

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: P296116

Luminaire Tested: **24RLN-LD5-50-RDP-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P296116
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-L83050-W2A1-U-4500K
Description: RLN LED 2x4 TUNABLE WHITE TROFFER
WITH RDP LENS
Light Source: (504) 80 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4387.0 lumens
Efficiency: N/A
Efficacy: 119.7 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

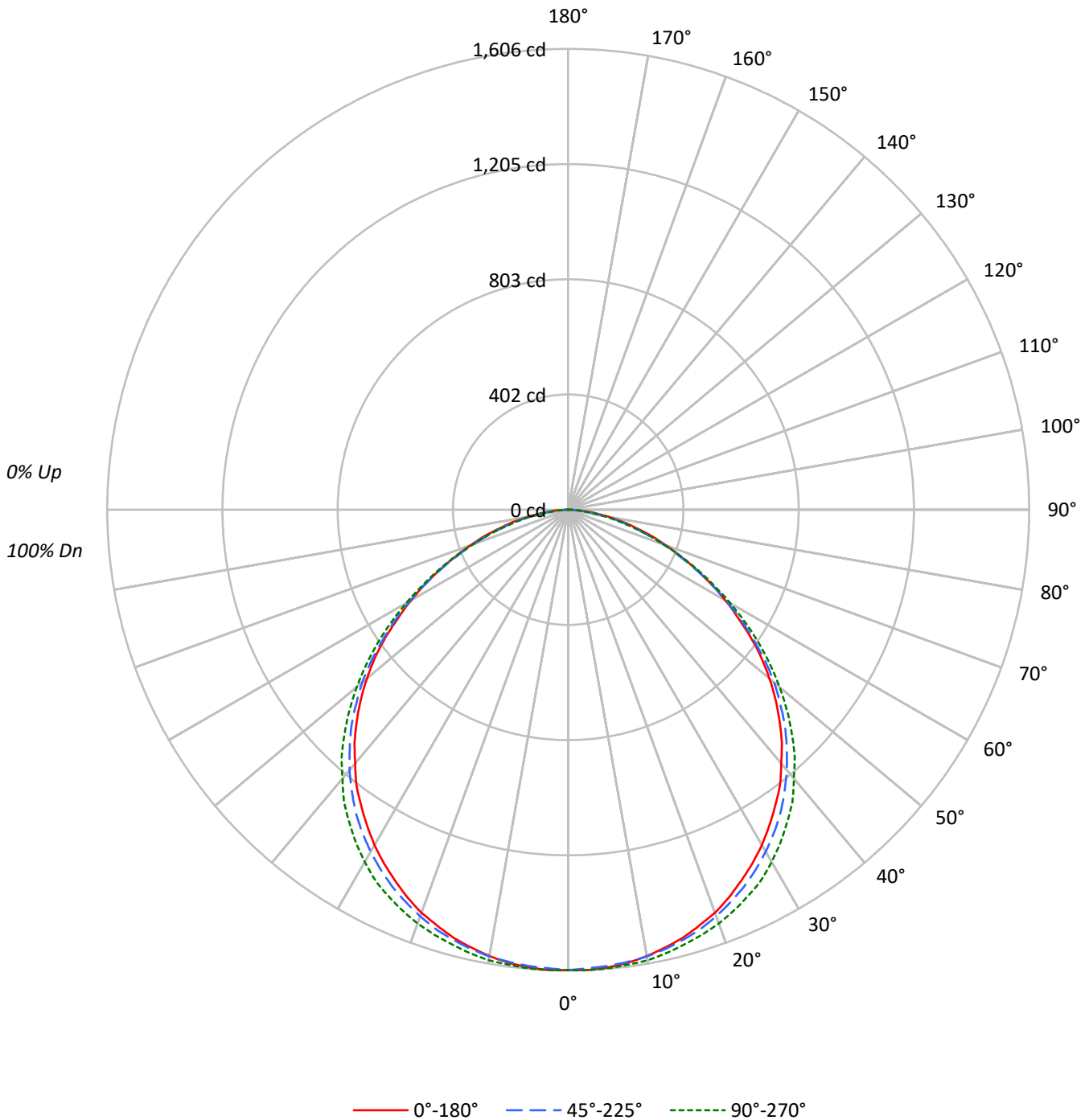
Input Watts (W): 36.642
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P296116

CATALOG NUMBER: 24RLN-LD5-50-RDP-UNV-L83050-W2A1-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P296116

CATALOG NUMBER: 24RLN-LD5-50-RDP-UNV-L83050-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 | 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° | 2159 | 2159 | 2159 |
| 5° | 2162 | 2156 | 2167 |
| 10° | 2158 | 2160 | 2178 |
| 15° | 2151 | 2161 | 2184 |
| 20° | 2140 | 2159 | 2197 |
| 25° | 2117 | 2152 | 2204 |
| 30° | 2097 | 2138 | 2203 |
| 35° | 2067 | 2119 | 2184 |
| 40° | 2029 | 2081 | 2148 |
| 45° | 1982 | 2033 | 2096 |
| 50° | 1916 | 1961 | 2013 |
| 55° | 1823 | 1847 | 1901 |
| 60° | 1702 | 1711 | 1756 |
| 65° | 1563 | 1552 | 1590 |
| 70° | 1421 | 1382 | 1388 |
| 75° | 1263 | 1194 | 1185 |
| 80° | 1096 | 980 | 955 |
| 85° | 898 | 693 | 539 |



