

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: P270753

Luminaire Tested: **NVN-AF-01-LED-U-SL3-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270753
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24262)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-01-LED-U-SL3-7027
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5301 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

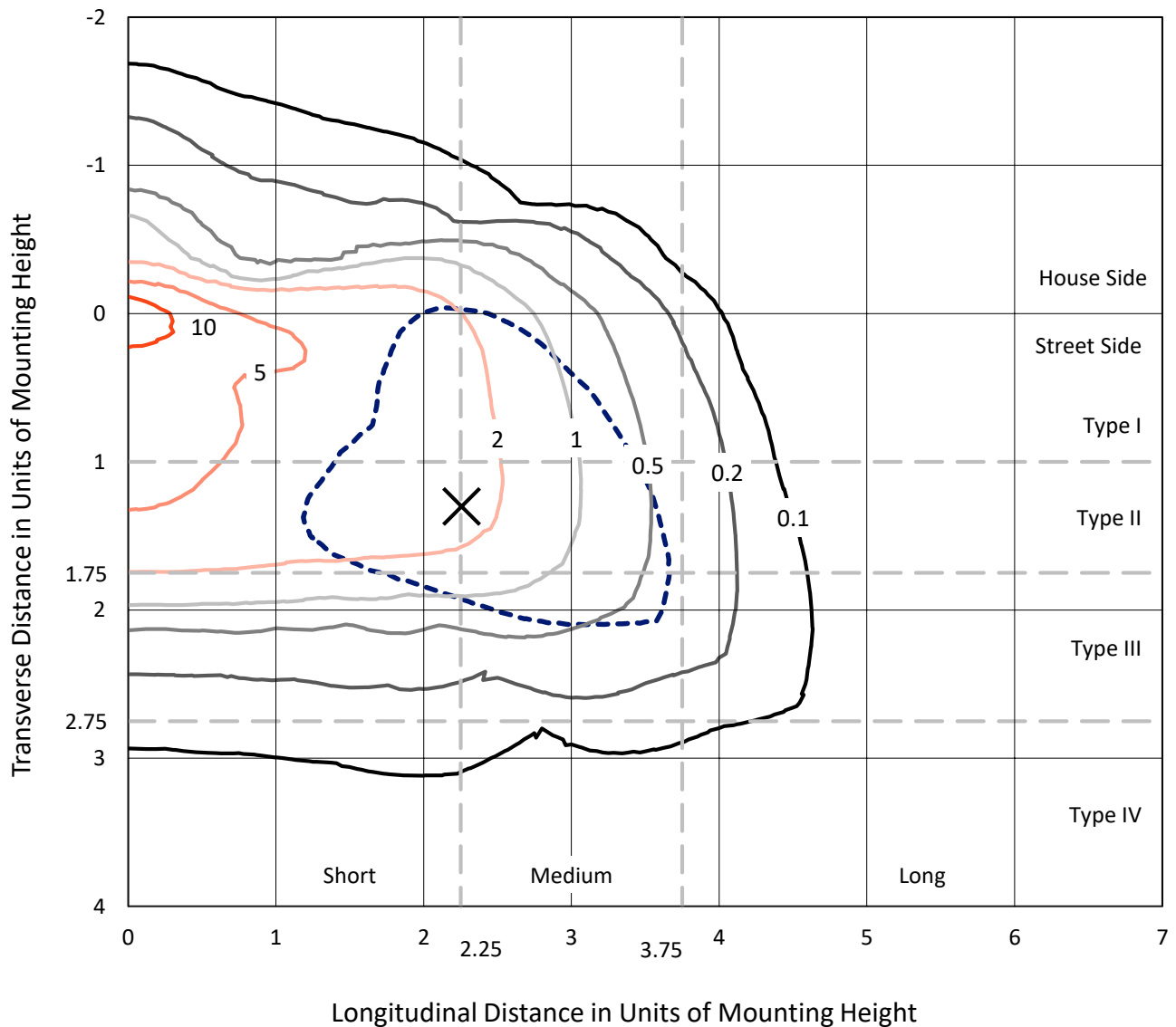
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

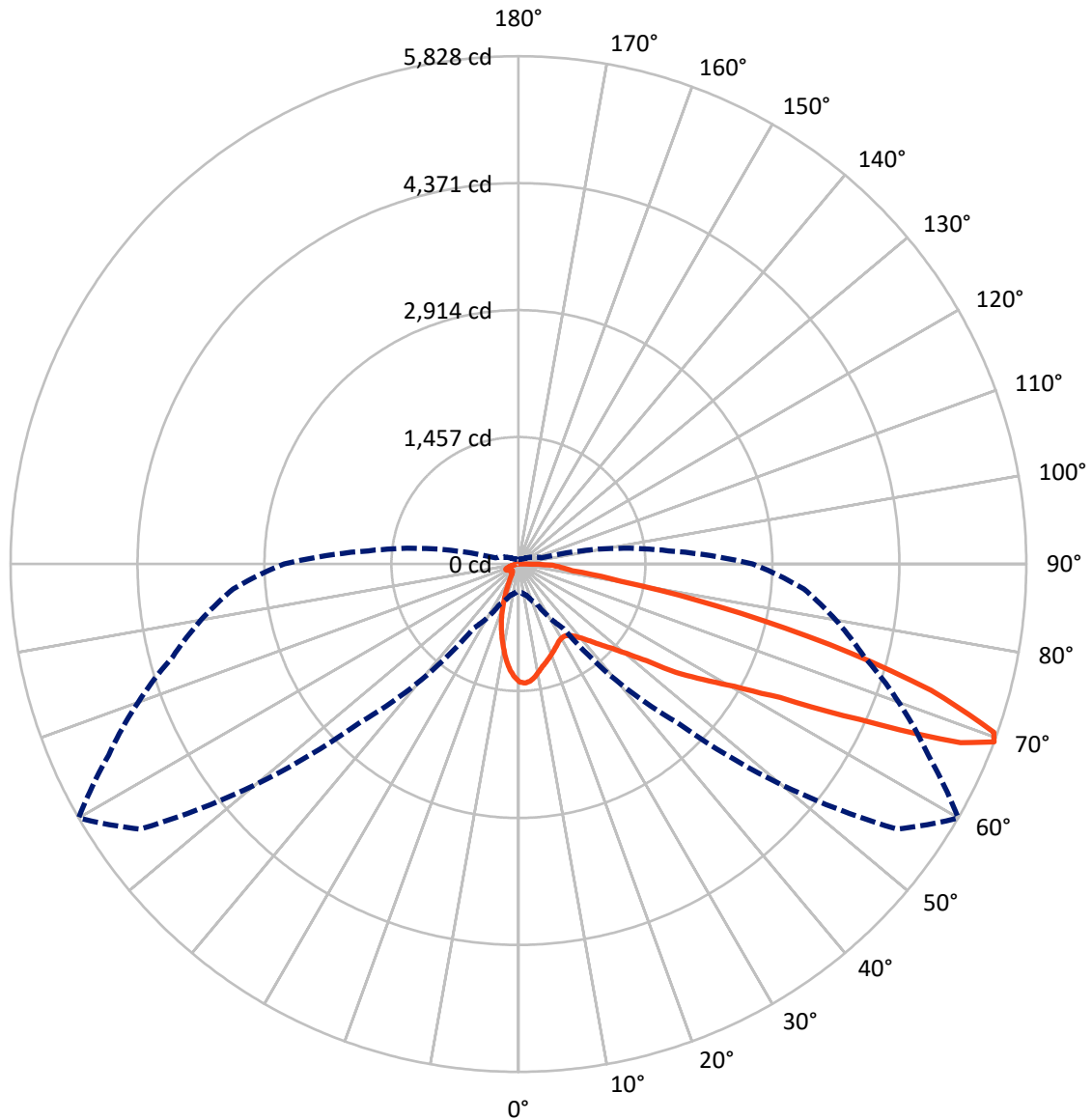
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.5 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 756.1 | 0.0 | 756.1 |
| | % Fixture | 14.3 | 0.0 | 14.3 |
| Street Side | Lumens | 4544.9 | 0.0 | 4544.9 |
| | % Fixture | 85.7 | 0.0 | 85.7 |
| Total | Lumens | 5301.0 | 0.0 | 5301.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 114.7 | 2.2 |
| 10°-20° | 245.7 | 4.6 |
| 20°-30° | 313.4 | 5.9 |
| 30°-40° | 431.3 | 8.1 |
| 40°-50° | 698.6 | 13.2 |
| 50°-60° | 1096.4 | 20.7 |
| 60°-70° | 1461.7 | 27.6 |
| 70°-80° | 813.1 | 15.3 |
| 80°-90° | 126.1 | 2.4 |
| 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° | 5301.0 | 100.0 |
| 0°-180° | 5301.0 | 100.0 |

Coefficient of Utilization



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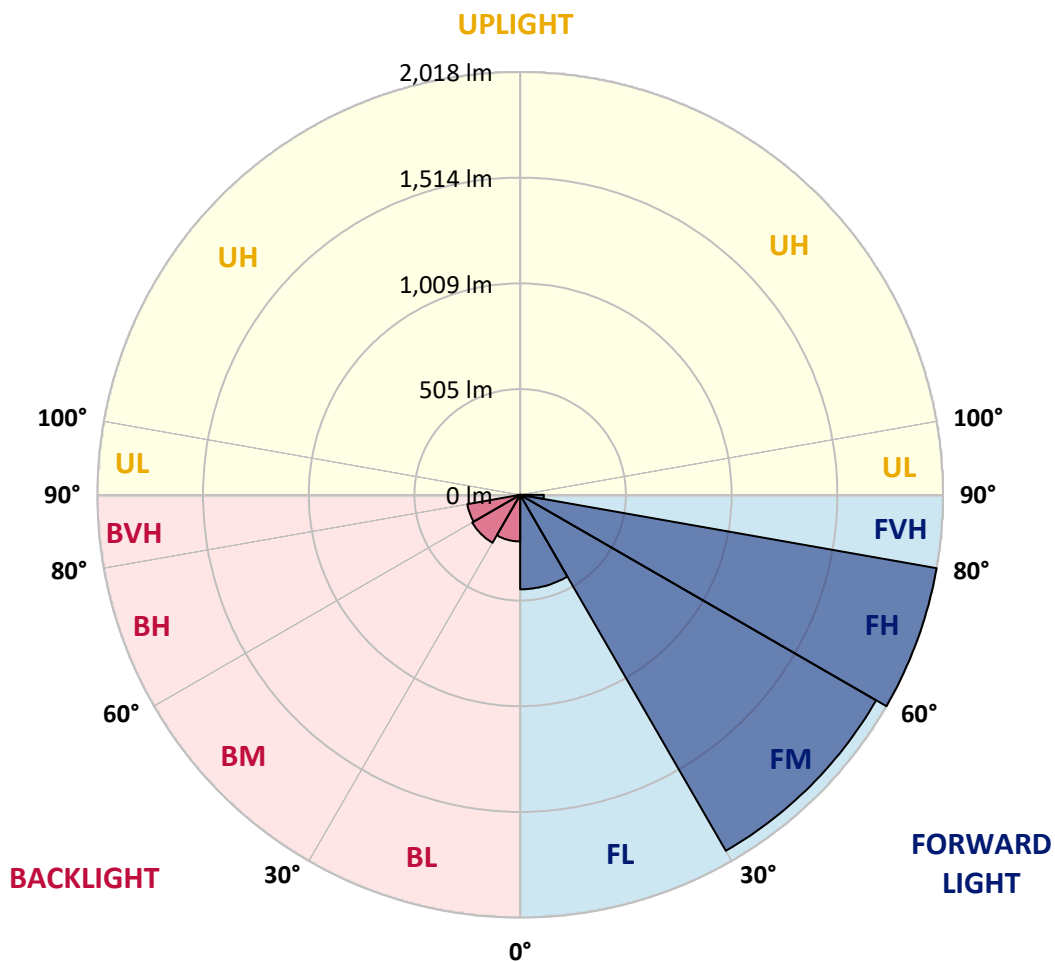
