

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: P566919

Luminaire Tested: **4SNX-87HL-LN-UNV-L835-CD**

Issue Date: 9/15/2022



Test Information

Test Method: LM-79-08
Report Number: P566919
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2204-622-3)
Test Lab: INNOVATION CENTER
Issue Date: 9/15/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNX-87HL-LN-UNV-L835-CD
Description: 4FT 8700 LUMEN, SNX FIXTURE WITH 3500K, 80CRI LEDS AND LN LENS
Light Source: -
Ballast/Driver: -

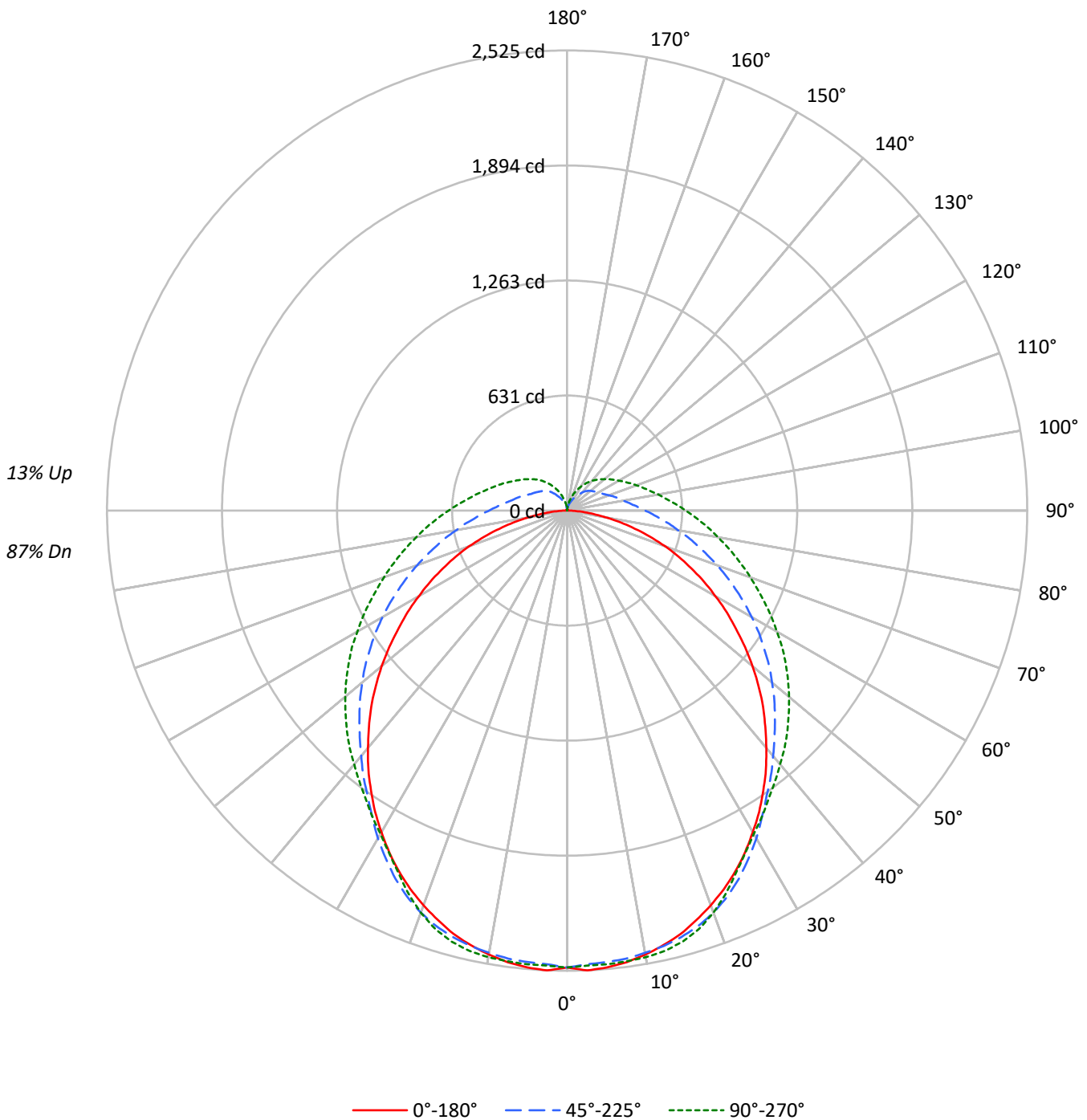
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9050.0 lumens
Efficiency: N/A
Efficacy: 145.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.35
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.17')
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

