

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: P964199

Luminaire Tested: **NAV-SB3B-830-U-T2U**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P964199  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3B-830-U-T2U  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 15769.6 lumens  
Efficiency: N/A  
Efficacy: 144.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

Input Watts (W): 109.2  
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



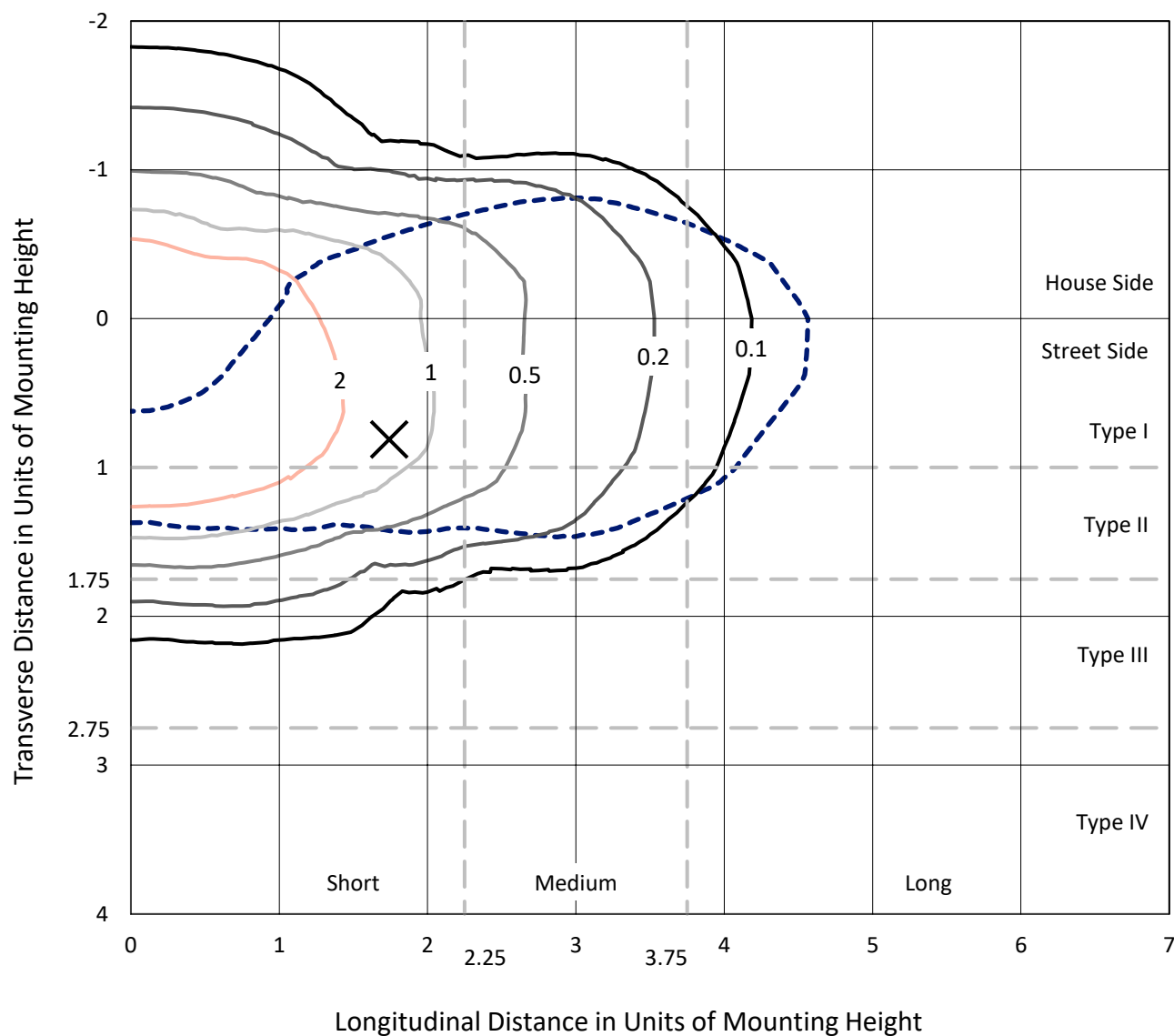
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

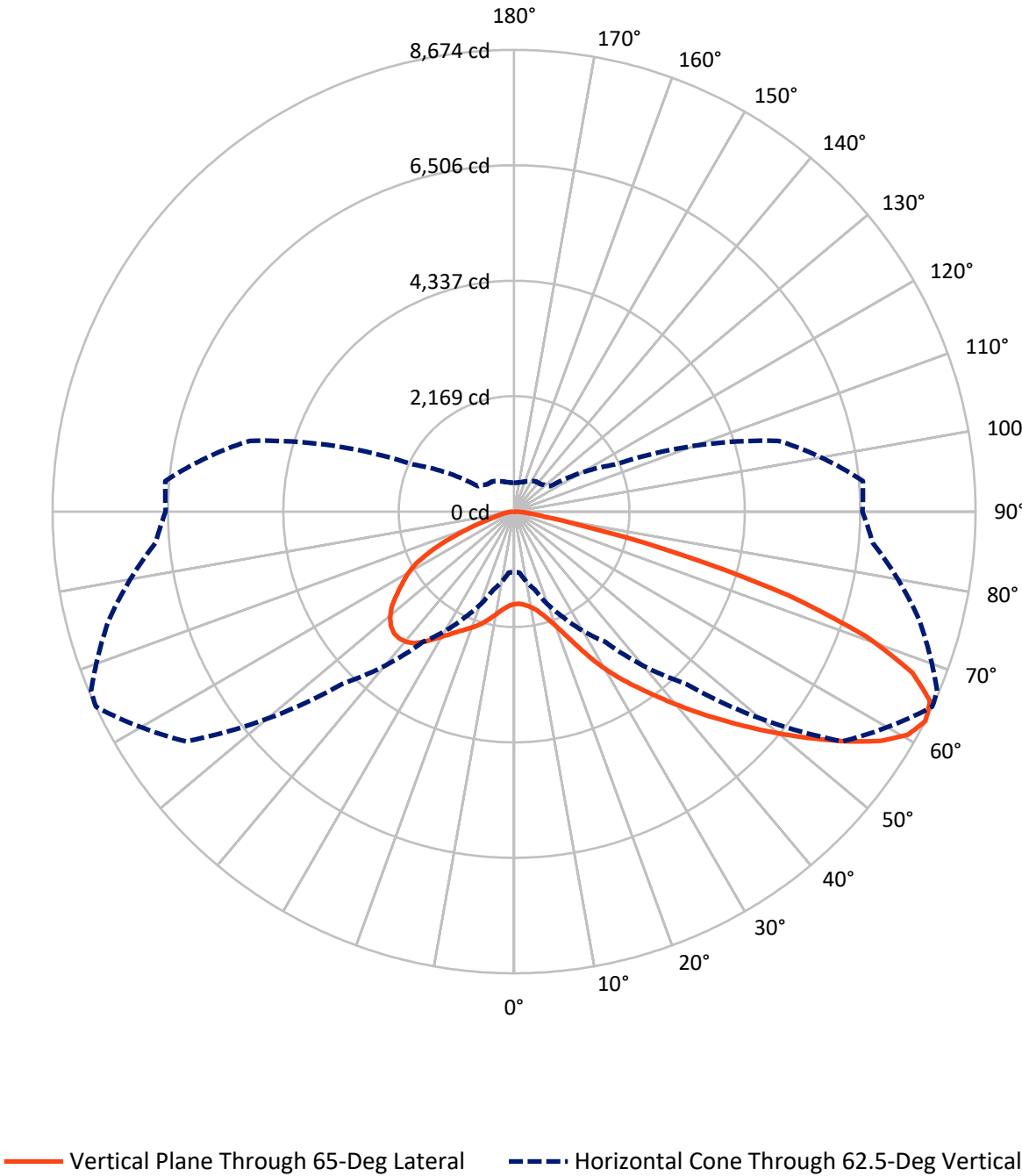


Based on 25 foot mounting height. Maximum calculated value = 4.4 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4976.2   | 0.0    | 4976.2  |
|                    | % Fixture | 31.6     | 0.0    | 31.6    |
| <b>Street Side</b> | Lumens    | 10793.4  | 0.0    | 10793.4 |
|                    | % Fixture | 68.4     | 0.0    | 68.4    |
| <b>Total</b>       | Lumens    | 15769.6  | 0.0    | 15769.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 173.3   | 1.1       |
| 10°-20°   | 587.5   | 3.7       |
| 20°-30°   | 1191.2  | 7.6       |
| 30°-40°   | 2061.4  | 13.1      |
| 40°-50°   | 3119.6  | 19.8      |
| 50°-60°   | 3657.5  | 23.2      |
| 60°-70°   | 3066.4  | 19.4      |
| 70°-80°   | 1692.9  | 10.7      |
| 80°-90°   | 219.9   | 1.4       |
| 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°    | 15769.6 | 100.0     |
| 0°-180°   | 15769.6 | 100.0     |

