

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: P959397

Luminaire Tested: **NAV-SB1A-760-U-T3R-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P959397  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1A-760-U-T3R-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 5700K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE III ROADWAY  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

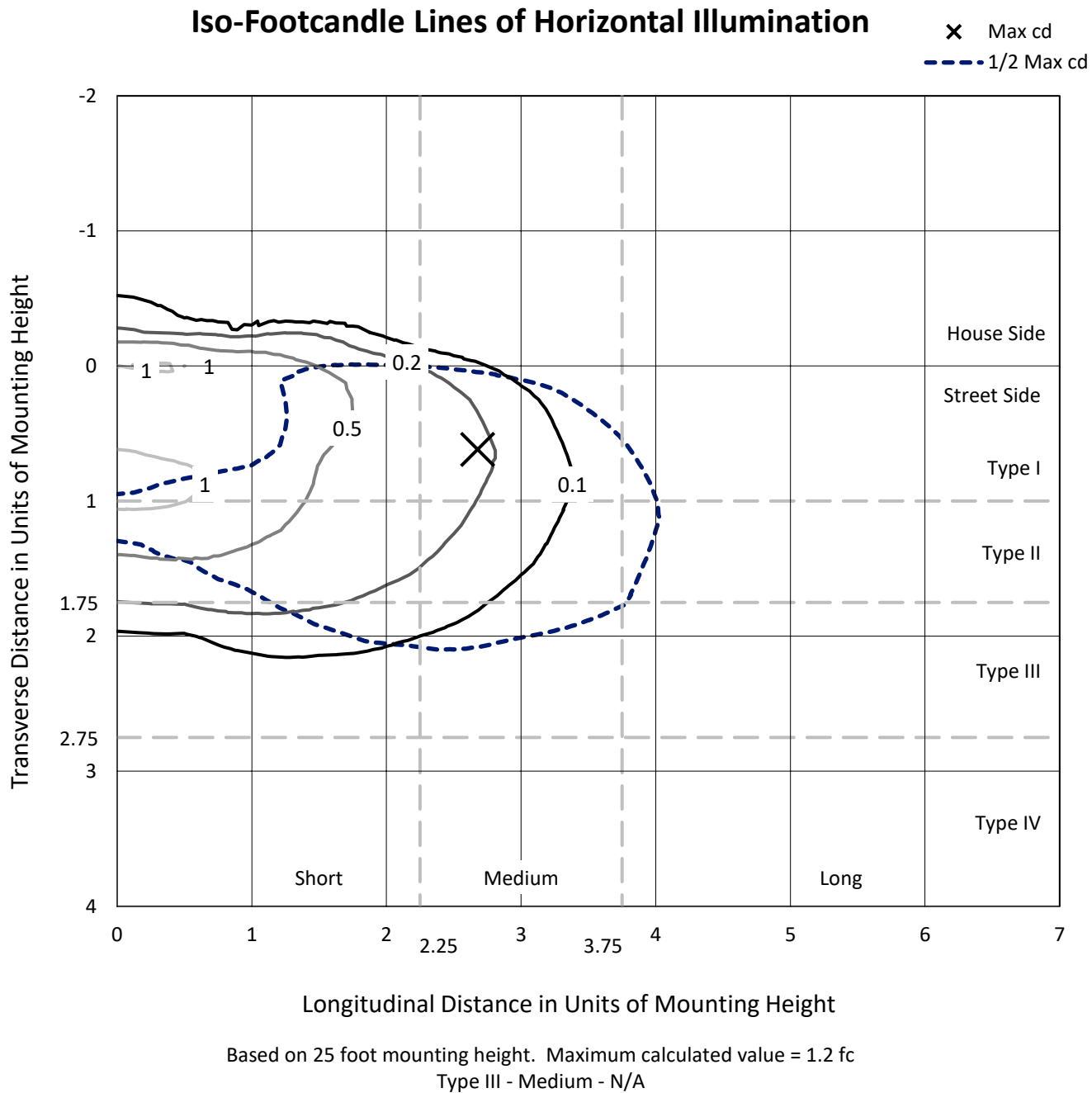
### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 4050.8 lumens  
Efficiency: N/A  
Efficacy: 131.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B1 - U0 - G1

Input Watts (W): 30.9  
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

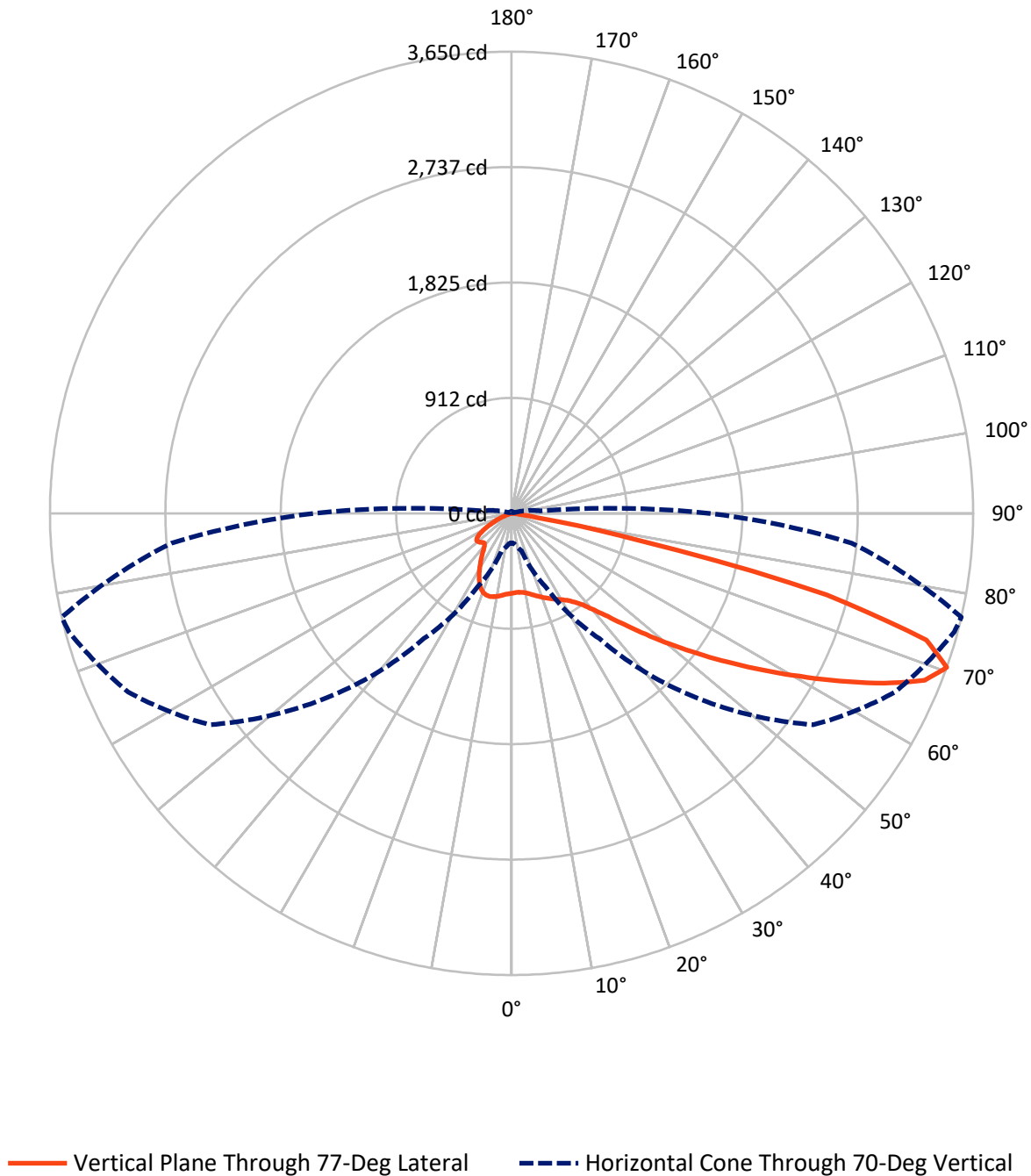


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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 427.0    | 0.0    | 427.0  |
|                    | % Fixture | 10.5     | 0.0    | 10.5   |
| <b>Street Side</b> | Lumens    | 3623.8   | 0.0    | 3623.8 |
|                    | % Fixture | 89.5     | 0.0    | 89.5   |
| <b>Total</b>       | Lumens    | 4050.8   | 0.0    | 4050.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 54.5   | 1.3       |
| 10°-20°   | 129.3  | 3.2       |
| 20°-30°   | 199.9  | 4.9       |
| 30°-40°   | 362.8  | 9.0       |
| 40°-50°   | 684.9  | 16.9      |
| 50°-60°   | 989.6  | 24.4      |
| 60°-70°   | 1053.4 | 26.0      |
| 70°-80°   | 558.2  | 13.8      |
| 80°-90°   | 18.3   | 0.5       |
| 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°    | 4050.8 | 100.0     |
| 0°-180°   | 4050.8 | 100.0     |

**Coefficient of Utilization**



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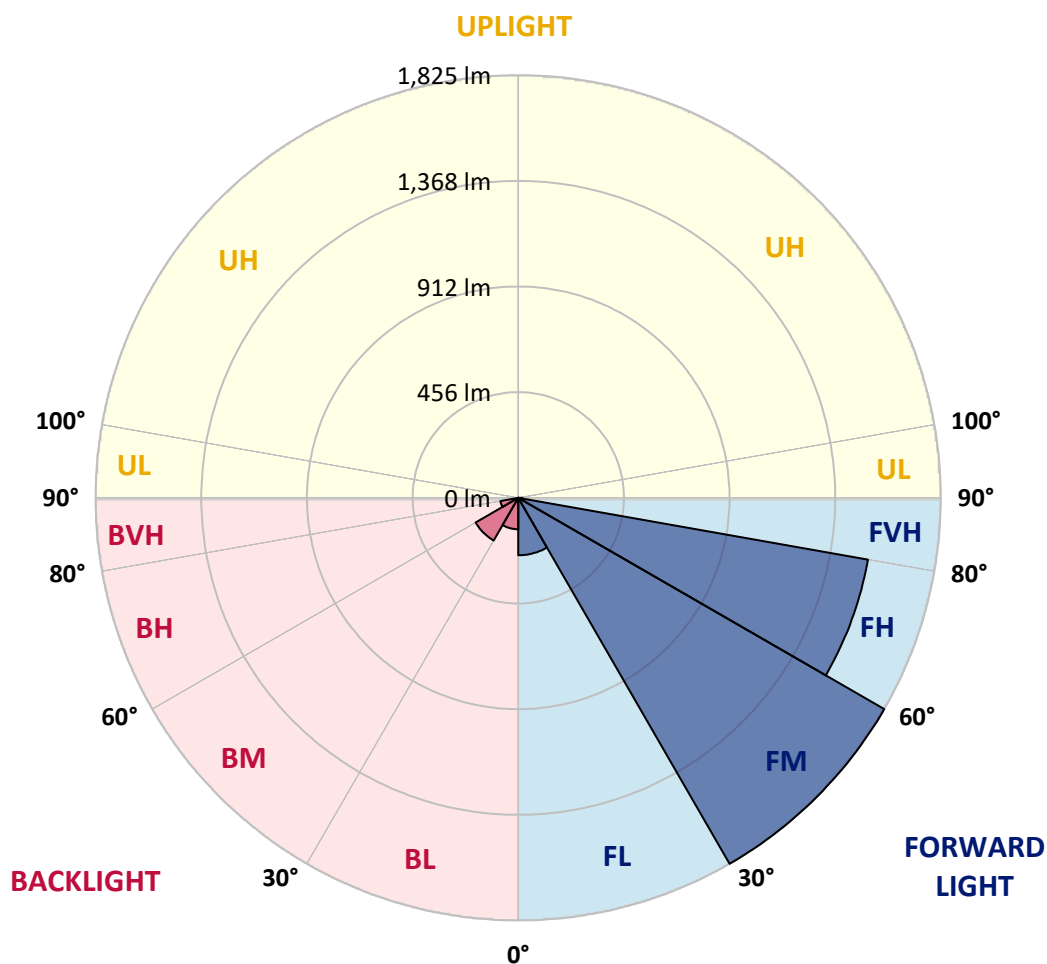
