

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: P685504

Luminaire Tested: **8CZL-10-UNV-W-L850-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685504  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-10-UNV-W-L850-CD-U  
Description: METALUX CRUZE LINEAR 8FT WIDE LENS MODEL @80 CRI and 5000K  
Light Source: (784) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

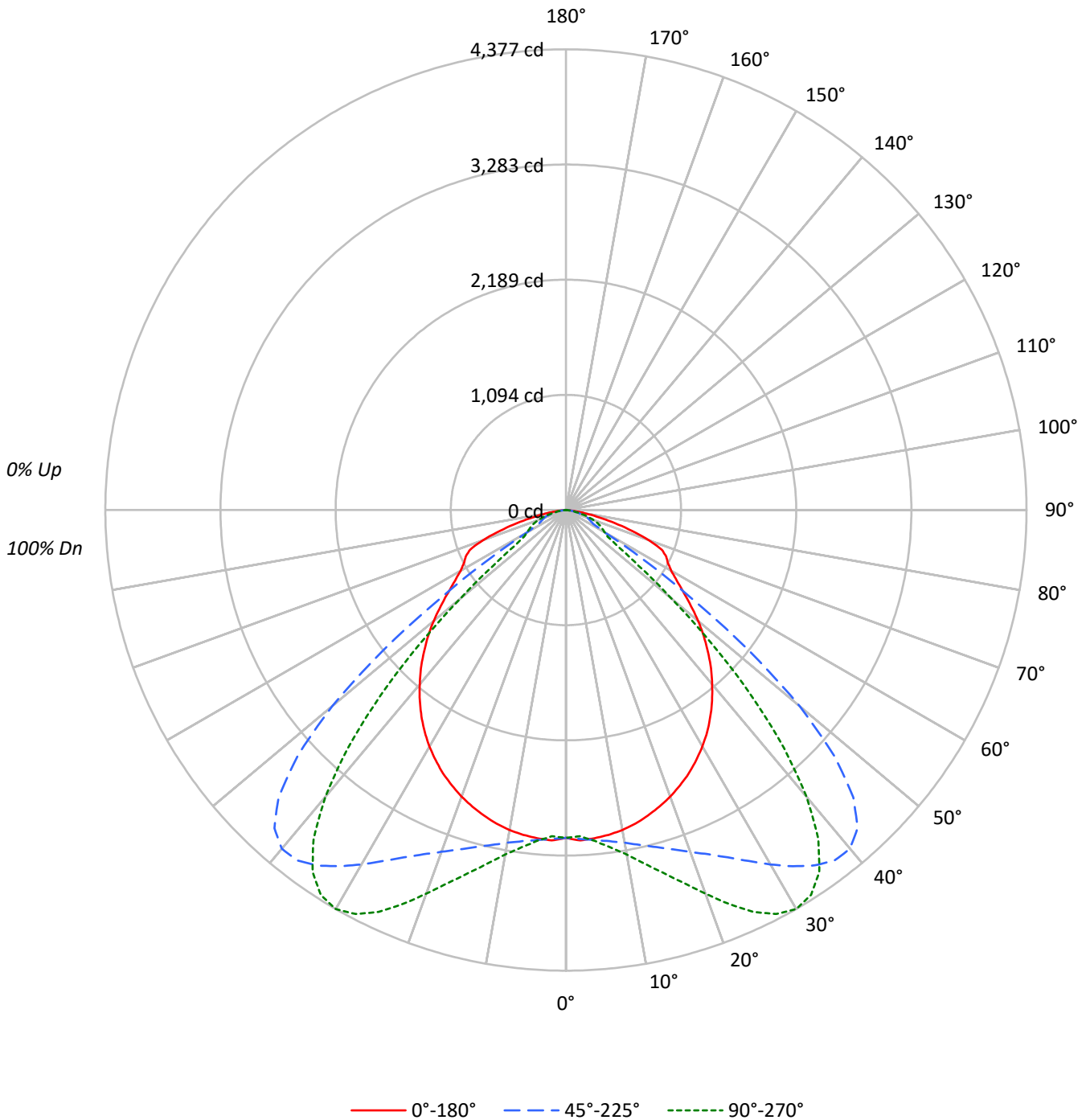
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9962.2 lumens  
Efficiency: N/A  
Efficacy: 158.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.69 / 1.65  
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  |     |     |     |     |
| 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 | 102 | 102 | 102 | 100 |
| 1   | 111 | 106 | 103 | 100 | 108 | 104 | 101 | 98  | 100 | 97  | 95  | 96  | 94  | 92  | 93  | 91  | 89  | 89  | 89  | 89  | 87  |
| 2   | 102 | 94  | 88  | 83  | 99  | 93  | 87  | 82  | 89  | 85  | 81  | 86  | 82  | 79  | 83  | 80  | 77  | 77  | 77  | 77  | 75  |
| 3   | 93  | 84  | 77  | 71  | 91  | 82  | 76  | 70  | 79  | 74  | 69  | 77  | 72  | 68  | 74  | 70  | 67  | 67  | 67  | 67  | 65  |
| 4   | 86  | 75  | 67  | 61  | 84  | 73  | 66  | 60  | 71  | 65  | 59  | 69  | 63  | 59  | 67  | 62  | 58  | 58  | 58  | 58  | 56  |
| 5   | 79  | 67  | 59  | 52  | 77  | 66  | 58  | 52  | 64  | 57  | 52  | 62  | 56  | 51  | 60  | 55  | 51  | 51  | 51  | 51  | 49  |
| 6   | 73  | 60  | 52  | 46  | 71  | 59  | 51  | 46  | 58  | 51  | 45  | 56  | 50  | 45  | 55  | 49  | 45  | 45  | 45  | 45  | 43  |
| 7   | 68  | 55  | 46  | 40  | 66  | 54  | 46  | 40  | 52  | 45  | 40  | 51  | 45  | 40  | 50  | 44  | 39  | 39  | 39  | 39  | 38  |
| 8   | 63  | 50  | 42  | 36  | 61  | 49  | 41  | 36  | 48  | 41  | 36  | 47  | 40  | 35  | 45  | 40  | 35  | 35  | 35  | 35  | 33  |
| 9   | 59  | 46  | 38  | 32  | 57  | 45  | 37  | 32  | 44  | 37  | 32  | 43  | 36  | 32  | 42  | 36  | 32  | 32  | 32  | 32  | 30  |
