

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: P959849

Luminaire Tested: **NAV-SB1B-740-U-SL4**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P959849  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1B-740-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT  
ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 6054.7 lumens  
Efficiency: N/A  
Efficacy: 152.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B2 - 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



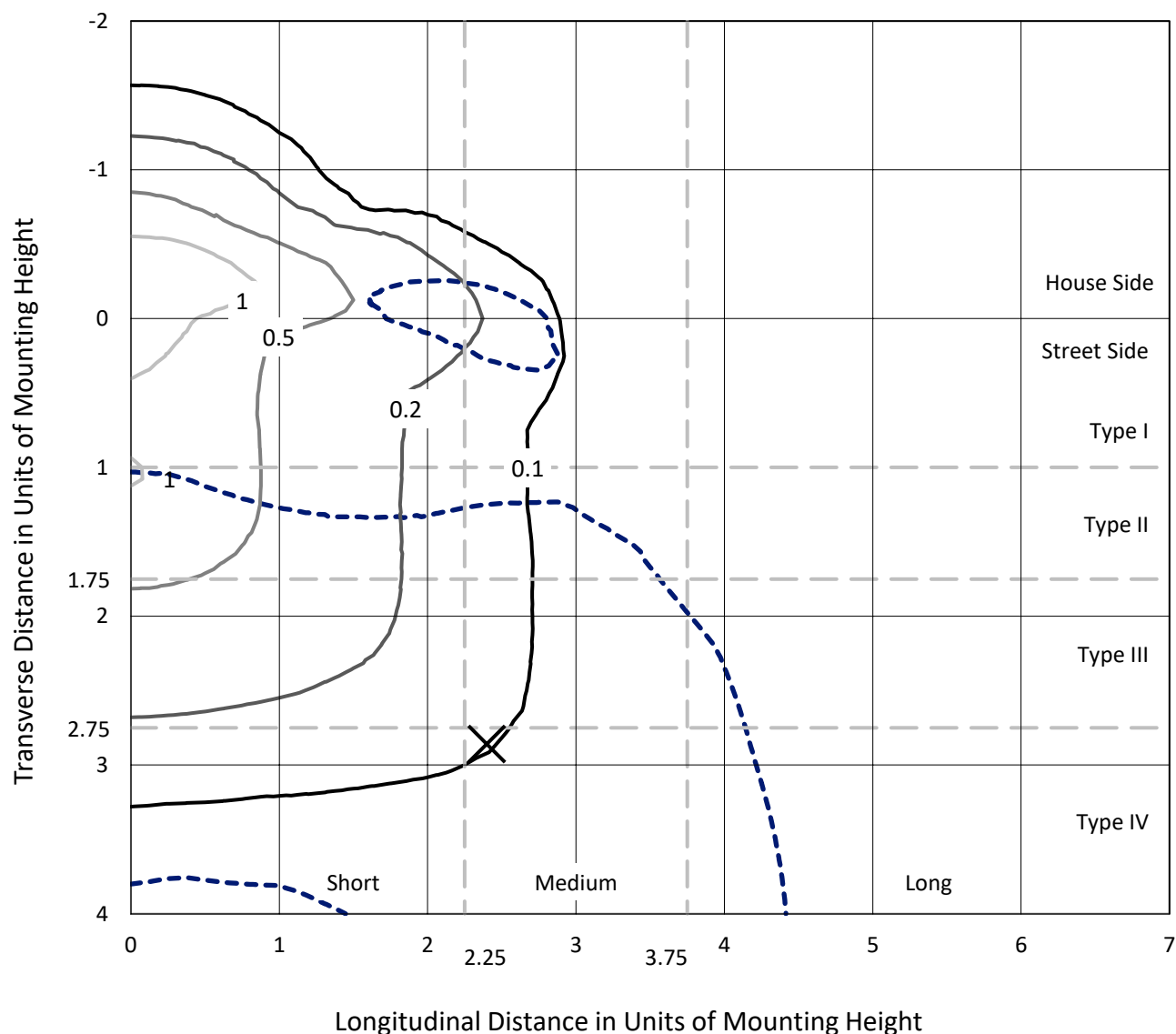
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

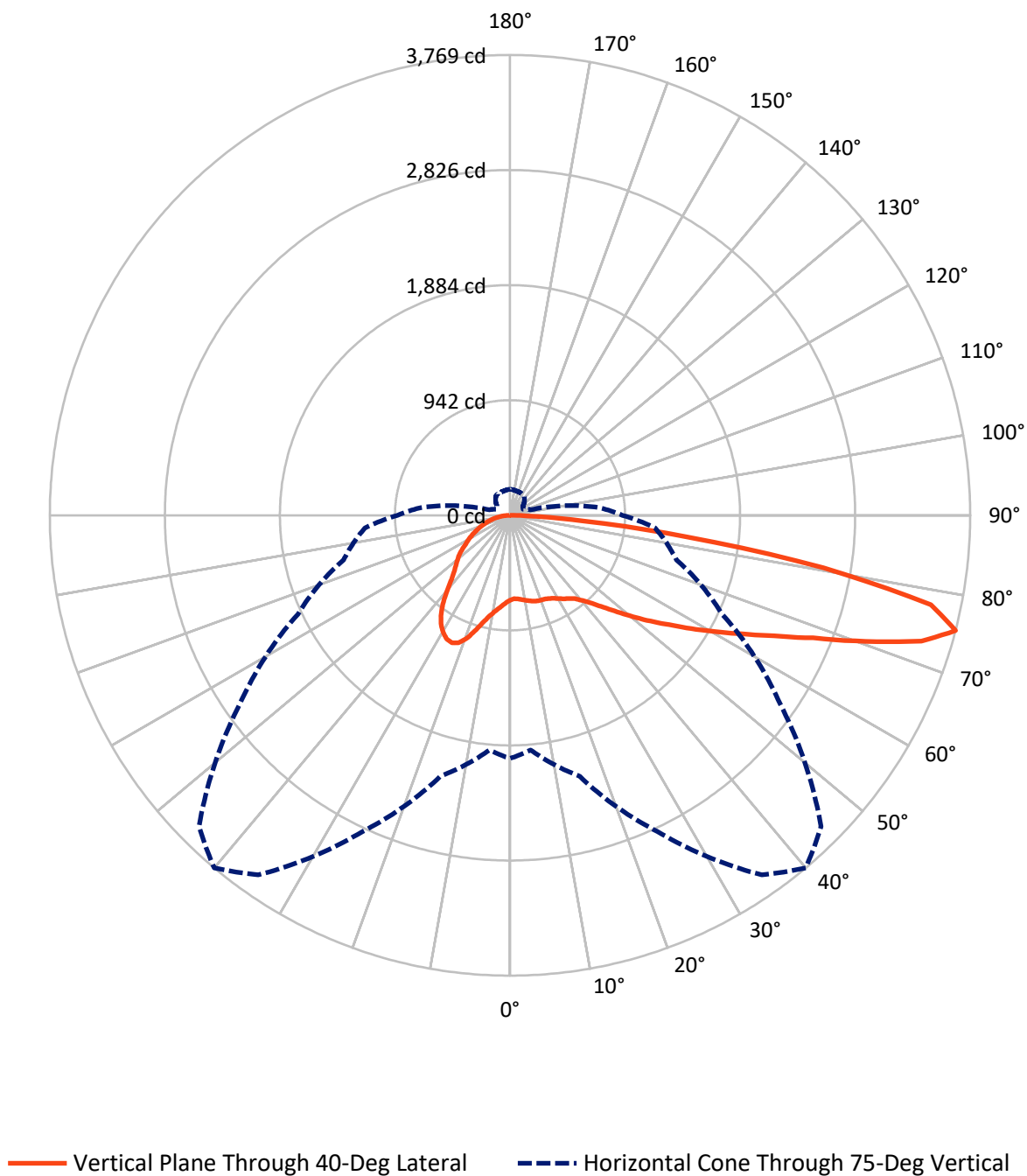
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc  
Type IV - Medium - N/A

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## Luminous Intensity Polar Plot



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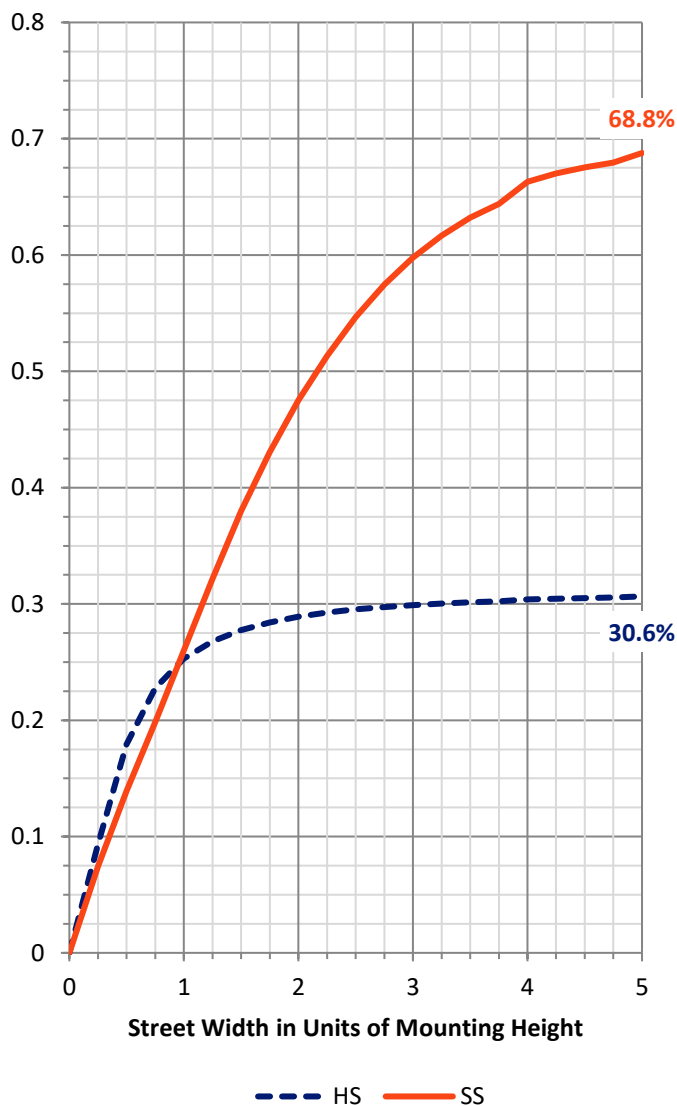
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1875.9   | 0.0    | 1875.9 |
|                    | % Fixture | 31.0     | 0.0    | 31.0   |
| <b>Street Side</b> | Lumens    | 4178.7   | 0.0    | 4178.7 |
|                    | % Fixture | 69.0     | 0.0    | 69.0   |
| <b>Total</b>       | Lumens    | 6054.7   | 0.0    | 6054.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 69.1   | 1.1       |
| 10°-20°   | 232.0  | 3.8       |
| 20°-30°   | 423.7  | 7.0       |
| 30°-40°   | 600.9  | 9.9       |
| 40°-50°   | 811.4  | 13.4      |
| 50°-60°   | 1091.5 | 18.0      |
| 60°-70°   | 1385.4 | 22.9      |
