

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: P291977

Luminaire Tested: **22GR-LD5-24-F125-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291977
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33295)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-24-F125-UNV-L82765-W2A1-U-4500K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH F125 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2479.0 lumens
Efficiency: N/A
Efficacy: 133.9 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.19 / 1.24
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

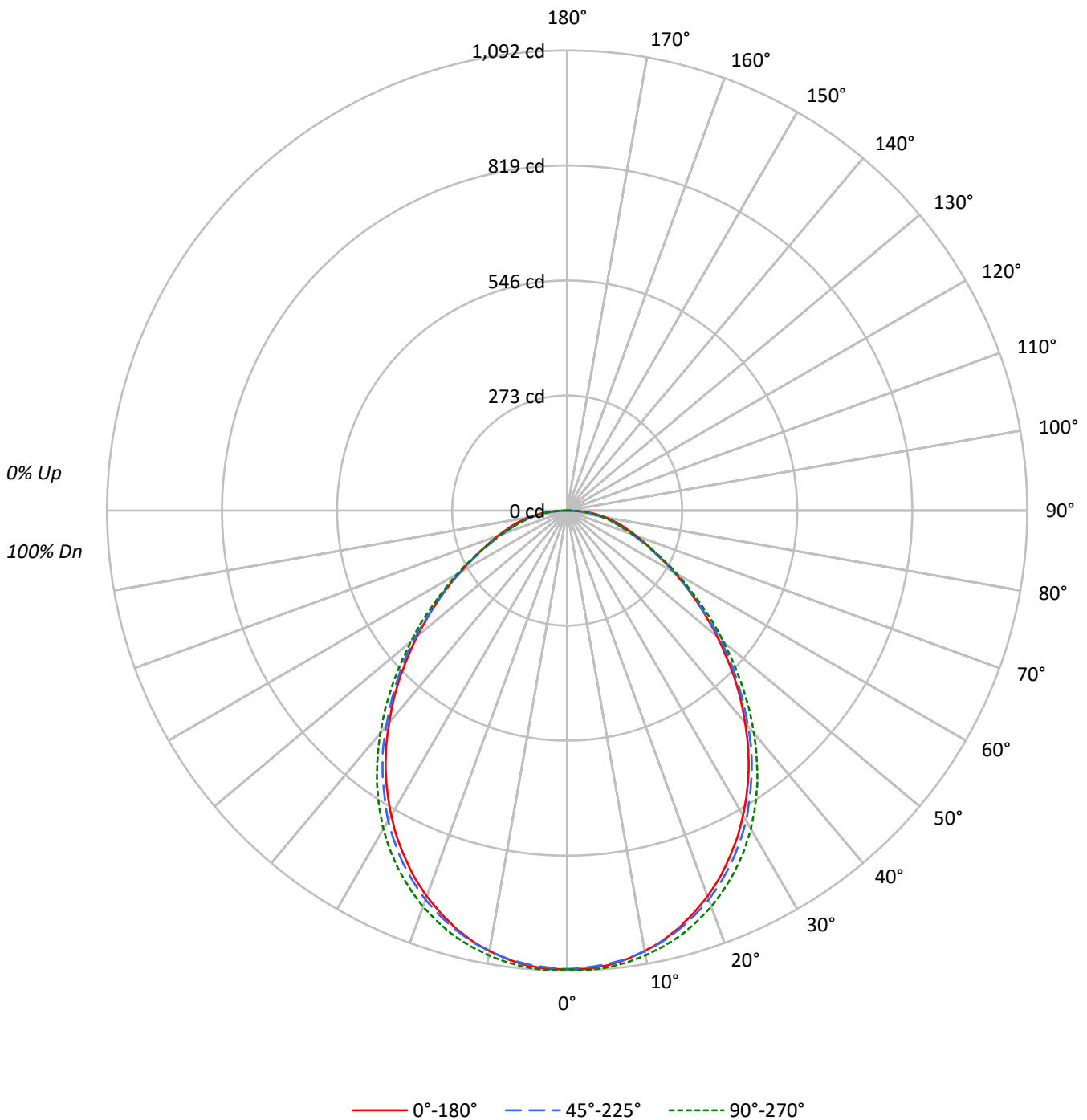
Input Watts (W): 18.507
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | 110 | 105 | 101 | 97 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | 85 | | | | | 85 | | | |
| 2 | 100 | 93 | 86 | 81 | 98 | 91 | 85 | 80 | 87 | 82 | 78 | 84 | 80 | 76 | 81 | 78 | 75 | 73 | | | | | 73 | | | |
| 3 | 92 | 82 | 75 | 69 | 90 | 81 | 74 | 68 | 78 | 72 | 67 | 75 | 70 | 66 | 73 | 68 | 65 | 62 | | | | | 62 | | | |
| 4 | 85 | 74 | 65 | 59 | 83 | 72 | 65 | 59 | 70 | 63 | 58 | 68 | 62 | 57 | 65 | 60 | 56 | 54 | | | | | 54 | | | |
| 5 | 78 | 66 | 58 | 52 | 76 | 65 | 57 | 51 | 63 | 56 | 51 | 61 | 55 | 50 | 59 | 54 | 50 | 48 | | | | | 48 | | | |
| 6 | 73 | 60 | 52 | 45 | 71 | 59 | 51 | 45 | 57 | 50 | 45 | 56 | 49 | 45 | 54 | 49 | 44 | 42 | | | | | 42 | | | |
| 7 | 68 | 55 | 46 | 41 | 66 | 54 | 46 | 40 | 53 | 45 | 40 | 51 | 45 | 40 | 50 | 44 | 40 | 38 | | | | | 38 | | | |
| 8 | 63 | 50 | 42 | 36 | 62 | 50 | 42 | 36 | 48 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 34 | | | | | 34 | | | |
| 9 | 59 | 46 | 38 | 33 | 58 | 46 | 38 | 33 | 45 | 38 | 33 | 44 | 37 | 33 | 43 | 37 | 33 | 31 | | | | | 31 | | | |
