

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: P292359

Luminaire Tested: **22GR-LD5-20-A125-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292359
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-LD5-20-A125-UNV-L82765-W2A1-U-4000K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH A125 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2065.0 lumens
Efficiency: N/A
Efficacy: 132.2 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

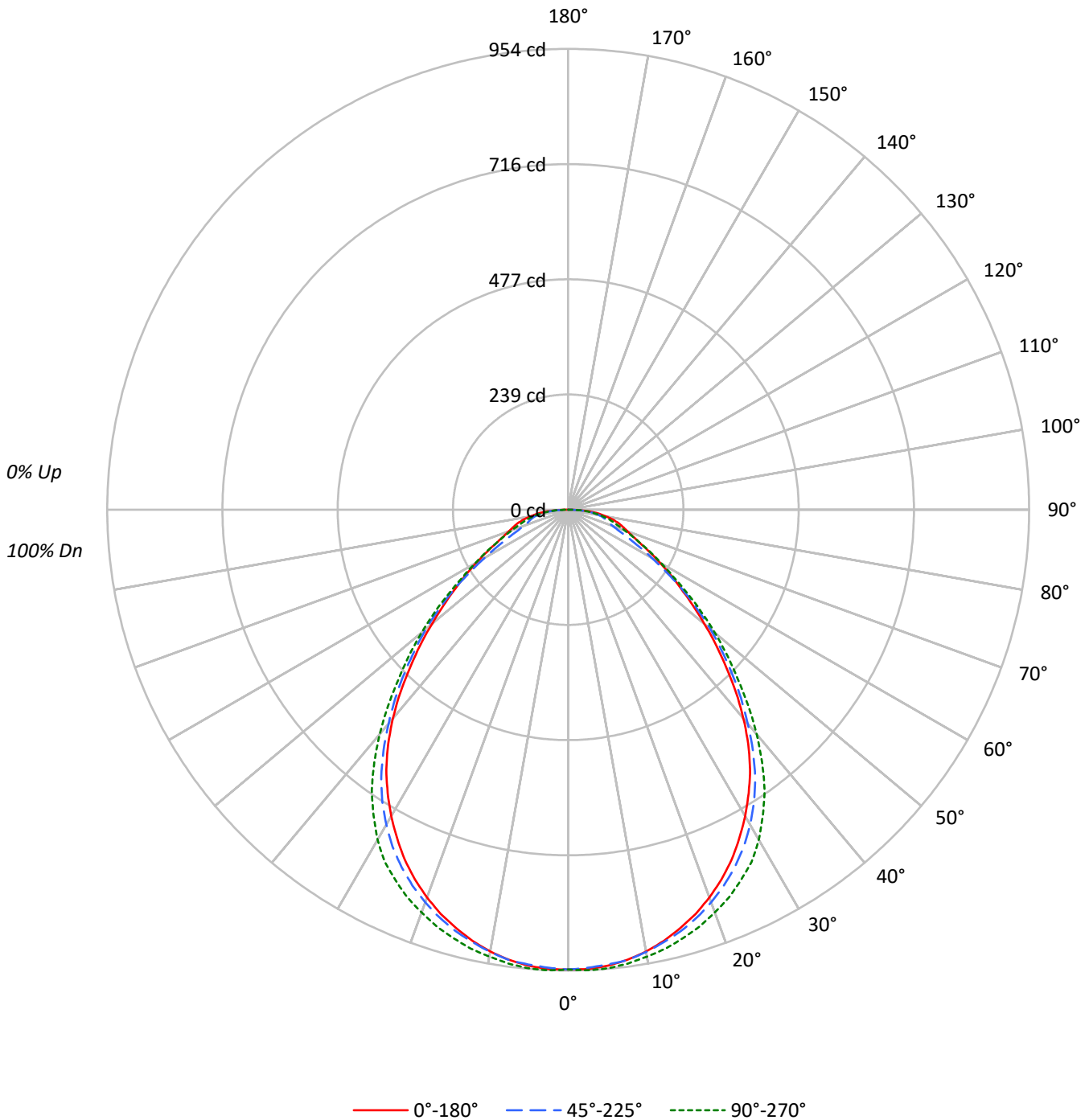
Input Watts (W): 15.624
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 2562 | 2562 | 2562 |
| 5° | 2559 | 2553 | 2574 |
| 10° | 2538 | 2540 | 2567 |
| 15° | 2498 | 2515 | 2558 |
| 20° | 2446 | 2478 | 2541 |
| 25° | 2374 | 2423 | 2512 |
| 30° | 2275 | 2340 | 2452 |
| 35° | 2156 | 2216 | 2328 |
| 40° | 1982 | 2031 | 2133 |
| 45° | 1761 | 1825 | 1891 |
| 50° | 1538 | 1608 | 1657 |
| 55° | 1337 | 1355 | 1405 |
| 60° | 1176 | 1078 | 1200 |
| 65° | 1046 | 862 | 1051 |
| 70° | 1027 | 766 | 970 |
| 75° | 1121 | 841 | 991 |
| 80° | 1230 | 1000 | 1060 |
| 85° | 1473 | 1161 | 1189 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 90.0 | 4.4 |
| 10°-20° | 255.1 | 12.4 |
| 20°-30° | 376.6 | 18.2 |
| 30°-40° | 421.4 | 20.4 |
| 40°-50° | 370.1 | 17.9 |
| 50°-60° | 261.9 | 12.7 |
| 60°-70° | 152.4 | 7.4 |
| 70°-80° | 95.0 | 4.6 |
| 80°-90° | 42.5 | 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° | 721.7 | 34.9 |
| 0°-40° | 1143.1 | 55.4 |
| 0°-60° | 1775.1 | 86.0 |
| 0°-90° | 2065.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2065.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 952 | 952 | 952 | 952 | 952 | |
| 5° | 948 | 945 | 945 | 950 | 953 | 90 |
| 15° | 896 | 898 | 903 | 912 | 918 | 253 |
| 25° | 800 | 803 | 816 | 835 | 846 | 367 |
| 35° | 656 | 659 | 674 | 695 | 709 | 408 |
| 45° | 463 | 468 | 480 | 491 | 497 | 358 |
| 55° | 285 | 291 | 289 | 294 | 300 | 258 |
