

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: P965624

Luminaire Tested: **NVN-SB4A-735-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965624
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-SB4A-735-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 350mA 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: 14083.5 lumens
Efficiency: N/A
Efficacy: 123.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

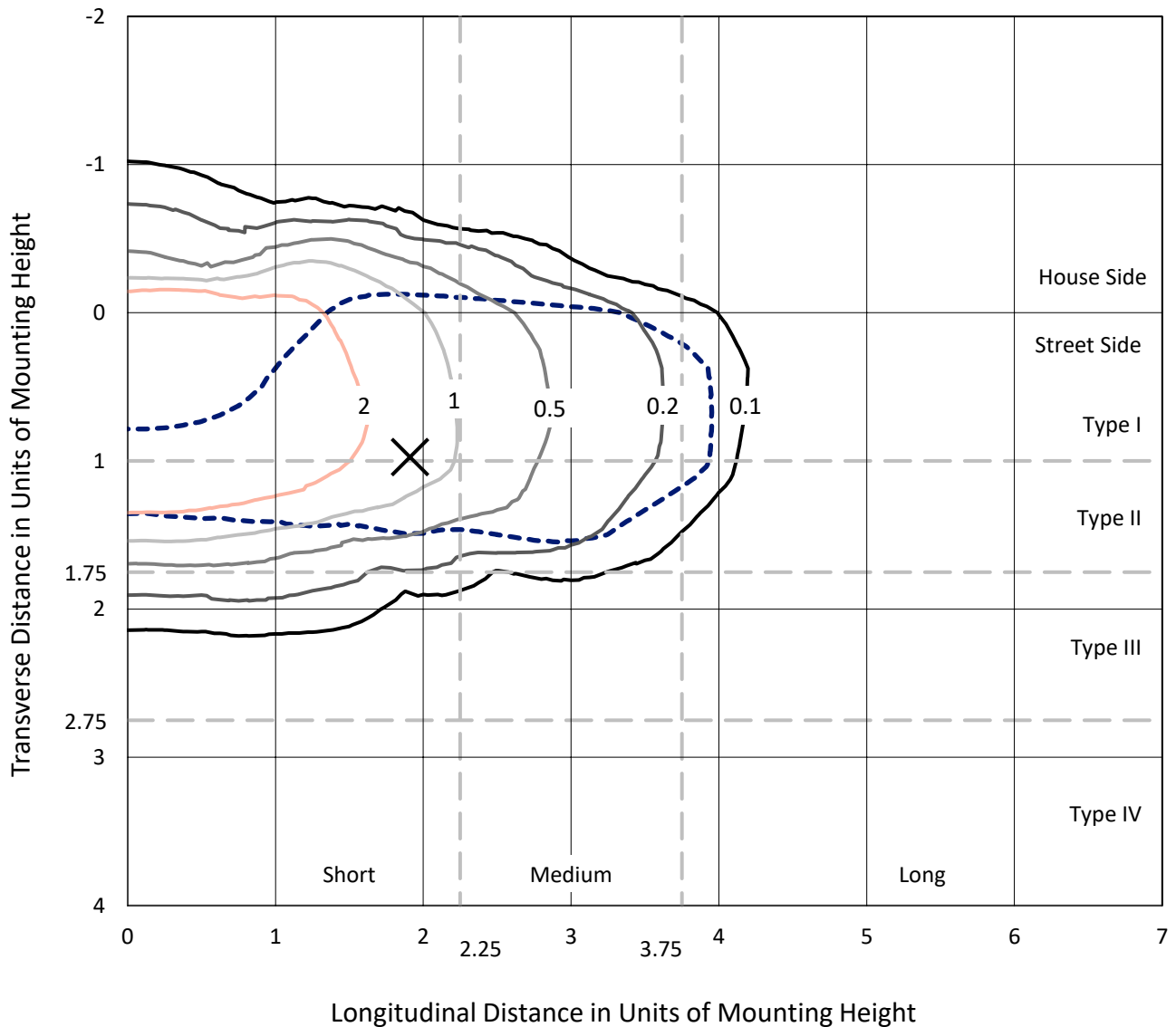
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

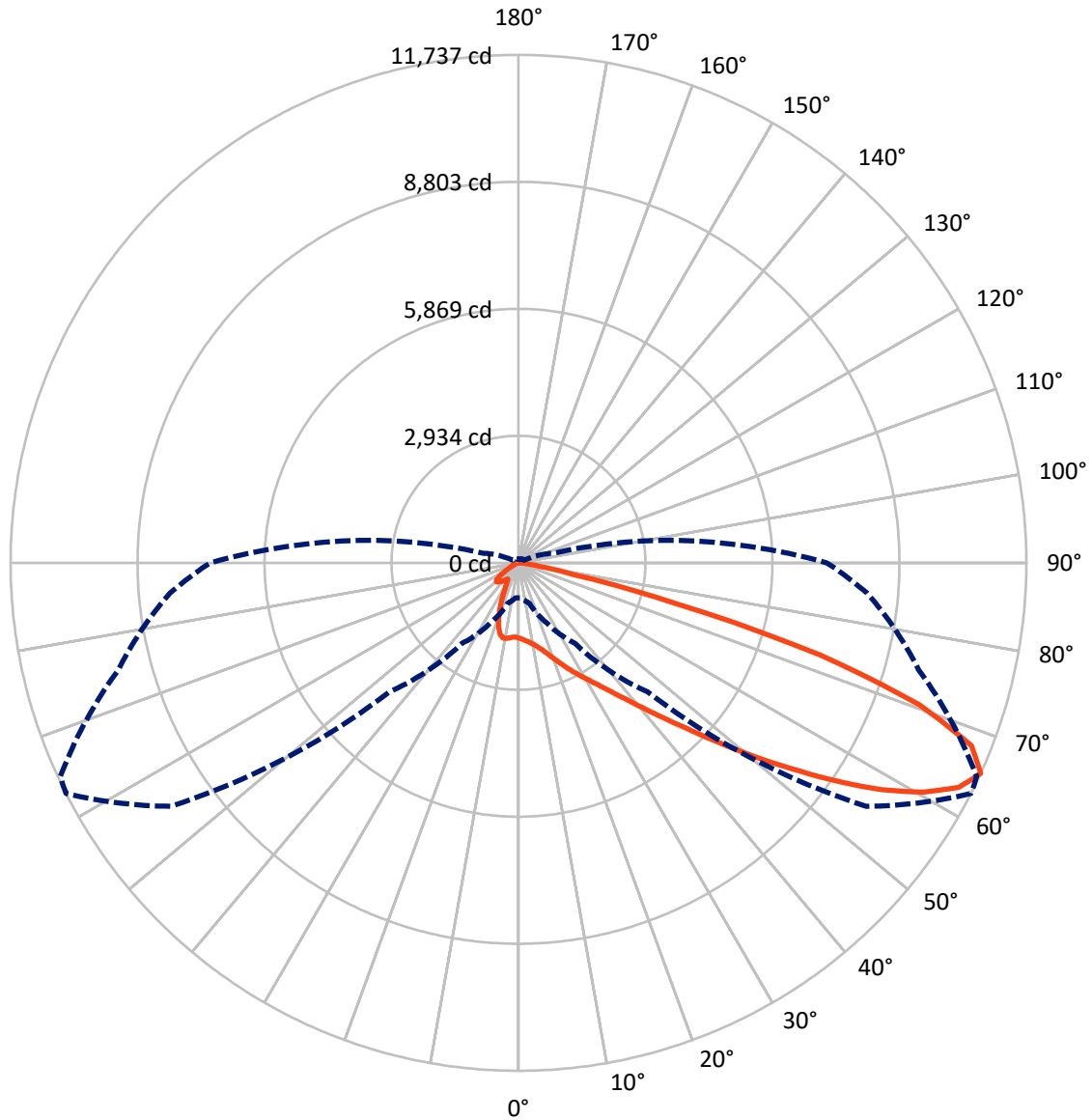
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 63-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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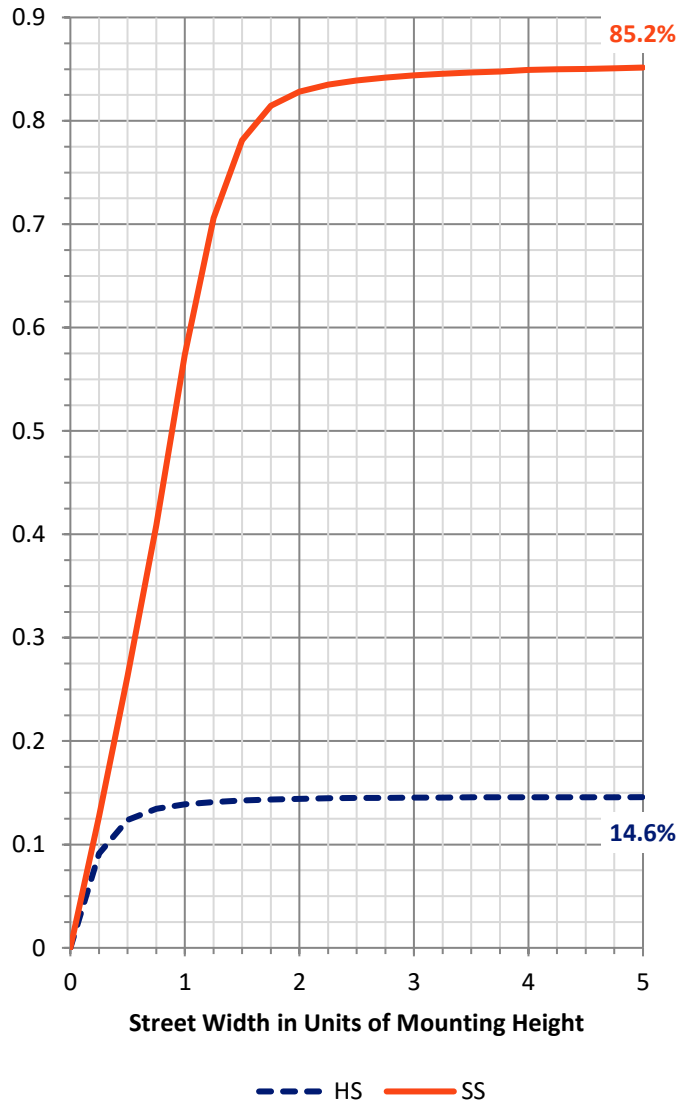
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2070.2 | 0.0 | 2070.2 |
| | % Fixture | 14.7 | 0.0 | 14.7 |
| Street Side | Lumens | 12013.3 | 0.0 | 12013.3 |
| | % Fixture | 85.3 | 0.0 | 85.3 |
| Total | Lumens | 14083.5 | 0.0 | 14083.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 163.8 | 1.2 |
| 10°-20° | 454.4 | 3.2 |
| 20°-30° | 791.2 | 5.6 |
| 30°-40° | 1426.1 | 10.1 |
| 40°-50° | 2828.4 | 20.1 |
| 50°-60° | 3852.7 | 27.4 |
| 60°-70° | 3075.2 | 21.8 |
| 70°-80° | 1391.6 | 9.9 |
| 80°-90° | 100.0 | 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° | 14083.5 | 100.0 |
