

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: P675667

Luminaire Tested: **CCW-SA-1C-727-U-SL4**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P675667  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-1C-727-U-SL4  
Description: INVUE CLEAR CURVE Wall Pack MOUNT LIGHT SQUARE LUMINAIRE @615mA w/  
SL4 distribution lens  
Light Source: (16) 2700K CCT, 70 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

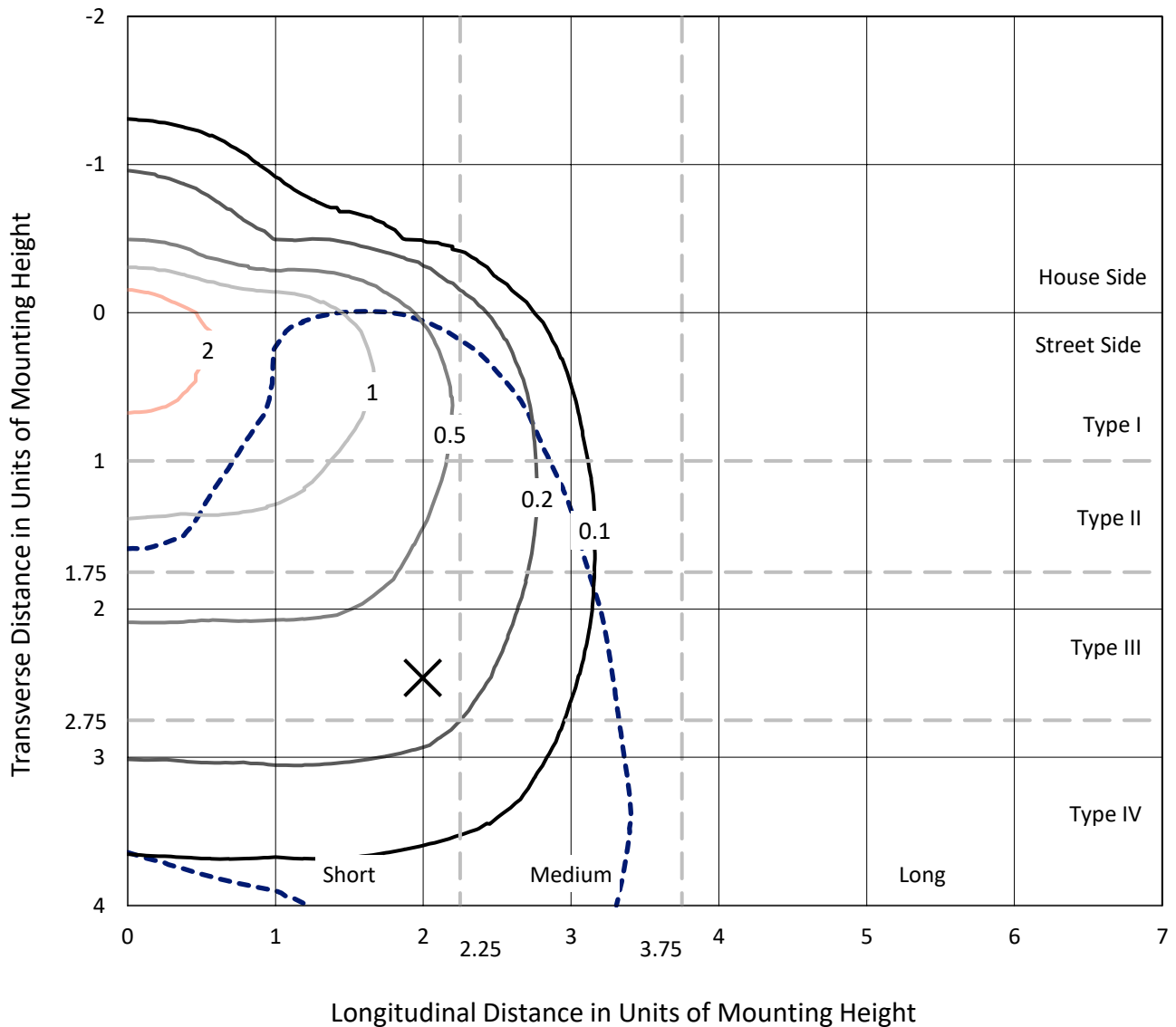
Lumens per Lamp: N/A  
Luminaire Lumens: 3705.2 lumens  
Efficiency: N/A  
Efficacy: 115.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 32  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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

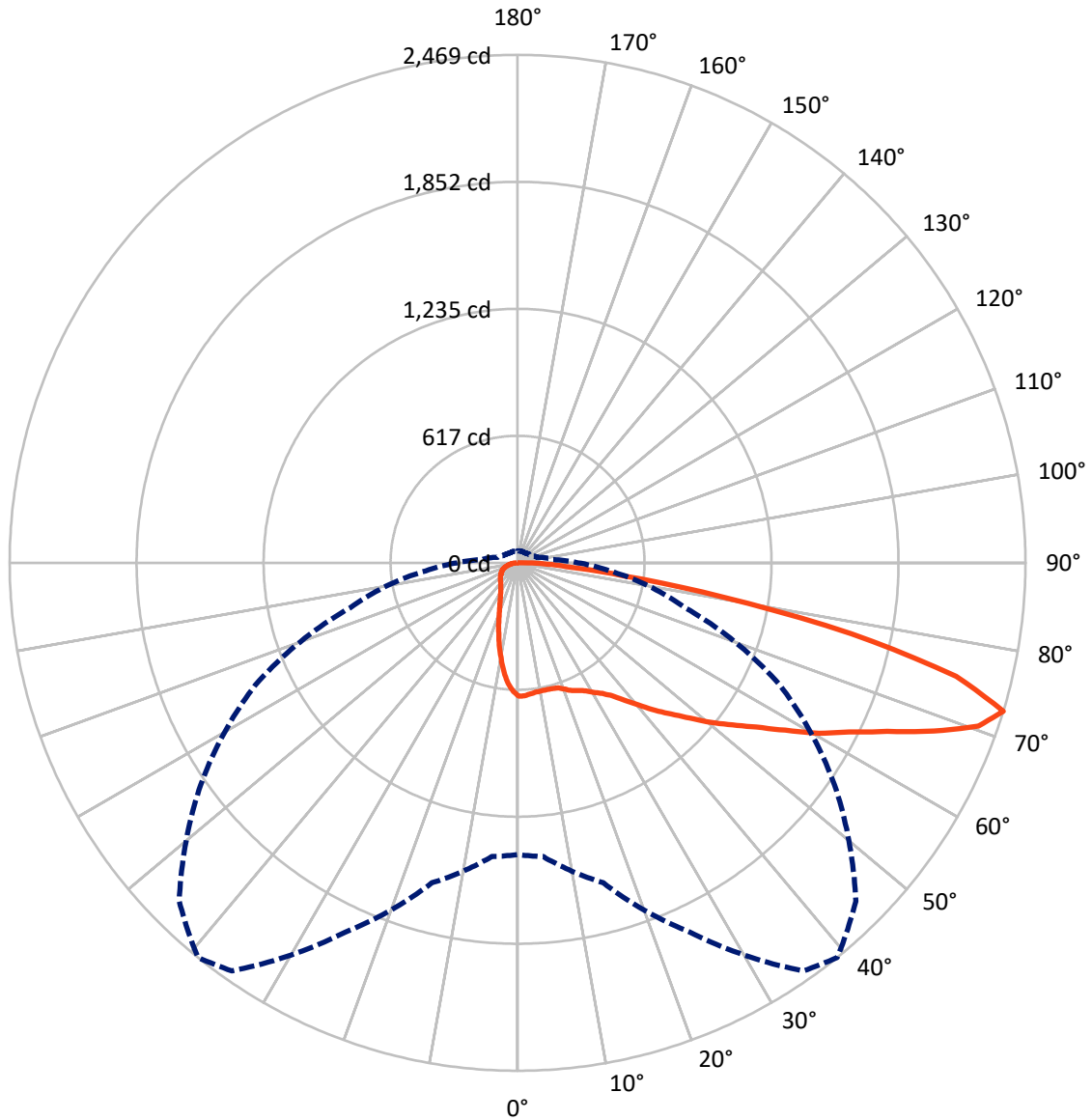
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 2.9 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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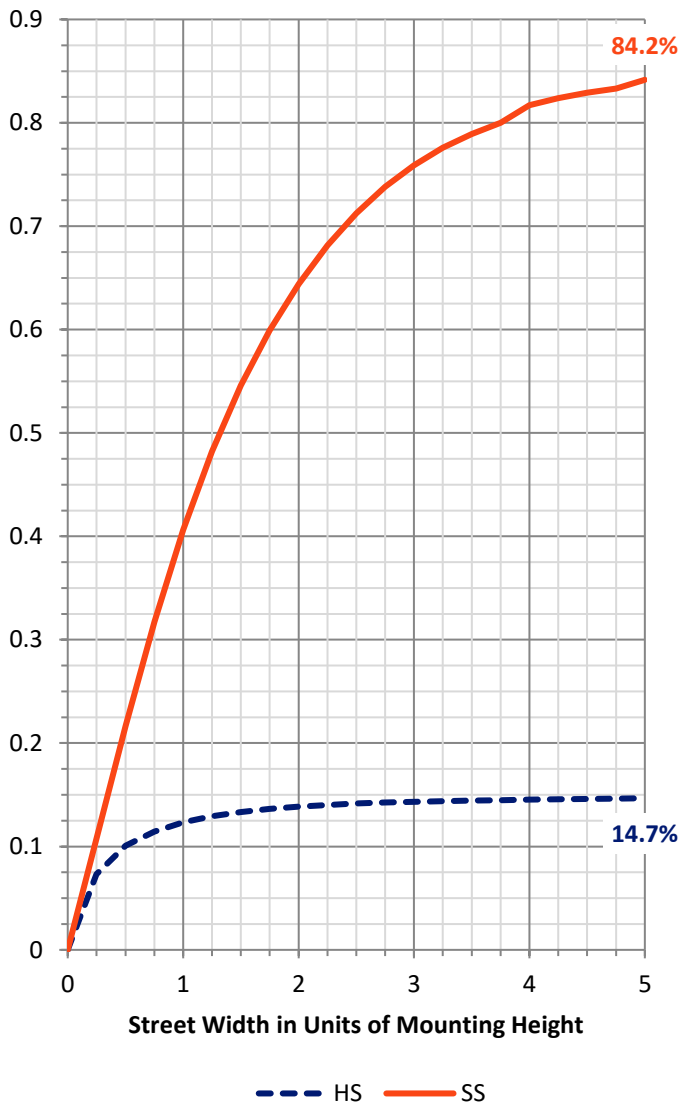
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 550.7    | 0.0    | 550.7  |
|                    | % Fixture | 14.9     | 0.0    | 14.9   |
| <b>Street Side</b> | Lumens    | 3154.5   | 0.0    | 3154.5 |
|                    | % Fixture | 85.1     | 0.0    | 85.1   |
| <b>Total</b>       | Lumens    | 3705.2   | 0.0    | 3705.2 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 57.3   | 1.5       |
| 10°-20°   | 146.3  | 3.9       |
| 20°-30°   | 222.8  | 6.0       |
