

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: P840163

Luminaire Tested: **LD4C30D010 EU4309035 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: P840163
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 EU4309035 4LBCSSQMW
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

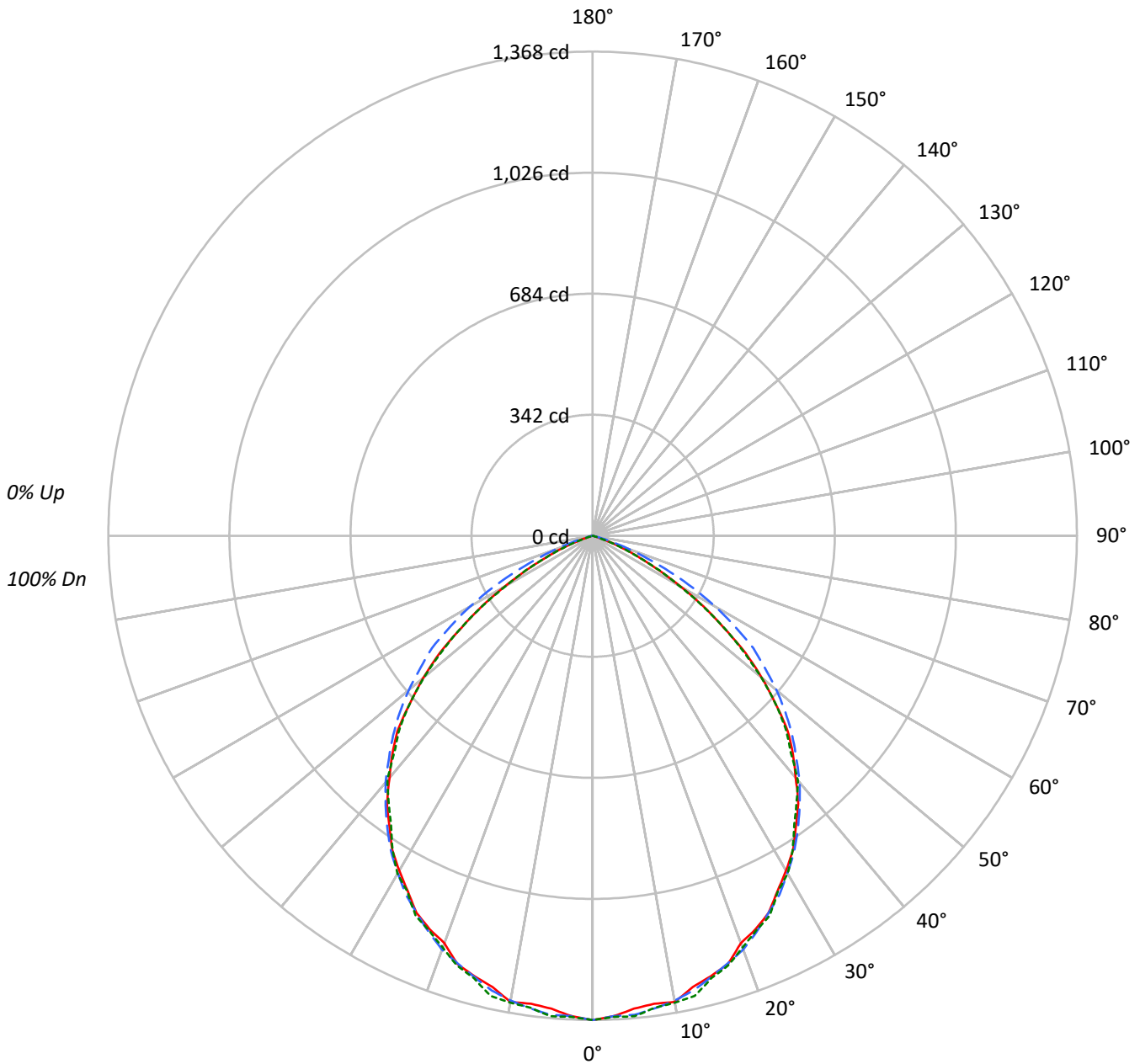
Lumens per Lamp: N/A
Luminaire Lumens: 2923.0 lumens
Efficiency: N/A
Efficacy: 92.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 31.6
Input Voltage (V):
Input Current (A_{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°	132026	132026	132026
5°	129896	131591	131968
10°	131025	130643	131211
15°	128722	128921	129301
20°	125733	127725	127130
25°	125191	125191	126021
30°	121699	122568	122791
35°	117897	119052	116990
40°	112367	114571	113588
45°	106354	108742	105289
50°	93654	101820	93083
55°	75852	93179	76188
60°	55500	77268	54381
65°	33722	55023	32854
70°	13147	29622	12611
75°	1454	7978	1454
80°	1111	1111	1111
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.2	4.4
10°-20°	365.5	12.5
20°-30°	542.3	18.6
30°-40°	628.4	21.5
40°-50°	602.5	20.6
50°-60°	443.0	15.2
60°-70°	191.3	6.5
70°-80°	20.7	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°	1037.0	35.5
0°-40°	1665.3	57.0
0°-60°	2710.7	92.7
0°-90°	2923.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2923.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1368	1368	1368	1368	1368	
5°	1341	1355	1359	1361	1362	128
15°	1289	1296	1291	1292	1294	363
25°	1176	1174	1176	1178	1184	538
35°	1001	1007	1011	1009	993	626
45°	779	781	797	785	772	592
55°	451	498	554	496	453	406
65°	148	185	241	183	144	152
75°	4	6	21	4	4	12
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°	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3
2.5°	1358.6	1374.1	1376.1	1366.4	1362.5	1356.7	1370.3	1360.6	1364.5	1360.6	1358.6
5°	1341.1	1358.6	1360.6	1360.6	1356.7	1354.7	1360.6	1358.6	1356.7	1352.8	1358.6
7.5°	1333.4	1343.1	1352.8	1341.1	1346.9	1345.0	1358.6	1352.8	1350.8	1350.8	1346.9
10°	1337.3	1335.3	1343.1	1331.4	1335.3	1331.4	1343.1	1343.1	1339.2	1335.3	1333.4
