

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: P#

Luminaire Tested: **4SRL-LD5-46SL-LN-UNV-L840-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35658)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SRL-LD5-46SL-LN-UNV-L840-CD1-U
Description: SRL LINEAR LED

Light Source: -
Ballast/Driver: -

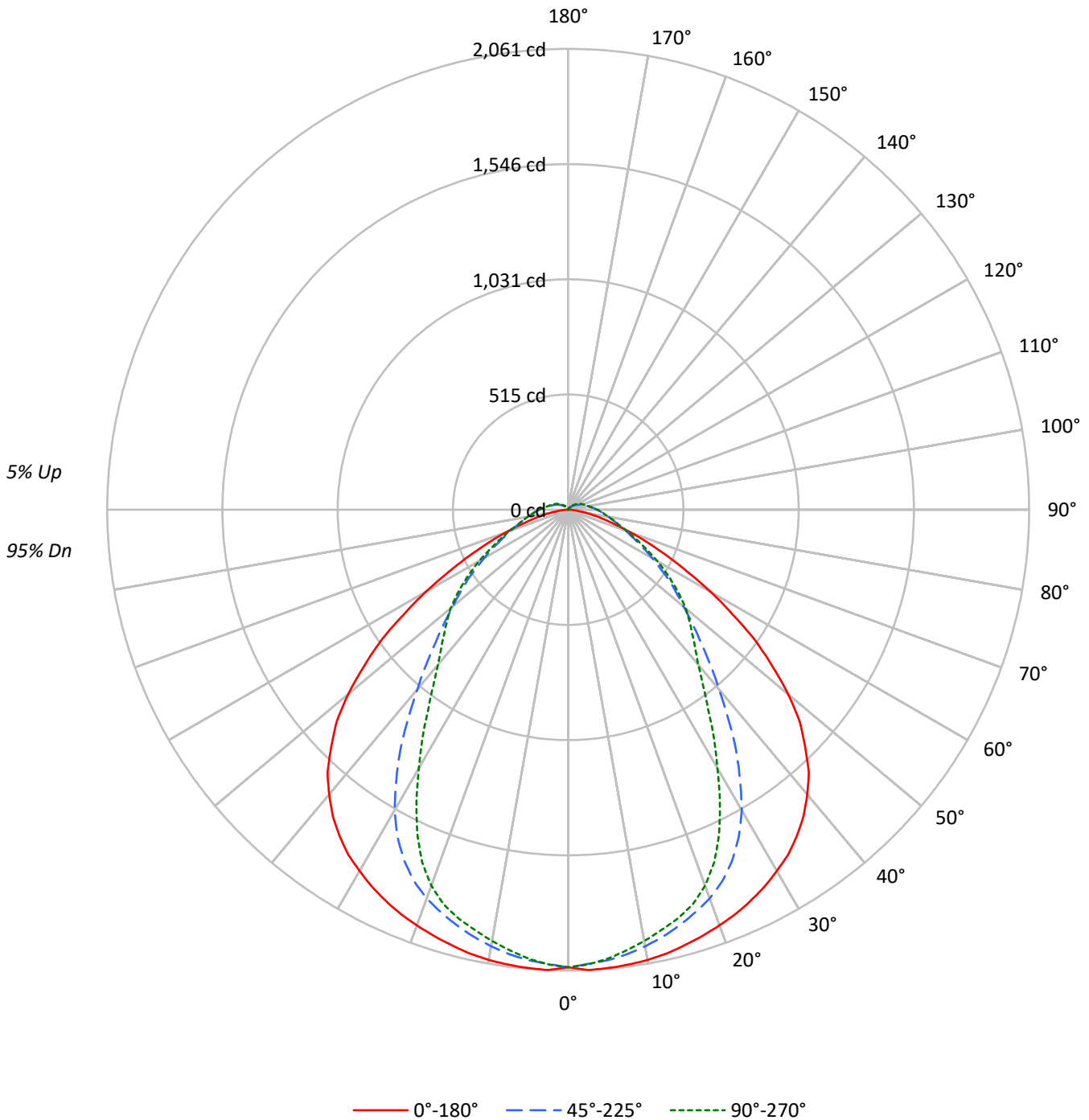
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4679.0 lumens
Efficiency: N/A
Efficacy: 138.8 lumens/watt
Spacing Criteria (0/90/45): 1.35 / 1.04 / 1.14
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 3.67' x H: 0.17')
CIE Type: Direct

