

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: P263372

Luminaire Tested: **24CZ-LD5-35-SQP-UNV-L92765-W2A1-U-5500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P263372  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25695)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-35-SQP-UNV-L92765-W2A1-U-5500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH SQP LENS  
Light Source: (336) 90 CRI LEDS TUNED AT 5500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2187.0 lumens  
Efficiency: N/A  
Efficacy: 88.1 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.42  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

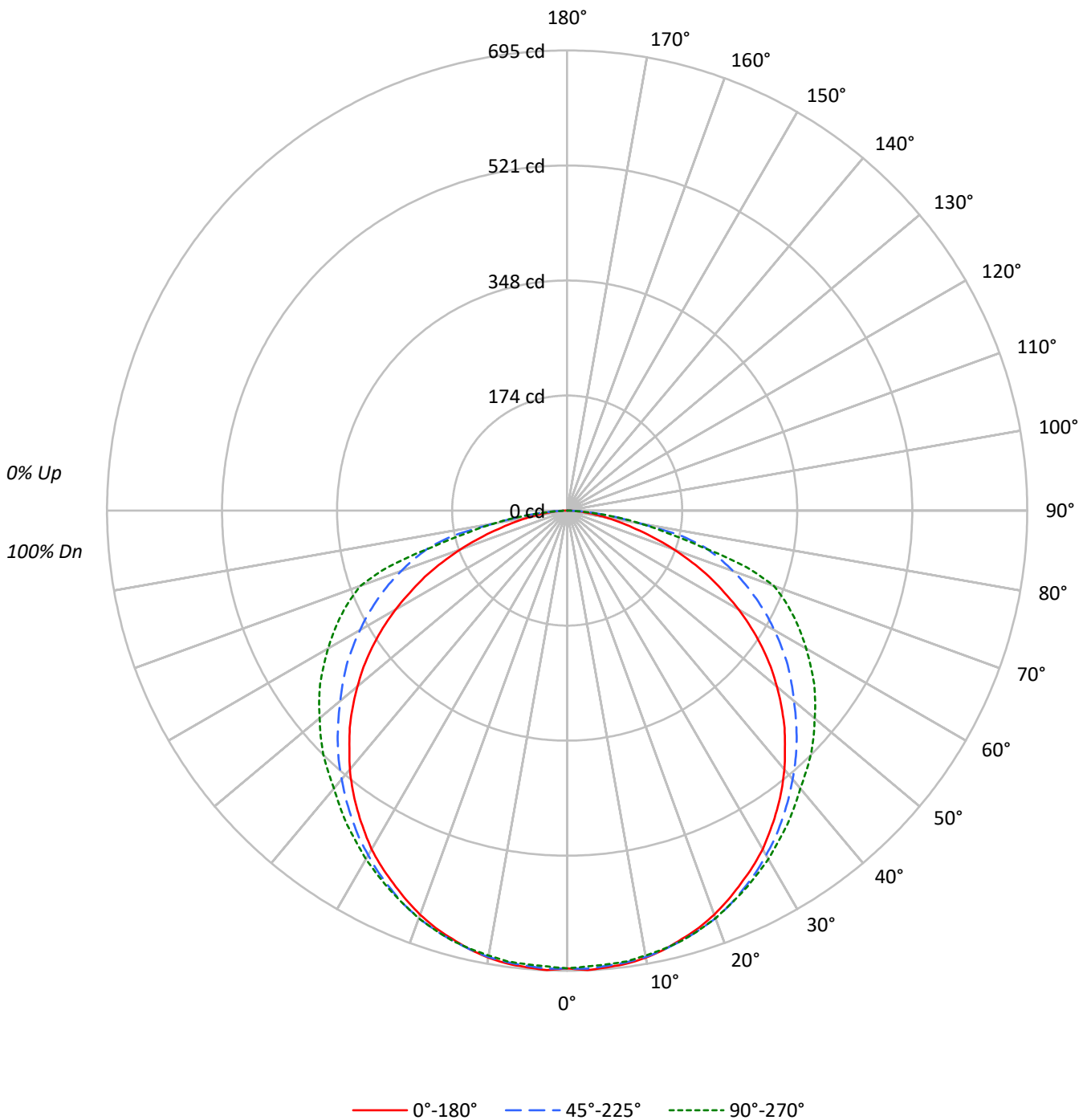
Input Watts (W): 24.831  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 103 | 98  | 94  | 105 | 101 | 97  | 93  | 96  | 93  | 90  | 92  | 90  | 87  | 89  | 87  | 84  | 82  |
| 2   | 98  | 89  | 82  | 76  | 95  | 87  | 80  | 75  | 83  | 78  | 73  | 80  | 75  | 71  | 77  | 73  | 70  | 67  |
