

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: P857570

Luminaire Tested: **LD4C30D010 EU4309040 4LBMDSWMW**

Issue Date: 4/12/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P857570  
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: LD4C30D010 EU4309040 4LBMDSWMW  
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS  
AND 4LBMDSW TRIM WITH MW FINISH  
Light Source: -  
Ballast/Driver: -

**Summary**

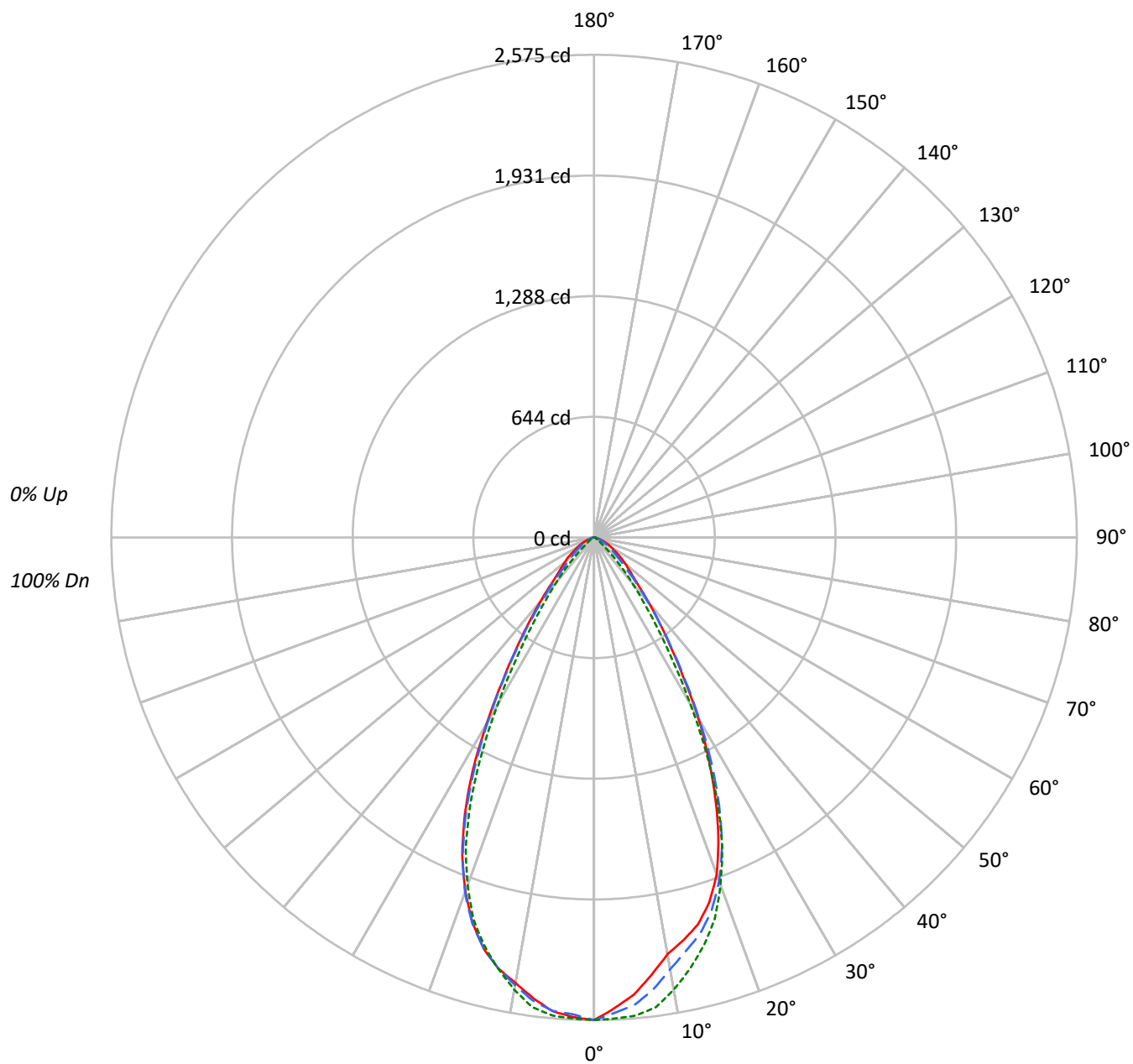
Lumens per Lamp: N/A  
Luminaire Lumens: 2344.0 lumens  
Efficiency: N/A  
Efficacy: 74.2 lumens/watt  
Spacing Criteria (0/90/45): 0.88 / 0.88 / 0.85  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 31.6  
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°  | 316323 | 316323 | 316323 |
| 5°  | 301845 | 315817 | 312882 |
| 10° | 281520 | 305584 | 301118 |
| 15° | 271850 | 287024 | 289046 |
| 20° | 250062 | 257868 | 262548 |
| 25° | 207262 | 211030 | 221278 |
| 30° | 157676 | 145831 | 162187 |
| 35° | 106753 | 87376  | 107953 |
| 40° | 72697  | 50069  | 70468  |
| 45° | 50437  | 25210  | 47675  |
| 50° | 41035  | 10263  | 38378  |
| 55° | 33221  | 6383   | 30243  |
| 60° | 26389  | 4890   | 23932  |
| 65° | 20814  | 4041   | 18488  |
| 70° | 15697  | 3556   | 14296  |
| 75° | 11345  | 2848   | 10395  |
| 80° | 8419   | 2830   | 7004   |
| 85° | 5638   | 2819   | 5638   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 236.7  | 10.1      |
| 10°-20°   | 622.0  | 26.5      |
| 20°-30°   | 713.7  | 30.4      |
| 30°-40°   | 433.5  | 18.5      |
| 40°-50°   | 185.8  | 7.9       |
| 50°-60°   | 89.1   | 3.8       |
| 60°-70°   | 43.3   | 1.8       |
| 70°-80°   | 16.1   | 0.7       |
| 80°-90°   | 3.7    | 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°    | 1572.4 | 67.1      |
| 0°-40°    | 2005.9 | 85.6      |
| 0°-60°    | 2280.9 | 97.3      |
| 0°-90°    | 2344.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2344.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 2575 | 2575 | 2575 | 2575 | 2575 |      |
