

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: P959464

Luminaire Tested: **NAV-SB1A-830-U-T4W-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P959464  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1A-830-U-T4W-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 3000K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV WIDE OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3183.6 lumens  
Efficiency: N/A  
Efficacy: 103.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B0 - U0 - G1

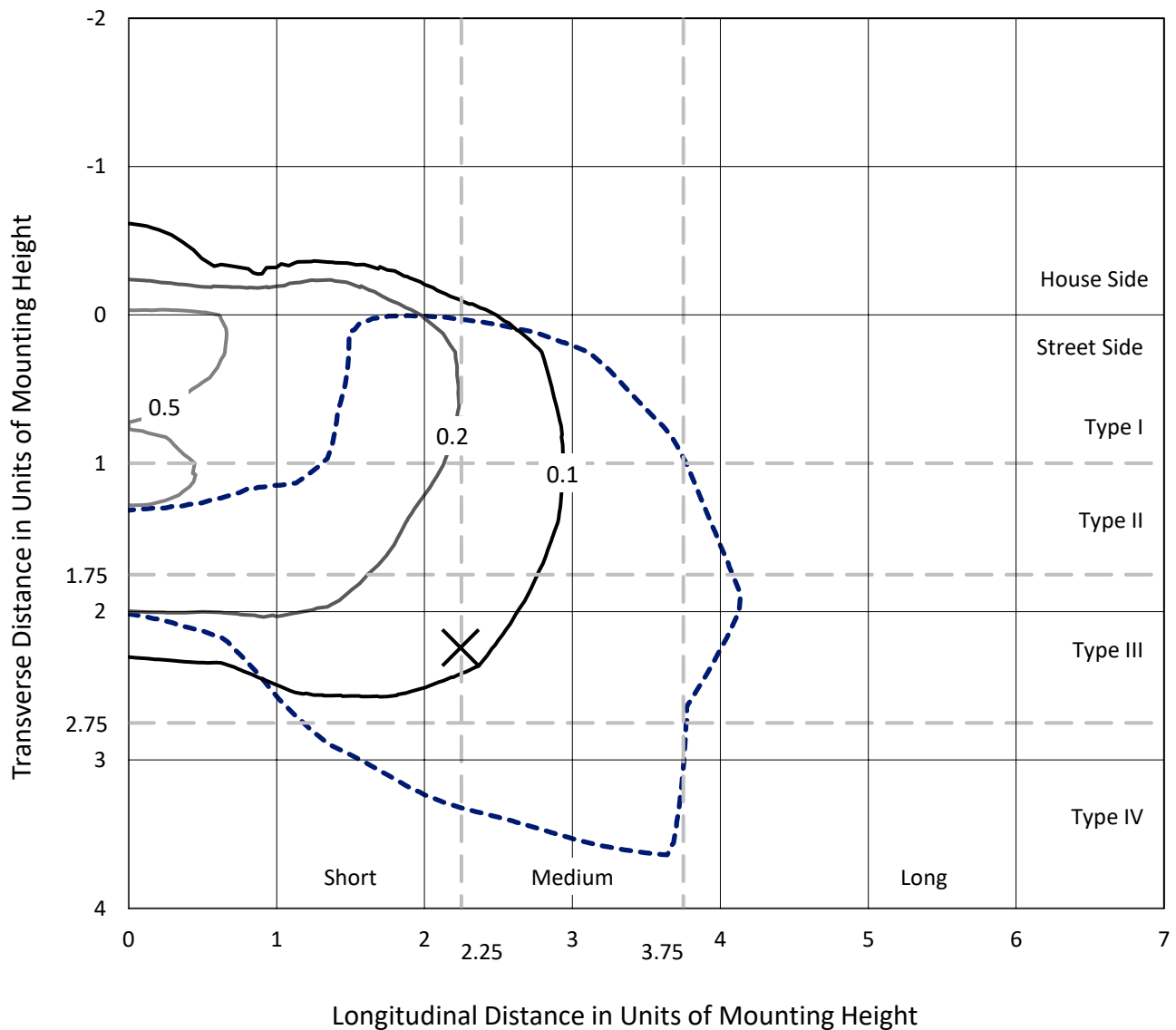
Input Watts (W): 30.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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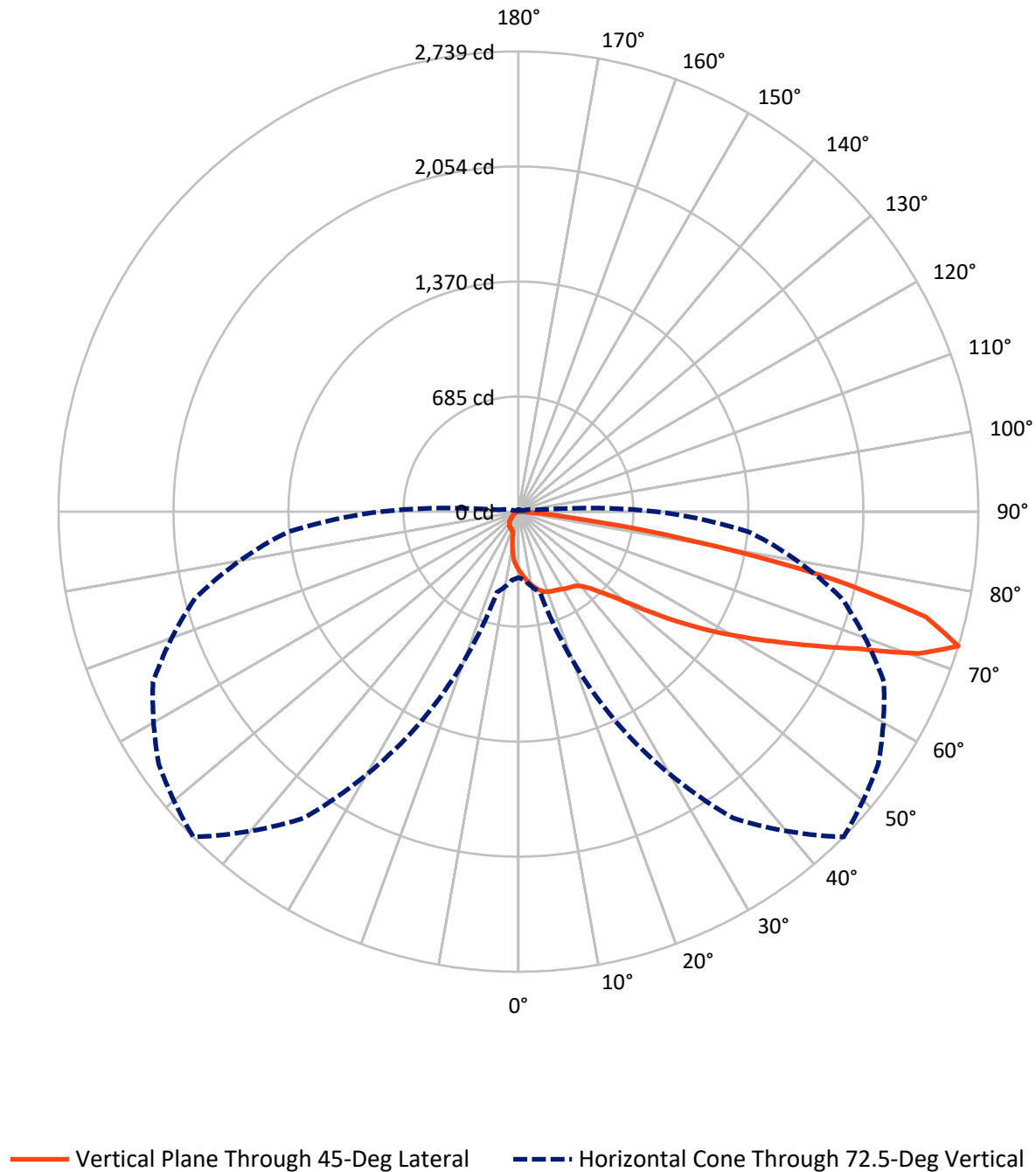
## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd



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## Luminous Intensity Polar Plot



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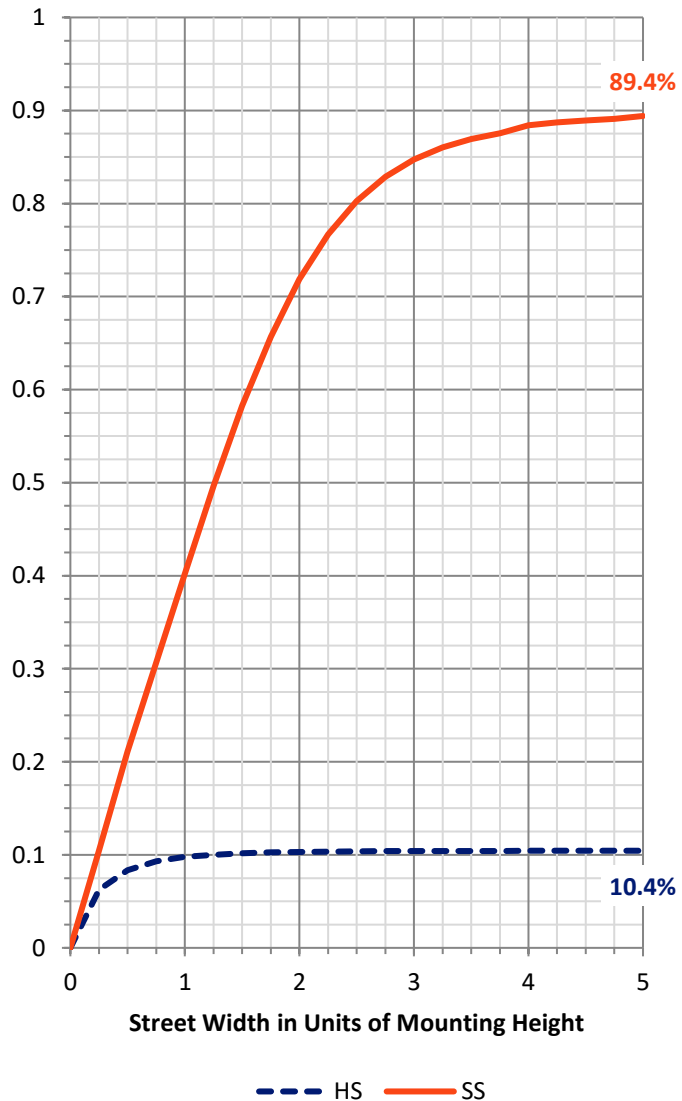
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 334.5    | 0.0    | 334.5  |
|                    | % Fixture | 10.5     | 0.0    | 10.5   |
| <b>Street Side</b> | Lumens    | 2849.1   | 0.0    | 2849.1 |
|                    | % Fixture | 89.5     | 0.0    | 89.5   |
| <b>Total</b>       | Lumens    | 3183.6   | 0.0    | 3183.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 32.9   | 1.0       |
| 10°-20°   | 96.0   | 3.0       |
| 20°-30°   | 157.7  | 5.0       |
