

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: P964200

Luminaire Tested: **NAV-SB3B-830-U-T2**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P964200  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3B-830-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: -

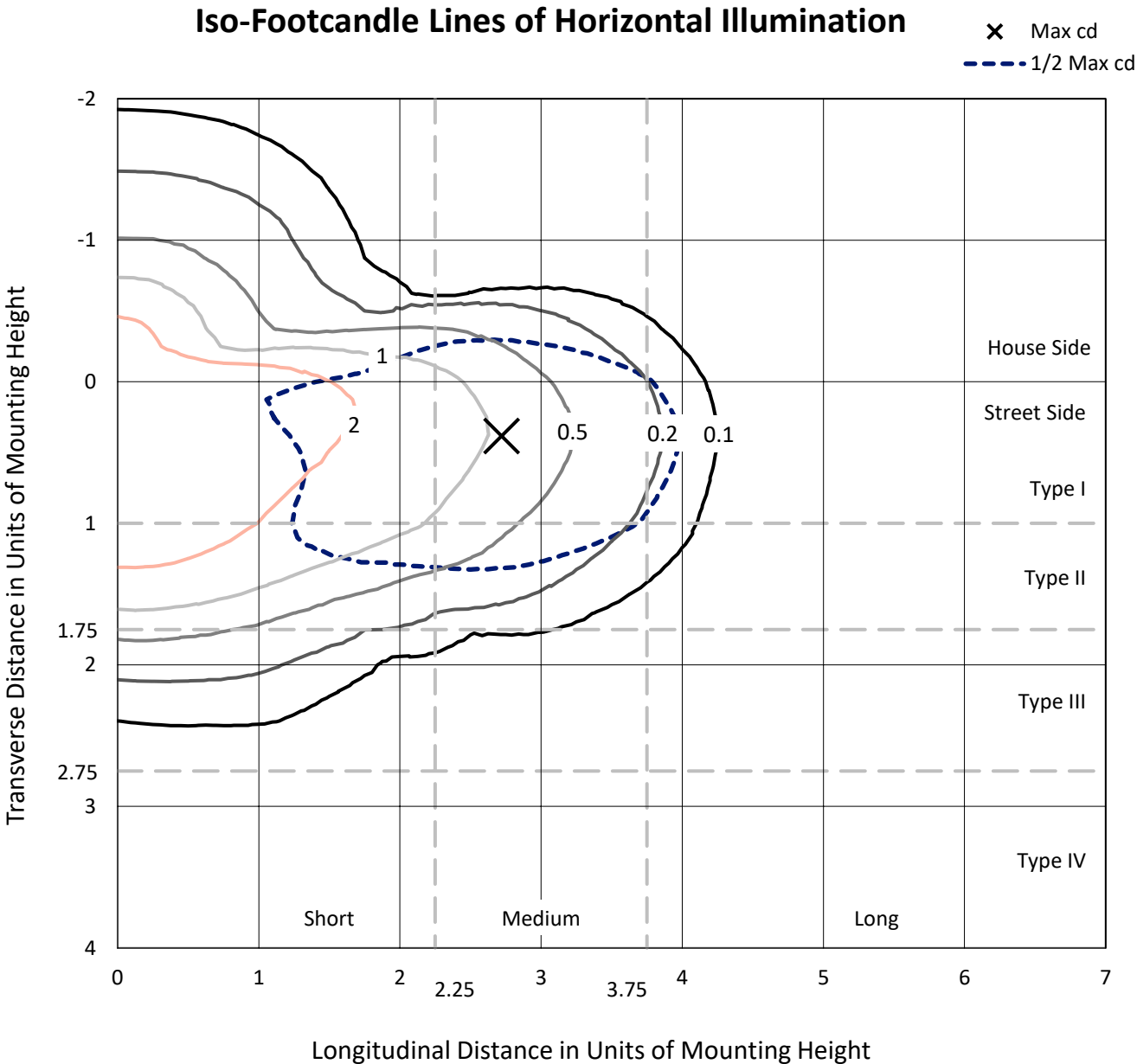
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15418 lumens  
Efficiency: N/A  
Efficacy: 141.2 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): 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



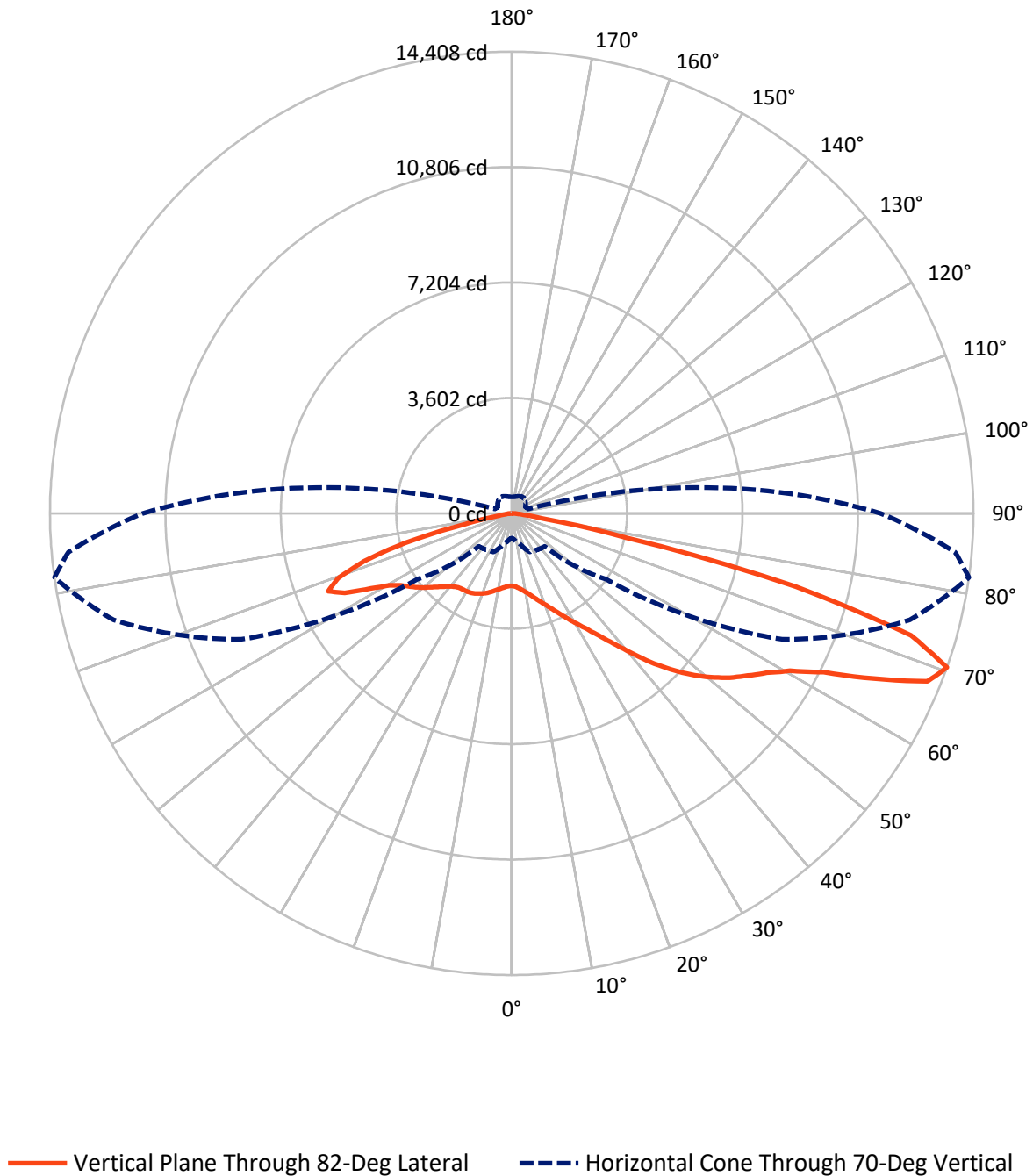
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Based on 25 foot mounting height. Maximum calculated value = 4.1 fc  
Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3800.9   | 0.0    | 3800.9  |
|                    | % Fixture | 24.7     | 0.0    | 24.7    |
| <b>Street Side</b> | Lumens    | 11617.1  | 0.0    | 11617.1 |
|                    | % Fixture | 75.3     | 0.0    | 75.3    |
| <b>Total</b>       | Lumens    | 15418.0  | 0.0    | 15418.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 213.4   | 1.4       |
| 10°-20°   | 613.2   | 4.0       |
| 20°-30°   | 1025.8  | 6.7       |
| 30°-40°   | 1602.6  | 10.4      |
| 40°-50°   | 2552.3  | 16.6      |
| 50°-60°   | 3551.8  | 23.0      |
| 60°-70°   | 3715.4  | 24.1      |
| 70°-80°   | 1941.9  | 12.6      |
| 80°-90°   | 201.6   | 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°    | 15418.0 | 100.0     |
| 0°-180°   | 15418.0 | 100.0     |

