

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-LD5-78HL-SLW-UNV-L940-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-LD5-78HL-SLW-UNV-L940-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
SQUARE FROSTED LENS
Light Source: -
Ballast/Driver: -

Summary

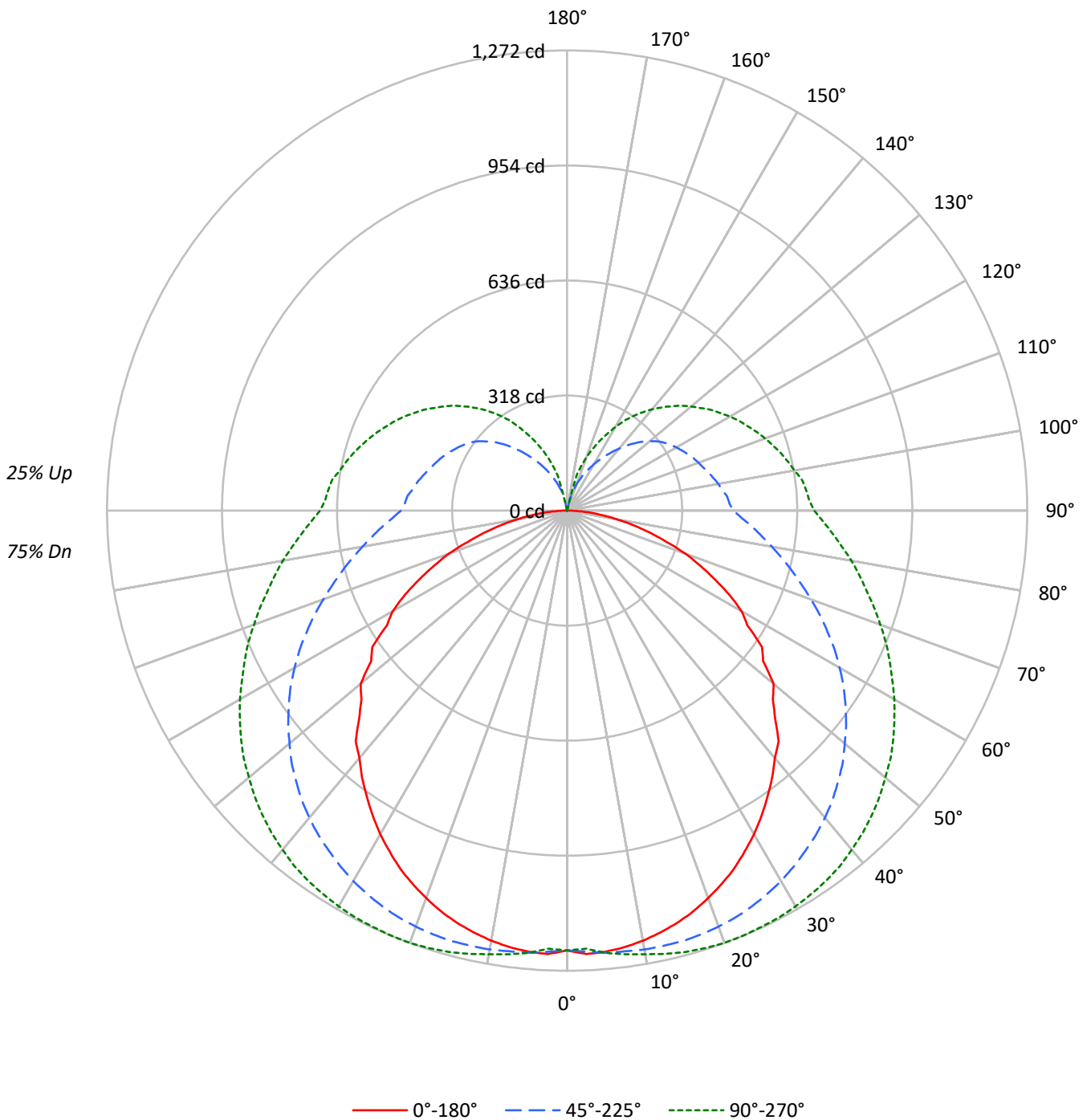
Lumens per Lamp: N/A
Luminaire Lumens: 7000.0 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.56 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Semi-Direct

Input Watts (W): 79
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



TEST NUMBER: P#
CATALOG NUMBER: 4SNLED-LD5-78HL-SLW-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-78HL-SLW-UNV-L940-CD1-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|-------|-------|
| 0° | 9823 | 9823 | 9823 |
| 5° | 9900 | 9710 | 9638 |
| 10° | 9852 | 9622 | 9583 |
| 15° | 9785 | 9570 | 9603 |
| 20° | 9692 | 9527 | 9620 |
| 25° | 9599 | 9492 | 9636 |
| 30° | 9468 | 9465 | 9688 |
| 35° | 9321 | 9428 | 9753 |
| 40° | 9182 | 9422 | 9818 |
| 45° | 9005 | 9403 | 9895 |
| 50° | 9031 | 9379 | 9972 |
| 55° | 8874 | 9380 | 10093 |
| 60° | 8549 | 9387 | 10230 |
| 65° | 8077 | 9397 | 10420 |
| 70° | 7553 | 9467 | 10714 |
| 75° | 6624 | 9687 | 11145 |
| 80° | 5594 | 10156 | 11866 |
| 85° | 4161 | 11101 | 12914 |



