

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: P397800

Luminaire Tested: **ARCH-S-PA1-40-827-U-T2U**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397800  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/19/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-S-PA1-40-827-U-T2U  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 500mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4495 lumens  
Efficiency: N/A  
Efficacy: 112.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G1

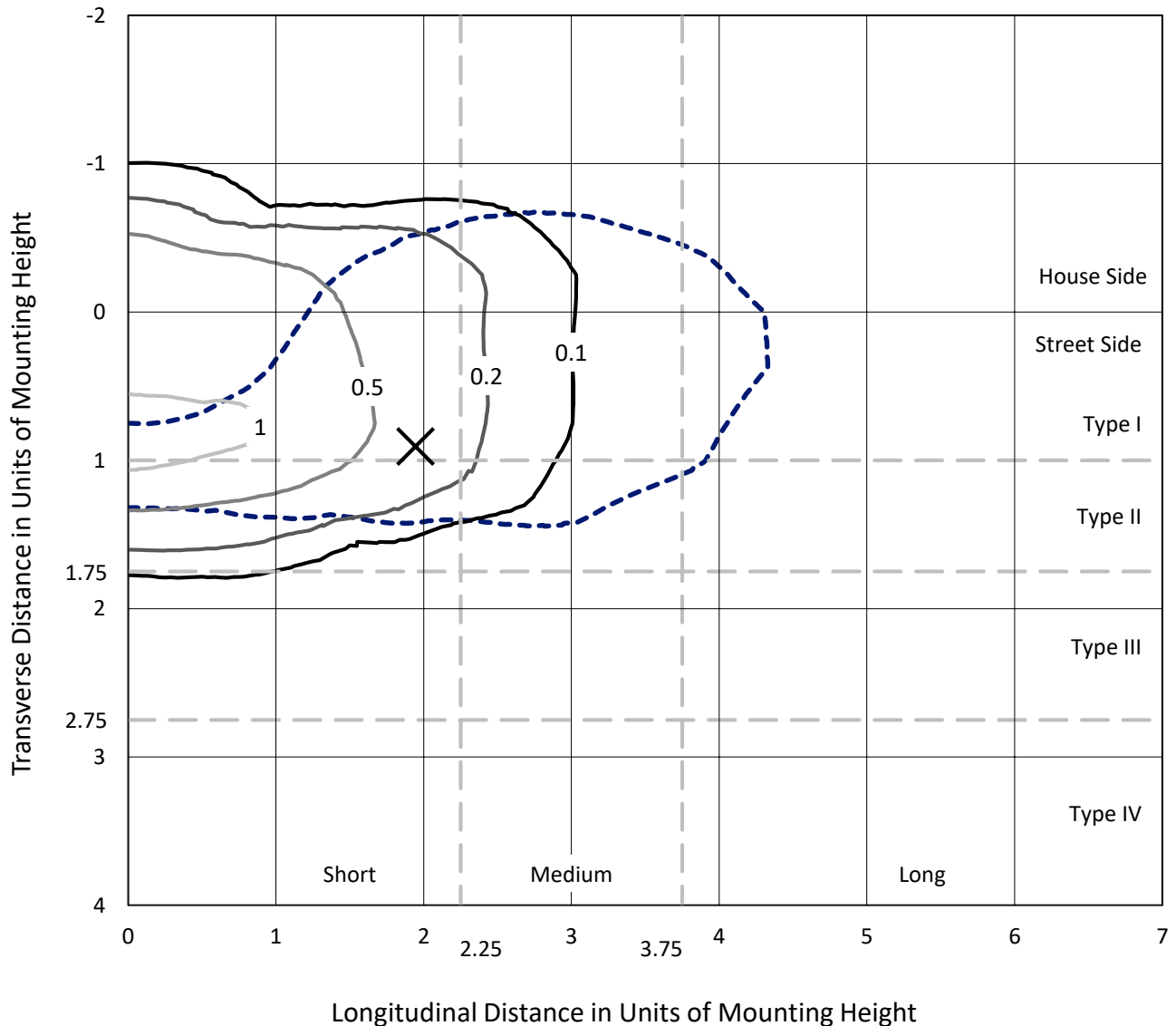
Input Watts (W): 40  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

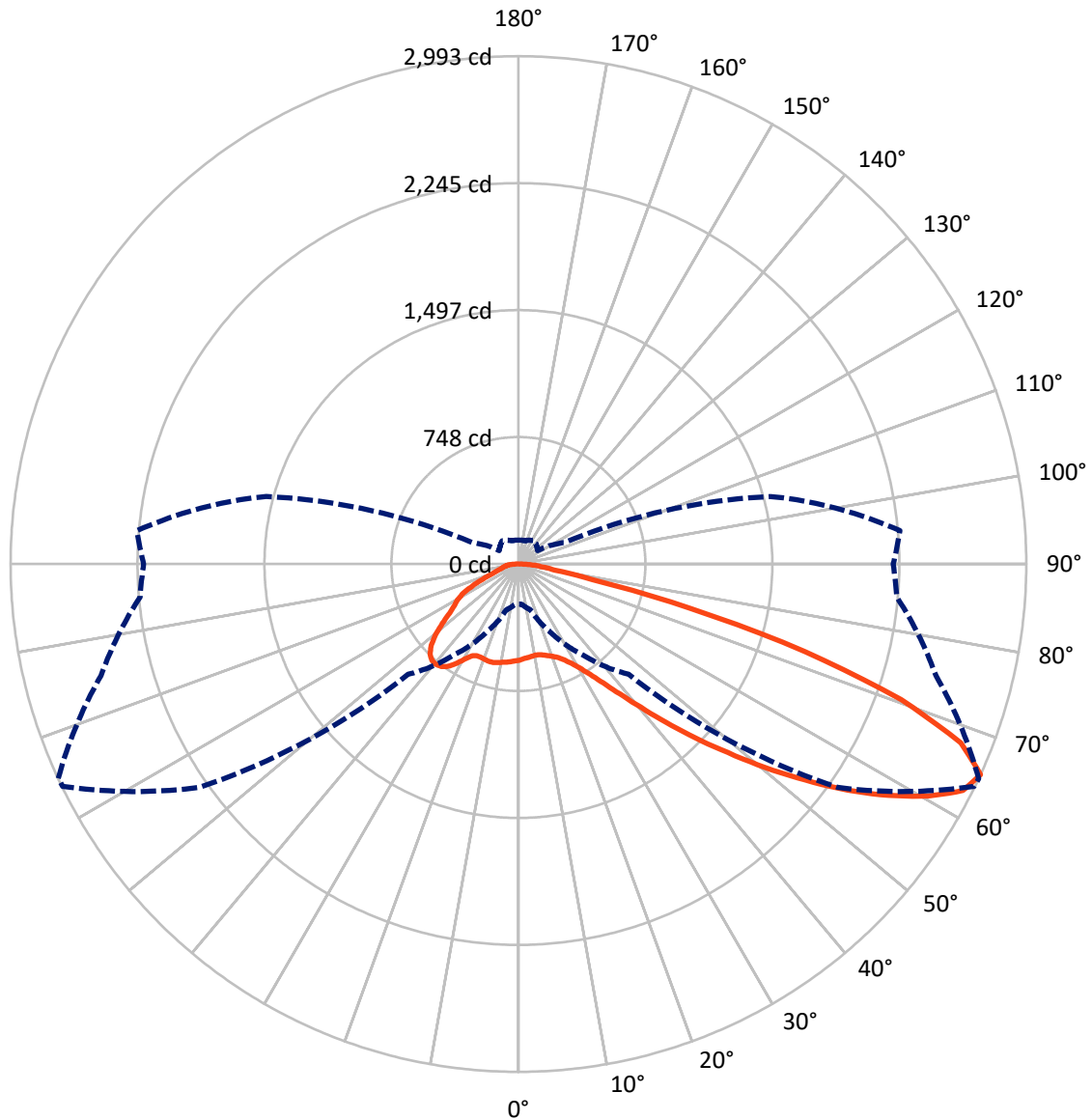
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 fc  
 Type II - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical



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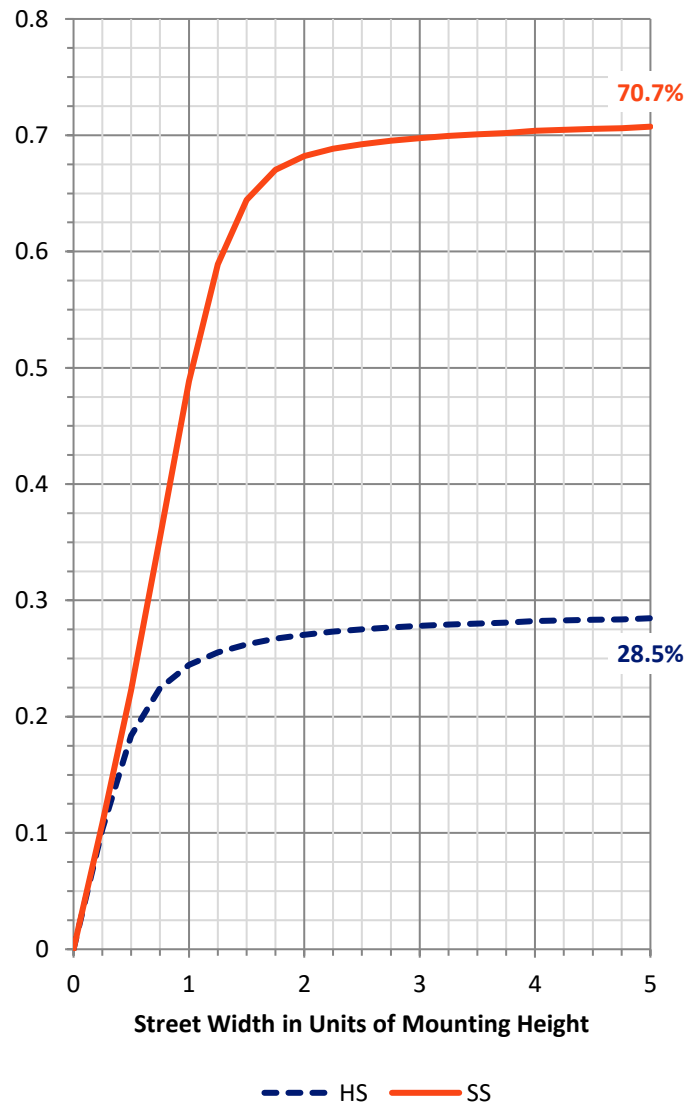
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1299.6   | 0.0    | 1299.6 |
|                    | % Fixture | 28.9     | 0.0    | 28.9   |
| <b>Street Side</b> | Lumens    | 3195.4   | 0.0    | 3195.4 |
|                    | % Fixture | 71.1     | 0.0    | 71.1   |
| <b>Total</b>       | Lumens    | 4495.0   | 0.0    | 4495.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 54.1   | 1.2       |
| 10°-20°   | 161.6  | 3.6       |
| 20°-30°   | 287.0  | 6.4       |
| 30°-40°   | 485.5  | 10.8      |
| 40°-50°   | 845.1  | 18.8      |
