

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: P840227

Luminaire Tested: **LD4C60D010 EU4609050 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: P840227
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 EU4609050 4LBCSSQMW
Description: 4 INCH 6000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

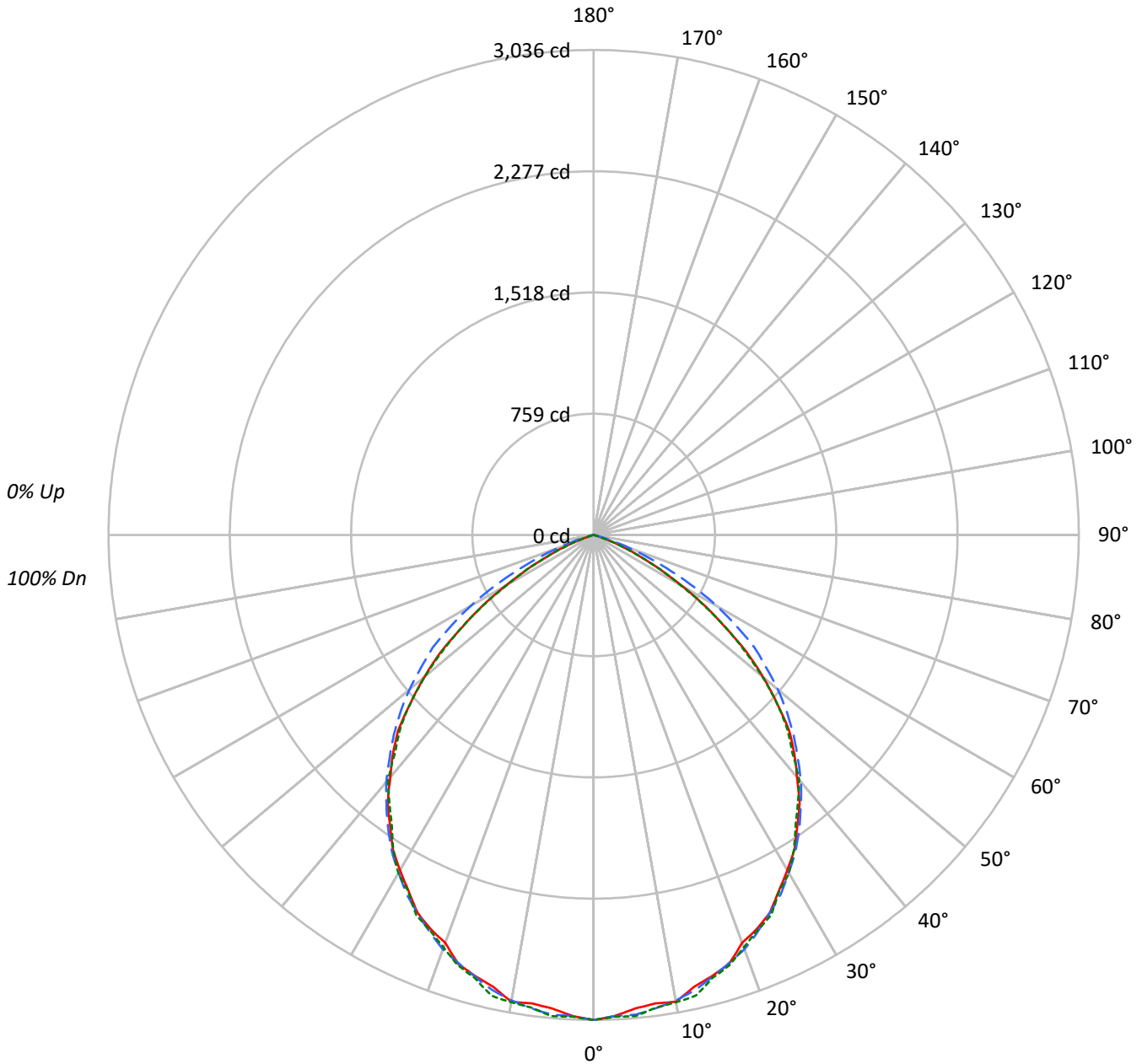
Lumens per Lamp: N/A
Luminaire Lumens: 6486.0 lumens
Efficiency: N/A
Efficacy: 90.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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
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°	292969	292969	292969
5°	288238	291996	292829
10°	290728	289886	291140
15°	285643	286063	286922
20°	278995	283421	282107
25°	277785	277785	279627
30°	270050	271966	272456
35°	261614	264170	259588
40°	249345	254220	252053
45°	235987	241295	233640
50°	207827	225946	206536
55°	168307	206763	169048
60°	123158	171461	120688
65°	74841	122101	72877
70°	29199	65733	27986
75°	3206	17708	3206
80°	2445	2445	2445
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.6	4.4
10°-20°	811.0	12.5
20°-30°	1203.3	18.6
30°-40°	1394.3	21.5
40°-50°	1336.8	20.6
50°-60°	982.9	15.2
60°-70°	424.5	6.5
70°-80°	45.8	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°	2300.9	35.5
0°-40°	3695.3	57.0
0°-60°	6015.0	92.7
0°-90°	6486.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6486.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3036	3036	3036	3036	3036	
5°	2976	3006	3015	3019	3023	284
15°	2860	2877	2864	2868	2872	806
25°	2609	2605	2609	2614	2626	1195
35°	2221	2234	2243	2238	2204	1389
45°	1729	1734	1768	1742	1712	1315
55°	1000	1104	1229	1100	1005	900
65°	328	410	535	405	319	337
75°	9	13	48	9	9	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°	3036.3	3036.3	3036.3	3036.3	3036.3	3036.3	3036.3	3036.3	3036.3	3036.3	3036.3
2.5°	3014.7	3049.1	3053.5	3031.9	3023.3	3010.4	3040.5	3019.1	3027.7	3019.1	3014.7
5°	2975.9	3014.7	3019.1	3019.1	3010.4	3006.0	3019.1	3014.7	3010.4	3001.8	3014.7
7.5°	2958.7	2980.2	3001.8	2975.9	2988.8	2984.6	3014.7	3001.8	2997.4	2997.4	2988.8
10°	2967.3	2962.9	2980.2	2954.3	2962.9	2954.3	2980.2	2980.2	2971.5	2962.9	2958.7
12.5°	2898.2	2932.7	2932.7	2928.4	2919.8	2906.8	2932.7	2950.1	2924.0	2924.0	2919.8
