

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: P290884

Luminaire Tested: **14GR-LD5-43-F125-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P290884  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33313)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14GR-LD5-43-F125-UNV-L93050-W2A1-U-4500K  
Description: GRLED 1x4 TUNABLE WHITE TROFFER  
WITH F125 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4075.0 lumens  
Efficiency: N/A  
Efficacy: 106.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.16 / 1.24  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

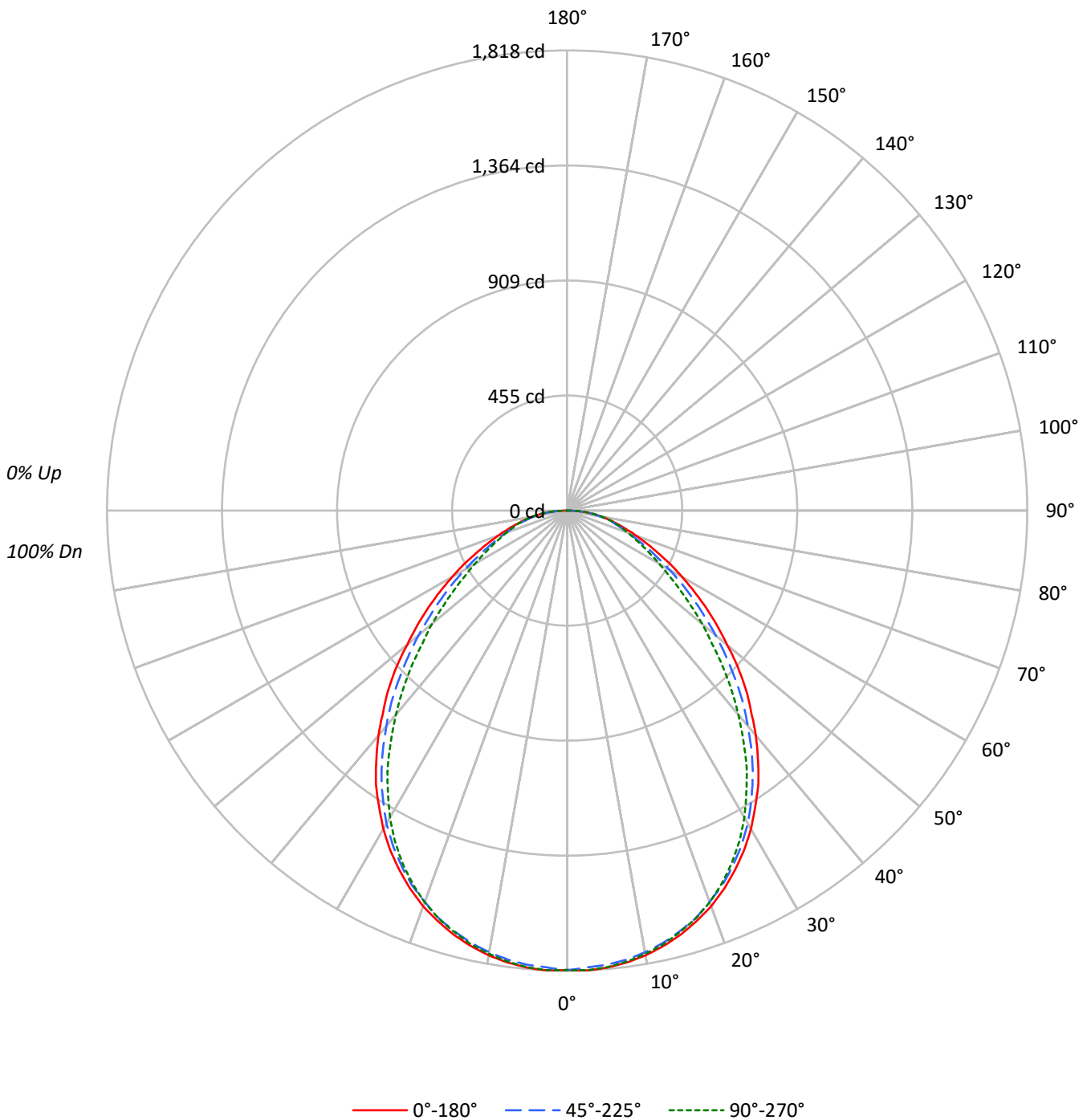
Input Watts (W): 38.13  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 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 | 105 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  | 95  | 92  | 90  | 91  | 89  | 88  | 85  |    |    |    |    | 85  |   |  |   |
| 2   | 101 | 93  | 87  | 81  | 98  | 91  | 85  | 80  | 88  | 83  | 78  | 84  | 80  | 77  | 81  | 78  | 75  | 73  |    |    |    |    | 73  |   |  |   |
| 3   | 92  | 83  | 75  | 69  | 90  | 81  | 74  | 68  | 78  | 72  | 67  | 75  | 70  | 66  | 73  | 69  | 65  | 63  |    |    |    |    | 63  |   |  |   |
| 4   | 85  | 74  | 66  | 59  | 83  | 73  | 65  | 59  | 70  | 64  | 58  | 68  | 62  | 58  | 66  | 61  | 57  | 55  |    |    |    |    | 55  |   |  |   |
| 5   | 79  | 67  | 58  | 52  | 77  | 66  | 58  | 52  | 64  | 57  | 51  | 62  | 55  | 51  | 60  | 54  | 50  | 48  |    |    |    |    | 48  |   |  |   |
| 6   | 73  | 60  | 52  | 46  | 71  | 60  | 52  | 46  | 58  | 51  | 45  | 56  | 50  | 45  | 55  | 49  | 45  | 43  |    |    |    |    | 43  |   |  |   |
| 7   | 68  | 55  | 47  | 41  | 66  | 54  | 47  | 41  | 53  | 46  | 41  | 51  | 45  | 40  | 50  | 44  | 40  | 38  |    |    |    |    | 38  |   |  |   |
| 8   | 64  | 51  | 43  | 37  | 62  | 50  | 42  | 37  | 49  | 42  | 37  | 47  | 41  | 36  | 46  | 41  | 36  | 34  |    |    |    |    | 34  |   |  |   |
