

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: P882720

Luminaire Tested: **NVN-SB2D-722-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882720  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: NVN-SB2D-722-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

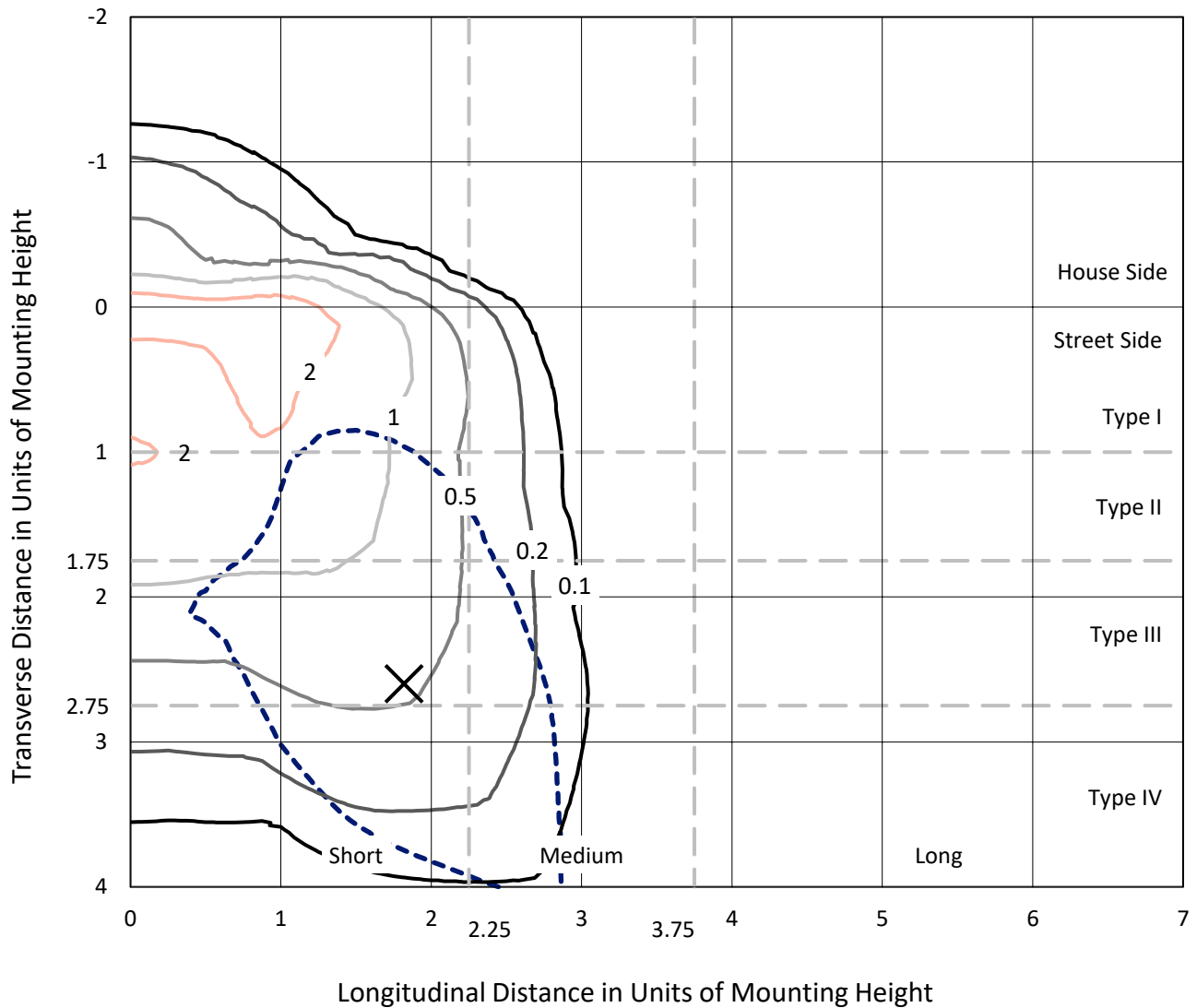
Lumens per Lamp: N/A  
Luminaire Lumens: 12513 lumens  
Efficiency: N/A  
Efficacy: 84.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3  
  
Input Watts (W): 147.6  
Input Voltage (V): 120.0  
Input Current (Ain): 1.234  
Voltage Rise (V): NR  
Power Factor: 0.999  
Total Harmonic Distortion (THDi): 3.108  
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

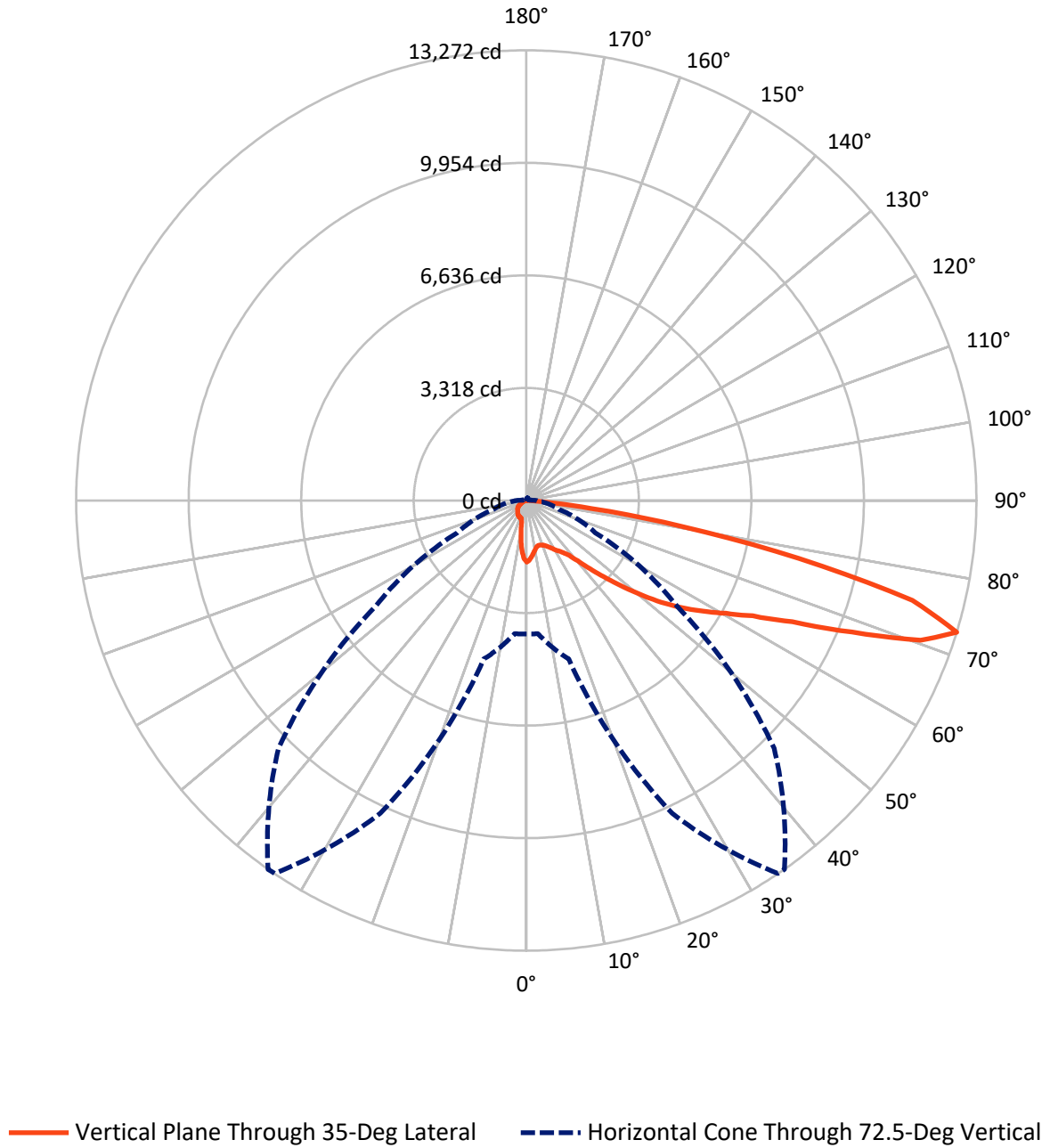
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 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    | 1408.3   | 0.0    | 1408.3  |
|                    | % Fixture | 11.3     | 0.0    | 11.3    |
| <b>Street Side</b> | Lumens    | 11104.7  | 0.0    | 11104.7 |
|                    | % Fixture | 88.7     | 0.0    | 88.7    |
| <b>Total</b>       | Lumens    | 12513.0  | 0.0    | 12513.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 149.0   | 1.2       |
| 10°-20°   | 348.6   | 2.8       |
| 20°-30°   | 566.3   | 4.5       |
| 30°-40°   | 944.9   | 7.6       |
| 40°-50°   | 1787.8  | 14.3      |
| 50°-60°   | 2840.8  | 22.7      |
| 60°-70°   | 3514.3  | 28.1      |
| 70°-80°   | 2184.5  | 17.5      |
| 80°-90°   | 176.5   | 1.4       |
