

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: P966231

Luminaire Tested: **NAV-SB4B-760-U-SL2**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P966231  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4B-760-U-SL2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 5700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24325.3 lumens  
Efficiency: N/A  
Efficacy: 165.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3

Input Watts (W): 147  
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

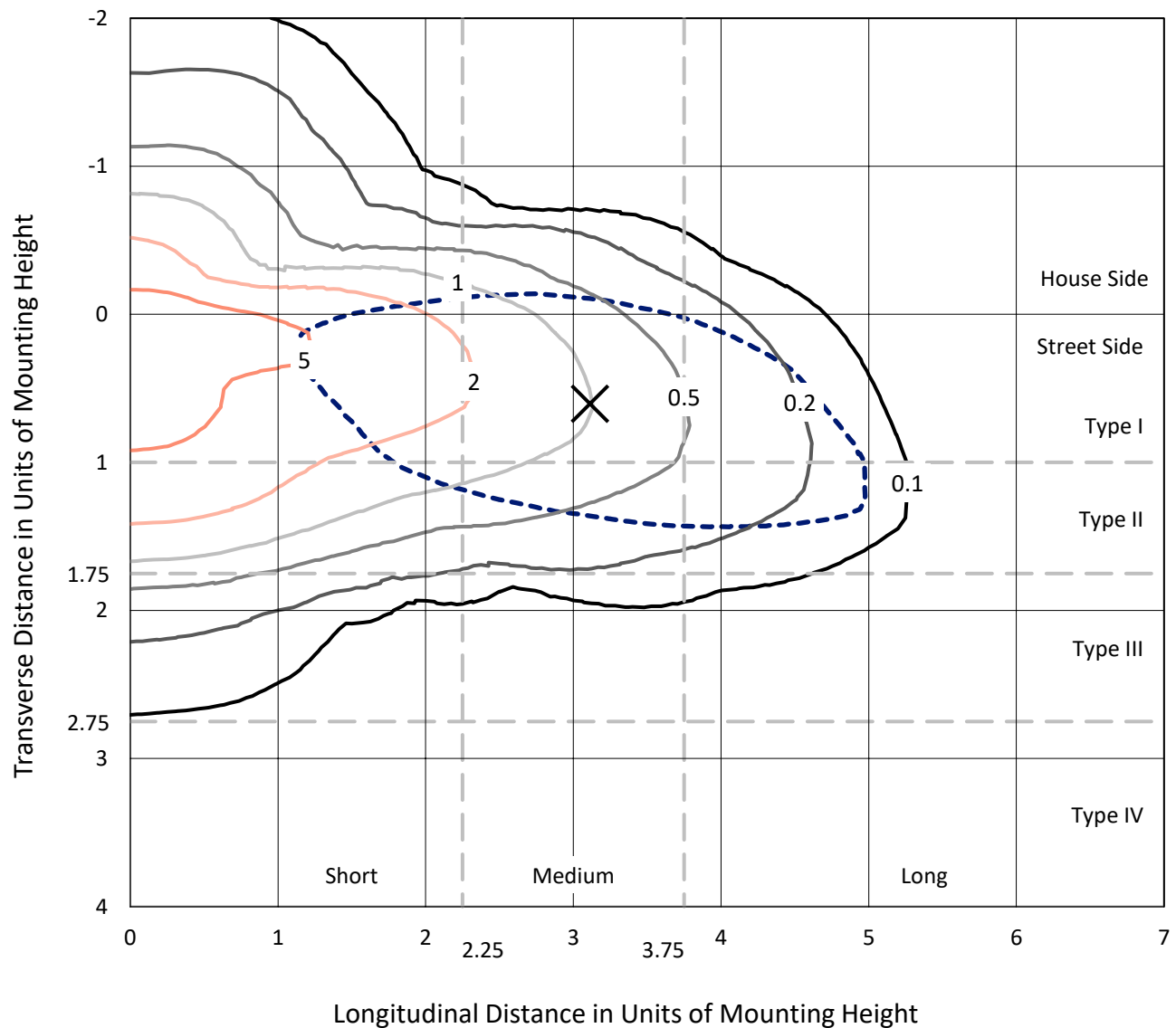


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## Iso-Footcandle Lines of Horizontal Illumination

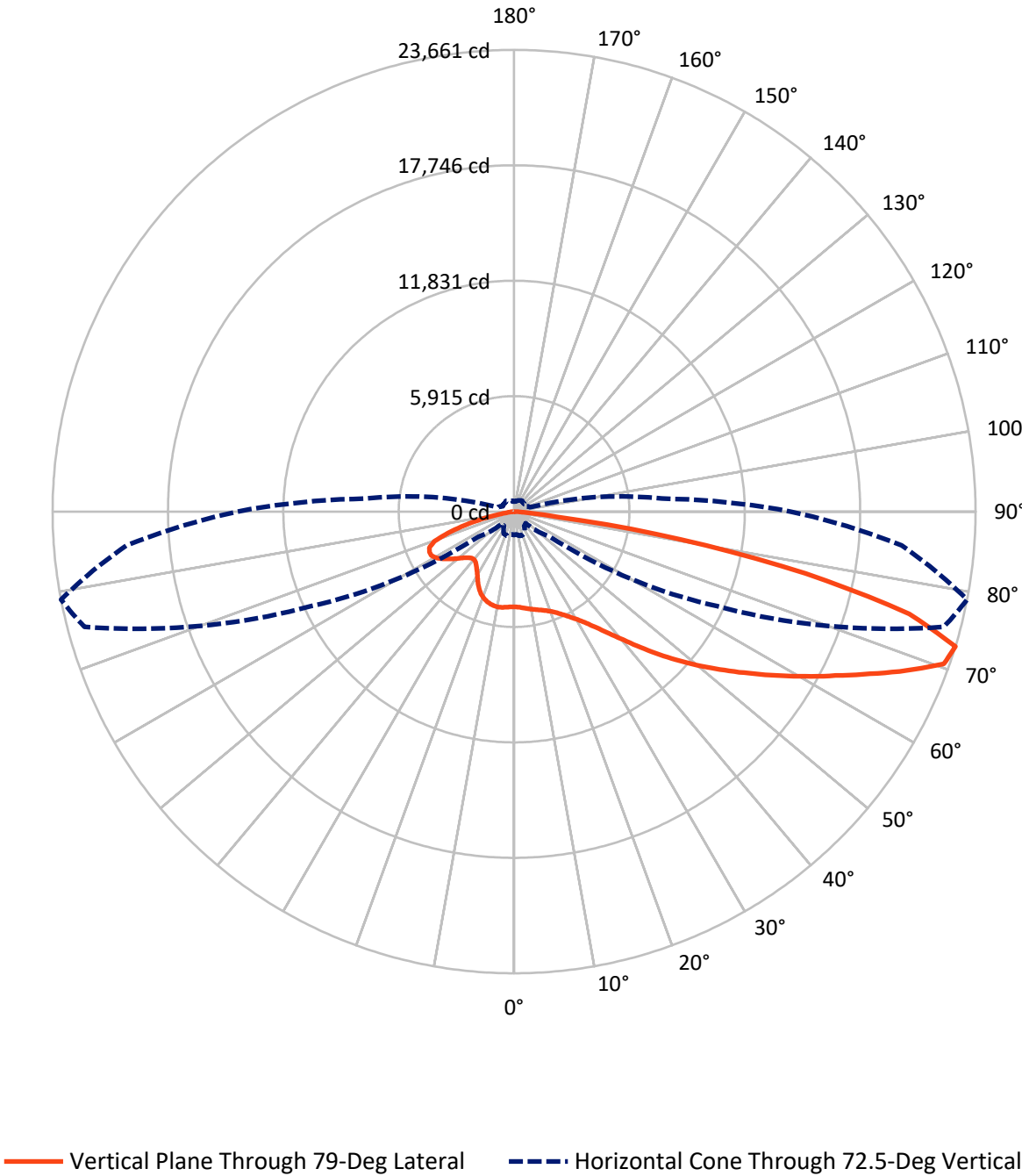
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 fc  
Type II - 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    | 5352.9   | 0.0    | 5352.9  |
|                    | % Fixture | 22.0     | 0.0    | 22.0    |
| <b>Street Side</b> | Lumens    | 18972.4  | 0.0    | 18972.4 |
|                    | % Fixture | 78.0     | 0.0    | 78.0    |
| <b>Total</b>       | Lumens    | 24325.3  | 0.0    | 24325.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 443.2   | 1.8       |
| 10°-20°   | 1158.9  | 4.8       |
| 20°-30°   | 1869.9  | 7.7       |
| 30°-40°   | 2806.5  | 11.5      |
| 40°-50°   | 3981.2  | 16.4      |
| 50°-60°   | 5027.7  | 20.7      |
| 60°-70°   | 5106.3  | 21.0      |
| 70°-80°   | 3480.1  | 14.3      |
| 80°-90°   | 451.5   | 1.9       |
| 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°    | 24325.3 | 100.0     |
