

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: P180093

Luminaire Tested: **ICM-F04-LED-E1-5WQ**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P180093  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33675)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ICM-F04-LED-E1-5WQ  
Description: ICON SITE MEDIUM LED LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (28) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9779.8 lumens  
Efficiency: N/A  
Efficacy: 95.7 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1' x H: 0.1')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B4 - U0 - G2

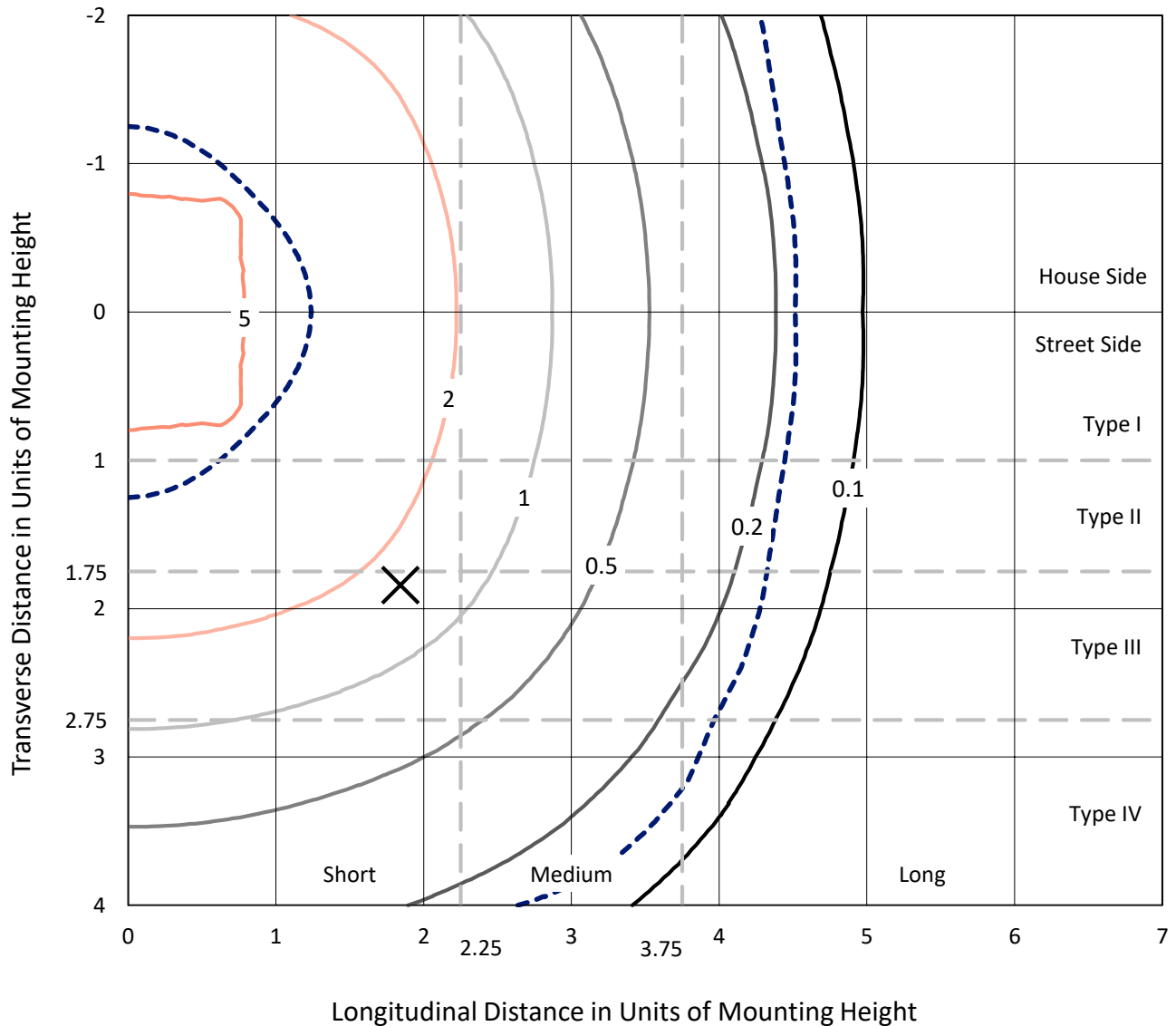
Input Watts (W): 102.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

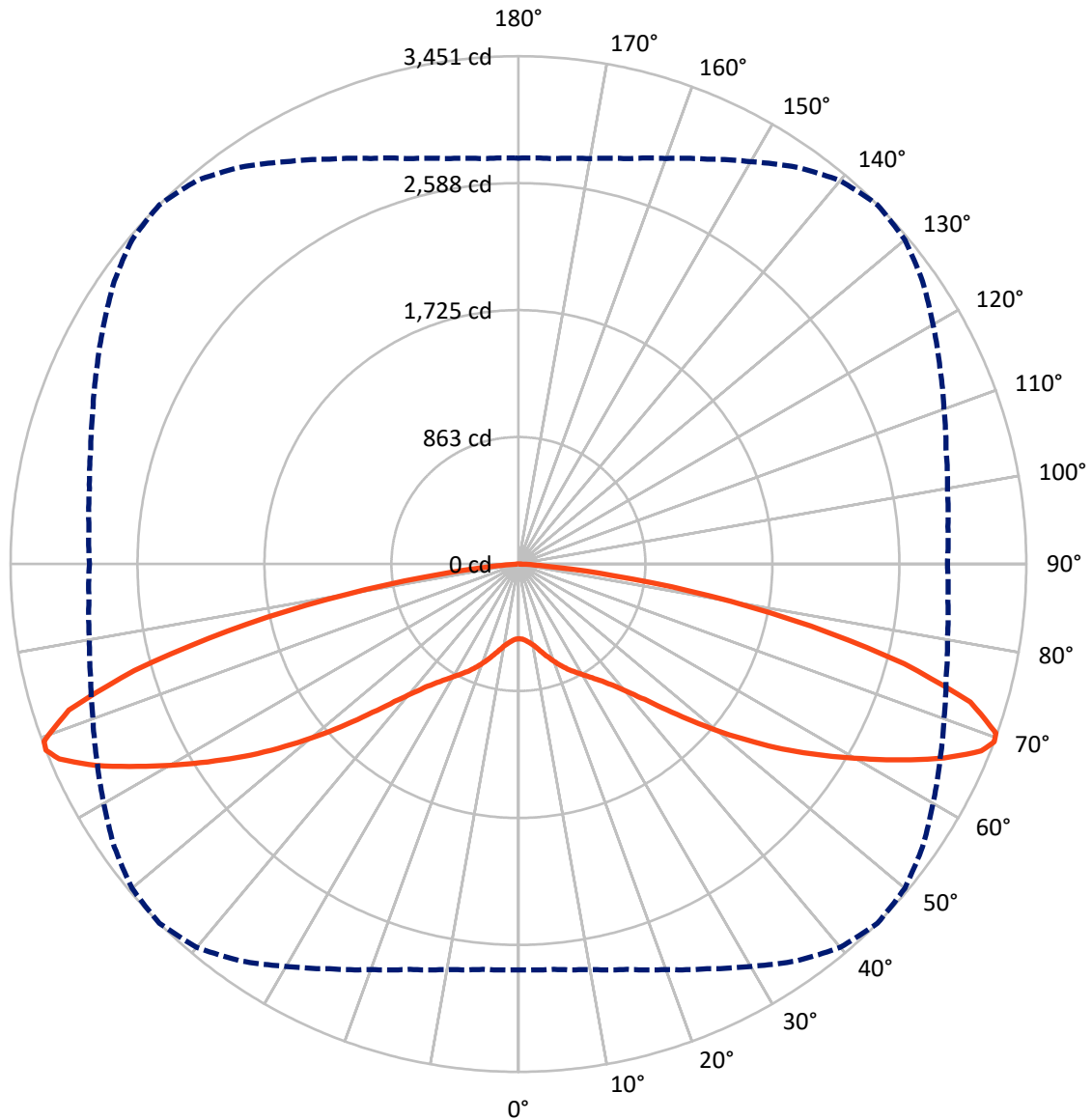
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.9 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 4889.9   | 0.0    | 4889.9 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 4889.9   | 0.0    | 4889.9 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 9779.8   | 0.0    | 9779.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 51.0   | 0.5       |
| 10°-20°   | 180.1  | 1.8       |
| 20°-30°   | 364.6  | 3.7       |
| 30°-40°   | 611.3  | 6.3       |
| 40°-50°   | 1078.3 | 11.0      |
| 50°-60°   | 1901.6 | 19.4      |
| 60°-70°   | 2903.2 | 29.7      |
| 70°-80°   | 2426.0 | 24.8      |
| 80°-90°   | 263.6  | 2.7       |
| 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°    | 9779.8 | 100.0     |
| 0°-180°   | 9779.8 | 100.0     |

