

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: P842903

Luminaire Tested: **22CZ2-20HE-UNV-B40**

Issue Date: 1/5/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P842903  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P271965)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 1/5/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-20HE-UNV-B40  
Description: 2X2 2000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 4000K CCT AND RIBBED LENS  
  
Light Source: -  
Ballast/Driver: -

**Summary**

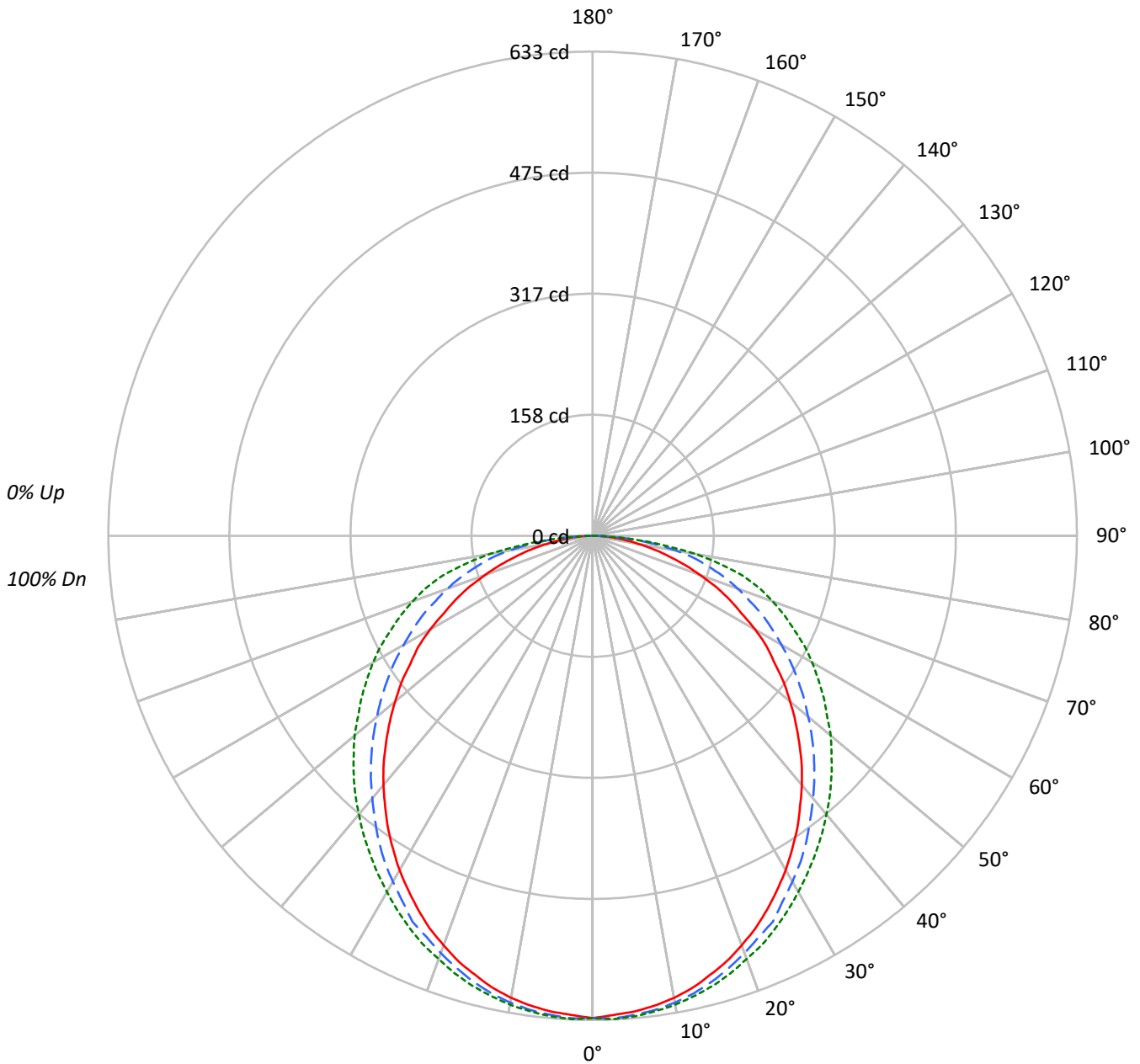
Lumens per Lamp: N/A  
Luminaire Lumens: 1855.0 lumens  
Efficiency: N/A  
Efficacy: 115.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 1.92' x L: 1.98' x H: 0')  
CIE Type: Direct

