

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: P881887

Luminaire Tested: **NAV-SB1C-730-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P881887  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1C-730-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 3000K, 615mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

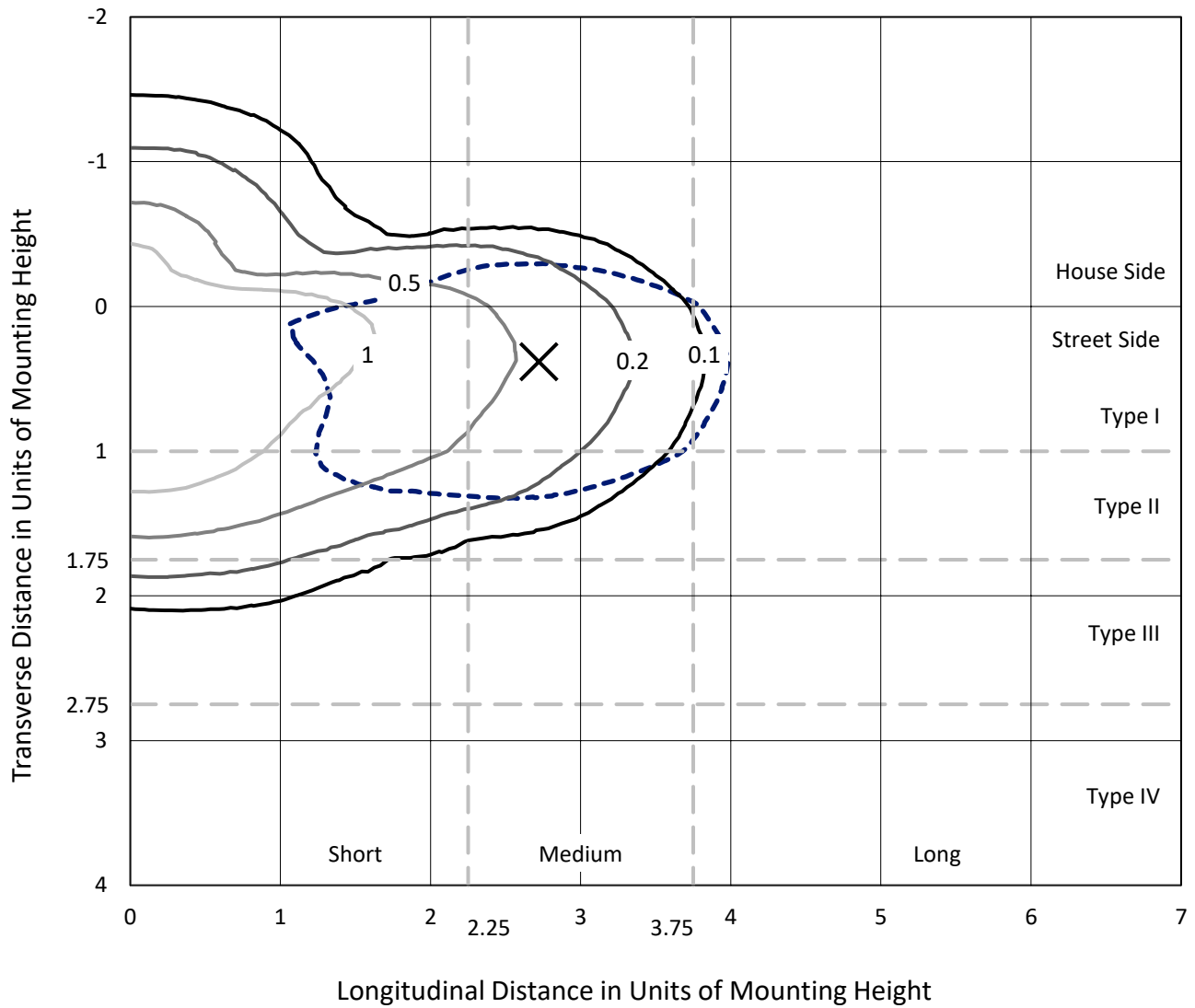
Lumens per Lamp: N/A  
Luminaire Lumens: 7311 lumens  
Efficiency: N/A  
Efficacy: 134.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 54.4  
Input Voltage (V): 120.0  
Input Current (Ain): 0.437  
Voltage Rise (V): NR  
Power Factor: 0.993  
Total Harmonic Distortion (THDi): 9.314  
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

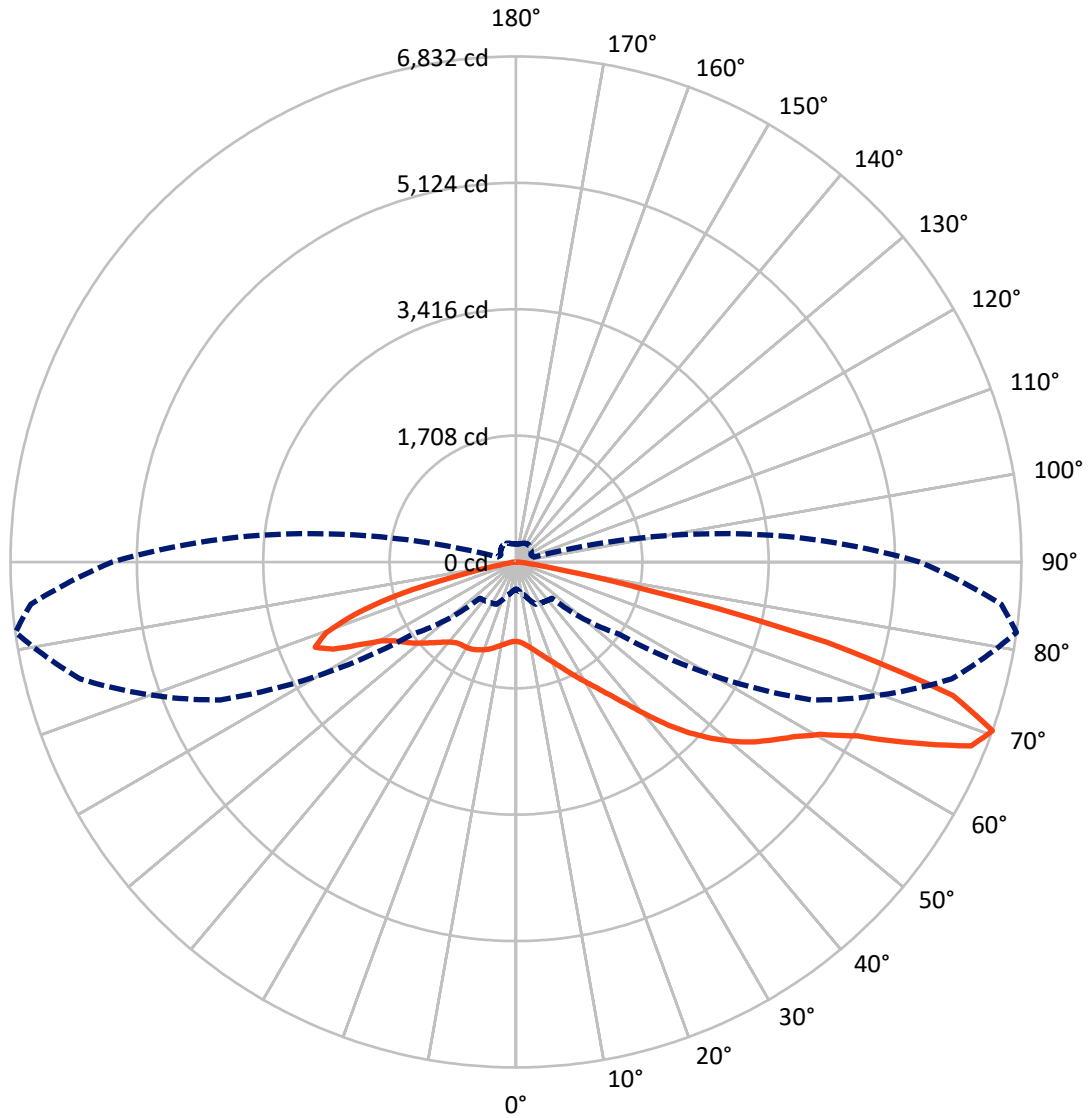
× Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1802.3   | 0.0    | 1802.3 |
|                    | % Fixture | 24.7     | 0.0    | 24.7   |
| <b>Street Side</b> | Lumens    | 5508.7   | 0.0    | 5508.7 |
|                    | % Fixture | 75.3     | 0.0    | 75.3   |
| <b>Total</b>       | Lumens    | 7311.0   | 0.0    | 7311.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 101.2  | 1.4       |
| 10°-20°   | 290.8  | 4.0       |
| 20°-30°   | 486.4  | 6.7       |
| 30°-40°   | 759.9  | 10.4      |
| 40°-50°   | 1210.3 | 16.6      |
| 50°-60°   | 1684.2 | 23.0      |
| 60°-70°   | 1761.8 | 24.1      |
| 70°-80°   | 920.8  | 12.6      |
| 80°-90°   | 95.6   | 1.3       |
