

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: P963707

Luminaire Tested: **NAV-SB3A-835-U-T3R**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P963707  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3A-835-U-T3R  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13136.4 lumens  
Efficiency: N/A  
Efficacy: 155.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B2 - U0 - G2

Input Watts (W): 84.7  
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

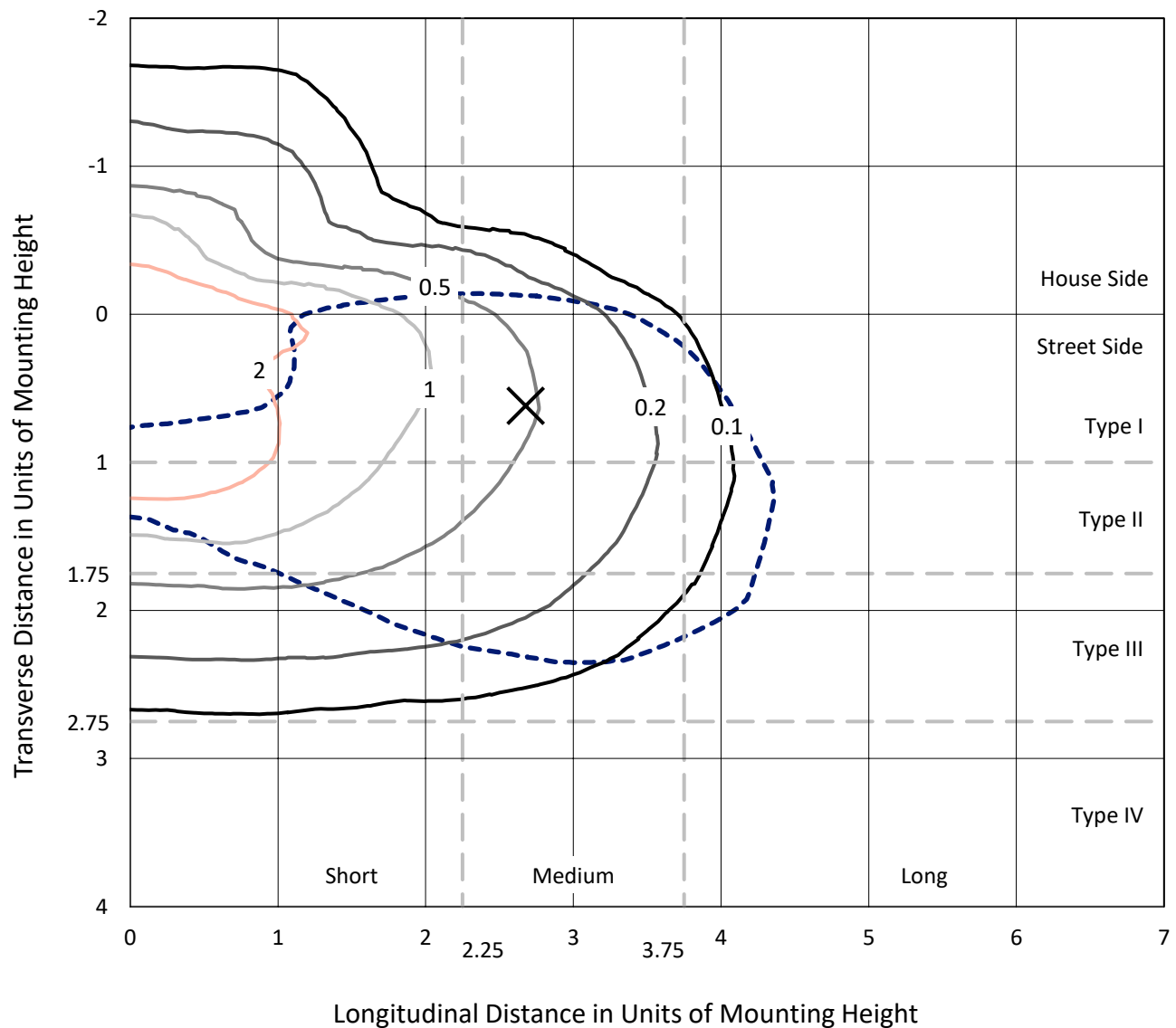


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## Iso-Footcandle Lines of Horizontal Illumination

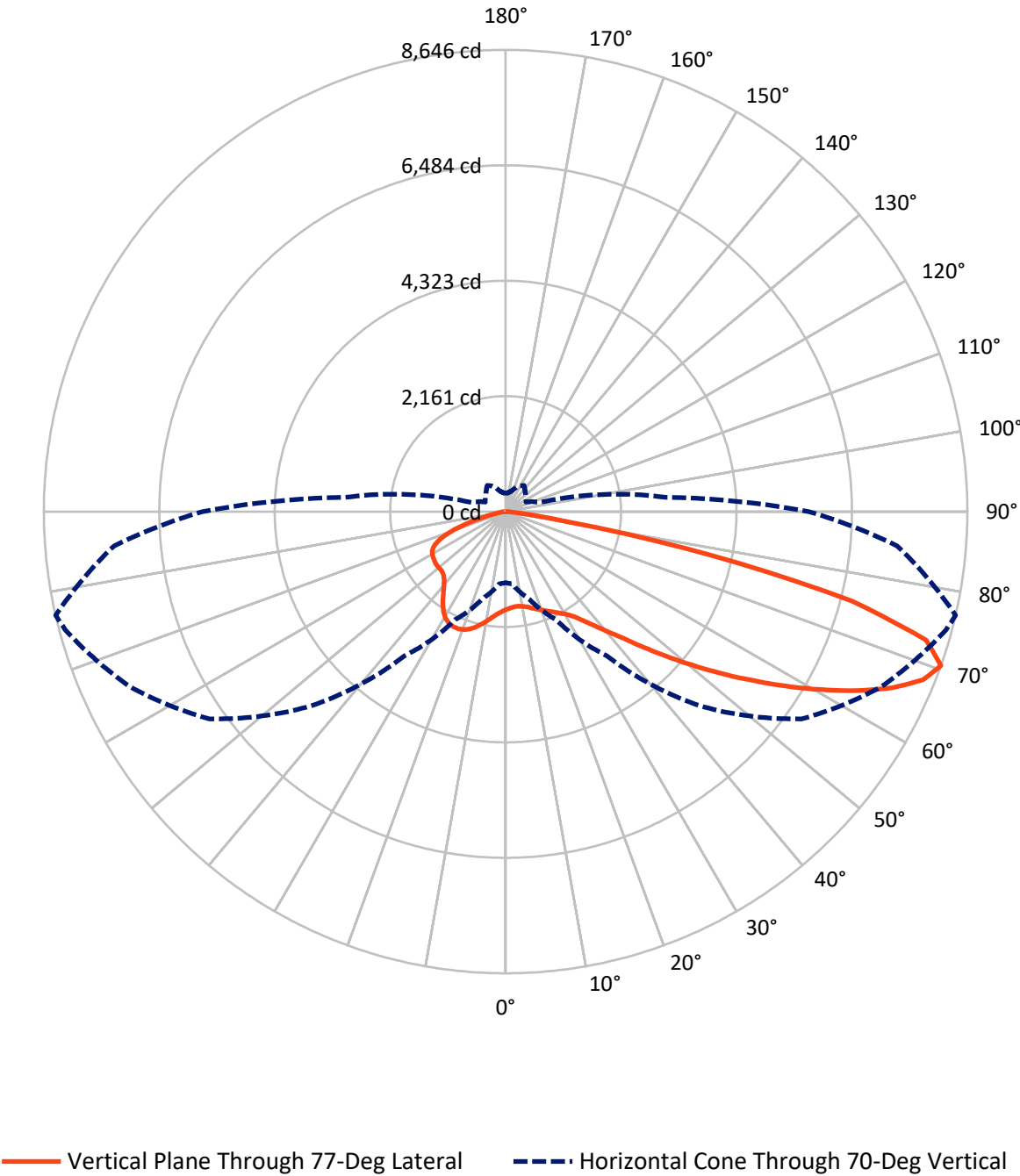
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 fc  
Type III - 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    | 2876.7   | 0.0    | 2876.7  |
|                    | % Fixture | 21.9     | 0.0    | 21.9    |
| <b>Street Side</b> | Lumens    | 10259.7  | 0.0    | 10259.7 |
|                    | % Fixture | 78.1     | 0.0    | 78.1    |
| <b>Total</b>       | Lumens    | 13136.4  | 0.0    | 13136.4 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 174.8   | 1.3       |
| 10°-20°   | 504.4   | 3.8       |
| 20°-30°   | 862.7   | 6.6       |
| 30°-40°   | 1387.3  | 10.6      |
| 40°-50°   | 2165.9  | 16.5      |
| 50°-60°   | 2893.1  | 22.0      |
| 60°-70°   | 3083.6  | 23.5      |
| 70°-80°   | 1898.3  | 14.5      |
| 80°-90°   | 166.3   | 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°    | 13136.4 | 100.0     |
