

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: P291082

Luminaire Tested: **14GR-LD5-20-A-UNV-L92765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291082  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33314)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14GR-LD5-20-A-UNV-L92765-W2A1-U-2700K  
Description: GRLED 1x4 TUNABLE WHITE TROFFER  
WITH A LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1632.0 lumens  
Efficiency: N/A  
Efficacy: 105.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

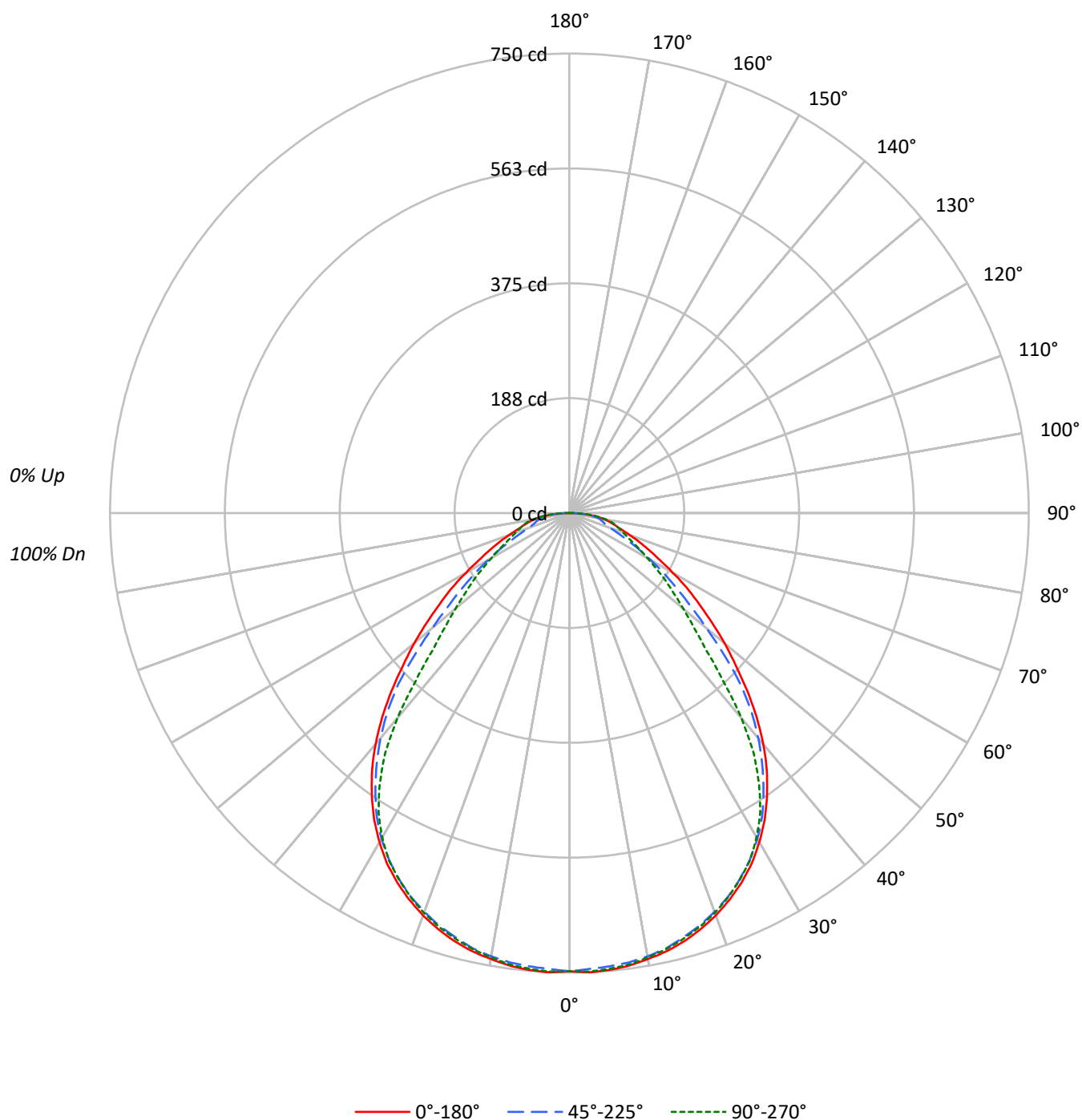
Input Watts (W): 15.531  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 110 | 106 | 102 | 98  | 107 | 103 | 100 | 97  | 99  | 96  | 94  | 95  | 93  | 91  | 92  | 90  | 88  | 86  |    |    |
| 2   | 101 | 94  | 88  | 83  | 99  | 92  | 86  | 82  | 88  | 84  | 80  | 85  | 81  | 78  | 82  | 79  | 76  | 74  |    |    |
| 3   | 93  | 84  | 76  | 71  | 91  | 82  | 75  | 70  | 79  | 74  | 69  | 77  | 72  | 68  | 74  | 70  | 66  | 64  |    |    |
| 4   | 86  | 75  | 67  | 61  | 84  | 74  | 67  | 61  | 72  | 65  | 60  | 69  | 64  | 59  | 67  | 62  | 58  | 56  |    |    |
| 5   | 80  | 68  | 60  | 54  | 78  | 67  | 59  | 53  | 65  | 58  | 53  | 63  | 57  | 52  | 61  | 56  | 52  | 50  |    |    |
| 6   | 74  | 62  | 54  | 48  | 72  | 61  | 53  | 47  | 59  | 52  | 47  | 58  | 51  | 47  | 56  | 51  | 46  | 44  |    |    |
| 7   | 69  | 57  | 48  | 43  | 67  | 56  | 48  | 43  | 54  | 47  | 42  | 53  | 47  | 42  | 52  | 46  | 42  | 40  |    |    |
| 8   | 65  | 52  | 44  | 38  | 63  | 51  | 44  | 38  | 50  | 43  | 38  | 49  | 43  | 38  | 48  | 42  | 38  | 36  |    |    |
| 9   | 61  | 48  | 40  | 35  | 59  | 47  | 40  | 35  | 46  | 39  | 35  | 45  | 39  | 35  | 44  | 39  | 34  | 33  |    |    |