| 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°    | 7311.0 | 100.0     |
| 0°-180°   | 7311.0 | 100.0     |

**Coefficient of Utilization**

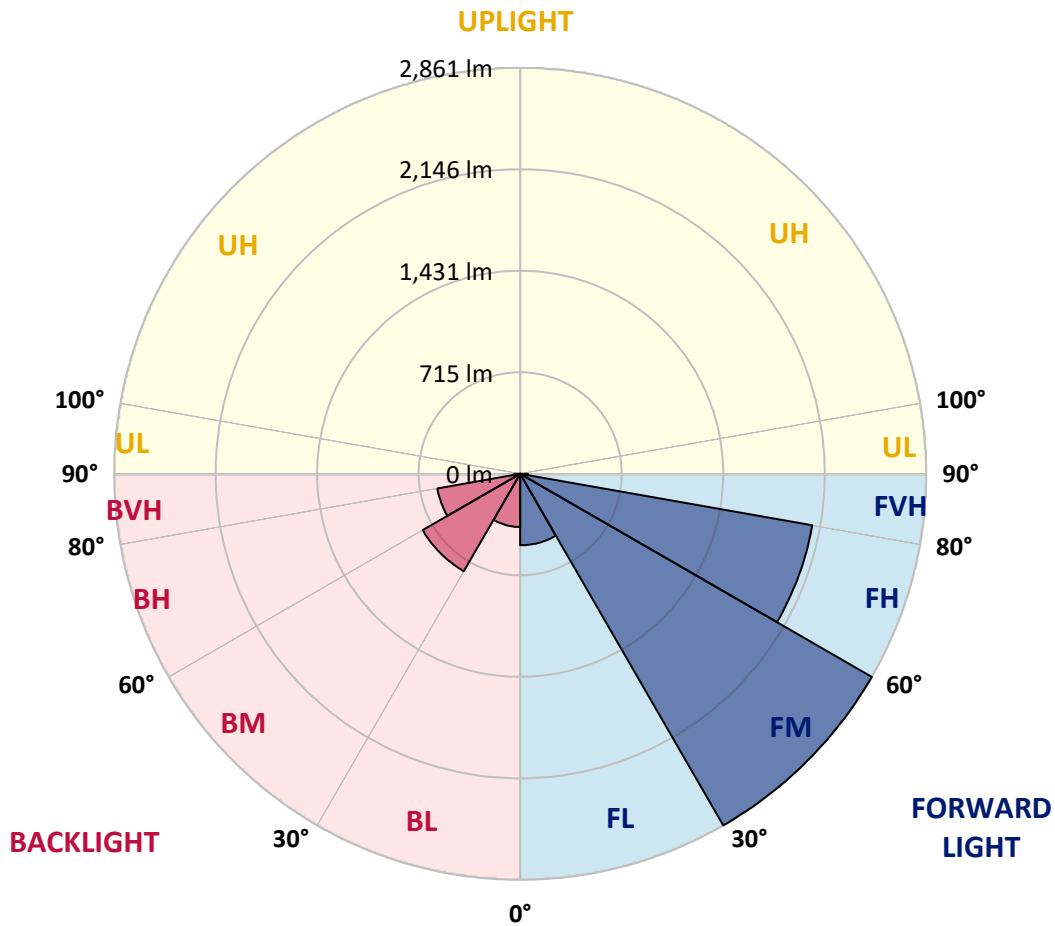


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 503.4  | 6.9       |                         |      |         |
| FM (30°-60°)   | 2861.4 | 39.1      |                         |      |         |
| FH (60°-80°)   | 2090.2 | 28.6      |                         |      | G2/5000 |
| FVH (80°-90°)  | 53.5   | 0.7       |                         |      | G1/100  |
| BL (0°-30°)    | 375.0  | 5.1       | B1/500                  |      |         |
| BM (30°-60°)   | 793.0  | 10.8      | B1/1000                 |      |         |
| BH (60°-80°)   | 592.3  | 8.1       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 42.1   | 0.6       |                         |      | 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 II Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 82°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1071.9 | 1071.9 | 1071.9 | 1071.9 | 1071.9 | 1071.9 | 1071.9 | 1071.9 | 1071.9 | 1071.9 | 1071.9 |
| 2.5°  | 1097.5 | 1103.7 | 1101.8 | 1099.8 | 1099.8 | 1097.1 | 1096.7 | 1092.8 | 1089.7 | 1084.7 | 1083.5 |
| 5°    | 1111.5 | 1118.0 | 1117.3 | 1118.8 | 1123.9 | 1125.0 | 1126.2 | 1123.9 | 1117.7 | 1111.5 | 1108.7 |
| 7.5°  | 1099.0 | 1106.4 | 1108.7 | 1118.0 | 1133.6 | 1147.5 | 1158.0 | 1162.3 | 1156.5 | 1147.5 | 1143.3 |
| 10°   | 1057.1 | 1065.3 | 1073.4 | 1095.5 | 1123.1 | 1156.1 | 1184.0 | 1200.7 | 1199.5 | 1191.0 | 1183.6 |