| 30°-40°   | 223.7  | 7.0       |
| 40°-50°   | 369.7  | 11.6      |
| 50°-60°   | 664.2  | 20.9      |
| 60°-70°   | 922.2  | 29.0      |
| 70°-80°   | 668.9  | 21.0      |
| 80°-90°   | 48.4   | 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°    | 3183.6 | 100.0     |
| 0°-180°   | 3183.6 | 100.0     |

**Coefficient of Utilization**



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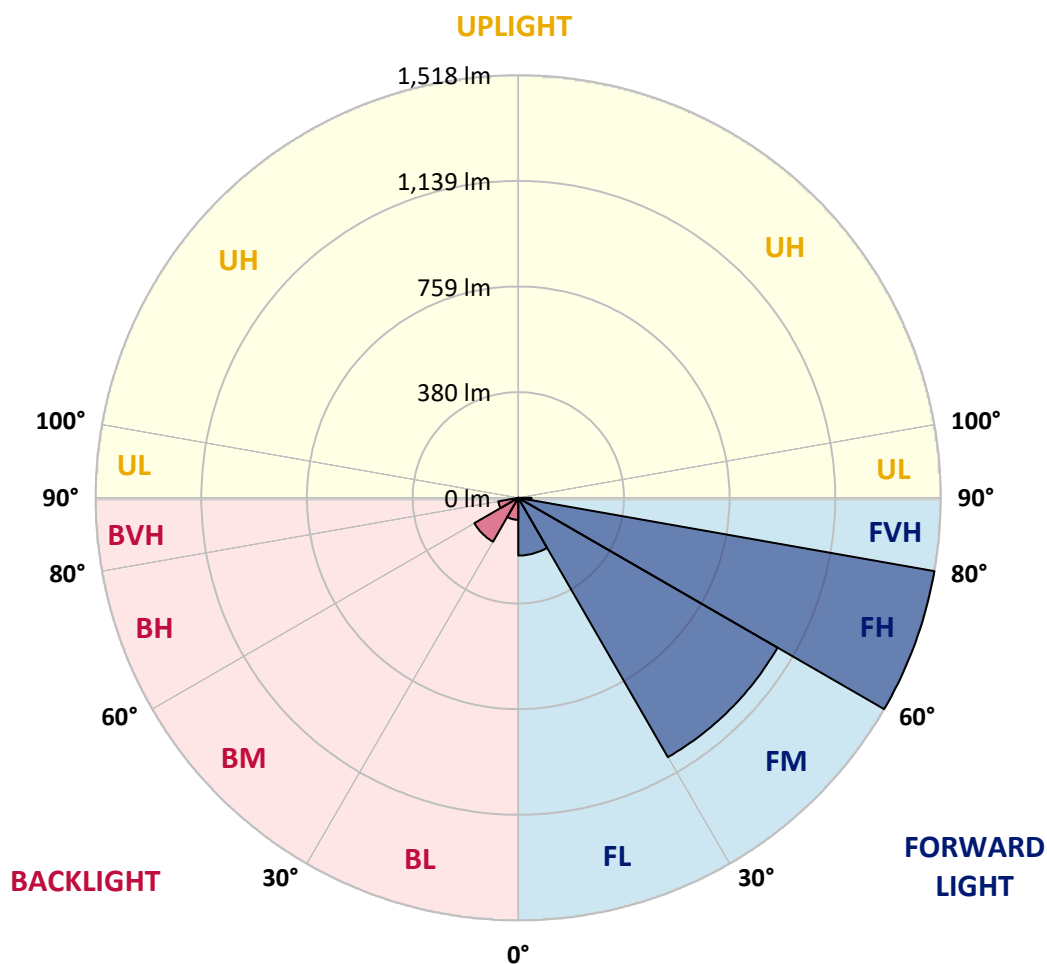
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 207.4  | 6.5       |                         |      |         |
| FM   | (30°-60°)   | 1075.6 | 33.8      |                         |      |         |
| FH   | (60°-80°)   | 1518.2 | 47.7      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 48.0   | 1.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 79.2   | 2.5       | B0/110                  |      |         |
| BM   | (30°-60°)   | 181.9  | 5.7       | B0/220                  |      |         |
| BH   | (60°-80°)   | 72.9   | 2.3       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 0.4    | 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 IV Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 46°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 348.8  | 348.8  | 348.8  | 348.8  | 348.8  | 348.8  | 348.8  | 348.8  | 348.8  | 348.8  | 348.8  |
| 2.5°  | 380.9  | 381.6  | 381.2  | 378.5  | 374.2  | 371.8  | 370.5  | 366.1  | 363.4  | 358.3  | 353.1  |
