

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: P685548

Luminaire Tested: **8CZL-32-UNV-FL-L835-CD-U**

Issue Date: 05/10/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P685548  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 05/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8CZL-32-UNV-FL-L835-CD-U  
Description: METALUX CRUZE LINEAR 8FT FROSTED LENS MODEL @80 CRI and 3500K  
Light Source: (1176) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

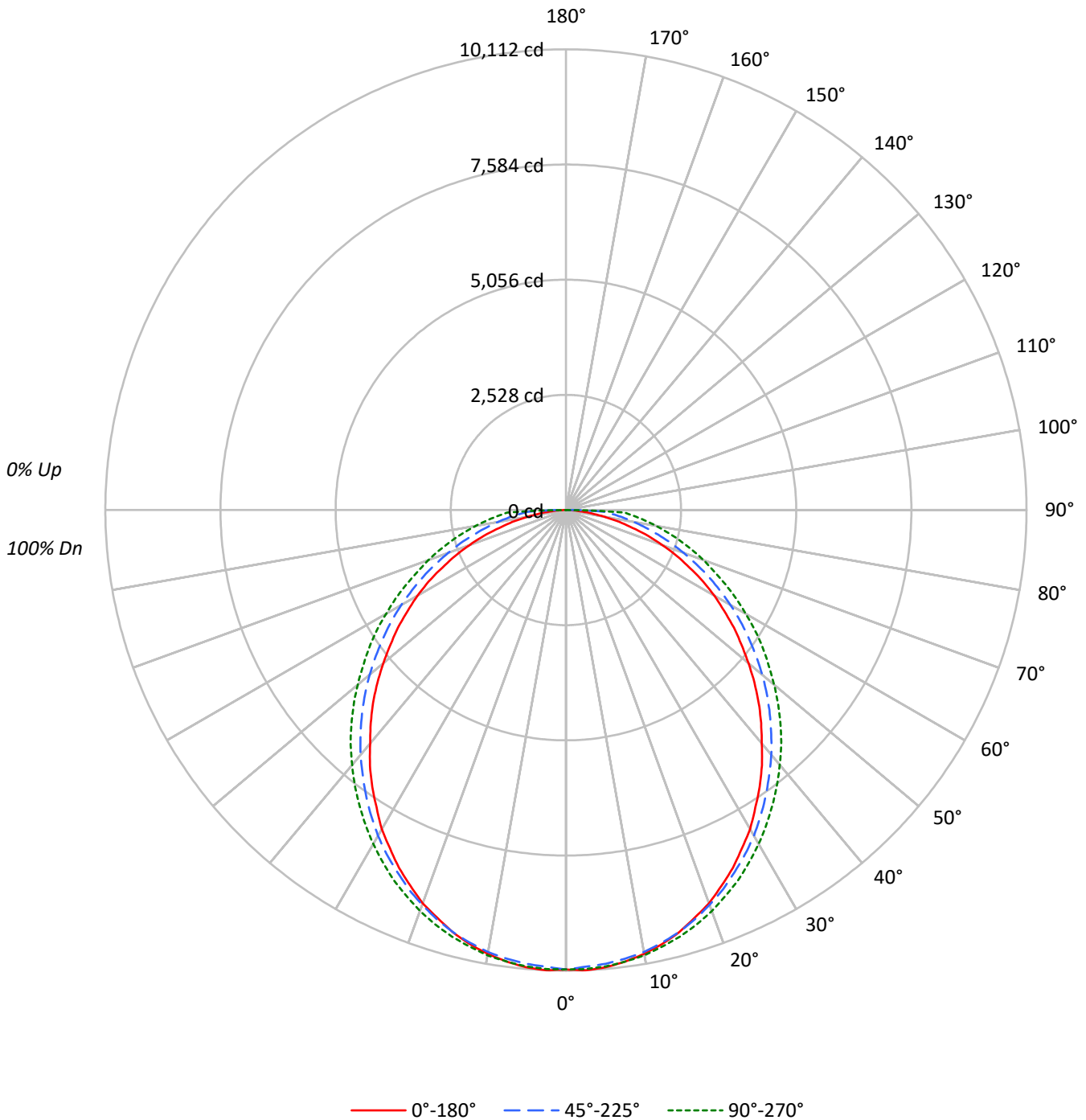
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 28401.4 lumens  
Efficiency: N/A  
Efficacy: 137.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.83' x L: 8' x H: 0.08')  
CIE Type: Direct

