

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: P195553

Luminaire Tested: **NVN-AF-01-LED-U-RW-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195553
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)
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-RW-7050-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4113 lumens
Efficiency: N/A
Efficacy: 121.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Medium - Full Cutoff
BUG Rating: B2 - U0 - G1

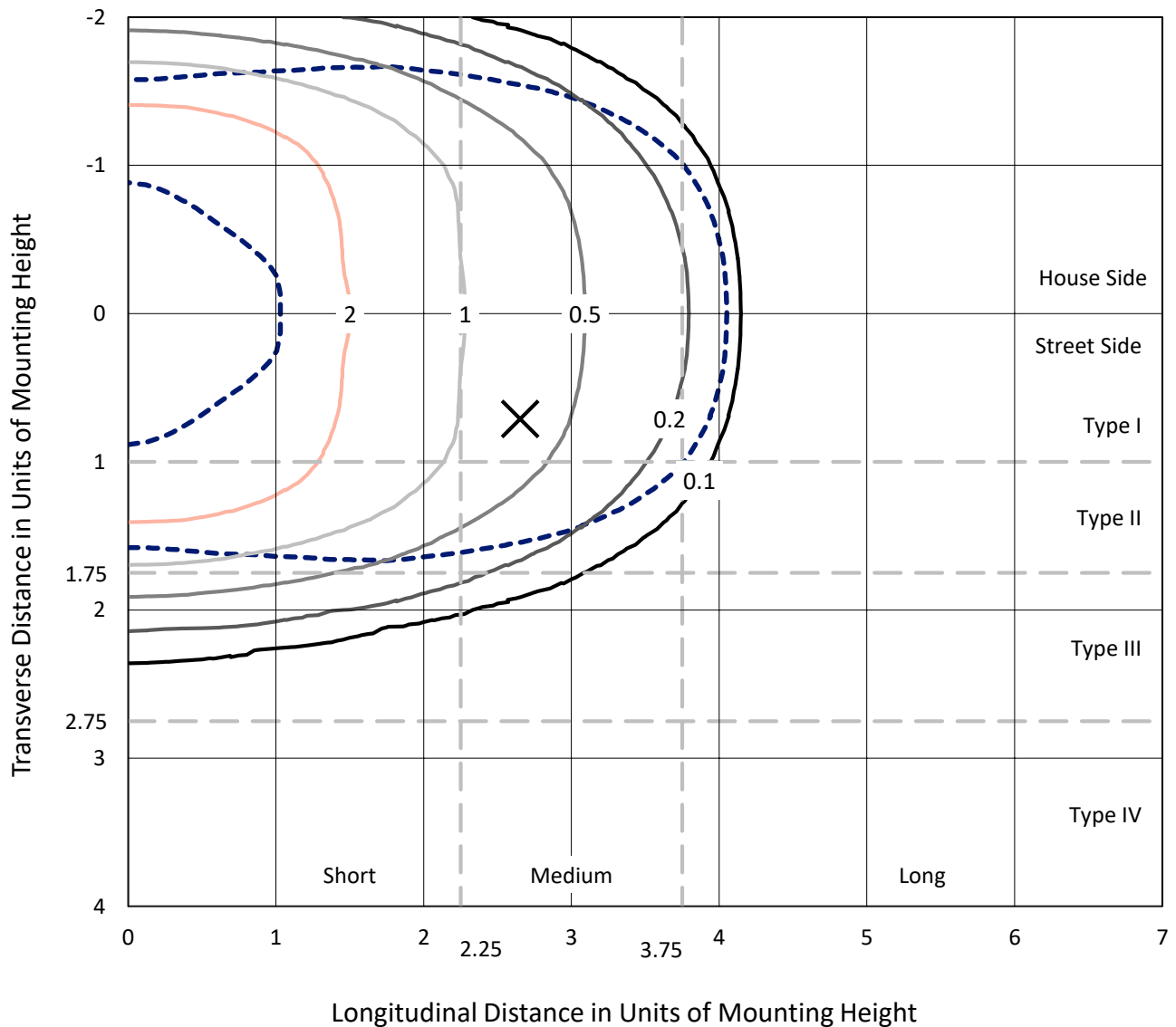
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

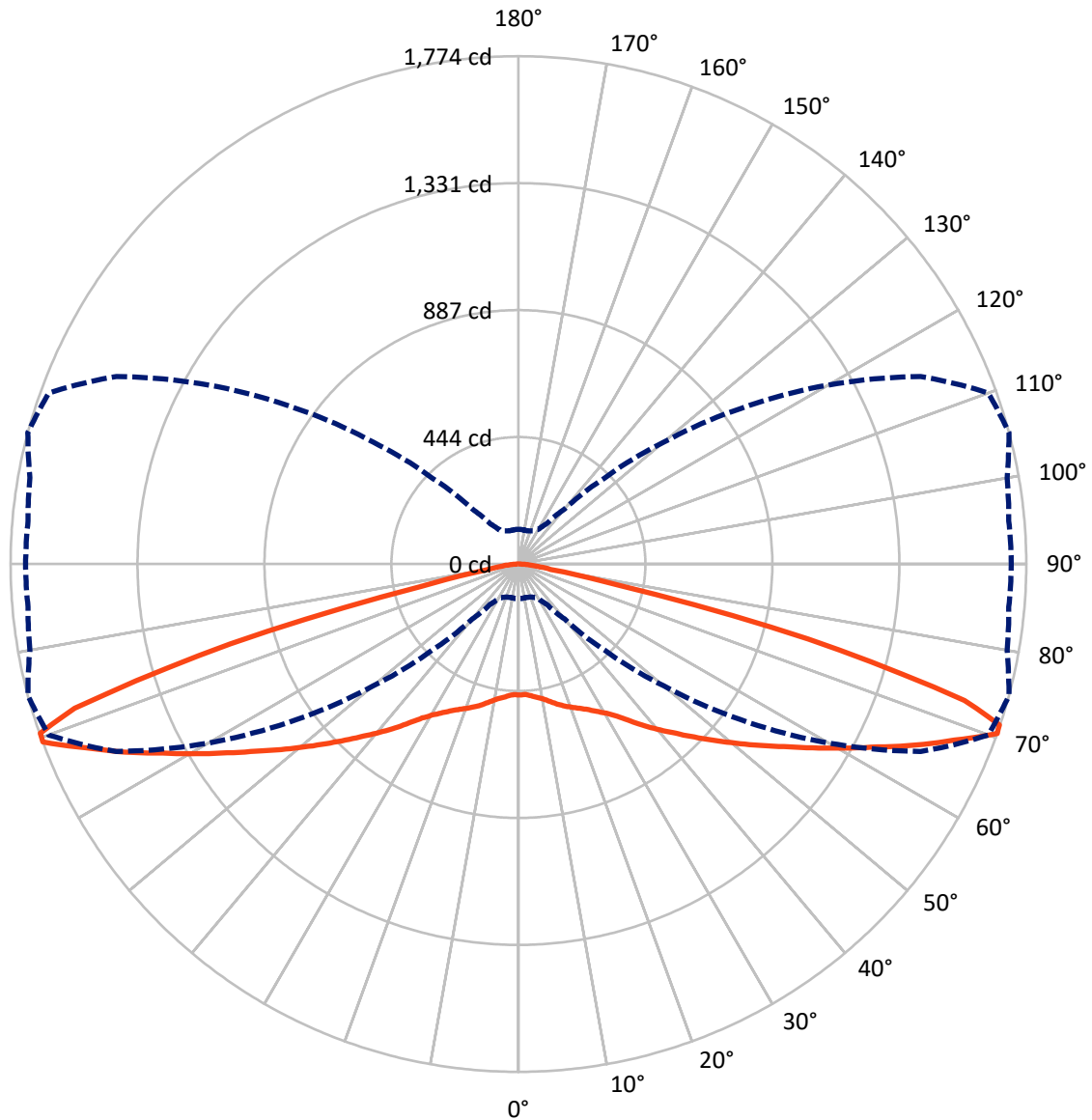
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.6 fc
 Type V - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 2056.5 | 0.0 | 2056.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 2056.5 | 0.0 | 2056.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 4113.0 | 0.0 | 4113.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 43.9 | 1.1 |
| 10°-20° | 136.3 | 3.3 |
| 20°-30° | 255.9 | 6.2 |
| 30°-40° | 450.8 | 11.0 |
| 40°-50° | 747.1 | 18.2 |
| 50°-60° | 1039.3 | 25.3 |
| 60°-70° | 981.1 | 23.9 |
| 70°-80° | 419.0 | 10.2 |
| 80°-90° | 39.6 | 1.0 |
| 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° | 4113.0 | 100.0 |
| 0°-180° | 4113.0 | 100.0 |



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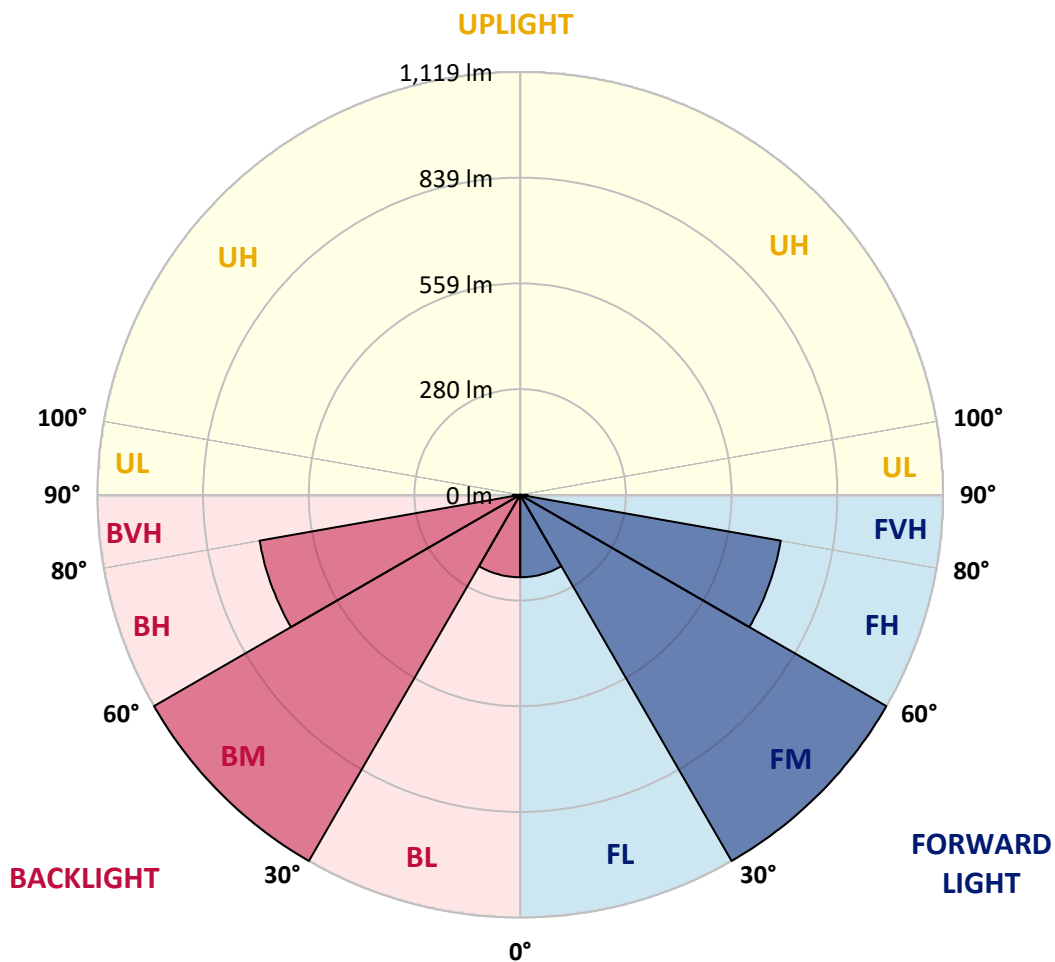
