

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: P291724

Luminaire Tested: **14GR-LD5-43-FGW080-UNV-L92765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291724  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-24)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14GR-LD5-43-FGW080-UNV-L92765-W2A1-U-2700K  
Description: GRLED 1x4 TUNABLE WHITE TROFFER  
WITH FGW080 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2615.0 lumens  
Efficiency: N/A  
Efficacy: 71.7 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

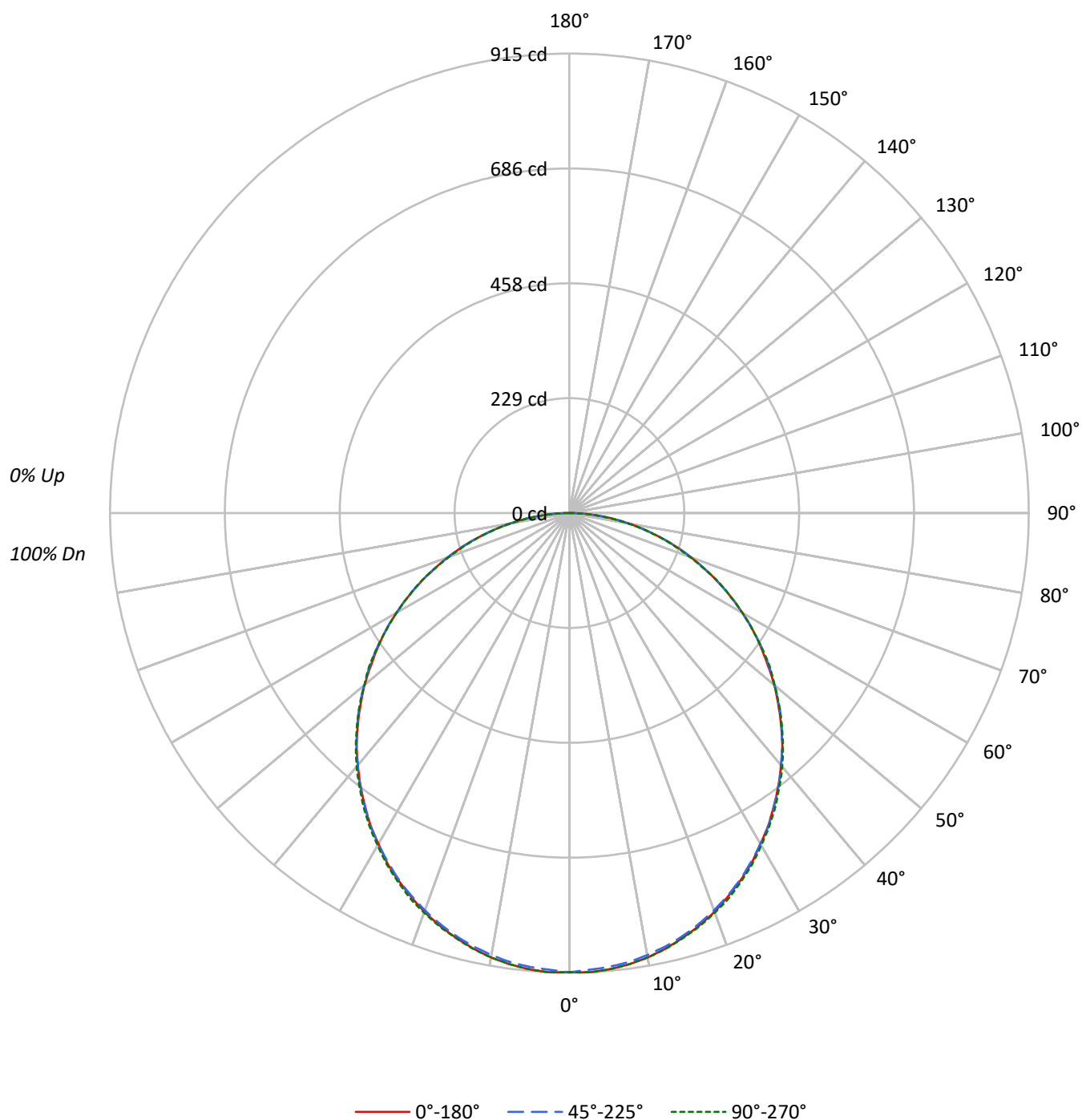
Input Watts (W): 36.456  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  |     |  |     |     | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  | 30  | 10  |
| RCR |     |     |     |     |     |     |     |     |  |     |     |     |  |     |     |     |  |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 |  | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 | 102 | 102 |
| 1   | 108 | 103 | 99  | 95  | 106 | 101 | 97  | 93  |  | 97  | 94  | 91  |  | 93  | 90  | 88  |  | 89  | 87  | 85  |
| 2   | 98  | 90  | 83  | 77  | 96  | 88  | 82  | 76  |  | 84  | 79  | 74  |  | 81  | 77  | 73  |  | 78  | 74  | 71  |
| 3   | 90  | 79  | 71  | 64  | 87  | 77  | 70  | 63  |  | 74  | 68  | 62  |  | 71  | 66  | 61  |  | 69  | 64  | 60  |
| 4   | 82  | 70  | 61  | 54  | 80  | 68  | 60  | 54  |  | 66  | 59  | 53  |  | 64  | 57  | 52  |  | 61  | 56  | 51  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 53  | 46  |  | 59  | 51  | 46  |  | 57  | 50  | 45  |  | 55  | 49  | 45  |
| 6   | 70  | 56  | 47  | 40  | 68  | 55  | 47  | 40  |  | 53  | 46  | 40  |  | 52  | 45  | 40  |  | 50  | 44  | 39  |
| 7   | 64  | 51  | 42  | 36  | 63  | 50  | 42  | 36  |  | 48  | 41  | 35  |  | 47  | 40  | 35  |  | 46  | 39  | 35  |
| 8   | 60  | 46  | 38  | 32  | 58  | 46  | 37  | 32  |  | 44  | 37  | 32  |  | 43  | 36  | 31  |  | 42  | 36  | 31  |
