

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-LD5-54HL-SLW-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 (P27403)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SNLED-LD5-54HL-SLW-UNV-L930-CD1-U  
Description: 4FT LINEAR SNLED LED FIXTURE  
SQUARE FROSTED LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

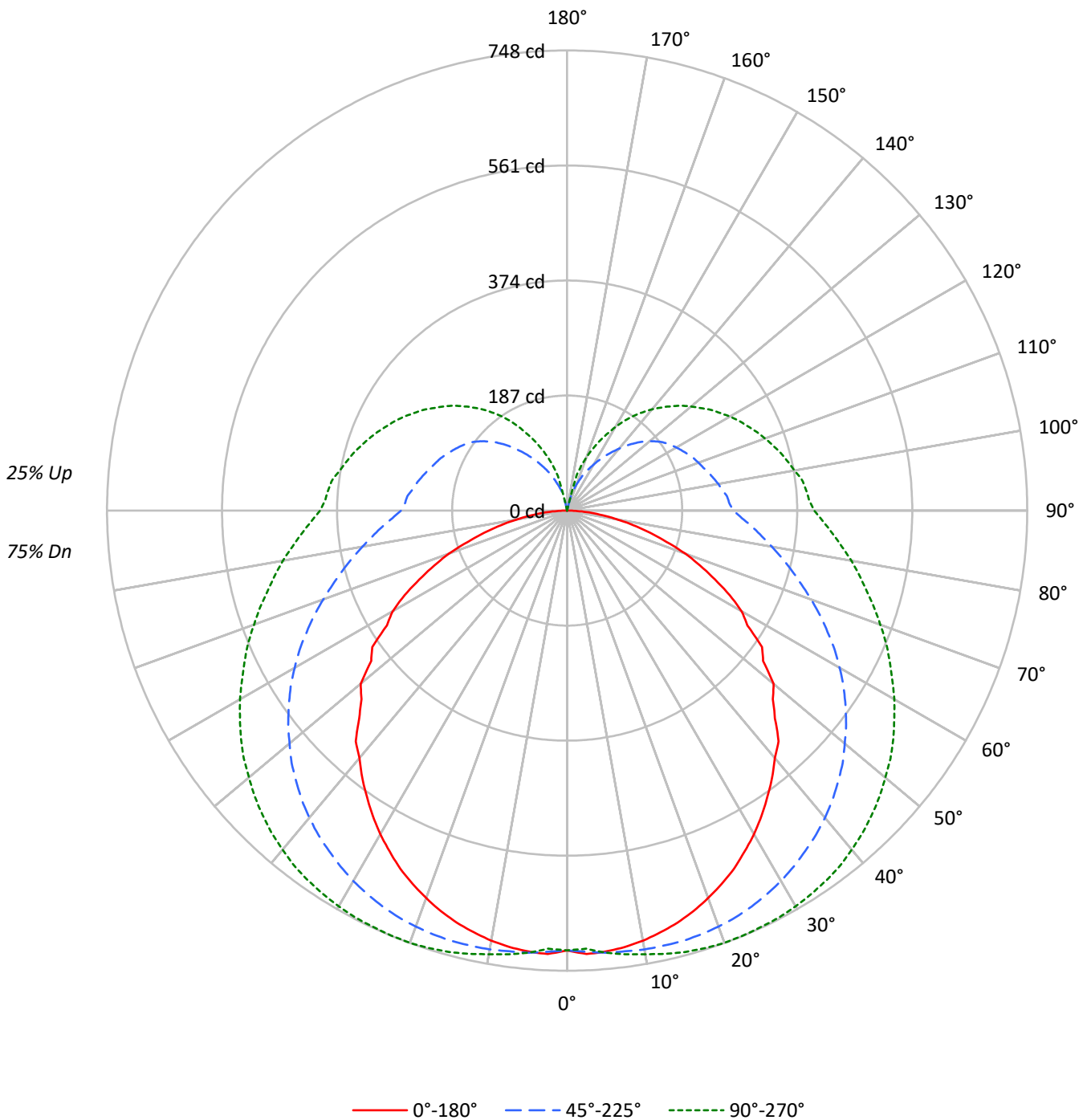
Lumens per Lamp: N/A  
Luminaire Lumens: 4116.0 lumens  
Efficiency: N/A  
Efficacy: 95.7 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.56 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')  
CIE Type: Semi-Direct

Input Watts (W): 43  
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#

CATALOG NUMBER: 4SNLED-LD5-54HL-SLW-UNV-L930-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 | 50 | 30 | 10 | 0  |   |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |   |
| 0   | 113 | 113 | 113 | 113 | 107 | 107 | 107 | 107 | 97 | 97 | 97 | 88 | 88 | 88 | 79 | 79 | 79 | 75 |    |    |    |   |
| 1   | 100 | 94  | 89  | 84  | 95  | 89  | 84  | 80  | 80 | 76 | 73 | 72 | 69 | 66 | 64 | 62 | 60 | 56 |    |    |    |   |
| 2   | 90  | 80  | 72  | 66  | 85  | 76  | 69  | 63  | 68 | 63 | 58 | 61 | 57 | 53 | 55 | 51 | 48 | 44 |    |    |    |   |
| 3   | 81  | 69  | 60  | 53  | 76  | 66  | 58  | 51  | 59 | 53 | 47 | 53 | 48 | 43 | 47 | 43 | 39 | 36 |    |    |    |   |
| 4   | 74  | 61  | 51  | 44  | 69  | 58  | 49  | 43  | 52 | 45 | 39 | 47 | 41 | 36 | 42 | 37 | 33 | 30 |    |    |    |   |
| 5   | 67  | 54  | 44  | 37  | 63  | 51  | 43  | 36  | 46 | 39 | 33 | 42 | 35 | 31 | 37 | 32 | 28 | 25 |    |    |    |   |
| 6   | 62  | 48  | 39  | 32  | 58  | 46  | 37  | 31  | 41 | 34 | 29 | 37 | 31 | 27 | 34 | 28 | 24 | 22 |    |    |    |   |
| 7   | 57  | 43  | 34  | 28  | 54  | 41  | 33  | 27  | 37 | 30 | 25 | 34 | 28 | 23 | 30 | 25 | 21 | 19 |    |    |    |   |
| 8   | 53  | 39  | 31  | 25  | 50  | 37  | 29  | 24  | 34 | 27 | 22 | 31 | 25 | 21 | 28 | 23 | 19 | 17 |    |    |    |   |
| 9   | 49  | 36  | 27  | 22  | 47  | 34  | 26  | 21  | 31 | 24 | 20 | 28 | 23 | 18 | 26 | 21 | 17 | 15 |    |    |    |   |
