

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: P218304

Luminaire Tested: **4SNLED-LD5-23SL-LW-UNV-L835-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P218304
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-L835-CD1-U
Description: LED STRIP LIGHT - SNLED SERIES 4FOOT

Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2524.0 lumens
Efficiency: N/A
Efficacy: 130.8 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

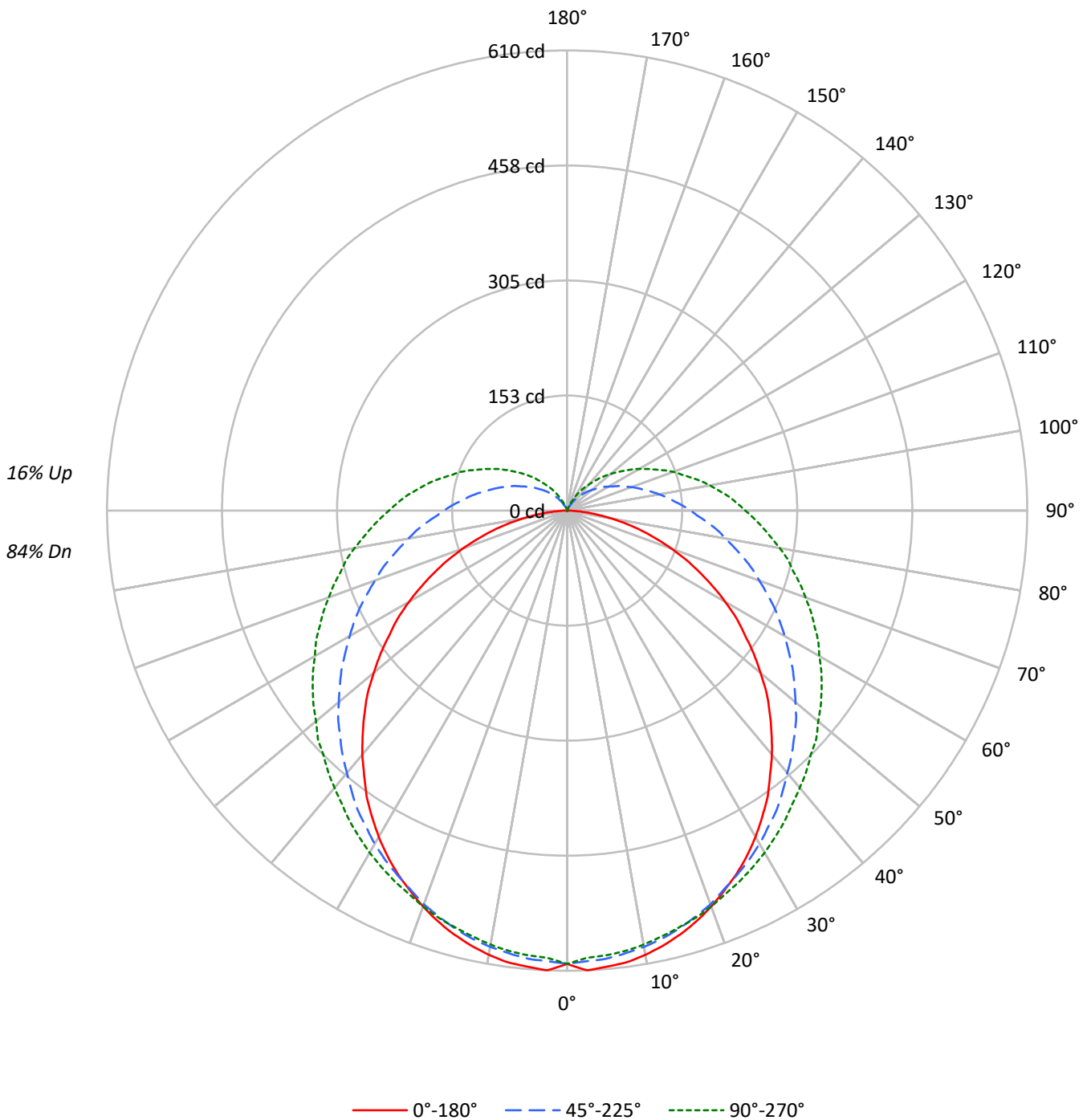
Input Watts (W): 19.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P218304

