

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: P965069

Luminaire Tested: **NAV-SB3D-730-U-T3-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P965069  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3D-730-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24543.6 lumens  
Efficiency: N/A  
Efficacy: 112.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G4

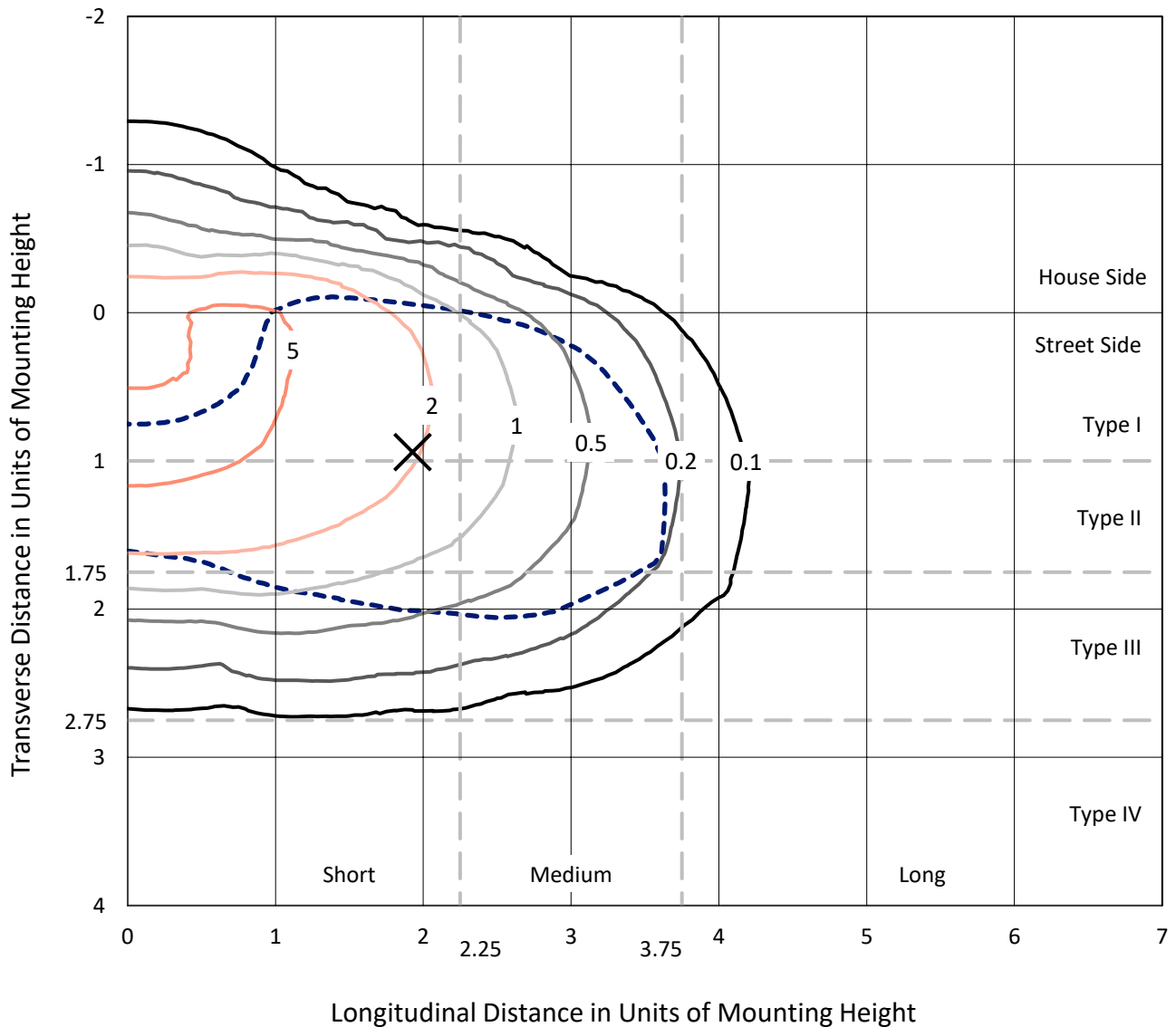
Input Watts (W): 218.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

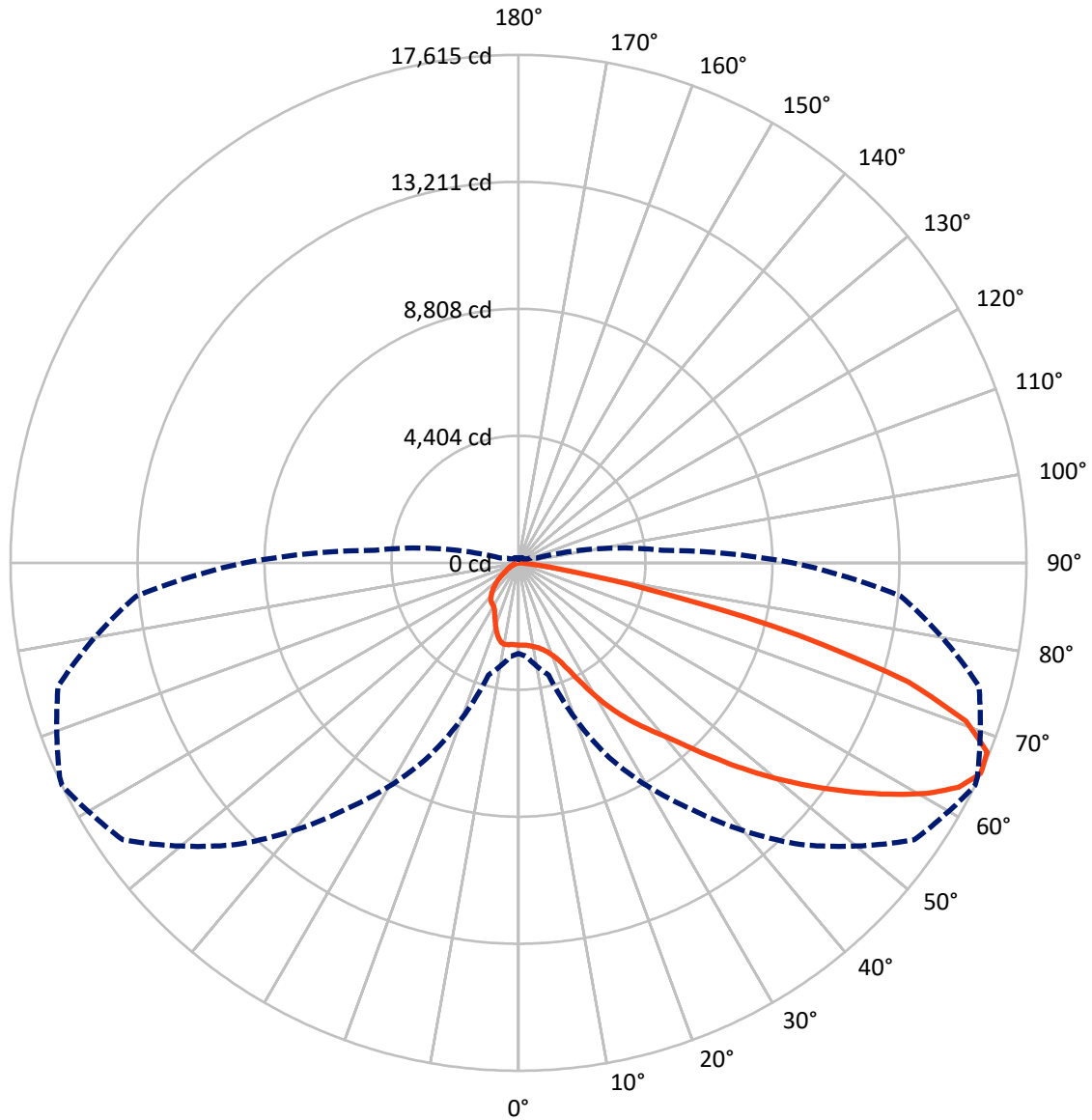
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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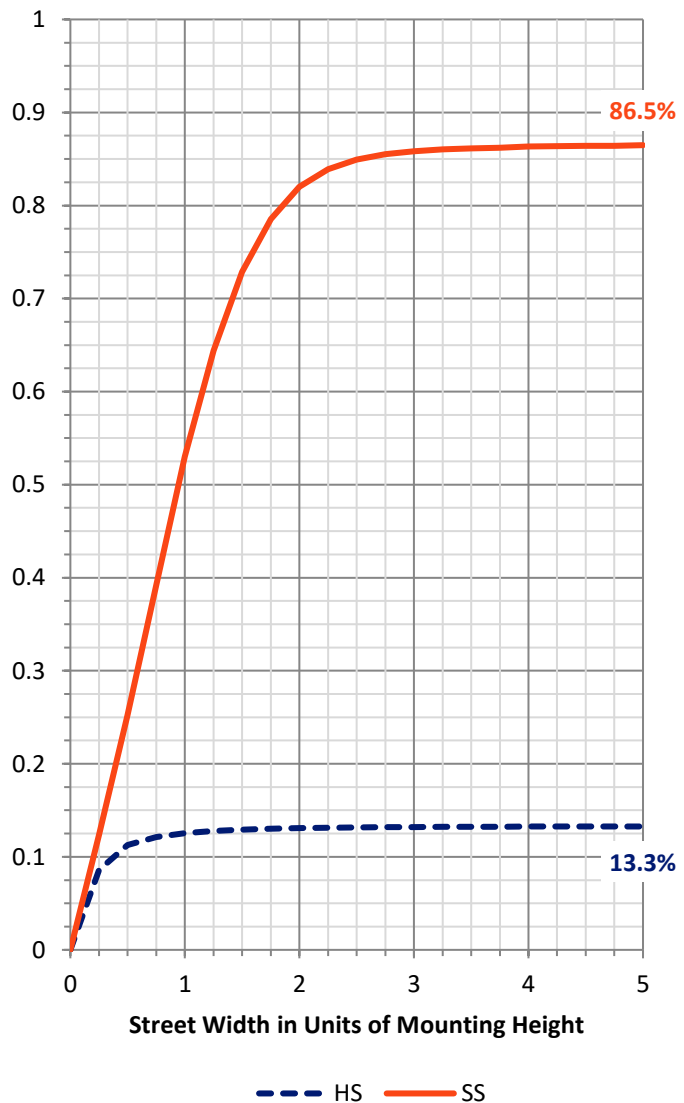
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3282.2   | 0.0    | 3282.2  |
|                    | % Fixture | 13.4     | 0.0    | 13.4    |
| <b>Street Side</b> | Lumens    | 21261.4  | 0.0    | 21261.4 |
|                    | % Fixture | 86.6     | 0.0    | 86.6    |
| <b>Total</b>       | Lumens    | 24543.6  | 0.0    | 24543.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 263.4   | 1.1       |
| 10°-20°   | 714.3   | 2.9       |
| 20°-30°   | 1353.6  | 5.5       |
| 30°-40°   | 2739.1  | 11.2      |
| 40°-50°   | 4666.1  | 19.0      |
| 50°-60°   | 6345.5  | 25.9      |
| 60°-70°   | 5958.7  | 24.3      |
| 70°-80°   | 2387.3  | 9.7       |
| 80°-90°   | 115.7   | 0.5       |
| 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°    | 24543.6 | 100.0     |
| 0°-180°   | 24543.6 | 100.0     |

