

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: P195469

Luminaire Tested: **NVN-AF-01-LED-U-5NQ-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195469
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)
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-5NQ-7050
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6280 lumens
Efficiency: N/A
Efficacy: 106.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B2 - U0 - G1

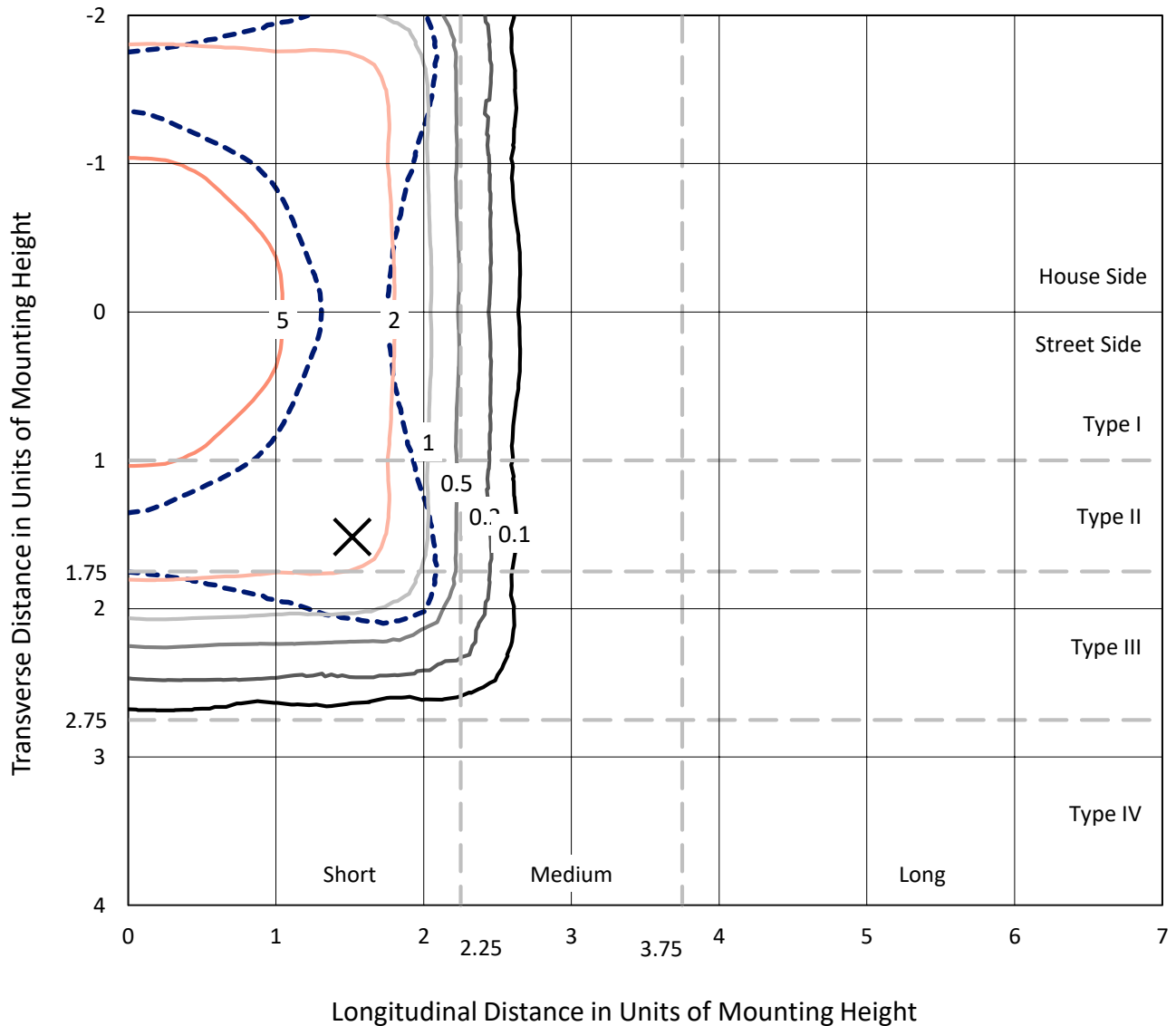
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

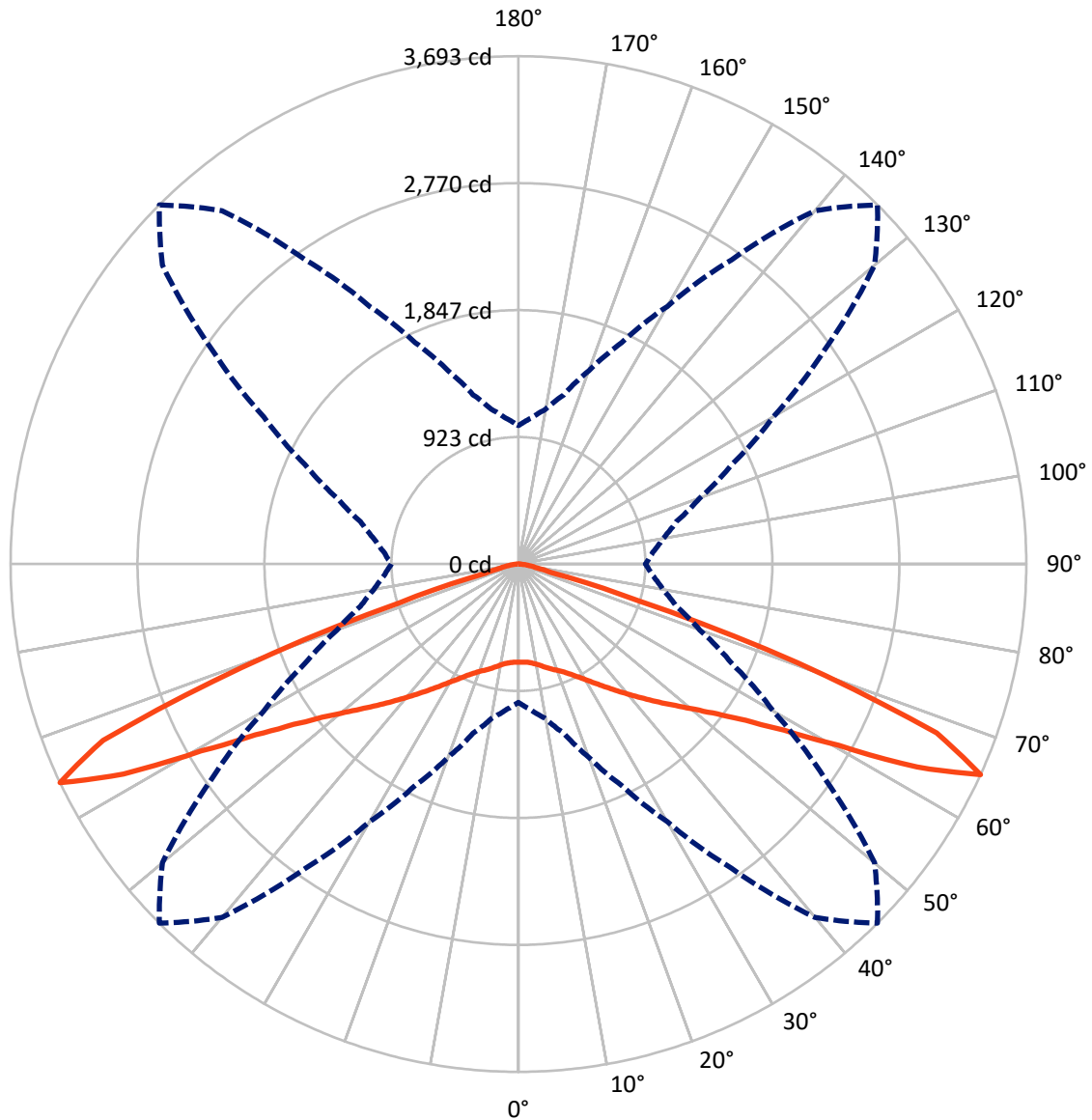
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.2 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 3140.0 | 0.0 | 3140.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 3140.0 | 0.0 | 3140.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 6280.0 | 0.0 | 6280.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 69.6 | 1.1 |
| 10°-20° | 223.0 | 3.6 |
| 20°-30° | 415.9 | 6.6 |
| 30°-40° | 701.3 | 11.2 |
| 40°-50° | 1139.1 | 18.1 |
| 50°-60° | 1784.8 | 28.4 |
| 60°-70° | 1684.8 | 26.8 |
| 70°-80° | 227.1 | 3.6 |
| 80°-90° | 34.6 | 0.6 |
| 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° | 6280.0 | 100.0 |
| 0°-180° | 6280.0 | 100.0 |

Coefficient of Utilization



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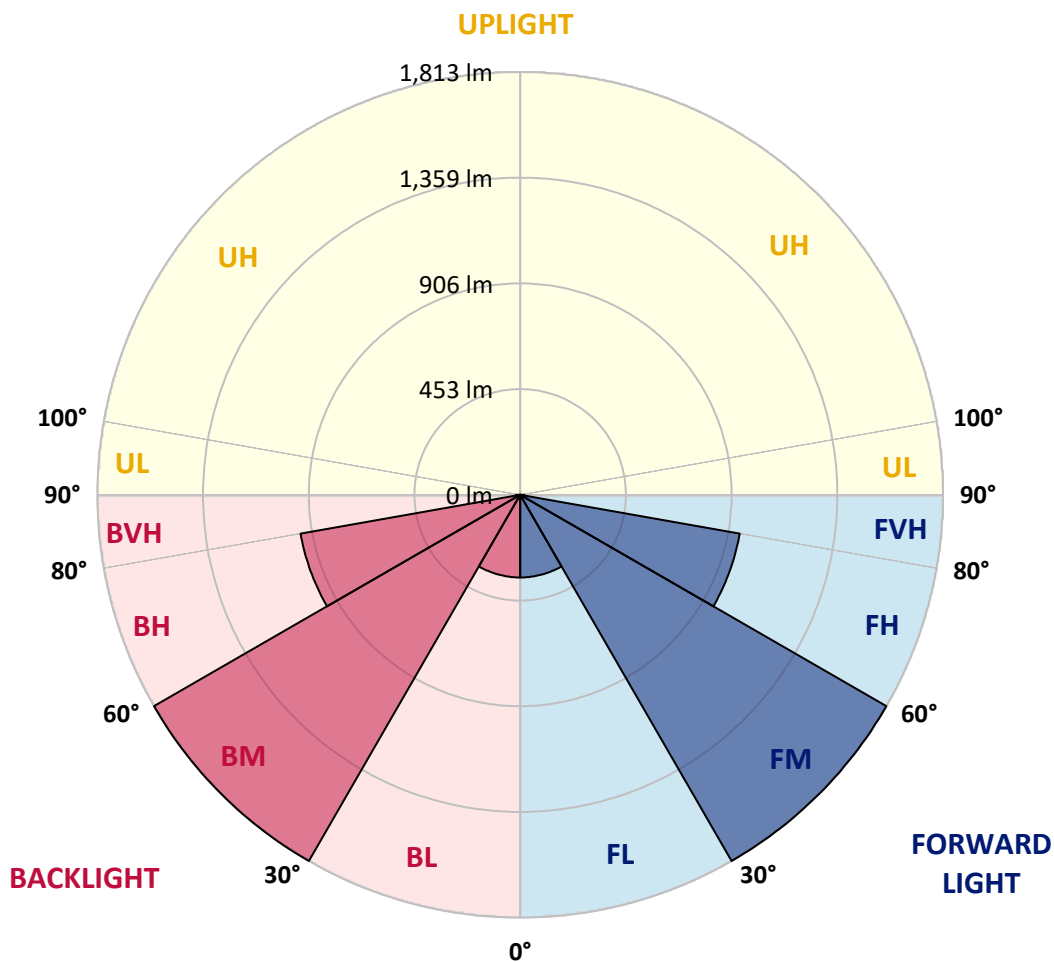
