

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: P959348

Luminaire Tested: **NAV-SB1A-750-U-SL2-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P959348  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1A-750-U-SL2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 5000K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE II SPILL LIGHT  
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 3944.2 lumens  
Efficiency: N/A  
Efficacy: 127.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B0 - 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

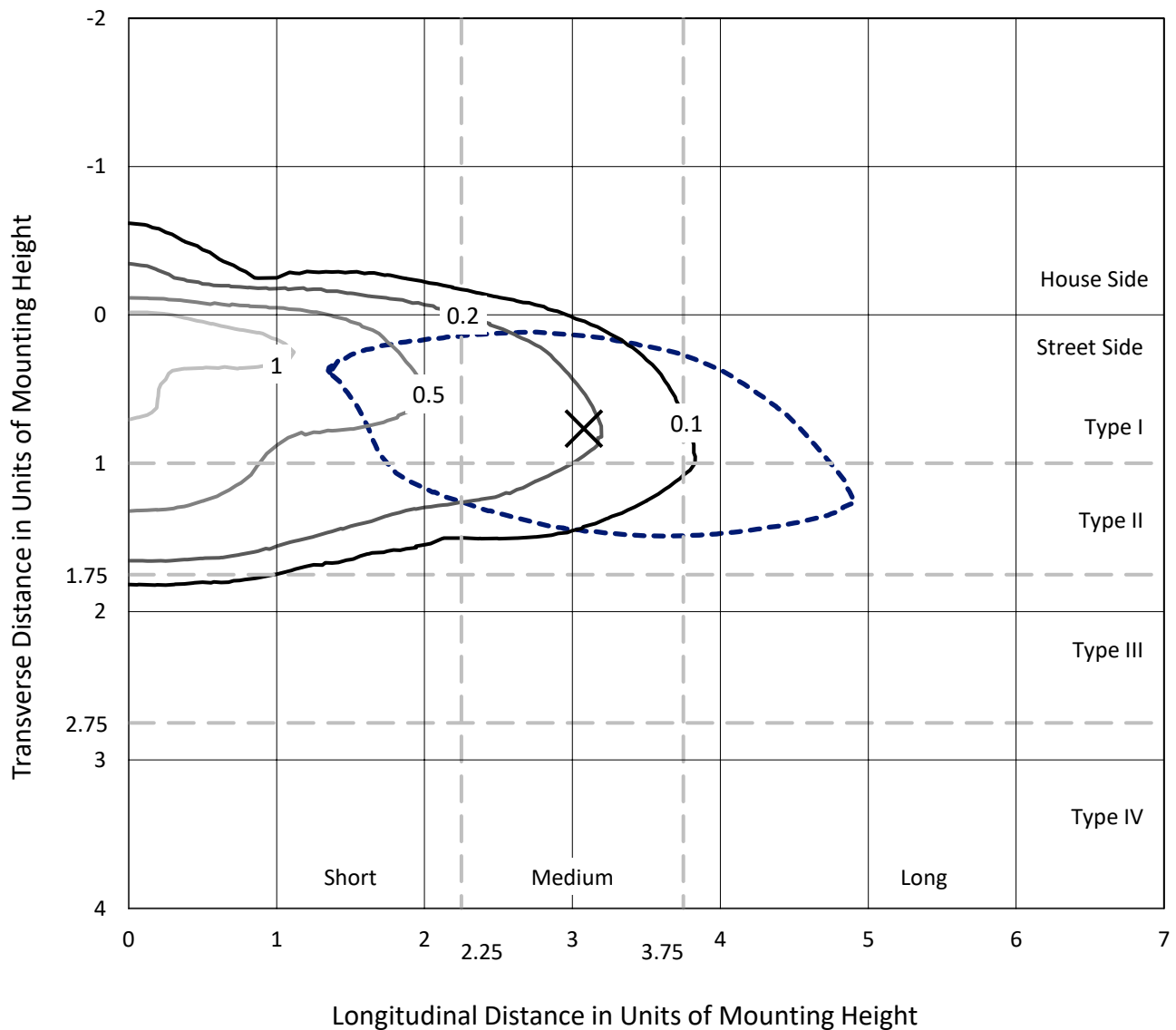


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## Iso-Footcandle Lines of Horizontal Illumination

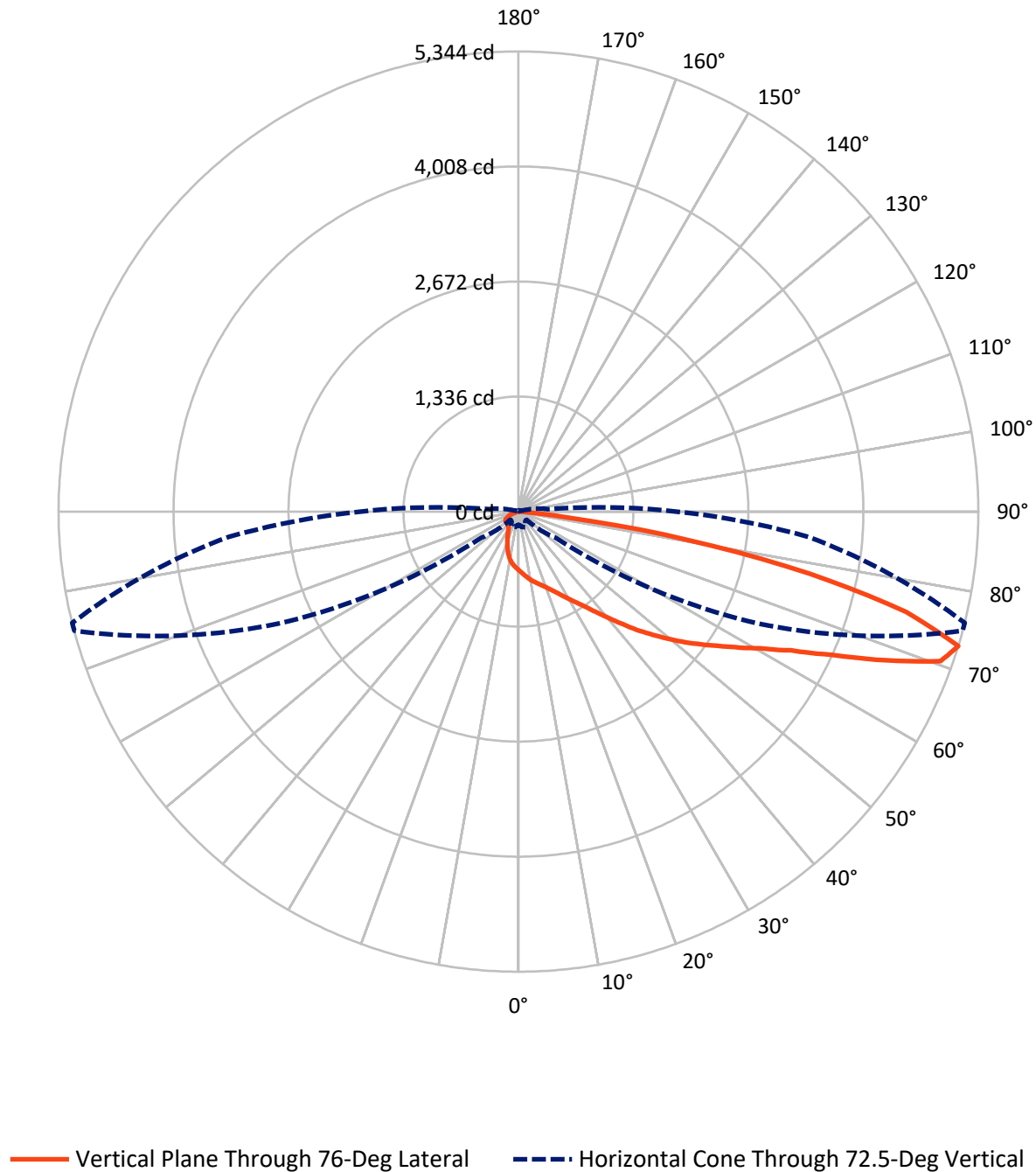
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc  
Type II - 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    | 403.7    | 0.0    | 403.7  |
|                    | % Fixture | 10.2     | 0.0    | 10.2   |
| <b>Street Side</b> | Lumens    | 3540.5   | 0.0    | 3540.5 |
|                    | % Fixture | 89.8     | 0.0    | 89.8   |
| <b>Total</b>       | Lumens    | 3944.2   | 0.0    | 3944.2 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 62.0   | 1.6       |
| 10°-20°   | 166.2  | 4.2       |
| 20°-30°   | 263.1  | 6.7       |
| 30°-40°   | 407.0  | 10.3      |
| 40°-50°   | 618.2  | 15.7      |
| 50°-60°   | 852.2  | 21.6      |
| 60°-70°   | 900.3  | 22.8      |
| 70°-80°   | 617.6  | 15.7      |
| 80°-90°   | 57.5   | 1.5       |
| 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°    | 3944.2 | 100.0     |
| 0°-180°   | 3944.2 | 100.0     |

