

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: P959826

Luminaire Tested: **NAV-SB1B-735-U-T2R**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P959826  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1B-735-U-T2R  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 3500K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: -

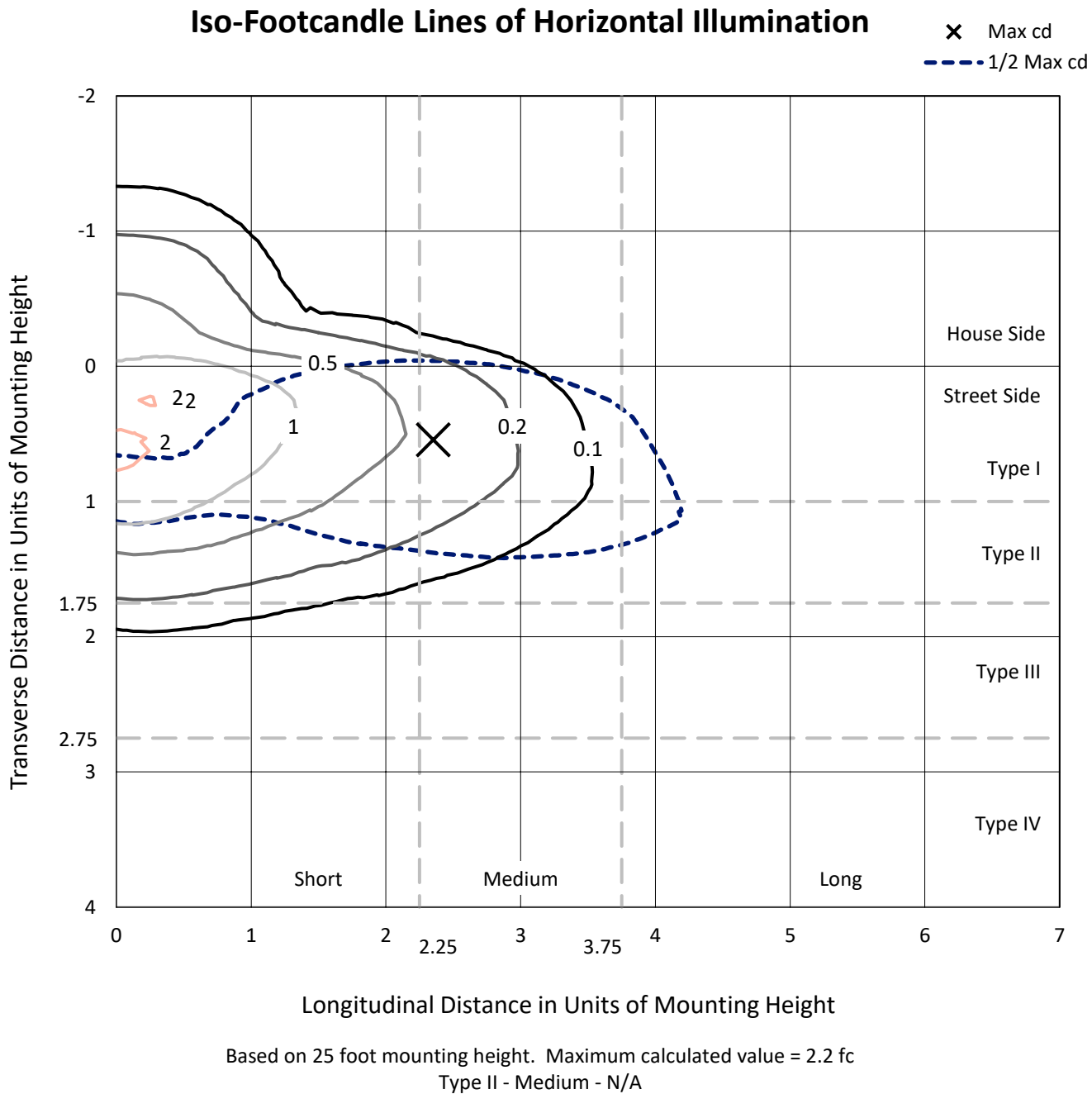
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5880.4 lumens  
Efficiency: N/A  
Efficacy: 147.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
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

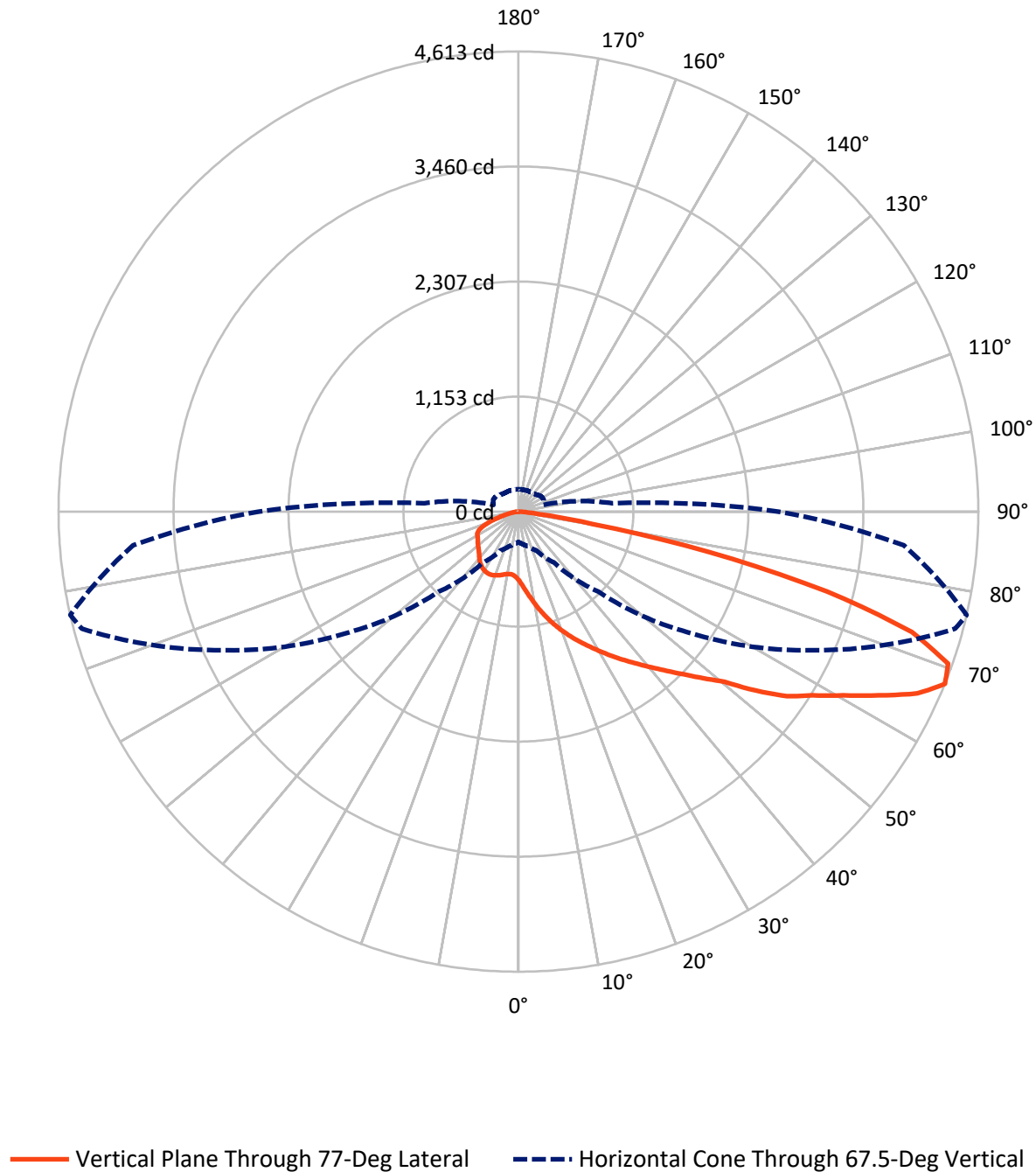


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## Luminous Intensity Polar Plot



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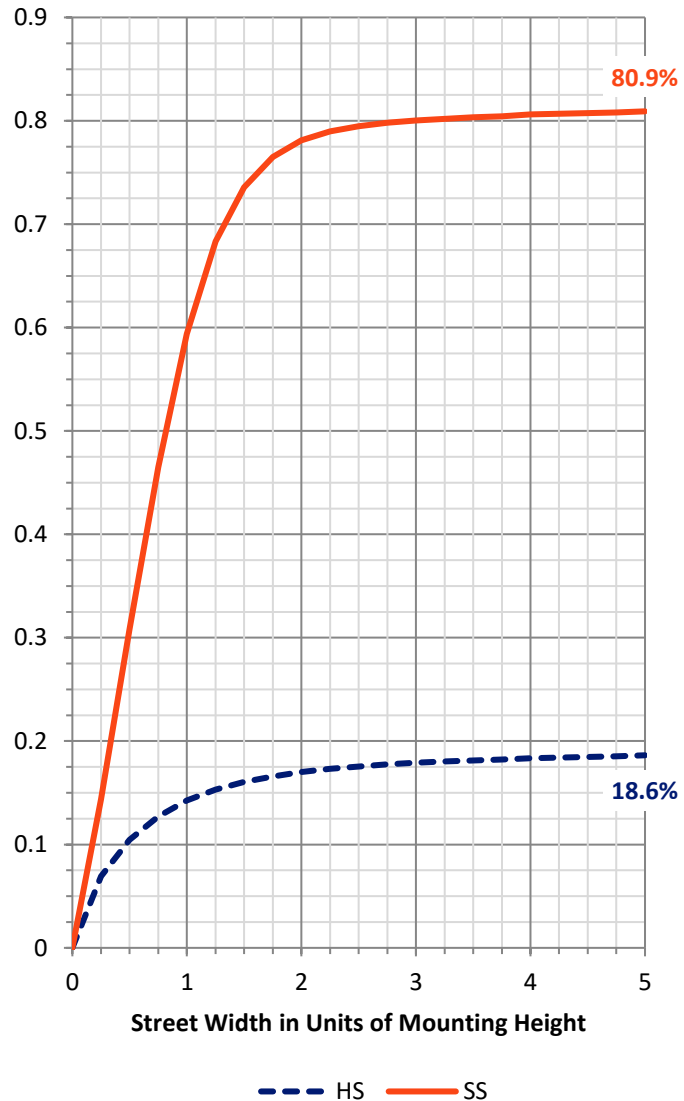
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1112.3   | 0.0    | 1112.3 |
|                    | % Fixture | 18.9     | 0.0    | 18.9   |
| <b>Street Side</b> | Lumens    | 4768.1   | 0.0    | 4768.1 |
|                    | % Fixture | 81.1     | 0.0    | 81.1   |
| <b>Total</b>       | Lumens    | 5880.4   | 0.0    | 5880.4 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 74.0   | 1.3       |
| 10°-20°   | 265.7  | 4.5       |
| 20°-30°   | 501.6  | 8.5       |
| 30°-40°   | 808.1  | 13.7      |
| 40°-50°   | 1105.4 | 18.8      |
| 50°-60°   | 1246.9 | 21.2      |
| 60°-70°   | 1163.8 | 19.8      |
