

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: P295982

Luminaire Tested: **24RLN-LD5-55-UNV-L93050-W2A1-U-5000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P295982
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-085-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24RLN-LD5-55-UNV-L93050-W2A1-U-5000K
Description: RLN LED 2x4 TUNABLE WHITE TROFFER WITH STANDARD LENS
Light Source: (504) 90 CRI LEDS TUNED TO 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5183.0 lumens
Efficiency: N/A
Efficacy: 129.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.19 / 1.29
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

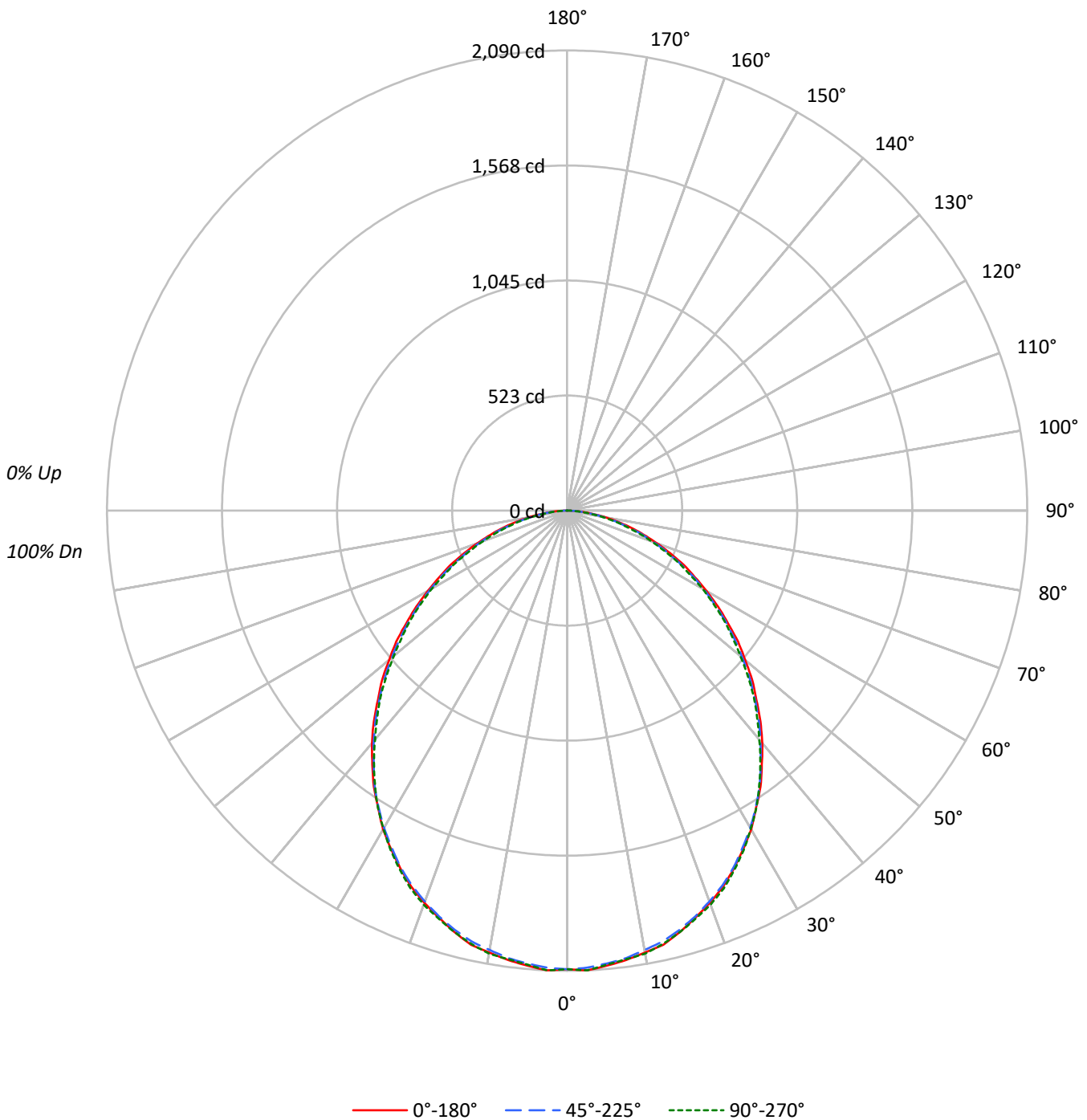
Input Watts (W): 39.897
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 74 | 72 |
| 3 | 91 | 81 | 73 | 67 | 89 | 80 | 72 | 66 | 77 | 70 | 65 | 74 | 69 | 64 | 71 | 67 | 63 | 61 |
| 4 | 84 | 72 | 64 | 57 | 82 | 71 | 63 | 57 | 68 | 62 | 56 | 66 | 60 | 55 | 64 | 59 | 55 | 52 |
| 5 | 77 | 65 | 56 | 50 | 75 | 64 | 55 | 49 | 62 | 54 | 49 | 60 | 53 | 48 | 58 | 52 | 48 | 46 |
| 6 | 72 | 59 | 50 | 44 | 70 | 58 | 49 | 43 | 56 | 48 | 43 | 54 | 48 | 43 | 53 | 47 | 42 | 40 |
| 7 | 66 | 53 | 45 | 39 | 65 | 52 | 44 | 39 | 51 | 44 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 36 |
| 8 | 62 | 49 | 40 | 35 | 60 | 48 | 40 | 35 | 47 | 39 | 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° | 2803 | 2803 | 2803 |
| 5° | 2803 | 2789 | 2796 |
| 10° | 2785 | 2769 | 2792 |
| 15° | 2760 | 2746 | 2760 |
| 20° | 2715 | 2705 | 2727 |
| 25° | 2661 | 2656 | 2671 |
| 30° | 2598 | 2585 | 2593 |
| 35° | 2516 | 2505 | 2499 |
| 40° | 2423 | 2399 | 2385 |
| 45° | 2313 | 2291 | 2281 |
| 50° | 2209 | 2174 | 2149 |
| 55° | 2091 | 2059 | 2040 |
| 60° | 1966 | 1930 | 1908 |
| 65° | 1858 | 1789 | 1773 |
| 70° | 1704 | 1638 | 1605 |
| 75° | 1565 | 1469 | 1408 |
| 80° | 1373 | 1282 | 1205 |
| 85° | 1110 | 1033 | 878 |