| 10  | 55  | 42  | 34  | 29  | 54  | 41  | 34  | 29  | 40  | 34  | 29  | 39  | 33  | 29  | 39  | 33  | 29  | 29  | 29  | 29  | 27  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5029 | 5029 | 5029 |
| 5°  | 5073 | 5099 | 5115 |
| 10° | 5061 | 5263 | 5448 |
| 15° | 5024 | 5542 | 5963 |
| 20° | 4980 | 5936 | 6662 |
| 25° | 4920 | 6487 | 7504 |
| 30° | 4836 | 7249 | 8160 |
| 35° | 4718 | 8125 | 8272 |
| 40° | 4554 | 8853 | 7494 |
| 45° | 4358 | 8819 | 5688 |
| 50° | 4121 | 7288 | 3278 |
| 55° | 3842 | 4009 | 1686 |
| 60° | 3728 | 1399 | 1374 |
| 65° | 4018 | 1018 | 1378 |
| 70° | 3968 | 1043 | 1329 |
| 75° | 3000 | 912  | 1067 |
| 80° | 1813 | 745  | 755  |
| 85° | 902  | 382  | 161  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 301.5  | 3.0       |
| 10°-20°   | 937.4  | 9.4       |
| 20°-30°   | 1646.7 | 16.5      |
| 30°-40°   | 2287.7 | 23.0      |
| 40°-50°   | 2320.0 | 23.3      |
| 50°-60°   | 1488.8 | 14.9      |
| 60°-70°   | 696.4  | 7.0       |
| 70°-80°   | 241.5  | 2.4       |
| 80°-90°   | 42.1   | 0.4       |
| 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°    | 2885.6 | 29.0      |
| 0°-40°    | 5173.3 | 51.9      |
| 0°-60°    | 8982.2 | 90.2      |
| 0°-90°    | 9962.2 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 9962.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3115 | 3115  | 3115 | 3115  | 3115 |      |
| 5°  | 3130 | 3108  | 3146 | 3156  | 3156 | 297  |
| 15° | 3006 | 3077  | 3315 | 3493  | 3568 | 848  |
| 25° | 2762 | 3045  | 3641 | 4067  | 4212 | 1271 |
| 35° | 2394 | 3071  | 4122 | 4264  | 4197 | 1495 |
| 45° | 1908 | 3287  | 3862 | 2881  | 2491 | 1471 |
| 55° | 1365 | 3395  | 1424 | 686   | 599  | 1232 |
| 65° | 1052 | 1085  | 266  | 334   | 361  | 1023 |
| 75° | 481  | 166   | 146  | 168   | 171  | 521  |
| 85° | 49   | 44    | 21   | 12    | 9    | 74   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



TEST NUMBER: P685504

