

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: P476231

Luminaire Tested: **14GR-LD5-60-F125-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476231
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-60-F125-UNV-L840-CD1-U
Description: GR 1'X4' LED TROFFER w/ F125 LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6263.1 lumens
Efficiency: N/A
Efficacy: 120.2 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.23
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

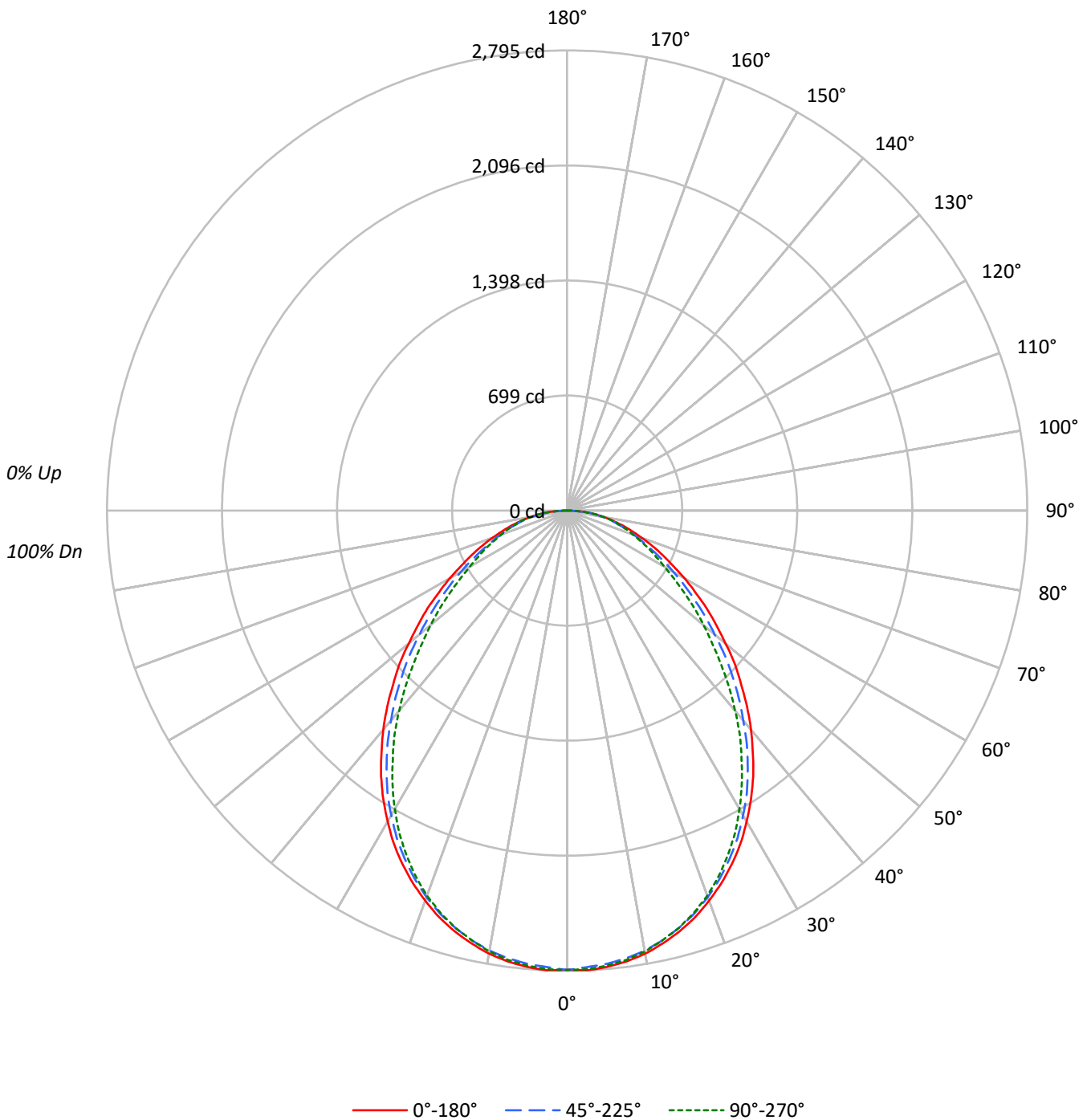
Input Watts (W): 52.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 105 | 101 | 97 | 107 | 103 | 99 | 96 | 98 | 95 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | 85 |
| 2 | 100 | 93 | 86 | 81 | 98 | 91 | 85 | 80 | 87 | 82 | 78 | 84 | 80 | 76 | 81 | 78 | 75 | 72 |
| 3 | 92 | 82 | 74 | 68 | 90 | 81 | 73 | 68 | 78 | 72 | 67 | 75 | 70 | 65 | 72 | 68 | 64 | 62 |
| 4 | 85 | 73 | 65 | 59 | 83 | 72 | 64 | 58 | 70 | 63 | 58 | 67 | 62 | 57 | 65 | 60 | 56 | 54 |
| 5 | 78 | 66 | 58 | 51 | 76 | 65 | 57 | 51 | 63 | 56 | 51 | 61 | 55 | 50 | 59 | 54 | 50 | 47 |
| 6 | 73 | 60 | 52 | 45 | 71 | 59 | 51 | 45 | 57 | 50 | 45 | 56 | 49 | 44 | 54 | 48 | 44 | 42 |
| 7 | 68 | 55 | 46 | 41 | 66 | 54 | 46 | 40 | 52 | 45 | 40 | 51 | 45 | 40 | 50 | 44 | 40 | 38 |
| 8 | 63 | 50 | 42 | 36 | 62 | 50 | 42 | 36 | 48 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 34 |
| 9 | 59 | 46 | 38 | 33 | 58 | 46 | 38 | 33 | 45 | 38 | 33 | 44 | 37 | 33 | 43 | 37 | 33 | 31 |
| 10 | 56 | 43 | 35 | 30 | 54 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 40 | 34 | 30 | 28 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 7507 | 7507 | 7507 |
| 5° | 7516 | 7466 | 7493 |
| 10° | 7466 | 7415 | 7431 |
