

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: P198646

Luminaire Tested: **XNV-AF-01-LED-U-5MQ**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P198646  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24129)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: XNV-AF-01-LED-U-5MQ  
Description: XNV ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6588.8 lumens  
Efficiency: N/A  
Efficacy: 113.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G1

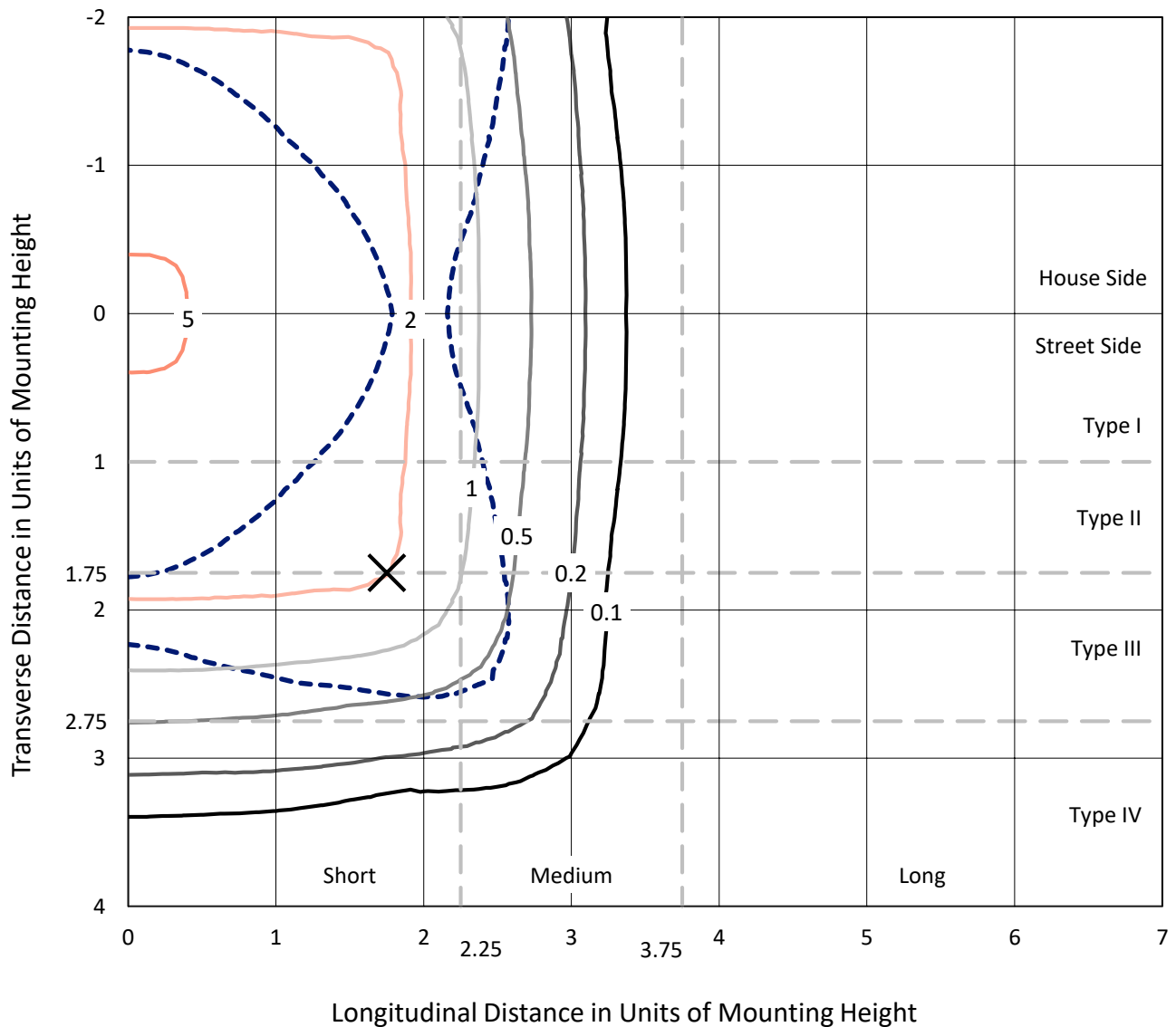
Input Watts (W): 58  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

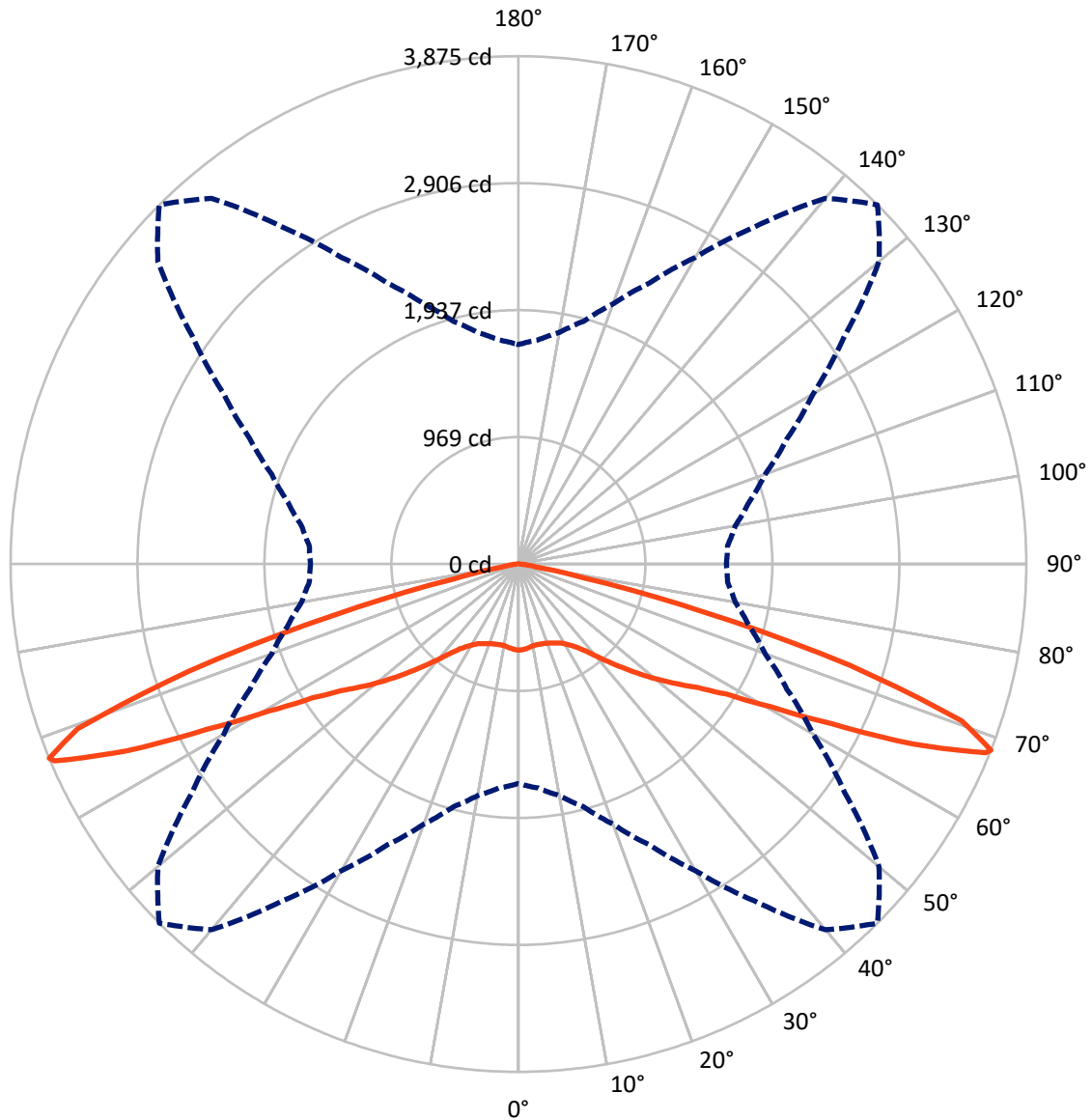


Based on 10 foot mounting height. Maximum calculated value = 6.6 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 3294.4   | 0.0    | 3294.4 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 3294.4   | 0.0    | 3294.4 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 6588.8   | 0.0    | 6588.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 61.5   | 0.9       |
| 10°-20°   | 178.4  | 2.7       |
| 20°-30°   | 303.2  | 4.6       |
| 30°-40°   | 496.2  | 7.5       |
| 40°-50°   | 886.9  | 13.5      |
| 50°-60°   | 1497.8 | 22.7      |
| 60°-70°   | 2322.5 | 35.2      |
| 70°-80°   | 798.5  | 12.1      |
| 80°-90°   | 43.9   | 0.7       |
| 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°    | 6588.8 | 100.0     |
| 0°-180°   | 6588.8 | 100.0     |



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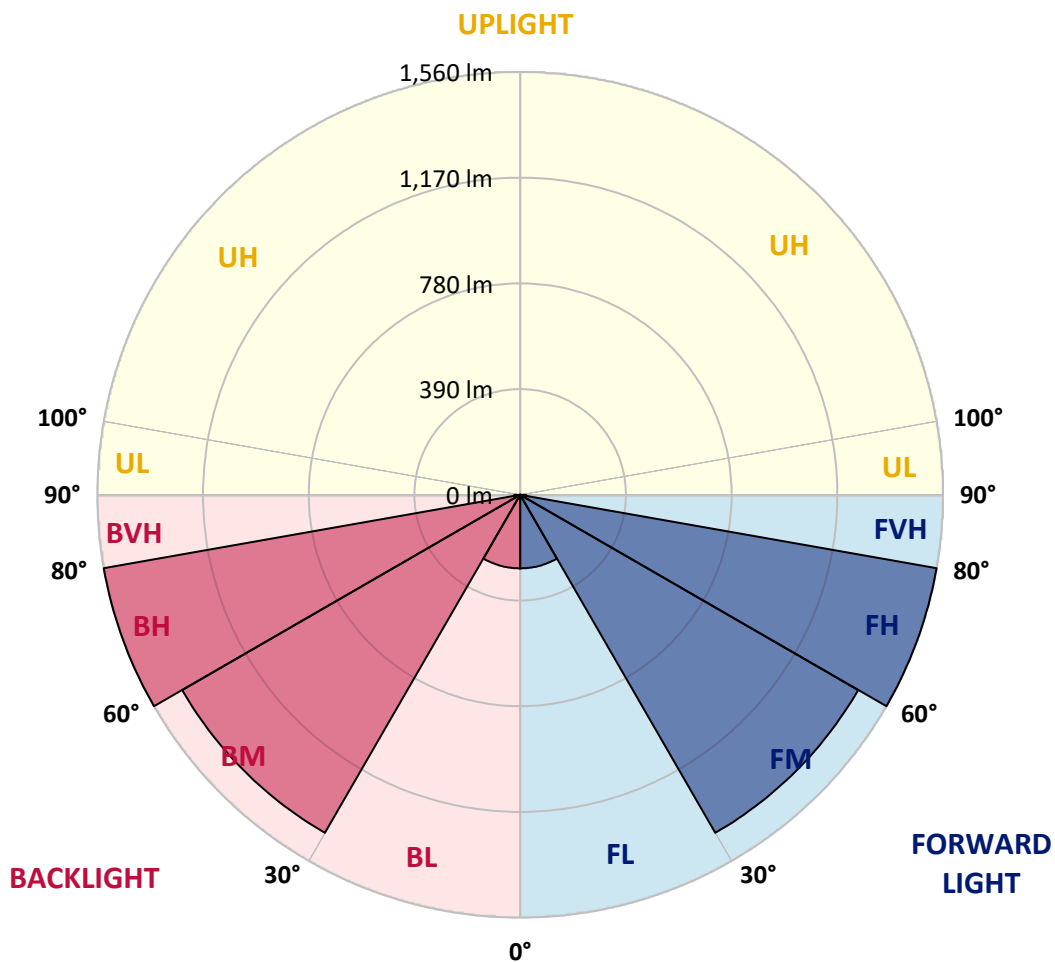
CATALOG NUMBER: XNV-AF-01-LED-U-5MQ

