

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: P959339

Luminaire Tested: **NAV-SB1A-740-U-T4FT**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P959339  
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-SB1A-740-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 4000K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD  
THROW OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 4809.3 lumens  
Efficiency: N/A  
Efficacy: 155.6 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): 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



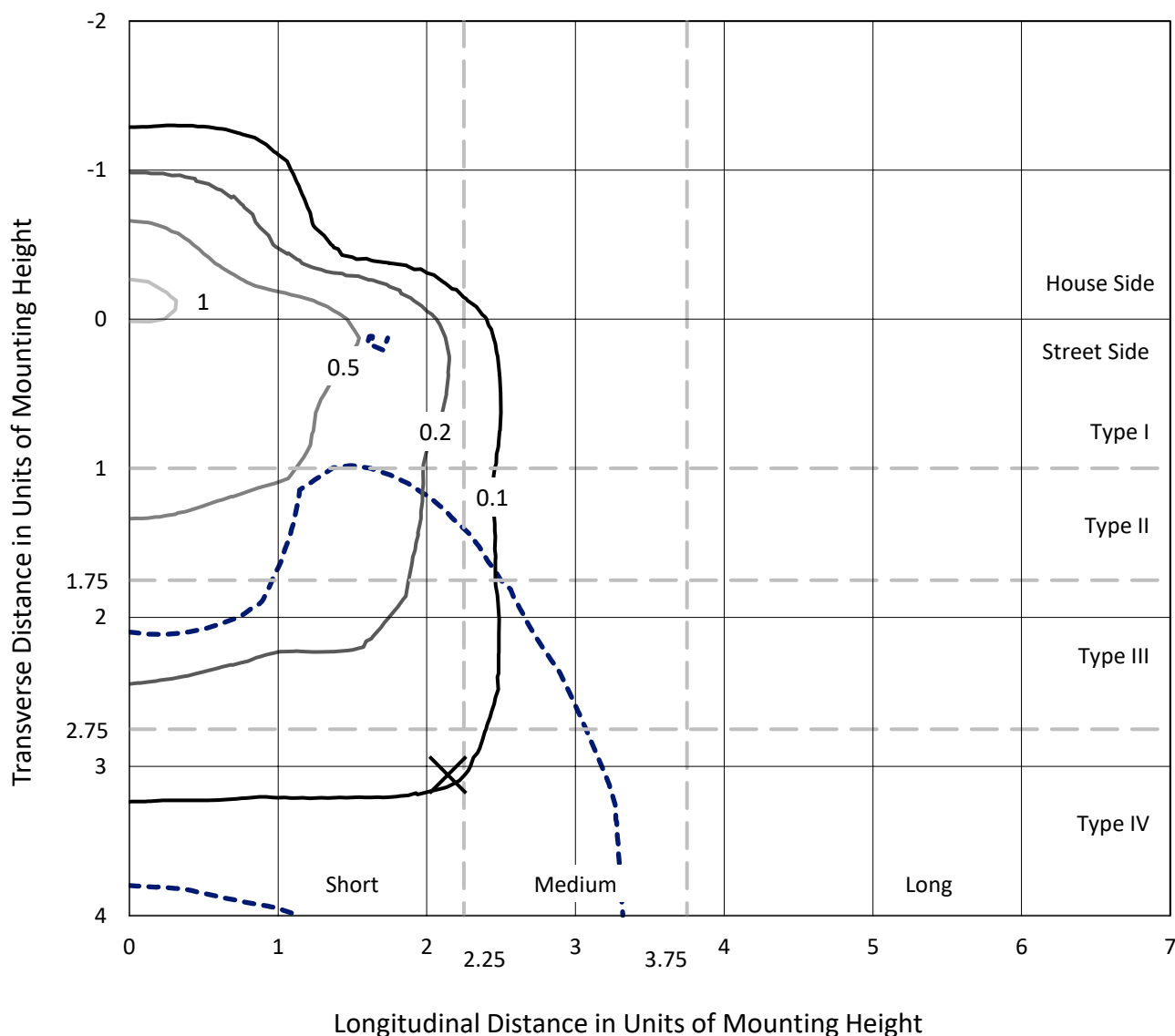
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

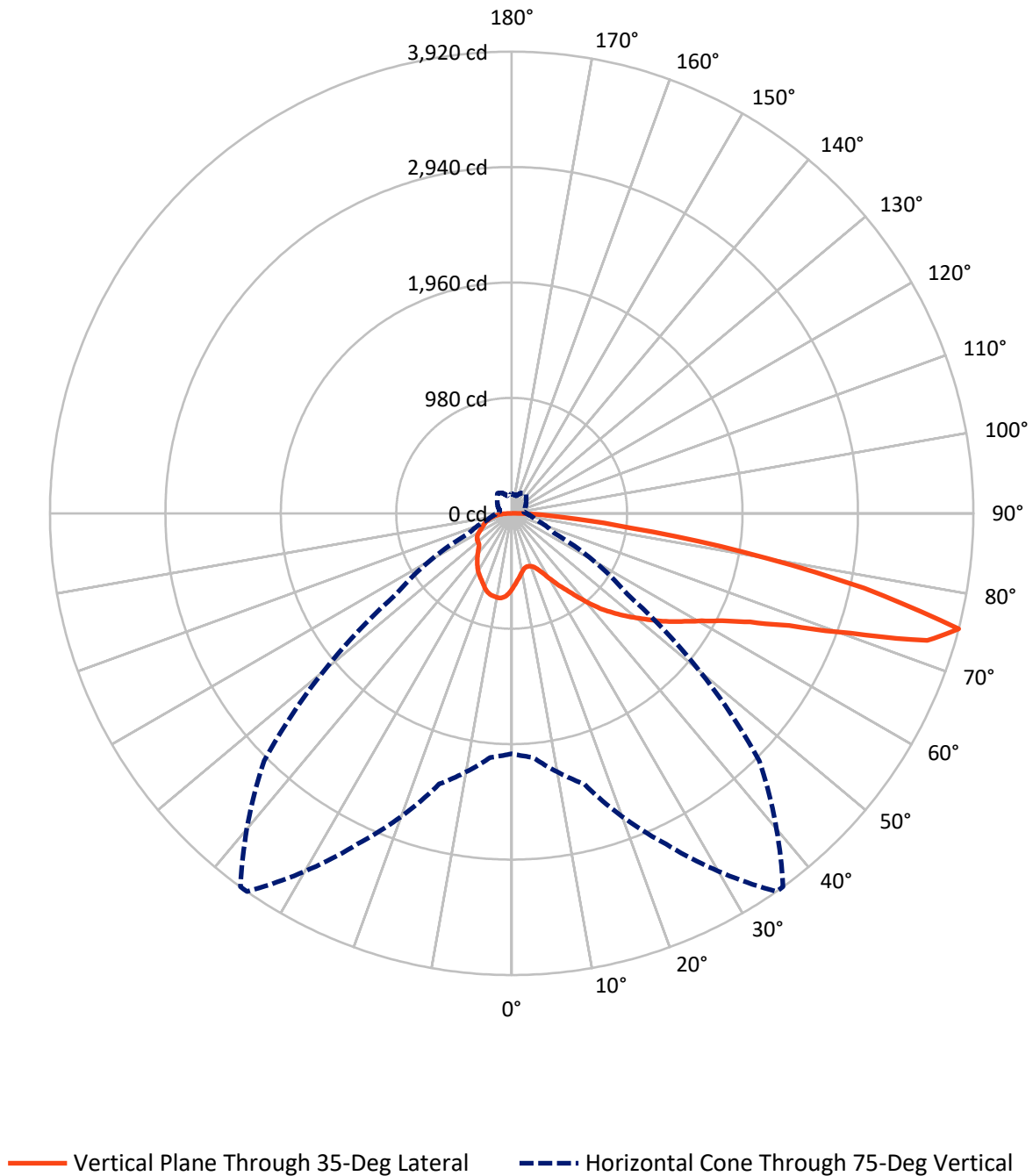


Based on 25 foot mounting height. Maximum calculated value = 1.1 fc

Type 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    | 1144.5   | 0.0    | 1144.5 |
|                    | % Fixture | 23.8     | 0.0    | 23.8   |
| <b>Street Side</b> | Lumens    | 3664.8   | 0.0    | 3664.8 |
|                    | % Fixture | 76.2     | 0.0    | 76.2   |
| <b>Total</b>       | Lumens    | 4809.3   | 0.0    | 4809.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 60.7   | 1.3       |
| 10°-20°   | 175.0  | 3.6       |
| 20°-30°   | 293.9  | 6.1       |
| 30°-40°   | 456.8  | 9.5       |
| 40°-50°   | 678.0  | 14.1      |
| 50°-60°   | 936.0  | 19.5      |
| 60°-70°   | 1135.6 | 23.6      |
| 70°-80°   | 938.4  | 19.5      |
| 80°-90°   | 135.0  | 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°    | 4809.3 | 100.0     |
| 0°-180°   | 4809.3 | 100.0     |

**Coefficient of Utilization**



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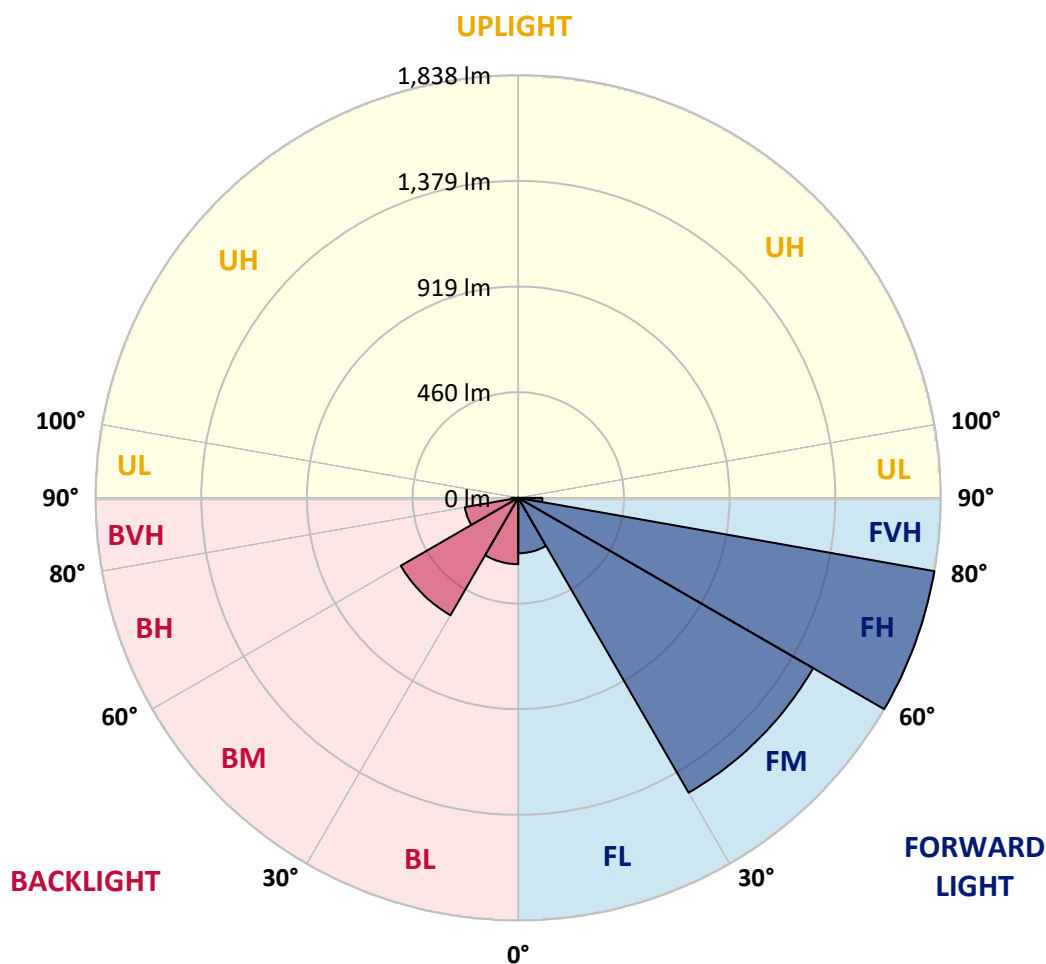