**Coefficient of Utilization**



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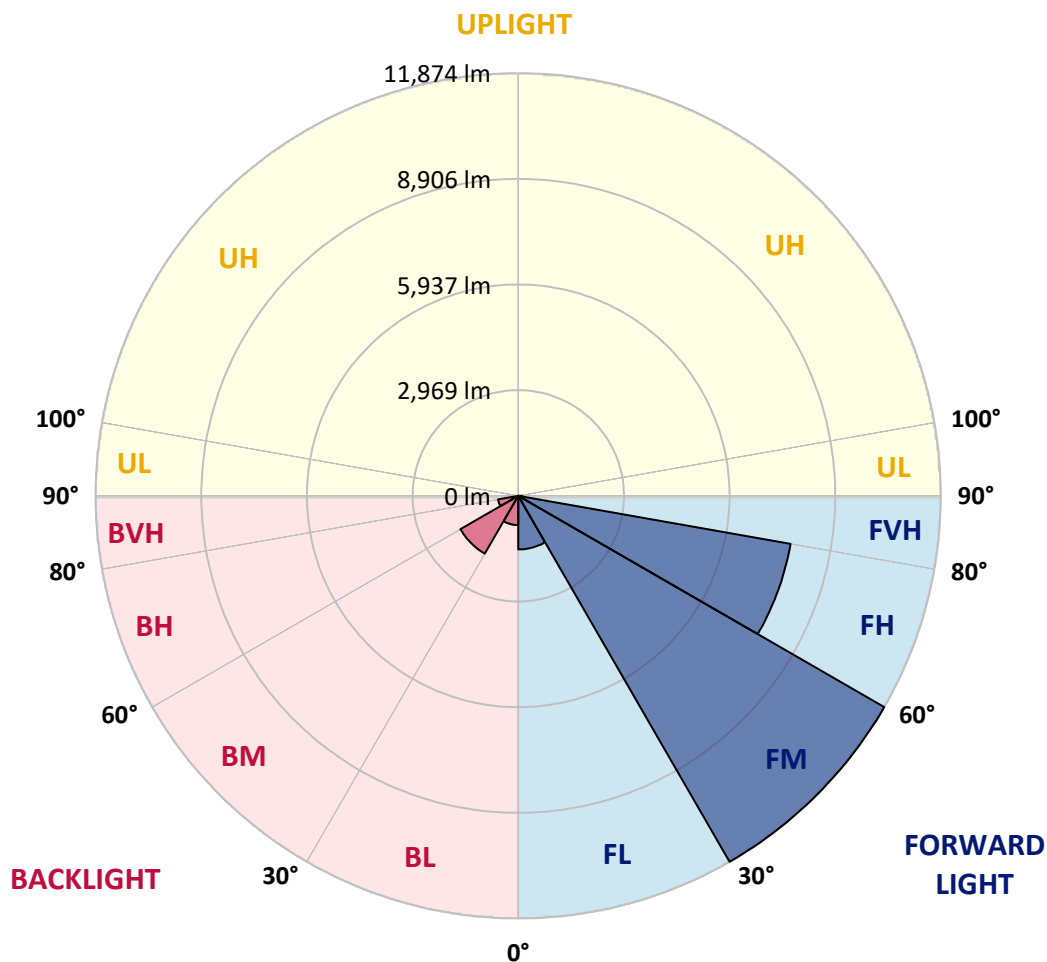
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|---------|-----------|-------------------------|------|----------|
|                |         |           | B                       | U    | G        |
| FL (0°-30°)    | 1507.3  | 6.1       |                         |      |          |
| FM (30°-60°)   | 11874.2 | 48.4      |                         |      |          |
| FH (60°-80°)   | 7769.9  | 31.7      |                         |      | G4/12000 |
| FVH (80°-90°)  | 110.0   | 0.4       |                         |      | G2/225   |
| BL (0°-30°)    | 824.1   | 3.4       | B2/1000                 |      |          |
| BM (30°-60°)   | 1876.4  | 7.6       | B2/2500                 |      |          |
| BH (60°-80°)   | 576.1   | 2.3       | B2/1000                 |      | G2/1000  |
| BVH (80°-90°)  | 5.6     | 0.0       |                         |      | G0/10    |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B2-U0-G4**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 64°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2854.7  | 2854.7  | 2854.7  | 2854.7  | 2854.7  | 2854.7  | 2854.7  | 2854.7  | 2854.7  | 2854.7  | 2854.7  |
| 2.5°  | 2844.8  | 2864.6  | 2859.6  | 2854.7  | 2853.0  | 2856.4  | 2858.0  | 2856.4  | 2856.4  | 2856.4  | 2858.0  |
| 5°    | 2790.5  | 2807.0  | 2807.0  | 2818.4  | 2834.9  | 2854.7  | 2869.5  | 2872.8  | 2876.0  | 2881.0  | 2879.3  |
| 7.5°  | 2686.8  | 2700.1  | 2709.9  | 2747.7  | 2788.8  | 2841.5  | 2886.0  | 2909.0  | 2912.2  | 2930.4  | 2936.9  |
