

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: **2SNLED-LD5-45HL-SLN-UNV-L950-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: 2SNLED-LD5-45HL-SLN-UNV-L950-CD1-U
Description: 2FT LINEAR SNLED LED FIXTURE
SQUARE NARROW LENS
Light Source: -
Ballast/Driver: -

Summary

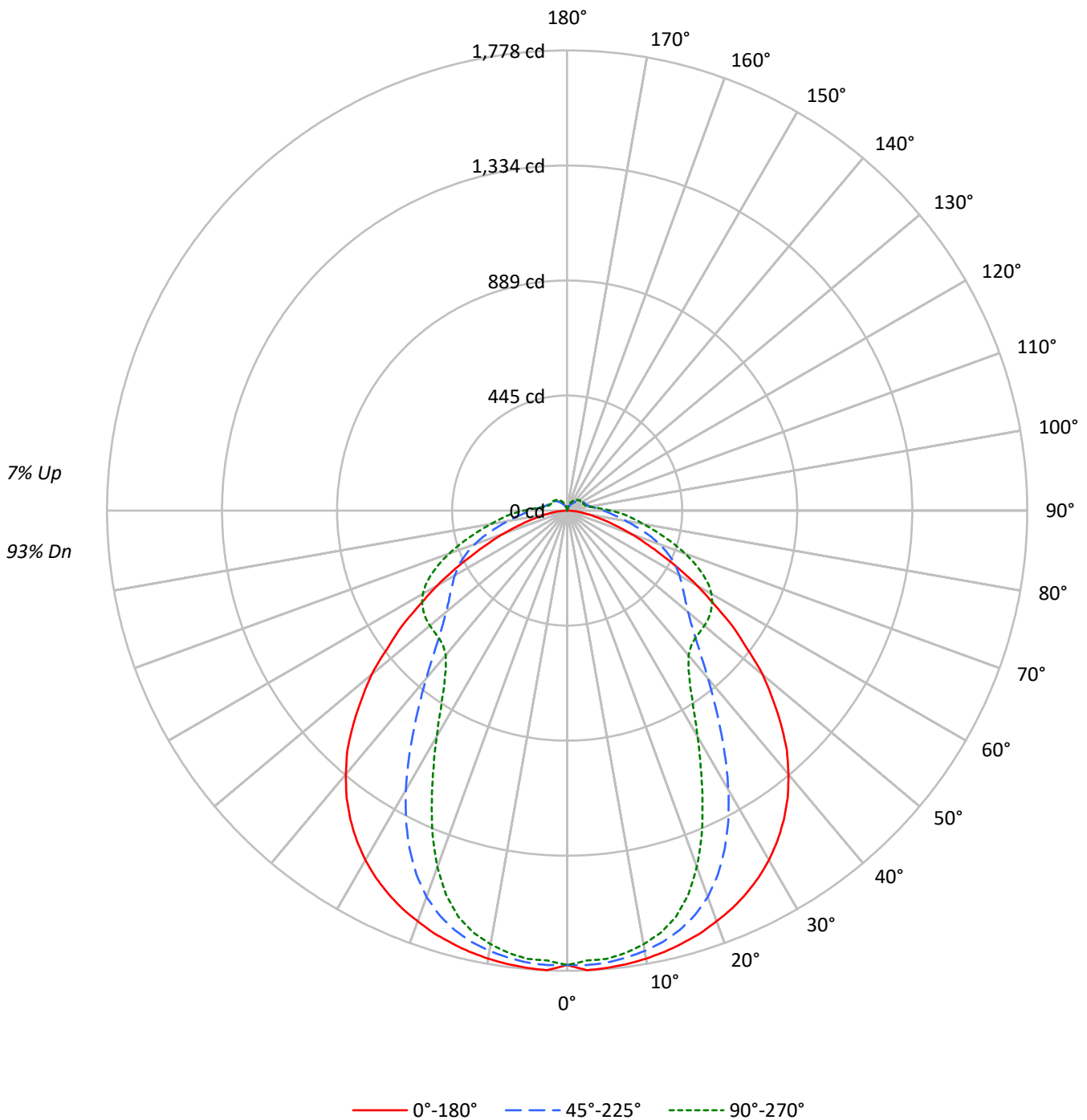
Lumens per Lamp: N/A
Luminaire Lumens: 4415.0 lumens
Efficiency: N/A
Efficacy: 122.6 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 0.96 / 1.11
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 2' x H: 0.12')
CIE Type: Direct

