

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 4LCSQWLI**

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 (G1-2105-247-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/18/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C35D010 EX4C359050 4LCSQWLI  
Description: 4 INCH 3500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS  
AND 4LCSQW TRIM WITH LI FINISH  
Light Source: -  
Ballast/Driver: -

**Summary**

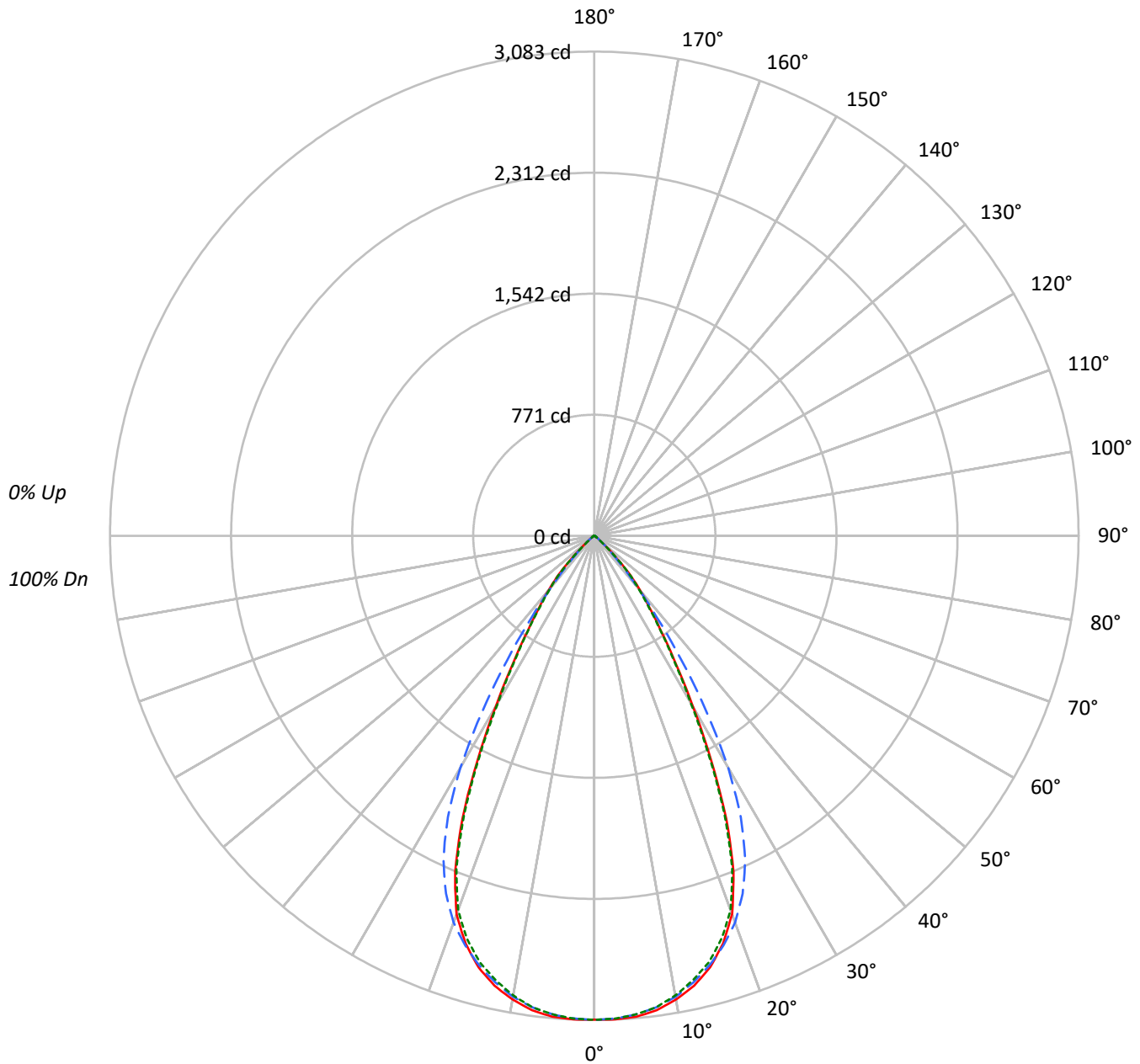
Lumens per Lamp: N/A  
Luminaire Lumens: 2759.0 lumens  
Efficiency: N/A  
Efficacy: 68.3 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 0.91 / 0.9  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