**Coefficient of Utilization**



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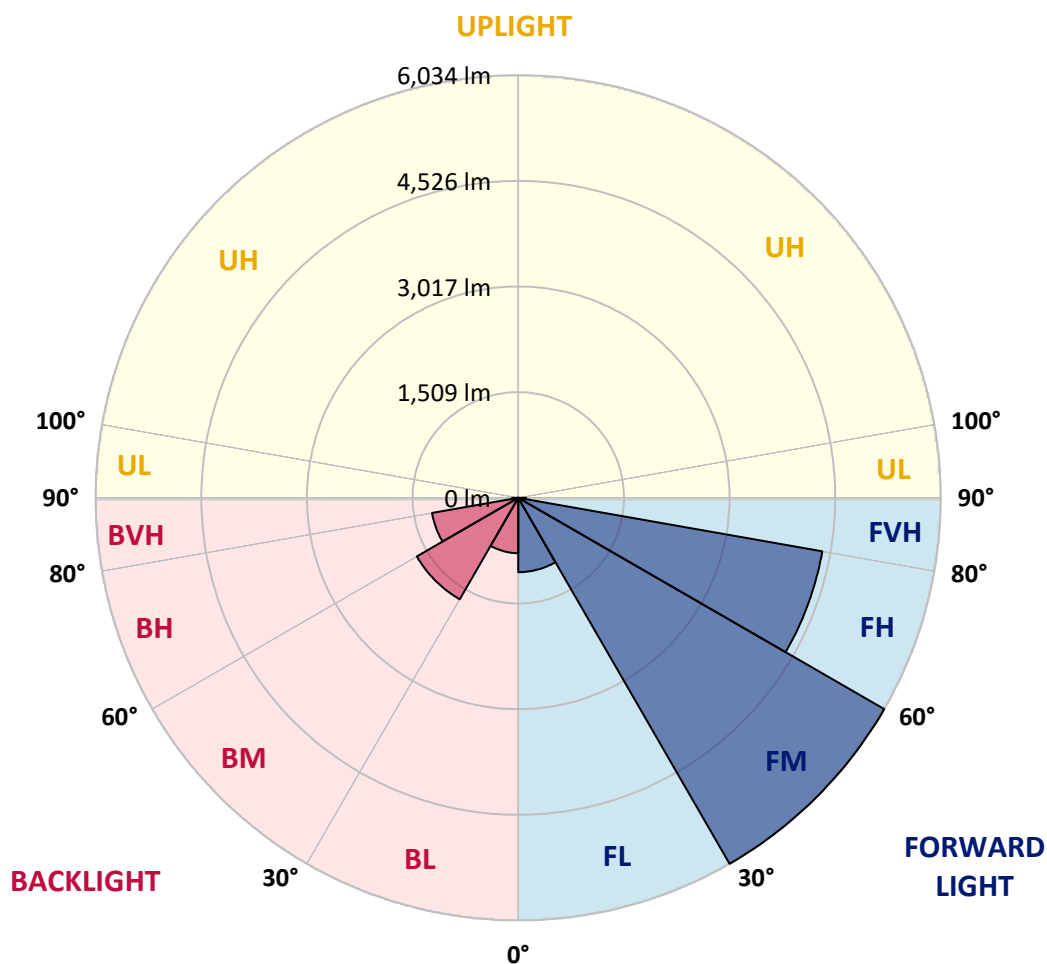
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1061.7 | 6.9       |                         |      |         |
| FM   | (30°-60°)   | 6034.5 | 39.1      |                         |      |         |
| FH   | (60°-80°)   | 4408.1 | 28.6      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 112.9  | 0.7       |                         |      | G2/225  |
| BL   | (0°-30°)    | 790.7  | 5.1       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1672.3 | 10.8      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 1249.2 | 8.1       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 88.8   | 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 Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°     | 75°     | 82°     | 85°     |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| 0°    | 2260.4 | 2260.4 | 2260.4 | 2260.4 | 2260.4 | 2260.4 | 2260.4 | 2260.4  | 2260.4  | 2260.4  | 2260.4  |
| 2.5°  | 2314.4 | 2327.6 | 2323.5 | 2319.4 | 2319.4 | 2313.6 | 2312.8 | 2304.6  | 2298.2  | 2287.5  | 2285.0  |
| 5°    | 2344.0 | 2357.8 | 2356.2 | 2359.4 | 2370.1 | 2372.6 | 2375.0 | 2370.1  | 2357.0  | 2344.0  | 2338.2  |
| 7.5°  | 2317.7 | 2333.3 | 2338.2 | 2357.8 | 2390.6 | 2420.0 | 2442.1 | 2451.1  | 2438.8  | 2420.0  | 2411.0  |
| 10°   | 2229.4 | 2246.6 | 2263.7 | 2310.4 | 2368.5 | 2438.0 | 2496.9 | 2532.1  | 2529.6  | 2511.7  | 2496.1  |
