

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: P565999

Luminaire Tested: **4SNX-104HL-LC-UNV-L835-CD**

Issue Date: 9/15/2022



Test Information

Test Method: LM-79-08
Report Number: P565999
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2205-663-3)
Test Lab: INNOVATION CENTER
Issue Date: 9/15/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNX-104HL-LC-UNV-L835-CD
Description: 4FT 10400 LUMEN, SNX FIXTURE WITH 3500K, 80CRI LEDS AND LC LENS
Light Source: -
Ballast/Driver: -

Summary

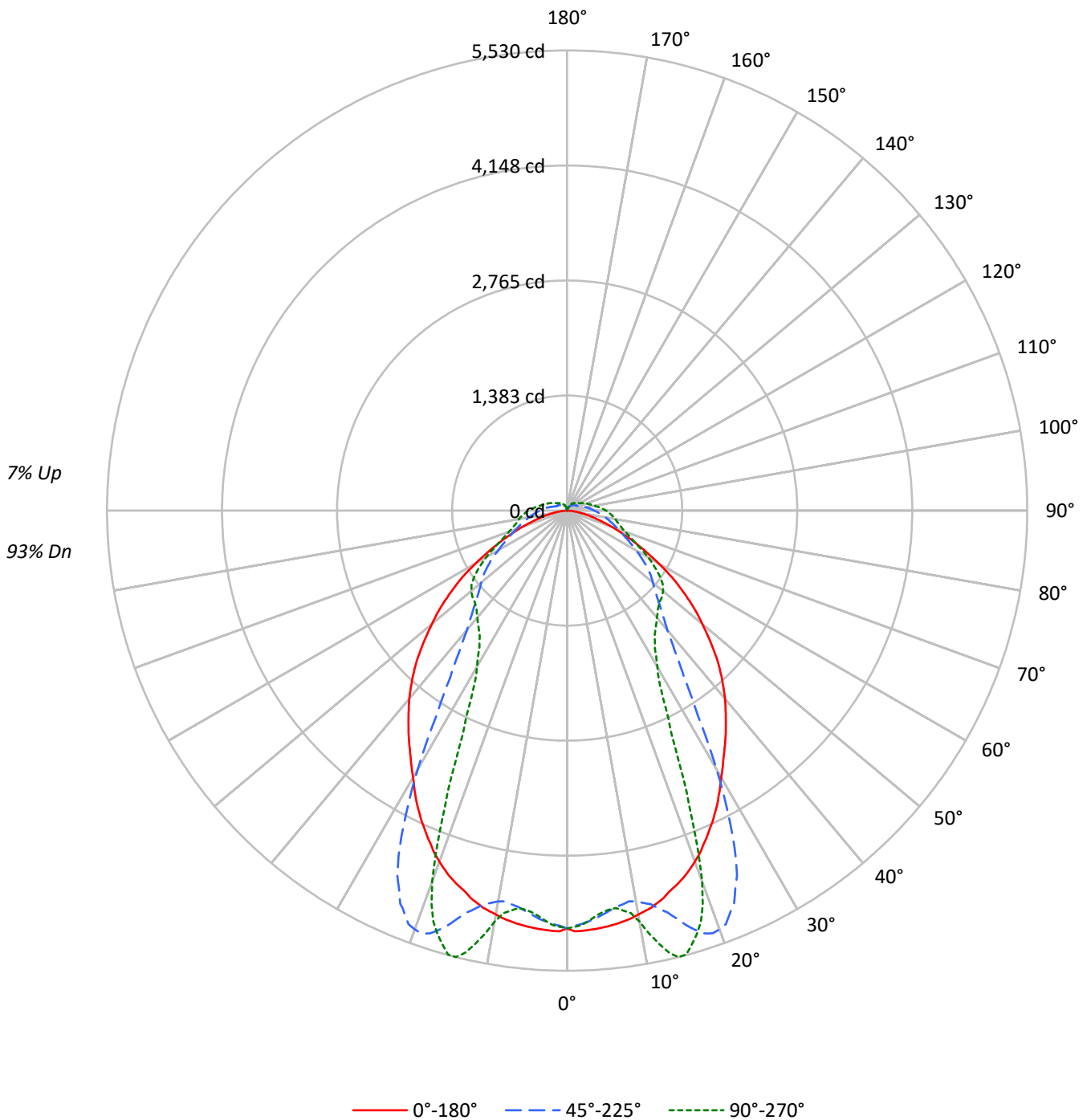
Lumens per Lamp: N/A
Luminaire Lumens: 11162.0 lumens
Efficiency: N/A
Efficacy: 147.8 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.89 / 1.01
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 75.5
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: P565999