Input Watts (W): 33.7
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: P#
CATALOG NUMBER: 4SRL-LD5-46SL-LN-UNV-L840-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: 4SRL-LD5-46SL-LN-UNV-L840-CD1-U

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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 118 | 118 | 118 | 118 | 114 | 114 | 114 | 114 | 108 | 108 | 108 | 103 | 103 | 103 | 97 | 97 | 97 | 95 | | | | |
| 1 | 108 | 104 | 100 | 96 | 105 | 101 | 97 | 94 | 96 | 93 | 90 | 91 | 89 | 86 | 87 | 85 | 83 | 80 | | | | |
| 2 | 99 | 92 | 85 | 80 | 96 | 89 | 83 | 79 | 85 | 80 | 76 | 81 | 77 | 74 | 77 | 74 | 71 | 69 | | | | |
| 3 | 91 | 82 | 74 | 68 | 88 | 80 | 73 | 67 | 76 | 70 | 65 | 73 | 68 | 63 | 69 | 65 | 62 | 59 | | | | |
| 4 | 84 | 73 | 65 | 59 | 82 | 71 | 64 | 58 | 68 | 62 | 57 | 65 | 60 | 55 | 63 | 58 | 54 | 52 | | | | |
| 5 | 78 | 66 | 58 | 51 | 76 | 65 | 57 | 51 | 62 | 55 | 50 | 59 | 54 | 49 | 57 | 52 | 48 | 46 | | | | |
| 6 | 72 | 60 | 51 | 45 | 70 | 59 | 51 | 45 | 56 | 49 | 44 | 54 | 48 | 44 | 52 | 47 | 43 | 41 | | | | |
| 7 | 67 | 55 | 46 | 41 | 65 | 54 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 39 | 48 | 43 | 38 | 37 | | | | |
| 8 | 63 | 50 | 42 | 37 | 61 | 49 | 42 | 36 | 48 | 41 | 36 | 46 | 40 | 35 | 44 | 39 | 35 | 33 | | | | |
| 9 | 59 | 46 | 38 | 33 | 57 | 45 | 38 | 33 | 44 | 37 | 33 | 43 | 37 | 32 | 41 | 36 | 32 | 30 | | | | |
| 10 | 55 | 43 | 35 | 30 | 54 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 29 | 38 | 33 | 29 | 27 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 24031 | 24031 | 24031 |
| 5° | 24159 | 22841 | 22454 |
| 10° | 24184 | 21710 | 20900 |
| 15° | 24213 | 20612 | 19523 |
| 20° | 24319 | 19537 | 17989 |
| 25° | 24492 | 18183 | 15779 |
| 30° | 24645 | 16300 | 13068 |
| 35° | 24754 | 13855 | 10656 |
| 40° | 24551 | 11300 | 8887 |
| 45° | 23790 | 9254 | 7812 |
| 50° | 22249 | 7683 | 6975 |
| 55° | 19651 | 6559 | 5990 |
| 60° | 16004 | 5440 | 5005 |
| 65° | 12297 | 4557 | 4099 |
| 70° | 8979 | 3901 | 3395 |
| 75° | 6280 | 3449 | 2888 |
| 80° | 4215 | 3197 | 2578 |
| 85° | 2438 | 3045 | 2402 |