| 70°-80°   | 638.0  | 10.8      |
| 80°-90°   | 77.0   | 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°    | 5880.4 | 100.0     |
| 0°-180°   | 5880.4 | 100.0     |

**Coefficient of Utilization**



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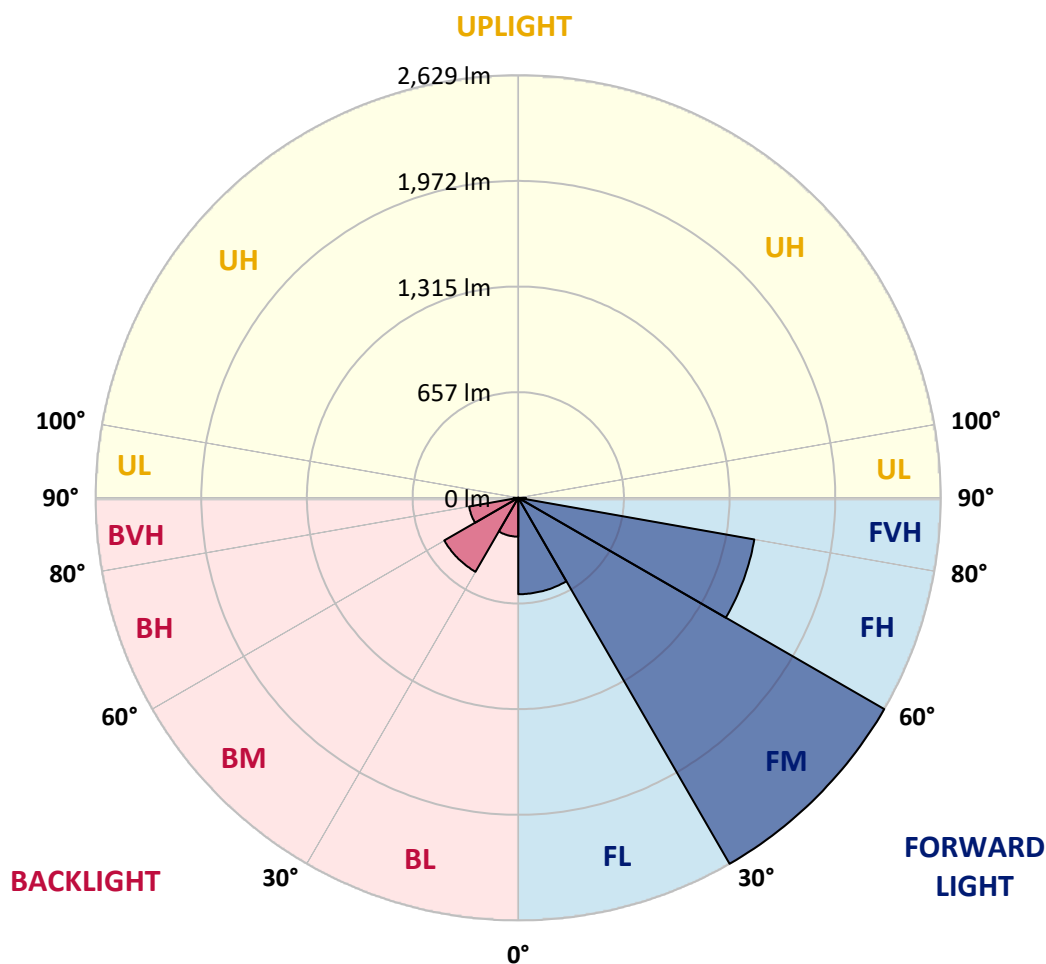
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 599.4  | 10.2      |                         |      |         |
| FM   | (30°-60°)   | 2629.1 | 44.7      |                         |      |         |
| FH   | (60°-80°)   | 1491.4 | 25.4      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 48.1   | 0.8       |                         |      | G1/100  |
| BL   | (0°-30°)    | 241.8  | 4.1       | B1/500                  |      |         |
| BM   | (30°-60°)   | 531.3  | 9.0       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 310.3  | 5.3       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 28.8   | 0.5       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G1**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 77°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 689.9  | 689.9  | 689.9  | 689.9  | 689.9  | 689.9  | 689.9  | 689.9  | 689.9  | 689.9  | 689.9  |
| 2.5°  | 863.9  | 869.9  | 862.3  | 862.3  | 836.9  | 823.5  | 798.1  | 778.6  | 743.6  | 737.6  | 714.5  |
| 5°    | 1021.1 | 1028.7 | 1018.1 | 1013.5 | 983.5  | 955.8  | 913.1  | 870.8  | 808.6  | 802.3  | 747.9  |
