

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: P196039

Luminaire Tested: **NVN-AF-01-LED-U-RW-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196039  
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-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5159.8 lumens  
Efficiency: N/A  
Efficacy: 117.3 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

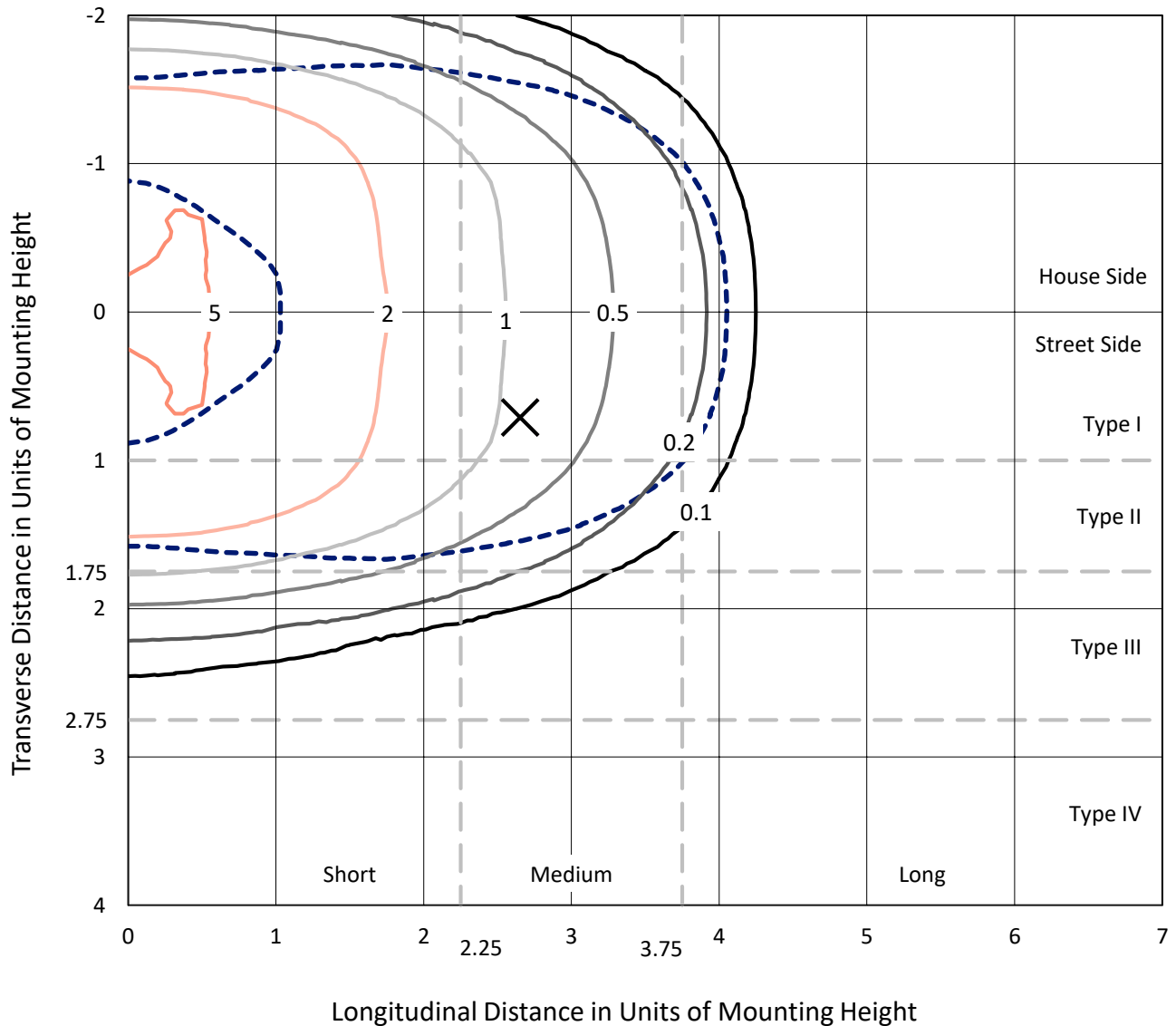
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P196039  
 CATALOG NUMBER: NVN-AF-01-LED-U-RW-800

