

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: P675348

Luminaire Tested: **CCW-SA-1F-850-U-T4W**

Issue Date: 04/25/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P675348  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-1F-850-U-T4W  
Description: INVUE CLEAR CURVE Wall Pack MOUNT LIGHT SQUARE LUMINAIRE @1200mA w/  
T4W distribution lens  
Light Source: (16) 5000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6600.2 lumens  
Efficiency: N/A  
Efficacy: 98.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Medium  
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

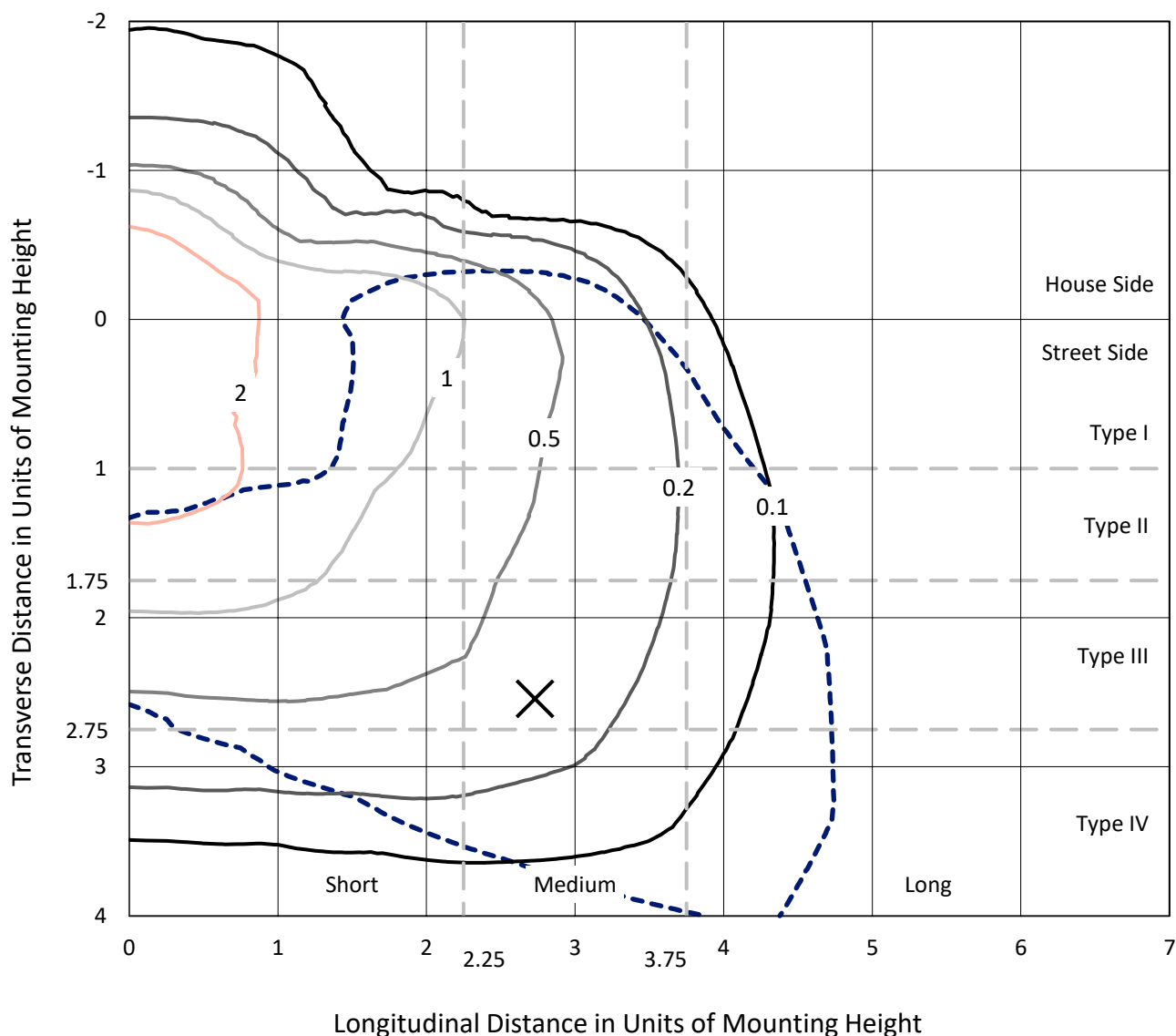
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

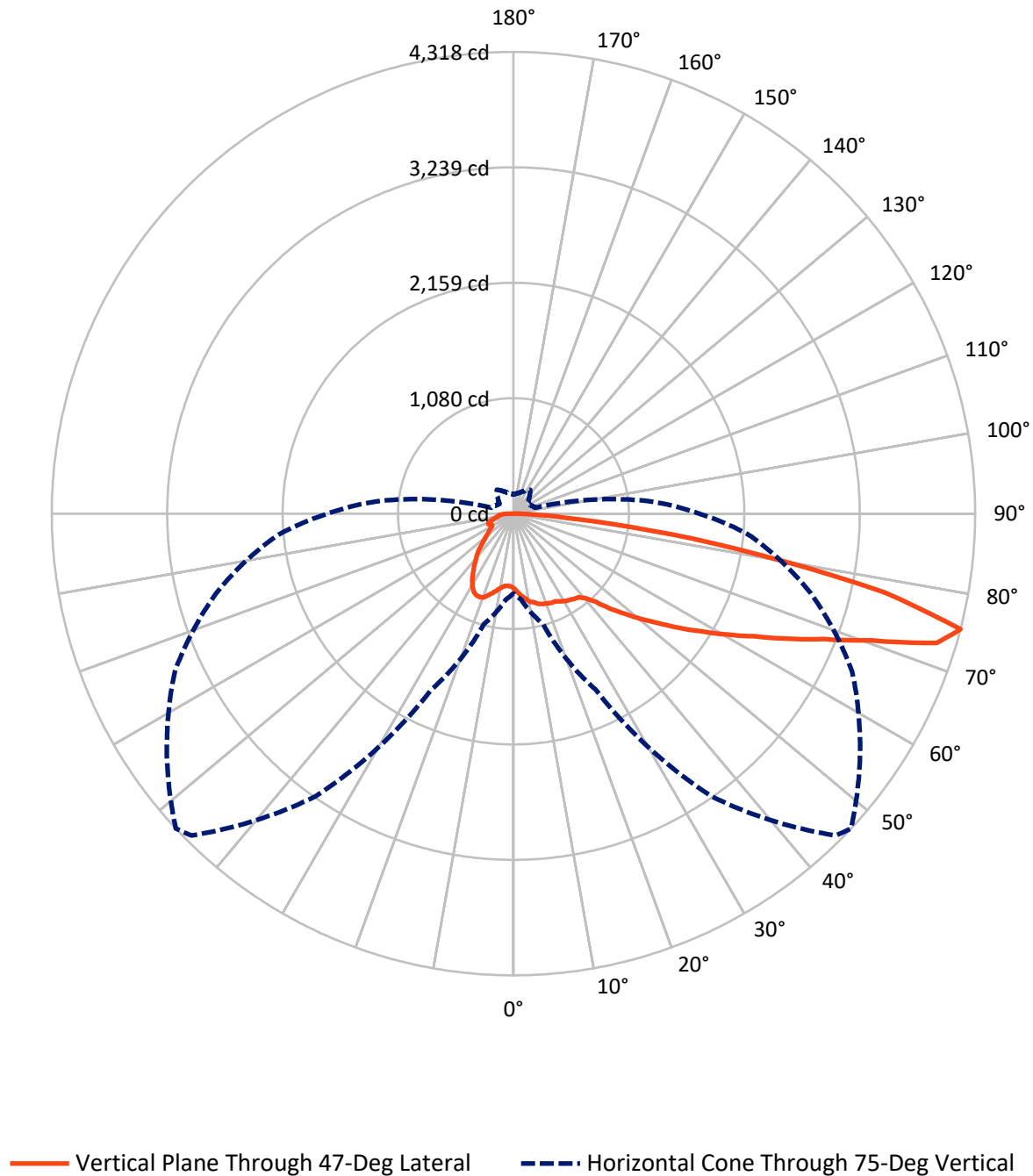
--- 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4 fc  
 Type IV - Medium - N/A

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1578.4   | 0.0    | 1578.4 |
|                    | % Fixture | 23.9     | 0.0    | 23.9   |
| <b>Street Side</b> | Lumens    | 5021.8   | 0.0    | 5021.8 |
|                    | % Fixture | 76.1     | 0.0    | 76.1   |
| <b>Total</b>       | Lumens    | 6600.2   | 0.0    | 6600.2 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 70.8   | 1.1       |
| 10°-20°   | 235.3  | 3.6       |
| 20°-30°   | 403.0  | 6.1       |
| 30°-40°   | 563.8  | 8.5       |
| 40°-50°   | 786.2  | 11.9      |
| 50°-60°   | 1175.1 | 17.8      |
| 60°-70°   | 1694.2 | 25.7      |
