

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: P348537

Luminaire Tested: **ARCH-N-PA1-40-730-U-T2R**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P348537  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-N-PA1-40-730-U-T2R  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 740mA LIGHT ENGINE WITH 16 LEDS AND  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5095 lumens  
Efficiency: N/A  
Efficacy: 124.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

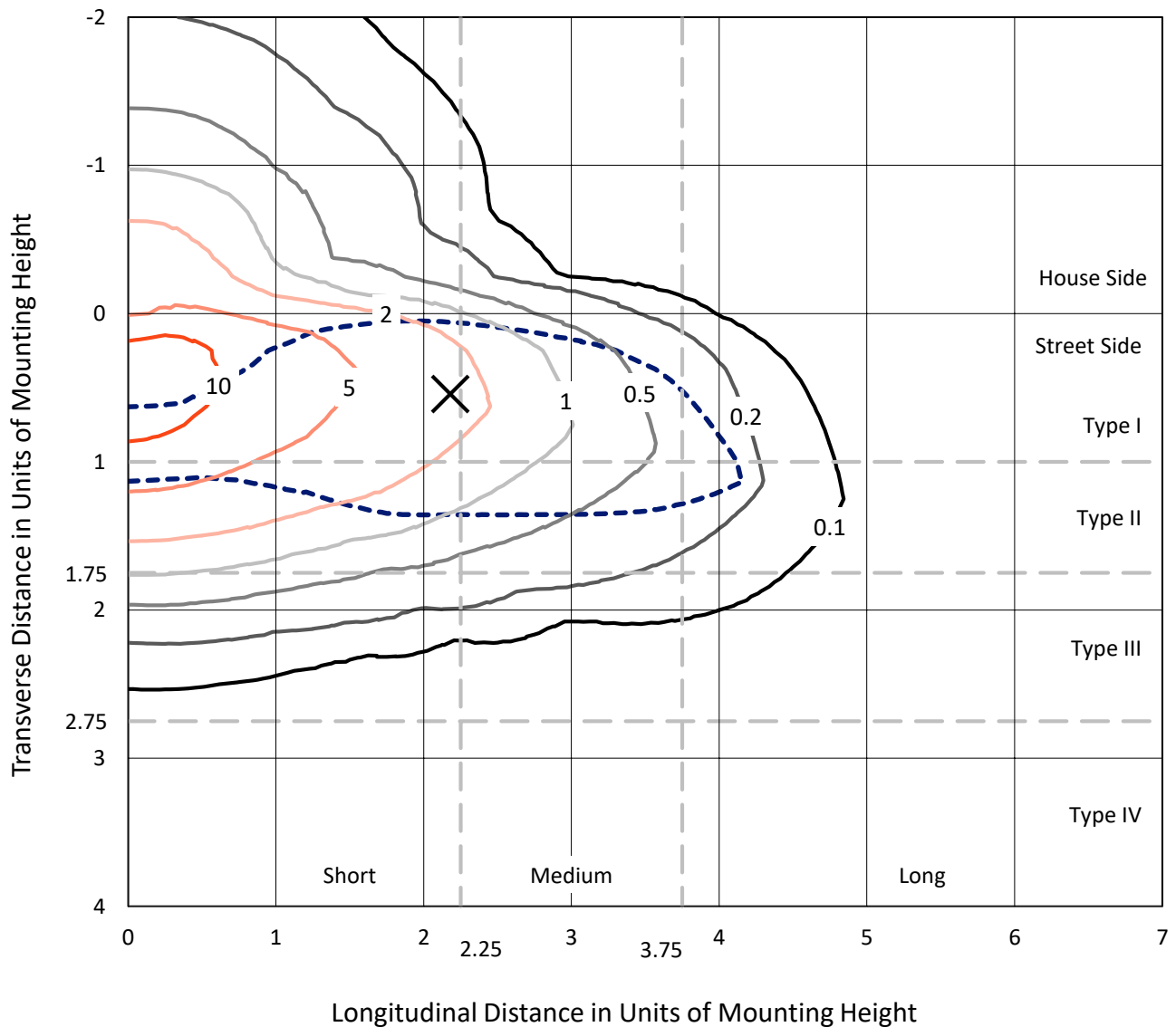
Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

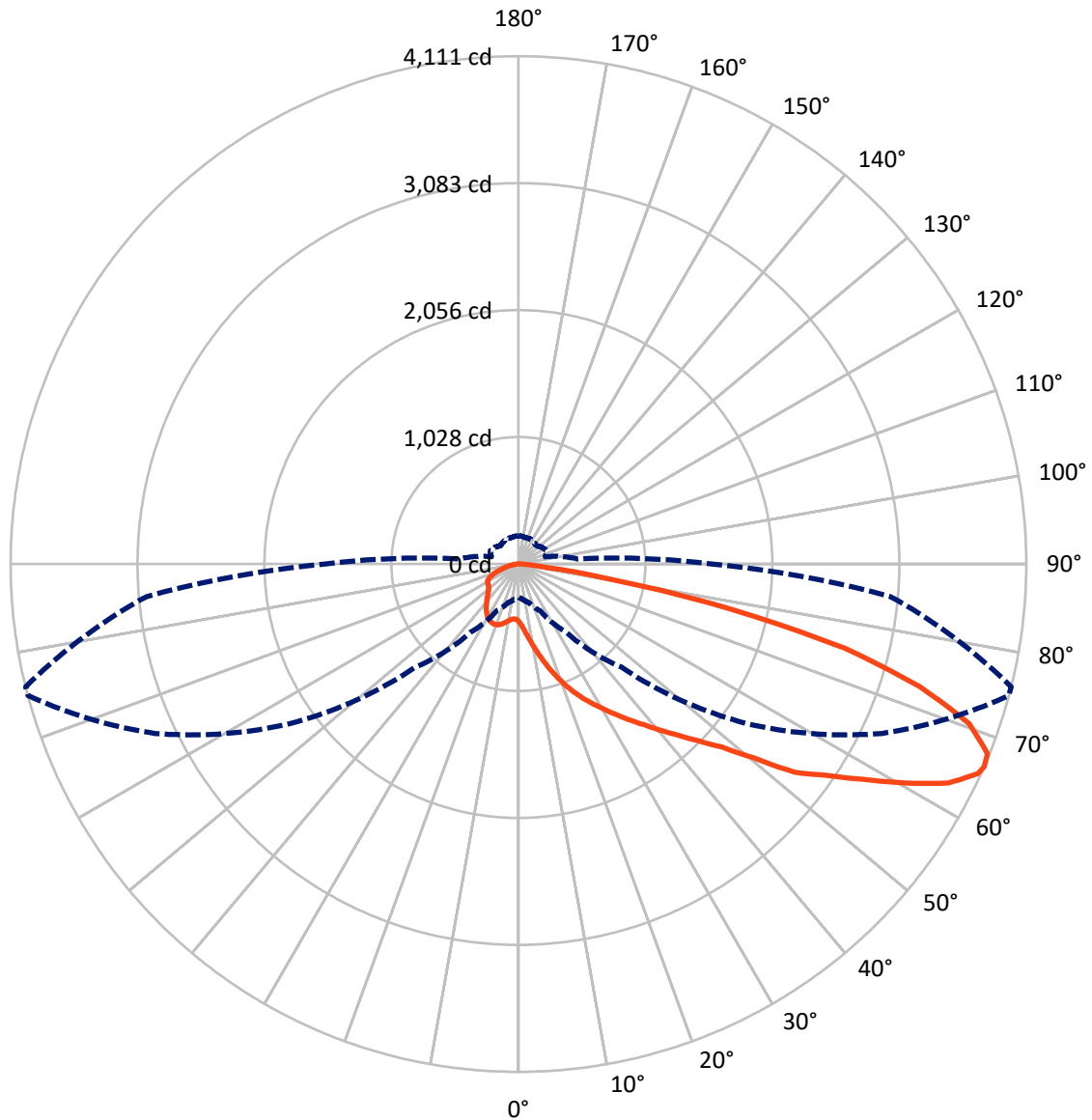
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.3 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral      - - - Horizontal Cone Through 66-Deg Vertical

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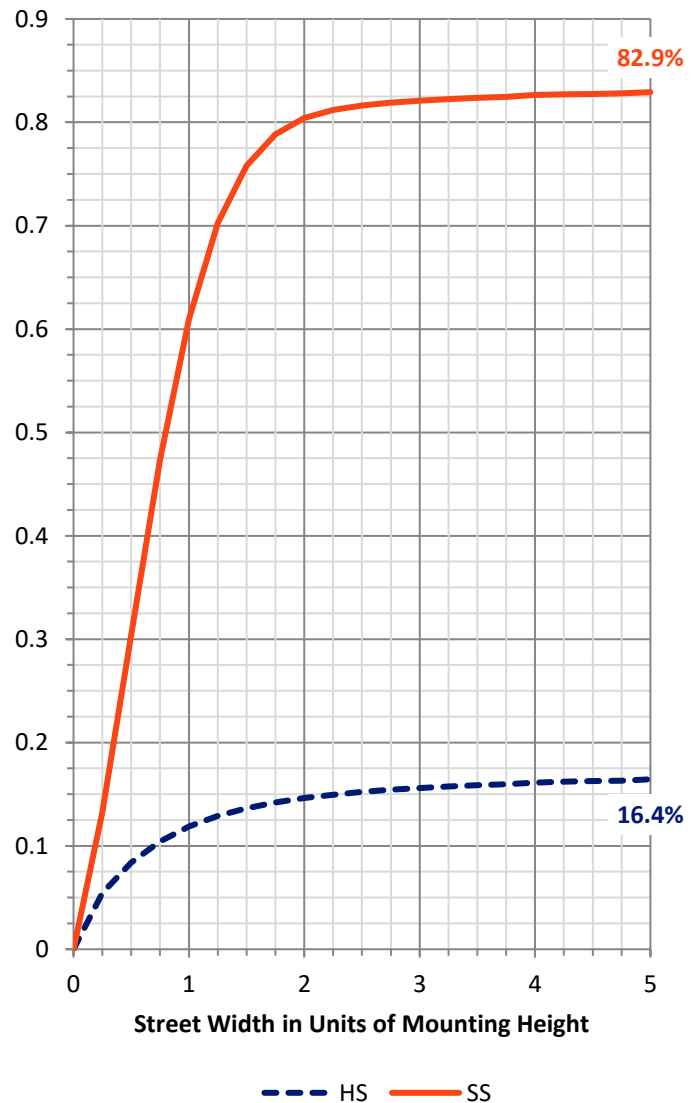
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 857.3    | 0.0    | 857.3  |
|                    | % Fixture | 16.8     | 0.0    | 16.8   |
| <b>Street Side</b> | Lumens    | 4237.7   | 0.0    | 4237.7 |
|                    | % Fixture | 83.2     | 0.0    | 83.2   |
| <b>Total</b>       | Lumens    | 5095.0   | 0.0    | 5095.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 56.3   | 1.1       |
| 10°-20°   | 222.2  | 4.4       |
| 20°-30°   | 431.8  | 8.5       |
| 30°-40°   | 704.7  | 13.8      |
| 40°-50°   | 962.9  | 18.9      |
| 50°-60°   | 1121.5 | 22.0      |
