

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: P392913

Luminaire Tested: **12EN-LD2-35-UNV-L83050-W2A-1-U (6500K)**

Issue Date: 3/28/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P392913  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-563-39)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 12EN-LD2-35-UNV-L83050-W2A-1-U (6500K)  
Description: 1X2 ENCOUNTER, 3500 LUMENS, VIVIDTUNE TUNABLE WHITE  
Light Source: 2700K/6500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3559.2 lumens  
Efficiency: N/A  
Efficacy: 117.5 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

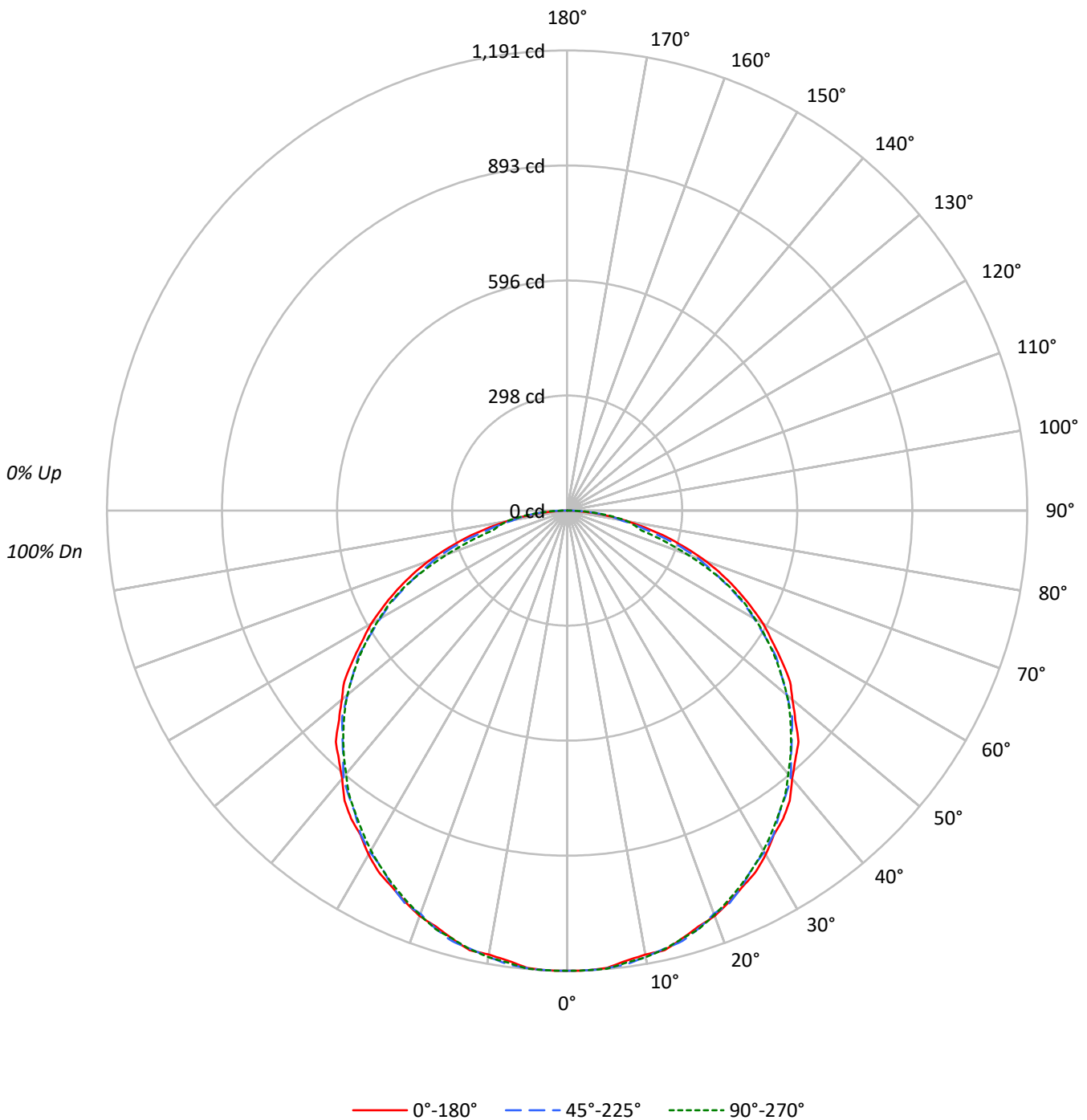
Input Watts (W): 30.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 94  | 97  | 94  | 91  | 93  | 90  | 88  | 89  | 87  | 85  | 83  |
| 2   | 98  | 90  | 83  | 77  | 96  | 88  | 82  | 76  | 84  | 79  | 74  | 81  | 77  | 73  | 78  | 74  | 71  | 69  |
| 3   | 89  | 79  | 70  | 64  | 87  | 77  | 69  | 63  | 74  | 67  | 62  | 71  | 66  | 61  | 69  | 64  | 60  | 58  |
| 4   | 82  | 70  | 61  | 54  | 79  | 68  | 60  | 53  | 66  | 58  | 53  | 63  | 57  | 52  | 61  | 56  | 51  | 49  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 59  | 51  | 45  | 57  | 50  | 45  | 55  | 49  | 44  | 42  |
| 6   | 69  | 56  | 47  | 40  | 67  | 55  | 46  | 40  | 53  | 45  | 40  | 51  | 44  | 39  | 50  | 44  | 39  | 37  |
| 7   | 64  | 50  | 42  | 35  | 62  | 50  | 41  | 35  | 48  | 40  | 35  | 47  | 40  | 35  | 45  | 39  | 34  | 32  |
| 8   | 60  | 46  | 37  | 31  | 58  | 45  | 37  | 31  | 44  | 36  | 31  | 43  | 36  | 31  | 41  | 35  | 31  | 29  |
| 9   | 56  | 42  | 34  | 28  | 54  | 42  | 34  | 28  | 40  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26  |
| 10  | 52  | 39  | 31  | 26  | 51  | 38  | 31  | 25  | 37  | 30  | 25  | 36  | 30  | 25  | 35  | 29  | 25  | 23  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 6410 | 6410 | 6410 |
