

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: P195849

Luminaire Tested: **NVN-AF-03-LED-U-T3R-7050-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195849  
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: NVN-AF-03-LED-U-T3R-7050-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 5000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14886 lumens  
Efficiency: N/A  
Efficacy: 120.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type III - Medium - Full Cutoff  
BUG Rating: B2 - U0 - G3

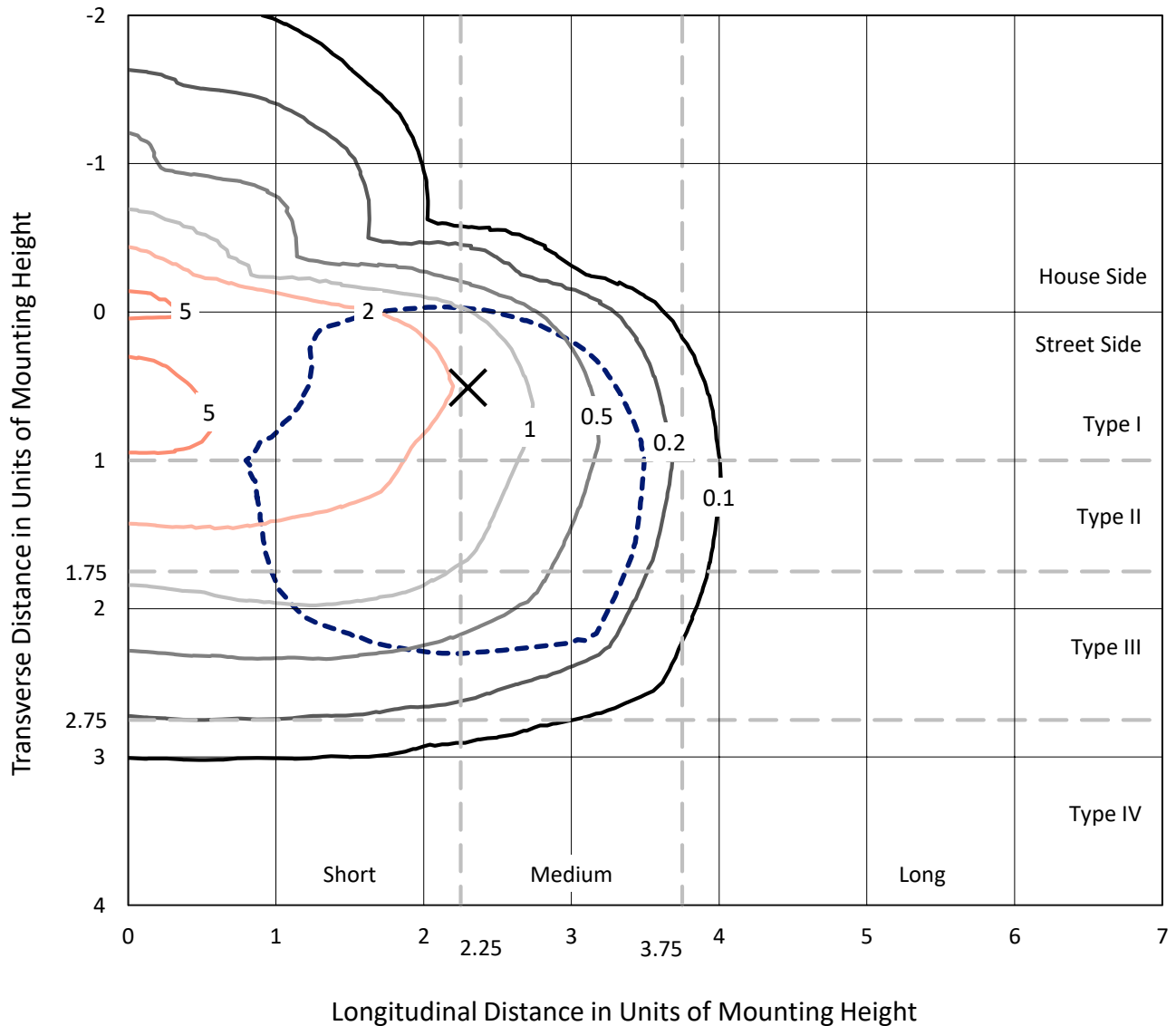
Input Watts (W): 124  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

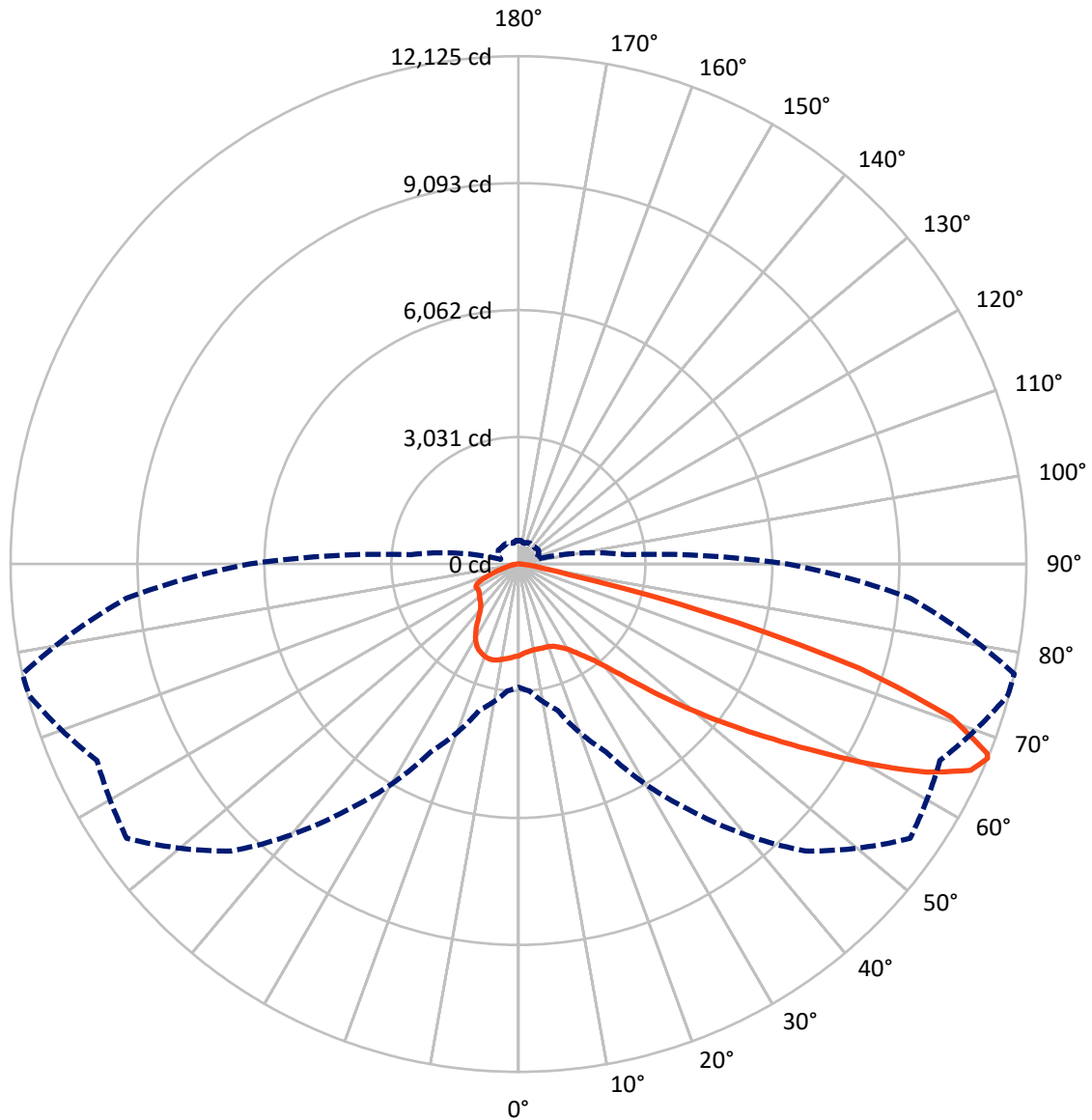
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.6 fc  
 Type III - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2558.2   | 0.0    | 2558.2  |
|                    | % Fixture | 17.2     | 0.0    | 17.2    |
| <b>Street Side</b> | Lumens    | 12327.8  | 0.0    | 12327.8 |
|                    | % Fixture | 82.8     | 0.0    | 82.8    |
| <b>Total</b>       | Lumens    | 14886.0  | 0.0    | 14886.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 195.1   | 1.3       |
| 10°-20°   | 540.4   | 3.6       |
| 20°-30°   | 918.1   | 6.2       |
| 30°-40°   | 1468.8  | 9.9       |
| 40°-50°   | 2261.2  | 15.2      |
| 50°-60°   | 3137.3  | 21.1      |
| 60°-70°   | 4184.9  | 28.1      |
| 70°-80°   | 1991.6  | 13.4      |
| 80°-90°   | 188.6   | 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°    | 14886.0 | 100.0     |
| 0°-180°   | 14886.0 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P195849