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 271.6  | 4.1       |                         |      |         |
| FM   | (30°-60°)   | 1440.4 | 21.9      |                         |      |         |
| FH   | (60°-80°)   | 1560.5 | 23.7      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 21.9   | 0.3       |                         |      | G1/100  |
| BL   | (0°-30°)    | 271.6  | 4.1       | B1/500                  |      |         |
| BM   | (30°-60°)   | 1440.4 | 21.9      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 1560.5 | 23.7      | B3/2500                 |      | G1/1800 |
| BVH  | (80°-90°)   | 21.9   | 0.3       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 657.2  | 657.2  | 657.2  | 657.2  | 657.2  | 657.2  | 657.2  | 657.2  | 657.2  | 657.2  | 657.2  |
| 2.5°  | 660.1  | 660.1  | 660.9  | 660.5  | 659.3  | 658.1  | 656.8  | 655.6  | 654.8  | 654.1  | 653.3  |
| 5°    | 653.3  | 653.3  | 654.4  | 653.7  | 652.8  | 651.6  | 650.8  | 649.6  | 648.8  | 647.9  | 648.3  |
| 7.5°  | 644.4  | 645.2  | 646.0  | 645.6  | 643.9  | 643.5  | 642.3  | 641.9  | 641.1  | 639.9  | 640.3  |
| 10°   | 636.7  | 637.1  | 637.9  | 637.5  | 637.1  | 635.9  | 635.5  | 635.0  | 634.6  | 633.0  | 632.6  |
| 12.5° | 629.0  | 629.8  | 630.6  | 631.1  | 630.6  | 631.1  | 631.5  | 631.9  | 631.5  | 630.6  | 630.6  |
| 15°   | 623.0  | 623.8  | 625.0  | 626.1  | 626.6  | 629.0  | 630.6  | 632.3  | 633.4  | 633.8  | 632.6  |
| 17.5° | 619.7  | 620.9  | 622.6  | 625.0  | 627.0  | 629.8  | 632.6  | 635.0  | 637.1  | 637.5  | 636.3  |