| 5°    | 415.9  | 418.5  | 417.0  | 411.8  | 403.5  | 397.7  | 396.0  | 387.0  | 378.9  | 369.6  | 358.7  |
| 7.5°  | 453.0  | 454.4  | 451.5  | 444.8  | 433.8  | 423.7  | 422.2  | 409.8  | 397.0  | 382.6  | 367.9  |
| 10°   | 485.2  | 486.8  | 482.5  | 472.6  | 460.0  | 447.6  | 445.5  | 431.8  | 416.6  | 398.9  | 380.1  |
| 12.5° | 512.2  | 513.7  | 508.1  | 496.3  | 482.5  | 469.6  | 467.4  | 453.0  | 436.3  | 416.8  | 393.3  |
| 15°   | 532.6  | 535.5  | 527.9  | 515.3  | 500.2  | 487.4  | 486.4  | 472.2  | 455.9  | 434.2  | 409.2  |
| 17.5° | 544.6  | 547.3  | 540.2  | 525.0  | 512.2  | 501.3  | 500.0  | 488.3  | 473.0  | 452.2  | 424.7  |
| 20°   | 546.5  | 549.1  | 541.5  | 528.3  | 517.6  | 508.9  | 508.3  | 499.8  | 488.7  | 468.7  | 441.4  |
| 22.5° | 540.7  | 543.9  | 537.0  | 526.3  | 519.0  | 514.3  | 513.5  | 508.7  | 502.5  | 485.4  | 456.9  |
| 25°   | 534.5  | 537.2  | 532.0  | 522.6  | 518.8  | 518.2  | 519.0  | 518.0  | 516.7  | 502.5  | 475.3  |
| 27.5° | 534.1  | 537.0  | 531.1  | 522.1  | 520.0  | 524.6  | 525.2  | 529.3  | 530.4  | 517.8  | 492.8  |
| 30°   | 537.8  | 539.8  | 534.1  | 524.8  | 523.7  | 534.1  | 534.3  | 541.7  | 543.5  | 530.8  | 510.2  |
| 32.5° | 545.9  | 548.1  | 542.4  | 528.7  | 527.2  | 541.7  | 542.4  | 552.2  | 555.0  | 544.8  | 528.5  |
| 35°   | 564.8  | 567.3  | 560.9  | 539.6  | 534.1  | 548.9  | 550.8  | 562.4  | 568.1  | 559.5  | 547.3  |
| 37.5° | 611.9  | 604.3  | 595.4  | 561.5  | 550.0  | 560.3  | 563.4  | 577.0  | 586.9  | 577.2  | 570.0  |