| 30°-40°   | 326.0  | 8.8       |
| 40°-50°   | 499.1  | 13.5      |
| 50°-60°   | 732.0  | 19.8      |
| 60°-70°   | 933.5  | 25.2      |
| 70°-80°   | 674.5  | 18.2      |
| 80°-90°   | 113.8  | 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°    | 3705.2 | 100.0     |
| 0°-180°   | 3705.2 | 100.0     |

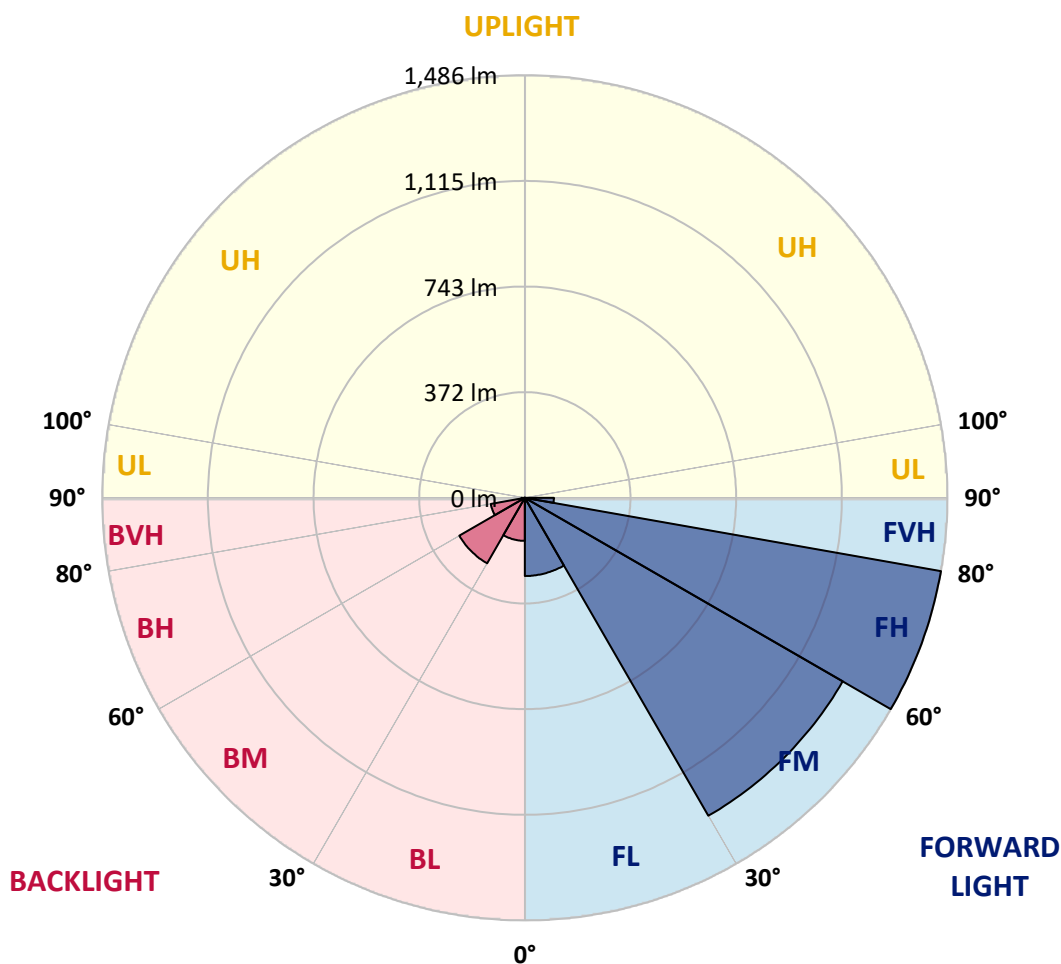


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 275.0  | 7.4       |                         |      |         |
| FM (30°-60°)   | 1291.0 | 34.8      |                         |      |         |
| FH (60°-80°)   | 1486.3 | 40.1      |                         |      | G1/1800 |
| FVH (80°-90°)  | 102.2  | 2.8       |                         |      | G2/225  |
| BL (0°-30°)    | 151.4  | 4.1       | B1/500                  |      |         |
| BM (30°-60°)   | 266.0  | 7.2       | B1/1000                 |      |         |
| BH (60°-80°)   | 121.7  | 3.3       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 11.5   | 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°    | 648.6  | 648.6  | 648.6  | 648.6  | 648.6  | 648.6  | 648.6  | 648.6  | 648.6  | 648.6  | 648.6  |
| 2.5°  | 658.3  | 659.7  | 656.9  | 654.1  | 652.8  | 647.2  | 652.8  | 650.0  | 647.2  | 647.2  | 647.2  |
| 5°    | 650.0  | 651.4  | 651.4  | 648.6  | 650.0  | 640.2  | 638.8  | 640.2  | 636.0  | 633.3  | 631.9  |
| 7.5°  | 637.4  | 640.2  | 645.8  | 644.4  | 638.8  | 634.7  | 636.0  | 634.7  | 627.7  | 623.5  | 612.4  |