| 70°-80°   | 1257.3 | 20.8      |
| 80°-90°   | 183.3  | 3.0       |
| 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°    | 6054.7 | 100.0     |
| 0°-180°   | 6054.7 | 100.0     |

**Coefficient of Utilization**



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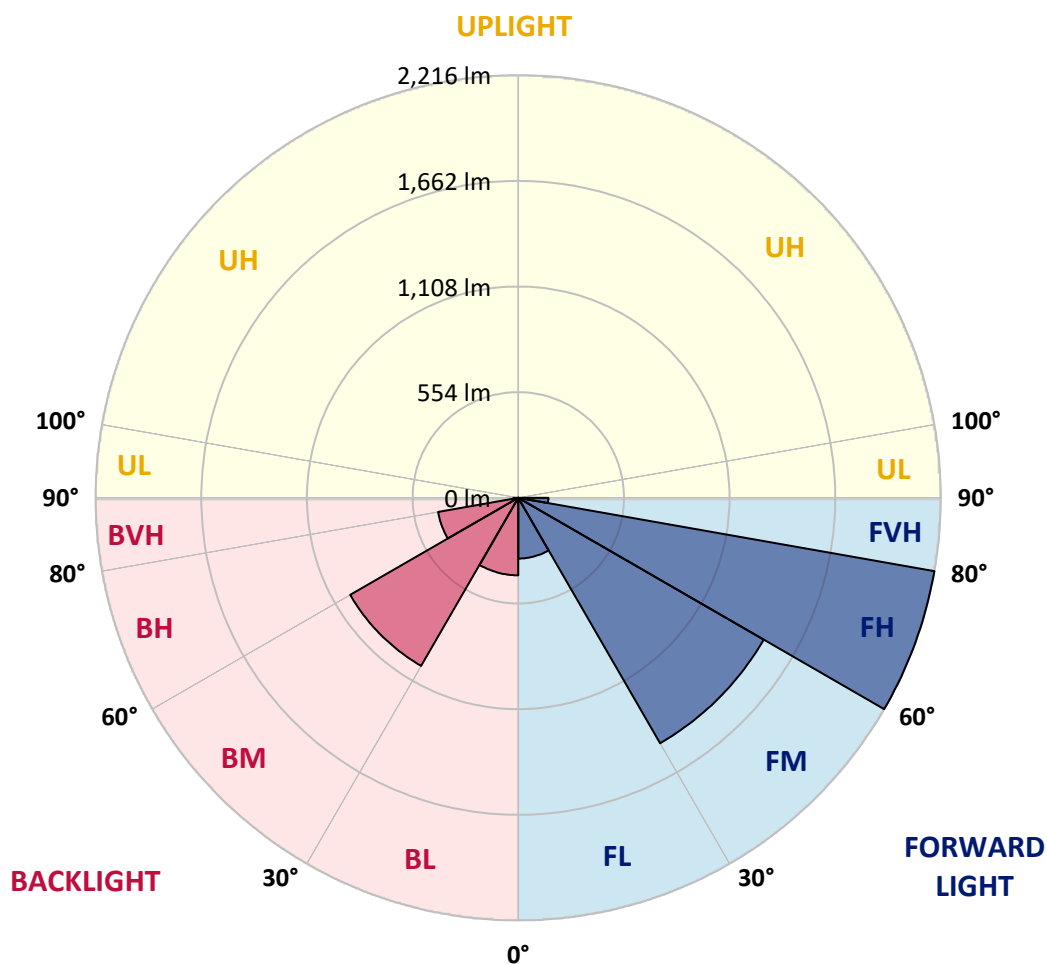
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 318.5  | 5.3       |                         |      |         |
| FM   | (30°-60°)   | 1486.3 | 24.5      |                         |      |         |
| FH   | (60°-80°)   | 2215.9 | 36.6      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 158.0  | 2.6       |                         |      | G2/225  |
| BL   | (0°-30°)    | 406.3  | 6.7       | B1/500                  |      |         |
| BM   | (30°-60°)   | 1017.5 | 16.8      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 426.8  | 7.0       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 25.2   | 0.4       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**

Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 40°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 692.4  | 692.4  | 692.4  | 692.4  | 692.4  | 692.4  | 692.4  | 692.4  | 692.4  | 692.4  | 692.4  |
| 2.5°  | 681.7  | 685.6  | 684.7  | 683.4  | 683.4  | 683.7  | 683.4  | 685.6  | 687.9  | 690.1  | 693.6  |
| 5°    | 688.8  | 692.7  | 690.7  | 689.1  | 687.9  | 687.6  | 686.5  | 686.2  | 687.6  | 690.4  | 695.3  |
| 7.5°  | 702.6  | 706.5  | 703.6  | 700.7  | 698.1  | 696.9  | 695.6  | 693.6  | 692.7  | 694.3  | 701.0  |
