

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: P229790

Luminaire Tested: **24RLN-LD5-50-RDP-UNV-L835-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P229790
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36059)
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-L835-CD1-U
Description: METALUX 2X4 RLN LED TROFFER WITH RDP LENS
Light Source: (252)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4146.0 lumens
Efficiency: N/A
Efficacy: 109.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

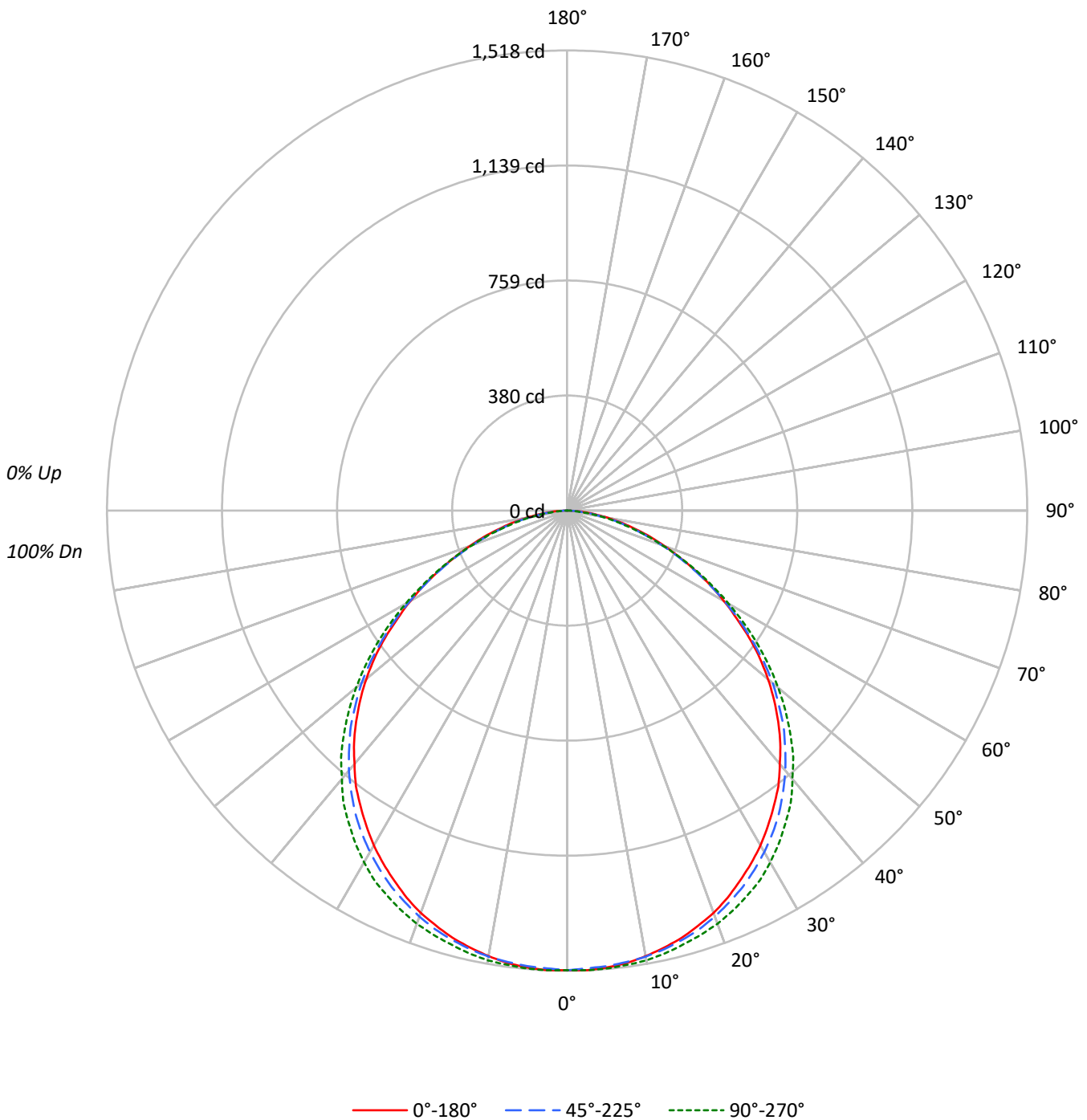
Input Watts (W): 37.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P229790