| 10°   | 627.7  | 630.5  | 633.3  | 636.0  | 634.7  | 633.3  | 631.9  | 626.3  | 624.9  | 615.2  | 604.0  |
| 12.5° | 618.0  | 618.0  | 619.3  | 630.5  | 631.9  | 631.9  | 623.5  | 623.5  | 619.3  | 618.0  | 601.3  |
| 15°   | 608.2  | 612.4  | 623.5  | 626.3  | 631.9  | 634.7  | 630.5  | 630.5  | 623.5  | 613.8  | 601.3  |
| 17.5° | 611.0  | 618.0  | 629.1  | 636.0  | 638.8  | 638.8  | 644.4  | 640.2  | 630.5  | 624.9  | 612.4  |
| 20°   | 624.9  | 626.3  | 640.2  | 652.8  | 655.5  | 655.5  | 650.0  | 645.8  | 638.8  | 629.1  | 612.4  |
| 22.5° | 633.3  | 643.0  | 659.7  | 666.7  | 675.0  | 675.0  | 668.1  | 658.3  | 648.6  | 638.8  | 620.7  |
| 25°   | 669.5  | 670.8  | 677.8  | 688.9  | 693.1  | 687.5  | 680.6  | 669.5  | 656.9  | 647.2  | 630.5  |
| 27.5° | 694.5  | 701.5  | 709.8  | 715.4  | 708.4  | 704.2  | 698.7  | 686.2  | 676.4  | 668.1  | 644.4  |
| 30°   | 740.4  | 732.1  | 737.7  | 740.4  | 727.9  | 730.7  | 715.4  | 704.2  | 693.1  | 693.1  | 666.7  |
| 32.5° | 768.3  | 775.2  | 769.7  | 768.3  | 758.5  | 757.1  | 747.4  | 734.9  | 727.9  | 736.3  | 700.1  |
| 35°   | 817.0  | 812.8  | 812.8  | 811.4  | 800.3  | 793.3  | 793.3  | 771.1  | 778.0  | 796.1  | 751.6  |
| 37.5° | 842.0  | 840.6  | 849.0  | 856.0  | 844.8  | 849.0  | 844.8  | 835.1  | 837.9  | 869.9  | 815.6  |
| 40°   | 867.1  | 876.8  | 893.5  | 896.3  | 903.3  | 908.8  | 906.1  | 904.7  | 915.8  | 967.3  | 901.9  |
