

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P218303

Luminaire Tested: **4SNLED-LD5-23SL-LW-UNV-L830-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P218303  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35687)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SNLED-LD5-23SL-LW-UNV-L830-CD1-U  
Description: LED STRIP LIGHT - SNLED SERIES 4FOOT

Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2375.9 lumens  
Efficiency: N/A  
Efficacy: 123.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.3 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.17')  
CIE Type: Semi-Direct

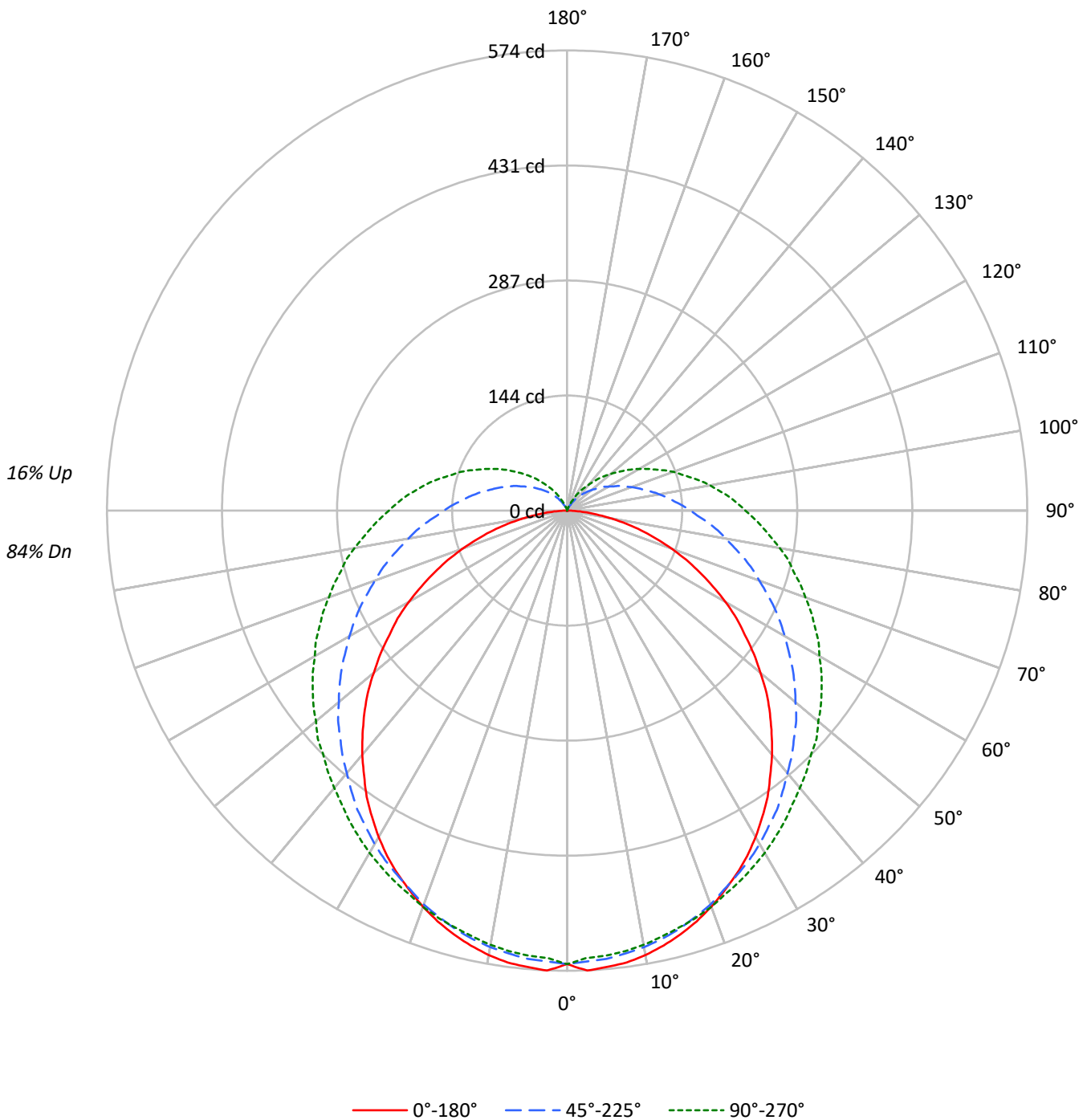
Input Watts (W): 19.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 115 | 115 | 115 | 115 | 111 | 111 | 111 | 111 | 102 | 102 | 102 | 95 | 95 | 95 | 88 | 88 | 88 | 84 |
| 1   | 102 | 96  | 91  | 86  | 98  | 93  | 88  | 83  | 85  | 81  | 78  | 79 | 76 | 73 | 73 | 70 | 68 | 65 |
| 2   | 92  | 83  | 75  | 68  | 88  | 79  | 72  | 66  | 73  | 67  | 62  | 67 | 63 | 58 | 62 | 58 | 55 | 52 |
| 3   | 83  | 72  | 63  | 56  | 79  | 69  | 61  | 54  | 64  | 57  | 51  | 59 | 53 | 48 | 54 | 49 | 45 | 42 |
| 4   | 76  | 63  | 54  | 46  | 72  | 61  | 52  | 45  | 56  | 49  | 43  | 52 | 46 | 41 | 48 | 43 | 38 | 36 |
| 5   | 70  | 56  | 46  | 39  | 66  | 54  | 45  | 39  | 50  | 42  | 37  | 46 | 40 | 35 | 43 | 37 | 33 | 30 |
| 6   | 64  | 50  | 41  | 34  | 61  | 48  | 40  | 33  | 45  | 37  | 32  | 42 | 35 | 30 | 39 | 33 | 29 | 26 |
| 7   | 59  | 45  | 36  | 30  | 57  | 44  | 35  | 29  | 41  | 33  | 28  | 38 | 31 | 27 | 35 | 30 | 25 | 23 |
| 8   | 55  | 41  | 32  | 26  | 53  | 40  | 32  | 26  | 37  | 30  | 25  | 35 | 28 | 24 | 32 | 27 | 23 | 21 |
| 9   | 51  | 38  | 29  | 24  | 49  | 36  | 29  | 23  | 34  | 27  | 22  | 32 | 26 | 21 | 30 | 24 | 20 | 18 |
| 10  | 48  | 35  | 27  | 21  | 46  | 34  | 26  | 21  | 32  | 25  | 20  | 30 | 24 | 19 | 28 | 22 | 18 | 17 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 9115 | 9115 | 9115 |
| 5°  | 9209 | 8531 | 8288 |
| 10° | 9143 | 8007 | 7650 |
| 15° | 9027 | 7525 | 7086 |
| 20° | 8881 | 7072 | 6610 |
| 25° | 8723 | 6638 | 6185 |
| 30° | 8543 | 6269 | 5815 |
| 35° | 8333 | 5918 | 5474 |
| 40° | 8080 | 5557 | 5166 |
| 45° | 7825 | 5254 | 4903 |
