

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: P475832

Luminaire Tested: **24GR-LD5-120-FGW080-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475832
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-120-FGW080-UNV-L830-CD1-U
Description: GR 2'X4' LED TROFFER w/ FGW080 LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9859.6 lumens
Efficiency: N/A
Efficacy: 121.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

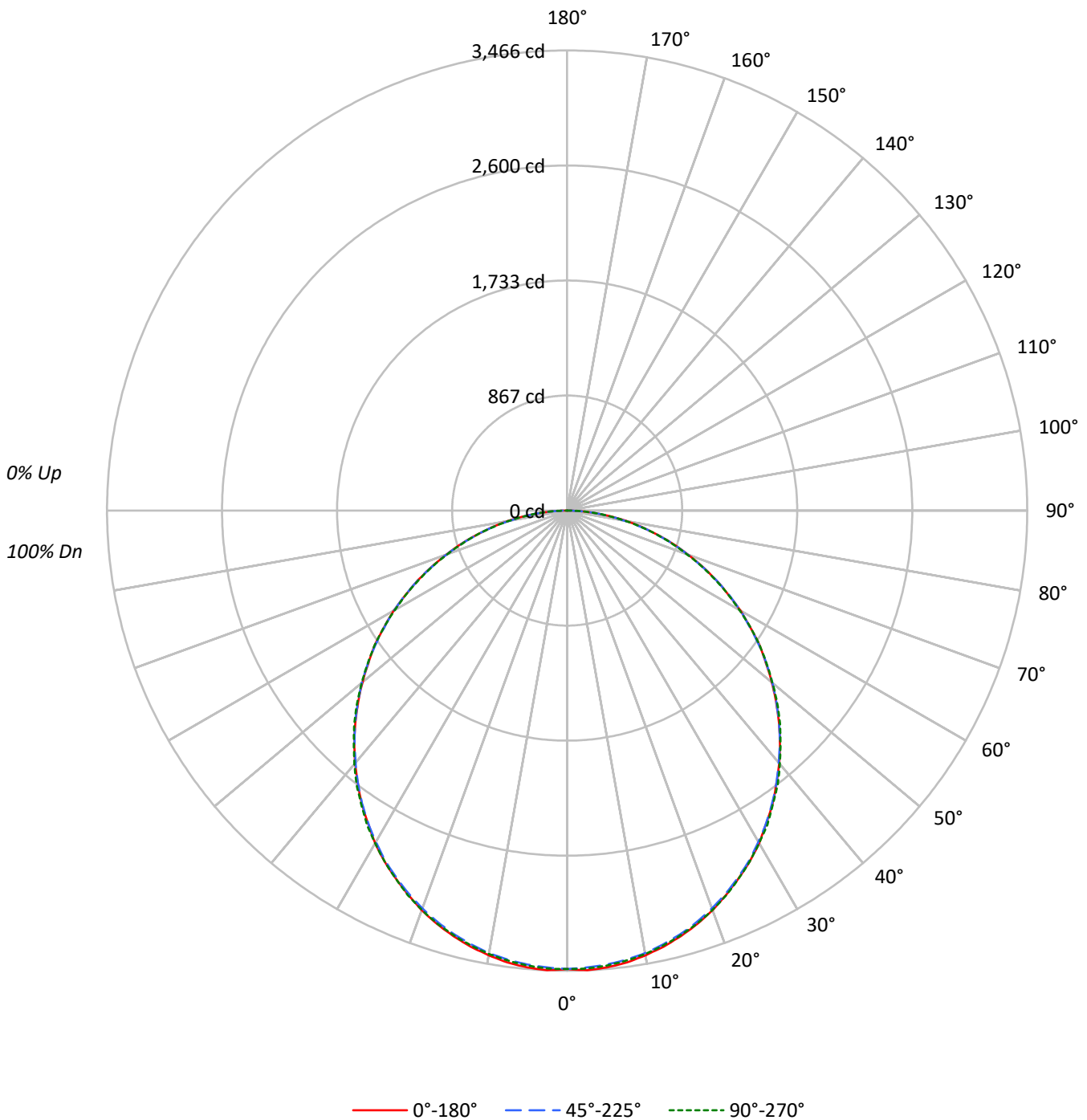
Input Watts (W): 81.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P475832

