

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: P218227

Luminaire Tested: **4SNLED-LD5-60HL-LN-UNV-L830-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P218227
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35686)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-60HL-LN-UNV-L830-CD1-U
Description: LED STRIP LIGHT - SNLED SERIES 4FOOT

Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5410.1 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.04 / 1.17
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.17')
CIE Type: Direct

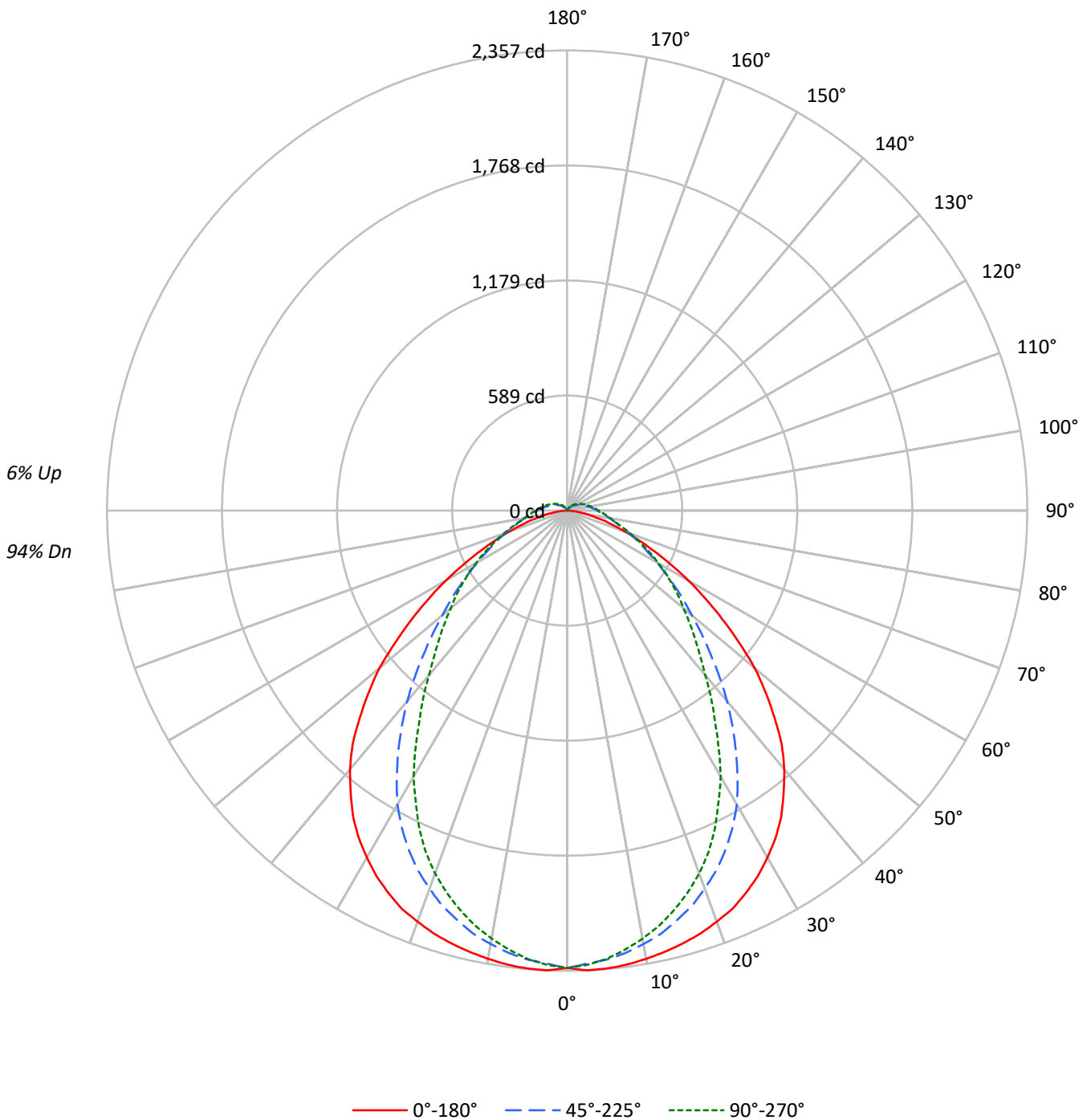
Input Watts (W): 43
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P218227

