

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: P685545

Luminaire Tested: **8CZL-14-UNV-FL-L835-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685545
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8CZL-14-UNV-FL-L835-CD-U
Description: METALUX CRUZE LINEAR 8FT FROSTED LENS MODEL @80 CRI and 3500K
Light Source: (784) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

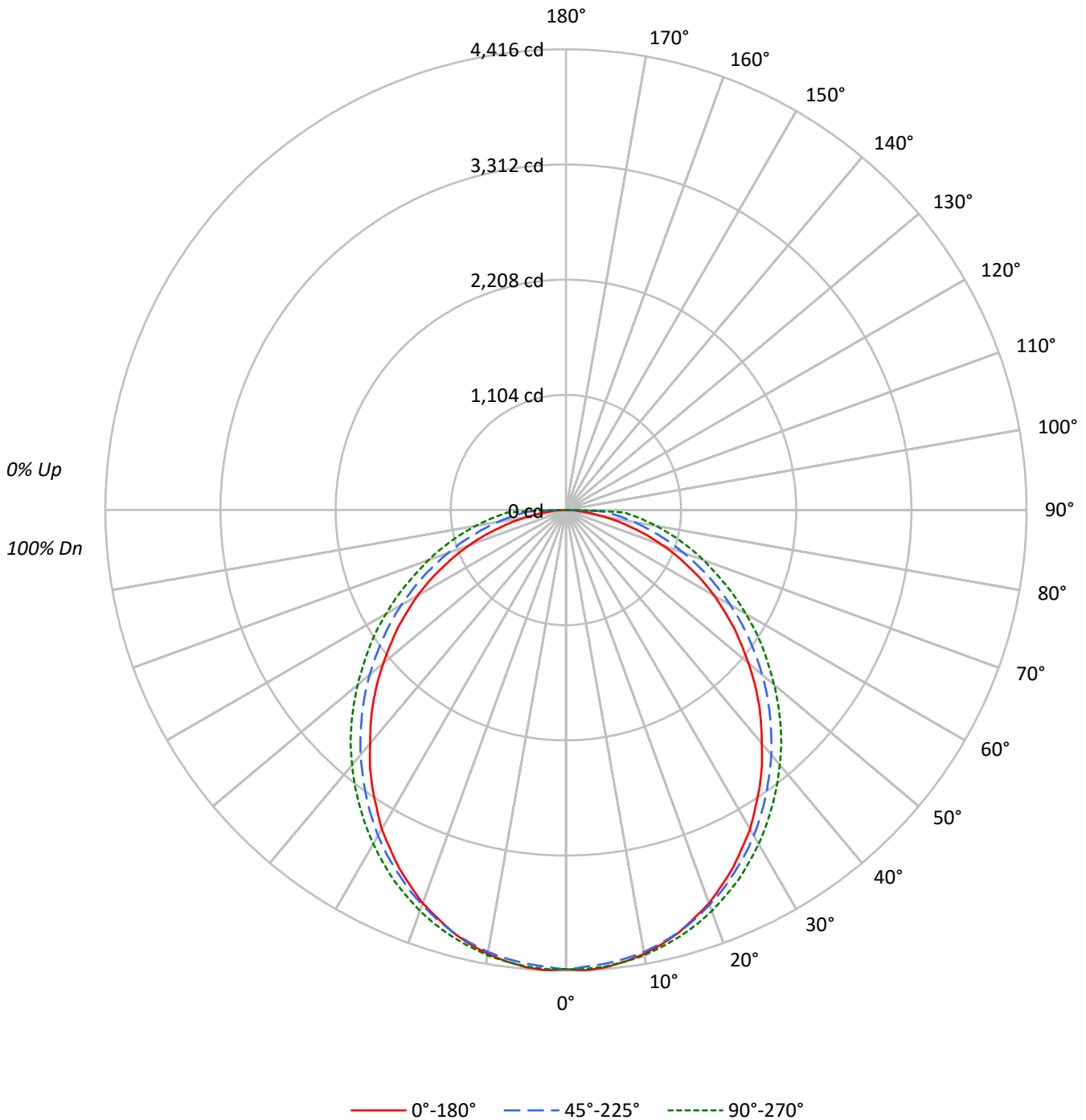
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12402.4 lumens
Efficiency: N/A
Efficacy: 139.4 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): 89
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

TEST NUMBER: P685545
CATALOG NUMBER: 8CZL-14-UNV-FL-L835-CD-U

Luminous Intensity Polar Plot





TEST NUMBER: P685545
 CATALOG NUMBER: 8CZL-14-UNV-FL-L835-CD-U

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° | 7109 | 7109 | 7109 |
| 5° | 7123 | 7027 | 7054 |
| 10° | 7070 | 6957 | 6983 |
| 15° | 6985 | 6857 | 6889 |
| 20° | 6868 | 6729 | 6781 |
| 25° | 6711 | 6579 | 6658 |
| 30° | 6544 | 6429 | 6514 |
| 35° | 6336 | 6245 | 6359 |
| 40° | 6103 | 6061 | 6202 |
| 45° | 5907 | 5855 | 6039 |
| 50° | 5669 | 5643 | 5847 |
| 55° | 5451 | 5411 | 5675 |
| 60° | 5211 | 5180 | 5478 |
| 65° | 4891 | 4933 | 5305 |
| 70° | 4521 | 4659 | 5201 |
| 75° | 3970 | 4427 | 5140 |
| 80° | 3262 | 4277 | 5209 |
| 85° | 2188 | 4375 | 5643 |



