

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: P196260

Luminaire Tested: **NVN-AF-06-LED-U-T2-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196260
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24136)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-06-LED-U-T2-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 4000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29140.8 lumens
Efficiency: N/A
Efficacy: 117.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G4

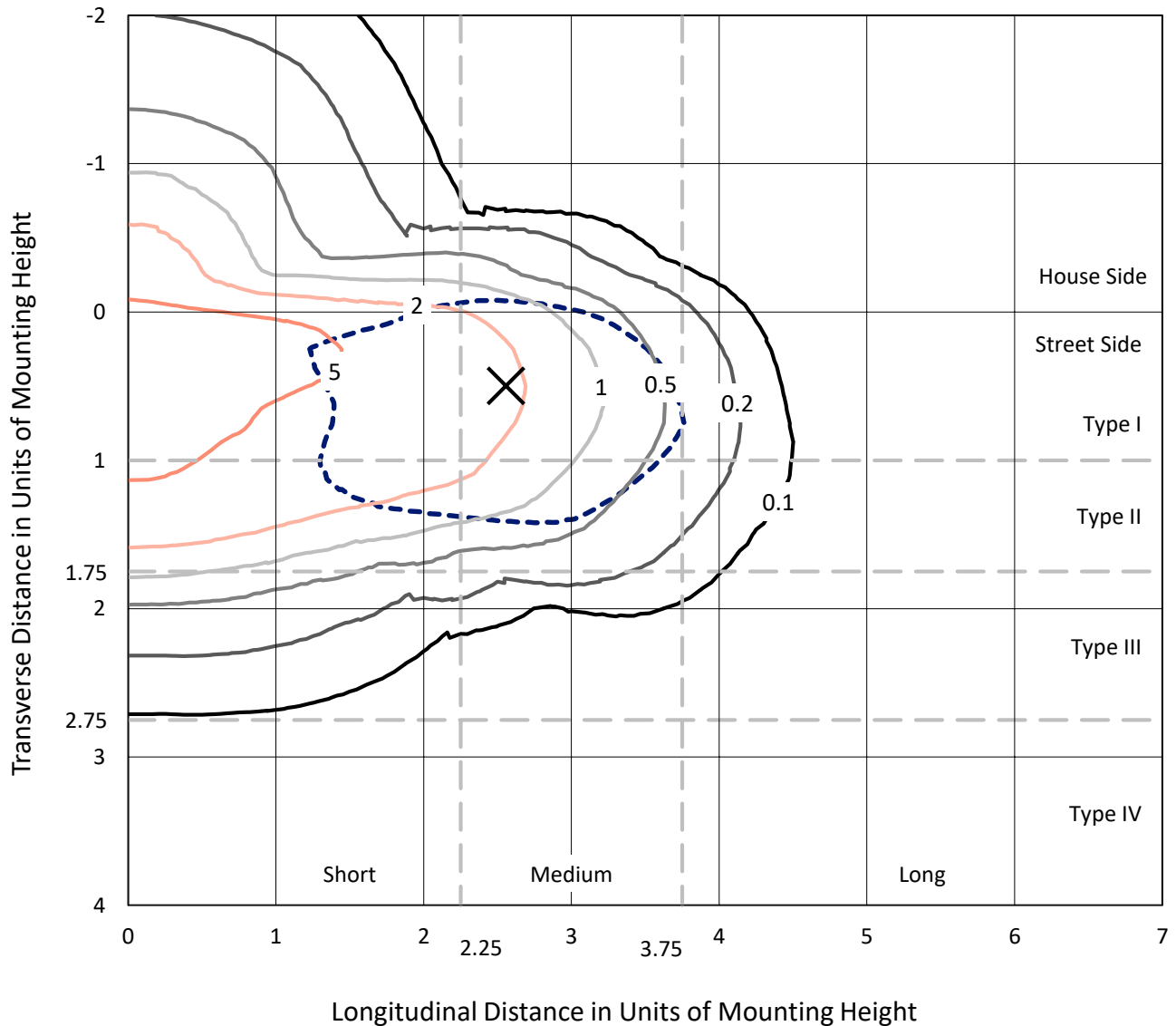
Input Watts (W): 249
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

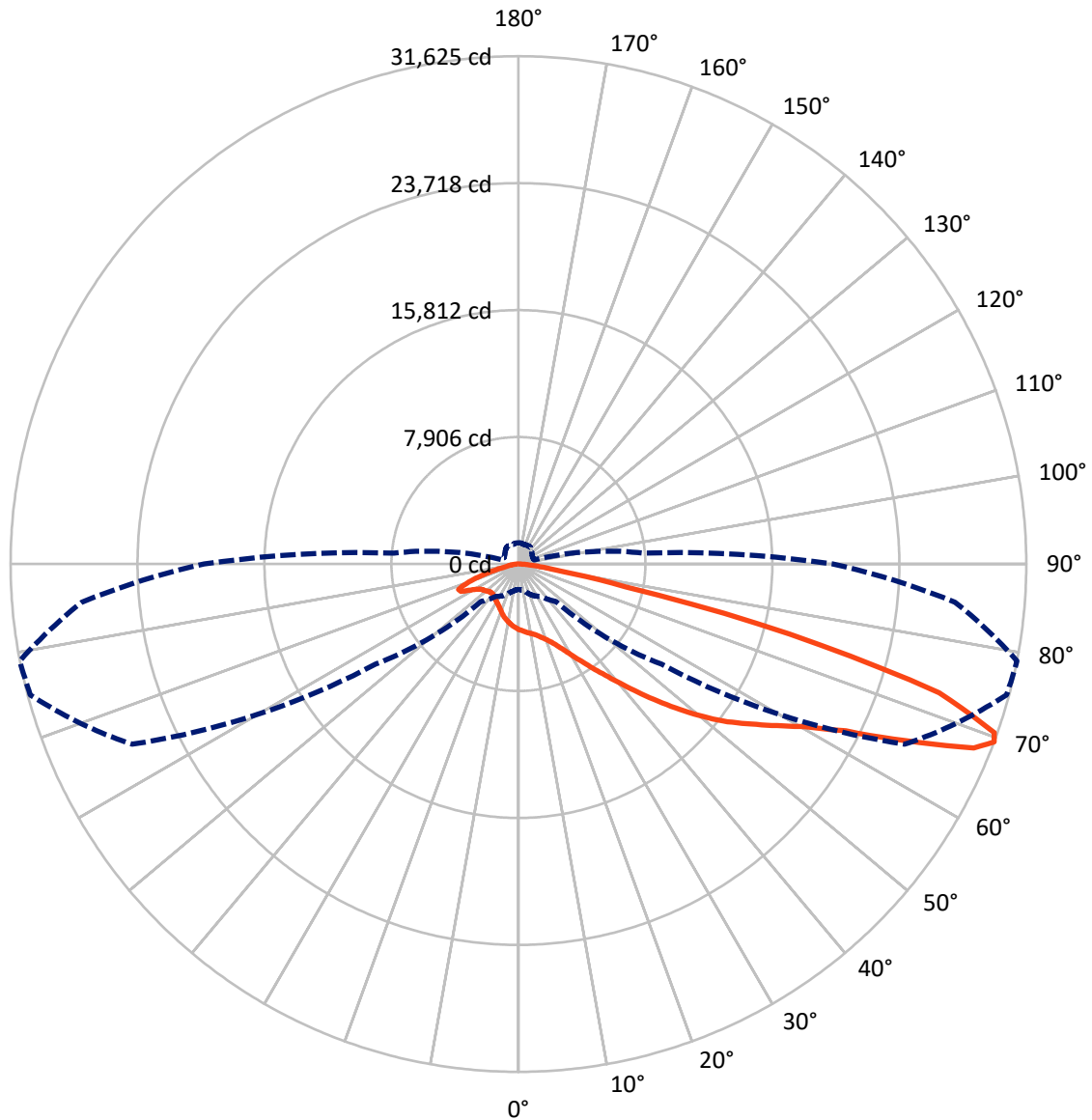
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5481.9 | 0.0 | 5481.9 |
| | % Fixture | 18.8 | 0.0 | 18.8 |
| Street Side | Lumens | 23658.9 | 0.0 | 23658.9 |
| | % Fixture | 81.2 | 0.0 | 81.2 |
| Total | Lumens | 29140.8 | 0.0 | 29140.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 379.1 | 1.3 |
| 10°-20° | 1086.9 | 3.7 |
| 20°-30° | 1796.0 | 6.2 |
| 30°-40° | 2908.2 | 10.0 |
| 40°-50° | 4645.8 | 15.9 |
| 50°-60° | 6653.3 | 22.8 |
| 60°-70° | 7412.7 | 25.4 |
| 70°-80° | 3708.5 | 12.7 |
| 80°-90° | 550.4 | 1.9 |
| 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° | 29140.8 | 100.0 |
| 0°-180° | 29140.8 | 100.0 |

Coefficient of Utilization



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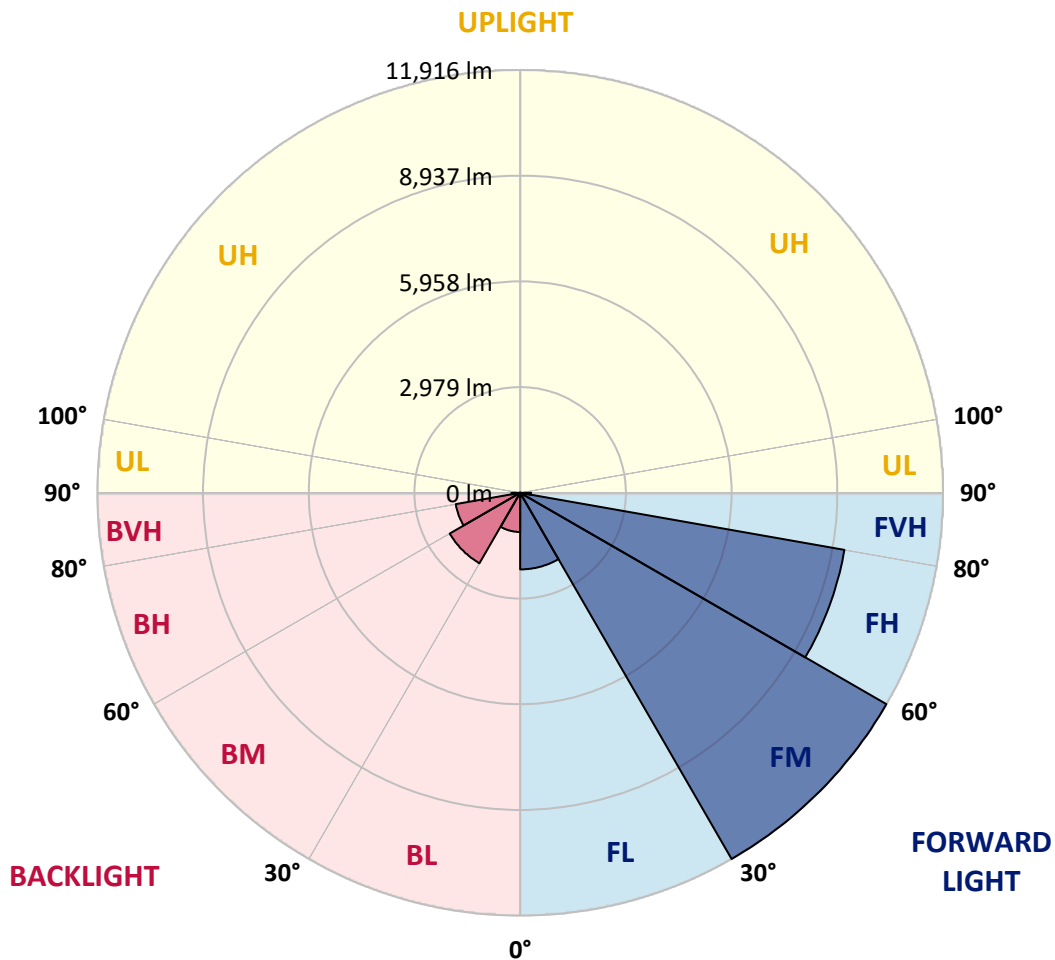
