

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: P959897

Luminaire Tested: **NAV-SB1B-750-U-T4FT**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P959897  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1B-750-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 5000K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD  
THROW OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 6037.2 lumens  
Efficiency: N/A  
Efficacy: 151.7 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



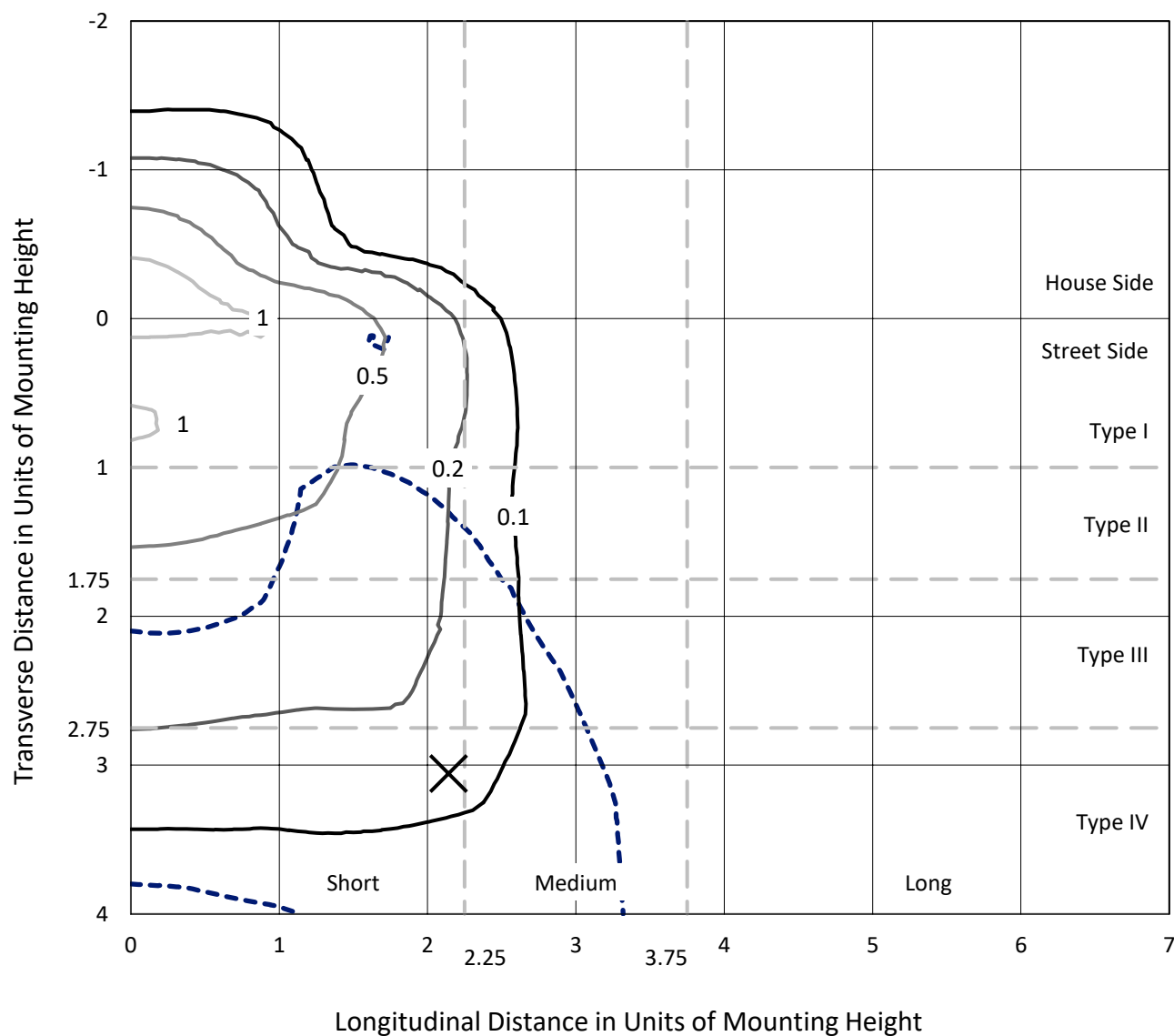
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

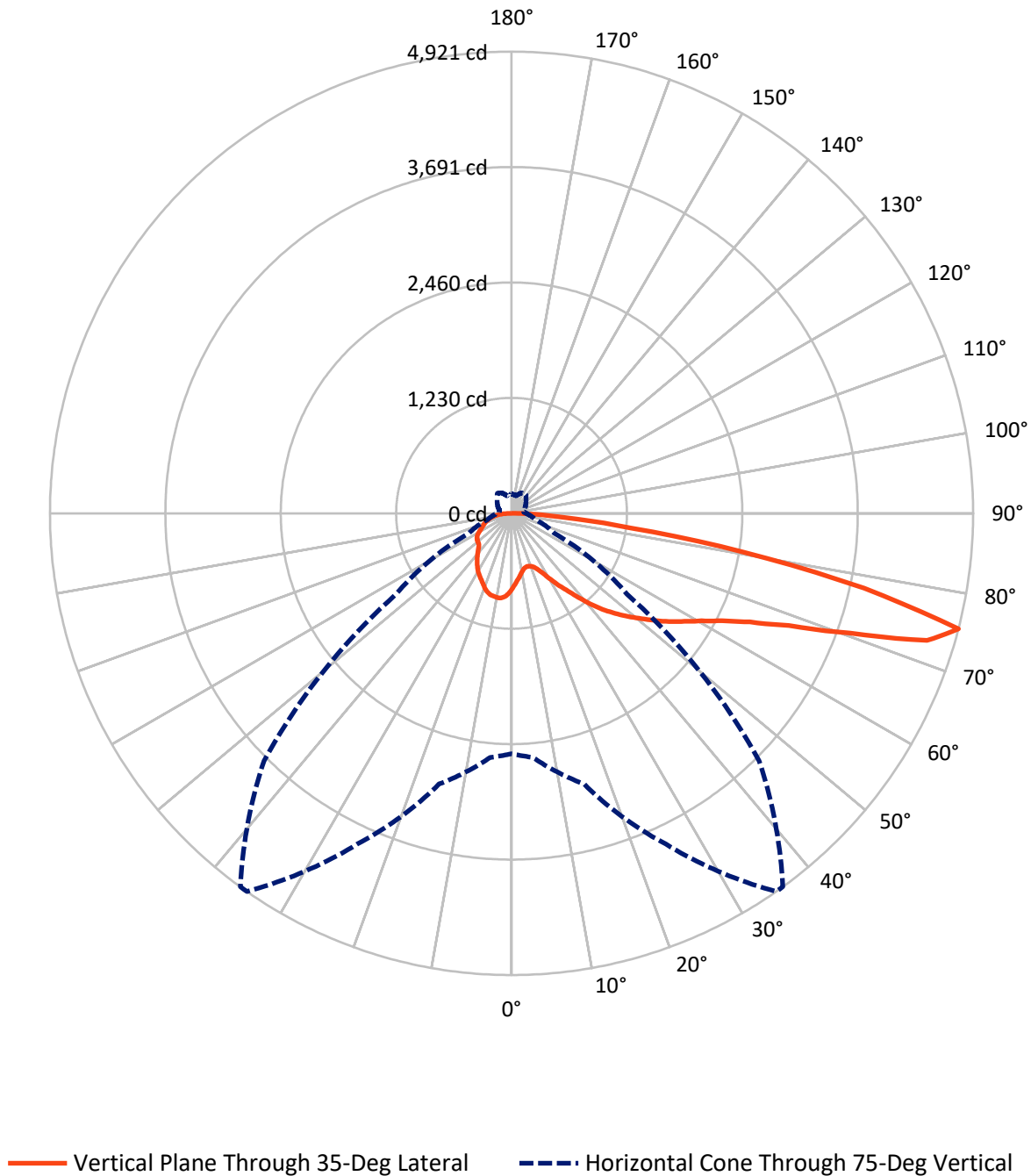


Based on 25 foot mounting height. Maximum calculated value = 1.4 fc

Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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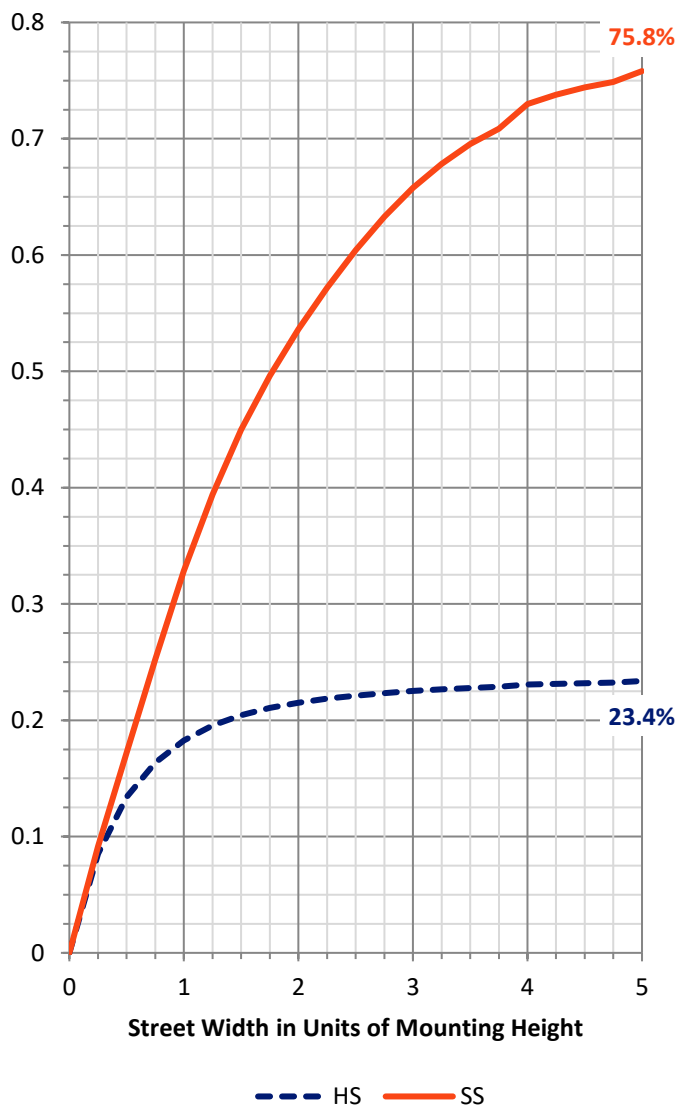
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1436.7   | 0.0    | 1436.7 |
|                    | % Fixture | 23.8     | 0.0    | 23.8   |
| <b>Street Side</b> | Lumens    | 4600.5   | 0.0    | 4600.5 |
|                    | % Fixture | 76.2     | 0.0    | 76.2   |
| <b>Total</b>       | Lumens    | 6037.2   | 0.0    | 6037.2 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 76.2   | 1.3       |
| 10°-20°   | 219.7  | 3.6       |
| 20°-30°   | 369.0  | 6.1       |
| 30°-40°   | 573.4  | 9.5       |
| 40°-50°   | 851.1  | 14.1      |
| 50°-60°   | 1175.0 | 19.5      |
