

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: P196885

Luminaire Tested: **NVN-AF-01-LED-U-5MQ-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196885  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24129)  
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-5MQ-8030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

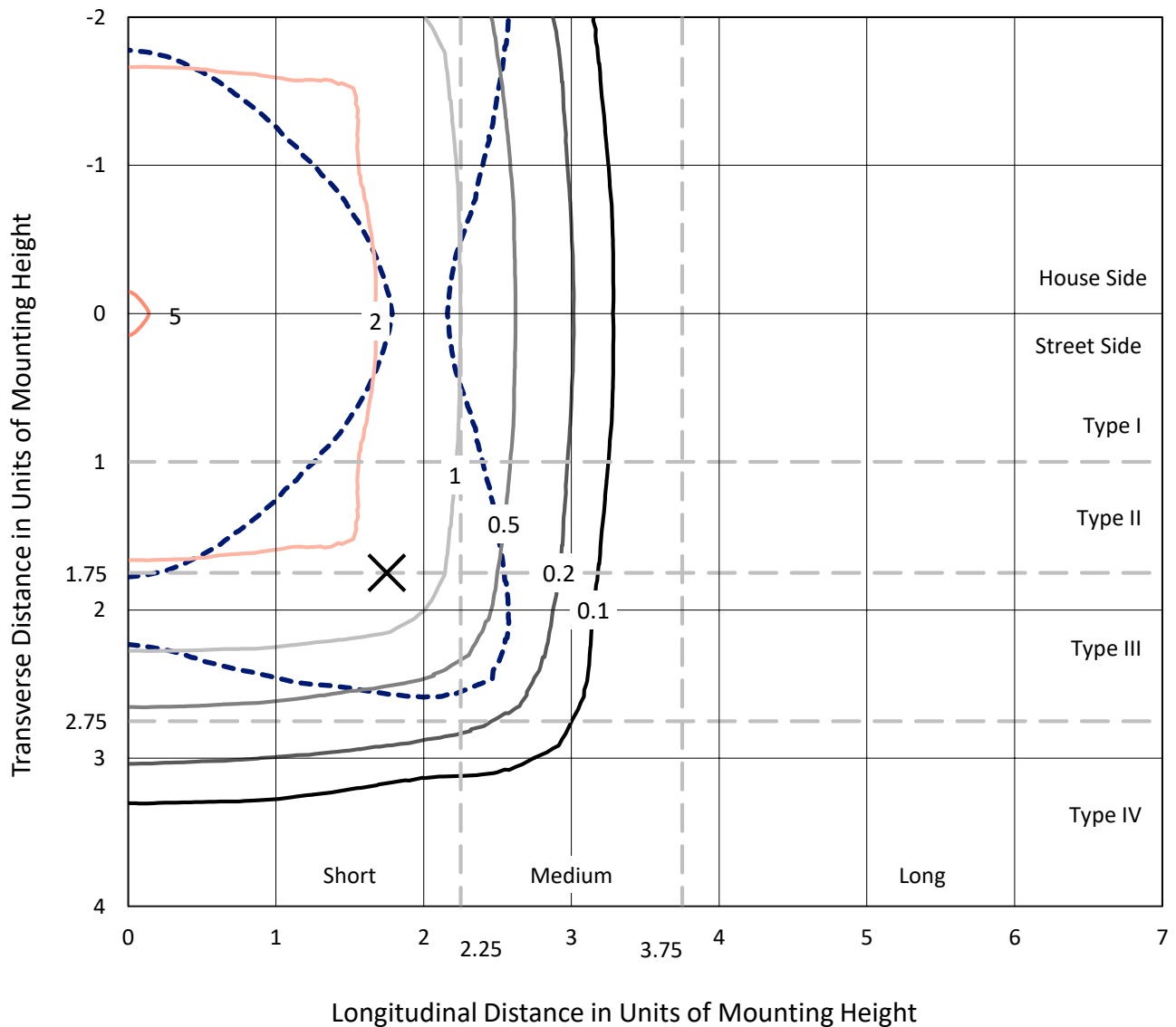
Lumens per Lamp: N/A  
Luminaire Lumens: 5309 lumens  
Efficiency: N/A  
Efficacy: 90.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G1  
  
