

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: P236237

Luminaire Tested: **4SWLED-36SL-LC-UNV-L850-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P236237
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-36SL-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

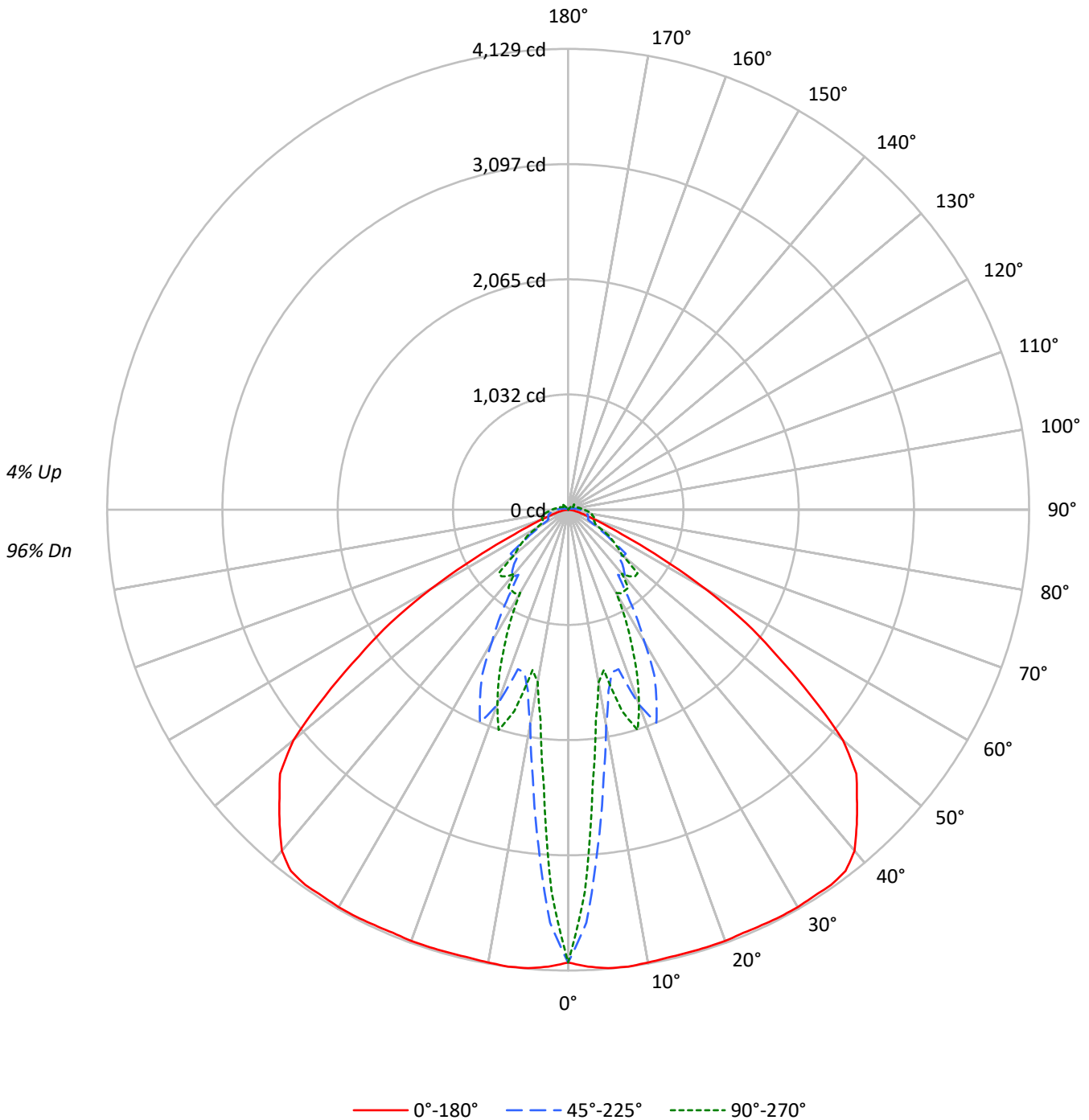
Lumens per Lamp: N/A
Luminaire Lumens: 4958.0 lumens
Efficiency: N/A
Efficacy: 151.2 lumens/watt
Spacing Criteria (0/90/45): 1.54 / 0.24 / 0.77
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')
CIE Type: Direct

Input Watts (W): 32.8
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-36SL-LC-UNV-L850-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P236237

