

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: P295858

Luminaire Tested: **24RLN-LD5-80-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P295858
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-L83050-W2A1-U-3000K
Description: RLN LED 2x4 TUNABLE WHITE TROFFER
WITH STANDARD LENS
Light Source: (504) 80 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7620.0 lumens
Efficiency: N/A
Efficacy: 125.7 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

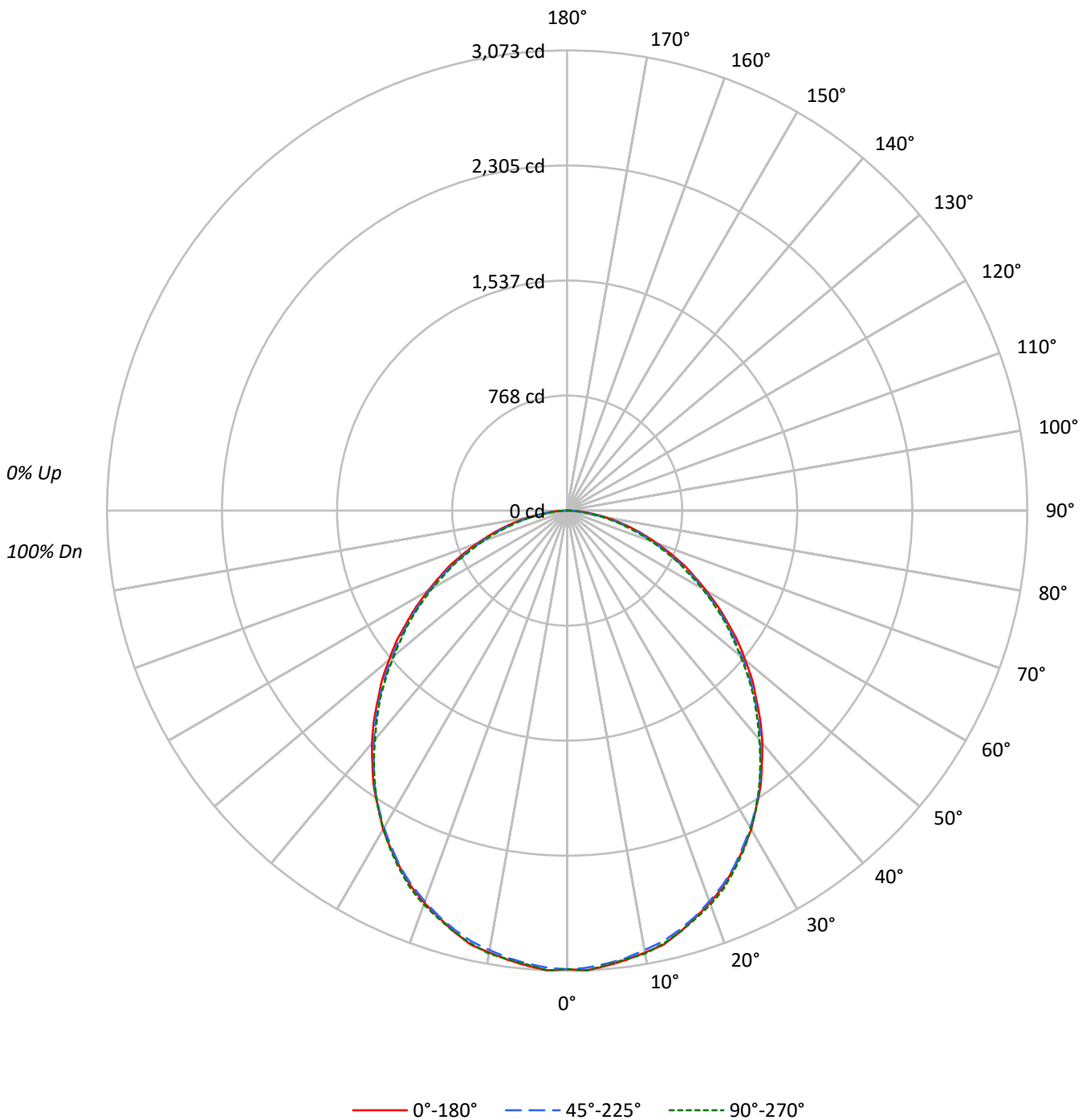
Input Watts (W): 60.636
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 4121 | 4121 | 4121 |
| 5° | 4120 | 4101 | 4111 |
| 10° | 4094 | 4071 | 4104 |
| 15° | 4058 | 4037 | 4058 |
| 20° | 3992 | 3978 | 4009 |
| 25° | 3912 | 3905 | 3927 |
| 30° | 3819 | 3800 | 3812 |
| 35° | 3699 | 3683 | 3674 |
| 40° | 3562 | 3528 | 3506 |
| 45° | 3401 | 3368 | 3354 |
| 50° | 3247 | 3195 | 3159 |
| 55° | 3074 | 3027 | 2999 |
| 60° | 2891 | 2838 | 2805 |
| 65° | 2731 | 2630 | 2606 |
| 70° | 2505 | 2408 | 2360 |
| 75° | 2300 | 2160 | 2070 |
| 80° | 2019 | 1886 | 1771 |
| 85° | 1632 | 1518 | 1291 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 289.0 | 3.8 |
| 10°-20° | 819.3 | 10.8 |
| 20°-30° | 1211.9 | 15.9 |
| 30°-40° | 1398.7 | 18.4 |
| 40°-50° | 1366.1 | 17.9 |
| 50°-60° | 1153.6 | 15.1 |
| 60°-70° | 821.7 | 10.8 |
| 70°-80° | 444.9 | 5.8 |
| 80°-90° | 114.8 | 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° | 2320.3 | 30.4 |
| 0°-40° | 3719.0 | 48.8 |
| 0°-60° | 6238.6 | 81.9 |
| 0°-90° | 7620.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 7620.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 3063 | 3063 | 3063 | 3063 | 3063 | |
| 5° | 3051 | 3051 | 3036 | 3043 | 3043 | 290 |
| 15° | 2913 | 2901 | 2898 | 2911 | 2913 | 821 |
| 25° | 2635 | 2620 | 2630 | 2640 | 2645 | 1213 |
| 35° | 2252 | 2235 | 2242 | 2235 | 2237 | 1405 |
| 45° | 1787 | 1772 | 1770 | 1763 | 1763 | 1382 |
| 55° | 1310 | 1293 | 1291 | 1278 | 1278 | 1175 |
| 65° | 858 | 841 | 826 | 816 | 819 | 846 |
| 75° | 442 | 428 | 416 | 406 | 398 | 468 |
| 85° | 106 | 103 | 98 | 86 | 84 | 124 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P295858