Input Watts (W): 59  
Input Voltage (V): NR  
Input Current (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



REPORT NUMBER: P196885  
 CATALOG NUMBER: NVN-AF-01-LED-U-5MQ-8030

### Iso-Footcandle Lines of Horizontal Illumination

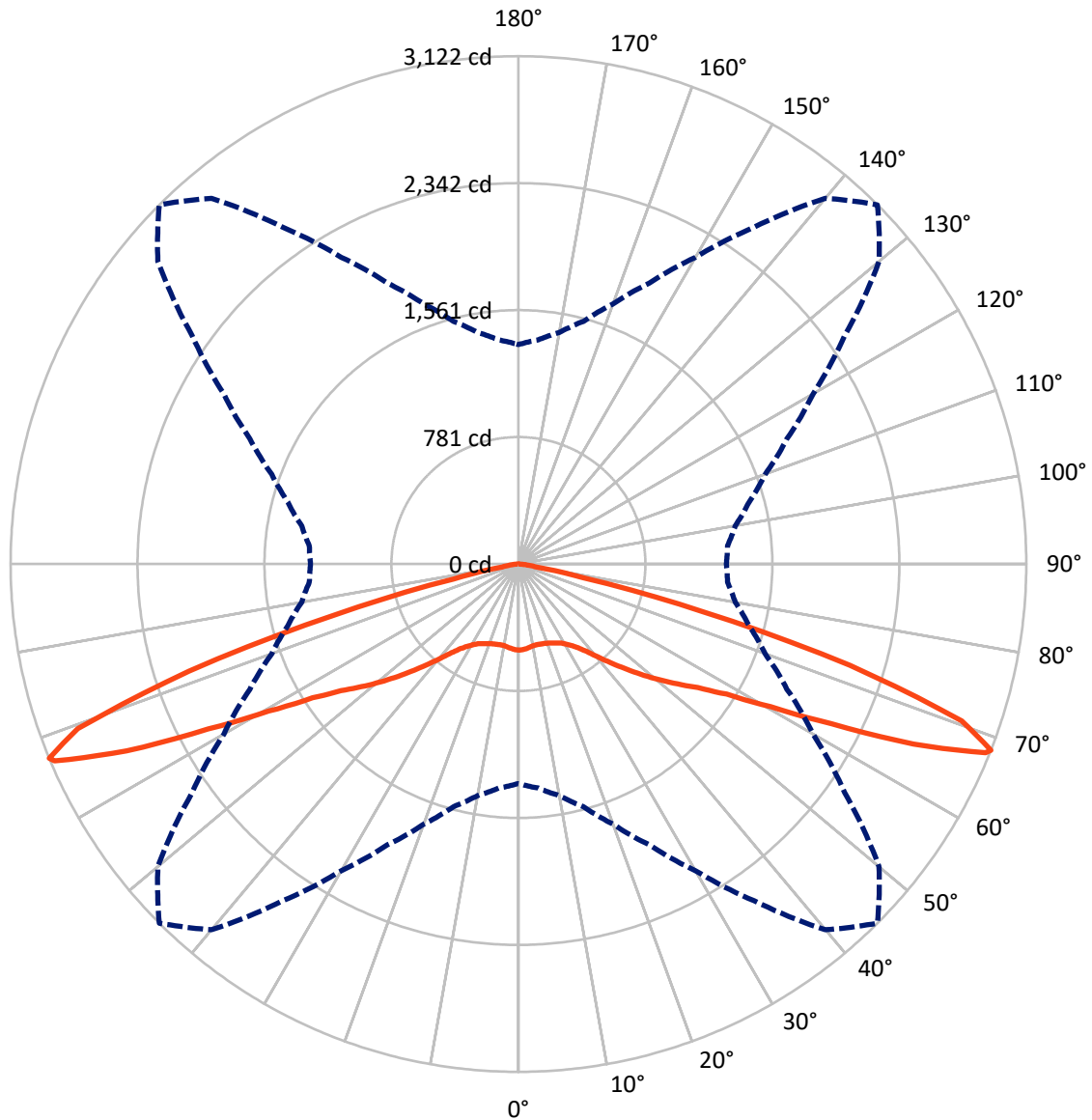
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.3 fc  
 Type V - Short - Full Cutoff

