

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: P270959

Luminaire Tested: **NVN-AF-03-LED-U-T4W-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270959
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24127)
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-T4W-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12564.9 lumens
Efficiency: N/A
Efficacy: 101.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short - Semi-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

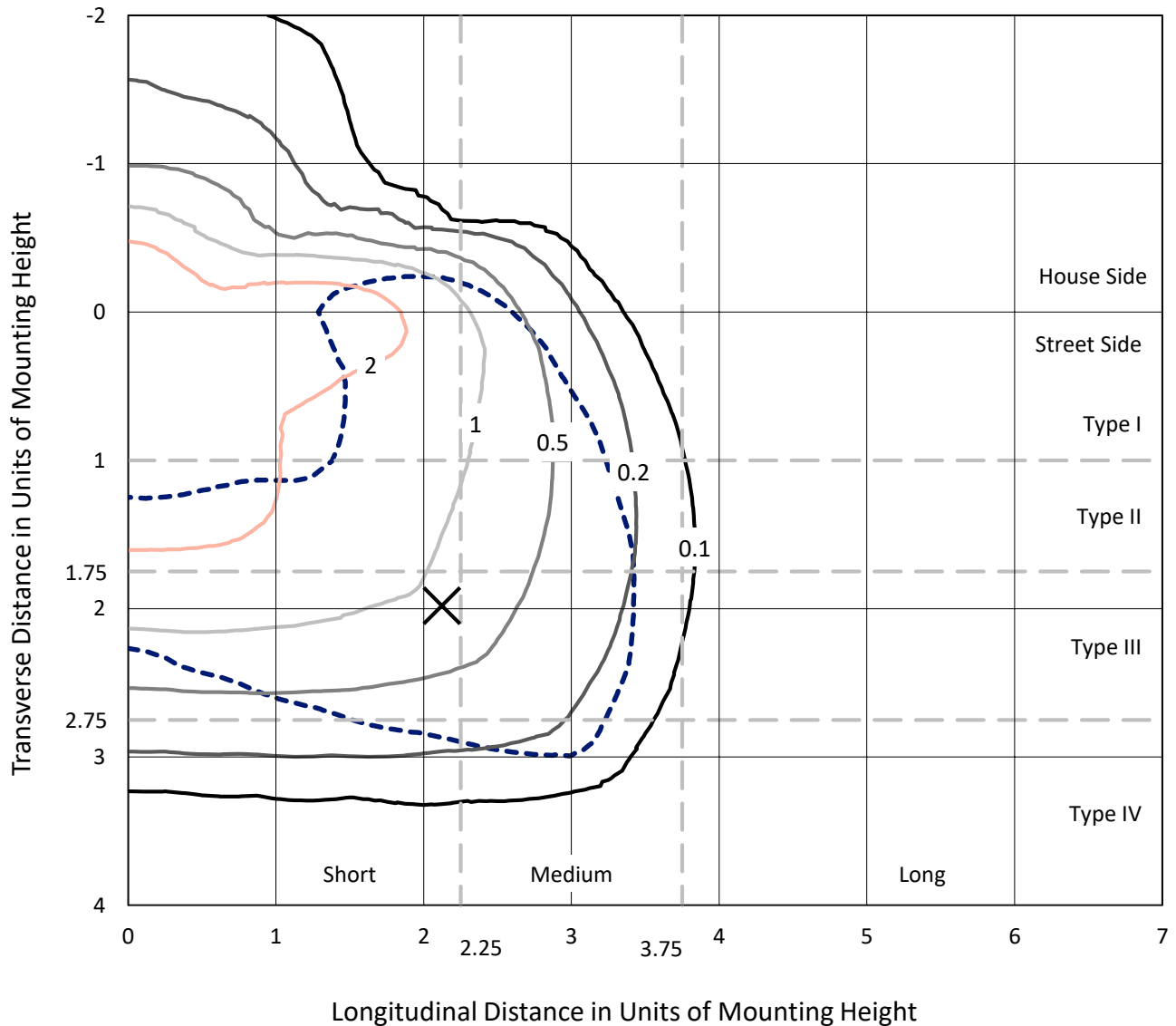


REPORT NUMBER: P270959

CATALOG NUMBER: NVN-AF-03-LED-U-T4W-7027-800

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

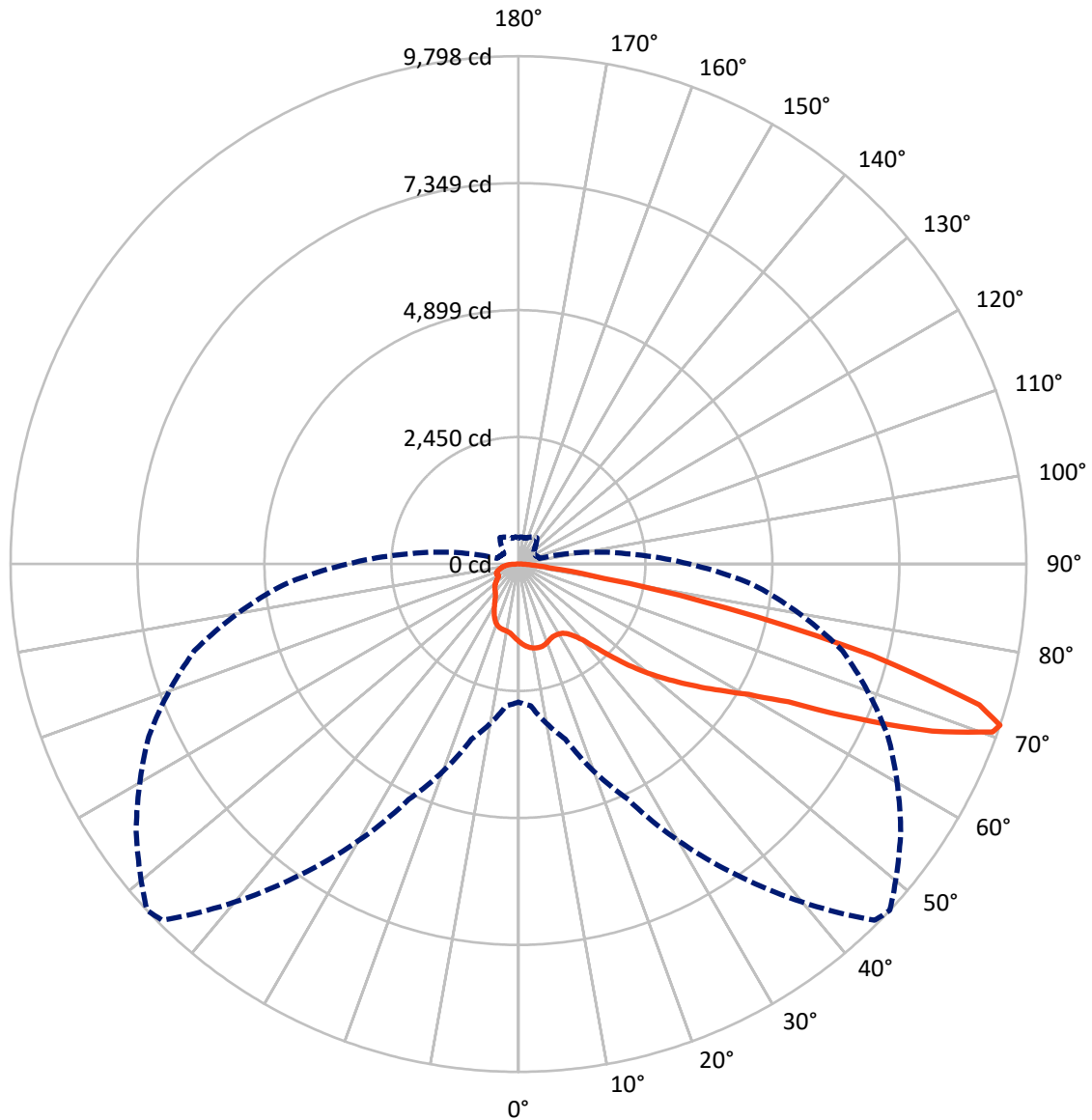


