

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: P840159

Luminaire Tested: **LD4C30D010 EU4309027 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: P840159
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 EU4309027 4LBCSSQMW
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

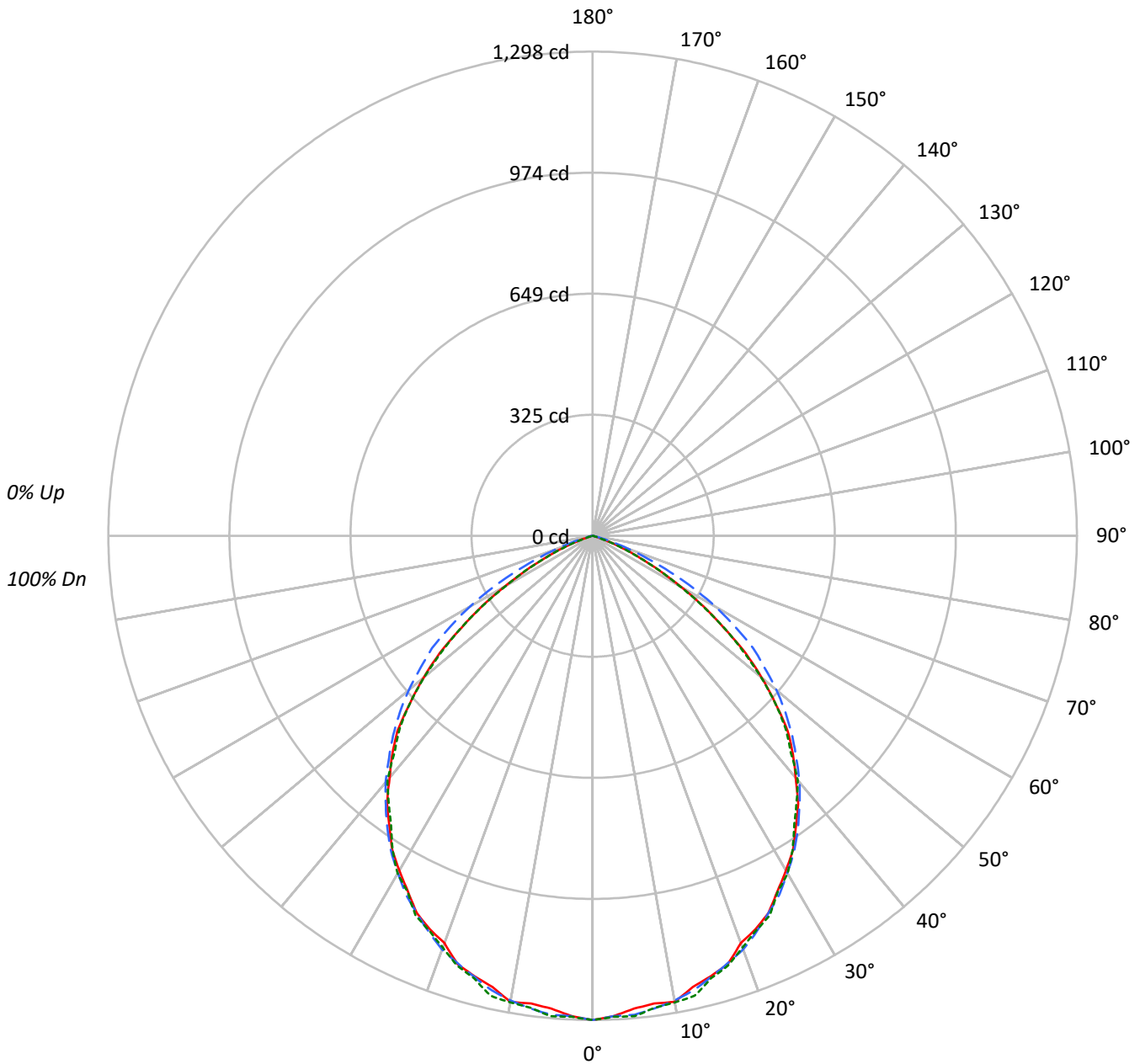
Lumens per Lamp: N/A
Luminaire Lumens: 2773.0 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 31.6
Input Voltage (V):
Input Current (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				
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°	125252	125252	125252
5°	123232	124840	125198
10°	124294	123932	124470
15°	122119	122299	122668
20°	119285	121174	120609
25°	118760	118760	119548
30°	115449	116274	116485
35°	111855	112938	110983
40°	106610	108689	107756
45°	100895	103161	99886
50°	88850	96596	88295
55°	71966	88401	72269
60°	52664	73293	51602
65°	32009	52192	31165
70°	12469	28099	11962
75°	1379	7568	1379
80°	1056	1056	1056
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.5	4.4
10°-20°	346.7	12.5
20°-30°	514.5	18.6
30°-40°	596.1	21.5
40°-50°	571.5	20.6
50°-60°	420.2	15.2
60°-70°	181.5	6.5
70°-80°	19.6	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°	983.7	35.5
0°-40°	1579.9	57.0
0°-60°	2571.6	92.7
0°-90°	2773.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2773.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1298	1298	1298	1298	1298	
5°	1272	1285	1289	1291	1293	121
15°	1222	1230	1224	1226	1228	345
25°	1116	1114	1116	1117	1123	511
35°	950	955	959	957	942	594
45°	739	741	756	745	732	562
55°	428	472	526	470	430	385
65°	140	175	229	173	136	144
75°	4	6	20	4	4	11
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°	1298.1	1298.1	1298.1	1298.1	1298.1	1298.1	1298.1	1298.1	1298.1	1298.1	1298.1
2.5°	1288.9	1303.6	1305.5	1296.2	1292.6	1287.1	1299.9	1290.8	1294.4	1290.8	1288.9
5°	1272.3	1288.9	1290.8	1290.8	1287.1	1285.2	1290.8	1288.9	1287.1	1283.4	1288.9
7.5°	1264.9	1274.1	1283.4	1272.3	1277.8	1276.0	1288.9	1283.4	1281.5	1281.5	1277.8
10°	1268.6	1266.8	1274.1	1263.1	1266.8	1263.1	1274.1	1274.1	1270.4	1266.8	1264.9
12.5°	1239.1	1253.8	1253.8	1252.0	1248.3	1242.8	1253.8	1261.3	1250.1	1250.1	1248.3
