

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: P295608

Luminaire Tested: **14RLN-LD5-26-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P295608
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1901-085-1)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14RLN-LD5-26-UNV-L93050-W2A1-U-3000K
Description: RLN LED 1x4 TUNABLE WHITE TROFFER
WITH STANDARD LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2079.0 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.01 / 1.18
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

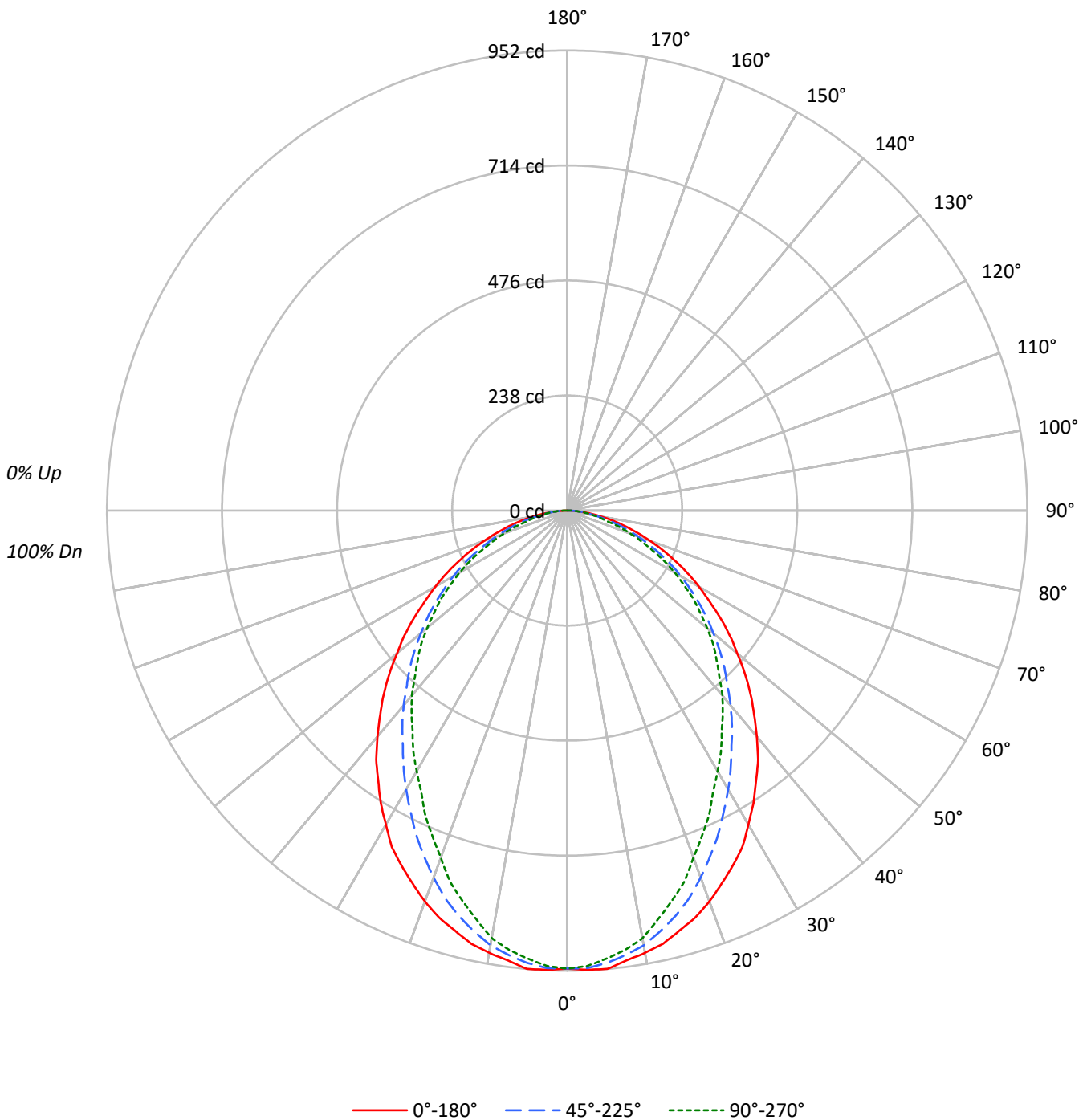
Input Watts (W): 24.366
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | 110 | 105 | 101 | 97 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | 85 | | | | | 85 | | | |
| 2 | 100 | 92 | 86 | 81 | 98 | 91 | 85 | 80 | 87 | 82 | 78 | 84 | 80 | 76 | 81 | 77 | 74 | 72 | | | | | 72 | | | |
| 3 | 92 | 82 | 74 | 68 | 89 | 80 | 73 | 67 | 77 | 71 | 66 | 75 | 69 | 65 | 72 | 68 | 64 | 62 | | | | | 62 | | | |
| 4 | 85 | 73 | 65 | 58 | 82 | 72 | 64 | 58 | 69 | 63 | 57 | 67 | 61 | 56 | 65 | 60 | 56 | 54 | | | | | 54 | | | |
| 5 | 78 | 66 | 57 | 51 | 76 | 65 | 57 | 51 | 63 | 55 | 50 | 61 | 54 | 49 | 59 | 53 | 49 | 47 | | | | | 47 | | | |
| 6 | 72 | 60 | 51 | 45 | 70 | 59 | 50 | 45 | 57 | 50 | 44 | 55 | 49 | 44 | 54 | 48 | 43 | 41 | | | | | 41 | | | |
| 7 | 67 | 54 | 46 | 40 | 66 | 53 | 45 | 40 | 52 | 45 | 39 | 51 | 44 | 39 | 49 | 43 | 39 | 37 | | | | | 37 | | | |
| 8 | 63 | 50 | 42 | 36 | 61 | 49 | 41 | 36 | 48 | 41 | 36 | 47 | 40 | 35 | 45 | 40 | 35 | 33 | | | | | 33 | | | |
| 9 | 59 | 46 | 38 | 33 | 57 | 45 | 38 | 32 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 30 | | | | | 30 | | | |
