

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: P393213

Luminaire Tested: **14EN-LD2-51-UNV-L93050-W2A-1-U (4000K)**

Issue Date: 3/28/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P393213  
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-L93050-W2A-1-U (4000K)  
Description: 1X4 ENCOUNTER, 5100 LUMENS, VIVIDTUNE TUNABLE WHITE  
Light Source: 2700K/6500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4439.0 lumens  
Efficiency: N/A  
Efficacy: 87.9 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

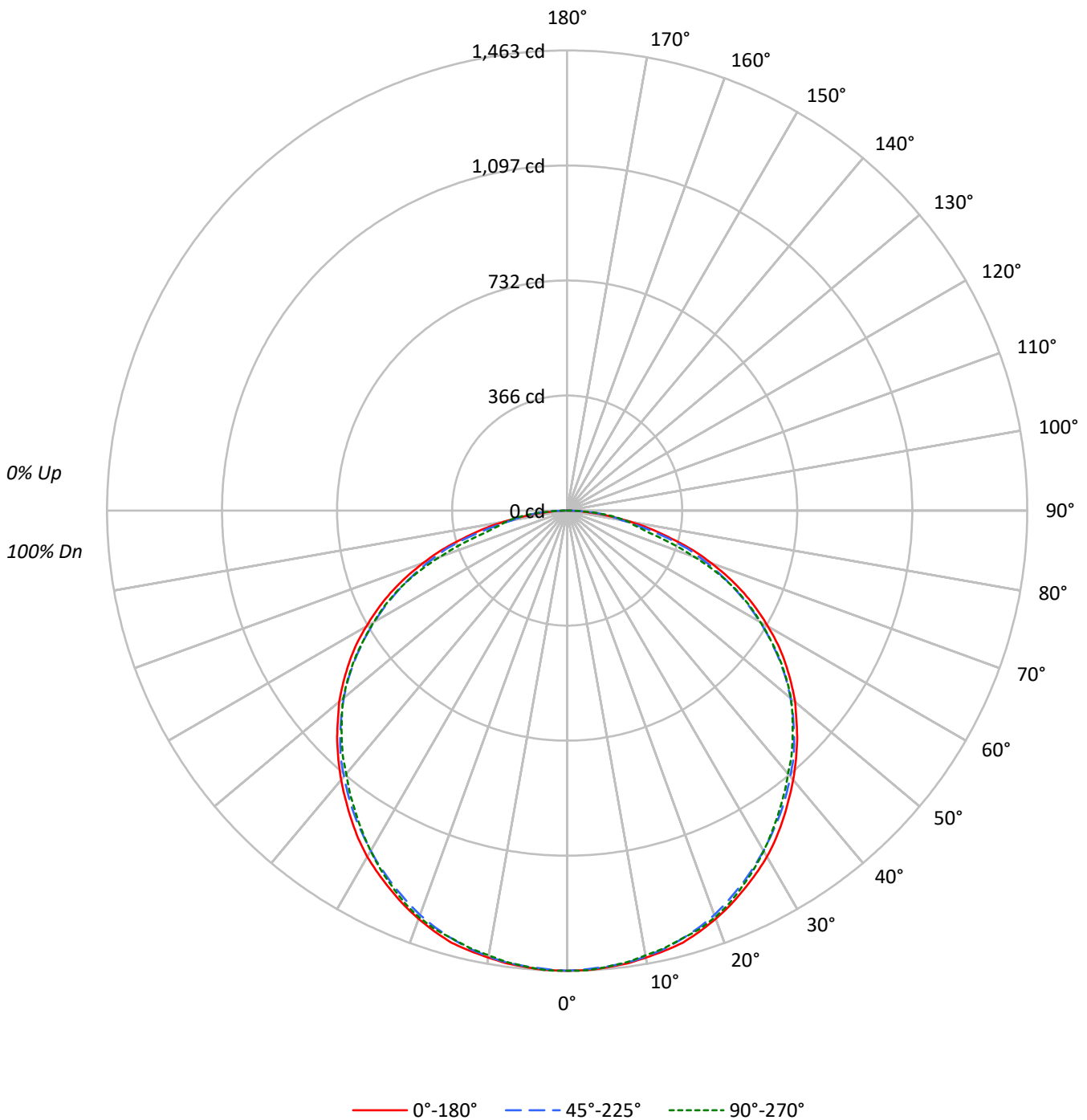
Input Watts (W): 50.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 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°  | 3937 | 3937 | 3937 |
| 5°  | 3938 | 3931 | 3933 |
| 10° | 3943 | 3933 | 3924 |
| 15° | 3962 | 3928 | 3925 |
| 20° | 3955 | 3917 | 3940 |
| 25° | 3948 | 3896 | 3914 |
| 30° | 3949 | 3881 | 3884 |
| 35° | 3934 | 3877 | 3851 |
| 40° | 3928 | 3875 | 3839 |
| 45° | 3936 | 3883 | 3859 |
| 50° | 3960 | 3880 | 3891 |
| 55° | 3975 | 3856 | 3873 |
| 60° | 3968 | 3813 | 3822 |
| 65° | 3943 | 3732 | 3754 |
| 70° | 3835 | 3629 | 3395 |
| 75° | 3569 | 3343 | 2779 |
| 80° | 3154 | 2762 | 3019 |
| 85° | 2266 | 2967 | 3020 |