| 0°-180°   | 24325.3 | 100.0     |

**Coefficient of Utilization**



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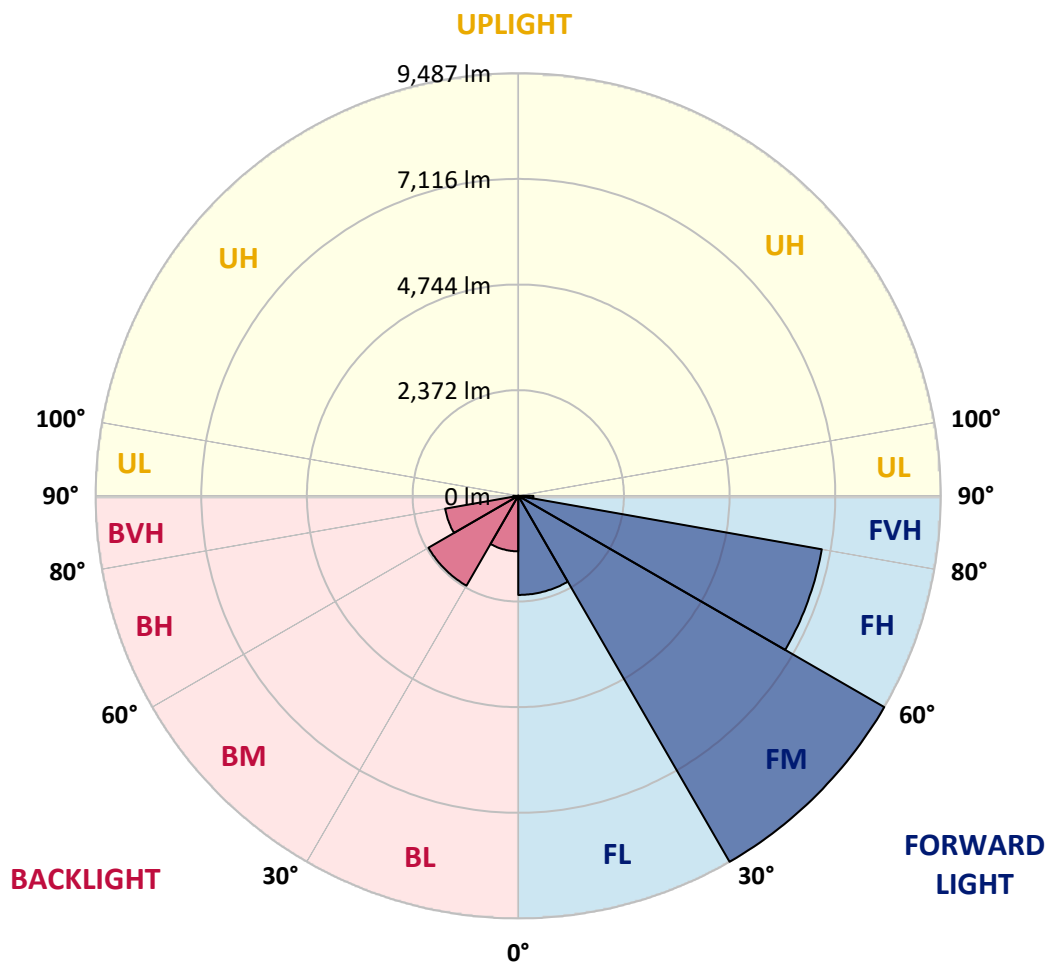
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2225.2 | 9.1       |                         |      |         |
| FM   | (30°-60°)   | 9487.4 | 39.0      |                         |      |         |
| FH   | (60°-80°)   | 6919.7 | 28.4      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 340.1  | 1.4       |                         |      | G3/500  |
| BL   | (0°-30°)    | 1246.8 | 5.1       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 2328.0 | 9.6       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 1666.7 | 6.9       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 111.4  | 0.5       |                         |      | G2/225  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G3**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°     | 75°     | 79°     | 85°     |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| 0°    | 4883.1 | 4883.1 | 4883.1 | 4883.1 | 4883.1 | 4883.1 | 4883.1 | 4883.1  | 4883.1  | 4883.1  | 4883.1  |
| 2.5°  | 4885.7 | 4862.5 | 4876.6 | 4871.5 | 4878.0 | 4885.7 | 4888.2 | 4892.1  | 4904.9  | 4903.7  | 4902.4  |
| 5°    | 4875.3 | 4852.1 | 4871.5 | 4865.1 | 4881.8 | 4899.8 | 4915.3 | 4929.4  | 4950.0  | 4959.0  | 4946.1  |
| 7.5°  | 4853.5 | 4838.0 | 4857.4 | 4876.6 | 4907.5 | 4934.6 | 4956.4 | 4988.6  | 5018.2  | 5023.3  | 5032.3  |
