

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: P671581

Luminaire Tested: **CCP-SA-1D-830-U-SL4**

Issue Date: 04/16/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P671581  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/16/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCP-SA-1D-830-U-SL4  
Description: INVUE CLEAR CURVE POLE MOUNT LIGHT SQUARE LUMINAIRE @800mA w/ SL4  
distribution lens  
Light Source: (16) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4342.4 lumens  
Efficiency: N/A  
Efficacy: 98.7 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): 44  
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

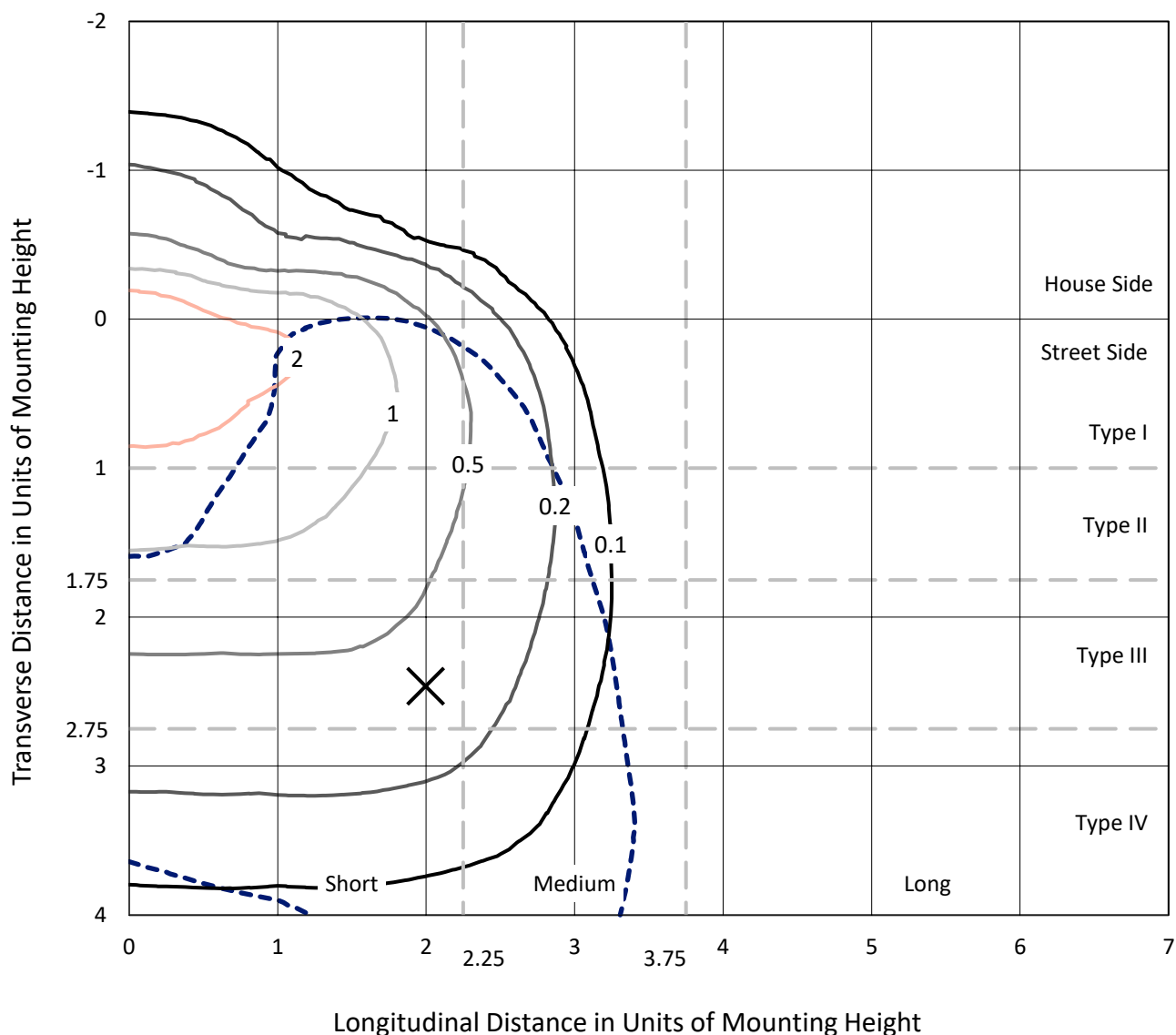
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

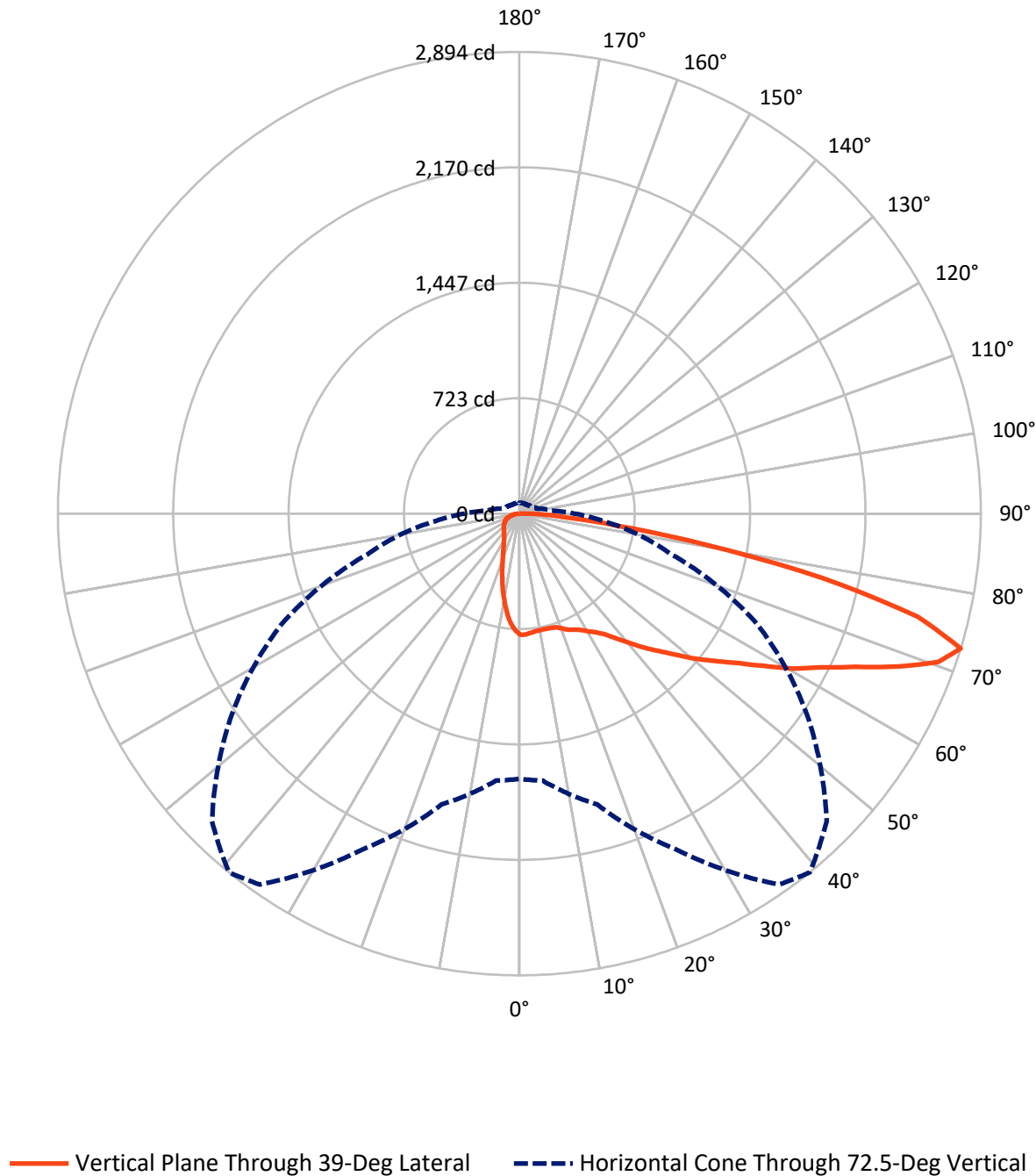


Based on 15 foot mounting height. Maximum calculated value = 3.4 fc

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    | 645.4    | 0.0    | 645.4  |
|                    | % Fixture | 14.9     | 0.0    | 14.9   |
| <b>Street Side</b> | Lumens    | 3697.1   | 0.0    | 3697.1 |
|                    | % Fixture | 85.1     | 0.0    | 85.1   |
| <b>Total</b>       | Lumens    | 4342.4   | 0.0    | 4342.4 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 67.2   | 1.5       |
| 10°-20°   | 171.4  | 3.9       |
| 20°-30°   | 261.2  | 6.0       |
| 30°-40°   | 382.0  | 8.8       |
| 40°-50°   | 584.9  | 13.5      |
| 50°-60°   | 857.8  | 19.8      |
| 60°-70°   | 1094.1 | 25.2      |
| 70°-80°   | 790.5  | 18.2      |
| 80°-90°   | 133.4  | 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°    | 4342.4 | 100.0     |
| 0°-180°   | 4342.4 | 100.0     |