Based on 20 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P270959

CATALOG NUMBER: NVN-AF-03-LED-U-T4W-7027-800

Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P270959

CATALOG NUMBER: NVN-AF-03-LED-U-T4W-7027-800

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2692.8 | 0.0 | 2692.8 |
| | % Fixture | 21.4 | 0.0 | 21.4 |
| Street Side | Lumens | 9872.1 | 0.0 | 9872.1 |
| | % Fixture | 78.6 | 0.0 | 78.6 |
| Total | Lumens | 12564.9 | 0.0 | 12564.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 142.7 | 1.1 |
| 10°-20° | 417.4 | 3.3 |
| 20°-30° | 620.2 | 4.9 |
| 30°-40° | 890.5 | 7.1 |
| 40°-50° | 1578.9 | 12.6 |
| 50°-60° | 2701.7 | 21.5 |
| 60°-70° | 3835.5 | 30.5 |
| 70°-80° | 2100.7 | 16.7 |
| 80°-90° | 277.3 | 2.2 |
| 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° | 12564.9 | 100.0 |
| 0°-180° | 12564.9 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P270959

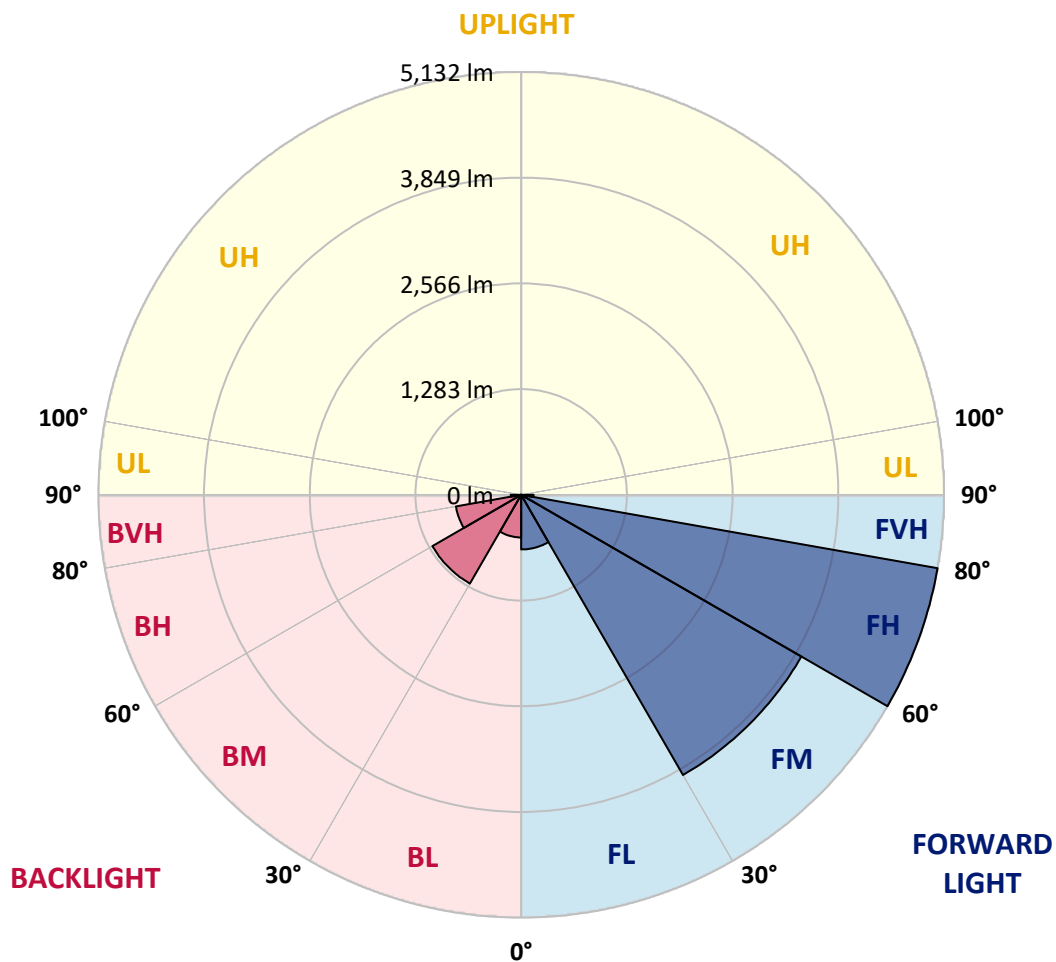
CATALOG NUMBER: NVN-AF-03-LED-U-T4W-7027-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 663.1 | 5.3 | | | |
| FM (30°-60°) | 3926.9 | 31.3 | | | |
| FH (60°-80°) | 5131.6 | 40.8 | | | G3/7500 |
| FVH (80°-90°) | 150.4 | 1.2 | | | G2/225 |
| BL (0°-30°) | 517.1 | 4.1 | B2/1000 | | |
| BM (30°-60°) | 1244.3 | 9.9 | B2/2500 | | |
| BH (60°-80°) | 804.6 | 6.4 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 126.9 | 1.0 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G3

