

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: P685484

Luminaire Tested: **8CZL-10-UNV-W-L835-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685484  
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-L835-CD-U  
Description: METALUX CRUZE LINEAR 8FT WIDE LENS MODEL @80 CRI and 3500K  
Light Source: (784) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

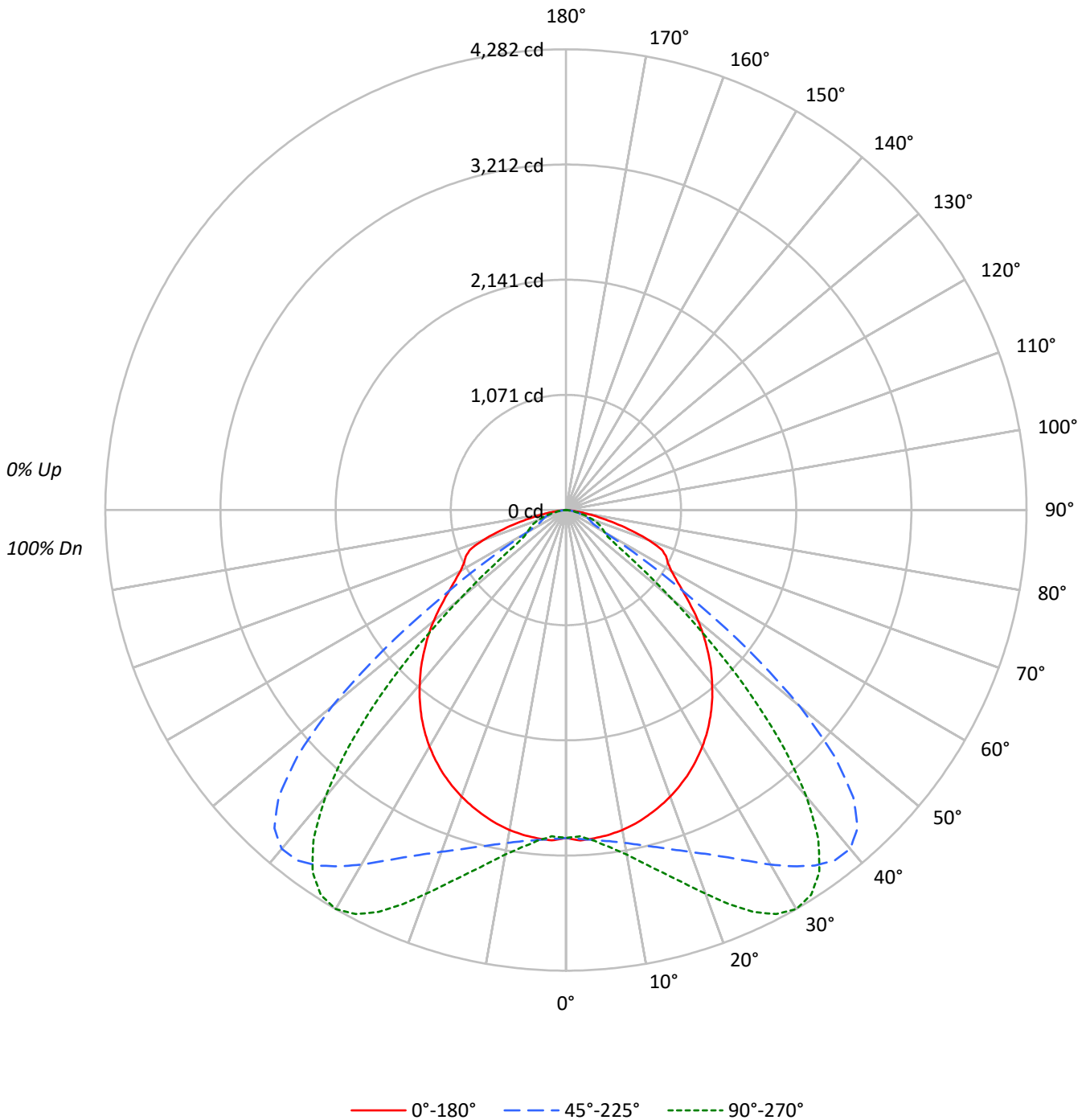
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9746.9 lumens  
Efficiency: N/A  
Efficacy: 154.7 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°  | 4921 | 4921 | 4921 |
| 5°  | 4963 | 4989 | 5005 |
| 10° | 4951 | 5149 | 5330 |
| 15° | 4915 | 5422 | 5835 |
| 20° | 4872 | 5808 | 6518 |
| 25° | 4814 | 6347 | 7342 |
| 30° | 4732 | 7092 | 7983 |
| 35° | 4616 | 7949 | 8094 |
| 40° | 4456 | 8661 | 7332 |
| 45° | 4263 | 8628 | 5565 |
| 50° | 4033 | 7131 | 3207 |
| 55° | 3759 | 3923 | 1650 |
| 60° | 3648 | 1369 | 1345 |
| 65° | 3931 | 996  | 1348 |
| 70° | 3882 | 1021 | 1301 |
| 75° | 2935 | 893  | 1044 |
| 80° | 1773 | 729  | 739  |
| 85° | 884  | 372  | 157  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 295.0  | 3.0       |
| 10°-20°   | 917.2  | 9.4       |
| 20°-30°   | 1611.2 | 16.5      |
| 30°-40°   | 2238.3 | 23.0      |
| 40°-50°   | 2269.9 | 23.3      |
| 50°-60°   | 1456.7 | 14.9      |
| 60°-70°   | 681.3  | 7.0       |
| 70°-80°   | 236.3  | 2.4       |
| 80°-90°   | 41.2   | 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°    | 2823.3 | 29.0      |
| 0°-40°    | 5061.6 | 51.9      |
| 0°-60°    | 8788.1 | 90.2      |
| 0°-90°    | 9746.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 9746.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3048 | 3048  | 3048 | 3048  | 3048 |      |
| 5°  | 3062 | 3041  | 3078 | 3088  | 3088 | 291  |
| 15° | 2941 | 3010  | 3244 | 3418  | 3490 | 830  |
| 25° | 2702 | 2979  | 3563 | 3980  | 4121 | 1244 |
| 35° | 2342 | 3004  | 4033 | 4172  | 4106 | 1462 |
| 45° | 1867 | 3216  | 3779 | 2818  | 2437 | 1439 |
| 55° | 1335 | 3322  | 1394 | 671   | 586  | 1205 |
