

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: METALUX

Report Number: P566907

Luminaire Tested: **4SNX-87HL-FDL-UNV-L935-CD**

Issue Date: 9/15/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P566907  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2204-622-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/15/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SNX-87HL-FDL-UNV-L935-CD  
Description: 4FT 8700 LUMEN, SNX FIXTURE WITH 3500K, 90CRI LEDS AND FDL LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

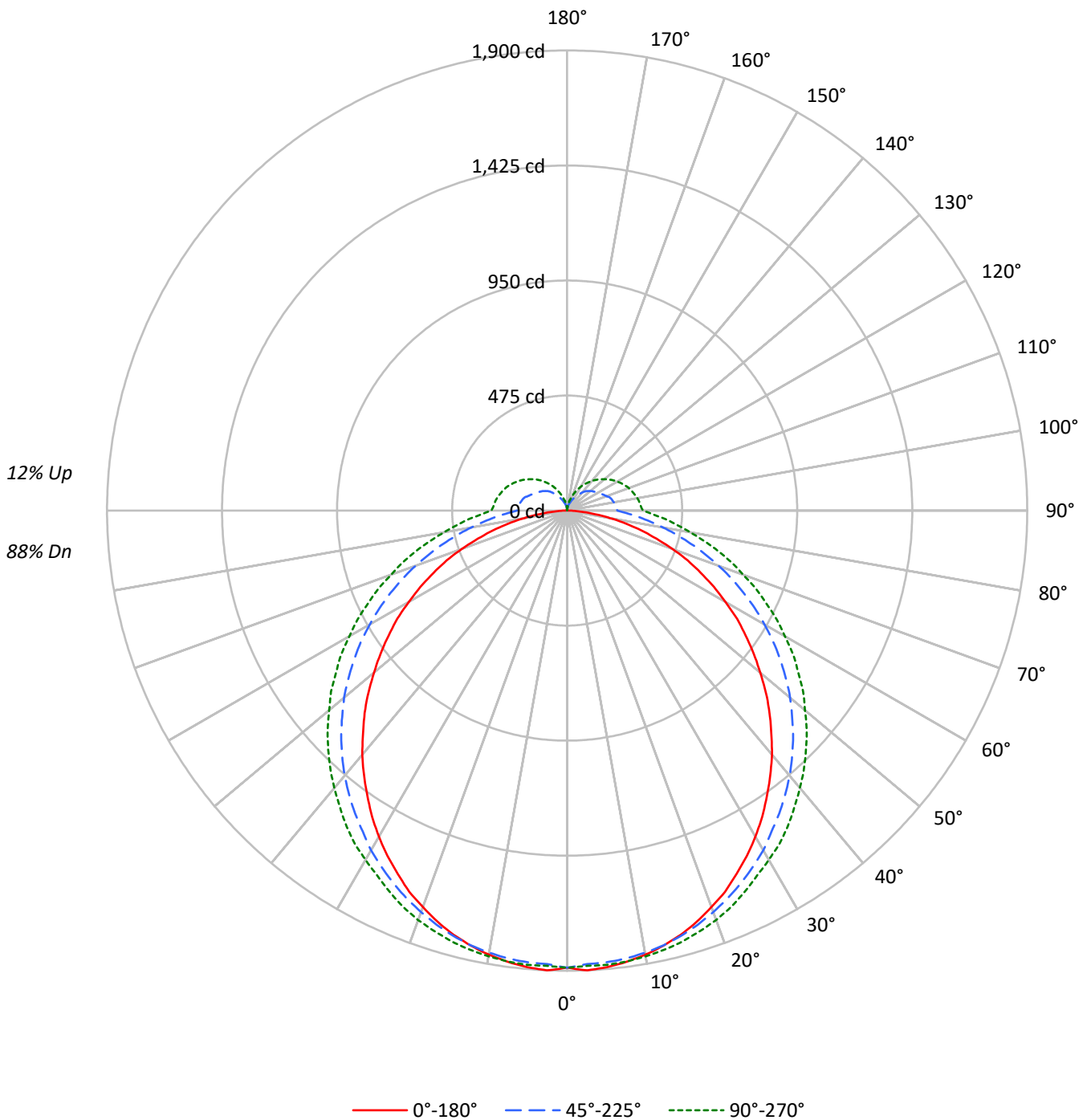
Lumens per Lamp: N/A  
Luminaire Lumens: 6795.0 lumens  
Efficiency: N/A  
Efficacy: 109.2 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.31 / 1.41  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.04')  
CIE Type: Semi-Direct

