

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: P959950

Luminaire Tested: **NVN-SB1B-827-U-T2R**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P959950  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: NVN-SB1B-827-U-T2R  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 2700K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

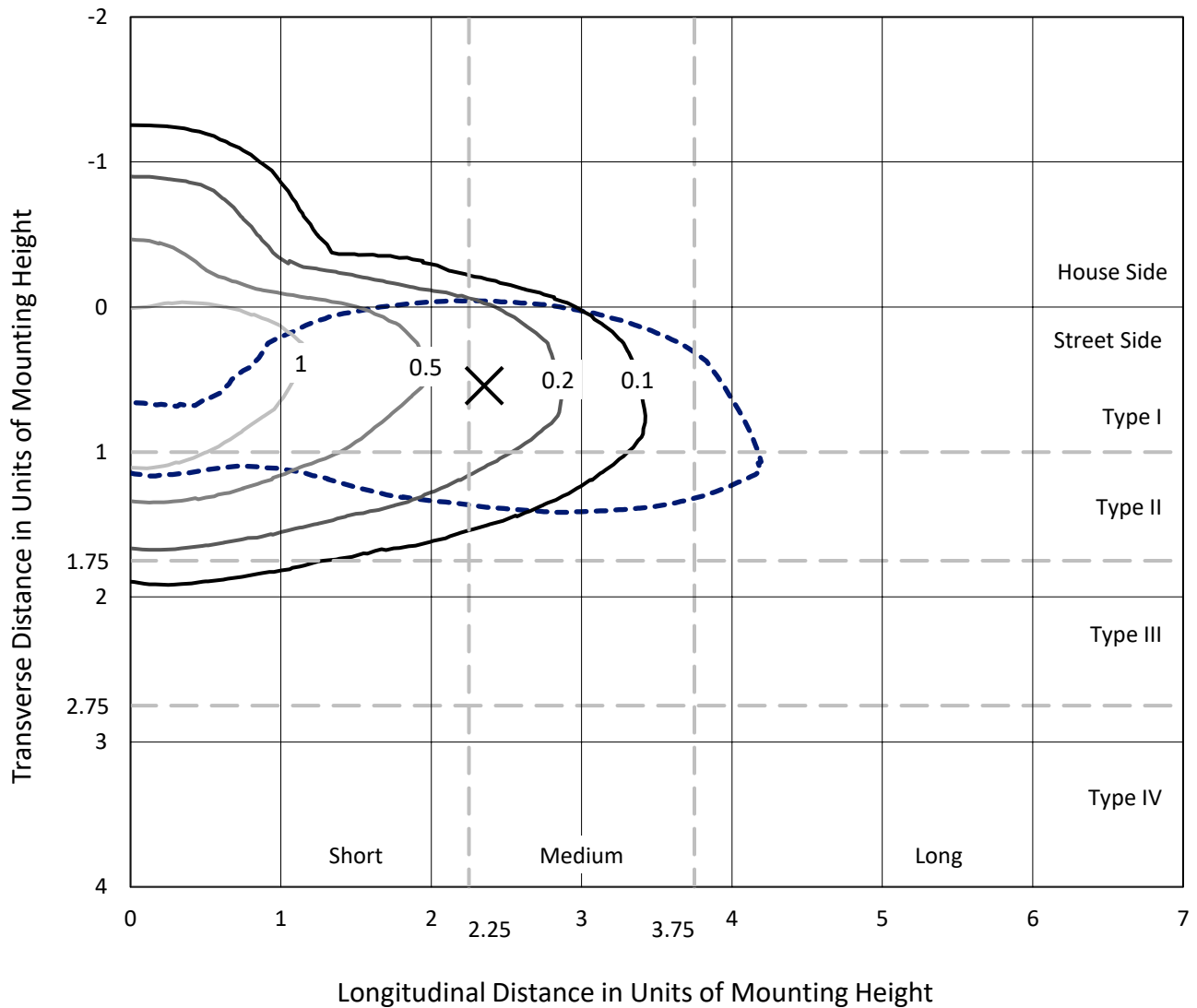
Lumens per Lamp: N/A  
Luminaire Lumens: 5113.7 lumens  
Efficiency: N/A  
Efficacy: 128.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 39.8  
Input Voltage (V): NR  
Input Current (Ain): 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

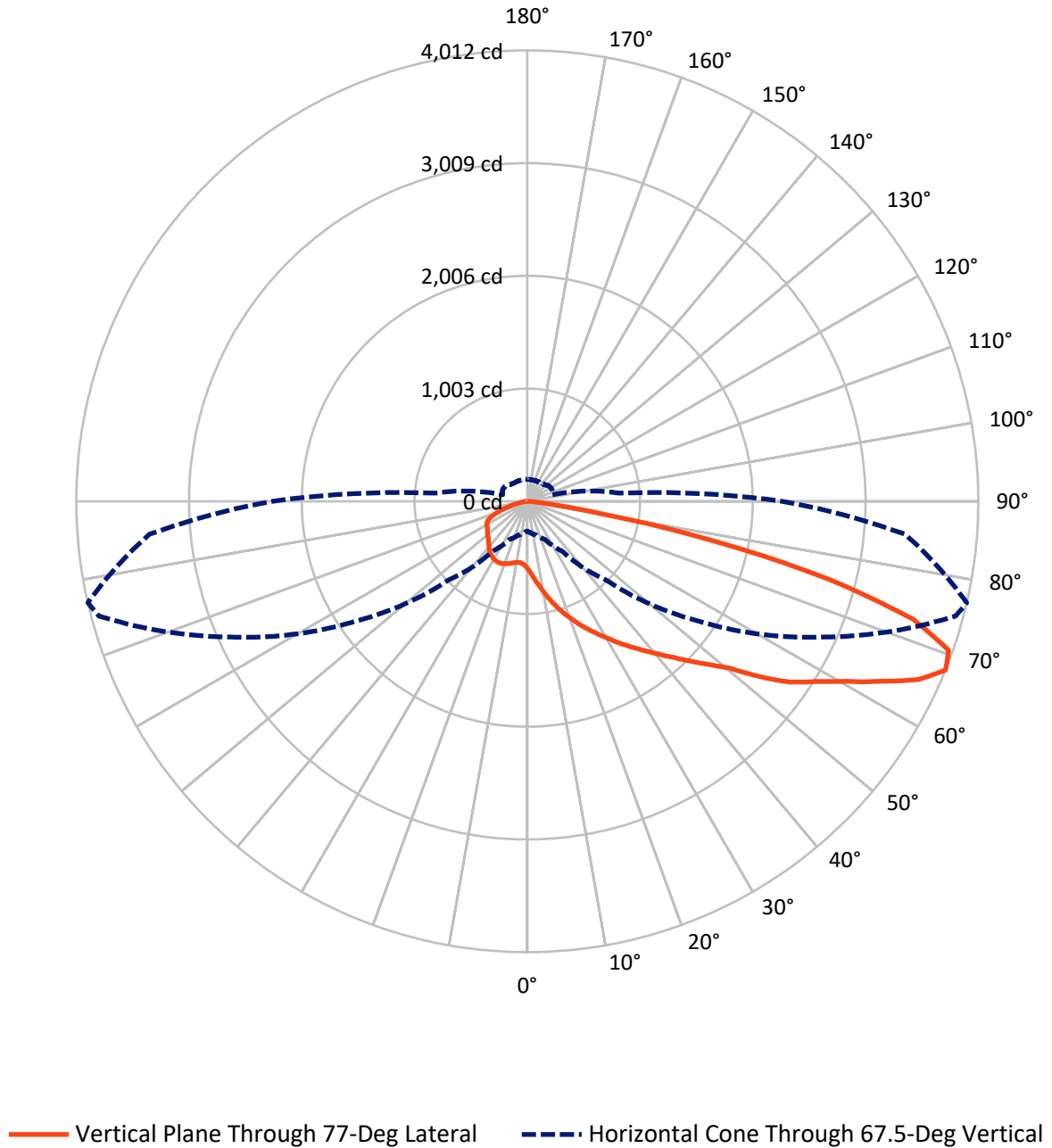
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



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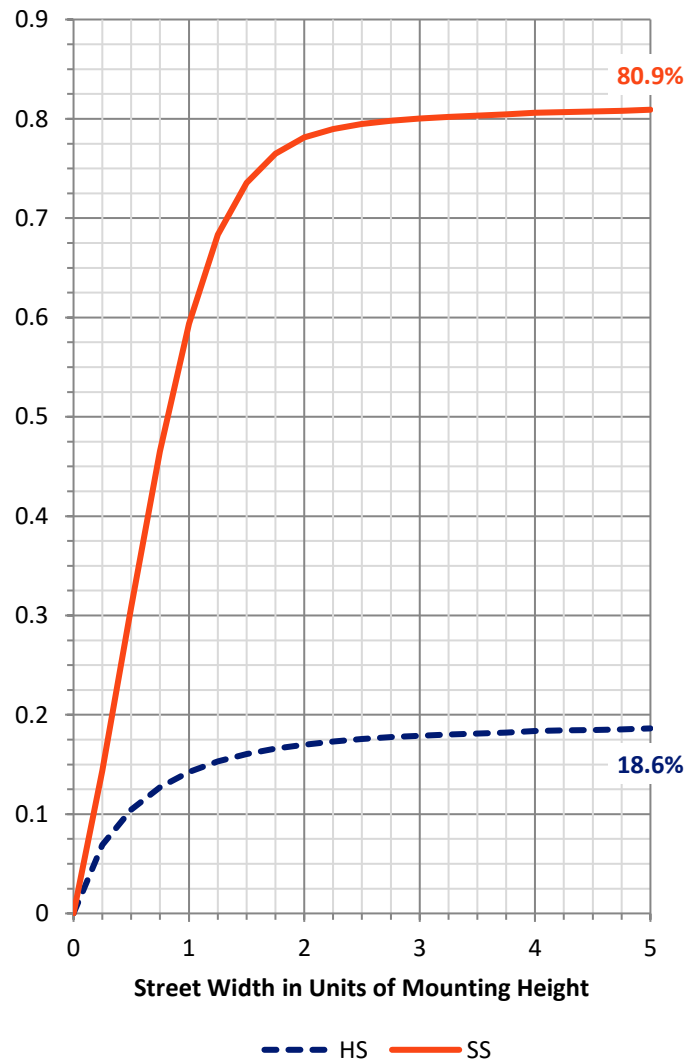
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 967.3    | 0.0    | 967.3  |
|                    | % Fixture | 18.9     | 0.0    | 18.9   |
| <b>Street Side</b> | Lumens    | 4146.4   | 0.0    | 4146.4 |
|                    | % Fixture | 81.1     | 0.0    | 81.1   |
| <b>Total</b>       | Lumens    | 5113.7   | 0.0    | 5113.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 64.3   | 1.3       |
| 10°-20°   | 231.0  | 4.5       |
| 20°-30°   | 436.2  | 8.5       |
| 30°-40°   | 702.8  | 13.7      |
| 40°-50°   | 961.3  | 18.8      |
| 50°-60°   | 1084.3 | 21.2      |
| 60°-70°   | 1012.1 | 19.8      |
