

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: P#

Luminaire Tested: **4SNLED-LD5-18SL-SLN-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27402)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-18SL-SLN-UNV-L930-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
SQUARE NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

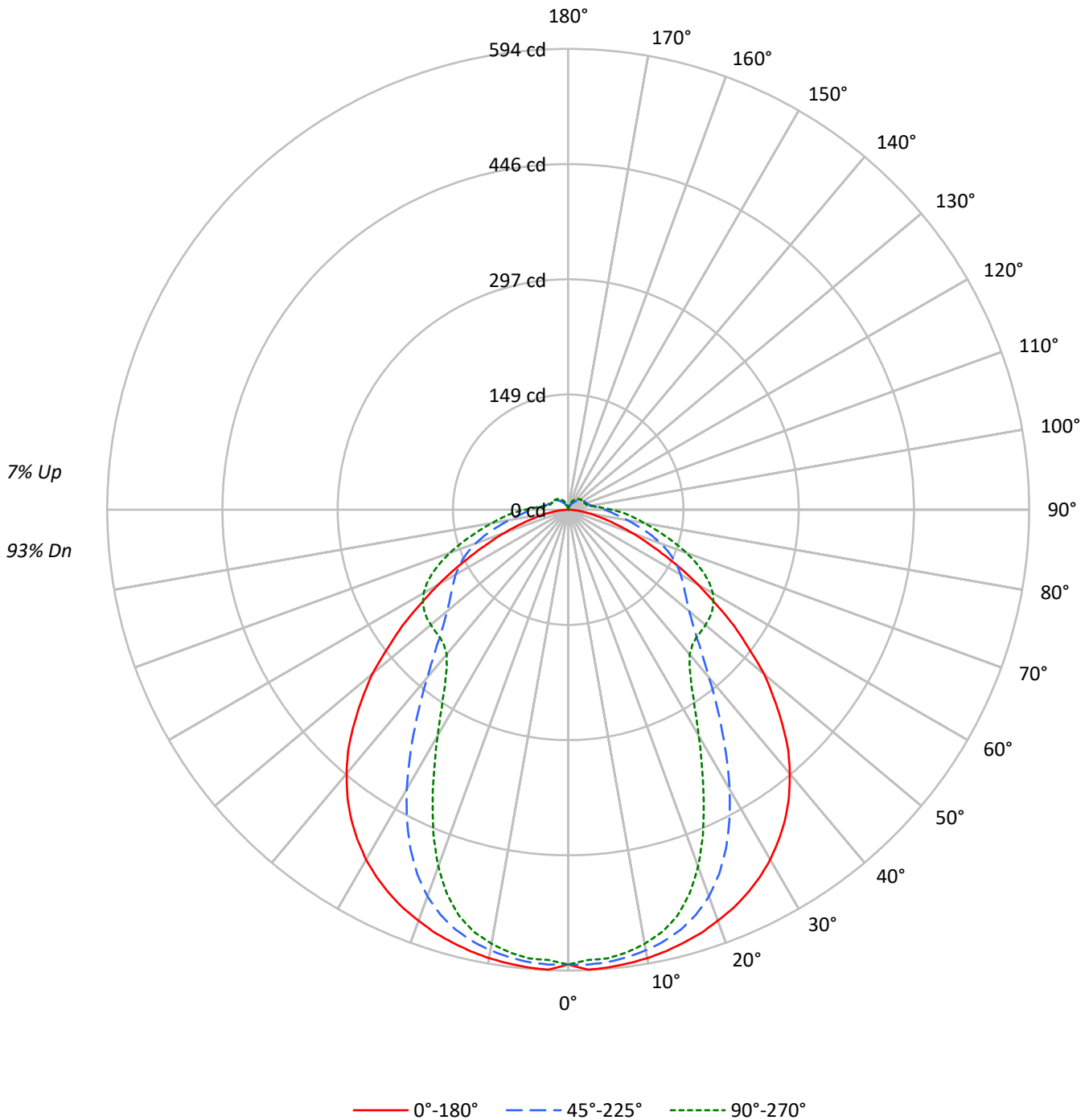
Lumens per Lamp: N/A
Luminaire Lumens: 1474.0 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 0.96 / 1.11
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 13
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: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P#

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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 | 117 | 117 | 117 | 117 | 114 | 114 | 114 | 114 | 107 | 107 | 107 | 101 | 101 | 101 | 95 | 95 | 95 | 93 |
| 1 | 107 | 102 | 97 | 93 | 103 | 99 | 94 | 91 | 93 | 90 | 87 | 88 | 85 | 83 | 83 | 81 | 79 | 76 |
| 2 | 97 | 89 | 82 | 76 | 94 | 86 | 80 | 75 | 81 | 76 | 72 | 77 | 73 | 69 | 73 | 70 | 66 | 64 |
| 3 | 89 | 78 | 70 | 64 | 86 | 76 | 69 | 63 | 72 | 66 | 61 | 68 | 63 | 59 | 65 | 61 | 57 | 54 |
| 4 | 82 | 70 | 61 | 55 | 79 | 68 | 60 | 54 | 65 | 58 | 52 | 61 | 55 | 51 | 58 | 53 | 49 | 47 |
| 5 | 75 | 63 | 54 | 47 | 73 | 61 | 53 | 47 | 58 | 51 | 46 | 55 | 49 | 44 | 53 | 48 | 43 | 41 |
| 6 | 70 | 57 | 48 | 42 | 67 | 55 | 47 | 41 | 53 | 46 | 40 | 51 | 44 | 39 | 48 | 43 | 39 | 36 |
| 7 | 65 | 52 | 43 | 37 | 63 | 51 | 42 | 37 | 48 | 41 | 36 | 46 | 40 | 35 | 44 | 39 | 35 | 32 |
| 8 | 61 | 47 | 39 | 33 | 59 | 46 | 39 | 33 | 44 | 37 | 32 | 43 | 36 | 32 | 41 | 35 | 31 | 29 |
| 9 | 57 | 44 | 36 | 30 | 55 | 43 | 35 | 30 | 41 | 34 | 29 | 40 | 33 | 29 | 38 | 33 | 28 | 27 |
