

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: P962936

Luminaire Tested: **NVN-SB2D-727-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962936
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-SB2D-727-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2700K, 900mA 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: 14903.5 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

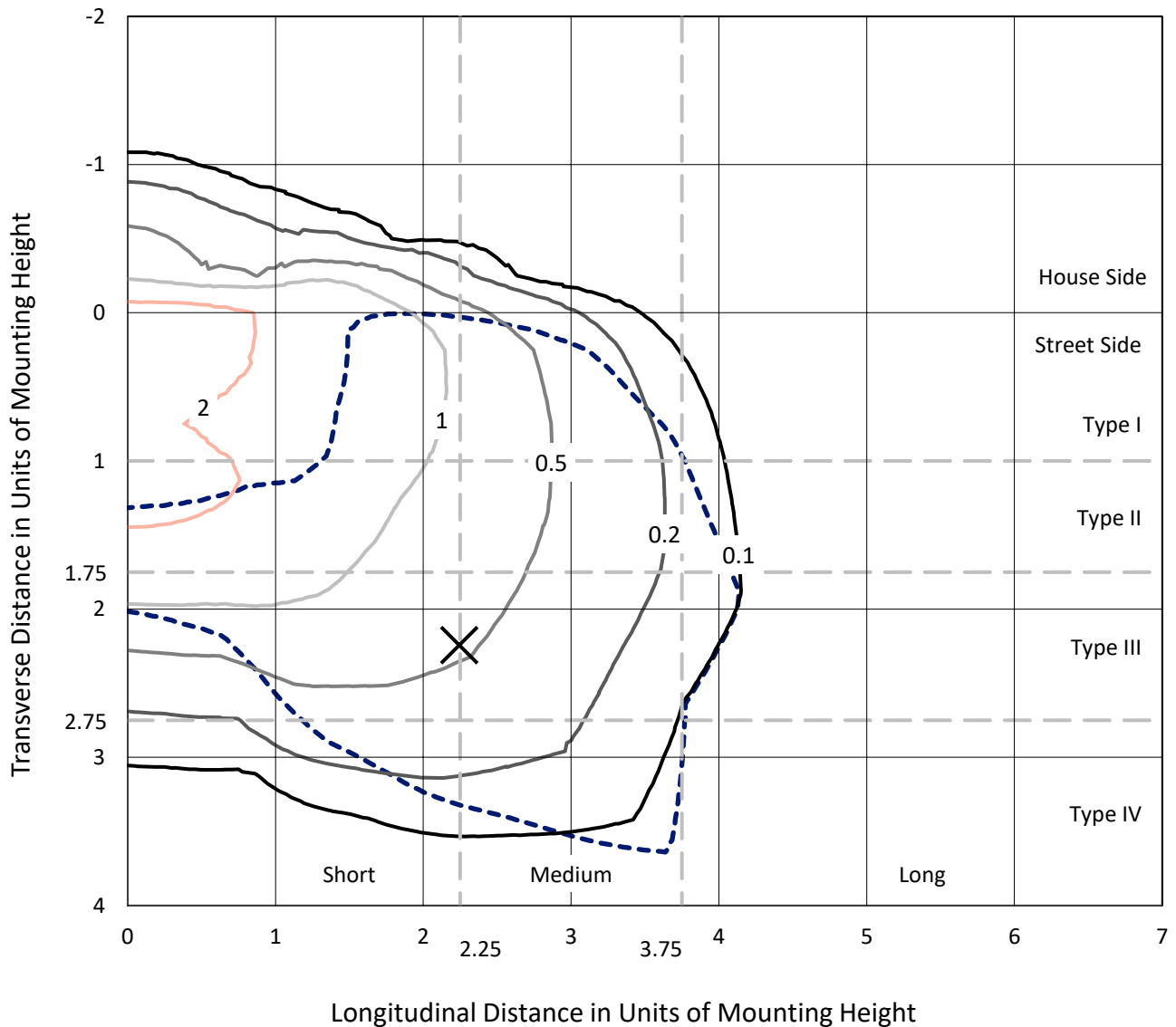
Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

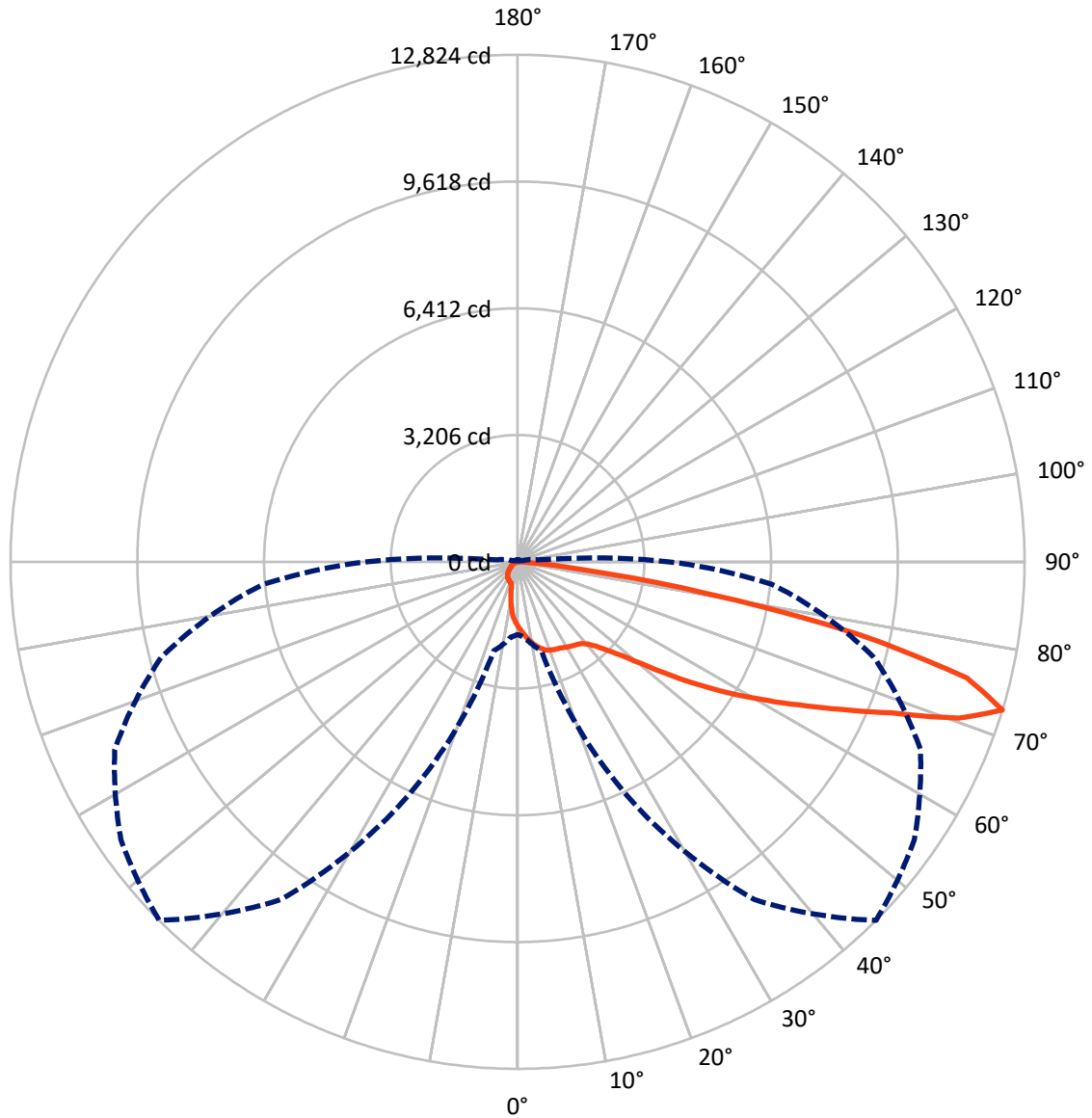
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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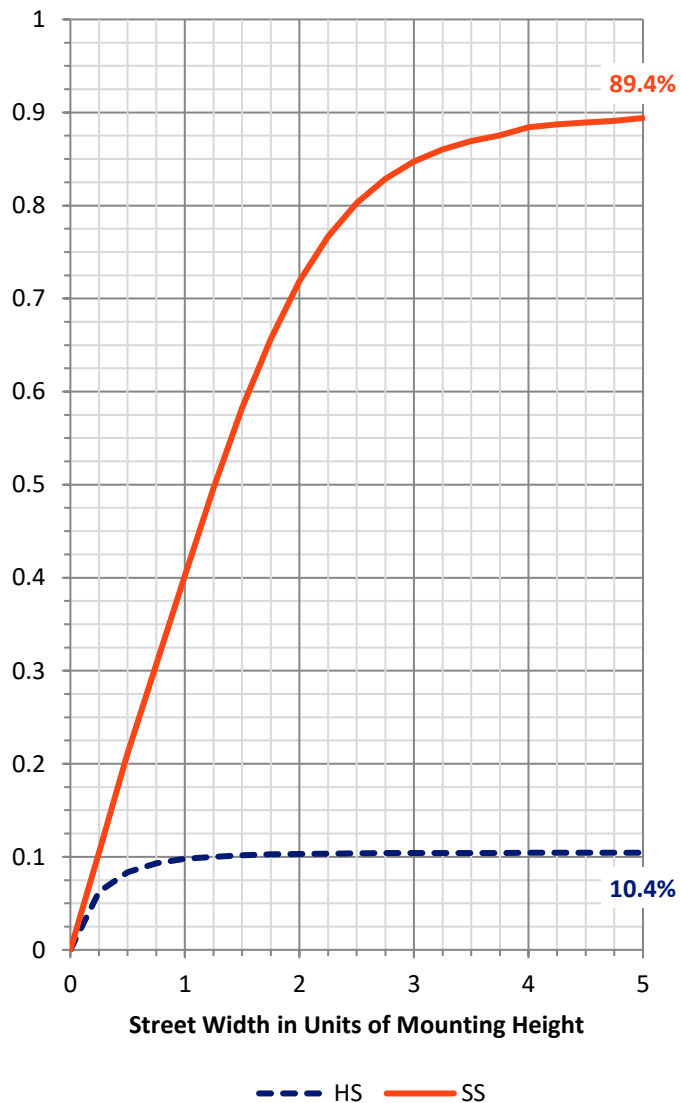
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1565.9 | 0.0 | 1565.9 |
| | % Fixture | 10.5 | 0.0 | 10.5 |
| Street Side | Lumens | 13337.5 | 0.0 | 13337.5 |
| | % Fixture | 89.5 | 0.0 | 89.5 |
| Total | Lumens | 14903.5 | 0.0 | 14903.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 153.8 | 1.0 |
| 10°-20° | 449.6 | 3.0 |
| 20°-30° | 738.3 | 5.0 |
| 30°-40° | 1047.1 | 7.0 |
| 40°-50° | 1730.7 | 11.6 |
| 50°-60° | 3109.0 | 20.9 |
| 60°-70° | 4317.1 | 29.0 |
| 70°-80° | 3131.5 | 21.0 |
| 80°-90° | 226.4 | 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° | 14903.5 | 100.0 |
| 0°-180° | 14903.5 | 100.0 |