| 12.5° | 2050.2 | 2068.2 | 2105.0 | 2195.9 | 2302.3 | 2424.9 | 2534.5 | 2608.2  | 2633.5  | 2620.4  | 2593.5  |
| 15°   | 1907.0 | 1922.6 | 1950.4 | 2043.6 | 2181.9 | 2368.5 | 2548.5 | 2691.6  | 2756.2  | 2748.9  | 2716.1  |
| 17.5° | 1902.9 | 1909.5 | 1926.7 | 1970.9 | 2077.3 | 2280.1 | 2533.7 | 2773.4  | 2897.0  | 2896.1  | 2855.2  |
| 20°   | 1975.0 | 1977.4 | 1987.3 | 1996.2 | 2056.8 | 2213.1 | 2496.1 | 2841.3  | 3054.9  | 3054.9  | 3010.7  |
| 22.5° | 2074.8 | 2073.2 | 2082.9 | 2074.8 | 2104.2 | 2207.3 | 2472.4 | 2901.1  | 3230.8  | 3243.8  | 3188.3  |
| 25°   | 2224.5 | 2216.3 | 2213.8 | 2195.0 | 2200.8 | 2260.4 | 2498.5 | 2969.0  | 3439.4  | 3466.3  | 3396.8  |
| 27.5° | 2424.1 | 2411.0 | 2402.0 | 2358.6 | 2344.0 | 2370.1 | 2578.7 | 3050.8  | 3671.8  | 3718.4  | 3630.0  |
| 30°   | 2684.3 | 2660.6 | 2647.5 | 2572.1 | 2519.0 | 2523.1 | 2699.8 | 3159.6  | 3914.7  | 3990.0  | 3877.9  |
| 32.5° | 3039.3 | 3002.5 | 2967.4 | 2843.8 | 2746.5 | 2714.5 | 2856.1 | 3310.1  | 4178.2  | 4298.4  | 4154.4  |
| 35°   | 3436.9 | 3407.5 | 3369.9 | 3179.2 | 3029.5 | 2955.9 | 3067.1 | 3520.4  | 4486.6  | 4677.2  | 4489.9  |
| 37.5° | 3819.9 | 3794.4 | 3812.5 | 3555.5 | 3362.5 | 3255.3 | 3343.7 | 3802.6  | 4867.0  | 5148.5  | 4910.4  |
| 40°   | 4215.8 | 4196.1 | 4198.6 | 3953.2 | 3728.2 | 3607.9 | 3679.1 | 4156.9  | 5303.0  | 5708.8  | 5416.0  |
| 42.5° | 4646.1 | 4631.4 | 4582.4 | 4364.7 | 4111.9 | 3999.9 | 4065.3 | 4566.0  | 5771.1  | 6347.0  | 5970.6  |
