

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: P197269

Luminaire Tested: **NVN-AF-01-LED-U-T3-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197269  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (p24135)  
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-T3-8030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4987 lumens  
Efficiency: N/A  
Efficacy: 84.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

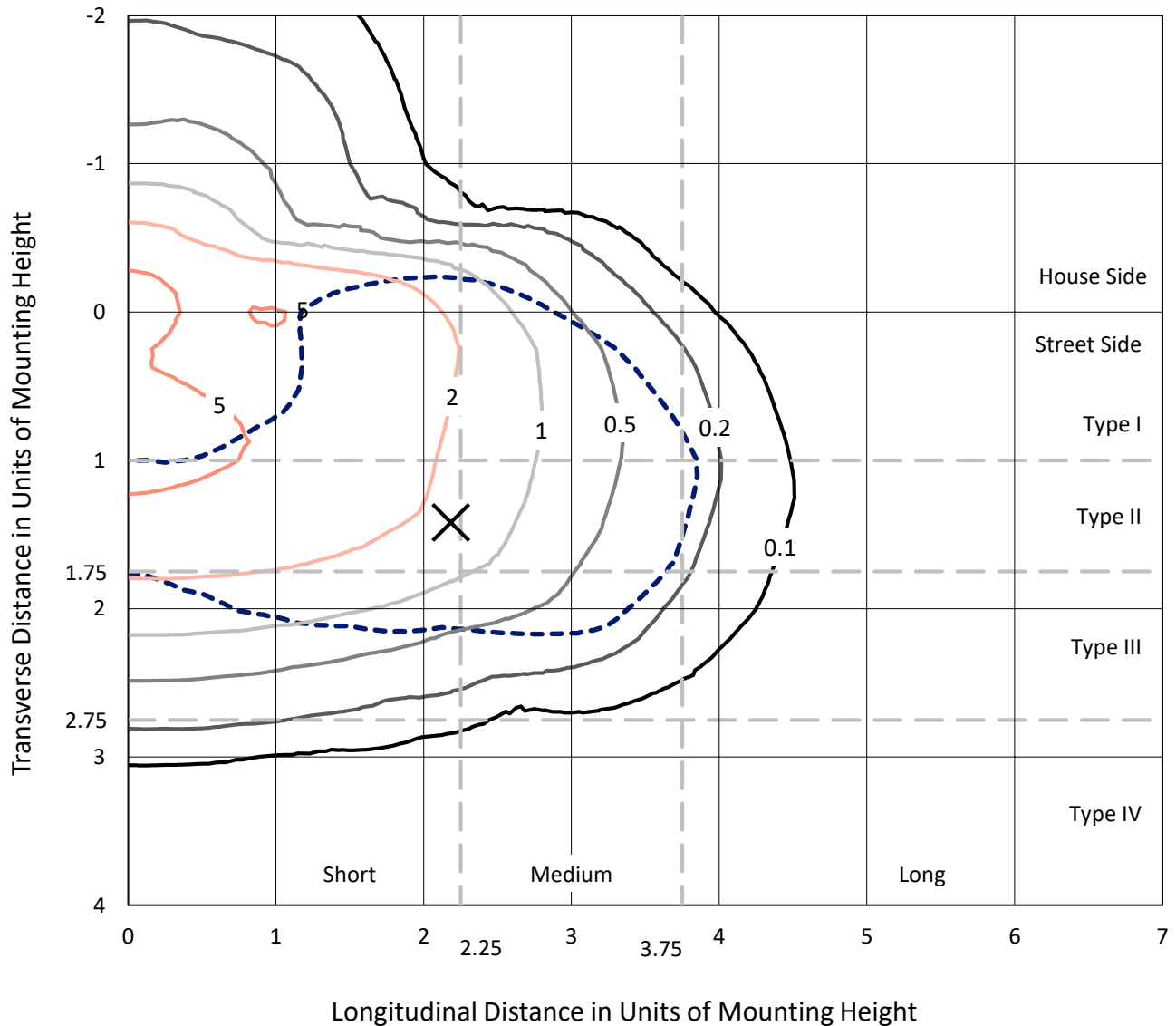
Input Watts (W): 59  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

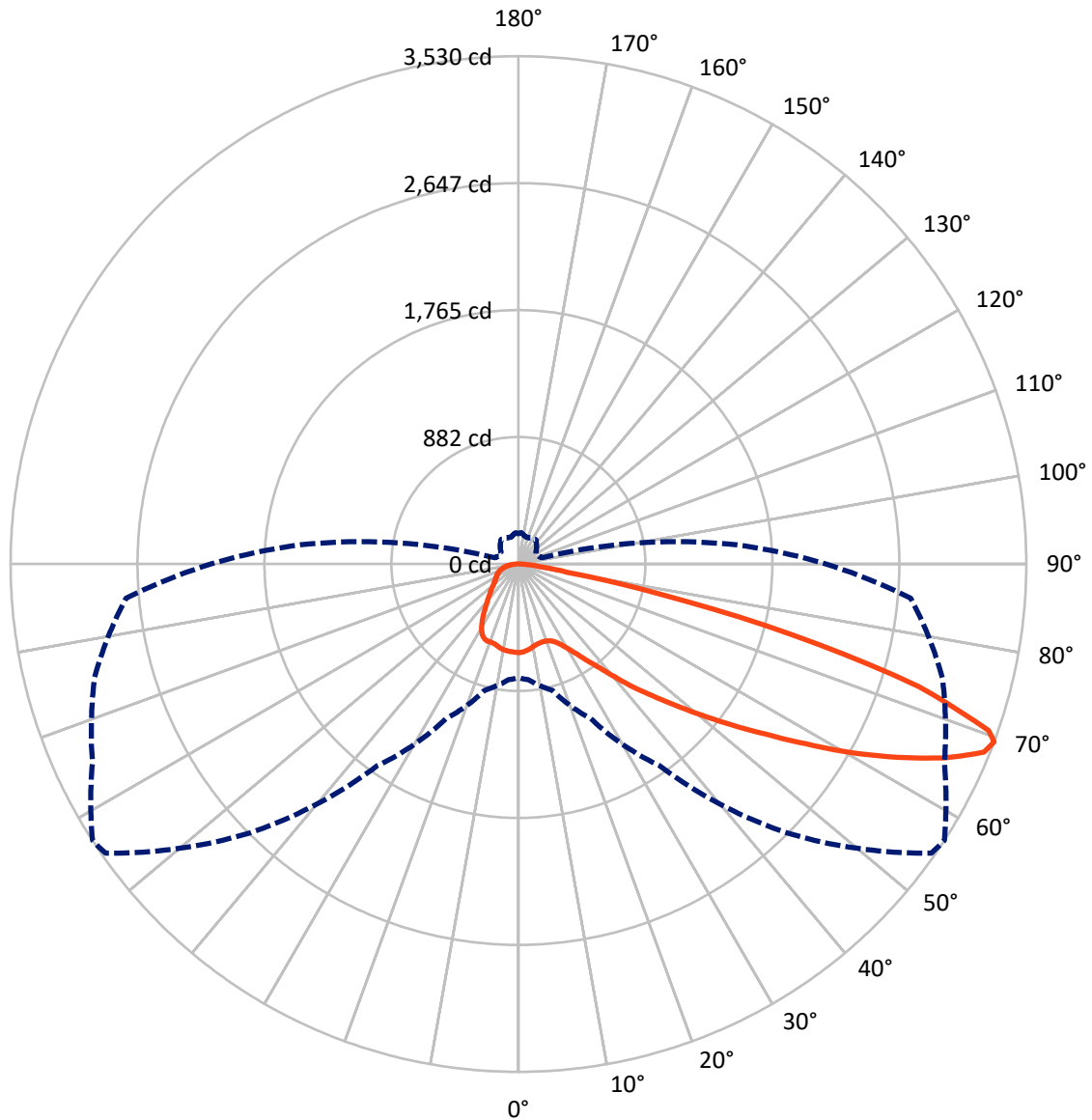
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.3 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1100.5   | 0.0    | 1100.5 |
|                    | % Fixture | 22.1     | 0.0    | 22.1   |
| <b>Street Side</b> | Lumens    | 3886.5   | 0.0    | 3886.5 |
|                    | % Fixture | 77.9     | 0.0    | 77.9   |
| <b>Total</b>       | Lumens    | 4987.0   | 0.0    | 4987.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 57.7   | 1.2       |
| 10°-20°   | 164.0  | 3.3       |
| 20°-30°   | 272.8  | 5.5       |
| 30°-40°   | 445.6  | 8.9       |
| 40°-50°   | 752.0  | 15.1      |
| 50°-60°   | 1169.8 | 23.5      |
| 60°-70°   | 1393.4 | 27.9      |
| 70°-80°   | 649.1  | 13.0      |
| 80°-90°   | 82.6   | 1.7       |
| 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°    | 4987.0 | 100.0     |
| 0°-180°   | 4987.0 | 100.0     |



REPORT NUMBER: P197269