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 451.0 | 8.5 | | | |
| FM | (30°-60°) | 1962.1 | 37.0 | | | |
| FH | (60°-80°) | 2018.4 | 38.1 | | | G2/5000 |
| FVH | (80°-90°) | 113.3 | 2.1 | | | G2/225 |
| BL | (0°-30°) | 222.8 | 4.2 | B1/500 | | |
| BM | (30°-60°) | 264.1 | 5.0 | B1/1000 | | |
| BH | (60°-80°) | 256.4 | 4.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 12.8 | 0.2 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 60° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1352.6 | 1352.6 | 1352.6 | 1352.6 | 1352.6 | 1352.6 | 1352.6 | 1352.6 | 1352.6 | 1352.6 | 1352.6 |
| 2.5° | 1388.6 | 1392.4 | 1392.4 | 1389.3 | 1387.6 | 1377.7 | 1371.9 | 1367.8 | 1360.8 | 1347.5 | 1335.6 |
| 5° | 1339.0 | 1346.1 | 1349.2 | 1350.5 | 1359.3 | 1356.4 | 1356.6 | 1353.9 | 1347.7 | 1333.5 | 1314.1 |
| 7.5° | 1247.8 | 1249.3 | 1254.7 | 1263.8 | 1285.3 | 1300.1 | 1312.5 | 1314.8 | 1313.5 | 1302.9 | 1275.8 |
| 10° | 1158.2 | 1160.5 | 1167.0 | 1182.6 | 1203.0 | 1224.4 | 1250.9 | 1261.8 | 1269.9 | 1266.6 | 1232.3 |
| 12.5° | 1083.6 | 1084.1 | 1091.1 | 1109.1 | 1132.0 | 1158.9 | 1194.8 | 1211.9 | 1231.1 | 1239.0 | 1200.7 |
| 15° | 1012.0 | 1016.7 | 1023.4 | 1045.3 | 1073.5 | 1107.5 | 1148.9 | 1172.4 | 1197.9 | 1220.3 | 1176.2 |
| 17.5° | 957.6 | 961.2 | 965.4 | 983.5 | 1016.1 | 1058.6 | 1109.9 | 1135.0 | 1168.7 | 1203.0 | 1151.0 |
