

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: P840221

Luminaire Tested: **LD4C60D010 EU4609030 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: P840221
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 EU4609030 4LBCSSQMW
Description: 4 INCH 6000 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

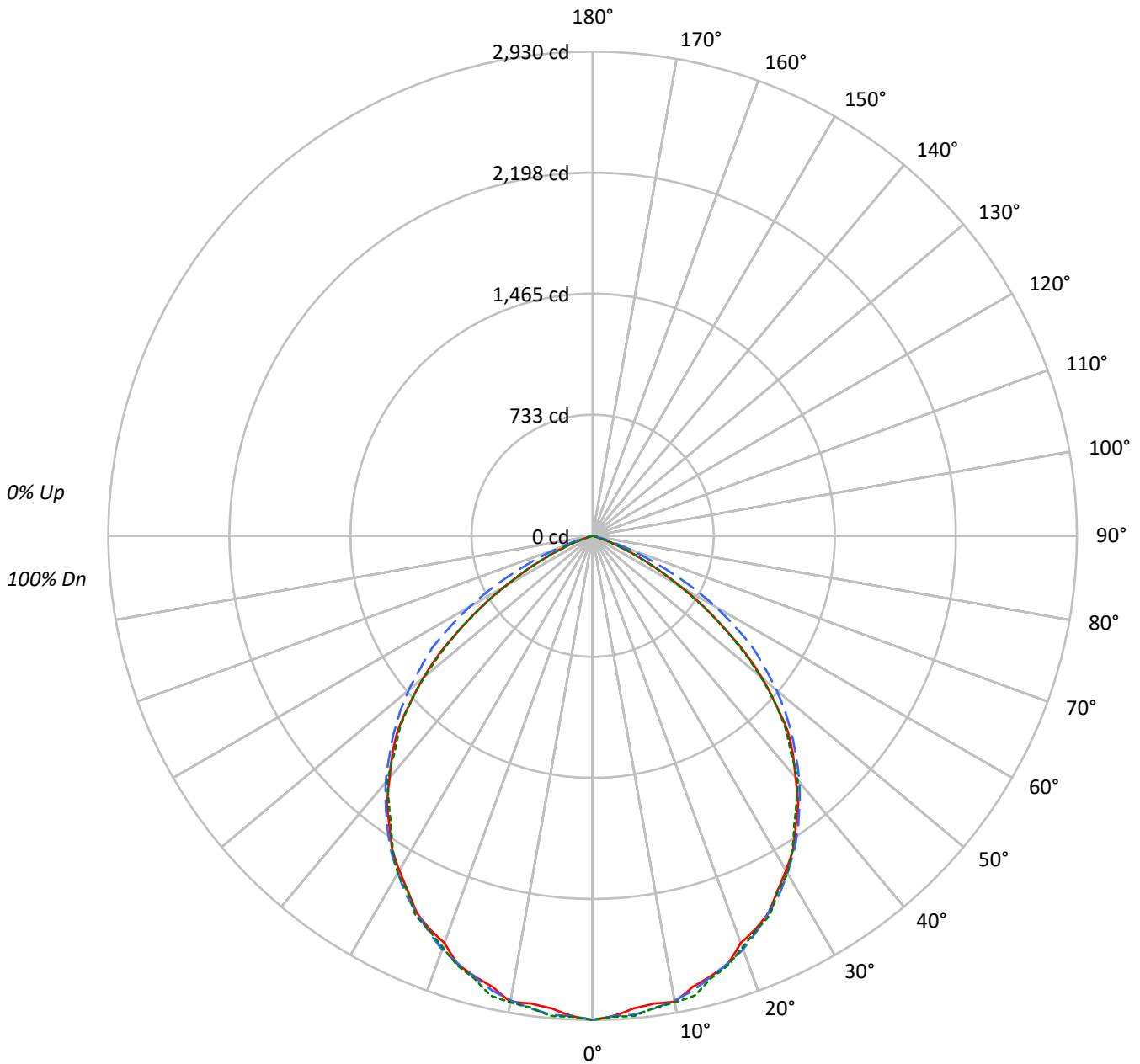
Lumens per Lamp: N/A
Luminaire Lumens: 6258.0 lumens
Efficiency: N/A
Efficacy: 86.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P840221

CATALOG NUMBER: LD4C60D010 EU4609030 4LBCSSQMW

Luminous Intensity Polar Plot





TEST NUMBER: P840221

CATALOG NUMBER: LD4C60D010 EU4609030 4LBCSSQMW

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°	282674	282674	282674
5°	278107	281729	282533
10°	280509	279696	280911
15°	275594	276003	276833
20°	269189	273461	272188
25°	268022	268022	269790
30°	260557	262406	262874
35°	252427	254888	250459
40°	240578	245289	243186
45°	227690	232807	225425
50°	200517	218005	199271
55°	162403	199496	163109
60°	118836	165421	116443
65°	72215	117809	70320
70°	28155	63419	27027
75°	3094	17074	3094
80°	2334	2334	2334
85°	0	0	0



