

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: P671584

Luminaire Tested: **CCP-SA-2A-830-U-SL4**

Issue Date: 04/16/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P671584  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/16/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCP-SA-2A-830-U-SL4  
Description: INVUE CLEAR CURVE POLE MOUNT LIGHT SQUARE LUMINAIRE @350mA w/ SL4  
distribution lens  
Light Source: (32) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4260.4 lumens  
Efficiency: N/A  
Efficacy: 117.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

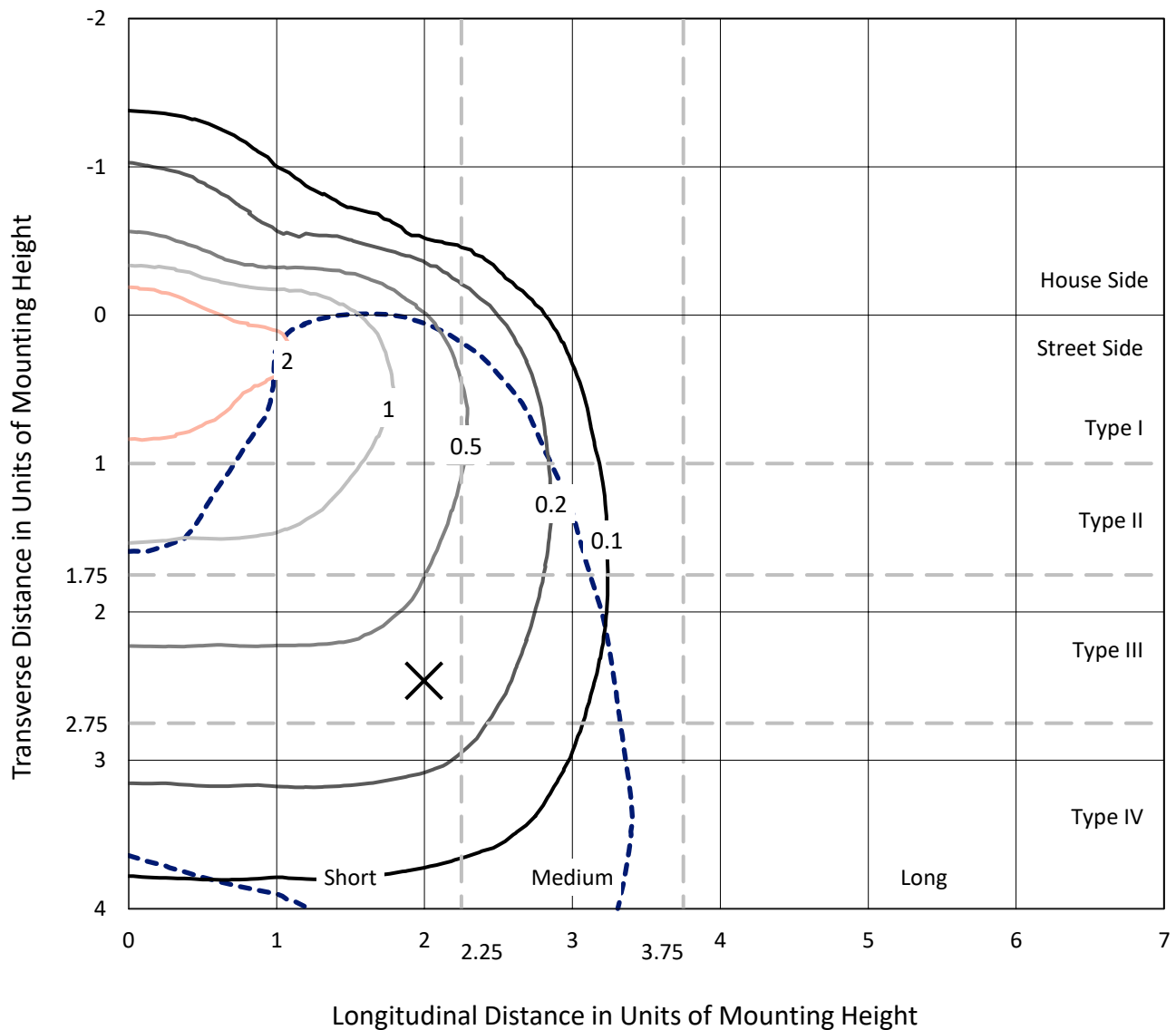
Input Watts (W): 36.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd

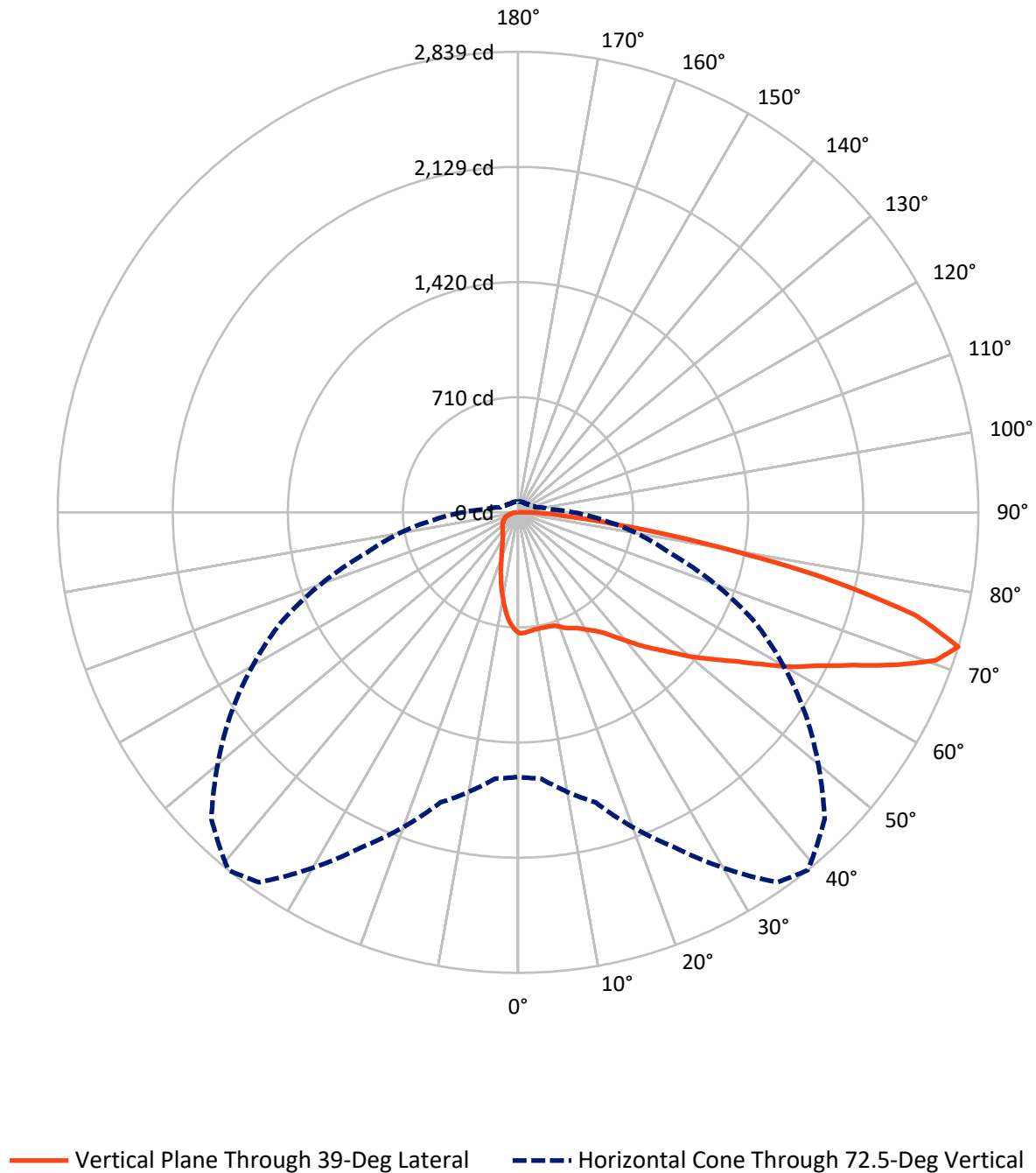


Based on 15 foot mounting height. Maximum calculated value = 3.3 fc  
Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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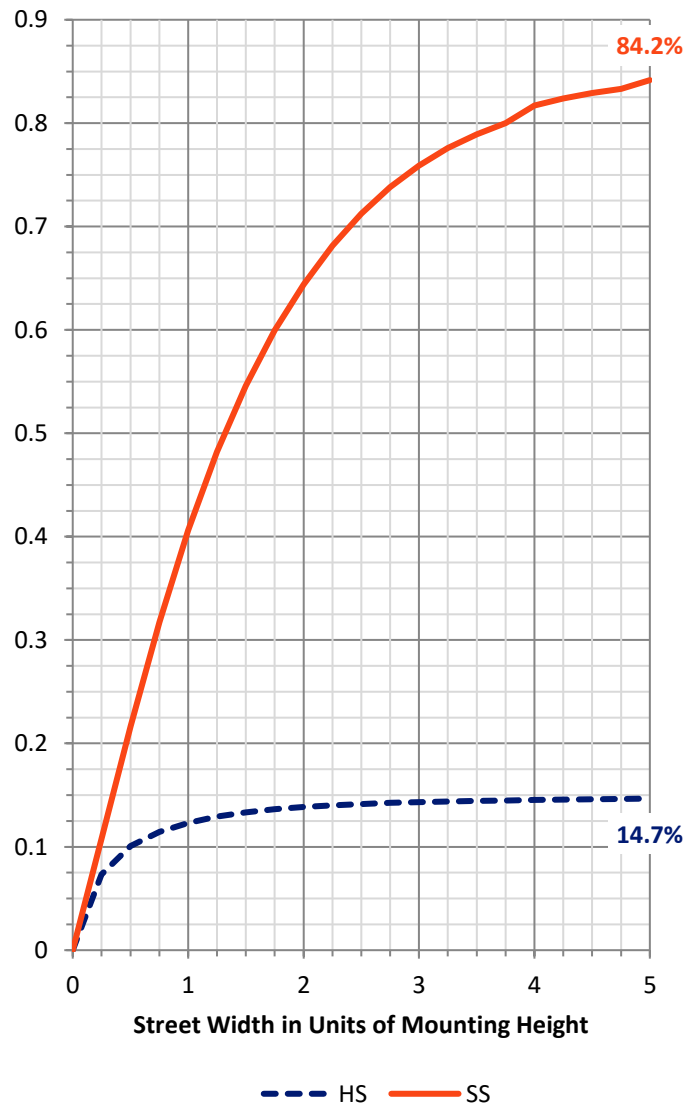
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 633.1    | 0.0    | 633.1  |
|                    | % Fixture | 14.9     | 0.0    | 14.9   |
| <b>Street Side</b> | Lumens    | 3627.3   | 0.0    | 3627.3 |
|                    | % Fixture | 85.1     | 0.0    | 85.1   |
| <b>Total</b>       | Lumens    | 4260.4   | 0.0    | 4260.4 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 65.9   | 1.5       |
| 10°-20°   | 168.2  | 3.9       |
| 20°-30°   | 256.2  | 6.0       |