Input Watts (W): 62.2  
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: 25 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |    | 20 |    |    |    | 20 |    |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |    | 30 |    |    |    | 10 | 0  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50 | 30 | 10 | 50 | 30 | 10 | 0  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| 0   | 116 | 116 | 116 | 116 | 112 | 112 | 112 | 112 | 105 | 105 | 105 | 98 | 98 | 98 | 91 | 91 | 91 | 88 |
| 1   | 105 | 99  | 95  | 90  | 101 | 96  | 92  | 88  | 89  | 86  | 83  | 84 | 81 | 78 | 78 | 76 | 74 | 71 |
| 2   | 95  | 86  | 79  | 72  | 91  | 83  | 76  | 71  | 77  | 72  | 67  | 72 | 68 | 64 | 68 | 64 | 61 | 58 |
| 3   | 86  | 75  | 66  | 60  | 82  | 72  | 65  | 58  | 68  | 61  | 56  | 63 | 58 | 53 | 59 | 55 | 51 | 48 |
| 4   | 78  | 66  | 57  | 50  | 75  | 64  | 56  | 49  | 60  | 53  | 47  | 56 | 50 | 45 | 53 | 48 | 43 | 41 |
| 5   | 72  | 59  | 50  | 43  | 69  | 57  | 48  | 42  | 54  | 46  | 41  | 50 | 44 | 39 | 47 | 42 | 38 | 35 |
| 6   | 66  | 53  | 44  | 37  | 64  | 51  | 43  | 37  | 48  | 41  | 35  | 45 | 39 | 34 | 43 | 37 | 33 | 31 |
| 7   | 61  | 48  | 39  | 33  | 59  | 46  | 38  | 32  | 44  | 36  | 31  | 41 | 35 | 30 | 39 | 33 | 29 | 27 |
| 8   | 57  | 43  | 35  | 29  | 55  | 42  | 34  | 29  | 40  | 33  | 28  | 38 | 31 | 27 | 36 | 30 | 26 | 24 |
| 9   | 53  | 40  | 32  | 26  | 51  | 39  | 31  | 26  | 37  | 30  | 25  | 35 | 29 | 24 | 33 | 27 | 23 | 21 |
| 10  | 50  | 37  | 29  | 23  | 48  | 36  | 28  | 23  | 34  | 27  | 22  | 32 | 26 | 22 | 31 | 25 | 21 | 19 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 20316 | 20316 | 20316 |
| 5°  | 20425 | 20011 | 20050 |
| 10° | 20312 | 19822 | 19843 |
| 15° | 20146 | 19597 | 19649 |
| 20° | 19878 | 19325 | 19428 |
| 25° | 19557 | 19051 | 19132 |
| 30° | 19207 | 18775 | 18879 |
| 35° | 18762 | 18444 | 18704 |
| 40° | 18333 | 18169 | 18432 |
| 45° | 17810 | 17851 | 18204 |
| 50° | 17207 | 17515 | 17915 |
| 55° | 16633 | 17097 | 17656 |
| 60° | 15970 | 16654 | 17339 |
| 65° | 15162 | 16145 | 17030 |
| 70° | 14135 | 15586 | 16678 |
| 75° | 12670 | 14974 | 16558 |
| 80° | 10623 | 14593 | 16427 |
| 85° | 7703  | 14894 | 17316 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 179.2  | 2.6       |
| 10°-20°   | 515.4  | 7.6       |
| 20°-30°   | 784.1  | 11.5      |
| 30°-40°   | 953.4  | 14.0      |
| 40°-50°   | 1008.7 | 14.8      |
| 50°-60°   | 945.5  | 13.9      |
| 60°-70°   | 777.8  | 11.4      |
| 70°-80°   | 538.2  | 7.9       |
| 80°-90°   | 299.3  | 4.4       |
| 90°-100°  | 197.2  | 2.9       |
| 100°-110° | 176.8  | 2.6       |
| 110°-120° | 146.3  | 2.2       |
| 120°-130° | 113.1  | 1.7       |
| 130°-140° | 80.1   | 1.2       |
| 140°-150° | 48.3   | 0.7       |