### Iso-Footcandle Lines of Horizontal Illumination

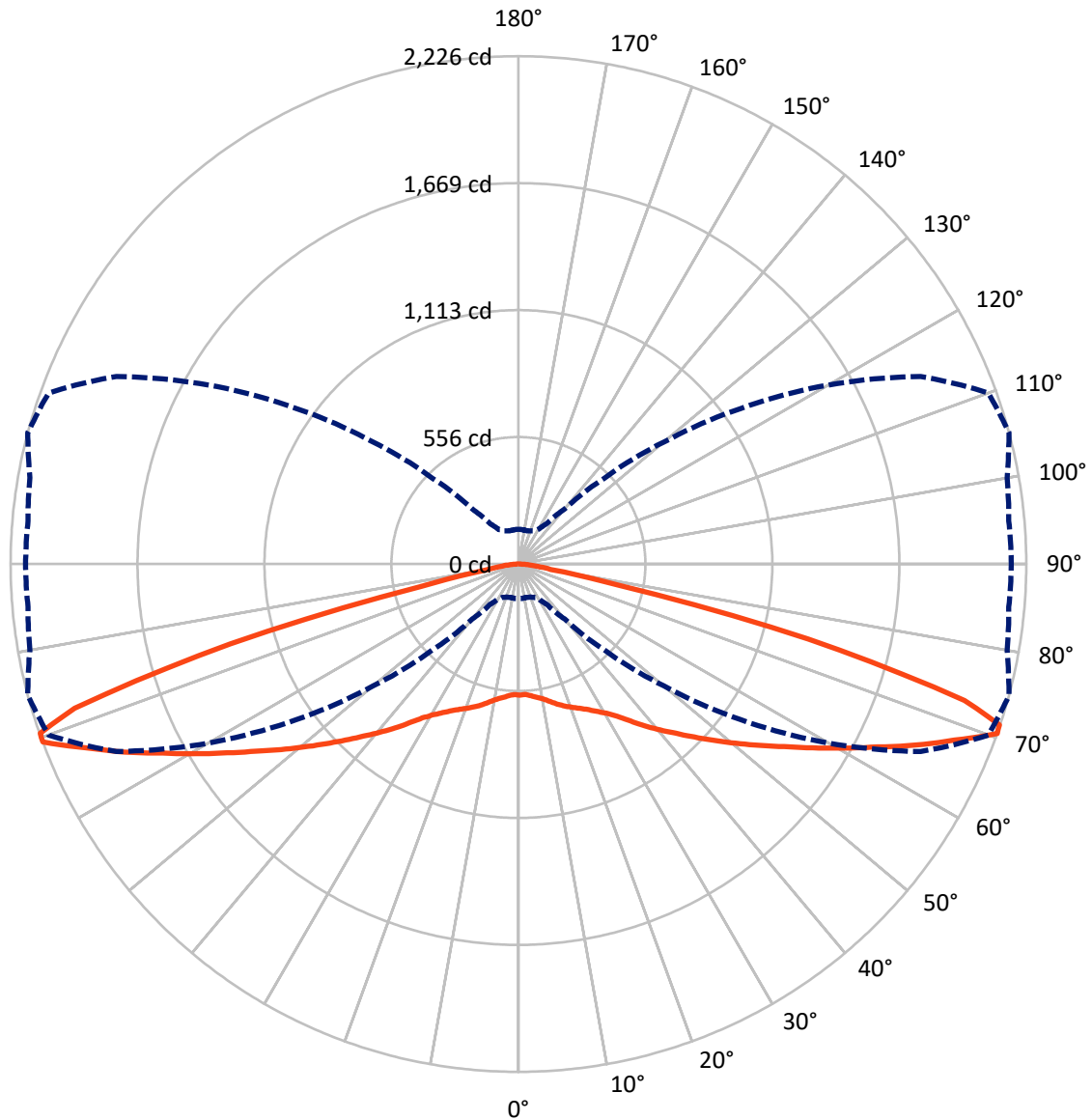
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.8 fc  
 Type V - Medium - Full Cutoff

