

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: P295950

Luminaire Tested: **24RLN-LD5-80-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P295950
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-085-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24RLN-LD5-80-UNV-L82765-W2A1-U-5500K
Description: RLN LED 2x4 TUNABLE WHITE TROFFER WITH STANDARD LENS
Light Source: (504) 80 CRI LEDS TUNED TO 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8384.0 lumens
Efficiency: N/A
Efficacy: 134.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.19 / 1.29
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

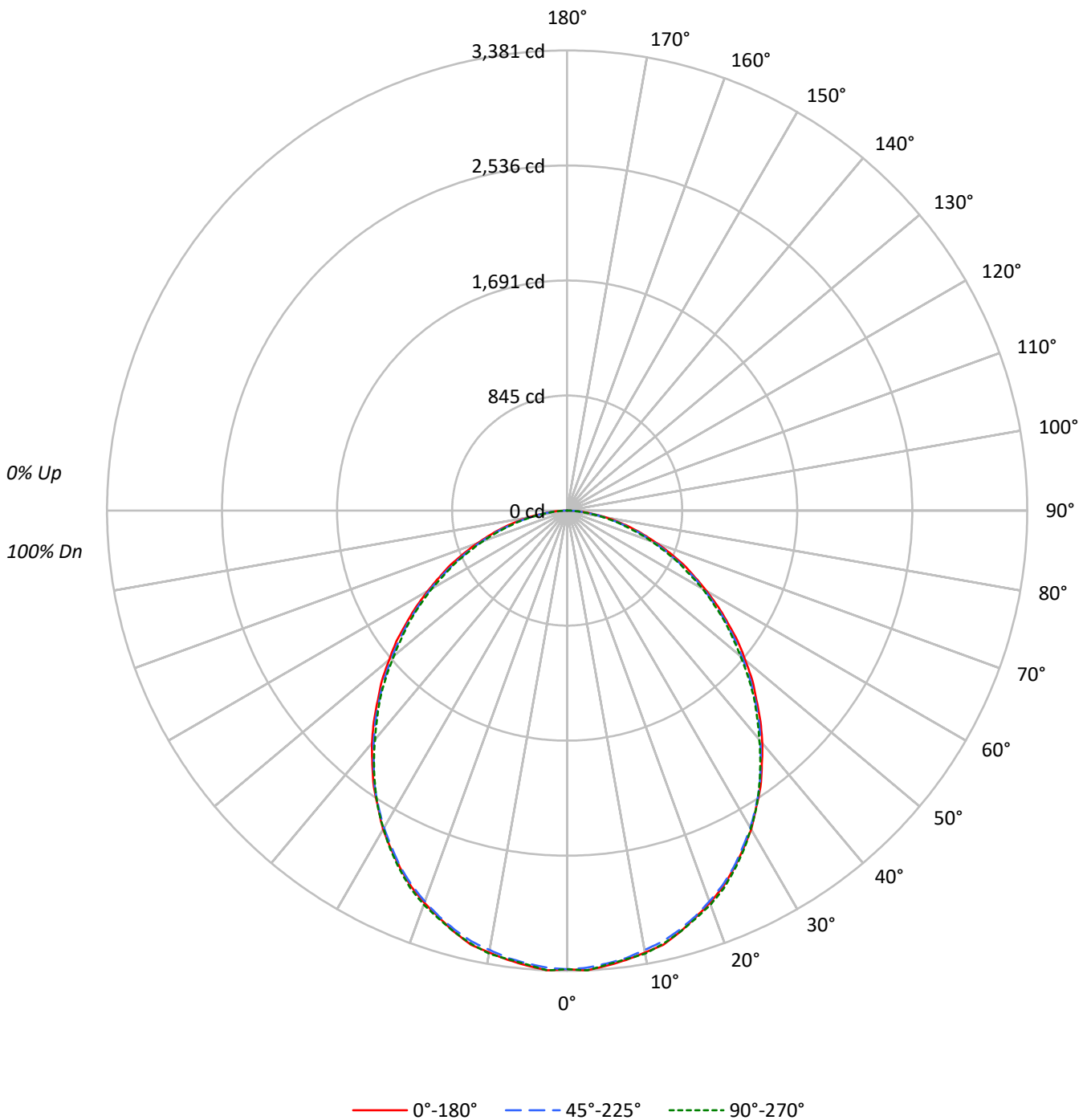
Input Watts (W): 62.403
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | 74 | 72 |
| 3 | 91 | 81 | 73 | 67 | 89 | 80 | 72 | 66 | 77 | 70 | 65 | 74 | 69 | 64 | 71 | 67 | 63 | 61 |
| 4 | 84 | 72 | 64 | 57 | 82 | 71 | 63 | 57 | 68 | 62 | 56 | 66 | 60 | 55 | 64 | 59 | 55 | 52 |
| 5 | 77 | 65 | 56 | 50 | 75 | 64 | 55 | 49 | 62 | 54 | 49 | 60 | 53 | 48 | 58 | 52 | 48 | 46 |
| 6 | 72 | 59 | 50 | 44 | 70 | 58 | 49 | 43 | 56 | 48 | 43 | 54 | 48 | 43 | 53 | 47 | 42 | 40 |
| 7 | 66 | 53 | 45 | 39 | 65 | 52 | 44 | 39 | 51 | 44 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 36 |
| 8 | 62 | 49 | 40 | 35 | 60 | 48 | 40 | 35 | 47 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 32 |
| 9 | 58 | 45 | 37 | 31 | 57 | 44 | 36 | 31 | 43 | 36 | 31 | 42 | 36 | 31 | 41 | 35 | 31 | 29 |
| 10 | 54 | 41 | 34 | 28 | 53 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 33 | 28 | 38 | 32 | 28 | 26 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4534 | 4534 | 4534 |
| 5° | 4534 | 4512 | 4523 |
| 10° | 4505 | 4479 | 4516 |
| 15° | 4465 | 4442 | 4465 |