| 70°-80°   | 1442.1 | 21.8      |
| 80°-90°   | 229.7  | 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°    | 6600.2 | 100.0     |
| 0°-180°   | 6600.2 | 100.0     |

**Coefficient of Utilization**



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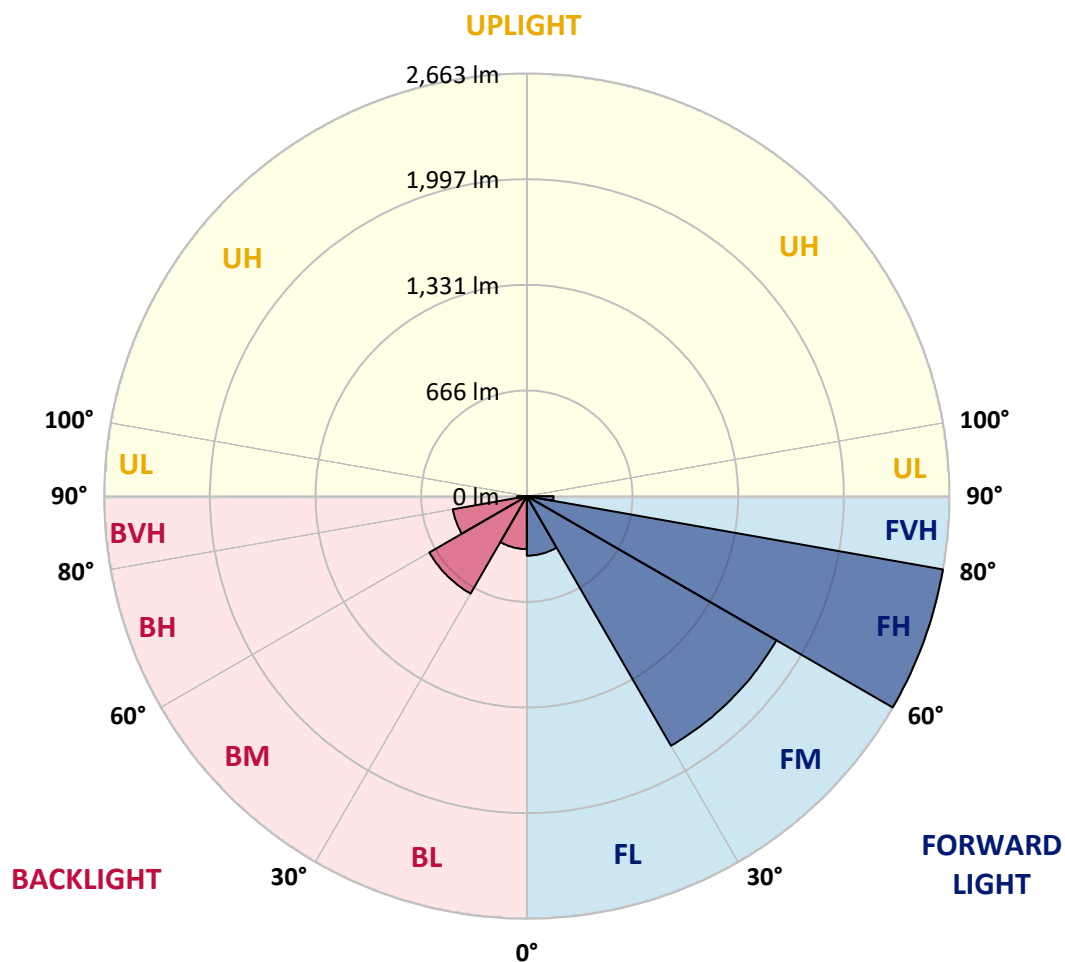
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 375.0  | 5.7       |                         |      |         |
| FM   | (30°-60°)   | 1815.7 | 27.5      |                         |      |         |
| FH   | (60°-80°)   | 2662.8 | 40.3      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 168.3  | 2.6       |                         |      | G2/225  |
| BL   | (0°-30°)    | 334.1  | 5.1       | B1/500                  |      |         |
| BM   | (30°-60°)   | 709.4  | 10.7      | B1/1000                 |      |         |
| BH   | (60°-80°)   | 473.5  | 7.2       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 61.4   | 0.9       |                         |      | 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 Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 47°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 700.8  | 700.8  | 700.8  | 700.8  | 700.8  | 700.8  | 700.8  | 700.8  | 700.8  | 700.8  | 700.8  |
| 2.5°  | 751.4  | 753.8  | 753.8  | 749.0  | 744.2  | 734.5  | 734.5  | 724.9  | 720.1  | 708.0  | 703.2  |
| 5°    | 821.2  | 814.0  | 806.8  | 804.4  | 792.3  | 775.5  | 773.0  | 763.4  | 736.9  | 724.9  | 708.0  |
