

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: P229941

Luminaire Tested: **24RLN-LD5-55-RDP-UNV-L935-CD1-SVPD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229941  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1707-178-7)  
Test Lab: INNOVATION CENTER-G3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24RLN-LD5-55-RDP-UNV-L935-CD1-SVPD1-U  
Description: METALUX 2X4 RLN LED TROFFER WITH SENSOR AND RDP LENS  
Light Source: (252)3500K CCT, 90 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3917.0 lumens  
Efficiency: N/A  
Efficacy: 91.7 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.31 / 1.38  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

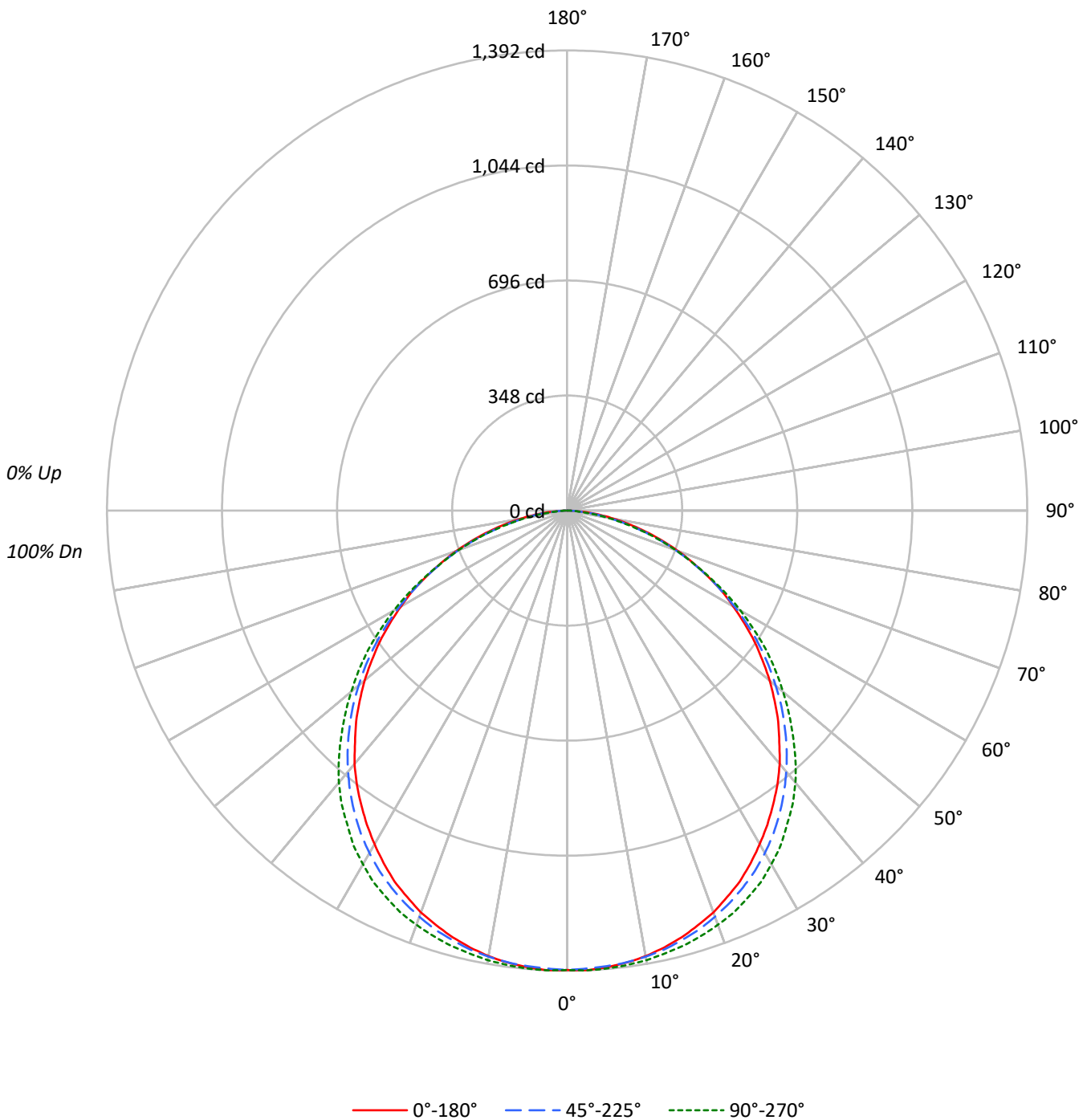
Input Watts (W): 42.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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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   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 98  | 95  | 92  | 94  | 91  | 89  | 90  | 88  | 86  | 84  |
| 2   | 99  | 91  | 84  | 79  | 97  | 89  | 83  | 78  | 86  | 80  | 76  | 82  | 78  | 74  | 79  | 76  | 73  | 70  |
| 3   | 91  | 80  | 72  | 66  | 88  | 78  | 71  | 65  | 76  | 69  | 64  | 73  | 67  | 63  | 70  | 66  | 62  | 59  |
| 4   | 83  | 71  | 62  | 56  | 81  | 70  | 61  | 55  | 67  | 60  | 54  | 65  | 59  | 54  | 63  | 57  | 53  | 51  |
| 5   | 76  | 63  | 54  | 48  | 74  | 62  | 54  | 48  | 60  | 53  | 47  | 58  | 52  | 47  | 56  | 51  | 46  | 44  |
| 6   | 70  | 57  | 48  | 42  | 68  | 56  | 48  | 42  | 54  | 47  | 41  | 53  | 46  | 41  | 51  | 45  | 40  | 38  |
| 7   | 65  | 52  | 43  | 37  | 64  | 51  | 43  | 37  | 49  | 42  | 36  | 48  | 41  | 36  | 47  | 41  | 36  | 34  |
| 8   | 61  | 47  | 39  | 33  | 59  | 47  | 38  | 33  | 45  | 38  | 33  | 44  | 37  | 32  | 43  | 37  | 32  | 30  |
| 9   | 57  | 43  | 35  | 30  | 55  | 43  | 35  | 30  | 42  | 34  | 29  | 41  | 34  | 29  | 40  | 33  | 29  | 27  |
