

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: P260402

Luminaire Tested: **22CZ-LD5-34-RDP-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260402  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25714)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ-LD5-34-RDP-UNV-L83050-W2A1-U-4500K  
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER  
WITH RDP LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2684.0 lumens  
Efficiency: N/A  
Efficacy: 99.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

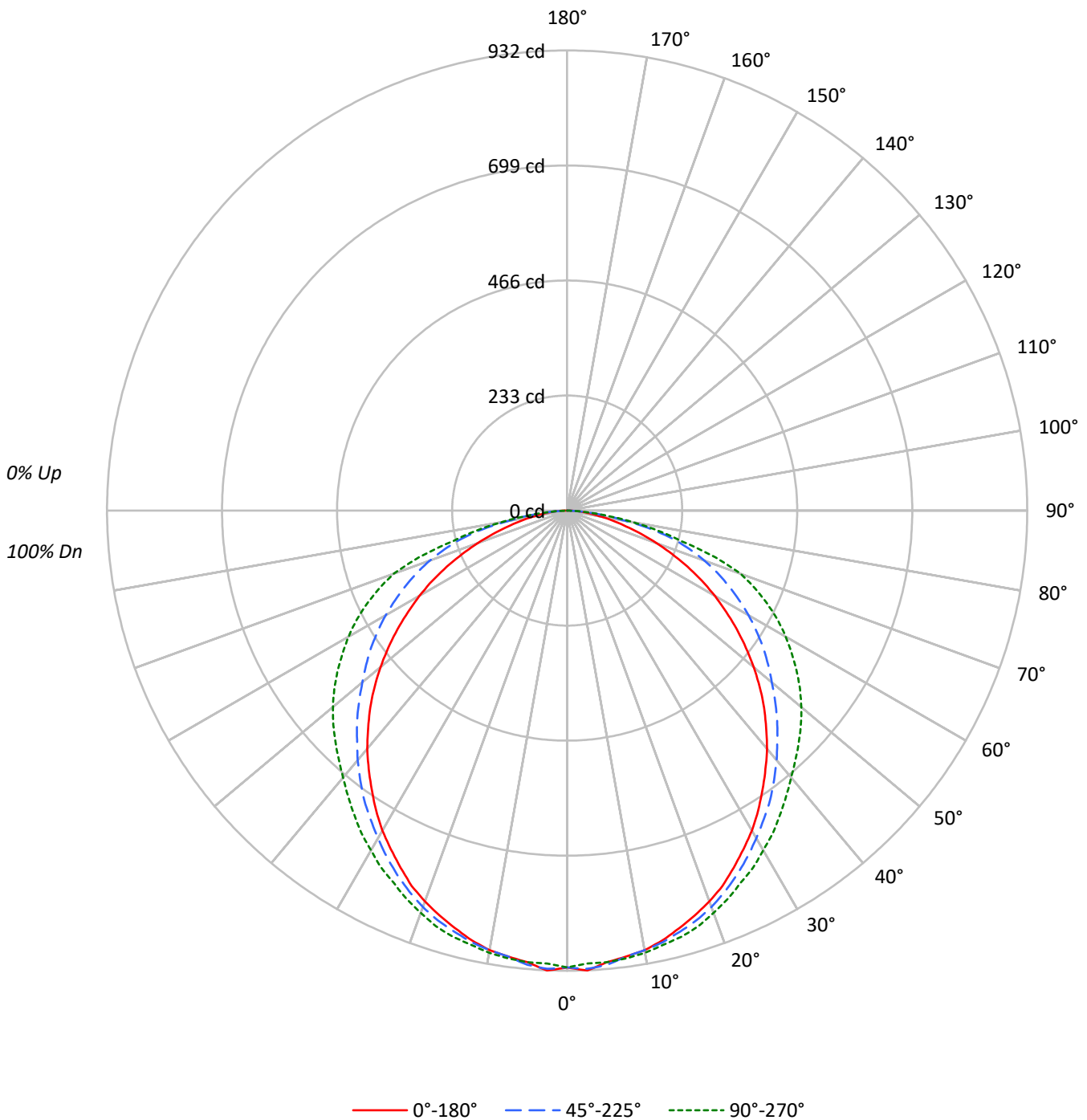
Input Watts (W): 26.97  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 104 | 99  | 95  | 106 | 101 | 97  | 94  | 97  | 94  | 91  | 93  | 90  | 88  | 89  | 87  | 85  | 83  |
| 2   | 98  | 90  | 83  | 77  | 96  | 88  | 81  | 76  | 84  | 79  | 74  | 81  | 77  | 73  | 78  | 74  | 71  | 69  |
| 3   | 89  | 79  | 70  | 64  | 87  | 77  | 69  | 63  | 74  | 67  | 62  | 71  | 66  | 61  | 69  | 64  | 60  | 57  |
| 4   | 82  | 69  | 60  | 54  | 79  | 68  | 60  | 53  | 66  | 58  | 52  | 63  | 57  | 52  | 61  | 56  | 51  | 49  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 59  | 51  | 45  | 57  | 50  | 45  | 55  | 49  | 44  | 42  |
| 6   | 69  | 56  | 47  | 40  | 67  | 55  | 46  | 40  | 53  | 45  | 40  | 51  | 44  | 39  | 50  | 44  | 39  | 37  |
| 7   | 64  | 50  | 42  | 35  | 62  | 50  | 41  | 35  | 48  | 40  | 35  | 47  | 40  | 35  | 45  | 39  | 34  | 32  |
| 8   | 60  | 46  | 37  | 31  | 58  | 45  | 37  | 31  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 35  | 31  | 29  |
| 9   | 56  | 42  | 34  | 28  | 54  | 42  | 34  | 28  | 40  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26  |
| 10  | 52  | 39  | 31  | 26  | 51  | 38  | 31  | 26  | 37  | 30  | 25  | 36  | 30  | 25  | 36  | 30  | 25  | 23  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2490 | 2490 | 2490 |