| 150°-160° | 23.2   | 0.3       |
| 160°-170° | 7.6    | 0.1       |
| 170°-180° | 0.9    | 0.0       |
| 0°-30°    | 1478.7 | 21.8      |
| 0°-40°    | 2432.1 | 35.8      |
| 0°-60°    | 4386.2 | 64.6      |
| 0°-90°    | 6001.5 | 88.3      |
| 90°-120°  | 520.3  | 7.7       |
| 90°-150°  | 761.8  | 11.2      |
| 90°-180°  | 794.0  | 11.7      |
| 0°-180°   | 6795.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1887 | 1887  | 1887 | 1887  | 1887 |      |
| 5°   | 1892 | 1889  | 1872 | 1887  | 1883 | 180  |
| 15°  | 1813 | 1819  | 1818 | 1842  | 1842 | 511  |
| 25°  | 1655 | 1678  | 1698 | 1735  | 1736 | 763  |
| 35°  | 1438 | 1477  | 1527 | 1576  | 1590 | 900  |
| 45°  | 1182 | 1244  | 1320 | 1379  | 1395 | 911  |
| 55°  | 900  | 980   | 1074 | 1142  | 1165 | 805  |
| 65°  | 609  | 696   | 804  | 883   | 908  | 603  |
| 75°  | 316  | 408   | 528  | 612   | 646  | 336  |
| 85°  | 70   | 173   | 293  | 375   | 407  | 80   |
| 90°  | 1    | 98    | 207  | 285   | 313  | 5    |
| 95°  | 1    | 93    | 201  | 276   | 302  | 1    |
| 105° | 1    | 80    | 188  | 260   | 283  | 1    |
| 115° | 2    | 70    | 159  | 230   | 256  | 2    |
| 125° | 2    | 59    | 136  | 197   | 221  | 2    |
| 135° | 2    | 46    | 114  | 162   | 182  | 2    |
| 145° | 2    | 34    | 79   | 122   | 137  | 1    |
| 155° | 4    | 23    | 49   | 78    | 91   | 2    |
| 165° | 4    | 15    | 27   | 36    | 46   | 1    |
| 175° | 4    | 6     | 8    | 8     | 5    | 0    |
| 180° | 2    | 2     | 2    | 2     | 2    |      |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1887.4 | 1887.4 | 1887.4 | 1887.4 | 1887.4 |
| 2.5°   | 1900.2 | 1894.4 | 1874.6 | 1887.4 | 1881.6 |
| 5°     | 1892.0 | 1888.6 | 1872.3 | 1887.4 | 1882.7 |
| 7.5°   | 1879.2 | 1878.1 | 1865.3 | 1882.7 | 1878.1 |
| 10°    | 1861.8 | 1864.1 | 1853.6 | 1872.3 | 1868.8 |
| 12.5°  | 1839.7 | 1843.2 | 1838.5 | 1859.5 | 1857.1 |
| 15°    | 1812.9 | 1818.7 | 1817.6 | 1842.0 | 1842.0 |
| 17.5°  | 1780.3 | 1788.5 | 1793.1 | 1821.1 | 1821.1 |
| 20°    | 1741.9 | 1754.7 | 1764.0 | 1794.3 | 1799.0 |
| 22.5°  | 1703.5 | 1718.7 | 1732.6 | 1764.0 | 1771.0 |
| 25°    | 1654.7 | 1677.9 | 1697.7 | 1735.0 | 1736.1 |
| 27.5°  | 1607.0 | 1632.6 | 1659.3 | 1695.4 | 1698.9 |
| 30°    | 1554.6 | 1587.2 | 1619.8 | 1654.7 | 1665.1 |
| 32.5°  | 1498.7 | 1534.8 | 1570.9 | 1617.4 | 1631.4 |
| 35°    | 1438.2 | 1476.6 | 1526.7 | 1575.5 | 1589.5 |
| 37.5°  | 1377.7 | 1420.8 | 1479.0 | 1529.0 | 1541.8 |
| 40°    | 1316.1 | 1363.8 | 1428.9 | 1480.1 | 1495.2 |
| 42.5°  | 1247.4 | 1305.6 | 1375.4 | 1430.1 | 1447.5 |
| 45°    | 1182.2 | 1243.9 | 1319.5 | 1378.9 | 1395.2 |
| 47.5°  | 1113.6 | 1178.7 | 1260.2 | 1323.0 | 1341.7 |
| 50°    | 1040.3 | 1114.7 | 1202.0 | 1264.9 | 1282.3 |
| 52.5°  | 971.6  | 1047.3 | 1139.2 | 1204.3 | 1228.8 |
