

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-LD5-30SL-SLN-UNV-L840-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-LD5-30SL-SLN-UNV-L840-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
SQUARE NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3083.0 lumens
Efficiency: N/A
Efficacy: 146.8 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

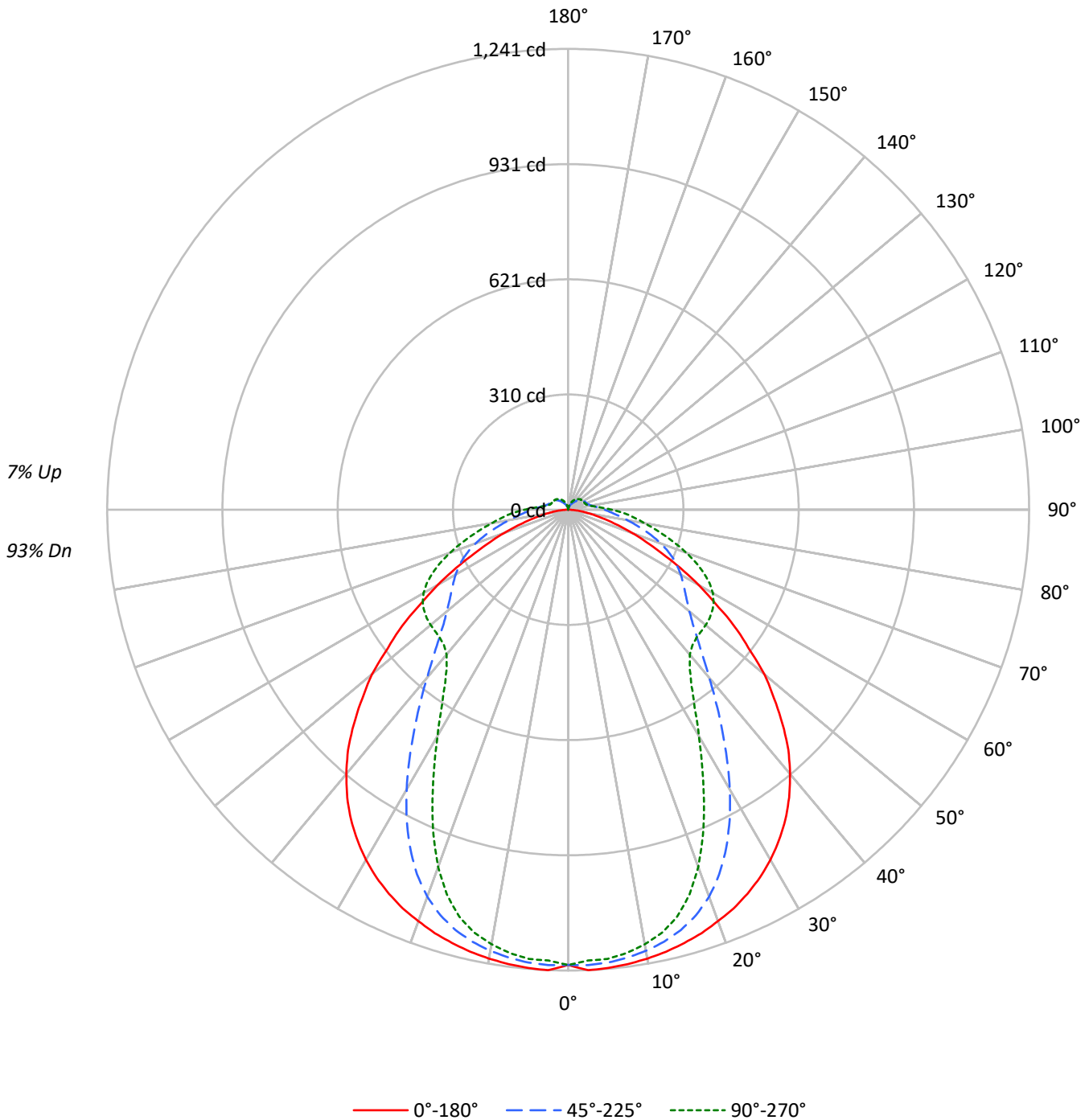
Input Watts (W): 21
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-30SL-SLN-UNV-L840-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° | 9907 | 9907 | 9907 |
| 5° | 10021 | 9688 | 9536 |
| 10° | 10017 | 9420 | 9144 |
| 15° | 10021 | 9104 | 8622 |
| 20° | 10025 | 8635 | 7744 |
| 25° | 10029 | 7913 | 6558 |
| 30° | 9982 | 6962 | 5394 |
| 35° | 9839 | 5924 | 4520 |
| 40° | 9552 | 5017 | 4086 |
| 45° | 9045 | 4360 | 4055 |
| 50° | 8356 | 3986 | 4197 |
| 55° | 7358 | 3831 | 4344 |
| 60° | 6208 | 3776 | 4404 |
| 65° | 4993 | 3693 | 4267 |
| 70° | 4010 | 3502 | 3935 |
| 75° | 3025 | 3169 | 3492 |
| 80° | 2233 | 2846 | 3106 |
| 85° | 1489 | 2684 | 2857 |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-30SL-SLN-UNV-L840-CD1-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 116.0 | 3.8 |
| 10°-20° | 327.8 | 10.6 |
| 20°-30° | 458.3 | 14.9 |
| 30°-40° | 475.3 | 15.4 |
| 40°-50° | 439.1 | 14.2 |
| 50°-60° | 392.1 | 12.7 |
| 60°-70° | 317.7 | 10.3 |
| 70°-80° | 211.3 | 6.9 |
| 80°-90° | 121.0 | 3.9 |
| 90°-100° | 67.0 | 2.2 |
| 100°-110° | 45.3 | 1.5 |
| 110°-120° | 37.7 | 1.2 |
| 120°-130° | 30.7 | 1.0 |
| 130°-140° | 22.1 | 0.7 |
| 140°-150° | 13.3 | 0.4 |
| 150°-160° | 6.4 | 0.2 |
| 160°-170° | 1.7 | 0.1 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 902.1 | 29.3 |
| 0°-40° | 1377.4 | 44.7 |
| 0°-60° | 2208.6 | 71.6 |
| 0°-90° | 2858.7 | 92.7 |
| 90°-120° | 150.0 | 4.9 |
| 90°-150° | 216.2 | 7.0 |
| 90°-180° | 224.0 | 7.3 |
| 0°-180° | 3083.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1226 | 1226 | 1226 | 1226 | 1226 | |
| 5° | 1239 | 1218 | 1224 | 1216 | 1214 | 118 |
| 15° | 1208 | 1182 | 1172 | 1146 | 1134 | 341 |