| 10°   | 4726.1 | 4714.5 | 4759.6 | 4809.7 | 4894.7 | 4968.0 | 5015.6 | 5052.9  | 5085.1  | 5090.3  | 5103.1  |
| 12.5° | 4593.5 | 4579.4 | 4629.6 | 4697.8 | 4835.4 | 4968.0 | 5068.3 | 5117.2  | 5145.6  | 5162.3  | 5181.6  |
| 15°   | 4571.7 | 4560.1 | 4588.4 | 4647.6 | 4762.2 | 4933.2 | 5104.4 | 5194.5  | 5218.9  | 5238.2  | 5246.0  |
| 17.5° | 4677.2 | 4655.3 | 4666.9 | 4687.5 | 4754.4 | 4901.0 | 5132.7 | 5281.9  | 5319.2  | 5339.8  | 5339.8  |
| 20°   | 4921.6 | 4890.8 | 4872.7 | 4831.6 | 4820.1 | 4906.3 | 5130.1 | 5387.5  | 5436.4  | 5462.1  | 5468.5  |
| 22.5° | 5247.2 | 5226.6 | 5188.0 | 5083.8 | 4970.5 | 4969.3 | 5179.0 | 5522.6  | 5613.9  | 5638.4  | 5622.9  |
| 25°   | 5641.0 | 5610.0 | 5561.1 | 5419.6 | 5202.2 | 5094.0 | 5261.3 | 5695.0  | 5848.1  | 5854.5  | 5809.5  |
| 27.5° | 6093.8 | 6047.5 | 5980.7 | 5794.0 | 5500.7 | 5289.7 | 5387.5 | 5893.1  | 6117.0  | 6114.4  | 6021.8  |
| 30°   | 6571.3 | 6524.9 | 6454.1 | 6227.7 | 5858.4 | 5553.4 | 5562.5 | 6106.7  | 6436.2  | 6421.9  | 6263.7  |
| 32.5° | 6920.0 | 6885.2 | 6871.1 | 6696.0 | 6270.1 | 5864.8 | 5763.2 | 6343.5  | 6829.9  | 6817.0  | 6595.7  |
| 35°   | 7187.6 | 7142.5 | 7159.3 | 7070.4 | 6719.2 | 6213.5 | 6009.0 | 6625.3  | 7308.6  | 7307.2  | 7031.9  |
| 37.5° | 7452.7 | 7412.8 | 7426.9 | 7367.7 | 7134.8 | 6656.1 | 6308.8 | 6970.1  | 7901.7  | 7930.0  | 7559.5  |
| 40°   | 7694.6 | 7652.0 | 7708.7 | 7653.4 | 7457.8 | 7127.1 | 6649.7 | 7360.0  | 8588.8  | 8642.8  | 8197.6  |
| 42.5° | 7839.9 | 7806.5 | 7900.4 | 7901.7 | 7738.2 | 7524.7 | 7024.1 | 7789.8  | 9384.0  | 9504.9  | 8982.6  |
