

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: P196129

Luminaire Tested: **NVN-AF-01-LED-U-SL3-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196129
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24262)
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-SL3-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4112.3 lumens
Efficiency: N/A
Efficacy: 120.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

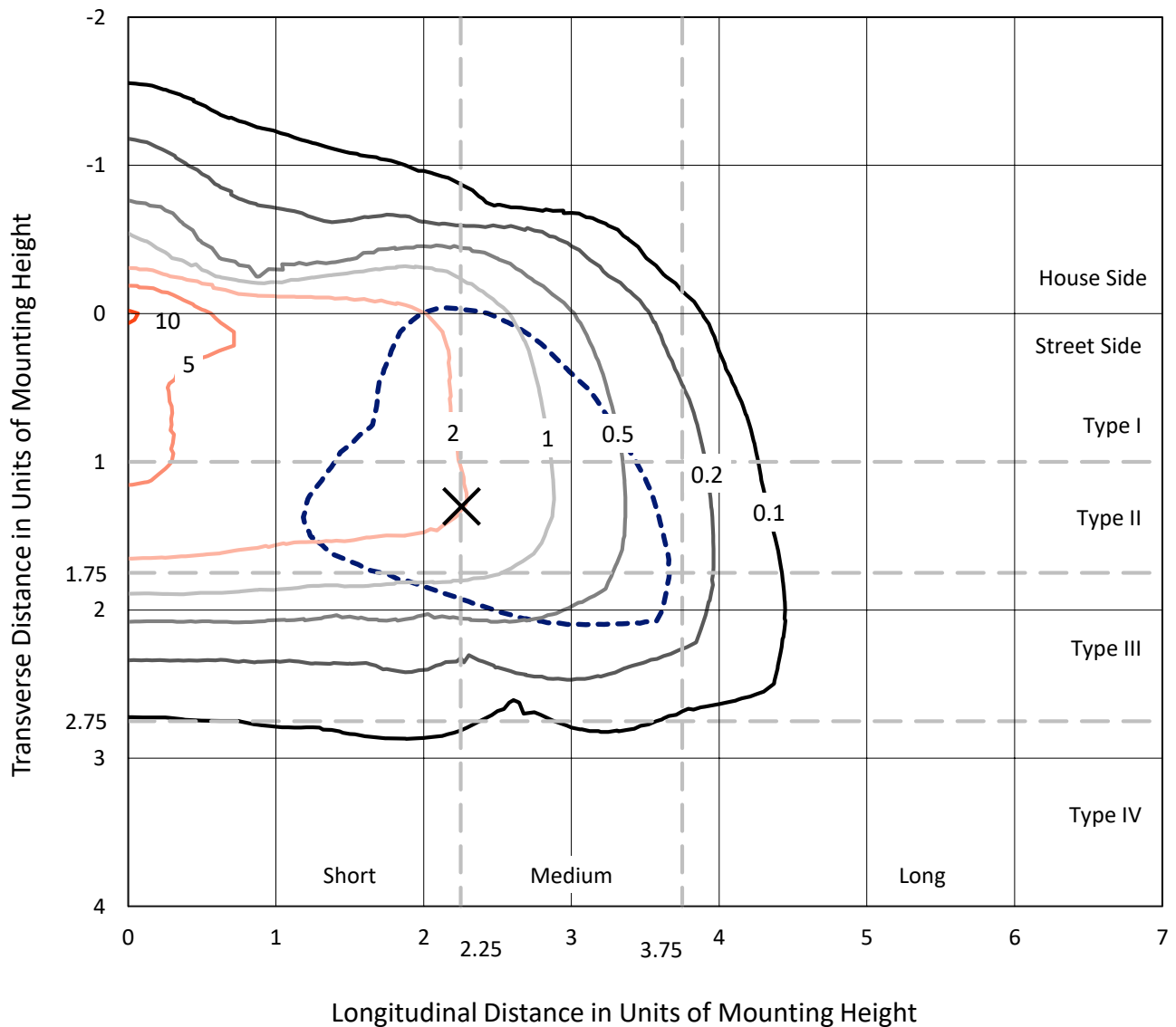
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

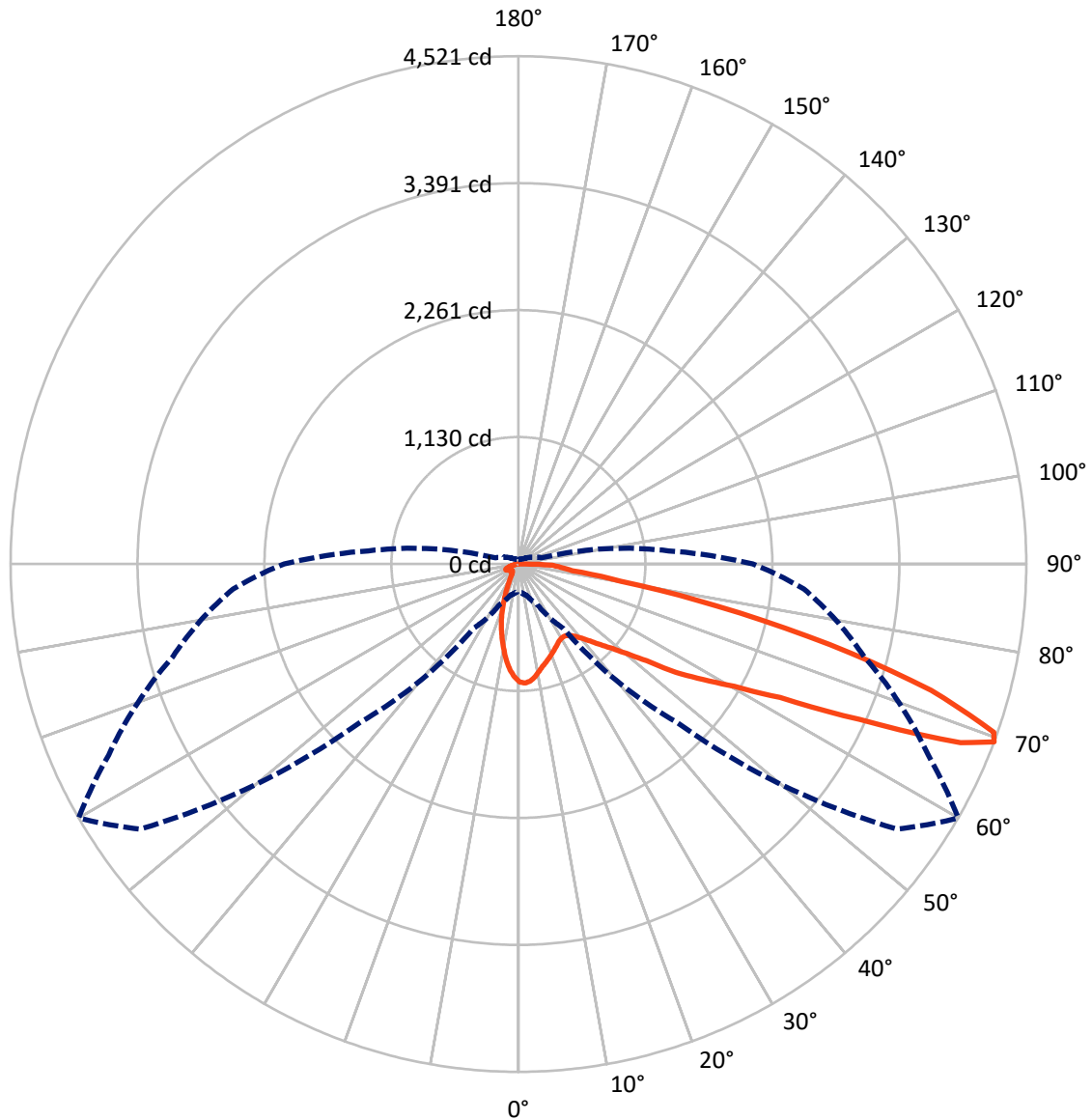
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.5 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 586.6 | 0.0 | 586.6 |
| | % Fixture | 14.3 | 0.0 | 14.3 |
| Street Side | Lumens | 3525.7 | 0.0 | 3525.7 |
| | % Fixture | 85.7 | 0.0 | 85.7 |
| Total | Lumens | 4112.3 | 0.0 | 4112.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 89.0 | 2.2 |
| 10°-20° | 190.6 | 4.6 |
| 20°-30° | 243.1 | 5.9 |
| 30°-40° | 334.6 | 8.1 |
| 40°-50° | 541.9 | 13.2 |
| 50°-60° | 850.5 | 20.7 |
| 60°-70° | 1133.9 | 27.6 |
| 70°-80° | 630.7 | 15.3 |
| 80°-90° | 97.8 | 2.4 |
| 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° | 4112.3 | 100.0 |
| 0°-180° | 4112.3 | 100.0 |

Coefficient of Utilization



