

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: P475636

Luminaire Tested: **24GR-LD5-100-F125-UNV-L850-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475636
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-100-F125-UNV-L850-CD1-U
Description: GR 2'X4' LED TROFFER w/ F125 LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10244.5 lumens
Efficiency: N/A
Efficacy: 152.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

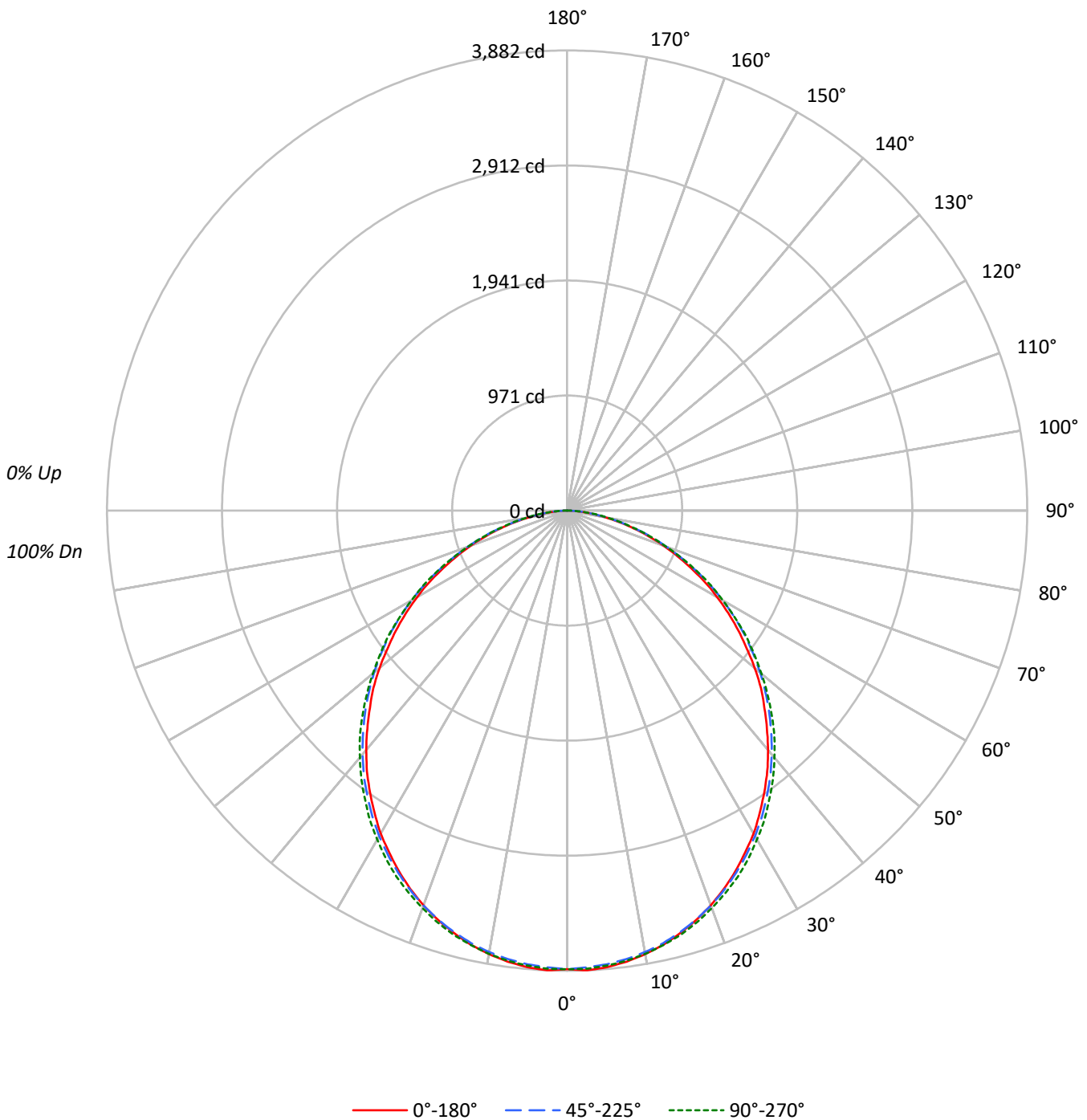
Input Watts (W): 67.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 104 | 100 | 97 | 106 | 102 | 98 | 95 | 98 | 95 | 92 | 94 | 91 | 89 | 90 | 88 | 86 | 84 |
| 2 | 99 | 91 | 85 | 79 | 97 | 89 | 83 | 78 | 86 | 81 | 76 | 83 | 78 | 75 | 80 | 76 | 73 | 71 |
| 3 | 91 | 80 | 72 | 66 | 88 | 79 | 71 | 65 | 76 | 69 | 64 | 73 | 68 | 63 | 71 | 66 | 62 | 60 |
| 4 | 83 | 71 | 63 | 56 | 81 | 70 | 62 | 56 | 68 | 61 | 55 | 65 | 59 | 54 | 63 | 58 | 53 | 51 |
| 5 | 77 | 64 | 55 | 48 | 74 | 63 | 54 | 48 | 61 | 53 | 48 | 59 | 52 | 47 | 57 | 51 | 47 | 45 |
| 6 | 71 | 58 | 49 | 42 | 69 | 57 | 48 | 42 | 55 | 47 | 42 | 53 | 47 | 41 | 52 | 46 | 41 | 39 |
| 7 | 66 | 52 | 44 | 38 | 64 | 51 | 43 | 37 | 50 | 43 | 37 | 48 | 42 | 37 | 47 | 41 | 37 | 35 |
| 8 | 61 | 48 | 39 | 34 | 60 | 47 | 39 | 33 | 46 | 38 | 33 | 45 | 38 | 33 | 43 | 37 | 33 | 31 |
| 9 | 57 | 44 | 36 | 30 | 56 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 28 |
| 10 | 54 | 41 | 33 | 27 | 52 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5206 | 5206 | 5206 |
| 5° | 5222 | 5189 | 5203 |
| 10° | 5191 | 5167 | 5188 |
| 15° | 5140 | 5129 | 5160 |
| 20° | 5074 | 5076 | 5110 |
| 25° | 4986 | 5006 | 5058 |
| 30° | 4889 | 4925 | 4977 |
| 35° | 4763 | 4828 | 4884 |