| 0°-180° | 14083.5 | 100.0 |

Coefficient of Utilization



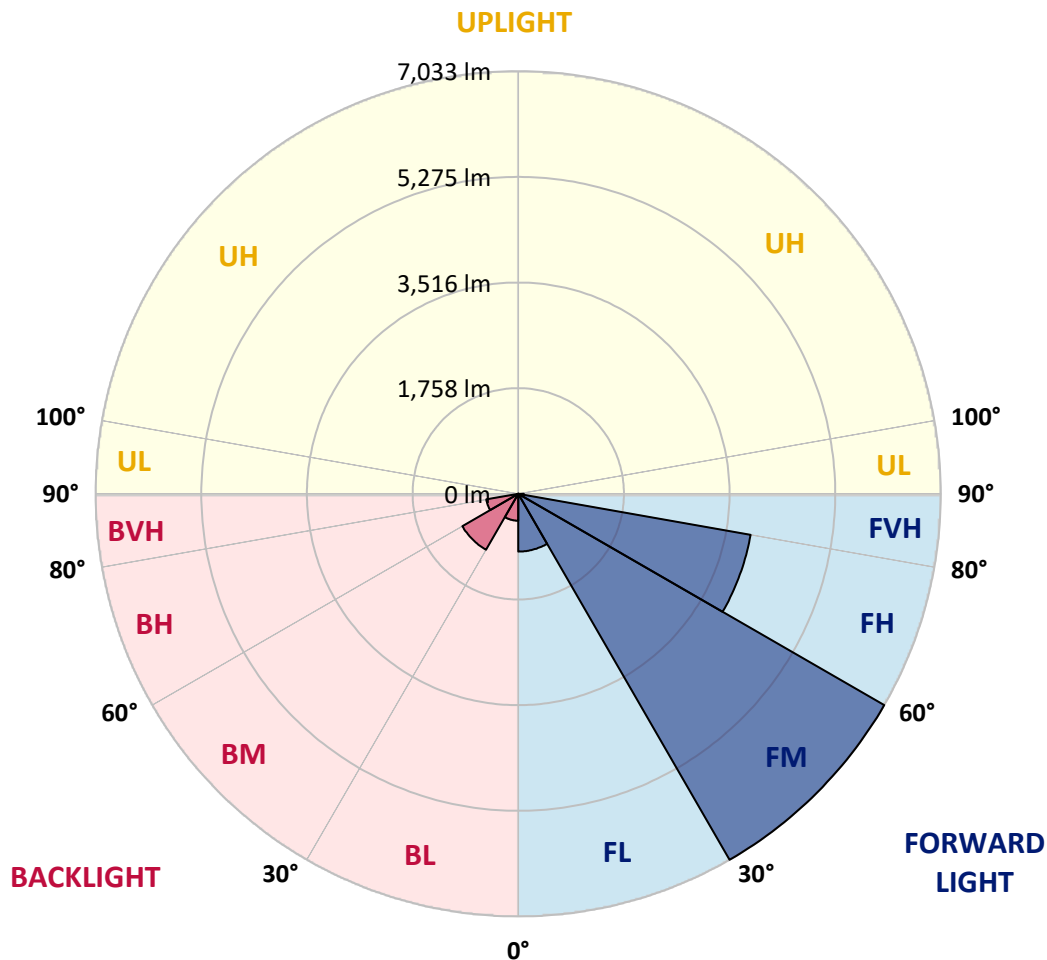
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 961.4 | 6.8 | | | |
| FM (30°-60°) | 7032.9 | 49.9 | | | |
| FH (60°-80°) | 3926.4 | 27.9 | | | G2/5000 |
| FVH (80°-90°) | 92.6 | 0.7 | | | G1/100 |
| BL (0°-30°) | 448.0 | 3.2 | B1/500 | | |
| BM (30°-60°) | 1074.3 | 7.6 | B2/2500 | | |
| BH (60°-80°) | 540.4 | 3.8 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 7.4 | 0.1 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 63° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|--------|
| 0° | 1738.2 | 1738.2 | 1738.2 | 1738.2 | 1738.2 | 1738.2 | 1738.2 | 1738.2 | 1738.2 | 1738.2 | 1738.2 |
| 2.5° | 1778.9 | 1774.0 | 1780.8 | 1777.9 | 1775.9 | 1772.1 | 1770.2 | 1768.2 | 1764.3 | 1761.5 | 1749.8 |
| 5° | 1783.7 | 1780.8 | 1787.6 | 1793.4 | 1799.2 | 1805.0 | 1807.9 | 1811.8 | 1807.9 | 1800.2 | 1788.5 |
| 7.5° | 1743.0 | 1741.1 | 1755.6 | 1773.0 | 1799.2 | 1821.5 | 1845.7 | 1859.2 | 1860.3 | 1857.3 | 1844.8 |
| 10° | 1740.1 | 1735.2 | 1749.8 | 1771.1 | 1805.0 | 1844.8 | 1887.3 | 1916.4 | 1920.3 | 1932.9 | 1919.3 |
| 12.5° | 1785.7 | 1780.8 | 1801.1 | 1824.4 | 1859.2 | 1901.0 | 1953.2 | 1993.9 | 1999.8 | 2017.2 | 2007.6 |
