

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: P214787

Luminaire Tested: **ARCH-AF24-60-D-U-T3-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214787  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF24-60-D-U-T3-7030-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 800mA 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: 4827 lumens  
Efficiency: N/A  
Efficacy: 75.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Medium - Semi-Cutoff  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 64  
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



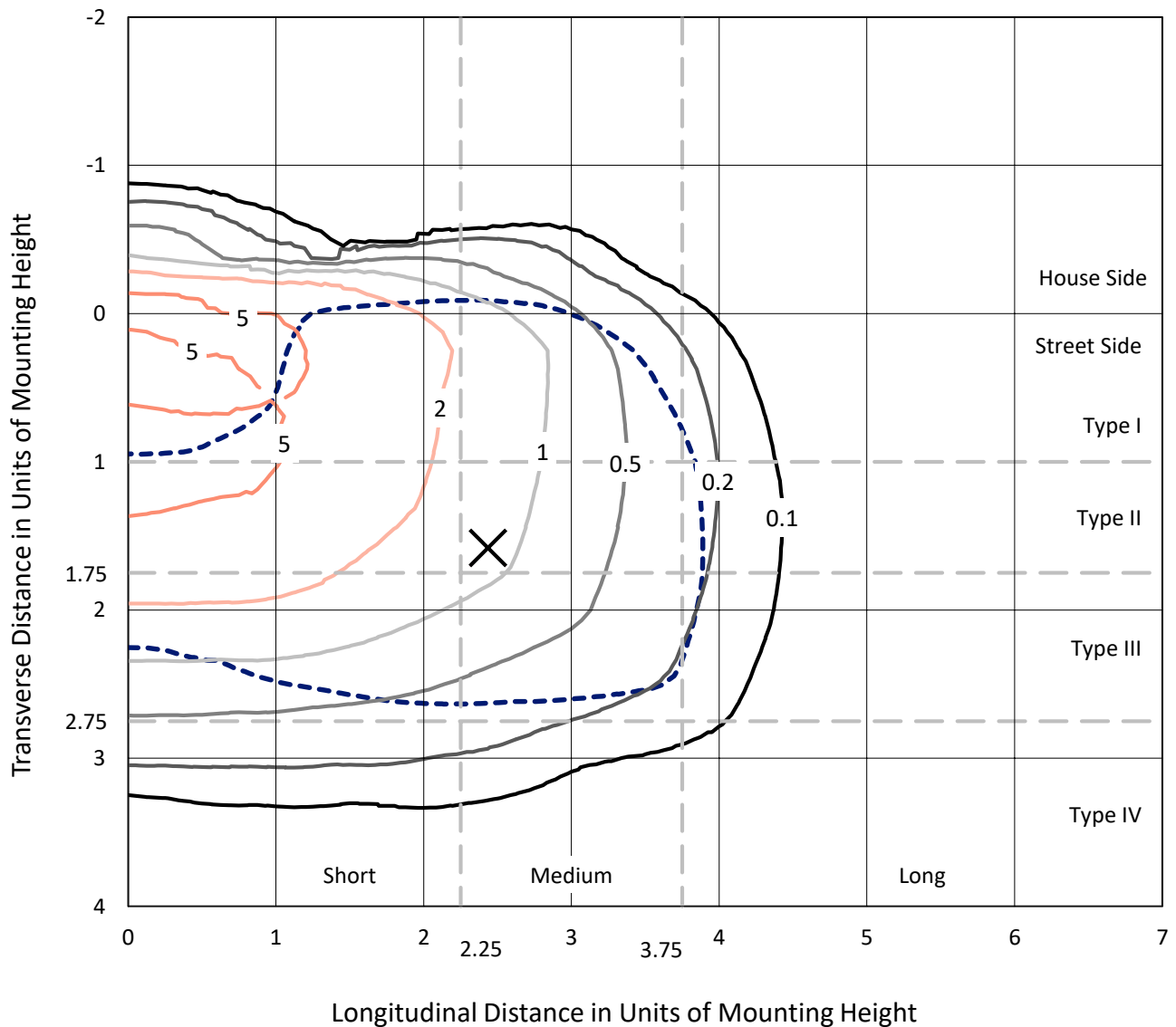


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

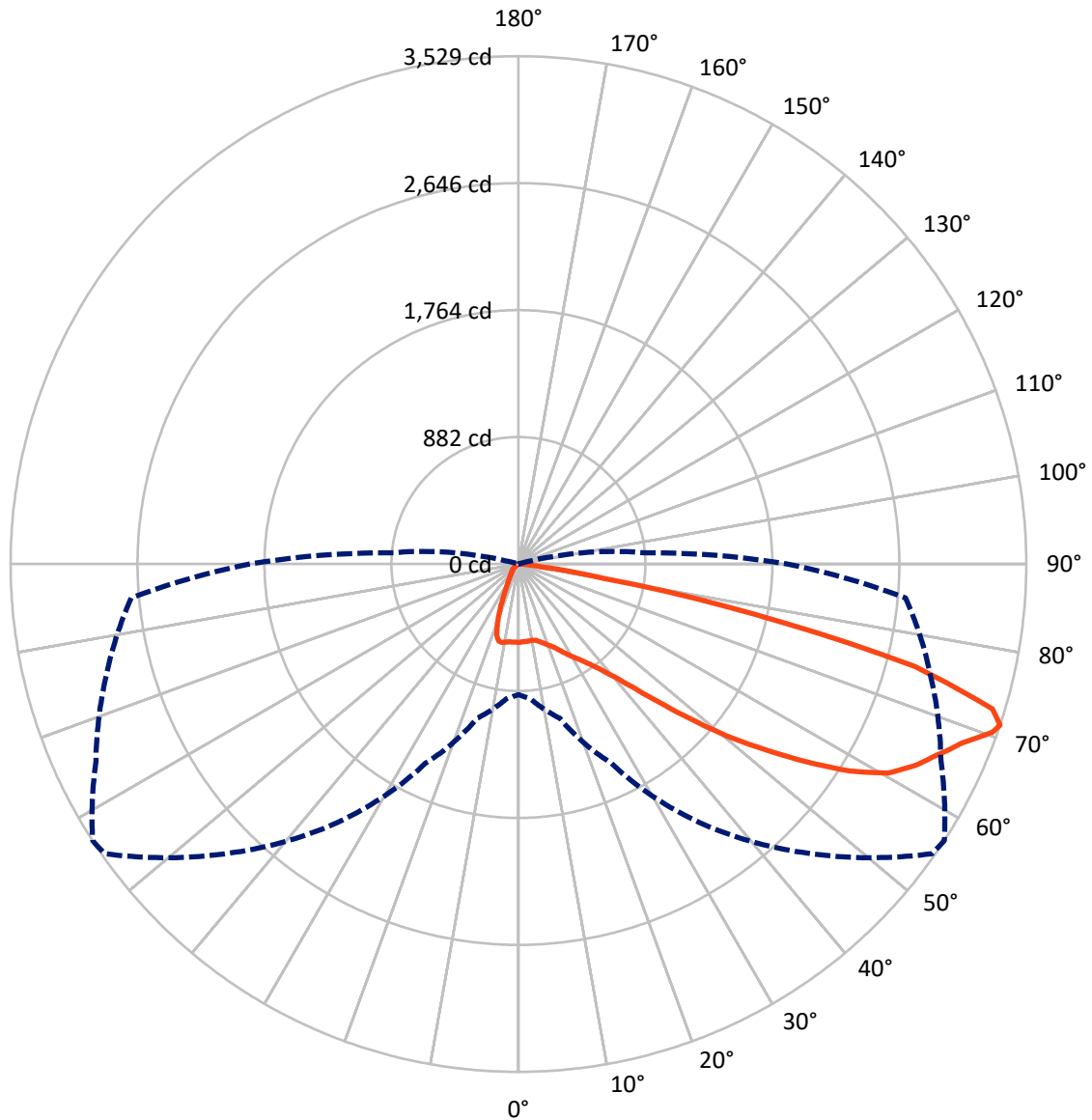


Based on 10 foot mounting height. Maximum calculated value = 6.8 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical



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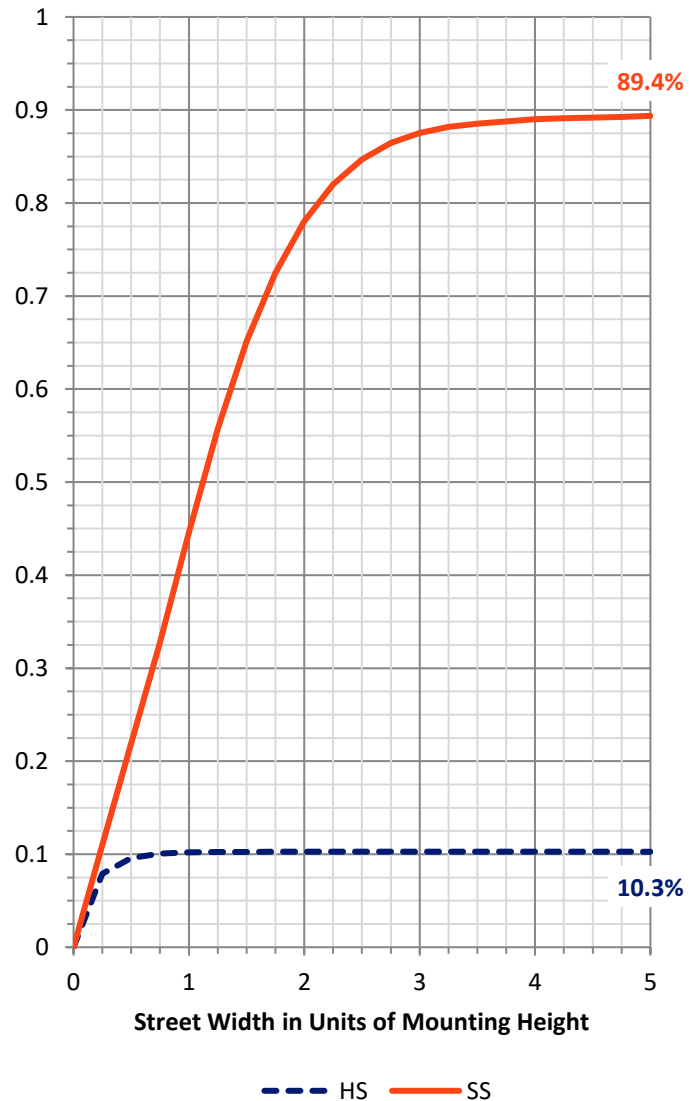
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 500.2    | 0.0    | 500.2  |
|                    | % Fixture | 10.4     | 0.0    | 10.4   |
| <b>Street Side</b> | Lumens    | 4326.8   | 0.0    | 4326.8 |
|                    | % Fixture | 89.6     | 0.0    | 89.6   |
| <b>Total</b>       | Lumens    | 4827.0   | 0.0    | 4827.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 51.2   | 1.1       |
| 10°-20°   | 137.0  | 2.8       |
| 20°-30°   | 213.7  | 4.4       |
| 30°-40°   | 361.2  | 7.5       |
