

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: P218339

Luminaire Tested: **4SNLED-LD5-48HL-LW-UNV-L830-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P218339
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-LD5-48HL-LW-UNV-L830-CD1-U
Description: LED STRIP LIGHT - SNLED SERIES 4FOOT

Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4473.0 lumens
Efficiency: N/A
Efficacy: 111.8 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

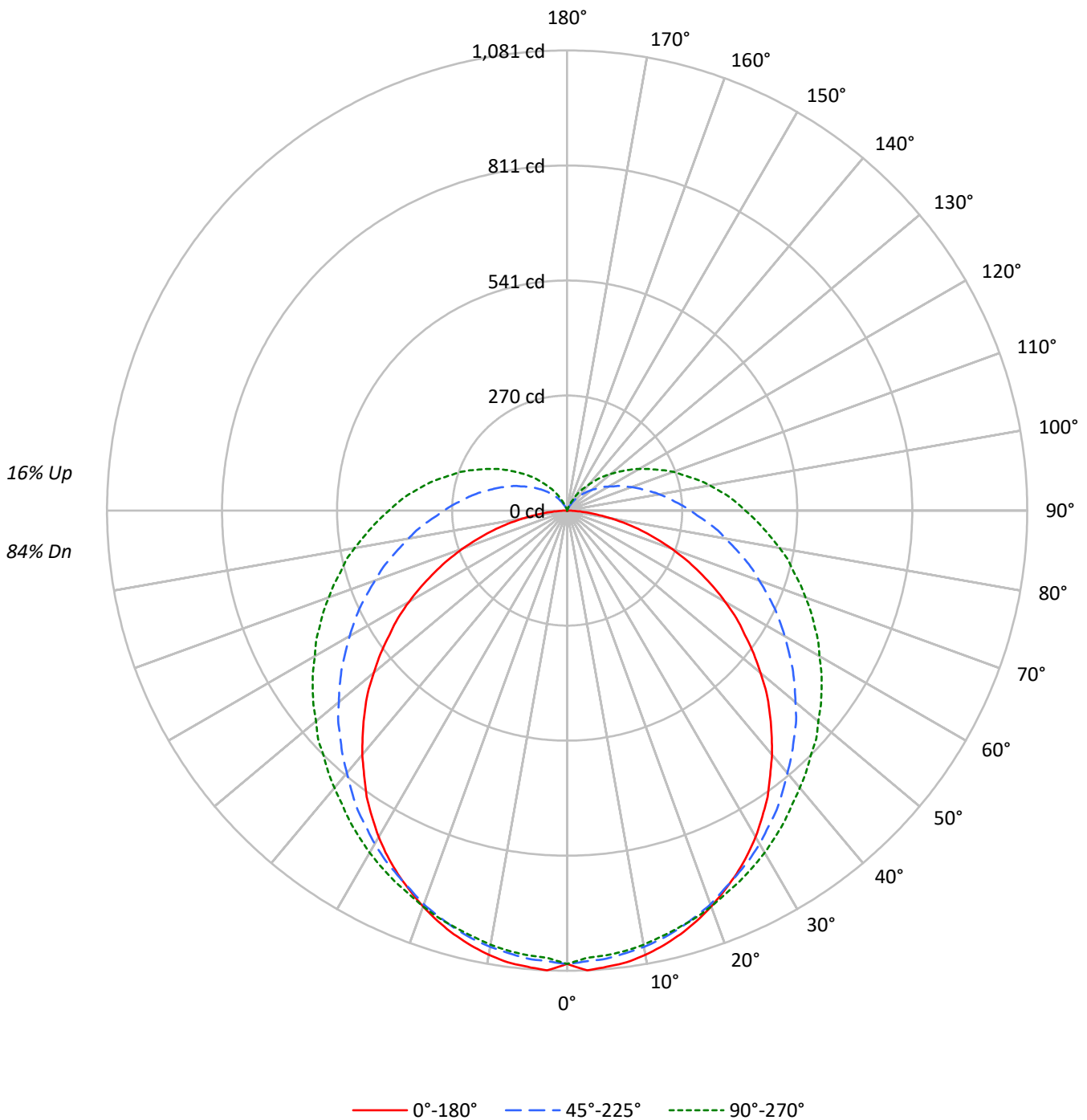
Input Watts (W): 40
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P218339

CATALOG NUMBER: 4SNLED-LD5-48HL-LW-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P218339

