

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: P198779

Luminaire Tested: **XNV2-AF-02-LED-U-T3R-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P198779  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24250)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: XNV2-AF-02-LED-U-T3R-600  
Description: XNV2 ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8266.5 lumens  
Efficiency: N/A  
Efficacy: 125.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Medium - Full Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 66  
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

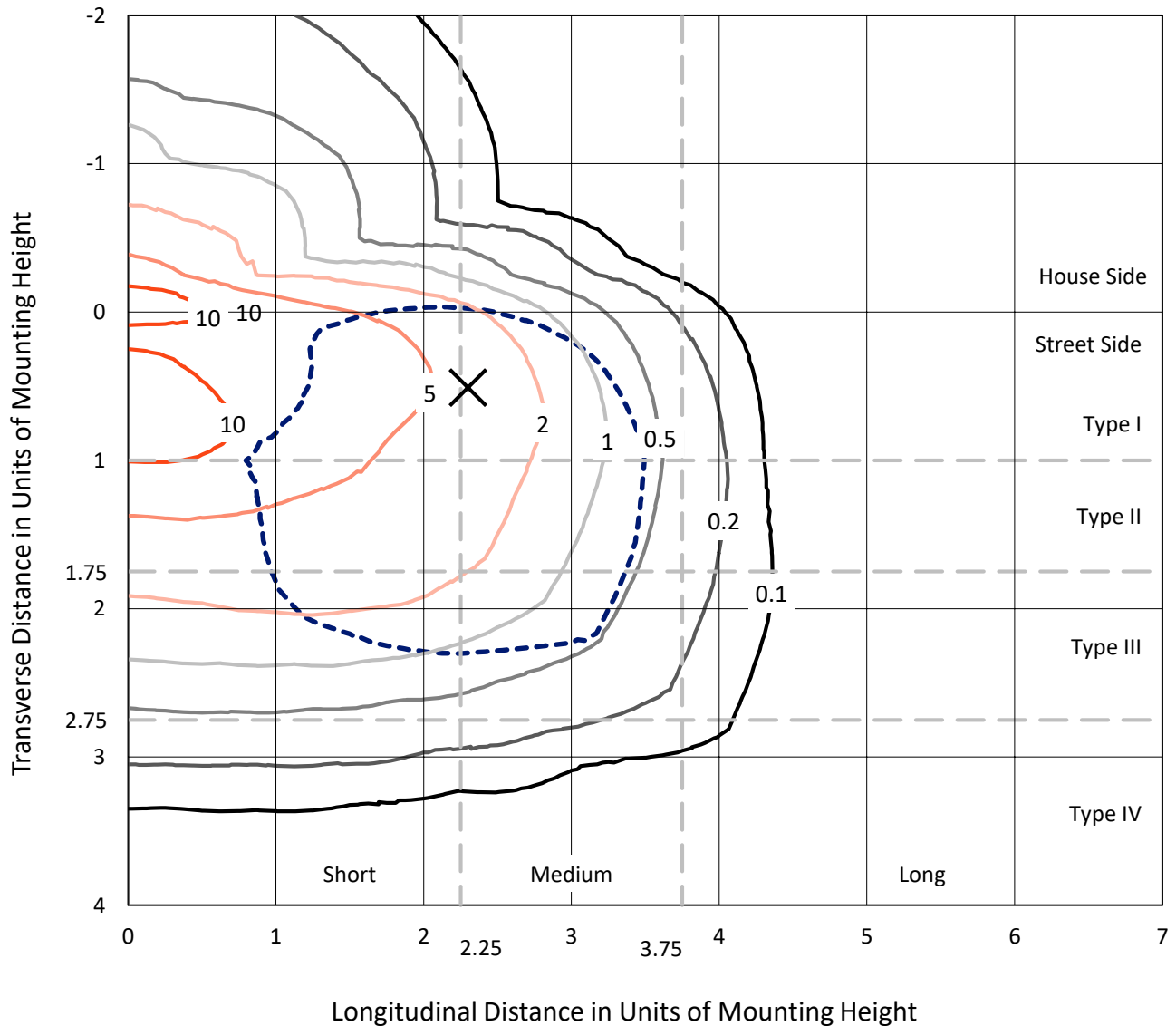


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

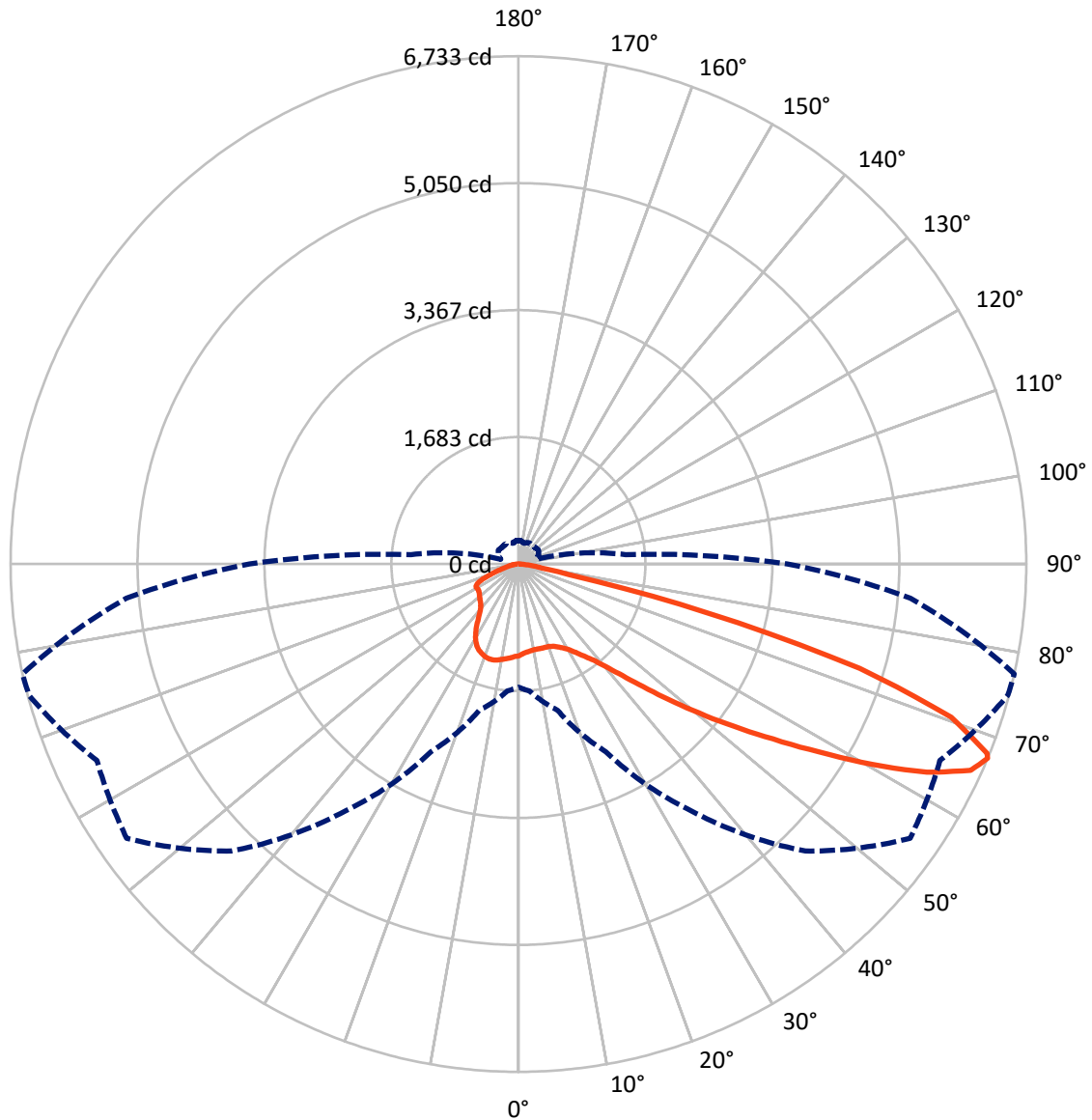


Based on 10 foot mounting height. Maximum calculated value = 14.6 fc  
 Type III - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1420.6   | 0.0    | 1420.6 |
|                    | % Fixture | 17.2     | 0.0    | 17.2   |
| <b>Street Side</b> | Lumens    | 6845.9   | 0.0    | 6845.9 |
|                    | % Fixture | 82.8     | 0.0    | 82.8   |
| <b>Total</b>       | Lumens    | 8266.5   | 0.0    | 8266.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 108.4  | 1.3       |
| 10°-20°   | 300.1  | 3.6       |
| 20°-30°   | 509.9  | 6.2       |
| 30°-40°   | 815.7  | 9.9       |
| 40°-50°   | 1255.7 | 15.2      |
| 50°-60°   | 1742.2 | 21.1      |
| 60°-70°   | 2323.9 | 28.1      |
| 70°-80°   | 1106.0 | 13.4      |
| 80°-90°   | 104.7  | 1.3       |
