

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: P840167

Luminaire Tested: **LD4C30D010 EU4309050 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: P840167  
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: LD4C30D010 EU4309050 4LBCSSQMW  
Description: 4 INCH 3000 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**

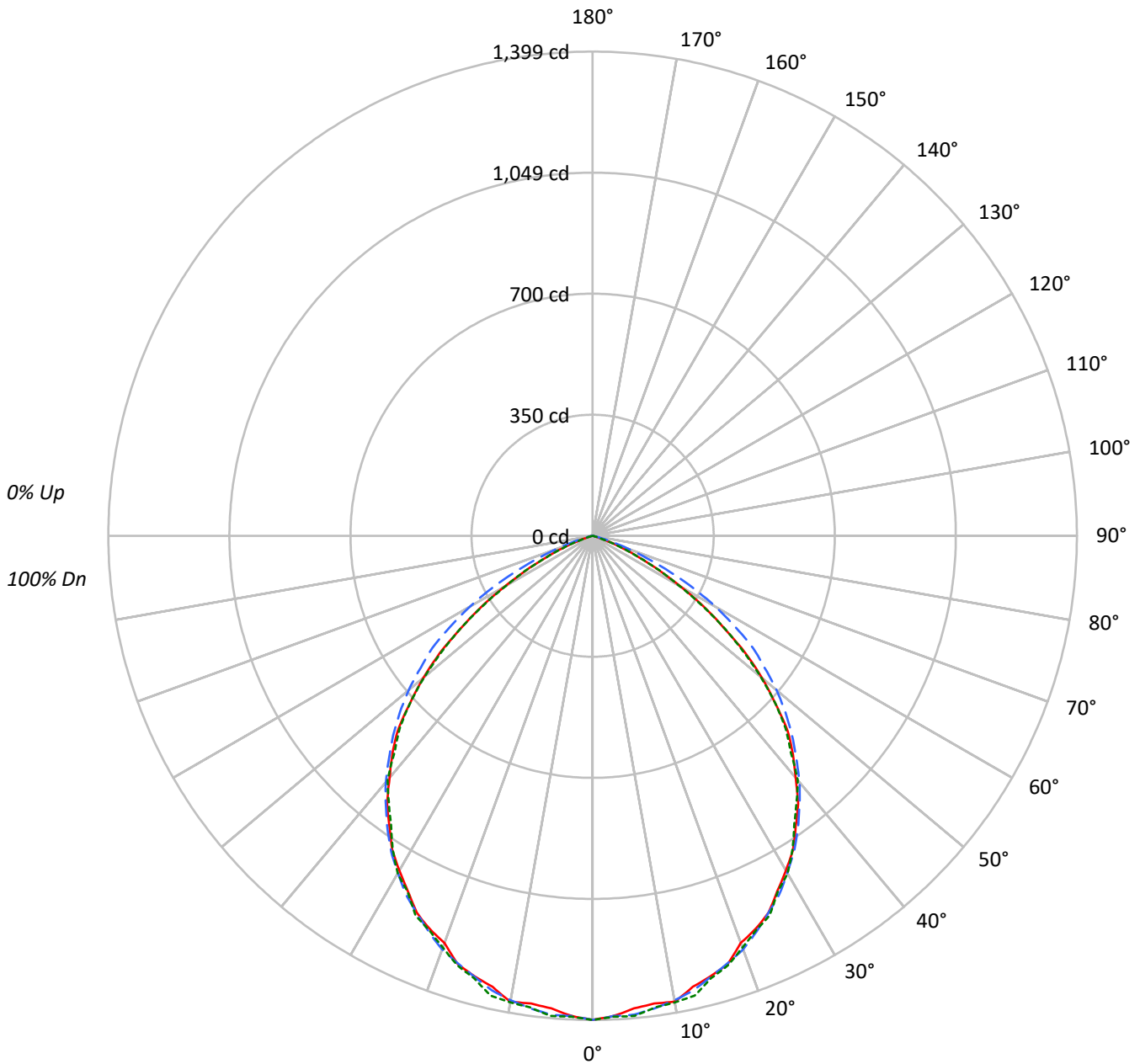
Lumens per Lamp: N/A  
Luminaire Lumens: 2988.0 lumens  
Efficiency: N/A  
Efficacy: 94.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 31.6  
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

TEST NUMBER: P840167

CATALOG NUMBER: LD4C30D010 EU4309050 4LBCSSQMW

### Luminous Intensity Polar Plot





TEST NUMBER: P840167

CATALOG NUMBER: LD4C30D010 EU4309050 4LBCSSQMW

**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°	134969	134969	134969
5°	132792	134516	134903
10°	133935	133543	134121
15°	131589	131788	132178
20°	128526	130570	129964
25°	127969	127969	128821
30°	124407	125287	125521
35°	120524	121702	119593
40°	114873	117115	116120
45°	108714	111157	107636
50°	95740	104086	95140
55°	77534	95248	77887
60°	56735	78986	55597
65°	34475	56256	33585
70°	13457	30271	12893
75°	1491	8164	1491
80°	1111	1111	1111
85°	0	0	0