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 241.2  | 5.0       |                         |      |         |
| FM   | (30°-60°)   | 1481.0 | 30.8      |                         |      |         |
| FH   | (60°-80°)   | 1838.0 | 38.2      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 104.6  | 2.2       |                         |      | G2/225  |
| BL   | (0°-30°)    | 288.4  | 6.0       | B1/500                  |      |         |
| BM   | (30°-60°)   | 589.7  | 12.3      | B1/1000                 |      |         |
| BH   | (60°-80°)   | 236.0  | 4.9       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 30.4   | 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°    | 640.8  | 640.8  | 640.8  | 640.8  | 640.8  | 640.8  | 640.8  | 640.8  | 640.8  | 640.8  | 640.8  |
| 2.5°  | 590.9  | 594.6  | 596.1  | 595.4  | 599.3  | 598.7  | 604.2  | 611.0  | 620.3  | 629.5  | 642.7  |
| 5°    | 545.5  | 549.4  | 552.8  | 555.9  | 563.4  | 565.7  | 574.3  | 587.3  | 604.4  | 621.9  | 643.7  |
| 7.5°  | 503.1  | 506.5  | 511.7  | 517.4  | 530.1  | 532.5  | 546.7  | 567.0  | 590.9  | 616.4  | 646.6  |
| 10°   | 468.5  | 471.9  | 477.3  | 483.8  | 499.7  | 502.6  | 520.8  | 547.8  | 579.0  | 611.2  | 649.7  |
| 12.5° | 453.7  | 454.7  | 457.9  | 464.3  | 478.2  | 479.9  | 500.0  | 530.8  | 567.3  | 607.3  | 654.4  |
| 15°   | 452.9  | 455.0  | 455.2  | 458.6  | 470.1  | 470.9  | 489.3  | 520.0  | 560.1  | 606.6  | 661.4  |
| 17.5° | 460.7  | 462.3  | 459.9  | 462.0  | 471.6  | 472.9  | 487.5  | 514.8  | 557.7  | 610.0  | 673.3  |
| 20°   | 481.5  | 482.8  | 475.8  | 472.9  | 479.9  | 480.9  | 495.3  | 518.1  | 560.1  | 616.9  | 689.7  |