| 45°   | 5128.0 | 5119.1 | 5073.2 | 4823.6 | 4534.1 | 4408.0 | 4496.4 | 5017.6  | 6241.4  | 6947.6  | 6527.8  |
| 47.5° | 5544.4 | 5551.8 | 5546.1 | 5335.8 | 5035.5 | 4850.7 | 4956.2 | 5488.8  | 6679.2  | 7512.0  | 7062.0  |
| 50°   | 5744.9 | 5783.4 | 5839.7 | 5774.3 | 5587.8 | 5399.6 | 5420.1 | 5943.7  | 7096.4  | 8041.3  | 7574.2  |
| 52.5° | 5640.2 | 5712.9 | 5866.8 | 5971.4 | 6043.5 | 6004.2 | 5949.4 | 6395.3  | 7489.2  | 8519.2  | 8058.6  |
| 55°   | 5249.9 | 5352.1 | 5607.5 | 5860.2 | 6227.6 | 6513.1 | 6585.1 | 6896.0  | 7872.0  | 8939.6  | 8516.7  |
| 57.5° | 4539.0 | 4705.1 | 4934.1 | 5445.4 | 6063.9 | 6759.4 | 7326.3 | 7590.5  | 8277.8  | 9388.8  | 8996.1  |
| 60°   | 3320.0 | 3542.5 | 3827.1 | 4588.0 | 5491.2 | 6627.6 | 7957.1 | 8657.4  | 8854.6  | 9970.5  | 9620.3  |
| 62.5° | 2124.6 | 2262.1 | 2524.0 | 3240.6 | 4278.8 | 5952.7 | 8150.2 | 9991.0  | 9832.2  | 10924.4 | 10556.3 |
| 65°   | 1454.6 | 1542.9 | 1782.7 | 2185.2 | 2766.1 | 4431.0 | 7633.1 | 10990.7 | 11385.0 | 12436.3 | 12156.5 |
| 67.5° | 1057.0 | 1124.1 | 1328.6 | 1681.2 | 1802.4 | 2622.1 | 5923.3 | 10944.8 | 12894.5 | 13994.0 | 13558.8 |
| 70°   | 770.7  | 818.2  | 989.9  | 1328.6 | 1386.7 | 1458.7 | 3588.3 | 9303.7  | 12861.7 | 14408.0 | 13886.8 |
| 72.5° | 571.0  | 603.7  | 719.1  | 1030.8 | 1122.5 | 985.0  | 1776.1 | 6761.8  | 11052.1 | 13032.0 | 12613.9 |
| 75°   | 413.2  | 437.7  | 522.8  | 788.6  | 898.3  | 750.2  | 886.0  | 3951.6  | 7709.2  | 9167.1  | 9240.7  |
| 77.5° | 315.8  | 334.7  | 390.2  | 577.6  | 719.1  | 562.8  | 549.8  | 1817.8  | 3655.4  | 3673.4  | 3879.5  |