| 10°   | 718.0  | 721.9  | 718.4  | 713.2  | 709.1  | 707.5  | 706.1  | 704.3  | 702.9  | 704.0  | 711.3  |
| 12.5° | 733.5  | 737.3  | 732.5  | 725.4  | 720.0  | 719.0  | 717.4  | 716.8  | 716.5  | 716.2  | 723.5  |
| 15°   | 747.9  | 751.1  | 745.1  | 736.7  | 730.9  | 729.3  | 727.6  | 728.7  | 730.2  | 732.2  | 740.6  |
| 17.5° | 759.1  | 762.4  | 753.4  | 742.4  | 737.0  | 736.4  | 735.4  | 738.6  | 743.1  | 747.9  | 758.2  |
| 20°   | 769.5  | 772.6  | 761.1  | 746.3  | 739.8  | 739.8  | 740.3  | 746.9  | 753.4  | 760.4  | 774.6  |
| 22.5° | 783.9  | 786.5  | 772.3  | 752.0  | 742.8  | 743.4  | 746.0  | 752.8  | 760.8  | 770.4  | 790.0  |
| 25°   | 805.4  | 807.3  | 790.0  | 763.0  | 752.5  | 754.3  | 756.6  | 759.8  | 767.5  | 778.8  | 805.0  |
| 27.5° | 840.1  | 841.7  | 818.9  | 782.3  | 766.2  | 769.5  | 772.6  | 770.4  | 774.0  | 783.6  | 817.2  |
| 30°   | 888.9  | 889.9  | 861.0  | 812.4  | 789.7  | 791.3  | 791.9  | 782.6  | 775.8  | 783.6  | 825.9  |
| 32.5° | 946.7  | 946.4  | 912.0  | 849.1  | 816.3  | 814.7  | 809.2  | 791.0  | 775.2  | 782.0  | 833.6  |
| 35°   | 1036.3 | 1032.8 | 988.4  | 900.5  | 846.5  | 836.5  | 823.7  | 800.2  | 778.4  | 780.3  | 840.4  |
| 37.5° | 1184.7 | 1173.7 | 1112.4 | 984.6  | 891.4  | 866.1  | 847.2  | 815.4  | 785.5  | 779.7  | 848.4  |
| 40°   | 1352.0 | 1338.1 | 1270.7 | 1099.9 | 958.9  | 918.1  | 887.6  | 836.9  | 797.0  | 782.6  | 860.3  |
