

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: P296319

Luminaire Tested: **24RLN-LD5-50-RDP-UNV-L92765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P296319  
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-LD5-50-RDP-UNV-L92765-W2A1-U-2700K  
Description: RLN LED 2x4 TUNABLE WHITE TROFFER  
WITH RDP LENS  
Light Source: (504) 90 CRI LEDS TUNED TO 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3243.0 lumens  
Efficiency: N/A  
Efficacy: 93.0 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

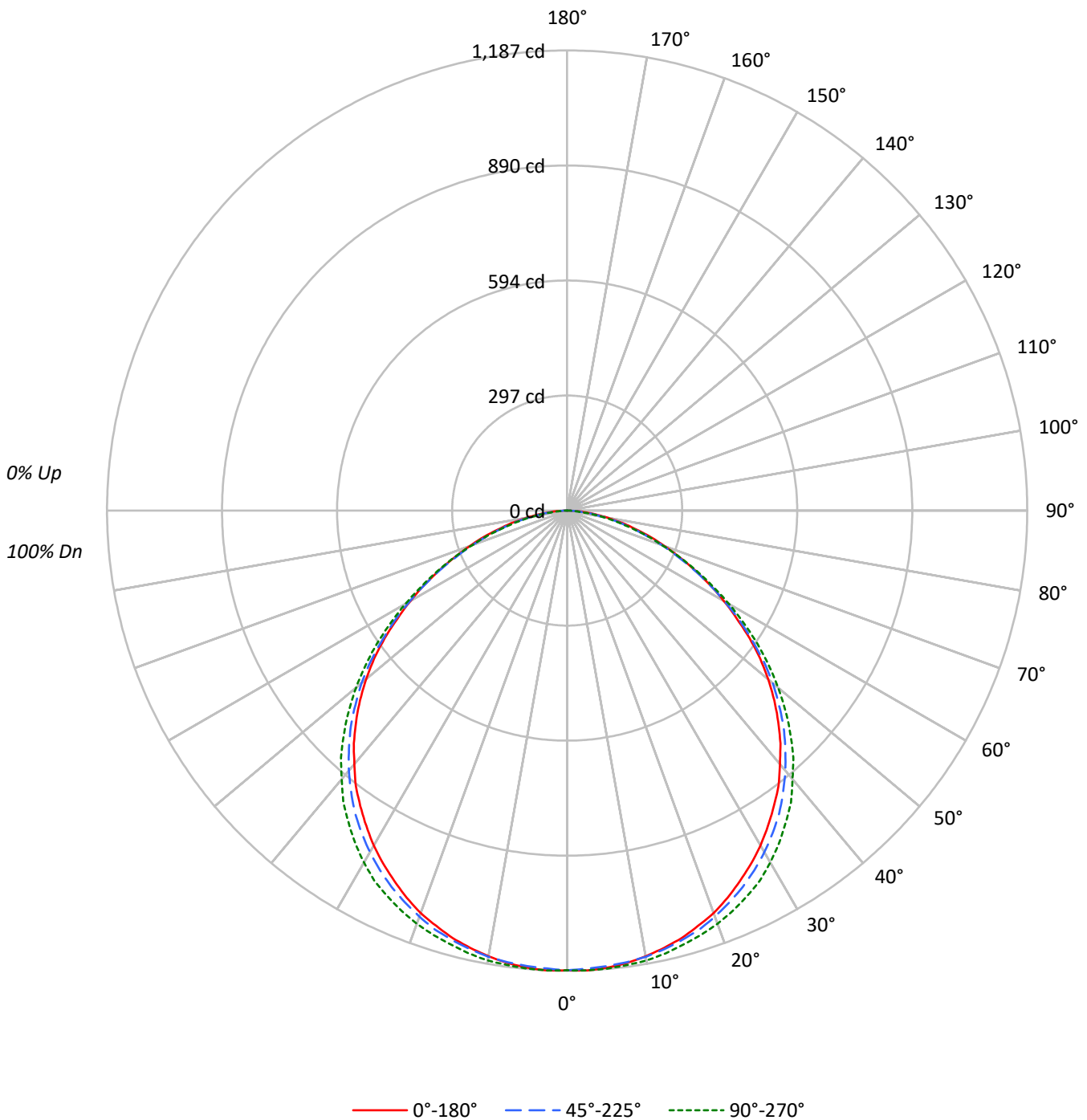
Input Watts (W): 34.875  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°  | 1596 | 1596 | 1596 |
| 5°  | 1598 | 1593 | 1602 |
| 10° | 1595 | 1597 | 1610 |
| 15° | 1590 | 1597 | 1614 |
| 20° | 1582 | 1596 | 1624 |
| 25° | 1565 | 1591 | 1629 |
| 30° | 1550 | 1581 | 1629 |
| 35° | 1528 | 1566 | 1615 |
| 40° | 1500 | 1539 | 1588 |
| 45° | 1465 | 1503 | 1550 |
| 50° | 1416 | 1450 | 1488 |
| 55° | 1348 | 1365 | 1405 |
| 60° | 1258 | 1265 | 1298 |
| 65° | 1155 | 1148 | 1175 |
| 70° | 1050 | 1021 | 1026 |
| 75° | 934  | 883  | 876  |
| 80° | 810  | 724  | 705  |
| 85° | 665  | 513  | 398  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 112.5  | 3.5       |
| 10°-20°   | 324.3  | 10.0      |
| 20°-30°   | 494.9  | 15.3      |
| 30°-40°   | 596.7  | 18.4      |
| 40°-50°   | 608.5  | 18.8      |
| 50°-60°   | 520.7  | 16.1      |
| 60°-70°   | 358.7  | 11.1      |
| 70°-80°   | 183.9  | 5.7       |
| 80°-90°   | 42.8   | 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°    | 931.7  | 28.7      |
| 0°-40°    | 1528.4 | 47.1      |
| 0°-60°    | 2657.6 | 81.9      |
| 0°-90°    | 3243.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3243.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1186 | 1186  | 1186 | 1186  | 1186 |      |
| 5°  | 1184 | 1181  | 1180 | 1184  | 1186 | 112  |
| 15° | 1142 | 1140  | 1147 | 1155  | 1159 | 322  |
| 25° | 1054 | 1058  | 1072 | 1090  | 1097 | 486  |
| 35° | 930  | 934   | 954  | 974   | 983  | 582  |
| 45° | 770  | 771   | 790  | 810   | 814  | 593  |
| 55° | 574  | 571   | 582  | 594   | 599  | 513  |
| 65° | 363  | 354   | 360  | 363   | 369  | 361  |
