

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: P293026

Luminaire Tested: **24GR-LD5-85-F1-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293026
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-12)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-85-F1-UNV-L82765-W2A1-U-2700K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (336) 80 CRI LEDS TUNED TO 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7606.0 lumens
Efficiency: N/A
Efficacy: 121.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.25
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

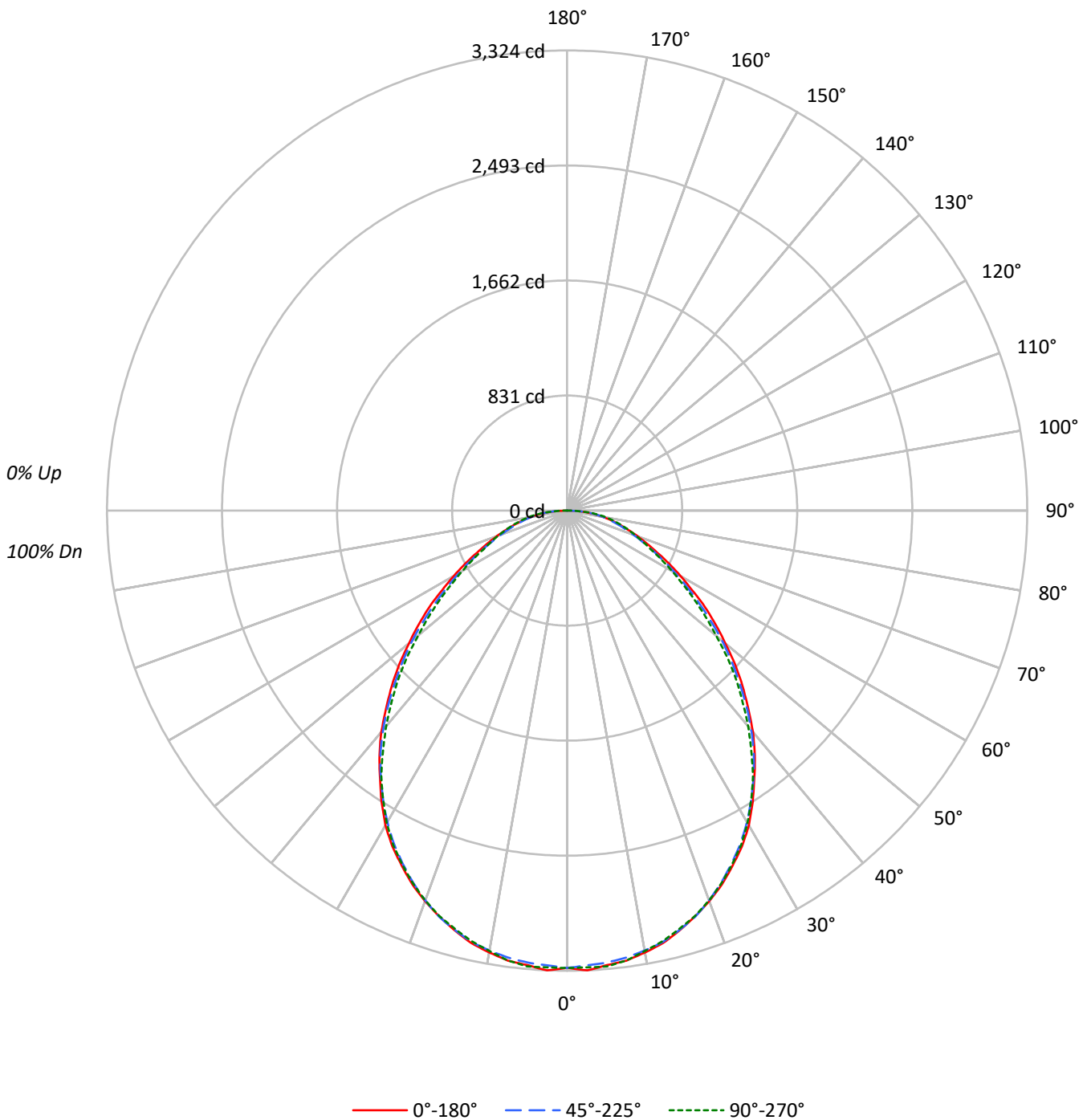
Input Watts (W): 62.403
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 50 | 61 | 55 | 50 | 59 | 54 | 49 | 47 |
| 6 | 73 | 60 | 51 | 45 | 71 | 59 | 51 | 45 | 57 | 50 | 45 | 56 | 49 | 44 | 54 | 48 | 44 | 42 |
| 7 | 68 | 55 | 46 | 40 | 66 | 54 | 46 | 40 | 52 | 45 | 40 | 51 | 44 | 40 | 50 | 44 | 39 | 37 |
| 8 | 63 | 50 | 42 | 36 | 62 | 49 | 42 | 36 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 36 | 34 |
| 9 | 59 | 46 | 38 | 33 | 58 | 46 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 32 | 42 | 37 | 32 | 31 |
| 10 | 56 | 43 | 35 | 30 | 54 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 30 | 39 | 34 | 30 | 28 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4445 | 4445 | 4445 |
| 5° | 4452 | 4426 | 4464 |
| 10° | 4428 | 4409 | 4413 |
| 15° | 4373 | 4368 | 4357 |
| 20° | 4299 | 4290 | 4290 |
| 25° | 4199 | 4176 | 4185 |
| 30° | 4078 | 4036 | 4048 |
| 35° | 3873 | 3855 | 3845 |
| 40° | 3668 | 3634 | 3571 |
| 45° | 3409 | 3349 | 3284 |
| 50° | 3123 | 3054 | 2939 |
| 55° | 2852 | 2723 | 2631 |
| 60° | 2541 | 2419 | 2356 |
| 65° | 2287 | 2168 | 2138 |
| 70° | 2123 | 1993 | 2074 |
| 75° | 2031 | 1941 | 2104 |
| 80° | 2030 | 2030 | 2249 |
| 85° | 2107 | 2132 | 2373 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 312.0 | 4.1 |
| 10°-20° | 883.0 | 11.6 |
| 20°-30° | 1295.9 | 17.0 |
| 30°-40° | 1465.1 | 19.3 |
| 40°-50° | 1354.1 | 17.8 |
| 50°-60° | 1043.2 | 13.7 |
| 60°-70° | 690.8 | 9.1 |
| 70°-80° | 411.2 | 5.4 |
| 80°-90° | 150.6 | 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° | 2490.9 | 32.7 |
| 0°-40° | 3956.0 | 52.0 |
| 0°-60° | 6353.3 | 83.5 |
| 0°-90° | 7606.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 7606.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 3304 | 3304 | 3304 | 3304 | 3304 | |
| 5° | 3296 | 3296 | 3277 | 3279 | 3305 | 313 |
| 15° | 3139 | 3133 | 3136 | 3134 | 3128 | 885 |
| 25° | 2828 | 2821 | 2813 | 2810 | 2819 | 1302 |
| 35° | 2358 | 2355 | 2347 | 2336 | 2341 | 1475 |
| 45° | 1792 | 1779 | 1760 | 1729 | 1726 | 1380 |
| 55° | 1216 | 1191 | 1161 | 1130 | 1122 | 1084 |
| 65° | 718 | 708 | 681 | 675 | 671 | 720 |
| 75° | 391 | 381 | 373 | 391 | 405 | 417 |
| 85° | 136 | 129 | 138 | 152 | 154 | 145 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P293026