| 70°-80°   | 554.8  | 10.8      |
| 80°-90°   | 66.9   | 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°    | 5113.7 | 100.0     |
| 0°-180°   | 5113.7 | 100.0     |

**Coefficient of Utilization**



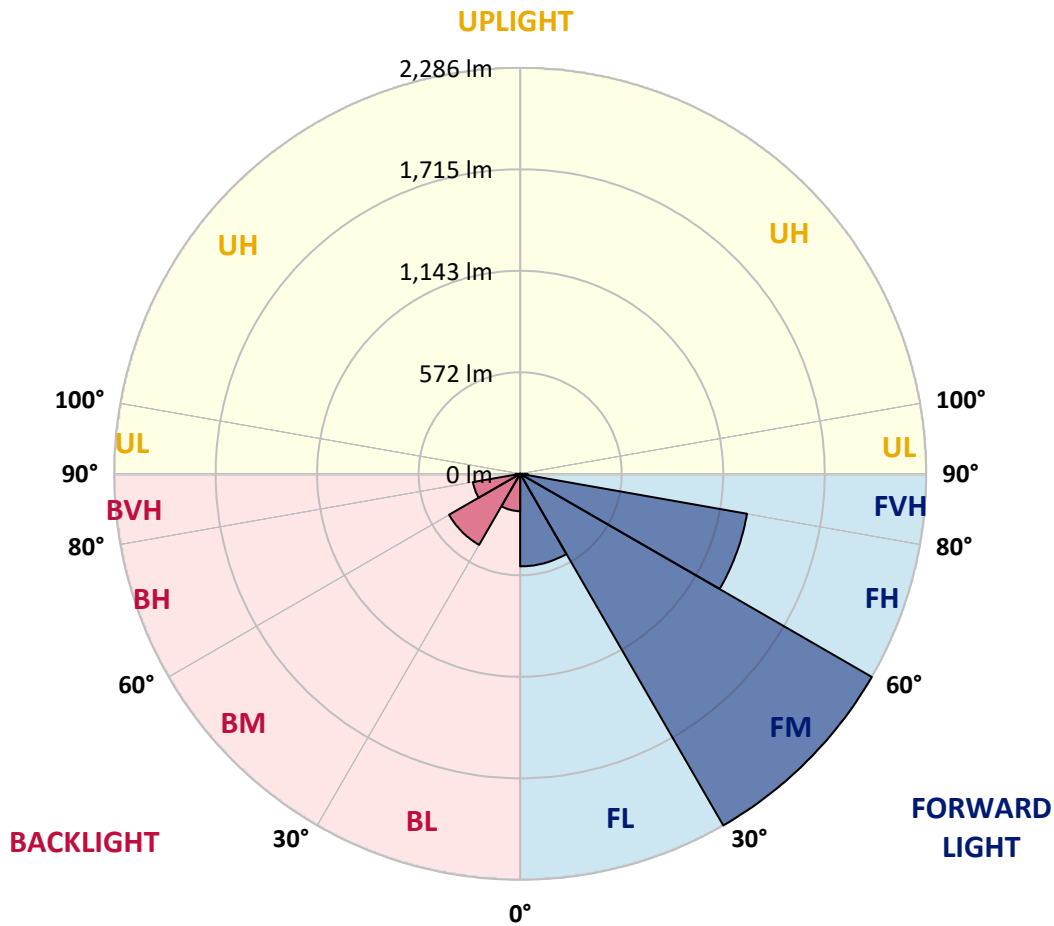
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 521.3  | 10.2      |                         |      |         |
| FM (30°-60°)   | 2286.3 | 44.7      |                         |      |         |
| FH (60°-80°)   | 1297.0 | 25.4      |                         |      | G1/1800 |
| FVH (80°-90°)  | 41.8   | 0.8       |                         |      | G1/100  |
| BL (0°-30°)    | 210.3  | 4.1       | B1/500                  |      |         |
| BM (30°-60°)   | 462.1  | 9.0       | B1/1000                 |      |         |
| BH (60°-80°)   | 269.9  | 5.3       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 25.1   | 0.5       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G1**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 77°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 600.0  | 600.0  | 600.0  | 600.0  | 600.0  | 600.0  | 600.0  | 600.0  | 600.0  | 600.0  | 600.0  |
| 2.5°  | 751.2  | 756.6  | 749.9  | 749.9  | 727.7  | 716.2  | 693.9  | 677.1  | 646.7  | 641.4  | 621.4  |
| 5°    | 888.0  | 894.6  | 885.4  | 881.4  | 855.3  | 831.3  | 794.0  | 757.4  | 703.3  | 697.7  | 650.5  |
