

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: P472263

Luminaire Tested: **CCW-VA-3-727-U-T4FT**

Issue Date: 01/27/2021

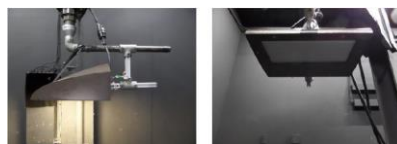
**Test Information**

Test Method: LM-79-08  
Report Number: P472263  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-VA-3-727-U-T4FT  
Description: INVUE WALL PACK Wave Stream LUMINAIRE WITH T4FT DISTRIBUTION LENS  
Light Source: 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4822.1 lumens  
Efficiency: N/A  
Efficacy: 98.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

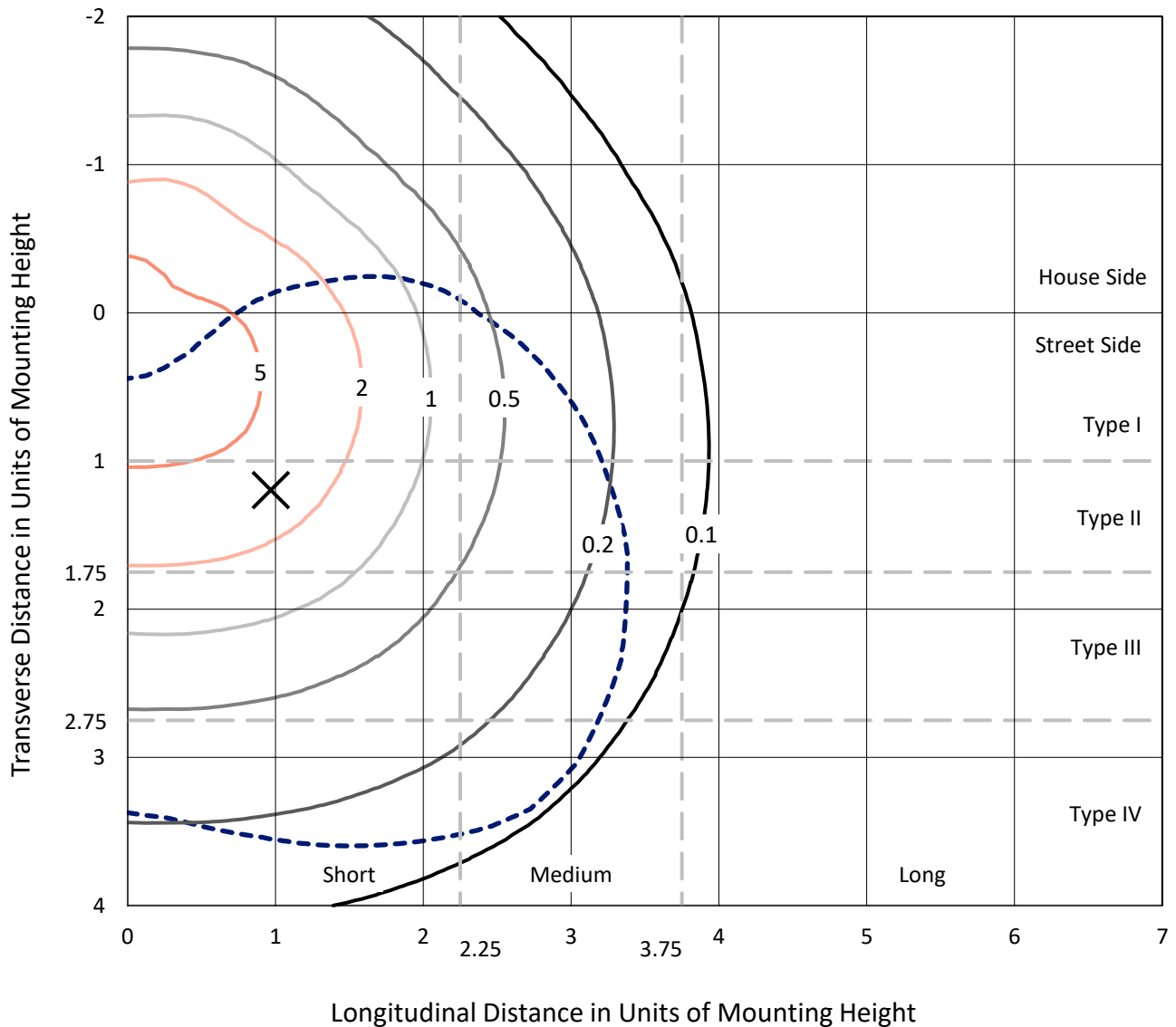
Input Watts (W): 49.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

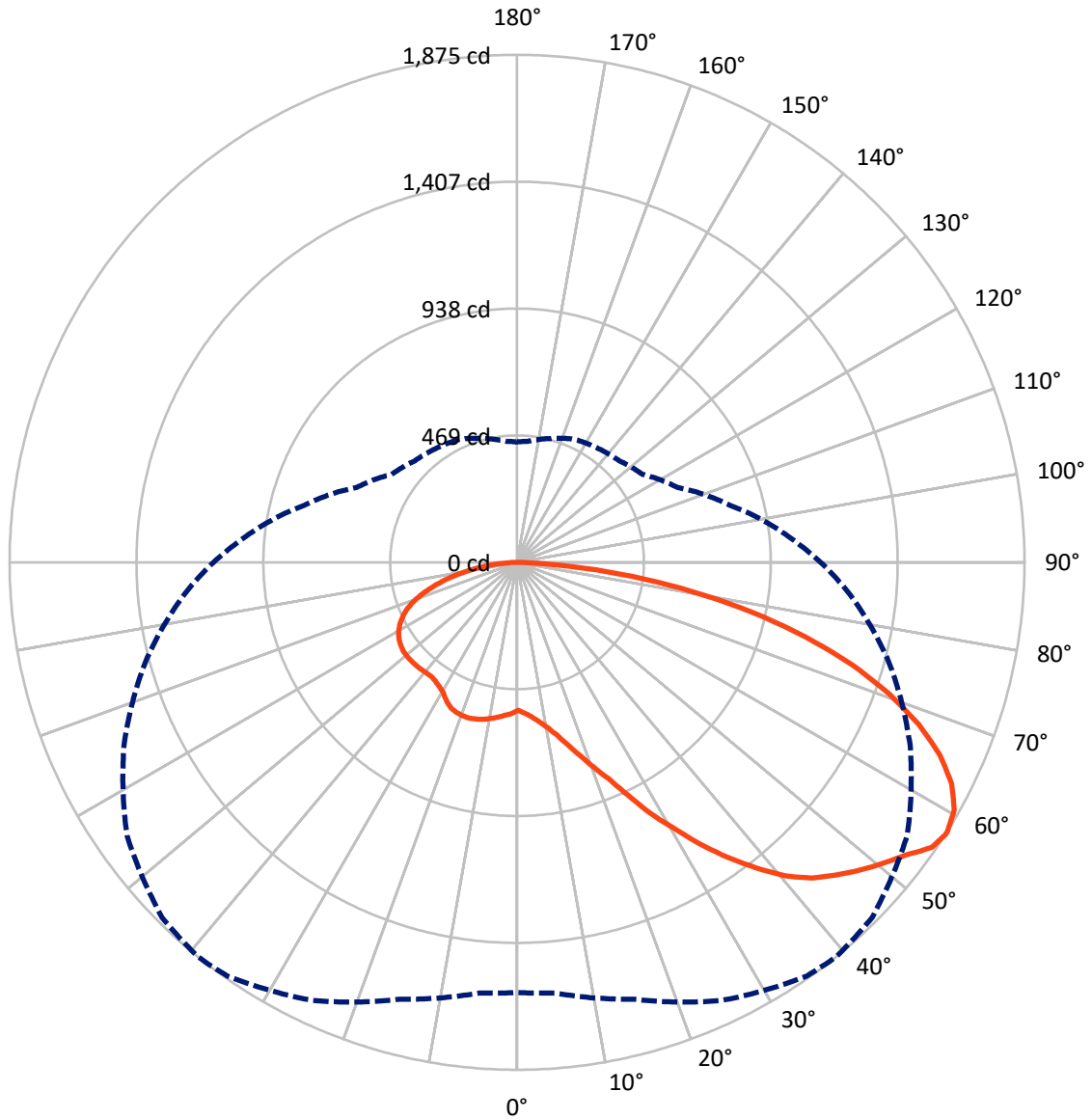
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.5 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral      - - - Horizontal Cone Through 57-Deg Vertical

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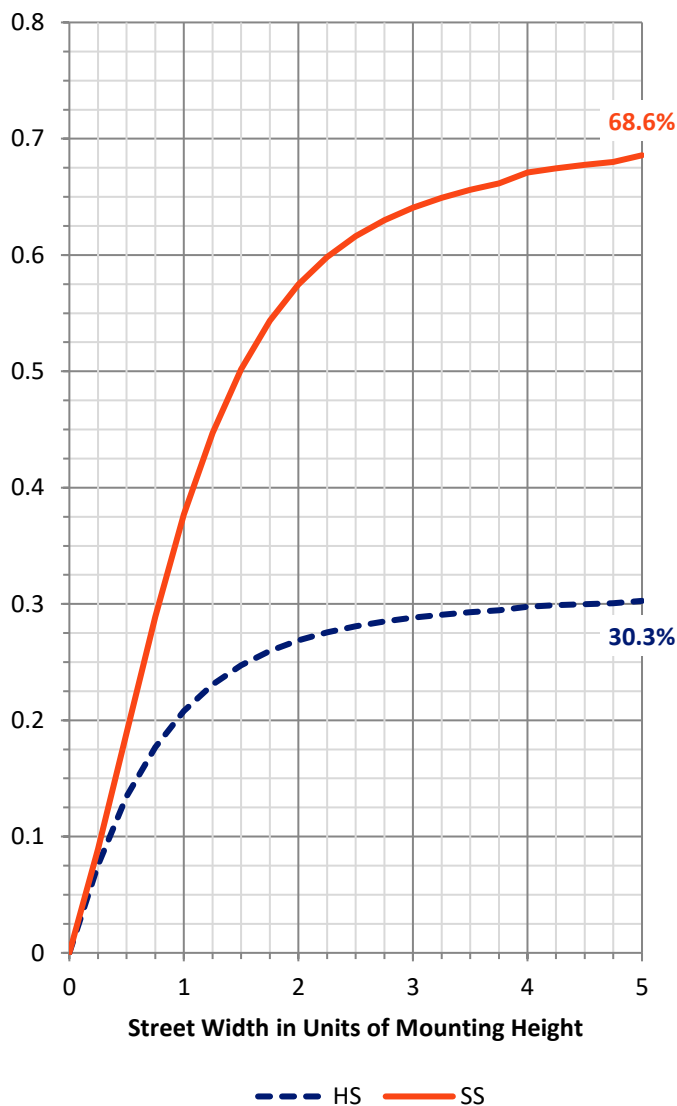
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1479.6   | 0.0    | 1479.6 |
|                    | % Fixture | 30.7     | 0.0    | 30.7   |
| <b>Street Side</b> | Lumens    | 3342.5   | 0.0    | 3342.5 |
|                    | % Fixture | 69.3     | 0.0    | 69.3   |
| <b>Total</b>       | Lumens    | 4822.1   | 0.0    | 4822.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 55.4   | 1.1       |
| 10°-20°   | 184.6  | 3.8       |
| 20°-30°   | 356.7  | 7.4       |
| 30°-40°   | 577.0  | 12.0      |
