

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: P31363

Luminaire Tested: **2ALNG-254T5-SDL-UNV-EBT1-U**

Issue Date: 3/3/2020



**Test Information**

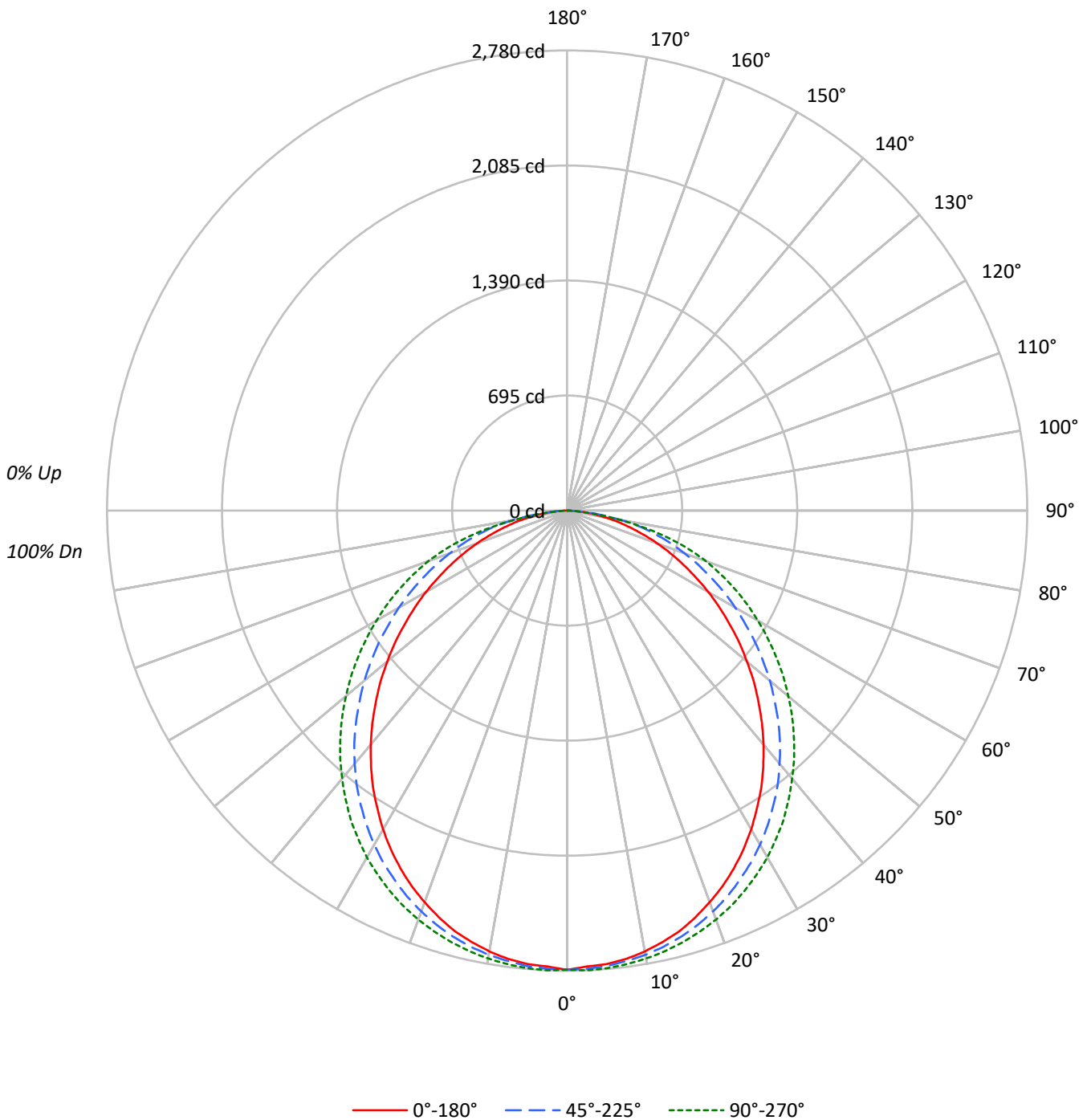
Test Method: LM-79-08  
Report Number: P31363  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2ALNG-254T5-SDL-UNV-EBT1-U  
Description: METALUX 2X4 ARCLINE LFL FIXTURE WITH LENS AND OVERLAY  
Light Source: (2) BIPIN T5 DOUBLE ENDED 54W LINEAR FLUORESCENT LAMP 3500K, 5000 EA  
Ballast/Driver: -  
GE254MVPS90-F

