

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: P959483

Luminaire Tested: **NAV-SB1A-835-U-T2-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P959483  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1A-835-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 3500K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS WITH  
HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3115 lumens  
Efficiency: N/A  
Efficacy: 100.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - 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



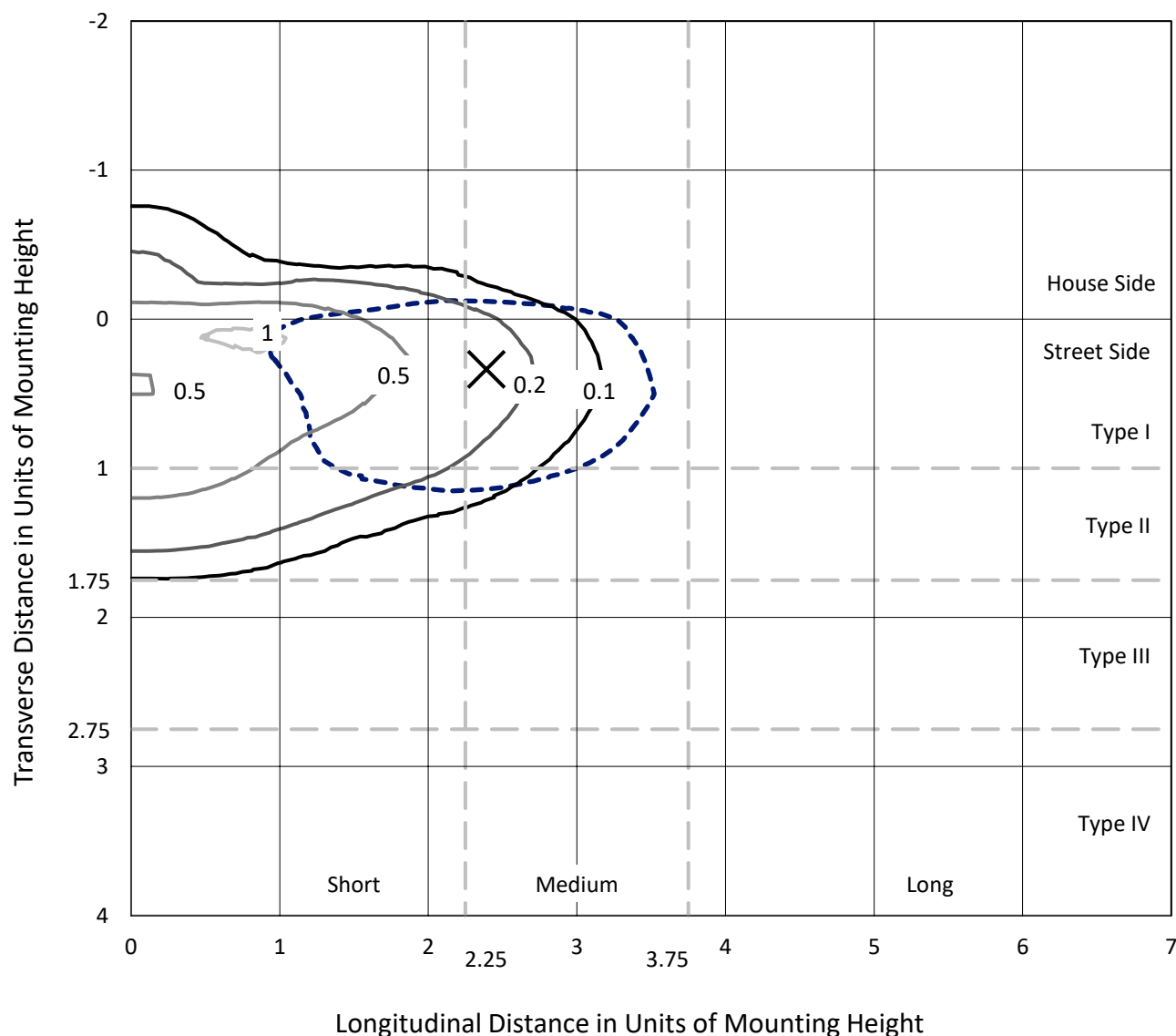
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

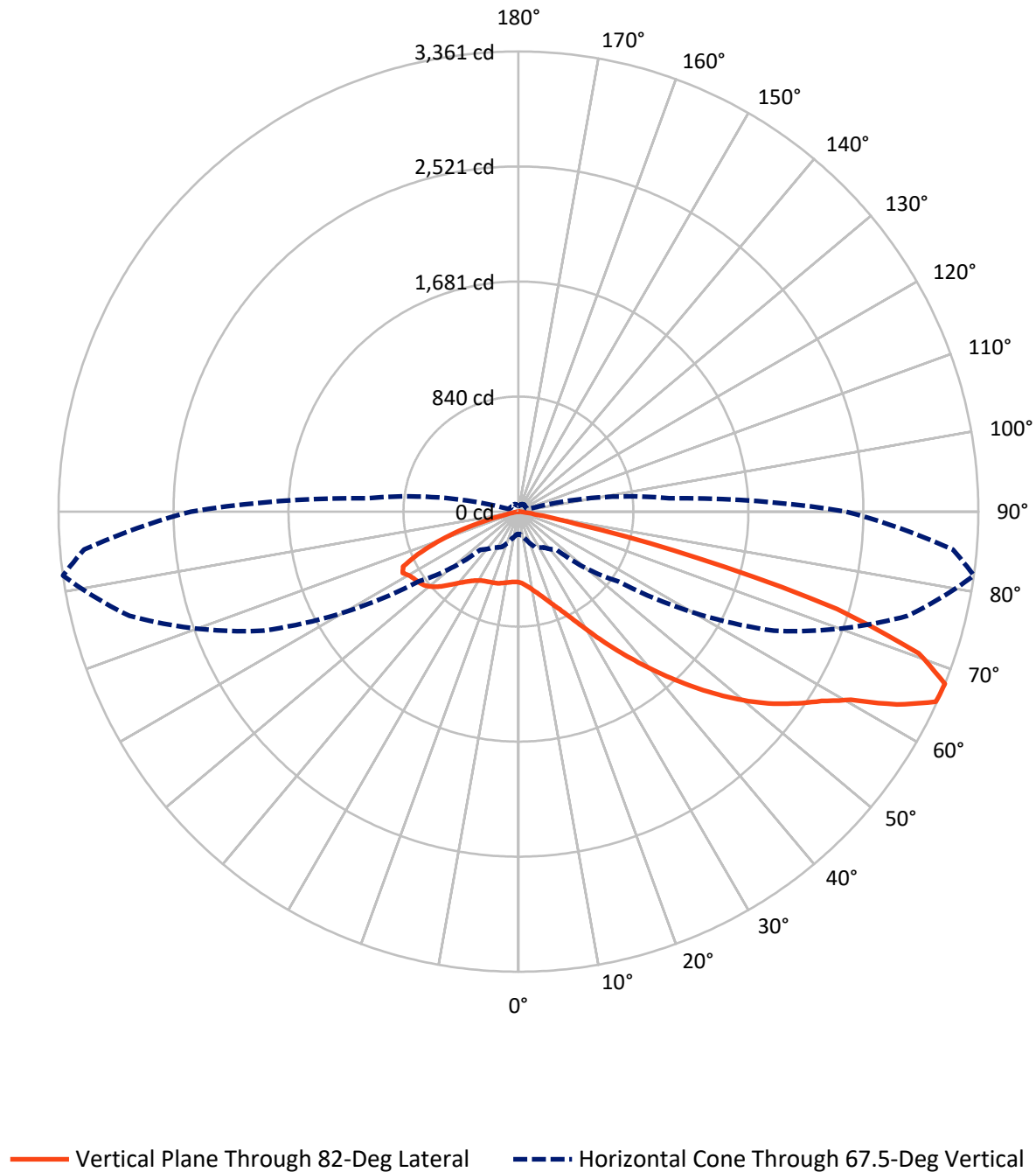
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 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    | 564.2    | 0.0    | 564.2  |
|                    | % Fixture | 18.1     | 0.0    | 18.1   |
| <b>Street Side</b> | Lumens    | 2550.7   | 0.0    | 2550.7 |
|                    | % Fixture | 81.9     | 0.0    | 81.9   |
| <b>Total</b>       | Lumens    | 3115.0   | 0.0    | 3115.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 46.0   | 1.5       |
| 10°-20°   | 119.5  | 3.8       |
| 20°-30°   | 191.4  | 6.1       |
| 30°-40°   | 338.4  | 10.9      |
| 40°-50°   | 592.9  | 19.0      |
| 50°-60°   | 790.7  | 25.4      |
| 60°-70°   | 736.1  | 23.6      |
| 70°-80°   | 282.5  | 9.1       |
| 80°-90°   | 17.5   | 0.6       |
| 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°    | 3115.0 | 100.0     |
| 0°-180°   | 3115.0 | 100.0     |

**Coefficient of Utilization**



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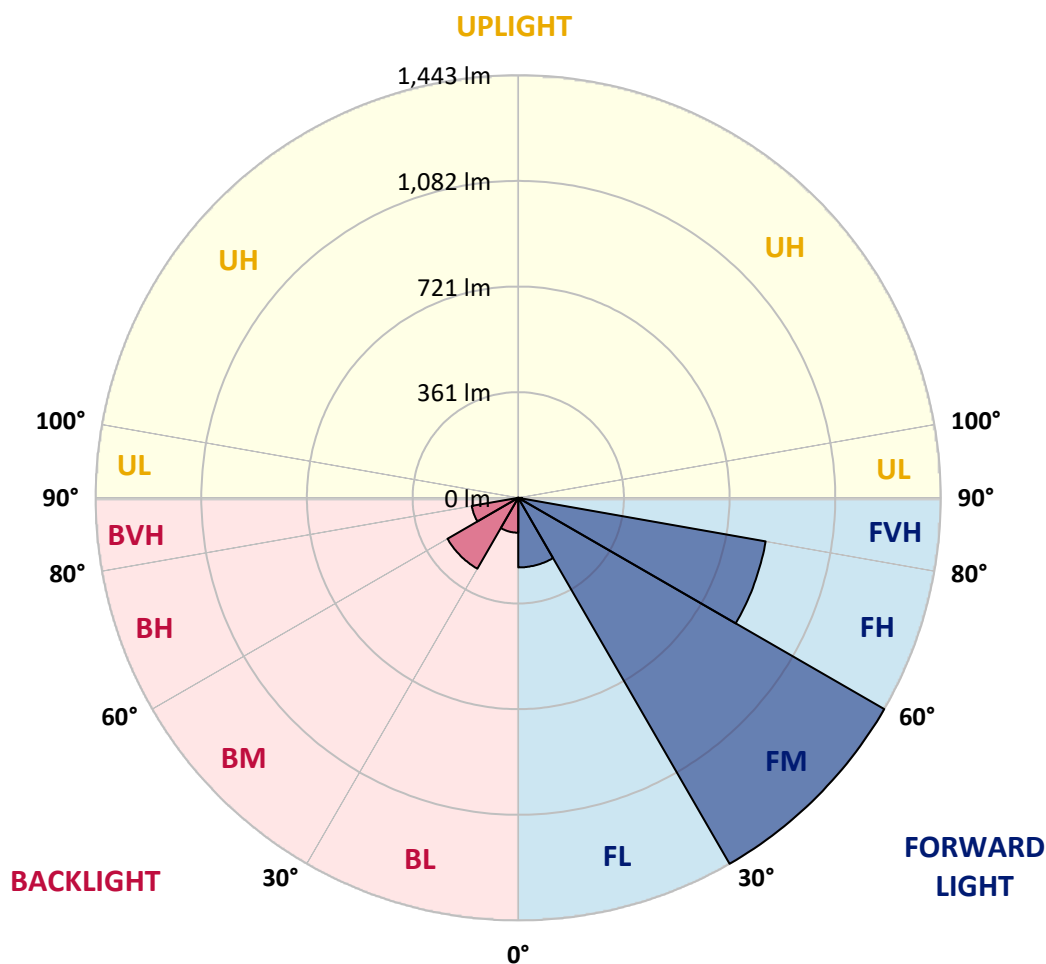
