

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: P290868

Luminaire Tested: **14GR-LD5-32-F125-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P290868  
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-LD5-32-F125-UNV-L93050-W2A1-U-4000K  
Description: GRLED 1x4 TUNABLE WHITE TROFFER  
WITH F125 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3002.0 lumens  
Efficiency: N/A  
Efficacy: 114.1 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

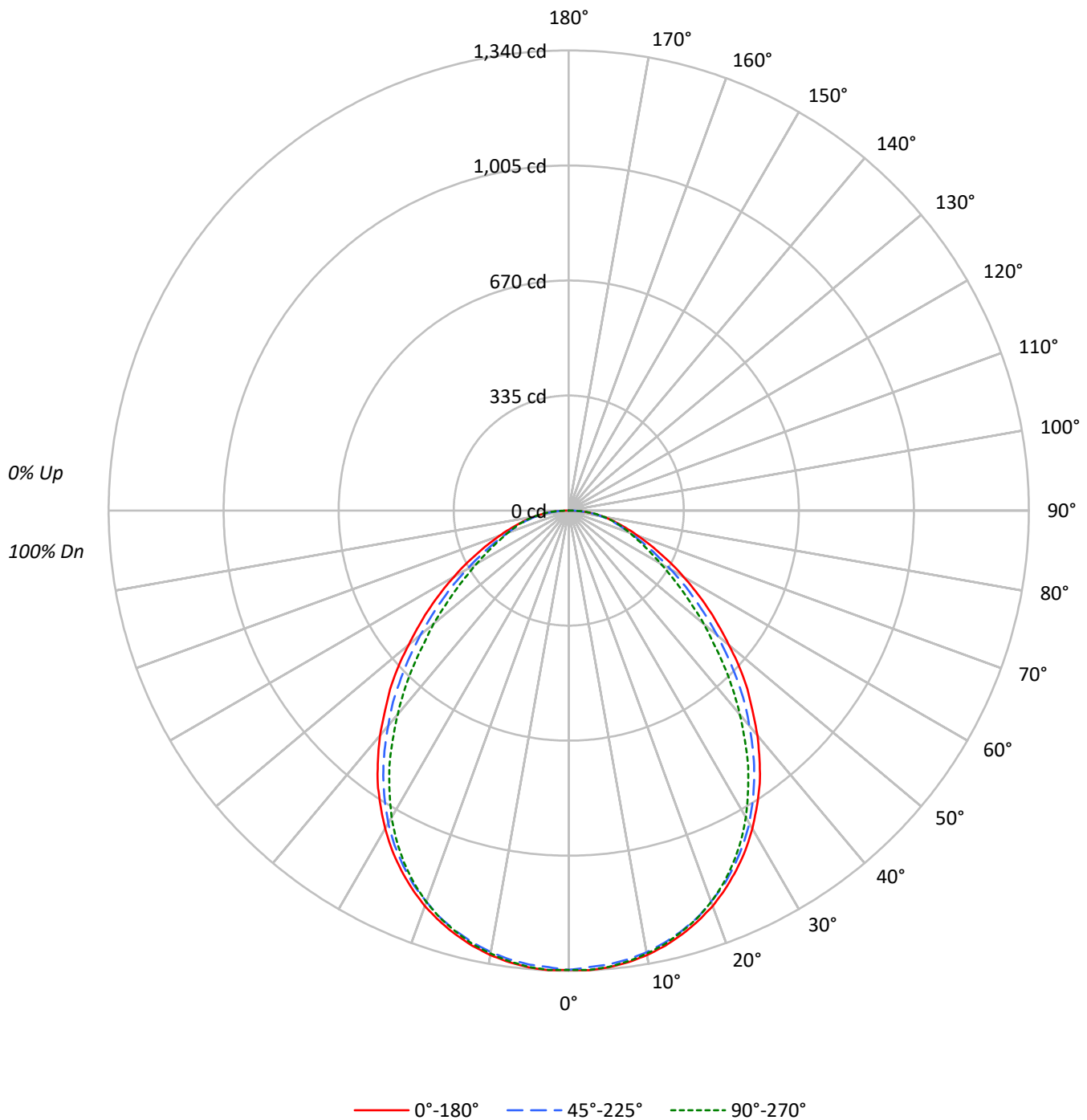
Input Watts (W): 26.319  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°  | 3599 | 3599 | 3599 |
| 5°  | 3607 | 3584 | 3603 |
| 10° | 3591 | 3568 | 3579 |
| 15° | 3559 | 3531 | 3537 |
| 20° | 3509 | 3470 | 3473 |
| 25° | 3429 | 3387 | 3364 |
| 30° | 3324 | 3267 | 3205 |
| 35° | 3188 | 3095 | 2993 |
| 40° | 3002 | 2874 | 2723 |
| 45° | 2799 | 2630 | 2435 |
| 50° | 2546 | 2360 | 2151 |
| 55° | 2317 | 2092 | 1874 |
| 60° | 2078 | 1843 | 1665 |
| 65° | 1853 | 1642 | 1530 |
| 70° | 1685 | 1496 | 1480 |
| 75° | 1575 | 1458 | 1531 |
| 80° | 1584 | 1506 | 1595 |
| 85° | 1655 | 1544 | 1763 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 126.5  | 4.2       |
| 10°-20°   | 358.5  | 11.9      |
| 20°-30°   | 525.6  | 17.5      |
| 30°-40°   | 586.7  | 19.5      |
| 40°-50°   | 531.1  | 17.7      |
| 50°-60°   | 401.1  | 13.4      |
| 60°-70°   | 262.2  | 8.7       |
| 70°-80°   | 154.0  | 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°    | 1010.6 | 33.7      |
| 0°-40°    | 1597.3 | 53.2      |
| 0°-60°    | 2529.5 | 84.3      |
| 0°-90°    | 3002.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3002.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1337 | 1337  | 1337 | 1337  | 1337 |      |
| 5°  | 1335 | 1332  | 1327 | 1335  | 1334 | 127  |
| 15° | 1278 | 1275  | 1268 | 1275  | 1270 | 360  |
| 25° | 1155 | 1151  | 1141 | 1139  | 1133 | 531  |
| 35° | 970  | 962   | 942  | 921   | 911  | 604  |
| 45° | 736  | 724   | 691  | 654   | 640  | 565  |
| 55° | 494  | 483   | 446  | 411   | 400  | 442  |
| 65° | 291  | 282   | 258  | 243   | 240  | 292  |