| 40°-50°   | 810.6  | 16.8      |
| 50°-60°   | 1001.3 | 20.8      |
| 60°-70°   | 995.2  | 20.6      |
| 70°-80°   | 673.4  | 14.0      |
| 80°-90°   | 168.1  | 3.5       |
| 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°    | 4822.1 | 100.0     |
| 0°-180°   | 4822.1 | 100.0     |

**Coefficient of Utilization**

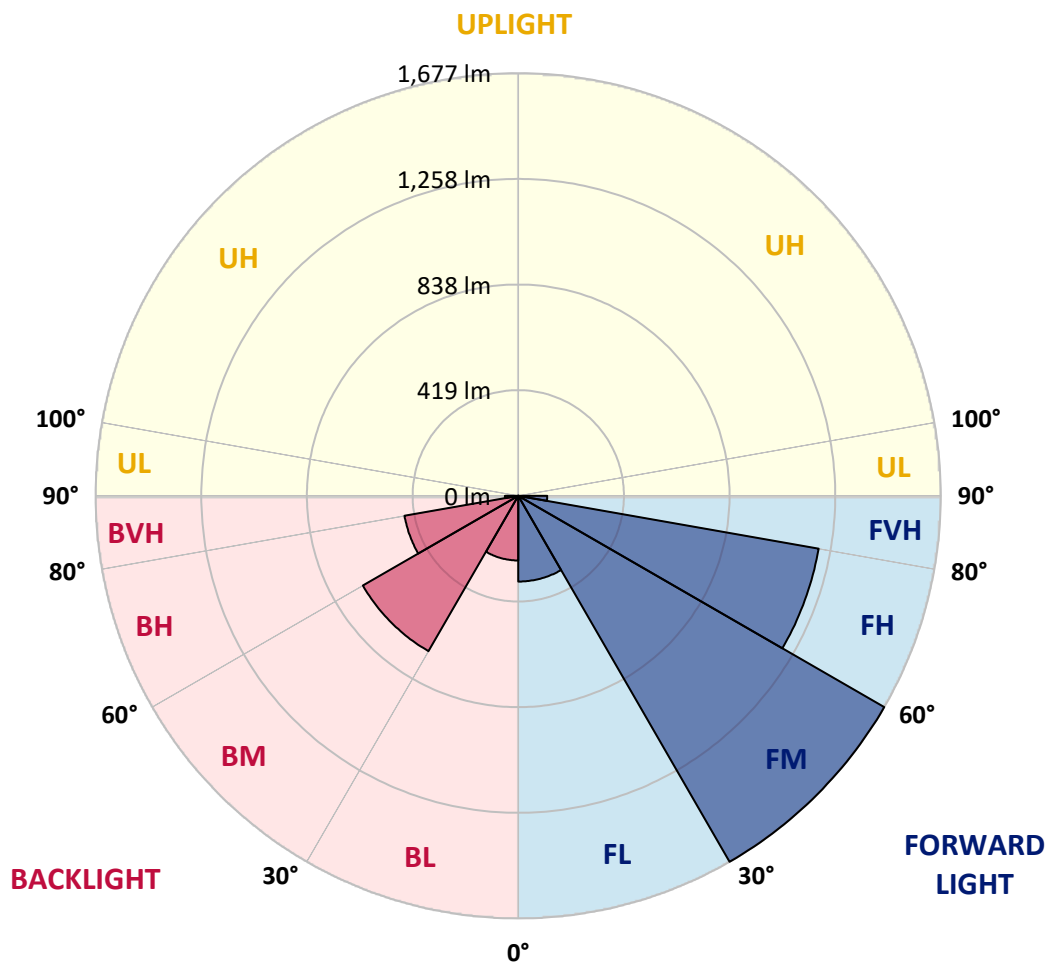


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 340.2  | 7.1       |                         |      |         |
| FM (30°-60°)   | 1676.9 | 34.8      |                         |      |         |
| FH (60°-80°)   | 1210.4 | 25.1      |                         |      | G1/1800 |
| FVH (80°-90°)  | 115.0  | 2.4       |                         |      | G2/225  |
| BL (0°-30°)    | 256.4  | 5.3       | B1/500                  |      |         |
| BM (30°-60°)   | 711.9  | 14.8      | B1/1000                 |      |         |
| BH (60°-80°)   | 458.2  | 9.5       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 53.1   | 1.1       |                         |      | 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°    | 546.8  | 546.8  | 546.8  | 546.8  | 546.8  | 546.8  | 546.8  | 546.8  | 546.8  | 546.8  | 546.8  |
| 2.5°  | 563.1  | 562.3  | 561.6  | 561.6  | 560.1  | 558.6  | 557.9  | 556.4  | 557.2  | 558.6  | 559.4  |
| 5°    | 579.3  | 577.8  | 577.8  | 576.4  | 574.1  | 574.1  | 571.9  | 569.0  | 568.2  | 567.5  | 567.5  |
| 7.5°  | 604.4  | 602.2  | 603.0  | 600.8  | 598.5  | 595.6  | 591.9  | 588.2  | 586.7  | 581.5  | 577.1  |
