

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: P840240

Luminaire Tested: **LD4C70D010 EU4709030 4LBCSSQMMS**

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: P840240
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: LD4C70D010 EU4709030 4LBCSSQMMS
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

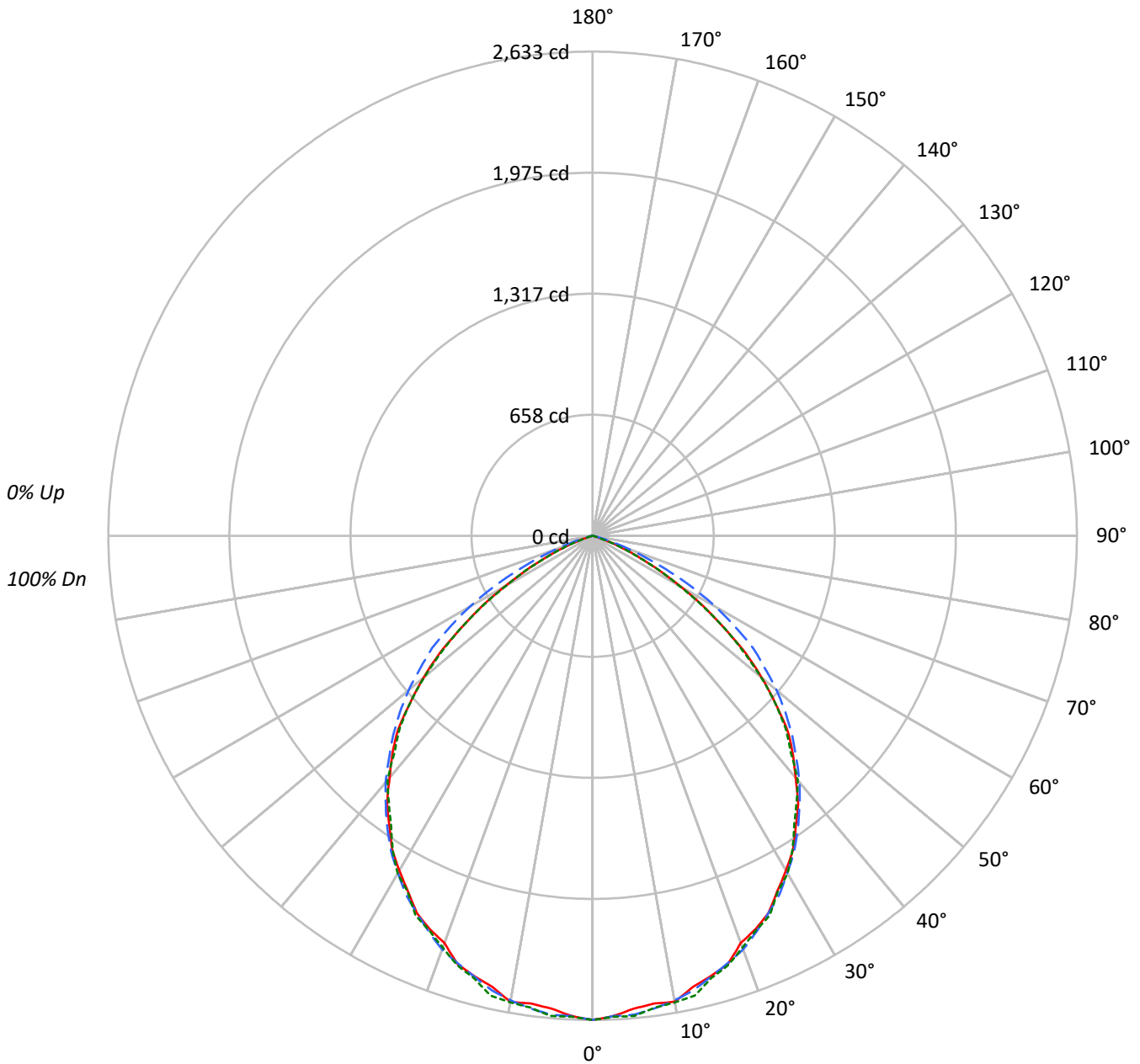
Lumens per Lamp: N/A
Luminaire Lumens: 5624.0 lumens
Efficiency: N/A
Efficacy: 72.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 78
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°	254036	254036	254036
5°	249931	253185	253912
10°	252096	251361	252449
15°	247674	248043	248793
20°	241917	245758	244607
25°	240874	240874	242460
30°	234151	235823	236246
35°	226854	229057	225087
40°	216206	220438	218549
45°	204629	209228	202582
50°	180207	195924	179081
55°	145950	179292	146590
60°	106794	148670	104652
65°	64909	105868	63197
70°	25306	56987	24290
75°	2796	15360	2796
80°	2111	2111	2111
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.5	4.4
10°-20°	703.2	12.5
20°-30°	1043.4	18.6
30°-40°	1209.0	21.5
40°-50°	1159.2	20.6
50°-60°	852.3	15.2
60°-70°	368.1	6.5
70°-80°	39.7	0.7
80°-90°	0.5	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°	1995.1	35.5
0°-40°	3204.2	57.0
0°-60°	5215.6	92.7
0°-90°	5624.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5624.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2633	2633	2633	2633	2633	
5°	2580	2606	2614	2618	2622	246
15°	2479	2494	2483	2487	2491	699
25°	2262	2259	2262	2266	2277	1036
35°	1926	1937	1945	1941	1911	1204
45°	1500	1503	1533	1511	1485	1140
55°	868	957	1066	954	871	781
65°	284	355	464	352	277	292
75°	8	11	41	8	8	23
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°	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8
2.5°	2614.0	2643.9	2647.7	2629.0	2621.5	2610.3	2636.4	2617.8	2625.3	2617.8	2614.0
5°	2580.4	2614.0	2617.8	2617.8	2610.3	2606.5	2617.8	2614.0	2610.3	2602.9	2614.0
7.5°	2565.5	2584.1	2602.9	2580.4	2591.6	2587.9	2614.0	2602.9	2599.1	2599.1	2591.6
10°	2573.0	2569.1	2584.1	2561.7	2569.1	2561.7	2584.1	2584.1	2576.6	2569.1	2565.5
12.5°	2513.0	2542.9	2542.9	2539.2	2531.8	2520.5	2542.9	2558.0	2535.4	2535.4	2531.8
