

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: P475808

Luminaire Tested: **24GR-LD5-38-A125-UNV-L850-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475808
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-38-A125-UNV-L850-CD1-U
Description: GR 2'X4' LED TROFFER w/ A125 LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3905.0 lumens
Efficiency: N/A
Efficacy: 146.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.26
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

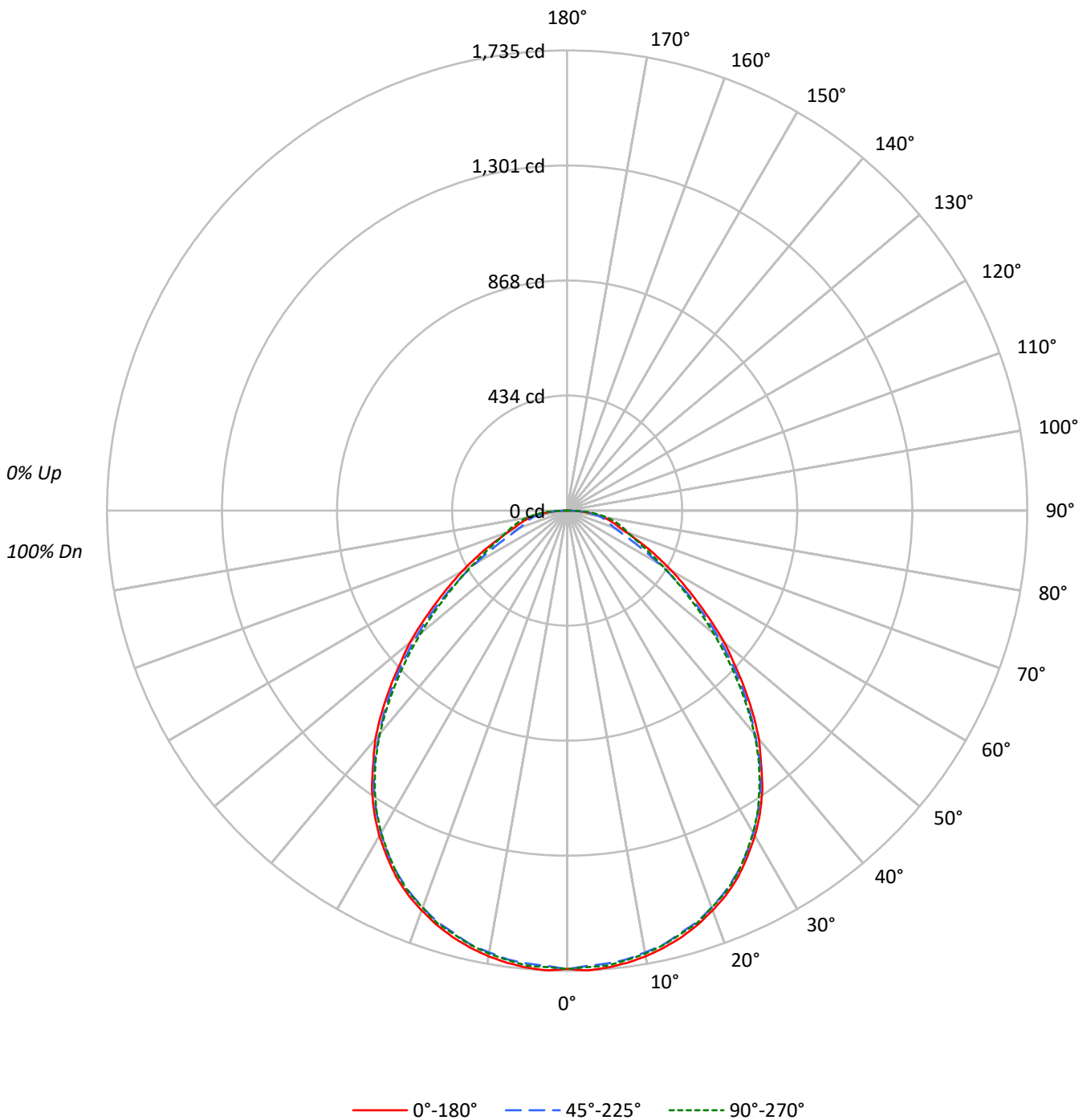
Input Watts (W): 26.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 2325 | 2325 | 2325 |
| 5° | 2336 | 2316 | 2326 |
| 10° | 2331 | 2311 | 2318 |
| 15° | 2320 | 2297 | 2303 |
| 20° | 2296 | 2280 | 2281 |
| 25° | 2263 | 2245 | 2248 |
| 30° | 2200 | 2181 | 2179 |
| 35° | 2108 | 2087 | 2077 |
| 40° | 1975 | 1936 | 1928 |
| 45° | 1798 | 1762 | 1728 |
| 50° | 1619 | 1562 | 1510 |
| 55° | 1405 | 1328 | 1289 |
| 60° | 1227 | 1071 | 1108 |
| 65° | 1061 | 851 | 985 |
| 70° | 936 | 746 | 962 |
| 75° | 940 | 811 | 1052 |
| 80° | 1030 | 964 | 1192 |
| 85° | 1085 | 1050 | 1366 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 163.3 | 4.2 |
| 10°-20° | 466.7 | 12.0 |
| 20°-30° | 695.9 | 17.8 |
| 30°-40° | 791.1 | 20.3 |
| 40°-50° | 712.9 | 18.3 |
| 50°-60° | 513.5 | 13.2 |
| 60°-70° | 298.7 | 7.6 |
| 70°-80° | 182.8 | 4.7 |
| 80°-90° | 80.0 | 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° | 1326.0 | 34.0 |
| 0°-40° | 2117.0 | 54.2 |
| 0°-60° | 3343.5 | 85.6 |
| 0°-90° | 3905.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3905.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1728 | 1728 | 1728 | 1728 | 1728 | |
| 5° | 1730 | 1718 | 1715 | 1718 | 1722 | 164 |
| 15° | 1665 | 1656 | 1649 | 1652 | 1653 | 469 |
| 25° | 1524 | 1515 | 1512 | 1510 | 1514 | 700 |
| 35° | 1283 | 1274 | 1271 | 1263 | 1264 | 799 |
| 45° | 945 | 934 | 926 | 912 | 908 | 729 |
| 55° | 599 | 584 | 566 | 560 | 549 | 540 |
| 65° | 333 | 300 | 267 | 288 | 309 | 333 |
| 75° | 181 | 164 | 156 | 178 | 202 | 193 |
| 85° | 70 | 70 | 68 | 92 | 88 | 74 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P475808

