

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: P271356

Luminaire Tested: **XNV2-AF-02-LED-U-T4FT-7027-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P271356  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24256)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: XNV2-AF-02-LED-U-T4FT-7027-1200  
Description: XNV2 ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11583.5 lumens  
Efficiency: N/A  
Efficacy: 90.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 128  
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

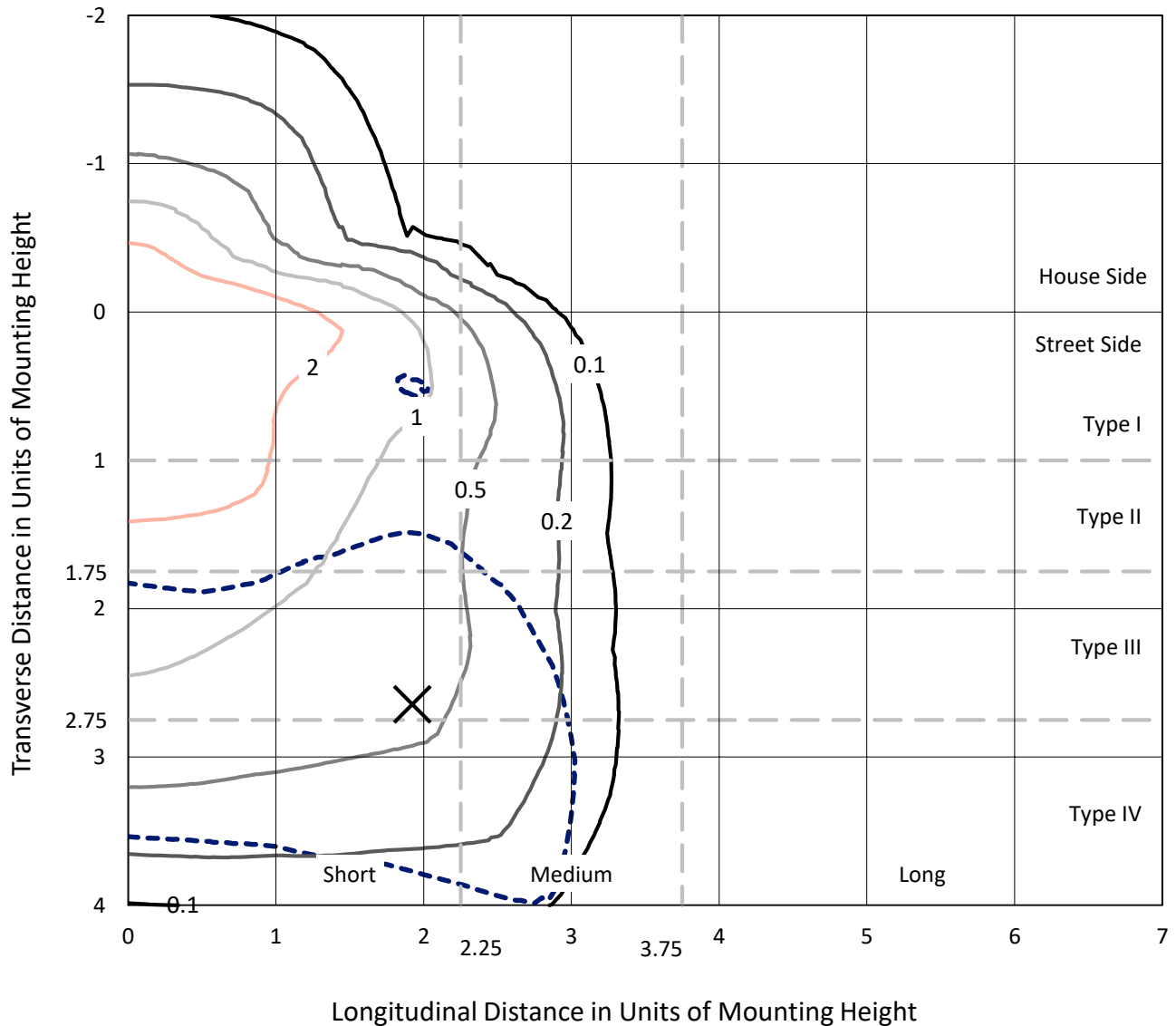


REPORT NUMBER: P271356

CATALOG NUMBER: XNV2-AF-02-LED-U-T4FT-7027-1200

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

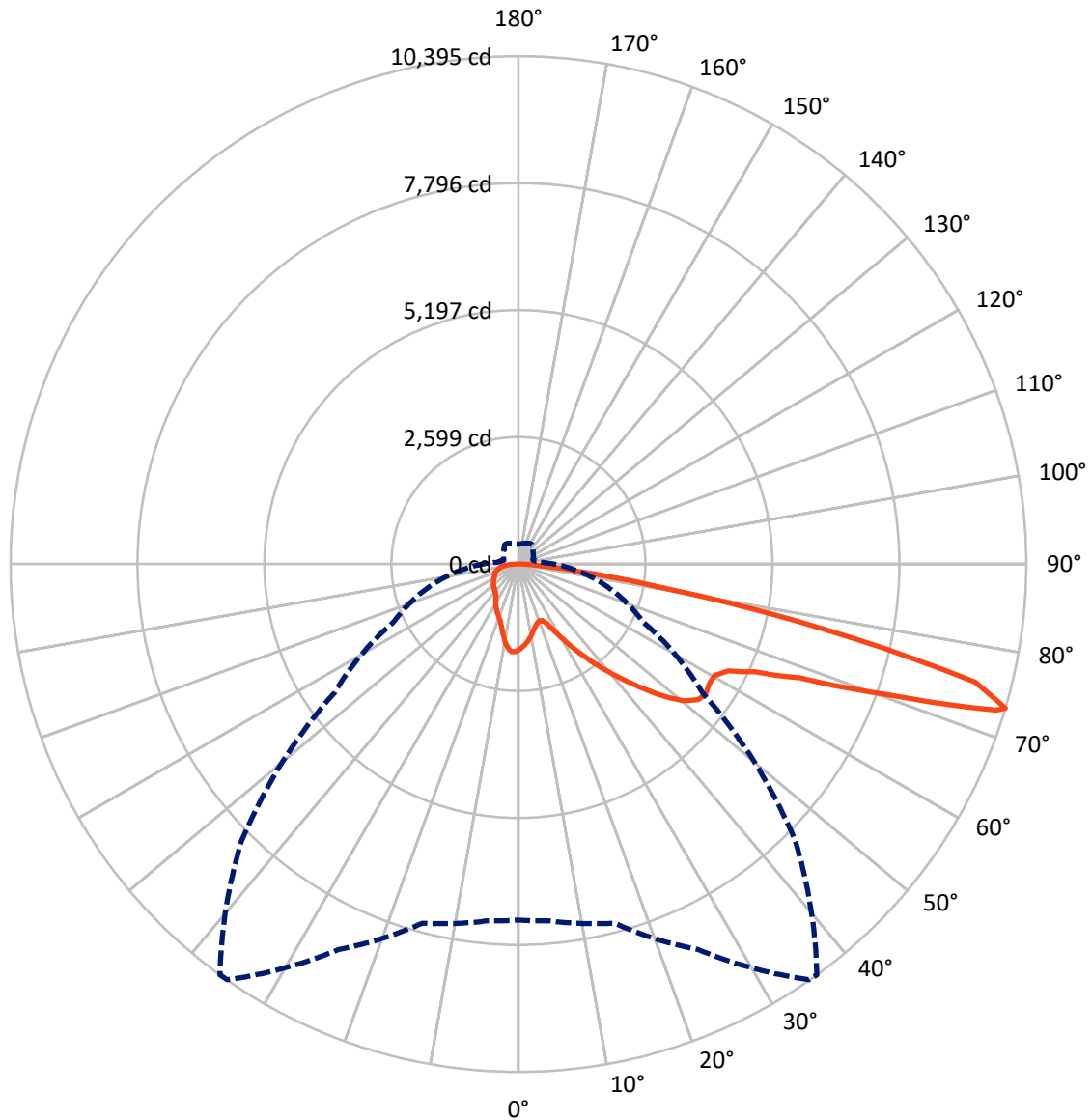


Based on 20 foot mounting height. Maximum calculated value = 4.4 fc  
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P271356

