

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: P964044

Luminaire Tested: **NAV-SB3B-735-U-T2U**

Issue Date: 1/21/2025

#### Test Information

Test Method: LM-79-08  
Report Number: P964044  
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-735-U-T2U  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: -

#### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 17550.1 lumens  
Efficiency: N/A  
Efficacy: 160.7 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

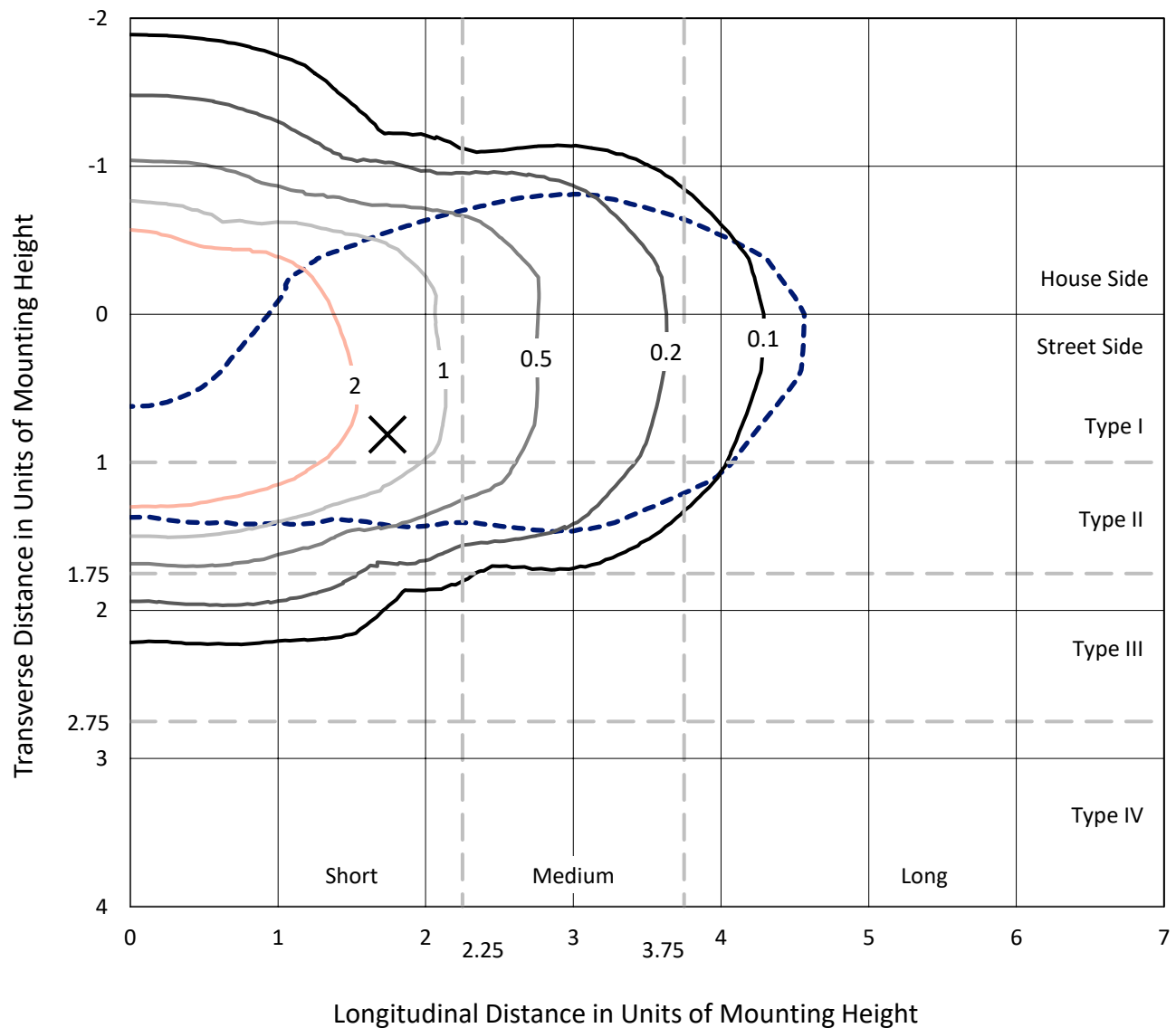


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## Iso-Footcandle Lines of Horizontal Illumination

