

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: P840241

Luminaire Tested: **LD4C70D010 EU4709030 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: P840241
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 EU4709030 4LBCSSQMW
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

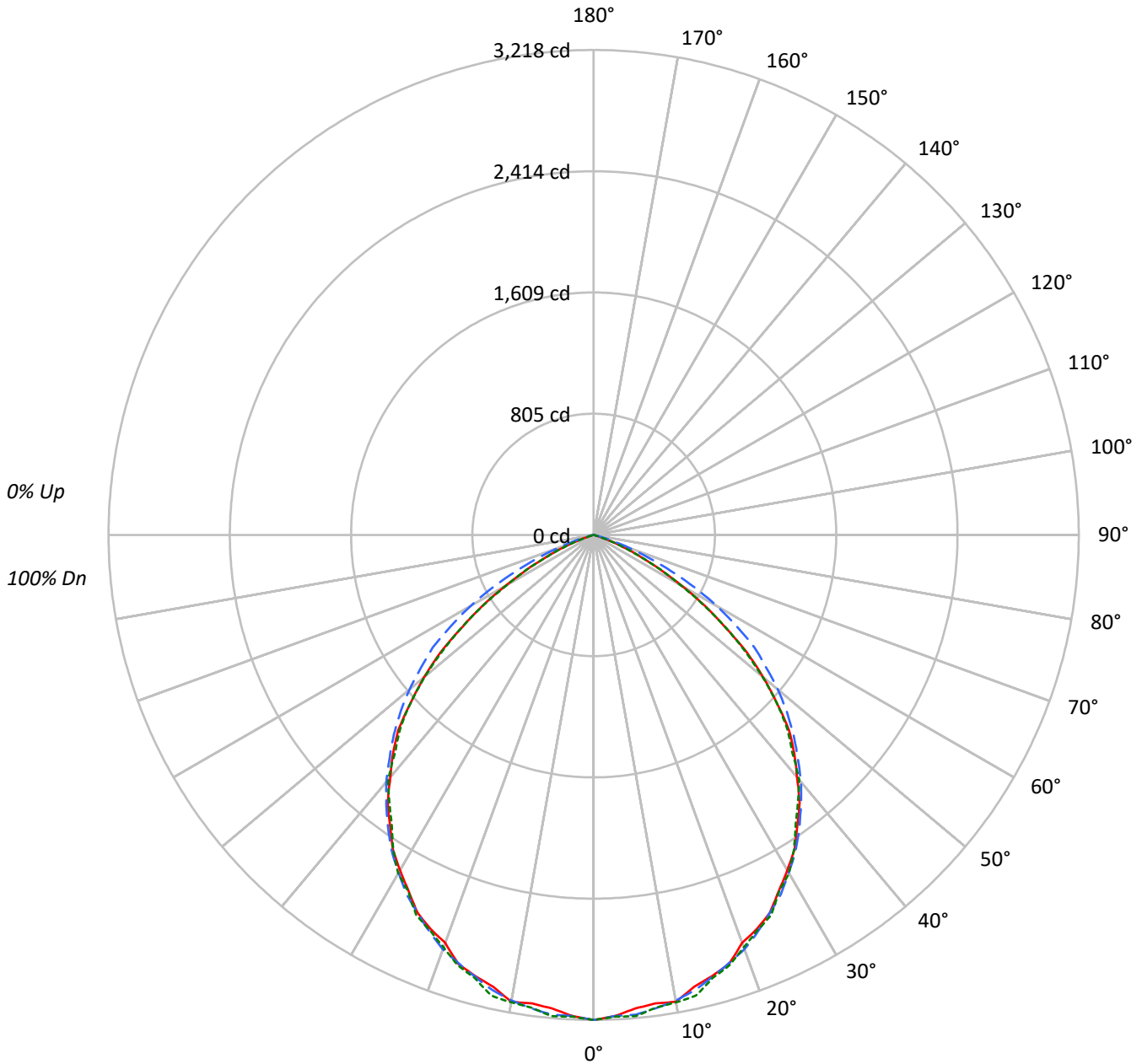
Lumens per Lamp: N/A
Luminaire Lumens: 6875.0 lumens
Efficiency: N/A
Efficacy: 88.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	310540	310540	310540
5°	305527	309508	310389
10°	308168	307267	308609
15°	302765	303214	304133
20°	295733	300425	299018
25°	294447	294447	296395
30°	286238	288277	288801
35°	277316	280013	275160
40°	264296	269473	267168
45°	250137	255759	247640
50°	220287	239501	218921
55°	178418	219161	179191
60°	130549	181727	127925
65°	79338	129407	77238
70°	30948	69654	29678
75°	3393	18789	3393
80°	2612	2612	2612
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	303.8	4.4
10°-20°	859.6	12.5
20°-30°	1275.5	18.6
30°-40°	1478.0	21.5
40°-50°	1417.0	20.6
50°-60°	1041.9	15.2
60°-70°	450.0	6.5
70°-80°	48.6	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°	2438.9	35.5
0°-40°	3916.9	57.0
0°-60°	6375.8	92.7
0°-90°	6875.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6875.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3218	3218	3218	3218	3218	
5°	3154	3186	3196	3200	3205	301
15°	3031	3049	3035	3040	3045	854
25°	2766	2761	2766	2770	2784	1266
35°	2354	2368	2377	2372	2336	1472
45°	1833	1838	1874	1847	1815	1393
55°	1061	1170	1303	1166	1065	954
65°	348	434	567	430	338	357
75°	9	14	50	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°	3218.4	3218.4	3218.4	3218.4	3218.4	3218.4	3218.4	3218.4	3218.4	3218.4	3218.4
2.5°	3195.5	3232.0	3236.7	3213.7	3204.6	3191.0	3222.9	3200.1	3209.3	3200.1	3195.5
5°	3154.4	3195.5	3200.1	3200.1	3191.0	3186.3	3200.1	3195.5	3191.0	3181.8	3195.5
7.5°	3136.1	3158.9	3181.8	3154.4	3168.0	3163.6	3195.5	3181.8	3177.2	3177.2	3168.0
10°	3145.3	3140.6	3158.9	3131.5	3140.6	3131.5	3158.9	3158.9	3149.8	3140.6	3136.1
12.5°	3072.0	3108.5	3108.5	3104.1	3094.9	3081.1	3108.5	3127.0	3099.4	3099.4	3094.9
15°	3030.9	3040.1	3044.6	3044.6	3040.1	3049.2	3062.8	3044.6	3049.2	3026.3	3035.4