| 20° | 4392 | 4376 | 4411 |
| 25° | 4305 | 4297 | 4321 |
| 30° | 4202 | 4181 | 4194 |
| 35° | 4070 | 4052 | 4043 |
| 40° | 3919 | 3881 | 3858 |
| 45° | 3742 | 3706 | 3690 |
| 50° | 3572 | 3516 | 3476 |
| 55° | 3382 | 3331 | 3299 |
| 60° | 3181 | 3122 | 3086 |
| 65° | 3005 | 2893 | 2868 |
| 70° | 2756 | 2650 | 2596 |
| 75° | 2531 | 2376 | 2278 |
| 80° | 2221 | 2075 | 1949 |
| 85° | 1795 | 1670 | 1420 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 318.0 | 3.8 |
| 10°-20° | 901.5 | 10.8 |
| 20°-30° | 1333.4 | 15.9 |
| 30°-40° | 1538.9 | 18.4 |
| 40°-50° | 1503.1 | 17.9 |
| 50°-60° | 1269.2 | 15.1 |
| 60°-70° | 904.1 | 10.8 |
| 70°-80° | 489.5 | 5.8 |
| 80°-90° | 126.3 | 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° | 2552.9 | 30.4 |
| 0°-40° | 4091.8 | 48.8 |
| 0°-60° | 6864.1 | 81.9 |
| 0°-90° | 8384.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 8384.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 3370 | 3370 | 3370 | 3370 | 3370 | |
| 5° | 3357 | 3357 | 3340 | 3348 | 3348 | 319 |
| 15° | 3205 | 3192 | 3189 | 3202 | 3205 | 903 |
| 25° | 2900 | 2883 | 2894 | 2905 | 2910 | 1335 |
| 35° | 2478 | 2459 | 2467 | 2459 | 2461 | 1546 |
| 45° | 1966 | 1950 | 1947 | 1939 | 1939 | 1520 |
| 55° | 1442 | 1423 | 1420 | 1406 | 1406 | 1292 |
| 65° | 944 | 925 | 909 | 898 | 901 | 931 |
| 75° | 487 | 471 | 457 | 446 | 438 | 515 |
| 85° | 116 | 114 | 108 | 95 | 92 | 137 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P295950

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 3370.1 | 3370.1 | 3370.1 | 3370.1 | 3370.1 |
| 2.5° | 3380.9 | 3367.4 | 3362.0 | 3364.7 | 3380.9 |
| 5° | 3356.6 | 3356.6 | 3340.4 | 3348.5 | 3348.5 |
| 7.5° | 3329.6 | 3332.3 | 3316.0 | 3329.6 | 3324.1 |