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CATALOG NUMBER: 24RLN-LD5-55-UNV-L93050-W2A1-U-5000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 196.6 | 3.8 |
| 10°-20° | 557.3 | 10.8 |
| 20°-30° | 824.3 | 15.9 |
| 30°-40° | 951.4 | 18.4 |
| 40°-50° | 929.2 | 17.9 |
| 50°-60° | 784.6 | 15.1 |
| 60°-70° | 558.9 | 10.8 |
| 70°-80° | 302.6 | 5.8 |
| 80°-90° | 78.1 | 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° | 1578.2 | 30.4 |
| 0°-40° | 2529.6 | 48.8 |
| 0°-60° | 4243.4 | 81.9 |
| 0°-90° | 5183.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5183.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2083 | 2083 | 2083 | 2083 | 2083 | |
| 5° | 2075 | 2075 | 2065 | 2070 | 2070 | 197 |
| 15° | 1981 | 1973 | 1971 | 1980 | 1981 | 558 |
| 25° | 1792 | 1782 | 1789 | 1796 | 1799 | 825 |
| 35° | 1532 | 1520 | 1525 | 1520 | 1522 | 956 |
| 45° | 1216 | 1206 | 1204 | 1199 | 1199 | 940 |
| 55° | 891 | 880 | 878 | 870 | 870 | 799 |
| 65° | 584 | 572 | 562 | 555 | 557 | 575 |
| 75° | 301 | 291 | 283 | 276 | 271 | 319 |
| 85° | 72 | 70 | 67 | 58 | 57 | 85 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P295982