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P218304

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L835-CD1-U

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° | 9683 | 9683 | 9683 |
| 5° | 9783 | 9063 | 8804 |
| 10° | 9711 | 8505 | 8127 |
| 15° | 9590 | 7993 | 7528 |
| 20° | 9435 | 7512 | 7023 |
| 25° | 9266 | 7051 | 6571 |
| 30° | 9075 | 6659 | 6178 |
| 35° | 8853 | 6286 | 5815 |
| 40° | 8582 | 5903 | 5488 |
| 45° | 8310 | 5582 | 5208 |
| 50° | 7988 | 5274 | 4968 |
| 55° | 7625 | 4994 | 4763 |
| 60° | 7279 | 4715 | 4553 |
| 65° | 6782 | 4474 | 4387 |
| 70° | 6205 | 4222 | 4224 |
| 75° | 5462 | 4022 | 4083 |
| 80° | 4314 | 3825 | 3980 |
| 85° | 2841 | 3684 | 3873 |



TEST NUMBER: P218304

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L835-CD1-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 56.9 | 2.3 |
| 10°-20° | 162.7 | 6.4 |
| 20°-30° | 247.4 | 9.8 |
| 30°-40° | 302.7 | 12.0 |
| 40°-50° | 326.9 | 12.9 |
| 50°-60° | 320.9 | 12.7 |
| 60°-70° | 289.0 | 11.5 |
| 70°-80° | 239.3 | 9.5 |
| 80°-90° | 184.1 | 7.3 |
| 90°-100° | 138.7 | 5.5 |
| 100°-110° | 102.1 | 4.0 |
| 110°-120° | 70.4 | 2.8 |
| 120°-130° | 44.7 | 1.8 |
| 130°-140° | 24.7 | 1.0 |
| 140°-150° | 10.7 | 0.4 |
| 150°-160° | 2.7 | 0.1 |
| 160°-170° | 0.1 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 467.0 | 18.5 |
| 0°-40° | 769.8 | 30.5 |
| 0°-60° | 1417.5 | 56.2 |
| 0°-90° | 2129.9 | 84.4 |
| 90°-120° | 311.3 | 12.3 |
| 90°-150° | 391.4 | 15.5 |
| 90°-180° | 394.0 | 15.6 |
| 0°-180° | 2524.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 601 | 601 | 601 | 601 | 601 | |
| 5° | 607 | 604 | 596 | 596 | 592 | 58 |
| 15° | 581 | 580 | 574 | 577 | 572 | 164 |
| 25° | 531 | 531 | 533 | 543 | 542 | 245 |
| 35° | 463 | 468 | 484 | 500 | 503 | 289 |
| 45° | 380 | 397 | 425 | 451 | 457 | 293 |
| 55° | 288 | 319 | 365 | 401 | 412 | 258 |
| 65° | 194 | 238 | 303 | 348 | 362 | 192 |
| 75° | 101 | 162 | 242 | 294 | 310 | 108 |
| 85° | 23 | 100 | 188 | 244 | 260 | 26 |
| 90° | 0 | 77 | 164 | 220 | 236 | 1 |
| 95° | 2 | 60 | 142 | 197 | 215 | 0 |
| 105° | 0 | 38 | 106 | 154 | 170 | 0 |
| 115° | 0 | 24 | 77 | 117 | 129 | 0 |
| 125° | 0 | 15 | 53 | 83 | 92 | 0 |
| 135° | 0 | 9 | 33 | 54 | 60 | 0 |
| 145° | 0 | 3 | 17 | 30 | 33 | 0 |
| 155° | 0 | 2 | 4 | 9 | 11 | 0 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P218304