| 15° | 1862.2 | 1855.5 | 1878.6 | 1908.7 | 1953.2 | 2000.7 | 2055.9 | 2092.7 | 2097.7 | 2119.0 | 2101.5 |
| 17.5° | 1951.3 | 1944.5 | 1971.7 | 2003.7 | 2052.0 | 2117.0 | 2181.0 | 2221.7 | 2227.4 | 2241.1 | 2209.1 |
| 20° | 2065.7 | 2057.0 | 2078.3 | 2107.3 | 2158.6 | 2236.1 | 2312.7 | 2370.8 | 2369.9 | 2369.9 | 2317.5 |
| 22.5° | 2198.4 | 2184.8 | 2203.2 | 2226.5 | 2274.9 | 2368.9 | 2470.7 | 2539.4 | 2539.4 | 2512.3 | 2426.1 |
| 25° | 2340.8 | 2327.3 | 2347.6 | 2368.9 | 2411.5 | 2518.1 | 2637.3 | 2722.5 | 2726.4 | 2680.0 | 2542.3 |
| 27.5° | 2519.0 | 2501.6 | 2517.2 | 2542.3 | 2567.5 | 2676.1 | 2817.5 | 2916.3 | 2918.3 | 2846.5 | 2652.8 |
| 30° | 2862.1 | 2812.7 | 2764.2 | 2737.1 | 2748.7 | 2856.3 | 3007.5 | 3116.9 | 3126.6 | 3027.7 | 2772.9 |
| 32.5° | 3489.9 | 3480.2 | 3309.7 | 3086.9 | 2970.6 | 3050.0 | 3219.6 | 3351.3 | 3357.2 | 3230.3 | 2928.9 |
| 35° | 4465.5 | 4453.9 | 4179.7 | 3755.4 | 3376.6 | 3309.7 | 3477.3 | 3633.3 | 3629.4 | 3486.0 | 3131.4 |
| 37.5° | 5630.1 | 5619.5 | 5258.1 | 4690.3 | 4077.0 | 3702.1 | 3809.6 | 3973.4 | 3997.6 | 3809.6 | 3393.1 |
| 40° | 6625.2 | 6585.5 | 6356.8 | 5809.4 | 5007.1 | 4353.2 | 4282.4 | 4391.0 | 4416.1 | 4193.3 | 3725.4 |
| 42.5° | 7379.0 | 7345.0 | 7228.8 | 6886.8 | 6133.0 | 5316.3 | 4839.5 | 4881.3 | 4909.3 | 4641.9 | 4107.1 |
| 45° | 7769.4 | 7761.7 | 7808.2 | 7776.3 | 7280.2 | 6498.3 | 5636.0 | 5462.5 | 5473.2 | 5138.9 | 4540.1 |