| 10  | 46  | 33  | 25  | 20  | 44  | 31  | 24  | 19  | 29 | 22 | 18 | 26 | 21 | 16 | 24 | 19 | 15 | 13 |    |    |    |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5776 | 5776 | 5776 |
| 5°  | 5821 | 5709 | 5667 |
| 10° | 5793 | 5657 | 5635 |
| 15° | 5754 | 5627 | 5646 |
| 20° | 5700 | 5602 | 5656 |
| 25° | 5644 | 5581 | 5666 |
| 30° | 5567 | 5565 | 5697 |
| 35° | 5480 | 5544 | 5735 |
| 40° | 5399 | 5540 | 5773 |
| 45° | 5295 | 5529 | 5818 |
| 50° | 5310 | 5515 | 5864 |
| 55° | 5218 | 5516 | 5935 |
| 60° | 5027 | 5520 | 6016 |
| 65° | 4749 | 5526 | 6127 |
| 70° | 4441 | 5566 | 6300 |
| 75° | 3895 | 5696 | 6553 |
| 80° | 3289 | 5972 | 6977 |
| 85° | 2446 | 6528 | 7594 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 68.7   | 1.7       |
| 10°-20°   | 203.6  | 4.9       |
| 20°-30°   | 323.6  | 7.9       |
| 30°-40°   | 415.3  | 10.1      |
| 40°-50°   | 469.0  | 11.4      |
| 50°-60°   | 478.6  | 11.6      |
| 60°-70°   | 443.4  | 10.8      |
| 70°-80°   | 375.4  | 9.1       |
| 80°-90°   | 299.6  | 7.3       |
| 90°-100°  | 254.4  | 6.2       |
| 100°-110° | 226.7  | 5.5       |
| 110°-120° | 193.1  | 4.7       |
| 120°-130° | 153.3  | 3.7       |
| 130°-140° | 108.8  | 2.6       |
| 140°-150° | 64.9   | 1.6       |
| 150°-160° | 30.3   | 0.7       |
| 160°-170° | 7.2    | 0.2       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 595.9  | 14.5      |
| 0°-40°    | 1011.3 | 24.6      |
| 0°-60°    | 1958.9 | 47.6      |
| 0°-90°    | 3077.3 | 74.8      |
| 90°-120°  | 674.2  | 16.4      |
| 90°-150°  | 1001.3 | 24.3      |
| 90°-180°  | 1039.0 | 25.2      |
| 0°-180°   | 4116.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 715 | 715   | 715 | 715   | 715 |      |
| 5°   | 720 | 714   | 722 | 722   | 722 | 68   |
| 15°  | 694 | 699   | 724 | 738   | 743 | 196  |
| 25°  | 642 | 664   | 710 | 735   | 747 | 296  |
| 35°  | 568 | 609   | 675 | 717   | 734 | 355  |
| 45°  | 478 | 543   | 623 | 677   | 700 | 371  |
| 55°  | 387 | 452   | 552 | 620   | 647 | 340  |
| 65°  | 265 | 353   | 467 | 547   | 578 | 263  |
| 75°  | 139 | 247   | 378 | 471   | 504 | 148  |
| 85°  | 36  | 159   | 302 | 400   | 433 | 39   |
