

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: P566012

Luminaire Tested: **4SNX-104HL-LN-UNV-L940-CD**

Issue Date: 9/15/2022



Test Information

Test Method: LM-79-08
Report Number: P566012
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-104HL-LN-UNV-L940-CD
Description: 4FT 10400 LUMEN, SNX FIXTURE WITH 4000K, 90CRI LEDS AND LN LENS
Light Source: -
Ballast/Driver: -

Summary

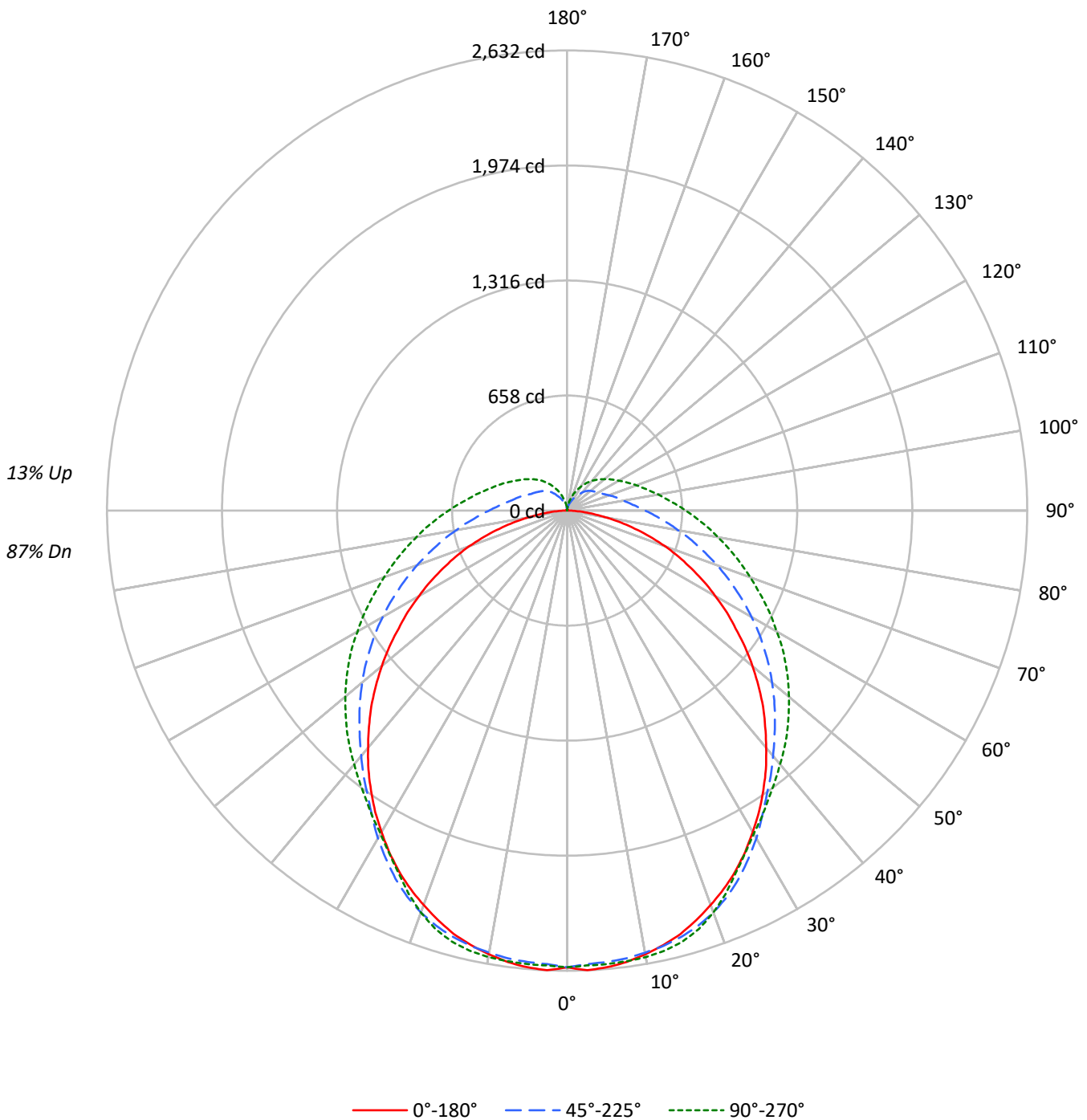
Lumens per Lamp: N/A
Luminaire Lumens: 9430.0 lumens
Efficiency: N/A
Efficacy: 124.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.35
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.17')
CIE Type: Semi-Direct

