

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: P236240

Luminaire Tested: **4SWLED-40SL-LC-UNV-L850-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236240
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1709-316-16)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SWLED-40SL-LC-UNV-L850-CD1-U
Description: METALUX SWLED LINEAR LUMINAIRE
4FT FIXTURE WITH 1 ROW LED, CLEAR LENS
Light Source: (112) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

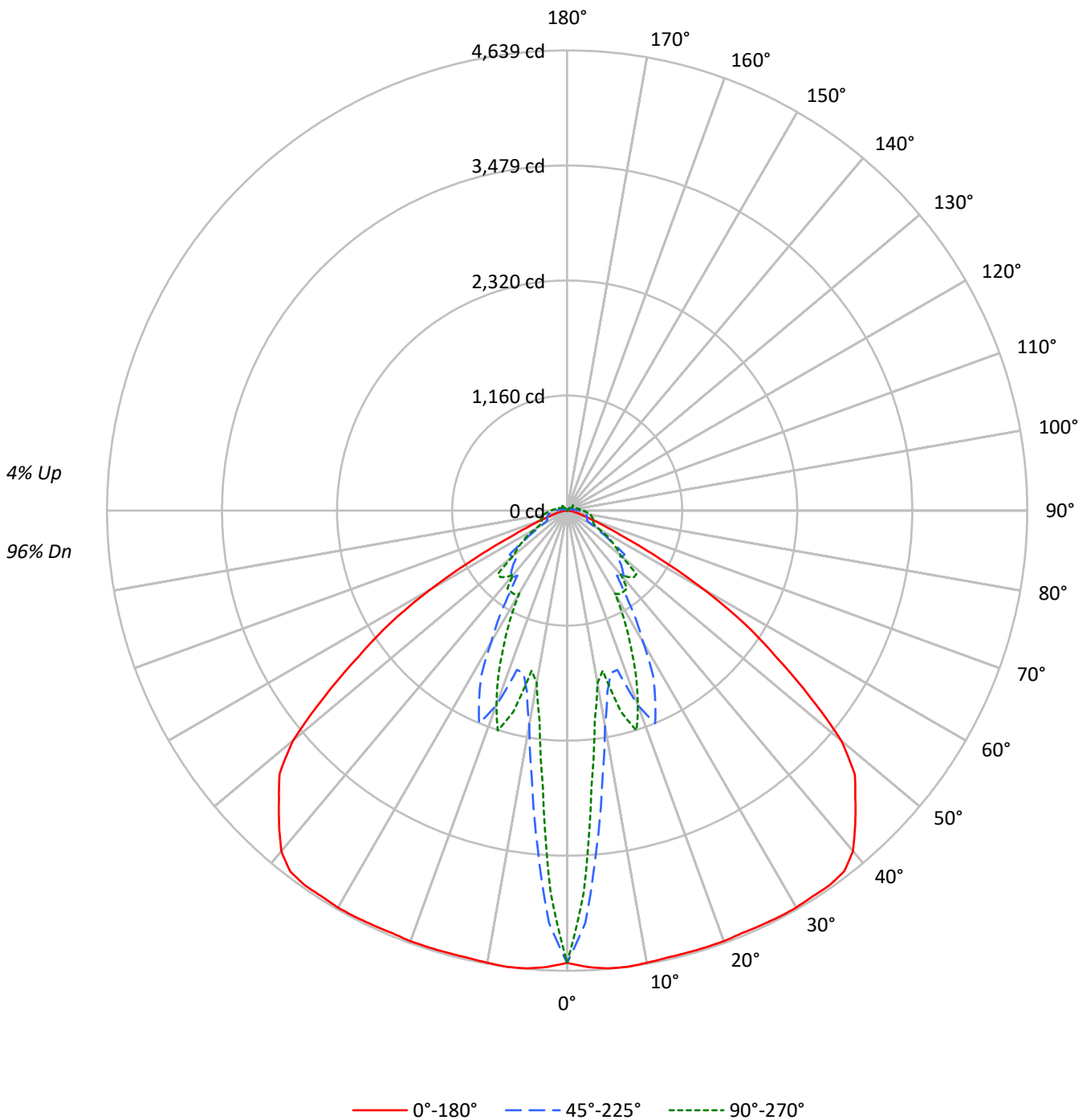
Lumens per Lamp: N/A
Luminaire Lumens: 5571.0 lumens
Efficiency: N/A
Efficacy: 147.0 lumens/watt
Spacing Criteria (0/90/45): 1.54 / 0.24 / 0.77
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')
CIE Type: Direct