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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° | 2322 | 2322 | 2322 |
| 5° | 2326 | 2319 | 2331 |
| 10° | 2321 | 2324 | 2344 |
| 15° | 2314 | 2324 | 2349 |
| 20° | 2302 | 2323 | 2364 |
| 25° | 2278 | 2315 | 2371 |
| 30° | 2256 | 2300 | 2370 |
| 35° | 2223 | 2279 | 2350 |
| 40° | 2182 | 2239 | 2311 |
| 45° | 2133 | 2187 | 2255 |
| 50° | 2061 | 2110 | 2166 |
| 55° | 1961 | 1986 | 2046 |
| 60° | 1831 | 1840 | 1889 |
| 65° | 1682 | 1670 | 1710 |
| 70° | 1528 | 1486 | 1493 |
| 75° | 1359 | 1285 | 1275 |
| 80° | 1179 | 1054 | 1027 |
| 85° | 967 | 747 | 580 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 143.8 | 3.5 |
| 10°-20° | 414.5 | 10.0 |
| 20°-30° | 632.8 | 15.3 |
| 30°-40° | 762.8 | 18.4 |
| 40°-50° | 777.9 | 18.8 |
| 50°-60° | 665.7 | 16.1 |
| 60°-70° | 458.6 | 11.1 |
| 70°-80° | 235.1 | 5.7 |
| 80°-90° | 54.7 | 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° | 1191.1 | 28.7 |
| 0°-40° | 1953.9 | 47.1 |
| 0°-60° | 3397.6 | 81.9 |
| 0°-90° | 4146.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4146.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1516 | 1516 | 1516 | 1516 | 1516 | |
| 5° | 1513 | 1510 | 1508 | 1513 | 1516 | 144 |
| 15° | 1460 | 1458 | 1466 | 1477 | 1482 | 412 |
| 25° | 1348 | 1353 | 1370 | 1394 | 1403 | 622 |
| 35° | 1189 | 1194 | 1219 | 1246 | 1257 | 744 |
| 45° | 985 | 986 | 1010 | 1035 | 1041 | 759 |
| 55° | 734 | 730 | 744 | 760 | 766 | 655 |
| 65° | 464 | 453 | 461 | 464 | 472 | 461 |
| 75° | 230 | 220 | 217 | 217 | 216 | 248 |
| 85° | 55 | 49 | 42 | 38 | 33 | 64 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P229790

CATALOG NUMBER: 24RLN-LD5-50-RDP-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1516.2 | 1516.2 | 1516.2 | 1516.2 | 1516.2 |
| 2.5° | 1517.8 | 1514.6 | 1511.5 | 1514.6 | 1517.8 |
| 5° | 1513.1 | 1509.9 | 1508.3 | 1513.1 | 1516.2 |
| 7.5° | 1505.2 | 1502.1 | 1502.1 | 1508.3 | 1511.5 |
| 10° | 1492.6 | 1491.0 | 1494.2 | 1500.5 | 1506.8 |
| 12.5° | 1476.9 | 1476.9 | 1481.6 | 1489.5 | 1495.8 |
| 15° | 1459.6 | 1458.0 | 1465.9 | 1476.9 | 1481.6 |
| 17.5° | 1436.0 | 1437.6 | 1448.6 | 1461.2 | 1467.5 |
| 20° | 1412.4 | 1414.0 | 1425.0 | 1442.3 | 1450.1 |
| 22.5° | 1382.5 | 1385.7 | 1398.2 | 1420.3 | 1428.1 |
| 25° | 1347.9 | 1352.6 | 1369.9 | 1393.5 | 1403.0 |
| 27.5° | 1313.3 | 1318.0 | 1336.9 | 1363.6 | 1376.2 |
| 30° | 1275.6 | 1281.9 | 1300.7 | 1329.0 | 1340.1 |
| 32.5° | 1233.1 | 1237.8 | 1261.4 | 1289.7 | 1300.7 |
| 35° | 1189.1 | 1193.8 | 1218.9 | 1245.7 | 1256.7 |
| 37.5° | 1145.0 | 1145.0 | 1170.2 | 1201.6 | 1212.7 |
| 40° | 1091.5 | 1093.1 | 1119.9 | 1149.7 | 1156.0 |
| 42.5° | 1041.2 | 1041.2 | 1064.8 | 1093.1 | 1104.1 |
| 45° | 984.6 | 986.2 | 1009.8 | 1034.9 | 1041.2 |
| 47.5° | 926.4 | 926.4 | 946.8 | 970.4 | 976.7 |
| 50° | 865.1 | 861.9 | 885.5 | 904.4 | 909.1 |
| 52.5° | 802.1 | 797.4 | 816.3 | 832.0 | 838.3 |
| 55° | 734.5 | 729.8 | 743.9 | 759.7 | 766.0 |
| 57.5° | 663.7 | 657.4 | 673.2 | 687.3 | 690.5 |
| 60° | 597.7 | 588.2 | 600.8 | 608.7 | 616.5 |
| 62.5° | 531.6 | 520.6 | 530.0 | 534.8 | 541.1 |
| 65° | 464.0 | 453.0 | 460.8 | 464.0 | 471.8 |
| 67.5° | 399.5 | 391.6 | 393.2 | 397.9 | 401.1 |
| 70° | 341.3 | 331.9 | 331.9 | 331.9 | 333.4 |
| 72.5° | 287.8 | 273.7 | 272.1 | 273.7 | 273.7 |
| 75° | 229.6 | 220.2 | 217.1 | 217.1 | 215.5 |
| 77.5° | 184.0 | 171.4 | 169.9 | 166.7 | 163.6 |
| 80° | 133.7 | 122.7 | 119.5 | 118.0 | 116.4 |
| 82.5° | 92.8 | 83.4 | 80.2 | 77.1 | 72.4 |
| 85° | 55.0 | 48.8 | 42.5 | 37.7 | 33.0 |
| 87.5° | 20.4 | 18.9 | 15.7 | 14.2 | 14.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)