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 248.0  | 6.1       |                         |      |         |
| FM   | (30°-60°)   | 1824.7 | 45.0      |                         |      |         |
| FH   | (60°-80°)   | 1533.3 | 37.9      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 17.8   | 0.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 135.7  | 3.3       | B1/500                  |      |         |
| BM   | (30°-60°)   | 212.6  | 5.2       | B0/220                  |      |         |
| BH   | (60°-80°)   | 78.3   | 1.9       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 0.5    | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

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

Type III Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 77°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 631.8  | 631.8  | 631.8  | 631.8  | 631.8  | 631.8  | 631.8  | 631.8  | 631.8  | 631.8  | 631.8  |
| 2.5°  | 593.3  | 598.6  | 597.8  | 601.4  | 602.7  | 607.8  | 612.9  | 619.8  | 627.5  | 627.2  | 632.3  |
| 5°    | 559.8  | 565.1  | 566.4  | 571.2  | 577.4  | 585.3  | 595.8  | 609.6  | 623.9  | 626.3  | 636.4  |
| 7.5°  | 520.1  | 525.7  | 529.0  | 538.7  | 550.0  | 566.4  | 583.5  | 603.7  | 627.5  | 630.8  | 650.6  |
| 10°   | 480.4  | 485.5  | 489.8  | 503.7  | 521.6  | 545.9  | 573.8  | 602.9  | 634.9  | 639.8  | 667.7  |
| 12.5° | 455.8  | 460.7  | 465.6  | 477.5  | 499.9  | 529.5  | 567.3  | 606.5  | 647.2  | 654.2  | 691.0  |
| 15°   | 447.2  | 451.5  | 455.3  | 466.1  | 486.8  | 520.6  | 566.1  | 614.0  | 662.8  | 672.0  | 719.0  |