CATALOG NUMBER: NVN-AF-06-LED-U-T2-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 2157.6 | 7.4 | | | |
| FM (30°-60°) | 11915.7 | 40.9 | | | |
| FH (60°-80°) | 9278.0 | 31.8 | | | G4/12000 |
| FVH (80°-90°) | 307.5 | 1.1 | | | G3/500 |
| BL (0°-30°) | 1104.3 | 3.8 | B3/2500 | | |
| BM (30°-60°) | 2291.5 | 7.9 | B2/2500 | | |
| BH (60°-80°) | 1843.2 | 6.3 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 242.8 | 0.8 | | | G3/500 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4

Type II Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 79° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4089.3 | 4089.3 | 4089.3 | 4089.3 | 4089.3 | 4089.3 | 4089.3 | 4089.3 | 4089.3 | 4089.3 | 4089.3 |
| 2.5° | 4489.7 | 4480.2 | 4478.3 | 4449.7 | 4434.5 | 4402.1 | 4325.8 | 4247.6 | 4175.2 | 4137.0 | 4097.0 |
| 5° | 4865.4 | 4846.2 | 4836.7 | 4789.0 | 4747.1 | 4674.7 | 4554.6 | 4430.6 | 4301.0 | 4234.3 | 4154.2 |
| 7.5° | 5092.1 | 5094.1 | 5094.1 | 5055.9 | 5014.0 | 4926.3 | 4773.8 | 4604.1 | 4411.6 | 4323.9 | 4198.1 |
| 10° | 5111.3 | 5113.1 | 5141.8 | 5151.3 | 5160.8 | 5115.1 | 4974.0 | 4760.4 | 4512.6 | 4398.2 | 4234.3 |
| 12.5° | 4922.5 | 4935.8 | 4983.5 | 5052.1 | 5149.3 | 5198.9 | 5138.0 | 4928.3 | 4642.3 | 4503.0 | 4302.9 |
| 15° | 4669.0 | 4682.3 | 4743.3 | 4848.2 | 5004.5 | 5170.3 | 5256.1 | 5120.8 | 4812.0 | 4648.0 | 4403.9 |
| 17.5° | 4545.0 | 4560.3 | 4602.3 | 4686.1 | 4838.7 | 5061.7 | 5319.0 | 5326.7 | 5012.2 | 4823.3 | 4524.0 |