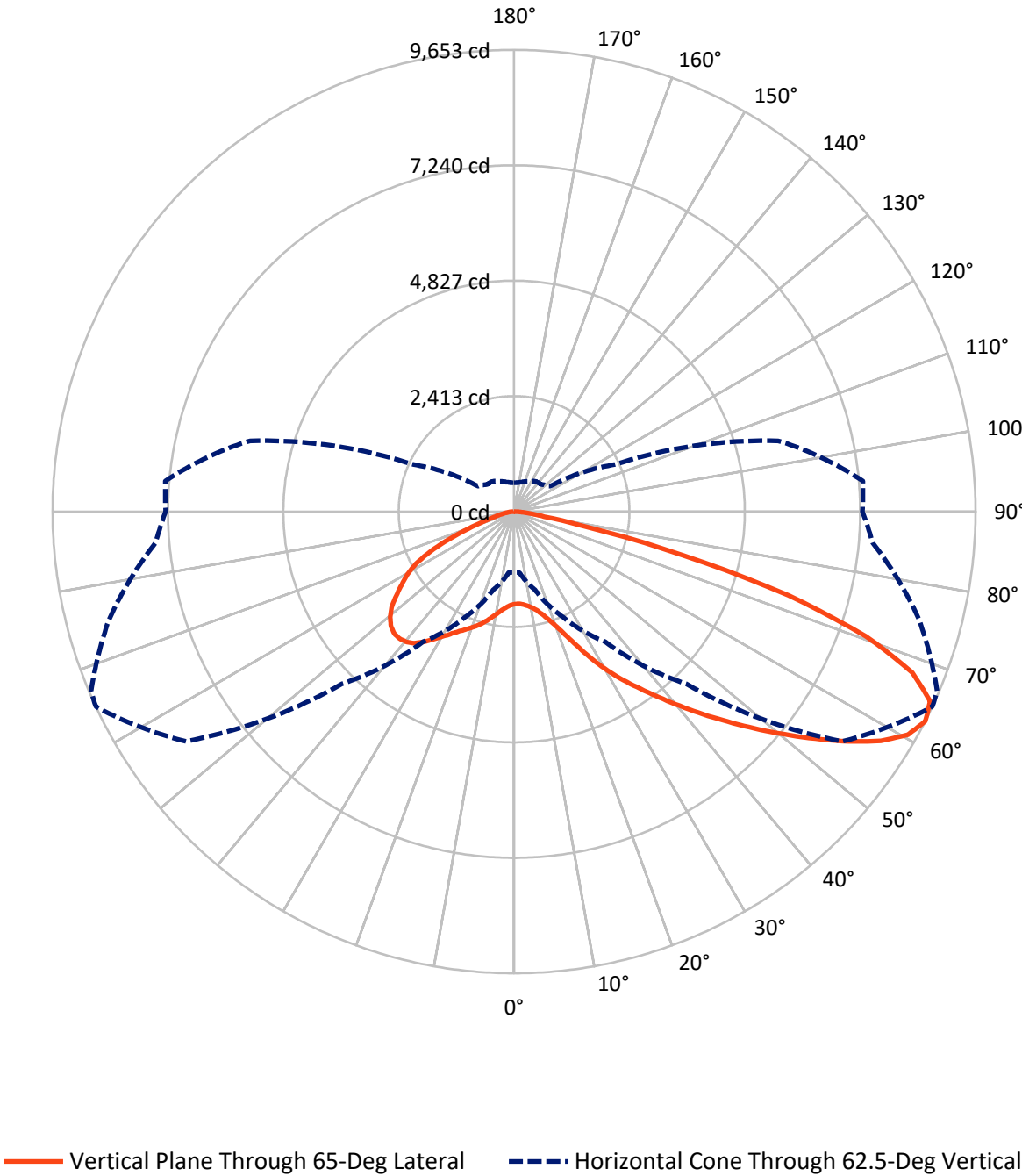
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc  
Type II - Short - N/A

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Luminous Intensity Polar Plot



