

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: P195363

Luminaire Tested: **NVN-AF-03-LED-U-T3R-7060-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195363
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-7060-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 5700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12139 lumens
Efficiency: N/A
Efficacy: 126.4 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 - G2

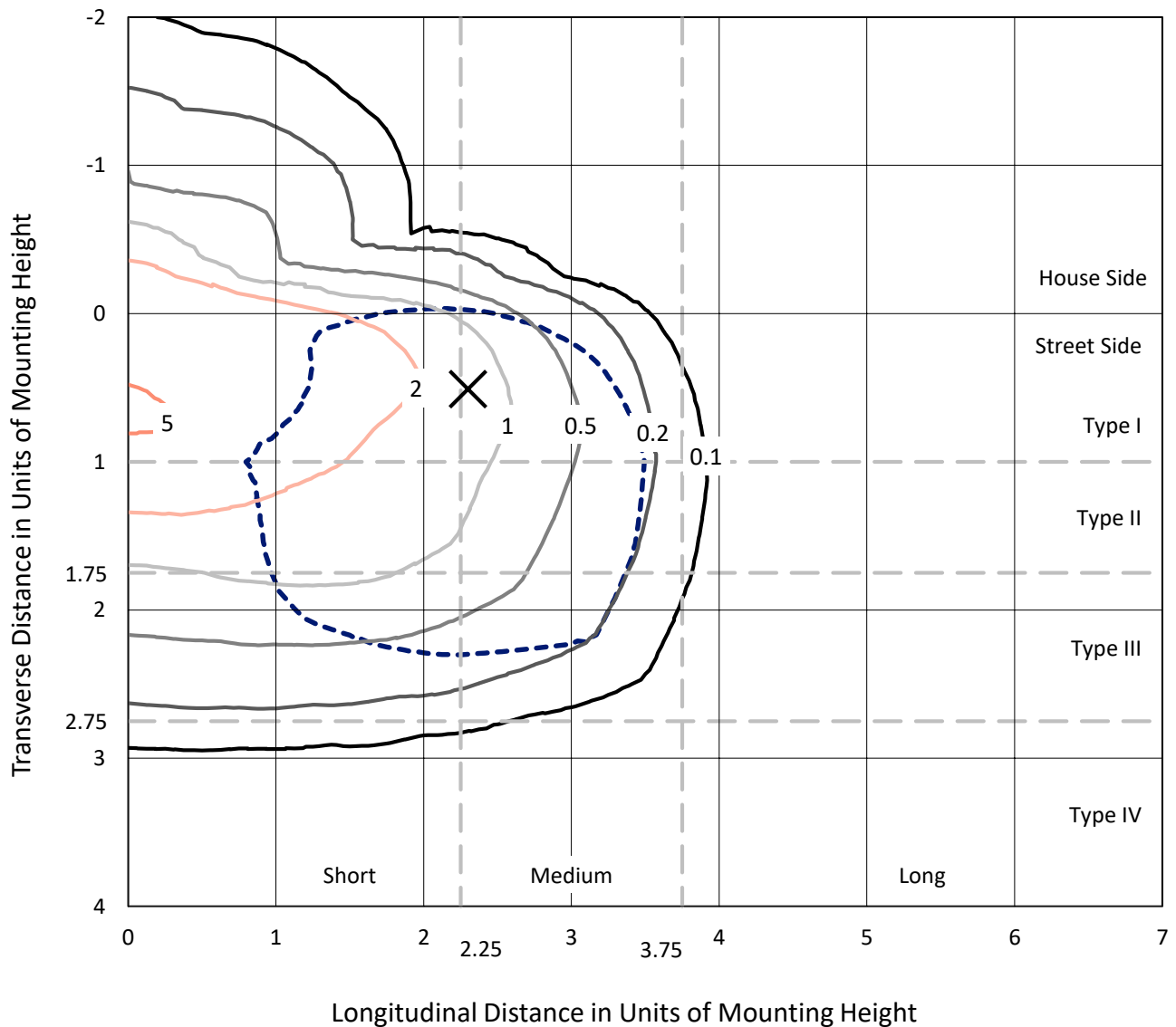
Input Watts (W): 96
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

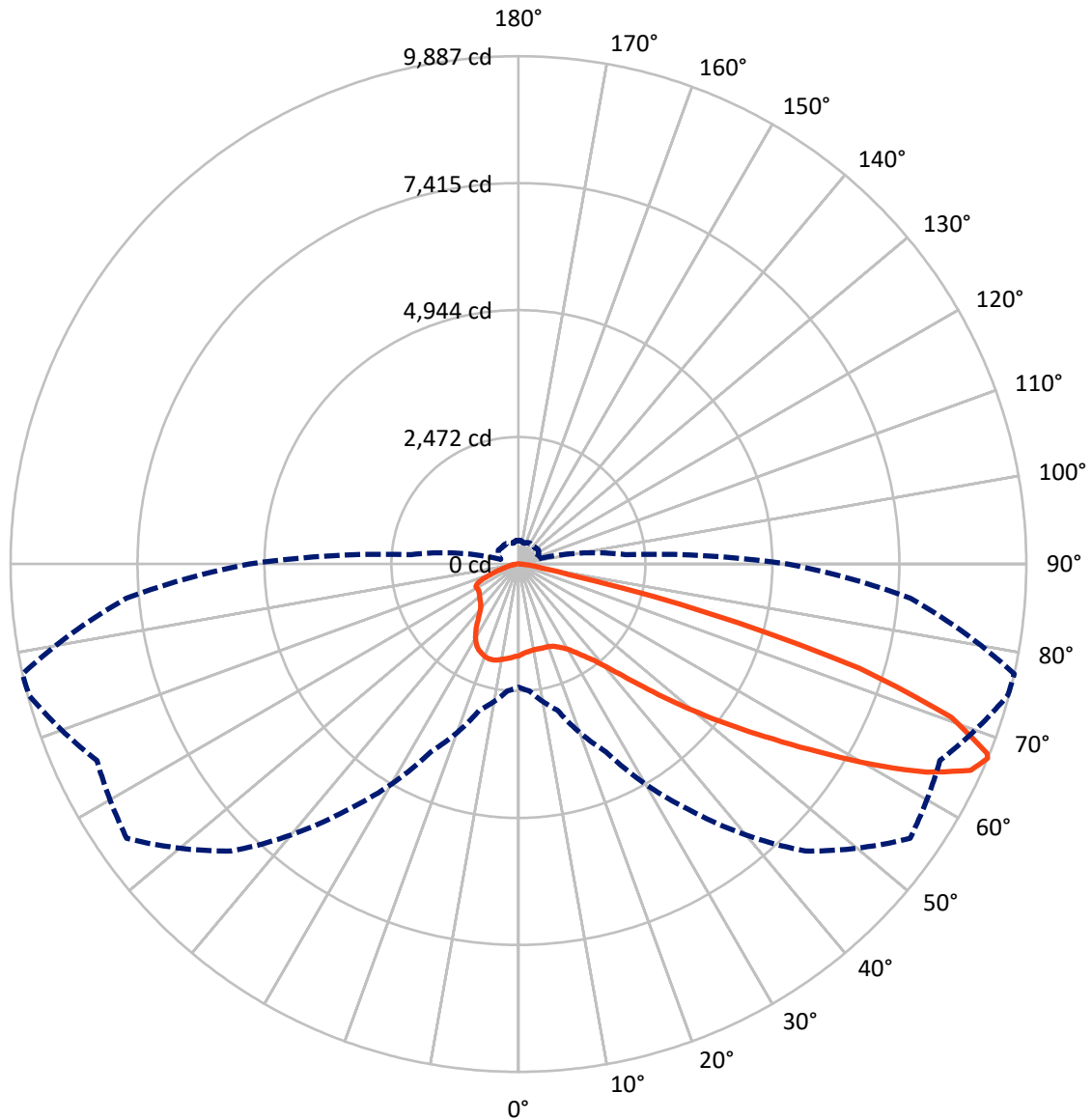
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.4 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 |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2086.1 | 0.0 | 2086.1 |
| | % Fixture | 17.2 | 0.0 | 17.2 |
| Street Side | Lumens | 10052.9 | 0.0 | 10052.9 |
| | % Fixture | 82.8 | 0.0 | 82.8 |
| Total | Lumens | 12139.0 | 0.0 | 12139.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 159.1 | 1.3 |
| 10°-20° | 440.7 | 3.6 |
| 20°-30° | 748.7 | 6.2 |
| 30°-40° | 1197.8 | 9.9 |
| 40°-50° | 1844.0 | 15.2 |
| 50°-60° | 2558.3 | 21.1 |
| 60°-70° | 3412.6 | 28.1 |
| 70°-80° | 1624.1 | 13.4 |
| 80°-90° | 153.8 | 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° | 12139.0 | 100.0 |
| 0°-180° | 12139.0 | 100.0 |

Coefficient of Utilization



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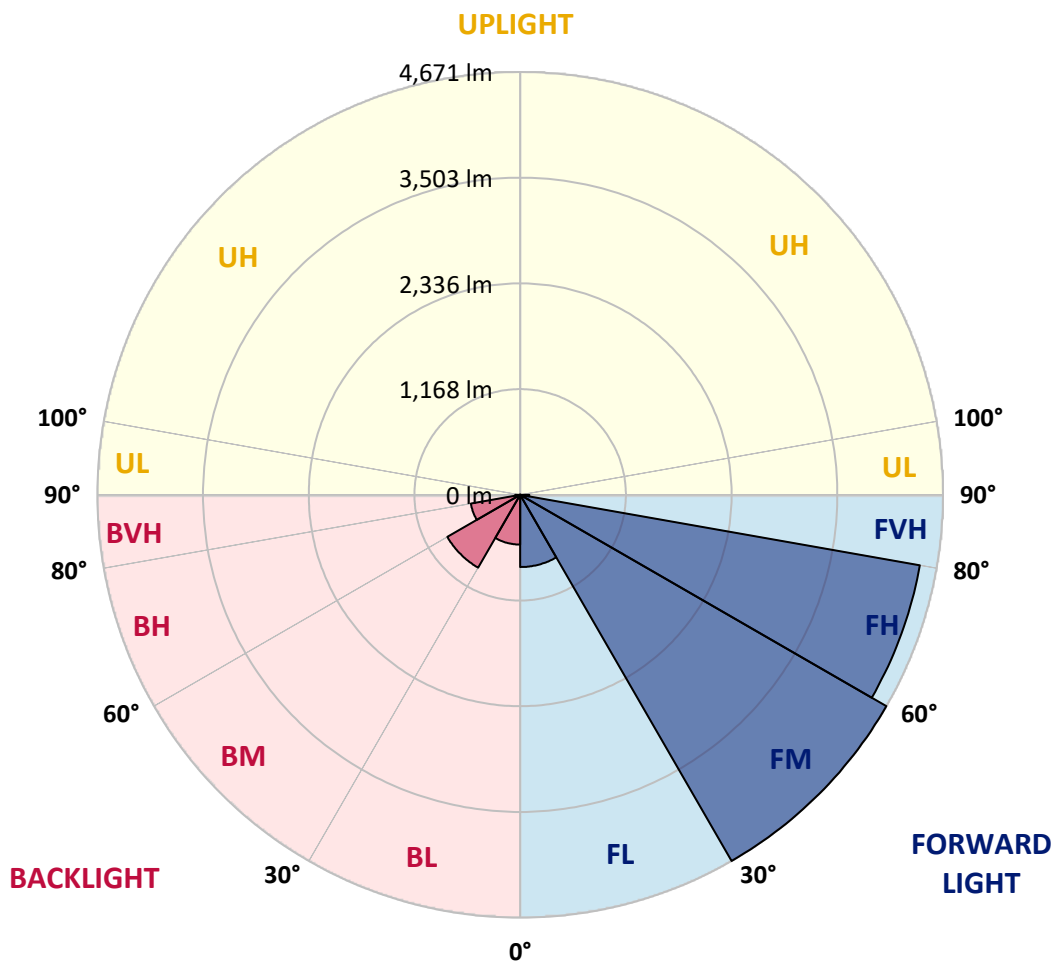
