

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: P292978

Luminaire Tested: **24GR-LD5-38-F1-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292978
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-LD5-38-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: 4001.0 lumens
Efficiency: N/A
Efficacy: 153.1 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

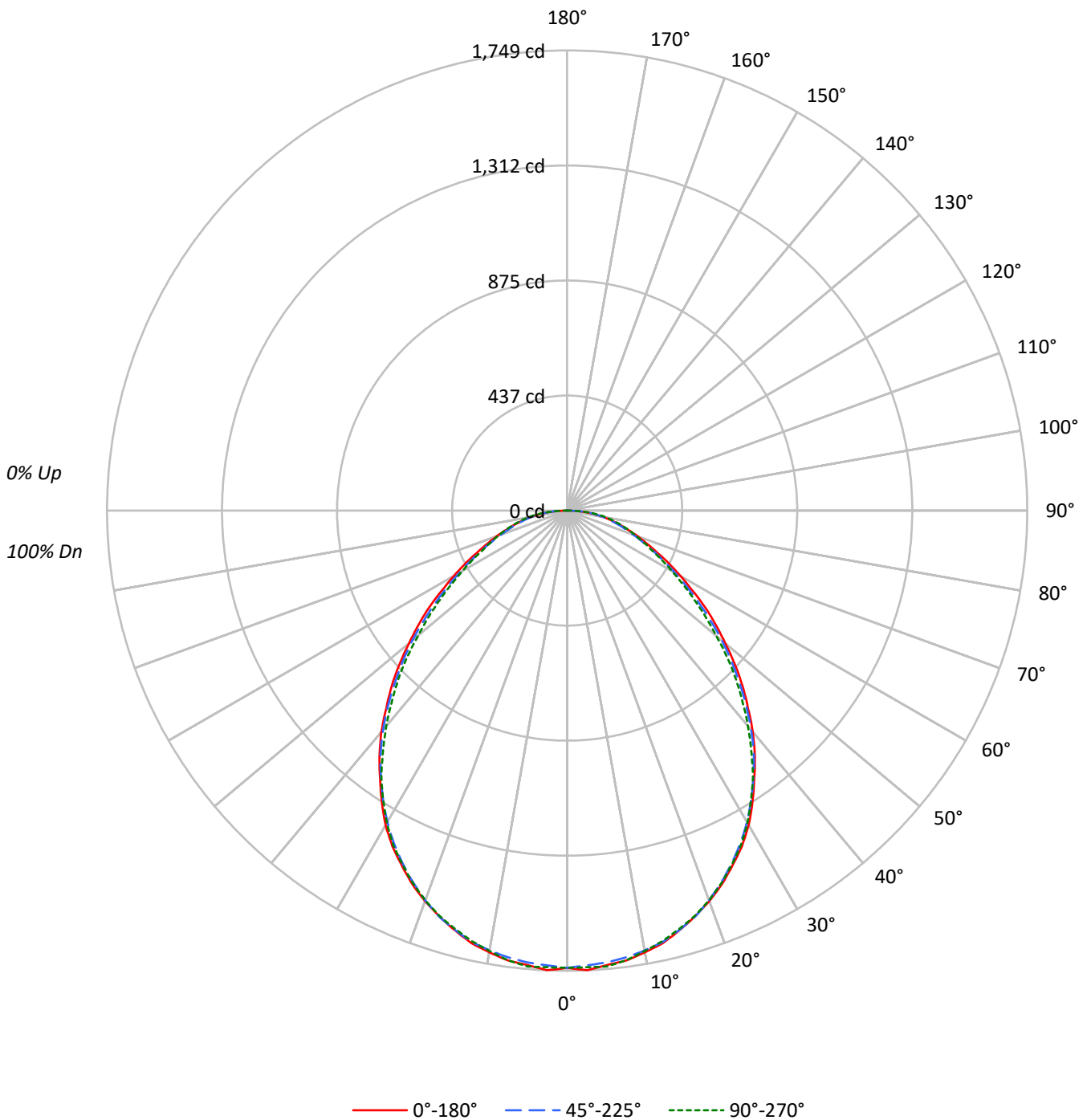
Input Watts (W): 26.133
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P292978