| 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°    | 12513.0 | 100.0     |
| 0°-180°   | 12513.0 | 100.0     |

**Coefficient of Utilization**



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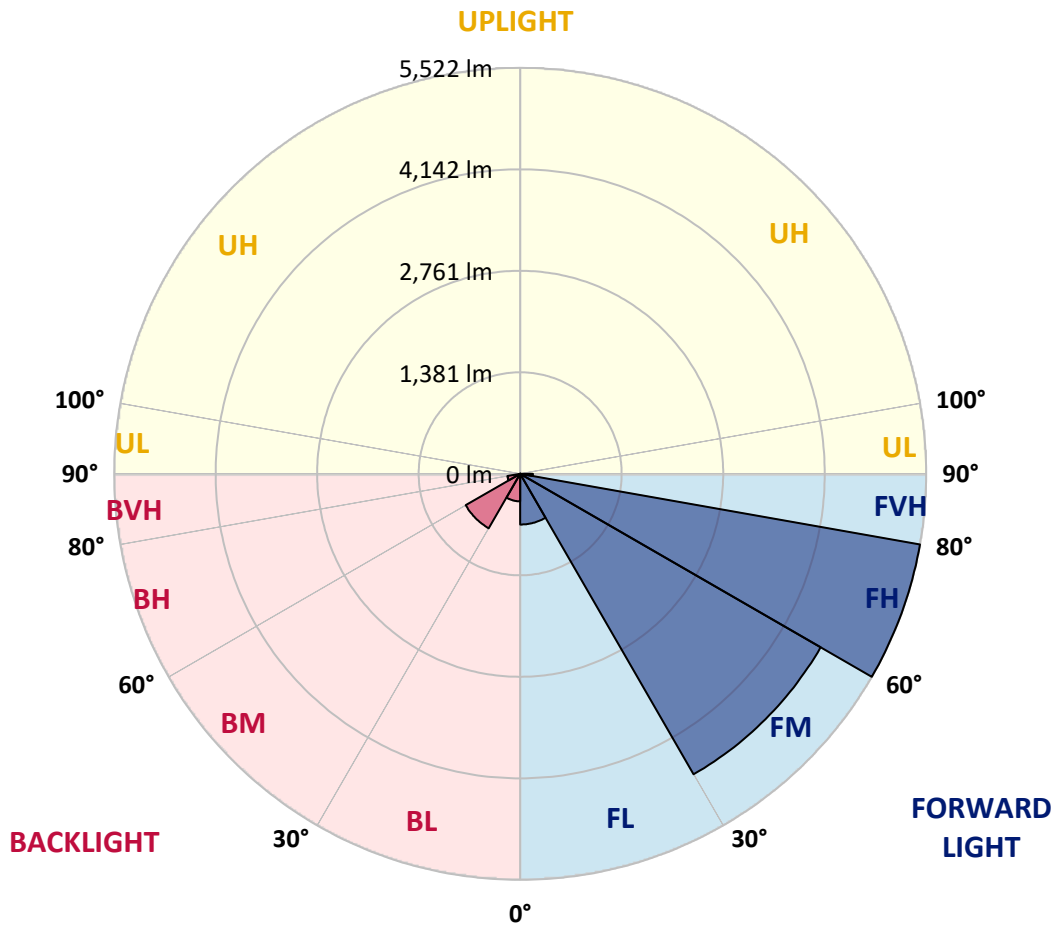
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 689.8  | 5.5       |                         |      |         |
| FM (30°-60°)   | 4718.6 | 37.7      |                         |      |         |
| FH (60°-80°)   | 5522.1 | 44.1      |                         |      | G3/7500 |
| FVH (80°-90°)  | 174.1  | 1.4       |                         |      | G2/225  |
| BL (0°-30°)    | 374.2  | 3.0       | B1/500                  |      |         |
| BM (30°-60°)   | 854.9  | 6.8       | B1/1000                 |      |         |
| BH (60°-80°)   | 176.7  | 1.4       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 2.4    | 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-G3**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°     | 34°     | 35°     | 45°     | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|---------|---------|---------|---------|--------|--------|--------|--------|
| 0°    | 1813.6 | 1813.6 | 1813.6 | 1813.6  | 1813.6  | 1813.6  | 1813.6  | 1813.6 | 1813.6 | 1813.6 | 1813.6 |
| 2.5°  | 1732.9 | 1747.5 | 1750.3 | 1754.9  | 1754.9  | 1760.4  | 1769.5  | 1782.4 | 1803.5 | 1814.5 | 1821.8 |
| 5°    | 1597.2 | 1608.2 | 1621.9 | 1632.9  | 1654.0  | 1656.8  | 1692.5  | 1727.4 | 1776.0 | 1812.6 | 1838.3 |
| 7.5°  | 1460.6 | 1473.4 | 1491.7 | 1518.3  | 1545.8  | 1554.1  | 1608.2  | 1666.9 | 1743.9 | 1812.6 | 1855.7 |
