

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: P840218

Luminaire Tested: **LD4C60D010 EU4609027 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: P840218  
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 EU4609027 4LBCSSQMMS  
Description: 4 INCH 6000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS  
AND 4LBCSSQ TRIM WITH MMS FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

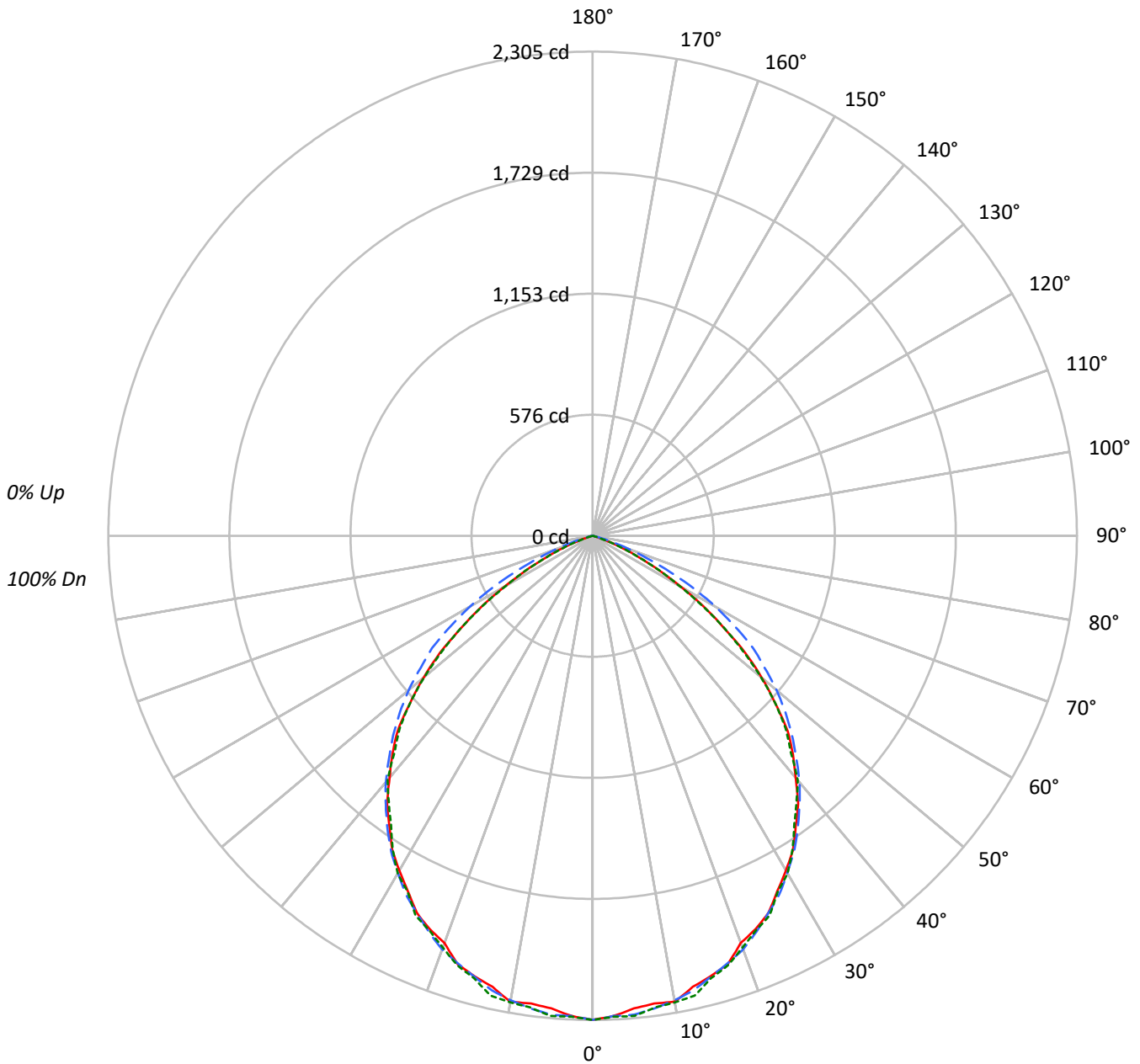
Lumens per Lamp: N/A  
Luminaire Lumens: 4923.0 lumens  
Efficiency: N/A  
Efficacy: 68.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 72  
Input Voltage (V):  
Input Current (A<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									
RC	80									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°	222368	222368	222368
5°	218782	221629	222259
10°	220674	220028	220988
15°	216807	217127	217776
20°	211760	215128	214121
25°	210851	210851	212235
30°	204972	206431	206799
35°	198572	200504	197029
40°	189263	192967	191317
45°	179112	183151	177338
50°	157751	171501	156760
55°	127749	156935	128321
60°	93478	130144	91607
65°	56804	92672	55320
70°	22146	49878	21243
75°	2423	13458	2423
80°	1834	1834	1834
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	217.5	4.4
10°-20°	615.6	12.5
20°-30°	913.4	18.6
30°-40°	1058.3	21.5
40°-50°	1014.7	20.6
50°-60°	746.1	15.2
60°-70°	322.2	6.5
70°-80°	34.8	0.7
80°-90°	0.4	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°	1746.5	35.5
0°-40°	2804.8	57.0
0°-60°	4565.5	92.7
0°-90°	4923.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4923.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2305	2305	2305	2305	2305	
5°	2259	2282	2288	2292	2295	215
15°	2170	2184	2174	2177	2180	612
25°	1980	1977	1980	1984	1994	907
35°	1686	1696	1702	1699	1673	1054
45°	1313	1316	1342	1322	1300	998
55°	759	838	933	835	763	683
65°	249	311	406	308	242	256
75°	6	10	36	6	6	20
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°	2304.6	2304.6	2304.6	2304.6	2304.6	2304.6	2304.6	2304.6	2304.6	2304.6	2304.6
2.5°	2288.2	2314.4	2317.7	2301.3	2294.7	2285.0	2307.8	2291.5	2298.1	2291.5	2288.2
5°	2258.8	2288.2	2291.5	2291.5	2285.0	2281.6	2291.5	2288.2	2285.0	2278.4	2288.2
7.5°	2245.7	2262.0	2278.4	2258.8	2268.5	2265.3	2288.2	2278.4	2275.1	2275.1	2268.5