TEST NUMBER: P#

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 116.8 | 1.7 |
| 10°-20° | 346.3 | 4.9 |
| 20°-30° | 550.4 | 7.9 |
| 30°-40° | 706.4 | 10.1 |
| 40°-50° | 797.7 | 11.4 |
| 50°-60° | 813.9 | 11.6 |
| 60°-70° | 754.0 | 10.8 |
| 70°-80° | 638.4 | 9.1 |
| 80°-90° | 509.6 | 7.3 |
| 90°-100° | 432.7 | 6.2 |
| 100°-110° | 385.5 | 5.5 |
| 110°-120° | 328.4 | 4.7 |
| 120°-130° | 260.8 | 3.7 |
| 130°-140° | 185.0 | 2.6 |
| 140°-150° | 110.5 | 1.6 |
| 150°-160° | 51.5 | 0.7 |
| 160°-170° | 12.2 | 0.2 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1013.5 | 14.5 |
| 0°-40° | 1719.9 | 24.6 |
| 0°-60° | 3331.5 | 47.6 |
| 0°-90° | 5233.5 | 74.8 |
| 90°-120° | 1146.6 | 16.4 |
| 90°-150° | 1702.8 | 24.3 |
| 90°-180° | 1767.0 | 25.2 |
| 0°-180° | 7000.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1216 | 1216 | 1216 | 1216 | 1216 | |
| 5° | 1224 | 1214 | 1227 | 1227 | 1227 | 116 |
| 15° | 1179 | 1189 | 1232 | 1255 | 1263 | 333 |
| 25° | 1092 | 1128 | 1207 | 1250 | 1270 | 503 |
| 35° | 966 | 1036 | 1148 | 1219 | 1248 | 604 |
| 45° | 813 | 923 | 1059 | 1151 | 1191 | 631 |
| 55° | 658 | 768 | 939 | 1054 | 1100 | 578 |
| 65° | 451 | 600 | 794 | 931 | 984 | 447 |
| 75° | 237 | 419 | 643 | 801 | 857 | 252 |
| 85° | 61 | 270 | 513 | 679 | 737 | 66 |
| 90° | 3 | 220 | 459 | 625 | 683 | 5 |
| 95° | 0 | 207 | 444 | 607 | 663 | 0 |
| 105° | 0 | 191 | 405 | 558 | 612 | 0 |
| 115° | 0 | 178 | 368 | 502 | 551 | 0 |
| 125° | 0 | 153 | 327 | 442 | 485 | 0 |
| 135° | 0 | 114 | 263 | 373 | 408 | 0 |
| 145° | 0 | 74 | 184 | 280 | 319 | 1 |
| 155° | 2 | 46 | 114 | 171 | 212 | 1 |
| 165° | 2 | 25 | 51 | 71 | 100 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-78HL-SLW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1215.6 | 1215.6 | 1215.6 | 1215.6 | 1215.6 |
| 2.5° | 1227.1 | 1213.9 | 1220.5 | 1218.9 | 1212.3 |
| 5° | 1223.8 | 1213.9 | 1227.1 | 1227.1 | 1227.1 |
| 7.5° | 1217.2 | 1210.6 | 1228.7 | 1235.3 | 1237.0 |
| 10° | 1207.3 | 1207.3 | 1232.0 | 1241.9 | 1245.2 |
| 12.5° | 1194.2 | 1199.1 | 1232.0 | 1246.8 | 1255.0 |
| 15° | 1179.4 | 1189.3 | 1232.0 | 1255.0 | 1263.3 |
| 17.5° | 1161.3 | 1177.7 | 1228.7 | 1256.7 | 1268.2 |
| 20° | 1139.9 | 1164.6 | 1223.8 | 1256.7 | 1271.5 |
| 22.5° | 1116.9 | 1148.1 | 1217.2 | 1253.4 | 1271.5 |
| 25° | 1092.2 | 1128.4 | 1207.3 | 1250.1 | 1269.9 |
| 27.5° | 1062.6 | 1108.7 | 1195.8 | 1245.2 | 1268.2 |
| 30° | 1033.0 | 1085.6 | 1182.7 | 1238.6 | 1263.3 |
| 32.5° | 1000.1 | 1061.0 | 1166.2 | 1228.7 | 1256.7 |
| 35° | 965.5 | 1036.3 | 1148.1 | 1218.9 | 1248.5 |
| 37.5° | 931.0 | 1006.7 | 1130.0 | 1205.7 | 1238.6 |
| 40° | 893.2 | 977.1 | 1108.7 | 1189.3 | 1223.8 |
