

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: P290762

Luminaire Tested: **14GR-LD5-24-F125-UNV-L83050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P290762  
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-LD5-24-F125-UNV-L83050-W2A1-U-5000K  
Description: GRLED 1x4 TUNABLE WHITE TROFFER  
WITH F125 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2558.0 lumens  
Efficiency: N/A  
Efficacy: 133.5 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

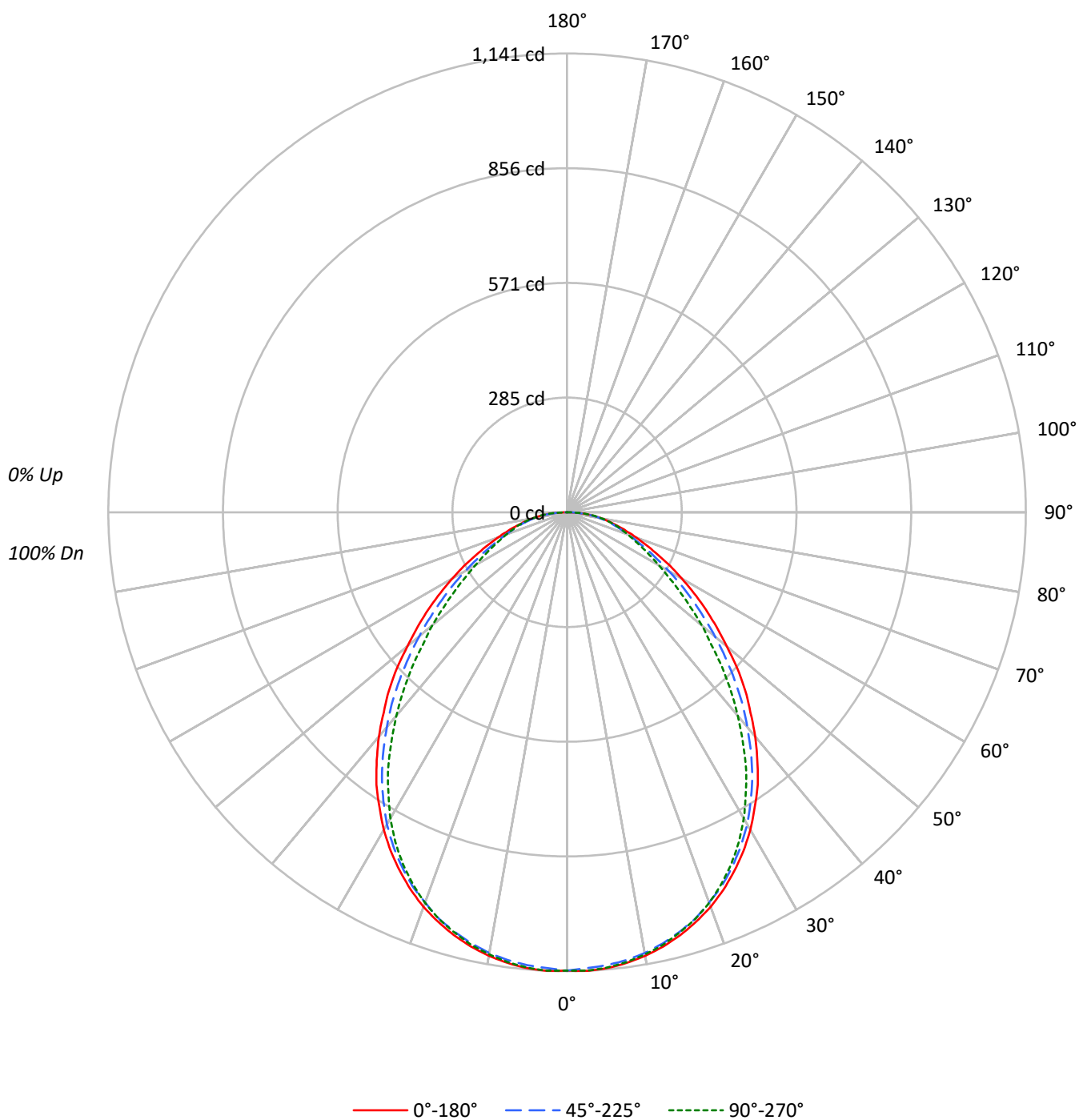
Input Watts (W): 19.158  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 110 | 105 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  |  | 95  | 92  | 90  |  | 91  |
| 2   | 101 | 93  | 87  | 81  | 98  | 91  | 85  | 80  | 88  | 83  | 78  |  | 84  | 80  | 77  |  | 81  |
| 3   | 92  | 83  | 75  | 69  | 90  | 81  | 74  | 68  | 78  | 72  | 67  |  | 75  | 70  | 66  |  | 73  |
| 4   | 85  | 74  | 66  | 59  | 83  | 73  | 65  | 59  | 70  | 64  | 58  |  | 68  | 62  | 58  |  | 66  |
| 5   | 79  | 67  | 58  | 52  | 77  | 66  | 58  | 52  | 64  | 57  | 51  |  | 62  | 55  | 51  |  | 60  |
| 6   | 73  | 60  | 52  | 46  | 71  | 60  | 52  | 46  | 58  | 51  | 45  |  | 56  | 50  | 45  |  | 55  |
| 7   | 68  | 55  | 47  | 41  | 66  | 54  | 47  | 41  | 53  | 46  | 41  |  | 51  | 45  | 40  |  | 50  |
| 8   | 64  | 51  | 43  | 37  | 62  | 50  | 42  | 37  | 49  | 42  | 37  |  | 47  | 41  | 36  |  | 46  |
| 9   | 60  | 47  | 39  | 34  | 58  | 46  | 39  | 33  | 45  | 38  | 33  |  | 44  | 38  | 33  |  | 43  |
| 10  | 56  | 43  | 36  | 31  | 55  | 43  | 35  | 31  | 42  | 35  | 30  |  | 41  | 35  | 30  |  | 40  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3067 | 3067 | 3067 |
| 5°  | 3073 | 3054 | 3070 |
| 10° | 3060 | 3040 | 3050 |
| 15° | 3032 | 3009 | 3014 |