| 7.5°  | 1142.9 | 1152.5 | 1143.2 | 1138.3 | 1111.6 | 1080.7 | 1030.5 | 971.6  | 884.0  | 871.5  | 792.8  |
| 10°   | 1242.1 | 1243.6 | 1240.6 | 1242.4 | 1221.5 | 1196.0 | 1144.6 | 1076.0 | 966.5  | 949.5  | 847.2  |
| 12.5° | 1298.3 | 1305.2 | 1311.3 | 1322.2 | 1318.6 | 1302.8 | 1256.6 | 1174.8 | 1053.9 | 1032.1 | 906.4  |
| 15°   | 1324.7 | 1336.8 | 1350.4 | 1375.7 | 1396.0 | 1399.9 | 1364.7 | 1280.6 | 1142.9 | 1116.4 | 966.2  |
| 17.5° | 1334.0 | 1345.6 | 1367.1 | 1403.6 | 1447.3 | 1476.7 | 1460.9 | 1383.5 | 1230.9 | 1200.5 | 1029.0 |
| 20°   | 1381.7 | 1385.1 | 1398.1 | 1432.7 | 1480.1 | 1529.0 | 1540.8 | 1482.6 | 1317.9 | 1283.7 | 1094.0 |
| 22.5° | 1483.7 | 1477.0 | 1480.7 | 1496.5 | 1530.4 | 1577.8 | 1604.8 | 1569.9 | 1407.5 | 1368.1 | 1159.6 |
| 25°   | 1652.2 | 1632.7 | 1613.4 | 1595.1 | 1612.4 | 1639.2 | 1669.8 | 1657.3 | 1501.3 | 1451.2 | 1225.7 |
| 27.5° | 1865.0 | 1841.3 | 1798.5 | 1738.7 | 1717.8 | 1727.1 | 1740.9 | 1738.4 | 1588.1 | 1537.5 | 1294.0 |
| 30°   | 2074.4 | 2046.8 | 1995.8 | 1909.3 | 1854.0 | 1829.1 | 1818.9 | 1811.9 | 1682.5 | 1628.5 | 1362.9 |
| 32.5° | 2241.7 | 2219.8 | 2169.7 | 2072.9 | 1992.8 | 1950.3 | 1915.9 | 1891.1 | 1781.2 | 1727.1 | 1435.7 |
| 35°   | 2387.9 | 2367.6 | 2310.2 | 2204.7 | 2117.5 | 2072.3 | 2027.3 | 1974.3 | 1883.8 | 1829.1 | 1514.1 |
| 37.5° | 2521.5 | 2501.2 | 2422.6 | 2312.7 | 2225.0 | 2193.7 | 2153.6 | 2063.5 | 1986.7 | 1935.1 | 1596.9 |
| 40°   | 2606.0 | 2601.3 | 2528.0 | 2403.4 | 2312.4 | 2296.9 | 2283.6 | 2167.1 | 2100.8 | 2052.9 | 1688.0 |