Input Watts (W): 206  
Input Voltage (V): 120  
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  |     |     |     | 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 |
| 1   | 108 | 103 | 98  | 94  | 105 | 101 | 96  | 93  | 96  | 93  | 90  | 92  | 90  | 87  | 89  | 86  | 84  | 82  |    |    |    | 82  |
| 2   | 98  | 89  | 82  | 76  | 95  | 87  | 81  | 75  | 84  | 78  | 74  | 81  | 76  | 72  | 78  | 74  | 70  | 68  |    |    |    | 68  |
| 3   | 89  | 78  | 70  | 63  | 87  | 77  | 69  | 63  | 74  | 67  | 62  | 71  | 65  | 61  | 68  | 64  | 59  | 57  |    |    |    | 57  |
| 4   | 82  | 69  | 60  | 54  | 79  | 68  | 60  | 53  | 66  | 58  | 52  | 63  | 57  | 52  | 61  | 56  | 51  | 49  |    |    |    | 49  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 59  | 51  | 45  | 57  | 50  | 45  | 55  | 49  | 44  | 42  |    |    |    | 42  |
| 6   | 69  | 56  | 47  | 40  | 68  | 55  | 46  | 40  | 53  | 45  | 40  | 51  | 45  | 39  | 50  | 44  | 39  | 37  |    |    |    | 37  |
| 7   | 64  | 51  | 42  | 36  | 63  | 50  | 41  | 36  | 48  | 41  | 35  | 47  | 40  | 35  | 46  | 39  | 35  | 33  |    |    |    | 33  |
| 8   | 60  | 46  | 38  | 32  | 58  | 46  | 37  | 32  | 44  | 37  | 32  | 43  | 36  | 31  | 42  | 36  | 31  | 29  |    |    |    | 29  |
| 9   | 56  | 43  | 34  | 29  | 55  | 42  | 34  | 29  | 41  | 34  | 28  | 40  | 33  | 28  | 39  | 33  | 28  | 26  |    |    |    | 26  |
| 10  | 53  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 31  | 26  | 37  | 30  | 26  | 36  | 30  | 26  | 24  |    |    |    | 24  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 16280 | 16280 | 16280 |
| 5°  | 16312 | 16092 | 16154 |
| 10° | 16190 | 15931 | 15991 |
| 15° | 15996 | 15702 | 15775 |
| 20° | 15727 | 15408 | 15528 |
| 25° | 15368 | 15065 | 15248 |
| 30° | 14985 | 14722 | 14918 |
| 35° | 14510 | 14302 | 14563 |
| 40° | 13976 | 13879 | 14203 |
| 45° | 13526 | 13408 | 13829 |
| 50° | 12981 | 12922 | 13390 |
| 55° | 12482 | 12392 | 12996 |
| 60° | 11934 | 11863 | 12544 |
| 65° | 11202 | 11296 | 12149 |
| 70° | 10353 | 10668 | 11910 |
| 75° | 9092  | 10138 | 11772 |
| 80° | 7470  | 9794  | 11929 |
| 85° | 5013  | 10018 | 12923 |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 953.8   | 3.4       |
| 10°-20°   | 2713.9  | 9.6       |
| 20°-30°   | 4053.4  | 14.3      |
| 30°-40°   | 4793.9  | 16.9      |
| 40°-50°   | 4884.6  | 17.2      |
| 50°-60°   | 4377.0  | 15.4      |
| 60°-70°   | 3409.2  | 12.0      |
| 70°-80°   | 2207.1  | 7.8       |
| 80°-90°   | 1008.6  | 3.6       |
| 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°    | 7721.0  | 27.2      |
| 0°-40°    | 12514.9 | 44.1      |
| 0°-60°    | 21776.5 | 76.7      |
| 0°-90°    | 28401.4 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 28401.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0°  | 10083 | 10083 | 10083 | 10083 | 10083 |      |