| 20° | 927.7 | 928.9 | 926.0 | 934.7 | 962.4 | 1008.2 | 1067.7 | 1098.0 | 1138.1 | 1186.3 | 1125.1 |
| 22.5° | 921.5 | 921.5 | 910.3 | 908.6 | 920.9 | 959.6 | 1024.2 | 1061.3 | 1110.1 | 1174.8 | 1102.0 |
| 25° | 950.0 | 948.0 | 927.1 | 907.6 | 903.2 | 922.9 | 982.7 | 1028.3 | 1086.4 | 1174.4 | 1084.8 |
| 27.5° | 1004.1 | 1001.4 | 975.2 | 942.6 | 914.5 | 905.9 | 950.8 | 997.4 | 1067.7 | 1186.0 | 1075.9 |
| 30° | 1071.5 | 1070.4 | 1043.9 | 1003.0 | 956.5 | 912.7 | 938.2 | 981.4 | 1055.1 | 1207.4 | 1075.5 |
| 32.5° | 1145.2 | 1140.5 | 1124.0 | 1083.4 | 1022.8 | 950.4 | 945.6 | 982.0 | 1051.7 | 1238.8 | 1083.4 |
| 35° | 1223.8 | 1220.3 | 1216.2 | 1175.2 | 1107.2 | 1017.1 | 978.7 | 1005.6 | 1068.4 | 1282.2 | 1105.5 |
| 37.5° | 1323.7 | 1319.9 | 1326.7 | 1281.8 | 1207.4 | 1104.5 | 1034.4 | 1052.5 | 1102.4 | 1345.4 | 1146.5 |
| 40° | 1501.4 | 1490.6 | 1471.6 | 1402.6 | 1324.3 | 1211.5 | 1114.9 | 1117.8 | 1160.5 | 1430.0 | 1212.5 |
| 42.5° | 1793.5 | 1758.4 | 1664.3 | 1537.4 | 1447.8 | 1335.9 | 1220.0 | 1207.1 | 1240.6 | 1541.9 | 1308.4 |
| 45° | 2086.1 | 2046.7 | 1887.6 | 1684.7 | 1575.5 | 1469.4 | 1349.9 | 1318.9 | 1340.7 | 1672.0 | 1431.8 |
| 47.5° | 2275.0 | 2255.7 | 2076.3 | 1831.9 | 1709.5 | 1615.1 | 1498.5 | 1447.3 | 1463.0 | 1819.6 | 1584.0 |
