

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: P960772

Luminaire Tested: **NAV-SB1D-722-U-AFL**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P960772  
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-SB1D-722-U-AFL  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 2200K, 900mA LIGHTSQUARE WITH 26 LEDS AND AUTOMOTIVE  
FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

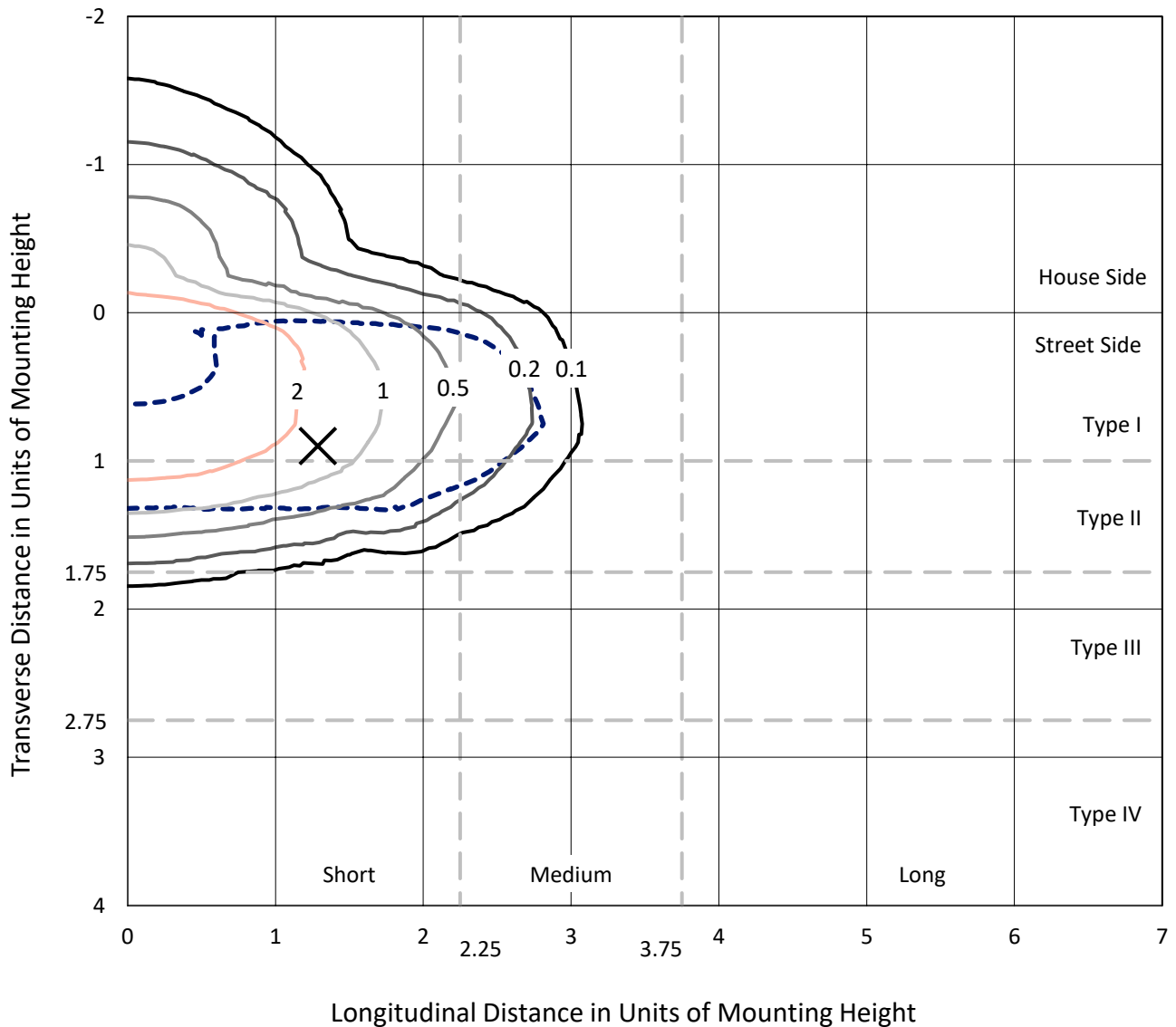
Lumens per Lamp: N/A  
Luminaire Lumens: 8765.8 lumens  
Efficiency: N/A  
Efficacy: 110.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 79.6  
Input Voltage (V): NR  
Input Current (Ain): 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

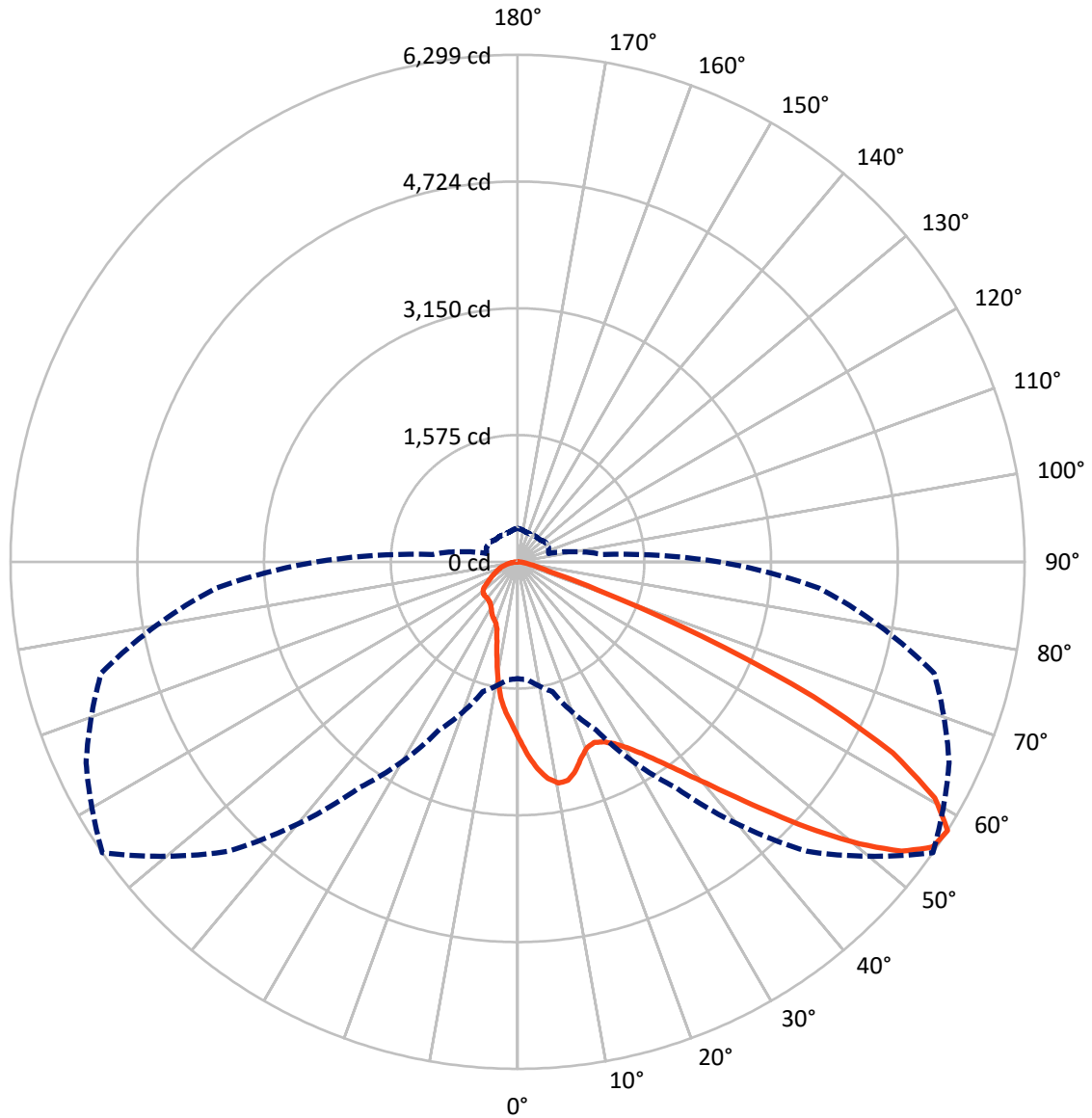
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral      - - - Horizontal Cone Through 57.5-Deg Vertical

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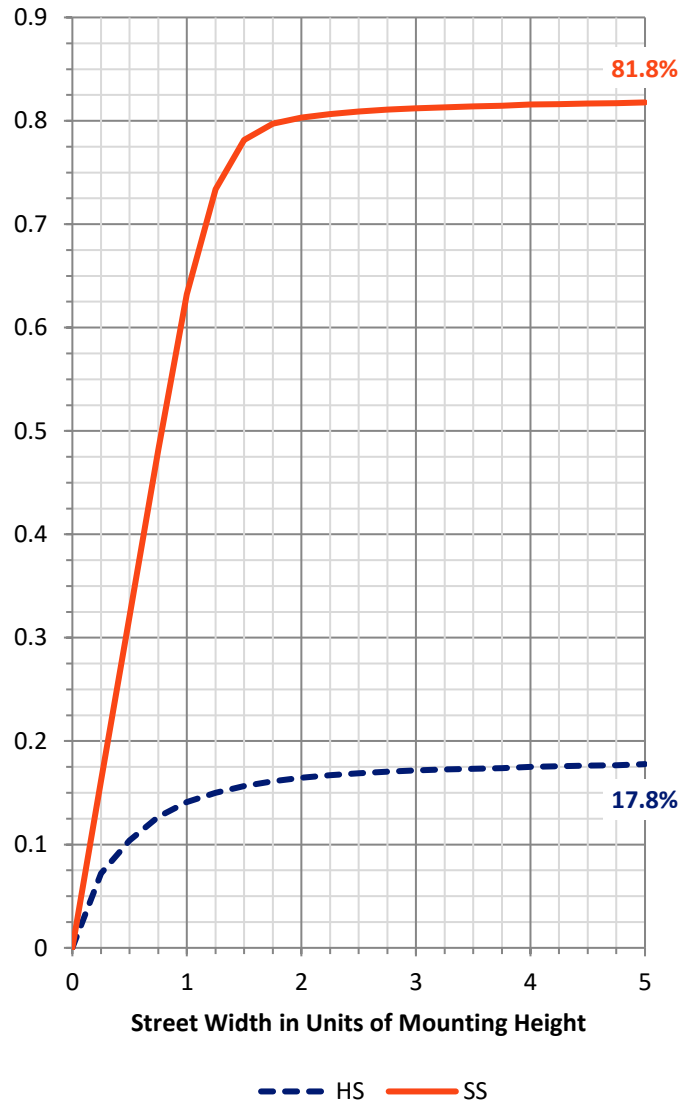
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1586.1   | 0.0    | 1586.1 |
|                    | % Fixture | 18.1     | 0.0    | 18.1   |
| <b>Street Side</b> | Lumens    | 7179.7   | 0.0    | 7179.7 |
|                    | % Fixture | 81.9     | 0.0    | 81.9   |
| <b>Total</b>       | Lumens    | 8765.8   | 0.0    | 8765.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 203.8  | 2.3       |
| 10°-20°   | 514.4  | 5.9       |
| 20°-30°   | 820.9  | 9.4       |
| 30°-40°   | 1299.7 | 14.8      |
