

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: P#

Luminaire Tested: **LD4C35D010 EX4C359050 4LCSQWH**

Issue Date: 2/18/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2105-247-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/18/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C35D010 EX4C359050 4LCSQWH  
Description: 4 INCH 3500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS  
AND 4LCSQW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

**Summary**

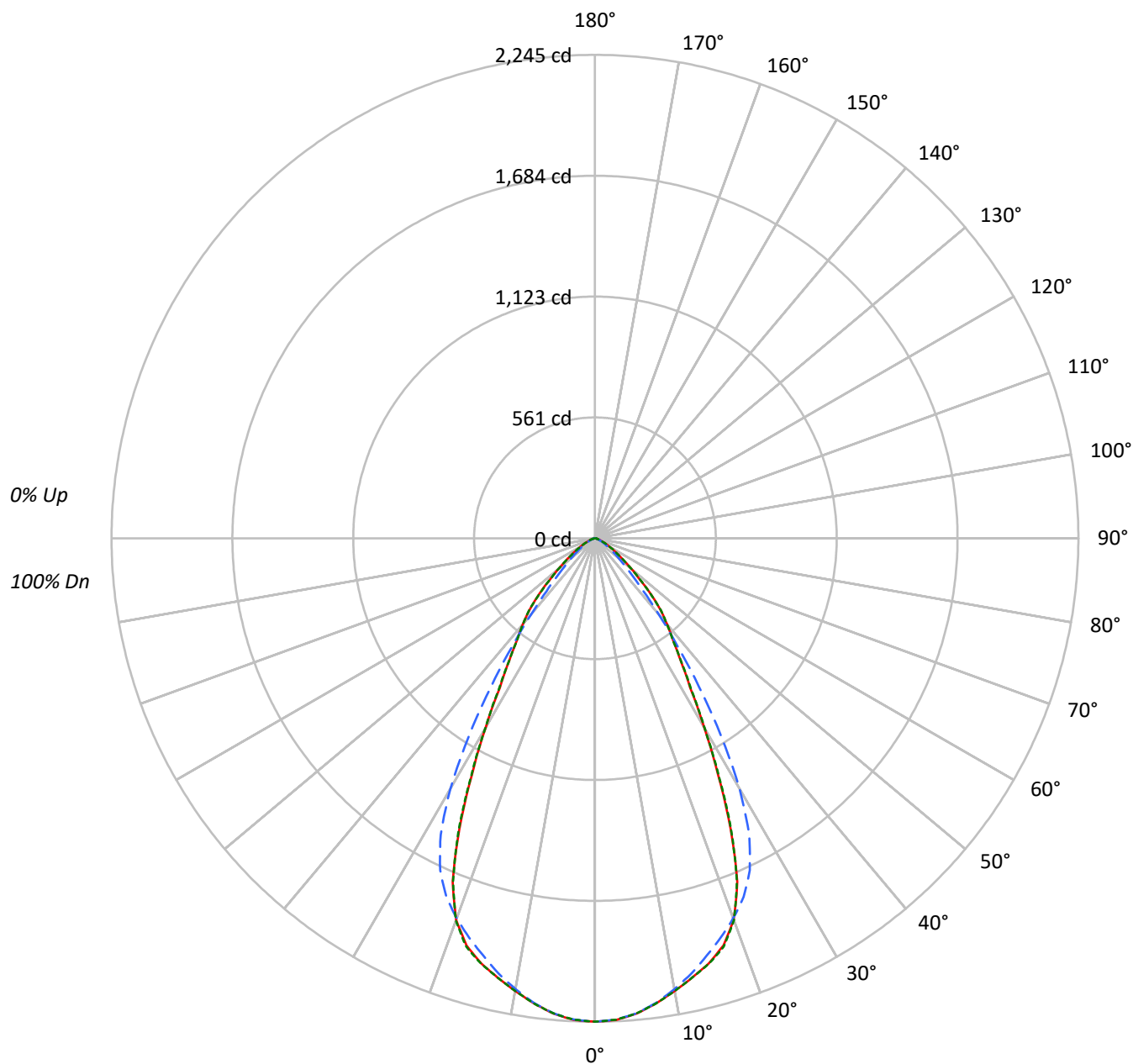
Lumens per Lamp: N/A  
Luminaire Lumens: 2376.0 lumens  
Efficiency: N/A  
Efficacy: 58.8 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 0.93 / 0.94  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 40.4  
Input Voltage (V):  
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  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 113 | 110 | 107 | 105 | 110 | 108 | 105 | 103 | 104 | 102 | 100 | 100 | 98  | 97  | 96  | 95  | 94  | 92  |    |    |
| 2   | 107 | 101 | 97  | 93  | 104 | 99  | 95  | 92  | 96  | 93  | 90  | 93  | 90  | 88  | 90  | 88  | 86  | 84  |    |    |