CATALOG NUMBER: 24GR-LD5-85-F1-UNV-L82765-W2A1-U-2700K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 3303.9 | 3303.9 | 3303.9 | 3303.9 | 3303.9 |
| 2.5° | 3324.3 | 3307.0 | 3288.2 | 3288.2 | 3302.3 |
| 5° | 3296.0 | 3296.0 | 3277.2 | 3278.8 | 3305.4 |
| 7.5° | 3278.8 | 3269.4 | 3256.8 | 3256.8 | 3277.2 |
| 10° | 3241.1 | 3233.3 | 3227.0 | 3223.9 | 3230.1 |
| 12.5° | 3200.3 | 3187.8 | 3192.5 | 3187.8 | 3186.2 |
| 15° | 3139.1 | 3132.9 | 3136.0 | 3134.4 | 3128.2 |
| 17.5° | 3073.3 | 3070.1 | 3076.4 | 3065.4 | 3070.1 |
| 20° | 3002.7 | 2993.2 | 2996.4 | 2990.1 | 2996.4 |
| 22.5° | 2922.7 | 2916.4 | 2908.5 | 2900.7 | 2913.2 |
| 25° | 2828.5 | 2820.7 | 2812.8 | 2809.7 | 2819.1 |
| 27.5° | 2734.4 | 2721.8 | 2710.9 | 2707.7 | 2721.8 |
| 30° | 2624.6 | 2610.5 | 2597.9 | 2594.8 | 2605.8 |
| 32.5° | 2494.4 | 2491.2 | 2475.5 | 2469.3 | 2474.0 |
| 35° | 2357.9 | 2354.7 | 2346.9 | 2335.9 | 2340.6 |
| 37.5° | 2227.7 | 2226.1 | 2215.1 | 2196.3 | 2183.8 |
| 40° | 2088.1 | 2077.1 | 2069.2 | 2042.6 | 2033.1 |
| 42.5° | 1934.3 | 1931.2 | 1917.1 | 1887.3 | 1876.3 |
| 45° | 1791.6 | 1779.0 | 1760.2 | 1728.8 | 1725.7 |
| 47.5° | 1644.1 | 1626.8 | 1609.6 | 1570.4 | 1568.8 |
| 50° | 1491.9 | 1479.4 | 1459.0 | 1419.8 | 1404.1 |
| 52.5° | 1350.7 | 1333.5 | 1305.2 | 1267.6 | 1259.7 |
| 55° | 1215.8 | 1190.7 | 1160.9 | 1129.5 | 1121.7 |
| 57.5° | 1071.5 | 1060.5 | 1024.4 | 999.3 | 989.9 |
| 60° | 944.4 | 935.0 | 898.9 | 875.4 | 875.4 |
| 62.5° | 829.9 | 815.8 | 784.4 | 768.7 | 768.7 |
| 65° | 718.5 | 707.5 | 680.9 | 674.6 | 671.4 |
| 67.5° | 622.8 | 608.7 | 589.9 | 588.3 | 596.1 |
| 70° | 539.7 | 522.4 | 506.7 | 522.4 | 527.1 |
| 72.5° | 461.2 | 450.2 | 436.1 | 456.5 | 465.9 |
| 75° | 390.6 | 381.2 | 373.4 | 390.6 | 404.7 |
| 77.5° | 326.3 | 316.9 | 316.9 | 335.7 | 348.3 |
| 80° | 262.0 | 255.7 | 262.0 | 277.7 | 290.2 |
| 82.5° | 200.8 | 196.1 | 203.9 | 219.6 | 227.5 |
| 85° | 136.5 | 128.6 | 138.1 | 152.2 | 153.7 |
| 87.5° | 64.3 | 62.8 | 69.0 | 78.4 | 76.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)