

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: P475631

Luminaire Tested: **24GR-LD5-56-F125-UNV-L850-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475631
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-56-F125-UNV-L850-CD1-U
Description: GR 2'X4' LED TROFFER w/ F125 LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5807.7 lumens
Efficiency: N/A
Efficacy: 147.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

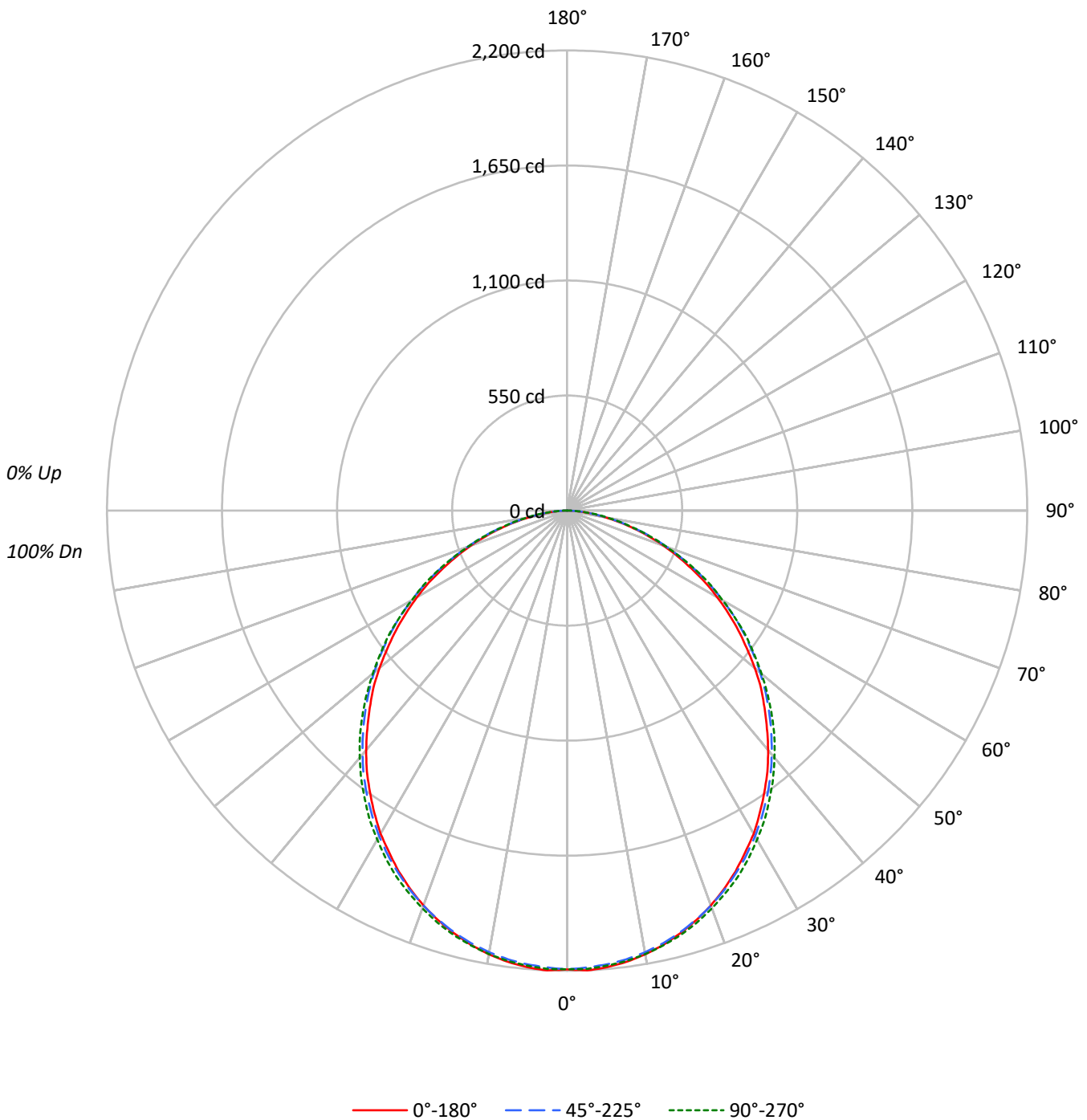
Input Watts (W): 39.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 109 | 104 | 100 | 97 | 106 | 102 | 98 | 95 | 98 | 95 | 92 | 94 | 91 | 89 | 90 | 88 | 86 | 84 |
| 2 | 99 | 91 | 85 | 79 | 97 | 89 | 83 | 78 | 86 | 81 | 76 | 83 | 78 | 75 | 80 | 76 | 73 | 71 |
| 3 | 91 | 80 | 72 | 66 | 88 | 79 | 71 | 65 | 76 | 69 | 64 | 73 | 68 | 63 | 71 | 66 | 62 | 60 |
| 4 | 83 | 71 | 63 | 56 | 81 | 70 | 62 | 56 | 68 | 61 | 55 | 65 | 59 | 54 | 63 | 58 | 53 | 51 |
| 5 | 77 | 64 | 55 | 48 | 74 | 63 | 54 | 48 | 61 | 53 | 48 | 59 | 52 | 47 | 57 | 51 | 47 | 45 |
| 6 | 71 | 58 | 49 | 42 | 69 | 57 | 48 | 42 | 55 | 47 | 42 | 53 | 47 | 41 | 52 | 46 | 41 | 39 |
| 7 | 66 | 52 | 44 | 38 | 64 | 51 | 43 | 37 | 50 | 43 | 37 | 48 | 42 | 37 | 47 | 41 | 37 | 35 |
| 8 | 61 | 48 | 39 | 34 | 60 | 47 | 39 | 33 | 46 | 38 | 33 | 45 | 38 | 33 | 43 | 37 | 33 | 31 |
| 9 | 57 | 44 | 36 | 30 | 56 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 28 |
| 10 | 54 | 41 | 33 | 27 | 52 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2951 | 2951 | 2951 |
| 5° | 2960 | 2941 | 2950 |
| 10° | 2943 | 2929 | 2941 |
| 15° | 2914 | 2908 | 2925 |
| 20° | 2876 | 2877 | 2897 |
| 25° | 2826 | 2838 | 2868 |
| 30° | 2771 | 2792 | 2821 |
