

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: P961333

Luminaire Tested: **NAV-SB2A-727-U-SL2**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P961333  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2A-727-U-SL2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

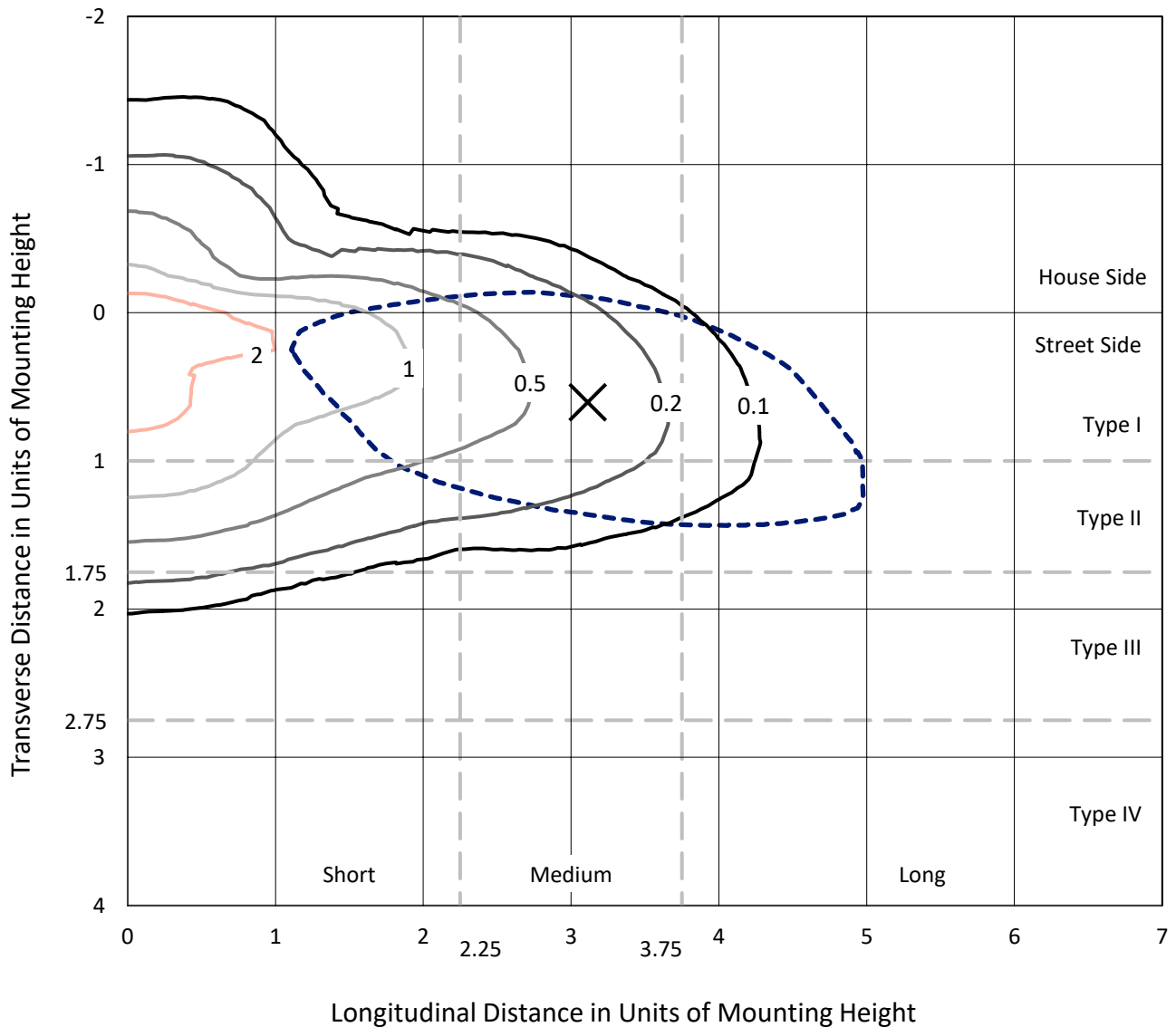
Lumens per Lamp: N/A  
Luminaire Lumens: 8476.8 lumens  
Efficiency: N/A  
Efficacy: 147.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 57.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
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

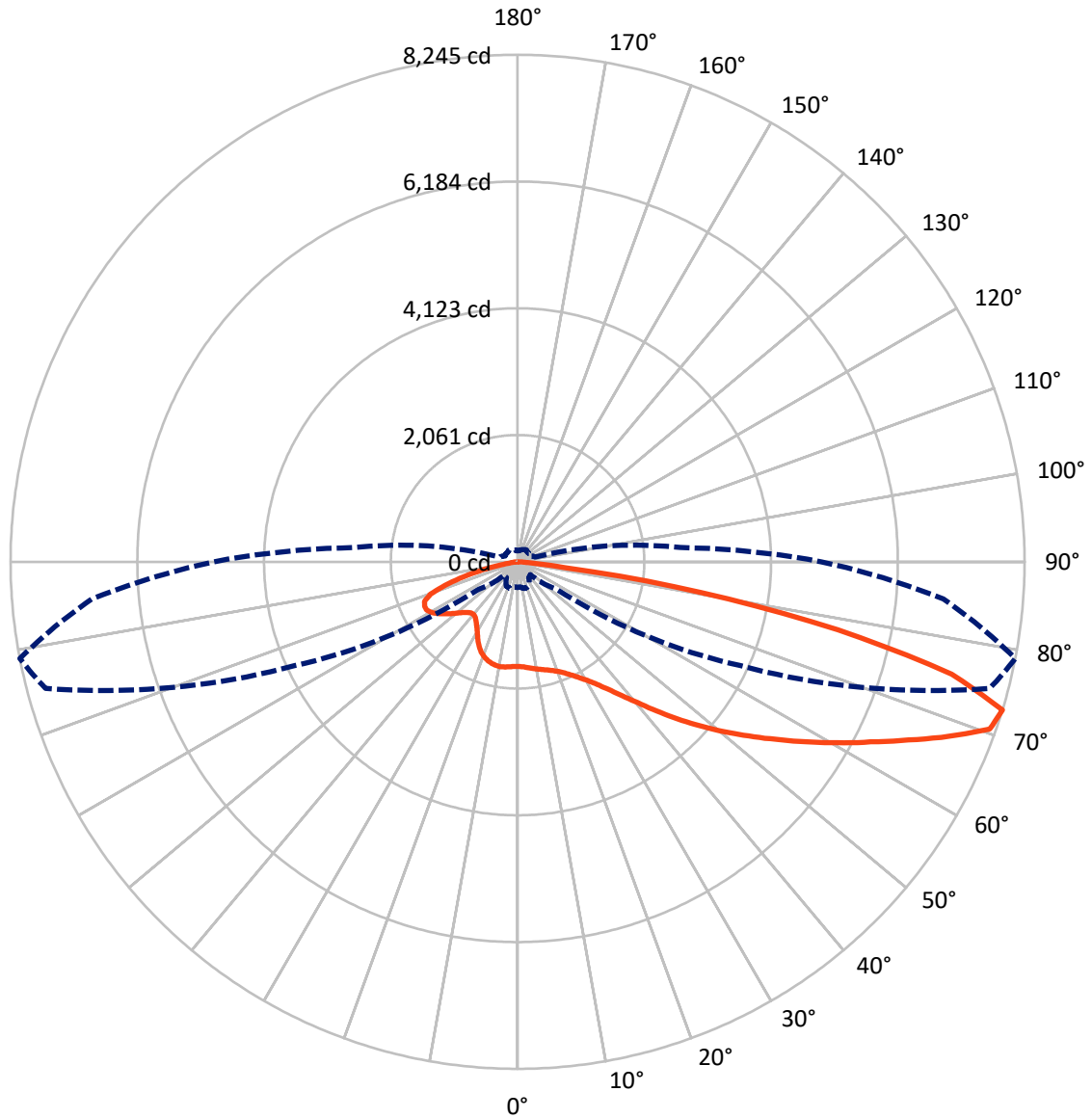
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral      - - - Horizontal Cone Through 72.5-Deg Vertical

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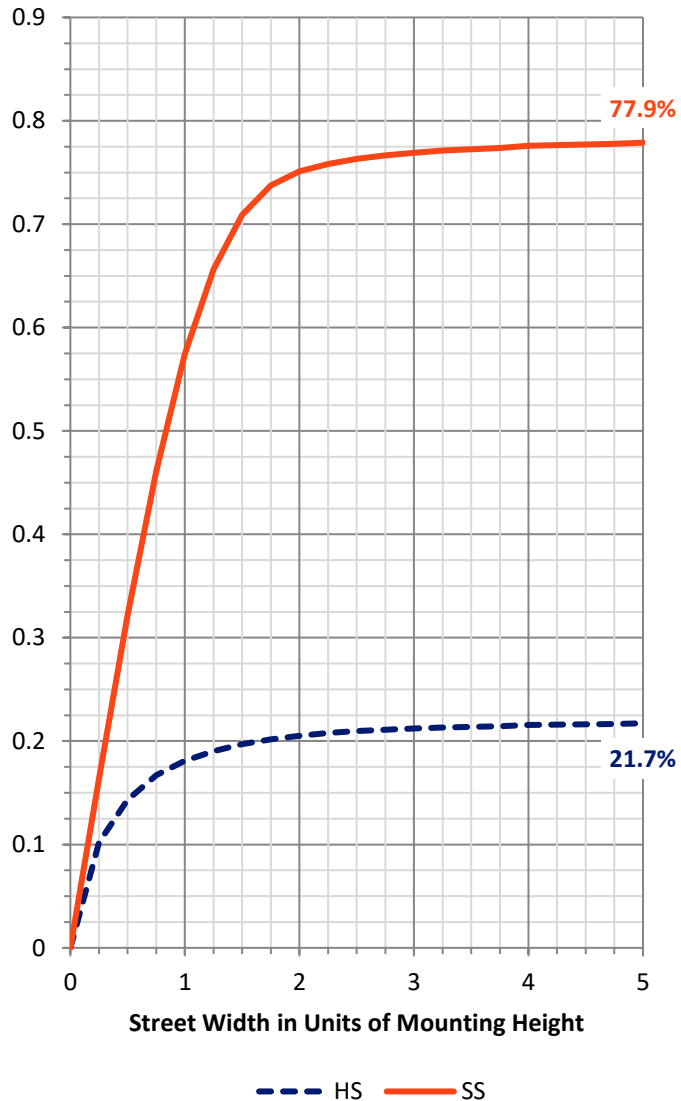
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1865.4   | 0.0    | 1865.4 |
|                    | % Fixture | 22.0     | 0.0    | 22.0   |
| <b>Street Side</b> | Lumens    | 6611.4   | 0.0    | 6611.4 |
|                    | % Fixture | 78.0     | 0.0    | 78.0   |
| <b>Total</b>       | Lumens    | 8476.8   | 0.0    | 8476.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 154.5  | 1.8       |
| 10°-20°   | 403.8  | 4.8       |
| 20°-30°   | 651.6  | 7.7       |
| 30°-40°   | 978.0  | 11.5      |
| 40°-50°   | 1387.3 | 16.4      |
| 50°-60°   | 1752.0 | 20.7      |
| 60°-70°   | 1779.4 | 21.0      |
| 70°-80°   | 1212.7 | 14.3      |
