

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: P1213008

Luminaire Tested: 4SNLED-LD5-100HL-UNV-L930-CD1-U

Issue Date: 3/29/2018

**Test Information**

Test Method: LM-79-2019  
Report Number: P1213008  
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-L930-CD1-U  
Description: 4FT LINEAR SNLED LED FIXTURE  
OPEN LED STIP  
Light Source: -  
Ballast/Driver: -

**Summary**

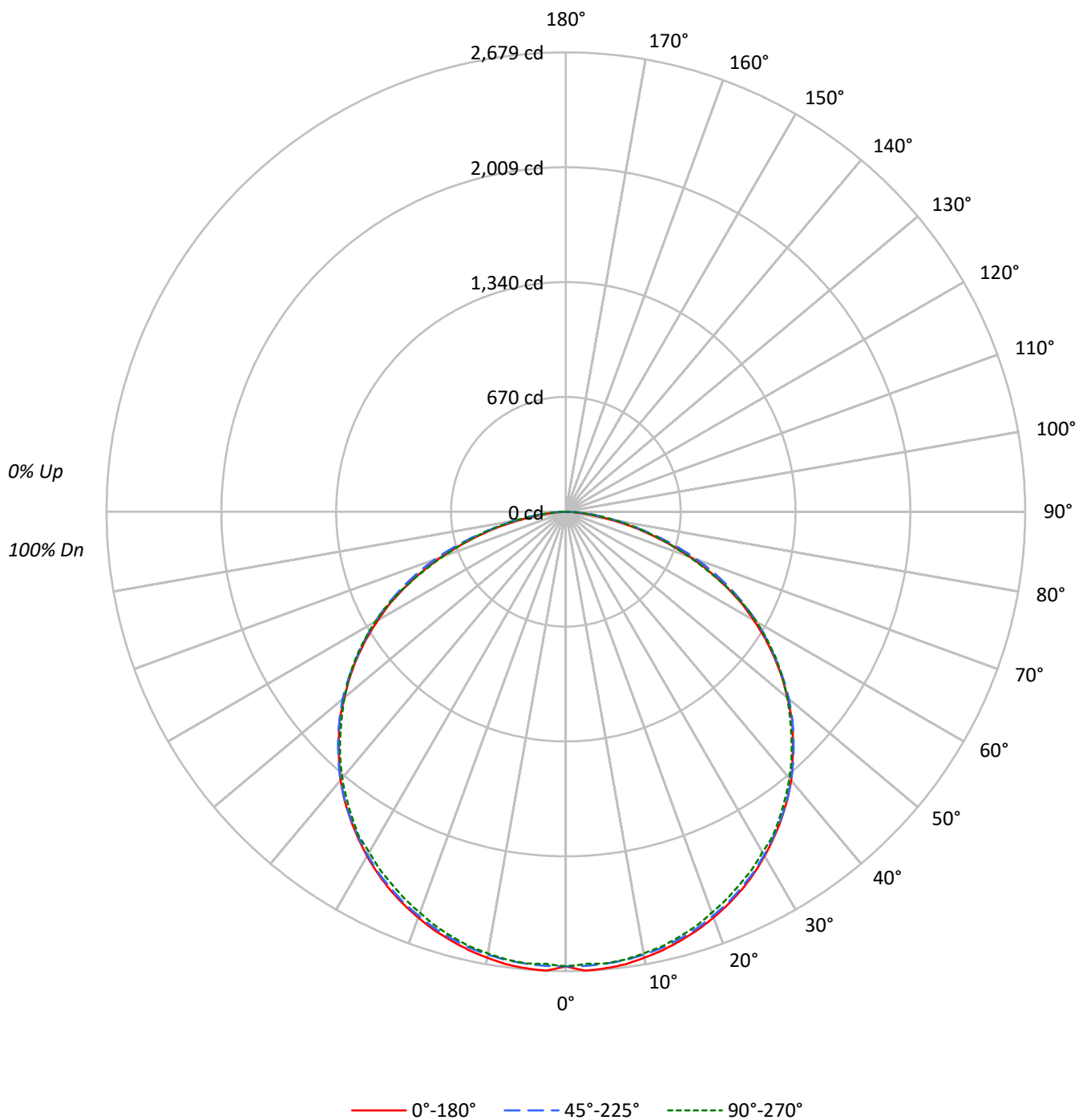
Lumens per Lamp: N/A  
Luminaire Lumens: 7953.0 lumens  
Efficiency: N/A  
Efficacy: 100.7 lumens/watt  
Spacing Criteria (0/90/45): 1.3 / 1.29 / 1.41  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')  
CIE Type: Direct

