

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: P320146

Luminaire Tested: **GAN-SA2A-830-U-SL4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P320146  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA2A-830-U-SL4  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7199 lumens  
Efficiency: N/A  
Efficacy: 109.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3

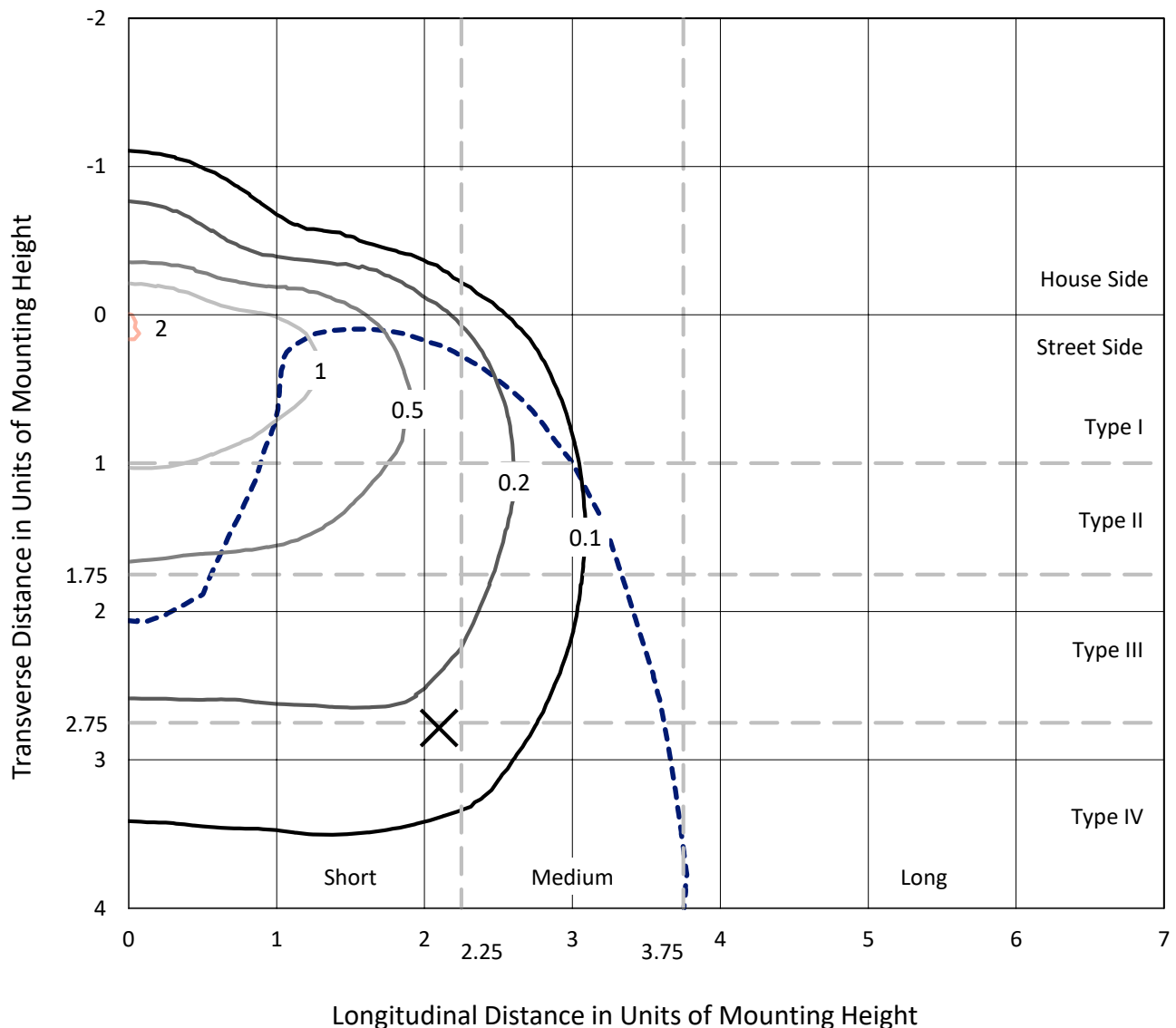
Input Watts (W): 66  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

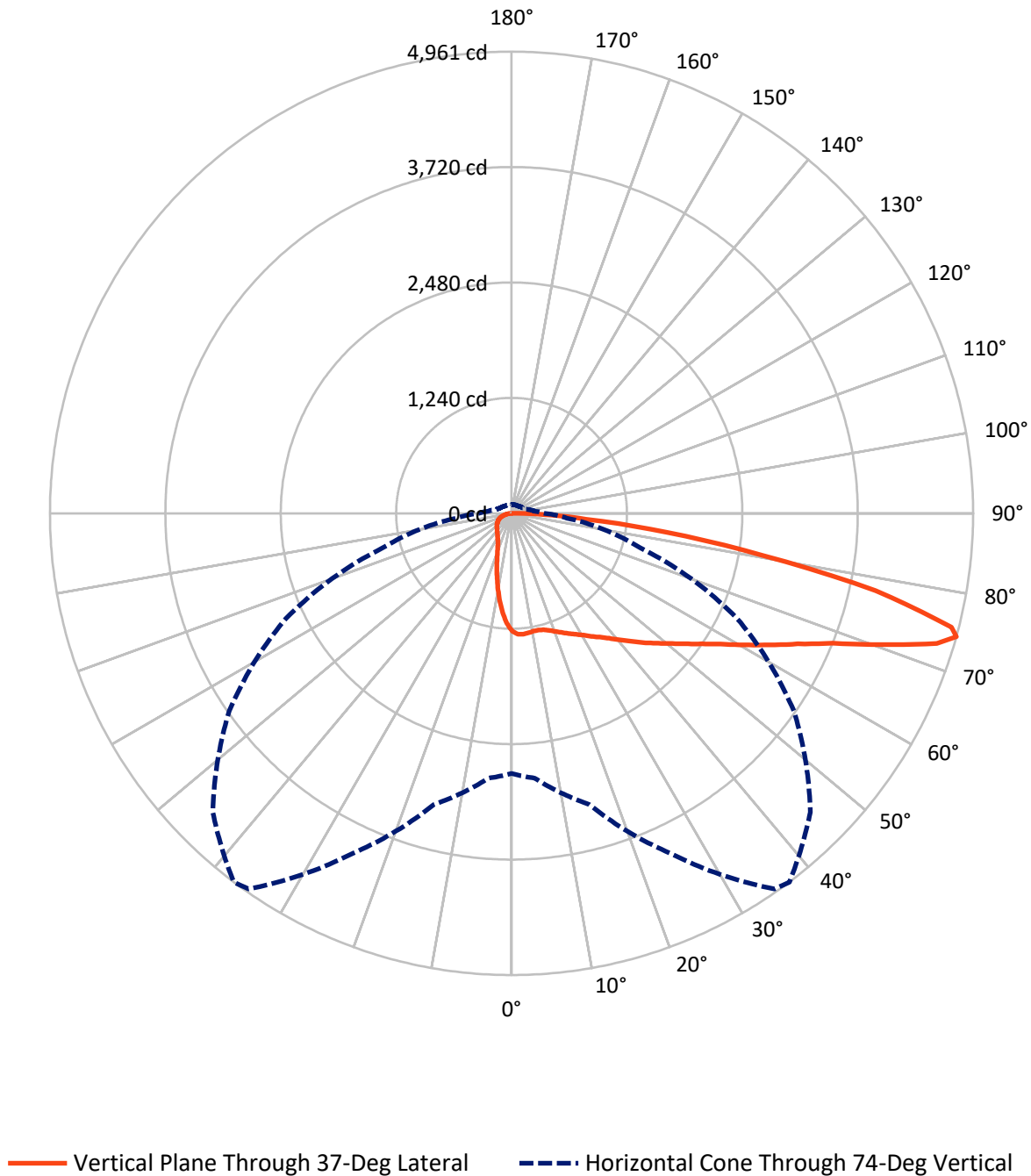
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 fc  
Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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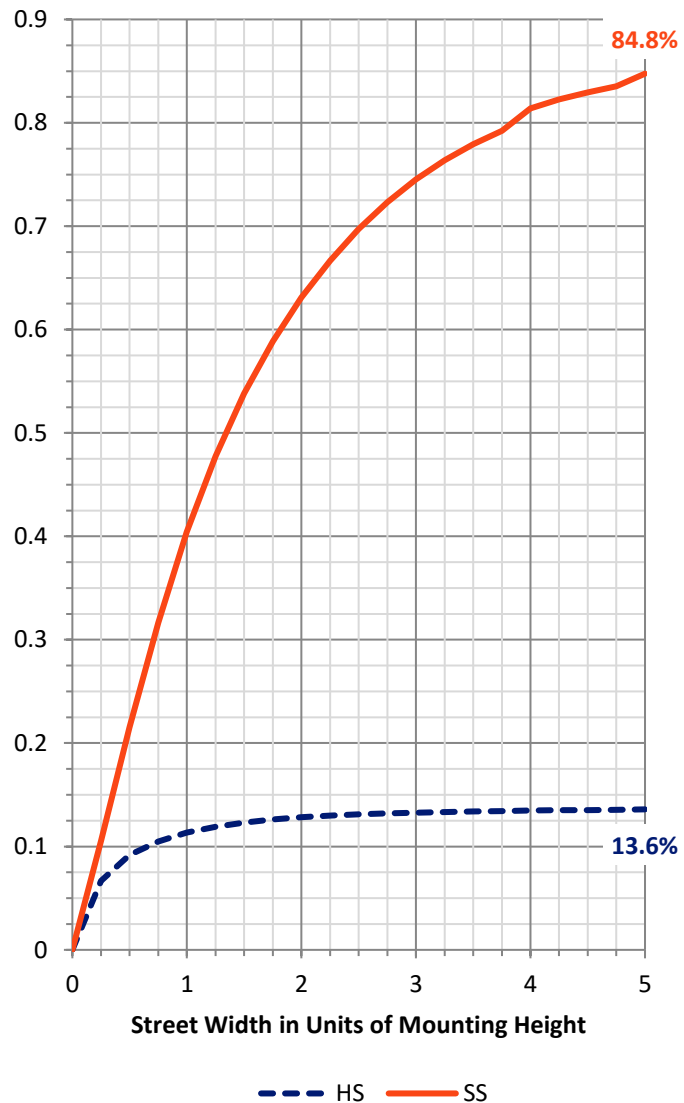
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 990.5    | 0.0    | 990.5  |
|                    | % Fixture | 13.8     | 0.0    | 13.8   |
| <b>Street Side</b> | Lumens    | 6208.5   | 0.0    | 6208.5 |
|                    | % Fixture | 86.2     | 0.0    | 86.2   |
| <b>Total</b>       | Lumens    | 7199.0   | 0.0    | 7199.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 111.7  | 1.6       |
| 10°-20°   | 286.3  | 4.0       |
| 20°-30°   | 441.2  | 6.1       |
| 30°-40°   | 641.5  | 8.9       |
| 40°-50°   | 944.2  | 13.1      |
| 50°-60°   | 1325.9 | 18.4      |
| 60°-70°   | 1678.2 | 23.3      |
| 70°-80°   | 1477.8 | 20.5      |
| 80°-90°   | 292.2  | 4.1       |
| 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°    | 7199.0 | 100.0     |
