

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: P960376

Luminaire Tested: **NAV-SB1C-740-U-SL4**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P960376  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1C-740-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 4000K, 615mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT  
ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8053.4 lumens  
Efficiency: N/A  
Efficacy: 148.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B2 - U0 - G2

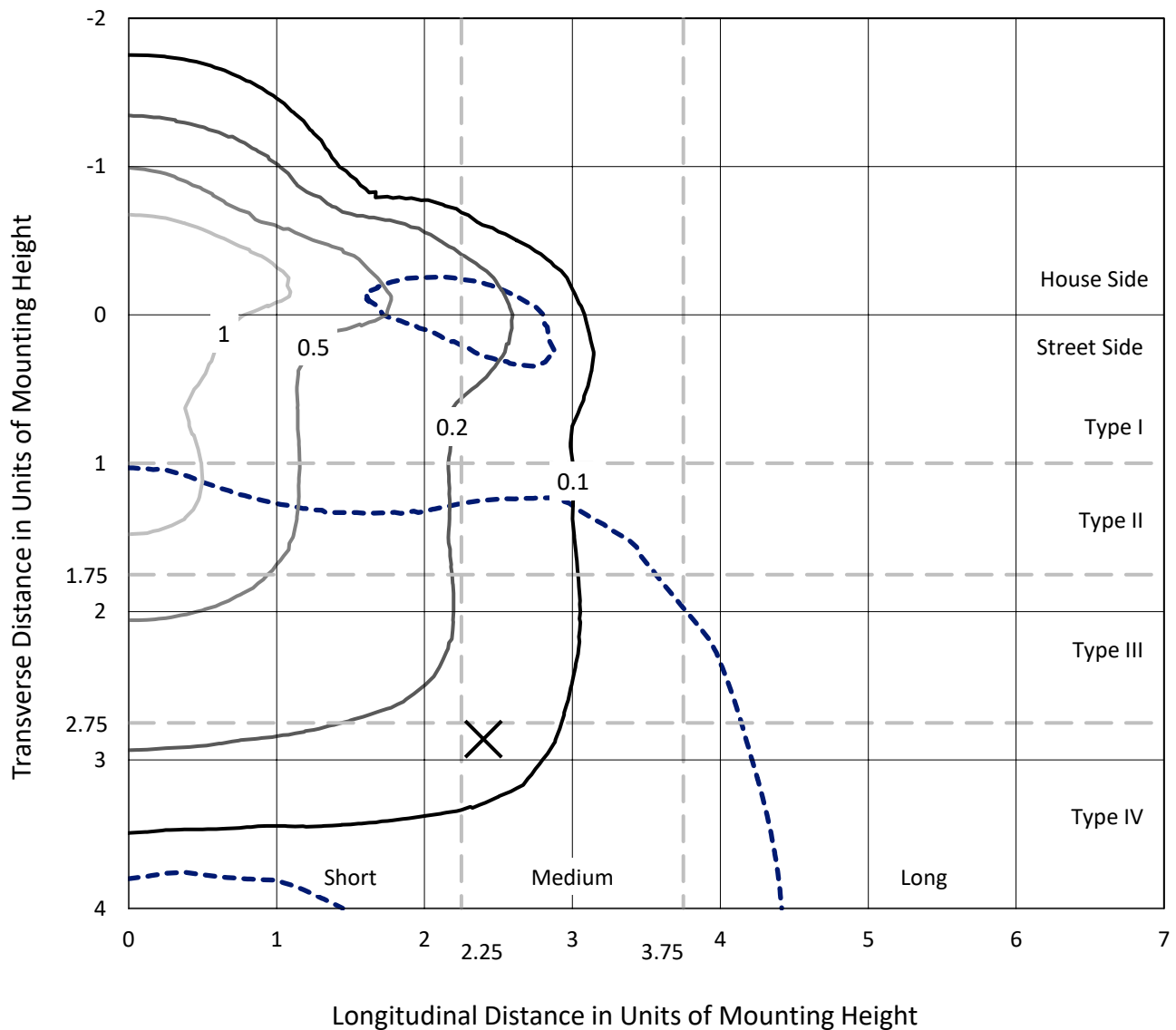
Input Watts (W): 54.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

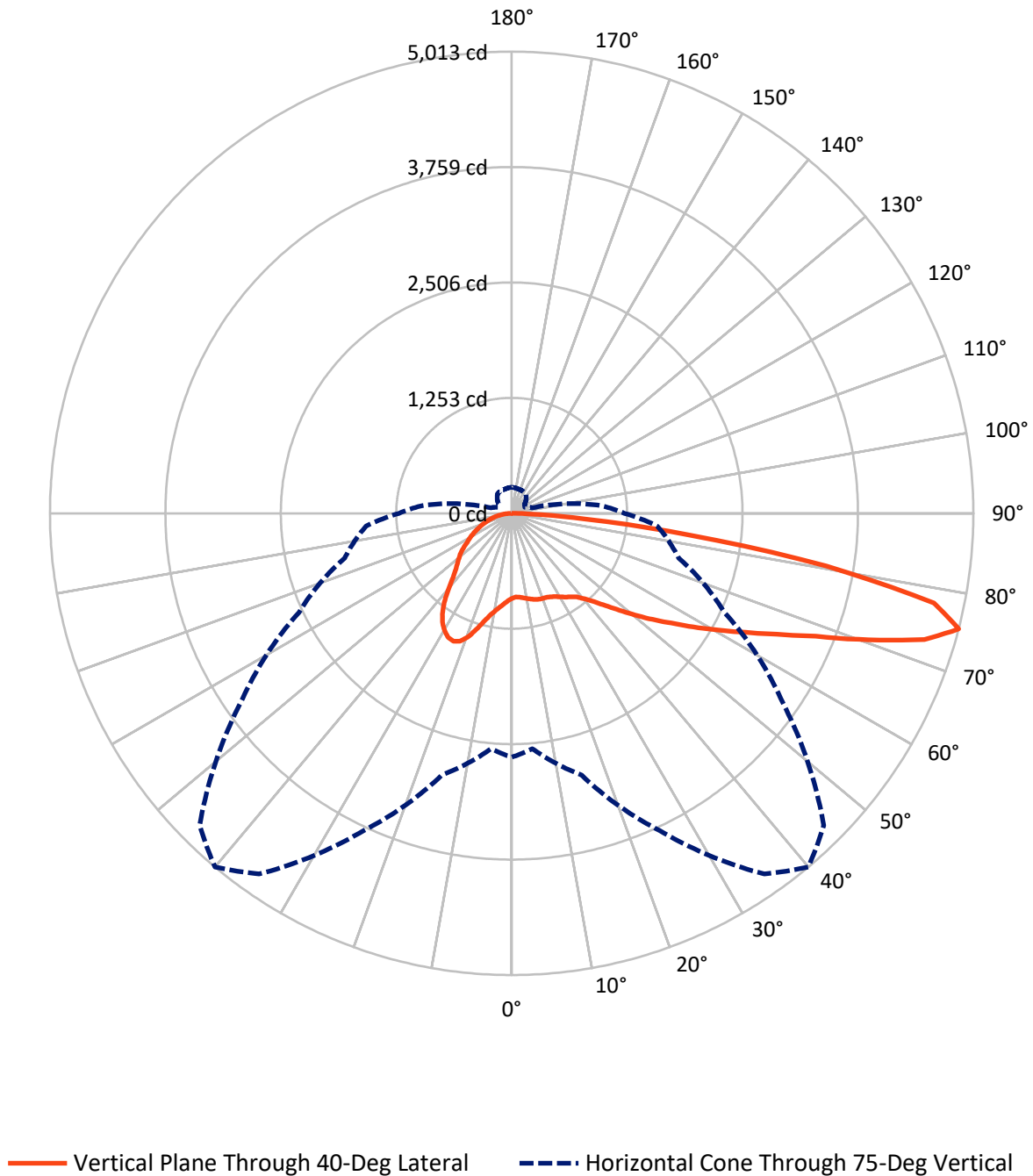
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc  
Type IV - Medium - N/A

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## Luminous Intensity Polar Plot



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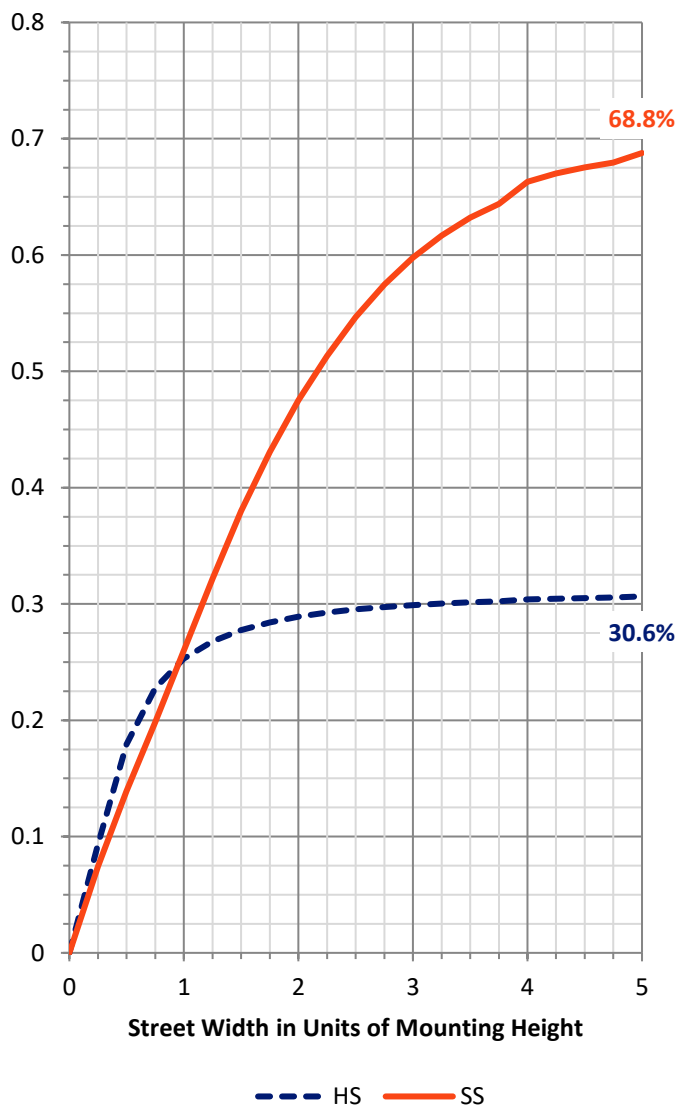
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 2495.2   | 0.0    | 2495.2 |
|                    | % Fixture | 31.0     | 0.0    | 31.0   |
| <b>Street Side</b> | Lumens    | 5558.2   | 0.0    | 5558.2 |
|                    | % Fixture | 69.0     | 0.0    | 69.0   |
| <b>Total</b>       | Lumens    | 8053.4   | 0.0    | 8053.4 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 91.9   | 1.1       |
| 10°-20°   | 308.6  | 3.8       |
| 20°-30°   | 563.5  | 7.0       |
| 30°-40°   | 799.3  | 9.9       |
| 40°-50°   | 1079.2 | 13.4      |
| 50°-60°   | 1451.9 | 18.0      |
