

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: P398050

Luminaire Tested: **ARCH-S-PA1-80-730-U-T2R**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P398050  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/19/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-S-PA1-80-730-U-T2R  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9966 lumens  
Efficiency: N/A  
Efficacy: 120.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G2

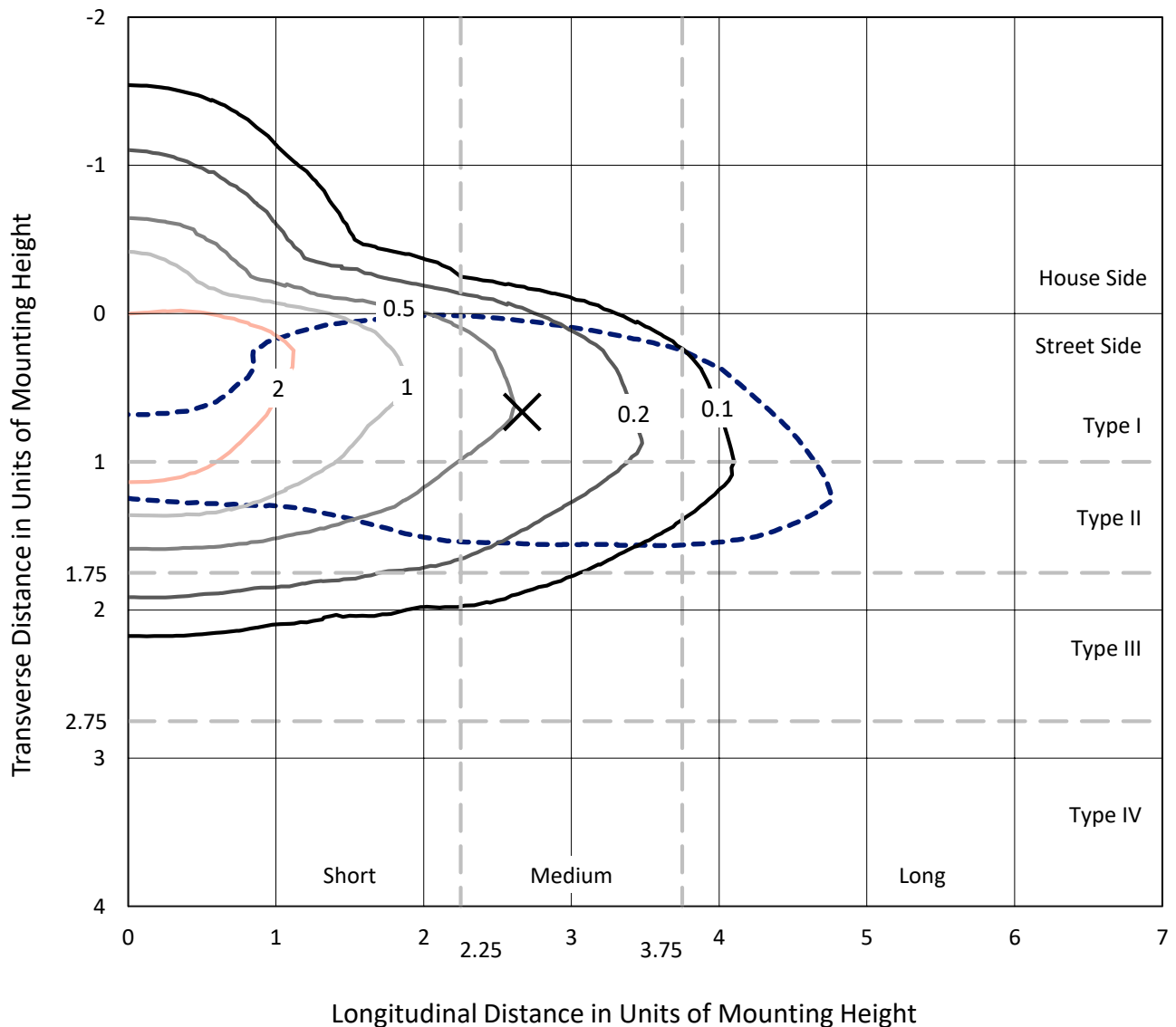
Input Watts (W): 83  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

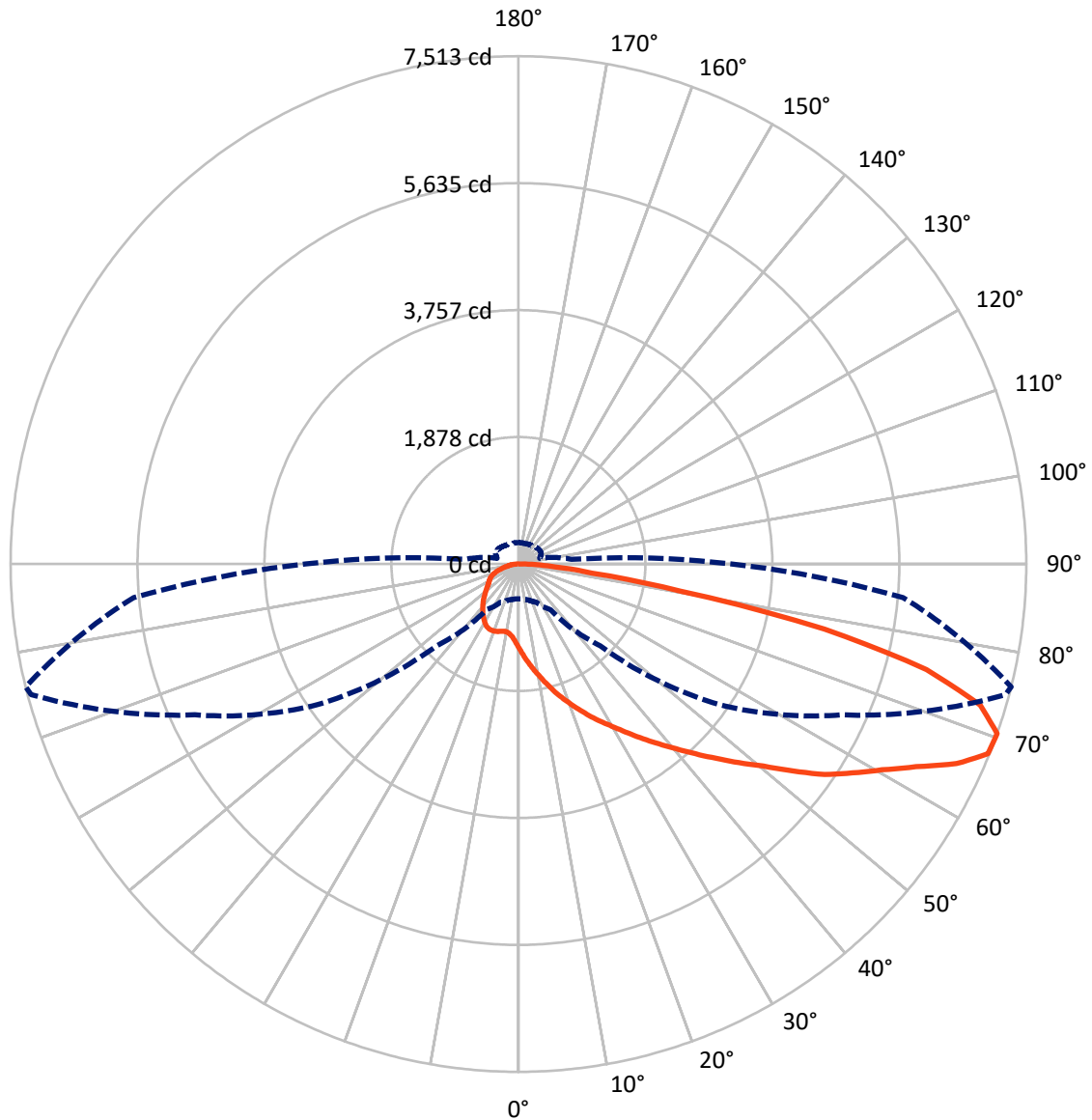
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc  
 Type II - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1627.0   | 0.0    | 1627.0 |
|                    | % Fixture | 16.3     | 0.0    | 16.3   |
| <b>Street Side</b> | Lumens    | 8339.0   | 0.0    | 8339.0 |
|                    | % Fixture | 83.7     | 0.0    | 83.7   |
| <b>Total</b>       | Lumens    | 9966.0   | 0.0    | 9966.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 129.5  | 1.3       |
| 10°-20°   | 440.1  | 4.4       |
| 20°-30°   | 787.4  | 7.9       |
| 30°-40°   | 1273.8 | 12.8      |
| 40°-50°   | 1842.7 | 18.5      |
| 50°-60°   | 2109.1 | 21.2      |
| 60°-70°   | 1940.1 | 19.5      |
| 70°-80°   | 1199.7 | 12.0      |
| 80°-90°   | 243.6  | 2.4       |
| 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°    | 9966.0 | 100.0     |
| 0°-180°   | 9966.0 | 100.0     |



