

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: P959210

Luminaire Tested: **NAV-SB1A-722-U-T3-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P959210  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1A-722-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 2200K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2979.7 lumens  
Efficiency: N/A  
Efficacy: 96.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G1

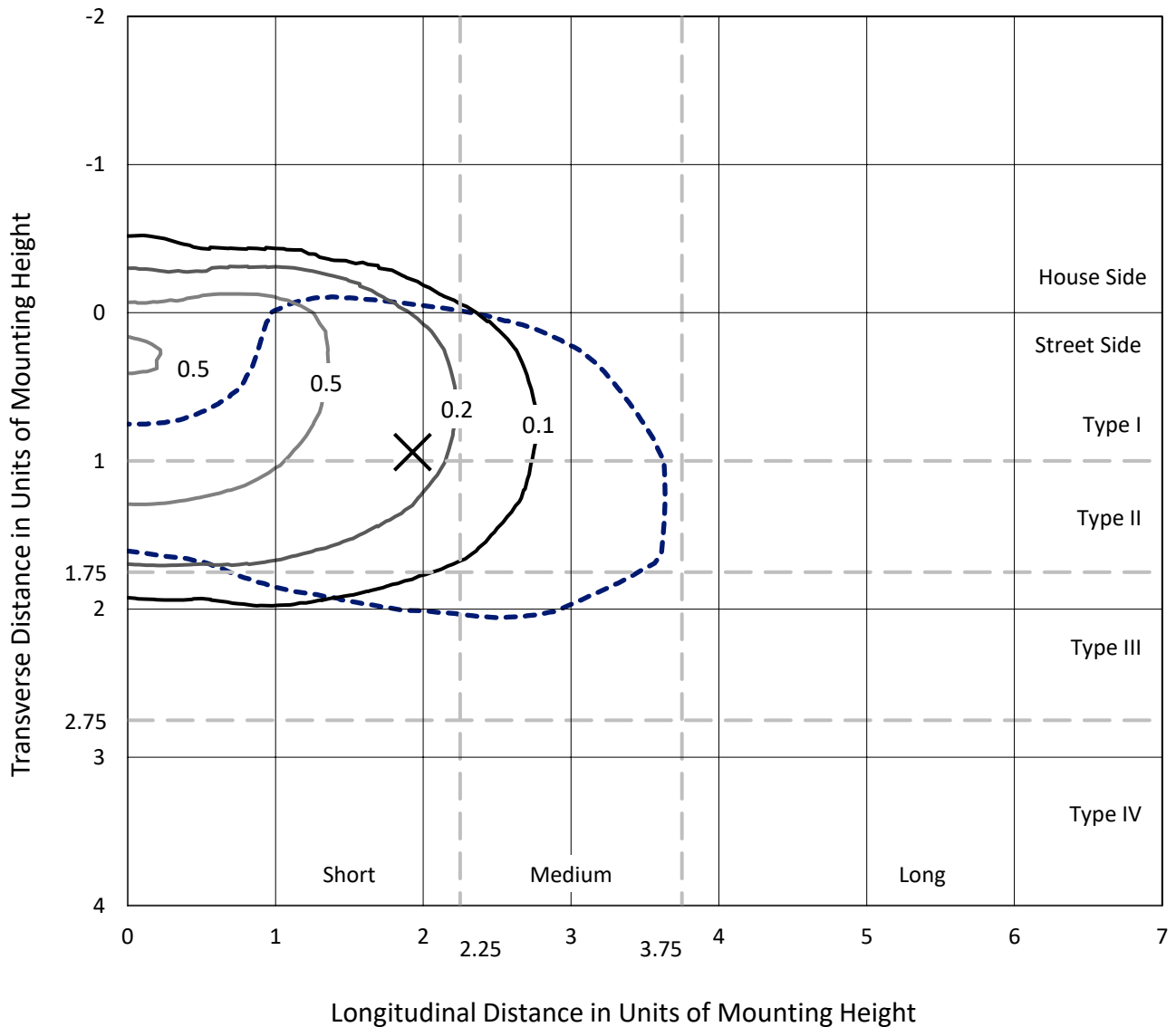
Input Watts (W): 30.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

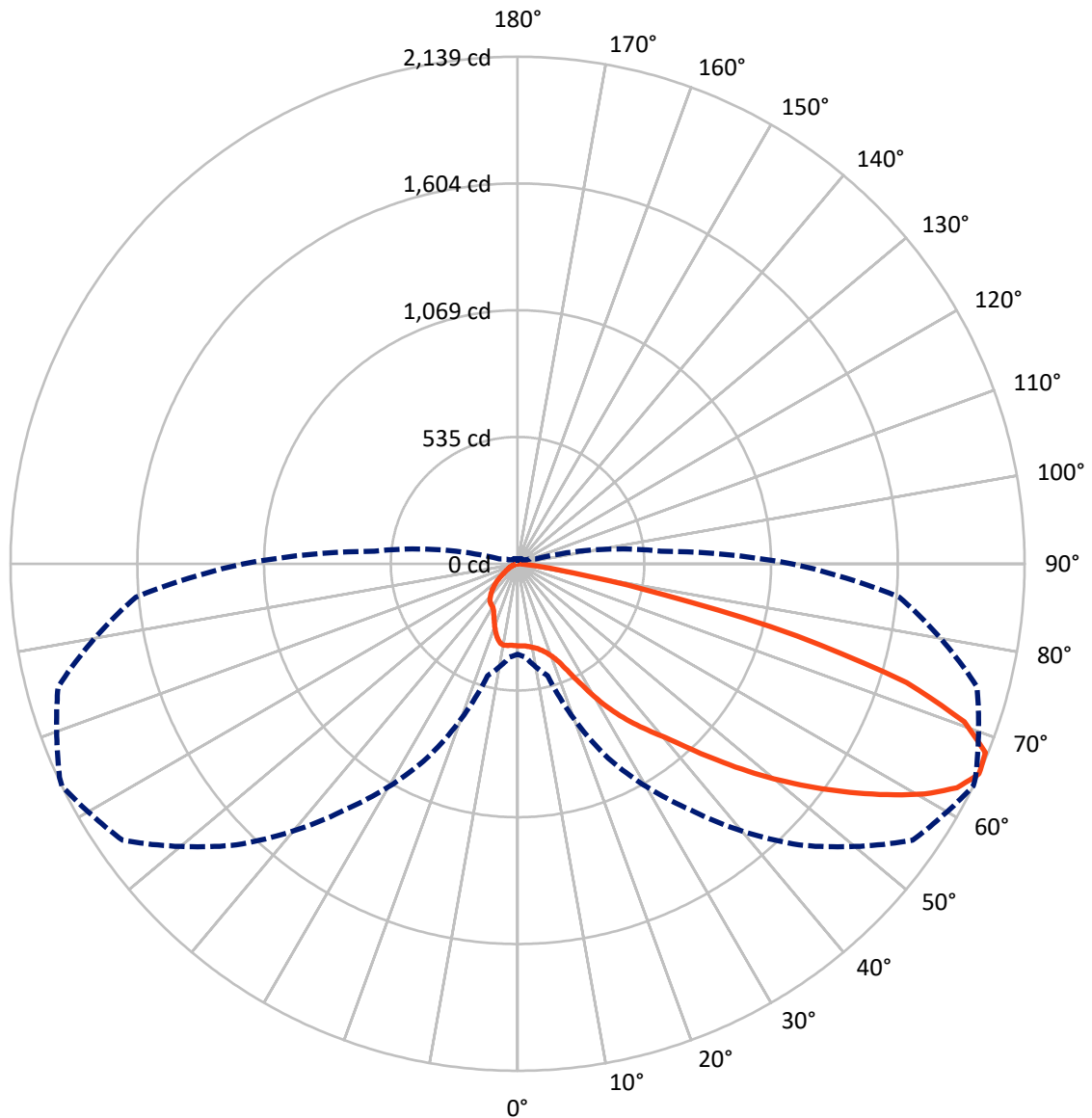
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 398.5    | 0.0    | 398.5  |
|                    | % Fixture | 13.4     | 0.0    | 13.4   |
| <b>Street Side</b> | Lumens    | 2581.2   | 0.0    | 2581.2 |
|                    | % Fixture | 86.6     | 0.0    | 86.6   |
| <b>Total</b>       | Lumens    | 2979.7   | 0.0    | 2979.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 32.0   | 1.1       |
| 10°-20°   | 86.7   | 2.9       |
| 20°-30°   | 164.3  | 5.5       |
| 30°-40°   | 332.5  | 11.2      |
| 40°-50°   | 566.5  | 19.0      |
| 50°-60°   | 770.4  | 25.9      |
| 60°-70°   | 723.4  | 24.3      |
| 70°-80°   | 289.8  | 9.7       |
| 80°-90°   | 14.0   | 0.5       |
| 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°    | 2979.7 | 100.0     |
| 0°-180°   | 2979.7 | 100.0     |

**Coefficient of Utilization**



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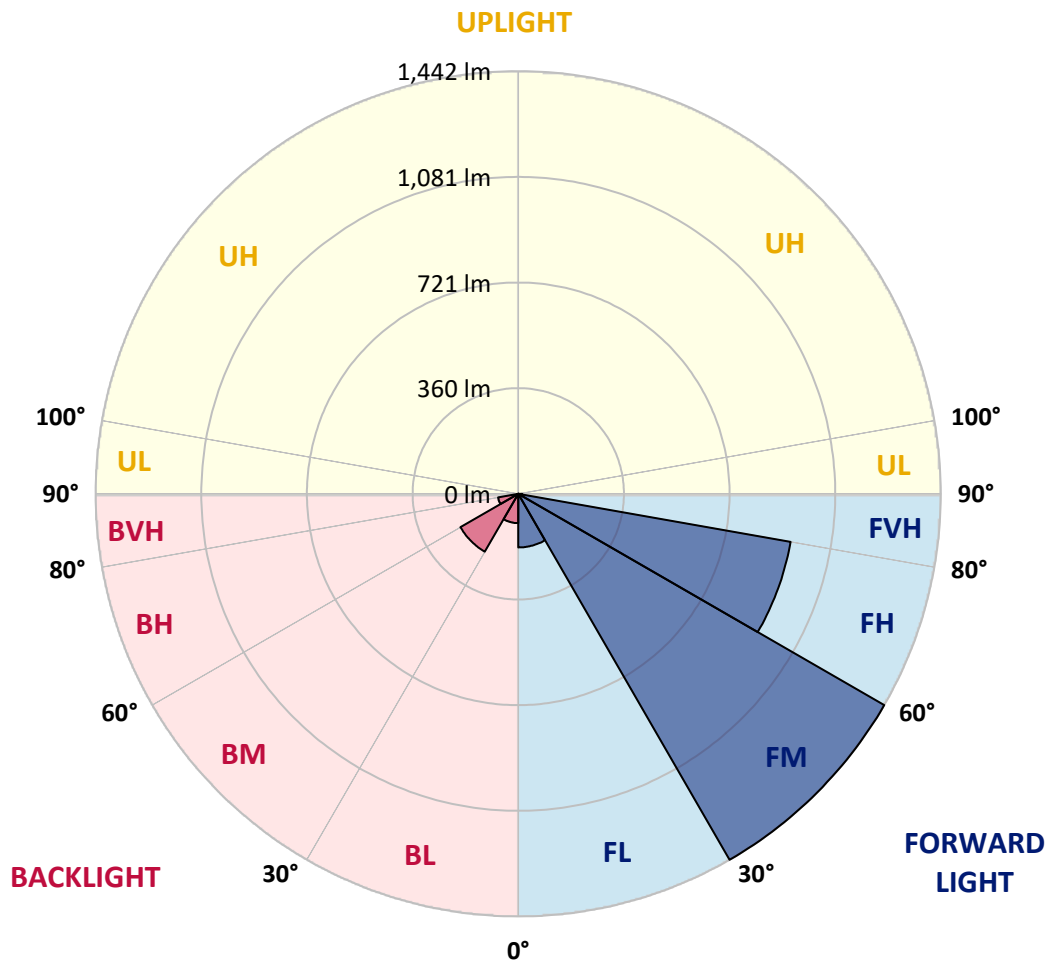
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 183.0  | 6.1       |                         |      |         |