| 0°-180°   | 7199.0 | 100.0     |

**Coefficient of Utilization**



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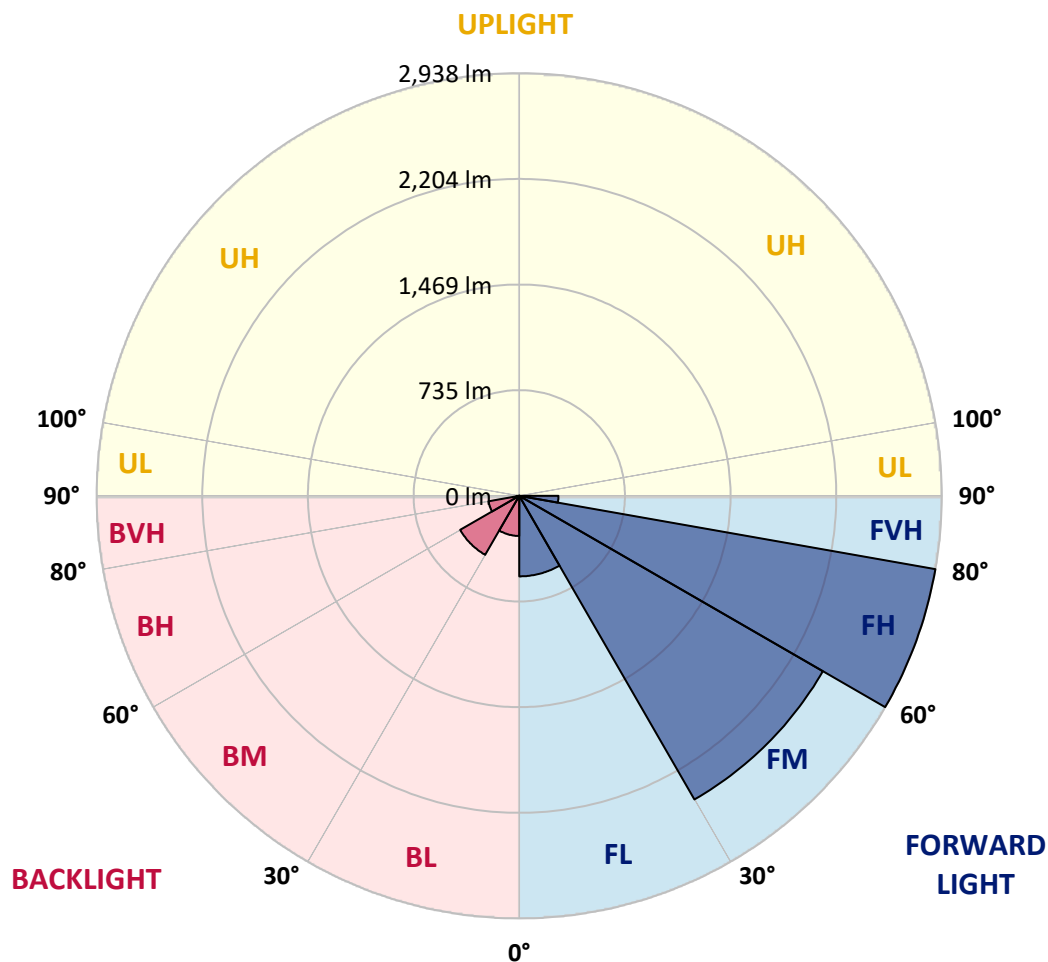
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 560.2  | 7.8       |                         |      |         |
| FM   | (30°-60°)   | 2437.6 | 33.9      |                         |      |         |
| FH   | (60°-80°)   | 2938.3 | 40.8      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 272.4  | 3.8       |                         |      | G3/500  |
| BL   | (0°-30°)    | 279.0  | 3.9       | B1/500                  |      |         |
| BM   | (30°-60°)   | 474.0  | 6.6       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 217.7  | 3.0       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 19.8   | 0.3       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 37°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1268.4 | 1268.4 | 1268.4 | 1268.4 | 1268.4 | 1268.4 | 1268.4 | 1268.4 | 1268.4 | 1268.4 | 1268.4 |
| 2.5°  | 1311.8 | 1312.1 | 1311.8 | 1309.8 | 1305.0 | 1300.9 | 1297.6 | 1292.8 | 1282.1 | 1274.0 | 1261.8 |
| 5°    | 1324.2 | 1322.7 | 1321.7 | 1317.9 | 1310.3 | 1305.7 | 1299.4 | 1290.2 | 1272.7 | 1256.5 | 1236.7 |
| 7.5°  | 1318.4 | 1316.6 | 1314.3 | 1309.8 | 1301.1 | 1297.3 | 1288.5 | 1276.6 | 1255.5 | 1234.2 | 1205.8 |
| 10°   | 1300.4 | 1299.9 | 1298.9 | 1297.9 | 1290.5 | 1287.5 | 1279.3 | 1266.7 | 1245.9 | 1220.0 | 1186.8 |
| 12.5° | 1280.4 | 1281.6 | 1285.7 | 1291.0 | 1287.7 | 1286.2 | 1281.1 | 1272.5 | 1251.2 | 1223.3 | 1183.2 |
