

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-LD5-37SL-SLN-UNV-L935-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-LD5-37SL-SLN-UNV-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
SQUARE NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3247.0 lumens
Efficiency: N/A
Efficacy: 116.0 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

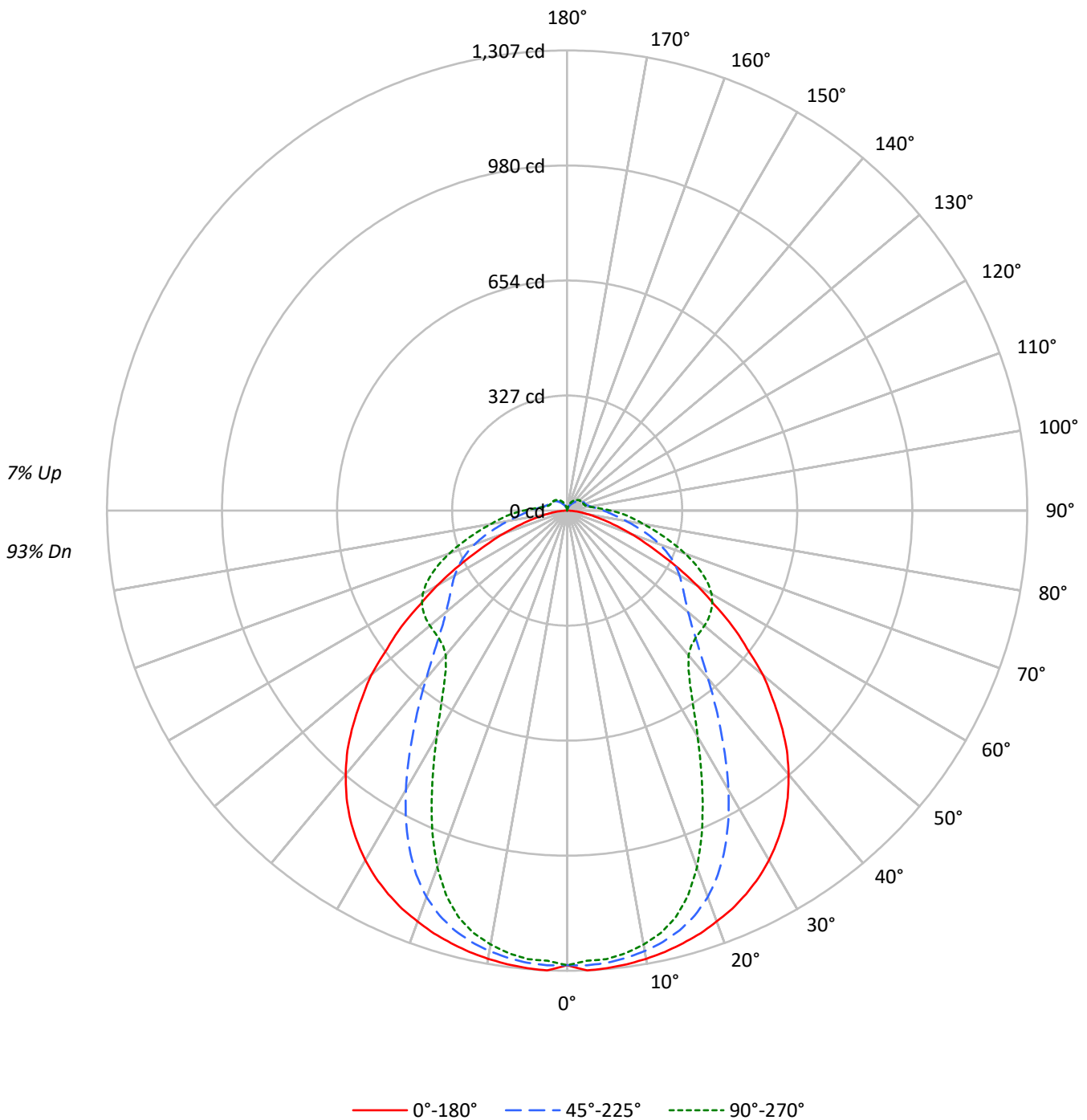
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-37SL-SLN-UNV-L935-CD1-U

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° | 10433 | 10433 | 10433 |
| 5° | 10554 | 10204 | 10044 |
| 10° | 10550 | 9921 | 9630 |
| 15° | 10554 | 9589 | 9081 |
| 20° | 10559 | 9095 | 8155 |
| 25° | 10563 | 8334 | 6906 |
| 30° | 10512 | 7333 | 5680 |
| 35° | 10362 | 6239 | 4761 |
| 40° | 10059 | 5284 | 4303 |
| 45° | 9526 | 4593 | 4271 |
| 50° | 8801 | 4198 | 4420 |
| 55° | 7750 | 4035 | 4575 |
| 60° | 6539 | 3978 | 4639 |
| 65° | 5260 | 3889 | 4494 |
| 70° | 4223 | 3688 | 4144 |
| 75° | 3185 | 3338 | 3678 |
| 80° | 2352 | 2998 | 3272 |
| 85° | 1571 | 2827 | 3009 |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-37SL-SLN-UNV-L935-CD1-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 122.2 | 3.8 |
| 10°-20° | 345.3 | 10.6 |
| 20°-30° | 482.6 | 14.9 |
| 30°-40° | 500.6 | 15.4 |
| 40°-50° | 462.5 | 14.2 |
| 50°-60° | 412.9 | 12.7 |
| 60°-70° | 334.6 | 10.3 |
| 70°-80° | 222.6 | 6.9 |
| 80°-90° | 127.5 | 3.9 |
| 90°-100° | 70.5 | 2.2 |
| 100°-110° | 47.8 | 1.5 |
| 110°-120° | 39.8 | 1.2 |
| 120°-130° | 32.3 | 1.0 |
| 130°-140° | 23.3 | 0.7 |
| 140°-150° | 14.1 | 0.4 |
| 150°-160° | 6.8 | 0.2 |
| 160°-170° | 1.7 | 0.1 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 950.1 | 29.3 |
| 0°-40° | 1450.7 | 44.7 |
| 0°-60° | 2326.1 | 71.6 |
| 0°-90° | 3010.8 | 92.7 |
| 90°-120° | 158.0 | 4.9 |
| 90°-150° | 227.7 | 7.0 |
| 90°-180° | 236.0 | 7.3 |
| 0°-180° | 3247.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1291 | 1291 | 1291 | 1291 | 1291 | |
| 5° | 1305 | 1283 | 1290 | 1280 | 1279 | 124 |
| 15° | 1272 | 1245 | 1234 | 1206 | 1195 | 359 |
