

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: P234473

Luminaire Tested: **2WSNLED-LD4-20SL-F-UNV-L835-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P234473
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-169-7)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2WSNLED-LD4-20SL-F-UNV-L835-CD1-U
Description: 2FT WSNLED WRAPAROUND
Light Source: (112) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

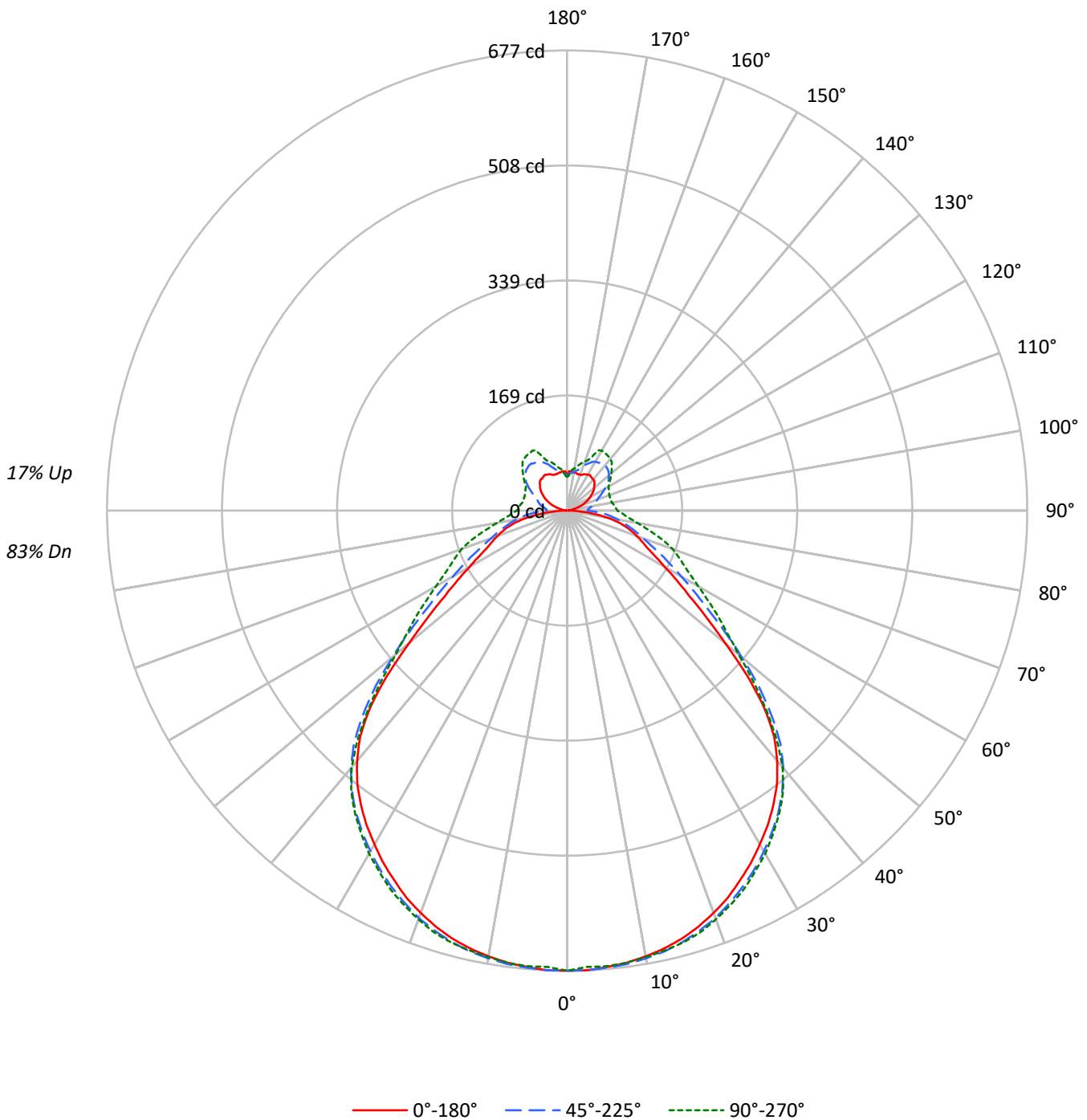
Lumens per Lamp: N/A
Luminaire Lumens: 2103.1 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.35
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 2' x H: 0.12')
CIE Type: Semi-Direct

Input Watts (W): 20.2
Input Voltage (V): 120
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: P234473