| 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°    | 8266.5 | 100.0     |
| 0°-180°   | 8266.5 | 100.0     |

**Coefficient of Utilization**



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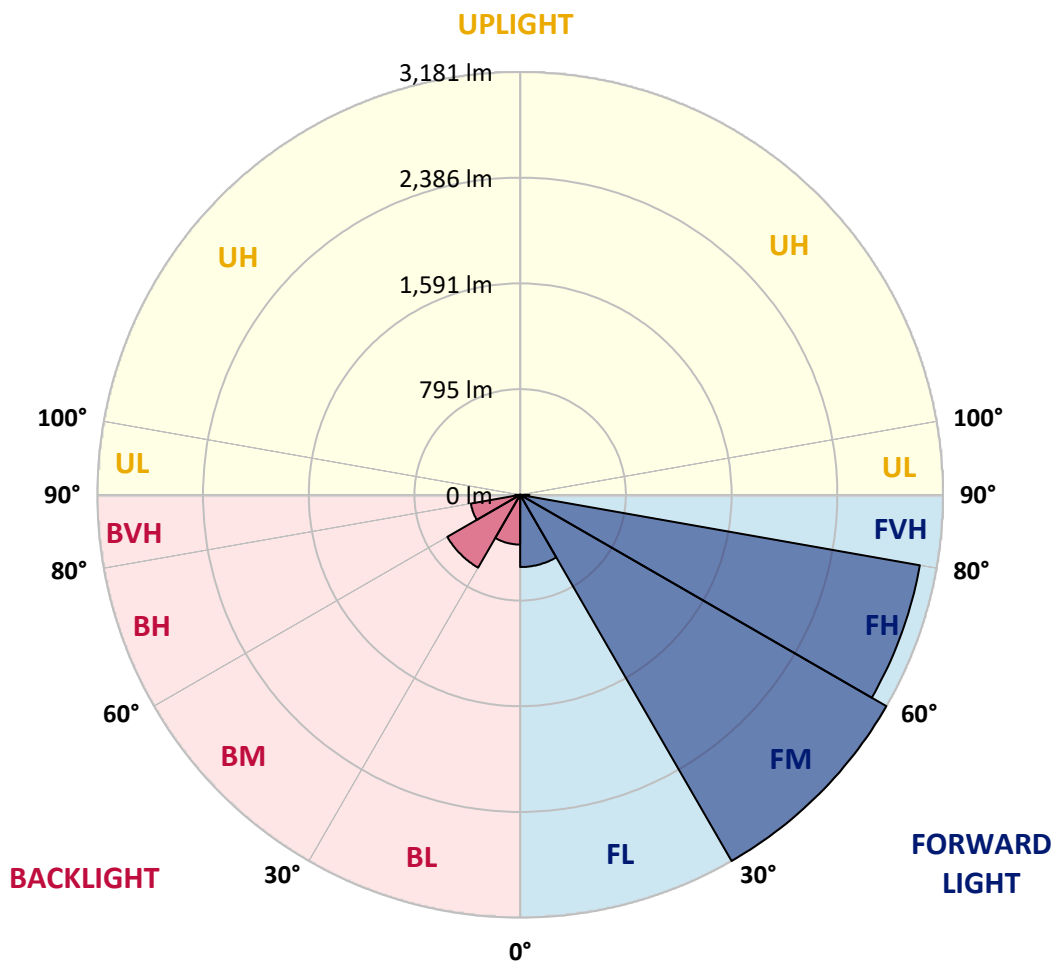
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 543.6  | 6.6       |                         |      |         |
| FM   | (30°-60°)   | 3181.0 | 38.5      |                         |      |         |
| FH   | (60°-80°)   | 3053.2 | 36.9      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 68.0   | 0.8       |                         |      | G1/100  |
| BL   | (0°-30°)    | 374.7  | 4.5       | B1/500                  |      |         |
| BM   | (30°-60°)   | 632.5  | 7.7       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 376.7  | 4.6       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 36.7   | 0.4       |                         |      | 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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 77.5°  | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1216.6 | 1216.6 | 1216.6 | 1216.6 | 1216.6 | 1216.6 | 1216.6 | 1216.6 | 1216.6 | 1216.6 | 1216.6 |
| 2.5°  | 1090.9 | 1096.0 | 1096.5 | 1111.3 | 1118.0 | 1134.9 | 1153.3 | 1169.6 | 1183.9 | 1189.0 | 1198.2 |
| 5°    | 981.5  | 981.5  | 983.1  | 992.8  | 1011.7 | 1038.8 | 1077.1 | 1119.0 | 1163.0 | 1173.7 | 1200.7 |
| 7.5°  | 924.3  | 925.4  | 926.4  | 936.1  | 950.9  | 974.9  | 1013.2 | 1070.5 | 1143.6 | 1161.5 | 1208.9 |
