

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: P229391

Luminaire Tested: **14ALNG-LD5-35-UNV-L830-CD1-SVPD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229391  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36088)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14ALNG-LD5-35-UNV-L830-CD1-SVPD1-U  
Description: METALUX 1X4 ARCLINE LED TROFFER WITH CURVED LENS AND SENSOR  
Light Source: (84)3000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3358.0 lumens  
Efficiency: N/A  
Efficacy: 97.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.29  
Luminous Opening: Rectangular (W 0.83' x L: 3.83' x H: 0')  
CIE Type: Direct

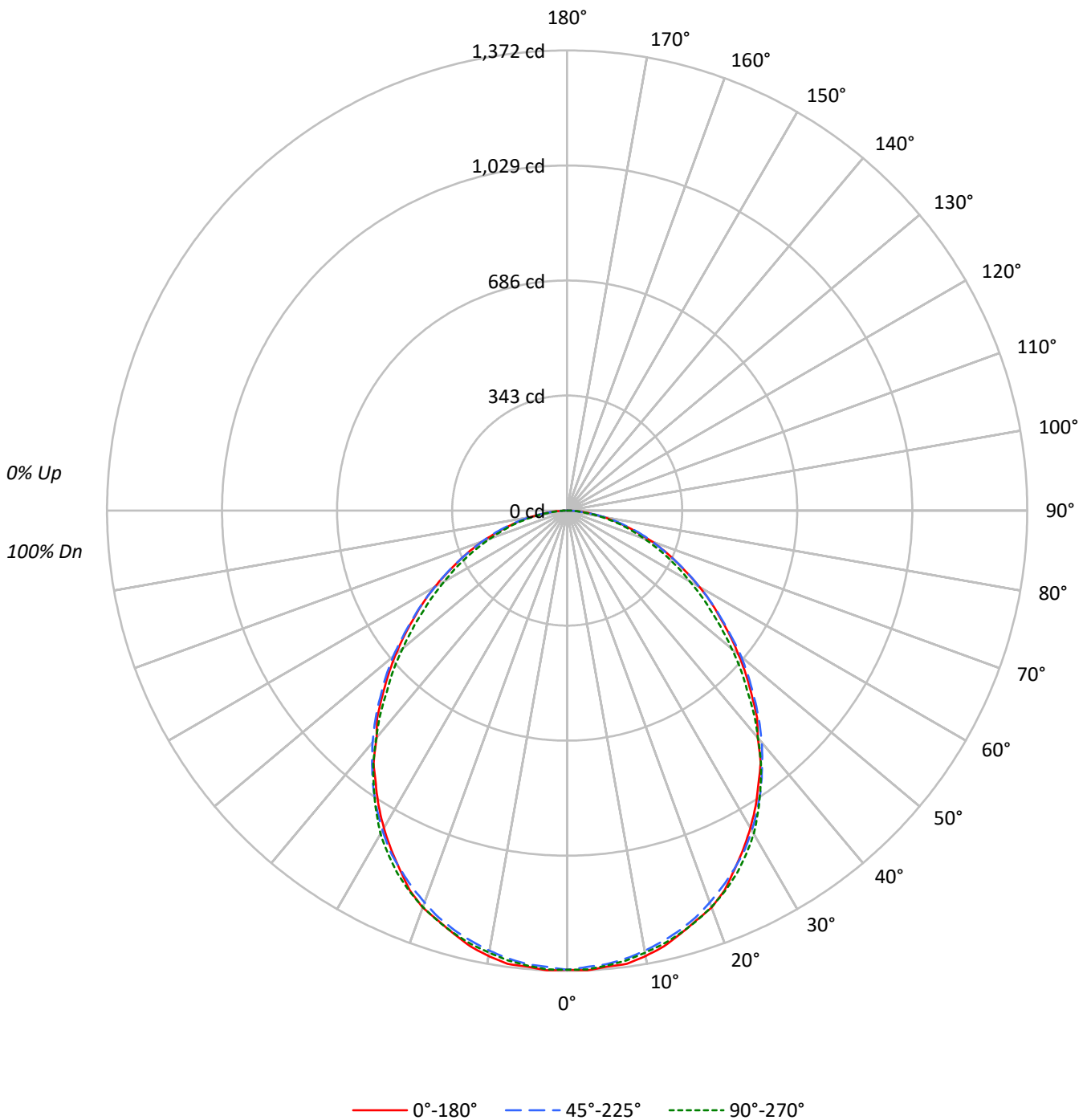
Input Watts (W): 34.46  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 109 | 105 | 101 | 97  | 107 | 103 | 99  | 96  | 98  | 95  | 93  | 94  | 92  | 90  | 91  | 89  | 87  | 85  |    |    |    |    | 85  |   |  |   |
| 2   | 100 | 92  | 86  | 80  | 97  | 90  | 84  | 79  | 87  | 82  | 77  | 83  | 79  | 76  | 80  | 77  | 74  | 72  |    |    |    |    | 72  |   |  |   |
| 3   | 92  | 81  | 74  | 67  | 89  | 80  | 73  | 67  | 77  | 71  | 66  | 74  | 69  | 64  | 72  | 67  | 63  | 61  |    |    |    |    | 61  |   |  |   |
| 4   | 84  | 73  | 64  | 58  | 82  | 71  | 63  | 57  | 69  | 62  | 56  | 66  | 61  | 56  | 64  | 59  | 55  | 53  |    |    |    |    | 53  |   |  |   |
| 5   | 78  | 65  | 56  | 50  | 76  | 64  | 56  | 50  | 62  | 55  | 49  | 60  | 54  | 49  | 58  | 53  | 48  | 46  |    |    |    |    | 46  |   |  |   |
| 6   | 72  | 59  | 50  | 44  | 70  | 58  | 50  | 44  | 56  | 49  | 43  | 55  | 48  | 43  | 53  | 47  | 43  | 41  |    |    |    |    | 41  |   |  |   |
| 7   | 67  | 54  | 45  | 39  | 65  | 53  | 45  | 39  | 51  | 44  | 39  | 50  | 43  | 38  | 49  | 43  | 38  | 36  |    |    |    |    | 36  |   |  |   |
| 8   | 62  | 49  | 41  | 35  | 61  | 48  | 40  | 35  | 47  | 40  | 35  | 46  | 39  | 35  | 45  | 39  | 34  | 32  |    |    |    |    | 32  |   |  |   |
