

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: P840229

Luminaire Tested: **LD4C65D010 EU4659027 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: P840229
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: LD4C65D010 EU4659027 4LBCSSQMW
Description: 4 INCH 6500 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

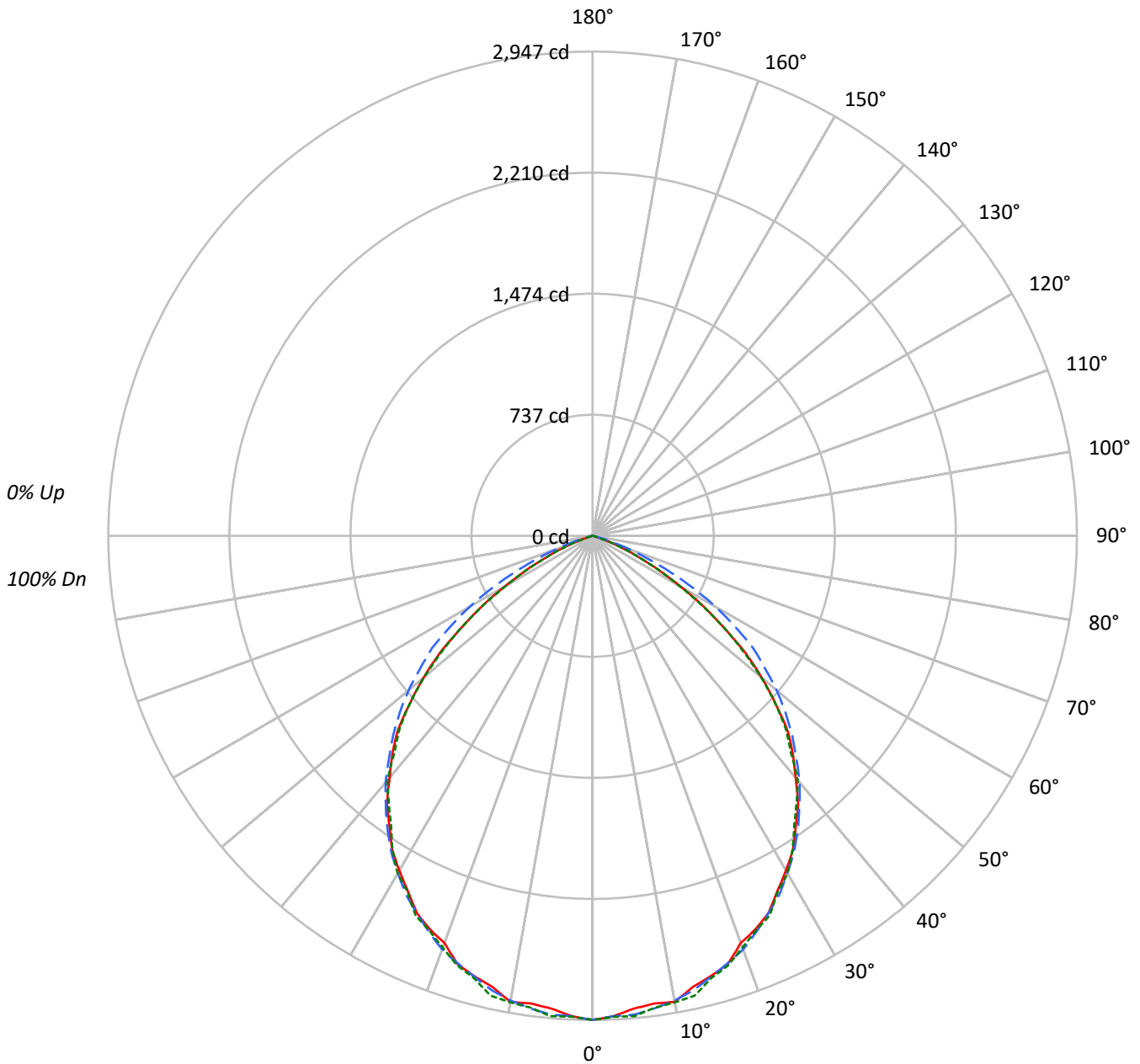
Lumens per Lamp: N/A
Luminaire Lumens: 6295.0 lumens
Efficiency: N/A
Efficacy: 86.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 72.4
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°	284343	284343	284343
5°	279753	283395	284199
10°	282165	281352	282567
15°	277222	277632	278471
20°	270781	275073	273800
25°	269609	269609	271387
30°	262094	263955	264434
35°	253911	256384	251944
40°	242002	246738	244634
45°	229041	234186	226749
50°	201703	219296	200457
55°	163362	200674	164068
60°	119530	166405	117138
65°	72649	118494	70731
70°	28324	63786	27168
75°	3132	17186	3132
80°	2389	2389	2389
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	278.2	4.4
10°-20°	787.1	12.5
20°-30°	1167.9	18.6
30°-40°	1353.3	21.5
40°-50°	1297.5	20.6
50°-60°	954.0	15.2
60°-70°	412.0	6.5
70°-80°	44.5	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°	2233.2	35.5
0°-40°	3586.4	57.0
0°-60°	5837.9	92.7
0°-90°	6295.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6295.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2947	2947	2947	2947	2947	
5°	2888	2918	2926	2930	2934	276
15°	2775	2792	2779	2784	2788	782
25°	2532	2528	2532	2537	2549	1159
35°	2156	2168	2177	2172	2139	1348
45°	1678	1683	1716	1691	1662	1276
55°	971	1072	1193	1067	975	874
65°	318	398	519	394	310	327
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°	2946.9	2946.9	2946.9	2946.9	2946.9	2946.9	2946.9	2946.9	2946.9	2946.9	2946.9
2.5°	2925.9	2959.4	2963.6	2942.6	2934.2	2921.8	2951.0	2930.1	2938.5	2930.1	2925.9
5°	2888.3	2925.9	2930.1	2930.1	2921.8	2917.5	2930.1	2925.9	2921.8	2913.4	2925.9
7.5°	2871.6	2892.4	2913.4	2888.3	2900.8	2896.7	2925.9	2913.4	2909.1	2909.1	2900.8
10°	2879.9	2875.7	2892.4	2867.3	2875.7	2867.3	2892.4	2892.4	2884.0	2875.7	2871.6
