

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: **LD4C50D010 EX4C509040 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: LD4C50D010 EX4C509040 4LCSQWH  
Description: 4 INCH 5000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS  
AND 4LCSQW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

**Summary**

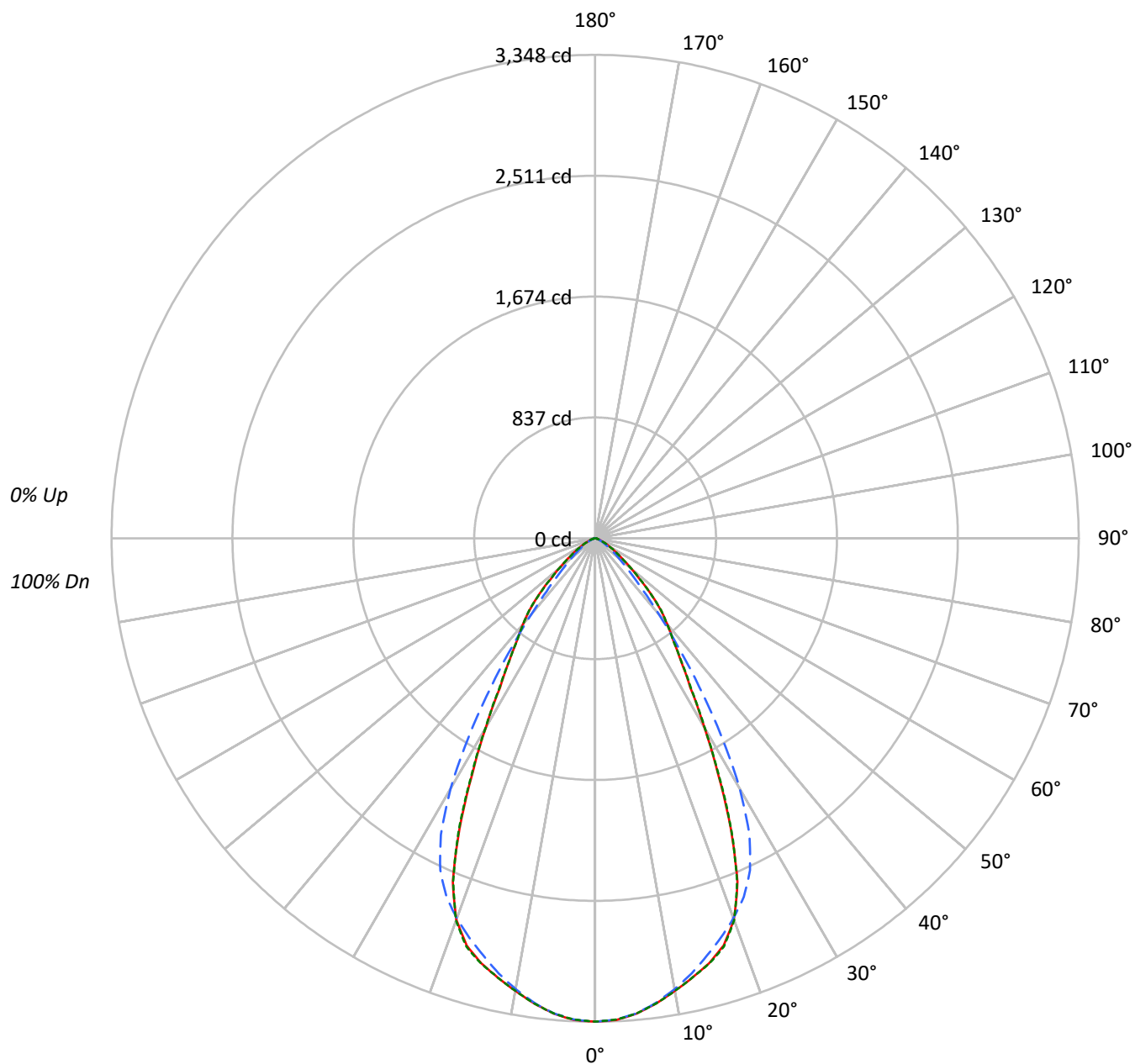
Lumens per Lamp: N/A  
Luminaire Lumens: 3543.0 lumens  
Efficiency: N/A  
Efficacy: 60.7 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 0.93 / 0.94  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 58.4  
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°  | 322997 | 322997 | 322997 |
| 5°  | 320036 | 319833 | 319930 |
| 10° | 311842 | 310598 | 311842 |
| 15° | 304333 | 298849 | 304653 |
| 20° | 288545 | 287467 | 289089 |
| 25° | 236690 | 270067 | 237925 |
| 30° | 168784 | 223121 | 169018 |
| 35° | 121737 | 147852 | 122102 |
| 40° | 97592  | 85903  | 97592  |
| 45° | 74478  | 50134  | 73891  |
| 50° | 49131  | 32003  | 48966  |
| 55° | 33039  | 21482  | 32669  |
| 60° | 22212  | 14666  | 22405  |
| 65° | 15183  | 10365  | 14954  |
| 70° | 10128  | 7448   | 10128  |
| 75° | 6673   | 5518   | 6673   |
| 80° | 4668   | 4112   | 4668   |
| 85° | 3543   | 3543   | 3543   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 311.2  | 8.8       |
| 10°-20°   | 848.5  | 23.9      |
| 20°-30°   | 1060.7 | 29.9      |
| 30°-40°   | 713.6  | 20.1      |
| 40°-50°   | 376.8  | 10.6      |
| 50°-60°   | 153.1  | 4.3       |
| 60°-70°   | 56.8   | 1.6       |
| 70°-80°   | 18.3   | 0.5       |
| 80°-90°   | 4.0    | 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°    | 2220.4 | 62.7      |
| 0°-40°    | 2934.0 | 82.8      |
| 0°-60°    | 3463.9 | 97.8      |
| 0°-90°    | 3543.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3543.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3348 | 3348  | 3348 | 3348  | 3348 |      |
| 5°  | 3304 | 3301  | 3302 | 3302  | 3303 | 311  |
| 15° | 3047 | 3021  | 2992 | 3020  | 3050 | 854  |
| 25° | 2223 | 2348  | 2537 | 2352  | 2235 | 1001 |
| 35° | 1034 | 1085  | 1255 | 1087  | 1037 | 665  |
| 45° | 546  | 518   | 367  | 516   | 542  | 419  |
| 55° | 196  | 165   | 128  | 165   | 194  | 182  |