CATALOG NUMBER: 24RLN-LD5-80-UNV-L83050-W2A1-U-3000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 3063.0 | 3063.0 | 3063.0 | 3063.0 | 3063.0 |
| 2.5° | 3072.9 | 3060.6 | 3055.6 | 3058.1 | 3072.9 |
| 5° | 3050.7 | 3050.7 | 3036.0 | 3043.4 | 3043.4 |
| 7.5° | 3026.1 | 3028.6 | 3013.9 | 3026.1 | 3021.2 |
| 10° | 2996.6 | 2989.3 | 2979.4 | 2999.1 | 3004.0 |
| 12.5° | 2969.6 | 2952.4 | 2947.5 | 2959.8 | 2962.2 |
| 15° | 2913.1 | 2900.8 | 2898.3 | 2910.6 | 2913.1 |
| 17.5° | 2849.2 | 2851.6 | 2841.8 | 2859.0 | 2856.5 |
| 20° | 2787.7 | 2782.8 | 2777.9 | 2797.5 | 2800.0 |
| 22.5° | 2718.9 | 2704.1 | 2709.0 | 2726.2 | 2731.2 |
| 25° | 2635.3 | 2620.5 | 2630.4 | 2640.2 | 2645.1 |
| 27.5° | 2546.8 | 2539.4 | 2537.0 | 2549.2 | 2554.2 |
| 30° | 2458.3 | 2446.0 | 2446.0 | 2460.7 | 2453.4 |
| 32.5° | 2350.1 | 2340.3 | 2345.2 | 2350.1 | 2352.6 |
| 35° | 2251.8 | 2234.6 | 2242.0 | 2234.6 | 2237.0 |
| 37.5° | 2136.2 | 2124.0 | 2121.5 | 2119.0 | 2119.0 |
| 40° | 2028.1 | 2018.3 | 2008.4 | 2008.4 | 1996.1 |
| 42.5° | 1910.1 | 1897.8 | 1892.9 | 1885.5 | 1878.1 |
| 45° | 1787.2 | 1772.4 | 1770.0 | 1762.6 | 1762.6 |
| 47.5° | 1676.6 | 1654.4 | 1652.0 | 1637.2 | 1637.2 |
| 50° | 1551.2 | 1536.4 | 1526.6 | 1516.8 | 1509.4 |
| 52.5° | 1438.1 | 1423.3 | 1408.6 | 1398.8 | 1391.4 |
| 55° | 1310.3 | 1293.1 | 1290.6 | 1278.3 | 1278.3 |
| 57.5° | 1194.7 | 1180.0 | 1170.1 | 1155.4 | 1157.9 |
| 60° | 1074.3 | 1059.5 | 1054.6 | 1042.3 | 1042.3 |
| 62.5° | 961.2 | 948.9 | 941.5 | 929.2 | 919.4 |
| 65° | 857.9 | 840.7 | 826.0 | 816.2 | 818.6 |
| 67.5° | 744.9 | 725.2 | 717.8 | 708.0 | 700.6 |
| 70° | 636.7 | 624.4 | 612.1 | 599.8 | 599.8 |
| 72.5° | 535.9 | 523.6 | 516.2 | 501.5 | 496.6 |
| 75° | 442.5 | 427.7 | 415.5 | 405.6 | 398.2 |
| 77.5° | 349.1 | 334.3 | 327.0 | 314.7 | 314.7 |
| 80° | 260.6 | 250.7 | 243.4 | 238.5 | 228.6 |
| 82.5° | 179.5 | 174.5 | 167.2 | 159.8 | 152.4 |
| 85° | 105.7 | 103.2 | 98.3 | 86.0 | 83.6 |
| 87.5° | 41.8 | 41.8 | 36.9 | 34.4 | 32.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)