

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: P393092

Luminaire Tested: **14EN-LD2-38-UNV-L82765-W2A-1-U (3500K)**

Issue Date: 3/28/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P393092  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-563-53)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14EN-LD2-38-UNV-L82765-W2A-1-U (3500K)  
Description: 1X4 ENCOUNTER, 3800 LUMENS, VIVIDTUNE TUNABLE WHITE  
Light Source: 3000K/5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3573.7 lumens  
Efficiency: N/A  
Efficacy: 97.4 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.28 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

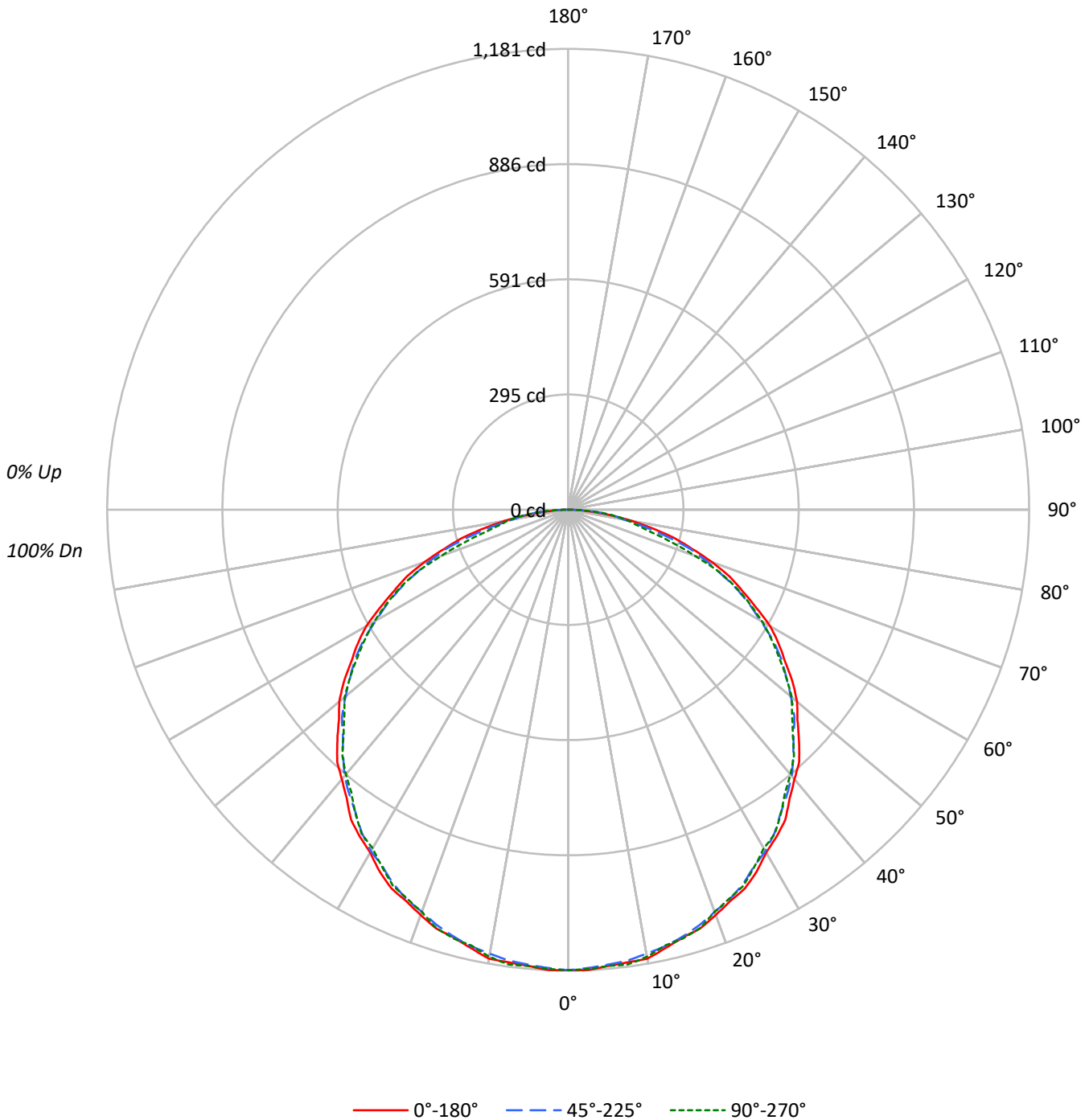
Input Watts (W): 36.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P393092

CATALOG NUMBER: 14EN-LD2-38-UNV-L82765-W2A-1-U (3500K)

### Luminous Intensity Polar Plot





TEST NUMBER: P393092

CATALOG NUMBER: 14EN-LD2-38-UNV-L82765-W2A-1-U (3500K)

**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°  | 3176 | 3176 | 3176 |
| 5°  | 3170 | 3162 | 3170 |
| 10° | 3193 | 3157 | 3178 |
| 15° | 3161 | 3156 | 3169 |
| 20° | 3165 | 3141 | 3141 |
| 25° | 3181 | 3144 | 3155 |
| 30° | 3152 | 3140 | 3113 |
| 35° | 3186 | 3118 | 3121 |
| 40° | 3168 | 3131 | 3111 |
| 45° | 3183 | 3107 | 3096 |
| 50° | 3204 | 3116 | 3129 |
| 55° | 3181 | 3124 | 3093 |
| 60° | 3216 | 3063 | 3089 |
| 65° | 3136 | 3016 | 3039 |
| 70° | 3070 | 2921 | 2720 |
| 75° | 2925 | 2659 | 2255 |
| 80° | 2554 | 2202 | 2393 |
| 85° | 1871 | 2368 | 2399 |