| 65° | 66   | 54    | 45   | 54    | 66   | 69   |
| 75° | 18   | 16    | 15   | 16    | 18   | 21   |
| 85° | 3    | 3     | 3    | 3     | 3    | 4    |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3347.5 | 3347.5 | 3347.5 | 3347.5 | 3347.5 |
| 2.5°  | 3339.0 | 3336.9 | 3335.9 | 3335.9 | 3336.9 |
| 5°    | 3304.2 | 3301.0 | 3302.1 | 3302.1 | 3303.1 |
| 7.5°  | 3248.2 | 3247.2 | 3244.0 | 3248.2 | 3248.2 |
| 10°   | 3182.8 | 3177.5 | 3170.1 | 3178.6 | 3182.8 |
| 12.5° | 3115.2 | 3099.4 | 3086.7 | 3099.4 | 3115.2 |
| 15°   | 3046.6 | 3021.3 | 2991.7 | 3020.2 | 3049.8 |
| 17.5° | 2956.9 | 2931.5 | 2898.8 | 2936.8 | 2965.3 |
| 20°   | 2810.1 | 2812.3 | 2799.6 | 2810.1 | 2815.4 |
| 22.5° | 2574.7 | 2622.2 | 2688.7 | 2623.3 | 2567.3 |
| 25°   | 2223.2 | 2347.8 | 2536.7 | 2352.0 | 2234.8 |
| 27.5° | 1846.3 | 2004.7 | 2314.0 | 2014.2 | 1857.9 |
| 30°   | 1514.9 | 1655.3 | 2002.6 | 1664.8 | 1517.0 |
| 32.5° | 1226.7 | 1331.2 | 1627.8 | 1343.8 | 1240.4 |
| 35°   | 1033.5 | 1085.2 | 1255.2 | 1087.3 | 1036.6 |
| 37.5° | 885.7  | 885.7  | 932.1  | 889.9  | 881.5  |
| 40°   | 774.8  | 741.1  | 682.0  | 740.0  | 774.8  |
| 42.5° | 671.4  | 620.7  | 495.1  | 618.6  | 673.5  |
| 45°   | 545.8  | 518.3  | 367.4  | 516.2  | 541.5  |
| 47.5° | 419.1  | 400.1  | 276.6  | 398.0  | 422.3  |
| 50°   | 327.3  | 297.7  | 213.2  | 295.6  | 326.2  |
| 52.5° | 251.2  | 219.6  | 164.7  | 219.6  | 249.1  |
| 55°   | 196.4  | 164.7  | 127.7  | 164.7  | 194.2  |
| 57.5° | 151.0  | 125.6  | 97.1   | 123.5  | 149.9  |
| 60°   | 115.1  | 94.0   | 76.0   | 94.0   | 116.1  |
| 62.5° | 87.6   | 71.8   | 58.1   | 70.7   | 86.6   |
| 65°   | 66.5   | 53.8   | 45.4   | 53.8   | 65.5   |
| 67.5° | 48.6   | 40.1   | 34.8   | 40.1   | 49.6   |
| 70°   | 35.9   | 30.6   | 26.4   | 29.6   | 35.9   |
| 72.5° | 26.4   | 22.2   | 20.1   | 22.2   | 26.4   |
| 75°   | 17.9   | 15.8   | 14.8   | 15.8   | 17.9   |
| 77.5° | 12.7   | 11.6   | 10.6   | 11.6   | 12.7   |
| 80°   | 8.4    | 7.4    | 7.4    | 8.4    | 8.4    |
| 82.5° | 5.3    | 5.3    | 5.3    | 5.3    | 5.3    |
| 85°   | 3.2    | 3.2    | 3.2    | 3.2    | 3.2    |
| 87.5° | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



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







(END OF REPORT)