

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: P271269

Luminaire Tested: **XNV-AF-01-LED-U-T3R-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P271269  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24250)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: XNV-AF-01-LED-U-T3R-7027  
Description: XNV ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5345.1 lumens  
Efficiency: N/A  
Efficacy: 92.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Full Cutoff  
BUG Rating: B1 - U0 - G2

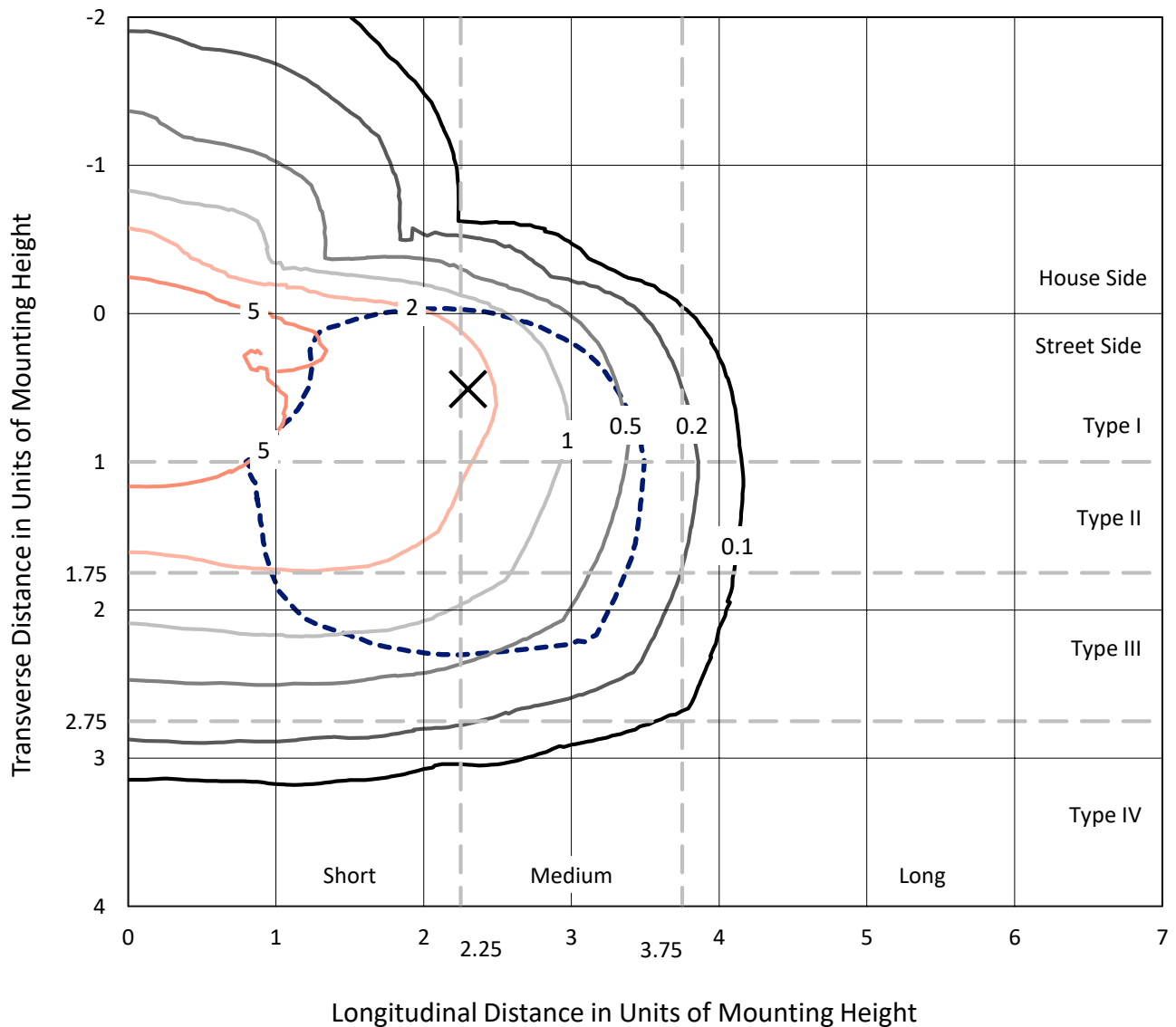
Input Watts (W): 58  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P271269  
 CATALOG NUMBER: XNV-AF-01-LED-U-T3R-7027

