

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: P671572

Luminaire Tested: **CCP-SA-1F-827-U-SL4**

Issue Date: 04/16/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P671572  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/16/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCP-SA-1F-827-U-SL4  
Description: INVUE CLEAR CURVE POLE MOUNT LIGHT SQUARE LUMINAIRE @1200mA w/ SL4  
distribution lens  
Light Source: (16) 2700K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5400.9 lumens  
Efficiency: N/A  
Efficacy: 80.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

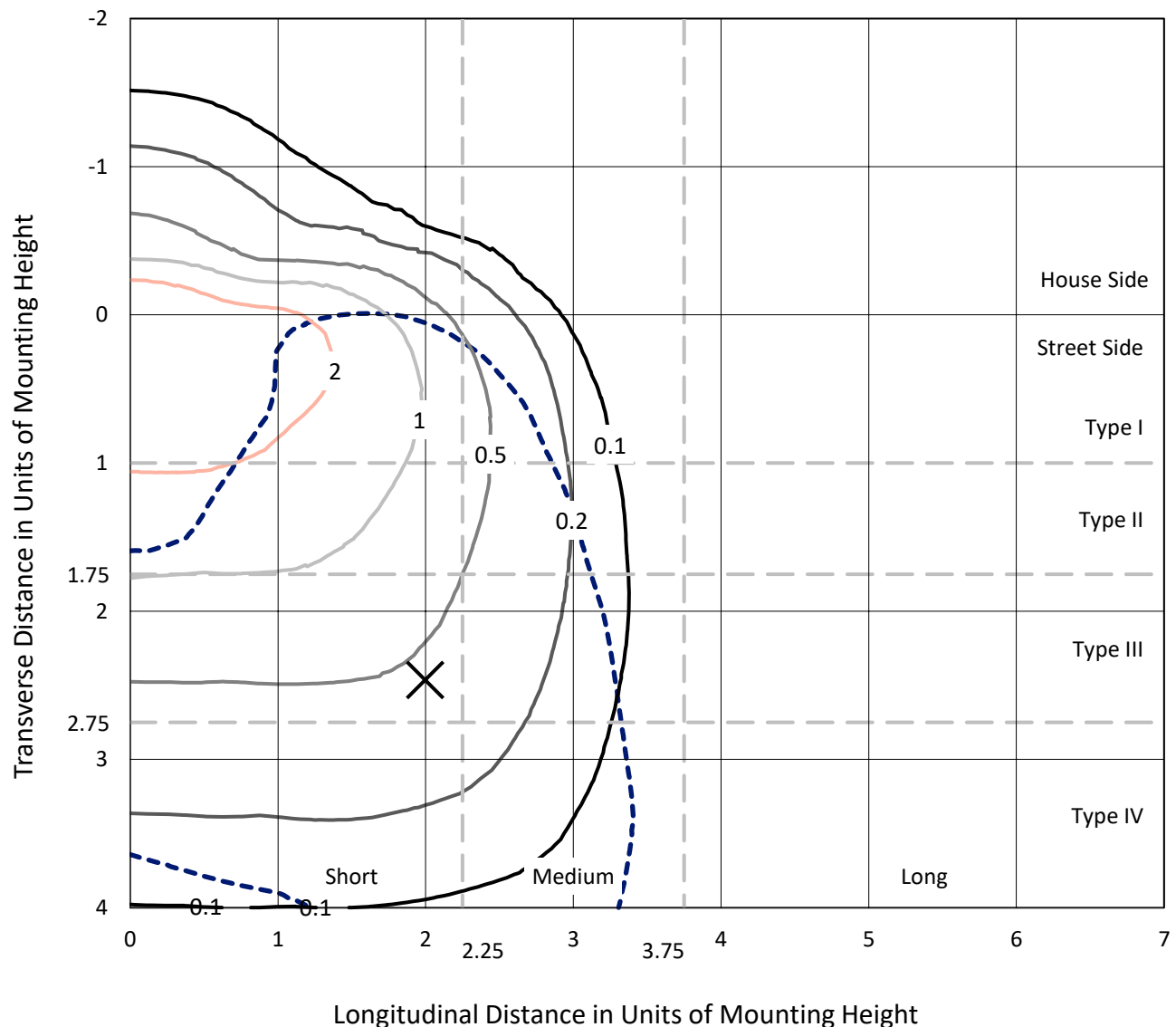
Input Watts (W): 67  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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## Iso-Footcandle Lines of Horizontal Illumination

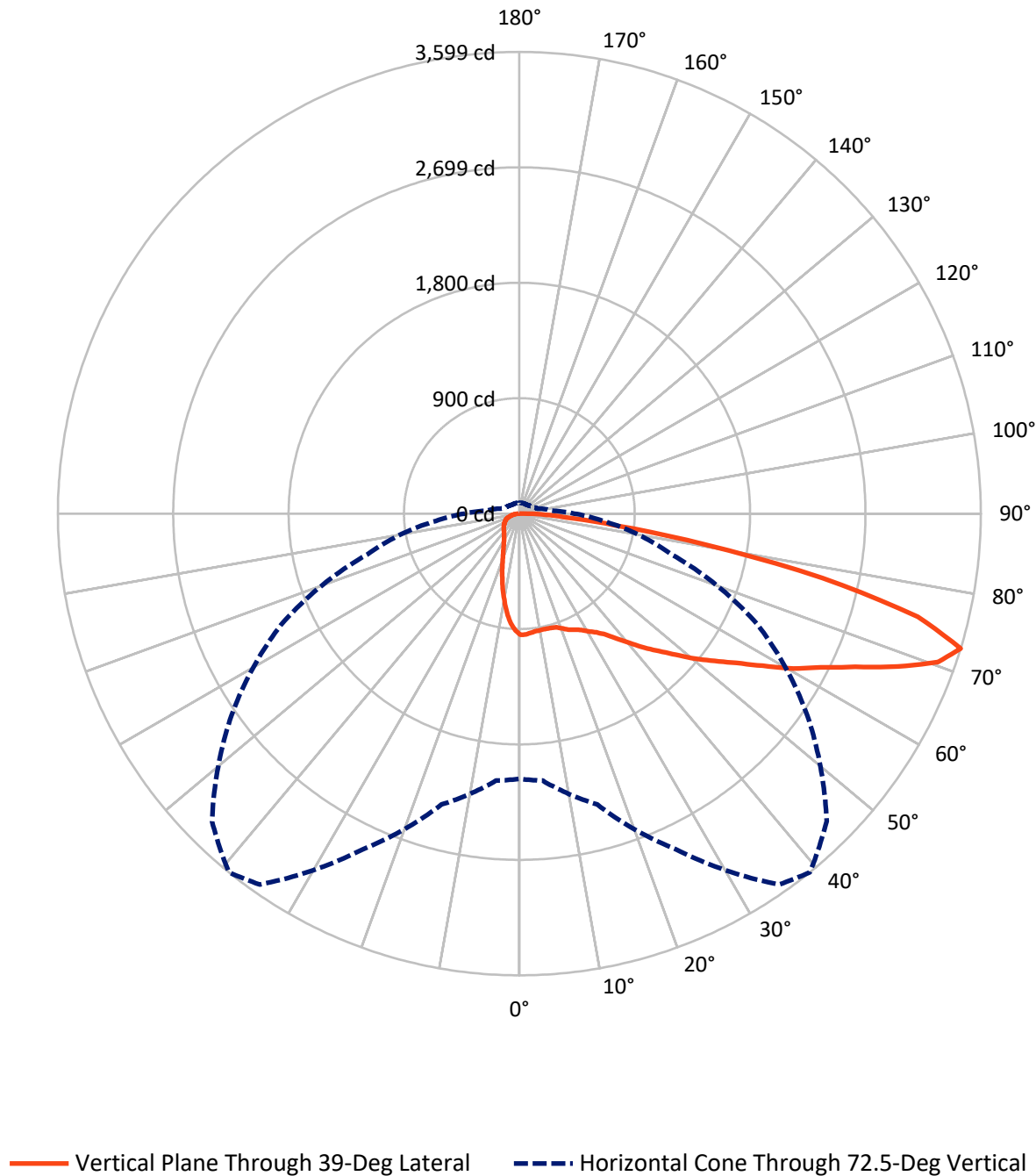
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4.2 fc  
 Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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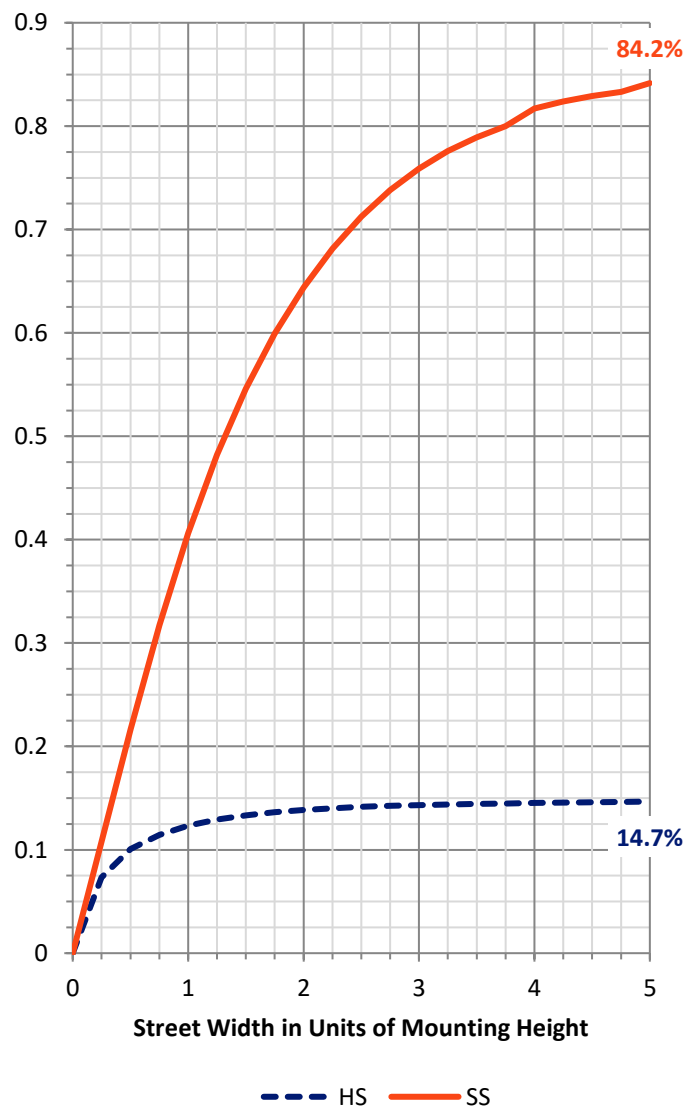
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 802.7    | 0.0    | 802.7  |
|                    | % Fixture | 14.9     | 0.0    | 14.9   |
| <b>Street Side</b> | Lumens    | 4598.2   | 0.0    | 4598.2 |
|                    | % Fixture | 85.1     | 0.0    | 85.1   |
| <b>Total</b>       | Lumens    | 5400.9   | 0.0    | 5400.9 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 83.5   | 1.5       |
