

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: P296296

Luminaire Tested: **24RLN-LD5-36-RDP-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P296296  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36059-R2)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24RLN-LD5-36-RDP-UNV-L92765-W2A1-U-4500K  
Description: RLN LED 2x4 TUNABLE WHITE TROFFER  
WITH RDP LENS  
Light Source: (504) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2760.0 lumens  
Efficiency: N/A  
Efficacy: 107.5 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

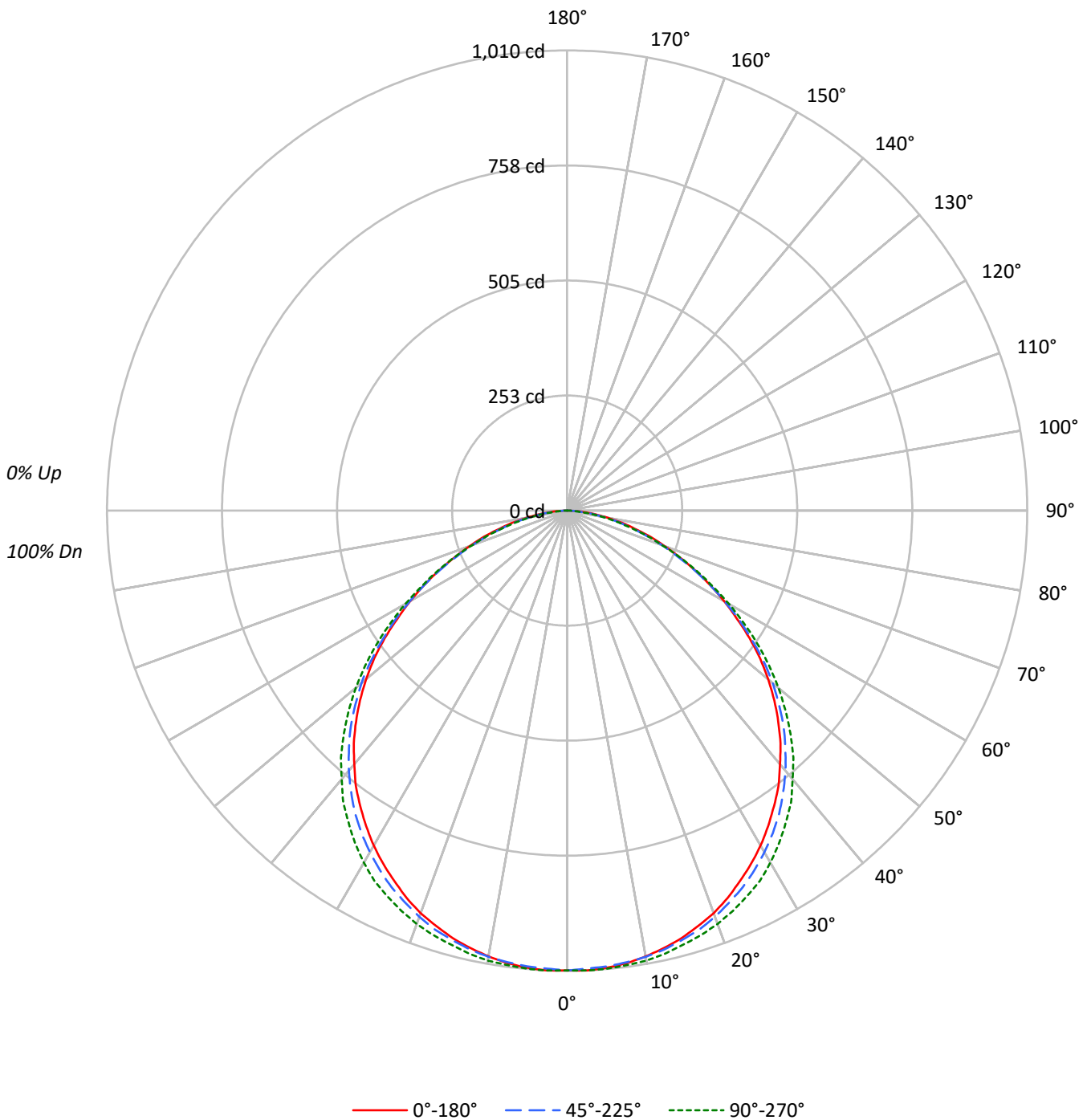
Input Watts (W): 25.668  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 102 | 99  | 95  | 98  | 95  | 92  | 94  | 92  | 90  | 91  | 89  | 87  | 85  |
| 2   | 100 | 92  | 85  | 80  | 97  | 90  | 84  | 79  | 86  | 81  | 77  | 83  | 79  | 75  | 80  | 77  | 73  | 71  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  | 74  | 68  | 64  | 71  | 66  | 63  | 60  |
| 4   | 83  | 72  | 63  | 57  | 81  | 70  | 62  | 56  | 68  | 61  | 55  | 66  | 60  | 55  | 63  | 58  | 54  | 52  |
| 5   | 77  | 64  | 55  | 49  | 75  | 63  | 55  | 49  | 61  | 54  | 48  | 59  | 53  | 48  | 57  | 52  | 47  | 45  |
| 6   | 71  | 58  | 49  | 43  | 69  | 57  | 49  | 43  | 55  | 48  | 42  | 53  | 47  | 42  | 52  | 46  | 41  | 39  |
| 7   | 66  | 52  | 44  | 38  | 64  | 52  | 43  | 38  | 50  | 43  | 37  | 49  | 42  | 37  | 47  | 41  | 37  | 35  |
| 8   | 61  | 48  | 39  | 34  | 60  | 47  | 39  | 34  | 46  | 39  | 33  | 45  | 38  | 33  | 43  | 37  | 33  | 31  |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 36  | 30  | 42  | 35  | 30  | 41  | 35  | 30  | 40  | 34  | 30  | 28  |
| 10  | 54  | 41  | 33  | 27  | 52  | 40  | 33  | 27  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  | 25  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1358 | 1358 | 1358 |