### Iso-Footcandle Lines of Horizontal Illumination

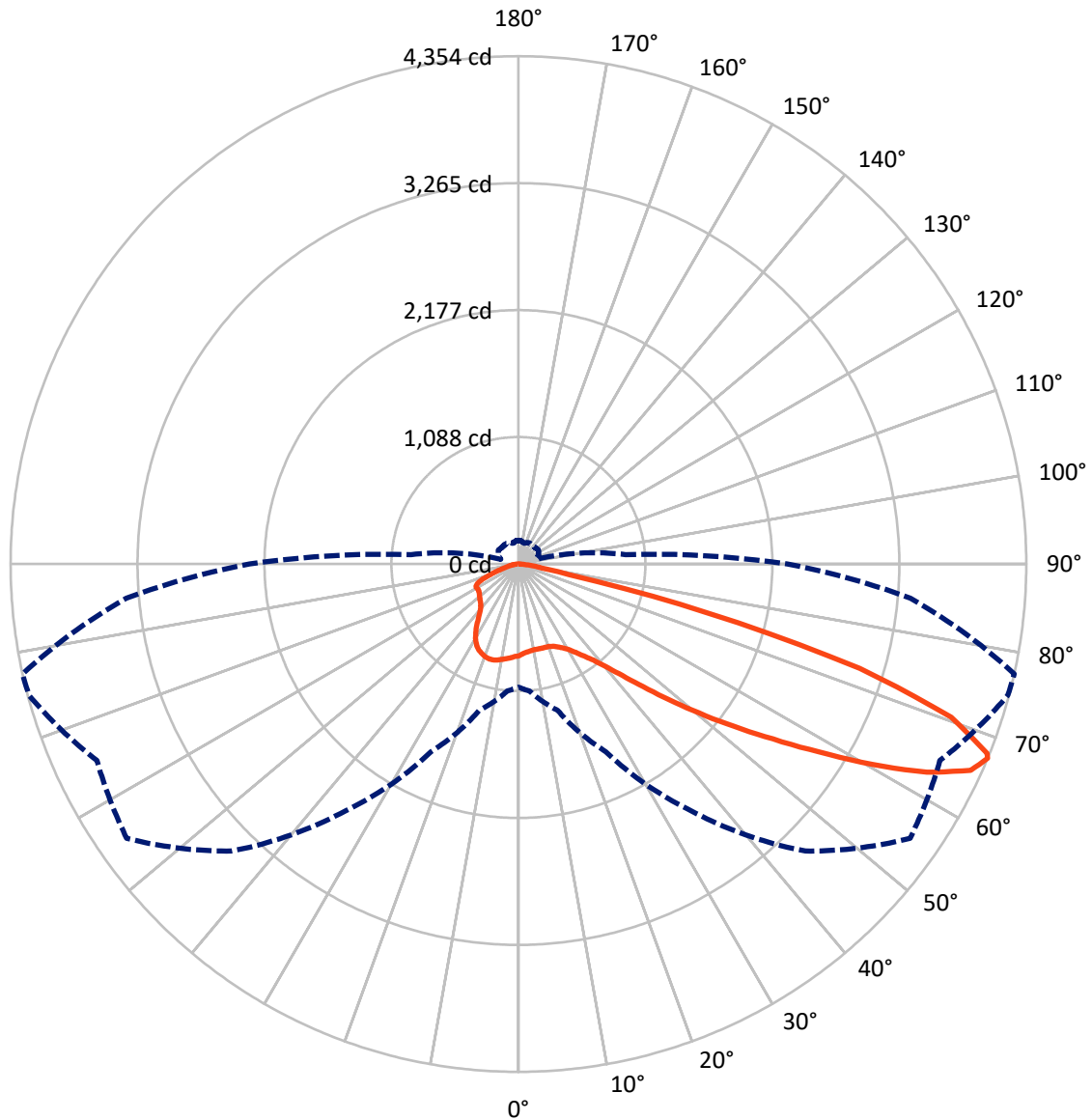
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.5 fc  
 Type III - Medium - Full Cutoff