REPORT NUMBER: P196039  
CATALOG NUMBER: NVN-AF-01-LED-U-RW-800

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P196039

CATALOG NUMBER: NVN-AF-01-LED-U-RW-800

**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 2579.9   | 0.0    | 2579.9 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 2579.9   | 0.0    | 2579.9 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 5159.8   | 0.0    | 5159.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 55.1   | 1.1       |
| 10°-20°   | 170.9  | 3.3       |
| 20°-30°   | 321.0  | 6.2       |
| 30°-40°   | 565.5  | 11.0      |
| 40°-50°   | 937.2  | 18.2      |
| 50°-60°   | 1303.8 | 25.3      |
| 60°-70°   | 1230.8 | 23.9      |
| 70°-80°   | 525.7  | 10.2      |
| 80°-90°   | 49.7   | 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°    | 5159.8 | 100.0     |
| 0°-180°   | 5159.8 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P196039

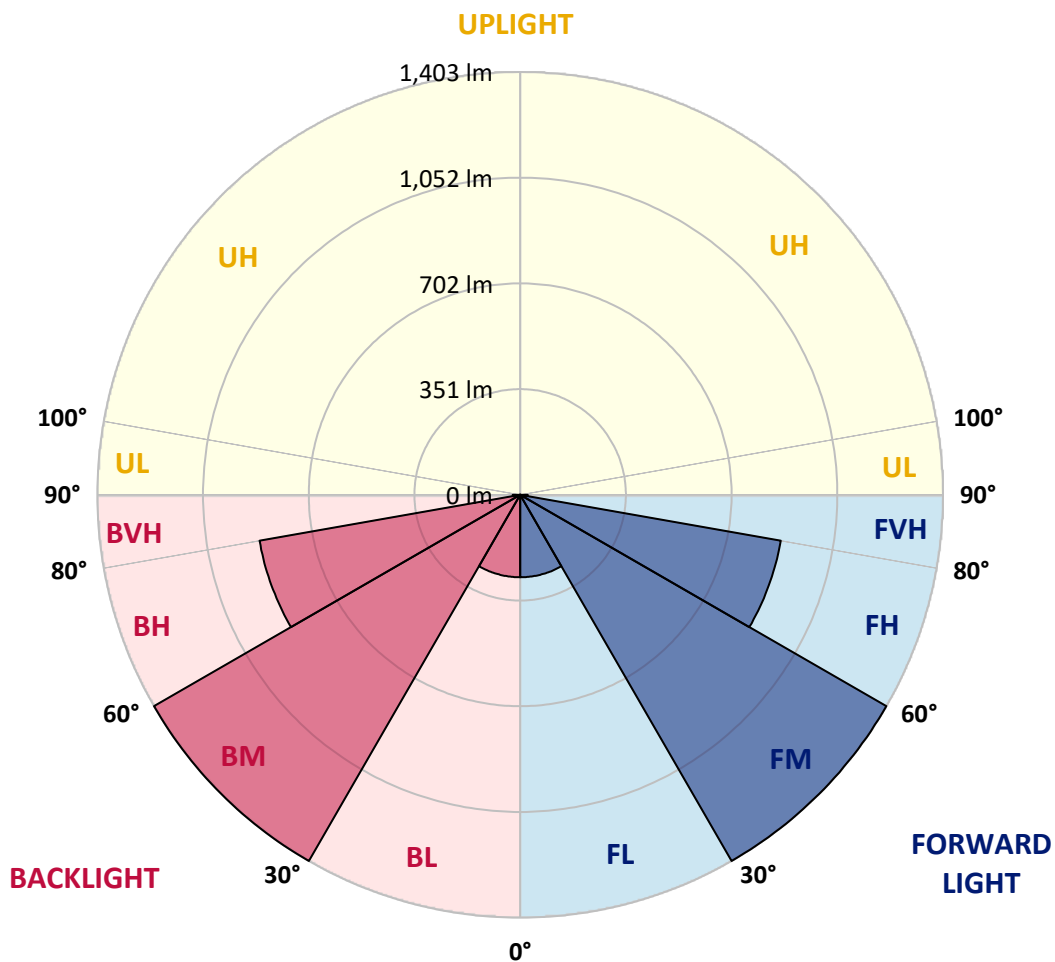
CATALOG NUMBER: NVN-AF-01-LED-U-RW-800

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 273.5  | 5.3       |                         |      |         |
| FM   | (30°-60°)   | 1403.3 | 27.2      |                         |      |         |
| FH   | (60°-80°)   | 878.3  | 17.0      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 24.8   | 0.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 273.5  | 5.3       | B1/500                  |      |         |
| BM   | (30°-60°)   | 1403.3 | 27.2      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 878.3  | 17.0      | B2/1000                 |      | G1/1800 |
| BVH  | (80°-90°)   | 24.8   | 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