| 3   | 89  | 78  | 69  | 62  | 86  | 76  | 68  | 62  | 73  | 66  | 60  | 70  | 64  | 59  | 67  | 63  | 58  | 56  |
| 4   | 81  | 68  | 59  | 52  | 79  | 67  | 58  | 52  | 64  | 57  | 51  | 62  | 56  | 50  | 60  | 54  | 50  | 47  |
| 5   | 74  | 61  | 51  | 45  | 72  | 60  | 51  | 44  | 57  | 50  | 44  | 55  | 49  | 43  | 54  | 48  | 43  | 41  |
| 6   | 68  | 55  | 45  | 39  | 66  | 54  | 45  | 38  | 52  | 44  | 38  | 50  | 43  | 38  | 48  | 42  | 37  | 35  |
| 7   | 63  | 49  | 40  | 34  | 62  | 49  | 40  | 34  | 47  | 39  | 34  | 45  | 39  | 33  | 44  | 38  | 33  | 31  |
| 8   | 59  | 45  | 36  | 30  | 57  | 44  | 36  | 30  | 43  | 35  | 30  | 42  | 35  | 30  | 40  | 34  | 29  | 28  |
| 9   | 55  | 41  | 33  | 27  | 54  | 41  | 33  | 27  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  | 25  |
| 10  | 51  | 38  | 30  | 24  | 50  | 37  | 30  | 24  | 36  | 29  | 24  | 35  | 29  | 24  | 35  | 28  | 24  | 22  |

