

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: PORTFOLIO

Report Number: P858952

Luminaire Tested: **LD4C50D010 EU4509027 4LBMDSWWH**

Issue Date: 4/12/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P858952  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2309-186-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C50D010 EU4509027 4LBMDSWWH  
Description: 4 INCH 5000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS  
AND 4LBMDSW TRIM WITH WH FINISH  
Light Source: -  
Ballast/Driver: -

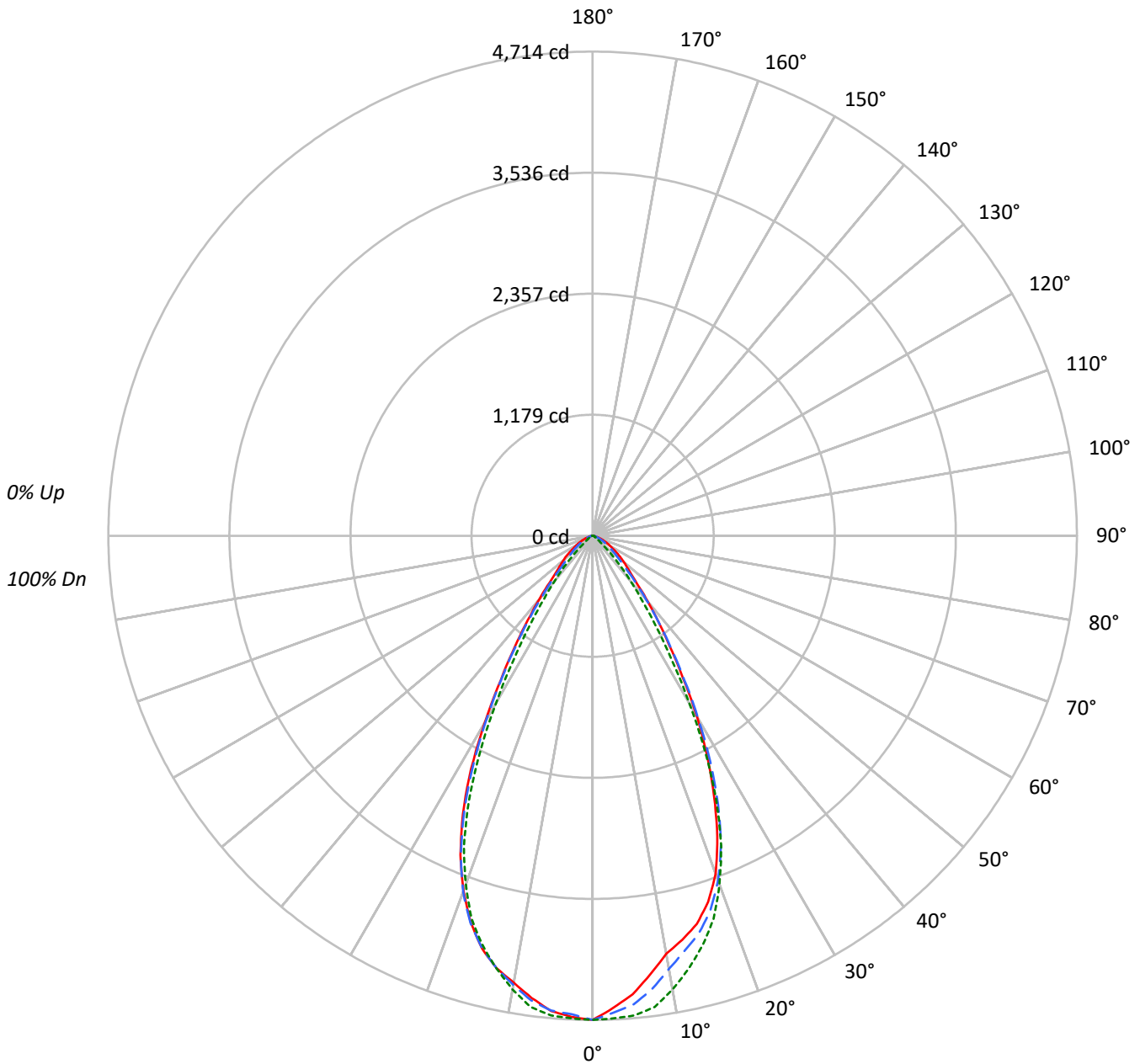
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4291.0 lumens  
Efficiency: N/A  
Efficacy: 73.5 lumens/watt  
Spacing Criteria (0/90/45): 0.88 / 0.88 / 0.85  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 58.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