| 3   | 101 | 93  | 88  | 84  | 98  | 92  | 87  | 83  | 89  | 85  | 82  | 87  | 83  | 80  | 85  | 82  | 79  | 77  |    |    |
| 4   | 95  | 87  | 80  | 76  | 93  | 85  | 80  | 75  | 83  | 78  | 74  | 81  | 77  | 74  | 79  | 76  | 73  | 71  |    |    |
| 5   | 89  | 80  | 74  | 69  | 88  | 79  | 73  | 69  | 78  | 72  | 68  | 76  | 71  | 68  | 74  | 70  | 67  | 66  |    |    |
| 6   | 85  | 75  | 68  | 64  | 83  | 74  | 68  | 63  | 72  | 67  | 63  | 71  | 66  | 63  | 70  | 65  | 62  | 61  |    |    |
| 7   | 80  | 70  | 63  | 59  | 79  | 69  | 63  | 59  | 68  | 62  | 58  | 67  | 62  | 58  | 65  | 61  | 58  | 56  |    |    |
| 8   | 76  | 65  | 59  | 55  | 74  | 65  | 59  | 54  | 64  | 58  | 54  | 63  | 58  | 54  | 62  | 57  | 54  | 52  |    |    |
| 9   | 72  | 61  | 55  | 51  | 71  | 61  | 55  | 51  | 60  | 54  | 51  | 59  | 54  | 50  | 58  | 54  | 50  | 49  |    |    |
| 10  | 68  | 58  | 52  | 48  | 67  | 57  | 51  | 47  | 57  | 51  | 47  | 56  | 51  | 47  | 55  | 50  | 47  | 46  |    |    |