| 40°   | 729.1  | 705.2  | 677.3  | 598.9  | 577.8  | 584.4  | 586.9  | 600.4  | 614.1  | 604.5  | 601.1  |
| 42.5° | 904.9  | 876.6  | 831.9  | 684.9  | 619.7  | 623.0  | 624.9  | 636.7  | 656.0  | 648.4  | 649.3  |
| 45°   | 1061.5 | 1051.3 | 1005.7 | 831.9  | 698.2  | 682.1  | 684.5  | 690.6  | 719.0  | 716.3  | 721.9  |
| 47.5° | 1181.9 | 1176.1 | 1140.8 | 1000.5 | 830.8  | 754.5  | 761.3  | 764.0  | 805.1  | 815.1  | 830.4  |
| 50°   | 1274.5 | 1272.3 | 1240.9 | 1150.5 | 1004.0 | 861.2  | 863.6  | 857.5  | 919.0  | 943.7  | 972.6  |
| 52.5° | 1361.8 | 1369.2 | 1346.0 | 1289.8 | 1188.9 | 1000.9 | 1000.5 | 971.8  | 1054.8 | 1092.1 | 1141.5 |
| 55°   | 1440.7 | 1443.3 | 1445.8 | 1431.8 | 1374.9 | 1160.0 | 1155.9 | 1108.9 | 1212.4 | 1251.0 | 1304.5 |
| 57.5° | 1514.8 | 1516.0 | 1537.2 | 1565.7 | 1568.6 | 1330.8 | 1323.2 | 1266.9 | 1384.5 | 1412.0 | 1444.8 |
| 60°   | 1564.6 | 1569.6 | 1614.6 | 1693.7 | 1728.3 | 1507.1 | 1502.9 | 1445.6 | 1559.6 | 1572.5 | 1566.3 |
| 62.5° | 1492.9 | 1523.4 | 1636.7 | 1793.6 | 1879.0 | 1702.4 | 1700.4 | 1646.6 | 1743.8 | 1733.5 | 1681.3 |
| 65°   | 1208.5 | 1259.9 | 1459.4 | 1861.2 | 2027.0 | 1920.5 | 1923.4 | 1866.0 | 1933.2 | 1899.2 | 1774.7 |
| 67.5° | 845.3  | 899.6  | 1135.6 | 1866.6 | 2192.4 | 2176.8 | 2193.1 | 2103.1 | 2134.2 | 2058.1 | 1796.9 |
| 70°   | 584.6  | 612.5  | 766.2  | 1749.8 | 2321.2 | 2529.7 | 2529.2 | 2394.3 | 2334.1 | 2130.5 | 1683.9 |
