

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: P#

Luminaire Tested: **22CZ-LD5-20-UNV-L850-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25706)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ-LD5-20-UNV-L850-CD1-U  
Description: CRUZE 2x2 LED TROFFER

Light Source: -  
Ballast/Driver: -

**Summary**

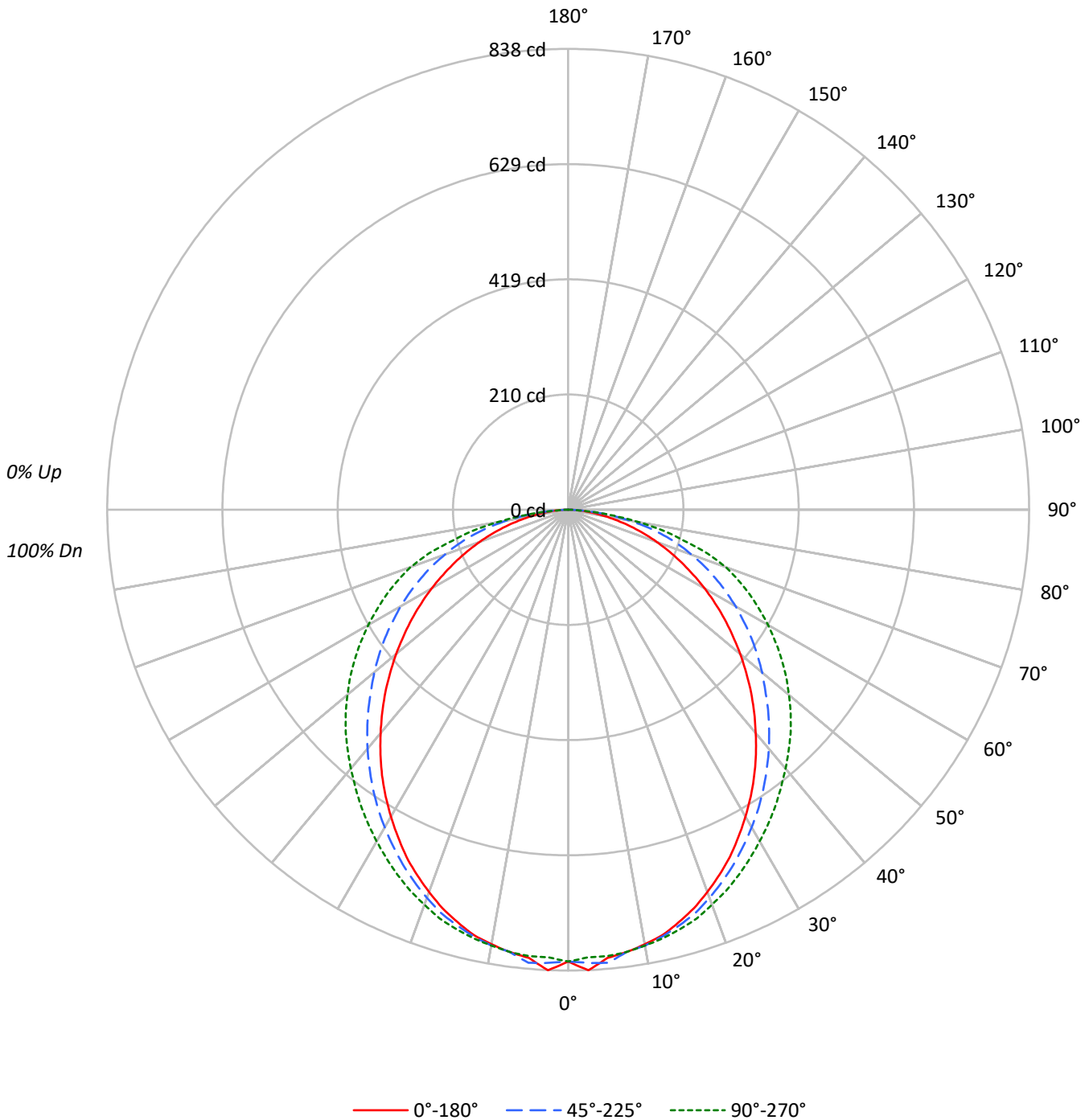
Lumens per Lamp: N/A  
Luminaire Lumens: 2301.5 lumens  
Efficiency: N/A  
Efficacy: 140.5 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 2' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 16.38  
Input Voltage (V): NR  
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  | 82  | 76  | 84  | 79  | 74  | 81  | 77  | 73  | 78  | 74  | 71  | 69  |
| 3   | 90  | 79  | 70  | 64  | 87  | 77  | 69  | 63  | 74  | 68  | 62  | 71  | 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  | 43  |
| 6   | 70  | 56  | 47  | 41  | 68  | 55  | 47  | 40  | 53  | 46  | 40  | 52  | 45  | 40  | 50  | 44  | 39  | 37  |
| 7   | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 48  | 41  | 35  | 47  | 40  | 35  | 46  | 40  | 35  | 33  |
| 8   | 60  | 46  | 38  | 32  | 58  | 46  | 38  | 32  | 44  | 37  | 32  | 43  | 36  | 31  | 42  | 36  | 31  | 29  |
| 9   | 56  | 43  | 34  | 29  | 55  | 42  | 34  | 29  | 41  | 34  | 29  | 40  | 33  | 28  | 39  | 33  | 28  | 26  |
| 10  | 53  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 31  | 26  | 37  | 30  | 26  | 36  | 30  | 26  | 24  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2211 | 2211 | 2211 |
| 5°  | 2201 | 2220 | 2191 |
| 10° | 2174 | 2172 | 2180 |
| 15° | 2135 | 2139 | 2169 |
| 20° | 2081 | 2097 | 2150 |
| 25° | 2020 | 2046 | 2127 |
| 30° | 1947 | 1992 | 2103 |
| 35° | 1872 | 1937 | 2085 |
| 40° | 1789 | 1882 | 2072 |
| 45° | 1704 | 1826 | 2073 |
| 50° | 1614 | 1776 | 2070 |
| 55° | 1519 | 1731 | 2073 |
| 60° | 1419 | 1685 | 2079 |
| 65° | 1307 | 1634 | 2092 |
| 70° | 1184 | 1571 | 2106 |
| 75° | 1030 | 1482 | 1912 |
| 80° | 825  | 1238 | 1567 |
| 85° | 572  | 726  | 813  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 77.9   | 3.4       |
| 10°-20°   | 220.7  | 9.6       |
| 20°-30°   | 328.3  | 14.3      |
| 30°-40°   | 388.3  | 16.9      |
| 40°-50°   | 399.1  | 17.3      |
| 50°-60°   | 364.7  | 15.8      |
| 60°-70°   | 291.7  | 12.7      |
| 70°-80°   | 183.1  | 8.0       |
| 80°-90°   | 47.7   | 2.1       |
| 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°    | 626.9  | 27.2      |
| 0°-40°    | 1015.2 | 44.1      |
| 0°-60°    | 1779.0 | 77.3      |