CATALOG NUMBER: 24GR-LD5-38-A125-UNV-L850-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1728.3 | 1728.3 | 1728.3 | 1728.3 | 1728.3 |
| 2.5° | 1735.3 | 1726.0 | 1718.3 | 1718.7 | 1722.6 |
| 5° | 1729.9 | 1717.9 | 1714.8 | 1718.3 | 1722.2 |
| 7.5° | 1720.2 | 1709.0 | 1707.1 | 1705.2 | 1709.8 |
| 10° | 1706.3 | 1698.6 | 1691.6 | 1693.6 | 1696.3 |
| 12.5° | 1687.8 | 1681.2 | 1676.2 | 1672.3 | 1678.1 |
| 15° | 1665.4 | 1656.1 | 1649.2 | 1651.9 | 1653.0 |
| 17.5° | 1637.2 | 1628.3 | 1626.4 | 1624.8 | 1630.6 |
| 20° | 1603.6 | 1598.2 | 1592.4 | 1593.9 | 1593.1 |
| 22.5° | 1568.0 | 1559.9 | 1555.3 | 1553.0 | 1559.1 |
| 25° | 1524.4 | 1515.1 | 1512.0 | 1509.7 | 1514.3 |
| 27.5° | 1471.1 | 1466.0 | 1461.8 | 1458.7 | 1459.1 |
| 30° | 1416.2 | 1411.2 | 1403.5 | 1401.1 | 1402.7 |
| 32.5° | 1353.2 | 1347.4 | 1340.5 | 1333.5 | 1338.6 |
| 35° | 1283.3 | 1274.4 | 1270.6 | 1263.2 | 1264.4 |
| 37.5° | 1200.7 | 1196.8 | 1193.3 | 1183.7 | 1186.7 |
| 40° | 1124.5 | 1114.1 | 1102.5 | 1096.7 | 1097.9 |
| 42.5° | 1036.5 | 1025.7 | 1016.4 | 1008.3 | 1004.4 |
| 45° | 944.9 | 934.1 | 926.0 | 911.7 | 908.2 |
| 47.5° | 853.7 | 843.7 | 834.8 | 823.6 | 813.6 |
| 50° | 773.4 | 754.8 | 746.0 | 734.4 | 721.6 |
| 52.5° | 683.0 | 672.2 | 654.8 | 645.1 | 633.5 |
| 55° | 598.8 | 584.5 | 566.3 | 560.5 | 549.3 |
| 57.5° | 523.1 | 507.6 | 481.0 | 478.6 | 478.3 |
| 60° | 455.8 | 435.0 | 397.9 | 400.6 | 411.8 |
| 62.5° | 390.6 | 360.8 | 327.2 | 339.2 | 355.8 |
| 65° | 333.4 | 299.8 | 267.3 | 288.2 | 309.4 |
| 67.5° | 278.5 | 248.4 | 221.0 | 248.8 | 271.2 |
| 70° | 238.0 | 212.9 | 189.7 | 219.4 | 244.5 |
| 72.5° | 204.0 | 184.7 | 169.6 | 196.6 | 223.7 |
| 75° | 180.8 | 163.8 | 156.1 | 177.7 | 202.4 |
| 77.5° | 159.2 | 144.1 | 141.8 | 161.1 | 179.2 |
| 80° | 132.9 | 122.5 | 124.4 | 144.1 | 153.8 |
| 82.5° | 101.2 | 98.1 | 98.5 | 123.2 | 125.2 |
| 85° | 70.3 | 69.5 | 68.0 | 92.3 | 88.5 |
| 87.5° | 35.5 | 36.3 | 35.9 | 52.5 | 47.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)