TEST NUMBER: P840221

CATALOG NUMBER: LD4C60D010 EU4609030 4LBCSSQMW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.5	4.4
10°-20°	782.5	12.5
20°-30°	1161.0	18.6
30°-40°	1345.3	21.5
40°-50°	1289.9	20.6
50°-60°	948.4	15.2
60°-70°	409.6	6.5
70°-80°	44.2	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°	2220.1	35.5
0°-40°	3565.4	57.0
0°-60°	5803.6	92.7
0°-90°	6258.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6258.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2930	2930	2930	2930	2930	
5°	2871	2900	2909	2913	2917	274
15°	2759	2776	2763	2767	2771	778
25°	2518	2513	2518	2522	2534	1153
35°	2143	2156	2164	2160	2126	1340
45°	1669	1673	1706	1681	1652	1268
55°	965	1065	1186	1061	970	869
65°	316	395	516	391	308	325
75°	8	13	46	8	8	26
85°	0	0	0	0	0	1
90°	0	0	0	0	0	



TEST NUMBER: P840221

CATALOG NUMBER: LD4C60D010 EU4609030 4LBCSSQMW

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2929.6	2929.6	2929.6	2929.6	2929.6	2929.6	2929.6	2929.6	2929.6	2929.6	2929.6
2.5°	2908.7	2942.0	2946.2	2925.3	2917.0	2904.6	2933.6	2912.9	2921.2	2912.9	2908.7
5°	2871.3	2908.7	2912.9	2912.9	2904.6	2900.4	2912.9	2908.7	2904.6	2896.3	2908.7
7.5°	2854.7	2875.4	2896.3	2871.3	2883.7	2879.6	2908.7	2896.3	2892.0	2892.0	2883.7
10°	2863.0	2858.8	2875.4	2850.4	2858.8	2850.4	2875.4	2875.4	2867.1	2858.8	2854.7
12.5°	2796.3	2829.6	2829.6	2825.5	2817.2	2804.6	2829.6	2846.4	2821.2	2821.2	2817.2
15°	2758.9	2767.3	2771.3	2771.3	2767.3	2775.6	2788.0	2771.3	2775.6	2754.7	2763.0
17.5°	2717.3	2700.7	2713.1	2704.8	2709.0	2717.3	2734.0	2734.0	2709.0	2704.8	2713.1
20°	2621.6	2671.5	2675.7	2650.8	2654.9	2654.9	2684.1	2659.1	2675.7	2654.9	2663.2
22.5°	2575.7	2609.0	2613.3	2580.0	2600.7	2575.7	2604.9	2567.4	2609.0	2580.0	2592.4
25°	2517.5	2513.4	2525.8	2509.2	2513.4	2513.4	2534.1	2517.5	2530.1	2513.4	2517.5
27.5°	2421.9	2455.2	2451.0	2434.3	2442.6	2438.6	2480.2	2434.3	2459.3	2438.6	2446.9
30°	2338.6	2367.8	2359.4	2342.8	2342.8	2330.2	2376.1	2363.5	2359.4	2359.4	2355.2
32.5°	2255.4	2259.6	2251.3	2255.4	2259.6	2243.0	2280.3	2263.7	2259.6	2263.7	2267.9
35°	2143.0	2143.0	2151.3	2138.9	2155.5	2155.5	2188.8	2167.9	2163.9	2151.3	2163.9
37.5°	2043.1	2030.7	2034.8	2034.8	2043.1	2051.5	2068.1	2059.8	2059.8	2047.4	2055.7
40°	1910.0	1901.7	1914.1	1914.1	1926.7	1926.7	1943.3	1935.0	1947.4	1947.4	1947.4
42.5°	1793.6	1793.6	1785.2	1797.6	1801.9	1797.6	1826.8	1822.6	1826.8	1818.5	1822.6
45°	1668.6	1668.6	1660.3	1656.2	1676.9	1672.8	1706.1	1693.6	1710.2	1701.9	1706.1
47.5°	1498.0	1518.9	1506.3	1518.9	1543.8	1548.1	1568.8	1560.5	1577.1	1564.7	1581.3
50°	1335.8	1335.8	1348.2	1364.9	1389.8	1394.1	1419.0	1435.7	1444.0	1448.1	1452.3
52.5°	1165.2	1161.0	1173.5	1194.2	1215.1	1231.8	1256.7	1281.7	1298.3	1323.3	1310.7
55°	965.4	973.7	986.3	1011.2	1044.5	1065.2	1086.1	1119.4	1148.6	1161.0	1185.9
57.5°	794.7	786.4	794.7	828.0	865.5	882.2	911.4	944.7	986.3	1011.2	1019.5
60°	615.8	620.0	628.4	657.6	686.6	711.6	724.1	778.1	815.6	840.6	857.2
62.5°	453.7	462.0	470.3	495.2	524.3	545.2	565.9	611.7	645.0	670.0	686.6
65°	316.3	320.4	332.9	345.3	374.5	395.3	411.9	449.4	482.7	503.6	516.0
67.5°	195.6	199.7	208.0	224.8	245.5	262.1	278.8	303.7	332.9	353.7	357.9
70°	99.8	104.1	108.2	120.7	137.4	145.7	158.1	178.9	199.7	216.3	224.8
72.5°	33.3	33.3	37.5	45.8	54.2	62.5	66.6	87.4	104.1	112.4	116.5
75°	8.3	8.3	8.3	8.3	8.3	12.6	12.6	25.0	33.3	41.6	45.8
77.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	8.3	8.3
80°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
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: P840221