| 60°-70°   | 1005.5 | 19.7      |
| 70°-80°   | 508.1  | 10.0      |
| 80°-90°   | 82.1   | 1.6       |
| 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°    | 5095.0 | 100.0     |
| 0°-180°   | 5095.0 | 100.0     |

**Coefficient of Utilization**



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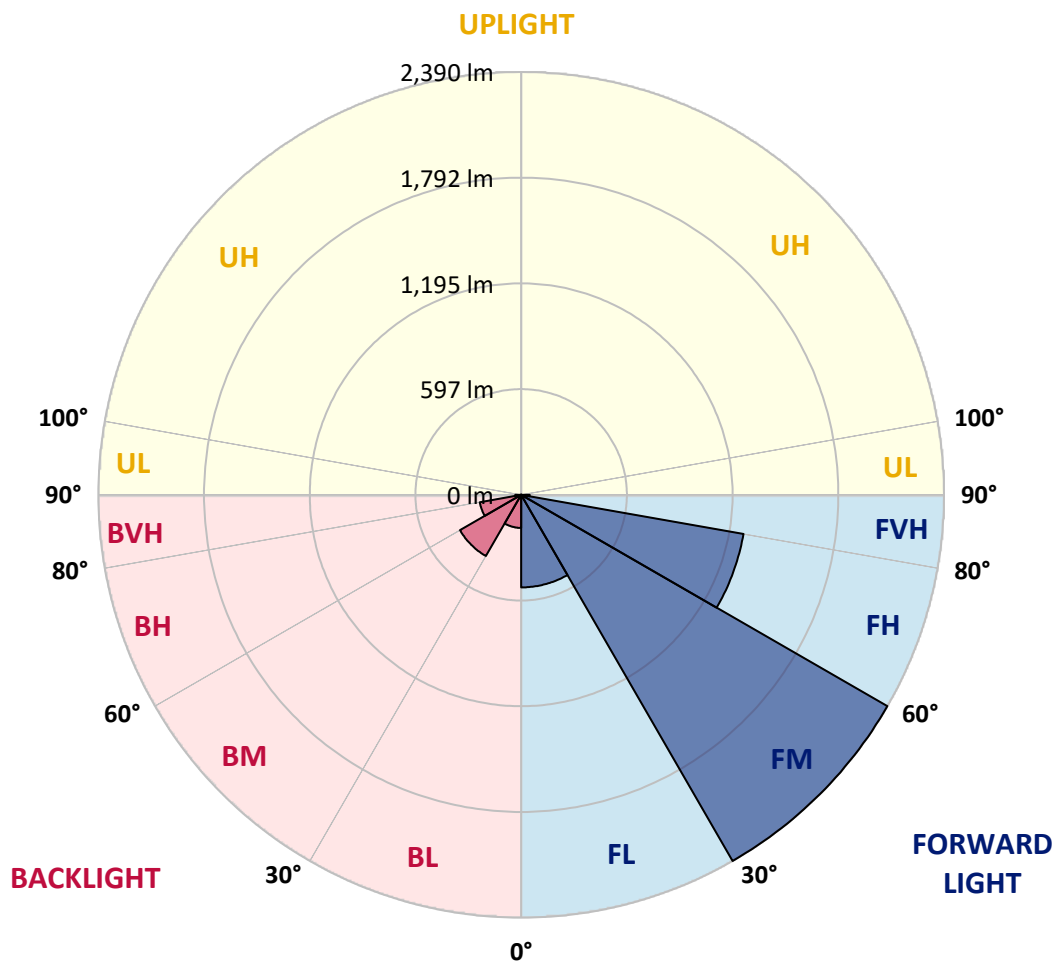
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 523.2  | 10.3      |                         |      |         |
| FM   | (30°-60°)   | 2389.9 | 46.9      |                         |      |         |
| FH   | (60°-80°)   | 1276.1 | 25.0      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 48.5   | 1.0       |                         |      | G1/100  |
| BL   | (0°-30°)    | 187.0  | 3.7       | B1/500                  |      |         |
| BM   | (30°-60°)   | 399.2  | 7.8       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 237.5  | 4.7       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 33.6   | 0.7       |                         |      | 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°    | 65°    | 75°    | 76°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 465.3  | 465.3  | 465.3  | 465.3  | 465.3  | 465.3  | 465.3  | 465.3  | 465.3  | 465.3  | 465.3  |
| 2.5°  | 617.7  | 608.3  | 607.5  | 593.8  | 590.7  | 564.6  | 545.4  | 525.3  | 502.5  | 498.0  | 480.0  |
| 5°    | 793.4  | 792.5  | 780.6  | 758.3  | 740.8  | 696.2  | 652.1  | 605.4  | 554.2  | 545.9  | 505.4  |