| 20° | 2990 | 2957 | 2959 |
| 25° | 2922 | 2886 | 2867 |
| 30° | 2832 | 2783 | 2731 |
| 35° | 2716 | 2637 | 2550 |
| 40° | 2558 | 2449 | 2320 |
| 45° | 2385 | 2242 | 2075 |
| 50° | 2169 | 2011 | 1832 |
| 55° | 1975 | 1783 | 1597 |
| 60° | 1771 | 1570 | 1419 |
| 65° | 1579 | 1399 | 1303 |
| 70° | 1436 | 1275 | 1261 |
| 75° | 1342 | 1242 | 1305 |
| 80° | 1350 | 1285 | 1359 |
| 85° | 1408 | 1315 | 1501 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 107.8  | 4.2       |
| 10°-20°   | 305.5  | 11.9      |
| 20°-30°   | 447.9  | 17.5      |
| 30°-40°   | 499.9  | 19.5      |
| 40°-50°   | 452.6  | 17.7      |
| 50°-60°   | 341.7  | 13.4      |
| 60°-70°   | 223.4  | 8.7       |
| 70°-80°   | 131.2  | 5.1       |
| 80°-90°   | 48.0   | 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°    | 861.1  | 33.7      |
| 0°-40°    | 1361.0 | 53.2      |
| 0°-60°    | 2155.4 | 84.3      |
| 0°-90°    | 2558.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2558.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1140 | 1140  | 1140 | 1140  | 1140 |      |
| 5°  | 1138 | 1135  | 1131 | 1137  | 1137 | 108  |
| 15° | 1088 | 1087  | 1080 | 1086  | 1082 | 307  |
| 25° | 984  | 980   | 972  | 970   | 966  | 453  |
| 35° | 827  | 820   | 803  | 785   | 776  | 515  |
| 45° | 627  | 617   | 589  | 557   | 545  | 482  |
| 55° | 421  | 411   | 380  | 350   | 340  | 377  |
| 65° | 248  | 240   | 220  | 207   | 205  | 249  |
| 75° | 129  | 126   | 120  | 122   | 126  | 139  |
| 85° | 46   | 44    | 43   | 48    | 49   | 48   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1139.6 | 1139.6 | 1139.6 | 1139.6 | 1139.6 |
| 2.5°  | 1141.4 | 1139.6 | 1134.2 | 1141.4 | 1140.8 |
| 5°    | 1137.8 | 1135.4 | 1130.6 | 1137.2 | 1136.6 |
| 7.5°  | 1130.6 | 1128.2 | 1123.4 | 1129.4 | 1128.2 |
