

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: P194978

Luminaire Tested: **NVN-AF-02-LED-U-5NQ-7060-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P194978  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: NVN-AF-02-LED-U-5NQ-7060-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 5700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8250 lumens  
Efficiency: N/A  
Efficacy: 125.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G1

Input Watts (W): 66  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

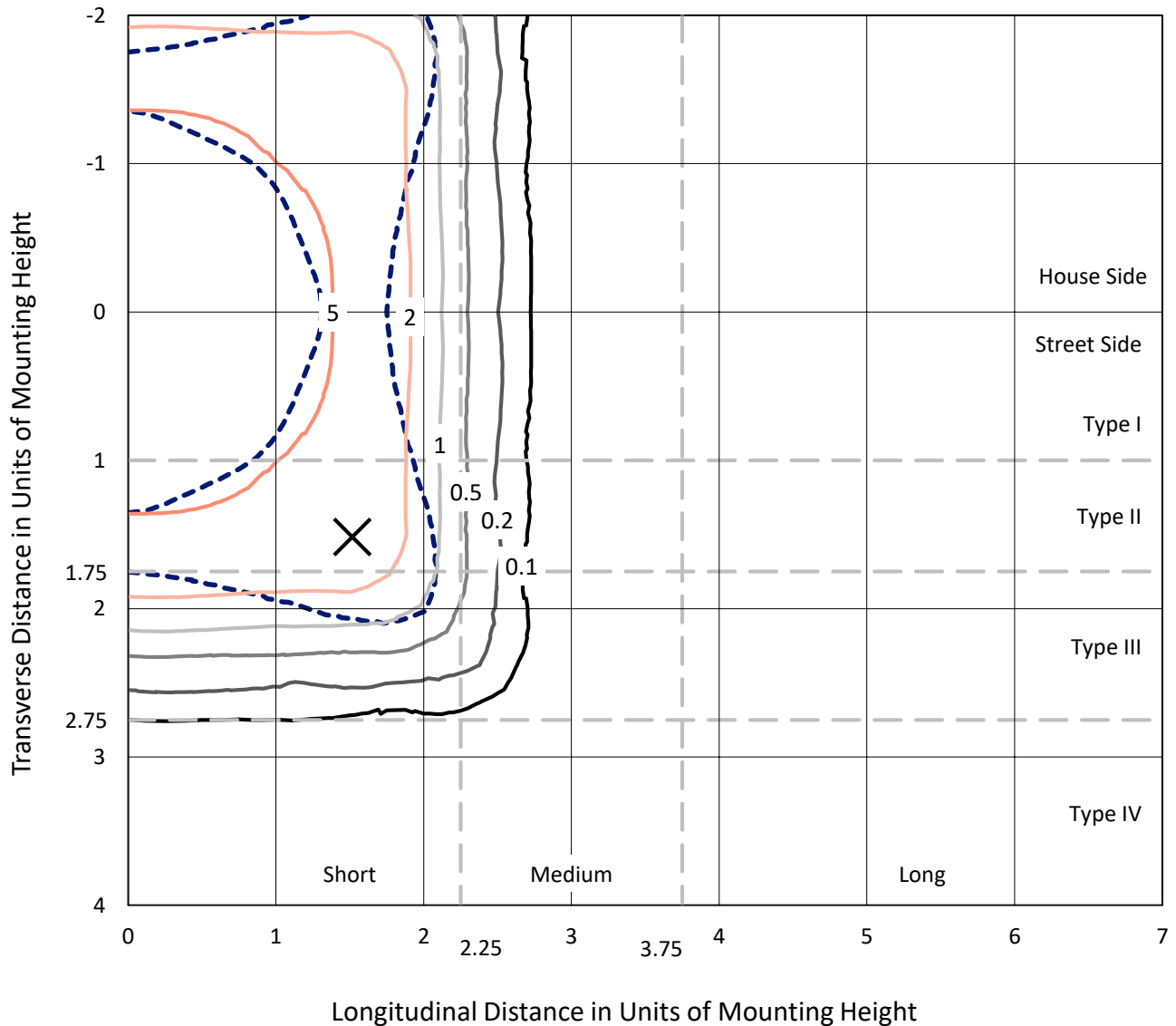


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

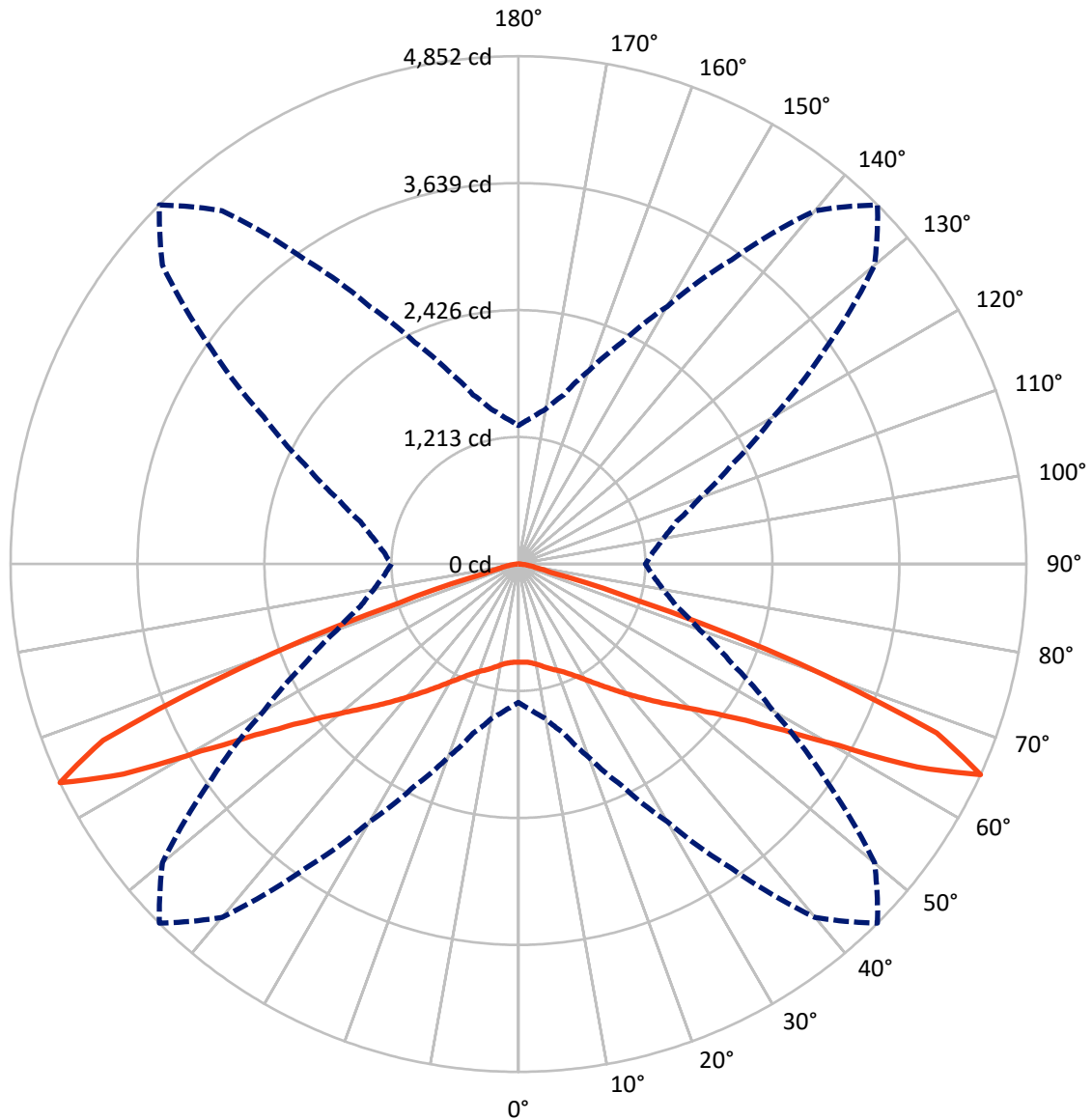


Based on 10 foot mounting height. Maximum calculated value = 9.4 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 4125.0   | 0.0    | 4125.0 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 4125.0   | 0.0    | 4125.0 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 8250.0   | 0.0    | 8250.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 91.4   | 1.1       |
| 10°-20°   | 292.9  | 3.6       |
| 20°-30°   | 546.4  | 6.6       |
| 30°-40°   | 921.3  | 11.2      |
| 40°-50°   | 1496.4 | 18.1      |
| 50°-60°   | 2344.7 | 28.4      |
| 60°-70°   | 2213.2 | 26.8      |
| 70°-80°   | 298.3  | 3.6       |
| 80°-90°   | 45.4   | 0.6       |
| 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°    | 8250.0 | 100.0     |
| 0°-180°   | 8250.0 | 100.0     |

**Coefficient of Utilization**



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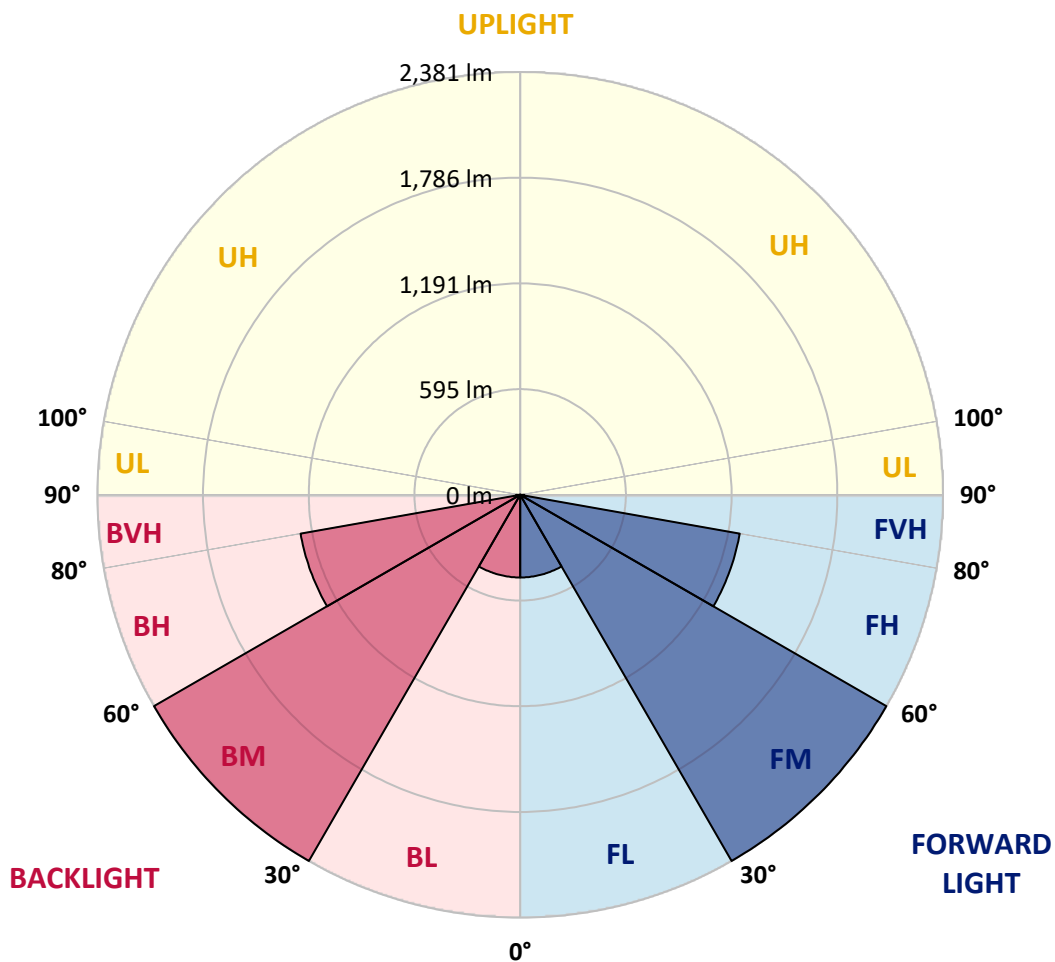