REPORT NUMBER: P196039

CATALOG NUMBER: NVN-AF-01-LED-U-RW-800

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 574.6  | 574.6  | 574.6  | 574.6  | 574.6  | 574.6  | 574.6  | 574.6  | 574.6  | 574.6  | 574.6  |
| 2.5°  | 578.2  | 577.9  | 578.2  | 577.1  | 577.5  | 577.1  | 577.1  | 575.9  | 575.9  | 575.2  | 574.3  |
| 5°    | 571.7  | 572.3  | 572.3  | 572.3  | 573.3  | 573.3  | 574.6  | 574.9  | 575.9  | 576.8  | 577.5  |
| 7.5°  | 561.0  | 561.3  | 562.3  | 562.9  | 564.9  | 567.4  | 570.1  | 573.0  | 575.5  | 578.8  | 582.4  |
| 10°   | 552.0  | 552.6  | 554.2  | 555.9  | 559.3  | 562.6  | 567.1  | 571.7  | 576.2  | 581.8  | 587.2  |
| 12.5° | 547.1  | 548.1  | 550.7  | 553.2  | 558.7  | 562.9  | 569.1  | 576.2  | 582.4  | 587.5  | 593.6  |
| 15°   | 547.8  | 548.1  | 551.7  | 555.2  | 562.9  | 568.8  | 577.5  | 585.9  | 593.3  | 599.1  | 606.3  |
| 17.5° | 557.1  | 557.8  | 561.3  | 566.5  | 574.0  | 581.3  | 590.8  | 599.4  | 609.5  | 616.3  | 624.7  |
| 20°   | 575.5  | 576.5  | 580.4  | 585.9  | 594.0  | 601.8  | 611.4  | 620.5  | 630.9  | 638.9  | 647.3  |
| 22.5° | 599.4  | 601.1  | 605.3  | 612.1  | 620.2  | 629.5  | 639.5  | 649.0  | 658.7  | 666.8  | 673.8  |
| 25°   | 631.5  | 633.4  | 638.0  | 644.8  | 652.8  | 662.9  | 673.2  | 682.9  | 692.9  | 699.1  | 704.9  |
| 27.5° | 674.5  | 677.7  | 682.6  | 688.0  | 695.2  | 705.8  | 715.6  | 723.6  | 733.4  | 740.1  | 744.0  |
| 30°   | 732.4  | 736.9  | 740.8  | 746.7  | 751.8  | 763.1  | 770.9  | 777.3  | 784.8  | 788.7  | 789.6  |
| 32.5° | 803.2  | 807.4  | 811.3  | 815.5  | 822.6  | 833.0  | 840.4  | 843.9  | 847.8  | 847.2  | 843.6  |
| 35°   | 883.1  | 886.3  | 888.5  | 896.0  | 907.7  | 914.4  | 919.9  | 921.3  | 921.9  | 915.0  | 908.3  |
| 37.5° | 967.1  | 971.0  | 972.9  | 984.6  | 995.6  | 1003.3 | 1006.0 | 1008.8 | 1006.9 | 995.6  | 983.3  |
| 40°   | 1058.0 | 1062.2 | 1068.1 | 1078.1 | 1091.0 | 1098.4 | 1101.6 | 1101.3 | 1099.7 | 1086.5 | 1066.4 |
| 42.5° | 1147.2 | 1152.5 | 1157.3 | 1174.8 | 1185.4 | 1198.0 | 1199.6 | 1199.3 | 1195.7 | 1180.6 | 1157.3 |