| 5°  | 1360 | 1356 | 1363 |
| 10° | 1358 | 1359 | 1370 |
| 15° | 1353 | 1359 | 1374 |
| 20° | 1346 | 1358 | 1382 |
| 25° | 1332 | 1354 | 1387 |
| 30° | 1319 | 1345 | 1386 |
| 35° | 1300 | 1333 | 1374 |
| 40° | 1276 | 1309 | 1352 |
| 45° | 1247 | 1279 | 1319 |
| 50° | 1205 | 1234 | 1267 |
| 55° | 1147 | 1162 | 1196 |
| 60° | 1071 | 1076 | 1104 |
| 65° | 983  | 977  | 1000 |
| 70° | 894  | 869  | 873  |
| 75° | 795  | 751  | 745  |
| 80° | 690  | 617  | 600  |
| 85° | 565  | 437  | 340  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 95.7   | 3.5       |
| 10°-20°   | 276.0  | 10.0      |
| 20°-30°   | 421.2  | 15.3      |
| 30°-40°   | 507.8  | 18.4      |
| 40°-50°   | 517.8  | 18.8      |
| 50°-60°   | 443.2  | 16.1      |
| 60°-70°   | 305.3  | 11.1      |
| 70°-80°   | 156.5  | 5.7       |
| 80°-90°   | 36.4   | 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°    | 792.9  | 28.7      |
| 0°-40°    | 1300.7 | 47.1      |
| 0°-60°    | 2261.8 | 81.9      |
| 0°-90°    | 2760.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2760.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1009 | 1009  | 1009 | 1009  | 1009 |      |
| 5°  | 1007 | 1005  | 1004 | 1007  | 1009 | 96   |
| 15° | 972  | 971   | 976  | 983   | 986  | 274  |
| 25° | 897  | 900   | 912  | 928   | 934  | 414  |
| 35° | 792  | 795   | 812  | 829   | 837  | 495  |
| 45° | 655  | 656   | 672  | 689   | 693  | 505  |
| 55° | 489  | 486   | 495  | 506   | 510  | 436  |
| 65° | 309  | 302   | 307  | 309   | 314  | 307  |
| 75° | 153  | 147   | 144  | 144   | 143  | 165  |
| 85° | 37   | 32    | 28   | 25    | 22   | 43   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1009.3 | 1009.3 | 1009.3 | 1009.3 | 1009.3 |
| 2.5°  | 1010.4 | 1008.3 | 1006.2 | 1008.3 | 1010.4 |
| 5°    | 1007.2 | 1005.2 | 1004.1 | 1007.2 | 1009.3 |