| 10°   | 2616.1  | 2632.5  | 2649.0  | 2688.5  | 2747.7  | 2826.7  | 2902.4  | 2958.4  | 2966.6  | 3009.3  | 3029.1  |
| 12.5° | 2612.8  | 2629.2  | 2650.6  | 2693.4  | 2762.6  | 2846.4  | 2938.6  | 3019.2  | 3034.0  | 3096.5  | 3137.6  |
| 15°   | 2647.4  | 2667.2  | 2686.8  | 2739.5  | 2813.5  | 2915.5  | 3014.3  | 3114.7  | 3129.4  | 3218.3  | 3262.7  |
| 17.5° | 2718.1  | 2744.4  | 2759.2  | 2811.9  | 2890.9  | 3004.4  | 3134.3  | 3249.6  | 3262.7  | 3366.4  | 3422.4  |
| 20°   | 2858.0  | 2889.3  | 2894.2  | 2936.9  | 3014.3  | 3136.0  | 3290.7  | 3433.9  | 3450.3  | 3568.7  | 3631.3  |
| 22.5° | 3147.6  | 3192.0  | 3152.5  | 3173.9  | 3243.0  | 3364.8  | 3532.6  | 3713.6  | 3736.5  | 3871.5  | 3927.5  |
| 25°   | 3657.6  | 3720.1  | 3618.1  | 3582.0  | 3611.6  | 3738.3  | 3948.8  | 4177.5  | 4203.8  | 4312.5  | 4340.5  |
| 27.5° | 4659.6  | 4579.0  | 4424.3  | 4272.9  | 4184.2  | 4256.5  | 4493.4  | 4776.4  | 4809.4  | 4914.7  | 4881.8  |
| 30°   | 5760.4  | 5689.6  | 5480.7  | 5145.0  | 4934.3  | 4922.9  | 5141.7  | 5457.6  | 5495.4  | 5595.8  | 5495.4  |
| 32.5° | 6862.8  | 6795.2  | 6568.2  | 6155.2  | 5790.0  | 5609.0  | 5760.4  | 6110.8  | 6130.5  | 6194.7  | 6046.7  |
| 35°   | 7947.0  | 7877.9  | 7650.9  | 7228.0  | 6778.8  | 6367.5  | 6337.9  | 6732.7  | 6739.4  | 6806.8  | 6586.3  |
| 37.5° | 9037.9  | 8980.3  | 8738.4  | 8323.8  | 7881.2  | 7313.6  | 7038.8  | 7321.8  | 7330.0  | 7395.9  | 7167.1  |
| 40°   | 9816.1  | 9840.8  | 9674.7  | 9353.8  | 8973.8  | 8353.4  | 7825.3  | 7948.7  | 7899.3  | 8009.6  | 7873.0  |
