

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: P840220

Luminaire Tested: **LD4C60D010 EU4609030 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: P840220
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 EU4609030 4LBCSSQMMS
Description: 4 INCH 6000 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

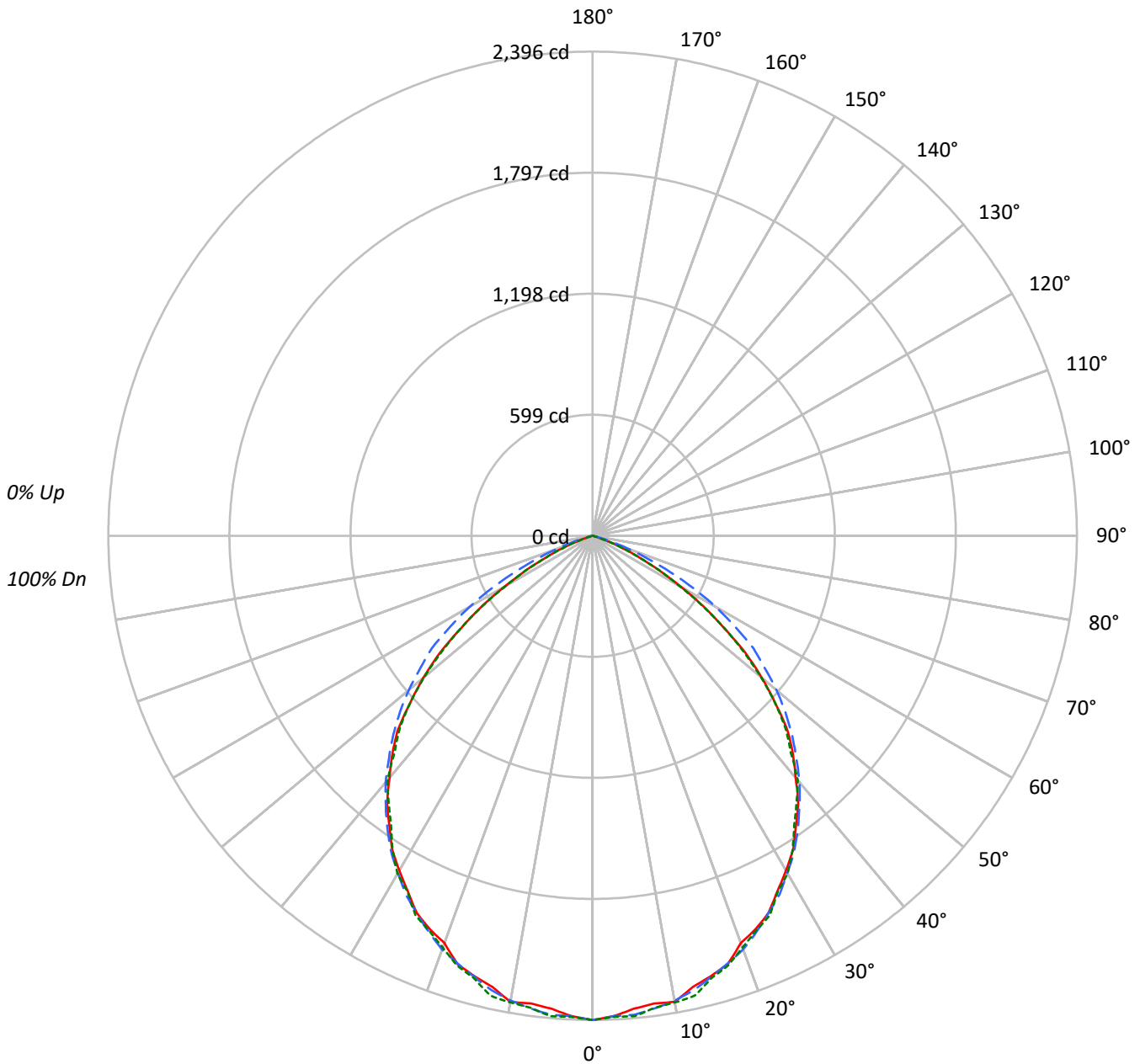
Lumens per Lamp: N/A
Luminaire Lumens: 5119.0 lumens
Efficiency: N/A
Efficacy: 71.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 72
Input Voltage (V):
Input Current (Ain): 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				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°	231226	231226	231226
5°	227489	230453	231112
10°	229453	228787	229786
15°	225438	225767	226447
20°	220190	223691	222644
25°	219241	219241	220689
30°	213127	214642	215032
35°	206476	208490	204874
40°	196796	200637	198924
45°	186249	190438	184393
50°	164025	178331	163005
55°	132846	163193	133418
60°	97203	135316	95254
65°	59064	96371	57512
70°	23049	51881	22090
75°	2535	13980	2535
80°	1945	1945	1945
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.2	4.4
10°-20°	640.1	12.5
20°-30°	949.7	18.6
30°-40°	1100.4	21.5
40°-50°	1055.1	20.6
50°-60°	775.8	15.2
60°-70°	335.1	6.5
70°-80°	36.2	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°	1816.0	35.5
0°-40°	2916.4	57.0
0°-60°	4747.3	92.7
0°-90°	5119.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5119.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2396	2396	2396	2396	2396	
5°	2349	2372	2379	2383	2386	224
15°	2257	2270	2260	2264	2267	636
25°	2059	2056	2059	2063	2073	943
35°	1753	1763	1770	1766	1739	1096
45°	1365	1368	1396	1375	1351	1038
55°	790	871	970	868	793	711
65°	259	323	422	320	252	266
75°	7	10	38	7	7	21
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°	2396.4	2396.4	2396.4	2396.4	2396.4	2396.4	2396.4	2396.4	2396.4	2396.4	2396.4
2.5°	2379.3	2406.5	2410.0	2392.9	2386.1	2375.9	2399.7	2382.8	2389.6	2382.8	2379.3
5°	2348.7	2379.3	2382.8	2382.8	2375.9	2372.5	2382.8	2379.3	2375.9	2369.1	2379.3
7.5°	2335.1	2352.1	2369.1	2348.7	2358.9	2355.5	2379.3	2369.1	2365.7	2365.7	2358.9
10°	2341.9	2338.5	2352.1	2331.6	2338.5	2331.6	2352.1	2352.1	2345.3	2338.5	2335.1
