

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: P229849

Luminaire Tested: **24RLN-LD5-45-UNV-L835-CD1-SVPD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P229849
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36062)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24RLN-LD5-45-UNV-L835-CD1-SVPD1-U
Description: METALUX 2X4 RLN LED TROFFER WITH SENSOR
Light Source: (252)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4491.0 lumens
Efficiency: N/A
Efficacy: 132.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.22 / 1.31
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

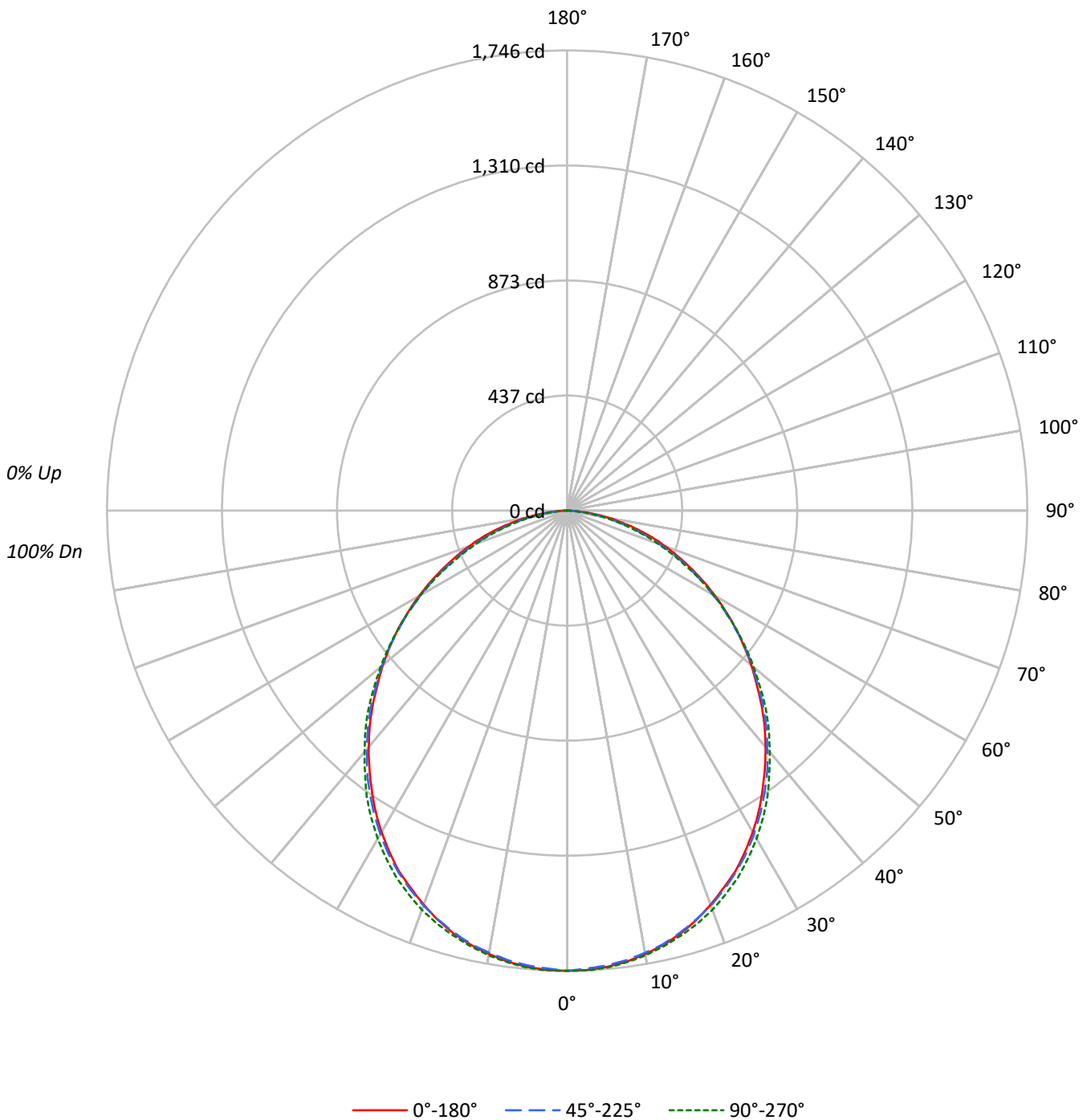
Input Watts (W): 34
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P229849