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### Luminous Intensity Polar Plot





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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  | 50  | 30 | 10 | 0  |     |  |  |  |   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |     |  |  |  |   |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |    | 100 |  |  |  |   |
| 1   | 113 | 110 | 107 | 105 | 111 | 108 | 105 | 103 | 104 | 102 | 100 | 100 | 99  | 97  | 97  | 95  | 94  | 92  |    |    |    | 92  |  |  |  |   |
| 2   | 107 | 102 | 97  | 94  | 105 | 100 | 96  | 93  | 97  | 93  | 91  | 94  | 91  | 89  | 91  | 89  | 87  | 85  |    |    |    | 85  |  |  |  |   |
| 3   | 101 | 94  | 89  | 85  | 99  | 93  | 88  | 84  | 90  | 86  | 83  | 88  | 84  | 81  | 85  | 83  | 80  | 78  |    |    |    | 78  |  |  |  |   |
| 4   | 96  | 88  | 82  | 77  | 94  | 86  | 81  | 77  | 84  | 80  | 76  | 82  | 78  | 75  | 80  | 77  | 74  | 72  |    |    |    | 72  |  |  |  |   |
| 5   | 91  | 82  | 75  | 71  | 89  | 81  | 75  | 71  | 79  | 74  | 70  | 77  | 73  | 69  | 76  | 72  | 69  | 67  |    |    |    | 67  |  |  |  |   |
| 6   | 86  | 76  | 70  | 66  | 84  | 76  | 70  | 65  | 74  | 69  | 65  | 73  | 68  | 64  | 71  | 67  | 64  | 62  |    |    |    | 62  |  |  |  |   |
| 7   | 81  | 72  | 65  | 61  | 80  | 71  | 65  | 61  | 70  | 64  | 60  | 68  | 64  | 60  | 67  | 63  | 60  | 58  |    |    |    | 58  |  |  |  |   |
| 8   | 77  | 67  | 61  | 57  | 76  | 67  | 61  | 57  | 66  | 60  | 56  | 65  | 60  | 56  | 64  | 59  | 56  | 55  |    |    |    | 55  |  |  |  |   |
| 9   | 74  | 63  | 57  | 53  | 72  | 63  | 57  | 53  | 62  | 57  | 53  | 61  | 56  | 53  | 60  | 56  | 53  | 51  |    |    |    | 51  |  |  |  |   |
| 10  | 70  | 60  | 54  | 50  | 69  | 60  | 54  | 50  | 59  | 53  | 50  | 58  | 53  | 50  | 57  | 53  | 49  | 48  |    |    |    | 48  |  |  |  |   |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°     | 90°    | 180°   |
|-----|--------|--------|--------|
| 0°  | 579082 | 579082 | 579082 |
| 5°  | 552572 | 578149 | 572760 |
| 10° | 515362 | 559411 | 551240 |
| 15° | 497658 | 525436 | 529137 |
| 20° | 457779 | 472055 | 480619 |
| 25° | 379415 | 386328 | 405075 |
| 30° | 288640 | 266950 | 296897 |
| 35° | 195434 | 159950 | 197609 |
| 40° | 133094 | 91654  | 129005 |
| 45° | 92326  | 46163  | 87270  |
| 50° | 75132  | 18788  | 70258  |
| 55° | 60808  | 11695  | 55346  |
| 60° | 48306  | 8944   | 43834  |
