

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 EX4C709040 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 EX4C709040 4LBCSSQMW
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 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: 6982.0 lumens
Efficiency: N/A
Efficacy: 89.5 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



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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°	315374	315374	315374
5°	310283	314322	315223
10°	312959	312058	313410
15°	307480	307939	308868
20°	300333	305097	303680
25°	299035	299035	301005
30°	290695	292767	293291
35°	281627	284371	279436
40°	268415	273667	271325
45°	254040	259744	251502
50°	223724	243223	222328
55°	181193	222576	181984
60°	132576	184564	129913
65°	80571	131439	78448
70°	31428	70754	30130
75°	3467	19050	3467
80°	2612	2612	2612
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	308.5	4.4
10°-20°	873.0	12.5
20°-30°	1295.4	18.6
30°-40°	1500.9	21.5
40°-50°	1439.1	20.6
50°-60°	1058.1	15.2
60°-70°	457.0	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°	2476.9	35.5
0°-40°	3977.8	57.0
0°-60°	6475.0	92.7
0°-90°	6982.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6982.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3268	3268	3268	3268	3268	
5°	3204	3236	3245	3250	3254	306
15°	3078	3097	3083	3087	3092	868
25°	2809	2804	2809	2814	2827	1286
35°	2391	2405	2414	2410	2372	1495
45°	1862	1866	1904	1876	1843	1415
55°	1077	1188	1323	1184	1082	969
65°	353	441	576	436	344	363
75°	9	14	51	9	9	29
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°	3268.5	3268.5	3268.5	3268.5	3268.5	3268.5	3268.5	3268.5	3268.5	3268.5	3268.5
2.5°	3245.2	3282.3	3287.1	3263.8	3254.5	3240.6	3273.0	3249.9	3259.2	3249.9	3245.2
5°	3203.5	3245.2	3249.9	3249.9	3240.6	3235.9	3249.9	3245.2	3240.6	3231.4	3245.2
7.5°	3185.0	3208.1	3231.4	3203.5	3217.3	3212.8	3245.2	3231.4	3226.6	3226.6	3217.3
10°	3194.2	3189.5	3208.1	3180.2	3189.5	3180.2	3208.1	3208.1	3198.8	3189.5	3185.0
12.5°	3119.8	3156.9	3156.9	3152.4	3143.1	3129.1	3156.9	3175.7	3147.6	3147.6	3143.1
15°	3078.1	3087.4	3092.0	3092.0	3087.4	3096.7	3110.5	3092.0	3096.7	3073.4	3082.7
17.5°	3031.7	3013.1	3027.0	3017.7	3022.4	3031.7	3050.3	3050.3	3022.4	3017.7	3027.0
20°	2924.9	2980.6	2985.3	2957.5	2962.0	2962.0	2994.6	2966.7	2985.3	2962.0	2971.3
22.5°	2873.7	2910.9	2915.6	2878.5	2901.6	2873.7	2906.3	2864.5	2910.9	2878.5	2892.3
25°	2808.8	2804.2	2818.0	2799.5	2804.2	2804.2	2827.3	2808.8	2822.8	2804.2	2808.8
27.5°	2702.1	2739.2	2734.5	2715.9	2725.2	2720.7	2767.1	2715.9	2743.8	2720.7	2730.0
30°	2609.1	2641.7	2632.4	2613.8	2613.8	2599.8	2651.0	2637.0	2632.4	2632.4	2627.7
32.5°	2516.3	2521.0	2511.7	2516.3	2521.0	2502.5	2544.1	2525.6	2521.0	2525.6	2530.3
35°	2390.9	2390.9	2400.2	2386.3	2404.9	2404.9	2442.0	2418.7	2414.2	2400.2	2414.2
37.5°	2279.5	2265.7	2270.2	2270.2	2279.5	2288.8	2307.4	2298.1	2298.1	2284.2	2293.5
40°	2131.0	2121.7	2135.6	2135.6	2149.6	2149.6	2168.1	2158.9	2172.7	2172.7	2172.7
42.5°	2001.1	2001.1	1991.8	2005.6	2010.3	2005.6	2038.2	2033.5	2038.2	2028.9	2033.5
45°	1861.7	1861.7	1852.4	1847.8	1870.9	1866.4	1903.5	1889.5	1908.1	1898.8	1903.5