| 7.5°  | 871.8  | 869.4  | 867.0  | 857.3  | 835.7  | 809.2  | 801.9  | 787.5  | 761.0  | 736.9  | 717.7  |
| 10°   | 912.7  | 922.4  | 912.7  | 891.1  | 869.4  | 840.5  | 838.1  | 811.6  | 787.5  | 758.6  | 734.5  |
| 12.5° | 958.5  | 960.9  | 944.0  | 917.5  | 883.8  | 859.7  | 850.1  | 840.5  | 814.0  | 789.9  | 753.8  |
| 15°   | 989.8  | 985.0  | 972.9  | 936.8  | 898.3  | 874.2  | 876.6  | 864.6  | 835.7  | 818.8  | 780.3  |
| 17.5° | 989.8  | 989.8  | 970.5  | 944.0  | 910.3  | 888.6  | 888.6  | 881.4  | 862.2  | 838.1  | 811.6  |
| 20°   | 970.5  | 970.5  | 958.5  | 944.0  | 905.5  | 900.7  | 895.9  | 891.1  | 891.1  | 869.4  | 830.8  |
| 22.5° | 946.4  | 941.6  | 946.4  | 922.4  | 895.9  | 900.7  | 907.9  | 905.5  | 898.3  | 879.0  | 852.5  |
| 25°   | 922.4  | 924.8  | 929.6  | 912.7  | 888.6  | 910.3  | 907.9  | 920.0  | 915.1  | 900.7  | 879.0  |
| 27.5° | 920.0  | 924.8  | 927.2  | 910.3  | 900.7  | 920.0  | 929.6  | 941.6  | 944.0  | 929.6  | 903.1  |
| 30°   | 956.1  | 953.7  | 951.3  | 929.6  | 922.4  | 939.2  | 948.9  | 965.7  | 980.2  | 948.9  | 927.2  |
| 32.5° | 1050.0 | 1035.5 | 1021.1 | 963.3  | 941.6  | 953.7  | 963.3  | 987.4  | 989.8  | 972.9  | 941.6  |
| 35°   | 1199.3 | 1189.7 | 1141.5 | 1040.4 | 980.2  | 968.1  | 977.8  | 994.6  | 999.4  | 987.4  | 963.3  |
| 37.5° | 1370.3 | 1365.5 | 1298.0 | 1175.2 | 1059.6 | 1001.8 | 992.2  | 1016.3 | 1035.5 | 1009.1 | 975.3  |
| 40°   | 1538.9 | 1519.6 | 1471.4 | 1351.0 | 1160.8 | 1052.4 | 1040.4 | 1052.4 | 1059.6 | 1040.4 | 1018.7 |