| 50°-60°   | 1092.2 | 24.3      |
| 60°-70°   | 955.7  | 21.3      |
| 70°-80°   | 519.9  | 11.6      |
| 80°-90°   | 93.9   | 2.1       |
| 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°    | 4495.0 | 100.0     |
| 0°-180°   | 4495.0 | 100.0     |



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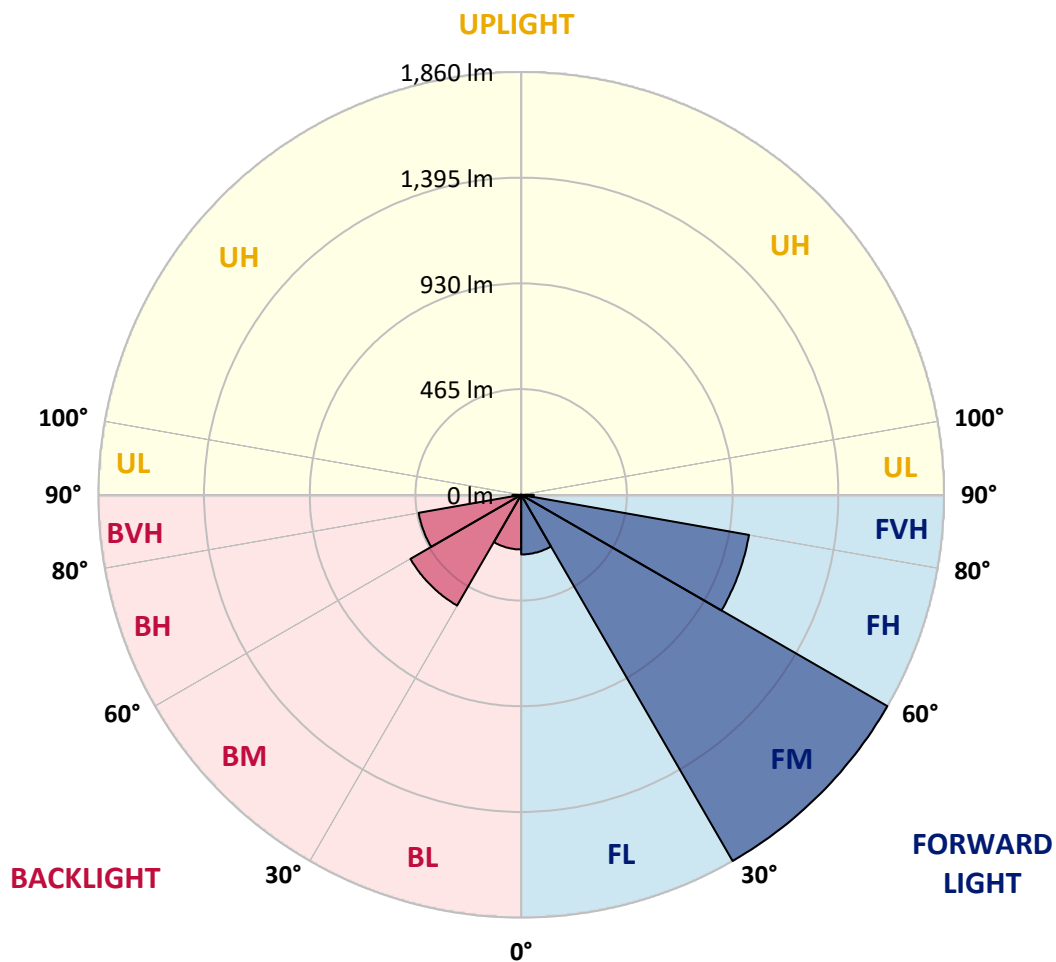
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 262.3  | 5.8       |                         |      |         |
| FM   | (30°-60°)   | 1860.2 | 41.4      |                         |      |         |
| FH   | (60°-80°)   | 1017.7 | 22.6      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 55.3   | 1.2       |                         |      | G1/100  |
| BL   | (0°-30°)    | 240.4  | 5.3       | B1/500                  |      |         |
| BM   | (30°-60°)   | 562.7  | 12.5      | B1/1000                 |      |         |
| BH   | (60°-80°)   | 457.9  | 10.2      | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 38.7   | 0.9       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 64°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 568.0  | 568.0  | 568.0  | 568.0  | 568.0  | 568.0  | 568.0  | 568.0  | 568.0  | 568.0  | 568.0  |
| 2.5°  | 557.9  | 557.3  | 556.2  | 557.3  | 557.9  | 559.1  | 558.5  | 559.7  | 559.1  | 560.9  | 563.8  |
| 5°    | 543.7  | 542.5  | 542.0  | 544.9  | 546.7  | 549.6  | 550.8  | 555.0  | 554.4  | 557.3  | 562.1  |