| 7.5°  | 993.8  | 1002.2 | 994.1  | 989.8  | 966.7  | 939.7  | 896.2  | 845.0  | 768.6  | 757.9  | 689.5  |
| 10°   | 1080.1 | 1081.5 | 1078.8 | 1080.5 | 1062.2 | 1040.1 | 995.4  | 935.7  | 840.5  | 825.7  | 736.8  |
| 12.5° | 1129.0 | 1135.1 | 1140.3 | 1149.8 | 1146.7 | 1132.9 | 1092.9 | 1021.5 | 916.5  | 897.5  | 788.2  |
| 15°   | 1152.0 | 1162.6 | 1174.3 | 1196.3 | 1214.0 | 1217.4 | 1186.8 | 1113.7 | 993.8  | 970.9  | 840.2  |
| 17.5° | 1160.1 | 1170.1 | 1188.9 | 1220.6 | 1258.6 | 1284.2 | 1270.5 | 1203.1 | 1070.4 | 1044.0 | 894.8  |
| 20°   | 1201.6 | 1204.5 | 1215.9 | 1245.9 | 1287.1 | 1329.6 | 1339.9 | 1289.2 | 1146.2 | 1116.3 | 951.3  |
| 22.5° | 1290.3 | 1284.4 | 1287.6 | 1301.3 | 1331.0 | 1372.1 | 1395.6 | 1365.2 | 1224.1 | 1189.7 | 1008.4 |
| 25°   | 1436.7 | 1419.9 | 1403.0 | 1387.1 | 1402.2 | 1425.5 | 1452.1 | 1441.3 | 1305.5 | 1262.0 | 1065.9 |
| 27.5° | 1621.9 | 1601.3 | 1564.0 | 1512.0 | 1493.8 | 1501.9 | 1513.8 | 1511.8 | 1381.1 | 1337.0 | 1125.2 |
| 30°   | 1804.0 | 1779.9 | 1735.6 | 1660.4 | 1612.3 | 1590.7 | 1581.7 | 1575.6 | 1463.2 | 1416.1 | 1185.2 |
| 32.5° | 1949.4 | 1930.4 | 1886.8 | 1802.7 | 1733.0 | 1696.0 | 1666.1 | 1644.5 | 1549.0 | 1501.9 | 1248.6 |
| 35°   | 2076.6 | 2058.9 | 2009.1 | 1917.2 | 1841.4 | 1802.2 | 1763.0 | 1716.9 | 1638.2 | 1590.7 | 1316.7 |
| 37.5° | 2192.8 | 2175.0 | 2106.7 | 2011.2 | 1934.9 | 1907.7 | 1872.9 | 1794.5 | 1727.6 | 1682.8 | 1388.8 |
| 40°   | 2266.2 | 2262.2 | 2198.3 | 2090.1 | 2010.9 | 1997.4 | 1985.8 | 1884.5 | 1827.0 | 1785.2 | 1467.9 |
