

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-LD5-54HL-SLN-UNV-L850-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-LD5-54HL-SLN-UNV-L850-CD1-U  
Description: 4FT LINEAR SNLED LED FIXTURE  
SQUARE NARROW LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

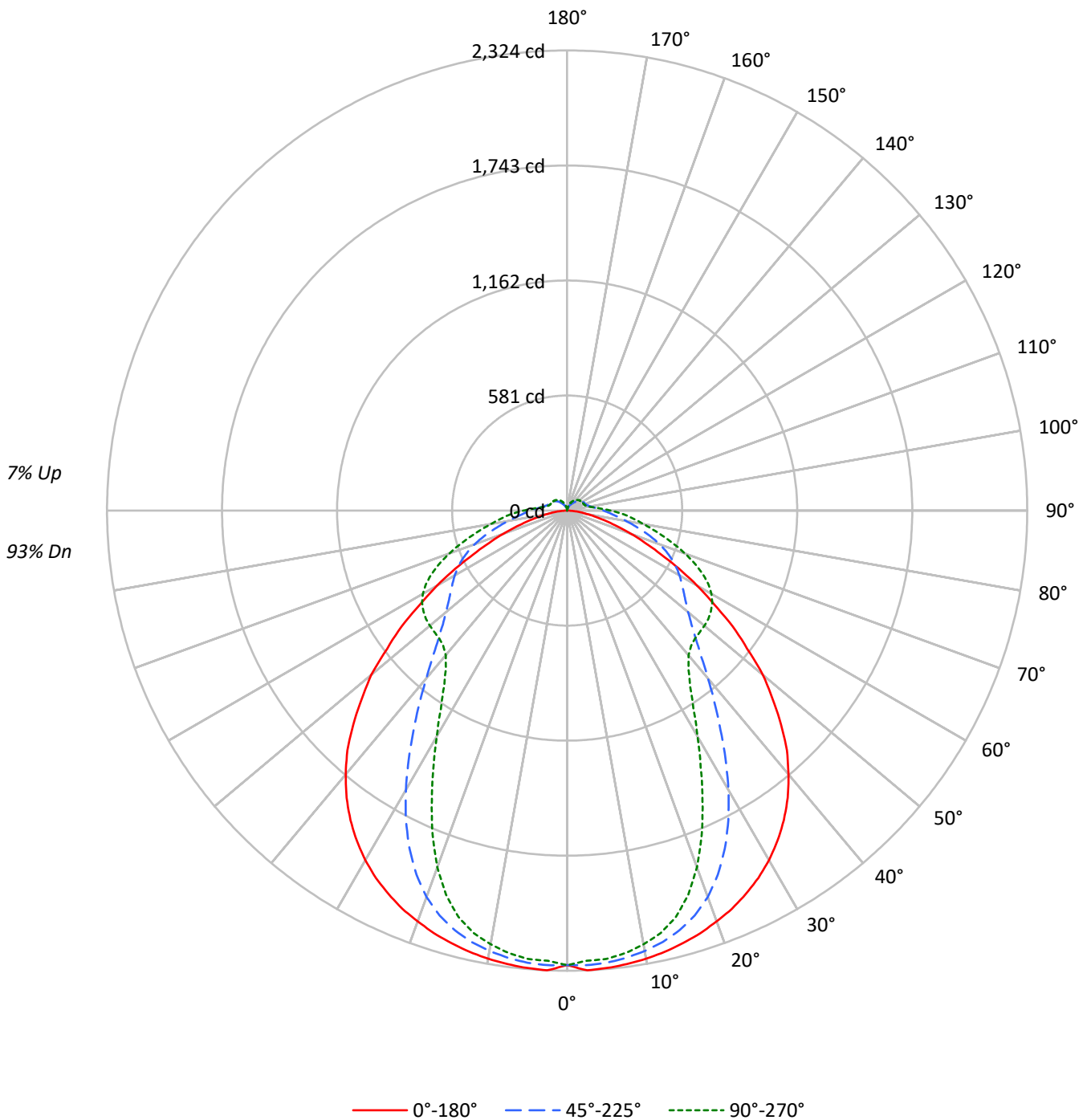
Lumens per Lamp: N/A  
Luminaire Lumens: 5772.0 lumens  
Efficiency: N/A  
Efficacy: 148.0 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 0.96 / 1.11  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')  
CIE Type: Direct

Input Watts (W): 39  
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



TEST NUMBER: P#  
CATALOG NUMBER: 4SNLED-LD5-54HL-SLN-UNV-L850-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-54HL-SLN-UNV-L850-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 | 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°  | 18548 | 18548 | 18548 |
| 5°  | 18761 | 18138 | 17854 |
| 10° | 18755 | 17637 | 17120 |
| 15° | 18761 | 17045 | 16143 |
| 20° | 18769 | 16167 | 14497 |
| 25° | 18777 | 14814 | 12277 |
| 30° | 18687 | 13036 | 10098 |
| 35° | 18421 | 11091 | 8463  |
| 40° | 17882 | 9393  | 7650  |
| 45° | 16934 | 8163  | 7592  |
| 50° | 15644 | 7463  | 7858  |
| 55° | 13776 | 7173  | 8134  |
| 60° | 11623 | 7070  | 8246  |
| 65° | 9349  | 6914  | 7989  |
| 70° | 7509  | 6556  | 7367  |
| 75° | 5662  | 5934  | 6537  |
| 80° | 4178  | 5328  | 5815  |
| 85° | 2794  | 5027  | 5349  |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-54HL-SLN-UNV-L850-CD1-U