| 10°   | 633.3  | 632.5  | 630.3  | 626.6  | 624.4  | 621.4  | 617.7  | 611.1  | 605.9  | 600.0  | 596.3  |
| 12.5° | 667.3  | 665.8  | 666.5  | 663.6  | 659.9  | 654.7  | 648.8  | 642.1  | 632.5  | 621.4  | 614.1  |
| 15°   | 711.6  | 708.6  | 708.6  | 707.9  | 700.5  | 699.0  | 693.1  | 678.3  | 665.0  | 650.3  | 633.3  |
| 17.5° | 765.5  | 764.8  | 761.8  | 758.9  | 754.4  | 749.3  | 743.4  | 727.1  | 707.2  | 684.3  | 661.3  |
| 20°   | 823.2  | 821.7  | 823.9  | 819.5  | 810.6  | 808.4  | 798.8  | 780.3  | 755.9  | 729.3  | 694.6  |
| 22.5° | 886.0  | 887.5  | 887.5  | 886.0  | 878.6  | 869.7  | 861.6  | 837.2  | 809.1  | 776.6  | 736.0  |
| 25°   | 962.1  | 962.8  | 967.3  | 971.7  | 967.3  | 953.2  | 942.1  | 904.5  | 866.8  | 825.4  | 777.4  |
| 27.5° | 1047.8 | 1042.6 | 1055.2 | 1063.3 | 1055.2 | 1051.5 | 1027.1 | 985.7  | 934.0  | 882.3  | 822.4  |
| 30°   | 1130.6 | 1130.6 | 1140.9 | 1152.7 | 1147.6 | 1138.7 | 1118.7 | 1065.5 | 1006.4 | 940.7  | 868.2  |
| 32.5° | 1207.4 | 1216.3 | 1220.7 | 1248.1 | 1245.1 | 1240.7 | 1217.8 | 1147.6 | 1073.7 | 999.0  | 912.6  |
| 35°   | 1298.3 | 1295.3 | 1313.8 | 1330.8 | 1344.1 | 1338.2 | 1321.2 | 1250.3 | 1153.5 | 1060.4 | 961.3  |
| 37.5° | 1367.0 | 1372.9 | 1389.2 | 1419.5 | 1429.1 | 1432.0 | 1410.6 | 1337.5 | 1227.4 | 1126.1 | 1015.3 |
| 40°   | 1419.5 | 1423.9 | 1455.0 | 1493.4 | 1513.3 | 1523.7 | 1502.2 | 1413.6 | 1296.8 | 1178.6 | 1057.4 |