CATALOG NUMBER: 4SNX-104HL-LC-UNV-L835-CD

Luminous Intensity Polar Plot





TEST NUMBER: P565999

CATALOG NUMBER: 4SNX-104HL-LC-UNV-L835-CD

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 | 96 | 96 | 96 | 93 |
| 1 | 107 | 103 | 99 | 95 | 104 | 100 | 96 | 93 | 94 | 91 | 89 | 89 | 87 | 85 | 85 | 83 | 81 | 78 |
| 2 | 99 | 91 | 84 | 79 | 95 | 88 | 83 | 78 | 84 | 79 | 75 | 80 | 76 | 72 | 76 | 72 | 69 | 67 |
| 3 | 91 | 81 | 73 | 67 | 88 | 79 | 72 | 66 | 75 | 69 | 64 | 71 | 66 | 62 | 68 | 64 | 60 | 58 |
| 4 | 84 | 73 | 64 | 58 | 81 | 71 | 63 | 57 | 68 | 61 | 56 | 64 | 59 | 54 | 62 | 57 | 53 | 51 |
| 5 | 78 | 66 | 57 | 51 | 75 | 64 | 56 | 51 | 61 | 55 | 49 | 59 | 53 | 48 | 56 | 51 | 47 | 45 |
| 6 | 72 | 60 | 51 | 45 | 70 | 58 | 51 | 45 | 56 | 49 | 44 | 54 | 48 | 43 | 52 | 46 | 42 | 40 |
| 7 | 67 | 55 | 46 | 41 | 65 | 54 | 46 | 40 | 51 | 45 | 40 | 49 | 43 | 39 | 48 | 42 | 38 | 36 |
| 8 | 63 | 50 | 42 | 37 | 61 | 49 | 42 | 36 | 47 | 41 | 36 | 46 | 40 | 35 | 44 | 39 | 35 | 33 |
| 9 | 59 | 46 | 39 | 34 | 57 | 46 | 38 | 33 | 44 | 37 | 33 | 42 | 36 | 32 | 41 | 36 | 32 | 30 |
| 10 | 56 | 43 | 36 | 31 | 54 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 30 | 38 | 33 | 29 | 27 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 54061 | 54061 | 54061 |
| 5° | 54125 | 50454 | 49484 |
| 10° | 53477 | 47906 | 49070 |
| 15° | 52231 | 49831 | 52238 |
| 20° | 50651 | 51895 | 43720 |
| 25° | 48108 | 46517 | 26882 |
| 30° | 44947 | 34619 | 19455 |
| 35° | 42365 | 23874 | 16412 |
| 40° | 40051 | 18512 | 15126 |
| 45° | 37357 | 15746 | 14305 |
| 50° | 33850 | 14118 | 14042 |
| 55° | 30155 | 12753 | 12992 |
| 60° | 25424 | 11021 | 11238 |
| 65° | 20521 | 9584 | 9379 |
| 70° | 15930 | 8600 | 8258 |
| 75° | 12144 | 7979 | 7701 |