REPORT NUMBER: P196885  
CATALOG NUMBER: NVN-AF-01-LED-U-5MQ-8030

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P196885  
 CATALOG NUMBER: NVN-AF-01-LED-U-5MQ-8030

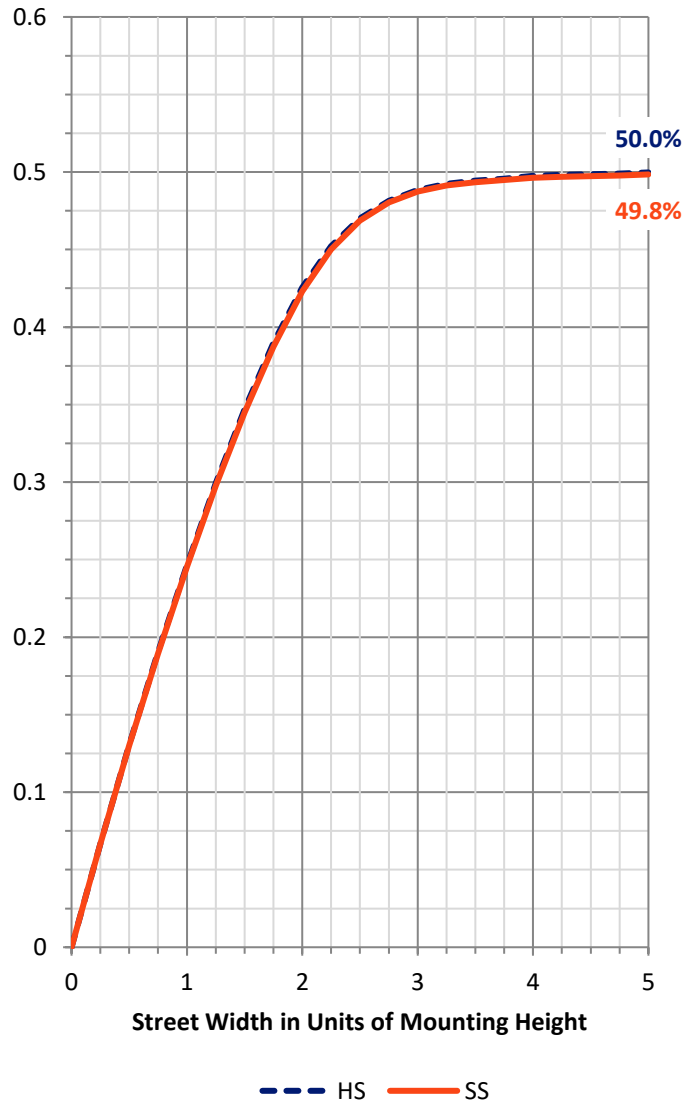
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 2654.5   | 0.0    | 2654.5 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 2654.5   | 0.0    | 2654.5 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 5309.0   | 0.0    | 5309.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 49.6   | 0.9       |
| 10°-20°   | 143.7  | 2.7       |
| 20°-30°   | 244.3  | 4.6       |
| 30°-40°   | 399.9  | 7.5       |
| 40°-50°   | 714.6  | 13.5      |
| 50°-60°   | 1206.8 | 22.7      |
| 60°-70°   | 1871.3 | 35.2      |
| 70°-80°   | 643.4  | 12.1      |
| 80°-90°   | 35.4   | 0.7       |
| 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°    | 5309.0 | 100.0     |
| 0°-180°   | 5309.0 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P196885