| 42.5° | 890.7  | 899.1  | 924.2  | 946.4  | 963.1  | 981.2  | 982.6  | 982.6  | 1018.8 | 1092.6 | 1006.3 |
| 45°   | 921.4  | 928.3  | 963.1  | 1007.7 | 1035.5 | 1048.0 | 1059.2 | 1071.7 | 1120.4 | 1208.1 | 1117.6 |
| 47.5° | 963.1  | 968.7  | 1010.4 | 1066.1 | 1120.4 | 1127.4 | 1149.6 | 1163.5 | 1237.3 | 1326.4 | 1231.7 |
| 50°   | 1023.0 | 1018.8 | 1052.2 | 1132.9 | 1185.8 | 1219.2 | 1251.2 | 1276.3 | 1348.6 | 1446.1 | 1320.8 |
| 52.5° | 1071.7 | 1071.7 | 1096.7 | 1203.9 | 1276.3 | 1308.3 | 1341.7 | 1376.5 | 1460.0 | 1565.8 | 1393.2 |
| 55°   | 1155.2 | 1146.8 | 1162.1 | 1273.5 | 1377.9 | 1408.5 | 1472.5 | 1501.7 | 1582.5 | 1654.8 | 1454.4 |
| 57.5° | 1212.3 | 1216.4 | 1234.5 | 1365.3 | 1497.6 | 1535.1 | 1599.2 | 1620.0 | 1691.0 | 1748.1 | 1499.0 |
| 60°   | 1287.4 | 1273.5 | 1312.5 | 1467.0 | 1629.8 | 1682.7 | 1735.6 | 1748.1 | 1801.0 | 1807.9 | 1519.8 |
| 62.5° | 1359.8 | 1357.0 | 1390.4 | 1568.6 | 1771.8 | 1809.3 | 1863.6 | 1877.5 | 1899.8 | 1855.3 | 1490.6 |
| 65°   | 1404.3 | 1422.4 | 1485.0 | 1679.9 | 1933.2 | 1975.0 | 2029.2 | 2001.4 | 1976.3 | 1813.5 | 1347.3 |
| 67.5° | 1465.6 | 1473.9 | 1569.9 | 1801.0 | 2119.7 | 2182.3 | 2229.7 | 2119.7 | 1933.2 | 1642.3 | 1134.3 |
| 70°   | 1479.5 | 1501.7 | 1627.0 | 1927.6 | 2311.8 | 2375.8 | 2378.6 | 2079.3 | 1775.9 | 1336.1 | 822.5  |
| 72.5° | 1418.2 | 1433.5 | 1610.3 | 1980.5 | 2421.7 | 2469.0 | 2325.7 | 1880.3 | 1407.1 | 842.0  | 448.2  |