Coefficient of Utilization



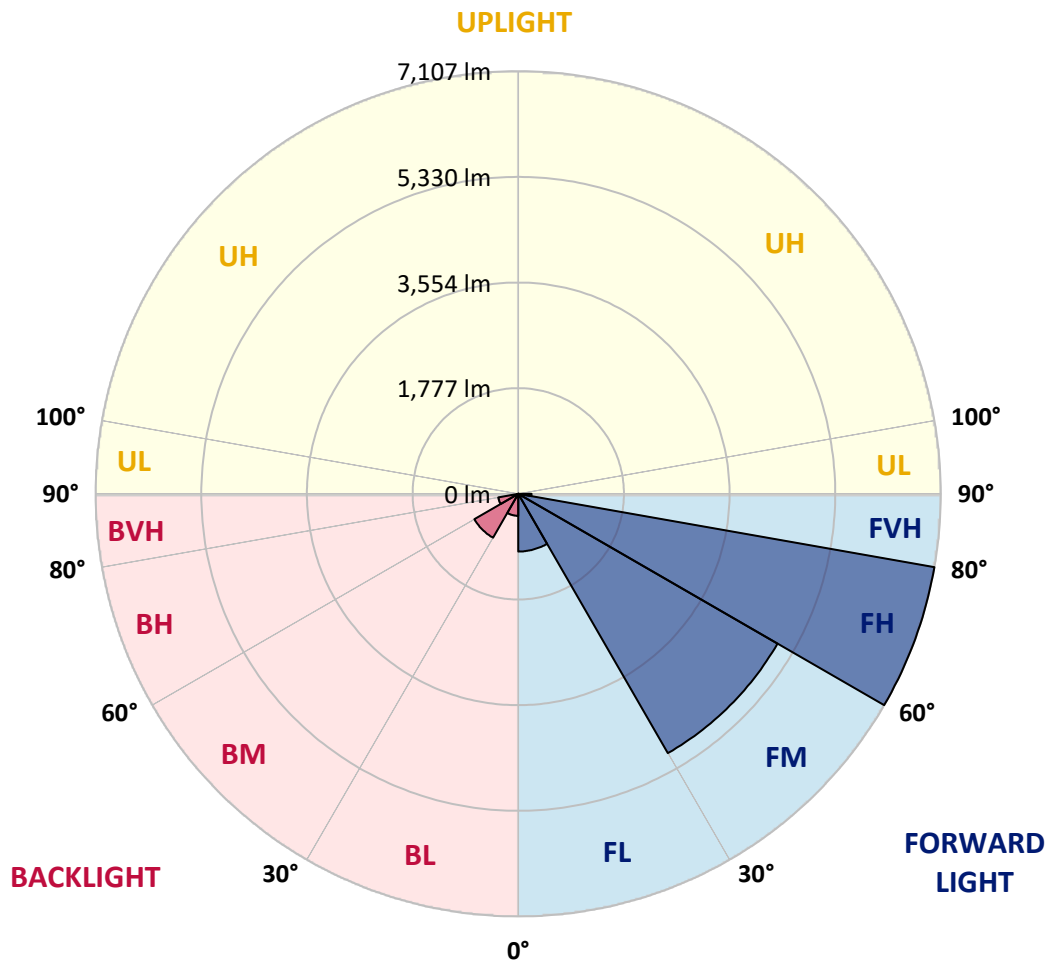
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 970.8 | 6.5 | | | |
| FM | (30°-60°) | 5035.2 | 33.8 | | | |
| FH | (60°-80°) | 7107.0 | 47.7 | | | G3/7500 |
| FVH | (80°-90°) | 224.5 | 1.5 | | | G2/225 |
| BL | (0°-30°) | 370.9 | 2.5 | B1/500 | | |
| BM | (30°-60°) | 851.6 | 5.7 | B1/1000 | | |
| BH | (60°-80°) | 341.5 | 2.3 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 1.9 | 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° | 1632.7 | 1632.7 | 1632.7 | 1632.7 | 1632.7 | 1632.7 | 1632.7 | 1632.7 | 1632.7 | 1632.7 | 1632.7 |
| 2.5° | 1783.3 | 1786.3 | 1784.3 | 1772.1 | 1751.7 | 1740.6 | 1734.4 | 1714.1 | 1700.9 | 1677.5 | 1653.0 |
| 5° | 1947.1 | 1959.3 | 1952.1 | 1927.7 | 1889.1 | 1861.6 | 1853.5 | 1811.8 | 1774.1 | 1730.4 | 1679.5 |
| 7.5° | 2121.0 | 2127.1 | 2113.9 | 2082.4 | 2030.4 | 1983.7 | 1976.5 | 1918.6 | 1858.5 | 1791.4 | 1722.2 |
| 10° | 2271.5 | 2278.7 | 2258.3 | 2212.6 | 2153.5 | 2095.6 | 2085.4 | 2021.3 | 1950.1 | 1867.7 | 1779.2 |
| 12.5° | 2397.7 | 2404.9 | 2378.4 | 2323.5 | 2258.3 | 2198.3 | 2188.2 | 2121.0 | 2042.6 | 1951.1 | 1841.2 |
| 15° | 2493.3 | 2506.5 | 2471.0 | 2411.9 | 2341.7 | 2281.8 | 2276.6 | 2210.5 | 2134.3 | 2032.5 | 1915.5 |
