

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: P229552

Luminaire Tested: **14RLN-LD5-23-RDP-UNV-L840-CD1-SVPD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P229552
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1707-178-2)
Test Lab: INNOVATION CENTER-G3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14RLN-LD5-23-RDP-UNV-L840-CD1-SVPD1-U
Description: METALUX 1X4 RLN LED TROFFER WITH SENSOR AND RDP LENS
Light Source: (112)4000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1961.0 lumens
Efficiency: N/A
Efficacy: 89.5 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.31 / 1.38
Luminous Opening: Rectangular (W 0.83' x L: 3.83' x H: 0')
CIE Type: Direct

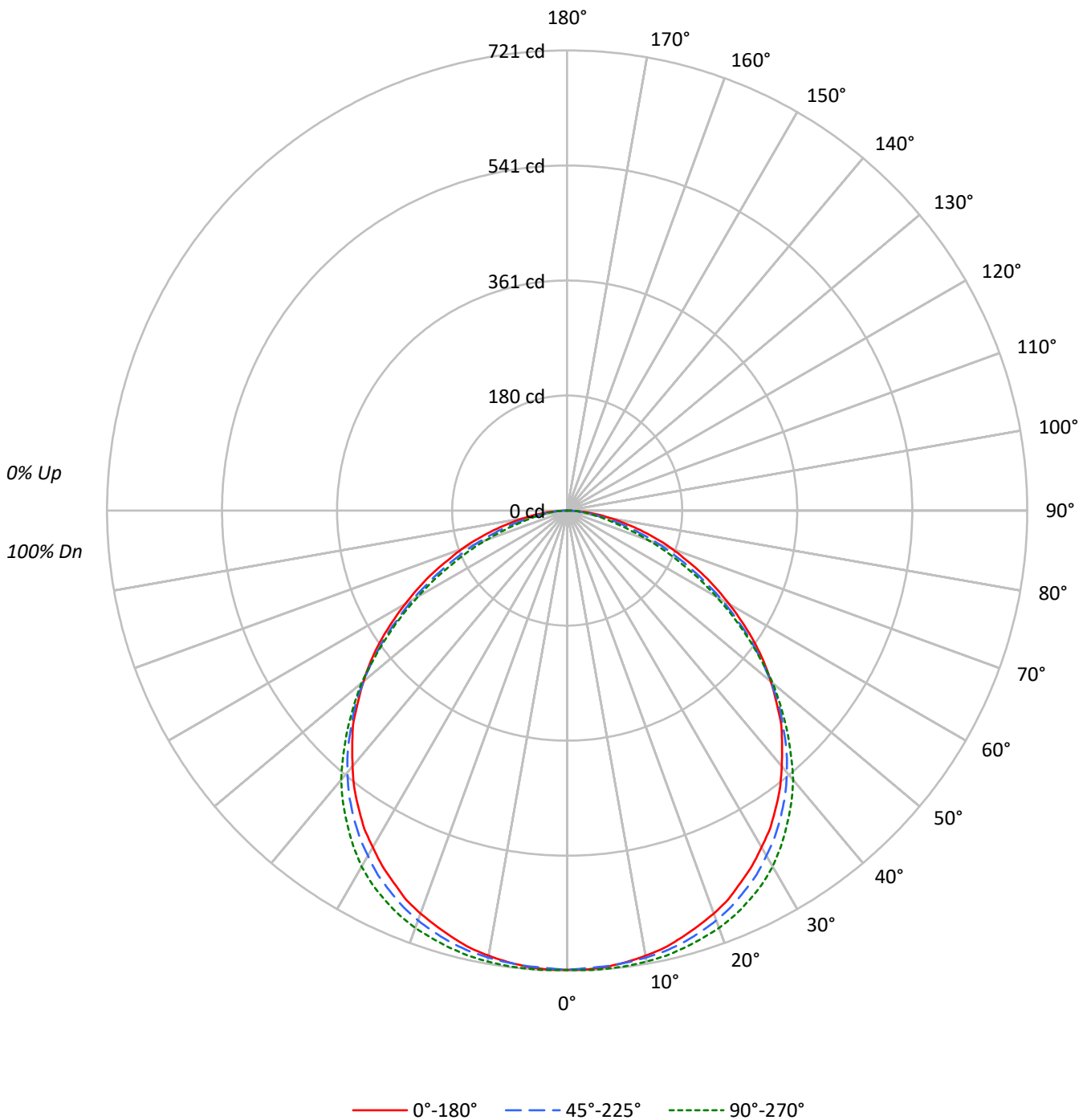
Input Watts (W): 21.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 103 | 99 | 96 | 98 | 95 | 93 | 94 | 92 | 90 | 91 | 89 | 87 | 85 |
| 2 | 100 | 92 | 85 | 80 | 97 | 90 | 84 | 79 | 87 | 81 | 77 | 83 | 79 | 75 | 80 | 77 | 74 | 72 |
| 3 | 91 | 81 | 73 | 67 | 89 | 79 | 72 | 66 | 77 | 70 | 65 | 74 | 68 | 64 | 71 | 67 | 63 | 61 |
| 4 | 84 | 72 | 63 | 57 | 81 | 71 | 63 | 57 | 68 | 61 | 56 | 66 | 60 | 55 | 64 | 59 | 54 | 52 |
| 5 | 77 | 64 | 56 | 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 | 54 | 47 | 42 | 52 | 46 | 42 | 40 |
| 7 | 66 | 53 | 44 | 38 | 64 | 52 | 44 | 38 | 50 | 43 | 38 | 49 | 42 | 37 | 48 | 42 | 37 | 35 |
| 8 | 61 | 48 | 40 | 34 | 60 | 47 | 39 | 34 | 46 | 39 | 34 | 45 | 38 | 33 | 44 | 38 | 33 | 31 |
| 9 | 57 | 44 | 36 | 31 | 56 | 44 | 36 | 31 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 28 |
| 10 | 54 | 41 | 33 | 28 | 53 | 40 | 33 | 28 | 39 | 32 | 28 | 38 | 32 | 27 | 37 | 32 | 27 | 26 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2425 | 2425 | 2425 |