CATALOG NUMBER: XNV2-AF-02-LED-U-T4FT-7027-1200

### Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral      - - - Horizontal Cone Through 73-Deg Vertical



REPORT NUMBER: P271356

CATALOG NUMBER: XNV2-AF-02-LED-U-T4FT-7027-1200

**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2233.6   | 0.0    | 2233.6  |
|                    | % Fixture | 19.3     | 0.0    | 19.3    |
| <b>Street Side</b> | Lumens    | 9349.8   | 0.0    | 9349.8  |
|                    | % Fixture | 80.7     | 0.0    | 80.7    |
| <b>Total</b>       | Lumens    | 11583.5  | 0.0    | 11583.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 159.4   | 1.4       |
| 10°-20°   | 400.2   | 3.5       |
| 20°-30°   | 641.7   | 5.5       |
| 30°-40°   | 1061.4  | 9.2       |
| 40°-50°   | 1642.4  | 14.2      |
| 50°-60°   | 2198.7  | 19.0      |
| 60°-70°   | 2872.2  | 24.8      |
| 70°-80°   | 2346.1  | 20.3      |
| 80°-90°   | 261.1   | 2.3       |
| 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°    | 11583.5 | 100.0     |
| 0°-180°   | 11583.5 | 100.0     |



REPORT NUMBER: P271356

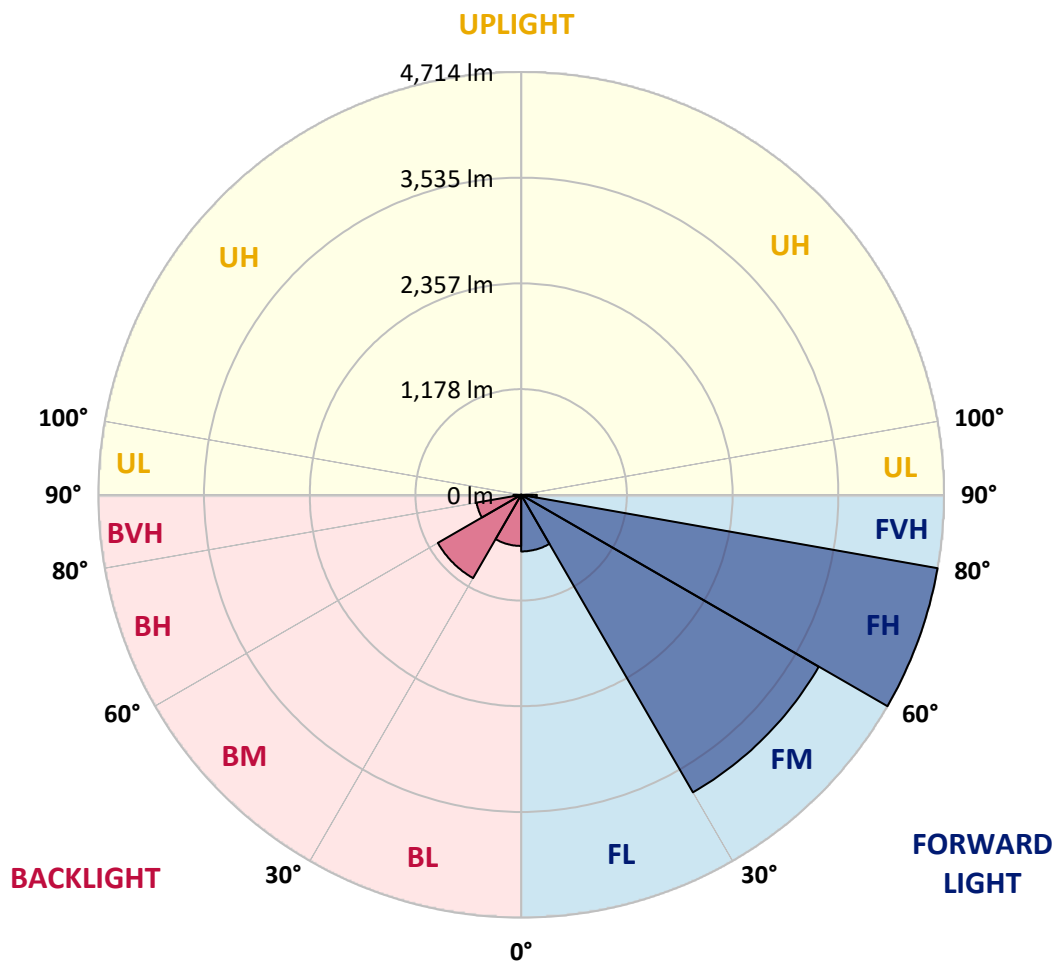
CATALOG NUMBER: XNV2-AF-02-LED-U-T4FT-7027-1200