| 5°  | 2481 | 2495 | 2481 |
| 10° | 2470 | 2470 | 2485 |
| 15° | 2440 | 2460 | 2489 |
| 20° | 2412 | 2447 | 2483 |
| 25° | 2369 | 2417 | 2469 |
| 30° | 2325 | 2380 | 2468 |
| 35° | 2267 | 2354 | 2470 |
| 40° | 2213 | 2318 | 2480 |
| 45° | 2148 | 2289 | 2525 |
| 50° | 2066 | 2267 | 2593 |
| 55° | 1967 | 2274 | 2664 |
| 60° | 1857 | 2285 | 2752 |
| 65° | 1712 | 2298 | 2850 |
| 70° | 1518 | 2325 | 2937 |
| 75° | 1288 | 2318 | 2502 |
| 80° | 1069 | 1864 | 2084 |
| 85° | 929  | 1257 | 1201 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 87.4   | 3.3       |
| 10°-20°   | 249.4  | 9.3       |
| 20°-30°   | 375.2  | 14.0      |
| 30°-40°   | 449.6  | 16.8      |
| 40°-50°   | 468.9  | 17.5      |
| 50°-60°   | 436.5  | 16.3      |
| 60°-70°   | 354.4  | 13.2      |
| 70°-80°   | 213.6  | 8.0       |
| 80°-90°   | 49.0   | 1.8       |
| 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°    | 712.0  | 26.5      |
| 0°-40°    | 1161.6 | 43.3      |
| 0°-60°    | 2067.0 | 77.0      |
| 0°-90°    | 2684.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2684.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 925 | 925   | 925 | 925   | 925 |      |
| 5°  | 918 | 918   | 924 | 925   | 918 | 87   |
| 15° | 876 | 879   | 883 | 888   | 894 | 247  |
| 25° | 798 | 803   | 814 | 824   | 832 | 368  |
| 35° | 690 | 699   | 717 | 738   | 752 | 432  |
| 45° | 564 | 575   | 602 | 640   | 664 | 434  |
| 55° | 419 | 437   | 485 | 538   | 568 | 375  |
| 65° | 269 | 297   | 361 | 418   | 448 | 266  |
| 75° | 124 | 164   | 223 | 237   | 241 | 134  |
| 85° | 30  | 37    | 41  | 39    | 39  | 35   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 925.3 | 925.3 | 925.3 | 925.3 | 925.3 |
