

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: P685566

Luminaire Tested: **8CZL-18-UNV-FL-L850-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685566
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8CZL-18-UNV-FL-L850-CD-U
Description: METALUX CRUZE LINEAR 8FT FROSTED LENS MODEL @80 CRI and 5000K
Light Source: (1176) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

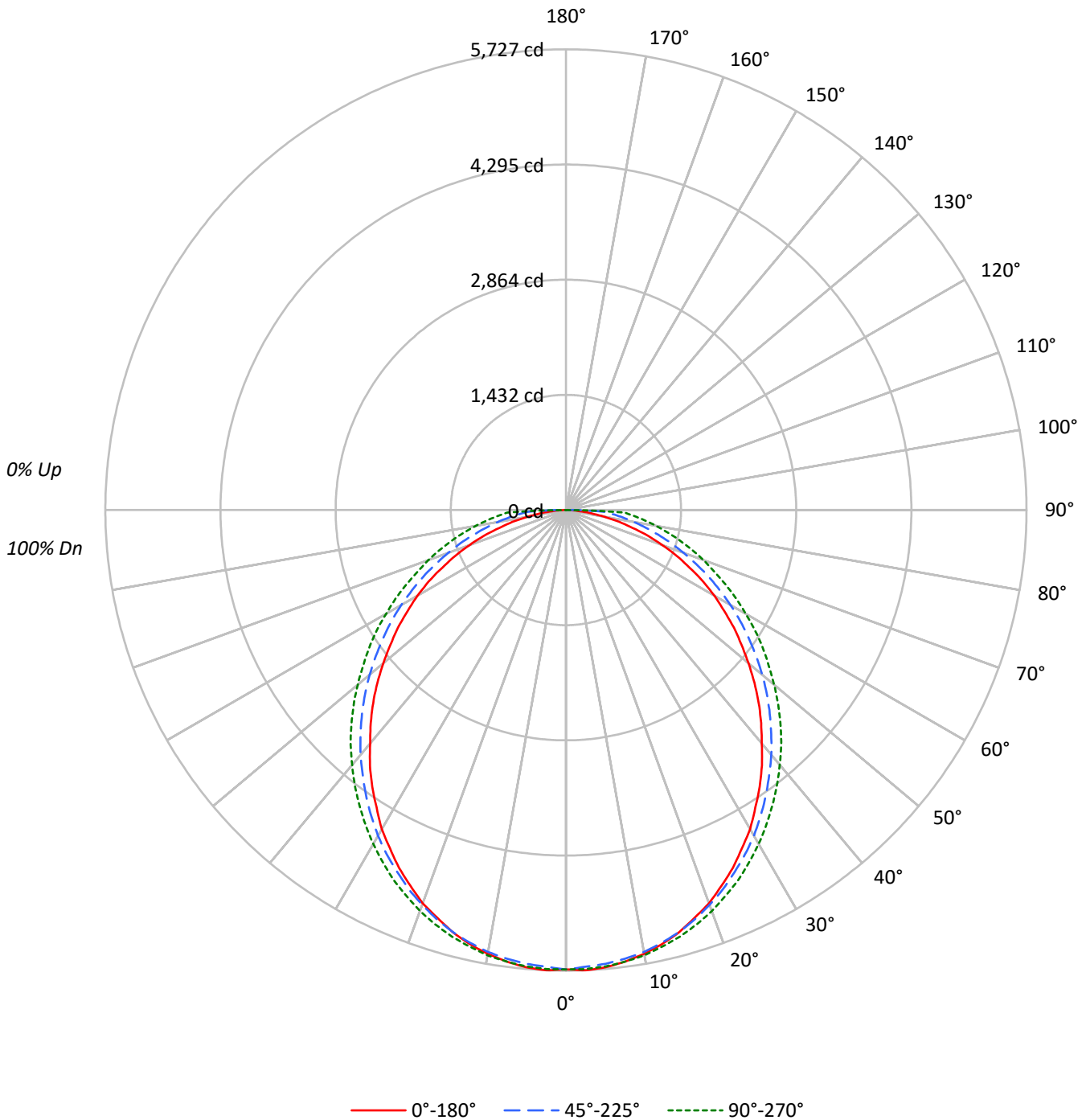
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16085.2 lumens
Efficiency: N/A
Efficacy: 147.6 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): 109
Input Voltage (V): 120
Input Current (A_{in}): 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





