

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: STREETWORKS

Report Number: P140534

Luminaire Tested: **CEM-F04-LED-E-U-5WQ-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P140534  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33687)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CEM-F04-LED-E-U-5WQ-7030  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (28) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

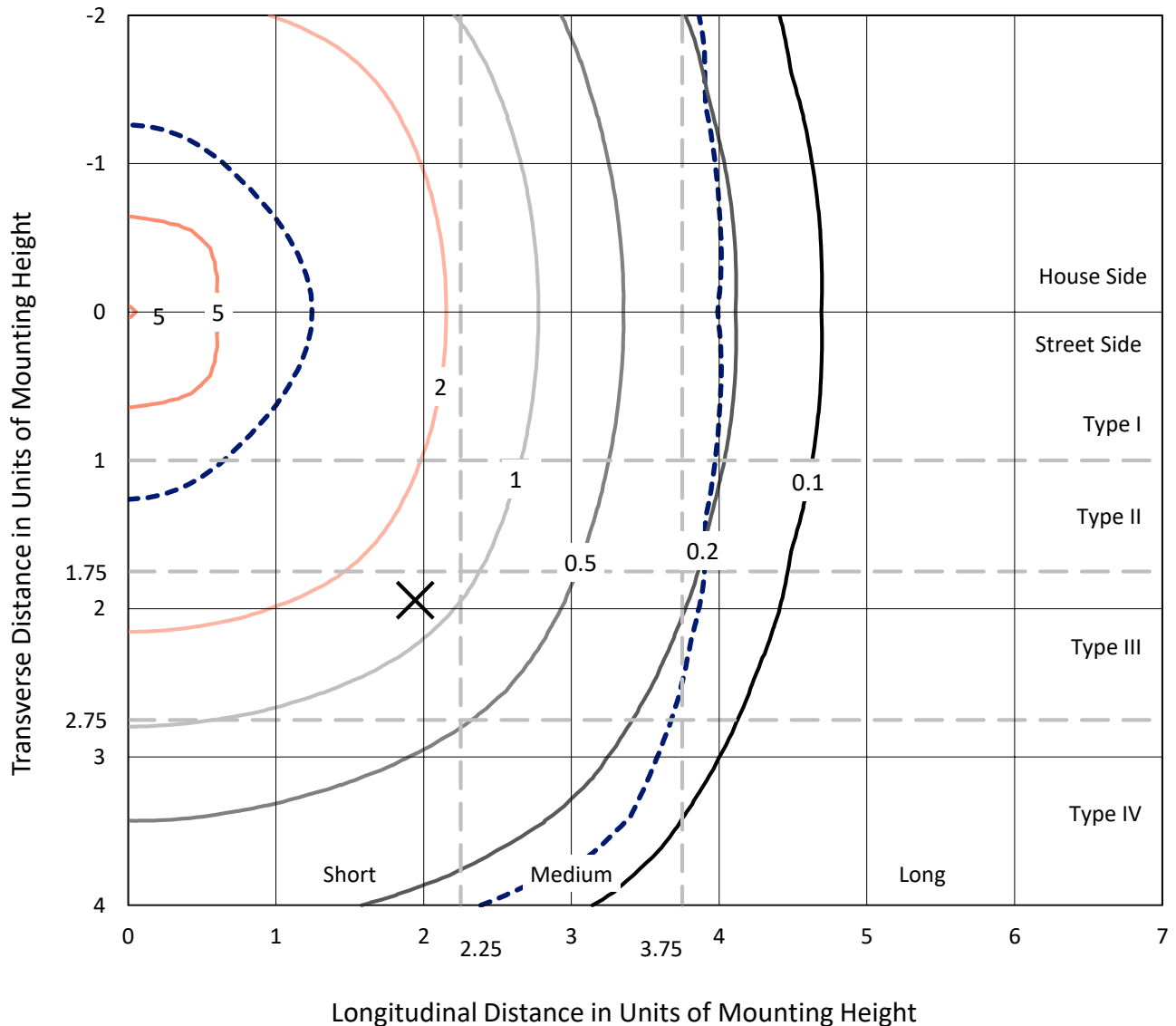
Lumens per Lamp: N/A  
Luminaire Lumens: 9009.7 lumens  
Efficiency: N/A  
Efficacy: 88.2 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G2  
  
Input Watts (W): 102.2  
Input Voltage (V): NR  
Input Current (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: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

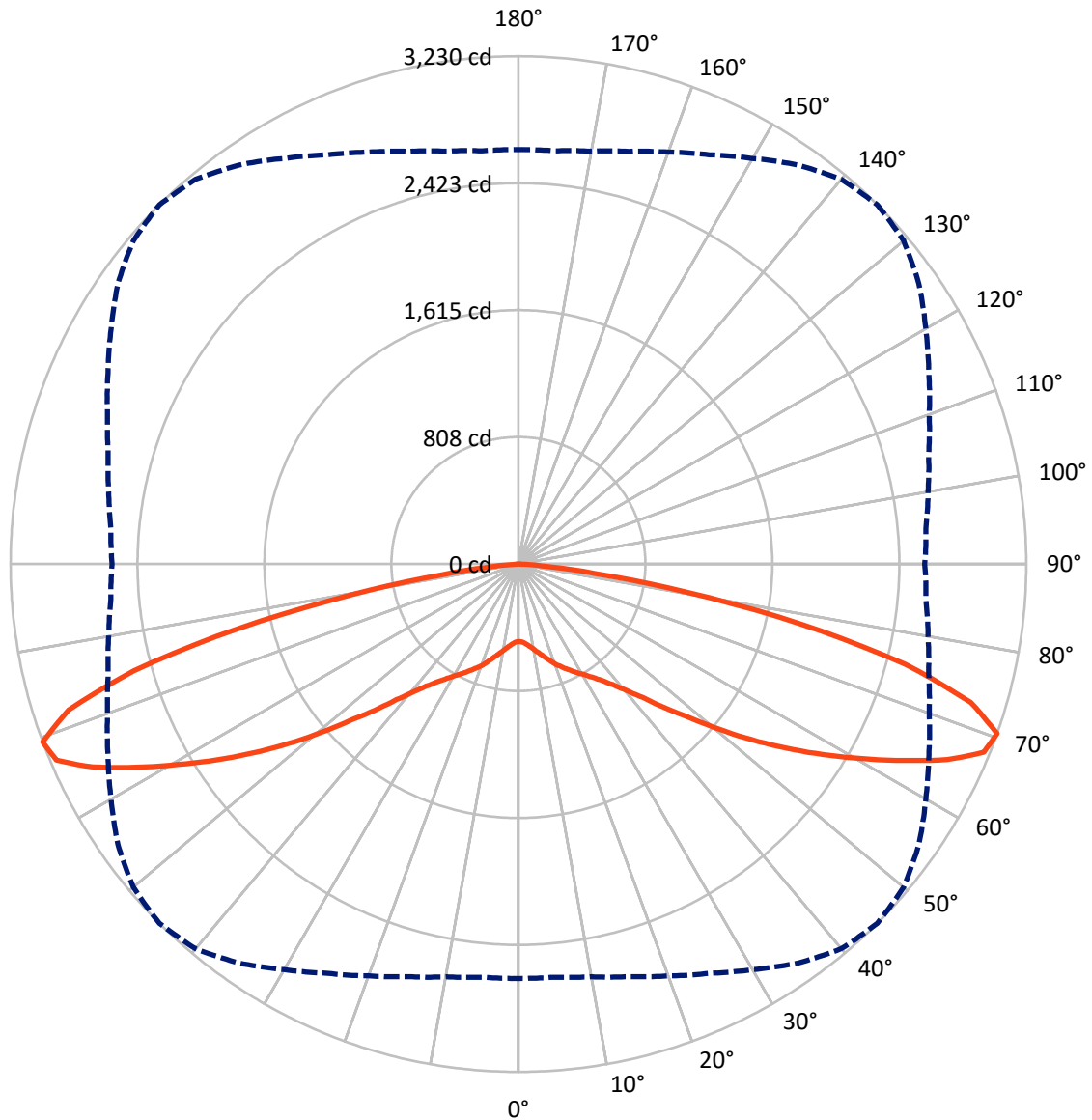
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.6 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 4504.9   | 0.0    | 4504.9 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 4504.9   | 0.0    | 4504.9 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 9009.7   | 0.0    | 9009.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 49.9   | 0.6       |
| 10°-20°   | 174.5  | 1.9       |
| 20°-30°   | 342.8  | 3.8       |
| 30°-40°   | 567.2  | 6.3       |
| 40°-50°   | 992.9  | 11.0      |
| 50°-60°   | 1771.0 | 19.7      |
| 60°-70°   | 2734.2 | 30.3      |
| 70°-80°   | 2164.3 | 24.0      |
| 80°-90°   | 213.0  | 2.4       |
| 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°    | 9009.7 | 100.0     |