| 80° | 8288 | 7537 | 7624 |
| 85° | 4275 | 7168 | 7569 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 467.3 | 4.2 |
| 10°-20° | 1428.0 | 12.8 |
| 20°-30° | 1922.9 | 17.2 |
| 30°-40° | 1819.8 | 16.3 |
| 40°-50° | 1606.2 | 14.4 |
| 50°-60° | 1304.6 | 11.7 |
| 60°-70° | 887.3 | 7.9 |
| 70°-80° | 570.9 | 5.1 |
| 80°-90° | 379.6 | 3.4 |
| 90°-100° | 260.9 | 2.3 |
| 100°-110° | 175.1 | 1.6 |
| 110°-120° | 123.5 | 1.1 |
| 120°-130° | 88.2 | 0.8 |
| 130°-140° | 62.3 | 0.6 |
| 140°-150° | 38.7 | 0.3 |
| 150°-160° | 18.9 | 0.2 |
| 160°-170° | 6.6 | 0.1 |
| 170°-180° | 1.1 | 0.0 |
| 0°-30° | 3818.2 | 34.2 |
| 0°-40° | 5638.0 | 50.5 |
| 0°-60° | 8548.9 | 76.6 |
| 0°-90° | 10386.7 | 93.1 |
| 90°-120° | 559.5 | 5.0 |
| 90°-150° | 748.7 | 6.7 |
| 90°-180° | 775.0 | 6.9 |
| 0°-180° | 11162.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 5022 | 5022 | 5022 | 5022 | 5022 | |
| 5° | 5028 | 4981 | 4874 | 4871 | 4847 | 477 |
| 15° | 4739 | 4709 | 5072 | 5520 | 5525 | 1336 |
| 25° | 4129 | 4896 | 4832 | 3509 | 2967 | 1895 |
| 35° | 3318 | 4656 | 2454 | 1890 | 1832 | 2076 |
| 45° | 2556 | 3132 | 1552 | 1534 | 1566 | 1963 |
| 55° | 1702 | 1852 | 1166 | 1302 | 1352 | 1521 |
| 65° | 878 | 999 | 780 | 868 | 895 | 881 |
| 75° | 337 | 472 | 550 | 617 | 646 | 367 |
| 85° | 51 | 201 | 390 | 494 | 528 | 67 |
| 90° | 2 | 140 | 326 | 438 | 467 | 3 |
| 95° | 2 | 107 | 274 | 372 | 397 | 1 |
| 105° | 3 | 75 | 181 | 254 | 285 | 3 |
| 115° | 3 | 65 | 133 | 189 | 213 | 4 |
| 125° | 5 | 54 | 114 | 143 | 153 | 5 |
| 135° | 7 | 43 | 94 | 119 | 126 | 5 |
| 145° | 7 | 31 | 66 | 92 | 100 | 5 |
| 155° | 8 | 19 | 41 | 61 | 70 | 4 |
| 165° | 8 | 12 | 22 | 31 | 38 | 3 |
| 175° | 10 | 10 | 10 | 10 | 8 | 1 |
| 180° | 8 | 8 | 8 | 8 | 8 | |