REPORT NUMBER: P271269  
CATALOG NUMBER: XNV-AF-01-LED-U-T3R-7027

### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

REPORT NUMBER: P271269

CATALOG NUMBER: XNV-AF-01-LED-U-T3R-7027

**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 918.6    | 0.0    | 918.6  |
|                    | % Fixture | 17.2     | 0.0    | 17.2   |
| <b>Street Side</b> | Lumens    | 4426.6   | 0.0    | 4426.6 |
|                    | % Fixture | 82.8     | 0.0    | 82.8   |
| <b>Total</b>       | Lumens    | 5345.1   | 0.0    | 5345.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 70.1   | 1.3       |
| 10°-20°   | 194.0  | 3.6       |
| 20°-30°   | 329.7  | 6.2       |
| 30°-40°   | 527.4  | 9.9       |
| 40°-50°   | 812.0  | 15.2      |
| 50°-60°   | 1126.5 | 21.1      |
| 60°-70°   | 1502.7 | 28.1      |
| 70°-80°   | 715.1  | 13.4      |
| 80°-90°   | 67.7   | 1.3       |
| 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°    | 5345.1 | 100.0     |
| 0°-180°   | 5345.1 | 100.0     |



REPORT NUMBER: P271269

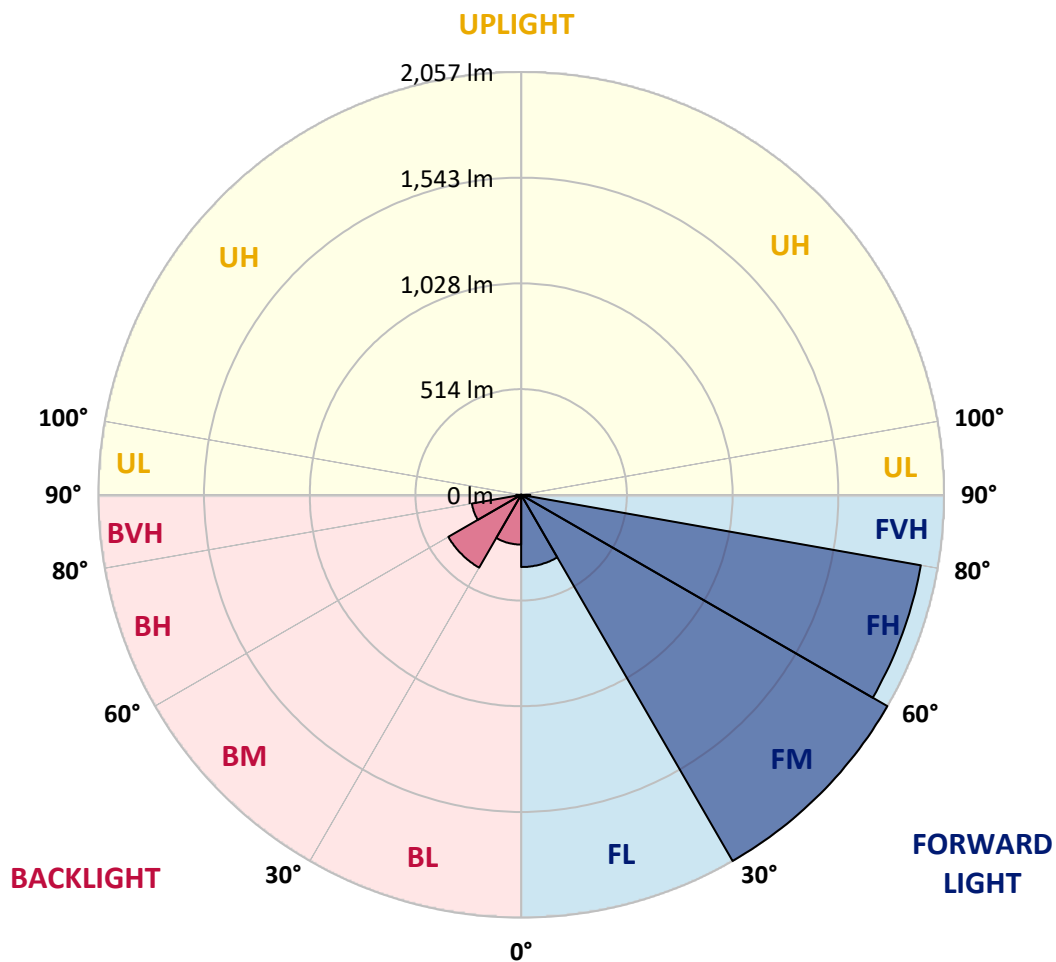
CATALOG NUMBER: XNV-AF-01-LED-U-T3R-7027