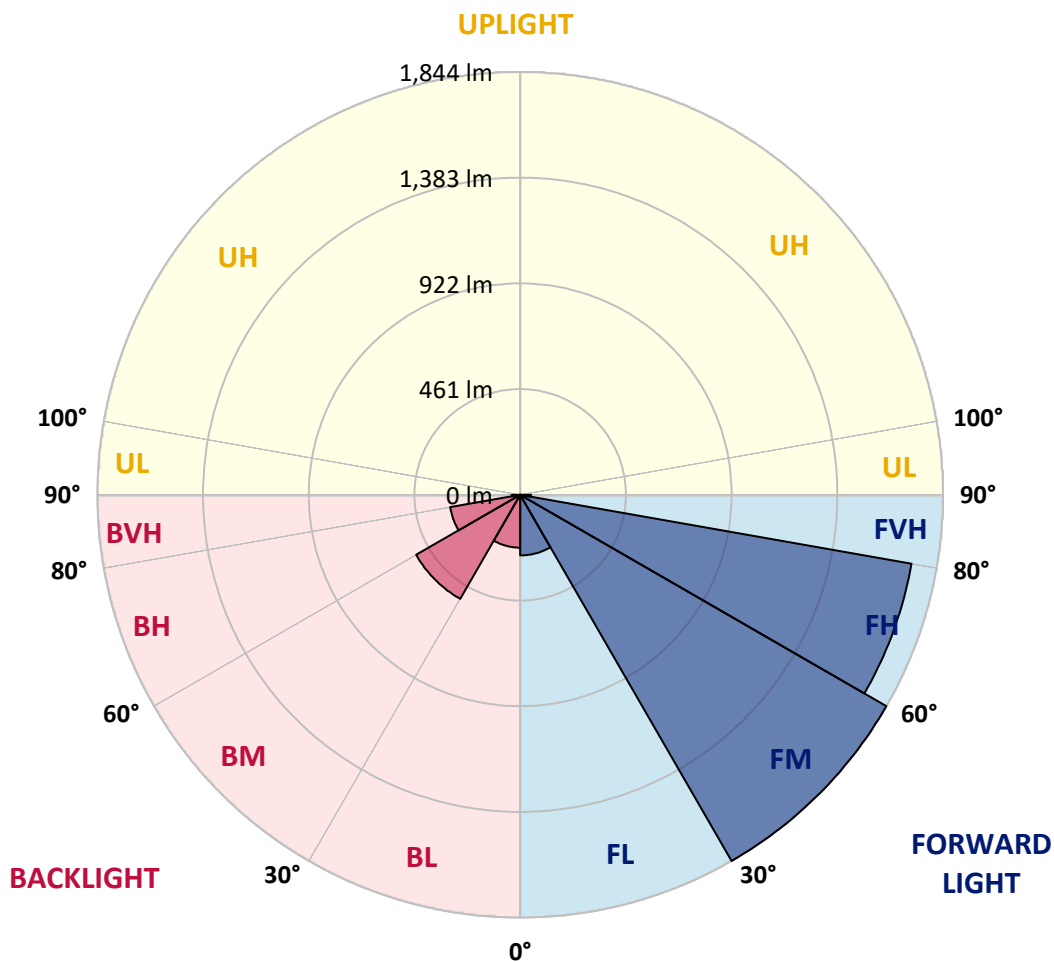
CATALOG NUMBER: NVN-AF-01-LED-U-T3-8030

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 264.1  | 5.3       |                         |      |         |
| FM   | (30°-60°)   | 1843.5 | 37.0      |                         |      |         |
| FH   | (60°-80°)   | 1732.5 | 34.7      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 46.4   | 0.9       |                         |      | G1/100  |
| BL   | (0°-30°)    | 230.5  | 4.6       | B1/500                  |      |         |
| BM   | (30°-60°)   | 523.8  | 10.5      | B1/1000                 |      |         |
| BH   | (60°-80°)   | 310.1  | 6.2       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 36.2   | 0.7       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G1**

Type III Short





REPORT NUMBER: P197269

CATALOG NUMBER: NVN-AF-01-LED-U-T3-8030

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 57°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 616.2  | 616.2  | 616.2  | 616.2  | 616.2  | 616.2  | 616.2  | 616.2  | 616.2  | 616.2  | 616.2  |
| 2.5°  | 612.7  | 612.7  | 614.3  | 614.3  | 614.3  | 613.6  | 611.7  | 612.4  | 611.1  | 610.1  | 608.5  |
| 5°    | 600.2  | 600.9  | 602.8  | 603.4  | 604.4  | 604.7  | 604.7  | 604.4  | 604.7  | 604.7  | 603.7  |
| 7.5°  | 583.0  | 583.6  | 585.9  | 587.1  | 590.0  | 592.6  | 593.8  | 593.8  | 595.4  | 596.7  | 597.0  |
| 10°   | 572.5  | 572.5  | 573.7  | 573.7  | 576.0  | 577.2  | 581.4  | 581.1  | 585.5  | 589.7  | 591.6  |