| 40°-50°   | 1989.3 | 22.7      |
| 50°-60°   | 2130.7 | 24.3      |
| 60°-70°   | 1340.5 | 15.3      |
| 70°-80°   | 396.4  | 4.5       |
| 80°-90°   | 70.1   | 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°    | 8765.8 | 100.0     |
| 0°-180°   | 8765.8 | 100.0     |

**Coefficient of Utilization**



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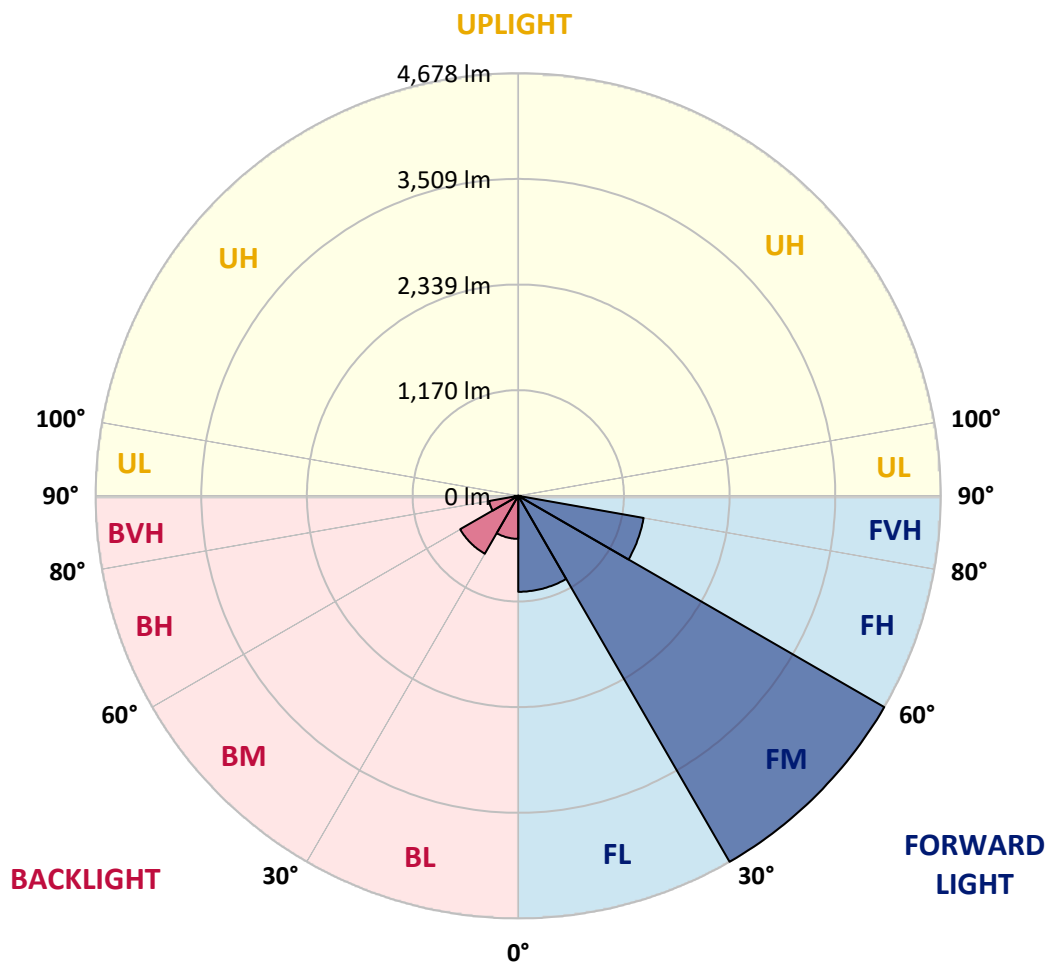
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1062.4 | 12.1      |                         |      |         |
| FM (30°-60°)   | 4678.4 | 53.4      |                         |      |         |
| FH (60°-80°)   | 1409.3 | 16.1      |                         |      | G1/1800 |
| FVH (80°-90°)  | 29.6   | 0.3       |                         |      | G1/100  |
| BL (0°-30°)    | 476.7  | 5.4       | B1/500                  |      |         |
| BM (30°-60°)   | 741.3  | 8.5       | B1/1000                 |      |         |
| BH (60°-80°)   | 327.6  | 3.7       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 40.5   | 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°    | 2196.5 | 2196.5 | 2196.5 | 2196.5 | 2196.5 | 2196.5 | 2196.5 | 2196.5 | 2196.5 | 2196.5 | 2196.5 |
| 2.5°  | 2520.0 | 2518.1 | 2528.2 | 2494.1 | 2471.1 | 2439.8 | 2398.5 | 2345.9 | 2289.3 | 2229.5 | 2203.6 |
| 5°    | 2747.0 | 2731.1 | 2741.6 | 2716.1 | 2690.8 | 2643.7 | 2582.5 | 2496.9 | 2392.1 | 2273.0 | 2209.6 |