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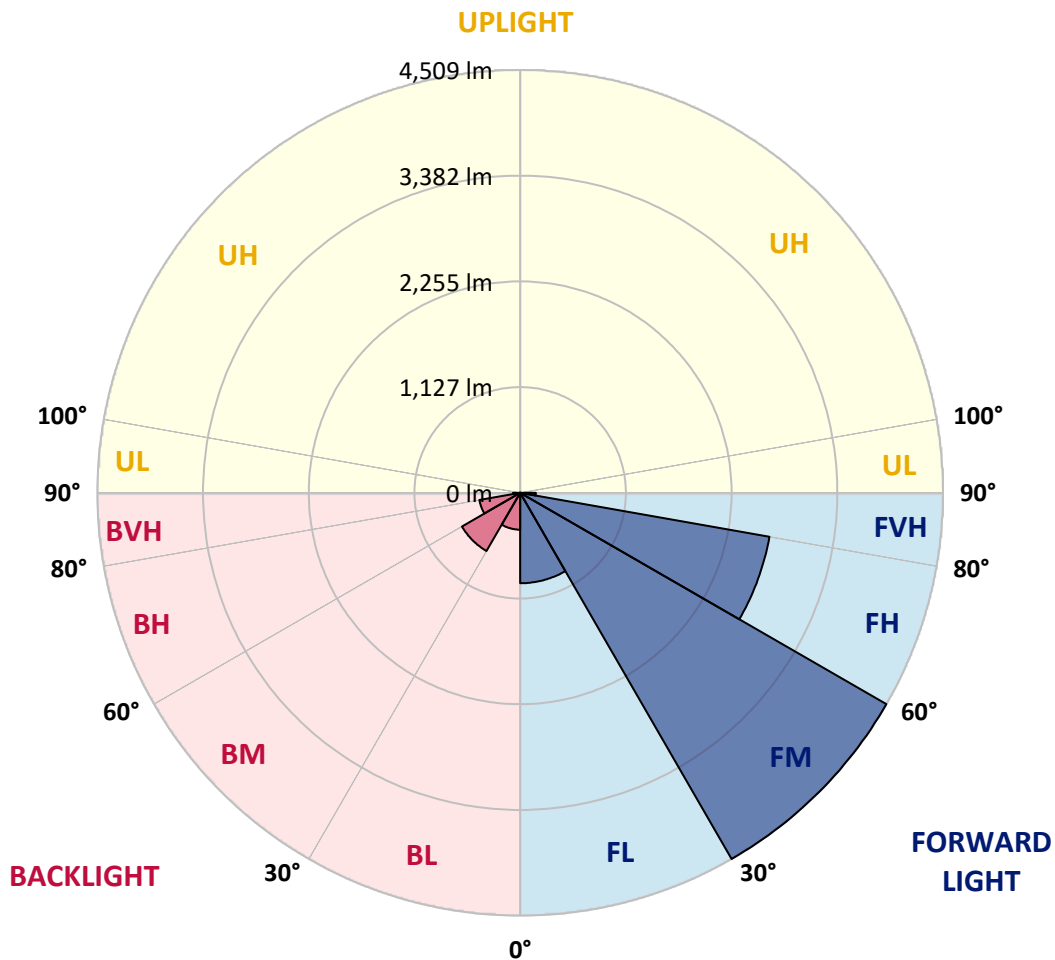
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 964.0  | 9.7       |                         |      |         |
| FM (30°-60°)   | 4509.1 | 45.2      |                         |      |         |
| FH (60°-80°)   | 2698.5 | 27.1      |                         |      | G2/5000 |
| FVH (80°-90°)  | 167.2  | 1.7       |                         |      | G2/225  |
| BL (0°-30°)    | 393.0  | 3.9       | B1/500                  |      |         |
| BM (30°-60°)   | 716.4  | 7.2       | B1/1000                 |      |         |
| BH (60°-80°)   | 441.3  | 4.4       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 76.4   | 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 II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 76°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1246.3 | 1246.3 | 1246.3 | 1246.3 | 1246.3 | 1246.3 | 1246.3 | 1246.3 | 1246.3 | 1246.3 | 1246.3 |
| 2.5°  | 1588.3 | 1576.5 | 1575.2 | 1556.9 | 1539.8 | 1494.0 | 1461.2 | 1403.6 | 1345.9 | 1344.6 | 1286.9 |
| 5°    | 1836.0 | 1824.2 | 1817.7 | 1795.4 | 1766.6 | 1706.3 | 1647.3 | 1558.2 | 1459.9 | 1453.4 | 1344.6 |
| 7.5°  | 2003.8 | 1993.3 | 1980.2 | 1971.0 | 1943.5 | 1889.7 | 1817.7 | 1711.5 | 1576.5 | 1563.4 | 1411.4 |
| 10°   | 2116.5 | 2109.9 | 2107.3 | 2100.7 | 2083.7 | 2040.5 | 1971.0 | 1858.3 | 1693.2 | 1678.8 | 1482.2 |