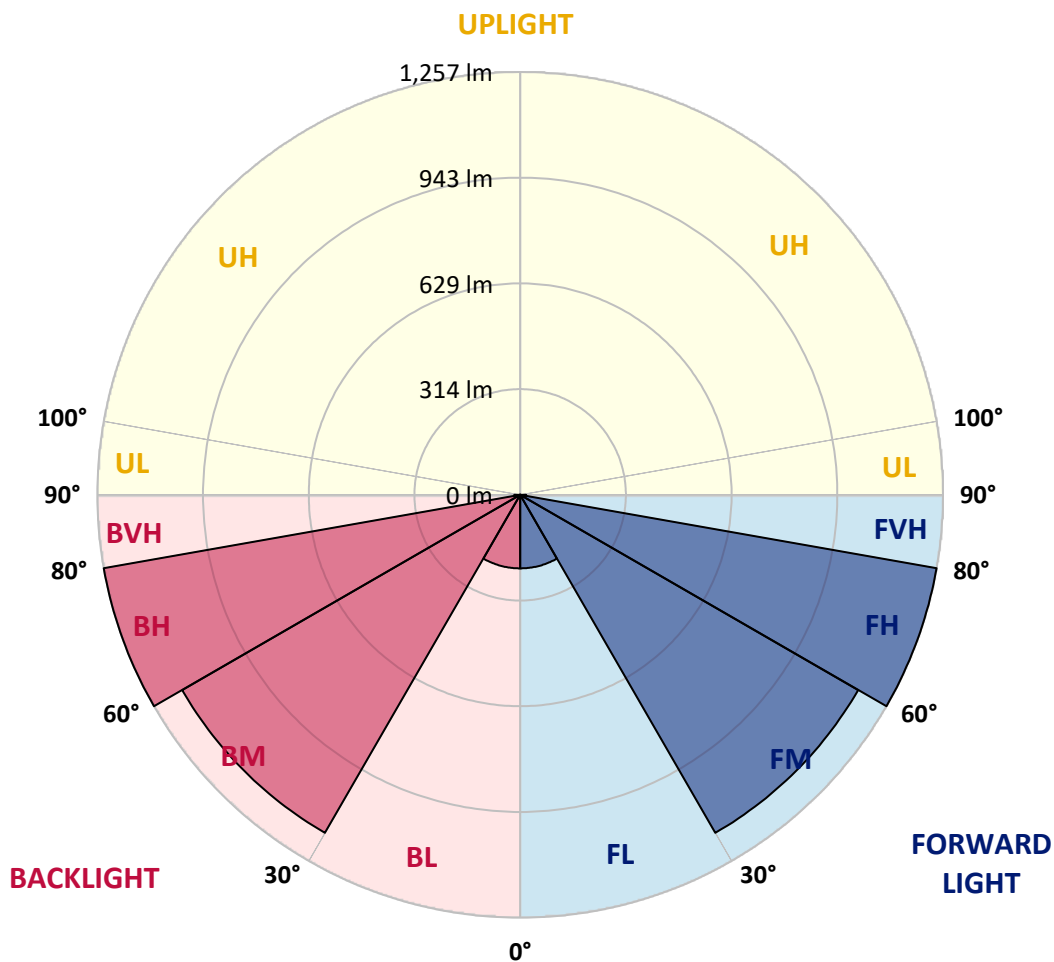
CATALOG NUMBER: NVN-AF-01-LED-U-5MQ-8030

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

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 218.8  | 4.1       |                         |      |         |
| FM (30°-60°)   | 1160.6 | 21.9      |                         |      |         |
| FH (60°-80°)   | 1257.4 | 23.7      |                         |      | G1/1800 |
| FVH (80°-90°)  | 17.7   | 0.3       |                         |      | G1/100  |
| BL (0°-30°)    | 218.8  | 4.1       | B1/500                  |      |         |
| BM (30°-60°)   | 1160.6 | 21.9      | B2/2500                 |      |         |
| BH (60°-80°)   | 1257.4 | 23.7      | B3/2500                 |      | G1/1800 |
| BVH (80°-90°)  | 17.7   | 0.3       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G1**