| 65° | 1029 | 1061  | 261  | 326   | 353  | 1001 |
| 75° | 470  | 163   | 143  | 165   | 167  | 509  |
| 85° | 48   | 43    | 20   | 11    | 8    | 72   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3047.6 | 3047.6 | 3047.6 | 3047.6 | 3047.6 | 3047.6 | 3047.6 | 3047.6 | 3047.6 | 3047.6 | 3047.6 |
| 2.5°  | 3074.1 | 3064.5 | 3048.6 | 3042.3 | 3045.5 | 3061.4 | 3066.7 | 3055.0 | 3051.8 | 3043.3 | 3034.9 |
| 5°    | 3062.4 | 3053.9 | 3042.3 | 3040.2 | 3051.8 | 3078.3 | 3090.0 | 3086.8 | 3092.1 | 3093.1 | 3087.8 |
| 7.5°  | 3045.5 | 3038.0 | 3028.5 | 3038.0 | 3062.4 | 3104.8 | 3131.3 | 3139.8 | 3158.8 | 3163.1 | 3162.0 |
| 10°   | 3020.0 | 3013.7 | 3010.5 | 3034.9 | 3077.3 | 3140.8 | 3187.5 | 3210.8 | 3238.3 | 3247.9 | 3251.0 |
| 12.5° | 2986.1 | 2979.8 | 2988.2 | 3030.6 | 3097.4 | 3188.5 | 3257.4 | 3298.7 | 3337.9 | 3358.1 | 3364.4 |
| 15°   | 2940.6 | 2938.4 | 2959.6 | 3027.4 | 3122.8 | 3243.6 | 3339.0 | 3403.6 | 3459.8 | 3482.0 | 3490.5 |
| 17.5° | 2890.8 | 2891.8 | 2930.0 | 3026.4 | 3153.5 | 3308.3 | 3430.1 | 3522.3 | 3591.2 | 3623.0 | 3632.5 |
| 20°   | 2835.7 | 2838.8 | 2896.1 | 3025.3 | 3191.7 | 3380.3 | 3530.8 | 3651.6 | 3737.4 | 3779.8 | 3793.6 |
| 22.5° | 2771.0 | 2777.4 | 2859.0 | 3026.4 | 3232.0 | 3463.0 | 3649.5 | 3793.6 | 3896.4 | 3947.2 | 3964.2 |
| 25°   | 2702.1 | 2711.7 | 2820.8 | 3031.7 | 3282.8 | 3562.6 | 3785.1 | 3953.6 | 4057.4 | 4101.9 | 4121.0 |
| 27.5° | 2622.7 | 2638.6 | 2779.5 | 3039.1 | 3343.2 | 3678.1 | 3923.9 | 4086.0 | 4182.5 | 4216.4 | 4233.3 |
| 30°   | 2537.9 | 2555.9 | 2739.2 | 3053.9 | 3421.6 | 3804.2 | 4052.1 | 4188.8 | 4253.5 | 4272.5 | 4282.1 |
| 32.5° | 2444.6 | 2474.3 | 2699.0 | 3078.3 | 3513.8 | 3926.0 | 4146.5 | 4228.0 | 4243.9 | 4237.6 | 4240.8 |
| 35°   | 2341.8 | 2373.6 | 2660.8 | 3118.6 | 3618.7 | 4033.1 | 4183.5 | 4183.5 | 4136.9 | 4108.3 | 4106.2 |
| 37.5° | 2232.7 | 2273.0 | 2622.7 | 3165.2 | 3740.6 | 4104.1 | 4143.3 | 4038.4 | 3925.0 | 3863.5 | 3854.0 |
| 40°   | 2114.0 | 2168.1 | 2596.2 | 3228.8 | 3850.8 | 4109.4 | 3999.2 | 3783.0 | 3590.1 | 3490.5 | 3478.9 |