| 20° | 4485.9 | 4497.4 | 4550.7 | 4619.3 | 4735.6 | 4949.2 | 5324.8 | 5544.0 | 5250.4 | 5031.2 | 4670.9 |
| 22.5° | 4621.3 | 4625.1 | 4651.8 | 4689.9 | 4768.1 | 4932.1 | 5321.0 | 5768.9 | 5547.9 | 5292.3 | 4859.6 |
| 25° | 5017.8 | 4993.0 | 4974.0 | 4926.3 | 4945.4 | 5061.7 | 5381.9 | 6009.2 | 5929.1 | 5635.5 | 5111.3 |
| 27.5° | 5486.8 | 5483.0 | 5433.4 | 5322.8 | 5252.3 | 5326.7 | 5555.4 | 6278.0 | 6396.2 | 6072.1 | 5441.1 |
| 30° | 6009.2 | 6011.1 | 5959.6 | 5824.3 | 5681.3 | 5688.9 | 5831.8 | 6588.7 | 6954.8 | 6598.2 | 5847.2 |
| 32.5° | 6556.3 | 6590.7 | 6495.3 | 6360.0 | 6186.5 | 6131.2 | 6228.4 | 6964.4 | 7601.1 | 7219.8 | 6318.1 |
| 35° | 7210.3 | 7216.0 | 7111.1 | 6912.9 | 6739.4 | 6651.6 | 6741.2 | 7433.3 | 8346.6 | 7950.0 | 6891.9 |
| 37.5° | 7889.0 | 7892.8 | 7784.1 | 7530.6 | 7311.3 | 7254.2 | 7353.3 | 8003.4 | 9135.8 | 8781.2 | 7566.8 |
| 40° | 8443.7 | 8483.7 | 8398.0 | 8159.7 | 7938.5 | 7904.2 | 8047.2 | 8685.9 | 10144.3 | 9764.9 | 8369.4 |
| 42.5° | 9072.9 | 9118.7 | 9015.7 | 8767.8 | 8592.5 | 8581.0 | 8804.0 | 9463.7 | 11147.1 | 10903.1 | 9278.8 |
| 45° | 9782.1 | 9846.9 | 9703.9 | 9425.6 | 9276.8 | 9528.5 | 9541.9 | 10325.5 | 12302.4 | 12176.6 | 10302.5 |
| 47.5° | 10556.1 | 10609.5 | 10493.2 | 10193.9 | 10031.9 | 10395.9 | 10264.4 | 11257.7 | 13551.1 | 13541.6 | 11410.2 |
| 50° | 11152.8 | 11212.0 | 11223.4 | 11091.9 | 10922.1 | 10967.9 | 11057.5 | 12237.7 | 14796.1 | 14944.8 | 12556.0 |