| 12.5° | 2165.0 | 2162.3 | 2174.1 | 2192.5 | 2199.0 | 2182.0 | 2115.2 | 2009.0 | 1821.6 | 1805.9 | 1567.4 |
| 15°   | 2108.6 | 2111.2 | 2141.4 | 2204.3 | 2271.1 | 2307.8 | 2268.5 | 2165.0 | 1967.1 | 1944.8 | 1667.0 |
| 17.5° | 2082.4 | 2086.3 | 2107.3 | 2167.6 | 2261.9 | 2375.9 | 2394.3 | 2313.0 | 2107.3 | 2075.8 | 1771.8 |
| 20°   | 2128.3 | 2133.5 | 2149.2 | 2196.4 | 2261.9 | 2383.8 | 2479.5 | 2454.6 | 2244.9 | 2212.1 | 1872.7 |
| 22.5° | 2244.9 | 2251.4 | 2250.1 | 2280.3 | 2324.8 | 2408.7 | 2526.7 | 2588.2 | 2389.1 | 2352.4 | 1977.6 |
| 25°   | 2493.9 | 2488.7 | 2444.1 | 2429.7 | 2441.5 | 2495.2 | 2589.6 | 2716.7 | 2539.8 | 2503.1 | 2087.6 |
| 27.5° | 2832.0 | 2825.5 | 2744.2 | 2670.8 | 2605.3 | 2628.9 | 2678.7 | 2820.2 | 2693.1 | 2651.2 | 2192.5 |
| 30°   | 3193.7 | 3185.8 | 3091.5 | 2972.2 | 2826.8 | 2792.7 | 2786.1 | 2910.6 | 2847.7 | 2803.2 | 2303.9 |
| 32.5° | 3546.2 | 3539.7 | 3438.8 | 3299.9 | 3099.3 | 2997.1 | 2934.2 | 3011.5 | 3023.3 | 2980.1 | 2425.7 |
| 35°   | 3867.3 | 3867.3 | 3780.8 | 3615.7 | 3389.0 | 3234.3 | 3130.8 | 3136.0 | 3225.2 | 3175.4 | 2564.7 |
| 37.5° | 4153.0 | 4151.7 | 4057.3 | 3894.8 | 3677.3 | 3500.4 | 3371.9 | 3286.7 | 3417.8 | 3374.6 | 2710.1 |
| 40°   | 4379.7 | 4370.5 | 4301.1 | 4159.5 | 3940.7 | 3765.1 | 3635.3 | 3463.7 | 3632.7 | 3593.4 | 2864.8 |
| 42.5° | 4544.8 | 4539.6 | 4492.4 | 4369.2 | 4160.9 | 3995.7 | 3906.6 | 3686.5 | 3876.5 | 3837.2 | 3045.6 |
| 45°   | 4609.0 | 4619.5 | 4619.5 | 4502.9 | 4337.8 | 4187.1 | 4147.8 | 3931.5 | 4139.9 | 4100.6 | 3239.6 |