| 15° | 7369 | 7309 | 7309 |
| 20° | 7221 | 7152 | 7127 |
| 25° | 7032 | 6930 | 6858 |
| 30° | 6776 | 6642 | 6504 |
| 35° | 6472 | 6284 | 6067 |
| 40° | 6105 | 5848 | 5577 |
| 45° | 5692 | 5398 | 5033 |
| 50° | 5261 | 4895 | 4529 |
| 55° | 4853 | 4436 | 4074 |
| 60° | 4426 | 4010 | 3678 |
| 65° | 4069 | 3640 | 3476 |
| 70° | 3777 | 3404 | 3337 |
| 75° | 3605 | 3307 | 3367 |
| 80° | 3530 | 3330 | 3508 |
| 85° | 3628 | 3273 | 3495 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 263.2 | 4.2 |
| 10°-20° | 740.9 | 11.8 |
| 20°-30° | 1074.7 | 17.2 |
| 30°-40° | 1193.3 | 19.1 |
| 40°-50° | 1091.7 | 17.4 |
| 50°-60° | 850.5 | 13.6 |
| 60°-70° | 581.0 | 9.3 |
| 70°-80° | 347.1 | 5.5 |
| 80°-90° | 120.7 | 1.9 |
| 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° | 2078.8 | 33.2 |
| 0°-40° | 3272.1 | 52.2 |
| 0°-60° | 5214.3 | 83.3 |
| 0°-90° | 6263.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 6263.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2790 | 2790 | 2790 | 2790 | 2790 | |
| 5° | 2782 | 2777 | 2764 | 2778 | 2774 | 264 |
| 15° | 2645 | 2638 | 2624 | 2634 | 2624 | 745 |
| 25° | 2368 | 2358 | 2334 | 2327 | 2310 | 1089 |
| 35° | 1970 | 1953 | 1913 | 1873 | 1847 | 1229 |
| 45° | 1496 | 1476 | 1418 | 1353 | 1322 | 1155 |
| 55° | 1034 | 1003 | 946 | 890 | 868 | 924 |
| 65° | 639 | 615 | 572 | 546 | 546 | 636 |
| 75° | 347 | 332 | 318 | 324 | 324 | 368 |
| 85° | 118 | 112 | 106 | 116 | 113 | 127 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P476231

CATALOG NUMBER: 14GR-LD5-60-F125-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2789.7 | 2789.7 | 2789.7 | 2789.7 | 2789.7 |
| 2.5° | 2795.4 | 2788.2 | 2775.3 | 2789.7 | 2788.2 |
| 5° | 2782.5 | 2776.8 | 2763.9 | 2778.2 | 2773.9 |