| 42.5° | 10484.1 | 10533.5 | 10388.7 | 10227.4 | 10007.0 | 9460.8  | 8799.3  | 8777.9  | 8699.0  | 8758.2  | 8616.7  |
| 45°   | 11061.7 | 11102.8 | 10972.8 | 10935.0 | 10930.1 | 10546.6 | 9863.9  | 9735.6  | 9625.3  | 9613.8  | 9444.2  |
| 47.5° | 11273.9 | 11352.9 | 11408.9 | 11535.6 | 11782.4 | 11621.1 | 10964.6 | 10765.5 | 10642.1 | 10551.7 | 10283.4 |
| 50°   | 11354.5 | 11438.5 | 11629.3 | 11997.8 | 12582.0 | 12651.1 | 12060.4 | 11836.6 | 11685.3 | 11520.7 | 11125.9 |
| 52.5° | 11246.0 | 11395.6 | 11652.3 | 12272.6 | 13120.0 | 13477.0 | 13111.8 | 12916.0 | 12743.2 | 12475.1 | 11889.3 |
| 55°   | 10605.9 | 10755.6 | 11280.5 | 12269.4 | 13388.2 | 14056.2 | 14105.5 | 14018.4 | 13824.2 | 13401.4 | 12506.3 |
| 57.5° | 9256.8  | 9478.9  | 10309.8 | 11851.5 | 13383.2 | 14554.8 | 15079.6 | 15142.1 | 14924.9 | 14319.5 | 12991.7 |
| 60°   | 7387.6  | 7688.7  | 8702.2  | 10925.1 | 12970.2 | 14824.6 | 15933.5 | 16246.1 | 16015.8 | 15224.4 | 13384.9 |
| 62.5° | 5154.8  | 5503.7  | 6462.9  | 9473.9  | 12025.8 | 14630.4 | 16557.1 | 17134.6 | 16960.3 | 16033.9 | 13536.3 |
| 65°   | 3144.3  | 3256.1  | 4029.5  | 7455.0  | 10419.9 | 13817.6 | 16749.6 | 17615.1 | 17557.5 | 16529.1 | 13312.5 |
| 67.5° | 2094.5  | 2188.3  | 2410.4  | 5112.1  | 8088.5  | 12193.7 | 16289.0 | 17531.2 | 17547.6 | 16448.6 | 12493.1 |
| 70°   | 1262.0  | 1342.6  | 1487.4  | 2973.1  | 5242.1  | 9651.6  | 14862.4 | 16461.7 | 16557.1 | 15370.8 | 10939.9 |
| 72.5° | 519.9   | 574.2   | 705.8   | 1347.6  | 2714.8  | 6125.6  | 11835.0 | 14133.5 | 14355.6 | 12924.2 | 8396.2  |
