

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: P840207

Luminaire Tested: **LD4C50D010 EU4509050 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: P840207  
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: LD4C50D010 EU4509050 4LBCSSQMW  
Description: 4 INCH 5000 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**

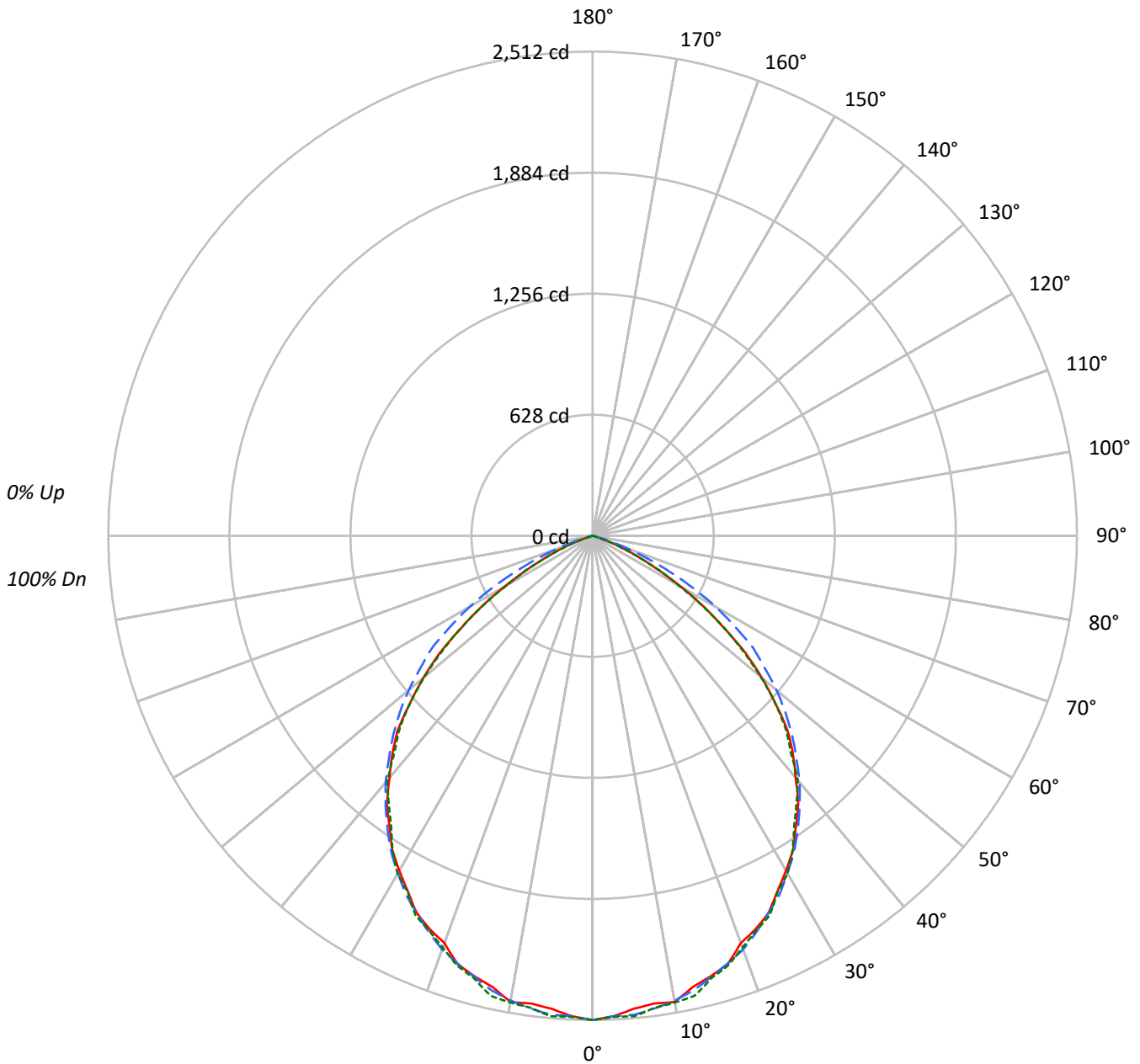
Lumens per Lamp: N/A  
Luminaire Lumens: 5367.0 lumens  
Efficiency: N/A  
Efficacy: 91.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 58.4  
Input Voltage (V):  
Input Current (A<sub>in</sub>): 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°	242428	242428	242428
5°	238512	241621	242308
10°	240574	239868	240917
15°	236356	236706	237425
20°	230858	234524	233436
25°	229866	229866	231378
30°	223455	225049	225450
35°	216488	218597	214804
40°	206331	210361	208573
45°	195268	199662	193331
50°	171966	186962	170900
55°	139272	171100	139894
60°	101912	141877	99866
65°	61941	101028	60297
70°	24149	54392	23162
75°	2647	14651	2647
80°	2000	2000	2000
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	237.2	4.4
10°-20°	671.1	12.5
20°-30°	995.7	18.6
30°-40°	1153.8	21.5
40°-50°	1106.2	20.6
50°-60°	813.3	15.2
60°-70°	351.3	6.5
70°-80°	37.9	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°	1904.0	35.5
0°-40°	3057.7	57.0
0°-60°	4977.3	92.7
0°-90°	5367.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5367.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2512	2512	2512	2512	2512	
5°	2462	2487	2495	2498	2502	235
15°	2366	2380	2370	2373	2377	667
25°	2159	2156	2159	2163	2173	989
35°	1838	1849	1856	1852	1824	1149
45°	1431	1435	1463	1442	1417	1088
55°	828	914	1017	910	832	745
65°	271	339	442	336	264	279
75°	7	11	39	7	7	22
85°	0	0	0	0	0	0
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°	2512.5	2512.5	2512.5	2512.5	2512.5	2512.5	2512.5	2512.5	2512.5	2512.5	2512.5
2.5°	2494.6	2523.1	2526.7	2508.8	2501.7	2491.1	2516.0	2498.2	2505.3	2498.2	2494.6
5°	2462.5	2494.6	2498.2	2498.2	2491.1	2487.4	2498.2	2494.6	2491.1	2483.9	2494.6
7.5°	2448.2	2466.0	2483.9	2462.5	2473.1	2469.6	2494.6	2483.9	2480.3	2480.3	2473.1
10°	2455.4	2451.7	2466.0	2444.6	2451.7	2444.6	2466.0	2466.0	2458.9	2451.7	2448.2
12.5°	2398.2	2426.7	2426.7	2423.2	2416.1	2405.3	2426.7	2441.1	2419.6	2419.6	2416.1
