

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: P959997

Luminaire Tested: **NAV-SB1B-835-U-AFL**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P959997  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1B-835-U-AFL  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 3500K, 450mA LIGHTSQUARE WITH 26 LEDS AND AUTOMOTIVE  
FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: -

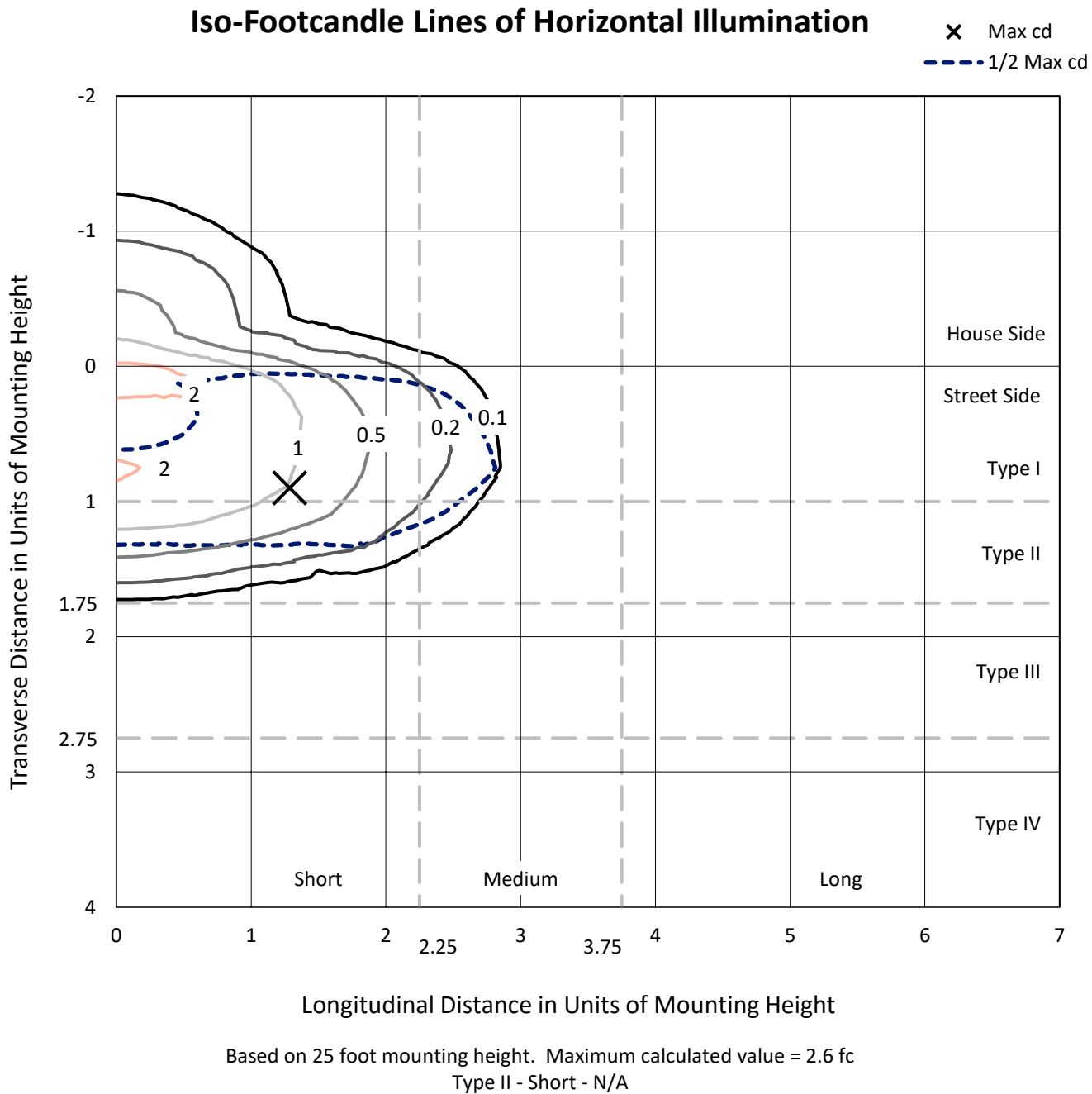
### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 5446.8 lumens  
Efficiency: N/A  
Efficacy: 136.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Short  
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

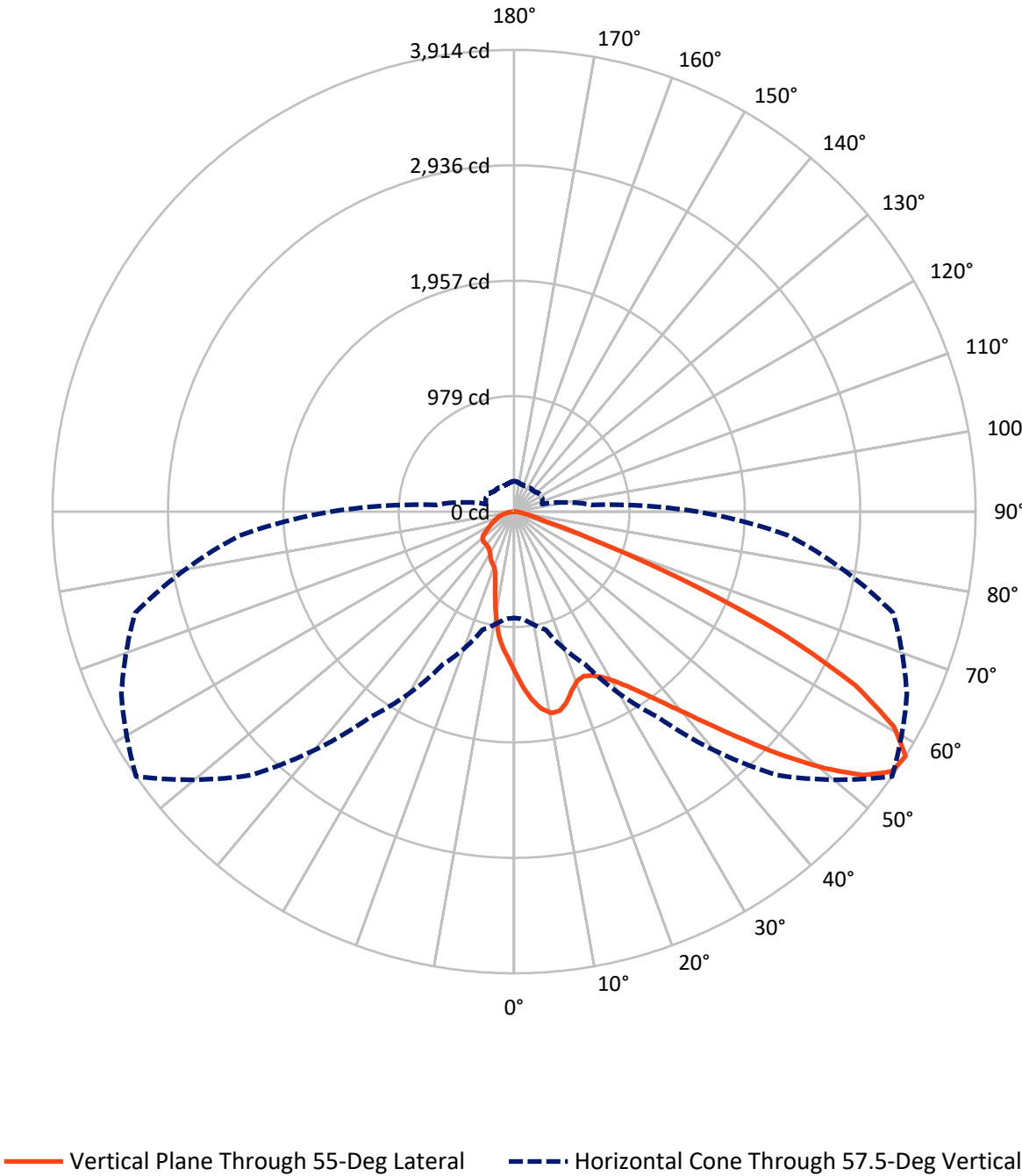


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Luminous Intensity Polar Plot



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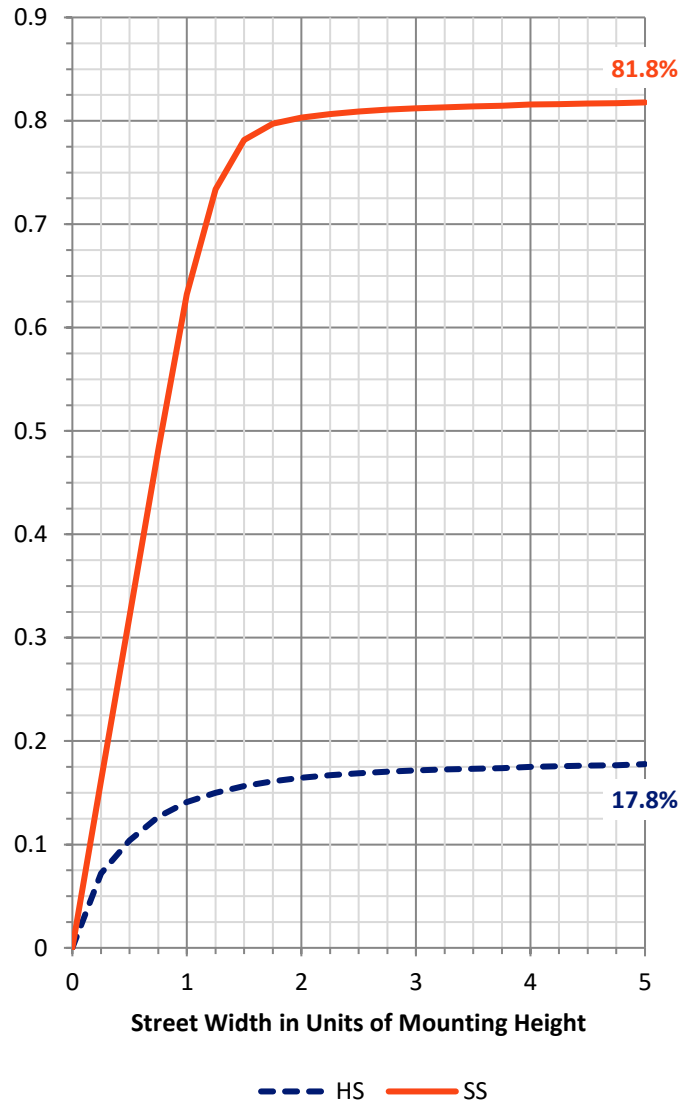
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 985.6    | 0.0    | 985.6  |
|                    | % Fixture | 18.1     | 0.0    | 18.1   |
| <b>Street Side</b> | Lumens    | 4461.3   | 0.0    | 4461.3 |
|                    | % Fixture | 81.9     | 0.0    | 81.9   |
| <b>Total</b>       | Lumens    | 5446.8   | 0.0    | 5446.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 126.6  | 2.3       |
| 10°-20°   | 319.7  | 5.9       |
| 20°-30°   | 510.1  | 9.4       |
| 30°-40°   | 807.6  | 14.8      |
| 40°-50°   | 1236.1 | 22.7      |
