

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: INVUE

Report Number: P472212

Luminaire Tested: **CCP-VA-6-860-U-T4W**

Issue Date: 01/27/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P472212  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCP-VA-6-860-U-T4W  
Description: INVUE CLEARCURVE POLE MOUNT Wave Stream LUMINAIRE WITH T4W  
DISTRIBUTION LENS  
Light Source: 5700K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

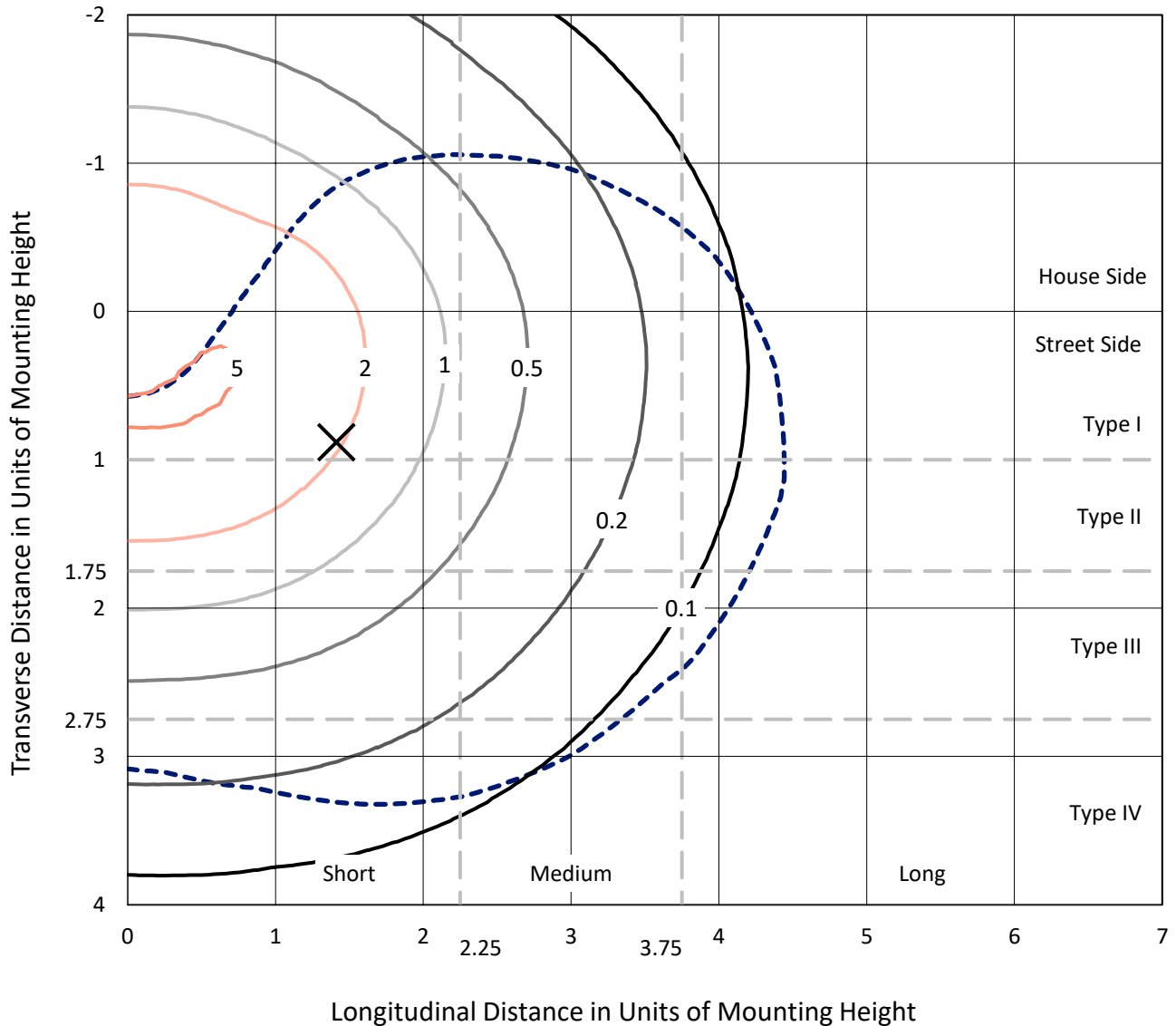
Lumens per Lamp: N/A  
Luminaire Lumens: 9793.9 lumens  
Efficiency: N/A  
Efficacy: 96.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.54' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G3

Input Watts (W): 101.1  
Input Voltage (V): 120  
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: 25 FT

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### Iso-Footcandle Lines of Horizontal Illumination

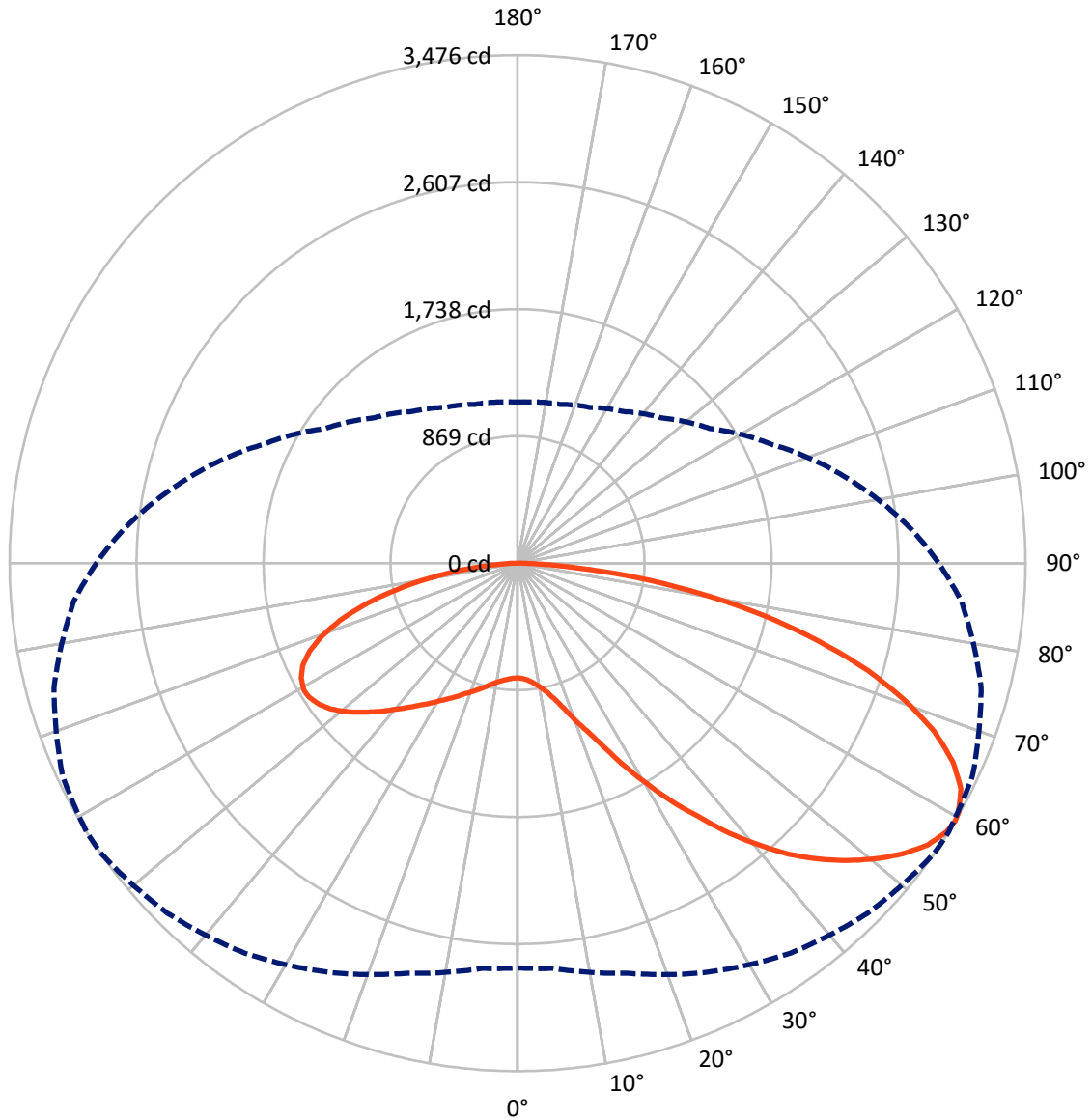
✕ Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 5.3 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral      - - - Horizontal Cone Through 59-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 3492.9   | 0.0    | 3492.9 |
|                    | % Fixture | 35.7     | 0.0    | 35.7   |
| <b>Street Side</b> | Lumens    | 6301.0   | 0.0    | 6301.0 |
|                    | % Fixture | 64.3     | 0.0    | 64.3   |
| <b>Total</b>       | Lumens    | 9793.9   | 0.0    | 9793.9 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 77.9   | 0.8       |
| 10°-20°   | 265.7  | 2.7       |