| 17.5° | 448.4  | 450.7  | 453.3  | 461.5  | 481.6  | 516.5  | 568.4  | 626.7  | 681.2  | 689.4  | 747.2  |
| 20°   | 455.8  | 457.2  | 457.4  | 463.0  | 480.9  | 516.0  | 573.0  | 639.0  | 698.6  | 709.6  | 775.1  |
| 22.5° | 465.4  | 465.9  | 465.4  | 469.1  | 485.7  | 519.8  | 579.1  | 653.8  | 718.0  | 728.3  | 803.3  |
| 25°   | 509.5  | 499.9  | 487.6  | 480.1  | 493.9  | 527.3  | 588.3  | 673.8  | 739.3  | 749.3  | 830.7  |
| 27.5° | 647.0  | 619.1  | 575.0  | 525.7  | 510.9  | 537.9  | 601.2  | 694.0  | 760.8  | 769.8  | 860.1  |
| 30°   | 870.0  | 833.4  | 758.7  | 647.5  | 565.1  | 560.5  | 617.8  | 714.2  | 783.5  | 793.2  | 891.5  |
| 32.5° | 1093.6 | 1084.7 | 998.5  | 844.4  | 687.1  | 610.6  | 645.4  | 741.6  | 813.7  | 821.4  | 934.0  |
| 35°   | 1319.7 | 1301.5 | 1230.9 | 1078.7 | 875.1  | 712.7  | 691.5  | 777.4  | 853.4  | 862.1  | 995.9  |
| 37.5° | 1492.9 | 1481.9 | 1438.2 | 1312.8 | 1098.2 | 870.2  | 770.3  | 832.9  | 910.9  | 920.7  | 1075.1 |
| 40°   | 1645.8 | 1640.7 | 1626.0 | 1543.3 | 1347.6 | 1076.5 | 892.8  | 918.9  | 990.8  | 1002.2 | 1172.4 |
| 42.5° | 1766.1 | 1778.2 | 1786.6 | 1763.5 | 1604.7 | 1311.8 | 1057.5 | 1039.7 | 1102.1 | 1113.8 | 1296.2 |
| 45°   | 1889.2 | 1893.3 | 1927.3 | 1960.5 | 1860.0 | 1557.9 | 1243.2 | 1181.1 | 1240.5 | 1255.0 | 1444.5 |
| 47.5° | 1968.2 | 1984.6 | 2044.5 | 2103.0 | 2074.6 | 1802.0 | 1442.8 | 1348.1 | 1400.9 | 1428.2 | 1610.8 |
| 50°   | 1974.0 | 2005.0 | 2087.4 | 2189.5 | 2230.9 | 2034.2 | 1659.7 | 1538.4 | 1594.5 | 1624.6 | 1788.4 |
| 52.5° | 1876.2 | 1924.2 | 2051.8 | 2201.3 | 2315.4 | 2230.9 | 1884.1 | 1728.8 | 1800.6 | 1840.1 | 1972.5 |
| 55°   | 1438.4 | 1501.3 | 1918.1 | 2137.3 | 2318.7 | 2380.0 | 2102.5 | 1927.0 | 2030.3 | 2074.9 | 2171.6 |