| 42.5° | 1690.6 | 1668.9 | 1656.9 | 1536.5 | 1293.2 | 1136.7 | 1127.1 | 1098.2 | 1119.8 | 1095.8 | 1066.9 |
| 45°   | 1818.2 | 1813.4 | 1808.6 | 1705.0 | 1445.0 | 1274.0 | 1266.7 | 1192.1 | 1216.2 | 1196.9 | 1156.0 |
| 47.5° | 1909.7 | 1931.4 | 1924.2 | 1866.4 | 1618.3 | 1420.9 | 1399.2 | 1302.9 | 1339.0 | 1319.7 | 1278.8 |
| 50°   | 2018.1 | 2030.2 | 2022.9 | 1984.4 | 1779.7 | 1589.4 | 1548.5 | 1449.8 | 1490.7 | 1488.3 | 1466.6 |
| 52.5° | 2114.4 | 2150.6 | 2109.6 | 2107.2 | 2010.9 | 1772.5 | 1702.6 | 1608.7 | 1676.1 | 1702.6 | 1700.2 |
| 55°   | 2227.6 | 2256.5 | 2244.5 | 2239.7 | 2218.0 | 1950.7 | 1888.1 | 1774.9 | 1888.1 | 1926.6 | 1960.3 |
| 57.5° | 2324.0 | 2321.6 | 2367.3 | 2422.7 | 2449.2 | 2155.4 | 2080.7 | 1948.3 | 2119.3 | 2162.6 | 2256.5 |
| 60°   | 2367.3 | 2408.3 | 2485.3 | 2625.0 | 2699.7 | 2374.5 | 2297.5 | 2191.5 | 2352.9 | 2386.6 | 2560.0 |
| 62.5° | 2396.2 | 2432.3 | 2581.6 | 2817.7 | 2861.0 | 2598.5 | 2526.3 | 2420.3 | 2608.1 | 2632.2 | 2889.9 |
| 65°   | 2316.7 | 2350.5 | 2646.7 | 2889.9 | 3044.0 | 2839.3 | 2822.5 | 2711.7 | 2863.4 | 2877.9 | 3236.7 |
| 67.5° | 2225.2 | 2261.4 | 2591.3 | 2981.4 | 3287.3 | 3159.6 | 3133.1 | 3000.7 | 3116.3 | 3099.4 | 3501.6 |
| 70°   | 2063.9 | 2112.0 | 2449.2 | 3060.9 | 3557.0 | 3607.6 | 3554.6 | 3366.7 | 3378.8 | 3219.8 | 3513.6 |
| 72.5° | 1572.6 | 1603.9 | 1917.0 | 2745.4 | 3682.2 | 4228.9 | 4137.4 | 3761.7 | 3624.4 | 3243.9 | 3101.8 |