| 10°   | 1364.3 | 1365.2 | 1381.7 | 1408.3  | 1452.3  | 1462.4  | 1528.4  | 1611.8 | 1708.1 | 1801.6 | 1872.2 |
| 12.5° | 1310.2 | 1316.6 | 1323.9 | 1344.1  | 1386.3  | 1392.7  | 1463.3  | 1561.4 | 1672.4 | 1795.2 | 1891.5 |
| 15°   | 1310.2 | 1314.8 | 1319.4 | 1329.5  | 1363.4  | 1368.9  | 1431.2  | 1529.3 | 1654.0 | 1798.0 | 1922.7 |
| 17.5° | 1323.9 | 1331.3 | 1327.6 | 1339.5  | 1375.3  | 1379.0  | 1434.0  | 1520.2 | 1653.1 | 1815.4 | 1970.3 |
| 20°   | 1357.0 | 1362.5 | 1355.1 | 1362.5  | 1398.2  | 1405.5  | 1462.4  | 1537.6 | 1668.7 | 1845.6 | 2029.9 |
| 22.5° | 1409.2 | 1412.0 | 1394.5 | 1400.0  | 1436.7  | 1445.9  | 1511.9  | 1587.1 | 1706.3 | 1894.2 | 2109.7 |
| 25°   | 1475.2 | 1480.7 | 1454.1 | 1460.6  | 1495.4  | 1506.4  | 1582.5  | 1661.4 | 1765.9 | 1961.2 | 2211.5 |
| 27.5° | 1551.3 | 1554.1 | 1531.2 | 1530.2  | 1575.2  | 1590.8  | 1667.8  | 1753.0 | 1845.6 | 2045.5 | 2339.8 |
| 30°   | 1638.4 | 1646.7 | 1624.7 | 1621.0  | 1677.9  | 1690.7  | 1766.8  | 1865.8 | 1963.0 | 2172.0 | 2522.3 |
| 32.5° | 1707.2 | 1713.6 | 1700.8 | 1709.9  | 1767.7  | 1777.8  | 1886.9  | 2025.3 | 2147.3 | 2351.8 | 2770.8 |
| 35°   | 1806.2 | 1809.9 | 1780.5 | 1797.0  | 1863.1  | 1888.7  | 2051.0  | 2249.1 | 2379.3 | 2577.3 | 3095.3 |
| 37.5° | 2164.7 | 2164.7 | 2040.0 | 1958.4  | 2021.7  | 2044.6  | 2275.7  | 2530.5 | 2665.3 | 2879.9 | 3504.2 |
| 40°   | 2660.7 | 2652.5 | 2470.0 | 2303.2  | 2294.9  | 2339.8  | 2595.6  | 2885.4 | 3034.8 | 3242.9 | 3964.5 |
