

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: P882441

Luminaire Tested: **NAV-SB2B-760-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882441  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2B-760-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 5700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

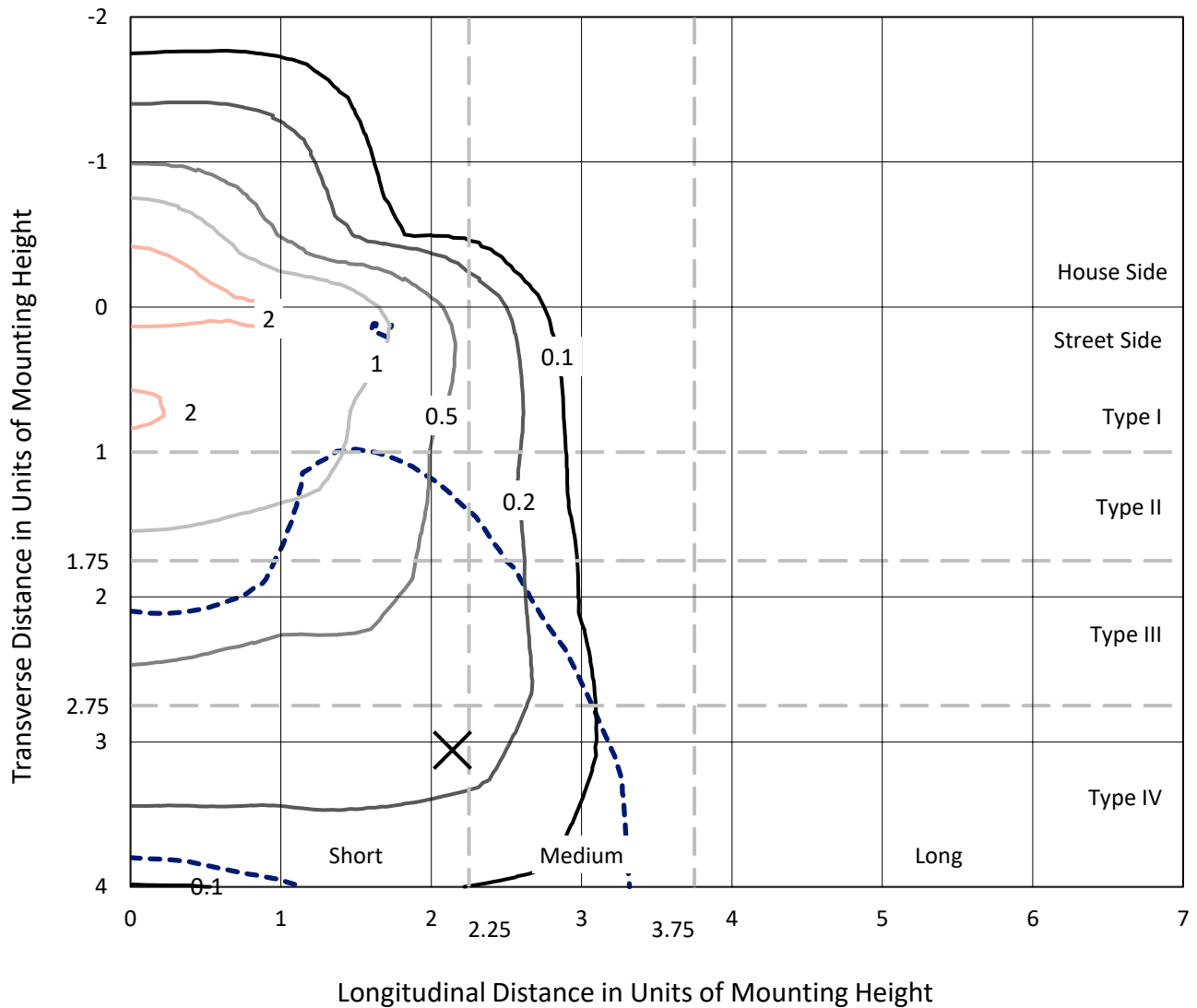
Lumens per Lamp: N/A  
Luminaire Lumens: 12229 lumens  
Efficiency: N/A  
Efficacy: 165.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 73.9  
Input Voltage (V): 120.0  
Input Current (Ain): 0.627  
Voltage Rise (V): NR  
Power Factor: 0.988  
Total Harmonic Distortion (THDi): 13.593  
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

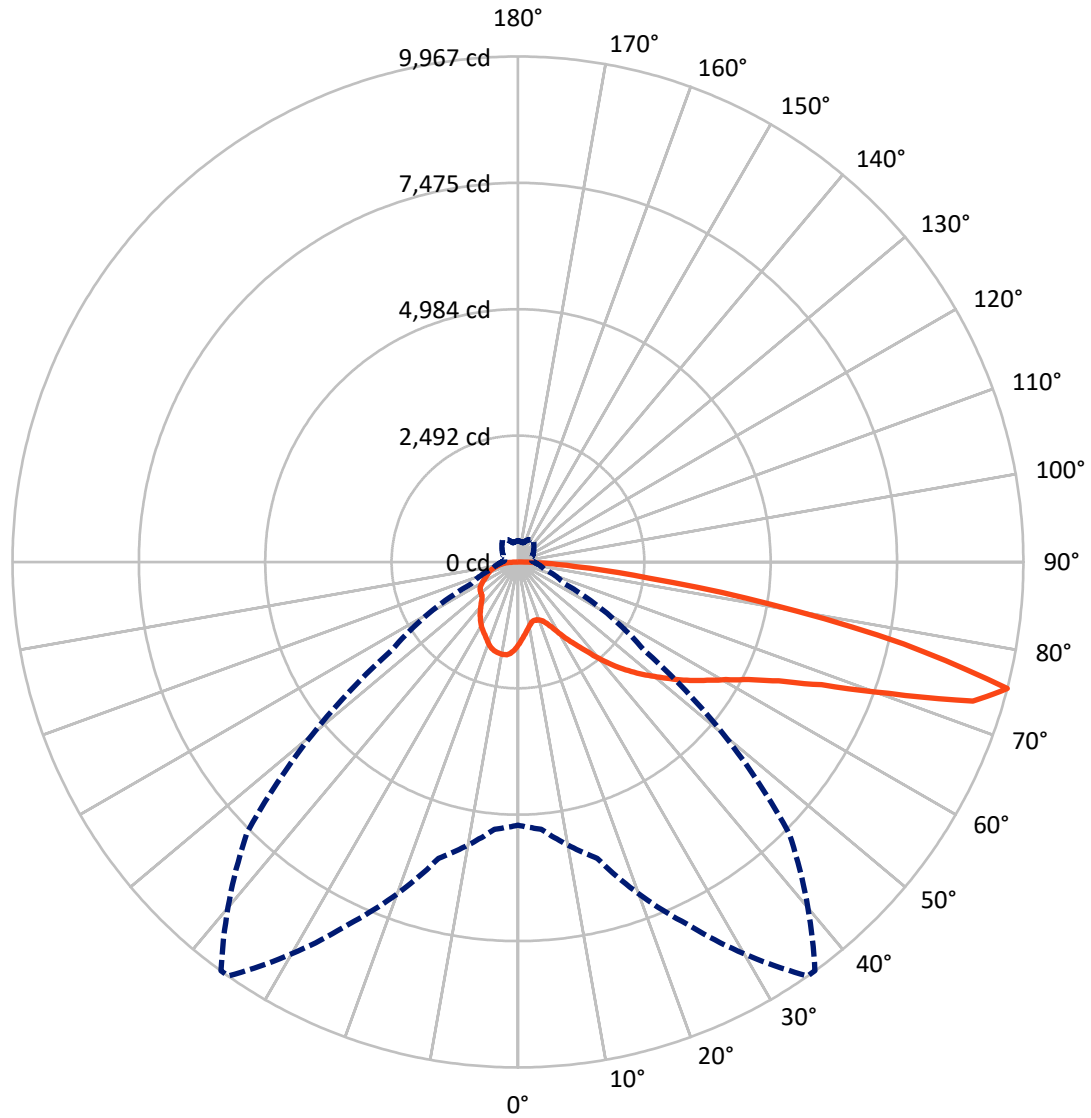
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2910.2   | 0.0    | 2910.2  |
|                    | % Fixture | 23.8     | 0.0    | 23.8    |
| <b>Street Side</b> | Lumens    | 9318.8   | 0.0    | 9318.8  |
|                    | % Fixture | 76.2     | 0.0    | 76.2    |
| <b>Total</b>       | Lumens    | 12229.0  | 0.0    | 12229.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 154.3   | 1.3       |
| 10°-20°   | 445.0   | 3.6       |
| 20°-30°   | 747.3   | 6.1       |
| 30°-40°   | 1161.5  | 9.5       |
| 40°-50°   | 1723.9  | 14.1      |
| 50°-60°   | 2380.0  | 19.5      |
| 60°-70°   | 2887.5  | 23.6      |
| 70°-80°   | 2386.3  | 19.5      |
| 80°-90°   | 343.2   | 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°    | 12229.0 | 100.0     |
