

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-LD5-33SL-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-LD5-33SL-LN-UNV-L840-CD1-U  
Description: SRL LINEAR LED

Light Source: -  
Ballast/Driver: -

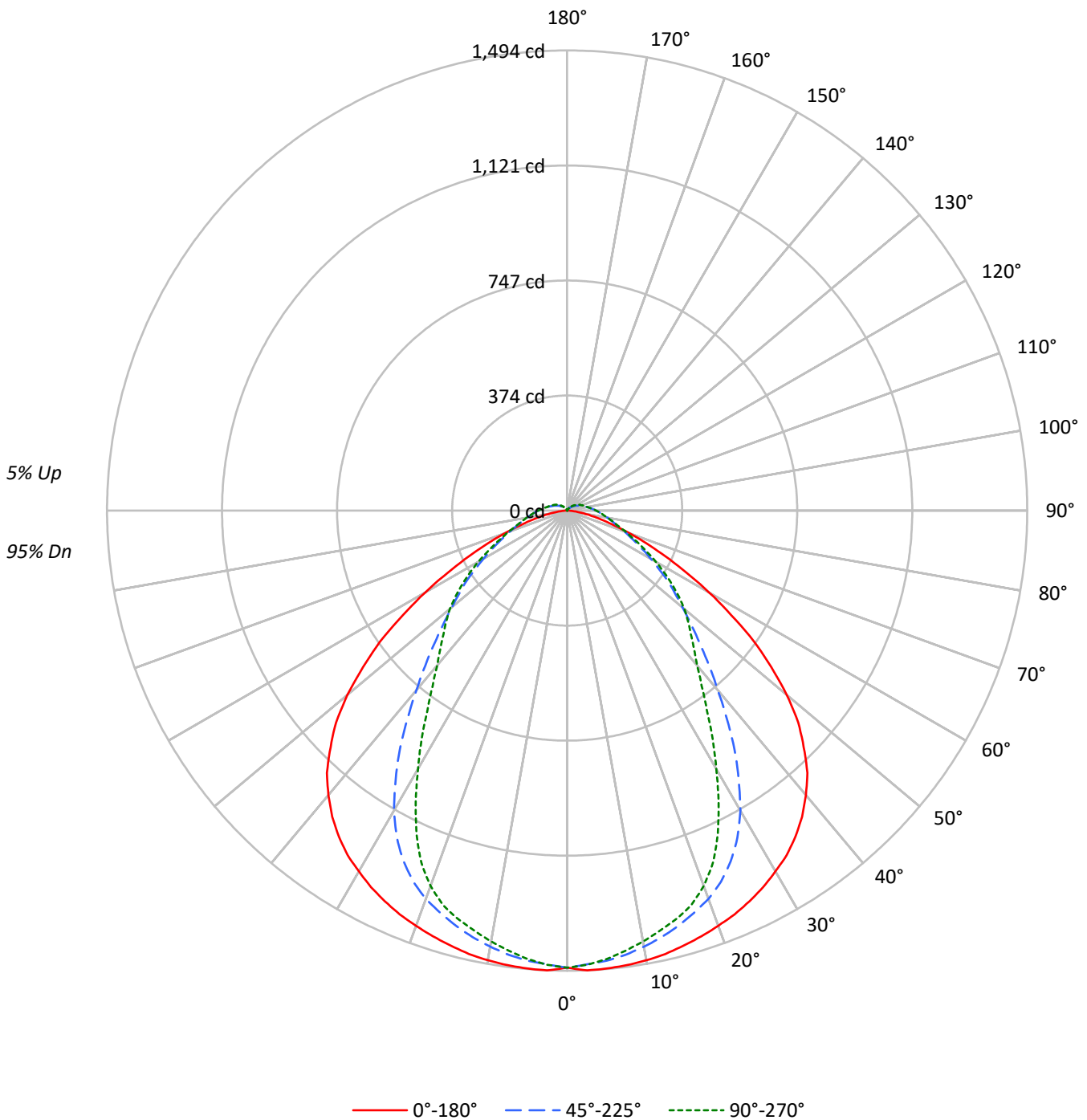
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3393.0 lumens  
Efficiency: N/A  
Efficacy: 146.9 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): 23.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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





