

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: P294292

Luminaire Tested: **24GR-LD5-85-FGW080-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294292
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-25)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-85-FGW080-UNV-L82765-W2A1-U-5500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH FGW080 LENS
Light Source: (336) 80 CRI LEDS TUNED TO 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7515.0 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

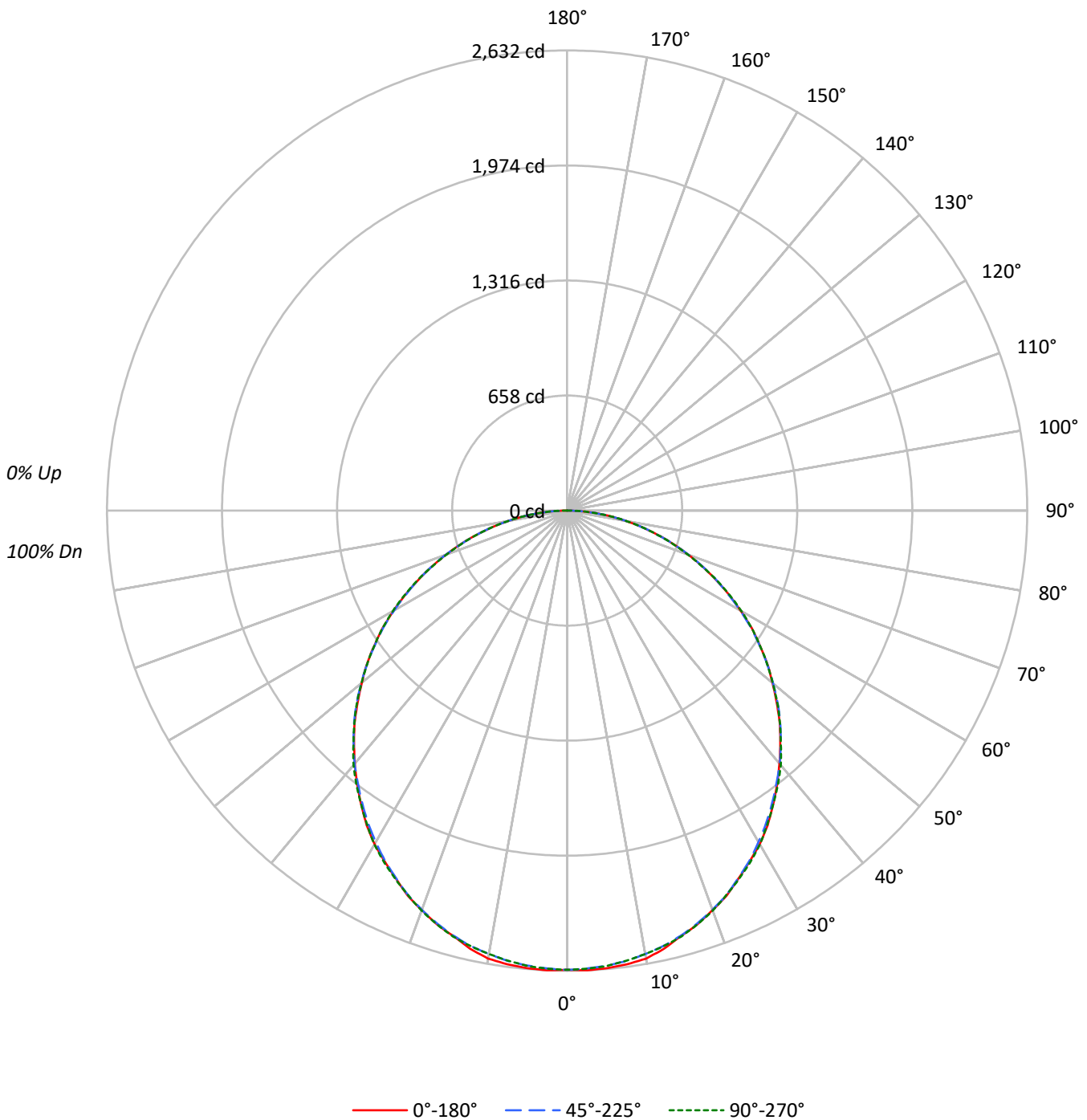
Input Watts (W): 64.17
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P294292

CATALOG NUMBER: 24GR-LD5-85-FGW080-UNV-L82765-W2A1-U-5500K

Luminous Intensity Polar Plot





TEST NUMBER: P294292

CATALOG NUMBER: 24GR-LD5-85-FGW080-UNV-L82765-W2A1-U-5500K

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 | 94 | 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 | 43 |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 40 | 53 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 39 | 37 |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 48 | 41 | 35 | 47 | 40 | 35 | 46 | 40 | 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° | 3534 | 3534 | 3534 |
| 5° | 3548 | 3528 | 3531 |
| 10° | 3555 | 3518 | 3518 |
| 15° | 3508 | 3506 | 3513 |
| 20° | 3482 | 3479 | 3487 |
| 25° | 3444 | 3442 | 3452 |
| 30° | 3423 | 3401 | 3425 |
| 35° | 3374 | 3357 | 3374 |
| 40° | 3318 | 3322 | 3340 |
| 45° | 3271 | 3281 | 3275 |
| 50° | 3209 | 3220 | 3213 |
| 55° | 3160 | 3151 | 3160 |
| 60° | 3086 | 3076 | 3105 |
| 65° | 2990 | 3002 | 3013 |
| 70° | 2893 | 2908 | 2886 |
| 75° | 2792 | 2792 | 2792 |
| 80° | 2637 | 2637 | 2664 |
| 85° | 2435 | 2462 | 2381 |



