

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: STREETWORKS

Report Number: P968414

Luminaire Tested: **NVN-SB5B-830-U-T2U-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P968414  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: NVN-SB5B-830-U-T2U-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 20021.3 lumens  
Efficiency: N/A  
Efficacy: 109.6 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 182.7  
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



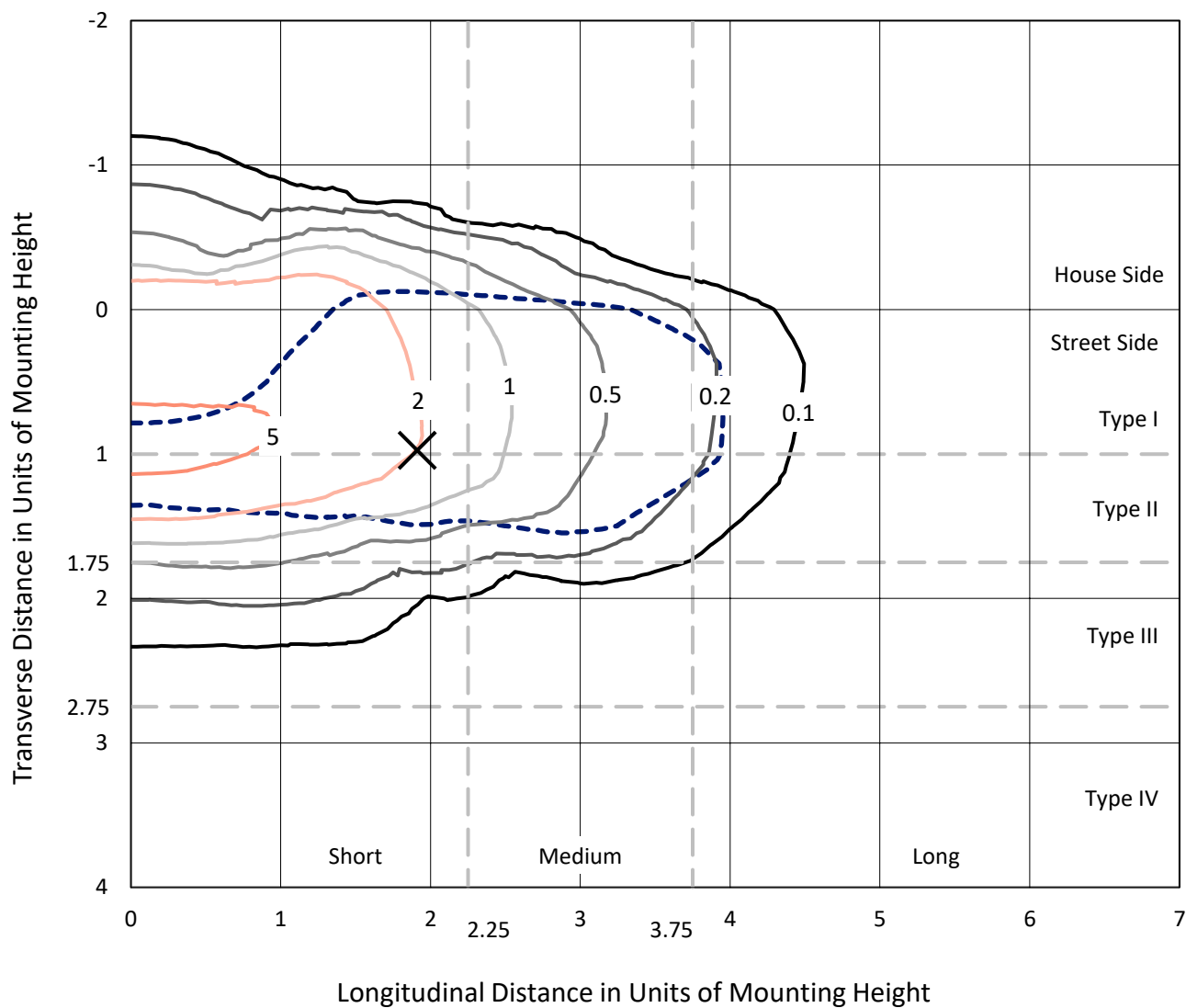
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## Iso-Footcandle Lines of Horizontal Illumination

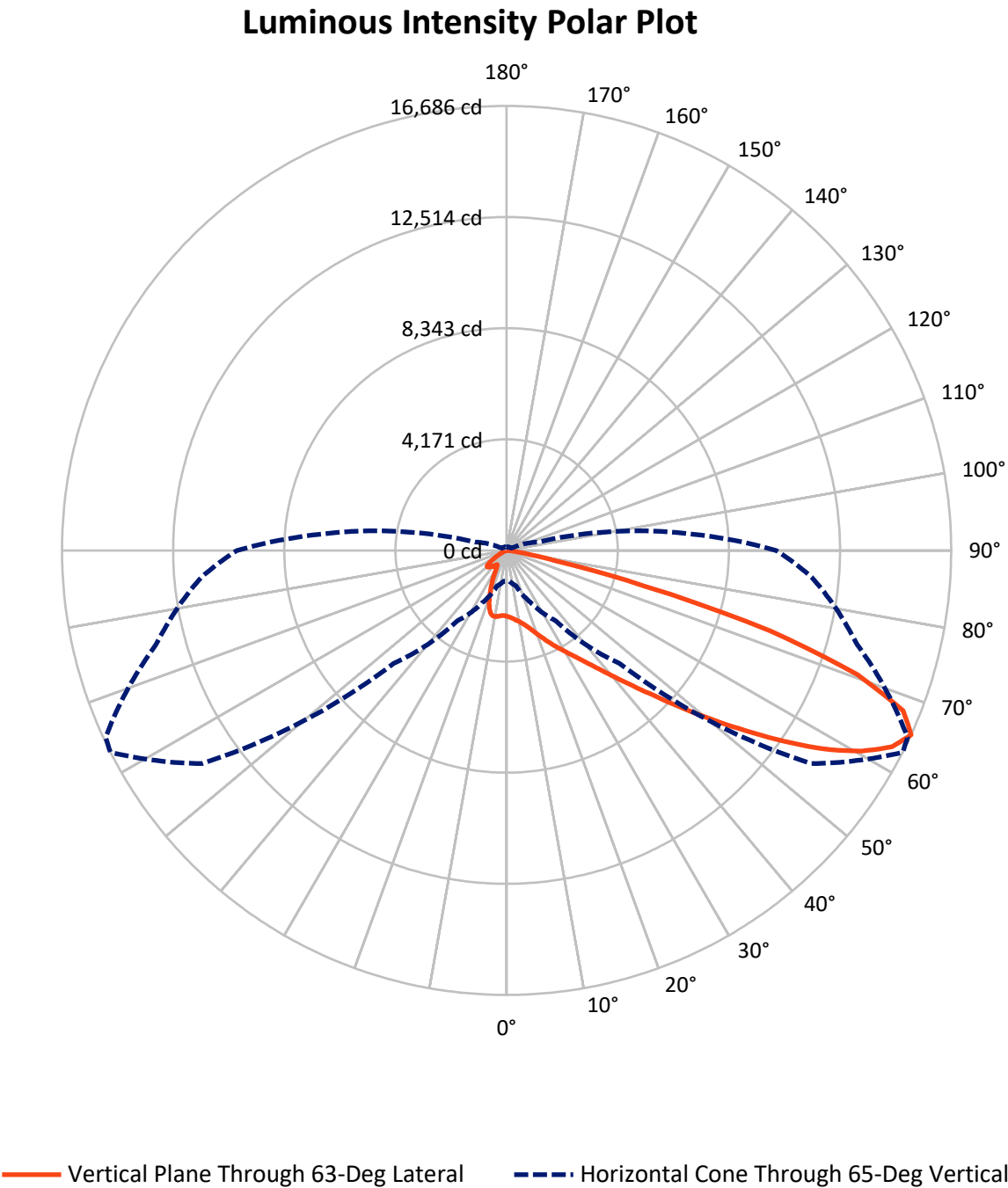
✕ Max cd

--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc  
Type II - Short - N/A

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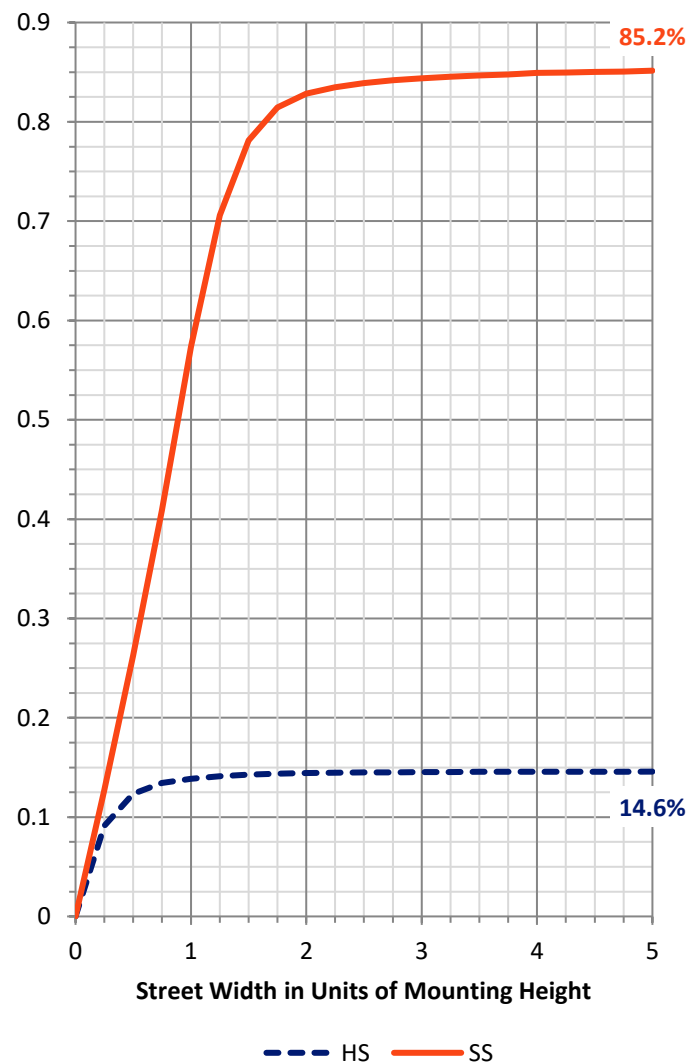
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2943.0   | 0.0    | 2943.0  |
|                    | % Fixture | 14.7     | 0.0    | 14.7    |
| <b>Street Side</b> | Lumens    | 17078.3  | 0.0    | 17078.3 |
|                    | % Fixture | 85.3     | 0.0    | 85.3    |
| <b>Total</b>       | Lumens    | 20021.3  | 0.0    | 20021.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 232.8   | 1.2       |
| 10°-20°   | 646.0   | 3.2       |
| 20°-30°   | 1124.8  | 5.6       |
| 30°-40°   | 2027.4  | 10.1      |
| 40°-50°   | 4020.9  | 20.1      |
| 50°-60°   | 5477.1  | 27.4      |
| 60°-70°   | 4371.8  | 21.8      |
| 70°-80°   | 1978.3  | 9.9       |
| 80°-90°   | 142.2   | 0.7       |