**Coefficient of Utilization**



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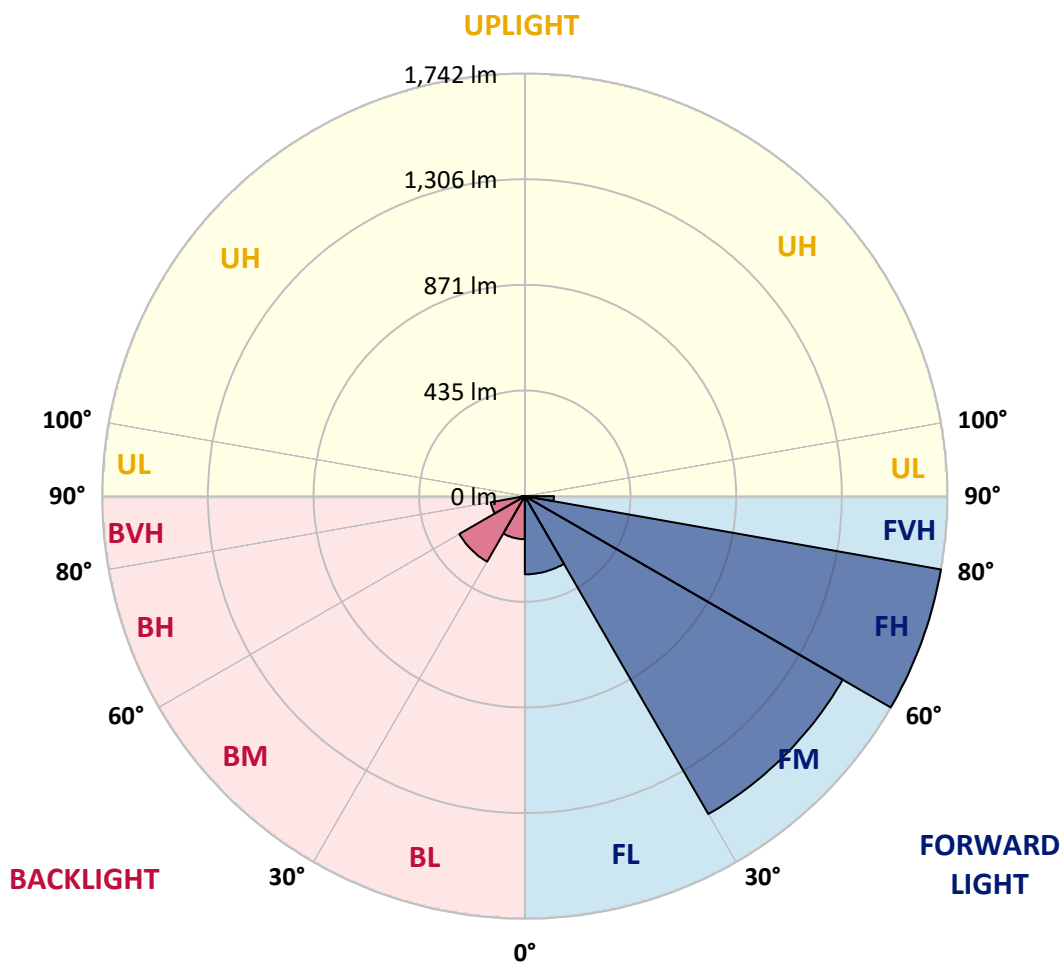
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 322.3  | 7.4       |                         |      |         |
| FM   | (30°-60°)   | 1513.0 | 34.8      |                         |      |         |
| FH   | (60°-80°)   | 1741.9 | 40.1      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 119.8  | 2.8       |                         |      | G2/225  |
| BL   | (0°-30°)    | 177.5  | 4.1       | B1/500                  |      |         |
| BM   | (30°-60°)   | 311.8  | 7.2       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 142.6  | 3.3       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 13.5   | 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°    | 760.1  | 760.1  | 760.1  | 760.1  | 760.1  | 760.1  | 760.1  | 760.1  | 760.1  | 760.1  | 760.1  |
| 2.5°  | 771.5  | 773.2  | 769.9  | 766.6  | 765.0  | 758.5  | 765.0  | 761.7  | 758.5  | 758.5  | 758.5  |
| 5°    | 761.7  | 763.4  | 763.4  | 760.1  | 761.7  | 750.3  | 748.7  | 750.3  | 745.4  | 742.2  | 740.5  |
| 7.5°  | 747.1  | 750.3  | 756.9  | 755.2  | 748.7  | 743.8  | 745.4  | 743.8  | 735.6  | 730.8  | 717.7  |
| 10°   | 735.6  | 738.9  | 742.2  | 745.4  | 743.8  | 742.2  | 740.5  | 734.0  | 732.4  | 721.0  | 707.9  |
| 12.5° | 724.2  | 724.2  | 725.9  | 738.9  | 740.5  | 740.5  | 730.8  | 730.8  | 725.9  | 724.2  | 704.7  |
| 15°   | 712.8  | 717.7  | 730.8  | 734.0  | 740.5  | 743.8  | 738.9  | 738.9  | 730.8  | 719.3  | 704.7  |
| 17.5° | 716.1  | 724.2  | 737.3  | 745.4  | 748.7  | 748.7  | 755.2  | 750.3  | 738.9  | 732.4  | 717.7  |