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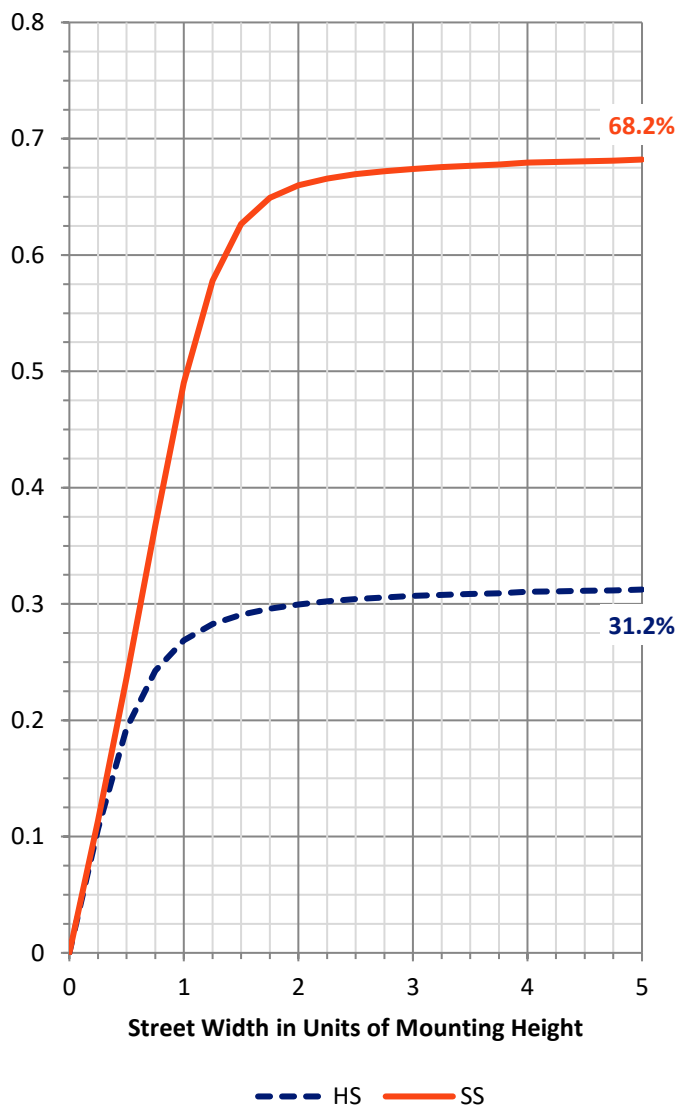
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 5538.0   | 0.0    | 5538.0  |
|                    | % Fixture | 31.6     | 0.0    | 31.6    |
| <b>Street Side</b> | Lumens    | 12012.0  | 0.0    | 12012.0 |
|                    | % Fixture | 68.4     | 0.0    | 68.4    |
| <b>Total</b>       | Lumens    | 17550.1  | 0.0    | 17550.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 192.8   | 1.1       |
| 10°-20°   | 653.8   | 3.7       |
| 20°-30°   | 1325.7  | 7.6       |
| 30°-40°   | 2294.2  | 13.1      |
| 40°-50°   | 3471.8  | 19.8      |
| 50°-60°   | 4070.4  | 23.2      |
| 60°-70°   | 3412.6  | 19.4      |
| 70°-80°   | 1884.0  | 10.7      |
| 80°-90°   | 244.7   | 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°    | 17550.1 | 100.0     |
| 0°-180°   | 17550.1 | 100.0     |

