

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: P229549

Luminaire Tested: **14RLN-LD5-31-RDP-UNV-L835-CD1-SVPD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P229549
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-LD5-31-RDP-UNV-L835-CD1-SVPD1-U
Description: METALUX 1X4 RLN LED TROFFER WITH SENSOR AND RDP LENS
Light Source: (112)3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2612.0 lumens
Efficiency: N/A
Efficacy: 85.4 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

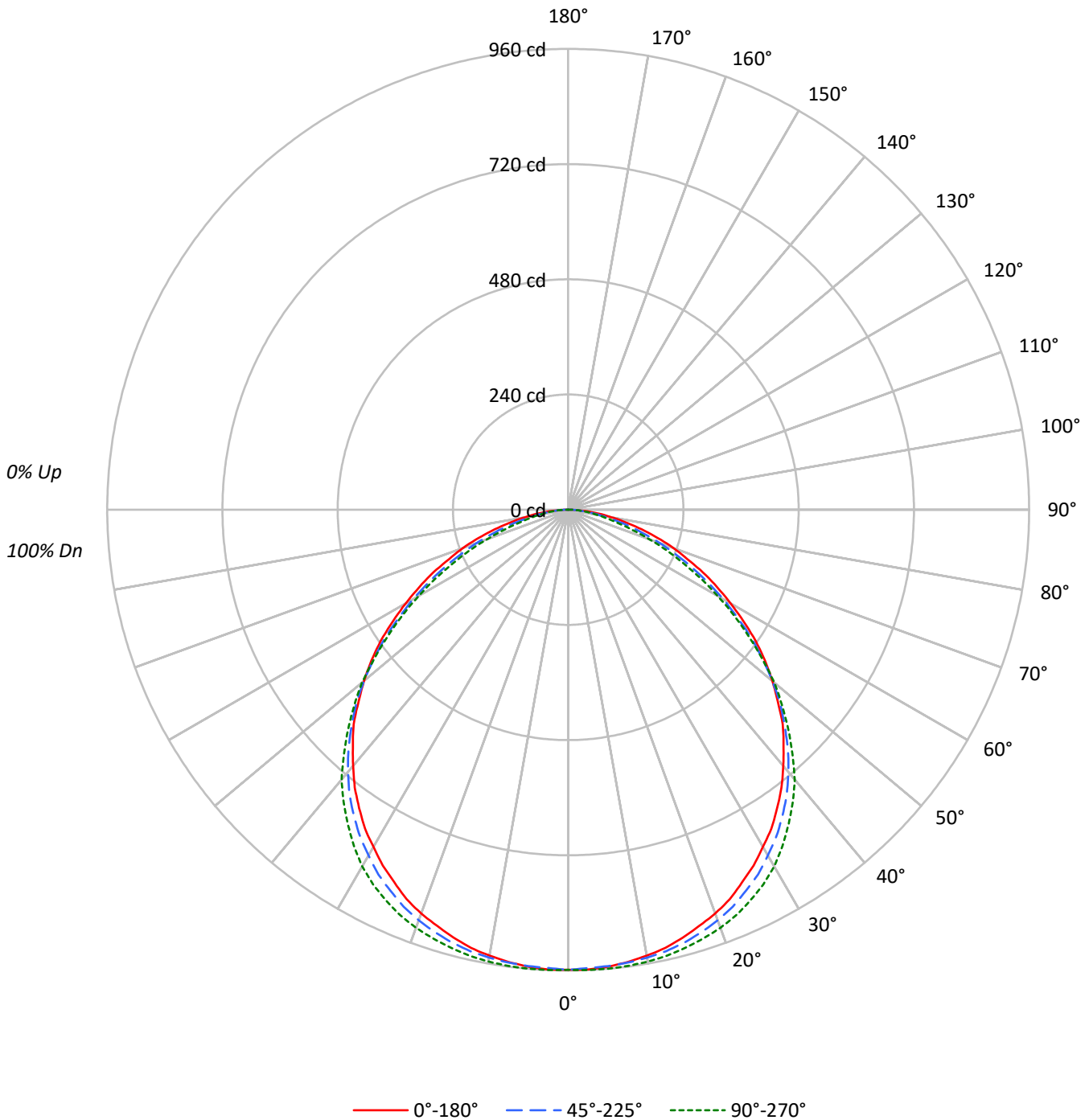
Input Watts (W): 30.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 3230 | 3230 | 3230 |
| 5° | 3233 | 3228 | 3247 |
| 10° | 3228 | 3242 | 3270 |
| 15° | 3219 | 3257 | 3296 |
| 20° | 3210 | 3264 | 3323 |
| 25° | 3185 | 3256 | 3338 |
| 30° | 3156 | 3236 | 3338 |
| 35° | 3121 | 3201 | 3291 |
| 40° | 3065 | 3138 | 3229 |
| 45° | 3012 | 3038 | 3091 |
| 50° | 2909 | 2909 | 2938 |
| 55° | 2799 | 2735 | 2694 |
| 60° | 2636 | 2515 | 2422 |
| 65° | 2471 | 2262 | 2108 |
| 70° | 2293 | 1994 | 1764 |
| 75° | 2062 | 1685 | 1398 |
| 80° | 1791 | 1310 | 1176 |
| 85° | 1543 | 1117 | 1117 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 91.1 | 3.5 |
| 10°-20° | 263.8 | 10.1 |
| 20°-30° | 404.5 | 15.5 |
| 30°-40° | 487.1 | 18.6 |
| 40°-50° | 492.2 | 18.8 |
| 50°-60° | 415.3 | 15.9 |
| 60°-70° | 282.3 | 10.8 |
| 70°-80° | 139.9 | 5.4 |
| 80°-90° | 35.7 | 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° | 759.3 | 29.1 |
| 0°-40° | 1246.5 | 47.7 |
| 0°-60° | 2154.0 | 82.5 |
| 0°-90° | 2612.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2612.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 958 | 958 | 958 | 958 | 958 | |
| 5° | 956 | 956 | 954 | 958 | 960 | 91 |
| 15° | 923 | 927 | 934 | 942 | 945 | 260 |
| 25° | 857 | 864 | 876 | 894 | 898 | 395 |
| 35° | 759 | 764 | 778 | 796 | 800 | 475 |
| 45° | 632 | 628 | 638 | 649 | 649 | 485 |
| 55° | 476 | 467 | 466 | 461 | 459 | 424 |
| 65° | 310 | 295 | 284 | 270 | 264 | 307 |
| 75° | 158 | 146 | 129 | 113 | 107 | 169 |
| 85° | 40 | 30 | 29 | 29 | 29 | 45 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P229549

