

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: P291933

Luminaire Tested: **22GR-LD5-20-F125-UNV-L83050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291933  
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-LD5-20-F125-UNV-L83050-W2A1-U-5000K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F125 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2204.0 lumens  
Efficiency: N/A  
Efficacy: 136.2 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

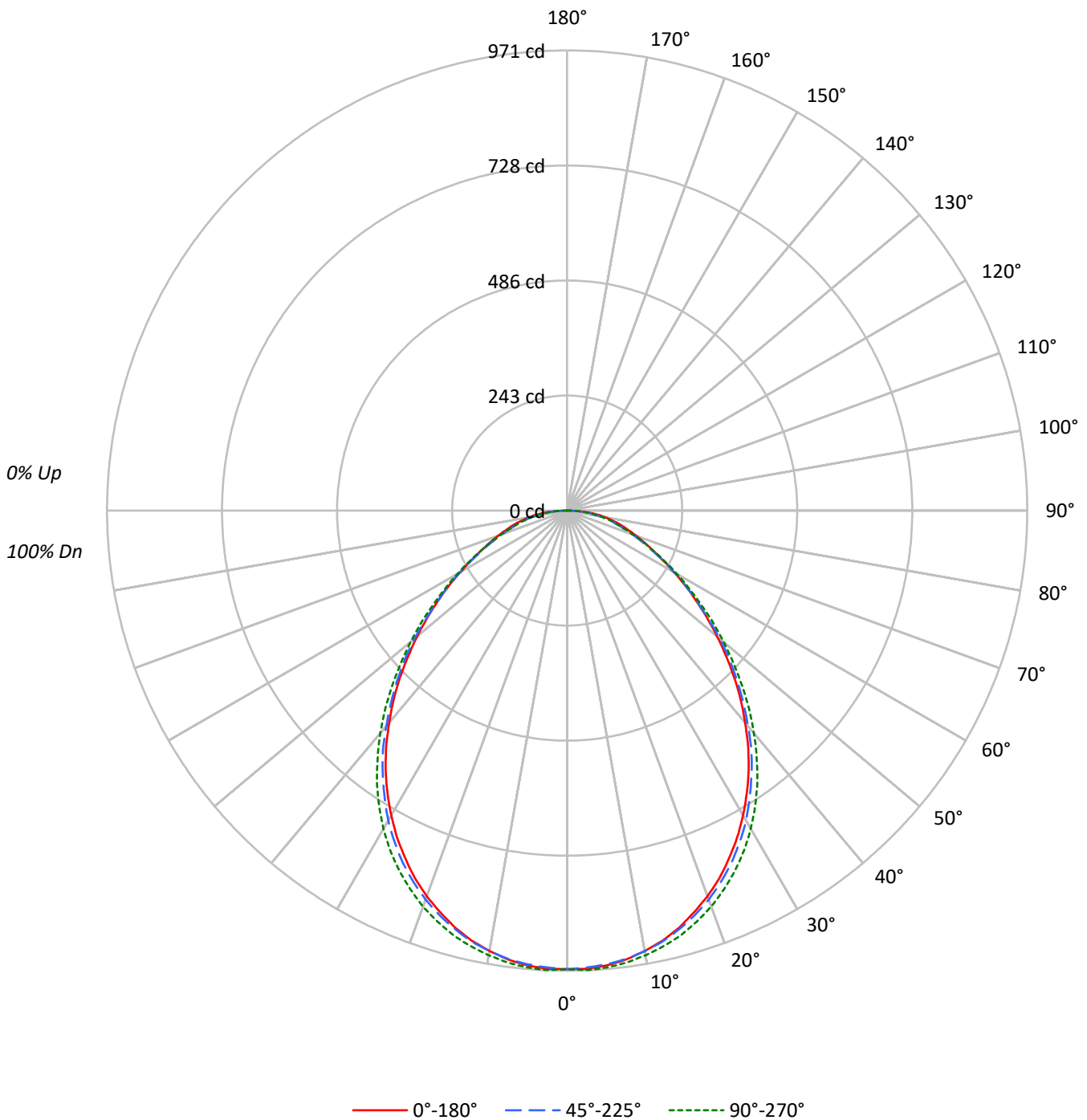
Input Watts (W): 16.182  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2604 | 2604 | 2604 |
| 5°  | 2603 | 2596 | 2614 |
| 10° | 2578 | 2579 | 2603 |
| 15° | 2539 | 2547 | 2584 |
| 20° | 2479 | 2501 | 2547 |
| 25° | 2402 | 2436 | 2489 |
| 30° | 2307 | 2347 | 2409 |
| 35° | 2194 | 2229 | 2298 |
| 40° | 2051 | 2086 | 2154 |
| 45° | 1899 | 1929 | 1985 |
| 50° | 1730 | 1758 | 1803 |
| 55° | 1562 | 1567 | 1612 |
| 60° | 1401 | 1406 | 1440 |
| 65° | 1277 | 1251 | 1280 |
| 70° | 1215 | 1146 | 1167 |
| 75° | 1223 | 1106 | 1111 |
| 80° | 1268 | 1117 | 1110 |
| 85° | 1389 | 1186 | 1121 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 91.4   | 4.1       |
| 10°-20°   | 258.2  | 11.7      |
| 20°-30°   | 377.9  | 17.1      |
| 30°-40°   | 424.9  | 19.3      |
| 40°-50°   | 391.9  | 17.8      |
| 50°-60°   | 302.0  | 13.7      |
| 60°-70°   | 199.3  | 9.0       |
| 70°-80°   | 116.0  | 5.3       |
| 80°-90°   | 42.3   | 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°    | 727.6  | 33.0      |
| 0°-40°    | 1152.5 | 52.3      |
| 0°-60°    | 1846.4 | 83.8      |
| 0°-90°    | 2204.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2204.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 968 | 968   | 968 | 968   | 968 |      |
| 5°  | 964 | 961   | 961 | 966   | 968 | 91   |
| 15° | 911 | 911   | 914 | 923   | 928 | 256  |
| 25° | 809 | 813   | 820 | 832   | 838 | 372  |
| 35° | 668 | 671   | 679 | 692   | 700 | 416  |
| 45° | 499 | 500   | 507 | 517   | 522 | 384  |
| 55° | 333 | 332   | 334 | 340   | 344 | 299  |