| 7.5°  | 951.5  | 950.1  | 941.0  | 916.9  | 891.7  | 836.8  | 773.9  | 702.3  | 619.2  | 607.0  | 539.8  |
| 10°   | 1071.5 | 1071.0 | 1067.9 | 1050.3 | 1028.8 | 976.2  | 906.7  | 809.0  | 694.8  | 678.0  | 582.9  |
| 12.5° | 1164.3 | 1165.3 | 1167.4 | 1161.1 | 1150.9 | 1106.1 | 1034.9 | 922.1  | 775.4  | 758.8  | 630.8  |
| 15°   | 1227.0 | 1230.2 | 1240.9 | 1249.7 | 1255.1 | 1227.6 | 1158.6 | 1037.8 | 865.7  | 845.8  | 683.9  |
| 17.5° | 1258.7 | 1262.2 | 1280.7 | 1307.3 | 1331.9 | 1329.1 | 1274.3 | 1148.2 | 952.4  | 933.2  | 741.0  |
| 20°   | 1286.0 | 1288.6 | 1309.4 | 1341.4 | 1384.8 | 1404.0 | 1373.2 | 1254.4 | 1047.3 | 1024.5 | 801.5  |
| 22.5° | 1365.2 | 1368.5 | 1374.8 | 1392.9 | 1431.3 | 1466.6 | 1451.7 | 1354.9 | 1134.3 | 1113.1 | 859.0  |
| 25°   | 1518.2 | 1522.1 | 1508.6 | 1493.2 | 1500.5 | 1525.1 | 1527.8 | 1446.5 | 1222.5 | 1198.5 | 920.7  |
| 27.5° | 1702.4 | 1708.1 | 1685.1 | 1645.5 | 1610.9 | 1601.4 | 1598.1 | 1521.6 | 1306.8 | 1278.9 | 981.8  |
| 30°   | 1882.8 | 1892.6 | 1862.7 | 1811.3 | 1747.9 | 1703.2 | 1670.2 | 1595.1 | 1389.8 | 1363.2 | 1039.4 |
| 32.5° | 2059.0 | 2055.1 | 2011.6 | 1961.5 | 1887.1 | 1831.2 | 1751.3 | 1674.0 | 1483.2 | 1452.6 | 1096.6 |
| 35°   | 2179.8 | 2181.1 | 2140.8 | 2081.3 | 2010.4 | 1967.5 | 1859.9 | 1759.1 | 1578.5 | 1550.3 | 1161.7 |
| 37.5° | 2282.5 | 2276.1 | 2230.4 | 2174.9 | 2113.9 | 2095.5 | 1987.1 | 1852.9 | 1681.8 | 1651.0 | 1230.9 |
| 40°   | 2316.8 | 2309.3 | 2279.4 | 2239.4 | 2190.5 | 2188.9 | 2127.4 | 1959.1 | 1798.5 | 1768.1 | 1308.9 |