| 25° | 1141 | 1091 | 1006 | 901 | 864 | 526 |
| 35° | 1019 | 907 | 721 | 606 | 579 | 636 |
| 45° | 816 | 647 | 491 | 474 | 488 | 628 |
| 55° | 546 | 412 | 384 | 446 | 474 | 485 |
| 65° | 279 | 249 | 312 | 382 | 403 | 282 |
| 75° | 108 | 135 | 210 | 258 | 268 | 119 |
| 85° | 22 | 63 | 124 | 159 | 163 | 25 |
| 90° | 1 | 44 | 98 | 118 | 117 | 2 |
| 95° | 1 | 37 | 78 | 83 | 80 | 1 |
| 105° | 0 | 32 | 56 | 54 | 52 | 1 |
| 115° | 0 | 29 | 50 | 49 | 47 | 0 |
| 125° | 0 | 25 | 44 | 46 | 45 | 1 |
| 135° | 1 | 19 | 35 | 40 | 40 | 1 |
| 145° | 1 | 12 | 24 | 31 | 34 | 1 |
| 155° | 1 | 8 | 15 | 20 | 24 | 1 |
| 165° | 1 | 4 | 8 | 10 | 13 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-30SL-SLN-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1225.9 | 1225.9 | 1225.9 | 1225.9 | 1225.9 |
| 2.5° | 1241.4 | 1221.1 | 1227.5 | 1222.2 | 1215.3 |
| 5° | 1238.7 | 1217.9 | 1224.3 | 1215.8 | 1214.2 |
| 7.5° | 1233.9 | 1213.1 | 1216.9 | 1206.7 | 1204.1 |
| 10° | 1227.5 | 1205.7 | 1206.2 | 1191.8 | 1188.1 |
| 12.5° | 1219.0 | 1195.0 | 1191.8 | 1172.1 | 1166.8 |
| 15° | 1207.8 | 1182.2 | 1172.1 | 1145.5 | 1134.3 |
| 17.5° | 1195.6 | 1165.7 | 1144.9 | 1103.9 | 1086.3 |
| 20° | 1179.0 | 1145.5 | 1109.2 | 1046.9 | 1023.5 |
| 22.5° | 1162.5 | 1121.0 | 1062.9 | 979.8 | 948.3 |
| 25° | 1141.2 | 1090.6 | 1006.4 | 900.9 | 864.2 |
| 27.5° | 1117.2 | 1054.9 | 941.4 | 819.9 | 780.5 |
| 30° | 1089.0 | 1011.7 | 870.0 | 740.6 | 703.3 |
| 32.5° | 1056.0 | 963.3 | 794.9 | 669.2 | 634.5 |
| 35° | 1019.2 | 907.3 | 721.4 | 605.8 | 578.6 |
| 37.5° | 977.1 | 846.1 | 653.2 | 554.6 | 537.0 |
| 40° | 929.2 | 779.5 | 590.3 | 515.2 | 509.3 |
| 42.5° | 877.5 | 714.5 | 536.5 | 489.6 | 495.0 |
| 45° | 816.2 | 646.8 | 491.2 | 473.6 | 488.0 |
| 47.5° | 751.8 | 580.7 | 454.5 | 464.6 | 485.4 |
| 50° | 689.4 | 519.5 | 425.7 | 458.7 | 483.2 |
| 52.5° | 612.2 | 464.6 | 402.8 | 453.4 | 480.0 |
| 55° | 545.6 | 412.4 | 383.6 | 445.9 | 473.6 |
| 57.5° | 468.8 | 365.5 | 366.6 | 436.3 | 464.1 |
| 60° | 404.9 | 322.9 | 350.0 | 423.0 | 449.7 |