CATALOG NUMBER: 2WSNLED-LD4-20SL-F-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P234473

CATALOG NUMBER: 2WSNLED-LD4-20SL-F-UNV-L835-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 | 115 | 115 | 115 | 115 | 110 | 110 | 110 | 110 | 101 | 101 | 101 | 93 | 93 | 93 | 86 | 86 | 86 | 83 |
| 1 | 105 | 100 | 96 | 92 | 100 | 96 | 92 | 89 | 89 | 86 | 83 | 82 | 80 | 78 | 76 | 74 | 72 | 69 |
| 2 | 96 | 88 | 81 | 76 | 92 | 85 | 79 | 74 | 78 | 74 | 69 | 72 | 69 | 65 | 67 | 64 | 61 | 58 |
| 3 | 88 | 78 | 70 | 64 | 84 | 75 | 68 | 62 | 70 | 64 | 59 | 64 | 60 | 56 | 60 | 56 | 53 | 50 |
| 4 | 81 | 69 | 61 | 55 | 77 | 67 | 59 | 53 | 62 | 56 | 51 | 58 | 53 | 48 | 54 | 49 | 46 | 43 |
| 5 | 74 | 62 | 54 | 47 | 71 | 60 | 52 | 46 | 56 | 49 | 44 | 52 | 47 | 42 | 49 | 44 | 40 | 38 |
| 6 | 69 | 56 | 48 | 42 | 66 | 54 | 46 | 41 | 51 | 44 | 39 | 47 | 42 | 37 | 44 | 40 | 36 | 33 |
| 7 | 64 | 51 | 43 | 37 | 61 | 49 | 42 | 36 | 46 | 40 | 35 | 43 | 38 | 33 | 41 | 36 | 32 | 30 |
| 8 | 59 | 47 | 38 | 33 | 57 | 45 | 38 | 32 | 42 | 36 | 31 | 40 | 34 | 30 | 37 | 32 | 29 | 27 |
| 9 | 56 | 43 | 35 | 30 | 53 | 41 | 34 | 29 | 39 | 33 | 28 | 37 | 31 | 27 | 35 | 30 | 26 | 24 |
| 10 | 52 | 39 | 32 | 27 | 50 | 38 | 31 | 26 | 36 | 30 | 25 | 34 | 29 | 25 | 32 | 27 | 24 | 22 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3643 | 3643 | 3643 |
| 5° | 3621 | 3604 | 3596 |
| 10° | 3599 | 3572 | 3566 |
| 15° | 3572 | 3535 | 3547 |
| 20° | 3527 | 3485 | 3505 |
| 25° | 3467 | 3417 | 3450 |
| 30° | 3400 | 3342 | 3379 |
| 35° | 3329 | 3258 | 3286 |
| 40° | 3210 | 3129 | 3134 |
| 45° | 2936 | 2855 | 2800 |
| 50° | 2361 | 2422 | 2398 |
| 55° | 1895 | 1988 | 2158 |
| 60° | 1612 | 1698 | 1973 |
| 65° | 1460 | 1497 | 1898 |
| 70° | 1464 | 1373 | 1933 |
| 75° | 1484 | 1335 | 1886 |
| 80° | 1373 | 1345 | 1904 |
| 85° | 937 | 1350 | 2187 |