| 10°-20°   | 213.2  | 3.9       |
| 20°-30°   | 324.8  | 6.0       |
| 30°-40°   | 475.2  | 8.8       |
| 40°-50°   | 727.5  | 13.5      |
| 50°-60°   | 1066.9 | 19.8      |
| 60°-70°   | 1360.7 | 25.2      |
| 70°-80°   | 983.1  | 18.2      |
| 80°-90°   | 165.8  | 3.1       |
| 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°    | 5400.9 | 100.0     |
| 0°-180°   | 5400.9 | 100.0     |

**Coefficient of Utilization**



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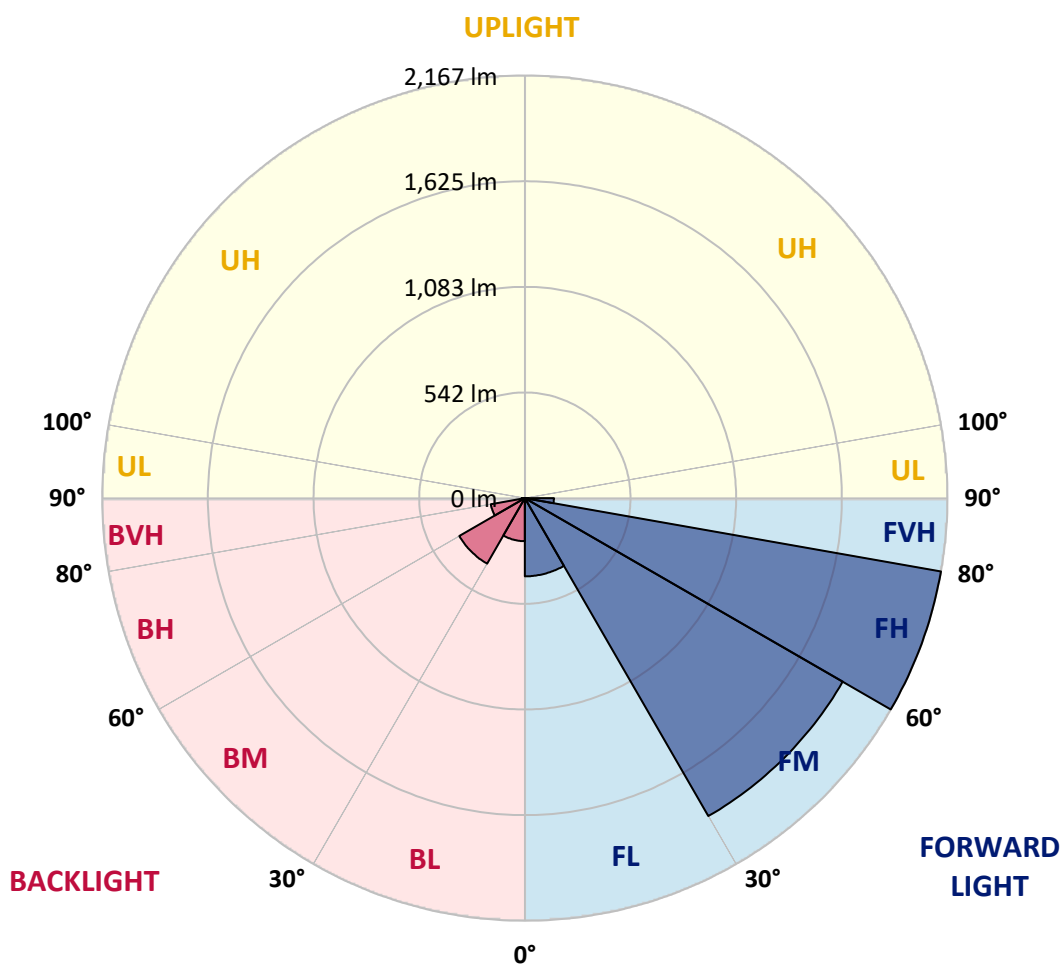
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 400.8  | 7.4       |                         |      |         |
| FM   | (30°-60°)   | 1881.8 | 34.8      |                         |      |         |
| FH   | (60°-80°)   | 2166.5 | 40.1      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 149.0  | 2.8       |                         |      | G2/225  |
| BL   | (0°-30°)    | 220.7  | 4.1       | B1/500                  |      |         |
| BM   | (30°-60°)   | 387.8  | 7.2       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 177.4  | 3.3       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 16.8   | 0.3       |                         |      | 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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 39°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 945.4  | 945.4  | 945.4  | 945.4  | 945.4  | 945.4  | 945.4  | 945.4  | 945.4  | 945.4  | 945.4  |