15°	2366.1	2373.3	2376.8	2376.8	2373.3	2380.4	2391.0	2376.8	2380.4	2362.5	2369.6
17.5°	2330.4	2316.2	2326.8	2319.7	2323.3	2330.4	2344.7	2344.7	2323.3	2319.7	2326.8
20°	2248.3	2291.1	2294.8	2273.4	2276.9	2276.9	2301.9	2280.5	2294.8	2276.9	2284.0
22.5°	2209.0	2237.6	2241.2	2212.7	2230.4	2209.0	2234.1	2201.9	2237.6	2212.7	2223.3
25°	2159.1	2155.6	2166.2	2151.9	2155.6	2155.6	2173.3	2159.1	2169.8	2155.6	2159.1
27.5°	2077.1	2105.6	2102.0	2087.7	2094.9	2091.4	2127.0	2087.7	2109.1	2091.4	2098.5
30°	2005.6	2030.6	2023.5	2009.2	2009.2	1998.5	2037.8	2027.0	2023.5	2023.5	2019.9
32.5°	1934.3	1937.9	1930.8	1934.3	1937.9	1923.6	1955.7	1941.4	1937.9	1941.4	1945.0
35°	1837.9	1837.9	1845.0	1834.4	1848.6	1848.6	1877.2	1859.3	1855.8	1845.0	1855.8
37.5°	1752.2	1741.6	1745.1	1745.1	1752.2	1759.4	1773.6	1766.5	1766.5	1755.9	1763.0
40°	1638.1	1631.0	1641.6	1641.6	1652.4	1652.4	1666.6	1659.5	1670.1	1670.1	1670.1
42.5°	1538.2	1538.2	1531.1	1541.7	1545.3	1541.7	1566.7	1563.1	1566.7	1559.6	1563.1
45°	1431.0	1431.0	1423.9	1420.4	1438.2	1434.7	1463.2	1452.4	1466.7	1459.6	1463.2
47.5°	1284.7	1302.6	1291.8	1302.6	1324.0	1327.6	1345.4	1338.3	1352.6	1341.9	1356.2
50°	1145.6	1145.6	1156.3	1170.5	1191.9	1195.6	1217.0	1231.3	1238.4	1241.9	1245.5
52.5°	999.3	995.7	1006.4	1024.2	1042.1	1056.4	1077.8	1099.2	1113.5	1134.9	1124.1
55°	827.9	835.1	845.8	867.2	895.8	913.5	931.5	960.0	985.0	995.7	1017.1
57.5°	681.6	674.5	681.6	710.1	742.3	756.6	781.6	810.2	845.8	867.2	874.4
60°	528.1	531.8	538.9	563.9	588.8	610.2	621.0	667.3	699.5	720.9	735.2
62.5°	389.1	396.2	403.3	424.7	449.6	467.5	485.3	524.6	553.2	574.6	588.8
65°	271.3	274.8	285.5	296.2	321.2	339.0	353.2	385.4	414.0	431.9	442.5
67.5°	167.7	171.2	178.4	192.8	210.5	224.8	239.1	260.5	285.5	303.3	306.9
70°	85.6	89.3	92.8	103.5	117.8	124.9	135.6	153.5	171.2	185.5	192.8
72.5°	28.5	28.5	32.2	39.3	46.4	53.6	57.1	75.0	89.3	96.4	99.9
75°	7.1	7.1	7.1	7.1	7.1	10.8	10.8	21.4	28.5	35.7	39.3
77.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	7.1	7.1
80°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
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°	2512.5	2512.5	2512.5	2512.5	2512.5	2512.5	2512.5	2512.5	2512.5	2512.5
2.5°	2512.5	2505.3	2501.7	2505.3	2505.3	2501.7	2512.5	2526.7	2544.5	2498.2
