

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: P290813

Luminaire Tested: **14GR-LD5-28-F125-UNV-L82765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P290813  
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-LD5-28-F125-UNV-L82765-W2A1-U-5700K  
Description: GRLED 1x4 TUNABLE WHITE TROFFER  
WITH F125 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3004.0 lumens  
Efficiency: N/A  
Efficacy: 131.3 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

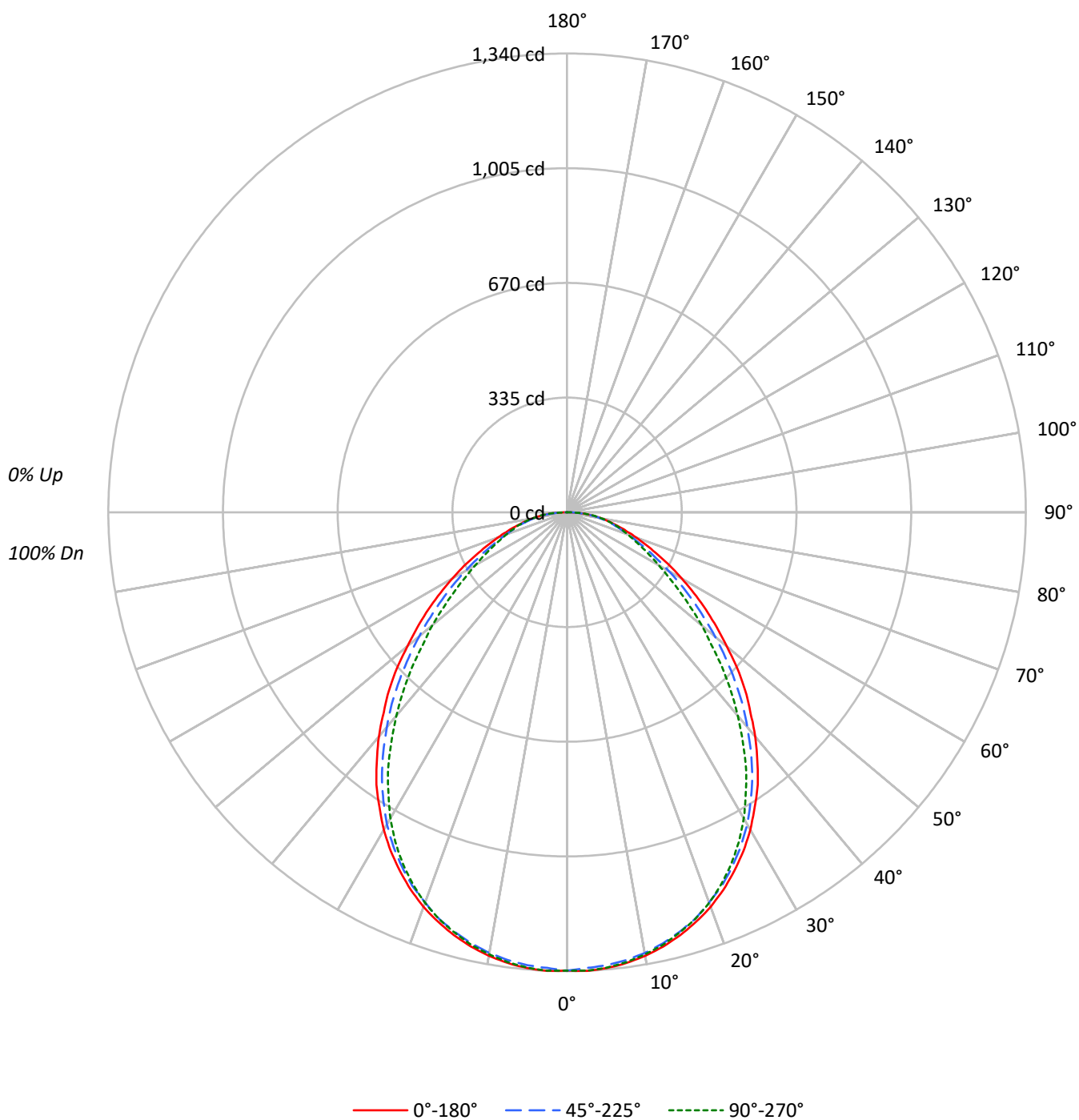
Input Watts (W): 22.878  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°  | 3601 | 3601 | 3601 |
| 5°  | 3609 | 3586 | 3605 |
| 10° | 3593 | 3570 | 3582 |
| 15° | 3561 | 3534 | 3540 |
| 20° | 3511 | 3473 | 3475 |
| 25° | 3431 | 3389 | 3366 |
| 30° | 3326 | 3269 | 3208 |
| 35° | 3189 | 3097 | 2995 |
| 40° | 3005 | 2876 | 2725 |
| 45° | 2801 | 2632 | 2436 |
| 50° | 2547 | 2362 | 2152 |
| 55° | 2319 | 2094 | 1876 |
| 60° | 2080 | 1844 | 1666 |
| 65° | 1854 | 1643 | 1531 |
| 70° | 1686 | 1498 | 1482 |
| 75° | 1576 | 1459 | 1533 |
| 80° | 1584 | 1508 | 1595 |
| 85° | 1655 | 1547 | 1763 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 126.5  | 4.2       |
| 10°-20°   | 358.7  | 11.9      |
| 20°-30°   | 526.0  | 17.5      |
| 30°-40°   | 587.1  | 19.5      |
| 40°-50°   | 531.5  | 17.7      |
| 50°-60°   | 401.3  | 13.4      |
| 60°-70°   | 262.3  | 8.7       |
| 70°-80°   | 154.1  | 5.1       |
| 80°-90°   | 56.4   | 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°    | 1011.3 | 33.7      |
| 0°-40°    | 1598.3 | 53.2      |
| 0°-60°    | 2531.2 | 84.3      |
| 0°-90°    | 3004.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3004.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1338 | 1338  | 1338 | 1338  | 1338 |      |
| 5°  | 1336 | 1333  | 1328 | 1335  | 1335 | 127  |
| 15° | 1278 | 1276  | 1268 | 1276  | 1271 | 360  |
| 25° | 1156 | 1151  | 1142 | 1139  | 1134 | 532  |
| 35° | 971  | 962   | 943  | 922   | 912  | 605  |
| 45° | 736  | 725   | 692  | 654   | 640  | 566  |
| 55° | 494  | 483   | 446  | 411   | 400  | 442  |
| 65° | 291  | 282   | 258  | 243   | 240  | 292  |
