

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: P959879

Luminaire Tested: **NAV-SB1B-750-U-SL4-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P959879  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1B-750-U-SL4-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 5000K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT  
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 4264 lumens  
Efficiency: N/A  
Efficacy: 107.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

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

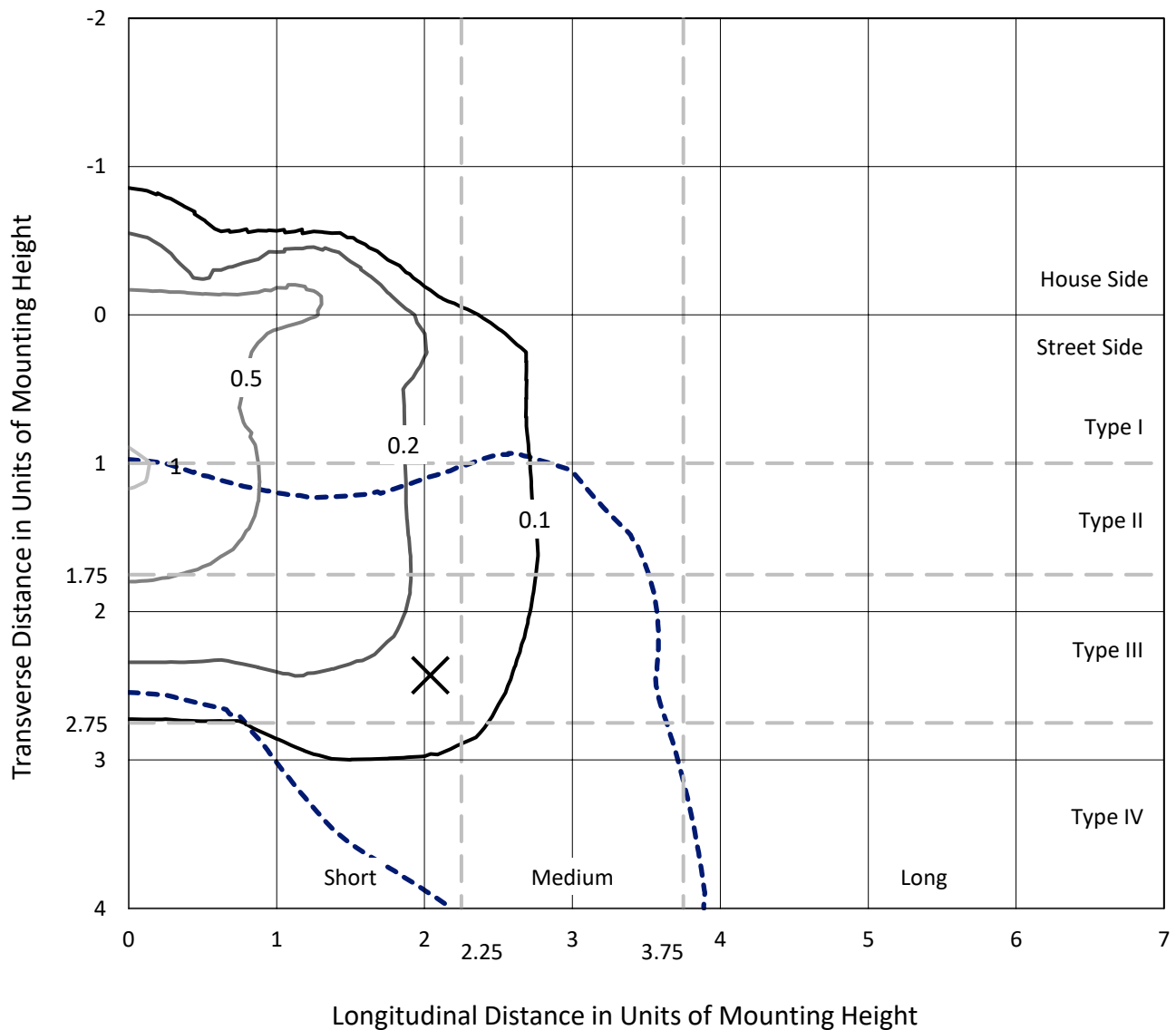


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd

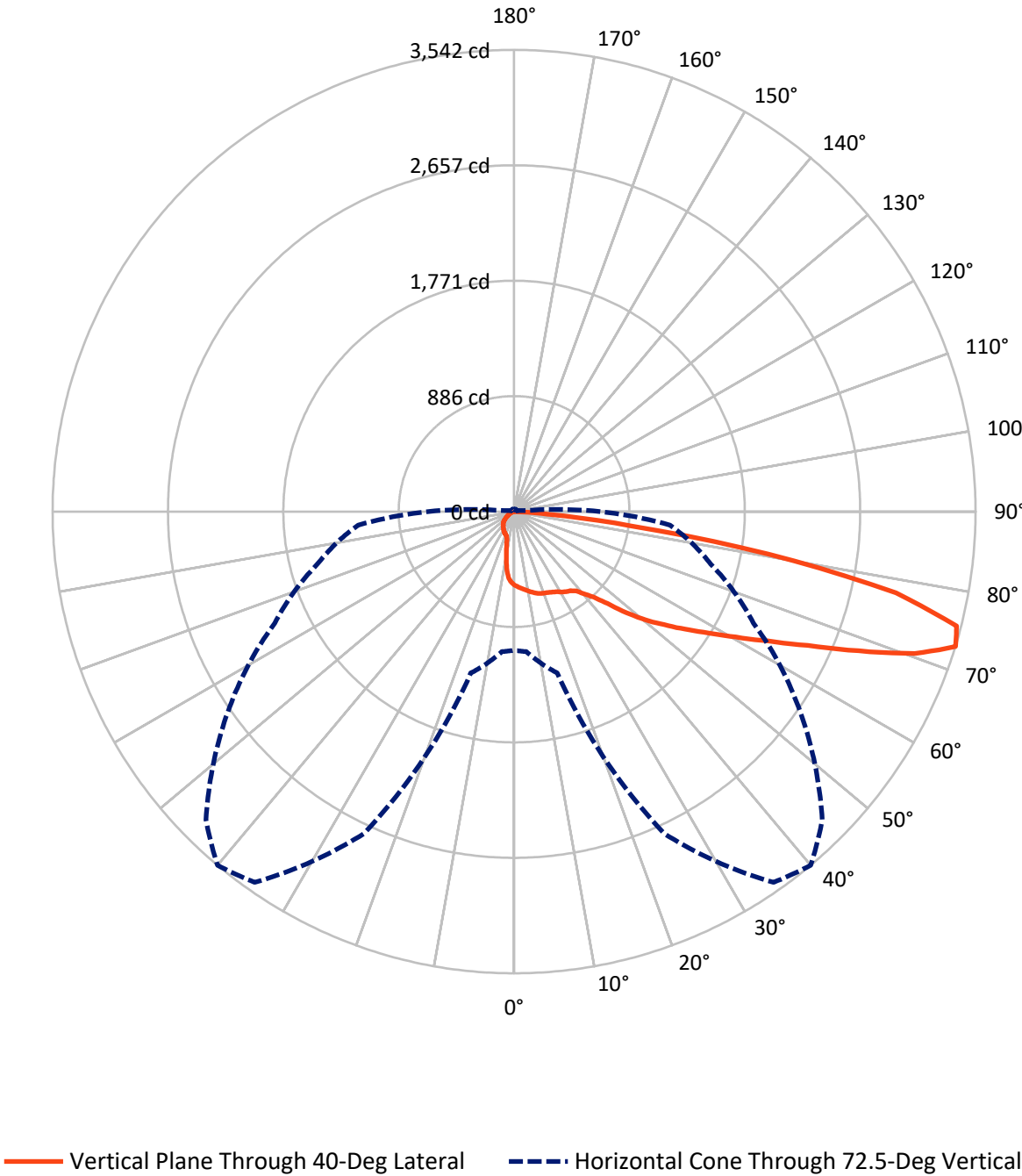


Based on 25 foot mounting height. Maximum calculated value = 1 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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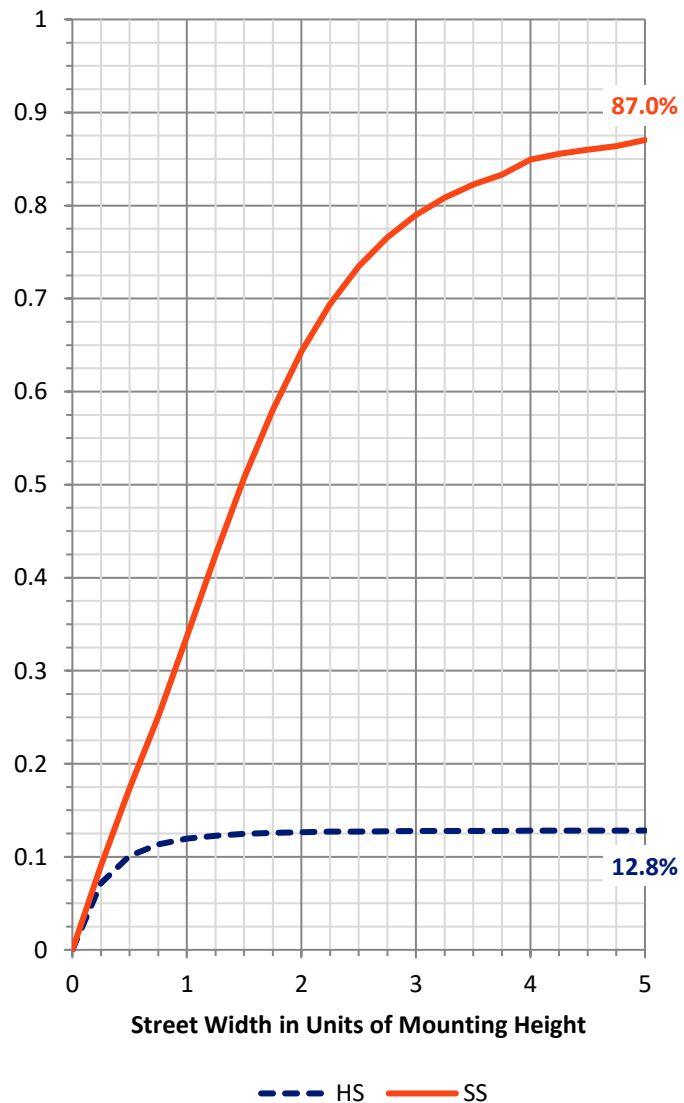
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 550.6    | 0.0    | 550.6  |
|                    | % Fixture | 12.9     | 0.0    | 12.9   |
| <b>Street Side</b> | Lumens    | 3713.3   | 0.0    | 3713.3 |
|                    | % Fixture | 87.1     | 0.0    | 87.1   |
| <b>Total</b>       | Lumens    | 4264.0   | 0.0    | 4264.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 51.6   | 1.2       |
| 10°-20°   | 140.0  | 3.3       |
| 20°-30°   | 226.6  | 5.3       |
| 30°-40°   | 334.5  | 7.8       |
| 40°-50°   | 563.0  | 13.2      |
