

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: P840223

Luminaire Tested: **LD4C60D010 EU4609035 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: P840223
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: LD4C60D010 EU4609035 4LBCSSQMW
Description: 4 INCH 6000 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

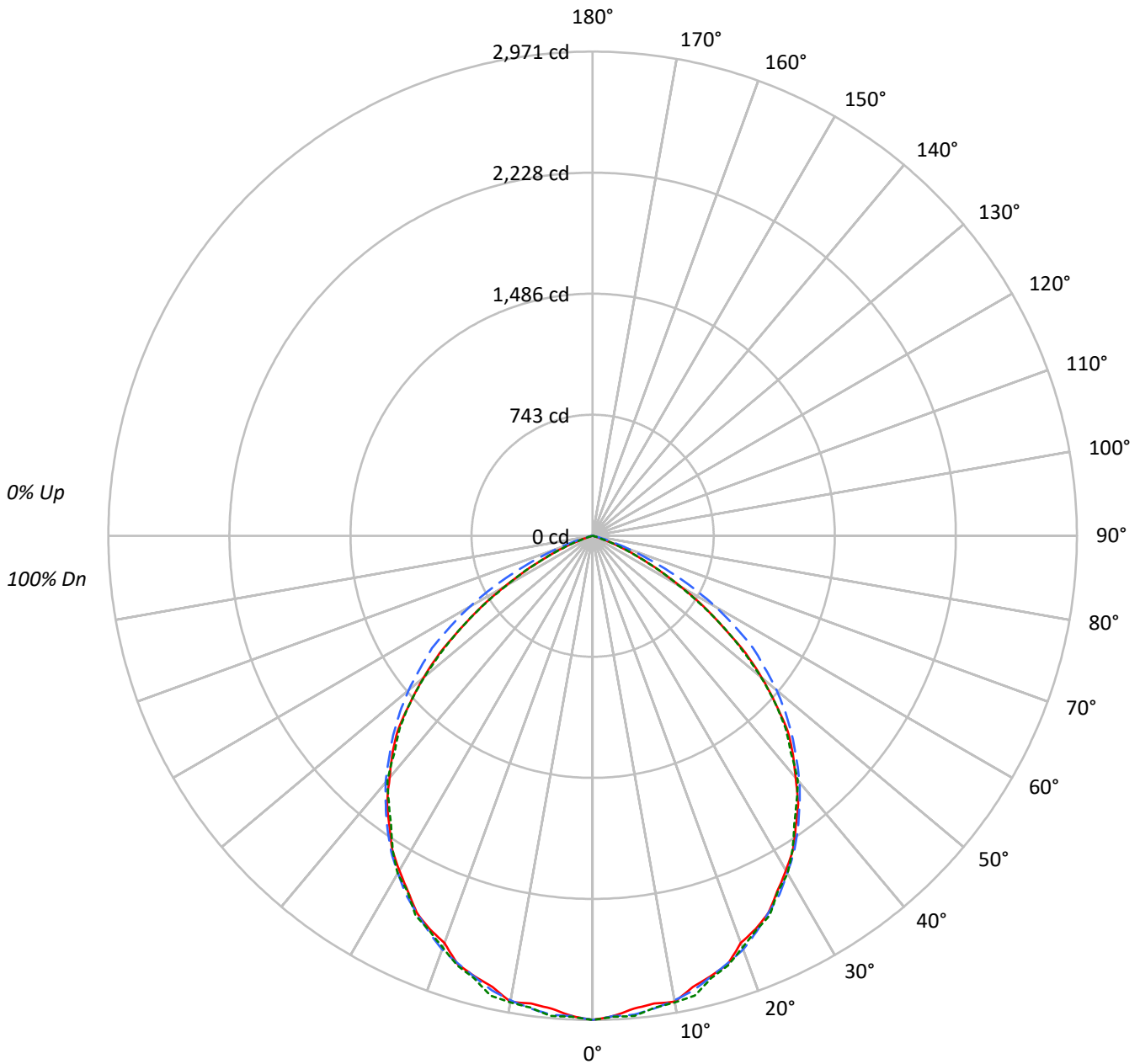
Lumens per Lamp: N/A
Luminaire Lumens: 6346.0 lumens
Efficiency: N/A
Efficacy: 88.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 72
Input Voltage (V):
Input Current (A_{in}): 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			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°	286649	286649	286649
5°	282020	285691	286504
10°	284458	283625	284859
15°	279470	279889	280728
20°	272968	277301	276018
25°	271791	271791	273590
30°	264211	266094	266573
35°	255972	258469	253981
40°	243967	248740	246612
45°	230897	236082	228591
50°	203339	221067	202078
55°	164674	202305	165414
60°	120515	167756	118083
65°	73220	119453	71302
70°	28550	64294	27393
75°	3132	17335	3132
80°	2389	2389	2389
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.4	4.4
10°-20°	793.5	12.5
20°-30°	1177.4	18.6
30°-40°	1364.2	21.5
40°-50°	1308.0	20.6
50°-60°	961.7	15.2
60°-70°	415.4	6.5
70°-80°	44.8	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°	2251.3	35.5
0°-40°	3615.5	57.0
0°-60°	5885.2	92.7
0°-90°	6346.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6346.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2971	2971	2971	2971	2971	
5°	2912	2941	2950	2954	2958	278
15°	2798	2815	2802	2806	2810	789
25°	2553	2549	2553	2557	2570	1169
35°	2173	2186	2194	2190	2156	1359
45°	1692	1696	1730	1705	1675	1286
55°	979	1080	1203	1076	983	881
65°	321	401	523	397	312	330
75°	8	13	46	8	8	26
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°	2970.8	2970.8	2970.8	2970.8	2970.8	2970.8	2970.8	2970.8	2970.8	2970.8	2970.8
2.5°	2949.6	2983.3	2987.6	2966.5	2958.0	2945.4	2974.9	2953.9	2962.3	2953.9	2949.6
5°	2911.7	2949.6	2953.9	2953.9	2945.4	2941.1	2953.9	2949.6	2945.4	2937.0	2949.6
7.5°	2894.8	2915.8	2937.0	2911.7	2924.3	2920.1	2949.6	2937.0	2932.7	2932.7	2924.3
10°	2903.3	2899.0	2915.8	2890.5	2899.0	2890.5	2915.8	2915.8	2907.4	2899.0	2894.8
12.5°	2835.6	2869.4	2869.4	2865.2	2856.8	2844.0	2869.4	2886.4	2860.9	2860.9	2856.8
