

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 EX4C509027 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 EX4C509027 4LCSQWH  
Description: 4 INCH 5000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS  
AND 4LCSQW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

**Summary**

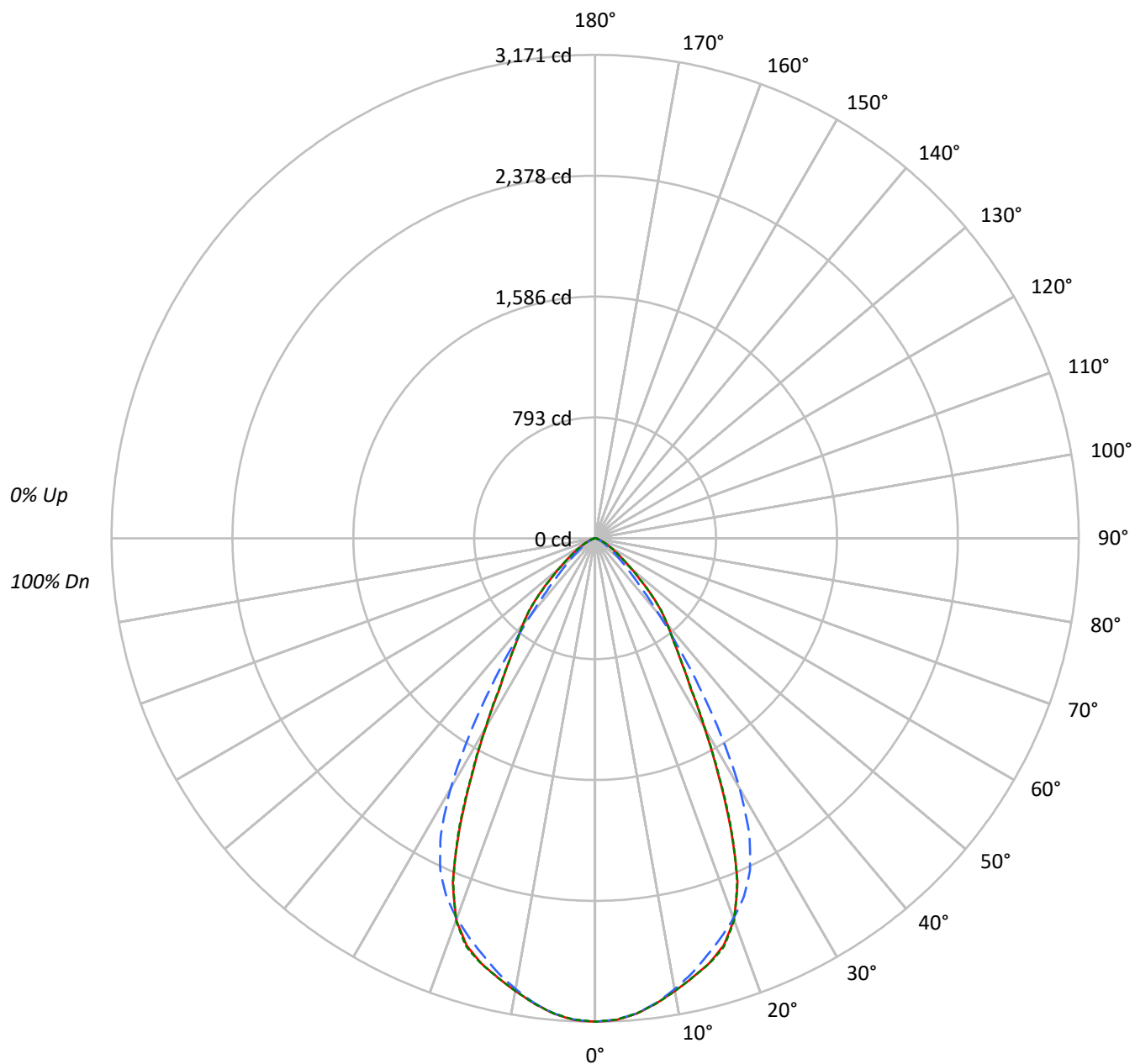
Lumens per Lamp: N/A  
Luminaire Lumens: 3356.0 lumens  
Efficiency: N/A  
Efficacy: 57.5 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 0.93 / 0.94  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