Input Watts (W): 36
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: 2SNLED-LD5-45HL-SLN-UNV-L950-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-SLN-UNV-L950-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 | 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° | 28374 | 28374 | 28374 |
| 5° | 28623 | 27695 | 27313 |
| 10° | 28535 | 26881 | 26189 |
| 15° | 28463 | 25933 | 24696 |
| 20° | 28393 | 24554 | 22179 |
| 25° | 28319 | 22458 | 18781 |
| 30° | 28090 | 19725 | 15447 |
| 35° | 27591 | 16752 | 12946 |
| 40° | 26674 | 14158 | 11703 |
| 45° | 25145 | 12278 | 11615 |
| 50° | 23103 | 11196 | 12022 |
| 55° | 20211 | 10732 | 12443 |
| 60° | 16914 | 10548 | 12613 |
| 65° | 13455 | 10275 | 12221 |
| 70° | 10647 | 9703 | 11271 |
| 75° | 7843 | 8731 | 10000 |
| 80° | 5559 | 7781 | 8897 |
| 85° | 3386 | 7264 | 8184 |



TEST NUMBER: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-SLN-UNV-L950-CD1-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 166.1 | 3.8 |
| 10°-20° | 469.5 | 10.6 |
| 20°-30° | 656.3 | 14.9 |
| 30°-40° | 680.7 | 15.4 |
| 40°-50° | 628.9 | 14.2 |
| 50°-60° | 561.5 | 12.7 |
| 60°-70° | 455.0 | 10.3 |
| 70°-80° | 302.6 | 6.9 |
| 80°-90° | 173.3 | 3.9 |
| 90°-100° | 95.9 | 2.2 |
| 100°-110° | 64.9 | 1.5 |
| 110°-120° | 54.1 | 1.2 |
| 120°-130° | 44.0 | 1.0 |
| 130°-140° | 31.7 | 0.7 |
| 140°-150° | 19.1 | 0.4 |
| 150°-160° | 9.2 | 0.2 |
| 160°-170° | 2.4 | 0.1 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1291.8 | 29.3 |
| 0°-40° | 1972.5 | 44.7 |
| 0°-60° | 3162.8 | 71.6 |
| 0°-90° | 4093.8 | 92.7 |
| 90°-120° | 214.9 | 4.9 |
| 90°-150° | 309.7 | 7.0 |
| 90°-180° | 321.0 | 7.3 |
| 0°-180° | 4415.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1756 | 1756 | 1756 | 1756 | 1756 | |
| 5° | 1774 | 1744 | 1753 | 1741 | 1739 | 169 |
| 15° | 1730 | 1693 | 1678 | 1640 | 1624 | 489 |
| 25° | 1634 | 1562 | 1441 | 1290 | 1238 | 753 |
| 35° | 1460 | 1299 | 1033 | 868 | 829 | 911 |
| 45° | 1169 | 926 | 704 | 678 | 699 | 899 |
| 55° | 781 | 590 | 549 | 639 | 678 | 695 |
| 65° | 399 | 357 | 447 | 548 | 577 | 403 |
| 75° | 155 | 194 | 301 | 369 | 384 | 170 |
| 85° | 31 | 90 | 178 | 227 | 234 | 36 |
| 90° | 2 | 63 | 140 | 169 | 168 | 2 |
| 95° | 2 | 53 | 111 | 119 | 115 | 1 |
| 105° | 1 | 46 | 80 | 78 | 74 | 1 |
| 115° | 1 | 42 | 71 | 70 | 68 | 1 |
| 125° | 1 | 36 | 63 | 66 | 64 | 1 |
| 135° | 2 | 27 | 50 | 58 | 58 | 1 |
| 145° | 2 | 17 | 34 | 45 | 48 | 1 |
| 155° | 2 | 11 | 21 | 28 | 34 | 1 |
| 165° | 2 | 6 | 11 | 14 | 18 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-SLN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1755.6 | 1755.6 | 1755.6 | 1755.6 | 1755.6 |
| 2.5° | 1777.7 | 1748.7 | 1757.9 | 1750.2 | 1740.3 |
| 5° | 1773.9 | 1744.1 | 1753.3 | 1741.1 | 1738.8 |
| 7.5° | 1767.0 | 1737.3 | 1742.6 | 1728.1 | 1724.3 |
| 10° | 1757.9 | 1726.6 | 1727.4 | 1706.8 | 1701.4 |
| 12.5° | 1745.7 | 1711.3 | 1706.8 | 1678.5 | 1670.9 |
| 15° | 1729.6 | 1693.0 | 1678.5 | 1640.4 | 1624.4 |
| 17.5° | 1712.1 | 1669.4 | 1639.6 | 1580.9 | 1555.7 |
| 20° | 1688.4 | 1640.4 | 1588.5 | 1499.2 | 1465.7 |
| 22.5° | 1664.8 | 1605.3 | 1522.1 | 1403.1 | 1358.1 |
| 25° | 1634.3 | 1561.8 | 1441.2 | 1290.2 | 1237.5 |
| 27.5° | 1599.9 | 1510.7 | 1348.2 | 1174.2 | 1117.7 |
| 30° | 1559.5 | 1448.9 | 1245.9 | 1060.5 | 1007.1 |
| 32.5° | 1512.2 | 1379.4 | 1138.3 | 958.3 | 908.7 |
| 35° | 1459.6 | 1299.3 | 1033.1 | 867.5 | 828.6 |
| 37.5° | 1399.3 | 1211.6 | 935.4 | 794.2 | 769.1 |
| 40° | 1330.6 | 1116.2 | 845.4 | 737.8 | 729.4 |
| 42.5° | 1256.6 | 1023.1 | 768.3 | 701.2 | 708.8 |
| 45° | 1168.9 | 926.2 | 703.5 | 678.3 | 698.9 |
| 47.5° | 1076.5 | 831.6 | 650.8 | 665.3 | 695.1 |
| 50° | 987.3 | 743.9 | 609.6 | 656.9 | 692.0 |
| 52.5° | 876.6 | 665.3 | 576.8 | 649.3 | 687.4 |
| 55° | 781.3 | 590.5 | 549.3 | 638.6 | 678.3 |
| 57.5° | 671.4 | 523.4 | 524.9 | 624.9 | 664.5 |
| 60° | 579.9 | 462.4 | 501.3 | 605.8 | 643.9 |
| 62.5° | 486.8 | 407.4 | 475.3 | 580.6 | 614.9 |
| 65° | 399.0 | 357.1 | 447.1 | 547.8 | 576.8 |
| 67.5° | 325.8 | 311.3 | 415.1 | 508.1 | 532.5 |
| 70° | 264.0 | 269.3 | 380.0 | 463.9 | 484.5 |
| 72.5° | 202.9 | 230.4 | 341.8 | 416.6 | 434.1 |
| 75° | 154.9 | 193.8 | 301.4 | 369.3 | 384.5 |
| 77.5° | 114.4 | 161.7 | 264.7 | 326.5 | 339.5 |
| 80° | 80.9 | 133.5 | 230.4 | 289.2 | 299.1 |
| 82.5° | 54.2 | 109.9 | 202.2 | 255.6 | 264.7 |
| 85° | 31.3 | 90.0 | 177.8 | 227.4 | 233.5 |
| 87.5° | 13.0 | 74.8 | 157.9 | 198.4 | 201.4 |
| 90° | 1.5 | 63.3 | 140.4 | 169.4 | 167.9 |
| 92.5° | 1.5 | 57.2 | 125.1 | 141.9 | 138.1 |
| 95° | 1.5 | 53.4 | 111.4 | 119.0 | 115.2 |
| 97.5° | 1.5 | 51.1 | 99.2 | 102.2 | 98.4 |
| 100° | 0.8 | 49.6 | 90.8 | 90.8 | 87.0 |
| 102.5° | 0.8 | 48.1 | 84.7 | 82.4 | 79.3 |
| 105° | 0.8 | 46.5 | 80.1 | 77.8 | 74.0 |
| 107.5° | 0.8 | 45.8 | 77.1 | 74.8 | 71.0 |
| 110° | 0.8 | 44.3 | 74.8 | 72.5 | 69.4 |



