

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: **LD4C70D010 EX4C709035 4LBCSSQMW**

Issue Date: 5/25/2022

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P209253)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/25/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C70D010 EX4C709035 4LBCSSQMW  
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS  
AND 4LBCSSQ TRIM WITH MW FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

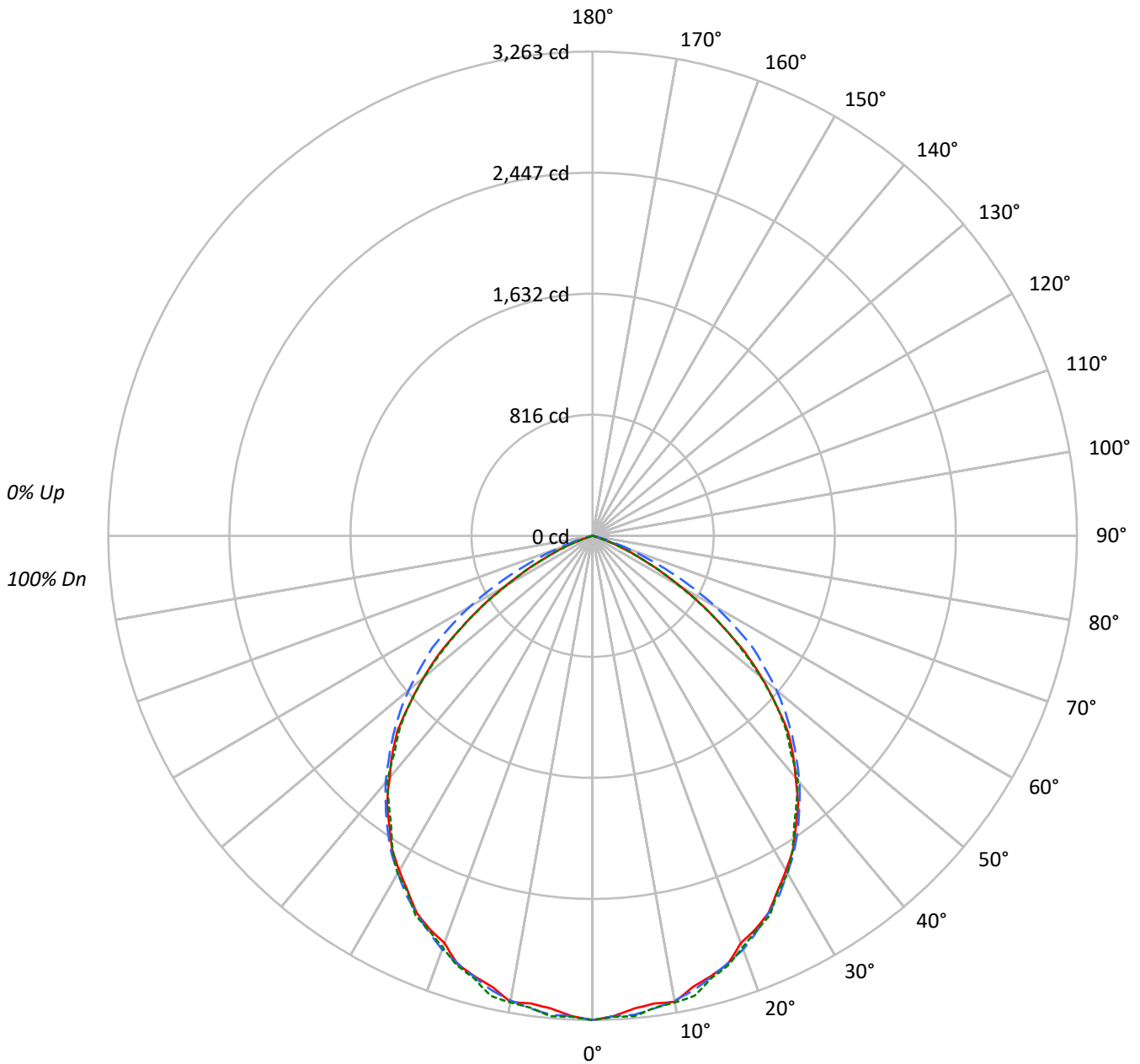
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6971.0 lumens  
Efficiency: N/A  
Efficacy: 89.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 78  
Input Voltage (V):  
Input Current (A<sub>in</sub>): 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

TEST NUMBER: P#  
CATALOG NUMBER: LD4C70D010 EX4C709035 4LBCSSQMW

### 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			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89	89	89	89
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77	77	77	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67	67	67	67
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59	59	59	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52	52	52	52
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46	46	46	46
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41	41	41	41
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	37	37	37	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33	33	33	33
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	31	31	31	31

