

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: LUMARK

Report Number: P962594

Luminaire Tested: **NAV-SB2C-827-U-T4FT**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P962594  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2C-827-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13193.8 lumens  
Efficiency: N/A  
Efficacy: 130.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3

Input Watts (W): 100.9  
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

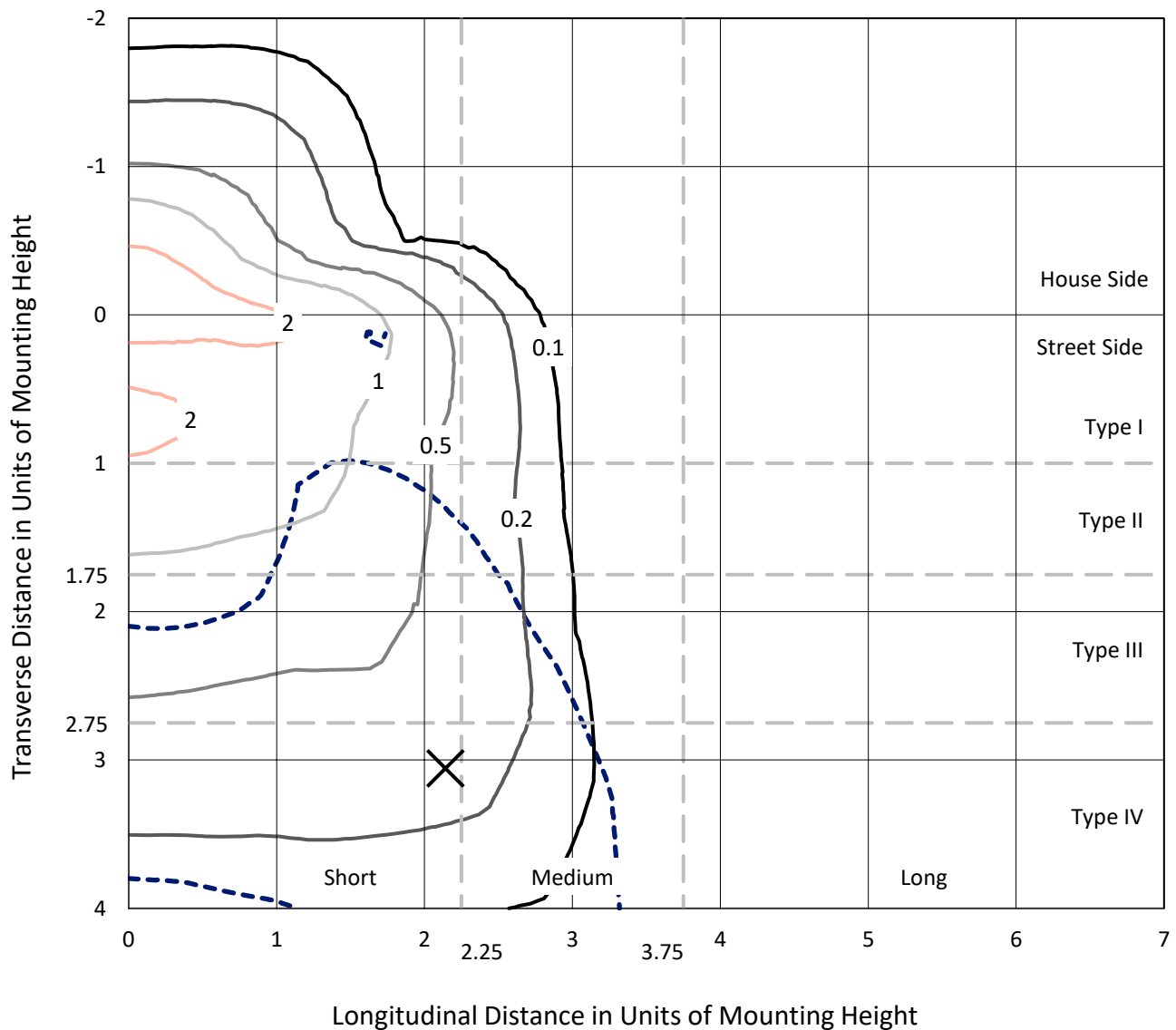


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## Iso-Footcandle Lines of Horizontal Illumination

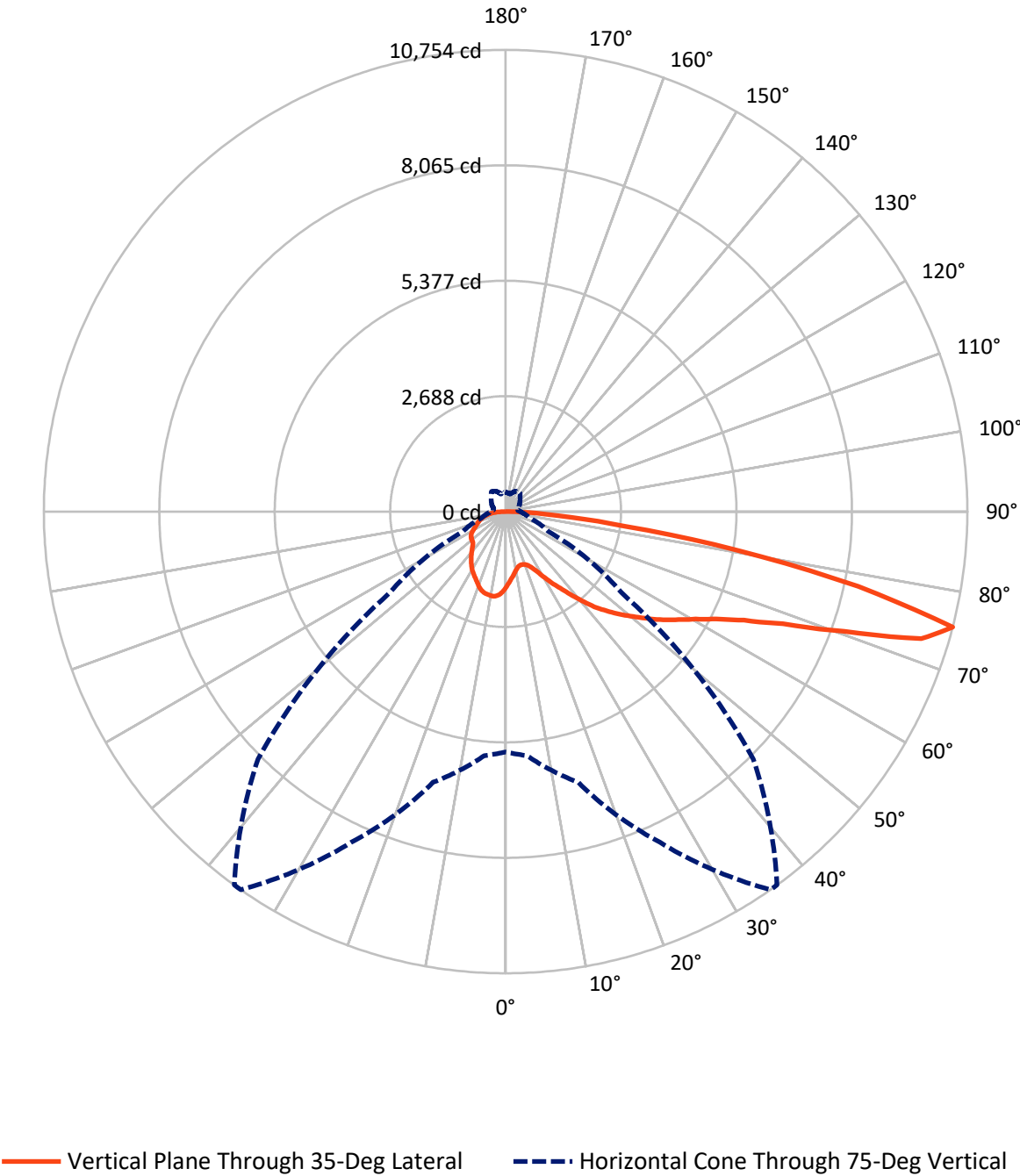
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 fc  
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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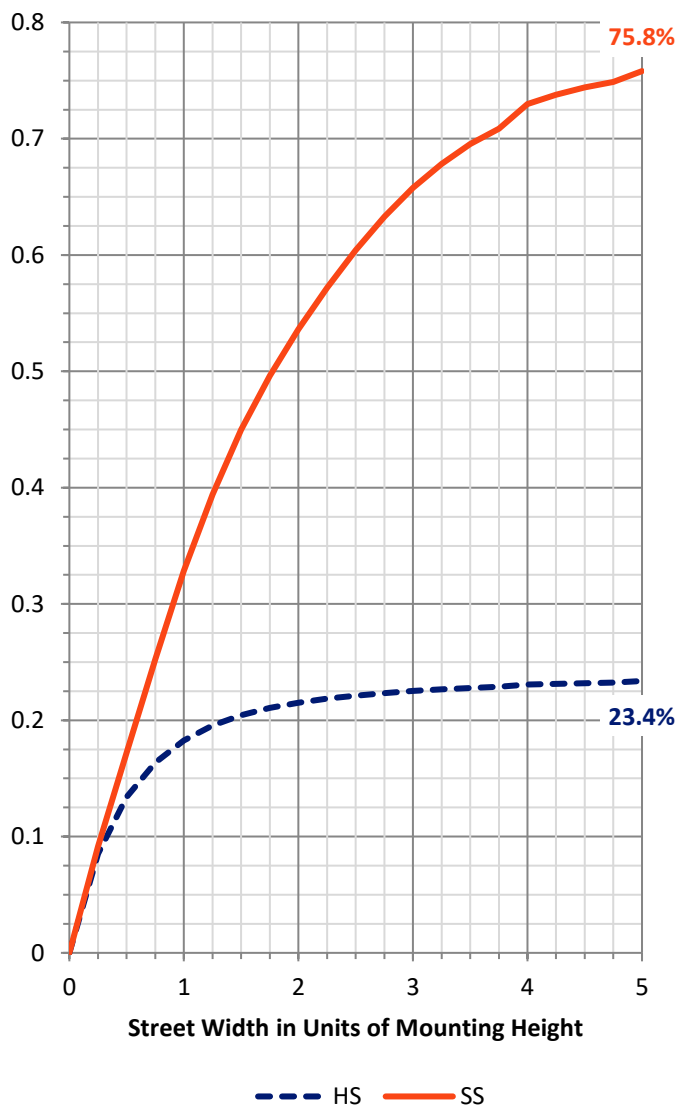
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3139.8   | 0.0    | 3139.8  |
|                    | % Fixture | 23.8     | 0.0    | 23.8    |
| <b>Street Side</b> | Lumens    | 10054.0  | 0.0    | 10054.0 |
|                    | % Fixture | 76.2     | 0.0    | 76.2    |
| <b>Total</b>       | Lumens    | 13193.8  | 0.0    | 13193.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 166.5   | 1.3       |
| 10°-20°   | 480.2   | 3.6       |
| 20°-30°   | 806.3   | 6.1       |
| 30°-40°   | 1253.1  | 9.5       |
| 40°-50°   | 1859.9  | 14.1      |
| 50°-60°   | 2567.7  | 19.5      |
| 60°-70°   | 3115.3  | 23.6      |