| 50° | 2330.6 | 2313.9 | 2172.8 | 1947.0 | 1836.0 | 1790.7 | 1682.3 | 1614.7 | 1617.4 | 1991.9 | 1766.5 |
| 52.5° | 2289.1 | 2282.2 | 2188.8 | 2018.5 | 1952.1 | 1976.0 | 1936.8 | 1842.8 | 1820.2 | 2180.9 | 1964.5 |
| 55° | 2233.6 | 2236.1 | 2199.9 | 2090.1 | 2070.5 | 2148.7 | 2270.0 | 2194.2 | 2099.0 | 2377.8 | 2170.5 |
| 57.5° | 2059.3 | 2061.0 | 2155.5 | 2226.9 | 2296.2 | 2390.7 | 2529.4 | 2497.5 | 2386.5 | 2590.3 | 2401.2 |
| 60° | 1658.1 | 1671.3 | 1881.8 | 2198.6 | 2554.2 | 2867.6 | 2901.5 | 2846.5 | 2692.5 | 2835.1 | 2701.5 |
| 62.5° | 1184.7 | 1196.5 | 1440.3 | 1908.7 | 2524.0 | 3407.5 | 3588.9 | 3370.0 | 3107.5 | 3201.1 | 3123.5 |
| 65° | 622.3 | 620.4 | 809.1 | 1318.9 | 2125.8 | 3532.6 | 4671.9 | 4299.4 | 3806.7 | 3704.5 | 3531.4 |
| 67.5° | 347.7 | 359.0 | 432.1 | 665.3 | 1385.5 | 3108.9 | 5363.7 | 5473.5 | 4779.1 | 4103.8 | 3513.8 |
| 69° | 321.6 | 325.2 | 374.2 | 514.3 | 903.2 | 2565.1 | 5304.2 | 5828.1 | 5189.0 | 4105.7 | 3287.3 |
| 70° | 312.4 | 316.5 | 360.9 | 473.9 | 758.7 | 2101.8 | 5087.7 | 5786.5 | 5288.5 | 4014.5 | 3081.5 |
| 72.5° | 280.1 | 285.5 | 328.7 | 425.9 | 639.5 | 1083.4 | 4098.2 | 4952.7 | 4790.7 | 3508.7 | 2389.3 |
| 75° | 238.9 | 248.1 | 313.4 | 422.8 | 605.7 | 688.7 | 2733.1 | 3689.9 | 3565.5 | 2509.3 | 1355.6 |
| 77.5° | 99.0 | 99.9 | 137.0 | 309.6 | 635.7 | 659.1 | 1468.8 | 2337.3 | 2069.2 | 1100.3 | 408.3 |