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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   | 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°  | 17426 | 17426 | 17426 |
| 5°  | 17519 | 16562 | 16282 |
| 10° | 17537 | 15742 | 15156 |
| 15° | 17558 | 14947 | 14156 |
| 20° | 17635 | 14167 | 13045 |
| 25° | 17761 | 13185 | 11442 |
| 30° | 17871 | 11820 | 9476  |
| 35° | 17951 | 10047 | 7727  |
| 40° | 17803 | 8195  | 6444  |
| 45° | 17252 | 6711  | 5664  |
| 50° | 16134 | 5571  | 5058  |
| 55° | 14251 | 4756  | 4344  |
| 60° | 11606 | 3945  | 3629  |
| 65° | 8917  | 3304  | 2972  |
| 70° | 6513  | 2829  | 2461  |
| 75° | 4554  | 2501  | 2094  |
| 80° | 3059  | 2318  | 1870  |
| 85° | 1764  | 2208  | 1743  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 139.8  | 4.1       |
| 10°-20°   | 397.1  | 11.7      |
| 20°-30°   | 580.2  | 17.1      |
| 30°-40°   | 619.7  | 18.3      |
| 40°-50°   | 546.1  | 16.1      |
| 50°-60°   | 414.7  | 12.2      |
| 60°-70°   | 264.4  | 7.8       |
| 70°-80°   | 157.7  | 4.6       |
| 80°-90°   | 99.1   | 2.9       |
| 90°-100°  | 65.6   | 1.9       |
| 100°-110° | 44.6   | 1.3       |
| 110°-120° | 30.0   | 0.9       |
| 120°-130° | 18.5   | 0.5       |
| 130°-140° | 9.8    | 0.3       |
| 140°-150° | 4.2    | 0.1       |
| 150°-160° | 1.4    | 0.0       |
| 160°-170° | 0.3    | 0.0       |
| 170°-180° | 0.1    | 0.0       |
| 0°-30°    | 1117.1 | 32.9      |
| 0°-40°    | 1736.8 | 51.2      |
| 0°-60°    | 2697.6 | 79.5      |
| 0°-90°    | 3218.7 | 94.9      |
| 90°-120°  | 140.1  | 4.1       |
| 90°-150°  | 172.6  | 5.1       |
| 90°-180°  | 174.0  | 5.1       |
| 0°-180°   | 3393.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1484 | 1484  | 1484 | 1484  | 1484 |      |
| 5°   | 1492 | 1481  | 1467 | 1472  | 1462 | 142  |
| 15°  | 1462 | 1435  | 1395 | 1386  | 1372 | 413  |
| 25°  | 1400 | 1337  | 1257 | 1196  | 1158 | 646  |
| 35°  | 1292 | 1152  | 948  | 829   | 791  | 807  |
| 45°  | 1086 | 817   | 608  | 572   | 568  | 835  |
| 55°  | 741  | 464   | 399  | 414   | 414  | 656  |
| 65°  | 352  | 238   | 247  | 262   | 260  | 356  |
| 75°  | 117  | 121   | 159  | 166   | 161  | 131  |
| 85°  | 20   | 66    | 111  | 117   | 112  | 24   |
| 90°  | 1    | 50    | 94   | 98    | 94   | 1    |
| 95°  | 0    | 38    | 78   | 83    | 78   | 0    |
| 105° | 0    | 24    | 55   | 60    | 58   | 0    |
| 115° | 0    | 15    | 38   | 45    | 44   | 0    |
| 125° | 1    | 10    | 25   | 32    | 31   | 1    |
| 135° | 1    | 5     | 16   | 19    | 18   | 1    |
| 145° | 1    | 2     | 8    | 10    | 10   | 0    |
| 155° | 1    | 2     | 3    | 4     | 3    | 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-LD5-33SL-LN-UNV-L840-CD1-U

