

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: P476381

Luminaire Tested: **14GR-LD5-40-FGW080-UNV-L850-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476381
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-40-FGW080-UNV-L850-CD1-U
Description: GR 1'X4' LED TROFFER w/ FGW080 LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3443.8 lumens
Efficiency: N/A
Efficacy: 110.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

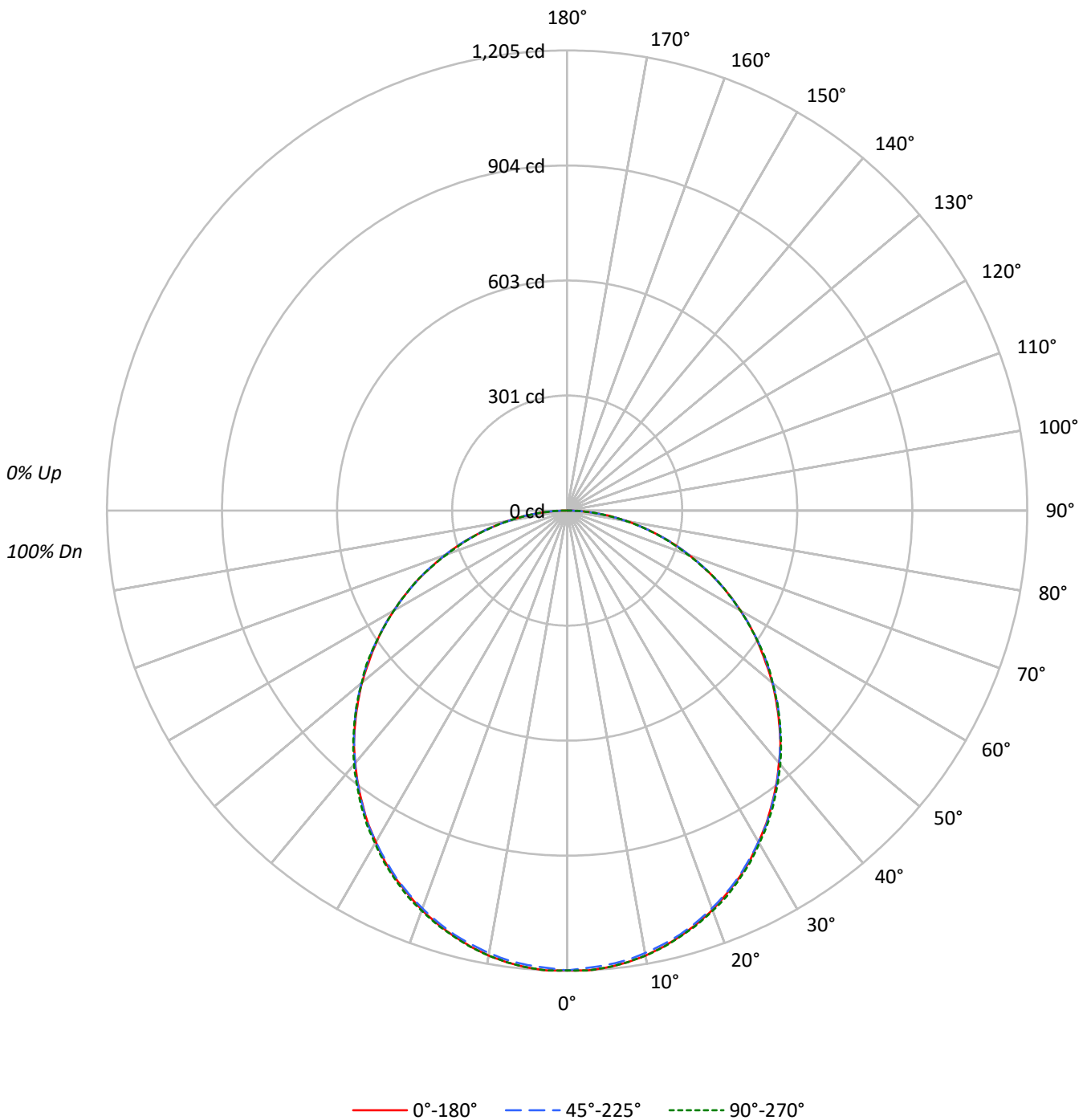
Input Watts (W): 31.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 108 | 103 | 99 | 95 | 106 | 101 | 97 | 93 | 97 | 94 | 91 | 93 | 90 | 88 | 89 | 87 | 85 | 83 |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 84 | 79 | 74 | 81 | 77 | 73 | 78 | 74 | 71 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 54 | 66 | 59 | 53 | 64 | 57 | 52 | 61 | 56 | 51 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 53 | 46 | 59 | 51 | 46 | 57 | 50 | 45 | 55 | 49 | 45 | 42 |
| 6 | 70 | 56 | 47 | 40 | 68 | 55 | 47 | 40 | 53 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 39 | 37 |
| 7 | 64 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 48 | 41 | 35 | 47 | 40 | 35 | 46 | 39 | 35 | 33 |
| 8 | 60 | 46 | 38 | 32 | 58 | 46 | 37 | 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° | 3241 | 3241 | 3241 |
| 5° | 3244 | 3227 | 3244 |
| 10° | 3234 | 3215 | 3234 |
| 15° | 3211 | 3199 | 3214 |
| 20° | 3187 | 3175 | 3193 |
| 25° | 3154 | 3148 | 3164 |
| 30° | 3113 | 3113 | 3126 |
| 35° | 3074 | 3078 | 3092 |
| 40° | 3032 | 3035 | 3051 |
| 45° | 2987 | 2996 | 3000 |
| 50° | 2936 | 2945 | 2941 |
| 55° | 2877 | 2892 | 2887 |
| 60° | 2820 | 2820 | 2820 |
| 65° | 2756 | 2756 | 2768 |
| 70° | 2668 | 2668 | 2641 |
| 75° | 2574 | 2563 | 2551 |
| 80° | 2459 | 2441 | 2424 |
| 85° | 2306 | 2282 | 2214 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 113.9 | 3.3 |
| 10°-20° | 325.0 | 9.4 |
| 20°-30° | 489.8 | 14.2 |
| 30°-40° | 587.0 | 17.0 |
| 40°-50° | 607.0 | 17.6 |
| 50°-60° | 550.4 | 16.0 |
| 60°-70° | 427.7 | 12.4 |
| 70°-80° | 261.2 | 7.6 |
| 80°-90° | 81.8 | 2.4 |
| 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° | 928.7 | 27.0 |
| 0°-40° | 1515.7 | 44.0 |
| 0°-60° | 2673.1 | 77.6 |
| 0°-90° | 3443.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3443.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1204 | 1204 | 1204 | 1204 | 1204 | |
| 5° | 1201 | 1200 | 1195 | 1200 | 1201 | 114 |
| 15° | 1152 | 1152 | 1148 | 1154 | 1154 | 325 |
| 25° | 1062 | 1062 | 1060 | 1067 | 1066 | 489 |
| 35° | 936 | 937 | 937 | 941 | 941 | 586 |
| 45° | 785 | 786 | 787 | 788 | 788 | 606 |
| 55° | 613 | 615 | 616 | 616 | 615 | 548 |
| 65° | 433 | 433 | 433 | 430 | 435 | 427 |
| 75° | 248 | 248 | 246 | 245 | 245 | 262 |
| 85° | 75 | 73 | 74 | 72 | 72 | 83 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P476381

