

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: P1214115

Luminaire Tested: 4SNLED-LD5-37SL-SLW-UNV-L950-CD1-U

Issue Date: 3/29/2018

**Test Information**

Test Method: LM-79-2019  
Report Number: P1214115  
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-LD5-37SL-SLW-UNV-L950-CD1-U  
Description: 4FT LINEAR SNLED LED FIXTURE  
SQUARE FROSTED LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

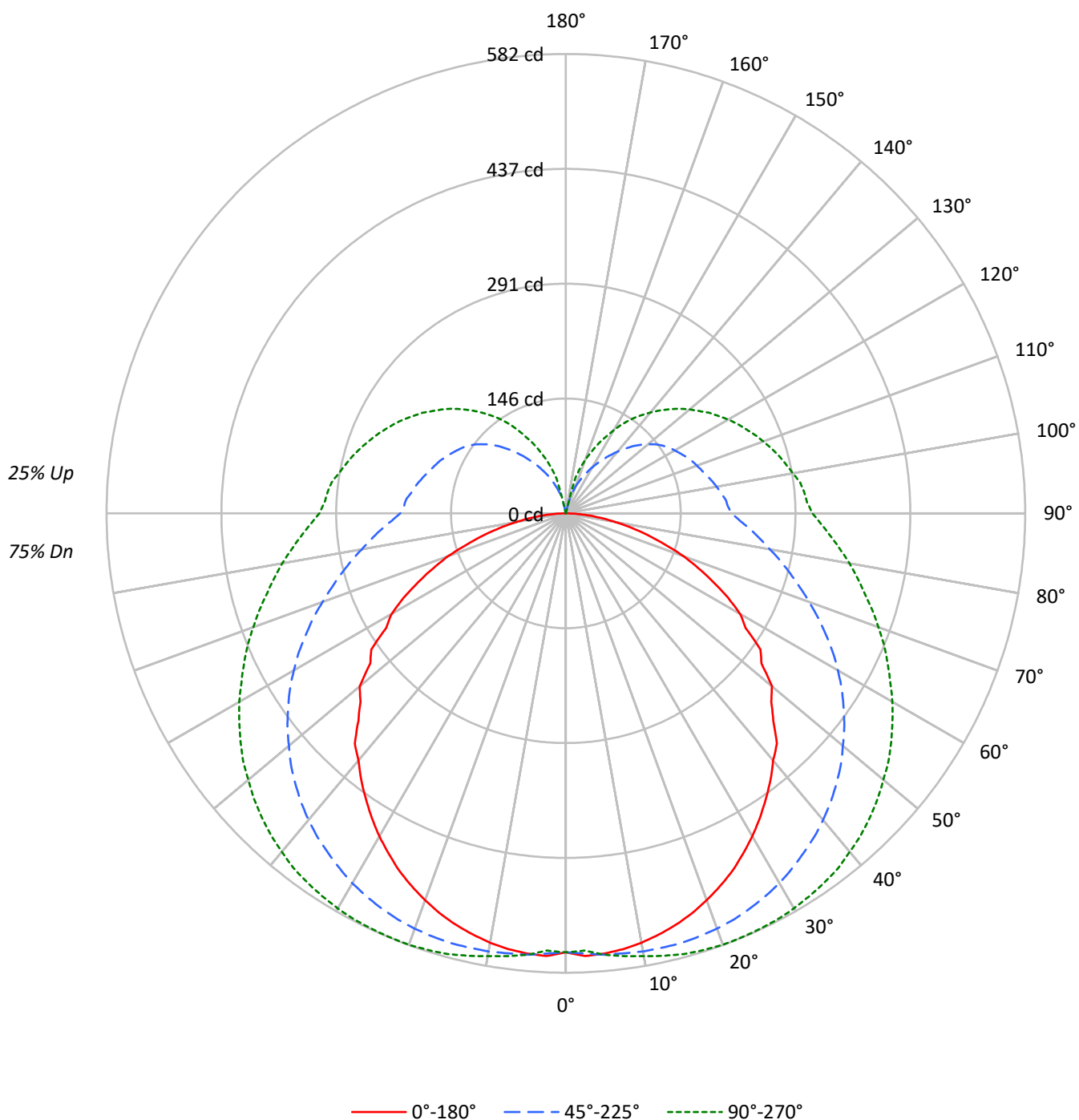
Lumens per Lamp: N/A  
Luminaire Lumens: 3202.0 lumens  
Efficiency: N/A  
Efficacy: 103.3 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.56 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')  
CIE Type: Semi-Direct