| 42.5° | 1461.6 | 1464.6 | 1497.1 | 1551.8 | 1585.0 | 1595.4 | 1576.1 | 1482.3 | 1355.9 | 1220.7 | 1092.1 |
| 45°   | 1489.7 | 1494.9 | 1533.3 | 1589.4 | 1641.2 | 1648.6 | 1638.9 | 1542.9 | 1408.4 | 1260.6 | 1117.3 |
| 47.5° | 1514.1 | 1520.0 | 1562.8 | 1633.8 | 1691.4 | 1701.0 | 1692.2 | 1596.1 | 1458.6 | 1296.8 | 1138.7 |
| 50°   | 1546.6 | 1553.2 | 1596.1 | 1675.2 | 1738.7 | 1749.8 | 1746.8 | 1652.2 | 1505.9 | 1337.5 | 1160.9 |
| 52.5° | 1577.6 | 1582.8 | 1633.8 | 1721.7 | 1790.4 | 1797.8 | 1795.6 | 1704.7 | 1554.0 | 1381.1 | 1188.9 |
| 55°   | 1602.0 | 1607.9 | 1668.5 | 1777.1 | 1851.0 | 1859.2 | 1843.6 | 1745.4 | 1591.7 | 1412.8 | 1215.5 |
| 57°   | 1589.4 | 1597.6 | 1671.5 | 1786.7 | 1866.5 | 1875.4 | 1855.5 | 1760.1 | 1602.7 | 1421.7 | 1225.1 |
| 57.5° | 1585.7 | 1591.7 | 1668.5 | 1786.0 | 1867.3 | 1875.4 | 1855.5 | 1759.4 | 1602.0 | 1421.0 | 1225.1 |
| 60°   | 1531.8 | 1545.8 | 1632.3 | 1759.4 | 1845.8 | 1856.2 | 1837.0 | 1729.8 | 1583.5 | 1400.3 | 1205.2 |
| 62.5° | 1459.4 | 1478.6 | 1569.5 | 1696.6 | 1794.1 | 1801.5 | 1782.3 | 1680.3 | 1542.1 | 1356.7 | 1163.8 |
| 65°   | 1355.2 | 1384.8 | 1480.1 | 1602.7 | 1708.4 | 1717.3 | 1698.1 | 1597.6 | 1473.4 | 1290.2 | 1101.7 |
| 67.5° | 1253.2 | 1271.0 | 1372.9 | 1489.7 | 1588.0 | 1601.3 | 1585.0 | 1495.6 | 1378.8 | 1201.5 | 1019.0 |
| 70°   | 1137.2 | 1149.8 | 1234.0 | 1348.5 | 1447.6 | 1458.6 | 1444.6 | 1361.1 | 1251.0 | 1091.4 | 922.2  |
| 72.5° | 997.6  | 1010.9 | 1082.5 | 1188.2 | 1276.1 | 1293.9 | 1284.3 | 1197.8 | 1098.1 | 959.9  | 814.3  |