**Coefficient of Utilization**



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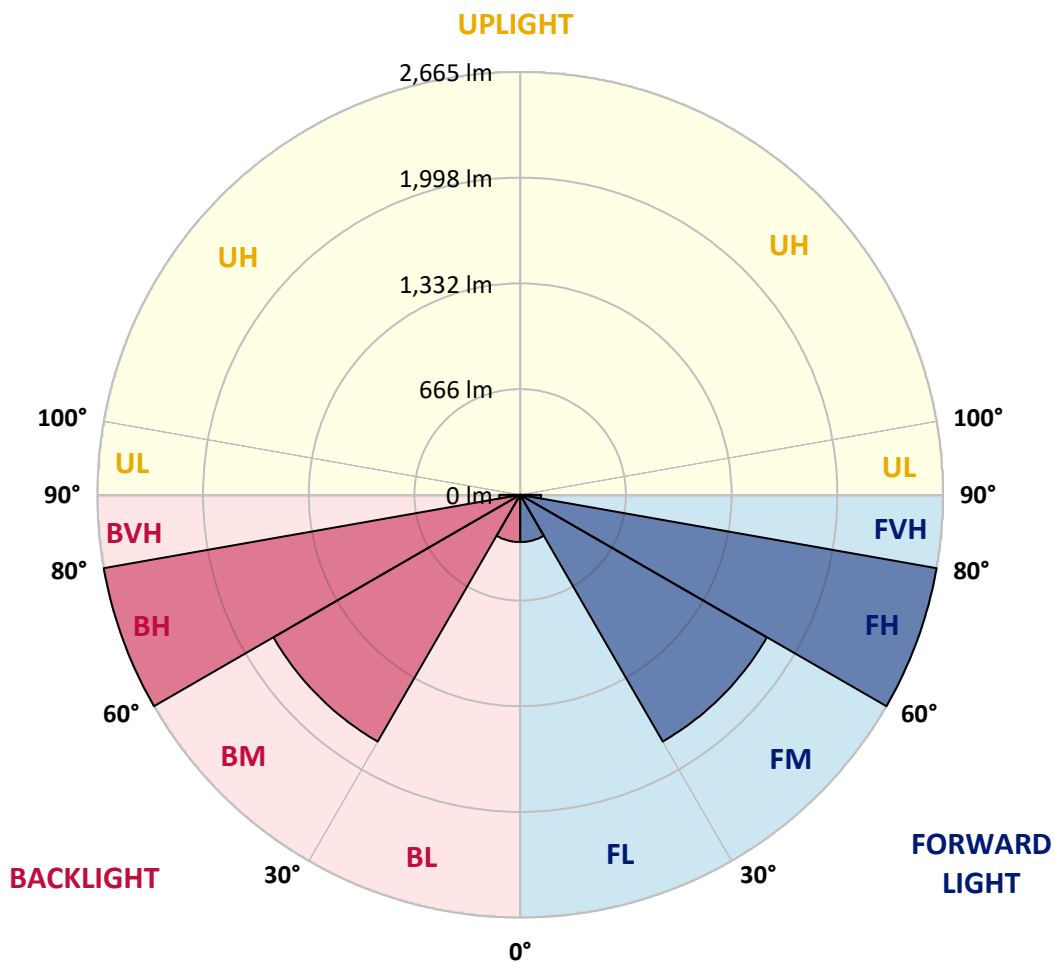
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 297.9  | 3.0       |                         |      |         |
| FM (30°-60°)   | 1795.6 | 18.4      |                         |      |         |
| FH (60°-80°)   | 2664.6 | 27.2      |                         |      | G2/5000 |
| FVH (80°-90°)  | 131.8  | 1.3       |                         |      | G2/225  |
| BL (0°-30°)    | 297.9  | 3.0       | B1/500                  |      |         |
| BM (30°-60°)   | 1795.6 | 18.4      | B2/2500                 |      |         |
| BH (60°-80°)   | 2664.6 | 27.2      | B4/5000                 |      | G2/5000 |
| BVH (80°-90°)  | 131.8  | 1.3       |                         |      | G2/225  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B4-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 507.8  | 507.8  | 507.8  | 507.8  | 507.8  | 507.8  | 507.8  | 507.8  | 507.8  | 507.8  | 507.8  |
| 2.5°  | 511.9  | 513.0  | 511.9  | 511.9  | 511.9  | 511.9  | 511.9  | 510.9  | 510.9  | 510.9  | 511.9  |
| 5°    | 522.2  | 523.3  | 522.2  | 523.3  | 523.3  | 523.3  | 523.3  | 522.2  | 522.2  | 522.2  | 522.2  |
| 7.5°  | 538.6  | 538.6  | 538.6  | 539.6  | 538.6  | 538.6  | 539.6  | 538.6  | 538.6  | 538.6  | 538.6  |
| 10°   | 562.1  | 561.1  | 561.1  | 561.1  | 561.1  | 561.1  | 562.1  | 562.1  | 562.1  | 561.1  | 561.1  |
| 12.5° | 590.8  | 589.8  | 590.8  | 590.8  | 591.8  | 591.8  | 591.8  | 591.8  | 591.8  | 591.8  | 590.8  |
| 15°   | 625.6  | 625.6  | 625.6  | 626.6  | 628.7  | 628.7  | 627.6  | 628.7  | 628.7  | 628.7  | 628.7  |
