

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: P393315

Luminaire Tested: **22EN-LD2-34-UNV-L82765-W2A-1-U (3000K)**

Issue Date: 3/28/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P393315  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-563-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22EN-LD2-34-UNV-L82765-W2A-1-U (3000K)  
Description: 2X2 ENCOUNTER, 3400 LUMENS, VIVIDTUNE TUNABLE WHITE  
Light Source: 2700K/6500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3145.2 lumens  
Efficiency: N/A  
Efficacy: 122.9 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.25 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

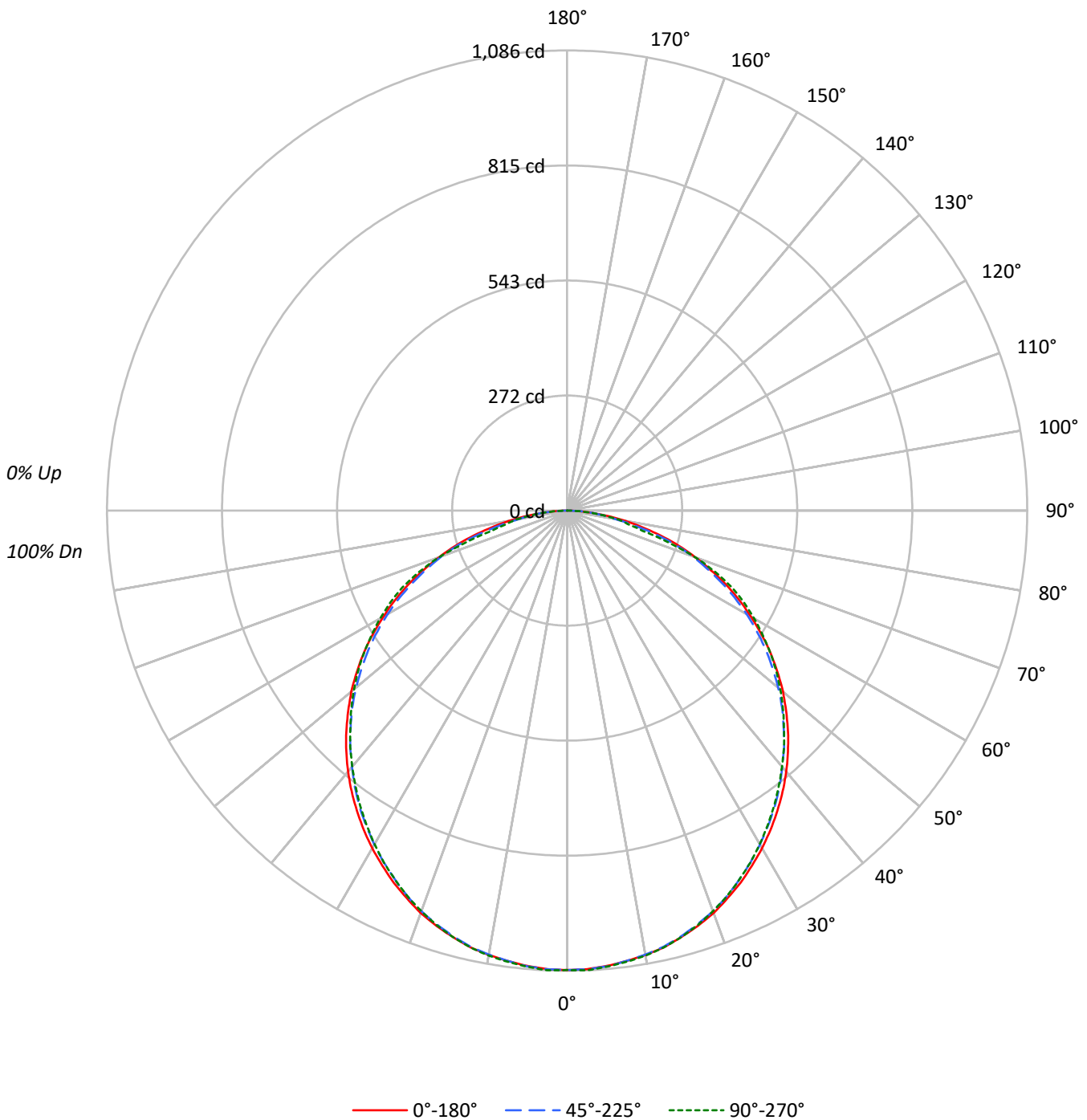
Input Watts (W): 25.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 109 | 104 | 99  | 95  | 106 | 101 | 97  | 94  | 97  | 94  | 91  | 93  | 91  | 88  | 90  | 87  | 85  | 83  |
| 2   | 99  | 90  | 83  | 77  | 96  | 88  | 82  | 76  | 85  | 79  | 75  | 81  | 77  | 73  | 78  | 75  | 71  | 69  |
| 3   | 90  | 79  | 71  | 64  | 87  | 77  | 70  | 63  | 74  | 68  | 62  | 72  | 66  | 61  | 69  | 64  | 60  | 58  |
| 4   | 82  | 70  | 61  | 54  | 80  | 68  | 60  | 54  | 66  | 59  | 53  | 64  | 57  | 52  | 61  | 56  | 52  | 49  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 53  | 46  | 59  | 51  | 46  | 57  | 50  | 45  | 55  | 49  | 45  | 42  |
| 6   | 70  | 56  | 47  | 40  | 68  | 55  | 46  | 40  | 53  | 46  | 40  | 52  | 45  | 40  | 50  | 44  | 39  | 37  |
| 7   | 64  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 48  | 41  | 35  | 47  | 40  | 35  | 46  | 39  | 35  | 33  |
| 8   | 60  | 46  | 38  | 32  | 58  | 46  | 37  | 32  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 36  | 31  | 29  |
| 9   | 56  | 42  | 34  | 29  | 55  | 42  | 34  | 28  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 32  | 28  | 26  |
