

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: P965809

Luminaire Tested: **NVN-SB4A-835-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965809
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-SB4A-835-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17409.6 lumens
Efficiency: N/A
Efficacy: 152.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

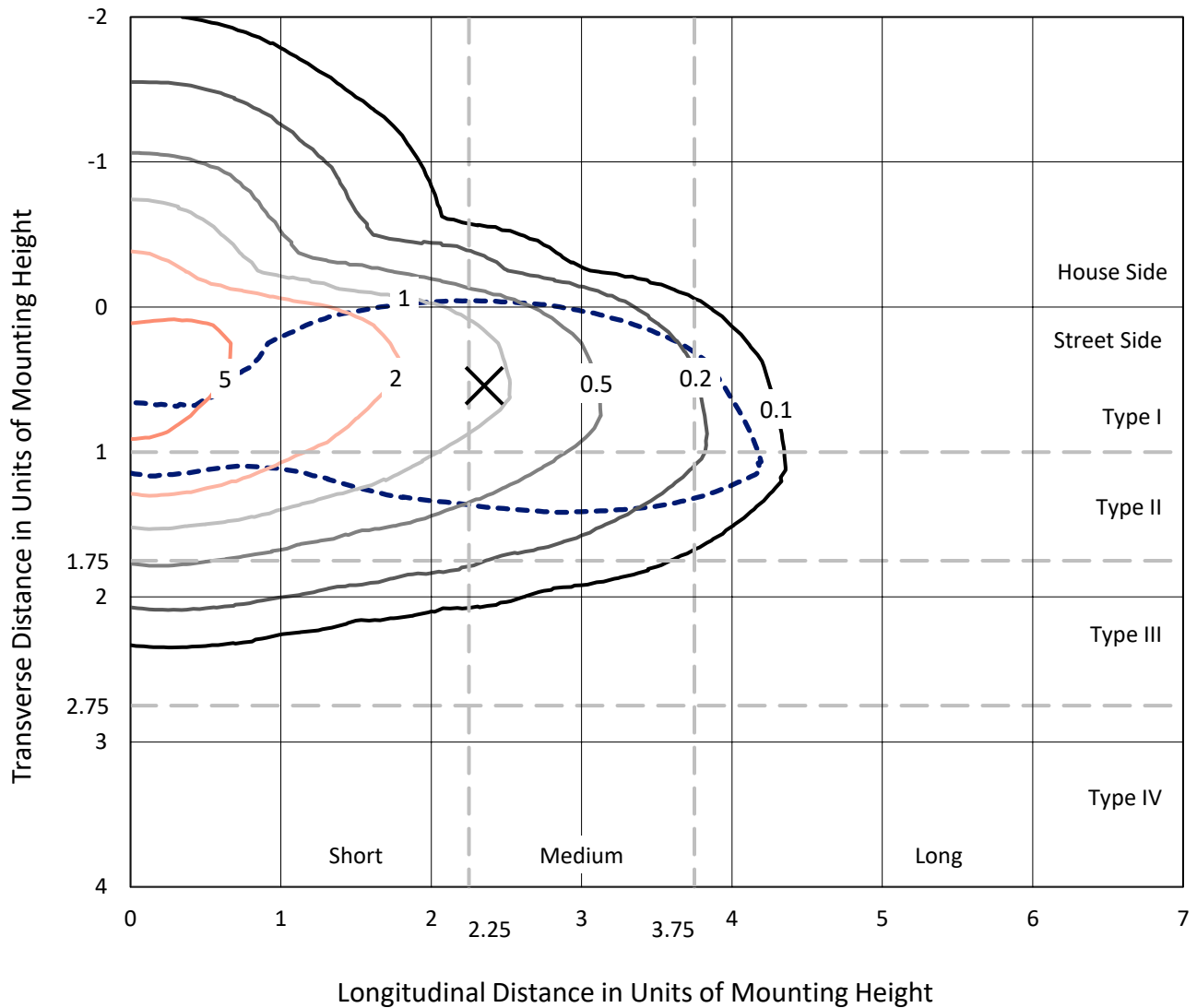
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

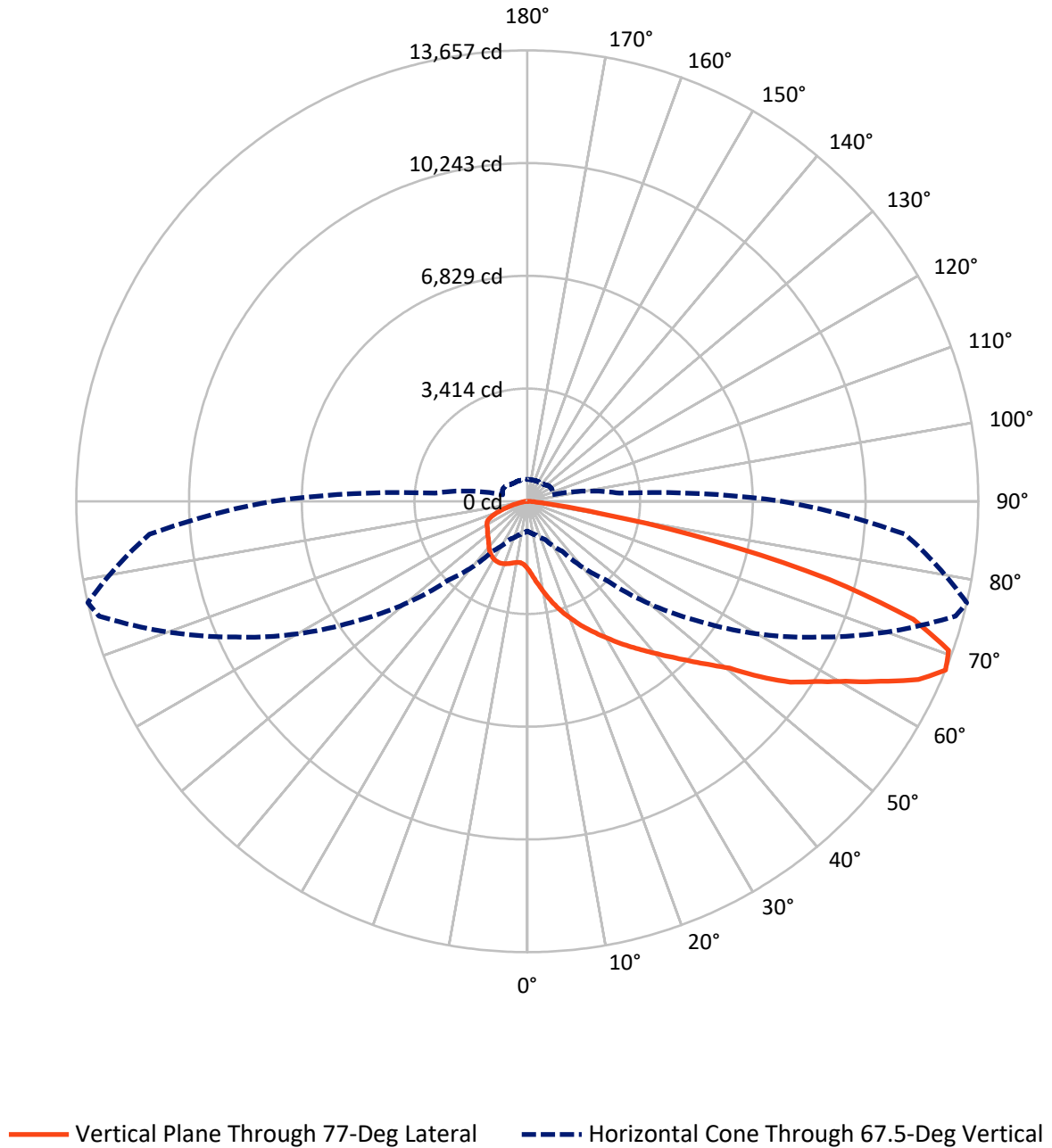
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.4 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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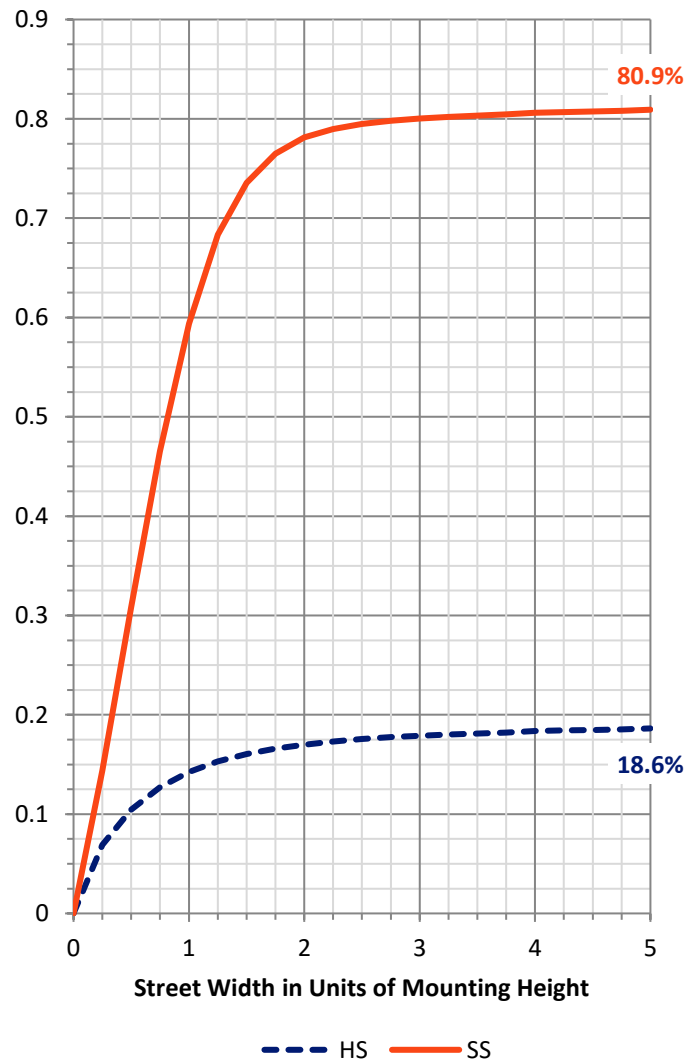
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3293.2 | 0.0 | 3293.2 |
| | % Fixture | 18.9 | 0.0 | 18.9 |
| Street Side | Lumens | 14116.4 | 0.0 | 14116.4 |
| | % Fixture | 81.1 | 0.0 | 81.1 |
| Total | Lumens | 17409.6 | 0.0 | 17409.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 219.0 | 1.3 |
| 10°-20° | 786.6 | 4.5 |
| 20°-30° | 1485.2 | 8.5 |
| 30°-40° | 2392.6 | 13.7 |
| 40°-50° | 3272.6 | 18.8 |
| 50°-60° | 3691.5 | 21.2 |
| 60°-70° | 3445.6 | 19.8 |
| 70°-80° | 1888.8 | 10.8 |
| 80°-90° | 227.8 | 1.3 |
| 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° | 17409.6 | 100.0 |
| 0°-180° | 17409.6 | 100.0 |

Coefficient of Utilization