CATALOG NUMBER: 24RLN-LD5-55-UNV-L93050-W2A1-U-5000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2083.4 | 2083.4 | 2083.4 | 2083.4 | 2083.4 |
| 2.5° | 2090.1 | 2081.7 | 2078.4 | 2080.1 | 2090.1 |
| 5° | 2075.1 | 2075.1 | 2065.0 | 2070.0 | 2070.0 |
| 7.5° | 2058.3 | 2060.0 | 2050.0 | 2058.3 | 2055.0 |
| 10° | 2038.3 | 2033.3 | 2026.6 | 2039.9 | 2043.3 |
| 12.5° | 2019.9 | 2008.2 | 2004.8 | 2013.2 | 2014.9 |
| 15° | 1981.4 | 1973.1 | 1971.4 | 1979.7 | 1981.4 |
| 17.5° | 1937.9 | 1939.6 | 1932.9 | 1944.6 | 1943.0 |
| 20° | 1896.1 | 1892.8 | 1889.5 | 1902.8 | 1904.5 |
| 22.5° | 1849.3 | 1839.3 | 1842.6 | 1854.3 | 1857.7 |
| 25° | 1792.5 | 1782.4 | 1789.1 | 1795.8 | 1799.2 |
| 27.5° | 1732.3 | 1727.3 | 1725.6 | 1734.0 | 1737.3 |
| 30° | 1672.1 | 1663.7 | 1663.7 | 1673.8 | 1668.7 |
| 32.5° | 1598.5 | 1591.8 | 1595.2 | 1598.5 | 1600.2 |
| 35° | 1531.6 | 1519.9 | 1524.9 | 1519.9 | 1521.6 |
| 37.5° | 1453.0 | 1444.7 | 1443.0 | 1441.3 | 1441.3 |
| 40° | 1379.5 | 1372.8 | 1366.1 | 1366.1 | 1357.7 |
| 42.5° | 1299.2 | 1290.8 | 1287.5 | 1282.5 | 1277.5 |
| 45° | 1215.6 | 1205.6 | 1203.9 | 1198.9 | 1198.9 |
| 47.5° | 1140.4 | 1125.3 | 1123.6 | 1113.6 | 1113.6 |
| 50° | 1055.1 | 1045.1 | 1038.4 | 1031.7 | 1026.7 |
| 52.5° | 978.2 | 968.1 | 958.1 | 951.4 | 946.4 |
| 55° | 891.2 | 879.5 | 877.8 | 869.5 | 869.5 |
| 57.5° | 812.6 | 802.6 | 795.9 | 785.9 | 787.6 |
| 60° | 730.7 | 720.7 | 717.3 | 709.0 | 709.0 |
| 62.5° | 653.8 | 645.4 | 640.4 | 632.0 | 625.4 |
| 65° | 583.6 | 571.9 | 561.8 | 555.1 | 556.8 |
| 67.5° | 506.6 | 493.3 | 488.2 | 481.6 | 476.5 |
| 70° | 433.1 | 424.7 | 416.3 | 408.0 | 408.0 |
| 72.5° | 364.5 | 356.2 | 351.1 | 341.1 | 337.8 |
| 75° | 301.0 | 290.9 | 282.6 | 275.9 | 270.9 |
| 77.5° | 237.4 | 227.4 | 222.4 | 214.0 | 214.0 |
| 80° | 177.2 | 170.6 | 165.5 | 162.2 | 155.5 |
| 82.5° | 122.1 | 118.7 | 113.7 | 108.7 | 103.7 |
| 85° | 71.9 | 70.2 | 66.9 | 58.5 | 56.9 |
| 87.5° | 28.4 | 28.4 | 25.1 | 23.4 | 21.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)