CATALOG NUMBER: NVN-AF-01-LED-U-5NQ-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 354.2 | 5.6 | | | |
| FM | (30°-60°) | 1812.6 | 28.9 | | | |
| FH | (60°-80°) | 955.9 | 15.2 | | | G1/1800 |
| FVH | (80°-90°) | 17.3 | 0.3 | | | G1/100 |
| BL | (0°-30°) | 354.2 | 5.6 | B1/500 | | |
| BM | (30°-60°) | 1812.6 | 28.9 | B2/2500 | | |
| BH | (60°-80°) | 955.9 | 15.2 | B2/1000 | | G1/1800 |
| BVH | (80°-90°) | 17.3 | 0.3 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 714.3 | 714.3 | 714.3 | 714.3 | 714.3 | 714.3 | 714.3 | 714.3 | 714.3 | 714.3 | 714.3 |
| 2.5° | 720.2 | 720.2 | 721.4 | 721.0 | 719.4 | 718.3 | 717.1 | 715.5 | 714.7 | 714.0 | 713.6 |
| 5° | 724.1 | 724.1 | 725.3 | 724.9 | 723.7 | 722.2 | 721.4 | 720.2 | 719.0 | 718.3 | 718.6 |
| 7.5° | 733.9 | 734.3 | 734.7 | 734.3 | 733.1 | 731.9 | 730.4 | 730.0 | 728.4 | 727.3 | 728.0 |
| 10° | 748.8 | 748.8 | 749.2 | 749.6 | 748.8 | 746.0 | 746.0 | 745.2 | 743.7 | 742.1 | 742.5 |
| 12.5° | 765.2 | 765.2 | 765.6 | 765.6 | 765.6 | 764.0 | 764.4 | 764.0 | 762.1 | 761.3 | 762.1 |
| 15° | 781.2 | 781.6 | 781.6 | 782.4 | 782.4 | 782.8 | 784.4 | 784.4 | 783.6 | 783.2 | 783.2 |
| 17.5° | 800.0 | 800.8 | 801.2 | 802.4 | 802.8 | 803.5 | 805.1 | 805.5 | 805.9 | 804.7 | 805.1 |
| 20° | 825.1 | 825.4 | 826.6 | 827.0 | 828.6 | 828.6 | 829.4 | 829.0 | 828.2 | 826.6 | 826.6 |
| 22.5° | 853.2 | 854.0 | 856.4 | 856.4 | 858.3 | 857.1 | 857.5 | 856.4 | 854.4 | 853.6 | 852.8 |