| 10°   | 1119.8 | 1117.4 | 1112.6 | 1119.2 | 1116.2 |
| 12.5° | 1105.9 | 1103.5 | 1098.1 | 1104.1 | 1101.7 |
| 15°   | 1088.5 | 1086.7 | 1080.1 | 1086.1 | 1081.9 |
| 17.5° | 1067.5 | 1064.5 | 1059.7 | 1063.3 | 1060.3 |
| 20°   | 1044.1 | 1040.5 | 1032.7 | 1036.3 | 1033.3 |
| 22.5° | 1015.9 | 1011.1 | 1005.7 | 1005.7 | 1001.5 |
| 25°   | 984.1  | 980.5  | 972.1  | 970.3  | 965.5  |
| 27.5° | 949.8  | 946.8  | 936.0  | 933.0  | 924.6  |
| 30°   | 911.4  | 907.2  | 895.8  | 886.2  | 879.0  |
| 32.5° | 868.8  | 865.8  | 850.2  | 837.6  | 827.4  |
| 35°   | 826.8  | 819.6  | 802.7  | 784.7  | 776.3  |
| 37.5° | 777.5  | 772.1  | 751.1  | 728.9  | 717.5  |
| 40°   | 728.3  | 721.7  | 697.1  | 672.5  | 660.4  |
| 42.5° | 674.9  | 668.9  | 645.4  | 616.0  | 603.4  |
| 45°   | 626.8  | 617.2  | 589.0  | 557.2  | 545.2  |
| 47.5° | 574.0  | 563.8  | 533.8  | 500.1  | 486.3  |
| 50°   | 518.2  | 511.5  | 480.3  | 447.9  | 437.7  |
| 52.5° | 468.3  | 458.1  | 428.7  | 396.9  | 386.1  |
| 55°   | 420.9  | 411.3  | 380.1  | 350.0  | 340.4  |
| 57.5° | 373.5  | 362.6  | 335.6  | 308.6  | 299.0  |
| 60°   | 329.0  | 318.2  | 291.8  | 269.6  | 263.6  |
| 62.5° | 288.8  | 276.8  | 253.4  | 236.0  | 231.8  |
| 65°   | 248.0  | 240.2  | 219.7  | 207.1  | 204.7  |
| 67.5° | 213.7  | 204.1  | 187.9  | 181.9  | 180.7  |
| 70°   | 182.5  | 175.9  | 162.1  | 160.3  | 160.3  |
| 72.5° | 154.3  | 148.9  | 138.7  | 139.9  | 141.7  |
| 75°   | 129.1  | 125.5  | 119.5  | 121.9  | 125.5  |
| 77.5° | 107.5  | 103.9  | 100.3  | 103.9  | 106.3  |
| 80°   | 87.1   | 83.5   | 82.9   | 85.9   | 87.7   |
| 82.5° | 65.4   | 62.4   | 63.0   | 67.8   | 69.6   |
| 85°   | 45.6   | 43.8   | 42.6   | 48.0   | 48.6   |
| 87.5° | 23.4   | 22.2   | 21.6   | 25.8   | 24.6   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)