| 17.5° | 664.6  | 666.6  | 664.6  | 665.6  | 666.6  | 665.6  | 667.6  | 668.7  | 669.7  | 668.7  | 665.6  |
| 20°   | 704.5  | 705.5  | 705.5  | 705.5  | 705.5  | 707.5  | 708.6  | 708.6  | 711.6  | 710.6  | 709.6  |
| 22.5° | 742.3  | 744.4  | 744.4  | 745.4  | 745.4  | 748.5  | 748.5  | 748.5  | 750.5  | 752.6  | 750.5  |
| 25°   | 782.2  | 781.2  | 781.2  | 783.3  | 784.3  | 788.4  | 788.4  | 790.4  | 793.5  | 794.5  | 792.5  |
| 27.5° | 818.1  | 817.1  | 817.1  | 820.2  | 821.2  | 826.3  | 826.3  | 830.4  | 832.5  | 833.5  | 831.4  |
| 30°   | 856.0  | 856.0  | 855.0  | 858.1  | 861.1  | 865.2  | 867.3  | 871.4  | 874.4  | 875.4  | 873.4  |
| 32.5° | 901.0  | 899.0  | 900.0  | 902.1  | 904.1  | 908.2  | 911.3  | 916.4  | 920.5  | 921.5  | 919.4  |
| 35°   | 952.3  | 949.1  | 950.1  | 952.3  | 955.4  | 961.5  | 966.6  | 969.7  | 975.8  | 977.9  | 973.8  |
| 37.5° | 1008.6 | 1009.6 | 1008.6 | 1013.7 | 1018.8 | 1026.0 | 1032.1 | 1036.2 | 1042.3 | 1045.4 | 1042.3 |
| 40°   | 1088.4 | 1085.3 | 1088.4 | 1093.5 | 1101.8 | 1111.0 | 1123.3 | 1126.3 | 1132.5 | 1138.6 | 1131.4 |
| 42.5° | 1191.8 | 1189.8 | 1196.9 | 1201.0 | 1210.2 | 1220.5 | 1235.8 | 1244.1 | 1253.3 | 1257.4 | 1251.3 |
| 45°   | 1327.0 | 1327.0 | 1335.2 | 1336.2 | 1350.5 | 1363.8 | 1385.3 | 1395.6 | 1413.0 | 1413.0 | 1413.0 |
| 47.5° | 1476.5 | 1482.6 | 1487.7 | 1498.0 | 1508.2 | 1532.8 | 1554.3 | 1576.8 | 1593.2 | 1595.3 | 1592.2 |
| 50°   | 1631.1 | 1637.2 | 1652.6 | 1666.9 | 1689.5 | 1720.2 | 1743.7 | 1773.4 | 1787.7 | 1800.0 | 1795.9 |
| 52.5° | 1802.1 | 1803.1 | 1821.5 | 1840.0 | 1872.8 | 1906.5 | 1944.4 | 1975.2 | 2000.8 | 2012.0 | 2002.8 |