| 47.5° | 4505.5 | 4533.0 | 4589.4 | 4597.3 | 4451.8 | 4349.6 | 4362.7 | 4177.9 | 4411.2 | 4390.2 | 3451.9 |
| 50°   | 4181.8 | 4232.9 | 4356.1 | 4578.9 | 4497.7 | 4474.1 | 4546.1 | 4429.5 | 4702.1 | 4695.5 | 3710.0 |
| 52.5° | 3347.0 | 3471.5 | 3855.5 | 4255.2 | 4466.2 | 4531.7 | 4728.3 | 4712.6 | 5076.9 | 5087.4 | 4046.8 |
| 55°   | 2567.3 | 2614.5 | 3058.7 | 3738.9 | 4273.6 | 4513.4 | 4850.2 | 4989.1 | 5483.2 | 5496.3 | 4356.1 |
| 57.5° | 2075.8 | 2107.3 | 2349.7 | 3058.7 | 3834.5 | 4413.8 | 4945.8 | 5150.3 | 5795.1 | 5829.1 | 4631.3 |
| 60°   | 1644.7 | 1690.6 | 1853.1 | 2340.6 | 3219.9 | 4174.0 | 5012.7 | 5329.8 | 6130.5 | 6181.7 | 4960.3 |
| 62.5° | 1222.7 | 1245.0 | 1398.3 | 1733.8 | 2548.9 | 3742.8 | 4977.3 | 5525.1 | 6542.0 | 6603.6 | 5356.0 |
| 65°   | 870.2  | 889.8  | 998.6  | 1233.2 | 1884.5 | 3159.6 | 4771.6 | 5670.6 | 7058.4 | 7121.3 | 5754.4 |
| 67.5° | 651.3  | 659.2  | 720.8  | 862.3  | 1269.9 | 2454.6 | 4354.8 | 5645.7 | 7435.8 | 7492.2 | 5914.3 |
| 70°   | 515.0  | 517.6  | 547.8  | 623.8  | 825.6  | 1708.9 | 3624.9 | 5280.0 | 7463.3 | 7513.1 | 5712.5 |
| 72.5° | 427.2  | 425.9  | 443.0  | 479.6  | 575.3  | 1081.2 | 2685.2 | 4601.2 | 7109.5 | 7143.6 | 5149.0 |
| 75°   | 352.5  | 355.1  | 366.9  | 387.9  | 439.0  | 712.9  | 1740.4 | 3670.7 | 6272.1 | 6235.4 | 4320.7 |
| 77.5° | 296.2  | 294.9  | 300.1  | 318.5  | 355.1  | 512.4  | 1019.6 | 2652.5 | 4648.4 | 4630.0 | 2835.9 |