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

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 631.2  | 5.4       |                         |      |         |
| FM (30°-60°)   | 3829.9 | 33.1      |                         |      |         |
| FH (60°-80°)   | 4713.6 | 40.7      |                         |      | G2/5000 |
| FVH (80°-90°)  | 175.1  | 1.5       |                         |      | G2/225  |
| BL (0°-30°)    | 570.2  | 4.9       | B2/1000                 |      |         |
| BM (30°-60°)   | 1072.7 | 9.3       | B2/2500                 |      |         |
| BH (60°-80°)   | 504.8  | 4.4       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 86.0   | 0.7       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**

Type IV Short





REPORT NUMBER: P271356

CATALOG NUMBER: XNV2-AF-02-LED-U-T4FT-7027-1200

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°     | 36°     | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|--------|
| 0°    | 1754.6 | 1754.6 | 1754.6 | 1754.6 | 1754.6  | 1754.6  | 1754.6 | 1754.6 | 1754.6 | 1754.6 | 1754.6 |
| 2.5°  | 1687.6 | 1692.0 | 1692.8 | 1697.8 | 1697.8  | 1697.2  | 1699.4 | 1708.1 | 1712.6 | 1722.9 | 1731.8 |
| 5°    | 1604.5 | 1609.6 | 1611.7 | 1620.6 | 1631.6  | 1632.4  | 1640.5 | 1657.5 | 1673.6 | 1696.4 | 1715.6 |
| 7.5°  | 1510.9 | 1516.9 | 1522.7 | 1541.1 | 1557.3  | 1558.7  | 1574.2 | 1601.5 | 1622.8 | 1650.7 | 1685.4 |
| 10°   | 1420.4 | 1421.8 | 1427.8 | 1451.3 | 1472.7  | 1474.8  | 1496.9 | 1527.8 | 1556.6 | 1595.6 | 1634.6 |
| 12.5° | 1346.1 | 1350.5 | 1349.1 | 1366.7 | 1385.0  | 1386.5  | 1416.0 | 1455.1 | 1496.9 | 1541.1 | 1587.5 |
| 15°   | 1320.2 | 1319.6 | 1304.1 | 1303.4 | 1311.4  | 1313.0  | 1341.7 | 1387.3 | 1434.5 | 1488.9 | 1548.5 |
| 17.5° | 1337.9 | 1332.0 | 1291.7 | 1266.6 | 1261.5  | 1262.9  | 1284.2 | 1334.3 | 1384.4 | 1446.9 | 1518.3 |
| 20°   | 1435.1 | 1412.3 | 1317.4 | 1257.1 | 1240.1  | 1240.1  | 1252.6 | 1293.1 | 1348.3 | 1421.2 | 1510.9 |
| 22.5° | 1665.5 | 1630.2 | 1427.8 | 1320.2 | 1260.7  | 1254.8  | 1245.3 | 1276.2 | 1337.2 | 1424.8 | 1541.1 |
| 25°   | 1955.5 | 1938.5 | 1630.2 | 1488.9 | 1366.0  | 1346.7  | 1283.6 | 1294.5 | 1360.0 | 1464.5 | 1623.5 |
| 27.5° | 2224.2 | 2194.6 | 1895.9 | 1734.0 | 1560.3  | 1530.8  | 1396.9 | 1351.9 | 1414.6 | 1538.2 | 1742.8 |
| 30°   | 2380.9 | 2360.9 | 2168.9 | 2014.4 | 1807.5  | 1770.0  | 1578.0 | 1465.3 | 1511.7 | 1659.6 | 1912.0 |
| 32.5° | 2551.6 | 2539.9 | 2442.8 | 2302.1 | 2075.4  | 2032.1  | 1811.9 | 1650.0 | 1660.3 | 1820.8 | 2115.9 |
