

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: P959315

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

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P959315  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1A-740-U-AFL  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 4000K, 350mA LIGHTSQUARE WITH 26 LEDS AND AUTOMOTIVE  
FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: -

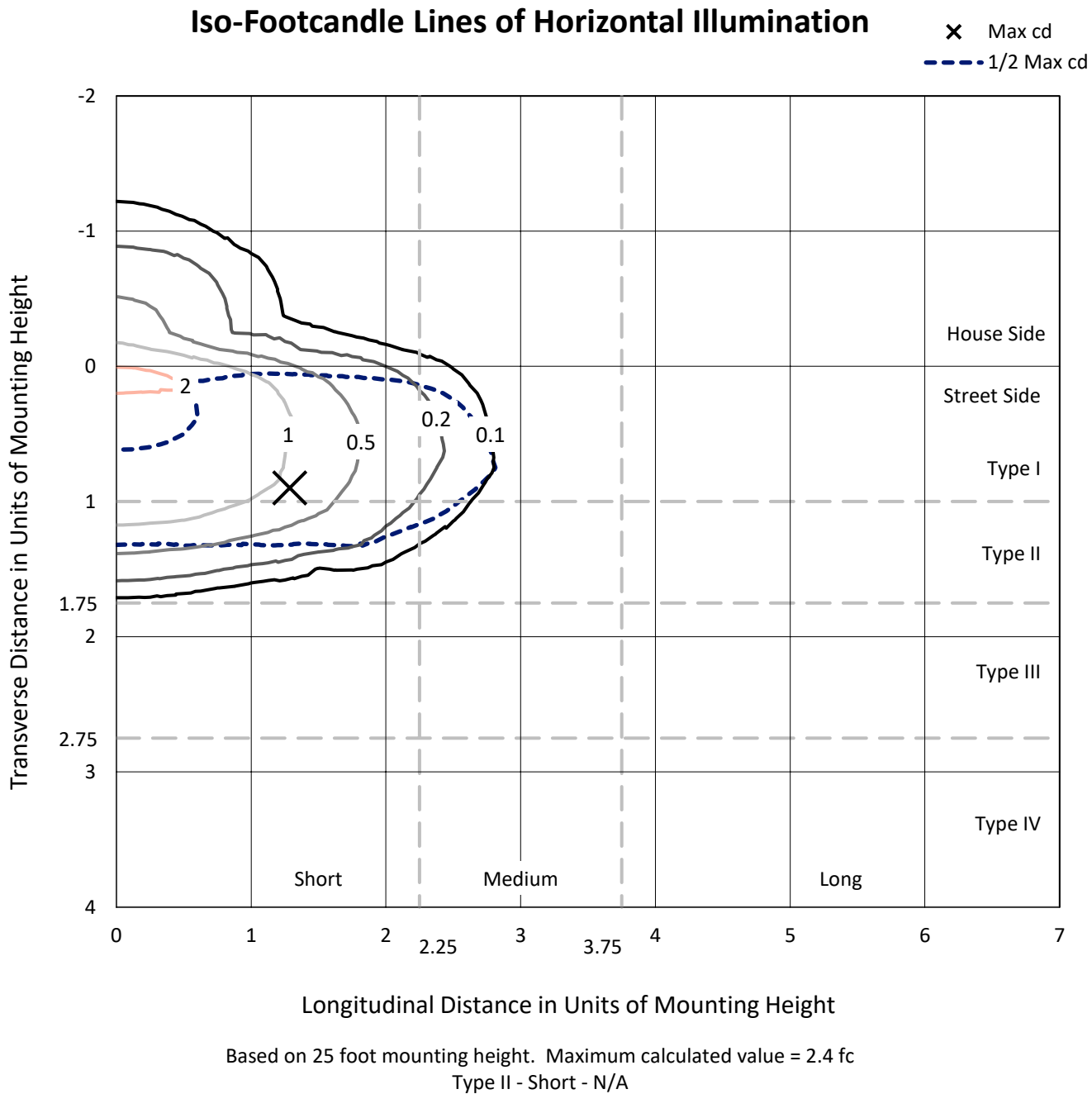
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4948.7 lumens  
Efficiency: N/A  
Efficacy: 160.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - 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

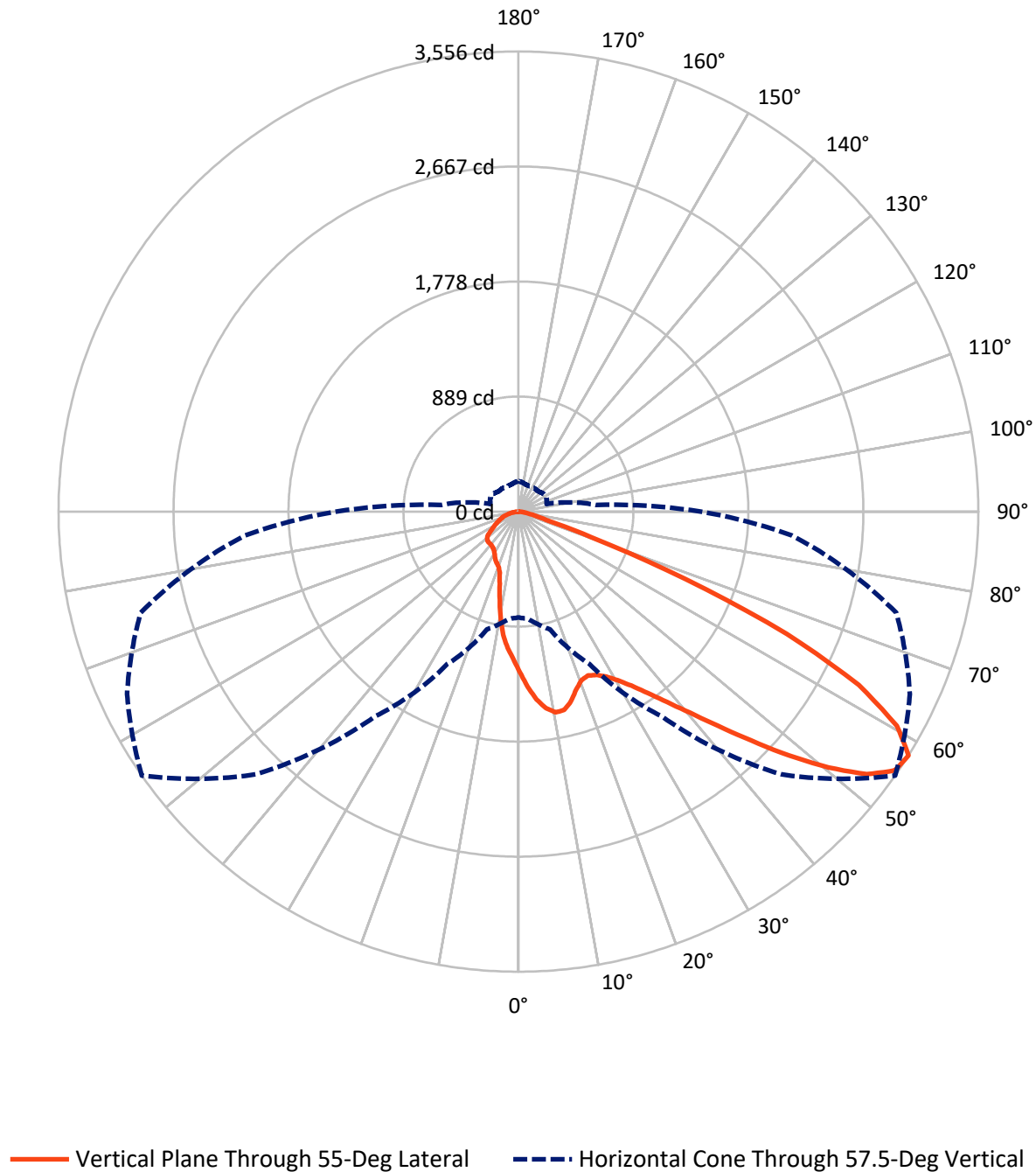


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## Luminous Intensity Polar Plot



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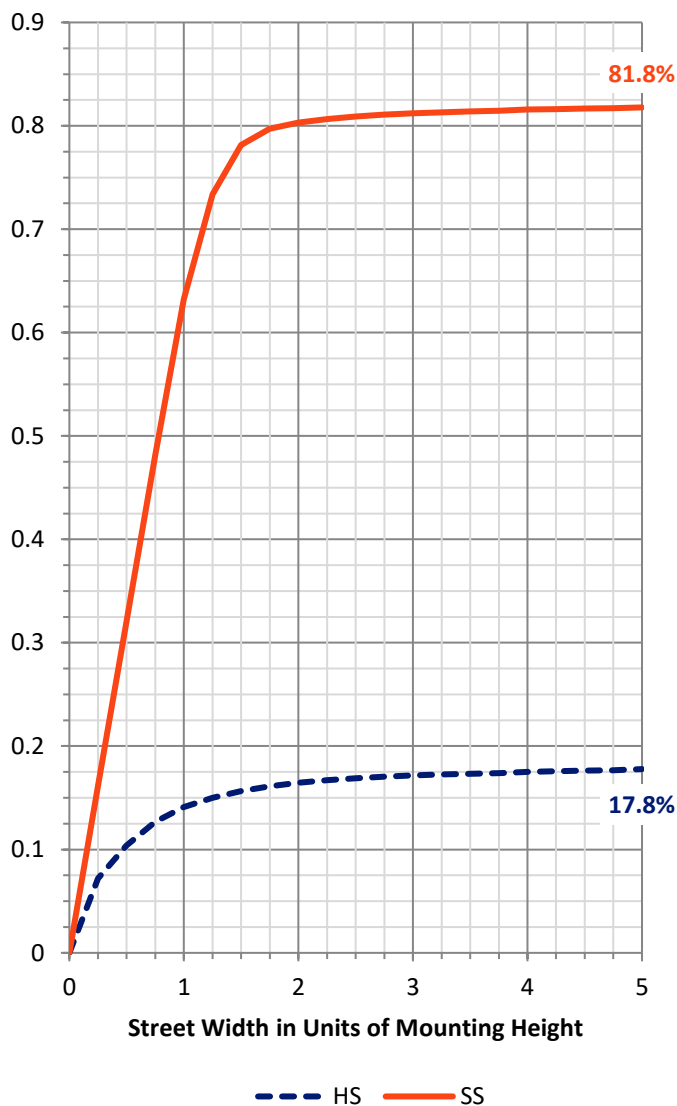
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 895.4    | 0.0    | 895.4  |
|                    | % Fixture | 18.1     | 0.0    | 18.1   |
| <b>Street Side</b> | Lumens    | 4053.2   | 0.0    | 4053.2 |
|                    | % Fixture | 81.9     | 0.0    | 81.9   |
| <b>Total</b>       | Lumens    | 4948.7   | 0.0    | 4948.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 115.1  | 2.3       |
| 10°-20°   | 290.4  | 5.9       |
| 20°-30°   | 463.4  | 9.4       |
| 30°-40°   | 733.7  | 14.8      |
| 40°-50°   | 1123.1 | 22.7      |
| 50°-60°   | 1202.9 | 24.3      |