| 80°   | 253.6  | 265.9  | 296.1  | 406.6  | 551.4  | 421.4  | 358.3  | 733.9   | 1155.2  | 977.6   | 1025.9  |
| 82.5° | 186.5  | 206.9  | 250.3  | 285.6  | 394.3  | 290.5  | 218.4  | 370.6   | 439.3   | 378.0   | 381.2   |
| 85°   | 106.4  | 120.2  | 151.4  | 204.5  | 251.9  | 177.5  | 125.2  | 164.4   | 204.5   | 167.7   | 149.8   |
| 87.5° | 37.6   | 49.1   | 53.2   | 80.2   | 109.7  | 73.6   | 48.3   | 47.5    | 67.0    | 49.9    | 41.7    |
| 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°    | 2260.4  | 2260.4 | 2260.4 | 2260.4 | 2260.4 | 2260.4 | 2260.4 | 2260.4 | 2260.4 | 2260.4 | 2260.4 |
| 2.5°  | 2276.8  | 2272.7 | 2256.4 | 2234.3 | 2211.4 | 2189.3 | 2181.9 | 2166.4 | 2155.8 | 2150.0 | 2156.6 |
| 5°    | 2322.6  | 2309.5 | 2271.1 | 2222.0 | 2170.4 | 2114.9 | 2075.6 | 2039.5 | 2013.4 | 1988.9 | 1998.6 |
| 7.5°  | 2388.1  | 2365.2 | 2299.0 | 2213.1 | 2121.4 | 2029.0 | 1960.2 | 1907.8 | 1872.7 | 1849.8 | 1854.7 |
| 10°   | 2464.2  | 2429.0 | 2327.6 | 2199.1 | 2057.6 | 1925.1 | 1844.1 | 1799.1 | 1776.9 | 1764.7 | 1767.9 |
| 12.5° | 2551.7  | 2501.8 | 2357.0 | 2167.3 | 1960.2 | 1808.9 | 1753.3 | 1740.1 | 1741.0 | 1741.8 | 1743.4 |
| 15°   | 2659.8  | 2590.2 | 2380.8 | 2097.7 | 1833.4 | 1719.7 | 1709.9 | 1731.1 | 1753.3 | 1763.9 | 1763.1 |
| 17.5° | 2781.6  | 2683.4 | 2384.9 | 1983.2 | 1709.1 | 1662.4 | 1693.5 | 1739.3 | 1772.8 | 1787.6 | 1790.9 |
| 20°   | 2912.5  | 2778.4 | 2355.3 | 1821.1 | 1606.8 | 1615.8 | 1671.5 | 1730.3 | 1767.1 | 1786.0 | 1790.9 |