| 5° | 2427 | 2424 | 2437 |
| 10° | 2423 | 2434 | 2455 |
| 15° | 2416 | 2445 | 2474 |
| 20° | 2410 | 2451 | 2495 |
| 25° | 2391 | 2445 | 2506 |
| 30° | 2370 | 2430 | 2506 |
| 35° | 2343 | 2403 | 2471 |
| 40° | 2301 | 2356 | 2424 |
| 45° | 2262 | 2281 | 2321 |
| 50° | 2184 | 2184 | 2206 |
| 55° | 2101 | 2053 | 2023 |
| 60° | 1979 | 1888 | 1818 |
| 65° | 1855 | 1698 | 1583 |
| 70° | 1721 | 1498 | 1324 |
| 75° | 1548 | 1265 | 1049 |
| 80° | 1345 | 984 | 883 |
| 85° | 1160 | 839 | 839 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 68.4 | 3.5 |
| 10°-20° | 198.0 | 10.1 |
| 20°-30° | 303.7 | 15.5 |
| 30°-40° | 365.7 | 18.6 |
| 40°-50° | 369.5 | 18.8 |
| 50°-60° | 311.8 | 15.9 |
| 60°-70° | 212.0 | 10.8 |
| 70°-80° | 105.1 | 5.4 |
| 80°-90° | 26.8 | 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° | 570.1 | 29.1 |
| 0°-40° | 935.8 | 47.7 |
| 0°-60° | 1617.1 | 82.5 |
| 0°-90° | 1961.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1961.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 720 | 720 | 720 | 720 | 720 | |
| 5° | 718 | 718 | 716 | 720 | 721 | 68 |
| 15° | 693 | 696 | 701 | 707 | 709 | 196 |
| 25° | 643 | 648 | 658 | 671 | 674 | 297 |
| 35° | 570 | 574 | 584 | 598 | 601 | 356 |
| 45° | 475 | 472 | 479 | 487 | 487 | 364 |
| 55° | 358 | 350 | 350 | 346 | 344 | 319 |
| 65° | 233 | 221 | 213 | 203 | 198 | 230 |
| 75° | 119 | 110 | 97 | 85 | 81 | 127 |
| 85° | 30 | 23 | 22 | 22 | 22 | 34 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 719.6 | 719.6 | 719.6 | 719.6 | 719.6 |
| 2.5° | 719.6 | 719.6 | 717.5 | 720.6 | 720.6 |