| 10 | 56 | 43 | 35 | 30 | 54 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 40 | 34 | 30 | 28 | | | | | 28 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2929 | 2929 | 2929 |
| 5° | 2927 | 2920 | 2940 |
| 10° | 2900 | 2901 | 2928 |
| 15° | 2856 | 2865 | 2907 |
| 20° | 2789 | 2814 | 2865 |
| 25° | 2702 | 2739 | 2799 |
| 30° | 2595 | 2640 | 2710 |
| 35° | 2468 | 2508 | 2585 |
| 40° | 2308 | 2346 | 2423 |
| 45° | 2136 | 2169 | 2233 |
| 50° | 1946 | 1977 | 2027 |
| 55° | 1757 | 1762 | 1813 |
| 60° | 1576 | 1582 | 1619 |
| 65° | 1436 | 1407 | 1440 |
| 70° | 1367 | 1290 | 1312 |
| 75° | 1376 | 1243 | 1250 |
| 80° | 1426 | 1257 | 1247 |
| 85° | 1562 | 1331 | 1260 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 102.8 | 4.1 |
| 10°-20° | 290.4 | 11.7 |
| 20°-30° | 425.1 | 17.1 |
| 30°-40° | 478.0 | 19.3 |
| 40°-50° | 440.8 | 17.8 |
| 50°-60° | 339.7 | 13.7 |
| 60°-70° | 224.2 | 9.0 |
| 70°-80° | 130.5 | 5.3 |
| 80°-90° | 47.5 | 1.9 |
| 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° | 818.4 | 33.0 |
| 0°-40° | 1296.3 | 52.3 |
| 0°-60° | 2076.8 | 83.8 |
| 0°-90° | 2479.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2479.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1088 | 1088 | 1088 | 1088 | 1088 | |
| 5° | 1084 | 1081 | 1081 | 1086 | 1088 | 103 |
| 15° | 1025 | 1025 | 1028 | 1038 | 1043 | 288 |
| 25° | 910 | 915 | 923 | 935 | 943 | 419 |
| 35° | 751 | 755 | 763 | 779 | 787 | 468 |
| 45° | 561 | 562 | 570 | 582 | 587 | 432 |
| 55° | 374 | 374 | 376 | 382 | 386 | 336 |
| 65° | 226 | 224 | 221 | 223 | 226 | 226 |
| 75° | 132 | 126 | 120 | 117 | 120 | 139 |
| 85° | 51 | 50 | 43 | 40 | 41 | 54 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P291977

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1088.3 | 1088.3 | 1088.3 | 1088.3 | 1088.3 |