| 50°-60°   | 1324.0 | 24.3      |
| 60°-70°   | 832.9  | 15.3      |
| 70°-80°   | 246.3  | 4.5       |
| 80°-90°   | 43.5   | 0.8       |
| 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°    | 5446.8 | 100.0     |
| 0°-180°   | 5446.8 | 100.0     |

**Coefficient of Utilization**



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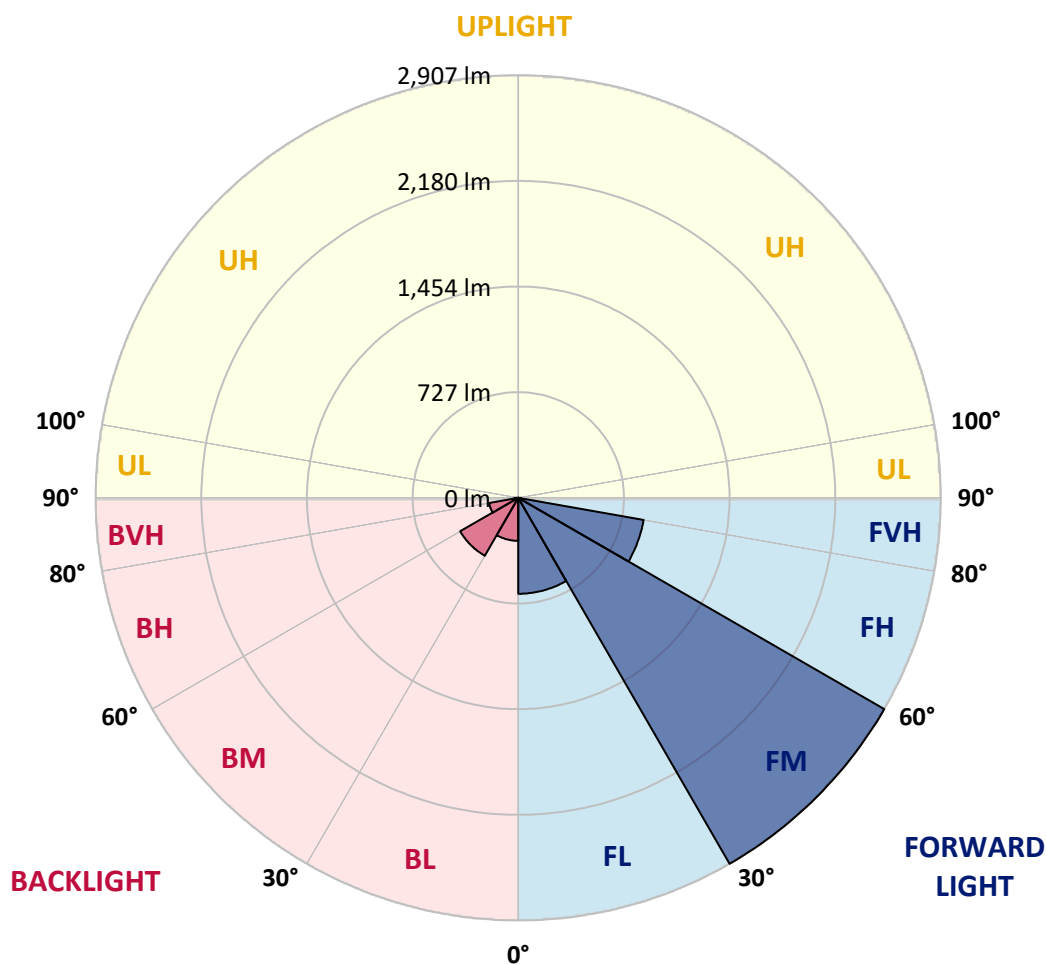
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 660.2  | 12.1      |                         |      |         |
| FM   | (30°-60°)   | 2907.0 | 53.4      |                         |      |         |
| FH   | (60°-80°)   | 875.7  | 16.1      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 18.4   | 0.3       |                         |      | G1/100  |
| BL   | (0°-30°)    | 296.2  | 5.4       | B1/500                  |      |         |
| BM   | (30°-60°)   | 460.6  | 8.5       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 203.5  | 3.7       | 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 Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1364.8 | 1364.8 | 1364.8 | 1364.8 | 1364.8 | 1364.8 | 1364.8 | 1364.8 | 1364.8 | 1364.8 | 1364.8 |
| 2.5°  | 1565.9 | 1564.8 | 1570.9 | 1549.8 | 1535.4 | 1516.0 | 1490.4 | 1457.8 | 1422.5 | 1385.4 | 1369.3 |
| 5°    | 1706.9 | 1697.1 | 1703.6 | 1687.8 | 1672.0 | 1642.8 | 1604.7 | 1551.4 | 1486.5 | 1412.3 | 1373.0 |
| 7.5°  | 1684.7 | 1677.9 | 1694.5 | 1708.6 | 1720.5 | 1716.8 | 1688.9 | 1633.1 | 1549.3 | 1441.7 | 1384.5 |