| 50°-60°   | 874.1  | 20.5      |
| 60°-70°   | 1093.8 | 25.7      |
| 70°-80°   | 895.5  | 21.0      |
| 80°-90°   | 84.9   | 2.0       |
| 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°    | 4264.0 | 100.0     |
| 0°-180°   | 4264.0 | 100.0     |

**Coefficient of Utilization**



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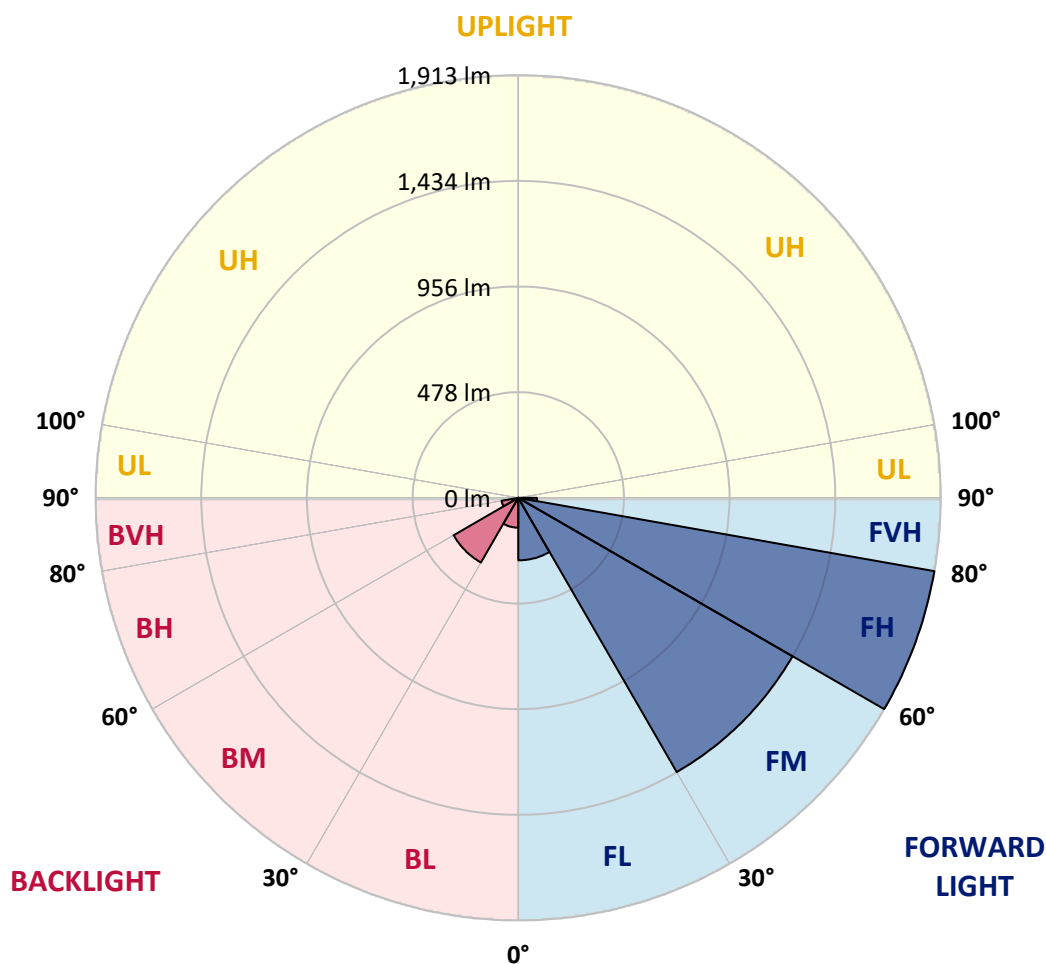
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 283.0  | 6.6       |                         |      |         |
| FM   | (30°-60°)   | 1433.5 | 33.6      |                         |      |         |
| FH   | (60°-80°)   | 1912.6 | 44.9      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 84.3   | 2.0       |                         |      | G1/100  |
| BL   | (0°-30°)    | 135.2  | 3.2       | B1/500                  |      |         |
| BM   | (30°-60°)   | 338.1  | 7.9       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 76.7   | 1.8       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 0.6    | 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-G2**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 40°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 564.6  | 564.6  | 564.6  | 564.6  | 564.6  | 564.6  | 564.6  | 564.6  | 564.6  | 564.6  | 564.6  |
| 2.5°  | 581.6  | 583.8  | 582.6  | 580.0  | 579.3  | 578.1  | 576.5  | 575.8  | 573.6  | 571.6  | 569.4  |
| 5°    | 598.0  | 600.2  | 598.6  | 595.1  | 593.5  | 591.8  | 589.7  | 587.7  | 583.2  | 579.0  | 573.9  |