| 42.5° | 2627.5 | 2637.5 | 2579.2 | 2476.9 | 2390.1 | 2377.7 | 2409.0 | 2284.2 | 2229.0 | 2183.0 | 1791.2 |
| 45°   | 2575.6 | 2604.4 | 2566.2 | 2496.7 | 2445.3 | 2438.7 | 2520.1 | 2412.2 | 2370.7 | 2328.8 | 1915.6 |
| 47.5° | 2444.1 | 2493.0 | 2477.2 | 2467.5 | 2460.2 | 2489.1 | 2617.7 | 2548.3 | 2531.2 | 2494.8 | 2057.7 |
| 50°   | 2178.8 | 2271.4 | 2299.1 | 2360.4 | 2430.8 | 2528.3 | 2706.7 | 2696.7 | 2718.8 | 2682.1 | 2230.7 |
| 52.5° | 1720.2 | 1847.7 | 2008.0 | 2161.5 | 2340.3 | 2515.1 | 2804.4 | 2909.8 | 3003.2 | 2983.3 | 2505.7 |
| 55°   | 1419.9 | 1477.3 | 1600.6 | 1882.3 | 2164.9 | 2460.2 | 2848.5 | 3081.9 | 3285.5 | 3267.7 | 2714.3 |
| 57.5° | 1189.3 | 1240.6 | 1316.5 | 1551.7 | 1899.5 | 2335.5 | 2875.7 | 3186.9 | 3479.0 | 3477.1 | 2920.1 |
| 60°   | 941.9  | 996.2  | 1073.9 | 1240.6 | 1589.7 | 2119.9 | 2869.7 | 3306.5 | 3725.7 | 3740.8 | 3171.1 |
| 62.5° | 662.7  | 722.4  | 808.6  | 964.0  | 1273.0 | 1840.7 | 2745.9 | 3393.1 | 4016.2 | 4057.5 | 3473.1 |
| 65°   | 435.6  | 475.1  | 540.0  | 674.1  | 948.5  | 1481.6 | 2509.4 | 3404.2 | 4327.0 | 4396.8 | 3756.6 |
| 67.5° | 305.3  | 320.5  | 358.7  | 431.6  | 625.4  | 1136.2 | 2132.7 | 3288.0 | 4534.4 | 4613.0 | 3879.6 |
| 70°   | 238.3  | 245.9  | 265.3  | 294.5  | 392.8  | 764.0  | 1634.3 | 2985.6 | 4490.0 | 4572.0 | 3751.2 |
| 72.5° | 205.8  | 213.1  | 220.4  | 224.1  | 263.5  | 471.7  | 1107.0 | 2496.4 | 4072.6 | 4128.2 | 3261.5 |