Input Watts (W): 31  
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°  | 4493 | 4493 | 4493 |
| 5°  | 4529 | 4441 | 4408 |
| 10° | 4507 | 4402 | 4384 |
| 15° | 4476 | 4378 | 4393 |
| 20° | 4433 | 4358 | 4400 |
| 25° | 4391 | 4342 | 4408 |
| 30° | 4331 | 4329 | 4432 |
| 35° | 4264 | 4313 | 4461 |
| 40° | 4200 | 4310 | 4491 |
| 45° | 4119 | 4301 | 4527 |
| 50° | 4131 | 4290 | 4562 |
| 55° | 4060 | 4291 | 4617 |
| 60° | 3911 | 4294 | 4680 |
| 65° | 3695 | 4298 | 4766 |
| 70° | 3455 | 4331 | 4901 |
| 75° | 3028 | 4431 | 5098 |
| 80° | 2558 | 4645 | 5427 |
| 85° | 1899 | 5079 | 5908 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 90°

Luminance: 6723 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 53.4   | 1.7       |
| 10°-20°   | 158.4  | 4.9       |
| 20°-30°   | 251.8  | 7.9       |
| 30°-40°   | 323.1  | 10.1      |
| 40°-50°   | 364.9  | 11.4      |
| 50°-60°   | 372.3  | 11.6      |
| 60°-70°   | 344.9  | 10.8      |
| 70°-80°   | 292.0  | 9.1       |
| 80°-90°   | 233.1  | 7.3       |
| 90°-100°  | 197.9  | 6.2       |
| 100°-110° | 176.3  | 5.5       |
| 110°-120° | 150.2  | 4.7       |
| 120°-130° | 119.3  | 3.7       |
| 130°-140° | 84.6   | 2.6       |
| 140°-150° | 50.5   | 1.6       |
| 150°-160° | 23.6   | 0.7       |
| 160°-170° | 5.6    | 0.2       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 463.6  | 14.5      |
| 0°-40°    | 786.7  | 24.6      |
| 0°-60°    | 1523.9 | 47.6      |
| 0°-90°    | 2393.9 | 74.8      |
| 90°-120°  | 524.5  | 16.4      |
| 90°-150°  | 779.0  | 24.3      |
| 90°-180°  | 808.0  | 25.2      |
| 0°-180°   | 3202.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 556 | 556   | 556 | 556   | 556 |      |
| 5°   | 560 | 555   | 561 | 561   | 561 | 53   |
| 15°  | 540 | 544   | 564 | 574   | 578 | 152  |
| 25°  | 500 | 516   | 552 | 572   | 581 | 230  |
| 35°  | 442 | 474   | 525 | 558   | 571 | 277  |
| 45°  | 372 | 422   | 485 | 527   | 545 | 289  |
| 55°  | 301 | 351   | 430 | 482   | 503 | 264  |
| 65°  | 206 | 275   | 363 | 426   | 450 | 205  |
| 75°  | 108 | 192   | 294 | 366   | 392 | 115  |
| 85°  | 28  | 123   | 235 | 311   | 337 | 30   |
| 90°  | 2   | 101   | 210 | 286   | 312 | 2    |
| 95°  | 0   | 95    | 203 | 278   | 303 | 0    |
| 105° | 0   | 87    | 185 | 255   | 280 | 0    |
| 115° | 0   | 81    | 168 | 230   | 252 | 0    |
| 125° | 0   | 70    | 150 | 202   | 222 | 0    |
| 135° | 0   | 52    | 120 | 171   | 187 | 0    |
| 145° | 0   | 34    | 84  | 128   | 146 | 0    |
| 155° | 1   | 21    | 52  | 78    | 97  | 0    |
| 165° | 1   | 11    | 23  | 32    | 46  | 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°     | 556.0 | 556.0 | 556.0 | 556.0 | 556.0 |
| 2.5°   | 561.3 | 555.3 | 558.3 | 557.5 | 554.5 |
| 5°     | 559.8 | 555.3 | 561.3 | 561.3 | 561.3 |
| 7.5°   | 556.8 | 553.8 | 562.1 | 565.1 | 565.8 |
| 10°    | 552.3 | 552.3 | 563.6 | 568.1 | 569.6 |
| 12.5°  | 546.3 | 548.5 | 563.6 | 570.3 | 574.1 |
| 15°    | 539.5 | 544.0 | 563.6 | 574.1 | 577.9 |
| 17.5°  | 531.2 | 538.7 | 562.1 | 574.8 | 580.1 |
| 20°    | 521.4 | 532.7 | 559.8 | 574.8 | 581.6 |
