

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: P393201

Luminaire Tested: **14EN-LD2-51-UNV-L83050-W2A-1-U (6500K)**

Issue Date: 3/28/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P393201  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-563-56)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14EN-LD2-51-UNV-L83050-W2A-1-U (6500K)  
Description: 1X4 ENCOUNTER, 5100 LUMENS, VIVIDTUNE TUNABLE WHITE  
Light Source: 2700K/6500K CCT, CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5177.7 lumens  
Efficiency: N/A  
Efficacy: 102.1 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.27 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

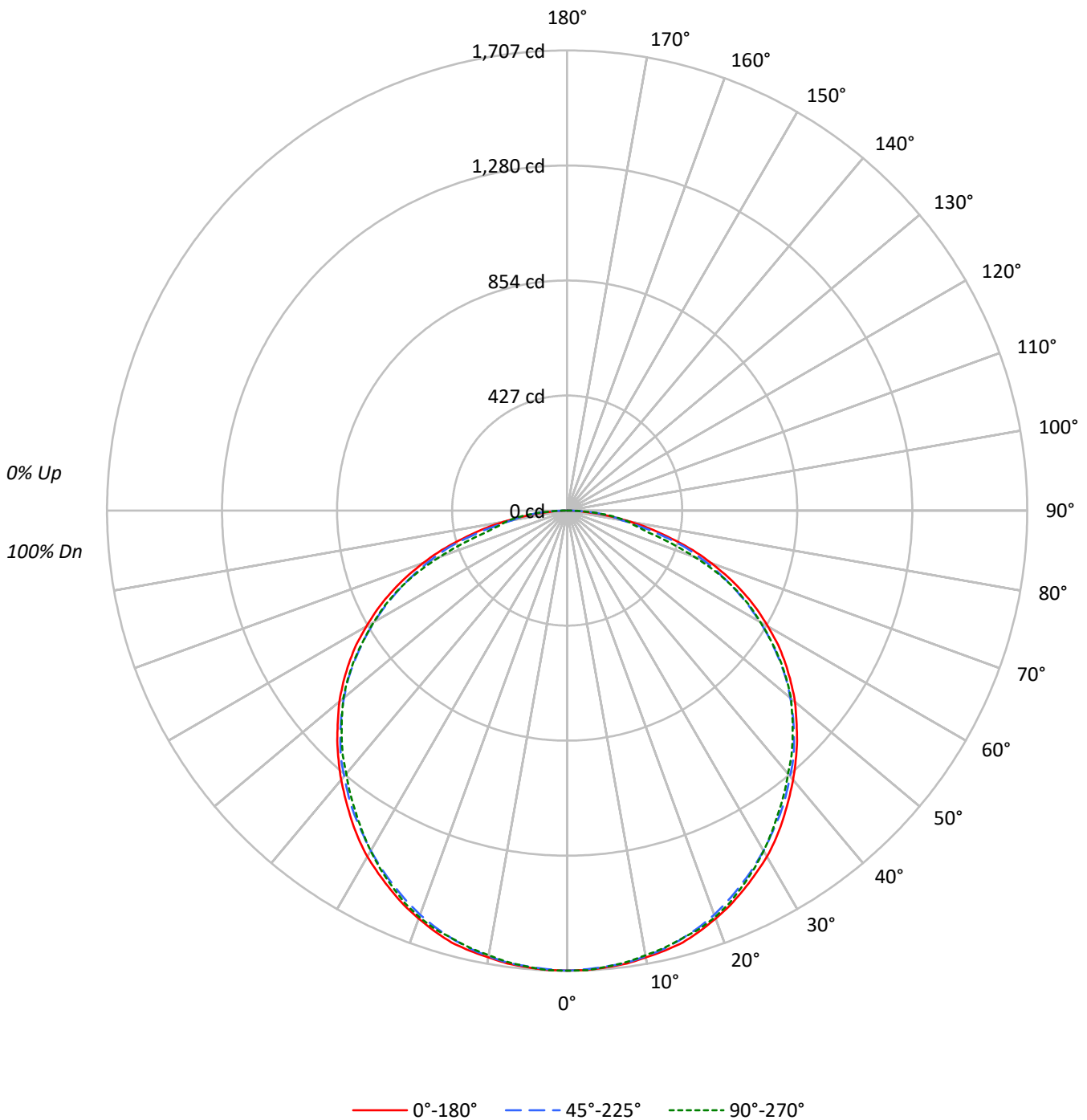
Input Watts (W): 50.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |    |    | 100 |   |  |   |
| 1   | 108 | 103 | 99  | 95  | 106 | 101 | 97  | 93  | 97  | 93  | 90  | 93  | 90  | 88  | 89  | 87  | 85  | 83  |    |    |    |    | 83  |   |  |   |
| 2   | 98  | 90  | 83  | 77  | 96  | 88  | 81  | 76  | 84  | 79  | 74  | 81  | 76  | 72  | 78  | 74  | 71  | 68  |    |    |    |    | 68  |   |  |   |
| 3   | 89  | 78  | 70  | 63  | 87  | 77  | 69  | 63  | 74  | 67  | 62  | 71  | 65  | 60  | 68  | 64  | 59  | 57  |    |    |    |    | 57  |   |  |   |
| 4   | 82  | 69  | 60  | 53  | 79  | 68  | 59  | 53  | 65  | 58  | 52  | 63  | 57  | 51  | 61  | 55  | 51  | 48  |    |    |    |    | 48  |   |  |   |
| 5   | 75  | 62  | 52  | 46  | 73  | 61  | 52  | 45  | 58  | 51  | 45  | 56  | 50  | 44  | 54  | 49  | 44  | 42  |    |    |    |    | 42  |   |  |   |
| 6   | 69  | 55  | 46  | 40  | 67  | 54  | 46  | 39  | 53  | 45  | 39  | 51  | 44  | 39  | 49  | 43  | 38  | 36  |    |    |    |    | 36  |   |  |   |
| 7   | 64  | 50  | 41  | 35  | 62  | 49  | 41  | 35  | 48  | 40  | 35  | 46  | 39  | 34  | 45  | 39  | 34  | 32  |    |    |    |    | 32  |   |  |   |
| 8   | 59  | 46  | 37  | 31  | 58  | 45  | 37  | 31  | 44  | 36  | 31  | 42  | 36  | 31  | 41  | 35  | 30  | 28  |    |    |    |    | 28  |   |  |   |