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|---|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | |
| RC | 80 | | | | | | | | | 70 | | | | | | | | | 30 | | | | | | | | | 10 | | | | | | | | | 0 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 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 | 99 | 99 | 99 | 99 | 99 | 96 | | | | | | | | | | | | | | |
| 1 | 109 | 105 | 101 | 97 | 106 | 102 | 99 | 95 | 97 | 94 | 92 | 93 | 90 | 88 | 89 | 87 | 85 | 85 | 85 | 85 | 85 | 85 | 83 | | | | | | | | | | | | | | |
| 2 | 100 | 93 | 87 | 82 | 98 | 91 | 85 | 81 | 87 | 82 | 78 | 83 | 79 | 76 | 80 | 77 | 74 | 74 | 74 | 74 | 74 | 74 | 72 | | | | | | | | | | | | | | |
| 3 | 93 | 83 | 76 | 70 | 90 | 82 | 75 | 69 | 78 | 72 | 68 | 75 | 70 | 66 | 72 | 68 | 65 | 65 | 65 | 65 | 65 | 65 | 62 | | | | | | | | | | | | | | |
| 4 | 86 | 75 | 67 | 61 | 83 | 73 | 66 | 61 | 71 | 64 | 59 | 68 | 63 | 58 | 65 | 61 | 57 | 57 | 57 | 57 | 57 | 57 | 55 | | | | | | | | | | | | | | |
| 5 | 80 | 68 | 60 | 54 | 77 | 67 | 59 | 53 | 64 | 58 | 52 | 62 | 56 | 52 | 60 | 55 | 51 | 51 | 51 | 51 | 51 | 51 | 49 | | | | | | | | | | | | | | |
| 6 | 74 | 62 | 54 | 48 | 72 | 61 | 53 | 47 | 59 | 52 | 47 | 57 | 51 | 46 | 55 | 50 | 45 | 45 | 45 | 45 | 45 | 45 | 44 | | | | | | | | | | | | | | |
| 7 | 69 | 57 | 49 | 43 | 67 | 56 | 48 | 43 | 54 | 47 | 42 | 52 | 46 | 42 | 51 | 45 | 41 | 41 | 41 | 41 | 41 | 41 | 39 | | | | | | | | | | | | | | |
| 8 | 65 | 52 | 44 | 39 | 63 | 51 | 44 | 39 | 50 | 43 | 38 | 48 | 42 | 38 | 47 | 41 | 37 | 37 | 37 | 37 | 37 | 37 | 36 | | | | | | | | | | | | | | |
| 9 | 61 | 48 | 41 | 35 | 59 | 47 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 34 | 44 | 38 | 34 | 34 | 34 | 34 | 34 | 34 | 32 | | | | | | | | | | | | | | |
| 10 | 57 | 45 | 37 | 32 | 56 | 44 | 37 | 32 | 43 | 36 | 32 | 42 | 36 | 32 | 41 | 35 | 31 | 31 | 31 | 31 | 31 | 31 | 30 | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 29116 | 29116 | 29116 |
| 5° | 29606 | 21339 | 17357 |
| 10° | 29826 | 13558 | 10696 |
| 15° | 30234 | 10376 | 12568 |
| 20° | 30985 | 12820 | 12405 |
| 25° | 31972 | 12971 | 9069 |
| 30° | 33372 | 9624 | 5820 |
| 35° | 35057 | 6455 | 6091 |
| 40° | 36266 | 5921 | 5294 |
| 45° | 35812 | 5328 | 6177 |
| 50° | 34375 | 5290 | 4785 |
| 55° | 27187 | 4179 | 3951 |
| 60° | 19165 | 2541 | 2779 |
| 65° | 8944 | 2017 | 2443 |
| 70° | 4493 | 2182 | 2473 |
| 75° | 2741 | 2362 | 2623 |
| 80° | 1781 | 2454 | 2778 |
| 85° | 901 | 2542 | 2692 |



