

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: P225920

Luminaire Tested: **14GR-LD5-20-A-UNV-L940-CD1-U**

Issue Date: 3/12/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P225920  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33314)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/12/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14GR-LD5-20-A-UNV-L940-CD1-U  
Description: METALUX GR 1X4 LED TROFFER WITH A LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1793.9 lumens  
Efficiency: N/A  
Efficacy: 103.7 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.26  
Luminous Opening: Rectangular (W 0.83' x L: 3.83' x H: 0')  
CIE Type: Direct

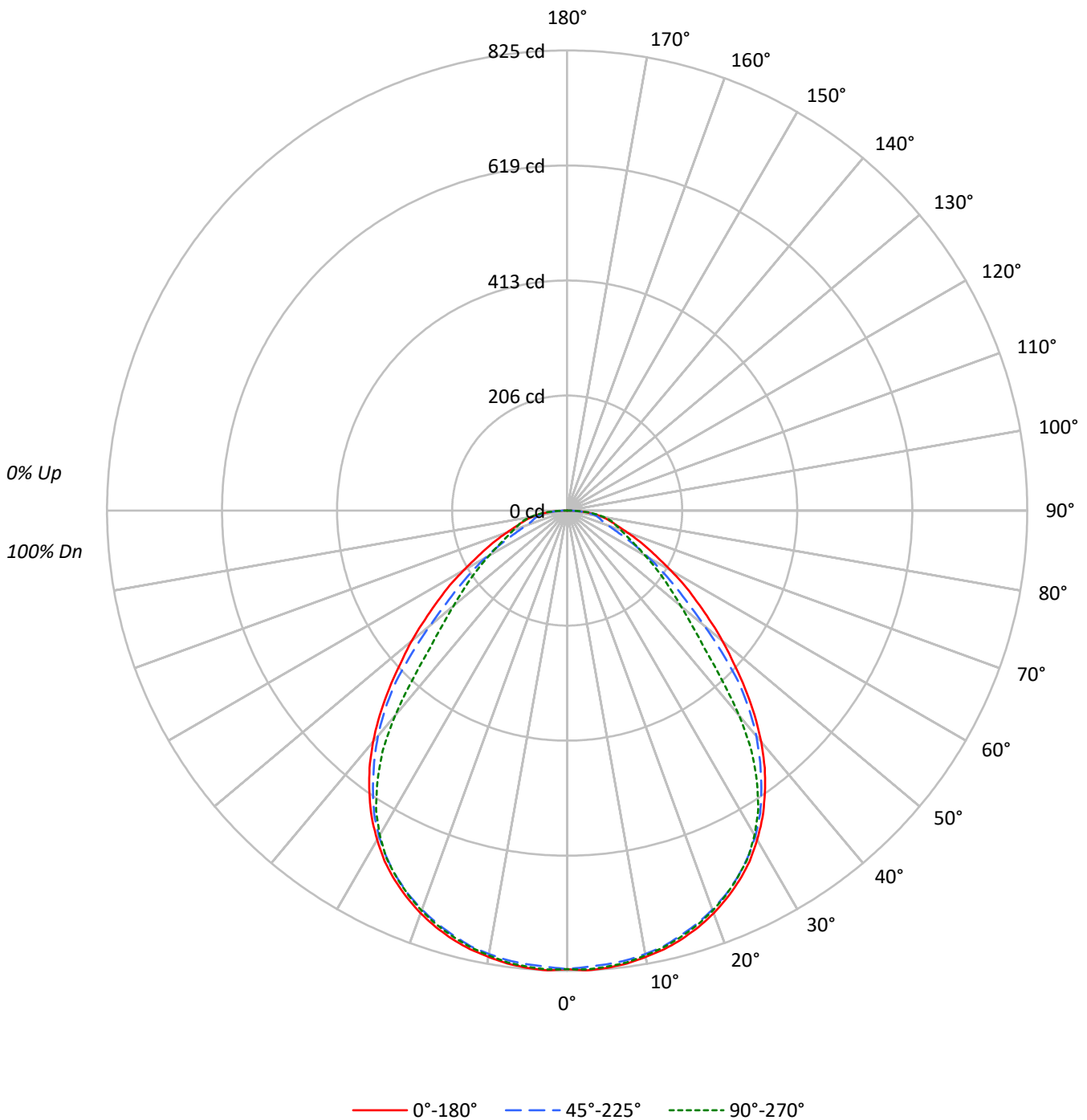
Input Watts (W): 17.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2770 | 2770 | 2770 |
| 5°  | 2783 | 2762 | 2776 |
| 10° | 2780 | 2763 | 2770 |
| 15° | 2775 | 2750 | 2759 |
| 20° | 2755 | 2730 | 2737 |
| 25° | 2719 | 2692 | 2694 |
| 30° | 2652 | 2625 | 2613 |
| 35° | 2543 | 2497 | 2441 |
| 40° | 2381 | 2320 | 2111 |
| 45° | 2150 | 2069 | 1650 |
| 50° | 1907 | 1680 | 1396 |
| 55° | 1665 | 1378 | 1231 |
| 60° | 1443 | 1134 | 1086 |
| 65° | 1266 | 911  | 1003 |
| 70° | 1129 | 771  | 1010 |
| 75° | 1101 | 814  | 1129 |
| 80° | 1222 | 1027 | 1292 |
| 85° | 1272 | 1094 | 1512 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 78.0   | 4.3       |
| 10°-20°   | 223.4  | 12.5      |
| 20°-30°   | 334.2  | 18.6      |
| 30°-40°   | 377.3  | 21.0      |
| 40°-50°   | 320.1  | 17.8      |
| 50°-60°   | 216.6  | 12.1      |
| 60°-70°   | 129.3  | 7.2       |
| 70°-80°   | 81.0   | 4.5       |
| 80°-90°   | 34.1   | 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°    | 635.7  | 35.4      |
| 0°-40°    | 1013.0 | 56.5      |
| 0°-60°    | 1549.6 | 86.4      |
| 0°-90°    | 1793.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1793.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 822 | 822   | 822 | 822   | 822 |      |
| 5°  | 823 | 820   | 817 | 822   | 821 | 78   |
| 15° | 795 | 794   | 788 | 794   | 791 | 224  |
| 25° | 731 | 729   | 724 | 728   | 725 | 336  |
| 35° | 618 | 614   | 607 | 602   | 593 | 385  |
