

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: METALUX

Report Number: P1213359

Luminaire Tested: 4SNLED-LD5-100HL-UNV-L935-CD1-U

Issue Date: 3/29/2018

**Test Information**

Test Method: LM-79-2019  
Report Number: P1213359  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27410)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/29/2018  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4SNLED-LD5-100HL-UNV-L935-CD1-U  
Description: 4FT LINEAR SNLED LED FIXTURE  
OPEN LED STIP  
Light Source: -  
Ballast/Driver: -

**Summary**

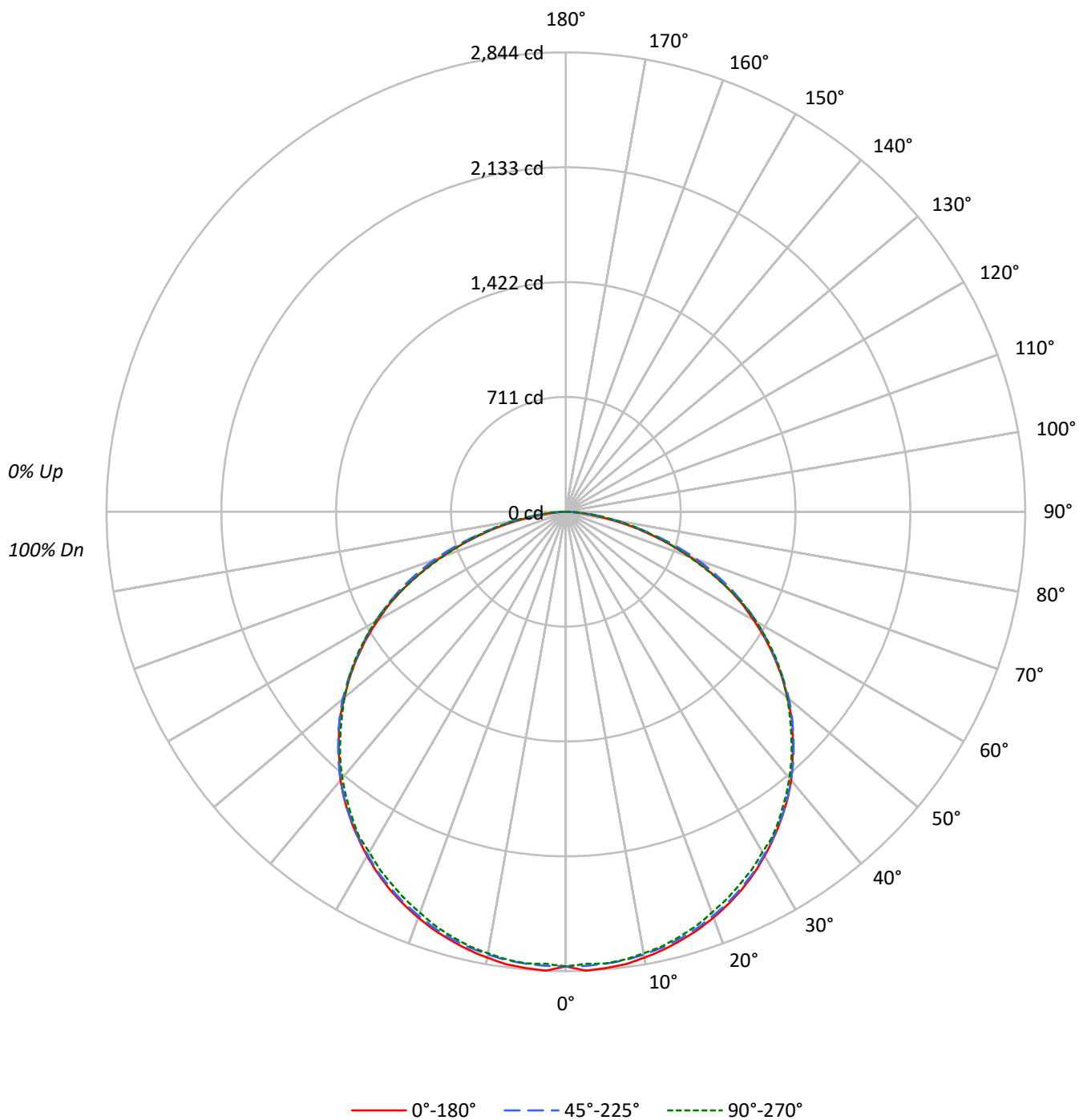
Lumens per Lamp: N/A  
Luminaire Lumens: 8442.0 lumens  
Efficiency: N/A  
Efficacy: 106.9 lumens/watt  
Spacing Criteria (0/90/45): 1.3 / 1.29 / 1.41  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')  
CIE Type: Direct