TEST NUMBER: P565999

CATALOG NUMBER: 4SNX-104HL-LC-UNV-L835-CD

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 5022.4 | 5022.4 | 5022.4 | 5022.4 | 5022.4 |
| 1° | 5056.4 | 5041.1 | 4990.0 | 5017.2 | 5003.6 |
| 2° | 5054.7 | 5029.2 | 4971.2 | 5001.9 | 4984.9 |
| 3° | 5046.2 | 5018.9 | 4944.0 | 4962.7 | 4937.1 |
| 4° | 5037.7 | 5005.3 | 4915.0 | 4915.0 | 4886.0 |
| 5° | 5027.5 | 4981.4 | 4874.1 | 4870.7 | 4846.8 |
| 6° | 5015.5 | 4962.7 | 4838.3 | 4834.9 | 4821.3 |
| 7° | 4998.5 | 4930.3 | 4799.1 | 4823.0 | 4812.7 |
| 8° | 4978.0 | 4899.6 | 4778.6 | 4838.3 | 4853.6 |
| 9° | 4959.3 | 4862.2 | 4754.8 | 4886.0 | 4897.9 |
| 10° | 4928.6 | 4828.1 | 4770.1 | 4981.4 | 5017.2 |
| 11° | 4903.1 | 4799.1 | 4804.2 | 5075.2 | 5182.5 |
| 12° | 4877.5 | 4768.4 | 4836.6 | 5192.8 | 5324.0 |
| 13° | 4834.9 | 4744.6 | 4908.2 | 5320.6 | 5455.2 |
| 14° | 4797.4 | 4725.8 | 4978.0 | 5450.1 | 5530.2 |
| 15° | 4739.4 | 4708.8 | 5071.8 | 5520.0 | 5525.1 |
| 16° | 4700.3 | 4696.8 | 5180.8 | 5525.1 | 5429.7 |
| 17° | 4655.9 | 4691.7 | 5269.5 | 5436.5 | 5324.0 |
| 18° | 4606.5 | 4702.0 | 5342.7 | 5325.7 | 5196.2 |
| 19° | 4550.3 | 4712.2 | 5373.4 | 5172.3 | 5005.3 |
| 20° | 4488.9 | 4727.5 | 5356.4 | 5012.1 | 4742.9 |
| 21° | 4427.6 | 4748.0 | 5324.0 | 4843.4 | 4398.6 |
| 22.5° | 4313.4 | 4797.4 | 5170.6 | 4369.6 | 3829.4 |
| 23° | 4281.0 | 4807.6 | 5134.8 | 4221.4 | 3681.1 |
| 24° | 4200.9 | 4850.2 | 4971.2 | 3875.4 | 3289.2 |
| 25° | 4129.3 | 4896.2 | 4831.5 | 3509.0 | 2967.1 |
| 26° | 4049.2 | 4930.3 | 4620.2 | 3171.6 | 2769.4 |
| 27° | 3970.8 | 4950.8 | 4379.9 | 2909.1 | 2547.8 |
| 28° | 3880.5 | 4972.9 | 4119.1 | 2682.4 | 2380.8 |
| 29° | 3795.3 | 4976.3 | 3861.8 | 2501.8 | 2249.6 |
| 30° | 3703.3 | 4959.3 | 3590.8 | 2356.9 | 2167.8 |
| 32.5° | 3502.2 | 4865.6 | 2927.9 | 2080.9 | 1963.3 |
| 35° | 3318.1 | 4655.9 | 2454.1 | 1890.0 | 1832.0 |
| 37.5° | 3132.4 | 4325.3 | 2121.8 | 1770.7 | 1751.9 |
| 40° | 2950.0 | 3933.4 | 1871.2 | 1675.3 | 1678.7 |
| 42.5° | 2757.4 | 3529.4 | 1699.1 | 1596.9 | 1612.2 |
| 45° | 2556.3 | 3132.4 | 1552.5 | 1533.8 | 1566.2 |
| 47.5° | 2333.1 | 2769.4 | 1436.7 | 1492.9 | 1542.3 |
| 50° | 2121.8 | 2409.8 | 1346.3 | 1453.7 | 1504.8 |
| 52.5° | 1920.7 | 2114.9 | 1264.5 | 1387.2 | 1446.9 |
| 55° | 1702.5 | 1852.5 | 1165.7 | 1302.0 | 1351.5 |
| 57.5° | 1494.6 | 1615.6 | 1061.7 | 1196.4 | 1240.7 |
| 60° | 1266.2 | 1382.1 | 956.1 | 1082.2 | 1124.8 |
| 62.5° | 1060.0 | 1182.7 | 865.7 | 968.0 | 1002.1 |
| 65° | 877.7 | 998.7 | 780.5 | 867.5 | 894.7 |