| 60°-70°   | 1842.8 | 22.9      |
| 70°-80°   | 1672.4 | 20.8      |
| 80°-90°   | 243.8  | 3.0       |
| 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°    | 8053.4 | 100.0     |
| 0°-180°   | 8053.4 | 100.0     |

**Coefficient of Utilization**



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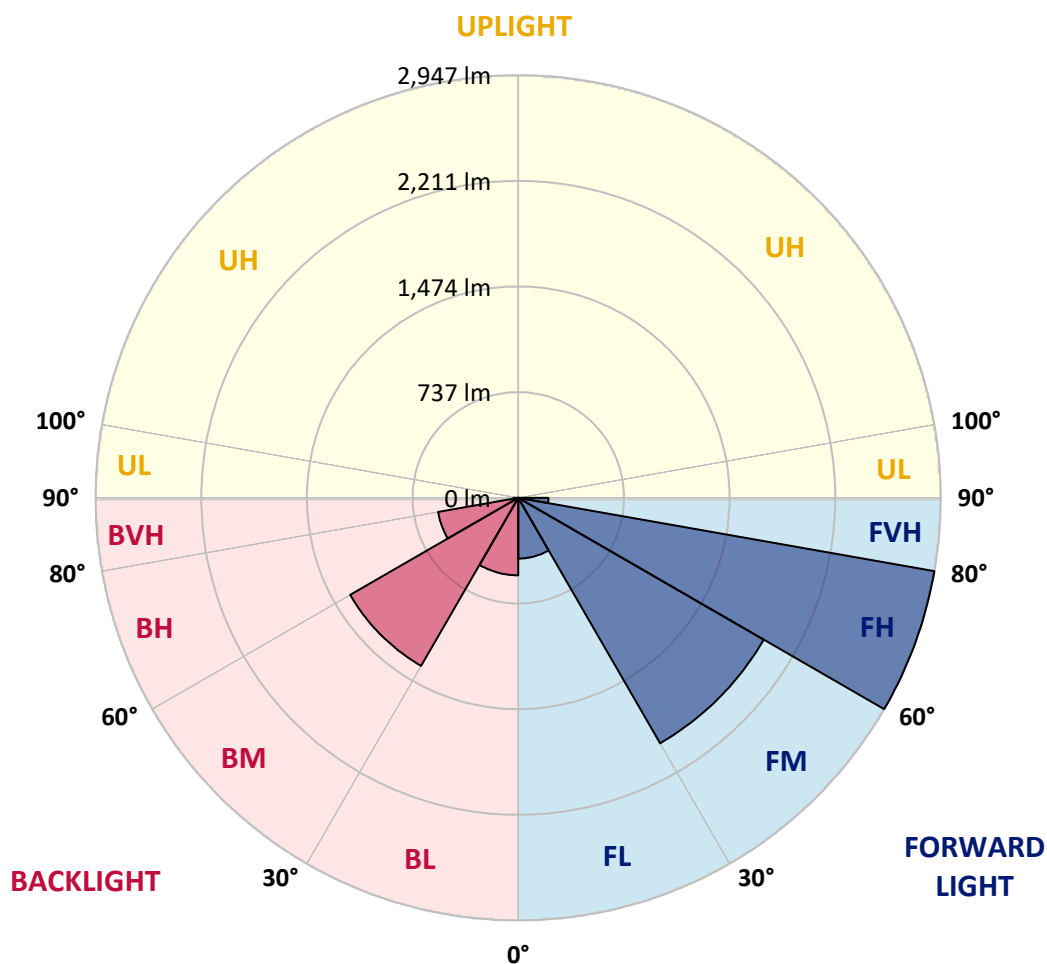
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 423.6  | 5.3       |                         |      |         |
| FM   | (30°-60°)   | 1976.9 | 24.5      |                         |      |         |
| FH   | (60°-80°)   | 2947.4 | 36.6      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 210.2  | 2.6       |                         |      | G2/225  |
| BL   | (0°-30°)    | 540.5  | 6.7       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1353.4 | 16.8      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 567.7  | 7.0       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 33.6   | 0.4       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**

Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 40°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 921.0  | 921.0  | 921.0  | 921.0  | 921.0  | 921.0  | 921.0  | 921.0  | 921.0  | 921.0  | 921.0  |
| 2.5°  | 906.8  | 911.9  | 910.7  | 909.0  | 909.0  | 909.4  | 909.0  | 911.9  | 914.9  | 917.9  | 922.6  |
| 5°    | 916.2  | 921.4  | 918.8  | 916.7  | 914.9  | 914.5  | 913.3  | 912.8  | 914.5  | 918.4  | 924.8  |