TEST NUMBER: P#

CATALOG NUMBER: 2SNLED-LD5-45HL-SLN-UNV-L950-CD1-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|------|
| 112.5° | 0.8 | 43.5 | 73.2 | 71.7 | 67.9 |
| 115° | 0.8 | 42.0 | 71.0 | 70.2 | 67.9 |
| 117.5° | 0.8 | 40.4 | 69.4 | 69.4 | 67.1 |
| 120° | 0.8 | 38.9 | 67.1 | 68.7 | 66.4 |
| 122.5° | 0.8 | 37.4 | 64.9 | 67.1 | 64.9 |
| 125° | 0.8 | 35.9 | 62.6 | 65.6 | 64.1 |
| 127.5° | 1.5 | 33.6 | 59.5 | 64.1 | 62.6 |
| 130° | 0.8 | 31.3 | 56.5 | 62.6 | 61.8 |
| 132.5° | 1.5 | 29.0 | 53.4 | 60.3 | 60.3 |
| 135° | 1.5 | 26.7 | 49.6 | 58.0 | 58.0 |
| 137.5° | 1.5 | 23.7 | 45.8 | 54.9 | 55.7 |
| 140° | 1.5 | 21.4 | 42.0 | 51.9 | 53.4 |
| 142.5° | 1.5 | 19.1 | 38.1 | 48.8 | 51.1 |
| 145° | 1.5 | 16.8 | 34.3 | 45.0 | 48.1 |
| 147.5° | 1.5 | 15.3 | 30.5 | 40.4 | 45.0 |
| 150° | 1.5 | 13.0 | 27.5 | 36.6 | 41.2 |
| 152.5° | 1.5 | 11.4 | 24.4 | 32.8 | 38.1 |
| 155° | 1.5 | 10.7 | 21.4 | 28.2 | 34.3 |
| 157.5° | 1.5 | 9.2 | 18.3 | 24.4 | 30.5 |
| 160° | 1.5 | 7.6 | 15.3 | 21.4 | 25.9 |
| 162.5° | 1.5 | 6.9 | 13.0 | 17.5 | 22.9 |
| 165° | 1.5 | 6.1 | 10.7 | 13.7 | 18.3 |
| 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)