

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: P229473

Luminaire Tested: **14RLN-LD5-26-UNV-L935-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229473  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36058)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14RLN-LD5-26-UNV-L935-CD1-U  
Description: METALUX 1X4 RLN LED TROFFER  
Light Source: (112)3500K CCT, 90 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2279.0 lumens  
Efficiency: N/A  
Efficacy: 92.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.31  
Luminous Opening: Rectangular (W 0.83' x L: 3.83' x H: 0')  
CIE Type: Direct

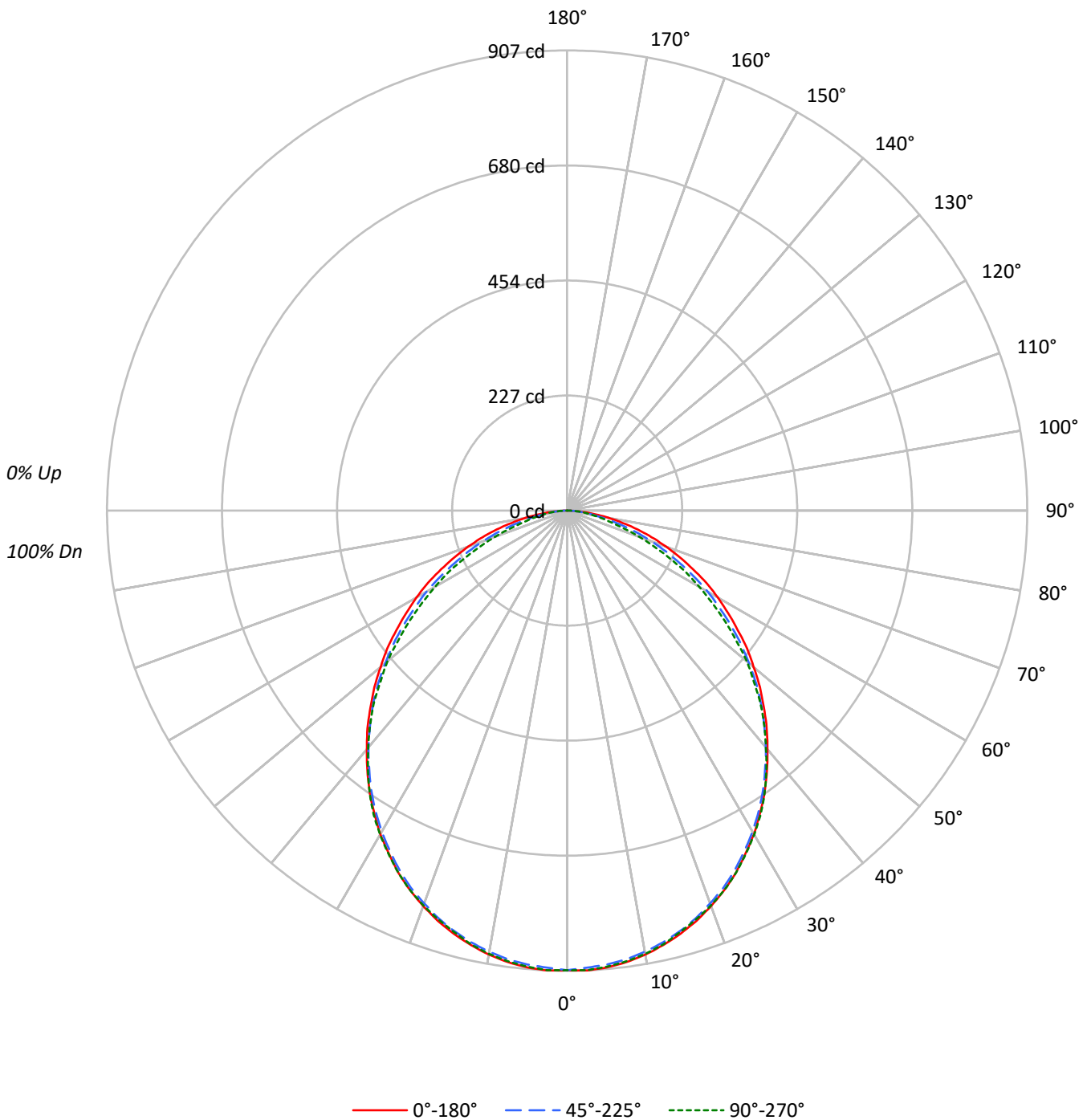
Input Watts (W): 24.72  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 105 | 101 | 97  | 107 | 103 | 99  | 96  | 98  | 95  | 93  |  | 95  | 92  | 90  |  | 91  | 89  | 87  | 85  |
| 2   | 100 | 92  | 86  | 80  | 97  | 90  | 84  | 79  | 87  | 82  | 77  |  | 84  | 79  | 76  |  | 81  | 77  | 74  | 72  |
| 3   | 91  | 81  | 74  | 67  | 89  | 80  | 73  | 67  | 77  | 71  | 66  |  | 74  | 69  | 64  |  | 72  | 67  | 63  | 61  |
| 4   | 84  | 72  | 64  | 57  | 82  | 71  | 63  | 57  | 69  | 62  | 56  |  | 66  | 60  | 56  |  | 64  | 59  | 55  | 53  |
| 5   | 77  | 65  | 56  | 50  | 75  | 64  | 56  | 50  | 62  | 55  | 49  |  | 60  | 53  | 48  |  | 58  | 52  | 48  | 46  |
| 6   | 72  | 59  | 50  | 44  | 70  | 58  | 49  | 43  | 56  | 49  | 43  |  | 54  | 48  | 43  |  | 53  | 47  | 42  | 40  |
| 7   | 66  | 53  | 45  | 39  | 65  | 52  | 44  | 39  | 51  | 44  | 38  |  | 50  | 43  | 38  |  | 48  | 42  | 38  | 36  |
| 8   | 62  | 49  | 40  | 35  | 60  | 48  | 40  | 35  | 47  | 40  | 34  |  | 45  | 39  | 34  |  | 44  | 38  | 34  | 32  |
| 9   | 58  | 45  | 37  | 31  | 57  | 44  | 36  | 31  | 43  | 36  | 31  |  | 42  | 36  | 31  |  | 41  | 35  | 31  | 29  |