TEST NUMBER: P236237

CATALOG NUMBER: 4SWLED-36SL-LC-UNV-L850-CD1-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 277.4 | 5.6 |
| 10°-20° | 607.6 | 12.3 |
| 20°-30° | 867.4 | 17.5 |
| 30°-40° | 926.4 | 18.7 |
| 40°-50° | 861.6 | 17.4 |
| 50°-60° | 633.5 | 12.8 |
| 60°-70° | 281.8 | 5.7 |
| 70°-80° | 185.6 | 3.7 |
| 80°-90° | 128.6 | 2.6 |
| 90°-100° | 75.8 | 1.5 |
| 100°-110° | 43.9 | 0.9 |
| 110°-120° | 26.7 | 0.5 |
| 120°-130° | 19.2 | 0.4 |
| 130°-140° | 16.3 | 0.3 |
| 140°-150° | 4.7 | 0.1 |
| 150°-160° | 1.4 | 0.0 |
| 160°-170° | 0.1 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1752.3 | 35.3 |
| 0°-40° | 2678.7 | 54.0 |
| 0°-60° | 4173.8 | 84.2 |
| 0°-90° | 4769.7 | 96.2 |
| 90°-120° | 146.5 | 3.0 |
| 90°-150° | 186.7 | 3.8 |
| 90°-180° | 188.0 | 3.8 |
| 0°-180° | 4958.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 4057 | 4057 | 4057 | 4057 | 4057 | |
| 5° | 4123 | 3678 | 3040 | 2645 | 2492 | 393 |
| 15° | 4110 | 2228 | 1509 | 1667 | 1868 | 1165 |
| 25° | 4107 | 1436 | 1868 | 1470 | 1353 | 1902 |
| 35° | 4104 | 1730 | 892 | 906 | 885 | 2565 |
| 45° | 3658 | 743 | 683 | 759 | 845 | 2816 |
| 55° | 2286 | 443 | 478 | 483 | 491 | 2058 |
| 65° | 568 | 172 | 195 | 247 | 264 | 661 |
| 75° | 112 | 110 | 181 | 239 | 232 | 130 |
| 85° | 16 | 65 | 137 | 172 | 178 | 21 |
| 90° | 0 | 48 | 106 | 135 | 143 | 1 |
| 95° | 0 | 35 | 78 | 101 | 118 | 0 |
| 105° | 0 | 19 | 44 | 60 | 81 | 0 |
| 115° | 1 | 11 | 27 | 41 | 53 | 1 |
| 125° | 1 | 5 | 16 | 33 | 55 | 1 |
| 135° | 1 | 2 | 15 | 45 | 55 | 1 |
| 145° | 2 | 2 | 6 | 12 | 12 | 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: P236237

