

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: P296368

Luminaire Tested: **24RLN-LD5-80-RDP-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P296368  
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-LD5-80-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: 6058.0 lumens  
Efficiency: N/A  
Efficacy: 98.0 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

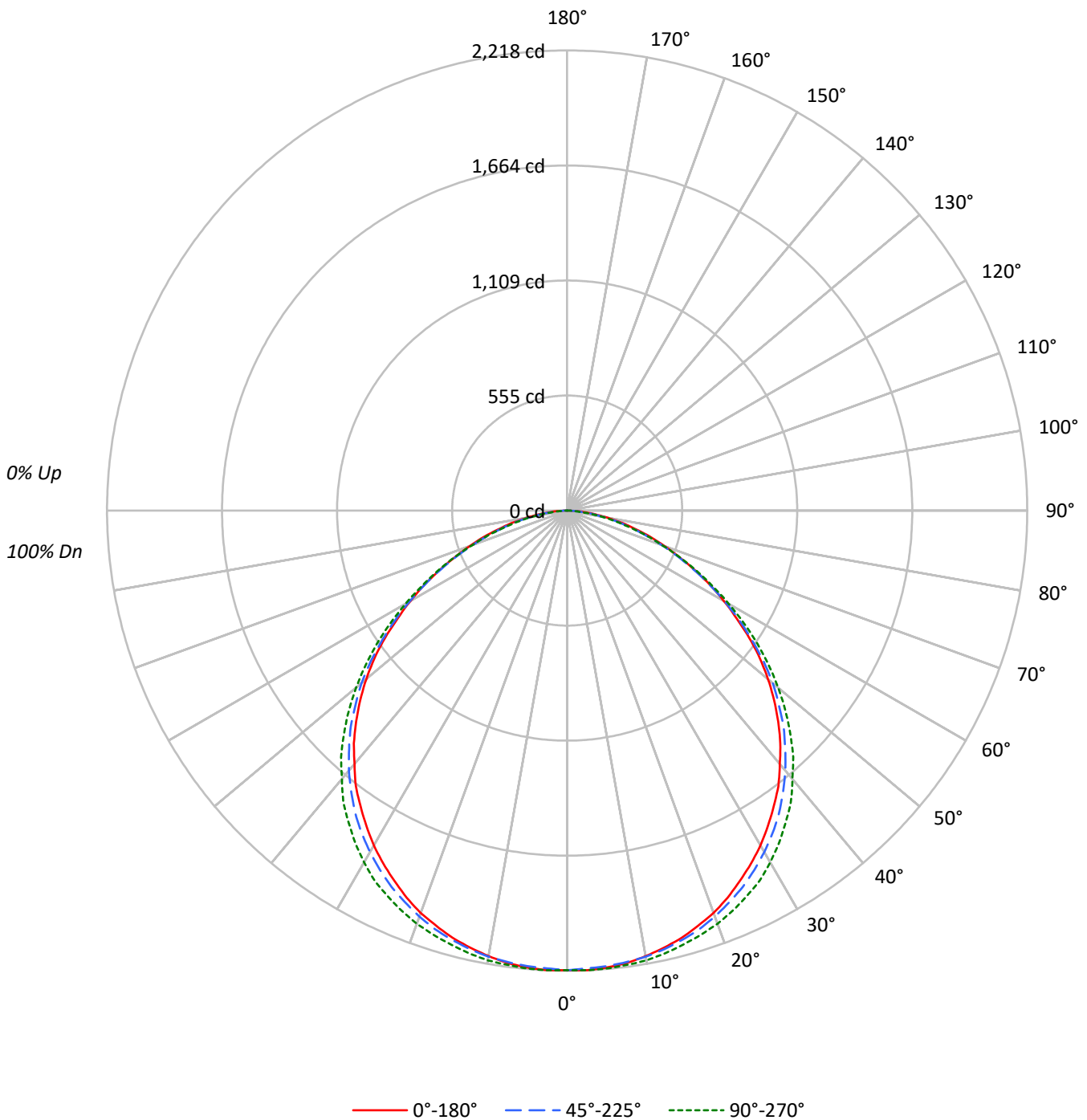
Input Watts (W): 61.845  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P296368