TEST NUMBER: P566919
CATALOG NUMBER: 4SNX-87HL-LN-UNV-L835-CD

Luminous Intensity Polar Plot





TEST NUMBER: P566919

CATALOG NUMBER: 4SNX-87HL-LN-UNV-L835-CD

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 | 104 | 104 | 104 | 96 | 96 | 96 | 90 | 90 | 90 | 87 |
| 1 | 104 | 98 | 93 | 89 | 100 | 95 | 90 | 86 | 88 | 84 | 81 | 82 | 79 | 76 | 76 | 74 | 72 | 68 |
| 2 | 94 | 85 | 77 | 71 | 90 | 82 | 75 | 69 | 76 | 70 | 66 | 71 | 66 | 62 | 66 | 62 | 59 | 56 |
| 3 | 85 | 74 | 65 | 58 | 81 | 71 | 63 | 57 | 66 | 60 | 54 | 62 | 56 | 52 | 58 | 53 | 49 | 46 |
| 4 | 78 | 65 | 56 | 49 | 74 | 63 | 55 | 48 | 59 | 52 | 46 | 55 | 49 | 44 | 51 | 46 | 42 | 39 |
| 5 | 71 | 58 | 49 | 42 | 68 | 56 | 48 | 41 | 53 | 45 | 40 | 49 | 43 | 38 | 46 | 41 | 36 | 34 |
| 6 | 66 | 52 | 43 | 37 | 63 | 51 | 42 | 36 | 47 | 40 | 35 | 44 | 38 | 33 | 42 | 36 | 32 | 29 |
| 7 | 61 | 47 | 38 | 32 | 58 | 46 | 38 | 32 | 43 | 36 | 30 | 41 | 34 | 29 | 38 | 33 | 28 | 26 |
| 8 | 57 | 43 | 35 | 29 | 54 | 42 | 34 | 28 | 39 | 32 | 27 | 37 | 31 | 26 | 35 | 29 | 25 | 23 |
| 9 | 53 | 39 | 31 | 26 | 51 | 38 | 31 | 25 | 36 | 29 | 24 | 34 | 28 | 24 | 32 | 27 | 23 | 21 |
| 10 | 50 | 36 | 28 | 23 | 48 | 35 | 28 | 23 | 34 | 27 | 22 | 32 | 26 | 21 | 30 | 25 | 21 | 19 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 26985 | 26985 | 26985 |
| 5° | 27089 | 25745 | 25517 |
| 10° | 26836 | 24747 | 24339 |
| 15° | 26513 | 23802 | 23152 |
| 20° | 26003 | 22744 | 21639 |
| 25° | 25454 | 21464 | 19864 |
| 30° | 24729 | 20028 | 18383 |
| 35° | 23958 | 18568 | 17277 |
| 40° | 23080 | 17395 | 16382 |
| 45° | 22220 | 16355 | 15611 |
| 50° | 21197 | 15397 | 14833 |
| 55° | 20001 | 14436 | 14071 |
| 60° | 18854 | 13477 | 13275 |
| 65° | 17577 | 12510 | 12545 |
| 70° | 16119 | 11604 | 11885 |
| 75° | 13860 | 10719 | 11342 |
| 80° | 10925 | 9955 | 10882 |
| 85° | 7320 | 9412 | 10618 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 238.2 | 2.6 |
| 10°-20° | 684.7 | 7.6 |
| 20°-30° | 1019.6 | 11.3 |
| 30°-40° | 1203.1 | 13.3 |
| 40°-50° | 1254.7 | 13.9 |
| 50°-60° | 1179.1 | 13.0 |
| 60°-70° | 995.8 | 11.0 |
| 70°-80° | 752.4 | 8.3 |
| 80°-90° | 518.6 | 5.7 |
| 90°-100° | 362.9 | 4.0 |
| 100°-110° | 270.8 | 3.0 |
| 110°-120° | 204.2 | 2.3 |
| 120°-130° | 152.3 | 1.7 |
| 130°-140° | 106.9 | 1.2 |
| 140°-150° | 64.6 | 0.7 |
| 150°-160° | 30.9 | 0.3 |
| 160°-170° | 9.9 | 0.1 |
| 170°-180° | 1.2 | 0.0 |
| 0°-30° | 1942.5 | 21.5 |
| 0°-40° | 3145.7 | 34.8 |
| 0°-60° | 5579.5 | 61.7 |
| 0°-90° | 7846.3 | 86.7 |
| 90°-120° | 837.9 | 9.3 |
| 90°-150° | 1161.7 | 12.8 |
| 90°-180° | 1204.0 | 13.3 |
| 0°-180° | 9050.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2507 | 2507 | 2507 | 2507 | 2507 | |
| 5° | 2516 | 2512 | 2487 | 2506 | 2499 | 239 |
| 15° | 2406 | 2416 | 2423 | 2453 | 2449 | 677 |
| 25° | 2185 | 2229 | 2229 | 2209 | 2192 | 1005 |
| 35° | 1876 | 1946 | 1909 | 1924 | 1929 | 1173 |
| 45° | 1520 | 1596 | 1612 | 1678 | 1709 | 1171 |
| 55° | 1129 | 1226 | 1320 | 1425 | 1464 | 1013 |
| 65° | 752 | 872 | 1019 | 1152 | 1197 | 747 |
| 75° | 385 | 534 | 740 | 894 | 951 | 410 |
| 85° | 88 | 275 | 512 | 681 | 741 | 98 |
| 90° | 2 | 195 | 428 | 592 | 650 | 6 |
| 95° | 2 | 152 | 362 | 519 | 572 | 1 |
| 105° | 3 | 109 | 279 | 405 | 451 | 3 |
| 115° | 3 | 94 | 216 | 322 | 364 | 3 |
| 125° | 5 | 80 | 183 | 264 | 298 | 4 |
| 135° | 5 | 61 | 152 | 215 | 241 | 4 |
| 145° | 6 | 44 | 106 | 164 | 184 | 3 |
| 155° | 6 | 29 | 64 | 104 | 121 | 3 |
| 165° | 8 | 18 | 34 | 46 | 61 | 2 |
| 175° | 8 | 8 | 9 | 9 | 5 | 1 |
| 180° | 5 | 5 | 5 | 5 | 5 | |