| 22.5° | 3062.3  | 2879.8 | 2285.0 | 1651.0 | 1523.4 | 1565.1 | 1630.6 | 1687.8 | 1726.2 | 1745.1 | 1750.0 |
| 25°   | 3233.3  | 2993.5 | 2174.5 | 1507.8 | 1451.4 | 1507.8 | 1573.3 | 1620.7 | 1651.8 | 1669.0 | 1673.9 |
| 27.5° | 3423.0  | 3112.1 | 2027.3 | 1394.1 | 1388.4 | 1448.9 | 1502.9 | 1539.8 | 1556.1 | 1569.2 | 1574.1 |
| 30°   | 3613.6  | 3220.1 | 1849.0 | 1308.2 | 1333.5 | 1390.8 | 1429.3 | 1445.7 | 1450.6 | 1453.0 | 1458.7 |
| 32.5° | 3819.9  | 3313.4 | 1661.6 | 1237.0 | 1281.1 | 1334.3 | 1357.3 | 1364.6 | 1341.7 | 1326.1 | 1331.1 |
| 35°   | 4069.4  | 3413.2 | 1478.4 | 1180.6 | 1229.7 | 1275.4 | 1282.8 | 1276.2 | 1249.3 | 1217.4 | 1219.0 |
| 37.5° | 4377.8  | 3537.6 | 1331.9 | 1140.4 | 1181.4 | 1211.7 | 1202.6 | 1201.0 | 1203.5 | 1165.8 | 1168.3 |
| 40°   | 4755.8  | 3699.5 | 1224.8 | 1109.4 | 1142.1 | 1148.6 | 1123.3 | 1137.2 | 1149.4 | 1092.2 | 1093.9 |
| 42.5° | 5175.4  | 3895.1 | 1156.8 | 1088.1 | 1109.4 | 1093.9 | 1054.5 | 1070.1 | 1068.5 | 993.2  | 992.4  |
| 45°   | 5603.4  | 4107.8 | 1133.1 | 1072.6 | 1079.1 | 1048.1 | 1004.7 | 1008.7 | 974.4  | 906.5  | 909.0  |
| 47.5° | 6028.7  | 4336.1 | 1147.8 | 1059.4 | 1041.5 | 1006.2 | 972.7  | 954.8  | 904.0  | 853.3  | 853.3  |
| 50°   | 6446.0  | 4575.8 | 1201.8 | 1033.3 | 989.9  | 969.4  | 944.9  | 913.1  | 859.1  | 815.7  | 812.4  |
| 52.5° | 6833.0  | 4817.1 | 1262.4 | 989.9  | 925.3  | 937.6  | 922.0  | 885.2  | 832.0  | 787.8  | 788.6  |
| 55°   | 7199.5  | 5058.5 | 1286.1 | 930.2  | 864.8  | 909.8  | 900.8  | 832.8  | 769.1  | 733.1  | 729.8  |
