

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: P237874

Luminaire Tested: **8VT2-LD5-22-FR50-UNV-L850-CD2-WL-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237874  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-13)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8VT2-LD5-22-FR50-UNV-L850-CD2-WL-U  
Description: METALUX VT2 LED LUMINAIRE  
FROSTED LENS/15% DR HIGH IMPACT ADDITIVE STANDARD DISTRIBUTION  
8FT FIXTURE  
Light Source: (448) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22514.0 lumens  
Efficiency: N/A  
Efficacy: 136.5 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 8.33' x H: 0.17')  
CIE Type: Direct

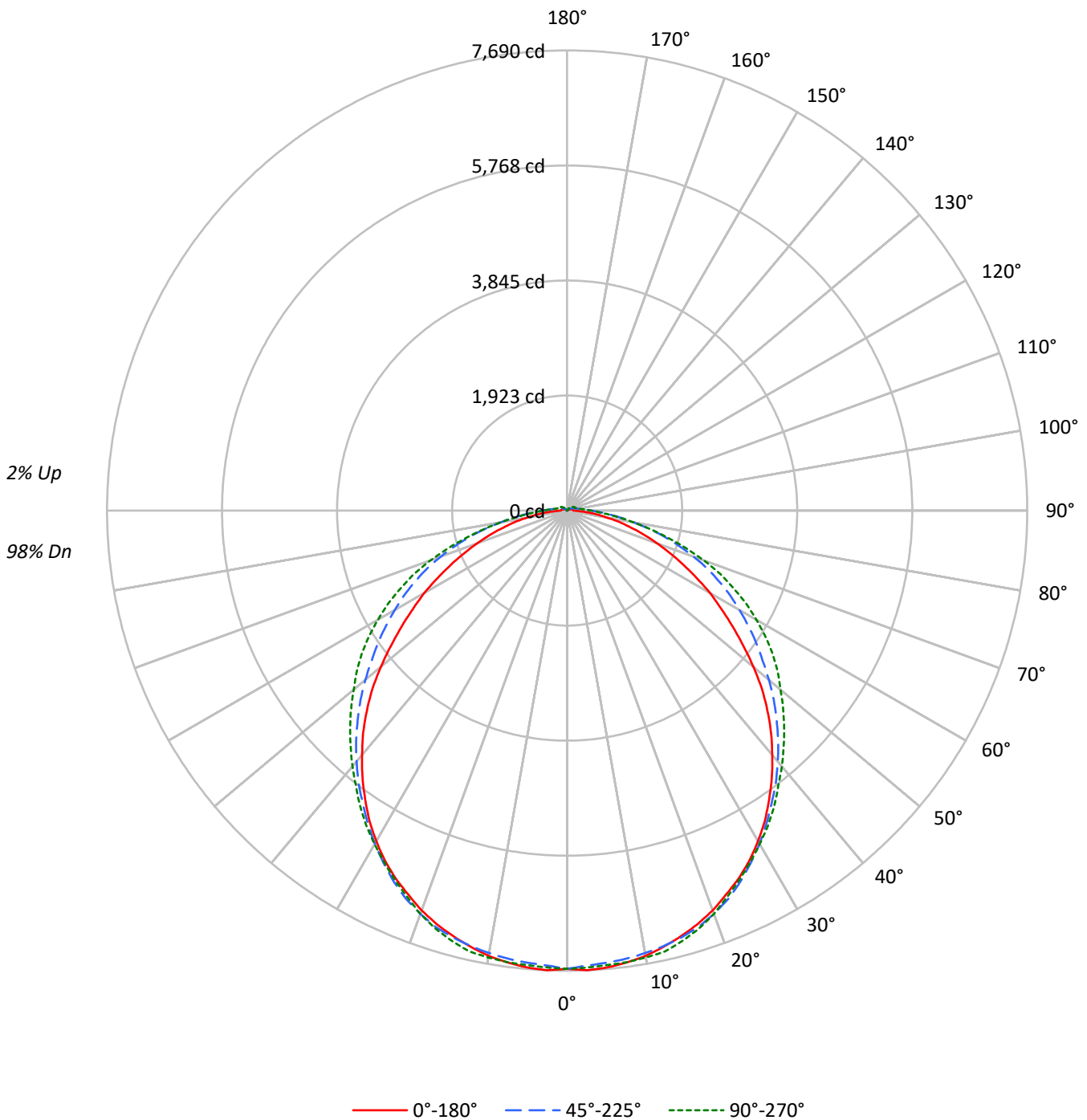
Input Watts (W): 164.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**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  | 50 | 30 | 10 | 50 | 30 | 10 | 0 |  |   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |   |  |   |
| 0   | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 110 | 110 | 110 | 105 | 105 | 105 | 100 | 100 | 100 | 98 |    |    |    |    |    |   |  |   |
| 1   | 108 | 103 | 98  | 94  | 105 | 100 | 96  | 92  | 95  | 92  | 89  | 91  | 88  | 86  | 87  | 85  | 83  | 81 |    |    |    |    |    |   |  |   |
| 2   | 98  | 89  | 82  | 76  | 95  | 87  | 81  | 75  | 83  | 78  | 73  | 80  | 75  | 71  | 76  | 72  | 69  | 67 |    |    |    |    |    |   |  |   |
| 3   | 89  | 78  | 70  | 63  | 86  | 76  | 69  | 63  | 73  | 67  | 61  | 70  | 64  | 60  | 67  | 62  | 58  | 56 |    |    |    |    |    |   |  |   |
| 4   | 81  | 69  | 60  | 54  | 79  | 68  | 60  | 53  | 65  | 58  | 52  | 62  | 56  | 51  | 60  | 55  | 50  | 48 |    |    |    |    |    |   |  |   |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 58  | 51  | 45  | 56  | 49  | 44  | 54  | 48  | 44  | 41 |    |    |    |    |    |   |  |   |
| 6   | 69  | 56  | 47  | 40  | 67  | 55  | 46  | 40  | 53  | 45  | 39  | 51  | 44  | 39  | 49  | 43  | 38  | 36 |    |    |    |    |    |   |  |   |
| 7   | 64  | 51  | 42  | 36  | 62  | 50  | 41  | 35  | 48  | 40  | 35  | 46  | 39  | 34  | 45  | 39  | 34  | 32 |    |    |    |    |    |   |  |   |
| 8   | 60  | 46  | 38  | 32  | 58  | 45  | 37  | 32  | 44  | 36  | 31  | 42  | 36  | 31  | 41  | 35  | 30  | 29 |    |    |    |    |    |   |  |   |
| 9   | 56  | 42  | 34  | 29  | 54  | 42  | 34  | 28  | 40  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26 |    |    |    |    |    |   |  |   |
