

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: P859516

Luminaire Tested: **LD4C70D010 EU4709050 4LBMDSWMW**

Issue Date: 4/12/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P859516  
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: LD4C70D010 EU4709050 4LBMDSWMW  
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS  
AND 4LBMDSW TRIM WITH MW FINISH  
Light Source: -  
Ballast/Driver: -

**Summary**

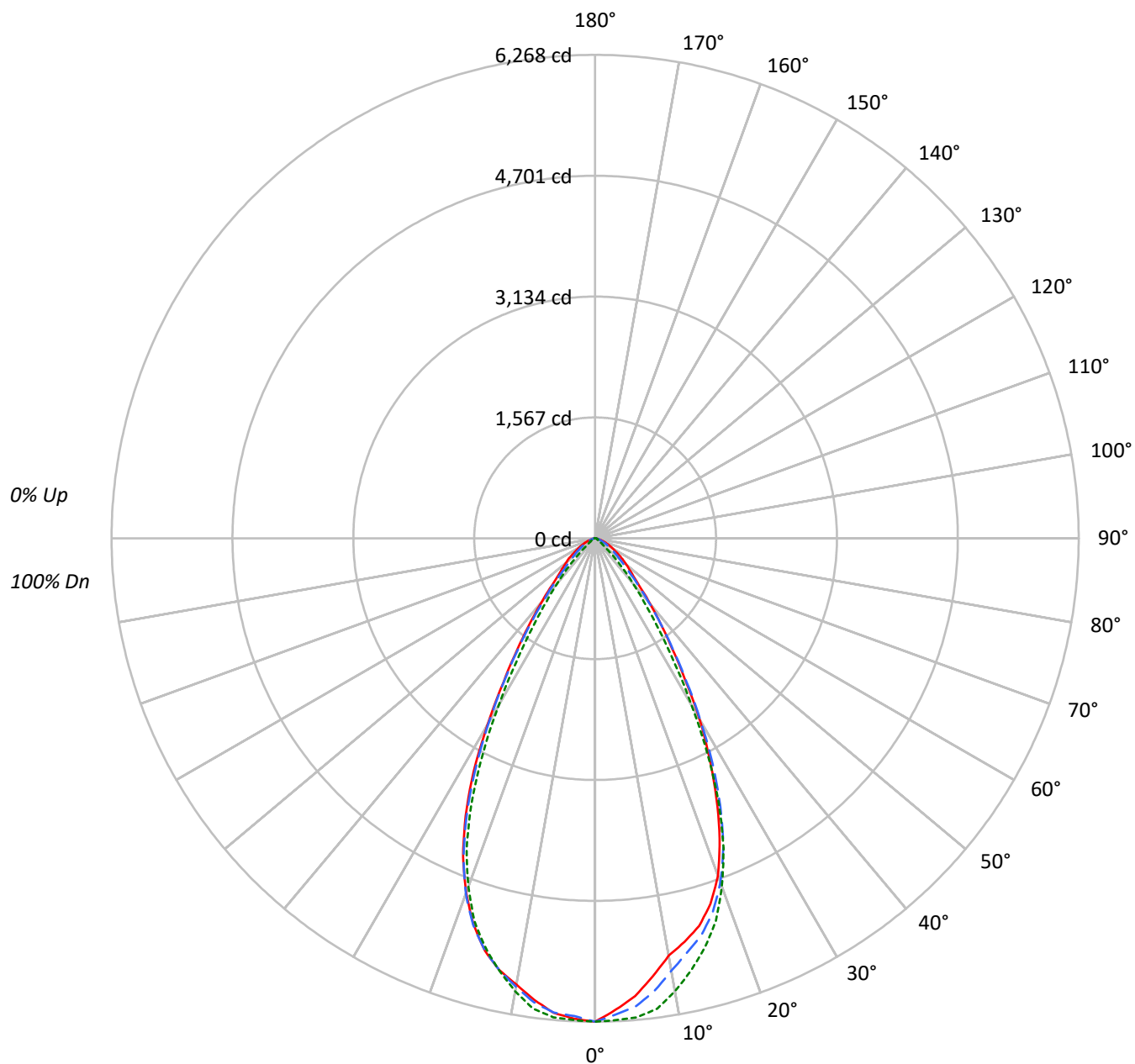
Lumens per Lamp: N/A  
Luminaire Lumens: 5706.0 lumens  
Efficiency: N/A  
Efficacy: 73.2 lumens/watt  
Spacing Criteria (0/90/45): 0.88 / 0.88 / 0.85  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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