| 75°   | 186.7  | 188.5  | 194.5  | 193.3  | 200.9  | 306.0  | 639.0  | 1818.9 | 3213.3 | 3194.2 | 2407.7 |
| 77.5° | 156.9  | 159.4  | 169.3  | 167.9  | 178.5  | 209.1  | 331.8  | 1173.8 | 2083.2 | 1953.3 | 1340.2 |
| 80°   | 132.9  | 134.2  | 145.1  | 143.3  | 155.1  | 151.5  | 169.3  | 598.3  | 883.7  | 748.6  | 386.4  |
| 82.5° | 46.1   | 57.1   | 110.8  | 114.1  | 118.4  | 91.6   | 97.8   | 244.1  | 269.9  | 206.7  | 81.1   |
| 85°   | 22.4   | 24.0   | 56.5   | 80.2   | 79.8   | 46.1   | 47.7   | 87.1   | 85.0   | 66.8   | 27.1   |
| 87.5° | 3.7    | 4.5    | 6.7    | 31.3   | 24.9   | 12.1   | 16.4   | 17.0   | 17.6   | 15.2   | 6.0    |
| 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°    | 689.9  | 689.9  | 689.9 | 689.9 | 689.9 | 689.9 | 689.9 | 689.9 | 689.9 | 689.9 | 689.9 |
| 2.5°  | 697.5  | 682.3  | 650.5 | 621.0 | 598.0 | 575.8 | 563.3 | 552.8 | 546.6 | 545.5 | 545.5 |
| 5°    | 716.4  | 685.1  | 627.1 | 578.2 | 546.4 | 522.8 | 510.2 | 502.4 | 498.5 | 496.0 | 495.7 |
| 7.5°  | 743.3  | 697.5  | 615.0 | 559.4 | 526.0 | 509.0 | 502.7 | 501.4 | 501.1 | 501.4 | 502.4 |
| 10°   | 780.7  | 717.9  | 613.8 | 554.8 | 527.0 | 517.5 | 517.2 | 517.5 | 518.8 | 519.1 | 519.4 |
| 12.5° | 821.1  | 738.8  | 618.6 | 558.8 | 538.5 | 533.3 | 532.4 | 532.1 | 533.0 | 533.6 | 533.9 |
| 15°   | 865.1  | 766.5  | 626.8 | 567.3 | 551.2 | 545.8 | 544.9 | 543.0 | 542.7 | 542.4 | 542.1 |