| FM (30°-60°)   | 1441.6 | 48.4      |                         |      |         |
| FH (60°-80°)   | 943.3  | 31.7      |                         |      | G1/1800 |
| FVH (80°-90°)  | 13.4   | 0.4       |                         |      | G1/100  |
| BL (0°-30°)    | 100.0  | 3.4       | B0/110                  |      |         |
| BM (30°-60°)   | 227.8  | 7.6       | B1/1000                 |      |         |
| BH (60°-80°)   | 69.9   | 2.3       | B0/110                  |      | G0/110  |
| BVH (80°-90°)  | 0.7    | 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-G1**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 64°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 346.6  | 346.6  | 346.6  | 346.6  | 346.6  | 346.6  | 346.6  | 346.6  | 346.6  | 346.6  | 346.6  |
| 2.5°  | 345.3  | 347.8  | 347.2  | 346.6  | 346.3  | 346.8  | 347.0  | 346.8  | 346.8  | 346.8  | 347.0  |
| 5°    | 338.8  | 340.8  | 340.8  | 342.1  | 344.2  | 346.6  | 348.4  | 348.8  | 349.1  | 349.7  | 349.5  |
| 7.5°  | 326.2  | 327.8  | 329.0  | 333.5  | 338.6  | 345.0  | 350.3  | 353.1  | 353.5  | 355.8  | 356.6  |
| 10°   | 317.6  | 319.6  | 321.6  | 326.4  | 333.5  | 343.2  | 352.4  | 359.2  | 360.2  | 365.3  | 367.8  |
| 12.5° | 317.2  | 319.2  | 321.7  | 327.0  | 335.4  | 345.5  | 356.8  | 366.5  | 368.4  | 376.0  | 380.9  |
| 15°   | 321.4  | 323.8  | 326.2  | 332.6  | 341.5  | 353.9  | 365.9  | 378.1  | 380.0  | 390.7  | 396.1  |
| 17.5° | 329.9  | 333.2  | 335.0  | 341.3  | 351.0  | 364.7  | 380.5  | 394.5  | 396.1  | 408.7  | 415.4  |
| 20°   | 347.0  | 350.8  | 351.4  | 356.6  | 365.9  | 380.7  | 399.5  | 416.9  | 418.9  | 433.3  | 440.9  |