TEST NUMBER: P566919

CATALOG NUMBER: 4SNX-87HL-LN-UNV-L835-CD

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2507.0 | 2507.0 | 2507.0 | 2507.0 | 2507.0 |
| 2.5° | 2525.4 | 2519.3 | 2491.7 | 2507.0 | 2499.3 |
| 5° | 2516.2 | 2511.6 | 2487.1 | 2505.5 | 2499.3 |
| 7.5° | 2499.3 | 2497.8 | 2479.4 | 2500.9 | 2494.7 |
| 10° | 2473.3 | 2477.9 | 2464.1 | 2493.2 | 2488.6 |
| 12.5° | 2442.6 | 2451.8 | 2447.2 | 2479.4 | 2474.8 |
| 15° | 2405.8 | 2416.5 | 2422.6 | 2453.3 | 2448.7 |
| 17.5° | 2356.7 | 2376.6 | 2390.4 | 2415.0 | 2407.3 |
| 20° | 2304.5 | 2332.1 | 2347.5 | 2359.7 | 2347.5 |
| 22.5° | 2247.7 | 2284.5 | 2293.8 | 2287.6 | 2275.3 |
| 25° | 2184.8 | 2229.3 | 2229.3 | 2209.4 | 2192.5 |
| 27.5° | 2114.2 | 2169.5 | 2154.1 | 2131.1 | 2117.3 |
| 30° | 2037.5 | 2103.5 | 2077.4 | 2051.3 | 2048.3 |
| 32.5° | 1960.8 | 2029.9 | 1991.5 | 1985.4 | 1990.0 |
| 35° | 1876.4 | 1945.5 | 1908.6 | 1924.0 | 1928.6 |
| 37.5° | 1792.0 | 1861.1 | 1836.5 | 1859.6 | 1873.4 |
| 40° | 1700.0 | 1773.6 | 1758.3 | 1799.7 | 1818.1 |
| 42.5° | 1609.5 | 1686.2 | 1684.6 | 1738.3 | 1766.0 |
| 45° | 1520.5 | 1595.7 | 1612.5 | 1678.5 | 1709.2 |
| 47.5° | 1423.8 | 1500.5 | 1542.0 | 1618.7 | 1649.4 |
| 50° | 1328.7 | 1411.5 | 1468.3 | 1554.2 | 1589.5 |
| 52.5° | 1230.5 | 1317.9 | 1396.2 | 1491.3 | 1528.1 |
| 55° | 1129.2 | 1225.9 | 1319.5 | 1425.3 | 1463.7 |
| 57.5° | 1038.7 | 1136.9 | 1247.4 | 1356.3 | 1400.8 |
| 60° | 939.0 | 1047.9 | 1169.1 | 1284.2 | 1328.7 |
| 62.5° | 848.5 | 960.5 | 1095.5 | 1216.7 | 1264.2 |
| 65° | 751.8 | 871.5 | 1018.8 | 1152.2 | 1196.7 |
| 67.5° | 662.8 | 785.6 | 946.7 | 1081.7 | 1130.8 |
| 70° | 570.8 | 701.2 | 876.1 | 1018.8 | 1069.4 |
| 72.5° | 475.6 | 613.7 | 805.5 | 957.4 | 1009.6 |
| 75° | 385.1 | 533.9 | 739.5 | 894.5 | 951.3 |
| 77.5° | 300.7 | 457.2 | 679.7 | 839.3 | 894.5 |
| 80° | 217.9 | 388.2 | 616.8 | 782.5 | 839.3 |
| 82.5° | 144.2 | 328.3 | 566.2 | 731.9 | 791.7 |
| 85° | 87.5 | 274.6 | 512.5 | 681.2 | 741.1 |
| 87.5° | 39.9 | 230.1 | 469.5 | 636.7 | 695.0 |
| 90° | 1.5 | 194.9 | 428.1 | 592.2 | 650.5 |
| 92.5° | 1.5 | 170.3 | 394.3 | 553.9 | 610.6 |
| 95° | 1.5 | 151.9 | 362.1 | 518.6 | 572.3 |
| 97.5° | 1.5 | 139.6 | 337.5 | 484.8 | 537.0 |
| 100° | 1.5 | 127.3 | 313.0 | 454.1 | 507.8 |
| 102.5° | 3.1 | 116.6 | 294.6 | 426.5 | 477.2 |
| 105° | 3.1 | 108.9 | 279.2 | 405.1 | 451.1 |
| 107.5° | 3.1 | 104.3 | 262.4 | 383.6 | 426.5 |
| 110° | 3.1 | 99.7 | 244.0 | 362.1 | 405.1 |



