

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: P475820

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475820
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-LD5-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: 18501.7 lumens
Efficiency: N/A
Efficacy: 146.5 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

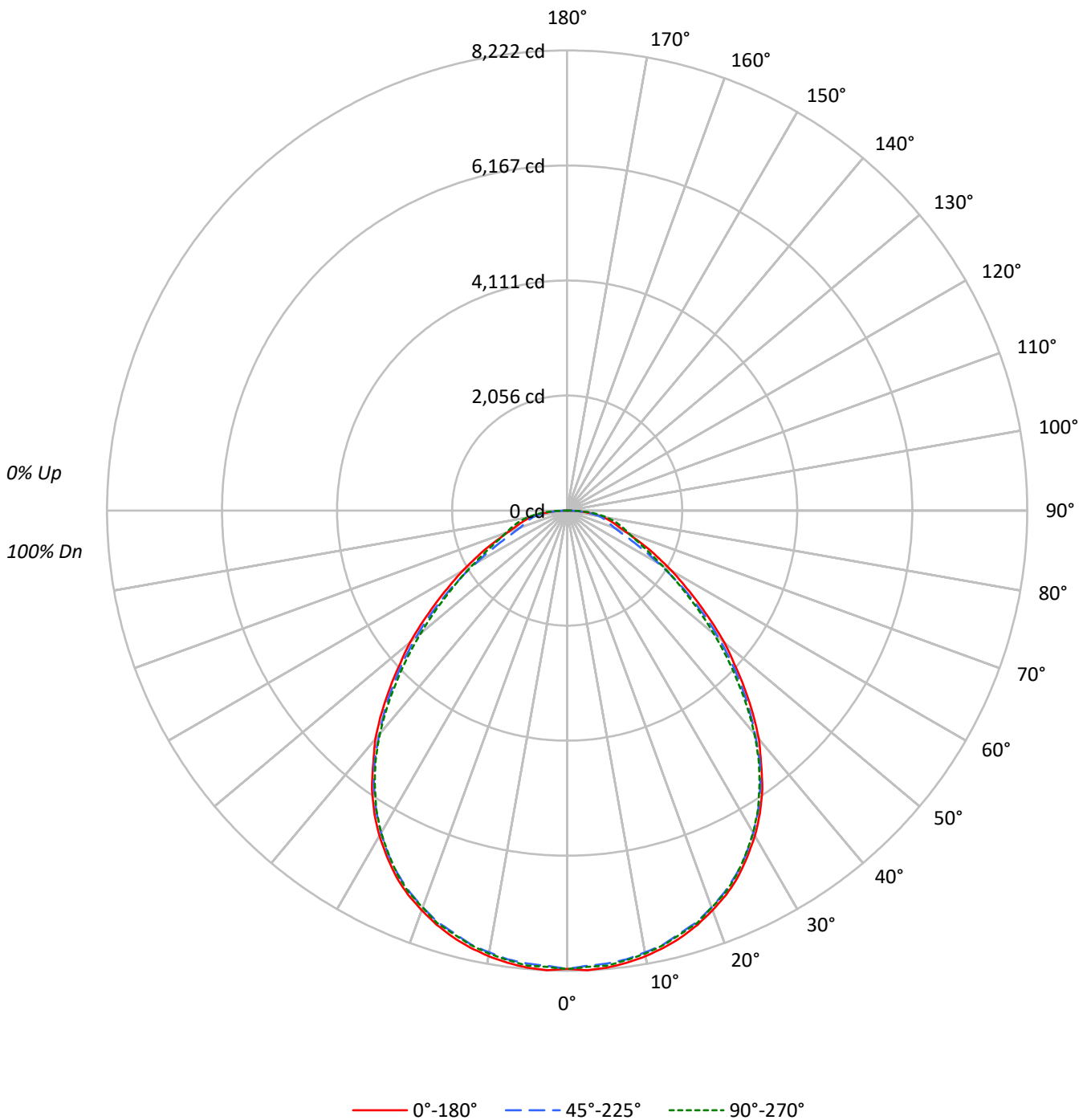
Input Watts (W): 126.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 11018 | 11018 | 11018 |
| 5° | 11070 | 10974 | 11021 |
| 10° | 11046 | 10950 | 10981 |
| 15° | 10991 | 10884 | 10910 |
| 20° | 10879 | 10803 | 10808 |
| 25° | 10722 | 10635 | 10652 |
| 30° | 10425 | 10331 | 10325 |
| 35° | 9987 | 9888 | 9840 |
| 40° | 9358 | 9175 | 9137 |
| 45° | 8519 | 8348 | 8188 |
| 50° | 7670 | 7398 | 7157 |
| 55° | 6655 | 6294 | 6105 |
| 60° | 5812 | 5073 | 5250 |
| 65° | 5029 | 4032 | 4668 |
| 70° | 4436 | 3535 | 4558 |
| 75° | 4453 | 3844 | 4986 |
| 80° | 4878 | 4567 | 5645 |
| 85° | 5142 | 4973 | 6470 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 773.9 | 4.2 |
| 10°-20° | 2211.4 | 12.0 |
| 20°-30° | 3297.1 | 17.8 |
| 30°-40° | 3748.1 | 20.3 |
| 40°-50° | 3377.9 | 18.3 |
| 50°-60° | 2433.1 | 13.2 |
| 60°-70° | 1415.2 | 7.6 |
| 70°-80° | 865.9 | 4.7 |
| 80°-90° | 379.0 | 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° | 6282.4 | 34.0 |
| 0°-40° | 10030.5 | 54.2 |
| 0°-60° | 15841.5 | 85.6 |
| 0°-90° | 18501.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 18501.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 8189 | 8189 | 8189 | 8189 | 8189 | |
| 5° | 8196 | 8140 | 8125 | 8141 | 8160 | 779 |
| 15° | 7891 | 7847 | 7814 | 7826 | 7832 | 2224 |
| 25° | 7222 | 7179 | 7164 | 7153 | 7175 | 3318 |
| 35° | 6080 | 6038 | 6020 | 5985 | 5991 | 3783 |
| 45° | 4477 | 4426 | 4387 | 4320 | 4303 | 3453 |
| 55° | 2837 | 2769 | 2683 | 2656 | 2603 | 2558 |
| 65° | 1580 | 1420 | 1267 | 1365 | 1466 | 1580 |
| 75° | 857 | 776 | 740 | 842 | 959 | 912 |
| 85° | 333 | 330 | 322 | 438 | 419 | 353 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P475820

