

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: P1213789

Luminaire Tested: 4SNLED-LD5-47SL-SLW-UNV-L940-CD1-U

Issue Date: 3/29/2018

**Test Information**

Test Method: LM-79-2019  
Report Number: P1213789  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27403)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/29/2018  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4SNLED-LD5-47SL-SLW-UNV-L940-CD1-U  
Description: 4FT LINEAR SNLED LED FIXTURE  
SQUARE FROSTED LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

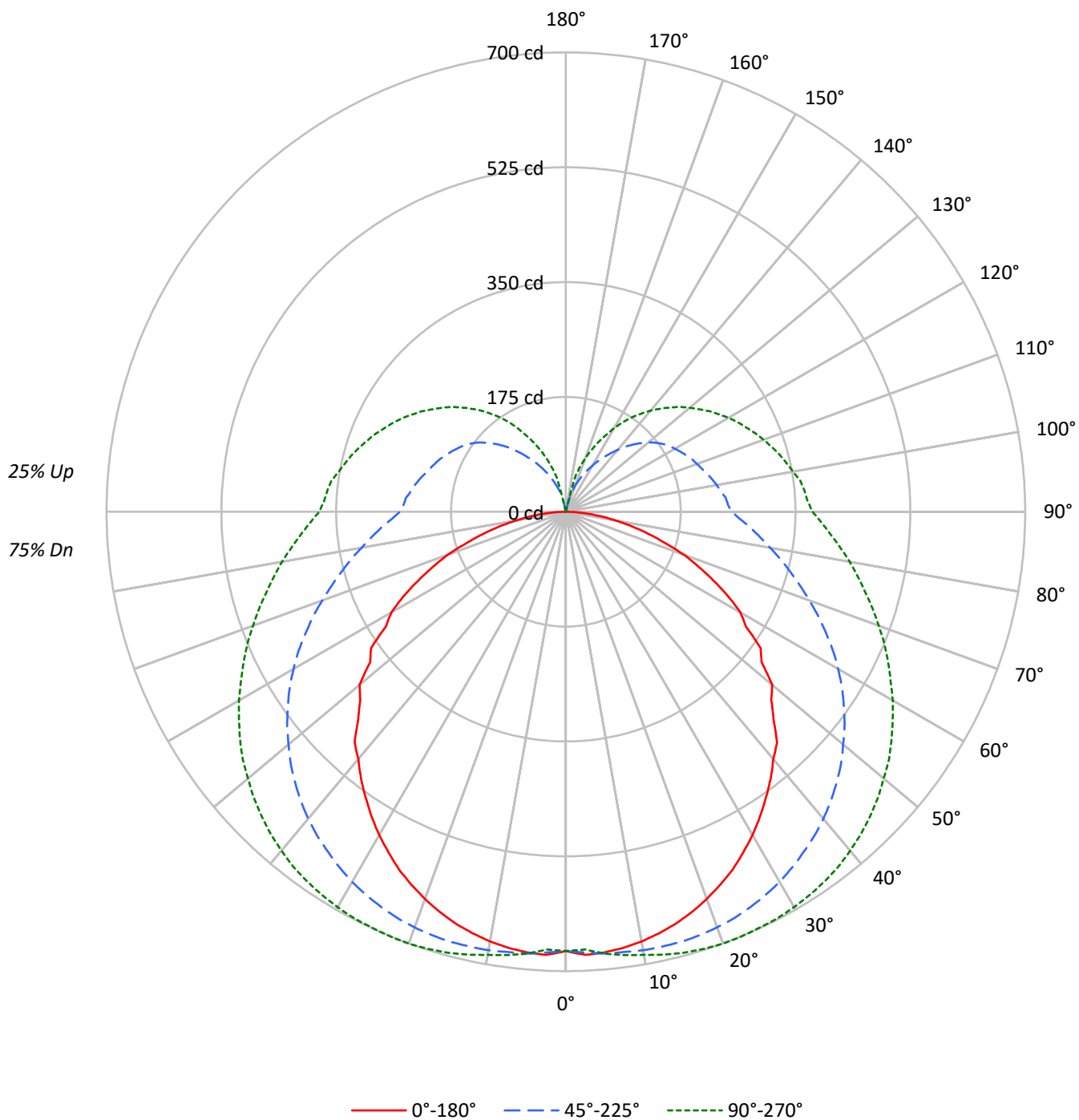
Lumens per Lamp: N/A  
Luminaire Lumens: 3855.0 lumens  
Efficiency: N/A  
Efficacy: 94.0 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.56 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')  
CIE Type: Semi-Direct

