

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: P840244

Luminaire Tested: **LD4C70D010 EU4709040 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: P840244
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 EU4709040 4LBCSSQMMS
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

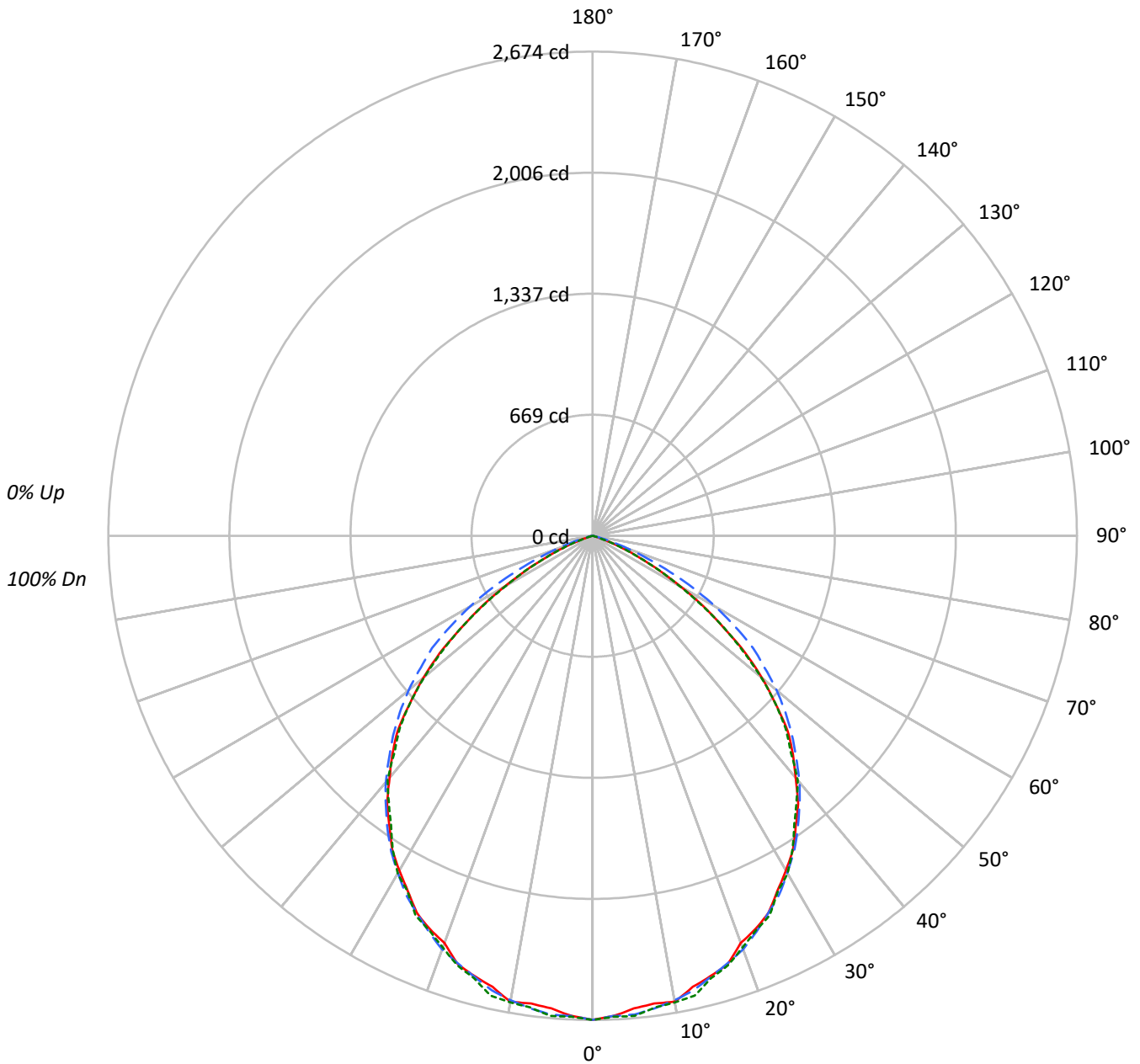
Lumens per Lamp: N/A
Luminaire Lumens: 5711.0 lumens
Efficiency: N/A
Efficacy: 73.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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								
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°	257963	257963	257963
5°	253805	257098	257835
10°	255995	255251	256358
15°	251510	251879	252639
20°	245655	249557	248396
25°	244600	244600	246208
30°	237784	239466	239900
35°	230364	232602	228574
40°	219556	223851	221937
45°	207795	212462	205721
50°	182999	198956	181858
55°	148205	182068	148861
60°	108454	150967	106273
65°	65914	107512	64179
70°	25701	57862	24657
75°	2833	15583	2833
80°	2167	2167	2167
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.4	4.4
10°-20°	714.1	12.5
20°-30°	1059.6	18.6
30°-40°	1227.7	21.5
40°-50°	1177.1	20.6
50°-60°	865.5	15.2
60°-70°	373.8	6.5
70°-80°	40.4	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°	2026.0	35.5
0°-40°	3253.7	57.0
0°-60°	5296.3	92.7
0°-90°	5711.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5711.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2674	2674	2674	2674	2674	
5°	2620	2647	2654	2658	2662	250
15°	2518	2533	2522	2525	2529	710
25°	2298	2294	2298	2301	2313	1052
35°	1956	1967	1975	1971	1940	1223
45°	1523	1527	1557	1534	1508	1158
55°	881	972	1082	968	885	793
65°	289	361	471	357	281	297
75°	8	12	42	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°	2673.5	2673.5	2673.5	2673.5	2673.5	2673.5	2673.5	2673.5	2673.5	2673.5	2673.5
2.5°	2654.4	2684.8	2688.7	2669.6	2662.0	2650.7	2677.2	2658.3	2665.9	2658.3	2654.4
5°	2620.4	2654.4	2658.3	2658.3	2650.7	2646.8	2658.3	2654.4	2650.7	2643.1	2654.4
7.5°	2605.2	2624.1	2643.1	2620.4	2631.7	2627.9	2654.4	2643.1	2639.3	2639.3	2631.7
10°	2612.8	2608.9	2624.1	2601.3	2608.9	2601.3	2624.1	2624.1	2616.5	2608.9	2605.2
12.5°	2551.9	2582.2	2582.2	2578.5	2570.9	2559.5	2582.2	2597.6	2574.6	2574.6	2570.9