| 10°   | 929.5  | 927.9  | 922.8  | 920.8  | 926.9  | 942.2  | 975.4  | 1034.2 | 1127.2 | 1154.8 | 1223.8 |
| 12.5° | 1009.7 | 1006.6 | 989.7  | 965.3  | 942.8  | 937.1  | 960.1  | 1015.8 | 1119.5 | 1154.8 | 1248.8 |
| 15°   | 1147.1 | 1149.2 | 1115.9 | 1064.9 | 1006.1 | 966.3  | 963.2  | 1009.1 | 1117.0 | 1157.9 | 1278.0 |
| 17.5° | 1325.9 | 1327.0 | 1280.9 | 1206.9 | 1109.3 | 1027.0 | 984.1  | 1009.1 | 1117.0 | 1160.9 | 1306.0 |
| 20°   | 1516.0 | 1508.9 | 1456.8 | 1363.8 | 1237.1 | 1111.3 | 1022.4 | 1015.3 | 1120.0 | 1165.6 | 1332.6 |
| 22.5° | 1679.1 | 1672.4 | 1617.7 | 1520.1 | 1375.1 | 1211.0 | 1074.1 | 1035.7 | 1136.9 | 1184.4 | 1369.9 |
| 25°   | 1821.6 | 1825.7 | 1772.6 | 1662.7 | 1512.4 | 1323.4 | 1151.2 | 1082.7 | 1172.2 | 1218.6 | 1415.9 |
| 27.5° | 1994.9 | 1987.2 | 1925.8 | 1821.1 | 1654.0 | 1439.9 | 1247.8 | 1142.0 | 1214.0 | 1260.1 | 1472.1 |
| 30°   | 2195.2 | 2191.6 | 2108.7 | 2000.9 | 1809.8 | 1570.2 | 1343.3 | 1205.9 | 1268.8 | 1316.7 | 1542.6 |
| 32.5° | 2438.3 | 2437.8 | 2348.9 | 2216.5 | 1985.1 | 1717.3 | 1456.3 | 1293.2 | 1348.5 | 1396.9 | 1636.1 |
| 35°   | 2713.7 | 2713.2 | 2621.2 | 2446.5 | 2187.0 | 1880.4 | 1589.1 | 1399.5 | 1447.1 | 1498.1 | 1747.5 |
| 37.5° | 2904.9 | 2901.8 | 2853.7 | 2684.1 | 2410.2 | 2069.9 | 1755.2 | 1542.6 | 1559.0 | 1616.2 | 1881.9 |
| 40°   | 2941.6 | 2960.0 | 3001.4 | 2901.3 | 2653.9 | 2280.5 | 1921.7 | 1696.4 | 1711.7 | 1785.4 | 2051.0 |
| 42.5° | 2901.8 | 2925.7 | 3063.2 | 3091.4 | 2897.7 | 2535.4 | 2130.2 | 1909.4 | 1928.9 | 2020.3 | 2249.8 |
| 45°   | 2867.0 | 2888.0 | 3060.2 | 3196.6 | 3138.3 | 2813.4 | 2390.3 | 2169.6 | 2206.3 | 2319.7 | 2476.7 |
