

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: **4SNLED-LD5-53SL-SLN-UNV-L940-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 (P27402)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-53SL-SLN-UNV-L940-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
SQUARE NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

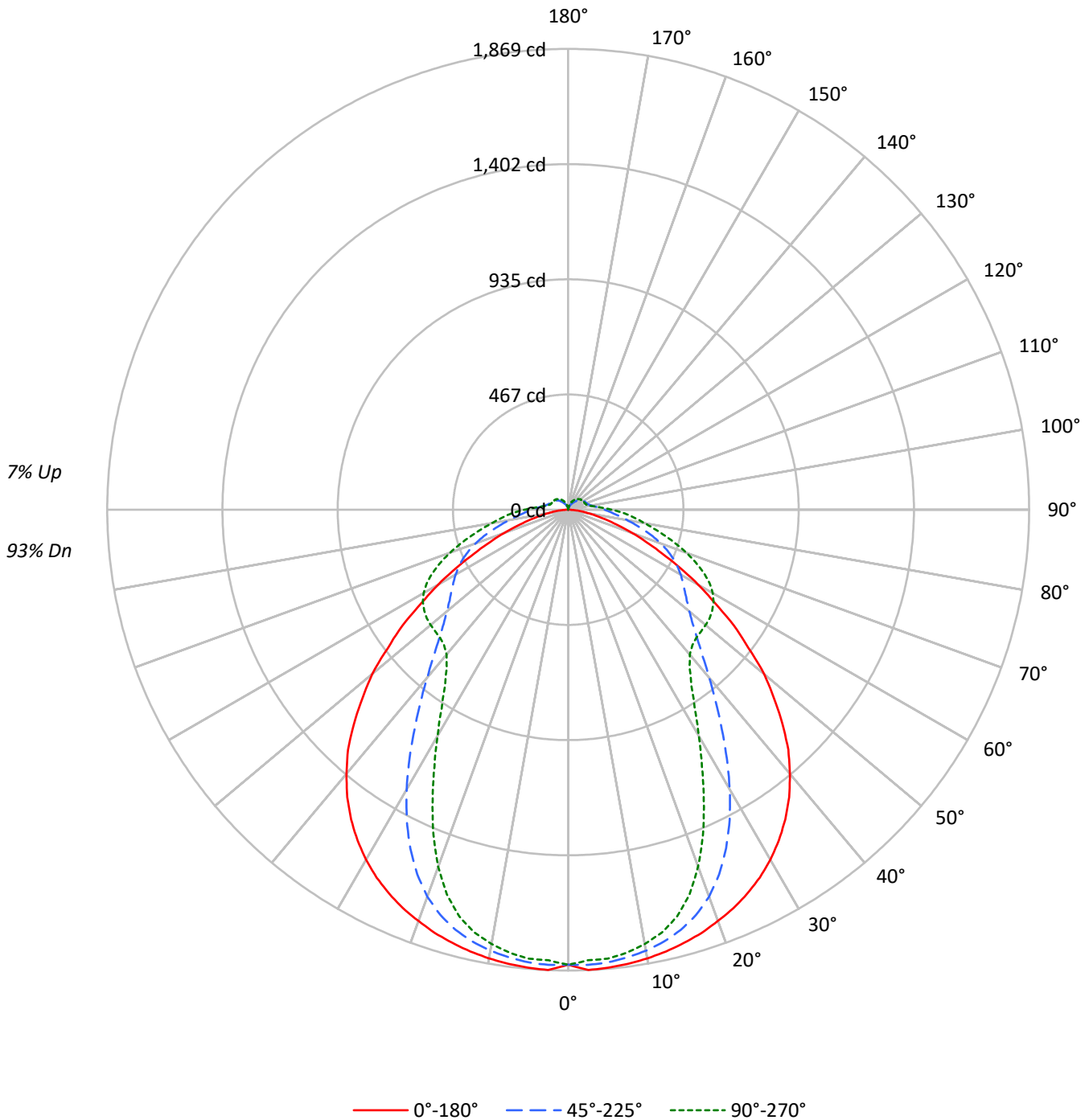
Lumens per Lamp: N/A
Luminaire Lumens: 4641.0 lumens
Efficiency: N/A
Efficacy: 113.2 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 0.96 / 1.11
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 41
Input Voltage (V): NR
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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Luminous Intensity Polar Plot





TEST NUMBER: P#

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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 | 117 | 117 | 117 | 117 | 114 | 114 | 114 | 114 | 107 | 107 | 107 | 101 | 101 | 101 | 95 | 95 | 95 | 93 |
| 1 | 107 | 102 | 97 | 93 | 103 | 99 | 94 | 91 | 93 | 90 | 87 | 88 | 85 | 83 | 83 | 81 | 79 | 76 |
| 2 | 97 | 89 | 82 | 76 | 94 | 86 | 80 | 75 | 81 | 76 | 72 | 77 | 73 | 69 | 73 | 70 | 66 | 64 |
| 3 | 89 | 78 | 70 | 64 | 86 | 76 | 69 | 63 | 72 | 66 | 61 | 68 | 63 | 59 | 65 | 61 | 57 | 54 |
| 4 | 82 | 70 | 61 | 55 | 79 | 68 | 60 | 54 | 65 | 58 | 52 | 61 | 55 | 51 | 58 | 53 | 49 | 47 |
| 5 | 75 | 63 | 54 | 47 | 73 | 61 | 53 | 47 | 58 | 51 | 46 | 55 | 49 | 44 | 53 | 48 | 43 | 41 |
| 6 | 70 | 57 | 48 | 42 | 67 | 55 | 47 | 41 | 53 | 46 | 40 | 51 | 44 | 39 | 48 | 43 | 39 | 36 |
| 7 | 65 | 52 | 43 | 37 | 63 | 51 | 42 | 37 | 48 | 41 | 36 | 46 | 40 | 35 | 44 | 39 | 35 | 32 |
| 8 | 61 | 47 | 39 | 33 | 59 | 46 | 39 | 33 | 44 | 37 | 32 | 43 | 36 | 32 | 41 | 35 | 31 | 29 |
| 9 | 57 | 44 | 36 | 30 | 55 | 43 | 35 | 30 | 41 | 34 | 29 | 40 | 33 | 29 | 38 | 33 | 28 | 27 |