| 15°   | 1267.7 | 1271.2 | 1282.1 | 1296.1 | 1298.9 | 1298.4 | 1297.1 | 1291.5 | 1268.9 | 1238.0 | 1191.3 |
| 17.5° | 1263.4 | 1269.2 | 1290.0 | 1313.1 | 1321.2 | 1323.0 | 1323.5 | 1313.8 | 1288.7 | 1256.0 | 1199.7 |
| 20°   | 1271.2 | 1278.6 | 1309.0 | 1340.7 | 1353.6 | 1354.7 | 1352.4 | 1335.6 | 1307.5 | 1271.5 | 1204.3 |
| 22.5° | 1295.1 | 1301.7 | 1339.7 | 1375.4 | 1390.2 | 1391.7 | 1384.8 | 1359.5 | 1327.3 | 1289.7 | 1210.6 |
| 25°   | 1341.0 | 1349.1 | 1387.1 | 1422.9 | 1430.5 | 1430.7 | 1420.8 | 1389.4 | 1353.1 | 1315.3 | 1224.3 |
| 27.5° | 1400.8 | 1408.9 | 1443.2 | 1478.2 | 1474.1 | 1471.8 | 1458.4 | 1426.9 | 1386.9 | 1350.6 | 1248.7 |
| 30°   | 1467.5 | 1476.4 | 1508.8 | 1533.7 | 1524.1 | 1519.5 | 1508.6 | 1468.0 | 1433.8 | 1398.8 | 1285.9 |
| 32.5° | 1536.5 | 1544.6 | 1573.0 | 1590.0 | 1577.8 | 1575.8 | 1559.3 | 1522.3 | 1494.9 | 1472.3 | 1346.3 |
| 35°   | 1607.2 | 1613.1 | 1641.0 | 1650.6 | 1634.4 | 1633.9 | 1629.3 | 1595.3 | 1578.1 | 1588.7 | 1434.0 |
| 37.5° | 1679.5 | 1681.0 | 1704.9 | 1705.4 | 1700.5 | 1702.6 | 1707.4 | 1686.1 | 1690.9 | 1724.1 | 1548.1 |
| 40°   | 1743.9 | 1748.0 | 1765.2 | 1770.5 | 1778.9 | 1786.0 | 1810.1 | 1796.1 | 1833.4 | 1892.3 | 1690.1 |
| 42.5° | 1791.6 | 1799.4 | 1827.1 | 1840.8 | 1867.9 | 1879.1 | 1913.1 | 1926.0 | 2001.0 | 2089.3 | 1859.0 |
| 45°   | 1831.9 | 1844.1 | 1888.5 | 1916.6 | 1962.5 | 1982.0 | 2030.7 | 2074.1 | 2190.5 | 2303.1 | 2036.8 |