15°	2859.5	2868.1	2872.3	2872.3	2868.1	2876.7	2889.5	2872.3	2876.7	2855.1	2863.7
17.5°	2816.3	2799.1	2811.9	2803.3	2807.7	2816.3	2833.6	2833.6	2807.7	2803.3	2811.9
20°	2717.1	2768.8	2773.2	2747.4	2751.6	2751.6	2781.8	2756.0	2773.2	2751.6	2760.2
22.5°	2669.6	2704.1	2708.5	2674.0	2695.5	2669.6	2699.9	2661.0	2704.1	2674.0	2686.8
25°	2609.2	2605.0	2617.9	2600.6	2605.0	2605.0	2626.5	2609.2	2622.2	2605.0	2609.2
27.5°	2510.2	2544.6	2540.3	2523.0	2531.6	2527.4	2570.5	2523.0	2548.9	2527.4	2536.0
30°	2423.8	2454.0	2445.4	2428.2	2428.2	2415.1	2462.6	2449.6	2445.4	2445.4	2441.0
32.5°	2337.5	2341.9	2333.3	2337.5	2341.9	2324.7	2363.4	2346.2	2341.9	2346.2	2350.6
35°	2221.0	2221.0	2229.7	2216.8	2234.1	2234.1	2268.6	2246.9	2242.7	2229.7	2242.7
37.5°	2117.6	2104.7	2109.0	2109.0	2117.6	2126.2	2143.4	2134.8	2134.8	2122.0	2130.6
40°	1979.6	1971.0	1983.8	1983.8	1996.9	1996.9	2014.1	2005.5	2018.3	2018.3	2018.3
42.5°	1858.9	1858.9	1850.3	1863.1	1867.5	1863.1	1893.4	1889.0	1893.4	1884.8	1889.0
45°	1729.4	1729.4	1720.8	1716.6	1738.0	1733.8	1768.3	1755.3	1772.5	1763.9	1768.3
47.5°	1552.6	1574.2	1561.2	1574.2	1600.1	1604.5	1625.9	1617.3	1634.6	1621.7	1638.9
50°	1384.5	1384.5	1397.3	1414.6	1440.5	1444.9	1470.7	1488.0	1496.6	1500.8	1505.2
52.5°	1207.7	1203.3	1216.3	1237.7	1259.4	1276.6	1302.5	1328.4	1345.6	1371.5	1358.5
55°	1000.5	1009.2	1022.2	1048.1	1082.5	1104.0	1125.7	1160.1	1190.4	1203.3	1229.1
57.5°	823.7	815.1	823.7	858.2	897.1	914.3	944.6	979.1	1022.2	1048.1	1056.7
60°	638.2	642.6	651.3	681.5	711.6	737.5	750.5	806.5	845.3	871.2	888.5
62.5°	470.2	478.8	487.4	513.3	543.4	565.0	586.5	634.0	668.5	694.4	711.6
65°	327.8	332.1	345.1	357.9	388.2	409.7	426.9	465.8	500.3	521.9	534.8
67.5°	202.7	206.9	215.6	233.0	254.4	271.7	288.9	314.8	345.1	366.5	370.9
70°	103.5	107.9	112.1	125.1	142.4	151.0	163.8	185.5	206.9	224.2	233.0
72.5°	34.5	34.5	38.9	47.5	56.1	64.8	69.0	90.6	107.9	116.5	120.7
75°	8.6	8.6	8.6	8.6	8.6	13.0	13.0	25.9	34.5	43.1	47.5
77.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	8.6	8.6
80°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
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°	3036.3	3036.3	3036.3	3036.3	3036.3	3036.3	3036.3	3036.3	3036.3	3036.3
2.5°	3036.3	3027.7	3023.3	3027.7	3027.7	3023.3	3036.3	3053.5	3075.0	3019.1