| 40°-50°   | 701.5  | 14.5      |
| 50°-60°   | 1178.0 | 24.4      |
| 60°-70°   | 1405.9 | 29.1      |
| 70°-80°   | 740.9  | 15.3      |
| 80°-90°   | 37.6   | 0.8       |
| 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°    | 4827.0 | 100.0     |
| 0°-180°   | 4827.0 | 100.0     |

**Coefficient of Utilization**



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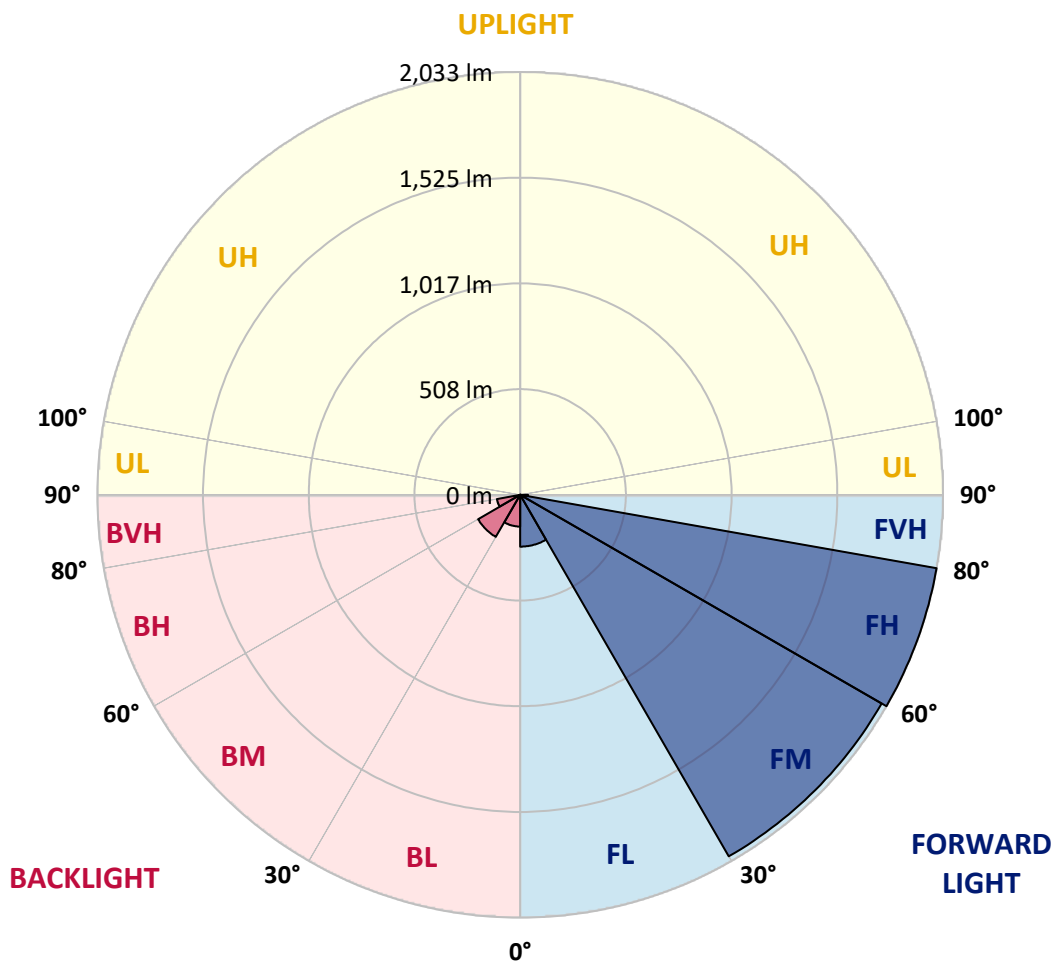
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 249.2  | 5.2       |                         |      |         |
| FM   | (30°-60°)   | 2007.1 | 41.6      |                         |      |         |
| FH   | (60°-80°)   | 2033.2 | 42.1      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 37.3   | 0.8       |                         |      | G1/100  |
| BL   | (0°-30°)    | 152.7  | 3.2       | B1/500                  |      |         |
| BM   | (30°-60°)   | 233.6  | 4.8       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 113.6  | 2.4       | B1/500                  |      | G1/500  |
| 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-G2**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 57°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 545.5  | 545.5  | 545.5  | 545.5  | 545.5  | 545.5  | 545.5  | 545.5  | 545.5  | 545.5  | 545.5  |
| 2.5°  | 537.7  | 537.7  | 537.7  | 538.8  | 539.9  | 539.9  | 542.1  | 541.0  | 541.0  | 541.0  | 543.3  |
| 5°    | 523.0  | 524.2  | 525.3  | 527.5  | 532.0  | 535.4  | 541.0  | 541.0  | 542.1  | 544.4  | 545.5  |