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   | 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  | 81  | 75  | 84  | 78  | 73  | 80  | 76  | 71  | 77  | 73  | 70  | 68  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 89  | 78  | 69  | 63  | 86  | 76  | 68  | 62  | 73  | 66  | 61  | 70  | 65  | 60  | 68  | 63  | 59  | 56  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 81  | 69  | 60  | 53  | 79  | 67  | 59  | 52  | 65  | 57  | 52  | 63  | 56  | 51  | 60  | 55  | 50  | 48  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 75  | 61  | 52  | 45  | 72  | 60  | 52  | 45  | 58  | 50  | 44  | 56  | 49  | 44  | 54  | 48  | 44  | 41  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 69  | 55  | 46  | 39  | 67  | 54  | 46  | 39  | 52  | 45  | 39  | 51  | 44  | 39  | 49  | 43  | 38  | 36  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 64  | 50  | 41  | 35  | 62  | 49  | 41  | 35  | 48  | 40  | 34  | 46  | 39  | 34  | 45  | 39  | 34  | 32  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 59  | 46  | 37  | 31  | 58  | 45  | 37  | 31  | 44  | 36  | 31  | 42  | 35  | 30  | 41  | 35  | 30  | 28  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 56  | 42  | 34  | 28  | 54  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 32  | 27  | 38  | 32  | 27  | 25  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 52  | 39  | 31  | 25  | 51  | 38  | 30  | 25  | 37  | 30  | 25  | 36  | 30  | 25  | 35  | 29  | 25  | 23  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1790 | 1790 | 1790 |
| 5°  | 1778 | 1791 | 1796 |
| 10° | 1767 | 1786 | 1794 |
| 15° | 1746 | 1772 | 1788 |
| 20° | 1720 | 1753 | 1778 |
| 25° | 1689 | 1743 | 1772 |
| 30° | 1654 | 1711 | 1762 |
| 35° | 1616 | 1688 | 1758 |
| 40° | 1576 | 1660 | 1761 |
| 45° | 1531 | 1641 | 1772 |
| 50° | 1487 | 1624 | 1793 |
| 55° | 1436 | 1617 | 1824 |
| 60° | 1393 | 1616 | 1880 |
| 65° | 1323 | 1642 | 1949 |
| 70° | 1235 | 1673 | 2075 |
| 75° | 1131 | 1732 | 2242 |
| 80° | 985  | 1804 | 2208 |
| 85° | 863  | 1605 | 1755 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 59.6   | 3.2       |
| 10°-20°   | 169.9  | 9.2       |
| 20°-30°   | 255.1  | 13.7      |
| 30°-40°   | 304.8  | 16.4      |
| 40°-50°   | 316.9  | 17.1      |
| 50°-60°   | 293.7  | 15.8      |
| 60°-70°   | 240.9  | 13.0      |
| 70°-80°   | 162.9  | 8.8       |
| 80°-90°   | 51.2   | 2.8       |
| 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°    | 484.6  | 26.1      |
| 0°-40°    | 789.4  | 42.6      |
