

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: P393396

Luminaire Tested: **22EN-LD2-43-UNV-L92765-W2A-1-U (3500K)**

Issue Date: 3/28/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P393396  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-563-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22EN-LD2-43-UNV-L92765-W2A-1-U (3500K)  
Description: 2X2 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: 3403.0 lumens  
Efficiency: N/A  
Efficacy: 104.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.25 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

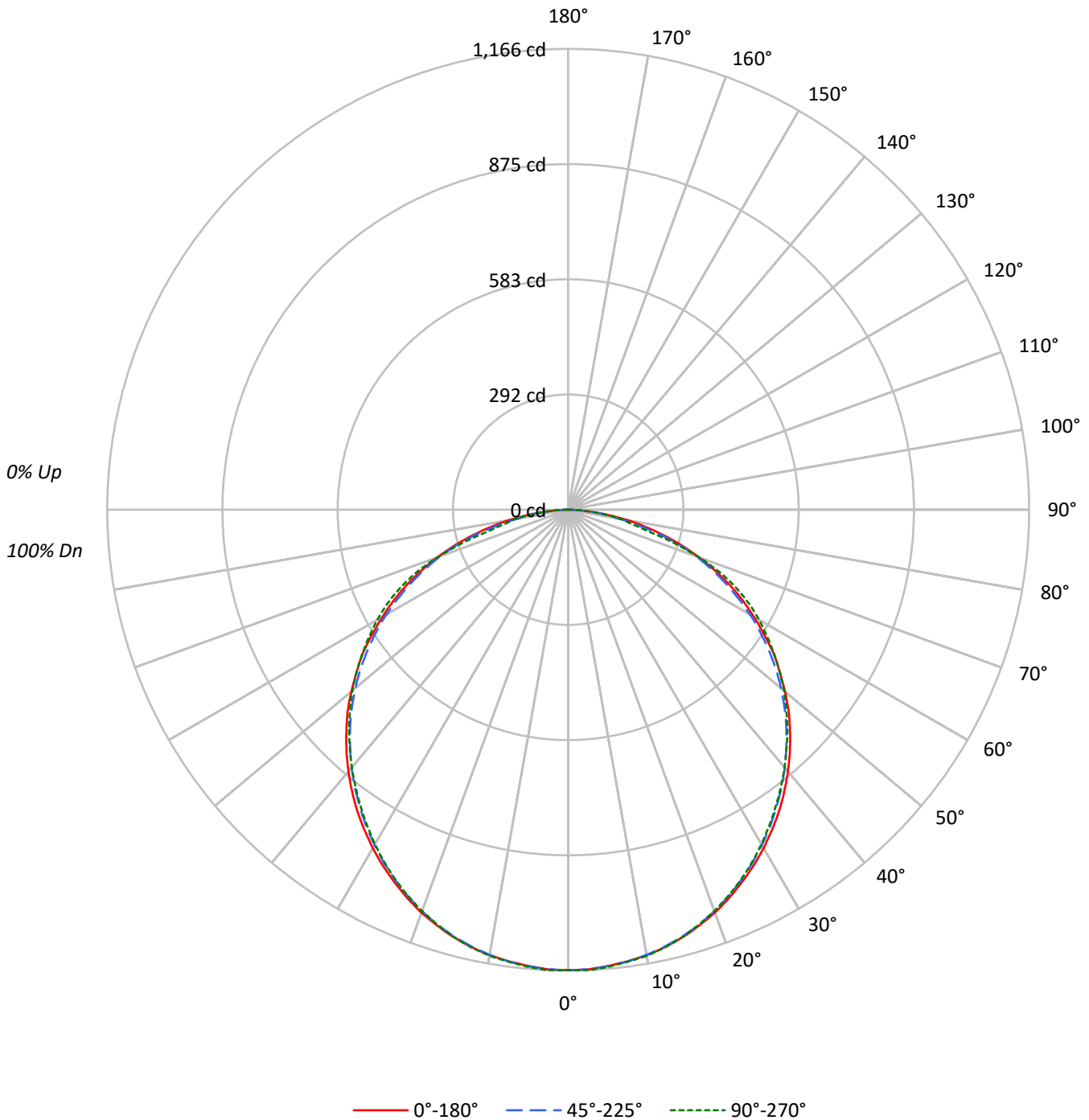
Input Watts (W): 32.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 109 | 104 | 99  | 95  | 106 | 101 | 97  | 94  | 97  | 94  | 91  | 93  | 90  | 88  | 90  | 87  | 85  | 83  |
| 2   | 98  | 90  | 83  | 77  | 96  | 88  | 82  | 76  | 85  | 79  | 74  | 81  | 77  | 73  | 78  | 74  | 71  | 69  |
| 3   | 90  | 79  | 71  | 64  | 87  | 77  | 70  | 63  | 74  | 68  | 62  | 71  | 66  | 61  | 69  | 64  | 60  | 58  |
| 4   | 82  | 70  | 61  | 54  | 80  | 68  | 60  | 54  | 66  | 59  | 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  | 45  | 39  | 50  | 44  | 39  | 37  |
| 7   | 64  | 51  | 42  | 35  | 63  | 50  | 41  | 35  | 48  | 41  | 35  | 47  | 40  | 35  | 45  | 39  | 35  | 33  |
| 8   | 60  | 46  | 38  | 32  | 58  | 45  | 37  | 32  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 36  | 31  | 29  |
| 9   | 56  | 42  | 34  | 28  | 54  | 42  | 34  | 28  | 41  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26  |
| 10  | 52  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 30  | 26  | 37  | 30  | 25  | 36  | 30  | 25  | 24  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3135 | 3135 | 3135 |
| 5°  | 3130 | 3132 | 3136 |
| 10° | 3127 | 3125 | 3131 |
| 15° | 3120 | 3113 | 3117 |
| 20° | 3107 | 3096 | 3096 |
| 25° | 3087 | 3071 | 3069 |
| 30° | 3071 | 3044 | 3037 |
| 35° | 3057 | 3018 | 3007 |
| 40° | 3038 | 2993 | 2990 |
| 45° | 3020 | 2969 | 2984 |
| 50° | 2997 | 2941 | 2984 |
| 55° | 2976 | 2905 | 2983 |
| 60° | 2920 | 2860 | 3000 |
| 65° | 2869 | 2793 | 2990 |
| 70° | 2766 | 2704 | 2773 |
| 75° | 2610 | 2470 | 2149 |
| 80° | 2345 | 1963 | 2111 |
| 85° | 1735 | 1785 | 1711 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 110.2  | 3.2       |
| 10°-20°   | 315.4  | 9.3       |
| 20°-30°   | 477.2  | 14.0      |
| 30°-40°   | 576.1  | 16.9      |
| 40°-50°   | 604.9  | 17.8      |
| 50°-60°   | 560.1  | 16.5      |
| 60°-70°   | 443.2  | 13.0      |
| 70°-80°   | 249.3  | 7.3       |
| 80°-90°   | 66.7   | 2.0       |
| 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°    | 902.8  | 26.5      |
| 0°-40°    | 1478.9 | 43.5      |