| 0°-180°   | 13136.4 | 100.0     |

**Coefficient of Utilization**



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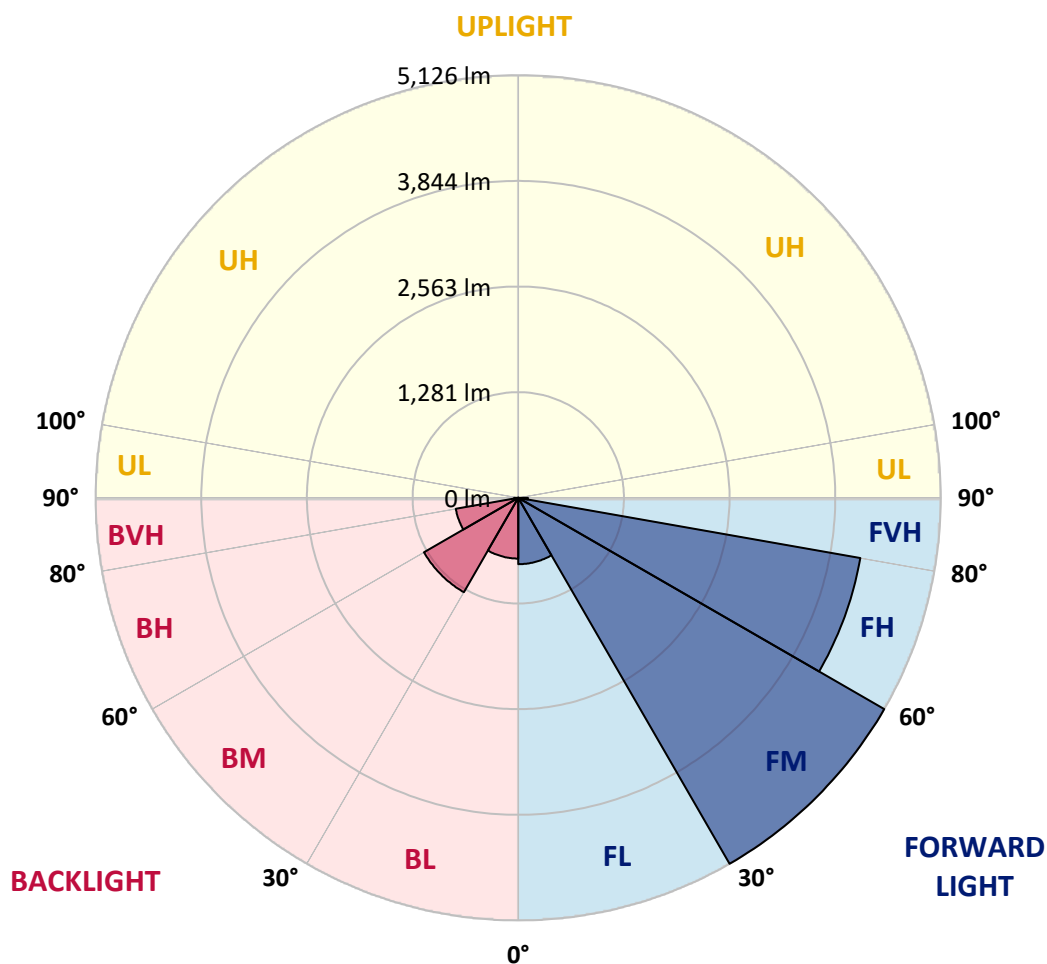
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 804.8  | 6.1       |                         |      |         |
| FM   | (30°-60°)   | 5125.5 | 39.0      |                         |      |         |
| FH   | (60°-80°)   | 4213.1 | 32.1      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 116.3  | 0.9       |                         |      | G2/225  |
| BL   | (0°-30°)    | 737.1  | 5.6       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1320.7 | 10.1      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 768.8  | 5.9       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 50.0   | 0.4       |                         |      | 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 III Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 77°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1832.6 | 1832.6 | 1832.6 | 1832.6 | 1832.6 | 1832.6 | 1832.6 | 1832.6 | 1832.6 | 1832.6 | 1832.6 |
| 2.5°  | 1689.3 | 1688.7 | 1697.4 | 1700.1 | 1716.3 | 1727.7 | 1749.3 | 1772.1 | 1801.7 | 1805.0 | 1823.3 |
| 5°    | 1591.8 | 1591.8 | 1601.9 | 1612.6 | 1633.5 | 1656.4 | 1689.3 | 1729.1 | 1780.2 | 1788.2 | 1833.3 |
| 7.5°  | 1509.0 | 1514.4 | 1523.1 | 1544.1 | 1568.2 | 1601.3 | 1651.7 | 1708.2 | 1775.5 | 1788.2 | 1860.9 |