Type V Short





REPORT NUMBER: P196885

CATALOG NUMBER: NVN-AF-01-LED-U-5MQ-8030

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 529.6  | 529.6  | 529.6  | 529.6  | 529.6  | 529.6  | 529.6  | 529.6  | 529.6  | 529.6  | 529.6  |
| 2.5°  | 531.9  | 531.9  | 532.5  | 532.2  | 531.2  | 530.2  | 529.3  | 528.3  | 527.6  | 527.0  | 526.3  |
| 5°    | 526.3  | 526.3  | 527.3  | 526.7  | 526.0  | 525.0  | 524.4  | 523.4  | 522.8  | 522.1  | 522.4  |
| 7.5°  | 519.2  | 519.8  | 520.5  | 520.2  | 518.9  | 518.5  | 517.6  | 517.2  | 516.6  | 515.6  | 515.9  |
| 10°   | 513.0  | 513.3  | 514.0  | 513.7  | 513.3  | 512.4  | 512.0  | 511.7  | 511.4  | 510.1  | 509.8  |
| 12.5° | 506.8  | 507.5  | 508.1  | 508.5  | 508.1  | 508.5  | 508.8  | 509.1  | 508.8  | 508.1  | 508.1  |
| 15°   | 502.0  | 502.6  | 503.6  | 504.6  | 504.9  | 506.8  | 508.1  | 509.4  | 510.4  | 510.7  | 509.8  |
| 17.5° | 499.4  | 500.3  | 501.6  | 503.6  | 505.2  | 507.5  | 509.8  | 511.7  | 513.3  | 513.7  | 512.7  |
| 20°   | 499.0  | 500.0  | 502.0  | 504.2  | 507.2  | 510.1  | 513.7  | 516.6  | 518.2  | 519.2  | 518.2  |
| 22.5° | 501.3  | 502.6  | 505.2  | 508.1  | 511.7  | 515.6  | 520.2  | 523.4  | 526.7  | 528.0  | 527.0  |
| 25°   | 507.8  | 509.1  | 512.0  | 515.6  | 519.5  | 524.4  | 528.9  | 533.2  | 536.4  | 538.0  | 536.7  |
| 27.5° | 521.5  | 521.8  | 525.0  | 528.9  | 533.5  | 537.7  | 543.6  | 545.5  | 548.1  | 549.7  | 548.1  |
| 30°   | 540.6  | 541.3  | 544.2  | 550.4  | 554.6  | 560.1  | 563.4  | 565.3  | 568.3  | 569.9  | 568.0  |
| 32.5° | 569.9  | 570.6  | 573.2  | 579.0  | 582.9  | 587.1  | 591.0  | 592.3  | 595.3  | 597.2  | 594.9  |
| 35°   | 611.2  | 612.5  | 614.8  | 618.7  | 621.9  | 625.2  | 628.1  | 627.1  | 629.1  | 631.7  | 629.4  |
| 37.5° | 667.8  | 667.4  | 668.1  | 671.0  | 674.3  | 676.2  | 680.8  | 678.5  | 680.4  | 682.7  | 681.4  |
| 40°   | 733.8  | 733.8  | 733.4  | 738.6  | 739.9  | 741.9  | 746.8  | 743.8  | 746.4  | 749.0  | 746.8  |
| 42.5° | 808.8  | 810.2  | 811.8  | 816.0  | 819.6  | 820.2  | 822.5  | 821.2  | 824.5  | 826.7  | 824.5  |
