

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: P293185

Luminaire Tested: **24GR-LD5-48-F125-UNV-L83050-W2A1-U-5000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293185
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-LD5-48-F125-UNV-L83050-W2A1-U-5000K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH F125 LENS
Light Source: (336) 80 CRI LEDS TUNED TO 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5140.0 lumens
Efficiency: N/A
Efficacy: 149.4 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

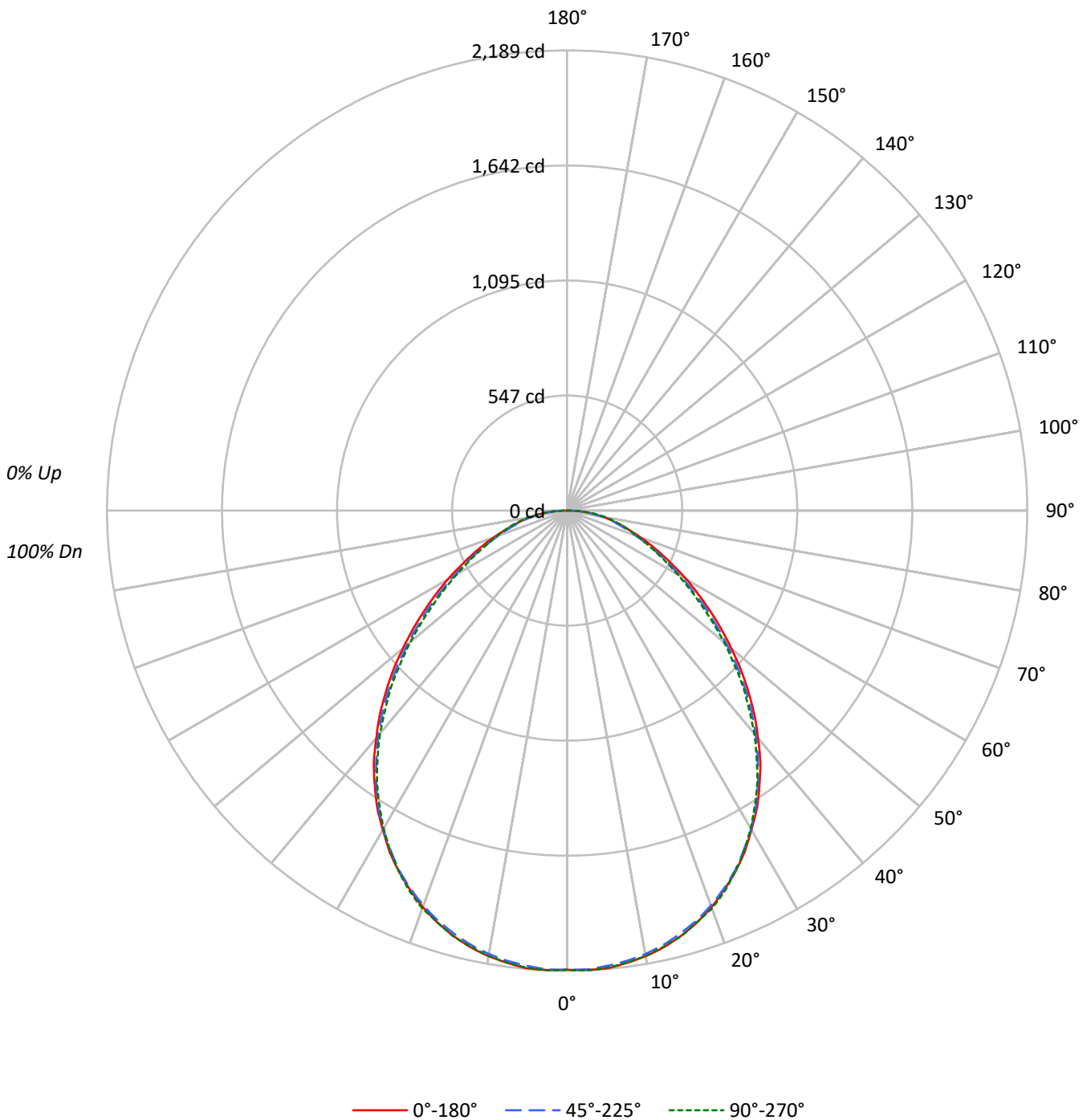
Input Watts (W): 34.41
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2939 | 2939 | 2939 |
| 5° | 2953 | 2936 | 2948 |
| 10° | 2941 | 2926 | 2940 |
| 15° | 2918 | 2902 | 2920 |
| 20° | 2875 | 2863 | 2884 |
| 25° | 2813 | 2805 | 2811 |
| 30° | 2724 | 2719 | 2712 |
| 35° | 2621 | 2601 | 2590 |
| 40° | 2481 | 2452 | 2433 |
| 45° | 2321 | 2278 | 2250 |
| 50° | 2132 | 2075 | 2040 |
| 55° | 1945 | 1873 | 1819 |
| 60° | 1766 | 1671 | 1628 |
| 65° | 1591 | 1501 | 1476 |
| 70° | 1457 | 1362 | 1400 |
| 75° | 1362 | 1299 | 1395 |
| 80° | 1351 | 1326 | 1457 |
| 85° | 1377 | 1389 | 1587 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 206.7 | 4.0 |
| 10°-20° | 587.8 | 11.4 |
| 20°-30° | 868.3 | 16.9 |
| 30°-40° | 987.2 | 19.2 |
| 40°-50° | 921.9 | 17.9 |
| 50°-60° | 716.9 | 13.9 |
| 60°-70° | 475.7 | 9.3 |
| 70°-80° | 275.3 | 5.4 |
| 80°-90° | 100.1 | 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° | 1662.8 | 32.4 |
| 0°-40° | 2650.0 | 51.6 |
| 0°-60° | 4288.9 | 83.4 |
| 0°-90° | 5140.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5140.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2184 | 2184 | 2184 | 2184 | 2184 | |
| 5° | 2186 | 2175 | 2174 | 2178 | 2183 | 207 |
| 15° | 2094 | 2084 | 2083 | 2082 | 2096 | 590 |
| 25° | 1894 | 1886 | 1890 | 1886 | 1894 | 871 |
| 35° | 1596 | 1588 | 1584 | 1572 | 1577 | 996 |
| 45° | 1220 | 1210 | 1197 | 1182 | 1183 | 940 |
| 55° | 829 | 817 | 799 | 778 | 775 | 744 |
| 65° | 500 | 484 | 472 | 463 | 464 | 499 |
| 75° | 262 | 256 | 250 | 261 | 268 | 280 |
| 85° | 89 | 88 | 90 | 102 | 103 | 97 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P293185