| 12.5° | 571.2  | 571.2  | 570.5  | 568.3  | 567.0  | 566.7  | 570.9  | 571.5  | 578.2  | 585.5  | 589.1  |
| 15°   | 575.3  | 575.3  | 573.4  | 568.9  | 564.2  | 561.9  | 566.1  | 567.3  | 574.7  | 583.3  | 588.7  |
| 17.5° | 588.7  | 588.4  | 584.3  | 575.3  | 567.0  | 563.5  | 564.8  | 566.1  | 572.8  | 582.7  | 589.4  |
| 20°   | 618.4  | 618.4  | 609.5  | 593.2  | 578.8  | 570.5  | 568.6  | 569.6  | 574.4  | 583.6  | 592.2  |
| 22.5° | 670.5  | 671.4  | 655.5  | 628.6  | 604.1  | 586.5  | 578.8  | 579.8  | 582.0  | 591.0  | 600.5  |
| 25°   | 747.1  | 744.5  | 721.9  | 683.9  | 645.6  | 615.6  | 599.9  | 600.9  | 600.9  | 609.2  | 619.1  |
| 27.5° | 828.2  | 828.8  | 796.3  | 755.4  | 704.9  | 660.3  | 635.3  | 635.0  | 634.7  | 642.7  | 653.2  |
| 30°   | 919.8  | 920.1  | 882.5  | 835.2  | 777.4  | 720.3  | 682.9  | 682.6  | 679.7  | 689.6  | 703.4  |
| 32.5° | 1020.1 | 1019.8 | 976.0  | 922.7  | 858.5  | 793.7  | 745.2  | 744.9  | 742.6  | 756.0  | 772.6  |
| 35°   | 1131.2 | 1131.2 | 1087.8 | 1022.0 | 952.7  | 880.5  | 824.4  | 824.0  | 825.3  | 843.5  | 859.2  |
| 37.5° | 1265.0 | 1267.8 | 1215.5 | 1135.6 | 1060.0 | 983.0  | 917.6  | 915.7  | 906.1  | 936.7  | 962.6  |
| 40°   | 1404.5 | 1412.5 | 1358.2 | 1265.0 | 1183.2 | 1103.7 | 1031.6 | 1030.3 | 1022.0 | 1054.6 | 1096.4 |
| 42.5° | 1555.5 | 1573.7 | 1513.3 | 1418.2 | 1329.1 | 1243.2 | 1170.8 | 1167.3 | 1135.3 | 1186.1 | 1251.5 |