| 7.5°  | 2711.2 | 2700.4 | 2727.1 | 2749.8 | 2768.7 | 2762.9 | 2718.0 | 2628.3 | 2493.2 | 2320.1 | 2228.1 |
| 10°   | 2422.6 | 2410.3 | 2447.9 | 2526.3 | 2641.4 | 2741.6 | 2796.0 | 2740.2 | 2596.5 | 2371.7 | 2246.3 |
| 12.5° | 2167.9 | 2162.0 | 2186.9 | 2250.4 | 2378.1 | 2570.3 | 2786.0 | 2838.1 | 2704.0 | 2432.9 | 2270.8 |
| 15°   | 2059.1 | 2051.8 | 2067.7 | 2099.9 | 2181.5 | 2360.5 | 2695.3 | 2905.2 | 2809.5 | 2503.7 | 2309.7 |
| 17.5° | 2035.1 | 2026.9 | 2033.7 | 2050.5 | 2103.1 | 2239.5 | 2558.5 | 2938.3 | 2919.6 | 2582.5 | 2342.3 |
| 20°   | 2079.5 | 2072.8 | 2073.6 | 2072.8 | 2109.4 | 2217.7 | 2463.3 | 2925.6 | 3015.8 | 2655.1 | 2374.1 |
| 22.5° | 2186.9 | 2175.6 | 2176.1 | 2152.0 | 2172.0 | 2255.8 | 2438.4 | 2891.5 | 3101.3 | 2718.5 | 2398.1 |
| 25°   | 2361.8 | 2341.4 | 2345.5 | 2284.3 | 2278.9 | 2341.0 | 2477.4 | 2865.3 | 3186.5 | 2769.2 | 2402.6 |
| 27.5° | 2601.0 | 2578.0 | 2565.8 | 2474.7 | 2431.2 | 2461.9 | 2556.7 | 2874.3 | 3267.2 | 2813.2 | 2391.3 |
| 30°   | 2900.1 | 2872.0 | 2847.1 | 2718.0 | 2639.2 | 2627.8 | 2680.0 | 2934.2 | 3362.4 | 2859.3 | 2371.7 |
| 32.5° | 3266.8 | 3234.2 | 3188.9 | 3017.5 | 2906.5 | 2847.1 | 2839.5 | 3040.7 | 3473.8 | 2918.3 | 2361.8 |
| 35°   | 3703.1 | 3660.6 | 3596.2 | 3374.6 | 3234.2 | 3112.7 | 3049.7 | 3194.3 | 3626.6 | 3007.1 | 2373.2 |
| 37.5° | 4152.7 | 4104.6 | 4045.8 | 3782.0 | 3609.3 | 3430.4 | 3306.2 | 3402.7 | 3830.0 | 3127.7 | 2403.1 |
| 40°   | 4567.3 | 4513.4 | 4458.5 | 4223.8 | 4038.5 | 3822.7 | 3620.2 | 3666.4 | 4078.8 | 3271.8 | 2453.8 |