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 465.3  | 5.6       |                         |      |         |
| FM   | (30°-60°)   | 2381.2 | 28.9      |                         |      |         |
| FH   | (60°-80°)   | 1255.8 | 15.2      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 22.7   | 0.3       |                         |      | G1/100  |
| BL   | (0°-30°)    | 465.3  | 5.6       | B1/500                  |      |         |
| BM   | (30°-60°)   | 2381.2 | 28.9      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 1255.8 | 15.2      | B3/2500                 |      | G1/1800 |
| BVH  | (80°-90°)   | 22.7   | 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°    | 938.4  | 938.4  | 938.4  | 938.4  | 938.4  | 938.4  | 938.4  | 938.4  | 938.4  | 938.4  | 938.4  |
| 2.5°  | 946.1  | 946.1  | 947.7  | 947.2  | 945.1  | 943.6  | 942.0  | 940.0  | 938.9  | 937.9  | 937.4  |
| 5°    | 951.3  | 951.3  | 952.8  | 952.3  | 950.8  | 948.7  | 947.7  | 946.1  | 944.6  | 943.6  | 944.1  |
| 7.5°  | 964.1  | 964.6  | 965.2  | 964.6  | 963.1  | 961.6  | 959.5  | 959.0  | 956.9  | 955.4  | 956.4  |
| 10°   | 983.7  | 983.7  | 984.2  | 984.7  | 983.7  | 980.1  | 980.1  | 979.0  | 977.0  | 974.9  | 975.4  |
| 12.5° | 1005.2 | 1005.2 | 1005.8 | 1005.8 | 1005.8 | 1003.7 | 1004.2 | 1003.7 | 1001.1 | 1000.1 | 1001.1 |
| 15°   | 1026.3 | 1026.8 | 1026.8 | 1027.9 | 1027.9 | 1028.4 | 1030.4 | 1030.4 | 1029.4 | 1028.9 | 1028.9 |