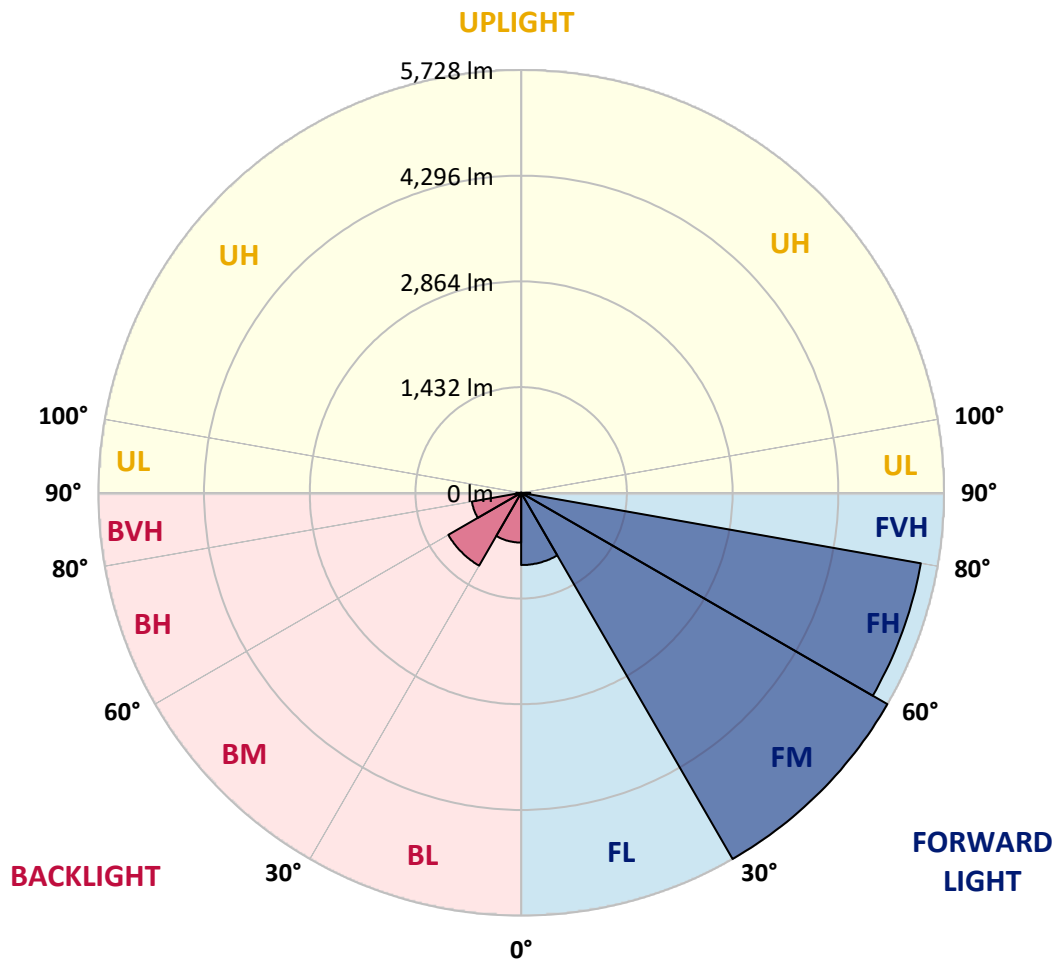
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 978.9  | 6.6       |                         |      |         |
| FM   | (30°-60°)   | 5728.3 | 38.5      |                         |      |         |
| FH   | (60°-80°)   | 5498.2 | 36.9      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 122.5  | 0.8       |                         |      | G2/225  |
| BL   | (0°-30°)    | 674.7  | 4.5       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1139.0 | 7.7       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 678.3  | 4.6       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 66.1   | 0.4       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G3**

Type III Medium





REPORT NUMBER: P195849

CATALOG NUMBER: NVN-AF-03-LED-U-T3R-7050-800

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°     | 65°     | 75°     | 77.5°   | 85°    |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|
| 0°    | 2190.8 | 2190.8 | 2190.8 | 2190.8 | 2190.8 | 2190.8 | 2190.8  | 2190.8  | 2190.8  | 2190.8  | 2190.8 |
| 2.5°  | 1964.5 | 1973.7 | 1974.6 | 2001.3 | 2013.2 | 2043.6 | 2076.7  | 2106.2  | 2131.9  | 2141.1  | 2157.7 |
| 5°    | 1767.6 | 1767.6 | 1770.3 | 1787.8 | 1821.9 | 1870.6 | 1939.6  | 2015.1  | 2094.2  | 2113.5  | 2162.3 |
| 7.5°  | 1664.5 | 1666.4 | 1668.2 | 1685.7 | 1712.4 | 1755.6 | 1824.6  | 1927.7  | 2059.2  | 2091.5  | 2177.0 |
| 10°   | 1673.7 | 1671.0 | 1661.8 | 1658.1 | 1669.1 | 1696.7 | 1756.5  | 1862.3  | 2029.8  | 2079.5  | 2203.7 |