| 42.5° | 2296.0 | 2286.5 | 2274.2 | 2263.3 | 2248.3 | 2255.2 | 2259.2 | 2083.6 | 1926.9 | 1892.8 | 1399.2 |
| 45°   | 2219.4 | 2205.0 | 2213.7 | 2237.4 | 2270.1 | 2309.1 | 2378.2 | 2221.4 | 2070.6 | 2042.1 | 1505.2 |
| 47.5° | 2101.6 | 2088.6 | 2115.6 | 2166.3 | 2255.2 | 2354.1 | 2490.8 | 2373.7 | 2242.2 | 2213.8 | 1656.2 |
| 50°   | 1935.9 | 1939.7 | 1978.3 | 2070.4 | 2204.8 | 2374.9 | 2629.5 | 2575.2 | 2491.6 | 2465.2 | 1862.2 |
| 52.5° | 1664.0 | 1664.7 | 1773.3 | 1924.6 | 2115.6 | 2364.1 | 2706.5 | 2832.7 | 2832.2 | 2800.2 | 2058.3 |
| 55°   | 1411.4 | 1426.8 | 1512.8 | 1714.0 | 1971.0 | 2321.3 | 2760.2 | 2958.0 | 3055.9 | 3018.3 | 2241.2 |
| 57.5° | 1164.8 | 1173.8 | 1255.2 | 1457.3 | 1764.6 | 2206.9 | 2815.4 | 3108.3 | 3313.6 | 3289.9 | 2468.5 |
| 60°   | 884.2  | 898.1  | 982.3  | 1168.9 | 1500.7 | 2004.0 | 2820.6 | 3265.1 | 3621.6 | 3597.8 | 2722.2 |
| 62.5° | 573.9  | 597.8  | 676.7  | 851.5  | 1181.4 | 1712.2 | 2700.2 | 3367.7 | 3913.6 | 3905.1 | 2947.4 |
| 65°   | 329.9  | 347.8  | 402.7  | 537.6  | 815.0  | 1345.9 | 2414.0 | 3328.3 | 4093.3 | 4088.5 | 3031.6 |
| 66°   | 269.5  | 280.7  | 322.8  | 420.1  | 672.5  | 1181.9 | 2247.6 | 3245.1 | 4111.1 | 4111.3 | 3022.0 |
| 67.5° | 215.5  | 220.5  | 239.4  | 300.8  | 496.2  | 936.8  | 1950.2 | 3061.6 | 4089.0 | 4095.1 | 2959.5 |
| 70°   | 178.3  | 180.9  | 186.8  | 201.7  | 270.9  | 564.9  | 1384.3 | 2584.7 | 3866.7 | 3871.4 | 2715.8 |
| 72.5° | 160.0  | 161.6  | 163.8  | 165.9  | 191.1  | 315.7  | 845.5  | 2067.7 | 3390.2 | 3396.3 | 2344.4 |