| 12.5° | 972.2  | 980.7  | 998.2  | 1041.2 | 1091.7 | 1149.9 | 1201.8 | 1236.8 | 1248.8 | 1242.6 | 1229.8 |
| 15°   | 904.3  | 911.7  | 924.9  | 969.1  | 1034.6 | 1123.1 | 1208.4 | 1276.3 | 1307.0 | 1303.5 | 1288.0 |
| 17.5° | 902.4  | 905.5  | 913.6  | 934.6  | 985.0  | 1081.2 | 1201.5 | 1315.1 | 1373.7 | 1373.3 | 1353.9 |
| 20°   | 936.5  | 937.7  | 942.3  | 946.6  | 975.3  | 1049.4 | 1183.6 | 1347.3 | 1448.6 | 1448.6 | 1427.6 |
| 22.5° | 983.8  | 983.0  | 987.7  | 983.8  | 997.8  | 1046.7 | 1172.4 | 1375.6 | 1532.0 | 1538.2 | 1511.8 |
| 25°   | 1054.8 | 1050.9 | 1049.8 | 1040.8 | 1043.6 | 1071.9 | 1184.8 | 1407.8 | 1630.9 | 1643.7 | 1610.7 |
| 27.5° | 1149.5 | 1143.3 | 1139.0 | 1118.4 | 1111.5 | 1123.9 | 1222.8 | 1446.6 | 1741.1 | 1763.2 | 1721.3 |
| 30°   | 1272.8 | 1261.6 | 1255.4 | 1219.7 | 1194.5 | 1196.4 | 1280.2 | 1498.2 | 1856.3 | 1892.0 | 1838.8 |
| 32.5° | 1441.2 | 1423.7 | 1407.1 | 1348.5 | 1302.3 | 1287.2 | 1354.3 | 1569.6 | 1981.2 | 2038.2 | 1970.0 |
| 35°   | 1629.7 | 1615.8 | 1597.9 | 1507.5 | 1436.5 | 1401.6 | 1454.4 | 1669.3 | 2127.5 | 2217.9 | 2129.0 |
| 37.5° | 1811.3 | 1799.3 | 1807.8 | 1686.0 | 1594.4 | 1543.6 | 1585.5 | 1803.2 | 2307.9 | 2441.3 | 2328.4 |
| 40°   | 1999.1 | 1989.8 | 1990.9 | 1874.5 | 1767.9 | 1710.8 | 1744.6 | 1971.1 | 2514.6 | 2707.1 | 2568.2 |
| 42.5° | 2203.1 | 2196.1 | 2172.9 | 2069.7 | 1949.8 | 1896.6 | 1927.7 | 2165.1 | 2736.5 | 3009.7 | 2831.2 |