| 9   | 56  | 42  | 34  | 28  | 54  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 32  | 27  | 38  | 32  | 27  | 25  |    |    |    |    | 25  |   |  |   |
| 10  | 52  | 39  | 31  | 25  | 51  | 38  | 30  | 25  | 37  | 30  | 25  | 36  | 30  | 25  | 35  | 29  | 25  | 23  |    |    |    |    | 23  |   |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4592 | 4592 | 4592 |
| 5°  | 4593 | 4585 | 4588 |
| 10° | 4599 | 4588 | 4577 |
| 15° | 4621 | 4581 | 4578 |
| 20° | 4613 | 4569 | 4595 |
| 25° | 4604 | 4544 | 4565 |
| 30° | 4606 | 4527 | 4530 |
| 35° | 4589 | 4522 | 4492 |
| 40° | 4581 | 4520 | 4477 |
| 45° | 4591 | 4529 | 4502 |
| 50° | 4619 | 4526 | 4538 |
| 55° | 4637 | 4498 | 4517 |
| 60° | 4628 | 4447 | 4458 |
| 65° | 4600 | 4353 | 4379 |
| 70° | 4473 | 4233 | 3960 |
| 75° | 4163 | 3898 | 3242 |
| 80° | 3679 | 3220 | 3521 |
| 85° | 2643 | 3461 | 3523 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 161.9  | 3.1       |
| 10°-20°   | 465.2  | 9.0       |
| 20°-30°   | 707.8  | 13.7      |
| 30°-40°   | 864.7  | 16.7      |
| 40°-50°   | 921.0  | 17.8      |
| 50°-60°   | 863.7  | 16.7      |
| 60°-70°   | 685.5  | 13.2      |
| 70°-80°   | 390.2  | 7.5       |
| 80°-90°   | 117.5  | 2.3       |
| 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°    | 1335.0 | 25.8      |
| 0°-40°    | 2199.6 | 42.5      |
| 0°-60°    | 3984.4 | 77.0      |
| 0°-90°    | 5177.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5177.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1707 | 1707  | 1707 | 1707  | 1707 |      |
| 5°  | 1700 | 1706  | 1697 | 1709  | 1698 | 162  |
| 15° | 1659 | 1652  | 1644 | 1646  | 1643 | 468  |
| 25° | 1551 | 1536  | 1530 | 1527  | 1538 | 715  |
| 35° | 1397 | 1390  | 1376 | 1374  | 1367 | 874  |
| 45° | 1206 | 1204  | 1190 | 1182  | 1183 | 931  |
| 55° | 988  | 979   | 959  | 955   | 963  | 883  |
| 65° | 722  | 708   | 684  | 689   | 688  | 712  |
| 75° | 400  | 390   | 375  | 332   | 312  | 426  |
| 85° | 86   | 96    | 112  | 111   | 114  | 107  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1706.6 | 1706.6 | 1706.6 | 1706.6 | 1706.6 |