| 10  | 54  | 41  | 34  | 28  | 53  | 41  | 33  | 28  | 40  | 33  | 28  |  | 39  | 33  | 28  |  | 38  | 32  | 28  | 26  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3053 | 3053 | 3053 |
| 5°  | 3057 | 3038 | 3052 |
| 10° | 3041 | 3022 | 3035 |
| 15° | 3012 | 2995 | 3001 |
| 20° | 2974 | 2954 | 2970 |
| 25° | 2927 | 2907 | 2927 |
| 30° | 2865 | 2843 | 2870 |
| 35° | 2792 | 2769 | 2792 |
| 40° | 2702 | 2680 | 2682 |
| 45° | 2612 | 2578 | 2570 |
| 50° | 2516 | 2451 | 2425 |
| 55° | 2412 | 2313 | 2227 |
| 60° | 2310 | 2159 | 2026 |
| 65° | 2183 | 1951 | 1786 |
| 70° | 2035 | 1732 | 1500 |
| 75° | 1867 | 1450 | 1159 |
| 80° | 1609 | 1087 | 999  |
| 85° | 1299 | 909  | 932  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 85.6   | 3.8       |
| 10°-20°   | 242.9  | 10.7      |
| 20°-30°   | 361.5  | 15.9      |
| 30°-40°   | 422.5  | 18.5      |
| 40°-50°   | 417.6  | 18.3      |
| 50°-60°   | 352.6  | 15.5      |
| 60°-70°   | 244.2  | 10.7      |
| 70°-80°   | 121.9  | 5.3       |
| 80°-90°   | 30.3   | 1.3       |
| 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°    | 689.9  | 30.3      |
| 0°-40°    | 1112.4 | 48.8      |
| 0°-60°    | 1882.6 | 82.6      |
| 0°-90°    | 2279.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2279.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 906 | 906   | 906 | 906   | 906 |      |
| 5°  | 904 | 902   | 898 | 903   | 902 | 86   |
| 15° | 864 | 862   | 858 | 862   | 860 | 243  |
| 25° | 787 | 785   | 782 | 787   | 787 | 362  |
| 35° | 679 | 675   | 673 | 678   | 679 | 424  |
| 45° | 548 | 542   | 541 | 540   | 539 | 423  |
| 55° | 410 | 403   | 394 | 385   | 379 | 368  |
| 65° | 274 | 261   | 245 | 232   | 224 | 272  |
| 75° | 143 | 130   | 111 | 96    | 89  | 151  |
| 85° | 34  | 26    | 24  | 24    | 24  | 39   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 906.1 | 906.1 | 906.1 | 906.1 | 906.1 |
