

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: P859708

Luminaire Tested: **LD4C08D010 EU4089050 4LBMDSWGPH**

Issue Date: 4/12/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P859708  
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: LD4C08D010 EU4089050 4LBMDSWGPH  
Description: 4 INCH 800 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS AND 4LBMDSW TRIM WITH GPH FINISH  
Light Source: -  
Ballast/Driver: -

**Summary**

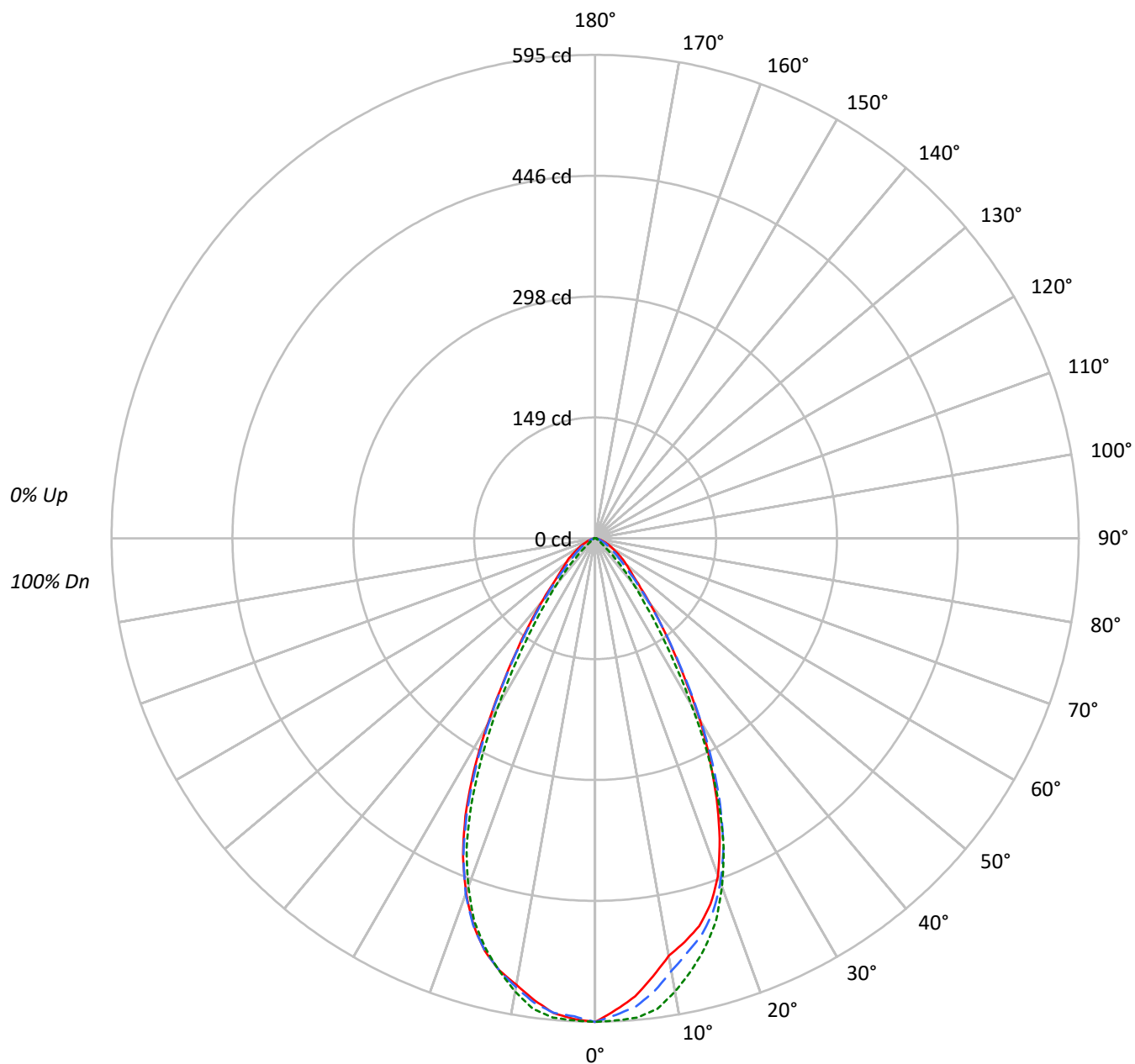
Lumens per Lamp: N/A  
Luminaire Lumens: 542.0 lumens  
Efficiency: N/A  
Efficacy: 54.7 lumens/watt  
Spacing Criteria (0/90/45): 0.88 / 0.88 / 0.85  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 9.9  
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