| 0°-180°   | 12229.0 | 100.0     |

**Coefficient of Utilization**



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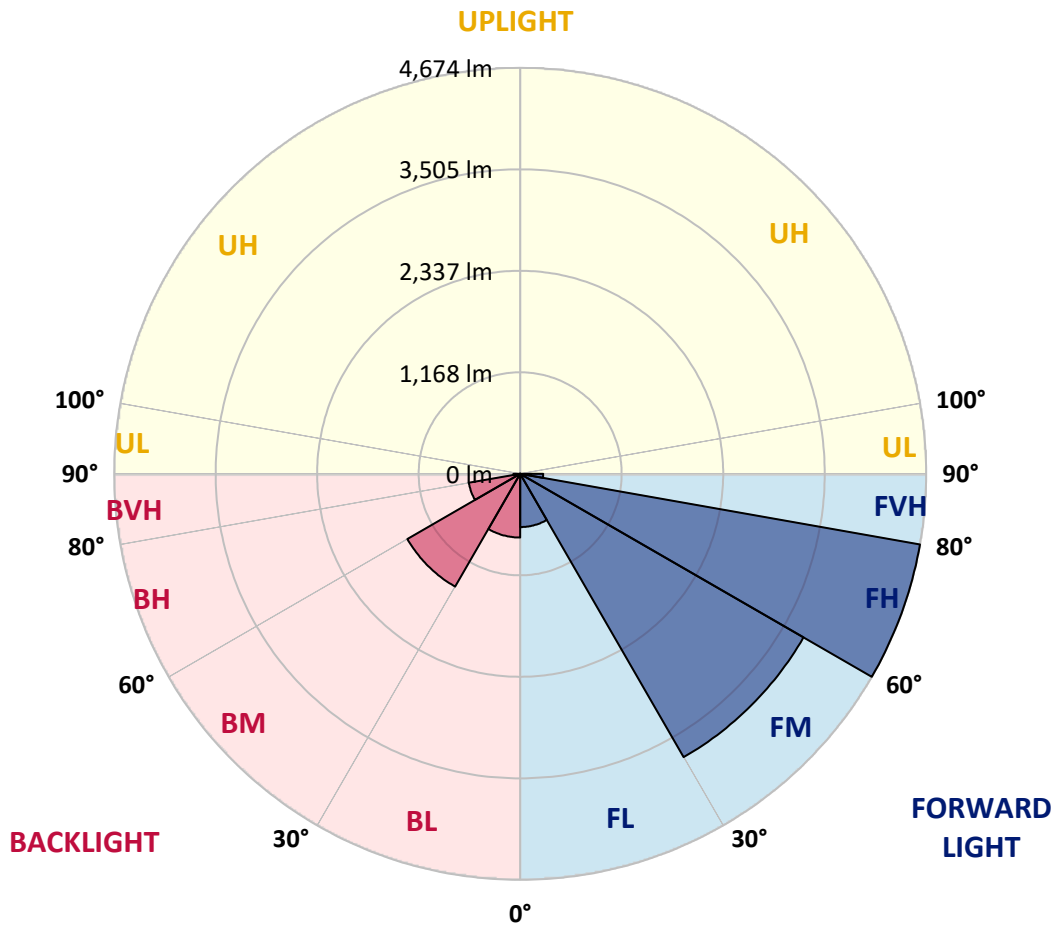
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 613.3  | 5.0       |                         |      |         |
| FM (30°-60°)   | 3765.9 | 30.8      |                         |      |         |
| FH (60°-80°)   | 4673.7 | 38.2      |                         |      | G2/5000 |
| FVH (80°-90°)  | 265.9  | 2.2       |                         |      | G3/500  |
| BL (0°-30°)    | 733.4  | 6.0       | B2/1000                 |      |         |
| BM (30°-60°)   | 1499.5 | 12.3      | B2/2500                 |      |         |
| BH (60°-80°)   | 600.0  | 4.9       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 77.3   | 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-G3**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 36°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1629.6 | 1629.6 | 1629.6 | 1629.6 | 1629.6 | 1629.6 | 1629.6 | 1629.6 | 1629.6 | 1629.6 | 1629.6 |
| 2.5°  | 1502.7 | 1511.9 | 1515.9 | 1513.9 | 1523.8 | 1522.5 | 1536.4 | 1553.6 | 1577.4 | 1600.5 | 1634.2 |
| 5°    | 1387.0 | 1396.9 | 1405.5 | 1413.4 | 1432.6 | 1438.5 | 1460.4 | 1493.4 | 1537.0 | 1581.3 | 1636.9 |
| 7.5°  | 1279.2 | 1287.8 | 1301.0 | 1315.6 | 1348.0 | 1353.9 | 1390.3 | 1441.8 | 1502.7 | 1567.5 | 1644.1 |
| 10°   | 1191.3 | 1199.9 | 1213.8 | 1230.3 | 1270.6 | 1277.9 | 1324.2 | 1392.9 | 1472.3 | 1554.2 | 1652.1 |