| 35° | 2700 | 2737 | 2769 |
| 40° | 2626 | 2673 | 2709 |
| 45° | 2539 | 2601 | 2634 |
| 50° | 2451 | 2522 | 2539 |
| 55° | 2345 | 2429 | 2447 |
| 60° | 2233 | 2309 | 2312 |
| 65° | 2086 | 2167 | 2178 |
| 70° | 1932 | 1987 | 1980 |
| 75° | 1717 | 1778 | 1784 |
| 80° | 1437 | 1487 | 1543 |
| 85° | 1078 | 1159 | 1200 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 207.2 | 3.6 |
| 10°-20° | 589.6 | 10.2 |
| 20°-30° | 881.4 | 15.2 |
| 30°-40° | 1041.3 | 17.9 |
| 40°-50° | 1051.2 | 18.1 |
| 50°-60° | 917.4 | 15.8 |
| 60°-70° | 668.8 | 11.5 |
| 70°-80° | 360.7 | 6.2 |
| 80°-90° | 90.3 | 1.6 |
| 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° | 1678.2 | 28.9 |
| 0°-40° | 2719.5 | 46.8 |
| 0°-60° | 4688.0 | 80.7 |
| 0°-90° | 5807.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5807.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2193 | 2193 | 2193 | 2193 | 2193 | |
| 5° | 2192 | 2184 | 2178 | 2180 | 2184 | 208 |
| 15° | 2092 | 2088 | 2087 | 2092 | 2100 | 590 |
| 25° | 1904 | 1904 | 1912 | 1924 | 1932 | 877 |
| 35° | 1644 | 1648 | 1666 | 1682 | 1686 | 1028 |
| 45° | 1334 | 1344 | 1367 | 1384 | 1384 | 1030 |
| 55° | 1000 | 1012 | 1035 | 1039 | 1043 | 893 |
| 65° | 655 | 669 | 680 | 682 | 684 | 651 |
| 75° | 330 | 334 | 342 | 343 | 343 | 351 |
| 85° | 70 | 71 | 75 | 79 | 78 | 85 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P475631

CATALOG NUMBER: 24GR-LD5-56-F125-UNV-L850-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2193.3 | 2193.3 | 2193.3 | 2193.3 | 2193.3 |
| 2.5° | 2200.5 | 2192.6 | 2186.4 | 2187.7 | 2193.0 |
| 5° | 2191.7 | 2183.8 | 2177.8 | 2179.8 | 2184.1 |
| 7.5° | 2175.9 | 2168.6 | 2164.0 | 2166.0 | 2171.6 |