Input Watts (W): 41  
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 |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |
| 0   | 113 | 113 | 113 | 113 | 107 | 107 | 107 | 107 | 97 | 97 | 97 | 88 | 88 | 88 | 79 | 79 | 79 |
| 1   | 100 | 94  | 89  | 84  | 95  | 89  | 84  | 80  | 80 | 76 | 73 | 72 | 69 | 66 | 64 | 62 | 60 |
| 2   | 90  | 80  | 72  | 66  | 85  | 76  | 69  | 63  | 68 | 63 | 58 | 61 | 57 | 53 | 55 | 51 | 48 |
| 3   | 81  | 69  | 60  | 53  | 76  | 66  | 58  | 51  | 59 | 53 | 47 | 53 | 48 | 43 | 47 | 43 | 39 |
| 4   | 74  | 61  | 51  | 44  | 69  | 58  | 49  | 43  | 52 | 45 | 39 | 47 | 41 | 36 | 42 | 37 | 33 |
| 5   | 67  | 54  | 44  | 37  | 63  | 51  | 43  | 36  | 46 | 39 | 33 | 42 | 35 | 31 | 37 | 32 | 28 |
| 6   | 62  | 48  | 39  | 32  | 58  | 46  | 37  | 31  | 41 | 34 | 29 | 37 | 31 | 27 | 34 | 28 | 24 |
| 7   | 57  | 43  | 34  | 28  | 54  | 41  | 33  | 27  | 37 | 30 | 25 | 34 | 28 | 23 | 30 | 25 | 21 |
| 8   | 53  | 39  | 31  | 25  | 50  | 37  | 29  | 24  | 34 | 27 | 22 | 31 | 25 | 21 | 28 | 23 | 19 |
| 9   | 49  | 36  | 27  | 22  | 47  | 34  | 26  | 21  | 31 | 24 | 20 | 28 | 23 | 18 | 26 | 21 | 17 |
| 10  | 46  | 33  | 25  | 20  | 44  | 31  | 24  | 19  | 29 | 22 | 18 | 26 | 21 | 16 | 24 | 19 | 15 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5409 | 5409 | 5409 |
| 5°  | 5453 | 5347 | 5308 |
| 10° | 5426 | 5299 | 5277 |
| 15° | 5389 | 5270 | 5288 |
| 20° | 5338 | 5247 | 5298 |
| 25° | 5286 | 5228 | 5306 |
| 30° | 5214 | 5212 | 5335 |
| 35° | 5133 | 5192 | 5371 |
| 40° | 5056 | 5189 | 5407 |
| 45° | 4959 | 5178 | 5449 |
| 50° | 4974 | 5166 | 5492 |
| 55° | 4886 | 5166 | 5558 |
| 60° | 4709 | 5170 | 5634 |
| 65° | 4448 | 5175 | 5739 |
| 70° | 4158 | 5214 | 5901 |
| 75° | 3646 | 5335 | 6138 |
| 80° | 3079 | 5592 | 6534 |
| 85° | 2289 | 6113 | 7112 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 90°