| 12.5° | 1818.2 | 1812.7 | 1782.3 | 1738.1 | 1697.6 | 1687.5 | 1728.9  | 1829.2  | 2016.0  | 2079.5  | 2248.8 |
| 15°   | 2065.7 | 2069.4 | 2009.6 | 1917.5 | 1811.7 | 1740.0 | 1734.4  | 1817.3  | 2011.4  | 2085.0  | 2301.2 |
| 17.5° | 2387.7 | 2389.6 | 2306.8 | 2173.3 | 1997.6 | 1849.5 | 1772.2  | 1817.3  | 2011.4  | 2090.5  | 2351.9 |
| 20°   | 2730.0 | 2717.1 | 2623.3 | 2455.8 | 2227.6 | 2001.3 | 1841.2  | 1828.3  | 2016.9  | 2098.8  | 2399.7 |
| 22.5° | 3023.5 | 3011.6 | 2913.1 | 2737.4 | 2476.1 | 2180.7 | 1934.1  | 1865.1  | 2047.3  | 2132.9  | 2466.9 |
| 25°   | 3280.3 | 3287.6 | 3191.9 | 2994.1 | 2723.6 | 2383.1 | 2073.1  | 1949.8  | 2110.8  | 2194.5  | 2549.7 |
| 27.5° | 3592.2 | 3578.4 | 3468.0 | 3279.3 | 2978.5 | 2592.9 | 2247.0  | 2056.5  | 2186.2  | 2269.0  | 2650.9 |
| 30°   | 3952.9 | 3946.4 | 3797.4 | 3603.2 | 3259.1 | 2827.6 | 2419.0  | 2171.5  | 2284.7  | 2371.2  | 2777.9 |
| 32.5° | 4390.9 | 4389.9 | 4229.8 | 3991.5 | 3574.7 | 3092.6 | 2622.4  | 2328.8  | 2428.2  | 2515.6  | 2946.3 |
| 35°   | 4886.8 | 4885.9 | 4720.3 | 4405.6 | 3938.2 | 3386.1 | 2861.6  | 2520.2  | 2605.8  | 2697.8  | 3146.8 |
| 37.5° | 5230.9 | 5225.4 | 5138.9 | 4833.4 | 4340.3 | 3727.4 | 3160.6  | 2777.9  | 2807.3  | 2910.4  | 3388.8 |
| 40°   | 5297.2 | 5330.3 | 5404.8 | 5224.5 | 4779.2 | 4106.5 | 3460.6  | 3054.8  | 3082.4  | 3214.9  | 3693.4 |
| 42.5° | 5225.4 | 5268.7 | 5516.2 | 5566.8 | 5218.1 | 4565.7 | 3836.0  | 3438.5  | 3473.5  | 3638.2  | 4051.3 |
| 45°   | 5162.8 | 5200.6 | 5510.7 | 5756.3 | 5651.4 | 5066.2 | 4304.4  | 3906.9  | 3973.1  | 4177.4  | 4459.9 |