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

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 8188.9 | 8188.9 | 8188.9 | 8188.9 | 8188.9 |
| 2.5° | 8221.9 | 8177.9 | 8141.3 | 8143.2 | 8161.5 |
| 5° | 8196.2 | 8139.5 | 8124.9 | 8141.3 | 8159.6 |
| 7.5° | 8150.5 | 8097.4 | 8088.3 | 8079.1 | 8101.1 |
| 10° | 8084.6 | 8048.0 | 8015.0 | 8024.2 | 8037.0 |
| 12.5° | 7996.7 | 7965.6 | 7941.8 | 7923.5 | 7951.0 |
| 15° | 7890.6 | 7846.6 | 7813.7 | 7826.5 | 7832.0 |
| 17.5° | 7757.0 | 7714.9 | 7705.7 | 7698.4 | 7725.8 |
| 20° | 7597.7 | 7572.1 | 7544.6 | 7552.0 | 7548.3 |
| 22.5° | 7429.3 | 7390.9 | 7368.9 | 7357.9 | 7387.2 |
| 25° | 7222.5 | 7178.6 | 7163.9 | 7153.0 | 7174.9 |
| 27.5° | 6969.9 | 6946.1 | 6926.0 | 6911.3 | 6913.2 |
| 30° | 6710.0 | 6686.2 | 6649.6 | 6638.6 | 6645.9 |
| 32.5° | 6411.7 | 6384.2 | 6351.3 | 6318.3 | 6342.1 |
| 35° | 6080.4 | 6038.3 | 6020.0 | 5985.2 | 5990.7 |
| 37.5° | 5688.7 | 5670.4 | 5653.9 | 5608.1 | 5622.8 |
| 40° | 5328.1 | 5278.7 | 5223.8 | 5196.3 | 5201.8 |
| 42.5° | 4910.8 | 4859.5 | 4815.6 | 4777.2 | 4758.9 |
| 45° | 4477.0 | 4425.8 | 4387.3 | 4319.6 | 4303.1 |
| 47.5° | 4045.0 | 3997.5 | 3955.4 | 3902.3 | 3854.7 |
| 50° | 3664.3 | 3576.5 | 3534.4 | 3479.5 | 3419.1 |
| 52.5° | 3236.0 | 3184.8 | 3102.4 | 3056.7 | 3001.7 |
| 55° | 2837.0 | 2769.3 | 2683.3 | 2655.8 | 2602.7 |
| 57.5° | 2478.3 | 2405.1 | 2278.8 | 2267.8 | 2266.0 |
| 60° | 2159.8 | 2061.0 | 1885.2 | 1898.1 | 1951.1 |
| 62.5° | 1850.5 | 1709.5 | 1550.3 | 1607.0 | 1685.7 |
| 65° | 1579.6 | 1420.3 | 1266.6 | 1365.4 | 1466.1 |
| 67.5° | 1319.7 | 1176.9 | 1047.0 | 1178.7 | 1284.9 |
| 70° | 1127.5 | 1008.5 | 898.7 | 1039.6 | 1158.6 |
| 72.5° | 966.4 | 874.9 | 803.5 | 931.6 | 1059.8 |
| 75° | 856.6 | 776.1 | 739.5 | 842.0 | 959.1 |
| 77.5° | 754.1 | 682.7 | 671.7 | 763.2 | 849.3 |
| 80° | 629.6 | 580.2 | 589.4 | 682.7 | 728.5 |
| 82.5° | 479.5 | 464.9 | 466.7 | 583.9 | 593.0 |
| 85° | 333.1 | 329.5 | 322.1 | 437.5 | 419.1 |
| 87.5° | 168.4 | 172.1 | 170.2 | 248.9 | 223.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)