CATALOG NUMBER: NVN-AF-03-LED-U-T3R-7060-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 798.3 | 6.6 | | | |
| FM | (30°-60°) | 4671.2 | 38.5 | | | |
| FH | (60°-80°) | 4483.6 | 36.9 | | | G2/5000 |
| FVH | (80°-90°) | 99.9 | 0.8 | | | G1/100 |
| BL | (0°-30°) | 550.2 | 4.5 | B2/1000 | | |
| BM | (30°-60°) | 928.8 | 7.7 | B1/1000 | | |
| BH | (60°-80°) | 553.1 | 4.6 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 53.9 | 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-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 77.5° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1786.5 | 1786.5 | 1786.5 | 1786.5 | 1786.5 | 1786.5 | 1786.5 | 1786.5 | 1786.5 | 1786.5 | 1786.5 |
| 2.5° | 1602.0 | 1609.5 | 1610.2 | 1632.0 | 1641.7 | 1666.5 | 1693.5 | 1717.5 | 1738.5 | 1746.0 | 1759.5 |
| 5° | 1441.4 | 1441.4 | 1443.6 | 1457.9 | 1485.7 | 1525.4 | 1581.7 | 1643.2 | 1707.8 | 1723.5 | 1763.3 |
| 7.5° | 1357.4 | 1358.9 | 1360.4 | 1374.6 | 1396.4 | 1431.6 | 1487.9 | 1571.9 | 1679.2 | 1705.5 | 1775.3 |
| 10° | 1364.9 | 1362.6 | 1355.1 | 1352.1 | 1361.1 | 1383.6 | 1432.4 | 1518.7 | 1655.2 | 1695.8 | 1797.0 |
| 12.5° | 1482.7 | 1478.2 | 1453.4 | 1417.4 | 1384.4 | 1376.1 | 1409.9 | 1491.7 | 1644.0 | 1695.8 | 1833.8 |
| 15° | 1684.5 | 1687.5 | 1638.7 | 1563.7 | 1477.4 | 1418.9 | 1414.4 | 1481.9 | 1640.2 | 1700.3 | 1876.6 |