Type IV Short





REPORT NUMBER: P270959

CATALOG NUMBER: NVN-AF-03-LED-U-T4W-7027-800

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 47° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1494.2 | 1494.2 | 1494.2 | 1494.2 | 1494.2 | 1494.2 | 1494.2 | 1494.2 | 1494.2 | 1494.2 | 1494.2 |
| 2.5° | 1585.4 | 1582.2 | 1583.7 | 1578.1 | 1564.2 | 1549.5 | 1549.5 | 1534.0 | 1517.7 | 1501.4 | 1483.6 |
| 5° | 1684.0 | 1679.0 | 1675.0 | 1657.1 | 1630.2 | 1600.1 | 1595.1 | 1564.2 | 1530.8 | 1497.5 | 1464.9 |
| 7.5° | 1766.2 | 1761.2 | 1749.0 | 1716.5 | 1677.3 | 1632.6 | 1626.9 | 1586.1 | 1542.2 | 1495.8 | 1450.3 |
| 10° | 1824.7 | 1821.6 | 1797.9 | 1756.4 | 1710.8 | 1657.8 | 1648.1 | 1606.6 | 1554.4 | 1496.7 | 1438.8 |
| 12.5° | 1857.3 | 1852.5 | 1824.0 | 1775.1 | 1721.3 | 1667.7 | 1657.8 | 1617.9 | 1558.5 | 1495.0 | 1427.3 |
| 15° | 1844.3 | 1841.9 | 1814.9 | 1765.3 | 1711.6 | 1665.2 | 1657.1 | 1616.3 | 1556.0 | 1489.3 | 1416.8 |
| 17.5° | 1789.0 | 1794.6 | 1773.4 | 1724.7 | 1680.6 | 1648.1 | 1639.0 | 1600.9 | 1543.8 | 1475.5 | 1400.5 |
| 20° | 1712.3 | 1718.9 | 1708.3 | 1658.7 | 1633.4 | 1612.3 | 1607.3 | 1576.4 | 1523.4 | 1455.1 | 1381.1 |
| 22.5° | 1631.1 | 1636.7 | 1637.5 | 1591.1 | 1583.0 | 1574.8 | 1570.7 | 1548.8 | 1505.6 | 1442.9 | 1367.9 |
| 25° | 1574.8 | 1581.2 | 1583.0 | 1542.2 | 1547.2 | 1549.5 | 1548.8 | 1533.2 | 1502.3 | 1442.9 | 1369.6 |
| 27.5° | 1560.1 | 1563.4 | 1561.8 | 1524.3 | 1533.2 | 1547.2 | 1547.9 | 1544.6 | 1515.4 | 1459.1 | 1392.5 |
| 30° | 1610.7 | 1612.3 | 1591.8 | 1535.7 | 1544.6 | 1562.6 | 1563.4 | 1561.8 | 1543.1 | 1501.4 | 1443.7 |
| 32.5° | 1828.9 | 1827.2 | 1757.2 | 1612.3 | 1581.2 | 1587.8 | 1590.3 | 1604.9 | 1606.6 | 1571.6 | 1517.7 |
| 35° | 2161.1 | 2160.2 | 2078.8 | 1831.3 | 1685.5 | 1651.4 | 1654.6 | 1677.3 | 1697.7 | 1674.1 | 1643.2 |
| 37.5° | 2526.7 | 2529.1 | 2479.4 | 2144.0 | 1910.2 | 1767.8 | 1764.5 | 1781.6 | 1818.3 | 1826.4 | 1830.4 |
| 40° | 2932.2 | 2944.4 | 2941.9 | 2503.0 | 2225.5 | 1966.5 | 1934.0 | 1914.4 | 1985.2 | 2030.0 | 2087.8 |
| 42.5° | 3395.6 | 3392.2 | 3393.8 | 2897.2 | 2585.3 | 2279.1 | 2218.9 | 2127.6 | 2209.9 | 2287.3 | 2414.4 |