| 5° | 717.5 | 717.5 | 716.5 | 719.6 | 720.6 |
| 7.5° | 713.4 | 714.4 | 714.4 | 718.6 | 719.6 |
| 10° | 708.2 | 709.2 | 711.3 | 716.5 | 717.5 |
| 12.5° | 702.0 | 704.1 | 707.2 | 712.4 | 714.4 |
| 15° | 692.7 | 695.8 | 701.0 | 707.2 | 709.2 |
| 17.5° | 682.4 | 686.5 | 692.7 | 701.0 | 703.0 |
| 20° | 672.0 | 675.1 | 683.4 | 692.7 | 695.8 |
| 22.5° | 659.6 | 663.8 | 672.0 | 682.4 | 686.5 |
| 25° | 643.1 | 648.3 | 657.6 | 671.0 | 674.1 |
| 27.5° | 627.6 | 632.7 | 643.1 | 656.5 | 660.7 |
| 30° | 609.0 | 615.2 | 624.5 | 638.9 | 644.1 |
| 32.5° | 591.4 | 594.5 | 605.9 | 619.3 | 623.4 |
| 35° | 569.7 | 573.8 | 584.1 | 597.6 | 600.7 |
| 37.5° | 548.0 | 551.1 | 561.4 | 573.8 | 576.9 |
| 40° | 523.1 | 526.3 | 535.6 | 548.0 | 551.1 |
| 42.5° | 498.3 | 500.4 | 508.7 | 519.0 | 519.0 |
| 45° | 474.6 | 471.5 | 478.7 | 487.0 | 487.0 |
| 47.5° | 444.6 | 444.6 | 449.7 | 453.9 | 453.9 |
| 50° | 416.7 | 414.6 | 416.7 | 418.7 | 420.8 |
| 52.5° | 387.7 | 383.6 | 382.5 | 382.5 | 381.5 |
| 55° | 357.7 | 350.5 | 349.5 | 346.4 | 344.3 |
| 57.5° | 324.6 | 319.5 | 313.3 | 309.1 | 307.1 |
| 60° | 293.6 | 284.3 | 280.2 | 272.9 | 269.8 |
| 62.5° | 262.6 | 254.3 | 245.0 | 237.8 | 234.7 |
| 65° | 232.6 | 221.3 | 213.0 | 202.6 | 198.5 |
| 67.5° | 201.6 | 191.3 | 180.9 | 171.6 | 167.5 |
| 70° | 174.7 | 162.3 | 152.0 | 138.5 | 134.4 |
| 72.5° | 146.8 | 135.4 | 123.0 | 110.6 | 105.5 |
| 75° | 118.9 | 109.6 | 97.2 | 84.8 | 80.6 |
| 77.5° | 93.1 | 84.8 | 72.4 | 62.0 | 61.0 |
| 80° | 69.3 | 62.0 | 50.7 | 46.5 | 45.5 |
| 82.5° | 49.6 | 41.4 | 34.1 | 33.1 | 33.1 |
| 85° | 30.0 | 22.7 | 21.7 | 21.7 | 21.7 |
| 87.5° | 11.4 | 10.3 | 11.4 | 11.4 | 11.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)