| 45°   | 2431.6 | 2427.4 | 2405.6 | 2287.3 | 2150.0 | 2090.2 | 2132.1 | 2379.2 | 2959.6 | 3294.4 | 3095.4 |
| 47.5° | 2629.1 | 2632.6 | 2629.9 | 2530.2 | 2387.8 | 2300.1 | 2350.2 | 2602.7 | 3167.2 | 3562.1 | 3348.7 |
| 50°   | 2724.1 | 2742.4 | 2769.1 | 2738.1 | 2649.6 | 2560.4 | 2570.1 | 2818.4 | 3365.0 | 3813.1 | 3591.6 |
| 52.5° | 2674.5 | 2709.0 | 2781.9 | 2831.6 | 2865.7 | 2847.1 | 2821.1 | 3032.5 | 3551.2 | 4039.6 | 3821.2 |
| 55°   | 2489.4 | 2537.9 | 2659.0 | 2778.8 | 2953.0 | 3088.4 | 3122.5 | 3270.0 | 3732.8 | 4239.0 | 4038.5 |
| 57.5° | 2152.3 | 2231.1 | 2339.7 | 2582.1 | 2875.4 | 3205.2 | 3474.0 | 3599.3 | 3925.2 | 4452.0 | 4265.8 |
| 60°   | 1574.3 | 1679.8 | 1814.8 | 2175.6 | 2603.9 | 3142.7 | 3773.1 | 4105.2 | 4198.7 | 4727.9 | 4561.8 |
| 62.5° | 1007.5 | 1072.7 | 1196.8 | 1536.6 | 2028.9 | 2822.7 | 3864.7 | 4737.5 | 4662.3 | 5180.2 | 5005.6 |
| 65°   | 689.8  | 731.7  | 845.3  | 1036.2 | 1311.6 | 2101.1 | 3619.5 | 5211.6 | 5398.6 | 5897.1 | 5764.4 |
| 67.5° | 501.2  | 533.0  | 630.0  | 797.2  | 854.6  | 1243.4 | 2808.7 | 5189.9 | 6114.4 | 6635.7 | 6429.4 |
| 70°   | 365.4  | 387.9  | 469.4  | 630.0  | 657.6  | 691.7  | 1701.5 | 4411.7 | 6098.8 | 6832.0 | 6584.9 |
| 72.5° | 270.8  | 286.3  | 341.0  | 488.8  | 532.3  | 467.1  | 842.2  | 3206.3 | 5240.7 | 6179.5 | 5981.3 |
| 75°   | 195.9  | 207.5  | 247.9  | 374.0  | 426.0  | 355.7  | 420.1  | 1873.8 | 3655.6 | 4346.9 | 4381.8 |
| 77.5° | 149.7  | 158.7  | 185.0  | 273.9  | 341.0  | 266.9  | 260.7  | 862.0  | 1733.3 | 1741.9 | 1839.6 |