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 217.1  | 3.8       |
| 10°-20°   | 613.8  | 10.6      |
| 20°-30°   | 858.0  | 14.9      |
| 30°-40°   | 889.9  | 15.4      |
| 40°-50°   | 822.2  | 14.2      |
| 50°-60°   | 734.0  | 12.7      |
| 60°-70°   | 594.9  | 10.3      |
| 70°-80°   | 395.7  | 6.9       |
| 80°-90°   | 226.6  | 3.9       |
| 90°-100°  | 125.3  | 2.2       |
| 100°-110° | 84.9   | 1.5       |
| 110°-120° | 70.7   | 1.2       |
| 120°-130° | 57.5   | 1.0       |
| 130°-140° | 41.4   | 0.7       |
| 140°-150° | 25.0   | 0.4       |
| 150°-160° | 12.0   | 0.2       |
| 160°-170° | 3.1    | 0.1       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 1688.9 | 29.3      |
| 0°-40°    | 2578.8 | 44.7      |
| 0°-60°    | 4135.0 | 71.6      |
| 0°-90°    | 5352.1 | 92.7      |
| 90°-120°  | 280.9  | 4.9       |
| 90°-150°  | 404.8  | 7.0       |
| 90°-180°  | 420.0  | 7.3       |
| 0°-180°   | 5772.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 2295 | 2295  | 2295 | 2295  | 2295 |      |
| 5°   | 2319 | 2280  | 2292 | 2276  | 2273 | 221  |
| 15°  | 2261 | 2213  | 2194 | 2145  | 2124 | 639  |
| 25°  | 2137 | 2042  | 1884 | 1687  | 1618 | 985  |
| 35°  | 1908 | 1699  | 1351 | 1134  | 1083 | 1191 |
| 45°  | 1528 | 1211  | 920  | 887   | 914  | 1175 |
| 55°  | 1021 | 772   | 718  | 835   | 887  | 908  |
| 65°  | 522  | 467   | 584  | 716   | 754  | 527  |
| 75°  | 202  | 253   | 394  | 483   | 503  | 222  |
| 85°  | 41   | 118   | 232  | 297   | 305  | 47   |
| 90°  | 2    | 83    | 184  | 221   | 219  | 3    |
| 95°  | 2    | 70    | 146  | 156   | 151  | 1    |
| 105° | 1    | 61    | 105  | 102   | 97   | 1    |
| 115° | 1    | 55    | 93   | 92    | 89   | 1    |
| 125° | 1    | 47    | 82   | 86    | 84   | 1    |
| 135° | 2    | 35    | 65   | 76    | 76   | 1    |
| 145° | 2    | 22    | 45   | 59    | 63   | 1    |
| 155° | 2    | 14    | 28   | 37    | 45   | 1    |
| 165° | 2    | 8     | 14   | 18    | 24   | 0    |
| 175° | 0    | 0     | 0    | 0     | 0    | 0    |
| 180° | 0    | 0     | 0    | 0     | 0    | 0    |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-54HL-SLN-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 2295.2 | 2295.2 | 2295.2 | 2295.2 | 2295.2 |
| 2.5°   | 2324.1 | 2286.2 | 2298.2 | 2288.2 | 2275.2 |
| 5°     | 2319.1 | 2280.2 | 2292.2 | 2276.2 | 2273.2 |
| 7.5°   | 2310.1 | 2271.2 | 2278.2 | 2259.3 | 2254.3 |
| 10°    | 2298.2 | 2257.3 | 2258.3 | 2231.3 | 2224.4 |
| 12.5°  | 2282.2 | 2237.3 | 2231.3 | 2194.4 | 2184.5 |
| 15°    | 2261.3 | 2213.4 | 2194.4 | 2144.6 | 2123.6 |
| 17.5°  | 2238.3 | 2182.5 | 2143.6 | 2066.8 | 2033.8 |
| 20°    | 2207.4 | 2144.6 | 2076.7 | 1960.0 | 1916.1 |
| 22.5°  | 2176.5 | 2098.7 | 1990.0 | 1834.3 | 1775.5 |
| 25°    | 2136.6 | 2041.8 | 1884.2 | 1686.7 | 1617.9 |
| 27.5°  | 2091.7 | 1975.0 | 1762.5 | 1535.1 | 1461.3 |
| 30°    | 2038.8 | 1894.2 | 1628.9 | 1386.5 | 1316.7 |
| 32.5°  | 1977.0 | 1803.4 | 1488.2 | 1252.8 | 1188.0 |