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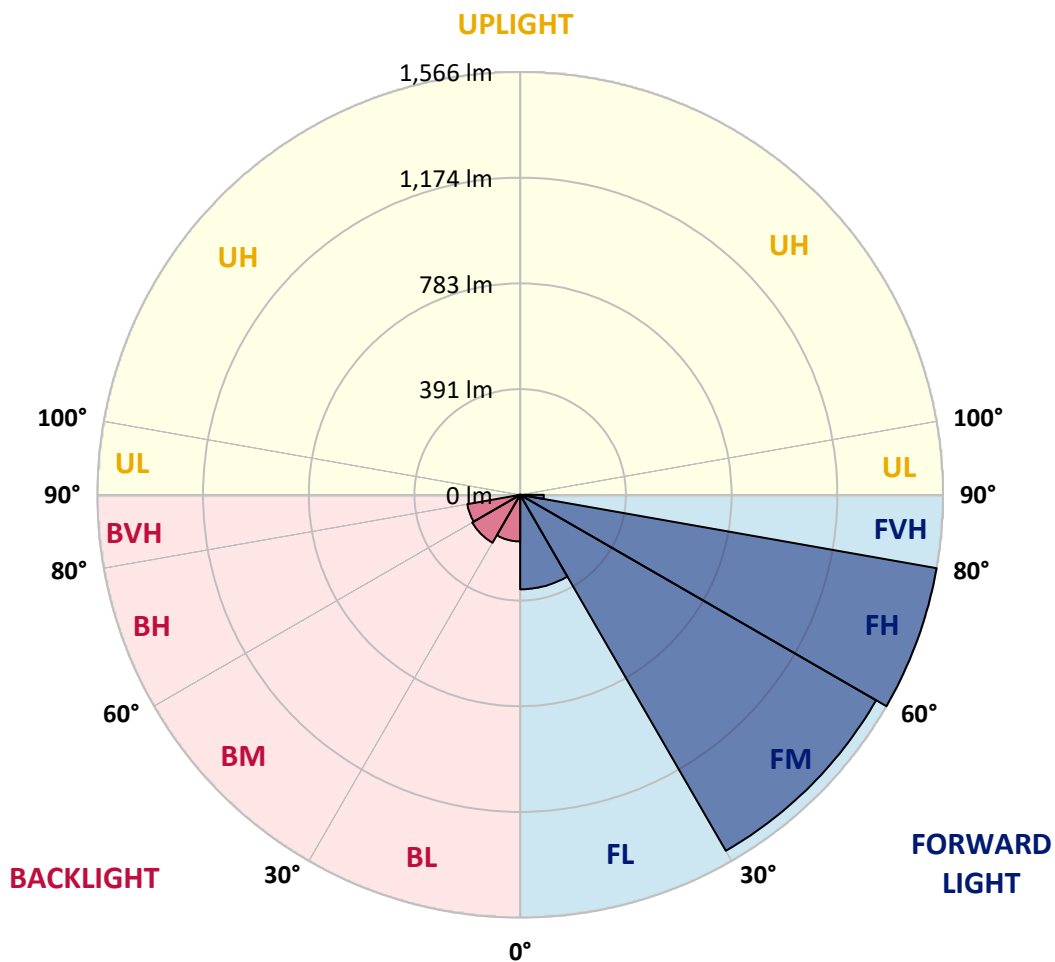
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 349.9 | 8.5 | | | |
| FM | (30°-60°) | 1522.2 | 37.0 | | | |
| FH | (60°-80°) | 1565.8 | 38.1 | | | G1/1800 |
| FVH | (80°-90°) | 87.9 | 2.1 | | | G1/100 |
| BL | (0°-30°) | 172.9 | 4.2 | B1/500 | | |
| BM | (30°-60°) | 204.9 | 5.0 | B0/220 | | |
| BH | (60°-80°) | 198.9 | 4.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 9.9 | 0.2 | | | G0/10 |
| 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 Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 60° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1049.2 | 1049.2 | 1049.2 | 1049.2 | 1049.2 | 1049.2 | 1049.2 | 1049.2 | 1049.2 | 1049.2 | 1049.2 |
| 2.5° | 1077.2 | 1080.1 | 1080.1 | 1077.8 | 1076.5 | 1068.8 | 1064.3 | 1061.1 | 1055.6 | 1045.3 | 1036.0 |
| 5° | 1038.7 | 1044.2 | 1046.6 | 1047.7 | 1054.6 | 1052.2 | 1052.4 | 1050.3 | 1045.6 | 1034.5 | 1019.5 |
| 7.5° | 968.0 | 969.0 | 973.3 | 980.4 | 997.1 | 1008.6 | 1018.1 | 1020.0 | 1019.0 | 1010.8 | 989.7 |
| 10° | 898.5 | 900.3 | 905.3 | 917.4 | 933.2 | 949.8 | 970.4 | 978.9 | 985.2 | 982.5 | 955.9 |
| 12.5° | 840.7 | 841.0 | 846.5 | 860.4 | 878.1 | 899.0 | 926.9 | 940.1 | 955.1 | 961.2 | 931.4 |
| 15° | 785.0 | 788.7 | 794.0 | 810.9 | 832.8 | 859.2 | 891.3 | 909.5 | 929.2 | 946.6 | 912.4 |