| 80°   | 120.3  | 126.1  | 140.4  | 192.8  | 261.5  | 199.8  | 169.9  | 348.0  | 547.8  | 463.6  | 486.5  |
| 82.5° | 88.5   | 98.1   | 118.7  | 135.4  | 187.0  | 137.7  | 103.6  | 175.7  | 208.3  | 179.2  | 180.8  |
| 85°   | 50.4   | 57.0   | 71.8   | 97.0   | 119.5  | 84.2   | 59.4   | 78.0   | 97.0   | 79.5   | 71.0   |
| 87.5° | 17.8   | 23.3   | 25.2   | 38.0   | 52.0   | 34.9   | 22.9   | 22.5   | 31.8   | 23.7   | 19.8   |
| 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°    | 1071.9 | 1071.9 | 1071.9 | 1071.9 | 1071.9 | 1071.9 | 1071.9 | 1071.9 | 1071.9 | 1071.9 | 1071.9 |
| 2.5°  | 1079.6 | 1077.7 | 1069.9 | 1059.5 | 1048.6 | 1038.1 | 1034.6 | 1027.3 | 1022.2 | 1019.5 | 1022.6 |
| 5°    | 1101.4 | 1095.2 | 1076.9 | 1053.7 | 1029.2 | 1002.8 | 984.2  | 967.1  | 954.7  | 943.1  | 947.7  |
| 7.5°  | 1132.4 | 1121.5 | 1090.1 | 1049.4 | 1005.9 | 962.1  | 929.5  | 904.7  | 888.0  | 877.1  | 879.5  |
| 10°   | 1168.5 | 1151.8 | 1103.7 | 1042.8 | 975.7  | 912.8  | 874.4  | 853.1  | 842.6  | 836.8  | 838.3  |
| 12.5° | 1210.0 | 1186.3 | 1117.7 | 1027.7 | 929.5  | 857.7  | 831.4  | 825.2  | 825.5  | 825.9  | 826.7  |
| 15°   | 1261.2 | 1228.2 | 1128.9 | 994.7  | 869.4  | 815.5  | 810.8  | 820.9  | 831.4  | 836.4  | 836.0  |
| 17.5° | 1319.0 | 1272.5 | 1130.9 | 940.4  | 810.4  | 788.3  | 803.0  | 824.8  | 840.7  | 847.7  | 849.2  |
| 20°   | 1381.1 | 1317.5 | 1116.9 | 863.6  | 761.9  | 766.2  | 792.6  | 820.5  | 838.0  | 846.9  | 849.2  |