| 57.5° | 1253.2 | 1284.9 | 1508.0 | 2026.3 | 2257.0 | 2440.2 | 2300.0 | 2115.8 | 2280.3 | 2335.6 | 2359.5 |
| 60°   | 1042.7 | 1084.3 | 1264.7 | 1844.7 | 2173.4 | 2446.1 | 2474.5 | 2359.3 | 2551.2 | 2613.3 | 2532.1 |
| 62.5° | 708.6  | 753.9  | 933.2  | 1532.6 | 2059.0 | 2443.3 | 2617.4 | 2610.1 | 2852.3 | 2919.1 | 2678.1 |
| 65°   | 439.0  | 467.4  | 585.6  | 1251.4 | 1899.1 | 2446.3 | 2767.1 | 2914.5 | 3170.0 | 3237.8 | 2791.2 |
| 67.5° | 346.9  | 359.9  | 421.6  | 960.8  | 1623.6 | 2377.3 | 2916.5 | 3200.7 | 3469.0 | 3522.7 | 2825.7 |
| 70°   | 233.1  | 241.0  | 306.7  | 644.1  | 1208.0 | 2058.5 | 2913.7 | 3344.5 | 3623.1 | 3649.9 | 2699.8 |
| 72.5° | 122.8  | 128.9  | 179.3  | 298.3  | 729.6  | 1463.2 | 2456.0 | 3172.6 | 3469.8 | 3429.4 | 2307.7 |
| 75°   | 61.4   | 71.6   | 120.7  | 151.4  | 311.6  | 816.0  | 1525.1 | 2501.3 | 2731.0 | 2574.5 | 1480.6 |
| 77.5° | 46.5   | 56.3   | 99.7   | 99.7   | 108.4  | 274.7  | 646.0  | 1364.3 | 1258.3 | 1047.8 | 434.6  |
| 80°   | 29.7   | 38.3   | 87.2   | 75.4   | 45.3   | 69.8   | 168.3  | 382.2  | 267.3  | 203.4  | 79.0   |
| 82.5° | 17.4   | 25.1   | 72.7   | 49.9   | 25.3   | 25.8   | 47.6   | 81.4   | 69.3   | 54.0   | 24.3   |
| 85°   | 6.9    | 16.4   | 49.9   | 19.7   | 9.9    | 6.4    | 14.3   | 17.4   | 14.3   | 10.8   | 6.1    |
| 87.5° | 0.0    | 3.8    | 8.7    | 0.0    | 0.7    | 0.5    | 1.0    | 1.2    | 1.2    | 1.0    | 2.0    |
| 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°    | 631.8  | 631.8  | 631.8 | 631.8 | 631.8 | 631.8 | 631.8 | 631.8 | 631.8 | 631.8 | 631.8 |
| 2.5°  | 634.7  | 635.2  | 636.7 | 636.9 | 633.3 | 628.7 | 627.0 | 626.3 | 623.2 | 622.9 | 623.4 |
