

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: P293377

Luminaire Tested: **24GR-LD5-56-F125-UNV-L92765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293377  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33304)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-56-F125-UNV-L92765-W2A1-U-2700K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH F125 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4416.0 lumens  
Efficiency: N/A  
Efficacy: 113.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.19 / 1.27  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

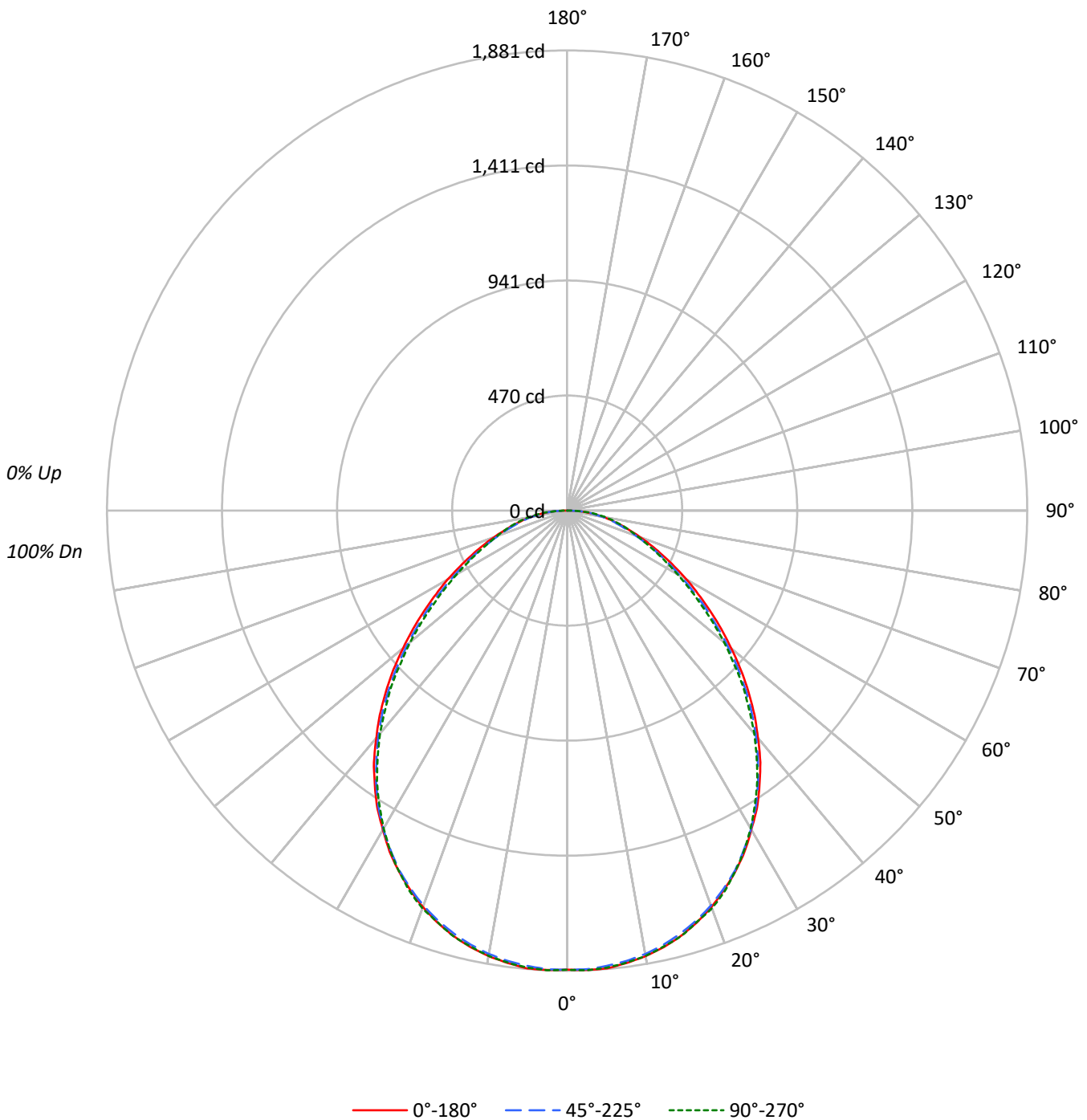
Input Watts (W): 38.874  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 109 | 105 | 101 | 97  | 107 | 103 | 99  | 96  | 98  | 95  | 93  | 95  | 92  | 90  | 91  | 89  | 87  | 85  |
| 2   | 100 | 92  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  | 84  | 80  | 76  | 81  | 77  | 74  | 72  |
| 3   | 92  | 82  | 74  | 68  | 90  | 80  | 73  | 68  | 78  | 71  | 66  | 75  | 70  | 65  | 72  | 68  | 64  | 62  |
| 4   | 85  | 73  | 65  | 59  | 82  | 72  | 64  | 58  | 70  | 63  | 57  | 67  | 61  | 57  | 65  | 60  | 56  | 54  |
| 5   | 78  | 66  | 57  | 51  | 76  | 65  | 57  | 51  | 63  | 56  | 50  | 61  | 55  | 50  | 59  | 54  | 49  | 47  |
| 6   | 73  | 60  | 51  | 45  | 71  | 59  | 51  | 45  | 57  | 50  | 44  | 55  | 49  | 44  | 54  | 48  | 44  | 42  |
| 7   | 67  | 54  | 46  | 40  | 66  | 54  | 46  | 40  | 52  | 45  | 40  | 51  | 44  | 39  | 49  | 44  | 39  | 37  |
| 8   | 63  | 50  | 42  | 36  | 61  | 49  | 41  | 36  | 48  | 41  | 36  | 47  | 40  | 36  | 46  | 40  | 35  | 33  |
| 9   | 59  | 46  | 38  | 33  | 58  | 45  | 38  | 33  | 44  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 32  | 30  |
| 10  | 55  | 43  | 35  | 30  | 54  | 42  | 35  | 30  | 41  | 34  | 30  | 40  | 34  | 29  | 39  | 33  | 29  | 28  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2525 | 2525 | 2525 |
