

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 EX4C709027 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 EX4C709027 4LBCSSQMW
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

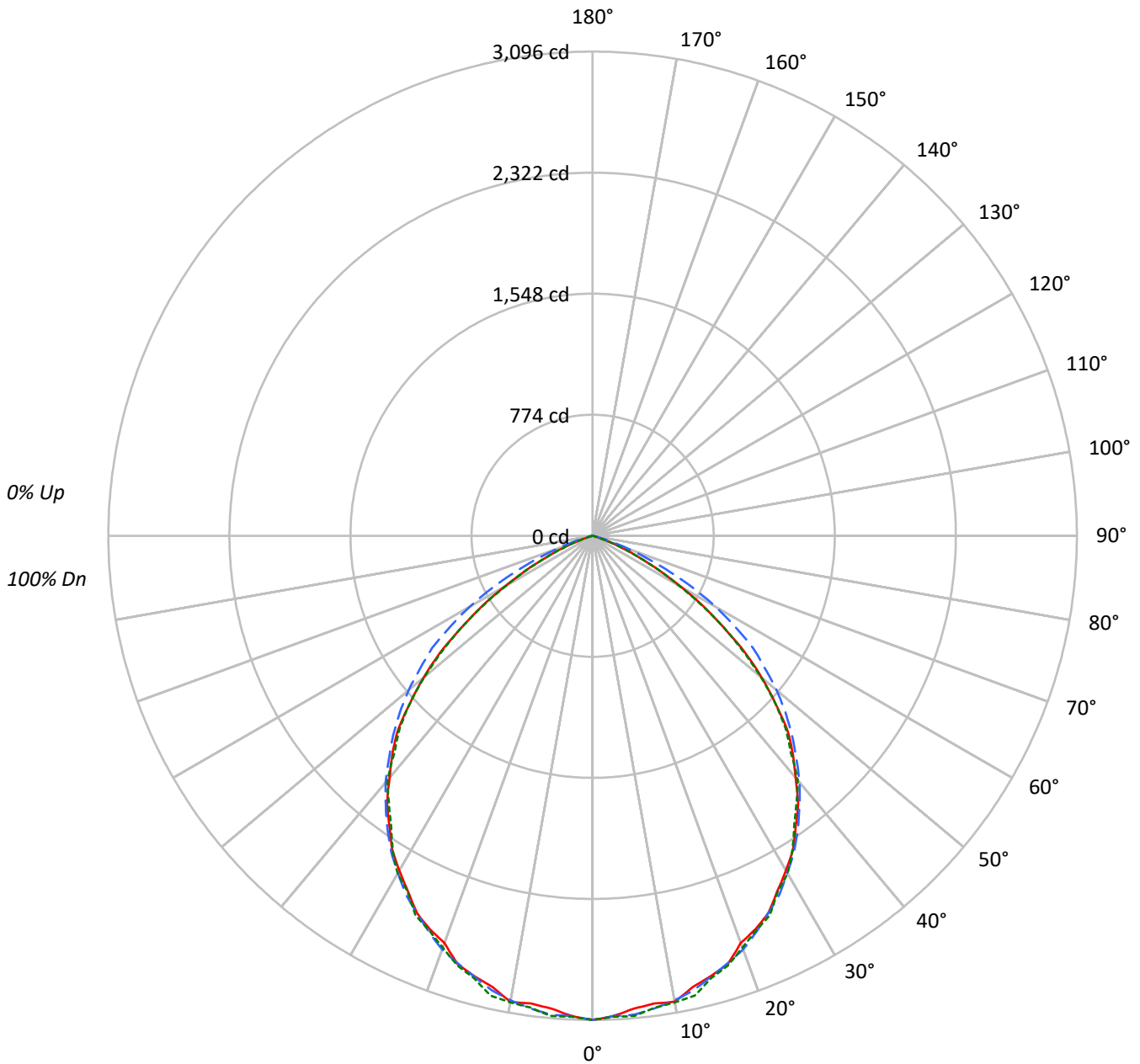
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6613.0 lumens
Efficiency: N/A
Efficacy: 84.8 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 (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

TEST NUMBER: P#
CATALOG NUMBER: LD4C70D010 EX4C709027 4LBCSSQMW

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: LD4C70D010 EX4C709027 4LBCSSQMW

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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																			
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89																			
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77																			
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67																			
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52																			
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46																			
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41																			
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	37																			
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33																			
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	298701	298701	298701
5°	293885	297711	298563
10°	296421	295559	296842
15°	291227	291667	292536
20°	284458	288976	287631
25°	283225	283225	285099
30°	275331	277292	277793
35°	266738	269341	264677
40°	254232	259208	256991
45°	240613	246016	238211
50°	211895	230374	210574
55°	171605	210817	172362
60°	125571	174819	123043
65°	76302	124476	74316
70°	29763	67002	28550
75°	3281	18044	3281
80°	2500	2500	2500
85°	0	0	0



