

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: P966284

Luminaire Tested: **NVN-SB4B-827-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966284
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-SB4B-827-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15493.9 lumens
Efficiency: N/A
Efficacy: 105.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

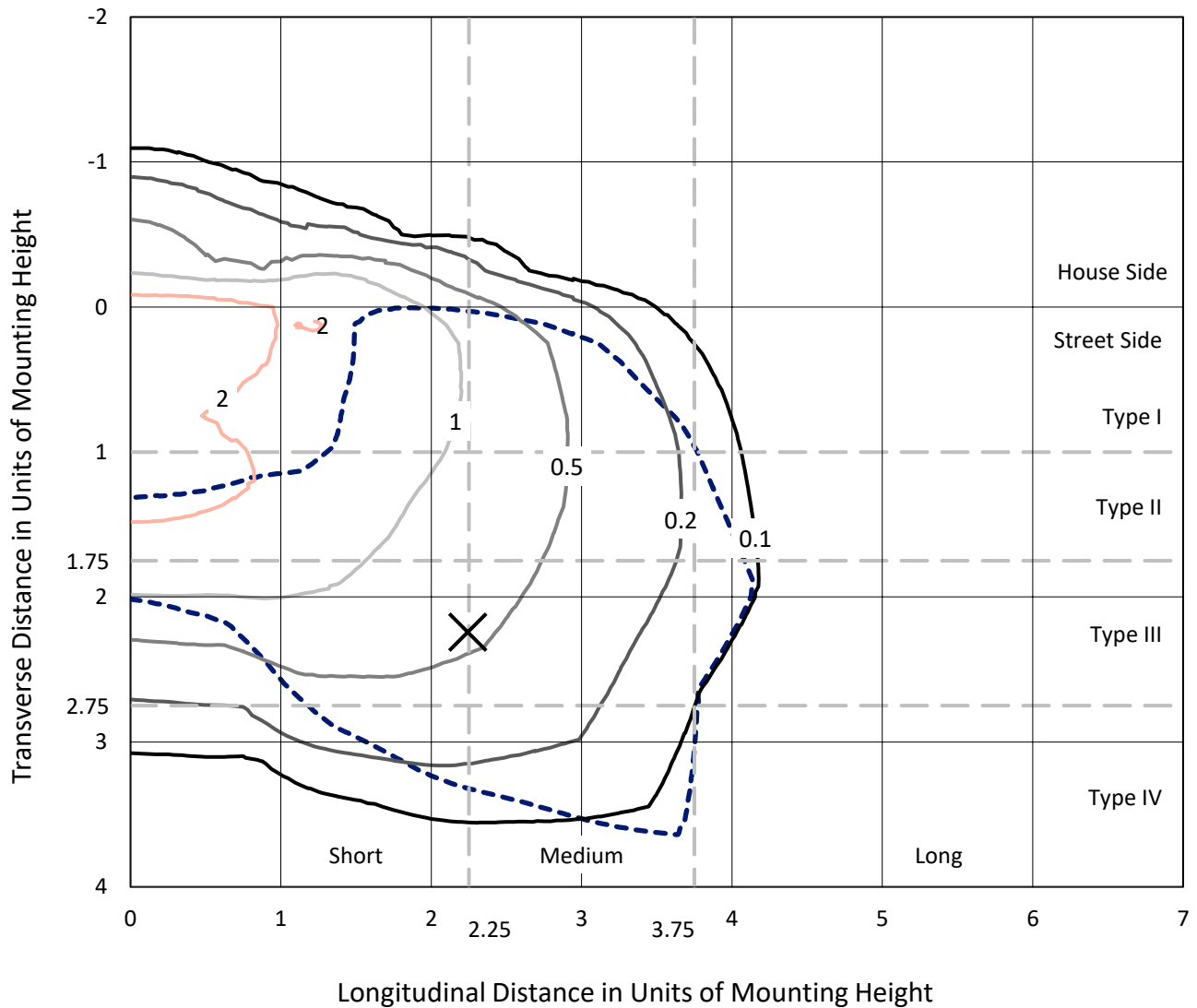
Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

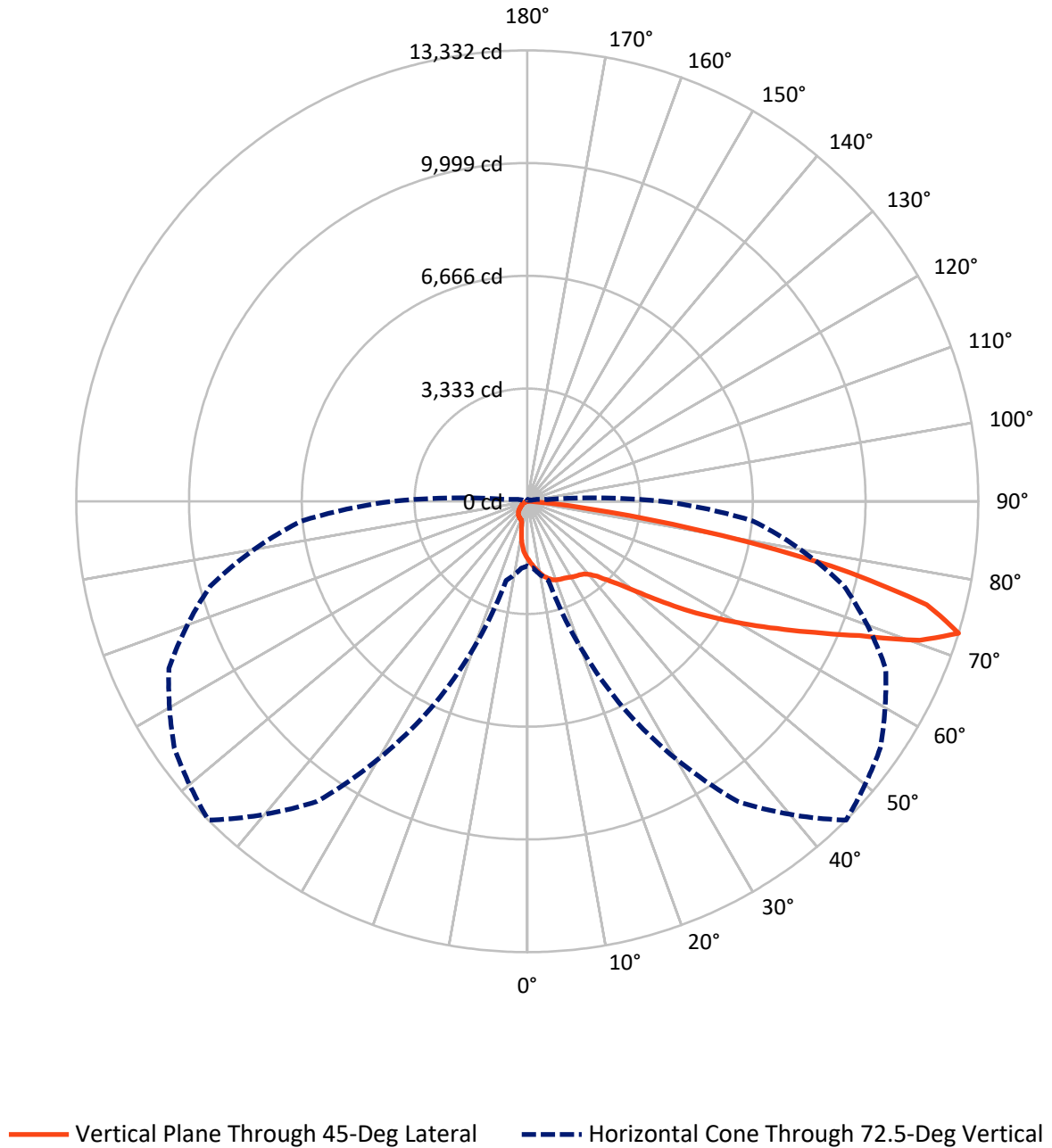
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1628.0 | 0.0 | 1628.0 |
| | % Fixture | 10.5 | 0.0 | 10.5 |
| Street Side | Lumens | 13865.9 | 0.0 | 13865.9 |
| | % Fixture | 89.5 | 0.0 | 89.5 |
| Total | Lumens | 15493.9 | 0.0 | 15493.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 159.9 | 1.0 |
| 10°-20° | 467.4 | 3.0 |
| 20°-30° | 767.5 | 5.0 |
| 30°-40° | 1088.6 | 7.0 |
| 40°-50° | 1799.3 | 11.6 |
| 50°-60° | 3232.2 | 20.9 |
| 60°-70° | 4488.1 | 29.0 |
| 70°-80° | 3255.5 | 21.0 |
| 80°-90° | 235.4 | 1.5 |
| 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° | 15493.9 | 100.0 |
| 0°-180° | 15493.9 | 100.0 |

Coefficient of Utilization



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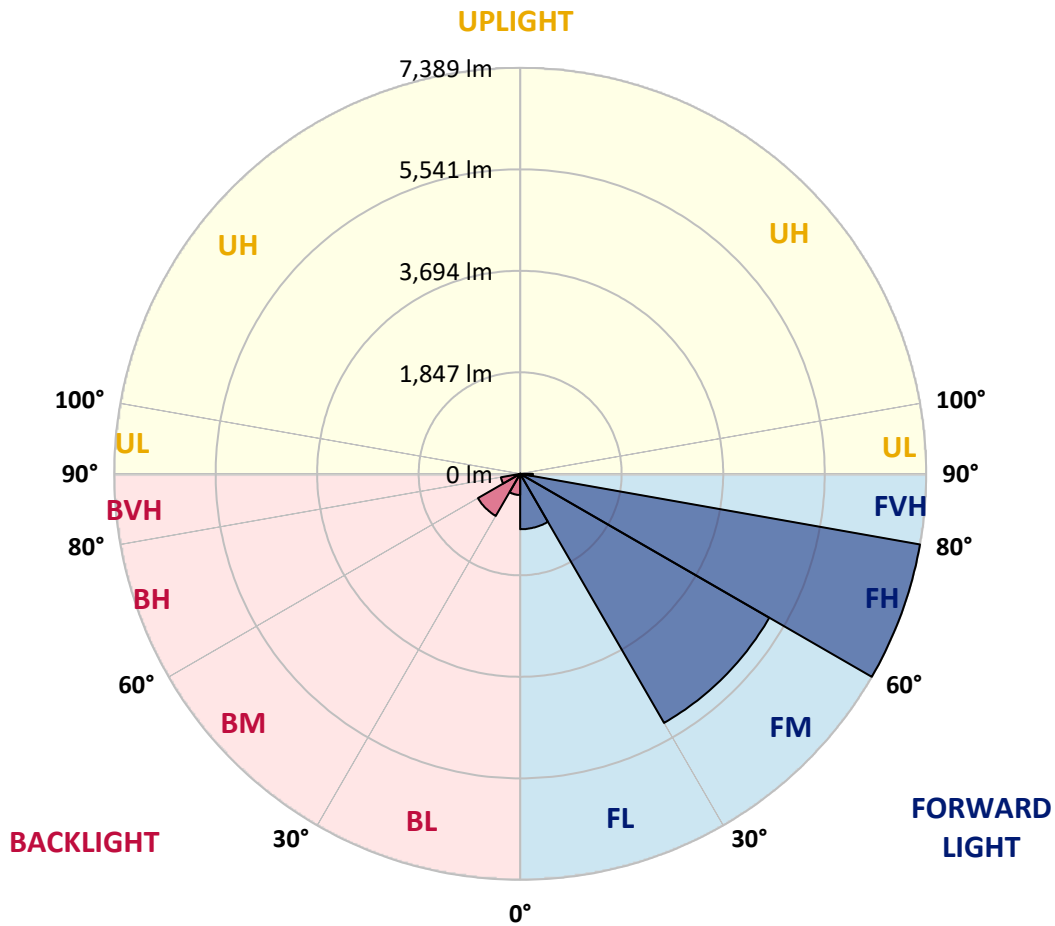
CATALOG NUMBER: NVN-SB4B-827-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1009.3 | 6.5 | | | |
| FM (30°-60°) | 5234.7 | 33.8 | | | |
| FH (60°-80°) | 7388.6 | 47.7 | | | G3/7500 |
| FVH (80°-90°) | 233.4 | 1.5 | | | G3/500 |
