

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: P292987

Luminaire Tested: **24GR-LD5-42-F1-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292987
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-12)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-42-F1-UNV-L82765-W2A1-U-5500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (336) 80 CRI LEDS TUNED TO 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4359.0 lumens
Efficiency: N/A
Efficacy: 151.7 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.25
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

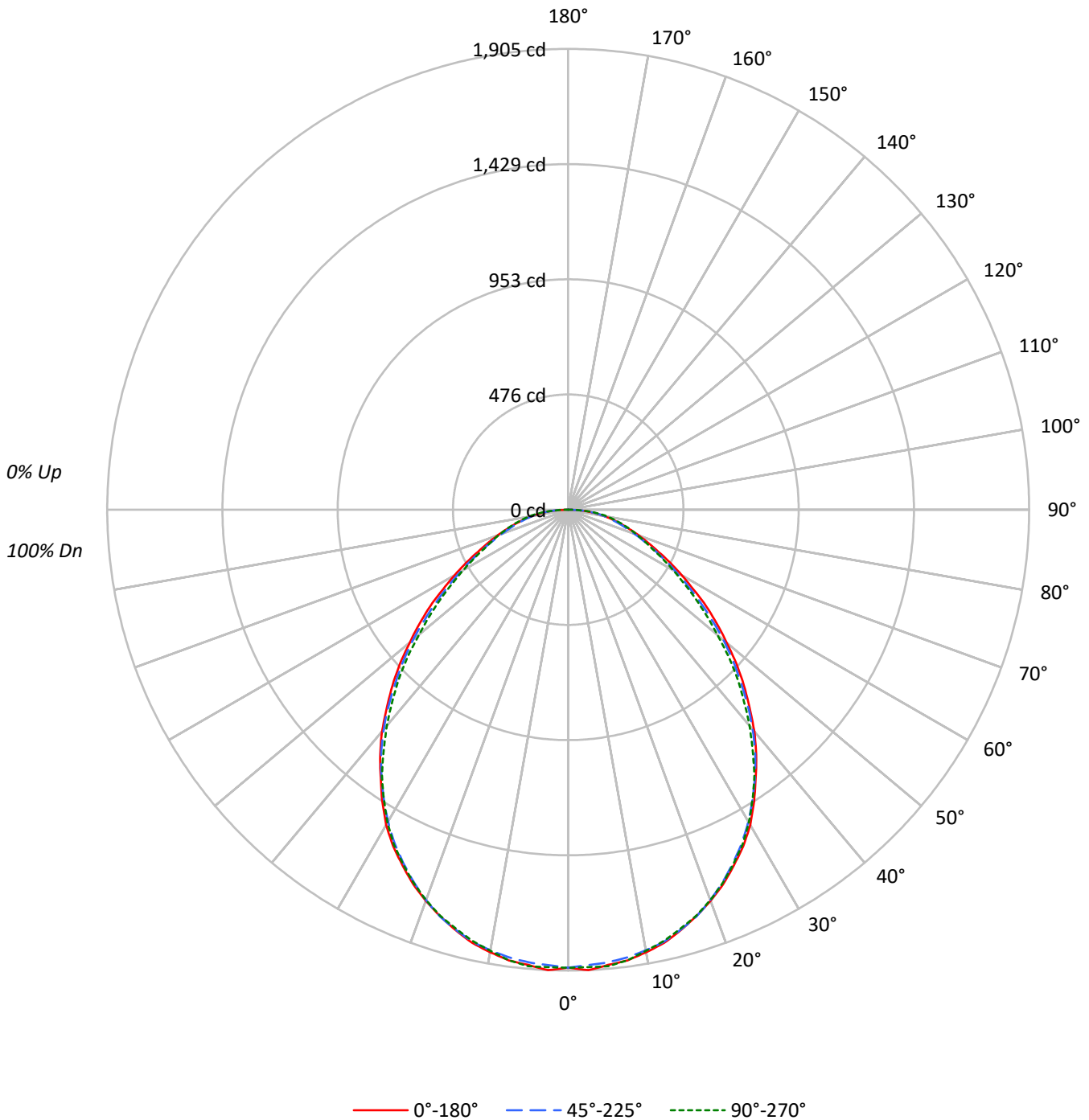
Input Watts (W): 28.737
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P292987