| 20°   | 732.4  | 734.0  | 750.3  | 765.0  | 768.3  | 768.3  | 761.7  | 756.9  | 748.7  | 737.3  | 717.7  |
| 22.5° | 742.2  | 753.6  | 773.2  | 781.3  | 791.1  | 791.1  | 783.0  | 771.5  | 760.1  | 748.7  | 727.5  |
| 25°   | 784.6  | 786.2  | 794.4  | 807.4  | 812.3  | 805.8  | 797.6  | 784.6  | 769.9  | 758.5  | 738.9  |
| 27.5° | 813.9  | 822.1  | 831.9  | 838.4  | 830.3  | 825.4  | 818.8  | 804.2  | 792.7  | 783.0  | 755.2  |
| 30°   | 867.8  | 858.0  | 864.5  | 867.8  | 853.1  | 856.4  | 838.4  | 825.4  | 812.3  | 812.3  | 781.3  |
| 32.5° | 900.4  | 908.6  | 902.0  | 900.4  | 889.0  | 887.3  | 875.9  | 861.2  | 853.1  | 862.9  | 820.5  |
| 35°   | 957.5  | 952.6  | 952.6  | 951.0  | 937.9  | 929.8  | 929.8  | 903.7  | 911.8  | 933.0  | 880.8  |
| 37.5° | 986.8  | 985.2  | 995.0  | 1003.2 | 990.1  | 995.0  | 990.1  | 978.7  | 982.0  | 1019.5 | 955.9  |
| 40°   | 1016.2 | 1027.6 | 1047.2 | 1050.5 | 1058.6 | 1065.1 | 1061.9 | 1060.2 | 1073.3 | 1133.6 | 1057.0 |
| 42.5° | 1043.9 | 1053.7 | 1083.1 | 1109.2 | 1128.8 | 1150.0 | 1151.6 | 1151.6 | 1194.0 | 1280.5 | 1179.3 |
| 45°   | 1079.8 | 1088.0 | 1128.8 | 1181.0 | 1213.6 | 1228.3 | 1241.3 | 1256.0 | 1313.1 | 1415.8 | 1309.8 |
| 47.5° | 1128.8 | 1135.3 | 1184.2 | 1249.5 | 1313.1 | 1321.2 | 1347.3 | 1363.6 | 1450.1 | 1554.5 | 1443.6 |
| 50°   | 1198.9 | 1194.0 | 1233.1 | 1327.8 | 1389.7 | 1428.9 | 1466.4 | 1495.8 | 1580.6 | 1694.8 | 1548.0 |
| 52.5° | 1256.0 | 1256.0 | 1285.3 | 1410.9 | 1495.8 | 1533.3 | 1572.4 | 1613.2 | 1711.1 | 1835.0 | 1632.8 |
| 55°   | 1353.9 | 1344.1 | 1362.0 | 1492.5 | 1614.8 | 1650.7 | 1725.8 | 1760.0 | 1854.6 | 1939.4 | 1704.6 |
| 57.5° | 1420.7 | 1425.6 | 1446.8 | 1600.2 | 1755.1 | 1799.2 | 1874.2 | 1898.7 | 1981.8 | 2048.7 | 1756.7 |