| 50° | 7520 | 4965 | 4678 |
| 55° | 7177 | 4701 | 4484 |
| 60° | 6852 | 4439 | 4287 |
| 65° | 6383 | 4212 | 4130 |
| 70° | 5841 | 3975 | 3977 |
| 75° | 5144 | 3786 | 3843 |
| 80° | 4059 | 3601 | 3746 |
| 85° | 2678 | 3468 | 3646 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 53.6   | 2.3       |
| 10°-20°   | 153.2  | 6.4       |
| 20°-30°   | 232.9  | 9.8       |
| 30°-40°   | 285.0  | 12.0      |
| 40°-50°   | 307.7  | 12.9      |
| 50°-60°   | 302.1  | 12.7      |
| 60°-70°   | 272.1  | 11.5      |
| 70°-80°   | 225.3  | 9.5       |
| 80°-90°   | 173.3  | 7.3       |
| 90°-100°  | 130.6  | 5.5       |
| 100°-110° | 96.1   | 4.0       |
| 110°-120° | 66.3   | 2.8       |
| 120°-130° | 42.0   | 1.8       |
| 130°-140° | 23.3   | 1.0       |
| 140°-150° | 10.1   | 0.4       |
| 150°-160° | 2.5    | 0.1       |
| 160°-170° | 0.1    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 439.6  | 18.5      |
| 0°-40°    | 724.6  | 30.5      |
| 0°-60°    | 1334.4 | 56.2      |
| 0°-90°    | 2005.0 | 84.4      |
| 90°-120°  | 293.0  | 12.3      |
| 90°-150°  | 368.4  | 15.5      |
| 90°-180°  | 371.0  | 15.6      |
| 0°-180°   | 2375.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 566 | 566   | 566 | 566   | 566 |      |
| 5°   | 571 | 569   | 561 | 561   | 557 | 54   |
| 15°  | 547 | 546   | 540 | 543   | 539 | 154  |
| 25°  | 500 | 500   | 502 | 512   | 510 | 230  |
| 35°  | 436 | 440   | 456 | 470   | 473 | 272  |
| 45°  | 358 | 373   | 400 | 425   | 430 | 276  |
| 55°  | 271 | 301   | 343 | 378   | 388 | 243  |
| 65°  | 182 | 224   | 285 | 328   | 341 | 181  |
| 75°  | 96  | 152   | 228 | 276   | 292 | 101  |
| 85°  | 21  | 94    | 177 | 229   | 245 | 24   |
| 90°  | 0   | 73    | 154 | 207   | 222 | 1    |
| 95°  | 1   | 57    | 134 | 185   | 202 | 0    |
| 105° | 0   | 36    | 100 | 145   | 160 | 0    |
| 115° | 0   | 23    | 73  | 110   | 121 | 0    |
| 125° | 0   | 14    | 50  | 78    | 87  | 0    |
| 135° | 0   | 8     | 31  | 51    | 57  | 0    |
| 145° | 0   | 3     | 16  | 28    | 31  | 0    |
| 155° | 0   | 1     | 4   | 8     | 10  | 0    |
| 165° | 0   | 0     | 0   | 0     | 0   | 0    |
| 175° | 0   | 0     | 0   | 0     | 0   | 0    |
| 180° | 0   | 0     | 0   | 0     | 0   | 0    |