TEST NUMBER: P#

CATALOG NUMBER: 4SRL-LD5-46SL-LN-UNV-L840-CD1-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 192.8 | 4.1 |
| 10°-20° | 547.6 | 11.7 |
| 20°-30° | 800.1 | 17.1 |
| 30°-40° | 854.5 | 18.3 |
| 40°-50° | 753.1 | 16.1 |
| 50°-60° | 571.8 | 12.2 |
| 60°-70° | 364.6 | 7.8 |
| 70°-80° | 217.5 | 4.6 |
| 80°-90° | 136.6 | 2.9 |
| 90°-100° | 90.4 | 1.9 |
| 100°-110° | 61.4 | 1.3 |
| 110°-120° | 41.3 | 0.9 |
| 120°-130° | 25.5 | 0.5 |
| 130°-140° | 13.5 | 0.3 |
| 140°-150° | 5.8 | 0.1 |
| 150°-160° | 1.9 | 0.0 |
| 160°-170° | 0.4 | 0.0 |
| 170°-180° | 0.1 | 0.0 |
| 0°-30° | 1540.5 | 32.9 |
| 0°-40° | 2395.1 | 51.2 |
| 0°-60° | 3720.0 | 79.5 |
| 0°-90° | 4438.6 | 94.9 |
| 90°-120° | 193.2 | 4.1 |
| 90°-150° | 238.0 | 5.1 |
| 90°-180° | 240.0 | 5.1 |
| 0°-180° | 4679.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2046 | 2046 | 2046 | 2046 | 2046 | |
| 5° | 2058 | 2042 | 2023 | 2029 | 2016 | 196 |
| 15° | 2016 | 1978 | 1924 | 1911 | 1893 | 570 |
| 25° | 1930 | 1844 | 1733 | 1649 | 1596 | 891 |
| 35° | 1782 | 1588 | 1307 | 1143 | 1090 | 1113 |
| 45° | 1498 | 1127 | 838 | 789 | 784 | 1151 |
| 55° | 1022 | 639 | 551 | 570 | 571 | 905 |
| 65° | 486 | 329 | 341 | 361 | 358 | 490 |
| 75° | 162 | 167 | 219 | 229 | 222 | 180 |
| 85° | 28 | 91 | 153 | 161 | 154 | 33 |
| 90° | 1 | 68 | 129 | 135 | 129 | 2 |
| 95° | 0 | 52 | 108 | 114 | 108 | 0 |
| 105° | 0 | 33 | 75 | 82 | 79 | 0 |
| 115° | 0 | 20 | 52 | 62 | 61 | 0 |
| 125° | 1 | 13 | 35 | 44 | 43 | 1 |
| 135° | 1 | 7 | 21 | 26 | 26 | 1 |
| 145° | 1 | 3 | 11 | 14 | 13 | 1 |
| 155° | 1 | 2 | 4 | 6 | 4 | 0 |
| 165° | 1 | 2 | 2 | 0 | 0 | 0 |
| 175° | 2 | 2 | 2 | 0 | 0 | 0 |
| 180° | 1 | 1 | 1 | 1 | 1 | |



TEST NUMBER: P#

CATALOG NUMBER: 4SRL-LD5-46SL-LN-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2046.5 | 2046.5 | 2046.5 | 2046.5 | 2046.5 |
| 2.5° | 2060.8 | 2048.5 | 2033.3 | 2043.4 | 2035.3 |
| 5° | 2057.7 | 2042.4 | 2023.1 | 2029.2 | 2016.0 |
| 7.5° | 2052.6 | 2033.3 | 2005.8 | 2003.7 | 1988.5 |
| 10° | 2044.5 | 2019.0 | 1982.4 | 1975.2 | 1958.9 |
| 12.5° | 2033.3 | 2001.7 | 1955.9 | 1944.7 | 1925.3 |
| 15° | 2016.0 | 1978.3 | 1924.3 | 1911.1 | 1892.8 |
| 17.5° | 1998.6 | 1951.8 | 1888.7 | 1872.4 | 1851.0 |
| 20° | 1978.3 | 1921.3 | 1850.0 | 1815.4 | 1788.9 |
| 22.5° | 1956.9 | 1886.6 | 1799.1 | 1741.1 | 1706.4 |
| 25° | 1930.4 | 1843.9 | 1732.9 | 1649.4 | 1596.5 |
| 27.5° | 1900.9 | 1799.1 | 1651.5 | 1531.3 | 1468.2 |
| 30° | 1865.3 | 1739.0 | 1551.7 | 1401.0 | 1334.8 |
| 32.5° | 1829.6 | 1673.9 | 1429.5 | 1272.7 | 1212.6 |
| 35° | 1781.8 | 1588.3 | 1307.3 | 1143.4 | 1090.4 |
| 37.5° | 1727.8 | 1492.6 | 1173.9 | 1028.3 | 989.7 |
| 40° | 1662.7 | 1380.6 | 1048.7 | 932.6 | 904.1 |
| 42.5° | 1592.4 | 1257.4 | 939.8 | 855.3 | 840.0 |
| 45° | 1497.7 | 1127.1 | 837.9 | 789.1 | 784.0 |
| 47.5° | 1404.0 | 996.8 | 751.4 | 731.0 | 734.1 |
| 50° | 1283.9 | 867.5 | 673.0 | 680.1 | 685.2 |
| 52.5° | 1151.5 | 748.3 | 608.9 | 624.1 | 628.2 |
| 55° | 1022.2 | 639.4 | 550.8 | 570.2 | 571.2 |
| 57.5° | 871.5 | 543.7 | 487.7 | 517.2 | 514.2 |
| 60° | 735.1 | 459.2 | 433.7 | 457.2 | 459.2 |
| 62.5° | 600.7 | 390.0 | 385.9 | 406.2 | 405.2 |
| 65° | 485.7 | 328.9 | 341.1 | 361.4 | 358.4 |
| 67.5° | 385.9 | 274.9 | 303.4 | 320.7 | 313.6 |
| 70° | 294.2 | 233.2 | 270.8 | 284.1 | 280.0 |
| 72.5° | 220.9 | 197.5 | 242.3 | 254.5 | 247.4 |
| 75° | 161.9 | 167.0 | 218.9 | 229.1 | 222.0 |
| 77.5° | 116.1 | 143.6 | 200.6 | 206.7 | 201.6 |
| 80° | 78.4 | 122.2 | 182.3 | 190.4 | 182.3 |
| 82.5° | 49.9 | 104.9 | 167.0 | 174.1 | 167.0 |
| 85° | 27.5 | 90.6 | 152.7 | 160.9 | 153.7 |
| 87.5° | 12.2 | 78.4 | 140.5 | 147.6 | 141.5 |
| 90° | 1.0 | 68.2 | 129.3 | 135.4 | 129.3 |
| 92.5° | 0.0 | 59.1 | 118.1 | 125.2 | 119.1 |
| 95° | 0.0 | 51.9 | 107.9 | 114.0 | 107.9 |
| 97.5° | 0.0 | 45.8 | 98.8 | 104.9 | 99.8 |
| 100° | 0.0 | 40.7 | 90.6 | 96.7 | 91.6 |
| 102.5° | 0.0 | 35.6 | 82.5 | 89.6 | 85.5 |
| 105° | 0.0 | 32.6 | 75.3 | 82.5 | 79.4 |
| 107.5° | 0.0 | 28.5 | 69.2 | 77.4 | 75.3 |
| 110° | 0.0 | 25.5 | 63.1 | 72.3 | 70.3 |