| 22.5°  | 510.9 | 525.2 | 556.8 | 573.3 | 581.6 |
| 25°    | 499.6 | 516.2 | 552.3 | 571.8 | 580.9 |
| 27.5°  | 486.1 | 507.1 | 547.0 | 569.6 | 580.1 |
| 30°    | 472.5 | 496.6 | 541.0 | 566.6 | 577.9 |
| 32.5°  | 457.5 | 485.3 | 533.5 | 562.1 | 574.8 |
| 35°    | 441.7 | 474.0 | 525.2 | 557.5 | 571.1 |
| 37.5°  | 425.9 | 460.5 | 516.9 | 551.5 | 566.6 |
| 40°    | 408.6 | 446.9 | 507.1 | 544.0 | 559.8 |
| 42.5°  | 395.8 | 432.6 | 496.6 | 536.5 | 553.0 |
| 45°    | 371.7 | 422.1 | 484.6 | 526.7 | 544.8 |
| 47.5°  | 352.9 | 401.8 | 472.5 | 516.9 | 535.7 |
| 50°    | 340.8 | 385.2 | 458.2 | 505.6 | 525.2 |
| 52.5°  | 312.3 | 374.0 | 444.7 | 494.3 | 515.4 |
| 55°    | 301.0 | 351.4 | 429.6 | 482.3 | 503.4 |
| 57.5°  | 270.1 | 335.6 | 414.6 | 468.8 | 490.6 |
| 60°    | 255.1 | 313.8 | 398.0 | 455.2 | 477.8 |
| 62.5°  | 231.7 | 294.9 | 381.5 | 440.2 | 463.5 |
| 65°    | 206.2 | 274.6 | 363.4 | 425.9 | 449.9 |
| 67.5°  | 182.1 | 254.3 | 346.1 | 410.8 | 436.4 |
| 70°    | 158.8 | 233.2 | 328.1 | 395.8 | 421.4 |
| 72.5°  | 131.7 | 212.2 | 310.7 | 381.5 | 407.1 |
| 75°    | 108.3 | 191.9 | 294.2 | 366.4 | 392.0 |
| 77.5°  | 85.8  | 172.3 | 278.4 | 352.9 | 378.5 |
| 80°    | 64.7  | 153.5 | 262.6 | 338.6 | 364.9 |
| 82.5°  | 45.1  | 137.7 | 248.3 | 325.0 | 350.6 |
| 85°    | 27.8  | 123.4 | 234.8 | 310.7 | 337.1 |
| 87.5°  | 12.8  | 110.6 | 221.2 | 297.2 | 324.3 |
| 90°    | 1.5   | 100.8 | 209.9 | 285.9 | 312.3 |
| 92.5°  | 0.8   | 97.8  | 205.4 | 280.7 | 306.2 |
| 95°    | 0.0   | 94.8  | 203.2 | 277.6 | 303.2 |
| 97.5°  | 0.0   | 91.8  | 197.9 | 273.1 | 299.5 |
| 100°   | 0.0   | 90.3  | 194.1 | 266.4 | 291.9 |
| 102.5° | 0.0   | 88.0  | 189.6 | 260.3 | 285.9 |
| 105°   | 0.0   | 87.3  | 185.1 | 255.1 | 279.9 |
| 107.5° | 0.0   | 85.8  | 180.6 | 248.3 | 273.1 |
| 110°   | 0.0   | 84.3  | 176.8 | 242.3 | 266.4 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°   | 67.5° | 90°   |
|--------|-----|-------|-------|-------|-------|
| 112.5° | 0.0 | 82.8  | 173.1 | 236.3 | 259.6 |
| 115°   | 0.0 | 81.3  | 168.5 | 229.5 | 252.1 |
| 117.5° | 0.0 | 79.0  | 164.0 | 222.7 | 245.3 |
| 120°   | 0.0 | 76.0  | 159.5 | 216.7 | 237.8 |
| 122.5° | 0.0 | 73.0  | 155.0 | 209.2 | 229.5 |
| 125°   | 0.0 | 70.0  | 149.7 | 202.4 | 222.0 |
| 127.5° | 0.0 | 65.5  | 143.7 | 194.9 | 212.9 |
| 130°   | 0.0 | 60.9  | 136.2 | 187.4 | 204.7 |
| 132.5° | 0.8 | 56.4  | 128.7 | 179.1 | 196.4 |
| 135°   | 0.0 | 51.9  | 120.4 | 170.8 | 186.6 |
| 137.5° | 0.0 | 48.2  | 111.4 | 161.8 | 176.8 |
| 140°   | 0.0 | 43.6  | 102.3 | 151.2 | 167.0 |
| 142.5° | 0.0 | 38.4  | 93.3  | 139.9 | 156.5 |
| 145°   | 0.0 | 33.9  | 84.3  | 127.9 | 146.0 |
| 147.5° | 0.8 | 30.1  | 76.0  | 115.1 | 134.7 |
| 150°   | 0.8 | 27.1  | 67.7  | 102.3 | 121.9 |
| 152.5° | 0.8 | 24.1  | 59.4  | 90.3  | 109.1 |
| 155°   | 0.8 | 21.1  | 51.9  | 78.3  | 97.1  |
| 157.5° | 0.8 | 18.1  | 43.6  | 66.2  | 84.3  |
| 160°   | 0.8 | 15.8  | 36.1  | 55.7  | 72.2  |
| 162.5° | 0.8 | 13.5  | 29.3  | 43.6  | 59.4  |
| 165°   | 0.8 | 11.3  | 23.3  | 32.4  | 45.9  |
| 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)