| 47.5° | 1875.5 | 1891.0 | 1946.5 | 2000.3 | 2062.7 | 2084.7 | 2173.2 | 2238.1 | 2392.6 | 2518.1 | 2204.4 |
| 50°   | 1939.7 | 1951.6 | 2005.9 | 2090.3 | 2168.2 | 2196.6 | 2319.0 | 2412.1 | 2598.0 | 2723.0 | 2349.7 |
| 52.5° | 2029.2 | 2024.6 | 2070.5 | 2189.0 | 2293.4 | 2328.4 | 2474.7 | 2597.2 | 2806.2 | 2908.4 | 2472.5 |
| 55°   | 2119.2 | 2111.6 | 2143.8 | 2292.2 | 2439.5 | 2476.3 | 2646.2 | 2783.1 | 3004.2 | 3075.2 | 2566.5 |
| 57.5° | 2219.4 | 2204.9 | 2232.1 | 2408.6 | 2605.8 | 2649.7 | 2838.1 | 2980.6 | 3199.0 | 3210.1 | 2626.4 |
| 60°   | 2322.6 | 2303.1 | 2333.5 | 2552.8 | 2817.1 | 2868.8 | 3062.8 | 3173.4 | 3382.6 | 3318.2 | 2645.7 |
| 62.5° | 2412.9 | 2399.2 | 2446.1 | 2713.9 | 3055.2 | 3112.0 | 3283.4 | 3378.3 | 3563.6 | 3363.1 | 2576.2 |
| 65°   | 2491.7 | 2494.0 | 2575.2 | 2894.9 | 3320.7 | 3381.3 | 3536.5 | 3630.8 | 3706.2 | 3336.4 | 2413.6 |
| 67.5° | 2585.8 | 2598.7 | 2737.2 | 3133.3 | 3654.9 | 3721.4 | 3904.7 | 3906.2 | 3785.8 | 3180.2 | 2093.6 |
| 70°   | 2723.0 | 2749.6 | 2960.1 | 3464.0 | 4130.2 | 4221.4 | 4362.9 | 4068.0 | 3674.0 | 2756.7 | 1647.3 |
| 72.5° | 2844.7 | 2894.4 | 3197.2 | 3842.3 | 4709.3 | 4778.6 | 4631.0 | 3974.7 | 3206.6 | 2066.0 | 1026.3 |
| 74°   | 2795.3 | 2856.9 | 3240.3 | 4028.7 | 4927.4 | 4960.6 | 4540.5 | 3702.4 | 2673.6 | 1430.7 | 596.4  |
| 75°   | 2688.8 | 2755.7 | 3177.4 | 4026.9 | 4899.8 | 4881.3 | 4321.9 | 3391.2 | 2201.9 | 975.8  | 396.9  |
| 77.5° | 2169.9 | 2240.7 | 2677.4 | 3451.3 | 4017.6 | 4000.1 | 3319.9 | 2274.9 | 964.4  | 320.0  | 201.6  |