CATALOG NUMBER: NVN-AF-01-LED-U-RW-7050-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 218.0 | 5.3 | | | |
| FM | (30°-60°) | 1118.6 | 27.2 | | | |
| FH | (60°-80°) | 700.1 | 17.0 | | | G1/1800 |
| FVH | (80°-90°) | 19.8 | 0.5 | | | G1/100 |
| BL | (0°-30°) | 218.0 | 5.3 | B1/500 | | |
| BM | (30°-60°) | 1118.6 | 27.2 | B2/2500 | | |
| BH | (60°-80°) | 700.1 | 17.0 | B2/1000 | | G1/1800 |
| BVH | (80°-90°) | 19.8 | 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-G1

Type V Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 458.0 | 458.0 | 458.0 | 458.0 | 458.0 | 458.0 | 458.0 | 458.0 | 458.0 | 458.0 | 458.0 |
| 2.5° | 460.9 | 460.6 | 460.9 | 460.1 | 460.3 | 460.1 | 460.1 | 459.1 | 459.1 | 458.5 | 457.8 |
| 5° | 455.7 | 456.2 | 456.2 | 456.2 | 457.0 | 457.0 | 458.0 | 458.3 | 459.1 | 459.8 | 460.3 |
| 7.5° | 447.2 | 447.5 | 448.2 | 448.7 | 450.3 | 452.4 | 454.4 | 456.7 | 458.8 | 461.4 | 464.2 |
| 10° | 440.0 | 440.5 | 441.8 | 443.1 | 445.9 | 448.5 | 452.1 | 455.7 | 459.3 | 463.7 | 468.1 |
| 12.5° | 436.1 | 436.9 | 438.9 | 441.0 | 445.4 | 448.7 | 453.6 | 459.3 | 464.2 | 468.3 | 473.2 |
| 15° | 436.6 | 436.9 | 439.7 | 442.6 | 448.7 | 453.4 | 460.3 | 467.0 | 473.0 | 477.6 | 483.3 |
| 17.5° | 444.1 | 444.6 | 447.5 | 451.6 | 457.5 | 463.4 | 470.9 | 477.9 | 485.9 | 491.3 | 498.0 |
| 20° | 458.8 | 459.6 | 462.7 | 467.0 | 473.5 | 479.7 | 487.4 | 494.6 | 502.9 | 509.3 | 516.0 |