TEST NUMBER: P840167

CATALOG NUMBER: LD4C30D010 EU4309050 4LBCSSQMW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.0	4.4
10°-20°	373.6	12.5
20°-30°	554.4	18.6
30°-40°	642.3	21.5
40°-50°	615.9	20.6
50°-60°	452.8	15.2
60°-70°	195.6	6.5
70°-80°	21.1	0.7
80°-90°	0.3	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°	1060.0	35.5
0°-40°	1702.4	57.0
0°-60°	2771.0	92.7
0°-90°	2988.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2988.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1399	1399	1399	1399	1399	
5°	1371	1385	1389	1391	1393	131
15°	1317	1325	1319	1321	1323	371
25°	1202	1200	1202	1204	1210	550
35°	1023	1029	1033	1031	1015	640
45°	797	799	815	803	789	606
55°	461	509	566	507	463	415
65°	151	189	246	187	147	155
75°	4	6	22	4	4	12
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P840167

CATALOG NUMBER: LD4C30D010 EU4309050 4LBCSSQMW

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1398.8	1398.8	1398.8	1398.8	1398.8	1398.8	1398.8	1398.8	1398.8	1398.8	1398.8
2.5°	1388.8	1404.7	1406.7	1396.8	1392.8	1386.9	1400.7	1390.8	1394.8	1390.8	1388.8
5°	1371.0	1388.8	1390.8	1390.8	1386.9	1384.8	1390.8	1388.8	1386.9	1382.9	1388.8
7.5°	1363.0	1372.9	1382.9	1371.0	1376.9	1374.9	1388.8	1382.9	1380.9	1380.9	1376.9
10°	1367.0	1365.0	1372.9	1361.0	1365.0	1361.0	1372.9	1372.9	1368.9	1365.0	1363.0
12.5°	1335.1	1351.0	1351.0	1349.1	1345.1	1339.1	1351.0	1359.1	1347.1	1347.1	1345.1
15°	1317.3	1321.3	1323.2	1323.2	1321.3	1325.2	1331.2	1323.2	1325.2	1315.3	1319.3
17.5°	1297.4	1289.5	1295.4	1291.4	1293.5	1297.4	1305.4	1305.4	1293.5	1291.4	1295.4
20°	1251.7	1275.6	1277.6	1265.7	1267.6	1267.6	1281.6	1269.6	1277.6	1267.6	1271.6
22.5°	1229.8	1245.7	1247.8	1231.9	1241.8	1229.8	1243.8	1225.9	1245.7	1231.9	1237.8
25°	1202.0	1200.1	1206.0	1198.1	1200.1	1200.1	1210.0	1202.0	1208.0	1200.1	1202.0
27.5°	1156.4	1172.3	1170.3	1162.3	1166.3	1164.3	1184.2	1162.3	1174.2	1164.3	1168.3
30°	1116.6	1130.5	1126.6	1118.6	1118.6	1112.6	1134.5	1128.5	1126.6	1126.6	1124.5
32.5°	1076.9	1078.9	1074.9	1076.9	1078.9	1070.9	1088.8	1080.8	1078.9	1080.8	1082.9
35°	1023.2	1023.2	1027.2	1021.3	1029.2	1029.2	1045.1	1035.1	1033.2	1027.2	1033.2
37.5°	975.5	969.6	971.6	971.6	975.5	979.5	987.5	983.5	983.5	977.6	981.5
40°	912.0	908.0	913.9	913.9	919.9	919.9	927.9	923.9	929.8	929.8	929.8
42.5°	856.4	856.4	852.4	858.3	860.3	858.3	872.3	870.2	872.3	868.3	870.2
45°	796.7	796.7	792.7	790.8	800.7	798.7	814.6	808.6	816.6	812.6	814.6
47.5°	715.2	725.2	719.2	725.2	737.1	739.1	749.0	745.1	753.0	747.1	755.0
50°	637.8	637.8	643.7	651.7	663.6	665.6	677.5	685.5	689.5	691.4	693.4
52.5°	556.3	554.3	560.3	570.2	580.2	588.1	600.0	612.0	619.9	631.8	625.8
55°	460.9	464.9	470.9	482.8	498.7	508.6	518.6	534.5	548.4	554.3	566.2
57.5°	379.5	375.5	379.5	395.4	413.3	421.2	435.2	451.0	470.9	482.8	486.8
60°	294.0	296.0	300.0	314.0	327.8	339.7	345.7	371.5	389.4	401.4	409.3
62.5°	216.6	220.6	224.5	236.5	250.3	260.3	270.2	292.1	308.0	319.9	327.8
65°	151.0	153.0	159.0	164.9	178.8	188.7	196.7	214.6	230.5	240.4	246.4
67.5°	93.4	95.3	99.3	107.3	117.2	125.2	133.1	145.0	159.0	168.9	170.9
70°	47.7	49.7	51.6	57.6	65.6	69.6	75.5	85.4	95.3	103.3	107.3
72.5°	15.9	15.9	17.9	21.9	25.9	29.8	31.8	41.7	49.7	53.7	55.6
75°	4.0	4.0	4.0	4.0	4.0	6.0	6.0	11.9	15.9	19.9	21.9
77.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	4.0	4.0
80°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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