| 10°   | 1505.3 | 1497.7 | 1521.1 | 1569.8 | 1641.3 | 1703.6 | 1737.4 | 1702.7 | 1613.5 | 1473.7 | 1395.7 |
| 12.5° | 1347.1 | 1343.4 | 1358.8 | 1398.3 | 1477.7 | 1597.2 | 1731.1 | 1763.5 | 1680.2 | 1511.8 | 1411.0 |
| 15°   | 1279.5 | 1275.0 | 1284.8 | 1304.8 | 1355.6 | 1466.8 | 1674.8 | 1805.2 | 1745.8 | 1555.7 | 1435.2 |
| 17.5° | 1264.5 | 1259.5 | 1263.7 | 1274.2 | 1306.8 | 1391.5 | 1589.8 | 1825.7 | 1814.2 | 1604.7 | 1455.5 |
| 20°   | 1292.1 | 1287.9 | 1288.5 | 1287.9 | 1310.8 | 1378.0 | 1530.6 | 1817.8 | 1873.9 | 1649.7 | 1475.2 |
| 22.5° | 1358.8 | 1351.9 | 1352.2 | 1337.2 | 1349.6 | 1401.7 | 1515.2 | 1796.7 | 1927.1 | 1689.2 | 1490.1 |
| 25°   | 1467.6 | 1454.9 | 1457.4 | 1419.4 | 1416.0 | 1454.6 | 1539.3 | 1780.4 | 1980.1 | 1720.7 | 1492.9 |
| 27.5° | 1616.2 | 1601.9 | 1594.3 | 1537.7 | 1510.6 | 1529.8 | 1588.6 | 1786.1 | 2030.2 | 1748.0 | 1485.8 |
| 30°   | 1802.1 | 1784.6 | 1769.2 | 1688.9 | 1639.9 | 1632.8 | 1665.2 | 1823.2 | 2089.3 | 1776.7 | 1473.7 |
| 32.5° | 2029.9 | 2009.6 | 1981.4 | 1875.0 | 1806.0 | 1769.2 | 1764.3 | 1889.4 | 2158.5 | 1813.3 | 1467.6 |
| 35°   | 2301.0 | 2274.6 | 2234.6 | 2096.9 | 2009.6 | 1934.2 | 1895.0 | 1984.8 | 2253.5 | 1868.6 | 1474.7 |
| 37.5° | 2580.3 | 2550.5 | 2513.9 | 2350.0 | 2242.8 | 2131.5 | 2054.4 | 2114.4 | 2379.8 | 1943.4 | 1493.2 |
| 40°   | 2838.0 | 2804.5 | 2770.5 | 2624.6 | 2509.4 | 2375.3 | 2249.6 | 2278.3 | 2534.5 | 2033.0 | 1524.8 |