| 17.5° | 2549.3 | 2562.5 | 2528.9 | 2457.7 | 2397.7 | 2346.8 | 2340.7 | 2285.8 | 2214.6 | 2116.9 | 1987.8 |
| 20° | 2558.4 | 2570.6 | 2535.0 | 2473.0 | 2423.1 | 2382.4 | 2379.3 | 2339.7 | 2287.8 | 2194.2 | 2066.1 |
| 22.5° | 2530.9 | 2546.2 | 2513.7 | 2463.8 | 2429.2 | 2407.8 | 2403.8 | 2381.4 | 2352.0 | 2272.5 | 2139.3 |
| 25° | 2502.4 | 2514.6 | 2490.2 | 2446.6 | 2428.2 | 2426.2 | 2429.2 | 2425.1 | 2419.1 | 2352.0 | 2224.8 |
| 27.5° | 2500.5 | 2513.7 | 2486.2 | 2444.5 | 2434.3 | 2455.7 | 2458.8 | 2478.0 | 2483.2 | 2424.1 | 2307.2 |
| 30° | 2517.7 | 2526.9 | 2500.5 | 2456.7 | 2451.6 | 2500.5 | 2501.4 | 2536.1 | 2544.2 | 2485.2 | 2388.6 |
| 32.5° | 2555.3 | 2565.6 | 2539.1 | 2475.0 | 2467.9 | 2536.1 | 2539.1 | 2584.8 | 2598.1 | 2550.3 | 2473.9 |
| 35° | 2643.9 | 2656.1 | 2625.5 | 2525.9 | 2500.5 | 2569.6 | 2578.8 | 2632.7 | 2659.2 | 2619.5 | 2562.5 |
| 37.5° | 2864.6 | 2829.0 | 2787.3 | 2628.6 | 2574.7 | 2622.5 | 2637.7 | 2700.9 | 2747.6 | 2701.9 | 2668.3 |
| 40° | 3412.9 | 3301.0 | 3170.8 | 2803.6 | 2704.9 | 2735.4 | 2747.6 | 2810.7 | 2874.8 | 2830.0 | 2813.7 |
| 42.5° | 4235.9 | 4103.7 | 3894.1 | 3206.4 | 2901.3 | 2916.5 | 2925.7 | 2980.6 | 3071.1 | 3035.5 | 3039.6 |
| 45° | 4969.3 | 4921.5 | 4707.9 | 3894.1 | 3268.5 | 3193.2 | 3204.4 | 3232.8 | 3366.1 | 3352.9 | 3379.3 |
| 47.5° | 5533.0 | 5505.5 | 5340.7 | 4683.5 | 3889.0 | 3531.9 | 3563.5 | 3576.7 | 3768.9 | 3815.8 | 3887.0 |
