

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: P685546

Luminaire Tested: **8CZL-18-UNV-FL-L835-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685546
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-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

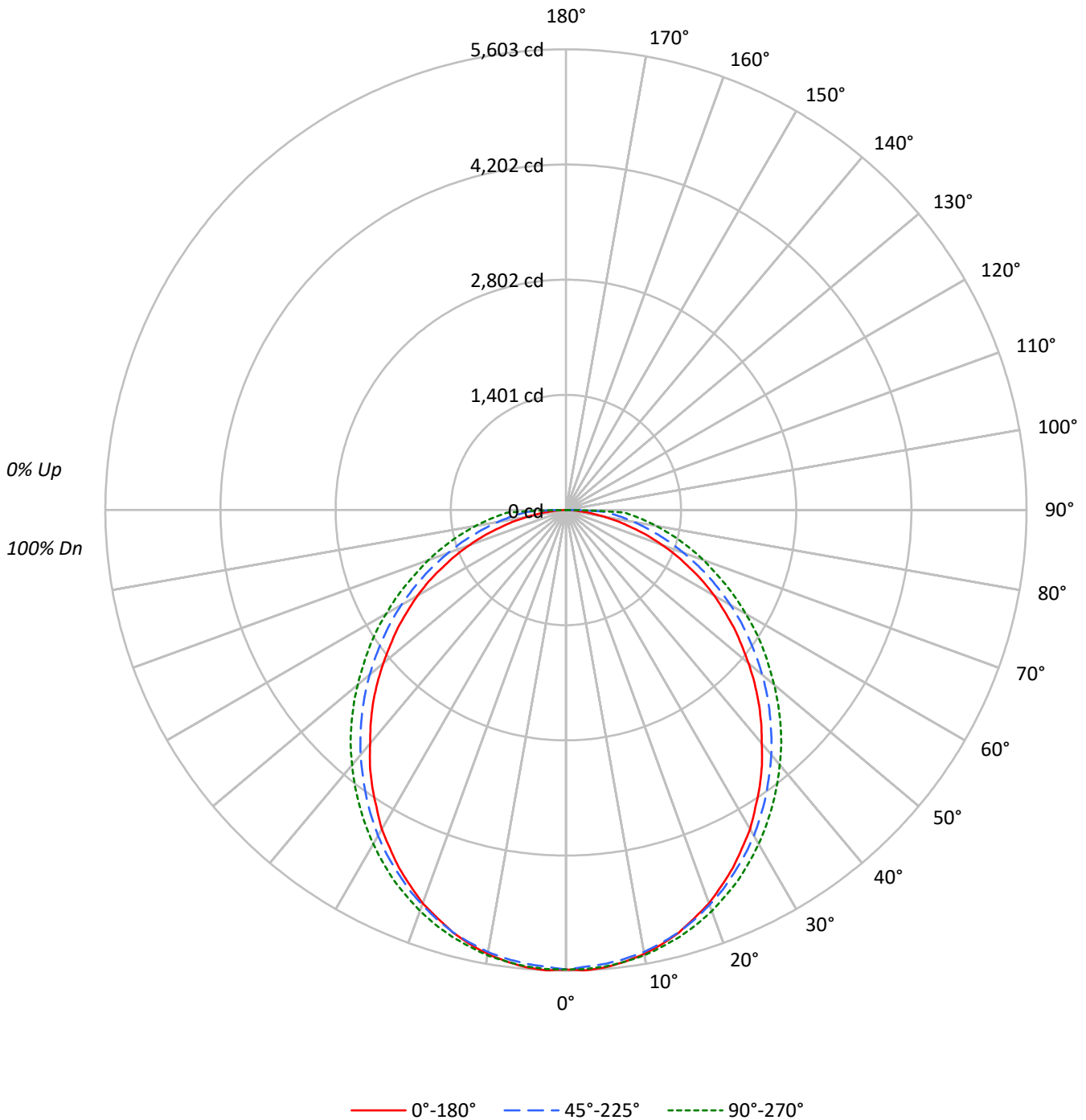
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15737.6 lumens
Efficiency: N/A
Efficacy: 144.4 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 (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

TEST NUMBER: P685546
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Luminous Intensity Polar Plot