**Coefficient of Utilization**



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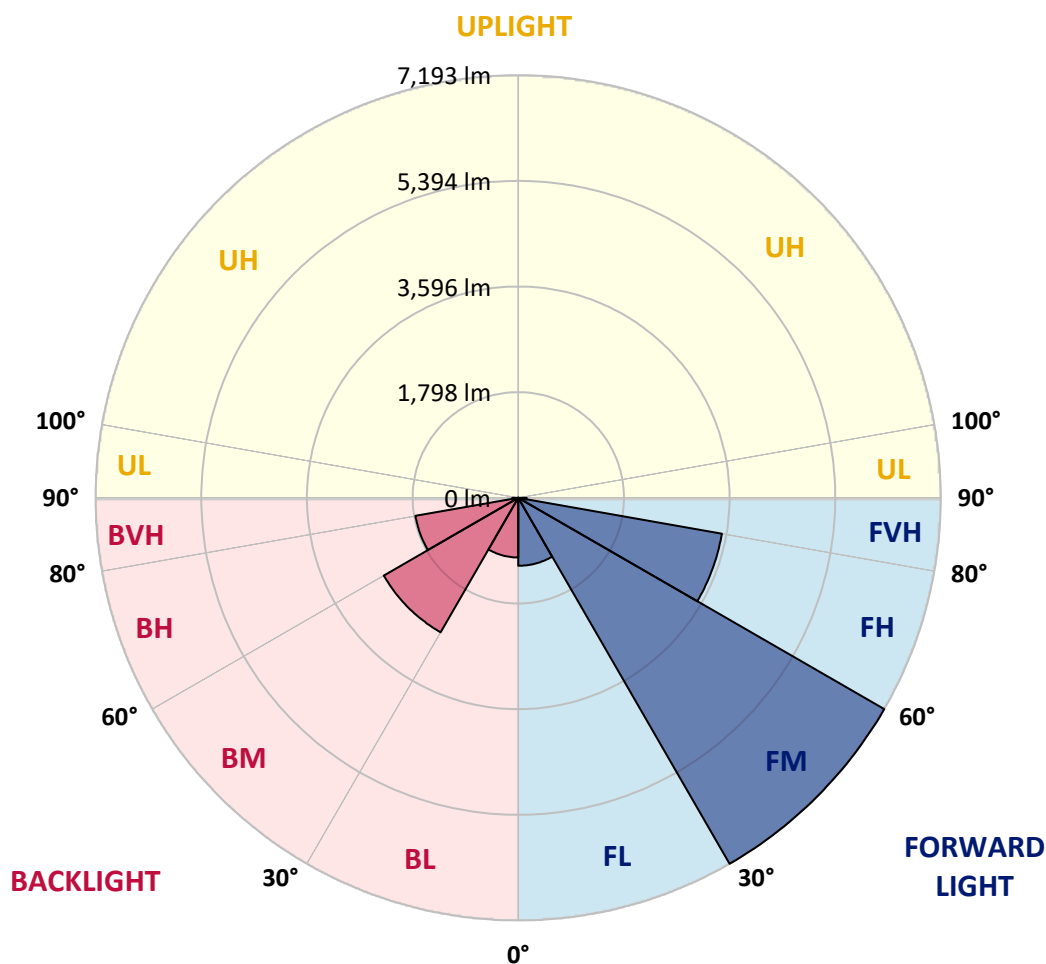
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1156.8 | 6.6       |                         |      |         |
| FM   | (30°-60°)   | 7192.6 | 41.0      |                         |      |         |
| FH   | (60°-80°)   | 3520.0 | 20.1      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 142.6  | 0.8       |                         |      | G2/225  |
| BL   | (0°-30°)    | 1015.6 | 5.8       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 2643.8 | 15.1      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 1776.5 | 10.1      | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 102.1  | 0.6       |                         |      | 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 Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 67°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1934.0 | 1934.0 | 1934.0 | 1934.0 | 1934.0 | 1934.0 | 1934.0 | 1934.0 | 1934.0 | 1934.0 | 1934.0 |
| 2.5°  | 1921.2 | 1915.7 | 1920.2 | 1920.2 | 1922.1 | 1921.2 | 1927.6 | 1929.4 | 1932.1 | 1937.6 | 1937.6 |
| 5°    | 1902.1 | 1901.2 | 1909.4 | 1916.6 | 1923.9 | 1930.3 | 1938.5 | 1950.4 | 1952.1 | 1958.6 | 1966.7 |
| 7.5°  | 1895.7 | 1890.2 | 1903.0 | 1912.1 | 1929.4 | 1944.8 | 1966.7 | 1986.8 | 1995.0 | 1997.7 | 2013.2 |
| 10°   | 1944.8 | 1935.7 | 1947.6 | 1953.0 | 1967.6 | 1983.1 | 2008.6 | 2040.5 | 2049.6 | 2060.5 | 2077.8 |
| 12.5° | 2028.7 | 2018.6 | 2036.0 | 2044.2 | 2057.8 | 2071.4 | 2088.7 | 2119.7 | 2124.2 | 2144.3 | 2160.7 |
| 15°   | 2143.4 | 2131.5 | 2142.5 | 2152.5 | 2175.3 | 2188.0 | 2205.3 | 2235.3 | 2235.3 | 2250.8 | 2262.7 |
| 17.5° | 2299.1 | 2283.6 | 2291.8 | 2295.4 | 2309.9 | 2329.1 | 2358.2 | 2384.7 | 2398.3 | 2392.9 | 2376.5 |
| 20°   | 2531.2 | 2512.1 | 2512.1 | 2493.9 | 2488.5 | 2504.0 | 2542.2 | 2578.6 | 2593.1 | 2565.0 | 2524.9 |
| 22.5° | 2879.9 | 2852.7 | 2837.2 | 2775.3 | 2750.7 | 2752.5 | 2790.8 | 2835.4 | 2847.1 | 2797.1 | 2706.9 |
| 25°   | 3323.4 | 3280.6 | 3259.6 | 3168.6 | 3113.0 | 3064.9 | 3094.9 | 3152.2 | 3168.6 | 3106.7 | 2961.0 |
| 27.5° | 3766.8 | 3769.5 | 3749.6 | 3640.3 | 3548.2 | 3460.0 | 3444.5 | 3504.6 | 3521.9 | 3451.8 | 3271.5 |
