

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: P293784

Luminaire Tested: **24GR-LD5-85-A125-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293784
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33307)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-85-A125-UNV-L82765-W2A1-U-3500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A125 LENS
Light Source: (336) 80 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8111.0 lumens
Efficiency: N/A
Efficacy: 129.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.22 / 1.27
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

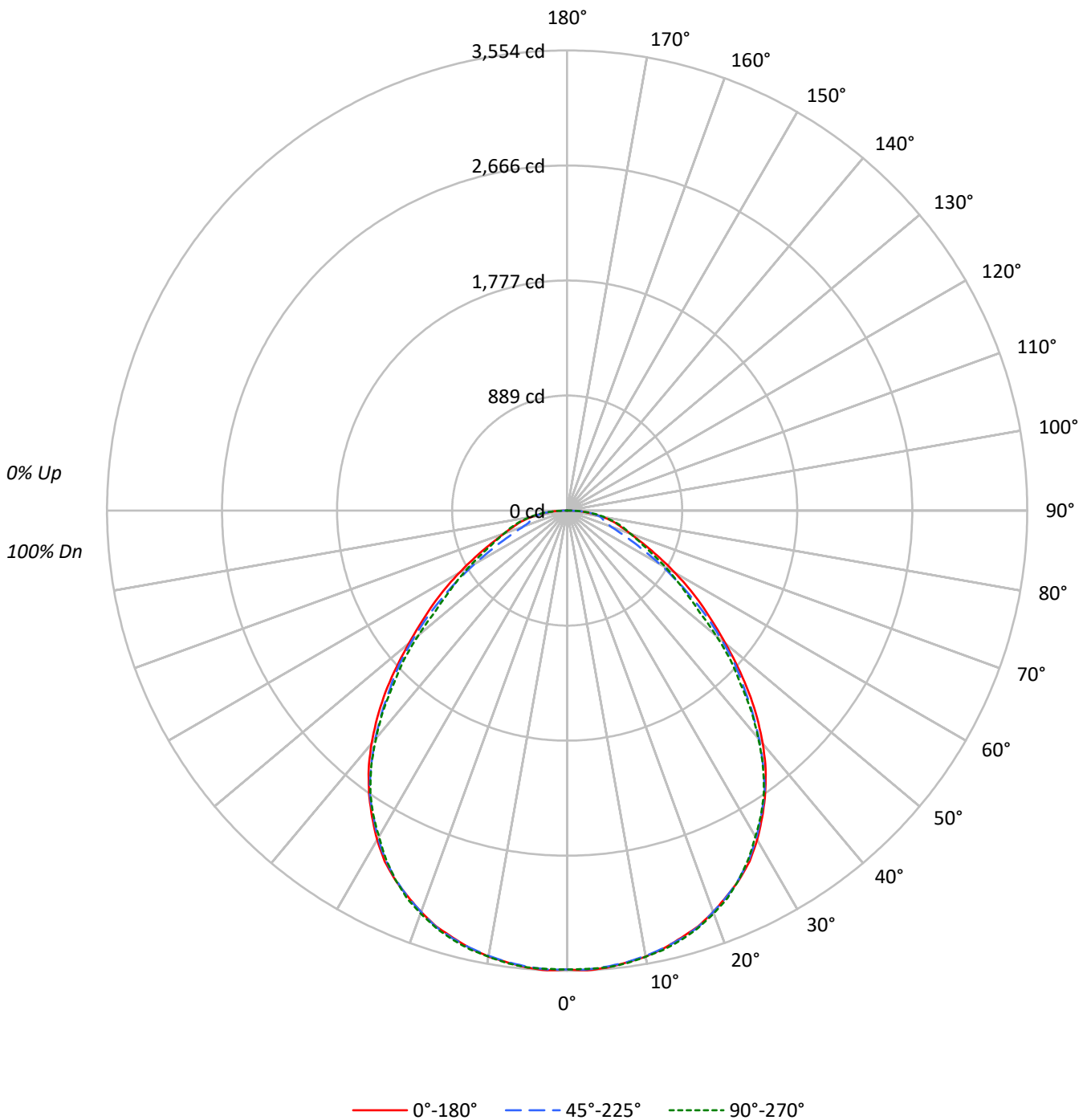
Input Watts (W): 62.682
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 110 | 105 | 101 | 98 | 107 | 103 | 100 | 96 | 99 | 96 | 93 | 95 | 93 | 90 | 91 | 90 | 88 | 86 |
| 2 | 101 | 93 | 87 | 82 | 98 | 91 | 86 | 81 | 88 | 83 | 79 | 85 | 81 | 77 | 82 | 79 | 76 | 74 |
| 3 | 93 | 83 | 76 | 70 | 90 | 82 | 75 | 69 | 79 | 73 | 68 | 76 | 71 | 67 | 73 | 69 | 66 | 64 |
| 4 | 86 | 75 | 66 | 60 | 83 | 73 | 66 | 60 | 71 | 64 | 59 | 68 | 63 | 58 | 66 | 61 | 57 | 55 |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 51 | 49 |
| 6 | 73 | 61 | 53 | 47 | 72 | 60 | 52 | 46 | 58 | 51 | 46 | 57 | 50 | 46 | 55 | 50 | 45 | 43 |
| 7 | 68 | 56 | 47 | 42 | 67 | 55 | 47 | 41 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 43 | 37 | 49 | 42 | 37 | 48 | 41 | 37 | 47 | 41 | 37 | 35 |
| 9 | 60 | 47 | 39 | 34 | 58 | 46 | 39 | 34 | 45 | 38 | 34 | 44 | 38 | 33 | 43 | 38 | 33 | 32 |
| 10 | 56 | 44 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 31 | 40 | 35 | 30 | 29 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4769 | 4769 | 4769 |
| 5° | 4785 | 4775 | 4784 |
| 10° | 4778 | 4771 | 4780 |