| 70°-80°   | 2574.5  | 19.5      |
| 80°-90°   | 370.3   | 2.8       |
| 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°    | 13193.8 | 100.0     |
| 0°-180°   | 13193.8 | 100.0     |

**Coefficient of Utilization**



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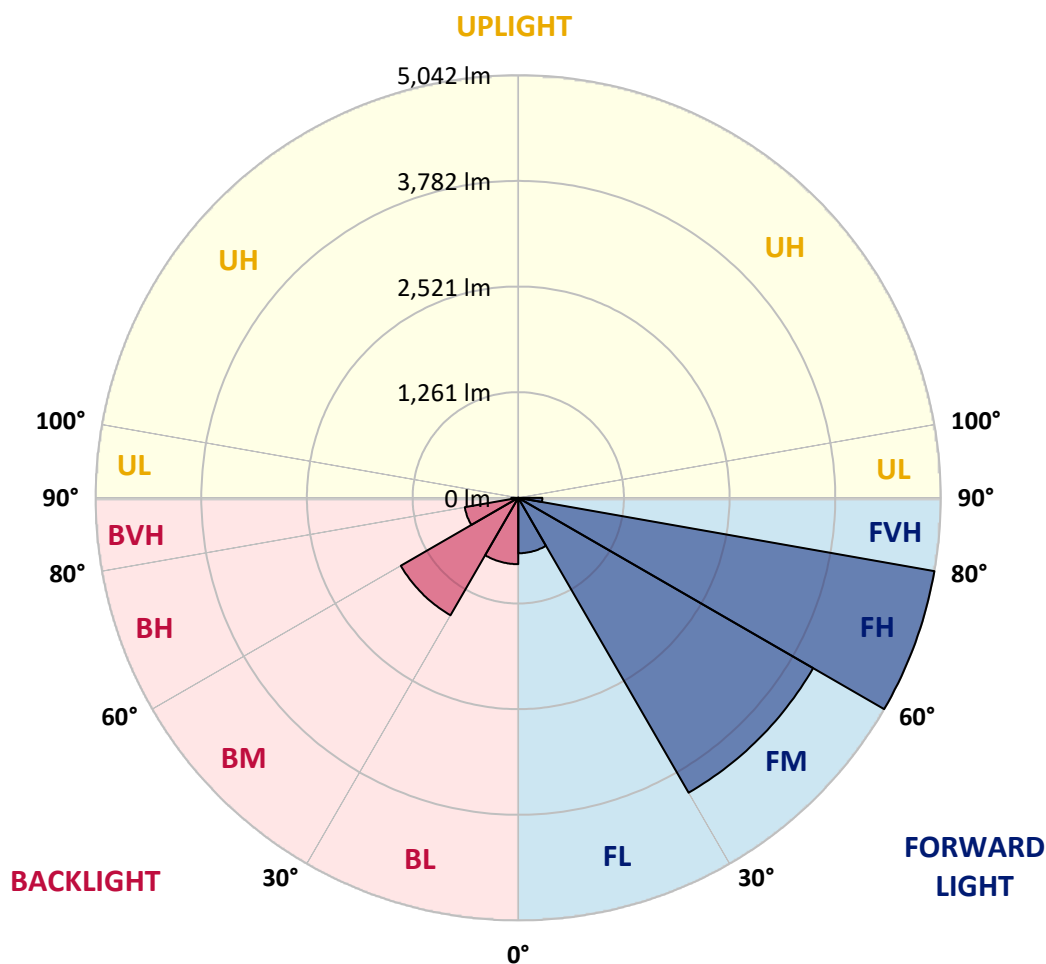
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 661.6  | 5.0       |                         |      |         |
| FM   | (30°-60°)   | 4063.0 | 30.8      |                         |      |         |
| FH   | (60°-80°)   | 5042.5 | 38.2      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 286.9  | 2.2       |                         |      | G3/500  |
| BL   | (0°-30°)    | 791.3  | 6.0       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1617.8 | 12.3      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 647.3  | 4.9       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 83.4   | 0.6       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G3**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°     | 36°     | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|--------|
| 0°    | 1758.2 | 1758.2 | 1758.2 | 1758.2 | 1758.2  | 1758.2  | 1758.2 | 1758.2 | 1758.2 | 1758.2 | 1758.2 |
| 2.5°  | 1621.2 | 1631.2 | 1635.5 | 1633.3 | 1644.0  | 1642.7  | 1657.6 | 1676.2 | 1701.8 | 1726.8 | 1763.2 |
| 5°    | 1496.4 | 1507.1 | 1516.4 | 1524.9 | 1545.6  | 1552.1  | 1575.5 | 1611.2 | 1658.3 | 1706.1 | 1766.0 |
| 7.5°  | 1380.2 | 1389.4 | 1403.6 | 1419.4 | 1454.3  | 1460.7  | 1500.0 | 1555.6 | 1621.2 | 1691.1 | 1773.9 |