| 47.5° | 2807.8 | 2827.1 | 2999.9 | 3215.5 | 3275.8 | 3081.1 | 2703.6 | 2482.3 | 2545.6 | 2683.1 | 2735.2 |
| 50°   | 2804.7 | 2813.4 | 2917.6 | 3152.1 | 3323.4 | 3284.5 | 3050.4 | 2848.1 | 2945.2 | 3103.6 | 3021.3 |
| 52.5° | 2727.0 | 2787.8 | 2882.4 | 3051.0 | 3324.4 | 3403.1 | 3392.3 | 3249.2 | 3399.0 | 3574.2 | 3335.0 |
| 55°   | 2251.8 | 2321.8 | 2764.8 | 3001.4 | 3318.2 | 3504.7 | 3704.5 | 3675.9 | 3909.9 | 4094.4 | 3686.6 |
| 57.5° | 2102.6 | 2132.2 | 2425.5 | 3016.3 | 3369.3 | 3672.8 | 4016.7 | 4134.3 | 4494.4 | 4695.8 | 4108.2 |
| 60°   | 2061.8 | 2093.0 | 2357.6 | 3023.3 | 3507.8 | 3978.9 | 4440.3 | 4651.9 | 5181.7 | 5395.2 | 4586.9 |
| 62.5° | 2016.2 | 2056.6 | 2362.7 | 3030.0 | 3751.0 | 4431.6 | 5002.3 | 5213.4 | 5887.3 | 6078.0 | 5035.6 |
| 65°   | 1883.5 | 1937.1 | 2268.2 | 2988.1 | 4017.2 | 4999.8 | 5745.3 | 5798.9 | 6470.4 | 6591.5 | 5306.4 |
| 67°   | 1631.5 | 1690.2 | 2008.6 | 2745.9 | 3992.7 | 5382.5 | 6339.5 | 6165.3 | 6718.1 | 6733.0 | 5218.5 |
| 67.5° | 1551.8 | 1612.6 | 1920.7 | 2645.2 | 3922.7 | 5432.6 | 6444.8 | 6215.9 | 6716.1 | 6699.8 | 5136.7 |
| 70°   | 1044.9 | 1113.4 | 1360.2 | 1942.2 | 3146.5 | 5056.0 | 6419.2 | 6060.1 | 6275.7 | 6088.1 | 4413.2 |
| 72.5° | 518.6  | 520.7  | 678.5  | 1063.9 | 1906.4 | 3626.4 | 5354.9 | 5184.2 | 5087.1 | 4733.1 | 3238.5 |
| 75°   | 249.9  | 254.5  | 320.4  | 470.0  | 803.7  | 1872.2 | 3651.8 | 3498.1 | 2978.4 | 2578.9 | 1620.8 |
| 77.5° | 190.6  | 195.2  | 248.9  | 306.1  | 335.2  | 610.6  | 1808.8 | 1461.9 | 863.1  | 689.3  | 456.8  |