TEST NUMBER: P296116

CATALOG NUMBER: 24RLN-LD5-50-RDP-UNV-L83050-W2A1-U-4500K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 152.1 | 3.5 |
| 10°-20° | 438.6 | 10.0 |
| 20°-30° | 669.5 | 15.3 |
| 30°-40° | 807.2 | 18.4 |
| 40°-50° | 823.1 | 18.8 |
| 50°-60° | 704.5 | 16.1 |
| 60°-70° | 485.3 | 11.1 |
| 70°-80° | 248.8 | 5.7 |
| 80°-90° | 57.9 | 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° | 1260.3 | 28.7 |
| 0°-40° | 2067.5 | 47.1 |
| 0°-60° | 3595.1 | 81.9 |
| 0°-90° | 4387.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4387.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1604 | 1604 | 1604 | 1604 | 1604 | |
| 5° | 1601 | 1598 | 1596 | 1601 | 1604 | 152 |
| 15° | 1544 | 1543 | 1551 | 1563 | 1568 | 436 |
| 25° | 1426 | 1431 | 1450 | 1474 | 1484 | 658 |
| 35° | 1258 | 1263 | 1290 | 1318 | 1330 | 787 |
| 45° | 1042 | 1044 | 1068 | 1095 | 1102 | 803 |
| 55° | 777 | 772 | 787 | 804 | 810 | 693 |
| 65° | 491 | 479 | 488 | 491 | 499 | 488 |
| 75° | 243 | 233 | 230 | 230 | 228 | 262 |
| 85° | 58 | 52 | 45 | 40 | 35 | 68 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P296116

CATALOG NUMBER: 24RLN-LD5-50-RDP-UNV-L83050-W2A1-U-4500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1604.3 | 1604.3 | 1604.3 | 1604.3 | 1604.3 |
| 2.5° | 1606.0 | 1602.7 | 1599.3 | 1602.7 | 1606.0 |
| 5° | 1601.0 | 1597.7 | 1596.0 | 1601.0 | 1604.3 |
| 7.5° | 1592.7 | 1589.4 | 1589.4 | 1596.0 | 1599.3 |
| 10° | 1579.4 | 1577.7 | 1581.0 | 1587.7 | 1594.4 |
| 12.5° | 1562.7 | 1562.7 | 1567.7 | 1576.1 | 1582.7 |
| 15° | 1544.4 | 1542.8 | 1551.1 | 1562.7 | 1567.7 |
| 17.5° | 1519.5 | 1521.1 | 1532.8 | 1546.1 | 1552.8 |
| 20° | 1494.5 | 1496.2 | 1507.8 | 1526.1 | 1534.4 |
| 22.5° | 1462.9 | 1466.2 | 1479.5 | 1502.8 | 1511.1 |
| 25° | 1426.3 | 1431.3 | 1449.6 | 1474.5 | 1484.5 |
| 27.5° | 1389.7 | 1394.6 | 1414.6 | 1442.9 | 1456.2 |
| 30° | 1349.7 | 1356.4 | 1376.3 | 1406.3 | 1417.9 |
| 32.5° | 1304.8 | 1309.8 | 1334.7 | 1364.7 | 1376.3 |
| 35° | 1258.2 | 1263.2 | 1289.8 | 1318.1 | 1329.7 |
| 37.5° | 1211.6 | 1211.6 | 1238.2 | 1271.5 | 1283.1 |
| 40° | 1155.0 | 1156.7 | 1185.0 | 1216.6 | 1223.2 |
| 42.5° | 1101.7 | 1101.7 | 1126.7 | 1156.7 | 1168.3 |
| 45° | 1041.8 | 1043.5 | 1068.5 | 1095.1 | 1101.7 |
| 47.5° | 980.2 | 980.2 | 1001.9 | 1026.8 | 1033.5 |
| 50° | 915.3 | 912.0 | 937.0 | 956.9 | 961.9 |
| 52.5° | 848.8 | 843.8 | 863.7 | 880.4 | 887.0 |
| 55° | 777.2 | 772.2 | 787.2 | 803.8 | 810.5 |
| 57.5° | 702.3 | 695.7 | 712.3 | 727.3 | 730.6 |
| 60° | 632.4 | 622.4 | 635.7 | 644.1 | 652.4 |
| 62.5° | 562.5 | 550.9 | 560.9 | 565.8 | 572.5 |
| 65° | 491.0 | 479.3 | 487.6 | 491.0 | 499.3 |
| 67.5° | 422.7 | 414.4 | 416.1 | 421.1 | 424.4 |
| 70° | 361.1 | 351.2 | 351.2 | 351.2 | 352.8 |
| 72.5° | 304.6 | 289.6 | 287.9 | 289.6 | 289.6 |
| 75° | 243.0 | 233.0 | 229.7 | 229.7 | 228.0 |
| 77.5° | 194.7 | 181.4 | 179.7 | 176.4 | 173.1 |
| 80° | 141.5 | 129.8 | 126.5 | 124.8 | 123.2 |
| 82.5° | 98.2 | 88.2 | 84.9 | 81.5 | 76.6 |
| 85° | 58.2 | 51.6 | 44.9 | 39.9 | 34.9 |
| 87.5° | 21.6 | 20.0 | 16.6 | 15.0 | 15.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)