| 30°-40°   | 374.8  | 8.8       |
| 40°-50°   | 573.9  | 13.5      |
| 50°-60°   | 841.6  | 19.8      |
| 60°-70°   | 1073.4 | 25.2      |
| 70°-80°   | 775.5  | 18.2      |
| 80°-90°   | 130.8  | 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°    | 4260.4 | 100.0     |
| 0°-180°   | 4260.4 | 100.0     |

**Coefficient of Utilization**



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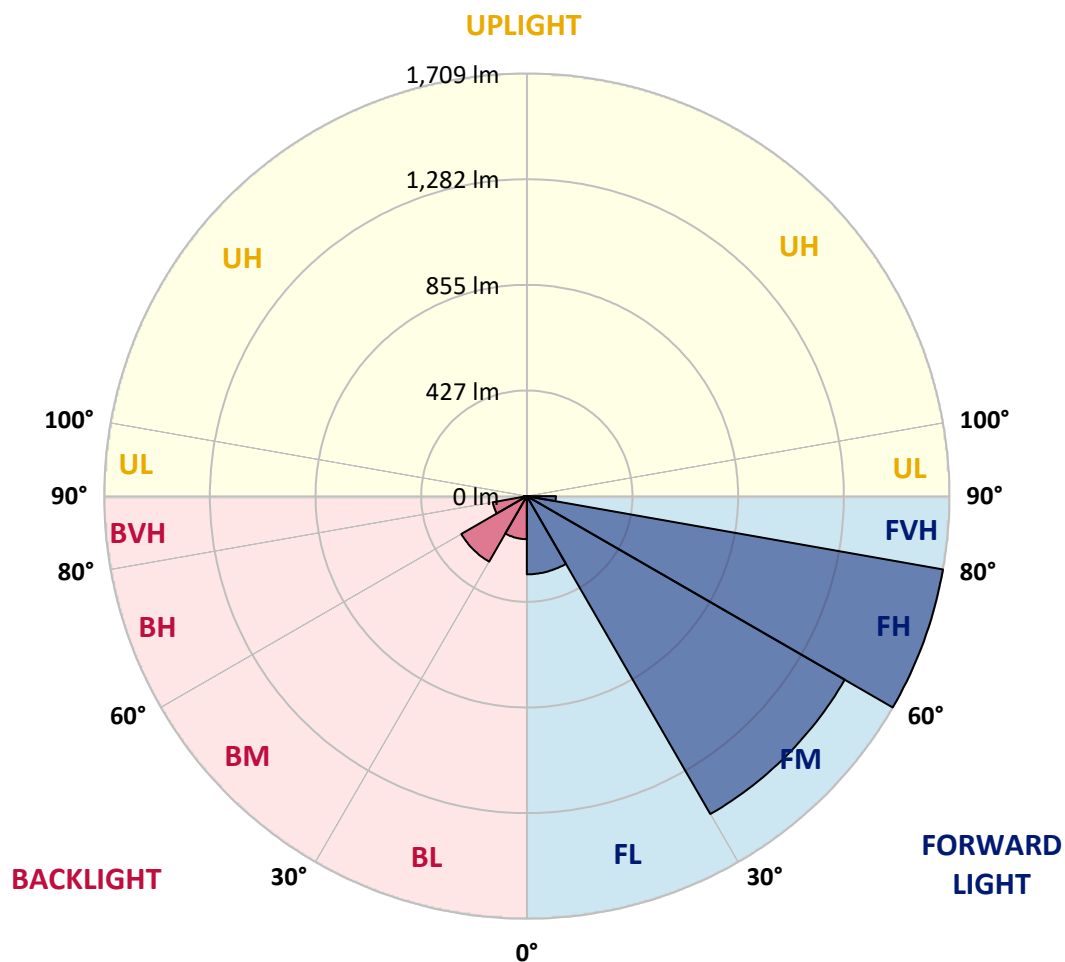
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 316.2  | 7.4       |                         |      |         |
| FM   | (30°-60°)   | 1484.5 | 34.8      |                         |      |         |
| FH   | (60°-80°)   | 1709.1 | 40.1      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 117.6  | 2.8       |                         |      | G2/225  |
| BL   | (0°-30°)    | 174.1  | 4.1       | B1/500                  |      |         |
| BM   | (30°-60°)   | 305.9  | 7.2       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 139.9  | 3.3       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 13.3   | 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°    | 745.8  | 745.8  | 745.8  | 745.8  | 745.8  | 745.8  | 745.8  | 745.8  | 745.8  | 745.8  | 745.8  |
| 2.5°  | 757.0  | 758.6  | 755.4  | 752.2  | 750.6  | 744.2  | 750.6  | 747.4  | 744.2  | 744.2  | 744.2  |
| 5°    | 747.4  | 749.0  | 749.0  | 745.8  | 747.4  | 736.2  | 734.6  | 736.2  | 731.4  | 728.2  | 726.6  |