| 7.5°  | 502.8  | 503.9  | 507.3  | 511.8  | 520.8  | 528.7  | 537.7  | 539.9  | 543.3  | 548.9  | 551.1  |
| 10°   | 490.4  | 492.7  | 497.2  | 502.8  | 512.9  | 523.0  | 534.3  | 537.7  | 547.8  | 557.9  | 563.5  |
| 12.5° | 487.0  | 488.2  | 492.7  | 501.7  | 514.0  | 526.4  | 541.0  | 544.4  | 559.0  | 574.8  | 583.8  |
| 15°   | 492.7  | 493.8  | 496.0  | 506.2  | 520.8  | 536.5  | 555.6  | 560.1  | 578.1  | 596.1  | 607.4  |
| 17.5° | 502.8  | 502.8  | 505.0  | 514.0  | 529.8  | 547.8  | 572.5  | 579.3  | 599.5  | 619.8  | 632.1  |
| 20°   | 509.5  | 509.5  | 512.9  | 521.9  | 539.9  | 563.5  | 592.8  | 601.8  | 624.3  | 646.8  | 658.0  |
| 22.5° | 516.3  | 517.4  | 520.8  | 530.9  | 551.1  | 583.8  | 617.5  | 626.5  | 652.4  | 676.0  | 687.2  |
| 25°   | 535.4  | 534.3  | 535.4  | 544.4  | 568.0  | 608.5  | 651.3  | 662.5  | 689.5  | 715.4  | 721.0  |
| 27.5° | 588.3  | 586.0  | 571.4  | 565.8  | 583.8  | 634.4  | 694.0  | 705.2  | 736.7  | 762.6  | 762.6  |
| 30°   | 709.7  | 705.2  | 669.3  | 623.1  | 608.5  | 658.0  | 734.5  | 750.2  | 790.7  | 813.2  | 806.5  |
| 32.5° | 863.8  | 853.7  | 807.6  | 728.9  | 670.4  | 689.5  | 777.2  | 795.2  | 847.0  | 866.1  | 851.5  |
| 35°   | 1032.6 | 1031.4 | 974.1  | 872.8  | 789.6  | 754.7  | 832.3  | 853.7  | 919.0  | 935.8  | 912.2  |
| 37.5° | 1211.4 | 1215.9 | 1177.7 | 1038.2 | 940.3  | 861.6  | 905.5  | 930.2  | 1010.1 | 1030.3 | 1007.8 |