| 65° | 200 | 199   | 196 | 198   | 201 | 201  |
| 75° | 118 | 112   | 106 | 104   | 107 | 124  |
| 85° | 45  | 44    | 38  | 35    | 36  | 48   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 967.6 | 967.6 | 967.6 | 967.6 | 967.6 |
| 2.5°  | 967.6 | 965.5 | 965.0 | 968.6 | 970.6 |
| 5°    | 963.5 | 961.4 | 960.9 | 965.5 | 967.6 |
| 7.5°  | 955.3 | 953.8 | 954.3 | 959.4 | 961.9 |
| 10°   | 943.5 | 943.0 | 944.0 | 949.7 | 952.7 |
| 12.5° | 929.7 | 929.2 | 931.3 | 937.4 | 941.5 |
| 15°   | 911.3 | 911.3 | 914.4 | 922.6 | 927.7 |
| 17.5° | 889.3 | 890.9 | 895.5 | 903.6 | 909.3 |
| 20°   | 865.8 | 867.3 | 873.5 | 882.7 | 889.3 |
| 22.5° | 839.7 | 841.8 | 847.9 | 859.1 | 864.8 |
| 25°   | 809.0 | 813.1 | 820.3 | 831.5 | 838.2 |
| 27.5° | 777.3 | 781.9 | 788.6 | 802.4 | 808.5 |
| 30°   | 742.6 | 745.6 | 755.3 | 768.1 | 775.3 |
| 32.5° | 705.7 | 708.8 | 717.0 | 732.3 | 738.5 |
| 35°   | 667.9 | 671.0 | 678.6 | 692.4 | 699.6 |
| 37.5° | 627.0 | 629.5 | 638.7 | 649.5 | 657.1 |
| 40°   | 584.0 | 587.6 | 593.7 | 606.5 | 613.2 |
| 42.5° | 542.1 | 543.6 | 550.3 | 563.0 | 568.2 |
| 45°   | 499.1 | 499.6 | 506.8 | 517.0 | 521.6 |
| 47.5° | 454.6 | 455.7 | 464.3 | 470.5 | 475.1 |
| 50°   | 413.2 | 413.7 | 419.9 | 425.5 | 430.6 |
| 52.5° | 371.8 | 371.8 | 374.9 | 381.0 | 387.6 |
| 55°   | 332.9 | 332.4 | 333.9 | 339.6 | 343.7 |
| 57.5° | 296.1 | 295.6 | 297.6 | 301.2 | 304.3 |
| 60°   | 260.3 | 259.3 | 261.3 | 263.4 | 267.5 |
| 62.5° | 228.6 | 229.6 | 227.1 | 230.1 | 233.2 |
| 65°   | 200.5 | 199.4 | 196.4 | 197.9 | 201.0 |
| 67.5° | 176.4 | 174.9 | 169.8 | 170.8 | 174.4 |
| 70°   | 154.4 | 151.4 | 145.7 | 145.7 | 148.3 |
| 72.5° | 134.5 | 131.4 | 124.3 | 124.8 | 125.8 |
| 75°   | 117.6 | 112.5 | 106.4 | 104.3 | 106.9 |
| 77.5° | 99.2  | 95.1  | 89.5  | 88.0  | 89.0  |
| 80°   | 81.8  | 78.8  | 72.1  | 70.1  | 71.6  |
| 82.5° | 64.9  | 62.4  | 54.7  | 53.2  | 53.7  |
| 85°   | 45.0  | 44.5  | 38.4  | 35.3  | 36.3  |
| 87.5° | 24.0  | 24.5  | 19.9  | 17.9  | 18.9  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)