| 2.5°  | 1705.6 | 1712.7 | 1702.5 | 1710.7 | 1706.6 |
| 5°    | 1700.5 | 1705.6 | 1697.4 | 1708.6 | 1698.4 |
| 7.5°  | 1694.4 | 1697.4 | 1691.3 | 1701.5 | 1689.3 |
| 10°   | 1683.2 | 1685.2 | 1679.1 | 1687.2 | 1675.0 |
| 12.5° | 1672.0 | 1668.9 | 1664.8 | 1667.9 | 1661.8 |
| 15°   | 1658.7 | 1651.6 | 1644.4 | 1646.5 | 1643.4 |
| 17.5° | 1636.3 | 1627.1 | 1622.0 | 1620.0 | 1628.1 |
| 20°   | 1610.8 | 1599.6 | 1595.5 | 1593.5 | 1604.7 |
| 22.5° | 1583.3 | 1569.1 | 1564.0 | 1561.9 | 1575.2 |
| 25°   | 1550.7 | 1536.4 | 1530.3 | 1527.3 | 1537.5 |
| 27.5° | 1517.1 | 1501.8 | 1494.7 | 1492.6 | 1499.8 |
| 30°   | 1482.4 | 1465.1 | 1457.0 | 1456.0 | 1458.0 |
| 32.5° | 1441.7 | 1428.4 | 1416.2 | 1417.2 | 1413.2 |
| 35°   | 1396.9 | 1389.7 | 1376.5 | 1374.4 | 1367.3 |
| 37.5° | 1350.0 | 1350.0 | 1332.7 | 1335.7 | 1322.5 |
| 40°   | 1304.1 | 1305.2 | 1286.8 | 1287.8 | 1274.6 |
| 42.5° | 1255.2 | 1258.3 | 1243.0 | 1234.9 | 1231.8 |
| 45°   | 1206.3 | 1204.3 | 1190.0 | 1181.9 | 1182.9 |
| 47.5° | 1153.4 | 1153.4 | 1137.1 | 1129.9 | 1133.0 |
| 50°   | 1103.4 | 1099.4 | 1081.0 | 1074.9 | 1084.1 |
| 52.5° | 1046.4 | 1041.3 | 1022.9 | 1015.8 | 1025.0 |
| 55°   | 988.3  | 979.1  | 958.8  | 954.7  | 962.8  |
| 57.5° | 928.2  | 916.0  | 893.5  | 891.5  | 895.6  |
| 60°   | 859.9  | 849.7  | 826.3  | 822.2  | 828.3  |
| 62.5° | 793.7  | 779.4  | 756.0  | 756.0  | 762.1  |
| 65°   | 722.4  | 708.1  | 683.7  | 688.8  | 687.7  |
| 67.5° | 647.0  | 632.7  | 611.3  | 613.4  | 602.1  |
| 70°   | 568.5  | 552.2  | 538.0  | 518.6  | 503.3  |
| 72.5° | 489.1  | 471.7  | 466.6  | 421.8  | 406.5  |
| 75°   | 400.4  | 390.2  | 374.9  | 332.1  | 311.8  |
| 77.5° | 322.0  | 311.8  | 284.3  | 251.7  | 256.8  |
| 80°   | 237.4  | 239.4  | 207.8  | 220.1  | 227.2  |
| 82.5° | 155.9  | 161.0  | 168.1  | 177.3  | 179.3  |
| 85°   | 85.6   | 95.8   | 112.1  | 111.1  | 114.1  |
| 87.5° | 33.6   | 44.8   | 48.9   | 50.9   | 47.9   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)