

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: P292758

Luminaire Tested: **22GR-LD5-24-FGW080-UNV-L82765-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292758
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-26)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-24-FGW080-UNV-L82765-W2A1-U-3000K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH FGW080 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1924.0 lumens
Efficiency: N/A
Efficacy: 106.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.24 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

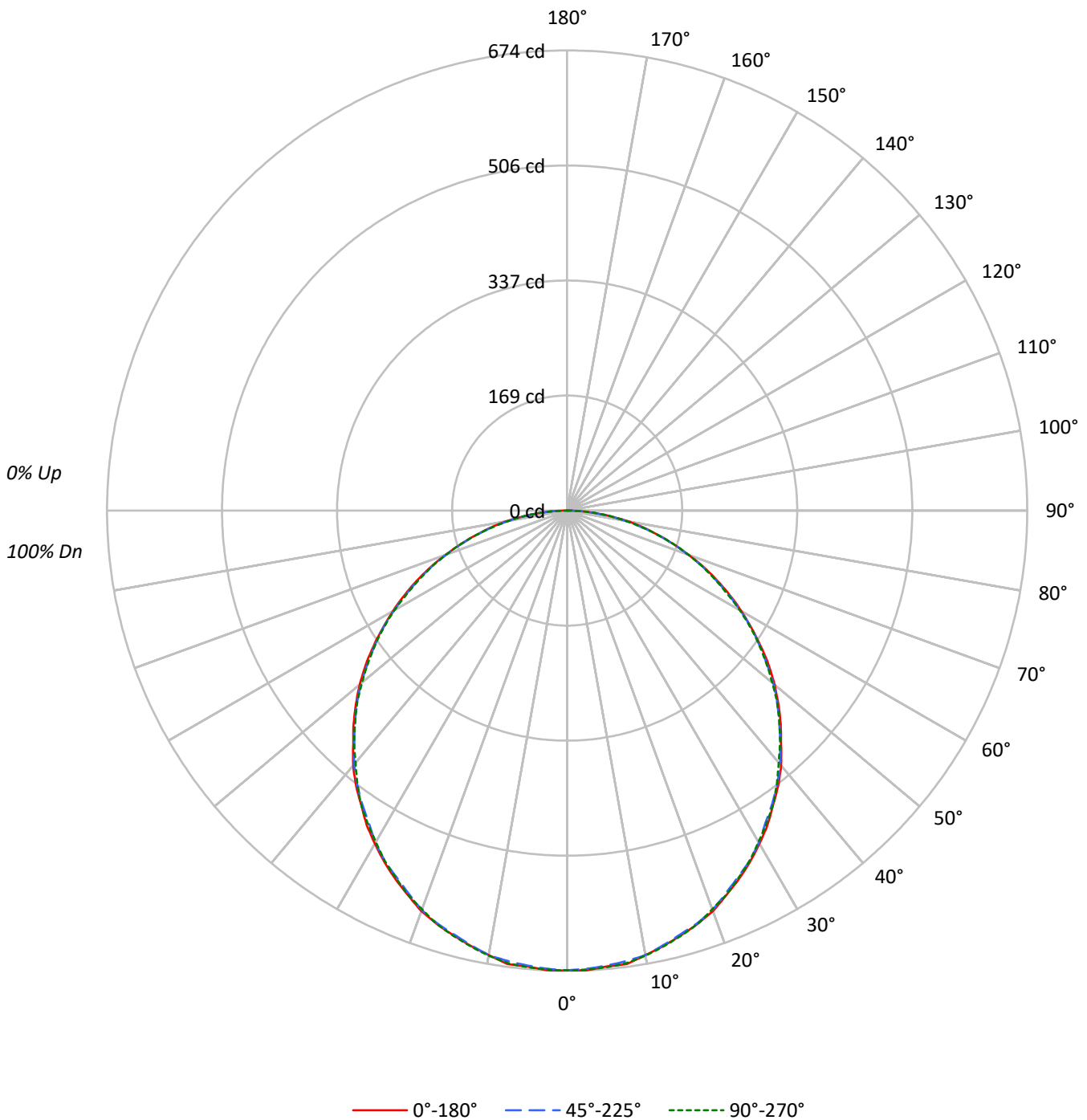
Input Watts (W): 18.042
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P292758