| 0°-90°    | 2301.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2301.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 822 | 822   | 822 | 822   | 822 |      |
| 5°  | 818 | 818   | 827 | 822   | 815 | 78   |
| 15° | 777 | 778   | 782 | 787   | 789 | 219  |
| 25° | 696 | 701   | 712 | 724   | 733 | 320  |
| 35° | 590 | 598   | 619 | 642   | 657 | 369  |
| 45° | 470 | 482   | 514 | 552   | 572 | 362  |
| 55° | 347 | 364   | 406 | 451   | 473 | 310  |
| 65° | 227 | 247   | 296 | 340   | 364 | 225  |
| 75° | 118 | 140   | 180 | 207   | 218 | 125  |
| 85° | 29  | 37    | 42  | 41    | 41  | 34   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 821.5 | 821.5 | 821.5 | 821.5 | 821.5 |
| 2.5°  | 838.3 | 834.9 | 824.9 | 818.2 | 814.8 |
| 5°    | 818.2 | 818.2 | 827.1 | 821.5 | 814.8 |
| 7.5°  | 811.4 | 811.4 | 811.4 | 828.2 | 811.4 |
| 10°   | 802.5 | 803.6 | 804.7 | 811.4 | 804.7 |
| 12.5° | 792.4 | 792.4 | 794.6 | 796.9 | 798.0 |
| 15°   | 776.7 | 777.9 | 782.3 | 786.8 | 789.1 |
| 17.5° | 760.0 | 763.3 | 768.9 | 774.5 | 779.0 |
| 20°   | 739.8 | 744.3 | 751.0 | 760.0 | 764.4 |
| 22.5° | 718.5 | 723.0 | 732.0 | 742.0 | 749.9 |
| 25°   | 696.2 | 700.6 | 711.8 | 724.1 | 733.1 |
| 27.5° | 670.4 | 676.0 | 689.4 | 706.2 | 715.2 |
| 30°   | 644.7 | 651.4 | 667.1 | 686.1 | 696.2 |
| 32.5° | 617.8 | 625.6 | 643.6 | 664.8 | 677.1 |
| 35°   | 589.8 | 597.7 | 618.9 | 642.4 | 657.0 |
| 37.5° | 560.7 | 569.7 | 593.2 | 620.0 | 635.7 |
| 40°   | 530.5 | 540.6 | 567.4 | 596.5 | 614.5 |
| 42.5° | 500.3 | 511.5 | 540.6 | 575.3 | 593.2 |
| 45°   | 470.1 | 482.4 | 513.7 | 551.8 | 571.9 |
| 47.5° | 438.7 | 453.3 | 485.7 | 528.3 | 548.4 |
| 50°   | 408.5 | 423.1 | 460.0 | 503.7 | 523.8 |
| 52.5° | 377.2 | 394.0 | 433.1 | 477.9 | 499.2 |
| 55°   | 347.0 | 363.7 | 406.3 | 451.0 | 473.4 |
| 57.5° | 316.7 | 333.5 | 378.3 | 424.2 | 446.6 |
| 60°   | 286.5 | 304.4 | 351.4 | 396.2 | 419.7 |
| 62.5° | 256.3 | 275.3 | 323.5 | 369.3 | 391.7 |
| 65°   | 227.2 | 247.3 | 295.5 | 340.2 | 363.7 |
| 67.5° | 199.2 | 220.5 | 267.5 | 311.1 | 334.6 |
| 70°   | 171.2 | 192.5 | 238.4 | 280.9 | 304.4 |
| 72.5° | 144.4 | 165.6 | 210.4 | 248.5 | 266.4 |
| 75°   | 117.5 | 139.9 | 180.2 | 207.1 | 218.2 |
| 77.5° | 91.8  | 114.2 | 148.9 | 166.8 | 179.1 |
| 80°   | 68.3  | 87.3  | 111.9 | 125.4 | 129.8 |
| 82.5° | 47.0  | 62.7  | 78.3  | 81.7  | 83.9  |
| 85°   | 29.1  | 36.9  | 42.5  | 41.4  | 41.4  |
| 87.5° | 13.4  | 14.5  | 12.3  | 9.0   | 5.6   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)