

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: P961541

Luminaire Tested: **NVN-SB2A-827-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961541
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-SB2A-827-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 350mA 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: 6159.2 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

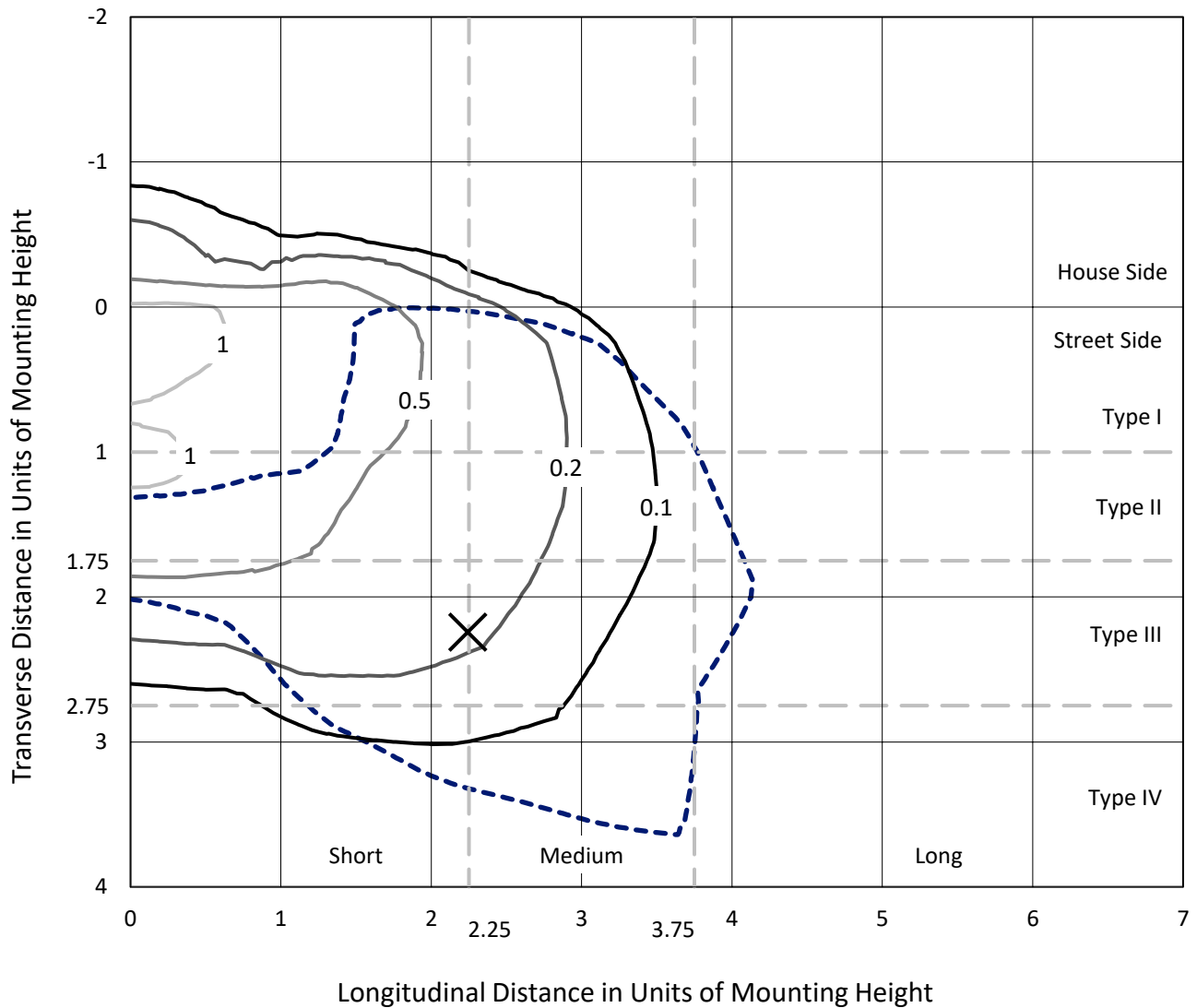
Input Watts (W): 57.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

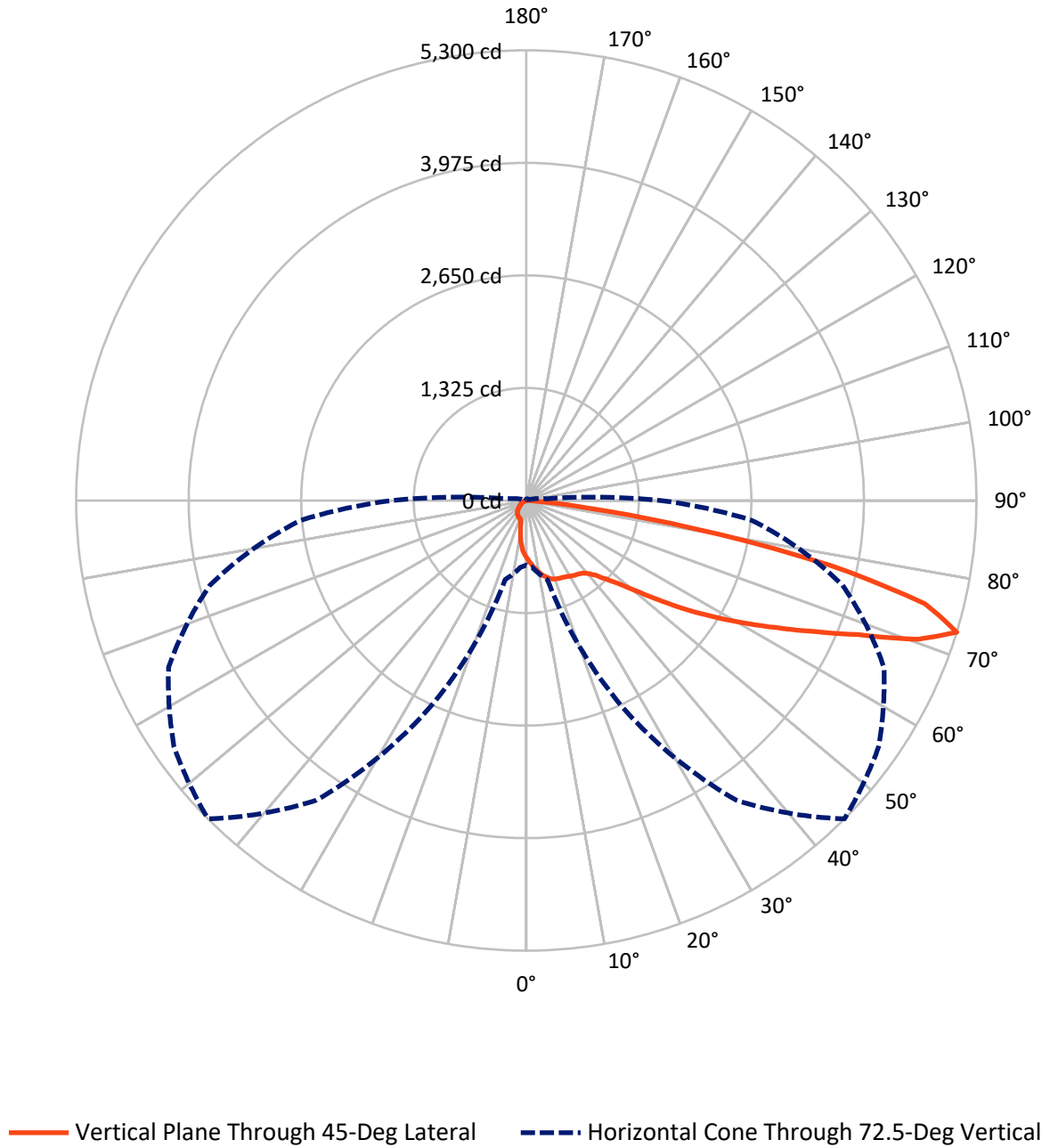
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.5 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 | 647.2 | 0.0 | 647.2 |
| | % Fixture | 10.5 | 0.0 | 10.5 |
| Street Side | Lumens | 5512.1 | 0.0 | 5512.1 |
| | % Fixture | 89.5 | 0.0 | 89.5 |
| Total | Lumens | 6159.2 | 0.0 | 6159.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 63.6 | 1.0 |
| 10°-20° | 185.8 | 3.0 |
| 20°-30° | 305.1 | 5.0 |
| 30°-40° | 432.7 | 7.0 |
| 40°-50° | 715.3 | 11.6 |
| 50°-60° | 1284.9 | 20.9 |
| 60°-70° | 1784.1 | 29.0 |
| 70°-80° | 1294.1 | 21.0 |
| 80°-90° | 93.6 | 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° | 6159.2 | 100.0 |
| 0°-180° | 6159.2 | 100.0 |

Coefficient of Utilization



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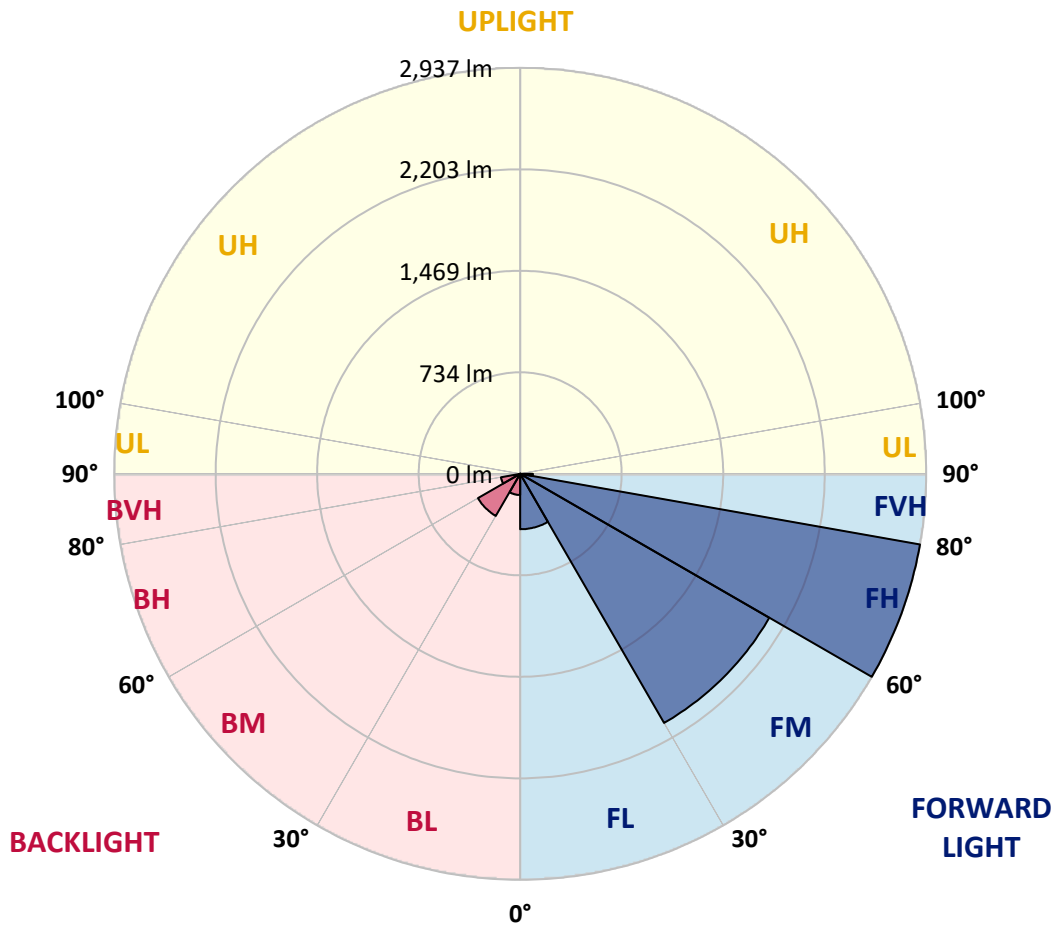
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 401.2 | 6.5 | | | |
| FM (30°-60°) | 2080.9 | 33.8 | | | |