| 10°   | 1285.2 | 1294.6 | 1309.5 | 1327.4 | 1370.8  | 1378.7  | 1428.6 | 1502.9 | 1588.4 | 1676.9 | 1782.4 |
| 12.5° | 1244.7 | 1247.4 | 1256.0 | 1273.9 | 1311.7  | 1316.6  | 1371.6 | 1456.4 | 1556.4 | 1666.1 | 1795.3 |
| 15°   | 1242.5 | 1248.1 | 1248.9 | 1258.2 | 1289.6  | 1291.7  | 1342.3 | 1426.5 | 1536.4 | 1664.0 | 1814.6 |
| 17.5° | 1263.9 | 1268.1 | 1261.8 | 1267.4 | 1293.9  | 1297.4  | 1337.3 | 1412.2 | 1529.9 | 1673.3 | 1847.4 |
| 20°   | 1320.9 | 1324.5 | 1305.2 | 1297.4 | 1316.6  | 1319.5  | 1358.7 | 1421.5 | 1536.4 | 1692.6 | 1892.3 |
| 22.5° | 1442.2 | 1444.3 | 1397.3 | 1365.2 | 1366.6  | 1368.0  | 1402.2 | 1459.3 | 1561.3 | 1727.5 | 1949.3 |
| 25°   | 1631.2 | 1629.7 | 1554.9 | 1492.8 | 1457.1  | 1449.4  | 1472.1 | 1520.7 | 1603.4 | 1773.9 | 2022.7 |
| 27.5° | 1852.3 | 1841.6 | 1766.7 | 1674.0 | 1596.2  | 1584.9  | 1579.8 | 1600.5 | 1663.3 | 1835.2 | 2112.6 |
| 30°   | 2102.0 | 2091.9 | 2011.4 | 1890.1 | 1782.4  | 1763.8  | 1716.8 | 1706.1 | 1752.4 | 1918.6 | 2237.5 |
| 32.5° | 2375.8 | 2369.4 | 2273.1 | 2126.2 | 1982.1  | 1960.7  | 1881.6 | 1853.0 | 1889.4 | 2044.9 | 2411.5 |
| 35°   | 2605.5 | 2599.8 | 2520.0 | 2368.7 | 2192.6  | 2166.1  | 2085.6 | 2053.5 | 2072.0 | 2206.8 | 2639.1 |
| 37.5° | 2813.0 | 2810.2 | 2741.8 | 2622.7 | 2440.7  | 2408.6  | 2318.0 | 2307.4 | 2303.8 | 2420.0 | 2915.1 |
| 40°   | 3005.6 | 2998.5 | 2927.2 | 2864.5 | 2729.6  | 2700.4  | 2620.5 | 2611.2 | 2584.1 | 2682.5 | 3227.4 |