| 55°   | 1989.5 | 1991.5 | 2007.9 | 2027.4 | 2064.2 | 2103.1 | 2150.2 | 2182.0 | 2214.7 | 2235.2 | 2219.8 |
| 57.5° | 2192.2 | 2193.2 | 2209.6 | 2233.1 | 2277.2 | 2316.1 | 2361.1 | 2406.2 | 2436.9 | 2455.4 | 2445.1 |
| 60°   | 2416.5 | 2421.6 | 2433.9 | 2463.5 | 2505.5 | 2546.4 | 2591.6 | 2631.5 | 2667.3 | 2686.7 | 2676.5 |
| 62.5° | 2656.0 | 2661.1 | 2678.5 | 2702.1 | 2739.0 | 2784.0 | 2827.0 | 2878.3 | 2907.9 | 2929.4 | 2914.1 |
| 65°   | 2816.8 | 2826.0 | 2853.7 | 2885.4 | 2939.6 | 2998.0 | 3048.2 | 3117.8 | 3153.7 | 3179.3 | 3164.9 |
| 67.5° | 2827.0 | 2832.1 | 2866.0 | 2914.1 | 2986.7 | 3074.8 | 3177.2 | 3285.7 | 3356.4 | 3390.2 | 3365.6 |
| 69°   | 2757.4 | 2764.6 | 2797.3 | 2851.6 | 2932.5 | 3034.9 | 3156.8 | 3291.9 | 3400.4 | 3450.6 | 3427.0 |
| 70°   | 2678.5 | 2693.9 | 2729.8 | 2789.1 | 2868.0 | 2975.5 | 3101.4 | 3245.8 | 3372.8 | 3441.4 | 3423.9 |
| 72.5° | 2512.7 | 2516.8 | 2540.3 | 2587.5 | 2647.8 | 2736.9 | 2855.7 | 2991.8 | 3112.7 | 3211.0 | 3225.3 |
| 75°   | 2230.1 | 2243.4 | 2260.8 | 2292.6 | 2323.3 | 2387.7 | 2467.6 | 2560.9 | 2631.5 | 2707.3 | 2710.3 |
| 77.5° | 1685.4 | 1725.3 | 1738.6 | 1745.8 | 1759.1 | 1810.2 | 1879.9 | 1960.8 | 2019.2 | 2031.5 | 2029.4 |
| 80°   | 756.7  | 810.0  | 822.2  | 880.6  | 916.4  | 1001.4 | 1107.9 | 1231.7 | 1314.7 | 1323.9 | 1301.4 |
| 82.5° | 148.5  | 158.7  | 185.3  | 231.4  | 315.4  | 365.5  | 435.2  | 522.2  | 602.1  | 648.1  | 620.5  |
| 85°   | 49.1   | 52.2   | 60.4   | 66.5   | 76.8   | 87.1   | 105.5  | 131.1  | 162.8  | 180.2  | 160.7  |
| 87.5° | 19.4   | 19.4   | 22.5   | 24.6   | 26.6   | 26.6   | 26.6   | 24.6   | 23.5   | 19.4   | 17.4   |