| 5°  | 10073 | 10056 | 9997  | 10056 | 10054 | 955  |
| 15° | 9596  | 9596  | 9590  | 9680  | 9690  | 2703 |
| 25° | 8668  | 8699  | 8764  | 8920  | 8958  | 3989 |
| 35° | 7415  | 7486  | 7653  | 7860  | 7906  | 4633 |
| 45° | 5985  | 6093  | 6330  | 6572  | 6662  | 4612 |
| 55° | 4500  | 4626  | 4893  | 5175  | 5276  | 4017 |
| 65° | 2998  | 3128  | 3452  | 3741  | 3862  | 2977 |
| 75° | 1514  | 1708  | 2099  | 2447  | 2591  | 1624 |
| 85° | 303   | 584   | 1023  | 1393  | 1495  | 388  |
| 90° | 0     | 0     | 0     | 0     | 0     |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 22.5°   | 45°     | 67.5°   | 90°     |
|-------|---------|---------|---------|---------|---------|
| 0°    | 10082.9 | 10082.9 | 10082.9 | 10082.9 | 10082.9 |
| 2.5°  | 10111.7 | 10094.4 | 10033.1 | 10086.8 | 10084.8 |
| 5°    | 10073.3 | 10056.1 | 9996.7  | 10056.1 | 10054.2 |
| 7.5°  | 9994.8  | 9989.0  | 9935.3  | 10000.5 | 9994.8  |
| 10°   | 9893.2  | 9885.5  | 9851.0  | 9916.2  | 9925.8  |
| 12.5° | 9759.0  | 9755.2  | 9728.4  | 9805.0  | 9810.8  |
| 15°   | 9596.1  | 9596.1  | 9590.4  | 9680.4  | 9690.0  |
| 17.5° | 9387.2  | 9414.0  | 9419.8  | 9517.5  | 9538.6  |
| 20°   | 9187.9  | 9195.6  | 9222.4  | 9341.2  | 9366.1  |
| 22.5° | 8925.3  | 8957.9  | 9011.6  | 9141.9  | 9163.0  |
| 25°   | 8668.5  | 8699.2  | 8764.3  | 8919.6  | 8957.9  |
| 27.5° | 8369.5  | 8428.9  | 8519.0  | 8674.3  | 8712.6  |
| 30°   | 8085.9  | 8135.7  | 8252.6  | 8425.1  | 8463.4  |
| 32.5° | 7739.0  | 7823.3  | 7957.5  | 8139.5  | 8191.3  |
| 35°   | 7415.1  | 7486.0  | 7652.7  | 7859.7  | 7905.7  |
| 37.5° | 7068.2  | 7152.5  | 7328.8  | 7549.3  | 7612.5  |
| 40°   | 6688.7  | 6811.4  | 7016.5  | 7236.9  | 7303.9  |
| 42.5° | 6341.8  | 6454.9  | 6671.5  | 6920.6  | 6997.3  |
| 45°   | 5985.4  | 6092.7  | 6330.3  | 6571.8  | 6661.9  |
| 47.5° | 5613.5  | 5724.7  | 5983.4  | 6240.3  | 6320.7  |
| 50°   | 5232.2  | 5364.4  | 5623.1  | 5893.4  | 5966.2  |
| 52.5° | 4852.7  | 4984.9  | 5259.0  | 5529.2  | 5611.6  |
| 55°   | 4500.0  | 4626.5  | 4892.9  | 5174.7  | 5276.2  |
| 57.5° | 4116.7  | 4250.9  | 4544.1  | 4816.3  | 4925.5  |
| 60°   | 3762.2  | 3859.9  | 4170.4  | 4452.1  | 4557.5  |
| 62.5° | 3396.1  | 3501.5  | 3804.3  | 4093.7  | 4218.3  |
| 65°   | 2997.5  | 3127.8  | 3451.7  | 3741.1  | 3861.8  |
| 67.5° | 2633.3  | 2757.9  | 3091.4  | 3417.2  | 3514.9  |
| 70°   | 2255.8  | 2399.5  | 2744.5  | 3078.0  | 3216.0  |
| 72.5° | 1895.5  | 2044.9  | 2424.4  | 2756.0  | 2895.9  |
| 75°   | 1514.1  | 1707.6  | 2098.6  | 2447.4  | 2591.2  |
| 77.5° | 1199.8  | 1391.4  | 1792.0  | 2156.1  | 2294.1  |
| 80°   | 850.9   | 1086.7  | 1519.8  | 1887.8  | 2010.5  |
| 82.5° | 567.3   | 806.9   | 1261.1  | 1619.5  | 1751.7  |
| 85°   | 302.8   | 584.5   | 1023.4  | 1393.3  | 1494.9  |
| 87.5° | 132.2   | 408.2   | 829.9   | 1159.5  | 1280.2  |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |

(END OF REPORT)