| 42.5° | 2284.9 | 2293.6 | 2242.9 | 2153.9 | 2078.5 | 2067.6 | 2094.9 | 1986.3 | 1938.3 | 1898.5 | 1557.7 |
| 45°   | 2239.7 | 2264.8 | 2231.6 | 2171.2 | 2126.6 | 2120.7 | 2191.4 | 2097.8 | 2061.6 | 2025.2 | 1665.9 |
| 47.5° | 2125.4 | 2168.0 | 2154.2 | 2145.8 | 2139.5 | 2164.5 | 2276.4 | 2216.0 | 2201.2 | 2169.5 | 1789.4 |
| 50°   | 1894.7 | 1975.3 | 1999.3 | 2052.6 | 2113.9 | 2198.6 | 2353.8 | 2345.1 | 2364.4 | 2332.4 | 1939.9 |
| 52.5° | 1495.9 | 1606.8 | 1746.2 | 1879.7 | 2035.2 | 2187.2 | 2438.8 | 2530.4 | 2611.7 | 2594.3 | 2179.0 |
| 55°   | 1234.8 | 1284.7 | 1391.9 | 1636.8 | 1882.6 | 2139.5 | 2477.1 | 2680.1 | 2857.2 | 2841.6 | 2360.4 |
| 57.5° | 1034.2 | 1078.8 | 1144.8 | 1349.4 | 1651.9 | 2030.9 | 2500.8 | 2771.4 | 3025.3 | 3023.7 | 2539.3 |
| 60°   | 819.1  | 866.3  | 933.9  | 1078.8 | 1382.4 | 1843.6 | 2495.6 | 2875.4 | 3239.9 | 3253.1 | 2757.7 |
| 62.5° | 576.3  | 628.2  | 703.3  | 838.3  | 1107.1 | 1600.7 | 2387.8 | 2950.7 | 3492.6 | 3528.5 | 3020.4 |
| 65°   | 378.8  | 413.1  | 469.6  | 586.3  | 824.9  | 1288.4 | 2182.2 | 2960.4 | 3762.9 | 3823.6 | 3266.9 |
| 67.5° | 265.6  | 278.8  | 312.0  | 375.4  | 543.8  | 988.0  | 1854.6 | 2859.3 | 3943.2 | 4011.5 | 3373.8 |
| 70°   | 207.3  | 213.8  | 230.7  | 256.0  | 341.5  | 664.4  | 1421.2 | 2596.4 | 3904.6 | 3975.9 | 3262.2 |
| 72.5° | 179.0  | 185.3  | 191.7  | 194.9  | 229.1  | 410.2  | 962.7  | 2170.8 | 3541.7 | 3590.0 | 2836.4 |