| 10 | 53 | 40 | 33 | 28 | 52 | 40 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 35 | 30 | 26 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4736 | 4736 | 4736 |
| 5° | 4791 | 4632 | 4559 |
| 10° | 4790 | 4504 | 4371 |
| 15° | 4791 | 4353 | 4122 |
| 20° | 4793 | 4128 | 3702 |
| 25° | 4795 | 3783 | 3135 |
| 30° | 4773 | 3329 | 2578 |
| 35° | 4704 | 2832 | 2161 |
| 40° | 4566 | 2398 | 1953 |
| 45° | 4324 | 2085 | 1939 |
| 50° | 3995 | 1905 | 2006 |
| 55° | 3517 | 1832 | 2077 |
| 60° | 2968 | 1806 | 2106 |
| 65° | 2387 | 1766 | 2040 |
| 70° | 1917 | 1675 | 1882 |
| 75° | 1446 | 1515 | 1670 |
| 80° | 1067 | 1360 | 1486 |
| 85° | 710 | 1285 | 1365 |



TEST NUMBER: P#

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 55.5 | 3.8 |
| 10°-20° | 156.7 | 10.6 |
| 20°-30° | 219.1 | 14.9 |
| 30°-40° | 227.3 | 15.4 |
| 40°-50° | 210.0 | 14.2 |
| 50°-60° | 187.5 | 12.7 |
| 60°-70° | 151.9 | 10.3 |
| 70°-80° | 101.0 | 6.9 |
| 80°-90° | 57.9 | 3.9 |
| 90°-100° | 32.0 | 2.2 |
| 100°-110° | 21.7 | 1.5 |
| 110°-120° | 18.1 | 1.2 |
| 120°-130° | 14.7 | 1.0 |
| 130°-140° | 10.6 | 0.7 |
| 140°-150° | 6.4 | 0.4 |
| 150°-160° | 3.1 | 0.2 |
| 160°-170° | 0.8 | 0.1 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 431.3 | 29.3 |
| 0°-40° | 658.5 | 44.7 |
| 0°-60° | 1056.0 | 71.6 |
| 0°-90° | 1366.8 | 92.7 |
| 90°-120° | 71.7 | 4.9 |
| 90°-150° | 103.4 | 7.0 |
| 90°-180° | 107.0 | 7.3 |
| 0°-180° | 1474.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 586 | 586 | 586 | 586 | 586 | |
| 5° | 592 | 582 | 585 | 581 | 580 | 56 |
| 15° | 578 | 565 | 560 | 548 | 542 | 163 |
| 25° | 546 | 521 | 481 | 431 | 413 | 251 |
| 35° | 487 | 434 | 345 | 290 | 277 | 304 |
| 45° | 390 | 309 | 235 | 226 | 233 | 300 |
| 55° | 261 | 197 | 183 | 213 | 226 | 232 |
| 65° | 133 | 119 | 149 | 183 | 193 | 135 |
| 75° | 52 | 65 | 101 | 123 | 128 | 57 |
| 85° | 10 | 30 | 59 | 76 | 78 | 12 |
| 90° | 0 | 21 | 47 | 56 | 56 | 1 |