| 17.5° | 910.3  | 793.8  | 635.9 | 576.5 | 559.4 | 551.9 | 548.5 | 544.3 | 540.9 | 540.0 | 540.9 |
| 20°   | 956.1  | 820.8  | 642.3 | 581.0 | 560.1 | 549.4 | 542.7 | 535.5 | 529.7 | 526.3 | 527.6 |
| 22.5° | 1005.0 | 849.0  | 646.3 | 579.7 | 554.5 | 540.0 | 527.9 | 519.4 | 510.6 | 504.8 | 505.1 |
| 25°   | 1052.7 | 873.6  | 646.0 | 573.4 | 544.0 | 525.4 | 509.9 | 499.1 | 486.9 | 480.8 | 480.8 |
| 27.5° | 1098.5 | 895.7  | 638.4 | 562.2 | 528.8 | 508.1 | 489.6 | 476.5 | 464.7 | 459.0 | 458.7 |
| 30°   | 1145.8 | 914.3  | 626.5 | 545.8 | 510.9 | 488.1 | 467.8 | 456.5 | 445.9 | 440.4 | 440.1 |
| 32.5° | 1192.9 | 931.3  | 609.8 | 525.4 | 490.3 | 468.3 | 448.3 | 438.0 | 431.6 | 431.6 | 431.9 |
| 35°   | 1242.7 | 943.1  | 587.6 | 501.7 | 468.3 | 447.4 | 431.6 | 425.6 | 425.0 | 421.3 | 420.5 |
| 37.5° | 1295.2 | 950.7  | 560.7 | 477.4 | 446.8 | 427.1 | 422.2 | 414.9 | 408.9 | 401.0 | 399.7 |
| 40°   | 1350.4 | 958.3  | 528.2 | 452.2 | 424.0 | 413.1 | 411.0 | 401.3 | 384.0 | 364.6 | 361.8 |
| 42.5° | 1417.6 | 963.5  | 494.5 | 427.1 | 400.1 | 396.5 | 399.4 | 382.7 | 355.2 | 340.6 | 340.9 |
| 45°   | 1495.3 | 971.9  | 463.5 | 402.2 | 375.5 | 375.5 | 388.3 | 366.3 | 343.6 | 334.5 | 336.0 |
| 47.5° | 1596.0 | 991.7  | 434.7 | 374.8 | 352.7 | 358.7 | 363.4 | 346.7 | 333.9 | 322.7 | 322.4 |
| 50°   | 1741.8 | 1039.0 | 405.0 | 347.3 | 335.4 | 347.6 | 341.2 | 331.5 | 316.6 | 307.5 | 306.6 |
| 52.5° | 1922.7 | 1066.9 | 378.5 | 322.4 | 320.5 | 332.7 | 323.6 | 314.5 | 303.2 | 291.1 | 288.6 |