| 12.5° | 1153.6 | 1156.3 | 1164.2 | 1180.7 | 1215.8 | 1220.4 | 1271.3 | 1350.0 | 1442.5 | 1544.3 | 1664.0 |
| 15°   | 1151.6 | 1156.9 | 1157.6 | 1166.2 | 1195.3 | 1197.2 | 1244.2 | 1322.2 | 1424.0 | 1542.3 | 1681.8 |
| 17.5° | 1171.5 | 1175.4 | 1169.5 | 1174.8 | 1199.2 | 1202.5 | 1239.6 | 1309.0 | 1418.0 | 1550.9 | 1712.2 |
| 20°   | 1224.3 | 1227.7 | 1209.8 | 1202.5 | 1220.4 | 1223.0 | 1259.4 | 1317.6 | 1424.0 | 1568.8 | 1753.9 |
| 22.5° | 1336.7 | 1338.7 | 1295.1 | 1265.3 | 1266.7 | 1268.0 | 1299.7 | 1352.6 | 1447.1 | 1601.2 | 1806.8 |
| 25°   | 1511.9 | 1510.6 | 1441.2 | 1383.7 | 1350.6 | 1343.3 | 1364.5 | 1409.5 | 1486.1 | 1644.1 | 1874.9 |
| 27.5° | 1716.9 | 1706.9 | 1637.5 | 1551.6 | 1479.5 | 1469.0 | 1464.3 | 1483.5 | 1541.7 | 1701.0 | 1958.2 |
| 30°   | 1948.2 | 1939.0 | 1864.3 | 1751.9 | 1652.1 | 1634.9 | 1591.3 | 1581.3 | 1624.3 | 1778.3 | 2073.9 |
| 32.5° | 2202.1 | 2196.2 | 2106.9 | 1970.7 | 1837.2 | 1817.3 | 1744.0 | 1717.5 | 1751.2 | 1895.4 | 2235.2 |
| 35°   | 2415.0 | 2409.7 | 2335.6 | 2195.5 | 2032.2 | 2007.7 | 1933.0 | 1903.3 | 1920.5 | 2045.4 | 2446.0 |
| 37.5° | 2607.4 | 2604.7 | 2541.2 | 2430.8 | 2262.3 | 2232.5 | 2148.6 | 2138.6 | 2135.3 | 2243.1 | 2701.9 |
| 40°   | 2785.9 | 2779.2 | 2713.1 | 2655.0 | 2530.0 | 2502.9 | 2428.9 | 2420.3 | 2395.1 | 2486.4 | 2991.5 |
| 42.5° | 2983.5 | 2966.3 | 2870.5 | 2843.4 | 2809.6 | 2787.2 | 2742.9 | 2744.2 | 2688.7 | 2760.7 | 3298.2 |