| 0°-180°   | 9009.7 | 100.0     |



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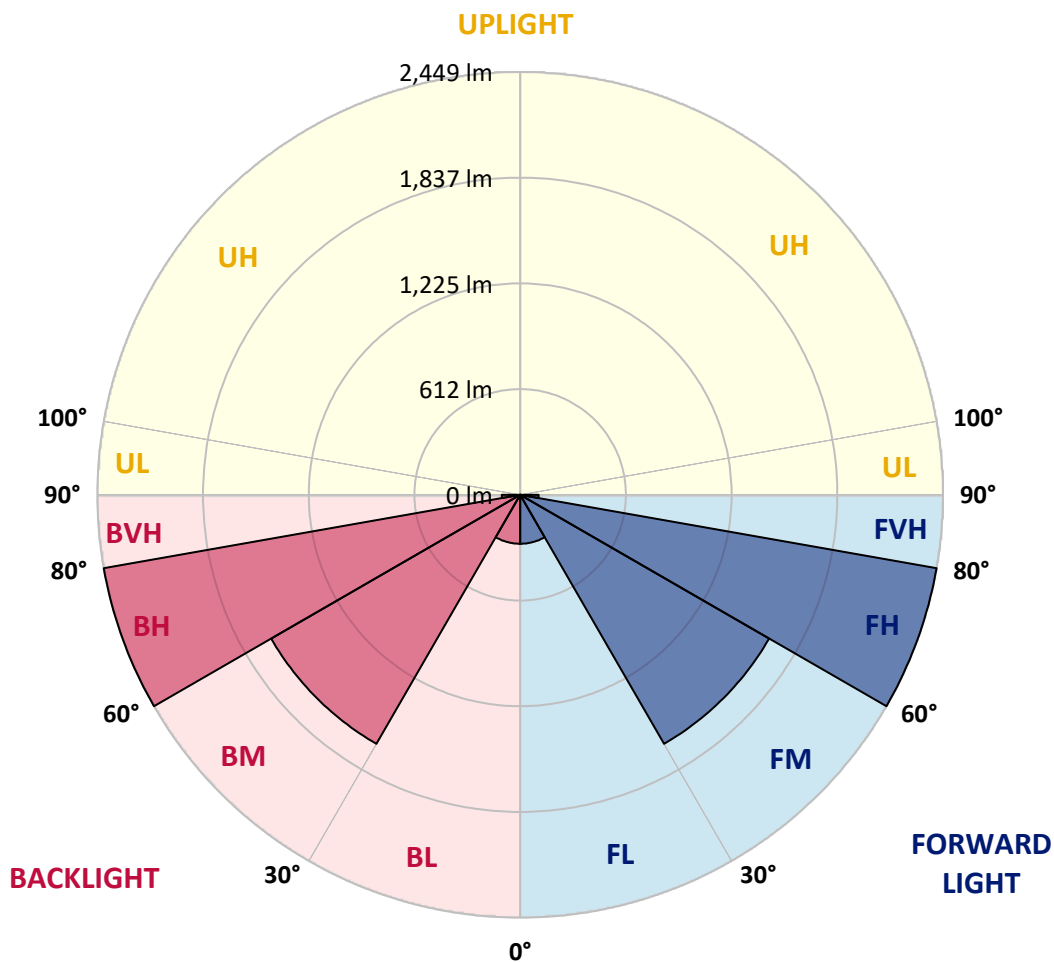
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 283.6  | 3.1       |                         |      |         |
| FM   | (30°-60°)   | 1665.5 | 18.5      |                         |      |         |
| FH   | (60°-80°)   | 2449.2 | 27.2      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 106.5  | 1.2       |                         |      | G2/225  |
| BL   | (0°-30°)    | 283.6  | 3.1       | B1/500                  |      |         |
| BM   | (30°-60°)   | 1665.5 | 18.5      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 2449.2 | 27.2      | B3/2500                 |      | G2/5000 |
| BVH  | (80°-90°)   | 106.5  | 1.2       |                         |      | G2/225  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 492.6  | 492.6  | 492.6  | 492.6  | 492.6  | 492.6  | 492.6  | 492.6  | 492.6  | 492.6  | 492.6  |
| 2.5°  | 498.6  | 498.6  | 497.6  | 497.6  | 497.6  | 497.6  | 496.6  | 496.6  | 497.6  | 496.6  | 496.6  |
| 5°    | 510.7  | 511.7  | 511.7  | 510.7  | 510.7  | 510.7  | 510.7  | 510.7  | 511.7  | 510.7  | 510.7  |
| 7.5°  | 528.8  | 529.8  | 529.8  | 528.8  | 528.8  | 528.8  | 528.8  | 528.8  | 529.8  | 529.8  | 527.8  |
| 10°   | 550.9  | 551.9  | 551.9  | 550.9  | 550.9  | 551.9  | 551.9  | 551.9  | 552.9  | 552.9  | 551.9  |
| 12.5° | 577.1  | 578.1  | 579.1  | 578.1  | 579.1  | 579.1  | 580.1  | 581.1  | 581.1  | 581.1  | 579.1  |