12.5°	2812.8	2846.3	2846.3	2842.2	2833.8	2821.2	2846.3	2863.2	2837.9	2837.9	2833.8
15°	2775.2	2783.6	2787.7	2787.7	2783.6	2792.0	2804.5	2787.7	2792.0	2771.0	2779.3
17.5°	2733.4	2716.7	2729.1	2720.8	2725.0	2733.4	2750.1	2750.1	2725.0	2720.8	2729.1
20°	2637.1	2687.3	2691.6	2666.5	2670.6	2670.6	2699.9	2674.8	2691.6	2670.6	2678.9
22.5°	2591.0	2624.4	2628.7	2595.2	2616.1	2591.0	2620.3	2582.6	2624.4	2595.2	2607.7
25°	2532.4	2528.3	2540.8	2524.0	2528.3	2528.3	2549.1	2532.4	2545.0	2528.3	2532.4
27.5°	2436.2	2469.7	2465.4	2448.7	2457.1	2453.0	2494.8	2448.7	2473.8	2453.0	2461.3
30°	2352.4	2381.8	2373.4	2356.7	2356.7	2344.0	2390.1	2377.5	2373.4	2373.4	2369.1
32.5°	2268.7	2273.0	2264.6	2268.7	2273.0	2256.2	2293.8	2277.1	2273.0	2277.1	2281.3
35°	2155.6	2155.6	2164.0	2151.5	2168.3	2168.3	2201.8	2180.8	2176.6	2164.0	2176.6
37.5°	2055.2	2042.8	2046.9	2046.9	2055.2	2063.6	2080.3	2072.0	2072.0	2059.5	2067.9
40°	1921.3	1913.0	1925.4	1925.4	1938.1	1938.1	1954.8	1946.4	1958.9	1958.9	1958.9
42.5°	1804.2	1804.2	1795.8	1808.3	1812.5	1808.3	1837.6	1833.4	1837.6	1829.3	1833.4
45°	1678.5	1678.5	1670.1	1666.0	1686.8	1682.7	1716.2	1703.6	1720.3	1711.9	1716.2
47.5°	1506.8	1527.8	1515.2	1527.8	1552.9	1557.2	1578.0	1569.7	1586.4	1573.9	1590.7
50°	1343.7	1343.7	1356.2	1372.9	1398.0	1402.3	1427.4	1444.2	1452.5	1456.6	1460.9
52.5°	1172.1	1167.8	1180.5	1201.3	1222.3	1239.0	1264.1	1289.3	1306.0	1331.1	1318.5
55°	971.1	979.5	992.1	1017.2	1050.7	1071.5	1092.5	1126.0	1155.4	1167.8	1192.9
57.5°	799.4	791.1	799.4	832.9	870.7	887.4	916.8	950.2	992.1	1017.2	1025.6
60°	619.4	623.7	632.1	661.4	690.7	715.8	728.4	782.7	820.4	845.6	862.3
62.5°	456.3	464.7	473.1	498.2	527.4	548.4	569.2	615.3	648.8	673.9	690.7
65°	318.2	322.3	334.9	347.4	376.7	397.6	414.3	452.1	485.5	506.5	519.0
67.5°	196.7	200.8	209.2	226.1	247.0	263.7	280.4	305.5	334.9	355.7	360.0
70°	100.4	104.7	108.8	121.4	138.2	146.5	159.0	180.0	200.8	217.6	226.1
72.5°	33.5	33.5	37.7	46.1	54.5	62.8	66.9	88.0	104.7	113.1	117.2
75°	8.4	8.4	8.4	8.4	8.4	12.6	12.6	25.1	33.5	41.8	46.1
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°	2946.9	2946.9	2946.9	2946.9	2946.9	2946.9	2946.9	2946.9	2946.9	2946.9