| 75°   | 1192.8 | 1235.9 | 1401.5 | 1817.7 | 2219.9 | 2201.8 | 1970.8 | 1434.9 | 844.8  | 373.0  | 189.3  |
| 77.5° | 830.9  | 832.3  | 1004.9 | 1322.2 | 1661.8 | 1657.6 | 1405.7 | 832.3  | 361.9  | 150.3  | 111.3  |
| 80°   | 368.8  | 395.3  | 499.7  | 712.6  | 1009.1 | 1009.1 | 819.8  | 413.4  | 180.9  | 97.4   | 76.5   |
| 82.5° | 217.1  | 225.5  | 267.2  | 332.6  | 491.3  | 517.7  | 392.5  | 275.6  | 123.9  | 61.2   | 47.3   |
| 85°   | 160.1  | 174.0  | 199.0  | 200.4  | 232.4  | 236.6  | 217.1  | 239.4  | 84.9   | 33.4   | 39.0   |
| 87.5° | 119.7  | 128.0  | 158.7  | 132.2  | 123.9  | 116.9  | 133.6  | 245.0  | 32.0   | 16.7   | 12.5   |
| 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°    | 648.6  | 648.6 | 648.6 | 648.6 | 648.6 | 648.6 | 648.6 | 648.6 | 648.6 | 648.6 | 648.6 |
| 2.5°  | 641.6  | 641.6 | 638.8 | 633.3 | 633.3 | 622.1 | 624.9 | 627.7 | 620.7 | 620.7 | 622.1 |
| 5°    | 631.9  | 626.3 | 619.3 | 611.0 | 605.4 | 590.1 | 587.3 | 577.6 | 576.2 | 573.4 | 569.2 |
| 7.5°  | 612.4  | 604.0 | 591.5 | 579.0 | 560.9 | 547.0 | 530.3 | 516.4 | 510.8 | 506.6 | 505.2 |
| 10°   | 594.3  | 592.9 | 572.0 | 547.0 | 519.1 | 492.7 | 467.6 | 449.5 | 438.4 | 431.5 | 430.1 |
| 12.5° | 594.3  | 583.2 | 553.9 | 519.1 | 478.8 | 439.8 | 407.8 | 382.7 | 367.4 | 356.3 | 352.1 |
| 15°   | 591.5  | 580.4 | 541.4 | 488.5 | 442.6 | 389.7 | 345.2 | 318.7 | 296.5 | 285.3 | 286.7 |