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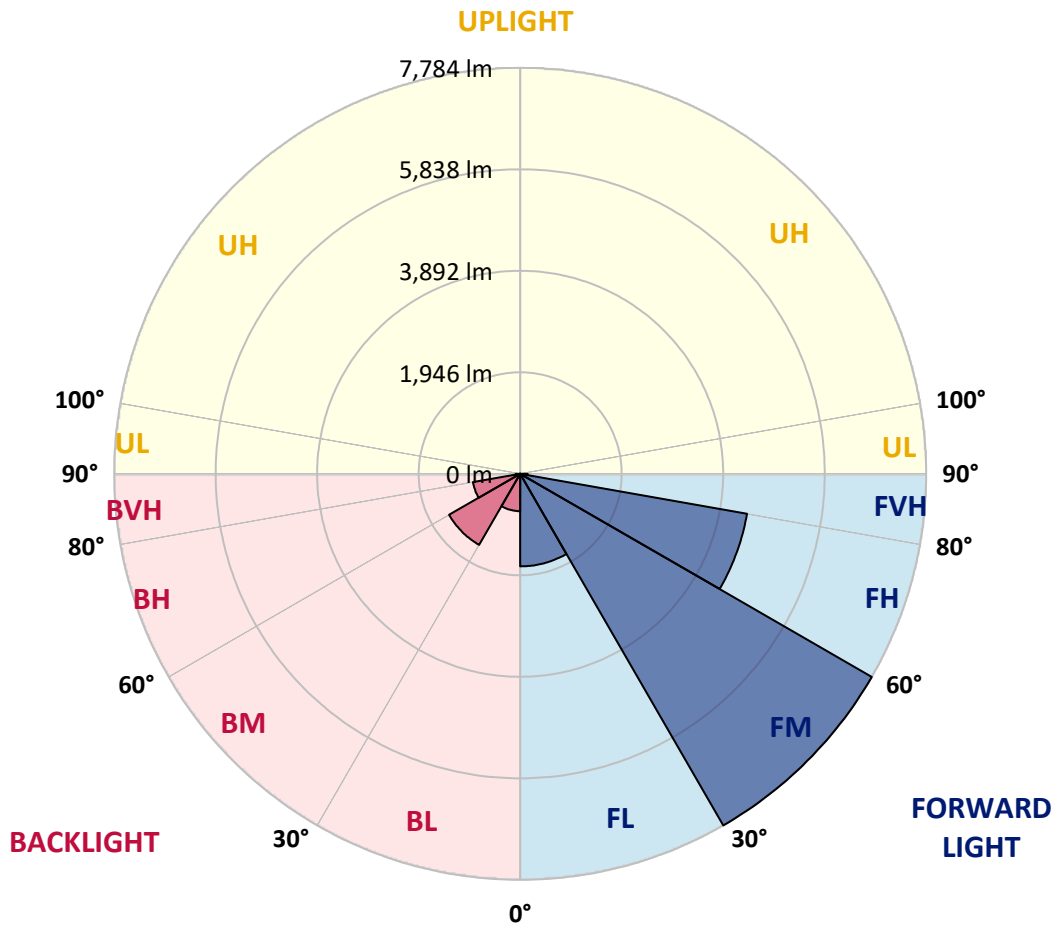
CATALOG NUMBER: NVN-SB4A-835-U-T2R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1774.7 | 10.2 | | | |
| FM (30°-60°) | 7783.7 | 44.7 | | | |
| FH (60°-80°) | 4415.6 | 25.4 | | | G2/5000 |
| FVH (80°-90°) | 142.5 | 0.8 | | | G2/225 |
| BL (0°-30°) | 716.0 | 4.1 | B2/1000 | | |
| BM (30°-60°) | 1573.1 | 9.0 | B2/2500 | | |
| BH (60°-80°) | 918.8 | 5.3 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 85.3 | 0.5 | | | G1/100 |
| 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 Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 77° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| 0° | 2042.7 | 2042.7 | 2042.7 | 2042.7 | 2042.7 | 2042.7 | 2042.7 | 2042.7 | 2042.7 | 2042.7 | 2042.7 |
| 2.5° | 2557.6 | 2575.6 | 2553.2 | 2553.2 | 2477.6 | 2438.1 | 2362.6 | 2305.1 | 2201.8 | 2183.8 | 2115.5 |
| 5° | 3023.1 | 3045.6 | 3014.1 | 3000.7 | 2911.7 | 2829.9 | 2703.2 | 2578.3 | 2394.1 | 2375.2 | 2214.3 |
| 7.5° | 3383.5 | 3412.2 | 3384.4 | 3370.0 | 3291.0 | 3199.3 | 3051.0 | 2876.7 | 2616.9 | 2580.1 | 2347.4 |
| 10° | 3677.4 | 3681.9 | 3672.9 | 3678.3 | 3616.3 | 3540.8 | 3388.9 | 3185.8 | 2861.4 | 2811.1 | 2508.2 |
| 12.5° | 3843.6 | 3864.4 | 3882.3 | 3914.7 | 3903.8 | 3857.1 | 3720.5 | 3477.8 | 3120.2 | 3055.5 | 2683.4 |
| 15° | 3921.9 | 3957.7 | 3998.2 | 4072.8 | 4133.0 | 4144.7 | 4040.4 | 3791.5 | 3383.5 | 3305.3 | 2860.5 |
