

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: P685694

Luminaire Tested: **8CZL-10-UNV-LVR-L935-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685694  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-10-UNV-LVR-L935-CD-U  
Description: METALUX CRUZE LINEAR 8FT LOUVER MODEL @90 CRI and 3500K  
Light Source: (784) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

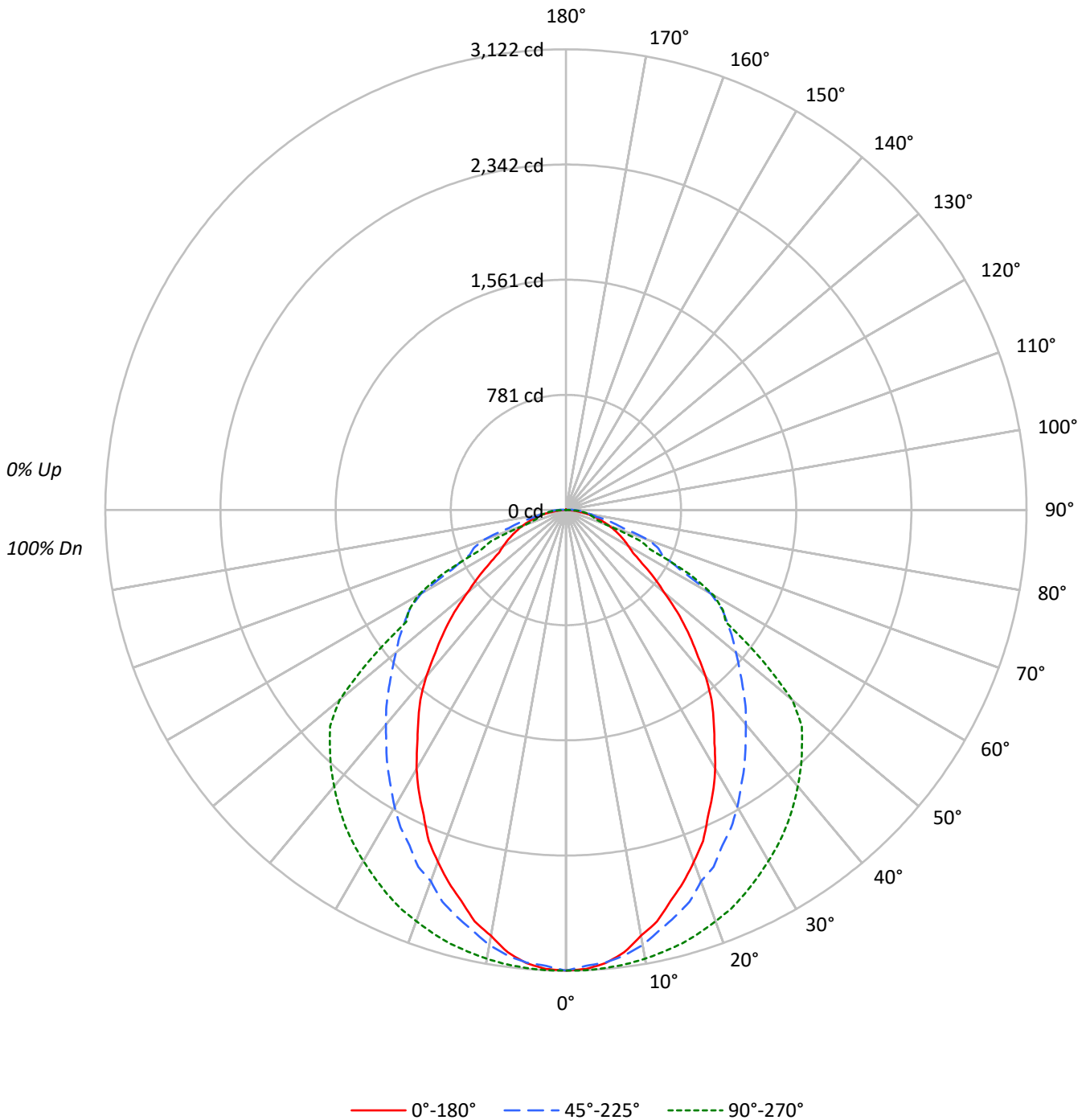
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7068.4 lumens  
Efficiency: N/A  
Efficacy: 112.2 lumens/watt  
Spacing Criteria (0/90/45): 1.01 / 1.31 / 1.26  
Luminous Opening: Rectangular (W 0.83' x L: 8' x H: 0')  
CIE Type: Direct

