

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: P732144

Luminaire Tested: **24CZ2-35-HRP-B2750-W2D-4000K**

Issue Date: 1/5/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P732144  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P295011)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 1/5/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-35-HRP-B2750-W2D-4000K  
Description: 2X4 3500 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 4000K CCT AND HRP LENS

Light Source: -  
Ballast/Driver: -

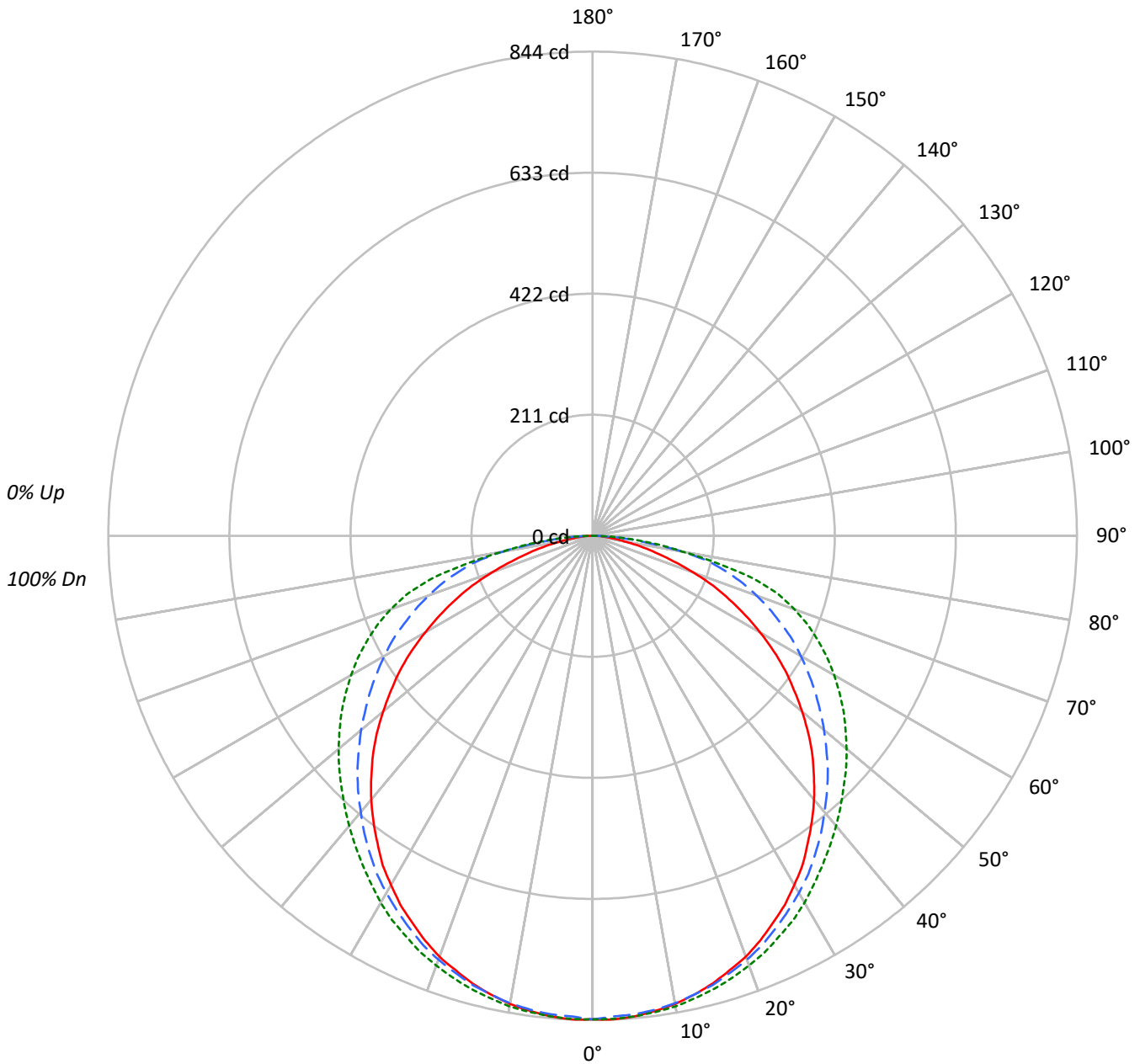
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2598.0 lumens  
Efficiency: N/A  
Efficacy: 92.8 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')  
CIE Type: Direct

Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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 | 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 | 96  | 93  | 96  | 93  | 90  | 92  | 90  | 87  | 89  | 86  | 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  | 61  | 70  | 64  | 59  | 68  | 63  | 58  | 56  |    |    |    |  |  |  |  |   |
| 4   | 81  | 68  | 59  | 52  | 79  | 67  | 59  | 52  | 65  | 57  | 51  | 62  | 56  | 50  | 60  | 54  | 50  | 48  |    |    |    |  |  |  |  |   |
| 5   | 74  | 61  | 52  | 45  | 72  | 60  | 51  | 45  | 58  | 50  | 44  | 56  | 49  | 44  | 54  | 48  | 43  | 41  |    |    |    |  |  |  |  |   |
| 6   | 69  | 55  | 46  | 39  | 67  | 54  | 45  | 39  | 52  | 44  | 38  | 50  | 43  | 38  | 49  | 42  | 38  | 36  |    |    |    |  |  |  |  |   |
| 7   | 63  | 50  | 41  | 34  | 62  | 49  | 40  | 34  | 47  | 39  | 34  | 46  | 39  | 34  | 44  | 38  | 33  | 31  |    |    |    |  |  |  |  |   |
| 8   | 59  | 45  | 36  | 30  | 57  | 44  | 36  | 30  | 43  | 36  | 30  | 42  | 35  | 30  | 41  | 34  | 30  | 28  |    |    |    |  |  |  |  |   |
| 9   | 55  | 41  | 33  | 27  | 54  | 41  | 33  | 27  | 40  | 32  | 27  | 39  | 32  | 27  | 38  | 31  | 27  | 25  |    |    |    |  |  |  |  |   |
| 10  | 52  | 38  | 30  | 25  | 50  | 38  | 30  | 25  | 37  | 30  | 25  | 36  | 29  | 24  | 35  | 29  | 24  | 23  |    |    |    |  |  |  |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1190 | 1190 | 1190 |
| 5°  | 1191 | 1186 | 1191 |
| 10° | 1188 | 1186 | 1194 |
| 15° | 1181 | 1184 | 1195 |
| 20° | 1173 | 1181 | 1197 |
| 25° | 1159 | 1176 | 1199 |
| 30° | 1145 | 1172 | 1203 |
| 35° | 1126 | 1166 | 1205 |
| 40° | 1106 | 1158 | 1216 |
| 45° | 1081 | 1157 | 1235 |
| 50° | 1046 | 1156 | 1268 |
| 55° | 1009 | 1164 | 1314 |
| 60° | 952  | 1182 | 1372 |
| 65° | 879  | 1210 | 1449 |
| 70° | 768  | 1252 | 1544 |
| 75° | 623  | 1316 | 1596 |
| 80° | 459  | 1291 | 1291 |
| 85° | 353  | 952  | 1074 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 79.8   | 3.1       |
| 10°-20°   | 229.3  | 8.8       |
| 20°-30°   | 349.1  | 13.4      |
| 30°-40°   | 423.9  | 16.3      |
| 40°-50°   | 447.8  | 17.2      |
| 50°-60°   | 422.6  | 16.3      |
| 60°-70°   | 351.3  | 13.5      |
| 70°-80°   | 231.2  | 8.9       |
| 80°-90°   | 63.0   | 2.4       |
| 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°    | 658.2  | 25.3      |
| 0°-40°    | 1082.1 | 41.7      |
| 0°-60°    | 1952.5 | 75.2      |