| 10 | 53 | 40 | 33 | 28 | 52 | 40 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 35 | 30 | 26 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 14913 | 14913 | 14913 |
| 5° | 15085 | 14583 | 14355 |
| 10° | 15080 | 14181 | 13765 |
| 15° | 15085 | 13705 | 12980 |
| 20° | 15092 | 12999 | 11657 |
| 25° | 15098 | 11911 | 9871 |
| 30° | 15025 | 10481 | 8119 |
| 35° | 14812 | 8917 | 6804 |
| 40° | 14378 | 7552 | 6151 |
| 45° | 13616 | 6564 | 6105 |
| 50° | 12579 | 6000 | 6318 |
| 55° | 11077 | 5768 | 6540 |
| 60° | 9345 | 5685 | 6630 |
| 65° | 7518 | 5559 | 6423 |
| 70° | 6038 | 5272 | 5924 |
| 75° | 4552 | 4771 | 5256 |
| 80° | 3360 | 4285 | 4676 |
| 85° | 2248 | 4043 | 4301 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 174.6 | 3.8 |
| 10°-20° | 493.5 | 10.6 |
| 20°-30° | 689.8 | 14.9 |
| 30°-40° | 715.5 | 15.4 |
| 40°-50° | 661.1 | 14.2 |
| 50°-60° | 590.2 | 12.7 |
| 60°-70° | 478.3 | 10.3 |
| 70°-80° | 318.1 | 6.9 |
| 80°-90° | 182.2 | 3.9 |
| 90°-100° | 100.8 | 2.2 |
| 100°-110° | 68.2 | 1.5 |
| 110°-120° | 56.8 | 1.2 |
| 120°-130° | 46.2 | 1.0 |
| 130°-140° | 33.3 | 0.7 |
| 140°-150° | 20.1 | 0.4 |
| 150°-160° | 9.7 | 0.2 |
| 160°-170° | 2.5 | 0.1 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1357.9 | 29.3 |
| 0°-40° | 2073.5 | 44.7 |
| 0°-60° | 3324.7 | 71.6 |
| 0°-90° | 4303.3 | 92.7 |
| 90°-120° | 225.9 | 4.9 |
| 90°-150° | 325.5 | 7.0 |
| 90°-180° | 338.0 | 7.3 |
| 0°-180° | 4641.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1845 | 1845 | 1845 | 1845 | 1845 | |
| 5° | 1865 | 1833 | 1843 | 1830 | 1828 | 177 |
| 15° | 1818 | 1780 | 1764 | 1724 | 1708 | 514 |
| 25° | 1718 | 1642 | 1515 | 1356 | 1301 | 792 |
| 35° | 1534 | 1366 | 1086 | 912 | 871 | 957 |
| 45° | 1229 | 974 | 740 | 713 | 735 | 945 |
| 55° | 821 | 621 | 578 | 671 | 713 | 730 |
| 65° | 420 | 375 | 470 | 576 | 606 | 424 |
| 75° | 163 | 204 | 317 | 388 | 404 | 178 |
| 85° | 33 | 95 | 187 | 239 | 245 | 38 |