| 5°  | 2448 | 2501 | 2561 | 2535 | 2537 | 227  |
| 15° | 2137 | 2187 | 2257 | 2271 | 2273 | 595  |
| 25° | 1529 | 1579 | 1557 | 1616 | 1632 | 694  |
| 35° | 712  | 722  | 583  | 704  | 720  | 456  |
| 45° | 290  | 258  | 145  | 233  | 274  | 236  |
| 55° | 155  | 115  | 30   | 103  | 141  | 140  |
| 65° | 72   | 48   | 14   | 44   | 64   | 73   |
| 75° | 24   | 16   | 6    | 14   | 22   | 26   |
| 85° | 4    | 4    | 2    | 2    | 4    | 5    |
| 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°    | 2574.8 | 2574.8 | 2574.8 | 2574.8 | 2574.8 | 2574.8 | 2574.8 | 2574.8 | 2574.8 |
| 2.5°  | 2513.2 | 2541.0 | 2539.1 | 2562.9 | 2568.9 | 2562.9 | 2547.0 | 2562.9 | 2560.9 |
| 5°    | 2447.6 | 2479.4 | 2501.3 | 2541.0 | 2560.9 | 2557.0 | 2535.1 | 2539.1 | 2537.1 |
| 7.5°  | 2352.2 | 2391.9 | 2429.7 | 2489.4 | 2527.1 | 2525.1 | 2493.3 | 2487.4 | 2479.4 |
| 10°   | 2256.7 | 2294.5 | 2338.2 | 2399.9 | 2449.6 | 2457.5 | 2425.7 | 2417.8 | 2413.8 |
| 12.5° | 2201.0 | 2230.9 | 2260.7 | 2314.4 | 2358.1 | 2374.0 | 2356.1 | 2358.1 | 2356.1 |
| 15°   | 2137.4 | 2167.2 | 2187.1 | 2226.9 | 2256.7 | 2278.6 | 2270.6 | 2282.6 | 2272.6 |
| 17.5° | 2042.0 | 2077.8 | 2085.7 | 2115.6 | 2137.4 | 2151.3 | 2159.3 | 2171.2 | 2155.3 |
| 20°   | 1912.7 | 1940.6 | 1950.5 | 1962.5 | 1972.4 | 1990.3 | 2014.1 | 2026.1 | 2008.2 |
| 22.5° | 1731.8 | 1785.5 | 1783.5 | 1777.5 | 1787.5 | 1793.4 | 1831.2 | 1851.1 | 1837.2 |
| 25°   | 1529.0 | 1584.7 | 1578.7 | 1554.9 | 1556.8 | 1568.8 | 1616.5 | 1642.3 | 1632.4 |
| 27.5° | 1316.3 | 1368.0 | 1354.0 | 1308.3 | 1296.4 | 1314.3 | 1375.9 | 1405.7 | 1399.8 |
| 30°   | 1111.5 | 1145.3 | 1123.4 | 1041.9 | 1028.0 | 1049.8 | 1129.4 | 1159.2 | 1143.3 |
| 32.5° | 890.8  | 916.6  | 906.7  | 807.3  | 783.4  | 805.3  | 898.7  | 926.5  | 908.7  |
| 35°   | 711.8  | 735.7  | 721.8  | 604.4  | 582.6  | 606.4  | 703.9  | 735.7  | 719.8  |