| BL (0°-30°) | 385.6 | 2.5 | B1/500 | | |
| BM (30°-60°) | 885.4 | 5.7 | B1/1000 | | |
| BH (60°-80°) | 355.0 | 2.3 | B1/500 | | G1/500 |
| BVH (80°-90°) | 2.0 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|--------|
| 0° | 1697.4 | 1697.4 | 1697.4 | 1697.4 | 1697.4 | 1697.4 | 1697.4 | 1697.4 | 1697.4 | 1697.4 | 1697.4 |
| 2.5° | 1853.9 | 1857.1 | 1854.9 | 1842.2 | 1821.1 | 1809.5 | 1803.2 | 1782.0 | 1768.2 | 1743.9 | 1718.5 |
| 5° | 2024.2 | 2036.9 | 2029.5 | 2004.1 | 1963.9 | 1935.3 | 1926.9 | 1883.5 | 1844.4 | 1798.9 | 1746.1 |
| 7.5° | 2205.0 | 2211.3 | 2197.6 | 2164.8 | 2110.9 | 2062.3 | 2054.8 | 1994.5 | 1932.1 | 1862.3 | 1790.5 |
| 10° | 2361.5 | 2369.0 | 2347.8 | 2300.2 | 2238.9 | 2178.5 | 2168.0 | 2101.4 | 2027.3 | 1941.7 | 1849.7 |
| 12.5° | 2492.7 | 2500.1 | 2472.6 | 2415.5 | 2347.8 | 2285.4 | 2274.8 | 2205.0 | 2123.6 | 2028.4 | 1914.2 |
| 15° | 2592.1 | 2605.9 | 2568.9 | 2507.5 | 2434.5 | 2372.2 | 2366.8 | 2298.0 | 2218.8 | 2113.0 | 1991.4 |
| 17.5° | 2650.2 | 2664.0 | 2629.1 | 2555.1 | 2492.7 | 2439.8 | 2433.5 | 2376.4 | 2302.4 | 2200.8 | 2066.5 |
| 20° | 2659.8 | 2672.5 | 2635.5 | 2570.9 | 2519.1 | 2476.8 | 2473.6 | 2432.4 | 2378.4 | 2281.1 | 2147.9 |
| 22.5° | 2631.2 | 2647.1 | 2613.2 | 2561.4 | 2525.5 | 2503.3 | 2499.1 | 2475.8 | 2445.1 | 2362.6 | 2224.0 |
| 25° | 2601.7 | 2614.3 | 2588.9 | 2543.4 | 2524.4 | 2522.3 | 2525.5 | 2521.2 | 2514.8 | 2445.1 | 2312.9 |
| 27.5° | 2599.5 | 2613.2 | 2584.6 | 2541.3 | 2530.7 | 2553.0 | 2556.1 | 2576.2 | 2581.5 | 2520.2 | 2398.6 |