| 17.5° | 1947.1 | 1948.6 | 1881.1 | 1772.3 | 1629.0 | 1508.2 | 1445.1 | 1481.9 | 1640.2 | 1704.8 | 1917.9 |
| 20° | 2226.2 | 2215.7 | 2139.2 | 2002.6 | 1816.6 | 1632.0 | 1501.4 | 1490.9 | 1644.7 | 1711.5 | 1956.9 |
| 22.5° | 2465.6 | 2455.8 | 2375.6 | 2232.2 | 2019.1 | 1778.3 | 1577.2 | 1520.9 | 1669.5 | 1739.3 | 2011.6 |
| 25° | 2674.9 | 2680.9 | 2602.9 | 2441.6 | 2221.0 | 1943.4 | 1690.5 | 1590.0 | 1721.3 | 1789.5 | 2079.2 |
| 27.5° | 2929.3 | 2918.0 | 2828.0 | 2674.2 | 2428.8 | 2114.4 | 1832.3 | 1677.0 | 1782.8 | 1850.3 | 2161.7 |
| 30° | 3223.4 | 3218.2 | 3096.6 | 2938.3 | 2657.7 | 2305.8 | 1972.6 | 1770.8 | 1863.1 | 1933.6 | 2265.3 |
| 32.5° | 3580.6 | 3579.8 | 3449.3 | 3254.9 | 2915.0 | 2521.9 | 2138.4 | 1899.1 | 1980.1 | 2051.4 | 2402.6 |
| 35° | 3985.0 | 3984.3 | 3849.2 | 3592.6 | 3211.4 | 2761.2 | 2333.5 | 2055.2 | 2124.9 | 2200.0 | 2566.1 |
| 37.5° | 4265.6 | 4261.1 | 4190.6 | 3941.5 | 3539.3 | 3039.6 | 2577.4 | 2265.3 | 2289.3 | 2373.3 | 2763.5 |
| 40° | 4319.7 | 4346.7 | 4407.5 | 4260.4 | 3897.2 | 3348.7 | 2822.0 | 2491.1 | 2513.6 | 2621.7 | 3011.8 |
| 42.5° | 4261.1 | 4296.4 | 4498.2 | 4539.5 | 4255.1 | 3723.2 | 3128.1 | 2804.0 | 2832.5 | 2966.8 | 3303.7 |
| 45° | 4210.1 | 4240.9 | 4493.7 | 4694.1 | 4608.5 | 4131.3 | 3510.1 | 3185.9 | 3239.9 | 3406.5 | 3636.9 |
| 47.5° | 4123.1 | 4151.6 | 4405.2 | 4721.8 | 4810.4 | 4524.5 | 3970.0 | 3645.1 | 3738.2 | 3940.0 | 4016.5 |