| 75°   | 162.4  | 163.9  | 169.2  | 168.1  | 174.8  | 266.1  | 555.7  | 1581.7 | 2794.4 | 2777.7 | 2093.8 |
| 77.5° | 136.4  | 138.6  | 147.3  | 146.0  | 155.2  | 181.8  | 288.5  | 1020.8 | 1811.6 | 1698.6 | 1165.4 |
| 80°   | 115.6  | 116.6  | 126.2  | 124.6  | 134.9  | 131.7  | 147.3  | 520.3  | 768.4  | 651.0  | 336.0  |
| 82.5° | 40.1   | 49.6   | 96.4   | 99.2   | 102.9  | 79.7   | 85.0   | 212.3  | 234.6  | 179.8  | 70.5   |
| 85°   | 19.6   | 20.8   | 49.1   | 69.7   | 69.4   | 40.1   | 41.4   | 75.7   | 73.9   | 58.1   | 23.5   |
| 87.5° | 3.2    | 4.0    | 5.8    | 27.2   | 21.6   | 10.6   | 14.2   | 14.8   | 15.3   | 13.2   | 5.3    |
| 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°    | 600.0  | 600.0 | 600.0 | 600.0 | 600.0 | 600.0 | 600.0 | 600.0 | 600.0 | 600.0 | 600.0 |
| 2.5°  | 606.6  | 593.4 | 565.7 | 540.1 | 520.0 | 500.7 | 489.9 | 480.7 | 475.4 | 474.4 | 474.4 |
| 5°    | 623.0  | 595.7 | 545.4 | 502.9 | 475.2 | 454.6 | 443.7 | 436.9 | 433.5 | 431.3 | 431.0 |
| 7.5°  | 646.5  | 606.6 | 534.8 | 486.5 | 457.5 | 442.7 | 437.2 | 436.0 | 435.8 | 436.0 | 436.9 |
| 10°   | 679.0  | 624.3 | 533.7 | 482.6 | 458.3 | 450.1 | 449.8 | 450.1 | 451.1 | 451.4 | 451.6 |
| 12.5° | 714.0  | 642.5 | 537.9 | 486.0 | 468.3 | 463.8 | 463.0 | 462.7 | 463.5 | 464.0 | 464.3 |
| 15°   | 752.3  | 666.6 | 545.1 | 493.3 | 479.4 | 474.6 | 473.9 | 472.2 | 472.0 | 471.7 | 471.4 |