| 90°  | 2   | 130   | 270 | 368   | 401 | 3    |
| 95°  | 0   | 122   | 261 | 357   | 390 | 0    |
| 105° | 0   | 112   | 238 | 328   | 360 | 0    |
| 115° | 0   | 104   | 217 | 295   | 324 | 0    |
| 125° | 0   | 90    | 192 | 260   | 285 | 0    |
| 135° | 0   | 67    | 155 | 220   | 240 | 0    |
| 145° | 0   | 44    | 108 | 164   | 188 | 0    |
| 155° | 1   | 27    | 67  | 101   | 125 | 0    |
| 165° | 1   | 14    | 30  | 42    | 59  | 0    |
| 175° | 0   | 0     | 0   | 0     | 0   | 0    |
| 180° | 0   | 0     | 0   | 0     | 0   | 0    |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-54HL-SLW-UNV-L930-CD1-U

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 714.8 | 714.8 | 714.8 | 714.8 | 714.8 |
| 2.5°   | 721.5 | 713.8 | 717.7 | 716.7 | 712.8 |
| 5°     | 719.6 | 713.8 | 721.5 | 721.5 | 721.5 |
| 7.5°   | 715.7 | 711.9 | 722.5 | 726.4 | 727.3 |
| 10°    | 709.9 | 709.9 | 724.4 | 730.2 | 732.2 |
| 12.5°  | 702.2 | 705.1 | 724.4 | 733.1 | 738.0 |
| 15°    | 693.5 | 699.3 | 724.4 | 738.0 | 742.8 |
| 17.5°  | 682.8 | 692.5 | 722.5 | 738.9 | 745.7 |
| 20°    | 670.3 | 684.8 | 719.6 | 738.9 | 747.6 |
| 22.5°  | 656.7 | 675.1 | 715.7 | 737.0 | 747.6 |
| 25°    | 642.2 | 663.5 | 709.9 | 735.1 | 746.7 |
| 27.5°  | 624.8 | 651.9 | 703.1 | 732.2 | 745.7 |
| 30°    | 607.4 | 638.3 | 695.4 | 728.3 | 742.8 |
| 32.5°  | 588.1 | 623.8 | 685.7 | 722.5 | 738.9 |
| 35°    | 567.7 | 609.3 | 675.1 | 716.7 | 734.1 |
| 37.5°  | 547.4 | 591.9 | 664.5 | 709.0 | 728.3 |
| 40°    | 525.2 | 574.5 | 651.9 | 699.3 | 719.6 |
| 42.5°  | 508.7 | 556.1 | 638.3 | 689.6 | 710.9 |
| 45°    | 477.8 | 542.6 | 622.9 | 677.0 | 700.2 |
| 47.5°  | 453.6 | 516.5 | 607.4 | 664.5 | 688.6 |
| 50°    | 438.1 | 495.2 | 589.0 | 650.0 | 675.1 |
| 52.5°  | 401.4 | 480.7 | 571.6 | 635.4 | 662.5 |
| 55°    | 386.9 | 451.7 | 552.3 | 620.0 | 647.1 |
| 57.5°  | 347.2 | 431.4 | 532.9 | 602.6 | 630.6 |
| 60°    | 327.9 | 403.3 | 511.6 | 585.2 | 614.2 |
| 62.5°  | 297.9 | 379.1 | 490.4 | 565.8 | 595.8 |
| 65°    | 265.0 | 353.0 | 467.2 | 547.4 | 578.4 |
| 67.5°  | 234.1 | 326.9 | 444.9 | 528.1 | 561.0 |
| 70°    | 204.1 | 299.8 | 421.7 | 508.7 | 541.6 |
