

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: P199011

Luminaire Tested: **XNV2-AF-02-LED-U-SL2-7060-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P199011  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24258)  
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-SL2-7060-600-HSS  
Description: XNV2 ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 5700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6482 lumens  
Efficiency: N/A  
Efficacy: 98.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Semi-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

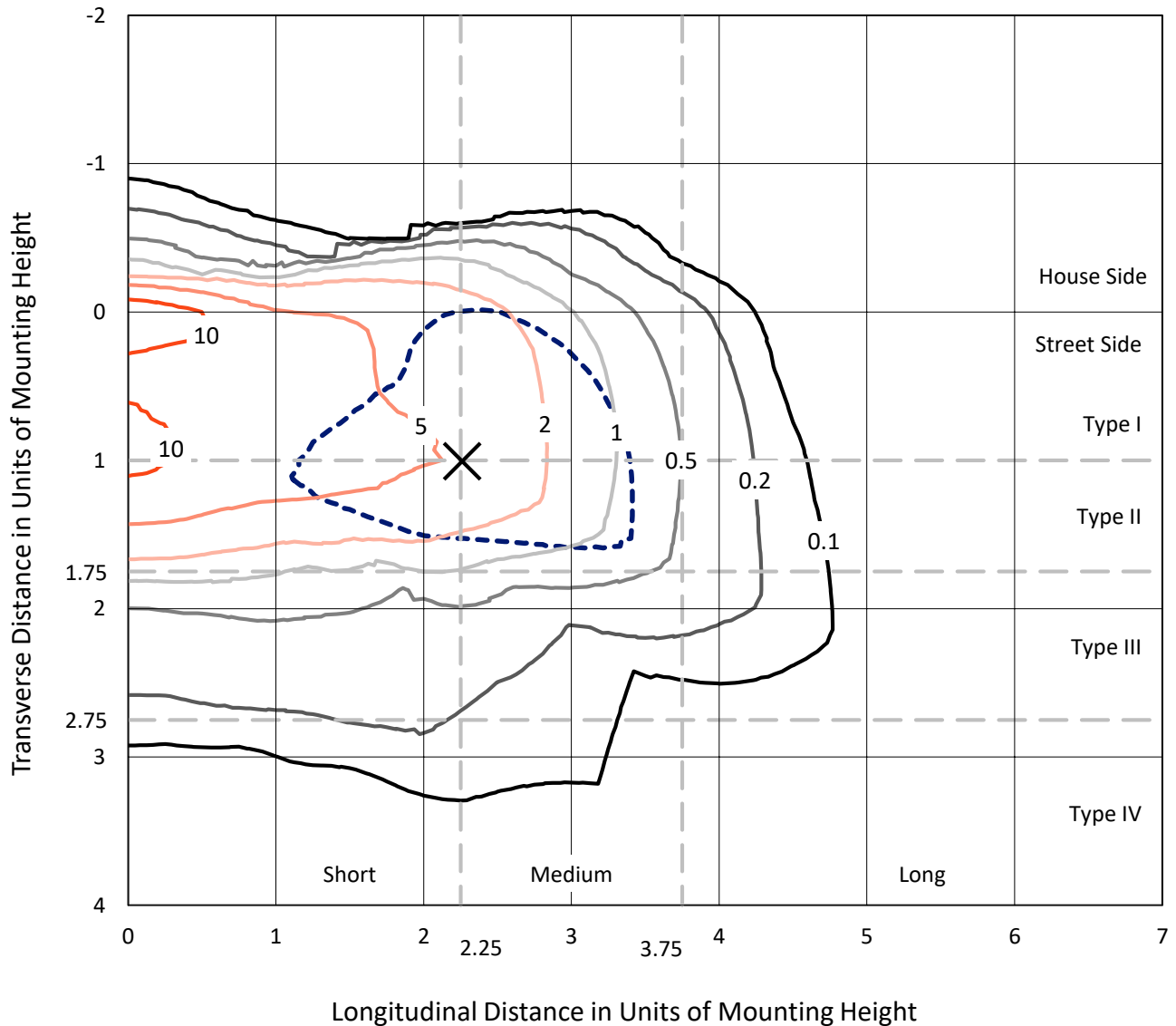


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

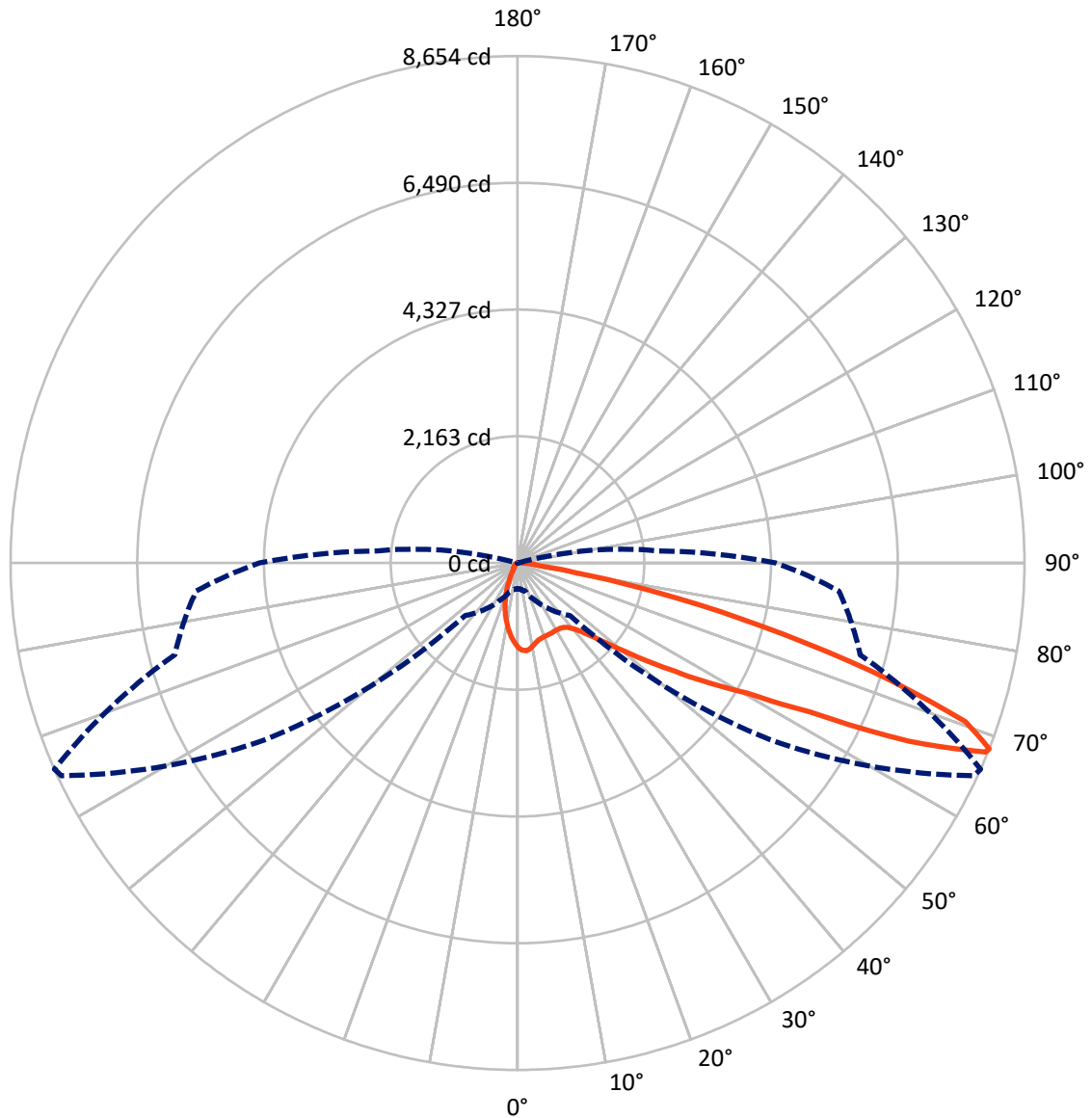


Based on 10 foot mounting height. Maximum calculated value = 14.4 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral    - - - Horizontal Cone Through 68-Deg Vertical

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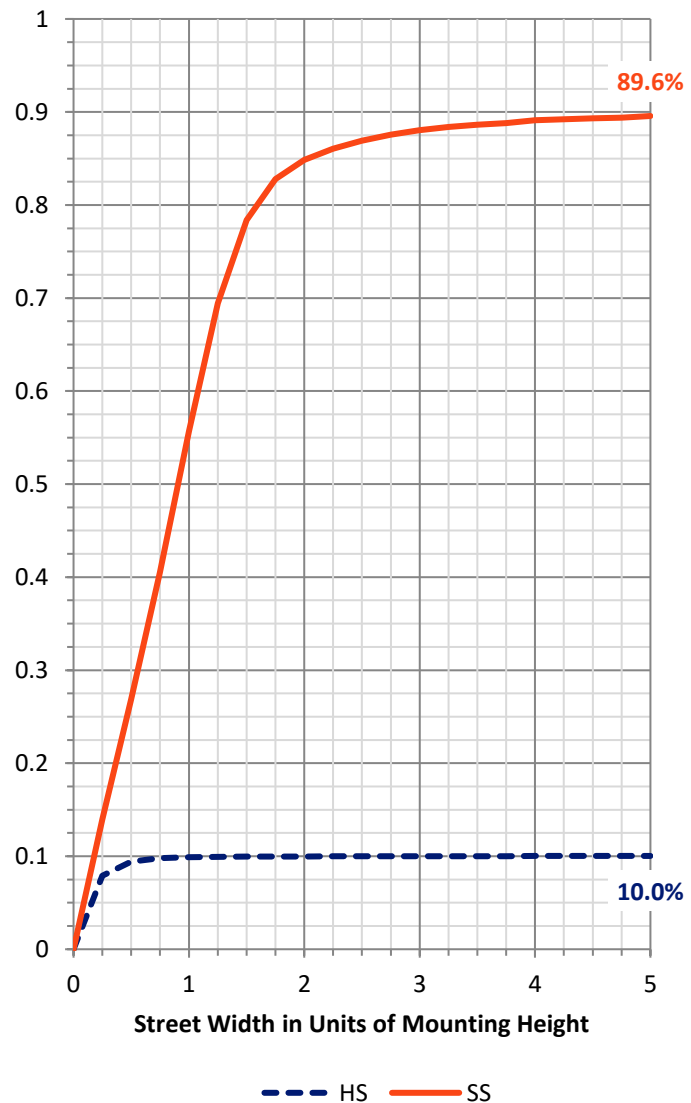
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 656.6    | 0.0    | 656.6  |
|                    | % Fixture | 10.1     | 0.0    | 10.1   |
| <b>Street Side</b> | Lumens    | 5825.5   | 0.0    | 5825.5 |
|                    | % Fixture | 89.9     | 0.0    | 89.9   |
| <b>Total</b>       | Lumens    | 6482.0   | 0.0    | 6482.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 118.4  | 1.8       |
| 10°-20°   | 254.7  | 3.9       |
| 20°-30°   | 369.1  | 5.7       |
| 30°-40°   | 565.1  | 8.7       |
| 40°-50°   | 966.5  | 14.9      |