| 45°   | 1222.9 | 1229.1 | 1239.1 | 1258.4 | 1275.6 | 1290.8 | 1297.0 | 1299.2 | 1295.7 | 1279.5 | 1253.0 |
| 47.5° | 1285.3 | 1289.5 | 1302.1 | 1325.7 | 1347.7 | 1370.0 | 1382.3 | 1391.0 | 1390.7 | 1379.0 | 1350.9 |
| 50°   | 1328.0 | 1332.8 | 1348.4 | 1374.8 | 1402.4 | 1428.6 | 1452.8 | 1472.5 | 1481.9 | 1473.5 | 1447.3 |
| 52.5° | 1340.3 | 1346.4 | 1366.8 | 1398.5 | 1430.5 | 1465.8 | 1502.0 | 1536.9 | 1557.9 | 1563.1 | 1542.7 |
| 55°   | 1288.5 | 1295.4 | 1325.1 | 1369.0 | 1421.8 | 1473.9 | 1528.8 | 1578.6 | 1621.9 | 1641.9 | 1633.9 |
| 57.5° | 1137.8 | 1142.7 | 1180.6 | 1237.5 | 1312.8 | 1404.3 | 1496.8 | 1587.9 | 1662.3 | 1714.4 | 1723.5 |
| 60°   | 899.9  | 906.0  | 947.5  | 1007.5 | 1093.2 | 1209.0 | 1338.3 | 1487.7 | 1633.6 | 1752.8 | 1812.1 |
| 62.5° | 607.2  | 611.4  | 651.2  | 706.1  | 799.9  | 911.6  | 1055.7 | 1244.9 | 1452.8 | 1665.9 | 1832.7 |
| 65°   | 318.9  | 318.9  | 345.7  | 384.1  | 458.8  | 558.7  | 706.6  | 900.5  | 1147.9 | 1414.0 | 1693.1 |
| 67.5° | 184.9  | 184.6  | 190.8  | 199.5  | 223.1  | 263.5  | 345.0  | 487.6  | 721.7  | 1031.4 | 1349.0 |
| 70°   | 152.6  | 151.6  | 150.7  | 150.7  | 154.3  | 160.4  | 175.9  | 215.0  | 314.7  | 531.9  | 830.0  |
| 71°   | 145.9  | 145.2  | 142.6  | 141.6  | 143.2  | 146.5  | 153.2  | 171.3  | 223.4  | 362.8  | 619.9  |
| 72.5° | 137.8  | 136.2  | 132.3  | 130.6  | 130.9  | 132.3  | 134.2  | 141.3  | 157.1  | 206.3  | 353.4  |
| 75°   | 125.4  | 121.6  | 116.7  | 114.5  | 113.4  | 113.1  | 113.1  | 115.1  | 118.7  | 124.5  | 144.8  |
| 77.5° | 111.2  | 105.8  | 100.6  | 98.3   | 96.7   | 95.7   | 95.0   | 93.8   | 93.1   | 95.7   | 103.1  |
| 80°   | 94.1   | 88.3   | 84.1   | 82.8   | 81.8   | 79.9   | 77.2   | 74.7   | 73.0   | 74.4   | 78.9   |
| 82.5° | 72.7   | 66.9   | 67.6   | 67.9   | 66.3   | 63.0   | 60.5   | 57.6   | 54.6   | 54.0   | 56.3   |
| 85°   | 57.9   | 54.9   | 53.0   | 57.2   | 53.7   | 49.8   | 46.2   | 41.4   | 34.6   | 28.4   | 31.0   |
| 87.5° | 24.9   | 25.3   | 36.2   | 54.6   | 47.9   | 38.5   | 32.0   | 25.9   | 16.5   | 12.3   | 12.6   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