| FH (60°-80°) | 2937.2 | 47.7 | | | G2/5000 |
| FVH (80°-90°) | 92.8 | 1.5 | | | G1/100 |
| BL (0°-30°) | 153.3 | 2.5 | B1/500 | | |
| BM (30°-60°) | 352.0 | 5.7 | B1/1000 | | |
| BH (60°-80°) | 141.1 | 2.3 | B1/500 | | G1/500 |
| BVH (80°-90°) | 0.8 | 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-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 674.8 | 674.8 | 674.8 | 674.8 | 674.8 | 674.8 | 674.8 | 674.8 | 674.8 | 674.8 | 674.8 |
| 2.5° | 737.0 | 738.2 | 737.4 | 732.4 | 724.0 | 719.3 | 716.8 | 708.4 | 702.9 | 693.2 | 683.2 |
| 5° | 804.6 | 809.7 | 806.8 | 796.6 | 780.7 | 769.4 | 766.0 | 748.8 | 733.2 | 715.1 | 694.1 |
| 7.5° | 876.6 | 879.0 | 873.6 | 860.6 | 839.2 | 819.8 | 816.8 | 792.9 | 768.1 | 740.4 | 711.8 |
| 10° | 938.8 | 941.7 | 933.3 | 914.4 | 890.0 | 866.0 | 861.8 | 835.4 | 806.0 | 771.8 | 735.3 |
| 12.5° | 990.9 | 993.8 | 982.9 | 960.2 | 933.3 | 908.5 | 904.3 | 876.6 | 844.2 | 806.4 | 761.0 |
| 15° | 1030.4 | 1035.9 | 1021.2 | 996.8 | 967.8 | 943.0 | 940.8 | 913.6 | 882.0 | 840.0 | 791.6 |
| 17.5° | 1053.5 | 1059.0 | 1045.1 | 1015.7 | 990.9 | 969.9 | 967.4 | 944.6 | 915.2 | 874.8 | 821.4 |
| 20° | 1057.3 | 1062.4 | 1047.7 | 1022.0 | 1001.4 | 984.6 | 983.4 | 967.0 | 945.5 | 906.8 | 853.8 |
| 22.5° | 1046.0 | 1052.3 | 1038.8 | 1018.2 | 1004.0 | 995.1 | 993.4 | 984.2 | 972.0 | 939.2 | 884.2 |
| 25° | 1034.2 | 1039.2 | 1029.2 | 1011.1 | 1003.5 | 1002.7 | 1004.0 | 1002.2 | 999.7 | 972.0 | 919.4 |
| 27.5° | 1033.4 | 1038.8 | 1027.5 | 1010.2 | 1006.0 | 1014.9 | 1016.1 | 1024.1 | 1026.2 | 1001.8 | 953.5 |