| 50° | 5966.2 | 5956.1 | 5808.6 | 5385.3 | 4699.7 | 4031.4 | 4042.6 | 4014.1 | 4302.0 | 4418.0 | 4553.3 |
| 52.5° | 6375.2 | 6409.7 | 6301.0 | 6037.5 | 5565.4 | 4685.5 | 4683.5 | 4549.3 | 4937.8 | 5112.8 | 5343.7 |
| 55° | 6744.5 | 6756.7 | 6767.9 | 6702.8 | 6436.3 | 5430.1 | 5410.9 | 5191.1 | 5675.3 | 5856.4 | 6106.6 |
| 57.5° | 7091.4 | 7096.5 | 7196.1 | 7329.4 | 7342.6 | 6229.7 | 6194.1 | 5930.6 | 6481.0 | 6610.2 | 6763.8 |
| 60° | 7324.3 | 7347.7 | 7558.2 | 7928.6 | 8090.3 | 7054.8 | 7035.4 | 6766.8 | 7300.9 | 7360.9 | 7332.4 |
| 62.5° | 6988.7 | 7131.0 | 7662.1 | 8396.5 | 8796.2 | 7969.3 | 7960.0 | 7707.8 | 8163.5 | 8114.7 | 7870.6 |
| 65° | 5657.0 | 5898.1 | 6831.9 | 8712.9 | 9489.0 | 8990.6 | 9003.8 | 8735.3 | 9049.6 | 8890.8 | 8308.0 |
| 67.5° | 3957.1 | 4211.5 | 5316.3 | 8738.3 | 10263.2 | 10189.9 | 10266.2 | 9845.1 | 9990.6 | 9634.5 | 8411.8 |
| 70° | 2736.4 | 2867.6 | 3586.9 | 8191.0 | 10866.4 | 11842.0 | 11840.0 | 11208.3 | 10926.4 | 9973.2 | 7882.8 |
| 72.5° | 1840.2 | 1908.3 | 2329.5 | 6498.3 | 10422.9 | 12823.7 | 12764.6 | 12249.9 | 11241.8 | 9327.3 | 6440.3 |
| 75° | 776.1 | 826.0 | 1078.3 | 3652.0 | 8245.9 | 11732.2 | 11572.5 | 10825.7 | 9988.5 | 7344.6 | 4018.2 |
| 77.5° | 246.2 | 267.5 | 425.2 | 1307.2 | 4542.1 | 8818.7 | 8649.8 | 6760.7 | 6694.6 | 3684.6 | 1468.9 |