| 10  | 52  | 39  | 31  | 26  | 51  | 38  | 31  | 26  | 37  | 30  | 25  | 36  | 30  | 25  | 35  | 29  | 25  | 23 |    |    |    |    |    |   |  |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 19780 | 19780 | 19780 |
| 5°  | 19842 | 19247 | 19216 |
| 10° | 19753 | 18868 | 18791 |
| 15° | 19587 | 18512 | 18281 |
| 20° | 19407 | 18072 | 17583 |
| 25° | 19158 | 17481 | 16796 |
| 30° | 18812 | 16760 | 16096 |
| 35° | 18306 | 15999 | 15425 |
| 40° | 17683 | 15265 | 14707 |
| 45° | 16962 | 14467 | 14055 |
| 50° | 15958 | 13628 | 13391 |
| 55° | 14767 | 12805 | 12802 |
| 60° | 13769 | 12002 | 11963 |
| 65° | 12556 | 11162 | 10915 |
| 70° | 11428 | 10053 | 9559  |
| 75° | 10295 | 8659  | 7691  |
| 80° | 9146  | 6891  | 5762  |
| 85° | 8157  | 5304  | 4099  |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 725.7   | 3.2       |
| 10°-20°   | 2088.6  | 9.3       |
| 20°-30°   | 3146.2  | 14.0      |
| 30°-40°   | 3746.8  | 16.6      |
| 40°-50°   | 3825.0  | 17.0      |
| 50°-60°   | 3427.9  | 15.2      |
| 60°-70°   | 2675.2  | 11.9      |
| 70°-80°   | 1646.9  | 7.3       |
| 80°-90°   | 686.6   | 3.0       |
| 90°-100°  | 247.3   | 1.1       |
| 100°-110° | 133.3   | 0.6       |
| 110°-120° | 87.2    | 0.4       |
| 120°-130° | 49.5    | 0.2       |
| 130°-140° | 21.9    | 0.1       |
| 140°-150° | 5.4     | 0.0       |
| 150°-160° | 0.6     | 0.0       |
| 160°-170° | 0.0     | 0.0       |
| 170°-180° | 0.0     | 0.0       |
| 0°-30°    | 5960.5  | 26.5      |
| 0°-40°    | 9707.3  | 43.1      |
| 0°-60°    | 16960.2 | 75.3      |
| 0°-90°    | 21968.9 | 97.6      |
| 90°-120°  | 467.7   | 2.1       |
| 90°-150°  | 544.5   | 2.4       |
| 90°-180°  | 545.0   | 2.4       |
| 0°-180°   | 22514.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 7657 | 7657  | 7657 | 7657  | 7657 |      |
| 5°   | 7665 | 7637  | 7584 | 7637  | 7626 | 728  |
| 15°  | 7363 | 7366  | 7385 | 7468  | 7446 | 2078 |
| 25°  | 6784 | 6839  | 6847 | 6836  | 6809 | 3123 |
| 35°  | 5886 | 6010  | 5961 | 6027  | 6033 | 3679 |
| 45°  | 4736 | 4858  | 4949 | 5090  | 5129 | 3645 |
| 55°  | 3372 | 3569  | 3857 | 4115  | 4196 | 3027 |
| 65°  | 2142 | 2366  | 2804 | 3034  | 3062 | 2132 |
| 75°  | 1108 | 1352  | 1676 | 1760  | 1729 | 1188 |
| 85°  | 338  | 526   | 690  | 690   | 665  | 347  |
| 90°  | 111  | 280   | 407  | 413   | 402  | 71   |
| 95°  | 100  | 158   | 255  | 266   | 258  | 80   |