| 2.5°  | 959.6  | 961.6  | 957.6  | 953.5  | 951.5  | 943.4  | 951.5  | 947.4  | 943.4  | 943.4  | 943.4  |
| 5°    | 947.4  | 949.4  | 949.4  | 945.4  | 947.4  | 933.2  | 931.2  | 933.2  | 927.1  | 923.1  | 921.0  |
| 7.5°  | 929.2  | 933.2  | 941.3  | 939.3  | 931.2  | 925.1  | 927.1  | 925.1  | 915.0  | 908.9  | 892.6  |
| 10°   | 915.0  | 919.0  | 923.1  | 927.1  | 925.1  | 923.1  | 921.0  | 912.9  | 910.9  | 896.7  | 880.5  |
| 12.5° | 900.8  | 900.8  | 902.8  | 919.0  | 921.0  | 921.0  | 908.9  | 908.9  | 902.8  | 900.8  | 876.4  |
| 15°   | 886.6  | 892.6  | 908.9  | 912.9  | 921.0  | 925.1  | 919.0  | 919.0  | 908.9  | 894.7  | 876.4  |
| 17.5° | 890.6  | 900.8  | 917.0  | 927.1  | 931.2  | 931.2  | 939.3  | 933.2  | 919.0  | 910.9  | 892.6  |
| 20°   | 910.9  | 912.9  | 933.2  | 951.5  | 955.5  | 955.5  | 947.4  | 941.3  | 931.2  | 917.0  | 892.6  |
| 22.5° | 923.1  | 937.3  | 961.6  | 971.8  | 983.9  | 983.9  | 973.8  | 959.6  | 945.4  | 931.2  | 904.8  |
| 25°   | 975.8  | 977.9  | 988.0  | 1004.2 | 1010.3 | 1002.2 | 992.1  | 975.8  | 957.6  | 943.4  | 919.0  |
| 27.5° | 1012.3 | 1022.5 | 1034.7 | 1042.8 | 1032.6 | 1026.5 | 1018.4 | 1000.2 | 986.0  | 973.8  | 939.3  |
| 30°   | 1079.3 | 1067.1 | 1075.2 | 1079.3 | 1061.0 | 1065.1 | 1042.8 | 1026.5 | 1010.3 | 1010.3 | 971.8  |
| 32.5° | 1119.9 | 1130.0 | 1121.9 | 1119.9 | 1105.7 | 1103.6 | 1089.4 | 1071.2 | 1061.0 | 1073.2 | 1020.5 |
| 35°   | 1190.9 | 1184.8 | 1184.8 | 1182.8 | 1166.5 | 1156.4 | 1156.4 | 1123.9 | 1134.1 | 1160.4 | 1095.5 |