| 80°   | 147.2  | 155.8  | 210.0  | 235.1  | 221.8  | 244.8  | 568.7  | 447.6  | 335.7  | 308.1  | 226.4  |
| 82.5° | 115.0  | 120.1  | 178.3  | 178.3  | 153.3  | 164.0  | 264.6  | 258.5  | 208.5  | 188.0  | 121.6  |
| 85°   | 81.2   | 91.5   | 143.6  | 132.9  | 100.7  | 101.7  | 158.4  | 151.8  | 107.3  | 86.3   | 47.6   |
| 87.5° | 36.3   | 46.5   | 102.2  | 86.8   | 53.6   | 41.4   | 64.9   | 55.6   | 42.5   | 32.7   | 22.0   |
| 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°    | 1216.6 | 1216.6 | 1216.6 | 1216.6 | 1216.6 | 1216.6 | 1216.6 | 1216.6 | 1216.6 | 1216.6 | 1216.6 |
| 2.5°  | 1208.4 | 1216.6 | 1229.4 | 1237.1 | 1247.3 | 1251.4 | 1255.5 | 1262.6 | 1268.3 | 1266.7 | 1264.2 |
| 5°    | 1219.7 | 1233.5 | 1249.3 | 1254.4 | 1254.4 | 1249.3 | 1246.3 | 1246.8 | 1245.2 | 1244.2 | 1241.1 |
| 7.5°  | 1236.0 | 1255.0 | 1266.2 | 1261.1 | 1245.2 | 1225.3 | 1206.4 | 1195.1 | 1184.4 | 1177.7 | 1179.8 |
| 10°   | 1259.0 | 1279.9 | 1280.4 | 1258.0 | 1220.2 | 1176.7 | 1139.5 | 1115.4 | 1092.4 | 1082.2 | 1085.2 |
| 12.5° | 1292.2 | 1313.2 | 1295.3 | 1246.8 | 1180.3 | 1112.4 | 1043.9 | 994.3  | 949.9  | 939.2  | 936.1  |
| 15°   | 1328.0 | 1344.4 | 1304.5 | 1222.7 | 1123.1 | 1011.2 | 896.2  | 822.1  | 772.5  | 763.9  | 760.9  |
| 17.5° | 1359.2 | 1368.4 | 1299.9 | 1179.8 | 1032.7 | 856.4  | 722.5  | 672.4  | 662.3  | 667.3  | 667.3  |
| 20°   | 1386.7 | 1383.6 | 1279.9 | 1113.4 | 890.1  | 684.7  | 607.0  | 606.5  | 620.3  | 633.1  | 634.1  |
