

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-LD5-64SL-SLN-UNV-L935-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-LD5-64SL-SLN-UNV-L935-CD1-U  
Description: 4FT LINEAR SNLED LED FIXTURE  
SQUARE NARROW LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

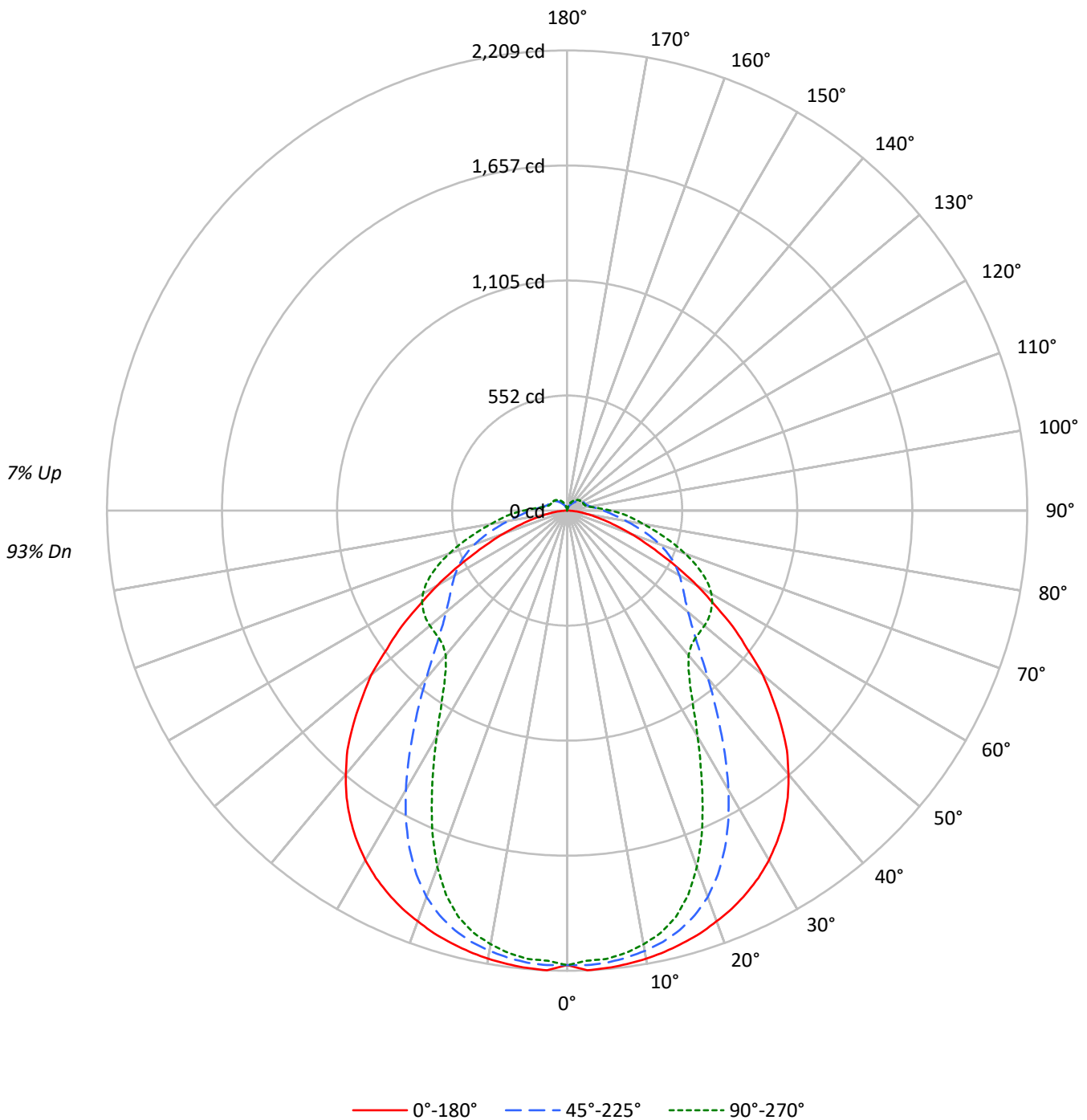
Lumens per Lamp: N/A  
Luminaire Lumens: 5486.0 lumens  
Efficiency: N/A  
Efficacy: 99.7 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 0.96 / 1.11  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')  
CIE Type: Direct

Input Watts (W): 55  
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°  | 17629 | 17629 | 17629 |
| 5°  | 17831 | 17239 | 16969 |
| 10° | 17825 | 16763 | 16271 |
| 15° | 17831 | 16201 | 15343 |
| 20° | 17839 | 15366 | 13779 |
| 25° | 17847 | 14081 | 11668 |
| 30° | 17761 | 12390 | 9597  |
| 35° | 17508 | 10542 | 8043  |
| 40° | 16996 | 8927  | 7271  |
| 45° | 16095 | 7759  | 7216  |
| 50° | 14869 | 7093  | 7469  |
| 55° | 13093 | 6818  | 7730  |
| 60° | 11047 | 6720  | 7837  |
| 65° | 8885  | 6572  | 7592  |
| 70° | 7137  | 6232  | 7002  |
| 75° | 5383  | 5640  | 6214  |
| 80° | 3973  | 5065  | 5527  |
| 85° | 2658  | 4778  | 5084  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 206.4  | 3.8       |
| 10°-20°   | 583.3  | 10.6      |
| 20°-30°   | 815.5  | 14.9      |
| 30°-40°   | 845.8  | 15.4      |
| 40°-50°   | 781.4  | 14.2      |
| 50°-60°   | 697.7  | 12.7      |
| 60°-70°   | 565.4  | 10.3      |
| 70°-80°   | 376.1  | 6.9       |
| 80°-90°   | 215.3  | 3.9       |
| 90°-100°  | 119.1  | 2.2       |
| 100°-110° | 80.7   | 1.5       |
| 110°-120° | 67.2   | 1.2       |
| 120°-130° | 54.6   | 1.0       |
| 130°-140° | 39.4   | 0.7       |
| 140°-150° | 23.7   | 0.4       |
| 150°-160° | 11.4   | 0.2       |
| 160°-170° | 3.0    | 0.1       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 1605.2 | 29.3      |
| 0°-40°    | 2451.0 | 44.7      |
| 0°-60°    | 3930.1 | 71.6      |
| 0°-90°    | 5086.9 | 92.7      |
| 90°-120°  | 267.0  | 4.9       |
| 90°-150°  | 384.7  | 7.0       |
| 90°-180°  | 399.0  | 7.3       |
| 0°-180°   | 5486.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 2182 | 2182  | 2182 | 2182  | 2182 |      |
| 5°   | 2204 | 2167  | 2179 | 2163  | 2161 | 210  |
| 15°  | 2149 | 2104  | 2086 | 2038  | 2018 | 607  |
| 25°  | 2031 | 1941  | 1791 | 1603  | 1538 | 936  |