CATALOG NUMBER: 24GR-LD5-42-F1-UNV-L82765-W2A1-U-5500K

Luminous Intensity Polar Plot





TEST NUMBER: P292987

CATALOG NUMBER: 24GR-LD5-42-F1-UNV-L82765-W2A1-U-5500K

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 | 93 | 86 | 81 | 98 | 91 | 85 | 80 | 87 | 82 | 78 | 84 | 80 | 76 | 81 | 78 | 75 | 72 | | | | | 72 | | | |
| 3 | 92 | 82 | 74 | 68 | 90 | 81 | 73 | 68 | 78 | 72 | 67 | 75 | 70 | 65 | 72 | 68 | 64 | 62 | | | | | 62 | | | |
| 4 | 85 | 73 | 65 | 59 | 83 | 72 | 64 | 58 | 70 | 63 | 58 | 67 | 62 | 57 | 65 | 60 | 56 | 54 | | | | | 54 | | | |
| 5 | 78 | 66 | 58 | 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 | 45 | 56 | 49 | 44 | 54 | 48 | 44 | 42 | | | | | 42 | | | |
| 7 | 68 | 55 | 46 | 40 | 66 | 54 | 46 | 40 | 52 | 45 | 40 | 51 | 44 | 40 | 50 | 44 | 39 | 37 | | | | | 37 | | | |
| 8 | 63 | 50 | 42 | 36 | 62 | 49 | 42 | 36 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 36 | 34 | | | | | 34 | | | |
| 9 | 59 | 46 | 38 | 33 | 58 | 46 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 32 | 42 | 37 | 32 | 31 | | | | | 31 | | | |
| 10 | 56 | 43 | 35 | 30 | 54 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 30 | 39 | 34 | 30 | 28 | | | | | 28 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2548 | 2548 | 2548 |
| 5° | 2551 | 2537 | 2558 |
| 10° | 2538 | 2527 | 2529 |
| 15° | 2506 | 2503 | 2497 |
| 20° | 2464 | 2459 | 2459 |
| 25° | 2407 | 2393 | 2398 |
| 30° | 2337 | 2313 | 2320 |
| 35° | 2220 | 2209 | 2203 |
| 40° | 2102 | 2083 | 2047 |
| 45° | 1954 | 1920 | 1882 |
| 50° | 1790 | 1750 | 1684 |
| 55° | 1635 | 1561 | 1508 |
| 60° | 1456 | 1386 | 1350 |
| 65° | 1311 | 1242 | 1225 |
| 70° | 1217 | 1142 | 1188 |
| 75° | 1164 | 1112 | 1206 |
| 80° | 1163 | 1163 | 1289 |
| 85° | 1207 | 1221 | 1360 |



TEST NUMBER: P292987

CATALOG NUMBER: 24GR-LD5-42-F1-UNV-L82765-W2A1-U-5500K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 178.8 | 4.1 |
| 10°-20° | 506.0 | 11.6 |
| 20°-30° | 742.7 | 17.0 |
| 30°-40° | 839.6 | 19.3 |
| 40°-50° | 776.0 | 17.8 |
| 50°-60° | 597.9 | 13.7 |
| 60°-70° | 395.9 | 9.1 |
| 70°-80° | 235.7 | 5.4 |
| 80°-90° | 86.3 | 2.0 |
| 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° | 1427.5 | 32.7 |
| 0°-40° | 2267.2 | 52.0 |
| 0°-60° | 3641.1 | 83.5 |
| 0°-90° | 4359.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4359.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1893 | 1893 | 1893 | 1893 | 1893 | |
| 5° | 1889 | 1889 | 1878 | 1879 | 1894 | 180 |
| 15° | 1799 | 1795 | 1797 | 1796 | 1793 | 507 |
| 25° | 1621 | 1616 | 1612 | 1610 | 1616 | 746 |
| 35° | 1351 | 1350 | 1345 | 1339 | 1341 | 846 |
| 45° | 1027 | 1020 | 1009 | 991 | 989 | 791 |
| 55° | 697 | 682 | 665 | 647 | 643 | 622 |
| 65° | 412 | 406 | 390 | 387 | 385 | 413 |
| 75° | 224 | 218 | 214 | 224 | 232 | 239 |
| 85° | 78 | 74 | 79 | 87 | 88 | 83 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P292987