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 0° | 600.9 | 600.9 | 600.9 | 600.9 | 600.9 |
| 2.5° | 610.0 | 605.5 | 597.9 | 597.9 | 593.4 |
| 5° | 607.0 | 604.0 | 596.4 | 596.4 | 591.9 |
| 7.5° | 604.0 | 600.9 | 591.9 | 593.4 | 588.8 |
| 10° | 597.9 | 594.9 | 587.3 | 588.8 | 584.3 |
| 12.5° | 590.3 | 587.3 | 581.3 | 582.8 | 578.2 |
| 15° | 581.3 | 579.8 | 573.7 | 576.7 | 572.2 |
| 17.5° | 570.7 | 569.2 | 564.6 | 569.2 | 566.1 |
| 20° | 558.6 | 558.6 | 555.5 | 561.6 | 558.6 |
| 22.5° | 544.9 | 544.9 | 543.4 | 552.5 | 549.5 |
| 25° | 531.3 | 531.3 | 532.8 | 543.4 | 541.9 |
| 27.5° | 516.2 | 517.7 | 522.2 | 534.3 | 532.8 |
| 30° | 499.5 | 502.6 | 510.1 | 523.7 | 523.7 |
| 32.5° | 481.4 | 484.4 | 496.5 | 513.1 | 513.1 |
| 35° | 463.2 | 467.7 | 484.4 | 499.5 | 502.6 |
| 37.5° | 442.0 | 449.6 | 469.3 | 487.4 | 490.4 |
| 40° | 422.3 | 432.9 | 454.1 | 475.3 | 479.8 |
| 42.5° | 401.1 | 414.8 | 440.5 | 464.7 | 469.3 |
| 45° | 379.9 | 396.6 | 425.4 | 451.1 | 457.1 |
| 47.5° | 358.8 | 376.9 | 411.7 | 439.0 | 448.1 |
| 50° | 334.5 | 357.2 | 395.1 | 426.9 | 434.4 |
| 52.5° | 311.8 | 337.6 | 379.9 | 413.2 | 423.8 |
| 55° | 287.6 | 319.4 | 364.8 | 401.1 | 411.7 |
| 57.5° | 266.4 | 298.2 | 348.2 | 389.0 | 399.6 |
| 60° | 242.2 | 277.0 | 333.0 | 373.9 | 386.0 |
| 62.5° | 218.0 | 258.8 | 317.9 | 361.8 | 375.4 |
| 65° | 193.8 | 237.7 | 302.7 | 348.2 | 361.8 |
| 67.5° | 171.0 | 218.0 | 286.1 | 334.5 | 349.7 |
| 70° | 146.8 | 198.3 | 271.0 | 320.9 | 336.0 |
| 72.5° | 124.1 | 180.1 | 257.3 | 307.3 | 323.9 |
| 75° | 101.4 | 162.0 | 242.2 | 293.7 | 310.3 |
| 77.5° | 80.2 | 145.3 | 227.1 | 281.6 | 299.7 |
| 80° | 57.5 | 128.7 | 213.4 | 267.9 | 286.1 |
| 82.5° | 39.4 | 113.5 | 201.3 | 255.8 | 272.5 |
| 85° | 22.7 | 99.9 | 187.7 | 243.7 | 260.4 |
| 87.5° | 9.1 | 87.8 | 174.1 | 230.1 | 248.2 |
| 90° | 0.0 | 77.2 | 163.5 | 219.5 | 236.1 |
| 92.5° | 0.0 | 68.1 | 152.9 | 207.4 | 225.5 |
| 95° | 1.5 | 60.5 | 142.3 | 196.8 | 214.9 |
| 97.5° | 0.0 | 53.0 | 133.2 | 186.2 | 202.8 |
| 100° | 0.0 | 48.4 | 124.1 | 175.6 | 192.2 |
| 102.5° | 0.0 | 42.4 | 115.0 | 165.0 | 181.6 |
| 105° | 0.0 | 37.8 | 106.0 | 154.4 | 169.5 |
| 107.5° | 0.0 | 34.8 | 98.4 | 145.3 | 158.9 |
| 110° | 0.0 | 30.3 | 90.8 | 136.2 | 149.9 |



TEST NUMBER: P218304

CATALOG NUMBER: 4SNLED-LD5-23SL-LW-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|-------|
| 112.5° | 0.0 | 27.2 | 83.3 | 125.6 | 139.3 |
| 115° | 0.0 | 24.2 | 77.2 | 116.6 | 128.7 |
| 117.5° | 0.0 | 22.7 | 69.6 | 107.5 | 119.6 |
| 120° | 0.0 | 19.7 | 63.6 | 99.9 | 110.5 |
| 122.5° | 0.0 | 18.2 | 59.0 | 90.8 | 101.4 |
| 125° | 0.0 | 15.1 | 53.0 | 83.3 | 92.3 |
| 127.5° | 0.0 | 13.6 | 46.9 | 75.7 | 83.3 |
| 130° | 0.0 | 12.1 | 42.4 | 68.1 | 75.7 |
| 132.5° | 0.0 | 10.6 | 37.8 | 60.5 | 68.1 |
| 135° | 0.0 | 9.1 | 33.3 | 54.5 | 60.5 |
| 137.5° | 0.0 | 7.6 | 28.8 | 46.9 | 53.0 |
| 140° | 0.0 | 6.1 | 24.2 | 40.9 | 45.4 |
| 142.5° | 0.0 | 4.5 | 21.2 | 34.8 | 39.4 |
| 145° | 0.0 | 3.0 | 16.7 | 30.3 | 33.3 |
| 147.5° | 0.0 | 3.0 | 13.6 | 24.2 | 27.2 |
| 150° | 0.0 | 1.5 | 9.1 | 19.7 | 21.2 |
| 152.5° | 0.0 | 1.5 | 7.6 | 15.1 | 15.1 |
| 155° | 0.0 | 1.5 | 4.5 | 9.1 | 10.6 |
| 157.5° | 0.0 | 0.0 | 3.0 | 6.1 | 6.1 |
| 160° | 0.0 | 0.0 | 1.5 | 3.0 | 4.5 |
| 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)