TEST NUMBER: P218303

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L830-CD1-U

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 565.7 | 565.7 | 565.7 | 565.7 | 565.7 |
| 2.5°   | 574.3 | 570.0 | 562.9 | 562.9 | 558.6 |
| 5°     | 571.4 | 568.6 | 561.4 | 561.4 | 557.2 |
| 7.5°   | 568.6 | 565.7 | 557.2 | 558.6 | 554.3 |
| 10°    | 562.9 | 560.0 | 552.9 | 554.3 | 550.0 |
| 12.5°  | 555.7 | 552.9 | 547.2 | 548.6 | 544.3 |
| 15°    | 547.2 | 545.8 | 540.1 | 542.9 | 538.6 |
| 17.5°  | 537.2 | 535.8 | 531.5 | 535.8 | 532.9 |
| 20°    | 525.8 | 525.8 | 523.0 | 528.7 | 525.8 |
| 22.5°  | 513.0 | 513.0 | 511.6 | 520.1 | 517.3 |
| 25°    | 500.2 | 500.2 | 501.6 | 511.6 | 510.1 |
| 27.5°  | 485.9 | 487.3 | 491.6 | 503.0 | 501.6 |
| 30°    | 470.2 | 473.1 | 480.2 | 493.0 | 493.0 |
| 32.5°  | 453.1 | 456.0 | 467.4 | 483.1 | 483.1 |
| 35°    | 436.0 | 440.3 | 456.0 | 470.2 | 473.1 |
| 37.5°  | 416.1 | 423.2 | 441.7 | 458.8 | 461.7 |
| 40°    | 397.6 | 407.5 | 427.5 | 447.4 | 451.7 |
| 42.5°  | 377.6 | 390.4 | 414.7 | 437.5 | 441.7 |
| 45°    | 357.7 | 373.3 | 400.4 | 424.6 | 430.3 |
| 47.5°  | 337.7 | 354.8 | 387.6 | 413.2 | 421.8 |
| 50°    | 314.9 | 336.3 | 371.9 | 401.8 | 409.0 |
| 52.5°  | 293.5 | 317.8 | 357.7 | 389.0 | 399.0 |
| 55°    | 270.7 | 300.7 | 343.4 | 377.6 | 387.6 |
| 57.5°  | 250.8 | 280.7 | 327.7 | 366.2 | 376.2 |
| 60°    | 228.0 | 260.8 | 313.5 | 352.0 | 363.4 |
| 62.5°  | 205.2 | 243.7 | 299.2 | 340.6 | 353.4 |
| 65°    | 182.4 | 223.7 | 285.0 | 327.7 | 340.6 |
| 67.5°  | 161.0 | 205.2 | 269.3 | 314.9 | 329.2 |
| 70°    | 138.2 | 186.7 | 255.1 | 302.1 | 316.3 |
| 72.5°  | 116.8 | 169.6 | 242.2 | 289.3 | 304.9 |
| 75°    | 95.5  | 152.5 | 228.0 | 276.4 | 292.1 |
| 77.5°  | 75.5  | 136.8 | 213.7 | 265.0 | 282.1 |
| 80°    | 54.1  | 121.1 | 200.9 | 252.2 | 269.3 |
| 82.5°  | 37.0  | 106.9 | 189.5 | 240.8 | 256.5 |
| 85°    | 21.4  | 94.0  | 176.7 | 229.4 | 245.1 |
| 87.5°  | 8.5   | 82.6  | 163.9 | 216.6 | 233.7 |
| 90°    | 0.0   | 72.7  | 153.9 | 206.6 | 222.3 |
| 92.5°  | 0.0   | 64.1  | 143.9 | 195.2 | 212.3 |
| 95°    | 1.4   | 57.0  | 133.9 | 185.2 | 202.3 |
| 97.5°  | 0.0   | 49.9  | 125.4 | 175.3 | 190.9 |
| 100°   | 0.0   | 45.6  | 116.8 | 165.3 | 181.0 |
| 102.5° | 0.0   | 39.9  | 108.3 | 155.3 | 171.0 |
| 105°   | 0.0   | 35.6  | 99.7  | 145.3 | 159.6 |
| 107.5° | 0.0   | 32.8  | 92.6  | 136.8 | 149.6 |
| 110°   | 0.0   | 28.5  | 85.5  | 128.2 | 141.1 |