Input Watts (W): 63  
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  |     |     |     | 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 | 100 | 100 | 100 |
| 1   | 110 | 105 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  | 95  | 92  | 90  | 91  | 89  | 88  | 85  | 85  | 85  | 85  |
| 2   | 101 | 93  | 87  | 81  | 98  | 91  | 85  | 80  | 88  | 83  | 78  | 84  | 80  | 77  | 81  | 78  | 75  | 73  | 73  | 73  | 73  |
| 3   | 92  | 82  | 75  | 69  | 90  | 81  | 74  | 68  | 78  | 72  | 67  | 75  | 70  | 66  | 73  | 68  | 65  | 63  | 63  | 63  | 63  |
| 4   | 85  | 74  | 65  | 59  | 83  | 72  | 65  | 59  | 70  | 63  | 58  | 68  | 62  | 57  | 65  | 60  | 56  | 54  | 54  | 54  | 54  |
| 5   | 78  | 66  | 58  | 51  | 76  | 65  | 57  | 51  | 63  | 56  | 51  | 61  | 55  | 50  | 59  | 54  | 49  | 47  | 47  | 47  | 47  |
| 6   | 73  | 60  | 51  | 45  | 71  | 59  | 51  | 45  | 57  | 50  | 45  | 56  | 49  | 44  | 54  | 48  | 44  | 42  | 42  | 42  | 42  |
| 7   | 68  | 55  | 46  | 40  | 66  | 54  | 46  | 40  | 52  | 45  | 40  | 51  | 44  | 40  | 49  | 44  | 39  | 37  | 37  | 37  | 37  |
| 8   | 63  | 50  | 42  | 36  | 61  | 49  | 42  | 36  | 48  | 41  | 36  | 47  | 40  | 36  | 46  | 40  | 35  | 34  | 34  | 34  | 34  |
| 9   | 59  | 46  | 38  | 33  | 58  | 45  | 38  | 33  | 44  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 32  | 30  | 30  | 30  | 30  |
| 10  | 55  | 43  | 35  | 30  | 54  | 42  | 35  | 30  | 41  | 34  | 30  | 40  | 34  | 29  | 39  | 34  | 29  | 28  | 28  | 28  | 28  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5039 | 5039 | 5039 |
| 5°  | 4996 | 4989 | 5048 |
| 10° | 4802 | 4907 | 5063 |
| 15° | 4584 | 4770 | 5083 |
| 20° | 4358 | 4601 | 5095 |
| 25° | 4065 | 4468 | 5112 |
| 30° | 3774 | 4331 | 5120 |
| 35° | 3440 | 4161 | 5144 |
| 40° | 3104 | 3999 | 5153 |
| 45° | 2669 | 3871 | 5167 |
| 50° | 2182 | 3779 | 5031 |
| 55° | 1777 | 3764 | 3721 |
| 60° | 1584 | 3660 | 3733 |
| 65° | 1532 | 2746 | 2407 |
| 70° | 1471 | 2815 | 1369 |
| 75° | 1418 | 1984 | 1221 |
| 80° | 1293 | 1613 | 1456 |
| 85° | 1158 | 2012 | 1814 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 292.3  | 4.1       |
| 10°-20°   | 810.4  | 11.5      |
| 20°-30°   | 1172.5 | 16.6      |
| 30°-40°   | 1338.2 | 18.9      |
| 40°-50°   | 1314.9 | 18.6      |
| 50°-60°   | 1048.9 | 14.8      |
| 60°-70°   | 660.7  | 9.3       |
| 70°-80°   | 292.7  | 4.1       |
| 80°-90°   | 112.2  | 1.6       |
| 90°-100°  | 22.3   | 0.3       |
| 100°-110° | 1.5    | 0.0       |
| 110°-120° | 0.2    | 0.0       |
| 120°-130° | 0.2    | 0.0       |
| 130°-140° | 0.3    | 0.0       |
| 140°-150° | 0.3    | 0.0       |
| 150°-160° | 0.3    | 0.0       |
| 160°-170° | 0.3    | 0.0       |
| 170°-180° | 0.1    | 0.0       |
| 0°-30°    | 2275.3 | 32.2      |
| 0°-40°    | 3613.5 | 51.1      |
| 0°-60°    | 5977.3 | 84.6      |
| 0°-90°    | 7042.9 | 99.6      |
| 90°-120°  | 23.9   | 0.3       |
| 90°-150°  | 24.8   | 0.4       |
| 90°-180°  | 25.0   | 0.4       |
| 0°-180°   | 7068.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 3121 | 3121  | 3121 | 3121  | 3121 |      |
| 5°   | 3082 | 3089  | 3078 | 3104  | 3115 | 289  |
| 15°  | 2742 | 2769  | 2854 | 2987  | 3041 | 772  |
| 25°  | 2282 | 2355  | 2508 | 2738  | 2870 | 1051 |
| 35°  | 1746 | 1851  | 2111 | 2422  | 2610 | 1091 |
| 45°  | 1169 | 1339  | 1695 | 2075  | 2263 | 898  |
| 55°  | 631  | 855   | 1337 | 1442  | 1322 | 580  |
| 65°  | 401  | 546   | 719  | 766   | 630  | 397  |
| 75°  | 227  | 263   | 318  | 241   | 196  | 238  |
| 85°  | 62   | 76    | 109  | 140   | 98   | 66   |
| 90°  | 0    | 26    | 57   | 83    | 16   | 4    |
| 95°  | 0    | 4     | 24   | 41    | 5    | 0    |
| 105° | 0    | 0     | 0    | 2     | 0    | 1    |
| 115° | 0    | 0     | 0    | 0     | 0    | 0    |
| 125° | 0    | 1     | 0    | 0     | 0    | 0    |
| 135° | 0    | 1     | 0    | 0     | 0    | 0    |
| 145° | 1    | 1     | 0    | 0     | 0    | 1    |
| 155° | 1    | 1     | 0    | 0     | 0    | 0    |
| 165° | 2    | 2     | 1    | 0     | 0    | 0    |
| 175° | 2    | 2     | 1    | 0     | 0    | 0    |
| 180° | 1    | 1     | 1    | 1     | 1    |      |