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  |
| RCR |     |     |     |     |  |     |     |     |     |  |     |     |     |  |     |     |     |  |     |     |     |
| 0   | 119 | 119 | 119 | 119 |  | 116 | 116 | 116 | 116 |  | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 | 102 | 102 |
| 1   | 114 | 111 | 108 | 106 |  | 111 | 109 | 106 | 104 |  | 105 | 103 | 101 |  | 101 | 100 | 98  |  | 97  | 96  | 95  |
| 2   | 108 | 103 | 99  | 96  |  | 106 | 102 | 98  | 95  |  | 98  | 95  | 93  |  | 95  | 93  | 91  |  | 93  | 91  | 89  |
| 3   | 103 | 96  | 91  | 88  |  | 101 | 95  | 90  | 87  |  | 92  | 89  | 85  |  | 90  | 87  | 84  |  | 88  | 85  | 83  |
| 4   | 98  | 90  | 85  | 80  |  | 96  | 89  | 84  | 80  |  | 87  | 82  | 79  |  | 85  | 81  | 78  |  | 83  | 80  | 77  |
| 5   | 93  | 84  | 79  | 74  |  | 91  | 84  | 78  | 74  |  | 82  | 77  | 73  |  | 80  | 76  | 73  |  | 79  | 75  | 72  |
| 6   | 88  | 79  | 73  | 69  |  | 87  | 79  | 73  | 69  |  | 77  | 72  | 68  |  | 76  | 71  | 68  |  | 74  | 71  | 68  |
| 7   | 84  | 75  | 69  | 65  |  | 82  | 74  | 68  | 64  |  | 73  | 68  | 64  |  | 71  | 67  | 64  |  | 70  | 66  | 63  |
| 8   | 80  | 70  | 64  | 60  |  | 79  | 70  | 64  | 60  |  | 69  | 64  | 60  |  | 68  | 63  | 60  |  | 67  | 63  | 59  |
| 9   | 76  | 66  | 61  | 57  |  | 75  | 66  | 60  | 57  |  | 65  | 60  | 56  |  | 64  | 60  | 56  |  | 63  | 59  | 56  |
| 10  | 72  | 63  | 57  | 53  |  | 71  | 62  | 57  | 53  |  | 62  | 57  | 53  |  | 61  | 56  | 53  |  | 60  | 56  | 53  |