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 237.6  | 7.6       |                         |      |         |
| FM   | (30°-60°)   | 1442.7 | 46.3      |                         |      |         |
| FH   | (60°-80°)   | 857.6  | 27.5      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 12.8   | 0.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 119.2  | 3.8       | B1/500                  |      |         |
| BM   | (30°-60°)   | 279.2  | 9.0       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 161.0  | 5.2       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 4.8    | 0.2       |                         |      | G0/10   |
| 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 Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 82°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 516.1  | 516.1  | 516.1  | 516.1  | 516.1  | 516.1  | 516.1  | 516.1  | 516.1  | 516.1  | 516.1  |
| 2.5°  | 545.4  | 548.6  | 546.7  | 545.9  | 544.3  | 542.0  | 540.3  | 534.6  | 528.8  | 525.0  | 523.7  |
| 5°    | 556.4  | 559.5  | 559.3  | 560.3  | 561.4  | 562.0  | 561.6  | 555.2  | 547.0  | 540.5  | 536.7  |
| 7.5°  | 547.0  | 550.6  | 553.5  | 558.0  | 565.8  | 574.1  | 578.2  | 576.9  | 568.3  | 559.3  | 554.6  |
| 10°   | 520.3  | 524.1  | 531.1  | 541.6  | 558.2  | 576.2  | 591.2  | 598.1  | 592.8  | 582.9  | 576.4  |
| 12.5° | 471.4  | 475.2  | 488.9  | 511.8  | 539.6  | 570.7  | 599.5  | 618.1  | 619.4  | 609.6  | 602.0  |
| 15°   | 416.5  | 420.2  | 434.9  | 463.6  | 505.9  | 556.0  | 603.9  | 639.2  | 651.1  | 642.6  | 633.3  |
| 17.5° | 382.4  | 385.7  | 396.8  | 419.8  | 464.0  | 526.3  | 602.4  | 661.6  | 688.7  | 682.0  | 671.1  |