| 22.5° | 1421.5 | 1397.5 | 1248.3 | 1014.8 | 720.0  | 571.2  | 558.0  | 571.2  | 586.6  | 600.9  | 602.4  |
| 25°   | 1462.9 | 1412.8 | 1205.9 | 874.2  | 578.9  | 518.6  | 524.3  | 535.5  | 545.2  | 556.5  | 557.0  |
| 27.5° | 1504.2 | 1424.6 | 1146.1 | 709.2  | 502.3  | 484.9  | 491.0  | 495.6  | 498.2  | 505.3  | 505.3  |
| 30°   | 1552.3 | 1433.8 | 1059.8 | 568.1  | 467.0  | 455.3  | 451.7  | 449.7  | 451.7  | 461.4  | 461.9  |
| 32.5° | 1612.6 | 1450.1 | 941.7  | 487.4  | 450.7  | 434.3  | 415.9  | 405.7  | 412.9  | 430.3  | 433.3  |
| 35°   | 1681.1 | 1469.6 | 800.2  | 455.3  | 445.1  | 424.1  | 390.4  | 374.5  | 377.1  | 392.9  | 395.5  |
| 37.5° | 1766.9 | 1494.5 | 660.7  | 447.6  | 450.7  | 423.1  | 378.6  | 356.2  | 344.9  | 345.5  | 344.9  |
| 40°   | 1876.8 | 1519.6 | 550.3  | 449.7  | 462.9  | 425.6  | 373.0  | 337.8  | 314.3  | 315.3  | 317.3  |
| 42.5° | 1991.8 | 1536.0 | 480.3  | 455.8  | 477.7  | 429.2  | 370.9  | 319.9  | 299.4  | 316.8  | 332.7  |
| 45°   | 2126.1 | 1531.4 | 444.1  | 461.4  | 489.0  | 430.8  | 363.2  | 317.8  | 301.0  | 353.1  | 382.7  |
| 47.5° | 2280.5 | 1511.4 | 423.6  | 463.9  | 492.0  | 430.3  | 357.7  | 324.5  | 313.7  | 404.2  | 437.9  |
| 50°   | 2448.0 | 1480.3 | 407.2  | 459.9  | 490.5  | 428.2  | 363.8  | 332.7  | 318.9  | 415.4  | 441.5  |
| 52.5° | 2631.4 | 1451.7 | 390.4  | 450.7  | 482.8  | 422.1  | 371.4  | 329.1  | 304.5  | 382.7  | 402.6  |
| 55°   | 2848.6 | 1445.0 | 371.4  | 434.9  | 470.0  | 415.4  | 367.3  | 317.8  | 288.7  | 339.3  | 351.6  |