| 0°-90°    | 2598.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2598.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 843 | 843   | 843 | 843   | 843 |      |
| 5°  | 841 | 841   | 837 | 841   | 841 | 80   |
| 15° | 808 | 809   | 810 | 818   | 818 | 228  |
| 25° | 744 | 748   | 755 | 768   | 770 | 343  |
| 35° | 654 | 661   | 677 | 694   | 699 | 409  |
| 45° | 542 | 553   | 580 | 608   | 619 | 417  |
| 55° | 410 | 428   | 473 | 518   | 534 | 365  |
| 65° | 263 | 294   | 362 | 416   | 434 | 260  |
| 75° | 114 | 166   | 241 | 286   | 293 | 123  |
| 85° | 22  | 48    | 59  | 65    | 66  | 27   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 843.0 | 843.0 | 843.0 | 843.0 | 843.0 |
| 2.5°  | 844.0 | 843.0 | 838.5 | 843.0 | 843.0 |
| 5°    | 840.8 | 840.8 | 837.4 | 840.8 | 840.8 |
| 7.5°  | 835.3 | 835.3 | 833.1 | 837.4 | 837.4 |
| 10°   | 828.8 | 828.8 | 827.6 | 833.1 | 833.1 |
| 12.5° | 819.0 | 820.1 | 819.0 | 825.5 | 825.5 |
| 15°   | 808.1 | 809.2 | 810.3 | 817.9 | 817.9 |
| 17.5° | 794.0 | 796.1 | 798.3 | 807.0 | 808.1 |
| 20°   | 780.9 | 782.0 | 786.3 | 796.1 | 797.2 |
| 22.5° | 763.5 | 766.8 | 772.2 | 782.0 | 785.3 |
| 25°   | 744.0 | 748.3 | 754.9 | 767.9 | 770.1 |
| 27.5° | 725.4 | 728.8 | 737.4 | 751.5 | 755.9 |
| 30°   | 702.7 | 708.0 | 718.9 | 733.1 | 738.4 |
| 32.5° | 680.9 | 686.3 | 699.3 | 714.6 | 718.9 |
| 35°   | 653.7 | 661.2 | 676.6 | 693.9 | 699.3 |
| 37.5° | 627.6 | 635.1 | 653.7 | 673.2 | 679.8 |
| 40°   | 600.3 | 609.0 | 628.7 | 651.6 | 660.2 |
| 42.5° | 571.0 | 583.0 | 604.7 | 629.8 | 639.6 |
| 45°   | 541.7 | 552.6 | 579.7 | 608.0 | 618.9 |
| 47.5° | 510.1 | 523.1 | 552.6 | 586.2 | 599.2 |
| 50°   | 476.4 | 492.7 | 526.5 | 563.4 | 577.6 |
| 52.5° | 442.7 | 461.1 | 499.2 | 540.6 | 555.8 |
| 55°   | 410.0 | 427.5 | 473.1 | 517.7 | 534.0 |
| 57.5° | 374.2 | 395.9 | 445.9 | 493.8 | 510.1 |
| 60°   | 337.2 | 361.2 | 418.7 | 468.8 | 486.1 |
| 62.5° | 300.2 | 327.4 | 392.6 | 442.7 | 461.1 |
| 65°   | 263.2 | 293.6 | 362.2 | 415.5 | 433.9 |
| 67.5° | 227.3 | 261.1 | 333.8 | 387.2 | 405.7 |
| 70°   | 186.0 | 228.4 | 303.4 | 355.6 | 374.2 |
| 72.5° | 148.0 | 196.9 | 274.1 | 323.1 | 339.4 |
| 75°   | 114.2 | 166.4 | 241.4 | 286.1 | 292.6 |
| 77.5° | 83.8  | 136.0 | 207.7 | 223.0 | 224.1 |
| 80°   | 56.5  | 108.8 | 158.9 | 156.6 | 158.9 |
| 82.5° | 37.0  | 81.5  | 100.1 | 112.0 | 113.1 |
| 85°   | 21.8  | 47.9  | 58.8  | 65.2  | 66.3  |
| 87.5° | 10.9  | 16.3  | 20.7  | 21.8  | 23.9  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |



Report Generated By 670246072 / DESKTOP-50001EG







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)