| 45°   | 7890.1 | 7878.6 | 8020.1 | 8049.6 | 7986.6 | 7755.0 | 7361.2 | 8258.1  | 10241.0 | 10457.2 | 9876.8  |
| 47.5° | 7836.1 | 7814.2 | 8009.8 | 8119.1 | 8169.4 | 7863.1 | 7640.5 | 8765.1  | 11115.9 | 11432.4 | 10852.1 |
| 50°   | 7563.3 | 7520.8 | 7811.6 | 8041.9 | 8220.8 | 7933.9 | 7922.3 | 9350.6  | 12110.6 | 12456.6 | 11832.6 |
| 52.5° | 7073.0 | 7040.9 | 7371.6 | 7771.8 | 8107.5 | 7968.7 | 8238.8 | 9990.1  | 13055.0 | 13502.7 | 12837.5 |
| 55°   | 6446.4 | 6404.0 | 6768.1 | 7290.5 | 7825.8 | 7957.1 | 8555.4 | 10705.4 | 14169.3 | 14623.5 | 13875.9 |
| 57.5° | 5453.1 | 5368.1 | 5828.8 | 6446.4 | 7366.5 | 7942.8 | 8884.7 | 11417.0 | 15301.6 | 15845.9 | 14983.8 |
| 60°   | 4004.3 | 3878.2 | 4443.1 | 5175.1 | 6468.3 | 7805.2 | 9292.6 | 12214.7 | 16660.4 | 17150.6 | 16193.3 |
| 62.5° | 2331.6 | 2258.2 | 2627.5 | 3310.7 | 4875.3 | 6994.6 | 9521.6 | 13142.4 | 17995.9 | 18510.7 | 17382.2 |
| 65°   | 1810.4 | 1789.9 | 1821.9 | 1874.7 | 2713.7 | 5236.9 | 8815.3 | 14047.0 | 19694.5 | 20054.7 | 18621.3 |
| 67.5° | 1656.0 | 1640.5 | 1654.8 | 1555.6 | 1376.8 | 2916.9 | 6974.0 | 14276.1 | 21513.8 | 21732.6 | 19706.0 |
| 70°   | 1472.0 | 1454.0 | 1500.3 | 1415.4 | 1083.4 | 1326.6 | 4506.1 | 13444.8 | 22961.3 | 23371.8 | 20530.8 |
| 72.5° | 1199.2 | 1178.6 | 1286.7 | 1248.1 | 912.2  | 851.8  | 2263.3 | 11469.7 | 22809.5 | 23661.3 | 19940.1 |
| 75°   | 921.3  | 909.7  | 1038.4 | 1070.5 | 743.7  | 670.3  | 1086.0 | 8525.7  | 20072.7 | 20930.9 | 17185.4 |
| 77.5° | 715.4  | 706.4  | 772.0  | 889.1  | 599.6  | 519.9  | 667.8  | 5408.0  | 15126.5 | 15277.1 | 11842.8 |