| 80°-90°   | 157.3  | 1.9       |
| 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°    | 8476.8 | 100.0     |
| 0°-180°   | 8476.8 | 100.0     |

**Coefficient of Utilization**

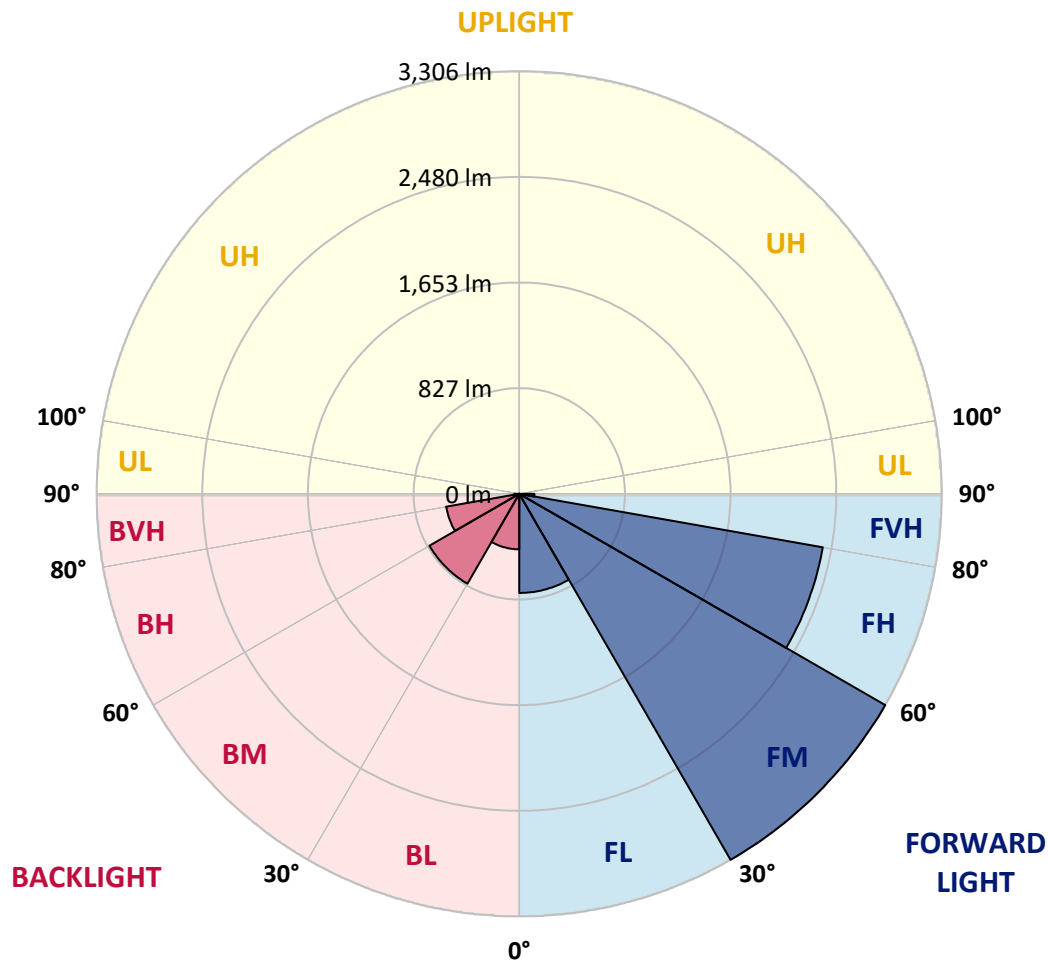


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 775.4  | 9.1       |                         |      |         |
| FM (30°-60°)   | 3306.1 | 39.0      |                         |      |         |
| FH (60°-80°)   | 2411.4 | 28.4      |                         |      | G2/5000 |
| FVH (80°-90°)  | 118.5  | 1.4       |                         |      | G2/225  |
| BL (0°-30°)    | 434.5  | 5.1       | B1/500                  |      |         |
| BM (30°-60°)   | 811.2  | 9.6       | B1/1000                 |      |         |
| BH (60°-80°)   | 580.8  | 6.9       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 38.8   | 0.5       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**  
 Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 79°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1701.6 | 1701.6 | 1701.6 | 1701.6 | 1701.6 | 1701.6 | 1701.6 | 1701.6 | 1701.6 | 1701.6 | 1701.6 |
| 2.5°  | 1702.5 | 1694.4 | 1699.3 | 1697.6 | 1699.9 | 1702.5 | 1703.4 | 1704.8 | 1709.3 | 1708.8 | 1708.4 |
| 5°    | 1698.9 | 1690.8 | 1697.6 | 1695.4 | 1701.2 | 1707.4 | 1712.9 | 1717.8 | 1725.0 | 1728.0 | 1723.6 |
| 7.5°  | 1691.4 | 1685.9 | 1692.7 | 1699.3 | 1710.1 | 1719.5 | 1727.2 | 1738.4 | 1748.8 | 1750.5 | 1753.7 |