| 20°   | 372.1  | 374.9  | 380.2  | 396.3  | 433.1  | 495.6  | 592.0  | 682.6  | 729.3  | 725.5  | 713.2  |
| 22.5° | 383.0  | 385.7  | 387.3  | 394.5  | 417.6  | 475.5  | 579.0  | 704.2  | 776.4  | 776.8  | 761.9  |
| 25°   | 408.4  | 411.1  | 409.3  | 413.8  | 423.8  | 469.1  | 574.1  | 729.6  | 835.6  | 840.6  | 823.5  |
| 27.5° | 450.1  | 450.4  | 446.1  | 445.9  | 447.4  | 478.6  | 579.3  | 756.7  | 910.3  | 919.5  | 898.4  |
| 30°   | 533.7  | 530.4  | 514.0  | 496.3  | 488.2  | 506.9  | 593.7  | 788.7  | 998.5  | 1014.9 | 988.4  |
| 32.5° | 662.8  | 657.7  | 627.7  | 585.4  | 542.7  | 552.4  | 619.4  | 825.3  | 1094.4 | 1124.0 | 1091.7 |
| 35°   | 802.7  | 801.3  | 769.9  | 706.9  | 632.4  | 617.2  | 661.3  | 873.3  | 1199.1 | 1246.3 | 1208.0 |
| 37.5° | 932.7  | 932.0  | 914.1  | 839.9  | 749.3  | 707.6  | 728.7  | 936.1  | 1311.3 | 1379.4 | 1334.1 |
| 40°   | 1051.6 | 1053.6 | 1035.7 | 969.3  | 878.0  | 823.5  | 820.2  | 1013.7 | 1436.0 | 1524.6 | 1470.8 |
| 42.5° | 1154.4 | 1156.6 | 1138.4 | 1089.3 | 1005.2 | 951.8  | 932.5  | 1108.7 | 1557.8 | 1680.5 | 1616.7 |
| 45°   | 1224.1 | 1238.0 | 1235.3 | 1196.1 | 1135.7 | 1080.4 | 1067.5 | 1228.2 | 1696.6 | 1845.7 | 1771.1 |
| 47.5° | 1243.8 | 1256.5 | 1276.7 | 1282.2 | 1245.4 | 1190.8 | 1206.1 | 1371.9 | 1837.0 | 2011.3 | 1926.3 |
| 50°   | 1195.1 | 1207.0 | 1249.0 | 1304.8 | 1330.3 | 1313.5 | 1340.9 | 1525.9 | 1980.7 | 2176.3 | 2078.5 |
| 52.5° | 1099.1 | 1111.3 | 1164.2 | 1252.6 | 1356.8 | 1409.8 | 1476.1 | 1677.7 | 2120.0 | 2332.6 | 2222.7 |
| 55°   | 960.3  | 973.1  | 1041.1 | 1141.1 | 1306.4 | 1449.5 | 1589.0 | 1829.4 | 2247.6 | 2473.2 | 2352.8 |