| 75°   | 746.6  | 804.4  | 1069.3 | 1815.8 | 3227.1 | 4257.8 | 4318.0 | 3956.8 | 3494.4 | 2877.9 | 2198.7 |
| 77.5° | 216.7  | 216.7  | 325.1  | 770.6  | 2022.9 | 3431.8 | 3544.9 | 3359.5 | 2882.7 | 2131.3 | 1156.0 |
| 80°   | 118.0  | 125.2  | 171.0  | 272.1  | 888.6  | 2165.0 | 2328.8 | 2227.6 | 1697.8 | 842.9  | 298.6  |
| 82.5° | 67.4   | 69.8   | 113.2  | 163.8  | 404.6  | 1177.6 | 1274.0 | 1156.0 | 645.4  | 255.3  | 139.7  |
| 85°   | 38.5   | 40.9   | 65.0   | 108.4  | 240.8  | 433.5  | 472.0  | 409.4  | 260.1  | 171.0  | 69.8   |
| 87.5° | 19.3   | 19.3   | 31.3   | 50.6   | 122.8  | 122.8  | 120.4  | 146.9  | 156.5  | 103.6  | 31.3   |
| 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°    | 700.8  | 700.8  | 700.8  | 700.8 | 700.8 | 700.8 | 700.8 | 700.8 | 700.8 | 700.8 | 700.8 |
| 2.5°  | 700.8  | 698.4  | 698.4  | 688.8 | 686.4 | 679.1 | 679.1 | 674.3 | 671.9 | 679.1 | 679.1 |
| 5°    | 703.2  | 691.2  | 688.8  | 679.1 | 681.5 | 676.7 | 686.4 | 681.5 | 679.1 | 679.1 | 676.7 |
| 7.5°  | 708.0  | 696.0  | 686.4  | 679.1 | 676.7 | 683.9 | 696.0 | 696.0 | 710.4 | 703.2 | 703.2 |
| 10°   | 720.1  | 712.8  | 700.8  | 696.0 | 696.0 | 703.2 | 717.7 | 727.3 | 739.3 | 739.3 | 732.1 |
| 12.5° | 749.0  | 736.9  | 722.5  | 715.3 | 724.9 | 732.1 | 746.6 | 756.2 | 770.6 | 775.5 | 770.6 |
| 15°   | 770.6  | 758.6  | 753.8  | 749.0 | 756.2 | 765.8 | 777.9 | 787.5 | 804.4 | 809.2 | 806.8 |
| 17.5° | 799.5  | 785.1  | 782.7  | 785.1 | 789.9 | 797.1 | 804.4 | 811.6 | 823.6 | 823.6 | 823.6 |