| 7.5°  | 615.9  | 617.9  | 615.9  | 610.8  | 608.2  | 606.3  | 603.1  | 600.2  | 595.1  | 589.0  | 582.6  |
| 10°   | 635.9  | 637.4  | 634.6  | 627.8  | 623.7  | 620.7  | 617.9  | 614.7  | 609.9  | 603.1  | 595.4  |
| 12.5° | 654.5  | 656.4  | 651.9  | 643.9  | 639.1  | 636.2  | 633.0  | 630.4  | 625.6  | 619.2  | 611.1  |
| 15°   | 671.6  | 674.4  | 666.8  | 658.0  | 652.6  | 650.4  | 647.1  | 645.5  | 642.3  | 637.9  | 630.4  |
| 17.5° | 684.4  | 686.3  | 678.2  | 668.0  | 661.9  | 660.3  | 658.0  | 659.0  | 658.4  | 656.1  | 651.3  |
| 20°   | 695.3  | 696.6  | 686.0  | 673.4  | 666.8  | 667.1  | 666.4  | 669.6  | 670.9  | 670.9  | 670.6  |
| 22.5° | 708.8  | 709.1  | 695.7  | 679.9  | 671.9  | 674.1  | 675.1  | 678.6  | 681.2  | 683.8  | 689.5  |
| 25°   | 726.4  | 725.8  | 709.7  | 688.2  | 681.2  | 684.4  | 686.6  | 687.9  | 690.8  | 694.9  | 708.2  |
| 27.5° | 752.8  | 750.8  | 730.3  | 701.7  | 693.4  | 696.3  | 700.5  | 699.8  | 698.5  | 701.7  | 723.9  |
| 30°   | 786.2  | 783.6  | 756.3  | 720.7  | 713.0  | 715.6  | 716.8  | 711.0  | 701.7  | 704.6  | 737.7  |
| 32.5° | 839.2  | 834.7  | 796.7  | 741.9  | 730.0  | 732.9  | 731.2  | 719.3  | 705.6  | 708.5  | 751.5  |
| 35°   | 931.3  | 920.4  | 866.8  | 786.2  | 749.3  | 746.0  | 742.2  | 730.6  | 713.6  | 710.7  | 763.0  |
| 37.5° | 1127.3 | 1108.0 | 1016.5 | 872.6  | 792.9  | 772.0  | 760.1  | 748.7  | 722.3  | 710.7  | 776.2  |