| 10°   | 1442.5 | 1448.5 | 1459.3 | 1476.1 | 1512.4 | 1558.2 | 1624.1 | 1696.8 | 1786.9 | 1807.1 | 1901.3 |
| 12.5° | 1421.6 | 1427.6 | 1433.7 | 1446.5 | 1480.1 | 1533.9 | 1612.6 | 1702.1 | 1814.5 | 1834.6 | 1956.4 |
| 15°   | 1470.1 | 1477.4 | 1472.7 | 1469.3 | 1486.9 | 1536.0 | 1618.1 | 1721.6 | 1848.8 | 1877.7 | 2024.4 |
| 17.5° | 1581.7 | 1584.3 | 1573.6 | 1542.0 | 1539.3 | 1565.6 | 1643.6 | 1748.5 | 1891.8 | 1923.5 | 2093.0 |
| 20°   | 1762.0 | 1757.3 | 1735.1 | 1672.5 | 1636.8 | 1631.5 | 1687.4 | 1788.9 | 1936.2 | 1969.8 | 2167.1 |
| 22.5° | 2006.8 | 2001.5 | 1957.1 | 1858.2 | 1778.8 | 1726.3 | 1750.6 | 1841.4 | 1986.0 | 2023.8 | 2239.0 |
| 25°   | 2312.3 | 2304.9 | 2239.7 | 2105.1 | 1982.0 | 1852.2 | 1836.7 | 1910.7 | 2047.2 | 2082.3 | 2314.3 |
| 27.5° | 2668.9 | 2662.8 | 2592.2 | 2414.6 | 2237.0 | 2024.4 | 1943.6 | 1992.1 | 2111.2 | 2150.9 | 2399.1 |
| 30°   | 3052.3 | 3069.9 | 2944.7 | 2753.7 | 2529.0 | 2249.1 | 2087.6 | 2092.3 | 2193.9 | 2229.6 | 2502.0 |
| 32.5° | 3503.1 | 3533.4 | 3382.7 | 3140.5 | 2833.7 | 2493.3 | 2269.2 | 2232.2 | 2314.3 | 2344.0 | 2631.9 |
| 35°   | 3949.8 | 3984.2 | 3859.0 | 3591.3 | 3238.1 | 2781.2 | 2459.0 | 2393.1 | 2474.5 | 2506.7 | 2804.1 |
| 37.5° | 4336.1 | 4381.8 | 4317.2 | 4084.4 | 3670.6 | 3128.4 | 2706.6 | 2582.1 | 2671.6 | 2711.9 | 3035.5 |
| 40°   | 4640.8 | 4710.8 | 4706.1 | 4560.7 | 4180.7 | 3549.6 | 3020.8 | 2815.6 | 2916.5 | 2960.2 | 3316.1 |
| 42.5° | 4888.4 | 4948.9 | 5001.4 | 4994.0 | 4712.8 | 4027.9 | 3390.1 | 3119.0 | 3195.7 | 3246.2 | 3631.7 |