| 60°-70°   | 1425.5 | 23.6      |
| 70°-80°   | 1178.1 | 19.5      |
| 80°-90°   | 169.4  | 2.8       |
| 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°    | 6037.2 | 100.0     |
| 0°-180°   | 6037.2 | 100.0     |

**Coefficient of Utilization**



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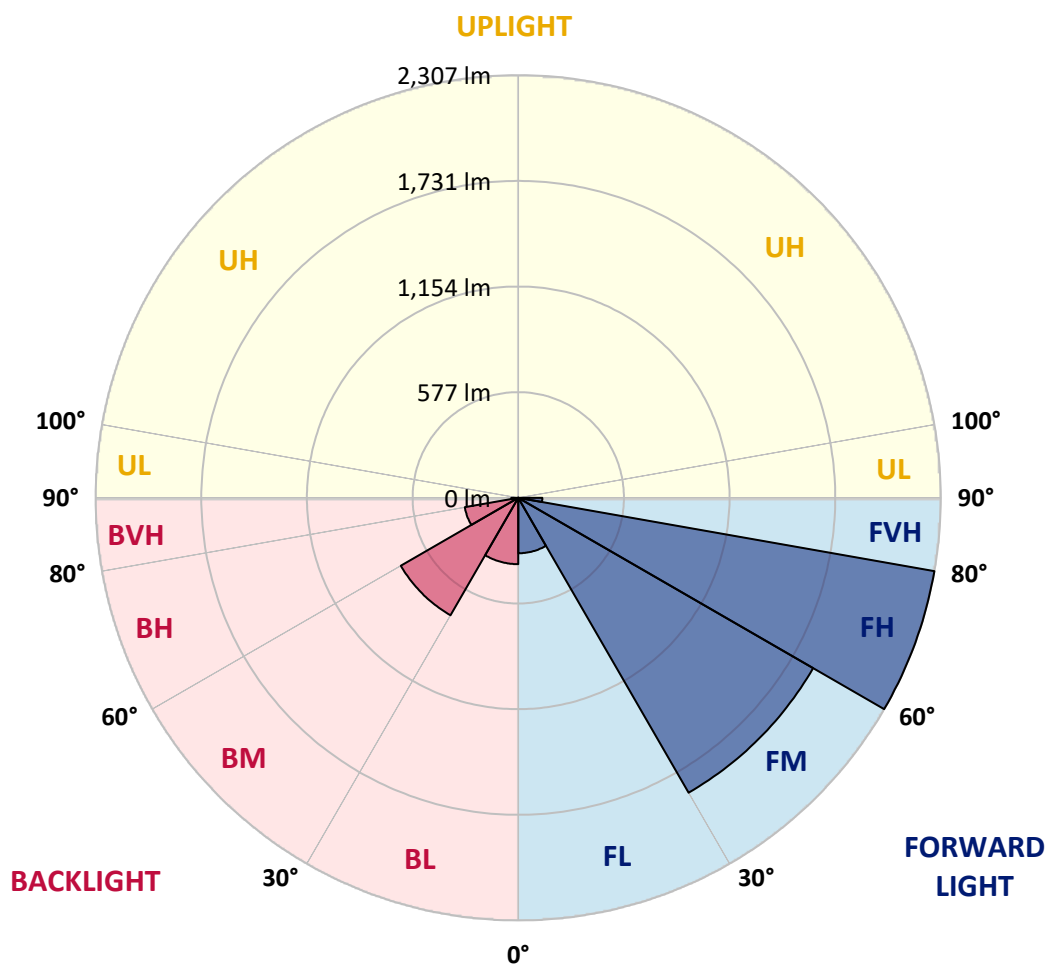
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 302.8  | 5.0       |                         |      |         |
| FM   | (30°-60°)   | 1859.1 | 30.8      |                         |      |         |
| FH   | (60°-80°)   | 2307.3 | 38.2      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 131.3  | 2.2       |                         |      | G2/225  |
| BL   | (0°-30°)    | 362.1  | 6.0       | B1/500                  |      |         |
| BM   | (30°-60°)   | 740.3  | 12.3      | B1/1000                 |      |         |
| BH   | (60°-80°)   | 296.2  | 4.9       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 38.2   | 0.6       |                         |      | G1/100  |
| 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°    | 36°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 804.5  | 804.5  | 804.5  | 804.5  | 804.5  | 804.5  | 804.5  | 804.5  | 804.5  | 804.5  | 804.5  |
| 2.5°  | 741.8  | 746.4  | 748.4  | 747.4  | 752.2  | 751.6  | 758.5  | 767.0  | 778.7  | 790.2  | 806.8  |
| 5°    | 684.7  | 689.6  | 693.8  | 697.8  | 707.2  | 710.2  | 721.0  | 737.3  | 758.8  | 780.6  | 808.1  |