| 75°   | 294.5   | 322.5   | 414.6   | 676.2   | 1178.0  | 2854.7  | 7168.7  | 10033.3 | 10360.8 | 8907.9  | 5051.2  |
| 77.5° | 195.8   | 209.0   | 268.2   | 437.7   | 663.1   | 974.1   | 3063.6  | 5227.3  | 5852.5  | 4865.3  | 2186.6  |
| 80°   | 131.6   | 143.2   | 184.3   | 292.8   | 431.1   | 417.9   | 975.7   | 1936.5  | 2382.5  | 1671.7  | 533.1   |
| 82.5° | 88.9    | 90.5    | 131.6   | 192.5   | 273.2   | 202.3   | 287.9   | 602.2   | 756.9   | 483.7   | 202.3   |
| 85°   | 51.0    | 49.4    | 97.1    | 111.9   | 121.8   | 83.9    | 87.2    | 181.0   | 237.0   | 204.0   | 115.2   |
| 87.5° | 6.6     | 9.8     | 37.8    | 29.6    | 16.5    | 18.1    | 18.1    | 31.3    | 46.0    | 49.4    | 24.7    |
| 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°    | 2854.7  | 2854.7 | 2854.7 | 2854.7 | 2854.7 | 2854.7 | 2854.7 | 2854.7 | 2854.7 | 2854.7 | 2854.7 |
| 2.5°  | 2858.0  | 2856.4 | 2851.3 | 2846.4 | 2834.9 | 2828.4 | 2831.7 | 2828.4 | 2826.7 | 2828.4 | 2834.9 |
| 5°    | 2879.3  | 2874.4 | 2861.3 | 2844.8 | 2821.7 | 2793.8 | 2775.7 | 2749.4 | 2724.7 | 2709.9 | 2713.2 |
| 7.5°  | 2936.9  | 2932.0 | 2913.9 | 2867.8 | 2793.8 | 2677.0 | 2570.0 | 2476.3 | 2405.5 | 2364.4 | 2366.0 |
| 10°   | 3029.1  | 3020.9 | 2992.9 | 2890.9 | 2696.8 | 2441.7 | 2229.5 | 2053.4 | 1938.2 | 1884.0 | 1879.0 |
| 12.5° | 3137.6  | 3127.8 | 3078.5 | 2869.5 | 2512.5 | 2114.3 | 1821.4 | 1625.6 | 1518.6 | 1471.0 | 1466.0 |
| 15°   | 3266.1  | 3252.8 | 3155.8 | 2767.5 | 2244.2 | 1752.3 | 1484.1 | 1337.6 | 1268.5 | 1225.8 | 1227.4 |
| 17.5° | 3425.7  | 3402.6 | 3213.4 | 2614.5 | 1953.0 | 1475.9 | 1276.7 | 1166.6 | 1105.7 | 1064.6 | 1061.3 |