| 50°-60°   | 1511.9 | 23.3      |
| 60°-70°   | 1740.9 | 26.9      |
| 70°-80°   | 871.2  | 13.4      |
| 80°-90°   | 84.4   | 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°    | 6482.0 | 100.0     |
| 0°-180°   | 6482.0 | 100.0     |

**Coefficient of Utilization**



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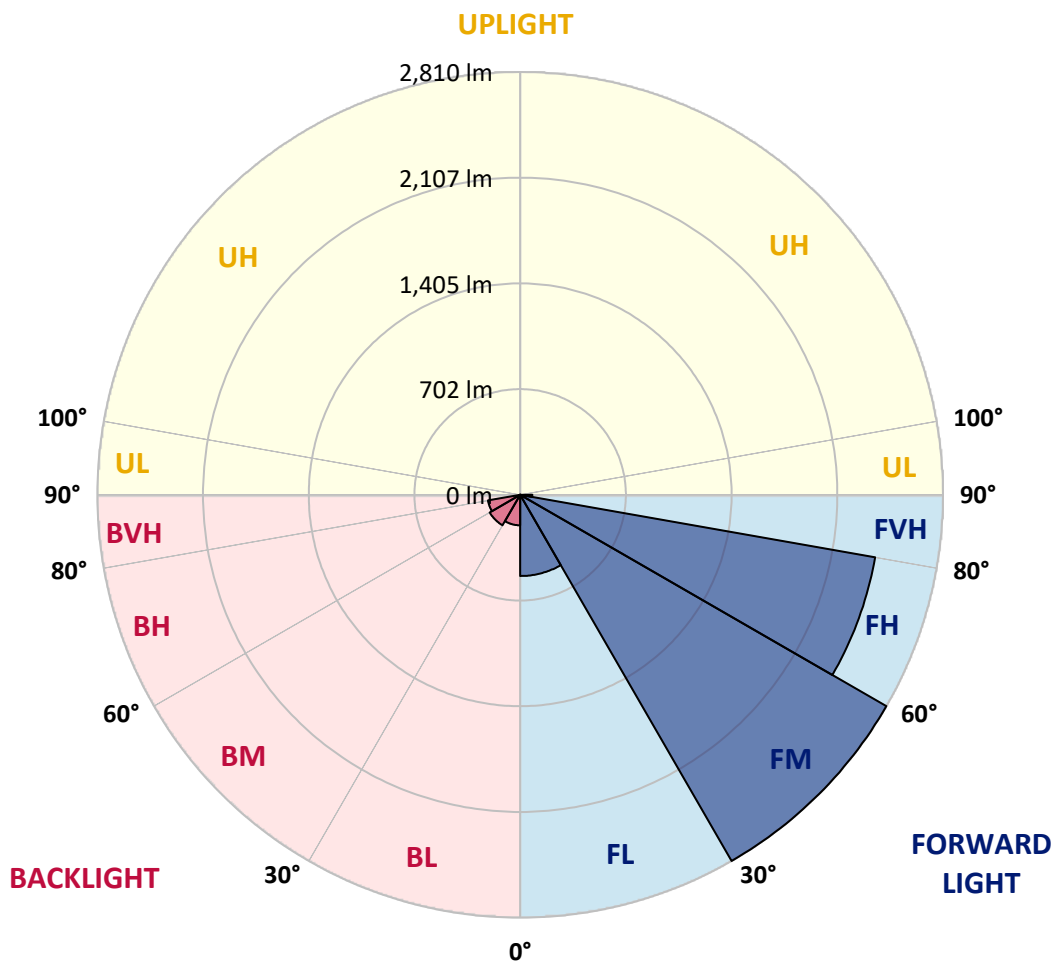
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 539.6  | 8.3       |                         |      |         |
| FM (30°-60°)   | 2809.6 | 43.3      |                         |      |         |
| FH (60°-80°)   | 2395.1 | 36.9      |                         |      | G2/5000 |
| FVH (80°-90°)  | 81.2   | 1.3       |                         |      | G1/100  |
| BL (0°-30°)    | 202.6  | 3.1       | B1/500                  |      |         |
| BM (30°-60°)   | 233.8  | 3.6       | B1/1000                 |      |         |
| BH (60°-80°)   | 216.9  | 3.3       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 3.2    | 0.0       |                         |      | G0/10   |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 66°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1444.1 | 1444.1 | 1444.1 | 1444.1 | 1444.1 | 1444.1 | 1444.1 | 1444.1 | 1444.1 | 1444.1 | 1444.1 |
| 2.5°  | 1518.9 | 1519.9 | 1519.4 | 1521.0 | 1519.9 | 1512.3 | 1504.2 | 1486.9 | 1488.4 | 1466.0 | 1441.1 |
| 5°    | 1412.1 | 1420.7 | 1429.4 | 1438.0 | 1458.9 | 1477.2 | 1499.1 | 1504.2 | 1504.2 | 1484.8 | 1448.2 |
| 7.5°  | 1303.2 | 1303.7 | 1313.4 | 1325.1 | 1353.0 | 1386.6 | 1437.5 | 1483.3 | 1484.3 | 1489.4 | 1449.2 |