| 10 | 55 | 42 | 35 | 30 | 54 | 42 | 35 | 30 | 41 | 34 | 29 | 40 | 34 | 29 | 39 | 33 | 29 | 28 | | | | | 28 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2550 | 2550 | 2550 |
| 5° | 2571 | 2538 | 2514 |
| 10° | 2539 | 2496 | 2455 |
| 15° | 2505 | 2417 | 2329 |
| 20° | 2464 | 2314 | 2188 |
| 25° | 2407 | 2195 | 2062 |
| 30° | 2330 | 2071 | 1935 |
| 35° | 2238 | 1947 | 1832 |
| 40° | 2144 | 1848 | 1755 |
| 45° | 2042 | 1751 | 1664 |
| 50° | 1923 | 1654 | 1581 |
| 55° | 1813 | 1561 | 1496 |
| 60° | 1697 | 1465 | 1385 |
| 65° | 1571 | 1353 | 1241 |
| 70° | 1430 | 1216 | 1098 |
| 75° | 1287 | 1087 | 895 |
| 80° | 1102 | 885 | 843 |
| 85° | 895 | 840 | 840 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 88.7 | 4.3 |
| 10°-20° | 243.5 | 11.7 |
| 20°-30° | 341.7 | 16.4 |
| 30°-40° | 379.0 | 18.2 |
| 40°-50° | 363.9 | 17.5 |
| 50°-60° | 305.0 | 14.7 |
| 60°-70° | 214.1 | 10.3 |
| 70°-80° | 111.8 | 5.4 |
| 80°-90° | 31.3 | 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° | 674.0 | 32.4 |
| 0°-40° | 1053.0 | 50.6 |
| 0°-60° | 1721.9 | 82.8 |
| 0°-90° | 2079.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2079.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 948 | 948 | 948 | 948 | 948 | |
| 5° | 952 | 940 | 940 | 934 | 931 | 90 |
| 15° | 899 | 883 | 868 | 845 | 836 | 254 |
| 25° | 810 | 782 | 739 | 703 | 695 | 373 |
| 35° | 681 | 644 | 593 | 564 | 558 | 427 |
| 45° | 537 | 495 | 460 | 443 | 437 | 413 |
| 55° | 386 | 357 | 333 | 322 | 319 | 346 |
| 65° | 247 | 230 | 212 | 199 | 195 | 245 |
| 75° | 124 | 114 | 104 | 92 | 86 | 131 |
| 85° | 29 | 27 | 27 | 27 | 27 | 34 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 947.5 | 947.5 | 947.5 | 947.5 | 947.5 |