| 50° | 4118.6 | 4131.3 | 4284.4 | 4628.8 | 4880.2 | 4823.1 | 4479.5 | 4182.4 | 4324.9 | 4557.5 | 4436.7 |
| 52.5° | 4004.5 | 4093.8 | 4232.6 | 4480.2 | 4881.7 | 4997.2 | 4981.5 | 4771.4 | 4991.2 | 5248.6 | 4897.4 |
| 55° | 3306.7 | 3409.5 | 4060.0 | 4407.5 | 4872.7 | 5146.5 | 5439.9 | 5397.9 | 5741.5 | 6012.4 | 5413.6 |
| 57.5° | 3087.6 | 3131.1 | 3561.8 | 4429.2 | 4947.7 | 5393.4 | 5898.4 | 6070.9 | 6599.9 | 6895.6 | 6032.7 |
| 60° | 3027.6 | 3073.4 | 3462.0 | 4439.7 | 5151.0 | 5842.8 | 6520.4 | 6831.0 | 7609.1 | 7922.8 | 6735.7 |
| 62.5° | 2960.8 | 3020.1 | 3469.5 | 4449.5 | 5508.2 | 6507.6 | 7345.8 | 7655.6 | 8645.3 | 8925.2 | 7394.5 |
| 65° | 2765.7 | 2844.5 | 3330.7 | 4387.9 | 5899.1 | 7342.0 | 8436.7 | 8515.5 | 9501.5 | 9679.3 | 7792.2 |
| 67° | 2395.8 | 2482.1 | 2949.6 | 4032.3 | 5863.1 | 7904.0 | 9309.4 | 9053.5 | 9865.4 | 9887.1 | 7663.1 |
| 67.5° | 2278.8 | 2368.0 | 2820.5 | 3884.5 | 5760.3 | 7977.5 | 9463.9 | 9127.8 | 9862.4 | 9838.4 | 7543.1 |
| 70° | 1534.4 | 1635.0 | 1997.4 | 2852.0 | 4620.5 | 7424.5 | 9426.4 | 8898.9 | 9215.6 | 8940.2 | 6480.6 |
| 72.5° | 761.6 | 764.6 | 996.4 | 1562.2 | 2799.5 | 5325.1 | 7863.5 | 7612.9 | 7470.3 | 6950.3 | 4755.6 |
| 75° | 366.9 | 373.7 | 470.5 | 690.3 | 1180.3 | 2749.2 | 5362.6 | 5136.8 | 4373.7 | 3786.9 | 2380.1 |
| 77.5° | 279.9 | 286.6 | 365.4 | 449.4 | 492.2 | 896.6 | 2656.2 | 2146.7 | 1267.3 | 1012.2 | 670.8 |
| 80° | 216.1 | 228.9 | 308.4 | 345.2 | 325.6 | 359.4 | 835.1 | 657.3 | 493.0 | 452.5 | 332.4 |