| 7.5°  | 733.0  | 736.2  | 742.6  | 741.0  | 734.6  | 729.8  | 731.4  | 729.8  | 721.8  | 717.0  | 704.2  |
| 10°   | 721.8  | 725.0  | 728.2  | 731.4  | 729.8  | 728.2  | 726.6  | 720.2  | 718.6  | 707.4  | 694.6  |
| 12.5° | 710.6  | 710.6  | 712.2  | 725.0  | 726.6  | 726.6  | 717.0  | 717.0  | 712.2  | 710.6  | 691.4  |
| 15°   | 699.4  | 704.2  | 717.0  | 720.2  | 726.6  | 729.8  | 725.0  | 725.0  | 717.0  | 705.8  | 691.4  |
| 17.5° | 702.6  | 710.6  | 723.4  | 731.4  | 734.6  | 734.6  | 741.0  | 736.2  | 725.0  | 718.6  | 704.2  |
| 20°   | 718.6  | 720.2  | 736.2  | 750.6  | 753.8  | 753.8  | 747.4  | 742.6  | 734.6  | 723.4  | 704.2  |
| 22.5° | 728.2  | 739.4  | 758.6  | 766.6  | 776.2  | 776.2  | 768.2  | 757.0  | 745.8  | 734.6  | 713.8  |
| 25°   | 769.8  | 771.4  | 779.4  | 792.2  | 797.0  | 790.6  | 782.6  | 769.8  | 755.4  | 744.2  | 725.0  |
| 27.5° | 798.6  | 806.6  | 816.2  | 822.6  | 814.6  | 809.8  | 803.4  | 789.0  | 777.8  | 768.2  | 741.0  |
| 30°   | 851.4  | 841.8  | 848.2  | 851.4  | 837.0  | 840.2  | 822.6  | 809.8  | 797.0  | 797.0  | 766.6  |
| 32.5° | 883.4  | 891.4  | 885.0  | 883.4  | 872.2  | 870.6  | 859.4  | 845.0  | 837.0  | 846.6  | 805.0  |
| 35°   | 939.4  | 934.6  | 934.6  | 933.0  | 920.2  | 912.2  | 912.2  | 886.6  | 894.6  | 915.4  | 864.2  |
| 37.5° | 968.2  | 966.6  | 976.2  | 984.2  | 971.4  | 976.2  | 971.4  | 960.2  | 963.4  | 1000.2 | 937.8  |