| 10° | 3297.1 | 3289.0 | 3278.2 | 3299.8 | 3305.2 |
| 12.5° | 3267.3 | 3248.4 | 3243.0 | 3256.5 | 3259.2 |
| 15° | 3205.1 | 3191.6 | 3188.9 | 3202.4 | 3205.1 |
| 17.5° | 3134.8 | 3137.5 | 3126.7 | 3145.6 | 3142.9 |
| 20° | 3067.2 | 3061.8 | 3056.4 | 3078.0 | 3080.7 |
| 22.5° | 2991.5 | 2975.2 | 2980.6 | 2999.6 | 3005.0 |
| 25° | 2899.5 | 2883.3 | 2894.1 | 2904.9 | 2910.3 |
| 27.5° | 2802.1 | 2794.0 | 2791.3 | 2804.8 | 2810.2 |
| 30° | 2704.8 | 2691.2 | 2691.2 | 2707.5 | 2699.3 |
| 32.5° | 2585.7 | 2574.9 | 2580.3 | 2585.7 | 2588.5 |
| 35° | 2477.6 | 2458.6 | 2466.7 | 2458.6 | 2461.3 |
| 37.5° | 2350.4 | 2336.9 | 2334.2 | 2331.5 | 2331.5 |
| 40° | 2231.4 | 2220.6 | 2209.8 | 2209.8 | 2196.3 |
| 42.5° | 2101.6 | 2088.1 | 2082.7 | 2074.5 | 2066.4 |
| 45° | 1966.4 | 1950.1 | 1947.4 | 1939.3 | 1939.3 |
| 47.5° | 1844.6 | 1820.3 | 1817.6 | 1801.4 | 1801.4 |
| 50° | 1706.7 | 1690.5 | 1679.7 | 1668.8 | 1660.7 |
| 52.5° | 1582.3 | 1566.1 | 1549.8 | 1539.0 | 1530.9 |
| 55° | 1441.6 | 1422.7 | 1420.0 | 1406.5 | 1406.5 |
| 57.5° | 1314.5 | 1298.3 | 1287.5 | 1271.2 | 1273.9 |
| 60° | 1182.0 | 1165.8 | 1160.3 | 1146.8 | 1146.8 |
| 62.5° | 1057.6 | 1044.0 | 1035.9 | 1022.4 | 1011.6 |
| 65° | 944.0 | 925.0 | 908.8 | 898.0 | 900.7 |
| 67.5° | 819.5 | 797.9 | 789.8 | 779.0 | 770.9 |
| 70° | 700.5 | 687.0 | 673.5 | 660.0 | 660.0 |
| 72.5° | 589.6 | 576.1 | 568.0 | 551.8 | 546.4 |
| 75° | 486.9 | 470.6 | 457.1 | 446.3 | 438.2 |
| 77.5° | 384.1 | 367.8 | 359.7 | 346.2 | 346.2 |
| 80° | 286.7 | 275.9 | 267.8 | 262.4 | 251.5 |
| 82.5° | 197.4 | 192.0 | 183.9 | 175.8 | 167.7 |
| 85° | 116.3 | 113.6 | 108.2 | 94.7 | 92.0 |
| 87.5° | 46.0 | 46.0 | 40.6 | 37.9 | 35.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)