| 40°   | 1410.5 | 1409.4 | 1394.7 | 1229.4 | 1121.4 | 1013.4 | 1011.2 | 1033.7 | 1130.4 | 1161.9 | 1130.4 |
| 42.5° | 1662.4 | 1660.2 | 1607.3 | 1458.9 | 1340.8 | 1211.4 | 1165.3 | 1173.2 | 1281.1 | 1332.9 | 1286.8 |
| 45°   | 1918.9 | 1903.1 | 1842.4 | 1714.2 | 1609.6 | 1456.6 | 1368.9 | 1368.9 | 1461.1 | 1532.0 | 1460.0 |
| 47.5° | 2061.7 | 2046.0 | 2021.3 | 1950.4 | 1918.9 | 1747.9 | 1618.6 | 1602.8 | 1674.8 | 1746.8 | 1645.6 |
| 50°   | 2249.6 | 2249.6 | 2187.7 | 2160.7 | 2214.7 | 2094.4 | 1894.1 | 1878.4 | 1913.3 | 1970.6 | 1837.9 |
| 52.5° | 2398.1 | 2371.1 | 2327.2 | 2350.8 | 2504.9 | 2449.8 | 2169.7 | 2139.4 | 2166.3 | 2181.0 | 2005.5 |
| 55°   | 2459.9 | 2434.1 | 2430.7 | 2517.3 | 2755.7 | 2679.3 | 2452.0 | 2425.1 | 2422.8 | 2350.8 | 2151.7 |
| 57.5° | 2472.3 | 2449.8 | 2492.5 | 2644.4 | 2999.8 | 2867.1 | 2733.2 | 2713.0 | 2650.0 | 2470.0 | 2301.3 |
| 60°   | 2367.7 | 2378.9 | 2482.4 | 2714.1 | 3143.8 | 3030.2 | 2970.6 | 2949.2 | 2804.1 | 2571.3 | 2467.8 |
| 62.5° | 2152.9 | 2179.8 | 2373.3 | 2720.9 | 3090.9 | 3096.6 | 3102.2 | 3087.6 | 2923.3 | 2663.5 | 2635.4 |
| 65°   | 1898.6 | 1906.5 | 2139.4 | 2627.5 | 2998.7 | 3076.3 | 3198.9 | 3197.8 | 3014.4 | 2767.0 | 2824.4 |
| 67.5° | 1564.6 | 1578.1 | 1779.4 | 2312.6 | 2814.2 | 3067.3 | 3326.0 | 3322.6 | 3117.9 | 2885.1 | 2936.8 |
| 70°   | 1164.2 | 1181.0 | 1344.1 | 1798.5 | 2402.6 | 2954.8 | 3492.5 | 3494.7 | 3227.0 | 2975.1 | 2859.2 |
| 71°   | 907.7  | 938.1  | 1109.0 | 1527.5 | 2192.2 | 2841.2 | 3508.2 | 3528.5 | 3239.4 | 2962.7 | 2699.5 |