| 42.5° | 1996.4 | 2063.2 | 2584.5 | 3311.4 | 3933.5 | 4011.9 | 3727.9 | 3394.1 | 3132.4 | 3014.7 | 3002.0 |
| 45°   | 1867.1 | 1955.1 | 2588.7 | 3424.8 | 3955.7 | 3778.7 | 3324.2 | 2891.8 | 2598.3 | 2449.9 | 2437.2 |
| 47.5° | 1738.9 | 1848.0 | 2599.3 | 3553.0 | 3858.2 | 3383.5 | 2786.9 | 2286.7 | 1995.3 | 1839.6 | 1837.5 |
| 50°   | 1605.4 | 1747.4 | 2624.8 | 3657.9 | 3594.4 | 2838.8 | 2126.7 | 1638.2 | 1405.1 | 1286.4 | 1276.9 |
| 52.5° | 1466.6 | 1659.4 | 2679.9 | 3677.0 | 3124.9 | 2139.5 | 1443.3 | 1093.6 | 942.0  | 866.8  | 852.0  |
| 55°   | 1335.2 | 1585.3 | 2770.0 | 3505.4 | 2449.9 | 1393.5 | 909.2  | 689.8  | 613.5  | 582.8  | 586.0  |
| 57.5° | 1221.8 | 1530.1 | 2874.9 | 3057.1 | 1590.5 | 820.2  | 526.7  | 458.8  | 456.7  | 459.9  | 461.0  |
| 60°   | 1129.6 | 1496.2 | 2921.5 | 2293.1 | 873.2  | 423.9  | 367.7  | 382.5  | 402.7  | 414.3  | 416.4  |
| 62.5° | 1069.2 | 1478.2 | 2779.5 | 1328.8 | 387.8  | 295.6  | 321.1  | 348.6  | 371.9  | 382.5  | 383.6  |
| 65°   | 1028.9 | 1430.5 | 2274.0 | 657.0  | 237.4  | 260.7  | 292.5  | 321.1  | 342.3  | 350.7  | 352.9  |
| 67.5° | 966.4  | 1296.0 | 1558.8 | 272.3  | 208.8  | 235.2  | 266.0  | 293.5  | 311.5  | 317.9  | 319.0  |
| 70°   | 822.3  | 1085.1 | 906.0  | 181.2  | 188.6  | 216.2  | 240.5  | 261.7  | 273.4  | 276.6  | 275.5  |
| 72.5° | 642.2  | 859.4  | 457.8  | 164.2  | 174.8  | 189.7  | 203.5  | 215.1  | 221.5  | 224.6  | 224.6  |
| 75°   | 470.5  | 628.4  | 215.1  | 145.2  | 130.3  | 143.1  | 156.8  | 164.2  | 166.4  | 167.4  | 167.4  |
| 77.5° | 315.8  | 433.4  | 128.2  | 112.3  | 100.7  | 111.3  | 116.6  | 113.4  | 111.3  | 113.4  | 113.4  |
| 80°   | 190.7  | 267.0  | 112.3  | 81.6   | 77.4   | 78.4   | 74.2   | 74.2   | 78.4   | 80.5   | 79.5   |
| 82.5° | 102.8  | 151.5  | 98.5   | 59.3   | 51.9   | 47.7   | 46.6   | 44.5   | 42.4   | 41.3   | 41.3   |
| 85°   | 47.7   | 77.4   | 63.6   | 36.0   | 27.6   | 20.1   | 15.9   | 11.7   | 10.6   | 8.5    | 8.5    |
| 87.5° | 19.1   | 29.7   | 19.1   | 11.7   | 6.4    | 4.2    | 3.2    | 2.1    | 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)