

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: P685774

Luminaire Tested: **8CZL-10-UNV-N-LVR-L950-CD-U**

Issue Date: 05/10/2023



Test Information

Test Method: LM-79-08
Report Number: P685774
Test Lab: INNOVATION CENTER(G3)
Issue Date: 05/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8CZL-10-UNV-N-LVR-L950-CD-U
Description: METALUX CRUZE LINEAR 8FT LOUVER MODEL WITH NARROW LENS @90 CRI and 5000K
Light Source: (784) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

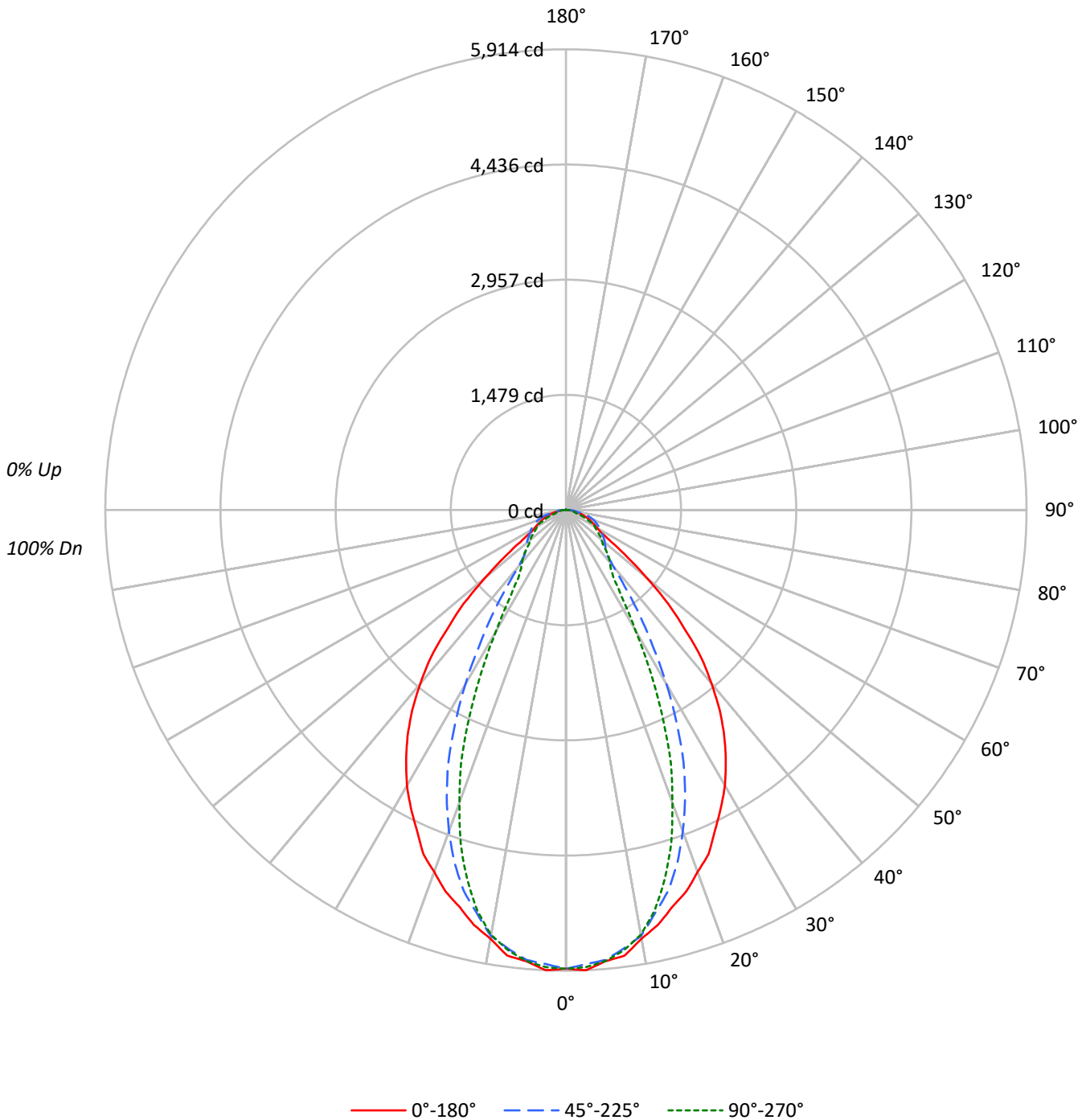
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6971.7 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.8 / 0.85
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 (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: P685774
CATALOG NUMBER: 8CZL-10-UNV-N-LVR-L950-CD-U