| 22.5° | 382.1  | 387.6  | 382.7  | 385.3  | 393.7  | 408.5  | 428.9  | 450.8  | 453.7  | 470.0  | 476.8  |
| 25°   | 444.0  | 451.6  | 439.2  | 434.9  | 438.5  | 453.9  | 479.4  | 507.2  | 510.3  | 523.6  | 527.0  |
| 27.5° | 565.7  | 555.9  | 537.1  | 518.8  | 508.0  | 516.8  | 545.5  | 579.8  | 583.8  | 596.7  | 592.7  |
| 30°   | 699.4  | 690.7  | 665.3  | 624.6  | 599.0  | 597.7  | 624.2  | 662.6  | 667.2  | 679.4  | 667.2  |
| 32.5° | 833.1  | 824.9  | 797.4  | 747.2  | 702.9  | 680.9  | 699.4  | 741.9  | 744.3  | 752.0  | 734.1  |
| 35°   | 964.8  | 956.4  | 928.9  | 877.5  | 823.0  | 773.1  | 769.5  | 817.3  | 818.2  | 826.4  | 799.6  |
| 37.5° | 1097.3 | 1090.2 | 1060.9 | 1010.5 | 956.8  | 887.9  | 854.5  | 888.9  | 889.9  | 897.9  | 870.1  |
| 40°   | 1191.7 | 1194.7 | 1174.5 | 1135.6 | 1089.5 | 1014.1 | 950.0  | 965.0  | 959.0  | 972.4  | 955.8  |
| 42.5° | 1272.8 | 1278.8 | 1261.3 | 1241.7 | 1214.9 | 1148.6 | 1068.3 | 1065.7 | 1056.1 | 1063.2 | 1046.1 |
| 45°   | 1343.0 | 1347.9 | 1332.1 | 1327.6 | 1327.0 | 1280.4 | 1197.5 | 1181.9 | 1168.5 | 1167.2 | 1146.6 |
| 47.5° | 1368.7 | 1378.3 | 1385.1 | 1400.5 | 1430.4 | 1410.8 | 1331.2 | 1307.0 | 1292.0 | 1281.0 | 1248.4 |
| 50°   | 1378.5 | 1388.7 | 1411.8 | 1456.6 | 1527.5 | 1535.9 | 1464.2 | 1437.0 | 1418.6 | 1398.6 | 1350.7 |
| 52.5° | 1365.3 | 1383.4 | 1414.6 | 1489.9 | 1592.8 | 1636.2 | 1591.8 | 1568.0 | 1547.0 | 1514.5 | 1443.4 |
| 55°   | 1287.6 | 1305.7 | 1369.5 | 1489.5 | 1625.3 | 1706.4 | 1712.5 | 1701.9 | 1678.3 | 1627.0 | 1518.3 |
| 57.5° | 1123.8 | 1150.8 | 1251.6 | 1438.8 | 1624.7 | 1767.0 | 1830.8 | 1838.3 | 1811.9 | 1738.4 | 1577.3 |