| 37.5° | 1227.4 | 1225.4 | 1237.5 | 1247.7 | 1231.4 | 1237.5 | 1231.4 | 1217.2 | 1221.3 | 1268.0 | 1188.8 |
| 40°   | 1263.9 | 1278.1 | 1302.5 | 1306.5 | 1316.7 | 1324.8 | 1320.7 | 1318.7 | 1334.9 | 1410.0 | 1314.6 |
| 42.5° | 1298.4 | 1310.6 | 1347.1 | 1379.5 | 1403.9 | 1430.3 | 1432.3 | 1432.3 | 1485.0 | 1592.6 | 1466.8 |
| 45°   | 1343.0 | 1353.2 | 1403.9 | 1468.8 | 1509.4 | 1527.6 | 1543.9 | 1562.1 | 1633.1 | 1760.9 | 1629.1 |
| 47.5° | 1403.9 | 1412.0 | 1472.9 | 1554.0 | 1633.1 | 1643.3 | 1675.7 | 1696.0 | 1803.5 | 1933.4 | 1795.4 |
| 50°   | 1491.1 | 1485.0 | 1533.7 | 1651.4 | 1728.5 | 1777.2 | 1823.8 | 1860.4 | 1965.8 | 2107.9 | 1925.3 |
| 52.5° | 1562.1 | 1562.1 | 1598.6 | 1754.9 | 1860.4 | 1907.0 | 1955.7 | 2006.4 | 2128.1 | 2282.3 | 2030.8 |
| 55°   | 1683.9 | 1671.7 | 1694.0 | 1856.3 | 2008.5 | 2053.1 | 2146.4 | 2189.0 | 2306.7 | 2412.2 | 2120.0 |
| 57.5° | 1767.0 | 1773.1 | 1799.5 | 1990.2 | 2182.9 | 2237.7 | 2331.0 | 2361.5 | 2464.9 | 2548.1 | 2185.0 |
| 60°   | 1876.6 | 1856.3 | 1913.1 | 2138.3 | 2375.7 | 2452.7 | 2529.8 | 2548.1 | 2625.2 | 2635.3 | 2215.4 |
| 62.5° | 1982.1 | 1978.0 | 2026.7 | 2286.4 | 2582.6 | 2637.4 | 2716.5 | 2736.8 | 2769.2 | 2704.3 | 2172.8 |
| 65°   | 2047.0 | 2073.4 | 2164.7 | 2448.7 | 2817.9 | 2878.8 | 2957.9 | 2917.3 | 2880.8 | 2643.4 | 1963.8 |
| 67.5° | 2136.3 | 2148.4 | 2288.4 | 2625.2 | 3089.8 | 3181.1 | 3250.0 | 3089.8 | 2817.9 | 2393.9 | 1653.4 |
| 70°   | 2156.5 | 2189.0 | 2371.6 | 2809.8 | 3369.7 | 3463.1 | 3467.1 | 3030.9 | 2588.7 | 1947.6 | 1199.0 |