CATALOG NUMBER: 14RLN-LD5-31-RDP-UNV-L835-CD1-SVPD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 958.5 | 958.5 | 958.5 | 958.5 | 958.5 |
| 2.5° | 958.5 | 958.5 | 955.7 | 959.9 | 959.9 |
| 5° | 955.7 | 955.7 | 954.3 | 958.5 | 959.9 |
| 7.5° | 950.2 | 951.6 | 951.6 | 957.1 | 958.5 |
| 10° | 943.3 | 944.7 | 947.5 | 954.3 | 955.7 |
| 12.5° | 935.1 | 937.8 | 941.9 | 948.8 | 951.6 |
| 15° | 922.7 | 926.8 | 933.7 | 941.9 | 944.7 |
| 17.5° | 908.9 | 914.4 | 922.7 | 933.7 | 936.4 |
| 20° | 895.1 | 899.3 | 910.3 | 922.7 | 926.8 |
| 22.5° | 878.6 | 884.1 | 895.1 | 908.9 | 914.4 |
| 25° | 856.6 | 863.5 | 875.8 | 893.7 | 897.9 |
| 27.5° | 835.9 | 842.8 | 856.6 | 874.5 | 880.0 |
| 30° | 811.1 | 819.4 | 831.8 | 851.1 | 857.9 |
| 32.5° | 787.7 | 791.8 | 807.0 | 824.9 | 830.4 |
| 35° | 758.8 | 764.3 | 778.1 | 796.0 | 800.1 |
| 37.5° | 729.9 | 734.0 | 747.8 | 764.3 | 768.4 |
| 40° | 696.8 | 701.0 | 713.3 | 729.9 | 734.0 |
| 42.5° | 663.8 | 666.5 | 677.5 | 691.3 | 691.3 |
| 45° | 632.1 | 628.0 | 637.6 | 648.6 | 648.6 |
| 47.5° | 592.2 | 592.2 | 599.0 | 604.6 | 604.6 |
| 50° | 555.0 | 552.2 | 555.0 | 557.7 | 560.5 |
| 52.5° | 516.4 | 510.9 | 509.5 | 509.5 | 508.2 |
| 55° | 476.5 | 466.8 | 465.5 | 461.3 | 458.6 |
| 57.5° | 432.4 | 425.5 | 417.3 | 411.8 | 409.0 |
| 60° | 391.1 | 378.7 | 373.2 | 363.6 | 359.4 |
| 62.5° | 349.8 | 338.8 | 326.4 | 316.7 | 312.6 |
| 65° | 309.9 | 294.7 | 283.7 | 269.9 | 264.4 |
| 67.5° | 268.5 | 254.8 | 241.0 | 228.6 | 223.1 |
| 70° | 232.7 | 216.2 | 202.4 | 184.5 | 179.0 |
| 72.5° | 195.6 | 180.4 | 163.9 | 147.4 | 140.5 |
| 75° | 158.4 | 146.0 | 129.4 | 112.9 | 107.4 |
| 77.5° | 123.9 | 112.9 | 96.4 | 82.6 | 81.2 |
| 80° | 92.3 | 82.6 | 67.5 | 62.0 | 60.6 |
| 82.5° | 66.1 | 55.1 | 45.4 | 44.1 | 44.1 |
| 85° | 39.9 | 30.3 | 28.9 | 28.9 | 28.9 |
| 87.5° | 15.1 | 13.8 | 15.1 | 15.1 | 15.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)