

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: P475795

Luminaire Tested: **24GR-LD5-48-A125-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475795
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-48-A125-UNV-L840-CD1-U
Description: GR 2'X4' LED TROFFER w/ A125 LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4968.2 lumens
Efficiency: N/A
Efficacy: 150.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.26
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

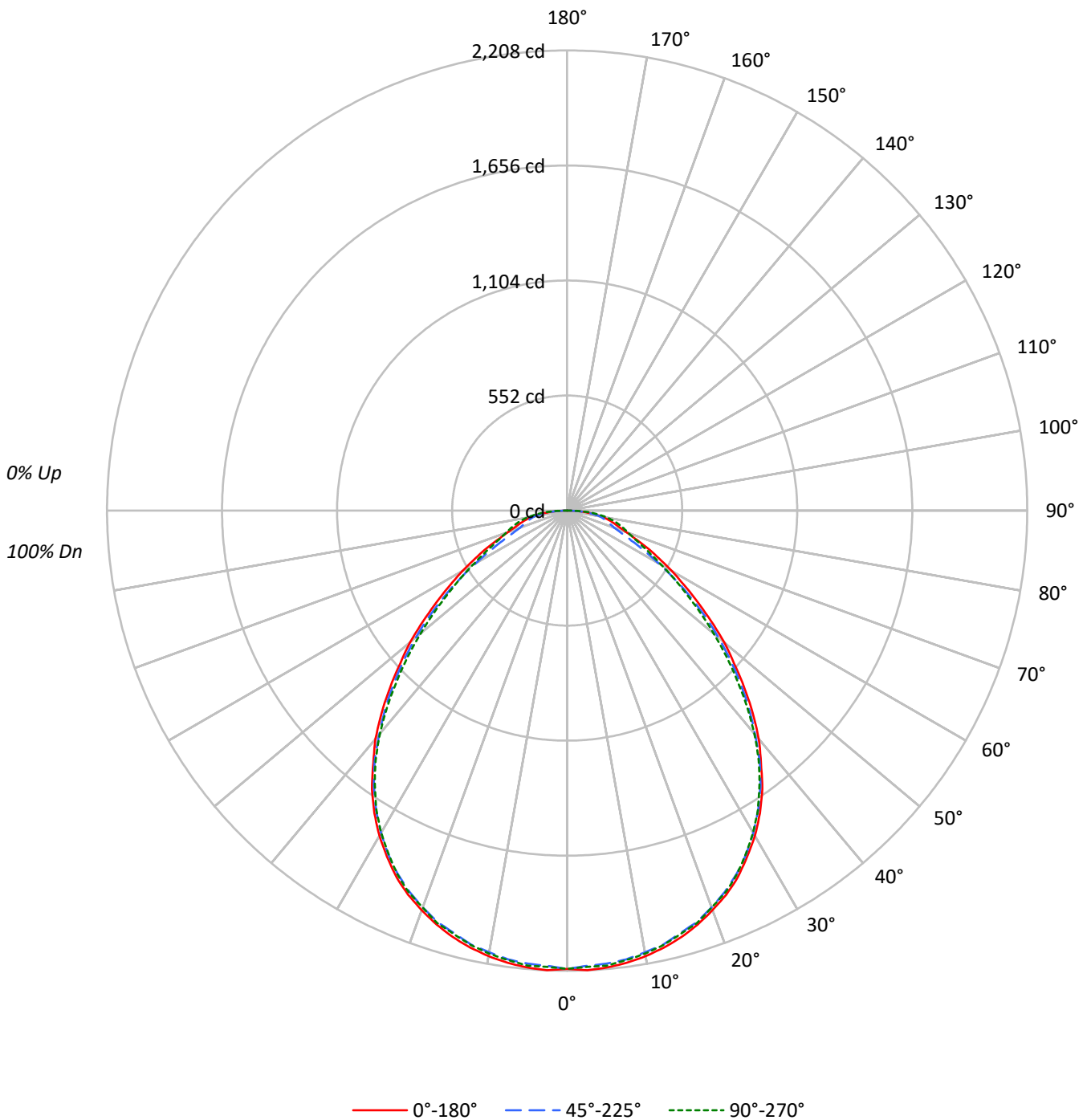
Input Watts (W): 33
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 110 | 105 | 101 | 98 | 107 | 103 | 100 | 96 | 99 | 96 | 93 | 95 | 93 | 90 | 91 | 90 | 88 | 86 |
| 2 | 101 | 93 | 87 | 82 | 98 | 91 | 86 | 81 | 88 | 83 | 79 | 85 | 81 | 77 | 82 | 78 | 76 | 73 |
| 3 | 93 | 83 | 76 | 70 | 90 | 82 | 75 | 69 | 79 | 73 | 68 | 76 | 71 | 67 | 73 | 69 | 66 | 63 |
| 4 | 86 | 74 | 66 | 60 | 83 | 73 | 66 | 60 | 71 | 64 | 59 | 68 | 63 | 58 | 66 | 61 | 57 | 55 |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 51 | 49 |
| 6 | 73 | 61 | 53 | 47 | 72 | 60 | 52 | 46 | 58 | 51 | 46 | 57 | 50 | 46 | 55 | 50 | 45 | 43 |
| 7 | 68 | 56 | 47 | 42 | 67 | 55 | 47 | 41 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 43 | 37 | 49 | 42 | 37 | 48 | 42 | 37 | 47 | 41 | 37 | 35 |
| 9 | 60 | 47 | 39 | 34 | 58 | 46 | 39 | 34 | 45 | 38 | 34 | 44 | 38 | 34 | 43 | 38 | 33 | 32 |
| 10 | 56 | 44 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 31 | 40 | 35 | 31 | 29 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2959 | 2959 | 2959 |
| 5° | 2973 | 2947 | 2959 |
| 10° | 2966 | 2941 | 2949 |
| 15° | 2951 | 2923 | 2930 |
| 20° | 2921 | 2901 | 2902 |