| 30°   | 4388.7 | 4324.1 | 4285.8 | 4154.7 | 4023.5 | 3899.7 | 3836.0 | 3860.6 | 3865.2 | 3781.4 | 3571.9 |
| 32.5° | 4925.0 | 4908.6 | 4826.6 | 4711.9 | 4543.5 | 4349.6 | 4243.0 | 4203.8 | 4196.6 | 4077.3 | 3828.7 |
| 35°   | 5535.9 | 5526.8 | 5440.4 | 5303.8 | 5121.6 | 4852.1 | 4660.1 | 4548.0 | 4538.9 | 4371.4 | 4082.8 |
| 37.5° | 6157.0 | 6157.0 | 6072.2 | 5923.0 | 5734.5 | 5397.5 | 5105.3 | 4927.7 | 4898.6 | 4680.0 | 4341.4 |
| 40°   | 6652.2 | 6622.2 | 6637.7 | 6574.9 | 6359.1 | 6001.3 | 5599.7 | 5342.0 | 5302.8 | 5040.6 | 4616.3 |
| 42.5° | 6933.6 | 6923.6 | 7016.4 | 7086.5 | 6998.2 | 6712.3 | 6144.2 | 5790.9 | 5736.3 | 5437.6 | 4933.2 |
| 45°   | 6996.4 | 6985.5 | 7151.2 | 7408.0 | 7531.8 | 7414.3 | 6736.0 | 6263.5 | 6196.9 | 5852.9 | 5272.8 |
| 47.5° | 6851.6 | 6829.8 | 7072.9 | 7478.1 | 7875.1 | 8081.7 | 7377.0 | 6776.1 | 6679.5 | 6257.1 | 5621.5 |
| 50°   | 6416.4 | 6395.5 | 6763.4 | 7301.5 | 7990.7 | 8535.2 | 8072.7 | 7319.6 | 7172.1 | 6690.5 | 5973.9 |
| 52.5° | 5470.4 | 5480.4 | 6056.7 | 6796.1 | 7838.7 | 8817.5 | 8671.8 | 7892.4 | 7714.8 | 7133.9 | 6304.5 |
| 55°   | 4261.2 | 4283.1 | 4991.4 | 5805.5 | 7230.5 | 8774.6 | 9080.6 | 8482.4 | 8305.8 | 7551.0 | 6645.9 |
| 57.5° | 3051.1 | 3147.7 | 3811.5 | 4617.2 | 6062.3 | 8096.4 | 9169.9 | 9043.3 | 8872.1 | 8006.2 | 6980.0 |
| 60°   | 1977.6 | 1995.0 | 2677.8 | 3490.0 | 4616.3 | 6890.8 | 8988.6 | 9468.4 | 9334.7 | 8470.5 | 7259.6 |
| 62.5° | 1267.4 | 1279.3 | 1695.4 | 2441.1 | 3322.4 | 5097.9 | 8378.6 | 9653.3 | 9612.3 | 8777.4 | 7528.1 |
| 65°   | 931.4  | 922.4  | 1139.1 | 1613.5 | 2238.1 | 3144.0 | 7194.0 | 9564.1 | 9645.1 | 8969.5 | 7750.3 |
| 67.5° | 777.6  | 764.9  | 871.4  | 1117.2 | 1648.9 | 1785.6 | 5322.9 | 8984.1 | 9280.9 | 8947.6 | 7913.3 |
| 70°   | 708.4  | 697.4  | 762.1  | 829.5  | 1286.6 | 1195.6 | 2683.2 | 7810.4 | 8267.5 | 8699.1 | 7886.9 |
| 72.5° | 600.0  | 580.9  | 669.2  | 736.6  | 1000.7 | 916.9  | 1109.0 | 5999.4 | 6556.6 | 7902.3 | 7515.4 |
| 75°   | 465.2  | 452.5  | 528.1  | 648.3  | 752.0  | 715.7  | 701.1  | 3643.0 | 4251.2 | 6111.4 | 6574.9 |
| 77.5° | 368.8  | 351.5  | 420.7  | 505.3  | 676.5  | 540.0  | 510.8  | 1568.9 | 2171.6 | 3901.6 | 4919.5 |