Input Watts (W): 79  
Input Voltage (V): NR  
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: 24 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  | 96  | 106 | 101 | 98  | 94  | 97  | 94  | 91  |  | 93  | 91  | 88  |  | 90  | 88  | 86  | 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  | 51  | 49  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 59  | 51  | 46  |  | 57  | 50  | 45  |  | 55  | 49  | 45  | 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  | 37  | 32  | 58  | 45  | 37  | 31  | 44  | 37  | 31  |  | 43  | 36  | 31  |  | 42  | 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  | 26  | 37  | 30  | 25  |  | 36  | 30  | 25  |  | 36  | 30  | 25  | 23  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 22742 | 22742 | 22742 |
| 5°  | 22947 | 22223 | 22047 |
| 10° | 22874 | 21737 | 21366 |
| 15° | 22800 | 21248 | 20697 |
| 20° | 22734 | 20727 | 19984 |
| 25° | 22670 | 20204 | 19318 |
| 30° | 22562 | 19643 | 18662 |
| 35° | 22447 | 19060 | 18033 |
| 40° | 22314 | 18436 | 17278 |
| 45° | 22031 | 17696 | 16414 |
| 50° | 21694 | 16892 | 15535 |
| 55° | 21280 | 15814 | 14587 |
| 60° | 20594 | 14718 | 13347 |
| 65° | 19589 | 13295 | 11609 |
| 70° | 17853 | 11424 | 9413  |
| 75° | 15164 | 8717  | 7236  |
| 80° | 11330 | 5740  | 4743  |
| 85° | 5855  | 2797  | 2117  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 22031 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 267.1  | 3.2       |
| 10°-20°   | 770.3  | 9.1       |
| 20°-30°   | 1179.1 | 14.0      |
| 30°-40°   | 1444.6 | 17.1      |
| 40°-50°   | 1528.0 | 18.1      |
| 50°-60°   | 1410.4 | 16.7      |
| 60°-70°   | 1088.6 | 12.9      |
| 70°-80°   | 604.2  | 7.2       |
| 80°-90°   | 149.7  | 1.8       |
| 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°    | 2216.5 | 26.3      |
| 0°-40°    | 3661.1 | 43.4      |
| 0°-60°    | 6599.5 | 78.2      |
| 0°-90°    | 8442.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 8442.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2814 | 2814  | 2814 | 2814  | 2814 |      |
| 5°  | 2837 | 2800  | 2808 | 2802  | 2807 | 270  |
| 15° | 2748 | 2716  | 2736 | 2726  | 2723 | 776  |
| 25° | 2580 | 2549  | 2570 | 2547  | 2546 | 1189 |
| 35° | 2325 | 2300  | 2321 | 2296  | 2308 | 1455 |
| 45° | 1988 | 1970  | 1994 | 1973  | 1975 | 1534 |