| 5°  | 2537 | 2523 | 2533 |
| 10° | 2526 | 2514 | 2526 |
| 15° | 2507 | 2493 | 2509 |
| 20° | 2470 | 2460 | 2478 |
| 25° | 2416 | 2410 | 2415 |
| 30° | 2340 | 2336 | 2330 |
| 35° | 2252 | 2235 | 2226 |
| 40° | 2131 | 2107 | 2090 |
| 45° | 1994 | 1957 | 1933 |
| 50° | 1832 | 1783 | 1753 |
| 55° | 1671 | 1609 | 1563 |
| 60° | 1517 | 1436 | 1399 |
| 65° | 1367 | 1290 | 1268 |
| 70° | 1252 | 1170 | 1203 |
| 75° | 1170 | 1116 | 1198 |
| 80° | 1161 | 1139 | 1251 |
| 85° | 1183 | 1193 | 1365 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 177.6  | 4.0       |
| 10°-20°   | 505.0  | 11.4      |
| 20°-30°   | 746.0  | 16.9      |
| 30°-40°   | 848.1  | 19.2      |
| 40°-50°   | 792.1  | 17.9      |
| 50°-60°   | 616.0  | 13.9      |
| 60°-70°   | 408.7  | 9.3       |
| 70°-80°   | 236.5  | 5.4       |
| 80°-90°   | 86.0   | 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°    | 1428.6 | 32.4      |
| 0°-40°    | 2276.8 | 51.6      |
| 0°-60°    | 3684.8 | 83.4      |
| 0°-90°    | 4416.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4416.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1877 | 1877  | 1877 | 1877  | 1877 |      |
| 5°  | 1878 | 1868  | 1868 | 1871  | 1875 | 178  |
| 15° | 1800 | 1790  | 1790 | 1789  | 1801 | 507  |
| 25° | 1628 | 1621  | 1624 | 1620  | 1627 | 748  |
| 35° | 1371 | 1364  | 1360 | 1351  | 1355 | 856  |
| 45° | 1048 | 1040  | 1028 | 1015  | 1016 | 807  |
| 55° | 712  | 702   | 686  | 668   | 666  | 639  |
| 65° | 429  | 416   | 405  | 398   | 398  | 429  |
| 75° | 225  | 220   | 215  | 224   | 230  | 241  |
| 85° | 77   | 75    | 77   | 88    | 88   | 83   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1876.8 | 1876.8 | 1876.8 | 1876.8 | 1876.8 |
| 2.5°  | 1879.6 | 1874.0 | 1876.8 | 1874.7 | 1880.9 |
| 5°    | 1878.2 | 1868.5 | 1867.8 | 1871.3 | 1875.4 |