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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 | 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 | 89 | 91 | 89 | 87 | 85 | | | | | 85 | | | |
| 2 | 100 | 92 | 85 | 80 | 97 | 90 | 84 | 79 | 86 | 81 | 77 | 83 | 79 | 75 | 80 | 76 | 73 | 71 | | | | | 71 | | | |
| 3 | 91 | 81 | 73 | 67 | 89 | 79 | 72 | 66 | 76 | 70 | 65 | 74 | 68 | 64 | 71 | 66 | 63 | 60 | | | | | 60 | | | |
| 4 | 84 | 72 | 63 | 57 | 81 | 71 | 63 | 56 | 68 | 61 | 56 | 66 | 60 | 55 | 64 | 58 | 54 | 52 | | | | | 52 | | | |
| 5 | 77 | 64 | 56 | 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 | 54 | 47 | 42 | 52 | 46 | 42 | 40 | | | | | 40 | | | |
| 7 | 66 | 53 | 44 | 38 | 64 | 52 | 44 | 38 | 50 | 43 | 38 | 49 | 42 | 37 | 48 | 42 | 37 | 35 | | | | | 35 | | | |
| 8 | 62 | 48 | 40 | 34 | 60 | 48 | 40 | 34 | 46 | 39 | 34 | 45 | 38 | 34 | 44 | 38 | 33 | 31 | | | | | 31 | | | |
| 9 | 58 | 44 | 36 | 31 | 56 | 44 | 36 | 31 | 43 | 35 | 31 | 42 | 35 | 30 | 41 | 35 | 30 | 28 | | | | | 28 | | | |
| 10 | 54 | 41 | 33 | 28 | 53 | 40 | 33 | 28 | 39 | 33 | 28 | 39 | 32 | 28 | 38 | 32 | 28 | 26 | | | | | 26 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2675 | 2675 | 2675 |
| 5° | 2672 | 2663 | 2676 |
| 10° | 2658 | 2649 | 2665 |
| 15° | 2635 | 2628 | 2647 |
| 20° | 2594 | 2599 | 2627 |
| 25° | 2552 | 2560 | 2593 |
| 30° | 2491 | 2507 | 2542 |
| 35° | 2417 | 2441 | 2479 |
| 40° | 2342 | 2362 | 2391 |
| 45° | 2258 | 2280 | 2311 |
| 50° | 2174 | 2184 | 2202 |
| 55° | 2089 | 2078 | 2085 |
| 60° | 1989 | 1958 | 1967 |
| 65° | 1876 | 1835 | 1804 |
| 70° | 1774 | 1678 | 1640 |
| 75° | 1633 | 1490 | 1439 |
| 80° | 1438 | 1261 | 1185 |
| 85° | 1132 | 880 | 654 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 164.8 | 3.7 |
| 10°-20° | 468.6 | 10.4 |
| 20°-30° | 698.5 | 15.6 |
| 30°-40° | 816.6 | 18.2 |
| 40°-50° | 810.9 | 18.1 |
| 50°-60° | 696.3 | 15.5 |
| 60°-70° | 501.6 | 11.2 |
| 70°-80° | 270.1 | 6.0 |
| 80°-90° | 63.7 | 1.4 |
| 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° | 1331.9 | 29.7 |
| 0°-40° | 2148.4 | 47.8 |
| 0°-60° | 3655.6 | 81.4 |
| 0°-90° | 4491.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4491.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1746 | 1746 | 1746 | 1746 | 1746 | |
| 5° | 1738 | 1736 | 1732 | 1738 | 1740 | 165 |
| 15° | 1662 | 1658 | 1658 | 1668 | 1669 | 468 |
| 25° | 1510 | 1504 | 1514 | 1530 | 1534 | 694 |
| 35° | 1293 | 1291 | 1306 | 1320 | 1326 | 809 |
| 45° | 1043 | 1040 | 1053 | 1061 | 1067 | 804 |
| 55° | 782 | 775 | 778 | 782 | 781 | 699 |
| 65° | 518 | 509 | 506 | 502 | 498 | 514 |
| 75° | 276 | 259 | 252 | 245 | 243 | 292 |
| 85° | 64 | 59 | 50 | 40 | 37 | 77 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P229849