| 45°   | 5059.3 | 5123.9 | 5236.9 | 5358.7 | 5224.8 | 4539.9 | 3813.3 | 3479.0 | 3548.9 | 3624.9 | 4007.7 |
| 47.5° | 5212.0 | 5285.3 | 5432.0 | 5625.1 | 5659.4 | 5053.9 | 4276.8 | 3898.1 | 3962.0 | 4040.8 | 4385.2 |
| 50°   | 5225.4 | 5288.7 | 5516.1 | 5789.9 | 5968.2 | 5547.7 | 4774.8 | 4368.3 | 4428.2 | 4512.4 | 4789.5 |
| 52.5° | 4900.5 | 5000.1 | 5397.0 | 5785.2 | 6110.1 | 5960.8 | 5269.2 | 4857.5 | 4924.7 | 5025.7 | 5208.0 |
| 55°   | 3803.9 | 3949.8 | 5047.8 | 5604.9 | 6059.7 | 6227.9 | 5739.5 | 5377.6 | 5463.7 | 5569.2 | 5629.1 |
| 57.5° | 3276.4 | 3340.4 | 4007.0 | 5276.6 | 5829.6 | 6297.2 | 6136.4 | 5903.0 | 6041.6 | 6157.3 | 6074.6 |
| 60°   | 2944.7 | 2997.9 | 3392.1 | 4765.9 | 5526.9 | 6187.5 | 6443.2 | 6392.7 | 6632.3 | 6770.1 | 6530.0 |
| 62.5° | 2589.6 | 2640.0 | 2998.5 | 3979.5 | 5139.3 | 6005.2 | 6637.0 | 6844.8 | 7237.7 | 7388.4 | 6959.2 |
| 65°   | 2237.0 | 2280.0 | 2623.8 | 3343.8 | 4646.8 | 5822.9 | 6737.2 | 7235.7 | 7798.2 | 7954.2 | 7315.8 |
| 67.5° | 1844.1 | 1879.7 | 2204.7 | 2821.0 | 4048.1 | 5573.3 | 6786.9 | 7543.2 | 8285.9 | 8419.9 | 7492.0 |
| 70°   | 1330.8 | 1358.3 | 1694.0 | 2230.9 | 3296.6 | 5144.1 | 6766.8 | 7761.2 | 8538.9 | 8645.9 | 7358.9 |
| 72.5° | 629.0  | 653.9  | 1048.2 | 1448.5 | 2328.5 | 4308.5 | 6358.4 | 7588.3 | 8281.9 | 8228.7 | 6543.4 |
| 75°   | 335.7  | 357.2  | 602.2  | 794.6  | 1229.8 | 2953.5 | 5203.3 | 6536.7 | 6954.5 | 6696.1 | 4836.0 |
| 77.5° | 227.4  | 244.3  | 372.7  | 477.0  | 561.8  | 1402.1 | 3344.4 | 4525.8 | 4354.2 | 3927.7 | 2422.0 |