| 45°   | 895.3  | 897.3  | 899.2  | 909.0  | 910.6  | 911.9  | 913.5  | 909.3  | 912.9  | 914.8  | 914.2  |
| 47.5° | 985.1  | 988.6  | 992.9  | 1002.9 | 1009.4 | 1012.4 | 1013.7 | 1008.8 | 1009.1 | 1012.0 | 1012.4 |
| 50°   | 1086.5 | 1090.4 | 1094.6 | 1106.0 | 1112.2 | 1117.4 | 1119.0 | 1113.5 | 1114.1 | 1116.4 | 1117.0 |
| 52.5° | 1180.1 | 1184.7 | 1193.8 | 1209.0 | 1217.8 | 1226.9 | 1227.6 | 1220.8 | 1223.7 | 1225.3 | 1224.0 |
| 55°   | 1268.2 | 1274.1 | 1286.1 | 1306.6 | 1322.5 | 1340.4 | 1348.5 | 1341.0 | 1341.0 | 1339.7 | 1339.1 |
| 57.5° | 1370.9 | 1377.5 | 1389.8 | 1413.5 | 1435.6 | 1461.3 | 1483.4 | 1490.9 | 1504.6 | 1509.1 | 1502.0 |
| 60°   | 1525.7 | 1532.5 | 1545.2 | 1576.4 | 1604.4 | 1641.8 | 1678.2 | 1707.8 | 1755.9 | 1781.9 | 1758.5 |
| 62.5° | 1667.1 | 1677.5 | 1707.4 | 1762.0 | 1822.5 | 1891.8 | 1972.1 | 2029.3 | 2116.7 | 2160.3 | 2101.4 |
| 65°   | 1634.9 | 1656.1 | 1714.6 | 1800.4 | 1925.2 | 2075.4 | 2239.0 | 2396.0 | 2576.7 | 2669.4 | 2549.8 |
| 67.5° | 1428.2 | 1446.0 | 1509.1 | 1608.9 | 1764.6 | 1971.7 | 2226.0 | 2551.1 | 2924.0 | 3097.6 | 2885.9 |
| 68°   | 1349.2 | 1382.7 | 1445.4 | 1544.6 | 1701.6 | 1905.1 | 2176.5 | 2527.7 | 2934.7 | 3122.3 | 2893.7 |
| 70°   | 1034.5 | 1046.5 | 1106.6 | 1195.7 | 1365.1 | 1564.7 | 1838.8 | 2239.0 | 2699.0 | 2892.1 | 2657.0 |
| 72.5° | 491.6  | 498.7  | 537.7  | 625.5  | 733.1  | 895.7  | 1137.5 | 1515.0 | 1929.5 | 2130.4 | 1896.0 |
| 75°   | 180.1  | 181.7  | 190.8  | 211.6  | 252.0  | 313.1  | 429.1  | 663.9  | 982.8  | 1172.0 | 986.7  |
| 77.5° | 97.2   | 97.5   | 101.1  | 106.3  | 113.5  | 121.6  | 139.1  | 186.6  | 301.0  | 409.6  | 317.9  |
| 80°   | 61.1   | 60.8   | 64.4   | 68.6   | 73.5   | 77.4   | 79.0   | 84.5   | 95.3   | 111.5  | 102.4  |
| 82.5° | 31.2   | 34.1   | 42.3   | 46.8   | 54.0   | 55.3   | 53.6   | 53.3   | 56.6   | 61.1   | 63.1   |
| 85°   | 17.2   | 15.3   | 22.4   | 29.9   | 32.5   | 33.5   | 33.8   | 31.9   | 31.2   | 30.6   | 32.2   |
| 87.5° | 8.8    | 8.1    | 9.8    | 15.0   | 15.9   | 13.0   | 13.3   | 11.4   | 7.8    | 7.8    | 8.1    |
| 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: P196885