| 7.5°  | 1865.1 | 1854.7 | 1856.8 | 1856.8 | 1863.7 |
| 10°   | 1849.2 | 1838.8 | 1840.2 | 1840.9 | 1848.5 |
| 12.5° | 1827.8 | 1817.4 | 1818.1 | 1817.4 | 1825.0 |
| 15°   | 1799.5 | 1790.5 | 1789.8 | 1789.1 | 1800.9 |
| 17.5° | 1765.0 | 1752.6 | 1756.7 | 1757.4 | 1763.6 |
| 20°   | 1724.9 | 1715.3 | 1718.0 | 1717.4 | 1730.5 |
| 22.5° | 1677.3 | 1670.4 | 1672.5 | 1671.1 | 1683.5 |
| 25°   | 1627.6 | 1620.7 | 1623.5 | 1620.0 | 1626.9 |
| 27.5° | 1571.7 | 1566.9 | 1564.1 | 1562.0 | 1566.9 |
| 30°   | 1506.1 | 1503.4 | 1503.4 | 1494.4 | 1499.9 |
| 32.5° | 1444.0 | 1435.0 | 1435.0 | 1431.6 | 1428.1 |
| 35°   | 1370.8 | 1363.9 | 1360.5 | 1350.8 | 1355.0 |
| 37.5° | 1297.7 | 1281.8 | 1280.4 | 1272.8 | 1272.8 |
| 40°   | 1213.5 | 1204.5 | 1199.7 | 1191.4 | 1190.0 |
| 42.5° | 1133.4 | 1124.4 | 1116.1 | 1102.3 | 1099.6 |
| 45°   | 1047.8 | 1039.5 | 1028.5 | 1015.4 | 1016.1 |
| 47.5° | 962.9  | 951.2  | 940.8  | 924.9  | 922.9  |
| 50°   | 875.2  | 867.0  | 851.8  | 838.0  | 837.3  |
| 52.5° | 793.1  | 780.0  | 766.2  | 749.6  | 749.6  |
| 55°   | 712.3  | 702.0  | 686.1  | 668.2  | 666.1  |
| 57.5° | 635.0  | 625.4  | 607.4  | 594.3  | 590.9  |
| 60°   | 563.9  | 550.1  | 533.6  | 522.5  | 519.8  |
| 62.5° | 492.8  | 480.4  | 468.0  | 456.9  | 456.3  |
| 65°   | 429.3  | 416.2  | 405.2  | 397.6  | 398.3  |
| 67.5° | 372.0  | 361.0  | 348.6  | 346.5  | 347.2  |
| 70°   | 318.2  | 306.5  | 297.5  | 302.3  | 305.8  |
| 72.5° | 267.1  | 260.9  | 254.7  | 261.6  | 266.4  |
| 75°   | 225.0  | 219.5  | 214.7  | 224.3  | 230.5  |
| 77.5° | 186.4  | 182.2  | 181.5  | 189.8  | 195.3  |
| 80°   | 149.8  | 145.0  | 147.0  | 156.7  | 161.5  |
| 82.5° | 113.9  | 110.4  | 111.1  | 122.9  | 126.3  |
| 85°   | 76.6   | 75.2   | 77.3   | 87.7   | 88.4   |
| 87.5° | 40.7   | 40.7   | 42.1   | 48.3   | 46.2   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)