Luminous Intensity Polar Plot





TEST NUMBER: P685774

CATALOG NUMBER: 8CZL-10-UNV-N-LVR-L950-CD-U

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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 93 | 92 | 90 | 88 |
| 2 | 103 | 97 | 92 | 87 | 101 | 95 | 90 | 86 | 92 | 88 | 84 | 88 | 85 | 82 | 86 | 83 | 80 | 78 |
| 3 | 97 | 88 | 82 | 77 | 94 | 87 | 81 | 76 | 84 | 79 | 75 | 81 | 77 | 73 | 79 | 75 | 72 | 70 |
| 4 | 90 | 81 | 74 | 68 | 88 | 79 | 73 | 68 | 77 | 71 | 67 | 75 | 70 | 66 | 73 | 69 | 65 | 63 |
| 5 | 85 | 74 | 67 | 62 | 83 | 73 | 66 | 61 | 71 | 65 | 61 | 69 | 64 | 60 | 68 | 63 | 59 | 58 |
| 6 | 80 | 69 | 61 | 56 | 78 | 68 | 61 | 56 | 66 | 60 | 55 | 65 | 59 | 55 | 63 | 58 | 55 | 53 |
| 7 | 75 | 64 | 57 | 51 | 73 | 63 | 56 | 51 | 62 | 55 | 51 | 60 | 55 | 51 | 59 | 54 | 50 | 49 |
| 8 | 71 | 59 | 52 | 47 | 69 | 59 | 52 | 47 | 58 | 51 | 47 | 56 | 51 | 47 | 55 | 50 | 47 | 45 |
| 9 | 67 | 56 | 49 | 44 | 66 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 52 | 47 | 43 | 42 |
| 10 | 64 | 52 | 46 | 41 | 62 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 49 | 44 | 41 | 39 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 9507 | 9507 | 9507 |
| 5° | 9423 | 9396 | 9421 |
| 10° | 9157 | 9101 | 9079 |
| 15° | 8818 | 8466 | 8197 |
| 20° | 8493 | 7542 | 6865 |
| 25° | 8071 | 6368 | 5235 |
| 30° | 7613 | 4817 | 3345 |
| 35° | 6988 | 3266 | 2101 |
| 40° | 6128 | 1989 | 1843 |
| 45° | 4910 | 1658 | 1652 |
| 50° | 3395 | 1638 | 1491 |
| 55° | 2000 | 1623 | 1404 |
| 60° | 1490 | 1687 | 1387 |
| 65° | 1411 | 1698 | 1220 |
| 70° | 1357 | 1811 | 921 |
| 75° | 1279 | 1817 | 787 |
| 80° | 1187 | 1507 | 891 |
| 85° | 1054 | 1830 | 1100 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 547.0 | 7.8 |
| 10°-20° | 1416.3 | 20.3 |
| 20°-30° | 1654.6 | 23.7 |
| 30°-40° | 1227.5 | 17.6 |
| 40°-50° | 813.8 | 11.7 |
| 50°-60° | 539.7 | 7.7 |
| 60°-70° | 402.7 | 5.8 |
| 70°-80° | 237.7 | 3.4 |
| 80°-90° | 100.1 | 1.4 |
| 90°-100° | 21.6 | 0.3 |
| 100°-110° | 2.9 | 0.0 |
| 110°-120° | 1.5 | 0.0 |
| 120°-130° | 1.4 | 0.0 |
| 130°-140° | 1.3 | 0.0 |
| 140°-150° | 1.3 | 0.0 |
| 150°-160° | 1.2 | 0.0 |
| 160°-170° | 0.9 | 0.0 |
| 170°-180° | 0.3 | 0.0 |
| 0°-30° | 3617.8 | 51.9 |
| 0°-40° | 4845.3 | 69.5 |
| 0°-60° | 6198.8 | 88.9 |
| 0°-90° | 6939.2 | 99.5 |
| 90°-120° | 26.1 | 0.4 |
| 90°-150° | 30.1 | 0.4 |
| 90°-180° | 32.0 | 0.5 |
| 0°-180° | 6971.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 5888 | 5888 | 5888 | 5888 | 5888 | |
| 5° | 5814 | 5809 | 5798 | 5818 | 5812 | 550 |
| 15° | 5275 | 5212 | 5065 | 4977 | 4904 | 1488 |
| 25° | 4530 | 4205 | 3574 | 3066 | 2938 | 2087 |
| 35° | 3545 | 2627 | 1657 | 1120 | 1066 | 2201 |
| 45° | 2150 | 1269 | 726 | 753 | 723 | 1655 |
| 55° | 710 | 624 | 577 | 557 | 499 | 699 |
| 65° | 369 | 413 | 444 | 434 | 319 | 368 |
| 75° | 205 | 230 | 291 | 212 | 126 | 216 |
| 85° | 57 | 69 | 99 | 131 | 59 | 61 |
| 90° | 1 | 21 | 49 | 85 | 18 | 4 |
| 95° | 0 | 4 | 20 | 42 | 9 | 0 |
| 105° | 0 | 1 | 2 | 4 | 3 | 1 |
| 115° | 0 | 1 | 2 | 2 | 2 | 0 |
| 125° | 1 | 1 | 2 | 2 | 2 | 1 |
| 135° | 1 | 2 | 2 | 2 | 2 | 1 |
| 145° | 2 | 2 | 2 | 2 | 2 | 1 |
| 155° | 2 | 2 | 2 | 3 | 3 | 1 |
| 165° | 2 | 3 | 3 | 4 | 4 | 1 |
| 175° | 2 | 3 | 4 | 4 | 4 | 0 |
| 180° | 4 | 4 | 4 | 4 | 4 | |