| 75°   | 840.2  | 854.9  | 919.2  | 1003.5 | 1089.2 | 1099.5 | 1088.4 | 1024.9 | 934.7  | 809.9  | 682.8  |
| 77.5° | 681.3  | 690.9  | 737.5  | 801.0  | 867.5  | 889.7  | 886.7  | 841.6  | 750.8  | 651.7  | 548.3  |
| 80°   | 509.9  | 511.3  | 535.7  | 588.2  | 641.4  | 657.6  | 661.3  | 620.7  | 560.8  | 486.2  | 410.8  |
| 82.5° | 322.2  | 327.3  | 340.6  | 379.8  | 405.7  | 427.8  | 433.0  | 409.4  | 371.7  | 325.1  | 278.6  |
| 85°   | 150.0  | 145.6  | 155.9  | 169.2  | 206.2  | 206.2  | 212.8  | 200.3  | 189.2  | 173.6  | 144.1  |
| 87.5° | 12.6   | 11.8   | 11.8   | 12.6   | 20.0   | 21.4   | 34.0   | 37.7   | 40.6   | 40.6   | 42.9   |
| 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°    | 546.8  | 546.8  | 546.8 | 546.8 | 546.8 | 546.8 | 546.8 | 546.8 | 546.8 | 546.8 | 546.8 |
| 2.5°  | 557.9  | 557.2  | 554.9 | 554.9 | 556.4 | 558.6 | 559.4 | 560.1 | 560.8 | 561.6 | 561.6 |
| 5°    | 566.8  | 566.0  | 564.5 | 563.1 | 564.5 | 565.3 | 567.5 | 569.0 | 569.0 | 570.5 | 569.7 |
| 7.5°  | 574.9  | 575.6  | 574.1 | 573.4 | 573.4 | 574.9 | 577.8 | 580.1 | 581.5 | 582.3 | 583.8 |
| 10°   | 593.4  | 588.9  | 583.0 | 580.1 | 580.1 | 583.0 | 586.0 | 588.9 | 591.9 | 593.4 | 593.4 |
| 12.5° | 609.6  | 604.4  | 593.4 | 588.9 | 588.2 | 591.1 | 594.8 | 599.3 | 601.5 | 603.7 | 603.7 |
| 15°   | 624.4  | 620.0  | 606.7 | 596.3 | 593.4 | 595.6 | 600.0 | 605.2 | 608.9 | 611.1 | 611.1 |
| 17.5° | 652.5  | 639.2  | 621.4 | 604.4 | 598.5 | 599.3 | 604.4 | 609.6 | 614.1 | 615.5 | 614.8 |