| 105° | 78   | 78    | 141  | 158   | 155  | 82   |
| 115° | 42   | 39    | 97   | 128   | 133  | 42   |
| 125° | 19   | 11    | 55   | 91    | 100  | 17   |
| 135° | 8    | 6     | 22   | 50    | 58   | 7    |
| 145° | 3    | 3     | 3    | 14    | 19   | 2    |
| 155° | 3    | 3     | 3    | 0     | 0    | 1    |
| 165° | 0    | 0     | 0    | 0     | 0    | 0    |
| 175° | 0    | 0     | 0    | 0     | 0    | 0    |
| 180° | 0    | 0     | 0    | 0     | 0    | 0    |



TEST NUMBER: P237874

CATALOG NUMBER: 8VT2-LD5-22-FR50-UNV-L850-CD2-WL-U

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 7656.6 | 7656.6 | 7656.6 | 7656.6 | 7656.6 |
| 2.5°   | 7689.8 | 7662.1 | 7609.5 | 7659.3 | 7642.7 |
| 5°     | 7664.9 | 7637.2 | 7584.5 | 7637.2 | 7626.1 |
| 7.5°   | 7617.8 | 7598.4 | 7554.0 | 7617.8 | 7612.2 |
| 10°    | 7556.8 | 7537.4 | 7509.7 | 7587.3 | 7584.5 |
| 12.5°  | 7465.4 | 7457.1 | 7454.3 | 7551.3 | 7545.7 |
| 15°    | 7362.8 | 7365.6 | 7385.0 | 7468.1 | 7446.0 |
| 17.5°  | 7246.4 | 7263.1 | 7296.3 | 7346.2 | 7324.0 |
| 20°    | 7110.7 | 7138.4 | 7171.6 | 7191.0 | 7171.6 |
| 22.5°  | 6944.4 | 6994.3 | 7027.5 | 7013.7 | 6988.7 |
| 25°    | 6783.7 | 6839.1 | 6847.4 | 6836.3 | 6808.6 |
| 27.5°  | 6595.2 | 6664.5 | 6639.6 | 6653.4 | 6622.9 |
| 30°    | 6379.1 | 6476.1 | 6429.0 | 6453.9 | 6434.5 |
| 32.5°  | 6149.1 | 6262.7 | 6199.0 | 6240.5 | 6246.1 |
| 35°    | 5885.8 | 6010.5 | 5960.7 | 6027.2 | 6032.7 |
| 37.5°  | 5619.8 | 5750.0 | 5727.9 | 5811.0 | 5797.2 |
| 40°    | 5331.6 | 5475.7 | 5475.7 | 5567.2 | 5581.0 |
| 42.5°  | 5046.2 | 5168.1 | 5220.8 | 5328.8 | 5356.6 |
| 45°    | 4735.8 | 4857.8 | 4949.2 | 5090.5 | 5129.3 |
| 47.5°  | 4417.1 | 4552.9 | 4683.2 | 4838.4 | 4896.5 |
| 50°    | 4065.2 | 4228.7 | 4400.5 | 4602.8 | 4655.5 |
| 52.5°  | 3710.5 | 3893.4 | 4117.9 | 4361.7 | 4436.5 |
| 55°    | 3372.4 | 3569.2 | 3857.4 | 4115.1 | 4195.5 |
| 57.5°  | 3051.0 | 3253.3 | 3591.4 | 3862.9 | 3932.2 |
| 60°    | 2757.3 | 2931.8 | 3328.1 | 3610.8 | 3652.3 |
| 62.5°  | 2441.3 | 2649.2 | 3070.4 | 3330.9 | 3378.0 |
| 65°    | 2142.1 | 2366.5 | 2804.4 | 3034.4 | 3062.1 |
| 67.5°  | 1859.4 | 2089.4 | 2535.6 | 2737.9 | 2771.1 |
| 70°    | 1596.2 | 1840.0 | 2244.6 | 2413.6 | 2424.7 |
| 72.5°  | 1355.1 | 1593.4 | 1956.4 | 2092.2 | 2072.8 |
| 75°    | 1108.4 | 1352.3 | 1676.5 | 1759.7 | 1729.2 |
| 77.5°  | 900.6  | 1122.3 | 1393.9 | 1454.8 | 1407.7 |