15°	1222.5	1226.2	1228.0	1228.0	1226.2	1229.9	1235.4	1228.0	1229.9	1220.6	1224.3
17.5°	1204.1	1196.7	1202.2	1198.5	1200.4	1204.1	1211.5	1211.5	1200.4	1198.5	1202.2
20°	1161.7	1183.8	1185.7	1174.6	1176.4	1176.4	1189.3	1178.3	1185.7	1176.4	1180.1
22.5°	1141.3	1156.1	1158.0	1143.2	1152.4	1141.3	1154.3	1137.7	1156.1	1143.2	1148.7
25°	1115.5	1113.7	1119.2	1111.9	1113.7	1113.7	1122.9	1115.5	1121.1	1113.7	1115.5
27.5°	1073.2	1087.9	1086.0	1078.7	1082.4	1080.6	1099.0	1078.7	1089.7	1080.6	1084.2
30°	1036.2	1049.2	1045.5	1038.1	1038.1	1032.6	1052.9	1047.3	1045.5	1045.5	1043.6
32.5°	999.4	1001.3	997.6	999.4	1001.3	993.9	1010.4	1003.1	1001.3	1003.1	1004.9
35°	949.6	949.6	953.3	947.8	955.1	955.1	969.9	960.6	958.8	953.3	958.8
37.5°	905.3	899.8	901.7	901.7	905.3	909.0	916.4	912.7	912.7	907.2	910.9
40°	846.4	842.7	848.2	848.2	853.7	853.7	861.1	857.4	862.9	862.9	862.9
42.5°	794.7	794.7	791.1	796.6	798.4	796.6	809.5	807.6	809.5	805.8	807.6
45°	739.4	739.4	735.7	733.9	743.1	741.3	756.0	750.4	757.8	754.1	756.0
47.5°	663.8	673.0	667.5	673.0	684.1	686.0	695.1	691.5	698.8	693.3	700.7
50°	591.9	591.9	597.4	604.8	615.8	617.7	628.8	636.2	639.8	641.7	643.5
52.5°	516.3	514.4	520.0	529.2	538.4	545.8	556.9	567.9	575.3	586.4	580.8
55°	427.8	431.5	437.0	448.1	462.8	472.0	481.3	496.0	508.9	514.4	525.5
57.5°	352.2	348.5	352.2	366.9	383.5	390.9	403.8	418.6	437.0	448.1	451.8
60°	272.9	274.7	278.4	291.4	304.2	315.3	320.9	344.8	361.4	372.5	379.8
62.5°	201.0	204.7	208.4	219.5	232.3	241.6	250.7	271.1	285.8	296.9	304.2
65°	140.2	142.0	147.5	153.0	166.0	175.1	182.5	199.1	213.9	223.1	228.6
67.5°	86.7	88.5	92.2	99.6	108.8	116.2	123.5	134.6	147.5	156.7	158.6
70°	44.2	46.1	47.9	53.5	60.9	64.5	70.0	79.3	88.5	95.8	99.6
72.5°	14.7	14.7	16.6	20.3	24.0	27.7	29.5	38.7	46.1	49.8	51.6
75°	3.7	3.7	3.7	3.7	3.7	5.6	5.6	11.1	14.7	18.4	20.3
77.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3.7	3.7
80°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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°	1298.1	1298.1	1298.1	1298.1	1298.1	1298.1	1298.1	1298.1	1298.1	1298.1
2.5°	1298.1	1294.4	1292.6	1294.4	1294.4	1292.6	1298.1	1305.5	1314.7	1290.8