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 351.5  | 6.6       |                         |      |         |
| FM   | (30°-60°)   | 2056.9 | 38.5      |                         |      |         |
| FH   | (60°-80°)   | 1974.2 | 36.9      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 44.0   | 0.8       |                         |      | G1/100  |
| BL   | (0°-30°)    | 242.3  | 4.5       | B1/500                  |      |         |
| BM   | (30°-60°)   | 409.0  | 7.7       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 243.6  | 4.6       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 23.7   | 0.4       |                         |      | 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





REPORT NUMBER: P271269

CATALOG NUMBER: XNV-AF-01-LED-U-T3R-7027

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 77.5°  | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 786.6  | 786.6  | 786.6  | 786.6  | 786.6  | 786.6  | 786.6  | 786.6  | 786.6  | 786.6  | 786.6  |
| 2.5°  | 705.3  | 708.8  | 709.0  | 718.6  | 722.9  | 733.7  | 745.8  | 756.3  | 765.5  | 768.8  | 774.8  |
| 5°    | 634.7  | 634.7  | 635.7  | 642.0  | 654.1  | 671.8  | 696.5  | 723.6  | 752.1  | 758.9  | 776.5  |
| 7.5°  | 597.7  | 598.4  | 599.0  | 605.3  | 614.9  | 630.4  | 655.1  | 692.1  | 739.5  | 751.1  | 781.7  |
| 10°   | 601.0  | 600.0  | 596.7  | 595.3  | 599.3  | 609.2  | 630.7  | 668.7  | 728.9  | 746.8  | 791.2  |
| 12.5° | 652.9  | 650.9  | 640.0  | 624.1  | 609.6  | 605.9  | 620.8  | 656.8  | 723.9  | 746.8  | 807.4  |
| 15°   | 741.7  | 743.1  | 721.6  | 688.6  | 650.6  | 624.9  | 622.7  | 652.4  | 722.2  | 748.6  | 826.4  |
| 17.5° | 857.3  | 858.1  | 828.2  | 780.4  | 717.2  | 664.0  | 636.3  | 652.4  | 722.2  | 750.7  | 844.4  |
| 20°   | 980.3  | 975.6  | 942.0  | 881.9  | 799.9  | 718.6  | 661.2  | 656.5  | 724.3  | 753.6  | 861.7  |
| 22.5° | 1085.7 | 1081.4 | 1046.0 | 982.9  | 889.1  | 783.1  | 694.5  | 669.6  | 735.2  | 765.9  | 885.8  |
| 25°   | 1177.9 | 1180.6 | 1146.1 | 1075.1 | 978.0  | 855.7  | 744.3  | 700.0  | 757.9  | 788.1  | 915.6  |
| 27.5° | 1289.8 | 1284.8 | 1245.2 | 1177.5 | 1069.5 | 931.1  | 806.8  | 738.4  | 784.9  | 814.8  | 951.8  |
| 30°   | 1419.3 | 1417.0 | 1363.5 | 1293.7 | 1170.2 | 1015.4 | 868.7  | 779.6  | 820.3  | 851.5  | 997.5  |
| 32.5° | 1576.6 | 1576.3 | 1518.9 | 1433.2 | 1283.6 | 1110.5 | 941.7  | 836.2  | 872.0  | 903.2  | 1057.9 |
| 35°   | 1754.7 | 1754.4 | 1694.9 | 1581.9 | 1414.1 | 1215.9 | 1027.5 | 905.0  | 935.7  | 968.7  | 1130.0 |