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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 | 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 | 108 | 103 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | 93 | 90 | 88 | 89 | 87 | 85 | 83 | | | | | 83 | | | |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 85 | 79 | 74 | 81 | 77 | 73 | 78 | 74 | 71 | 69 | | | | | 69 | | | |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 | | | | | 58 | | | |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 54 | 66 | 59 | 53 | 64 | 57 | 52 | 61 | 56 | 51 | 49 | | | | | 49 | | | |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 53 | 46 | 59 | 51 | 46 | 57 | 50 | 45 | 55 | 49 | 45 | 43 | | | | | 43 | | | |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 40 | 53 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 39 | 37 | | | | | 37 | | | |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 48 | 41 | 35 | 47 | 40 | 35 | 46 | 40 | 35 | 33 | | | | | 33 | | | |
| 8 | 60 | 46 | 38 | 32 | 58 | 46 | 37 | 32 | 44 | 37 | 32 | 43 | 36 | 31 | 42 | 36 | 31 | 29 | | | | | 29 | | | |
| 9 | 56 | 43 | 34 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 28 | 40 | 33 | 28 | 39 | 33 | 28 | 26 | | | | | 26 | | | |
| 10 | 53 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 30 | 26 | 36 | 30 | 26 | 24 | | | | | 24 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1812 | 1812 | 1812 |
| 5° | 1810 | 1807 | 1813 |
| 10° | 1806 | 1806 | 1809 |
| 15° | 1794 | 1789 | 1796 |
| 20° | 1788 | 1783 | 1779 |
| 25° | 1768 | 1758 | 1763 |
| 30° | 1750 | 1745 | 1741 |
| 35° | 1728 | 1720 | 1728 |
| 40° | 1713 | 1705 | 1693 |
| 45° | 1684 | 1673 | 1673 |
| 50° | 1660 | 1651 | 1641 |
| 55° | 1625 | 1614 | 1612 |
| 60° | 1587 | 1578 | 1572 |
| 65° | 1547 | 1529 | 1522 |
| 70° | 1485 | 1480 | 1485 |
| 75° | 1433 | 1416 | 1428 |
| 80° | 1418 | 1348 | 1339 |
| 85° | 1257 | 1220 | 1238 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 63.7 | 3.3 |
| 10°-20° | 181.8 | 9.4 |
| 20°-30° | 273.7 | 14.2 |
| 30°-40° | 328.5 | 17.1 |
| 40°-50° | 339.9 | 17.7 |
| 50°-60° | 308.0 | 16.0 |
| 60°-70° | 238.7 | 12.4 |
| 70°-80° | 144.9 | 7.5 |
| 80°-90° | 44.8 | 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° | 519.2 | 27.0 |
| 0°-40° | 847.6 | 44.1 |
| 0°-60° | 1495.5 | 77.7 |
| 0°-90° | 1924.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1924.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 673 | 673 | 673 | 673 | 673 | |
| 5° | 670 | 670 | 669 | 671 | 671 | 64 |
| 15° | 644 | 644 | 642 | 645 | 645 | 182 |
| 25° | 596 | 594 | 592 | 594 | 594 | 274 |
| 35° | 526 | 526 | 524 | 524 | 526 | 330 |
| 45° | 442 | 442 | 440 | 440 | 440 | 341 |
| 55° | 346 | 346 | 344 | 344 | 344 | 310 |
| 65° | 243 | 243 | 240 | 241 | 239 | 240 |
| 75° | 138 | 137 | 136 | 136 | 137 | 147 |
| 85° | 41 | 40 | 40 | 40 | 40 | 46 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 673.4 | 673.4 | 673.4 | 673.4 | 673.4 |
| 2.5° | 674.0 | 671.2 | 671.7 | 672.9 | 672.9 |
| 5° | 670.0 | 670.0 | 668.9 | 670.6 | 671.2 |
| 7.5° | 670.0 | 667.2 | 665.5 | 667.2 | 668.3 |
| 10° | 661.0 | 659.9 | 661.0 | 660.4 | 662.1 |
| 12.5° | 653.1 | 651.9 | 651.9 | 653.6 | 653.6 |
| 15° | 644.0 | 644.0 | 642.3 | 645.2 | 644.6 |
| 17.5° | 635.0 | 635.0 | 633.9 | 633.9 | 635.0 |
| 20° | 624.3 | 621.4 | 622.6 | 622.0 | 621.4 |
| 22.5° | 609.6 | 607.9 | 606.8 | 608.4 | 609.0 |
| 25° | 595.5 | 594.3 | 592.1 | 594.3 | 593.8 |
| 27.5° | 580.2 | 579.1 | 578.5 | 577.4 | 578.5 |
| 30° | 563.3 | 562.1 | 561.6 | 560.4 | 560.4 |
| 32.5° | 546.3 | 544.0 | 541.2 | 544.0 | 543.5 |
| 35° | 526.0 | 526.0 | 523.7 | 524.3 | 526.0 |
| 37.5° | 507.9 | 506.8 | 505.6 | 503.9 | 504.5 |
| 40° | 487.6 | 485.9 | 485.3 | 484.2 | 481.9 |
| 42.5° | 463.8 | 463.8 | 461.6 | 462.1 | 461.6 |
| 45° | 442.4 | 441.8 | 439.5 | 439.5 | 439.5 |
| 47.5° | 419.8 | 419.2 | 417.5 | 416.4 | 417.5 |
| 50° | 396.6 | 394.3 | 394.3 | 392.6 | 392.1 |
| 52.5° | 372.3 | 370.6 | 368.3 | 368.9 | 367.8 |
| 55° | 346.3 | 345.7 | 344.1 | 343.5 | 343.5 |
| 57.5° | 320.3 | 320.9 | 319.8 | 317.5 | 318.1 |
| 60° | 294.9 | 294.3 | 293.2 | 292.1 | 292.1 |
| 62.5° | 268.9 | 268.9 | 266.7 | 266.7 | 264.4 |
| 65° | 242.9 | 242.9 | 240.1 | 241.2 | 239.0 |
| 67.5° | 216.9 | 216.4 | 214.7 | 214.1 | 214.7 |
| 70° | 188.7 | 189.3 | 188.1 | 188.1 | 188.7 |
| 72.5° | 163.3 | 162.7 | 162.1 | 162.1 | 163.3 |
| 75° | 137.8 | 137.3 | 136.2 | 136.2 | 137.3 |
| 77.5° | 114.7 | 111.9 | 111.3 | 112.4 | 110.7 |
| 80° | 91.5 | 87.6 | 87.0 | 86.4 | 86.4 |
| 82.5° | 64.4 | 62.7 | 63.3 | 62.7 | 63.8 |
| 85° | 40.7 | 40.1 | 39.5 | 39.5 | 40.1 |
| 87.5° | 19.2 | 18.1 | 18.1 | 17.5 | 17.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)