

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: P840219

Luminaire Tested: **LD4C60D010 EU4609027 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: P840219
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 EU4609027 4LBCSSQMW
Description: 4 INCH 6000 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

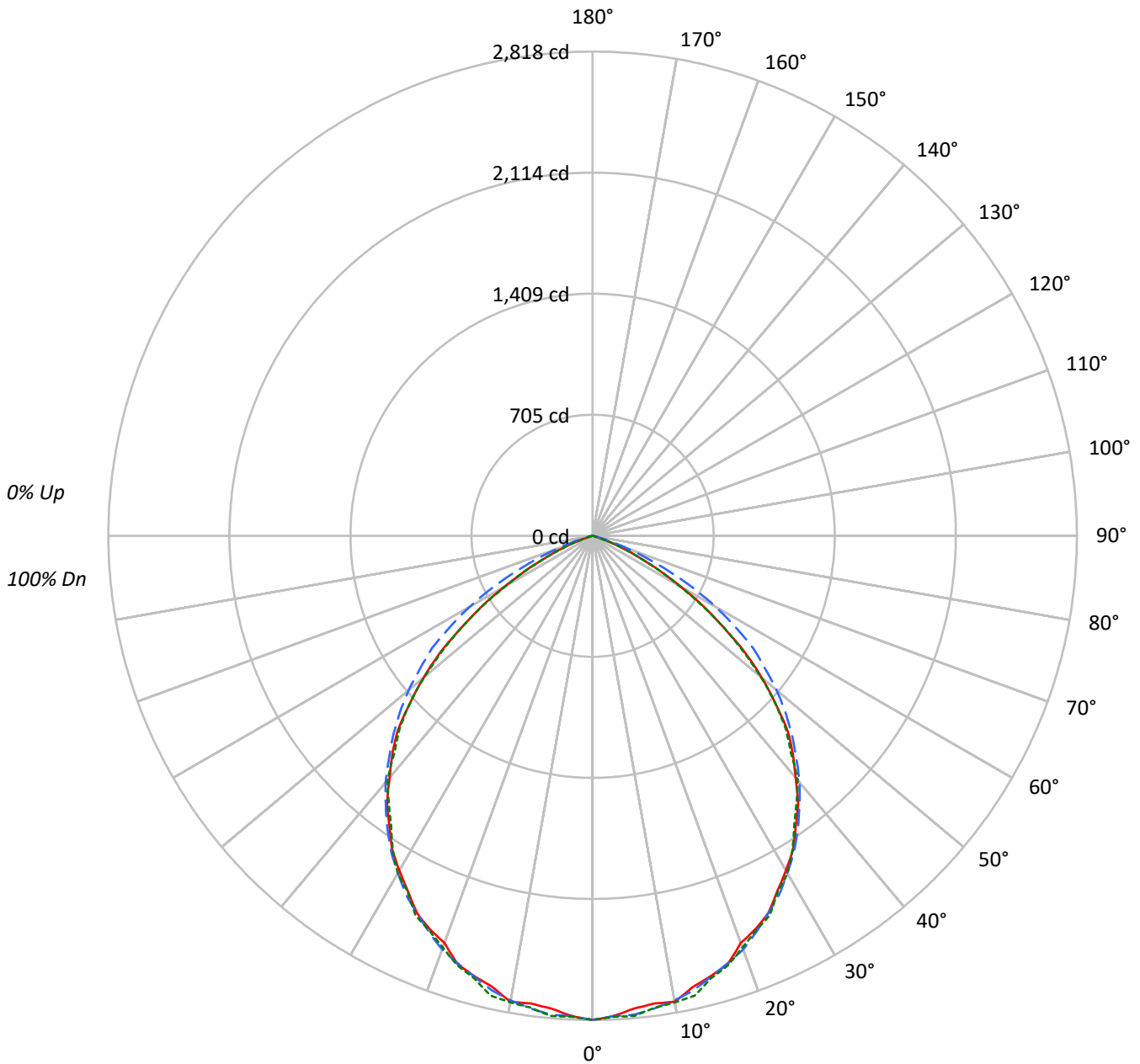
Lumens per Lamp: N/A
Luminaire Lumens: 6019.0 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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								
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°	271877	271877	271877
5°	267491	270968	271743
10°	269800	269017	270182
15°	265075	265465	266264
20°	258911	263018	261786
25°	257791	257791	259495
30°	250596	252390	252836
35°	242779	245147	240895
40°	231396	235918	233903
45°	218998	223924	216815
50°	192861	209674	191661
55°	156195	191875	156885
60°	114301	159110	112004
65°	69453	113311	67626
70°	27083	60993	25983
75°	2982	16441	2982
80°	2278	2278	2278
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.0	4.4
10°-20°	752.6	12.5
20°-30°	1116.7	18.6
30°-40°	1293.9	21.5
40°-50°	1240.6	20.6
50°-60°	912.2	15.2
60°-70°	394.0	6.5
70°-80°	42.5	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°	2135.3	35.5
0°-40°	3429.2	57.0
0°-60°	5582.0	92.7
0°-90°	6019.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6019.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2818	2818	2818	2818	2818	
5°	2762	2790	2798	2802	2806	263
15°	2654	2670	2658	2662	2666	748
25°	2421	2417	2421	2425	2437	1109
35°	2061	2073	2081	2077	2045	1289
45°	1605	1609	1641	1617	1589	1220
55°	928	1024	1141	1021	933	836
65°	304	380	496	376	296	313
75°	8	12	44	8	8	25
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°	2817.7	2817.7	2817.7	2817.7	2817.7	2817.7	2817.7	2817.7	2817.7	2817.7	2817.7
2.5°	2797.6	2829.6	2833.7	2813.6	2805.6	2793.7	2821.6	2801.7	2809.7	2801.7	2797.6
5°	2761.7	2797.6	2801.7	2801.7	2793.7	2789.6	2801.7	2797.6	2793.7	2785.7	2797.6
7.5°	2745.7	2765.6	2785.7	2761.7	2773.6	2769.7	2797.6	2785.7	2781.6	2781.6	2773.6
10°	2753.7	2749.6	2765.6	2741.6	2749.6	2741.6	2765.6	2765.6	2757.6	2749.6	2745.7
12.5°	2689.5	2721.5	2721.5	2717.6	2709.6	2697.5	2721.5	2737.7	2713.5	2713.5	2709.6