CATALOG NUMBER: 4SNLED-LD5-48HL-LW-UNV-L830-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 | 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 | 64 | | | | |
| 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° | 17161 | 17161 | 17161 |
| 5° | 17336 | 16061 | 15601 |
| 10° | 17211 | 15072 | 14403 |
| 15° | 16994 | 14165 | 13341 |
| 20° | 16721 | 13313 | 12445 |
| 25° | 16421 | 12497 | 11645 |
| 30° | 16085 | 11801 | 10949 |
| 35° | 15689 | 11140 | 10304 |
| 40° | 15210 | 10462 | 9727 |
| 45° | 14728 | 9891 | 9230 |
| 50° | 14159 | 9347 | 8806 |
| 55° | 13513 | 8851 | 8443 |
| 60° | 12899 | 8357 | 8070 |
| 65° | 12017 | 7929 | 7774 |
| 70° | 10997 | 7482 | 7487 |
| 75° | 9680 | 7127 | 7235 |
| 80° | 7646 | 6778 | 7052 |
| 85° | 5031 | 6528 | 6863 |



TEST NUMBER: P218339

CATALOG NUMBER: 4SNLED-LD5-48HL-LW-UNV-L830-CD1-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 100.9 | 2.3 |
| 10°-20° | 288.4 | 6.4 |
| 20°-30° | 438.4 | 9.8 |
| 30°-40° | 536.5 | 12.0 |
| 40°-50° | 579.2 | 12.9 |
| 50°-60° | 568.7 | 12.7 |
| 60°-70° | 512.2 | 11.5 |
| 70°-80° | 424.1 | 9.5 |
| 80°-90° | 326.2 | 7.3 |
| 90°-100° | 245.9 | 5.5 |
| 100°-110° | 180.9 | 4.0 |
| 110°-120° | 124.8 | 2.8 |
| 120°-130° | 79.2 | 1.8 |
| 130°-140° | 43.8 | 1.0 |
| 140°-150° | 19.0 | 0.4 |
| 150°-160° | 4.7 | 0.1 |
| 160°-170° | 0.1 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 827.6 | 18.5 |
| 0°-40° | 1364.2 | 30.5 |
| 0°-60° | 2512.1 | 56.2 |
| 0°-90° | 3774.5 | 84.4 |
| 90°-120° | 551.7 | 12.3 |
| 90°-150° | 693.6 | 15.5 |
| 90°-180° | 698.0 | 15.6 |
| 0°-180° | 4473.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1065 | 1065 | 1065 | 1065 | 1065 | |
| 5° | 1076 | 1070 | 1057 | 1057 | 1049 | 102 |
| 15° | 1030 | 1027 | 1017 | 1022 | 1014 | 290 |
| 25° | 942 | 942 | 944 | 963 | 960 | 434 |
| 35° | 821 | 829 | 858 | 885 | 891 | 513 |
| 45° | 673 | 703 | 754 | 799 | 810 | 519 |
| 55° | 510 | 566 | 646 | 711 | 730 | 457 |
| 65° | 343 | 421 | 536 | 617 | 641 | 341 |
| 75° | 180 | 287 | 429 | 520 | 550 | 191 |
| 85° | 40 | 177 | 333 | 432 | 461 | 46 |
| 90° | 0 | 137 | 290 | 389 | 418 | 2 |
| 95° | 3 | 107 | 252 | 349 | 381 | 1 |
| 105° | 0 | 67 | 188 | 274 | 300 | 0 |
| 115° | 0 | 43 | 137 | 207 | 228 | 0 |
| 125° | 0 | 27 | 94 | 148 | 164 | 0 |
| 135° | 0 | 16 | 59 | 97 | 107 | 0 |
| 145° | 0 | 5 | 30 | 54 | 59 | 0 |
| 155° | 0 | 3 | 8 | 16 | 19 | 0 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P218339