| 42.5° | 3189.8 | 3176.9 | 2928.5 | 2763.4  | 2735.9  | 2751.5  | 2965.1  | 3322.7 | 3474.9 | 3685.8 | 4459.6 |
| 45°   | 3659.2 | 3655.5 | 3428.1 | 3206.3  | 3156.8  | 3206.3  | 3426.3  | 3834.3 | 3943.4 | 4165.3 | 4953.8 |
| 47.5° | 4052.5 | 4052.5 | 3886.6 | 3741.7  | 3716.0  | 3745.4  | 4050.7  | 4401.9 | 4391.8 | 4676.0 | 5435.2 |
| 50°   | 4505.5 | 4501.8 | 4344.1 | 4281.7  | 4308.3  | 4349.6  | 4769.5  | 4999.6 | 4855.7 | 5177.5 | 5865.2 |
| 52.5° | 4822.7 | 4844.7 | 4790.6 | 4780.5  | 4916.2  | 4987.7  | 5499.3  | 5584.6 | 5271.0 | 5653.4 | 6187.0 |
| 55°   | 5073.9 | 5099.6 | 5161.9 | 5232.5  | 5493.8  | 5587.4  | 6206.2  | 6139.3 | 5618.5 | 6066.0 | 6372.2 |
| 57.5° | 5429.7 | 5393.0 | 5489.3 | 5628.6  | 6051.3  | 6164.1  | 6891.1  | 6662.8 | 5898.2 | 6400.6 | 6392.4 |
| 60°   | 5861.5 | 5867.0 | 5883.5 | 6059.5  | 6607.8  | 6752.7  | 7565.9  | 7157.9 | 6077.9 | 6606.0 | 6168.6 |
| 62.5° | 6380.4 | 6388.7 | 6422.6 | 6693.1  | 7355.1  | 7491.7  | 8284.8  | 7563.2 | 6160.4 | 6548.2 | 5591.0 |
| 65°   | 6344.7 | 6379.5 | 6758.2 | 7683.3  | 8491.1  | 8625.8  | 9123.7  | 7847.4 | 6035.7 | 6020.1 | 4552.2 |
| 67.5° | 5779.9 | 5836.7 | 6470.3 | 8866.1  | 10203.8 | 10354.1 | 10137.7 | 7903.4 | 5497.5 | 4681.5 | 2969.7 |
| 70°   | 5039.1 | 5059.2 | 5821.2 | 9929.6  | 12186.9 | 12339.1 | 11045.4 | 7288.1 | 4171.7 | 2611.2 | 1330.4 |
| 72.5° | 3935.2 | 3939.8 | 4833.7 | 10176.3 | 13263.3 | 13271.6 | 10333.0 | 5410.4 | 2243.6 | 1003.0 | 462.1  |
| 75°   | 2811.1 | 2783.6 | 3237.4 | 8252.7  | 11668.9 | 11762.4 | 7746.6  | 2537.9 | 857.3  | 474.0  | 230.1  |