| 75°   | 144.9  | 145.8  | 145.5  | 145.6  | 160.3  | 201.2  | 436.9  | 1543.8 | 2741.2 | 2729.1 | 1795.9 |
| 77.5° | 127.3  | 128.2  | 126.4  | 126.8  | 141.8  | 154.6  | 217.4  | 1080.7 | 1849.9 | 1764.5 | 1011.9 |
| 80°   | 107.6  | 108.3  | 107.6  | 108.8  | 123.5  | 116.8  | 126.4  | 608.0  | 818.0  | 773.7  | 359.8  |
| 82.5° | 81.3   | 84.2   | 86.3   | 91.2   | 101.7  | 83.0   | 84.6   | 236.8  | 249.1  | 237.1  | 110.4  |
| 85°   | 35.6   | 43.4   | 65.0   | 69.7   | 76.5   | 49.8   | 55.5   | 96.5   | 101.4  | 98.2   | 40.1   |
| 87.5° | 9.3    | 10.2   | 32.2   | 40.5   | 42.4   | 22.5   | 28.9   | 43.9   | 46.4   | 43.9   | 13.3   |
| 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°    | 465.3  | 465.3 | 465.3 | 465.3 | 465.3 | 465.3 | 465.3 | 465.3 | 465.3 | 465.3 | 465.3 |
| 2.5°  | 470.5  | 462.0 | 446.8 | 433.3 | 423.1 | 416.2 | 409.2 | 405.8 | 403.7 | 401.6 | 402.0 |
| 5°    | 485.5  | 468.4 | 442.3 | 423.8 | 413.4 | 406.8 | 403.4 | 402.0 | 401.1 | 399.0 | 399.0 |
| 7.5°  | 508.2  | 484.0 | 448.0 | 429.0 | 420.8 | 415.8 | 413.7 | 413.1 | 412.0 | 409.6 | 409.9 |
| 10°   | 536.7  | 502.8 | 459.9 | 441.4 | 434.0 | 428.4 | 425.5 | 424.5 | 422.6 | 419.8 | 420.1 |
| 12.5° | 570.3  | 526.2 | 475.7 | 456.3 | 447.3 | 439.9 | 435.0 | 432.1 | 428.8 | 425.2 | 425.3 |
| 15°   | 607.0  | 551.6 | 492.6 | 469.6 | 457.3 | 447.0 | 439.2 | 434.2 | 429.0 | 424.5 | 424.3 |