| 7.5°  | 631.5  | 635.8  | 642.3  | 649.4  | 665.4  | 668.4  | 686.3  | 711.9  | 741.8  | 773.9  | 811.7  |
| 10°   | 588.1  | 592.3  | 599.2  | 607.4  | 627.3  | 630.9  | 653.7  | 687.7  | 726.8  | 767.3  | 815.6  |
| 12.5° | 569.5  | 570.8  | 574.7  | 582.9  | 600.2  | 602.5  | 627.6  | 666.5  | 712.2  | 762.4  | 821.4  |
| 15°   | 568.6  | 571.1  | 571.4  | 575.7  | 590.1  | 591.0  | 614.2  | 652.7  | 703.0  | 761.5  | 830.2  |
| 17.5° | 578.3  | 580.3  | 577.4  | 579.9  | 592.0  | 593.7  | 611.9  | 646.3  | 700.1  | 765.7  | 845.3  |
| 20°   | 604.4  | 606.1  | 597.3  | 593.7  | 602.5  | 603.8  | 621.8  | 650.5  | 703.0  | 774.5  | 865.8  |
| 22.5° | 659.9  | 660.9  | 639.4  | 624.6  | 625.4  | 626.0  | 641.6  | 667.8  | 714.4  | 790.5  | 892.0  |
| 25°   | 746.4  | 745.8  | 711.5  | 683.1  | 666.8  | 663.2  | 673.6  | 695.9  | 733.7  | 811.7  | 925.6  |
| 27.5° | 847.6  | 842.7  | 808.4  | 766.0  | 730.4  | 725.2  | 722.9  | 732.4  | 761.1  | 839.8  | 966.7  |
| 30°   | 961.9  | 957.2  | 920.3  | 864.9  | 815.6  | 807.1  | 785.6  | 780.6  | 801.9  | 877.9  | 1023.9 |
| 32.5° | 1087.1 | 1084.2 | 1040.2 | 972.9  | 907.0  | 897.2  | 861.0  | 847.9  | 864.6  | 935.7  | 1103.4 |
| 35°   | 1192.3 | 1189.6 | 1153.0 | 1083.8 | 1003.3 | 991.2  | 954.3  | 939.6  | 948.1  | 1009.8 | 1207.6 |
| 37.5° | 1287.2 | 1285.9 | 1254.6 | 1200.1 | 1116.8 | 1102.2 | 1060.7 | 1055.9 | 1054.2 | 1107.4 | 1333.8 |