| 10°   | 1647.0 | 1642.9 | 1658.6 | 1676.1 | 1705.7 | 1731.2 | 1747.8 | 1760.8 | 1772.0 | 1773.9 | 1778.3 |
| 12.5° | 1600.7 | 1595.8 | 1613.2 | 1637.0 | 1685.0 | 1731.2 | 1766.2 | 1783.2 | 1793.1 | 1799.0 | 1805.6 |
| 15°   | 1593.2 | 1589.1 | 1598.9 | 1619.6 | 1659.5 | 1719.1 | 1778.8 | 1810.2 | 1818.7 | 1825.4 | 1828.1 |
| 17.5° | 1629.9 | 1622.3 | 1626.3 | 1633.4 | 1656.8 | 1707.9 | 1788.6 | 1840.6 | 1853.6 | 1860.8 | 1860.8 |
| 20°   | 1715.0 | 1704.3 | 1698.0 | 1683.7 | 1679.7 | 1709.7 | 1787.7 | 1877.4 | 1894.4 | 1903.4 | 1905.7 |
| 22.5° | 1828.5 | 1821.3 | 1807.9 | 1771.6 | 1732.1 | 1731.6 | 1804.7 | 1924.4 | 1956.3 | 1964.8 | 1959.5 |
| 25°   | 1965.7 | 1955.0 | 1938.0 | 1888.6 | 1812.8 | 1775.2 | 1833.4 | 1984.6 | 2037.9 | 2040.2 | 2024.5 |
| 27.5° | 2123.6 | 2107.4 | 2084.1 | 2019.0 | 1916.9 | 1843.4 | 1877.4 | 2053.6 | 2131.6 | 2130.8 | 2098.5 |
| 30°   | 2290.0 | 2273.8 | 2249.2 | 2170.2 | 2041.5 | 1935.2 | 1938.4 | 2128.0 | 2242.8 | 2237.9 | 2182.7 |
| 32.5° | 2411.4 | 2399.3 | 2394.4 | 2333.4 | 2185.0 | 2043.7 | 2008.3 | 2210.5 | 2380.0 | 2375.5 | 2298.5 |
| 35°   | 2504.7 | 2489.0 | 2494.8 | 2463.9 | 2341.5 | 2165.2 | 2094.0 | 2308.7 | 2546.8 | 2546.4 | 2450.5 |
| 37.5° | 2597.0 | 2583.2 | 2588.1 | 2567.4 | 2486.3 | 2319.5 | 2198.4 | 2428.9 | 2753.6 | 2763.4 | 2634.2 |
| 40°   | 2681.4 | 2666.5 | 2686.3 | 2667.0 | 2598.9 | 2483.6 | 2317.2 | 2564.8 | 2993.0 | 3011.9 | 2856.7 |
| 42.5° | 2732.0 | 2720.4 | 2753.0 | 2753.6 | 2696.6 | 2622.2 | 2447.7 | 2714.5 | 3270.1 | 3312.2 | 3130.1 |