| 57.5° | 771.5  | 780.9  | 851.6  | 991.5  | 1179.5 | 1410.0 | 1672.2 | 1994.9 | 2367.9 | 2611.4 | 2481.7 |
| 60°   | 502.9  | 511.1  | 593.2  | 749.3  | 969.0  | 1278.1 | 1688.8 | 2179.5 | 2527.5 | 2791.1 | 2655.6 |
| 62.5° | 334.4  | 340.0  | 388.7  | 503.3  | 682.4  | 1024.9 | 1591.6 | 2326.9 | 2761.7 | 3103.7 | 2953.6 |
| 65°   | 229.4  | 235.0  | 283.7  | 363.6  | 441.0  | 677.9  | 1312.4 | 2307.3 | 2973.8 | 3352.0 | 3174.5 |
| 67.5° | 163.7  | 168.4  | 209.7  | 285.1  | 319.2  | 393.8  | 889.7  | 2057.9 | 2943.3 | 3361.4 | 3186.4 |
| 70°   | 117.3  | 120.0  | 154.1  | 222.0  | 253.7  | 236.6  | 494.8  | 1573.9 | 2577.1 | 3103.9 | 2943.8 |
| 72.5° | 82.1   | 83.0   | 107.0  | 169.1  | 204.3  | 172.7  | 235.4  | 1049.4 | 1949.1 | 2436.2 | 2282.2 |
| 75°   | 55.7   | 56.8   | 72.0   | 124.0  | 163.9  | 131.9  | 124.7  | 562.7  | 1144.2 | 1348.5 | 1208.8 |
| 77.5° | 34.1   | 34.5   | 46.4   | 84.8   | 122.7  | 100.4  | 80.3   | 238.4  | 442.7  | 434.6  | 370.5  |
| 80°   | 19.3   | 19.3   | 29.6   | 52.7   | 83.6   | 64.8   | 56.3   | 101.4  | 140.2  | 123.1  | 108.5  |
| 82.5° | 10.8   | 11.0   | 21.5   | 32.7   | 55.4   | 38.3   | 31.0   | 46.8   | 60.6   | 53.6   | 46.6   |
| 85°   | 4.5    | 4.9    | 13.2   | 15.5   | 26.4   | 19.1   | 12.6   | 19.8   | 22.4   | 20.0   | 14.6   |
| 87.5° | 0.4    | 0.7    | 4.0    | 2.9    | 3.2    | 3.8    | 1.8    | 3.8    | 3.2    | 3.2    | 2.3    |
| 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°    | 516.1  | 516.1  | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 | 516.1 |
| 2.5°  | 519.4  | 516.1  | 507.5 | 497.6 | 484.6 | 478.4 | 469.9 | 464.0 | 459.1 | 459.5 | 455.0 |
| 5°    | 529.5  | 521.0  | 501.9 | 478.2 | 448.5 | 427.4 | 405.1 | 389.6 | 377.0 | 374.3 | 368.3 |