| 42.5° | 2990.0 | 2965.3 | 2952.3 | 2873.5 | 2784.5 | 2648.5 | 2492.3 | 2472.5 | 2708.3 | 2136.0 | 1560.8 |
| 45°   | 2983.3 | 2973.2 | 3013.2 | 3045.8 | 3024.7 | 2949.2 | 2776.6 | 2687.3 | 2882.5 | 2225.3 | 1594.0 |
| 47.5° | 2824.0 | 2830.7 | 2919.9 | 3103.5 | 3184.4 | 3223.7 | 3100.4 | 2898.3 | 3034.0 | 2292.0 | 1608.9 |
| 50°   | 2390.3 | 2395.9 | 2602.6 | 2998.5 | 3225.5 | 3447.6 | 3421.8 | 3104.1 | 3151.4 | 2332.9 | 1605.6 |
| 52.5° | 2047.0 | 2050.7 | 2139.4 | 2687.1 | 3089.8 | 3560.2 | 3711.2 | 3298.1 | 3237.3 | 2344.2 | 1586.7 |
| 55°   | 1541.9 | 1554.6 | 1653.9 | 2108.1 | 2736.6 | 3471.0 | 3887.4 | 3498.0 | 3291.7 | 2345.3 | 1567.0 |
| 57.5° | 900.8  | 914.6  | 1037.3 | 1431.0 | 2127.1 | 3159.9 | 3914.2 | 3675.4 | 3328.5 | 2336.3 | 1555.1 |
| 60°   | 441.3  | 447.1  | 500.6  | 752.0  | 1311.6 | 2560.3 | 3699.1 | 3761.3 | 3349.1 | 2331.5 | 1554.6 |
| 62.5° | 297.4  | 296.5  | 298.8  | 371.2  | 646.3  | 1645.0 | 3250.8 | 3611.0 | 3338.1 | 2313.1 | 1549.0 |
| 65°   | 255.6  | 252.6  | 244.2  | 260.5  | 334.8  | 752.3  | 2511.7 | 3162.1 | 3254.5 | 2267.3 | 1510.3 |
| 67.5° | 221.0  | 221.3  | 221.6  | 216.6  | 239.0  | 347.2  | 1534.8 | 2490.9 | 2954.3 | 2049.9 | 1361.7 |
| 70°   | 183.1  | 185.5  | 186.7  | 186.7  | 194.9  | 227.8  | 655.2  | 1707.2 | 2330.3 | 1607.2 | 1096.8 |
| 72.5° | 166.7  | 161.3  | 162.0  | 159.1  | 159.1  | 173.4  | 263.8  | 967.8  | 1468.1 | 904.2  | 669.3  |
| 75°   | 136.0  | 139.4  | 139.9  | 138.0  | 131.5  | 132.3  | 156.5  | 406.0  | 628.2  | 375.0  | 330.9  |