Input Watts (W): 75.5
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: 25 FT

TEST NUMBER: P566012

CATALOG NUMBER: 4SNX-104HL-LN-UNV-L940-CD

Luminous Intensity Polar Plot





TEST NUMBER: P566012

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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 | 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° | 28119 | 28119 | 28119 |
| 5° | 28227 | 26826 | 26589 |
| 10° | 27962 | 25785 | 25361 |
| 15° | 27626 | 24802 | 24124 |
| 20° | 27095 | 23698 | 22547 |
| 25° | 26523 | 22365 | 20699 |
| 30° | 25768 | 20869 | 19155 |
| 35° | 24964 | 19348 | 18003 |
| 40° | 24050 | 18125 | 17071 |
| 45° | 23152 | 17041 | 16267 |
| 50° | 22088 | 16044 | 15456 |
| 55° | 20840 | 15042 | 14662 |
| 60° | 19645 | 14043 | 13833 |
| 65° | 18316 | 13035 | 13072 |
| 70° | 16794 | 12091 | 12384 |
| 75° | 14443 | 11169 | 11818 |
| 80° | 11381 | 10373 | 11338 |
| 85° | 7621 | 9807 | 11063 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 248.2 | 2.6 |
| 10°-20° | 713.5 | 7.6 |
| 20°-30° | 1062.5 | 11.3 |
| 30°-40° | 1253.6 | 13.3 |
| 40°-50° | 1307.4 | 13.9 |
| 50°-60° | 1228.6 | 13.0 |
| 60°-70° | 1037.6 | 11.0 |
| 70°-80° | 784.0 | 8.3 |
| 80°-90° | 540.4 | 5.7 |
| 90°-100° | 378.2 | 4.0 |
| 100°-110° | 282.2 | 3.0 |
| 110°-120° | 212.7 | 2.3 |
| 120°-130° | 158.7 | 1.7 |
| 130°-140° | 111.4 | 1.2 |
| 140°-150° | 67.3 | 0.7 |
| 150°-160° | 32.2 | 0.3 |
| 160°-170° | 10.3 | 0.1 |
| 170°-180° | 1.2 | 0.0 |
| 0°-30° | 2024.1 | 21.5 |
| 0°-40° | 3277.8 | 34.8 |
| 0°-60° | 5813.8 | 61.7 |
| 0°-90° | 8175.7 | 86.7 |
| 90°-120° | 873.1 | 9.3 |
| 90°-150° | 1210.5 | 12.8 |
| 90°-180° | 1254.0 | 13.3 |
| 0°-180° | 9430.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2612 | 2612 | 2612 | 2612 | 2612 | |
| 5° | 2622 | 2617 | 2592 | 2611 | 2604 | 249 |
| 15° | 2507 | 2518 | 2524 | 2556 | 2552 | 706 |
| 25° | 2277 | 2323 | 2323 | 2302 | 2285 | 1047 |
| 35° | 1955 | 2027 | 1989 | 2005 | 2010 | 1223 |
| 45° | 1584 | 1663 | 1680 | 1749 | 1781 | 1220 |
| 55° | 1177 | 1277 | 1375 | 1485 | 1525 | 1056 |
| 65° | 783 | 908 | 1062 | 1201 | 1247 | 778 |
| 75° | 401 | 556 | 771 | 932 | 991 | 427 |
| 85° | 91 | 286 | 534 | 710 | 772 | 102 |
| 90° | 2 | 203 | 446 | 617 | 678 | 6 |
| 95° | 2 | 158 | 377 | 540 | 596 | 1 |
| 105° | 3 | 114 | 291 | 422 | 470 | 3 |
| 115° | 3 | 98 | 225 | 336 | 379 | 3 |
| 125° | 5 | 83 | 190 | 275 | 310 | 4 |
| 135° | 5 | 64 | 158 | 224 | 251 | 4 |
| 145° | 6 | 46 | 110 | 171 | 192 | 4 |
| 155° | 6 | 30 | 67 | 109 | 126 | 3 |
| 165° | 8 | 19 | 35 | 48 | 64 | 2 |
| 175° | 8 | 8 | 10 | 10 | 5 | 1 |
| 180° | 5 | 5 | 5 | 5 | 5 | |