| 22.5° | 477.9 | 479.2 | 482.5 | 487.9 | 494.4 | 501.8 | 509.8 | 517.3 | 525.0 | 531.5 | 537.2 |
| 25° | 503.4 | 504.9 | 508.5 | 514.0 | 520.4 | 528.4 | 536.6 | 544.4 | 552.4 | 557.3 | 561.9 |
| 27.5° | 537.7 | 540.2 | 544.1 | 548.5 | 554.2 | 562.7 | 570.4 | 576.8 | 584.6 | 590.0 | 593.1 |
| 30° | 583.8 | 587.4 | 590.5 | 595.1 | 599.3 | 608.3 | 614.5 | 619.6 | 625.6 | 628.7 | 629.4 |
| 32.5° | 640.3 | 643.6 | 646.7 | 650.0 | 655.7 | 664.0 | 669.9 | 672.7 | 675.8 | 675.3 | 672.5 |
| 35° | 703.9 | 706.5 | 708.3 | 714.2 | 723.5 | 728.9 | 733.3 | 734.3 | 734.8 | 729.4 | 724.0 |
| 37.5° | 770.9 | 774.0 | 775.6 | 784.9 | 793.6 | 799.8 | 801.9 | 804.2 | 802.6 | 793.6 | 783.8 |
| 40° | 843.4 | 846.7 | 851.3 | 859.3 | 869.7 | 875.6 | 878.2 | 877.9 | 876.6 | 866.0 | 850.1 |
| 42.5° | 914.5 | 918.6 | 922.5 | 936.4 | 944.9 | 955.0 | 956.3 | 956.0 | 953.2 | 941.0 | 922.5 |
| 45° | 974.8 | 979.7 | 987.7 | 1003.2 | 1016.8 | 1028.9 | 1033.8 | 1035.6 | 1032.8 | 1019.9 | 998.8 |
| 47.5° | 1024.6 | 1027.9 | 1038.0 | 1056.8 | 1074.3 | 1092.1 | 1101.9 | 1108.8 | 1108.6 | 1099.3 | 1076.9 |
| 50° | 1058.6 | 1062.4 | 1074.8 | 1096.0 | 1117.9 | 1138.7 | 1158.1 | 1173.8 | 1181.3 | 1174.6 | 1153.7 |
| 52.5° | 1068.4 | 1073.3 | 1089.5 | 1114.8 | 1140.3 | 1168.4 | 1197.3 | 1225.1 | 1241.8 | 1246.0 | 1229.7 |
| 55° | 1027.1 | 1032.5 | 1056.3 | 1091.3 | 1133.3 | 1174.8 | 1218.6 | 1258.3 | 1292.9 | 1308.9 | 1302.4 |