| 25° | 2879 | 2856 | 2860 |
| 30° | 2799 | 2774 | 2773 |
| 35° | 2682 | 2655 | 2642 |
| 40° | 2513 | 2464 | 2453 |
| 45° | 2288 | 2242 | 2199 |
| 50° | 2060 | 1987 | 1922 |
| 55° | 1787 | 1690 | 1639 |
| 60° | 1561 | 1362 | 1410 |
| 65° | 1351 | 1083 | 1253 |
| 70° | 1191 | 949 | 1224 |
| 75° | 1196 | 1032 | 1339 |
| 80° | 1310 | 1227 | 1516 |
| 85° | 1382 | 1335 | 1738 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 207.8 | 4.2 |
| 10°-20° | 593.8 | 12.0 |
| 20°-30° | 885.4 | 17.8 |
| 30°-40° | 1006.5 | 20.3 |
| 40°-50° | 907.1 | 18.3 |
| 50°-60° | 653.3 | 13.2 |
| 60°-70° | 380.0 | 7.6 |
| 70°-80° | 232.5 | 4.7 |
| 80°-90° | 101.8 | 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° | 1687.0 | 34.0 |
| 0°-40° | 2693.5 | 54.2 |
| 0°-60° | 4253.9 | 85.6 |
| 0°-90° | 4968.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4968.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2199 | 2199 | 2199 | 2199 | 2199 | |
| 5° | 2201 | 2186 | 2182 | 2186 | 2191 | 209 |
| 15° | 2119 | 2107 | 2098 | 2102 | 2103 | 597 |
| 25° | 1939 | 1928 | 1924 | 1921 | 1927 | 891 |
| 35° | 1633 | 1622 | 1616 | 1607 | 1609 | 1016 |
| 45° | 1202 | 1188 | 1178 | 1160 | 1156 | 927 |
| 55° | 762 | 744 | 720 | 713 | 699 | 687 |
| 65° | 424 | 381 | 340 | 367 | 394 | 424 |
| 75° | 230 | 208 | 199 | 226 | 258 | 245 |
| 85° | 90 | 88 | 86 | 118 | 113 | 95 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P475795

CATALOG NUMBER: 24GR-LD5-48-A125-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2199.0 | 2199.0 | 2199.0 | 2199.0 | 2199.0 |
| 2.5° | 2207.8 | 2196.0 | 2186.2 | 2186.7 | 2191.6 |
| 5° | 2200.9 | 2185.7 | 2181.8 | 2186.2 | 2191.1 |
| 7.5° | 2188.6 | 2174.4 | 2171.9 | 2169.5 | 2175.4 |