| 45°   | 2749.5 | 2745.5 | 2794.8 | 2805.1 | 2783.2 | 2702.4 | 2565.3 | 2877.8 | 3568.7 | 3644.1 | 3441.8 |
| 47.5° | 2730.7 | 2723.0 | 2791.2 | 2829.3 | 2846.8 | 2740.1 | 2662.5 | 3054.4 | 3873.6 | 3983.9 | 3781.7 |
| 50°   | 2635.6 | 2620.8 | 2722.2 | 2802.5 | 2864.8 | 2764.7 | 2760.7 | 3258.5 | 4220.2 | 4340.9 | 4123.4 |
| 52.5° | 2464.8 | 2453.5 | 2568.9 | 2708.3 | 2825.3 | 2776.8 | 2871.0 | 3481.3 | 4549.4 | 4705.4 | 4473.5 |
| 55°   | 2246.4 | 2231.6 | 2358.5 | 2540.6 | 2727.1 | 2772.8 | 2981.3 | 3730.6 | 4937.6 | 5095.9 | 4835.4 |
| 57.5° | 1900.2 | 1870.6 | 2031.1 | 2246.4 | 2567.0 | 2767.9 | 3096.1 | 3978.5 | 5332.3 | 5521.9 | 5221.5 |
| 60°   | 1395.3 | 1351.5 | 1548.3 | 1803.4 | 2254.1 | 2719.9 | 3238.3 | 4256.5 | 5805.7 | 5976.6 | 5642.9 |
| 62.5° | 812.5  | 786.9  | 915.6  | 1153.7 | 1698.9 | 2437.4 | 3318.0 | 4579.8 | 6271.2 | 6450.5 | 6057.2 |
| 65°   | 630.9  | 623.7  | 634.9  | 653.3  | 945.7  | 1824.9 | 3071.9 | 4895.0 | 6863.0 | 6988.6 | 6489.1 |
| 67.5° | 577.1  | 571.6  | 576.7  | 542.1  | 479.8  | 1016.5 | 2430.3 | 4974.8 | 7497.1 | 7573.2 | 6867.1 |
| 70°   | 512.9  | 506.7  | 522.9  | 493.2  | 377.5  | 462.3  | 1570.3 | 4685.2 | 8001.5 | 8144.4 | 7154.5 |
| 72.5° | 417.9  | 410.7  | 448.4  | 434.9  | 318.0  | 296.8  | 788.7  | 3996.9 | 7948.6 | 8245.4 | 6948.7 |
| 75°   | 321.0  | 317.0  | 361.8  | 373.1  | 259.1  | 233.6  | 378.4  | 2971.0 | 6994.8 | 7293.9 | 5988.7 |
| 77.5° | 249.3  | 246.2  | 269.1  | 309.9  | 209.0  | 181.1  | 232.7  | 1884.6 | 5271.3 | 5323.6 | 4127.0 |
