

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: P840225

Luminaire Tested: **LD4C60D010 EU4609040 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: P840225
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 EU4609040 4LBCSSQMW
Description: 4 INCH 6000 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

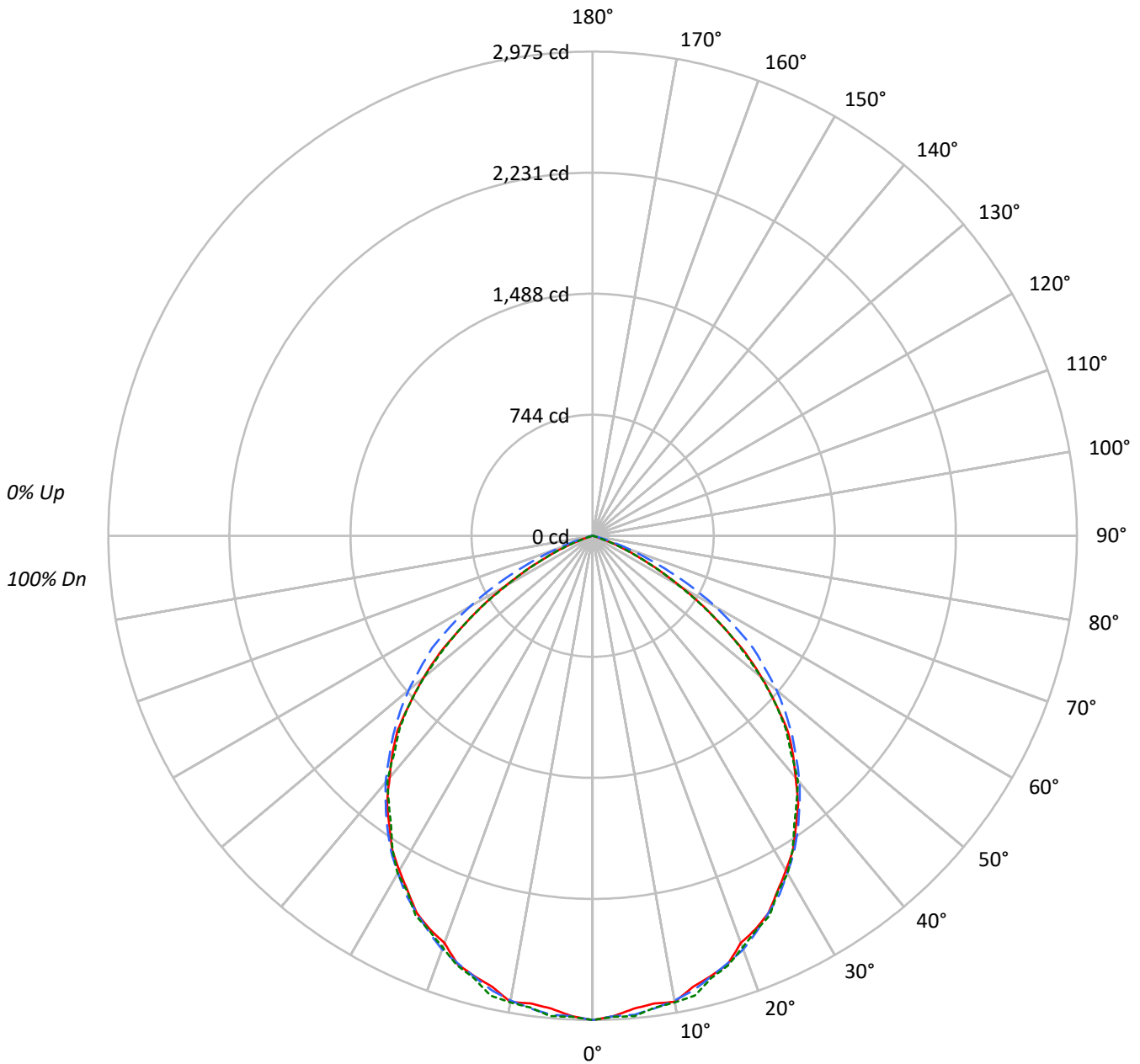
Lumens per Lamp: N/A
Luminaire Lumens: 6355.0 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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°	287054	287054	287054
5°	282417	286098	286911
10°	284859	284027	285261
15°	279869	280279	281128
20°	273358	277702	276408
25°	272174	272174	273974
30°	264590	266473	266952
35°	256337	258834	254347
40°	244307	249093	246964
45°	231225	236423	228918
50°	203624	221382	202363
55°	164909	202591	165633
60°	120669	167987	118257
65°	73334	119636	71416
70°	28606	64407	27422
75°	3132	17335	3132
80°	2389	2389	2389
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.8	4.4
10°-20°	794.6	12.5
20°-30°	1179.0	18.6
30°-40°	1366.2	21.5
40°-50°	1309.8	20.6
50°-60°	963.1	15.2
60°-70°	416.0	6.5
70°-80°	44.9	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°	2254.5	35.5
0°-40°	3620.6	57.0
0°-60°	5893.5	92.7
0°-90°	6355.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6355.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2975	2975	2975	2975	2975	
5°	2916	2945	2954	2958	2962	278
15°	2802	2819	2806	2810	2814	790
25°	2556	2552	2556	2561	2573	1171
35°	2176	2189	2197	2193	2159	1361
45°	1694	1699	1733	1707	1678	1288
55°	980	1082	1204	1078	985	882
65°	321	401	524	397	313	330
75°	8	13	46	8	8	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°	2975.0	2975.0	2975.0	2975.0	2975.0	2975.0	2975.0	2975.0	2975.0	2975.0	2975.0
2.5°	2953.8	2987.6	2991.9	2970.7	2962.2	2949.6	2979.1	2958.1	2966.5	2958.1	2953.8
5°	2915.8	2953.8	2958.1	2958.1	2949.6	2945.3	2958.1	2953.8	2949.6	2941.2	2953.8
7.5°	2898.9	2920.0	2941.2	2915.8	2928.4	2924.3	2953.8	2941.2	2936.9	2936.9	2928.4
10°	2907.4	2903.1	2920.0	2894.6	2903.1	2894.6	2920.0	2920.0	2911.5	2903.1	2898.9
12.5°	2839.6	2873.4	2873.4	2869.3	2860.8	2848.1	2873.4	2890.5	2865.0	2865.0	2860.8
15°	2801.7	2810.1	2814.3	2814.3	2810.1	2818.6	2831.2	2814.3	2818.6	2797.4	2805.8