| 10° | 2154.1 | 2148.2 | 2143.9 | 2146.9 | 2152.8 |
| 12.5° | 2126.5 | 2120.5 | 2118.9 | 2123.2 | 2128.4 |
| 15° | 2091.9 | 2087.6 | 2087.3 | 2092.2 | 2100.1 |
| 17.5° | 2053.1 | 2048.8 | 2051.1 | 2057.7 | 2064.6 |
| 20° | 2008.9 | 2005.0 | 2009.6 | 2018.5 | 2023.1 |
| 22.5° | 1958.6 | 1955.3 | 1963.5 | 1972.7 | 1978.6 |
| 25° | 1903.9 | 1904.2 | 1911.5 | 1923.7 | 1931.6 |
| 27.5° | 1843.3 | 1845.6 | 1856.5 | 1868.4 | 1876.3 |
| 30° | 1783.7 | 1781.8 | 1797.2 | 1810.1 | 1816.0 |
| 32.5° | 1714.6 | 1715.6 | 1733.7 | 1746.9 | 1755.8 |
| 35° | 1643.8 | 1648.4 | 1666.2 | 1682.3 | 1685.6 |
| 37.5° | 1572.4 | 1575.7 | 1597.1 | 1612.9 | 1617.2 |
| 40° | 1495.0 | 1500.9 | 1522.0 | 1536.8 | 1542.1 |
| 42.5° | 1414.4 | 1421.9 | 1444.6 | 1460.1 | 1467.0 |
| 45° | 1334.4 | 1343.9 | 1366.9 | 1384.1 | 1384.4 |
| 47.5° | 1257.0 | 1263.9 | 1286.3 | 1301.4 | 1299.8 |
| 50° | 1170.7 | 1180.9 | 1205.0 | 1214.2 | 1213.2 |
| 52.5° | 1082.5 | 1098.0 | 1120.0 | 1127.3 | 1126.3 |
| 55° | 999.5 | 1011.7 | 1035.4 | 1039.4 | 1043.0 |
| 57.5° | 913.6 | 924.1 | 949.8 | 951.5 | 950.8 |
| 60° | 829.7 | 839.2 | 858.0 | 862.6 | 859.0 |
| 62.5° | 745.0 | 754.6 | 771.4 | 776.0 | 775.3 |
| 65° | 655.2 | 669.3 | 680.5 | 681.8 | 684.1 |
| 67.5° | 571.5 | 580.4 | 591.3 | 593.3 | 591.6 |
| 70° | 491.2 | 498.8 | 505.0 | 506.3 | 503.4 |
| 72.5° | 408.2 | 415.2 | 424.0 | 425.7 | 422.4 |
| 75° | 330.2 | 333.5 | 342.1 | 343.4 | 343.1 |
| 77.5° | 254.5 | 257.1 | 263.4 | 268.3 | 269.0 |
| 80° | 185.4 | 186.3 | 191.9 | 195.6 | 199.2 |
| 82.5° | 122.8 | 125.4 | 129.7 | 133.3 | 136.6 |
| 85° | 69.8 | 71.4 | 75.1 | 78.7 | 77.7 |
| 87.5° | 27.0 | 30.6 | 30.9 | 34.6 | 35.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)