| 80°   | 187.0  | 178.0  | 199.1  | 239.8  | 162.8  | 132.2  | 157.8  | 1099.0 | 3332.0 | 3020.4 | 1796.2 |
| 82.5° | 117.1  | 112.5  | 130.1  | 160.1  | 114.8  | 91.0   | 102.7  | 607.1  | 1335.3 | 786.5  | 346.6  |
| 85°   | 66.8   | 65.0   | 70.8   | 91.4   | 62.3   | 52.5   | 58.7   | 268.1  | 244.0  | 167.7  | 104.4  |
| 87.5° | 26.9   | 26.0   | 32.3   | 40.8   | 22.9   | 19.3   | 20.6   | 64.6   | 53.8   | 49.8   | 34.5   |
| 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°    | 1701.6 | 1701.6 | 1701.6 | 1701.6 | 1701.6 | 1701.6 | 1701.6 | 1701.6 | 1701.6 | 1701.6 | 1701.6 |
| 2.5°  | 1706.5 | 1706.5 | 1700.3 | 1690.4 | 1679.3 | 1672.1 | 1660.4 | 1657.2 | 1645.1 | 1641.5 | 1647.4 |
| 5°    | 1727.2 | 1723.6 | 1704.3 | 1676.5 | 1638.4 | 1603.4 | 1564.9 | 1540.7 | 1506.5 | 1494.4 | 1503.5 |
| 7.5°  | 1753.2 | 1743.3 | 1710.1 | 1649.1 | 1569.4 | 1490.9 | 1409.3 | 1347.4 | 1288.2 | 1267.1 | 1269.9 |
| 10°   | 1776.9 | 1763.1 | 1706.5 | 1599.8 | 1461.8 | 1325.8 | 1195.9 | 1104.8 | 1035.8 | 1007.6 | 1013.8 |
| 12.5° | 1800.7 | 1775.2 | 1682.8 | 1517.8 | 1308.8 | 1124.5 | 986.0  | 915.1  | 872.6  | 838.4  | 849.7  |
| 15°   | 1823.2 | 1787.3 | 1646.0 | 1407.9 | 1141.1 | 954.2  | 852.0  | 795.4  | 761.4  | 738.9  | 743.0  |
| 17.5° | 1849.1 | 1797.5 | 1590.9 | 1268.4 | 981.5  | 836.2  | 752.9  | 718.7  | 712.1  | 709.3  | 711.1  |
| 20°   | 1885.5 | 1807.0 | 1518.2 | 1112.4 | 864.1  | 742.1  | 699.0  | 695.9  | 695.5  | 694.1  | 698.5  |