| 17.5° | 644.1  | 576.2 | 505.6 | 476.9 | 460.3 | 446.6 | 436.1 | 428.3 | 421.9 | 416.3 | 415.8 |
| 20°   | 684.3  | 598.3 | 512.9 | 476.2 | 454.7 | 438.5 | 424.5 | 414.8 | 407.7 | 402.2 | 401.3 |
| 22.5° | 725.1  | 619.1 | 514.1 | 469.1 | 442.5 | 422.6 | 407.9 | 397.1 | 389.9 | 384.2 | 382.1 |
| 25°   | 762.5  | 635.1 | 509.0 | 455.4 | 425.3 | 403.9 | 389.5 | 378.6 | 372.7 | 366.0 | 363.9 |
| 27.5° | 796.5  | 646.4 | 499.0 | 438.0 | 406.1 | 385.0 | 371.5 | 362.2 | 355.8 | 350.6 | 348.9 |
| 30°   | 827.1  | 652.4 | 482.6 | 417.2 | 386.4 | 367.2 | 355.8 | 349.4 | 343.9 | 337.3 | 336.1 |
| 32.5° | 856.2  | 652.4 | 461.5 | 394.5 | 366.9 | 351.5 | 344.7 | 340.8 | 334.5 | 328.1 | 326.4 |
| 35°   | 885.3  | 648.5 | 436.6 | 370.8 | 348.9 | 340.2 | 339.9 | 335.2 | 325.7 | 317.1 | 314.8 |
| 37.5° | 915.9  | 640.3 | 408.6 | 348.7 | 334.2 | 335.2 | 338.2 | 327.8 | 314.3 | 302.0 | 298.7 |
| 40°   | 950.5  | 629.1 | 379.5 | 329.5 | 321.9 | 333.0 | 333.5 | 317.1 | 290.8 | 279.5 | 276.6 |
| 42.5° | 991.1  | 617.8 | 352.5 | 312.6 | 312.2 | 326.2 | 324.7 | 293.9 | 278.1 | 272.4 | 270.9 |
| 45°   | 1044.6 | 611.4 | 326.9 | 296.5 | 304.6 | 315.3 | 309.6 | 281.1 | 274.5 | 271.2 | 269.8 |
| 47.5° | 1128.8 | 614.7 | 303.4 | 283.7 | 297.0 | 304.4 | 281.6 | 275.9 | 271.2 | 267.2 | 265.9 |
| 50°   | 1234.3 | 612.8 | 284.4 | 274.8 | 288.3 | 293.0 | 269.0 | 269.1 | 266.7 | 262.2 | 260.1 |
| 52.5° | 1313.7 | 598.0 | 272.1 | 269.8 | 280.7 | 272.8 | 261.0 | 262.6 | 261.4 | 254.8 | 252.5 |
| 55°   | 1390.3 | 585.2 | 265.9 | 267.9 | 275.2 | 247.5 | 251.7 | 255.5 | 254.3 | 247.9 | 246.8 |