| 60°   | 896.9  | 933.5  | 1056.5 | 1326.4 | 1574.6 | 1799.8 | 1934.4 | 1972.3 | 1944.3 | 1848.3 | 1624.9 |
| 62.5° | 625.9  | 668.2  | 784.6  | 1150.2 | 1460.0 | 1776.2 | 2010.1 | 2080.2 | 2059.0 | 1946.6 | 1643.4 |
| 65°   | 381.7  | 395.3  | 489.2  | 905.1  | 1265.1 | 1677.5 | 2033.5 | 2138.6 | 2131.5 | 2006.6 | 1616.2 |
| 67.5° | 254.3  | 265.7  | 292.6  | 620.6  | 982.0  | 1480.3 | 1977.5 | 2128.3 | 2130.4 | 1996.9 | 1516.7 |
| 70°   | 153.2  | 163.0  | 180.6  | 360.9  | 636.4  | 1171.8 | 1804.3 | 1998.5 | 2010.1 | 1866.1 | 1328.1 |
| 72.5° | 63.1   | 69.7   | 85.7   | 163.6  | 329.5  | 743.6  | 1436.8 | 1715.8 | 1742.8 | 1569.1 | 1019.4 |
| 75°   | 35.8   | 39.2   | 50.3   | 82.1   | 143.0  | 346.6  | 870.3  | 1218.1 | 1257.9 | 1081.5 | 613.3  |
| 77.5° | 23.8   | 25.3   | 32.6   | 53.1   | 80.5   | 118.3  | 372.0  | 634.6  | 710.5  | 590.7  | 265.5  |
| 80°   | 16.0   | 17.4   | 22.3   | 35.6   | 52.4   | 50.7   | 118.5  | 235.1  | 289.3  | 203.0  | 64.7   |
| 82.5° | 10.8   | 11.0   | 16.0   | 23.4   | 33.1   | 24.6   | 35.0   | 73.1   | 91.8   | 58.7   | 24.6   |
| 85°   | 6.1    | 5.9    | 11.8   | 13.6   | 14.8   | 10.1   | 10.6   | 21.9   | 28.8   | 24.8   | 13.9   |
| 87.5° | 0.8    | 1.2    | 4.6    | 3.6    | 1.9    | 2.2    | 2.2    | 3.8    | 5.6    | 5.9    | 3.0    |
| 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°    | 346.6  | 346.6  | 346.6 | 346.6 | 346.6 | 346.6 | 346.6 | 346.6 | 346.6 | 346.6 | 346.6 |
| 2.5°  | 347.0  | 346.8  | 346.1 | 345.5 | 344.2 | 343.4 | 343.8 | 343.4 | 343.2 | 343.4 | 344.2 |
| 5°    | 349.5  | 349.0  | 347.4 | 345.3 | 342.6 | 339.2 | 337.0 | 333.7 | 330.8 | 329.0 | 329.4 |