| 77.5° | 117.5  | 117.5  | 118.6  | 117.2  | 112.0  | 99.1   | 104.4  | 157.4  | 213.7  | 153.8  | 165.3  |
| 80°   | 94.3   | 94.1   | 98.8   | 101.7  | 93.8   | 73.2   | 66.7   | 87.0   | 94.9   | 67.5   | 85.9   |
| 82.5° | 45.9   | 48.7   | 67.9   | 77.4   | 71.2   | 52.9   | 40.8   | 54.0   | 50.6   | 29.8   | 38.5   |
| 85°   | 26.8   | 25.3   | 30.4   | 43.0   | 40.8   | 29.3   | 19.7   | 28.2   | 26.4   | 15.2   | 15.5   |
| 87.5° | 8.4    | 7.9    | 6.1    | 14.7   | 11.8   | 8.2    | 5.3    | 8.2    | 7.3    | 3.4    | 3.4    |
| 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):**

|       | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1364.8 | 1364.8 | 1364.8 | 1364.8 | 1364.8 | 1364.8 | 1364.8 | 1364.8 | 1364.8 | 1364.8 |
| 2.5°  | 1349.3 | 1316.1 | 1283.2 | 1253.1 | 1234.7 | 1222.9 | 1211.0 | 1197.8 | 1192.8 | 1185.2 |
| 5°    | 1335.8 | 1271.6 | 1214.4 | 1165.1 | 1120.4 | 1085.2 | 1049.7 | 1021.0 | 1008.1 | 1016.8 |
| 7.5°  | 1327.9 | 1235.0 | 1146.9 | 1056.5 | 969.4  | 900.0  | 839.4  | 796.8  | 777.7  | 782.5  |
| 10°   | 1320.9 | 1193.6 | 1059.3 | 916.6  | 791.5  | 705.3  | 643.4  | 611.0  | 598.9  | 601.5  |
| 12.5° | 1314.4 | 1147.2 | 953.7  | 765.9  | 632.9  | 576.2  | 558.3  | 558.6  | 560.9  | 562.6  |
| 15°   | 1313.2 | 1091.1 | 835.7  | 634.1  | 547.3  | 543.8  | 562.8  | 575.0  | 581.5  | 583.4  |
