

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: P229900

Luminaire Tested: **24RLN-LD5-50-RDP-UNV-L830-CD1-SVPD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229900  
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-LD5-50-RDP-UNV-L830-CD1-SVPD1-U  
Description: METALUX 2X4 RLN LED TROFFER WITH SENSOR AND RDP LENS  
Light Source: (252)3000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3931.0 lumens  
Efficiency: N/A  
Efficacy: 104.0 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

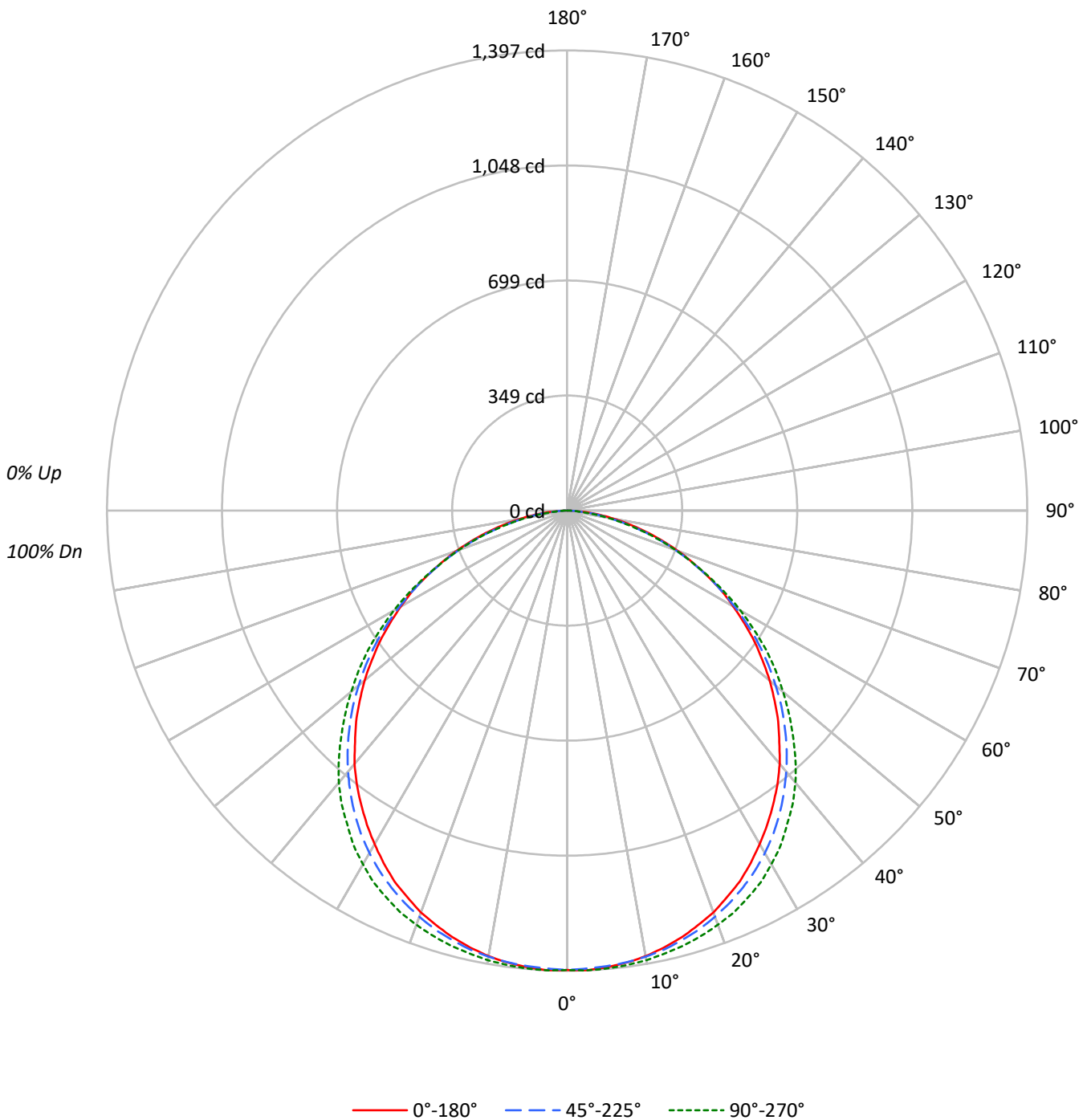
Input Watts (W): 37.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P229900

CATALOG NUMBER: 24RLN-LD5-50-RDP-UNV-L830-CD1-SVPD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P229900

CATALOG NUMBER: 24RLN-LD5-50-RDP-UNV-L830-CD1-SVPD1-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   | 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°  | 2136 | 2136 | 2136 |
| 5°  | 2139 | 2134 | 2146 |
| 10° | 2136 | 2139 | 2155 |
| 15° | 2127 | 2140 | 2167 |
| 20° | 2116 | 2139 | 2181 |
| 25° | 2098 | 2134 | 2192 |
| 30° | 2068 | 2123 | 2193 |
| 35° | 2038 | 2102 | 2176 |
| 40° | 2007 | 2069 | 2156 |
| 45° | 1963 | 2025 | 2102 |
| 50° | 1914 | 1968 | 2039 |
| 55° | 1856 | 1902 | 1969 |
| 60° | 1785 | 1807 | 1863 |
| 65° | 1702 | 1702 | 1720 |
| 70° | 1600 | 1571 | 1567 |
| 75° | 1460 | 1372 | 1368 |
| 80° | 1272 | 1142 | 1091 |
| 85° | 1009 | 793  | 619  |



