 70°   | 753.6  | 778.0  | 844.3  | 1151.4 | 1719.5 | 2641.3 | 3336.4 | 3348.1 | 3194.7 | 2953.3 | 2431.4 |
| 72.5° | 320.7  | 340.4  | 387.6  | 593.5  | 1048.0 | 1972.3 | 3050.6 | 3094.8 | 3022.5 | 2702.9 | 2009.4 |
| 75°   | 140.0  | 146.2  | 167.5  | 242.0  | 465.2  | 1073.4 | 2389.8 | 2471.5 | 2584.4 | 2284.7 | 1496.9 |
| 77.5° | 102.5  | 105.1  | 116.8  | 142.1  | 208.7  | 405.4  | 1536.8 | 1584.3 | 1863.8 | 1662.5 | 918.2  |
| 80°   | 79.3   | 81.2   | 90.3   | 104.4  | 136.3  | 164.0  | 700.9  | 741.7  | 1048.0 | 853.9  | 382.4  |
| 82.5° | 63.1   | 64.4   | 70.8   | 76.9   | 94.2   | 99.4   | 232.7  | 258.1  | 386.8  | 235.9  | 101.2  |
| 85°   | 58.7   | 60.2   | 62.4   | 56.1   | 60.4   | 58.3   | 100.7  | 105.3  | 116.8  | 92.7   | 42.3   |
| 87.5° | 26.6   | 31.4   | 61.8   | 43.6   | 32.1   | 25.6   | 41.2   | 43.1   | 48.5   | 48.7   | 18.8   |
| 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°    | 704.8  | 704.8  | 704.8 | 704.8 | 704.8 | 704.8 | 704.8 | 704.8 | 704.8 | 704.8 | 704.8 |
| 2.5°  | 706.5  | 705.9  | 706.8 | 704.6 | 707.4 | 707.2 | 706.3 | 706.6 | 708.5 | 708.3 | 708.5 |
| 5°    | 710.7  | 710.4  | 711.5 | 709.8 | 713.1 | 714.3 | 714.4 | 716.1 | 718.2 | 718.7 | 718.7 |
| 7.5°  | 721.5  | 721.5  | 722.1 | 719.8 | 722.1 | 721.9 | 720.9 | 722.6 | 724.7 | 724.8 | 724.7 |
| 10°   | 740.1  | 740.3  | 739.3 | 733.6 | 731.7 | 726.7 | 722.1 | 722.2 | 724.8 | 726.9 | 727.4 |
| 12.5° | 763.5  | 762.7  | 758.6 | 748.1 | 740.3 | 730.0 | 725.2 | 725.0 | 727.6 | 729.3 | 729.9 |
| 15°   | 790.2  | 788.2  | 777.6 | 760.3 | 746.6 | 736.5 | 728.7 | 726.9 | 725.4 | 723.5 | 723.7 |
| 17.5° | 815.5  | 810.8  | 793.2 | 769.2 | 754.7 | 741.4 | 726.3 | 714.3 | 705.9 | 701.1 | 699.6 |
| 20°   | 841.1  | 832.0  | 806.6 | 777.6 | 759.2 | 734.9 | 705.9 | 681.4 | 666.2 | 659.1 | 657.8 |
| 22.5° | 864.5  | 849.8  | 819.0 | 786.3 | 755.7 | 713.0 | 667.5 | 631.8 | 610.6 | 601.2 | 601.9 |
| 25°   | 887.4  | 866.9  | 832.0 | 792.5 | 737.8 | 674.3 | 614.0 | 570.1 | 545.6 | 535.0 | 534.7 |
| 27.5° | 907.4  | 884.2  | 846.1 | 787.4 | 704.6 | 619.4 | 550.6 | 507.9 | 487.5 | 478.4 | 476.9 |
| 30°   | 930.4  | 905.9  | 864.9 | 768.3 | 655.9 | 555.8 | 488.8 | 458.7 | 444.2 | 435.1 | 433.5 |
| 32.5° | 958.5  | 935.5  | 880.3 | 733.6 | 593.7 | 489.5 | 440.5 | 419.5 | 406.3 | 396.1 | 394.3 |