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Luminous Intensity Polar Plot





TEST NUMBER: P475832

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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 | 108 | 104 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | 93 | 90 | 88 | 89 | 87 | 85 | 83 |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 85 | 79 | 74 | 81 | 77 | 73 | 78 | 74 | 71 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | 72 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 54 | 66 | 59 | 53 | 64 | 57 | 52 | 61 | 56 | 52 | 49 |
| 5 | 75 | 62 | 53 | 47 | 73 | 61 | 53 | 46 | 59 | 52 | 46 | 57 | 50 | 45 | 55 | 49 | 45 | 43 |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 40 | 53 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 39 | 37 |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 35 | 47 | 40 | 35 | 46 | 40 | 35 | 33 |
| 8 | 60 | 46 | 38 | 32 | 58 | 46 | 38 | 32 | 44 | 37 | 32 | 43 | 36 | 31 | 42 | 36 | 31 | 29 |
| 9 | 56 | 43 | 34 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 28 | 40 | 33 | 28 | 39 | 33 | 28 | 26 |
| 10 | 53 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 30 | 26 | 36 | 30 | 26 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4647 | 4647 | 4647 |
| 5° | 4664 | 4636 | 4646 |
| 10° | 4646 | 4624 | 4633 |
| 15° | 4621 | 4599 | 4611 |
| 20° | 4587 | 4566 | 4584 |
| 25° | 4537 | 4524 | 4540 |
| 30° | 4493 | 4476 | 4493 |
| 35° | 4430 | 4422 | 4439 |
| 40° | 4366 | 4355 | 4378 |
| 45° | 4295 | 4295 | 4314 |
| 50° | 4213 | 4225 | 4225 |
| 55° | 4154 | 4138 | 4151 |
| 60° | 4059 | 4056 | 4029 |
| 65° | 3943 | 3940 | 3915 |
| 70° | 3806 | 3797 | 3775 |
| 75° | 3660 | 3648 | 3654 |
| 80° | 3493 | 3424 | 3441 |
| 85° | 3100 | 3100 | 3135 |



TEST NUMBER: P475832

CATALOG NUMBER: 24GR-LD5-120-FGW080-UNV-L830-CD1-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 326.6 | 3.3 |
| 10°-20° | 932.9 | 9.5 |
| 20°-30° | 1406.4 | 14.3 |
| 30°-40° | 1685.4 | 17.1 |
| 40°-50° | 1741.3 | 17.7 |
| 50°-60° | 1577.0 | 16.0 |
| 60°-70° | 1221.6 | 12.4 |
| 70°-80° | 740.9 | 7.5 |
| 80°-90° | 227.5 | 2.3 |
| 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° | 2665.9 | 27.0 |
| 0°-40° | 4351.3 | 44.1 |
| 0°-60° | 7669.6 | 77.8 |
| 0°-90° | 9859.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 9859.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 3453 | 3453 | 3453 | 3453 | 3453 | |
| 5° | 3453 | 3440 | 3432 | 3432 | 3440 | 328 |
| 15° | 3317 | 3307 | 3302 | 3304 | 3310 | 936 |
| 25° | 3056 | 3050 | 3047 | 3054 | 3058 | 1409 |
| 35° | 2697 | 2687 | 2692 | 2697 | 2702 | 1686 |
| 45° | 2257 | 2253 | 2257 | 2261 | 2267 | 1740 |
| 55° | 1771 | 1761 | 1764 | 1766 | 1770 | 1578 |
| 65° | 1238 | 1232 | 1237 | 1234 | 1230 | 1224 |
| 75° | 704 | 704 | 702 | 695 | 703 | 747 |
| 85° | 201 | 204 | 201 | 198 | 203 | 231 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P475832