| 7.5° | 2762.4 | 2756.7 | 2742.4 | 2758.1 | 2752.4 |
| 10° | 2732.4 | 2725.2 | 2713.7 | 2725.2 | 2719.5 |
| 12.5° | 2692.2 | 2685.1 | 2673.6 | 2683.6 | 2673.6 |
| 15° | 2645.0 | 2637.8 | 2623.5 | 2633.5 | 2623.5 |
| 17.5° | 2589.1 | 2579.0 | 2567.6 | 2569.0 | 2560.4 |
| 20° | 2521.7 | 2511.7 | 2497.4 | 2497.4 | 2488.8 |
| 22.5° | 2448.7 | 2438.6 | 2421.4 | 2415.7 | 2404.2 |
| 25° | 2368.4 | 2358.4 | 2334.0 | 2326.9 | 2309.7 |
| 27.5° | 2281.0 | 2265.3 | 2240.9 | 2225.1 | 2207.9 |
| 30° | 2180.7 | 2167.8 | 2137.7 | 2114.8 | 2093.3 |
| 32.5° | 2079.0 | 2066.1 | 2031.7 | 1997.3 | 1974.4 |
| 35° | 1970.1 | 1952.9 | 1912.8 | 1872.7 | 1846.9 |
| 37.5° | 1852.6 | 1838.3 | 1792.4 | 1743.7 | 1723.7 |
| 40° | 1738.0 | 1719.4 | 1664.9 | 1614.8 | 1587.5 |
| 42.5° | 1617.6 | 1597.6 | 1543.1 | 1485.8 | 1455.7 |
| 45° | 1495.8 | 1475.8 | 1418.5 | 1352.6 | 1322.5 |
| 47.5° | 1382.7 | 1356.9 | 1296.7 | 1230.8 | 1195.0 |
| 50° | 1256.6 | 1235.1 | 1169.2 | 1106.1 | 1081.8 |
| 52.5° | 1139.1 | 1119.0 | 1057.4 | 995.8 | 972.9 |
| 55° | 1034.5 | 1003.0 | 945.6 | 889.8 | 868.3 |
| 57.5° | 922.7 | 896.9 | 842.5 | 789.5 | 768.0 |
| 60° | 822.4 | 802.4 | 745.1 | 699.2 | 683.4 |
| 62.5° | 723.6 | 707.8 | 654.8 | 620.4 | 610.4 |
| 65° | 639.0 | 614.7 | 571.7 | 545.9 | 545.9 |
| 67.5° | 558.8 | 534.4 | 497.2 | 487.2 | 478.6 |
| 70° | 480.0 | 461.4 | 432.7 | 424.1 | 424.1 |
| 72.5° | 409.8 | 394.0 | 374.0 | 371.1 | 376.8 |
| 75° | 346.7 | 332.4 | 318.1 | 323.8 | 323.8 |
| 77.5° | 283.7 | 273.7 | 267.9 | 270.8 | 276.5 |
| 80° | 227.8 | 220.7 | 214.9 | 222.1 | 226.4 |
| 82.5° | 174.8 | 167.6 | 163.3 | 173.4 | 171.9 |
| 85° | 117.5 | 111.8 | 106.0 | 116.1 | 113.2 |
| 87.5° | 58.7 | 55.9 | 45.8 | 51.6 | 44.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)