| 35°   | 999.3  | 974.5  | 884.2 | 683.8 | 525.4 | 437.2 | 405.0 | 383.5 | 365.7 | 352.5 | 351.2 |
| 37.5° | 1050.6 | 1023.3 | 875.3 | 619.4 | 459.1 | 403.2 | 375.5 | 349.0 | 325.7 | 307.2 | 304.2 |
| 40°   | 1124.5 | 1083.3 | 850.6 | 545.1 | 410.2 | 377.0 | 346.7 | 316.5 | 287.7 | 265.9 | 261.7 |
| 42.5° | 1213.3 | 1153.7 | 812.7 | 471.2 | 374.4 | 350.4 | 318.1 | 280.6 | 253.1 | 237.7 | 235.5 |
| 45°   | 1326.2 | 1226.8 | 760.1 | 406.5 | 339.1 | 323.9 | 287.3 | 252.8 | 235.7 | 224.3 | 222.5 |
| 47.5° | 1455.1 | 1308.9 | 705.0 | 354.0 | 309.2 | 299.0 | 262.6 | 240.3 | 226.8 | 217.8 | 216.2 |
| 50°   | 1613.5 | 1401.6 | 646.5 | 310.9 | 279.1 | 269.1 | 250.9 | 233.4 | 222.7 | 215.8 | 214.1 |
| 52.5° | 1792.2 | 1506.2 | 604.3 | 276.9 | 254.2 | 247.0 | 244.8 | 229.7 | 221.0 | 215.8 | 214.1 |
| 55°   | 1984.6 | 1612.6 | 558.8 | 248.3 | 232.7 | 234.7 | 240.7 | 230.1 | 224.2 | 217.8 | 215.4 |
| 57.5° | 2177.1 | 1722.5 | 508.1 | 224.2 | 215.6 | 225.6 | 237.9 | 230.8 | 225.8 | 219.7 | 217.5 |
| 60°   | 2329.4 | 1792.2 | 429.6 | 203.9 | 202.1 | 215.6 | 231.2 | 225.3 | 218.8 | 219.0 | 218.6 |
| 62.5° | 2400.6 | 1788.4 | 342.8 | 185.9 | 188.5 | 202.1 | 220.4 | 216.5 | 211.2 | 218.4 | 219.0 |
| 65°   | 2360.6 | 1699.3 | 266.9 | 169.6 | 174.0 | 187.9 | 209.3 | 212.3 | 214.1 | 228.1 | 229.9 |
| 67.5° | 2193.1 | 1525.8 | 206.7 | 155.3 | 160.8 | 178.3 | 210.4 | 231.2 | 233.6 | 248.3 | 248.1 |
| 69°   | 2019.8 | 1363.2 | 179.6 | 147.8 | 154.3 | 180.7 | 224.9 | 243.3 | 234.2 | 249.8 | 247.6 |
| 70°   | 1874.6 | 1234.5 | 165.1 | 142.8 | 151.4 | 185.0 | 234.6 | 243.1 | 231.4 | 244.8 | 241.1 |
| 72.5° | 1443.8 | 888.1  | 140.0 | 133.5 | 141.3 | 177.0 | 237.3 | 237.7 | 224.9 | 227.5 | 221.2 |
| 75°   | 990.2  | 561.2  | 122.2 | 120.9 | 126.1 | 159.5 | 228.4 | 227.1 | 208.0 | 204.3 | 199.1 |
| 77.5° | 546.0  | 285.1  | 103.8 | 108.8 | 112.4 | 141.3 | 207.6 | 205.8 | 190.0 | 182.2 | 180.3 |
| 80°   | 210.6  | 124.8  | 87.7  | 96.8  | 99.0  | 122.4 | 182.0 | 180.3 | 167.1 | 157.1 | 154.3 |
| 82.5° | 79.5   | 65.4   | 72.4  | 83.8  | 83.0  | 101.0 | 154.1 | 153.2 | 140.4 | 125.7 | 121.3 |
| 85°   | 36.8   | 39.2   | 57.4  | 69.1  | 63.7  | 74.8  | 123.3 | 125.0 | 109.4 | 91.9  | 91.9  |
| 87.5° | 15.6   | 21.9   | 40.7  | 52.2  | 42.9  | 50.5  | 90.4  | 86.4  | 79.3  | 55.0  | 51.6  |
| 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)