| 5°    | 642.4  | 644.6  | 642.4 | 635.7 | 619.8 | 597.6 | 580.7 | 566.8 | 554.3 | 550.5 | 548.2 |
| 7.5°  | 657.6  | 660.0  | 653.1 | 627.0 | 587.1 | 542.8 | 503.0 | 474.8 | 449.5 | 440.0 | 436.1 |
| 10°   | 679.7  | 682.8  | 661.0 | 608.3 | 537.7 | 466.6 | 399.0 | 351.5 | 314.4 | 299.3 | 292.9 |
| 12.5° | 707.4  | 708.6  | 665.3 | 579.9 | 473.6 | 372.0 | 276.2 | 225.4 | 192.4 | 180.1 | 176.3 |
| 15°   | 737.8  | 735.9  | 665.8 | 541.3 | 386.0 | 263.0 | 180.3 | 148.1 | 134.8 | 130.7 | 130.7 |
| 17.5° | 769.8  | 762.3  | 655.7 | 485.5 | 290.1 | 179.8 | 133.8 | 126.1 | 123.8 | 122.8 | 122.5 |
| 20°   | 801.2  | 784.5  | 636.9 | 412.7 | 208.3 | 134.3 | 121.5 | 119.2 | 118.0 | 117.5 | 117.0 |
| 22.5° | 829.8  | 801.4  | 605.0 | 328.0 | 151.2 | 118.7 | 114.9 | 112.9 | 110.5 | 109.5 | 109.3 |
| 25°   | 857.7  | 811.2  | 560.0 | 248.9 | 121.0 | 111.0 | 107.9 | 104.1 | 101.1 | 99.7  | 99.2  |
| 27.5° | 884.9  | 817.3  | 503.7 | 184.2 | 107.9 | 103.8 | 98.2  | 92.9  | 90.5  | 90.0  | 89.5  |
| 30°   | 913.8  | 819.4  | 439.7 | 137.4 | 100.0 | 94.9  | 86.7  | 80.6  | 79.3  | 79.5  | 79.5  |
| 32.5° | 949.0  | 822.5  | 375.3 | 112.5 | 93.4  | 84.2  | 74.4  | 68.1  | 67.0  | 68.1  | 67.8  |
| 35°   | 991.3  | 828.6  | 313.1 | 103.6 | 87.5  | 73.2  | 62.6  | 57.3  | 56.3  | 57.1  | 56.8  |
| 37.5° | 1048.6 | 838.6  | 255.0 | 101.8 | 82.6  | 64.0  | 52.7  | 48.4  | 48.4  | 48.6  | 48.4  |
| 40°   | 1124.8 | 865.1  | 203.2 | 100.6 | 80.1  | 57.1  | 44.5  | 42.7  | 43.5  | 44.0  | 44.0  |
| 42.5° | 1217.7 | 921.7  | 168.1 | 99.0  | 77.3  | 54.0  | 40.4  | 39.7  | 40.9  | 41.4  | 41.4  |
| 45°   | 1321.7 | 993.3  | 155.8 | 96.5  | 74.7  | 56.1  | 38.6  | 37.6  | 39.2  | 39.4  | 39.7  |