| 17.5° | 1051.0 | 1052.0 | 1052.5 | 1054.1 | 1054.6 | 1055.6 | 1057.7 | 1058.2 | 1058.7 | 1057.1 | 1057.7 |
| 20°   | 1083.9 | 1084.4 | 1085.9 | 1086.4 | 1088.5 | 1088.5 | 1089.5 | 1089.0 | 1088.0 | 1085.9 | 1085.9 |
| 22.5° | 1120.9 | 1121.9 | 1125.0 | 1125.0 | 1127.6 | 1126.0 | 1126.5 | 1125.0 | 1122.4 | 1121.4 | 1120.4 |
| 25°   | 1169.2 | 1170.7 | 1173.3 | 1172.3 | 1173.3 | 1170.7 | 1170.7 | 1170.7 | 1169.2 | 1167.6 | 1167.1 |
| 27.5° | 1230.3 | 1227.8 | 1230.3 | 1228.3 | 1227.8 | 1225.7 | 1226.2 | 1225.2 | 1223.7 | 1223.1 | 1221.1 |
| 30°   | 1294.1 | 1291.0 | 1292.5 | 1293.0 | 1292.0 | 1291.5 | 1289.4 | 1287.9 | 1285.3 | 1285.8 | 1284.3 |
| 32.5° | 1367.0 | 1364.0 | 1365.5 | 1366.0 | 1365.0 | 1366.0 | 1365.5 | 1361.9 | 1358.8 | 1360.9 | 1360.9 |
| 35°   | 1453.9 | 1451.8 | 1456.0 | 1457.5 | 1454.4 | 1452.9 | 1450.8 | 1446.7 | 1442.1 | 1445.2 | 1445.7 |
| 37.5° | 1558.2 | 1555.7 | 1558.7 | 1562.8 | 1557.2 | 1554.1 | 1545.9 | 1539.7 | 1536.6 | 1538.2 | 1540.2 |
| 40°   | 1666.7 | 1667.2 | 1675.9 | 1676.9 | 1670.8 | 1667.2 | 1659.0 | 1649.7 | 1641.0 | 1641.0 | 1643.5 |
| 42.5° | 1780.8 | 1782.3 | 1792.6 | 1796.2 | 1794.1 | 1787.4 | 1776.1 | 1764.8 | 1753.5 | 1755.6 | 1758.7 |
| 45°   | 1909.7 | 1907.7 | 1918.5 | 1927.2 | 1925.7 | 1923.6 | 1912.8 | 1892.3 | 1882.0 | 1881.5 | 1886.6 |
| 47.5° | 2045.4 | 2049.5 | 2060.8 | 2075.7 | 2075.2 | 2070.1 | 2056.2 | 2037.2 | 2018.2 | 2019.7 | 2025.9 |
| 50°   | 2203.7 | 2209.4 | 2228.4 | 2243.3 | 2245.3 | 2243.8 | 2227.4 | 2205.3 | 2178.5 | 2180.1 | 2188.3 |
| 52.5° | 2345.6 | 2353.8 | 2375.9 | 2406.7 | 2425.7 | 2434.5 | 2423.7 | 2403.1 | 2375.9 | 2377.4 | 2386.2 |