| 77.5° | 1507.3 | 1537.6 | 1831.9 | 4894.2  | 8061.1  | 8220.6  | 4226.7  | 731.7  | 436.4  | 322.7  | 152.2  |
| 80°   | 465.8  | 491.4  | 750.9  | 2240.8  | 4566.0  | 4662.2  | 1566.9  | 325.5  | 304.4  | 230.1  | 99.9   |
| 82.5° | 146.7  | 152.2  | 350.2  | 941.6   | 1895.2  | 1939.2  | 453.8   | 184.3  | 208.1  | 152.2  | 58.7   |
| 85°   | 42.2   | 43.1   | 155.9  | 351.2   | 468.5   | 477.7   | 127.4   | 71.5   | 119.2  | 94.4   | 30.3   |
| 87.5° | 4.6    | 14.7   | 58.7   | 58.7    | 41.3    | 40.3    | 13.8    | 15.6   | 33.9   | 11.9   | 5.5    |
| 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°    | 1813.6 | 1813.6 | 1813.6 | 1813.6 | 1813.6 | 1813.6 | 1813.6 | 1813.6 | 1813.6 | 1813.6 | 1813.6 |
| 2.5°  | 1817.2 | 1818.1 | 1806.2 | 1786.0 | 1764.0 | 1745.7 | 1722.8 | 1704.4 | 1691.6 | 1687.9 | 1694.4 |
| 5°    | 1830.1 | 1823.6 | 1789.7 | 1728.3 | 1654.9 | 1591.7 | 1521.1 | 1465.1 | 1428.5 | 1412.9 | 1418.4 |
| 7.5°  | 1849.3 | 1831.0 | 1756.7 | 1635.7 | 1495.4 | 1370.7 | 1244.2 | 1146.1 | 1083.7 | 1052.6 | 1057.1 |
| 10°   | 1865.8 | 1829.1 | 1701.7 | 1501.8 | 1287.3 | 1098.4 | 927.9  | 809.6  | 743.6  | 712.4  | 713.3  |
| 12.5° | 1881.4 | 1828.2 | 1630.2 | 1343.2 | 1052.6 | 821.5  | 662.9  | 604.2  | 585.9  | 579.5  | 577.6  |
| 15°   | 1910.7 | 1831.0 | 1540.3 | 1161.7 | 818.8  | 620.7  | 563.0  | 562.0  | 565.7  | 563.9  | 563.0  |
| 17.5° | 1951.1 | 1833.7 | 1438.6 | 969.1  | 631.7  | 547.4  | 544.6  | 552.9  | 558.4  | 555.6  | 554.7  |