TEST NUMBER: P566012

CATALOG NUMBER: 4SNX-104HL-LN-UNV-L940-CD

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2612.3 | 2612.3 | 2612.3 | 2612.3 | 2612.3 |
| 2.5° | 2631.5 | 2625.1 | 2596.3 | 2612.3 | 2604.3 |
| 5° | 2621.9 | 2617.1 | 2591.5 | 2610.7 | 2604.3 |
| 7.5° | 2604.3 | 2602.7 | 2583.5 | 2605.9 | 2599.5 |
| 10° | 2577.1 | 2581.9 | 2567.5 | 2597.9 | 2593.1 |
| 12.5° | 2545.1 | 2554.7 | 2549.9 | 2583.5 | 2578.7 |
| 15° | 2506.8 | 2518.0 | 2524.4 | 2556.3 | 2551.5 |
| 17.5° | 2455.6 | 2476.4 | 2490.8 | 2516.4 | 2508.4 |
| 20° | 2401.3 | 2430.0 | 2446.0 | 2458.8 | 2446.0 |
| 22.5° | 2342.1 | 2380.5 | 2390.1 | 2383.7 | 2370.9 |
| 25° | 2276.6 | 2322.9 | 2322.9 | 2302.1 | 2284.6 |
| 27.5° | 2203.0 | 2260.6 | 2244.6 | 2220.6 | 2206.2 |
| 30° | 2123.1 | 2191.8 | 2164.6 | 2137.5 | 2134.3 |
| 32.5° | 2043.1 | 2115.1 | 2075.1 | 2068.7 | 2073.5 |
| 35° | 1955.2 | 2027.2 | 1988.8 | 2004.8 | 2009.6 |
| 37.5° | 1867.3 | 1939.2 | 1913.7 | 1937.6 | 1952.0 |
| 40° | 1771.4 | 1848.1 | 1832.1 | 1875.3 | 1894.5 |
| 42.5° | 1677.0 | 1757.0 | 1755.4 | 1811.3 | 1840.1 |
| 45° | 1584.3 | 1662.7 | 1680.2 | 1749.0 | 1781.0 |
| 47.5° | 1483.6 | 1563.5 | 1606.7 | 1686.6 | 1718.6 |
| 50° | 1384.5 | 1470.8 | 1530.0 | 1619.5 | 1656.3 |
| 52.5° | 1282.2 | 1373.3 | 1454.8 | 1553.9 | 1592.3 |
| 55° | 1176.6 | 1277.4 | 1374.9 | 1485.2 | 1525.2 |
| 57.5° | 1082.3 | 1184.6 | 1299.7 | 1413.3 | 1459.6 |
| 60° | 978.4 | 1091.9 | 1218.2 | 1338.1 | 1384.5 |
| 62.5° | 884.1 | 1000.8 | 1141.5 | 1267.8 | 1317.3 |
| 65° | 783.4 | 908.1 | 1061.5 | 1200.6 | 1247.0 |
| 67.5° | 690.6 | 818.5 | 986.4 | 1127.1 | 1178.2 |
| 70° | 594.7 | 730.6 | 912.9 | 1061.5 | 1114.3 |
| 72.5° | 495.6 | 639.5 | 839.3 | 997.6 | 1051.9 |
| 75° | 401.3 | 556.3 | 770.6 | 932.0 | 991.2 |
| 77.5° | 313.3 | 476.4 | 708.2 | 874.5 | 932.0 |
| 80° | 227.0 | 404.5 | 642.7 | 815.3 | 874.5 |
| 82.5° | 150.3 | 342.1 | 589.9 | 762.6 | 824.9 |
| 85° | 91.1 | 286.2 | 534.0 | 709.8 | 772.2 |
| 87.5° | 41.6 | 239.8 | 489.2 | 663.5 | 724.2 |
| 90° | 1.6 | 203.0 | 446.0 | 617.1 | 677.9 |
| 92.5° | 1.6 | 177.5 | 410.9 | 577.1 | 636.3 |
| 95° | 1.6 | 158.3 | 377.3 | 540.4 | 596.3 |
| 97.5° | 1.6 | 145.5 | 351.7 | 505.2 | 559.5 |
| 100° | 1.6 | 132.7 | 326.1 | 473.2 | 529.2 |
| 102.5° | 3.2 | 121.5 | 307.0 | 444.4 | 497.2 |
| 105° | 3.2 | 113.5 | 291.0 | 422.1 | 470.0 |
| 107.5° | 3.2 | 108.7 | 273.4 | 399.7 | 444.4 |
| 110° | 3.2 | 103.9 | 254.2 | 377.3 | 422.1 |