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

|     | 0°     | 90°    | 180°   |
|-----|--------|--------|--------|
| 0°  | 770046 | 770046 | 770046 |
| 5°  | 734782 | 768806 | 761641 |
| 10° | 685307 | 743876 | 733011 |
| 15° | 661768 | 698703 | 703638 |
| 20° | 608742 | 627725 | 639112 |
| 25° | 504545 | 513722 | 538650 |
| 30° | 383814 | 354974 | 394808 |
| 35° | 259879 | 212697 | 262774 |
| 40° | 176973 | 121868 | 171552 |
| 45° | 122783 | 61383  | 116042 |
| 50° | 99902  | 24980  | 93442  |
| 55° | 80856  | 15550  | 73595  |
| 60° | 64228  | 11892  | 58282  |
| 65° | 50639  | 9855   | 45029  |
| 70° | 38255  | 8693   | 34771  |
| 75° | 27578  | 6883   | 25252  |
| 80° | 20517  | 6863   | 17121  |
| 85° | 13673  | 6766   | 13673  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 576.3  | 10.1      |
| 10°-20°   | 1514.2 | 26.5      |
| 20°-30°   | 1737.3 | 30.4      |
| 30°-40°   | 1055.4 | 18.5      |
| 40°-50°   | 452.3  | 7.9       |
| 50°-60°   | 217.0  | 3.8       |
| 60°-70°   | 105.5  | 1.8       |
| 70°-80°   | 39.1   | 0.7       |
| 80°-90°   | 9.0    | 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°    | 3827.7 | 67.1      |
| 0°-40°    | 4883.1 | 85.6      |
| 0°-60°    | 5552.3 | 97.3      |
| 0°-90°    | 5706.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5706.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 6268 | 6268 | 6268 | 6268 | 6268 |      |
| 5°  | 5958 | 6089 | 6234 | 6171 | 6176 | 554  |
| 15° | 5203 | 5324 | 5494 | 5527 | 5532 | 1449 |
| 25° | 3722 | 3843 | 3790 | 3935 | 3974 | 1688 |
| 35° | 1733 | 1757 | 1418 | 1713 | 1752 | 1111 |
| 45° | 707  | 629  | 353  | 566  | 668  | 574  |
| 55° | 378  | 281  | 73   | 252  | 344  | 341  |
| 65° | 174  | 116  | 34   | 106  | 155  | 177  |
| 75° | 58   | 39   | 14   | 34   | 53   | 64   |
| 85° | 10   | 10   | 5    | 5    | 10   | 13   |
| 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°    | 6268.0 | 6268.0 | 6268.0 | 6268.0 | 6268.0 | 6268.0 | 6268.0 | 6268.0 | 6268.0 |
| 2.5°  | 6117.9 | 6185.7 | 6180.8 | 6238.9 | 6253.4 | 6238.9 | 6200.2 | 6238.9 | 6234.1 |
| 5°    | 5958.2 | 6035.6 | 6088.9 | 6185.7 | 6234.1 | 6224.4 | 6171.2 | 6180.8 | 6176.0 |
| 7.5°  | 5725.9 | 5822.7 | 5914.6 | 6059.8 | 6151.8 | 6147.0 | 6069.5 | 6055.0 | 6035.6 |
| 10°   | 5493.5 | 5585.5 | 5692.0 | 5842.0 | 5963.0 | 5982.4 | 5904.9 | 5885.6 | 5875.9 |
| 12.5° | 5358.0 | 5430.6 | 5503.2 | 5633.9 | 5740.4 | 5779.1 | 5735.5 | 5740.4 | 5735.5 |
| 15°   | 5203.1 | 5275.7 | 5324.1 | 5420.9 | 5493.5 | 5546.8 | 5527.4 | 5556.5 | 5532.3 |
| 17.5° | 4970.8 | 5057.9 | 5077.3 | 5149.9 | 5203.1 | 5237.0 | 5256.4 | 5285.4 | 5246.7 |