CATALOG NUMBER: 24GR-LD5-48-F125-UNV-L83050-W2A1-U-5000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2184.5 | 2184.5 | 2184.5 | 2184.5 | 2184.5 |
| 2.5° | 2187.7 | 2181.3 | 2184.5 | 2182.1 | 2189.3 |
| 5° | 2186.1 | 2174.9 | 2174.1 | 2178.1 | 2182.9 |
| 7.5° | 2170.8 | 2158.8 | 2161.2 | 2161.2 | 2169.2 |
| 10° | 2152.4 | 2140.3 | 2141.9 | 2142.7 | 2151.6 |
| 12.5° | 2127.5 | 2115.4 | 2116.2 | 2115.4 | 2124.2 |
| 15° | 2094.5 | 2084.1 | 2083.3 | 2082.5 | 2096.1 |
| 17.5° | 2054.3 | 2039.9 | 2044.7 | 2045.5 | 2052.7 |
| 20° | 2007.7 | 1996.5 | 1999.7 | 1998.9 | 2014.2 |
| 22.5° | 1952.3 | 1944.3 | 1946.7 | 1945.1 | 1959.5 |
| 25° | 1894.5 | 1886.4 | 1889.6 | 1885.6 | 1893.7 |
| 27.5° | 1829.4 | 1823.8 | 1820.6 | 1818.1 | 1823.8 |
| 30° | 1753.1 | 1749.8 | 1749.8 | 1739.4 | 1745.8 |
| 32.5° | 1680.8 | 1670.3 | 1670.3 | 1666.3 | 1662.3 |
| 35° | 1595.6 | 1587.6 | 1583.5 | 1572.3 | 1577.1 |
| 37.5° | 1510.4 | 1492.0 | 1490.3 | 1481.5 | 1481.5 |
| 40° | 1412.4 | 1402.0 | 1396.3 | 1386.7 | 1385.1 |
| 42.5° | 1319.2 | 1308.8 | 1299.1 | 1283.1 | 1279.8 |
| 45° | 1219.6 | 1210.0 | 1197.1 | 1181.8 | 1182.6 |
| 47.5° | 1120.8 | 1107.1 | 1095.1 | 1076.6 | 1074.2 |
| 50° | 1018.7 | 1009.1 | 991.4 | 975.4 | 974.5 |
| 52.5° | 923.1 | 907.9 | 891.8 | 872.5 | 872.5 |
| 55° | 829.1 | 817.1 | 798.6 | 777.7 | 775.3 |
| 57.5° | 739.1 | 727.9 | 707.0 | 691.7 | 687.7 |
| 60° | 656.4 | 640.3 | 621.0 | 608.2 | 605.0 |
| 62.5° | 573.6 | 559.2 | 544.7 | 531.9 | 531.1 |
| 65° | 499.7 | 484.5 | 471.6 | 462.8 | 463.6 |
| 67.5° | 433.0 | 420.2 | 405.7 | 403.3 | 404.1 |
| 70° | 370.4 | 356.7 | 346.3 | 351.9 | 355.9 |
| 72.5° | 310.9 | 303.7 | 296.5 | 304.5 | 310.1 |
| 75° | 261.9 | 255.5 | 249.9 | 261.1 | 268.3 |
| 77.5° | 216.9 | 212.1 | 211.3 | 220.9 | 227.4 |
| 80° | 174.3 | 168.7 | 171.1 | 182.4 | 188.0 |
| 82.5° | 132.6 | 128.5 | 129.4 | 143.0 | 147.0 |
| 85° | 89.2 | 87.6 | 90.0 | 102.0 | 102.8 |
| 87.5° | 47.4 | 47.4 | 49.0 | 56.2 | 53.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)