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3114.9 | 3114.9 | 3114.9 | 3114.9 | 3114.9 | 3114.9 | 3114.9 | 3114.9 | 3114.9 | 3114.9 | 3114.9 |
| 2.5°  | 3142.0 | 3132.2 | 3116.0 | 3109.5 | 3112.7 | 3129.0 | 3134.4 | 3122.5 | 3119.2 | 3110.6 | 3101.9 |
| 5°    | 3130.1 | 3121.4 | 3109.5 | 3107.3 | 3119.2 | 3146.3 | 3158.2 | 3155.0 | 3160.4 | 3161.5 | 3156.0 |
| 7.5°  | 3112.7 | 3105.1 | 3095.4 | 3105.1 | 3130.1 | 3173.4 | 3200.5 | 3209.1 | 3228.6 | 3232.9 | 3231.9 |
| 10°   | 3086.7 | 3080.2 | 3077.0 | 3101.9 | 3145.2 | 3210.2 | 3257.9 | 3281.7 | 3309.8 | 3319.6 | 3322.8 |
| 12.5° | 3052.1 | 3045.6 | 3054.2 | 3097.6 | 3165.8 | 3258.9 | 3329.3 | 3371.6 | 3411.7 | 3432.2 | 3438.7 |
| 15°   | 3005.5 | 3003.3 | 3025.0 | 3094.3 | 3191.8 | 3315.3 | 3412.7 | 3478.8 | 3536.2 | 3558.9 | 3567.6 |
| 17.5° | 2954.6 | 2955.7 | 2994.7 | 3093.2 | 3223.2 | 3381.3 | 3505.9 | 3600.1 | 3670.5 | 3703.0 | 3712.7 |
| 20°   | 2898.3 | 2901.5 | 2960.0 | 3092.1 | 3262.2 | 3455.0 | 3608.8 | 3732.2 | 3820.0 | 3863.3 | 3877.4 |
| 22.5° | 2832.2 | 2838.7 | 2922.1 | 3093.2 | 3303.3 | 3539.5 | 3730.1 | 3877.4 | 3982.4 | 4034.4 | 4051.7 |
| 25°   | 2761.8 | 2771.6 | 2883.1 | 3098.6 | 3355.3 | 3641.3 | 3868.7 | 4040.9 | 4147.1 | 4192.5 | 4212.0 |
| 27.5° | 2680.6 | 2696.8 | 2840.9 | 3106.2 | 3417.1 | 3759.3 | 4010.6 | 4176.3 | 4274.9 | 4309.5 | 4326.8 |
| 30°   | 2593.9 | 2612.4 | 2799.7 | 3121.4 | 3497.2 | 3888.2 | 4141.6 | 4281.4 | 4347.4 | 4366.9 | 4376.7 |
| 32.5° | 2498.6 | 2529.0 | 2758.6 | 3146.3 | 3591.4 | 4012.8 | 4238.0 | 4321.4 | 4337.7 | 4331.2 | 4334.4 |
| 35°   | 2393.6 | 2426.1 | 2719.6 | 3187.5 | 3698.7 | 4122.1 | 4275.9 | 4275.9 | 4228.3 | 4199.0 | 4196.9 |
| 37.5° | 2282.0 | 2323.2 | 2680.6 | 3235.1 | 3823.2 | 4194.7 | 4234.8 | 4127.6 | 4011.7 | 3948.9 | 3939.1 |
| 40°   | 2160.7 | 2215.9 | 2653.5 | 3300.1 | 3935.9 | 4200.1 | 4087.5 | 3866.5 | 3669.4 | 3567.6 | 3555.7 |
| 42.5° | 2040.5 | 2108.7 | 2641.6 | 3384.6 | 4020.3 | 4100.5 | 3810.2 | 3469.1 | 3201.5 | 3081.3 | 3068.3 |