15°	2517.8	2525.4	2529.1	2529.1	2525.4	2533.0	2544.3	2529.1	2533.0	2513.9	2521.5
17.5°	2479.8	2464.6	2475.9	2468.4	2472.2	2479.8	2495.0	2495.0	2472.2	2468.4	2475.9
20°	2392.4	2438.0	2441.9	2419.1	2422.8	2422.8	2449.5	2426.7	2441.9	2422.8	2430.4
22.5°	2350.6	2381.0	2384.8	2354.5	2373.4	2350.6	2377.3	2343.0	2381.0	2354.5	2365.8
25°	2297.5	2293.7	2305.1	2289.9	2293.7	2293.7	2312.6	2297.5	2308.9	2293.7	2297.5
27.5°	2210.2	2240.6	2236.7	2221.5	2229.1	2225.4	2263.4	2221.5	2244.3	2225.4	2233.0
30°	2134.2	2160.8	2153.2	2138.0	2138.0	2126.6	2168.4	2156.9	2153.2	2153.2	2149.3
32.5°	2058.2	2062.1	2054.5	2058.2	2062.1	2046.9	2081.0	2065.8	2062.1	2065.8	2069.7
35°	1955.7	1955.7	1963.3	1951.9	1967.1	1967.1	1997.5	1978.4	1974.7	1963.3	1974.7
37.5°	1864.6	1853.2	1857.0	1857.0	1864.6	1872.1	1887.3	1879.7	1879.7	1868.4	1876.0
40°	1743.1	1735.5	1746.8	1746.8	1758.3	1758.3	1773.4	1765.9	1777.2	1777.2	1777.2
42.5°	1636.8	1636.8	1629.2	1640.5	1644.4	1640.5	1667.2	1663.3	1667.2	1659.6	1663.3
45°	1522.8	1522.8	1515.2	1511.4	1530.3	1526.6	1557.0	1545.5	1560.7	1553.1	1557.0
47.5°	1367.0	1386.1	1374.6	1386.1	1408.9	1412.7	1431.7	1424.1	1439.2	1427.9	1443.1
50°	1219.1	1219.1	1230.4	1245.6	1268.3	1272.2	1295.0	1310.2	1317.8	1321.5	1325.4
52.5°	1063.4	1059.5	1070.9	1089.9	1108.9	1124.1	1146.9	1169.6	1184.8	1207.6	1196.1
55°	881.0	888.6	900.0	922.8	953.2	972.1	991.2	1021.5	1048.2	1059.5	1082.3
57.5°	725.3	717.7	725.3	755.6	789.9	805.1	831.7	862.1	900.0	922.8	930.4
60°	562.0	565.8	573.4	600.1	626.6	649.4	660.8	710.1	744.3	767.1	782.3
62.5°	414.0	421.6	429.2	452.0	478.5	497.5	516.4	558.2	588.6	611.4	626.6
65°	288.7	292.4	303.8	315.2	341.8	360.7	375.9	410.1	440.5	459.6	470.9
67.5°	178.5	182.2	189.8	205.1	224.0	239.2	254.4	277.2	303.8	322.7	326.6
70°	91.1	95.0	98.7	110.2	125.3	132.9	144.3	163.3	182.2	197.4	205.1
72.5°	30.4	30.4	34.2	41.8	49.4	57.0	60.7	79.8	95.0	102.6	106.3
75°	7.6	7.6	7.6	7.6	7.6	11.5	11.5	22.8	30.4	38.0	41.8
77.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	7.6	7.6
80°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
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°	2673.5	2673.5	2673.5	2673.5	2673.5	2673.5	2673.5	2673.5	2673.5	2673.5
2.5°	2673.5	2665.9	2662.0	2665.9	2665.9	2662.0	2673.5	2688.7	2707.6	2658.3