| 55° | 1578 | 1565  | 1583 | 1582  | 1590 | 1408 |
| 65° | 1093 | 1082  | 1124 | 1117  | 1096 | 1078 |
| 75° | 542  | 575   | 579  | 577   | 556  | 575  |
| 85° | 86   | 126   | 129  | 131   | 121  | 115  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2814.2 | 2814.2 | 2814.2 | 2814.2 | 2814.2 |
| 2.5°  | 2843.7 | 2807.1 | 2814.2 | 2809.9 | 2801.5 |
| 5°    | 2836.6 | 2800.1 | 2808.5 | 2801.5 | 2807.1 |
| 7.5°  | 2825.4 | 2786.1 | 2800.1 | 2790.3 | 2795.9 |
| 10°   | 2802.9 | 2769.2 | 2783.3 | 2772.0 | 2776.2 |
| 12.5° | 2779.0 | 2743.9 | 2763.6 | 2749.5 | 2755.2 |
| 15°   | 2748.1 | 2715.8 | 2735.5 | 2725.6 | 2722.8 |
| 17.5° | 2714.4 | 2683.5 | 2703.2 | 2691.9 | 2687.7 |
| 20°   | 2673.7 | 2644.2 | 2662.4 | 2645.6 | 2641.3 |
| 22.5° | 2628.7 | 2599.2 | 2620.3 | 2596.4 | 2597.8 |
| 25°   | 2579.5 | 2548.6 | 2569.7 | 2547.2 | 2545.8 |
| 27.5° | 2523.3 | 2493.8 | 2516.3 | 2492.4 | 2495.2 |
| 30°   | 2461.5 | 2432.0 | 2454.5 | 2430.6 | 2433.4 |
| 32.5° | 2394.1 | 2370.2 | 2389.9 | 2367.4 | 2382.8 |
| 35°   | 2325.2 | 2299.9 | 2321.0 | 2295.7 | 2308.4 |
| 37.5° | 2250.8 | 2226.9 | 2249.4 | 2221.3 | 2232.5 |
| 40°   | 2170.7 | 2149.6 | 2169.3 | 2144.0 | 2153.8 |
| 42.5° | 2078.0 | 2065.3 | 2085.0 | 2059.7 | 2068.1 |
| 45°   | 1988.0 | 1969.8 | 1993.7 | 1972.6 | 1975.4 |
| 47.5° | 1898.1 | 1878.4 | 1900.9 | 1882.7 | 1881.3 |
| 50°   | 1789.9 | 1782.9 | 1804.0 | 1789.9 | 1788.5 |
| 52.5° | 1687.4 | 1673.3 | 1695.8 | 1688.8 | 1693.0 |
| 55°   | 1577.8 | 1565.1 | 1583.4 | 1582.0 | 1590.4 |
| 57.5° | 1464.0 | 1451.3 | 1475.2 | 1472.4 | 1479.4 |
| 60°   | 1343.2 | 1333.3 | 1364.2 | 1357.2 | 1362.8 |
| 62.5° | 1225.1 | 1206.9 | 1246.2 | 1240.6 | 1237.8 |
| 65°   | 1093.1 | 1081.8 | 1124.0 | 1117.0 | 1095.9 |
| 67.5° | 956.8  | 952.6  | 996.1  | 982.1  | 947.0  |
| 70°   | 820.5  | 823.3  | 865.5  | 838.8  | 809.3  |
| 72.5° | 677.2  | 698.3  | 723.6  | 703.9  | 682.8  |
| 75°   | 542.3  | 574.6  | 578.8  | 577.4  | 556.4  |
| 77.5° | 410.3  | 451.0  | 441.2  | 451.0  | 434.1  |
| 80°   | 286.6  | 331.6  | 324.5  | 333.0  | 318.9  |
| 82.5° | 177.0  | 217.8  | 219.2  | 224.8  | 212.2  |
| 85°   | 85.7   | 126.4  | 129.3  | 130.7  | 120.8  |
| 87.5° | 18.3   | 59.0   | 60.4   | 56.2   | 49.2   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)