| 5°  | 6418 | 6424 | 6429 |
| 10° | 6375 | 6409 | 6414 |
| 15° | 6392 | 6427 | 6392 |
| 20° | 6396 | 6361 | 6378 |
| 25° | 6377 | 6365 | 6341 |
| 30° | 6389 | 6344 | 6313 |
| 35° | 6399 | 6286 | 6279 |
| 40° | 6364 | 6328 | 6256 |
| 45° | 6444 | 6258 | 6235 |
| 50° | 6373 | 6210 | 6219 |
| 55° | 6357 | 6195 | 6147 |
| 60° | 6306 | 6009 | 6054 |
| 65° | 6176 | 5813 | 5877 |
| 70° | 5997 | 5660 | 5194 |
| 75° | 5573 | 5022 | 4153 |
| 80° | 4863 | 4327 | 4894 |
| 85° | 3903 | 4656 | 4718 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 112.9  | 3.2       |
| 10°-20°   | 324.4  | 9.1       |
| 20°-30°   | 493.9  | 13.9      |
| 30°-40°   | 602.4  | 16.9      |
| 40°-50°   | 637.5  | 17.9      |
| 50°-60°   | 590.5  | 16.6      |
| 60°-70°   | 460.0  | 12.9      |
| 70°-80°   | 258.0  | 7.2       |
| 80°-90°   | 79.6   | 2.2       |
| 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°    | 931.1  | 26.2      |
| 0°-40°    | 1533.5 | 43.1      |
| 0°-60°    | 2761.6 | 77.6      |
| 0°-90°    | 3559.2 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3559.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1191 | 1191  | 1191 | 1191  | 1191 |      |
| 5°  | 1188 | 1189  | 1189 | 1191  | 1190 | 113  |
| 15° | 1147 | 1149  | 1153 | 1149  | 1147 | 324  |
| 25° | 1074 | 1072  | 1072 | 1065  | 1068 | 496  |
| 35° | 974  | 966   | 957  | 955   | 956  | 608  |
| 45° | 847  | 836   | 822  | 820   | 819  | 648  |
| 55° | 678  | 672   | 660  | 651   | 655  | 606  |
| 65° | 485  | 476   | 456  | 460   | 462  | 479  |
| 75° | 268  | 260   | 242  | 216   | 200  | 282  |
| 85° | 63   | 65    | 75   | 76    | 76   | 75   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1191.1 | 1191.1 | 1191.1 | 1191.1 | 1191.1 |
| 2.5°  | 1191.1 | 1189.0 | 1191.1 | 1190.0 | 1191.1 |
| 5°    | 1188.0 | 1189.0 | 1189.0 | 1191.1 | 1190.0 |