17.5°	2985.3	2967.0	2980.6	2971.5	2976.1	2985.3	3003.5	3003.5	2976.1	2971.5	2980.6
20°	2880.1	2934.9	2939.6	2912.1	2916.6	2916.6	2948.7	2921.3	2939.6	2916.6	2925.8
22.5°	2829.7	2866.3	2870.9	2834.4	2857.1	2829.7	2861.8	2820.6	2866.3	2834.4	2848.0
25°	2765.7	2761.2	2774.9	2756.6	2761.2	2761.2	2784.0	2765.7	2779.5	2761.2	2765.7
27.5°	2660.7	2697.3	2692.6	2674.3	2683.5	2679.0	2724.7	2674.3	2701.7	2679.0	2688.1
30°	2569.1	2601.2	2592.1	2573.8	2573.8	2560.0	2610.3	2596.5	2592.1	2592.1	2587.4
32.5°	2477.7	2482.4	2473.3	2477.7	2482.4	2464.1	2505.2	2486.9	2482.4	2486.9	2491.5
35°	2354.3	2354.3	2363.4	2349.8	2368.1	2368.1	2404.6	2381.7	2377.2	2363.4	2377.2
37.5°	2244.6	2231.0	2235.4	2235.4	2244.6	2253.7	2272.0	2262.9	2262.9	2249.2	2258.4
40°	2098.3	2089.2	2102.8	2102.8	2116.6	2116.6	2134.9	2125.8	2139.4	2139.4	2139.4
42.5°	1970.4	1970.4	1961.3	1974.9	1979.5	1974.9	2007.0	2002.3	2007.0	1997.8	2002.3
45°	1833.1	1833.1	1824.0	1819.5	1842.3	1837.8	1874.3	1860.5	1878.8	1869.7	1874.3
47.5°	1645.7	1668.6	1654.8	1668.6	1696.0	1700.7	1723.4	1714.3	1732.6	1719.0	1737.2
50°	1467.5	1467.5	1481.2	1499.4	1526.9	1531.5	1558.9	1577.2	1586.4	1590.8	1595.5
52.5°	1280.1	1275.4	1289.2	1312.0	1334.9	1353.2	1380.6	1408.0	1426.3	1453.7	1439.9
55°	1060.6	1069.7	1083.5	1110.9	1147.5	1170.2	1193.2	1229.7	1261.8	1275.4	1302.8
57.5°	873.1	864.0	873.1	909.7	950.9	969.2	1001.2	1037.8	1083.5	1110.9	1120.1
60°	676.5	681.2	690.3	722.4	754.3	781.7	795.5	854.8	896.0	923.5	941.7
62.5°	498.4	507.5	516.7	544.1	576.0	598.9	621.7	672.0	708.6	736.0	754.3
65°	347.5	352.0	365.8	379.4	411.5	434.2	452.5	493.7	530.3	553.2	566.8
67.5°	214.9	219.4	228.5	246.9	269.7	288.0	306.3	333.7	365.8	388.5	393.2
70°	109.7	114.3	118.8	132.6	150.9	160.0	173.7	196.6	219.4	237.6	246.9
72.5°	36.6	36.6	41.2	50.4	59.5	68.6	73.1	96.1	114.3	123.5	128.0
75°	9.1	9.1	9.1	9.1	9.1	13.8	13.8	27.4	36.6	45.7	50.4
77.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	9.1	9.1
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°	3218.4	3218.4	3218.4	3218.4	3218.4	3218.4	3218.4	3218.4	3218.4	3218.4
2.5°	3218.4	3209.3	3204.6	3209.3	3209.3	3204.6	3218.4	3236.7	3259.4	3200.1