| 80°   | 536.6  | 510.9  | 571.3  | 688.4  | 467.1  | 379.6  | 452.9  | 3153.7  | 9561.5  | 8667.3  | 5154.5  |
| 82.5° | 335.8  | 323.0  | 373.1  | 459.4  | 329.4  | 261.2  | 294.7  | 1742.2  | 3831.9  | 2256.8  | 994.7   |
| 85°   | 191.7  | 186.5  | 203.3  | 262.5  | 178.9  | 150.6  | 168.5  | 769.5   | 700.0   | 481.2   | 299.8   |
| 87.5° | 77.2   | 74.6   | 92.7   | 117.1  | 65.6   | 55.4   | 59.1   | 185.3   | 154.4   | 142.8   | 99.1    |
| 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):**

|       | 90°     | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 4883.1  | 4883.1 | 4883.1 | 4883.1 | 4883.1 | 4883.1 | 4883.1 | 4883.1 | 4883.1 | 4883.1 | 4883.1 |
| 2.5°  | 4897.2  | 4897.2 | 4879.2 | 4850.9 | 4818.7 | 4798.1 | 4764.7 | 4755.7 | 4720.9 | 4710.7 | 4727.4 |
| 5°    | 4956.4  | 4946.1 | 4890.8 | 4811.0 | 4701.7 | 4601.3 | 4490.6 | 4421.1 | 4323.3 | 4288.6 | 4314.3 |
| 7.5°  | 5031.0  | 5002.7 | 4907.5 | 4732.5 | 4503.5 | 4278.3 | 4044.1 | 3866.6 | 3696.8 | 3636.3 | 3644.0 |
| 10°   | 5099.3  | 5059.4 | 4897.2 | 4591.0 | 4194.7 | 3804.8 | 3431.7 | 3170.4 | 2972.3 | 2891.2 | 2909.3 |
| 12.5° | 5167.4  | 5094.0 | 4829.0 | 4355.5 | 3755.9 | 3227.1 | 2829.5 | 2626.2 | 2504.0 | 2406.2 | 2438.3 |
| 15°   | 5231.8  | 5128.8 | 4723.5 | 4040.2 | 3274.7 | 2738.1 | 2444.7 | 2282.7 | 2184.8 | 2120.5 | 2132.1 |
| 17.5° | 5306.4  | 5158.4 | 4565.2 | 3640.1 | 2816.6 | 2399.7 | 2160.4 | 2062.6 | 2043.3 | 2035.5 | 2040.8 |