TEST NUMBER: P685566
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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 | 102 | 102 | 102 | 100 |
| 1 | 108 | 103 | 98 | 94 | 105 | 101 | 96 | 93 | 96 | 93 | 90 | 92 | 90 | 87 | 89 | 86 | 84 | 84 | 84 | 84 | 82 |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 81 | 75 | 84 | 78 | 74 | 81 | 76 | 72 | 78 | 74 | 70 | 70 | 70 | 70 | 68 |
| 3 | 89 | 78 | 70 | 63 | 87 | 77 | 69 | 63 | 74 | 67 | 62 | 71 | 65 | 61 | 68 | 64 | 59 | 59 | 59 | 59 | 57 |
| 4 | 82 | 69 | 60 | 54 | 79 | 68 | 60 | 53 | 66 | 58 | 52 | 63 | 57 | 52 | 61 | 56 | 51 | 51 | 51 | 51 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 52 | 46 | 59 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 44 | 44 | 44 | 44 | 42 |
| 6 | 69 | 56 | 47 | 40 | 68 | 55 | 46 | 40 | 53 | 45 | 40 | 51 | 45 | 39 | 50 | 44 | 39 | 39 | 39 | 39 | 37 |
| 7 | 64 | 51 | 42 | 36 | 63 | 50 | 41 | 36 | 48 | 41 | 35 | 47 | 40 | 35 | 46 | 39 | 35 | 35 | 35 | 35 | 33 |
| 8 | 60 | 46 | 38 | 32 | 58 | 46 | 37 | 32 | 44 | 37 | 32 | 43 | 36 | 31 | 42 | 36 | 31 | 31 | 31 | 31 | 29 |
| 9 | 56 | 43 | 34 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 28 | 40 | 33 | 28 | 39 | 33 | 28 | 28 | 28 | 28 | 26 |
| 10 | 53 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 30 | 26 | 36 | 30 | 26 | 26 | 26 | 26 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 9220 | 9220 | 9220 |
| 5° | 9238 | 9114 | 9149 |
| 10° | 9169 | 9023 | 9057 |
| 15° | 9059 | 8893 | 8934 |
| 20° | 8907 | 8726 | 8794 |
| 25° | 8704 | 8532 | 8635 |
| 30° | 8487 | 8338 | 8449 |
| 35° | 8218 | 8100 | 8248 |
| 40° | 7915 | 7861 | 8044 |
| 45° | 7660 | 7594 | 7832 |
| 50° | 7352 | 7319 | 7584 |
| 55° | 7069 | 7018 | 7360 |
| 60° | 6758 | 6718 | 7105 |
| 65° | 6344 | 6397 | 6881 |
| 70° | 5863 | 6041 | 6745 |
| 75° | 5149 | 5742 | 6667 |
| 80° | 4231 | 5547 | 6756 |
| 85° | 2839 | 5674 | 7319 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 540.2 | 3.4 |
| 10°-20° | 1537.0 | 9.6 |
| 20°-30° | 2295.6 | 14.3 |
| 30°-40° | 2715.0 | 16.9 |
| 40°-50° | 2766.4 | 17.2 |
| 50°-60° | 2478.9 | 15.4 |
| 60°-70° | 1930.8 | 12.0 |
| 70°-80° | 1250.0 | 7.8 |
| 80°-90° | 571.2 | 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° | 4372.8 | 27.2 |
| 0°-40° | 7087.8 | 44.1 |
| 0°-60° | 12333.2 | 76.7 |
| 0°-90° | 16085.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 16085.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 5710 | 5710 | 5710 | 5710 | 5710 | |
| 5° | 5705 | 5695 | 5662 | 5695 | 5694 | 541 |
| 15° | 5435 | 5435 | 5432 | 5482 | 5488 | 1531 |
| 25° | 4909 | 4927 | 4964 | 5052 | 5073 | 2259 |
| 35° | 4200 | 4240 | 4334 | 4451 | 4477 | 2624 |
| 45° | 3390 | 3451 | 3585 | 3722 | 3773 | 2612 |
| 55° | 2549 | 2620 | 2771 | 2931 | 2988 | 2275 |
| 65° | 1698 | 1771 | 1955 | 2119 | 2187 | 1686 |
| 75° | 858 | 967 | 1189 | 1386 | 1468 | 920 |
| 85° | 172 | 331 | 580 | 789 | 847 | 220 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P685566