| 17.5° | 742.9 | 745.7 | 748.9 | 762.9 | 788.2 | 821.1 | 861.0 | 880.5 | 906.6 | 933.2 | 892.9 |
| 20° | 719.6 | 720.7 | 718.3 | 725.2 | 746.5 | 782.1 | 828.3 | 851.7 | 882.9 | 920.3 | 872.9 |
| 22.5° | 714.8 | 714.8 | 706.1 | 704.9 | 714.3 | 744.4 | 794.5 | 823.3 | 861.2 | 911.3 | 854.9 |
| 25° | 737.0 | 735.5 | 719.1 | 704.1 | 700.6 | 716.0 | 762.3 | 797.7 | 842.8 | 911.0 | 841.5 |
| 27.5° | 779.0 | 776.8 | 756.6 | 731.2 | 709.3 | 702.8 | 737.5 | 773.7 | 828.3 | 920.0 | 834.6 |
| 30° | 831.1 | 830.4 | 809.8 | 778.2 | 742.0 | 708.0 | 727.8 | 761.3 | 818.6 | 936.6 | 834.3 |
| 32.5° | 888.4 | 884.8 | 872.1 | 840.5 | 793.5 | 737.3 | 733.7 | 761.8 | 815.9 | 961.0 | 840.5 |
| 35° | 949.3 | 946.6 | 943.5 | 911.7 | 858.9 | 789.0 | 759.2 | 780.0 | 828.8 | 994.7 | 857.5 |
| 37.5° | 1026.8 | 1024.0 | 1029.2 | 994.4 | 936.6 | 856.7 | 802.4 | 816.4 | 855.2 | 1043.7 | 889.5 |
| 40° | 1164.7 | 1156.3 | 1141.5 | 1088.0 | 1027.3 | 939.8 | 864.9 | 867.1 | 900.3 | 1109.4 | 940.6 |
| 42.5° | 1391.3 | 1364.1 | 1291.1 | 1192.7 | 1123.1 | 1036.4 | 946.4 | 936.4 | 962.5 | 1196.1 | 1015.0 |
| 45° | 1618.3 | 1587.7 | 1464.4 | 1306.9 | 1222.2 | 1140.0 | 1047.2 | 1023.2 | 1040.0 | 1297.1 | 1110.7 |
| 47.5° | 1764.9 | 1749.9 | 1610.6 | 1421.1 | 1326.2 | 1252.8 | 1162.4 | 1122.8 | 1135.0 | 1411.6 | 1228.9 |