| 2.5°  | 907.2 | 905.5 | 901.6 | 906.1 | 906.6 |
| 5°    | 903.8 | 902.2 | 898.2 | 902.7 | 902.2 |
| 7.5°  | 897.7 | 895.4 | 892.1 | 896.0 | 896.0 |
| 10°   | 888.7 | 887.0 | 883.1 | 887.6 | 887.0 |
| 12.5° | 877.0 | 875.8 | 871.9 | 876.4 | 875.8 |
| 15°   | 863.5 | 862.4 | 858.5 | 862.4 | 860.2 |
| 17.5° | 847.8 | 847.3 | 842.8 | 845.6 | 845.0 |
| 20°   | 829.4 | 828.2 | 823.8 | 829.4 | 828.2 |
| 22.5° | 809.8 | 807.5 | 804.7 | 809.2 | 809.8 |
| 25°   | 787.4 | 785.1 | 781.8 | 786.8 | 787.4 |
| 27.5° | 761.6 | 759.9 | 756.6 | 763.8 | 762.7 |
| 30°   | 736.4 | 734.7 | 730.8 | 737.0 | 737.5 |
| 32.5° | 707.3 | 705.6 | 702.8 | 709.0 | 710.1 |
| 35°   | 678.7 | 675.4 | 673.1 | 678.2 | 678.7 |
| 37.5° | 646.8 | 643.4 | 641.2 | 646.2 | 645.1 |
| 40°   | 614.3 | 610.4 | 609.3 | 613.2 | 609.8 |
| 42.5° | 582.4 | 577.4 | 575.1 | 577.4 | 575.1 |
| 45°   | 548.2 | 542.1 | 541.0 | 539.8 | 539.3 |
| 47.5° | 515.2 | 508.5 | 505.7 | 501.8 | 499.0 |
| 50°   | 479.9 | 472.6 | 467.6 | 463.7 | 462.6 |
| 52.5° | 446.9 | 438.5 | 431.2 | 427.8 | 418.9 |
| 55°   | 410.5 | 403.2 | 393.7 | 385.3 | 379.1 |
| 57.5° | 376.3 | 366.8 | 355.6 | 346.6 | 338.8 |
| 60°   | 342.7 | 330.4 | 320.3 | 306.3 | 300.7 |
| 62.5° | 309.7 | 295.7 | 281.7 | 266.6 | 263.8 |
| 65°   | 273.8 | 261.0 | 244.7 | 231.8 | 224.0 |
| 67.5° | 239.7 | 226.2 | 210.6 | 192.6 | 185.4 |
| 70°   | 206.6 | 192.1 | 175.8 | 158.5 | 152.3 |
| 72.5° | 174.7 | 160.2 | 143.4 | 124.9 | 117.6 |
| 75°   | 143.4 | 130.5 | 111.4 | 96.3  | 89.0  |
| 77.5° | 111.4 | 100.8 | 82.3  | 70.0  | 68.9  |
| 80°   | 82.9  | 73.4  | 56.0  | 53.2  | 51.5  |
| 82.5° | 57.1  | 48.2  | 39.8  | 38.1  | 37.0  |
| 85°   | 33.6  | 25.8  | 23.5  | 23.5  | 24.1  |
| 87.5° | 12.9  | 11.2  | 11.2  | 11.2  | 11.8  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)