| 0°-60°    | 2643.9 | 77.7      |
| 0°-90°    | 3403.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3403.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1165 | 1165  | 1165 | 1165  | 1165 |      |
| 5°  | 1159 | 1158  | 1159 | 1159  | 1161 | 110  |
| 15° | 1120 | 1118  | 1117 | 1117  | 1119 | 316  |
| 25° | 1040 | 1038  | 1034 | 1033  | 1034 | 480  |
| 35° | 930  | 927   | 919  | 914   | 916  | 582  |
| 45° | 794  | 790   | 780  | 778   | 784  | 612  |
| 55° | 634  | 628   | 619  | 625   | 636  | 565  |
| 65° | 451  | 445   | 439  | 455   | 470  | 445  |
| 75° | 251  | 247   | 238  | 217   | 207  | 265  |
| 85° | 56   | 55    | 58   | 55    | 55   | 70   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1165.0 | 1165.0 | 1165.0 | 1165.0 | 1165.0 |
| 2.5°  | 1164.2 | 1163.4 | 1164.2 | 1164.2 | 1166.5 |
| 5°    | 1158.6 | 1157.8 | 1159.4 | 1159.4 | 1161.0 |
| 7.5°  | 1152.3 | 1151.5 | 1153.1 | 1153.1 | 1153.9 |
| 10°   | 1144.4 | 1142.8 | 1143.6 | 1144.4 | 1146.0 |
| 12.5° | 1133.3 | 1131.7 | 1131.7 | 1132.5 | 1134.1 |
| 15°   | 1119.8 | 1118.2 | 1117.4 | 1117.4 | 1119.0 |
| 17.5° | 1103.2 | 1100.8 | 1100.8 | 1099.2 | 1100.8 |
| 20°   | 1085.0 | 1082.6 | 1081.0 | 1079.4 | 1081.0 |
| 22.5° | 1063.6 | 1061.2 | 1058.8 | 1057.3 | 1058.0 |
| 25°   | 1039.8 | 1038.3 | 1034.3 | 1032.7 | 1033.5 |
| 27.5° | 1015.3 | 1012.9 | 1008.2 | 1005.0 | 1006.6 |
| 30°   | 988.4  | 985.2  | 979.6  | 975.7  | 977.3  |
| 32.5° | 959.8  | 956.7  | 950.3  | 945.6  | 947.2  |
| 35°   | 930.5  | 926.6  | 918.7  | 913.9  | 915.5  |
| 37.5° | 898.1  | 894.9  | 886.2  | 881.4  | 883.8  |
| 40°   | 864.8  | 861.6  | 852.1  | 848.2  | 851.3  |
| 42.5° | 830.0  | 826.8  | 816.5  | 812.5  | 817.3  |
| 45°   | 793.5  | 789.6  | 780.1  | 777.7  | 784.0  |
| 47.5° | 757.1  | 751.6  | 742.1  | 740.5  | 748.4  |
| 50°   | 715.9  | 712.0  | 702.5  | 703.3  | 712.8  |
| 52.5° | 674.7  | 671.6  | 662.1  | 665.2  | 674.0  |
| 55°   | 634.4  | 628.0  | 619.3  | 624.9  | 635.9  |
| 57.5° | 587.6  | 583.7  | 575.8  | 584.5  | 596.3  |
| 60°   | 542.5  | 539.3  | 531.4  | 542.5  | 557.5  |
| 62.5° | 498.1  | 491.8  | 484.7  | 500.5  | 516.4  |
| 65°   | 450.6  | 445.1  | 438.7  | 455.4  | 469.6  |
| 67.5° | 401.5  | 396.0  | 391.2  | 406.3  | 416.6  |
| 70°   | 351.6  | 346.9  | 343.7  | 348.5  | 352.4  |
| 72.5° | 301.7  | 297.0  | 294.6  | 283.5  | 280.4  |
| 75°   | 251.0  | 247.1  | 237.6  | 217.0  | 206.7  |
| 77.5° | 200.4  | 195.6  | 179.8  | 160.0  | 160.8  |
| 80°   | 151.3  | 145.7  | 126.7  | 132.3  | 136.2  |
| 82.5° | 103.0  | 99.0   | 95.0   | 93.5   | 94.2   |
| 85°   | 56.2   | 54.6   | 57.8   | 54.6   | 55.4   |
| 87.5° | 23.0   | 23.8   | 25.3   | 24.6   | 24.6   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)