| 7.5°  | 1002.0 | 999.9  | 999.9  | 1004.1 | 1006.2 |
| 10°   | 993.6  | 992.6  | 994.7  | 998.9  | 1003.1 |
| 12.5° | 983.2  | 983.2  | 986.3  | 991.5  | 995.7  |
| 15°   | 971.6  | 970.6  | 975.8  | 983.2  | 986.3  |
| 17.5° | 955.9  | 957.0  | 964.3  | 972.7  | 976.9  |
| 20°   | 940.2  | 941.3  | 948.6  | 960.1  | 965.4  |
| 22.5° | 920.3  | 922.4  | 930.8  | 945.5  | 950.7  |
| 25°   | 897.3  | 900.5  | 912.0  | 927.7  | 934.0  |
| 27.5° | 874.3  | 877.4  | 890.0  | 907.8  | 916.2  |
| 30°   | 849.1  | 853.3  | 865.9  | 884.7  | 892.1  |
| 32.5° | 820.9  | 824.0  | 839.7  | 858.6  | 865.9  |
| 35°   | 791.6  | 794.7  | 811.5  | 829.3  | 836.6  |
| 37.5° | 762.2  | 762.2  | 779.0  | 799.9  | 807.3  |
| 40°   | 726.6  | 727.7  | 745.5  | 765.4  | 769.6  |
| 42.5° | 693.1  | 693.1  | 708.8  | 727.7  | 735.0  |
| 45°   | 655.4  | 656.5  | 672.2  | 688.9  | 693.1  |
| 47.5° | 616.7  | 616.7  | 630.3  | 646.0  | 650.2  |
| 50°   | 575.9  | 573.8  | 589.5  | 602.0  | 605.2  |
| 52.5° | 534.0  | 530.8  | 543.4  | 553.9  | 558.1  |
| 55°   | 489.0  | 485.8  | 495.2  | 505.7  | 509.9  |
| 57.5° | 441.8  | 437.7  | 448.1  | 457.6  | 459.6  |
| 60°   | 397.9  | 391.6  | 400.0  | 405.2  | 410.4  |
| 62.5° | 353.9  | 346.6  | 352.9  | 356.0  | 360.2  |
| 65°   | 308.9  | 301.5  | 306.8  | 308.9  | 314.1  |
| 67.5° | 265.9  | 260.7  | 261.8  | 264.9  | 267.0  |
| 70°   | 227.2  | 220.9  | 220.9  | 220.9  | 222.0  |
| 72.5° | 191.6  | 182.2  | 181.1  | 182.2  | 182.2  |
| 75°   | 152.9  | 146.6  | 144.5  | 144.5  | 143.4  |
| 77.5° | 122.5  | 114.1  | 113.1  | 111.0  | 108.9  |
| 80°   | 89.0   | 81.7   | 79.6   | 78.5   | 77.5   |
| 82.5° | 61.8   | 55.5   | 53.4   | 51.3   | 48.2   |
| 85°   | 36.6   | 32.5   | 28.3   | 25.1   | 22.0   |
| 87.5° | 13.6   | 12.6   | 10.5   | 9.4    | 9.4    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)