

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: P476115

Luminaire Tested: **22GR-LD5-43-A125-UNV-L850-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476115
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-43-A125-UNV-L850-CD1-U
Description: GR 2'X2' LED TROFFER w/ A125 LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4461.9 lumens
Efficiency: N/A
Efficacy: 128.2 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.22 / 1.24
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

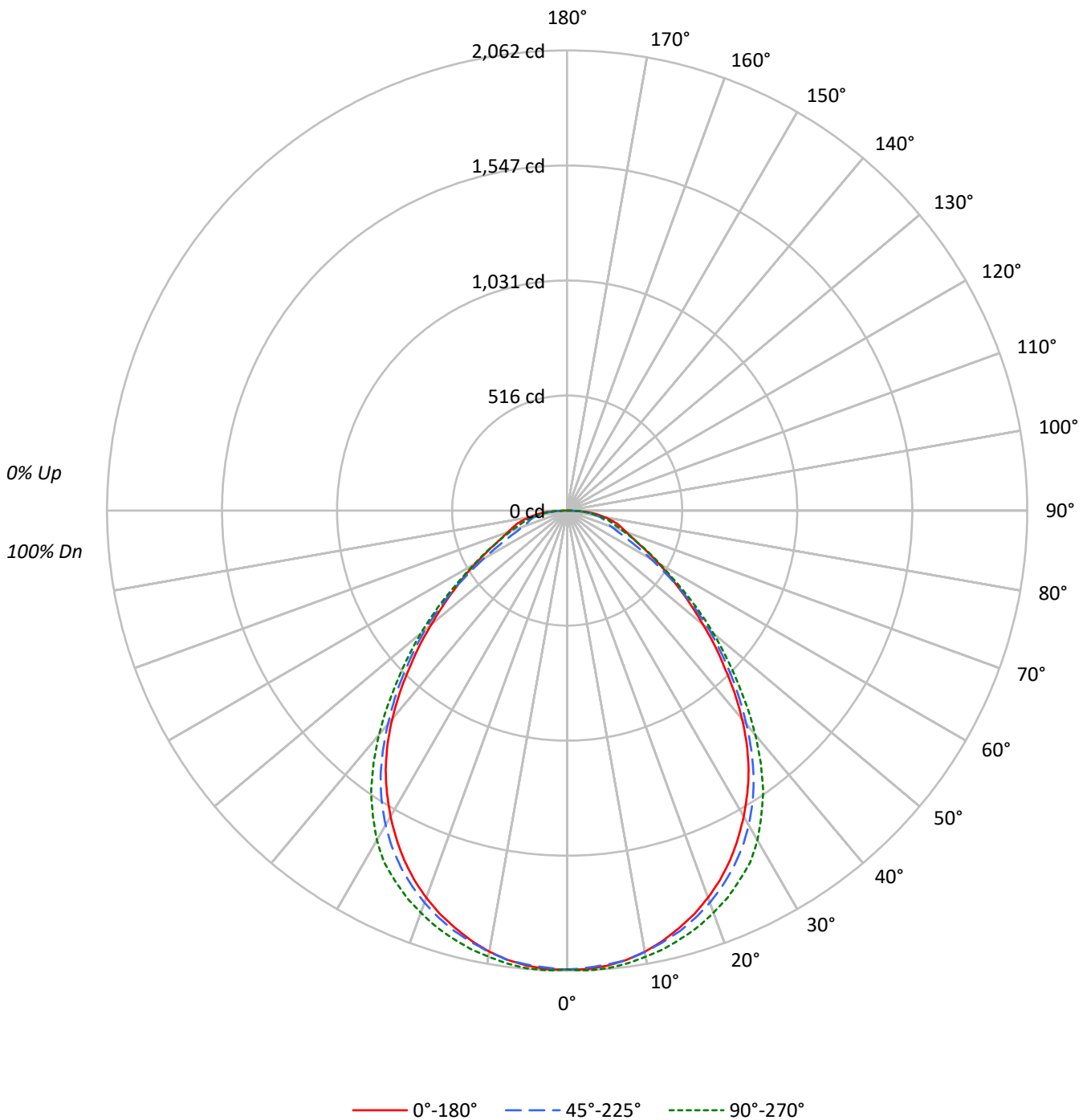
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 102 | 98 | 107 | 103 | 100 | 96 | 99 | 96 | 93 | 95 | 93 | 91 | 92 | 90 | 88 | 86 |
| 2 | 101 | 94 | 87 | 82 | 98 | 92 | 86 | 81 | 88 | 83 | 79 | 85 | 81 | 78 | 82 | 79 | 76 | 74 |
| 3 | 93 | 83 | 76 | 70 | 91 | 82 | 75 | 69 | 79 | 73 | 68 | 76 | 71 | 67 | 74 | 70 | 66 | 64 |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 66 | 60 | 71 | 65 | 59 | 69 | 63 | 59 | 67 | 62 | 58 | 56 |
| 5 | 80 | 68 | 59 | 53 | 78 | 67 | 59 | 53 | 65 | 58 | 52 | 63 | 57 | 52 | 61 | 56 | 51 | 49 |
| 6 | 74 | 61 | 53 | 47 | 72 | 61 | 53 | 47 | 59 | 52 | 47 | 57 | 51 | 46 | 56 | 50 | 46 | 44 |
| 7 | 69 | 56 | 48 | 42 | 67 | 55 | 48 | 42 | 54 | 47 | 42 | 52 | 46 | 41 | 51 | 46 | 41 | 39 |
| 8 | 64 | 52 | 44 | 38 | 63 | 51 | 43 | 38 | 50 | 43 | 38 | 48 | 42 | 38 | 47 | 42 | 37 | 36 |
| 9 | 60 | 48 | 40 | 35 | 59 | 47 | 40 | 34 | 46 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 32 |
| 10 | 57 | 44 | 37 | 32 | 55 | 44 | 36 | 32 | 43 | 36 | 31 | 42 | 36 | 31 | 41 | 35 | 31 | 29 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5535 | 5535 | 5535 |
| 5° | 5531 | 5516 | 5562 |
| 10° | 5484 | 5489 | 5546 |