| 30° | 2617.4 | 2627.0 | 2599.5 | 2554.0 | 2548.8 | 2599.5 | 2600.5 | 2636.5 | 2645.0 | 2583.6 | 2483.2 |
| 32.5° | 2656.6 | 2667.2 | 2639.7 | 2573.1 | 2565.7 | 2636.5 | 2639.7 | 2687.2 | 2701.0 | 2651.3 | 2572.0 |
| 35° | 2748.6 | 2761.4 | 2729.6 | 2625.9 | 2599.5 | 2671.4 | 2680.9 | 2737.0 | 2764.4 | 2723.2 | 2664.0 |
| 37.5° | 2978.1 | 2941.1 | 2897.7 | 2732.8 | 2676.7 | 2726.4 | 2742.3 | 2807.8 | 2856.5 | 2808.9 | 2774.0 |
| 40° | 3548.1 | 3431.8 | 3296.4 | 2914.7 | 2812.1 | 2843.8 | 2856.5 | 2922.1 | 2988.7 | 2942.2 | 2925.2 |
| 42.5° | 4403.7 | 4266.3 | 4048.3 | 3333.4 | 3016.2 | 3032.1 | 3041.6 | 3098.7 | 3192.8 | 3155.8 | 3160.0 |
| 45° | 5166.2 | 5116.5 | 4894.4 | 4048.3 | 3398.0 | 3319.7 | 3331.4 | 3361.0 | 3499.5 | 3485.7 | 3513.2 |
| 47.5° | 5752.1 | 5723.5 | 5552.2 | 4869.1 | 4043.1 | 3671.9 | 3704.7 | 3718.4 | 3918.3 | 3967.0 | 4041.0 |
| 50° | 6202.6 | 6192.0 | 6038.7 | 5598.8 | 4886.0 | 4191.1 | 4202.8 | 4173.2 | 4472.5 | 4593.0 | 4733.7 |
| 52.5° | 6627.8 | 6663.7 | 6550.6 | 6276.7 | 5785.9 | 4871.1 | 4869.1 | 4729.5 | 5133.4 | 5315.3 | 5555.4 |
| 55° | 7011.6 | 7024.3 | 7036.0 | 6968.3 | 6691.2 | 5645.3 | 5625.2 | 5396.7 | 5900.1 | 6088.4 | 6348.5 |
| 57.5° | 7372.3 | 7377.5 | 7481.2 | 7619.7 | 7633.5 | 6476.6 | 6439.5 | 6165.6 | 6737.7 | 6872.0 | 7031.7 |
| 60° | 7614.4 | 7638.8 | 7857.6 | 8242.6 | 8410.8 | 7334.2 | 7314.1 | 7034.9 | 7590.1 | 7652.5 | 7622.9 |
| 62.5° | 7265.5 | 7413.5 | 7965.6 | 8729.1 | 9144.7 | 8285.0 | 8275.4 | 8013.1 | 8486.9 | 8436.2 | 8182.4 |
