

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: P731793

Luminaire Tested: **14CZ2-20-HRP-B2750-W2D-3500K**

Issue Date: 1/5/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P731793  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P294787)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 1/5/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-20-HRP-B2750-W2D-3500K  
Description: 1X4 2000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 3500K CCT AND HRP LENS

Light Source: -  
Ballast/Driver: -

**Summary**

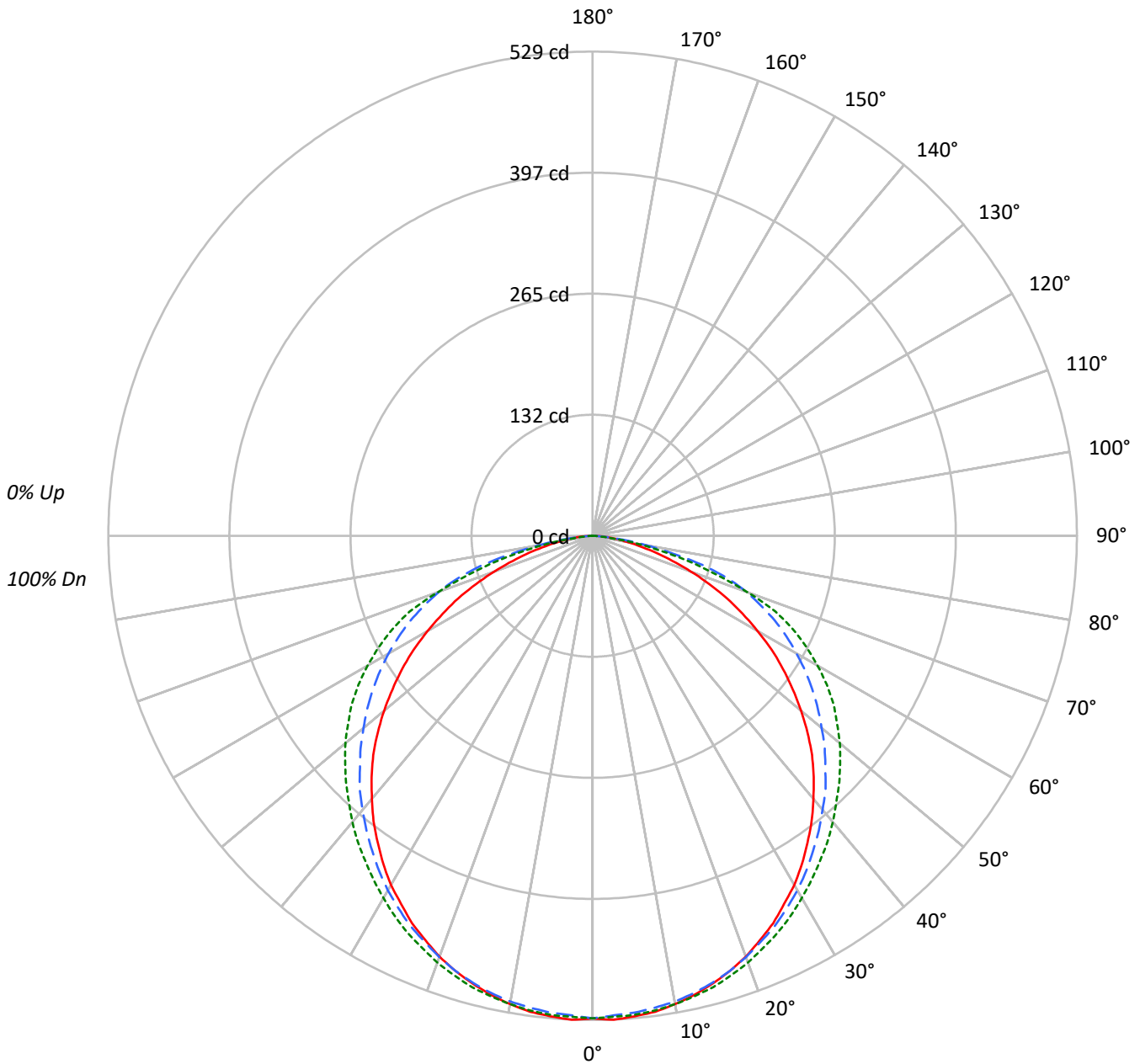
Lumens per Lamp: N/A  
Luminaire Lumens: 1553.0 lumens  
Efficiency: N/A  
Efficacy: 97.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 0.96' x L: 3.98' x H: 0')  
CIE Type: Direct