| 40°   | 997.0  | 1008.2 | 1027.4 | 1030.6 | 1038.6 | 1045.0 | 1041.8 | 1040.2 | 1053.0 | 1112.3 | 1037.0 |
| 42.5° | 1024.2 | 1033.8 | 1062.6 | 1088.2 | 1107.5 | 1128.3 | 1129.9 | 1129.9 | 1171.5 | 1256.3 | 1157.1 |
| 45°   | 1059.4 | 1067.4 | 1107.5 | 1158.7 | 1190.7 | 1205.1 | 1217.9 | 1232.3 | 1288.3 | 1389.1 | 1285.1 |
| 47.5° | 1107.5 | 1113.9 | 1161.9 | 1225.9 | 1288.3 | 1296.3 | 1321.9 | 1337.9 | 1422.7 | 1525.1 | 1416.3 |
| 50°   | 1176.3 | 1171.5 | 1209.9 | 1302.7 | 1363.5 | 1401.9 | 1438.7 | 1467.5 | 1550.8 | 1662.8 | 1518.7 |
| 52.5° | 1232.3 | 1232.3 | 1261.1 | 1384.3 | 1467.5 | 1504.3 | 1542.7 | 1582.8 | 1678.8 | 1800.4 | 1602.0 |
| 55°   | 1328.3 | 1318.7 | 1336.3 | 1464.3 | 1584.4 | 1619.6 | 1693.2 | 1726.8 | 1819.6 | 1902.8 | 1672.4 |
| 57.5° | 1393.9 | 1398.7 | 1419.5 | 1570.0 | 1722.0 | 1765.2 | 1838.8 | 1862.8 | 1944.4 | 2010.1 | 1723.6 |
| 60°   | 1480.3 | 1464.3 | 1509.1 | 1686.8 | 1874.0 | 1934.8 | 1995.7 | 2010.1 | 2070.9 | 2078.9 | 1747.6 |
| 62.5° | 1563.6 | 1560.4 | 1598.8 | 1803.6 | 2037.3 | 2080.5 | 2142.9 | 2158.9 | 2184.5 | 2133.3 | 1714.0 |
| 65°   | 1614.8 | 1635.6 | 1707.6 | 1931.6 | 2222.9 | 2270.9 | 2333.3 | 2301.3 | 2272.5 | 2085.3 | 1549.2 |
| 67.5° | 1685.2 | 1694.8 | 1805.2 | 2070.9 | 2437.4 | 2509.4 | 2563.8 | 2437.4 | 2222.9 | 1888.4 | 1304.3 |
| 70°   | 1701.2 | 1726.8 | 1870.8 | 2216.5 | 2658.2 | 2731.8 | 2735.0 | 2390.9 | 2042.1 | 1536.3 | 945.8  |
| 72.5° | 1630.8 | 1648.4 | 1851.6 | 2277.3 | 2784.6 | 2839.0 | 2674.2 | 2162.1 | 1618.0 | 968.2  | 515.3  |