| 30° | 1040.5 | 1044.3 | 1033.4 | 1015.3 | 1013.2 | 1033.4 | 1033.8 | 1048.1 | 1051.4 | 1027.0 | 987.1 |
| 32.5° | 1056.1 | 1060.3 | 1049.3 | 1022.8 | 1019.9 | 1048.1 | 1049.3 | 1068.3 | 1073.7 | 1054.0 | 1022.4 |
| 35° | 1092.6 | 1097.7 | 1085.1 | 1043.9 | 1033.4 | 1062.0 | 1065.7 | 1088.0 | 1098.9 | 1082.5 | 1059.0 |
| 37.5° | 1183.9 | 1169.1 | 1151.9 | 1086.3 | 1064.1 | 1083.8 | 1090.1 | 1116.2 | 1135.5 | 1116.6 | 1102.7 |
| 40° | 1410.5 | 1364.3 | 1310.5 | 1158.7 | 1117.9 | 1130.5 | 1135.5 | 1161.6 | 1188.1 | 1169.6 | 1162.9 |
| 42.5° | 1750.6 | 1696.0 | 1609.4 | 1325.1 | 1199.0 | 1205.3 | 1209.1 | 1231.8 | 1269.3 | 1254.5 | 1256.1 |
| 45° | 2053.7 | 2033.9 | 1945.7 | 1609.4 | 1350.7 | 1319.7 | 1324.3 | 1336.1 | 1391.1 | 1385.7 | 1396.6 |
| 47.5° | 2286.6 | 2275.3 | 2207.1 | 1935.6 | 1607.2 | 1459.7 | 1472.7 | 1478.2 | 1557.6 | 1577.0 | 1606.4 |
| 50° | 2465.7 | 2461.5 | 2400.5 | 2225.7 | 1942.3 | 1666.0 | 1670.7 | 1659.0 | 1777.9 | 1825.8 | 1881.8 |
| 52.5° | 2634.7 | 2649.0 | 2604.0 | 2495.2 | 2300.1 | 1936.4 | 1935.6 | 1880.1 | 2040.7 | 2112.9 | 2208.4 |
| 55° | 2787.3 | 2792.3 | 2797.0 | 2770.1 | 2660.0 | 2244.1 | 2236.1 | 2145.3 | 2345.5 | 2420.3 | 2523.8 |
| 57.5° | 2930.7 | 2932.7 | 2973.9 | 3029.1 | 3034.5 | 2574.6 | 2559.8 | 2451.0 | 2678.4 | 2731.8 | 2795.3 |
| 60° | 3026.9 | 3036.6 | 3123.7 | 3276.6 | 3343.6 | 2915.5 | 2907.5 | 2796.6 | 3017.3 | 3042.1 | 3030.3 |