Input Watts (W): 37.9
Input Voltage (V): 120
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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CATALOG NUMBER: 4SWLED-40SL-LC-UNV-L850-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P236240

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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 | 115 | 115 | 115 | 115 | 109 | 109 | 109 | 104 | 104 | 104 | 99 | 99 | 99 | 96 |
| 1 | 109 | 105 | 101 | 97 | 106 | 102 | 99 | 95 | 97 | 94 | 92 | 93 | 90 | 88 | 89 | 87 | 85 | 83 |
| 2 | 100 | 93 | 87 | 82 | 98 | 91 | 85 | 81 | 87 | 82 | 78 | 83 | 79 | 76 | 80 | 77 | 74 | 72 |
| 3 | 93 | 83 | 76 | 70 | 90 | 82 | 75 | 69 | 78 | 72 | 68 | 75 | 70 | 66 | 72 | 68 | 65 | 62 |
| 4 | 86 | 75 | 67 | 61 | 83 | 73 | 66 | 61 | 71 | 64 | 59 | 68 | 63 | 58 | 65 | 61 | 57 | 55 |
| 5 | 80 | 68 | 60 | 54 | 77 | 67 | 59 | 53 | 64 | 58 | 52 | 62 | 56 | 52 | 60 | 55 | 51 | 49 |
| 6 | 74 | 62 | 54 | 48 | 72 | 61 | 53 | 47 | 59 | 52 | 47 | 57 | 51 | 46 | 55 | 50 | 45 | 44 |
| 7 | 69 | 57 | 49 | 43 | 67 | 56 | 48 | 43 | 54 | 47 | 42 | 52 | 46 | 42 | 51 | 45 | 41 | 39 |
| 8 | 65 | 52 | 44 | 39 | 63 | 51 | 44 | 39 | 50 | 43 | 38 | 48 | 42 | 38 | 47 | 41 | 37 | 36 |
| 9 | 61 | 48 | 41 | 35 | 59 | 47 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 34 | 44 | 38 | 34 | 32 |
| 10 | 57 | 45 | 37 | 32 | 56 | 44 | 37 | 32 | 43 | 36 | 32 | 42 | 36 | 32 | 41 | 35 | 31 | 30 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 32716 | 32716 | 32716 |
| 5° | 33266 | 23977 | 19504 |
| 10° | 33513 | 15234 | 12019 |
| 15° | 33972 | 11659 | 14122 |
| 20° | 34815 | 14405 | 13938 |
| 25° | 35926 | 14575 | 10190 |
| 30° | 37497 | 10814 | 6539 |
| 35° | 39391 | 7253 | 6845 |
| 40° | 40750 | 6653 | 5949 |
| 45° | 40239 | 5987 | 6941 |
| 50° | 38624 | 5944 | 5376 |
| 55° | 30547 | 4695 | 4439 |
| 60° | 21536 | 2855 | 3123 |
| 65° | 10049 | 2266 | 2745 |
| 70° | 5048 | 2452 | 2778 |
| 75° | 3080 | 2653 | 2947 |
| 80° | 2003 | 2758 | 3121 |
| 85° | 1011 | 2855 | 3024 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 311.6 | 5.6 |
| 10°-20° | 682.7 | 12.3 |
| 20°-30° | 974.6 | 17.5 |
| 30°-40° | 1040.9 | 18.7 |
| 40°-50° | 968.1 | 17.4 |
| 50°-60° | 711.8 | 12.8 |
| 60°-70° | 316.6 | 5.7 |
| 70°-80° | 208.5 | 3.7 |
| 80°-90° | 144.5 | 2.6 |
| 90°-100° | 85.2 | 1.5 |
| 100°-110° | 49.3 | 0.9 |
| 110°-120° | 30.1 | 0.5 |
| 120°-130° | 21.6 | 0.4 |
| 130°-140° | 18.3 | 0.3 |
| 140°-150° | 5.3 | 0.1 |
| 150°-160° | 1.6 | 0.0 |
| 160°-170° | 0.1 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1969.0 | 35.3 |
| 0°-40° | 3009.9 | 54.0 |
| 0°-60° | 4689.8 | 84.2 |
| 0°-90° | 5359.5 | 96.2 |
| 90°-120° | 164.6 | 3.0 |
| 90°-150° | 209.8 | 3.8 |
| 90°-180° | 212.0 | 3.8 |
| 0°-180° | 5571.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 4559 | 4559 | 4559 | 4559 | 4559 | |
| 5° | 4633 | 4132 | 3416 | 2972 | 2800 | 442 |
| 15° | 4618 | 2503 | 1696 | 1873 | 2099 | 1310 |
| 25° | 4614 | 1614 | 2099 | 1652 | 1520 | 2137 |
| 35° | 4611 | 1944 | 1002 | 1018 | 994 | 2882 |
| 45° | 4110 | 835 | 767 | 852 | 950 | 3164 |
| 55° | 2569 | 498 | 536 | 543 | 552 | 2312 |
| 65° | 638 | 193 | 220 | 278 | 296 | 742 |
| 75° | 126 | 124 | 203 | 269 | 261 | 146 |
| 85° | 17 | 73 | 154 | 193 | 200 | 23 |
| 90° | 0 | 54 | 119 | 152 | 161 | 1 |
| 95° | 0 | 39 | 87 | 114 | 132 | 0 |
| 105° | 0 | 22 | 49 | 68 | 91 | 0 |
| 115° | 1 | 12 | 31 | 46 | 60 | 1 |
| 125° | 1 | 5 | 18 | 37 | 62 | 1 |
| 135° | 1 | 2 | 16 | 50 | 62 | 1 |
| 145° | 2 | 2 | 7 | 13 | 13 | 1 |
| 155° | 2 | 2 | 3 | 5 | 4 | 1 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P236240