15°	2653.6	2661.6	2665.5	2665.5	2661.6	2669.6	2681.5	2665.5	2669.6	2649.5	2657.5
17.5°	2613.6	2597.6	2609.5	2601.5	2605.6	2613.6	2629.6	2629.6	2605.6	2601.5	2609.5
20°	2521.5	2569.5	2573.6	2549.5	2553.5	2553.5	2581.6	2557.5	2573.6	2553.5	2561.5
22.5°	2477.4	2509.4	2513.5	2481.5	2501.4	2477.4	2505.5	2469.4	2509.4	2481.5	2493.4
25°	2421.4	2417.4	2429.4	2413.4	2417.4	2417.4	2437.4	2421.4	2433.4	2417.4	2421.4
27.5°	2329.4	2361.4	2357.3	2341.3	2349.3	2345.4	2385.4	2341.3	2365.4	2345.4	2353.4
30°	2249.2	2277.3	2269.3	2253.3	2253.3	2241.2	2285.3	2273.3	2269.3	2269.3	2265.3
32.5°	2169.2	2173.3	2165.3	2169.2	2173.3	2157.3	2193.2	2177.2	2173.3	2177.2	2181.3
35°	2061.1	2061.1	2069.1	2057.2	2073.2	2073.2	2105.2	2085.1	2081.2	2069.1	2081.2
37.5°	1965.1	1953.2	1957.1	1957.1	1965.1	1973.1	1989.1	1981.1	1981.1	1969.2	1977.2
40°	1837.1	1829.1	1841.0	1841.0	1853.1	1853.1	1869.1	1861.1	1873.0	1873.0	1873.0
42.5°	1725.1	1725.1	1717.1	1729.0	1733.1	1729.0	1757.1	1753.0	1757.1	1749.1	1753.0
45°	1604.9	1604.9	1596.9	1593.0	1612.9	1609.0	1641.0	1628.9	1644.9	1636.9	1641.0
47.5°	1440.8	1460.9	1448.8	1460.9	1484.9	1488.9	1508.9	1500.9	1516.9	1504.9	1520.9
50°	1284.8	1284.8	1296.7	1312.7	1336.7	1340.8	1364.8	1380.8	1388.8	1392.8	1396.8
52.5°	1120.7	1116.6	1128.7	1148.6	1168.7	1184.7	1208.7	1232.7	1248.7	1272.7	1260.7
55°	928.5	936.5	948.6	972.6	1004.6	1024.5	1044.6	1076.6	1104.7	1116.6	1140.6
57.5°	764.4	756.4	764.4	796.4	832.5	848.5	876.6	908.6	948.6	972.6	980.6
60°	592.3	596.4	604.4	632.4	660.4	684.4	696.5	748.4	784.5	808.5	824.5
62.5°	436.3	444.3	452.3	476.3	504.3	524.3	544.3	588.4	620.4	644.4	660.4
65°	304.2	308.1	320.2	332.1	360.2	380.2	396.2	432.2	464.3	484.3	496.3
67.5°	188.1	192.0	200.0	216.2	236.1	252.1	268.1	292.1	320.2	340.1	344.2
70°	96.0	100.1	104.0	116.1	132.1	140.1	152.0	172.1	192.0	208.0	216.2
72.5°	32.0	32.0	36.1	44.1	52.1	60.1	64.0	84.1	100.1	108.1	112.0
75°	8.0	8.0	8.0	8.0	8.0	12.1	12.1	24.0	32.0	40.0	44.1
77.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	8.0	8.0
80°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
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°	2817.7	2817.7	2817.7	2817.7	2817.7	2817.7	2817.7	2817.7	2817.7	2817.7
2.5°	2817.7	2809.7	2805.6	2809.7	2809.7	2805.6	2817.7	2833.7	2853.6	2801.7