| 10°   | 1221.3 | 1223.8 | 1230.4 | 1243.1 | 1271.1 | 1304.2 | 1361.2 | 1432.9 | 1438.5 | 1476.2 | 1439.0 |
| 12.5° | 1157.6 | 1160.7 | 1167.8 | 1182.6 | 1208.0 | 1242.1 | 1302.2 | 1384.1 | 1391.7 | 1463.5 | 1436.0 |
| 15°   | 1108.8 | 1112.9 | 1118.5 | 1133.2 | 1160.7 | 1196.8 | 1262.5 | 1351.5 | 1360.7 | 1458.4 | 1445.7 |
| 17.5° | 1088.4 | 1088.4 | 1087.9 | 1098.1 | 1125.6 | 1162.2 | 1230.9 | 1334.2 | 1345.9 | 1462.4 | 1461.9 |
| 20°   | 1097.1 | 1095.6 | 1084.9 | 1082.3 | 1099.1 | 1135.8 | 1206.0 | 1323.0 | 1336.3 | 1470.1 | 1481.8 |
| 22.5° | 1142.9 | 1139.8 | 1115.9 | 1096.1 | 1091.0 | 1115.4 | 1189.2 | 1315.4 | 1331.2 | 1485.9 | 1508.2 |
| 25°   | 1240.1 | 1230.9 | 1197.8 | 1153.1 | 1112.9 | 1110.3 | 1177.5 | 1311.3 | 1328.1 | 1504.2 | 1537.2 |
| 27.5° | 1366.3 | 1363.7 | 1310.8 | 1250.8 | 1173.4 | 1127.1 | 1173.9 | 1308.3 | 1325.1 | 1517.4 | 1560.7 |
| 30°   | 1523.0 | 1524.0 | 1463.0 | 1384.6 | 1267.6 | 1174.4 | 1185.1 | 1306.7 | 1324.0 | 1518.4 | 1570.8 |
| 32.5° | 1684.8 | 1685.8 | 1634.9 | 1551.0 | 1396.3 | 1255.9 | 1216.7 | 1313.9 | 1329.6 | 1514.4 | 1570.3 |
| 35°   | 1840.5 | 1842.1 | 1811.5 | 1743.8 | 1568.3 | 1368.8 | 1276.2 | 1338.3 | 1349.5 | 1516.9 | 1569.3 |
| 37.5° | 2037.5 | 2043.6 | 2005.9 | 1942.8 | 1784.0 | 1534.7 | 1373.4 | 1387.6 | 1396.8 | 1537.8 | 1576.9 |
| 40°   | 2373.3 | 2365.2 | 2257.3 | 2150.4 | 2018.1 | 1736.7 | 1513.8 | 1472.6 | 1475.7 | 1591.7 | 1605.9 |
| 42.5° | 2764.6 | 2754.4 | 2569.7 | 2385.5 | 2258.8 | 1980.5 | 1693.5 | 1602.9 | 1602.4 | 1682.3 | 1669.0 |