| 7.5°  | 934.6  | 939.7  | 935.8  | 932.0  | 928.6  | 926.9  | 925.2  | 922.6  | 921.4  | 923.5  | 932.4  |
| 10°   | 955.1  | 960.2  | 955.5  | 948.6  | 943.1  | 941.0  | 939.3  | 936.7  | 935.0  | 936.3  | 946.1  |
| 12.5° | 975.6  | 980.7  | 974.3  | 964.9  | 957.7  | 956.3  | 954.3  | 953.4  | 952.9  | 952.5  | 962.4  |
| 15°   | 994.9  | 999.1  | 991.0  | 979.9  | 972.2  | 970.1  | 967.9  | 969.1  | 971.3  | 973.9  | 985.0  |
| 17.5° | 1009.7 | 1014.0 | 1002.0 | 987.6  | 980.3  | 979.4  | 978.2  | 982.5  | 988.4  | 994.9  | 1008.5 |
| 20°   | 1023.5 | 1027.7 | 1012.3 | 992.7  | 984.1  | 984.1  | 984.6  | 993.5  | 1002.0 | 1011.5 | 1030.2 |
| 22.5° | 1042.6 | 1046.1 | 1027.3 | 1000.4 | 988.0  | 988.8  | 992.3  | 1001.2 | 1011.9 | 1024.7 | 1050.7 |
| 25°   | 1071.2 | 1073.8 | 1050.7 | 1014.9 | 1000.8 | 1003.4 | 1006.3 | 1010.6 | 1020.9 | 1035.9 | 1070.8 |
| 27.5° | 1117.5 | 1119.5 | 1089.2 | 1040.5 | 1019.2 | 1023.5 | 1027.7 | 1024.7 | 1029.4 | 1042.2 | 1087.1 |
| 30°   | 1182.3 | 1183.6 | 1145.1 | 1080.7 | 1050.3 | 1052.5 | 1053.3 | 1041.0 | 1032.0 | 1042.2 | 1098.6 |
| 32.5° | 1259.2 | 1258.8 | 1213.1 | 1129.3 | 1085.8 | 1083.6 | 1076.4 | 1052.1 | 1031.1 | 1040.1 | 1108.8 |
| 35°   | 1378.4 | 1373.7 | 1314.8 | 1197.7 | 1126.0 | 1112.7 | 1095.6 | 1064.5 | 1035.4 | 1037.9 | 1117.9 |
| 37.5° | 1575.7 | 1561.2 | 1479.6 | 1309.6 | 1185.7 | 1152.0 | 1126.8 | 1084.6 | 1044.8 | 1037.1 | 1128.5 |
| 40°   | 1798.3 | 1779.9 | 1690.2 | 1463.0 | 1275.4 | 1221.2 | 1180.6 | 1113.1 | 1060.2 | 1041.0 | 1144.3 |