| 10  | 53  | 40  | 32  | 27  | 52  | 39  | 32  | 27  | 38  | 31  | 27  | 38  | 31  | 27  | 37  | 31  | 26  | 25  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2129 | 2129 | 2129 |
| 5°  | 2132 | 2127 | 2138 |
| 10° | 2129 | 2131 | 2148 |
| 15° | 2120 | 2133 | 2160 |
| 20° | 2108 | 2131 | 2174 |
| 25° | 2091 | 2127 | 2185 |
| 30° | 2061 | 2116 | 2185 |
| 35° | 2031 | 2095 | 2168 |
| 40° | 2000 | 2062 | 2149 |
| 45° | 1956 | 2018 | 2094 |
| 50° | 1907 | 1961 | 2031 |
| 55° | 1849 | 1895 | 1962 |
| 60° | 1779 | 1801 | 1856 |
| 65° | 1696 | 1696 | 1714 |
| 70° | 1594 | 1565 | 1562 |
| 75° | 1455 | 1368 | 1363 |
| 80° | 1268 | 1138 | 1088 |
| 85° | 1005 | 789  | 617  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 131.9  | 3.4       |
| 10°-20°   | 380.4  | 9.7       |
| 20°-30°   | 581.2  | 14.8      |
| 30°-40°   | 701.2  | 17.9      |
| 40°-50°   | 718.7  | 18.3      |
| 50°-60°   | 633.2  | 16.2      |
| 60°-70°   | 463.4  | 11.8      |
| 70°-80°   | 249.1  | 6.4       |
| 80°-90°   | 58.0   | 1.5       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 1093.5 | 27.9      |
| 0°-40°    | 1794.7 | 45.8      |
| 0°-60°    | 3146.5 | 80.3      |
| 0°-90°    | 3917.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3917.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1390 | 1390  | 1390 | 1390  | 1390 |      |
| 5°  | 1386 | 1385  | 1383 | 1387  | 1391 | 132  |
| 15° | 1337 | 1338  | 1345 | 1356  | 1362 | 377  |
| 25° | 1237 | 1240  | 1258 | 1283  | 1293 | 569  |
| 35° | 1086 | 1092  | 1120 | 1151  | 1160 | 680  |
| 45° | 903  | 902   | 932  | 959   | 967  | 696  |
| 55° | 692  | 688   | 710  | 726   | 735  | 618  |
| 65° | 468  | 460   | 468  | 474   | 473  | 464  |
| 75° | 246  | 234   | 231  | 231   | 230  | 261  |
| 85° | 57   | 51    | 45   | 37    | 35   | 68   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1389.8 | 1389.8 | 1389.8 | 1389.8 | 1389.8 |