**Coefficient of Utilization**



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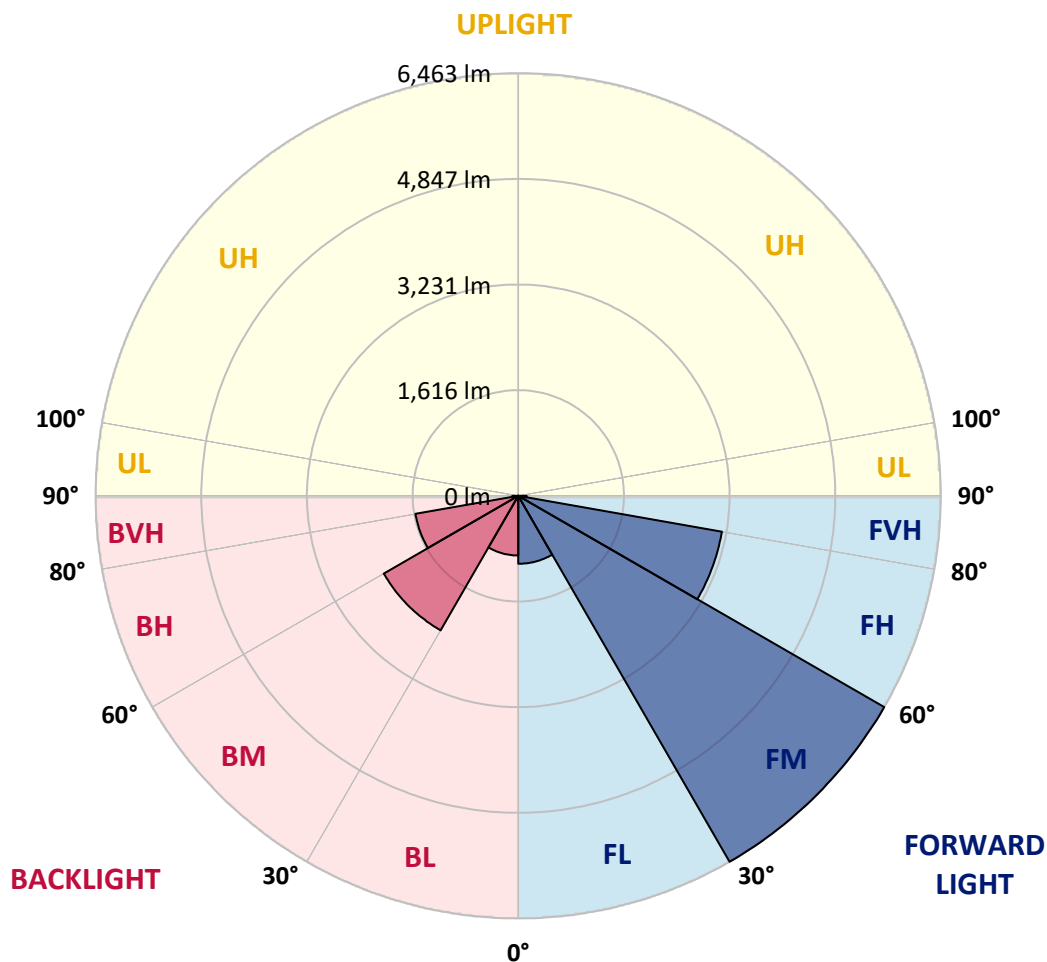
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1039.4 | 6.6       |                         |      |         |
| FM   | (30°-60°)   | 6462.9 | 41.0      |                         |      |         |
| FH   | (60°-80°)   | 3162.9 | 20.1      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 128.2  | 0.8       |                         |      | G2/225  |
| BL   | (0°-30°)    | 912.6  | 5.8       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 2375.6 | 15.1      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 1596.3 | 10.1      | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 91.7   | 0.6       |                         |      | G1/100  |
| 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 Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 67°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1737.8 | 1737.8 | 1737.8 | 1737.8 | 1737.8 | 1737.8 | 1737.8 | 1737.8 | 1737.8 | 1737.8 | 1737.8 |
| 2.5°  | 1726.3 | 1721.4 | 1725.5 | 1725.5 | 1727.1 | 1726.3 | 1732.0 | 1733.7 | 1736.1 | 1741.1 | 1741.1 |
| 5°    | 1709.1 | 1708.3 | 1715.6 | 1722.2 | 1728.8 | 1734.5 | 1741.9 | 1752.4 | 1754.1 | 1759.8 | 1767.2 |
| 7.5°  | 1703.3 | 1698.4 | 1709.9 | 1718.1 | 1733.7 | 1747.5 | 1767.2 | 1785.2 | 1792.5 | 1795.0 | 1808.9 |
| 10°   | 1747.5 | 1739.4 | 1750.0 | 1754.9 | 1768.0 | 1782.0 | 1804.8 | 1833.4 | 1841.6 | 1851.5 | 1867.0 |