| 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°    | 20021.3 | 100.0     |
| 0°-180°   | 20021.3 | 100.0     |

**Coefficient of Utilization**



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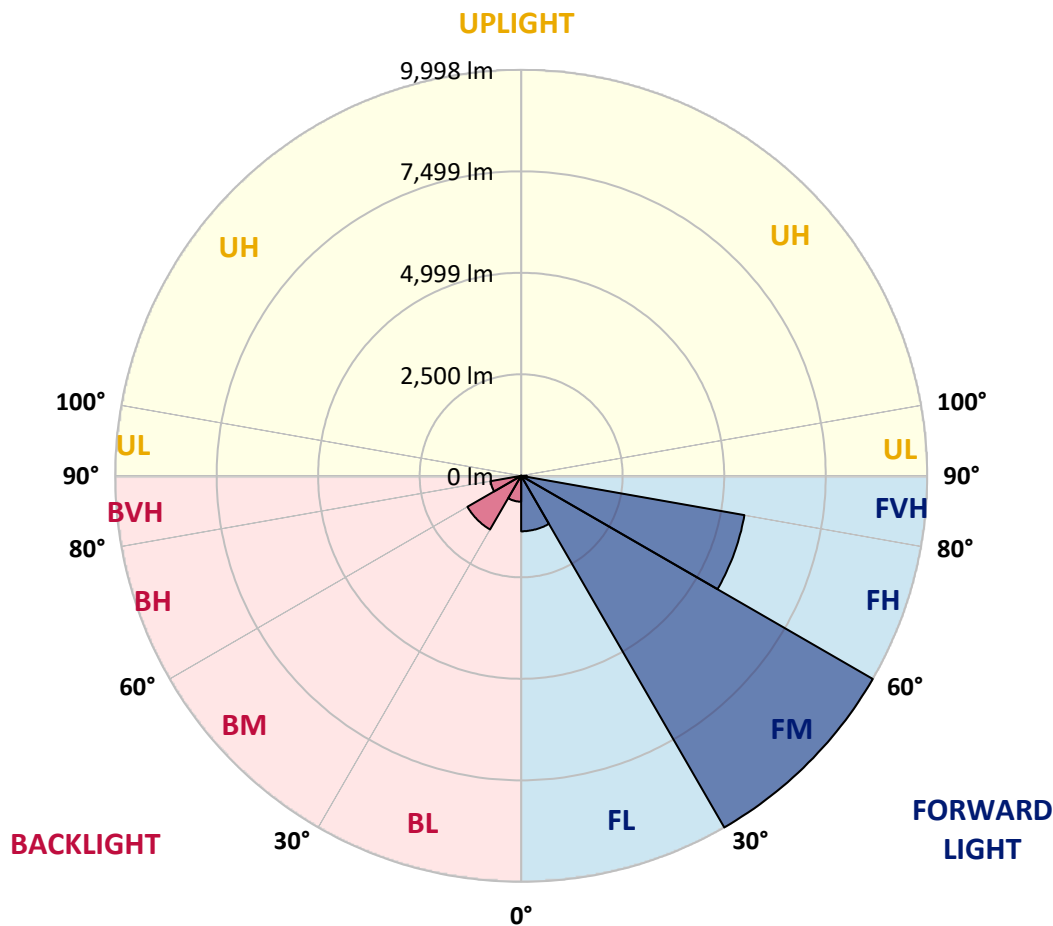
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1366.7 | 6.8       |                         |      |         |
| FM   | (30°-60°)   | 9998.2 | 49.9      |                         |      |         |
| FH   | (60°-80°)   | 5581.8 | 27.9      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 131.6  | 0.7       |                         |      | G2/225  |
| BL   | (0°-30°)    | 636.9  | 3.2       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1527.2 | 7.6       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 768.3  | 3.8       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 10.6   | 0.1       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G3**

Type II Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 63°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2471.0  | 2471.0  | 2471.0  | 2471.0  | 2471.0  | 2471.0  | 2471.0  | 2471.0  | 2471.0  | 2471.0  | 2471.0  |
| 2.5°  | 2528.9  | 2522.0  | 2531.6  | 2527.4  | 2524.7  | 2519.2  | 2516.5  | 2513.7  | 2508.2  | 2504.1  | 2487.6  |
| 5°    | 2535.7  | 2531.6  | 2541.3  | 2549.5  | 2557.8  | 2566.1  | 2570.2  | 2575.7  | 2570.2  | 2559.1  | 2542.6  |
| 7.5°  | 2477.9  | 2475.2  | 2495.8  | 2520.6  | 2557.8  | 2589.5  | 2623.9  | 2643.2  | 2644.6  | 2640.4  | 2622.6  |
