

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: P292326

Luminaire Tested: **22GR-LD5-24-A125-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292326
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33297)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-24-A125-UNV-L83050-W2A1-U-3000K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH A125 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2295.0 lumens
Efficiency: N/A
Efficacy: 126.6 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.22 / 1.24
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

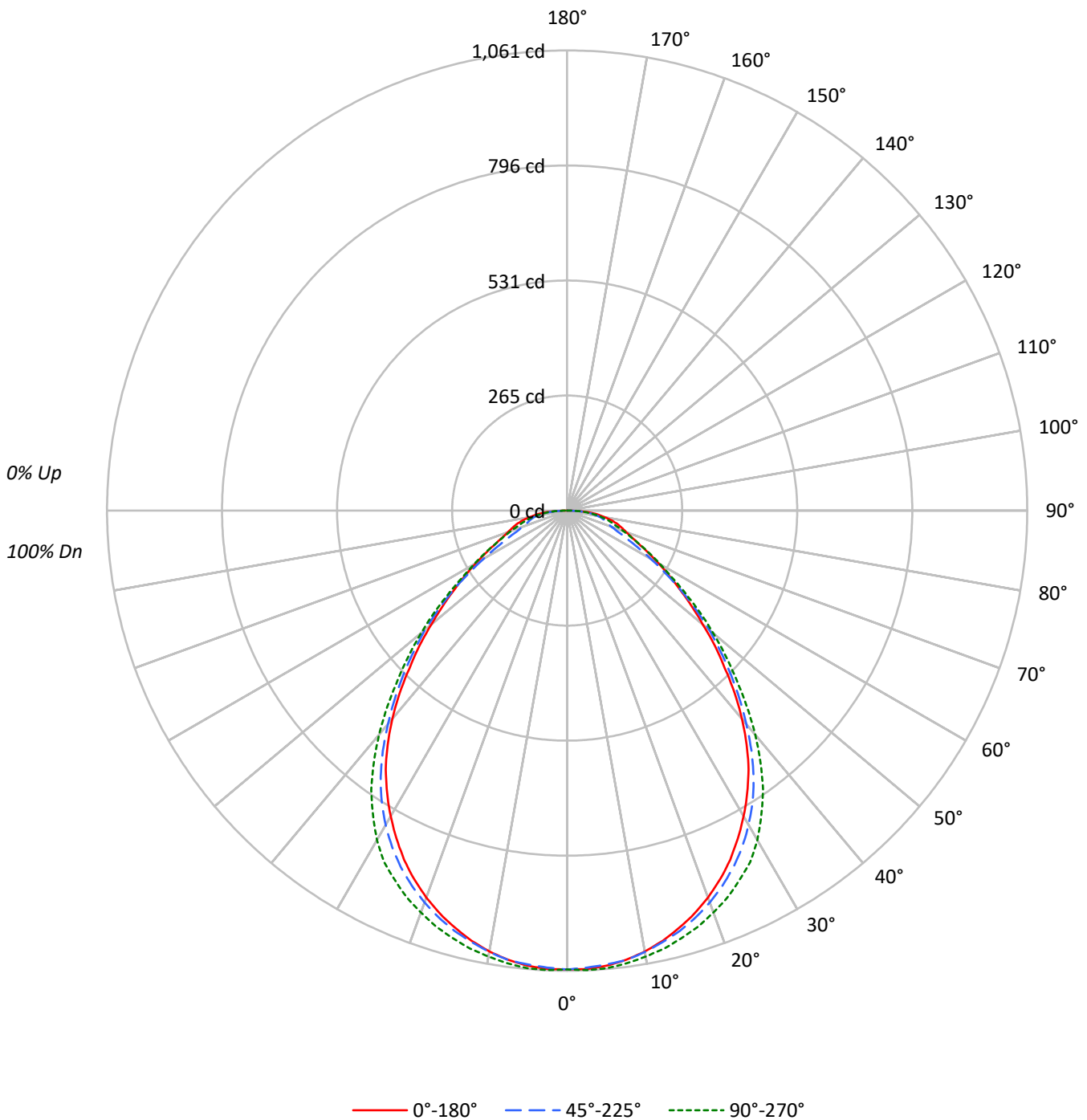
Input Watts (W): 18.135
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 102 | 98 | 107 | 103 | 100 | 96 | 99 | 96 | 93 | 95 | 93 | 91 | 92 | 90 | 88 | 86 |
| 2 | 101 | 94 | 87 | 82 | 98 | 92 | 86 | 81 | 88 | 83 | 79 | 85 | 81 | 78 | 82 | 79 | 76 | 74 |
| 3 | 93 | 83 | 76 | 70 | 91 | 82 | 75 | 69 | 79 | 73 | 68 | 76 | 71 | 67 | 74 | 70 | 66 | 64 |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 66 | 60 | 71 | 65 | 59 | 69 | 63 | 59 | 67 | 62 | 58 | 56 |
| 5 | 80 | 68 | 59 | 53 | 78 | 67 | 59 | 53 | 65 | 58 | 52 | 63 | 57 | 52 | 61 | 56 | 51 | 49 |
| 6 | 74 | 61 | 53 | 47 | 72 | 61 | 53 | 47 | 59 | 52 | 47 | 57 | 51 | 46 | 56 | 50 | 46 | 44 |
| 7 | 69 | 56 | 48 | 42 | 67 | 55 | 48 | 42 | 54 | 47 | 42 | 52 | 46 | 41 | 51 | 46 | 41 | 39 |
| 8 | 64 | 52 | 44 | 38 | 63 | 51 | 43 | 38 | 50 | 43 | 38 | 48 | 42 | 38 | 47 | 42 | 37 | 36 |
| 9 | 60 | 48 | 40 | 35 | 59 | 47 | 40 | 34 | 46 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 32 |
| 10 | 57 | 44 | 37 | 32 | 55 | 44 | 36 | 32 | 43 | 36 | 31 | 42 | 36 | 31 | 41 | 35 | 31 | 29 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2847 | 2847 | 2847 |
