

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: P1213389

Luminaire Tested: 4SNLED-LD5-28SL-UNV-L935-CD1-U

Issue Date: 3/29/2018

**Test Information**

Test Method: LM-79-2019  
Report Number: P1213389  
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-LD5-28SL-UNV-L935-CD1-U  
Description: 4FT LINEAR SNLED LED FIXTURE  
OPEN LED STIP  
Light Source: -  
Ballast/Driver: -

**Summary**

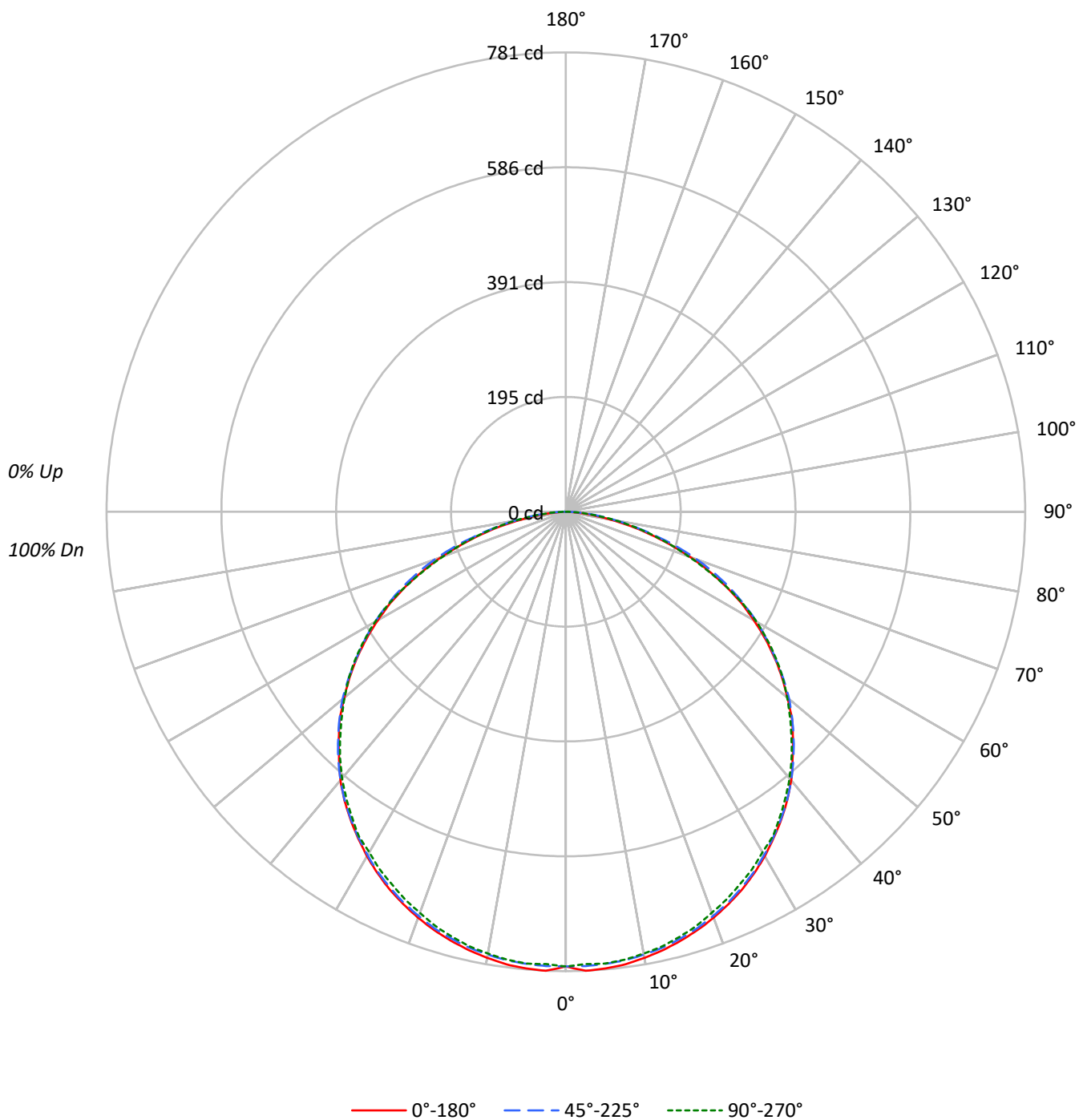
Lumens per Lamp: N/A  
Luminaire Lumens: 2319.0 lumens  
Efficiency: N/A  
Efficacy: 128.8 lumens/watt  
Spacing Criteria (0/90/45): 1.3 / 1.29 / 1.41  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')  
CIE Type: Direct