| 45°   | 3144.8 | 3134.9 | 3036.4 | 3020.5 | 3056.9 | 3047.6 | 3086.0 | 3095.9 | 2988.1 | 3048.3 | 3616.8 |
| 47.5° | 3318.0 | 3308.8 | 3225.5 | 3214.2 | 3312.7 | 3315.4 | 3450.9 | 3454.2 | 3280.3 | 3347.1 | 3936.2 |
| 50°   | 3531.6 | 3518.3 | 3435.7 | 3449.6 | 3560.0 | 3569.9 | 3817.8 | 3795.3 | 3549.4 | 3650.6 | 4252.8 |
| 52.5° | 3672.4 | 3680.3 | 3662.5 | 3684.9 | 3835.7 | 3844.9 | 4178.8 | 4121.3 | 3815.8 | 3950.0 | 4563.5 |
| 55°   | 3776.2 | 3792.0 | 3847.6 | 3899.1 | 4126.5 | 4135.8 | 4519.2 | 4431.3 | 4036.6 | 4227.7 | 4855.7 |
| 57.5° | 3909.7 | 3887.2 | 3991.0 | 4091.5 | 4402.9 | 4427.3 | 4850.4 | 4730.1 | 4232.3 | 4467.0 | 5056.0 |
| 60°   | 4101.4 | 4085.6 | 4166.2 | 4315.0 | 4712.3 | 4751.3 | 5200.8 | 4999.2 | 4375.8 | 4656.7 | 5095.1 |
| 62.5° | 4490.2 | 4450.5 | 4463.0 | 4594.6 | 5102.3 | 5153.9 | 5596.2 | 5233.9 | 4447.2 | 4730.8 | 4886.1 |
| 65°   | 5071.3 | 5003.2 | 4939.7 | 5030.9 | 5651.7 | 5702.6 | 6042.4 | 5418.3 | 4420.7 | 4587.3 | 4331.5 |
| 67.5° | 5803.1 | 5735.7 | 5657.6 | 5743.6 | 6460.9 | 6501.2 | 6593.1 | 5522.1 | 4212.5 | 4034.7 | 3351.1 |
| 70°   | 6406.7 | 6381.5 | 6474.8 | 6828.4 | 7753.3 | 7754.6 | 7299.1 | 5436.2 | 3642.0 | 2860.6 | 1939.0 |
| 72.5° | 6326.7 | 6311.5 | 6802.7 | 7896.1 | 9382.2 | 9347.2 | 7967.5 | 4785.7 | 2453.3 | 1290.5 | 726.5  |
| 75°   | 5190.2 | 5288.8 | 6049.7 | 7876.9 | 9967.3 | 9962.7 | 7558.3 | 3042.4 | 1014.8 | 534.8  | 375.5  |
| 77.5° | 2783.2 | 2939.2 | 3927.6 | 5815.6 | 7781.1 | 7898.1 | 5313.9 | 1064.4 | 435.7  | 342.4  | 259.8  |