| 42.5° | 3218.9 | 3200.4 | 3096.9 | 3067.7 | 3031.3  | 3007.0  | 2959.3 | 2960.7 | 2900.7 | 2978.5 | 3558.4 |
| 45°   | 3393.0 | 3382.2 | 3276.0 | 3258.9 | 3298.0  | 3288.1  | 3329.4 | 3340.2 | 3223.9 | 3288.8 | 3902.2 |
| 47.5° | 3579.8 | 3569.9 | 3480.0 | 3467.8 | 3574.1  | 3576.9  | 3723.2 | 3726.7 | 3539.1 | 3611.2 | 4246.7 |
| 50°   | 3810.2 | 3795.9 | 3706.8 | 3721.8 | 3840.9  | 3851.5  | 4119.1 | 4094.8 | 3829.4 | 3938.6 | 4588.3 |
| 52.5° | 3962.1 | 3970.6 | 3951.4 | 3975.7 | 4138.2  | 4148.3  | 4508.5 | 4446.4 | 4116.9 | 4261.6 | 4923.6 |
| 55°   | 4074.1 | 4091.2 | 4151.1 | 4206.7 | 4452.1  | 4462.1  | 4875.8 | 4780.9 | 4355.1 | 4561.2 | 5238.9 |
| 57.5° | 4218.2 | 4193.9 | 4305.9 | 4414.3 | 4750.3  | 4776.6  | 5233.1 | 5103.3 | 4566.3 | 4819.4 | 5454.9 |
| 60°   | 4425.0 | 4407.9 | 4494.9 | 4655.3 | 5084.1  | 5126.1  | 5611.2 | 5393.7 | 4721.0 | 5024.1 | 5497.0 |
| 62.5° | 4844.4 | 4801.6 | 4815.1 | 4957.1 | 5504.9  | 5560.5  | 6037.7 | 5646.8 | 4798.0 | 5104.0 | 5271.7 |
| 65°   | 5471.3 | 5397.9 | 5329.4 | 5427.9 | 6097.6  | 6152.5  | 6519.1 | 5845.8 | 4769.5 | 4949.2 | 4673.2 |
| 67.5° | 6260.9 | 6188.1 | 6104.0 | 6196.7 | 6970.6  | 7014.1  | 7113.3 | 5957.8 | 4544.8 | 4353.0 | 3615.5 |
| 70°   | 6912.1 | 6885.0 | 6985.6 | 7367.2 | 8365.0  | 8366.5  | 7875.0 | 5865.0 | 3929.3 | 3086.3 | 2091.9 |
| 72.5° | 6825.8 | 6809.4 | 7339.3 | 8519.1 | 10122.5 | 10084.7 | 8596.1 | 5163.2 | 2646.9 | 1392.3 | 783.8  |
| 75°   | 5599.8 | 5706.0 | 6527.0 | 8498.4 | 10753.7 | 10748.7 | 8154.6 | 3282.4 | 1094.8 | 577.0  | 405.1  |