| 7.5°  | 527.8  | 527.8  | 527.2  | 530.7  | 533.1  | 538.4  | 542.5  | 549.6  | 550.2  | 555.6  | 560.9  |
| 10°   | 515.3  | 515.9  | 515.3  | 518.3  | 521.8  | 528.3  | 535.4  | 545.5  | 546.1  | 553.8  | 559.1  |
| 12.5° | 510.6  | 510.6  | 510.6  | 514.7  | 519.5  | 528.3  | 536.6  | 547.3  | 548.5  | 556.7  | 561.5  |
| 15°   | 517.1  | 517.7  | 516.5  | 520.7  | 526.0  | 536.6  | 544.3  | 555.6  | 556.7  | 564.4  | 567.4  |
| 17.5° | 540.2  | 542.5  | 539.6  | 542.0  | 540.8  | 549.1  | 556.2  | 567.4  | 568.0  | 574.5  | 575.7  |
| 20°   | 585.7  | 588.1  | 583.4  | 580.4  | 569.8  | 569.2  | 572.1  | 581.0  | 581.0  | 585.1  | 582.2  |
| 22.5° | 656.1  | 658.5  | 650.2  | 639.0  | 613.5  | 601.1  | 594.6  | 598.8  | 598.2  | 599.9  | 592.2  |
| 25°   | 749.6  | 749.0  | 739.0  | 718.3  | 677.4  | 647.3  | 631.3  | 624.8  | 624.8  | 621.2  | 611.8  |
| 27.5° | 865.6  | 856.7  | 839.0  | 814.1  | 757.3  | 715.3  | 681.0  | 664.4  | 661.5  | 650.8  | 633.1  |
| 30°   | 989.2  | 982.7  | 957.3  | 921.2  | 855.5  | 801.7  | 744.9  | 711.8  | 710.0  | 686.9  | 660.3  |
| 32.5° | 1134.8 | 1124.1 | 1095.7 | 1052.6 | 973.9  | 898.1  | 827.1  | 776.8  | 773.9  | 737.2  | 700.5  |
| 35°   | 1321.8 | 1312.9 | 1257.9 | 1214.7 | 1113.5 | 1014.1 | 930.1  | 863.2  | 860.9  | 815.9  | 769.1  |
| 37.5° | 1546.0 | 1522.9 | 1469.7 | 1388.6 | 1282.1 | 1164.4 | 1057.9 | 973.9  | 970.9  | 921.2  | 862.0  |
| 40°   | 1746.0 | 1725.3 | 1677.9 | 1603.4 | 1489.2 | 1358.4 | 1214.1 | 1112.3 | 1109.3 | 1049.0 | 974.5  |