| 17.5° | 791.6  | 690.2 | 553.0 | 501.2 | 486.5 | 479.9 | 477.0 | 473.3 | 470.4 | 469.6 | 470.4 |
| 20°   | 831.5  | 713.8 | 558.5 | 505.2 | 487.0 | 477.8 | 472.0 | 465.7 | 460.6 | 457.8 | 458.8 |
| 22.5° | 874.0  | 738.3 | 562.0 | 504.2 | 482.3 | 469.6 | 459.0 | 451.6 | 444.0 | 439.0 | 439.2 |
| 25°   | 915.4  | 759.7 | 561.7 | 498.7 | 473.0 | 456.9 | 443.4 | 434.0 | 423.4 | 418.1 | 418.1 |
| 27.5° | 955.3  | 779.0 | 555.1 | 488.8 | 459.8 | 441.9 | 425.8 | 414.4 | 404.2 | 399.1 | 398.8 |
| 30°   | 996.5  | 795.1 | 544.8 | 474.6 | 444.2 | 424.5 | 406.8 | 397.0 | 387.8 | 383.0 | 382.7 |
| 32.5° | 1037.4 | 809.9 | 530.3 | 456.9 | 426.3 | 407.3 | 389.9 | 380.9 | 375.4 | 375.4 | 375.7 |
| 35°   | 1080.7 | 820.1 | 511.1 | 436.3 | 407.3 | 389.1 | 375.4 | 370.1 | 369.5 | 366.4 | 365.6 |
| 37.5° | 1126.4 | 826.8 | 487.6 | 415.2 | 388.6 | 371.4 | 367.2 | 360.8 | 355.6 | 348.7 | 347.7 |
| 40°   | 1174.3 | 833.3 | 459.3 | 393.3 | 368.8 | 359.3 | 357.4 | 349.0 | 333.9 | 317.0 | 314.7 |
| 42.5° | 1232.8 | 837.8 | 430.0 | 371.4 | 347.9 | 344.7 | 347.4 | 332.8 | 308.8 | 296.1 | 296.4 |
| 45°   | 1300.3 | 845.2 | 403.0 | 349.7 | 326.6 | 326.6 | 337.6 | 318.6 | 298.8 | 290.9 | 292.2 |
| 47.5° | 1388.0 | 862.3 | 378.0 | 326.0 | 306.7 | 312.0 | 316.0 | 301.5 | 290.4 | 280.6 | 280.3 |
| 50°   | 1514.6 | 903.5 | 352.1 | 302.0 | 291.7 | 302.3 | 296.7 | 288.2 | 275.3 | 267.4 | 266.6 |
| 52.5° | 1672.0 | 927.8 | 329.1 | 280.3 | 278.8 | 289.4 | 281.4 | 273.5 | 263.7 | 253.2 | 251.0 |