5°	3031.9	3023.3	3031.9	3006.0	3019.1	3010.4	3027.7	3023.3	3040.5	3023.3
7.5°	3019.1	3001.8	3006.0	2993.2	3010.4	2988.8	3001.8	3027.7	3010.4	2984.6
10°	2975.9	2967.3	2997.4	2954.3	2945.7	2962.9	2997.4	2971.5	2962.9	2971.5
12.5°	2932.7	2932.7	2945.7	2911.2	2915.4	2924.0	2941.3	2924.0	2932.7	2954.3
15°	2885.3	2876.7	2898.2	2872.3	2868.1	2859.5	2876.7	2876.7	2885.3	2872.3
17.5°	2829.2	2816.3	2816.3	2807.7	2803.3	2825.0	2833.6	2837.8	2842.2	2825.0
20°	2760.2	2756.0	2768.8	2756.0	2760.2	2764.6	2764.6	2756.0	2794.7	2747.4
22.5°	2686.8	2699.9	2682.6	2674.0	2682.6	2691.2	2691.2	2695.5	2686.8	2678.2
25°	2613.6	2622.2	2626.5	2600.6	2613.6	2600.6	2630.9	2635.1	2617.9	2626.5
27.5°	2548.9	2536.0	2531.6	2514.4	2523.0	2518.8	2523.0	2523.0	2548.9	2514.4
30°	2449.6	2436.8	2441.0	2428.2	2432.4	2428.2	2432.4	2432.4	2449.6	2445.4
32.5°	2354.8	2341.9	2346.2	2333.3	2333.3	2337.5	2328.9	2328.9	2341.9	2333.3
35°	2264.2	2234.1	2238.3	2234.1	2238.3	2221.0	2221.0	2216.8	2225.4	2203.8
37.5°	2134.8	2122.0	2117.6	2113.4	2117.6	2109.0	2117.6	2104.7	2117.6	2100.3
40°	2018.3	2009.7	2014.1	1988.2	1988.2	1992.5	1983.8	1979.6	1983.8	2001.1
42.5°	1902.0	1884.8	1876.2	1867.5	1871.8	1858.9	1854.5	1845.9	1854.5	1837.3
45°	1763.9	1763.9	1759.7	1738.0	1742.4	1742.4	1725.2	1707.9	1712.2	1712.2
47.5°	1638.9	1630.3	1625.9	1604.5	1600.1	1595.8	1578.4	1565.6	1565.6	1552.6
50°	1500.8	1492.2	1479.3	1457.7	1449.1	1423.2	1410.4	1393.1	1375.9	1375.9
52.5°	1371.5	1341.2	1324.0	1289.5	1276.6	1263.6	1229.1	1216.3	1203.3	1190.4
55°	1216.3	1190.4	1155.9	1117.0	1099.8	1078.1	1043.7	1017.8	1000.5	1004.9
57.5°	1065.3	1022.2	987.7	936.0	914.3	901.3	866.8	832.3	815.1	815.1
60°	879.8	845.3	802.2	754.7	737.5	716.0	672.7	651.3	638.2	625.4
62.5°	703.0	677.1	638.2	577.9	565.0	543.4	513.3	487.4	474.4	474.4
65°	526.1	500.3	465.8	422.7	405.4	388.2	362.3	336.4	323.4	319.2
67.5°	370.9	340.7	310.6	276.1	263.1	254.4	228.6	211.3	202.7	198.3
70°	224.2	206.9	185.5	159.6	146.6	138.0	120.7	107.9	103.5	99.2
72.5°	116.5	103.5	86.2	69.0	60.4	51.7	43.1	34.5	30.3	30.3
75°	43.1	34.5	21.6	13.0	8.6	8.6	8.6	8.6	8.6	8.6
77.5°	8.6	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
80°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
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)