| 40°   | 1348.2 | 1328.6 | 1222.9 | 1017.1 | 865.5  | 830.1  | 802.0  | 769.8  | 731.2  | 714.9  | 796.7  |
| 42.5° | 1578.8 | 1557.3 | 1448.7 | 1196.3 | 969.2  | 896.7  | 844.0  | 786.8  | 746.0  | 727.7  | 824.1  |
| 45°   | 1836.4 | 1809.3 | 1667.5 | 1383.2 | 1119.8 | 1007.2 | 911.7  | 821.8  | 771.7  | 750.5  | 861.3  |
| 47.5° | 2108.0 | 2073.1 | 1885.5 | 1564.7 | 1282.1 | 1160.0 | 1035.8 | 884.5  | 809.6  | 784.5  | 911.7  |
| 50°   | 2348.9 | 2314.2 | 2110.6 | 1754.5 | 1433.7 | 1305.4 | 1177.0 | 971.2  | 866.4  | 832.7  | 979.5  |
| 52.5° | 2522.0 | 2495.7 | 2315.5 | 1950.4 | 1591.3 | 1442.0 | 1305.1 | 1072.0 | 938.4  | 894.4  | 1059.4 |
| 55°   | 2637.9 | 2613.9 | 2460.7 | 2136.0 | 1774.7 | 1592.2 | 1431.4 | 1181.5 | 1025.1 | 968.3  | 1147.8 |
| 57.5° | 2708.3 | 2694.5 | 2565.7 | 2301.7 | 1956.4 | 1756.7 | 1575.9 | 1302.0 | 1127.3 | 1055.3 | 1246.4 |
| 60°   | 2733.4 | 2722.1 | 2630.9 | 2459.7 | 2176.2 | 1954.3 | 1745.8 | 1437.8 | 1251.2 | 1154.3 | 1347.6 |
| 62.5° | 2666.5 | 2668.8 | 2677.8 | 2647.0 | 2407.7 | 2185.4 | 1949.4 | 1600.9 | 1388.7 | 1266.3 | 1442.6 |
| 65°   | 2352.2 | 2370.7 | 2541.6 | 2854.4 | 2714.4 | 2475.2 | 2208.6 | 1800.1 | 1546.0 | 1393.8 | 1518.1 |
| 67.5° | 1947.5 | 1974.5 | 2187.0 | 2975.8 | 3041.3 | 2851.2 | 2569.6 | 2053.8 | 1733.6 | 1523.6 | 1546.7 |
| 70°   | 1490.8 | 1519.7 | 1777.2 | 2950.5 | 3347.3 | 3262.3 | 3016.0 | 2376.6 | 1927.9 | 1613.5 | 1473.7 |