5°	2669.6	2662.0	2669.6	2646.8	2658.3	2650.7	2665.9	2662.0	2677.2	2662.0
7.5°	2658.3	2643.1	2646.8	2635.5	2650.7	2631.7	2643.1	2665.9	2650.7	2627.9
10°	2620.4	2612.8	2639.3	2601.3	2593.7	2608.9	2639.3	2616.5	2608.9	2616.5
12.5°	2582.2	2582.2	2593.7	2563.3	2567.1	2574.6	2589.8	2574.6	2582.2	2601.3
15°	2540.6	2533.0	2551.9	2529.1	2525.4	2517.8	2533.0	2533.0	2540.6	2529.1
17.5°	2491.1	2479.8	2479.8	2472.2	2468.4	2487.4	2495.0	2498.7	2502.6	2487.4
20°	2430.4	2426.7	2438.0	2426.7	2430.4	2434.3	2434.3	2426.7	2460.8	2419.1
22.5°	2365.8	2377.3	2362.1	2354.5	2362.1	2369.7	2369.7	2373.4	2365.8	2358.2
25°	2301.3	2308.9	2312.6	2289.9	2301.3	2289.9	2316.5	2320.2	2305.1	2312.6
27.5°	2244.3	2233.0	2229.1	2213.9	2221.5	2217.8	2221.5	2221.5	2244.3	2213.9
30°	2156.9	2145.6	2149.3	2138.0	2141.7	2138.0	2141.7	2141.7	2156.9	2153.2
32.5°	2073.4	2062.1	2065.8	2054.5	2054.5	2058.2	2050.6	2050.6	2062.1	2054.5
35°	1993.6	1967.1	1970.8	1967.1	1970.8	1955.7	1955.7	1951.9	1959.5	1940.5
37.5°	1879.7	1868.4	1864.6	1860.8	1864.6	1857.0	1864.6	1853.2	1864.6	1849.4
40°	1777.2	1769.6	1773.4	1750.7	1750.7	1754.4	1746.8	1743.1	1746.8	1762.0
42.5°	1674.7	1659.6	1652.0	1644.4	1648.1	1636.8	1632.9	1625.3	1632.9	1617.7
45°	1553.1	1553.1	1549.4	1530.3	1534.2	1534.2	1519.0	1503.9	1507.6	1507.6
47.5°	1443.1	1435.5	1431.7	1412.7	1408.9	1405.2	1389.8	1378.5	1378.5	1367.0
50°	1321.5	1313.9	1302.6	1283.5	1275.9	1253.2	1241.8	1226.7	1211.5	1211.5
52.5°	1207.6	1181.0	1165.8	1135.4	1124.1	1112.6	1082.3	1070.9	1059.5	1048.2
55°	1070.9	1048.2	1017.8	983.6	968.4	949.3	919.0	896.2	881.0	884.9
57.5°	938.0	900.0	869.7	824.1	805.1	793.6	763.2	732.9	717.7	717.7
60°	774.7	744.3	706.4	664.5	649.4	630.5	592.3	573.4	562.0	550.7
62.5°	619.0	596.2	562.0	508.8	497.5	478.5	452.0	429.2	417.7	417.7
65°	463.3	440.5	410.1	372.2	357.0	341.8	319.0	296.2	284.8	281.1
67.5°	326.6	300.0	273.5	243.1	231.6	224.0	201.3	186.1	178.5	174.6
70°	197.4	182.2	163.3	140.5	129.1	121.5	106.3	95.0	91.1	87.4
72.5°	102.6	91.1	75.9	60.7	53.1	45.6	38.0	30.4	26.6	26.6
75°	38.0	30.4	19.1	11.5	7.6	7.6	7.6	7.6	7.6	7.6
77.5°	7.6	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
80°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
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)