| 47.5° | 7824.6 | 7820.7 | 8033.0 | 8333.4 | 8266.5 | 7831.4 | 6658.1 | 6187.3 | 6149.5 | 5699.9 | 5011.0 |
| 50° | 7499.1 | 7491.4 | 7898.3 | 8461.3 | 8925.3 | 8951.4 | 7818.9 | 7004.0 | 6920.7 | 6280.3 | 5502.3 |
| 52.5° | 6459.5 | 6457.6 | 7126.1 | 8063.1 | 9156.8 | 9931.9 | 8966.0 | 7901.2 | 7761.7 | 6894.6 | 6021.6 |
| 55° | 4970.3 | 5006.2 | 5772.6 | 6880.0 | 8734.4 | 10403.9 | 9995.9 | 8897.2 | 8683.1 | 7512.7 | 6500.2 |
| 57.5° | 3520.9 | 3573.3 | 4330.9 | 5317.2 | 7424.5 | 10124.7 | 10692.6 | 9895.1 | 9664.6 | 8128.9 | 6985.6 |
| 60° | 1891.2 | 1937.8 | 2696.4 | 3873.6 | 5523.6 | 9084.2 | 11059.7 | 10761.4 | 10543.4 | 8714.1 | 7423.6 |
| 62.5° | 1126.8 | 1142.3 | 1456.2 | 2500.7 | 3736.0 | 6940.1 | 10903.7 | 11421.2 | 11241.9 | 9205.3 | 7804.4 |
| 65° | 809.0 | 811.9 | 969.9 | 1526.9 | 2268.1 | 4216.5 | 9809.9 | 11737.0 | 11681.8 | 9575.4 | 8086.2 |
| 67.5° | 681.1 | 679.2 | 745.1 | 1014.4 | 1545.4 | 2112.1 | 7518.5 | 11290.4 | 11524.8 | 9809.9 | 8246.1 |
| 70° | 584.2 | 587.1 | 664.6 | 743.1 | 1161.7 | 1195.6 | 3738.0 | 9830.3 | 10330.2 | 9871.9 | 8236.5 |
| 72.5° | 435.0 | 444.7 | 516.4 | 677.2 | 876.8 | 822.6 | 1290.6 | 7288.9 | 8192.8 | 9301.3 | 7809.2 |
| 75° | 307.1 | 312.0 | 363.4 | 569.7 | 653.9 | 598.8 | 658.9 | 3768.0 | 4926.8 | 7130.9 | 6391.7 |