| 15° | 4755 | 4764 | 4777 |
| 20° | 4723 | 4723 | 4741 |
| 25° | 4670 | 4661 | 4664 |
| 30° | 4561 | 4537 | 4516 |
| 35° | 4381 | 4369 | 4352 |
| 40° | 4127 | 4052 | 4034 |
| 45° | 3775 | 3672 | 3604 |
| 50° | 3337 | 3271 | 3144 |
| 55° | 2968 | 2766 | 2659 |
| 60° | 2584 | 2213 | 2373 |
| 65° | 2232 | 1716 | 2099 |
| 70° | 2036 | 1404 | 2031 |
| 75° | 2052 | 1513 | 2157 |
| 80° | 2137 | 1970 | 2275 |
| 85° | 2226 | 2343 | 2519 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 336.2 | 4.1 |
| 10°-20° | 964.2 | 11.9 |
| 20°-30° | 1443.3 | 17.8 |
| 30°-40° | 1649.2 | 20.3 |
| 40°-50° | 1491.1 | 18.4 |
| 50°-60° | 1072.7 | 13.2 |
| 60°-70° | 621.9 | 7.7 |
| 70°-80° | 368.9 | 4.5 |
| 80°-90° | 163.4 | 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° | 2743.7 | 33.8 |
| 0°-40° | 4393.0 | 54.2 |
| 0°-60° | 6956.8 | 85.8 |
| 0°-90° | 8111.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 8111.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 3544 | 3544 | 3544 | 3544 | 3544 | |
| 5° | 3543 | 3538 | 3535 | 3530 | 3542 | 337 |
| 15° | 3414 | 3420 | 3420 | 3416 | 3429 | 964 |
| 25° | 3146 | 3142 | 3139 | 3133 | 3142 | 1446 |
| 35° | 2667 | 2655 | 2660 | 2627 | 2650 | 1663 |
| 45° | 1984 | 1950 | 1930 | 1912 | 1894 | 1524 |
| 55° | 1265 | 1241 | 1179 | 1149 | 1134 | 1132 |
| 65° | 701 | 622 | 539 | 602 | 659 | 708 |
| 75° | 395 | 330 | 291 | 359 | 415 | 417 |
| 85° | 144 | 156 | 152 | 175 | 163 | 155 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P293784

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 3544.2 | 3544.2 | 3544.2 | 3544.2 | 3544.2 |
| 2.5° | 3554.3 | 3541.7 | 3548.0 | 3544.2 | 3543.0 |
| 5° | 3543.0 | 3537.9 | 3535.4 | 3530.3 | 3541.7 |
| 7.5° | 3520.2 | 3516.4 | 3517.7 | 3518.9 | 3526.5 |
