

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: P397801

Luminaire Tested: **ARCH-S-PA1-40-827-U-T3-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397801  
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-PA1-40-827-U-T3-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 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: 3218 lumens  
Efficiency: N/A  
Efficacy: 80.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B0 - 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

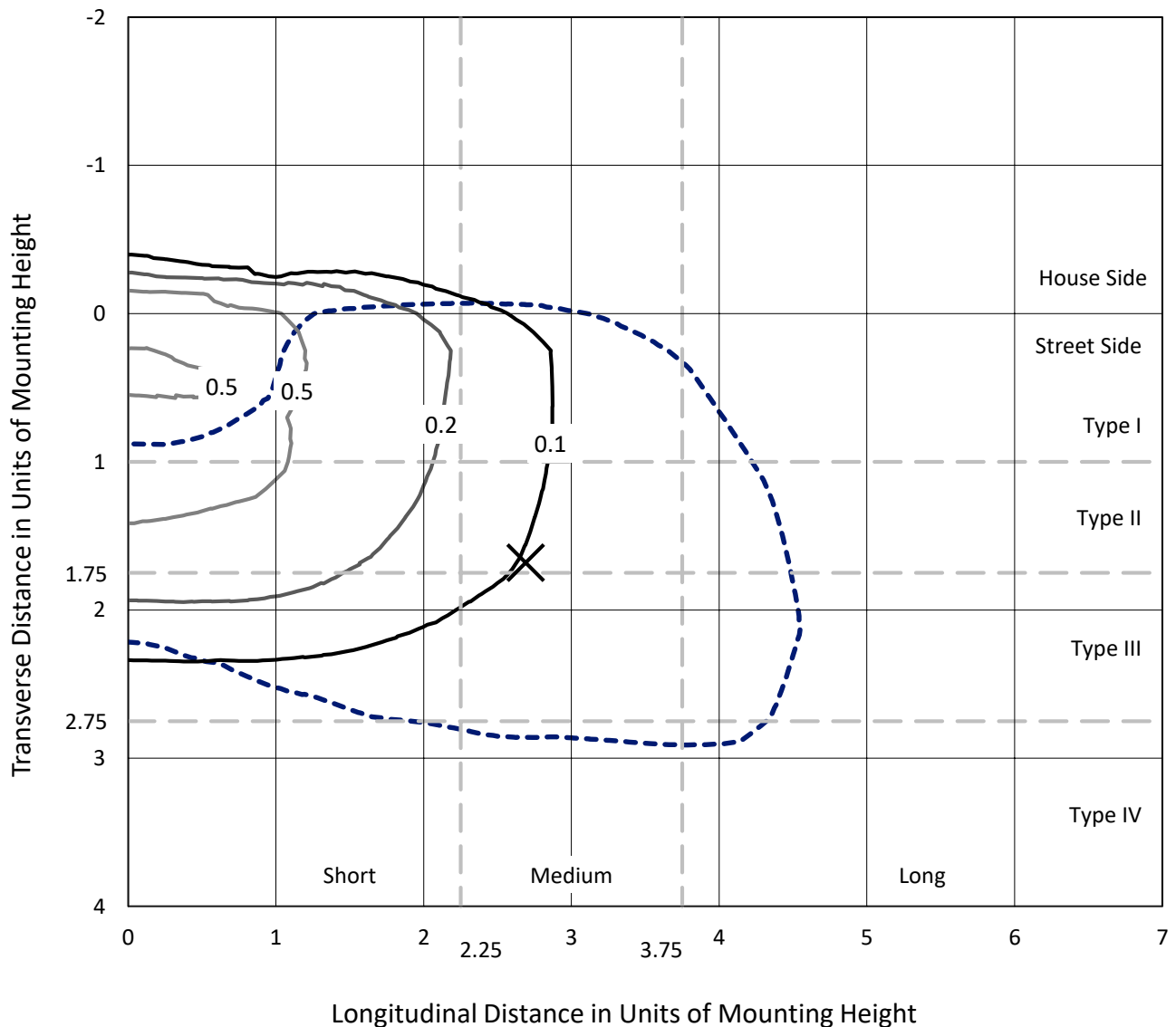




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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

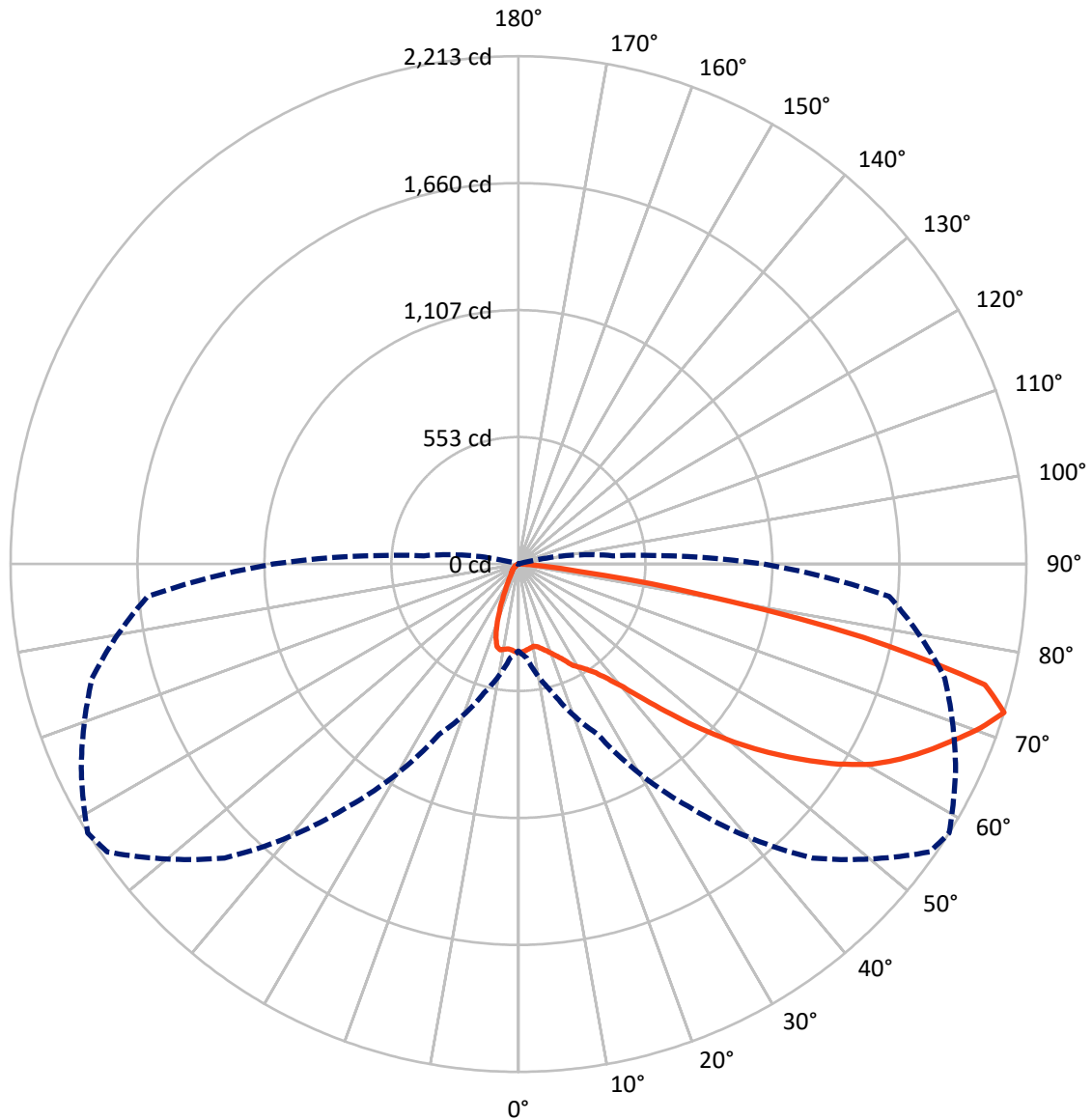


Based on 25 foot mounting height. Maximum calculated value = 0.8 fc  
 Type IV - Medium - Non-Cutoff

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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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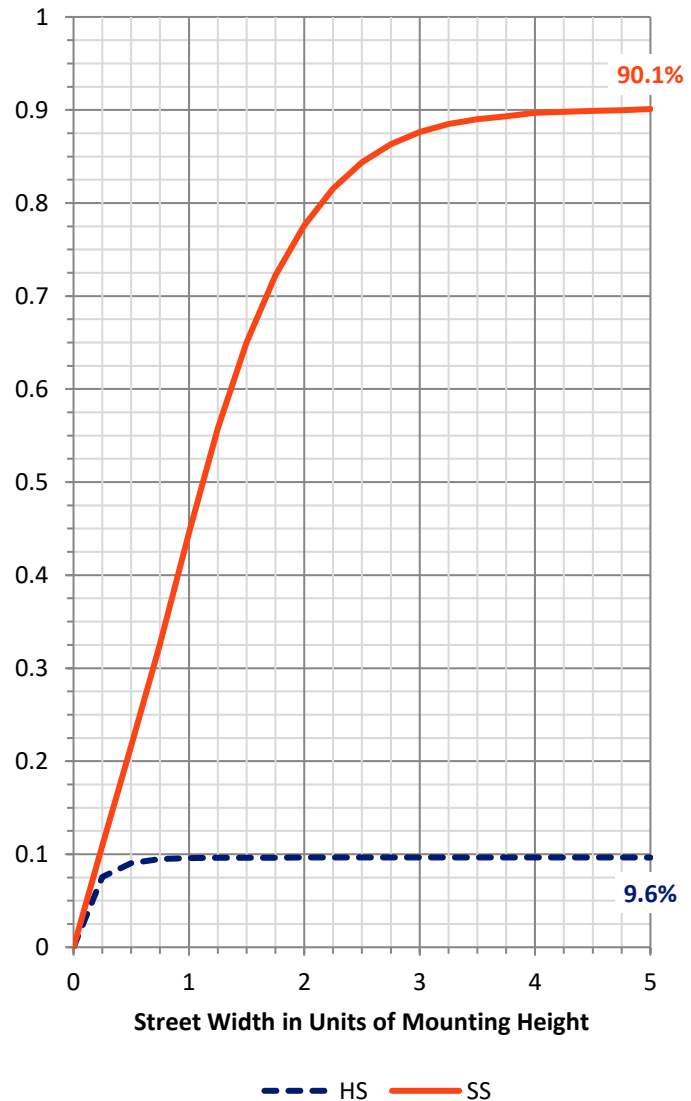
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 312.9    | 0.0    | 312.9  |
|                    | % Fixture | 9.7      | 0.0    | 9.7    |
| <b>Street Side</b> | Lumens    | 2905.1   | 0.0    | 2905.1 |
|                    | % Fixture | 90.3     | 0.0    | 90.3   |
| <b>Total</b>       | Lumens    | 3218.0   | 0.0    | 3218.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 35.4   | 1.1       |
| 10°-20°   | 92.3   | 2.9       |