**Coefficient of Utilization**



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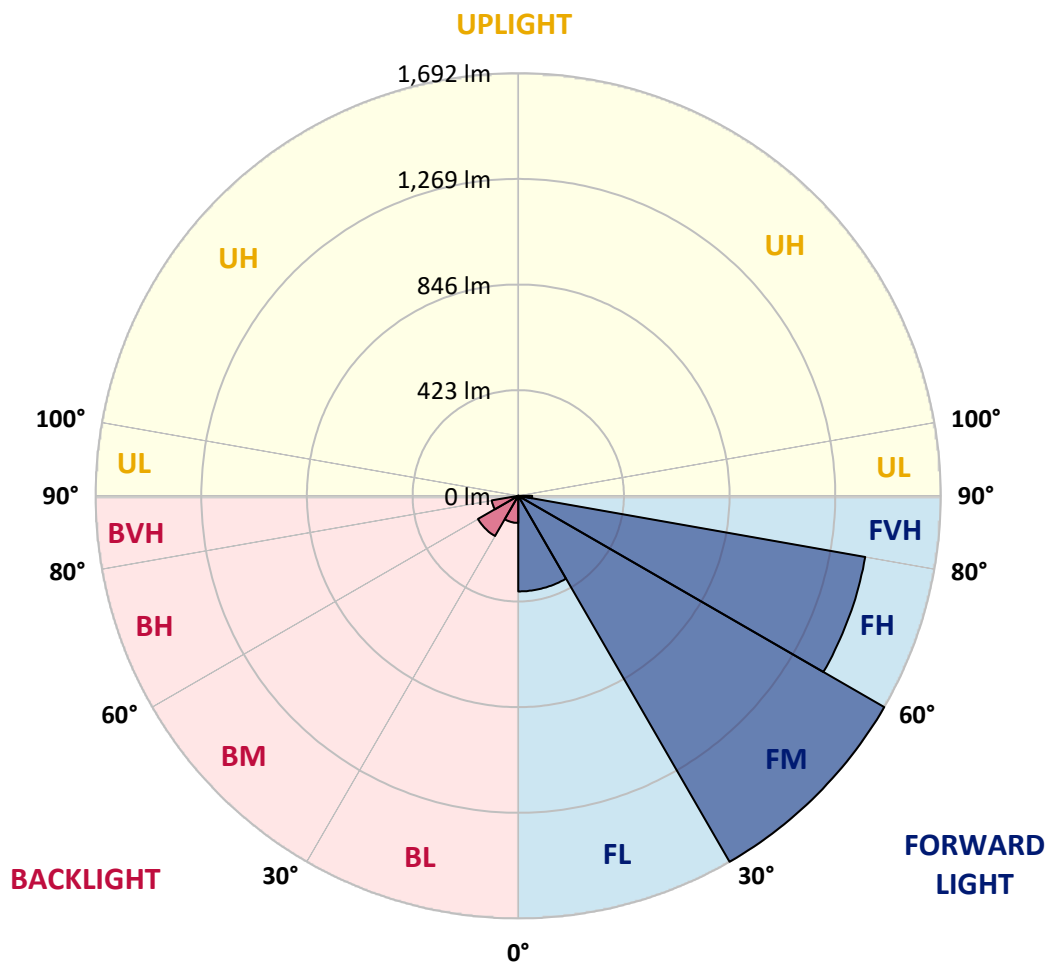
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 382.8  | 9.7       |                         |      |         |
| FM   | (30°-60°)   | 1691.6 | 42.9      |                         |      |         |
| FH   | (60°-80°)   | 1410.2 | 35.8      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 55.9   | 1.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 108.5  | 2.8       | B0/110                  |      |         |
| BM   | (30°-60°)   | 185.9  | 4.7       | B0/220                  |      |         |
| BH   | (60°-80°)   | 107.8  | 2.7       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 1.5    | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B0-U0-G1**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 76°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 681.6  | 681.6  | 681.6  | 681.6  | 681.6  | 681.6  | 681.6  | 681.6  | 681.6  | 681.6  | 681.6  |
| 2.5°  | 792.4  | 781.9  | 783.9  | 773.5  | 768.5  | 756.9  | 744.6  | 728.4  | 710.5  | 710.5  | 693.1  |
| 5°    | 875.8  | 869.1  | 869.1  | 856.9  | 847.4  | 828.9  | 807.0  | 778.6  | 744.8  | 741.5  | 708.5  |
| 7.5°  | 926.9  | 922.9  | 925.4  | 918.3  | 910.6  | 891.4  | 865.3  | 828.2  | 780.3  | 776.2  | 726.6  |
| 10°   | 937.0  | 936.6  | 943.8  | 945.9  | 951.0  | 941.3  | 918.0  | 875.2  | 815.4  | 809.5  | 742.2  |
| 12.5° | 898.3  | 893.4  | 911.1  | 931.8  | 960.9  | 974.1  | 962.0  | 918.3  | 847.4  | 839.2  | 756.9  |
| 15°   | 834.9  | 835.9  | 852.8  | 884.8  | 933.4  | 979.9  | 995.5  | 960.2  | 879.9  | 870.1  | 770.6  |