12.5°	1306.1	1321.6	1321.6	1319.7	1315.8	1310.0	1321.6	1329.5	1317.8	1317.8	1315.8
15°	1288.6	1292.5	1294.4	1294.4	1292.5	1296.4	1302.2	1294.4	1296.4	1286.7	1290.6
17.5°	1269.2	1261.4	1267.2	1263.4	1265.3	1269.2	1277.0	1277.0	1265.3	1263.4	1267.2
20°	1224.5	1247.8	1249.8	1238.1	1240.0	1240.0	1253.7	1242.0	1249.8	1240.0	1243.9
22.5°	1203.1	1218.6	1220.6	1205.1	1214.7	1203.1	1216.7	1199.2	1218.6	1205.1	1210.9
25°	1175.9	1174.0	1179.8	1172.0	1174.0	1174.0	1183.7	1175.9	1181.8	1174.0	1175.9
27.5°	1131.2	1146.8	1144.8	1137.0	1140.9	1139.0	1158.4	1137.0	1148.7	1139.0	1142.9
30°	1092.3	1105.9	1102.1	1094.3	1094.3	1088.4	1109.8	1104.0	1102.1	1102.1	1100.1
32.5°	1053.4	1055.4	1051.5	1053.4	1055.4	1047.7	1065.1	1057.3	1055.4	1057.3	1059.3
35°	1000.9	1000.9	1004.8	999.0	1006.8	1006.8	1022.4	1012.6	1010.7	1004.8	1010.7
37.5°	954.3	948.5	950.4	950.4	954.3	958.2	966.0	962.1	962.1	956.3	960.2
40°	892.1	888.3	894.0	894.0	899.9	899.9	907.7	903.8	909.6	909.6	909.6
42.5°	837.7	837.7	833.9	839.6	841.6	839.6	853.3	851.3	853.3	849.4	851.3
45°	779.4	779.4	775.5	773.6	783.3	781.4	796.9	791.0	798.8	794.9	796.9
47.5°	699.7	709.4	703.6	709.4	721.1	723.1	732.7	728.9	736.6	730.8	738.6
50°	623.9	623.9	629.7	637.5	649.2	651.1	662.8	670.6	674.5	676.4	678.3
52.5°	544.2	542.3	548.1	557.8	567.6	575.3	587.0	598.6	606.4	618.1	612.2
55°	450.9	454.8	460.7	472.3	487.9	497.5	507.3	522.8	536.5	542.3	553.9
57.5°	371.2	367.3	371.2	386.8	404.3	412.1	425.7	441.2	460.7	472.3	476.2
60°	287.6	289.6	293.5	307.1	320.7	332.4	338.2	363.4	381.0	392.6	400.4
62.5°	211.9	215.8	219.7	231.3	244.9	254.6	264.3	285.7	301.3	312.9	320.7
65°	147.7	149.6	155.5	161.3	174.9	184.6	192.4	209.9	225.5	235.2	241.0
67.5°	91.4	93.3	97.1	105.0	114.7	122.4	130.2	141.9	155.5	165.2	167.2
70°	46.6	48.6	50.5	56.4	64.2	68.0	73.8	83.6	93.3	101.0	105.0
72.5°	15.5	15.5	17.5	21.4	25.3	29.2	31.1	40.8	48.6	52.5	54.4
75°	3.9	3.9	3.9	3.9	3.9	5.9	5.9	11.7	15.5	19.4	21.4
77.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.9	3.9
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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3	1368.3