CATALOG NUMBER: 14GR-LD5-40-FGW080-UNV-L850-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1204.3 | 1204.3 | 1204.3 | 1204.3 | 1204.3 |
| 2.5° | 1205.4 | 1204.3 | 1198.8 | 1204.3 | 1205.4 |
| 5° | 1201.0 | 1199.9 | 1194.6 | 1199.9 | 1201.0 |
| 7.5° | 1193.5 | 1193.5 | 1187.9 | 1193.5 | 1193.5 |
| 10° | 1183.4 | 1182.3 | 1176.7 | 1182.3 | 1183.4 |
| 12.5° | 1169.2 | 1169.2 | 1163.6 | 1169.2 | 1170.3 |
| 15° | 1152.5 | 1152.5 | 1148.3 | 1153.6 | 1153.6 |
| 17.5° | 1133.8 | 1134.9 | 1129.6 | 1136.0 | 1136.0 |
| 20° | 1112.9 | 1111.8 | 1108.7 | 1114.0 | 1115.1 |
| 22.5° | 1087.8 | 1088.9 | 1085.5 | 1092.0 | 1093.1 |
| 25° | 1062.4 | 1062.4 | 1060.2 | 1066.9 | 1065.7 |
| 27.5° | 1034.8 | 1034.8 | 1031.4 | 1037.0 | 1038.1 |
| 30° | 1001.9 | 1003.0 | 1001.9 | 1007.2 | 1006.1 |
| 32.5° | 970.9 | 972.1 | 972.1 | 974.3 | 975.4 |
| 35° | 935.8 | 936.9 | 936.9 | 941.1 | 941.1 |
| 37.5° | 900.4 | 900.4 | 901.5 | 904.8 | 904.8 |
| 40° | 863.0 | 864.1 | 864.1 | 867.5 | 868.6 |
| 42.5° | 826.8 | 824.5 | 825.7 | 829.0 | 829.0 |
| 45° | 784.9 | 786.1 | 787.2 | 788.3 | 788.3 |
| 47.5° | 743.1 | 745.4 | 746.5 | 747.6 | 746.5 |
| 50° | 701.3 | 703.5 | 703.5 | 702.4 | 702.4 |
| 52.5° | 656.1 | 661.7 | 660.6 | 660.6 | 662.8 |
| 55° | 613.2 | 615.4 | 616.5 | 616.5 | 615.4 |
| 57.5° | 570.2 | 572.5 | 570.2 | 571.4 | 569.1 |
| 60° | 523.9 | 525.1 | 523.9 | 523.9 | 523.9 |
| 62.5° | 478.8 | 479.9 | 477.7 | 477.7 | 477.7 |
| 65° | 432.8 | 432.8 | 432.8 | 430.5 | 434.7 |
| 67.5° | 384.2 | 386.5 | 386.5 | 387.6 | 383.1 |
| 70° | 339.1 | 340.2 | 339.1 | 338.0 | 335.7 |
| 72.5° | 293.9 | 295.0 | 296.1 | 291.7 | 290.6 |
| 75° | 247.6 | 247.6 | 246.5 | 245.4 | 245.4 |
| 77.5° | 202.4 | 202.4 | 202.4 | 200.5 | 200.5 |
| 80° | 158.7 | 159.5 | 157.5 | 157.5 | 156.4 |
| 82.5° | 115.7 | 115.7 | 115.7 | 114.6 | 112.4 |
| 85° | 74.7 | 72.8 | 73.9 | 71.7 | 71.7 |
| 87.5° | 34.0 | 34.0 | 34.0 | 31.8 | 36.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)