5°	3213.7	3204.6	3213.7	3186.3	3200.1	3191.0	3209.3	3204.6	3222.9	3204.6
7.5°	3200.1	3181.8	3186.3	3172.7	3191.0	3168.0	3181.8	3209.3	3191.0	3163.6
10°	3154.4	3145.3	3177.2	3131.5	3122.3	3140.6	3177.2	3149.8	3140.6	3149.8
12.5°	3108.5	3108.5	3122.3	3085.8	3090.3	3099.4	3117.7	3099.4	3108.5	3131.5
15°	3058.4	3049.2	3072.0	3044.6	3040.1	3030.9	3049.2	3049.2	3058.4	3044.6
17.5°	2998.9	2985.3	2985.3	2976.1	2971.5	2994.4	3003.5	3008.0	3012.7	2994.4
20°	2925.8	2921.3	2934.9	2921.3	2925.8	2930.4	2930.4	2921.3	2962.3	2912.1
22.5°	2848.0	2861.8	2843.5	2834.4	2843.5	2852.6	2852.6	2857.1	2848.0	2838.8
25°	2770.4	2779.5	2784.0	2756.6	2770.4	2756.6	2788.7	2793.1	2774.9	2784.0
27.5°	2701.7	2688.1	2683.5	2665.2	2674.3	2669.8	2674.3	2674.3	2701.7	2665.2
30°	2596.5	2582.9	2587.4	2573.8	2578.3	2573.8	2578.3	2578.3	2596.5	2592.1
32.5°	2496.0	2482.4	2486.9	2473.3	2473.3	2477.7	2468.6	2468.6	2482.4	2473.3
35°	2400.0	2368.1	2372.5	2368.1	2372.5	2354.3	2354.3	2349.8	2358.9	2336.0
37.5°	2262.9	2249.2	2244.6	2240.1	2244.6	2235.4	2244.6	2231.0	2244.6	2226.3
40°	2139.4	2130.2	2134.9	2107.5	2107.5	2112.0	2102.8	2098.3	2102.8	2121.1
42.5°	2016.1	1997.8	1988.7	1979.5	1984.0	1970.4	1965.7	1956.6	1965.7	1947.5
45°	1869.7	1869.7	1865.2	1842.3	1846.9	1846.9	1828.6	1810.4	1814.8	1814.8
47.5°	1737.2	1728.1	1723.4	1700.7	1696.0	1691.5	1673.1	1659.5	1659.5	1645.7
50°	1590.8	1581.7	1568.1	1545.1	1536.0	1508.6	1495.0	1476.7	1458.4	1458.4
52.5°	1453.7	1421.7	1403.4	1366.8	1353.2	1339.4	1302.8	1289.2	1275.4	1261.8
55°	1289.2	1261.8	1225.2	1184.0	1165.7	1142.8	1106.3	1078.8	1060.6	1065.2
57.5°	1129.2	1083.5	1046.9	992.1	969.2	955.4	918.8	882.2	864.0	864.0
60°	932.6	896.0	850.3	800.0	781.7	758.9	713.1	690.3	676.5	662.9
62.5°	745.1	717.7	676.5	612.5	598.9	576.0	544.1	516.7	502.9	502.9
65°	557.7	530.3	493.7	448.0	429.7	411.5	384.0	356.6	342.8	338.3
67.5°	393.2	361.1	329.2	292.6	278.8	269.7	242.3	224.0	214.9	210.2
70°	237.6	219.4	196.6	169.2	155.4	146.2	128.0	114.3	109.7	105.2
72.5°	123.5	109.7	91.4	73.1	64.0	54.8	45.7	36.6	32.1	32.1
75°	45.7	36.6	22.9	13.8	9.1	9.1	9.1	9.1	9.1	9.1
77.5°	9.1	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)