2.5°	1368.3	1364.5	1362.5	1364.5	1364.5	1362.5	1368.3	1376.1	1385.8	1360.6
5°	1366.4	1362.5	1366.4	1354.7	1360.6	1356.7	1364.5	1362.5	1370.3	1362.5
7.5°	1360.6	1352.8	1354.7	1348.9	1356.7	1346.9	1352.8	1364.5	1356.7	1345.0
10°	1341.1	1337.3	1350.8	1331.4	1327.5	1335.3	1350.8	1339.2	1335.3	1339.2
12.5°	1321.6	1321.6	1327.5	1312.0	1313.9	1317.8	1325.5	1317.8	1321.6	1331.4
15°	1300.3	1296.4	1306.1	1294.4	1292.5	1288.6	1296.4	1296.4	1300.3	1294.4
17.5°	1275.0	1269.2	1269.2	1265.3	1263.4	1273.1	1277.0	1278.9	1280.9	1273.1
20°	1243.9	1242.0	1247.8	1242.0	1243.9	1245.9	1245.9	1242.0	1259.5	1238.1
22.5°	1210.9	1216.7	1209.0	1205.1	1209.0	1212.8	1212.8	1214.7	1210.9	1207.0
25°	1177.9	1181.8	1183.7	1172.0	1177.9	1172.0	1185.6	1187.5	1179.8	1183.7
27.5°	1148.7	1142.9	1140.9	1133.1	1137.0	1135.1	1137.0	1137.0	1148.7	1133.1
30°	1104.0	1098.2	1100.1	1094.3	1096.2	1094.3	1096.2	1096.2	1104.0	1102.1
32.5°	1061.2	1055.4	1057.3	1051.5	1051.5	1053.4	1049.6	1049.6	1055.4	1051.5
35°	1020.4	1006.8	1008.7	1006.8	1008.7	1000.9	1000.9	999.0	1002.9	993.2
37.5°	962.1	956.3	954.3	952.4	954.3	950.4	954.3	948.5	954.3	946.5
40°	909.6	905.7	907.7	896.0	896.0	897.9	894.0	892.1	894.0	901.8
42.5°	857.2	849.4	845.5	841.6	843.5	837.7	835.8	831.9	835.8	828.0
45°	794.9	794.9	793.0	783.3	785.2	785.2	777.5	769.7	771.6	771.6
47.5°	738.6	734.7	732.7	723.1	721.1	719.2	711.3	705.5	705.5	699.7
50°	676.4	672.5	666.7	656.9	653.0	641.4	635.6	627.8	620.1	620.1
52.5°	618.1	604.4	596.7	581.1	575.3	569.5	553.9	548.1	542.3	536.5
55°	548.1	536.5	520.9	503.4	495.6	485.9	470.3	458.7	450.9	452.9
57.5°	480.1	460.7	445.1	421.8	412.1	406.2	390.6	375.1	367.3	367.3
60°	396.5	381.0	361.5	340.1	332.4	322.7	303.2	293.5	287.6	281.8
62.5°	316.8	305.2	287.6	260.4	254.6	244.9	231.3	219.7	213.8	213.8
65°	237.1	225.5	209.9	190.5	182.7	174.9	163.3	151.6	145.8	143.9
67.5°	167.2	153.5	140.0	124.4	118.6	114.7	103.0	95.2	91.4	89.4
70°	101.0	93.3	83.6	71.9	66.1	62.2	54.4	48.6	46.6	44.7
72.5°	52.5	46.6	38.9	31.1	27.2	23.3	19.4	15.5	13.6	13.6
75°	19.4	15.5	9.8	5.9	3.9	3.9	3.9	3.9	3.9	3.9
77.5°	3.9	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)