| 20°   | 4656.2 | 4724.0 | 4748.2 | 4777.2 | 4801.4 | 4845.0 | 4903.0 | 4932.1 | 4888.5 |
| 22.5° | 4215.7 | 4346.4 | 4341.6 | 4327.1 | 4351.3 | 4365.8 | 4457.8 | 4506.2 | 4472.3 |
| 25°   | 3722.1 | 3857.6 | 3843.1 | 3785.0 | 3789.8 | 3818.9 | 3935.0 | 3997.9 | 3973.7 |
| 27.5° | 3204.2 | 3330.0 | 3296.1 | 3184.8 | 3155.8 | 3199.3 | 3349.4 | 3422.0 | 3407.4 |
| 30°   | 2705.6 | 2787.9 | 2734.7 | 2536.2 | 2502.3 | 2555.6 | 2749.2 | 2821.8 | 2783.1 |
| 32.5° | 2168.4 | 2231.3 | 2207.1 | 1965.1 | 1907.0 | 1960.2 | 2187.7 | 2255.5 | 2211.9 |
| 35°   | 1732.8 | 1790.8 | 1757.0 | 1471.4 | 1418.2 | 1476.2 | 1713.4 | 1790.8 | 1752.1 |
| 37.5° | 1389.1 | 1432.7 | 1389.1 | 1084.2 | 1035.8 | 1093.9 | 1321.4 | 1423.0 | 1374.6 |
| 40°   | 1103.5 | 1137.4 | 1079.3 | 798.6  | 759.9  | 788.9  | 1001.9 | 1103.5 | 1069.7 |
| 42.5° | 871.2  | 895.4  | 832.5  | 585.7  | 542.1  | 580.8  | 755.1  | 847.0  | 827.7  |
| 45°   | 706.7  | 706.7  | 629.2  | 406.6  | 353.3  | 392.0  | 566.3  | 663.1  | 667.9  |
| 47.5° | 605.0  | 590.5  | 493.7  | 271.0  | 203.3  | 256.5  | 450.1  | 551.8  | 566.3  |
| 50°   | 522.7  | 503.4  | 406.6  | 198.4  | 130.7  | 183.9  | 372.7  | 474.3  | 488.9  |
| 52.5° | 450.1  | 435.6  | 338.8  | 154.9  | 92.0   | 140.4  | 314.6  | 411.4  | 425.9  |
| 55°   | 377.5  | 367.8  | 280.7  | 121.0  | 72.6   | 106.5  | 251.7  | 334.0  | 343.6  |
| 57.5° | 309.8  | 295.2  | 227.5  | 101.6  | 58.1   | 87.1   | 208.1  | 275.9  | 285.6  |
| 60°   | 261.4  | 246.8  | 183.9  | 82.3   | 48.4   | 67.8   | 169.4  | 227.5  | 237.2  |
| 62.5° | 217.8  | 203.3  | 150.0  | 67.8   | 38.7   | 58.1   | 135.5  | 183.9  | 193.6  |
| 65°   | 174.2  | 164.6  | 116.2  | 53.2   | 33.9   | 43.6   | 106.5  | 145.2  | 154.9  |
| 67.5° | 140.4  | 130.7  | 92.0   | 43.6   | 29.0   | 33.9   | 82.3   | 116.2  | 125.8  |
| 70°   | 106.5  | 96.8   | 67.8   | 33.9   | 24.2   | 29.0   | 62.9   | 87.1   | 96.8   |
| 72.5° | 77.4   | 72.6   | 53.2   | 29.0   | 19.4   | 24.2   | 43.6   | 62.9   | 72.6   |
| 75°   | 58.1   | 53.2   | 38.7   | 19.4   | 14.5   | 19.4   | 33.9   | 48.4   | 53.2   |
| 77.5° | 38.7   | 38.7   | 29.0   | 14.5   | 14.5   | 14.5   | 24.2   | 33.9   | 33.9   |
| 80°   | 29.0   | 24.2   | 19.4   | 9.7    | 9.7    | 9.7    | 14.5   | 24.2   | 24.2   |
| 82.5° | 19.4   | 14.5   | 14.5   | 9.7    | 9.7    | 9.7    | 9.7    | 14.5   | 14.5   |
| 85°   | 9.7    | 9.7    | 9.7    | 4.8    | 4.8    | 4.8    | 4.8    | 9.7    | 9.7    |
| 87.5° | 4.8    | 4.8    | 4.8    | 4.8    | 4.8    | 4.8    | 4.8    | 4.8    | 4.8    |
| 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)