| 17.5° | 1311.6 | 1024.1 | 715.4  | 544.3  | 526.5  | 551.3  | 569.1  | 577.0  | 582.0  | 582.3  |
| 20°   | 1304.8 | 939.1  | 604.5  | 501.5  | 522.0  | 543.5  | 554.4  | 560.6  | 564.9  | 566.2  |
| 22.5° | 1284.0 | 844.5  | 518.1  | 482.4  | 504.0  | 521.2  | 534.1  | 541.2  | 543.8  | 545.4  |
| 25°   | 1246.5 | 738.6  | 458.4  | 464.0  | 479.0  | 500.6  | 511.1  | 512.5  | 511.6  | 514.1  |
| 27.5° | 1197.5 | 625.1  | 421.3  | 439.2  | 458.4  | 477.0  | 482.7  | 481.7  | 480.1  | 482.9  |
| 30°   | 1138.4 | 523.2  | 397.6  | 411.4  | 437.6  | 454.5  | 459.5  | 457.6  | 454.2  | 457.3  |
| 32.5° | 1075.9 | 439.8  | 378.1  | 392.0  | 420.4  | 437.0  | 442.1  | 440.1  | 437.6  | 440.1  |
| 35°   | 1017.6 | 381.5  | 360.2  | 379.0  | 406.9  | 423.2  | 429.7  | 430.0  | 430.0  | 433.1  |
| 37.5° | 964.1  | 347.5  | 345.2  | 370.8  | 397.6  | 412.3  | 421.5  | 422.1  | 410.0  | 410.8  |
| 40°   | 914.6  | 333.1  | 338.5  | 365.5  | 388.6  | 402.6  | 403.2  | 371.7  | 349.4  | 348.9  |
| 42.5° | 874.0  | 330.3  | 340.4  | 364.9  | 382.1  | 382.6  | 343.0  | 318.5  | 312.3  | 312.5  |
| 45°   | 836.0  | 329.4  | 344.9  | 364.9  | 372.5  | 330.6  | 303.8  | 297.4  | 297.9  | 300.1  |
| 47.5° | 793.5  | 326.1  | 345.7  | 359.9  | 344.9  | 294.0  | 286.1  | 283.3  | 282.2  | 282.7  |
| 50°   | 747.0  | 314.0  | 335.1  | 349.7  | 297.7  | 278.2  | 268.3  | 267.5  | 268.9  | 269.8  |
| 52.5° | 698.0  | 294.3  | 316.7  | 331.4  | 275.9  | 264.4  | 253.4  | 255.4  | 261.6  | 263.5  |