CATALOG NUMBER: 24RLN-LD5-80-RDP-UNV-L92765-W2A1-U-4500K

### Luminous Intensity Polar Plot





TEST NUMBER: P296368

CATALOG NUMBER: 24RLN-LD5-80-RDP-UNV-L92765-W2A1-U-4500K

**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  | 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 |    |    |    |    | 100 |   |  |   |
| 1   | 109 | 105 | 101 | 97  | 107 | 102 | 99  | 95  | 98  | 95  | 92  | 94  | 92  | 90  | 91  | 89  | 87  | 85  |    |    |    |    | 85  |   |  |   |
| 2   | 100 | 92  | 85  | 80  | 97  | 90  | 84  | 79  | 86  | 81  | 77  | 83  | 79  | 75  | 80  | 77  | 73  | 71  |    |    |    |    | 71  |   |  |   |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  | 74  | 68  | 64  | 71  | 66  | 63  | 60  |    |    |    |    | 60  |   |  |   |
| 4   | 83  | 72  | 63  | 57  | 81  | 70  | 62  | 56  | 68  | 61  | 55  | 66  | 60  | 55  | 63  | 58  | 54  | 52  |    |    |    |    | 52  |   |  |   |
| 5   | 77  | 64  | 55  | 49  | 75  | 63  | 55  | 49  | 61  | 54  | 48  | 59  | 53  | 48  | 57  | 52  | 47  | 45  |    |    |    |    | 45  |   |  |   |
| 6   | 71  | 58  | 49  | 43  | 69  | 57  | 49  | 43  | 55  | 48  | 42  | 53  | 47  | 42  | 52  | 46  | 41  | 39  |    |    |    |    | 39  |   |  |   |
| 7   | 66  | 52  | 44  | 38  | 64  | 52  | 43  | 38  | 50  | 43  | 37  | 49  | 42  | 37  | 47  | 41  | 37  | 35  |    |    |    |    | 35  |   |  |   |
| 8   | 61  | 48  | 39  | 34  | 60  | 47  | 39  | 34  | 46  | 39  | 33  | 45  | 38  | 33  | 43  | 37  | 33  | 31  |    |    |    |    | 31  |   |  |   |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 36  | 30  | 42  | 35  | 30  | 41  | 35  | 30  | 40  | 34  | 30  | 28  |    |    |    |    | 28  |   |  |   |
| 10  | 54  | 41  | 33  | 27  | 52  | 40  | 33  | 27  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  | 25  |    |    |    |    | 25  |   |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2981 | 2981 | 2981 |
| 5°  | 2986 | 2977 | 2992 |
| 10° | 2980 | 2983 | 3008 |
| 15° | 2971 | 2984 | 3016 |
| 20° | 2955 | 2981 | 3034 |
| 25° | 2924 | 2972 | 3043 |
| 30° | 2896 | 2953 | 3042 |
| 35° | 2854 | 2926 | 3016 |
| 40° | 2801 | 2874 | 2967 |
| 45° | 2738 | 2807 | 2895 |
| 50° | 2646 | 2708 | 2780 |
| 55° | 2518 | 2550 | 2625 |
| 60° | 2350 | 2362 | 2424 |
| 65° | 2159 | 2144 | 2195 |
| 70° | 1962 | 1908 | 1917 |
| 75° | 1744 | 1648 | 1637 |
| 80° | 1513 | 1354 | 1318 |
| 85° | 1241 | 959  | 746  |



TEST NUMBER: P296368

CATALOG NUMBER: 24RLN-LD5-80-RDP-UNV-L92765-W2A1-U-4500K

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 210.1  | 3.5       |
| 10°-20°   | 605.7  | 10.0      |
| 20°-30°   | 924.6  | 15.3      |
| 30°-40°   | 1114.6 | 18.4      |
| 40°-50°   | 1136.7 | 18.8      |
| 50°-60°   | 972.8  | 16.1      |
| 60°-70°   | 670.1  | 11.1      |
| 70°-80°   | 343.5  | 5.7       |
| 80°-90°   | 80.0   | 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°    | 1740.4 | 28.7      |
| 0°-40°    | 2855.0 | 47.1      |
| 0°-60°    | 4964.4 | 81.9      |
| 0°-90°    | 6058.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 6058.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2215 | 2215  | 2215 | 2215  | 2215 |      |
| 5°  | 2211 | 2206  | 2204 | 2211  | 2215 | 210  |
| 15° | 2133 | 2130  | 2142 | 2158  | 2165 | 601  |
| 25° | 1970 | 1976  | 2002 | 2036  | 2050 | 908  |
| 35° | 1737 | 1744  | 1781 | 1820  | 1836 | 1087 |
| 45° | 1439 | 1441  | 1475 | 1512  | 1521 | 1108 |
| 55° | 1073 | 1066  | 1087 | 1110  | 1119 | 957  |
| 65° | 678  | 662   | 673  | 678   | 690  | 674  |
| 75° | 336  | 322   | 317  | 317   | 315  | 362  |
| 85° | 80   | 71    | 62   | 55    | 48   | 93   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