| 20°-30°   | 145.0  | 4.5       |
| 30°-40°   | 250.1  | 7.8       |
| 40°-50°   | 475.8  | 14.8      |
| 50°-60°   | 753.5  | 23.4      |
| 60°-70°   | 879.2  | 27.3      |
| 70°-80°   | 550.7  | 17.1      |
| 80°-90°   | 36.1   | 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°    | 3218.0 | 100.0     |
| 0°-180°   | 3218.0 | 100.0     |



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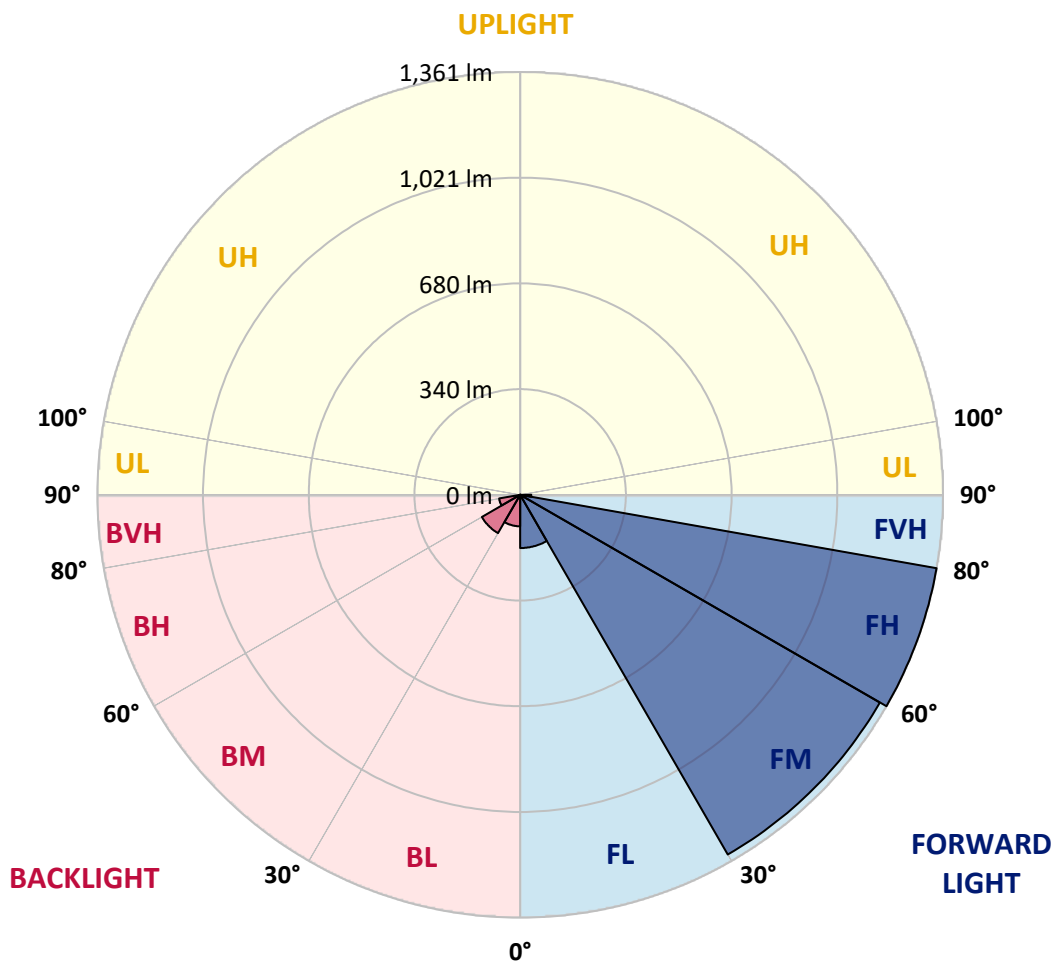
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 171.4  | 5.3       |                         |      |         |
| FM   | (30°-60°)   | 1336.9 | 41.5      |                         |      |         |
| FH   | (60°-80°)   | 1361.0 | 42.3      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 35.8   | 1.1       |                         |      | G1/100  |
| BL   | (0°-30°)    | 101.3  | 3.1       | B0/110                  |      |         |
| BM   | (30°-60°)   | 142.4  | 4.4       | B0/220                  |      |         |
| BH   | (60°-80°)   | 68.9   | 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: B0-U0-G1**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 58°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 386.1  | 386.1  | 386.1  | 386.1  | 386.1  | 386.1  | 386.1  | 386.1  | 386.1  | 386.1  | 386.1  |
| 2.5°  | 384.4  | 382.7  | 382.1  | 381.5  | 382.1  | 382.7  | 381.0  | 382.7  | 381.5  | 382.1  | 383.3  |