| 45°   | 1753.4 | 1765.2 | 1677.8 | 1591.6 | 1507.6 | 1409.6 | 1323.4 | 1304.5 | 1272.6 | 1337.7 | 1422.7 |
| 47.5° | 1888.2 | 1882.4 | 1827.8 | 1770.0 | 1716.1 | 1622.2 | 1489.7 | 1465.8 | 1426.8 | 1513.0 | 1606.6 |
| 50°   | 1971.8 | 1976.0 | 1945.3 | 1942.4 | 1939.6 | 1874.1 | 1677.4 | 1648.7 | 1603.7 | 1705.9 | 1815.1 |
| 52.5° | 2027.0 | 2008.2 | 2013.6 | 2078.8 | 2157.6 | 2126.3 | 1889.8 | 1857.8 | 1811.5 | 1913.7 | 2036.9 |
| 55°   | 2004.1 | 1979.2 | 2029.3 | 2157.6 | 2343.1 | 2350.2 | 2122.8 | 2089.9 | 2050.4 | 2134.6 | 2303.9 |
| 57.5° | 1908.9 | 1921.4 | 2000.6 | 2179.0 | 2469.9 | 2550.7 | 2390.7 | 2357.2 | 2279.3 | 2364.8 | 2557.4 |
| 60°   | 1775.1 | 1800.4 | 1921.4 | 2145.2 | 2558.6 | 2706.8 | 2684.7 | 2662.4 | 2528.3 | 2589.0 | 2823.6 |
| 62.5° | 1631.5 | 1656.4 | 1805.2 | 2087.4 | 2518.7 | 2845.0 | 2973.4 | 2959.6 | 2803.2 | 2804.8 | 2992.5 |
| 65°   | 1419.2 | 1429.4 | 1581.3 | 1929.7 | 2407.9 | 2969.9 | 3262.3 | 3250.2 | 3066.0 | 2989.0 | 3039.8 |
| 67.5° | 1071.8 | 1084.6 | 1209.4 | 1523.2 | 2070.8 | 2902.2 | 3493.1 | 3491.2 | 3224.0 | 3057.3 | 2927.4 |
| 69°   | 791.5  | 807.1  | 909.0  | 1182.6 | 1712.2 | 2644.2 | 3504.0 | 3529.9 | 3266.8 | 3050.3 | 2737.4 |
| 70°   | 579.2  | 597.0  | 691.2  | 938.7  | 1426.2 | 2359.4 | 3411.1 | 3466.6 | 3250.5 | 3005.9 | 2589.3 |
| 72.5° | 246.2  | 252.2  | 298.5  | 423.7  | 723.5  | 1422.7 | 2793.9 | 2910.8 | 2935.7 | 2693.4 | 2022.9 |
| 75°   | 154.2  | 156.1  | 174.3  | 217.4  | 321.8  | 588.4  | 1809.3 | 1968.6 | 2191.8 | 2089.6 | 1354.3 |