Input Watts (W): 16  
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 |  |  |  |  |  |  |  |  |   |
| RC  | 80  |     |     |     |     |     |     |     |     | 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   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 94  | 97  | 94  | 91  | 93  | 91  | 88  | 90  | 88  | 86  | 84  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 99  | 90  | 83  | 78  | 96  | 88  | 82  | 77  | 85  | 79  | 75  | 82  | 77  | 73  | 78  | 75  | 71  | 69  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 90  | 79  | 71  | 64  | 87  | 77  | 70  | 64  | 74  | 68  | 62  | 72  | 66  | 61  | 69  | 64  | 60  | 58  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 82  | 70  | 61  | 54  | 80  | 68  | 60  | 54  | 66  | 59  | 53  | 64  | 57  | 52  | 61  | 56  | 51  | 49  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 53  | 46  | 59  | 51  | 46  | 57  | 50  | 45  | 55  | 49  | 45  | 42  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 69  | 56  | 47  | 40  | 68  | 55  | 46  | 40  | 53  | 45  | 40  | 51  | 45  | 39  | 50  | 44  | 39  | 37  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 64  | 51  | 42  | 36  | 63  | 50  | 41  | 35  | 48  | 41  | 35  | 47  | 40  | 35  | 45  | 39  | 35  | 33  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 60  | 46  | 38  | 32  | 58  | 45  | 37  | 32  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 36  | 31  | 29  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 56  | 42  | 34  | 28  | 54  | 42  | 34  | 28  | 41  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 52  | 39  | 31  | 26  | 51  | 38  | 31  | 26  | 37  | 30  | 26  | 37  | 30  | 25  | 36  | 30  | 25  | 24  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1488 | 1488 | 1488 |
| 5°  | 1493 | 1482 | 1489 |
| 10° | 1489 | 1481 | 1489 |
| 15° | 1480 | 1477 | 1491 |
| 20° | 1470 | 1471 | 1491 |
| 25° | 1454 | 1466 | 1490 |
| 30° | 1436 | 1458 | 1490 |
| 35° | 1410 | 1447 | 1493 |
| 40° | 1382 | 1440 | 1504 |
| 45° | 1353 | 1435 | 1521 |
| 50° | 1306 | 1434 | 1548 |
| 55° | 1250 | 1442 | 1581 |
| 60° | 1174 | 1453 | 1602 |
| 65° | 1083 | 1467 | 1611 |
| 70° | 943  | 1471 | 1483 |
| 75° | 778  | 1370 | 1199 |
| 80° | 611  | 985  | 801  |
| 85° | 476  | 379  | 188  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 49.9   | 3.2       |
| 10°-20°   | 143.3  | 9.2       |
| 20°-30°   | 217.6  | 14.0      |
| 30°-40°   | 263.6  | 17.0      |
| 40°-50°   | 277.8  | 17.9      |
| 50°-60°   | 259.3  | 16.7      |
| 60°-70°   | 207.2  | 13.3      |
| 70°-80°   | 114.1  | 7.3       |
| 80°-90°   | 20.1   | 1.3       |