TEST NUMBER: P840167

CATALOG NUMBER: LD4C30D010 EU4309050 4LBCSSQMW

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1398.8	1398.8	1398.8	1398.8	1398.8	1398.8	1398.8	1398.8	1398.8	1398.8
2.5°	1398.8	1394.8	1392.8	1394.8	1394.8	1392.8	1398.8	1406.7	1416.6	1390.8
5°	1396.8	1392.8	1396.8	1384.8	1390.8	1386.9	1394.8	1392.8	1400.7	1392.8
7.5°	1390.8	1382.9	1384.8	1378.9	1386.9	1376.9	1382.9	1394.8	1386.9	1374.9
10°	1371.0	1367.0	1380.9	1361.0	1357.0	1365.0	1380.9	1368.9	1365.0	1368.9
12.5°	1351.0	1351.0	1357.0	1341.1	1343.1	1347.1	1355.0	1347.1	1351.0	1361.0
15°	1329.2	1325.2	1335.1	1323.2	1321.3	1317.3	1325.2	1325.2	1329.2	1323.2
17.5°	1303.4	1297.4	1297.4	1293.5	1291.4	1301.4	1305.4	1307.3	1309.4	1301.4
20°	1271.6	1269.6	1275.6	1269.6	1271.6	1273.6	1273.6	1269.6	1287.5	1265.7
22.5°	1237.8	1243.8	1235.8	1231.9	1235.8	1239.8	1239.8	1241.8	1237.8	1233.8
25°	1204.1	1208.0	1210.0	1198.1	1204.1	1198.1	1212.0	1213.9	1206.0	1210.0
27.5°	1174.2	1168.3	1166.3	1158.3	1162.3	1160.4	1162.3	1162.3	1174.2	1158.3
30°	1128.5	1122.6	1124.5	1118.6	1120.6	1118.6	1120.6	1120.6	1128.5	1126.6
32.5°	1084.8	1078.9	1080.8	1074.9	1074.9	1076.9	1072.9	1072.9	1078.9	1074.9
35°	1043.1	1029.2	1031.1	1029.2	1031.1	1023.2	1023.2	1021.3	1025.2	1015.3
37.5°	983.5	977.6	975.5	973.6	975.5	971.6	975.5	969.6	975.5	967.6
40°	929.8	925.8	927.9	916.0	916.0	917.9	913.9	912.0	913.9	921.9
42.5°	876.2	868.3	864.3	860.3	862.3	856.4	854.3	850.4	854.3	846.4
45°	812.6	812.6	810.6	800.7	802.7	802.7	794.8	786.8	788.8	788.8
47.5°	755.0	751.1	749.0	739.1	737.1	735.2	727.2	721.2	721.2	715.2
50°	691.4	687.4	681.5	671.5	667.6	655.7	649.7	641.8	633.8	633.8
52.5°	631.8	617.9	609.9	594.0	588.1	582.1	566.2	560.3	554.3	548.4
55°	560.3	548.4	532.5	514.6	506.7	496.7	480.8	468.9	460.9	463.0
57.5°	490.8	470.9	455.0	431.2	421.2	415.2	399.3	383.4	375.5	375.5
60°	405.3	389.4	369.6	347.7	339.7	329.9	309.9	300.0	294.0	288.1
62.5°	323.9	311.9	294.0	266.2	260.3	250.3	236.5	224.5	218.6	218.6
65°	242.4	230.5	214.6	194.7	186.8	178.8	166.9	155.0	149.0	147.1
67.5°	170.9	156.9	143.1	127.2	121.2	117.2	105.3	97.4	93.4	91.4
70°	103.3	95.3	85.4	73.5	67.5	63.6	55.6	49.7	47.7	45.7
72.5°	53.7	47.7	39.7	31.8	27.8	23.8	19.9	15.9	13.9	13.9
75°	19.9	15.9	10.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0
77.5°	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
80°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)