| 80°   | 180.3  | 197.8  | 305.4  | 323.0  | 271.8  | 506.6  | 1381.9 | 2095.0 | 1505.0 | 1203.6 | 688.9  |
| 82.5° | 138.6  | 158.1  | 257.0  | 234.1  | 148.0  | 207.9  | 402.3  | 662.7  | 385.5  | 293.4  | 166.9  |
| 85°   | 84.8   | 105.6  | 201.8  | 149.3  | 83.4   | 94.8   | 136.5  | 184.3  | 117.8  | 98.2   | 59.9   |
| 87.5° | 43.0   | 60.6   | 102.3  | 54.5   | 37.7   | 22.2   | 36.3   | 36.3   | 31.0   | 27.0   | 15.5   |
| 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°    | 1832.6 | 1832.6 | 1832.6 | 1832.6 | 1832.6 | 1832.6 | 1832.6 | 1832.6 | 1832.6 | 1832.6 | 1832.6 |
| 2.5°  | 1839.4 | 1852.8 | 1875.7 | 1897.3 | 1914.1 | 1930.2 | 1946.4 | 1955.1 | 1957.7 | 1968.5 | 1974.6 |
| 5°    | 1860.9 | 1885.8 | 1930.2 | 1971.9 | 1998.1 | 2014.3 | 2025.7 | 2032.5 | 2033.8 | 2037.2 | 2042.5 |
| 7.5°  | 1900.6 | 1940.3 | 2002.2 | 2043.8 | 2063.4 | 2062.1 | 2057.4 | 2040.6 | 2033.8 | 2027.8 | 2029.1 |
| 10°   | 1956.4 | 2008.9 | 2085.0 | 2113.9 | 2101.8 | 2069.5 | 2027.8 | 1978.7 | 1955.8 | 1933.6 | 1926.8 |
| 12.5° | 2025.7 | 2092.3 | 2167.1 | 2165.7 | 2105.8 | 2023.0 | 1926.2 | 1850.8 | 1803.1 | 1768.7 | 1760.6 |
| 15°   | 2109.9 | 2186.5 | 2243.7 | 2198.0 | 2066.8 | 1918.1 | 1776.1 | 1677.9 | 1634.9 | 1597.2 | 1593.2 |
| 17.5° | 2196.6 | 2278.7 | 2304.9 | 2187.9 | 1968.5 | 1762.7 | 1601.9 | 1524.5 | 1482.1 | 1462.0 | 1468.0 |
| 20°   | 2281.3 | 2362.8 | 2341.3 | 2130.1 | 1819.2 | 1586.4 | 1443.1 | 1400.8 | 1391.9 | 1396.7 | 1394.7 |