CATALOG NUMBER: LD4C60D010 EU4609030 4LBCSSQMW

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	2929.6	2929.6	2929.6	2929.6	2929.6	2929.6	2929.6	2929.6	2929.6	2929.6
2.5°	2929.6	2921.2	2917.0	2921.2	2921.2	2917.0	2929.6	2946.2	2966.9	2912.9
5°	2925.3	2917.0	2925.3	2900.4	2912.9	2904.6	2921.2	2917.0	2933.6	2917.0
7.5°	2912.9	2896.3	2900.4	2888.0	2904.6	2883.7	2896.3	2921.2	2904.6	2879.6
10°	2871.3	2863.0	2892.0	2850.4	2842.1	2858.8	2892.0	2867.1	2858.8	2867.1
12.5°	2829.6	2829.6	2842.1	2808.9	2812.9	2821.2	2837.9	2821.2	2829.6	2850.4
15°	2783.9	2775.6	2796.3	2771.3	2767.3	2758.9	2775.6	2775.6	2783.9	2771.3
17.5°	2729.7	2717.3	2717.3	2709.0	2704.8	2725.7	2734.0	2738.1	2742.3	2725.7
20°	2663.2	2659.1	2671.5	2659.1	2663.2	2667.4	2667.4	2659.1	2696.5	2650.8
22.5°	2592.4	2604.9	2588.3	2580.0	2588.3	2596.6	2596.6	2600.7	2592.4	2584.1
25°	2521.8	2530.1	2534.1	2509.2	2521.8	2509.2	2538.4	2542.5	2525.8	2534.1
27.5°	2459.3	2446.9	2442.6	2426.0	2434.3	2430.2	2434.3	2434.3	2459.3	2426.0
30°	2363.5	2351.1	2355.2	2342.8	2346.9	2342.8	2346.9	2346.9	2363.5	2359.4
32.5°	2272.0	2259.6	2263.7	2251.3	2251.3	2255.4	2247.0	2247.0	2259.6	2251.3
35°	2184.6	2155.5	2159.6	2155.5	2159.6	2143.0	2143.0	2138.9	2147.2	2126.3
37.5°	2059.8	2047.4	2043.1	2039.1	2043.1	2034.8	2043.1	2030.7	2043.1	2026.5
40°	1947.4	1939.1	1943.3	1918.4	1918.4	1922.4	1914.1	1910.0	1914.1	1930.7
42.5°	1835.2	1818.5	1810.2	1801.9	1806.0	1793.6	1789.3	1781.0	1789.3	1772.7
45°	1701.9	1701.9	1697.8	1676.9	1681.2	1681.2	1664.5	1647.9	1652.0	1652.0
47.5°	1581.3	1573.0	1568.8	1548.1	1543.8	1539.7	1522.9	1510.5	1510.5	1498.0
50°	1448.1	1439.7	1427.3	1406.5	1398.1	1373.2	1360.8	1344.2	1327.5	1327.5
52.5°	1323.3	1294.1	1277.4	1244.2	1231.8	1219.2	1185.9	1173.5	1161.0	1148.6
55°	1173.5	1148.6	1115.3	1077.8	1061.1	1040.2	1007.0	982.0	965.4	969.6
57.5°	1027.9	986.3	953.0	903.1	882.2	869.6	836.3	803.1	786.4	786.4
60°	848.9	815.6	774.0	728.2	711.6	690.8	649.1	628.4	615.8	603.4
62.5°	678.3	653.3	615.8	557.6	545.2	524.3	495.2	470.3	457.7	457.7
65°	507.6	482.7	449.4	407.8	391.2	374.5	349.6	324.6	312.1	308.0
67.5°	357.9	328.7	299.7	266.4	253.8	245.5	220.5	203.9	195.6	191.3
70°	216.3	199.7	178.9	154.0	141.4	133.1	116.5	104.1	99.8	95.8
72.5°	112.4	99.8	83.2	66.6	58.2	49.9	41.6	33.3	29.2	29.2
75°	41.6	33.3	20.9	12.6	8.3	8.3	8.3	8.3	8.3	8.3
77.5°	8.3	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
80°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
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)