TEST NUMBER: P685774

CATALOG NUMBER: 8CZL-10-UNV-N-LVR-L950-CD-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 5888.3 | 5888.3 | 5888.3 | 5888.3 | 5888.3 |
| 2.5° | 5913.7 | 5881.8 | 5835.9 | 5877.3 | 5873.8 |
| 5° | 5814.0 | 5809.0 | 5797.5 | 5818.5 | 5812.5 |
| 7.5° | 5769.1 | 5742.1 | 5678.3 | 5727.7 | 5699.7 |
| 10° | 5585.5 | 5554.1 | 5551.1 | 5541.1 | 5537.6 |
| 12.5° | 5455.3 | 5417.4 | 5296.1 | 5289.6 | 5262.7 |
| 15° | 5275.2 | 5212.3 | 5064.7 | 4977.3 | 4904.0 |
| 17.5° | 5135.5 | 4998.8 | 4752.4 | 4589.7 | 4495.4 |
| 20° | 4942.9 | 4792.3 | 4389.2 | 4105.3 | 3995.5 |
| 22.5° | 4784.3 | 4517.4 | 3999.0 | 3597.4 | 3522.1 |
| 25° | 4530.3 | 4204.6 | 3574.5 | 3066.1 | 2938.4 |
| 27.5° | 4309.8 | 3860.4 | 3073.6 | 2515.9 | 2359.2 |
| 30° | 4083.4 | 3474.7 | 2583.7 | 1976.1 | 1794.0 |
| 32.5° | 3819.4 | 3086.1 | 2079.3 | 1482.7 | 1351.0 |
| 35° | 3545.1 | 2626.6 | 1656.8 | 1120.0 | 1066.1 |
| 37.5° | 3242.7 | 2213.5 | 1245.2 | 935.4 | 944.4 |
| 40° | 2907.5 | 1853.3 | 943.9 | 857.6 | 874.5 |
| 42.5° | 2573.2 | 1550.0 | 785.2 | 806.7 | 811.7 |
| 45° | 2150.2 | 1268.7 | 725.9 | 753.3 | 723.4 |
| 47.5° | 1780.5 | 1036.7 | 684.0 | 681.0 | 638.6 |
| 50° | 1351.5 | 845.1 | 652.0 | 616.1 | 593.7 |
| 52.5° | 1000.8 | 712.9 | 621.6 | 582.2 | 559.2 |
| 55° | 710.4 | 624.1 | 576.7 | 556.8 | 498.9 |
| 57.5° | 533.8 | 561.2 | 542.3 | 497.4 | 457.0 |
| 60° | 461.5 | 505.9 | 522.3 | 468.9 | 429.5 |
| 62.5° | 416.6 | 458.5 | 489.9 | 452.0 | 393.1 |
| 65° | 369.2 | 412.6 | 444.5 | 434.5 | 319.3 |
| 67.5° | 327.8 | 376.2 | 415.6 | 372.7 | 260.9 |
| 70° | 287.4 | 332.3 | 383.6 | 316.3 | 195.1 |
| 72.5° | 244.0 | 277.9 | 339.7 | 245.9 | 142.2 |
| 75° | 205.0 | 229.5 | 291.3 | 211.5 | 126.2 |
| 77.5° | 164.1 | 184.6 | 199.6 | 192.6 | 111.3 |
| 80° | 127.7 | 148.2 | 162.1 | 175.1 | 95.8 |
| 82.5° | 92.8 | 106.3 | 128.7 | 155.2 | 79.8 |
| 85° | 56.9 | 69.3 | 98.8 | 131.2 | 59.4 |
| 87.5° | 24.4 | 42.4 | 72.3 | 108.8 | 38.9 |
| 90° | 1.0 | 21.0 | 49.4 | 84.8 | 17.5 |
| 92.5° | 0.5 | 9.0 | 31.9 | 62.4 | 11.5 |
| 95° | 0.5 | 3.5 | 19.5 | 42.4 | 9.0 |
| 97.5° | 0.5 | 1.5 | 10.0 | 27.4 | 6.5 |
| 100° | 0.5 | 1.0 | 5.5 | 16.0 | 4.5 |
| 102.5° | 0.5 | 1.0 | 2.5 | 8.0 | 3.5 |
| 105° | 0.5 | 1.0 | 2.0 | 3.5 | 3.0 |
| 107.5° | 0.5 | 1.0 | 1.5 | 2.5 | 2.5 |
| 110° | 0.5 | 1.0 | 1.5 | 2.5 | 2.5 |



