

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: P295949

Luminaire Tested: **24RLN-LD5-80-UNV-L82765-W2A1-U-5000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P295949
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-5000K
Description: RLN LED 2x4 TUNABLE WHITE TROFFER
WITH STANDARD LENS
Light Source: (504) 80 CRI LEDS TUNED TO 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8302.0 lumens
Efficiency: N/A
Efficacy: 133.6 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

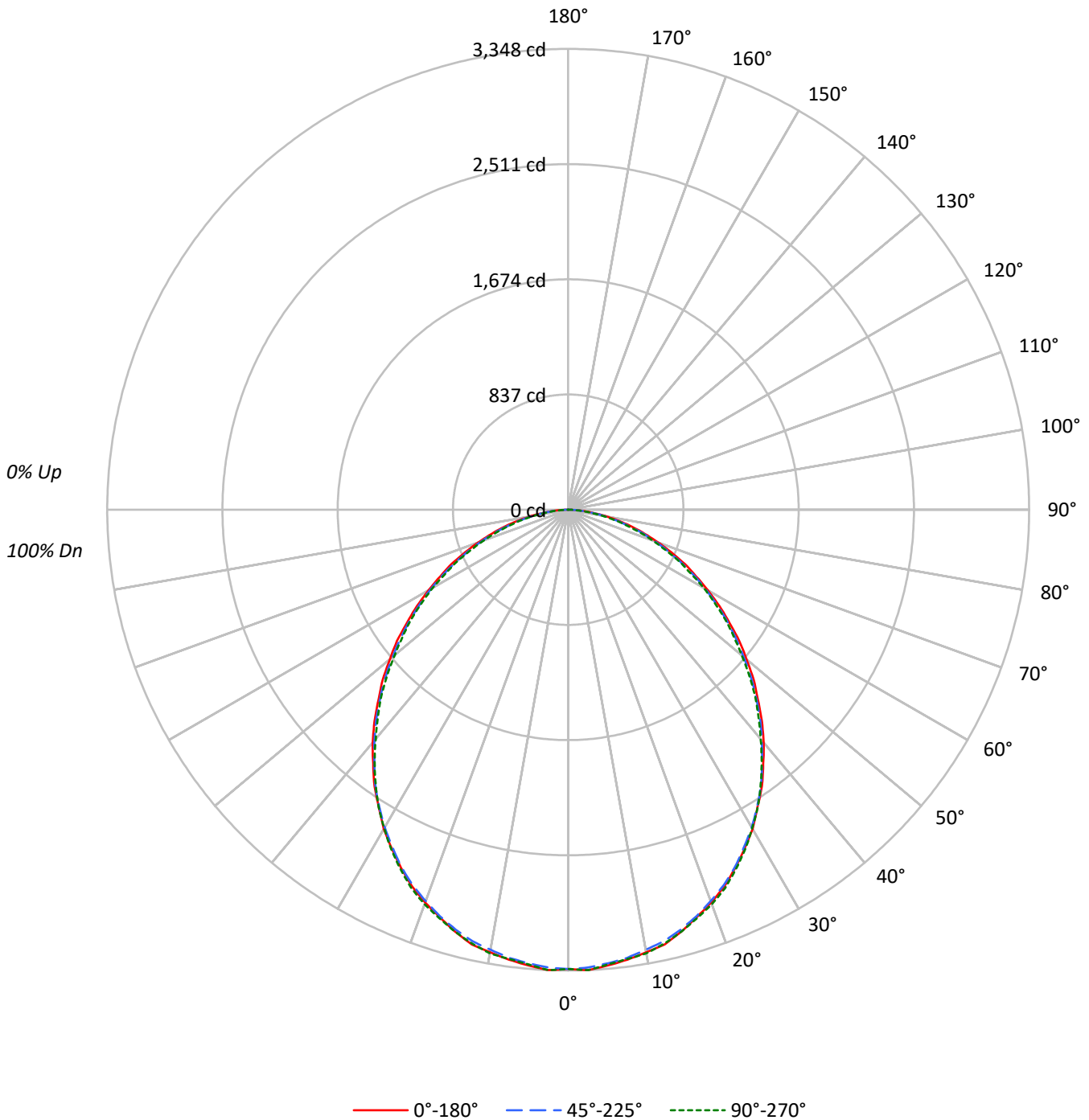
Input Watts (W): 62.124
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 109 | 105 | 101 | 97 | 107 | 102 | 99 | 95 | 98 | 95 | 92 | 94 | 92 | 90 | 91 | 89 | 87 | 85 | | | | | 85 | | | |
| 2 | 100 | 92 | 85 | 80 | 97 | 90 | 84 | 79 | 86 | 81 | 77 | 83 | 79 | 75 | 80 | 77 | 74 | 72 | | | | | 72 | | | |
| 3 | 91 | 81 | 73 | 67 | 89 | 80 | 72 | 66 | 77 | 70 | 65 | 74 | 69 | 64 | 71 | 67 | 63 | 61 | | | | | 61 | | | |
| 4 | 84 | 72 | 64 | 57 | 82 | 71 | 63 | 57 | 68 | 62 | 56 | 66 | 60 | 55 | 64 | 59 | 55 | 52 | | | | | 52 | | | |
| 5 | 77 | 65 | 56 | 50 | 75 | 64 | 55 | 49 | 62 | 54 | 49 | 60 | 53 | 48 | 58 | 52 | 48 | 46 | | | | | 46 | | | |
| 6 | 72 | 59 | 50 | 44 | 70 | 58 | 49 | 43 | 56 | 48 | 43 | 54 | 48 | 43 | 53 | 47 | 42 | 40 | | | | | 40 | | | |
| 7 | 66 | 53 | 45 | 39 | 65 | 52 | 44 | 39 | 51 | 44 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 36 | | | | | 36 | | | |
| 8 | 62 | 49 | 40 | 35 | 60 | 48 | 40 | 35 | 47 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 32 | | | | | 32 | | | |
| 9 | 58 | 45 | 37 | 31 | 57 | 44 | 36 | 31 | 43 | 36 | 31 | 42 | 36 | 31 | 41 | 35 | 31 | 29 | | | | | 29 | | | |
| 10 | 54 | 41 | 34 | 28 | 53 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 33 | 28 | 38 | 32 | 28 | 26 | | | | | 26 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4490 | 4490 | 4490 |