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

	0°	45°	90°
0°	314872	314872	314872
5°	309799	313828	314719
10°	312469	311558	312910
15°	307000	307450	308379
20°	299860	304614	303197
25°	298556	298556	300536
30°	290238	292299	292834
35°	281179	283924	279000
40°	267987	273239	270896
45°	253631	259334	251106
50°	223364	242848	221983
55°	180907	222223	181698
60°	132383	184274	129700
65°	80434	131234	78334
70°	31371	70642	30102
75°	3467	19050	3467
80°	2612	2612	2612
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	308.0	4.4
10°-20°	871.6	12.5
20°-30°	1293.3	18.6
30°-40°	1498.6	21.5
40°-50°	1436.8	20.6
50°-60°	1056.4	15.2
60°-70°	456.3	6.5
70°-80°	49.3	0.7
80°-90°	0.6	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°	2473.0	35.5
0°-40°	3971.6	57.0
0°-60°	6464.8	92.7
0°-90°	6971.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6971.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3263	3263	3263	3263	3263	
5°	3198	3231	3240	3245	3249	305
15°	3073	3092	3078	3082	3087	866
25°	2804	2800	2804	2809	2823	1284
35°	2387	2401	2410	2406	2369	1493
45°	1859	1863	1900	1873	1840	1413
55°	1075	1187	1321	1182	1080	968
65°	352	440	575	436	343	362
75°	9	14	51	9	9	28
85°	0	0	0	0	0	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3
2.5°	3240.1	3277.2	3281.9	3258.6	3249.3	3235.5	3267.9	3244.8	3254.1	3244.8	3240.1
5°	3198.5	3240.1	3244.8	3244.8	3235.5	3230.8	3244.8	3240.1	3235.5	3226.3	3240.1
7.5°	3179.9	3203.0	3226.3	3198.5	3212.3	3207.7	3240.1	3226.3	3221.5	3221.5	3212.3
10°	3189.2	3184.5	3203.0	3175.2	3184.5	3175.2	3203.0	3203.0	3193.7	3184.5	3179.9
12.5°	3114.9	3152.0	3152.0	3147.4	3138.1	3124.2	3152.0	3170.7	3142.7	3142.7	3138.1
15°	3073.3	3082.5	3087.1	3087.1	3082.5	3091.8	3105.6	3087.1	3091.8	3068.5	3077.8
17.5°	3026.9	3008.4	3022.2	3012.9	3017.7	3026.9	3045.5	3045.5	3017.7	3012.9	3022.2
20°	2920.3	2975.9	2980.6	2952.8	2957.3	2957.3	2989.9	2962.1	2980.6	2957.3	2966.6
22.5°	2869.2	2906.3	2911.0	2873.9	2897.0	2869.2	2901.7	2859.9	2906.3	2873.9	2887.7
25°	2804.3	2799.8	2813.6	2795.1	2799.8	2799.8	2822.9	2804.3	2818.3	2799.8	2804.3
27.5°	2697.9	2734.9	2730.2	2711.7	2720.9	2716.4	2762.7	2711.7	2739.5	2716.4	2725.7
30°	2605.0	2637.5	2628.3	2609.7	2609.7	2595.7	2646.8	2632.8	2628.3	2628.3	2623.5
32.5°	2512.3	2517.1	2507.8	2512.3	2517.1	2498.5	2540.1	2521.6	2517.1	2521.6	2526.3
35°	2387.1	2387.1	2396.4	2382.6	2401.1	2401.1	2438.2	2414.9	2410.4	2396.4	2410.4
37.5°	2275.9	2262.1	2266.7	2266.7	2275.9	2285.2	2303.7	2294.5	2294.5	2280.6	2289.9
40°	2127.6	2118.4	2132.2	2132.2	2146.2	2146.2	2164.7	2155.5	2169.3	2169.3	2169.3
42.5°	1997.9	1997.9	1988.6	2002.5	2007.2	2002.5	2035.0	2030.3	2035.0	2025.7	2030.3
45°	1858.7	1858.7	1849.5	1844.9	1868.0	1863.4	1900.5	1886.5	1905.1	1895.8	1900.5
47.5°	1668.6	1691.9	1677.9	1691.9	1719.7	1724.4	1747.5	1738.2	1756.8	1743.0	1761.5
50°	1488.0	1488.0	1501.8	1520.4	1548.2	1552.9	1580.7	1599.2	1608.5	1613.0	1617.8
52.5°	1298.0	1293.2	1307.2	1330.3	1353.6	1372.1	1399.9	1427.7	1446.2	1474.0	1460.0
55°	1075.4	1084.6	1098.6	1126.4	1163.5	1186.6	1209.8	1246.9	1279.4	1293.2	1321.0