| 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):**

|       | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 507.8  | 507.8  | 507.8  | 507.8  | 507.8  | 507.8  | 507.8  | 507.8  |
| 2.5°  | 510.9  | 510.9  | 510.9  | 510.9  | 510.9  | 510.9  | 510.9  | 510.9  |
| 5°    | 522.2  | 521.2  | 521.2  | 520.2  | 520.2  | 520.2  | 520.2  | 520.2  |
| 7.5°  | 537.6  | 536.6  | 535.5  | 536.6  | 535.5  | 535.5  | 535.5  | 535.5  |
| 10°   | 561.1  | 559.1  | 558.0  | 557.0  | 557.0  | 557.0  | 556.0  | 556.0  |
| 12.5° | 588.7  | 588.7  | 587.7  | 586.7  | 584.7  | 585.7  | 584.7  | 582.6  |
| 15°   | 626.6  | 624.6  | 623.5  | 622.5  | 620.5  | 620.5  | 620.5  | 619.4  |
| 17.5° | 664.6  | 662.5  | 662.5  | 659.4  | 658.4  | 658.4  | 658.4  | 659.4  |
| 20°   | 706.5  | 703.4  | 701.4  | 699.4  | 697.3  | 698.3  | 696.3  | 698.3  |
| 22.5° | 748.5  | 744.4  | 742.3  | 739.3  | 736.2  | 736.2  | 735.2  | 733.1  |
| 25°   | 789.4  | 784.3  | 782.2  | 779.2  | 775.1  | 775.1  | 773.0  | 771.0  |
| 27.5° | 828.4  | 823.3  | 821.2  | 815.1  | 811.0  | 810.0  | 807.9  | 806.9  |
| 30°   | 871.4  | 865.2  | 862.1  | 856.0  | 849.9  | 848.8  | 845.8  | 845.8  |
| 32.5° | 916.4  | 910.2  | 908.2  | 899.0  | 893.9  | 893.9  | 891.8  | 889.8  |
| 35°   | 972.8  | 963.5  | 961.5  | 952.3  | 945.0  | 945.0  | 943.0  | 944.0  |
| 37.5° | 1039.3 | 1032.1 | 1024.9 | 1017.8 | 1009.6 | 1008.6 | 1006.5 | 1004.5 |
| 40°   | 1128.4 | 1120.2 | 1112.0 | 1101.8 | 1094.5 | 1092.5 | 1089.4 | 1088.4 |
| 42.5° | 1247.2 | 1238.9 | 1222.5 | 1214.3 | 1207.2 | 1201.0 | 1200.0 | 1199.0 |