| 45°   | 3101.5 | 3095.4 | 2901.0 | 2655.2 | 2525.4 | 2249.6 | 1914.8 | 1790.7 | 1784.6 | 1839.0 | 1784.0 |
| 47.5° | 3340.6 | 3335.5 | 3188.5 | 2942.2 | 2833.8 | 2545.8 | 2191.1 | 2046.6 | 2033.9 | 2044.1 | 1970.8 |
| 50°   | 3364.0 | 3358.4 | 3307.0 | 3148.8 | 3194.1 | 2980.4 | 2532.6 | 2381.9 | 2365.7 | 2349.9 | 2253.2 |
| 52.5° | 3145.2 | 3144.7 | 3171.7 | 3161.5 | 3446.5 | 3539.6 | 2951.4 | 2796.7 | 2777.3 | 2737.1 | 2641.0 |
| 55°   | 2697.9 | 2695.4 | 2797.7 | 2946.3 | 3440.9 | 4116.6 | 3590.0 | 3290.3 | 3264.8 | 3184.4 | 3058.2 |
| 57.5° | 1971.3 | 1958.1 | 2171.8 | 2486.8 | 3199.2 | 4369.0 | 4604.1 | 3903.4 | 3861.2 | 3606.2 | 3411.9 |
| 60°   | 1088.4 | 1093.5 | 1368.3 | 1741.3 | 2626.7 | 4319.2 | 5537.4 | 4618.4 | 4507.4 | 3970.1 | 3774.2 |
| 62.5° | 610.1  | 622.8  | 827.4  | 1131.7 | 1674.6 | 3914.6 | 6038.1 | 5848.8 | 5581.6 | 4394.5 | 4232.1 |
| 65°   | 461.5  | 469.2  | 572.0  | 873.2  | 1055.9 | 2735.6 | 6118.0 | 7569.2 | 7338.7 | 5037.7 | 4961.3 |
| 67.5° | 434.6  | 440.7  | 491.0  | 724.1  | 961.7  | 1418.7 | 5516.5 | 8586.9 | 8615.9 | 5914.9 | 5526.2 |
| 68°   | 437.6  | 445.2  | 495.6  | 696.6  | 960.2  | 1269.1 | 5260.0 | 8592.0 | 8653.6 | 6056.4 | 5506.8 |
| 70°   | 402.0  | 404.0  | 524.1  | 683.4  | 930.7  | 999.9  | 3805.2 | 8003.3 | 8113.7 | 6224.8 | 4999.0 |
| 72.5° | 153.7  | 154.2  | 235.1  | 591.8  | 975.0  | 1005.5 | 1916.9 | 6325.6 | 6331.2 | 5417.3 | 3897.3 |
| 75°   | 79.9   | 67.2   | 73.8   | 185.2  | 931.2  | 980.1  | 961.7  | 4319.2 | 4292.2 | 3663.8 | 2388.1 |