12.5°	2287.3	2314.6	2314.6	2311.2	2304.4	2294.2	2314.6	2328.3	2307.8	2307.8	2304.4
15°	2256.8	2263.6	2266.9	2266.9	2263.6	2270.4	2280.5	2266.9	2270.4	2253.3	2260.1
17.5°	2222.8	2209.2	2219.3	2212.5	2216.0	2222.8	2236.4	2236.4	2216.0	2212.5	2219.3
20°	2144.4	2185.3	2188.7	2168.3	2171.7	2171.7	2195.5	2175.1	2188.7	2171.7	2178.5
22.5°	2106.9	2134.2	2137.6	2110.4	2127.4	2106.9	2130.8	2100.1	2134.2	2110.4	2120.6
25°	2059.3	2056.0	2066.1	2052.5	2056.0	2056.0	2072.9	2059.3	2069.6	2056.0	2059.3
27.5°	1981.1	2008.3	2004.9	1991.3	1998.1	1994.7	2028.7	1991.3	2011.7	1994.7	2001.5
30°	1912.9	1936.8	1930.0	1916.4	1916.4	1906.1	1943.6	1933.3	1930.0	1930.0	1926.5
32.5°	1844.9	1848.3	1841.5	1844.9	1848.3	1834.7	1865.3	1851.7	1848.3	1851.7	1855.1
35°	1752.9	1752.9	1759.7	1749.6	1763.2	1763.2	1790.4	1773.4	1770.0	1759.7	1770.0
37.5°	1671.3	1661.1	1664.5	1664.5	1671.3	1678.1	1691.7	1684.9	1684.9	1674.7	1681.5
40°	1562.4	1555.6	1565.7	1565.7	1576.0	1576.0	1589.6	1582.8	1592.9	1592.9	1592.9
42.5°	1467.1	1467.1	1460.3	1470.5	1473.9	1470.5	1494.3	1490.9	1494.3	1487.5	1490.9
45°	1364.9	1364.9	1358.1	1354.8	1371.7	1368.4	1395.6	1385.3	1398.9	1392.1	1395.6
47.5°	1225.3	1242.4	1232.1	1242.4	1262.8	1266.3	1283.2	1276.4	1290.1	1279.9	1293.5
50°	1092.7	1092.7	1102.8	1116.5	1136.9	1140.3	1160.8	1174.4	1181.2	1184.5	1188.0
52.5°	953.1	949.7	959.9	976.9	994.0	1007.6	1028.0	1048.4	1062.0	1082.4	1072.2
55°	789.7	796.5	806.7	827.2	854.4	871.3	888.4	915.6	939.5	949.7	970.1
57.5°	650.1	643.3	650.1	677.3	708.0	721.6	745.5	772.7	806.7	827.2	834.0
60°	503.7	507.2	514.0	537.9	561.6	582.0	592.3	636.5	667.2	687.6	701.2
62.5°	371.1	377.9	384.7	405.1	428.9	445.9	462.9	500.4	527.6	548.0	561.6
65°	258.7	262.1	272.3	282.5	306.4	323.3	336.9	367.6	394.8	411.9	422.1
67.5°	160.0	163.3	170.1	183.9	200.8	214.4	228.0	248.5	272.3	289.3	292.8
70°	81.7	85.1	88.5	98.7	112.4	119.2	129.3	146.4	163.3	176.9	183.9
72.5°	27.2	27.2	30.7	37.5	44.3	51.1	54.4	71.5	85.1	91.9	95.3
75°	6.8	6.8	6.8	6.8	6.8	10.3	10.3	20.4	27.2	34.0	37.5
77.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	6.8	6.8
80°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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°	2396.4	2396.4	2396.4	2396.4	2396.4	2396.4	2396.4	2396.4	2396.4	2396.4