TEST NUMBER: P#

CATALOG NUMBER: LD4C70D010 EX4C709027 4LBCSSQMW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	292.2	4.4
10°-20°	826.9	12.5
20°-30°	1226.9	18.6
30°-40°	1421.6	21.5
40°-50°	1363.0	20.6
50°-60°	1002.2	15.2
60°-70°	432.8	6.5
70°-80°	46.7	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°	2346.0	35.5
0°-40°	3767.6	57.0
0°-60°	6132.8	92.7
0°-90°	6613.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6613.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3096	3096	3096	3096	3096	
5°	3034	3065	3074	3078	3082	289
15°	2915	2933	2920	2924	2928	822
25°	2660	2656	2660	2665	2678	1218
35°	2264	2278	2287	2282	2247	1416
45°	1763	1768	1803	1776	1746	1340
55°	1020	1126	1253	1121	1025	918
65°	334	418	545	413	326	344
75°	9	13	48	9	9	27
85°	0	0	0	0	0	1
90°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: LD4C70D010 EX4C709027 4LBCSSQMW

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3095.7	3095.7	3095.7	3095.7	3095.7	3095.7	3095.7	3095.7	3095.7	3095.7	3095.7
2.5°	3073.7	3108.9	3113.3	3091.3	3082.5	3069.4	3100.1	3078.2	3087.0	3078.2	3073.7
5°	3034.2	3073.7	3078.2	3078.2	3069.4	3064.9	3078.2	3073.7	3069.4	3060.6	3073.7
7.5°	3016.6	3038.5	3060.6	3034.2	3047.3	3043.0	3073.7	3060.6	3056.1	3056.1	3047.3
10°	3025.4	3020.9	3038.5	3012.1	3020.9	3012.1	3038.5	3038.5	3029.7	3020.9	3016.6
12.5°	2954.9	2990.1	2990.1	2985.8	2977.0	2963.7	2990.1	3007.8	2981.3	2981.3	2977.0
15°	2915.4	2924.2	2928.5	2928.5	2924.2	2933.0	2946.1	2928.5	2933.0	2911.0	2919.8
17.5°	2871.5	2853.9	2867.0	2858.2	2862.7	2871.5	2889.1	2889.1	2862.7	2858.2	2867.0
20°	2770.3	2823.0	2827.5	2801.2	2805.5	2805.5	2836.3	2809.9	2827.5	2805.5	2814.3
22.5°	2721.9	2757.0	2761.5	2726.3	2748.2	2721.9	2752.7	2713.1	2757.0	2726.3	2739.4
25°	2660.3	2656.0	2669.1	2651.5	2656.0	2656.0	2677.9	2660.3	2673.6	2656.0	2660.3
27.5°	2559.3	2594.5	2590.0	2572.4	2581.2	2576.9	2620.8	2572.4	2598.8	2576.9	2585.7
30°	2471.2	2502.1	2493.3	2475.7	2475.7	2462.4	2510.9	2497.6	2493.3	2493.3	2488.8
32.5°	2383.3	2387.8	2379.0	2383.3	2387.8	2370.2	2409.7	2392.1	2387.8	2392.1	2396.6
35°	2264.5	2264.5	2273.3	2260.2	2277.8	2277.8	2313.0	2290.9	2286.6	2273.3	2286.6
37.5°	2159.0	2145.9	2150.3	2150.3	2159.0	2167.8	2185.4	2176.6	2176.6	2163.5	2172.3
40°	2018.4	2009.6	2022.7	2022.7	2036.0	2036.0	2053.5	2044.8	2057.9	2057.9	2057.9
42.5°	1895.3	1895.3	1886.5	1899.6	1904.1	1899.6	1930.5	1926.0	1930.5	1921.7	1926.0
45°	1763.3	1763.3	1754.5	1750.2	1772.1	1767.7	1802.9	1789.6	1807.2	1798.4	1802.9
47.5°	1583.0	1605.0	1591.7	1605.0	1631.4	1635.9	1657.8	1649.0	1666.6	1653.5	1671.0
50°	1411.6	1411.6	1424.7	1442.3	1468.7	1473.1	1499.5	1517.1	1525.9	1530.2	1534.7
52.5°	1231.3	1226.8	1240.1	1262.0	1284.0	1301.6	1328.0	1354.4	1372.0	1398.3	1385.1
55°	1020.1	1028.9	1042.2	1068.6	1103.7	1125.6	1147.7	1182.9	1213.7	1226.8	1253.2
57.5°	839.8	831.0	839.8	875.0	914.6	932.2	963.1	998.2	1042.2	1068.6	1077.4
60°	650.7	655.2	664.0	694.9	725.5	751.9	765.2	822.2	861.9	888.3	905.9
62.5°	479.4	488.2	497.0	523.3	554.0	576.1	598.0	646.4	681.6	708.0	725.5
65°	334.2	338.6	351.8	364.9	395.8	417.7	435.3	474.9	510.1	532.1	545.2
67.5°	206.7	211.0	219.8	237.5	259.4	277.0	294.6	321.0	351.8	373.7	378.2
70°	105.5	110.0	114.3	127.6	145.1	153.9	167.0	189.1	211.0	228.6	237.5
72.5°	35.2	35.2	39.6	48.4	57.2	66.0	70.3	92.4	110.0	118.8	123.1
75°	8.8	8.8	8.8	8.8	8.8	13.3	13.3	26.4	35.2	44.0	48.4
77.5°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	8.8	8.8
80°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
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