| 42.5° | 1893.9 | 1879.7 | 1848.9 | 1805.7 | 1724.1 | 1644.8 | 1413.5 | 1279.7 | 1274.4 | 1196.3 | 1103.4 |
| 45°   | 1979.7 | 1968.4 | 1950.7 | 1961.3 | 1960.1 | 1945.4 | 1651.3 | 1479.1 | 1462.0 | 1360.8 | 1247.2 |
| 47.5° | 1959.0 | 1948.9 | 1956.0 | 2038.8 | 2153.0 | 2238.8 | 1928.2 | 1683.3 | 1660.2 | 1528.2 | 1400.4 |
| 50°   | 1809.3 | 1813.4 | 1850.7 | 2009.3 | 2265.4 | 2456.0 | 2235.3 | 1915.8 | 1885.0 | 1696.9 | 1546.0 |
| 52.5° | 1536.5 | 1546.6 | 1637.1 | 1859.0 | 2253.0 | 2596.8 | 2512.7 | 2156.0 | 2115.2 | 1861.3 | 1678.5 |
| 55°   | 1220.6 | 1246.0 | 1363.2 | 1596.3 | 2090.9 | 2606.8 | 2722.2 | 2397.4 | 2352.4 | 2015.8 | 1793.9 |
| 57.5° | 902.9  | 940.7  | 1076.2 | 1290.4 | 1780.3 | 2447.7 | 2826.9 | 2628.1 | 2573.7 | 2169.0 | 1915.8 |
| 60°   | 572.7  | 595.8  | 752.0  | 1004.6 | 1362.6 | 2058.4 | 2813.3 | 2824.5 | 2777.2 | 2321.6 | 2043.0 |
| 62.5° | 365.6  | 376.9  | 455.6  | 716.5  | 952.6  | 1524.1 | 2664.8 | 2973.1 | 2941.1 | 2460.7 | 2163.7 |
| 65°   | 234.9  | 239.6  | 279.9  | 440.8  | 648.5  | 920.0  | 2295.0 | 2989.0 | 2993.2 | 2547.7 | 2238.2 |
| 67.5° | 191.1  | 193.5  | 208.3  | 272.2  | 458.5  | 508.2  | 1598.6 | 2761.8 | 2812.1 | 2525.2 | 2212.8 |
| 70°   | 173.9  | 176.9  | 192.3  | 217.1  | 355.0  | 350.9  | 773.9  | 2311.0 | 2393.2 | 2395.6 | 2099.8 |
| 72.5° | 146.7  | 150.9  | 171.6  | 205.3  | 274.5  | 276.9  | 327.8  | 1646.0 | 1767.3 | 2141.2 | 1930.0 |