| 60°   | 1508.8 | 1492.5 | 1538.2 | 1719.2 | 1910.1 | 1972.1 | 2034.0 | 2048.7 | 2110.7 | 2118.9 | 1781.2 |
| 62.5° | 1593.6 | 1590.4 | 1629.5 | 1838.3 | 2076.5 | 2120.5 | 2184.1 | 2200.4 | 2226.5 | 2174.3 | 1747.0 |
| 65°   | 1645.8 | 1667.0 | 1740.4 | 1968.8 | 2265.7 | 2314.6 | 2378.2 | 2345.6 | 2316.2 | 2125.4 | 1579.0 |
| 67.5° | 1717.6 | 1727.4 | 1839.9 | 2110.7 | 2484.2 | 2557.6 | 2613.1 | 2484.2 | 2265.7 | 1924.8 | 1329.4 |
| 70°   | 1733.9 | 1760.0 | 1906.8 | 2259.1 | 2709.3 | 2784.4 | 2787.6 | 2436.9 | 2081.3 | 1565.9 | 964.0  |
| 72.5° | 1662.1 | 1680.1 | 1887.2 | 2321.1 | 2838.2 | 2893.7 | 2725.7 | 2203.7 | 1649.1 | 986.8  | 525.2  |
| 75°   | 1397.9 | 1448.5 | 1642.6 | 2130.3 | 2601.7 | 2580.5 | 2309.7 | 1681.7 | 990.1  | 437.1  | 221.8  |
| 77.5° | 973.8  | 975.4  | 1177.7 | 1549.6 | 1947.6 | 1942.7 | 1647.5 | 975.4  | 424.1  | 176.2  | 130.5  |
| 80°   | 432.3  | 463.2  | 585.6  | 835.1  | 1182.6 | 1182.6 | 960.7  | 484.5  | 212.0  | 114.2  | 89.7   |
| 82.5° | 254.5  | 264.2  | 313.2  | 389.8  | 575.8  | 606.8  | 460.0  | 323.0  | 145.2  | 71.8   | 55.5   |
| 85°   | 187.6  | 203.9  | 233.3  | 234.9  | 272.4  | 277.3  | 254.5  | 280.6  | 99.5   | 39.1   | 45.7   |
| 87.5° | 140.3  | 150.1  | 186.0  | 155.0  | 145.2  | 137.0  | 156.6  | 287.1  | 37.5   | 19.6   | 14.7   |
| 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°    | 760.1  | 760.1  | 760.1 | 760.1 | 760.1 | 760.1 | 760.1 | 760.1 | 760.1 | 760.1 | 760.1 |
| 2.5°  | 752.0  | 752.0  | 748.7 | 742.2 | 742.2 | 729.1 | 732.4 | 735.6 | 727.5 | 727.5 | 729.1 |
| 5°    | 740.5  | 734.0  | 725.9 | 716.1 | 709.5 | 691.6 | 688.3 | 676.9 | 675.3 | 672.0 | 667.1 |