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CATALOG NUMBER: 14EN-LD2-51-UNV-L93050-W2A-1-U (4000K)

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 138.8  | 3.1       |
| 10°-20°   | 398.9  | 9.0       |
| 20°-30°   | 606.8  | 13.7      |
| 30°-40°   | 741.3  | 16.7      |
| 40°-50°   | 789.6  | 17.8      |
| 50°-60°   | 740.5  | 16.7      |
| 60°-70°   | 587.7  | 13.2      |
| 70°-80°   | 334.6  | 7.5       |
| 80°-90°   | 100.8  | 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°    | 1144.5 | 25.8      |
| 0°-40°    | 1885.8 | 42.5      |
| 0°-60°    | 3416.0 | 77.0      |
| 0°-90°    | 4439.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4439.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1463 | 1463  | 1463 | 1463  | 1463 |      |
| 5°  | 1458 | 1462  | 1455 | 1465  | 1456 | 139  |
| 15° | 1422 | 1416  | 1410 | 1412  | 1409 | 401  |
| 25° | 1330 | 1317  | 1312 | 1309  | 1318 | 613  |
| 35° | 1198 | 1192  | 1180 | 1178  | 1172 | 750  |
| 45° | 1034 | 1032  | 1020 | 1013  | 1014 | 798  |
| 55° | 847  | 839   | 822  | 818   | 826  | 757  |
| 65° | 619  | 607   | 586  | 590   | 590  | 611  |
| 75° | 343  | 335   | 322  | 285   | 267  | 365  |
| 85° | 73   | 82    | 96   | 95    | 98   | 92   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1463.1 | 1463.1 | 1463.1 | 1463.1 | 1463.1 |
| 2.5°  | 1462.2 | 1468.4 | 1459.6 | 1466.6 | 1463.1 |
| 5°    | 1457.9 | 1462.2 | 1455.3 | 1464.9 | 1456.1 |
| 7.5°  | 1452.6 | 1455.3 | 1450.0 | 1458.8 | 1448.3 |
| 10°   | 1443.0 | 1444.8 | 1439.5 | 1446.5 | 1436.0 |
| 12.5° | 1433.4 | 1430.8 | 1427.3 | 1429.9 | 1424.7 |
| 15°   | 1422.1 | 1416.0 | 1409.8 | 1411.6 | 1409.0 |
| 17.5° | 1402.9 | 1395.0 | 1390.6 | 1388.9 | 1395.9 |
| 20°   | 1381.0 | 1371.4 | 1367.9 | 1366.2 | 1375.8 |
| 22.5° | 1357.4 | 1345.2 | 1340.8 | 1339.1 | 1350.4 |
| 25°   | 1329.5 | 1317.2 | 1312.0 | 1309.4 | 1318.1 |
| 27.5° | 1300.7 | 1287.5 | 1281.4 | 1279.7 | 1285.8 |
| 30°   | 1271.0 | 1256.1 | 1249.1 | 1248.2 | 1250.0 |
| 32.5° | 1236.0 | 1224.7 | 1214.2 | 1215.0 | 1211.6 |
| 35°   | 1197.6 | 1191.5 | 1180.1 | 1178.4 | 1172.2 |
| 37.5° | 1157.4 | 1157.4 | 1142.5 | 1145.2 | 1133.8 |
| 40°   | 1118.1 | 1119.0 | 1103.2 | 1104.1 | 1092.8 |
| 42.5° | 1076.2 | 1078.8 | 1065.7 | 1058.7 | 1056.1 |
| 45°   | 1034.2 | 1032.5 | 1020.3 | 1013.3 | 1014.1 |
| 47.5° | 988.8  | 988.8  | 974.8  | 968.7  | 971.3  |
| 50°   | 946.0  | 942.5  | 926.8  | 921.5  | 929.4  |
| 52.5° | 897.1  | 892.7  | 877.0  | 870.9  | 878.7  |
| 55°   | 847.3  | 839.4  | 822.0  | 818.5  | 825.5  |
| 57.5° | 795.8  | 785.3  | 766.1  | 764.3  | 767.8  |
| 60°   | 737.2  | 728.5  | 708.4  | 704.9  | 710.2  |
| 62.5° | 680.5  | 668.2  | 648.1  | 648.1  | 653.4  |
| 65°   | 619.3  | 607.1  | 586.1  | 590.5  | 589.6  |
| 67.5° | 554.7  | 542.4  | 524.1  | 525.9  | 516.2  |
| 70°   | 487.4  | 473.4  | 461.2  | 444.6  | 431.5  |
| 72.5° | 419.3  | 404.4  | 400.1  | 361.6  | 348.5  |
| 75°   | 343.3  | 334.6  | 321.5  | 284.8  | 267.3  |
| 77.5° | 276.0  | 267.3  | 243.7  | 215.8  | 220.1  |
| 80°   | 203.5  | 205.3  | 178.2  | 188.7  | 194.8  |
| 82.5° | 133.6  | 138.0  | 144.1  | 152.0  | 153.7  |
| 85°   | 73.4   | 82.1   | 96.1   | 95.2   | 97.8   |
| 87.5° | 28.8   | 38.4   | 41.9   | 43.7   | 41.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)