| 75°   | 1371.5 | 1421.1 | 1611.6 | 2090.1 | 2552.6 | 2531.8 | 2266.1 | 1650.0 | 971.4  | 428.9  | 217.6  |
| 77.5° | 955.4  | 957.0  | 1155.5 | 1520.3 | 1910.8 | 1906.0 | 1616.4 | 957.0  | 416.1  | 172.8  | 128.0  |
| 80°   | 424.1  | 454.5  | 574.5  | 819.4  | 1160.3 | 1160.3 | 942.6  | 475.3  | 208.0  | 112.0  | 88.0   |
| 82.5° | 249.7  | 259.3  | 307.3  | 382.5  | 564.9  | 595.3  | 451.3  | 316.9  | 142.4  | 70.4   | 54.4   |
| 85°   | 184.0  | 200.0  | 228.9  | 230.5  | 267.3  | 272.1  | 249.7  | 275.3  | 97.6   | 38.4   | 44.8   |
| 87.5° | 137.6  | 147.2  | 182.4  | 152.0  | 142.4  | 134.4  | 153.6  | 281.7  | 36.8   | 19.2   | 14.4   |
| 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°    | 745.8  | 745.8  | 745.8 | 745.8 | 745.8 | 745.8 | 745.8 | 745.8 | 745.8 | 745.8 | 745.8 |
| 2.5°  | 737.8  | 737.8  | 734.6 | 728.2 | 728.2 | 715.4 | 718.6 | 721.8 | 713.8 | 713.8 | 715.4 |
| 5°    | 726.6  | 720.2  | 712.2 | 702.6 | 696.2 | 678.6 | 675.4 | 664.2 | 662.5 | 659.3 | 654.5 |
| 7.5°  | 704.2  | 694.6  | 680.2 | 665.8 | 644.9 | 628.9 | 609.7 | 593.7 | 587.3 | 582.5 | 580.9 |
| 10°   | 683.4  | 681.8  | 657.7 | 628.9 | 596.9 | 566.5 | 537.7 | 516.9 | 504.1 | 496.1 | 494.5 |
| 12.5° | 683.4  | 670.6  | 636.9 | 596.9 | 550.5 | 505.7 | 468.9 | 440.1 | 422.5 | 409.7 | 404.9 |
| 15°   | 680.2  | 667.4  | 622.5 | 561.7 | 508.9 | 448.1 | 396.9 | 366.5 | 340.9 | 328.1 | 329.7 |