| 77.5° | 116.2  | 117.8  | 128.3  | 149.7  | 199.9  | 219.7  | 839.4  | 1000.9 | 1255.4 | 1229.2 | 674.0  |
| 80°   | 89.1   | 90.0   | 97.1   | 108.9  | 140.8  | 137.6  | 272.3  | 342.3  | 523.9  | 462.3  | 238.5  |
| 82.5° | 69.9   | 70.2   | 76.3   | 78.5   | 98.3   | 92.6   | 136.6  | 152.3  | 211.7  | 175.9  | 116.5  |
| 85°   | 61.9   | 62.9   | 69.0   | 57.5   | 62.9   | 55.9   | 75.0   | 81.4   | 112.4  | 106.0  | 44.1   |
| 87.5° | 31.6   | 33.2   | 57.8   | 49.2   | 31.6   | 26.5   | 32.9   | 35.4   | 45.7   | 49.5   | 21.4   |
| 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-01-LED-U-T3-8030

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°  | 115°  | 125°  | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 616.2  | 616.2  | 616.2 | 616.2 | 616.2 | 616.2 | 616.2 | 616.2 | 616.2 | 616.2 | 616.2 |
| 2.5°  | 608.8  | 609.2  | 610.1 | 611.7 | 614.3 | 617.5 | 621.3 | 625.1 | 627.4 | 629.0 | 628.3 |
| 5°    | 603.7  | 604.1  | 606.0 | 608.8 | 612.0 | 616.8 | 623.2 | 628.0 | 631.5 | 633.8 | 633.4 |
| 7.5°  | 597.4  | 598.3  | 602.1 | 605.3 | 609.8 | 613.6 | 618.7 | 623.2 | 626.7 | 629.0 | 628.6 |
| 10°   | 592.6  | 593.5  | 598.3 | 602.5 | 606.3 | 606.9 | 606.0 | 604.7 | 604.4 | 606.0 | 605.3 |
| 12.5° | 590.3  | 592.2  | 596.7 | 599.6 | 598.0 | 591.9 | 584.9 | 582.0 | 581.1 | 584.3 | 584.6 |
| 15°   | 591.0  | 592.6  | 596.4 | 594.5 | 585.9 | 575.6 | 571.8 | 574.0 | 576.0 | 577.9 | 578.2 |
| 17.5° | 592.6  | 593.5  | 594.5 | 587.5 | 575.3 | 568.6 | 567.3 | 565.1 | 559.4 | 556.2 | 555.9 |