| 5°    | 370.6  | 368.9  | 368.3  | 368.9  | 370.6  | 373.5  | 374.6  | 376.4  | 376.4  | 378.1  | 378.7  |
| 7.5°  | 355.1  | 353.9  | 353.3  | 354.5  | 357.9  | 364.3  | 367.7  | 370.0  | 372.3  | 375.8  | 379.2  |
| 10°   | 346.4  | 345.9  | 345.3  | 347.0  | 350.5  | 356.2  | 360.8  | 364.3  | 372.9  | 382.7  | 389.0  |
| 12.5° | 340.7  | 340.7  | 341.8  | 345.3  | 349.9  | 354.5  | 365.4  | 370.0  | 383.3  | 398.2  | 406.9  |
| 15°   | 336.1  | 336.1  | 337.8  | 344.1  | 350.5  | 361.4  | 377.5  | 382.7  | 398.2  | 416.6  | 428.1  |
| 17.5° | 332.6  | 333.8  | 334.9  | 341.3  | 353.3  | 371.8  | 390.7  | 398.2  | 417.2  | 437.4  | 450.0  |
| 20°   | 333.2  | 334.3  | 334.9  | 341.3  | 358.5  | 383.8  | 408.0  | 416.6  | 438.5  | 459.8  | 472.5  |
| 22.5° | 336.6  | 338.4  | 339.0  | 347.6  | 367.7  | 396.5  | 427.6  | 437.4  | 461.0  | 483.4  | 493.2  |
| 25°   | 351.0  | 352.2  | 348.7  | 356.2  | 381.0  | 416.1  | 452.9  | 463.3  | 486.8  | 507.6  | 515.6  |
| 27.5° | 400.0  | 401.1  | 382.1  | 373.5  | 391.3  | 432.2  | 484.0  | 498.4  | 527.7  | 541.5  | 542.7  |
| 30°   | 505.8  | 507.0  | 469.6  | 428.7  | 416.1  | 446.0  | 501.2  | 521.4  | 559.4  | 574.9  | 568.0  |
| 32.5° | 642.2  | 641.1  | 589.9  | 529.4  | 474.8  | 470.2  | 526.0  | 547.3  | 588.7  | 603.7  | 598.5  |
| 35°   | 779.2  | 780.9  | 737.2  | 646.3  | 568.0  | 515.6  | 557.6  | 582.4  | 632.4  | 653.7  | 644.5  |
| 37.5° | 873.0  | 884.5  | 865.5  | 767.1  | 682.5  | 599.6  | 608.8  | 635.3  | 698.0  | 726.8  | 707.3  |