| 65° | 5881.1 | 6131.8 | 7102.6 | 9058.0 | 9864.9 | 9346.8 | 9360.5 | 9081.3 | 9408.1 | 9243.1 | 8637.2 |
| 67.5° | 4113.9 | 4378.3 | 5526.8 | 9084.5 | 10669.7 | 10593.6 | 10672.9 | 10235.1 | 10386.3 | 10016.2 | 8745.0 |
| 70° | 2844.9 | 2981.3 | 3729.0 | 8515.5 | 11296.9 | 12311.1 | 12309.0 | 11652.2 | 11359.3 | 10368.4 | 8195.1 |
| 72.5° | 1913.2 | 1984.0 | 2421.9 | 6755.7 | 10835.8 | 13331.7 | 13270.3 | 12735.2 | 11687.2 | 9696.8 | 6695.4 |
| 75° | 806.9 | 858.7 | 1121.0 | 3796.7 | 8572.6 | 12196.9 | 12030.8 | 11254.6 | 10384.2 | 7635.6 | 4177.4 |
| 77.5° | 255.9 | 278.2 | 442.1 | 1358.9 | 4722.1 | 9168.0 | 8992.4 | 7028.5 | 6959.9 | 3830.5 | 1527.1 |
| 80° | 121.7 | 141.8 | 248.6 | 545.7 | 1858.1 | 4986.4 | 4962.1 | 3188.6 | 2993.9 | 1034.3 | 306.7 |
| 82.5° | 52.9 | 62.4 | 137.5 | 291.9 | 831.3 | 1778.8 | 1814.8 | 1085.1 | 897.9 | 392.4 | 94.1 |
| 85° | 16.9 | 22.2 | 63.4 | 134.3 | 351.1 | 442.1 | 436.8 | 258.1 | 361.7 | 213.6 | 32.8 |
| 87.5° | 0.0 | 0.0 | 21.1 | 30.6 | 36.0 | 25.4 | 28.6 | 22.2 | 100.4 | 59.2 | 11.6 |
| 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° | 1697.4 | 1697.4 | 1697.4 | 1697.4 | 1697.4 | 1697.4 | 1697.4 | 1697.4 | 1697.4 | 1697.4 | 1697.4 |
| 2.5° | 1705.8 | 1688.9 | 1659.3 | 1631.8 | 1607.5 | 1583.2 | 1568.4 | 1547.2 | 1545.1 | 1545.1 | 1550.4 |
| 5° | 1717.5 | 1690.0 | 1637.1 | 1581.1 | 1516.6 | 1455.2 | 1393.9 | 1334.7 | 1315.6 | 1301.9 | 1308.2 |
| 7.5° | 1751.3 | 1708.0 | 1624.4 | 1517.6 | 1394.9 | 1260.6 | 1166.4 | 1065.0 | 1025.8 | 1004.7 | 1007.9 |