| 60°-70°   | 756.7  | 15.3      |
| 70°-80°   | 223.8  | 4.5       |
| 80°-90°   | 39.6   | 0.8       |
| 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°    | 4948.7 | 100.0     |
| 0°-180°   | 4948.7 | 100.0     |

**Coefficient of Utilization**



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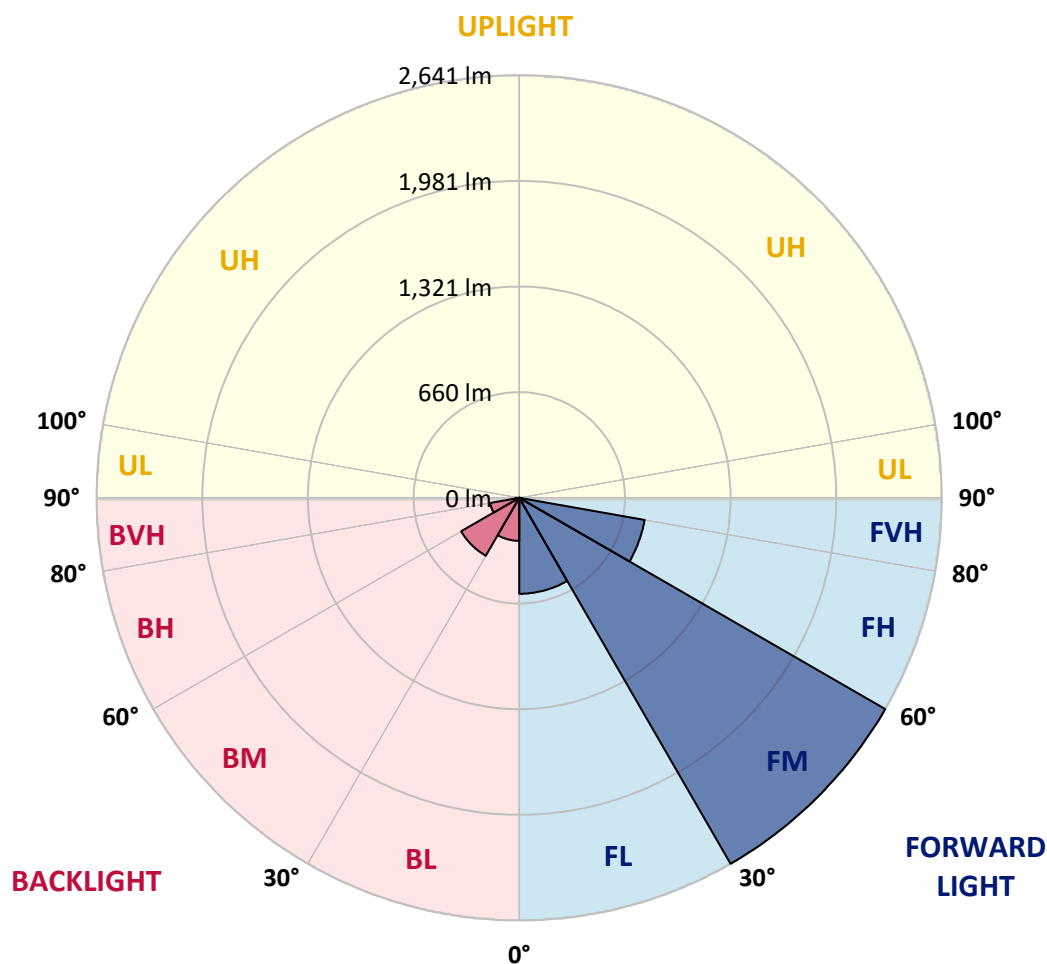
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 599.8  | 12.1      |                         |      |         |
| FM   | (30°-60°)   | 2641.2 | 53.4      |                         |      |         |
| FH   | (60°-80°)   | 795.6  | 16.1      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 16.7   | 0.3       |                         |      | G1/100  |
| BL   | (0°-30°)    | 269.1  | 5.4       | B1/500                  |      |         |
| BM   | (30°-60°)   | 418.5  | 8.5       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 184.9  | 3.7       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 22.8   | 0.5       |                         |      | G1/100  |
| 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 Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1239.9 | 1239.9 | 1239.9 | 1239.9 | 1239.9 | 1239.9 | 1239.9 | 1239.9 | 1239.9 | 1239.9 | 1239.9 |
| 2.5°  | 1422.6 | 1421.6 | 1427.2 | 1408.0 | 1395.0 | 1377.4 | 1354.1 | 1324.4 | 1292.4 | 1258.7 | 1244.0 |
| 5°    | 1550.8 | 1541.9 | 1547.7 | 1533.4 | 1519.0 | 1492.5 | 1458.0 | 1409.6 | 1350.5 | 1283.2 | 1247.4 |