CATALOG NUMBER: 4SWLED-40SL-LC-UNV-L850-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 4559.1 | 4559.1 | 4559.1 | 4559.1 | 4559.1 |
| 2.5° | 4605.2 | 4405.2 | 4161.0 | 3945.6 | 3853.3 |
| 5° | 4632.9 | 4132.3 | 3416.2 | 2972.0 | 2799.7 |
| 7.5° | 4639.1 | 3749.6 | 2723.7 | 2234.4 | 2132.8 |
| 10° | 4628.8 | 3300.3 | 2201.6 | 1816.9 | 1762.5 |
| 12.5° | 4618.6 | 2882.8 | 1869.2 | 1678.4 | 1652.7 |
| 15° | 4617.5 | 2503.2 | 1695.8 | 1873.3 | 2099.0 |
| 17.5° | 4619.6 | 2135.9 | 1683.5 | 2330.8 | 2325.7 |
| 20° | 4619.6 | 1866.1 | 2092.8 | 2225.2 | 2083.6 |
| 22.5° | 4610.4 | 1675.3 | 2320.6 | 1973.8 | 1817.9 |
| 25° | 4614.5 | 1613.7 | 2099.0 | 1651.7 | 1520.4 |
| 27.5° | 4619.6 | 1696.8 | 1877.4 | 1381.9 | 1252.6 |
| 30° | 4620.6 | 1931.8 | 1531.7 | 1118.2 | 966.4 |
| 32.5° | 4609.3 | 2052.8 | 1274.2 | 890.5 | 998.2 |
| 35° | 4611.4 | 1944.1 | 1002.3 | 1017.7 | 994.1 |
| 37.5° | 4585.7 | 1695.8 | 824.8 | 944.8 | 991.0 |
| 40° | 4483.2 | 1366.5 | 889.4 | 886.4 | 842.3 |
| 42.5° | 4298.5 | 1060.8 | 832.0 | 807.4 | 910.0 |
| 45° | 4109.7 | 835.1 | 767.4 | 852.5 | 950.0 |
| 47.5° | 3933.3 | 673.0 | 682.2 | 935.6 | 947.9 |
| 50° | 3610.1 | 632.0 | 723.3 | 792.0 | 704.8 |
| 52.5° | 3087.9 | 575.5 | 729.4 | 619.6 | 630.9 |
| 55° | 2568.8 | 497.6 | 536.5 | 542.7 | 551.9 |
| 57.5° | 2124.6 | 470.9 | 405.2 | 490.4 | 477.0 |
| 60° | 1595.3 | 410.4 | 302.6 | 385.7 | 364.2 |
| 62.5° | 1054.6 | 258.5 | 232.9 | 298.5 | 301.6 |
| 65° | 638.1 | 192.9 | 219.5 | 278.0 | 296.5 |
| 67.5° | 402.2 | 170.3 | 216.5 | 281.1 | 277.0 |
| 70° | 264.7 | 153.9 | 213.4 | 281.1 | 273.9 |
| 72.5° | 178.5 | 139.5 | 209.3 | 278.0 | 279.0 |
| 75° | 126.2 | 124.1 | 203.1 | 268.8 | 260.6 |
| 77.5° | 88.2 | 110.8 | 194.9 | 251.3 | 244.2 |
| 80° | 58.5 | 97.5 | 180.6 | 232.9 | 242.1 |
| 82.5° | 34.9 | 84.1 | 168.2 | 213.4 | 222.6 |
| 85° | 17.4 | 72.8 | 153.9 | 192.9 | 200.0 |
| 87.5° | 7.2 | 63.6 | 136.4 | 171.3 | 177.5 |
| 90° | 0.0 | 54.4 | 119.0 | 151.8 | 161.1 |
| 92.5° | 0.0 | 46.2 | 102.6 | 132.3 | 146.7 |
| 95° | 0.0 | 39.0 | 87.2 | 113.9 | 132.3 |
| 97.5° | 0.0 | 33.9 | 74.9 | 99.5 | 120.0 |
| 100° | 0.0 | 28.7 | 64.6 | 86.2 | 109.8 |
| 102.5° | 0.0 | 25.6 | 55.4 | 75.9 | 100.5 |
| 105° | 0.0 | 21.5 | 49.2 | 67.7 | 91.3 |
| 107.5° | 0.0 | 18.5 | 43.1 | 60.5 | 82.1 |
| 110° | 0.0 | 16.4 | 38.0 | 55.4 | 73.9 |