Luminance: 8092 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 64.3   | 1.7       |
| 10°-20°   | 190.7  | 4.9       |
| 20°-30°   | 303.1  | 7.9       |
| 30°-40°   | 389.0  | 10.1      |
| 40°-50°   | 439.3  | 11.4      |
| 50°-60°   | 448.2  | 11.6      |
| 60°-70°   | 415.2  | 10.8      |
| 70°-80°   | 351.6  | 9.1       |
| 80°-90°   | 280.6  | 7.3       |
| 90°-100°  | 238.3  | 6.2       |
| 100°-110° | 212.3  | 5.5       |
| 110°-120° | 180.8  | 4.7       |
| 120°-130° | 143.6  | 3.7       |
| 130°-140° | 101.9  | 2.6       |
| 140°-150° | 60.8   | 1.6       |
| 150°-160° | 28.4   | 0.7       |
| 160°-170° | 6.7    | 0.2       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 558.2  | 14.5      |
| 0°-40°    | 947.2  | 24.6      |
| 0°-60°    | 1834.7 | 47.6      |
| 0°-90°    | 2882.1 | 74.8      |
| 90°-120°  | 631.4  | 16.4      |
| 90°-150°  | 937.8  | 24.3      |
| 90°-180°  | 973.0  | 25.2      |
| 0°-180°   | 3855.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 669 | 669   | 669 | 669   | 669 |      |
| 5°   | 674 | 668   | 676 | 676   | 676 | 64   |
| 15°  | 650 | 655   | 678 | 691   | 696 | 183  |
| 25°  | 602 | 621   | 665 | 688   | 699 | 277  |
| 35°  | 532 | 571   | 632 | 671   | 688 | 333  |
| 45°  | 448 | 508   | 583 | 634   | 656 | 348  |
| 55°  | 362 | 423   | 517 | 581   | 606 | 318  |
| 65°  | 248 | 331   | 438 | 513   | 542 | 246  |
| 75°  | 130 | 231   | 354 | 441   | 472 | 139  |
| 85°  | 34  | 149   | 283 | 374   | 406 | 37   |
| 90°  | 2   | 121   | 253 | 344   | 376 | 3    |
| 95°  | 0   | 114   | 245 | 334   | 365 | 0    |
| 105° | 0   | 105   | 223 | 307   | 337 | 0    |
| 115° | 0   | 98    | 203 | 276   | 304 | 0    |
| 125° | 0   | 84    | 180 | 244   | 267 | 0    |
| 135° | 0   | 62    | 145 | 206   | 225 | 0    |
| 145° | 0   | 41    | 102 | 154   | 176 | 0    |
| 155° | 1   | 25    | 62  | 94    | 117 | 0    |
| 165° | 1   | 14    | 28  | 39    | 55  | 0    |
| 175° | 0   | 0     | 0   | 0     | 0   | 0    |
| 180° | 0   | 0     | 0   | 0     | 0   | 0    |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 669.4 | 669.4 | 669.4 | 669.4 | 669.4 |
| 2.5°   | 675.8 | 668.5 | 672.1 | 671.2 | 667.6 |
| 5°     | 674.0 | 668.5 | 675.8 | 675.8 | 675.8 |
| 7.5°   | 670.3 | 666.7 | 676.7 | 680.3 | 681.2 |
| 10°    | 664.9 | 664.9 | 678.5 | 683.9 | 685.7 |
| 12.5°  | 657.7 | 660.4 | 678.5 | 686.6 | 691.2 |
| 15°    | 649.5 | 654.9 | 678.5 | 691.2 | 695.7 |
| 17.5°  | 639.5 | 648.6 | 676.7 | 692.1 | 698.4 |
| 20°    | 627.8 | 641.4 | 674.0 | 692.1 | 700.2 |
| 22.5°  | 615.1 | 632.3 | 670.3 | 690.3 | 700.2 |
| 25°    | 601.5 | 621.4 | 664.9 | 688.5 | 699.3 |
| 27.5°  | 585.2 | 610.6 | 658.6 | 685.7 | 698.4 |
| 30°    | 568.9 | 597.9 | 651.3 | 682.1 | 695.7 |
| 32.5°  | 550.8 | 584.3 | 642.3 | 676.7 | 692.1 |
| 35°    | 531.7 | 570.7 | 632.3 | 671.2 | 687.5 |
| 37.5°  | 512.7 | 554.4 | 622.3 | 664.0 | 682.1 |
| 40°    | 491.9 | 538.1 | 610.6 | 654.9 | 674.0 |