| 9   | 58  | 45  | 37  | 32  | 57  | 45  | 37  | 32  | 43  | 36  | 31  | 42  | 36  | 31  | 41  | 35  | 31  | 29  |    |    |    |    | 29  |   |  |   |
| 10  | 55  | 42  | 34  | 29  | 53  | 41  | 34  | 29  | 40  | 33  | 29  | 39  | 33  | 29  | 38  | 33  | 28  | 27  |    |    |    |    | 27  |   |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4613 | 4613 | 4613 |
| 5°  | 4616 | 4591 | 4606 |
| 10° | 4614 | 4559 | 4579 |
| 15° | 4557 | 4521 | 4551 |
| 20° | 4516 | 4458 | 4511 |
| 25° | 4389 | 4383 | 4443 |
| 30° | 4251 | 4285 | 4331 |
| 35° | 4091 | 4146 | 4134 |
| 40° | 3886 | 3970 | 3892 |
| 45° | 3708 | 3757 | 3617 |
| 50° | 3496 | 3550 | 3359 |
| 55° | 3274 | 3300 | 3085 |
| 60° | 3076 | 3066 | 2849 |
| 65° | 2846 | 2846 | 2636 |
| 70° | 2637 | 2637 | 2407 |
| 75° | 2362 | 2437 | 2209 |
| 80° | 2100 | 2185 | 1902 |
| 85° | 1809 | 1585 | 1415 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 129.3  | 3.9       |
| 10°-20°   | 367.4  | 10.9      |
| 20°-30°   | 544.8  | 16.2      |
| 30°-40°   | 626.9  | 18.7      |
| 40°-50°   | 601.8  | 17.9      |
| 50°-60°   | 495.8  | 14.8      |
| 60°-70°   | 348.8  | 10.4      |
| 70°-80°   | 192.8  | 5.7       |
| 80°-90°   | 50.4   | 1.5       |
| 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°    | 1041.5 | 31.0      |
| 0°-40°    | 1668.4 | 49.7      |
| 0°-60°    | 2766.0 | 82.4      |
| 0°-90°    | 3358.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3358.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1369 | 1369  | 1369 | 1369  | 1369 |      |
| 5°  | 1365 | 1362  | 1357 | 1363  | 1362 | 130  |
| 15° | 1306 | 1306  | 1296 | 1305  | 1305 | 369  |
| 25° | 1180 | 1172  | 1179 | 1194  | 1195 | 544  |
| 35° | 995  | 995   | 1008 | 1012  | 1005 | 622  |
| 45° | 778  | 786   | 788  | 775   | 759  | 601  |
| 55° | 557  | 568   | 562  | 540   | 525  | 500  |
| 65° | 357  | 363   | 357  | 338   | 331  | 355  |
| 75° | 181  | 189   | 187  | 173   | 170  | 194  |
| 85° | 47   | 48    | 41   | 37    | 37   | 53   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1369.1 | 1369.1 | 1369.1 | 1369.1 | 1369.1 |