| 42.5° | 4812.0 | 4772.1 | 4751.3 | 4624.4 | 4481.2 | 4262.4 | 4010.8 | 3979.2 | 4358.4 | 3437.6 | 2511.9 |
| 45°   | 4801.1 | 4784.8 | 4849.2 | 4901.8 | 4867.7 | 4746.3 | 4468.5 | 4324.9 | 4638.9 | 3581.2 | 2565.3 |
| 47.5° | 4544.6 | 4555.5 | 4699.2 | 4994.6 | 5124.7 | 5188.1 | 4989.7 | 4664.3 | 4882.7 | 3688.7 | 2589.4 |
| 50°   | 3846.8 | 3855.8 | 4188.5 | 4825.6 | 5190.8 | 5548.4 | 5506.7 | 4995.5 | 5071.7 | 3754.4 | 2583.8 |
| 52.5° | 3294.5 | 3300.3 | 3443.1 | 4324.5 | 4972.5 | 5729.6 | 5972.6 | 5307.8 | 5209.9 | 3772.5 | 2553.5 |
| 55°   | 2481.4 | 2501.8 | 2661.8 | 3392.7 | 4404.2 | 5586.0 | 6256.2 | 5629.5 | 5297.3 | 3774.3 | 2521.8 |
| 57.5° | 1449.7 | 1471.8 | 1669.4 | 2302.9 | 3423.1 | 5085.2 | 6299.2 | 5915.0 | 5356.8 | 3759.8 | 2502.7 |
| 60°   | 710.1  | 719.7  | 805.8  | 1210.3 | 2110.8 | 4120.5 | 5953.1 | 6053.2 | 5389.8 | 3752.1 | 2501.8 |
| 62.5° | 478.6  | 477.1  | 480.8  | 597.3  | 1040.0 | 2647.3 | 5231.6 | 5811.2 | 5372.1 | 3722.6 | 2492.8 |
| 65°   | 411.4  | 406.5  | 392.9  | 419.1  | 538.8  | 1210.8 | 4042.1 | 5088.9 | 5237.5 | 3648.8 | 2430.7 |
| 67.5° | 355.7  | 356.2  | 356.6  | 348.5  | 384.7  | 558.7  | 2470.1 | 4008.6 | 4754.5 | 3299.0 | 2191.4 |
| 70°   | 294.6  | 298.6  | 300.4  | 300.4  | 313.5  | 366.6  | 1054.5 | 2747.4 | 3750.3 | 2586.6 | 1765.0 |
| 72.5° | 268.2  | 259.6  | 260.6  | 256.0  | 256.0  | 279.1  | 424.6  | 1557.5 | 2362.7 | 1455.1 | 1077.2 |