| 17.5° | 798.5  | 794.7  | 809.2  | 837.9  | 891.6  | 957.5  | 1011.2 | 999.4  | 914.4  | 903.4  | 784.7  |
| 20°   | 794.2  | 793.9  | 797.2  | 810.3  | 851.3  | 925.2  | 1009.3 | 1037.5 | 955.1  | 942.3  | 804.9  |
| 22.5° | 824.4  | 823.9  | 821.0  | 818.5  | 829.7  | 893.7  | 1001.6 | 1073.8 | 1003.7 | 989.9  | 833.5  |
| 25°   | 870.6  | 869.9  | 865.5  | 849.9  | 839.0  | 876.8  | 994.5  | 1107.6 | 1061.3 | 1045.9 | 868.4  |
| 27.5° | 927.2  | 926.7  | 918.8  | 895.2  | 866.8  | 878.3  | 990.9  | 1142.4 | 1127.8 | 1112.7 | 908.6  |
| 30°   | 996.5  | 995.5  | 979.2  | 945.9  | 908.8  | 902.6  | 995.8  | 1181.5 | 1197.1 | 1185.6 | 954.9  |
| 32.5° | 1083.5 | 1080.8 | 1059.2 | 1009.1 | 957.1  | 935.1  | 1005.0 | 1221.7 | 1279.3 | 1268.5 | 1016.8 |
| 35°   | 1150.9 | 1146.5 | 1134.0 | 1089.7 | 1013.2 | 975.1  | 1026.4 | 1269.3 | 1378.0 | 1368.6 | 1095.8 |
| 37.5° | 1208.7 | 1204.3 | 1194.0 | 1157.7 | 1093.5 | 1025.9 | 1061.0 | 1332.7 | 1494.7 | 1490.0 | 1192.3 |
| 40°   | 1271.1 | 1263.9 | 1259.0 | 1220.2 | 1162.0 | 1099.4 | 1110.4 | 1406.9 | 1629.0 | 1629.5 | 1308.2 |
| 42.5° | 1319.2 | 1316.4 | 1316.9 | 1287.0 | 1228.4 | 1186.4 | 1175.9 | 1490.6 | 1790.0 | 1794.8 | 1447.6 |
| 45°   | 1360.4 | 1358.0 | 1367.6 | 1346.5 | 1295.1 | 1243.4 | 1252.7 | 1585.3 | 1966.0 | 1976.0 | 1603.7 |
| 47.5° | 1392.1 | 1394.6 | 1408.2 | 1394.6 | 1364.5 | 1283.6 | 1320.7 | 1687.4 | 2151.0 | 2152.2 | 1764.8 |
| 50°   | 1423.8 | 1424.9 | 1447.4 | 1440.7 | 1428.4 | 1334.6 | 1383.4 | 1801.4 | 2345.9 | 2348.2 | 1915.5 |
| 52.5° | 1433.8 | 1432.2 | 1468.1 | 1484.5 | 1485.0 | 1397.5 | 1464.5 | 1925.8 | 2537.1 | 2544.5 | 2070.6 |
| 55°   | 1382.6 | 1386.9 | 1444.8 | 1511.4 | 1537.7 | 1484.5 | 1574.0 | 2083.1 | 2740.6 | 2743.7 | 2224.1 |