| 22.5° | 1924.4 | 1818.2 | 1422.3 | 970.8  | 764.0  | 683.4  | 675.7  | 669.4  | 665.4  | 664.9  | 669.9  |
| 25°   | 1970.7 | 1821.8 | 1302.2 | 854.6  | 678.9  | 655.6  | 646.6  | 637.1  | 634.5  | 634.5  | 637.1  |
| 27.5° | 2015.5 | 1809.6 | 1162.2 | 753.8  | 630.9  | 630.0  | 618.3  | 615.2  | 614.7  | 616.1  | 619.7  |
| 30°   | 2060.4 | 1786.8 | 1023.3 | 660.5  | 603.1  | 603.1  | 599.0  | 601.3  | 603.1  | 607.5  | 610.7  |
| 32.5° | 2120.8 | 1762.6 | 907.1  | 591.4  | 578.8  | 574.4  | 578.4  | 582.9  | 584.7  | 590.5  | 595.4  |
| 35°   | 2209.7 | 1745.6 | 814.7  | 553.8  | 553.8  | 548.0  | 550.2  | 549.3  | 545.2  | 542.5  | 548.8  |
| 37.5° | 2327.2 | 1744.7 | 738.5  | 536.3  | 532.7  | 531.8  | 532.3  | 526.4  | 510.8  | 491.9  | 492.3  |
| 40°   | 2468.4 | 1768.8 | 679.8  | 524.2  | 521.5  | 526.8  | 524.2  | 508.5  | 465.5  | 432.7  | 431.8  |
| 42.5° | 2658.0 | 1837.9 | 642.1  | 509.3  | 517.4  | 524.2  | 513.4  | 459.1  | 430.0  | 408.1  | 407.1  |
| 45°   | 2881.4 | 1950.1 | 622.8  | 493.6  | 509.8  | 517.9  | 465.9  | 442.1  | 418.8  | 392.4  | 390.5  |
| 47.5° | 3134.2 | 2091.3 | 618.3  | 478.9  | 492.8  | 497.7  | 445.7  | 434.9  | 408.5  | 379.8  | 377.5  |
| 50°   | 3409.6 | 2258.5 | 630.5  | 461.4  | 468.1  | 451.1  | 439.0  | 429.1  | 401.8  | 373.5  | 370.3  |
| 52.5° | 3694.3 | 2442.8 | 654.7  | 437.7  | 443.4  | 424.7  | 436.2  | 427.7  | 397.7  | 359.6  | 356.9  |
| 55°   | 3974.0 | 2628.4 | 677.9  | 409.8  | 418.3  | 400.9  | 428.7  | 422.4  | 379.4  | 336.3  | 334.0  |