5°	1296.2	1292.6	1296.2	1285.2	1290.8	1287.1	1294.4	1292.6	1299.9	1292.6
7.5°	1290.8	1283.4	1285.2	1279.7	1287.1	1277.8	1283.4	1294.4	1287.1	1276.0
10°	1272.3	1268.6	1281.5	1263.1	1259.4	1266.8	1281.5	1270.4	1266.8	1270.4
12.5°	1253.8	1253.8	1259.4	1244.6	1246.4	1250.1	1257.5	1250.1	1253.8	1263.1
15°	1233.6	1229.9	1239.1	1228.0	1226.2	1222.5	1229.9	1229.9	1233.6	1228.0
17.5°	1209.6	1204.1	1204.1	1200.4	1198.5	1207.8	1211.5	1213.3	1215.1	1207.8
20°	1180.1	1178.3	1183.8	1178.3	1180.1	1182.0	1182.0	1178.3	1194.8	1174.6
22.5°	1148.7	1154.3	1146.9	1143.2	1146.9	1150.6	1150.6	1152.4	1148.7	1145.0
25°	1117.4	1121.1	1122.9	1111.9	1117.4	1111.9	1124.8	1126.6	1119.2	1122.9
27.5°	1089.7	1084.2	1082.4	1075.0	1078.7	1076.9	1078.7	1078.7	1089.7	1075.0
30°	1047.3	1041.8	1043.6	1038.1	1039.9	1038.1	1039.9	1039.9	1047.3	1045.5
32.5°	1006.8	1001.3	1003.1	997.6	997.6	999.4	995.7	995.7	1001.3	997.6
35°	968.0	955.1	957.0	955.1	957.0	949.6	949.6	947.8	951.5	942.2
37.5°	912.7	907.2	905.3	903.5	905.3	901.7	905.3	899.8	905.3	898.0
40°	862.9	859.2	861.1	850.0	850.0	851.9	848.2	846.4	848.2	855.5
42.5°	813.2	805.8	802.1	798.4	800.2	794.7	792.9	789.2	792.9	785.5
45°	754.1	754.1	752.3	743.1	744.9	744.9	737.6	730.2	732.0	732.0
47.5°	700.7	697.0	695.1	686.0	684.1	682.3	674.8	669.3	669.3	663.8
50°	641.7	638.0	632.5	623.2	619.5	608.5	603.0	595.6	588.2	588.2
52.5°	586.4	573.4	566.0	551.3	545.8	540.2	525.5	520.0	514.4	508.9
55°	520.0	508.9	494.2	477.6	470.2	460.9	446.2	435.1	427.8	429.6
57.5°	455.5	437.0	422.3	400.2	390.9	385.3	370.6	355.8	348.5	348.5
60°	376.2	361.4	343.0	322.7	315.3	306.1	287.6	278.4	272.9	267.4
62.5°	300.6	289.5	272.9	247.1	241.6	232.3	219.5	208.4	202.8	202.8
65°	224.9	213.9	199.1	180.7	173.3	166.0	154.9	143.8	138.3	136.5
67.5°	158.6	145.6	132.8	118.0	112.5	108.8	97.7	90.4	86.7	84.8
70°	95.8	88.5	79.3	68.2	62.7	59.0	51.6	46.1	44.2	42.4
72.5°	49.8	44.2	36.9	29.5	25.8	22.1	18.4	14.7	12.9	12.9
75°	18.4	14.7	9.3	5.6	3.7	3.7	3.7	3.7	3.7	3.7
77.5°	3.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
80°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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)