| 72.5° | 1063.9 | 1078.7 | 1281.8 | 2724.7 | 3472.9 | 3542.3 | 3344.8 | 2682.3 | 2027.1 | 1563.7 | 1202.1 |
| 75°   | 747.6  | 745.1  | 879.7  | 2194.1 | 3277.3 | 3508.3 | 3229.6 | 2516.9 | 1834.4 | 1242.2 | 741.2  |
| 77.5° | 325.6  | 326.3  | 439.3  | 1332.5 | 2615.8 | 2996.4 | 2684.5 | 1576.6 | 1278.8 | 658.4  | 312.8  |
| 80°   | 84.5   | 87.0   | 161.2  | 530.5  | 1574.9 | 1977.6 | 1637.2 | 693.0  | 590.9  | 160.6  | 59.8   |
| 82.5° | 29.8   | 31.8   | 74.2   | 166.7  | 581.0  | 906.9  | 729.0  | 221.6  | 154.2  | 45.9   | 16.1   |
| 85°   | 8.7    | 10.2   | 39.9   | 51.0   | 120.1  | 256.2  | 176.9  | 43.0   | 37.9   | 23.8   | 4.2    |
| 87.5° | 0.0    | 1.3    | 8.0    | 7.1    | 7.1    | 4.8    | 9.0    | 4.8    | 6.1    | 2.9    | 1.3    |
| 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°    | 564.6  | 564.6  | 564.6 | 564.6 | 564.6 | 564.6 | 564.6 | 564.6 | 564.6 | 564.6 | 564.6 |
| 2.5°  | 567.4  | 565.2  | 560.4 | 555.2 | 550.4 | 545.9 | 544.7 | 539.9 | 537.6 | 537.9 | 537.6 |
| 5°    | 570.4  | 566.2  | 556.9 | 545.6 | 534.1 | 520.9 | 510.0 | 494.6 | 481.4 | 479.8 | 478.9 |
| 7.5°  | 578.1  | 571.3  | 556.3 | 534.4 | 505.5 | 469.2 | 435.5 | 402.1 | 383.1 | 372.9 | 372.2 |
| 10°   | 590.0  | 581.0  | 557.8 | 516.1 | 454.8 | 389.9 | 338.9 | 296.7 | 275.2 | 265.3 | 263.3 |
| 12.5° | 604.1  | 594.1  | 560.4 | 484.9 | 389.2 | 304.1 | 248.9 | 223.2 | 218.7 | 218.0 | 217.7 |
| 15°   | 624.0  | 613.1  | 563.3 | 442.9 | 318.3 | 231.5 | 206.2 | 206.5 | 210.0 | 212.0 | 211.7 |