| 20°   | 619.3  | 620.5  | 623.0  | 625.7  | 629.4  | 633.0  | 637.5  | 641.1  | 643.1  | 644.4  | 643.1  |
| 22.5° | 622.2  | 623.8  | 627.0  | 630.6  | 635.0  | 639.9  | 645.6  | 649.6  | 653.7  | 655.2  | 654.1  |
| 25°   | 630.2  | 631.9  | 635.5  | 639.9  | 644.8  | 650.8  | 656.4  | 661.6  | 665.7  | 667.8  | 666.1  |
| 27.5° | 647.1  | 647.5  | 651.6  | 656.4  | 662.1  | 667.4  | 674.6  | 677.0  | 680.3  | 682.3  | 680.3  |
| 30°   | 671.0  | 671.8  | 675.5  | 683.1  | 688.3  | 695.2  | 699.2  | 701.6  | 705.2  | 707.3  | 704.9  |
| 32.5° | 707.3  | 708.1  | 711.4  | 718.6  | 723.4  | 728.6  | 733.6  | 735.1  | 738.8  | 741.1  | 738.4  |
| 35°   | 758.5  | 760.2  | 762.9  | 767.8  | 771.8  | 775.9  | 779.5  | 778.3  | 780.7  | 784.0  | 781.1  |
| 37.5° | 828.7  | 828.3  | 829.1  | 832.8  | 836.8  | 839.2  | 844.9  | 842.1  | 844.4  | 847.3  | 845.7  |
| 40°   | 910.6  | 910.6  | 910.2  | 916.7  | 918.3  | 920.8  | 926.8  | 923.1  | 926.4  | 929.6  | 926.8  |
| 42.5° | 1003.8 | 1005.5 | 1007.5 | 1012.7 | 1017.1 | 1017.9 | 1020.8 | 1019.2 | 1023.2 | 1026.0 | 1023.2 |
| 45°   | 1111.1 | 1113.6 | 1116.0 | 1128.1 | 1130.2 | 1131.7 | 1133.7 | 1128.5 | 1132.9 | 1135.4 | 1134.6 |
| 47.5° | 1222.5 | 1226.9 | 1232.2 | 1244.7 | 1252.8 | 1256.4 | 1258.0 | 1252.0 | 1252.4 | 1256.0 | 1256.4 |
| 50°   | 1348.4 | 1353.3 | 1358.5 | 1372.6 | 1380.3 | 1386.7 | 1388.8 | 1381.9 | 1382.7 | 1385.5 | 1386.3 |
| 52.5° | 1464.6 | 1470.3 | 1481.5 | 1500.5 | 1511.4 | 1522.7 | 1523.5 | 1515.0 | 1518.7 | 1520.7 | 1519.1 |
| 55°   | 1573.9 | 1581.2 | 1596.1 | 1621.6 | 1641.3 | 1663.5 | 1673.6 | 1664.3 | 1664.3 | 1662.7 | 1661.9 |