| 12.5° | 1822.9 | 1813.8 | 1829.4 | 1836.7 | 1849.0 | 1861.3 | 1876.9 | 1904.7 | 1908.8 | 1926.7 | 1941.5 |
| 15°   | 1925.9 | 1915.3 | 1925.1 | 1934.1 | 1954.6 | 1966.1 | 1981.5 | 2008.6 | 2008.6 | 2022.4 | 2033.1 |
| 17.5° | 2065.8 | 2051.9 | 2059.2 | 2062.5 | 2075.6 | 2092.8 | 2119.0 | 2142.8 | 2155.0 | 2150.0 | 2135.4 |
| 20°   | 2274.5 | 2257.3 | 2257.3 | 2240.9 | 2236.0 | 2249.9 | 2284.3 | 2317.0 | 2330.1 | 2304.7 | 2268.7 |
| 22.5° | 2587.8 | 2563.2 | 2549.4 | 2493.7 | 2471.6 | 2473.2 | 2507.7 | 2547.7 | 2558.3 | 2513.3 | 2432.3 |
| 25°   | 2986.2 | 2947.8 | 2928.9 | 2847.1 | 2797.2 | 2753.9 | 2780.9 | 2832.4 | 2847.1 | 2791.5 | 2660.6 |
| 27.5° | 3384.7 | 3387.1 | 3369.2 | 3271.0 | 3188.4 | 3108.9 | 3095.1 | 3149.0 | 3164.6 | 3101.5 | 2939.6 |
| 30°   | 3943.5 | 3885.4 | 3851.0 | 3733.3 | 3615.4 | 3504.2 | 3446.9 | 3468.9 | 3473.0 | 3397.8 | 3209.6 |
| 32.5° | 4425.3 | 4410.7 | 4337.0 | 4233.9 | 4082.6 | 3908.3 | 3812.6 | 3777.4 | 3770.9 | 3663.7 | 3440.3 |
| 35°   | 4974.3 | 4966.1 | 4888.4 | 4765.7 | 4602.0 | 4359.9 | 4187.2 | 4086.7 | 4078.5 | 3927.9 | 3668.6 |
| 37.5° | 5532.3 | 5532.3 | 5456.2 | 5322.0 | 5152.7 | 4850.0 | 4587.4 | 4427.8 | 4401.7 | 4205.3 | 3900.9 |
| 40°   | 5977.4 | 5950.4 | 5964.3 | 5907.8 | 5714.0 | 5392.4 | 5031.6 | 4800.1 | 4764.9 | 4529.3 | 4148.0 |
| 42.5° | 6230.2 | 6221.2 | 6304.7 | 6367.6 | 6288.3 | 6031.4 | 5520.9 | 5203.4 | 5154.3 | 4886.0 | 4432.7 |
