

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: P293660

Luminaire Tested: **24GR-LD5-85-A-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293660
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33306)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-85-A-UNV-L92765-W2A1-U-4500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A LENS
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7598.0 lumens
Efficiency: N/A
Efficacy: 119.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.26
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

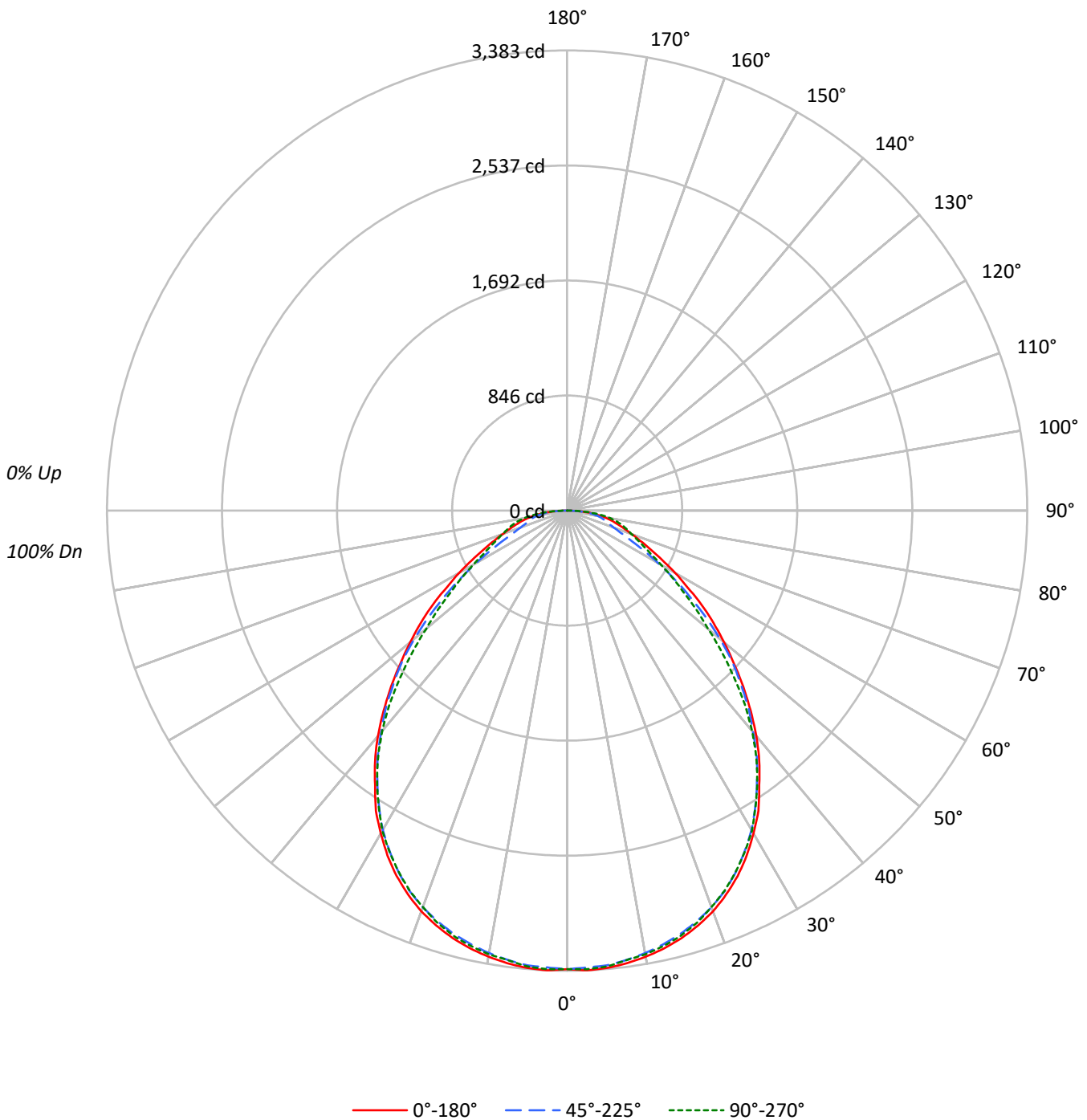
Input Watts (W): 63.612
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P293660