| 40° | 4632 | 4716 | 4778 |
| 45° | 4479 | 4588 | 4647 |
| 50° | 4323 | 4449 | 4479 |
| 55° | 4136 | 4284 | 4316 |
| 60° | 3938 | 4073 | 4077 |
| 65° | 3679 | 3822 | 3842 |
| 70° | 3409 | 3505 | 3493 |
| 75° | 3028 | 3137 | 3146 |
| 80° | 2534 | 2624 | 2722 |
| 85° | 1900 | 2044 | 2117 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 365.5 | 3.6 |
| 10°-20° | 1040.0 | 10.2 |
| 20°-30° | 1554.7 | 15.2 |
| 30°-40° | 1836.8 | 17.9 |
| 40°-50° | 1854.2 | 18.1 |
| 50°-60° | 1618.2 | 15.8 |
| 60°-70° | 1179.7 | 11.5 |
| 70°-80° | 636.2 | 6.2 |
| 80°-90° | 159.3 | 1.6 |
| 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° | 2960.2 | 28.9 |
| 0°-40° | 4797.0 | 46.8 |
| 0°-60° | 8269.4 | 80.7 |
| 0°-90° | 10244.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 10244.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 3869 | 3869 | 3869 | 3869 | 3869 | |
| 5° | 3866 | 3852 | 3842 | 3845 | 3853 | 367 |
| 15° | 3690 | 3682 | 3682 | 3691 | 3705 | 1040 |
| 25° | 3358 | 3359 | 3372 | 3393 | 3407 | 1546 |
| 35° | 2900 | 2908 | 2939 | 2968 | 2973 | 1814 |
| 45° | 2354 | 2371 | 2411 | 2441 | 2442 | 1817 |
| 55° | 1763 | 1785 | 1826 | 1833 | 1840 | 1576 |
| 65° | 1156 | 1181 | 1200 | 1203 | 1207 | 1148 |
| 75° | 582 | 588 | 603 | 606 | 605 | 619 |
| 85° | 123 | 126 | 132 | 139 | 137 | 150 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P475636

CATALOG NUMBER: 24GR-LD5-100-F125-UNV-L850-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 3868.9 | 3868.9 | 3868.9 | 3868.9 | 3868.9 |
| 2.5° | 3881.7 | 3867.7 | 3856.7 | 3859.0 | 3868.3 |
| 5° | 3866.0 | 3852.1 | 3841.6 | 3845.1 | 3852.6 |
| 7.5° | 3838.1 | 3825.4 | 3817.2 | 3820.7 | 3830.6 |