| 52.5° | 11044.2 | 11101.4 | 11358.7 | 11703.8 | 11976.4 | 11858.3 | 11966.9 | 13278.5 | 15999.1 | 16313.6 | 13644.6 |
| 55° | 10167.2 | 10197.7 | 10680.0 | 11499.8 | 12660.9 | 13225.2 | 13232.8 | 14411.0 | 17142.9 | 17583.4 | 14677.9 |
| 57.5° | 8586.8 | 8590.5 | 9217.8 | 10426.4 | 12262.4 | 14111.7 | 15230.8 | 15833.2 | 18336.4 | 18986.5 | 15959.1 |
| 60° | 6075.9 | 6091.2 | 6821.3 | 8401.8 | 10834.5 | 14004.9 | 17379.3 | 18378.3 | 19718.6 | 20563.2 | 17610.1 |
| 62.5° | 3607.0 | 3641.4 | 4192.4 | 5460.1 | 8047.2 | 12632.2 | 18649.1 | 22906.2 | 21754.7 | 22875.7 | 20252.4 |
| 65° | 2346.9 | 2375.5 | 2705.3 | 3342.1 | 4754.8 | 9191.1 | 18231.5 | 27291.1 | 25607.7 | 26513.2 | 24050.1 |
| 67.5° | 1807.3 | 1830.2 | 2089.5 | 2474.6 | 2916.9 | 4968.3 | 14576.8 | 28210.0 | 30297.6 | 30579.8 | 27254.9 |
| 69° | 1588.1 | 1607.2 | 1797.8 | 2167.6 | 2455.5 | 3288.7 | 10863.0 | 26541.9 | 31470.1 | 31624.5 | 27294.9 |
| 70° | 1471.8 | 1487.1 | 1666.3 | 1986.6 | 2255.4 | 2625.2 | 8314.1 | 24604.9 | 31041.1 | 31435.8 | 26507.5 |
| 72.5° | 1212.5 | 1225.9 | 1353.6 | 1599.5 | 1843.6 | 1870.3 | 3683.3 | 17966.6 | 26137.7 | 27399.7 | 22431.5 |
| 75° | 1012.3 | 1020.0 | 1103.9 | 1283.1 | 1492.8 | 1488.9 | 1881.7 | 10176.7 | 15949.5 | 17453.7 | 13850.4 |
| 77.5° | 844.5 | 850.3 | 905.6 | 1016.1 | 1178.2 | 1172.5 | 1325.0 | 4392.6 | 7042.5 | 6794.6 | 4768.1 |
| 80° | 745.4 | 749.2 | 777.9 | 806.4 | 909.4 | 903.7 | 981.8 | 2017.1 | 2865.4 | 2648.1 | 1803.6 |