| 55°   | 2474.0 | 2486.9 | 2519.8 | 2561.9 | 2599.9 | 2635.4 | 2651.3 | 2650.8 | 2630.8 | 2635.4 | 2646.7 |
| 57.5° | 2554.7 | 2572.7 | 2622.6 | 2690.4 | 2765.9 | 2837.4 | 2899.1 | 2957.1 | 2970.0 | 2994.1 | 2994.1 |
| 60°   | 2446.3 | 2488.4 | 2554.7 | 2670.9 | 2819.4 | 2979.7 | 3153.4 | 3322.5 | 3431.5 | 3517.3 | 3471.1 |
| 62.5° | 2042.9 | 2105.0 | 2198.1 | 2351.2 | 2582.5 | 2868.7 | 3217.7 | 3610.8 | 4021.0 | 4271.7 | 4087.8 |
| 65°   | 1321.8 | 1399.9 | 1501.2 | 1673.3 | 1964.7 | 2333.2 | 2841.5 | 3548.1 | 4406.4 | 4851.5 | 4440.3 |
| 67.5° | 523.7  | 576.6  | 638.3  | 760.6  | 1013.5 | 1375.3 | 1945.7 | 2817.3 | 3890.9 | 4310.8 | 3849.8 |
| 70°   | 250.3  | 259.0  | 270.8  | 297.0  | 360.3  | 486.2  | 781.7  | 1388.1 | 2386.2 | 2828.6 | 2329.1 |
| 72.5° | 180.9  | 182.4  | 188.1  | 196.8  | 215.3  | 241.0  | 292.9  | 424.5  | 822.8  | 1196.4 | 823.8  |
| 75°   | 137.2  | 139.3  | 142.4  | 147.0  | 156.7  | 169.1  | 188.6  | 226.1  | 281.6  | 324.8  | 281.1  |
| 77.5° | 104.3  | 106.4  | 109.0  | 113.6  | 118.7  | 127.5  | 134.6  | 149.6  | 173.2  | 182.4  | 181.4  |
| 80°   | 76.1   | 79.7   | 83.8   | 87.9   | 91.5   | 95.6   | 96.1   | 103.3  | 116.7  | 125.4  | 122.8  |
| 82.5° | 48.3   | 51.4   | 62.2   | 66.8   | 67.3   | 68.4   | 67.8   | 68.4   | 75.5   | 81.7   | 79.7   |
| 85°   | 30.8   | 32.9   | 38.5   | 43.7   | 42.7   | 44.7   | 44.7   | 43.7   | 40.6   | 34.9   | 41.6   |
| 87.5° | 15.4   | 15.9   | 18.5   | 23.1   | 22.1   | 19.5   | 19.0   | 19.0   | 13.9   | 11.8   | 12.8   |