TEST NUMBER: P229900

CATALOG NUMBER: 24RLN-LD5-50-RDP-UNV-L830-CD1-SVPD1-U

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 132.4  | 3.4       |
| 10°-20°   | 381.8  | 9.7       |
| 20°-30°   | 583.3  | 14.8      |
| 30°-40°   | 703.7  | 17.9      |
| 40°-50°   | 721.2  | 18.3      |
| 50°-60°   | 635.5  | 16.2      |
| 60°-70°   | 465.1  | 11.8      |
| 70°-80°   | 249.9  | 6.4       |
| 80°-90°   | 58.2   | 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°    | 1097.4 | 27.9      |
| 0°-40°    | 1801.1 | 45.8      |
| 0°-60°    | 3157.8 | 80.3      |
| 0°-90°    | 3931.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3931.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1395 | 1395  | 1395 | 1395  | 1395 |      |
| 5°  | 1392 | 1390  | 1388 | 1392  | 1396 | 132  |
| 15° | 1342 | 1343  | 1350 | 1360  | 1367 | 378  |
| 25° | 1242 | 1245  | 1263 | 1287  | 1297 | 571  |
| 35° | 1090 | 1096  | 1124 | 1156  | 1164 | 682  |
| 45° | 906  | 906   | 935  | 962   | 970  | 698  |
| 55° | 695  | 691   | 712  | 728   | 738  | 620  |
| 65° | 470  | 461   | 470  | 475   | 474  | 466  |
| 75° | 247  | 235   | 232  | 232   | 231  | 262  |
| 85° | 57   | 51    | 45   | 37    | 35   | 69   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



TEST NUMBER: P229900

CATALOG NUMBER: 24RLN-LD5-50-RDP-UNV-L830-CD1-SVPD1-U

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1394.8 | 1394.8 | 1394.8 | 1394.8 | 1394.8 |
| 2.5°  | 1396.4 | 1394.0 | 1391.5 | 1394.0 | 1397.2 |
| 5°    | 1391.5 | 1389.9 | 1388.2 | 1392.3 | 1395.6 |
| 7.5°  | 1384.1 | 1382.5 | 1383.3 | 1389.0 | 1391.5 |
| 10°   | 1373.5 | 1373.5 | 1375.1 | 1381.7 | 1385.8 |
| 12.5° | 1358.7 | 1359.5 | 1364.5 | 1372.7 | 1376.8 |
| 15°   | 1341.5 | 1343.2 | 1349.7 | 1360.4 | 1366.9 |
| 17.5° | 1320.2 | 1324.3 | 1333.3 | 1346.4 | 1353.8 |
| 20°   | 1298.1 | 1300.5 | 1312.0 | 1330.9 | 1338.2 |
| 22.5° | 1269.4 | 1274.3 | 1289.1 | 1311.2 | 1321.0 |
| 25°   | 1241.5 | 1244.8 | 1262.8 | 1287.4 | 1297.3 |
| 27.5° | 1206.3 | 1211.2 | 1233.3 | 1262.0 | 1272.7 |
| 30°   | 1169.4 | 1175.2 | 1200.6 | 1228.4 | 1239.9 |
| 32.5° | 1130.9 | 1138.3 | 1164.5 | 1194.0 | 1206.3 |
| 35°   | 1089.9 | 1095.7 | 1124.3 | 1155.5 | 1163.7 |
| 37.5° | 1049.0 | 1050.6 | 1080.9 | 1111.2 | 1124.3 |
| 40°   | 1003.9 | 1005.5 | 1035.0 | 1063.7 | 1078.5 |
| 42.5° | 953.1  | 958.0  | 986.7  | 1014.5 | 1026.0 |
| 45°   | 906.4  | 905.5  | 935.0  | 962.1  | 970.3  |
| 47.5° | 853.9  | 855.6  | 882.6  | 908.8  | 913.7  |
| 50°   | 803.1  | 802.3  | 826.1  | 849.0  | 855.6  |
| 52.5° | 747.4  | 746.6  | 770.3  | 789.2  | 797.4  |
| 55°   | 694.9  | 690.8  | 712.1  | 728.5  | 737.5  |
| 57.5° | 638.4  | 632.7  | 651.5  | 667.9  | 672.0  |
| 60°   | 582.7  | 576.1  | 590.0  | 602.3  | 608.1  |
| 62.5° | 529.4  | 521.2  | 530.2  | 540.9  | 541.7  |
| 65°   | 469.6  | 461.4  | 469.6  | 475.3  | 474.5  |
| 67.5° | 413.0  | 404.0  | 408.1  | 410.6  | 409.7  |
| 70°   | 357.3  | 345.0  | 350.7  | 349.1  | 349.9  |
| 72.5° | 301.6  | 291.7  | 290.9  | 288.5  | 290.9  |
| 75°   | 246.7  | 235.2  | 231.9  | 231.9  | 231.1  |
| 77.5° | 194.2  | 182.7  | 179.5  | 177.8  | 175.4  |
| 80°   | 144.2  | 135.2  | 129.5  | 128.7  | 123.7  |
| 82.5° | 101.6  | 90.1   | 88.5   | 81.1   | 76.2   |
| 85°   | 57.4   | 50.8   | 45.1   | 36.9   | 35.2   |
| 87.5° | 21.3   | 18.8   | 14.8   | 13.9   | 13.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)