| 55°   | 1779.1 | 932.3 | 309.9 | 264.4 | 270.1 | 269.0 | 266.1 | 258.9 | 253.7 | 239.6 | 240.0 |
| 57.5° | 1899.0 | 941.4 | 294.1 | 255.0 | 264.4 | 252.9 | 251.8 | 245.8 | 238.9 | 229.4 | 226.2 |
| 60°   | 2042.3 | 955.3 | 280.3 | 251.3 | 259.7 | 242.3 | 237.1 | 234.6 | 227.8 | 223.0 | 224.4 |
| 62.5° | 2198.6 | 968.0 | 266.3 | 251.8 | 254.2 | 232.1 | 224.1 | 223.3 | 219.0 | 217.5 | 217.5 |
| 65°   | 2305.2 | 933.4 | 249.0 | 251.3 | 245.5 | 221.5 | 211.5 | 211.2 | 207.8 | 207.3 | 206.9 |
| 67.5° | 2268.0 | 823.8 | 225.4 | 244.0 | 236.5 | 210.9 | 199.8 | 198.7 | 194.2 | 194.5 | 194.5 |
| 70°   | 2081.7 | 667.6 | 193.0 | 225.7 | 225.4 | 201.4 | 187.7 | 184.3 | 178.1 | 179.3 | 180.3 |
| 72.5° | 1732.1 | 494.7 | 149.4 | 195.4 | 207.8 | 192.7 | 173.7 | 168.1 | 160.5 | 161.5 | 161.3 |
| 75°   | 1250.9 | 336.3 | 108.8 | 148.6 | 180.8 | 182.4 | 160.0 | 150.5 | 141.2 | 142.8 | 143.3 |
| 77.5° | 640.1  | 190.5 | 79.9  | 102.4 | 142.1 | 165.7 | 147.6 | 134.9 | 132.7 | 147.6 | 145.4 |
| 80°   | 208.8  | 95.5  | 55.5  | 71.8  | 93.2  | 135.7 | 129.4 | 114.8 | 114.3 | 117.8 | 101.1 |
| 82.5° | 62.3   | 40.4  | 35.7  | 47.3  | 51.5  | 104.0 | 111.6 | 86.8  | 74.7  | 78.6  | 81.3  |
| 85°   | 21.4   | 19.6  | 20.3  | 23.5  | 24.6  | 61.0  | 78.1  | 57.5  | 54.4  | 60.0  | 59.1  |
| 87.5° | 5.0    | 6.9   | 5.8   | 5.3   | 5.3   | 14.8  | 30.3  | 24.0  | 33.2  | 22.1  | 21.4  |
| 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)