| 20°   | 679.1  | 662.1  | 635.5 | 611.1 | 601.5 | 598.5 | 603.7 | 610.4 | 614.1 | 616.3 | 616.3 |
| 22.5° | 709.4  | 690.9  | 649.5 | 617.7 | 600.0 | 595.6 | 600.0 | 605.9 | 610.4 | 611.8 | 613.3 |
| 25°   | 752.2  | 719.7  | 665.0 | 622.9 | 597.8 | 588.9 | 591.9 | 597.8 | 603.0 | 603.7 | 603.0 |
| 27.5° | 790.7  | 753.7  | 685.7 | 628.1 | 592.6 | 576.4 | 573.4 | 577.8 | 586.0 | 591.1 | 592.6 |
| 30°   | 823.9  | 789.9  | 707.2 | 632.5 | 583.0 | 555.7 | 552.0 | 553.5 | 558.6 | 572.7 | 573.4 |
| 32.5° | 873.4  | 821.0  | 728.6 | 636.2 | 571.9 | 544.6 | 539.4 | 537.9 | 539.4 | 546.8 | 546.8 |
| 35°   | 907.4  | 855.7  | 750.0 | 642.9 | 563.8 | 535.7 | 530.6 | 528.3 | 526.9 | 519.5 | 517.3 |
| 37.5° | 951.7  | 894.1  | 770.7 | 648.8 | 560.1 | 532.0 | 524.6 | 526.1 | 518.7 | 498.0 | 492.1 |
| 40°   | 1000.5 | 928.8  | 791.4 | 654.7 | 561.6 | 532.8 | 526.1 | 525.4 | 512.8 | 484.0 | 478.1 |
| 42.5° | 1024.2 | 958.4  | 812.8 | 662.8 | 567.5 | 535.0 | 529.1 | 526.9 | 511.3 | 478.8 | 470.7 |
| 45°   | 1047.1 | 979.8  | 828.3 | 669.5 | 573.4 | 537.9 | 530.6 | 528.3 | 510.6 | 474.4 | 468.5 |
| 47.5° | 1067.8 | 993.1  | 835.7 | 673.2 | 577.8 | 540.2 | 531.3 | 527.6 | 506.9 | 472.2 | 466.3 |
| 50°   | 1077.4 | 1000.5 | 835.7 | 673.2 | 579.3 | 542.4 | 529.8 | 524.6 | 501.0 | 468.5 | 463.3 |
| 52.5° | 1092.1 | 1004.9 | 829.1 | 668.7 | 577.1 | 542.4 | 526.9 | 518.7 | 493.6 | 463.3 | 458.9 |
| 55°   | 1114.3 | 1013.1 | 820.2 | 662.1 | 571.9 | 537.9 | 521.7 | 510.6 | 483.3 | 455.9 | 452.2 |
