

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: P294403

Luminaire Tested: **24GR-LD5-72-FGW080-UNV-L92765-W2A1-U-2700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294403
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-25)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-72-FGW080-UNV-L92765-W2A1-U-2700K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH FGW080 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4940.0 lumens
Efficiency: N/A
Efficacy: 94.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

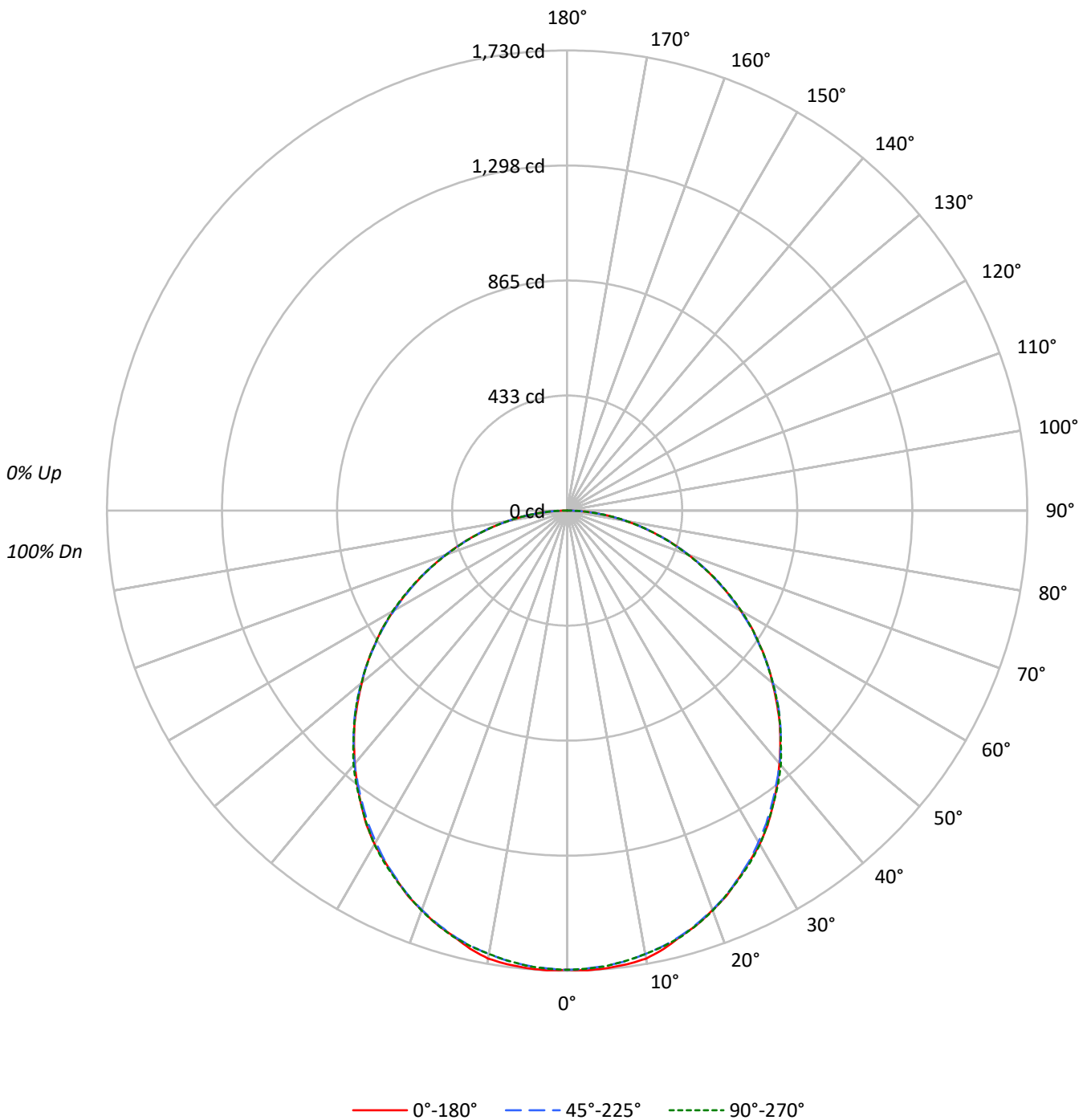
Input Watts (W): 52.452
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 24GR-LD5-72-FGW080-UNV-L92765-W2A1-U-2700K

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 | 108 | 103 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | 93 | 90 | 88 | 89 | 87 | 85 | 83 | | | | | 83 | | | |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 84 | 79 | 74 | 81 | 77 | 73 | 78 | 74 | 71 | 69 | | | | | 69 | | | |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 | | | | | 58 | | | |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 54 | 66 | 59 | 53 | 64 | 57 | 52 | 61 | 56 | 51 | 49 | | | | | 49 | | | |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 53 | 46 | 59 | 51 | 46 | 57 | 50 | 45 | 55 | 49 | 45 | 43 | | | | | 43 | | | |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 40 | 53 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 39 | 37 | | | | | 37 | | | |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 48 | 41 | 35 | 47 | 40 | 35 | 46 | 40 | 35 | 33 | | | | | 33 | | | |
| 8 | 60 | 46 | 38 | 32 | 58 | 46 | 37 | 32 | 44 | 37 | 32 | 43 | 36 | 31 | 42 | 36 | 31 | 29 | | | | | 29 | | | |
| 9 | 56 | 43 | 34 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 28 | 40 | 33 | 28 | 39 | 33 | 28 | 26 | | | | | 26 | | | |