| 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°    | 938.4  | 938.4  | 938.4  | 938.4  | 938.4  | 938.4  | 938.4  | 938.4  |
| 2.5°  | 935.9  | 936.9  | 935.3  | 935.3  | 934.8  | 935.9  | 934.3  | 934.3  |
| 5°    | 943.1  | 944.6  | 944.1  | 944.1  | 945.1  | 946.1  | 945.6  | 945.1  |
| 7.5°  | 955.9  | 956.9  | 958.0  | 958.5  | 959.5  | 959.0  | 960.0  | 959.5  |
| 10°   | 975.4  | 974.4  | 975.9  | 974.4  | 974.9  | 973.9  | 974.4  | 974.4  |
| 12.5° | 1000.1 | 998.6  | 997.5  | 996.5  | 996.5  | 994.4  | 994.4  | 995.0  |
| 15°   | 1028.4 | 1025.8 | 1023.7 | 1022.7 | 1021.7 | 1021.7 | 1020.1 | 1021.2 |
| 17.5° | 1056.1 | 1053.5 | 1049.9 | 1049.9 | 1048.4 | 1047.4 | 1046.4 | 1048.9 |
| 20°   | 1085.4 | 1082.8 | 1080.8 | 1080.3 | 1077.2 | 1076.2 | 1076.7 | 1079.8 |
| 22.5° | 1119.3 | 1117.8 | 1117.8 | 1116.8 | 1114.7 | 1113.2 | 1113.2 | 1116.8 |
| 25°   | 1165.1 | 1162.0 | 1162.5 | 1163.0 | 1162.0 | 1162.0 | 1161.0 | 1163.5 |
| 27.5° | 1221.1 | 1218.5 | 1220.1 | 1221.1 | 1220.1 | 1221.6 | 1220.1 | 1222.1 |
| 30°   | 1286.9 | 1285.3 | 1286.9 | 1288.4 | 1285.8 | 1285.8 | 1284.8 | 1286.4 |
| 32.5° | 1365.5 | 1363.4 | 1364.5 | 1364.5 | 1360.9 | 1357.8 | 1353.7 | 1356.8 |
| 35°   | 1451.8 | 1449.3 | 1451.3 | 1452.9 | 1448.8 | 1445.7 | 1439.5 | 1442.1 |
| 37.5° | 1546.9 | 1547.9 | 1550.5 | 1557.2 | 1556.2 | 1551.0 | 1546.4 | 1548.5 |
| 40°   | 1653.3 | 1658.4 | 1669.7 | 1674.4 | 1673.3 | 1668.2 | 1662.0 | 1663.1 |
| 42.5° | 1773.6 | 1780.2 | 1792.1 | 1799.8 | 1796.2 | 1789.0 | 1781.3 | 1784.3 |