| 42.5° | 2062.2 | 2036.2 | 1939.6 | 1643.7 | 1389.1 | 1310.5 | 1249.4 | 1149.4 | 1082.8 | 1053.3 | 1165.6 |
| 45°   | 2386.4 | 2351.9 | 2215.1 | 1847.4 | 1532.2 | 1427.5 | 1345.9 | 1204.6 | 1117.5 | 1077.3 | 1197.7 |
| 47.5° | 2714.1 | 2722.6 | 2528.3 | 2080.6 | 1703.9 | 1571.8 | 1466.8 | 1287.4 | 1167.8 | 1115.7 | 1249.4 |
| 50°   | 3062.2 | 3068.1 | 2839.7 | 2339.0 | 1898.6 | 1735.0 | 1602.7 | 1380.1 | 1237.9 | 1170.3 | 1326.7 |
| 52.5° | 3333.8 | 3334.7 | 3122.5 | 2609.4 | 2101.6 | 1914.5 | 1749.2 | 1486.0 | 1319.0 | 1243.0 | 1429.7 |
| 55°   | 3503.9 | 3501.7 | 3320.6 | 2865.3 | 2334.7 | 2102.8 | 1911.4 | 1606.5 | 1418.1 | 1328.4 | 1559.0 |
| 57.5° | 3627.3 | 3620.9 | 3457.3 | 3085.2 | 2583.4 | 2325.3 | 2095.1 | 1743.2 | 1535.1 | 1430.1 | 1729.5 |
| 60°   | 3674.3 | 3670.4 | 3550.0 | 3275.3 | 2844.8 | 2571.4 | 2307.0 | 1896.0 | 1668.0 | 1550.1 | 1948.6 |
| 62.5° | 3692.3 | 3699.5 | 3641.0 | 3459.5 | 3124.5 | 2844.0 | 2539.7 | 2078.9 | 1817.5 | 1685.9 | 2179.7 |
| 65°   | 3755.4 | 3768.7 | 3756.7 | 3700.4 | 3440.6 | 3162.9 | 2848.6 | 2296.3 | 1980.7 | 1831.6 | 2421.0 |
| 67.5° | 3880.5 | 3893.9 | 3899.0 | 3988.7 | 3826.7 | 3560.6 | 3233.9 | 2567.1 | 2171.6 | 1982.8 | 2602.6 |
| 70°   | 3877.6 | 3873.8 | 3964.3 | 4218.1 | 4310.3 | 4111.3 | 3753.3 | 2900.3 | 2399.2 | 2108.4 | 2625.6 |
| 72.5° | 3529.5 | 3498.7 | 3712.8 | 4215.5 | 4712.6 | 4686.2 | 4387.6 | 3330.0 | 2595.7 | 2123.8 | 2278.4 |
| 75°   | 2647.9 | 2565.9 | 2943.9 | 3799.0 | 4779.7 | 5012.6 | 4790.8 | 3596.5 | 2549.2 | 1876.5 | 1585.6 |