| 40°   | 1375.3 | 1372.1 | 1339.5 | 1310.7 | 1249.1 | 1235.6 | 1199.0 | 1194.8 | 1182.4 | 1227.4 | 1476.8 |
| 42.5° | 1472.9 | 1464.4 | 1417.1 | 1403.7 | 1387.0 | 1376.0 | 1354.1 | 1354.7 | 1327.4 | 1362.9 | 1628.3 |
| 45°   | 1552.6 | 1547.6 | 1499.1 | 1491.2 | 1509.1 | 1504.6 | 1523.5 | 1528.4 | 1475.2 | 1504.9 | 1785.6 |
| 47.5° | 1638.1 | 1633.4 | 1592.3 | 1586.8 | 1635.5 | 1636.7 | 1703.7 | 1705.3 | 1619.5 | 1652.4 | 1943.2 |
| 50°   | 1743.4 | 1737.0 | 1696.2 | 1703.0 | 1757.5 | 1762.4 | 1884.8 | 1873.7 | 1752.2 | 1802.3 | 2099.5 |
| 52.5° | 1813.0 | 1816.9 | 1808.1 | 1819.2 | 1893.6 | 1898.2 | 2063.0 | 2034.6 | 1883.8 | 1950.1 | 2253.0 |
| 55°   | 1864.3 | 1872.1 | 1899.5 | 1925.0 | 2037.2 | 2041.8 | 2231.1 | 2187.7 | 1992.8 | 2087.1 | 2397.2 |
| 57.5° | 1930.2 | 1919.1 | 1970.3 | 2019.9 | 2173.6 | 2185.7 | 2394.6 | 2335.2 | 2089.5 | 2205.3 | 2496.1 |
| 60°   | 2024.8 | 2017.0 | 2056.8 | 2130.3 | 2326.3 | 2345.6 | 2567.5 | 2468.0 | 2160.3 | 2299.0 | 2515.4 |
| 62.5° | 2216.7 | 2197.1 | 2203.3 | 2268.3 | 2518.9 | 2544.4 | 2762.7 | 2583.9 | 2195.4 | 2335.5 | 2412.2 |
| 65°   | 2503.6 | 2469.9 | 2438.7 | 2483.7 | 2790.2 | 2815.3 | 2983.1 | 2674.9 | 2182.4 | 2264.7 | 2138.4 |
| 67.5° | 2864.9 | 2831.6 | 2793.1 | 2835.6 | 3189.6 | 3209.6 | 3254.9 | 2726.2 | 2079.6 | 1991.9 | 1654.4 |
| 70°   | 3162.8 | 3150.4 | 3196.5 | 3371.1 | 3827.7 | 3828.4 | 3603.5 | 2683.8 | 1798.0 | 1412.2 | 957.2  |
| 72.5° | 3123.4 | 3115.9 | 3358.3 | 3898.2 | 4631.9 | 4614.5 | 3933.4 | 2362.6 | 1211.1 | 637.0  | 358.6  |