| 22.5° | 2370.8 | 2443.5 | 2348.7 | 2018.3 | 1628.8 | 1406.1 | 1327.4 | 1328.7 | 1348.3 | 1362.3 | 1365.7 |
| 25°   | 2462.4 | 2511.5 | 2329.1 | 1856.9 | 1424.2 | 1273.6 | 1254.1 | 1275.6 | 1313.9 | 1341.5 | 1348.9 |
| 27.5° | 2550.5 | 2572.0 | 2286.8 | 1657.0 | 1248.7 | 1178.8 | 1182.0 | 1226.5 | 1284.3 | 1322.7 | 1332.1 |
| 30°   | 2650.0 | 2625.8 | 2205.4 | 1432.3 | 1126.9 | 1097.3 | 1125.6 | 1177.3 | 1235.2 | 1269.6 | 1277.6 |
| 32.5° | 2762.5 | 2672.3 | 2076.2 | 1224.5 | 1040.8 | 1032.1 | 1078.5 | 1112.1 | 1137.6 | 1147.8 | 1153.1 |
| 35°   | 2902.4 | 2737.6 | 1910.7 | 1078.5 | 963.4  | 984.3  | 1028.7 | 1011.9 | 1001.7 | 996.4  | 1001.7 |
| 37.5° | 3084.0 | 2825.6 | 1717.0 | 983.6  | 900.9  | 950.0  | 968.1  | 915.6  | 876.0  | 856.5  | 861.2  |
| 40°   | 3302.7 | 2954.9 | 1530.5 | 910.3  | 861.2  | 920.3  | 888.8  | 825.5  | 775.0  | 747.4  | 749.5  |
| 42.5° | 3545.6 | 3090.1 | 1373.8 | 855.1  | 839.0  | 896.2  | 830.2  | 754.8  | 673.4  | 664.7  | 673.4  |
| 45°   | 3800.5 | 3229.4 | 1266.8 | 812.7  | 828.2  | 875.2  | 796.5  | 674.8  | 616.9  | 652.6  | 671.5  |
| 47.5° | 4055.5 | 3357.2 | 1202.2 | 781.0  | 822.8  | 851.8  | 767.0  | 630.4  | 589.4  | 641.1  | 665.3  |
| 50°   | 4339.4 | 3471.6 | 1173.3 | 758.2  | 816.7  | 842.3  | 722.5  | 619.0  | 560.5  | 594.7  | 620.3  |
| 52.5° | 4621.3 | 3560.3 | 1151.8 | 735.3  | 808.0  | 835.0  | 701.0  | 605.5  | 525.4  | 527.5  | 541.6  |
| 55°   | 4902.6 | 3618.2 | 1128.2 | 705.1  | 788.5  | 818.8  | 699.0  | 590.7  | 499.2  | 489.7  | 496.5  |