| 57°   | 1121.7 | 1016.0 | 814.3 | 654.0 | 566.0 | 532.0 | 515.8 | 501.7 | 473.7 | 448.5 | 444.8 |
| 57.5° | 1120.2 | 1014.6 | 812.1 | 651.7 | 563.8 | 529.8 | 514.3 | 499.5 | 471.4 | 447.1 | 443.4 |
| 60°   | 1100.3 | 1000.5 | 798.0 | 637.7 | 552.0 | 518.0 | 501.0 | 484.7 | 455.9 | 434.5 | 431.5 |
| 62.5° | 1067.8 | 968.7  | 772.9 | 619.2 | 535.7 | 501.7 | 484.0 | 465.5 | 436.7 | 418.2 | 416.8 |
| 65°   | 1012.3 | 915.5  | 736.7 | 592.6 | 515.0 | 480.3 | 461.1 | 441.1 | 416.0 | 399.8 | 395.3 |
| 67.5° | 920.0  | 844.6  | 685.7 | 555.7 | 483.3 | 453.7 | 433.0 | 412.3 | 389.4 | 375.4 | 372.4 |
| 70°   | 843.1  | 767.0  | 620.7 | 509.1 | 444.8 | 416.8 | 397.5 | 377.6 | 357.6 | 345.1 | 344.3 |
| 72.5° | 745.6  | 672.4  | 539.4 | 451.5 | 396.1 | 368.7 | 353.9 | 336.2 | 320.7 | 309.6 | 309.6 |
| 75°   | 627.4  | 569.7  | 455.2 | 382.8 | 337.7 | 317.7 | 305.2 | 291.1 | 277.8 | 270.4 | 271.9 |
| 77.5° | 498.8  | 455.2  | 371.7 | 309.6 | 276.4 | 263.1 | 251.2 | 243.1 | 235.0 | 228.3 | 229.1 |
| 80°   | 368.0  | 335.5  | 273.4 | 227.6 | 211.3 | 199.5 | 197.3 | 192.1 | 187.7 | 185.5 | 181.8 |
| 82.5° | 252.0  | 223.2  | 181.8 | 155.9 | 144.1 | 140.4 | 141.1 | 141.1 | 141.9 | 141.9 | 140.4 |
| 85°   | 130.8  | 119.7  | 92.4  | 83.5  | 82.0  | 85.7  | 90.1  | 93.1  | 92.4  | 92.4  | 90.1  |
| 87.5° | 37.7   | 34.0   | 29.6  | 26.6  | 28.1  | 30.3  | 26.6  | 25.9  | 25.1  | 24.4  | 24.4  |
| 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)