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°  | 305947 | 305947 | 305947 |
| 5°  | 303144 | 302951 | 303048 |
| 10° | 295382 | 294207 | 295382 |
| 15° | 288270 | 283076 | 288570 |
| 20° | 273317 | 272290 | 273831 |
| 25° | 224202 | 255811 | 225373 |
| 30° | 159870 | 211345 | 160093 |
| 35° | 115306 | 140042 | 115659 |
| 40° | 92453  | 81368  | 92453  |
| 45° | 70548  | 47487  | 70002  |
| 50° | 46534  | 30322  | 46384  |
| 55° | 31290  | 20355  | 30953  |
| 60° | 21035  | 13894  | 21228  |
| 65° | 14384  | 9817   | 14155  |
| 70° | 9592   | 7053   | 9592   |
| 75° | 6338   | 5219   | 6338   |
| 80° | 4445   | 3890   | 4445   |
| 85° | 3321   | 3321   | 3321   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 294.8  | 8.8       |
| 10°-20°   | 803.7  | 23.9      |
| 20°-30°   | 1004.8 | 29.9      |
| 30°-40°   | 675.9  | 20.1      |
| 40°-50°   | 356.9  | 10.6      |
| 50°-60°   | 145.1  | 4.3       |
| 60°-70°   | 53.8   | 1.6       |
| 70°-80°   | 17.4   | 0.5       |
| 80°-90°   | 3.7    | 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       |
| <hr/>     |        |           |
| 0°-30°    | 2103.2 | 62.7      |
| 0°-40°    | 2779.1 | 82.8      |
| 0°-60°    | 3281.1 | 97.8      |
| 0°-90°    | 3356.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3356.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3171 | 3171  | 3171 | 3171  | 3171 |      |
| 5°  | 3130 | 3127  | 3128 | 3128  | 3129 | 295  |
| 15° | 2886 | 2862  | 2834 | 2861  | 2889 | 808  |
| 25° | 2106 | 2224  | 2403 | 2228  | 2117 | 948  |
| 35° | 979  | 1028  | 1189 | 1030  | 982  | 630  |
| 45° | 517  | 491   | 348  | 489   | 513  | 396  |
| 55° | 186  | 156   | 121  | 156   | 184  | 172  |
| 65° | 63   | 51    | 43   | 51    | 62   | 65   |
| 75° | 17   | 15    | 14   | 15    | 17   | 20   |
| 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°    | 3170.8 | 3170.8 | 3170.8 | 3170.8 | 3170.8 |
| 2.5°  | 3162.8 | 3160.8 | 3159.8 | 3159.8 | 3160.8 |
| 5°    | 3129.8 | 3126.8 | 3127.8 | 3127.8 | 3128.8 |
| 7.5°  | 3076.8 | 3075.8 | 3072.8 | 3076.8 | 3076.8 |
| 10°   | 3014.8 | 3009.8 | 3002.8 | 3010.8 | 3014.8 |
| 12.5° | 2950.8 | 2935.8 | 2923.8 | 2935.8 | 2950.8 |
| 15°   | 2885.8 | 2861.8 | 2833.8 | 2860.8 | 2888.8 |
| 17.5° | 2800.8 | 2776.8 | 2745.8 | 2781.8 | 2808.8 |
| 20°   | 2661.8 | 2663.8 | 2651.8 | 2661.8 | 2666.8 |
| 22.5° | 2438.8 | 2483.8 | 2546.8 | 2484.8 | 2431.8 |
| 25°   | 2105.9 | 2223.9 | 2402.8 | 2227.9 | 2116.9 |
| 27.5° | 1748.9 | 1898.9 | 2191.9 | 1907.9 | 1759.9 |
| 30°   | 1434.9 | 1567.9 | 1896.9 | 1576.9 | 1436.9 |
| 32.5° | 1161.9 | 1260.9 | 1541.9 | 1272.9 | 1174.9 |
| 35°   | 978.9  | 1027.9 | 1188.9 | 1029.9 | 981.9  |
| 37.5° | 838.9  | 838.9  | 882.9  | 842.9  | 834.9  |
| 40°   | 734.0  | 702.0  | 646.0  | 701.0  | 734.0  |
| 42.5° | 636.0  | 588.0  | 469.0  | 586.0  | 638.0  |
| 45°   | 517.0  | 491.0  | 348.0  | 489.0  | 513.0  |
| 47.5° | 397.0  | 379.0  | 262.0  | 377.0  | 400.0  |
| 50°   | 310.0  | 282.0  | 202.0  | 280.0  | 309.0  |
| 52.5° | 238.0  | 208.0  | 156.0  | 208.0  | 236.0  |
| 55°   | 186.0  | 156.0  | 121.0  | 156.0  | 184.0  |
| 57.5° | 143.0  | 119.0  | 92.0   | 117.0  | 142.0  |
| 60°   | 109.0  | 89.0   | 72.0   | 89.0   | 110.0  |
| 62.5° | 83.0   | 68.0   | 55.0   | 67.0   | 82.0   |
| 65°   | 63.0   | 51.0   | 43.0   | 51.0   | 62.0   |
| 67.5° | 46.0   | 38.0   | 33.0   | 38.0   | 47.0   |
| 70°   | 34.0   | 29.0   | 25.0   | 28.0   | 34.0   |
| 72.5° | 25.0   | 21.0   | 19.0   | 21.0   | 25.0   |
| 75°   | 17.0   | 15.0   | 14.0   | 15.0   | 17.0   |
| 77.5° | 12.0   | 11.0   | 10.0   | 11.0   | 12.0   |
| 80°   | 8.0    | 7.0    | 7.0    | 8.0    | 8.0    |
| 82.5° | 5.0    | 5.0    | 5.0    | 5.0    | 5.0    |
| 85°   | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    |
| 87.5° | 2.0    | 2.0    | 2.0    | 2.0    | 2.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



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







(END OF REPORT)