| 20°-30°   | 560.7  | 5.7       |
| 30°-40°   | 1031.9 | 10.5      |
| 40°-50°   | 1608.5 | 16.4      |
| 50°-60°   | 2113.5 | 21.6      |
| 60°-70°   | 2214.7 | 22.6      |
| 70°-80°   | 1535.5 | 15.7      |
| 80°-90°   | 385.6  | 3.9       |
| 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°    | 9793.9 | 100.0     |
| 0°-180°   | 9793.9 | 100.0     |



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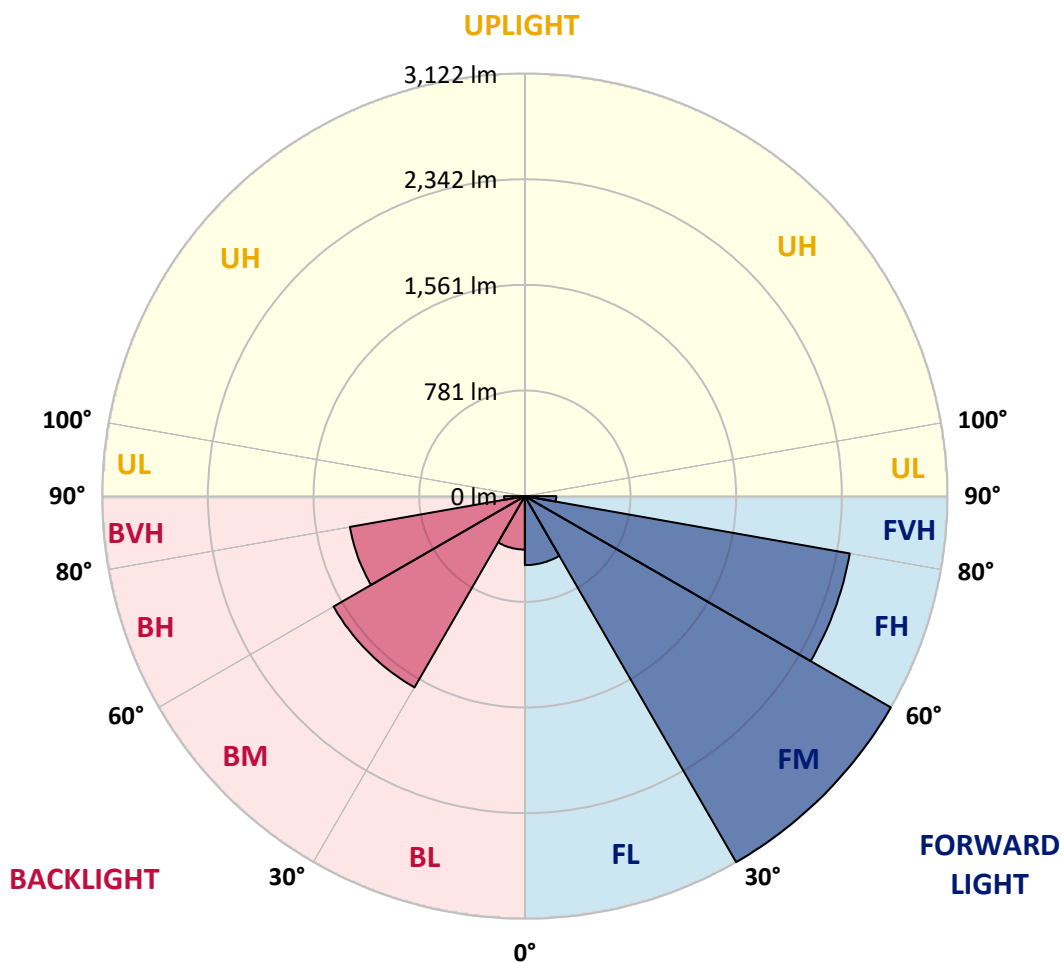
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 509.5  | 5.2       |                         |      |         |
| FM (30°-60°)   | 3122.1 | 31.9      |                         |      |         |
| FH (60°-80°)   | 2437.7 | 24.9      |                         |      | G2/5000 |
| FVH (80°-90°)  | 231.7  | 2.4       |                         |      | G3/500  |
| BL (0°-30°)    | 394.8  | 4.0       | B1/500                  |      |         |
| BM (30°-60°)   | 1631.8 | 16.7      | B2/2500                 |      |         |
| BH (60°-80°)   | 1312.4 | 13.4      | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 153.9  | 1.6       |                         |      | G2/225  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 58°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 785.1  | 785.1  | 785.1  | 785.1  | 785.1  | 785.1  | 785.1  | 785.1  | 785.1  | 785.1  | 785.1  |
| 2.5°  | 796.2  | 796.2  | 796.2  | 794.0  | 794.0  | 794.0  | 791.8  | 791.8  | 791.8  | 789.5  | 787.3  |
| 5°    | 813.8  | 813.8  | 811.6  | 813.8  | 811.6  | 809.4  | 807.2  | 807.2  | 807.2  | 805.0  | 802.8  |