| 37.5° | 1878.3 | 1876.3 | 1845.3 | 1735.5 | 1558.5 | 1338.5 | 1134.9 | 997.5  | 1008.0 | 1045.1 | 1216.8 |
| 40°   | 1902.2 | 1914.0 | 1940.7 | 1876.0 | 1716.0 | 1474.6 | 1242.6 | 1096.9 | 1106.8 | 1154.4 | 1326.2 |
| 42.5° | 1876.3 | 1891.8 | 1980.8 | 1998.9 | 1873.7 | 1639.3 | 1377.5 | 1234.7 | 1247.2 | 1306.3 | 1454.7 |
| 45°   | 1853.8 | 1867.3 | 1978.7 | 2066.9 | 2029.4 | 1819.2 | 1545.5 | 1402.9 | 1426.7 | 1500.0 | 1601.4 |
| 47.5° | 1815.6 | 1828.1 | 1939.7 | 2079.1 | 2118.2 | 1992.4 | 1748.1 | 1605.0 | 1646.1 | 1734.8 | 1768.7 |
| 50°   | 1813.5 | 1819.2 | 1886.5 | 2038.2 | 2148.8 | 2123.8 | 1972.5 | 1841.6 | 1904.3 | 2006.9 | 1953.6 |
| 52.5° | 1763.4 | 1802.5 | 1863.8 | 1972.8 | 2149.6 | 2200.4 | 2193.5 | 2101.0 | 2197.8 | 2311.1 | 2156.6 |
| 55°   | 1456.1 | 1501.2 | 1787.7 | 1940.7 | 2145.6 | 2266.2 | 2395.3 | 2376.8 | 2528.2 | 2647.5 | 2383.8 |
| 57.5° | 1359.6 | 1378.7 | 1568.4 | 1950.3 | 2178.6 | 2374.8 | 2597.2 | 2673.1 | 2906.1 | 3036.4 | 2656.4 |
| 60°   | 1333.2 | 1353.2 | 1524.5 | 1954.9 | 2268.1 | 2572.7 | 2871.2 | 3007.9 | 3350.5 | 3488.6 | 2965.9 |
| 62.5° | 1303.7 | 1329.9 | 1527.7 | 1959.3 | 2425.5 | 2865.6 | 3234.5 | 3371.0 | 3806.7 | 3930.1 | 3256.0 |
| 65°   | 1217.8 | 1252.5 | 1466.7 | 1932.2 | 2597.5 | 3232.9 | 3714.9 | 3749.6 | 4183.8 | 4262.1 | 3431.2 |
| 67°   | 1054.9 | 1093.0 | 1298.8 | 1775.5 | 2581.6 | 3480.4 | 4099.1 | 3986.5 | 4344.1 | 4353.5 | 3374.4 |
| 67.5° | 1003.3 | 1042.8 | 1241.9 | 1710.5 | 2536.5 | 3512.7 | 4167.2 | 4019.2 | 4342.6 | 4332.0 | 3321.5 |
| 70°   | 675.6  | 719.9  | 879.5  | 1255.8 | 2034.5 | 3269.2 | 4150.7 | 3918.4 | 4057.9 | 3936.6 | 2853.6 |
| 72.5° | 335.3  | 336.7  | 438.7  | 687.9  | 1232.7 | 2344.8 | 3462.4 | 3352.1 | 3289.5 | 3060.4 | 2093.9 |
| 75°   | 161.5  | 164.5  | 207.1  | 303.9  | 519.7  | 1210.6 | 2361.4 | 2261.8 | 1925.8 | 1667.6 | 1048.1 |
| 77.5° | 123.2  | 126.2  | 160.8  | 197.8  | 216.8  | 394.9  | 1169.7 | 945.2  | 558.0  | 445.6  | 295.4  |
| 80°   | 95.1   | 100.8  | 135.9  | 152.0  | 143.4  | 158.2  | 367.8  | 289.4  | 217.1  | 199.2  | 146.3  |
| 82.5° | 74.3   | 77.7   | 115.3  | 115.3  | 99.2   | 106.1  | 171.1  | 167.2  | 134.7  | 121.6  | 78.6   |
| 85°   | 52.6   | 59.2   | 92.9   | 85.9   | 65.0   | 65.8   | 102.4  | 98.2   | 69.3   | 55.9   | 30.7   |
| 87.5° | 23.4   | 30.1   | 66.0   | 56.1   | 34.7   | 26.8   | 42.0   | 36.0   | 27.4   | 21.1   | 14.3   |
| 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: P271269