5°	2813.6	2805.6	2813.6	2789.6	2801.7	2793.7	2809.7	2805.6	2821.6	2805.6
7.5°	2801.7	2785.7	2789.6	2777.7	2793.7	2773.6	2785.7	2809.7	2793.7	2769.7
10°	2761.7	2753.7	2781.6	2741.6	2733.6	2749.6	2781.6	2757.6	2749.6	2757.6
12.5°	2721.5	2721.5	2733.6	2701.6	2705.5	2713.5	2729.5	2713.5	2721.5	2741.6
15°	2677.6	2669.6	2689.5	2665.5	2661.6	2653.6	2669.6	2669.6	2677.6	2665.5
17.5°	2625.5	2613.6	2613.6	2605.6	2601.5	2621.6	2629.6	2633.5	2637.6	2621.6
20°	2561.5	2557.5	2569.5	2557.5	2561.5	2565.5	2565.5	2557.5	2593.5	2549.5
22.5°	2493.4	2505.5	2489.5	2481.5	2489.5	2497.5	2497.5	2501.4	2493.4	2485.4
25°	2425.4	2433.4	2437.4	2413.4	2425.4	2413.4	2441.4	2445.4	2429.4	2437.4
27.5°	2365.4	2353.4	2349.3	2333.3	2341.3	2337.4	2341.3	2341.3	2365.4	2333.3
30°	2273.3	2261.3	2265.3	2253.3	2257.3	2253.3	2257.3	2257.3	2273.3	2269.3
32.5°	2185.2	2173.3	2177.2	2165.3	2165.3	2169.2	2161.2	2161.2	2173.3	2165.3
35°	2101.1	2073.2	2077.1	2073.2	2077.1	2061.1	2061.1	2057.2	2065.2	2045.1
37.5°	1981.1	1969.2	1965.1	1961.2	1965.1	1957.1	1965.1	1953.2	1965.1	1949.1
40°	1873.0	1865.0	1869.1	1845.1	1845.1	1849.0	1841.0	1837.1	1841.0	1857.0
42.5°	1765.1	1749.1	1741.1	1733.1	1737.0	1725.1	1721.0	1713.0	1721.0	1705.0
45°	1636.9	1636.9	1633.0	1612.9	1617.0	1617.0	1601.0	1585.0	1588.9	1588.9
47.5°	1520.9	1512.9	1508.9	1488.9	1484.9	1480.9	1464.8	1452.8	1452.8	1440.8
50°	1392.8	1384.8	1372.8	1352.7	1344.7	1320.7	1308.8	1292.8	1276.8	1276.8
52.5°	1272.7	1244.6	1228.6	1196.6	1184.7	1172.6	1140.6	1128.7	1116.6	1104.7
55°	1128.7	1104.7	1072.7	1036.6	1020.6	1000.5	968.5	944.5	928.5	932.6
57.5°	988.6	948.6	916.6	868.6	848.5	836.4	804.4	772.4	756.4	756.4
60°	816.5	784.5	744.5	700.4	684.4	664.5	624.3	604.4	592.3	580.4
62.5°	652.4	628.4	592.3	536.3	524.3	504.3	476.3	452.3	440.2	440.2
65°	488.3	464.3	432.2	392.2	376.2	360.2	336.2	312.2	300.1	296.2
67.5°	344.2	316.1	288.2	256.2	244.1	236.1	212.1	196.1	188.1	184.0
70°	208.0	192.0	172.1	148.1	136.0	128.0	112.0	100.1	96.0	92.1
72.5°	108.1	96.0	80.0	64.0	56.0	48.0	40.0	32.0	28.1	28.1
75°	40.0	32.0	20.1	12.1	8.0	8.0	8.0	8.0	8.0	8.0
77.5°	8.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
80°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
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)