| 7.5°  | 838.1  | 840.3  | 838.1  | 840.3  | 838.1  | 835.9  | 831.4  | 831.4  | 829.2  | 824.8  | 820.4  |
| 10°   | 875.6  | 875.6  | 875.6  | 873.4  | 871.1  | 868.9  | 866.7  | 864.5  | 862.3  | 855.7  | 849.1  |
| 12.5° | 921.9  | 921.9  | 921.9  | 917.5  | 917.5  | 913.0  | 910.8  | 908.6  | 904.2  | 895.4  | 886.6  |
| 15°   | 979.2  | 977.0  | 983.6  | 983.6  | 981.4  | 981.4  | 974.8  | 970.4  | 966.0  | 952.7  | 932.9  |
| 17.5° | 1056.4 | 1054.2 | 1060.8 | 1065.2 | 1065.2 | 1067.4 | 1056.4 | 1052.0 | 1036.6 | 1018.9 | 992.4  |
| 20°   | 1160.1 | 1155.6 | 1162.3 | 1166.7 | 1162.3 | 1166.7 | 1155.6 | 1157.9 | 1135.8 | 1104.9 | 1063.0 |
| 22.5° | 1272.5 | 1272.5 | 1279.2 | 1279.2 | 1281.4 | 1285.8 | 1272.5 | 1265.9 | 1248.3 | 1204.2 | 1151.2 |
| 25°   | 1411.5 | 1422.5 | 1422.5 | 1422.5 | 1431.3 | 1433.5 | 1420.3 | 1409.3 | 1385.0 | 1325.5 | 1252.7 |
| 27.5° | 1581.3 | 1579.1 | 1576.9 | 1590.1 | 1590.1 | 1594.5 | 1585.7 | 1581.3 | 1552.6 | 1479.8 | 1369.6 |
| 30°   | 1762.1 | 1748.9 | 1757.7 | 1762.1 | 1771.0 | 1777.6 | 1768.8 | 1755.5 | 1720.2 | 1640.8 | 1504.1 |
| 32.5° | 1927.5 | 1936.4 | 1949.6 | 1954.0 | 1967.2 | 1969.5 | 1947.4 | 1947.4 | 1912.1 | 1810.7 | 1669.5 |
| 35°   | 2115.0 | 2115.0 | 2150.3 | 2165.7 | 2165.7 | 2179.0 | 2145.9 | 2128.2 | 2104.0 | 1998.1 | 1819.5 |
| 37.5° | 2278.2 | 2282.6 | 2311.3 | 2346.6 | 2351.0 | 2370.8 | 2346.6 | 2340.0 | 2295.9 | 2187.8 | 1989.3 |
| 40°   | 2430.4 | 2434.8 | 2470.1 | 2512.0 | 2536.2 | 2567.1 | 2542.9 | 2531.8 | 2485.5 | 2362.0 | 2159.1 |