**Summary**

Lumens per Lamp: 5000 (2 lamps)  
Luminaire Lumens: 7761.0 lumens  
Efficiency: 77.6%  
Efficacy: 69.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.29 / 1.36  
Luminous Opening: Rectangular (W 1.75' x L: 3.83' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 111.2  
Input Voltage (V): NR  
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   | 92 | 92 | 92 | 92 | 90 | 90 | 90 | 90 | 86 | 86 | 86 | 83 | 83 | 83 | 79 | 79 | 79 | 78 |
| 1   | 84 | 81 | 77 | 74 | 82 | 79 | 76 | 73 | 76 | 73 | 71 | 73 | 71 | 69 | 70 | 68 | 67 | 65 |
| 2   | 77 | 70 | 65 | 61 | 75 | 69 | 64 | 60 | 66 | 62 | 58 | 64 | 60 | 57 | 61 | 58 | 56 | 54 |
| 3   | 70 | 62 | 55 | 50 | 68 | 60 | 55 | 50 | 58 | 53 | 49 | 56 | 52 | 48 | 54 | 50 | 47 | 46 |
| 4   | 64 | 55 | 48 | 43 | 62 | 54 | 47 | 42 | 52 | 46 | 42 | 50 | 45 | 41 | 48 | 44 | 41 | 39 |
| 5   | 59 | 49 | 42 | 37 | 57 | 48 | 41 | 36 | 46 | 41 | 36 | 45 | 40 | 36 | 43 | 39 | 35 | 34 |
| 6   | 54 | 44 | 37 | 32 | 53 | 43 | 37 | 32 | 42 | 36 | 32 | 41 | 35 | 31 | 39 | 35 | 31 | 29 |
| 7   | 50 | 40 | 33 | 28 | 49 | 39 | 33 | 28 | 38 | 32 | 28 | 37 | 32 | 28 | 36 | 31 | 28 | 26 |
| 8   | 47 | 36 | 30 | 25 | 46 | 36 | 30 | 25 | 35 | 29 | 25 | 34 | 29 | 25 | 33 | 28 | 25 | 23 |
| 9   | 44 | 33 | 27 | 23 | 43 | 33 | 27 | 23 | 32 | 26 | 23 | 31 | 26 | 22 | 30 | 26 | 22 | 21 |
| 10  | 41 | 31 | 25 | 21 | 40 | 30 | 25 | 21 | 30 | 24 | 20 | 29 | 24 | 20 | 28 | 24 | 20 | 19 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4451 | 4451 | 4451 |
| 5°  | 4429 | 4449 | 4470 |
| 10° | 4406 | 4440 | 4477 |
| 15° | 4367 | 4425 | 4483 |
| 20° | 4300 | 4400 | 4489 |
| 25° | 4221 | 4362 | 4488 |
| 30° | 4121 | 4319 | 4482 |
| 35° | 4004 | 4256 | 4466 |
| 40° | 3867 | 4183 | 4430 |
| 45° | 3708 | 4094 | 4398 |
| 50° | 3537 | 3994 | 4353 |
| 55° | 3351 | 3880 | 4314 |
| 60° | 3164 | 3768 | 4271 |
| 65° | 2950 | 3645 | 4233 |
| 70° | 2716 | 3537 | 4180 |
| 75° | 2436 | 3428 | 3881 |
| 80° | 2116 | 3086 | 2994 |
| 85° | 1694 | 1878 | 1565 |