| 20°   | 2003.3 | 1844.7 | 1330.4 | 778.4  | 542.8  | 529.0  | 535.4  | 542.8  | 547.4  | 542.8  | 541.9  |
| 22.5° | 2076.7 | 1864.0 | 1212.1 | 625.3  | 514.4  | 518.0  | 523.5  | 531.8  | 536.4  | 529.9  | 529.0  |
| 25°   | 2166.5 | 1894.2 | 1095.7 | 543.7  | 500.6  | 505.2  | 513.4  | 522.6  | 528.1  | 521.7  | 520.8  |
| 27.5° | 2283.0 | 1942.8 | 988.4  | 525.4  | 486.9  | 489.6  | 501.5  | 515.3  | 522.6  | 514.4  | 514.4  |
| 30°   | 2451.7 | 2022.6 | 895.8  | 533.6  | 478.6  | 472.2  | 488.7  | 507.9  | 516.2  | 508.9  | 507.9  |
| 32.5° | 2675.4 | 2135.4 | 838.9  | 546.4  | 474.9  | 452.0  | 467.6  | 492.4  | 506.1  | 501.5  | 501.5  |
| 35°   | 2968.8 | 2306.8 | 816.9  | 561.1  | 472.2  | 430.9  | 441.9  | 468.5  | 492.4  | 496.9  | 496.9  |
| 37.5° | 3324.5 | 2545.2 | 823.3  | 567.5  | 463.9  | 413.5  | 419.0  | 441.9  | 473.1  | 487.8  | 491.4  |
| 40°   | 3728.9 | 2823.0 | 860.0  | 561.1  | 454.8  | 398.8  | 399.8  | 417.2  | 444.7  | 466.7  | 474.0  |
| 42.5° | 4146.1 | 3147.6 | 927.9  | 537.3  | 446.5  | 386.0  | 383.2  | 395.2  | 413.5  | 429.1  | 435.5  |
| 45°   | 4543.1 | 3481.3 | 994.8  | 504.3  | 436.4  | 373.2  | 366.7  | 371.3  | 375.0  | 381.4  | 385.1  |
| 47.5° | 4889.6 | 3716.0 | 975.5  | 474.0  | 422.7  | 358.5  | 347.5  | 345.7  | 334.7  | 333.7  | 332.8  |
| 50°   | 5128.9 | 3767.4 | 866.4  | 443.8  | 402.5  | 342.0  | 324.6  | 313.6  | 294.3  | 285.1  | 286.1  |
| 52.5° | 5205.0 | 3564.8 | 707.8  | 413.5  | 369.5  | 320.0  | 295.2  | 277.8  | 254.0  | 245.7  | 244.8  |