| 25° | 1202 | 1149 | 1060 | 949 | 910 | 554 |
| 35° | 1073 | 956 | 760 | 638 | 609 | 670 |
| 45° | 860 | 681 | 517 | 499 | 514 | 661 |
| 55° | 575 | 434 | 404 | 470 | 499 | 511 |
| 65° | 294 | 263 | 329 | 403 | 424 | 297 |
| 75° | 114 | 142 | 222 | 272 | 283 | 125 |
| 85° | 23 | 66 | 131 | 167 | 172 | 26 |
| 90° | 1 | 47 | 103 | 125 | 123 | 2 |
| 95° | 1 | 39 | 82 | 88 | 85 | 1 |
| 105° | 1 | 34 | 59 | 57 | 54 | 1 |
| 115° | 1 | 31 | 52 | 52 | 50 | 1 |
| 125° | 1 | 26 | 46 | 48 | 47 | 1 |
| 135° | 1 | 20 | 36 | 43 | 43 | 1 |
| 145° | 1 | 12 | 25 | 33 | 35 | 1 |
| 155° | 1 | 8 | 16 | 21 | 25 | 1 |
| 165° | 1 | 4 | 8 | 10 | 14 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-37SL-SLN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1291.1 | 1291.1 | 1291.1 | 1291.1 | 1291.1 |
| 2.5° | 1307.4 | 1286.1 | 1292.8 | 1287.2 | 1279.9 |
| 5° | 1304.6 | 1282.7 | 1289.5 | 1280.5 | 1278.8 |
| 7.5° | 1299.6 | 1277.7 | 1281.6 | 1270.9 | 1268.1 |
| 10° | 1292.8 | 1269.8 | 1270.4 | 1255.2 | 1251.3 |
| 12.5° | 1283.8 | 1258.6 | 1255.2 | 1234.5 | 1228.9 |
| 15° | 1272.1 | 1245.1 | 1234.5 | 1206.4 | 1194.6 |
| 17.5° | 1259.2 | 1227.7 | 1205.8 | 1162.6 | 1144.1 |
| 20° | 1241.8 | 1206.4 | 1168.3 | 1102.6 | 1077.9 |
| 22.5° | 1224.4 | 1180.6 | 1119.4 | 1031.9 | 998.8 |
| 25° | 1201.9 | 1148.6 | 1060.0 | 948.9 | 910.1 |
| 27.5° | 1176.7 | 1111.0 | 991.5 | 863.6 | 822.0 |
| 30° | 1146.9 | 1065.6 | 916.3 | 780.0 | 740.7 |
| 32.5° | 1112.1 | 1014.5 | 837.2 | 704.8 | 668.3 |
| 35° | 1073.4 | 955.6 | 759.8 | 638.0 | 609.4 |
| 37.5° | 1029.1 | 891.1 | 687.9 | 584.1 | 565.6 |
| 40° | 978.6 | 820.9 | 621.7 | 542.6 | 536.4 |
| 42.5° | 924.2 | 752.5 | 565.0 | 515.7 | 521.3 |
| 45° | 859.6 | 681.2 | 517.4 | 498.8 | 514.0 |
| 47.5° | 791.7 | 611.6 | 478.6 | 489.3 | 511.2 |
| 50° | 726.1 | 547.1 | 448.3 | 483.1 | 508.9 |
| 52.5° | 644.7 | 489.3 | 424.2 | 477.5 | 505.6 |
| 55° | 574.6 | 434.3 | 404.0 | 469.7 | 498.8 |
| 57.5° | 493.8 | 384.9 | 386.1 | 459.6 | 488.7 |
| 60° | 426.5 | 340.0 | 368.7 | 445.5 | 473.6 |