| 2.5°  | 1372.0 | 1367.6 | 1361.8 | 1369.1 | 1369.1 |
| 5°    | 1364.7 | 1361.8 | 1357.4 | 1363.2 | 1361.8 |
| 7.5°  | 1363.2 | 1354.5 | 1347.1 | 1354.5 | 1353.0 |
| 10°   | 1348.6 | 1345.7 | 1332.5 | 1339.8 | 1338.4 |
| 12.5° | 1331.1 | 1328.1 | 1315.0 | 1323.7 | 1323.7 |
| 15°   | 1306.2 | 1306.2 | 1296.0 | 1304.7 | 1304.7 |
| 17.5° | 1281.3 | 1279.9 | 1272.5 | 1282.8 | 1282.8 |
| 20°   | 1259.4 | 1249.1 | 1243.3 | 1257.9 | 1257.9 |
| 22.5° | 1225.7 | 1212.6 | 1212.6 | 1230.1 | 1228.7 |
| 25°   | 1180.4 | 1171.6 | 1178.9 | 1193.6 | 1195.0 |
| 27.5° | 1138.0 | 1133.6 | 1143.8 | 1157.0 | 1155.5 |
| 30°   | 1092.6 | 1088.2 | 1101.4 | 1113.1 | 1113.1 |
| 32.5° | 1045.8 | 1042.9 | 1056.1 | 1066.3 | 1060.5 |
| 35°   | 994.6  | 994.6  | 1007.8 | 1012.2 | 1004.9 |
| 37.5° | 947.8  | 946.4  | 955.1  | 956.6  | 949.3  |
| 40°   | 883.5  | 893.7  | 902.5  | 896.6  | 884.9  |
| 42.5° | 838.1  | 841.1  | 846.9  | 835.2  | 825.0  |
| 45°   | 778.2  | 785.5  | 788.4  | 775.2  | 759.1  |
| 47.5° | 722.6  | 731.4  | 732.8  | 713.8  | 702.1  |
| 50°   | 667.0  | 677.2  | 677.2  | 653.8  | 640.7  |
| 52.5° | 611.4  | 621.6  | 617.3  | 599.7  | 582.2  |
| 55°   | 557.3  | 567.5  | 561.7  | 539.7  | 525.1  |
| 57.5° | 507.6  | 514.9  | 509.0  | 488.5  | 473.9  |
| 60°   | 456.4  | 462.2  | 454.9  | 435.9  | 422.7  |
| 62.5° | 403.7  | 411.0  | 406.6  | 387.6  | 377.4  |
| 65°   | 356.9  | 362.7  | 356.9  | 337.9  | 330.6  |
| 67.5° | 313.0  | 314.5  | 311.6  | 296.9  | 286.7  |
| 70°   | 267.7  | 270.6  | 267.7  | 254.5  | 244.3  |
| 72.5° | 222.3  | 226.7  | 229.6  | 215.0  | 204.8  |
| 75°   | 181.4  | 188.7  | 187.2  | 172.6  | 169.7  |
| 77.5° | 143.3  | 152.1  | 149.2  | 136.0  | 133.1  |
| 80°   | 108.2  | 115.6  | 112.6  | 100.9  | 98.0   |
| 82.5° | 74.6   | 80.4   | 74.6   | 68.7   | 65.8   |
| 85°   | 46.8   | 48.3   | 41.0   | 36.6   | 36.6   |
| 87.5° | 20.5   | 17.6   | 14.6   | 14.6   | 14.6   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)