| 5° | 2845 | 2837 | 2861 |
| 10° | 2820 | 2823 | 2853 |
| 15° | 2776 | 2795 | 2843 |
| 20° | 2718 | 2754 | 2824 |
| 25° | 2639 | 2693 | 2792 |
| 30° | 2529 | 2600 | 2725 |
| 35° | 2396 | 2463 | 2588 |
| 40° | 2203 | 2257 | 2370 |
| 45° | 1957 | 2028 | 2101 |
| 50° | 1709 | 1788 | 1841 |
| 55° | 1486 | 1506 | 1561 |
| 60° | 1307 | 1198 | 1333 |
| 65° | 1162 | 958 | 1168 |
| 70° | 1141 | 851 | 1078 |
| 75° | 1247 | 935 | 1101 |
| 80° | 1368 | 1111 | 1178 |
| 85° | 1636 | 1288 | 1321 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 100.0 | 4.4 |
| 10°-20° | 283.5 | 12.4 |
| 20°-30° | 418.6 | 18.2 |
| 30°-40° | 468.4 | 20.4 |
| 40°-50° | 411.3 | 17.9 |
| 50°-60° | 291.0 | 12.7 |
| 60°-70° | 169.4 | 7.4 |
| 70°-80° | 105.6 | 4.6 |
| 80°-90° | 47.2 | 2.1 |
| 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° | 802.1 | 34.9 |
| 0°-40° | 1270.4 | 55.4 |
| 0°-60° | 1972.8 | 86.0 |
| 0°-90° | 2295.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2295.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1058 | 1058 | 1058 | 1058 | 1058 | |
| 5° | 1053 | 1050 | 1050 | 1056 | 1059 | 100 |
| 15° | 996 | 998 | 1003 | 1014 | 1020 | 281 |
| 25° | 889 | 892 | 907 | 928 | 940 | 408 |
| 35° | 729 | 732 | 750 | 772 | 788 | 454 |
| 45° | 514 | 520 | 533 | 546 | 552 | 398 |
| 55° | 317 | 323 | 321 | 327 | 333 | 286 |
| 65° | 182 | 168 | 150 | 164 | 184 | 185 |
| 75° | 120 | 103 | 90 | 92 | 106 | 125 |
| 85° | 53 | 55 | 42 | 41 | 43 | 54 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1057.9 | 1057.9 | 1057.9 | 1057.9 | 1057.9 |
| 2.5° | 1057.9 | 1055.7 | 1054.7 | 1058.4 | 1060.6 |