| 62.5° | 339.9 | 284.5 | 331.9 | 405.4 | 429.4 |
| 65° | 278.6 | 249.3 | 312.2 | 382.5 | 402.8 |
| 67.5° | 227.5 | 217.4 | 289.8 | 354.8 | 371.9 |
| 70° | 184.3 | 188.1 | 265.3 | 323.9 | 338.3 |
| 72.5° | 141.7 | 160.9 | 238.7 | 290.9 | 303.2 |
| 75° | 108.2 | 135.3 | 210.4 | 257.9 | 268.5 |
| 77.5° | 79.9 | 112.9 | 184.9 | 228.0 | 237.1 |
| 80° | 56.5 | 93.2 | 160.9 | 201.9 | 208.8 |
| 82.5° | 37.8 | 76.7 | 141.2 | 178.5 | 184.9 |
| 85° | 21.8 | 62.9 | 124.1 | 158.8 | 163.0 |
| 87.5° | 9.1 | 52.2 | 110.3 | 138.5 | 140.7 |
| 90° | 1.1 | 44.2 | 98.0 | 118.3 | 117.2 |
| 92.5° | 1.1 | 40.0 | 87.4 | 99.1 | 96.4 |
| 95° | 1.1 | 37.3 | 77.8 | 83.1 | 80.4 |
| 97.5° | 1.1 | 35.7 | 69.3 | 71.4 | 68.7 |
| 100° | 0.5 | 34.6 | 63.4 | 63.4 | 60.7 |
| 102.5° | 0.5 | 33.6 | 59.1 | 57.5 | 55.4 |
| 105° | 0.5 | 32.5 | 55.9 | 54.3 | 51.7 |
| 107.5° | 0.5 | 32.0 | 53.8 | 52.2 | 49.5 |
| 110° | 0.5 | 30.9 | 52.2 | 50.6 | 48.5 |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-30SL-SLN-UNV-L840-CD1-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|------|
| 112.5° | 0.5 | 30.4 | 51.1 | 50.1 | 47.4 |
| 115° | 0.5 | 29.3 | 49.5 | 49.0 | 47.4 |
| 117.5° | 0.5 | 28.2 | 48.5 | 48.5 | 46.9 |
| 120° | 0.5 | 27.2 | 46.9 | 48.0 | 46.4 |
| 122.5° | 0.5 | 26.1 | 45.3 | 46.9 | 45.3 |
| 125° | 0.5 | 25.0 | 43.7 | 45.8 | 44.8 |
| 127.5° | 1.1 | 23.4 | 41.6 | 44.8 | 43.7 |
| 130° | 0.5 | 21.8 | 39.4 | 43.7 | 43.2 |
| 132.5° | 1.1 | 20.2 | 37.3 | 42.1 | 42.1 |
| 135° | 1.1 | 18.6 | 34.6 | 40.5 | 40.5 |
| 137.5° | 1.1 | 16.5 | 32.0 | 38.4 | 38.9 |
| 140° | 1.1 | 14.9 | 29.3 | 36.2 | 37.3 |
| 142.5° | 1.1 | 13.3 | 26.6 | 34.1 | 35.7 |
| 145° | 1.1 | 11.7 | 24.0 | 31.4 | 33.6 |
| 147.5° | 1.1 | 10.7 | 21.3 | 28.2 | 31.4 |
| 150° | 1.1 | 9.1 | 19.2 | 25.6 | 28.8 |
| 152.5° | 1.1 | 8.0 | 17.0 | 22.9 | 26.6 |
| 155° | 1.1 | 7.5 | 14.9 | 19.7 | 24.0 |
| 157.5° | 1.1 | 6.4 | 12.8 | 17.0 | 21.3 |
| 160° | 1.1 | 5.3 | 10.7 | 14.9 | 18.1 |
| 162.5° | 1.1 | 4.8 | 9.1 | 12.3 | 16.0 |
| 165° | 1.1 | 4.3 | 7.5 | 9.6 | 12.8 |
| 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)