| 15°   | 607.2  | 610.2  | 608.2  | 608.2  | 609.2  | 610.2  | 610.2  | 613.2  | 612.2  | 611.2  | 610.2  |
| 17.5° | 642.4  | 641.4  | 641.4  | 642.4  | 643.4  | 642.4  | 643.4  | 646.4  | 645.4  | 644.4  | 643.4  |
| 20°   | 675.6  | 675.6  | 675.6  | 674.6  | 676.6  | 676.6  | 677.6  | 678.6  | 678.6  | 680.6  | 677.6  |
| 22.5° | 707.7  | 707.7  | 706.7  | 706.7  | 708.8  | 708.8  | 710.8  | 712.8  | 712.8  | 712.8  | 710.8  |
| 25°   | 737.9  | 737.9  | 738.9  | 737.9  | 738.9  | 739.9  | 741.9  | 743.9  | 744.9  | 744.9  | 744.9  |
| 27.5° | 765.1  | 768.1  | 767.1  | 768.1  | 770.1  | 772.1  | 774.1  | 777.1  | 779.1  | 780.1  | 777.1  |
| 30°   | 799.2  | 799.2  | 798.2  | 799.2  | 801.2  | 804.3  | 808.3  | 813.3  | 813.3  | 814.3  | 814.3  |
| 32.5° | 835.4  | 836.4  | 834.4  | 836.4  | 839.4  | 843.5  | 847.5  | 851.5  | 853.5  | 857.5  | 856.5  |
| 35°   | 882.7  | 879.7  | 880.7  | 883.7  | 885.7  | 889.7  | 894.7  | 901.8  | 905.8  | 907.8  | 905.8  |
| 37.5° | 937.0  | 936.0  | 938.0  | 938.0  | 945.0  | 949.0  | 958.1  | 964.1  | 967.1  | 972.1  | 970.1  |
| 40°   | 1005.3 | 1009.3 | 1010.4 | 1013.4 | 1017.4 | 1025.4 | 1035.5 | 1045.5 | 1051.6 | 1055.6 | 1056.6 |
| 42.5° | 1097.8 | 1099.8 | 1095.8 | 1106.9 | 1117.9 | 1122.9 | 1135.0 | 1149.1 | 1158.1 | 1161.1 | 1162.2 |
| 45°   | 1211.4 | 1211.4 | 1217.4 | 1224.5 | 1238.6 | 1248.6 | 1261.7 | 1284.8 | 1292.8 | 1303.9 | 1303.9 |
| 47.5° | 1347.1 | 1351.2 | 1351.2 | 1367.2 | 1378.3 | 1398.4 | 1423.5 | 1442.6 | 1459.7 | 1454.7 | 1471.8 |
| 50°   | 1504.0 | 1507.0 | 1518.0 | 1527.1 | 1546.2 | 1569.3 | 1592.4 | 1620.6 | 1645.7 | 1648.7 | 1651.7 |