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1484.0 | 1484.0 | 1484.0 | 1484.0 | 1484.0 |
| 2.5°   | 1494.4 | 1485.5 | 1474.4 | 1481.8 | 1475.9 |
| 5°     | 1492.2 | 1481.1 | 1467.0 | 1471.5 | 1461.9 |
| 7.5°   | 1488.5 | 1474.4 | 1454.5 | 1453.0 | 1441.9 |
| 10°    | 1482.6 | 1464.1 | 1437.5 | 1432.3 | 1420.5 |
| 12.5°  | 1474.4 | 1451.5 | 1418.3 | 1410.2 | 1396.2 |
| 15°    | 1461.9 | 1434.6 | 1395.4 | 1385.8 | 1372.5 |
| 17.5°  | 1449.3 | 1415.4 | 1369.6 | 1357.8 | 1342.3 |
| 20°    | 1434.6 | 1393.2 | 1341.5 | 1316.4 | 1297.2 |
| 22.5°  | 1419.1 | 1368.1 | 1304.6 | 1262.5 | 1237.4 |
| 25°    | 1399.9 | 1337.1 | 1256.6 | 1196.1 | 1157.7 |
| 27.5°  | 1378.4 | 1304.6 | 1197.6 | 1110.4 | 1064.7 |
| 30°    | 1352.6 | 1261.1 | 1125.2 | 1015.9 | 967.9  |
| 32.5°  | 1326.8 | 1213.8 | 1036.6 | 922.9  | 879.3  |
| 35°    | 1292.1 | 1151.8 | 948.0  | 829.1  | 790.7  |
| 37.5°  | 1252.9 | 1082.4 | 851.3  | 745.7  | 717.7  |
| 40°    | 1205.7 | 1001.2 | 760.5  | 676.3  | 655.6  |
| 42.5°  | 1154.7 | 911.8  | 681.5  | 620.2  | 609.1  |
| 45°    | 1086.1 | 817.3  | 607.6  | 572.2  | 568.5  |
| 47.5°  | 1018.1 | 722.8  | 544.9  | 530.1  | 532.3  |
| 50°    | 931.0  | 629.1  | 488.0  | 493.2  | 496.9  |
| 52.5°  | 835.0  | 542.7  | 441.5  | 452.6  | 455.5  |
| 55°    | 741.3  | 463.7  | 399.4  | 413.5  | 414.2  |
| 57.5°  | 632.0  | 394.3  | 353.7  | 375.1  | 372.9  |
| 60°    | 533.1  | 333.0  | 314.5  | 331.5  | 333.0  |
| 62.5°  | 435.6  | 282.8  | 279.8  | 294.6  | 293.9  |
| 65°    | 352.2  | 238.5  | 247.3  | 262.1  | 259.9  |
| 67.5°  | 279.8  | 199.3  | 220.0  | 232.6  | 227.4  |
| 70°    | 213.4  | 169.1  | 196.4  | 206.0  | 203.0  |
| 72.5°  | 160.2  | 143.2  | 175.7  | 184.6  | 179.4  |
| 75°    | 117.4  | 121.1  | 158.7  | 166.1  | 161.0  |
| 77.5°  | 84.2   | 104.1  | 145.4  | 149.9  | 146.2  |
| 80°    | 56.9   | 88.6   | 132.2  | 138.1  | 132.2  |
| 82.5°  | 36.2   | 76.0   | 121.1  | 126.3  | 121.1  |
| 85°    | 19.9   | 65.7   | 110.7  | 116.7  | 111.5  |
| 87.5°  | 8.9    | 56.9   | 101.9  | 107.1  | 102.6  |
| 90°    | 0.7    | 49.5   | 93.8   | 98.2   | 93.8   |
| 92.5°  | 0.0    | 42.8   | 85.6   | 90.8   | 86.4   |
| 95°    | 0.0    | 37.7   | 78.3   | 82.7   | 78.3   |
| 97.5°  | 0.0    | 33.2   | 71.6   | 76.0   | 72.4   |
| 100°   | 0.0    | 29.5   | 65.7   | 70.1   | 66.4   |
| 102.5° | 0.0    | 25.8   | 59.8   | 65.0   | 62.0   |
| 105°   | 0.0    | 23.6   | 54.6   | 59.8   | 57.6   |
| 107.5° | 0.0    | 20.7   | 50.2   | 56.1   | 54.6   |
| 110°   | 0.0    | 18.5   | 45.8   | 52.4   | 50.9   |



TEST NUMBER: P#

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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°  | 67.5° | 90°  |
|--------|-----|-------|------|-------|------|
| 112.5° | 0.0 | 17.0  | 41.3 | 48.7  | 47.3 |
| 115°   | 0.0 | 14.8  | 37.7 | 45.0  | 44.3 |
| 117.5° | 0.0 | 13.3  | 34.7 | 41.3  | 41.3 |
| 120°   | 0.7 | 11.8  | 31.7 | 38.4  | 37.7 |
| 122.5° | 0.7 | 10.3  | 28.1 | 34.7  | 34.0 |
| 125°   | 0.7 | 9.6   | 25.1 | 31.7  | 31.0 |
| 127.5° | 0.7 | 8.1   | 22.9 | 28.1  | 27.3 |
| 130°   | 0.7 | 7.4   | 19.9 | 25.1  | 24.4 |
| 132.5° | 0.7 | 5.9   | 17.7 | 22.1  | 21.4 |
| 135°   | 0.7 | 5.2   | 15.5 | 19.2  | 18.5 |
| 137.5° | 0.7 | 4.4   | 13.3 | 17.0  | 16.2 |
| 140°   | 0.7 | 3.7   | 11.8 | 14.8  | 14.0 |
| 142.5° | 0.7 | 3.0   | 9.6  | 12.6  | 11.8 |
| 145°   | 0.7 | 2.2   | 8.1  | 10.3  | 9.6  |
| 147.5° | 0.7 | 1.5   | 6.6  | 8.9   | 8.1  |
| 150°   | 0.7 | 1.5   | 5.2  | 7.4   | 6.6  |
| 152.5° | 0.7 | 1.5   | 4.4  | 5.9   | 4.4  |
| 155°   | 0.7 | 1.5   | 3.0  | 4.4   | 3.0  |
| 157.5° | 0.7 | 1.5   | 2.2  | 3.0   | 2.2  |
| 160°   | 0.7 | 1.5   | 2.2  | 2.2   | 0.7  |
| 162.5° | 0.7 | 1.5   | 1.5  | 0.7   | 0.0  |
| 165°   | 0.7 | 1.5   | 1.5  | 0.0   | 0.0  |
| 167.5° | 0.7 | 1.5   | 1.5  | 0.0   | 0.0  |
| 170°   | 0.7 | 1.5   | 1.5  | 0.0   | 0.0  |
| 172.5° | 0.7 | 1.5   | 1.5  | 0.0   | 0.0  |
| 175°   | 1.5 | 1.5   | 1.5  | 0.0   | 0.0  |
| 177.5° | 0.7 | 1.5   | 0.7  | 0.0   | 0.0  |
| 180°   | 0.7 | 0.7   | 0.7  | 0.7   | 0.7  |

(END OF REPORT)