

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: P237863

Luminaire Tested: **4VRVT2-LD5-8-FR50-UNV-L835-CD1-WL-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237863  
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: 4VRVT2-LD5-8-FR50-UNV-L835-CD1-WL-U  
Description: METALUX VRVT2 LED LUMINAIRE  
FROSTED LENS/15% DR HIGH IMPACT ADDITIVE STANDARD DISTRIBUTION  
4FT FIXTURE  
Light Source: (224) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8124.9 lumens  
Efficiency: N/A  
Efficacy: 138.9 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 4.17' x H: 0.17')  
CIE Type: Direct

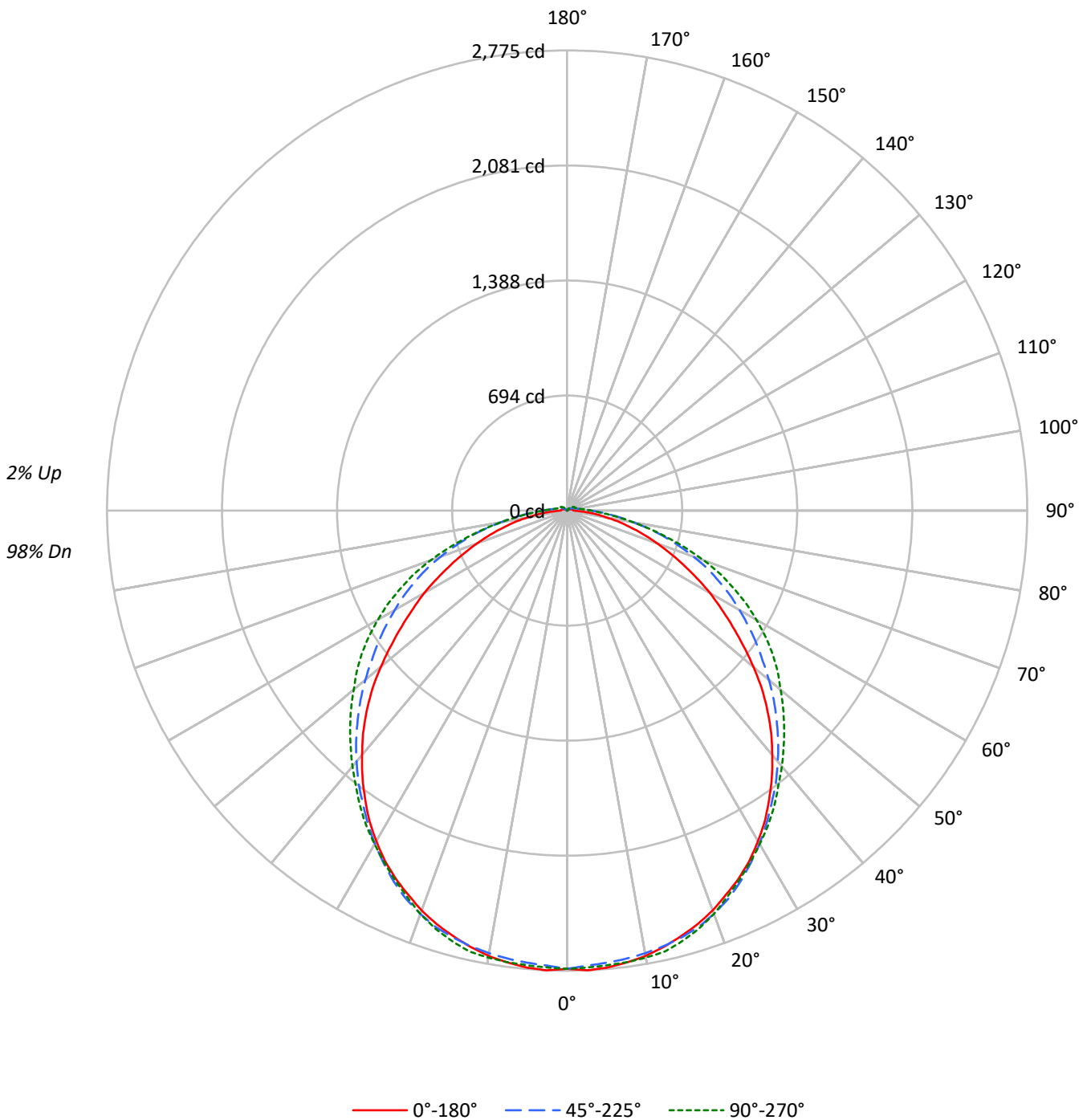
Input Watts (W): 58.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 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°  | 14277 | 14277 | 14277 |
| 5°  | 14297 | 13876 | 13870 |
| 10° | 14208 | 13586 | 13563 |
| 15° | 14062 | 13314 | 13195 |
| 20° | 13907 | 12983 | 12690 |
| 25° | 13701 | 12543 | 12123 |
| 30° | 13424 | 12011 | 11618 |
| 35° | 13032 | 11451 | 11133 |
| 40° | 12556 | 10911 | 10615 |
| 45° | 12008 | 10325 | 10144 |
| 50° | 11256 | 9710  | 9665  |
| 55° | 10371 | 9107  | 9240  |
| 60° | 9616  | 8517  | 8635  |
| 65° | 8704  | 7901  | 7878  |
| 70° | 7840  | 7092  | 6899  |
| 75° | 6948  | 6084  | 5551  |
| 80° | 5990  | 4814  | 4159  |
| 85° | 4963  | 3674  | 2958  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 261.9  | 3.2       |
| 10°-20°   | 753.7  | 9.3       |
| 20°-30°   | 1135.4 | 14.0      |
| 30°-40°   | 1352.2 | 16.6      |
| 40°-50°   | 1380.4 | 17.0      |
| 50°-60°   | 1237.1 | 15.2      |
| 60°-70°   | 965.5  | 11.9      |
| 70°-80°   | 594.3  | 7.3       |
| 80°-90°   | 247.8  | 3.0       |