| 22.5° | 525.7  | 526.4  | 509.3  | 497.6  | 498.2  | 498.7  | 511.2  | 532.0  | 569.1  | 629.7  | 710.5  |
| 25°   | 594.6  | 594.1  | 566.8  | 544.2  | 531.2  | 528.3  | 536.6  | 554.3  | 584.5  | 646.6  | 737.3  |
| 27.5° | 675.2  | 671.3  | 644.0  | 610.2  | 581.9  | 577.7  | 575.8  | 583.4  | 606.3  | 668.9  | 770.1  |
| 30°   | 766.2  | 762.5  | 733.2  | 689.0  | 649.7  | 643.0  | 625.8  | 621.9  | 638.8  | 699.4  | 815.6  |
| 32.5° | 866.0  | 863.7  | 828.6  | 775.0  | 722.5  | 714.7  | 685.8  | 675.5  | 688.7  | 745.4  | 879.0  |
| 35°   | 949.8  | 947.6  | 918.5  | 863.5  | 799.2  | 789.6  | 760.2  | 748.6  | 755.2  | 804.4  | 962.0  |
| 37.5° | 1025.4 | 1024.4 | 999.4  | 956.0  | 889.7  | 878.0  | 845.0  | 841.0  | 839.8  | 882.1  | 1062.6 |
| 40°   | 1095.6 | 1093.0 | 1067.0 | 1044.1 | 995.0  | 984.3  | 955.2  | 951.8  | 942.0  | 977.8  | 1176.5 |
| 42.5° | 1173.3 | 1166.6 | 1128.8 | 1118.2 | 1104.9 | 1096.1 | 1078.7 | 1079.2 | 1057.4 | 1085.7 | 1297.0 |
| 45°   | 1236.8 | 1232.9 | 1194.1 | 1187.9 | 1202.2 | 1198.5 | 1213.6 | 1217.5 | 1175.2 | 1198.8 | 1422.4 |
| 47.5° | 1304.9 | 1301.2 | 1268.4 | 1264.0 | 1302.8 | 1303.8 | 1357.1 | 1358.4 | 1290.1 | 1316.3 | 1548.0 |
| 50°   | 1388.9 | 1383.6 | 1351.2 | 1356.6 | 1400.0 | 1403.9 | 1501.4 | 1492.6 | 1395.8 | 1435.6 | 1672.5 |
| 52.5° | 1444.2 | 1447.4 | 1440.3 | 1449.1 | 1508.5 | 1512.1 | 1643.4 | 1620.7 | 1500.7 | 1553.4 | 1794.7 |
| 55°   | 1485.0 | 1491.3 | 1513.1 | 1533.4 | 1622.9 | 1626.5 | 1777.2 | 1742.7 | 1587.5 | 1662.7 | 1909.6 |
| 57.5° | 1537.6 | 1528.7 | 1569.6 | 1609.0 | 1731.5 | 1741.2 | 1907.5 | 1860.2 | 1664.5 | 1756.7 | 1988.4 |