| 72.5° | 445.4  | 481.4  | 696.2  | 1075.3 | 1804.2 | 2587.0 | 3404.7 | 3444.1 | 3161.8 | 2808.6 | 2308.1 |
| 75°   | 115.9  | 122.6  | 208.1  | 439.8  | 967.3  | 1714.2 | 2745.6 | 2845.7 | 2584.8 | 2138.2 | 1410.5 |
| 77.5° | 73.1   | 75.4   | 97.9   | 171.0  | 362.2  | 651.3  | 1613.0 | 1662.4 | 1476.9 | 1083.2 | 497.2  |
| 80°   | 51.7   | 52.9   | 61.9   | 110.2  | 211.5  | 190.1  | 580.4  | 601.8  | 534.3  | 286.8  | 88.9   |
| 82.5° | 31.5   | 31.5   | 45.0   | 70.9   | 130.5  | 103.5  | 153.0  | 163.1  | 144.0  | 79.9   | 29.2   |
| 85°   | 18.0   | 19.1   | 28.1   | 48.4   | 61.9   | 50.6   | 57.4   | 60.7   | 61.9   | 52.9   | 12.4   |
| 87.5° | 14.6   | 15.7   | 24.7   | 40.5   | 33.7   | 24.7   | 24.7   | 25.9   | 27.0   | 31.5   | 5.6    |
| 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°    | 545.5  | 545.5  | 545.5 | 545.5 | 545.5 | 545.5 | 545.5 | 545.5 | 545.5 | 545.5 | 545.5 |
| 2.5°  | 543.3  | 543.3  | 544.4 | 543.3 | 543.3 | 543.3 | 544.4 | 544.4 | 544.4 | 546.6 | 547.8 |
| 5°    | 545.5  | 545.5  | 545.5 | 544.4 | 543.3 | 543.3 | 545.5 | 546.6 | 546.6 | 550.0 | 550.0 |
| 7.5°  | 551.1  | 551.1  | 548.9 | 546.6 | 544.4 | 541.0 | 542.1 | 543.3 | 542.1 | 543.3 | 543.3 |
| 10°   | 563.5  | 563.5  | 560.1 | 555.6 | 548.9 | 538.8 | 525.3 | 508.4 | 492.7 | 487.0 | 484.8 |
| 12.5° | 583.8  | 582.6  | 575.9 | 568.0 | 553.4 | 518.5 | 467.9 | 408.3 | 358.8 | 345.3 | 340.8 |
| 15°   | 606.3  | 604.0  | 596.1 | 582.6 | 543.3 | 451.0 | 345.3 | 268.8 | 221.6 | 210.3 | 208.1 |
