

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: P393146

Luminaire Tested: **14EN-LD2-43-UNV-L93050-W2A-1-U (2700K)**

Issue Date: 3/28/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P393146  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-563-54)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14EN-LD2-43-UNV-L93050-W2A-1-U (2700K)  
Description: 1X4 ENCOUNTER, 4300 LUMENS, VIVIDTUNE TUNABLE WHITE  
Light Source: 2700K/6500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3672.0 lumens  
Efficiency: N/A  
Efficacy: 88.3 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

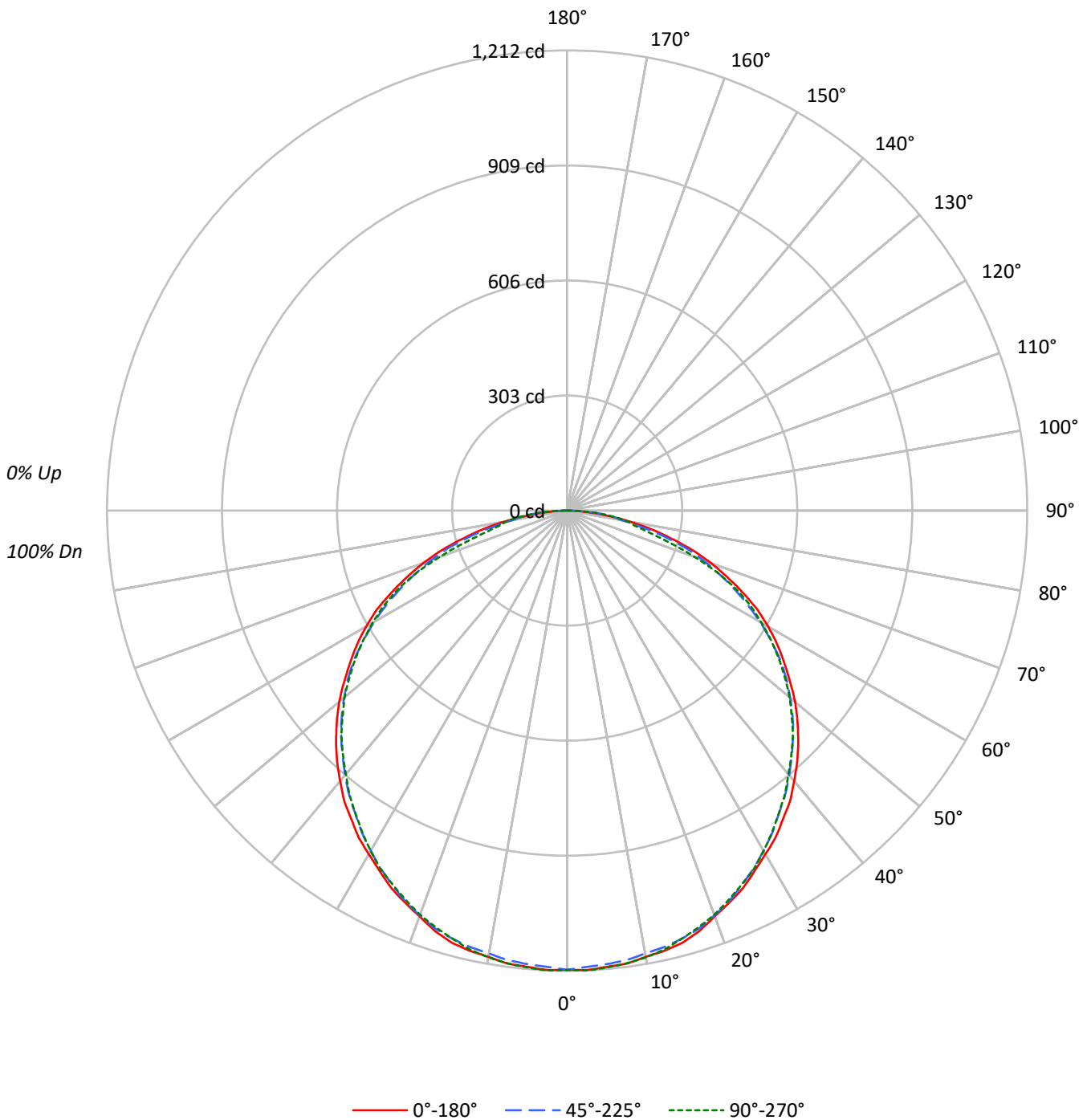
Input Watts (W): 41.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3255 | 3255 | 3255 |
| 5°  | 3258 | 3240 | 3263 |
| 10° | 3261 | 3237 | 3265 |
| 15° | 3281 | 3252 | 3252 |
| 20° | 3256 | 3249 | 3244 |
| 25° | 3256 | 3233 | 3228 |
| 30° | 3246 | 3214 | 3217 |
| 35° | 3256 | 3197 | 3194 |
| 40° | 3267 | 3197 | 3185 |
| 45° | 3276 | 3204 | 3201 |
| 50° | 3282 | 3210 | 3203 |
| 55° | 3273 | 3212 | 3196 |
| 60° | 3290 | 3160 | 3183 |
| 65° | 3249 | 3079 | 3139 |
| 70° | 3166 | 2989 | 2819 |
| 75° | 2935 | 2756 | 2298 |
| 80° | 2596 | 2249 | 2475 |
| 85° | 1893 | 2452 | 2507 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 114.6  | 3.1       |
| 10°-20°   | 330.1  | 9.0       |
| 20°-30°   | 502.3  | 13.7      |
| 30°-40°   | 613.1  | 16.7      |
| 40°-50°   | 653.3  | 17.8      |
| 50°-60°   | 612.5  | 16.7      |
| 60°-70°   | 486.5  | 13.2      |
| 70°-80°   | 276.6  | 7.5       |
| 80°-90°   | 83.0   | 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°    | 947.0  | 25.8      |
| 0°-40°    | 1560.1 | 42.5      |
| 0°-60°    | 2825.9 | 77.0      |
| 0°-90°    | 3672.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3672.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1210 | 1210  | 1210 | 1210  | 1210 |      |
| 5°  | 1206 | 1204  | 1199 | 1209  | 1208 | 115  |
| 15° | 1178 | 1174  | 1167 | 1166  | 1167 | 332  |
| 25° | 1097 | 1091  | 1089 | 1085  | 1087 | 505  |
| 35° | 991  | 983   | 973  | 976   | 972  | 621  |
| 45° | 861  | 856   | 842  | 839   | 841  | 664  |
| 55° | 698  | 692   | 685  | 676   | 681  | 625  |