| 47.5° | 5056.1 | 5091.1 | 5402.1 | 5790.4 | 5898.9 | 5548.4 | 4868.4  | 4470.0  | 4584.1  | 4831.6  | 4925.5 |
| 50°   | 5050.6 | 5066.2 | 5253.9 | 5676.3 | 5984.5 | 5914.6 | 5493.2  | 5128.8  | 5303.6  | 5588.9  | 5440.7 |
| 52.5° | 4910.7 | 5020.2 | 5190.4 | 5494.1 | 5986.4 | 6128.1 | 6108.7  | 5851.1  | 6120.7  | 6436.3  | 6005.7 |
| 55°   | 4055.0 | 4181.1 | 4978.8 | 5404.8 | 5975.3 | 6311.2 | 6670.9  | 6619.4  | 7040.8  | 7373.0  | 6638.7 |
| 57.5° | 3786.3 | 3839.7 | 4367.9 | 5431.5 | 6067.3 | 6613.9 | 7233.1  | 7444.8  | 8093.5  | 8456.0  | 7397.8 |
| 60°   | 3712.7 | 3768.8 | 4245.5 | 5444.4 | 6316.7 | 7165.0 | 7995.9  | 8376.9  | 9331.0  | 9715.6  | 8260.0 |
| 62.5° | 3630.8 | 3703.5 | 4254.7 | 5456.4 | 6754.7 | 7980.3 | 9008.1  | 9388.1  | 10601.7 | 10944.9 | 9067.9 |
| 65°   | 3391.6 | 3488.2 | 4084.5 | 5380.9 | 7234.1 | 9003.5 | 10345.9 | 10442.5 | 11651.6 | 11869.7 | 9555.5 |
| 67°   | 2938.0 | 3043.8 | 3617.0 | 4944.8 | 7189.9 | 9692.6 | 11416.0 | 11102.3 | 12097.9 | 12124.5 | 9397.3 |
| 67.5° | 2794.4 | 2903.9 | 3458.8 | 4763.5 | 7063.8 | 9782.8 | 11605.6 | 11193.4 | 12094.2 | 12064.7 | 9250.1 |
| 70°   | 1881.7 | 2005.0 | 2449.4 | 3497.4 | 5666.2 | 9104.7 | 11559.6 | 10912.7 | 11301.0 | 10963.3 | 7947.2 |
| 72.5° | 933.9  | 937.6  | 1221.9 | 1915.7 | 3433.0 | 6530.2 | 9643.0  | 9335.6  | 9160.8  | 8523.2  | 5831.8 |
| 75°   | 449.9  | 458.2  | 576.9  | 846.5  | 1447.4 | 3371.4 | 6576.2  | 6299.2  | 5363.4  | 4643.9  | 2918.7 |
| 77.5° | 343.2  | 351.5  | 448.1  | 551.2  | 603.6  | 1099.6 | 3257.3  | 2632.5  | 1554.1  | 1241.3  | 822.6  |
