

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: P840226

Luminaire Tested: **LD4C60D010 EU4609050 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: P840226
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 EU4609050 4LBCSSQMMS
Description: 4 INCH 6000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

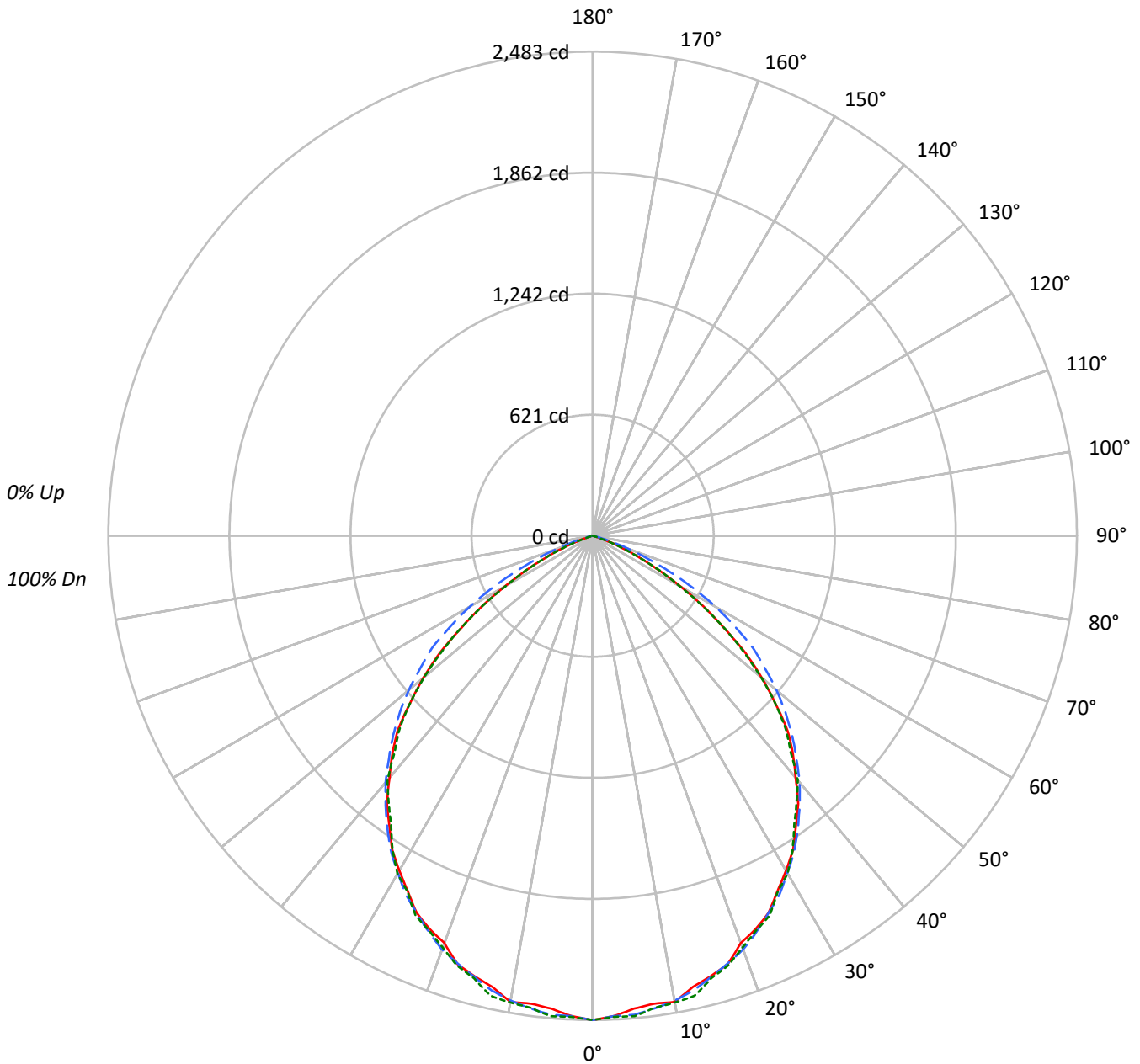
Lumens per Lamp: N/A
Luminaire Lumens: 5305.0 lumens
Efficiency: N/A
Efficacy: 73.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 72
Input Voltage (V):
Input Current (A_{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									
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°	239621	239621	239621
5°	235761	238821	239509
10°	237791	237105	238134
15°	233629	233969	234678
20°	228199	231813	230735
25°	227204	227204	228705
30°	220871	222442	222843
35°	213979	216064	212319
40°	203950	207930	206154
45°	193017	197356	191093
50°	169985	184801	168934
55°	137674	169115	138280
60°	100734	140237	98708
65°	61210	99864	59612
70°	23867	53771	22908
75°	2647	14502	2647
80°	2000	2000	2000
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.4	4.4
10°-20°	663.3	12.5
20°-30°	984.2	18.6
30°-40°	1140.4	21.5
40°-50°	1093.4	20.6
50°-60°	804.0	15.2
60°-70°	347.2	6.5
70°-80°	37.5	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°	1882.0	35.5
0°-40°	3022.4	57.0
0°-60°	4919.8	92.7
0°-90°	5305.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5305.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2483	2483	2483	2483	2483	
5°	2434	2459	2466	2469	2473	232
15°	2339	2353	2342	2346	2349	659
25°	2134	2131	2134	2138	2148	977
35°	1817	1827	1834	1831	1802	1136
45°	1414	1418	1446	1425	1400	1075
55°	818	903	1005	900	822	736
65°	268	335	437	332	261	276
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°	2483.4	2483.4	2483.4	2483.4	2483.4	2483.4	2483.4	2483.4	2483.4	2483.4	2483.4
2.5°	2465.7	2493.9	2497.5	2479.8	2472.8	2462.3	2486.9	2469.3	2476.4	2469.3	2465.7
5°	2434.1	2465.7	2469.3	2469.3	2462.3	2458.7	2469.3	2465.7	2462.3	2455.2	2465.7
7.5°	2420.0	2437.5	2455.2	2434.1	2444.6	2441.1	2465.7	2455.2	2451.6	2451.6	2444.6
10°	2427.0	2423.4	2437.5	2416.4	2423.4	2416.4	2437.5	2437.5	2430.5	2423.4	2420.0