| 55°   | 5104.2 | 3167.8 | 565.7  | 376.8  | 323.7  | 290.6  | 263.1  | 240.2  | 221.0  | 210.9  | 210.9  |
| 57.5° | 4857.5 | 2662.6 | 447.4  | 333.7  | 275.1  | 257.6  | 230.1  | 207.2  | 190.7  | 180.6  | 178.8  |
| 60°   | 4448.6 | 2114.3 | 353.9  | 282.4  | 234.7  | 221.9  | 193.5  | 178.8  | 164.1  | 152.2  | 149.4  |
| 62.5° | 3827.9 | 1509.2 | 277.8  | 223.7  | 196.2  | 181.5  | 165.0  | 154.0  | 136.6  | 120.1  | 117.4  |
| 65°   | 2987.1 | 923.3  | 214.5  | 164.1  | 157.7  | 150.4  | 140.3  | 130.2  | 109.1  | 92.6   | 89.9   |
| 67.5° | 1884.2 | 437.3  | 153.1  | 123.8  | 124.7  | 121.0  | 116.4  | 108.2  | 92.6   | 77.9   | 76.1   |
| 70°   | 829.8  | 211.8  | 100.9  | 94.4   | 92.6   | 92.6   | 96.3   | 93.5   | 78.9   | 65.1   | 62.3   |
| 72.5° | 282.4  | 113.7  | 75.2   | 71.5   | 66.9   | 66.0   | 80.7   | 77.9   | 63.3   | 50.4   | 47.7   |
| 75°   | 147.6  | 76.1   | 55.0   | 51.3   | 40.3   | 48.6   | 64.2   | 60.5   | 44.9   | 33.0   | 30.3   |
| 77.5° | 96.3   | 54.1   | 37.6   | 33.0   | 22.9   | 32.1   | 47.7   | 42.2   | 26.6   | 16.5   | 14.7   |
| 80°   | 60.5   | 35.8   | 22.0   | 15.6   | 11.0   | 17.4   | 25.7   | 18.3   | 10.1   | 3.7    | 2.8    |
| 82.5° | 32.1   | 18.3   | 8.3    | 5.5    | 4.6    | 5.5    | 6.4    | 4.6    | 1.8    | 0.0    | 0.0    |
| 85°   | 12.8   | 6.4    | 2.8    | 1.8    | 0.9    | 0.0    | 1.8    | 0.9    | 0.0    | 0.0    | 0.0    |
| 87.5° | 4.6    | 0.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 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)