| 17.5° | 683.4  | 664.2  | 601.7 | 536.1 | 462.5 | 396.9 | 336.1 | 299.3 | 273.7 | 264.1 | 262.5 |
| 20°   | 685.0  | 660.9  | 585.7 | 500.9 | 414.5 | 340.9 | 283.3 | 248.1 | 228.9 | 222.5 | 222.5 |
| 22.5° | 681.8  | 651.3  | 561.7 | 459.3 | 372.9 | 294.5 | 246.5 | 216.0 | 203.2 | 195.2 | 198.4 |
| 25°   | 696.2  | 649.7  | 539.3 | 424.1 | 324.9 | 256.1 | 219.2 | 196.8 | 188.8 | 184.0 | 185.6 |
| 27.5° | 699.4  | 649.7  | 521.7 | 384.1 | 283.3 | 227.3 | 198.4 | 184.0 | 177.6 | 174.4 | 172.8 |
| 30°   | 712.2  | 652.9  | 500.9 | 344.1 | 249.7 | 204.8 | 182.4 | 174.4 | 169.6 | 168.0 | 168.0 |
| 32.5° | 747.4  | 662.5  | 478.5 | 310.5 | 220.8 | 185.6 | 171.2 | 164.8 | 161.6 | 160.0 | 161.6 |
| 35°   | 789.0  | 688.2  | 454.5 | 275.3 | 200.0 | 172.8 | 161.6 | 156.8 | 155.2 | 155.2 | 155.2 |
| 37.5° | 853.0  | 726.6  | 433.7 | 246.5 | 182.4 | 160.0 | 152.0 | 150.4 | 148.8 | 150.4 | 150.4 |
| 40°   | 926.6  | 768.2  | 414.5 | 224.1 | 169.6 | 152.0 | 144.0 | 144.0 | 142.4 | 144.0 | 145.6 |
| 42.5° | 1011.4 | 819.4  | 395.3 | 201.6 | 158.4 | 145.6 | 139.2 | 137.6 | 136.0 | 139.2 | 140.8 |
| 45°   | 1128.3 | 889.8  | 382.5 | 188.8 | 150.4 | 139.2 | 132.8 | 132.8 | 131.2 | 131.2 | 134.4 |
| 47.5° | 1225.9 | 957.0  | 382.5 | 176.0 | 145.6 | 134.4 | 128.0 | 128.0 | 124.8 | 126.4 | 126.4 |
| 50°   | 1307.5 | 1014.6 | 390.5 | 172.8 | 139.2 | 129.6 | 124.8 | 121.6 | 120.0 | 120.0 | 120.0 |
| 52.5° | 1361.9 | 1049.8 | 396.9 | 169.6 | 136.0 | 123.2 | 120.0 | 118.4 | 115.2 | 113.6 | 115.2 |