| 55°   | 2045.9 | 1072.1 | 356.4 | 304.1 | 310.6 | 309.3 | 306.0 | 297.8 | 291.7 | 275.6 | 275.9 |
| 57.5° | 2183.7 | 1082.4 | 338.1 | 293.3 | 304.1 | 290.8 | 289.6 | 282.6 | 274.7 | 263.7 | 260.1 |
| 60°   | 2348.5 | 1098.5 | 322.4 | 288.9 | 298.7 | 278.7 | 272.5 | 269.9 | 262.0 | 256.5 | 258.0 |
| 62.5° | 2528.3 | 1113.0 | 306.3 | 289.6 | 292.3 | 266.8 | 257.7 | 256.8 | 251.9 | 250.1 | 250.1 |
| 65°   | 2650.9 | 1073.4 | 286.3 | 288.9 | 282.3 | 254.7 | 243.1 | 242.8 | 238.9 | 238.3 | 238.0 |
| 67.5° | 2608.0 | 947.4  | 259.2 | 280.4 | 271.9 | 242.5 | 229.8 | 228.6 | 223.4 | 223.8 | 223.8 |
| 70°   | 2393.8 | 767.6  | 221.9 | 259.5 | 259.2 | 231.6 | 215.9 | 211.9 | 204.9 | 206.1 | 207.4 |
| 72.5° | 1991.9 | 568.9  | 171.8 | 224.6 | 238.9 | 221.6 | 199.8 | 193.3 | 184.6 | 185.7 | 185.4 |
| 75°   | 1438.5 | 386.7  | 125.0 | 170.9 | 208.0 | 209.7 | 184.0 | 173.0 | 162.4 | 164.2 | 164.8 |
| 77.5° | 736.1  | 219.1  | 91.9  | 117.8 | 163.3 | 190.6 | 169.6 | 155.1 | 152.7 | 169.6 | 167.3 |
| 80°   | 240.1  | 109.9  | 63.8  | 82.6  | 107.1 | 156.0 | 148.7 | 132.0 | 131.4 | 135.4 | 116.2 |
| 82.5° | 71.6   | 46.4   | 41.0  | 54.3  | 59.1  | 119.6 | 128.4 | 99.8  | 85.9  | 90.4  | 93.5  |
| 85°   | 24.6   | 22.4   | 23.4  | 27.1  | 28.2  | 70.1  | 89.9  | 66.2  | 62.5  | 68.9  | 68.0  |
| 87.5° | 5.7    | 7.9    | 6.7   | 6.0   | 6.0   | 17.0  | 35.0  | 27.6  | 38.2  | 25.5  | 24.6  |
| 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)