TEST NUMBER: P234473

CATALOG NUMBER: 2WSNLED-LD4-20SL-F-UNV-L835-CD1-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 64.2 | 3.1 |
| 10°-20° | 185.1 | 8.8 |
| 20°-30° | 280.8 | 13.4 |
| 30°-40° | 336.6 | 16.0 |
| 40°-50° | 321.2 | 15.3 |
| 50°-60° | 226.9 | 10.8 |
| 60°-70° | 154.1 | 7.3 |
| 70°-80° | 105.2 | 5.0 |
| 80°-90° | 60.9 | 2.9 |
| 90°-100° | 39.1 | 1.9 |
| 100°-110° | 43.6 | 2.1 |
| 110°-120° | 52.5 | 2.5 |
| 120°-130° | 60.2 | 2.9 |
| 130°-140° | 61.6 | 2.9 |
| 140°-150° | 52.4 | 2.5 |
| 150°-160° | 35.2 | 1.7 |
| 160°-170° | 18.1 | 0.9 |
| 170°-180° | 5.4 | 0.3 |
| 0°-30° | 530.1 | 25.2 |
| 0°-40° | 866.7 | 41.2 |
| 0°-60° | 1414.9 | 67.3 |
| 0°-90° | 1735.1 | 82.5 |
| 90°-120° | 135.2 | 6.4 |
| 90°-150° | 309.3 | 14.7 |
| 90°-180° | 368.0 | 17.5 |
| 0°-180° | 2103.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 677 | 677 | 677 | 677 | 677 | |
| 5° | 674 | 675 | 675 | 674 | 673 | 64 |
| 15° | 652 | 654 | 657 | 658 | 658 | 184 |
| 25° | 601 | 605 | 611 | 614 | 615 | 277 |
| 35° | 529 | 534 | 542 | 544 | 544 | 330 |
| 45° | 410 | 423 | 425 | 427 | 414 | 310 |
| 55° | 220 | 241 | 252 | 259 | 271 | 201 |
| 65° | 130 | 142 | 151 | 162 | 189 | 132 |
| 75° | 88 | 74 | 96 | 115 | 133 | 91 |
| 85° | 26 | 35 | 55 | 78 | 86 | 29 |
| 90° | 1 | 15 | 31 | 59 | 74 | 2 |
| 95° | 2 | 15 | 32 | 59 | 71 | 3 |
| 105° | 14 | 21 | 43 | 60 | 66 | 15 |
| 115° | 31 | 45 | 55 | 63 | 68 | 31 |
| 125° | 46 | 58 | 74 | 76 | 77 | 41 |
| 135° | 57 | 68 | 85 | 93 | 93 | 44 |
| 145° | 61 | 70 | 85 | 98 | 101 | 38 |
| 155° | 59 | 64 | 77 | 89 | 88 | 27 |
| 165° | 56 | 58 | 62 | 69 | 70 | 16 |
| 175° | 58 | 59 | 55 | 52 | 58 | 5 |
| 180° | 50 | 50 | 50 | 50 | 50 | |



TEST NUMBER: P234473

CATALOG NUMBER: 2WSNLED-LD4-20SL-F-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 0° | 676.9 | 676.9 | 676.9 | 676.9 | 676.9 |
| 2.5° | 676.9 | 676.9 | 676.9 | 674.9 | 671.9 |
| 5° | 673.9 | 674.9 | 674.9 | 673.9 | 672.9 |
| 7.5° | 670.9 | 671.9 | 672.9 | 671.9 | 670.9 |
| 10° | 665.9 | 667.9 | 668.9 | 668.9 | 666.9 |
| 12.5° | 659.9 | 661.9 | 663.9 | 663.9 | 662.9 |
| 15° | 651.9 | 653.9 | 656.9 | 657.9 | 657.9 |
| 17.5° | 641.9 | 643.9 | 647.9 | 650.9 | 650.9 |
| 20° | 629.9 | 632.9 | 637.9 | 639.9 | 639.9 |
| 22.5° | 616.9 | 619.9 | 624.9 | 626.9 | 627.9 |
| 25° | 600.9 | 604.9 | 610.9 | 613.9 | 614.9 |
| 27.5° | 584.9 | 589.9 | 595.9 | 598.9 | 598.9 |
| 30° | 566.9 | 572.9 | 578.9 | 581.9 | 582.9 |
| 32.5° | 548.9 | 553.9 | 560.9 | 563.9 | 563.9 |
| 35° | 528.9 | 533.9 | 541.9 | 543.9 | 543.9 |
| 37.5° | 506.9 | 512.9 | 519.9 | 522.9 | 521.9 |
| 40° | 480.9 | 487.9 | 494.9 | 496.9 | 492.9 |
| 42.5° | 450.9 | 458.9 | 463.9 | 465.9 | 455.9 |
| 45° | 409.9 | 422.9 | 424.9 | 426.9 | 413.9 |
| 47.5° | 359.0 | 376.0 | 382.0 | 381.0 | 371.0 |
| 50° | 303.0 | 327.0 | 335.0 | 336.0 | 329.0 |
| 52.5° | 258.0 | 282.0 | 292.0 | 296.0 | 297.0 |
| 55° | 220.0 | 241.0 | 252.0 | 259.0 | 271.0 |
| 57.5° | 191.0 | 210.0 | 221.0 | 229.0 | 245.0 |
| 60° | 166.0 | 184.0 | 194.0 | 203.0 | 223.0 |
| 62.5° | 146.0 | 162.0 | 171.0 | 180.0 | 204.0 |
| 65° | 130.0 | 142.0 | 151.0 | 162.0 | 189.0 |
| 67.5° | 119.0 | 124.0 | 133.0 | 148.0 | 177.0 |
| 70° | 109.0 | 106.0 | 119.0 | 135.0 | 165.0 |
| 72.5° | 99.0 | 90.0 | 107.0 | 124.0 | 150.0 |
| 75° | 88.0 | 74.0 | 96.0 | 115.0 | 133.0 |
| 77.5° | 75.0 | 63.0 | 86.0 | 105.0 | 118.0 |
| 80° | 60.0 | 53.0 | 76.0 | 96.0 | 105.0 |
| 82.5° | 43.0 | 44.0 | 65.0 | 87.0 | 94.0 |
| 85° | 26.0 | 35.0 | 55.0 | 78.0 | 86.0 |
| 87.5° | 12.0 | 25.0 | 42.0 | 67.0 | 80.0 |
| 90° | 1.0 | 15.0 | 31.0 | 59.0 | 74.0 |
| 92.5° | 1.0 | 15.0 | 30.0 | 59.0 | 72.0 |
| 95° | 2.0 | 15.0 | 32.0 | 59.0 | 71.0 |
| 97.5° | 4.0 | 15.0 | 34.0 | 59.0 | 69.0 |
| 100° | 7.0 | 15.0 | 38.0 | 59.0 | 67.0 |
| 102.5° | 10.0 | 17.0 | 41.0 | 60.0 | 66.0 |
| 105° | 14.0 | 21.0 | 43.0 | 60.0 | 66.0 |
| 107.5° | 18.0 | 26.0 | 45.0 | 60.0 | 66.0 |
| 110° | 23.0 | 33.0 | 47.0 | 61.0 | 66.0 |