| 75°   | 2562.3 | 2611.0 | 2986.6 | 3888.7 | 4920.7 | 4918.4 | 3731.4 | 1501.9 | 501.0  | 264.0  | 185.4  |
| 77.5° | 1374.0 | 1451.1 | 1939.0 | 2871.1 | 3841.4 | 3899.2 | 2623.4 | 525.4  | 215.0  | 169.0  | 128.2  |
| 80°   | 448.1  | 515.4  | 772.8  | 1461.9 | 2496.1 | 2485.3 | 1124.3 | 206.2  | 147.2  | 119.8  | 88.8   |
| 82.5° | 190.2  | 198.1  | 345.3  | 690.2  | 1281.0 | 1261.1 | 358.0  | 118.5  | 103.4  | 81.9   | 54.8   |
| 85°   | 74.4   | 83.2   | 152.4  | 319.2  | 554.8  | 542.7  | 129.3  | 58.7   | 66.2   | 53.5   | 32.6   |
| 87.5° | 24.5   | 29.7   | 54.5   | 109.4  | 172.6  | 166.5  | 31.7   | 20.2   | 28.7   | 24.5   | 11.8   |
| 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°    | 804.5  | 804.5  | 804.5 | 804.5 | 804.5 | 804.5 | 804.5 | 804.5 | 804.5 | 804.5 | 804.5 |
| 2.5°  | 811.4  | 816.6  | 822.8 | 831.9 | 839.8 | 846.2 | 853.1 | 857.4 | 859.1 | 863.9 | 863.6 |
| 5°    | 817.2  | 828.6  | 844.0 | 859.1 | 873.7 | 882.5 | 890.3 | 894.2 | 897.8 | 900.5 | 901.1 |
| 7.5°  | 827.1  | 841.7  | 865.8 | 885.4 | 897.8 | 905.1 | 910.2 | 909.0 | 910.2 | 910.9 | 911.8 |
| 10°   | 835.5  | 856.1  | 884.8 | 903.4 | 912.9 | 913.2 | 911.8 | 907.3 | 905.1 | 905.4 | 906.0 |
| 12.5° | 845.6  | 868.5  | 899.4 | 915.1 | 917.8 | 910.6 | 905.1 | 897.2 | 894.2 | 893.0 | 892.3 |
| 15°   | 859.4  | 885.4  | 915.4 | 921.4 | 914.8 | 905.7 | 896.3 | 883.4 | 877.0 | 871.8 | 873.4 |