| 45°   | 6286.6 | 6276.8 | 6425.7 | 6656.5 | 6767.7 | 6662.2 | 6052.6 | 5628.1 | 5568.3 | 5259.1 | 4737.9 |
| 47.5° | 6156.6 | 6136.9 | 6355.4 | 6719.5 | 7076.2 | 7261.9 | 6628.7 | 6088.6 | 6001.9 | 5622.3 | 5051.2 |
| 50°   | 5765.5 | 5746.7 | 6077.2 | 6560.7 | 7180.0 | 7669.4 | 7253.7 | 6577.1 | 6444.6 | 6011.7 | 5367.8 |
| 52.5° | 4915.4 | 4924.4 | 5442.3 | 6106.6 | 7043.4 | 7922.9 | 7792.0 | 7091.7 | 6932.2 | 6410.1 | 5664.9 |
| 55°   | 3828.9 | 3848.6 | 4485.1 | 5216.5 | 6496.9 | 7884.5 | 8159.4 | 7621.9 | 7463.1 | 6784.9 | 5971.6 |
| 57.5° | 2741.6 | 2828.4 | 3424.7 | 4148.8 | 5447.3 | 7274.9 | 8239.6 | 8125.8 | 7972.0 | 7194.0 | 6271.9 |
| 60°   | 1777.0 | 1792.5 | 2406.2 | 3136.0 | 4148.0 | 6191.7 | 8076.8 | 8507.9 | 8387.7 | 7611.2 | 6523.1 |
| 62.5° | 1138.9 | 1149.5 | 1523.4 | 2193.5 | 2985.4 | 4580.8 | 7528.6 | 8674.0 | 8637.2 | 7887.0 | 6764.5 |
| 65°   | 837.0  | 828.8  | 1023.5 | 1449.8 | 2011.0 | 2825.1 | 6464.2 | 8593.8 | 8666.7 | 8059.6 | 6964.1 |
| 67.5° | 698.7  | 687.3  | 783.0  | 1003.9 | 1481.6 | 1604.4 | 4782.9 | 8072.7 | 8339.4 | 8039.9 | 7110.5 |
| 70°   | 636.5  | 626.7  | 684.8  | 745.4  | 1156.0 | 1074.2 | 2411.1 | 7018.1 | 7428.8 | 7816.5 | 7086.7 |
| 72.5° | 539.2  | 521.9  | 601.4  | 661.8  | 899.1  | 823.9  | 996.5  | 5390.8 | 5891.5 | 7100.7 | 6753.0 |
| 75°   | 418.1  | 406.6  | 474.6  | 582.5  | 675.8  | 643.1  | 630.0  | 3273.4 | 3820.0 | 5491.4 | 5907.8 |
| 77.5° | 331.4  | 315.8  | 378.0  | 454.1  | 607.9  | 485.1  | 459.0  | 1409.7 | 1951.3 | 3505.8 | 4420.4 |