TEST NUMBER: P218303

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L830-CD1-U

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°  | 67.5° | 90°   |
|--------|-----|-------|------|-------|-------|
| 112.5° | 0.0 | 25.6  | 78.4 | 118.3 | 131.1 |
| 115°   | 0.0 | 22.8  | 72.7 | 109.7 | 121.1 |
| 117.5° | 0.0 | 21.4  | 65.5 | 101.2 | 112.6 |
| 120°   | 0.0 | 18.5  | 59.8 | 94.0  | 104.0 |
| 122.5° | 0.0 | 17.1  | 55.6 | 85.5  | 95.5  |
| 125°   | 0.0 | 14.2  | 49.9 | 78.4  | 86.9  |
| 127.5° | 0.0 | 12.8  | 44.2 | 71.2  | 78.4  |
| 130°   | 0.0 | 11.4  | 39.9 | 64.1  | 71.2  |
| 132.5° | 0.0 | 10.0  | 35.6 | 57.0  | 64.1  |
| 135°   | 0.0 | 8.5   | 31.3 | 51.3  | 57.0  |
| 137.5° | 0.0 | 7.1   | 27.1 | 44.2  | 49.9  |
| 140°   | 0.0 | 5.7   | 22.8 | 38.5  | 42.7  |
| 142.5° | 0.0 | 4.3   | 19.9 | 32.8  | 37.0  |
| 145°   | 0.0 | 2.8   | 15.7 | 28.5  | 31.3  |
| 147.5° | 0.0 | 2.8   | 12.8 | 22.8  | 25.6  |
| 150°   | 0.0 | 1.4   | 8.5  | 18.5  | 19.9  |
| 152.5° | 0.0 | 1.4   | 7.1  | 14.2  | 14.2  |
| 155°   | 0.0 | 1.4   | 4.3  | 8.5   | 10.0  |
| 157.5° | 0.0 | 0.0   | 2.8  | 5.7   | 5.7   |
| 160°   | 0.0 | 0.0   | 1.4  | 2.8   | 4.3   |
| 162.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0   |
| 165°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0   |
| 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)