| 65° | 38081  | 7413   | 33866  |
| 70° | 28772  | 6537   | 26150  |
| 75° | 20743  | 5174   | 18987  |
| 80° | 15423  | 5165   | 12876  |
| 85° | 10290  | 5075   | 10290  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 433.4  | 10.1      |
| 10°-20°   | 1138.7 | 26.5      |
| 20°-30°   | 1306.4 | 30.4      |
| 30°-40°   | 793.6  | 18.5      |
| 40°-50°   | 340.1  | 7.9       |
| 50°-60°   | 163.2  | 3.8       |
| 60°-70°   | 79.3   | 1.8       |
| 70°-80°   | 29.4   | 0.7       |
| 80°-90°   | 6.8    | 0.2       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 2878.5 | 67.1      |
| 0°-40°    | 3672.1 | 85.6      |
| 0°-60°    | 4175.4 | 97.3      |
| 0°-90°    | 4291.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4291.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 4714 | 4714 | 4714 | 4714 | 4714 |      |
| 5°  | 4481 | 4579 | 4688 | 4641 | 4644 | 416  |
| 15° | 3913 | 4004 | 4131 | 4157 | 4160 | 1089 |
| 25° | 2799 | 2890 | 2850 | 2959 | 2988 | 1270 |
| 35° | 1303 | 1321 | 1066 | 1288 | 1318 | 835  |
| 45° | 531  | 473  | 266  | 426  | 502  | 432  |
| 55° | 284  | 211  | 55   | 189  | 258  | 256  |
| 65° | 131  | 87   | 26   | 80   | 116  | 133  |
| 75° | 44   | 29   | 11   | 26   | 40   | 48   |
| 85° | 7    | 7    | 4    | 4    | 7    | 10   |
| 90° | 0    | 0    | 0    | 0    | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    | 112.5° | 135°   | 157.5° | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 4713.6 | 4713.6 | 4713.6 | 4713.6 | 4713.6 | 4713.6 | 4713.6 | 4713.6 | 4713.6 |
| 2.5°  | 4600.8 | 4651.7 | 4648.1 | 4691.8 | 4702.7 | 4691.8 | 4662.6 | 4691.8 | 4688.1 |
| 5°    | 4480.7 | 4538.9 | 4578.9 | 4651.7 | 4688.1 | 4680.8 | 4640.8 | 4648.1 | 4644.4 |
| 7.5°  | 4305.9 | 4378.7 | 4447.9 | 4557.1 | 4626.2 | 4622.6 | 4564.4 | 4553.4 | 4538.9 |
| 10°   | 4131.2 | 4200.4 | 4280.5 | 4393.3 | 4484.3 | 4498.9 | 4440.6 | 4426.1 | 4418.8 |
| 12.5° | 4029.3 | 4083.9 | 4138.5 | 4236.8 | 4316.9 | 4346.0 | 4313.2 | 4316.9 | 4313.2 |
| 15°   | 3912.8 | 3967.4 | 4003.8 | 4076.6 | 4131.2 | 4171.3 | 4156.7 | 4178.5 | 4160.3 |
| 17.5° | 3738.1 | 3803.6 | 3818.2 | 3872.8 | 3912.8 | 3938.3 | 3952.9 | 3974.7 | 3945.6 |
| 20°   | 3501.5 | 3552.5 | 3570.7 | 3592.5 | 3610.7 | 3643.5 | 3687.2 | 3709.0 | 3676.2 |
| 22.5° | 3170.3 | 3268.6 | 3264.9 | 3254.0 | 3272.2 | 3283.1 | 3352.3 | 3388.7 | 3363.2 |
| 25°   | 2799.0 | 2901.0 | 2890.0 | 2846.4 | 2850.0 | 2871.8 | 2959.2 | 3006.5 | 2988.3 |