| 10° | 3497.4 | 3491.1 | 3492.3 | 3494.9 | 3498.7 |
| 12.5° | 3462.0 | 3458.2 | 3459.4 | 3462.0 | 3470.8 |
| 15° | 3413.9 | 3420.2 | 3420.2 | 3416.4 | 3429.1 |
| 17.5° | 3365.8 | 3364.5 | 3370.9 | 3359.5 | 3377.2 |
| 20° | 3298.7 | 3300.0 | 3298.7 | 3300.0 | 3311.4 |
| 22.5° | 3222.8 | 3229.2 | 3225.4 | 3225.4 | 3238.0 |
| 25° | 3145.6 | 3141.8 | 3139.3 | 3133.0 | 3141.8 |
| 27.5° | 3053.3 | 3045.7 | 3039.4 | 3026.7 | 3033.0 |
| 30° | 2935.6 | 2936.9 | 2920.4 | 2909.0 | 2906.5 |
| 32.5° | 2804.0 | 2804.0 | 2788.8 | 2780.0 | 2787.6 |
| 35° | 2667.3 | 2654.7 | 2659.8 | 2626.9 | 2649.6 |
| 37.5° | 2519.3 | 2499.1 | 2487.7 | 2476.3 | 2483.9 |
| 40° | 2349.7 | 2323.2 | 2306.7 | 2283.9 | 2296.6 |
| 42.5° | 2171.3 | 2138.4 | 2118.2 | 2101.7 | 2106.8 |
| 45° | 1984.1 | 1949.9 | 1929.6 | 1911.9 | 1894.2 |
| 47.5° | 1786.7 | 1765.2 | 1755.0 | 1732.3 | 1712.0 |
| 50° | 1594.3 | 1586.7 | 1562.7 | 1543.7 | 1502.0 |
| 52.5° | 1418.4 | 1412.1 | 1374.2 | 1342.5 | 1289.4 |
| 55° | 1265.3 | 1241.3 | 1179.3 | 1148.9 | 1133.7 |
| 57.5° | 1109.7 | 1070.5 | 995.8 | 992.0 | 1002.2 |
| 60° | 960.4 | 912.3 | 822.5 | 842.7 | 881.9 |
| 62.5° | 825.0 | 752.9 | 666.8 | 714.9 | 761.7 |
| 65° | 701.0 | 622.5 | 539.0 | 602.3 | 659.2 |
| 67.5° | 598.5 | 520.1 | 434.0 | 518.8 | 584.6 |
| 70° | 517.5 | 437.8 | 356.8 | 454.3 | 516.3 |
| 72.5° | 450.5 | 378.3 | 311.3 | 403.6 | 468.2 |
| 75° | 394.8 | 330.3 | 291.0 | 359.4 | 415.0 |
| 77.5° | 339.1 | 287.2 | 278.4 | 320.1 | 354.3 |
| 80° | 275.8 | 251.8 | 254.3 | 280.9 | 293.6 |
| 82.5° | 206.3 | 207.5 | 213.8 | 235.4 | 230.3 |
| 85° | 144.2 | 155.6 | 151.8 | 174.6 | 163.2 |
| 87.5° | 79.7 | 87.3 | 82.2 | 100.0 | 89.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)