| 7.5°  | 543.5  | 529.9  | 496.5 | 453.7 | 403.6 | 365.8 | 331.9 | 310.2 | 294.7 | 289.8 | 284.8 |
| 10°   | 561.4  | 541.8  | 489.5 | 423.0 | 351.0 | 302.8 | 266.4 | 249.4 | 238.8 | 235.2 | 232.6 |
| 12.5° | 582.2  | 555.6  | 480.4 | 385.5 | 296.7 | 250.3 | 227.1 | 218.6 | 215.2 | 214.2 | 213.5 |
| 15°   | 608.4  | 572.6  | 466.5 | 341.1 | 250.7 | 218.2 | 208.4 | 207.3 | 207.7 | 207.3 | 207.0 |
| 17.5° | 639.6  | 591.2  | 443.8 | 295.4 | 219.8 | 201.8 | 198.2 | 199.2 | 200.3 | 200.1 | 199.6 |
| 20°   | 673.7  | 609.6  | 414.9 | 254.8 | 198.7 | 190.1 | 188.2 | 189.0 | 189.9 | 189.5 | 189.3 |
| 22.5° | 712.5  | 629.3  | 382.8 | 223.1 | 184.6 | 179.4 | 177.2 | 177.4 | 177.4 | 176.5 | 176.1 |
| 25°   | 758.9  | 651.1  | 349.2 | 200.7 | 173.8 | 169.7 | 167.1 | 166.2 | 164.8 | 162.2 | 161.7 |
| 27.5° | 814.4  | 674.1  | 316.9 | 185.0 | 165.3 | 161.4 | 158.4 | 156.1 | 152.7 | 148.2 | 147.8 |
| 30°   | 876.7  | 702.2  | 289.6 | 175.2 | 158.6 | 154.8 | 151.2 | 147.8 | 142.9 | 137.2 | 136.8 |
| 32.5° | 950.0  | 732.3  | 269.6 | 168.6 | 152.5 | 148.4 | 144.2 | 140.2 | 134.8 | 129.1 | 129.4 |
| 35°   | 1037.5 | 768.5  | 257.9 | 164.2 | 147.8 | 142.4 | 137.7 | 133.2 | 129.1 | 124.2 | 123.8 |
| 37.5° | 1132.3 | 807.2  | 254.3 | 162.0 | 144.6 | 136.3 | 131.0 | 127.8 | 127.4 | 124.4 | 124.2 |
| 40°   | 1236.1 | 852.9  | 257.0 | 160.6 | 141.2 | 130.5 | 124.7 | 124.0 | 125.2 | 120.0 | 120.2 |
| 42.5° | 1346.0 | 907.1  | 261.5 | 159.0 | 136.5 | 124.7 | 119.1 | 119.1 | 118.2 | 111.0 | 111.0 |
| 45°   | 1464.9 | 969.8  | 266.0 | 155.2 | 131.0 | 118.9 | 114.6 | 113.1 | 109.3 | 102.3 | 102.1 |
| 47.5° | 1584.6 | 1033.4 | 269.4 | 148.2 | 124.2 | 114.0 | 110.1 | 106.5 | 101.0 | 94.6  | 94.4  |