| 75° | 180  | 172   | 170  | 170   | 168  | 194  |
| 85° | 43   | 38    | 33   | 30    | 26   | 50   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1186.0 | 1186.0 | 1186.0 | 1186.0 | 1186.0 |
| 2.5°  | 1187.2 | 1184.7 | 1182.3 | 1184.7 | 1187.2 |
| 5°    | 1183.5 | 1181.1 | 1179.8 | 1183.5 | 1186.0 |
| 7.5°  | 1177.4 | 1174.9 | 1174.9 | 1179.8 | 1182.3 |
| 10°   | 1167.5 | 1166.3 | 1168.8 | 1173.7 | 1178.6 |
| 12.5° | 1155.2 | 1155.2 | 1158.9 | 1165.1 | 1170.0 |
| 15°   | 1141.7 | 1140.5 | 1146.6 | 1155.2 | 1158.9 |
| 17.5° | 1123.2 | 1124.5 | 1133.1 | 1142.9 | 1147.8 |
| 20°   | 1104.8 | 1106.0 | 1114.6 | 1128.2 | 1134.3 |
| 22.5° | 1081.4 | 1083.9 | 1093.7 | 1110.9 | 1117.1 |
| 25°   | 1054.3 | 1058.0 | 1071.6 | 1090.0 | 1097.4 |
| 27.5° | 1027.3 | 1031.0 | 1045.7 | 1066.6 | 1076.5 |
| 30°   | 997.7  | 1002.7 | 1017.4 | 1039.6 | 1048.2 |
| 32.5° | 964.5  | 968.2  | 986.7  | 1008.8 | 1017.4 |
| 35°   | 930.1  | 933.8  | 953.5  | 974.4  | 983.0  |
| 37.5° | 895.6  | 895.6  | 915.3  | 939.9  | 948.5  |
| 40°   | 853.8  | 855.0  | 876.0  | 899.3  | 904.2  |
| 42.5° | 814.4  | 814.4  | 832.9  | 855.0  | 863.6  |
| 45°   | 770.1  | 771.4  | 789.8  | 809.5  | 814.4  |
| 47.5° | 724.6  | 724.6  | 740.6  | 759.1  | 764.0  |
| 50°   | 676.6  | 674.2  | 692.6  | 707.4  | 711.1  |
| 52.5° | 627.4  | 623.7  | 638.5  | 650.8  | 655.7  |
| 55°   | 574.5  | 570.8  | 581.9  | 594.2  | 599.1  |
| 57.5° | 519.2  | 514.3  | 526.6  | 537.6  | 540.1  |
| 60°   | 467.5  | 460.1  | 470.0  | 476.1  | 482.3  |
| 62.5° | 415.8  | 407.2  | 414.6  | 418.3  | 423.2  |
| 65°   | 362.9  | 354.3  | 360.5  | 362.9  | 369.1  |
| 67.5° | 312.5  | 306.3  | 307.6  | 311.3  | 313.7  |
| 70°   | 267.0  | 259.6  | 259.6  | 259.6  | 260.8  |
| 72.5° | 225.1  | 214.1  | 212.8  | 214.1  | 214.1  |
| 75°   | 179.6  | 172.2  | 169.8  | 169.8  | 168.5  |
| 77.5° | 143.9  | 134.1  | 132.9  | 130.4  | 127.9  |
| 80°   | 104.6  | 96.0   | 93.5   | 92.3   | 91.0   |
| 82.5° | 72.6   | 65.2   | 62.7   | 60.3   | 56.6   |
| 85°   | 43.1   | 38.1   | 33.2   | 29.5   | 25.8   |
| 87.5° | 16.0   | 14.8   | 12.3   | 11.1   | 11.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)