| 17.5° | 3949.6 | 3983.9 | 4047.6 | 4155.5 | 4284.9 | 4372.0 | 4325.3 | 4096.2 | 3644.1 | 3554.3 | 3046.5 |
| 20° | 4090.8 | 4100.6 | 4139.3 | 4241.8 | 4382.0 | 4526.6 | 4561.7 | 4389.2 | 3902.1 | 3800.5 | 3238.8 |
| 22.5° | 4392.7 | 4373.0 | 4383.7 | 4430.5 | 4531.1 | 4671.3 | 4751.3 | 4648.0 | 4167.1 | 4050.3 | 3432.9 |
| 25° | 4891.5 | 4834.0 | 4776.5 | 4722.6 | 4773.7 | 4852.9 | 4943.6 | 4906.8 | 4444.8 | 4296.6 | 3628.8 |
| 27.5° | 5521.5 | 5451.4 | 5324.7 | 5147.7 | 5085.6 | 5113.4 | 5153.9 | 5146.7 | 4701.9 | 4551.8 | 3831.0 |
| 30° | 6141.6 | 6059.8 | 5908.8 | 5652.7 | 5489.1 | 5415.4 | 5384.8 | 5364.2 | 4981.4 | 4821.4 | 4035.0 |
| 32.5° | 6636.7 | 6572.0 | 6423.8 | 6137.1 | 5899.8 | 5774.0 | 5672.5 | 5598.8 | 5273.4 | 5113.4 | 4250.8 |
| 35° | 7069.8 | 7009.7 | 6839.8 | 6527.1 | 6269.2 | 6135.2 | 6002.3 | 5845.0 | 5577.2 | 5415.4 | 4482.6 |
| 37.5° | 7465.3 | 7405.1 | 7172.3 | 6847.0 | 6587.3 | 6494.7 | 6376.1 | 6109.2 | 5881.9 | 5729.0 | 4727.9 |
| 40° | 7715.2 | 7701.6 | 7484.1 | 7115.8 | 6846.1 | 6800.3 | 6760.7 | 6415.7 | 6219.7 | 6077.7 | 4997.5 |
| 42.5° | 7778.9 | 7808.6 | 7636.0 | 7333.2 | 7076.2 | 7039.3 | 7131.8 | 6762.5 | 6599.0 | 6463.2 | 5303.0 |
| 45° | 7625.3 | 7710.7 | 7597.4 | 7391.6 | 7239.8 | 7220.0 | 7460.8 | 7141.8 | 7018.7 | 6894.7 | 5671.5 |