CATALOG NUMBER: 24GR-LD5-85-A-UNV-L92765-W2A1-U-4500K

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 | 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 | | | | | 100 | | | |
| 1 | 110 | 105 | 101 | 98 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 93 | 90 | 91 | 89 | 88 | 86 | | | | | 86 | | | |
| 2 | 101 | 93 | 87 | 82 | 98 | 91 | 86 | 81 | 88 | 83 | 79 | 85 | 81 | 77 | 82 | 78 | 75 | 73 | | | | | 73 | | | |
| 3 | 93 | 83 | 75 | 69 | 90 | 81 | 74 | 69 | 79 | 73 | 68 | 76 | 71 | 67 | 73 | 69 | 65 | 63 | | | | | 63 | | | |
| 4 | 86 | 74 | 66 | 60 | 83 | 73 | 65 | 60 | 71 | 64 | 59 | 68 | 63 | 58 | 66 | 61 | 57 | 55 | | | | | 55 | | | |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 51 | 49 | | | | | 49 | | | |
| 6 | 73 | 61 | 53 | 46 | 72 | 60 | 52 | 46 | 58 | 51 | 46 | 57 | 50 | 45 | 55 | 49 | 45 | 43 | | | | | 43 | | | |
| 7 | 68 | 56 | 47 | 42 | 67 | 55 | 47 | 41 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 | | | | | 39 | | | |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 43 | 37 | 49 | 42 | 37 | 48 | 41 | 37 | 47 | 41 | 37 | 35 | | | | | 35 | | | |
| 9 | 60 | 47 | 39 | 34 | 58 | 46 | 39 | 34 | 45 | 38 | 34 | 44 | 38 | 33 | 43 | 38 | 33 | 32 | | | | | 32 | | | |
| 10 | 56 | 44 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 31 | 40 | 35 | 30 | 29 | | | | | 29 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4536 | 4536 | 4536 |
| 5° | 4558 | 4533 | 4544 |
| 10° | 4550 | 4513 | 4526 |
| 15° | 4532 | 4487 | 4506 |
| 20° | 4489 | 4444 | 4442 |
| 25° | 4402 | 4355 | 4351 |
| 30° | 4256 | 4213 | 4222 |
| 35° | 4043 | 3997 | 4003 |
| 40° | 3802 | 3736 | 3713 |
| 45° | 3484 | 3437 | 3301 |
| 50° | 3150 | 3064 | 2833 |
| 55° | 2828 | 2575 | 2442 |
| 60° | 2477 | 2072 | 2148 |
| 65° | 2160 | 1629 | 1977 |
| 70° | 1976 | 1422 | 1976 |
| 75° | 1977 | 1513 | 2178 |
| 80° | 2146 | 1783 | 2483 |
| 85° | 2356 | 2012 | 2663 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 319.2 | 4.2 |
| 10°-20° | 911.0 | 12.0 |
| 20°-30° | 1350.9 | 17.8 |
| 30°-40° | 1524.0 | 20.1 |
| 40°-50° | 1380.3 | 18.2 |
| 50°-60° | 995.8 | 13.1 |
| 60°-70° | 594.6 | 7.8 |
| 70°-80° | 367.5 | 4.8 |
| 80°-90° | 154.8 | 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° | 2581.2 | 34.0 |
| 0°-40° | 4105.1 | 54.0 |
| 0°-60° | 6481.2 | 85.3 |
| 0°-90° | 7598.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 7598.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 3371 | 3371 | 3371 | 3371 | 3371 | |
| 5° | 3375 | 3370 | 3356 | 3352 | 3364 | 321 |
| 15° | 3254 | 3234 | 3221 | 3222 | 3235 | 917 |
| 25° | 2965 | 2949 | 2933 | 2923 | 2931 | 1362 |
| 35° | 2462 | 2458 | 2433 | 2434 | 2437 | 1540 |
| 45° | 1831 | 1819 | 1806 | 1762 | 1735 | 1411 |
| 55° | 1206 | 1168 | 1098 | 1044 | 1041 | 1076 |
| 65° | 678 | 598 | 512 | 581 | 621 | 682 |
| 75° | 380 | 330 | 291 | 363 | 419 | 406 |
| 85° | 153 | 134 | 130 | 170 | 172 | 159 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P293660