| 80°    | 684.5  | 897.8  | 1119.5 | 1141.7 | 1119.5 |
| 82.5°  | 501.6  | 701.1  | 892.3  | 897.8  | 864.6  |
| 85°    | 338.1  | 526.5  | 690.0  | 690.0  | 665.1  |
| 87.5°  | 191.2  | 385.2  | 526.5  | 532.1  | 504.3  |
| 90°    | 110.8  | 279.9  | 407.4  | 412.9  | 401.8  |
| 92.5°  | 102.5  | 202.3  | 318.7  | 327.0  | 315.9  |
| 95°    | 99.8   | 158.0  | 254.9  | 266.0  | 257.7  |
| 97.5°  | 97.0   | 127.5  | 213.4  | 221.7  | 216.1  |
| 100°   | 94.2   | 105.3  | 180.1  | 194.0  | 191.2  |
| 102.5° | 85.9   | 91.4   | 158.0  | 171.8  | 169.0  |
| 105°   | 77.6   | 77.6   | 141.3  | 158.0  | 155.2  |
| 107.5° | 69.3   | 66.5   | 127.5  | 149.6  | 146.9  |
| 110°   | 58.2   | 58.2   | 116.4  | 141.3  | 141.3  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°   | 22.5° | 45°   | 67.5° | 90°   |
|--------|------|-------|-------|-------|-------|
| 112.5° | 49.9 | 49.9  | 105.3 | 135.8 | 135.8 |
| 115°   | 41.6 | 38.8  | 97.0  | 127.5 | 133.0 |
| 117.5° | 33.3 | 33.3  | 85.9  | 119.2 | 124.7 |
| 120°   | 27.7 | 24.9  | 74.8  | 110.8 | 119.2 |
| 122.5° | 22.2 | 16.6  | 66.5  | 99.8  | 110.8 |
| 125°   | 19.4 | 11.1  | 55.4  | 91.4  | 99.8  |
| 127.5° | 13.9 | 8.3   | 47.1  | 80.4  | 91.4  |
| 130°   | 11.1 | 8.3   | 38.8  | 69.3  | 80.4  |
| 132.5° | 11.1 | 5.5   | 30.5  | 58.2  | 69.3  |
| 135°   | 8.3  | 5.5   | 22.2  | 49.9  | 58.2  |
| 137.5° | 5.5  | 5.5   | 13.9  | 41.6  | 49.9  |
| 140°   | 5.5  | 5.5   | 8.3   | 30.5  | 38.8  |
| 142.5° | 5.5  | 2.8   | 2.8   | 22.2  | 30.5  |
| 145°   | 2.8  | 2.8   | 2.8   | 13.9  | 19.4  |
| 147.5° | 2.8  | 2.8   | 2.8   | 5.5   | 11.1  |
| 150°   | 2.8  | 2.8   | 2.8   | 0.0   | 2.8   |
| 152.5° | 2.8  | 2.8   | 2.8   | 0.0   | 0.0   |
| 155°   | 2.8  | 2.8   | 2.8   | 0.0   | 0.0   |
| 157.5° | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   |
| 160°   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   |
| 162.5° | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   |
| 165°   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   |
| 167.5° | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   |
| 170°   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   |
| 172.5° | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   |
| 175°   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   |
| 177.5° | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   |
| 180°   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)