| 10  | 52  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 31  | 26  | 37  | 30  | 26  | 36  | 30  | 25  | 24  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2918 | 2918 | 2918 |
| 5°  | 2914 | 2916 | 2919 |
| 10° | 2910 | 2907 | 2915 |
| 15° | 2903 | 2898 | 2903 |
| 20° | 2895 | 2881 | 2881 |
| 25° | 2876 | 2854 | 2854 |
| 30° | 2859 | 2827 | 2825 |
| 35° | 2841 | 2805 | 2796 |
| 40° | 2826 | 2774 | 2771 |
| 45° | 2806 | 2751 | 2754 |
| 50° | 2784 | 2722 | 2749 |
| 55° | 2750 | 2685 | 2746 |
| 60° | 2695 | 2636 | 2745 |
| 65° | 2634 | 2558 | 2734 |
| 70° | 2533 | 2475 | 2533 |
| 75° | 2375 | 2241 | 1917 |
| 80° | 2132 | 1791 | 1918 |
| 85° | 1587 | 1615 | 1587 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 102.5  | 3.3       |
| 10°-20°   | 293.6  | 9.3       |
| 20°-30°   | 443.8  | 14.1      |
| 30°-40°   | 535.3  | 17.0      |
| 40°-50°   | 560.6  | 17.8      |
| 50°-60°   | 516.9  | 16.4      |
| 60°-70°   | 405.7  | 12.9      |
| 70°-80°   | 226.3  | 7.2       |
| 80°-90°   | 60.5   | 1.9       |
| 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°    | 840.0  | 26.7      |
| 0°-40°    | 1375.2 | 43.7      |
| 0°-60°    | 2452.7 | 78.0      |
| 0°-90°    | 3145.2 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3145.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1084 | 1084  | 1084 | 1084  | 1084 |      |
| 5°  | 1079 | 1078  | 1080 | 1080  | 1080 | 103  |
| 15° | 1042 | 1040  | 1040 | 1040  | 1042 | 294  |
| 25° | 969  | 965   | 961  | 960   | 961  | 446  |
| 35° | 865  | 861   | 854  | 849   | 851  | 541  |
| 45° | 737  | 732   | 723  | 720   | 724  | 569  |
| 55° | 586  | 580   | 572  | 576   | 585  | 523  |
| 65° | 414  | 407   | 402  | 416   | 429  | 408  |
| 75° | 228  | 224   | 216  | 194   | 184  | 242  |
| 85° | 51   | 50    | 52   | 50    | 51   | 64   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1084.2 | 1084.2 | 1084.2 | 1084.2 | 1084.2 |
| 2.5°  | 1083.2 | 1082.3 | 1083.2 | 1084.2 | 1086.0 |