| 75° | 152  | 147   | 140  | 143   | 147  | 163  |
| 85° | 54   | 52    | 50   | 56    | 57   | 57   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1338.3 | 1338.3 | 1338.3 | 1338.3 | 1338.3 |
| 2.5°  | 1340.4 | 1338.3 | 1331.9 | 1340.4 | 1339.7 |
| 5°    | 1336.1 | 1333.3 | 1327.7 | 1335.4 | 1334.7 |
| 7.5°  | 1327.7 | 1324.9 | 1319.2 | 1326.3 | 1324.9 |
| 10°   | 1315.0 | 1312.2 | 1306.5 | 1314.3 | 1310.8 |
| 12.5° | 1298.8 | 1296.0 | 1289.6 | 1296.7 | 1293.8 |
| 15°   | 1278.3 | 1276.2 | 1268.5 | 1275.5 | 1270.6 |
| 17.5° | 1253.7 | 1250.1 | 1244.5 | 1248.7 | 1245.2 |
| 20°   | 1226.2 | 1221.9 | 1212.8 | 1217.0 | 1213.5 |
| 22.5° | 1193.0 | 1187.4 | 1181.0 | 1181.0 | 1176.1 |
| 25°   | 1155.6 | 1151.4 | 1141.5 | 1139.4 | 1133.8 |
| 27.5° | 1115.5 | 1111.9 | 1099.2 | 1095.7 | 1085.8 |
| 30°   | 1070.3 | 1065.4 | 1052.0 | 1040.7 | 1032.3 |
| 32.5° | 1020.3 | 1016.7 | 998.4  | 983.6  | 971.6  |
| 35°   | 970.9  | 962.4  | 942.7  | 921.6  | 911.7  |
| 37.5° | 913.1  | 906.7  | 882.1  | 856.0  | 842.6  |
| 40°   | 855.3  | 847.5  | 818.6  | 789.7  | 775.6  |
| 42.5° | 792.5  | 785.5  | 758.0  | 723.4  | 708.6  |
| 45°   | 736.1  | 724.8  | 691.7  | 654.3  | 640.2  |
| 47.5° | 674.1  | 662.1  | 626.8  | 587.3  | 571.1  |
| 50°   | 608.5  | 600.7  | 564.1  | 526.0  | 514.0  |
| 52.5° | 550.0  | 538.0  | 503.4  | 466.1  | 453.4  |
| 55°   | 494.3  | 483.0  | 446.3  | 411.1  | 399.8  |
| 57.5° | 438.6  | 425.9  | 394.1  | 362.4  | 351.1  |
| 60°   | 386.4  | 373.7  | 342.7  | 316.6  | 309.5  |
| 62.5° | 339.1  | 325.0  | 297.5  | 277.1  | 272.2  |
| 65°   | 291.2  | 282.0  | 258.1  | 243.3  | 240.4  |
| 67.5° | 251.0  | 239.7  | 220.7  | 213.6  | 212.2  |
| 70°   | 214.3  | 206.6  | 190.4  | 188.3  | 188.3  |
| 72.5° | 181.2  | 174.9  | 162.9  | 164.3  | 166.4  |
| 75°   | 151.6  | 147.4  | 140.3  | 143.1  | 147.4  |
| 77.5° | 126.2  | 122.0  | 117.8  | 122.0  | 124.8  |
| 80°   | 102.2  | 98.0   | 97.3   | 100.8  | 102.9  |
| 82.5° | 76.9   | 73.3   | 74.0   | 79.7   | 81.8   |
| 85°   | 53.6   | 51.5   | 50.1   | 56.4   | 57.1   |
| 87.5° | 27.5   | 26.1   | 25.4   | 30.3   | 28.9   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)