| 22.5° | 1452.1 | 1365.6 | 1083.5 | 782.9  | 722.3  | 742.1  | 773.2  | 800.3  | 818.6  | 827.5  | 829.8  |
| 25°   | 1533.1 | 1419.5 | 1031.2 | 715.0  | 688.2  | 715.0  | 746.0  | 768.5  | 783.3  | 791.4  | 793.7  |
| 27.5° | 1623.1 | 1475.7 | 961.3  | 661.1  | 658.3  | 687.0  | 712.6  | 730.1  | 737.9  | 744.1  | 746.4  |
| 30°   | 1713.5 | 1526.9 | 876.7  | 620.3  | 632.3  | 659.5  | 677.7  | 685.5  | 687.8  | 689.0  | 691.7  |
| 32.5° | 1811.3 | 1571.2 | 787.9  | 586.6  | 607.5  | 632.7  | 643.6  | 647.1  | 636.2  | 628.9  | 631.2  |
| 35°   | 1929.6 | 1618.5 | 701.0  | 559.8  | 583.1  | 604.8  | 608.3  | 605.2  | 592.4  | 577.3  | 578.0  |
| 37.5° | 2075.9 | 1677.5 | 631.6  | 540.8  | 560.2  | 574.5  | 570.3  | 569.5  | 570.7  | 552.8  | 554.0  |
| 40°   | 2255.1 | 1754.3 | 580.7  | 526.0  | 541.6  | 544.7  | 532.6  | 539.2  | 545.1  | 517.9  | 518.7  |
| 42.5° | 2454.1 | 1847.0 | 548.6  | 516.0  | 526.0  | 518.7  | 500.1  | 507.4  | 506.7  | 471.0  | 470.6  |
| 45°   | 2657.0 | 1947.9 | 537.3  | 508.6  | 511.7  | 497.0  | 476.4  | 478.3  | 462.0  | 429.8  | 431.0  |
| 47.5° | 2858.7 | 2056.1 | 544.3  | 502.4  | 493.9  | 477.2  | 461.3  | 452.7  | 428.7  | 404.6  | 404.6  |
| 50°   | 3056.6 | 2169.8 | 569.9  | 490.0  | 469.4  | 459.7  | 448.1  | 432.9  | 407.3  | 386.8  | 385.2  |
| 52.5° | 3240.1 | 2284.2 | 598.6  | 469.4  | 438.8  | 444.6  | 437.2  | 419.8  | 394.5  | 373.6  | 374.0  |
| 55°   | 3413.9 | 2398.6 | 609.8  | 441.1  | 410.1  | 431.4  | 427.1  | 394.9  | 364.7  | 347.6  | 346.0  |