| 57.5° | 907.0 | 910.9 | 941.0 | 986.4 | 1046.5 | 1119.4 | 1193.1 | 1265.8 | 1325.1 | 1366.6 | 1373.8 |
| 60° | 717.3 | 722.2 | 755.2 | 803.2 | 871.5 | 963.7 | 1066.8 | 1185.9 | 1302.2 | 1397.3 | 1444.4 |
| 62.5° | 484.1 | 487.4 | 519.1 | 562.9 | 637.7 | 726.6 | 841.6 | 992.3 | 1158.1 | 1327.9 | 1460.9 |
| 65° | 254.1 | 254.1 | 275.5 | 306.2 | 365.7 | 445.4 | 563.2 | 717.8 | 915.0 | 1127.1 | 1349.6 |
| 67.5° | 147.4 | 147.2 | 152.1 | 159.0 | 177.8 | 210.1 | 275.0 | 388.7 | 575.3 | 822.2 | 1075.3 |
| 70° | 121.7 | 120.9 | 120.1 | 120.1 | 122.9 | 127.8 | 140.2 | 171.4 | 250.8 | 424.0 | 661.6 |
| 71° | 116.2 | 115.7 | 113.7 | 112.9 | 114.2 | 116.8 | 122.2 | 136.6 | 178.1 | 289.2 | 494.1 |
| 72.5° | 109.8 | 108.5 | 105.4 | 104.1 | 104.4 | 105.4 | 107.0 | 112.6 | 125.3 | 164.4 | 281.7 |
| 75° | 100.0 | 96.9 | 93.0 | 91.2 | 90.5 | 90.2 | 90.2 | 91.8 | 94.6 | 99.2 | 115.5 |
| 77.5° | 88.7 | 84.3 | 80.2 | 78.4 | 77.1 | 76.3 | 75.8 | 74.7 | 74.2 | 76.3 | 82.2 |
| 80° | 75.0 | 70.4 | 67.0 | 66.0 | 65.2 | 63.7 | 61.6 | 59.5 | 58.3 | 59.3 | 62.9 |
| 82.5° | 58.0 | 53.4 | 53.9 | 54.1 | 52.8 | 50.3 | 48.2 | 45.9 | 43.6 | 43.0 | 44.8 |
| 85° | 46.1 | 43.8 | 42.3 | 45.6 | 42.8 | 39.7 | 36.9 | 33.0 | 27.6 | 22.7 | 24.7 |
| 87.5° | 19.8 | 20.1 | 28.9 | 43.6 | 38.1 | 30.7 | 25.5 | 20.6 | 13.1 | 9.8 | 10.1 |
| 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° | 458.0 | 458.0 | 458.0 | 458.0 | 458.0 | 458.0 | 458.0 | 458.0 |