CATALOG NUMBER: 24GR-LD5-38-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° | 2338 | 2338 | 2338 |
| 5° | 2342 | 2328 | 2348 |
| 10° | 2329 | 2319 | 2322 |
| 15° | 2300 | 2298 | 2292 |
| 20° | 2262 | 2257 | 2257 |
| 25° | 2209 | 2197 | 2201 |
| 30° | 2145 | 2123 | 2130 |
| 35° | 2037 | 2028 | 2022 |
| 40° | 1929 | 1912 | 1878 |
| 45° | 1793 | 1762 | 1727 |
| 50° | 1643 | 1607 | 1546 |
| 55° | 1500 | 1433 | 1384 |
| 60° | 1337 | 1273 | 1239 |
| 65° | 1203 | 1140 | 1124 |
| 70° | 1117 | 1049 | 1091 |
| 75° | 1068 | 1021 | 1107 |
| 80° | 1068 | 1068 | 1183 |
| 85° | 1108 | 1121 | 1249 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 164.1 | 4.1 |
| 10°-20° | 464.5 | 11.6 |
| 20°-30° | 681.7 | 17.0 |
| 30°-40° | 770.7 | 19.3 |
| 40°-50° | 712.3 | 17.8 |
| 50°-60° | 548.8 | 13.7 |
| 60°-70° | 363.4 | 9.1 |
| 70°-80° | 216.3 | 5.4 |
| 80°-90° | 79.2 | 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° | 1310.3 | 32.7 |
| 0°-40° | 2081.0 | 52.0 |
| 0°-60° | 3342.1 | 83.5 |
| 0°-90° | 4001.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4001.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1738 | 1738 | 1738 | 1738 | 1738 | |
| 5° | 1734 | 1734 | 1724 | 1725 | 1739 | 165 |
| 15° | 1651 | 1648 | 1650 | 1649 | 1646 | 465 |
| 25° | 1488 | 1484 | 1480 | 1478 | 1483 | 685 |
| 35° | 1240 | 1239 | 1234 | 1229 | 1231 | 776 |
| 45° | 942 | 936 | 926 | 909 | 908 | 726 |
| 55° | 640 | 626 | 611 | 594 | 590 | 570 |
| 65° | 378 | 372 | 358 | 355 | 353 | 379 |
| 75° | 206 | 200 | 196 | 206 | 213 | 219 |
| 85° | 72 | 68 | 73 | 80 | 81 | 76 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CATALOG NUMBER: 24GR-LD5-38-F1-UNV-L82765-W2A1-U-5500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1737.9 | 1737.9 | 1737.9 | 1737.9 | 1737.9 |
| 2.5° | 1748.7 | 1739.6 | 1729.7 | 1729.7 | 1737.1 |
| 5° | 1733.8 | 1733.8 | 1723.9 | 1724.7 | 1738.8 |
| 7.5° | 1724.7 | 1719.8 | 1713.2 | 1713.2 | 1723.9 |
| 10° | 1704.9 | 1700.8 | 1697.5 | 1695.9 | 1699.2 |
| 12.5° | 1683.5 | 1676.9 | 1679.3 | 1676.9 | 1676.0 |
| 15° | 1651.3 | 1648.0 | 1649.6 | 1648.8 | 1645.5 |
| 17.5° | 1616.6 | 1615.0 | 1618.3 | 1612.5 | 1615.0 |
| 20° | 1579.5 | 1574.5 | 1576.2 | 1572.9 | 1576.2 |
| 22.5° | 1537.4 | 1534.1 | 1530.0 | 1525.9 | 1532.5 |
| 25° | 1487.9 | 1483.8 | 1479.6 | 1478.0 | 1482.9 |
| 27.5° | 1438.4 | 1431.8 | 1426.0 | 1424.4 | 1431.8 |
| 30° | 1380.6 | 1373.2 | 1366.6 | 1364.9 | 1370.7 |
| 32.5° | 1312.1 | 1310.5 | 1302.2 | 1298.9 | 1301.4 |
| 35° | 1240.3 | 1238.7 | 1234.5 | 1228.8 | 1231.2 |
| 37.5° | 1171.8 | 1171.0 | 1165.2 | 1155.3 | 1148.7 |
| 40° | 1098.4 | 1092.6 | 1088.5 | 1074.5 | 1069.5 |
| 42.5° | 1017.5 | 1015.9 | 1008.4 | 992.8 | 987.0 |
| 45° | 942.4 | 935.8 | 925.9 | 909.4 | 907.8 |
| 47.5° | 864.8 | 855.8 | 846.7 | 826.1 | 825.2 |
| 50° | 784.8 | 778.2 | 767.5 | 746.8 | 738.6 |
| 52.5° | 710.5 | 701.4 | 686.6 | 666.8 | 662.7 |
| 55° | 639.6 | 626.4 | 610.7 | 594.2 | 590.0 |
| 57.5° | 563.6 | 557.9 | 538.9 | 525.7 | 520.7 |
| 60° | 496.8 | 491.8 | 472.9 | 460.5 | 460.5 |
| 62.5° | 436.5 | 429.1 | 412.6 | 404.4 | 404.4 |
| 65° | 378.0 | 372.2 | 358.2 | 354.8 | 353.2 |
| 67.5° | 327.6 | 320.2 | 310.3 | 309.5 | 313.6 |
| 70° | 283.9 | 274.8 | 266.6 | 274.8 | 277.3 |
| 72.5° | 242.6 | 236.8 | 229.4 | 240.1 | 245.1 |
| 75° | 205.5 | 200.5 | 196.4 | 205.5 | 212.9 |
| 77.5° | 171.6 | 166.7 | 166.7 | 176.6 | 183.2 |
| 80° | 137.8 | 134.5 | 137.8 | 146.1 | 152.7 |
| 82.5° | 105.6 | 103.2 | 107.3 | 115.5 | 119.7 |
| 85° | 71.8 | 67.7 | 72.6 | 80.0 | 80.9 |
| 87.5° | 33.8 | 33.0 | 36.3 | 41.3 | 40.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)