| 77.5° | 236.4 | 245.1 | 275.2 | 398.2 | 644.3 | 420.5 | 403.0 | 1304.1 | 2003.7 | 4307.7 | 4382.3 |
| 80° | 127.9 | 143.4 | 198.6 | 287.7 | 452.4 | 297.5 | 199.6 | 519.4 | 679.2 | 2014.3 | 1689.7 |
| 82.5° | 65.9 | 73.6 | 138.6 | 207.4 | 257.7 | 259.6 | 98.8 | 216.1 | 280.0 | 622.0 | 231.5 |
| 85° | 26.1 | 32.0 | 93.0 | 114.3 | 132.7 | 127.9 | 44.6 | 87.2 | 100.8 | 172.5 | 70.7 |
| 87.5° | 5.8 | 9.7 | 33.9 | 26.1 | 25.2 | 27.2 | 10.7 | 20.4 | 19.4 | 20.4 | 12.6 |
| 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° | 1738.2 | 1738.2 | 1738.2 | 1738.2 | 1738.2 | 1738.2 | 1738.2 | 1738.2 | 1738.2 | 1738.2 | 1738.2 |
| 2.5° | 1748.9 | 1745.0 | 1734.3 | 1722.7 | 1709.1 | 1701.4 | 1696.5 | 1695.6 | 1688.8 | 1683.9 | 1688.8 |
| 5° | 1777.9 | 1774.0 | 1753.7 | 1729.5 | 1703.2 | 1682.9 | 1663.6 | 1646.2 | 1620.9 | 1616.1 | 1614.2 |
| 7.5° | 1836.0 | 1825.3 | 1792.4 | 1759.5 | 1710.1 | 1651.0 | 1579.3 | 1496.9 | 1423.3 | 1401.0 | 1390.3 |
| 10° | 1907.7 | 1893.2 | 1851.6 | 1793.4 | 1683.9 | 1523.0 | 1349.6 | 1188.8 | 1060.9 | 1025.1 | 1011.5 |
| 12.5° | 1989.1 | 1976.5 | 1921.3 | 1813.7 | 1574.4 | 1282.8 | 1017.3 | 817.7 | 693.7 | 662.7 | 653.9 |
| 15° | 2086.0 | 2067.6 | 1991.1 | 1782.8 | 1378.7 | 974.7 | 698.5 | 580.4 | 535.8 | 530.0 | 524.2 |
| 17.5° | 2188.7 | 2158.6 | 2053.1 | 1671.4 | 1115.2 | 692.8 | 539.7 | 505.7 | 486.4 | 480.5 | 477.6 |