TEST NUMBER: P#

CATALOG NUMBER: 4SRL-LD5-46SL-LN-UNV-L840-CD1-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|------|
| 112.5° | 0.0 | 23.4 | 57.0 | 67.2 | 65.2 |
| 115° | 0.0 | 20.4 | 51.9 | 62.1 | 61.1 |
| 117.5° | 0.0 | 18.3 | 47.9 | 57.0 | 57.0 |
| 120° | 1.0 | 16.3 | 43.8 | 52.9 | 51.9 |
| 122.5° | 1.0 | 14.3 | 38.7 | 47.9 | 46.8 |
| 125° | 1.0 | 13.2 | 34.6 | 43.8 | 42.8 |
| 127.5° | 1.0 | 11.2 | 31.6 | 38.7 | 37.7 |
| 130° | 1.0 | 10.2 | 27.5 | 34.6 | 33.6 |
| 132.5° | 1.0 | 8.1 | 24.4 | 30.5 | 29.5 |
| 135° | 1.0 | 7.1 | 21.4 | 26.5 | 25.5 |
| 137.5° | 1.0 | 6.1 | 18.3 | 23.4 | 22.4 |
| 140° | 1.0 | 5.1 | 16.3 | 20.4 | 19.3 |
| 142.5° | 1.0 | 4.1 | 13.2 | 17.3 | 16.3 |
| 145° | 1.0 | 3.1 | 11.2 | 14.3 | 13.2 |
| 147.5° | 1.0 | 2.0 | 9.2 | 12.2 | 11.2 |
| 150° | 1.0 | 2.0 | 7.1 | 10.2 | 9.2 |
| 152.5° | 1.0 | 2.0 | 6.1 | 8.1 | 6.1 |
| 155° | 1.0 | 2.0 | 4.1 | 6.1 | 4.1 |
| 157.5° | 1.0 | 2.0 | 3.1 | 4.1 | 3.1 |
| 160° | 1.0 | 2.0 | 3.1 | 3.1 | 1.0 |
| 162.5° | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 |
| 165° | 1.0 | 2.0 | 2.0 | 0.0 | 0.0 |
| 167.5° | 1.0 | 2.0 | 2.0 | 0.0 | 0.0 |
| 170° | 1.0 | 2.0 | 2.0 | 0.0 | 0.0 |
| 172.5° | 1.0 | 2.0 | 2.0 | 0.0 | 0.0 |
| 175° | 2.0 | 2.0 | 2.0 | 0.0 | 0.0 |
| 177.5° | 1.0 | 2.0 | 1.0 | 0.0 | 0.0 |
| 180° | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |

(END OF REPORT)