TEST NUMBER: P685545
 CATALOG NUMBER: 8CZL-14-UNV-FL-L835-CD-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 416.5 | 3.4 |
| 10°-20° | 1185.1 | 9.6 |
| 20°-30° | 1770.0 | 14.3 |
| 30°-40° | 2093.4 | 16.9 |
| 40°-50° | 2133.0 | 17.2 |
| 50°-60° | 1911.4 | 15.4 |
| 60°-70° | 1488.7 | 12.0 |
| 70°-80° | 963.8 | 7.8 |
| 80°-90° | 440.4 | 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° | 3371.6 | 27.2 |
| 0°-40° | 5465.0 | 44.1 |
| 0°-60° | 9509.4 | 76.7 |
| 0°-90° | 12402.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 12402.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 4403 | 4403 | 4403 | 4403 | 4403 | |
| 5° | 4399 | 4391 | 4365 | 4391 | 4390 | 417 |
| 15° | 4190 | 4190 | 4188 | 4227 | 4232 | 1180 |
| 25° | 3785 | 3799 | 3827 | 3895 | 3912 | 1742 |
| 35° | 3238 | 3269 | 3342 | 3432 | 3452 | 2023 |
| 45° | 2614 | 2661 | 2764 | 2870 | 2909 | 2014 |
| 55° | 1965 | 2020 | 2137 | 2260 | 2304 | 1754 |
| 65° | 1309 | 1366 | 1507 | 1634 | 1686 | 1300 |
| 75° | 661 | 746 | 916 | 1069 | 1132 | 709 |
| 85° | 132 | 255 | 447 | 608 | 653 | 170 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

TEST NUMBER: P685545

CATALOG NUMBER: 8CZL-14-UNV-FL-L835-CD-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 4403.0 | 4403.0 | 4403.0 | 4403.0 | 4403.0 |
| 2.5° | 4415.6 | 4408.1 | 4381.3 | 4404.7 | 4403.9 |
| 5° | 4398.9 | 4391.3 | 4365.4 | 4391.3 | 4390.5 |
| 7.5° | 4364.5 | 4362.0 | 4338.6 | 4367.1 | 4364.5 |
| 10° | 4320.2 | 4316.8 | 4301.8 | 4330.2 | 4334.4 |
| 12.5° | 4261.6 | 4259.9 | 4248.2 | 4281.7 | 4284.2 |
| 15° | 4190.5 | 4190.5 | 4188.0 | 4227.3 | 4231.5 |
| 17.5° | 4099.2 | 4111.0 | 4113.5 | 4156.2 | 4165.4 |
| 20° | 4012.2 | 4015.5 | 4027.3 | 4079.2 | 4090.0 |
| 22.5° | 3897.5 | 3911.8 | 3935.2 | 3992.1 | 4001.3 |
| 25° | 3785.4 | 3798.8 | 3827.2 | 3895.0 | 3911.8 |
| 27.5° | 3654.8 | 3680.8 | 3720.1 | 3787.9 | 3804.6 |
| 30° | 3531.0 | 3552.7 | 3603.8 | 3679.1 | 3695.8 |
| 32.5° | 3379.5 | 3416.3 | 3474.9 | 3554.4 | 3577.0 |
| 35° | 3238.0 | 3269.0 | 3341.8 | 3432.2 | 3452.3 |
| 37.5° | 3086.6 | 3123.4 | 3200.4 | 3296.6 | 3324.3 |
| 40° | 2920.9 | 2974.4 | 3064.0 | 3160.2 | 3189.5 |
| 42.5° | 2769.4 | 2818.8 | 2913.3 | 3022.1 | 3055.6 |
| 45° | 2613.7 | 2660.6 | 2764.4 | 2869.8 | 2909.1 |
| 47.5° | 2451.3 | 2499.9 | 2612.9 | 2725.0 | 2760.2 |
| 50° | 2284.8 | 2342.5 | 2455.5 | 2573.5 | 2605.3 |
| 52.5° | 2119.1 | 2176.8 | 2296.5 | 2414.5 | 2450.5 |
| 55° | 1965.1 | 2020.3 | 2136.7 | 2259.7 | 2304.0 |
| 57.5° | 1797.7 | 1856.3 | 1984.3 | 2103.2 | 2150.9 |
| 60° | 1642.9 | 1685.6 | 1821.1 | 1944.2 | 1990.2 |
| 62.5° | 1483.0 | 1529.1 | 1661.3 | 1787.7 | 1842.1 |
| 65° | 1308.9 | 1365.9 | 1507.3 | 1633.7 | 1686.4 |
| 67.5° | 1149.9 | 1204.3 | 1350.0 | 1492.2 | 1534.9 |
| 70° | 985.1 | 1047.8 | 1198.5 | 1344.1 | 1404.4 |
| 72.5° | 827.7 | 893.0 | 1058.7 | 1203.5 | 1264.6 |
| 75° | 661.2 | 745.7 | 916.4 | 1068.7 | 1131.5 |
| 77.5° | 523.9 | 607.6 | 782.5 | 941.5 | 1001.8 |
| 80° | 371.6 | 474.5 | 663.7 | 824.4 | 877.9 |
| 82.5° | 247.7 | 352.3 | 550.7 | 707.2 | 764.9 |
| 85° | 132.2 | 255.3 | 446.9 | 608.4 | 652.8 |
| 87.5° | 57.7 | 178.3 | 362.4 | 506.3 | 559.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)