

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: P296642

Luminaire Tested: **22RLN-LD5-35-RDP-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P296642  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36060-R2)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22RLN-LD5-35-RDP-UNV-L93050-W2A1-U-4000K  
Description: RLN LED 2x2 TUNABLE WHITE TROFFER  
WITH RDP LENS  
Light Source: (252) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2636.0 lumens  
Efficiency: N/A  
Efficacy: 92.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.38 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

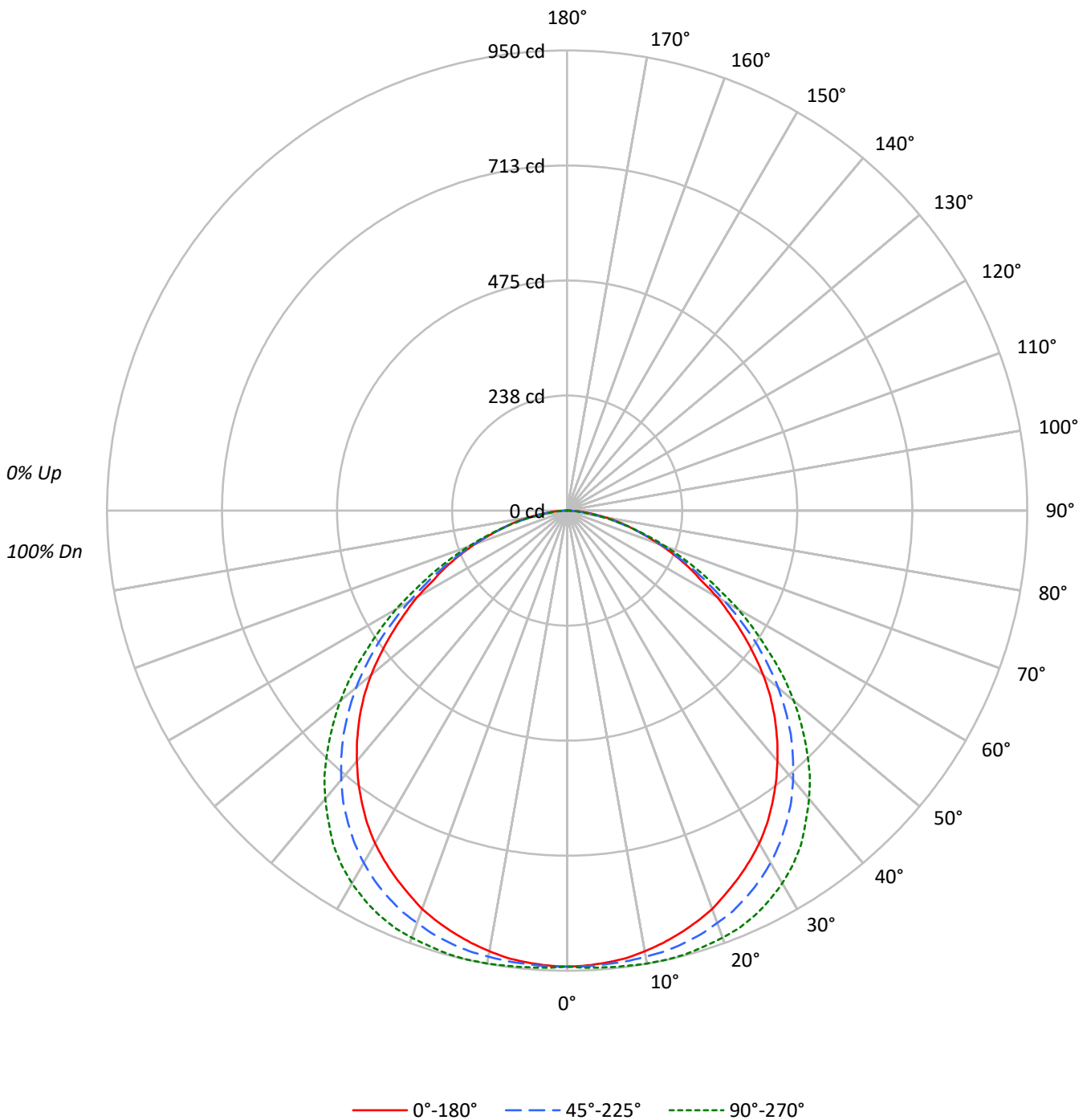
Input Watts (W): 28.644  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 86  | 81  | 77  | 83  | 79  | 75  | 80  | 77  | 74  | 72  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  | 74  | 68  | 64  | 71  | 67  | 63  | 61  |
| 4   | 84  | 72  | 63  | 57  | 81  | 71  | 63  | 56  | 68  | 61  | 56  | 66  | 60  | 55  | 64  | 58  | 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  | 37  | 49  | 42  | 37  | 47  | 41  | 37  | 35  |
| 8   | 61  | 48  | 40  | 34  | 60  | 47  | 39  | 34  | 46  | 39  | 33  | 45  | 38  | 33  | 44  | 38  | 33  | 31  |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 36  | 30  | 42  | 35  | 30  | 41  | 35  | 30  | 40  | 34  | 30  | 28  |
| 10  | 54  | 41  | 33  | 28  | 52  | 40  | 33  | 27  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  | 25  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2534 | 2534 | 2534 |
| 5°  | 2531 | 2539 | 2556 |
| 10° | 2525 | 2555 | 2595 |
| 15° | 2515 | 2578 | 2641 |
| 20° | 2507 | 2595 | 2687 |
| 25° | 2485 | 2609 | 2733 |
| 30° | 2465 | 2610 | 2761 |
| 35° | 2426 | 2590 | 2765 |
| 40° | 2373 | 2549 | 2730 |
| 45° | 2307 | 2485 | 2663 |
| 50° | 2214 | 2382 | 2558 |
| 55° | 2073 | 2231 | 2383 |
| 60° | 1926 | 2031 | 2195 |
| 65° | 1766 | 1827 | 1950 |
| 70° | 1599 | 1624 | 1699 |
| 75° | 1408 | 1375 | 1424 |
| 80° | 1224 | 1125 | 1074 |
| 85° | 994  | 747  | 648  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 89.7   | 3.4       |
| 10°-20°   | 261.4  | 9.9       |
| 20°-30°   | 405.0  | 15.4      |
| 30°-40°   | 493.0  | 18.7      |
| 40°-50°   | 502.1  | 19.0      |
| 50°-60°   | 423.4  | 16.1      |
| 60°-70°   | 286.4  | 10.9      |
| 70°-80°   | 143.1  | 5.4       |
| 80°-90°   | 31.9   | 1.2       |
| 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°    | 756.2  | 28.7      |
| 0°-40°    | 1249.1 | 47.4      |
| 0°-60°    | 2174.6 | 82.5      |