| 20° | 2282.7 | 2243.9 | 2089.9 | 1502.8 | 833.2 | 539.7 | 483.5 | 461.1 | 443.7 | 437.0 | 433.1 |
| 22.5° | 2376.7 | 2321.4 | 2089.9 | 1273.2 | 624.9 | 478.7 | 443.7 | 423.4 | 403.0 | 394.3 | 389.5 |
| 25° | 2474.6 | 2400.9 | 2053.1 | 1017.3 | 502.9 | 438.9 | 406.0 | 383.7 | 366.2 | 355.6 | 351.7 |
| 27.5° | 2569.5 | 2467.7 | 1968.7 | 775.1 | 447.6 | 404.1 | 371.0 | 349.7 | 333.3 | 325.5 | 325.5 |
| 30° | 2659.6 | 2533.6 | 1850.5 | 588.1 | 411.7 | 370.1 | 339.1 | 320.7 | 304.2 | 296.4 | 297.5 |
| 32.5° | 2781.6 | 2616.9 | 1724.6 | 482.5 | 380.8 | 338.1 | 310.1 | 292.6 | 278.1 | 272.2 | 272.2 |
| 35° | 2951.2 | 2740.0 | 1616.1 | 473.8 | 354.6 | 312.0 | 283.9 | 267.4 | 252.9 | 248.0 | 248.0 |
| 37.5° | 3191.4 | 2938.6 | 1558.9 | 531.9 | 333.3 | 288.7 | 262.6 | 245.1 | 231.5 | 227.7 | 226.7 |
| 40° | 3488.0 | 3207.9 | 1590.0 | 590.1 | 318.8 | 268.3 | 243.2 | 225.7 | 214.1 | 209.3 | 208.3 |
| 42.5° | 3839.6 | 3540.2 | 1761.5 | 634.6 | 309.0 | 250.9 | 224.8 | 205.4 | 197.6 | 195.7 | 195.7 |
| 45° | 4243.7 | 3905.6 | 2024.0 | 682.1 | 293.6 | 234.5 | 206.3 | 191.9 | 186.0 | 185.0 | 184.1 |
| 47.5° | 4702.9 | 4306.6 | 2328.2 | 741.2 | 278.1 | 218.9 | 191.9 | 182.1 | 177.3 | 175.4 | 175.4 |
| 50° | 5158.3 | 4710.7 | 2641.1 | 774.2 | 265.5 | 204.4 | 180.2 | 172.5 | 168.6 | 167.6 | 167.6 |