| 10° | 3799.8 | 3789.3 | 3781.8 | 3787.0 | 3797.5 |
| 12.5° | 3751.0 | 3740.6 | 3737.7 | 3745.2 | 3754.5 |
| 15° | 3690.0 | 3682.5 | 3681.9 | 3690.6 | 3704.6 |
| 17.5° | 3621.5 | 3614.0 | 3618.0 | 3629.6 | 3641.8 |
| 20° | 3543.7 | 3536.7 | 3544.9 | 3560.5 | 3568.7 |
| 22.5° | 3454.8 | 3449.0 | 3463.5 | 3479.8 | 3490.3 |
| 25° | 3358.4 | 3359.0 | 3371.8 | 3393.3 | 3407.2 |
| 27.5° | 3251.6 | 3255.6 | 3274.8 | 3295.7 | 3309.7 |
| 30° | 3146.5 | 3143.0 | 3170.3 | 3192.9 | 3203.4 |
| 32.5° | 3024.5 | 3026.2 | 3058.2 | 3081.4 | 3097.1 |
| 35° | 2899.6 | 2907.8 | 2939.1 | 2967.6 | 2973.4 |
| 37.5° | 2773.6 | 2779.4 | 2817.2 | 2845.1 | 2852.6 |
| 40° | 2637.2 | 2647.6 | 2684.8 | 2710.9 | 2720.2 |
| 42.5° | 2494.9 | 2508.2 | 2548.3 | 2575.6 | 2587.8 |
| 45° | 2353.7 | 2370.6 | 2411.2 | 2441.4 | 2442.0 |
| 47.5° | 2217.3 | 2229.5 | 2269.0 | 2295.7 | 2292.8 |
| 50° | 2065.1 | 2083.1 | 2125.5 | 2141.8 | 2140.0 |
| 52.5° | 1909.5 | 1936.8 | 1975.7 | 1988.5 | 1986.7 |
| 55° | 1763.1 | 1784.6 | 1826.4 | 1833.4 | 1839.8 |
| 57.5° | 1611.6 | 1630.1 | 1675.4 | 1678.3 | 1677.2 |
| 60° | 1463.5 | 1480.3 | 1513.4 | 1521.5 | 1515.2 |
| 62.5° | 1314.2 | 1331.1 | 1360.7 | 1368.8 | 1367.6 |
| 65° | 1155.7 | 1180.6 | 1200.4 | 1202.7 | 1206.8 |
| 67.5° | 1008.2 | 1023.8 | 1043.0 | 1046.5 | 1043.6 |
| 70° | 866.5 | 879.8 | 890.9 | 893.2 | 888.0 |
| 72.5° | 720.1 | 732.3 | 748.0 | 750.9 | 745.1 |
| 75° | 582.5 | 588.3 | 603.4 | 605.7 | 605.1 |
| 77.5° | 448.9 | 453.6 | 464.6 | 473.3 | 474.5 |
| 80° | 327.0 | 328.7 | 338.6 | 345.0 | 351.3 |
| 82.5° | 216.6 | 221.3 | 228.8 | 235.2 | 241.0 |
| 85° | 123.1 | 126.0 | 132.4 | 138.8 | 137.1 |
| 87.5° | 47.6 | 54.0 | 54.6 | 61.0 | 63.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)