TEST NUMBER: P565999

CATALOG NUMBER: 4SNX-104HL-LC-UNV-L835-CD

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 67.5° | 715.8 | 845.3 | 710.7 | 783.9 | 809.5 |
| 70° | 564.1 | 700.4 | 649.3 | 715.8 | 743.0 |
| 72.5° | 441.4 | 579.4 | 598.2 | 659.5 | 686.8 |
| 75° | 337.4 | 472.1 | 550.5 | 616.9 | 645.9 |
| 77.5° | 250.5 | 385.2 | 506.2 | 582.8 | 613.5 |
| 80° | 165.3 | 306.8 | 467.0 | 552.2 | 588.0 |
| 82.5° | 104.0 | 247.1 | 427.8 | 521.5 | 559.0 |
| 85° | 51.1 | 201.1 | 390.3 | 494.2 | 528.3 |
| 87.5° | 17.0 | 167.0 | 356.2 | 467.0 | 495.9 |
| 90° | 1.7 | 139.7 | 325.5 | 438.0 | 467.0 |
| 92.5° | 1.7 | 121.0 | 299.9 | 403.9 | 432.9 |
| 95° | 1.7 | 107.4 | 274.4 | 371.5 | 397.1 |
| 97.5° | 1.7 | 97.1 | 250.5 | 337.4 | 364.7 |
| 100° | 1.7 | 86.9 | 225.0 | 305.1 | 334.0 |
| 102.5° | 3.4 | 80.1 | 202.8 | 277.8 | 308.5 |
| 105° | 3.4 | 75.0 | 180.6 | 253.9 | 284.6 |
| 107.5° | 3.4 | 71.6 | 161.9 | 235.2 | 264.2 |
| 110° | 3.4 | 68.2 | 148.3 | 218.1 | 248.8 |
| 112.5° | 3.4 | 66.5 | 139.7 | 202.8 | 231.8 |
| 115° | 3.4 | 64.8 | 132.9 | 189.2 | 213.0 |
| 117.5° | 5.1 | 63.1 | 127.8 | 175.5 | 194.3 |
| 120° | 5.1 | 59.6 | 124.4 | 163.6 | 178.9 |
| 122.5° | 5.1 | 56.2 | 119.3 | 153.4 | 165.3 |
| 125° | 5.1 | 54.5 | 114.2 | 143.2 | 153.4 |
| 127.5° | 5.1 | 51.1 | 109.1 | 134.6 | 144.9 |
| 130° | 6.8 | 47.7 | 104.0 | 127.8 | 136.3 |
| 132.5° | 6.8 | 44.3 | 98.8 | 124.4 | 131.2 |
| 135° | 6.8 | 42.6 | 93.7 | 119.3 | 126.1 |
| 137.5° | 6.8 | 39.2 | 88.6 | 114.2 | 121.0 |
| 140° | 6.8 | 35.8 | 81.8 | 107.4 | 114.2 |
| 142.5° | 6.8 | 34.1 | 75.0 | 100.5 | 107.4 |
| 145° | 6.8 | 30.7 | 66.5 | 92.0 | 100.5 |
| 147.5° | 8.5 | 29.0 | 59.6 | 85.2 | 92.0 |
| 150° | 8.5 | 25.6 | 52.8 | 78.4 | 85.2 |
| 152.5° | 8.5 | 22.2 | 46.0 | 69.9 | 76.7 |
| 155° | 8.5 | 18.7 | 40.9 | 61.4 | 69.9 |
| 157.5° | 8.5 | 17.0 | 35.8 | 51.1 | 61.4 |
| 160° | 8.5 | 15.3 | 30.7 | 44.3 | 52.8 |
| 162.5° | 8.5 | 13.6 | 27.3 | 37.5 | 46.0 |
| 165° | 8.5 | 11.9 | 22.2 | 30.7 | 37.5 |
| 167.5° | 10.2 | 11.9 | 18.7 | 23.9 | 30.7 |
| 170° | 10.2 | 11.9 | 15.3 | 18.7 | 23.9 |
| 172.5° | 10.2 | 10.2 | 11.9 | 13.6 | 15.3 |
| 175° | 10.2 | 10.2 | 10.2 | 10.2 | 8.5 |
| 177.5° | 10.2 | 10.2 | 10.2 | 8.5 | 8.5 |



TEST NUMBER: P565999

CATALOG NUMBER: 4SNX-104HL-LC-UNV-L835-CD

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|------|-----|-------|-----|-------|-----|
| 180° | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 |

(END OF REPORT)