| 17.5° | 646.2  | 635.2  | 559.1 | 391.4 | 248.3 | 197.8 | 197.2 | 200.1 | 205.2 | 207.2 | 206.8 |
| 20°   | 668.6  | 658.4  | 544.4 | 331.1 | 200.7 | 188.5 | 191.1 | 194.3 | 199.5 | 202.0 | 202.0 |
| 22.5° | 691.8  | 682.8  | 520.9 | 266.9 | 181.1 | 181.7 | 185.0 | 188.2 | 193.9 | 196.9 | 196.9 |
| 25°   | 716.5  | 708.8  | 489.7 | 213.9 | 172.8 | 174.7 | 178.9 | 182.8 | 188.8 | 192.4 | 192.4 |
| 27.5° | 741.6  | 735.7  | 454.4 | 178.6 | 165.0 | 167.3 | 172.1 | 177.3 | 183.4 | 187.6 | 187.9 |
| 30°   | 768.9  | 765.7  | 426.2 | 165.4 | 157.6 | 159.6 | 165.0 | 170.9 | 177.6 | 182.8 | 183.4 |
| 32.5° | 796.7  | 796.1  | 412.4 | 175.1 | 151.0 | 152.2 | 157.0 | 162.9 | 171.2 | 177.6 | 178.2 |
| 35°   | 824.4  | 825.6  | 404.4 | 202.3 | 148.7 | 145.1 | 148.4 | 153.5 | 163.5 | 171.5 | 172.8 |
| 37.5° | 859.8  | 862.9  | 404.1 | 231.9 | 154.2 | 138.1 | 140.3 | 143.9 | 152.5 | 161.8 | 163.5 |
| 40°   | 912.4  | 929.5  | 424.6 | 257.3 | 163.8 | 131.7 | 132.3 | 132.9 | 137.5 | 145.1 | 147.7 |
| 42.5° | 982.4  | 1032.2 | 498.8 | 274.6 | 167.7 | 125.9 | 123.6 | 120.1 | 119.5 | 123.6 | 125.9 |
| 45°   | 1069.5 | 1156.5 | 629.1 | 284.2 | 163.8 | 119.5 | 113.4 | 104.0 | 100.6 | 103.4 | 103.4 |
| 47.5° | 1171.9 | 1292.6 | 783.6 | 286.5 | 157.3 | 111.4 | 100.6 | 88.4  | 85.4  | 86.4  | 86.1  |
| 50°   | 1271.7 | 1394.8 | 919.4 | 267.8 | 146.8 | 101.2 | 86.4  | 76.2  | 74.2  | 74.5  | 74.5  |