| 55°   | 1416.3 | 1073.8 | 398.5 | 169.6 | 131.2 | 116.8 | 113.6 | 113.6 | 110.4 | 108.8 | 108.8 |
| 57.5° | 1437.1 | 1064.2 | 376.1 | 166.4 | 128.0 | 112.0 | 108.8 | 107.2 | 105.6 | 104.0 | 104.0 |
| 60°   | 1427.5 | 1029.0 | 326.5 | 158.4 | 124.8 | 108.8 | 102.4 | 102.4 | 102.4 | 99.2  | 100.8 |
| 62.5° | 1361.9 | 909.0  | 262.5 | 145.6 | 120.0 | 102.4 | 96.0  | 99.2  | 99.2  | 97.6  | 97.6  |
| 65°   | 1189.1 | 750.6  | 212.8 | 134.4 | 113.6 | 97.6  | 91.2  | 96.0  | 97.6  | 96.0  | 94.4  |
| 67.5° | 950.6  | 577.7  | 176.0 | 121.6 | 105.6 | 89.6  | 84.8  | 89.6  | 91.2  | 89.6  | 89.6  |
| 70°   | 652.9  | 372.9  | 142.4 | 108.8 | 94.4  | 81.6  | 76.8  | 80.0  | 80.0  | 81.6  | 81.6  |
| 72.5° | 337.7  | 201.6  | 116.8 | 92.8  | 81.6  | 73.6  | 68.8  | 68.8  | 67.2  | 67.2  | 67.2  |
| 75°   | 168.0  | 137.6  | 97.6  | 78.4  | 68.8  | 62.4  | 59.2  | 56.0  | 56.0  | 56.0  | 56.0  |
| 77.5° | 116.8  | 105.6  | 80.0  | 62.4  | 56.0  | 51.2  | 51.2  | 46.4  | 46.4  | 46.4  | 46.4  |
| 80°   | 88.0   | 83.2   | 60.8  | 48.0  | 43.2  | 40.0  | 40.0  | 38.4  | 38.4  | 36.8  | 36.8  |
| 82.5° | 62.4   | 67.2   | 46.4  | 35.2  | 32.0  | 30.4  | 30.4  | 28.8  | 28.8  | 25.6  | 25.6  |
| 85°   | 49.6   | 56.0   | 35.2  | 25.6  | 24.0  | 20.8  | 20.8  | 19.2  | 19.2  | 17.6  | 16.0  |
| 87.5° | 14.4   | 30.4   | 14.4  | 9.6   | 9.6   | 9.6   | 9.6   | 8.0   | 8.0   | 6.4   | 6.4   |
| 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)