| 40°   | 1005.3 | 1002.5 | 956.4  | 883.9  | 809.1  | 723.9  | 691.7  | 704.4  | 776.3  | 814.9  | 784.4  |
| 42.5° | 1183.2 | 1177.4 | 1099.1 | 1028.4 | 944.9  | 875.3  | 809.7  | 807.4  | 866.1  | 911.0  | 866.7  |
| 45°   | 1344.3 | 1335.7 | 1282.1 | 1213.7 | 1122.2 | 1042.2 | 953.6  | 933.4  | 974.3  | 1012.3 | 960.5  |
| 47.5° | 1472.6 | 1458.2 | 1420.3 | 1384.0 | 1361.6 | 1237.3 | 1104.3 | 1073.8 | 1094.5 | 1122.7 | 1049.7 |
| 50°   | 1624.6 | 1584.8 | 1529.6 | 1507.7 | 1554.3 | 1458.2 | 1249.3 | 1220.0 | 1218.8 | 1235.0 | 1141.7 |
| 52.5° | 1693.6 | 1621.7 | 1590.6 | 1609.0 | 1691.3 | 1663.7 | 1405.9 | 1363.9 | 1347.2 | 1348.9 | 1227.5 |
| 55°   | 1610.2 | 1602.1 | 1618.8 | 1676.3 | 1784.0 | 1767.8 | 1556.1 | 1504.3 | 1479.5 | 1448.5 | 1309.8 |
| 57.5° | 1515.2 | 1540.0 | 1606.1 | 1716.1 | 1901.4 | 1876.6 | 1704.0 | 1645.3 | 1599.8 | 1528.4 | 1401.3 |
| 60°   | 1427.7 | 1453.1 | 1562.4 | 1725.3 | 1965.8 | 1981.3 | 1827.1 | 1771.3 | 1704.0 | 1610.2 | 1502.0 |
| 62.5° | 1294.8 | 1314.4 | 1468.0 | 1712.0 | 1937.6 | 2042.3 | 1912.9 | 1870.9 | 1808.1 | 1687.9 | 1617.6 |
| 65°   | 1145.2 | 1157.8 | 1309.8 | 1606.1 | 1882.4 | 2035.4 | 1983.6 | 1960.1 | 1899.1 | 1769.0 | 1732.2 |
| 67.5° | 981.2  | 996.1  | 1122.7 | 1415.7 | 1774.2 | 2003.2 | 2050.4 | 2048.1 | 1978.5 | 1858.8 | 1815.0 |
| 70°   | 792.4  | 793.6  | 898.3  | 1174.0 | 1585.4 | 1938.8 | 2133.3 | 2138.4 | 2054.4 | 1926.1 | 1818.5 |