| 20°   | 814.0  | 809.2  | 806.8  | 814.0 | 823.6 | 833.3 | 828.4 | 823.6 | 821.2 | 826.0 | 823.6 |
| 22.5° | 840.5  | 835.7  | 838.1  | 845.3 | 845.3 | 840.5 | 833.3 | 816.4 | 811.6 | 816.4 | 811.6 |
| 25°   | 864.6  | 859.7  | 859.7  | 854.9 | 852.5 | 835.7 | 821.2 | 806.8 | 789.9 | 797.1 | 794.7 |
| 27.5° | 888.6  | 886.2  | 886.2  | 867.0 | 842.9 | 814.0 | 794.7 | 777.9 | 768.2 | 780.3 | 773.0 |
| 30°   | 917.5  | 920.0  | 907.9  | 862.2 | 804.4 | 773.0 | 751.4 | 749.0 | 746.6 | 753.8 | 751.4 |
| 32.5° | 944.0  | 946.4  | 927.2  | 854.9 | 775.5 | 715.3 | 693.6 | 696.0 | 708.0 | 720.1 | 732.1 |
| 35°   | 958.5  | 970.5  | 946.4  | 830.8 | 717.7 | 650.2 | 626.1 | 647.8 | 669.5 | 686.4 | 698.4 |
| 37.5° | 985.0  | 1016.3 | 975.3  | 804.4 | 667.1 | 592.4 | 575.6 | 582.8 | 609.3 | 635.8 | 647.8 |
| 40°   | 1023.5 | 1059.6 | 982.6  | 753.8 | 599.7 | 534.6 | 525.0 | 527.4 | 537.0 | 553.9 | 565.9 |
| 42.5° | 1090.9 | 1129.5 | 989.8  | 688.8 | 532.2 | 498.5 | 472.0 | 464.8 | 457.6 | 457.6 | 455.2 |
| 45°   | 1189.7 | 1225.8 | 980.2  | 606.9 | 464.8 | 440.7 | 421.4 | 404.6 | 385.3 | 354.0 | 358.8 |
| 47.5° | 1334.2 | 1363.1 | 987.4  | 534.6 | 402.2 | 382.9 | 368.5 | 349.2 | 320.3 | 286.6 | 284.2 |
| 50°   | 1553.3 | 1510.0 | 977.8  | 460.0 | 356.4 | 339.6 | 327.5 | 301.0 | 267.3 | 243.2 | 240.8 |
| 52.5° | 1808.6 | 1721.9 | 968.1  | 397.4 | 317.9 | 303.4 | 293.8 | 264.9 | 233.6 | 221.6 | 219.2 |