| 10 | 53 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 30 | 26 | 36 | 30 | 26 | 24 | | | | | 24 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2323 | 2323 | 2323 |
| 5° | 2332 | 2319 | 2321 |
| 10° | 2337 | 2313 | 2313 |
| 15° | 2306 | 2305 | 2309 |
| 20° | 2289 | 2287 | 2292 |
| 25° | 2264 | 2262 | 2269 |
| 30° | 2250 | 2235 | 2252 |
| 35° | 2218 | 2206 | 2218 |
| 40° | 2181 | 2183 | 2196 |
| 45° | 2150 | 2157 | 2153 |
| 50° | 2110 | 2117 | 2112 |
| 55° | 2077 | 2072 | 2077 |
| 60° | 2028 | 2022 | 2041 |
| 65° | 1966 | 1973 | 1981 |
| 70° | 1902 | 1911 | 1897 |
| 75° | 1835 | 1835 | 1835 |
| 80° | 1733 | 1733 | 1751 |
| 85° | 1601 | 1619 | 1565 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 163.3 | 3.3 |
| 10°-20° | 466.7 | 9.4 |
| 20°-30° | 703.3 | 14.2 |
| 30°-40° | 842.4 | 17.1 |
| 40°-50° | 872.0 | 17.7 |
| 50°-60° | 790.6 | 16.0 |
| 60°-70° | 613.0 | 12.4 |
| 70°-80° | 372.8 | 7.5 |
| 80°-90° | 116.0 | 2.3 |
| 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° | 1333.3 | 27.0 |
| 0°-40° | 2175.7 | 44.0 |
| 0°-60° | 3838.3 | 77.7 |
| 0°-90° | 4940.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4940.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1727 | 1727 | 1727 | 1727 | 1727 | |
| 5° | 1727 | 1716 | 1717 | 1715 | 1718 | 164 |
| 15° | 1656 | 1657 | 1654 | 1648 | 1658 | 468 |
| 25° | 1525 | 1525 | 1524 | 1528 | 1528 | 704 |
| 35° | 1350 | 1341 | 1343 | 1349 | 1350 | 845 |
| 45° | 1130 | 1132 | 1134 | 1129 | 1131 | 871 |
| 55° | 885 | 881 | 883 | 887 | 885 | 791 |
| 65° | 618 | 621 | 620 | 618 | 622 | 612 |
| 75° | 353 | 352 | 353 | 352 | 353 | 373 |
| 85° | 104 | 102 | 105 | 104 | 101 | 116 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1726.6 | 1726.6 | 1726.6 | 1726.6 | 1726.6 |
| 2.5° | 1730.1 | 1723.1 | 1723.1 | 1720.8 | 1724.3 |