| 57.5° | 1485.6 | 582.7 | 262.0 | 268.4 | 270.5 | 234.9 | 242.7 | 247.7 | 246.8 | 244.1 | 243.5 |
| 60°   | 1602.4 | 583.4 | 258.6 | 269.3 | 265.3 | 225.6 | 234.2 | 240.6 | 241.1 | 240.6 | 240.3 |
| 62.5° | 1666.6 | 564.6 | 249.9 | 266.9 | 256.2 | 217.4 | 225.4 | 234.7 | 234.9 | 235.9 | 235.8 |
| 65°   | 1612.1 | 508.2 | 233.9 | 258.4 | 240.8 | 210.7 | 217.8 | 228.0 | 225.4 | 230.0 | 230.0 |
| 66°   | 1559.1 | 475.7 | 225.9 | 252.9 | 234.2 | 208.1 | 215.3 | 224.5 | 221.2 | 227.6 | 227.6 |
| 67.5° | 1451.0 | 420.8 | 211.5 | 241.1 | 224.9 | 204.5 | 212.6 | 218.8 | 214.3 | 223.8 | 223.1 |
| 70°   | 1253.5 | 325.5 | 182.7 | 214.5 | 209.5 | 199.1 | 208.8 | 207.4 | 200.8 | 215.3 | 212.6 |
| 72.5° | 1056.8 | 247.3 | 146.7 | 179.5 | 186.1 | 192.3 | 203.4 | 192.9 | 184.6 | 194.8 | 188.7 |
| 75°   | 820.0  | 185.9 | 115.9 | 139.6 | 157.2 | 181.8 | 197.0 | 176.1 | 164.1 | 163.1 | 159.8 |
| 77.5° | 443.3  | 127.7 | 91.8  | 106.5 | 124.9 | 168.6 | 192.7 | 158.1 | 140.1 | 136.0 | 133.4 |
| 80°   | 175.6  | 83.0  | 66.8  | 80.8  | 87.3  | 149.6 | 182.3 | 137.2 | 115.5 | 111.4 | 107.4 |
| 82.5° | 72.5   | 49.1  | 43.1  | 54.1  | 56.9  | 128.0 | 163.6 | 112.4 | 89.3  | 123.5 | 131.1 |
| 85°   | 31.1   | 27.0  | 25.6  | 28.0  | 32.2  | 89.8  | 130.2 | 85.8  | 96.3  | 86.0  | 68.3  |
| 87.5° | 9.3    | 11.4  | 10.9  | 10.7  | 11.8  | 21.4  | 69.4  | 47.7  | 70.7  | 26.8  | 20.1  |
| 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)