| 50° | 1808.0 | 1795.0 | 1685.5 | 1510.5 | 1424.3 | 1389.2 | 1305.1 | 1252.6 | 1254.6 | 1545.3 | 1370.4 |
| 52.5° | 1775.7 | 1770.5 | 1698.0 | 1565.8 | 1514.4 | 1532.9 | 1502.5 | 1429.5 | 1412.1 | 1691.9 | 1523.9 |
| 55° | 1732.8 | 1734.6 | 1706.7 | 1621.5 | 1606.2 | 1666.8 | 1761.0 | 1702.2 | 1628.3 | 1844.6 | 1683.7 |
| 57.5° | 1597.4 | 1598.8 | 1672.1 | 1727.5 | 1781.3 | 1854.6 | 1962.2 | 1937.4 | 1851.4 | 2009.4 | 1862.8 |
| 60° | 1286.4 | 1296.6 | 1459.9 | 1705.6 | 1981.5 | 2224.6 | 2250.9 | 2208.2 | 2088.8 | 2199.2 | 2095.6 |
| 62.5° | 919.0 | 928.2 | 1117.3 | 1480.6 | 1957.9 | 2643.3 | 2784.2 | 2614.4 | 2410.7 | 2483.2 | 2423.2 |
| 65° | 482.8 | 481.3 | 627.6 | 1023.2 | 1649.2 | 2740.4 | 3624.3 | 3335.2 | 2953.2 | 2873.8 | 2739.6 |
| 67.5° | 269.8 | 278.4 | 335.1 | 516.1 | 1074.8 | 2411.8 | 4160.9 | 4246.1 | 3707.4 | 3183.6 | 2725.9 |
| 69° | 249.5 | 252.4 | 290.3 | 399.0 | 700.6 | 1989.8 | 4114.7 | 4521.1 | 4025.3 | 3185.0 | 2550.2 |
| 70° | 242.3 | 245.5 | 280.1 | 367.5 | 588.6 | 1630.5 | 3946.7 | 4488.9 | 4102.6 | 3114.3 | 2390.4 |
| 72.5° | 217.3 | 221.5 | 255.0 | 330.4 | 496.0 | 840.5 | 3179.1 | 3842.1 | 3716.3 | 2721.9 | 1853.6 |
| 75° | 185.4 | 192.5 | 243.2 | 328.1 | 469.9 | 534.3 | 2120.2 | 2862.4 | 2766.0 | 1946.6 | 1051.6 |
| 77.5° | 76.7 | 77.5 | 106.3 | 240.2 | 493.2 | 511.3 | 1139.5 | 1813.2 | 1605.1 | 853.6 | 316.7 |