CATALOG NUMBER: 24GR-LD5-85-A-UNV-L92765-W2A1-U-4500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 3371.1 | 3371.1 | 3371.1 | 3371.1 | 3371.1 |
| 2.5° | 3382.9 | 3373.5 | 3361.8 | 3368.8 | 3374.7 |
| 5° | 3374.7 | 3370.0 | 3355.9 | 3352.4 | 3364.1 |
| 7.5° | 3357.1 | 3345.3 | 3332.4 | 3338.3 | 3333.6 |
| 10° | 3330.1 | 3319.5 | 3303.1 | 3304.2 | 3312.5 |
| 12.5° | 3297.2 | 3284.3 | 3266.7 | 3271.4 | 3278.4 |
| 15° | 3253.8 | 3233.8 | 3220.9 | 3222.1 | 3235.0 |
| 17.5° | 3198.6 | 3183.3 | 3166.9 | 3170.4 | 3176.3 |
| 20° | 3135.2 | 3127.0 | 3103.5 | 3096.5 | 3102.3 |
| 22.5° | 3055.4 | 3040.1 | 3027.2 | 3023.7 | 3024.9 |
| 25° | 2965.0 | 2948.6 | 2933.3 | 2922.8 | 2931.0 |
| 27.5° | 2859.4 | 2845.3 | 2825.3 | 2821.8 | 2828.9 |
| 30° | 2739.6 | 2729.1 | 2711.5 | 2706.8 | 2717.3 |
| 32.5° | 2617.6 | 2600.0 | 2575.3 | 2575.3 | 2577.7 |
| 35° | 2461.5 | 2457.9 | 2433.3 | 2434.5 | 2436.8 |
| 37.5° | 2320.6 | 2304.2 | 2290.1 | 2276.0 | 2283.0 |
| 40° | 2164.5 | 2145.7 | 2126.9 | 2117.5 | 2114.0 |
| 42.5° | 1996.6 | 1982.5 | 1974.3 | 1940.3 | 1932.1 |
| 45° | 1831.1 | 1819.4 | 1806.5 | 1761.9 | 1734.9 |
| 47.5° | 1662.1 | 1659.7 | 1649.2 | 1570.5 | 1543.5 |
| 50° | 1504.8 | 1501.3 | 1463.7 | 1380.4 | 1353.4 |
| 52.5° | 1355.7 | 1332.3 | 1283.0 | 1200.8 | 1196.1 |
| 55° | 1205.5 | 1167.9 | 1097.5 | 1043.5 | 1041.2 |
| 57.5° | 1047.0 | 1002.4 | 930.8 | 901.5 | 916.7 |
| 60° | 920.3 | 852.2 | 770.0 | 773.5 | 798.2 |
| 62.5° | 788.8 | 712.5 | 631.5 | 666.7 | 696.1 |
| 65° | 678.5 | 597.5 | 511.8 | 581.0 | 620.9 |
| 67.5° | 582.2 | 507.1 | 424.9 | 517.6 | 556.4 |
| 70° | 502.4 | 441.3 | 361.5 | 459.0 | 502.4 |
| 72.5° | 439.0 | 382.7 | 320.4 | 412.0 | 462.5 |
| 75° | 380.3 | 329.8 | 291.1 | 362.7 | 419.0 |
| 77.5° | 329.8 | 280.5 | 262.9 | 320.4 | 375.6 |
| 80° | 277.0 | 232.4 | 230.1 | 279.4 | 320.4 |
| 82.5° | 216.0 | 185.5 | 185.5 | 233.6 | 258.2 |
| 85° | 152.6 | 133.8 | 130.3 | 170.2 | 172.5 |
| 87.5° | 78.6 | 75.1 | 68.1 | 89.2 | 89.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)