| 42.5° | 1550.4 | 1530.8 | 1458.3 | 1235.7 | 1044.3 | 985.2  | 939.3  | 864.2  | 814.1  | 791.9  | 876.4  |
| 45°   | 1794.2 | 1768.1 | 1665.4 | 1388.9 | 1151.9 | 1073.2 | 1011.9 | 905.6  | 840.1  | 809.9  | 900.5  |
| 47.5° | 2040.5 | 2046.9 | 1900.8 | 1564.3 | 1281.0 | 1181.7 | 1102.8 | 967.9  | 878.0  | 838.8  | 939.3  |
| 50°   | 2302.1 | 2306.7 | 2134.9 | 1758.5 | 1427.4 | 1304.4 | 1204.9 | 1037.6 | 930.6  | 879.9  | 997.4  |
| 52.5° | 2506.4 | 2507.0 | 2347.5 | 1961.7 | 1579.9 | 1439.3 | 1315.1 | 1117.2 | 991.7  | 934.5  | 1074.8 |
| 55°   | 2634.2 | 2632.6 | 2496.5 | 2154.1 | 1755.3 | 1581.0 | 1437.0 | 1207.8 | 1066.2 | 998.8  | 1172.1 |
| 57.5° | 2727.0 | 2722.2 | 2599.2 | 2319.6 | 1942.2 | 1748.2 | 1575.1 | 1310.6 | 1154.1 | 1075.1 | 1300.2 |
| 60°   | 2762.4 | 2759.5 | 2668.9 | 2462.5 | 2138.8 | 1933.3 | 1734.4 | 1425.5 | 1254.0 | 1165.4 | 1465.0 |
| 62.5° | 2775.9 | 2781.3 | 2737.4 | 2600.8 | 2349.1 | 2138.0 | 1909.5 | 1562.9 | 1366.4 | 1267.5 | 1638.8 |
| 65°   | 2823.4 | 2833.3 | 2824.4 | 2782.0 | 2586.7 | 2378.0 | 2141.6 | 1726.4 | 1489.1 | 1377.0 | 1820.2 |
| 67.5° | 2917.5 | 2927.4 | 2931.3 | 2998.7 | 2877.0 | 2677.0 | 2431.3 | 1930.0 | 1632.6 | 1490.7 | 1956.6 |
| 70°   | 2915.2 | 2912.3 | 2980.4 | 3171.1 | 3240.5 | 3090.9 | 2821.8 | 2180.5 | 1803.8 | 1585.1 | 1974.0 |
| 72.5° | 2653.5 | 2630.4 | 2791.3 | 3169.3 | 3543.0 | 3523.1 | 3298.7 | 2503.6 | 1951.5 | 1596.6 | 1712.9 |
| 75°   | 1990.7 | 1929.0 | 2213.3 | 2856.2 | 3593.4 | 3768.5 | 3601.8 | 2704.0 | 1916.5 | 1410.7 | 1192.1 |