| 80° | 53.5 | 52.5 | 53.0 | 70.2 | 397.9 | 514.7 | 584.6 | 922.2 | 716.8 | 225.2 | 148.2 |
| 82.5° | 45.1 | 44.6 | 46.6 | 44.0 | 134.7 | 584.1 | 488.9 | 480.7 | 337.6 | 121.3 | 70.7 |
| 85° | 29.8 | 29.1 | 38.3 | 40.1 | 64.0 | 463.8 | 525.8 | 377.9 | 251.5 | 64.9 | 30.1 |
| 87.5° | 14.5 | 14.7 | 21.9 | 27.2 | 34.1 | 146.9 | 503.7 | 298.8 | 194.4 | 28.2 | 12.2 |
| 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-SL3-600

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1049.2 | 1049.2 | 1049.2 | 1049.2 | 1049.2 | 1049.2 | 1049.2 | 1049.2 | 1049.2 | 1049.2 | 1049.2 |
| 2.5° | 1032.4 | 1024.5 | 1017.3 | 1008.4 | 1001.6 | 995.7 | 987.9 | 987.6 | 986.2 | 988.1 | 988.6 |
| 5° | 1009.4 | 996.3 | 976.2 | 953.8 | 937.9 | 917.2 | 896.8 | 890.0 | 882.3 | 881.6 | 883.9 |
| 7.5° | 974.9 | 954.3 | 920.0 | 885.8 | 851.5 | 816.4 | 783.2 | 766.3 | 749.9 | 744.9 | 747.4 |
| 10° | 936.4 | 910.3 | 857.8 | 801.9 | 753.6 | 701.4 | 650.8 | 618.1 | 588.3 | 575.6 | 578.8 |
| 12.5° | 906.3 | 873.1 | 799.2 | 726.7 | 654.5 | 579.6 | 512.9 | 448.3 | 399.5 | 377.6 | 378.9 |
| 15° | 880.5 | 838.0 | 744.4 | 647.9 | 557.5 | 454.9 | 362.3 | 287.4 | 244.7 | 228.9 | 228.3 |
| 17.5° | 852.5 | 801.1 | 687.2 | 574.6 | 457.3 | 330.4 | 242.6 | 198.4 | 181.5 | 176.2 | 176.2 |
| 20° | 822.8 | 763.1 | 627.4 | 494.7 | 351.8 | 230.8 | 182.5 | 165.3 | 159.0 | 157.4 | 157.1 |