| 90° | 2 | 67 | 148 | 178 | 176 | 3 |
| 95° | 2 | 56 | 117 | 125 | 121 | 1 |
| 105° | 1 | 49 | 84 | 82 | 78 | 1 |
| 115° | 1 | 44 | 75 | 74 | 71 | 1 |
| 125° | 1 | 38 | 66 | 69 | 67 | 1 |
| 135° | 2 | 28 | 52 | 61 | 61 | 1 |
| 145° | 2 | 18 | 36 | 47 | 50 | 1 |
| 155° | 2 | 11 | 22 | 30 | 36 | 1 |
| 165° | 2 | 6 | 11 | 14 | 19 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-53SL-SLN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1845.4 | 1845.4 | 1845.4 | 1845.4 | 1845.4 |
| 2.5° | 1868.7 | 1838.2 | 1847.9 | 1839.8 | 1829.4 |
| 5° | 1864.7 | 1833.4 | 1843.0 | 1830.2 | 1827.8 |
| 7.5° | 1857.5 | 1826.2 | 1831.8 | 1816.6 | 1812.6 |
| 10° | 1847.9 | 1815.0 | 1815.8 | 1794.1 | 1788.5 |
| 12.5° | 1835.0 | 1798.9 | 1794.1 | 1764.4 | 1756.4 |
| 15° | 1818.2 | 1779.7 | 1764.4 | 1724.3 | 1707.5 |
| 17.5° | 1799.7 | 1754.8 | 1723.5 | 1661.8 | 1635.3 |
| 20° | 1774.9 | 1724.3 | 1669.8 | 1576.0 | 1540.7 |
| 22.5° | 1750.0 | 1687.4 | 1600.0 | 1474.9 | 1427.6 |
| 25° | 1717.9 | 1641.7 | 1515.0 | 1356.2 | 1300.9 |
| 27.5° | 1681.8 | 1588.0 | 1417.2 | 1234.3 | 1175.0 |
| 30° | 1639.3 | 1523.0 | 1309.7 | 1114.8 | 1058.7 |
| 32.5° | 1589.6 | 1450.1 | 1196.6 | 1007.3 | 955.2 |
| 35° | 1534.3 | 1365.8 | 1085.9 | 911.9 | 871.0 |
| 37.5° | 1470.9 | 1273.6 | 983.3 | 834.9 | 808.4 |
| 40° | 1398.7 | 1173.4 | 888.6 | 775.6 | 766.7 |
| 42.5° | 1320.9 | 1075.5 | 807.6 | 737.1 | 745.1 |
| 45° | 1228.7 | 973.7 | 739.5 | 713.0 | 734.7 |
| 47.5° | 1131.6 | 874.2 | 684.1 | 699.4 | 730.6 |
| 50° | 1037.8 | 782.0 | 640.8 | 690.5 | 727.4 |
| 52.5° | 921.5 | 699.4 | 606.3 | 682.5 | 722.6 |
| 55° | 821.3 | 620.8 | 577.5 | 671.3 | 713.0 |
| 57.5° | 705.8 | 550.2 | 551.8 | 656.9 | 698.6 |
| 60° | 609.5 | 486.0 | 526.9 | 636.8 | 676.9 |
| 62.5° | 511.7 | 428.3 | 499.7 | 610.3 | 646.4 |
| 65° | 419.5 | 375.3 | 470.0 | 575.9 | 606.3 |
| 67.5° | 342.5 | 327.2 | 436.3 | 534.1 | 559.8 |
| 70° | 277.5 | 283.1 | 399.4 | 487.6 | 509.3 |