10°	2252.3	2248.9	2262.0	2242.4	2248.9	2242.4	2262.0	2262.0	2255.5	2248.9	2245.7
12.5°	2199.8	2225.9	2225.9	2222.7	2216.2	2206.3	2225.9	2239.2	2219.4	2219.4	2216.2
15°	2170.4	2176.9	2180.1	2180.1	2176.9	2183.5	2193.2	2180.1	2183.5	2167.0	2173.6
17.5°	2137.7	2124.6	2134.3	2127.8	2131.1	2137.7	2150.7	2150.7	2131.1	2127.8	2134.3
20°	2062.3	2101.6	2104.9	2085.3	2088.5	2088.5	2111.5	2091.8	2104.9	2088.5	2095.1
22.5°	2026.3	2052.4	2055.8	2029.6	2045.9	2026.3	2049.2	2019.7	2052.4	2029.6	2039.4
25°	1980.5	1977.2	1987.0	1973.9	1977.2	1977.2	1993.5	1980.5	1990.3	1977.2	1980.5
27.5°	1905.3	1931.4	1928.1	1915.0	1921.6	1918.3	1951.1	1915.0	1934.6	1918.3	1924.9
30°	1839.7	1862.7	1856.1	1843.0	1843.0	1833.1	1869.2	1859.3	1856.1	1856.1	1852.8
32.5°	1774.2	1777.6	1771.0	1774.2	1777.6	1764.5	1793.9	1780.8	1777.6	1780.8	1784.1
35°	1685.8	1685.8	1692.4	1682.6	1695.7	1695.7	1721.9	1705.5	1702.2	1692.4	1702.2
37.5°	1607.3	1597.5	1600.7	1600.7	1607.3	1613.8	1626.9	1620.4	1620.4	1610.6	1617.2
40°	1502.6	1496.0	1505.8	1505.8	1515.7	1515.7	1528.7	1522.2	1532.0	1532.0	1532.0
42.5°	1410.9	1410.9	1404.4	1414.2	1417.5	1414.2	1437.1	1433.8	1437.1	1430.6	1433.8
45°	1312.6	1312.6	1306.1	1302.9	1319.2	1316.0	1342.2	1332.3	1345.4	1338.8	1342.2
47.5°	1178.4	1194.8	1185.0	1194.8	1214.5	1217.8	1234.1	1227.6	1240.7	1230.9	1244.0
50°	1050.9	1050.9	1060.6	1073.7	1093.3	1096.7	1116.3	1129.4	1135.9	1139.2	1142.5
52.5°	916.6	913.3	923.2	939.5	955.9	969.0	988.6	1008.3	1021.3	1041.0	1031.1
55°	759.4	766.0	775.9	795.5	821.7	838.0	854.4	880.6	903.5	913.3	932.9
57.5°	625.2	618.7	625.2	651.4	680.9	694.0	717.0	743.1	775.9	795.5	802.0
60°	484.4	487.8	494.3	517.3	540.1	559.8	569.6	612.1	641.6	661.3	674.4
62.5°	356.9	363.4	370.0	389.6	412.4	428.9	445.2	481.2	507.4	527.0	540.1
65°	248.8	252.0	261.9	271.7	294.6	310.9	324.0	353.5	379.7	396.1	405.9
67.5°	153.9	157.1	163.6	176.8	193.1	206.2	219.3	238.9	261.9	278.2	281.5
70°	78.5	81.9	85.1	95.0	108.1	114.6	124.3	140.8	157.1	170.2	176.8
72.5°	26.2	26.2	29.5	36.1	42.6	49.1	52.4	68.8	81.9	88.4	91.6
75°	6.5	6.5	6.5	6.5	6.5	9.9	9.9	19.6	26.2	32.7	36.1
77.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	6.5	6.5
80°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
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°	2304.6	2304.6	2304.6	2304.6	2304.6	2304.6	2304.6	2304.6	2304.6	2304.6