| 82.5° | 168.8 | 176.3 | 261.9 | 261.9 | 225.1 | 240.9 | 388.7 | 379.7 | 306.1 | 276.1 | 178.6 |
| 85° | 119.3 | 134.3 | 210.8 | 195.1 | 147.8 | 149.3 | 232.6 | 222.8 | 157.6 | 126.8 | 69.8 |
| 87.5° | 53.3 | 68.3 | 150.1 | 127.6 | 78.8 | 60.8 | 95.3 | 81.8 | 62.3 | 48.0 | 32.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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CATALOG NUMBER: NVN-AF-03-LED-U-T3R-7060-600

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1786.5 | 1786.5 | 1786.5 | 1786.5 | 1786.5 | 1786.5 | 1786.5 | 1786.5 | 1786.5 | 1786.5 | 1786.5 |
| 2.5° | 1774.5 | 1786.5 | 1805.3 | 1816.6 | 1831.6 | 1837.6 | 1843.6 | 1854.1 | 1862.3 | 1860.1 | 1856.3 |
| 5° | 1791.0 | 1811.3 | 1834.6 | 1842.1 | 1842.1 | 1834.6 | 1830.1 | 1830.8 | 1828.6 | 1827.1 | 1822.6 |
| 7.5° | 1815.1 | 1842.8 | 1859.3 | 1851.8 | 1828.6 | 1799.3 | 1771.5 | 1755.0 | 1739.3 | 1729.5 | 1732.5 |
| 10° | 1848.8 | 1879.6 | 1880.3 | 1847.3 | 1791.8 | 1728.0 | 1673.2 | 1638.0 | 1604.2 | 1589.2 | 1593.7 |
| 12.5° | 1897.6 | 1928.4 | 1902.1 | 1830.8 | 1733.3 | 1633.5 | 1532.9 | 1460.1 | 1394.9 | 1379.1 | 1374.6 |
| 15° | 1950.1 | 1974.1 | 1915.6 | 1795.5 | 1649.2 | 1484.9 | 1316.1 | 1207.3 | 1134.5 | 1121.7 | 1117.2 |
| 17.5° | 1995.9 | 2009.4 | 1908.8 | 1732.5 | 1516.4 | 1257.6 | 1061.0 | 987.4 | 972.4 | 979.9 | 979.9 |
| 20° | 2036.4 | 2031.9 | 1879.6 | 1635.0 | 1307.1 | 1005.4 | 891.4 | 890.6 | 910.9 | 929.7 | 931.2 |