| 7.5°  | 356.6  | 356.0  | 353.7 | 348.2 | 339.2 | 325.0 | 312.0 | 300.6 | 292.0 | 287.0 | 287.2 |
| 10°   | 367.8  | 366.7  | 363.4 | 351.0 | 327.4 | 296.4 | 270.7 | 249.3 | 235.3 | 228.7 | 228.2 |
| 12.5° | 380.9  | 379.8  | 373.7 | 348.4 | 305.0 | 256.7 | 221.1 | 197.3 | 184.4 | 178.6 | 177.9 |
| 15°   | 396.5  | 394.9  | 383.1 | 336.0 | 272.4 | 212.7 | 180.2 | 162.4 | 154.1 | 148.8 | 149.0 |
| 17.5° | 415.8  | 413.1  | 390.1 | 317.4 | 237.1 | 179.2 | 155.0 | 141.7 | 134.3 | 129.3 | 128.8 |
| 20°   | 441.1  | 436.4  | 395.8 | 295.2 | 204.6 | 158.0 | 138.1 | 126.8 | 121.3 | 116.8 | 116.0 |
| 22.5° | 476.2  | 469.7  | 402.5 | 271.2 | 181.5 | 143.4 | 125.5 | 117.3 | 112.6 | 107.6 | 106.9 |
| 25°   | 519.8  | 512.0  | 410.9 | 249.1 | 165.7 | 130.8 | 116.2 | 109.5 | 104.0 | 98.3  | 97.7  |
| 27.5° | 580.7  | 566.7  | 420.9 | 230.9 | 152.2 | 120.0 | 107.8 | 100.2 | 94.1  | 89.3  | 88.3  |
| 30°   | 648.6  | 625.7  | 429.7 | 220.0 | 139.8 | 110.1 | 96.9  | 89.3  | 83.5  | 80.1  | 79.5  |
| 32.5° | 712.9  | 681.7  | 435.4 | 215.1 | 128.6 | 98.7  | 84.9  | 76.7  | 72.3  | 71.3  | 72.0  |
| 35°   | 773.7  | 732.5  | 434.9 | 210.5 | 118.7 | 87.3  | 73.1  | 64.7  | 61.3  | 61.9  | 61.9  |
| 37.5° | 843.6  | 786.6  | 430.7 | 203.4 | 110.5 | 76.9  | 62.9  | 55.6  | 52.6  | 52.7  | 53.5  |
| 40°   | 924.9  | 849.1  | 428.0 | 189.7 | 101.5 | 67.3  | 54.5  | 48.6  | 46.3  | 45.5  | 45.3  |
| 42.5° | 1011.6 | 909.7  | 428.4 | 174.4 | 90.3  | 58.7  | 48.8  | 43.8  | 41.7  | 41.1  | 41.0  |
| 45°   | 1098.6 | 967.4  | 429.1 | 158.4 | 78.5  | 52.2  | 44.6  | 40.4  | 39.2  | 38.3  | 38.3  |