| 72.5° | 393.1  | 407.6  | 497.6  | 1388.2 | 2226.5 | 2739.3 | 2726.7 | 2616.8 | 2401.5 | 1992.5 | 1375.8 |
| 75°   | 165.8  | 176.4  | 230.3  | 780.1  | 1761.5 | 2506.2 | 2472.1 | 2312.6 | 2133.7 | 1569.0 | 858.3  |
| 77.5° | 52.6   | 57.2   | 90.8   | 279.2  | 970.3  | 1883.8 | 1847.8 | 1444.2 | 1430.1 | 787.1  | 313.8  |
| 80°   | 25.0   | 29.1   | 51.0   | 112.1  | 381.8  | 1024.6 | 1019.6 | 655.2  | 615.2  | 212.5  | 63.0   |
| 82.5° | 10.9   | 12.8   | 28.3   | 60.0   | 170.8  | 365.5  | 372.9  | 222.9  | 184.5  | 80.7   | 19.4   |
| 85°   | 3.5    | 4.6    | 13.0   | 27.6   | 72.2   | 90.8   | 89.8   | 53.0   | 74.3   | 43.9   | 6.8    |
| 87.5° | 0.0    | 0.0    | 4.3    | 6.3    | 7.4    | 5.2    | 5.8    | 4.6    | 20.6   | 12.2   | 2.4    |
| 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°    | 348.8  | 348.8 | 348.8 | 348.8 | 348.8 | 348.8 | 348.8 | 348.8 | 348.8 | 348.8 | 348.8 |
| 2.5°  | 350.5  | 347.1 | 340.9 | 335.3 | 330.3 | 325.3 | 322.3 | 318.0 | 317.4 | 317.4 | 318.6 |
| 5°    | 352.9  | 347.3 | 336.4 | 324.8 | 311.6 | 299.0 | 286.4 | 274.3 | 270.3 | 267.5 | 268.9 |
| 7.5°  | 359.9  | 351.0 | 333.7 | 311.8 | 286.6 | 259.0 | 239.6 | 218.8 | 210.7 | 206.4 | 207.0 |
| 10°   | 369.8  | 357.7 | 331.6 | 293.2 | 252.3 | 214.7 | 187.1 | 164.5 | 155.8 | 152.1 | 152.1 |
| 12.5° | 380.9  | 365.9 | 327.7 | 269.9 | 214.7 | 169.7 | 142.8 | 132.3 | 131.0 | 131.0 | 131.0 |