| 45°   | 1398.7 | 1388.4 | 1377.1 | 1361.8 | 1352.6 | 1339.3 | 1337.2 | 1332.1 |
| 47.5° | 1580.9 | 1561.5 | 1542.1 | 1528.7 | 1514.3 | 1499.0 | 1495.9 | 1487.7 |
| 50°   | 1774.4 | 1759.1 | 1726.3 | 1704.8 | 1682.2 | 1666.9 | 1656.7 | 1653.6 |
| 52.5° | 1982.3 | 1953.6 | 1920.8 | 1892.2 | 1859.5 | 1839.0 | 1820.5 | 1815.4 |
| 55°   | 2199.4 | 2158.4 | 2117.4 | 2083.6 | 2050.9 | 2026.3 | 2008.9 | 2000.8 |
| 57.5° | 2416.5 | 2371.4 | 2326.3 | 2289.5 | 2261.8 | 2230.1 | 2212.7 | 2208.6 |
| 60°   | 2642.7 | 2599.7 | 2553.6 | 2516.8 | 2483.0 | 2455.4 | 2445.1 | 2425.7 |
| 62.5° | 2882.3 | 2837.2 | 2794.2 | 2758.4 | 2715.5 | 2695.9 | 2678.5 | 2667.3 |
| 65°   | 3117.8 | 3065.6 | 3011.4 | 2973.4 | 2930.4 | 2902.8 | 2881.3 | 2866.0 |
| 67.5° | 3300.1 | 3221.2 | 3148.6 | 3085.0 | 3026.7 | 2983.6 | 2956.0 | 2941.7 |
| 69°   | 3351.3 | 3253.0 | 3159.8 | 3076.9 | 3008.3 | 2960.1 | 2929.4 | 2915.1 |
| 70°   | 3345.1 | 3236.6 | 3134.2 | 3043.1 | 2968.3 | 2917.1 | 2887.5 | 2860.9 |
| 72.5° | 3155.7 | 3056.4 | 2942.7 | 2843.4 | 2775.8 | 2726.7 | 2696.9 | 2682.6 |
| 75°   | 2692.9 | 2626.3 | 2544.4 | 2467.6 | 2418.5 | 2389.8 | 2352.9 | 2354.0 |
| 77.5° | 1960.8 | 1962.8 | 1907.5 | 1828.8 | 1773.4 | 1763.2 | 1746.8 | 1730.4 |
| 80°   | 1216.4 | 1119.2 | 1055.6 | 970.7  | 908.2  | 854.0  | 830.4  | 779.2  |
| 82.5° | 561.1  | 438.2  | 339.9  | 257.0  | 197.6  | 154.6  | 135.2  | 110.6  |
| 85°   | 124.9  | 95.3   | 78.9   | 63.4   | 54.2   | 50.1   | 40.9   | 37.9   |
| 87.5° | 17.4   | 15.3   | 14.3   | 13.3   | 11.3   | 8.2    | 6.1    | 5.1    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)