| 20°   | 3632.9  | 3595.1 | 3259.4 | 2431.8 | 1684.8 | 1301.4 | 1136.9 | 1044.8 | 998.8  | 962.6  | 955.9  |
| 22.5° | 3922.5  | 3868.2 | 3315.4 | 2234.4 | 1495.6 | 1181.3 | 1033.3 | 965.9  | 927.9  | 886.8  | 880.3  |
| 25°   | 4281.2  | 4217.1 | 3384.4 | 2051.7 | 1365.6 | 1077.7 | 957.6  | 901.7  | 857.2  | 809.5  | 804.6  |
| 27.5° | 4783.1  | 4667.8 | 3466.8 | 1902.0 | 1253.8 | 988.8  | 888.5  | 825.9  | 775.0  | 735.4  | 727.2  |
| 30°   | 5342.4  | 5153.2 | 3539.1 | 1811.5 | 1151.8 | 906.6  | 798.0  | 735.4  | 687.8  | 659.8  | 654.9  |
| 32.5° | 5872.2  | 5615.6 | 3586.9 | 1772.0 | 1059.6 | 812.8  | 699.3  | 631.8  | 595.6  | 587.4  | 592.3  |
| 35°   | 6372.4  | 6033.5 | 3582.0 | 1734.2 | 977.3  | 719.0  | 602.2  | 533.1  | 505.1  | 510.0  | 510.0  |
| 37.5° | 6948.3  | 6479.3 | 3547.3 | 1675.0 | 909.9  | 633.4  | 518.2  | 457.5  | 432.8  | 434.4  | 441.0  |
| 40°   | 7618.0  | 6994.4 | 3526.0 | 1563.1 | 835.9  | 554.5  | 449.2  | 399.9  | 381.7  | 375.2  | 373.5  |
| 42.5° | 8332.0  | 7493.0 | 3529.3 | 1436.4 | 743.7  | 483.7  | 401.5  | 360.3  | 343.9  | 339.0  | 337.3  |
| 45°   | 9049.4  | 7968.5 | 3534.2 | 1304.7 | 646.7  | 429.5  | 367.0  | 332.4  | 322.5  | 315.9  | 315.9  |
| 47.5° | 9724.0  | 8373.2 | 3442.1 | 1163.3 | 551.1  | 388.3  | 339.0  | 315.9  | 307.7  | 299.4  | 299.4  |
| 50°   | 10352.5 | 8643.0 | 3219.9 | 998.8  | 475.5  | 355.4  | 317.5  | 301.1  | 292.8  | 284.6  | 284.6  |
| 52.5° | 10841.2 | 8685.7 | 2853.0 | 829.2  | 422.8  | 330.7  | 304.4  | 289.6  | 279.7  | 271.5  | 269.9  |