| 5° | 4489 | 4467 | 4478 |
| 10° | 4461 | 4435 | 4472 |
| 15° | 4421 | 4399 | 4421 |
| 20° | 4349 | 4333 | 4368 |
| 25° | 4262 | 4255 | 4278 |
| 30° | 4161 | 4140 | 4153 |
| 35° | 4030 | 4012 | 4003 |
| 40° | 3881 | 3843 | 3820 |
| 45° | 3705 | 3669 | 3654 |
| 50° | 3538 | 3481 | 3442 |
| 55° | 3349 | 3298 | 3267 |
| 60° | 3150 | 3092 | 3056 |
| 65° | 2976 | 2865 | 2840 |
| 70° | 2729 | 2624 | 2571 |
| 75° | 2506 | 2353 | 2256 |
| 80° | 2200 | 2055 | 1930 |
| 85° | 1778 | 1653 | 1406 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 314.9 | 3.8 |
| 10°-20° | 892.6 | 10.8 |
| 20°-30° | 1320.4 | 15.9 |
| 30°-40° | 1523.9 | 18.4 |
| 40°-50° | 1488.4 | 17.9 |
| 50°-60° | 1256.8 | 15.1 |
| 60°-70° | 895.2 | 10.8 |
| 70°-80° | 484.7 | 5.8 |
| 80°-90° | 125.1 | 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° | 2527.9 | 30.4 |
| 0°-40° | 4051.8 | 48.8 |
| 0°-60° | 6797.0 | 81.9 |
| 0°-90° | 8302.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 8302.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 3337 | 3337 | 3337 | 3337 | 3337 | |
| 5° | 3324 | 3324 | 3308 | 3316 | 3316 | 315 |
| 15° | 3174 | 3160 | 3158 | 3171 | 3174 | 894 |
| 25° | 2871 | 2855 | 2866 | 2876 | 2882 | 1322 |
| 35° | 2453 | 2435 | 2443 | 2435 | 2437 | 1531 |
| 45° | 1947 | 1931 | 1928 | 1920 | 1920 | 1506 |
| 55° | 1428 | 1409 | 1406 | 1393 | 1393 | 1280 |
| 65° | 935 | 916 | 900 | 889 | 892 | 921 |
| 75° | 482 | 466 | 453 | 442 | 434 | 510 |
| 85° | 115 | 112 | 107 | 94 | 91 | 135 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P295949

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 3337.2 | 3337.2 | 3337.2 | 3337.2 | 3337.2 |
| 2.5° | 3347.9 | 3334.5 | 3329.1 | 3331.8 | 3347.9 |