| 10° | 1800.0 | 1740.8 | 1613.9 | 1426.7 | 1227.8 | 1044.9 | 910.6 | 800.5 | 758.3 | 740.3 | 740.3 |
| 12.5° | 1853.9 | 1780.9 | 1594.8 | 1313.5 | 1044.9 | 825.9 | 694.8 | 644.0 | 637.8 | 637.8 | 637.8 |
| 15° | 1918.4 | 1829.6 | 1562.0 | 1180.3 | 853.4 | 653.5 | 607.0 | 609.2 | 615.5 | 619.7 | 619.7 |
| 17.5° | 1985.0 | 1881.4 | 1510.2 | 1031.1 | 684.3 | 588.0 | 589.1 | 592.2 | 597.5 | 601.8 | 601.8 |
| 20° | 2057.0 | 1933.3 | 1441.5 | 872.5 | 586.9 | 569.0 | 572.2 | 575.3 | 579.5 | 581.7 | 582.7 |
| 22.5° | 2134.2 | 1981.8 | 1360.1 | 717.0 | 554.1 | 553.1 | 554.1 | 557.3 | 562.6 | 562.6 | 564.8 |
| 25° | 2216.7 | 2035.9 | 1267.0 | 603.8 | 537.2 | 537.2 | 539.4 | 541.5 | 545.7 | 545.7 | 546.7 |
| 27.5° | 2301.2 | 2085.5 | 1168.6 | 544.7 | 522.4 | 521.4 | 521.4 | 524.6 | 526.6 | 527.8 | 528.8 |
| 30° | 2394.3 | 2143.7 | 1070.3 | 532.0 | 510.8 | 505.5 | 502.4 | 504.5 | 506.6 | 507.6 | 509.7 |
| 32.5° | 2489.5 | 2199.8 | 982.5 | 537.2 | 499.2 | 489.6 | 479.1 | 476.9 | 476.9 | 481.2 | 484.4 |
| 35° | 2595.3 | 2261.0 | 914.8 | 555.2 | 492.8 | 466.4 | 449.5 | 439.9 | 441.0 | 447.3 | 450.5 |
| 37.5° | 2722.2 | 2335.1 | 865.1 | 571.1 | 488.6 | 439.9 | 412.5 | 400.8 | 393.4 | 400.8 | 398.7 |
| 40° | 2888.2 | 2444.0 | 829.1 | 583.7 | 483.3 | 409.3 | 372.3 | 353.2 | 339.5 | 343.7 | 341.6 |
| 42.5° | 3132.5 | 2615.4 | 815.4 | 584.9 | 471.7 | 373.3 | 331.0 | 305.7 | 285.6 | 286.6 | 282.4 |
| 45° | 3475.2 | 2886.1 | 886.2 | 571.1 | 446.3 | 334.2 | 287.6 | 253.8 | 241.1 | 237.9 | 233.7 |