| 2.5°  | 1391.4 | 1389.0 | 1386.5 | 1389.0 | 1392.3 |
| 5°    | 1386.5 | 1384.9 | 1383.3 | 1387.4 | 1390.6 |
| 7.5°  | 1379.2 | 1377.6 | 1378.4 | 1384.1 | 1386.5 |
| 10°   | 1368.6 | 1368.6 | 1370.2 | 1376.8 | 1380.8 |
| 12.5° | 1353.9 | 1354.7 | 1359.6 | 1367.8 | 1371.9 |
| 15°   | 1336.7 | 1338.4 | 1344.9 | 1355.5 | 1362.1 |
| 17.5° | 1315.5 | 1319.6 | 1328.6 | 1341.6 | 1349.0 |
| 20°   | 1293.5 | 1295.9 | 1307.3 | 1326.1 | 1333.5 |
| 22.5° | 1264.9 | 1269.8 | 1284.5 | 1306.5 | 1316.3 |
| 25°   | 1237.1 | 1240.4 | 1258.3 | 1282.8 | 1292.6 |
| 27.5° | 1202.0 | 1206.9 | 1229.0 | 1257.5 | 1268.1 |
| 30°   | 1165.3 | 1171.0 | 1196.3 | 1224.1 | 1235.5 |
| 32.5° | 1126.9 | 1134.2 | 1160.4 | 1189.8 | 1202.0 |
| 35°   | 1086.0 | 1091.8 | 1120.3 | 1151.4 | 1159.5 |
| 37.5° | 1045.2 | 1046.9 | 1077.1 | 1107.3 | 1120.3 |
| 40°   | 1000.3 | 1001.9 | 1031.3 | 1059.9 | 1074.6 |
| 42.5° | 949.7  | 954.6  | 983.2  | 1010.9 | 1022.4 |
| 45°   | 903.1  | 902.3  | 931.7  | 958.7  | 966.8  |
| 47.5° | 850.9  | 852.5  | 879.5  | 905.6  | 910.5  |
| 50°   | 800.2  | 799.4  | 823.1  | 846.0  | 852.5  |
| 52.5° | 744.7  | 743.9  | 767.6  | 786.4  | 794.5  |
| 55°   | 692.5  | 688.4  | 709.6  | 725.9  | 734.9  |
| 57.5° | 636.1  | 630.4  | 649.2  | 665.5  | 669.6  |
| 60°   | 580.6  | 574.1  | 587.9  | 600.2  | 605.9  |
| 62.5° | 527.5  | 519.3  | 528.3  | 538.9  | 539.8  |
| 65°   | 467.9  | 459.7  | 467.9  | 473.6  | 472.8  |
| 67.5° | 411.6  | 402.6  | 406.7  | 409.1  | 408.3  |
| 70°   | 356.0  | 343.8  | 349.5  | 347.9  | 348.7  |
| 72.5° | 300.5  | 290.7  | 289.9  | 287.4  | 289.9  |
| 75°   | 245.8  | 234.4  | 231.1  | 231.1  | 230.3  |
| 77.5° | 193.5  | 182.1  | 178.8  | 177.2  | 174.7  |
| 80°   | 143.7  | 134.7  | 129.0  | 128.2  | 123.3  |
| 82.5° | 101.3  | 89.8   | 88.2   | 80.8   | 75.9   |
| 85°   | 57.2   | 50.6   | 44.9   | 36.7   | 35.1   |
| 87.5° | 21.2   | 18.8   | 14.7   | 13.9   | 13.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)