| 7.5°  | 1174.8 | 1179.8 | 1183.9 | 1182.9 | 1179.8 |
| 10°   | 1166.6 | 1171.7 | 1172.7 | 1170.7 | 1173.7 |
| 12.5° | 1165.6 | 1166.6 | 1161.5 | 1164.6 | 1162.5 |
| 15°   | 1147.2 | 1149.3 | 1153.4 | 1149.3 | 1147.2 |
| 17.5° | 1128.9 | 1133.0 | 1134.0 | 1130.9 | 1135.0 |
| 20°   | 1116.7 | 1119.7 | 1110.6 | 1114.6 | 1113.6 |
| 22.5° | 1096.3 | 1097.3 | 1099.4 | 1092.2 | 1091.2 |
| 25°   | 1073.9 | 1071.8 | 1071.8 | 1064.7 | 1067.8 |
| 27.5° | 1055.5 | 1048.4 | 1040.3 | 1044.3 | 1042.3 |
| 30°   | 1028.0 | 1027.0 | 1020.9 | 1016.8 | 1015.8 |
| 32.5° | 995.4  | 996.4  | 994.4  | 985.2  | 986.3  |
| 35°   | 974.0  | 965.9  | 956.7  | 954.7  | 955.7  |
| 37.5° | 946.5  | 939.4  | 929.2  | 926.1  | 927.2  |
| 40°   | 905.8  | 904.8  | 900.7  | 888.4  | 890.5  |
| 42.5° | 874.2  | 868.1  | 857.9  | 852.8  | 855.8  |
| 45°   | 846.7  | 836.5  | 822.2  | 820.2  | 819.2  |
| 47.5° | 800.8  | 798.8  | 789.6  | 778.4  | 782.5  |
| 50°   | 761.1  | 757.0  | 741.7  | 735.6  | 742.8  |
| 52.5° | 727.5  | 717.3  | 698.9  | 697.9  | 698.9  |
| 55°   | 677.5  | 672.5  | 660.2  | 651.1  | 655.1  |
| 57.5° | 628.6  | 624.6  | 607.2  | 604.2  | 609.3  |
| 60°   | 585.8  | 578.7  | 558.3  | 557.3  | 562.4  |
| 62.5° | 534.9  | 529.8  | 511.5  | 511.5  | 516.6  |
| 65°   | 485.0  | 475.8  | 456.5  | 459.5  | 461.5  |
| 67.5° | 434.0  | 422.8  | 405.5  | 402.5  | 396.3  |
| 70°   | 381.1  | 369.8  | 359.7  | 340.3  | 330.1  |
| 72.5° | 323.0  | 314.8  | 303.6  | 274.1  | 263.9  |
| 75°   | 268.0  | 259.8  | 241.5  | 216.0  | 199.7  |
| 77.5° | 209.9  | 206.8  | 185.4  | 175.2  | 179.3  |
| 80°   | 156.9  | 155.9  | 139.6  | 152.8  | 157.9  |
| 82.5° | 107.0  | 102.9  | 113.1  | 119.2  | 119.2  |
| 85°   | 63.2   | 65.2   | 75.4   | 76.4   | 76.4   |
| 87.5° | 25.5   | 29.5   | 34.6   | 36.7   | 36.7   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)