| 47.5° | 7236.1 | 7380.8 | 7334.1 | 7305.4 | 7283.8 | 7369.1 | 7750.2 | 7544.4 | 7494.1 | 7386.3 | 6092.1 |
| 50° | 6450.7 | 6724.8 | 6806.6 | 6988.1 | 7196.6 | 7485.1 | 8013.4 | 7983.8 | 8049.4 | 7940.7 | 6604.4 |
| 52.5° | 5092.8 | 5470.2 | 5944.7 | 6399.5 | 6928.8 | 7446.4 | 8302.9 | 8614.7 | 8891.5 | 8832.2 | 7418.5 |
| 55° | 4204.0 | 4373.9 | 4738.7 | 5572.7 | 6409.3 | 7283.8 | 8433.2 | 9124.2 | 9727.2 | 9674.3 | 8036.0 |
| 57.5° | 3521.0 | 3672.9 | 3897.6 | 4594.0 | 5623.9 | 6914.4 | 8514.1 | 9435.2 | 10299.7 | 10294.3 | 8645.3 |
| 60° | 2788.6 | 2949.4 | 3179.5 | 3672.9 | 4706.4 | 6276.4 | 8496.1 | 9789.3 | 11030.3 | 11075.3 | 9388.5 |
| 62.5° | 1961.8 | 2138.9 | 2394.1 | 2854.2 | 3769.0 | 5449.6 | 8129.4 | 10045.4 | 11890.4 | 12012.6 | 10282.7 |
| 65° | 1289.6 | 1406.4 | 1598.8 | 1996.0 | 2808.4 | 4386.4 | 7429.3 | 10078.6 | 12810.7 | 13017.3 | 11122.0 |
| 67.5° | 904.0 | 949.0 | 1062.2 | 1277.9 | 1851.3 | 3363.7 | 6314.1 | 9734.4 | 13424.4 | 13657.2 | 11485.9 |
| 70° | 705.5 | 728.0 | 785.5 | 871.8 | 1162.9 | 2262.0 | 4838.5 | 8839.4 | 13293.2 | 13535.8 | 11105.9 |
| 72.5° | 609.3 | 630.9 | 652.4 | 663.2 | 780.0 | 1396.6 | 3277.4 | 7390.7 | 12057.5 | 12222.0 | 9656.3 |
| 75° | 552.7 | 558.1 | 576.0 | 572.5 | 594.9 | 905.9 | 1891.7 | 5384.8 | 9513.3 | 9456.8 | 7128.3 |
| 77.5° | 464.6 | 471.8 | 501.4 | 496.9 | 528.4 | 619.2 | 982.3 | 3475.2 | 6167.6 | 5782.9 | 3967.7 |