| 45°   | 1904.6 | 1914.9 | 1930.3 | 1938.0 | 1933.4 | 1925.7 | 1914.9 | 1920.5 |
| 47.5° | 2043.4 | 2063.9 | 2084.5 | 2094.8 | 2093.2 | 2082.4 | 2068.5 | 2070.1 |
| 50°   | 2209.4 | 2236.6 | 2262.8 | 2273.1 | 2265.4 | 2248.9 | 2229.4 | 2228.9 |
| 52.5° | 2416.0 | 2445.3 | 2466.8 | 2464.3 | 2445.3 | 2419.6 | 2397.5 | 2396.4 |
| 55°   | 2674.0 | 2683.7 | 2680.6 | 2658.5 | 2625.1 | 2585.0 | 2556.8 | 2552.2 |
| 57.5° | 2985.9 | 2953.0 | 2904.7 | 2837.9 | 2762.9 | 2686.8 | 2635.4 | 2616.4 |
| 60°   | 3367.2 | 3218.7 | 3046.0 | 2864.1 | 2698.1 | 2573.7 | 2495.1 | 2447.3 |
| 62.5° | 3682.3 | 3252.1 | 2866.2 | 2550.1 | 2291.6 | 2137.9 | 2030.5 | 1964.2 |
| 65°   | 3574.4 | 2809.6 | 2250.5 | 1842.9 | 1560.8 | 1402.0 | 1288.4 | 1212.9 |
| 67.5° | 2761.3 | 1877.4 | 1306.4 | 905.5  | 686.6  | 581.2  | 507.8  | 460.0  |
| 70°   | 1392.2 | 720.0  | 436.3  | 307.8  | 263.1  | 244.6  | 232.3  | 225.1  |
| 72.5° | 408.6  | 272.9  | 226.6  | 200.4  | 184.5  | 173.2  | 166.0  | 162.4  |
| 75°   | 226.1  | 184.5  | 162.9  | 148.0  | 137.7  | 130.0  | 125.4  | 122.3  |
| 77.5° | 155.7  | 134.1  | 123.3  | 113.6  | 105.4  | 99.7   | 96.1   | 93.0   |
| 80°   | 109.0  | 98.2   | 93.5   | 88.4   | 82.2   | 77.6   | 72.5   | 70.4   |
| 82.5° | 72.5   | 67.8   | 66.8   | 62.7   | 59.1   | 54.0   | 44.7   | 41.6   |
| 85°   | 42.7   | 42.1   | 42.1   | 40.6   | 38.0   | 33.4   | 26.7   | 26.7   |
| 87.5° | 14.9   | 15.4   | 15.9   | 17.0   | 16.4   | 13.9   | 11.3   | 10.8   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)