| 17.5° | 594.3  | 577.6 | 523.3 | 466.3 | 402.2 | 345.2 | 292.3 | 260.3 | 238.0 | 229.6 | 228.3 |
| 20°   | 595.7  | 574.8 | 509.4 | 435.6 | 360.5 | 296.5 | 246.3 | 215.7 | 199.0 | 193.5 | 193.5 |
| 22.5° | 592.9  | 566.5 | 488.5 | 399.4 | 324.3 | 256.1 | 214.3 | 187.9 | 176.8 | 169.8 | 172.6 |
| 25°   | 605.4  | 565.1 | 469.0 | 368.8 | 282.5 | 222.7 | 190.7 | 171.2 | 164.2 | 160.1 | 161.4 |
| 27.5° | 608.2  | 565.1 | 453.7 | 334.0 | 246.3 | 197.6 | 172.6 | 160.1 | 154.5 | 151.7 | 150.3 |
| 30°   | 619.3  | 567.9 | 435.6 | 299.2 | 217.1 | 178.1 | 158.7 | 151.7 | 147.5 | 146.1 | 146.1 |
| 32.5° | 650.0  | 576.2 | 416.1 | 270.0 | 192.1 | 161.4 | 148.9 | 143.4 | 140.6 | 139.2 | 140.6 |
| 35°   | 686.2  | 598.5 | 395.3 | 239.4 | 174.0 | 150.3 | 140.6 | 136.4 | 135.0 | 135.0 | 135.0 |
| 37.5° | 741.8  | 631.9 | 377.2 | 214.3 | 158.7 | 139.2 | 132.2 | 130.8 | 129.4 | 130.8 | 130.8 |
| 40°   | 805.8  | 668.1 | 360.5 | 194.9 | 147.5 | 132.2 | 125.3 | 125.3 | 123.9 | 125.3 | 126.7 |
| 42.5° | 879.6  | 712.6 | 343.8 | 175.4 | 137.8 | 126.7 | 121.1 | 119.7 | 118.3 | 121.1 | 122.5 |
| 45°   | 981.2  | 773.8 | 332.6 | 164.2 | 130.8 | 121.1 | 115.5 | 115.5 | 114.1 | 114.1 | 116.9 |
| 47.5° | 1066.1 | 832.3 | 332.6 | 153.1 | 126.7 | 116.9 | 111.3 | 111.3 | 108.6 | 110.0 | 110.0 |
| 50°   | 1137.1 | 882.4 | 339.6 | 150.3 | 121.1 | 112.7 | 108.6 | 105.8 | 104.4 | 104.4 | 104.4 |
| 52.5° | 1184.4 | 913.0 | 345.2 | 147.5 | 118.3 | 107.2 | 104.4 | 103.0 | 100.2 | 98.8  | 100.2 |