| 75° | 152  | 147   | 140  | 143   | 147  | 163  |
| 85° | 54   | 51    | 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°    | 1337.4 | 1337.4 | 1337.4 | 1337.4 | 1337.4 |
| 2.5°  | 1339.5 | 1337.4 | 1331.0 | 1339.5 | 1338.8 |
| 5°    | 1335.3 | 1332.4 | 1326.8 | 1334.6 | 1333.8 |
| 7.5°  | 1326.8 | 1324.0 | 1318.3 | 1325.4 | 1324.0 |
| 10°   | 1314.1 | 1311.3 | 1305.7 | 1313.4 | 1309.9 |
| 12.5° | 1297.9 | 1295.1 | 1288.8 | 1295.8 | 1293.0 |
| 15°   | 1277.5 | 1275.4 | 1267.6 | 1274.7 | 1269.7 |
| 17.5° | 1252.8 | 1249.3 | 1243.7 | 1247.9 | 1244.4 |
| 20°   | 1225.3 | 1221.1 | 1211.9 | 1216.2 | 1212.7 |
| 22.5° | 1192.2 | 1186.6 | 1180.2 | 1180.2 | 1175.3 |
| 25°   | 1154.9 | 1150.6 | 1140.8 | 1138.7 | 1133.0 |
| 27.5° | 1114.7 | 1111.2 | 1098.5 | 1095.0 | 1085.1 |
| 30°   | 1069.6 | 1064.7 | 1051.3 | 1040.0 | 1031.6 |
| 32.5° | 1019.6 | 1016.1 | 997.7  | 982.9  | 971.0  |
| 35°   | 970.3  | 961.8  | 942.1  | 920.9  | 911.1  |
| 37.5° | 912.5  | 906.1  | 881.5  | 855.4  | 842.0  |
| 40°   | 854.7  | 847.0  | 818.1  | 789.2  | 775.1  |
| 42.5° | 792.0  | 784.9  | 757.5  | 722.9  | 708.1  |
| 45°   | 735.6  | 724.4  | 691.2  | 653.9  | 639.8  |
| 47.5° | 673.6  | 661.6  | 626.4  | 586.9  | 570.7  |
| 50°   | 608.1  | 600.3  | 563.7  | 525.6  | 513.7  |
| 52.5° | 549.6  | 537.6  | 503.1  | 465.8  | 453.1  |
| 55°   | 493.9  | 482.7  | 446.0  | 410.8  | 399.5  |
| 57.5° | 438.3  | 425.6  | 393.9  | 362.2  | 350.9  |
| 60°   | 386.1  | 373.4  | 342.4  | 316.4  | 309.3  |
| 62.5° | 338.9  | 324.8  | 297.4  | 276.9  | 272.0  |
| 65°   | 291.0  | 281.8  | 257.9  | 243.1  | 240.3  |
| 67.5° | 250.8  | 239.6  | 220.5  | 213.5  | 212.1  |
| 70°   | 214.2  | 206.5  | 190.2  | 188.1  | 188.1  |
| 72.5° | 181.1  | 174.7  | 162.8  | 164.2  | 166.3  |
| 75°   | 151.5  | 147.3  | 140.2  | 143.0  | 147.3  |
| 77.5° | 126.1  | 121.9  | 117.7  | 121.9  | 124.7  |
| 80°   | 102.2  | 97.9   | 97.2   | 100.8  | 102.9  |
| 82.5° | 76.8   | 73.3   | 74.0   | 79.6   | 81.7   |
| 85°   | 53.6   | 51.4   | 50.0   | 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)