CATALOG NUMBER: 8CZL-18-UNV-FL-L850-CD-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 5710.5 | 5710.5 | 5710.5 | 5710.5 | 5710.5 |
| 2.5° | 5726.8 | 5717.0 | 5682.3 | 5712.7 | 5711.6 |
| 5° | 5705.1 | 5695.3 | 5661.6 | 5695.3 | 5694.2 |
| 7.5° | 5660.6 | 5657.3 | 5626.9 | 5663.8 | 5660.6 |
| 10° | 5603.0 | 5598.7 | 5579.1 | 5616.0 | 5621.5 |
| 12.5° | 5527.0 | 5524.9 | 5509.7 | 5553.1 | 5556.4 |
| 15° | 5434.8 | 5434.8 | 5431.5 | 5482.5 | 5488.0 |
| 17.5° | 5316.5 | 5331.7 | 5334.9 | 5390.3 | 5402.2 |
| 20° | 5203.6 | 5207.9 | 5223.1 | 5290.4 | 5304.5 |
| 22.5° | 5054.9 | 5073.3 | 5103.7 | 5177.5 | 5189.5 |
| 25° | 4909.4 | 4926.8 | 4963.7 | 5051.6 | 5073.3 |
| 27.5° | 4740.1 | 4773.8 | 4824.8 | 4912.7 | 4934.4 |
| 30° | 4579.5 | 4607.7 | 4673.9 | 4771.6 | 4793.3 |
| 32.5° | 4383.0 | 4430.8 | 4506.7 | 4609.8 | 4639.2 |
| 35° | 4199.6 | 4239.7 | 4334.1 | 4451.4 | 4477.4 |
| 37.5° | 4003.1 | 4050.8 | 4150.7 | 4275.5 | 4311.4 |
| 40° | 3788.2 | 3857.6 | 3973.8 | 4098.6 | 4136.6 |
| 42.5° | 3591.7 | 3655.8 | 3778.4 | 3919.5 | 3962.9 |
| 45° | 3389.8 | 3450.6 | 3585.2 | 3722.0 | 3773.0 |
| 47.5° | 3179.2 | 3242.2 | 3388.7 | 3534.2 | 3579.8 |
| 50° | 2963.2 | 3038.1 | 3184.7 | 3337.7 | 3379.0 |
| 52.5° | 2748.3 | 2823.2 | 2978.4 | 3131.5 | 3178.2 |
| 55° | 2548.6 | 2620.2 | 2771.1 | 2930.7 | 2988.2 |
| 57.5° | 2331.5 | 2407.5 | 2573.6 | 2727.7 | 2789.6 |
| 60° | 2130.7 | 2186.1 | 2361.9 | 2521.5 | 2581.2 |
| 62.5° | 1923.4 | 1983.1 | 2154.6 | 2318.5 | 2389.0 |
| 65° | 1697.6 | 1771.4 | 1954.9 | 2118.8 | 2187.2 |
| 67.5° | 1491.4 | 1561.9 | 1750.8 | 1935.3 | 1990.7 |
| 70° | 1277.6 | 1359.0 | 1554.3 | 1743.2 | 1821.4 |
| 72.5° | 1073.5 | 1158.2 | 1373.1 | 1560.9 | 1640.1 |
| 75° | 857.5 | 967.1 | 1188.6 | 1386.1 | 1467.5 |
| 77.5° | 679.5 | 788.0 | 1014.9 | 1221.1 | 1299.3 |
| 80° | 481.9 | 615.4 | 860.8 | 1069.2 | 1138.6 |
| 82.5° | 321.3 | 457.0 | 714.2 | 917.2 | 992.1 |
| 85° | 171.5 | 331.1 | 579.6 | 789.1 | 846.6 |
| 87.5° | 74.9 | 231.2 | 470.0 | 656.7 | 725.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)