| 10  | 57  | 44  | 37  | 32  | 56  | 44  | 37  | 32  | 43  | 36  | 32  | 42  | 36  | 32  | 41  | 36  | 31  | 30  |    |    |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2013 | 2013 | 2013 |
| 5°  | 2022 | 2007 | 2017 |
| 10° | 2020 | 2007 | 2012 |
| 15° | 2016 | 1998 | 2004 |
| 20° | 2002 | 1983 | 1989 |
| 25° | 1975 | 1956 | 1957 |
| 30° | 1927 | 1907 | 1899 |
| 35° | 1848 | 1814 | 1773 |
| 40° | 1730 | 1686 | 1534 |
| 45° | 1562 | 1503 | 1199 |
| 50° | 1385 | 1220 | 1014 |
| 55° | 1209 | 1001 | 895  |
| 60° | 1048 | 824  | 790  |
| 65° | 919  | 662  | 729  |
| 70° | 820  | 561  | 733  |
| 75° | 800  | 592  | 819  |
| 80° | 886  | 745  | 939  |
| 85° | 923  | 797  | 1099 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 71.0   | 4.3       |
| 10°-20°   | 203.3  | 12.5      |
| 20°-30°   | 304.1  | 18.6      |
| 30°-40°   | 343.2  | 21.0      |
| 40°-50°   | 291.2  | 17.8      |
| 50°-60°   | 197.0  | 12.1      |
| 60°-70°   | 117.6  | 7.2       |
| 70°-80°   | 73.7   | 4.5       |
| 80°-90°   | 31.0   | 1.9       |
| 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°    | 578.3  | 35.4      |
| 0°-40°    | 921.5  | 56.5      |
| 0°-60°    | 1409.8 | 86.4      |
| 0°-90°    | 1632.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1632.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 748 | 748   | 748 | 748   | 748 |      |
| 5°  | 749 | 746   | 743 | 748   | 747 | 71   |
| 15° | 724 | 722   | 717 | 722   | 719 | 204  |
| 25° | 665 | 663   | 659 | 662   | 659 | 306  |
| 35° | 562 | 559   | 552 | 547   | 540 | 350  |
| 45° | 410 | 412   | 395 | 338   | 315 | 316  |
| 55° | 258 | 246   | 213 | 191   | 191 | 232  |
| 65° | 144 | 120   | 104 | 111   | 114 | 144  |
| 75° | 77  | 69    | 57  | 75    | 79  | 83   |
| 85° | 30  | 28    | 26  | 33    | 36  | 32   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 747.9 | 747.9 | 747.9 | 747.9 | 747.9 |