| 80°   | 1261.6 | 1315.6 | 1662.0 | 2191.7 | 2709.1 | 2740.8 | 2183.4 | 1125.7 | 379.4  | 179.8  | 136.7  |
| 82.5° | 560.4  | 597.7  | 802.9  | 1118.8 | 1634.9 | 1675.7 | 1143.4 | 589.8  | 234.3  | 109.3  | 82.2   |
| 85°   | 367.7  | 395.3  | 487.4  | 532.8  | 778.5  | 806.4  | 559.7  | 459.2  | 154.7  | 60.1   | 60.4   |
| 87.5° | 264.5  | 291.1  | 362.1  | 316.2  | 357.3  | 338.3  | 304.6  | 425.0  | 62.1   | 34.2   | 20.3   |
| 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°    | 1268.4 | 1268.4 | 1268.4 | 1268.4 | 1268.4 | 1268.4 | 1268.4 | 1268.4 | 1268.4 | 1268.4 | 1268.4 |
| 2.5°  | 1256.5 | 1252.5 | 1243.3 | 1226.1 | 1216.5 | 1208.3 | 1194.9 | 1187.0 | 1183.5 | 1183.2 | 1184.8 |
| 5°    | 1225.3 | 1215.9 | 1192.4 | 1163.5 | 1140.4 | 1119.3 | 1093.2 | 1077.5 | 1066.3 | 1059.7 | 1061.5 |
| 7.5°  | 1189.1 | 1174.4 | 1137.3 | 1091.2 | 1054.2 | 1013.3 | 973.0  | 948.9  | 930.2  | 916.2  | 918.7  |
| 10°   | 1164.2 | 1143.9 | 1089.9 | 1023.5 | 961.9  | 902.5  | 847.0  | 813.8  | 787.4  | 767.1  | 768.6  |
| 12.5° | 1155.8 | 1128.5 | 1053.6 | 964.9  | 878.4  | 797.3  | 724.7  | 673.8  | 646.6  | 623.6  | 625.3  |
| 15°   | 1157.1 | 1120.3 | 1023.2 | 912.1  | 803.4  | 701.2  | 613.2  | 553.6  | 516.8  | 500.8  | 501.1  |
| 17.5° | 1158.1 | 1111.0 | 991.3  | 855.6  | 729.1  | 611.4  | 515.8  | 455.4  | 420.7  | 406.0  | 406.2  |
| 20°   | 1154.8 | 1095.7 | 951.7  | 790.7  | 651.5  | 529.0  | 436.4  | 385.2  | 358.8  | 347.4  | 347.4  |
| 22.5° | 1150.5 | 1077.7 | 907.1  | 725.5  | 574.9  | 457.5  | 379.6  | 340.6  | 325.4  | 317.7  | 317.5  |