| 5°    | 1078.6 | 1077.7 | 1079.6 | 1079.6 | 1080.5 |
| 7.5°  | 1072.2 | 1071.3 | 1072.2 | 1073.1 | 1074.1 |
| 10°   | 1064.9 | 1064.0 | 1064.0 | 1064.9 | 1066.7 |
| 12.5° | 1055.7 | 1053.9 | 1053.9 | 1053.9 | 1055.7 |
| 15°   | 1042.0 | 1040.1 | 1040.1 | 1040.1 | 1042.0 |
| 17.5° | 1027.3 | 1025.4 | 1023.6 | 1023.6 | 1025.4 |
| 20°   | 1010.8 | 1008.0 | 1006.2 | 1005.3 | 1006.2 |
| 22.5° | 989.7  | 987.8  | 985.1  | 983.3  | 985.1  |
| 25°   | 968.6  | 964.9  | 961.2  | 960.3  | 961.2  |
| 27.5° | 944.7  | 941.1  | 936.5  | 934.6  | 936.5  |
| 30°   | 920.0  | 915.4  | 909.9  | 907.1  | 909.0  |
| 32.5° | 893.4  | 889.7  | 882.4  | 879.6  | 880.5  |
| 35°   | 864.9  | 861.3  | 853.9  | 849.3  | 851.2  |
| 37.5° | 835.6  | 831.0  | 822.7  | 818.2  | 820.0  |
| 40°   | 804.4  | 798.9  | 789.7  | 786.1  | 788.8  |
| 42.5° | 771.4  | 766.8  | 757.6  | 754.0  | 757.6  |
| 45°   | 737.4  | 731.9  | 722.8  | 720.0  | 723.7  |
| 47.5° | 700.8  | 697.1  | 687.9  | 687.0  | 690.7  |
| 50°   | 665.0  | 658.6  | 650.3  | 651.2  | 656.7  |
| 52.5° | 625.5  | 620.0  | 610.9  | 614.5  | 621.9  |
| 55°   | 586.1  | 579.7  | 572.3  | 576.0  | 585.2  |
| 57.5° | 543.9  | 539.3  | 531.1  | 536.6  | 547.6  |
| 60°   | 500.8  | 497.1  | 489.8  | 499.0  | 510.0  |
| 62.5° | 458.6  | 452.2  | 445.8  | 457.7  | 470.5  |
| 65°   | 413.7  | 407.2  | 401.7  | 415.5  | 429.3  |
| 67.5° | 366.9  | 362.3  | 357.7  | 368.7  | 377.9  |
| 70°   | 321.9  | 317.4  | 314.6  | 316.4  | 321.9  |
| 72.5° | 276.1  | 271.5  | 268.7  | 258.7  | 252.2  |
| 75°   | 228.4  | 223.8  | 215.5  | 193.5  | 184.4  |
| 77.5° | 181.6  | 178.9  | 162.3  | 143.1  | 145.8  |
| 80°   | 137.6  | 133.0  | 115.6  | 119.2  | 123.8  |
| 82.5° | 93.6   | 89.0   | 87.1   | 84.4   | 85.3   |
| 85°   | 51.4   | 49.5   | 52.3   | 50.4   | 51.4   |
| 87.5° | 20.2   | 21.1   | 22.9   | 22.0   | 22.0   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)