| 80° | 393.6 | 397.2 | 429.6 | 424.1 | 459.2 | 448.4 | 501.4 | 1771.3 | 2616.0 | 2216.2 | 1144.0 |
| 82.5° | 136.6 | 168.9 | 328.0 | 337.9 | 350.4 | 271.4 | 289.4 | 722.5 | 798.9 | 612.0 | 240.0 |
| 85° | 66.5 | 71.0 | 167.2 | 237.3 | 236.4 | 136.6 | 141.1 | 257.9 | 251.6 | 197.7 | 79.9 |
| 87.5° | 10.8 | 13.5 | 19.8 | 92.6 | 73.7 | 36.0 | 48.5 | 50.3 | 52.2 | 44.9 | 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° | 2042.7 | 2042.7 | 2042.7 | 2042.7 | 2042.7 | 2042.7 | 2042.7 | 2042.7 | 2042.7 | 2042.7 | 2042.7 |
| 2.5° | 2065.2 | 2020.2 | 1925.9 | 1838.6 | 1770.4 | 1704.8 | 1668.0 | 1636.5 | 1618.5 | 1614.9 | 1614.9 |
| 5° | 2120.8 | 2028.3 | 1856.7 | 1712.0 | 1617.7 | 1547.5 | 1510.6 | 1487.3 | 1475.6 | 1468.4 | 1467.5 |
| 7.5° | 2200.9 | 2065.2 | 1820.7 | 1656.3 | 1557.4 | 1507.1 | 1488.2 | 1484.6 | 1483.7 | 1484.6 | 1487.3 |
| 10° | 2311.4 | 2125.3 | 1817.1 | 1642.8 | 1560.0 | 1532.3 | 1531.4 | 1532.3 | 1535.9 | 1536.8 | 1537.6 |
| 12.5° | 2430.9 | 2187.4 | 1831.5 | 1654.5 | 1594.3 | 1579.0 | 1576.2 | 1575.4 | 1578.1 | 1579.8 | 1580.8 |
| 15° | 2561.3 | 2269.1 | 1855.8 | 1679.7 | 1632.0 | 1615.8 | 1613.1 | 1607.7 | 1606.8 | 1606.0 | 1605.0 |
| 17.5° | 2695.1 | 2350.0 | 1882.7 | 1706.6 | 1656.3 | 1633.7 | 1623.9 | 1611.3 | 1601.5 | 1598.8 | 1601.5 |
| 20° | 2830.8 | 2430.1 | 1901.6 | 1720.1 | 1658.0 | 1626.6 | 1606.8 | 1585.3 | 1568.1 | 1558.3 | 1561.9 |