| 2.5°  | 932.4 | 930.7 | 928.9 | 923.6 | 918.3 |
| 5°    | 918.3 | 918.3 | 923.6 | 925.3 | 918.3 |
| 7.5°  | 911.2 | 911.2 | 911.2 | 918.3 | 914.7 |
| 10°   | 904.1 | 904.1 | 904.1 | 909.4 | 909.4 |
| 12.5° | 891.7 | 893.5 | 895.3 | 897.0 | 900.6 |
| 15°   | 875.8 | 879.3 | 882.9 | 888.2 | 893.5 |
| 17.5° | 859.9 | 863.4 | 870.5 | 875.8 | 882.9 |
| 20°   | 842.2 | 845.7 | 854.6 | 859.9 | 867.0 |
| 22.5° | 822.7 | 824.5 | 835.1 | 842.2 | 851.0 |
| 25°   | 798.0 | 803.3 | 813.9 | 824.5 | 831.6 |
| 27.5° | 773.2 | 778.5 | 790.9 | 805.0 | 815.6 |
| 30°   | 748.4 | 753.7 | 766.1 | 783.8 | 794.4 |
| 32.5° | 720.1 | 727.2 | 741.3 | 762.6 | 775.0 |
| 35°   | 690.0 | 698.9 | 716.6 | 737.8 | 752.0 |
| 37.5° | 659.9 | 668.8 | 688.3 | 714.8 | 729.0 |
| 40°   | 629.9 | 638.7 | 659.9 | 688.3 | 705.9 |
| 42.5° | 596.3 | 606.9 | 629.9 | 663.5 | 684.7 |
| 45°   | 564.4 | 575.0 | 601.6 | 640.5 | 663.5 |
| 47.5° | 529.0 | 541.4 | 571.5 | 615.7 | 642.3 |
| 50°   | 493.6 | 507.8 | 541.4 | 590.9 | 619.3 |
| 52.5° | 456.5 | 472.4 | 513.1 | 564.4 | 594.5 |
| 55°   | 419.3 | 437.0 | 484.8 | 537.9 | 567.9 |
| 57.5° | 382.2 | 401.6 | 454.7 | 509.6 | 539.6 |
| 60°   | 345.0 | 366.2 | 424.6 | 481.2 | 511.3 |
| 62.5° | 307.9 | 330.9 | 392.8 | 449.4 | 481.2 |
| 65°   | 268.9 | 297.2 | 360.9 | 417.6 | 447.6 |
| 67.5° | 230.0 | 263.6 | 329.1 | 383.9 | 412.2 |
| 70°   | 192.9 | 230.0 | 295.5 | 346.8 | 373.3 |
| 72.5° | 157.5 | 196.4 | 260.1 | 304.3 | 314.9 |
| 75°   | 123.9 | 164.5 | 222.9 | 237.1 | 240.6 |
| 77.5° | 95.5  | 132.7 | 176.9 | 180.5 | 189.3 |
| 80°   | 69.0  | 100.8 | 120.3 | 130.9 | 134.5 |
| 82.5° | 47.8  | 69.0  | 79.6  | 81.4  | 83.2  |
| 85°   | 30.1  | 37.2  | 40.7  | 38.9  | 38.9  |
| 87.5° | 15.9  | 14.2  | 12.4  | 8.8   | 7.1   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)