| 22.5° | 2087.4 | 2052.2 | 1833.1 | 1490.2 | 1057.2 | 838.9 | 819.4 | 838.9 | 861.4 | 882.4 | 884.6 |
| 25° | 2148.2 | 2074.7 | 1770.8 | 1283.8 | 850.1 | 761.6 | 769.8 | 786.3 | 800.6 | 817.1 | 817.9 |
| 27.5° | 2209.0 | 2091.9 | 1683.0 | 1041.5 | 737.6 | 712.1 | 721.1 | 727.8 | 731.6 | 742.1 | 742.1 |
| 30° | 2279.5 | 2105.4 | 1556.2 | 834.4 | 685.8 | 668.5 | 663.3 | 660.3 | 663.3 | 677.6 | 678.3 |
| 32.5° | 2368.0 | 2129.4 | 1382.9 | 715.8 | 661.8 | 637.8 | 610.8 | 595.8 | 606.3 | 631.8 | 636.3 |
| 35° | 2468.6 | 2158.0 | 1175.0 | 668.5 | 653.5 | 622.8 | 573.3 | 550.0 | 553.7 | 577.0 | 580.8 |
| 37.5° | 2594.7 | 2194.7 | 970.2 | 657.3 | 661.8 | 621.3 | 556.0 | 523.0 | 506.5 | 507.2 | 506.5 |
| 40° | 2756.0 | 2231.5 | 808.1 | 660.3 | 679.8 | 625.0 | 547.7 | 496.0 | 461.5 | 463.0 | 466.0 |
| 42.5° | 2924.8 | 2255.5 | 705.3 | 669.3 | 701.6 | 630.3 | 544.7 | 469.7 | 439.7 | 465.2 | 488.5 |
| 45° | 3122.1 | 2248.7 | 652.0 | 677.6 | 718.1 | 632.5 | 533.5 | 466.7 | 441.9 | 518.5 | 562.0 |
| 47.5° | 3348.7 | 2219.5 | 622.0 | 681.3 | 722.6 | 631.8 | 525.2 | 476.5 | 460.7 | 593.5 | 643.0 |
| 50° | 3594.8 | 2173.7 | 598.0 | 675.3 | 720.3 | 628.8 | 534.2 | 488.5 | 468.2 | 610.0 | 648.3 |
| 52.5° | 3864.2 | 2131.7 | 573.3 | 661.8 | 709.1 | 619.8 | 545.5 | 483.2 | 447.2 | 562.0 | 591.3 |
| 55° | 4183.1 | 2121.9 | 545.5 | 638.5 | 690.3 | 610.0 | 539.5 | 466.7 | 423.9 | 498.2 | 516.2 |