| 75°   | 218.8  | 224.3  | 225.2  | 222.0  | 211.7  | 213.0  | 251.9  | 653.4  | 1011.0 | 603.6  | 532.5  |
| 77.5° | 189.0  | 189.0  | 190.8  | 188.5  | 180.4  | 159.5  | 168.1  | 253.3  | 344.0  | 247.4  | 266.0  |
| 80°   | 151.8  | 151.4  | 159.1  | 163.6  | 150.9  | 117.8  | 107.4  | 140.0  | 152.7  | 108.8  | 138.2  |
| 82.5° | 73.9   | 78.4   | 109.2  | 124.6  | 114.7  | 85.2   | 65.7   | 87.0   | 81.6   | 48.1   | 62.1   |
| 85°   | 43.0   | 40.8   | 48.9   | 69.3   | 65.7   | 47.2   | 31.7   | 45.3   | 42.6   | 24.5   | 24.9   |
| 87.5° | 13.6   | 12.7   | 9.9    | 23.6   | 19.1   | 13.1   | 8.6    | 13.1   | 11.8   | 5.4    | 5.4    |
| 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°    | 2196.5 | 2196.5 | 2196.5 | 2196.5 | 2196.5 | 2196.5 | 2196.5 | 2196.5 | 2196.5 | 2196.5 |
| 2.5°  | 2171.5 | 2118.1 | 2065.0 | 2016.5 | 1987.1 | 1968.0 | 1949.0 | 1927.7 | 1919.5 | 1907.3 |
| 5°    | 2149.7 | 2046.4 | 1954.5 | 1875.1 | 1803.1 | 1746.4 | 1689.3 | 1643.2 | 1622.3 | 1636.3 |
| 7.5°  | 2137.0 | 1987.5 | 1845.7 | 1700.3 | 1560.2 | 1448.2 | 1350.8 | 1282.4 | 1251.6 | 1259.3 |
| 10°   | 2125.7 | 1921.0 | 1704.8 | 1475.0 | 1273.8 | 1135.2 | 1035.5 | 983.4  | 963.8  | 967.9  |
| 12.5° | 2115.3 | 1846.1 | 1534.8 | 1232.6 | 1018.6 | 927.1  | 898.6  | 899.0  | 902.7  | 905.4  |
| 15°   | 2113.4 | 1755.9 | 1344.9 | 1020.5 | 880.9  | 875.0  | 905.9  | 925.4  | 935.7  | 938.9  |