| 20°   | 5410.7  | 5185.5 | 4356.8 | 3192.4 | 2479.5 | 2129.5 | 2006.0 | 1997.0 | 1995.7 | 1991.8 | 2004.7 |
| 22.5° | 5522.6  | 5217.7 | 4081.4 | 2785.7 | 2192.6 | 1960.9 | 1939.1 | 1921.1 | 1909.5 | 1908.2 | 1922.4 |
| 25°   | 5655.1  | 5227.9 | 3736.6 | 2452.5 | 1948.1 | 1881.2 | 1855.5 | 1828.4 | 1820.7 | 1820.7 | 1828.4 |
| 27.5° | 5783.8  | 5193.2 | 3335.1 | 2163.0 | 1810.4 | 1807.8 | 1774.4 | 1765.4 | 1764.1 | 1767.9 | 1778.3 |
| 30°   | 5912.4  | 5127.6 | 2936.3 | 1895.3 | 1730.6 | 1730.6 | 1719.0 | 1725.5 | 1730.6 | 1743.5 | 1752.5 |
| 32.5° | 6086.1  | 5058.1 | 2603.0 | 1697.2 | 1661.1 | 1648.3 | 1659.9 | 1672.7 | 1677.8 | 1694.6 | 1708.8 |
| 35°   | 6341.0  | 5009.2 | 2337.9 | 1589.1 | 1589.1 | 1572.4 | 1578.8 | 1576.2 | 1564.7 | 1556.9 | 1574.9 |
| 37.5° | 6678.1  | 5006.6 | 2119.2 | 1538.9 | 1528.6 | 1526.0 | 1527.4 | 1510.6 | 1465.5 | 1411.5 | 1412.9 |
| 40°   | 7083.4  | 5076.1 | 1950.7 | 1504.2 | 1496.4 | 1511.9 | 1504.2 | 1459.1 | 1335.6 | 1241.7 | 1239.1 |
| 42.5° | 7627.6  | 5274.2 | 1842.5 | 1461.8 | 1484.8 | 1504.2 | 1473.3 | 1317.6 | 1234.0 | 1170.9 | 1168.3 |
| 45°   | 8268.4  | 5595.9 | 1787.3 | 1416.7 | 1463.0 | 1486.1 | 1336.9 | 1268.7 | 1201.8 | 1125.9 | 1120.7 |
| 47.5° | 8994.1  | 6001.3 | 1774.4 | 1374.2 | 1414.1 | 1428.2 | 1279.0 | 1248.1 | 1172.2 | 1089.9 | 1083.4 |
| 50°   | 9784.1  | 6481.2 | 1809.1 | 1324.0 | 1343.4 | 1294.5 | 1259.7 | 1231.3 | 1152.9 | 1071.8 | 1062.8 |
| 52.5° | 10601.3 | 7010.0 | 1878.6 | 1255.8 | 1272.5 | 1218.5 | 1251.9 | 1227.5 | 1141.3 | 1032.0 | 1024.2 |