| 25°   | 1152.5 | 1064.3 | 861.4  | 658.6  | 504.4  | 400.4  | 341.8  | 316.0  | 305.8  | 301.0  | 300.8  |
| 27.5° | 1163.5 | 1058.0 | 819.3  | 591.9  | 442.8  | 357.6  | 316.5  | 298.2  | 291.6  | 288.6  | 288.6  |
| 30°   | 1183.2 | 1058.0 | 775.5  | 535.1  | 391.5  | 325.9  | 296.9  | 284.5  | 280.0  | 277.9  | 277.9  |
| 32.5° | 1217.7 | 1063.8 | 733.1  | 478.8  | 350.7  | 301.0  | 280.7  | 272.4  | 268.8  | 267.8  | 267.8  |
| 35°   | 1277.1 | 1083.6 | 691.8  | 425.5  | 317.7  | 280.7  | 265.3  | 260.4  | 257.9  | 257.6  | 258.4  |
| 37.5° | 1360.5 | 1123.9 | 653.0  | 386.2  | 294.4  | 264.2  | 252.3  | 248.5  | 247.0  | 248.3  | 249.3  |
| 40°   | 1465.5 | 1178.7 | 617.7  | 350.7  | 276.7  | 251.0  | 240.4  | 237.9  | 237.1  | 238.9  | 240.4  |
| 42.5° | 1592.3 | 1252.7 | 588.8  | 325.1  | 263.0  | 239.9  | 230.3  | 227.2  | 226.5  | 228.5  | 230.5  |
| 45°   | 1729.5 | 1332.3 | 568.5  | 306.1  | 252.3  | 231.5  | 221.4  | 218.1  | 216.6  | 217.6  | 219.9  |
| 47.5° | 1854.2 | 1407.7 | 560.4  | 292.6  | 242.2  | 224.4  | 213.5  | 209.5  | 206.9  | 206.4  | 208.2  |
| 50°   | 1959.5 | 1463.7 | 564.2  | 284.5  | 234.1  | 216.6  | 205.9  | 201.3  | 197.5  | 195.3  | 196.5  |
| 52.5° | 2036.0 | 1498.9 | 567.8  | 281.0  | 227.7  | 207.9  | 197.5  | 193.2  | 188.2  | 184.4  | 184.4  |
| 55°   | 2091.6 | 1507.1 | 559.9  | 278.2  | 222.9  | 198.6  | 188.2  | 184.1  | 179.0  | 174.7  | 174.2  |
| 57.5° | 2113.4 | 1484.2 | 530.8  | 274.1  | 219.6  | 189.7  | 178.3  | 175.2  | 170.9  | 165.8  | 165.6  |