| 47.5° | 1180.5 | 1016.5 | 417.9 | 141.2 | 66.9  | 47.2  | 41.1  | 38.3  | 37.3  | 36.4  | 36.4  |
| 50°   | 1256.9 | 1049.3 | 390.9 | 121.3 | 57.7  | 43.2  | 38.5  | 36.6  | 35.6  | 34.5  | 34.5  |
| 52.5° | 1316.2 | 1054.5 | 346.3 | 100.7 | 51.4  | 40.2  | 37.0  | 35.2  | 33.9  | 33.0  | 32.8  |
| 55°   | 1342.5 | 1021.9 | 283.0 | 81.5  | 46.3  | 37.5  | 35.4  | 33.5  | 32.2  | 31.2  | 31.0  |
| 57.5° | 1335.8 | 953.5  | 220.7 | 65.5  | 41.5  | 35.0  | 33.3  | 32.2  | 30.5  | 29.0  | 28.8  |
| 60°   | 1302.4 | 861.7  | 166.4 | 54.5  | 37.1  | 32.2  | 31.2  | 30.1  | 28.0  | 25.5  | 25.2  |
| 62.5° | 1244.7 | 746.5  | 118.7 | 45.1  | 32.4  | 29.0  | 28.6  | 27.8  | 24.6  | 20.2  | 19.8  |
| 65°   | 1156.4 | 606.5  | 79.9  | 37.5  | 27.8  | 25.3  | 25.5  | 24.2  | 20.0  | 15.0  | 14.6  |
| 67.5° | 1027.4 | 443.4  | 51.1  | 30.7  | 23.2  | 21.2  | 21.4  | 20.6  | 17.0  | 12.8  | 12.2  |
| 70°   | 862.9  | 293.7  | 33.3  | 23.4  | 18.6  | 16.4  | 17.5  | 17.7  | 14.3  | 10.4  | 9.9   |
| 72.5° | 632.6  | 173.4  | 23.4  | 17.4  | 13.6  | 11.4  | 14.3  | 14.8  | 11.6  | 7.8   | 7.4   |
| 75°   | 360.6  | 82.3   | 17.5  | 12.6  | 8.4   | 8.0   | 11.2  | 11.2  | 8.0   | 5.2   | 4.8   |
| 77.5° | 151.4  | 34.3   | 12.4  | 8.2   | 4.8   | 4.6   | 7.6   | 7.0   | 4.0   | 2.4   | 2.4   |
| 80°   | 43.8   | 15.4   | 6.6   | 4.0   | 1.9   | 1.8   | 3.0   | 2.2   | 1.0   | 0.4   | 0.4   |
| 82.5° | 17.2   | 6.8    | 2.6   | 1.6   | 0.8   | 0.8   | 0.4   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 10.1   | 2.8    | 1.2   | 0.6   | 0.2   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 2.6    | 0.6    | 0.4   | 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)