| 72.5° | 379.2  | 410.3  | 582.4  | 819.5  | 1288.5 | 1812.2 | 2187.4 | 2213.3 | 2102.2 | 1923.8 | 1622.3 |
| 75°   | 86.9   | 89.8   | 169.8  | 389.6  | 755.6  | 1390.9 | 2052.1 | 2100.5 | 1985.9 | 1663.7 | 1142.9 |
| 77.5° | 31.7   | 33.4   | 47.8   | 113.9  | 290.6  | 718.8  | 1468.6 | 1539.4 | 1468.0 | 1075.6 | 540.4  |
| 80°   | 21.3   | 20.7   | 24.7   | 50.6   | 133.5  | 203.7  | 751.0  | 793.0  | 723.9  | 367.1  | 129.5  |
| 82.5° | 10.9   | 11.5   | 17.3   | 28.2   | 89.8   | 70.8   | 250.9  | 272.8  | 224.4  | 73.7   | 24.2   |
| 85°   | 5.2    | 5.2    | 9.8    | 17.8   | 38.0   | 24.7   | 55.8   | 67.3   | 60.4   | 32.2   | 8.1    |
| 87.5° | 5.2    | 5.2    | 9.2    | 11.5   | 19.6   | 10.4   | 13.8   | 17.3   | 16.1   | 17.3   | 2.9    |
| 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°    | 386.1  | 386.1 | 386.1 | 386.1 | 386.1 | 386.1 | 386.1 | 386.1 | 386.1 | 386.1 | 386.1 |
| 2.5°  | 383.3  | 382.7 | 382.1 | 383.3 | 382.7 | 383.8 | 383.8 | 385.0 | 385.0 | 383.8 | 383.3 |
| 5°    | 378.1  | 376.9 | 375.8 | 375.8 | 375.2 | 376.4 | 379.8 | 382.7 | 383.3 | 381.5 | 381.0 |
| 7.5°  | 378.7  | 378.7 | 377.5 | 375.2 | 371.2 | 371.2 | 371.2 | 374.6 | 376.4 | 375.2 | 374.6 |
| 10°   | 389.0  | 389.6 | 386.7 | 381.5 | 374.6 | 368.3 | 356.2 | 338.4 | 321.7 | 317.1 | 315.4 |
| 12.5° | 406.9  | 407.4 | 401.7 | 392.5 | 378.1 | 340.7 | 294.6 | 252.1 | 219.3 | 210.0 | 208.3 |