| 77.5° | 1132.3 | 1049.9 | 1495.5 | 2812.3 | 4277.8 | 4685.8 | 4420.9 | 3137.8 | 2034.9 | 1240.9 | 778.7  |
| 80°   | 296.4  | 296.0  | 451.9  | 1275.0 | 2909.3 | 3460.3 | 3035.7 | 2026.3 | 1162.7 | 443.4  | 214.8  |
| 82.5° | 122.6  | 119.6  | 166.2  | 495.9  | 1421.6 | 1941.8 | 1584.6 | 903.8  | 419.8  | 120.0  | 71.3   |
| 85°   | 45.7   | 45.3   | 80.8   | 171.3  | 501.4  | 800.9  | 579.6  | 231.0  | 104.7  | 58.5   | 32.1   |
| 87.5° | 12.8   | 12.4   | 17.5   | 59.3   | 122.2  | 185.4  | 99.1   | 38.0   | 29.5   | 23.1   | 9.4    |
| 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°    | 921.0  | 921.0  | 921.0  | 921.0  | 921.0  | 921.0  | 921.0  | 921.0  | 921.0  | 921.0  | 921.0  |
| 2.5°  | 923.9  | 926.1  | 929.9  | 932.9  | 936.7  | 941.0  | 947.0  | 950.8  | 954.7  | 957.2  | 955.5  |
| 5°    | 927.7  | 932.4  | 942.3  | 952.1  | 963.6  | 974.3  | 986.7  | 995.7  | 1003.0 | 1005.1 | 1005.9 |
| 7.5°  | 936.3  | 944.0  | 960.6  | 977.3  | 995.7  | 1013.2 | 1031.1 | 1046.5 | 1058.9 | 1063.5 | 1064.1 |
| 10°   | 951.2  | 961.4  | 985.0  | 1008.5 | 1032.8 | 1059.7 | 1082.8 | 1105.1 | 1122.6 | 1129.8 | 1130.3 |
| 12.5° | 970.1  | 982.9  | 1013.6 | 1046.1 | 1079.8 | 1116.9 | 1146.9 | 1174.2 | 1196.0 | 1205.8 | 1205.8 |
| 15°   | 994.4  | 1011.1 | 1050.3 | 1093.9 | 1143.5 | 1195.1 | 1233.2 | 1263.5 | 1287.8 | 1299.8 | 1299.0 |
| 17.5° | 1020.9 | 1043.0 | 1092.6 | 1158.5 | 1229.3 | 1297.2 | 1341.6 | 1363.9 | 1389.1 | 1400.6 | 1400.1 |
| 20°   | 1046.5 | 1073.8 | 1144.7 | 1240.5 | 1334.9 | 1407.0 | 1442.9 | 1448.8 | 1450.6 | 1451.8 | 1455.3 |