15°	2479.4	2486.9	2490.6	2490.6	2486.9	2494.4	2505.5	2490.6	2494.4	2475.6	2483.1
17.5°	2442.0	2427.1	2438.2	2430.8	2434.6	2442.0	2457.0	2457.0	2434.6	2430.8	2438.2
20°	2356.0	2400.8	2404.7	2382.2	2385.9	2385.9	2412.1	2389.7	2404.7	2385.9	2393.4
22.5°	2314.8	2344.7	2348.5	2318.6	2337.2	2314.8	2341.0	2307.3	2344.7	2318.6	2329.7
25°	2262.5	2258.8	2269.9	2255.0	2258.8	2258.8	2277.4	2262.5	2273.7	2258.8	2262.5
27.5°	2176.6	2206.5	2202.6	2187.7	2195.2	2191.5	2228.9	2187.7	2210.1	2191.5	2199.0
30°	2101.6	2127.9	2120.4	2105.5	2105.5	2094.2	2135.4	2124.1	2120.4	2120.4	2116.6
32.5°	2026.9	2030.7	2023.2	2026.9	2030.7	2015.7	2049.3	2034.4	2030.7	2034.4	2038.2
35°	1925.9	1925.9	1933.3	1922.2	1937.2	1937.2	1967.1	1948.3	1944.6	1933.3	1944.6
37.5°	1836.2	1825.0	1828.7	1828.7	1836.2	1843.6	1858.6	1851.1	1851.1	1840.0	1847.4
40°	1716.5	1709.0	1720.2	1720.2	1731.5	1731.5	1746.4	1739.0	1750.1	1750.1	1750.1
42.5°	1611.9	1611.9	1604.4	1615.5	1619.3	1615.5	1641.8	1637.9	1641.8	1634.3	1637.9
45°	1499.6	1499.6	1492.1	1488.4	1507.0	1503.4	1533.3	1522.0	1536.9	1529.5	1533.3
47.5°	1346.2	1365.0	1353.7	1365.0	1387.4	1391.2	1409.8	1402.4	1417.3	1406.2	1421.1
50°	1200.5	1200.5	1211.6	1226.6	1249.0	1252.8	1275.3	1290.2	1297.7	1301.4	1305.2
52.5°	1047.2	1043.3	1054.6	1073.2	1092.0	1107.0	1129.4	1151.8	1166.8	1189.2	1177.9
55°	867.6	875.0	886.3	908.8	938.7	957.3	976.1	1006.0	1032.2	1043.3	1065.8
57.5°	714.2	706.8	714.2	744.1	777.9	792.8	819.0	849.0	886.3	908.8	916.2
60°	553.4	557.2	564.7	590.9	617.0	639.5	650.8	699.3	733.0	755.4	770.4
62.5°	407.7	415.2	422.6	445.1	471.2	489.9	508.6	549.7	579.7	602.1	617.0
65°	284.3	287.9	299.2	310.3	336.6	355.2	370.2	403.9	433.8	452.6	463.7
67.5°	175.8	179.4	186.9	202.0	220.6	235.6	250.5	273.0	299.2	317.8	321.6
70°	89.7	93.5	97.2	108.5	123.4	130.9	142.1	160.8	179.4	194.4	202.0
72.5°	29.9	29.9	33.7	41.2	48.7	56.1	59.8	78.6	93.5	101.0	104.7
75°	7.5	7.5	7.5	7.5	7.5	11.3	11.3	22.4	29.9	37.4	41.2
77.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	7.5	7.5
80°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
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°	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8	2632.8
2.5°	2632.8	2625.3	2621.5	2625.3	2625.3	2621.5	2632.8	2647.7	2666.3	2617.8