| 82.5° | 566.2 | 573.9 | 718.7 | 732.1 | 705.4 | 680.6 | 684.5 | 1174.3 | 1467.9 | 1336.5 | 968.5 |
| 85° | 320.3 | 322.2 | 461.4 | 539.5 | 613.9 | 461.4 | 444.2 | 606.3 | 724.5 | 634.8 | 423.2 |
| 87.5° | 143.0 | 148.7 | 221.2 | 255.4 | 331.7 | 270.7 | 253.6 | 257.4 | 312.6 | 259.3 | 167.8 |
| 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-06-LED-U-T2-800

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 4089.3 | 4089.3 | 4089.3 | 4089.3 | 4089.3 | 4089.3 | 4089.3 | 4089.3 | 4089.3 | 4089.3 | 4089.3 |
| 2.5° | 4058.9 | 4026.4 | 3950.2 | 3872.1 | 3793.9 | 3744.3 | 3692.9 | 3645.2 | 3626.1 | 3624.2 | 3588.0 |
| 5° | 4076.0 | 3999.7 | 3826.2 | 3635.7 | 3454.5 | 3313.4 | 3195.3 | 3119.0 | 3044.6 | 3031.3 | 2998.9 |
| 7.5° | 4081.8 | 3957.8 | 3675.7 | 3370.6 | 3094.2 | 2899.8 | 2781.5 | 2730.1 | 2693.8 | 2684.3 | 2672.9 |
| 10° | 4079.8 | 3904.4 | 3507.9 | 3090.4 | 2775.8 | 2629.0 | 2585.2 | 2596.7 | 2611.9 | 2619.5 | 2619.5 |
| 12.5° | 4110.3 | 3879.6 | 3340.1 | 2827.3 | 2570.0 | 2499.4 | 2533.7 | 2592.8 | 2638.6 | 2657.6 | 2661.4 |
| 15° | 4165.7 | 3864.4 | 3155.2 | 2598.5 | 2425.0 | 2442.2 | 2526.1 | 2611.9 | 2676.7 | 2705.3 | 2712.9 |
| 17.5° | 4234.3 | 3843.4 | 2941.7 | 2409.8 | 2341.1 | 2400.3 | 2508.9 | 2617.6 | 2695.8 | 2732.0 | 2737.7 |
| 20° | 4310.5 | 3812.9 | 2720.5 | 2268.7 | 2266.8 | 2341.1 | 2449.8 | 2571.8 | 2655.7 | 2695.8 | 2693.8 |
| 22.5° | 4413.5 | 3784.3 | 2514.6 | 2165.8 | 2184.8 | 2253.5 | 2343.1 | 2453.6 | 2531.8 | 2568.0 | 2560.3 |
