

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: P292866

Luminaire Tested: **22GR-LD5-28-FGW080-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292866
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-LD5-28-FGW080-UNV-L92765-W2A1-U-3500K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH FGW080 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2085.0 lumens
Efficiency: N/A
Efficacy: 94.2 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

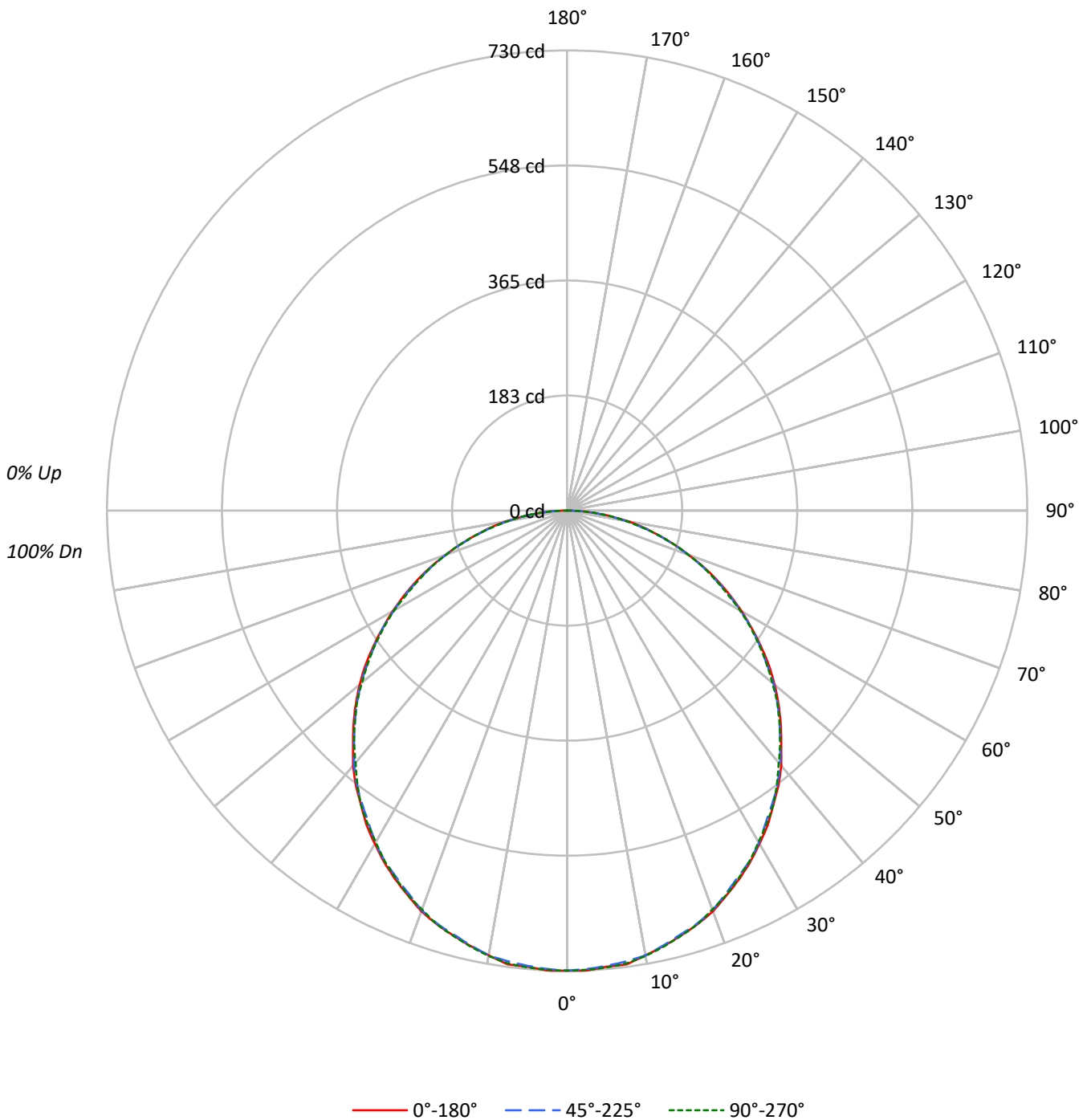
Input Watts (W): 22.134
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | 85 | 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° | 1964 | 1964 | 1964 |
| 5° | 1961 | 1958 | 1965 |
| 10° | 1957 | 1957 | 1961 |
| 15° | 1944 | 1939 | 1946 |
| 20° | 1937 | 1932 | 1928 |
| 25° | 1916 | 1905 | 1910 |
| 30° | 1897 | 1891 | 1887 |
| 35° | 1872 | 1864 | 1872 |
| 40° | 1856 | 1847 | 1834 |
| 45° | 1824 | 1813 | 1813 |
| 50° | 1799 | 1789 | 1779 |
| 55° | 1761 | 1749 | 1746 |
| 60° | 1720 | 1710 | 1703 |
| 65° | 1677 | 1657 | 1649 |
| 70° | 1609 | 1604 | 1609 |
| 75° | 1553 | 1534 | 1547 |
| 80° | 1537 | 1461 | 1452 |
| 85° | 1362 | 1325 | 1343 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 69.0 | 3.3 |
| 10°-20° | 197.0 | 9.4 |
| 20°-30° | 296.6 | 14.2 |
| 30°-40° | 355.9 | 17.1 |
| 40°-50° | 368.3 | 17.7 |
| 50°-60° | 333.7 | 16.0 |
| 60°-70° | 258.7 | 12.4 |
| 70°-80° | 157.0 | 7.5 |
| 80°-90° | 48.6 | 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° | 562.6 | 27.0 |
| 0°-40° | 918.6 | 44.1 |
| 0°-60° | 1620.6 | 77.7 |
| 0°-90° | 2085.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2085.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 730 | 730 | 730 | 730 | 730 | |
| 5° | 726 | 726 | 725 | 727 | 727 | 69 |
| 15° | 698 | 698 | 696 | 699 | 698 | 197 |
| 25° | 645 | 644 | 642 | 644 | 643 | 297 |
| 35° | 570 | 570 | 568 | 568 | 570 | 357 |
| 45° | 479 | 479 | 476 | 476 | 476 | 370 |
| 55° | 375 | 375 | 373 | 372 | 372 | 336 |