| 35°  | 1814 | 1614  | 1284 | 1078  | 1030 | 1132 |
| 45°  | 1452 | 1151  | 874  | 843   | 868  | 1117 |
| 55°  | 971  | 734   | 683  | 794   | 843  | 863  |
| 65°  | 496  | 444   | 556  | 681   | 717  | 501  |
| 75°  | 192  | 241   | 374  | 459   | 478  | 211  |
| 85°  | 39   | 112   | 221  | 282   | 290  | 45   |
| 90°  | 2    | 79    | 174  | 210   | 209  | 3    |
| 95°  | 2    | 66    | 138  | 148   | 143  | 1    |
| 105° | 1    | 58    | 100  | 97    | 92   | 1    |
| 115° | 1    | 52    | 88   | 87    | 84   | 1    |
| 125° | 1    | 45    | 78   | 82    | 80   | 1    |
| 135° | 2    | 33    | 62   | 72    | 72   | 1    |
| 145° | 2    | 21    | 43   | 56    | 60   | 1    |
| 155° | 2    | 13    | 26   | 35    | 43   | 1    |
| 165° | 2    | 8     | 13   | 17    | 23   | 0    |
| 175° | 0    | 0     | 0    | 0     | 0    | 0    |
| 180° | 0    | 0     | 0    | 0     | 0    | 0    |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-64SL-SLN-UNV-L935-CD1-U

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 2181.5 | 2181.5 | 2181.5 | 2181.5 | 2181.5 |
| 2.5°   | 2208.9 | 2172.9 | 2184.3 | 2174.8 | 2162.5 |
| 5°     | 2204.2 | 2167.2 | 2178.6 | 2163.4 | 2160.6 |
| 7.5°   | 2195.7 | 2158.7 | 2165.3 | 2147.3 | 2142.6 |
| 10°    | 2184.3 | 2145.4 | 2146.4 | 2120.8 | 2114.1 |
| 12.5°  | 2169.1 | 2126.5 | 2120.8 | 2085.7 | 2076.2 |
| 15°    | 2149.2 | 2103.7 | 2085.7 | 2038.3 | 2018.4 |
| 17.5°  | 2127.4 | 2074.3 | 2037.4 | 1964.4 | 1933.1 |
| 20°    | 2098.0 | 2038.3 | 1973.8 | 1862.9 | 1821.2 |
| 22.5°  | 2068.6 | 1994.7 | 1891.4 | 1743.5 | 1687.5 |
| 25°    | 2030.7 | 1940.6 | 1790.9 | 1603.1 | 1537.7 |
| 27.5°  | 1988.1 | 1877.1 | 1675.2 | 1459.0 | 1388.9 |
| 30°    | 1937.8 | 1800.3 | 1548.2 | 1317.8 | 1251.4 |
| 32.5°  | 1879.0 | 1714.1 | 1414.5 | 1190.7 | 1129.1 |
| 35°    | 1813.6 | 1614.5 | 1283.7 | 1077.9 | 1029.6 |
| 37.5°  | 1738.7 | 1505.5 | 1162.3 | 986.9  | 955.6  |
| 40°    | 1653.4 | 1387.0 | 1050.4 | 916.8  | 906.3  |
| 42.5°  | 1561.4 | 1271.3 | 954.7  | 871.3  | 880.7  |
| 45°    | 1452.4 | 1150.9 | 874.1  | 842.8  | 868.4  |
| 47.5°  | 1337.7 | 1033.4 | 808.7  | 826.7  | 863.7  |
| 50°    | 1226.8 | 924.3  | 757.5  | 816.3  | 859.9  |
| 52.5°  | 1089.3 | 826.7  | 716.7  | 806.8  | 854.2  |
| 55°    | 970.8  | 733.8  | 682.6  | 793.5  | 842.8  |
| 57.5°  | 834.3  | 650.4  | 652.3  | 776.4  | 825.7  |