15°	2797.7	2806.2	2810.3	2810.3	2806.2	2814.6	2827.2	2810.3	2814.6	2793.4	2801.9
17.5°	2755.5	2738.7	2751.2	2742.8	2747.1	2755.5	2772.4	2772.4	2747.1	2742.8	2751.2
20°	2658.4	2709.1	2713.4	2688.1	2692.2	2692.2	2721.8	2696.5	2713.4	2692.2	2700.6
22.5°	2612.0	2645.7	2650.0	2616.3	2637.3	2612.0	2641.6	2603.5	2645.7	2616.3	2628.8
25°	2552.9	2548.8	2561.3	2544.5	2548.8	2548.8	2569.8	2552.9	2565.6	2548.8	2552.9
27.5°	2456.0	2489.7	2485.4	2468.5	2477.0	2472.8	2515.0	2468.5	2493.9	2472.8	2481.3
30°	2371.4	2401.1	2392.6	2375.7	2375.7	2363.0	2409.5	2396.8	2392.6	2392.6	2388.3
32.5°	2287.1	2291.4	2282.9	2287.1	2291.4	2274.5	2312.4	2295.5	2291.4	2295.5	2299.8
35°	2173.1	2173.1	2181.5	2169.0	2185.8	2185.8	2219.6	2198.4	2194.3	2181.5	2194.3
37.5°	2071.9	2059.3	2063.4	2063.4	2071.9	2080.3	2097.2	2088.7	2088.7	2076.2	2084.6
40°	1936.9	1928.5	1941.0	1941.0	1953.8	1953.8	1970.6	1962.2	1974.8	1974.8	1974.8
42.5°	1818.8	1818.8	1810.3	1822.9	1827.2	1822.9	1852.5	1848.2	1852.5	1844.1	1848.2
45°	1692.1	1692.1	1683.6	1679.5	1700.5	1696.4	1730.1	1717.4	1734.3	1725.8	1730.1
47.5°	1519.0	1540.2	1527.5	1540.2	1565.5	1569.8	1590.8	1582.4	1599.3	1586.7	1603.6
50°	1354.6	1354.6	1367.2	1384.1	1409.4	1413.7	1439.0	1455.9	1464.3	1468.4	1472.7
52.5°	1181.6	1177.3	1190.0	1211.0	1232.2	1249.1	1274.4	1299.7	1316.6	1341.9	1329.1
55°	978.9	987.4	1000.1	1025.4	1059.2	1080.2	1101.4	1135.1	1164.7	1177.3	1202.6
57.5°	805.9	797.5	805.9	839.7	877.7	894.6	924.2	957.9	1000.1	1025.4	1033.9
60°	624.5	628.8	637.2	666.8	696.2	721.6	734.3	789.0	827.1	852.4	869.3
62.5°	460.0	468.5	476.9	502.2	531.7	552.8	573.8	620.3	654.1	679.4	696.2
65°	320.7	324.9	337.6	350.2	379.8	400.8	417.7	455.7	489.5	510.6	523.2
67.5°	198.3	202.5	210.9	227.9	249.0	265.8	282.7	308.0	337.6	358.6	362.9
70°	101.2	105.5	109.7	122.4	139.3	147.7	160.3	181.5	202.5	219.3	227.9
72.5°	33.7	33.7	38.0	46.5	54.9	63.4	67.5	88.7	105.5	114.0	118.1
75°	8.4	8.4	8.4	8.4	8.4	12.7	12.7	25.3	33.7	42.2	46.5
77.5°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	8.4	8.4
80°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
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°	2970.8	2970.8	2970.8	2970.8	2970.8	2970.8	2970.8	2970.8	2970.8	2970.8
2.5°	2970.8	2962.3	2958.0	2962.3	2962.3	2958.0	2970.8	2987.6	3008.6	2953.9