| 52.5° | 1667.8 | 1671.9 | 1680.9 | 1702.0 | 1725.1 | 1751.3 | 1793.5 | 1817.6 | 1841.8 | 1854.8 | 1852.8 |
| 55°   | 1855.8 | 1853.8 | 1868.9 | 1885.0 | 1919.2 | 1954.4 | 1989.5 | 2023.7 | 2048.9 | 2066.9 | 2065.9 |
| 57.5° | 2052.9 | 2059.9 | 2077.0 | 2097.1 | 2126.3 | 2157.4 | 2199.7 | 2233.8 | 2275.0 | 2286.1 | 2270.0 |
| 60°   | 2282.1 | 2275.0 | 2292.1 | 2323.3 | 2349.4 | 2389.7 | 2426.9 | 2471.1 | 2500.2 | 2513.3 | 2508.3 |
| 62.5° | 2516.3 | 2510.3 | 2523.4 | 2563.6 | 2594.7 | 2623.9 | 2675.2 | 2723.4 | 2747.6 | 2752.6 | 2743.5 |
| 65°   | 2688.2 | 2690.2 | 2711.4 | 2746.5 | 2795.8 | 2840.0 | 2897.3 | 2955.7 | 2993.9 | 2999.9 | 2979.8 |
| 67.5° | 2728.5 | 2732.5 | 2761.6 | 2806.9 | 2868.2 | 2941.6 | 3027.0 | 3113.5 | 3178.8 | 3192.9 | 3163.8 |
| 70°   | 2636.0 | 2638.0 | 2666.1 | 2717.4 | 2787.8 | 2872.2 | 2978.8 | 3098.4 | 3193.9 | 3230.1 | 3197.9 |
| 72.5° | 2446.0 | 2454.0 | 2477.1 | 2520.3 | 2575.6 | 2659.1 | 2761.6 | 2868.2 | 2962.7 | 3008.9 | 3008.9 |
| 75°   | 2103.1 | 2121.2 | 2132.3 | 2146.4 | 2194.6 | 2262.0 | 2345.4 | 2429.9 | 2513.3 | 2539.5 | 2466.1 |
| 77.5° | 1500.9 | 1470.8 | 1477.8 | 1556.2 | 1545.2 | 1621.6 | 1714.1 | 1774.4 | 1848.8 | 1837.7 | 1732.2 |
| 80°   | 688.6  | 671.6  | 710.8  | 763.0  | 829.4  | 880.7  | 980.2  | 990.2  | 1075.7 | 1080.7 | 1004.3 |
| 82.5° | 137.7  | 144.8  | 172.9  | 213.1  | 265.4  | 322.7  | 375.0  | 419.2  | 477.5  | 488.6  | 453.4  |
| 85°   | 43.2   | 47.3   | 59.3   | 65.3   | 68.4   | 78.4   | 89.5   | 120.6  | 138.7  | 143.8  | 134.7  |