| 90°-100°  | 89.2   | 1.1       |
| 100°-110° | 48.1   | 0.6       |
| 110°-120° | 31.5   | 0.4       |
| 120°-130° | 17.9   | 0.2       |
| 130°-140° | 7.9    | 0.1       |
| 140°-150° | 1.9    | 0.0       |
| 150°-160° | 0.2    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 2151.0 | 26.5      |
| 0°-40°    | 3503.2 | 43.1      |
| 0°-60°    | 6120.7 | 75.3      |
| 0°-90°    | 7928.2 | 97.6      |
| 90°-120°  | 168.8  | 2.1       |
| 90°-150°  | 196.5  | 2.4       |
| 90°-180°  | 197.0  | 2.4       |
| 0°-180°   | 8124.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 2763 | 2763  | 2763 | 2763  | 2763 |      |
| 5°   | 2766 | 2756  | 2737 | 2756  | 2752 | 263  |
| 15°  | 2657 | 2658  | 2665 | 2695  | 2687 | 750  |
| 25°  | 2448 | 2468  | 2471 | 2467  | 2457 | 1127 |
| 35°  | 2124 | 2169  | 2151 | 2175  | 2177 | 1328 |
| 45°  | 1709 | 1753  | 1786 | 1837  | 1851 | 1316 |
| 55°  | 1217 | 1288  | 1392 | 1485  | 1514 | 1092 |
| 65°  | 773  | 854   | 1012 | 1095  | 1105 | 769  |
| 75°  | 400  | 488   | 605  | 635   | 624  | 429  |
| 85°  | 122  | 190   | 249  | 249   | 240  | 125  |
| 90°  | 40   | 101   | 147  | 149   | 145  | 25   |
| 95°  | 36   | 57    | 92   | 96    | 93   | 29   |
| 105° | 28   | 28    | 51   | 57    | 56   | 30   |
| 115° | 15   | 14    | 35   | 46    | 48   | 15   |
| 125° | 7    | 4     | 20   | 33    | 36   | 6    |
| 135° | 3    | 2     | 8    | 18    | 21   | 2    |
| 145° | 1    | 1     | 1    | 5     | 7    | 1    |
| 155° | 1    | 1     | 1    | 0     | 0    | 0    |
| 165° | 0    | 0     | 0    | 0     | 0    | 0    |
| 175° | 0    | 0     | 0    | 0     | 0    | 0    |
| 180° | 0    | 0     | 0    | 0     | 0    | 0    |