| 45° | 3793.6 | 3806.7 | 3816.4 | 3316.5 | 2988.3 | 2636.5 | 2575.5 | 2409.4 | 2483.5 | 2599.2 | 2792.9 |
| 47.5° | 4194.2 | 4171.5 | 4189.3 | 3783.1 | 3437.1 | 3044.5 | 2965.6 | 2741.6 | 2810.8 | 2973.7 | 3268.5 |
| 50° | 4660.9 | 4650.3 | 4568.9 | 4392.2 | 3979.3 | 3458.1 | 3354.8 | 3088.6 | 3189.5 | 3406.9 | 3855.5 |
| 52.5° | 5079.3 | 5022.5 | 4959.0 | 4871.0 | 4512.6 | 3876.7 | 3745.7 | 3449.2 | 3634.9 | 3904.5 | 4584.3 |
| 55° | 5232.4 | 5194.2 | 5270.7 | 5384.7 | 5077.0 | 4303.4 | 4156.8 | 3870.2 | 4137.4 | 4473.6 | 5441.8 |
| 57.5° | 5395.3 | 5408.3 | 5581.0 | 5811.4 | 5611.2 | 4758.6 | 4599.9 | 4368.5 | 4688.6 | 5110.4 | 6400.2 |
| 60° | 5476.7 | 5528.9 | 5873.3 | 6305.7 | 6119.3 | 5257.7 | 5105.4 | 4940.9 | 5300.1 | 5813.9 | 7356.1 |
| 62.5° | 5490.6 | 5560.6 | 6048.4 | 6479.1 | 6818.7 | 6022.2 | 5846.3 | 5668.1 | 6063.9 | 6591.6 | 8048.3 |
| 65° | 5236.6 | 5344.0 | 6032.8 | 6692.5 | 7456.2 | 7299.8 | 7188.3 | 6877.3 | 7086.5 | 7276.4 | 8166.3 |
| 67.5° | 4489.9 | 4607.1 | 5436.1 | 6604.5 | 7967.5 | 8625.5 | 8604.3 | 8145.1 | 7876.3 | 7540.9 | 7291.0 |
| 70° | 3295.3 | 3389.8 | 4186.1 | 5646.1 | 7744.5 | 9666.1 | 9703.6 | 8966.7 | 8097.1 | 6979.1 | 5421.5 |
| 71° | 2665.1 | 2746.5 | 3497.3 | 5012.6 | 7309.7 | 9719.9 | 9798.1 | 9003.4 | 7867.4 | 6471.7 | 4538.7 |
| 72.5° | 1658.7 | 1704.3 | 2322.3 | 3783.1 | 6294.2 | 9166.2 | 9298.1 | 8534.3 | 7144.4 | 5470.3 | 3208.1 |
| 75° | 626.2 | 644.1 | 861.5 | 1668.4 | 3757.0 | 6886.2 | 7045.9 | 6449.8 | 5019.1 | 3122.7 | 1342.7 |
| 77.5° | 336.2 | 345.3 | 427.6 | 693.8 | 1505.6 | 3947.5 | 4152.8 | 3678.9 | 2407.7 | 1092.8 | 548.9 |
| 80° | 225.6 | 231.3 | 295.6 | 411.2 | 692.1 | 1503.1 | 1674.1 | 1477.1 | 901.4 | 623.8 | 390.9 |
| 82.5° | 145.7 | 148.9 | 201.1 | 270.3 | 447.0 | 528.5 | 603.4 | 630.3 | 562.7 | 447.0 | 236.2 |
| 85° | 96.1 | 98.5 | 132.7 | 172.7 | 276.9 | 260.6 | 267.1 | 349.4 | 383.5 | 294.7 | 120.6 |
| 87.5° | 55.3 | 57.0 | 79.8 | 88.8 | 124.5 | 97.7 | 105.9 | 166.0 | 228.0 | 192.1 | 69.2 |
| 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: P270959