| 45° | 451 | 453   | 434 | 372   | 346 | 348  |
| 55° | 283 | 270   | 235 | 210   | 210 | 255  |
| 65° | 159 | 132   | 114 | 122   | 126 | 159  |
| 75° | 85  | 75    | 62  | 82    | 87  | 91   |
| 85° | 33  | 31    | 28  | 37    | 39  | 35   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 822.1 | 822.1 | 822.1 | 822.1 | 822.1 |
| 2.5°  | 825.0 | 822.5 | 818.7 | 823.7 | 823.4 |
| 5°    | 822.9 | 820.4 | 816.7 | 822.5 | 820.8 |
| 7.5°  | 819.2 | 817.1 | 813.3 | 818.7 | 817.1 |
| 10°   | 812.5 | 810.8 | 807.5 | 812.1 | 809.6 |
| 12.5° | 805.4 | 804.2 | 800.0 | 804.2 | 801.7 |
| 15°   | 795.4 | 793.8 | 788.4 | 793.8 | 790.9 |
| 17.5° | 782.9 | 780.8 | 776.2 | 780.8 | 778.3 |
| 20°   | 768.3 | 765.8 | 761.3 | 765.8 | 763.3 |
| 22.5° | 750.8 | 748.7 | 744.6 | 748.7 | 745.4 |
| 25°   | 731.3 | 728.8 | 724.1 | 727.5 | 724.6 |
| 27.5° | 708.7 | 705.4 | 701.2 | 703.7 | 702.1 |
| 30°   | 681.6 | 677.5 | 674.6 | 674.6 | 671.7 |
| 32.5° | 652.1 | 649.1 | 644.1 | 641.2 | 637.5 |
| 35°   | 618.3 | 614.1 | 607.1 | 601.7 | 593.3 |
| 37.5° | 582.0 | 577.1 | 568.3 | 554.6 | 543.3 |
| 40°   | 541.3 | 535.0 | 527.5 | 500.4 | 480.0 |
| 42.5° | 497.5 | 496.2 | 483.3 | 437.1 | 408.8 |
| 45°   | 451.2 | 452.9 | 434.1 | 372.0 | 346.2 |
| 47.5° | 404.5 | 410.4 | 376.2 | 315.4 | 302.1 |
| 50°   | 363.8 | 365.8 | 320.4 | 273.7 | 266.3 |
| 52.5° | 321.6 | 318.3 | 273.3 | 240.8 | 235.4 |
| 55°   | 283.4 | 270.0 | 234.6 | 210.0 | 209.6 |
| 57.5° | 249.6 | 225.0 | 200.4 | 182.1 | 184.1 |
| 60°   | 214.1 | 186.7 | 168.3 | 158.3 | 161.2 |
| 62.5° | 182.9 | 156.7 | 140.4 | 137.5 | 142.5 |
| 65°   | 158.8 | 131.7 | 114.2 | 121.7 | 125.8 |
| 67.5° | 135.8 | 112.9 | 92.9  | 110.9 | 112.5 |
| 70°   | 114.6 | 98.0  | 78.3  | 102.1 | 102.5 |
| 72.5° | 97.1  | 86.7  | 67.9  | 92.5  | 93.7  |
| 75°   | 84.6  | 75.4  | 62.5  | 82.5  | 86.7  |
| 77.5° | 74.1  | 64.6  | 57.9  | 71.2  | 78.3  |
| 80°   | 63.0  | 52.1  | 52.9  | 59.6  | 66.6  |
| 82.5° | 48.3  | 40.4  | 42.1  | 49.2  | 54.2  |
| 85°   | 32.9  | 31.2  | 28.3  | 36.6  | 39.1  |
| 87.5° | 17.5  | 16.7  | 14.6  | 20.8  | 19.6  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)