| 55°   | 1231.7 | 933.9 | 346.6 | 147.5 | 114.1 | 101.6 | 98.8  | 98.8  | 96.0  | 94.6  | 94.6  |
| 57.5° | 1249.8 | 925.5 | 327.1 | 144.7 | 111.3 | 97.4  | 94.6  | 93.3  | 91.9  | 90.5  | 90.5  |
| 60°   | 1241.5 | 894.9 | 283.9 | 137.8 | 108.6 | 94.6  | 89.1  | 89.1  | 89.1  | 86.3  | 87.7  |
| 62.5° | 1184.4 | 790.5 | 228.3 | 126.7 | 104.4 | 89.1  | 83.5  | 86.3  | 86.3  | 84.9  | 84.9  |
| 65°   | 1034.1 | 652.8 | 185.1 | 116.9 | 98.8  | 84.9  | 79.3  | 83.5  | 84.9  | 83.5  | 82.1  |
| 67.5° | 826.7  | 502.4 | 153.1 | 105.8 | 91.9  | 77.9  | 73.8  | 77.9  | 79.3  | 77.9  | 77.9  |
| 70°   | 567.9  | 324.3 | 123.9 | 94.6  | 82.1  | 71.0  | 66.8  | 69.6  | 69.6  | 71.0  | 71.0  |
| 72.5° | 293.7  | 175.4 | 101.6 | 80.7  | 71.0  | 64.0  | 59.8  | 59.8  | 58.5  | 58.5  | 58.5  |
| 75°   | 146.1  | 119.7 | 84.9  | 68.2  | 59.8  | 54.3  | 51.5  | 48.7  | 48.7  | 48.7  | 48.7  |
| 77.5° | 101.6  | 91.9  | 69.6  | 54.3  | 48.7  | 44.5  | 44.5  | 40.4  | 40.4  | 40.4  | 40.4  |
| 80°   | 76.5   | 72.4  | 52.9  | 41.8  | 37.6  | 34.8  | 34.8  | 33.4  | 33.4  | 32.0  | 32.0  |
| 82.5° | 54.3   | 58.5  | 40.4  | 30.6  | 27.8  | 26.4  | 26.4  | 25.1  | 25.1  | 22.3  | 22.3  |
| 85°   | 43.1   | 48.7  | 30.6  | 22.3  | 20.9  | 18.1  | 18.1  | 16.7  | 16.7  | 15.3  | 13.9  |
| 87.5° | 12.5   | 26.4  | 12.5  | 8.4   | 8.4   | 8.4   | 8.4   | 7.0   | 7.0   | 5.6   | 5.6   |
| 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)