| 22.5° | 2975.5 | 2513.6 | 1913.3 | 1716.5 | 1641.8 | 1598.8 | 1562.8 | 1537.6 | 1511.6 | 1494.4 | 1495.4 |
| 25° | 3116.6 | 2586.4 | 1912.3 | 1697.6 | 1610.4 | 1555.6 | 1509.8 | 1477.4 | 1441.5 | 1423.5 | 1423.5 |
| 27.5° | 3252.3 | 2652.0 | 1889.9 | 1664.4 | 1565.5 | 1504.4 | 1449.6 | 1410.9 | 1375.9 | 1358.8 | 1357.9 |
| 30° | 3392.5 | 2706.8 | 1854.8 | 1615.8 | 1512.5 | 1445.0 | 1384.9 | 1351.6 | 1320.2 | 1304.0 | 1303.1 |
| 32.5° | 3531.8 | 2757.1 | 1805.4 | 1555.6 | 1451.4 | 1386.6 | 1327.4 | 1296.8 | 1277.9 | 1277.9 | 1278.8 |
| 35° | 3679.1 | 2792.2 | 1739.8 | 1485.5 | 1386.6 | 1324.6 | 1277.9 | 1259.9 | 1258.2 | 1247.3 | 1244.7 |
| 37.5° | 3834.6 | 2814.6 | 1659.9 | 1413.6 | 1322.9 | 1264.4 | 1250.1 | 1228.5 | 1210.5 | 1187.2 | 1183.6 |
| 40° | 3998.2 | 2837.1 | 1563.7 | 1339.1 | 1255.4 | 1223.1 | 1216.8 | 1188.1 | 1136.8 | 1079.3 | 1071.2 |
| 42.5° | 4196.9 | 2852.4 | 1463.9 | 1264.4 | 1184.5 | 1173.6 | 1182.6 | 1133.2 | 1051.4 | 1008.3 | 1009.2 |
| 45° | 4426.9 | 2877.6 | 1372.3 | 1190.7 | 1111.6 | 1111.6 | 1149.4 | 1084.7 | 1017.3 | 990.4 | 994.9 |
| 47.5° | 4725.2 | 2936.0 | 1286.9 | 1109.9 | 1044.3 | 1062.2 | 1075.7 | 1026.3 | 988.5 | 955.3 | 954.4 |
| 50° | 5156.6 | 3076.1 | 1198.8 | 1028.1 | 993.0 | 1029.0 | 1010.1 | 981.3 | 937.4 | 910.4 | 907.6 |
| 52.5° | 5692.2 | 3158.8 | 1120.6 | 954.4 | 949.0 | 984.9 | 958.0 | 931.0 | 897.8 | 861.8 | 854.6 |