| 80°   | 265.0  | 280.6  | 378.2  | 423.3  | 399.3  | 440.7  | 1024.1  | 806.0   | 604.5   | 554.8   | 407.6  |
| 82.5° | 207.0  | 216.2  | 321.1  | 321.1  | 276.0  | 295.4  | 476.6   | 465.6   | 375.4   | 338.6   | 219.0  |
| 85°   | 146.3  | 164.7  | 258.6  | 239.2  | 181.3  | 183.1  | 285.2   | 273.3   | 193.2   | 155.5   | 85.6   |
| 87.5° | 65.3   | 83.7   | 184.0  | 156.4  | 96.6   | 74.5   | 116.9   | 100.3   | 76.4    | 58.9    | 39.6   |
| 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: P195849

CATALOG NUMBER: NVN-AF-03-LED-U-T3R-7050-800

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2190.8 | 2190.8 | 2190.8 | 2190.8 | 2190.8 | 2190.8 | 2190.8 | 2190.8 | 2190.8 | 2190.8 | 2190.8 |
| 2.5°  | 2176.1 | 2190.8 | 2213.8 | 2227.6 | 2246.0 | 2253.4 | 2260.8 | 2273.6 | 2283.8 | 2281.0 | 2276.4 |
| 5°    | 2196.3 | 2221.2 | 2249.7 | 2258.9 | 2258.9 | 2249.7 | 2244.2 | 2245.1 | 2242.4 | 2240.5 | 2235.0 |
| 7.5°  | 2225.8 | 2259.8 | 2280.1 | 2270.9 | 2242.4 | 2206.5 | 2172.4 | 2152.2 | 2132.9 | 2120.9 | 2124.6 |
| 10°   | 2267.2 | 2304.9 | 2305.8 | 2265.4 | 2197.3 | 2119.1 | 2051.9 | 2008.6 | 1967.2 | 1948.8 | 1954.4 |
| 12.5° | 2327.0 | 2364.7 | 2332.5 | 2245.1 | 2125.5 | 2003.1 | 1879.8 | 1790.6 | 1710.5 | 1691.2 | 1685.7 |
| 15°   | 2391.4 | 2420.9 | 2349.1 | 2201.9 | 2022.4 | 1820.9 | 1613.9 | 1480.5 | 1391.2 | 1375.6 | 1370.1 |
| 17.5° | 2447.5 | 2464.1 | 2340.8 | 2124.6 | 1859.6 | 1542.1 | 1301.1 | 1210.9 | 1192.5 | 1201.7 | 1201.7 |
| 20°   | 2497.2 | 2491.7 | 2304.9 | 2005.0 | 1602.9 | 1233.0 | 1093.1 | 1092.2 | 1117.0 | 1140.0 | 1141.9 |