| 17.5° | 2110.8 | 1648.1 | 1151.5 | 876.0  | 847.4  | 887.2  | 915.8  | 928.5  | 936.6  | 937.2  |
| 20°   | 2099.9 | 1511.3 | 972.9  | 807.1  | 840.2  | 874.6  | 892.3  | 902.2  | 909.1  | 911.3  |
| 22.5° | 2066.4 | 1359.0 | 833.8  | 776.2  | 811.2  | 838.8  | 859.7  | 870.9  | 875.0  | 877.7  |
| 25°   | 2006.1 | 1188.6 | 737.7  | 746.8  | 770.8  | 805.8  | 822.5  | 824.7  | 823.4  | 827.5  |
| 27.5° | 1927.2 | 1006.0 | 677.9  | 706.9  | 737.7  | 767.6  | 776.7  | 775.3  | 772.6  | 777.2  |
| 30°   | 1832.1 | 841.9  | 639.8  | 662.0  | 704.2  | 731.3  | 739.5  | 736.4  | 730.9  | 735.9  |
| 32.5° | 1731.5 | 707.9  | 608.5  | 630.8  | 676.6  | 703.3  | 711.5  | 708.3  | 704.2  | 708.3  |
| 35°   | 1637.6 | 614.0  | 579.5  | 610.0  | 654.8  | 681.1  | 691.5  | 692.0  | 692.0  | 696.9  |
| 37.5° | 1551.5 | 559.2  | 555.6  | 596.8  | 639.8  | 663.4  | 678.3  | 679.3  | 659.8  | 661.1  |
| 40°   | 1471.8 | 536.1  | 544.7  | 588.1  | 625.4  | 648.0  | 648.9  | 598.2  | 562.3  | 561.5  |
| 42.5° | 1406.6 | 531.6  | 547.9  | 587.3  | 614.9  | 615.8  | 552.0  | 512.5  | 502.6  | 503.0  |
| 45°   | 1345.4 | 530.2  | 555.1  | 587.3  | 599.5  | 532.0  | 488.9  | 478.6  | 479.4  | 483.1  |
| 47.5° | 1276.9 | 524.8  | 556.5  | 579.1  | 555.1  | 473.1  | 460.4  | 455.9  | 454.1  | 455.0  |
| 50°   | 1202.2 | 505.2  | 539.3  | 562.8  | 479.0  | 447.7  | 431.8  | 430.5  | 432.8  | 434.1  |
| 52.5° | 1123.4 | 473.6  | 509.8  | 533.4  | 444.1  | 425.5  | 407.8  | 411.0  | 421.0  | 424.1  |