| 42.5° | 2549.5 | 2558.3 | 2602.4 | 2664.2 | 2703.9 | 2741.4 | 2730.3 | 2723.7 | 2659.8 | 2529.6 | 2315.7 |
| 45°   | 2639.9 | 2655.3 | 2717.1 | 2789.9 | 2845.0 | 2900.1 | 2902.3 | 2889.1 | 2829.6 | 2684.0 | 2467.9 |
| 47.5° | 2712.7 | 2730.3 | 2798.7 | 2891.3 | 2975.1 | 3043.5 | 3056.7 | 3041.3 | 2986.2 | 2834.0 | 2604.6 |
| 50°   | 2772.2 | 2781.1 | 2858.2 | 2977.3 | 3081.0 | 3167.0 | 3193.5 | 3180.2 | 3131.7 | 2959.7 | 2723.7 |
| 52.5° | 2803.1 | 2816.3 | 2904.6 | 3041.3 | 3167.0 | 3270.7 | 3310.4 | 3303.7 | 3246.4 | 3074.4 | 2829.6 |
| 55°   | 2818.5 | 2831.8 | 2935.4 | 3092.0 | 3233.2 | 3354.5 | 3403.0 | 3405.2 | 3350.1 | 3178.0 | 2928.8 |
| 57.5° | 2800.9 | 2818.5 | 2931.0 | 3105.2 | 3261.8 | 3392.0 | 3466.9 | 3464.7 | 3420.6 | 3257.4 | 3012.6 |
| 59°   | 2770.0 | 2783.3 | 2904.6 | 3087.6 | 3257.4 | 3387.5 | 3473.6 | 3475.8 | 3436.1 | 3283.9 | 3050.1 |
| 60°   | 2734.7 | 2750.2 | 2873.7 | 3065.6 | 3239.8 | 3372.1 | 3462.5 | 3466.9 | 3433.9 | 3290.5 | 3065.6 |
| 62.5° | 2613.4 | 2633.3 | 2770.0 | 2975.1 | 3164.8 | 3290.5 | 3398.6 | 3405.2 | 3387.5 | 3272.9 | 3076.6 |
| 65°   | 2443.6 | 2461.3 | 2609.0 | 2827.4 | 3025.9 | 3156.0 | 3257.4 | 3272.9 | 3270.7 | 3193.5 | 3032.5 |
| 67.5° | 2236.3 | 2238.5 | 2377.5 | 2615.6 | 2823.0 | 2950.9 | 3047.9 | 3074.4 | 3094.2 | 3043.5 | 2902.3 |
| 70°   | 1987.1 | 1984.9 | 2119.4 | 2355.4 | 2562.7 | 2697.2 | 2794.3 | 2811.9 | 2862.7 | 2823.0 | 2708.3 |
| 72.5° | 1678.3 | 1704.8 | 1830.5 | 2029.0 | 2234.1 | 2384.1 | 2470.1 | 2503.2 | 2531.8 | 2540.7 | 2445.8 |
| 75°   | 1387.2 | 1415.9 | 1515.1 | 1700.4 | 1876.8 | 2015.8 | 2108.4 | 2123.8 | 2176.8 | 2190.0 | 2101.8 |
