

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: P840234

Luminaire Tested: **LD4C65D010 EU4659040 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: P840234
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: LD4C65D010 EU4659040 4LBCSSQMMS
Description: 4 INCH 6500 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

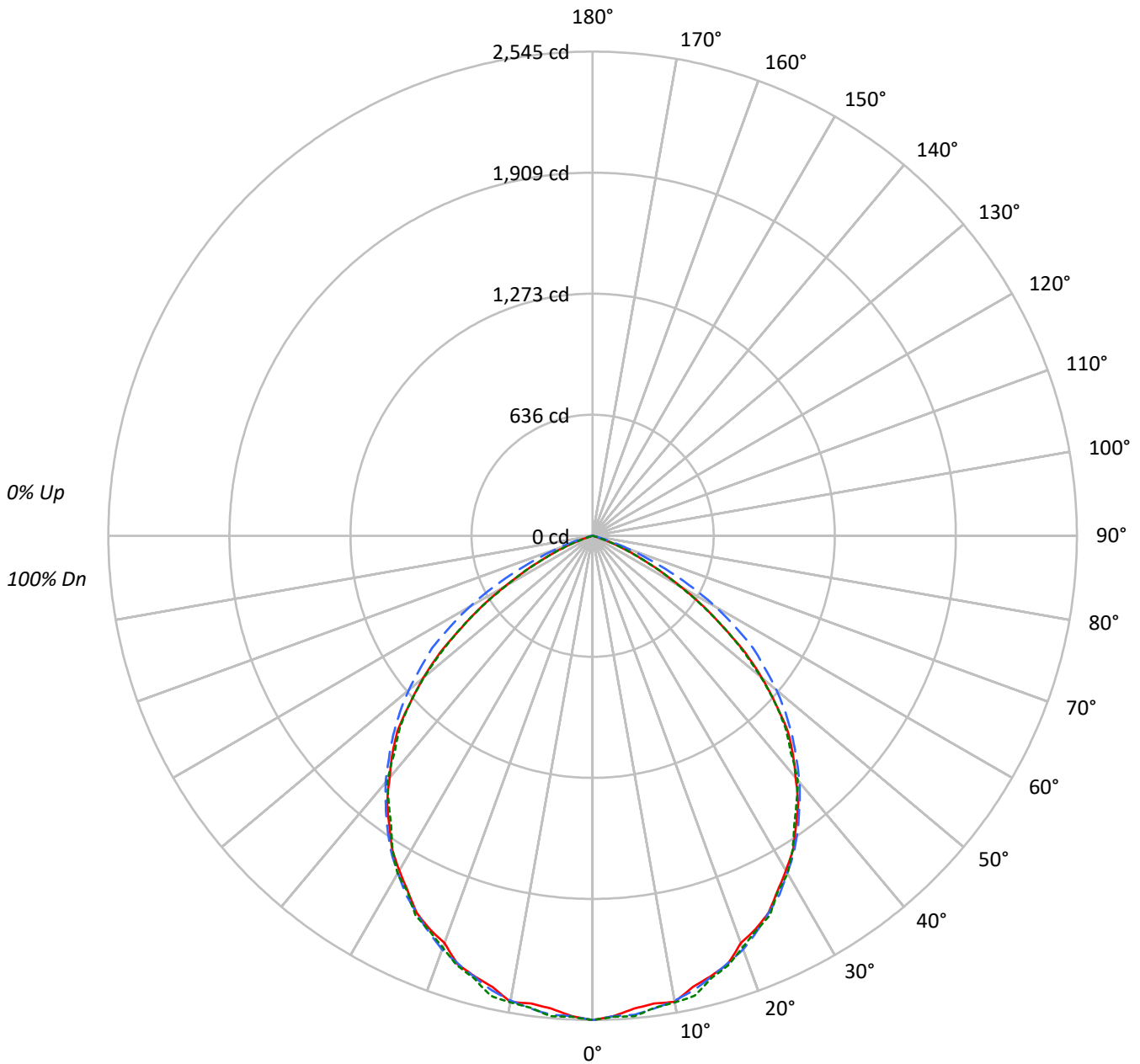
Lumens per Lamp: N/A
Luminaire Lumens: 5437.0 lumens
Efficiency: N/A
Efficacy: 75.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 72.4
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°	245584	245584	245584
5°	241621	244769	245466
10°	243709	243004	244052
15°	239443	239792	240522
20°	233877	237584	236475
25°	232857	232857	234401
30°	226375	227979	228391
35°	219304	221447	217607
40°	209026	213107	211281
45°	197820	202269	195842
50°	174218	189409	173137
55°	141089	173320	141711
60°	103243	143730	101159
65°	62740	102352	61096
70°	24459	55097	23472
75°	2684	14838	2684
80°	2056	2056	2056
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.2	4.4
10°-20°	679.8	12.5
20°-30°	1008.7	18.6
30°-40°	1168.8	21.5
40°-50°	1120.6	20.6
50°-60°	824.0	15.2
60°-70°	355.9	6.5
70°-80°	38.4	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°	1928.8	35.5
0°-40°	3097.6	57.0
0°-60°	5042.2	92.7
0°-90°	5437.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5437.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2545	2545	2545	2545	2545	
5°	2495	2520	2527	2531	2534	238
15°	2397	2411	2400	2404	2408	676
25°	2187	2184	2187	2191	2202	1001
35°	1862	1873	1880	1876	1847	1164
45°	1450	1453	1482	1461	1435	1102
55°	839	926	1030	922	842	755
65°	275	343	448	340	268	282
75°	7	11	40	7	7	22
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°	2545.2	2545.2	2545.2	2545.2	2545.2	2545.2	2545.2	2545.2	2545.2	2545.2	2545.2
2.5°	2527.1	2556.0	2559.7	2541.5	2534.3	2523.5	2548.8	2530.8	2538.0	2530.8	2527.1
5°	2494.6	2527.1	2530.8	2530.8	2523.5	2519.9	2530.8	2527.1	2523.5	2516.3	2527.1
7.5°	2480.2	2498.2	2516.3	2494.6	2505.4	2501.9	2527.1	2516.3	2512.6	2512.6	2505.4
10°	2487.4	2483.7	2498.2	2476.5	2483.7	2476.5	2498.2	2498.2	2490.9	2483.7	2480.2
12.5°	2429.4	2458.4	2458.4	2454.8	2447.6	2436.7	2458.4	2472.9	2451.1	2451.1	2447.6