| 35°    | 1908.2 | 1698.7 | 1350.6 | 1134.1 | 1083.3 |
| 37.5°  | 1829.4 | 1584.0 | 1222.9 | 1038.4 | 1005.4 |
| 40°    | 1739.6 | 1459.3 | 1105.2 | 964.6  | 953.6  |
| 42.5°  | 1642.8 | 1337.6 | 1004.5 | 916.7  | 926.6  |
| 45°    | 1528.1 | 1210.9 | 919.7  | 886.8  | 913.7  |
| 47.5°  | 1407.4 | 1087.2 | 850.8  | 869.8  | 908.7  |
| 50°    | 1290.7 | 972.5  | 797.0  | 858.8  | 904.7  |
| 52.5°  | 1146.1 | 869.8  | 754.1  | 848.8  | 898.7  |
| 55°    | 1021.4 | 772.0  | 718.2  | 834.9  | 886.8  |
| 57.5°  | 877.8  | 684.3  | 686.3  | 816.9  | 868.8  |
| 60°    | 758.1  | 604.5  | 655.3  | 792.0  | 841.9  |
| 62.5°  | 636.4  | 532.6  | 621.4  | 759.1  | 804.0  |
| 65°    | 521.7  | 466.8  | 584.5  | 716.2  | 754.1  |
| 67.5°  | 425.9  | 407.0  | 542.6  | 664.3  | 696.2  |
| 70°    | 345.1  | 352.1  | 496.7  | 606.5  | 633.4  |
| 72.5°  | 265.3  | 301.2  | 446.9  | 544.6  | 567.6  |
| 75°    | 202.5  | 253.4  | 394.0  | 482.8  | 502.7  |
| 77.5°  | 149.6  | 211.5  | 346.1  | 426.9  | 443.9  |
| 80°    | 105.7  | 174.6  | 301.2  | 378.0  | 391.0  |
| 82.5°  | 70.8   | 143.6  | 264.3  | 334.2  | 346.1  |
| 85°    | 40.9   | 117.7  | 232.4  | 297.2  | 305.2  |
| 87.5°  | 17.0   | 97.8   | 206.5  | 259.3  | 263.3  |
| 90°    | 2.0    | 82.8   | 183.5  | 221.4  | 219.4  |
| 92.5°  | 2.0    | 74.8   | 163.6  | 185.5  | 180.5  |
| 95°    | 2.0    | 69.8   | 145.6  | 155.6  | 150.6  |
| 97.5°  | 2.0    | 66.8   | 129.7  | 133.7  | 128.7  |
| 100°   | 1.0    | 64.8   | 118.7  | 118.7  | 113.7  |
| 102.5° | 1.0    | 62.8   | 110.7  | 107.7  | 103.7  |
| 105°   | 1.0    | 60.8   | 104.7  | 101.7  | 96.8   |
| 107.5° | 1.0    | 59.8   | 100.7  | 97.8   | 92.8   |
| 110°   | 1.0    | 57.9   | 97.8   | 94.8   | 90.8   |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-54HL-SLN-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°  | 67.5° | 90°  |
|--------|-----|-------|------|-------|------|
| 112.5° | 1.0 | 56.9  | 95.8 | 93.8  | 88.8 |
| 115°   | 1.0 | 54.9  | 92.8 | 91.8  | 88.8 |
| 117.5° | 1.0 | 52.9  | 90.8 | 90.8  | 87.8 |
| 120°   | 1.0 | 50.9  | 87.8 | 89.8  | 86.8 |
| 122.5° | 1.0 | 48.9  | 84.8 | 87.8  | 84.8 |
| 125°   | 1.0 | 46.9  | 81.8 | 85.8  | 83.8 |
| 127.5° | 2.0 | 43.9  | 77.8 | 83.8  | 81.8 |
| 130°   | 1.0 | 40.9  | 73.8 | 81.8  | 80.8 |
| 132.5° | 2.0 | 37.9  | 69.8 | 78.8  | 78.8 |
| 135°   | 2.0 | 34.9  | 64.8 | 75.8  | 75.8 |
| 137.5° | 2.0 | 30.9  | 59.8 | 71.8  | 72.8 |
| 140°   | 2.0 | 27.9  | 54.9 | 67.8  | 69.8 |
| 142.5° | 2.0 | 24.9  | 49.9 | 63.8  | 66.8 |
| 145°   | 2.0 | 21.9  | 44.9 | 58.9  | 62.8 |
| 147.5° | 2.0 | 19.9  | 39.9 | 52.9  | 58.9 |
| 150°   | 2.0 | 17.0  | 35.9 | 47.9  | 53.9 |
| 152.5° | 2.0 | 15.0  | 31.9 | 42.9  | 49.9 |
| 155°   | 2.0 | 14.0  | 27.9 | 36.9  | 44.9 |
| 157.5° | 2.0 | 12.0  | 23.9 | 31.9  | 39.9 |
| 160°   | 2.0 | 10.0  | 19.9 | 27.9  | 33.9 |
| 162.5° | 2.0 | 9.0   | 17.0 | 22.9  | 29.9 |
| 165°   | 2.0 | 8.0   | 14.0 | 18.0  | 23.9 |
| 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)