| 25° | 890.0 | 891.2 | 893.1 | 892.3 | 893.1 | 891.2 | 891.2 | 891.2 | 890.0 | 888.8 | 888.4 |
| 27.5° | 936.5 | 934.6 | 936.5 | 935.0 | 934.6 | 933.0 | 933.4 | 932.6 | 931.5 | 931.1 | 929.5 |
| 30° | 985.1 | 982.7 | 983.9 | 984.3 | 983.5 | 983.1 | 981.5 | 980.4 | 978.4 | 978.8 | 977.6 |
| 32.5° | 1040.6 | 1038.3 | 1039.4 | 1039.8 | 1039.0 | 1039.8 | 1039.4 | 1036.7 | 1034.3 | 1035.9 | 1035.9 |
| 35° | 1106.7 | 1105.2 | 1108.3 | 1109.5 | 1107.1 | 1105.9 | 1104.4 | 1101.2 | 1097.7 | 1100.1 | 1100.5 |
| 37.5° | 1186.1 | 1184.2 | 1186.5 | 1189.7 | 1185.4 | 1183.0 | 1176.7 | 1172.1 | 1169.7 | 1170.9 | 1172.4 |
| 40° | 1268.7 | 1269.1 | 1275.7 | 1276.5 | 1271.8 | 1269.1 | 1262.8 | 1255.8 | 1249.1 | 1249.1 | 1251.1 |
| 42.5° | 1355.5 | 1356.7 | 1364.5 | 1367.3 | 1365.7 | 1360.6 | 1352.0 | 1343.4 | 1334.8 | 1336.4 | 1338.7 |
| 45° | 1453.7 | 1452.2 | 1460.4 | 1467.0 | 1465.8 | 1464.3 | 1456.1 | 1440.4 | 1432.6 | 1432.2 | 1436.1 |
| 47.5° | 1557.0 | 1560.1 | 1568.7 | 1580.1 | 1579.7 | 1575.8 | 1565.2 | 1550.7 | 1536.3 | 1537.4 | 1542.1 |
| 50° | 1677.5 | 1681.8 | 1696.3 | 1707.6 | 1709.2 | 1708.0 | 1695.5 | 1678.7 | 1658.3 | 1659.5 | 1665.8 |
| 52.5° | 1785.5 | 1791.7 | 1808.5 | 1832.0 | 1846.5 | 1853.1 | 1844.9 | 1829.3 | 1808.5 | 1809.7 | 1816.4 |
| 55° | 1883.3 | 1893.0 | 1918.1 | 1950.2 | 1979.1 | 2006.1 | 2018.2 | 2017.8 | 2002.6 | 2006.1 | 2014.7 |