| 80° | 69.0 | 67.6 | 68.4 | 90.4 | 512.9 | 663.6 | 753.6 | 1188.6 | 923.8 | 290.3 | 191.0 |
| 82.5° | 58.1 | 57.4 | 60.1 | 56.8 | 173.7 | 752.9 | 630.3 | 619.7 | 435.0 | 156.3 | 91.1 |
| 85° | 38.4 | 37.4 | 49.2 | 51.7 | 82.6 | 597.9 | 677.9 | 487.2 | 324.3 | 83.6 | 38.7 |
| 87.5° | 18.7 | 19.0 | 28.1 | 35.0 | 43.8 | 189.4 | 649.3 | 385.2 | 250.5 | 36.4 | 15.6 |
| 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° | 1352.6 | 1352.6 | 1352.6 | 1352.6 | 1352.6 | 1352.6 | 1352.6 | 1352.6 | 1352.6 | 1352.6 | 1352.6 |
| 2.5° | 1330.7 | 1320.6 | 1311.4 | 1299.8 | 1291.0 | 1283.6 | 1273.3 | 1273.0 | 1271.3 | 1273.6 | 1274.3 |
| 5° | 1301.3 | 1284.2 | 1258.3 | 1229.5 | 1209.1 | 1182.3 | 1156.1 | 1147.2 | 1137.3 | 1136.4 | 1139.4 |
| 7.5° | 1256.6 | 1230.1 | 1186.0 | 1141.8 | 1097.5 | 1052.5 | 1009.5 | 987.9 | 966.8 | 960.3 | 963.3 |
| 10° | 1207.1 | 1173.5 | 1105.8 | 1033.7 | 971.4 | 904.2 | 838.9 | 796.7 | 758.3 | 742.1 | 746.1 |
| 12.5° | 1168.3 | 1125.4 | 1030.4 | 936.8 | 843.7 | 747.2 | 661.2 | 577.9 | 515.0 | 486.8 | 488.5 |
| 15° | 1135.0 | 1080.3 | 959.6 | 835.2 | 718.6 | 586.4 | 467.1 | 370.6 | 315.5 | 295.1 | 294.4 |
| 17.5° | 1098.9 | 1032.7 | 885.9 | 740.7 | 589.5 | 425.9 | 312.7 | 255.6 | 233.9 | 227.1 | 227.1 |
| 20° | 1060.5 | 983.7 | 808.7 | 637.6 | 453.5 | 297.3 | 235.3 | 213.2 | 205.0 | 202.9 | 202.6 |