| 87.5° | 9.0    | 14.1   | 23.1   | 26.1   | 27.1   | 26.1   | 26.1   | 25.1   | 20.1   | 16.1   | 19.1   |
| 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°    | 492.6  | 492.6  | 492.6  | 492.6  | 492.6  | 492.6  | 492.6  | 492.6  |
| 2.5°  | 495.6  | 495.6  | 496.6  | 496.6  | 496.6  | 495.6  | 494.6  | 495.6  |
| 5°    | 509.7  | 509.7  | 509.7  | 509.7  | 507.7  | 507.7  | 506.7  | 506.7  |
| 7.5°  | 527.8  | 526.8  | 526.8  | 525.8  | 524.8  | 524.8  | 523.8  | 524.8  |
| 10°   | 551.9  | 549.9  | 548.9  | 547.9  | 546.9  | 546.9  | 545.9  | 544.9  |
| 12.5° | 578.1  | 577.1  | 576.1  | 574.0  | 573.0  | 571.0  | 571.0  | 571.0  |
| 15°   | 608.2  | 607.2  | 606.2  | 603.2  | 603.2  | 600.2  | 601.2  | 601.2  |
| 17.5° | 641.4  | 639.4  | 636.4  | 635.4  | 634.4  | 631.3  | 631.3  | 631.3  |
| 20°   | 675.6  | 671.6  | 669.5  | 667.5  | 667.5  | 664.5  | 663.5  | 663.5  |
| 22.5° | 708.8  | 704.7  | 700.7  | 698.7  | 696.7  | 695.7  | 693.7  | 692.7  |
| 25°   | 741.9  | 737.9  | 733.9  | 730.9  | 726.8  | 724.8  | 722.8  | 722.8  |
| 27.5° | 775.1  | 771.1  | 765.1  | 761.0  | 757.0  | 753.0  | 751.0  | 752.0  |
| 30°   | 809.3  | 805.3  | 799.2  | 794.2  | 789.2  | 785.2  | 783.1  | 782.1  |
| 32.5° | 852.5  | 847.5  | 840.5  | 835.4  | 826.4  | 822.4  | 820.3  | 821.4  |
| 35°   | 902.8  | 895.7  | 890.7  | 882.7  | 875.6  | 870.6  | 867.6  | 867.6  |
| 37.5° | 967.1  | 961.1  | 956.1  | 948.0  | 938.0  | 931.9  | 927.9  | 930.9  |
| 40°   | 1050.6 | 1045.5 | 1035.5 | 1023.4 | 1015.4 | 1010.4 | 1006.3 | 1007.3 |