15°	2397.0	2404.2	2407.8	2407.8	2404.2	2411.4	2422.2	2407.8	2411.4	2393.3	2400.5
17.5°	2360.8	2346.4	2357.2	2349.9	2353.6	2360.8	2375.3	2375.3	2353.6	2349.9	2357.2
20°	2277.7	2321.0	2324.7	2303.0	2306.6	2306.6	2331.9	2310.2	2324.7	2306.6	2313.8
22.5°	2237.8	2266.7	2270.4	2241.5	2259.5	2237.8	2263.2	2230.6	2266.7	2241.5	2252.3
25°	2187.2	2183.7	2194.5	2180.0	2183.7	2183.7	2201.7	2187.2	2198.1	2183.7	2187.2
27.5°	2104.2	2133.1	2129.4	2115.0	2122.2	2118.6	2154.8	2115.0	2136.6	2118.6	2125.9
30°	2031.8	2057.1	2049.9	2035.4	2035.4	2024.5	2064.4	2053.4	2049.9	2049.9	2046.2
32.5°	1959.5	1963.2	1955.9	1959.5	1963.2	1948.7	1981.2	1966.7	1963.2	1966.7	1970.4
35°	1861.8	1861.8	1869.1	1858.3	1872.7	1872.7	1901.7	1883.5	1880.0	1869.1	1880.0
37.5°	1775.1	1764.3	1767.9	1767.9	1775.1	1782.3	1796.8	1789.6	1789.6	1778.8	1786.0
40°	1659.5	1652.2	1663.0	1663.0	1673.9	1673.9	1688.4	1681.1	1691.9	1691.9	1691.9
42.5°	1558.3	1558.3	1551.0	1561.8	1565.5	1561.8	1587.2	1583.5	1587.2	1579.9	1583.5
45°	1449.7	1449.7	1442.5	1438.9	1456.9	1453.4	1482.3	1471.4	1485.8	1478.6	1482.3
47.5°	1301.5	1319.6	1308.7	1319.6	1341.3	1345.0	1363.0	1355.7	1370.2	1359.4	1373.9
50°	1160.6	1160.6	1171.4	1185.8	1207.5	1211.2	1232.9	1247.3	1254.5	1258.1	1261.8
52.5°	1012.3	1008.7	1019.6	1037.6	1055.7	1070.2	1091.8	1113.5	1128.0	1149.7	1138.8
55°	838.7	846.0	856.9	878.5	907.5	925.5	943.6	972.5	997.9	1008.7	1030.3
57.5°	690.5	683.3	690.5	719.4	752.0	766.4	791.8	820.7	856.9	878.5	885.8
60°	535.0	538.7	545.9	571.3	596.5	618.2	629.1	676.0	708.6	730.3	744.8
62.5°	394.1	401.4	408.6	430.3	455.5	473.6	491.6	531.5	560.4	582.1	596.5
65°	274.8	278.3	289.3	300.0	325.4	343.4	357.9	390.5	419.4	437.5	448.3
67.5°	169.9	173.5	180.7	195.3	213.3	227.8	242.2	263.9	289.3	307.3	310.9
70°	86.7	90.4	94.0	104.9	119.3	126.6	137.3	155.5	173.5	187.9	195.3
72.5°	28.9	28.9	32.6	39.8	47.1	54.3	57.8	76.0	90.4	97.6	101.2
75°	7.2	7.2	7.2	7.2	7.2	10.9	10.9	21.7	28.9	36.1	39.8
77.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	7.2	7.2
80°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
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°	2545.2	2545.2	2545.2	2545.2	2545.2	2545.2	2545.2	2545.2	2545.2	2545.2
2.5°	2545.2	2538.0	2534.3	2538.0	2538.0	2534.3	2545.2	2559.7	2577.7	2530.8