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

|     | 0°     | 45°    | 90°    |
|-----|--------|--------|--------|
| 0°  | 216608 | 216608 | 216608 |
| 5°  | 214617 | 214481 | 214549 |
| 10° | 209123 | 208290 | 209123 |
| 15° | 204091 | 200415 | 204300 |
| 20° | 193503 | 192784 | 193873 |
| 25° | 158727 | 181116 | 159557 |
| 30° | 113187 | 149631 | 113343 |
| 35° | 81641  | 99145  | 81888  |
| 40° | 65447  | 57600  | 65447  |
| 45° | 49943  | 33623  | 49561  |
| 50° | 32949  | 21466  | 32844  |
| 55° | 22155  | 14417  | 21919  |
| 60° | 14898  | 9842   | 15033  |
| 65° | 10183  | 6941   | 10023  |
| 70° | 6799   | 4993   | 6799   |
| 75° | 4474   | 3691   | 4474   |
| 80° | 3167   | 2778   | 3167   |
| 85° | 2325   | 2325   | 2325   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 208.7  | 8.8       |
| 10°-20°   | 569.0  | 23.9      |
| 20°-30°   | 711.4  | 29.9      |
| 30°-40°   | 478.5  | 20.1      |
| 40°-50°   | 252.7  | 10.6      |
| 50°-60°   | 102.7  | 4.3       |
| 60°-70°   | 38.1   | 1.6       |
| 70°-80°   | 12.3   | 0.5       |
| 80°-90°   | 2.6    | 0.1       |
| 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°    | 1489.0 | 62.7      |
| 0°-40°    | 1967.6 | 82.8      |
| 0°-60°    | 2323.0 | 97.8      |
| 0°-90°    | 2376.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2376.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2245 | 2245  | 2245 | 2245  | 2245 |      |
| 5°  | 2216 | 2214  | 2214 | 2214  | 2215 | 209  |
| 15° | 2043 | 2026  | 2006 | 2025  | 2045 | 572  |
| 25° | 1491 | 1574  | 1701 | 1577  | 1499 | 671  |
| 35° | 693  | 728   | 842  | 729   | 695  | 446  |
| 45° | 366  | 348   | 246  | 346   | 363  | 281  |
| 55° | 132  | 110   | 86   | 110   | 130  | 122  |
| 65° | 45   | 36    | 30   | 36    | 44   | 46   |
| 75° | 12   | 11    | 10   | 11    | 12   | 14   |
| 85° | 2    | 2     | 2    | 2     | 2    | 3    |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2244.9 | 2244.9 | 2244.9 | 2244.9 | 2244.9 |
| 2.5°  | 2239.2 | 2237.8 | 2237.1 | 2237.1 | 2237.8 |
| 5°    | 2215.8 | 2213.7 | 2214.4 | 2214.4 | 2215.1 |
| 7.5°  | 2178.3 | 2177.6 | 2175.5 | 2178.3 | 2178.3 |
| 10°   | 2134.4 | 2130.9 | 2125.9 | 2131.6 | 2134.4 |
| 12.5° | 2089.1 | 2078.5 | 2070.0 | 2078.5 | 2089.1 |
| 15°   | 2043.1 | 2026.1 | 2006.3 | 2025.4 | 2045.2 |
| 17.5° | 1982.9 | 1965.9 | 1944.0 | 1969.5 | 1988.6 |
| 20°   | 1884.5 | 1885.9 | 1877.5 | 1884.5 | 1888.1 |
| 22.5° | 1726.7 | 1758.5 | 1803.1 | 1759.2 | 1721.7 |
| 25°   | 1490.9 | 1574.5 | 1701.2 | 1577.3 | 1498.7 |
| 27.5° | 1238.2 | 1344.4 | 1551.8 | 1350.7 | 1246.0 |
| 30°   | 1015.9 | 1110.0 | 1343.0 | 1116.4 | 1017.3 |
| 32.5° | 822.6  | 892.7  | 1091.6 | 901.2  | 831.8  |
| 35°   | 693.1  | 727.8  | 841.7  | 729.2  | 695.2  |
| 37.5° | 594.0  | 594.0  | 625.1  | 596.8  | 591.1  |
| 40°   | 519.6  | 497.0  | 457.3  | 496.3  | 519.6  |
| 42.5° | 450.2  | 416.3  | 332.0  | 414.9  | 451.7  |
| 45°   | 366.0  | 347.6  | 246.4  | 346.2  | 363.2  |
| 47.5° | 281.1  | 268.3  | 185.5  | 266.9  | 283.2  |
| 50°   | 219.5  | 199.6  | 143.0  | 198.2  | 218.8  |
| 52.5° | 168.5  | 147.3  | 110.4  | 147.3  | 167.1  |
| 55°   | 131.7  | 110.4  | 85.7   | 110.4  | 130.3  |
| 57.5° | 101.2  | 84.2   | 65.1   | 82.8   | 100.5  |
| 60°   | 77.2   | 63.0   | 51.0   | 63.0   | 77.9   |
| 62.5° | 58.8   | 48.1   | 38.9   | 47.4   | 58.1   |
| 65°   | 44.6   | 36.1   | 30.4   | 36.1   | 43.9   |
| 67.5° | 32.6   | 26.9   | 23.4   | 26.9   | 33.3   |
| 70°   | 24.1   | 20.5   | 17.7   | 19.8   | 24.1   |
| 72.5° | 17.7   | 14.9   | 13.5   | 14.9   | 17.7   |
| 75°   | 12.0   | 10.6   | 9.9    | 10.6   | 12.0   |
| 77.5° | 8.5    | 7.8    | 7.1    | 7.8    | 8.5    |
| 80°   | 5.7    | 5.0    | 5.0    | 5.7    | 5.7    |
| 82.5° | 3.5    | 3.5    | 3.5    | 3.5    | 3.5    |
| 85°   | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    |
| 87.5° | 1.4    | 1.4    | 1.4    | 1.4    | 1.4    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



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







(END OF REPORT)