| 42.5° | 1157.1 | 1147.1 | 1138.0 | 1131.0 | 1118.9 | 1111.9 | 1100.8 | 1104.9 |
| 45°   | 1291.8 | 1280.8 | 1271.7 | 1260.7 | 1249.6 | 1235.5 | 1231.5 | 1223.5 |
| 47.5° | 1454.7 | 1446.7 | 1426.6 | 1416.5 | 1402.4 | 1382.3 | 1372.3 | 1364.2 |
| 50°   | 1634.7 | 1619.6 | 1605.5 | 1580.4 | 1564.3 | 1541.2 | 1532.1 | 1529.1 |
| 52.5° | 1837.7 | 1812.6 | 1789.5 | 1766.4 | 1734.2 | 1712.1 | 1694.0 | 1698.0 |
| 55°   | 2038.8 | 2009.6 | 1976.5 | 1951.3 | 1926.2 | 1899.1 | 1880.0 | 1868.9 |
| 57.5° | 2250.9 | 2218.8 | 2183.6 | 2147.4 | 2126.3 | 2094.1 | 2082.0 | 2076.0 |
| 60°   | 2469.1 | 2439.9 | 2404.7 | 2371.6 | 2342.4 | 2305.2 | 2285.1 | 2277.1 |
| 62.5° | 2710.4 | 2670.1 | 2627.9 | 2586.7 | 2554.5 | 2527.4 | 2506.3 | 2492.2 |
| 65°   | 2932.5 | 2877.2 | 2834.0 | 2781.7 | 2746.5 | 2707.3 | 2681.2 | 2676.2 |
| 67.5° | 3098.4 | 3013.0 | 2937.6 | 2870.2 | 2815.9 | 2767.7 | 2734.5 | 2721.4 |
| 70°   | 3109.5 | 2991.8 | 2880.3 | 2780.7 | 2701.3 | 2646.0 | 2601.8 | 2584.7 |
| 72.5° | 2894.3 | 2748.6 | 2597.8 | 2500.2 | 2415.8 | 2339.4 | 2308.2 | 2301.2 |
| 75°   | 2354.5 | 2232.8 | 2107.2 | 1996.6 | 1938.3 | 1900.1 | 1873.9 | 1835.7 |
| 77.5° | 1635.7 | 1524.1 | 1456.7 | 1333.1 | 1310.9 | 1279.8 | 1253.6 | 1228.5 |
| 80°   | 915.9  | 818.3  | 742.9  | 665.5  | 618.3  | 592.1  | 565.0  | 549.9  |
| 82.5° | 411.2  | 337.8  | 268.4  | 208.1  | 171.9  | 135.7  | 101.5  | 107.6  |
| 85°   | 102.5  | 86.5   | 66.4   | 55.3   | 50.3   | 46.2   | 37.2   | 33.2   |
| 87.5° | 19.1   | 18.1   | 16.1   | 16.1   | 17.1   | 14.1   | 8.0    | 7.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)