| 80°   | 249.5  | 235.6  | 287.2  | 359.2  | 467.2  | 365.7  | 296.9  | 575.1  | 735.5  | 1776.2 | 2222.9 |
| 82.5° | 177.5  | 165.2  | 200.5  | 263.4  | 314.2  | 328.1  | 182.4  | 322.4  | 362.4  | 684.8  | 496.6  |
| 85°   | 113.7  | 106.4  | 134.2  | 165.2  | 199.7  | 211.0  | 111.3  | 168.5  | 184.9  | 282.3  | 206.9  |
| 87.5° | 62.2   | 50.7   | 72.0   | 76.9   | 92.5   | 84.3   | 53.2   | 61.4   | 66.3   | 102.3  | 87.5   |
| 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°    | 1737.8 | 1737.8 | 1737.8 | 1737.8 | 1737.8 | 1737.8 | 1737.8 | 1737.8 | 1737.8 | 1737.8 | 1737.8 |
| 2.5°  | 1744.2 | 1746.7 | 1754.9 | 1757.4 | 1763.1 | 1770.5 | 1775.4 | 1780.3 | 1780.3 | 1785.2 | 1785.2 |
| 5°    | 1768.0 | 1773.8 | 1790.9 | 1799.9 | 1814.7 | 1829.4 | 1838.3 | 1849.0 | 1855.6 | 1858.8 | 1860.5 |
| 7.5°  | 1813.8 | 1822.9 | 1847.4 | 1862.9 | 1888.3 | 1908.8 | 1922.7 | 1937.4 | 1940.6 | 1949.7 | 1946.4 |
| 10°   | 1876.1 | 1886.6 | 1914.5 | 1943.9 | 1974.2 | 1999.6 | 2012.7 | 2023.2 | 2027.3 | 2029.0 | 2024.9 |
| 12.5° | 1947.2 | 1962.8 | 1998.7 | 2034.7 | 2066.6 | 2088.7 | 2092.0 | 2089.6 | 2078.1 | 2068.2 | 2068.2 |
| 15°   | 2034.7 | 2048.7 | 2088.7 | 2128.0 | 2159.1 | 2163.2 | 2142.8 | 2129.6 | 2115.7 | 2113.2 | 2113.2 |
| 17.5° | 2139.5 | 2146.9 | 2183.7 | 2222.1 | 2224.6 | 2210.6 | 2180.4 | 2168.1 | 2155.0 | 2146.0 | 2146.9 |
| 20°   | 2261.4 | 2258.9 | 2285.1 | 2301.4 | 2284.3 | 2241.7 | 2195.9 | 2175.5 | 2162.3 | 2151.7 | 2152.5 |