| 10°   | 2473.7  | 2466.9  | 2487.6  | 2517.8  | 2566.1  | 2622.6  | 2683.1  | 2724.4  | 2730.0  | 2747.8  | 2728.5  |
| 12.5° | 2538.5  | 2531.6  | 2560.6  | 2593.6  | 2643.2  | 2702.4  | 2776.8  | 2834.6  | 2842.9  | 2867.6  | 2853.9  |
| 15°   | 2647.3  | 2637.6  | 2670.7  | 2713.4  | 2776.8  | 2844.3  | 2922.8  | 2975.2  | 2982.0  | 3012.3  | 2987.6  |
| 17.5° | 2774.1  | 2764.4  | 2803.0  | 2848.4  | 2917.3  | 3009.6  | 3100.4  | 3158.3  | 3166.6  | 3185.9  | 3140.4  |
| 20°   | 2936.5  | 2924.1  | 2954.5  | 2995.8  | 3068.7  | 3178.9  | 3287.8  | 3370.4  | 3369.1  | 3369.1  | 3294.7  |
| 22.5° | 3125.2  | 3106.0  | 3132.2  | 3165.2  | 3234.1  | 3367.6  | 3512.3  | 3610.0  | 3610.0  | 3571.5  | 3448.9  |
| 25°   | 3327.8  | 3308.5  | 3337.4  | 3367.6  | 3428.3  | 3579.8  | 3749.2  | 3870.4  | 3875.9  | 3809.8  | 3614.3  |
| 27.5° | 3581.1  | 3556.3  | 3578.4  | 3614.3  | 3650.0  | 3804.3  | 4005.4  | 4145.9  | 4148.7  | 4046.7  | 3771.3  |
| 30°   | 4068.7  | 3998.5  | 3929.6  | 3891.1  | 3907.6  | 4060.5  | 4275.4  | 4431.0  | 4444.8  | 4304.3  | 3942.0  |
| 32.5° | 4961.3  | 4947.6  | 4705.2  | 4388.3  | 4223.0  | 4336.0  | 4577.0  | 4764.3  | 4772.6  | 4592.2  | 4163.8  |
| 35°   | 6348.3  | 6331.8  | 5942.0  | 5338.7  | 4800.2  | 4705.2  | 4943.4  | 5165.2  | 5159.6  | 4955.8  | 4451.7  |
| 37.5° | 8003.9  | 7988.7  | 7475.0  | 6667.8  | 5796.0  | 5263.0  | 5415.8  | 5648.6  | 5683.0  | 5415.8  | 4823.5  |
| 40°   | 9418.5  | 9362.0  | 9036.9  | 8258.7  | 7118.3  | 6188.5  | 6088.0  | 6242.2  | 6278.0  | 5961.3  | 5296.0  |