CATALOG NUMBER: XNV-AF-01-LED-U-T3R-7027

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°  | 115°  | 125°  | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 786.6  | 786.6  | 786.6 | 786.6 | 786.6 | 786.6 | 786.6 | 786.6 | 786.6 | 786.6 | 786.6 |
| 2.5°  | 781.3  | 786.6  | 794.9 | 799.9 | 806.5 | 809.2 | 811.8 | 816.4 | 820.1 | 819.1 | 817.4 |
| 5°    | 788.6  | 797.5  | 807.8 | 811.1 | 811.1 | 807.8 | 805.8 | 806.1 | 805.2 | 804.5 | 802.5 |
| 7.5°  | 799.2  | 811.4  | 818.7 | 815.4 | 805.2 | 792.2 | 780.1 | 772.8 | 765.9 | 761.6 | 762.9 |
| 10°   | 814.0  | 827.6  | 828.0 | 813.4 | 789.0 | 761.0 | 736.8 | 721.2 | 706.3 | 699.8 | 701.8 |
| 12.5° | 835.6  | 849.1  | 837.5 | 806.1 | 763.2 | 719.3 | 674.9 | 642.9 | 614.3 | 607.3 | 605.3 |
| 15°   | 858.7  | 869.3  | 843.5 | 790.6 | 726.2 | 653.8 | 579.4 | 531.5 | 499.5 | 494.0 | 491.9 |
| 17.5° | 878.8  | 884.8  | 840.5 | 762.9 | 667.7 | 553.7 | 467.2 | 434.8 | 428.2 | 431.5 | 431.5 |
| 20°   | 896.7  | 894.7  | 827.6 | 719.9 | 575.5 | 442.8 | 392.5 | 392.2 | 401.2 | 409.4 | 410.0 |
| 22.5° | 919.1  | 903.7  | 807.1 | 656.1 | 465.5 | 369.4 | 360.8 | 369.4 | 379.3 | 388.5 | 389.5 |
| 25°   | 945.9  | 913.5  | 779.6 | 565.4 | 374.4 | 335.3 | 339.0 | 346.2 | 352.6 | 359.9 | 360.1 |
| 27.5° | 972.7  | 921.1  | 741.1 | 458.6 | 324.7 | 313.6 | 317.6 | 320.4 | 322.1 | 326.8 | 326.8 |
| 30°   | 1003.8 | 927.1  | 685.2 | 367.3 | 302.0 | 294.4 | 292.0 | 290.7 | 292.0 | 298.3 | 298.6 |
| 32.5° | 1042.8 | 937.7  | 609.0 | 315.1 | 291.4 | 280.8 | 269.0 | 262.3 | 266.9 | 278.1 | 280.2 |
| 35°   | 1086.9 | 950.1  | 517.5 | 294.4 | 287.7 | 274.3 | 252.5 | 242.2 | 243.8 | 254.1 | 255.7 |
| 37.5° | 1142.6 | 966.3  | 427.2 | 289.4 | 291.4 | 273.5 | 244.8 | 230.2 | 223.0 | 223.4 | 223.0 |
| 40°   | 1213.5 | 982.6  | 355.8 | 290.7 | 299.3 | 275.2 | 241.1 | 218.4 | 203.1 | 203.8 | 205.2 |
| 42.5° | 1287.9 | 993.2  | 310.5 | 294.7 | 308.8 | 277.5 | 239.8 | 206.8 | 193.7 | 204.9 | 215.1 |