| 5° | 1053.1 | 1050.4 | 1050.4 | 1055.7 | 1059.0 |
| 7.5° | 1044.5 | 1041.8 | 1045.0 | 1049.9 | 1053.1 |
| 10° | 1032.2 | 1031.1 | 1033.3 | 1039.7 | 1044.0 |
| 12.5° | 1016.1 | 1016.7 | 1018.8 | 1029.0 | 1034.3 |
| 15° | 996.3 | 998.5 | 1003.3 | 1014.0 | 1020.4 |
| 17.5° | 974.9 | 976.5 | 984.0 | 996.3 | 1005.4 |
| 20° | 949.3 | 952.5 | 961.6 | 977.1 | 986.2 |
| 22.5° | 920.9 | 924.6 | 935.9 | 954.6 | 965.8 |
| 25° | 888.8 | 892.5 | 907.0 | 928.4 | 940.2 |
| 27.5° | 852.4 | 858.3 | 874.3 | 897.9 | 913.9 |
| 30° | 813.9 | 818.7 | 836.9 | 863.6 | 877.0 |
| 32.5° | 772.7 | 778.6 | 795.7 | 821.4 | 833.1 |
| 35° | 729.3 | 732.5 | 749.7 | 772.1 | 787.7 |
| 37.5° | 680.1 | 681.7 | 697.8 | 718.6 | 732.5 |
| 40° | 627.1 | 628.2 | 642.6 | 662.4 | 674.8 |
| 42.5° | 572.0 | 572.6 | 588.1 | 603.1 | 613.8 |
| 45° | 514.2 | 520.1 | 533.0 | 545.8 | 552.2 |
| 47.5° | 462.3 | 466.6 | 478.4 | 489.6 | 495.5 |
| 50° | 408.3 | 419.0 | 427.0 | 432.9 | 439.8 |
| 52.5° | 361.7 | 370.8 | 373.0 | 379.9 | 385.8 |
| 55° | 316.8 | 323.2 | 321.1 | 326.9 | 332.8 |
| 57.5° | 278.8 | 275.6 | 268.6 | 278.8 | 286.3 |
| 60° | 242.9 | 234.4 | 222.6 | 236.5 | 247.7 |
| 62.5° | 210.8 | 196.9 | 182.5 | 196.4 | 215.1 |
| 65° | 182.5 | 168.0 | 150.4 | 163.7 | 183.5 |
| 67.5° | 161.1 | 146.1 | 125.2 | 138.6 | 158.4 |
| 70° | 145.0 | 129.5 | 108.1 | 119.3 | 137.0 |
| 72.5° | 132.2 | 115.6 | 96.9 | 104.3 | 119.3 |
| 75° | 119.9 | 103.3 | 89.9 | 92.0 | 105.9 |
| 77.5° | 105.4 | 93.1 | 82.4 | 81.3 | 92.0 |
| 80° | 88.3 | 84.5 | 71.7 | 70.1 | 76.0 |
| 82.5° | 72.8 | 71.2 | 58.9 | 57.3 | 59.4 |
| 85° | 53.0 | 55.1 | 41.7 | 40.7 | 42.8 |
| 87.5° | 27.8 | 30.5 | 21.9 | 23.0 | 23.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)