| 77.5° | 3002.7 | 3171.1 | 4237.5 | 6274.4 | 8395.0  | 8521.2  | 5733.1 | 1148.3 | 470.1  | 369.5  | 280.3  |
| 80°   | 979.3  | 1126.3 | 1689.0 | 3194.6 | 5454.9  | 5431.4  | 2457.1 | 450.8  | 321.6  | 261.8  | 194.0  |
| 82.5° | 415.8  | 433.0  | 754.6  | 1508.5 | 2799.5  | 2756.0  | 782.5  | 258.9  | 226.1  | 179.1  | 119.8  |
| 85°   | 162.7  | 181.8  | 333.1  | 697.5  | 1212.6  | 1186.1  | 282.5  | 128.4  | 144.8  | 117.0  | 71.3   |
| 87.5° | 53.5   | 64.9   | 119.1  | 238.9  | 377.3   | 363.8   | 69.2   | 44.2   | 62.7   | 53.5   | 25.7   |
| 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°    | 1758.2 | 1758.2 | 1758.2 | 1758.2 | 1758.2 | 1758.2 | 1758.2 | 1758.2 | 1758.2 | 1758.2 | 1758.2 |
| 2.5°  | 1773.1 | 1784.5 | 1798.1 | 1818.0 | 1835.2 | 1849.5 | 1864.5 | 1873.7 | 1877.3 | 1887.9 | 1887.2 |
| 5°    | 1786.0 | 1811.0 | 1844.5 | 1877.3 | 1909.4 | 1928.6 | 1945.8 | 1954.3 | 1962.2 | 1967.9 | 1969.3 |
| 7.5°  | 1807.4 | 1839.5 | 1892.3 | 1935.1 | 1962.2 | 1977.8 | 1989.2 | 1986.4 | 1989.2 | 1990.7 | 1992.8 |
| 10°   | 1825.9 | 1870.8 | 1933.7 | 1974.3 | 1995.0 | 1995.7 | 1992.8 | 1982.9 | 1977.8 | 1978.6 | 1980.0 |
| 12.5° | 1848.1 | 1898.0 | 1965.7 | 2000.0 | 2005.6 | 1989.9 | 1977.8 | 1960.7 | 1954.3 | 1951.5 | 1950.1 |
| 15°   | 1878.0 | 1935.1 | 2000.7 | 2013.5 | 1999.3 | 1979.3 | 1958.6 | 1930.8 | 1916.5 | 1905.1 | 1908.7 |
| 17.5° | 1914.4 | 1977.1 | 2027.8 | 2018.5 | 1987.8 | 1955.0 | 1921.5 | 1879.4 | 1850.1 | 1838.0 | 1838.7 |
| 20°   | 1965.0 | 2021.4 | 2048.5 | 2007.8 | 1961.4 | 1911.5 | 1854.4 | 1803.1 | 1776.0 | 1763.8 | 1762.5 |