| 7.5°  | 1530.6 | 1524.5 | 1539.6 | 1552.4 | 1563.1 | 1559.7 | 1534.4 | 1483.8 | 1407.5 | 1309.8 | 1257.9 |
| 10°   | 1367.7 | 1360.7 | 1382.0 | 1426.2 | 1491.2 | 1547.7 | 1578.4 | 1546.9 | 1465.9 | 1339.0 | 1268.1 |
| 12.5° | 1223.8 | 1220.6 | 1234.6 | 1270.4 | 1342.5 | 1451.0 | 1572.9 | 1602.3 | 1526.5 | 1373.5 | 1282.0 |
| 15°   | 1162.5 | 1158.4 | 1167.4 | 1185.5 | 1231.5 | 1332.6 | 1521.6 | 1640.1 | 1586.1 | 1413.5 | 1303.9 |
| 17.5° | 1148.9 | 1144.3 | 1148.1 | 1157.6 | 1187.3 | 1264.3 | 1444.4 | 1658.8 | 1648.3 | 1458.0 | 1322.4 |
| 20°   | 1173.9 | 1170.1 | 1170.7 | 1170.1 | 1190.8 | 1252.0 | 1390.6 | 1651.6 | 1702.5 | 1498.9 | 1340.3 |
| 22.5° | 1234.6 | 1228.3 | 1228.5 | 1214.9 | 1226.2 | 1273.5 | 1376.6 | 1632.4 | 1750.9 | 1534.7 | 1353.8 |
| 25°   | 1333.3 | 1321.8 | 1324.2 | 1289.7 | 1286.6 | 1321.6 | 1398.6 | 1617.6 | 1799.0 | 1563.3 | 1356.4 |
| 27.5° | 1468.4 | 1455.4 | 1448.5 | 1397.1 | 1372.5 | 1389.9 | 1443.4 | 1622.7 | 1844.5 | 1588.1 | 1350.0 |
| 30°   | 1637.2 | 1621.4 | 1607.3 | 1534.4 | 1489.9 | 1483.5 | 1512.9 | 1656.5 | 1898.2 | 1614.3 | 1339.0 |
| 32.5° | 1844.3 | 1825.8 | 1800.2 | 1703.6 | 1640.8 | 1607.3 | 1603.0 | 1716.6 | 1961.1 | 1647.5 | 1333.3 |
| 35°   | 2090.6 | 2066.6 | 2030.2 | 1905.2 | 1825.8 | 1757.3 | 1721.7 | 1803.3 | 2047.3 | 1697.6 | 1339.8 |
| 37.5° | 2344.4 | 2317.2 | 2284.0 | 2135.1 | 2037.6 | 1936.6 | 1866.5 | 1921.0 | 2162.2 | 1765.7 | 1356.7 |
| 40°   | 2578.5 | 2548.0 | 2517.1 | 2384.6 | 2279.9 | 2158.1 | 2043.7 | 2069.9 | 2302.7 | 1847.0 | 1385.3 |