TEST NUMBER: P294292

CATALOG NUMBER: 24GR-LD5-85-FGW080-UNV-L82765-W2A1-U-5500K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 248.4 | 3.3 |
| 10°-20° | 710.0 | 9.4 |
| 20°-30° | 1069.9 | 14.2 |
| 30°-40° | 1281.5 | 17.1 |
| 40°-50° | 1326.5 | 17.7 |
| 50°-60° | 1202.8 | 16.0 |
| 60°-70° | 932.5 | 12.4 |
| 70°-80° | 567.1 | 7.5 |
| 80°-90° | 176.4 | 2.3 |
| 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° | 2028.3 | 27.0 |
| 0°-40° | 3309.8 | 44.0 |
| 0°-60° | 5839.0 | 77.7 |
| 0°-90° | 7515.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 7515.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2627 | 2627 | 2627 | 2627 | 2627 | |
| 5° | 2627 | 2611 | 2612 | 2609 | 2614 | 250 |
| 15° | 2518 | 2520 | 2517 | 2508 | 2522 | 712 |
| 25° | 2320 | 2320 | 2318 | 2325 | 2325 | 1071 |
| 35° | 2054 | 2040 | 2044 | 2052 | 2054 | 1285 |
| 45° | 1719 | 1723 | 1724 | 1717 | 1721 | 1324 |
| 55° | 1347 | 1340 | 1343 | 1349 | 1347 | 1204 |
| 65° | 939 | 945 | 943 | 939 | 946 | 932 |
| 75° | 537 | 535 | 537 | 535 | 537 | 567 |
| 85° | 158 | 156 | 160 | 158 | 154 | 176 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P294292

CATALOG NUMBER: 24GR-LD5-85-FGW080-UNV-L82765-W2A1-U-5500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2626.6 | 2626.6 | 2626.6 | 2626.6 | 2626.6 |
| 2.5° | 2631.9 | 2621.3 | 2621.3 | 2617.7 | 2623.0 |
| 5° | 2626.6 | 2610.6 | 2612.4 | 2608.9 | 2614.2 |
| 7.5° | 2617.7 | 2596.4 | 2598.2 | 2594.7 | 2596.4 |
| 10° | 2601.8 | 2577.0 | 2575.2 | 2573.4 | 2575.2 |
| 12.5° | 2566.3 | 2552.1 | 2550.4 | 2546.8 | 2552.1 |
| 15° | 2518.5 | 2520.2 | 2516.7 | 2507.8 | 2522.0 |
| 17.5° | 2481.2 | 2479.5 | 2475.9 | 2467.1 | 2481.2 |
| 20° | 2431.6 | 2433.4 | 2429.9 | 2426.3 | 2435.2 |
| 22.5° | 2383.8 | 2378.5 | 2380.2 | 2378.5 | 2380.2 |
| 25° | 2320.0 | 2320.0 | 2318.2 | 2325.3 | 2325.3 |
| 27.5° | 2261.5 | 2254.4 | 2257.9 | 2265.0 | 2268.6 |
| 30° | 2203.0 | 2185.3 | 2188.8 | 2195.9 | 2204.8 |
| 32.5° | 2133.9 | 2116.2 | 2119.7 | 2126.8 | 2130.3 |
| 35° | 2054.1 | 2039.9 | 2043.5 | 2052.3 | 2054.1 |
| 37.5° | 1972.6 | 1963.7 | 1967.3 | 1974.4 | 1979.7 |
| 40° | 1889.3 | 1885.7 | 1891.1 | 1889.3 | 1901.7 |
| 42.5° | 1804.2 | 1802.4 | 1807.8 | 1807.8 | 1809.5 |
| 45° | 1719.2 | 1722.7 | 1724.5 | 1717.4 | 1720.9 |
| 47.5° | 1625.2 | 1627.0 | 1634.1 | 1630.5 | 1632.3 |
| 50° | 1533.1 | 1531.3 | 1538.4 | 1540.1 | 1534.8 |
| 52.5° | 1444.4 | 1435.6 | 1442.7 | 1446.2 | 1442.7 |
| 55° | 1347.0 | 1339.9 | 1343.4 | 1348.7 | 1347.0 |
| 57.5° | 1251.3 | 1244.2 | 1245.9 | 1254.8 | 1251.3 |
| 60° | 1146.7 | 1144.9 | 1143.1 | 1150.2 | 1153.8 |
| 62.5° | 1043.9 | 1042.1 | 1038.6 | 1045.7 | 1049.2 |
| 65° | 939.3 | 944.6 | 942.9 | 939.3 | 946.4 |
| 67.5° | 840.1 | 845.4 | 840.1 | 836.5 | 836.5 |
| 70° | 735.5 | 740.8 | 739.1 | 735.5 | 733.7 |
| 72.5° | 638.0 | 638.0 | 634.5 | 632.7 | 634.5 |
| 75° | 537.0 | 535.2 | 537.0 | 535.2 | 537.0 |
| 77.5° | 437.8 | 439.5 | 439.5 | 439.5 | 437.8 |
| 80° | 340.3 | 340.3 | 340.3 | 342.1 | 343.8 |
| 82.5° | 249.9 | 244.6 | 249.9 | 246.4 | 248.1 |
| 85° | 157.7 | 156.0 | 159.5 | 157.7 | 154.2 |
| 87.5° | 70.9 | 72.7 | 72.7 | 74.4 | 74.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)