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

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

|     | 0°    | 90°   | 180°  |
|-----|-------|-------|-------|
| 0°  | 73147 | 73147 | 73147 |
| 5°  | 69801 | 73032 | 72341 |
| 10° | 65094 | 70658 | 69622 |
| 15° | 62856 | 66366 | 66837 |
| 20° | 57825 | 59630 | 60702 |
| 25° | 47918 | 48799 | 51172 |
| 30° | 36458 | 33720 | 37508 |
| 35° | 24686 | 20202 | 24956 |
| 40° | 16807 | 11579 | 16294 |
| 45° | 11658 | 5838  | 11015 |
| 50° | 9499  | 2370  | 8868  |
| 55° | 7689  | 1478  | 6983  |
| 60° | 6094  | 1130  | 5528  |
| 65° | 4826  | 930   | 4273  |
| 70° | 3628  | 826   | 3305  |
| 75° | 2611  | 665   | 2421  |
| 80° | 1981  | 637   | 1627  |
| 85° | 1269  | 705   | 1269  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 54.7   | 10.1      |
| 10°-20°   | 143.8  | 26.5      |
| 20°-30°   | 165.0  | 30.4      |
| 30°-40°   | 100.2  | 18.5      |
| 40°-50°   | 43.0   | 7.9       |
| 50°-60°   | 20.6   | 3.8       |
| 60°-70°   | 10.0   | 1.8       |
| 70°-80°   | 3.7    | 0.7       |
| 80°-90°   | 0.9    | 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°    | 363.6  | 67.1      |
| 0°-40°    | 463.8  | 85.6      |
| 0°-60°    | 527.4  | 97.3      |
| 0°-90°    | 542.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 542.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0°  | 595 | 595 | 595 | 595  | 595  |      |
| 5°  | 566 | 578 | 592 | 586  | 587  | 53   |
| 15° | 494 | 506 | 522 | 525  | 526  | 138  |
| 25° | 354 | 365 | 360 | 374  | 378  | 160  |
| 35° | 165 | 167 | 135 | 163  | 166  | 105  |
| 45° | 67  | 60  | 34  | 54   | 63   | 55   |
| 55° | 36  | 27  | 7   | 24   | 33   | 32   |
| 65° | 17  | 11  | 3   | 10   | 15   | 17   |
| 75° | 6   | 4   | 1   | 3    | 5    | 6    |
| 85° | 1   | 1   | 0   | 0    | 1    | 1    |
| 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°    | 595.4 | 595.4 | 595.4 | 595.4 | 595.4 | 595.4  | 595.4 | 595.4  | 595.4 |
| 2.5°  | 581.1 | 587.6 | 587.1 | 592.6 | 594.0 | 592.6  | 588.9 | 592.6  | 592.2 |
| 5°    | 566.0 | 573.3 | 578.4 | 587.6 | 592.2 | 591.2  | 586.2 | 587.1  | 586.6 |
| 7.5°  | 543.9 | 553.1 | 561.8 | 575.6 | 584.3 | 583.9  | 576.5 | 575.2  | 573.3 |
| 10°   | 521.8 | 530.6 | 540.7 | 554.9 | 566.4 | 568.3  | 560.9 | 559.1  | 558.1 |
| 12.5° | 508.9 | 515.8 | 522.7 | 535.2 | 545.3 | 548.9  | 544.8 | 545.3  | 544.8 |
| 15°   | 494.2 | 501.1 | 505.7 | 514.9 | 521.8 | 526.9  | 525.0 | 527.8  | 525.5 |