| 57.5° | 1701.5 | 1709.6 | 1724.8 | 1754.3 | 1781.8 | 1813.6 | 1841.0 | 1850.3 | 1867.3 | 1872.9 | 1864.0 |
| 60°   | 1893.5 | 1902.0 | 1917.7 | 1956.4 | 1991.2 | 2037.5 | 2082.7 | 2119.5 | 2179.2 | 2211.4 | 2182.4 |
| 62.5° | 2069.0 | 2081.9 | 2119.0 | 2186.9 | 2261.8 | 2347.8 | 2447.4 | 2518.5 | 2627.0 | 2681.1 | 2608.0 |
| 65°   | 2029.0 | 2055.3 | 2127.9 | 2234.4 | 2389.4 | 2575.8 | 2778.7 | 2973.6 | 3197.9 | 3312.9 | 3164.4 |
| 67.5° | 1772.5 | 1794.7 | 1872.9 | 1996.8 | 2190.0 | 2447.1 | 2762.6 | 3166.0 | 3628.8 | 3844.2 | 3581.7 |
| 68°   | 1674.4 | 1716.0 | 1793.8 | 1916.9 | 2111.8 | 2364.3 | 2701.2 | 3137.0 | 3642.1 | 3874.9 | 3591.3 |
| 70°   | 1283.8 | 1298.7 | 1373.4 | 1484.0 | 1694.2 | 1941.9 | 2282.0 | 2778.7 | 3349.7 | 3589.3 | 3297.6 |
| 72.5° | 610.1  | 618.9  | 667.4  | 776.3  | 909.8  | 1111.5 | 1411.8 | 1880.2 | 2394.6 | 2643.9 | 2353.1 |
| 75°   | 223.5  | 225.6  | 236.8  | 262.7  | 312.7  | 388.5  | 532.5  | 823.9  | 1219.7 | 1454.5 | 1224.6 |
| 77.5° | 120.6  | 121.0  | 125.5  | 132.0  | 140.9  | 150.9  | 172.7  | 231.6  | 373.6  | 508.4  | 394.6  |
| 80°   | 75.9   | 75.5   | 79.9   | 85.1   | 91.1   | 96.1   | 98.0   | 104.9  | 118.3  | 138.4  | 127.1  |
| 82.5° | 38.8   | 42.4   | 52.5   | 58.1   | 67.0   | 68.6   | 66.6   | 66.2   | 70.2   | 75.9   | 78.3   |
| 85°   | 21.4   | 18.9   | 27.8   | 37.1   | 40.3   | 41.5   | 41.9   | 39.6   | 38.8   | 38.0   | 39.9   |
| 87.5° | 10.8   | 10.1   | 12.1   | 18.5   | 19.7   | 16.2   | 16.6   | 14.1   | 9.7    | 9.7    | 10.1   |