| 62.5° | 2888.2 | 2947.1 | 3166.5 | 3470.0 | 3635.3 | 3293.5 | 3289.7 | 3185.4 | 3373.8 | 3353.6 | 3252.7 |
| 65° | 2337.9 | 2437.6 | 2823.5 | 3600.8 | 3921.5 | 3715.5 | 3721.1 | 3610.0 | 3739.9 | 3674.4 | 3433.4 |
| 67.5° | 1635.4 | 1740.4 | 2197.1 | 3611.3 | 4241.6 | 4211.2 | 4242.8 | 4068.7 | 4128.8 | 3981.7 | 3476.4 |
| 70° | 1130.9 | 1185.1 | 1482.4 | 3385.2 | 4490.8 | 4894.0 | 4893.1 | 4632.1 | 4515.6 | 4121.7 | 3257.8 |
| 72.5° | 760.6 | 788.7 | 962.8 | 2685.6 | 4307.5 | 5299.7 | 5275.3 | 5062.6 | 4645.9 | 3854.7 | 2661.6 |
| 75° | 320.7 | 341.3 | 445.7 | 1509.3 | 3407.8 | 4848.6 | 4782.5 | 4474.0 | 4128.0 | 3035.3 | 1660.6 |
| 77.5° | 101.8 | 110.6 | 175.7 | 540.2 | 1877.1 | 3644.5 | 3574.7 | 2794.0 | 2766.7 | 1522.7 | 607.1 |
| 80° | 48.4 | 56.4 | 98.8 | 216.9 | 738.6 | 1982.2 | 1972.5 | 1267.5 | 1190.1 | 411.1 | 121.9 |
| 82.5° | 21.0 | 24.8 | 54.6 | 116.0 | 330.5 | 707.1 | 721.4 | 431.3 | 356.9 | 156.0 | 37.4 |
| 85° | 6.8 | 8.8 | 25.2 | 53.4 | 139.6 | 175.7 | 173.6 | 102.6 | 143.8 | 85.0 | 13.0 |
| 87.5° | 0.0 | 0.0 | 8.4 | 12.2 | 14.2 | 10.0 | 11.4 | 8.8 | 40.0 | 23.6 | 4.6 |
| 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° | 674.8 | 674.8 | 674.8 | 674.8 | 674.8 | 674.8 | 674.8 | 674.8 | 674.8 | 674.8 | 674.8 |
| 2.5° | 678.1 | 671.4 | 659.6 | 648.7 | 639.0 | 629.3 | 623.5 | 615.1 | 614.2 | 614.2 | 616.3 |
| 5° | 682.8 | 671.8 | 650.8 | 628.5 | 602.9 | 578.5 | 554.1 | 530.5 | 523.0 | 517.5 | 520.1 |
| 7.5° | 696.2 | 679.0 | 645.8 | 603.3 | 554.5 | 501.1 | 463.7 | 423.3 | 407.8 | 399.3 | 400.7 |