| 42.5° | 2716.6 | 2694.1 | 2682.3 | 2610.7 | 2529.8 | 2406.3 | 2264.3 | 2246.4 | 2460.5 | 1940.7 | 1418.1 |
| 45°   | 2710.5 | 2701.3 | 2737.6 | 2767.3 | 2748.0 | 2679.6 | 2522.7 | 2441.5 | 2618.9 | 2021.8 | 1448.2 |
| 47.5° | 2565.7 | 2571.8 | 2652.9 | 2819.7 | 2893.2 | 2928.9 | 2816.9 | 2633.2 | 2756.5 | 2082.4 | 1461.8 |
| 50°   | 2171.7 | 2176.8 | 2364.6 | 2724.2 | 2930.5 | 3132.3 | 3108.8 | 2820.2 | 2863.2 | 2119.5 | 1458.7 |
| 52.5° | 1859.9 | 1863.1 | 1943.7 | 2441.3 | 2807.2 | 3234.7 | 3371.7 | 2996.5 | 2941.2 | 2129.7 | 1441.6 |
| 55°   | 1400.9 | 1412.4 | 1502.8 | 1915.3 | 2486.3 | 3153.5 | 3531.9 | 3178.1 | 2990.6 | 2130.8 | 1423.6 |
| 57.5° | 818.4  | 831.0  | 942.5  | 1300.1 | 1932.5 | 2870.8 | 3556.2 | 3339.2 | 3024.1 | 2122.6 | 1413.0 |
| 60°   | 400.9  | 406.2  | 454.9  | 683.3  | 1191.7 | 2326.2 | 3360.8 | 3417.4 | 3042.8 | 2118.3 | 1412.4 |
| 62.5° | 270.2  | 269.4  | 271.4  | 337.2  | 587.1  | 1494.6 | 2953.5 | 3280.7 | 3032.8 | 2101.6 | 1407.3 |
| 65°   | 232.3  | 229.5  | 221.8  | 236.7  | 304.2  | 683.6  | 2282.0 | 2872.9 | 2956.8 | 2059.9 | 1372.3 |
| 67.5° | 200.8  | 201.1  | 201.3  | 196.7  | 217.2  | 315.4  | 1394.5 | 2263.0 | 2684.1 | 1862.4 | 1237.2 |
| 70°   | 166.3  | 168.6  | 169.6  | 169.6  | 177.0  | 206.9  | 595.3  | 1551.0 | 2117.2 | 1460.2 | 996.4  |
| 72.5° | 151.5  | 146.6  | 147.1  | 144.5  | 144.5  | 157.5  | 239.7  | 879.2  | 1333.8 | 821.4  | 608.1  |