| 77.5° | 55.0   | 46.8   | 49.4   | 64.1   | 387.2  | 979.5  | 694.6  | 2483.7 | 2478.1 | 1558.6 | 681.4  |
| 80°   | 31.0   | 27.0   | 29.5   | 53.9   | 135.9  | 919.5  | 647.3  | 1067.6 | 1006.0 | 273.8  | 110.4  |
| 82.5° | 15.8   | 13.2   | 15.8   | 45.3   | 84.5   | 578.6  | 629.5  | 418.8  | 373.0  | 65.1   | 71.7   |
| 85°   | 4.1    | 4.1    | 7.6    | 31.5   | 52.4   | 189.8  | 564.3  | 302.3  | 271.7  | 28.5   | 50.9   |
| 87.5° | 1.0    | 0.5    | 3.1    | 11.7   | 18.8   | 41.2   | 312.9  | 168.4  | 145.0  | 14.8   | 29.5   |
| 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°    | 1444.1 | 1444.1 | 1444.1 | 1444.1 | 1444.1 | 1444.1 | 1444.1 | 1444.1 | 1444.1 | 1444.1 | 1444.1 |
| 2.5°  | 1430.9 | 1416.7 | 1388.7 | 1357.1 | 1334.7 | 1310.3 | 1296.1 | 1278.8 | 1265.5 | 1253.8 | 1262.5 |
| 5°    | 1425.8 | 1398.3 | 1336.3 | 1266.5 | 1208.0 | 1152.0 | 1110.3 | 1070.6 | 1040.6 | 1021.8 | 1029.4 |
| 7.5°  | 1412.6 | 1371.9 | 1271.1 | 1162.2 | 1066.6 | 976.5  | 903.2  | 837.6  | 786.7  | 759.2  | 767.9  |
| 10°   | 1390.2 | 1332.7 | 1197.3 | 1046.2 | 912.4  | 785.2  | 676.3  | 578.6  | 504.8  | 470.2  | 478.3  |
| 12.5° | 1373.9 | 1298.1 | 1121.0 | 934.3  | 758.2  | 577.5  | 433.0  | 321.1  | 263.6  | 229.0  | 232.0  |
| 15°   | 1366.8 | 1271.1 | 1049.8 | 816.2  | 589.8  | 371.0  | 234.1  | 169.4  | 149.6  | 142.5  | 143.0  |
| 17.5° | 1367.8 | 1249.7 | 982.1  | 693.6  | 419.8  | 213.2  | 143.5  | 129.2  | 126.2  | 124.7  | 124.7  |
| 20°   | 1370.3 | 1228.4 | 911.9  | 565.8  | 268.7  | 137.4  | 119.6  | 115.0  | 113.5  | 111.4  | 111.9  |