17.5°	2759.5	2742.6	2755.1	2746.7	2751.0	2759.5	2776.4	2776.4	2751.0	2746.7	2755.1
20°	2662.2	2712.9	2717.2	2691.9	2696.0	2696.0	2725.7	2700.3	2717.2	2696.0	2704.5
22.5°	2615.7	2649.5	2653.8	2620.0	2641.0	2615.7	2645.3	2607.2	2649.5	2620.0	2632.6
25°	2556.5	2552.4	2565.0	2548.1	2552.4	2552.4	2573.4	2556.5	2569.3	2552.4	2556.5
27.5°	2459.5	2493.3	2488.9	2472.0	2480.5	2476.4	2518.6	2472.0	2497.4	2476.4	2484.8
30°	2374.8	2404.5	2396.0	2379.1	2379.1	2366.4	2412.9	2400.2	2396.0	2396.0	2391.7
32.5°	2290.3	2294.6	2286.2	2290.3	2294.6	2277.7	2315.7	2298.8	2294.6	2298.8	2303.1
35°	2176.2	2176.2	2184.6	2172.0	2188.9	2188.9	2222.7	2201.5	2197.4	2184.6	2197.4
37.5°	2074.8	2062.2	2066.4	2066.4	2074.8	2083.3	2100.2	2091.7	2091.7	2079.1	2087.6
40°	1939.6	1931.2	1943.8	1943.8	1956.5	1956.5	1973.4	1965.0	1977.6	1977.6	1977.6
42.5°	1821.4	1821.4	1812.9	1825.5	1829.8	1825.5	1855.2	1850.8	1855.2	1846.7	1850.8
45°	1694.5	1694.5	1686.0	1681.9	1702.9	1698.8	1732.6	1719.8	1736.7	1728.3	1732.6
47.5°	1521.2	1542.4	1529.6	1542.4	1567.7	1572.1	1593.1	1584.6	1601.5	1588.9	1605.8
50°	1356.5	1356.5	1369.1	1386.0	1411.4	1415.7	1441.0	1457.9	1466.4	1470.5	1474.8
52.5°	1183.3	1179.0	1191.7	1212.7	1234.0	1250.8	1276.2	1301.5	1318.4	1343.8	1331.0
55°	980.3	988.8	1001.5	1026.9	1060.7	1081.7	1102.9	1136.7	1166.4	1179.0	1204.3
57.5°	807.1	798.6	807.1	840.9	879.0	895.9	925.5	959.3	1001.5	1026.9	1035.3
60°	625.3	629.6	638.1	667.7	697.2	722.6	735.3	790.2	828.3	853.6	870.5
62.5°	460.7	469.1	477.6	502.9	532.4	553.6	574.7	621.2	655.0	680.3	697.2
65°	321.2	325.3	338.1	350.7	380.3	401.4	418.3	456.4	490.2	511.4	524.0
67.5°	198.6	202.8	211.2	228.3	249.3	266.2	283.1	308.4	338.1	359.1	363.4
70°	101.4	105.7	109.8	122.6	139.5	147.9	160.5	181.7	202.8	219.7	228.3
72.5°	33.8	33.8	38.1	46.5	55.0	63.4	67.6	88.8	105.7	114.1	118.3
75°	8.4	8.4	8.4	8.4	8.4	12.8	12.8	25.3	33.8	42.2	46.5
77.5°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	8.4	8.4
80°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
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°	2975.0	2975.0	2975.0	2975.0	2975.0	2975.0	2975.0	2975.0	2975.0	2975.0
2.5°	2975.0	2966.5	2962.2	2966.5	2966.5	2962.2	2975.0	2991.9	3012.9	2958.1