| 17.5° | 629.9  | 626.5  | 615.3 | 588.3 | 497.2 | 335.2 | 222.7 | 168.7 | 142.8 | 140.6 | 141.7 |
| 20°   | 654.6  | 650.1  | 634.4 | 577.0 | 401.6 | 223.8 | 144.0 | 130.5 | 128.2 | 128.2 | 129.4 |
| 22.5° | 682.7  | 677.1  | 655.8 | 536.5 | 292.4 | 148.5 | 123.7 | 122.6 | 121.5 | 120.4 | 120.4 |
| 25°   | 715.4  | 708.6  | 676.0 | 463.4 | 201.3 | 121.5 | 118.1 | 114.7 | 112.5 | 110.2 | 109.1 |
| 27.5° | 754.7  | 745.7  | 691.7 | 373.4 | 138.3 | 113.6 | 111.4 | 105.7 | 101.2 | 96.7  | 96.7  |
| 30°   | 794.1  | 782.9  | 687.2 | 281.2 | 112.5 | 105.7 | 101.2 | 94.5  | 87.7  | 83.2  | 82.1  |
| 32.5° | 835.7  | 824.5  | 658.0 | 189.0 | 102.4 | 96.7  | 91.1  | 81.0  | 73.1  | 67.5  | 66.4  |
| 35°   | 897.6  | 888.6  | 600.6 | 124.9 | 92.2  | 85.5  | 77.6  | 67.5  | 57.4  | 51.7  | 50.6  |
| 37.5° | 989.8  | 978.6  | 529.8 | 95.6  | 81.0  | 70.9  | 64.1  | 52.9  | 42.7  | 37.1  | 36.0  |
| 40°   | 1113.5 | 1079.8 | 445.4 | 84.4  | 70.9  | 58.5  | 49.5  | 38.2  | 30.4  | 27.0  | 27.0  |
| 42.5° | 1257.5 | 1177.7 | 354.3 | 76.5  | 63.0  | 48.4  | 36.0  | 25.9  | 21.4  | 20.2  | 20.2  |
| 45°   | 1410.5 | 1268.8 | 263.2 | 70.9  | 55.1  | 38.2  | 25.9  | 18.0  | 15.7  | 14.6  | 14.6  |
| 47.5° | 1568.0 | 1343.0 | 183.3 | 64.1  | 46.1  | 29.2  | 18.0  | 13.5  | 11.2  | 10.1  | 10.1  |
| 50°   | 1715.3 | 1391.4 | 129.4 | 57.4  | 39.4  | 21.4  | 13.5  | 10.1  | 7.9   | 7.9   | 7.9   |