| 80° | 117.0 | 136.3 | 239.0 | 524.9 | 1787.3 | 4796.4 | 4773.0 | 3067.0 | 2879.8 | 994.9 | 295.0 |
| 82.5° | 50.8 | 60.1 | 132.2 | 280.7 | 799.6 | 1711.0 | 1745.7 | 1043.8 | 863.7 | 377.4 | 90.5 |
| 85° | 16.3 | 21.3 | 61.0 | 129.1 | 337.7 | 425.2 | 420.1 | 248.3 | 347.9 | 205.5 | 31.6 |
| 87.5° | 0.0 | 0.0 | 20.3 | 29.5 | 34.5 | 24.4 | 27.5 | 21.3 | 96.7 | 57.0 | 11.2 |
| 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° | 1632.7 | 1632.7 | 1632.7 | 1632.7 | 1632.7 | 1632.7 | 1632.7 | 1632.7 | 1632.7 | 1632.7 | 1632.7 |
| 2.5° | 1640.8 | 1624.5 | 1596.1 | 1569.7 | 1546.2 | 1522.8 | 1508.6 | 1488.3 | 1486.2 | 1486.2 | 1491.3 |
| 5° | 1652.0 | 1625.5 | 1574.7 | 1520.8 | 1458.8 | 1399.7 | 1340.8 | 1283.8 | 1265.5 | 1252.2 | 1258.4 |
| 7.5° | 1684.6 | 1642.9 | 1562.5 | 1459.8 | 1341.7 | 1212.6 | 1122.1 | 1024.4 | 986.8 | 966.4 | 969.4 |
| 10° | 1731.4 | 1674.4 | 1552.4 | 1372.3 | 1181.0 | 1005.0 | 875.9 | 770.1 | 729.4 | 712.1 | 712.1 |
| 12.5° | 1783.3 | 1713.1 | 1534.0 | 1263.4 | 1005.0 | 794.5 | 668.3 | 619.5 | 613.4 | 613.4 | 613.4 |
| 15° | 1845.3 | 1759.8 | 1502.5 | 1135.3 | 820.9 | 628.6 | 583.9 | 586.0 | 592.0 | 596.1 | 596.1 |
| 17.5° | 1909.4 | 1809.7 | 1452.6 | 991.8 | 658.2 | 565.6 | 566.6 | 569.7 | 574.7 | 578.8 | 578.8 |