12.5°	2370.5	2398.7	2398.7	2395.2	2388.2	2377.5	2398.7	2412.9	2391.6	2391.6	2388.2
15°	2338.8	2345.8	2349.3	2349.3	2345.8	2352.9	2363.4	2349.3	2352.9	2335.2	2342.2
17.5°	2303.5	2289.4	2299.9	2292.9	2296.5	2303.5	2317.6	2317.6	2296.5	2292.9	2299.9
20°	2222.4	2264.7	2268.3	2247.1	2250.6	2250.6	2275.3	2254.2	2268.3	2250.6	2257.6
22.5°	2183.5	2211.7	2215.3	2187.1	2204.7	2183.5	2208.3	2176.4	2211.7	2187.1	2197.6
25°	2134.1	2130.7	2141.2	2127.1	2130.7	2130.7	2148.2	2134.1	2144.8	2130.7	2134.1
27.5°	2053.1	2081.3	2077.7	2063.6	2070.7	2067.2	2102.5	2063.6	2084.8	2067.2	2074.3
30°	1982.4	2007.2	2000.1	1986.0	1986.0	1975.4	2014.2	2003.6	2000.1	2000.1	1996.5
32.5°	1911.9	1915.5	1908.5	1911.9	1915.5	1901.4	1933.1	1919.0	1915.5	1919.0	1922.6
35°	1816.6	1816.6	1823.7	1813.2	1827.3	1827.3	1855.5	1837.8	1834.3	1823.7	1834.3
37.5°	1732.0	1721.5	1724.9	1724.9	1732.0	1739.1	1753.2	1746.1	1746.1	1735.6	1742.6
40°	1619.2	1612.1	1622.6	1622.6	1633.3	1633.3	1647.4	1640.3	1650.8	1650.8	1650.8
42.5°	1520.4	1520.4	1513.4	1523.9	1527.5	1523.9	1548.6	1545.0	1548.6	1541.6	1545.0
45°	1414.5	1414.5	1407.5	1404.0	1421.6	1418.1	1446.3	1435.7	1449.8	1442.7	1446.3
47.5°	1269.9	1287.6	1276.9	1287.6	1308.7	1312.3	1329.9	1322.8	1336.9	1326.4	1340.5
50°	1132.4	1132.4	1142.9	1157.0	1178.2	1181.8	1202.9	1217.0	1224.1	1227.5	1231.1
52.5°	987.8	984.2	994.8	1012.4	1030.1	1044.2	1065.3	1086.5	1100.6	1121.8	1111.1
55°	818.4	825.4	836.1	857.2	885.4	903.0	920.7	948.9	973.7	984.2	1005.3
57.5°	673.7	666.7	673.7	701.9	733.7	747.8	772.6	800.8	836.1	857.2	864.3
60°	522.0	525.6	532.7	557.4	582.0	603.2	613.8	659.6	691.4	712.6	726.7
62.5°	384.6	391.6	398.7	419.8	444.4	462.1	479.7	518.6	546.8	567.9	582.0
65°	268.1	271.6	282.2	292.7	317.5	335.1	349.2	381.0	409.2	426.9	437.4
67.5°	165.8	169.3	176.3	190.6	208.1	222.2	236.3	257.5	282.2	299.8	303.4
70°	84.6	88.2	91.7	102.3	116.4	123.5	134.0	151.7	169.3	183.4	190.6
72.5°	28.2	28.2	31.8	38.9	45.9	53.0	56.4	74.1	88.2	95.3	98.7
75°	7.1	7.1	7.1	7.1	7.1	10.6	10.6	21.2	28.2	35.3	38.9
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°	2483.4	2483.4	2483.4	2483.4	2483.4	2483.4	2483.4	2483.4	2483.4	2483.4