| 22.5° | 1378.0 | 1212.1 | 841.1  | 437.6  | 165.4  | 111.9  | 105.8  | 101.8  | 99.2   | 96.2   | 96.7   |
| 25°   | 1389.7 | 1199.9 | 771.4  | 315.0  | 116.5  | 97.7   | 92.1   | 86.5   | 81.9   | 78.4   | 78.9   |
| 27.5° | 1396.8 | 1182.6 | 697.1  | 214.7  | 96.7   | 85.5   | 77.9   | 70.2   | 65.1   | 62.1   | 61.6   |
| 30°   | 1391.7 | 1154.6 | 612.7  | 141.0  | 85.5   | 73.8   | 64.6   | 56.0   | 50.9   | 48.3   | 48.3   |
| 32.5° | 1378.0 | 1118.5 | 519.5  | 102.8  | 75.8   | 63.6   | 52.4   | 44.8   | 41.2   | 39.7   | 40.2   |
| 35°   | 1362.2 | 1080.8 | 420.3  | 87.0   | 68.2   | 53.9   | 42.7   | 36.6   | 35.1   | 34.6   | 34.6   |
| 37.5° | 1353.6 | 1048.2 | 325.2  | 78.9   | 61.1   | 44.8   | 35.1   | 31.5   | 30.0   | 30.0   | 30.0   |
| 40°   | 1363.2 | 1023.3 | 240.7  | 72.8   | 53.9   | 37.1   | 29.5   | 27.0   | 26.5   | 26.5   | 26.5   |
| 42.5° | 1404.4 | 1014.7 | 176.1  | 67.7   | 46.8   | 31.0   | 25.4   | 23.4   | 22.9   | 23.4   | 23.4   |
| 45°   | 1484.8 | 1033.5 | 133.3  | 62.6   | 40.2   | 25.4   | 21.9   | 20.4   | 20.4   | 20.9   | 20.9   |
| 47.5° | 1621.2 | 1081.8 | 109.4  | 57.5   | 33.6   | 21.4   | 18.8   | 17.8   | 17.8   | 18.3   | 18.3   |
| 50°   | 1832.9 | 1171.4 | 98.2   | 51.9   | 28.0   | 18.3   | 15.8   | 15.3   | 15.3   | 15.8   | 16.3   |
| 52.5° | 2154.5 | 1341.8 | 92.6   | 46.3   | 22.9   | 15.3   | 13.2   | 12.7   | 13.2   | 13.7   | 13.7   |
| 55°   | 2512.2 | 1560.1 | 86.0   | 40.7   | 19.3   | 12.7   | 10.7   | 10.7   | 11.2   | 12.2   | 12.2   |