5°	2629.0	2621.5	2629.0	2606.5	2617.8	2610.3	2625.3	2621.5	2636.4	2621.5
7.5°	2617.8	2602.9	2606.5	2595.4	2610.3	2591.6	2602.9	2625.3	2610.3	2587.9
10°	2580.4	2573.0	2599.1	2561.7	2554.2	2569.1	2599.1	2576.6	2569.1	2576.6
12.5°	2542.9	2542.9	2554.2	2524.3	2528.0	2535.4	2550.4	2535.4	2542.9	2561.7
15°	2501.9	2494.4	2513.0	2490.6	2486.9	2479.4	2494.4	2494.4	2501.9	2490.6
17.5°	2453.2	2442.0	2442.0	2434.6	2430.8	2449.5	2457.0	2460.7	2464.5	2449.5
20°	2393.4	2389.7	2400.8	2389.7	2393.4	2397.2	2397.2	2389.7	2423.3	2382.2
22.5°	2329.7	2341.0	2326.1	2318.6	2326.1	2333.6	2333.6	2337.2	2329.7	2322.3
25°	2266.3	2273.7	2277.4	2255.0	2266.3	2255.0	2281.2	2284.9	2269.9	2277.4
27.5°	2210.1	2199.0	2195.2	2180.2	2187.7	2184.0	2187.7	2187.7	2210.1	2180.2
30°	2124.1	2112.9	2116.6	2105.5	2109.1	2105.5	2109.1	2109.1	2124.1	2120.4
32.5°	2041.8	2030.7	2034.4	2023.2	2023.2	2026.9	2019.4	2019.4	2030.7	2023.2
35°	1963.3	1937.2	1940.8	1937.2	1940.8	1925.9	1925.9	1922.2	1929.7	1910.9
37.5°	1851.1	1840.0	1836.2	1832.5	1836.2	1828.7	1836.2	1825.0	1836.2	1821.2
40°	1750.1	1742.6	1746.4	1724.0	1724.0	1727.7	1720.2	1716.5	1720.2	1735.1
42.5°	1649.2	1634.3	1626.8	1619.3	1623.0	1611.9	1608.0	1600.6	1608.0	1593.1
45°	1529.5	1529.5	1525.8	1507.0	1510.8	1510.8	1495.9	1480.9	1484.6	1484.6
47.5°	1421.1	1413.7	1409.8	1391.2	1387.4	1383.7	1368.6	1357.5	1357.5	1346.2
50°	1301.4	1293.9	1282.7	1264.0	1256.5	1234.1	1222.9	1208.0	1193.0	1193.0
52.5°	1189.2	1163.0	1148.0	1118.1	1107.0	1095.7	1065.8	1054.6	1043.3	1032.2
55°	1054.6	1032.2	1002.3	968.6	953.6	934.9	905.0	882.5	867.6	871.4
57.5°	923.7	886.3	856.4	811.6	792.8	781.5	751.6	721.7	706.8	706.8
60°	762.9	733.0	695.6	654.4	639.5	620.8	583.3	564.7	553.4	542.3
62.5°	609.6	587.1	553.4	501.1	489.9	471.2	445.1	422.6	411.4	411.4
65°	456.2	433.8	403.9	366.5	351.5	336.6	314.2	291.7	280.4	276.8
67.5°	321.6	295.4	269.3	239.4	228.1	220.6	198.2	183.2	175.8	172.0
70°	194.4	179.4	160.8	138.4	127.1	119.6	104.7	93.5	89.7	86.1
72.5°	101.0	89.7	74.8	59.8	52.3	44.9	37.4	29.9	26.2	26.2
75°	37.4	29.9	18.8	11.3	7.5	7.5	7.5	7.5	7.5	7.5
77.5°	7.5	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
80°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
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)