| 80°   | 907.7  | 1043.9 | 1565.5 | 2961.0 | 5056.0 | 5034.2 | 2277.5 | 417.8  | 298.2  | 242.6  | 179.8  |
| 82.5° | 385.4  | 401.3  | 699.4  | 1398.2 | 2594.8 | 2554.5 | 725.2  | 240.0  | 209.6  | 165.9  | 111.1  |
| 85°   | 150.7  | 168.6  | 308.7  | 646.6  | 1123.9 | 1099.4 | 261.8  | 119.0  | 134.2  | 108.4  | 66.1   |
| 87.5° | 49.6   | 60.2   | 110.4  | 221.5  | 349.7  | 337.2  | 64.1   | 41.0   | 58.2   | 49.6   | 23.8   |
| 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°    | 1629.6 | 1629.6 | 1629.6 | 1629.6 | 1629.6 | 1629.6 | 1629.6 | 1629.6 | 1629.6 | 1629.6 | 1629.6 |
| 2.5°  | 1643.5 | 1654.1 | 1666.6 | 1685.1 | 1701.0 | 1714.2 | 1728.1 | 1736.7 | 1740.0 | 1749.9 | 1749.3 |
| 5°    | 1655.4 | 1678.5 | 1709.6 | 1740.0 | 1769.7 | 1787.6 | 1803.5 | 1811.4 | 1818.7 | 1824.0 | 1825.3 |
| 7.5°  | 1675.2 | 1705.0 | 1753.9 | 1793.5 | 1818.7 | 1833.2 | 1843.8 | 1841.1 | 1843.8 | 1845.1 | 1847.1 |
| 10°   | 1692.4 | 1734.0 | 1792.2 | 1829.9 | 1849.1 | 1849.7 | 1847.1 | 1837.8 | 1833.2 | 1833.9 | 1835.2 |
| 12.5° | 1712.9 | 1759.2 | 1822.0 | 1853.7 | 1859.0 | 1844.5 | 1833.2 | 1817.3 | 1811.4 | 1808.8 | 1807.4 |
| 15°   | 1740.7 | 1793.5 | 1854.4 | 1866.3 | 1853.0 | 1834.5 | 1815.4 | 1789.6 | 1776.4 | 1765.8 | 1769.1 |
| 17.5° | 1774.4 | 1832.6 | 1879.5 | 1870.9 | 1842.5 | 1812.1 | 1781.0 | 1742.0 | 1714.9 | 1703.6 | 1704.3 |
| 20°   | 1821.3 | 1873.5 | 1898.7 | 1861.0 | 1818.0 | 1771.7 | 1718.8 | 1671.2 | 1646.1 | 1634.9 | 1633.6 |