| 15°   | 428.1  | 428.7 | 418.4 | 403.4 | 359.7 | 272.8 | 204.3 | 156.0 | 127.2 | 120.3 | 119.7 |
| 17.5° | 450.0  | 448.9 | 433.3 | 404.6 | 305.0 | 193.4 | 124.3 | 99.6  | 92.1  | 90.3  | 90.9  |
| 20°   | 471.3  | 467.9 | 446.6 | 383.3 | 234.8 | 126.6 | 90.9  | 85.2  | 83.4  | 82.3  | 82.3  |
| 22.5° | 490.9  | 484.0 | 457.5 | 341.3 | 164.6 | 90.9  | 81.1  | 80.0  | 77.7  | 76.0  | 75.4  |
| 25°   | 510.4  | 500.7 | 464.4 | 286.6 | 110.5 | 79.4  | 76.5  | 74.2  | 71.4  | 69.1  | 68.5  |
| 27.5° | 534.0  | 520.2 | 461.0 | 217.5 | 82.9  | 73.7  | 71.4  | 67.9  | 63.9  | 60.4  | 59.3  |
| 30°   | 556.5  | 540.9 | 441.4 | 150.2 | 70.8  | 67.9  | 64.5  | 59.3  | 54.1  | 50.1  | 48.9  |
| 32.5° | 584.7  | 566.8 | 406.3 | 98.4  | 61.6  | 59.3  | 55.8  | 49.5  | 42.6  | 38.0  | 36.8  |
| 35°   | 625.0  | 604.8 | 361.4 | 69.1  | 54.1  | 50.1  | 45.5  | 38.6  | 31.1  | 27.6  | 27.0  |
| 37.5° | 681.4  | 654.3 | 305.0 | 55.8  | 47.8  | 42.0  | 35.1  | 28.2  | 23.0  | 20.1  | 19.6  |
| 40°   | 750.4  | 709.0 | 242.3 | 49.5  | 42.6  | 35.1  | 26.5  | 20.1  | 16.7  | 14.4  | 14.4  |
| 42.5° | 825.2  | 760.2 | 178.4 | 45.5  | 37.4  | 28.8  | 19.6  | 14.4  | 12.1  | 10.9  | 10.4  |
| 45°   | 902.3  | 805.7 | 120.3 | 42.0  | 32.8  | 21.9  | 13.8  | 9.8   | 8.1   | 8.1   | 7.5   |
| 47.5° | 982.3  | 836.2 | 77.7  | 38.0  | 27.6  | 16.1  | 9.2   | 6.9   | 5.8   | 5.8   | 5.8   |
| 50°   | 1061.7 | 852.3 | 55.2  | 34.5  | 22.4  | 10.9  | 6.9   | 5.2   | 4.6   | 4.6   | 4.6   |