| 72.5° | 2067.3 | 2089.6 | 2347.3 | 2886.9 | 3530.0 | 3599.0 | 3390.0 | 2740.8 | 2051.1 | 1227.4 | 653.3  |
| 75°   | 1738.6 | 1801.5 | 2042.9 | 2649.5 | 3235.8 | 3209.5 | 2872.7 | 2091.6 | 1231.4 | 543.7  | 275.9  |
| 77.5° | 1211.2 | 1213.2 | 1464.7 | 1927.3 | 2422.3 | 2416.2 | 2049.0 | 1213.2 | 527.5  | 219.1  | 162.3  |
| 80°   | 537.6  | 576.2  | 728.3  | 1038.7 | 1470.8 | 1470.8 | 1194.9 | 602.5  | 263.7  | 142.0  | 111.6  |
| 82.5° | 316.5  | 328.7  | 389.5  | 484.9  | 716.1  | 754.7  | 572.1  | 401.7  | 180.6  | 89.3   | 69.0   |
| 85°   | 233.3  | 253.6  | 290.1  | 292.1  | 338.8  | 344.9  | 316.5  | 348.9  | 123.8  | 48.7   | 56.8   |
| 87.5° | 174.5  | 186.6  | 231.3  | 192.7  | 180.6  | 170.4  | 194.8  | 357.1  | 46.7   | 24.3   | 18.3   |
| 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°    | 945.4  | 945.4  | 945.4 | 945.4 | 945.4 | 945.4 | 945.4 | 945.4 | 945.4 | 945.4 | 945.4 |
| 2.5°  | 935.2  | 935.2  | 931.2 | 923.1 | 923.1 | 906.8 | 910.9 | 915.0 | 904.8 | 904.8 | 906.8 |
| 5°    | 921.0  | 912.9  | 902.8 | 890.6 | 882.5 | 860.2 | 856.1 | 841.9 | 839.9 | 835.8 | 829.8 |
| 7.5°  | 892.6  | 880.5  | 862.2 | 844.0 | 817.6 | 797.3 | 772.9 | 752.7 | 744.5 | 738.5 | 736.4 |
| 10°   | 866.3  | 864.2  | 833.8 | 797.3 | 756.7 | 718.2 | 681.7 | 655.3 | 639.1 | 628.9 | 626.9 |
| 12.5° | 866.3  | 850.0  | 807.4 | 756.7 | 697.9 | 641.1 | 594.4 | 557.9 | 535.6 | 519.4 | 513.3 |
| 15°   | 862.2  | 846.0  | 789.2 | 712.1 | 645.1 | 568.0 | 503.1 | 464.6 | 432.1 | 415.9 | 417.9 |