| 47.5° | 3944.7 | 3280.5 | 1050.1 | 542.5 | 409.3 | 296.1 | 245.4 | 216.8 | 207.3 | 202.0 | 198.8 |
| 50° | 4574.0 | 3787.2 | 1232.0 | 510.8 | 372.3 | 260.1 | 210.4 | 192.5 | 186.1 | 180.8 | 179.8 |
| 52.5° | 5303.7 | 4301.1 | 1381.2 | 479.1 | 335.3 | 228.5 | 188.3 | 177.6 | 172.4 | 168.2 | 167.1 |
| 55° | 5973.1 | 4655.3 | 1372.7 | 445.3 | 299.3 | 203.1 | 172.4 | 166.0 | 159.7 | 155.5 | 153.3 |
| 57.5° | 6389.8 | 4705.1 | 1131.6 | 408.3 | 258.1 | 183.0 | 157.5 | 153.3 | 146.0 | 140.6 | 139.6 |
| 60° | 6581.2 | 4421.6 | 793.1 | 359.6 | 216.8 | 163.9 | 141.8 | 139.6 | 130.1 | 122.7 | 120.5 |
| 62.5° | 6616.1 | 3895.0 | 528.8 | 299.3 | 180.8 | 146.0 | 125.9 | 122.7 | 110.0 | 97.3 | 90.9 |
| 65° | 6474.4 | 3142.0 | 365.9 | 233.7 | 154.4 | 126.9 | 107.8 | 101.5 | 87.7 | 75.1 | 70.8 |
| 67.5° | 6026.0 | 2206.1 | 254.9 | 168.2 | 131.1 | 100.4 | 85.7 | 83.5 | 73.0 | 62.4 | 59.2 |
| 70° | 5204.2 | 1257.5 | 170.3 | 125.9 | 103.6 | 68.8 | 67.6 | 69.8 | 59.2 | 50.7 | 46.5 |
| 72.5° | 3990.2 | 575.3 | 105.8 | 92.0 | 70.8 | 46.5 | 53.9 | 55.0 | 45.5 | 38.0 | 33.8 |
| 75° | 2348.9 | 246.4 | 66.6 | 59.2 | 36.0 | 30.6 | 39.2 | 40.2 | 30.6 | 24.3 | 21.1 |
| 77.5° | 799.5 | 93.1 | 42.3 | 34.8 | 17.9 | 16.9 | 25.4 | 25.4 | 16.9 | 9.5 | 7.4 |
| 80° | 181.9 | 34.8 | 21.1 | 13.7 | 8.5 | 7.4 | 8.5 | 7.4 | 4.2 | 1.0 | 0.0 |
| 82.5° | 51.9 | 13.7 | 8.5 | 5.3 | 3.2 | 3.2 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 14.8 | 6.4 | 2.2 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 6.4 | 1.0 | 0.0 | 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)