TEST NUMBER: P#

CATALOG NUMBER: LD4C70D010 EX4C709027 4LBCSSQMW

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	3095.7	3095.7	3095.7	3095.7	3095.7	3095.7	3095.7	3095.7	3095.7	3095.7
2.5°	3095.7	3087.0	3082.5	3087.0	3087.0	3082.5	3095.7	3113.3	3135.2	3078.2
5°	3091.3	3082.5	3091.3	3064.9	3078.2	3069.4	3087.0	3082.5	3100.1	3082.5
7.5°	3078.2	3060.6	3064.9	3051.8	3069.4	3047.3	3060.6	3087.0	3069.4	3043.0
10°	3034.2	3025.4	3056.1	3012.1	3003.4	3020.9	3056.1	3029.7	3020.9	3029.7
12.5°	2990.1	2990.1	3003.4	2968.2	2972.5	2981.3	2998.9	2981.3	2990.1	3012.1
15°	2941.8	2933.0	2954.9	2928.5	2924.2	2915.4	2933.0	2933.0	2941.8	2928.5
17.5°	2884.6	2871.5	2871.5	2862.7	2858.2	2880.3	2889.1	2893.4	2897.9	2880.3
20°	2814.3	2809.9	2823.0	2809.9	2814.3	2818.7	2818.7	2809.9	2849.4	2801.2
22.5°	2739.4	2752.7	2735.1	2726.3	2735.1	2743.9	2743.9	2748.2	2739.4	2730.7
25°	2664.8	2673.6	2677.9	2651.5	2664.8	2651.5	2682.4	2686.7	2669.1	2677.9
27.5°	2598.8	2585.7	2581.2	2563.6	2572.4	2568.1	2572.4	2572.4	2598.8	2563.6
30°	2497.6	2484.5	2488.8	2475.7	2480.0	2475.7	2480.0	2480.0	2497.6	2493.3
32.5°	2400.9	2387.8	2392.1	2379.0	2379.0	2383.3	2374.5	2374.5	2387.8	2379.0
35°	2308.5	2277.8	2282.1	2277.8	2282.1	2264.5	2264.5	2260.2	2269.0	2247.0
37.5°	2176.6	2163.5	2159.0	2154.7	2159.0	2150.3	2159.0	2145.9	2159.0	2141.5
40°	2057.9	2049.1	2053.5	2027.2	2027.2	2031.5	2022.7	2018.4	2022.7	2040.3
42.5°	1939.3	1921.7	1912.9	1904.1	1908.4	1895.3	1890.8	1882.0	1890.8	1873.2
45°	1798.4	1798.4	1794.1	1772.1	1776.5	1776.5	1759.0	1741.4	1745.7	1745.7
47.5°	1671.0	1662.2	1657.8	1635.9	1631.4	1627.1	1609.3	1596.2	1596.2	1583.0
50°	1530.2	1521.4	1508.3	1486.2	1477.5	1451.1	1438.0	1420.4	1402.8	1402.8
52.5°	1398.3	1367.5	1349.9	1314.7	1301.6	1288.4	1253.2	1240.1	1226.8	1213.7
55°	1240.1	1213.7	1178.6	1138.9	1121.3	1099.3	1064.1	1037.7	1020.1	1024.6
57.5°	1086.2	1042.2	1007.0	954.3	932.2	919.0	883.8	848.6	831.0	831.0
60°	897.1	861.9	817.9	769.5	751.9	730.0	685.9	664.0	650.7	637.6
62.5°	716.8	690.4	650.7	589.2	576.1	554.0	523.3	497.0	483.7	483.7
65°	536.4	510.1	474.9	430.9	413.4	395.8	369.4	343.0	329.8	325.5
67.5°	378.2	347.3	316.7	281.5	268.2	259.4	233.1	215.5	206.7	202.2
70°	228.6	211.0	189.1	162.7	149.5	140.7	123.1	110.0	105.5	101.2
72.5°	118.8	105.5	87.9	70.3	61.5	52.7	44.0	35.2	30.9	30.9
75°	44.0	35.2	22.1	13.3	8.8	8.8	8.8	8.8	8.8	8.8
77.5°	8.8	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
80°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
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)