CATALOG NUMBER: 24GR-LD5-120-FGW080-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 3453.4 | 3453.4 | 3453.4 | 3453.4 | 3453.4 |
| 2.5° | 3465.6 | 3453.4 | 3444.4 | 3444.4 | 3452.3 |
| 5° | 3453.4 | 3440.0 | 3432.2 | 3432.2 | 3440.0 |
| 7.5° | 3433.3 | 3418.8 | 3412.1 | 3412.1 | 3418.8 |
| 10° | 3400.9 | 3389.8 | 3384.2 | 3384.2 | 3390.9 |
| 12.5° | 3363.0 | 3352.9 | 3346.3 | 3347.4 | 3354.1 |
| 15° | 3317.2 | 3307.2 | 3301.6 | 3303.9 | 3310.5 |
| 17.5° | 3263.7 | 3253.6 | 3249.2 | 3252.5 | 3260.3 |
| 20° | 3203.4 | 3191.2 | 3188.9 | 3192.3 | 3201.2 |
| 22.5° | 3130.9 | 3123.1 | 3122.0 | 3127.6 | 3135.4 |
| 25° | 3056.1 | 3049.5 | 3047.2 | 3053.9 | 3058.4 |
| 27.5° | 2979.2 | 2966.9 | 2971.3 | 2972.5 | 2979.2 |
| 30° | 2892.1 | 2881.0 | 2881.0 | 2885.4 | 2892.1 |
| 32.5° | 2791.7 | 2785.0 | 2790.6 | 2796.2 | 2806.2 |
| 35° | 2696.9 | 2686.8 | 2692.4 | 2696.9 | 2702.4 |
| 37.5° | 2589.7 | 2587.5 | 2588.6 | 2595.3 | 2604.3 |
| 40° | 2486.0 | 2479.3 | 2479.3 | 2488.2 | 2492.7 |
| 42.5° | 2372.2 | 2366.6 | 2371.1 | 2375.5 | 2377.7 |
| 45° | 2257.2 | 2252.8 | 2257.2 | 2260.6 | 2267.3 |
| 47.5° | 2134.5 | 2135.6 | 2136.7 | 2139.0 | 2145.7 |
| 50° | 2012.9 | 2017.3 | 2018.5 | 2022.9 | 2018.5 |
| 52.5° | 1886.8 | 1887.9 | 1892.4 | 1893.5 | 1894.6 |
| 55° | 1770.8 | 1760.7 | 1764.1 | 1766.3 | 1769.6 |
| 57.5° | 1634.6 | 1631.3 | 1631.3 | 1634.6 | 1636.9 |
| 60° | 1508.5 | 1501.9 | 1507.4 | 1500.7 | 1497.4 |
| 62.5° | 1368.0 | 1370.2 | 1372.4 | 1371.3 | 1365.7 |
| 65° | 1238.5 | 1231.8 | 1237.4 | 1234.1 | 1229.6 |
| 67.5° | 1102.4 | 1096.8 | 1099.1 | 1097.9 | 1096.8 |
| 70° | 967.4 | 967.4 | 965.2 | 959.6 | 959.6 |
| 72.5° | 840.2 | 833.5 | 835.7 | 829.0 | 829.0 |
| 75° | 704.1 | 704.1 | 701.8 | 695.1 | 702.9 |
| 77.5° | 576.9 | 573.5 | 571.3 | 566.8 | 566.8 |
| 80° | 450.8 | 443.0 | 441.9 | 441.9 | 444.1 |
| 82.5° | 326.9 | 321.3 | 319.1 | 319.1 | 320.2 |
| 85° | 200.8 | 204.2 | 200.8 | 197.5 | 203.1 |
| 87.5° | 94.8 | 90.4 | 90.4 | 93.7 | 96.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)