| 22.5° | 1073.0 | 1109.8 | 1210.1 | 1343.8 | 1445.0 | 1495.0 | 1500.1 | 1474.5 | 1438.6 | 1422.0 | 1426.7 |
| 25°   | 1102.0 | 1150.8 | 1295.5 | 1457.9 | 1539.9 | 1545.8 | 1506.5 | 1444.1 | 1376.3 | 1345.1 | 1349.8 |
| 27.5° | 1130.3 | 1198.1 | 1398.0 | 1566.7 | 1608.2 | 1555.6 | 1471.1 | 1382.6 | 1300.6 | 1267.7 | 1271.6 |
| 30°   | 1158.5 | 1252.3 | 1511.3 | 1662.0 | 1639.4 | 1531.4 | 1415.1 | 1316.4 | 1234.0 | 1199.5 | 1203.2 |
| 32.5° | 1187.1 | 1315.6 | 1641.5 | 1730.8 | 1633.8 | 1479.6 | 1345.5 | 1242.1 | 1169.5 | 1133.2 | 1138.0 |
| 35°   | 1219.4 | 1393.4 | 1764.9 | 1768.3 | 1596.6 | 1403.6 | 1253.7 | 1153.3 | 1090.1 | 1061.0 | 1067.4 |
| 37.5° | 1261.8 | 1492.0 | 1873.9 | 1777.8 | 1531.8 | 1292.1 | 1139.6 | 1048.2 | 996.1  | 982.9  | 992.3  |
| 40°   | 1314.4 | 1610.8 | 1957.1 | 1762.8 | 1435.6 | 1156.7 | 1014.9 | 941.9  | 912.4  | 915.3  | 925.6  |
| 42.5° | 1382.6 | 1743.6 | 2015.7 | 1724.4 | 1302.0 | 1017.0 | 905.6  | 873.1  | 887.1  | 899.1  | 910.2  |
| 45°   | 1471.5 | 1881.6 | 2051.9 | 1659.1 | 1150.8 | 898.7  | 841.0  | 848.7  | 859.5  | 860.7  | 869.2  |
| 47.5° | 1585.2 | 2021.2 | 2075.9 | 1560.4 | 996.5  | 815.4  | 800.0  | 801.8  | 799.6  | 790.7  | 797.4  |
| 50°   | 1726.9 | 2157.1 | 2097.3 | 1429.7 | 865.4  | 763.3  | 742.8  | 736.9  | 707.4  | 678.3  | 682.1  |
| 52.5° | 1888.4 | 2281.8 | 2106.3 | 1267.3 | 763.3  | 719.8  | 686.4  | 648.8  | 593.7  | 584.8  | 587.7  |
| 55°   | 2067.8 | 2397.2 | 2083.2 | 1067.8 | 677.4  | 663.8  | 613.4  | 568.1  | 562.1  | 554.4  | 555.8  |