| 25° | 4550.7 | 3757.6 | 2329.7 | 2074.2 | 2091.4 | 2137.1 | 2200.1 | 2283.9 | 2339.3 | 2358.3 | 2344.9 |
| 27.5° | 4735.6 | 3736.6 | 2184.8 | 1990.4 | 1988.4 | 2009.4 | 2047.5 | 2093.3 | 2120.0 | 2114.2 | 2093.3 |
| 30° | 4962.5 | 3715.7 | 2078.0 | 1916.0 | 1889.3 | 1887.4 | 1904.5 | 1931.2 | 1948.4 | 1914.1 | 1897.0 |
| 32.5° | 5216.1 | 3679.5 | 1982.7 | 1851.1 | 1803.6 | 1786.4 | 1793.9 | 1830.2 | 1900.7 | 1866.5 | 1853.1 |
| 35° | 5515.4 | 3637.5 | 1887.4 | 1780.7 | 1744.4 | 1712.0 | 1717.7 | 1795.9 | 2009.4 | 1984.6 | 1971.3 |
| 37.5° | 5875.7 | 3599.5 | 1799.7 | 1704.3 | 1702.5 | 1662.4 | 1658.6 | 1752.0 | 2038.0 | 1984.6 | 1973.2 |
| 40° | 6308.5 | 3591.8 | 1721.5 | 1620.5 | 1651.0 | 1635.8 | 1622.4 | 1679.6 | 1879.8 | 1771.1 | 1750.2 |
| 42.5° | 6830.9 | 3626.1 | 1664.3 | 1540.5 | 1591.9 | 1628.1 | 1603.4 | 1616.7 | 1698.7 | 1601.4 | 1584.2 |
| 45° | 7440.9 | 3719.6 | 1622.4 | 1469.9 | 1529.0 | 1622.4 | 1593.8 | 1582.4 | 1595.7 | 1542.3 | 1530.8 |
| 47.5° | 8152.1 | 3885.4 | 1593.8 | 1410.8 | 1469.9 | 1607.2 | 1590.0 | 1567.2 | 1561.4 | 1530.8 | 1523.3 |
| 50° | 8912.8 | 4108.5 | 1574.7 | 1357.5 | 1416.5 | 1580.5 | 1588.1 | 1555.7 | 1546.2 | 1532.8 | 1529.0 |
| 52.5° | 9667.7 | 4350.6 | 1551.8 | 1311.6 | 1372.7 | 1548.0 | 1590.0 | 1544.2 | 1530.8 | 1523.3 | 1519.5 |
| 55° | 10418.9 | 4602.3 | 1509.9 | 1271.6 | 1340.3 | 1509.9 | 1588.1 | 1529.0 | 1513.8 | 1513.8 | 1513.8 |
| 57.5° | 11393.0 | 4985.5 | 1454.6 | 1239.2 | 1298.3 | 1460.4 | 1563.3 | 1511.8 | 1490.8 | 1492.8 | 1494.6 |