| 20° | 1978.6 | 1859.6 | 1386.5 | 839.3 | 564.6 | 547.2 | 550.3 | 553.4 | 557.5 | 559.4 | 560.5 |
| 22.5° | 2052.9 | 1906.4 | 1308.2 | 689.7 | 533.0 | 532.1 | 533.0 | 536.1 | 541.2 | 541.2 | 543.2 |
| 25° | 2132.2 | 1958.3 | 1218.7 | 580.9 | 516.8 | 516.8 | 518.9 | 520.8 | 524.9 | 524.9 | 525.9 |
| 27.5° | 2213.6 | 2006.0 | 1124.1 | 523.9 | 502.6 | 501.5 | 501.5 | 504.6 | 506.6 | 507.6 | 508.6 |
| 30° | 2303.1 | 2062.0 | 1029.5 | 511.7 | 491.4 | 486.3 | 483.2 | 485.2 | 487.3 | 488.3 | 490.4 |
| 32.5° | 2394.6 | 2115.9 | 945.0 | 516.8 | 480.1 | 471.0 | 460.8 | 458.8 | 458.8 | 462.9 | 465.9 |
| 35° | 2496.4 | 2174.9 | 880.0 | 534.0 | 474.1 | 448.6 | 432.3 | 423.2 | 424.2 | 430.3 | 433.4 |
| 37.5° | 2618.5 | 2246.1 | 832.1 | 549.3 | 470.0 | 423.2 | 396.8 | 385.5 | 378.4 | 385.5 | 383.6 |
| 40° | 2778.2 | 2350.9 | 797.6 | 561.5 | 464.9 | 393.7 | 358.0 | 339.8 | 326.6 | 330.6 | 328.6 |
| 42.5° | 3013.1 | 2515.7 | 784.3 | 562.5 | 453.7 | 359.1 | 318.4 | 294.0 | 274.7 | 275.7 | 271.6 |
| 45° | 3342.7 | 2776.1 | 852.5 | 549.3 | 429.3 | 321.4 | 276.6 | 244.2 | 232.0 | 228.9 | 224.8 |
| 47.5° | 3794.4 | 3155.6 | 1010.1 | 521.8 | 393.7 | 284.8 | 236.0 | 208.6 | 199.4 | 194.3 | 191.3 |
| 50° | 4399.7 | 3642.8 | 1185.1 | 491.4 | 358.0 | 250.2 | 202.4 | 185.1 | 179.1 | 173.9 | 172.9 |