| 55°    | 899.5  | 979.8  | 1074.0 | 1141.5 | 1164.8 |
| 57.5°  | 832.0  | 908.8  | 1010.0 | 1077.5 | 1106.6 |
| 60°    | 755.2  | 840.1  | 941.4  | 1014.7 | 1037.9 |
| 62.5°  | 683.0  | 769.2  | 873.9  | 949.5  | 976.3  |
| 65°    | 608.6  | 695.8  | 804.1  | 883.2  | 907.6  |
| 67.5°  | 538.8  | 624.9  | 735.4  | 813.4  | 844.8  |
| 70°    | 462.0  | 552.7  | 665.6  | 745.9  | 772.6  |
| 72.5°  | 386.3  | 480.6  | 595.8  | 681.9  | 712.1  |
| 75°    | 316.5  | 408.4  | 528.3  | 612.1  | 645.8  |
| 77.5°  | 249.0  | 342.1  | 463.1  | 549.2  | 578.3  |
| 80°    | 181.5  | 279.3  | 402.6  | 487.6  | 515.5  |
| 82.5°  | 119.9  | 222.3  | 344.4  | 429.4  | 459.6  |
| 85°    | 69.8   | 173.4  | 293.2  | 374.7  | 407.3  |
| 87.5°  | 30.3   | 131.5  | 245.5  | 325.8  | 352.6  |
| 90°    | 1.2    | 97.7   | 207.1  | 285.1  | 313.0  |
| 92.5°  | 1.2    | 95.4   | 202.5  | 279.3  | 306.0  |
| 95°    | 1.2    | 93.1   | 201.3  | 275.8  | 302.5  |
| 97.5°  | 1.2    | 91.9   | 199.0  | 273.5  | 299.0  |
| 100°   | 1.2    | 88.4   | 195.5  | 268.8  | 294.4  |
| 102.5° | 1.2    | 83.8   | 192.0  | 264.1  | 288.6  |
| 105°   | 1.2    | 80.3   | 188.5  | 259.5  | 282.8  |
| 107.5° | 1.2    | 76.8   | 182.7  | 253.7  | 276.9  |
| 110°   | 1.2    | 73.3   | 173.4  | 247.9  | 271.1  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°   | 67.5° | 90°   |
|--------|-----|-------|-------|-------|-------|
| 112.5° | 1.2 | 72.1  | 166.4 | 239.7 | 264.1 |
| 115°   | 2.3 | 69.8  | 159.4 | 230.4 | 256.0 |
| 117.5° | 2.3 | 68.7  | 153.6 | 221.1 | 247.9 |
| 120°   | 2.3 | 65.2  | 147.8 | 212.9 | 238.5 |
| 122.5° | 2.3 | 61.7  | 142.0 | 204.8 | 230.4 |
| 125°   | 2.3 | 59.3  | 136.1 | 196.7 | 221.1 |
| 127.5° | 2.3 | 55.9  | 131.5 | 188.5 | 210.6 |
| 130°   | 2.3 | 53.5  | 125.7 | 179.2 | 201.3 |
| 132.5° | 2.3 | 50.0  | 119.9 | 169.9 | 190.8 |
| 135°   | 2.3 | 46.5  | 114.0 | 161.7 | 181.5 |
| 137.5° | 2.3 | 41.9  | 107.1 | 152.4 | 171.1 |
| 140°   | 2.3 | 38.4  | 97.7  | 143.1 | 160.6 |
| 142.5° | 2.3 | 36.1  | 88.4  | 132.7 | 148.9 |
| 145°   | 2.3 | 33.7  | 79.1  | 122.2 | 137.3 |
| 147.5° | 2.3 | 31.4  | 71.0  | 111.7 | 125.7 |
| 150°   | 2.3 | 27.9  | 62.8  | 102.4 | 114.0 |
| 152.5° | 3.5 | 25.6  | 55.9  | 90.8  | 102.4 |
| 155°   | 3.5 | 23.3  | 48.9  | 78.0  | 90.8  |
| 157.5° | 3.5 | 20.9  | 41.9  | 65.2  | 79.1  |
| 160°   | 3.5 | 18.6  | 36.1  | 53.5  | 67.5  |
| 162.5° | 3.5 | 17.5  | 31.4  | 44.2  | 57.0  |
| 165°   | 3.5 | 15.1  | 26.8  | 36.1  | 46.5  |
| 167.5° | 3.5 | 11.6  | 22.1  | 27.9  | 38.4  |
| 170°   | 3.5 | 9.3   | 17.5  | 19.8  | 29.1  |
| 172.5° | 3.5 | 7.0   | 12.8  | 14.0  | 15.1  |
| 175°   | 3.5 | 5.8   | 8.1   | 8.1   | 4.7   |
| 177.5° | 3.5 | 4.7   | 4.7   | 4.7   | 2.3   |
| 180°   | 2.3 | 2.3   | 2.3   | 2.3   | 2.3   |

(END OF REPORT)