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

|     | 0°  | 45°  | 90°  |
|-----|-----|------|------|
| 0°  | 930 | 930  | 930  |
| 5°  | 935 | 932  | 929  |
| 10° | 937 | 935  | 932  |
| 15° | 933 | 936  | 936  |
| 20° | 930 | 938  | 938  |
| 25° | 922 | 936  | 939  |
| 30° | 918 | 934  | 944  |
| 35° | 907 | 931  | 952  |
| 40° | 897 | 931  | 962  |
| 45° | 883 | 933  | 991  |
| 50° | 866 | 936  | 1021 |
| 55° | 843 | 954  | 1068 |
| 60° | 806 | 973  | 1122 |
| 65° | 755 | 1004 | 1201 |
| 70° | 675 | 1049 | 1306 |
| 75° | 558 | 1122 | 1081 |
| 80° | 455 | 866  | 876  |
| 85° | 366 | 576  | 540  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 65.7   | 3.0       |
| 10°-20°   | 189.5  | 8.7       |
| 20°-30°   | 289.6  | 13.2      |
| 30°-40°   | 354.2  | 16.2      |
| 40°-50°   | 379.0  | 17.3      |
| 50°-60°   | 362.9  | 16.6      |
| 60°-70°   | 307.0  | 14.0      |
| 70°-80°   | 194.6  | 8.9       |
| 80°-90°   | 44.8   | 2.0       |
| 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°    | 544.7  | 24.9      |
| 0°-40°    | 898.9  | 41.1      |
| 0°-60°    | 1640.7 | 75.0      |
| 0°-90°    | 2187.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2187.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 691 | 691   | 691 | 691   | 691 |      |
| 5°  | 692 | 689   | 690 | 689   | 688 | 66   |
| 15° | 670 | 669   | 672 | 672   | 672 | 189  |
| 25° | 621 | 621   | 630 | 633   | 633 | 287  |
| 35° | 552 | 556   | 567 | 575   | 580 | 346  |
| 45° | 464 | 472   | 490 | 511   | 521 | 358  |
| 55° | 359 | 370   | 407 | 441   | 455 | 320  |
| 65° | 237 | 260   | 315 | 358   | 377 | 234  |
| 75° | 107 | 151   | 216 | 215   | 208 | 117  |
| 85° | 24  | 36    | 37  | 34    | 35  | 28   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 691.4 | 691.4 | 691.4 | 691.4 | 691.4 |
| 2.5°  | 694.7 | 691.4 | 692.5 | 691.4 | 689.1 |
| 5°    | 692.5 | 689.1 | 690.2 | 689.1 | 688.0 |
| 7.5°  | 690.2 | 686.8 | 688.0 | 686.8 | 686.8 |
| 10°   | 685.7 | 682.3 | 684.6 | 683.4 | 682.3 |
| 12.5° | 678.9 | 676.7 | 678.9 | 677.8 | 677.8 |
| 15°   | 669.9 | 668.8 | 672.1 | 672.1 | 672.1 |
| 17.5° | 660.9 | 659.7 | 664.2 | 664.2 | 664.2 |
| 20°   | 649.6 | 648.4 | 655.2 | 655.2 | 655.2 |
| 22.5° | 636.0 | 634.9 | 643.9 | 643.9 | 643.9 |
| 25°   | 621.3 | 621.3 | 630.4 | 632.6 | 632.6 |
| 27.5° | 606.6 | 606.6 | 616.8 | 620.2 | 620.2 |
| 30°   | 590.8 | 590.8 | 601.0 | 605.5 | 607.8 |
| 32.5° | 571.6 | 573.9 | 585.2 | 590.8 | 593.1 |
| 35°   | 552.4 | 555.8 | 567.1 | 575.0 | 579.5 |
| 37.5° | 532.1 | 535.5 | 549.0 | 558.1 | 563.7 |
| 40°   | 510.6 | 515.1 | 529.8 | 541.1 | 547.9 |
| 42.5° | 486.9 | 493.7 | 510.6 | 525.3 | 534.3 |
| 45°   | 464.3 | 472.2 | 490.3 | 510.6 | 520.8 |
| 47.5° | 439.4 | 448.5 | 468.8 | 494.8 | 505.0 |
| 50°   | 413.5 | 422.5 | 447.3 | 476.7 | 488.0 |
| 52.5° | 387.5 | 397.6 | 427.0 | 458.6 | 472.2 |
| 55°   | 359.2 | 370.5 | 406.7 | 440.6 | 455.3 |
| 57.5° | 329.9 | 343.4 | 384.1 | 420.2 | 436.0 |
| 60°   | 299.4 | 316.3 | 361.5 | 399.9 | 416.8 |
| 62.5° | 267.7 | 288.1 | 338.9 | 379.6 | 397.6 |
| 65°   | 237.2 | 259.8 | 315.2 | 358.1 | 377.3 |
| 67.5° | 204.5 | 232.7 | 291.5 | 337.8 | 355.8 |
| 70°   | 171.7 | 204.5 | 266.6 | 314.0 | 332.1 |
| 72.5° | 138.9 | 178.5 | 241.7 | 284.7 | 284.7 |
| 75°   | 107.3 | 151.4 | 215.8 | 214.6 | 207.9 |
| 77.5° | 81.3  | 126.5 | 177.4 | 151.4 | 152.5 |
| 80°   | 58.7  | 101.7 | 111.8 | 111.8 | 113.0 |
| 82.5° | 39.5  | 77.9  | 72.3  | 71.2  | 73.4  |
| 85°   | 23.7  | 36.1  | 37.3  | 33.9  | 35.0  |
| 87.5° | 11.3  | 12.4  | 10.2  | 6.8   | 6.8   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)