| 17.5° | 472.2 | 480.4 | 482.3 | 489.2 | 494.2 | 497.5  | 499.3 | 502.0  | 498.4 |
| 20°   | 442.3 | 448.7 | 451.0 | 453.8 | 456.1 | 460.2  | 465.7 | 468.5  | 464.3 |
| 22.5° | 400.4 | 412.9 | 412.4 | 411.0 | 413.3 | 414.7  | 423.4 | 428.0  | 424.8 |
| 25°   | 353.5 | 366.4 | 365.0 | 359.5 | 360.0 | 362.7  | 373.8 | 379.8  | 377.5 |
| 27.5° | 304.4 | 316.3 | 313.1 | 302.5 | 299.8 | 303.9  | 318.1 | 325.0  | 323.7 |
| 30°   | 257.0 | 264.8 | 259.8 | 240.9 | 237.7 | 242.7  | 261.1 | 268.0  | 264.4 |
| 32.5° | 206.0 | 211.9 | 209.6 | 186.7 | 181.1 | 186.2  | 207.8 | 214.2  | 210.1 |
| 35°   | 164.6 | 170.1 | 166.9 | 139.8 | 134.7 | 140.2  | 162.8 | 170.1  | 166.4 |
| 37.5° | 131.9 | 136.1 | 131.9 | 103.0 | 98.4  | 103.9  | 125.5 | 135.2  | 130.6 |
| 40°   | 104.8 | 108.0 | 102.5 | 75.9  | 72.2  | 74.9   | 95.2  | 104.8  | 101.6 |
| 42.5° | 82.8  | 85.1  | 79.1  | 55.6  | 51.5  | 55.2   | 71.7  | 80.5   | 78.6  |
| 45°   | 67.1  | 67.1  | 59.8  | 38.6  | 33.6  | 37.2   | 53.8  | 63.0   | 63.4  |
| 47.5° | 57.5  | 56.1  | 46.9  | 25.7  | 19.3  | 24.4   | 42.8  | 52.4   | 53.8  |
| 50°   | 49.7  | 47.8  | 38.6  | 18.8  | 12.4  | 17.5   | 35.4  | 45.1   | 46.4  |
| 52.5° | 42.8  | 41.4  | 32.2  | 14.7  | 8.7   | 13.3   | 29.9  | 39.1   | 40.5  |
| 55°   | 35.9  | 34.9  | 26.7  | 11.5  | 6.9   | 10.1   | 23.9  | 31.7   | 32.6  |
| 57.5° | 29.4  | 28.0  | 21.6  | 9.7   | 5.5   | 8.3    | 19.8  | 26.2   | 27.1  |
| 60°   | 24.8  | 23.4  | 17.5  | 7.8   | 4.6   | 6.4    | 16.1  | 21.6   | 22.5  |
| 62.5° | 20.7  | 19.3  | 14.3  | 6.4   | 3.7   | 5.5    | 12.9  | 17.5   | 18.4  |
| 65°   | 16.6  | 15.6  | 11.0  | 5.1   | 3.2   | 4.1    | 10.1  | 13.8   | 14.7  |
| 67.5° | 13.3  | 12.4  | 8.7   | 4.1   | 2.8   | 3.2    | 7.8   | 11.0   | 12.0  |
| 70°   | 10.1  | 9.2   | 6.4   | 3.2   | 2.3   | 2.8    | 6.0   | 8.3    | 9.2   |
| 72.5° | 7.4   | 6.9   | 5.1   | 2.8   | 1.8   | 2.3    | 4.1   | 6.0    | 6.9   |
| 75°   | 5.5   | 5.1   | 3.7   | 1.8   | 1.4   | 1.8    | 3.2   | 4.6    | 5.1   |
| 77.5° | 3.7   | 3.7   | 2.8   | 1.4   | 1.4   | 1.4    | 2.3   | 3.2    | 3.2   |
| 80°   | 2.8   | 2.3   | 1.8   | 0.9   | 0.9   | 0.9    | 1.4   | 2.3    | 2.3   |
| 82.5° | 1.8   | 1.4   | 1.4   | 0.9   | 0.9   | 0.9    | 0.9   | 1.4    | 1.4   |
| 85°   | 0.9   | 0.9   | 0.9   | 0.5   | 0.5   | 0.5    | 0.5   | 0.9    | 0.9   |
| 87.5° | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5    | 0.5   | 0.5    | 0.5   |
| 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)