| 75°   | 123.5  | 126.6  | 127.1  | 125.4  | 119.5  | 120.2  | 142.3  | 368.9  | 570.7  | 340.7  | 300.6  |
| 77.5° | 106.7  | 106.7  | 107.7  | 106.4  | 101.8  | 90.1   | 94.9   | 143.0  | 194.1  | 139.7  | 150.2  |
| 80°   | 85.7   | 85.5   | 89.8   | 92.4   | 85.2   | 66.5   | 60.7   | 79.0   | 86.2   | 61.4   | 78.0   |
| 82.5° | 41.7   | 44.3   | 61.7   | 70.3   | 64.7   | 48.1   | 37.1   | 49.1   | 46.0   | 27.2   | 35.1   |
| 85°   | 24.3   | 23.1   | 27.7   | 39.2   | 37.1   | 26.6   | 17.9   | 25.6   | 24.1   | 13.8   | 14.0   |
| 87.5° | 7.7    | 7.2    | 5.6    | 13.3   | 10.8   | 7.4    | 4.8    | 7.4    | 6.7    | 3.1    | 3.1    |
| 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):**

|       | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1239.9 | 1239.9 | 1239.9 | 1239.9 | 1239.9 | 1239.9 | 1239.9 | 1239.9 | 1239.9 | 1239.9 |
| 2.5°  | 1225.9 | 1195.8 | 1165.8 | 1138.5 | 1121.8 | 1111.0 | 1100.3 | 1088.2 | 1083.6 | 1076.8 |
| 5°    | 1213.6 | 1155.3 | 1103.4 | 1058.6 | 1017.9 | 985.9  | 953.8  | 927.6  | 915.8  | 923.8  |
| 7.5°  | 1206.4 | 1122.1 | 1042.0 | 959.8  | 880.8  | 817.6  | 762.6  | 724.0  | 706.6  | 710.9  |
| 10°   | 1200.1 | 1084.4 | 962.4  | 832.7  | 719.1  | 640.8  | 584.6  | 555.1  | 544.2  | 546.4  |
| 12.5° | 1194.2 | 1042.2 | 866.4  | 695.9  | 575.1  | 523.5  | 507.3  | 507.6  | 509.6  | 511.2  |
| 15°   | 1193.2 | 991.3  | 759.3  | 576.2  | 497.3  | 493.9  | 511.4  | 522.4  | 528.3  | 530.0  |