| 10° | 2170.9 | 2161.1 | 2152.3 | 2154.7 | 2158.2 |
| 12.5° | 2147.4 | 2139.0 | 2132.6 | 2127.7 | 2135.1 |
| 15° | 2118.8 | 2107.0 | 2098.2 | 2101.6 | 2103.1 |
| 17.5° | 2083.0 | 2071.7 | 2069.2 | 2067.2 | 2074.6 |
| 20° | 2040.2 | 2033.3 | 2026.0 | 2027.9 | 2026.9 |
| 22.5° | 1995.0 | 1984.7 | 1978.8 | 1975.8 | 1983.7 |
| 25° | 1939.4 | 1927.7 | 1923.7 | 1920.8 | 1926.7 |
| 27.5° | 1871.6 | 1865.2 | 1859.8 | 1855.9 | 1856.4 |
| 30° | 1801.8 | 1795.4 | 1785.6 | 1782.7 | 1784.6 |
| 32.5° | 1721.7 | 1714.3 | 1705.5 | 1696.6 | 1703.0 |
| 35° | 1632.8 | 1621.5 | 1616.5 | 1607.2 | 1608.7 |
| 37.5° | 1527.6 | 1522.7 | 1518.2 | 1505.9 | 1509.9 |
| 40° | 1430.7 | 1417.5 | 1402.7 | 1395.4 | 1396.8 |
| 42.5° | 1318.7 | 1304.9 | 1293.1 | 1282.8 | 1277.9 |
| 45° | 1202.2 | 1188.4 | 1178.1 | 1159.9 | 1155.5 |
| 47.5° | 1086.2 | 1073.4 | 1062.1 | 1047.9 | 1035.1 |
| 50° | 984.0 | 960.4 | 949.1 | 934.3 | 918.1 |
| 52.5° | 869.0 | 855.2 | 833.1 | 820.8 | 806.1 |
| 55° | 761.8 | 743.6 | 720.5 | 713.2 | 698.9 |
| 57.5° | 665.5 | 645.8 | 611.9 | 609.0 | 608.5 |
| 60° | 580.0 | 553.4 | 506.2 | 509.7 | 523.9 |
| 62.5° | 496.9 | 459.1 | 416.3 | 431.5 | 452.7 |
| 65° | 424.2 | 381.4 | 340.1 | 366.7 | 393.7 |
| 67.5° | 354.4 | 316.0 | 281.1 | 316.5 | 345.0 |
| 70° | 302.8 | 270.8 | 241.3 | 279.2 | 311.1 |
| 72.5° | 259.5 | 234.9 | 215.8 | 250.2 | 284.6 |
| 75° | 230.0 | 208.4 | 198.6 | 226.1 | 257.5 |
| 77.5° | 202.5 | 183.3 | 180.4 | 205.0 | 228.1 |
| 80° | 169.1 | 155.8 | 158.3 | 183.3 | 195.6 |
| 82.5° | 128.8 | 124.8 | 125.3 | 156.8 | 159.2 |
| 85° | 89.5 | 88.5 | 86.5 | 117.5 | 112.6 |
| 87.5° | 45.2 | 46.2 | 45.7 | 66.8 | 60.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)