| 2.5° | 457.5 | 457.5 | 456.7 | 456.2 | 456.2 | 456.2 | 455.7 | 456.0 |
| 5° | 460.6 | 461.1 | 461.6 | 461.4 | 462.1 | 462.9 | 462.7 | 462.4 |
| 7.5° | 465.8 | 467.3 | 468.8 | 469.6 | 470.7 | 471.7 | 471.9 | 471.2 |
| 10° | 470.9 | 474.0 | 476.3 | 478.4 | 479.7 | 480.7 | 481.5 | 481.2 |
| 12.5° | 477.4 | 481.7 | 485.9 | 490.0 | 492.8 | 494.4 | 495.9 | 495.4 |
| 15° | 487.9 | 492.8 | 498.0 | 503.4 | 507.8 | 510.1 | 512.4 | 511.9 |
| 17.5° | 502.4 | 506.7 | 510.9 | 516.3 | 521.7 | 524.3 | 526.8 | 526.6 |
| 20° | 520.4 | 523.7 | 526.1 | 529.2 | 534.3 | 537.2 | 539.5 | 538.7 |
| 22.5° | 541.0 | 542.0 | 542.3 | 543.3 | 547.5 | 550.8 | 553.9 | 554.7 |
| 25° | 563.4 | 562.7 | 561.1 | 560.3 | 563.2 | 566.8 | 570.7 | 571.7 |
| 27.5° | 591.3 | 588.7 | 584.8 | 581.7 | 582.5 | 587.2 | 591.5 | 592.6 |
| 30° | 626.3 | 620.4 | 612.2 | 606.2 | 605.2 | 610.1 | 614.7 | 616.3 |
| 32.5° | 666.3 | 658.3 | 647.0 | 637.9 | 634.1 | 638.4 | 642.6 | 644.9 |
| 35° | 713.7 | 704.9 | 691.3 | 679.7 | 673.5 | 676.3 | 683.6 | 686.1 |
| 37.5° | 769.9 | 757.8 | 742.6 | 727.9 | 717.6 | 718.1 | 725.8 | 728.9 |
| 40° | 832.0 | 814.5 | 795.2 | 776.9 | 761.9 | 760.9 | 767.8 | 770.2 |
| 42.5° | 896.7 | 874.3 | 851.6 | 827.6 | 809.1 | 805.7 | 814.7 | 815.0 |
| 45° | 966.3 | 937.4 | 909.3 | 881.5 | 862.2 | 856.2 | 865.0 | 866.0 |