5°	2970.7	2962.2	2970.7	2945.3	2958.1	2949.6	2966.5	2962.2	2979.1	2962.2
7.5°	2958.1	2941.2	2945.3	2932.7	2949.6	2928.4	2941.2	2966.5	2949.6	2924.3
10°	2915.8	2907.4	2936.9	2894.6	2886.2	2903.1	2936.9	2911.5	2903.1	2911.5
12.5°	2873.4	2873.4	2886.2	2852.4	2856.5	2865.0	2881.9	2865.0	2873.4	2894.6
15°	2827.0	2818.6	2839.6	2814.3	2810.1	2801.7	2818.6	2818.6	2827.0	2814.3
17.5°	2772.0	2759.5	2759.5	2751.0	2746.7	2767.9	2776.4	2780.5	2784.8	2767.9
20°	2704.5	2700.3	2712.9	2700.3	2704.5	2708.8	2708.8	2700.3	2738.3	2691.9
22.5°	2632.6	2645.3	2628.4	2620.0	2628.4	2636.9	2636.9	2641.0	2632.6	2624.1
25°	2560.8	2569.3	2573.4	2548.1	2560.8	2548.1	2577.7	2581.9	2565.0	2573.4
27.5°	2497.4	2484.8	2480.5	2463.6	2472.0	2467.9	2472.0	2472.0	2497.4	2463.6
30°	2400.2	2387.6	2391.7	2379.1	2383.3	2379.1	2383.3	2383.3	2400.2	2396.0
32.5°	2307.2	2294.6	2298.8	2286.2	2286.2	2290.3	2281.9	2281.9	2294.6	2286.2
35°	2218.4	2188.9	2193.1	2188.9	2193.1	2176.2	2176.2	2172.0	2180.5	2159.3
37.5°	2091.7	2079.1	2074.8	2070.7	2074.8	2066.4	2074.8	2062.2	2074.8	2057.9
40°	1977.6	1969.1	1973.4	1948.1	1948.1	1952.2	1943.8	1939.6	1943.8	1960.7
42.5°	1863.6	1846.7	1838.3	1829.8	1834.0	1821.4	1817.1	1808.6	1817.1	1800.2
45°	1728.3	1728.3	1724.1	1702.9	1707.2	1707.2	1690.3	1673.4	1677.6	1677.6
47.5°	1605.8	1597.4	1593.1	1572.1	1567.7	1563.6	1546.5	1534.0	1534.0	1521.2
50°	1470.5	1462.1	1449.5	1428.3	1419.8	1394.5	1381.9	1365.0	1348.1	1348.1
52.5°	1343.8	1314.1	1297.2	1263.4	1250.8	1238.1	1204.3	1191.7	1179.0	1166.4
55°	1191.7	1166.4	1132.6	1094.5	1077.6	1056.4	1022.6	997.2	980.3	984.6
57.5°	1043.8	1001.5	967.7	917.1	895.9	883.1	849.3	815.5	798.6	798.6
60°	862.1	828.3	786.0	739.5	722.6	701.5	659.1	638.1	625.3	612.8
62.5°	688.8	663.4	625.3	566.2	553.6	532.4	502.9	477.6	464.8	464.8
65°	515.5	490.2	456.4	414.1	397.2	380.3	355.0	329.7	316.9	312.8
67.5°	363.4	333.8	304.3	270.5	257.8	249.3	224.0	207.1	198.6	194.3
70°	219.7	202.8	181.7	156.4	143.6	135.2	118.3	105.7	101.4	97.2
72.5°	114.1	101.4	84.5	67.6	59.1	50.7	42.2	33.8	29.7	29.7
75°	42.2	33.8	21.2	12.8	8.4	8.4	8.4	8.4	8.4	8.4
77.5°	8.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
80°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
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)