| 57.5° | 1132.4 | 1156.4 | 1284.4 | 1438.7 | 1571.7 | 1609.0 | 1731.3 | 2267.1 | 2975.8 | 2973.0 | 2379.6 |
| 60°   | 687.3  | 715.9  | 868.9  | 1206.6 | 1460.6 | 1734.2 | 1963.2 | 2552.1 | 3232.7 | 3224.8 | 2537.1 |
| 62.5° | 384.3  | 393.0  | 441.9  | 722.3  | 1110.9 | 1654.6 | 2189.6 | 2918.3 | 3577.6 | 3550.7 | 2691.9 |
| 65°   | 283.2  | 286.1  | 297.6  | 353.8  | 546.0  | 1272.6 | 2140.0 | 3356.1 | 4062.2 | 4014.3 | 2877.3 |
| 67.5° | 246.1  | 249.0  | 260.2  | 267.8  | 243.8  | 668.5  | 1763.1 | 3598.9 | 4677.5 | 4614.9 | 3128.3 |
| 70°   | 207.3  | 208.8  | 226.9  | 232.1  | 174.5  | 254.3  | 1132.6 | 3523.8 | 5247.1 | 5202.3 | 3397.8 |
| 72.5° | 154.6  | 160.7  | 187.1  | 199.3  | 139.9  | 135.1  | 533.2  | 3080.9 | 5343.5 | 5344.0 | 3379.5 |
| 75°   | 104.9  | 110.5  | 140.7  | 164.0  | 107.9  | 94.7   | 215.1  | 2300.6 | 4653.0 | 4653.0 | 2962.6 |
| 77.5° | 71.6   | 76.3   | 98.0   | 128.7  | 81.9   | 65.0   | 111.5  | 1460.1 | 3338.1 | 3455.6 | 2111.6 |
| 80°   | 31.8   | 34.5   | 63.2   | 93.4   | 62.2   | 41.9   | 63.2   | 799.5  | 2018.6 | 1993.8 | 827.7  |
| 82.5° | 15.6   | 17.9   | 40.4   | 58.3   | 40.2   | 25.8   | 33.2   | 380.2  | 654.3  | 621.8  | 129.3  |
| 85°   | 3.1    | 4.1    | 21.7   | 24.8   | 18.7   | 11.5   | 12.5   | 117.0  | 78.8   | 90.1   | 27.4   |
| 87.5° | 0.0    | 0.0    | 6.7    | 4.6    | 2.0    | 2.6    | 2.6    | 10.5   | 6.1    | 7.2    | 7.2    |
| 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°    | 681.6  | 681.6 | 681.6 | 681.6 | 681.6 | 681.6 | 681.6 | 681.6 | 681.6 | 681.6 | 681.6 |
| 2.5°  | 683.9  | 674.4 | 653.7 | 633.2 | 612.2 | 593.1 | 579.7 | 566.4 | 558.3 | 554.7 | 555.2 |