| 22.5° | 2026.3 | 2080.5 | 2068.4 | 1989.2 | 1923.6 | 1843.8 | 1772.4 | 1734.6 | 1721.1 | 1712.5 | 1713.9 |
| 25°   | 2099.8 | 2146.1 | 2082.7 | 1962.2 | 1861.6 | 1753.9 | 1698.9 | 1686.8 | 1680.4 | 1674.0 | 1674.0 |
| 27.5° | 2195.3 | 2220.4 | 2093.4 | 1922.2 | 1764.5 | 1658.3 | 1638.4 | 1640.5 | 1638.4 | 1627.6 | 1629.7 |
| 30°   | 2321.6 | 2316.6 | 2103.4 | 1857.3 | 1653.3 | 1572.0 | 1573.5 | 1582.7 | 1584.1 | 1577.0 | 1580.6 |
| 32.5° | 2487.8 | 2437.1 | 2108.3 | 1773.1 | 1547.0 | 1496.4 | 1497.8 | 1507.8 | 1514.9 | 1502.9 | 1508.5 |
| 35°   | 2689.0 | 2577.7 | 2100.5 | 1667.6 | 1465.0 | 1424.3 | 1413.7 | 1416.6 | 1418.7 | 1407.2 | 1415.1 |
| 37.5° | 2923.6 | 2735.3 | 2065.6 | 1550.6 | 1397.3 | 1353.7 | 1331.0 | 1311.7 | 1300.2 | 1289.6 | 1296.7 |
| 40°   | 3181.1 | 2907.2 | 2001.4 | 1436.5 | 1321.6 | 1278.9 | 1244.7 | 1208.3 | 1169.7 | 1155.5 | 1161.8 |
| 42.5° | 3450.7 | 3084.1 | 1923.6 | 1327.4 | 1234.6 | 1199.7 | 1163.3 | 1110.5 | 1052.8 | 1023.6 | 1027.0 |
| 45°   | 3730.3 | 3265.2 | 1847.4 | 1219.6 | 1145.4 | 1130.5 | 1088.4 | 1024.9 | 962.2  | 925.1  | 922.2  |
| 47.5° | 4004.2 | 3436.4 | 1735.3 | 1111.2 | 1062.0 | 1078.4 | 1045.6 | 987.2  | 917.3  | 858.7  | 852.3  |
| 50°   | 4265.9 | 3596.9 | 1552.1 | 1001.4 | 994.2  | 1062.7 | 1031.4 | 947.2  | 867.4  | 792.4  | 786.0  |
| 52.5° | 4525.6 | 3726.7 | 1317.3 | 901.6  | 957.9  | 1058.4 | 1012.8 | 920.1  | 822.4  | 743.9  | 735.3  |
| 55°   | 4746.0 | 3793.7 | 1091.3 | 816.0  | 905.1  | 1022.1 | 990.7  | 888.0  | 758.9  | 675.5  | 668.3  |