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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 | 118 | 118 | 118 | 118 | 114 | 114 | 114 | 114 | 108 | 108 | 108 | 102 | 102 | 102 | 97 | 97 | 97 | 94 |
| 1 | 108 | 103 | 99 | 95 | 105 | 100 | 97 | 93 | 95 | 92 | 89 | 90 | 88 | 86 | 86 | 84 | 82 | 80 |
| 2 | 99 | 91 | 85 | 79 | 96 | 89 | 83 | 78 | 84 | 79 | 75 | 80 | 76 | 73 | 77 | 73 | 70 | 68 |
| 3 | 91 | 81 | 73 | 67 | 88 | 79 | 72 | 66 | 75 | 69 | 64 | 72 | 67 | 63 | 69 | 64 | 61 | 59 |
| 4 | 84 | 73 | 64 | 58 | 81 | 71 | 63 | 57 | 68 | 61 | 56 | 65 | 59 | 55 | 62 | 57 | 53 | 51 |
| 5 | 77 | 65 | 57 | 51 | 75 | 64 | 56 | 50 | 61 | 54 | 49 | 59 | 53 | 48 | 56 | 51 | 47 | 45 |
| 6 | 72 | 59 | 51 | 45 | 70 | 58 | 50 | 44 | 56 | 49 | 44 | 54 | 47 | 43 | 52 | 46 | 42 | 40 |
| 7 | 67 | 54 | 46 | 40 | 65 | 53 | 45 | 40 | 51 | 44 | 39 | 49 | 43 | 38 | 47 | 42 | 38 | 36 |
| 8 | 63 | 50 | 42 | 36 | 61 | 49 | 41 | 36 | 47 | 40 | 35 | 45 | 39 | 35 | 44 | 38 | 34 | 32 |
| 9 | 59 | 46 | 38 | 33 | 57 | 45 | 38 | 33 | 43 | 37 | 32 | 42 | 36 | 32 | 41 | 35 | 31 | 29 |
| 10 | 55 | 42 | 35 | 30 | 54 | 42 | 35 | 30 | 40 | 34 | 29 | 39 | 33 | 29 | 38 | 32 | 29 | 27 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 37753 | 37753 | 37753 |
| 5° | 37943 | 35083 | 34298 |
| 10° | 37870 | 32650 | 30964 |
| 15° | 37854 | 30259 | 27863 |
| 20° | 37841 | 27867 | 24869 |
| 25° | 37730 | 25385 | 21738 |
| 30° | 37285 | 22698 | 18560 |
| 35° | 36552 | 19567 | 15269 |
| 40° | 35161 | 16563 | 12584 |
| 45° | 32858 | 13614 | 10554 |
| 50° | 29948 | 11111 | 8900 |
| 55° | 25767 | 9170 | 7585 |
| 60° | 21588 | 7508 | 6355 |
| 65° | 17158 | 6234 | 5253 |
| 70° | 13373 | 5240 | 4336 |
| 75° | 10132 | 4449 | 3600 |
| 80° | 7060 | 3934 | 3092 |
| 85° | 4280 | 3580 | 2798 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 220.3 | 4.1 |
| 10°-20° | 618.2 | 11.4 |
| 20°-30° | 895.2 | 16.5 |
| 30°-40° | 974.3 | 18.0 |
| 40°-50° | 865.3 | 16.0 |
| 50°-60° | 658.6 | 12.2 |
| 60°-70° | 437.3 | 8.1 |
| 70°-80° | 266.5 | 4.9 |
| 80°-90° | 165.1 | 3.1 |
| 90°-100° | 112.8 | 2.1 |
| 100°-110° | 79.2 | 1.5 |
| 110°-120° | 53.9 | 1.0 |
| 120°-130° | 34.2 | 0.6 |
| 130°-140° | 19.5 | 0.4 |
| 140°-150° | 9.1 | 0.2 |
| 150°-160° | 0.6 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1733.6 | 32.0 |
| 0°-40° | 2707.9 | 50.1 |
| 0°-60° | 4231.9 | 78.2 |
| 0°-90° | 5100.8 | 94.3 |
| 90°-120° | 245.9 | 4.5 |
| 90°-150° | 308.7 | 5.7 |
| 90°-180° | 309.0 | 5.7 |
| 0°-180° | 5410.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2343 | 2343 | 2343 | 2343 | 2343 | |
| 5° | 2354 | 2340 | 2309 | 2320 | 2306 | 224 |
| 15° | 2294 | 2255 | 2172 | 2146 | 2118 | 648 |
| 25° | 2163 | 2066 | 1918 | 1841 | 1793 | 996 |
| 35° | 1912 | 1742 | 1508 | 1377 | 1320 | 1191 |
| 45° | 1502 | 1277 | 1038 | 949 | 926 | 1157 |
| 55° | 972 | 790 | 670 | 658 | 656 | 872 |
| 65° | 490 | 422 | 422 | 439 | 433 | 494 |
| 75° | 188 | 214 | 268 | 282 | 274 | 203 |
| 85° | 34 | 108 | 182 | 194 | 188 | 41 |
| 90° | 0 | 80 | 154 | 168 | 162 | 2 |
| 95° | 0 | 63 | 131 | 145 | 142 | 0 |
| 105° | 0 | 40 | 94 | 108 | 108 | 0 |
| 115° | 0 | 26 | 68 | 83 | 80 | 0 |
| 125° | 0 | 17 | 46 | 57 | 57 | 0 |
| 135° | 0 | 11 | 31 | 40 | 40 | 0 |
| 145° | 0 | 6 | 17 | 23 | 23 | 0 |
| 155° | 0 | 0 | 0 | 0 | 0 | 0 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P218227