| 42.5° | 865.2 | 945.8 | 1085.6 | 1172.8 | 1209.0 |
| 45° | 812.6 | 922.8 | 1059.3 | 1151.4 | 1190.9 |
| 47.5° | 771.5 | 878.4 | 1033.0 | 1130.0 | 1171.2 |
| 50° | 745.1 | 842.2 | 1001.7 | 1105.4 | 1148.1 |
| 52.5° | 682.6 | 817.5 | 972.1 | 1080.7 | 1126.7 |
| 55° | 658.0 | 768.2 | 939.2 | 1054.4 | 1100.4 |
| 57.5° | 590.5 | 733.6 | 906.3 | 1024.8 | 1072.5 |
| 60° | 557.6 | 685.9 | 870.1 | 995.2 | 1044.5 |
| 62.5° | 506.6 | 644.8 | 834.0 | 962.3 | 1013.2 |
| 65° | 450.7 | 600.4 | 794.5 | 931.0 | 983.6 |
| 67.5° | 398.1 | 556.0 | 756.6 | 898.1 | 954.0 |
| 70° | 347.1 | 509.9 | 717.2 | 865.2 | 921.1 |
| 72.5° | 287.9 | 463.9 | 679.3 | 834.0 | 889.9 |
| 75° | 236.9 | 419.4 | 643.2 | 801.1 | 857.0 |
| 77.5° | 187.5 | 376.7 | 608.6 | 771.5 | 827.4 |
| 80° | 141.5 | 335.6 | 574.1 | 740.2 | 797.8 |
| 82.5° | 98.7 | 301.0 | 542.8 | 710.6 | 766.5 |
| 85° | 60.9 | 269.8 | 513.2 | 679.3 | 736.9 |
| 87.5° | 28.0 | 241.8 | 483.6 | 649.7 | 708.9 |
| 90° | 3.3 | 220.4 | 458.9 | 625.1 | 682.6 |
| 92.5° | 1.6 | 213.8 | 449.1 | 613.5 | 669.5 |
| 95° | 0.0 | 207.3 | 444.1 | 607.0 | 662.9 |
| 97.5° | 0.0 | 200.7 | 432.6 | 597.1 | 654.7 |
| 100° | 0.0 | 197.4 | 424.4 | 582.3 | 638.2 |
| 102.5° | 0.0 | 192.5 | 414.5 | 569.1 | 625.1 |
| 105° | 0.0 | 190.8 | 404.6 | 557.6 | 611.9 |
| 107.5° | 0.0 | 187.5 | 394.8 | 542.8 | 597.1 |
| 110° | 0.0 | 184.2 | 386.5 | 529.7 | 582.3 |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-78HL-SLW-UNV-L940-CD1-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-------|-------|-------|
| 112.5° | 0.0 | 180.9 | 378.3 | 516.5 | 567.5 |
| 115° | 0.0 | 177.6 | 368.5 | 501.7 | 551.0 |
| 117.5° | 0.0 | 172.7 | 358.6 | 486.9 | 536.2 |
| 120° | 0.0 | 166.1 | 348.7 | 473.7 | 519.8 |
| 122.5° | 0.0 | 159.6 | 338.8 | 457.3 | 501.7 |
| 125° | 0.0 | 153.0 | 327.3 | 442.5 | 485.2 |
| 127.5° | 0.0 | 143.1 | 314.2 | 426.0 | 465.5 |
| 130° | 0.0 | 133.2 | 297.7 | 409.6 | 447.4 |
| 132.5° | 1.6 | 123.4 | 281.3 | 391.5 | 429.3 |
| 135° | 0.0 | 113.5 | 263.2 | 373.4 | 407.9 |
| 137.5° | 0.0 | 105.3 | 243.4 | 353.7 | 386.5 |
| 140° | 0.0 | 95.4 | 223.7 | 330.6 | 365.2 |
| 142.5° | 0.0 | 83.9 | 204.0 | 305.9 | 342.1 |
| 145° | 0.0 | 74.0 | 184.2 | 279.6 | 319.1 |
| 147.5° | 1.6 | 65.8 | 166.1 | 251.7 | 294.4 |
| 150° | 1.6 | 59.2 | 148.0 | 223.7 | 266.5 |
| 152.5° | 1.6 | 52.6 | 129.9 | 197.4 | 238.5 |
| 155° | 1.6 | 46.1 | 113.5 | 171.1 | 212.2 |
| 157.5° | 1.6 | 39.5 | 95.4 | 144.7 | 184.2 |
| 160° | 1.6 | 34.5 | 79.0 | 121.7 | 157.9 |
| 162.5° | 1.6 | 29.6 | 64.2 | 95.4 | 129.9 |
| 165° | 1.6 | 24.7 | 51.0 | 70.7 | 100.3 |
| 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)