| 42.5° | 10490.1 | 10441.9 | 10276.5 | 9790.4  | 8718.8  | 7557.6  | 6880.0  | 6939.2  | 6979.1  | 6599.0  | 5838.7  |
| 45°   | 11045.2 | 11034.1 | 11100.2 | 11054.8 | 10349.6 | 9238.0  | 8012.2  | 7765.6  | 7780.8  | 7305.6  | 6454.4  |
| 47.5° | 11123.7 | 11118.2 | 11419.8 | 11846.8 | 11751.7 | 11133.3 | 9465.4  | 8795.9  | 8742.2  | 8103.1  | 7123.7  |
| 50°   | 10660.9 | 10649.9 | 11228.4 | 12028.6 | 12688.4 | 12725.6 | 11115.4 | 9957.1  | 9838.6  | 8928.2  | 7822.1  |
| 52.5° | 9183.0  | 9180.2  | 10130.6 | 11462.5 | 13017.6 | 14119.5 | 12746.2 | 11232.5 | 11034.1 | 9801.4  | 8560.4  |
| 55°   | 7065.9  | 7116.9  | 8206.4  | 9780.8  | 12417.1 | 14790.2 | 14210.4 | 12648.4 | 12344.1 | 10680.2 | 9240.8  |
| 57.5° | 5005.4  | 5079.8  | 6156.9  | 7559.1  | 10554.8 | 14393.6 | 15200.7 | 14067.1 | 13739.3 | 11556.2 | 9930.9  |
| 60°   | 2688.7  | 2754.8  | 3833.2  | 5506.7  | 7852.4  | 12914.3 | 15722.7 | 15298.5 | 14988.6 | 12388.2 | 10553.4 |
| 62.5° | 1601.9  | 1623.9  | 2070.2  | 3555.0  | 5311.1  | 9866.1  | 15501.0 | 16236.5 | 15981.7 | 13086.5 | 11094.7 |
| 65°   | 1150.2  | 1154.3  | 1378.7  | 2170.7  | 3224.4  | 5994.3  | 13945.9 | 16685.6 | 16607.0 | 13612.6 | 11495.6 |
| 67.5° | 968.3   | 965.6   | 1059.2  | 1442.1  | 2196.9  | 3002.6  | 10688.4 | 16050.6 | 16383.9 | 13945.9 | 11722.8 |
| 70°   | 830.6   | 834.7   | 944.8   | 1056.5  | 1651.5  | 1699.7  | 5313.9  | 13974.8 | 14685.6 | 14034.1 | 11709.1 |
| 72.5° | 618.5   | 632.2   | 734.1   | 962.8   | 1246.5  | 1169.4  | 1834.6  | 10362.0 | 11647.1 | 13222.8 | 11101.7 |