| 55°   | 11404.2 | 7542.7 | 1945.6 | 1176.1 | 1200.5 | 1150.4 | 1230.1 | 1212.1 | 1088.6 | 965.0  | 958.6  |
| 57.5° | 12219.9 | 8072.8 | 2011.2 | 1105.3 | 1131.0 | 1084.7 | 1195.4 | 1170.9 | 1029.4 | 903.2  | 900.7  |
| 60°   | 13067.8 | 8587.6 | 2042.0 | 1037.1 | 1055.1 | 1024.2 | 1142.6 | 1100.1 | 962.5  | 840.2  | 836.4  |
| 62.5° | 13861.8 | 9016.0 | 1991.8 | 968.9  | 980.5  | 967.6  | 1073.1 | 1016.5 | 895.5  | 769.5  | 768.1  |
| 65°   | 14658.2 | 9270.7 | 1837.4 | 902.0  | 904.6  | 898.1  | 975.3  | 926.4  | 817.0  | 707.7  | 700.0  |
| 67.5° | 15380.0 | 9413.6 | 1591.6 | 829.9  | 823.5  | 820.9  | 884.0  | 828.6  | 741.2  | 646.0  | 638.2  |
| 70°   | 15533.2 | 9050.8 | 1216.0 | 745.0  | 745.0  | 738.6  | 783.6  | 727.0  | 657.5  | 580.4  | 577.7  |
| 72.5° | 14187.3 | 7613.5 | 863.4  | 648.5  | 658.8  | 646.0  | 683.3  | 635.6  | 572.6  | 521.1  | 505.6  |
| 75°   | 11440.1 | 5583.1 | 627.9  | 549.4  | 567.4  | 545.6  | 580.4  | 546.8  | 492.8  | 491.5  | 442.6  |
| 77.5° | 7860.5  | 3452.2 | 455.5  | 452.9  | 465.8  | 437.5  | 477.3  | 459.4  | 410.4  | 388.6  | 364.2  |
| 80°   | 3354.4  | 1376.8 | 332.0  | 349.9  | 349.9  | 324.2  | 370.5  | 375.8  | 333.2  | 323.0  | 323.0  |
| 82.5° | 667.8   | 391.1  | 232.9  | 240.6  | 226.4  | 218.7  | 262.5  | 290.8  | 401.5  | 446.5  | 447.8  |
| 85°   | 200.7   | 144.1  | 140.2  | 131.2  | 115.8  | 117.1  | 154.4  | 292.1  | 360.3  | 205.9  | 177.5  |
| 87.5° | 55.4    | 36.0   | 37.3   | 29.6   | 24.5   | 32.2   | 52.8   | 221.3  | 121.0  | 51.5   | 43.8   |
| 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)