CATALOG NUMBER: 24RLN-LD5-45-UNV-L835-CD1-SVPD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1746.2 | 1746.2 | 1746.2 | 1746.2 | 1746.2 |
| 2.5° | 1744.8 | 1743.3 | 1739.0 | 1744.8 | 1746.2 |
| 5° | 1737.6 | 1736.2 | 1731.9 | 1737.6 | 1740.5 |
| 7.5° | 1726.2 | 1723.3 | 1720.4 | 1726.2 | 1729.0 |
| 10° | 1709.0 | 1706.1 | 1703.3 | 1710.4 | 1713.3 |
| 12.5° | 1687.6 | 1684.7 | 1684.7 | 1690.4 | 1693.3 |
| 15° | 1661.8 | 1657.5 | 1657.5 | 1667.5 | 1669.0 |
| 17.5° | 1628.9 | 1626.1 | 1627.5 | 1638.9 | 1643.2 |
| 20° | 1591.7 | 1590.3 | 1594.6 | 1607.5 | 1611.8 |
| 22.5° | 1550.3 | 1548.8 | 1556.0 | 1571.7 | 1574.6 |
| 25° | 1510.2 | 1504.5 | 1514.5 | 1530.2 | 1534.5 |
| 27.5° | 1460.2 | 1455.9 | 1468.7 | 1483.0 | 1487.3 |
| 30° | 1408.7 | 1404.4 | 1417.3 | 1433.0 | 1437.3 |
| 32.5° | 1352.9 | 1350.0 | 1362.9 | 1378.6 | 1382.9 |
| 35° | 1292.8 | 1291.4 | 1305.7 | 1320.0 | 1325.7 |
| 37.5° | 1232.8 | 1231.3 | 1247.1 | 1258.5 | 1259.9 |
| 40° | 1171.3 | 1168.4 | 1181.3 | 1194.2 | 1195.6 |
| 42.5° | 1108.4 | 1104.1 | 1118.4 | 1128.4 | 1132.7 |
| 45° | 1042.6 | 1039.7 | 1052.6 | 1061.2 | 1066.9 |
| 47.5° | 975.3 | 975.3 | 982.5 | 992.5 | 993.9 |
| 50° | 912.4 | 908.1 | 916.7 | 922.4 | 923.9 |
| 52.5° | 846.6 | 842.3 | 849.5 | 850.9 | 853.8 |
| 55° | 782.3 | 775.1 | 778.0 | 782.3 | 780.9 |
| 57.5° | 715.1 | 703.6 | 709.3 | 709.3 | 712.2 |
| 60° | 649.3 | 639.3 | 639.3 | 639.3 | 642.1 |
| 62.5° | 583.5 | 573.5 | 573.5 | 572.1 | 570.6 |
| 65° | 517.7 | 509.1 | 506.3 | 502.0 | 497.7 |
| 67.5° | 454.8 | 444.8 | 439.0 | 433.3 | 429.0 |
| 70° | 396.1 | 379.0 | 374.7 | 366.1 | 366.1 |
| 72.5° | 337.5 | 320.3 | 311.8 | 306.0 | 304.6 |
| 75° | 276.0 | 258.9 | 251.7 | 244.6 | 243.1 |
| 77.5° | 215.9 | 204.5 | 193.1 | 187.3 | 184.5 |
| 80° | 163.0 | 153.0 | 143.0 | 133.0 | 134.4 |
| 82.5° | 111.6 | 101.5 | 94.4 | 85.8 | 82.9 |
| 85° | 64.4 | 58.6 | 50.1 | 40.0 | 37.2 |
| 87.5° | 27.2 | 20.0 | 14.3 | 14.3 | 14.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)