| 35°   | 2717.3 | 2732.6 | 2677.5 | 2574.5 | 2363.9  | 2323.5  | 2126.2 | 1891.4 | 1843.6 | 2001.9 | 2333.7 |
| 37.5° | 2915.9 | 2919.6 | 2884.9 | 2818.1 | 2667.2  | 2634.0  | 2471.3 | 2149.0 | 2043.0 | 2194.6 | 2544.3 |
| 40°   | 3312.6 | 3254.5 | 3119.1 | 3066.1 | 2976.3  | 2955.7  | 2770.3 | 2385.3 | 2228.5 | 2392.6 | 2743.0 |
| 42.5° | 3741.7 | 3651.2 | 3439.3 | 3352.4 | 3316.4  | 3297.1  | 3018.9 | 2542.8 | 2402.2 | 2590.6 | 2937.9 |
| 45°   | 4087.6 | 4013.9 | 3806.5 | 3699.0 | 3703.4  | 3672.5  | 3236.1 | 2683.3 | 2590.6 | 2789.3 | 3155.8 |
| 47.5° | 4428.4 | 4305.4 | 4072.8 | 4057.5 | 4108.9  | 4063.4  | 3443.7 | 2823.9 | 2787.1 | 3005.6 | 3373.7 |
| 50°   | 4450.5 | 4338.5 | 4244.3 | 4368.0 | 4456.3  | 4399.5  | 3631.9 | 3008.0 | 2990.9 | 3267.8 | 3654.8 |
| 52.5° | 4181.8 | 4165.6 | 4309.1 | 4517.3 | 4663.8  | 4613.1  | 3785.8 | 3197.1 | 3199.3 | 3595.2 | 3997.1 |
| 55°   | 4084.0 | 4063.4 | 4235.5 | 4491.6 | 4689.6  | 4659.4  | 3900.6 | 3410.4 | 3430.4 | 3992.6 | 4364.3 |
| 57.5° | 4248.8 | 4197.2 | 4231.0 | 4443.0 | 4629.2  | 4611.5  | 4019.8 | 3647.5 | 3683.5 | 4450.5 | 4703.5 |
| 60°   | 4760.3 | 4654.9 | 4475.4 | 4515.2 | 4631.5  | 4621.2  | 4190.7 | 3911.7 | 3972.0 | 4927.4 | 4918.5 |
| 62.5° | 5526.5 | 5407.2 | 5041.4 | 4864.9 | 4839.0  | 4819.1  | 4472.5 | 4236.2 | 4266.4 | 5271.8 | 4793.4 |
| 65°   | 6366.8 | 6238.8 | 5803.9 | 5514.6 | 5363.1  | 5320.3  | 4927.4 | 4627.8 | 4438.6 | 5271.1 | 4306.1 |
| 67.5° | 7310.3 | 7175.0 | 6741.5 | 6465.6 | 6301.4  | 6228.5  | 5665.5 | 4944.2 | 4382.7 | 4825.1 | 3445.8 |
| 70°   | 8276.8 | 8147.9 | 7949.2 | 8045.6 | 8117.8  | 8006.7  | 6828.3 | 5049.6 | 3980.8 | 3782.9 | 2313.9 |
| 72.5° | 7763.7 | 7753.5 | 7904.4 | 8818.4 | 10208.7 | 10230.7 | 7989.7 | 4752.2 | 3075.6 | 2248.4 | 1233.6 |
| 73°   | 7287.6 | 7331.0 | 7610.7 | 8704.3 | 10387.6 | 10394.8 | 8012.5 | 4598.3 | 2823.9 | 1937.0 | 1083.4 |
| 75°   | 3775.5 | 4070.0 | 5107.7 | 7058.0 | 9618.4  | 9652.9  | 7063.2 | 3481.1 | 1683.2 | 1076.0 | 730.1  |
| 77.5° | 1011.2 | 997.9  | 1645.7 | 3438.4 | 6412.6  | 6366.8  | 4462.9 | 1685.4 | 806.6  | 674.8  | 512.3  |
| 80°   | 346.7  | 351.1  | 560.1  | 1257.7 | 2993.2  | 3100.0  | 1937.0 | 735.3  | 530.5  | 470.4  | 362.8  |
| 82.5° | 176.6  | 182.5  | 292.8  | 535.0  | 1251.9  | 1225.4  | 623.3  | 432.8  | 355.5  | 285.5  | 203.1  |
| 85°   | 94.2   | 97.1   | 161.2  | 277.4  | 459.3   | 464.5   | 219.4  | 231.1  | 226.0  | 162.0  | 100.2  |
| 87.5° | 46.4   | 47.8   | 77.3   | 122.2  | 170.0   | 164.1   | 76.5   | 100.2  | 111.1  | 91.3   | 55.2   |
| 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: P271356