| 37.5° | 570.6  | 588.5  | 570.6  | 445.4  | 425.5  | 449.4  | 542.8  | 584.6  | 564.7  |
| 40°   | 453.3  | 467.3  | 443.4  | 328.1  | 312.2  | 324.1  | 411.6  | 453.3  | 439.4  |
| 42.5° | 357.9  | 367.8  | 342.0  | 240.6  | 222.7  | 238.6  | 310.2  | 348.0  | 340.0  |
| 45°   | 290.3  | 290.3  | 258.5  | 167.0  | 145.1  | 161.1  | 232.6  | 272.4  | 274.4  |
| 47.5° | 248.5  | 242.6  | 202.8  | 111.3  | 83.5   | 105.4  | 184.9  | 226.7  | 232.6  |
| 50°   | 214.7  | 206.8  | 167.0  | 81.5   | 53.7   | 75.6   | 153.1  | 194.9  | 200.8  |
| 52.5° | 184.9  | 178.9  | 139.2  | 63.6   | 37.8   | 57.7   | 129.2  | 169.0  | 175.0  |
| 55°   | 155.1  | 151.1  | 115.3  | 49.7   | 29.8   | 43.7   | 103.4  | 137.2  | 141.2  |
| 57.5° | 127.3  | 121.3  | 93.5   | 41.8   | 23.9   | 35.8   | 85.5   | 113.3  | 117.3  |
| 60°   | 107.4  | 101.4  | 75.6   | 33.8   | 19.9   | 27.8   | 69.6   | 93.5   | 97.4   |
| 62.5° | 89.5   | 83.5   | 61.6   | 27.8   | 15.9   | 23.9   | 55.7   | 75.6   | 79.5   |
| 65°   | 71.6   | 67.6   | 47.7   | 21.9   | 13.9   | 17.9   | 43.7   | 59.6   | 63.6   |
| 67.5° | 57.7   | 53.7   | 37.8   | 17.9   | 11.9   | 13.9   | 33.8   | 47.7   | 51.7   |
| 70°   | 43.7   | 39.8   | 27.8   | 13.9   | 9.9    | 11.9   | 25.8   | 35.8   | 39.8   |
| 72.5° | 31.8   | 29.8   | 21.9   | 11.9   | 8.0    | 9.9    | 17.9   | 25.8   | 29.8   |
| 75°   | 23.9   | 21.9   | 15.9   | 8.0    | 6.0    | 8.0    | 13.9   | 19.9   | 21.9   |
| 77.5° | 15.9   | 15.9   | 11.9   | 6.0    | 6.0    | 6.0    | 9.9    | 13.9   | 13.9   |
| 80°   | 11.9   | 9.9    | 8.0    | 4.0    | 4.0    | 4.0    | 6.0    | 9.9    | 9.9    |
| 82.5° | 8.0    | 6.0    | 6.0    | 4.0    | 4.0    | 4.0    | 4.0    | 6.0    | 6.0    |
| 85°   | 4.0    | 4.0    | 4.0    | 2.0    | 2.0    | 2.0    | 2.0    | 4.0    | 4.0    |
| 87.5° | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    |
| 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)