| 22.5° | 795.0 | 726.0 | 567.2 | 409.5 | 254.5 | 175.1 | 155.3 | 148.7 | 147.7 | 148.9 | 148.9 |
| 25° | 773.1 | 693.3 | 506.3 | 319.9 | 185.2 | 146.6 | 138.2 | 137.4 | 141.4 | 146.1 | 146.9 |
| 27.5° | 756.8 | 664.0 | 446.2 | 233.6 | 145.6 | 127.7 | 124.7 | 128.2 | 137.4 | 146.9 | 148.7 |
| 30° | 745.5 | 638.9 | 374.2 | 168.0 | 121.3 | 111.8 | 113.1 | 119.2 | 133.2 | 147.7 | 151.6 |
| 32.5° | 740.5 | 618.7 | 301.7 | 129.0 | 103.6 | 98.4 | 101.8 | 109.7 | 124.2 | 138.7 | 143.4 |
| 35° | 745.2 | 603.8 | 234.7 | 107.1 | 90.7 | 86.7 | 90.7 | 98.9 | 108.3 | 115.5 | 118.4 |
| 37.5° | 762.3 | 598.6 | 176.7 | 94.9 | 82.2 | 78.4 | 81.5 | 87.1 | 91.2 | 93.9 | 95.2 |
| 40° | 798.5 | 604.2 | 138.4 | 88.6 | 77.5 | 73.0 | 73.9 | 76.5 | 79.4 | 81.5 | 81.7 |
| 42.5° | 856.0 | 622.4 | 123.2 | 86.2 | 74.7 | 68.8 | 67.5 | 69.4 | 72.5 | 75.4 | 75.9 |
| 45° | 932.4 | 652.6 | 121.5 | 87.1 | 73.3 | 65.4 | 62.8 | 64.7 | 68.8 | 73.6 | 74.4 |
| 47.5° | 1031.3 | 700.6 | 129.0 | 91.2 | 74.1 | 63.5 | 59.6 | 61.5 | 67.0 | 73.3 | 74.4 |
| 50° | 1148.4 | 767.1 | 142.7 | 97.6 | 77.7 | 63.5 | 58.3 | 59.8 | 65.7 | 72.7 | 73.9 |
| 52.5° | 1286.4 | 859.7 | 156.9 | 103.9 | 83.1 | 65.9 | 58.8 | 58.5 | 63.8 | 70.4 | 71.7 |
| 55° | 1438.5 | 974.7 | 170.6 | 109.5 | 85.9 | 69.0 | 60.1 | 57.0 | 61.2 | 66.5 | 67.5 |