| 17.5° | 876.0  | 904.7  | 927.8 | 923.6 | 909.6 | 894.6 | 879.2 | 860.0 | 846.6 | 841.0 | 841.4 |
| 20°   | 899.1  | 925.0  | 937.4 | 918.7 | 897.5 | 874.6 | 848.6 | 825.0 | 812.6 | 807.1 | 806.5 |
| 22.5° | 927.2  | 952.0  | 946.5 | 910.2 | 880.3 | 843.7 | 811.1 | 793.8 | 787.5 | 783.6 | 784.2 |
| 25°   | 960.8  | 982.1  | 953.0 | 897.8 | 851.9 | 802.6 | 777.5 | 771.8 | 769.0 | 766.0 | 766.0 |
| 27.5° | 1004.6 | 1016.0 | 957.9 | 879.6 | 807.4 | 758.8 | 749.7 | 750.6 | 749.7 | 744.8 | 745.8 |
| 30°   | 1062.3 | 1060.1 | 962.5 | 849.8 | 756.6 | 719.3 | 720.0 | 724.3 | 724.9 | 721.6 | 723.2 |
| 32.5° | 1138.4 | 1115.2 | 964.7 | 811.4 | 707.9 | 684.7 | 685.4 | 689.9 | 693.2 | 687.7 | 690.2 |
| 35°   | 1230.4 | 1179.5 | 961.1 | 763.0 | 670.3 | 651.8 | 646.9 | 648.2 | 649.1 | 643.9 | 647.5 |
| 37.5° | 1337.8 | 1251.6 | 945.2 | 709.5 | 639.4 | 619.4 | 609.1 | 600.2 | 595.0 | 590.1 | 593.4 |
| 40°   | 1455.6 | 1330.2 | 915.8 | 657.3 | 604.8 | 585.2 | 569.5 | 552.9 | 535.3 | 528.7 | 531.7 |
| 42.5° | 1579.0 | 1411.2 | 880.3 | 607.4 | 565.0 | 549.0 | 532.3 | 508.2 | 481.7 | 468.3 | 470.0 |
| 45°   | 1706.9 | 1494.1 | 845.3 | 558.1 | 524.2 | 517.3 | 498.0 | 469.0 | 440.2 | 423.3 | 422.0 |
| 47.5° | 1832.3 | 1572.5 | 794.1 | 508.5 | 486.0 | 493.4 | 478.5 | 451.7 | 419.7 | 393.0 | 390.0 |
| 50°   | 1952.0 | 1645.8 | 710.2 | 458.2 | 455.0 | 486.3 | 471.9 | 433.4 | 396.9 | 362.6 | 359.7 |
| 52.5° | 2070.8 | 1705.3 | 602.8 | 412.6 | 438.3 | 484.3 | 463.4 | 421.0 | 376.3 | 340.4 | 336.5 |