| 45°   | 1374.8 | 990.2  | 287.1 | 298.3 | 316.3 | 278.6 | 234.8 | 205.5 | 194.7 | 228.3 | 247.5 |
| 47.5° | 1474.6 | 977.3  | 274.0 | 300.0 | 318.2 | 278.1 | 231.3 | 209.8 | 202.8 | 261.3 | 283.1 |
| 50°   | 1583.0 | 957.1  | 263.4 | 297.3 | 317.2 | 276.9 | 235.3 | 215.1 | 206.3 | 268.7 | 285.4 |
| 52.5° | 1701.5 | 938.6  | 252.5 | 291.4 | 312.3 | 272.9 | 240.1 | 212.8 | 196.9 | 247.5 | 260.4 |
| 55°   | 1842.0 | 934.3  | 240.1 | 281.2 | 303.9 | 268.7 | 237.5 | 205.5 | 186.7 | 219.4 | 227.4 |
| 57.5° | 2002.5 | 961.0  | 224.3 | 268.7 | 292.8 | 260.0 | 231.3 | 201.5 | 183.1 | 199.6 | 203.8 |
| 60°   | 2206.3 | 1020.3 | 207.5 | 255.4 | 278.8 | 247.2 | 225.7 | 202.6 | 184.1 | 196.5 | 197.5 |
| 62.5° | 2365.5 | 1073.5 | 192.2 | 239.2 | 260.4 | 231.7 | 219.7 | 203.6 | 186.9 | 200.5 | 198.9 |
| 65°   | 2423.4 | 1047.3 | 173.5 | 215.1 | 234.3 | 214.4 | 211.5 | 204.2 | 186.9 | 202.8 | 199.2 |
| 67°   | 2304.8 | 922.7  | 155.6 | 191.0 | 209.5 | 199.2 | 203.6 | 201.5 | 183.8 | 202.6 | 196.3 |
| 67.5° | 2248.3 | 878.8  | 150.9 | 186.9 | 202.8 | 194.7 | 201.5 | 200.2 | 182.7 | 201.8 | 194.7 |
| 70°   | 1854.1 | 630.4  | 127.5 | 156.9 | 169.8 | 171.4 | 189.4 | 191.6 | 174.8 | 189.6 | 176.4 |
| 72.5° | 1319.3 | 394.4  | 110.0 | 121.6 | 137.1 | 146.8 | 172.8 | 180.1 | 164.2 | 164.8 | 154.0 |
| 75°   | 652.9  | 211.8  | 98.2  | 93.9  | 106.7 | 122.3 | 150.6 | 164.2 | 148.7 | 137.4 | 133.8 |
| 77.5° | 220.4  | 120.0  | 83.0  | 75.6  | 83.0  | 98.2  | 124.9 | 143.4 | 131.2 | 116.3 | 113.9 |
| 80°   | 113.9  | 87.2   | 64.8  | 60.7  | 65.4  | 75.9  | 97.7  | 119.3 | 112.0 | 112.6 | 92.9  |
| 82.5° | 71.1   | 53.2   | 46.6  | 46.3  | 49.5  | 58.1  | 72.0  | 96.7  | 96.2  | 82.3  | 59.7  |
| 85°   | 33.1   | 30.7   | 29.7  | 30.7  | 31.7  | 33.1  | 46.9  | 69.1  | 73.0  | 44.2  | 39.3  |
| 87.5° | 13.8   | 13.6   | 11.9  | 12.8  | 14.3  | 13.8  | 18.9  | 29.5  | 41.0  | 27.8  | 25.4  |
| 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)