| 72.5° | 213.3 | 242.2 | 359.3 | 437.9 | 456.3 |
| 75° | 162.8 | 203.7 | 316.8 | 388.2 | 404.2 |
| 77.5° | 120.3 | 170.0 | 278.3 | 343.3 | 356.9 |
| 80° | 85.0 | 140.4 | 242.2 | 304.0 | 314.4 |
| 82.5° | 56.9 | 115.5 | 212.5 | 268.7 | 278.3 |
| 85° | 32.9 | 94.6 | 186.9 | 239.0 | 245.4 |
| 87.5° | 13.6 | 78.6 | 166.0 | 208.5 | 211.7 |
| 90° | 1.6 | 66.6 | 147.6 | 178.0 | 176.4 |
| 92.5° | 1.6 | 60.2 | 131.5 | 149.2 | 145.2 |
| 95° | 1.6 | 56.1 | 117.1 | 125.1 | 121.1 |
| 97.5° | 1.6 | 53.7 | 104.3 | 107.5 | 103.5 |
| 100° | 0.8 | 52.1 | 95.4 | 95.4 | 91.4 |
| 102.5° | 0.8 | 50.5 | 89.0 | 86.6 | 83.4 |
| 105° | 0.8 | 48.9 | 84.2 | 81.8 | 77.8 |
| 107.5° | 0.8 | 48.1 | 81.0 | 78.6 | 74.6 |
| 110° | 0.8 | 46.5 | 78.6 | 76.2 | 73.0 |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-53SL-SLN-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|------|
| 112.5° | 0.8 | 45.7 | 77.0 | 75.4 | 71.4 |
| 115° | 0.8 | 44.1 | 74.6 | 73.8 | 71.4 |
| 117.5° | 0.8 | 42.5 | 73.0 | 73.0 | 70.6 |
| 120° | 0.8 | 40.9 | 70.6 | 72.2 | 69.8 |
| 122.5° | 0.8 | 39.3 | 68.2 | 70.6 | 68.2 |
| 125° | 0.8 | 37.7 | 65.8 | 69.0 | 67.4 |
| 127.5° | 1.6 | 35.3 | 62.6 | 67.4 | 65.8 |
| 130° | 0.8 | 32.9 | 59.3 | 65.8 | 65.0 |
| 132.5° | 1.6 | 30.5 | 56.1 | 63.4 | 63.4 |
| 135° | 1.6 | 28.1 | 52.1 | 61.0 | 61.0 |
| 137.5° | 1.6 | 24.9 | 48.1 | 57.7 | 58.5 |
| 140° | 1.6 | 22.5 | 44.1 | 54.5 | 56.1 |
| 142.5° | 1.6 | 20.1 | 40.1 | 51.3 | 53.7 |
| 145° | 1.6 | 17.6 | 36.1 | 47.3 | 50.5 |
| 147.5° | 1.6 | 16.0 | 32.1 | 42.5 | 47.3 |
| 150° | 1.6 | 13.6 | 28.9 | 38.5 | 43.3 |
| 152.5° | 1.6 | 12.0 | 25.7 | 34.5 | 40.1 |
| 155° | 1.6 | 11.2 | 22.5 | 29.7 | 36.1 |
| 157.5° | 1.6 | 9.6 | 19.2 | 25.7 | 32.1 |
| 160° | 1.6 | 8.0 | 16.0 | 22.5 | 27.3 |
| 162.5° | 1.6 | 7.2 | 13.6 | 18.4 | 24.1 |
| 165° | 1.6 | 6.4 | 11.2 | 14.4 | 19.2 |
| 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)