| 5° | 1726.6 | 1716.1 | 1717.3 | 1714.9 | 1718.4 |
| 7.5° | 1720.8 | 1706.8 | 1707.9 | 1705.6 | 1706.8 |
| 10° | 1710.3 | 1694.0 | 1692.8 | 1691.6 | 1692.8 |
| 12.5° | 1687.0 | 1677.7 | 1676.5 | 1674.2 | 1677.7 |
| 15° | 1655.5 | 1656.7 | 1654.4 | 1648.5 | 1657.8 |
| 17.5° | 1631.1 | 1629.9 | 1627.6 | 1621.7 | 1631.1 |
| 20° | 1598.4 | 1599.6 | 1597.3 | 1594.9 | 1600.8 |
| 22.5° | 1567.0 | 1563.5 | 1564.6 | 1563.5 | 1564.6 |
| 25° | 1525.0 | 1525.0 | 1523.9 | 1528.5 | 1528.5 |
| 27.5° | 1486.6 | 1481.9 | 1484.3 | 1488.9 | 1491.2 |
| 30° | 1448.1 | 1436.5 | 1438.8 | 1443.5 | 1449.3 |
| 32.5° | 1402.7 | 1391.1 | 1393.4 | 1398.0 | 1400.4 |
| 35° | 1350.3 | 1341.0 | 1343.3 | 1349.1 | 1350.3 |
| 37.5° | 1296.7 | 1290.9 | 1293.2 | 1297.9 | 1301.3 |
| 40° | 1241.9 | 1239.6 | 1243.1 | 1241.9 | 1250.1 |
| 42.5° | 1186.0 | 1184.8 | 1188.3 | 1188.3 | 1189.5 |
| 45° | 1130.1 | 1132.4 | 1133.6 | 1128.9 | 1131.3 |
| 47.5° | 1068.3 | 1069.5 | 1074.2 | 1071.8 | 1073.0 |
| 50° | 1007.8 | 1006.6 | 1011.3 | 1012.4 | 1008.9 |
| 52.5° | 949.5 | 943.7 | 948.3 | 950.7 | 948.3 |
| 55° | 885.4 | 880.8 | 883.1 | 886.6 | 885.4 |
| 57.5° | 822.5 | 817.9 | 819.0 | 824.8 | 822.5 |
| 60° | 753.8 | 752.6 | 751.4 | 756.1 | 758.4 |
| 62.5° | 686.2 | 685.0 | 682.7 | 687.4 | 689.7 |
| 65° | 617.5 | 621.0 | 619.8 | 617.5 | 622.1 |
| 67.5° | 552.2 | 555.7 | 552.2 | 549.9 | 549.9 |
| 70° | 483.5 | 487.0 | 485.8 | 483.5 | 482.3 |
| 72.5° | 419.4 | 419.4 | 417.1 | 415.9 | 417.1 |
| 75° | 353.0 | 351.8 | 353.0 | 351.8 | 353.0 |
| 77.5° | 287.8 | 288.9 | 288.9 | 288.9 | 287.8 |
| 80° | 223.7 | 223.7 | 223.7 | 224.9 | 226.0 |
| 82.5° | 164.3 | 160.8 | 164.3 | 161.9 | 163.1 |
| 85° | 103.7 | 102.5 | 104.9 | 103.7 | 101.4 |
| 87.5° | 46.6 | 47.8 | 47.8 | 48.9 | 48.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)