| 60°   | 1612.9 | 1606.7 | 1638.5 | 1697.0 | 1853.2 | 1868.6 | 2045.3 | 1966.1 | 1720.9 | 1831.4 | 2003.8 |
| 62.5° | 1765.9 | 1750.3 | 1755.2 | 1806.9 | 2006.6 | 2026.8 | 2200.8 | 2058.3 | 1749.0 | 1860.5 | 1921.6 |
| 65°   | 1994.3 | 1967.6 | 1942.7 | 1978.6 | 2222.6 | 2242.7 | 2376.3 | 2130.9 | 1738.5 | 1804.1 | 1703.4 |
| 67.5° | 2282.2 | 2255.6 | 2225.0 | 2258.8 | 2540.9 | 2556.8 | 2592.8 | 2171.7 | 1656.6 | 1586.7 | 1317.8 |
| 70°   | 2519.6 | 2509.7 | 2546.3 | 2685.4 | 3049.2 | 3049.7 | 2870.5 | 2137.8 | 1432.2 | 1124.9 | 762.5  |
| 72.5° | 2488.1 | 2482.1 | 2675.2 | 3105.3 | 3689.8 | 3676.0 | 3133.4 | 1882.1 | 964.8  | 507.5  | 285.8  |
| 75°   | 2041.2 | 2079.9 | 2379.1 | 3097.8 | 3919.8 | 3918.1 | 2972.5 | 1196.5 | 399.0  | 210.3  | 147.7  |
| 77.5° | 1094.6 | 1155.9 | 1544.6 | 2287.1 | 3060.0 | 3106.1 | 2089.8 | 418.6  | 171.4  | 134.7  | 102.2  |
| 80°   | 357.0  | 410.5  | 615.6  | 1164.5 | 1988.4 | 1979.8 | 895.6  | 164.3  | 117.3  | 95.4   | 70.7   |
| 82.5° | 151.6  | 157.8  | 275.1  | 549.9  | 1020.5 | 1004.6 | 285.3  | 94.4   | 82.4   | 65.3   | 43.7   |
| 85°   | 59.2   | 66.3   | 121.5  | 254.3  | 442.0  | 432.3  | 102.9  | 46.8   | 52.8   | 42.6   | 26.0   |
| 87.5° | 19.5   | 23.7   | 43.5   | 87.1   | 137.6  | 132.6  | 25.2   | 16.1   | 22.9   | 19.5   | 9.3    |
| 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°    | 640.8  | 640.8  | 640.8 | 640.8 | 640.8 | 640.8 | 640.8 | 640.8 | 640.8 | 640.8 | 640.8 |
| 2.5°  | 646.4  | 650.5  | 655.4 | 662.7 | 668.9 | 674.1 | 679.6 | 683.0 | 684.3 | 688.2 | 688.0 |
| 5°    | 651.0  | 660.1  | 672.3 | 684.3 | 696.0 | 703.0 | 709.2 | 712.4 | 715.2 | 717.3 | 717.8 |