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CATALOG NUMBER: 4VRVT2-LD5-8-FR50-UNV-L835-CD1-WL-U

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 2763.2 | 2763.2 | 2763.2 | 2763.2 | 2763.2 |
| 2.5°   | 2775.2 | 2765.2 | 2746.2 | 2764.2 | 2758.2 |
| 5°     | 2766.2 | 2756.2 | 2737.2 | 2756.2 | 2752.2 |
| 7.5°   | 2749.2 | 2742.2 | 2726.2 | 2749.2 | 2747.2 |
| 10°    | 2727.2 | 2720.2 | 2710.2 | 2738.2 | 2737.2 |
| 12.5°  | 2694.2 | 2691.1 | 2690.1 | 2725.2 | 2723.2 |
| 15°    | 2657.1 | 2658.1 | 2665.1 | 2695.2 | 2687.1 |
| 17.5°  | 2615.1 | 2621.1 | 2633.1 | 2651.1 | 2643.1 |
| 20°    | 2566.1 | 2576.1 | 2588.1 | 2595.1 | 2588.1 |
| 22.5°  | 2506.1 | 2524.1 | 2536.1 | 2531.1 | 2522.1 |
| 25°    | 2448.1 | 2468.1 | 2471.1 | 2467.1 | 2457.1 |
| 27.5°  | 2380.1 | 2405.1 | 2396.1 | 2401.1 | 2390.1 |
| 30°    | 2302.1 | 2337.1 | 2320.1 | 2329.1 | 2322.1 |
| 32.5°  | 2219.1 | 2260.1 | 2237.1 | 2252.1 | 2254.1 |
| 35°    | 2124.1 | 2169.1 | 2151.1 | 2175.1 | 2177.1 |
| 37.5°  | 2028.1 | 2075.1 | 2067.1 | 2097.1 | 2092.1 |
| 40°    | 1924.1 | 1976.1 | 1976.1 | 2009.1 | 2014.1 |
| 42.5°  | 1821.1 | 1865.1 | 1884.1 | 1923.1 | 1933.1 |
| 45°    | 1709.1 | 1753.1 | 1786.1 | 1837.1 | 1851.1 |
| 47.5°  | 1594.1 | 1643.1 | 1690.1 | 1746.1 | 1767.1 |
| 50°    | 1467.1 | 1526.1 | 1588.1 | 1661.1 | 1680.1 |
| 52.5°  | 1339.1 | 1405.1 | 1486.1 | 1574.1 | 1601.1 |
| 55°    | 1217.1 | 1288.1 | 1392.1 | 1485.1 | 1514.1 |
| 57.5°  | 1101.1 | 1174.1 | 1296.1 | 1394.1 | 1419.1 |
| 60°    | 995.1  | 1058.1 | 1201.1 | 1303.1 | 1318.1 |
| 62.5°  | 881.0  | 956.1  | 1108.1 | 1202.1 | 1219.1 |
| 65°    | 773.0  | 854.0  | 1012.1 | 1095.1 | 1105.1 |
| 67.5°  | 671.0  | 754.0  | 915.1  | 988.1  | 1000.1 |
| 70°    | 576.0  | 664.0  | 810.0  | 871.0  | 875.0  |
| 72.5°  | 489.0  | 575.0  | 706.0  | 755.0  | 748.0  |
| 75°    | 400.0  | 488.0  | 605.0  | 635.0  | 624.0  |
| 77.5°  | 325.0  | 405.0  | 503.0  | 525.0  | 508.0  |
| 80°    | 247.0  | 324.0  | 404.0  | 412.0  | 404.0  |
| 82.5°  | 181.0  | 253.0  | 322.0  | 324.0  | 312.0  |
| 85°    | 122.0  | 190.0  | 249.0  | 249.0  | 240.0  |
| 87.5°  | 69.0   | 139.0  | 190.0  | 192.0  | 182.0  |
| 90°    | 40.0   | 101.0  | 147.0  | 149.0  | 145.0  |
| 92.5°  | 37.0   | 73.0   | 115.0  | 118.0  | 114.0  |
| 95°    | 36.0   | 57.0   | 92.0   | 96.0   | 93.0   |
| 97.5°  | 35.0   | 46.0   | 77.0   | 80.0   | 78.0   |
| 100°   | 34.0   | 38.0   | 65.0   | 70.0   | 69.0   |
| 102.5° | 31.0   | 33.0   | 57.0   | 62.0   | 61.0   |
| 105°   | 28.0   | 28.0   | 51.0   | 57.0   | 56.0   |
| 107.5° | 25.0   | 24.0   | 46.0   | 54.0   | 53.0   |
| 110°   | 21.0   | 21.0   | 42.0   | 51.0   | 51.0   |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°   | 22.5° | 45°  | 67.5° | 90°  |
|--------|------|-------|------|-------|------|
| 112.5° | 18.0 | 18.0  | 38.0 | 49.0  | 49.0 |
| 115°   | 15.0 | 14.0  | 35.0 | 46.0  | 48.0 |
| 117.5° | 12.0 | 12.0  | 31.0 | 43.0  | 45.0 |
| 120°   | 10.0 | 9.0   | 27.0 | 40.0  | 43.0 |
| 122.5° | 8.0  | 6.0   | 24.0 | 36.0  | 40.0 |
| 125°   | 7.0  | 4.0   | 20.0 | 33.0  | 36.0 |
| 127.5° | 5.0  | 3.0   | 17.0 | 29.0  | 33.0 |
| 130°   | 4.0  | 3.0   | 14.0 | 25.0  | 29.0 |
| 132.5° | 4.0  | 2.0   | 11.0 | 21.0  | 25.0 |
| 135°   | 3.0  | 2.0   | 8.0  | 18.0  | 21.0 |
| 137.5° | 2.0  | 2.0   | 5.0  | 15.0  | 18.0 |
| 140°   | 2.0  | 2.0   | 3.0  | 11.0  | 14.0 |
| 142.5° | 2.0  | 1.0   | 1.0  | 8.0   | 11.0 |
| 145°   | 1.0  | 1.0   | 1.0  | 5.0   | 7.0  |
| 147.5° | 1.0  | 1.0   | 1.0  | 2.0   | 4.0  |
| 150°   | 1.0  | 1.0   | 1.0  | 0.0   | 1.0  |
| 152.5° | 1.0  | 1.0   | 1.0  | 0.0   | 0.0  |
| 155°   | 1.0  | 1.0   | 1.0  | 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)