| 2.5° | 951.0 | 945.8 | 947.5 | 947.5 | 943.1 |
| 5° | 951.9 | 939.6 | 939.6 | 933.5 | 930.8 |
| 7.5° | 938.7 | 929.1 | 927.3 | 919.4 | 916.8 |
| 10° | 929.1 | 919.4 | 913.3 | 902.7 | 898.3 |
| 12.5° | 917.7 | 902.7 | 891.3 | 873.8 | 866.7 |
| 15° | 899.2 | 883.4 | 867.6 | 844.8 | 836.0 |
| 17.5° | 882.5 | 864.1 | 840.4 | 814.9 | 805.3 |
| 20° | 860.6 | 838.6 | 807.9 | 772.8 | 764.0 |
| 22.5° | 835.1 | 809.7 | 773.7 | 735.9 | 728.9 |
| 25° | 810.5 | 781.6 | 739.4 | 703.4 | 694.6 |
| 27.5° | 785.1 | 749.9 | 701.6 | 663.0 | 654.2 |
| 30° | 749.9 | 713.9 | 666.5 | 628.8 | 622.6 |
| 32.5° | 717.4 | 681.4 | 629.6 | 598.9 | 591.9 |
| 35° | 681.4 | 643.7 | 592.8 | 563.8 | 557.6 |
| 37.5° | 649.0 | 605.0 | 560.3 | 532.2 | 528.6 |
| 40° | 610.3 | 570.8 | 526.0 | 504.9 | 499.7 |
| 42.5° | 572.6 | 533.0 | 490.9 | 472.4 | 466.3 |
| 45° | 536.6 | 495.3 | 460.2 | 442.6 | 437.3 |
| 47.5° | 498.8 | 461.0 | 427.7 | 413.6 | 410.1 |
| 50° | 459.3 | 425.9 | 395.2 | 382.0 | 377.6 |
| 52.5° | 424.1 | 389.9 | 364.4 | 352.1 | 346.9 |
| 55° | 386.4 | 357.4 | 332.8 | 322.3 | 318.8 |
| 57.5° | 348.6 | 324.9 | 301.2 | 291.5 | 286.3 |
| 60° | 315.3 | 291.5 | 272.2 | 260.8 | 257.3 |
| 62.5° | 281.0 | 260.8 | 242.4 | 231.8 | 227.4 |
| 65° | 246.8 | 230.1 | 212.5 | 199.3 | 194.9 |
| 67.5° | 215.1 | 196.7 | 182.7 | 171.2 | 166.8 |
| 70° | 181.8 | 168.6 | 154.6 | 144.0 | 139.6 |
| 72.5° | 151.0 | 141.4 | 129.1 | 117.7 | 113.3 |
| 75° | 123.8 | 114.2 | 104.5 | 92.2 | 86.1 |
| 77.5° | 96.6 | 90.4 | 80.8 | 70.3 | 70.3 |
| 80° | 71.1 | 67.6 | 57.1 | 55.3 | 54.4 |
| 82.5° | 49.2 | 47.4 | 41.3 | 40.4 | 40.4 |
| 85° | 29.0 | 27.2 | 27.2 | 27.2 | 27.2 |
| 87.5° | 12.3 | 13.2 | 14.1 | 14.1 | 14.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)