TEST NUMBER: P685546
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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° | 9021 | 9021 | 9021 |
| 5° | 9039 | 8917 | 8951 |
| 10° | 8971 | 8828 | 8861 |
| 15° | 8863 | 8701 | 8741 |
| 20° | 8715 | 8538 | 8604 |
| 25° | 8516 | 8348 | 8449 |
| 30° | 8303 | 8158 | 8266 |
| 35° | 8040 | 7925 | 8070 |
| 40° | 7744 | 7691 | 7870 |
| 45° | 7495 | 7429 | 7663 |
| 50° | 7193 | 7160 | 7420 |
| 55° | 6916 | 6866 | 7201 |
| 60° | 6613 | 6573 | 6951 |
| 65° | 6207 | 6259 | 6732 |
| 70° | 5737 | 5911 | 6599 |
| 75° | 5038 | 5618 | 6523 |
| 80° | 4139 | 5428 | 6610 |
| 85° | 2778 | 5551 | 7160 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 528.5 | 3.4 |
| 10°-20° | 1503.8 | 9.6 |
| 20°-30° | 2246.0 | 14.3 |
| 30°-40° | 2656.3 | 16.9 |
| 40°-50° | 2706.6 | 17.2 |
| 50°-60° | 2425.4 | 15.4 |
| 60°-70° | 1889.1 | 12.0 |
| 70°-80° | 1223.0 | 7.8 |
| 80°-90° | 558.9 | 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° | 4278.3 | 27.2 |
| 0°-40° | 6934.7 | 44.1 |
| 0°-60° | 12066.7 | 76.7 |
| 0°-90° | 15737.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 15737.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 5587 | 5587 | 5587 | 5587 | 5587 | |
| 5° | 5582 | 5572 | 5539 | 5572 | 5571 | 529 |
| 15° | 5317 | 5317 | 5314 | 5364 | 5369 | 1498 |
| 25° | 4803 | 4820 | 4856 | 4942 | 4964 | 2210 |
| 35° | 4109 | 4148 | 4240 | 4355 | 4381 | 2567 |
| 45° | 3317 | 3376 | 3508 | 3642 | 3691 | 2556 |
| 55° | 2494 | 2564 | 2711 | 2867 | 2924 | 2226 |
| 65° | 1661 | 1733 | 1913 | 2073 | 2140 | 1650 |
| 75° | 839 | 946 | 1163 | 1356 | 1436 | 900 |
| 85° | 168 | 324 | 567 | 772 | 828 | 215 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P685546

CATALOG NUMBER: 8CZL-18-UNV-FL-L835-CD-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 5587.1 | 5587.1 | 5587.1 | 5587.1 | 5587.1 |
| 2.5° | 5603.0 | 5593.5 | 5559.5 | 5589.2 | 5588.1 |
| 5° | 5581.8 | 5572.2 | 5539.3 | 5572.2 | 5571.2 |
| 7.5° | 5538.2 | 5535.0 | 5505.3 | 5541.4 | 5538.2 |
| 10° | 5481.9 | 5477.7 | 5458.6 | 5494.7 | 5500.0 |
| 12.5° | 5407.6 | 5405.5 | 5390.6 | 5433.1 | 5436.3 |
| 15° | 5317.3 | 5317.3 | 5314.2 | 5364.1 | 5369.4 |
| 17.5° | 5201.6 | 5216.5 | 5219.6 | 5273.8 | 5285.5 |
| 20° | 5091.1 | 5095.4 | 5110.3 | 5176.1 | 5189.9 |
| 22.5° | 4945.6 | 4963.7 | 4993.4 | 5065.7 | 5077.3 |
| 25° | 4803.3 | 4820.3 | 4856.4 | 4942.5 | 4963.7 |
| 27.5° | 4637.7 | 4670.6 | 4720.5 | 4806.5 | 4827.8 |
| 30° | 4480.5 | 4508.1 | 4572.9 | 4668.5 | 4689.7 |
| 32.5° | 4288.3 | 4335.0 | 4409.3 | 4510.2 | 4538.9 |
| 35° | 4108.8 | 4148.1 | 4240.5 | 4355.2 | 4380.7 |
| 37.5° | 3916.6 | 3963.3 | 4061.0 | 4183.1 | 4218.2 |
| 40° | 3706.3 | 3774.3 | 3887.9 | 4010.0 | 4047.2 |
| 42.5° | 3514.1 | 3576.8 | 3696.8 | 3834.8 | 3877.3 |
| 45° | 3316.6 | 3376.0 | 3507.7 | 3641.5 | 3691.4 |
| 47.5° | 3110.5 | 3172.1 | 3315.5 | 3457.8 | 3502.4 |
| 50° | 2899.2 | 2972.5 | 3115.9 | 3265.6 | 3305.9 |
| 52.5° | 2688.9 | 2762.2 | 2914.1 | 3063.8 | 3109.5 |
| 55° | 2493.5 | 2563.6 | 2711.2 | 2867.3 | 2923.6 |
| 57.5° | 2281.1 | 2355.5 | 2518.0 | 2668.8 | 2729.3 |
| 60° | 2084.7 | 2138.8 | 2310.9 | 2467.0 | 2525.4 |
| 62.5° | 1881.8 | 1940.2 | 2108.0 | 2268.4 | 2337.4 |
| 65° | 1660.9 | 1733.2 | 1912.6 | 2073.0 | 2139.9 |
| 67.5° | 1459.2 | 1528.2 | 1713.0 | 1893.5 | 1947.7 |
| 70° | 1250.0 | 1329.6 | 1520.8 | 1705.5 | 1782.0 |
| 72.5° | 1050.3 | 1133.1 | 1343.4 | 1527.1 | 1604.7 |
| 75° | 839.0 | 946.2 | 1162.9 | 1356.1 | 1435.8 |
| 77.5° | 664.8 | 771.0 | 993.0 | 1194.7 | 1271.2 |
| 80° | 471.5 | 602.1 | 842.2 | 1046.1 | 1114.0 |
| 82.5° | 314.3 | 447.1 | 698.8 | 897.4 | 970.7 |
| 85° | 167.8 | 323.9 | 567.1 | 772.1 | 828.3 |
| 87.5° | 73.3 | 226.2 | 459.8 | 642.5 | 709.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)