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

| Zone      | Lumens | % Fixture | % Lamp |     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----------|--------|-----------|--------|-----|------|-------|------|-------|------|------|
| 0°-10°    | 262.8  | 3.4       | 2.6    | 0°  | 2774 | 2774  | 2774 | 2774  | 2774 |      |
| 10°-20°   | 752.2  | 9.7       | 7.5    | 5°  | 2750 | 2769  | 2762 | 2771  | 2775 | 261  |
| 20°-30°   | 1135.4 | 14.6      | 11.4   | 15° | 2629 | 2650  | 2664 | 2688  | 2699 | 740  |
| 30°-40°   | 1356.1 | 17.5      | 13.6   | 25° | 2384 | 2420  | 2464 | 2512  | 2535 | 1097 |
| 40°-50°   | 1385.8 | 17.9      | 13.9   | 35° | 2044 | 2090  | 2173 | 2249  | 2280 | 1277 |
| 50°-60°   | 1234.5 | 15.9      | 12.3   | 45° | 1634 | 1698  | 1804 | 1901  | 1938 | 1261 |
| 60°-70°   | 945.6  | 12.2      | 9.5    | 55° | 1198 | 1265  | 1387 | 1501  | 1542 | 1074 |
| 70°-80°   | 559.3  | 7.2       | 5.6    | 65° | 777  | 836   | 960  | 1073  | 1115 | 770  |
| 80°-90°   | 129.2  | 1.7       | 1.3    | 75° | 393  | 448   | 553  | 617   | 626  | 420  |
| 90°-100°  | 0.0    | 0.0       | 0.0    | 85° | 92   | 113   | 102  | 92    | 85   | 108  |
| 100°-110° | 0.0    | 0.0       | 0.0    | 90° | 0    | 0     | 0    | 0     | 0    |      |
| 110°-120° | 0.0    | 0.0       | 0.0    |     |      |       |      |       |      |      |
| 120°-130° | 0.0    | 0.0       | 0.0    |     |      |       |      |       |      |      |
| 130°-140° | 0.0    | 0.0       | 0.0    |     |      |       |      |       |      |      |
| 140°-150° | 0.0    | 0.0       | 0.0    |     |      |       |      |       |      |      |
| 150°-160° | 0.0    | 0.0       | 0.0    |     |      |       |      |       |      |      |
| 160°-170° | 0.0    | 0.0       | 0.0    |     |      |       |      |       |      |      |
| 170°-180° | 0.0    | 0.0       | 0.0    |     |      |       |      |       |      |      |
| 0°-30°    | 2150.4 | 27.7      | 21.5   |     |      |       |      |       |      |      |
| 0°-40°    | 3506.5 | 45.2      | 35.1   |     |      |       |      |       |      |      |
| 0°-60°    | 6126.9 | 78.9      | 61.3   |     |      |       |      |       |      |      |
| 0°-90°    | 7761.0 | 100.0     | 77.6   |     |      |       |      |       |      |      |
| 90°-120°  | 0.0    | 0.0       | 0.0    |     |      |       |      |       |      |      |
| 90°-150°  | 0.0    | 0.0       | 0.0    |     |      |       |      |       |      |      |
| 90°-180°  | 0.0    | 0.0       | 0.0    |     |      |       |      |       |      |      |
| 0°-180°   | 7761.0 | 100.0     | 77.6   |     |      |       |      |       |      |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°   | 22.5° | 45°  | 67.5° | 90°  |
|-------|------|-------|------|-------|------|
| 0°    | 2774 | 2774  | 2774 | 2774  | 2774 |
| 2.5°  | 2757 | 2776  | 2770 | 2776  | 2780 |
| 5°    | 2750 | 2769  | 2762 | 2771  | 2775 |
| 7.5°  | 2732 | 2749  | 2745 | 2759  | 2764 |
| 10°   | 2704 | 2722  | 2725 | 2740  | 2748 |
| 12.5° | 2669 | 2690  | 2698 | 2716  | 2727 |
| 15°   | 2629 | 2650  | 2664 | 2688  | 2699 |
| 17.5° | 2576 | 2601  | 2624 | 2653  | 2667 |
| 20°   | 2518 | 2547  | 2577 | 2615  | 2629 |
| 22.5° | 2455 | 2487  | 2525 | 2568  | 2586 |
| 25°   | 2384 | 2420  | 2464 | 2512  | 2535 |
| 27.5° | 2307 | 2346  | 2401 | 2458  | 2479 |
| 30°   | 2224 | 2266  | 2331 | 2392  | 2419 |
| 32.5° | 2134 | 2184  | 2254 | 2324  | 2350 |
| 35°   | 2044 | 2090  | 2173 | 2249  | 2280 |
| 37.5° | 1946 | 2000  | 2089 | 2169  | 2198 |
| 40°   | 1846 | 1904  | 1997 | 2082  | 2115 |
| 42.5° | 1742 | 1803  | 1904 | 1993  | 2029 |
| 45°   | 1634 | 1698  | 1804 | 1901  | 1938 |
| 47.5° | 1529 | 1591  | 1700 | 1802  | 1844 |
| 50°   | 1417 | 1481  | 1600 | 1703  | 1744 |
| 52.5° | 1312 | 1377  | 1491 | 1602  | 1646 |
| 55°   | 1198 | 1265  | 1387 | 1501  | 1542 |
| 57.5° | 1092 | 1158  | 1277 | 1393  | 1437 |
| 60°   | 986  | 1051  | 1174 | 1287  | 1331 |
| 62.5° | 878  | 941   | 1067 | 1183  | 1226 |
| 65°   | 777  | 836   | 960  | 1073  | 1115 |
| 67.5° | 676  | 738   | 858  | 964   | 1003 |
| 70°   | 579  | 637   | 754  | 858   | 891  |
| 72.5° | 484  | 543   | 655  | 745   | 768  |
| 75°   | 393  | 448   | 553  | 617   | 626  |
| 77.5° | 311  | 362   | 452  | 477   | 475  |
| 80°   | 229  | 278   | 334  | 336   | 324  |
| 82.5° | 158  | 199   | 214  | 201   | 190  |
| 85°   | 92   | 113   | 102  | 92    | 85   |
| 87.5° | 33   | 35    | 25   | 20    | 18   |
| 90°   | 0    | 0     | 0    | 0     | 0    |

(END OF REPORT)