| 10° | 715.6 | 692.0 | 641.5 | 567.1 | 488.1 | 415.3 | 361.9 | 318.3 | 301.5 | 294.3 | 294.3 |
| 12.5° | 737.0 | 708.0 | 634.0 | 522.1 | 415.3 | 328.3 | 276.2 | 256.0 | 253.5 | 253.5 | 253.5 |
| 15° | 762.6 | 727.3 | 620.9 | 469.1 | 339.3 | 259.8 | 241.3 | 242.1 | 244.7 | 246.4 | 246.4 |
| 17.5° | 789.1 | 747.9 | 600.3 | 409.9 | 272.0 | 233.7 | 234.2 | 235.4 | 237.5 | 239.2 | 239.2 |
| 20° | 817.7 | 768.5 | 573.0 | 346.9 | 233.3 | 226.2 | 227.4 | 228.7 | 230.4 | 231.2 | 231.6 |
| 22.5° | 848.4 | 787.8 | 540.7 | 285.1 | 220.3 | 219.9 | 220.3 | 221.6 | 223.7 | 223.7 | 224.5 |
| 25° | 881.2 | 809.2 | 503.7 | 240.1 | 213.6 | 213.6 | 214.4 | 215.2 | 216.9 | 216.9 | 217.4 |
| 27.5° | 914.8 | 829.0 | 464.5 | 216.5 | 207.7 | 207.3 | 207.3 | 208.5 | 209.4 | 209.8 | 210.2 |
| 30° | 951.8 | 852.2 | 425.5 | 211.5 | 203.1 | 201.0 | 199.7 | 200.5 | 201.4 | 201.8 | 202.6 |
| 32.5° | 989.6 | 874.4 | 390.5 | 213.6 | 198.4 | 194.6 | 190.4 | 189.6 | 189.6 | 191.3 | 192.6 |
| 35° | 1031.7 | 898.8 | 363.7 | 220.7 | 195.9 | 185.4 | 178.7 | 174.9 | 175.3 | 177.8 | 179.1 |
| 37.5° | 1082.1 | 928.2 | 343.9 | 227.0 | 194.2 | 174.9 | 164.0 | 159.3 | 156.4 | 159.3 | 158.5 |
| 40° | 1148.1 | 971.6 | 329.6 | 232.1 | 192.1 | 162.7 | 148.0 | 140.4 | 135.0 | 136.6 | 135.8 |
| 42.5° | 1245.3 | 1039.7 | 324.1 | 232.5 | 187.5 | 148.4 | 131.6 | 121.5 | 113.5 | 114.0 | 112.2 |
| 45° | 1381.5 | 1147.3 | 352.3 | 227.0 | 177.4 | 132.8 | 114.4 | 100.9 | 95.8 | 94.6 | 92.9 |