| 22.5° | 2559.8 | 2516.6 | 2247.9 | 1827.4 | 1296.5 | 1028.7 | 1004.8 | 1028.7 | 1056.3 | 1082.1 | 1084.8 |
| 25°   | 2634.3 | 2544.2 | 2171.5 | 1574.3 | 1042.5 | 933.9  | 944.1  | 964.3  | 981.8  | 1002.0 | 1002.9 |
| 27.5° | 2708.9 | 2565.3 | 2063.9 | 1277.1 | 904.5  | 873.2  | 884.2  | 892.5  | 897.1  | 910.0  | 910.0  |
| 30°   | 2795.4 | 2581.9 | 1908.3 | 1023.2 | 841.0  | 819.8  | 813.4  | 809.7  | 813.4  | 830.9  | 831.8  |
| 32.5° | 2903.9 | 2611.3 | 1695.8 | 877.8  | 811.6  | 782.1  | 749.0  | 730.6  | 743.5  | 774.7  | 780.3  |
| 35°   | 3027.2 | 2646.3 | 1440.9 | 819.8  | 801.4  | 763.7  | 703.0  | 674.5  | 679.1  | 707.6  | 712.2  |
| 37.5° | 3181.8 | 2691.4 | 1189.7 | 806.0  | 811.6  | 761.9  | 681.8  | 641.3  | 621.1  | 622.0  | 621.1  |
| 40°   | 3379.6 | 2736.5 | 991.0  | 809.7  | 833.6  | 766.5  | 671.7  | 608.2  | 565.9  | 567.7  | 571.4  |
| 42.5° | 3586.7 | 2765.9 | 864.9  | 820.8  | 860.3  | 772.9  | 668.0  | 576.0  | 539.2  | 570.5  | 599.0  |
| 45°   | 3828.7 | 2757.6 | 799.6  | 830.9  | 880.6  | 775.7  | 654.2  | 572.3  | 542.0  | 635.8  | 689.2  |
| 47.5° | 4106.5 | 2721.7 | 762.8  | 835.5  | 886.1  | 774.7  | 644.1  | 584.3  | 565.0  | 727.8  | 788.6  |
| 50°   | 4408.3 | 2665.6 | 733.3  | 828.1  | 883.3  | 771.1  | 655.1  | 599.0  | 574.2  | 748.1  | 795.0  |
| 52.5° | 4738.7 | 2614.1 | 703.0  | 811.6  | 869.5  | 760.0  | 668.9  | 592.6  | 548.4  | 689.2  | 725.1  |
| 55°   | 5129.7 | 2602.1 | 668.9  | 783.0  | 846.5  | 748.1  | 661.6  | 572.3  | 519.9  | 611.0  | 633.0  |