| 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°    | 410.8  | 26.5      |
| 0°-40°    | 674.4  | 43.4      |
| 0°-60°    | 1211.6 | 78.0      |
| 0°-90°    | 1553.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1553.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 527 | 527   | 527 | 527   | 527 |      |
| 5°  | 527 | 526   | 523 | 526   | 526 | 50   |
| 15° | 506 | 506   | 506 | 510   | 510 | 143  |
| 25° | 467 | 468   | 471 | 478   | 478 | 215  |
| 35° | 409 | 413   | 420 | 431   | 433 | 256  |
| 45° | 339 | 345   | 359 | 376   | 381 | 261  |
| 55° | 254 | 267   | 293 | 314   | 321 | 227  |
| 65° | 162 | 183   | 220 | 238   | 241 | 160  |
| 75° | 71  | 102   | 126 | 113   | 110 | 77   |
| 85° | 15  | 18    | 12  | 7     | 6   | 18   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 527.3 | 527.3 | 527.3 | 527.3 | 527.3 |
| 2.5°  | 529.3 | 527.8 | 524.5 | 527.3 | 526.0 |
| 5°    | 527.0 | 525.5 | 523.0 | 526.5 | 525.5 |
| 7.5°  | 524.5 | 522.5 | 520.1 | 524.0 | 523.0 |
| 10°   | 519.6 | 518.1 | 516.7 | 520.1 | 519.6 |
| 12.5° | 513.7 | 513.3 | 511.8 | 515.7 | 515.2 |
| 15°   | 506.5 | 506.5 | 505.5 | 510.3 | 510.3 |
| 17.5° | 498.5 | 498.1 | 498.5 | 504.0 | 503.5 |
| 20°   | 489.3 | 489.3 | 489.8 | 496.2 | 496.2 |
| 22.5° | 478.0 | 478.5 | 480.0 | 487.8 | 487.3 |
| 25°   | 466.9 | 467.8 | 470.7 | 477.5 | 478.5 |
| 27.5° | 453.2 | 455.7 | 459.0 | 467.3 | 468.3 |
| 30°   | 440.5 | 441.9 | 447.3 | 455.2 | 457.0 |
| 32.5° | 425.4 | 428.2 | 434.2 | 442.9 | 445.4 |
| 35°   | 409.2 | 413.2 | 419.9 | 430.7 | 433.2 |
| 37.5° | 393.1 | 396.6 | 405.9 | 417.0 | 421.4 |
| 40°   | 375.1 | 380.9 | 390.7 | 403.4 | 408.2 |
| 42.5° | 357.4 | 363.3 | 376.6 | 389.7 | 394.1 |
| 45°   | 338.9 | 345.3 | 359.4 | 375.6 | 380.9 |
| 47.5° | 318.4 | 325.8 | 343.8 | 360.9 | 366.7 |
| 50°   | 297.3 | 306.6 | 326.6 | 345.8 | 352.6 |
| 52.5° | 275.5 | 287.1 | 310.1 | 330.1 | 336.5 |
| 55°   | 254.0 | 266.6 | 293.0 | 313.5 | 321.3 |
| 57.5° | 232.0 | 245.7 | 275.5 | 298.8 | 303.3 |
| 60°   | 208.0 | 224.7 | 257.3 | 277.8 | 283.8 |
| 62.5° | 184.6 | 203.7 | 238.8 | 258.3 | 263.2 |
| 65°   | 162.1 | 182.7 | 219.7 | 237.8 | 241.2 |
| 67.5° | 137.7 | 162.1 | 198.7 | 215.4 | 216.3 |
| 70°   | 114.3 | 142.6 | 178.2 | 186.0 | 179.7 |
| 72.5° | 91.3  | 121.6 | 154.4 | 147.9 | 142.6 |
| 75°   | 71.3  | 102.1 | 125.6 | 112.8 | 109.9 |
| 77.5° | 52.8  | 83.5  | 89.8  | 83.1  | 77.6  |
| 80°   | 37.6  | 65.9  | 60.6  | 51.8  | 49.3  |
| 82.5° | 25.8  | 41.5  | 33.2  | 25.8  | 22.5  |
| 85°   | 14.7  | 18.5  | 11.7  | 7.3   | 5.8   |
| 87.5° | 6.3   | 4.4   | 2.5   | 2.0   | 2.0   |
| 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)