| 65° | 510  | 502   | 484  | 490   | 493  | 504  |
| 75° | 282  | 280   | 265  | 236   | 221  | 301  |
| 85° | 61   | 67    | 79   | 79    | 81   | 76   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1209.7 | 1209.7 | 1209.7 | 1209.7 | 1209.7 |
| 2.5°  | 1211.4 | 1207.9 | 1202.8 | 1214.0 | 1212.3 |
| 5°    | 1206.2 | 1203.6 | 1199.3 | 1208.8 | 1207.9 |
| 7.5°  | 1203.6 | 1198.4 | 1194.1 | 1204.5 | 1202.8 |
| 10°   | 1193.3 | 1194.1 | 1184.6 | 1195.0 | 1195.0 |
| 12.5° | 1187.2 | 1185.5 | 1177.7 | 1181.2 | 1183.8 |
| 15°   | 1177.7 | 1174.3 | 1167.4 | 1165.6 | 1167.4 |
| 17.5° | 1160.5 | 1157.0 | 1154.4 | 1148.4 | 1151.0 |
| 20°   | 1137.1 | 1138.9 | 1134.5 | 1129.4 | 1132.8 |
| 22.5° | 1117.3 | 1115.6 | 1113.8 | 1108.6 | 1110.4 |
| 25°   | 1096.6 | 1091.4 | 1088.8 | 1085.3 | 1087.1 |
| 27.5° | 1069.8 | 1066.3 | 1062.9 | 1061.2 | 1064.6 |
| 30°   | 1044.8 | 1039.6 | 1034.4 | 1032.7 | 1035.3 |
| 32.5° | 1021.4 | 1011.9 | 1005.9 | 1006.8 | 1004.2 |
| 35°   | 991.2  | 982.6  | 973.1  | 975.7  | 972.2  |
| 37.5° | 964.5  | 954.1  | 943.7  | 946.3  | 942.0  |
| 40°   | 929.9  | 923.9  | 910.1  | 911.8  | 906.6  |
| 42.5° | 897.1  | 893.7  | 875.5  | 876.4  | 873.8  |
| 45°   | 860.8  | 856.5  | 841.8  | 839.3  | 841.0  |
| 47.5° | 822.9  | 818.5  | 805.6  | 799.5  | 802.1  |
| 50°   | 784.0  | 778.8  | 766.7  | 761.5  | 765.0  |
| 52.5° | 740.0  | 737.4  | 727.9  | 720.1  | 722.7  |
| 55°   | 697.7  | 691.6  | 684.7  | 676.1  | 681.2  |
| 57.5° | 656.2  | 649.3  | 636.3  | 632.0  | 637.2  |
| 60°   | 611.3  | 600.1  | 587.1  | 583.7  | 591.5  |
| 62.5° | 564.7  | 551.7  | 535.3  | 536.2  | 545.7  |
| 65°   | 510.3  | 501.7  | 483.5  | 489.6  | 493.0  |
| 67.5° | 455.0  | 448.1  | 430.9  | 439.5  | 430.0  |
| 70°   | 402.4  | 393.7  | 379.9  | 368.7  | 358.3  |
| 72.5° | 346.2  | 335.9  | 327.2  | 297.9  | 285.8  |
| 75°   | 282.3  | 279.8  | 265.1  | 235.7  | 221.0  |
| 77.5° | 227.9  | 221.9  | 202.0  | 179.6  | 181.3  |
| 80°   | 167.5  | 171.8  | 145.1  | 155.4  | 159.7  |
| 82.5° | 110.5  | 113.1  | 120.0  | 125.2  | 124.3  |
| 85°   | 61.3   | 67.3   | 79.4   | 79.4   | 81.2   |
| 87.5° | 23.3   | 30.2   | 34.5   | 35.4   | 35.4   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)