| 77.5° | 851.4  | 789.4  | 1124.3 | 2114.4 | 3216.1 | 3522.8 | 3323.7 | 2359.0 | 1529.9 | 932.9  | 585.4  |
| 80°   | 222.8  | 222.5  | 339.8  | 958.6  | 2187.2 | 2601.4 | 2282.3 | 1523.5 | 874.1  | 333.3  | 161.5  |
| 82.5° | 92.1   | 89.9   | 124.9  | 372.8  | 1068.8 | 1459.9 | 1191.4 | 679.5  | 315.7  | 90.2   | 53.6   |
| 85°   | 34.3   | 34.0   | 60.7   | 128.7  | 377.0  | 602.1  | 435.7  | 173.7  | 78.7   | 44.0   | 24.1   |
| 87.5° | 9.6    | 9.3    | 13.1   | 44.6   | 91.8   | 139.4  | 74.5   | 28.6   | 22.1   | 17.3   | 7.1    |
| 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°    | 692.4  | 692.4  | 692.4  | 692.4  | 692.4  | 692.4  | 692.4  | 692.4  | 692.4  | 692.4  | 692.4  |
| 2.5°  | 694.6  | 696.2  | 699.2  | 701.3  | 704.3  | 707.5  | 712.0  | 714.8  | 717.7  | 719.7  | 718.4  |
| 5°    | 697.5  | 701.0  | 708.4  | 715.8  | 724.5  | 732.5  | 741.8  | 748.6  | 754.0  | 755.6  | 756.2  |
| 7.5°  | 704.0  | 709.7  | 722.2  | 734.7  | 748.6  | 761.7  | 775.2  | 786.8  | 796.1  | 799.6  | 799.9  |
| 10°   | 715.1  | 722.8  | 740.6  | 758.2  | 776.5  | 796.7  | 814.1  | 830.8  | 844.0  | 849.4  | 849.7  |
| 12.5° | 729.3  | 738.9  | 762.1  | 786.5  | 811.8  | 839.8  | 862.2  | 882.8  | 899.1  | 906.5  | 906.5  |
| 15°   | 747.6  | 760.1  | 789.7  | 822.5  | 859.7  | 898.5  | 927.1  | 949.9  | 968.2  | 977.2  | 976.5  |
| 17.5° | 767.5  | 784.2  | 821.4  | 870.9  | 924.2  | 975.3  | 1008.7 | 1025.4 | 1044.3 | 1053.0 | 1052.7 |
| 20°   | 786.8  | 807.3  | 860.6  | 932.5  | 1003.6 | 1057.8 | 1084.8 | 1089.3 | 1090.6 | 1091.5 | 1094.1 |