TEST NUMBER: P685774
CATALOG NUMBER: 8CZL-10-UNV-N-LVR-L950-CD-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-----|-------|-----|
| 112.5° | 0.5 | 1.0 | 1.5 | 2.5 | 2.5 |
| 115° | 0.5 | 1.0 | 1.5 | 2.0 | 2.0 |
| 117.5° | 0.5 | 1.0 | 1.5 | 2.0 | 2.0 |
| 120° | 0.5 | 1.0 | 1.5 | 2.0 | 2.0 |
| 122.5° | 0.5 | 1.0 | 1.5 | 2.0 | 2.0 |
| 125° | 1.0 | 1.0 | 1.5 | 2.0 | 2.0 |
| 127.5° | 1.0 | 1.5 | 1.5 | 2.0 | 2.0 |
| 130° | 1.0 | 1.5 | 1.5 | 2.0 | 2.0 |
| 132.5° | 1.0 | 1.5 | 1.5 | 2.0 | 2.0 |
| 135° | 1.0 | 1.5 | 1.5 | 2.0 | 2.0 |
| 137.5° | 1.0 | 1.5 | 2.0 | 2.0 | 2.0 |
| 140° | 1.5 | 2.0 | 2.0 | 2.0 | 2.0 |
| 142.5° | 1.5 | 2.0 | 2.0 | 2.5 | 2.0 |
| 145° | 1.5 | 2.0 | 2.0 | 2.5 | 2.5 |
| 147.5° | 1.5 | 2.0 | 2.5 | 2.5 | 2.5 |
| 150° | 1.5 | 2.0 | 2.5 | 3.0 | 3.0 |
| 152.5° | 2.0 | 2.0 | 2.5 | 3.0 | 3.0 |
| 155° | 2.0 | 2.5 | 2.5 | 3.0 | 3.0 |
| 157.5° | 2.0 | 2.5 | 2.5 | 3.0 | 3.5 |
| 160° | 2.0 | 2.5 | 3.0 | 3.5 | 3.5 |
| 162.5° | 2.0 | 2.5 | 3.0 | 3.5 | 3.5 |
| 165° | 2.5 | 3.0 | 3.0 | 3.5 | 3.5 |
| 167.5° | 2.5 | 3.0 | 3.5 | 3.5 | 4.0 |
| 170° | 2.5 | 3.0 | 3.5 | 4.0 | 4.0 |
| 172.5° | 2.5 | 3.0 | 3.5 | 4.0 | 4.0 |
| 175° | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 |
| 177.5° | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 |
| 180° | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |

(END OF REPORT)