| 22.5° | 1878.2 | 1928.4 | 1917.2 | 1843.8 | 1783.0 | 1708.9 | 1642.8 | 1607.8 | 1595.2 | 1587.3 | 1588.6 |
| 25°   | 1946.3 | 1989.2 | 1930.4 | 1818.7 | 1725.5 | 1625.6 | 1574.7 | 1563.5 | 1557.5 | 1551.6 | 1551.6 |
| 27.5° | 2034.8 | 2058.0 | 1940.3 | 1781.6 | 1635.5 | 1537.0 | 1518.5 | 1520.5 | 1518.5 | 1508.6 | 1510.6 |
| 30°   | 2151.9 | 2147.2 | 1949.6 | 1721.5 | 1532.4 | 1457.1 | 1458.4 | 1467.0 | 1468.3 | 1461.7 | 1465.0 |
| 32.5° | 2305.9 | 2259.0 | 1954.2 | 1643.5 | 1433.9 | 1387.0 | 1388.3 | 1397.6 | 1404.2 | 1392.9 | 1398.2 |
| 35°   | 2492.3 | 2389.2 | 1946.9 | 1545.6 | 1357.9 | 1320.2 | 1310.3 | 1312.9 | 1314.9 | 1304.3 | 1311.6 |
| 37.5° | 2709.8 | 2535.3 | 1914.5 | 1437.2 | 1295.1 | 1254.8 | 1233.6 | 1215.8 | 1205.2 | 1195.3 | 1201.9 |
| 40°   | 2948.5 | 2694.6 | 1855.0 | 1331.4 | 1225.0 | 1185.3 | 1153.6 | 1119.9 | 1084.2 | 1071.0 | 1076.9 |
| 42.5° | 3198.4 | 2858.6 | 1783.0 | 1230.3 | 1144.4 | 1112.0 | 1078.2 | 1029.3 | 975.8  | 948.7  | 952.0  |
| 45°   | 3457.5 | 3026.5 | 1712.2 | 1130.5 | 1061.7 | 1047.8 | 1008.8 | 950.0  | 891.8  | 857.4  | 854.8  |
| 47.5° | 3711.4 | 3185.2 | 1608.4 | 1030.0 | 984.4  | 999.6  | 969.2  | 915.0  | 850.2  | 796.0  | 790.0  |
| 50°   | 3954.0 | 3333.9 | 1438.5 | 928.2  | 921.6  | 985.0  | 955.9  | 877.9  | 803.9  | 734.5  | 728.5  |
| 52.5° | 4194.6 | 3454.2 | 1221.0 | 835.6  | 887.8  | 981.1  | 938.8  | 852.8  | 762.2  | 689.5  | 681.6  |
| 55°   | 4398.9 | 3516.4 | 1011.5 | 756.3  | 838.9  | 947.3  | 918.3  | 823.1  | 703.4  | 626.1  | 619.4  |