| 20°   | 595.4  | 596.7  | 595.1 | 583.9 | 573.1 | 564.2 | 548.8 | 535.1 | 522.0 | 515.0 | 512.1 |
| 22.5° | 605.3  | 606.3  | 601.5 | 590.7 | 574.0 | 545.0 | 514.0 | 490.4 | 470.3 | 459.4 | 455.3 |
| 25°   | 624.8  | 626.4  | 619.7 | 606.0 | 562.6 | 511.8 | 468.1 | 436.1 | 410.9 | 397.8 | 394.3 |
| 27.5° | 659.0  | 660.6  | 653.2 | 617.5 | 535.7 | 467.4 | 414.4 | 382.8 | 361.1 | 349.9 | 348.3 |
| 30°   | 710.1  | 712.3  | 705.6 | 617.2 | 494.9 | 410.9 | 362.1 | 343.5 | 331.1 | 323.4 | 323.1 |
| 32.5° | 780.9  | 789.2  | 761.8 | 606.3 | 444.4 | 353.8 | 322.5 | 316.1 | 310.0 | 304.9 | 304.9 |
| 35°   | 871.0  | 890.4  | 817.3 | 583.6 | 388.9 | 314.8 | 300.4 | 294.4 | 286.7 | 281.3 | 280.6 |
| 37.5° | 978.6  | 1008.9 | 856.9 | 543.4 | 341.0 | 296.0 | 287.0 | 277.1 | 265.0 | 254.5 | 251.9 |
| 40°   | 1126.4 | 1133.4 | 876.4 | 477.9 | 305.2 | 285.7 | 274.6 | 262.1 | 246.8 | 235.0 | 233.7 |
| 42.5° | 1274.8 | 1251.9 | 872.6 | 407.7 | 284.8 | 276.5 | 261.8 | 248.1 | 234.3 | 224.4 | 224.4 |
| 45°   | 1443.7 | 1355.3 | 843.5 | 337.1 | 266.3 | 266.0 | 250.0 | 236.9 | 226.4 | 219.0 | 217.4 |
| 47.5° | 1605.3 | 1448.2 | 793.4 | 285.1 | 247.1 | 255.4 | 242.3 | 231.8 | 222.2 | 215.2 | 213.9 |
| 50°   | 1801.3 | 1555.8 | 740.1 | 248.7 | 228.6 | 246.2 | 239.1 | 233.7 | 224.4 | 212.3 | 211.0 |
| 52.5° | 1996.1 | 1681.6 | 698.9 | 221.3 | 212.3 | 238.8 | 241.0 | 241.7 | 233.1 | 209.4 | 207.8 |
| 55°   | 2205.2 | 1816.0 | 655.5 | 199.9 | 198.9 | 235.3 | 245.5 | 244.9 | 240.7 | 210.1 | 207.5 |