2.5°	2946.9	2938.5	2934.2	2938.5	2938.5	2934.2	2946.9	2963.6	2984.5	2930.1
5°	2942.6	2934.2	2942.6	2917.5	2930.1	2921.8	2938.5	2934.2	2951.0	2934.2
7.5°	2930.1	2913.4	2917.5	2905.0	2921.8	2900.8	2913.4	2938.5	2921.8	2896.7
10°	2888.3	2879.9	2909.1	2867.3	2858.9	2875.7	2909.1	2884.0	2875.7	2884.0
12.5°	2846.3	2846.3	2858.9	2825.5	2829.6	2837.9	2854.7	2837.9	2846.3	2867.3
15°	2800.4	2792.0	2812.8	2787.7	2783.6	2775.2	2792.0	2792.0	2800.4	2787.7
17.5°	2745.9	2733.4	2733.4	2725.0	2720.8	2741.8	2750.1	2754.2	2758.5	2741.8
20°	2678.9	2674.8	2687.3	2674.8	2678.9	2683.2	2683.2	2674.8	2712.4	2666.5
22.5°	2607.7	2620.3	2603.6	2595.2	2603.6	2612.0	2612.0	2616.1	2607.7	2599.3
25°	2536.7	2545.0	2549.1	2524.0	2536.7	2524.0	2553.4	2557.5	2540.8	2549.1
27.5°	2473.8	2461.3	2457.1	2440.3	2448.7	2444.6	2448.7	2448.7	2473.8	2440.3
30°	2377.5	2365.0	2369.1	2356.7	2360.8	2356.7	2360.8	2360.8	2377.5	2373.4
32.5°	2285.4	2273.0	2277.1	2264.6	2264.6	2268.7	2260.3	2260.3	2273.0	2264.6
35°	2197.5	2168.3	2172.4	2168.3	2172.4	2155.6	2155.6	2151.5	2159.9	2138.9
37.5°	2072.0	2059.5	2055.2	2051.1	2055.2	2046.9	2055.2	2042.8	2055.2	2038.5
40°	1958.9	1950.5	1954.8	1929.7	1929.7	1933.8	1925.4	1921.3	1925.4	1942.2
42.5°	1846.0	1829.3	1820.9	1812.5	1816.6	1804.2	1799.9	1791.5	1799.9	1783.2
45°	1711.9	1711.9	1707.8	1686.8	1691.1	1691.1	1674.4	1657.6	1661.7	1661.7
47.5°	1590.7	1582.3	1578.0	1557.2	1552.9	1548.8	1531.9	1519.5	1519.5	1506.8
50°	1456.6	1448.3	1435.8	1414.8	1406.4	1381.3	1368.8	1352.1	1335.4	1335.4
52.5°	1331.1	1301.7	1285.0	1251.5	1239.0	1226.4	1192.9	1180.5	1167.8	1155.4
55°	1180.5	1155.4	1121.9	1084.1	1067.4	1046.4	1012.9	987.8	971.1	975.3
57.5°	1033.9	992.1	958.6	908.4	887.4	874.8	841.3	807.8	791.1	791.1
60°	853.9	820.4	778.6	732.5	715.8	694.9	652.9	632.1	619.4	607.0
62.5°	682.3	657.2	619.4	560.9	548.4	527.4	498.2	473.1	460.4	460.4
65°	510.6	485.5	452.1	410.2	393.5	376.7	351.6	326.5	313.9	309.8
67.5°	360.0	330.6	301.4	268.0	255.3	247.0	221.8	205.1	196.7	192.5
70°	217.6	200.8	180.0	154.9	142.3	133.9	117.2	104.7	100.4	96.3
72.5°	113.1	100.4	83.7	66.9	58.6	50.2	41.8	33.5	29.4	29.4
75°	41.8	33.5	21.0	12.6	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)