| 47.5° | 1568.1 | 1304.1 | 417.5 | 215.7 | 162.7 | 117.7 | 97.6 | 86.2 | 82.4 | 80.3 | 79.0 |
| 50° | 1818.2 | 1505.5 | 489.7 | 203.1 | 148.0 | 103.4 | 83.6 | 76.5 | 74.0 | 71.9 | 71.4 |
| 52.5° | 2108.3 | 1709.8 | 549.1 | 190.4 | 133.2 | 90.8 | 74.8 | 70.6 | 68.6 | 66.8 | 66.4 |
| 55° | 2374.5 | 1850.6 | 545.7 | 177.0 | 119.0 | 80.7 | 68.6 | 66.0 | 63.4 | 61.8 | 61.0 |
| 57.5° | 2540.2 | 1870.4 | 449.9 | 162.3 | 102.6 | 72.8 | 62.6 | 61.0 | 58.0 | 56.0 | 55.5 |
| 60° | 2616.2 | 1757.8 | 315.3 | 143.0 | 86.2 | 65.2 | 56.4 | 55.5 | 51.7 | 48.8 | 48.0 |
| 62.5° | 2630.0 | 1548.4 | 210.2 | 119.0 | 71.9 | 58.0 | 50.0 | 48.8 | 43.8 | 38.6 | 36.2 |
| 65° | 2573.8 | 1249.1 | 145.4 | 92.9 | 61.4 | 50.4 | 42.8 | 40.4 | 34.8 | 29.8 | 28.2 |
| 67.5° | 2395.5 | 877.0 | 101.3 | 66.8 | 52.2 | 40.0 | 34.0 | 33.2 | 29.0 | 24.8 | 23.6 |
| 70° | 2068.9 | 499.9 | 67.6 | 50.0 | 41.2 | 27.4 | 26.9 | 27.8 | 23.6 | 20.2 | 18.4 |
| 72.5° | 1586.2 | 228.7 | 42.0 | 36.6 | 28.2 | 18.4 | 21.4 | 21.8 | 18.0 | 15.2 | 13.4 |
| 75° | 933.8 | 98.0 | 26.4 | 23.6 | 14.2 | 12.2 | 15.6 | 16.0 | 12.2 | 9.6 | 8.4 |
| 77.5° | 317.9 | 37.0 | 16.8 | 13.8 | 7.2 | 6.8 | 10.0 | 10.0 | 6.8 | 3.8 | 3.0 |
| 80° | 72.3 | 13.8 | 8.4 | 5.4 | 3.4 | 3.0 | 3.4 | 3.0 | 1.6 | 0.4 | 0.0 |
| 82.5° | 20.6 | 5.4 | 3.4 | 2.2 | 1.2 | 1.2 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 5.8 | 2.6 | 0.8 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.6 | 0.4 | 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)