| 77.5° | 1109.3 | 1111.5 | 1184.3 | 1332.1 | 1493.1 | 1607.8 | 1682.7 | 1722.4 | 1751.1 | 1777.6 | 1685.0 |
| 80°   | 778.5  | 789.5  | 840.3  | 946.1  | 1071.8 | 1193.1 | 1254.9 | 1281.4 | 1301.2 | 1318.8 | 1288.0 |
| 82.5° | 487.4  | 491.8  | 524.9  | 588.9  | 674.9  | 743.2  | 807.2  | 829.2  | 833.7  | 873.4  | 868.9  |
| 85°   | 231.6  | 233.8  | 255.8  | 286.7  | 324.2  | 379.3  | 403.6  | 403.6  | 434.5  | 463.1  | 463.1  |
| 87.5° | 30.9   | 30.9   | 37.5   | 41.9   | 52.9   | 68.4   | 94.8   | 97.0   | 114.7  | 127.9  | 138.9  |
| 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°    | 785.1  | 785.1  | 785.1  | 785.1  | 785.1  | 785.1  | 785.1  | 785.1  | 785.1  | 785.1  | 785.1  |
| 2.5°  | 787.3  | 787.3  | 787.3  | 787.3  | 787.3  | 785.1  | 787.3  | 787.3  | 787.3  | 787.3  | 787.3  |
| 5°    | 802.8  | 800.6  | 798.4  | 796.2  | 796.2  | 794.0  | 794.0  | 794.0  | 794.0  | 794.0  | 794.0  |
| 7.5°  | 818.2  | 816.0  | 813.8  | 809.4  | 807.2  | 805.0  | 805.0  | 802.8  | 802.8  | 802.8  | 802.8  |
| 10°   | 844.7  | 842.5  | 833.7  | 827.0  | 822.6  | 820.4  | 818.2  | 816.0  | 813.8  | 813.8  | 813.8  |
| 12.5° | 880.0  | 875.6  | 860.1  | 851.3  | 844.7  | 840.3  | 835.9  | 833.7  | 831.4  | 829.2  | 829.2  |
| 15°   | 924.1  | 913.0  | 893.2  | 880.0  | 871.1  | 864.5  | 857.9  | 853.5  | 851.3  | 849.1  | 849.1  |
| 17.5° | 977.0  | 963.8  | 937.3  | 913.0  | 897.6  | 886.6  | 877.8  | 871.1  | 868.9  | 868.9  | 868.9  |
| 20°   | 1043.2 | 1021.1 | 983.6  | 950.5  | 926.3  | 910.8  | 897.6  | 891.0  | 888.8  | 886.6  | 884.4  |