| 9   | 60  | 47  | 39  | 34  | 58  | 46  | 39  | 33  | 45  | 38  | 33  | 44  | 38  | 33  | 43  | 37  | 33  | 31  |    |    |    |    | 31  |   |  |   |
| 10  | 56  | 43  | 36  | 31  | 55  | 43  | 35  | 31  | 42  | 35  | 30  | 41  | 35  | 30  | 40  | 34  | 30  | 28  |    |    |    |    | 28  |   |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4885 | 4885 | 4885 |
| 5°  | 4896 | 4865 | 4891 |
| 10° | 4874 | 4843 | 4859 |
| 15° | 4831 | 4794 | 4802 |
| 20° | 4763 | 4711 | 4714 |
| 25° | 4655 | 4598 | 4567 |
| 30° | 4511 | 4434 | 4351 |
| 35° | 4327 | 4201 | 4063 |
| 40° | 4076 | 3901 | 3696 |
| 45° | 3800 | 3571 | 3305 |
| 50° | 3455 | 3203 | 2919 |
| 55° | 3146 | 2840 | 2544 |
| 60° | 2821 | 2502 | 2260 |
| 65° | 2515 | 2229 | 2077 |
| 70° | 2288 | 2031 | 2009 |
| 75° | 2138 | 1979 | 2078 |
| 80° | 2149 | 2046 | 2163 |
| 85° | 2245 | 2096 | 2393 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 171.7  | 4.2       |
| 10°-20°   | 486.6  | 11.9      |
| 20°-30°   | 713.5  | 17.5      |
| 30°-40°   | 796.4  | 19.5      |
| 40°-50°   | 721.0  | 17.7      |
| 50°-60°   | 544.4  | 13.4      |
| 60°-70°   | 355.9  | 8.7       |
| 70°-80°   | 209.0  | 5.1       |
| 80°-90°   | 76.5   | 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°    | 1371.8 | 33.7      |
| 0°-40°    | 2168.2 | 53.2      |
| 0°-60°    | 3433.6 | 84.3      |
| 0°-90°    | 4075.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4075.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1815 | 1815  | 1815 | 1815  | 1815 |      |
| 5°  | 1812 | 1809  | 1801 | 1812  | 1811 | 172  |
| 15° | 1734 | 1731  | 1721 | 1730  | 1724 | 489  |
| 25° | 1568 | 1562  | 1548 | 1546  | 1538 | 721  |
| 35° | 1317 | 1306  | 1279 | 1250  | 1237 | 820  |
| 45° | 999  | 983   | 938  | 888   | 868  | 767  |
| 55° | 670  | 655   | 605  | 558   | 542  | 600  |
| 65° | 395  | 383   | 350  | 330   | 326  | 396  |
| 75° | 206  | 200   | 190  | 194   | 200  | 221  |
| 85° | 73   | 70    | 68   | 76    | 78   | 77   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1815.4 | 1815.4 | 1815.4 | 1815.4 | 1815.4 |