CATALOG NUMBER: NVN-AF-03-LED-U-T4W-7027-800

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1494.2 | 1494.2 | 1494.2 | 1494.2 | 1494.2 | 1494.2 | 1494.2 | 1494.2 | 1494.2 | 1494.2 | 1494.2 |
| 2.5° | 1475.5 | 1469.0 | 1454.3 | 1445.4 | 1441.2 | 1439.7 | 1437.9 | 1441.2 | 1441.2 | 1439.7 | 1436.4 |
| 5° | 1448.5 | 1436.4 | 1412.0 | 1394.9 | 1385.8 | 1383.4 | 1386.8 | 1390.8 | 1393.2 | 1393.2 | 1390.8 |
| 7.5° | 1429.1 | 1411.1 | 1378.5 | 1355.0 | 1341.1 | 1337.0 | 1346.0 | 1360.7 | 1370.5 | 1375.2 | 1376.2 |
| 10° | 1412.8 | 1388.3 | 1352.5 | 1328.1 | 1316.6 | 1315.1 | 1326.4 | 1345.1 | 1365.6 | 1374.4 | 1376.2 |
| 12.5° | 1398.1 | 1370.5 | 1331.3 | 1308.6 | 1300.3 | 1304.5 | 1319.9 | 1337.0 | 1360.7 | 1373.7 | 1374.4 |
| 15° | 1384.3 | 1355.7 | 1314.2 | 1290.7 | 1289.0 | 1295.4 | 1310.2 | 1324.0 | 1341.9 | 1358.1 | 1358.1 |
| 17.5° | 1367.9 | 1337.0 | 1293.9 | 1271.9 | 1271.9 | 1277.6 | 1287.4 | 1294.6 | 1306.0 | 1321.5 | 1320.8 |
| 20° | 1348.4 | 1316.6 | 1272.7 | 1249.9 | 1245.1 | 1241.7 | 1241.7 | 1243.3 | 1253.1 | 1267.0 | 1269.5 |
| 22.5° | 1333.8 | 1301.1 | 1254.8 | 1227.2 | 1205.2 | 1184.0 | 1175.1 | 1171.7 | 1180.7 | 1193.7 | 1197.0 |
| 25° | 1333.8 | 1301.1 | 1249.2 | 1202.7 | 1148.9 | 1108.1 | 1091.1 | 1086.2 | 1095.3 | 1107.4 | 1112.3 |
| 27.5° | 1355.7 | 1323.2 | 1262.1 | 1180.7 | 1082.2 | 1017.1 | 996.7 | 992.5 | 1000.7 | 1010.6 | 1015.4 |
| 30° | 1407.0 | 1375.2 | 1299.6 | 1155.4 | 1008.1 | 922.6 | 899.7 | 895.7 | 899.7 | 903.9 | 909.5 |
| 32.5° | 1492.5 | 1465.7 | 1360.7 | 1132.7 | 933.2 | 837.1 | 809.5 | 802.8 | 804.5 | 805.3 | 810.2 |
| 35° | 1631.9 | 1619.6 | 1442.0 | 1105.8 | 862.4 | 767.1 | 738.5 | 725.6 | 724.8 | 728.7 | 734.5 |
| 37.5° | 1845.1 | 1852.5 | 1547.2 | 1066.6 | 803.7 | 717.3 | 688.9 | 675.9 | 669.3 | 677.5 | 684.0 |
| 40° | 2146.4 | 2163.5 | 1668.4 | 1013.7 | 755.7 | 688.0 | 657.9 | 645.7 | 636.8 | 634.4 | 637.5 |
| 42.5° | 2538.2 | 2533.2 | 1792.2 | 946.2 | 703.6 | 668.5 | 636.8 | 623.8 | 609.1 | 590.4 | 586.2 |