| 57.5° | 2845.5 | 1770.8 | 79.9   | 33.6   | 16.8   | 10.2   | 8.7    | 8.7    | 9.7    | 10.7   | 10.7   |
| 60°   | 3197.6 | 1977.4 | 71.7   | 27.0   | 14.2   | 8.1    | 7.1    | 7.1    | 8.7    | 9.7    | 10.2   |
| 62.5° | 3632.7 | 2217.6 | 61.1   | 21.4   | 11.2   | 6.1    | 5.1    | 6.6    | 8.1    | 9.7    | 9.7    |
| 65°   | 4261.7 | 2516.3 | 47.8   | 16.8   | 8.7    | 4.6    | 4.1    | 6.1    | 7.6    | 9.2    | 9.7    |
| 67.5° | 4490.1 | 2478.1 | 36.1   | 13.7   | 6.6    | 3.6    | 3.6    | 5.6    | 7.6    | 9.2    | 9.2    |
| 68°   | 4406.7 | 2394.7 | 34.6   | 13.2   | 6.1    | 3.6    | 3.6    | 5.6    | 7.6    | 9.2    | 9.2    |
| 70°   | 3839.8 | 1957.6 | 28.5   | 10.2   | 5.1    | 3.1    | 3.1    | 5.1    | 7.6    | 8.7    | 9.2    |
| 72.5° | 2875.0 | 1300.6 | 24.4   | 6.6    | 4.6    | 3.1    | 2.5    | 5.1    | 7.1    | 8.7    | 8.7    |
| 75°   | 1649.2 | 539.9  | 20.9   | 5.1    | 4.1    | 2.5    | 2.5    | 4.6    | 7.1    | 8.7    | 8.7    |
| 77.5° | 466.1  | 126.2  | 16.8   | 4.1    | 3.6    | 2.5    | 2.0    | 4.6    | 6.6    | 8.1    | 8.1    |
| 80°   | 85.5   | 37.7   | 13.2   | 3.6    | 3.1    | 2.5    | 2.0    | 4.6    | 6.6    | 8.1    | 8.1    |
| 82.5° | 56.5   | 17.8   | 9.7    | 3.6    | 3.1    | 2.5    | 2.0    | 4.1    | 6.1    | 7.6    | 7.6    |
| 85°   | 42.2   | 12.7   | 6.1    | 3.6    | 3.1    | 2.5    | 2.0    | 4.1    | 6.1    | 7.6    | 7.6    |
| 87.5° | 23.4   | 5.6    | 4.6    | 4.1    | 3.6    | 2.5    | 2.0    | 3.6    | 5.6    | 7.1    | 7.1    |
| 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)