2.5°	2396.4	2389.6	2386.1	2389.6	2389.6	2386.1	2396.4	2410.0	2426.9	2382.8
5°	2392.9	2386.1	2392.9	2372.5	2382.8	2375.9	2389.6	2386.1	2399.7	2386.1
7.5°	2382.8	2369.1	2372.5	2362.3	2375.9	2358.9	2369.1	2389.6	2375.9	2355.5
10°	2348.7	2341.9	2365.7	2331.6	2324.8	2338.5	2365.7	2345.3	2338.5	2345.3
12.5°	2314.6	2314.6	2324.8	2297.6	2301.0	2307.8	2321.4	2307.8	2314.6	2331.6
15°	2277.2	2270.4	2287.3	2266.9	2263.6	2256.8	2270.4	2270.4	2277.2	2266.9
17.5°	2232.9	2222.8	2222.8	2216.0	2212.5	2229.6	2236.4	2239.7	2243.2	2229.6
20°	2178.5	2175.1	2185.3	2175.1	2178.5	2181.9	2181.9	2175.1	2205.7	2168.3
22.5°	2120.6	2130.8	2117.2	2110.4	2117.2	2124.0	2124.0	2127.4	2120.6	2113.7
25°	2062.8	2069.6	2072.9	2052.5	2062.8	2052.5	2076.4	2079.7	2066.1	2072.9
27.5°	2011.7	2001.5	1998.1	1984.4	1991.3	1987.9	1991.3	1991.3	2011.7	1984.4
30°	1933.3	1923.2	1926.5	1916.4	1919.7	1916.4	1919.7	1919.7	1933.3	1930.0
32.5°	1858.5	1848.3	1851.7	1841.5	1841.5	1844.9	1838.1	1838.1	1848.3	1841.5
35°	1787.0	1763.2	1766.5	1763.2	1766.5	1752.9	1752.9	1749.6	1756.4	1739.3
37.5°	1684.9	1674.7	1671.3	1667.9	1671.3	1664.5	1671.3	1661.1	1671.3	1657.7
40°	1592.9	1586.1	1589.6	1569.2	1569.2	1572.5	1565.7	1562.4	1565.7	1579.3
42.5°	1501.1	1487.5	1480.7	1473.9	1477.3	1467.1	1463.7	1456.8	1463.7	1450.0
45°	1392.1	1392.1	1388.8	1371.7	1375.2	1375.2	1361.6	1348.0	1351.3	1351.3
47.5°	1293.5	1286.7	1283.2	1266.3	1262.8	1259.5	1245.8	1235.6	1235.6	1225.3
50°	1184.5	1177.7	1167.6	1150.5	1143.7	1123.3	1113.1	1099.5	1085.9	1085.9
52.5°	1082.4	1058.5	1044.9	1017.7	1007.6	997.3	970.1	959.9	949.7	939.5
55°	959.9	939.5	912.3	881.6	868.0	850.9	823.7	803.3	789.7	793.1
57.5°	840.8	806.7	779.5	738.7	721.6	711.3	684.1	656.9	643.3	643.3
60°	694.4	667.2	633.1	595.7	582.0	565.1	530.9	514.0	503.7	493.6
62.5°	554.8	534.4	503.7	456.1	445.9	428.9	405.1	384.7	374.4	374.4
65°	415.3	394.8	367.6	333.6	320.0	306.4	286.0	265.5	255.3	251.9
67.5°	292.8	268.9	245.1	217.9	207.6	200.8	180.4	166.8	160.0	156.5
70°	176.9	163.3	146.4	126.0	115.7	108.9	95.3	85.1	81.7	78.3
72.5°	91.9	81.7	68.1	54.4	47.6	40.8	34.0	27.2	23.9	23.9
75°	34.0	27.2	17.1	10.3	6.8	6.8	6.8	6.8	6.8	6.8
77.5°	6.8	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
80°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)