| 17.5° | 866.3  | 841.9  | 762.8 | 679.6 | 586.3 | 503.1 | 426.0 | 379.4 | 346.9 | 334.7 | 332.7 |
| 20°   | 868.3  | 837.9  | 742.5 | 635.0 | 525.4 | 432.1 | 359.1 | 314.5 | 290.1 | 282.0 | 282.0 |
| 22.5° | 864.2  | 825.7  | 712.1 | 582.2 | 472.7 | 373.3 | 312.4 | 273.9 | 257.6 | 247.5 | 251.6 |
| 25°   | 882.5  | 823.7  | 683.7 | 537.6 | 411.8 | 324.6 | 277.9 | 249.5 | 239.4 | 233.3 | 235.3 |
| 27.5° | 886.6  | 823.7  | 661.4 | 486.9 | 359.1 | 288.1 | 251.6 | 233.3 | 225.2 | 221.1 | 219.1 |
| 30°   | 902.8  | 827.7  | 635.0 | 436.2 | 316.5 | 259.7 | 231.3 | 221.1 | 215.0 | 213.0 | 213.0 |
| 32.5° | 947.4  | 839.9  | 606.6 | 393.6 | 280.0 | 235.3 | 217.1 | 209.0 | 204.9 | 202.9 | 204.9 |
| 35°   | 1000.2 | 872.4  | 576.2 | 348.9 | 253.6 | 219.1 | 204.9 | 198.8 | 196.8 | 196.8 | 196.8 |
| 37.5° | 1081.3 | 921.0  | 549.8 | 312.4 | 231.3 | 202.9 | 192.7 | 190.7 | 188.7 | 190.7 | 190.7 |
| 40°   | 1174.6 | 973.8  | 525.4 | 284.0 | 215.0 | 192.7 | 182.6 | 182.6 | 180.6 | 182.6 | 184.6 |
| 42.5° | 1282.2 | 1038.7 | 501.1 | 255.6 | 200.8 | 184.6 | 176.5 | 174.5 | 172.4 | 176.5 | 178.5 |
| 45°   | 1430.3 | 1128.0 | 484.9 | 239.4 | 190.7 | 176.5 | 168.4 | 168.4 | 166.4 | 166.4 | 170.4 |
| 47.5° | 1554.0 | 1213.2 | 484.9 | 223.2 | 184.6 | 170.4 | 162.3 | 162.3 | 158.2 | 160.3 | 160.3 |
| 50°   | 1657.5 | 1286.2 | 495.0 | 219.1 | 176.5 | 164.3 | 158.2 | 154.2 | 152.2 | 152.2 | 152.2 |
| 52.5° | 1726.5 | 1330.9 | 503.1 | 215.0 | 172.4 | 156.2 | 152.2 | 150.1 | 146.1 | 144.0 | 146.1 |