| 7.5°  | 658.8  | 670.6  | 689.7 | 705.3 | 715.2 | 721.0 | 725.1 | 724.1 | 725.1 | 725.6 | 726.4 |
| 10°   | 665.5  | 681.9  | 704.8 | 719.7 | 727.2 | 727.4 | 726.4 | 722.7 | 721.0 | 721.2 | 721.7 |
| 12.5° | 673.6  | 691.9  | 716.6 | 729.0 | 731.1 | 725.4 | 721.0 | 714.7 | 712.4 | 711.3 | 710.8 |
| 15°   | 684.6  | 705.3  | 729.3 | 733.9 | 728.8 | 721.5 | 713.9 | 703.8 | 698.6 | 694.4 | 695.8 |
| 17.5° | 697.8  | 720.7  | 739.1 | 735.7 | 724.6 | 712.6 | 700.4 | 685.1 | 674.4 | 669.9 | 670.2 |
| 20°   | 716.3  | 736.8  | 746.7 | 731.8 | 714.9 | 696.8 | 676.0 | 657.2 | 647.4 | 643.0 | 642.5 |
| 22.5° | 738.6  | 758.4  | 754.0 | 725.1 | 701.2 | 672.1 | 646.1 | 632.3 | 627.4 | 624.2 | 624.7 |
| 25°   | 765.4  | 782.3  | 759.2 | 715.2 | 678.6 | 639.3 | 619.3 | 614.9 | 612.5 | 610.2 | 610.2 |
| 27.5° | 800.2  | 809.3  | 763.1 | 700.7 | 643.2 | 604.4 | 597.2 | 598.0 | 597.2 | 593.3 | 594.1 |
| 30°   | 846.2  | 844.4  | 766.7 | 677.0 | 602.7 | 573.0 | 573.5 | 576.9 | 577.5 | 574.8 | 576.2 |
| 32.5° | 906.8  | 888.4  | 768.5 | 646.4 | 564.0 | 545.5 | 546.0 | 549.6 | 552.2 | 547.8 | 549.9 |
| 35°   | 980.2  | 939.6  | 765.7 | 607.8 | 534.0 | 519.2 | 515.3 | 516.3 | 517.1 | 512.9 | 515.8 |
| 37.5° | 1065.7 | 997.0  | 753.0 | 565.2 | 509.3 | 493.4 | 485.1 | 478.2 | 474.0 | 470.1 | 472.6 |
| 40°   | 1159.6 | 1059.7 | 729.5 | 523.6 | 481.7 | 466.2 | 453.7 | 440.4 | 426.4 | 421.2 | 423.5 |
| 42.5° | 1257.8 | 1124.2 | 701.2 | 483.8 | 450.1 | 437.3 | 424.0 | 404.8 | 383.8 | 373.1 | 374.4 |
| 45°   | 1359.8 | 1190.2 | 673.3 | 444.5 | 417.6 | 412.0 | 396.8 | 373.6 | 350.8 | 337.2 | 336.2 |
| 47.5° | 1459.6 | 1252.7 | 632.5 | 405.1 | 387.1 | 393.1 | 381.1 | 359.8 | 334.4 | 313.0 | 310.7 |