| 22.5° | 2407.0 | 2388.1 | 2384.9 | 2380.8 | 2335.0 | 2245.8 | 2183.7 | 2157.4 | 2137.0 | 2122.3 | 2127.2 |
| 25°   | 2618.9 | 2546.9 | 2497.0 | 2469.1 | 2366.1 | 2223.7 | 2144.4 | 2086.3 | 2047.8 | 2022.4 | 2032.3 |
| 27.5° | 2883.9 | 2762.9 | 2636.9 | 2569.0 | 2366.1 | 2178.7 | 2049.5 | 1955.4 | 1892.4 | 1866.2 | 1879.2 |
| 30°   | 3136.8 | 3009.9 | 2824.3 | 2689.3 | 2360.4 | 2105.0 | 1896.5 | 1765.6 | 1692.0 | 1665.7 | 1681.3 |
| 32.5° | 3352.8 | 3214.5 | 3023.0 | 2821.0 | 2346.4 | 1985.6 | 1706.6 | 1561.8 | 1490.7 | 1459.6 | 1475.1 |
| 35°   | 3553.2 | 3406.0 | 3222.7 | 2965.7 | 2309.6 | 1810.6 | 1498.0 | 1387.5 | 1308.2 | 1258.3 | 1274.7 |
| 37.5° | 3758.6 | 3583.5 | 3411.7 | 3096.7 | 2243.3 | 1606.1 | 1337.6 | 1243.6 | 1150.4 | 1083.2 | 1101.3 |
| 40°   | 3981.9 | 3772.5 | 3613.7 | 3174.4 | 2134.6 | 1411.3 | 1213.3 | 1127.4 | 1028.4 | 957.2  | 971.2  |
| 42.5° | 4242.9 | 3999.1 | 3838.7 | 3214.5 | 1985.6 | 1273.0 | 1132.3 | 1048.1 | 954.8  | 896.7  | 908.2  |
| 45°   | 4515.3 | 4248.6 | 4044.1 | 3213.7 | 1819.6 | 1208.4 | 1106.2 | 1022.6 | 919.6  | 859.1  | 868.9  |
| 47.5° | 4800.9 | 4509.6 | 4221.7 | 3161.3 | 1675.6 | 1217.4 | 1091.4 | 967.9  | 854.1  | 795.2  | 803.4  |
| 50°   | 5087.3 | 4795.2 | 4393.5 | 3063.1 | 1614.2 | 1197.8 | 1036.6 | 890.9  | 756.8  | 703.6  | 706.8  |
| 52.5° | 5371.1 | 5098.7 | 4541.6 | 2923.2 | 1552.1 | 1124.9 | 966.3  | 791.2  | 716.7  | 679.9  | 679.9  |
| 55°   | 5656.7 | 5399.0 | 4702.7 | 2719.5 | 1396.6 | 1039.9 | 848.4  | 753.5  | 684.8  | 651.3  | 648.0  |