5°	2508.8	2501.7	2508.8	2487.4	2498.2	2491.1	2505.3	2501.7	2516.0	2501.7
7.5°	2498.2	2483.9	2487.4	2476.8	2491.1	2473.1	2483.9	2505.3	2491.1	2469.6
10°	2462.5	2455.4	2480.3	2444.6	2437.5	2451.7	2480.3	2458.9	2451.7	2458.9
12.5°	2426.7	2426.7	2437.5	2408.9	2412.4	2419.6	2433.8	2419.6	2426.7	2444.6
15°	2387.5	2380.4	2398.2	2376.8	2373.3	2366.1	2380.4	2380.4	2387.5	2376.8
17.5°	2341.1	2330.4	2330.4	2323.3	2319.7	2337.6	2344.7	2348.2	2351.9	2337.6
20°	2284.0	2280.5	2291.1	2280.5	2284.0	2287.6	2287.6	2280.5	2312.5	2273.4
22.5°	2223.3	2234.1	2219.8	2212.7	2219.8	2226.9	2226.9	2230.4	2223.3	2216.2
25°	2162.7	2169.8	2173.3	2151.9	2162.7	2151.9	2177.0	2180.5	2166.2	2173.3
27.5°	2109.1	2098.5	2094.9	2080.6	2087.7	2084.2	2087.7	2087.7	2109.1	2080.6
30°	2027.0	2016.4	2019.9	2009.2	2012.7	2009.2	2012.7	2012.7	2027.0	2023.5
32.5°	1948.5	1937.9	1941.4	1930.8	1930.8	1934.3	1927.1	1927.1	1937.9	1930.8
35°	1873.5	1848.6	1852.1	1848.6	1852.1	1837.9	1837.9	1834.4	1841.5	1823.6
37.5°	1766.5	1755.9	1752.2	1748.7	1752.2	1745.1	1752.2	1741.6	1752.2	1738.0
40°	1670.1	1663.0	1666.6	1645.2	1645.2	1648.7	1641.6	1638.1	1641.6	1655.9
42.5°	1573.9	1559.6	1552.5	1545.3	1548.8	1538.2	1534.6	1527.4	1534.6	1520.3
45°	1459.6	1459.6	1456.1	1438.2	1441.8	1441.8	1427.5	1413.3	1416.8	1416.8
47.5°	1356.2	1349.1	1345.4	1327.6	1324.0	1320.5	1306.1	1295.5	1295.5	1284.7
50°	1241.9	1234.8	1224.1	1206.2	1199.1	1177.7	1167.0	1152.8	1138.5	1138.5
52.5°	1134.9	1109.8	1095.6	1067.0	1056.4	1045.6	1017.1	1006.4	995.7	985.0
55°	1006.4	985.0	956.5	924.3	910.0	892.1	863.6	842.2	827.9	831.6
57.5°	881.5	845.8	817.3	774.5	756.6	745.8	717.3	688.7	674.5	674.5
60°	728.0	699.5	663.8	624.5	610.2	592.5	556.7	538.9	528.1	517.5
62.5°	581.7	560.3	528.1	478.2	467.5	449.6	424.7	403.3	392.6	392.6
65°	435.4	414.0	385.4	349.7	335.5	321.2	299.8	278.4	267.6	264.1
67.5°	306.9	281.9	257.0	228.5	217.7	210.5	189.1	174.9	167.7	164.1
70°	185.5	171.2	153.5	132.1	121.3	114.2	99.9	89.3	85.6	82.1
72.5°	96.4	85.6	71.3	57.1	49.9	42.8	35.7	28.5	25.0	25.0
75°	35.7	28.5	17.9	10.8	7.1	7.1	7.1	7.1	7.1	7.1
77.5°	7.1	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
80°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
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)