TEST NUMBER: P393092

CATALOG NUMBER: 14EN-LD2-38-UNV-L82765-W2A-1-U (3500K)

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 111.7  | 3.1       |
| 10°-20°   | 320.5  | 9.0       |
| 20°-30°   | 488.9  | 13.7      |
| 30°-40°   | 597.3  | 16.7      |
| 40°-50°   | 635.3  | 17.8      |
| 50°-60°   | 596.4  | 16.7      |
| 60°-70°   | 473.0  | 13.2      |
| 70°-80°   | 269.5  | 7.5       |
| 80°-90°   | 81.1   | 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°    | 921.2  | 25.8      |
| 0°-40°    | 1518.5 | 42.5      |
| 0°-60°    | 2750.2 | 77.0      |
| 0°-90°    | 3573.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3573.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1180 | 1180  | 1180 | 1180  | 1180 |      |
| 5°  | 1174 | 1180  | 1171 | 1174  | 1174 | 112  |
| 15° | 1135 | 1136  | 1133 | 1135  | 1138 | 321  |
| 25° | 1071 | 1061  | 1059 | 1060  | 1063 | 492  |
| 35° | 970  | 958   | 949  | 950   | 950  | 604  |
| 45° | 836  | 832   | 816  | 817   | 814  | 646  |
| 55° | 678  | 674   | 666  | 659   | 659  | 609  |
| 65° | 492  | 490   | 474  | 476   | 477  | 489  |
| 75° | 281  | 271   | 256  | 229   | 217  | 293  |
| 85° | 61   | 67    | 77   | 77    | 78   | 74   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



TEST NUMBER: P393092

CATALOG NUMBER: 14EN-LD2-38-UNV-L82765-W2A-1-U (3500K)

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1180.1 | 1180.1 | 1180.1 | 1180.1 | 1180.1 |
| 2.5°  | 1181.1 | 1180.1 | 1175.4 | 1181.1 | 1178.2 |
| 5°    | 1173.5 | 1180.1 | 1170.6 | 1174.4 | 1173.5 |
| 7.5°  | 1169.7 | 1167.8 | 1165.0 | 1171.6 | 1175.4 |
| 10°   | 1168.7 | 1159.3 | 1155.5 | 1162.1 | 1163.1 |
| 12.5° | 1150.7 | 1153.6 | 1146.0 | 1147.9 | 1144.1 |
| 15°   | 1134.6 | 1136.5 | 1132.7 | 1134.6 | 1137.5 |
| 17.5° | 1125.2 | 1119.5 | 1116.6 | 1120.4 | 1124.2 |
| 20°   | 1105.3 | 1106.2 | 1096.8 | 1101.5 | 1096.8 |
| 22.5° | 1085.4 | 1086.3 | 1080.7 | 1080.7 | 1078.8 |
| 25°   | 1071.2 | 1060.8 | 1058.9 | 1059.8 | 1062.7 |
| 27.5° | 1045.6 | 1041.8 | 1030.5 | 1034.2 | 1032.4 |
| 30°   | 1014.4 | 1018.1 | 1010.6 | 1003.0 | 1002.0 |
| 32.5° | 993.5  | 986.9  | 983.1  | 980.3  | 985.0  |
| 35°   | 969.8  | 958.5  | 949.0  | 950.0  | 950.0  |
| 37.5° | 932.0  | 931.0  | 920.6  | 915.9  | 913.0  |
| 40°   | 901.7  | 897.9  | 891.2  | 884.6  | 885.6  |
| 42.5° | 876.1  | 863.8  | 853.4  | 851.5  | 856.2  |
| 45°   | 836.3  | 831.6  | 816.4  | 817.4  | 813.6  |
| 47.5° | 796.5  | 795.6  | 786.1  | 778.5  | 777.6  |
| 50°   | 765.3  | 755.8  | 744.4  | 742.5  | 747.3  |
| 52.5° | 724.5  | 719.8  | 703.7  | 703.7  | 703.7  |
| 55°   | 678.1  | 674.3  | 665.8  | 659.2  | 659.2  |
| 57.5° | 639.3  | 631.7  | 621.3  | 616.6  | 616.6  |
| 60°   | 597.6  | 586.3  | 569.2  | 571.1  | 574.0  |
| 62.5° | 542.7  | 537.0  | 521.9  | 520.0  | 525.6  |
| 65°   | 492.5  | 489.7  | 473.6  | 475.5  | 477.3  |
| 67.5° | 448.0  | 435.7  | 417.7  | 424.3  | 420.5  |
| 70°   | 390.2  | 383.6  | 371.3  | 358.0  | 345.7  |
| 72.5° | 332.4  | 328.6  | 322.0  | 289.8  | 278.5  |
| 75°   | 281.3  | 270.9  | 255.7  | 229.2  | 216.9  |
| 77.5° | 220.7  | 217.8  | 196.1  | 175.2  | 177.1  |
| 80°   | 164.8  | 166.7  | 142.1  | 150.6  | 154.4  |
| 82.5° | 108.0  | 111.8  | 116.5  | 122.2  | 119.3  |
| 85°   | 60.6   | 67.2   | 76.7   | 76.7   | 77.7   |
| 87.5° | 21.8   | 32.2   | 34.1   | 34.1   | 34.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)