| 9   | 56  | 43  | 34  | 29  | 55  | 42  | 34  | 29  |  | 41  | 34  | 28  |  | 40  | 33  | 28  |  | 39  | 33  | 28  |
| 10  | 53  | 39  | 31  | 26  | 51  | 39  | 31  | 26  |  | 38  | 31  | 26  |  | 37  | 30  | 26  |  | 36  | 30  | 26  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2461 | 2461 | 2461 |
| 5°  | 2464 | 2450 | 2464 |
| 10° | 2455 | 2442 | 2455 |
| 15° | 2438 | 2429 | 2441 |
| 20° | 2420 | 2411 | 2425 |
| 25° | 2395 | 2390 | 2403 |
| 30° | 2364 | 2364 | 2374 |
| 35° | 2334 | 2337 | 2348 |
| 40° | 2302 | 2305 | 2317 |
| 45° | 2268 | 2275 | 2278 |
| 50° | 2229 | 2236 | 2233 |
| 55° | 2184 | 2196 | 2192 |
| 60° | 2141 | 2141 | 2141 |
| 65° | 2092 | 2092 | 2103 |
| 70° | 2026 | 2026 | 2006 |
| 75° | 1956 | 1947 | 1938 |
| 80° | 1866 | 1852 | 1839 |
| 85° | 1754 | 1729 | 1677 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 86.5   | 3.3       |
| 10°-20°   | 246.8  | 9.4       |
| 20°-30°   | 371.9  | 14.2      |
| 30°-40°   | 445.7  | 17.0      |
| 40°-50°   | 460.9  | 17.6      |
| 50°-60°   | 417.9  | 16.0      |
| 60°-70°   | 324.8  | 12.4      |
| 70°-80°   | 198.4  | 7.6       |
| 80°-90°   | 62.1   | 2.4       |
| 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°    | 705.2  | 27.0      |
| 0°-40°    | 1150.9 | 44.0      |
| 0°-60°    | 2029.8 | 77.6      |
| 0°-90°    | 2615.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2615.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 914 | 914   | 914 | 914   | 914 |      |
| 5°  | 912 | 911   | 907 | 911   | 912 | 87   |
| 15° | 875 | 875   | 872 | 876   | 876 | 247  |
| 25° | 807 | 807   | 805 | 810   | 809 | 372  |
| 35° | 710 | 711   | 711 | 715   | 715 | 445  |
| 45° | 596 | 597   | 598 | 598   | 598 | 460  |
| 55° | 466 | 467   | 468 | 468   | 467 | 416  |
| 65° | 328 | 328   | 328 | 327   | 330 | 325  |
| 75° | 188 | 188   | 187 | 186   | 186 | 199  |