| 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°    | 657.2  | 657.2  | 657.2  | 657.2  | 657.2  | 657.2  | 657.2  | 657.2  |
| 2.5°  | 652.4  | 652.8  | 652.0  | 652.0  | 652.0  | 652.4  | 652.0  | 651.6  |
| 5°    | 647.1  | 647.9  | 647.9  | 648.3  | 648.8  | 648.8  | 648.8  | 648.8  |
| 7.5°  | 639.5  | 639.9  | 640.7  | 640.7  | 640.7  | 640.7  | 640.7  | 640.7  |
| 10°   | 632.3  | 631.5  | 631.1  | 630.2  | 630.2  | 629.0  | 629.4  | 629.8  |
| 12.5° | 628.6  | 627.0  | 626.1  | 625.0  | 624.2  | 623.0  | 623.0  | 623.4  |
| 15°   | 630.2  | 627.8  | 625.3  | 624.6  | 623.8  | 623.0  | 622.2  | 622.6  |
| 17.5° | 633.4  | 630.6  | 627.8  | 626.1  | 624.6  | 623.4  | 623.0  | 623.4  |
| 20°   | 640.3  | 636.3  | 631.9  | 629.0  | 625.7  | 625.0  | 623.8  | 625.0  |
| 22.5° | 649.6  | 644.8  | 639.1  | 633.8  | 630.2  | 628.6  | 627.0  | 628.2  |
| 25°   | 660.9  | 655.6  | 650.0  | 643.9  | 639.9  | 638.7  | 636.7  | 636.7  |
| 27.5° | 676.6  | 672.2  | 667.4  | 661.6  | 657.7  | 656.4  | 653.3  | 653.3  |
| 30°   | 701.6  | 697.2  | 692.7  | 687.9  | 683.8  | 682.7  | 678.6  | 678.6  |
| 32.5° | 734.7  | 729.9  | 727.0  | 723.0  | 719.7  | 717.8  | 712.9  | 712.5  |
| 35°   | 779.1  | 774.7  | 774.3  | 771.4  | 768.2  | 768.6  | 763.7  | 762.9  |
| 37.5° | 842.8  | 839.2  | 840.5  | 838.0  | 835.1  | 837.6  | 834.8  | 834.8  |
| 40°   | 924.3  | 923.1  | 924.3  | 922.7  | 923.1  | 923.5  | 921.2  | 921.9  |
| 42.5° | 1022.8 | 1019.6 | 1026.8 | 1026.0 | 1024.8 | 1028.1 | 1022.4 | 1018.3 |