TEST NUMBER: P296368

CATALOG NUMBER: 24RLN-LD5-80-RDP-UNV-L92765-W2A1-U-4500K

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2215.4 | 2215.4 | 2215.4 | 2215.4 | 2215.4 |
| 2.5°  | 2217.7 | 2213.1 | 2208.5 | 2213.1 | 2217.7 |
| 5°    | 2210.8 | 2206.2 | 2203.9 | 2210.8 | 2215.4 |
| 7.5°  | 2199.3 | 2194.8 | 2194.8 | 2203.9 | 2208.5 |
| 10°   | 2181.0 | 2178.7 | 2183.3 | 2192.5 | 2201.6 |
| 12.5° | 2158.0 | 2158.0 | 2164.9 | 2176.4 | 2185.6 |
| 15°   | 2132.7 | 2130.4 | 2141.9 | 2158.0 | 2164.9 |
| 17.5° | 2098.2 | 2100.5 | 2116.6 | 2135.0 | 2144.2 |
| 20°   | 2063.8 | 2066.1 | 2082.1 | 2107.4 | 2118.9 |
| 22.5° | 2020.1 | 2024.7 | 2043.1 | 2075.2 | 2086.7 |
| 25°   | 1969.5 | 1976.4 | 2001.7 | 2036.2 | 2050.0 |
| 27.5° | 1919.0 | 1925.9 | 1953.4 | 1992.5 | 2010.9 |
| 30°   | 1863.8 | 1873.0 | 1900.6 | 1942.0 | 1958.0 |
| 32.5° | 1801.8 | 1808.7 | 1843.1 | 1884.5 | 1900.6 |
| 35°   | 1737.4 | 1744.3 | 1781.1 | 1820.1 | 1836.2 |
| 37.5° | 1673.1 | 1673.1 | 1709.8 | 1755.8 | 1771.9 |
| 40°   | 1594.9 | 1597.2 | 1636.3 | 1680.0 | 1689.2 |
| 42.5° | 1521.4 | 1521.4 | 1555.9 | 1597.2 | 1613.3 |
| 45°   | 1438.7 | 1441.0 | 1475.4 | 1512.2 | 1521.4 |
| 47.5° | 1353.6 | 1353.6 | 1383.5 | 1418.0 | 1427.2 |
| 50°   | 1264.0 | 1259.4 | 1293.9 | 1321.4 | 1328.3 |
| 52.5° | 1172.1 | 1165.2 | 1192.7 | 1215.7 | 1224.9 |
| 55°   | 1073.2 | 1066.3 | 1087.0 | 1110.0 | 1119.2 |
| 57.5° | 969.8  | 960.6  | 983.6  | 1004.3 | 1008.9 |
| 60°   | 873.3  | 859.5  | 877.9  | 889.4  | 900.9  |
| 62.5° | 776.8  | 760.7  | 774.5  | 781.4  | 790.6  |
| 65°   | 678.0  | 661.9  | 673.4  | 678.0  | 689.5  |
| 67.5° | 583.7  | 572.2  | 574.5  | 581.4  | 586.0  |
| 70°   | 498.7  | 484.9  | 484.9  | 484.9  | 487.2  |
| 72.5° | 420.6  | 399.9  | 397.6  | 399.9  | 399.9  |
| 75°   | 335.5  | 321.7  | 317.1  | 317.1  | 314.8  |
| 77.5° | 268.9  | 250.5  | 248.2  | 243.6  | 239.0  |
| 80°   | 195.3  | 179.3  | 174.7  | 172.4  | 170.1  |
| 82.5° | 135.6  | 121.8  | 117.2  | 112.6  | 105.7  |
| 85°   | 80.4   | 71.2   | 62.1   | 55.2   | 48.3   |
| 87.5° | 29.9   | 27.6   | 23.0   | 20.7   | 20.7   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)