TEST NUMBER: P236240

CATALOG NUMBER: 4SWLED-40SL-LC-UNV-L850-CD1-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|------|
| 112.5° | 0.0 | 14.4 | 34.9 | 50.3 | 65.7 |
| 115° | 1.0 | 12.3 | 30.8 | 46.2 | 59.5 |
| 117.5° | 1.0 | 10.3 | 27.7 | 42.1 | 55.4 |
| 120° | 1.0 | 8.2 | 24.6 | 39.0 | 54.4 |
| 122.5° | 1.0 | 6.2 | 21.5 | 36.9 | 56.4 |
| 125° | 1.0 | 5.1 | 18.5 | 36.9 | 61.6 |
| 127.5° | 1.0 | 4.1 | 15.4 | 41.0 | 70.8 |
| 130° | 1.0 | 3.1 | 15.4 | 49.2 | 80.0 |
| 132.5° | 1.0 | 2.1 | 15.4 | 54.4 | 76.9 |
| 135° | 1.0 | 2.1 | 16.4 | 50.3 | 61.6 |
| 137.5° | 1.0 | 2.1 | 16.4 | 39.0 | 44.1 |
| 140° | 1.0 | 2.1 | 13.3 | 27.7 | 30.8 |
| 142.5° | 1.0 | 2.1 | 9.2 | 19.5 | 20.5 |
| 145° | 2.1 | 2.1 | 7.2 | 13.3 | 13.3 |
| 147.5° | 2.1 | 2.1 | 5.1 | 9.2 | 9.2 |
| 150° | 2.1 | 2.1 | 4.1 | 7.2 | 7.2 |
| 152.5° | 2.1 | 2.1 | 3.1 | 6.2 | 5.1 |
| 155° | 2.1 | 2.1 | 3.1 | 5.1 | 4.1 |
| 157.5° | 2.1 | 2.1 | 2.1 | 4.1 | 3.1 |
| 160° | 2.1 | 3.1 | 3.1 | 4.1 | 3.1 |
| 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)