| 57.5° | 5943.1 | 5745.8 | 4855.7 | 2515.8 | 1201.0 | 935.1  | 783.8  | 707.7  | 652.9  | 624.2  | 619.3  |
| 60°   | 6240.8 | 6142.6 | 5013.6 | 2328.5 | 1008.0 | 800.9  | 736.4  | 670.9  | 615.2  | 583.3  | 580.9  |
| 62.5° | 6547.6 | 6579.6 | 5137.1 | 2087.1 | 830.5  | 719.1  | 693.8  | 626.7  | 572.7  | 542.4  | 541.6  |
| 65°   | 6856.8 | 7000.9 | 5218.2 | 1752.4 | 673.3  | 641.4  | 648.0  | 578.4  | 523.6  | 497.4  | 496.6  |
| 67.5° | 7090.0 | 7304.5 | 5195.2 | 1326.2 | 552.3  | 567.7  | 590.7  | 527.7  | 476.1  | 455.7  | 456.5  |
| 70°   | 7116.3 | 7268.4 | 4969.4 | 908.2  | 462.3  | 495.8  | 526.8  | 477.8  | 424.7  | 409.9  | 410.7  |
| 72.5° | 6767.7 | 6777.5 | 4340.3 | 593.2  | 391.0  | 435.2  | 459.8  | 427.1  | 375.6  | 360.8  | 360.0  |
| 75°   | 5853.9 | 5605.1 | 3186.7 | 391.0  | 327.3  | 373.9  | 396.8  | 373.9  | 324.0  | 327.3  | 315.8  |
| 77.5° | 4435.2 | 3969.6 | 1934.9 | 278.2  | 273.3  | 314.2  | 345.2  | 328.9  | 286.4  | 321.5  | 283.1  |
| 80°   | 2285.1 | 2147.7 | 863.2  | 207.8  | 216.0  | 251.1  | 283.9  | 262.6  | 226.6  | 216.0  | 197.2  |
| 82.5° | 523.6  | 608.7  | 340.3  | 148.9  | 156.3  | 180.8  | 216.8  | 197.2  | 162.8  | 137.5  | 135.8  |
| 85°   | 183.3  | 200.5  | 150.6  | 93.3   | 91.6   | 113.0  | 147.3  | 131.7  | 110.5  | 88.4   | 93.3   |
| 87.5° | 58.1   | 76.1   | 56.5   | 37.6   | 39.3   | 50.7   | 67.9   | 62.2   | 51.6   | 33.5   | 35.2   |
| 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)