| 80°   | 238.5  | 241.1  | 249.0  | 264.7  | 298.8  | 390.5  | 602.8  | 1655.2 | 2493.9 | 2427.1 | 1355.1 |
| 82.5° | 159.9  | 184.8  | 200.5  | 218.9  | 258.2  | 288.3  | 382.7  | 841.3  | 1115.2 | 1098.2 | 614.6  |
| 85°   | 76.0   | 100.9  | 149.4  | 170.4  | 209.7  | 180.8  | 259.5  | 401.0  | 558.3  | 551.7  | 221.5  |
| 87.5° | 15.7   | 15.7   | 79.9   | 95.7   | 129.7  | 77.3   | 144.2  | 174.3  | 270.0  | 252.9  | 90.4   |
| 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°    | 1246.3 | 1246.3 | 1246.3 | 1246.3 | 1246.3 | 1246.3 | 1246.3 | 1246.3 | 1246.3 | 1246.3 | 1246.3 |
| 2.5°  | 1252.8 | 1217.5 | 1146.7 | 1090.3 | 1032.7 | 999.9  | 959.3  | 939.6  | 935.7  | 925.2  | 933.1  |
| 5°    | 1275.1 | 1205.7 | 1072.0 | 984.2  | 925.2  | 896.4  | 882.0  | 876.7  | 875.4  | 872.8  | 872.8  |
| 7.5°  | 1305.3 | 1199.1 | 1024.8 | 935.7  | 897.7  | 888.5  | 892.5  | 900.3  | 901.6  | 904.2  | 902.9  |
| 10°   | 1342.0 | 1200.4 | 998.6  | 923.9  | 905.6  | 906.9  | 920.0  | 930.5  | 935.7  | 939.6  | 938.3  |
| 12.5° | 1393.1 | 1216.1 | 994.7  | 931.8  | 923.9  | 929.1  | 942.3  | 952.7  | 958.0  | 959.3  | 959.3  |
| 15°   | 1459.9 | 1248.9 | 1003.8 | 948.8  | 942.3  | 946.2  | 954.0  | 958.0  | 959.3  | 958.0  | 958.0  |
| 17.5° | 1533.3 | 1288.2 | 1017.0 | 959.3  | 948.8  | 944.9  | 942.3  | 938.3  | 930.5  | 925.2  | 925.2  |
| 20°   | 1604.1 | 1323.6 | 1023.5 | 958.0  | 939.6  | 923.9  | 908.2  | 888.5  | 875.4  | 864.9  | 864.9  |