2.5°	2483.4	2476.4	2472.8	2476.4	2476.4	2472.8	2483.4	2497.5	2515.1	2469.3
5°	2479.8	2472.8	2479.8	2458.7	2469.3	2462.3	2476.4	2472.8	2486.9	2472.8
7.5°	2469.3	2455.2	2458.7	2448.2	2462.3	2444.6	2455.2	2476.4	2462.3	2441.1
10°	2434.1	2427.0	2451.6	2416.4	2409.3	2423.4	2451.6	2430.5	2423.4	2430.5
12.5°	2398.7	2398.7	2409.3	2381.1	2384.6	2391.6	2405.7	2391.6	2398.7	2416.4
15°	2359.9	2352.9	2370.5	2349.3	2345.8	2338.8	2352.9	2352.9	2359.9	2349.3
17.5°	2314.0	2303.5	2303.5	2296.5	2292.9	2310.6	2317.6	2321.1	2324.7	2310.6
20°	2257.6	2254.2	2264.7	2254.2	2257.6	2261.2	2261.2	2254.2	2285.8	2247.1
22.5°	2197.6	2208.3	2194.1	2187.1	2194.1	2201.2	2201.2	2204.7	2197.6	2190.5
25°	2137.7	2144.8	2148.2	2127.1	2137.7	2127.1	2151.8	2155.3	2141.2	2148.2
27.5°	2084.8	2074.3	2070.7	2056.6	2063.6	2060.1	2063.6	2063.6	2084.8	2056.6
30°	2003.6	1993.1	1996.5	1986.0	1989.5	1986.0	1989.5	1989.5	2003.6	2000.1
32.5°	1926.0	1915.5	1919.0	1908.5	1908.5	1911.9	1904.9	1904.9	1915.5	1908.5
35°	1851.9	1827.3	1830.7	1827.3	1830.7	1816.6	1816.6	1813.2	1820.2	1802.5
37.5°	1746.1	1735.6	1732.0	1728.5	1732.0	1724.9	1732.0	1721.5	1732.0	1717.9
40°	1650.8	1643.8	1647.4	1626.2	1626.2	1629.7	1622.6	1619.2	1622.6	1636.7
42.5°	1555.7	1541.6	1534.5	1527.5	1530.9	1520.4	1516.8	1509.8	1516.8	1502.7
45°	1442.7	1442.7	1439.3	1421.6	1425.2	1425.2	1411.0	1396.9	1400.4	1400.4
47.5°	1340.5	1333.5	1329.9	1312.3	1308.7	1305.3	1291.0	1280.5	1280.5	1269.9
50°	1227.5	1220.5	1210.0	1192.3	1185.2	1164.1	1153.6	1139.5	1125.4	1125.4
52.5°	1121.8	1097.0	1082.9	1054.7	1044.2	1033.5	1005.3	994.8	984.2	973.7
55°	994.8	973.7	945.4	913.6	899.5	881.8	853.6	832.5	818.4	822.0
57.5°	871.3	836.1	807.9	765.5	747.8	737.2	709.0	680.8	666.7	666.7
60°	719.6	691.4	656.2	617.3	603.2	585.6	550.2	532.7	522.0	511.5
62.5°	575.0	553.8	522.0	472.7	462.1	444.4	419.8	398.7	388.0	388.0
65°	430.3	409.2	381.0	345.7	331.6	317.5	296.3	275.2	264.5	261.1
67.5°	303.4	278.6	254.0	225.8	215.2	208.1	187.0	172.9	165.8	162.2
70°	183.4	169.3	151.7	130.5	119.9	112.8	98.7	88.2	84.6	81.2
72.5°	95.3	84.6	70.5	56.4	49.4	42.3	35.3	28.2	24.8	24.8
75°	35.3	28.2	17.7	10.6	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)