| 52.5° | 1817.7 | 1386.9 | 93.4  | 49.5  | 30.4  | 14.6  | 9.0   | 6.7   | 6.7   | 6.7   | 6.7   |
| 55°   | 1907.6 | 1370.0 | 73.1  | 42.7  | 23.6  | 10.1  | 6.7   | 5.6   | 5.6   | 4.5   | 4.5   |
| 57.5° | 1984.1 | 1343.0 | 61.9  | 34.9  | 16.9  | 7.9   | 4.5   | 4.5   | 3.4   | 3.4   | 3.4   |
| 60°   | 2049.4 | 1309.3 | 51.7  | 29.2  | 11.2  | 5.6   | 3.4   | 2.2   | 2.2   | 1.1   | 2.2   |
| 62.5° | 2138.2 | 1287.9 | 45.0  | 22.5  | 7.9   | 3.4   | 2.2   | 1.1   | 1.1   | 0.0   | 0.0   |
| 65°   | 2203.5 | 1247.4 | 38.2  | 15.7  | 4.5   | 2.2   | 1.1   | 1.1   | 0.0   | 0.0   | 0.0   |
| 67.5° | 2205.7 | 1174.3 | 28.1  | 9.0   | 3.4   | 2.2   | 1.1   | 0.0   | 0.0   | 0.0   | 0.0   |
| 70°   | 2028.0 | 1001.1 | 18.0  | 4.5   | 2.2   | 1.1   | 1.1   | 0.0   | 0.0   | 0.0   | 0.0   |
| 71°   | 1864.9 | 886.3  | 14.6  | 3.4   | 2.2   | 1.1   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 72.5° | 1536.5 | 651.3  | 11.2  | 3.4   | 1.1   | 1.1   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 75°   | 847.0  | 236.2  | 5.6   | 2.2   | 1.1   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 77.5° | 271.1  | 72.0   | 3.4   | 1.1   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 80°   | 46.1   | 11.2   | 2.2   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 82.5° | 15.7   | 4.5    | 1.1   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 4.5    | 2.2    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 2.2    | 1.1    | 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)