5°	2966.5	2958.0	2966.5	2941.1	2953.9	2945.4	2962.3	2958.0	2974.9	2958.0
7.5°	2953.9	2937.0	2941.1	2928.6	2945.4	2924.3	2937.0	2962.3	2945.4	2920.1
10°	2911.7	2903.3	2932.7	2890.5	2882.1	2899.0	2932.7	2907.4	2899.0	2907.4
12.5°	2869.4	2869.4	2882.1	2848.3	2852.5	2860.9	2877.8	2860.9	2869.4	2890.5
15°	2823.0	2814.6	2835.6	2810.3	2806.2	2797.7	2814.6	2814.6	2823.0	2810.3
17.5°	2768.1	2755.5	2755.5	2747.1	2742.8	2764.0	2772.4	2776.6	2780.9	2764.0
20°	2700.6	2696.5	2709.1	2696.5	2700.6	2704.9	2704.9	2696.5	2734.4	2688.1
22.5°	2628.8	2641.6	2624.7	2616.3	2624.7	2633.1	2633.1	2637.3	2628.8	2620.4
25°	2557.2	2565.6	2569.8	2544.5	2557.2	2544.5	2574.1	2578.2	2561.3	2569.8
27.5°	2493.9	2481.3	2477.0	2460.1	2468.5	2464.4	2468.5	2468.5	2493.9	2460.1
30°	2396.8	2384.2	2388.3	2375.7	2379.9	2375.7	2379.9	2379.9	2396.8	2392.6
32.5°	2304.0	2291.4	2295.5	2282.9	2282.9	2287.1	2278.6	2278.6	2291.4	2282.9
35°	2215.3	2185.8	2190.0	2185.8	2190.0	2173.1	2173.1	2169.0	2177.4	2156.2
37.5°	2088.7	2076.2	2071.9	2067.7	2071.9	2063.4	2071.9	2059.3	2071.9	2055.0
40°	1974.8	1966.3	1970.6	1945.3	1945.3	1949.5	1941.0	1936.9	1941.0	1957.9
42.5°	1861.0	1844.1	1835.7	1827.2	1831.4	1818.8	1814.5	1806.0	1814.5	1797.6
45°	1725.8	1725.8	1721.7	1700.5	1704.8	1704.8	1687.9	1671.1	1675.2	1675.2
47.5°	1603.6	1595.1	1590.8	1569.8	1565.5	1561.4	1544.4	1531.8	1531.8	1519.0
50°	1468.4	1460.0	1447.4	1426.2	1417.8	1392.5	1379.9	1363.1	1346.2	1346.2
52.5°	1341.9	1312.3	1295.4	1261.7	1249.1	1236.3	1202.6	1190.0	1177.3	1164.7
55°	1190.0	1164.7	1131.0	1092.9	1076.1	1054.9	1021.1	995.8	978.9	983.3
57.5°	1042.3	1000.1	966.4	915.8	894.6	881.8	848.1	814.4	797.5	797.5
60°	860.8	827.1	784.9	738.4	721.6	700.5	658.2	637.2	624.5	611.9
62.5°	687.8	662.5	624.5	565.4	552.8	531.7	502.2	476.9	464.2	464.2
65°	514.8	489.5	455.7	413.5	396.7	379.8	354.5	329.2	316.4	312.3
67.5°	362.9	333.3	303.9	270.1	257.4	249.0	223.6	206.8	198.3	194.0
70°	219.3	202.5	181.5	156.2	143.4	135.0	118.1	105.5	101.2	97.1
72.5°	114.0	101.2	84.4	67.5	59.1	50.6	42.2	33.7	29.6	29.6
75°	42.2	33.7	21.2	12.7	8.4	8.4	8.4	8.4	8.4	8.4
77.5°	8.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
80°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
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)