| 22.5° | 1024.8 | 935.9 | 731.2 | 527.9 | 328.1 | 225.7 | 200.2 | 191.7 | 190.4 | 192.1 | 192.1 |
| 25° | 996.7 | 893.6 | 652.7 | 412.3 | 238.6 | 189.1 | 178.1 | 177.1 | 182.1 | 188.4 | 189.4 |
| 27.5° | 975.6 | 855.9 | 575.2 | 301.2 | 187.7 | 164.5 | 160.7 | 165.2 | 177.1 | 189.4 | 191.7 |
| 30° | 960.9 | 823.7 | 482.4 | 216.5 | 156.3 | 144.1 | 145.9 | 153.6 | 171.7 | 190.4 | 195.4 |
| 32.5° | 954.4 | 797.4 | 388.8 | 166.2 | 133.6 | 126.8 | 131.2 | 141.5 | 160.1 | 178.9 | 185.0 |
| 35° | 960.6 | 778.4 | 302.5 | 138.0 | 116.9 | 111.7 | 116.9 | 127.5 | 139.6 | 148.8 | 152.6 |
| 37.5° | 982.7 | 771.6 | 227.7 | 122.3 | 106.1 | 101.0 | 105.0 | 112.2 | 117.6 | 121.0 | 122.7 |
| 40° | 1029.3 | 778.8 | 178.5 | 114.3 | 99.9 | 94.1 | 95.2 | 98.5 | 102.2 | 105.0 | 105.5 |
| 42.5° | 1103.4 | 802.2 | 158.7 | 111.2 | 96.2 | 88.8 | 87.0 | 89.4 | 93.5 | 97.2 | 97.8 |
| 45° | 1202.0 | 841.4 | 156.8 | 112.2 | 94.5 | 84.4 | 80.8 | 83.4 | 88.8 | 94.9 | 95.8 |
| 47.5° | 1329.4 | 903.2 | 166.2 | 117.6 | 95.5 | 81.9 | 76.8 | 79.2 | 86.3 | 94.5 | 95.8 |
| 50° | 1480.3 | 988.9 | 184.0 | 125.8 | 100.3 | 81.9 | 75.1 | 77.2 | 84.6 | 93.9 | 95.2 |
| 52.5° | 1658.1 | 1108.1 | 202.3 | 133.9 | 107.1 | 85.0 | 75.7 | 75.5 | 82.3 | 90.8 | 92.4 |
| 55° | 1854.3 | 1256.4 | 219.9 | 141.0 | 110.9 | 89.0 | 77.6 | 73.4 | 79.0 | 85.7 | 87.0 |