| 2.5°  | 1818.3 | 1815.4 | 1806.8 | 1818.3 | 1817.3 |
| 5°    | 1812.5 | 1808.7 | 1801.0 | 1811.6 | 1810.6 |
| 7.5°  | 1801.0 | 1797.2 | 1789.6 | 1799.1 | 1797.2 |
| 10°   | 1783.8 | 1780.0 | 1772.3 | 1782.9 | 1778.1 |
| 12.5° | 1761.8 | 1758.0 | 1749.4 | 1759.0 | 1755.1 |
| 15°   | 1734.1 | 1731.2 | 1720.7 | 1730.3 | 1723.6 |
| 17.5° | 1700.6 | 1695.8 | 1688.2 | 1693.9 | 1689.1 |
| 20°   | 1663.3 | 1657.6 | 1645.1 | 1650.9 | 1646.1 |
| 22.5° | 1618.4 | 1610.7 | 1602.1 | 1602.1 | 1595.4 |
| 25°   | 1567.7 | 1561.9 | 1548.5 | 1545.7 | 1538.0 |
| 27.5° | 1513.1 | 1508.4 | 1491.1 | 1486.4 | 1473.0 |
| 30°   | 1451.9 | 1445.2 | 1427.1 | 1411.8 | 1400.3 |
| 32.5° | 1384.0 | 1379.2 | 1354.4 | 1334.3 | 1318.0 |
| 35°   | 1317.1 | 1305.6 | 1278.8 | 1250.1 | 1236.7 |
| 37.5° | 1238.6 | 1230.0 | 1196.5 | 1161.2 | 1143.0 |
| 40°   | 1160.2 | 1149.7 | 1110.5 | 1071.3 | 1052.1 |
| 42.5° | 1075.1 | 1065.5 | 1028.2 | 981.3  | 961.3  |
| 45°   | 998.6  | 983.3  | 938.3  | 887.6  | 868.5  |
| 47.5° | 914.4  | 898.1  | 850.3  | 796.7  | 774.7  |
| 50°   | 825.4  | 814.9  | 765.2  | 713.5  | 697.3  |
| 52.5° | 746.0  | 729.8  | 682.9  | 632.2  | 615.0  |
| 55°   | 670.5  | 655.2  | 605.4  | 557.6  | 542.3  |
| 57.5° | 594.9  | 577.7  | 534.7  | 491.6  | 476.3  |
| 60°   | 524.1  | 506.9  | 464.8  | 429.5  | 419.9  |
| 62.5° | 460.1  | 440.9  | 403.6  | 375.9  | 369.2  |
| 65°   | 395.0  | 382.6  | 350.1  | 330.0  | 326.2  |
| 67.5° | 340.5  | 325.2  | 299.4  | 289.8  | 287.9  |
| 70°   | 290.8  | 280.2  | 258.2  | 255.4  | 255.4  |
| 72.5° | 245.8  | 237.2  | 220.9  | 222.9  | 225.7  |
| 75°   | 205.6  | 199.9  | 190.3  | 194.2  | 199.9  |
| 77.5° | 171.2  | 165.5  | 159.7  | 165.5  | 169.3  |
| 80°   | 138.7  | 132.9  | 132.0  | 136.8  | 139.6  |
| 82.5° | 104.3  | 99.5   | 100.4  | 108.1  | 111.0  |
| 85°   | 72.7   | 69.8   | 67.9   | 76.5   | 77.5   |
| 87.5° | 37.3   | 35.4   | 34.4   | 41.1   | 39.2   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)