| 2.5°  | 750.5 | 748.2 | 744.8 | 749.4 | 749.0 |
| 5°    | 748.6 | 746.3 | 742.9 | 748.2 | 746.7 |
| 7.5°  | 745.2 | 743.3 | 739.9 | 744.8 | 743.3 |
| 10°   | 739.1 | 737.6 | 734.6 | 738.8 | 736.5 |
| 12.5° | 732.7 | 731.6 | 727.8 | 731.6 | 729.3 |
| 15°   | 723.6 | 722.1 | 717.2 | 722.1 | 719.4 |
| 17.5° | 712.2 | 710.3 | 706.2 | 710.3 | 708.1 |
| 20°   | 699.0 | 696.7 | 692.5 | 696.7 | 694.4 |
| 22.5° | 683.0 | 681.1 | 677.4 | 681.1 | 678.1 |
| 25°   | 665.2 | 662.9 | 658.8 | 661.8 | 659.2 |
| 27.5° | 644.8 | 641.7 | 637.9 | 640.2 | 638.7 |
| 30°   | 620.1 | 616.3 | 613.7 | 613.7 | 611.0 |
| 32.5° | 593.2 | 590.6 | 586.0 | 583.3 | 579.9 |
| 35°   | 562.5 | 558.7 | 552.3 | 547.3 | 539.8 |
| 37.5° | 529.5 | 525.0 | 517.0 | 504.5 | 494.3 |
| 40°   | 492.4 | 486.7 | 479.9 | 455.2 | 436.7 |
| 42.5° | 452.6 | 451.4 | 439.7 | 397.6 | 371.8 |
| 45°   | 410.5 | 412.0 | 395.0 | 338.5 | 315.0 |
| 47.5° | 368.1 | 373.4 | 342.3 | 286.9 | 274.8 |
| 50°   | 330.9 | 332.8 | 291.5 | 249.0 | 242.2 |
| 52.5° | 292.6 | 289.6 | 248.7 | 219.1 | 214.2 |
| 55°   | 257.8 | 245.6 | 213.4 | 191.0 | 190.7 |
| 57.5° | 227.0 | 204.7 | 182.3 | 165.6 | 167.5 |
| 60°   | 194.8 | 169.8 | 153.1 | 144.0 | 146.7 |
| 62.5° | 166.4 | 142.5 | 127.7 | 125.1 | 129.6 |
| 65°   | 144.4 | 119.8 | 103.9 | 110.7 | 114.5 |
| 67.5° | 123.6 | 102.7 | 84.5  | 100.8 | 102.3 |
| 70°   | 104.2 | 89.1  | 71.3  | 92.9  | 93.2  |
| 72.5° | 88.3  | 78.8  | 61.8  | 84.1  | 85.3  |
| 75°   | 76.9  | 68.6  | 56.9  | 75.1  | 78.8  |
| 77.5° | 67.5  | 58.8  | 52.7  | 64.8  | 71.3  |
| 80°   | 57.2  | 47.4  | 48.1  | 54.2  | 60.6  |
| 82.5° | 44.0  | 36.8  | 38.3  | 44.7  | 49.3  |
| 85°   | 29.9  | 28.4  | 25.8  | 33.4  | 35.6  |
| 87.5° | 15.9  | 15.2  | 13.3  | 19.0  | 17.8  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)