| 57.5° | 4258.4 | 2813.2 | 700.8  | 385.2  | 394.1  | 378.0  | 416.6  | 408.1  | 358.7  | 314.8  | 313.9  |
| 60°   | 4553.8 | 2992.5 | 711.6  | 361.4  | 367.7  | 356.9  | 398.2  | 383.3  | 335.4  | 292.8  | 291.4  |
| 62.5° | 4830.5 | 3141.8 | 694.1  | 337.6  | 341.6  | 337.2  | 373.9  | 354.2  | 312.1  | 268.1  | 267.7  |
| 65°   | 5108.0 | 3230.6 | 640.3  | 314.4  | 315.2  | 312.9  | 339.9  | 322.9  | 284.7  | 246.6  | 244.0  |
| 67.5° | 5359.5 | 3280.4 | 554.6  | 289.3  | 287.0  | 286.1  | 308.0  | 288.7  | 258.3  | 225.1  | 222.4  |
| 70°   | 5412.9 | 3153.9 | 423.7  | 259.6  | 259.6  | 257.4  | 273.1  | 253.4  | 229.1  | 202.2  | 201.3  |
| 72.5° | 4943.9 | 2653.1 | 300.8  | 226.0  | 229.6  | 225.1  | 238.1  | 221.5  | 199.6  | 181.6  | 176.2  |
| 75°   | 3986.6 | 1945.6 | 218.8  | 191.5  | 197.7  | 190.1  | 202.2  | 190.5  | 171.7  | 171.3  | 154.3  |
| 77.5° | 2739.2 | 1203.0 | 158.8  | 157.8  | 162.4  | 152.4  | 166.4  | 160.1  | 143.0  | 135.4  | 126.9  |
| 80°   | 1168.9 | 479.8  | 115.7  | 122.0  | 122.0  | 113.0  | 129.1  | 130.9  | 116.1  | 112.5  | 112.5  |
| 82.5° | 232.7  | 136.3  | 81.2   | 83.8   | 78.9   | 76.3   | 91.4   | 101.4  | 139.9  | 155.6  | 156.0  |
| 85°   | 69.9   | 50.2   | 48.9   | 45.7   | 40.4   | 40.8   | 53.8   | 101.8  | 125.6  | 71.8   | 61.9   |
| 87.5° | 19.3   | 12.5   | 13.0   | 10.4   | 8.5    | 11.2   | 18.3   | 77.1   | 42.1   | 17.9   | 15.3   |
| 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)