| 45°   | 1136.2 | 1135.0 | 1142.2 | 1143.5 | 1141.0 | 1143.0 | 1132.9 | 1132.5 |
| 47.5° | 1259.3 | 1259.3 | 1265.7 | 1264.9 | 1262.4 | 1262.8 | 1250.8 | 1243.1 |
| 50°   | 1387.5 | 1386.7 | 1393.2 | 1391.6 | 1388.3 | 1387.9 | 1375.5 | 1367.8 |
| 52.5° | 1521.1 | 1521.1 | 1530.3 | 1525.9 | 1518.3 | 1514.6 | 1499.3 | 1489.2 |
| 55°   | 1668.7 | 1666.7 | 1669.6 | 1655.0 | 1640.1 | 1629.3 | 1610.2 | 1602.6 |
| 57.5° | 1855.5 | 1832.2 | 1812.0 | 1793.4 | 1772.5 | 1759.6 | 1737.4 | 1729.3 |
| 60°   | 2120.7 | 2058.1 | 2031.1 | 1993.9 | 1959.3 | 1941.9 | 1912.4 | 1896.8 |
| 62.5° | 2487.8 | 2384.1 | 2310.6 | 2228.8 | 2149.7 | 2094.0 | 2049.3 | 2029.4 |
| 65°   | 2912.2 | 2686.3 | 2499.5 | 2324.0 | 2175.1 | 2056.8 | 1991.2 | 1970.5 |
| 67.5° | 3073.7 | 2658.9 | 2336.5 | 2084.8 | 1904.0 | 1763.2 | 1684.5 | 1667.9 |
| 68°   | 3039.4 | 2595.9 | 2261.0 | 2003.2 | 1821.7 | 1679.7 | 1601.3 | 1586.5 |
| 70°   | 2681.1 | 2190.0 | 1836.6 | 1579.9 | 1410.5 | 1275.4 | 1220.1 | 1196.3 |
| 72.5° | 1827.7 | 1406.5 | 1078.9 | 863.1  | 736.3  | 650.8  | 600.0  | 582.6  |
| 75°   | 841.3  | 568.5  | 379.6  | 283.7  | 240.9  | 220.3  | 204.6  | 200.5  |
| 77.5° | 245.3  | 178.3  | 153.3  | 142.0  | 133.6  | 126.3  | 121.0  | 120.6  |
| 80°   | 116.6  | 109.4  | 106.1  | 98.8   | 91.1   | 84.3   | 79.5   | 80.3   |
| 82.5° | 78.3   | 76.2   | 76.2   | 68.9   | 56.9   | 48.8   | 40.3   | 36.3   |
| 85°   | 41.5   | 43.2   | 45.6   | 43.2   | 37.5   | 27.8   | 18.1   | 19.7   |
| 87.5° | 14.1   | 16.2   | 17.0   | 16.6   | 14.9   | 11.3   | 8.5    | 8.5    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)