| 57.5° | 5576.9 | 2676.7 | 624.8  | 748.1  | 815.2  | 724.1  | 644.1  | 561.3  | 509.8  | 555.8  | 567.7  |
| 60°   | 6144.6 | 2841.4 | 577.8  | 711.3  | 776.6  | 688.3  | 628.4  | 564.0  | 512.5  | 547.5  | 550.2  |
| 62.5° | 6588.1 | 2989.5 | 535.5  | 666.2  | 725.1  | 645.0  | 611.9  | 566.8  | 520.8  | 558.5  | 553.9  |
| 65°   | 6749.1 | 2916.8 | 483.1  | 599.0  | 652.4  | 597.2  | 588.9  | 568.6  | 520.8  | 565.0  | 554.8  |
| 67°   | 6418.8 | 2569.9 | 433.4  | 531.8  | 583.4  | 554.8  | 566.8  | 561.3  | 511.6  | 564.0  | 546.6  |
| 67.5° | 6261.5 | 2447.5 | 420.5  | 520.8  | 565.0  | 542.0  | 561.3  | 557.6  | 508.8  | 562.2  | 542.0  |
| 70°   | 5163.8 | 1755.6 | 355.2  | 437.1  | 472.9  | 477.5  | 527.2  | 533.7  | 486.7  | 528.2  | 491.3  |
| 72.5° | 3674.1 | 1098.6 | 306.4  | 338.6  | 381.9  | 408.5  | 481.2  | 501.5  | 457.3  | 459.1  | 428.8  |
| 75°   | 1818.2 | 589.8  | 273.3  | 261.3  | 297.2  | 340.4  | 419.6  | 457.3  | 414.1  | 382.8  | 372.7  |
| 77.5° | 613.7  | 334.0  | 231.0  | 210.7  | 231.0  | 273.3  | 347.8  | 399.3  | 365.3  | 323.9  | 317.4  |
| 80°   | 317.4  | 242.9  | 180.3  | 169.3  | 182.2  | 211.6  | 272.4  | 332.2  | 311.9  | 313.8  | 258.6  |
| 82.5° | 197.8  | 148.1  | 129.7  | 128.8  | 138.0  | 161.9  | 200.6  | 269.6  | 267.8  | 229.1  | 166.5  |
| 85°   | 92.0   | 85.6   | 82.8   | 85.6   | 88.3   | 92.0   | 130.7  | 192.3  | 203.3  | 123.3  | 109.5  |
| 87.5° | 38.6   | 37.7   | 33.1   | 35.9   | 39.6   | 38.6   | 52.4   | 81.9   | 114.1  | 77.3   | 70.8   |
| 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)