| 55°   | 665.9  | 271.1  | 292.5  | 294.8  | 260.8  | 251.4  | 242.1  | 246.6  | 258.2  | 261.9  |
| 57.5° | 657.4  | 246.6  | 265.0  | 262.4  | 241.3  | 240.2  | 234.5  | 238.5  | 253.2  | 258.5  |
| 60°   | 655.0  | 224.7  | 237.9  | 236.0  | 222.4  | 227.8  | 226.4  | 228.4  | 233.4  | 235.1  |
| 62.5° | 635.2  | 207.3  | 213.7  | 210.9  | 205.5  | 214.8  | 218.2  | 214.0  | 217.9  | 219.9  |
| 65°   | 585.1  | 193.2  | 190.0  | 188.1  | 190.3  | 198.7  | 205.5  | 197.1  | 200.8  | 206.4  |
| 67.5° | 502.4  | 174.0  | 165.5  | 167.8  | 174.9  | 179.4  | 188.1  | 178.6  | 181.6  | 191.2  |
| 70°   | 406.3  | 149.8  | 142.2  | 148.6  | 155.4  | 164.7  | 166.2  | 159.7  | 167.0  | 177.6  |
| 72.5° | 287.5  | 125.3  | 119.9  | 133.1  | 135.4  | 147.5  | 144.4  | 141.3  | 151.5  | 155.2  |
| 75°   | 199.4  | 101.1  | 98.0   | 108.1  | 116.3  | 126.7  | 124.4  | 128.1  | 149.5  | 151.2  |
| 77.5° | 126.2  | 78.5   | 76.6   | 83.0   | 94.3   | 105.9  | 109.6  | 151.2  | 255.4  | 265.6  |
| 80°   | 73.2   | 58.5   | 56.3   | 61.4   | 71.2   | 81.9   | 105.6  | 185.5  | 168.4  | 166.5  |
| 82.5° | 40.8   | 40.3   | 37.4   | 38.8   | 47.6   | 59.1   | 149.2  | 130.7  | 106.2  | 109.6  |
| 85°   | 19.2   | 23.7   | 20.3   | 19.5   | 26.8   | 69.3   | 99.6   | 74.6   | 49.5   | 48.4   |
| 87.5° | 5.0    | 4.5    | 4.5    | 5.0    | 11.3   | 59.7   | 39.7   | 31.8   | 18.9   | 18.3   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)