| 95° | 0 | 18 | 37 | 40 | 38 | 0 |
| 105° | 0 | 16 | 27 | 26 | 25 | 0 |
| 115° | 0 | 14 | 24 | 23 | 23 | 0 |
| 125° | 0 | 12 | 21 | 22 | 21 | 0 |
| 135° | 0 | 9 | 17 | 19 | 19 | 0 |
| 145° | 0 | 6 | 12 | 15 | 16 | 0 |
| 155° | 0 | 4 | 7 | 9 | 12 | 0 |
| 165° | 0 | 2 | 4 | 5 | 6 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-18SL-SLN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 0° | 586.1 | 586.1 | 586.1 | 586.1 | 586.1 |
| 2.5° | 593.5 | 583.8 | 586.9 | 584.3 | 581.0 |
| 5° | 592.2 | 582.3 | 585.4 | 581.3 | 580.5 |
| 7.5° | 589.9 | 580.0 | 581.8 | 577.0 | 575.7 |
| 10° | 586.9 | 576.4 | 576.7 | 569.8 | 568.0 |
| 12.5° | 582.8 | 571.3 | 569.8 | 560.4 | 557.8 |
| 15° | 577.5 | 565.2 | 560.4 | 547.7 | 542.3 |
| 17.5° | 571.6 | 557.3 | 547.4 | 527.8 | 519.4 |
| 20° | 563.7 | 547.7 | 530.3 | 500.5 | 489.3 |
| 22.5° | 555.8 | 535.9 | 508.2 | 468.4 | 453.4 |
| 25° | 545.6 | 521.4 | 481.2 | 430.7 | 413.2 |
| 27.5° | 534.2 | 504.4 | 450.1 | 392.0 | 373.2 |
| 30° | 520.7 | 483.7 | 416.0 | 354.1 | 336.2 |
| 32.5° | 504.9 | 460.5 | 380.0 | 319.9 | 303.4 |
| 35° | 487.3 | 433.8 | 344.9 | 289.6 | 276.6 |
| 37.5° | 467.2 | 404.5 | 312.3 | 265.2 | 256.8 |
| 40° | 444.2 | 372.7 | 282.2 | 246.3 | 243.5 |
| 42.5° | 419.5 | 341.6 | 256.5 | 234.1 | 236.6 |
| 45° | 390.2 | 309.2 | 234.9 | 226.5 | 233.3 |
| 47.5° | 359.4 | 277.6 | 217.3 | 222.1 | 232.1 |
| 50° | 329.6 | 248.4 | 203.5 | 219.3 | 231.0 |
| 52.5° | 292.7 | 222.1 | 192.6 | 216.8 | 229.5 |
| 55° | 260.8 | 197.2 | 183.4 | 213.2 | 226.5 |
| 57.5° | 224.2 | 174.7 | 175.3 | 208.6 | 221.9 |
| 60° | 193.6 | 154.4 | 167.4 | 202.3 | 215.0 |
| 62.5° | 162.5 | 136.0 | 158.7 | 193.8 | 205.3 |
| 65° | 133.2 | 119.2 | 149.3 | 182.9 | 192.6 |
| 67.5° | 108.8 | 103.9 | 138.6 | 169.6 | 177.8 |
| 70° | 88.1 | 89.9 | 126.9 | 154.9 | 161.8 |