| 22.5° | 806.7  | 834.4  | 909.8  | 1010.2 | 1086.4 | 1123.9 | 1127.8 | 1108.5 | 1081.6 | 1069.1 | 1072.6 |
| 25°   | 828.5  | 865.1  | 974.0  | 1096.0 | 1157.6 | 1162.1 | 1132.6 | 1085.8 | 1034.7 | 1011.3 | 1014.7 |
| 27.5° | 849.7  | 900.8  | 1051.0 | 1177.9 | 1209.1 | 1169.5 | 1106.0 | 1039.5 | 977.8  | 953.1  | 956.0  |
| 30°   | 870.9  | 941.6  | 1136.2 | 1249.5 | 1232.5 | 1151.3 | 1063.9 | 989.7  | 927.7  | 901.7  | 904.7  |
| 32.5° | 892.5  | 989.1  | 1234.1 | 1301.2 | 1228.4 | 1112.4 | 1011.6 | 933.9  | 879.2  | 852.0  | 855.5  |
| 35°   | 916.9  | 1047.6 | 1327.0 | 1329.5 | 1200.4 | 1055.2 | 942.5  | 867.0  | 819.5  | 797.7  | 802.5  |
| 37.5° | 948.6  | 1121.8 | 1408.8 | 1336.6 | 1151.6 | 971.4  | 856.8  | 788.0  | 748.9  | 738.9  | 746.0  |
| 40°   | 988.1  | 1211.0 | 1471.4 | 1325.3 | 1079.3 | 869.6  | 763.0  | 708.1  | 685.9  | 688.2  | 695.9  |
| 42.5° | 1039.5 | 1310.9 | 1515.5 | 1296.4 | 978.8  | 764.6  | 680.8  | 656.4  | 667.0  | 676.0  | 684.3  |
| 45°   | 1106.3 | 1414.6 | 1542.7 | 1247.3 | 865.1  | 675.7  | 632.3  | 638.1  | 646.2  | 647.1  | 653.5  |
| 47.5° | 1191.8 | 1519.6 | 1560.7 | 1173.1 | 749.2  | 613.1  | 601.5  | 602.8  | 601.2  | 594.4  | 599.5  |
| 50°   | 1298.4 | 1621.8 | 1576.8 | 1074.8 | 650.6  | 573.9  | 558.4  | 553.9  | 531.8  | 509.9  | 512.8  |
| 52.5° | 1419.7 | 1715.4 | 1583.5 | 952.8  | 573.9  | 541.1  | 516.1  | 487.8  | 446.4  | 439.6  | 441.9  |
| 55°   | 1554.6 | 1802.2 | 1566.2 | 802.8  | 509.3  | 499.1  | 461.1  | 427.1  | 422.6  | 416.9  | 417.8  |