| 42.5°  | 476.5 | 520.9 | 597.9 | 645.9 | 665.8 |
| 45°    | 447.5 | 508.2 | 583.4 | 634.1 | 655.8 |
| 47.5°  | 424.8 | 483.7 | 568.9 | 622.3 | 645.0 |
| 50°    | 410.4 | 463.8 | 551.7 | 608.7 | 632.3 |
| 52.5°  | 375.9 | 450.2 | 535.4 | 595.2 | 620.5 |
| 55°    | 362.3 | 423.0 | 517.2 | 580.7 | 606.0 |
| 57.5°  | 325.2 | 404.0 | 499.1 | 564.4 | 590.6 |
| 60°    | 307.1 | 377.7 | 479.2 | 548.0 | 575.2 |
| 62.5°  | 279.0 | 355.1 | 459.3 | 529.9 | 558.0 |
| 65°    | 248.2 | 330.6 | 437.5 | 512.7 | 541.7 |
| 67.5°  | 219.2 | 306.2 | 416.7 | 494.6 | 525.4 |
| 70°    | 191.1 | 280.8 | 395.0 | 476.5 | 507.3 |
| 72.5°  | 158.5 | 255.5 | 374.1 | 459.3 | 490.1 |
| 75°    | 130.4 | 231.0 | 354.2 | 441.2 | 472.0 |
| 77.5°  | 103.3 | 207.4 | 335.2 | 424.8 | 455.6 |
| 80°    | 77.9  | 184.8 | 316.1 | 407.6 | 439.3 |
| 82.5°  | 54.4  | 165.8 | 298.9 | 391.3 | 422.1 |
| 85°    | 33.5  | 148.6 | 282.6 | 374.1 | 405.8 |
| 87.5°  | 15.4  | 133.2 | 266.3 | 357.8 | 390.4 |
| 90°    | 1.8   | 121.4 | 252.7 | 344.2 | 375.9 |
| 92.5°  | 0.9   | 117.8 | 247.3 | 337.9 | 368.7 |
| 95°    | 0.0   | 114.1 | 244.6 | 334.3 | 365.1 |
| 97.5°  | 0.0   | 110.5 | 238.2 | 328.8 | 360.5 |
| 100°   | 0.0   | 108.7 | 233.7 | 320.7 | 351.5 |
| 102.5° | 0.0   | 106.0 | 228.3 | 313.4 | 344.2 |
| 105°   | 0.0   | 105.1 | 222.8 | 307.1 | 337.0 |
| 107.5° | 0.0   | 103.3 | 217.4 | 298.9 | 328.8 |
| 110°   | 0.0   | 101.5 | 212.9 | 291.7 | 320.7 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°   | 67.5° | 90°   |
|--------|-----|-------|-------|-------|-------|
| 112.5° | 0.0 | 99.6  | 208.3 | 284.4 | 312.5 |
| 115°   | 0.0 | 97.8  | 202.9 | 276.3 | 303.5 |
| 117.5° | 0.0 | 95.1  | 197.5 | 268.1 | 295.3 |
| 120°   | 0.0 | 91.5  | 192.0 | 260.9 | 286.3 |
| 122.5° | 0.0 | 87.9  | 186.6 | 251.8 | 276.3 |
| 125°   | 0.0 | 84.2  | 180.3 | 243.7 | 267.2 |
| 127.5° | 0.0 | 78.8  | 173.0 | 234.6 | 256.4 |
| 130°   | 0.0 | 73.4  | 164.0 | 225.6 | 246.4 |
| 132.5° | 0.9 | 67.9  | 154.9 | 215.6 | 236.4 |
| 135°   | 0.0 | 62.5  | 144.9 | 205.6 | 224.7 |
| 137.5° | 0.0 | 58.0  | 134.1 | 194.8 | 212.9 |
| 140°   | 0.0 | 52.5  | 123.2 | 182.1 | 201.1 |
| 142.5° | 0.0 | 46.2  | 112.3 | 168.5 | 188.4 |
| 145°   | 0.0 | 40.8  | 101.5 | 154.0 | 175.7 |
| 147.5° | 0.9 | 36.2  | 91.5  | 138.6 | 162.1 |
| 150°   | 0.9 | 32.6  | 81.5  | 123.2 | 146.7 |
| 152.5° | 0.9 | 29.0  | 71.6  | 108.7 | 131.4 |
| 155°   | 0.9 | 25.4  | 62.5  | 94.2  | 116.9 |
| 157.5° | 0.9 | 21.7  | 52.5  | 79.7  | 101.5 |
| 160°   | 0.9 | 19.0  | 43.5  | 67.0  | 87.0  |
| 162.5° | 0.9 | 16.3  | 35.3  | 52.5  | 71.6  |
| 165°   | 0.9 | 13.6  | 28.1  | 39.0  | 55.3  |
| 167.5° | 0.0 | 0.0   | 0.0   | 0.0   | 0.0   |
| 170°   | 0.0 | 0.0   | 0.0   | 0.0   | 0.0   |
| 172.5° | 0.0 | 0.0   | 0.0   | 0.0   | 0.0   |
| 175°   | 0.0 | 0.0   | 0.0   | 0.0   | 0.0   |
| 177.5° | 0.0 | 0.0   | 0.0   | 0.0   | 0.0   |
| 180°   | 0.0 | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)