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2342.9 | 2342.9 | 2342.9 | 2342.9 | 2342.9 |
| 2.5° | 2357.2 | 2345.8 | 2323.0 | 2337.2 | 2328.7 |
| 5° | 2354.3 | 2340.1 | 2308.7 | 2320.1 | 2305.9 |
| 7.5° | 2345.8 | 2328.7 | 2285.9 | 2291.6 | 2268.8 |
| 10° | 2331.5 | 2308.7 | 2254.6 | 2248.9 | 2226.1 |
| 12.5° | 2314.4 | 2285.9 | 2220.4 | 2200.4 | 2177.6 |
| 15° | 2294.5 | 2254.6 | 2171.9 | 2146.3 | 2117.8 |
| 17.5° | 2271.7 | 2217.5 | 2123.5 | 2083.6 | 2052.2 |
| 20° | 2240.3 | 2174.8 | 2060.8 | 2012.3 | 1978.1 |
| 22.5° | 2209.0 | 2123.5 | 1995.2 | 1929.6 | 1892.6 |
| 25° | 2163.4 | 2066.5 | 1918.2 | 1841.3 | 1792.8 |
| 27.5° | 2112.1 | 2000.9 | 1832.7 | 1733.0 | 1678.8 |
| 30° | 2052.2 | 1923.9 | 1738.7 | 1621.8 | 1573.4 |
| 32.5° | 1986.7 | 1838.4 | 1624.7 | 1499.3 | 1445.1 |
| 35° | 1912.5 | 1741.5 | 1507.8 | 1376.7 | 1319.7 |
| 37.5° | 1821.3 | 1636.1 | 1390.9 | 1257.0 | 1211.4 |
| 40° | 1730.1 | 1524.9 | 1274.1 | 1148.7 | 1100.2 |
| 42.5° | 1627.5 | 1402.3 | 1154.4 | 1040.4 | 1006.2 |
| 45° | 1502.1 | 1276.9 | 1037.5 | 949.1 | 926.3 |
| 47.5° | 1379.5 | 1148.7 | 932.0 | 869.3 | 849.4 |
| 50° | 1254.1 | 1023.3 | 832.3 | 792.4 | 778.1 |
| 52.5° | 1108.8 | 900.7 | 749.6 | 724.0 | 718.3 |
| 55° | 971.9 | 789.5 | 669.8 | 658.4 | 655.6 |
| 57.5° | 840.8 | 684.1 | 595.7 | 604.3 | 598.6 |
| 60° | 718.3 | 587.2 | 530.2 | 541.6 | 538.7 |
| 62.5° | 598.6 | 498.8 | 470.3 | 493.1 | 487.4 |
| 65° | 490.3 | 421.8 | 421.8 | 438.9 | 433.2 |
| 67.5° | 396.2 | 359.1 | 376.2 | 393.3 | 387.6 |
| 70° | 316.4 | 302.1 | 336.3 | 350.6 | 344.9 |
| 72.5° | 245.1 | 253.7 | 296.4 | 313.5 | 305.0 |
| 75° | 188.1 | 213.8 | 267.9 | 282.2 | 273.6 |
| 77.5° | 134.0 | 179.6 | 242.3 | 253.7 | 245.1 |
| 80° | 94.1 | 151.1 | 219.5 | 230.9 | 222.3 |
| 82.5° | 59.9 | 128.3 | 199.5 | 210.9 | 205.2 |
| 85° | 34.2 | 108.3 | 182.4 | 193.8 | 188.1 |
| 87.5° | 17.1 | 94.1 | 165.3 | 179.6 | 173.9 |
| 90° | 0.0 | 79.8 | 153.9 | 168.2 | 162.5 |
| 92.5° | 0.0 | 71.3 | 142.5 | 156.8 | 151.1 |
| 95° | 0.0 | 62.7 | 131.1 | 145.4 | 142.5 |
| 97.5° | 0.0 | 57.0 | 122.6 | 136.8 | 131.1 |
| 100° | 0.0 | 48.5 | 111.2 | 125.4 | 122.6 |
| 102.5° | 0.0 | 45.6 | 102.6 | 116.9 | 114.0 |
| 105° | 0.0 | 39.9 | 94.1 | 108.3 | 108.3 |
| 107.5° | 0.0 | 37.1 | 88.4 | 102.6 | 99.8 |
| 110° | 0.0 | 31.4 | 79.8 | 94.1 | 94.1 |