| 55°   | 1795.4 | 1361.3 | 505.2 | 215.0 | 166.4 | 148.1 | 144.0 | 144.0 | 140.0 | 138.0 | 138.0 |
| 57.5° | 1821.8 | 1349.1 | 476.8 | 211.0 | 162.3 | 142.0 | 138.0 | 135.9 | 133.9 | 131.9 | 131.9 |
| 60°   | 1809.6 | 1304.5 | 413.9 | 200.8 | 158.2 | 138.0 | 129.8 | 129.8 | 129.8 | 125.8 | 127.8 |
| 62.5° | 1726.5 | 1152.3 | 332.7 | 184.6 | 152.2 | 129.8 | 121.7 | 125.8 | 125.8 | 123.8 | 123.8 |
| 65°   | 1507.4 | 951.5  | 269.8 | 170.4 | 144.0 | 123.8 | 115.6 | 121.7 | 123.8 | 121.7 | 119.7 |
| 67.5° | 1205.1 | 732.4  | 223.2 | 154.2 | 133.9 | 113.6 | 107.5 | 113.6 | 115.6 | 113.6 | 113.6 |
| 70°   | 827.7  | 472.7  | 180.6 | 138.0 | 119.7 | 103.5 | 97.4  | 101.4 | 101.4 | 103.5 | 103.5 |
| 72.5° | 428.1  | 255.6  | 148.1 | 117.7 | 103.5 | 93.3  | 87.2  | 87.2  | 85.2  | 85.2  | 85.2  |
| 75°   | 213.0  | 174.5  | 123.8 | 99.4  | 87.2  | 79.1  | 75.1  | 71.0  | 71.0  | 71.0  | 71.0  |
| 77.5° | 148.1  | 133.9  | 101.4 | 79.1  | 71.0  | 64.9  | 64.9  | 58.8  | 58.8  | 58.8  | 58.8  |
| 80°   | 111.6  | 105.5  | 77.1  | 60.9  | 54.8  | 50.7  | 50.7  | 48.7  | 48.7  | 46.7  | 46.7  |
| 82.5° | 79.1   | 85.2   | 58.8  | 44.6  | 40.6  | 38.5  | 38.5  | 36.5  | 36.5  | 32.5  | 32.5  |
| 85°   | 62.9   | 71.0   | 44.6  | 32.5  | 30.4  | 26.4  | 26.4  | 24.3  | 24.3  | 22.3  | 20.3  |
| 87.5° | 18.3   | 38.5   | 18.3  | 12.2  | 12.2  | 12.2  | 12.2  | 10.1  | 10.1  | 8.1   | 8.1   |
| 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)