| 55°   | 1071.7 | 436.3  | 470.8  | 474.5  | 419.6  | 404.7  | 389.7  | 397.0  | 415.5  | 421.5  |
| 57.5° | 1058.1 | 397.0  | 426.4  | 422.3  | 388.4  | 386.5  | 377.5  | 383.9  | 407.3  | 415.9  |
| 60°   | 1054.0 | 361.6  | 382.9  | 379.8  | 358.0  | 366.6  | 364.3  | 367.5  | 375.7  | 378.4  |
| 62.5° | 1022.3 | 333.5  | 344.0  | 339.4  | 330.8  | 345.7  | 351.2  | 344.4  | 350.8  | 353.9  |
| 65°   | 941.7  | 310.9  | 305.9  | 302.7  | 306.4  | 319.9  | 330.8  | 317.2  | 323.1  | 332.2  |
| 67.5° | 808.4  | 280.0  | 266.5  | 270.1  | 281.4  | 288.6  | 302.7  | 287.3  | 292.3  | 307.7  |
| 70°   | 653.8  | 241.1  | 228.9  | 239.2  | 250.1  | 265.1  | 267.3  | 257.0  | 268.8  | 286.0  |
| 72.5° | 462.7  | 201.6  | 193.0  | 214.3  | 217.9  | 237.5  | 232.5  | 227.4  | 243.7  | 249.7  |
| 75°   | 320.8  | 162.7  | 157.7  | 174.0  | 187.2  | 203.9  | 200.3  | 206.2  | 240.7  | 243.3  |
| 77.5° | 203.1  | 126.4  | 123.3  | 133.7  | 151.8  | 170.4  | 176.3  | 243.3  | 411.0  | 427.3  |
| 80°   | 117.8  | 94.3   | 90.6   | 98.8   | 114.7  | 131.9  | 169.9  | 298.6  | 271.0  | 267.8  |
| 82.5° | 65.7   | 64.8   | 60.3   | 62.5   | 76.6   | 95.1   | 240.2  | 210.2  | 170.9  | 176.3  |
| 85°   | 30.9   | 38.0   | 32.6   | 31.3   | 43.0   | 111.5  | 160.4  | 120.1  | 79.7   | 77.9   |
| 87.5° | 8.2    | 7.3    | 7.3    | 8.2    | 18.1   | 96.0   | 63.9   | 51.2   | 30.3   | 29.4   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)