| 75°   | 436.6   | 443.5   | 516.5   | 809.9   | 929.8   | 851.3   | 936.6   | 5356.6  | 7003.9  | 10137.5 | 9086.5  |
| 77.5° | 336.1   | 348.5   | 391.1   | 566.1   | 915.9   | 597.8   | 573.0   | 1853.9  | 2848.4  | 6123.8  | 6229.8  |
| 80°   | 181.8   | 203.9   | 282.4   | 409.1   | 643.2   | 422.8   | 283.7   | 738.3   | 965.6   | 2863.5  | 2402.2  |
| 82.5° | 93.7    | 104.7   | 197.0   | 294.8   | 366.3   | 369.1   | 140.5   | 307.2   | 398.1   | 884.3   | 329.2   |
| 85°   | 37.2    | 45.4    | 132.2   | 162.6   | 188.7   | 181.8   | 63.3    | 123.9   | 143.3   | 245.2   | 100.6   |
| 87.5° | 8.3     | 13.7    | 48.2    | 37.2    | 35.8    | 38.5    | 15.2    | 28.9    | 27.6    | 28.9    | 17.9    |
| 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°    | 2471.0  | 2471.0 | 2471.0 | 2471.0 | 2471.0 | 2471.0 | 2471.0 | 2471.0 | 2471.0 | 2471.0 | 2471.0 |
| 2.5°  | 2486.1  | 2480.6 | 2465.5 | 2448.9 | 2429.7 | 2418.7 | 2411.8 | 2410.4 | 2400.8 | 2393.9 | 2400.8 |
| 5°    | 2527.4  | 2522.0 | 2493.0 | 2458.6 | 2421.5 | 2392.5 | 2365.0 | 2340.2 | 2304.3 | 2297.4 | 2294.7 |
| 7.5°  | 2610.2  | 2595.0 | 2548.1 | 2501.3 | 2431.1 | 2347.0 | 2245.2 | 2128.0 | 2023.4 | 1991.7 | 1976.5 |
| 10°   | 2712.0  | 2691.3 | 2632.2 | 2549.5 | 2393.9 | 2165.2 | 1918.7 | 1690.0 | 1508.2 | 1457.2 | 1438.0 |
| 12.5° | 2827.8  | 2809.8 | 2731.3 | 2578.5 | 2238.2 | 1823.7 | 1446.3 | 1162.6 | 986.2  | 942.1  | 929.8  |
| 15°   | 2965.5  | 2939.3 | 2830.5 | 2534.4 | 1960.0 | 1385.6 | 993.1  | 825.0  | 761.7  | 753.4  | 745.2  |