| 62.5° | 358.0 | 299.6 | 349.6 | 427.0 | 452.3 |
| 65° | 293.5 | 262.6 | 328.8 | 402.9 | 424.2 |
| 67.5° | 239.6 | 228.9 | 305.2 | 373.7 | 391.7 |
| 70° | 194.1 | 198.1 | 279.4 | 341.2 | 356.3 |
| 72.5° | 149.3 | 169.5 | 251.4 | 306.4 | 319.3 |
| 75° | 113.9 | 142.5 | 221.6 | 271.6 | 282.8 |
| 77.5° | 84.2 | 119.0 | 194.7 | 240.2 | 249.7 |
| 80° | 59.5 | 98.2 | 169.5 | 212.7 | 220.0 |
| 82.5° | 39.8 | 80.8 | 148.7 | 188.0 | 194.7 |
| 85° | 23.0 | 66.2 | 130.7 | 167.2 | 171.7 |
| 87.5° | 9.5 | 55.0 | 116.2 | 145.9 | 148.1 |
| 90° | 1.1 | 46.6 | 103.2 | 124.6 | 123.4 |
| 92.5° | 1.1 | 42.1 | 92.0 | 104.4 | 101.6 |
| 95° | 1.1 | 39.3 | 81.9 | 87.5 | 84.7 |
| 97.5° | 1.1 | 37.6 | 72.9 | 75.2 | 72.4 |
| 100° | 0.6 | 36.5 | 66.8 | 66.8 | 64.0 |
| 102.5° | 0.6 | 35.4 | 62.3 | 60.6 | 58.4 |
| 105° | 0.6 | 34.2 | 58.9 | 57.2 | 54.4 |
| 107.5° | 0.6 | 33.7 | 56.7 | 55.0 | 52.2 |
| 110° | 0.6 | 32.5 | 55.0 | 53.3 | 51.1 |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-37SL-SLN-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|------|
| 112.5° | 0.6 | 32.0 | 53.9 | 52.7 | 49.9 |
| 115° | 0.6 | 30.9 | 52.2 | 51.6 | 49.9 |
| 117.5° | 0.6 | 29.7 | 51.1 | 51.1 | 49.4 |
| 120° | 0.6 | 28.6 | 49.4 | 50.5 | 48.8 |
| 122.5° | 0.6 | 27.5 | 47.7 | 49.4 | 47.7 |
| 125° | 0.6 | 26.4 | 46.0 | 48.3 | 47.1 |
| 127.5° | 1.1 | 24.7 | 43.8 | 47.1 | 46.0 |
| 130° | 0.6 | 23.0 | 41.5 | 46.0 | 45.5 |
| 132.5° | 1.1 | 21.3 | 39.3 | 44.3 | 44.3 |
| 135° | 1.1 | 19.6 | 36.5 | 42.6 | 42.6 |
| 137.5° | 1.1 | 17.4 | 33.7 | 40.4 | 41.0 |
| 140° | 1.1 | 15.7 | 30.9 | 38.2 | 39.3 |
| 142.5° | 1.1 | 14.0 | 28.1 | 35.9 | 37.6 |
| 145° | 1.1 | 12.3 | 25.3 | 33.1 | 35.4 |
| 147.5° | 1.1 | 11.2 | 22.4 | 29.7 | 33.1 |
| 150° | 1.1 | 9.5 | 20.2 | 26.9 | 30.3 |
| 152.5° | 1.1 | 8.4 | 18.0 | 24.1 | 28.1 |
| 155° | 1.1 | 7.9 | 15.7 | 20.8 | 25.3 |
| 157.5° | 1.1 | 6.7 | 13.5 | 18.0 | 22.4 |
| 160° | 1.1 | 5.6 | 11.2 | 15.7 | 19.1 |
| 162.5° | 1.1 | 5.1 | 9.5 | 12.9 | 16.8 |
| 165° | 1.1 | 4.5 | 7.9 | 10.1 | 13.5 |
| 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)