Input Watts (W): 18  
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 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 |
| 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°  | 6247 | 6247 | 6247 |
| 5°  | 6304 | 6105 | 6056 |
| 10° | 6284 | 5971 | 5869 |
| 15° | 6263 | 5837 | 5686 |
| 20° | 6245 | 5694 | 5490 |
| 25° | 6227 | 5550 | 5306 |
| 30° | 6198 | 5395 | 5127 |
| 35° | 6166 | 5236 | 4953 |
| 40° | 6130 | 5064 | 4747 |
| 45° | 6052 | 4861 | 4509 |
| 50° | 5960 | 4640 | 4267 |
| 55° | 5845 | 4345 | 4007 |
| 60° | 5658 | 4044 | 3667 |
| 65° | 5381 | 3653 | 3189 |
| 70° | 4905 | 3138 | 2586 |
| 75° | 4166 | 2395 | 1987 |
| 80° | 3111 | 1578 | 1303 |
| 85° | 1605 | 768  | 582  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6052 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 73.4   | 3.2       |
| 10°-20°   | 211.6  | 9.1       |
| 20°-30°   | 323.9  | 14.0      |
| 30°-40°   | 396.8  | 17.1      |
| 40°-50°   | 419.7  | 18.1      |
| 50°-60°   | 387.4  | 16.7      |
| 60°-70°   | 299.0  | 12.9      |
| 70°-80°   | 166.0  | 7.2       |
| 80°-90°   | 41.1   | 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°    | 608.9  | 26.3      |
| 0°-40°    | 1005.7 | 43.4      |
| 0°-60°    | 1812.9 | 78.2      |
| 0°-90°    | 2319.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2319.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 773 | 773   | 773 | 773   | 773 |      |
| 5°  | 779 | 769   | 772 | 770   | 771 | 74   |
| 15° | 755 | 746   | 751 | 749   | 748 | 213  |
| 25° | 709 | 700   | 706 | 700   | 699 | 327  |
| 35° | 639 | 632   | 638 | 631   | 634 | 400  |
| 45° | 546 | 541   | 548 | 542   | 543 | 421  |
| 55° | 433 | 430   | 435 | 435   | 437 | 387  |
| 65° | 300 | 297   | 309 | 307   | 301 | 296  |
| 75° | 149 | 158   | 159 | 159   | 153 | 158  |
| 85° | 24  | 35    | 36  | 36    | 33  | 32   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 773.0 | 773.0 | 773.0 | 773.0 | 773.0 |
| 2.5°  | 781.1 | 771.1 | 773.0 | 771.9 | 769.6 |
| 5°    | 779.2 | 769.2 | 771.5 | 769.6 | 771.1 |
| 7.5°  | 776.1 | 765.3 | 769.2 | 766.5 | 768.0 |
| 10°   | 770.0 | 760.7 | 764.6 | 761.5 | 762.6 |
| 12.5° | 763.4 | 753.7 | 759.2 | 755.3 | 756.8 |
| 15°   | 754.9 | 746.0 | 751.4 | 748.7 | 748.0 |
| 17.5° | 745.6 | 737.2 | 742.6 | 739.5 | 738.3 |
| 20°   | 734.5 | 726.3 | 731.4 | 726.7 | 725.6 |
| 22.5° | 722.1 | 714.0 | 719.8 | 713.2 | 713.6 |
| 25°   | 708.6 | 700.1 | 705.9 | 699.7 | 699.3 |
| 27.5° | 693.2 | 685.0 | 691.2 | 684.7 | 685.4 |
| 30°   | 676.2 | 668.1 | 674.2 | 667.7 | 668.5 |
| 32.5° | 657.6 | 651.1 | 656.5 | 650.3 | 654.6 |
| 35°   | 638.7 | 631.8 | 637.6 | 630.6 | 634.1 |
| 37.5° | 618.3 | 611.7 | 617.9 | 610.2 | 613.3 |
| 40°   | 596.3 | 590.5 | 595.9 | 588.9 | 591.7 |
| 42.5° | 570.8 | 567.3 | 572.7 | 565.8 | 568.1 |
| 45°   | 546.1 | 541.1 | 547.7 | 541.9 | 542.6 |
| 47.5° | 521.4 | 516.0 | 522.2 | 517.2 | 516.8 |
| 50°   | 491.7 | 489.8 | 495.6 | 491.7 | 491.3 |
| 52.5° | 463.5 | 459.7 | 465.8 | 463.9 | 465.1 |
| 55°   | 433.4 | 429.9 | 435.0 | 434.6 | 436.9 |
| 57.5° | 402.2 | 398.7 | 405.2 | 404.5 | 406.4 |
| 60°   | 369.0 | 366.3 | 374.8 | 372.8 | 374.4 |
| 62.5° | 336.5 | 331.5 | 342.3 | 340.8 | 340.0 |
| 65°   | 300.3 | 297.2 | 308.8 | 306.8 | 301.0 |
| 67.5° | 262.8 | 261.7 | 273.6 | 269.8 | 260.1 |
| 70°   | 225.4 | 226.2 | 237.7 | 230.4 | 222.3 |
| 72.5° | 186.0 | 191.8 | 198.8 | 193.4 | 187.6 |
| 75°   | 149.0 | 157.9 | 159.0 | 158.6 | 152.8 |
| 77.5° | 112.7 | 123.9 | 121.2 | 123.9 | 119.3 |
| 80°   | 78.7  | 91.1  | 89.2  | 91.5  | 87.6  |
| 82.5° | 48.6  | 59.8  | 60.2  | 61.8  | 58.3  |
| 85°   | 23.5  | 34.7  | 35.5  | 35.9  | 33.2  |
| 87.5° | 5.0   | 16.2  | 16.6  | 15.4  | 13.5  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)