| 15° | 5396 | 5434 | 5527 |
| 20° | 5285 | 5354 | 5491 |
| 25° | 5131 | 5236 | 5428 |
| 30° | 4917 | 5056 | 5299 |
| 35° | 4658 | 4788 | 5030 |
| 40° | 4284 | 4389 | 4608 |
| 45° | 3804 | 3943 | 4085 |
| 50° | 3323 | 3476 | 3580 |
| 55° | 2889 | 2929 | 3036 |
| 60° | 2542 | 2329 | 2592 |
| 65° | 2259 | 1861 | 2271 |
| 70° | 2218 | 1652 | 2096 |
| 75° | 2424 | 1817 | 2141 |
| 80° | 2662 | 2159 | 2290 |
| 85° | 3177 | 2507 | 2566 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 194.4 | 4.4 |
| 10°-20° | 551.2 | 12.4 |
| 20°-30° | 813.8 | 18.2 |
| 30°-40° | 910.6 | 20.4 |
| 40°-50° | 799.6 | 17.9 |
| 50°-60° | 565.8 | 12.7 |
| 60°-70° | 329.4 | 7.4 |
| 70°-80° | 205.2 | 4.6 |
| 80°-90° | 91.8 | 2.1 |
| 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° | 1559.4 | 34.9 |
| 0°-40° | 2470.0 | 55.4 |
| 0°-60° | 3835.4 | 86.0 |
| 0°-90° | 4461.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4461.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2057 | 2057 | 2057 | 2057 | 2057 | |
| 5° | 2047 | 2042 | 2042 | 2053 | 2059 | 194 |
| 15° | 1937 | 1941 | 1951 | 1971 | 1984 | 546 |
| 25° | 1728 | 1735 | 1763 | 1805 | 1828 | 794 |
| 35° | 1418 | 1424 | 1458 | 1501 | 1531 | 882 |
| 45° | 1000 | 1011 | 1036 | 1061 | 1074 | 773 |
| 55° | 616 | 628 | 624 | 636 | 647 | 557 |
| 65° | 355 | 327 | 292 | 318 | 357 | 360 |
| 75° | 233 | 201 | 175 | 179 | 206 | 243 |
| 85° | 103 | 107 | 81 | 79 | 83 | 105 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P476115

CATALOG NUMBER: 22GR-LD5-43-A125-UNV-L850-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2056.7 | 2056.7 | 2056.7 | 2056.7 | 2056.7 |
| 2.5° | 2056.7 | 2052.6 | 2050.4 | 2057.8 | 2062.0 |
| 5° | 2047.4 | 2042.1 | 2042.1 | 2052.6 | 2058.9 |