| 50°   | 1698.4 | 1090.6 | 265.8 | 138.0 | 116.6 | 109.3 | 105.2 | 100.2 | 94.2  | 89.9  | 89.3  |
| 52.5° | 1800.0 | 1140.2 | 250.5 | 125.8 | 108.5 | 104.2 | 100.7 | 95.5  | 90.6  | 86.1  | 85.7  |
| 55°   | 1888.4 | 1180.3 | 223.6 | 114.4 | 101.4 | 100.0 | 96.5  | 89.9  | 83.2  | 79.4  | 78.9  |
| 57.5° | 1973.1 | 1210.8 | 189.9 | 105.0 | 94.9  | 95.3  | 89.9  | 84.2  | 77.8  | 73.8  | 73.3  |
| 60°   | 2086.0 | 1251.6 | 155.9 | 96.2  | 87.9  | 89.3  | 83.4  | 79.1  | 71.3  | 66.1  | 65.5  |
| 62.5° | 2266.3 | 1315.1 | 123.8 | 85.5  | 79.8  | 80.3  | 77.8  | 72.7  | 63.2  | 57.2  | 56.8  |
| 65°   | 2409.4 | 1291.8 | 97.6  | 73.8  | 70.6  | 71.3  | 71.3  | 65.7  | 55.7  | 48.7  | 48.0  |
| 67.5° | 2393.2 | 1106.1 | 77.8  | 62.3  | 61.9  | 62.3  | 64.0  | 59.2  | 49.3  | 43.8  | 42.8  |
| 70°   | 2204.6 | 879.9  | 62.3  | 51.8  | 53.8  | 52.7  | 57.2  | 54.0  | 44.4  | 38.8  | 38.1  |
| 72.5° | 1798.9 | 633.8  | 47.6  | 42.8  | 41.3  | 43.0  | 51.6  | 48.7  | 37.0  | 30.7  | 30.0  |
| 75°   | 1051.1 | 338.2  | 35.5  | 33.8  | 29.8  | 35.9  | 45.7  | 41.5  | 28.3  | 22.7  | 21.9  |
| 77.5° | 342.2  | 118.0  | 26.0  | 24.9  | 22.2  | 28.9  | 39.1  | 35.0  | 23.1  | 17.9  | 17.2  |
| 80°   | 91.7   | 35.7   | 17.7  | 16.4  | 14.3  | 21.5  | 31.0  | 27.8  | 16.6  | 11.7  | 11.5  |
| 82.5° | 36.8   | 15.1   | 10.4  | 9.2   | 7.9   | 14.8  | 24.4  | 22.4  | 12.3  | 7.4   | 7.4   |
| 85°   | 11.9   | 4.9    | 3.8   | 2.9   | 3.6   | 9.2   | 14.6  | 15.3  | 8.7   | 3.8   | 2.9   |
| 87.5° | 1.5    | 0.7    | 0.7   | 0.9   | 0.7   | 1.5   | 4.5   | 4.3   | 2.5   | 0.4   | 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)