| 55° | 6057.0 | 3174.1 | 1055.0 | 900.5 | 919.3 | 915.7 | 905.9 | 881.6 | 863.7 | 816.0 | 816.9 |
| 57.5° | 6465.1 | 3204.7 | 1001.1 | 868.1 | 900.5 | 860.9 | 857.3 | 836.7 | 813.3 | 780.9 | 770.2 |
| 60° | 6953.1 | 3252.3 | 954.4 | 855.6 | 884.3 | 825.0 | 807.0 | 798.9 | 775.5 | 759.4 | 763.8 |
| 62.5° | 7485.1 | 3295.5 | 906.7 | 857.3 | 865.4 | 790.0 | 763.0 | 760.2 | 745.9 | 740.5 | 740.5 |
| 65° | 7848.1 | 3177.7 | 847.5 | 855.6 | 835.8 | 754.0 | 719.9 | 718.9 | 707.2 | 705.5 | 704.6 |
| 67.5° | 7721.4 | 2804.8 | 767.5 | 830.4 | 805.2 | 718.0 | 680.3 | 676.7 | 661.4 | 662.4 | 662.4 |
| 70° | 7087.0 | 2272.7 | 656.9 | 768.3 | 767.5 | 685.7 | 639.0 | 627.3 | 606.6 | 610.2 | 613.8 |
| 72.5° | 5897.1 | 1684.1 | 508.6 | 665.0 | 707.2 | 656.0 | 591.3 | 572.5 | 546.4 | 550.0 | 549.1 |
| 75° | 4258.9 | 1144.9 | 370.2 | 505.9 | 615.6 | 620.9 | 544.6 | 512.3 | 480.8 | 486.2 | 488.0 |
| 77.5° | 2179.3 | 648.8 | 272.3 | 348.7 | 483.5 | 564.4 | 502.4 | 459.2 | 452.0 | 502.4 | 495.2 |
| 80° | 710.8 | 325.3 | 188.7 | 244.5 | 317.2 | 462.0 | 440.3 | 390.9 | 389.1 | 400.8 | 344.2 |
| 82.5° | 212.1 | 137.5 | 121.4 | 160.8 | 175.3 | 354.0 | 380.2 | 295.7 | 254.3 | 267.8 | 276.8 |
| 85° | 72.8 | 66.5 | 69.2 | 79.9 | 83.5 | 207.6 | 266.0 | 195.9 | 185.1 | 204.0 | 201.3 |
| 87.5° | 17.1 | 23.4 | 19.8 | 17.9 | 17.9 | 50.3 | 103.3 | 81.8 | 113.3 | 75.4 | 72.8 |
| 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)