2.5°	2304.6	2298.1	2294.7	2298.1	2298.1	2294.7	2304.6	2317.7	2334.0	2291.5
5°	2301.3	2294.7	2301.3	2281.6	2291.5	2285.0	2298.1	2294.7	2307.8	2294.7
7.5°	2291.5	2278.4	2281.6	2271.9	2285.0	2268.5	2278.4	2298.1	2285.0	2265.3
10°	2258.8	2252.3	2275.1	2242.4	2235.8	2248.9	2275.1	2255.5	2248.9	2255.5
12.5°	2225.9	2225.9	2235.8	2209.6	2212.9	2219.4	2232.5	2219.4	2225.9	2242.4
15°	2190.0	2183.5	2199.8	2180.1	2176.9	2170.4	2183.5	2183.5	2190.0	2180.1
17.5°	2147.4	2137.7	2137.7	2131.1	2127.8	2144.2	2150.7	2154.0	2157.3	2144.2
20°	2095.1	2091.8	2101.6	2091.8	2095.1	2098.4	2098.4	2091.8	2121.2	2085.3
22.5°	2039.4	2049.2	2036.2	2029.6	2036.2	2042.7	2042.7	2045.9	2039.4	2032.8
25°	1983.8	1990.3	1993.5	1973.9	1983.8	1973.9	1996.9	2000.1	1987.0	1993.5
27.5°	1934.6	1924.9	1921.6	1908.5	1915.0	1911.8	1915.0	1915.0	1934.6	1908.5
30°	1859.3	1849.6	1852.8	1843.0	1846.2	1843.0	1846.2	1846.2	1859.3	1856.1
32.5°	1787.3	1777.6	1780.8	1771.0	1771.0	1774.2	1767.7	1767.7	1777.6	1771.0
35°	1718.5	1695.7	1698.9	1695.7	1698.9	1685.8	1685.8	1682.6	1689.2	1672.7
37.5°	1620.4	1610.6	1607.3	1604.1	1607.3	1600.7	1607.3	1597.5	1607.3	1594.2
40°	1532.0	1525.4	1528.7	1509.1	1509.1	1512.3	1505.8	1502.6	1505.8	1518.9
42.5°	1443.7	1430.6	1424.0	1417.5	1420.7	1410.9	1407.6	1401.1	1407.6	1394.5
45°	1338.8	1338.8	1335.6	1319.2	1322.5	1322.5	1309.4	1296.4	1299.6	1299.6
47.5°	1244.0	1237.4	1234.1	1217.8	1214.5	1211.3	1198.1	1188.3	1188.3	1178.4
50°	1139.2	1132.6	1122.9	1106.4	1099.9	1080.2	1070.5	1057.4	1044.3	1044.3
52.5°	1041.0	1018.0	1004.9	978.7	969.0	959.1	932.9	923.2	913.3	903.5
55°	923.2	903.5	877.4	847.9	834.8	818.3	792.2	772.5	759.4	762.8
57.5°	808.6	775.9	749.7	710.4	694.0	684.1	657.9	631.7	618.7	618.7
60°	667.8	641.6	608.9	572.8	559.8	543.5	510.6	494.3	484.4	474.7
62.5°	533.6	513.9	484.4	438.6	428.9	412.4	389.6	370.0	360.1	360.1
65°	399.4	379.7	353.5	320.8	307.7	294.6	275.0	255.4	245.5	242.3
67.5°	281.5	258.6	235.7	209.6	199.7	193.1	173.5	160.4	153.9	150.5
70°	170.2	157.1	140.8	121.1	111.3	104.7	91.6	81.9	78.5	75.3
72.5°	88.4	78.5	65.4	52.4	45.8	39.3	32.7	26.2	23.0	23.0
75°	32.7	26.2	16.4	9.9	6.5	6.5	6.5	6.5	6.5	6.5
77.5°	6.5	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
80°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
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)