| 45° | 3002.1 | 2932.2 | 1895.7 | 863.1 | 644.1 | 649.7 | 617.2 | 599.3 | 576.5 | 548.9 | 545.6 |
| 47.5° | 3550.2 | 3357.2 | 1959.2 | 774.3 | 588.7 | 625.4 | 595.2 | 567.5 | 534.1 | 516.3 | 513.8 |
| 50° | 4210.5 | 3854.7 | 2003.8 | 684.0 | 539.1 | 594.4 | 564.2 | 527.7 | 495.1 | 490.1 | 489.3 |
| 52.5° | 4992.3 | 4441.8 | 2059.3 | 602.6 | 499.9 | 554.6 | 533.4 | 495.9 | 469.9 | 472.2 | 472.2 |
| 55° | 5823.6 | 5049.3 | 2060.9 | 538.3 | 465.7 | 508.1 | 510.5 | 480.5 | 460.0 | 468.1 | 470.6 |
| 57.5° | 6581.7 | 5580.2 | 1898.8 | 492.6 | 433.3 | 471.5 | 503.2 | 486.2 | 470.6 | 499.2 | 501.7 |
| 60° | 7242.9 | 5988.9 | 1550.4 | 455.3 | 406.4 | 457.6 | 519.5 | 521.1 | 517.9 | 595.2 | 601.0 |
| 62.5° | 7484.8 | 5993.0 | 1101.0 | 423.5 | 391.8 | 465.7 | 553.6 | 556.1 | 556.1 | 627.7 | 638.3 |
| 65° | 7145.9 | 5493.9 | 732.8 | 404.6 | 381.9 | 483.6 | 581.5 | 570.9 | 545.6 | 595.2 | 583.8 |
| 67.5° | 5952.3 | 4276.6 | 535.7 | 392.5 | 368.0 | 484.5 | 605.7 | 579.0 | 535.7 | 578.1 | 558.6 |
| 70° | 4090.9 | 2721.2 | 448.7 | 381.2 | 351.7 | 463.3 | 618.8 | 576.5 | 521.1 | 539.1 | 513.0 |
| 71° | 3292.8 | 2171.7 | 425.8 | 377.0 | 345.3 | 451.0 | 620.5 | 573.3 | 513.8 | 525.1 | 501.7 |
| 72.5° | 2169.1 | 1337.8 | 398.2 | 368.0 | 335.4 | 429.8 | 616.3 | 565.9 | 503.9 | 504.8 | 489.3 |
| 75° | 855.7 | 554.6 | 358.2 | 347.7 | 307.8 | 395.8 | 598.5 | 550.4 | 485.4 | 469.0 | 462.4 |
| 77.5° | 432.4 | 362.3 | 315.1 | 319.2 | 275.2 | 360.7 | 573.3 | 525.1 | 459.3 | 437.2 | 432.4 |
| 80° | 315.9 | 275.2 | 269.5 | 276.9 | 238.6 | 326.5 | 541.5 | 491.1 | 425.8 | 448.7 | 438.9 |
| 82.5° | 192.1 | 167.8 | 210.9 | 228.8 | 199.6 | 291.5 | 503.9 | 451.0 | 383.5 | 353.5 | 342.0 |
| 85° | 91.2 | 98.5 | 152.3 | 168.5 | 147.4 | 232.9 | 460.9 | 407.1 | 334.7 | 289.1 | 293.9 |
| 87.5° | 44.7 | 54.5 | 87.1 | 101.0 | 96.8 | 170.9 | 347.7 | 315.9 | 263.8 | 217.4 | 212.4 |
| 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)