| 5°    | 689.3  | 670.0 | 626.6 | 581.1 | 536.0 | 492.0 | 459.0 | 428.0 | 418.3 | 402.2 | 403.2 |
| 7.5°  | 697.7  | 666.5 | 597.9 | 521.2 | 448.0 | 383.6 | 336.9 | 299.8 | 285.1 | 270.7 | 270.4 |
| 10°   | 703.4  | 659.9 | 560.1 | 457.5 | 358.4 | 286.1 | 241.5 | 214.6 | 204.9 | 196.3 | 196.0 |
| 12.5° | 705.6  | 647.6 | 516.6 | 386.1 | 278.9 | 218.0 | 191.4 | 178.9 | 175.5 | 172.4 | 172.4 |
| 15°   | 707.7  | 635.5 | 467.9 | 317.2 | 220.3 | 182.4 | 171.9 | 167.8 | 165.5 | 163.5 | 163.5 |
| 17.5° | 709.5  | 620.2 | 412.5 | 257.9 | 186.0 | 168.1 | 163.0 | 158.7 | 156.8 | 154.6 | 154.6 |
| 20°   | 715.7  | 605.4 | 362.8 | 212.9 | 167.3 | 157.8 | 152.2 | 147.6 | 146.1 | 144.5 | 144.8 |
| 22.5° | 727.1  | 593.4 | 314.7 | 182.4 | 156.1 | 147.4 | 140.2 | 135.1 | 134.1 | 133.0 | 132.2 |
| 25°   | 741.0  | 578.5 | 269.4 | 162.8 | 145.0 | 135.3 | 127.4 | 123.1 | 122.1 | 122.3 | 121.8 |
| 27.5° | 758.6  | 562.1 | 230.5 | 150.2 | 135.3 | 124.1 | 115.1 | 111.8 | 112.3 | 113.4 | 112.9 |
| 30°   | 778.1  | 547.0 | 200.1 | 141.4 | 126.7 | 114.1 | 105.2 | 102.8 | 104.7 | 106.2 | 105.7 |
| 32.5° | 807.0  | 533.7 | 178.9 | 134.6 | 119.0 | 105.9 | 98.8  | 95.9  | 98.0  | 100.0 | 99.5  |
| 35°   | 846.3  | 527.1 | 166.8 | 128.7 | 112.3 | 99.5  | 92.4  | 90.3  | 92.4  | 92.9  | 92.7  |
| 37.5° | 894.7  | 526.5 | 161.7 | 123.8 | 106.2 | 94.2  | 86.2  | 85.5  | 87.0  | 87.2  | 86.7  |
| 40°   | 957.1  | 529.8 | 157.8 | 120.2 | 99.7  | 88.0  | 80.6  | 79.8  | 80.4  | 82.1  | 81.9  |
| 42.5° | 1036.2 | 543.7 | 152.5 | 115.6 | 92.9  | 81.9  | 76.0  | 74.2  | 73.9  | 76.0  | 75.7  |