| 15°   | 394.2  | 376.0 | 320.9 | 242.5 | 175.4 | 134.3 | 124.7 | 125.2 | 126.5 | 127.3 | 127.3 |
| 17.5° | 407.8  | 386.6 | 310.3 | 211.9 | 140.6 | 120.8 | 121.1 | 121.7 | 122.8 | 123.6 | 123.6 |
| 20°   | 422.7  | 397.2 | 296.2 | 179.3 | 120.6 | 117.0 | 117.6 | 118.2 | 119.1 | 119.5 | 119.7 |
| 22.5° | 438.5  | 407.2 | 279.4 | 147.3 | 113.9 | 113.7 | 113.9 | 114.5 | 115.6 | 115.6 | 116.0 |
| 25°   | 455.5  | 418.3 | 260.3 | 124.1 | 110.4 | 110.4 | 110.8 | 111.2 | 112.1 | 112.1 | 112.3 |
| 27.5° | 472.8  | 428.6 | 240.2 | 111.9 | 107.3 | 107.1 | 107.1 | 107.8 | 108.2 | 108.4 | 108.6 |
| 30°   | 492.0  | 440.4 | 219.9 | 109.3 | 105.0 | 103.8 | 103.2 | 103.6 | 104.1 | 104.3 | 104.8 |
| 32.5° | 511.6  | 452.0 | 201.9 | 110.4 | 102.6 | 100.7 | 98.4  | 98.0  | 98.0  | 98.9  | 99.5  |
| 35°   | 533.3  | 464.6 | 188.0 | 114.1 | 101.3 | 95.8  | 92.4  | 90.4  | 90.6  | 91.9  | 92.6  |
| 37.5° | 559.3  | 479.8 | 177.7 | 117.4 | 100.3 | 90.4  | 84.8  | 82.4  | 80.9  | 82.4  | 81.9  |
| 40°   | 593.5  | 502.1 | 170.4 | 119.9 | 99.3  | 84.0  | 76.5  | 72.6  | 69.8  | 70.6  | 70.2  |
| 42.5° | 643.7  | 537.4 | 167.6 | 120.1 | 97.0  | 76.7  | 68.1  | 62.8  | 58.6  | 58.9  | 58.0  |
| 45°   | 714.1  | 593.1 | 182.1 | 117.4 | 91.7  | 68.7  | 59.1  | 52.2  | 49.5  | 48.9  | 48.1  |
| 47.5° | 810.6  | 674.0 | 215.8 | 111.5 | 84.0  | 60.9  | 50.4  | 44.6  | 42.6  | 41.5  | 40.9  |
| 50°   | 939.8  | 778.2 | 253.2 | 105.0 | 76.5  | 53.5  | 43.3  | 39.6  | 38.2  | 37.2  | 36.9  |