| 55°   | 2116.9 | 1991.6 | 982.6  | 342.0 | 289.0 | 276.9 | 267.3 | 240.8 | 216.7 | 207.1 | 204.7 |
| 57.5° | 2480.5 | 2283.0 | 1062.0 | 298.6 | 257.7 | 252.9 | 250.5 | 228.8 | 207.1 | 199.9 | 197.5 |
| 60°   | 2822.5 | 2562.4 | 1115.0 | 267.3 | 228.8 | 233.6 | 238.4 | 228.8 | 204.7 | 199.9 | 199.9 |
| 62.5° | 3109.1 | 2793.6 | 1030.7 | 240.8 | 214.3 | 228.8 | 250.5 | 243.2 | 233.6 | 238.4 | 233.6 |
| 65°   | 3361.9 | 2873.0 | 770.6  | 226.4 | 207.1 | 240.8 | 276.9 | 274.5 | 252.9 | 257.7 | 255.3 |
| 67.5° | 3405.3 | 2776.7 | 503.3  | 214.3 | 202.3 | 264.9 | 310.7 | 281.8 | 238.4 | 238.4 | 231.2 |
| 70°   | 3224.7 | 2519.0 | 337.2  | 202.3 | 199.9 | 264.9 | 317.9 | 264.9 | 224.0 | 224.0 | 214.3 |
| 72.5° | 2646.7 | 2013.3 | 260.1  | 190.3 | 183.0 | 236.0 | 301.0 | 250.5 | 209.5 | 204.7 | 187.8 |
| 75°   | 1738.8 | 1298.0 | 211.9  | 180.6 | 158.9 | 207.1 | 272.1 | 231.2 | 199.9 | 185.4 | 178.2 |
| 77.5° | 852.5  | 582.8  | 178.2  | 158.9 | 137.3 | 180.6 | 248.1 | 219.2 | 187.8 | 173.4 | 168.6 |
| 80°   | 233.6  | 209.5  | 149.3  | 139.7 | 115.6 | 156.5 | 233.6 | 209.5 | 175.8 | 161.4 | 154.1 |
| 82.5° | 132.5  | 130.0  | 120.4  | 113.2 | 96.3  | 156.5 | 236.0 | 209.5 | 166.2 | 163.8 | 139.7 |
| 85°   | 72.2   | 77.1   | 86.7   | 84.3  | 74.7  | 139.7 | 224.0 | 183.0 | 134.9 | 113.2 | 113.2 |
| 87.5° | 28.9   | 36.1   | 43.3   | 48.2  | 50.6  | 103.6 | 168.6 | 139.7 | 103.6 | 86.7  | 86.7  |
| 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)