| 7.5°  | 717.7  | 707.9  | 693.2 | 678.6 | 657.4 | 641.0 | 621.5 | 605.2 | 598.6 | 593.7 | 592.1 |
| 10°   | 696.5  | 694.9  | 670.4 | 641.0 | 608.4 | 577.4 | 548.1 | 526.9 | 513.8 | 505.7 | 504.0 |
| 12.5° | 696.5  | 683.5  | 649.2 | 608.4 | 561.1 | 515.4 | 477.9 | 448.6 | 430.6 | 417.6 | 412.7 |
| 15°   | 693.2  | 680.2  | 634.5 | 572.5 | 518.7 | 456.7 | 404.5 | 373.5 | 347.4 | 334.4 | 336.0 |
| 17.5° | 696.5  | 676.9  | 613.3 | 546.4 | 471.4 | 404.5 | 342.5 | 305.0 | 278.9 | 269.1 | 267.5 |
| 20°   | 698.1  | 673.7  | 597.0 | 510.5 | 422.5 | 347.4 | 288.7 | 252.8 | 233.3 | 226.7 | 226.7 |
| 22.5° | 694.9  | 663.9  | 572.5 | 468.1 | 380.1 | 300.1 | 251.2 | 220.2 | 207.2 | 199.0 | 202.3 |
| 25°   | 709.5  | 662.2  | 549.7 | 432.3 | 331.1 | 261.0 | 223.5 | 200.6 | 192.5 | 187.6 | 189.2 |
| 27.5° | 712.8  | 662.2  | 531.8 | 391.5 | 288.7 | 231.6 | 202.3 | 187.6 | 181.1 | 177.8 | 176.2 |
| 30°   | 725.9  | 665.5  | 510.5 | 350.7 | 254.5 | 208.8 | 186.0 | 177.8 | 172.9 | 171.3 | 171.3 |
| 32.5° | 761.7  | 675.3  | 487.7 | 316.4 | 225.1 | 189.2 | 174.5 | 168.0 | 164.7 | 163.1 | 164.7 |
| 35°   | 804.2  | 701.4  | 463.2 | 280.6 | 203.9 | 176.2 | 164.7 | 159.9 | 158.2 | 158.2 | 158.2 |
| 37.5° | 869.4  | 740.5  | 442.0 | 251.2 | 186.0 | 163.1 | 155.0 | 153.3 | 151.7 | 153.3 | 153.3 |
| 40°   | 944.4  | 783.0  | 422.5 | 228.4 | 172.9 | 155.0 | 146.8 | 146.8 | 145.2 | 146.8 | 148.4 |
| 42.5° | 1030.9 | 835.1  | 402.9 | 205.5 | 161.5 | 148.4 | 141.9 | 140.3 | 138.6 | 141.9 | 143.5 |
| 45°   | 1150.0 | 906.9  | 389.8 | 192.5 | 153.3 | 141.9 | 135.4 | 135.4 | 133.8 | 133.8 | 137.0 |
| 47.5° | 1249.5 | 975.4  | 389.8 | 179.4 | 148.4 | 137.0 | 130.5 | 130.5 | 127.2 | 128.9 | 128.9 |