| 55°   | 2171.7 | 1735.9 | 499.4 | 373.4 | 414.2 | 467.7 | 453.4 | 406.3 | 347.3 | 309.0 | 305.9 |
| 57.5° | 2229.1 | 1711.1 | 413.2 | 334.9 | 380.9 | 440.2 | 436.0 | 375.0 | 312.6 | 283.3 | 279.4 |
| 60°   | 2204.3 | 1610.7 | 342.7 | 301.2 | 349.2 | 410.6 | 406.0 | 344.0 | 286.2 | 258.5 | 254.6 |
| 62.5° | 2067.5 | 1419.0 | 286.9 | 271.8 | 320.5 | 380.2 | 376.0 | 320.2 | 266.0 | 239.2 | 235.0 |
| 65°   | 1792.1 | 1154.4 | 243.4 | 247.4 | 291.4 | 343.7 | 349.8 | 300.2 | 250.0 | 223.9 | 219.7 |
| 67.5° | 1366.8 | 836.2  | 209.5 | 226.2 | 263.0 | 307.8 | 325.7 | 285.9 | 236.6 | 211.8 | 207.9 |
| 70°   | 779.0  | 474.9  | 180.8 | 205.6 | 237.9 | 274.5 | 307.1 | 274.5 | 222.2 | 201.7 | 199.1 |
| 72.5° | 295.4  | 218.0  | 156.3 | 185.0 | 213.8 | 246.4 | 286.6 | 256.6 | 205.6 | 190.2 | 187.7 |
| 75°   | 157.6  | 132.8  | 131.5 | 160.9 | 186.0 | 219.0 | 260.8 | 238.9 | 193.2 | 201.0 | 207.6 |
| 77.5° | 107.4  | 94.0   | 110.0 | 137.8 | 155.7 | 188.6 | 233.4 | 212.2 | 167.4 | 166.8 | 153.8 |
| 80°   | 74.4   | 66.6   | 89.4  | 111.0 | 120.4 | 158.6 | 203.7 | 182.1 | 136.4 | 127.3 | 121.8 |
| 82.5° | 44.7   | 43.4   | 66.9  | 82.9  | 85.2  | 122.4 | 168.7 | 152.7 | 111.6 | 97.3  | 97.9  |
| 85°   | 24.5   | 25.8   | 42.7  | 48.6  | 49.6  | 85.5  | 132.2 | 118.2 | 85.8  | 72.2  | 72.8  |
| 87.5° | 6.9    | 8.8    | 15.7  | 19.3  | 23.8  | 44.4  | 78.6  | 70.2  | 43.0  | 30.0  | 30.0  |
| 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)