TEST NUMBER: P566012

CATALOG NUMBER: 4SNX-104HL-LN-UNV-L940-CD

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-------|-------|-------|
| 112.5° | 3.2 | 100.7 | 239.8 | 358.1 | 401.3 |
| 115° | 3.2 | 97.5 | 225.4 | 335.7 | 378.9 |
| 117.5° | 3.2 | 95.9 | 217.4 | 318.1 | 359.7 |
| 120° | 4.8 | 91.1 | 207.8 | 302.2 | 342.1 |
| 122.5° | 4.8 | 86.3 | 198.2 | 289.4 | 324.5 |
| 125° | 4.8 | 83.1 | 190.2 | 275.0 | 310.1 |
| 127.5° | 4.8 | 78.3 | 182.3 | 262.2 | 294.2 |
| 130° | 4.8 | 73.5 | 175.9 | 249.4 | 279.8 |
| 132.5° | 4.8 | 68.7 | 167.9 | 236.6 | 265.4 |
| 135° | 4.8 | 63.9 | 158.3 | 223.8 | 251.0 |
| 137.5° | 4.8 | 59.2 | 148.7 | 211.0 | 236.6 |
| 140° | 4.8 | 54.4 | 135.9 | 198.2 | 222.2 |
| 142.5° | 4.8 | 49.6 | 123.1 | 185.4 | 206.2 |
| 145° | 6.4 | 46.4 | 110.3 | 171.1 | 191.8 |
| 147.5° | 6.4 | 41.6 | 97.5 | 156.7 | 174.3 |
| 150° | 6.4 | 38.4 | 87.9 | 142.3 | 158.3 |
| 152.5° | 6.4 | 33.6 | 78.3 | 126.3 | 142.3 |
| 155° | 6.4 | 30.4 | 67.1 | 108.7 | 126.3 |
| 157.5° | 6.4 | 27.2 | 57.6 | 91.1 | 110.3 |
| 160° | 6.4 | 25.6 | 49.6 | 75.1 | 94.3 |
| 162.5° | 8.0 | 22.4 | 41.6 | 60.8 | 78.3 |
| 165° | 8.0 | 19.2 | 35.2 | 48.0 | 63.9 |
| 167.5° | 8.0 | 16.0 | 28.8 | 36.8 | 49.6 |
| 170° | 8.0 | 12.8 | 22.4 | 25.6 | 38.4 |
| 172.5° | 8.0 | 9.6 | 16.0 | 17.6 | 19.2 |
| 175° | 8.0 | 8.0 | 9.6 | 9.6 | 4.8 |
| 177.5° | 8.0 | 8.0 | 6.4 | 4.8 | 1.6 |
| 180° | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |

(END OF REPORT)