| 17.5° | 1191.7 | 930.4  | 650.1  | 494.5  | 478.4  | 500.9  | 517.0  | 524.2  | 528.8  | 529.0  |
| 20°   | 1185.5 | 853.2  | 549.3  | 455.6  | 474.3  | 493.7  | 503.7  | 509.3  | 513.2  | 514.4  |
| 22.5° | 1166.6 | 767.2  | 470.7  | 438.2  | 458.0  | 473.6  | 485.3  | 491.7  | 493.9  | 495.5  |
| 25°   | 1132.5 | 671.1  | 416.5  | 421.6  | 435.1  | 454.9  | 464.3  | 465.6  | 464.8  | 467.1  |
| 27.5° | 1088.0 | 568.0  | 382.7  | 399.1  | 416.5  | 433.4  | 438.5  | 437.7  | 436.1  | 438.7  |
| 30°   | 1034.3 | 475.3  | 361.2  | 373.7  | 397.6  | 412.9  | 417.5  | 415.7  | 412.7  | 415.4  |
| 32.5° | 977.5  | 399.6  | 343.6  | 356.1  | 381.9  | 397.1  | 401.6  | 399.9  | 397.6  | 399.9  |
| 35°   | 924.6  | 346.7  | 327.2  | 344.3  | 369.7  | 384.5  | 390.4  | 390.6  | 390.6  | 393.5  |
| 37.5° | 876.0  | 315.7  | 313.6  | 336.9  | 361.2  | 374.5  | 382.9  | 383.5  | 372.5  | 373.2  |
| 40°   | 831.0  | 302.7  | 307.5  | 332.1  | 353.0  | 365.8  | 366.3  | 337.7  | 317.4  | 316.9  |
| 42.5° | 794.1  | 300.1  | 309.2  | 331.6  | 347.2  | 347.7  | 311.6  | 289.4  | 283.7  | 283.9  |
| 45°   | 759.5  | 299.3  | 313.3  | 331.6  | 338.5  | 300.3  | 276.0  | 270.2  | 270.7  | 272.8  |
| 47.5° | 720.9  | 296.2  | 314.2  | 327.0  | 313.3  | 267.1  | 259.9  | 257.4  | 256.4  | 256.9  |
| 50°   | 678.7  | 285.3  | 304.4  | 317.8  | 270.4  | 252.8  | 243.8  | 243.0  | 244.4  | 245.1  |
| 52.5° | 634.2  | 267.3  | 287.8  | 301.1  | 250.7  | 240.3  | 230.2  | 232.1  | 237.7  | 239.4  |