| 52.5° | 1119.3 | 841.9 | 44.3  | 29.9  | 17.3  | 8.1   | 5.2   | 4.0   | 3.5   | 3.5   | 3.5   |
| 55°   | 1169.4 | 824.1 | 38.6  | 25.9  | 12.7  | 5.8   | 4.0   | 3.5   | 2.9   | 2.9   | 2.9   |
| 57.5° | 1220.6 | 801.1 | 34.5  | 21.9  | 9.2   | 4.0   | 2.9   | 2.3   | 2.3   | 2.3   | 2.3   |
| 60°   | 1267.2 | 761.9 | 29.9  | 17.3  | 6.3   | 2.9   | 2.3   | 1.7   | 1.7   | 1.7   | 1.7   |
| 62.5° | 1312.6 | 728.5 | 25.9  | 13.2  | 4.6   | 2.3   | 1.2   | 1.2   | 0.6   | 0.6   | 0.6   |
| 65°   | 1338.5 | 683.7 | 20.7  | 8.6   | 2.9   | 1.7   | 0.6   | 0.6   | 0.0   | 0.0   | 0.0   |
| 67.5° | 1330.5 | 630.1 | 14.4  | 5.2   | 1.7   | 1.2   | 0.6   | 0.0   | 0.0   | 0.0   | 0.0   |
| 70°   | 1274.7 | 558.2 | 8.6   | 2.9   | 1.7   | 1.2   | 0.6   | 0.0   | 0.0   | 0.0   | 0.0   |
| 72.5° | 1067.5 | 413.2 | 5.2   | 2.3   | 1.2   | 0.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 75°   | 713.0  | 189.9 | 2.9   | 1.7   | 0.6   | 0.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 77.5° | 326.3  | 57.0  | 1.7   | 1.2   | 0.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 80°   | 65.6   | 15.0  | 1.2   | 0.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 82.5° | 13.8   | 2.9   | 0.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 2.9    | 1.2   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 1.2    | 0.6   | 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)