5°	2541.5	2534.3	2541.5	2519.9	2530.8	2523.5	2538.0	2534.3	2548.8	2534.3
7.5°	2530.8	2516.3	2519.9	2509.1	2523.5	2505.4	2516.3	2538.0	2523.5	2501.9
10°	2494.6	2487.4	2512.6	2476.5	2469.3	2483.7	2512.6	2490.9	2483.7	2490.9
12.5°	2458.4	2458.4	2469.3	2440.4	2443.9	2451.1	2465.6	2451.1	2458.4	2476.5
15°	2418.7	2411.4	2429.4	2407.8	2404.2	2397.0	2411.4	2411.4	2418.7	2407.8
17.5°	2371.6	2360.8	2360.8	2353.6	2349.9	2368.1	2375.3	2378.8	2382.5	2368.1
20°	2313.8	2310.2	2321.0	2310.2	2313.8	2317.5	2317.5	2310.2	2342.7	2303.0
22.5°	2252.3	2263.2	2248.7	2241.5	2248.7	2256.0	2256.0	2259.5	2252.3	2245.1
25°	2190.9	2198.1	2201.7	2180.0	2190.9	2180.0	2205.4	2208.9	2194.5	2201.7
27.5°	2136.6	2125.9	2122.2	2107.7	2115.0	2111.4	2115.0	2115.0	2136.6	2107.7
30°	2053.4	2042.7	2046.2	2035.4	2039.0	2035.4	2039.0	2039.0	2053.4	2049.9
32.5°	1973.9	1963.2	1966.7	1955.9	1955.9	1959.5	1952.3	1952.3	1963.2	1955.9
35°	1898.0	1872.7	1876.3	1872.7	1876.3	1861.8	1861.8	1858.3	1865.5	1847.4
37.5°	1789.6	1778.8	1775.1	1771.6	1775.1	1767.9	1775.1	1764.3	1775.1	1760.6
40°	1691.9	1684.7	1688.4	1666.7	1666.7	1670.2	1663.0	1659.5	1663.0	1677.4
42.5°	1594.4	1579.9	1572.7	1565.5	1569.0	1558.3	1554.6	1547.3	1554.6	1540.1
45°	1478.6	1478.6	1475.1	1456.9	1460.6	1460.6	1446.2	1431.7	1435.2	1435.2
47.5°	1373.9	1366.6	1363.0	1345.0	1341.3	1337.7	1323.1	1312.4	1312.4	1301.5
50°	1258.1	1250.9	1240.1	1221.9	1214.7	1193.0	1182.3	1167.8	1153.4	1153.4
52.5°	1149.7	1124.3	1109.8	1080.9	1070.2	1059.2	1030.3	1019.6	1008.7	997.9
55°	1019.6	997.9	969.0	936.4	921.9	903.8	874.9	853.2	838.7	842.4
57.5°	893.0	856.9	828.0	784.6	766.4	755.5	726.6	697.7	683.3	683.3
60°	737.5	708.6	672.5	632.7	618.2	600.2	563.9	545.9	535.0	524.2
62.5°	589.3	567.6	535.0	484.4	473.6	455.5	430.3	408.6	397.7	397.7
65°	441.0	419.4	390.5	354.3	339.9	325.4	303.7	282.0	271.1	267.6
67.5°	310.9	285.6	260.3	231.4	220.5	213.3	191.6	177.2	169.9	166.2
70°	187.9	173.5	155.5	133.8	122.9	115.6	101.2	90.4	86.7	83.2
72.5°	97.6	86.7	72.3	57.8	50.6	43.4	36.1	28.9	25.4	25.4
75°	36.1	28.9	18.1	10.9	7.2	7.2	7.2	7.2	7.2	7.2
77.5°	7.2	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
80°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
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)