57.5°	885.3	876.0	885.3	922.4	964.2	982.7	1015.2	1052.3	1098.6	1126.4	1135.7
60°	686.0	690.7	699.9	732.5	764.8	792.6	806.6	866.8	908.6	936.4	954.9
62.5°	505.3	514.6	523.9	551.7	584.0	607.3	630.4	681.4	718.5	746.3	764.8
65°	352.3	356.9	370.9	384.7	417.2	440.3	458.8	500.6	537.7	560.9	574.8
67.5°	217.9	222.4	231.7	250.4	273.5	292.0	310.5	338.3	370.9	393.9	398.7
70°	111.2	115.9	120.5	134.5	153.0	162.3	176.1	199.3	222.4	240.9	250.4
72.5°	37.1	37.1	41.8	51.1	60.3	69.6	74.1	97.4	115.9	125.2	129.7
75°	9.3	9.3	9.3	9.3	9.3	14.0	14.0	27.8	37.1	46.3	51.1
77.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	9.3	9.3
80°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3	3263.3
2.5°	3263.3	3254.1	3249.3	3254.1	3254.1	3249.3	3263.3	3281.9	3305.0	3244.8
5°	3258.6	3249.3	3258.6	3230.8	3244.8	3235.5	3254.1	3249.3	3267.9	3249.3
7.5°	3244.8	3226.3	3230.8	3217.0	3235.5	3212.3	3226.3	3254.1	3235.5	3207.7
10°	3198.5	3189.2	3221.5	3175.2	3165.9	3184.5	3221.5	3193.7	3184.5	3193.7
12.5°	3152.0	3152.0	3165.9	3128.9	3133.4	3142.7	3161.2	3142.7	3152.0	3175.2
15°	3101.1	3091.8	3114.9	3087.1	3082.5	3073.3	3091.8	3091.8	3101.1	3087.1
17.5°	3040.7	3026.9	3026.9	3017.7	3012.9	3036.2	3045.5	3050.0	3054.7	3036.2
20°	2966.6	2962.1	2975.9	2962.1	2966.6	2971.3	2971.3	2962.1	3003.7	2952.8
22.5°	2887.7	2901.7	2883.2	2873.9	2883.2	2892.5	2892.5	2897.0	2887.7	2878.5
25°	2809.1	2818.3	2822.9	2795.1	2809.1	2795.1	2827.6	2832.1	2813.6	2822.9
27.5°	2739.5	2725.7	2720.9	2702.4	2711.7	2707.1	2711.7	2711.7	2739.5	2702.4
30°	2632.8	2619.0	2623.5	2609.7	2614.3	2609.7	2614.3	2614.3	2632.8	2628.3
32.5°	2530.9	2517.1	2521.6	2507.8	2507.8	2512.3	2503.1	2503.1	2517.1	2507.8
35°	2433.5	2401.1	2405.7	2401.1	2405.7	2387.1	2387.1	2382.6	2391.9	2368.6
37.5°	2294.5	2280.6	2275.9	2271.4	2275.9	2266.7	2275.9	2262.1	2275.9	2257.4
40°	2169.3	2160.0	2164.7	2136.9	2136.9	2141.5	2132.2	2127.6	2132.2	2150.7
42.5°	2044.2	2025.7	2016.4	2007.2	2011.7	1997.9	1993.2	1983.9	1993.2	1974.6
45°	1895.8	1895.8	1891.2	1868.0	1872.7	1872.7	1854.2	1835.6	1840.2	1840.2
47.5°	1761.5	1752.2	1747.5	1724.4	1719.7	1715.2	1696.5	1682.6	1682.6	1668.6
50°	1613.0	1603.8	1590.0	1566.7	1557.4	1529.6	1515.8	1497.3	1478.8	1478.8
52.5°	1474.0	1441.5	1423.0	1385.9	1372.1	1358.1	1321.0	1307.2	1293.2	1279.4
55°	1307.2	1279.4	1242.4	1200.6	1182.0	1158.8	1121.7	1093.9	1075.4	1080.1
57.5°	1145.0	1098.6	1061.6	1005.9	982.7	968.7	931.6	894.6	876.0	876.0
60°	945.6	908.6	862.2	811.2	792.6	769.5	723.0	699.9	686.0	672.1
62.5°	755.6	727.8	686.0	621.1	607.3	584.0	551.7	523.9	509.9	509.9
65°	565.5	537.7	500.6	454.3	435.7	417.2	389.4	361.6	347.6	343.1
67.5°	398.7	366.1	333.8	296.7	282.7	273.5	245.7	227.1	217.9	213.1
70°	240.9	222.4	199.3	171.5	157.5	148.3	129.7	115.9	111.2	106.7
72.5°	125.2	111.2	92.7	74.1	64.9	55.6	46.3	37.1	32.5	32.5
75°	46.3	37.1	23.3	14.0	9.3	9.3	9.3	9.3	9.3	9.3
77.5°	9.3	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
80°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG







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









(END OF REPORT)