| 60°    | 720.5  | 574.5  | 622.9  | 752.7  | 800.2  |
| 62.5°  | 604.9  | 506.3  | 590.6  | 721.5  | 764.1  |
| 65°    | 495.8  | 443.7  | 555.6  | 680.7  | 716.7  |
| 67.5°  | 404.8  | 386.8  | 515.7  | 631.4  | 661.7  |
| 70°    | 328.0  | 334.7  | 472.1  | 576.4  | 602.0  |
| 72.5°  | 252.2  | 286.3  | 424.7  | 517.6  | 539.4  |
| 75°    | 192.5  | 240.8  | 374.5  | 458.9  | 477.8  |
| 77.5°  | 142.2  | 201.0  | 329.0  | 405.8  | 421.9  |
| 80°    | 100.5  | 165.9  | 286.3  | 359.3  | 371.6  |
| 82.5°  | 67.3   | 136.5  | 251.2  | 317.6  | 329.0  |
| 85°    | 38.9   | 111.9  | 220.9  | 282.5  | 290.1  |
| 87.5°  | 16.1   | 92.9   | 196.2  | 246.5  | 250.3  |
| 90°    | 1.9    | 78.7   | 174.4  | 210.5  | 208.6  |
| 92.5°  | 1.9    | 71.1   | 155.5  | 176.3  | 171.6  |
| 95°    | 1.9    | 66.4   | 138.4  | 147.9  | 143.2  |
| 97.5°  | 1.9    | 63.5   | 123.2  | 127.0  | 122.3  |
| 100°   | 0.9    | 61.6   | 112.8  | 112.8  | 108.1  |
| 102.5° | 0.9    | 59.7   | 105.2  | 102.4  | 98.6   |
| 105°   | 0.9    | 57.8   | 99.5   | 96.7   | 92.0   |
| 107.5° | 0.9    | 56.9   | 95.8   | 92.9   | 88.2   |
| 110°   | 0.9    | 55.0   | 92.9   | 90.1   | 86.3   |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°  | 67.5° | 90°  |
|--------|-----|-------|------|-------|------|
| 112.5° | 0.9 | 54.0  | 91.0 | 89.1  | 84.4 |
| 115°   | 0.9 | 52.1  | 88.2 | 87.2  | 84.4 |
| 117.5° | 0.9 | 50.2  | 86.3 | 86.3  | 83.4 |
| 120°   | 0.9 | 48.4  | 83.4 | 85.3  | 82.5 |
| 122.5° | 0.9 | 46.5  | 80.6 | 83.4  | 80.6 |
| 125°   | 0.9 | 44.6  | 77.7 | 81.5  | 79.6 |
| 127.5° | 1.9 | 41.7  | 73.9 | 79.6  | 77.7 |
| 130°   | 0.9 | 38.9  | 70.2 | 77.7  | 76.8 |
| 132.5° | 1.9 | 36.0  | 66.4 | 74.9  | 74.9 |
| 135°   | 1.9 | 33.2  | 61.6 | 72.1  | 72.1 |
| 137.5° | 1.9 | 29.4  | 56.9 | 68.3  | 69.2 |
| 140°   | 1.9 | 26.5  | 52.1 | 64.5  | 66.4 |
| 142.5° | 1.9 | 23.7  | 47.4 | 60.7  | 63.5 |
| 145°   | 1.9 | 20.9  | 42.7 | 55.9  | 59.7 |
| 147.5° | 1.9 | 19.0  | 37.9 | 50.2  | 55.9 |
| 150°   | 1.9 | 16.1  | 34.1 | 45.5  | 51.2 |
| 152.5° | 1.9 | 14.2  | 30.3 | 40.8  | 47.4 |
| 155°   | 1.9 | 13.3  | 26.5 | 35.1  | 42.7 |
| 157.5° | 1.9 | 11.4  | 22.8 | 30.3  | 37.9 |
| 160°   | 1.9 | 9.5   | 19.0 | 26.5  | 32.2 |
| 162.5° | 1.9 | 8.5   | 16.1 | 21.8  | 28.4 |
| 165°   | 1.9 | 7.6   | 13.3 | 17.1  | 22.8 |
| 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)