TEST NUMBER: P234473

CATALOG NUMBER: 2WSNLED-LD4-20SL-F-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|------|-------|------|-------|-------|
| 112.5° | 27.0 | 40.0 | 50.0 | 62.0 | 67.0 |
| 115° | 31.0 | 45.0 | 55.0 | 63.0 | 68.0 |
| 117.5° | 35.0 | 48.0 | 59.0 | 65.0 | 69.0 |
| 120° | 39.0 | 52.0 | 64.0 | 68.0 | 70.0 |
| 122.5° | 42.0 | 55.0 | 69.0 | 72.0 | 74.0 |
| 125° | 46.0 | 58.0 | 74.0 | 76.0 | 77.0 |
| 127.5° | 49.0 | 61.0 | 77.0 | 81.0 | 81.0 |
| 130° | 52.0 | 63.0 | 80.0 | 85.0 | 85.0 |
| 132.5° | 54.0 | 66.0 | 83.0 | 89.0 | 89.0 |
| 135° | 57.0 | 68.0 | 85.0 | 93.0 | 93.0 |
| 137.5° | 59.0 | 70.0 | 86.0 | 95.0 | 97.0 |
| 140° | 60.0 | 70.0 | 87.0 | 97.0 | 99.0 |
| 142.5° | 60.0 | 71.0 | 87.0 | 98.0 | 100.0 |
| 145° | 61.0 | 70.0 | 85.0 | 98.0 | 101.0 |
| 147.5° | 62.0 | 69.0 | 84.0 | 98.0 | 101.0 |
| 150° | 61.0 | 68.0 | 83.0 | 95.0 | 102.0 |
| 152.5° | 60.0 | 66.0 | 81.0 | 91.0 | 100.0 |
| 155° | 59.0 | 64.0 | 77.0 | 89.0 | 88.0 |
| 157.5° | 57.0 | 62.0 | 74.0 | 84.0 | 80.0 |
| 160° | 56.0 | 60.0 | 69.0 | 80.0 | 77.0 |
| 162.5° | 56.0 | 58.0 | 65.0 | 75.0 | 74.0 |
| 165° | 56.0 | 58.0 | 62.0 | 69.0 | 70.0 |
| 167.5° | 57.0 | 58.0 | 60.0 | 62.0 | 66.0 |
| 170° | 57.0 | 58.0 | 58.0 | 58.0 | 63.0 |
| 172.5° | 58.0 | 59.0 | 56.0 | 54.0 | 61.0 |
| 175° | 58.0 | 59.0 | 55.0 | 52.0 | 58.0 |
| 177.5° | 58.0 | 58.0 | 54.0 | 50.0 | 51.0 |
| 180° | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |

(END OF REPORT)