| 27.5° | 2409.6 | 2504.2 | 2478.7 | 2395.0 | 2373.2 | 2405.9 | 2518.8 | 2573.4 | 2562.5 |
| 30°   | 2034.7 | 2096.6 | 2056.5 | 1907.3 | 1881.8 | 1921.8 | 2067.4 | 2122.0 | 2092.9 |
| 32.5° | 1630.7 | 1678.0 | 1659.8 | 1477.8 | 1434.1 | 1474.1 | 1645.2 | 1696.2 | 1663.4 |
| 35°   | 1303.1 | 1346.7 | 1321.3 | 1106.5 | 1066.5 | 1110.2 | 1288.5 | 1346.7 | 1317.6 |
| 37.5° | 1044.6 | 1077.4 | 1044.6 | 815.3  | 778.9  | 822.6  | 993.7  | 1070.1 | 1033.7 |
| 40°   | 829.9  | 855.4  | 811.7  | 600.6  | 571.5  | 593.3  | 753.4  | 829.9  | 804.4  |
| 42.5° | 655.2  | 673.4  | 626.1  | 440.4  | 407.7  | 436.8  | 567.8  | 637.0  | 622.4  |
| 45°   | 531.4  | 531.4  | 473.2  | 305.7  | 265.7  | 294.8  | 425.9  | 498.7  | 502.3  |
| 47.5° | 455.0  | 444.1  | 371.3  | 203.8  | 152.9  | 192.9  | 338.5  | 414.9  | 425.9  |
| 50°   | 393.1  | 378.5  | 305.7  | 149.2  | 98.3   | 138.3  | 280.3  | 356.7  | 367.6  |
| 52.5° | 338.5  | 327.6  | 254.8  | 116.5  | 69.2   | 105.6  | 236.6  | 309.4  | 320.3  |
| 55°   | 283.9  | 276.6  | 211.1  | 91.0   | 54.6   | 80.1   | 189.3  | 251.1  | 258.4  |
| 57.5° | 233.0  | 222.0  | 171.1  | 76.4   | 43.7   | 65.5   | 156.5  | 207.5  | 214.8  |
| 60°   | 196.6  | 185.6  | 138.3  | 61.9   | 36.4   | 51.0   | 127.4  | 171.1  | 178.4  |
| 62.5° | 163.8  | 152.9  | 112.8  | 51.0   | 29.1   | 43.7   | 101.9  | 138.3  | 145.6  |
| 65°   | 131.0  | 123.8  | 87.4   | 40.0   | 25.5   | 32.8   | 80.1   | 109.2  | 116.5  |
| 67.5° | 105.6  | 98.3   | 69.2   | 32.8   | 21.8   | 25.5   | 61.9   | 87.4   | 94.6   |
| 70°   | 80.1   | 72.8   | 51.0   | 25.5   | 18.2   | 21.8   | 47.3   | 65.5   | 72.8   |
| 72.5° | 58.2   | 54.6   | 40.0   | 21.8   | 14.6   | 18.2   | 32.8   | 47.3   | 54.6   |
| 75°   | 43.7   | 40.0   | 29.1   | 14.6   | 10.9   | 14.6   | 25.5   | 36.4   | 40.0   |
| 77.5° | 29.1   | 29.1   | 21.8   | 10.9   | 10.9   | 10.9   | 18.2   | 25.5   | 25.5   |
| 80°   | 21.8   | 18.2   | 14.6   | 7.3    | 7.3    | 7.3    | 10.9   | 18.2   | 18.2   |
| 82.5° | 14.6   | 10.9   | 10.9   | 7.3    | 7.3    | 7.3    | 7.3    | 10.9   | 10.9   |
| 85°   | 7.3    | 7.3    | 7.3    | 3.6    | 3.6    | 3.6    | 3.6    | 7.3    | 7.3    |
| 87.5° | 3.6    | 3.6    | 3.6    | 3.6    | 3.6    | 3.6    | 3.6    | 3.6    | 3.6    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



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— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)