| 2.5° | 1088.3 | 1086.0 | 1085.4 | 1089.4 | 1091.7 |
| 5° | 1083.7 | 1081.4 | 1080.8 | 1086.0 | 1088.3 |
| 7.5° | 1074.5 | 1072.8 | 1073.3 | 1079.1 | 1082.0 |
| 10° | 1061.3 | 1060.7 | 1061.8 | 1068.2 | 1071.6 |
| 12.5° | 1045.7 | 1045.2 | 1047.5 | 1054.4 | 1059.0 |
| 15° | 1025.0 | 1025.0 | 1028.5 | 1037.7 | 1043.4 |
| 17.5° | 1000.3 | 1002.0 | 1007.2 | 1016.4 | 1022.7 |
| 20° | 973.8 | 975.6 | 982.5 | 992.8 | 1000.3 |
| 22.5° | 944.5 | 946.8 | 953.7 | 966.3 | 972.7 |
| 25° | 910.0 | 914.6 | 922.6 | 935.3 | 942.8 |
| 27.5° | 874.3 | 879.5 | 887.0 | 902.5 | 909.4 |
| 30° | 835.2 | 838.7 | 849.6 | 864.0 | 872.0 |
| 32.5° | 793.8 | 797.2 | 806.4 | 823.7 | 830.6 |
| 35° | 751.2 | 754.7 | 763.3 | 778.8 | 786.9 |
| 37.5° | 705.2 | 708.1 | 718.4 | 730.5 | 739.1 |
| 40° | 656.9 | 660.9 | 667.8 | 682.2 | 689.7 |
| 42.5° | 609.7 | 611.4 | 618.9 | 633.3 | 639.1 |
| 45° | 561.4 | 562.0 | 570.0 | 581.5 | 586.7 |
| 47.5° | 511.4 | 512.5 | 522.3 | 529.2 | 534.4 |
| 50° | 464.8 | 465.3 | 472.2 | 478.6 | 484.3 |
| 52.5° | 418.2 | 418.2 | 421.6 | 428.5 | 436.0 |
| 55° | 374.5 | 373.9 | 375.6 | 381.9 | 386.5 |
| 57.5° | 333.0 | 332.5 | 334.8 | 338.8 | 342.2 |
| 60° | 292.8 | 291.6 | 293.9 | 296.2 | 300.8 |
| 62.5° | 257.1 | 258.3 | 255.4 | 258.8 | 262.3 |
| 65° | 225.5 | 224.3 | 220.9 | 222.6 | 226.1 |
| 67.5° | 198.4 | 196.7 | 191.0 | 192.1 | 196.1 |
| 70° | 173.7 | 170.3 | 163.9 | 163.9 | 166.8 |
| 72.5° | 151.3 | 147.8 | 139.8 | 140.4 | 141.5 |
| 75° | 132.3 | 126.5 | 119.6 | 117.3 | 120.2 |
| 77.5° | 111.6 | 107.0 | 100.7 | 98.9 | 100.1 |
| 80° | 92.0 | 88.6 | 81.1 | 78.8 | 80.5 |
| 82.5° | 73.1 | 70.2 | 61.5 | 59.8 | 60.4 |
| 85° | 50.6 | 50.0 | 43.1 | 39.7 | 40.8 |
| 87.5° | 27.0 | 27.6 | 22.4 | 20.1 | 21.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)