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

|     | 0°     | 45°    | 90°    |
|-----|--------|--------|--------|
| 0°  | 297369 | 297369 | 297369 |
| 5°  | 297682 | 296306 | 296306 |
| 10° | 293766 | 292031 | 291130 |
| 15° | 284235 | 282886 | 280978 |
| 20° | 263234 | 268974 | 260328 |
| 25° | 211650 | 241949 | 208861 |
| 30° | 139693 | 189708 | 136384 |
| 35° | 87319  | 113916 | 85728  |
| 40° | 56983  | 52789  | 54754  |
| 45° | 27441  | 21055  | 25886  |
| 50° | 6905   | 8391   | 6485   |
| 55° | 3819   | 3449   | 3684   |
| 60° | 2605   | 2181   | 2451   |
| 65° | 1781   | 1621   | 1781   |
| 70° | 1411   | 1185   | 1411   |
| 75° | 1044   | 1044   | 1044   |
| 80° | 778    | 1167   | 1167   |
| 85° | 775    | 1550   | 1550   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 289.8  | 10.5      |
| 10°-20°   | 791.5  | 28.7      |
| 20°-30°   | 943.2  | 34.2      |
| 30°-40°   | 534.1  | 19.4      |
| 40°-50°   | 165.1  | 6.0       |
| 50°-60°   | 22.9   | 0.8       |
| 60°-70°   | 7.8    | 0.3       |
| 70°-80°   | 3.1    | 0.1       |
| 80°-90°   | 1.3    | 0.0       |
| 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°    | 2024.6 | 73.4      |
| 0°-40°    | 2558.7 | 92.7      |
| 0°-60°    | 2746.7 | 99.6      |
| 0°-90°    | 2759.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2759.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3082 | 3082  | 3082 | 3082  | 3082 |      |
| 5°  | 3073 | 3066  | 3059 | 3057  | 3059 | 291  |
| 15° | 2845 | 2840  | 2832 | 2821  | 2813 | 793  |
| 25° | 1988 | 2104  | 2273 | 2108  | 1962 | 886  |
| 35° | 741  | 808   | 967  | 811   | 728  | 482  |
| 45° | 201  | 234   | 154  | 228   | 190  | 166  |
| 55° | 23   | 23    | 20   | 22    | 22   | 22   |
| 65° | 8    | 8     | 7    | 8     | 8    | 8    |
| 75° | 3    | 3     | 3    | 3     | 3    | 3    |
| 85° | 1    | 1     | 1    | 1     | 1    | 1    |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3081.9 | 3081.9 | 3081.9 | 3081.9 | 3081.9 |
| 2.5°  | 3082.6 | 3077.6 | 3076.2 | 3074.8 | 3077.6 |
| 5°    | 3073.4 | 3066.3 | 3059.2 | 3057.1 | 3059.2 |
| 7.5°  | 3047.2 | 3040.1 | 3028.0 | 3025.2 | 3027.3 |
| 10°   | 2998.3 | 2991.9 | 2980.6 | 2974.2 | 2971.4 |
| 12.5° | 2933.9 | 2923.3 | 2912.6 | 2905.6 | 2898.5 |
| 15°   | 2845.4 | 2840.4 | 2831.9 | 2820.6 | 2812.8 |
| 17.5° | 2722.9 | 2730.0 | 2734.9 | 2712.3 | 2691.8 |
| 20°   | 2563.6 | 2589.8 | 2619.5 | 2573.5 | 2535.3 |
| 22.5° | 2315.1 | 2390.2 | 2465.9 | 2378.8 | 2293.9 |
| 25°   | 1988.0 | 2104.1 | 2272.6 | 2107.7 | 1961.8 |
| 27.5° | 1606.4 | 1753.7 | 2019.2 | 1754.4 | 1585.2 |
| 30°   | 1253.8 | 1405.3 | 1702.7 | 1385.5 | 1224.1 |
| 32.5° | 962.9  | 1076.1 | 1330.3 | 1059.1 | 942.3  |
| 35°   | 741.3  | 808.5  | 967.1  | 810.6  | 727.8  |
| 37.5° | 576.3  | 610.3  | 650.6  | 598.2  | 559.3  |
| 40°   | 452.4  | 453.8  | 419.1  | 446.7  | 434.7  |
| 42.5° | 335.6  | 334.2  | 257.7  | 325.7  | 327.8  |
| 45°   | 201.1  | 234.3  | 154.3  | 228.0  | 189.7  |
| 47.5° | 95.6   | 132.4  | 92.7   | 125.3  | 88.5   |
| 50°   | 46.0   | 63.7   | 55.9   | 59.5   | 43.2   |
| 52.5° | 31.2   | 32.6   | 31.9   | 31.2   | 29.7   |
| 55°   | 22.7   | 22.7   | 20.5   | 21.9   | 21.9   |
| 57.5° | 17.0   | 17.0   | 14.9   | 16.3   | 16.3   |
| 60°   | 13.5   | 12.7   | 11.3   | 12.7   | 12.7   |
| 62.5° | 9.9    | 9.9    | 8.5    | 9.9    | 9.9    |
| 65°   | 7.8    | 7.8    | 7.1    | 7.8    | 7.8    |
| 67.5° | 6.4    | 6.4    | 5.0    | 6.4    | 5.7    |
| 70°   | 5.0    | 5.0    | 4.2    | 5.0    | 5.0    |
| 72.5° | 3.5    | 3.5    | 3.5    | 3.5    | 3.5    |
| 75°   | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    |
| 77.5° | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    |
| 80°   | 1.4    | 1.4    | 2.1    | 2.1    | 2.1    |
| 82.5° | 1.4    | 1.4    | 1.4    | 1.4    | 1.4    |
| 85°   | 0.7    | 1.4    | 1.4    | 1.4    | 1.4    |
| 87.5° | 0.7    | 0.7    | 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)