47.5°	1671.3	1694.6	1680.6	1694.6	1722.4	1727.2	1750.3	1741.0	1759.6	1745.7	1764.3
50°	1490.4	1490.4	1504.2	1522.8	1550.6	1555.3	1583.2	1601.8	1611.0	1615.6	1620.3
52.5°	1300.0	1295.3	1309.3	1332.4	1355.7	1374.3	1402.1	1430.0	1448.5	1476.4	1462.3
55°	1077.1	1086.3	1100.4	1128.2	1165.3	1188.4	1211.7	1248.9	1281.4	1295.3	1323.1
57.5°	886.7	877.4	886.7	923.8	965.7	984.2	1016.8	1053.9	1100.4	1128.2	1137.5
60°	687.0	691.8	701.1	733.6	766.0	793.9	807.9	868.1	910.0	937.8	956.4
62.5°	506.1	515.4	524.7	552.5	584.9	608.2	631.3	682.5	719.6	747.5	766.0
65°	352.9	357.4	371.5	385.3	417.9	441.0	459.5	501.4	538.5	561.8	575.7
67.5°	218.2	222.8	232.0	250.8	273.9	292.5	311.0	338.9	371.5	394.6	399.3
70°	111.4	116.1	120.7	134.7	153.2	162.5	176.4	199.7	222.8	241.3	250.8
72.5°	37.1	37.1	41.9	51.1	60.4	69.7	74.3	97.6	116.1	125.4	129.9
75°	9.3	9.3	9.3	9.3	9.3	14.0	14.0	27.8	37.1	46.4	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°	3268.5	3268.5	3268.5	3268.5	3268.5	3268.5	3268.5	3268.5	3268.5	3268.5
2.5°	3268.5	3259.2	3254.5	3259.2	3259.2	3254.5	3268.5	3287.1	3310.2	3249.9
5°	3263.8	3254.5	3263.8	3235.9	3249.9	3240.6	3259.2	3254.5	3273.0	3254.5
7.5°	3249.9	3231.4	3235.9	3222.1	3240.6	3217.3	3231.4	3259.2	3240.6	3212.8
10°	3203.5	3194.2	3226.6	3180.2	3170.9	3189.5	3226.6	3198.8	3189.5	3198.8
12.5°	3156.9	3156.9	3170.9	3133.8	3138.4	3147.6	3166.2	3147.6	3156.9	3180.2
15°	3106.0	3096.7	3119.8	3092.0	3087.4	3078.1	3096.7	3096.7	3106.0	3092.0
17.5°	3045.5	3031.7	3031.7	3022.4	3017.7	3041.0	3050.3	3054.8	3059.6	3041.0
20°	2971.3	2966.7	2980.6	2966.7	2971.3	2976.0	2976.0	2966.7	3008.4	2957.5
22.5°	2892.3	2906.3	2887.8	2878.5	2887.8	2897.0	2897.0	2901.6	2892.3	2883.0
25°	2813.5	2822.8	2827.3	2799.5	2813.5	2799.5	2832.1	2836.6	2818.0	2827.3
27.5°	2743.8	2730.0	2725.2	2706.7	2715.9	2711.4	2715.9	2715.9	2743.8	2706.7
30°	2637.0	2623.1	2627.7	2613.8	2618.4	2613.8	2618.4	2618.4	2637.0	2632.4
32.5°	2534.9	2521.0	2525.6	2511.7	2511.7	2516.3	2507.0	2507.0	2521.0	2511.7
35°	2437.3	2404.9	2409.5	2404.9	2409.5	2390.9	2390.9	2386.3	2395.6	2372.3
37.5°	2298.1	2284.2	2279.5	2275.0	2279.5	2270.2	2279.5	2265.7	2279.5	2261.0
40°	2172.7	2163.4	2168.1	2140.3	2140.3	2144.8	2135.6	2131.0	2135.6	2154.1
42.5°	2047.5	2028.9	2019.6	2010.3	2014.9	2001.1	1996.3	1987.0	1996.3	1977.8
45°	1898.8	1898.8	1894.2	1870.9	1875.7	1875.7	1857.1	1838.5	1843.1	1843.1
47.5°	1764.3	1755.0	1750.3	1727.2	1722.4	1717.9	1699.1	1685.3	1685.3	1671.3
50°	1615.6	1606.3	1592.5	1569.2	1559.9	1532.1	1518.2	1499.7	1481.1	1481.1
52.5°	1476.4	1443.8	1425.2	1388.1	1374.3	1360.2	1323.1	1309.3	1295.3	1281.4
55°	1309.3	1281.4	1244.3	1202.5	1183.9	1160.6	1123.5	1095.6	1077.1	1081.8
57.5°	1146.8	1100.4	1063.2	1007.5	984.2	970.2	933.1	896.0	877.4	877.4
60°	947.1	910.0	863.6	812.4	793.9	770.8	724.2	701.1	687.0	673.2
62.5°	756.7	728.9	687.0	622.1	608.2	584.9	552.5	524.7	510.7	510.7
65°	566.4	538.5	501.4	455.0	436.4	417.9	390.0	362.2	348.2	343.6
67.5°	399.3	366.7	334.3	297.2	283.2	273.9	246.1	227.5	218.2	213.5
70°	241.3	222.8	199.7	171.8	157.8	148.5	129.9	116.1	111.4	106.8
72.5°	125.4	111.4	92.8	74.3	65.0	55.7	46.4	37.1	32.6	32.6
75°	46.4	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)