| 17.5° | 3111.5  | 3068.7 | 2918.7 | 2376.0 | 1585.4 | 984.8  | 767.2  | 719.0  | 691.5  | 683.2  | 679.1  |
| 20°   | 3245.0  | 3190.0 | 2971.0 | 2136.3 | 1184.6 | 767.2  | 687.3  | 655.6  | 630.9  | 621.2  | 615.7  |
| 22.5° | 3378.7  | 3300.2 | 2971.0 | 1809.8 | 888.4  | 680.4  | 630.9  | 601.9  | 573.0  | 560.6  | 553.7  |
| 25°   | 3517.8  | 3413.1 | 2918.7 | 1446.3 | 714.8  | 623.9  | 577.1  | 545.4  | 520.6  | 505.5  | 500.0  |
| 27.5° | 3652.8  | 3508.2 | 2798.9 | 1101.9 | 636.3  | 574.4  | 527.6  | 497.2  | 473.9  | 462.8  | 462.8  |
| 30°   | 3780.9  | 3601.8 | 2630.8 | 836.1  | 585.4  | 526.1  | 482.1  | 455.9  | 432.4  | 421.5  | 422.8  |
| 32.5° | 3954.4  | 3720.2 | 2451.7 | 685.9  | 541.3  | 480.7  | 440.7  | 415.9  | 395.3  | 387.0  | 387.0  |
| 35°   | 4195.5  | 3895.2 | 2297.4 | 673.5  | 504.1  | 443.5  | 403.5  | 380.2  | 359.5  | 352.6  | 352.6  |
| 37.5° | 4537.1  | 4177.6 | 2216.2 | 756.1  | 473.9  | 410.4  | 373.3  | 348.5  | 329.2  | 323.7  | 322.3  |
| 40°   | 4958.5  | 4560.5 | 2260.2 | 838.9  | 453.2  | 381.5  | 345.7  | 320.9  | 304.4  | 297.6  | 296.1  |
| 42.5° | 5458.5  | 5033.0 | 2504.1 | 902.2  | 439.4  | 356.7  | 319.6  | 292.0  | 281.0  | 278.2  | 278.2  |
| 45°   | 6032.9  | 5552.2 | 2877.4 | 969.6  | 417.4  | 333.3  | 293.4  | 272.8  | 264.4  | 263.1  | 261.7  |
| 47.5° | 6685.8  | 6122.4 | 3309.8 | 1053.7 | 395.3  | 311.3  | 272.8  | 258.9  | 252.0  | 249.3  | 249.3  |
| 50°   | 7333.2  | 6696.8 | 3754.7 | 1100.5 | 377.4  | 290.6  | 256.1  | 245.2  | 239.6  | 238.3  | 238.3  |
| 52.5° | 8010.8  | 7287.6 | 4114.2 | 1056.5 | 362.2  | 274.1  | 242.4  | 234.1  | 228.7  | 227.2  | 227.2  |