| 57.5° | 3603.2 | 2536.4 | 597.4  | 405.0  | 386.8  | 416.3  | 400.0  | 364.3  | 346.8  | 334.0  | 332.9  |
| 60°   | 3865.5 | 2752.4 | 570.7  | 360.4  | 364.7  | 393.8  | 365.8  | 351.1  | 332.1  | 317.7  | 316.9  |
| 62.5° | 4301.1 | 3155.5 | 527.6  | 316.2  | 338.7  | 360.4  | 349.5  | 334.8  | 315.4  | 301.4  | 301.4  |
| 65°   | 4945.1 | 3715.7 | 446.5  | 281.6  | 309.6  | 327.8  | 332.1  | 317.3  | 297.2  | 282.4  | 283.2  |
| 67.5° | 5488.2 | 4067.2 | 337.9  | 252.9  | 279.7  | 301.4  | 313.5  | 299.1  | 277.8  | 263.4  | 263.8  |
| 70°   | 5458.3 | 3811.9 | 258.0  | 224.6  | 253.3  | 275.4  | 291.0  | 279.7  | 256.8  | 243.2  | 244.4  |
| 72.5° | 4848.1 | 3188.9 | 208.7  | 195.9  | 226.6  | 248.3  | 266.9  | 258.4  | 235.1  | 221.9  | 221.9  |
| 75°   | 3561.7 | 2263.6 | 166.8  | 166.8  | 193.2  | 220.0  | 240.5  | 235.1  | 213.8  | 204.4  | 201.7  |
| 77.5° | 1501.3 | 949.7  | 130.7  | 138.5  | 160.6  | 188.9  | 214.5  | 216.5  | 197.9  | 209.5  | 190.1  |
| 80°   | 399.2  | 261.9  | 99.7   | 109.0  | 126.1  | 156.0  | 186.6  | 185.8  | 165.7  | 154.8  | 143.9  |
| 82.5° | 152.1  | 103.2  | 71.0   | 76.8   | 91.2   | 119.5  | 147.8  | 152.5  | 132.3  | 114.4  | 114.4  |
| 85°   | 58.6   | 44.2   | 43.8   | 46.2   | 53.1   | 79.1   | 111.7  | 115.6  | 99.7   | 84.6   | 87.3   |
| 87.5° | 15.1   | 13.2   | 16.3   | 15.5   | 24.4   | 42.3   | 64.0   | 66.3   | 60.9   | 35.3   | 50.4   |
| 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)