| 22.5° | 1120.4 | 1091.7 | 1036.6 | 985.8  | 955.0  | 932.9  | 917.5  | 908.6  | 902.0  | 899.8  | 899.8  |
| 25°   | 1208.6 | 1166.7 | 1093.9 | 1032.1 | 990.2  | 959.4  | 939.5  | 928.5  | 917.5  | 913.0  | 913.0  |
| 27.5° | 1314.4 | 1259.3 | 1162.3 | 1080.7 | 1023.3 | 985.8  | 963.8  | 948.3  | 937.3  | 928.5  | 924.1  |
| 30°   | 1429.1 | 1367.4 | 1237.2 | 1133.6 | 1060.8 | 1018.9 | 992.4  | 974.8  | 959.4  | 943.9  | 941.7  |
| 32.5° | 1574.7 | 1486.5 | 1327.7 | 1193.1 | 1104.9 | 1052.0 | 1021.1 | 999.1  | 979.2  | 963.8  | 959.4  |
| 35°   | 1722.4 | 1616.6 | 1422.5 | 1254.9 | 1146.8 | 1082.9 | 1045.4 | 1021.1 | 1001.3 | 983.6  | 981.4  |
| 37.5° | 1874.6 | 1762.1 | 1526.2 | 1327.7 | 1195.3 | 1118.2 | 1071.8 | 1045.4 | 1021.1 | 1003.5 | 1001.3 |
| 40°   | 2033.4 | 1901.1 | 1632.0 | 1402.7 | 1246.1 | 1153.4 | 1100.5 | 1067.4 | 1041.0 | 1025.5 | 1023.3 |
| 42.5° | 2183.4 | 2040.0 | 1746.7 | 1490.9 | 1305.6 | 1190.9 | 1129.2 | 1093.9 | 1060.8 | 1045.4 | 1043.2 |
| 45°   | 2326.7 | 2172.4 | 1861.4 | 1572.5 | 1365.2 | 1230.6 | 1157.9 | 1115.9 | 1080.7 | 1065.2 | 1063.0 |
| 47.5° | 2456.9 | 2302.5 | 1967.2 | 1660.7 | 1426.9 | 1274.7 | 1188.7 | 1138.0 | 1098.3 | 1082.9 | 1082.9 |
| 50°   | 2573.7 | 2412.7 | 2070.9 | 1742.3 | 1484.3 | 1318.8 | 1215.2 | 1157.9 | 1118.2 | 1102.7 | 1100.5 |
| 52.5° | 2684.0 | 2509.8 | 2161.3 | 1812.9 | 1539.4 | 1358.5 | 1241.7 | 1173.3 | 1131.4 | 1113.7 | 1111.5 |
| 55°   | 2772.2 | 2598.0 | 2236.3 | 1870.2 | 1576.9 | 1385.0 | 1259.3 | 1182.1 | 1135.8 | 1120.4 | 1118.2 |