| 55°   | 8656.8  | 7765.6 | 4176.2 | 896.7  | 332.0  | 257.6  | 227.2  | 223.1  | 216.3  | 216.3  | 214.8  |
| 57.5° | 9213.2  | 8005.2 | 3738.2 | 658.4  | 301.7  | 232.8  | 212.1  | 208.0  | 202.4  | 201.1  | 199.7  |
| 60°   | 9724.3  | 7936.5 | 2885.6 | 443.5  | 268.5  | 208.0  | 192.8  | 190.0  | 184.6  | 177.6  | 176.3  |
| 62.5° | 10012.1 | 7633.4 | 1973.7 | 289.3  | 235.5  | 181.8  | 170.8  | 169.4  | 157.0  | 143.3  | 140.5  |
| 65°   | 10121.0 | 7010.8 | 1231.3 | 210.7  | 197.0  | 155.6  | 147.4  | 144.6  | 126.7  | 111.5  | 110.2  |
| 67.5° | 10025.9 | 5986.1 | 621.2  | 166.7  | 155.6  | 129.5  | 121.3  | 121.3  | 108.9  | 95.0   | 93.7   |
| 70°   | 9645.8  | 4487.4 | 261.7  | 133.6  | 119.8  | 99.2   | 99.2   | 104.7  | 92.2   | 77.2   | 75.7   |
| 72.5° | 8820.7  | 3019.2 | 139.1  | 101.9  | 89.5   | 70.2   | 81.3   | 85.4   | 73.0   | 57.8   | 57.8   |
| 75°   | 7012.2  | 1841.5 | 96.5   | 75.7   | 56.5   | 49.6   | 62.0   | 64.8   | 49.6   | 38.5   | 37.2   |
| 77.5° | 4796.0  | 1057.8 | 64.8   | 48.2   | 35.8   | 28.9   | 42.7   | 40.0   | 26.1   | 17.9   | 19.3   |
| 80°   | 2106.0  | 440.7  | 37.2   | 22.0   | 13.7   | 11.1   | 15.2   | 11.1   | 8.3    | 5.5    | 5.5    |
| 82.5° | 246.5   | 103.3  | 13.7   | 8.3    | 5.5    | 2.8    | 1.3    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 50.9    | 12.4   | 6.9    | 2.8    | 1.3    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 9.6     | 2.8    | 1.3    | 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)