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°  | 21424 | 21424 | 21424 |
| 5°  | 21618 | 20937 | 20770 |
| 10° | 21549 | 20477 | 20129 |
| 15° | 21479 | 20017 | 19499 |
| 20° | 21417 | 19526 | 18827 |
| 25° | 21357 | 19033 | 18199 |
| 30° | 21255 | 18505 | 17581 |
| 35° | 21147 | 17956 | 16988 |
| 40° | 21020 | 17368 | 16278 |
| 45° | 20755 | 16671 | 15463 |
| 50° | 20439 | 15913 | 14635 |
| 55° | 20047 | 14898 | 13742 |
| 60° | 19401 | 13866 | 12575 |
| 65° | 18454 | 12525 | 10937 |
| 70° | 16820 | 10762 | 8868  |
| 75° | 14286 | 8213  | 6816  |
| 80° | 10673 | 5408  | 4469  |
| 85° | 5513  | 2635  | 1994  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 20755 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 251.6  | 3.2       |
| 10°-20°   | 725.6  | 9.1       |
| 20°-30°   | 1110.8 | 14.0      |
| 30°-40°   | 1360.9 | 17.1      |
| 40°-50°   | 1439.5 | 18.1      |
| 50°-60°   | 1328.7 | 16.7      |
| 60°-70°   | 1025.6 | 12.9      |
| 70°-80°   | 569.2  | 7.2       |
| 80°-90°   | 141.0  | 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°    | 2088.1 | 26.3      |
| 0°-40°    | 3449.0 | 43.4      |
| 0°-60°    | 6217.2 | 78.2      |
| 0°-90°    | 7953.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 7953.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2651 | 2651  | 2651 | 2651  | 2651 |      |
| 5°  | 2672 | 2638  | 2646 | 2639  | 2644 | 254  |
| 15° | 2589 | 2558  | 2577 | 2568  | 2565 | 731  |
| 25° | 2430 | 2401  | 2421 | 2400  | 2398 | 1120 |
| 35° | 2190 | 2167  | 2187 | 2163  | 2175 | 1371 |
| 45° | 1873 | 1856  | 1878 | 1858  | 1861 | 1445 |
| 55° | 1486 | 1474  | 1492 | 1490  | 1498 | 1327 |
| 65° | 1030 | 1019  | 1059 | 1052  | 1032 | 1015 |
| 75° | 511  | 541   | 545  | 544   | 524  | 542  |
| 85° | 81   | 119   | 122  | 123   | 114  | 109  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2651.2 | 2651.2 | 2651.2 | 2651.2 | 2651.2 |
| 2.5°  | 2678.9 | 2644.5 | 2651.2 | 2647.2 | 2639.2 |
| 5°    | 2672.3 | 2637.9 | 2645.9 | 2639.2 | 2644.5 |
| 7.5°  | 2661.7 | 2624.7 | 2637.9 | 2628.7 | 2633.9 |
| 10°   | 2640.6 | 2608.8 | 2622.0 | 2611.4 | 2615.4 |
| 12.5° | 2618.1 | 2585.0 | 2603.5 | 2590.3 | 2595.6 |
| 15°   | 2588.9 | 2558.5 | 2577.0 | 2567.8 | 2565.1 |
| 17.5° | 2557.2 | 2528.1 | 2546.6 | 2536.0 | 2532.0 |
| 20°   | 2518.8 | 2491.0 | 2508.2 | 2492.3 | 2488.4 |
| 22.5° | 2476.4 | 2448.6 | 2468.5 | 2446.0 | 2447.3 |
| 25°   | 2430.1 | 2401.0 | 2420.8 | 2399.7 | 2398.3 |
| 27.5° | 2377.2 | 2349.4 | 2370.6 | 2348.1 | 2350.7 |
| 30°   | 2318.9 | 2291.1 | 2312.3 | 2289.8 | 2292.5 |
| 32.5° | 2255.4 | 2232.9 | 2251.4 | 2230.3 | 2244.8 |
| 35°   | 2190.5 | 2166.7 | 2186.6 | 2162.7 | 2174.7 |
| 37.5° | 2120.4 | 2097.9 | 2119.1 | 2092.6 | 2103.2 |
| 40°   | 2044.9 | 2025.1 | 2043.6 | 2019.8 | 2029.1 |
| 42.5° | 1957.6 | 1945.7 | 1964.2 | 1940.4 | 1948.3 |
| 45°   | 1872.9 | 1855.7 | 1878.2 | 1858.3 | 1861.0 |
| 47.5° | 1788.2 | 1769.6 | 1790.8 | 1773.6 | 1772.3 |
| 50°   | 1686.3 | 1679.6 | 1699.5 | 1686.3 | 1684.9 |
| 52.5° | 1589.6 | 1576.4 | 1597.6 | 1591.0 | 1594.9 |
| 55°   | 1486.4 | 1474.5 | 1491.7 | 1490.4 | 1498.3 |
| 57.5° | 1379.2 | 1367.3 | 1389.8 | 1387.1 | 1393.7 |
| 60°   | 1265.4 | 1256.1 | 1285.2 | 1278.6 | 1283.9 |
| 62.5° | 1154.2 | 1137.0 | 1174.0 | 1168.7 | 1166.1 |
| 65°   | 1029.8 | 1019.2 | 1058.9 | 1052.3 | 1032.4 |
| 67.5° | 901.4  | 897.4  | 938.4  | 925.2  | 892.1  |
| 70°   | 773.0  | 775.6  | 815.3  | 790.2  | 762.4  |
| 72.5° | 638.0  | 657.8  | 681.6  | 663.1  | 643.3  |
| 75°   | 510.9  | 541.3  | 545.3  | 544.0  | 524.1  |
| 77.5° | 386.5  | 424.9  | 415.6  | 424.9  | 409.0  |
| 80°   | 270.0  | 312.4  | 305.7  | 313.7  | 300.5  |
| 82.5° | 166.8  | 205.2  | 206.5  | 211.8  | 199.9  |
| 85°   | 80.7   | 119.1  | 121.8  | 123.1  | 113.8  |
| 87.5° | 17.2   | 55.6   | 56.9   | 52.9   | 46.3   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)