| 57.5° | 4871.5 | 3739.6 | 903.0  | 731.7  | 832.4  | 962.2  | 952.9  | 819.5  | 683.3  | 619.1  | 610.6  |
| 60°   | 4817.3 | 3519.8 | 748.9  | 658.4  | 763.2  | 897.3  | 887.2  | 751.7  | 625.6  | 564.9  | 556.4  |
| 62.5° | 4518.4 | 3101.2 | 627.0  | 594.1  | 700.4  | 831.0  | 821.6  | 699.7  | 581.3  | 522.9  | 513.5  |
| 65°   | 3916.4 | 2522.7 | 532.1  | 540.7  | 636.9  | 751.0  | 764.6  | 656.2  | 546.3  | 489.3  | 480.0  |
| 67.5° | 2987.1 | 1827.4 | 457.9  | 494.3  | 574.9  | 672.6  | 711.9  | 624.8  | 517.1  | 462.9  | 454.4  |
| 70°   | 1702.5 | 1037.8 | 395.1  | 449.4  | 520.0  | 599.8  | 671.2  | 599.8  | 485.7  | 440.7  | 435.1  |
| 72.5° | 645.4  | 476.4  | 341.6  | 404.4  | 467.2  | 538.5  | 626.3  | 560.6  | 449.4  | 415.8  | 410.1  |
| 75°   | 344.5  | 290.3  | 287.4  | 351.7  | 406.5  | 478.6  | 569.9  | 522.1  | 422.2  | 439.3  | 453.7  |
| 77.5° | 234.6  | 205.4  | 240.4  | 301.0  | 340.2  | 412.3  | 509.9  | 463.6  | 365.9  | 364.5  | 335.9  |
| 80°   | 162.7  | 145.5  | 195.5  | 242.5  | 263.2  | 346.7  | 445.1  | 398.0  | 298.2  | 278.2  | 266.1  |
| 82.5° | 97.7   | 94.8   | 146.3  | 181.1  | 186.1  | 267.4  | 368.8  | 333.8  | 244.0  | 212.6  | 214.0  |
| 85°   | 53.5   | 56.4   | 93.5   | 106.3  | 108.4  | 186.9  | 288.8  | 258.2  | 187.6  | 157.6  | 159.1  |
| 87.5° | 15.0   | 19.3   | 34.2   | 42.1   | 52.1   | 97.0   | 171.9  | 153.3  | 94.2   | 65.6   | 65.6   |
| 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)