| 52.5° | 1360.1 | 1429.8 | 958.0 | 223.9 | 132.6 | 88.7  | 74.2  | 67.1  | 65.8  | 65.8  | 65.5  |
| 55°   | 1418.5 | 1391.8 | 854.2 | 171.2 | 115.0 | 75.7  | 63.6  | 60.1  | 59.4  | 59.1  | 58.4  |
| 57.5° | 1430.7 | 1268.5 | 645.2 | 123.6 | 89.9  | 64.0  | 56.5  | 54.6  | 53.3  | 52.1  | 51.4  |
| 60°   | 1387.0 | 1063.0 | 410.7 | 86.4  | 67.4  | 54.6  | 50.1  | 48.8  | 46.2  | 43.7  | 42.7  |
| 62.5° | 1292.6 | 802.9  | 227.3 | 60.1  | 54.3  | 46.5  | 44.3  | 42.7  | 37.9  | 33.7  | 32.4  |
| 65°   | 1165.8 | 533.7  | 100.6 | 46.8  | 44.3  | 39.2  | 37.9  | 35.7  | 29.8  | 25.0  | 24.1  |
| 67.5° | 1038.3 | 307.3  | 45.3  | 37.6  | 35.7  | 32.1  | 31.2  | 29.5  | 25.4  | 20.9  | 20.2  |
| 70°   | 892.8  | 155.8  | 31.2  | 29.8  | 27.6  | 24.4  | 25.4  | 25.0  | 20.9  | 17.0  | 16.4  |
| 72.5° | 664.8  | 77.4   | 23.5  | 22.4  | 19.9  | 17.3  | 20.9  | 20.6  | 16.4  | 12.8  | 12.2  |
| 75°   | 376.4  | 38.2   | 17.0  | 15.8  | 11.9  | 12.8  | 16.7  | 15.8  | 11.3  | 8.3   | 7.7   |
| 77.5° | 149.3  | 19.6   | 11.3  | 9.6   | 7.1   | 8.7   | 12.2  | 10.6  | 5.7   | 3.5   | 3.2   |
| 80°   | 34.3   | 9.6    | 5.7   | 4.2   | 3.2   | 5.1   | 6.5   | 3.9   | 1.6   | 0.3   | 0.0   |
| 82.5° | 9.6    | 4.2    | 1.9   | 1.6   | 1.6   | 1.9   | 1.6   | 0.6   | 0.0   | 0.0   | 0.0   |
| 85°   | 3.2    | 1.9    | 0.6   | 0.3   | 0.3   | 0.3   | 0.3   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 1.3    | 0.6    | 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)