| 47.5° | 1429.5 | 1063.4 | 154.3 | 93.6  | 72.2  | 59.1  | 38.1  | 35.8  | 37.6  | 37.8  | 38.1  |
| 50°   | 1538.4 | 1109.2 | 155.8 | 89.3  | 68.1  | 59.1  | 38.3  | 34.0  | 35.6  | 36.3  | 36.6  |
| 52.5° | 1648.2 | 1130.2 | 154.8 | 79.8  | 60.9  | 55.6  | 38.3  | 32.5  | 34.0  | 34.5  | 34.5  |
| 55°   | 1754.6 | 1126.1 | 139.2 | 65.7  | 51.7  | 49.1  | 37.3  | 31.2  | 32.2  | 32.5  | 32.5  |
| 57.5° | 1838.7 | 1069.1 | 110.3 | 51.1  | 41.9  | 40.9  | 34.0  | 29.7  | 30.4  | 30.1  | 30.1  |
| 60°   | 1882.7 | 943.7  | 78.8  | 39.4  | 33.0  | 32.2  | 29.9  | 27.7  | 28.2  | 26.9  | 26.6  |
| 62.5° | 1883.2 | 777.9  | 52.7  | 31.2  | 26.3  | 25.6  | 25.6  | 24.8  | 24.3  | 21.7  | 21.0  |
| 65°   | 1843.2 | 594.0  | 35.1  | 24.8  | 21.2  | 20.0  | 21.5  | 21.2  | 19.5  | 15.9  | 15.4  |
| 67.5° | 1752.0 | 389.3  | 26.6  | 19.5  | 16.4  | 15.6  | 17.1  | 17.9  | 16.6  | 13.3  | 13.0  |
| 70°   | 1564.8 | 226.6  | 22.0  | 15.1  | 12.3  | 11.5  | 13.8  | 15.4  | 13.8  | 10.8  | 10.2  |
| 72.5° | 1299.8 | 122.3  | 17.9  | 11.3  | 8.4   | 7.7   | 11.0  | 12.5  | 11.0  | 7.9   | 7.7   |
| 75°   | 843.4  | 65.5   | 13.8  | 7.4   | 4.3   | 4.8   | 8.2   | 9.2   | 7.7   | 5.1   | 4.6   |
| 77.5° | 283.2  | 28.9   | 8.7   | 3.6   | 2.0   | 2.0   | 4.8   | 5.6   | 3.6   | 1.7   | 1.5   |
| 80°   | 63.1   | 12.0   | 3.6   | 1.5   | 0.7   | 0.7   | 1.0   | 1.0   | 0.5   | 0.0   | 0.0   |
| 82.5° | 20.7   | 4.8    | 1.5   | 0.5   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 7.9    | 1.7    | 0.5   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 3.1    | 0.2    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 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)