| 7.5° | 2030.8 | 2025.6 | 2031.7 | 2041.0 | 2047.4 |
| 10° | 2006.9 | 2004.7 | 2008.8 | 2021.5 | 2029.7 |
| 12.5° | 1975.5 | 1976.6 | 1980.7 | 2000.6 | 2011.0 |
| 15° | 1937.0 | 1941.1 | 1950.7 | 1971.4 | 1983.8 |
| 17.5° | 1895.4 | 1898.7 | 1913.0 | 1937.0 | 1954.9 |
| 20° | 1845.6 | 1851.7 | 1869.5 | 1899.5 | 1917.4 |
| 22.5° | 1790.3 | 1797.7 | 1819.4 | 1856.1 | 1877.8 |
| 25° | 1728.1 | 1735.2 | 1763.3 | 1804.9 | 1828.0 |
| 27.5° | 1657.3 | 1668.6 | 1700.0 | 1745.7 | 1776.8 |
| 30° | 1582.5 | 1591.8 | 1627.0 | 1679.1 | 1705.2 |
| 32.5° | 1502.4 | 1513.6 | 1546.9 | 1596.8 | 1619.9 |
| 35° | 1417.8 | 1424.2 | 1457.5 | 1501.3 | 1531.3 |
| 37.5° | 1322.3 | 1325.4 | 1356.5 | 1397.2 | 1424.2 |
| 40° | 1219.4 | 1221.3 | 1249.4 | 1287.9 | 1311.9 |
| 42.5° | 1112.0 | 1113.1 | 1143.4 | 1172.3 | 1193.2 |
| 45° | 999.7 | 1011.3 | 1036.1 | 1061.1 | 1073.5 |
| 47.5° | 898.7 | 907.2 | 930.1 | 951.8 | 963.4 |
| 50° | 793.8 | 814.5 | 830.2 | 841.7 | 855.2 |
| 52.5° | 703.3 | 720.9 | 725.0 | 738.5 | 750.1 |
| 55° | 615.7 | 628.4 | 624.3 | 635.6 | 647.1 |
| 57.5° | 542.0 | 535.7 | 522.2 | 542.0 | 556.6 |
| 60° | 472.3 | 455.6 | 432.7 | 460.0 | 481.7 |
| 62.5° | 409.9 | 382.9 | 354.8 | 381.8 | 418.1 |
| 65° | 354.8 | 326.7 | 292.3 | 318.5 | 356.7 |
| 67.5° | 313.2 | 284.1 | 243.3 | 269.5 | 308.0 |
| 70° | 281.9 | 251.9 | 210.0 | 232.0 | 266.4 |
| 72.5° | 257.1 | 224.6 | 188.3 | 202.9 | 232.0 |
| 75° | 233.1 | 200.7 | 174.8 | 178.9 | 205.9 |
| 77.5° | 205.1 | 181.1 | 160.2 | 158.0 | 178.9 |
| 80° | 171.8 | 164.3 | 139.3 | 136.3 | 147.8 |
| 82.5° | 141.5 | 138.5 | 114.5 | 111.2 | 115.6 |
| 85° | 102.9 | 107.1 | 81.2 | 79.0 | 83.1 |
| 87.5° | 54.2 | 59.2 | 42.7 | 44.9 | 45.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)