| 45°   | 1908.4 | 1998.3 | 2645.9 | 3500.5 | 4043.1 | 3862.2 | 3397.6 | 2955.7 | 2655.7 | 2504.0 | 2491.0 |
| 47.5° | 1777.3 | 1888.9 | 2656.8 | 3631.5 | 3943.4 | 3458.2 | 2848.5 | 2337.3 | 2039.4 | 1880.2 | 1878.0 |
| 50°   | 1640.8 | 1786.0 | 2682.8 | 3738.7 | 3673.8 | 2901.5 | 2173.7 | 1674.4 | 1436.1 | 1314.8 | 1305.1 |
| 52.5° | 1499.0 | 1696.1 | 2739.1 | 3758.2 | 3194.0 | 2186.7 | 1475.1 | 1117.7 | 962.8  | 885.9  | 870.8  |
| 55°   | 1364.7 | 1620.3 | 2831.1 | 3582.8 | 2504.0 | 1424.2 | 929.3  | 705.1  | 627.1  | 595.7  | 598.9  |
| 57.5° | 1248.8 | 1563.9 | 2938.4 | 3124.6 | 1625.7 | 838.3  | 538.3  | 469.0  | 466.8  | 470.0  | 471.1  |
| 60°   | 1154.5 | 1529.3 | 2986.0 | 2343.8 | 892.4  | 433.2  | 375.8  | 391.0  | 411.6  | 423.5  | 425.6  |
| 62.5° | 1092.8 | 1510.9 | 2840.9 | 1358.2 | 396.4  | 302.2  | 328.2  | 356.3  | 380.2  | 391.0  | 392.1  |
| 65°   | 1051.7 | 1462.1 | 2324.3 | 671.5  | 242.6  | 266.4  | 298.9  | 328.2  | 349.8  | 358.5  | 360.7  |
| 67.5° | 987.8  | 1324.6 | 1593.2 | 278.3  | 213.4  | 240.4  | 271.8  | 300.0  | 318.4  | 324.9  | 326.0  |
| 70°   | 840.5  | 1109.1 | 926.0  | 185.2  | 192.8  | 220.9  | 245.9  | 267.5  | 279.4  | 282.7  | 281.6  |
| 72.5° | 656.3  | 878.4  | 467.9  | 167.9  | 178.7  | 193.9  | 207.9  | 219.9  | 226.4  | 229.6  | 229.6  |
| 75°   | 480.9  | 642.3  | 219.9  | 148.4  | 133.2  | 146.2  | 160.3  | 167.9  | 170.0  | 171.1  | 171.1  |
| 77.5° | 322.8  | 443.0  | 131.1  | 114.8  | 102.9  | 113.7  | 119.1  | 115.9  | 113.7  | 115.9  | 115.9  |
| 80°   | 195.0  | 272.9  | 114.8  | 83.4   | 79.1   | 80.1   | 75.8   | 75.8   | 80.1   | 82.3   | 81.2   |
| 82.5° | 105.1  | 154.9  | 100.7  | 60.7   | 53.1   | 48.7   | 47.7   | 45.5   | 43.3   | 42.2   | 42.2   |
| 85°   | 48.7   | 79.1   | 65.0   | 36.8   | 28.2   | 20.6   | 16.2   | 11.9   | 10.8   | 8.7    | 8.7    |
| 87.5° | 19.5   | 30.3   | 19.5   | 11.9   | 6.5    | 4.3    | 3.2    | 2.2    | 1.1    | 1.1    | 1.1    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)