| 72.5°  | 169.3 | 272.7 | 399.5 | 490.4 | 523.3 |
| 75°    | 139.3 | 246.6 | 378.2 | 471.0 | 503.9 |
| 77.5°  | 110.3 | 221.5 | 357.9 | 453.6 | 486.5 |
| 80°    | 83.2  | 197.3 | 337.6 | 435.2 | 469.1 |
| 82.5°  | 58.0  | 177.0 | 319.2 | 417.8 | 450.7 |
| 85°    | 35.8  | 158.6 | 301.8 | 399.5 | 433.3 |
| 87.5°  | 16.4  | 142.2 | 284.4 | 382.0 | 416.9 |
| 90°    | 1.9   | 129.6 | 269.8 | 367.5 | 401.4 |
| 92.5°  | 1.0   | 125.7 | 264.0 | 360.8 | 393.6 |
| 95°    | 0.0   | 121.9 | 261.1 | 356.9 | 389.8 |
| 97.5°  | 0.0   | 118.0 | 254.4 | 351.1 | 384.9 |
| 100°   | 0.0   | 116.1 | 249.5 | 342.4 | 375.3 |
| 102.5° | 0.0   | 113.2 | 243.7 | 334.6 | 367.5 |
| 105°   | 0.0   | 112.2 | 237.9 | 327.9 | 359.8 |
| 107.5° | 0.0   | 110.3 | 232.1 | 319.2 | 351.1 |
| 110°   | 0.0   | 108.3 | 227.3 | 311.4 | 342.4 |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-54HL-SLW-UNV-L930-CD1-U

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°   | 67.5° | 90°   |
|--------|-----|-------|-------|-------|-------|
| 112.5° | 0.0 | 106.4 | 222.5 | 303.7 | 333.7 |
| 115°   | 0.0 | 104.5 | 216.7 | 295.0 | 324.0 |
| 117.5° | 0.0 | 101.6 | 210.8 | 286.3 | 315.3 |
| 120°   | 0.0 | 97.7  | 205.0 | 278.6 | 305.6 |
| 122.5° | 0.0 | 93.8  | 199.2 | 268.9 | 295.0 |
| 125°   | 0.0 | 89.9  | 192.5 | 260.2 | 285.3 |
| 127.5° | 0.0 | 84.1  | 184.7 | 250.5 | 273.7 |
| 130°   | 0.0 | 78.3  | 175.1 | 240.8 | 263.1 |
| 132.5° | 1.0 | 72.5  | 165.4 | 230.2 | 252.4 |
| 135°   | 0.0 | 66.7  | 154.8 | 219.6 | 239.9 |
| 137.5° | 0.0 | 61.9  | 143.1 | 207.9 | 227.3 |
| 140°   | 0.0 | 56.1  | 131.5 | 194.4 | 214.7 |
| 142.5° | 0.0 | 49.3  | 119.9 | 179.9 | 201.2 |
| 145°   | 0.0 | 43.5  | 108.3 | 164.4 | 187.6 |
| 147.5° | 1.0 | 38.7  | 97.7  | 148.0 | 173.1 |
| 150°   | 1.0 | 34.8  | 87.0  | 131.5 | 156.7 |
| 152.5° | 1.0 | 31.0  | 76.4  | 116.1 | 140.2 |
| 155°   | 1.0 | 27.1  | 66.7  | 100.6 | 124.8 |
| 157.5° | 1.0 | 23.2  | 56.1  | 85.1  | 108.3 |
| 160°   | 1.0 | 20.3  | 46.4  | 71.6  | 92.9  |
| 162.5° | 1.0 | 17.4  | 37.7  | 56.1  | 76.4  |
| 165°   | 1.0 | 14.5  | 30.0  | 41.6  | 59.0  |
| 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)