REPORT NUMBER: P196039

CATALOG NUMBER: NVN-AF-01-LED-U-RW-800

**CANDELA DISTRIBUTION (continued):**

|       | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 574.6  | 574.6  | 574.6  | 574.6  | 574.6  | 574.6  | 574.6  | 574.6  |
| 2.5°  | 574.0  | 574.0  | 573.0  | 572.3  | 572.3  | 572.3  | 571.7  | 572.0  |
| 5°    | 577.9  | 578.5  | 579.1  | 578.8  | 579.8  | 580.7  | 580.4  | 580.1  |
| 7.5°  | 584.3  | 586.3  | 588.2  | 589.1  | 590.4  | 591.8  | 592.1  | 591.1  |
| 10°   | 590.8  | 594.6  | 597.5  | 600.2  | 601.8  | 603.0  | 604.1  | 603.6  |
| 12.5° | 598.8  | 604.4  | 609.5  | 614.7  | 618.3  | 620.2  | 622.2  | 621.4  |
| 15°   | 612.1  | 618.3  | 624.7  | 631.5  | 637.0  | 639.9  | 642.8  | 642.2  |
| 17.5° | 630.2  | 635.7  | 640.9  | 647.6  | 654.5  | 657.7  | 660.9  | 660.6  |
| 20°   | 652.8  | 657.0  | 659.9  | 663.8  | 670.3  | 673.8  | 676.8  | 675.8  |
| 22.5° | 678.7  | 680.0  | 680.4  | 681.6  | 686.8  | 691.0  | 694.9  | 695.8  |
| 25°   | 706.9  | 705.8  | 703.9  | 703.0  | 706.6  | 711.1  | 715.9  | 717.2  |
| 27.5° | 741.7  | 738.6  | 733.7  | 729.8  | 730.8  | 736.6  | 742.0  | 743.4  |
| 30°   | 785.7  | 778.3  | 767.9  | 760.6  | 759.2  | 765.4  | 771.2  | 773.1  |
| 32.5° | 835.9  | 825.8  | 811.6  | 800.3  | 795.4  | 801.0  | 806.1  | 809.1  |
| 35°   | 895.4  | 884.3  | 867.3  | 852.6  | 845.0  | 848.4  | 857.5  | 860.7  |
| 37.5° | 965.9  | 950.6  | 931.6  | 913.1  | 900.2  | 900.8  | 910.5  | 914.4  |
| 40°   | 1043.8 | 1021.8 | 997.5  | 974.6  | 955.8  | 954.5  | 963.2  | 966.2  |
| 42.5° | 1124.9 | 1096.8 | 1068.4 | 1038.3 | 1015.0 | 1010.8 | 1022.1 | 1022.4 |
| 45°   | 1212.2 | 1176.0 | 1140.8 | 1105.8 | 1081.6 | 1074.2 | 1085.1 | 1086.5 |
| 47.5° | 1305.4 | 1260.1 | 1218.3 | 1180.6 | 1154.4 | 1142.7 | 1153.4 | 1155.3 |
| 50°   | 1402.4 | 1355.5 | 1307.0 | 1265.0 | 1234.2 | 1220.0 | 1232.6 | 1233.9 |
| 52.5° | 1498.4 | 1454.1 | 1405.9 | 1357.8 | 1320.5 | 1304.4 | 1319.3 | 1323.8 |
| 55°   | 1595.1 | 1552.4 | 1507.1 | 1458.9 | 1412.1 | 1397.9 | 1414.0 | 1418.8 |
| 57.5° | 1695.6 | 1654.6 | 1613.5 | 1565.0 | 1519.4 | 1497.7 | 1515.2 | 1522.0 |
| 60°   | 1806.5 | 1770.3 | 1731.5 | 1682.8 | 1637.7 | 1612.6 | 1627.4 | 1635.2 |
| 62.5° | 1915.5 | 1908.1 | 1872.8 | 1822.1 | 1765.2 | 1739.9 | 1752.5 | 1758.0 |
| 65°   | 1924.6 | 2045.2 | 2043.5 | 1993.1 | 1913.5 | 1871.2 | 1874.8 | 1877.3 |
| 67.5° | 1679.8 | 1956.6 | 2133.5 | 2149.3 | 2060.7 | 1994.4 | 1986.7 | 1988.3 |
| 70°   | 1189.3 | 1569.2 | 1944.6 | 2191.1 | 2225.9 | 2174.5 | 2157.7 | 2160.3 |
| 71°   | 952.9  | 1346.4 | 1759.7 | 2091.1 | 2223.4 | 2208.4 | 2199.1 | 2205.9 |
| 72.5° | 608.2  | 992.1  | 1394.3 | 1790.7 | 2044.6 | 2117.3 | 2127.9 | 2132.1 |
| 75°   | 220.9  | 426.8  | 722.4  | 1035.0 | 1311.8 | 1502.3 | 1607.1 | 1615.4 |
| 77.5° | 118.7  | 152.9  | 236.4  | 353.1  | 443.7  | 492.1  | 498.0  | 500.2  |
| 80°   | 87.3   | 101.2  | 115.8  | 132.3  | 142.6  | 144.5  | 141.0  | 133.5  |
| 82.5° | 61.8   | 69.9   | 75.7   | 81.5   | 85.7   | 82.1   | 68.2   | 52.1   |
| 85°   | 35.9   | 39.5   | 42.7   | 45.6   | 46.2   | 43.7   | 28.7   | 23.6   |
| 87.5° | 14.2   | 15.5   | 15.2   | 17.2   | 16.5   | 15.2   | 11.4   | 9.7    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)