| 57.5° | 2085.1 | 1459.2 | 250.8 | 148.0 | 112.8 | 92.2 | 79.5 | 71.3 | 74.4 | 79.2 | 80.2 |
| 60° | 2398.1 | 1757.4 | 311.1 | 159.4 | 116.6 | 93.5 | 79.9 | 69.3 | 69.0 | 72.5 | 72.8 |
| 62.5° | 2806.5 | 2106.5 | 368.5 | 173.1 | 124.1 | 93.9 | 78.5 | 68.0 | 64.6 | 65.5 | 65.5 |
| 65° | 3096.6 | 2235.1 | 351.9 | 184.6 | 130.9 | 93.5 | 77.2 | 67.0 | 61.2 | 59.5 | 59.5 |
| 67.5° | 2931.4 | 1974.3 | 298.7 | 187.7 | 131.5 | 89.7 | 74.1 | 64.6 | 58.1 | 54.1 | 54.1 |
| 69° | 2688.7 | 1730.6 | 274.3 | 182.1 | 126.1 | 85.2 | 70.6 | 62.3 | 56.1 | 51.4 | 51.4 |
| 70° | 2491.0 | 1546.0 | 259.4 | 175.8 | 119.7 | 81.6 | 67.6 | 59.8 | 54.1 | 49.9 | 49.6 |
| 72.5° | 1859.8 | 1031.7 | 221.6 | 151.6 | 98.3 | 69.0 | 59.2 | 53.4 | 48.6 | 46.0 | 46.0 |
| 75° | 981.4 | 517.1 | 181.5 | 123.7 | 75.7 | 55.1 | 48.6 | 44.8 | 42.1 | 41.9 | 41.5 |
| 77.5° | 321.6 | 233.9 | 130.6 | 93.2 | 55.8 | 42.8 | 38.7 | 36.4 | 36.0 | 37.4 | 37.4 |
| 80° | 173.7 | 139.6 | 83.9 | 62.9 | 38.7 | 32.0 | 30.0 | 29.6 | 30.6 | 32.6 | 32.6 |
| 82.5° | 84.4 | 69.0 | 49.9 | 38.7 | 26.5 | 23.4 | 23.4 | 23.7 | 25.2 | 27.6 | 27.6 |
| 85° | 36.4 | 32.6 | 28.8 | 21.7 | 16.3 | 14.6 | 16.7 | 18.3 | 19.4 | 21.1 | 21.7 |
| 87.5° | 17.3 | 15.4 | 13.2 | 8.5 | 7.1 | 7.5 | 8.9 | 10.9 | 12.9 | 14.3 | 14.6 |
| 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)