| 85° | 57  | 55    | 56  | 54    | 54  | 63   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 914.5 | 914.5 | 914.5 | 914.5 | 914.5 |
| 2.5°  | 915.4 | 914.5 | 910.3 | 914.5 | 915.4 |
| 5°    | 912.0 | 911.2 | 907.0 | 911.2 | 912.0 |
| 7.5°  | 906.2 | 906.2 | 902.0 | 906.2 | 906.2 |
| 10°   | 898.6 | 897.8 | 893.6 | 897.8 | 898.6 |
| 12.5° | 887.8 | 887.8 | 883.6 | 887.8 | 888.6 |
| 15°   | 875.2 | 875.2 | 871.9 | 876.1 | 876.1 |
| 17.5° | 861.0 | 861.9 | 857.7 | 862.7 | 862.7 |
| 20°   | 845.1 | 844.3 | 841.8 | 846.0 | 846.8 |
| 22.5° | 825.9 | 826.7 | 824.2 | 829.3 | 830.1 |
| 25°   | 806.7 | 806.7 | 805.0 | 810.0 | 809.2 |
| 27.5° | 785.8 | 785.8 | 783.3 | 787.5 | 788.3 |
| 30°   | 760.7 | 761.5 | 760.7 | 764.9 | 764.0 |
| 32.5° | 737.3 | 738.1 | 738.1 | 739.8 | 740.6 |
| 35°   | 710.5 | 711.4 | 711.4 | 714.7 | 714.7 |
| 37.5° | 683.8 | 683.8 | 684.6 | 687.1 | 687.1 |
| 40°   | 655.4 | 656.2 | 656.2 | 658.7 | 659.6 |
| 42.5° | 627.8 | 626.1 | 627.0 | 629.5 | 629.5 |
| 45°   | 596.0 | 596.9 | 597.7 | 598.5 | 598.5 |
| 47.5° | 564.3 | 565.9 | 566.8 | 567.6 | 566.8 |
| 50°   | 532.5 | 534.2 | 534.2 | 533.3 | 533.3 |
| 52.5° | 498.2 | 502.4 | 501.6 | 501.6 | 503.2 |
| 55°   | 465.6 | 467.3 | 468.1 | 468.1 | 467.3 |
| 57.5° | 433.0 | 434.7 | 433.0 | 433.9 | 432.2 |
| 60°   | 397.9 | 398.7 | 397.9 | 397.9 | 397.9 |
| 62.5° | 363.6 | 364.5 | 362.8 | 362.8 | 362.8 |
| 65°   | 328.5 | 328.5 | 328.5 | 326.9 | 330.2 |
| 67.5° | 291.7 | 293.4 | 293.4 | 294.3 | 290.9 |
| 70°   | 257.5 | 258.3 | 257.5 | 256.6 | 255.0 |
| 72.5° | 223.2 | 224.0 | 224.9 | 221.5 | 220.7 |
| 75°   | 188.1 | 188.1 | 187.3 | 186.4 | 186.4 |
| 77.5° | 153.8 | 153.8 | 153.8 | 152.1 | 152.1 |
| 80°   | 120.4 | 121.2 | 119.5 | 119.5 | 118.7 |
| 82.5° | 87.8  | 87.8  | 87.8  | 86.9  | 85.3  |
| 85°   | 56.8  | 55.2  | 56.0  | 54.3  | 54.3  |
| 87.5° | 25.9  | 25.9  | 25.9  | 24.2  | 27.6  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)