| 50°   | 1555.0 | 1311.1 | 565.7 | 365.0 | 362.4 | 387.3 | 376.0 | 345.2 | 316.1 | 288.8 | 286.5 |
| 52.5° | 1649.6 | 1358.4 | 480.2 | 328.6 | 349.1 | 385.8 | 369.2 | 335.4 | 299.8 | 271.2 | 268.0 |
| 55°   | 1730.0 | 1382.9 | 397.8 | 297.5 | 329.9 | 372.6 | 361.1 | 323.7 | 276.6 | 246.2 | 243.6 |
| 57.5° | 1775.7 | 1363.1 | 329.1 | 266.7 | 303.4 | 350.8 | 347.4 | 298.7 | 249.1 | 225.7 | 222.5 |
| 60°   | 1755.9 | 1283.0 | 273.0 | 240.0 | 278.2 | 327.1 | 323.4 | 274.0 | 228.0 | 205.9 | 202.7 |
| 62.5° | 1647.1 | 1130.5 | 228.6 | 216.6 | 255.3 | 302.9 | 299.5 | 255.0 | 211.9 | 190.5 | 187.2 |
| 65°   | 1427.6 | 919.6  | 193.9 | 197.1 | 232.2 | 273.8 | 278.7 | 239.2 | 199.2 | 178.4 | 175.0 |
| 67.5° | 1088.9 | 666.0  | 166.9 | 180.2 | 209.5 | 245.2 | 259.4 | 227.8 | 188.5 | 168.7 | 165.6 |
| 70°   | 620.6  | 378.3  | 144.0 | 163.8 | 189.5 | 218.6 | 244.7 | 218.6 | 177.0 | 160.7 | 158.6 |
| 72.5° | 235.3  | 173.6  | 124.5 | 147.4 | 170.3 | 196.3 | 228.3 | 204.4 | 163.8 | 151.6 | 149.4 |
| 75°   | 125.6  | 105.8  | 104.8 | 128.1 | 148.2 | 174.5 | 207.8 | 190.3 | 154.0 | 160.1 | 165.3 |
| 77.5° | 85.5   | 74.9   | 87.6  | 109.7 | 124.0 | 150.3 | 185.9 | 169.0 | 133.4 | 132.8 | 122.5 |
| 80°   | 59.2   | 53.0   | 71.2  | 88.4  | 95.9  | 126.4 | 162.3 | 145.0 | 108.6 | 101.4 | 97.0  |
| 82.5° | 35.6   | 34.5   | 53.3  | 66.0  | 67.9  | 97.5  | 134.4 | 121.7 | 88.9  | 77.5  | 78.0  |
| 85°   | 19.5   | 20.5   | 34.0  | 38.7  | 39.6  | 68.2  | 105.3 | 94.1  | 68.4  | 57.5  | 58.0  |
| 87.5° | 5.4    | 7.0    | 12.5  | 15.4  | 19.0  | 35.4  | 62.6  | 55.9  | 34.3  | 23.9  | 23.9  |
| 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)