| 52.5° | 1089.8 | 883.8 | 283.8 | 98.4  | 68.9  | 46.9  | 38.6  | 36.5  | 35.5  | 34.5  | 34.3  |
| 55°   | 1227.3 | 956.5 | 282.1 | 91.5  | 61.5  | 41.7  | 35.5  | 34.1  | 32.8  | 32.0  | 31.5  |
| 57.5° | 1312.9 | 966.8 | 232.5 | 83.8  | 53.0  | 37.6  | 32.4  | 31.5  | 30.0  | 28.9  | 28.7  |
| 60°   | 1352.3 | 908.6 | 163.0 | 73.9  | 44.6  | 33.7  | 29.1  | 28.7  | 26.8  | 25.2  | 24.8  |
| 62.5° | 1359.5 | 800.3 | 108.6 | 61.5  | 37.2  | 30.0  | 25.8  | 25.2  | 22.5  | 20.0  | 18.7  |
| 65°   | 1330.3 | 645.6 | 75.2  | 48.1  | 31.8  | 26.0  | 22.1  | 20.9  | 18.0  | 15.5  | 14.6  |
| 67.5° | 1238.2 | 453.3 | 52.4  | 34.5  | 27.0  | 20.6  | 17.6  | 17.1  | 15.0  | 12.8  | 12.2  |
| 70°   | 1069.4 | 258.4 | 35.0  | 25.8  | 21.3  | 14.1  | 13.9  | 14.3  | 12.2  | 10.5  | 9.5   |
| 72.5° | 819.9  | 118.2 | 21.7  | 18.9  | 14.6  | 9.5   | 11.1  | 11.3  | 9.3   | 7.8   | 7.0   |
| 75°   | 482.7  | 50.6  | 13.7  | 12.2  | 7.4   | 6.3   | 8.0   | 8.3   | 6.3   | 5.0   | 4.3   |
| 77.5° | 164.3  | 19.2  | 8.7   | 7.2   | 3.7   | 3.5   | 5.2   | 5.2   | 3.5   | 1.9   | 1.5   |
| 80°   | 37.4   | 7.2   | 4.3   | 2.9   | 1.7   | 1.5   | 1.7   | 1.5   | 0.8   | 0.2   | 0.0   |
| 82.5° | 10.7   | 2.9   | 1.7   | 1.1   | 0.6   | 0.6   | 0.2   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 3.1    | 1.3   | 0.4   | 0.4   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 1.3    | 0.2   | 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)