CATALOG NUMBER: 4SNLED-LD5-48HL-LW-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1065.0 | 1065.0 | 1065.0 | 1065.0 | 1065.0 |
| 2.5° | 1081.1 | 1073.0 | 1059.6 | 1059.6 | 1051.6 |
| 5° | 1075.7 | 1070.4 | 1056.9 | 1056.9 | 1048.9 |
| 7.5° | 1070.4 | 1065.0 | 1048.9 | 1051.6 | 1043.5 |
| 10° | 1059.6 | 1054.3 | 1040.8 | 1043.5 | 1035.5 |
| 12.5° | 1046.2 | 1040.8 | 1030.1 | 1032.8 | 1024.7 |
| 15° | 1030.1 | 1027.4 | 1016.7 | 1022.1 | 1014.0 |
| 17.5° | 1011.3 | 1008.7 | 1000.6 | 1008.7 | 1003.3 |
| 20° | 989.9 | 989.9 | 984.5 | 995.2 | 989.9 |
| 22.5° | 965.7 | 965.7 | 963.0 | 979.1 | 973.8 |
| 25° | 941.6 | 941.6 | 944.3 | 963.0 | 960.4 |
| 27.5° | 914.8 | 917.4 | 925.5 | 947.0 | 944.3 |
| 30° | 885.3 | 890.6 | 904.0 | 928.2 | 928.2 |
| 32.5° | 853.1 | 858.4 | 879.9 | 909.4 | 909.4 |
| 35° | 820.9 | 828.9 | 858.4 | 885.3 | 890.6 |
| 37.5° | 783.3 | 796.7 | 831.6 | 863.8 | 869.2 |
| 40° | 748.4 | 767.2 | 804.8 | 842.3 | 850.4 |
| 42.5° | 710.9 | 735.0 | 780.6 | 823.6 | 831.6 |
| 45° | 673.3 | 702.8 | 753.8 | 799.4 | 810.1 |
| 47.5° | 635.8 | 668.0 | 729.7 | 778.0 | 794.0 |
| 50° | 592.9 | 633.1 | 700.2 | 756.5 | 769.9 |
| 52.5° | 552.6 | 598.2 | 673.3 | 732.3 | 751.1 |
| 55° | 509.7 | 566.0 | 646.5 | 710.9 | 729.7 |
| 57.5° | 472.1 | 528.5 | 617.0 | 689.4 | 708.2 |
| 60° | 429.2 | 490.9 | 590.2 | 662.6 | 684.1 |
| 62.5° | 386.3 | 458.7 | 563.3 | 641.1 | 665.3 |
| 65° | 343.4 | 421.2 | 536.5 | 617.0 | 641.1 |
| 67.5° | 303.1 | 386.3 | 507.0 | 592.9 | 619.7 |
| 70° | 260.2 | 351.4 | 480.2 | 568.7 | 595.5 |
| 72.5° | 220.0 | 319.2 | 456.0 | 544.6 | 574.1 |
| 75° | 179.7 | 287.0 | 429.2 | 520.4 | 549.9 |
| 77.5° | 142.2 | 257.5 | 402.4 | 499.0 | 531.2 |
| 80° | 101.9 | 228.0 | 378.2 | 474.8 | 507.0 |
| 82.5° | 69.7 | 201.2 | 356.8 | 453.4 | 482.9 |
| 85° | 40.2 | 177.1 | 332.6 | 431.9 | 461.4 |
| 87.5° | 16.1 | 155.6 | 308.5 | 407.8 | 439.9 |
| 90° | 0.0 | 136.8 | 289.7 | 389.0 | 418.5 |
| 92.5° | 0.0 | 120.7 | 270.9 | 367.5 | 399.7 |
| 95° | 2.7 | 107.3 | 252.2 | 348.7 | 380.9 |
| 97.5° | 0.0 | 93.9 | 236.1 | 330.0 | 359.5 |
| 100° | 0.0 | 85.8 | 220.0 | 311.2 | 340.7 |
| 102.5° | 0.0 | 75.1 | 203.9 | 292.4 | 321.9 |
| 105° | 0.0 | 67.1 | 187.8 | 273.6 | 300.4 |
| 107.5° | 0.0 | 61.7 | 174.4 | 257.5 | 281.7 |
| 110° | 0.0 | 53.7 | 161.0 | 241.4 | 265.6 |



TEST NUMBER: P218339

CATALOG NUMBER: 4SNLED-LD5-48HL-LW-UNV-L830-CD1-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-------|-------|-------|
| 112.5° | 0.0 | 48.3 | 147.5 | 222.7 | 246.8 |
| 115° | 0.0 | 42.9 | 136.8 | 206.6 | 228.0 |
| 117.5° | 0.0 | 40.2 | 123.4 | 190.5 | 211.9 |
| 120° | 0.0 | 34.9 | 112.7 | 177.1 | 195.8 |
| 122.5° | 0.0 | 32.2 | 104.6 | 161.0 | 179.7 |
| 125° | 0.0 | 26.8 | 93.9 | 147.5 | 163.6 |
| 127.5° | 0.0 | 24.1 | 83.2 | 134.1 | 147.5 |
| 130° | 0.0 | 21.5 | 75.1 | 120.7 | 134.1 |
| 132.5° | 0.0 | 18.8 | 67.1 | 107.3 | 120.7 |
| 135° | 0.0 | 16.1 | 59.0 | 96.6 | 107.3 |
| 137.5° | 0.0 | 13.4 | 51.0 | 83.2 | 93.9 |
| 140° | 0.0 | 10.7 | 42.9 | 72.4 | 80.5 |
| 142.5° | 0.0 | 8.0 | 37.6 | 61.7 | 69.7 |
| 145° | 0.0 | 5.4 | 29.5 | 53.7 | 59.0 |
| 147.5° | 0.0 | 5.4 | 24.1 | 42.9 | 48.3 |
| 150° | 0.0 | 2.7 | 16.1 | 34.9 | 37.6 |
| 152.5° | 0.0 | 2.7 | 13.4 | 26.8 | 26.8 |
| 155° | 0.0 | 2.7 | 8.0 | 16.1 | 18.8 |
| 157.5° | 0.0 | 0.0 | 5.4 | 10.7 | 10.7 |
| 160° | 0.0 | 0.0 | 2.7 | 5.4 | 8.0 |
| 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)