| 57.5° | 1944.7 | 1958.4 | 1996.3 | 2048.0 | 2105.5 | 2159.8 | 2206.8 | 2251.0 | 2260.8 | 2279.2 | 2279.2 |
| 60° | 1862.1 | 1894.2 | 1944.7 | 2033.1 | 2146.2 | 2268.2 | 2400.4 | 2529.1 | 2612.1 | 2677.4 | 2642.2 |
| 62.5° | 1555.0 | 1602.4 | 1673.2 | 1789.8 | 1965.8 | 2183.7 | 2449.3 | 2748.6 | 3060.8 | 3251.7 | 3111.7 |
| 65° | 1006.2 | 1065.6 | 1142.7 | 1273.8 | 1495.6 | 1776.1 | 2163.0 | 2700.9 | 3354.2 | 3693.0 | 3380.0 |
| 67.5° | 398.6 | 438.9 | 485.9 | 579.0 | 771.5 | 1046.9 | 1481.1 | 2144.6 | 2961.8 | 3281.4 | 2930.5 |
| 70° | 190.5 | 197.2 | 206.2 | 226.1 | 274.2 | 370.1 | 595.0 | 1056.6 | 1816.4 | 2153.2 | 1772.9 |
| 72.5° | 137.7 | 138.9 | 143.2 | 149.8 | 163.9 | 183.5 | 223.0 | 323.1 | 626.3 | 910.7 | 627.1 |
| 75° | 104.5 | 106.0 | 108.4 | 111.9 | 119.3 | 128.7 | 143.6 | 172.1 | 214.4 | 247.2 | 214.0 |
| 77.5° | 79.4 | 81.0 | 82.9 | 86.5 | 90.4 | 97.0 | 102.5 | 113.8 | 131.8 | 138.9 | 138.1 |
| 80° | 57.9 | 60.6 | 63.8 | 66.9 | 69.6 | 72.8 | 73.2 | 78.6 | 88.8 | 95.5 | 93.5 |
| 82.5° | 36.8 | 39.1 | 47.3 | 50.9 | 51.2 | 52.0 | 51.6 | 52.0 | 57.5 | 62.2 | 60.6 |
| 85° | 23.5 | 25.0 | 29.3 | 33.3 | 32.5 | 34.0 | 34.0 | 33.3 | 30.9 | 26.6 | 31.7 |
| 87.5° | 11.7 | 12.1 | 14.1 | 17.6 | 16.8 | 14.9 | 14.5 | 14.5 | 10.6 | 9.0 | 9.8 |