| 57.5° | 2849.4 | 2670.8 | 2289.2 | 1909.9 | 1601.1 | 1400.4 | 1268.1 | 1182.1 | 1133.6 | 1115.9 | 1113.7 |
| 59°   | 2882.5 | 2701.7 | 2306.9 | 1920.9 | 1605.6 | 1402.7 | 1265.9 | 1175.5 | 1124.8 | 1107.1 | 1102.7 |
| 60°   | 2900.1 | 2714.9 | 2313.5 | 1923.1 | 1603.3 | 1398.2 | 1263.7 | 1168.9 | 1115.9 | 1096.1 | 1096.1 |
| 62.5° | 2917.8 | 2725.9 | 2304.7 | 1905.5 | 1579.1 | 1374.0 | 1241.7 | 1142.4 | 1082.9 | 1060.8 | 1060.8 |
| 65°   | 2880.3 | 2686.2 | 2254.0 | 1857.0 | 1530.6 | 1332.1 | 1199.8 | 1098.3 | 1032.1 | 1010.1 | 1010.1 |
| 67.5° | 2770.0 | 2589.2 | 2161.3 | 1766.6 | 1451.2 | 1259.3 | 1131.4 | 1027.7 | 966.0  | 941.7  | 935.1  |
| 70°   | 2582.6 | 2430.4 | 2015.8 | 1636.4 | 1343.1 | 1166.7 | 1045.4 | 946.1  | 882.2  | 857.9  | 849.1  |
| 72.5° | 2331.1 | 2181.2 | 1821.7 | 1477.6 | 1199.8 | 1045.4 | 939.5  | 844.7  | 774.1  | 749.8  | 752.1  |
| 75°   | 1984.9 | 1879.0 | 1570.3 | 1276.9 | 1034.3 | 891.0  | 802.8  | 723.4  | 663.8  | 644.0  | 646.2  |
| 77.5° | 1610.0 | 1521.7 | 1272.5 | 1041.0 | 844.7  | 734.4  | 659.4  | 595.5  | 555.8  | 544.7  | 538.1  |
| 80°   | 1232.8 | 1146.8 | 955.0  | 776.3  | 641.8  | 564.6  | 513.9  | 469.8  | 438.9  | 423.4  | 427.9  |
| 82.5° | 827.0  | 774.1  | 633.0  | 513.9  | 436.7  | 381.5  | 363.9  | 335.2  | 324.2  | 315.4  | 322.0  |
| 85°   | 445.5  | 399.2  | 330.8  | 275.7  | 240.4  | 225.0  | 229.4  | 227.2  | 218.3  | 216.1  | 222.7  |
| 87.5° | 145.6  | 125.7  | 97.0   | 81.6   | 83.8   | 75.0   | 75.0   | 70.6   | 64.0   | 61.8   | 66.2   |
| 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)