| 80°   | 277.7  | 262.2  | 319.6  | 399.7  | 519.9  | 407.0  | 330.6  | 640.1  | 818.6  | 1976.7 | 2473.8 |
| 82.5° | 197.6  | 183.9  | 223.0  | 293.2  | 349.6  | 365.1  | 203.1  | 358.7  | 403.3  | 762.1  | 552.7  |
| 85°   | 126.6  | 118.4  | 149.3  | 183.9  | 222.1  | 234.9  | 123.8  | 187.6  | 205.8  | 314.2  | 230.3  |
| 87.5° | 69.2   | 56.5   | 80.2   | 85.6   | 102.9  | 93.8   | 59.1   | 68.3   | 73.8   | 113.8  | 97.4   |
| 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°    | 1934.0 | 1934.0 | 1934.0 | 1934.0 | 1934.0 | 1934.0 | 1934.0 | 1934.0 | 1934.0 | 1934.0 | 1934.0 |
| 2.5°  | 1941.2 | 1943.9 | 1953.0 | 1955.8 | 1962.2 | 1970.4 | 1975.8 | 1981.3 | 1981.3 | 1986.8 | 1986.8 |
| 5°    | 1967.6 | 1974.0 | 1993.1 | 2003.2 | 2019.6 | 2036.0 | 2045.9 | 2057.8 | 2065.1 | 2068.7 | 2070.5 |
| 7.5°  | 2018.6 | 2028.7 | 2055.9 | 2073.3 | 2101.5 | 2124.2 | 2139.7 | 2156.1 | 2159.8 | 2169.7 | 2166.1 |
| 10°   | 2087.8 | 2099.6 | 2130.6 | 2163.4 | 2197.1 | 2225.3 | 2239.8 | 2251.7 | 2256.2 | 2258.1 | 2253.6 |
| 12.5° | 2167.1 | 2184.4 | 2224.4 | 2264.4 | 2300.0 | 2324.6 | 2328.2 | 2325.4 | 2312.7 | 2301.7 | 2301.7 |
| 15°   | 2264.4 | 2279.9 | 2324.6 | 2368.3 | 2402.8 | 2407.4 | 2384.7 | 2370.1 | 2354.6 | 2351.9 | 2351.9 |
| 17.5° | 2381.0 | 2389.2 | 2430.2 | 2472.9 | 2475.7 | 2460.2 | 2426.5 | 2412.8 | 2398.3 | 2388.2 | 2389.2 |
| 20°   | 2516.7 | 2513.9 | 2543.0 | 2561.3 | 2542.2 | 2494.8 | 2443.8 | 2421.0 | 2406.5 | 2394.7 | 2395.5 |
| 22.5° | 2678.7 | 2657.8 | 2654.1 | 2649.6 | 2598.6 | 2499.4 | 2430.2 | 2401.1 | 2378.3 | 2361.9 | 2367.3 |
| 25°   | 2914.6 | 2834.4 | 2778.9 | 2747.9 | 2633.2 | 2474.8 | 2386.5 | 2321.8 | 2279.0 | 2250.8 | 2261.8 |
| 27.5° | 3209.6 | 3074.8 | 2934.6 | 2859.0 | 2633.2 | 2424.7 | 2280.8 | 2176.2 | 2106.1 | 2076.9 | 2091.4 |
| 30°   | 3490.9 | 3349.8 | 3143.1 | 2992.9 | 2626.9 | 2342.7 | 2110.6 | 1964.9 | 1882.9 | 1853.8 | 1871.1 |
| 32.5° | 3731.3 | 3577.5 | 3364.4 | 3139.5 | 2611.4 | 2209.8 | 1899.3 | 1738.2 | 1659.0 | 1624.3 | 1641.6 |
| 35°   | 3954.3 | 3790.4 | 3586.6 | 3300.6 | 2570.4 | 2014.9 | 1667.2 | 1544.3 | 1455.9 | 1400.4 | 1418.6 |
| 37.5° | 4182.9 | 3988.1 | 3796.9 | 3446.4 | 2496.6 | 1787.4 | 1488.7 | 1384.0 | 1280.2 | 1205.5 | 1225.6 |