| 57.5° | 1617.5 | 1132.1 | 194.6 | 114.7 | 87.6 | 71.5 | 61.7 | 55.3 | 57.8 | 61.5 | 62.2 |
| 60° | 1860.4 | 1363.3 | 241.3 | 123.7 | 90.4 | 72.5 | 62.0 | 53.8 | 53.5 | 56.2 | 56.5 |
| 62.5° | 2177.1 | 1634.2 | 285.8 | 134.2 | 96.3 | 72.7 | 60.9 | 52.8 | 50.1 | 50.9 | 50.9 |
| 65° | 2402.3 | 1733.8 | 272.9 | 143.2 | 101.5 | 72.5 | 59.8 | 52.0 | 47.5 | 46.1 | 46.1 |
| 67.5° | 2274.1 | 1531.6 | 231.8 | 145.6 | 102.1 | 69.7 | 57.5 | 50.1 | 45.1 | 41.9 | 41.9 |
| 69° | 2085.9 | 1342.5 | 212.8 | 141.4 | 97.8 | 66.2 | 54.8 | 48.3 | 43.5 | 39.8 | 39.8 |
| 70° | 1932.4 | 1199.3 | 201.2 | 136.4 | 92.8 | 63.3 | 52.5 | 46.4 | 41.9 | 38.8 | 38.5 |
| 72.5° | 1442.7 | 800.4 | 172.0 | 117.6 | 76.2 | 53.5 | 45.9 | 41.4 | 37.7 | 35.6 | 35.6 |
| 75° | 761.3 | 401.1 | 140.9 | 96.0 | 58.8 | 42.8 | 37.7 | 34.8 | 32.7 | 32.4 | 32.1 |
| 77.5° | 249.5 | 181.5 | 101.3 | 72.2 | 43.3 | 33.2 | 30.1 | 28.2 | 27.9 | 29.1 | 29.1 |
| 80° | 134.7 | 108.3 | 65.2 | 48.8 | 30.1 | 24.8 | 23.2 | 22.9 | 23.7 | 25.3 | 25.3 |
| 82.5° | 65.4 | 53.5 | 38.8 | 30.1 | 20.6 | 18.2 | 18.2 | 18.4 | 19.5 | 21.4 | 21.4 |
| 85° | 28.2 | 25.3 | 22.4 | 16.9 | 12.7 | 11.4 | 12.9 | 14.2 | 15.0 | 16.4 | 16.9 |
| 87.5° | 13.4 | 11.9 | 10.3 | 6.5 | 5.5 | 5.8 | 6.9 | 8.4 | 10.0 | 11.0 | 11.4 |
| 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)