| 72.5° | 67.8 | 76.9 | 114.1 | 139.1 | 144.9 |
| 75° | 51.7 | 64.7 | 100.6 | 123.3 | 128.4 |
| 77.5° | 38.2 | 54.0 | 88.4 | 109.0 | 113.4 |
| 80° | 27.0 | 44.6 | 76.9 | 96.5 | 99.9 |
| 82.5° | 18.1 | 36.7 | 67.5 | 85.3 | 88.4 |
| 85° | 10.4 | 30.1 | 59.4 | 75.9 | 77.9 |
| 87.5° | 4.3 | 25.0 | 52.7 | 66.2 | 67.2 |
| 90° | 0.5 | 21.1 | 46.9 | 56.5 | 56.0 |
| 92.5° | 0.5 | 19.1 | 41.8 | 47.4 | 46.1 |
| 95° | 0.5 | 17.8 | 37.2 | 39.7 | 38.5 |
| 97.5° | 0.5 | 17.1 | 33.1 | 34.1 | 32.9 |
| 100° | 0.3 | 16.6 | 30.3 | 30.3 | 29.0 |
| 102.5° | 0.3 | 16.0 | 28.3 | 27.5 | 26.5 |
| 105° | 0.3 | 15.5 | 26.7 | 26.0 | 24.7 |
| 107.5° | 0.3 | 15.3 | 25.7 | 25.0 | 23.7 |
| 110° | 0.3 | 14.8 | 25.0 | 24.2 | 23.2 |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-18SL-SLN-UNV-L930-CD1-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|------|
| 112.5° | 0.3 | 14.5 | 24.5 | 23.9 | 22.7 |
| 115° | 0.3 | 14.0 | 23.7 | 23.4 | 22.7 |
| 117.5° | 0.3 | 13.5 | 23.2 | 23.2 | 22.4 |
| 120° | 0.3 | 13.0 | 22.4 | 22.9 | 22.2 |
| 122.5° | 0.3 | 12.5 | 21.7 | 22.4 | 21.7 |
| 125° | 0.3 | 12.0 | 20.9 | 21.9 | 21.4 |
| 127.5° | 0.5 | 11.2 | 19.9 | 21.4 | 20.9 |
| 130° | 0.3 | 10.4 | 18.8 | 20.9 | 20.6 |
| 132.5° | 0.5 | 9.7 | 17.8 | 20.1 | 20.1 |
| 135° | 0.5 | 8.9 | 16.6 | 19.4 | 19.4 |
| 137.5° | 0.5 | 7.9 | 15.3 | 18.3 | 18.6 |
| 140° | 0.5 | 7.1 | 14.0 | 17.3 | 17.8 |
| 142.5° | 0.5 | 6.4 | 12.7 | 16.3 | 17.1 |
| 145° | 0.5 | 5.6 | 11.5 | 15.0 | 16.0 |
| 147.5° | 0.5 | 5.1 | 10.2 | 13.5 | 15.0 |
| 150° | 0.5 | 4.3 | 9.2 | 12.2 | 13.8 |
| 152.5° | 0.5 | 3.8 | 8.2 | 11.0 | 12.7 |
| 155° | 0.5 | 3.6 | 7.1 | 9.4 | 11.5 |
| 157.5° | 0.5 | 3.1 | 6.1 | 8.2 | 10.2 |
| 160° | 0.5 | 2.5 | 5.1 | 7.1 | 8.7 |
| 162.5° | 0.5 | 2.3 | 4.3 | 5.9 | 7.6 |
| 165° | 0.5 | 2.0 | 3.6 | 4.6 | 6.1 |
| 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)