| 55°   | 11058.4 | 8417.6 | 2331.5 | 671.3  | 381.7  | 309.3  | 291.2  | 276.4  | 264.9  | 256.7  | 255.0  |
| 57.5° | 11002.5 | 7853.2 | 1818.1 | 539.7  | 342.2  | 287.9  | 274.8  | 264.9  | 251.7  | 238.6  | 237.0  |
| 60°   | 10727.6 | 7098.0 | 1370.5 | 449.2  | 306.1  | 264.9  | 256.7  | 248.5  | 230.3  | 210.6  | 207.4  |
| 62.5° | 10252.2 | 6148.7 | 977.3  | 371.9  | 266.5  | 238.6  | 235.2  | 228.7  | 202.3  | 166.2  | 162.9  |
| 65°   | 9524.9  | 4995.2 | 658.2  | 309.3  | 228.7  | 209.0  | 210.6  | 199.1  | 164.5  | 123.4  | 120.1  |
| 67.5° | 8462.0  | 3652.7 | 421.2  | 253.4  | 190.9  | 174.5  | 176.1  | 169.4  | 139.8  | 105.3  | 100.3  |
| 70°   | 7107.9  | 2418.7 | 274.8  | 192.5  | 153.0  | 134.9  | 144.8  | 146.5  | 118.5  | 85.6   | 82.3   |
| 72.5° | 5210.8  | 1428.1 | 192.5  | 143.2  | 111.9  | 93.8   | 118.5  | 121.8  | 95.4   | 64.2   | 60.9   |
| 75°   | 2969.8  | 677.8  | 144.8  | 103.6  | 69.1   | 65.8   | 92.1   | 92.1   | 65.8   | 42.7   | 39.5   |
| 77.5° | 1247.2  | 283.0  | 102.0  | 67.4   | 39.5   | 37.8   | 62.5   | 57.6   | 32.9   | 19.8   | 19.8   |
| 80°   | 360.3   | 126.7  | 54.3   | 32.9   | 16.5   | 14.8   | 24.7   | 18.1   | 8.2    | 3.3    | 3.3    |
| 82.5° | 141.4   | 56.0   | 21.4   | 13.1   | 6.6    | 6.6    | 3.3    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 83.9    | 23.1   | 9.8    | 4.9    | 1.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 21.4    | 4.9    | 3.3    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 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)