| 65° | 263 | 263 | 260 | 261 | 259 | 260 |
| 75° | 149 | 149 | 148 | 148 | 149 | 159 |
| 85° | 44 | 44 | 43 | 43 | 44 | 50 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 729.8 | 729.8 | 729.8 | 729.8 | 729.8 |
| 2.5° | 730.4 | 727.3 | 727.9 | 729.2 | 729.2 |
| 5° | 726.1 | 726.1 | 724.9 | 726.7 | 727.3 |
| 7.5° | 726.1 | 723.0 | 721.2 | 723.0 | 724.3 |
| 10° | 716.3 | 715.1 | 716.3 | 715.7 | 717.5 |
| 12.5° | 707.7 | 706.5 | 706.5 | 708.3 | 708.3 |
| 15° | 697.9 | 697.9 | 696.1 | 699.2 | 698.5 |
| 17.5° | 688.1 | 688.1 | 686.9 | 686.9 | 688.1 |
| 20° | 676.5 | 673.4 | 674.7 | 674.1 | 673.4 |
| 22.5° | 660.6 | 658.8 | 657.5 | 659.4 | 660.0 |
| 25° | 645.3 | 644.1 | 641.6 | 644.1 | 643.4 |
| 27.5° | 628.8 | 627.5 | 626.9 | 625.7 | 626.9 |
| 30° | 610.4 | 609.2 | 608.5 | 607.3 | 607.3 |
| 32.5° | 592.0 | 589.6 | 586.5 | 589.6 | 589.0 |
| 35° | 570.0 | 570.0 | 567.5 | 568.1 | 570.0 |
| 37.5° | 550.4 | 549.2 | 547.9 | 546.1 | 546.7 |
| 40° | 528.3 | 526.5 | 525.9 | 524.7 | 522.2 |
| 42.5° | 502.6 | 502.6 | 500.2 | 500.8 | 500.2 |
| 45° | 479.4 | 478.8 | 476.3 | 476.3 | 476.3 |
| 47.5° | 454.9 | 454.3 | 452.4 | 451.2 | 452.4 |
| 50° | 429.8 | 427.3 | 427.3 | 425.5 | 424.9 |
| 52.5° | 403.5 | 401.6 | 399.2 | 399.8 | 398.6 |
| 55° | 375.3 | 374.7 | 372.8 | 372.2 | 372.2 |
| 57.5° | 347.1 | 347.7 | 346.5 | 344.1 | 344.7 |
| 60° | 319.6 | 319.0 | 317.7 | 316.5 | 316.5 |
| 62.5° | 291.4 | 291.4 | 289.0 | 289.0 | 286.5 |
| 65° | 263.3 | 263.3 | 260.2 | 261.4 | 259.0 |
| 67.5° | 235.1 | 234.5 | 232.6 | 232.0 | 232.6 |
| 70° | 204.5 | 205.1 | 203.9 | 203.9 | 204.5 |
| 72.5° | 176.9 | 176.3 | 175.7 | 175.7 | 176.9 |
| 75° | 149.4 | 148.8 | 147.5 | 147.5 | 148.8 |
| 77.5° | 124.3 | 121.2 | 120.6 | 121.8 | 120.0 |
| 80° | 99.2 | 94.9 | 94.3 | 93.7 | 93.7 |
| 82.5° | 69.8 | 68.0 | 68.6 | 68.0 | 69.2 |
| 85° | 44.1 | 43.5 | 42.9 | 42.9 | 43.5 |
| 87.5° | 20.8 | 19.6 | 19.6 | 19.0 | 19.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)