| 57.5° | 2404.1 | 1951.1 | 590.7 | 184.9 | 188.4 | 231.8 | 246.5 | 236.3 | 228.9 | 213.3 | 209.1 |
| 60°   | 2568.9 | 2062.8 | 495.5 | 174.3 | 179.4 | 224.8 | 240.1 | 224.8 | 212.3 | 212.6 | 208.8 |
| 62.5° | 2649.0 | 2094.1 | 379.0 | 162.2 | 172.1 | 213.3 | 230.8 | 216.1 | 204.7 | 213.9 | 211.7 |
| 65°   | 2588.0 | 2005.0 | 270.1 | 151.0 | 163.1 | 199.9 | 225.4 | 208.8 | 200.8 | 220.3 | 217.7 |
| 67.5° | 2369.0 | 1762.4 | 196.0 | 141.1 | 154.5 | 186.1 | 215.2 | 202.1 | 197.0 | 225.1 | 219.3 |
| 69°   | 2136.2 | 1521.6 | 169.9 | 135.4 | 148.5 | 178.8 | 208.5 | 198.6 | 194.1 | 218.4 | 210.1 |
| 70°   | 1942.8 | 1336.1 | 156.8 | 131.9 | 143.4 | 174.6 | 203.4 | 196.4 | 191.2 | 210.4 | 200.5 |
| 72.5° | 1393.0 | 863.6  | 131.9 | 121.3 | 129.9 | 165.4 | 192.2 | 188.1 | 180.4 | 190.0 | 183.6 |
| 75°   | 841.6  | 450.8  | 112.1 | 110.5 | 115.9 | 152.6 | 179.1 | 174.0 | 166.3 | 167.3 | 164.1 |
| 77.5° | 386.6  | 208.2  | 93.9  | 97.7  | 101.2 | 136.6 | 163.1 | 157.4 | 150.4 | 147.8 | 148.1 |
| 80°   | 169.5  | 121.6  | 78.5  | 83.3  | 85.2  | 122.9 | 145.9 | 139.5 | 131.9 | 145.6 | 135.1 |
| 82.5° | 91.6   | 70.6   | 61.3  | 64.5  | 69.9  | 107.0 | 126.8 | 118.4 | 111.1 | 129.3 | 104.4 |
| 85°   | 37.0   | 36.1   | 41.5  | 44.7  | 48.5  | 76.9  | 106.0 | 97.4  | 88.4  | 79.2  | 77.3  |
| 87.5° | 16.0   | 17.2   | 20.4  | 21.7  | 25.9  | 47.9  | 71.2  | 62.3  | 62.6  | 53.6  | 52.7  |
| 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)