| 40°   | 4431.5 | 4198.4 | 4021.8 | 3532.8 | 2375.5 | 1570.6 | 1350.3 | 1254.7 | 1144.5 | 1065.3 | 1080.8 |
| 42.5° | 4722.0 | 4450.7 | 4272.1 | 3577.5 | 2209.8 | 1416.8 | 1260.1 | 1166.3 | 1062.6 | 997.9  | 1010.6 |
| 45°   | 5025.2 | 4728.3 | 4500.7 | 3576.5 | 2025.0 | 1344.8 | 1231.0 | 1138.2 | 1023.5 | 956.0  | 967.0  |
| 47.5° | 5342.9 | 5018.8 | 4698.3 | 3518.2 | 1864.8 | 1354.8 | 1214.6 | 1077.2 | 950.6  | 885.0  | 894.1  |
| 50°   | 5661.6 | 5336.6 | 4889.5 | 3408.9 | 1796.4 | 1333.0 | 1153.6 | 991.6  | 842.2  | 783.0  | 786.7  |
| 52.5° | 5977.6 | 5674.3 | 5054.3 | 3253.2 | 1727.2 | 1251.9 | 1075.3 | 880.5  | 797.7  | 756.7  | 756.7  |
| 55°   | 6295.3 | 6008.5 | 5233.6 | 3026.5 | 1554.2 | 1157.2 | 944.2  | 838.6  | 762.1  | 724.8  | 721.1  |
| 57.5° | 6614.0 | 6394.6 | 5403.9 | 2799.9 | 1336.6 | 1040.7 | 872.3  | 787.6  | 726.6  | 694.7  | 689.3  |
| 60°   | 6945.4 | 6836.1 | 5579.7 | 2591.3 | 1121.8 | 891.4  | 819.5  | 746.6  | 684.7  | 649.2  | 646.5  |
| 62.5° | 7286.8 | 7322.4 | 5717.1 | 2322.8 | 924.1  | 800.3  | 772.1  | 697.4  | 637.3  | 603.6  | 602.8  |
| 65°   | 7631.0 | 7791.3 | 5807.2 | 1950.4 | 749.4  | 713.8  | 721.1  | 643.7  | 582.7  | 553.6  | 552.7  |
| 67.5° | 7890.6 | 8129.1 | 5781.8 | 1476.0 | 614.6  | 631.9  | 657.4  | 587.3  | 529.9  | 507.2  | 508.1  |
| 70°   | 7919.7 | 8089.0 | 5530.5 | 1010.6 | 514.4  | 551.8  | 586.4  | 531.8  | 472.5  | 456.1  | 457.0  |
| 72.5° | 7531.8 | 7542.8 | 4830.3 | 660.1  | 435.2  | 484.4  | 511.7  | 475.3  | 417.9  | 401.5  | 400.7  |
| 75°   | 6514.8 | 6237.9 | 3546.5 | 435.2  | 364.2  | 416.2  | 441.6  | 416.2  | 360.6  | 364.2  | 351.5  |
| 77.5° | 4935.9 | 4417.9 | 2153.4 | 309.5  | 304.1  | 349.6  | 384.3  | 366.0  | 318.7  | 357.8  | 315.1  |
| 80°   | 2543.0 | 2390.1 | 960.6  | 231.2  | 240.4  | 279.5  | 315.9  | 292.2  | 252.3  | 240.4  | 219.5  |
| 82.5° | 582.7  | 677.4  | 378.7  | 165.7  | 173.9  | 201.2  | 241.3  | 219.5  | 181.2  | 152.9  | 151.2  |
| 85°   | 204.0  | 223.0  | 167.5  | 103.8  | 102.0  | 125.7  | 163.9  | 146.6  | 122.9  | 98.3   | 103.8  |
| 87.5° | 64.7   | 84.7   | 62.8   | 41.9   | 43.7   | 56.5   | 75.5   | 69.2   | 57.4   | 37.3   | 39.2   |
| 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)