| 50°   | 1332.6 | 1034.1 | 398.0 | 176.2 | 141.9 | 132.1 | 127.2 | 124.0 | 122.3 | 122.3 | 122.3 |
| 52.5° | 1388.1 | 1070.0 | 404.5 | 172.9 | 138.6 | 125.6 | 122.3 | 120.7 | 117.4 | 115.8 | 117.4 |
| 55°   | 1443.6 | 1094.5 | 406.2 | 172.9 | 133.8 | 119.1 | 115.8 | 115.8 | 112.5 | 110.9 | 110.9 |
| 57.5° | 1464.8 | 1084.7 | 383.3 | 169.6 | 130.5 | 114.2 | 110.9 | 109.3 | 107.7 | 106.0 | 106.0 |
| 60°   | 1455.0 | 1048.8 | 332.8 | 161.5 | 127.2 | 110.9 | 104.4 | 104.4 | 104.4 | 101.1 | 102.8 |
| 62.5° | 1388.1 | 926.5  | 267.5 | 148.4 | 122.3 | 104.4 | 97.9  | 101.1 | 101.1 | 99.5  | 99.5  |
| 65°   | 1211.9 | 765.0  | 216.9 | 137.0 | 115.8 | 99.5  | 93.0  | 97.9  | 99.5  | 97.9  | 96.2  |
| 67.5° | 968.9  | 588.8  | 179.4 | 124.0 | 107.7 | 91.3  | 86.5  | 91.3  | 93.0  | 91.3  | 91.3  |
| 70°   | 665.5  | 380.1  | 145.2 | 110.9 | 96.2  | 83.2  | 78.3  | 81.6  | 81.6  | 83.2  | 83.2  |
| 72.5° | 344.2  | 205.5  | 119.1 | 94.6  | 83.2  | 75.0  | 70.1  | 70.1  | 68.5  | 68.5  | 68.5  |
| 75°   | 171.3  | 140.3  | 99.5  | 79.9  | 70.1  | 63.6  | 60.4  | 57.1  | 57.1  | 57.1  | 57.1  |
| 77.5° | 119.1  | 107.7  | 81.6  | 63.6  | 57.1  | 52.2  | 52.2  | 47.3  | 47.3  | 47.3  | 47.3  |
| 80°   | 89.7   | 84.8   | 62.0  | 48.9  | 44.0  | 40.8  | 40.8  | 39.1  | 39.1  | 37.5  | 37.5  |
| 82.5° | 63.6   | 68.5   | 47.3  | 35.9  | 32.6  | 31.0  | 31.0  | 29.4  | 29.4  | 26.1  | 26.1  |
| 85°   | 50.6   | 57.1   | 35.9  | 26.1  | 24.5  | 21.2  | 21.2  | 19.6  | 19.6  | 17.9  | 16.3  |
| 87.5° | 14.7   | 31.0   | 14.7  | 9.8   | 9.8   | 9.8   | 9.8   | 8.2   | 8.2   | 6.5   | 6.5   |
| 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)