CATALOG NUMBER: XNV2-AF-02-LED-U-T4FT-7027-1200

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1754.6 | 1754.6 | 1754.6 | 1754.6 | 1754.6 | 1754.6 | 1754.6 | 1754.6 | 1754.6 | 1754.6 | 1754.6 |
| 2.5°  | 1742.8 | 1742.8 | 1752.4 | 1768.6 | 1780.4 | 1791.4 | 1798.8 | 1810.4 | 1817.1 | 1816.4 | 1815.7 |
| 5°    | 1731.0 | 1738.4 | 1757.5 | 1777.3 | 1790.6 | 1799.5 | 1799.5 | 1804.7 | 1804.7 | 1802.4 | 1799.5 |
| 7.5°  | 1703.7 | 1716.3 | 1744.2 | 1761.9 | 1765.6 | 1756.0 | 1737.0 | 1722.2 | 1703.7 | 1694.3 | 1690.5 |
| 10°   | 1660.3 | 1676.5 | 1711.9 | 1720.0 | 1700.9 | 1667.0 | 1620.6 | 1580.8 | 1545.5 | 1529.4 | 1524.2 |
| 12.5° | 1617.7 | 1639.0 | 1672.1 | 1659.6 | 1614.0 | 1547.7 | 1476.4 | 1421.8 | 1382.1 | 1366.7 | 1361.6 |
| 15°   | 1582.4 | 1608.1 | 1633.8 | 1594.9 | 1515.4 | 1423.4 | 1344.7 | 1293.7 | 1263.6 | 1251.9 | 1249.0 |
| 17.5° | 1558.7 | 1588.9 | 1597.7 | 1525.0 | 1414.6 | 1311.4 | 1241.5 | 1208.5 | 1195.3 | 1190.1 | 1188.5 |
| 20°   | 1560.3 | 1594.1 | 1572.8 | 1457.2 | 1317.4 | 1213.6 | 1167.3 | 1157.6 | 1157.6 | 1157.6 | 1156.9 |
| 22.5° | 1600.7 | 1630.2 | 1562.4 | 1393.9 | 1223.9 | 1131.1 | 1111.4 | 1119.4 | 1125.2 | 1125.2 | 1124.6 |
| 25°   | 1684.6 | 1700.9 | 1569.8 | 1332.8 | 1136.4 | 1059.8 | 1060.4 | 1076.0 | 1081.1 | 1081.1 | 1079.7 |
| 27.5° | 1812.7 | 1799.5 | 1583.1 | 1265.2 | 1050.2 | 995.1  | 1005.4 | 1019.3 | 1023.0 | 1020.8 | 1020.0 |
| 30°   | 1973.1 | 1920.1 | 1594.1 | 1185.7 | 969.4  | 934.6  | 943.5  | 951.7  | 948.7  | 943.5  | 942.9  |
| 32.5° | 2152.7 | 2043.0 | 1587.5 | 1096.7 | 897.9  | 872.2  | 877.3  | 881.6  | 877.3  | 864.8  | 864.8  |
| 35°   | 2330.8 | 2154.1 | 1551.5 | 999.5  | 841.3  | 811.8  | 811.0  | 825.1  | 824.3  | 809.6  | 810.4  |
| 37.5° | 2486.9 | 2241.8 | 1481.6 | 910.4  | 792.7  | 767.6  | 770.6  | 779.4  | 783.9  | 764.0  | 761.8  |
| 40°   | 2623.1 | 2302.1 | 1382.9 | 834.5  | 753.7  | 755.1  | 747.0  | 733.0  | 727.8  | 719.1  | 717.6  |
| 42.5° | 2751.1 | 2344.0 | 1278.4 | 771.4  | 733.7  | 750.8  | 723.5  | 690.3  | 676.3  | 684.5  | 689.5  |