| 57.5° | 4515.3 | 3466.1 | 836.9  | 678.3  | 771.5  | 891.8  | 883.2  | 759.6  | 633.3  | 573.8  | 565.9  |
| 60°   | 4465.0 | 3262.5 | 694.1  | 610.2  | 707.4  | 831.7  | 822.4  | 696.8  | 579.8  | 523.6  | 515.7  |
| 62.5° | 4188.0 | 2874.4 | 581.1  | 550.7  | 649.2  | 770.2  | 761.6  | 648.5  | 538.8  | 484.6  | 476.0  |
| 65°   | 3630.1 | 2338.3 | 493.2  | 501.1  | 590.4  | 696.1  | 708.7  | 608.2  | 506.4  | 453.5  | 444.9  |
| 67.5° | 2768.7 | 1693.7 | 424.4  | 458.1  | 532.8  | 623.4  | 659.8  | 579.1  | 479.3  | 429.1  | 421.1  |
| 70°   | 1578.0 | 961.9  | 366.2  | 416.5  | 481.9  | 556.0  | 622.1  | 556.0  | 450.2  | 408.6  | 403.3  |
| 72.5° | 598.3  | 441.6  | 316.7  | 374.8  | 433.0  | 499.1  | 580.4  | 519.6  | 416.5  | 385.4  | 380.1  |
| 75°   | 319.3  | 269.1  | 266.4  | 325.9  | 376.8  | 443.6  | 528.2  | 483.9  | 391.4  | 407.2  | 420.5  |
| 77.5° | 217.5  | 190.4  | 222.8  | 279.0  | 315.3  | 382.1  | 472.7  | 429.7  | 339.1  | 337.8  | 311.4  |
| 80°   | 150.7  | 134.9  | 181.1  | 224.8  | 243.9  | 321.3  | 412.5  | 368.9  | 276.3  | 257.8  | 246.6  |
| 82.5° | 90.6   | 87.9   | 135.5  | 167.9  | 172.5  | 247.9  | 341.8  | 309.4  | 226.1  | 197.0  | 198.3  |
| 85°   | 49.6   | 52.2   | 86.6   | 98.5   | 100.5  | 173.2  | 267.7  | 239.3  | 173.9  | 146.1  | 147.4  |
| 87.5° | 13.9   | 17.8   | 31.7   | 39.0   | 48.3   | 89.9   | 159.3  | 142.1  | 87.3   | 60.8   | 60.8   |
| 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)