| 45°   | 1135.5 | 574.1 | 145.3 | 108.2 | 86.7  | 76.8  | 70.8  | 68.8  | 68.1  | 68.6  | 69.3  |
| 47.5° | 1243.7 | 611.5 | 138.2 | 101.3 | 82.4  | 72.7  | 66.7  | 64.3  | 62.9  | 62.9  | 62.9  |
| 50°   | 1348.6 | 653.7 | 133.2 | 94.2  | 79.3  | 68.8  | 62.4  | 59.9  | 57.8  | 57.3  | 57.1  |
| 52.5° | 1452.5 | 695.2 | 129.5 | 87.0  | 75.7  | 64.0  | 58.3  | 55.6  | 53.2  | 52.2  | 51.7  |
| 55°   | 1547.1 | 734.5 | 122.8 | 80.1  | 71.1  | 58.8  | 54.2  | 51.5  | 48.6  | 46.8  | 46.0  |
| 57.5° | 1637.9 | 767.3 | 110.5 | 72.9  | 64.0  | 54.0  | 49.9  | 46.8  | 43.5  | 41.2  | 40.2  |
| 60°   | 1720.6 | 784.2 | 95.2  | 65.3  | 56.8  | 48.9  | 45.0  | 42.2  | 37.8  | 34.0  | 33.0  |
| 62.5° | 1783.5 | 777.6 | 78.5  | 56.6  | 49.4  | 44.3  | 39.4  | 36.6  | 31.5  | 26.9  | 25.1  |
| 65°   | 1848.1 | 741.2 | 62.7  | 47.4  | 43.3  | 38.1  | 33.0  | 30.2  | 24.3  | 19.5  | 18.1  |
| 67.5° | 1931.7 | 663.7 | 49.4  | 39.4  | 37.3  | 30.2  | 25.8  | 24.1  | 20.0  | 15.4  | 14.3  |
| 70°   | 1985.4 | 515.6 | 38.3  | 32.0  | 30.7  | 22.0  | 20.0  | 19.7  | 15.9  | 11.8  | 10.5  |
| 72.5° | 1838.0 | 337.9 | 29.4  | 24.3  | 22.0  | 14.3  | 15.4  | 15.4  | 11.5  | 7.9   | 6.9   |
| 75°   | 1534.3 | 197.8 | 21.2  | 17.4  | 12.5  | 9.2   | 10.5  | 10.5  | 7.2   | 3.8   | 3.1   |
| 77.5° | 1095.8 | 105.4 | 14.0  | 10.8  | 6.4   | 4.1   | 5.6   | 5.3   | 2.3   | 0.2   | 0.0   |
| 80°   | 419.1  | 36.3  | 6.7   | 4.3   | 1.7   | 0.7   | 0.5   | 0.2   | 0.2   | 0.0   | 0.0   |
| 82.5° | 64.0   | 9.4   | 1.2   | 1.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 11.5   | 1.2   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 2.6    | 0.0   | 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)