| 45°   | 2876.9 | 2391.2 | 1177.6 | 719.1  | 708.8  | 737.5  | 699.9  | 663.0  | 646.9  | 650.6  | 655.8  |
| 47.5° | 3030.7 | 2456.7 | 1056.0 | 663.0  | 670.5  | 713.2  | 685.1  | 645.4  | 621.2  | 606.4  | 602.0  |
| 50°   | 3233.1 | 2551.6 | 898.7  | 602.8  | 630.0  | 686.7  | 672.7  | 619.7  | 593.2  | 563.7  | 556.4  |
| 52.5° | 3486.3 | 2641.3 | 739.7  | 554.2  | 596.8  | 663.8  | 652.1  | 597.6  | 565.3  | 529.9  | 524.0  |
| 55°   | 3738.7 | 2654.0 | 602.8  | 512.3  | 559.4  | 632.9  | 627.0  | 579.9  | 534.3  | 505.7  | 499.7  |
| 57.5° | 3915.4 | 2535.5 | 510.7  | 476.9  | 523.3  | 594.7  | 604.2  | 558.6  | 508.6  | 486.5  | 482.7  |
| 60°   | 3918.2 | 2252.1 | 454.8  | 453.4  | 496.0  | 561.5  | 580.7  | 533.6  | 492.5  | 477.7  | 474.8  |
| 62.5° | 3607.1 | 1814.8 | 418.8  | 435.7  | 476.2  | 534.3  | 563.0  | 519.6  | 488.7  | 482.7  | 479.9  |
| 65°   | 3023.3 | 1340.9 | 390.0  | 419.5  | 457.7  | 511.6  | 548.2  | 515.2  | 487.2  | 485.1  | 482.7  |
| 67.5° | 2232.2 | 919.2  | 365.8  | 398.8  | 437.1  | 488.0  | 534.3  | 508.6  | 478.3  | 487.2  | 484.2  |
| 70°   | 1404.2 | 613.8  | 343.0  | 375.3  | 409.9  | 460.7  | 515.8  | 496.9  | 467.4  | 462.2  | 452.7  |
| 72.5° | 792.7  | 443.9  | 315.8  | 345.2  | 374.7  | 424.7  | 491.0  | 476.9  | 442.3  | 421.8  | 412.1  |
| 73°   | 716.0  | 420.2  | 309.0  | 337.9  | 366.5  | 417.4  | 485.1  | 471.0  | 435.0  | 412.1  | 403.2  |
| 75°   | 524.0  | 343.7  | 279.0  | 307.6  | 332.6  | 383.4  | 457.1  | 441.5  | 402.6  | 375.3  | 369.5  |
| 77.5° | 379.8  | 264.9  | 239.9  | 265.7  | 287.7  | 336.3  | 415.0  | 397.4  | 359.1  | 344.4  | 338.5  |
| 80°   | 273.8  | 201.0  | 198.7  | 223.8  | 242.9  | 292.2  | 370.2  | 351.7  | 314.9  | 358.5  | 348.8  |
| 82.5° | 163.4  | 128.7  | 145.7  | 173.7  | 193.6  | 245.1  | 321.7  | 300.3  | 264.9  | 267.9  | 228.2  |
| 85°   | 78.1   | 72.9   | 90.5   | 114.1  | 128.1  | 167.9  | 267.9  | 250.9  | 212.0  | 173.7  | 170.0  |
| 87.5° | 34.6   | 33.1   | 43.4   | 50.8   | 68.5   | 100.8  | 183.3  | 162.7  | 153.8  | 91.9   | 72.1   |
| 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)