| 65° | 164 | 151 | 135 | 147 | 165 | 167 |
| 75° | 108 | 93 | 81 | 83 | 95 | 113 |
| 85° | 48 | 50 | 38 | 37 | 38 | 48 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 951.9 | 951.9 | 951.9 | 951.9 | 951.9 |
| 2.5° | 951.9 | 949.9 | 949.0 | 952.3 | 954.3 |
| 5° | 947.5 | 945.1 | 945.1 | 949.9 | 952.8 |
| 7.5° | 939.8 | 937.4 | 940.3 | 944.6 | 947.5 |
| 10° | 928.8 | 927.8 | 929.7 | 935.5 | 939.3 |
| 12.5° | 914.3 | 914.8 | 916.7 | 925.9 | 930.7 |
| 15° | 896.5 | 898.4 | 902.8 | 912.4 | 918.2 |
| 17.5° | 877.2 | 878.7 | 885.4 | 896.5 | 904.7 |
| 20° | 854.1 | 857.0 | 865.2 | 879.2 | 887.3 |
| 22.5° | 828.6 | 832.0 | 842.1 | 858.9 | 869.1 |
| 25° | 799.7 | 803.1 | 816.1 | 835.3 | 845.9 |
| 27.5° | 767.0 | 772.3 | 786.7 | 807.9 | 822.3 |
| 30° | 732.3 | 736.6 | 753.0 | 777.1 | 789.1 |
| 32.5° | 695.2 | 700.5 | 715.9 | 739.1 | 749.6 |
| 35° | 656.2 | 659.1 | 674.5 | 694.8 | 708.7 |
| 37.5° | 611.9 | 613.4 | 627.8 | 646.6 | 659.1 |
| 40° | 564.3 | 565.2 | 578.2 | 596.1 | 607.1 |
| 42.5° | 514.7 | 515.2 | 529.1 | 542.6 | 552.2 |
| 45° | 462.7 | 468.0 | 479.5 | 491.1 | 496.9 |
| 47.5° | 416.0 | 419.8 | 430.4 | 440.5 | 445.8 |
| 50° | 367.4 | 377.0 | 384.2 | 389.5 | 395.8 |
| 52.5° | 325.5 | 333.7 | 335.6 | 341.8 | 347.1 |
| 55° | 285.0 | 290.8 | 288.9 | 294.2 | 299.5 |
| 57.5° | 250.8 | 248.0 | 241.7 | 250.8 | 257.6 |
| 60° | 218.6 | 210.9 | 200.3 | 212.8 | 222.9 |
| 62.5° | 189.7 | 177.2 | 164.2 | 176.7 | 193.6 |
| 65° | 164.2 | 151.2 | 135.3 | 147.3 | 165.1 |
| 67.5° | 144.9 | 131.4 | 112.7 | 124.7 | 142.5 |
| 70° | 130.5 | 116.5 | 97.3 | 107.4 | 123.3 |
| 72.5° | 118.9 | 104.0 | 87.1 | 93.9 | 107.4 |
| 75° | 107.8 | 92.9 | 80.9 | 82.8 | 95.3 |
| 77.5° | 94.8 | 83.8 | 74.1 | 73.2 | 82.8 |
| 80° | 79.4 | 76.1 | 64.5 | 63.1 | 68.4 |
| 82.5° | 65.5 | 64.0 | 53.0 | 51.5 | 53.4 |
| 85° | 47.7 | 49.6 | 37.6 | 36.6 | 38.5 |
| 87.5° | 25.0 | 27.4 | 19.7 | 20.7 | 21.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)