| 60° | 12800.1 | 5627.9 | 1393.7 | 1203.0 | 1243.0 | 1403.2 | 1525.2 | 1481.3 | 1456.6 | 1464.1 | 1466.1 |
| 62.5° | 15150.7 | 6750.8 | 1309.8 | 1151.5 | 1185.8 | 1342.1 | 1475.6 | 1439.4 | 1416.5 | 1429.9 | 1431.7 |
| 65° | 18284.9 | 8110.2 | 1199.2 | 1086.7 | 1126.7 | 1273.5 | 1412.7 | 1389.8 | 1365.0 | 1397.5 | 1395.5 |
| 67.5° | 20197.1 | 8508.6 | 1082.9 | 1018.0 | 1069.5 | 1201.0 | 1334.5 | 1325.0 | 1307.8 | 1365.0 | 1361.2 |
| 69° | 19569.9 | 7787.9 | 1016.1 | 974.2 | 1029.5 | 1151.5 | 1284.9 | 1281.1 | 1267.8 | 1323.1 | 1319.3 |
| 70° | 18595.7 | 7114.9 | 974.2 | 945.6 | 1008.5 | 1121.1 | 1252.5 | 1252.5 | 1239.2 | 1286.9 | 1277.4 |
| 72.5° | 14937.2 | 5277.1 | 877.0 | 873.2 | 936.1 | 1037.2 | 1164.8 | 1174.3 | 1166.8 | 1184.0 | 1174.3 |
| 75° | 8769.8 | 3179.9 | 781.6 | 793.1 | 848.3 | 947.6 | 1067.7 | 1075.2 | 1067.7 | 1065.7 | 1067.7 |
| 77.5° | 3040.8 | 1426.0 | 690.2 | 707.3 | 754.9 | 856.0 | 960.9 | 976.1 | 964.6 | 951.3 | 955.1 |
| 80° | 1189.6 | 829.3 | 591.0 | 615.8 | 655.8 | 753.1 | 854.1 | 863.7 | 846.5 | 844.5 | 829.3 |
| 82.5° | 714.9 | 505.2 | 459.5 | 499.5 | 549.0 | 653.9 | 737.9 | 734.0 | 720.7 | 798.8 | 699.7 |
| 85° | 310.8 | 280.3 | 335.5 | 375.5 | 400.4 | 490.0 | 623.4 | 606.3 | 573.9 | 505.2 | 493.8 |
| 87.5° | 125.8 | 144.8 | 184.9 | 223.1 | 240.2 | 316.5 | 427.1 | 411.8 | 417.5 | 343.2 | 341.3 |
| 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)