| 52.5° | 5101.6 | 4137.2 | 1328.5 | 460.8 | 322.5 | 219.8 | 181.1 | 170.9 | 165.8 | 161.7 | 160.7 |
| 55° | 5745.5 | 4478.0 | 1320.4 | 428.2 | 287.9 | 195.4 | 165.8 | 159.7 | 153.6 | 149.5 | 147.5 |
| 57.5° | 6146.3 | 4525.8 | 1088.4 | 392.7 | 248.3 | 176.0 | 151.6 | 147.5 | 140.4 | 135.3 | 134.3 |
| 60° | 6330.4 | 4253.1 | 762.9 | 345.8 | 208.6 | 157.6 | 136.3 | 134.3 | 125.2 | 118.0 | 115.9 |
| 62.5° | 6364.0 | 3746.6 | 508.6 | 287.9 | 173.9 | 140.4 | 121.1 | 118.0 | 105.8 | 93.6 | 87.5 |
| 65° | 6227.7 | 3022.3 | 352.0 | 224.8 | 148.5 | 122.1 | 103.7 | 97.7 | 84.5 | 72.3 | 68.2 |
| 67.5° | 5796.4 | 2122.1 | 245.2 | 161.7 | 126.2 | 96.7 | 82.4 | 80.4 | 70.2 | 60.1 | 57.0 |
| 70° | 5006.0 | 1209.5 | 163.8 | 121.1 | 99.7 | 66.1 | 65.1 | 67.1 | 57.0 | 48.8 | 44.8 |
| 72.5° | 3838.1 | 553.4 | 101.7 | 88.5 | 68.2 | 44.8 | 51.9 | 52.9 | 43.8 | 36.6 | 32.6 |
| 75° | 2259.3 | 237.0 | 64.1 | 57.0 | 34.5 | 29.5 | 37.6 | 38.6 | 29.5 | 23.4 | 20.3 |
| 77.5° | 769.1 | 89.5 | 40.7 | 33.6 | 17.3 | 16.3 | 24.4 | 24.4 | 16.3 | 9.1 | 7.1 |
| 80° | 175.0 | 33.6 | 20.3 | 13.2 | 8.1 | 7.1 | 8.1 | 7.1 | 4.1 | 1.0 | 0.0 |
| 82.5° | 49.8 | 13.2 | 8.1 | 5.1 | 3.1 | 3.1 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 14.2 | 6.1 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 6.1 | 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)