| 60°   | 2084.0 | 1413.7 | 474.5  | 265.5  | 215.3  | 182.3  | 168.4  | 166.4  | 164.3  | 159.5  | 159.3  |
| 62.5° | 1965.8 | 1259.1 | 401.7  | 248.0  | 206.7  | 174.5  | 159.3  | 160.3  | 160.5  | 157.2  | 156.7  |
| 65°   | 1751.5 | 1046.5 | 330.7  | 225.2  | 193.7  | 165.1  | 149.9  | 154.7  | 157.5  | 157.0  | 156.2  |
| 67.5° | 1440.1 | 814.5  | 280.2  | 201.1  | 176.7  | 152.2  | 139.7  | 145.3  | 147.6  | 149.4  | 148.9  |
| 70°   | 1068.9 | 574.4  | 231.8  | 175.7  | 156.2  | 136.9  | 126.5  | 129.3  | 127.8  | 129.8  | 130.6  |
| 72.5° | 595.9  | 344.6  | 188.9  | 150.4  | 134.9  | 119.2  | 111.8  | 111.3  | 108.0  | 108.0  | 108.0  |
| 74°   | 357.6  | 252.8  | 166.1  | 134.7  | 122.0  | 107.5  | 101.2  | 98.9   | 95.9   | 96.1   | 95.9   |
| 75°   | 287.6  | 217.3  | 152.4  | 124.3  | 112.8  | 100.7  | 94.3   | 91.3   | 89.0   | 89.0   | 88.8   |
| 77.5° | 181.6  | 165.1  | 122.7  | 98.9   | 90.3   | 82.9   | 78.6   | 74.6   | 74.6   | 74.3   | 74.0   |
| 80°   | 137.2  | 131.4  | 95.6   | 74.8   | 69.2   | 63.7   | 60.9   | 59.1   | 59.1   | 59.8   | 59.6   |
| 82.5° | 94.1   | 98.9   | 67.2   | 52.2   | 49.4   | 45.4   | 44.9   | 45.1   | 44.4   | 43.4   | 43.1   |
| 85°   | 68.7   | 74.3   | 45.4   | 33.0   | 30.2   | 27.6   | 29.7   | 30.7   | 29.4   | 27.1   | 26.1   |
| 87.5° | 26.4   | 48.7   | 24.3   | 13.7   | 12.7   | 10.9   | 12.7   | 13.2   | 14.2   | 11.2   | 11.4   |
| 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)