TEST NUMBER: P685694

CATALOG NUMBER: 8CZL-10-UNV-LVR-L935-CD-U

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 3121.1 | 3121.1 | 3121.1 | 3121.1 | 3121.1 |
| 2.5°   | 3112.9 | 3110.9 | 3092.0 | 3118.7 | 3121.6 |
| 5°     | 3082.3 | 3089.1 | 3078.0 | 3103.7 | 3114.8 |
| 7.5°   | 3023.7 | 3030.9 | 3044.0 | 3091.0 | 3104.6 |
| 10°    | 2928.7 | 2947.1 | 2993.1 | 3059.1 | 3088.1 |
| 12.5°  | 2856.0 | 2878.7 | 2919.9 | 3031.9 | 3065.4 |
| 15°    | 2742.1 | 2769.2 | 2853.5 | 2987.3 | 3041.1 |
| 17.5°  | 2645.1 | 2694.5 | 2784.2 | 2931.1 | 3006.2 |
| 20°    | 2536.5 | 2576.3 | 2677.6 | 2875.8 | 2965.5 |
| 22.5°  | 2428.0 | 2478.4 | 2616.5 | 2802.2 | 2924.3 |
| 25°    | 2281.6 | 2355.2 | 2507.9 | 2737.7 | 2869.5 |
| 27.5°  | 2157.5 | 2250.5 | 2426.0 | 2661.6 | 2808.5 |
| 30°    | 2024.2 | 2096.4 | 2322.8 | 2584.0 | 2746.4 |
| 32.5°  | 1873.9 | 1987.3 | 2211.3 | 2495.3 | 2681.5 |
| 35°    | 1745.5 | 1851.1 | 2110.9 | 2422.1 | 2609.7 |
| 37.5°  | 1621.4 | 1720.8 | 1999.9 | 2339.3 | 2530.2 |
| 40°    | 1472.6 | 1603.4 | 1897.2 | 2244.7 | 2444.9 |
| 42.5°  | 1307.8 | 1468.2 | 1801.7 | 2155.5 | 2358.2 |
| 45°    | 1169.1 | 1339.3 | 1695.1 | 2074.6 | 2262.7 |
| 47.5°  | 1025.2 | 1204.5 | 1595.2 | 1976.2 | 2168.1 |
| 50°    | 868.6  | 1086.7 | 1504.6 | 1885.1 | 2002.9 |
| 52.5°  | 754.2  | 964.1  | 1423.1 | 1720.3 | 1688.3 |
| 55°    | 631.1  | 854.6  | 1337.3 | 1442.0 | 1321.8 |
| 57.5°  | 537.6  | 755.7  | 1256.9 | 1132.3 | 1261.7 |
| 60°    | 490.5  | 676.7  | 1133.3 | 1078.0 | 1156.1 |
| 62.5°  | 446.4  | 607.4  | 866.7  | 1011.1 | 951.0  |
| 65°    | 400.9  | 545.8  | 718.8  | 765.9  | 630.1  |
| 67.5°  | 356.8  | 492.5  | 677.6  | 572.0  | 548.7  |
| 70°    | 311.7  | 451.3  | 596.2  | 487.6  | 289.9  |
| 72.5°  | 269.0  | 403.8  | 407.6  | 270.0  | 215.2  |
| 75°    | 227.3  | 262.7  | 318.0  | 240.9  | 195.8  |
| 77.5°  | 181.8  | 225.4  | 212.8  | 215.7  | 177.4  |
| 80°    | 139.1  | 155.1  | 173.5  | 192.9  | 156.6  |
| 82.5°  | 98.4   | 115.4  | 140.6  | 168.7  | 128.5  |