| 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):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 714.3 | 714.3 | 714.3 | 714.3 | 714.3 | 714.3 | 714.3 | 714.3 |
| 2.5° | 712.4 | 713.2 | 712.0 | 712.0 | 711.6 | 712.4 | 711.2 | 711.2 |
| 5° | 717.9 | 719.0 | 718.6 | 718.6 | 719.4 | 720.2 | 719.8 | 719.4 |
| 7.5° | 727.6 | 728.4 | 729.2 | 729.6 | 730.4 | 730.0 | 730.8 | 730.4 |
| 10° | 742.5 | 741.7 | 742.9 | 741.7 | 742.1 | 741.3 | 741.7 | 741.7 |
| 12.5° | 761.3 | 760.1 | 759.3 | 758.5 | 758.5 | 757.0 | 757.0 | 757.4 |
| 15° | 782.8 | 780.8 | 779.3 | 778.5 | 777.7 | 777.7 | 776.5 | 777.3 |
| 17.5° | 803.9 | 802.0 | 799.2 | 799.2 | 798.1 | 797.3 | 796.5 | 798.5 |
| 20° | 826.2 | 824.3 | 822.7 | 822.3 | 820.0 | 819.2 | 819.6 | 821.9 |
| 22.5° | 852.0 | 850.9 | 850.9 | 850.1 | 848.5 | 847.4 | 847.4 | 850.1 |
| 25° | 886.9 | 884.5 | 884.9 | 885.3 | 884.5 | 884.5 | 883.7 | 885.7 |
| 27.5° | 929.5 | 927.5 | 928.7 | 929.5 | 928.7 | 929.9 | 928.7 | 930.3 |
| 30° | 979.6 | 978.4 | 979.6 | 980.8 | 978.8 | 978.8 | 978.0 | 979.2 |
| 32.5° | 1039.4 | 1037.9 | 1038.7 | 1038.7 | 1035.9 | 1033.6 | 1030.4 | 1032.8 |
| 35° | 1105.2 | 1103.2 | 1104.8 | 1105.9 | 1102.8 | 1100.5 | 1095.8 | 1097.7 |
| 37.5° | 1177.5 | 1178.3 | 1180.3 | 1185.4 | 1184.6 | 1180.7 | 1177.1 | 1178.7 |
| 40° | 1258.5 | 1262.4 | 1271.0 | 1274.5 | 1273.8 | 1269.9 | 1265.2 | 1265.9 |
| 42.5° | 1350.1 | 1355.1 | 1364.1 | 1370.0 | 1367.3 | 1361.8 | 1355.9 | 1358.3 |