| 57.5° | 7598.7  | 5348.9 | 1259.9 | 854.1  | 815.7  | 877.8  | 843.5  | 768.2  | 731.4  | 704.4  | 701.9  |
| 60°   | 8151.8  | 5804.6 | 1203.5 | 760.0  | 769.1  | 830.4  | 771.5  | 740.4  | 700.3  | 670.0  | 668.4  |
| 62.5° | 9070.5  | 6654.6 | 1112.6 | 666.8  | 714.2  | 760.0  | 737.2  | 706.0  | 665.1  | 635.7  | 635.7  |
| 65°   | 10428.7 | 7836.0 | 941.7  | 594.0  | 652.8  | 691.4  | 700.3  | 669.2  | 626.7  | 595.6  | 597.3  |
| 67.5° | 11574.0 | 8577.2 | 712.6  | 533.4  | 589.9  | 635.7  | 661.0  | 630.8  | 585.8  | 555.6  | 556.4  |
| 70°   | 11511.1 | 8038.9 | 544.1  | 473.7  | 534.2  | 580.9  | 613.6  | 589.9  | 541.6  | 513.0  | 515.4  |
| 72.5° | 10224.1 | 6725.0 | 440.1  | 413.2  | 477.8  | 523.6  | 562.8  | 544.9  | 495.8  | 468.0  | 468.0  |
| 75°   | 7511.2  | 4773.7 | 351.8  | 351.8  | 407.4  | 463.9  | 507.3  | 495.8  | 450.8  | 431.1  | 425.4  |
| 77.5° | 3166.1  | 2002.7 | 275.7  | 292.0  | 338.7  | 398.4  | 452.4  | 456.5  | 417.3  | 441.8  | 400.9  |
| 80°   | 841.8   | 552.3  | 210.2  | 229.9  | 265.9  | 328.9  | 393.5  | 391.9  | 349.3  | 326.5  | 303.5  |
| 82.5° | 320.7   | 217.6  | 149.8  | 162.0  | 192.3  | 251.9  | 311.7  | 321.5  | 279.0  | 241.4  | 241.4  |
| 85°   | 123.5   | 93.3   | 92.5   | 97.4   | 112.0  | 166.9  | 235.6  | 243.8  | 210.2  | 178.4  | 184.1  |
| 87.5° | 31.9    | 27.8   | 34.3   | 32.7   | 51.6   | 89.2   | 135.0  | 139.9  | 128.4  | 74.4   | 106.4  |
| 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)