| 22.5° | 1674.8 | 1356.4 | 1023.5 | 943.6  | 914.7  | 884.6  | 851.8  | 820.4  | 800.7  | 787.6  | 787.6  |
| 25°   | 1749.5 | 1387.8 | 1015.6 | 918.7  | 875.4  | 832.2  | 787.6  | 748.3  | 728.6  | 715.5  | 712.9  |
| 27.5° | 1812.4 | 1406.2 | 994.7  | 883.3  | 826.9  | 771.9  | 720.8  | 680.2  | 665.7  | 653.9  | 653.9  |
| 30°   | 1879.3 | 1418.0 | 955.4  | 837.4  | 771.9  | 709.0  | 656.6  | 623.8  | 608.1  | 591.0  | 589.7  |
| 32.5° | 1954.0 | 1425.8 | 910.8  | 788.9  | 715.5  | 648.7  | 604.1  | 577.9  | 543.9  | 525.5  | 522.9  |
| 35°   | 2040.5 | 1436.3 | 863.6  | 733.9  | 659.2  | 598.9  | 572.7  | 529.4  | 496.7  | 481.0  | 479.6  |
| 37.5° | 2132.2 | 1444.2 | 812.5  | 685.4  | 608.1  | 566.1  | 539.9  | 488.8  | 460.0  | 436.4  | 433.8  |
| 40°   | 2229.2 | 1444.2 | 760.1  | 638.2  | 567.4  | 551.7  | 501.9  | 456.1  | 407.6  | 395.8  | 393.2  |
| 42.5° | 2336.6 | 1441.6 | 707.7  | 592.3  | 529.4  | 519.0  | 479.6  | 431.2  | 406.3  | 395.8  | 393.2  |
| 45°   | 2450.6 | 1432.4 | 657.9  | 539.9  | 490.1  | 469.2  | 439.0  | 425.9  | 415.4  | 415.4  | 415.4  |
| 47.5° | 2580.4 | 1424.5 | 601.5  | 492.8  | 461.3  | 437.7  | 415.4  | 407.6  | 406.3  | 410.2  | 414.1  |
| 50°   | 2746.8 | 1421.9 | 554.3  | 458.7  | 439.0  | 411.5  | 408.9  | 402.3  | 403.6  | 403.6  | 403.6  |
| 52.5° | 2948.6 | 1398.3 | 509.8  | 433.8  | 416.7  | 384.0  | 391.8  | 398.4  | 401.0  | 399.7  | 398.4  |
| 55°   | 3096.7 | 1356.4 | 471.8  | 416.7  | 401.0  | 373.5  | 384.0  | 394.5  | 397.1  | 393.2  | 393.2  |