| 57.5° | 2282.3 | 2521.4 | 2036.2 | 845.3  | 589.5  | 598.4  | 549.3  | 554.4  | 543.8  | 531.8  | 529.6  |
| 60°   | 2516.7 | 2650.0 | 1953.8 | 642.5  | 498.5  | 516.8  | 532.7  | 532.2  | 529.2  | 519.4  | 516.0  |
| 62.5° | 2727.7 | 2734.6 | 1791.4 | 492.1  | 418.6  | 453.7  | 496.8  | 496.3  | 493.7  | 488.2  | 486.1  |
| 65°   | 2853.3 | 2721.8 | 1520.6 | 387.4  | 352.8  | 401.5  | 448.0  | 451.5  | 451.9  | 451.5  | 451.5  |
| 67.5° | 2831.2 | 2571.8 | 1149.0 | 308.4  | 298.6  | 348.5  | 399.9  | 404.5  | 408.0  | 408.8  | 409.6  |
| 70°   | 2579.9 | 2242.5 | 749.2  | 246.0  | 250.3  | 302.0  | 354.1  | 358.7  | 361.8  | 365.2  | 367.0  |
| 72.5° | 2010.9 | 1648.8 | 428.9  | 199.1  | 208.0  | 261.9  | 308.8  | 314.4  | 316.1  | 322.5  | 325.0  |
| 75°   | 1225.5 | 969.6  | 231.5  | 156.7  | 170.9  | 223.9  | 263.9  | 270.4  | 273.4  | 281.1  | 281.9  |
| 77.5° | 582.6  | 419.8  | 132.0  | 122.2  | 137.6  | 182.9  | 222.9  | 230.2  | 222.1  | 226.4  | 222.9  |
| 80°   | 196.9  | 155.9  | 83.3   | 93.1   | 105.1  | 142.7  | 178.6  | 185.8  | 168.7  | 167.9  | 166.2  |
| 82.5° | 68.8   | 63.2   | 53.0   | 61.9   | 68.0   | 102.1  | 135.0  | 144.4  | 125.6  | 125.2  | 119.2  |
| 85°   | 27.0   | 25.6   | 29.5   | 33.7   | 40.6   | 62.8   | 88.9   | 93.6   | 77.3   | 62.3   | 61.5   |
| 87.5° | 5.5    | 5.9    | 7.3    | 7.7    | 12.4   | 21.8   | 32.1   | 39.3   | 31.2   | 26.4   | 24.4   |
| 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)