| 85°    | 62.5   | 76.1   | 108.6  | 140.1  | 97.9   |
| 87.5°  | 24.7   | 48.0   | 80.9   | 112.9  | 57.7   |
| 90°    | 0.5    | 26.2   | 57.2   | 83.4   | 16.0   |
| 92.5°  | 0.5    | 12.1   | 38.3   | 61.1   | 8.2    |
| 95°    | 0.5    | 3.9    | 23.8   | 40.7   | 5.3    |
| 97.5°  | 0.5    | 1.5    | 12.6   | 25.2   | 2.9    |
| 100°   | 0.5    | 0.5    | 5.3    | 13.6   | 1.5    |
| 102.5° | 0.5    | 0.5    | 1.9    | 5.3    | 0.5    |
| 105°   | 0.5    | 0.5    | 0.5    | 1.5    | 0.0    |
| 107.5° | 0.5    | 0.5    | 0.0    | 0.0    | 0.0    |
| 110°   | 0.5    | 0.5    | 0.0    | 0.0    | 0.0    |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-----|-------|-----|
| 112.5° | 0.5 | 0.5   | 0.0 | 0.0   | 0.0 |
| 115°   | 0.5 | 0.5   | 0.0 | 0.0   | 0.0 |
| 117.5° | 0.5 | 0.5   | 0.0 | 0.0   | 0.0 |
| 120°   | 0.5 | 0.5   | 0.0 | 0.0   | 0.0 |
| 122.5° | 0.5 | 0.5   | 0.0 | 0.0   | 0.0 |
| 125°   | 0.5 | 1.0   | 0.0 | 0.0   | 0.0 |
| 127.5° | 0.5 | 0.5   | 0.0 | 0.0   | 0.0 |
| 130°   | 0.5 | 1.0   | 0.5 | 0.0   | 0.0 |
| 132.5° | 0.5 | 1.0   | 0.5 | 0.0   | 0.0 |
| 135°   | 0.5 | 1.0   | 0.5 | 0.0   | 0.0 |
| 137.5° | 0.5 | 1.0   | 0.5 | 0.0   | 0.0 |
| 140°   | 1.0 | 1.0   | 0.5 | 0.0   | 0.0 |
| 142.5° | 1.0 | 1.0   | 0.5 | 0.0   | 0.0 |
| 145°   | 1.0 | 1.0   | 0.5 | 0.0   | 0.0 |
| 147.5° | 1.0 | 1.0   | 0.5 | 0.0   | 0.0 |
| 150°   | 1.0 | 1.0   | 0.5 | 0.0   | 0.0 |
| 152.5° | 1.0 | 1.0   | 0.5 | 0.0   | 0.0 |
| 155°   | 1.0 | 1.0   | 0.5 | 0.0   | 0.0 |
| 157.5° | 1.0 | 1.5   | 0.5 | 0.0   | 0.0 |
| 160°   | 1.5 | 1.5   | 0.5 | 0.0   | 0.0 |
| 162.5° | 1.5 | 1.5   | 1.0 | 0.5   | 0.0 |
| 165°   | 1.5 | 1.5   | 1.0 | 0.5   | 0.0 |
| 167.5° | 1.5 | 1.5   | 1.0 | 0.5   | 0.0 |
| 170°   | 1.5 | 1.5   | 1.0 | 0.5   | 0.5 |
| 172.5° | 1.5 | 1.5   | 1.0 | 0.5   | 0.5 |
| 175°   | 1.5 | 1.5   | 1.0 | 0.5   | 0.5 |
| 177.5° | 1.5 | 1.5   | 1.0 | 0.5   | 0.5 |
| 180°   | 1.0 | 1.0   | 1.0 | 1.0   | 1.0 |

(END OF REPORT)