CATALOG NUMBER: 4SWLED-36SL-LC-UNV-L850-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 4057.4 | 4057.4 | 4057.4 | 4057.4 | 4057.4 |
| 2.5° | 4098.5 | 3920.5 | 3703.2 | 3511.4 | 3429.3 |
| 5° | 4123.2 | 3677.6 | 3040.3 | 2645.0 | 2491.6 |
| 7.5° | 4128.6 | 3337.1 | 2424.0 | 1988.5 | 1898.1 |
| 10° | 4119.5 | 2937.2 | 1959.3 | 1616.9 | 1568.6 |
| 12.5° | 4110.4 | 2565.6 | 1663.5 | 1493.7 | 1470.9 |
| 15° | 4109.5 | 2227.7 | 1509.2 | 1667.2 | 1868.0 |
| 17.5° | 4111.3 | 1900.9 | 1498.2 | 2074.4 | 2069.8 |
| 20° | 4111.3 | 1660.8 | 1862.5 | 1980.3 | 1854.3 |
| 22.5° | 4103.1 | 1490.9 | 2065.2 | 1756.6 | 1617.9 |
| 25° | 4106.7 | 1436.2 | 1868.0 | 1469.9 | 1353.1 |
| 27.5° | 4111.3 | 1510.1 | 1670.8 | 1229.8 | 1114.8 |
| 30° | 4112.2 | 1719.2 | 1363.1 | 995.2 | 860.1 |
| 32.5° | 4102.2 | 1826.9 | 1134.0 | 792.5 | 888.4 |
| 35° | 4104.0 | 1730.2 | 892.0 | 905.7 | 884.7 |
| 37.5° | 4081.2 | 1509.2 | 734.1 | 840.9 | 882.0 |
| 40° | 3989.9 | 1216.1 | 791.6 | 788.8 | 749.6 |
| 42.5° | 3825.5 | 944.1 | 740.5 | 718.5 | 809.8 |
| 45° | 3657.5 | 743.2 | 682.9 | 758.7 | 845.4 |
| 47.5° | 3500.5 | 598.9 | 607.2 | 832.7 | 843.6 |
| 50° | 3212.9 | 562.4 | 643.7 | 704.8 | 627.2 |
| 52.5° | 2748.2 | 512.2 | 649.2 | 551.5 | 561.5 |
| 55° | 2286.2 | 442.8 | 477.5 | 483.0 | 491.2 |
| 57.5° | 1890.8 | 419.1 | 360.6 | 436.4 | 424.5 |
| 60° | 1419.7 | 365.2 | 269.3 | 343.3 | 324.1 |
| 62.5° | 938.6 | 230.1 | 207.3 | 265.7 | 268.4 |
| 65° | 567.9 | 171.6 | 195.4 | 247.4 | 263.9 |
| 67.5° | 357.9 | 151.6 | 192.6 | 250.2 | 246.5 |
| 70° | 235.6 | 137.0 | 189.9 | 250.2 | 243.8 |
| 72.5° | 158.9 | 124.2 | 186.3 | 247.4 | 248.3 |
| 75° | 112.3 | 110.5 | 180.8 | 239.2 | 231.9 |
| 77.5° | 78.5 | 98.6 | 173.5 | 223.7 | 217.3 |
| 80° | 52.0 | 86.7 | 160.7 | 207.3 | 215.5 |
| 82.5° | 31.0 | 74.9 | 149.7 | 189.9 | 198.1 |
| 85° | 15.5 | 64.8 | 137.0 | 171.6 | 178.0 |
| 87.5° | 6.4 | 56.6 | 121.4 | 152.5 | 158.0 |
| 90° | 0.0 | 48.4 | 105.9 | 135.1 | 143.3 |
| 92.5° | 0.0 | 41.1 | 91.3 | 117.8 | 130.6 |
| 95° | 0.0 | 34.7 | 77.6 | 101.3 | 117.8 |
| 97.5° | 0.0 | 30.1 | 66.6 | 88.6 | 106.8 |
| 100° | 0.0 | 25.6 | 57.5 | 76.7 | 97.7 |
| 102.5° | 0.0 | 22.8 | 49.3 | 67.6 | 89.5 |
| 105° | 0.0 | 19.2 | 43.8 | 60.3 | 81.3 |
| 107.5° | 0.0 | 16.4 | 38.3 | 53.9 | 73.0 |
| 110° | 0.0 | 14.6 | 33.8 | 49.3 | 65.7 |



TEST NUMBER: P236237

CATALOG NUMBER: 4SWLED-36SL-LC-UNV-L850-CD1-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|------|
| 112.5° | 0.0 | 12.8 | 31.0 | 44.7 | 58.4 |
| 115° | 0.9 | 11.0 | 27.4 | 41.1 | 53.0 |
| 117.5° | 0.9 | 9.1 | 24.7 | 37.4 | 49.3 |
| 120° | 0.9 | 7.3 | 21.9 | 34.7 | 48.4 |
| 122.5° | 0.9 | 5.5 | 19.2 | 32.9 | 50.2 |
| 125° | 0.9 | 4.6 | 16.4 | 32.9 | 54.8 |
| 127.5° | 0.9 | 3.7 | 13.7 | 36.5 | 63.0 |
| 130° | 0.9 | 2.7 | 13.7 | 43.8 | 71.2 |
| 132.5° | 0.9 | 1.8 | 13.7 | 48.4 | 68.5 |
| 135° | 0.9 | 1.8 | 14.6 | 44.7 | 54.8 |
| 137.5° | 0.9 | 1.8 | 14.6 | 34.7 | 39.3 |
| 140° | 0.9 | 1.8 | 11.9 | 24.7 | 27.4 |
| 142.5° | 0.9 | 1.8 | 8.2 | 17.3 | 18.3 |
| 145° | 1.8 | 1.8 | 6.4 | 11.9 | 11.9 |
| 147.5° | 1.8 | 1.8 | 4.6 | 8.2 | 8.2 |
| 150° | 1.8 | 1.8 | 3.7 | 6.4 | 6.4 |
| 152.5° | 1.8 | 1.8 | 2.7 | 5.5 | 4.6 |
| 155° | 1.8 | 1.8 | 2.7 | 4.6 | 3.7 |
| 157.5° | 1.8 | 1.8 | 1.8 | 3.7 | 2.7 |
| 160° | 1.8 | 2.7 | 2.7 | 3.7 | 2.7 |
| 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)