CATALOG NUMBER: 24GR-LD5-42-F1-UNV-L82765-W2A1-U-5500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1893.4 | 1893.4 | 1893.4 | 1893.4 | 1893.4 |
| 2.5° | 1905.1 | 1895.2 | 1884.5 | 1884.5 | 1892.5 |
| 5° | 1889.0 | 1889.0 | 1878.2 | 1879.1 | 1894.3 |
| 7.5° | 1879.1 | 1873.7 | 1866.5 | 1866.5 | 1878.2 |
| 10° | 1857.5 | 1853.0 | 1849.4 | 1847.6 | 1851.2 |
| 12.5° | 1834.1 | 1826.9 | 1829.6 | 1826.9 | 1826.0 |
| 15° | 1799.0 | 1795.4 | 1797.2 | 1796.3 | 1792.8 |
| 17.5° | 1761.3 | 1759.5 | 1763.1 | 1756.8 | 1759.5 |
| 20° | 1720.8 | 1715.4 | 1717.2 | 1713.6 | 1717.2 |
| 22.5° | 1675.0 | 1671.4 | 1666.9 | 1662.4 | 1669.6 |
| 25° | 1621.0 | 1616.5 | 1612.0 | 1610.2 | 1615.6 |
| 27.5° | 1567.1 | 1559.9 | 1553.6 | 1551.8 | 1559.9 |
| 30° | 1504.1 | 1496.1 | 1488.9 | 1487.1 | 1493.4 |
| 32.5° | 1429.5 | 1427.7 | 1418.7 | 1415.1 | 1417.8 |
| 35° | 1351.3 | 1349.5 | 1345.0 | 1338.7 | 1341.4 |
| 37.5° | 1276.7 | 1275.8 | 1269.5 | 1258.7 | 1251.5 |
| 40° | 1196.7 | 1190.4 | 1185.9 | 1170.6 | 1165.2 |
| 42.5° | 1108.6 | 1106.8 | 1098.7 | 1081.6 | 1075.3 |
| 45° | 1026.7 | 1019.5 | 1008.8 | 990.8 | 989.0 |
| 47.5° | 942.2 | 932.3 | 922.4 | 900.0 | 899.1 |
| 50° | 855.0 | 847.8 | 836.1 | 813.7 | 804.7 |
| 52.5° | 774.1 | 764.2 | 748.0 | 726.5 | 722.0 |
| 55° | 696.8 | 682.4 | 665.3 | 647.3 | 642.8 |
| 57.5° | 614.1 | 607.8 | 587.1 | 572.7 | 567.3 |
| 60° | 541.2 | 535.8 | 515.2 | 501.7 | 501.7 |
| 62.5° | 475.6 | 467.5 | 449.5 | 440.5 | 440.5 |
| 65° | 411.8 | 405.5 | 390.2 | 386.6 | 384.8 |
| 67.5° | 356.9 | 348.8 | 338.1 | 337.2 | 341.6 |
| 70° | 309.3 | 299.4 | 290.4 | 299.4 | 302.1 |
| 72.5° | 264.3 | 258.0 | 249.9 | 261.6 | 267.0 |
| 75° | 223.9 | 218.5 | 214.0 | 223.9 | 232.0 |
| 77.5° | 187.0 | 181.6 | 181.6 | 192.4 | 199.6 |
| 80° | 150.1 | 146.5 | 150.1 | 159.1 | 166.3 |
| 82.5° | 115.1 | 112.4 | 116.9 | 125.9 | 130.4 |
| 85° | 78.2 | 73.7 | 79.1 | 87.2 | 88.1 |
| 87.5° | 36.9 | 36.0 | 39.6 | 45.0 | 44.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)