| 75°   | 122.5  | 124.8  | 142.6  | 181.0  | 232.5  | 221.3  | 230.2  | 872.7  | 1047.8 | 1717.0 | 1749.5 |
| 77.5° | 99.4   | 101.8  | 114.8  | 144.4  | 206.5  | 172.2  | 181.0  | 361.5  | 446.7  | 1165.6 | 1430.0 |
| 80°   | 71.0   | 73.4   | 88.2   | 112.4  | 156.2  | 155.0  | 134.3  | 199.4  | 216.5  | 630.1  | 928.9  |
| 82.5° | 50.9   | 52.7   | 66.9   | 80.5   | 108.3  | 155.6  | 101.2  | 135.5  | 142.0  | 279.3  | 374.5  |
| 85°   | 34.3   | 34.3   | 46.1   | 53.2   | 69.8   | 98.2   | 81.6   | 91.7   | 95.8   | 132.5  | 101.2  |
| 87.5° | 14.8   | 14.8   | 24.8   | 27.2   | 36.7   | 45.6   | 60.9   | 46.1   | 47.3   | 71.6   | 41.4   |
| 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°    | 568.0  | 568.0  | 568.0  | 568.0 | 568.0 | 568.0 | 568.0 | 568.0 | 568.0 | 568.0 | 568.0 |
| 2.5°  | 565.6  | 566.2  | 567.4  | 570.9 | 573.3 | 576.9 | 578.6 | 581.0 | 581.0 | 579.8 | 580.4 |
| 5°    | 564.4  | 566.2  | 570.4  | 576.9 | 581.0 | 587.5 | 592.2 | 595.8 | 597.0 | 595.8 | 596.4 |
| 7.5°  | 563.8  | 566.8  | 573.9  | 583.4 | 589.3 | 597.6 | 604.1 | 608.2 | 611.2 | 610.0 | 610.6 |
| 10°   | 562.1  | 566.8  | 575.7  | 587.5 | 596.4 | 604.7 | 610.6 | 612.4 | 614.1 | 613.0 | 612.4 |
| 12.5° | 564.4  | 569.8  | 579.2  | 593.4 | 603.5 | 610.0 | 611.8 | 608.8 | 604.7 | 602.3 | 601.7 |
| 15°   | 569.2  | 574.5  | 584.0  | 598.8 | 607.6 | 610.0 | 605.9 | 596.4 | 586.9 | 581.6 | 581.0 |
| 17.5° | 575.7  | 579.2  | 586.9  | 599.9 | 607.0 | 604.1 | 595.8 | 584.6 | 577.5 | 573.3 | 573.9 |