| 57.5° | 3230.4 | 1297.4 | 441.6  | 403.6  | 390.5  | 366.9  | 378.7  | 389.2  | 386.6  | 385.3  | 384.0  |
| 60°   | 3383.7 | 1241.0 | 418.1  | 397.1  | 380.0  | 364.3  | 374.8  | 381.4  | 377.4  | 374.8  | 373.5  |
| 62.5° | 3550.2 | 1186.0 | 401.0  | 397.1  | 372.2  | 363.0  | 370.9  | 373.5  | 365.6  | 363.0  | 363.0  |
| 65°   | 3627.5 | 1099.5 | 382.7  | 397.1  | 368.3  | 360.4  | 363.0  | 360.4  | 352.5  | 352.5  | 351.2  |
| 67.5° | 3500.4 | 956.7  | 359.1  | 391.8  | 373.5  | 356.5  | 351.2  | 347.3  | 338.1  | 338.1  | 335.5  |
| 70°   | 3149.1 | 786.3  | 325.0  | 374.8  | 374.8  | 355.1  | 335.5  | 326.3  | 315.8  | 319.8  | 314.5  |
| 72.5° | 2690.5 | 623.8  | 283.1  | 346.0  | 366.9  | 353.8  | 318.5  | 304.0  | 294.9  | 298.8  | 290.9  |
| 75°   | 2179.4 | 483.6  | 233.3  | 300.1  | 347.3  | 347.3  | 301.4  | 281.8  | 271.3  | 271.3  | 262.1  |
| 77.5° | 1389.1 | 357.8  | 190.0  | 249.0  | 311.9  | 338.1  | 287.0  | 256.9  | 241.1  | 237.2  | 230.6  |
| 80°   | 688.0  | 251.6  | 156.0  | 197.9  | 266.0  | 317.1  | 276.5  | 228.0  | 205.7  | 197.9  | 186.1  |
| 82.5° | 365.6  | 174.3  | 124.5  | 154.6  | 212.3  | 285.7  | 263.4  | 196.6  | 169.1  | 157.3  | 144.2  |
| 85°   | 163.8  | 107.5  | 99.6   | 117.9  | 161.2  | 234.6  | 237.2  | 161.2  | 129.7  | 154.6  | 114.0  |
| 87.5° | 60.3   | 48.5   | 48.5   | 60.3   | 93.0   | 98.3   | 167.7  | 103.5  | 82.6   | 56.4   | 44.6   |
| 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)