| 45° | 1449.8 | 1457.6 | 1469.4 | 1475.2 | 1471.7 | 1465.8 | 1457.6 | 1461.9 |
| 47.5° | 1555.4 | 1571.1 | 1586.7 | 1594.6 | 1593.4 | 1585.2 | 1574.6 | 1575.8 |
| 50° | 1681.8 | 1702.5 | 1722.5 | 1730.3 | 1724.4 | 1711.9 | 1697.1 | 1696.7 |
| 52.5° | 1839.1 | 1861.4 | 1877.8 | 1875.8 | 1861.4 | 1841.8 | 1825.0 | 1824.2 |
| 55° | 2035.4 | 2042.9 | 2040.5 | 2023.7 | 1998.3 | 1967.8 | 1946.3 | 1942.7 |
| 57.5° | 2272.9 | 2247.9 | 2211.1 | 2160.2 | 2103.1 | 2045.2 | 2006.1 | 1991.6 |
| 60° | 2563.2 | 2450.1 | 2318.7 | 2180.2 | 2053.8 | 1959.2 | 1899.3 | 1862.9 |
| 62.5° | 2803.0 | 2475.6 | 2181.8 | 1941.2 | 1744.4 | 1627.4 | 1545.7 | 1495.2 |
| 65° | 2720.8 | 2138.7 | 1713.1 | 1402.9 | 1188.1 | 1067.2 | 980.8 | 923.2 |
| 67.5° | 2102.0 | 1429.1 | 994.4 | 689.3 | 522.7 | 442.5 | 386.5 | 350.1 |
| 70° | 1059.8 | 548.1 | 332.1 | 234.3 | 200.3 | 186.2 | 176.8 | 171.3 |
| 72.5° | 311.0 | 207.7 | 172.5 | 152.6 | 140.4 | 131.8 | 126.4 | 123.6 |
| 75° | 172.1 | 140.4 | 124.0 | 112.7 | 104.8 | 99.0 | 95.5 | 93.1 |
| 77.5° | 118.5 | 102.1 | 93.9 | 86.5 | 80.2 | 75.9 | 73.2 | 70.8 |
| 80° | 82.9 | 74.7 | 71.2 | 67.3 | 62.6 | 59.1 | 55.2 | 53.6 |
| 82.5° | 55.2 | 51.6 | 50.9 | 47.7 | 45.0 | 41.1 | 34.0 | 31.7 |
| 85° | 32.5 | 32.1 | 32.1 | 30.9 | 28.9 | 25.4 | 20.3 | 20.3 |
| 87.5° | 11.3 | 11.7 | 12.1 | 12.9 | 12.5 | 10.6 | 8.6 | 8.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)