| 20°   | 579.8  | 579.8  | 585.7  | 595.8 | 601.7 | 599.3 | 589.3 | 576.9 | 565.6 | 560.3 | 558.5 |
| 22.5° | 585.7  | 582.8  | 583.4  | 592.2 | 600.5 | 597.0 | 575.7 | 553.8 | 537.8 | 531.9 | 531.3 |
| 25°   | 601.7  | 593.4  | 588.1  | 593.4 | 613.0 | 584.0 | 541.4 | 515.9 | 501.1 | 495.8 | 496.4 |
| 27.5° | 621.2  | 610.0  | 598.8  | 607.6 | 623.0 | 554.4 | 497.6 | 468.6 | 459.7 | 455.6 | 457.3 |
| 30°   | 640.8  | 626.0  | 611.2  | 643.1 | 615.9 | 508.2 | 441.4 | 413.0 | 405.3 | 402.3 | 404.7 |
| 32.5° | 676.9  | 652.6  | 634.8  | 690.5 | 594.0 | 455.6 | 380.4 | 354.4 | 347.3 | 343.8 | 342.6 |
| 35°   | 737.2  | 706.4  | 688.7  | 731.9 | 563.3 | 397.0 | 324.8 | 306.5 | 298.8 | 291.1 | 289.9 |
| 37.5° | 824.2  | 786.9  | 770.9  | 755.5 | 520.1 | 339.0 | 282.2 | 269.8 | 258.6 | 246.7 | 246.1 |
| 40°   | 928.3  | 879.8  | 868.0  | 766.2 | 460.3 | 284.6 | 252.6 | 240.8 | 226.6 | 215.4 | 216.0 |
| 42.5° | 1048.4 | 986.3  | 960.8  | 763.2 | 386.3 | 255.6 | 231.3 | 218.3 | 205.9 | 195.8 | 195.2 |
| 45°   | 1176.8 | 1106.4 | 1047.8 | 742.5 | 313.0 | 235.5 | 218.3 | 202.9 | 190.5 | 179.3 | 178.1 |
| 47.5° | 1318.8 | 1240.1 | 1128.3 | 702.3 | 258.6 | 221.3 | 210.6 | 188.7 | 177.5 | 170.4 | 170.4 |
| 50°   | 1462.0 | 1367.9 | 1202.2 | 641.4 | 226.6 | 210.6 | 199.4 | 181.0 | 172.2 | 166.3 | 166.3 |
| 52.5° | 1584.4 | 1501.0 | 1263.2 | 568.6 | 206.5 | 201.8 | 191.7 | 177.5 | 168.0 | 162.7 | 162.1 |