| 57.5° | 5202.6 | 3651.2 | 1099.3 | 671.5  | 754.8  | 777.8  | 697.0  | 579.2  | 491.1  | 475.7  | 477.6  |
| 60°   | 5508.0 | 3699.6 | 1061.7 | 630.4  | 709.8  | 728.6  | 692.3  | 575.2  | 486.5  | 460.2  | 462.2  |
| 62.5° | 5781.8 | 3716.4 | 1016.6 | 591.3  | 651.9  | 680.2  | 682.2  | 571.8  | 473.7  | 428.6  | 428.6  |
| 65°   | 5961.5 | 3643.8 | 937.9  | 546.9  | 589.4  | 630.4  | 662.7  | 560.5  | 450.8  | 405.7  | 405.7  |
| 67.5° | 5954.1 | 3436.5 | 814.8  | 489.7  | 528.8  | 575.2  | 634.5  | 540.9  | 423.2  | 377.4  | 379.5  |
| 70°   | 5676.9 | 3027.5 | 658.7  | 423.2  | 462.2  | 516.0  | 598.1  | 512.0  | 390.2  | 346.4  | 350.5  |
| 72.5° | 4868.9 | 2369.5 | 478.4  | 345.1  | 384.8  | 454.8  | 551.0  | 477.0  | 356.6  | 318.9  | 316.8  |
| 75°   | 3478.2 | 1499.6 | 324.3  | 265.1  | 299.4  | 385.5  | 492.5  | 435.9  | 325.6  | 320.2  | 302.1  |
| 77.5° | 1776.8 | 716.5  | 214.6  | 193.7  | 208.6  | 304.1  | 413.8  | 389.5  | 330.4  | 264.4  | 235.4  |
| 80°   | 577.9  | 264.4  | 135.2  | 131.8  | 138.6  | 202.5  | 320.2  | 319.6  | 250.3  | 179.7  | 158.8  |
| 82.5° | 184.3  | 113.7  | 88.1   | 84.8   | 81.4   | 127.2  | 223.3  | 253.0  | 168.8  | 113.7  | 113.1  |
| 85°   | 73.3   | 68.0   | 51.8   | 47.8   | 34.3   | 59.9   | 117.1  | 168.2  | 125.8  | 82.1   | 84.0   |
| 87.5° | 27.0   | 27.0   | 14.1   | 10.0   | 7.4    | 20.2   | 31.6   | 50.4   | 72.0   | 42.4   | 41.7   |
| 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)