| 57.5° | 4547.8 | 2182.7 | 509.5 | 610.0 | 664.8 | 590.5 | 525.2 | 457.7 | 415.7 | 453.2 | 463.0 |
| 60° | 5010.7 | 2317.0 | 471.2 | 580.0 | 633.3 | 561.2 | 512.5 | 460.0 | 417.9 | 446.4 | 448.7 |
| 62.5° | 5372.4 | 2437.8 | 436.7 | 543.2 | 591.3 | 526.0 | 499.0 | 462.2 | 424.7 | 455.5 | 451.7 |
| 65° | 5503.7 | 2378.6 | 393.9 | 488.5 | 532.0 | 487.0 | 480.2 | 463.7 | 424.7 | 460.7 | 452.5 |
| 67° | 5234.3 | 2095.7 | 353.4 | 433.7 | 475.7 | 452.5 | 462.2 | 457.7 | 417.2 | 460.0 | 445.7 |
| 67.5° | 5106.0 | 1995.9 | 342.9 | 424.7 | 460.7 | 441.9 | 457.7 | 454.7 | 414.9 | 458.5 | 441.9 |
| 70° | 4210.9 | 1431.6 | 289.6 | 356.4 | 385.7 | 389.4 | 429.9 | 435.2 | 396.9 | 430.7 | 400.7 |
| 72.5° | 2996.1 | 895.9 | 249.9 | 276.1 | 311.4 | 333.1 | 392.4 | 408.9 | 372.9 | 374.4 | 349.7 |
| 75° | 1482.7 | 481.0 | 222.8 | 213.1 | 242.4 | 277.6 | 342.2 | 372.9 | 337.6 | 312.1 | 303.9 |
| 77.5° | 500.5 | 272.4 | 188.3 | 171.8 | 188.3 | 222.8 | 283.6 | 325.6 | 297.9 | 264.1 | 258.9 |
| 80° | 258.9 | 198.1 | 147.1 | 138.1 | 148.6 | 172.6 | 222.1 | 270.9 | 254.4 | 255.9 | 210.8 |
| 82.5° | 161.3 | 120.8 | 105.8 | 105.0 | 112.5 | 132.1 | 163.6 | 219.8 | 218.3 | 186.8 | 135.8 |
| 85° | 75.0 | 69.8 | 67.5 | 69.8 | 72.0 | 75.0 | 106.5 | 156.8 | 165.8 | 100.5 | 89.3 |
| 87.5° | 31.5 | 30.8 | 27.0 | 29.3 | 32.3 | 31.5 | 42.8 | 66.8 | 93.0 | 63.0 | 57.8 |
| 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)