| 55°   | 605.1  | 246.4  | 265.8  | 267.8  | 236.9  | 228.5  | 220.0  | 224.1  | 234.6  | 237.9  |
| 57.5° | 597.4  | 224.1  | 240.8  | 238.4  | 219.2  | 218.2  | 213.1  | 216.7  | 230.0  | 234.8  |
| 60°   | 595.0  | 204.2  | 216.2  | 214.4  | 202.1  | 206.9  | 205.7  | 207.5  | 212.1  | 213.6  |
| 62.5° | 577.2  | 188.3  | 194.1  | 191.6  | 186.8  | 195.2  | 198.2  | 194.4  | 198.0  | 199.8  |
| 65°   | 531.6  | 175.5  | 172.7  | 170.9  | 172.9  | 180.6  | 186.8  | 179.1  | 182.4  | 187.5  |
| 67.5° | 456.4  | 158.1  | 150.5  | 152.5  | 158.9  | 163.0  | 170.9  | 162.2  | 165.0  | 173.7  |
| 70°   | 369.2  | 136.1  | 129.1  | 135.1  | 141.2  | 149.6  | 151.0  | 145.0  | 151.7  | 161.4  |
| 72.5° | 261.2  | 113.9  | 109.0  | 121.1  | 123.1  | 134.1  | 131.2  | 128.4  | 137.7  | 140.9  |
| 75°   | 181.1  | 91.8   | 89.1   | 98.2   | 105.7  | 115.1  | 113.1  | 116.4  | 135.8  | 137.4  |
| 77.5° | 114.6  | 71.3   | 69.6   | 75.4   | 85.7   | 96.1   | 99.5   | 137.4  | 232.1  | 241.3  |
| 80°   | 66.5   | 53.2   | 51.1   | 55.8   | 64.7   | 74.4   | 95.9   | 168.6  | 153.0  | 151.2  |
| 82.5° | 37.1   | 36.6   | 34.0   | 35.3   | 43.3   | 53.7   | 135.6  | 118.7  | 96.5   | 99.5   |
| 85°   | 17.4   | 21.5   | 18.4   | 17.6   | 24.3   | 62.9   | 90.6   | 67.8   | 45.0   | 44.0   |
| 87.5° | 4.6    | 4.1    | 4.1    | 4.6    | 10.2   | 54.2   | 36.1   | 28.9   | 17.1   | 16.6   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)