TEST NUMBER: P566919

CATALOG NUMBER: 4SNX-87HL-LN-UNV-L835-CD

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-------|-------|-------|
| 112.5° | 3.1 | 96.7 | 230.1 | 343.7 | 385.1 |
| 115° | 3.1 | 93.6 | 216.3 | 322.2 | 363.6 |
| 117.5° | 3.1 | 92.1 | 208.7 | 305.3 | 345.2 |
| 120° | 4.6 | 87.5 | 199.5 | 290.0 | 328.3 |
| 122.5° | 4.6 | 82.9 | 190.3 | 277.7 | 311.5 |
| 125° | 4.6 | 79.8 | 182.6 | 263.9 | 297.7 |
| 127.5° | 4.6 | 75.2 | 174.9 | 251.6 | 282.3 |
| 130° | 4.6 | 70.6 | 168.8 | 239.3 | 268.5 |
| 132.5° | 4.6 | 66.0 | 161.1 | 227.1 | 254.7 |
| 135° | 4.6 | 61.4 | 151.9 | 214.8 | 240.9 |
| 137.5° | 4.6 | 56.8 | 142.7 | 202.5 | 227.1 |
| 140° | 4.6 | 52.2 | 130.4 | 190.3 | 213.3 |
| 142.5° | 4.6 | 47.6 | 118.1 | 178.0 | 197.9 |
| 145° | 6.1 | 44.5 | 105.9 | 164.2 | 184.1 |
| 147.5° | 6.1 | 39.9 | 93.6 | 150.4 | 167.2 |
| 150° | 6.1 | 36.8 | 84.4 | 136.6 | 151.9 |
| 152.5° | 6.1 | 32.2 | 75.2 | 121.2 | 136.6 |
| 155° | 6.1 | 29.2 | 64.4 | 104.3 | 121.2 |
| 157.5° | 6.1 | 26.1 | 55.2 | 87.5 | 105.9 |
| 160° | 6.1 | 24.5 | 47.6 | 72.1 | 90.5 |
| 162.5° | 7.7 | 21.5 | 39.9 | 58.3 | 75.2 |
| 165° | 7.7 | 18.4 | 33.8 | 46.0 | 61.4 |
| 167.5° | 7.7 | 15.3 | 27.6 | 35.3 | 47.6 |
| 170° | 7.7 | 12.3 | 21.5 | 24.5 | 36.8 |
| 172.5° | 7.7 | 9.2 | 15.3 | 16.9 | 18.4 |
| 175° | 7.7 | 7.7 | 9.2 | 9.2 | 4.6 |
| 177.5° | 7.7 | 7.7 | 6.1 | 4.6 | 1.5 |
| 180° | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 |

(END OF REPORT)