| 57.5° | 3097.0 | 1486.3 | 347.0  | 415.4  | 452.8  | 402.1  | 357.7  | 311.7  | 283.1  | 308.6  | 315.3  |
| 60°   | 3412.3 | 1577.9 | 320.9  | 395.0  | 431.3  | 382.2  | 349.0  | 313.2  | 284.6  | 304.0  | 305.6  |
| 62.5° | 3658.5 | 1660.1 | 297.4  | 369.9  | 402.6  | 358.1  | 339.8  | 314.8  | 289.2  | 310.2  | 307.6  |
| 65°   | 3747.9 | 1619.7 | 268.2  | 332.7  | 362.2  | 331.6  | 327.0  | 315.8  | 289.2  | 313.7  | 308.1  |
| 67°   | 3564.5 | 1427.1 | 240.7  | 295.3  | 324.0  | 308.1  | 314.8  | 311.7  | 284.1  | 313.2  | 303.5  |
| 67.5° | 3477.1 | 1359.2 | 233.5  | 289.2  | 313.7  | 301.0  | 311.7  | 309.6  | 282.5  | 312.2  | 301.0  |
| 70°   | 2867.5 | 974.9  | 197.2  | 242.7  | 262.6  | 265.1  | 292.8  | 296.3  | 270.3  | 293.3  | 272.8  |
| 72.5° | 2040.3 | 610.1  | 170.1  | 188.0  | 212.1  | 226.9  | 267.2  | 278.4  | 254.0  | 255.0  | 238.1  |
| 75°   | 1009.7 | 327.5  | 151.8  | 145.2  | 165.0  | 189.0  | 233.0  | 254.0  | 230.0  | 212.6  | 206.9  |
| 77.5° | 340.8  | 185.5  | 128.3  | 117.0  | 128.3  | 151.8  | 193.1  | 221.8  | 202.9  | 179.8  | 176.3  |
| 80°   | 176.3  | 134.9  | 100.1  | 94.0   | 101.2  | 117.5  | 151.3  | 184.4  | 173.2  | 174.2  | 143.6  |
| 82.5° | 109.9  | 82.2   | 72.0   | 71.5   | 76.6   | 89.9   | 111.4  | 149.8  | 148.7  | 127.3  | 92.5   |
| 85°   | 51.1   | 47.6   | 46.0   | 47.6   | 49.1   | 51.1   | 72.5   | 106.8  | 112.9  | 68.4   | 60.8   |
| 87.5° | 21.5   | 21.0   | 18.4   | 19.9   | 22.0   | 21.5   | 29.2   | 45.5   | 63.3   | 43.0   | 39.4   |
| 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)