| 52.5° | 5635.0 | 5126.3 | 2894.1 | 743.1 | 254.8 | 192.8 | 170.6 | 164.7 | 160.8 | 159.9 | 159.9 |
| 55° | 6089.4 | 5462.5 | 2937.6 | 630.8 | 233.5 | 181.2 | 159.9 | 156.9 | 152.1 | 152.1 | 151.2 |
| 57.5° | 6480.9 | 5631.1 | 2629.5 | 463.1 | 212.2 | 163.7 | 149.2 | 146.3 | 142.5 | 141.4 | 140.5 |
| 60° | 6840.3 | 5582.7 | 2029.8 | 312.0 | 188.9 | 146.3 | 135.6 | 133.7 | 129.9 | 124.9 | 124.0 |
| 62.5° | 7042.8 | 5369.6 | 1388.4 | 203.5 | 165.6 | 127.9 | 120.1 | 119.2 | 110.5 | 100.8 | 98.8 |
| 65° | 7119.3 | 4931.6 | 866.2 | 148.2 | 138.6 | 109.5 | 103.6 | 101.8 | 89.2 | 78.5 | 77.5 |
| 67.5° | 7052.5 | 4210.7 | 437.0 | 117.3 | 109.5 | 91.1 | 85.3 | 85.3 | 76.6 | 66.8 | 65.9 |
| 70° | 6785.1 | 3156.6 | 184.1 | 94.0 | 84.3 | 69.8 | 69.8 | 73.6 | 64.9 | 54.2 | 53.3 |
| 72.5° | 6204.7 | 2123.8 | 97.9 | 71.6 | 62.9 | 49.4 | 57.2 | 60.1 | 51.4 | 40.7 | 40.7 |
| 75° | 4932.6 | 1295.4 | 67.9 | 53.3 | 39.8 | 34.8 | 43.6 | 45.5 | 34.8 | 27.2 | 26.1 |
| 77.5° | 3373.7 | 744.2 | 45.5 | 33.9 | 25.2 | 20.4 | 30.0 | 28.1 | 18.4 | 12.6 | 13.5 |
| 80° | 1481.4 | 310.1 | 26.1 | 15.5 | 9.7 | 7.8 | 10.7 | 7.8 | 5.8 | 3.9 | 3.9 |
| 82.5° | 173.4 | 72.7 | 9.7 | 5.8 | 3.9 | 1.9 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 35.9 | 8.7 | 4.8 | 1.9 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 6.8 | 1.9 | 0.9 | 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)