| 5° | 3323.8 | 3323.8 | 3307.7 | 3315.7 | 3315.7 |
| 7.5° | 3297.0 | 3299.7 | 3283.6 | 3297.0 | 3291.6 |
| 10° | 3264.9 | 3256.8 | 3246.1 | 3267.5 | 3272.9 |
| 12.5° | 3235.4 | 3216.6 | 3211.3 | 3224.7 | 3227.4 |
| 15° | 3173.8 | 3160.4 | 3157.7 | 3171.1 | 3173.8 |
| 17.5° | 3104.2 | 3106.8 | 3096.1 | 3114.9 | 3112.2 |
| 20° | 3037.2 | 3031.8 | 3026.5 | 3047.9 | 3050.6 |
| 22.5° | 2962.2 | 2946.1 | 2951.5 | 2970.2 | 2975.6 |
| 25° | 2871.1 | 2855.1 | 2865.8 | 2876.5 | 2881.9 |
| 27.5° | 2774.7 | 2766.7 | 2764.0 | 2777.4 | 2782.8 |
| 30° | 2678.3 | 2664.9 | 2664.9 | 2681.0 | 2672.9 |
| 32.5° | 2560.5 | 2549.7 | 2555.1 | 2560.5 | 2563.1 |
| 35° | 2453.3 | 2434.6 | 2442.6 | 2434.6 | 2437.3 |
| 37.5° | 2327.4 | 2314.1 | 2311.4 | 2308.7 | 2308.7 |
| 40° | 2209.6 | 2198.9 | 2188.2 | 2188.2 | 2174.8 |
| 42.5° | 2081.0 | 2067.7 | 2062.3 | 2054.3 | 2046.2 |
| 45° | 1947.1 | 1931.1 | 1928.4 | 1920.3 | 1920.3 |
| 47.5° | 1826.6 | 1802.5 | 1799.8 | 1783.8 | 1783.8 |
| 50° | 1690.0 | 1673.9 | 1663.2 | 1652.5 | 1644.5 |
| 52.5° | 1566.8 | 1550.7 | 1534.7 | 1524.0 | 1515.9 |
| 55° | 1427.5 | 1408.8 | 1406.1 | 1392.7 | 1392.7 |
| 57.5° | 1301.7 | 1285.6 | 1274.9 | 1258.8 | 1261.5 |
| 60° | 1170.4 | 1154.3 | 1149.0 | 1135.6 | 1135.6 |
| 62.5° | 1047.2 | 1033.8 | 1025.8 | 1012.4 | 1001.7 |
| 65° | 934.7 | 916.0 | 899.9 | 889.2 | 891.9 |
| 67.5° | 811.5 | 790.1 | 782.1 | 771.4 | 763.3 |
| 70° | 693.7 | 680.3 | 666.9 | 653.5 | 653.5 |
| 72.5° | 583.9 | 570.5 | 562.4 | 546.4 | 541.0 |
| 75° | 482.1 | 466.0 | 452.6 | 441.9 | 433.9 |
| 77.5° | 380.3 | 364.2 | 356.2 | 342.8 | 342.8 |
| 80° | 283.9 | 273.2 | 265.2 | 259.8 | 249.1 |
| 82.5° | 195.5 | 190.2 | 182.1 | 174.1 | 166.1 |
| 85° | 115.2 | 112.5 | 107.1 | 93.7 | 91.1 |
| 87.5° | 45.5 | 45.5 | 40.2 | 37.5 | 34.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)