| 47.5° | 1040.5 | 1004.5 | 971.2 | 941.0 | 920.2 | 910.9 | 919.4 | 920.9 |
| 50° | 1117.9 | 1080.5 | 1041.8 | 1008.3 | 983.8 | 972.5 | 982.5 | 983.6 |
| 52.5° | 1194.4 | 1159.1 | 1120.7 | 1082.3 | 1052.7 | 1039.8 | 1051.6 | 1055.2 |
| 55° | 1271.5 | 1237.5 | 1201.4 | 1163.0 | 1125.6 | 1114.3 | 1127.1 | 1131.0 |
| 57.5° | 1351.6 | 1318.9 | 1286.2 | 1247.5 | 1211.2 | 1193.9 | 1207.8 | 1213.2 |
| 60° | 1440.1 | 1411.2 | 1380.3 | 1341.3 | 1305.5 | 1285.4 | 1297.3 | 1303.4 |
| 62.5° | 1526.9 | 1521.0 | 1492.9 | 1452.4 | 1407.1 | 1387.0 | 1397.0 | 1401.4 |
| 65° | 1534.1 | 1630.3 | 1629.0 | 1588.8 | 1525.4 | 1491.6 | 1494.4 | 1496.5 |
| 67.5° | 1339.0 | 1559.6 | 1700.6 | 1713.3 | 1642.6 | 1589.8 | 1583.6 | 1584.9 |
| 70° | 948.0 | 1250.9 | 1550.1 | 1746.5 | 1774.4 | 1733.4 | 1720.0 | 1722.0 |
| 71° | 759.6 | 1073.3 | 1402.7 | 1666.9 | 1772.3 | 1760.4 | 1753.0 | 1758.4 |
| 72.5° | 484.8 | 790.8 | 1111.4 | 1427.4 | 1629.8 | 1687.8 | 1696.3 | 1699.6 |
| 75° | 176.0 | 340.2 | 575.8 | 825.1 | 1045.7 | 1197.5 | 1281.0 | 1287.7 |
| 77.5° | 94.6 | 121.9 | 188.4 | 281.5 | 353.6 | 392.3 | 396.9 | 398.7 |
| 80° | 69.6 | 80.7 | 92.3 | 105.4 | 113.7 | 115.2 | 112.4 | 106.5 |
| 82.5° | 49.2 | 55.7 | 60.3 | 65.0 | 68.3 | 65.5 | 54.4 | 41.5 |
| 85° | 28.6 | 31.4 | 34.0 | 36.3 | 36.9 | 34.8 | 22.9 | 18.8 |
| 87.5° | 11.3 | 12.4 | 12.1 | 13.7 | 13.1 | 12.1 | 9.0 | 7.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)