| 57.5° | 1715.8 | 1895.6 | 1530.8 | 635.5  | 443.2  | 449.9  | 413.0  | 416.9  | 408.8  | 399.9  | 398.2  |
| 60°   | 1892.2 | 1992.3 | 1468.8 | 483.0  | 374.7  | 388.6  | 400.5  | 400.2  | 397.9  | 390.5  | 388.0  |
| 62.5° | 2050.7 | 2055.8 | 1346.8 | 369.9  | 314.7  | 341.0  | 373.5  | 373.2  | 371.3  | 367.1  | 365.4  |
| 65°   | 2145.1 | 2046.2 | 1143.2 | 291.3  | 265.3  | 301.9  | 336.9  | 339.5  | 339.8  | 339.5  | 339.5  |
| 67.5° | 2128.4 | 1933.6 | 863.9  | 231.9  | 224.5  | 262.1  | 300.5  | 304.1  | 306.7  | 307.3  | 308.0  |
| 70°   | 1939.6 | 1685.9 | 563.2  | 185.0  | 188.2  | 227.0  | 266.2  | 269.8  | 272.0  | 274.6  | 275.8  |
| 72.5° | 1511.9 | 1239.5 | 322.5  | 149.6  | 156.4  | 196.9  | 232.2  | 236.4  | 237.6  | 242.4  | 244.4  |
| 75°   | 921.4  | 729.0  | 174.0  | 117.9  | 128.4  | 168.3  | 198.4  | 203.3  | 205.5  | 211.4  | 212.0  |
| 77.5° | 438.0  | 315.7  | 99.2   | 91.8   | 103.4  | 137.5  | 167.6  | 173.1  | 167.0  | 170.1  | 167.6  |
| 80°   | 148.0  | 117.3  | 62.6   | 70.0   | 79.0   | 107.2  | 134.3  | 139.7  | 126.9  | 126.2  | 124.9  |
| 82.5° | 51.7   | 47.6   | 39.8   | 46.5   | 51.0   | 76.8   | 101.5  | 108.5  | 94.4   | 94.1   | 89.6   |
| 85°   | 20.2   | 19.3   | 22.1   | 25.4   | 30.5   | 47.3   | 66.8   | 70.3   | 58.1   | 46.8   | 46.2   |
| 87.5° | 4.2    | 4.5    | 5.4    | 5.7    | 9.3    | 16.4   | 24.1   | 29.5   | 23.5   | 19.9   | 18.3   |
| 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)