| 0°-90°    | 2636.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2636.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 942 | 942   | 942 | 942   | 942 |      |
| 5°  | 937 | 938   | 940 | 945   | 946 | 89   |
| 15° | 903 | 909   | 926 | 942   | 948 | 255  |
| 25° | 837 | 850   | 879 | 908   | 921 | 386  |
| 35° | 738 | 755   | 788 | 826   | 842 | 462  |
| 45° | 606 | 618   | 653 | 687   | 700 | 467  |
| 55° | 442 | 448   | 476 | 498   | 508 | 395  |
| 65° | 277 | 272   | 287 | 300   | 306 | 274  |
| 75° | 135 | 131   | 132 | 134   | 137 | 145  |
| 85° | 32  | 27    | 24  | 21    | 21  | 37   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 941.6 | 941.6 | 941.6 | 941.6 | 941.6 |
| 2.5°  | 940.0 | 940.0 | 941.6 | 943.2 | 944.8 |
| 5°    | 936.8 | 938.4 | 940.0 | 944.8 | 946.4 |
| 7.5°  | 931.9 | 933.5 | 938.4 | 944.8 | 948.0 |
| 10°   | 923.9 | 927.1 | 935.1 | 944.8 | 949.6 |
| 12.5° | 914.2 | 919.0 | 931.9 | 943.2 | 949.6 |
| 15°   | 902.9 | 909.3 | 925.5 | 941.6 | 948.0 |
| 17.5° | 890.0 | 898.1 | 917.4 | 935.1 | 943.2 |
| 20°   | 875.5 | 885.2 | 906.1 | 928.7 | 938.4 |
| 22.5° | 856.1 | 869.0 | 894.8 | 920.6 | 931.9 |
| 25°   | 836.8 | 849.7 | 878.7 | 907.7 | 920.6 |
| 27.5° | 815.8 | 830.3 | 861.0 | 893.2 | 906.1 |
| 30°   | 793.3 | 806.2 | 840.0 | 873.9 | 888.4 |
| 32.5° | 767.5 | 780.4 | 815.8 | 851.3 | 867.4 |
| 35°   | 738.4 | 754.6 | 788.4 | 825.5 | 841.6 |
| 37.5° | 707.8 | 722.3 | 759.4 | 794.9 | 809.4 |
| 40°   | 675.6 | 690.1 | 725.5 | 762.6 | 777.1 |
| 42.5° | 641.7 | 656.2 | 690.1 | 725.5 | 741.7 |
| 45°   | 606.2 | 617.5 | 653.0 | 686.8 | 699.7 |
| 47.5° | 569.1 | 577.2 | 611.1 | 643.3 | 656.2 |
| 50°   | 528.8 | 536.9 | 569.1 | 598.2 | 611.1 |
| 52.5° | 485.3 | 491.8 | 522.4 | 548.2 | 562.7 |
| 55°   | 441.8 | 448.2 | 475.6 | 498.2 | 507.9 |
| 57.5° | 398.2 | 401.5 | 425.6 | 448.2 | 457.9 |
| 60°   | 357.9 | 357.9 | 377.3 | 395.0 | 407.9 |
| 62.5° | 311.2 | 316.0 | 330.5 | 348.3 | 353.1 |
| 65°   | 277.3 | 272.5 | 287.0 | 299.9 | 306.3 |
| 67.5° | 238.6 | 235.4 | 245.1 | 256.4 | 259.6 |
| 70°   | 203.2 | 198.3 | 206.4 | 212.8 | 216.0 |
| 72.5° | 166.1 | 164.5 | 167.7 | 172.5 | 174.1 |
| 75°   | 135.4 | 130.6 | 132.2 | 133.8 | 137.0 |
| 77.5° | 108.0 | 100.0 | 101.6 | 100.0 | 101.6 |
| 80°   | 79.0  | 72.6  | 72.6  | 70.9  | 69.3  |
| 82.5° | 53.2  | 50.0  | 46.8  | 43.5  | 41.9  |
| 85°   | 32.2  | 27.4  | 24.2  | 21.0  | 21.0  |
| 87.5° | 12.9  | 9.7   | 8.1   | 8.1   | 8.1   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)