TEST NUMBER: P218227

CATALOG NUMBER: 4SNLED-LD5-60HL-LN-UNV-L830-CD1-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|------|
| 112.5° | 0.0 | 28.5 | 74.1 | 88.4 | 85.5 |
| 115° | 0.0 | 25.7 | 68.4 | 82.7 | 79.8 |
| 117.5° | 0.0 | 25.7 | 62.7 | 74.1 | 74.1 |
| 120° | 0.0 | 22.8 | 57.0 | 68.4 | 68.4 |
| 122.5° | 0.0 | 20.0 | 51.3 | 62.7 | 62.7 |
| 125° | 0.0 | 17.1 | 45.6 | 57.0 | 57.0 |
| 127.5° | 0.0 | 17.1 | 42.8 | 54.2 | 54.2 |
| 130° | 0.0 | 14.3 | 37.1 | 48.5 | 48.5 |
| 132.5° | 0.0 | 11.4 | 34.2 | 42.8 | 42.8 |
| 135° | 0.0 | 11.4 | 31.4 | 39.9 | 39.9 |
| 137.5° | 0.0 | 8.6 | 25.7 | 34.2 | 34.2 |
| 140° | 0.0 | 8.6 | 22.8 | 31.4 | 31.4 |
| 142.5° | 0.0 | 5.7 | 20.0 | 28.5 | 25.7 |
| 145° | 0.0 | 5.7 | 17.1 | 22.8 | 22.8 |
| 147.5° | 0.0 | 2.9 | 14.3 | 20.0 | 20.0 |
| 150° | 0.0 | 2.9 | 11.4 | 17.1 | 14.3 |
| 152.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 155° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 157.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 160° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 162.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)