| 55°   | 1703.4 | 1624.7 | 1317.6 | 496.4 | 189.9 | 189.9 | 189.9 | 174.5 | 163.9 | 159.2 | 158.6 |
| 57.5° | 1821.7 | 1754.8 | 1374.4 | 449.1 | 175.1 | 179.9 | 186.4 | 171.0 | 160.3 | 156.2 | 155.6 |
| 60°   | 1955.4 | 1911.0 | 1440.1 | 415.9 | 162.1 | 169.2 | 181.6 | 166.8 | 154.4 | 150.9 | 150.3 |
| 62.5° | 2097.4 | 2097.4 | 1499.8 | 369.2 | 150.3 | 160.3 | 174.5 | 161.5 | 149.1 | 146.1 | 145.5 |
| 65°   | 2208.6 | 2256.6 | 1538.3 | 299.4 | 138.4 | 151.5 | 166.3 | 154.4 | 142.0 | 141.4 | 140.2 |
| 67.5° | 2221.7 | 2296.8 | 1514.0 | 226.0 | 127.8 | 142.0 | 158.0 | 146.7 | 134.9 | 134.9 | 133.1 |
| 70°   | 2128.2 | 2204.5 | 1438.3 | 169.2 | 120.1 | 132.5 | 147.3 | 137.3 | 126.0 | 127.2 | 124.2 |
| 72.5° | 1972.0 | 1990.9 | 1250.2 | 133.7 | 111.2 | 122.5 | 134.3 | 126.6 | 116.6 | 116.6 | 112.4 |
| 75°   | 1766.1 | 1660.8 | 908.2  | 111.8 | 100.6 | 110.6 | 121.3 | 114.8 | 105.9 | 102.9 | 100.6 |
| 77.5° | 1405.8 | 1203.4 | 527.8  | 96.4  | 91.7  | 99.4  | 106.5 | 101.8 | 94.1  | 87.6  | 87.6  |
| 80°   | 856.7  | 705.2  | 233.1  | 83.4  | 81.1  | 87.0  | 91.7  | 86.4  | 79.9  | 73.4  | 71.6  |
| 82.5° | 326.0  | 272.2  | 113.0  | 71.6  | 71.0  | 74.5  | 78.1  | 72.8  | 68.0  | 65.1  | 56.2  |
| 85°   | 89.3   | 82.2   | 77.5   | 59.8  | 58.6  | 58.0  | 62.1  | 59.8  | 53.2  | 43.8  | 39.0  |
| 87.5° | 33.7   | 38.5   | 42.0   | 36.7  | 39.0  | 36.1  | 41.4  | 37.9  | 33.7  | 21.9  | 19.5  |
| 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)