CATALOG NUMBER: NVN-AF-01-LED-U-5MQ-8030

**CANDELA DISTRIBUTION (continued):**

|       | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 529.6  | 529.6  | 529.6  | 529.6  | 529.6  | 529.6  | 529.6  | 529.6  |
| 2.5°  | 525.7  | 526.0  | 525.4  | 525.4  | 525.4  | 525.7  | 525.4  | 525.0  |
| 5°    | 521.5  | 522.1  | 522.1  | 522.4  | 522.8  | 522.8  | 522.8  | 522.8  |
| 7.5°  | 515.3  | 515.6  | 516.3  | 516.3  | 516.3  | 516.3  | 516.3  | 516.3  |
| 10°   | 509.4  | 508.8  | 508.5  | 507.8  | 507.8  | 506.8  | 507.2  | 507.5  |
| 12.5° | 506.5  | 505.2  | 504.6  | 503.6  | 502.9  | 502.0  | 502.0  | 502.3  |
| 15°   | 507.8  | 505.9  | 503.9  | 503.3  | 502.6  | 502.0  | 501.3  | 501.6  |
| 17.5° | 510.4  | 508.1  | 505.9  | 504.6  | 503.3  | 502.3  | 502.0  | 502.3  |
| 20°   | 515.9  | 512.7  | 509.1  | 506.8  | 504.2  | 503.6  | 502.6  | 503.6  |
| 22.5° | 523.4  | 519.5  | 515.0  | 510.7  | 507.8  | 506.5  | 505.2  | 506.2  |
| 25°   | 532.5  | 528.3  | 523.7  | 518.9  | 515.6  | 514.6  | 513.0  | 513.0  |
| 27.5° | 545.2  | 541.6  | 537.7  | 533.2  | 529.9  | 528.9  | 526.3  | 526.3  |
| 30°   | 565.3  | 561.8  | 558.2  | 554.3  | 551.0  | 550.1  | 546.8  | 546.8  |
| 32.5° | 592.0  | 588.1  | 585.8  | 582.6  | 580.0  | 578.4  | 574.5  | 574.1  |
| 35°   | 627.8  | 624.2  | 623.9  | 621.6  | 619.0  | 619.3  | 615.4  | 614.8  |
| 37.5° | 679.1  | 676.2  | 677.2  | 675.2  | 673.0  | 674.9  | 672.6  | 672.6  |
| 40°   | 744.8  | 743.8  | 744.8  | 743.5  | 743.8  | 744.2  | 742.2  | 742.9  |
| 42.5° | 824.1  | 821.5  | 827.4  | 826.7  | 825.8  | 828.4  | 823.8  | 820.6  |
| 45°   | 915.5  | 914.5  | 920.4  | 921.3  | 919.4  | 921.0  | 912.9  | 912.6  |
| 47.5° | 1014.6 | 1014.6 | 1019.8 | 1019.2 | 1017.2 | 1017.6 | 1007.8 | 1001.6 |
| 50°   | 1118.0 | 1117.4 | 1122.6 | 1121.3 | 1118.7 | 1118.3 | 1108.3 | 1102.1 |
| 52.5° | 1225.6 | 1225.6 | 1233.1 | 1229.5 | 1223.4 | 1220.4 | 1208.1 | 1199.9 |
| 55°   | 1344.6 | 1343.0 | 1345.3 | 1333.6 | 1321.5 | 1312.8 | 1297.5 | 1291.3 |
| 57.5° | 1495.1 | 1476.3 | 1460.0 | 1445.1 | 1428.2 | 1417.8 | 1399.9 | 1393.4 |
| 60°   | 1708.7 | 1658.3 | 1636.6 | 1606.6 | 1578.7 | 1564.7 | 1541.0 | 1528.3 |
| 62.5° | 2004.6 | 1921.0 | 1861.8 | 1795.9 | 1732.1 | 1687.3 | 1651.2 | 1635.3 |
| 65°   | 2346.6 | 2164.5 | 2014.0 | 1872.6 | 1752.6 | 1657.4 | 1604.4 | 1587.8 |
| 67.5° | 2476.6 | 2142.4 | 1882.7 | 1679.8 | 1534.1 | 1420.7 | 1357.3 | 1344.0 |
| 68°   | 2449.0 | 2091.7 | 1821.9 | 1614.1 | 1467.8 | 1353.4 | 1290.3 | 1278.3 |
| 70°   | 2160.3 | 1764.6 | 1479.9 | 1273.1 | 1136.6 | 1027.6 | 983.1  | 963.9  |
| 72.5° | 1472.7 | 1133.3 | 869.3  | 695.4  | 593.3  | 524.4  | 483.4  | 469.4  |
| 75°   | 677.8  | 458.1  | 305.9  | 228.5  | 194.1  | 177.5  | 164.8  | 161.6  |
| 77.5° | 197.7  | 143.7  | 123.5  | 114.4  | 107.6  | 101.8  | 97.5   | 97.2   |
| 80°   | 94.0   | 88.1   | 85.5   | 79.6   | 73.5   | 67.9   | 64.0   | 64.7   |
| 82.5° | 63.1   | 61.4   | 61.4   | 55.6   | 45.8   | 39.3   | 32.5   | 29.3   |
| 85°   | 33.5   | 34.8   | 36.7   | 34.8   | 30.2   | 22.4   | 14.6   | 15.9   |
| 87.5° | 11.4   | 13.0   | 13.7   | 13.3   | 12.0   | 9.1    | 6.8    | 6.8    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)