| 0°-60°    | 1400.0 | 75.5      |
| 0°-90°    | 1855.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1855.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 631 | 631   | 631 | 631   | 631 |      |
| 5°  | 624 | 625   | 629 | 630   | 631 | 59   |
| 15° | 594 | 597   | 603 | 607   | 609 | 168  |
| 25° | 539 | 544   | 557 | 563   | 566 | 248  |
| 35° | 466 | 473   | 487 | 502   | 508 | 292  |
| 45° | 382 | 389   | 409 | 433   | 442 | 295  |
| 55° | 290 | 299   | 327 | 356   | 369 | 261  |
| 65° | 197 | 208   | 245 | 276   | 290 | 195  |
| 75° | 103 | 120   | 158 | 190   | 204 | 109  |
| 85° | 26  | 36    | 49  | 55    | 54  | 30   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 630.7 | 630.7 | 630.7 | 630.7 | 630.7 |
| 2.5°  | 627.1 | 628.8 | 631.6 | 632.6 | 632.6 |
| 5°    | 624.3 | 625.2 | 628.8 | 629.8 | 630.7 |
| 7.5°  | 619.7 | 621.6 | 625.2 | 626.2 | 627.1 |
| 10°   | 613.3 | 615.2 | 619.7 | 621.6 | 622.5 |
| 12.5° | 605.2 | 607.0 | 612.5 | 615.2 | 616.1 |
| 15°   | 594.2 | 596.9 | 603.3 | 607.0 | 608.8 |
| 17.5° | 583.3 | 585.9 | 592.4 | 597.8 | 599.7 |
| 20°   | 569.6 | 575.9 | 580.6 | 587.8 | 588.7 |
| 22.5° | 555.9 | 559.6 | 567.7 | 575.1 | 578.7 |
| 25°   | 539.4 | 544.0 | 556.8 | 563.2 | 565.9 |
| 27.5° | 522.2 | 528.5 | 538.5 | 548.6 | 552.2 |
| 30°   | 504.8 | 509.3 | 522.2 | 533.9 | 537.7 |
| 32.5° | 485.6 | 492.0 | 505.7 | 517.5 | 523.0 |
| 35°   | 466.4 | 472.8 | 487.4 | 502.0 | 507.5 |
| 37.5° | 445.5 | 452.7 | 467.4 | 484.6 | 492.0 |
| 40°   | 425.4 | 430.9 | 448.1 | 469.1 | 475.5 |
| 42.5° | 404.3 | 410.7 | 429.0 | 451.9 | 459.1 |
| 45°   | 381.6 | 388.8 | 409.0 | 432.6 | 441.7 |
| 47.5° | 359.6 | 366.9 | 388.8 | 412.6 | 423.5 |
| 50°   | 336.8 | 345.9 | 367.8 | 395.2 | 406.2 |
| 52.5° | 314.9 | 323.2 | 347.8 | 376.1 | 386.1 |
| 55°   | 290.3 | 299.4 | 326.8 | 355.9 | 368.7 |
| 57.5° | 270.2 | 276.5 | 306.7 | 336.8 | 349.6 |
| 60°   | 245.5 | 253.8 | 284.8 | 316.7 | 331.3 |
| 62.5° | 219.1 | 232.8 | 264.7 | 297.5 | 312.2 |
| 65°   | 197.1 | 208.1 | 244.6 | 276.5 | 290.3 |
| 67.5° | 174.3 | 186.2 | 221.8 | 255.6 | 271.1 |
| 70°   | 148.8 | 164.3 | 201.7 | 235.5 | 250.1 |
| 72.5° | 125.9 | 142.4 | 180.7 | 213.6 | 229.1 |
| 75°   | 103.2 | 120.4 | 158.0 | 189.9 | 204.5 |
| 77.5° | 81.3  | 100.4 | 136.9 | 161.6 | 170.7 |
| 80°   | 60.3  | 78.5  | 110.4 | 127.8 | 135.1 |
| 82.5° | 42.0  | 57.5  | 81.3  | 90.4  | 92.2  |
| 85°   | 26.5  | 36.5  | 49.3  | 54.8  | 53.9  |
| 87.5° | 11.9  | 14.6  | 18.3  | 20.1  | 19.1  |
| 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)