

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: P840161

Luminaire Tested: **LD4C30D010 EU4309030 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: P840161
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 EU4309030 4LBCSSQMW
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

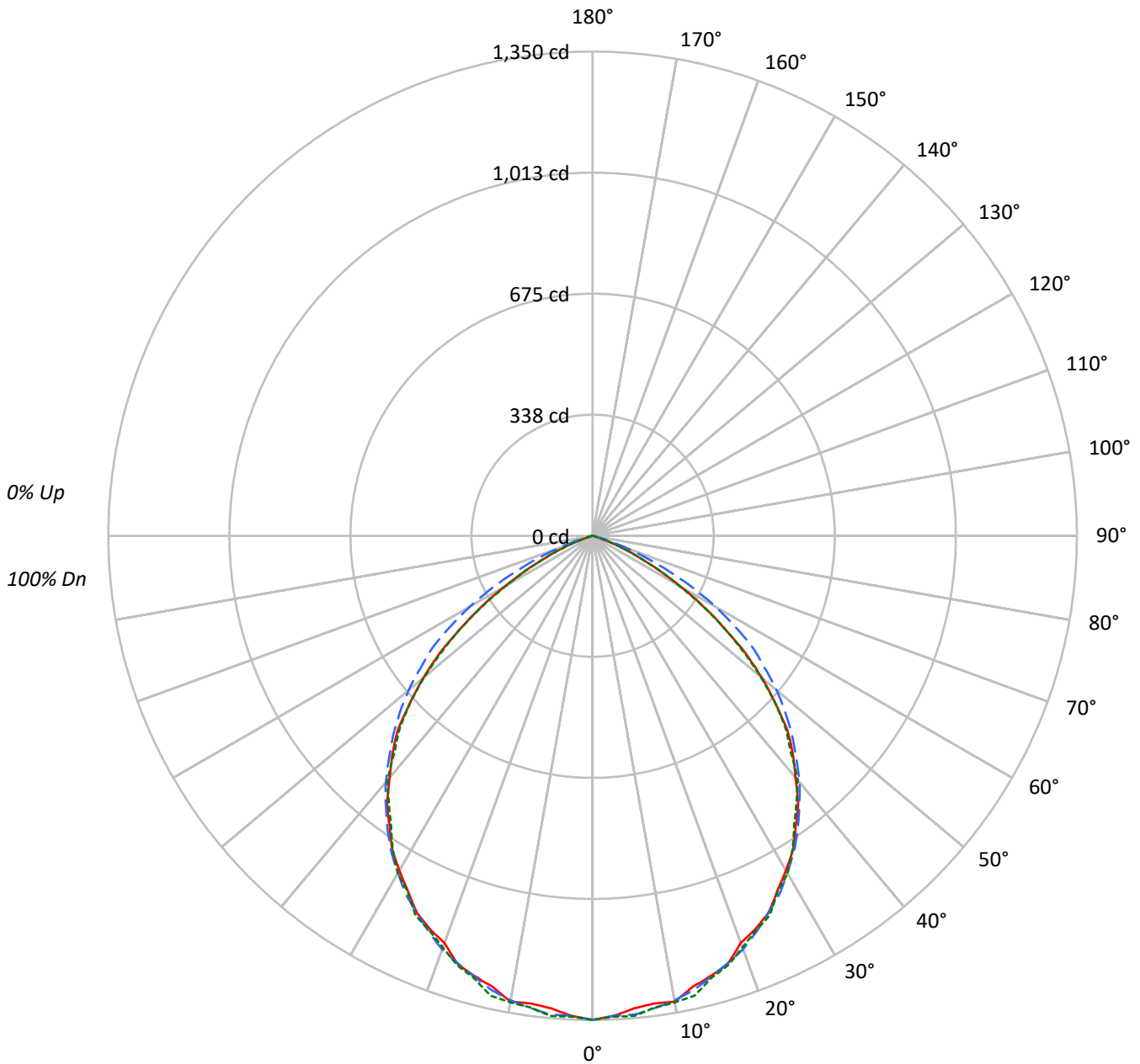
Lumens per Lamp: N/A
Luminaire Lumens: 2883.0 lumens
Efficiency: N/A
Efficacy: 91.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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				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°	130221	130221	130221
5°	128123	129789	130157
10°	129232	128850	129409
15°	126964	127153	127533
20°	124008	125980	125394
25°	123477	123477	124296
30°	120039	120886	121109
35°	116283	117426	115388
40°	110830	112996	112039
45°	104894	107254	103843
50°	92378	100439	91807
55°	74809	91900	75145
60°	54748	76207	53648
65°	33265	54270	32397
70°	12977	29227	12441
75°	1417	7866	1417
80°	1111	1111	1111
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.4	4.4
10°-20°	360.5	12.5
20°-30°	534.9	18.6
30°-40°	619.8	21.5
40°-50°	594.2	20.6
50°-60°	436.9	15.2
60°-70°	188.7	6.5
70°-80°	20.4	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°	1022.8	35.5
0°-40°	1642.5	57.0
0°-60°	2673.7	92.7
0°-90°	2883.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2883.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1350	1350	1350	1350	1350	
5°	1323	1336	1340	1342	1344	126
15°	1271	1279	1273	1275	1277	358
25°	1160	1158	1160	1162	1168	531
35°	987	993	997	995	980	617
45°	769	771	786	774	761	584
55°	445	491	546	489	447	400
65°	146	182	238	180	142	150
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°	1349.6	1349.6	1349.6	1349.6	1349.6	1349.6	1349.6	1349.6	1349.6	1349.6	1349.6
2.5°	1340.0	1355.3	1357.3	1347.7	1343.8	1338.1	1351.5	1342.0	1345.8	1342.0	1340.0
5°	1322.8	1340.0	1342.0	1342.0	1338.1	1336.2	1342.0	1340.0	1338.1	1334.3	1340.0
7.5°	1315.1	1324.7	1334.3	1322.8	1328.5	1326.6	1340.0	1334.3	1332.3	1332.3	1328.5
10°	1319.0	1317.0	1324.7	1313.2	1317.0	1313.2	1324.7	1324.7	1320.8	1317.0	1315.1
12.5°	1288.2	1303.6	1303.6	1301.7	1297.8	1292.1	1303.6	1311.3	1299.7	1299.7	1297.8
15°	1271.0	1274.8	1276.7	1276.7	1274.8	1278.7	1284.4	1276.7	1278.7	1269.1	1272.9
17.5°	1251.9	1244.2	1249.9	1246.1	1248.0	1251.9	1259.5	1259.5	1248.0	1246.1	1249.9
20°	1207.7	1230.7	1232.7	1221.2	1223.1	1223.1	1236.5	1225.0	1232.7	1223.1	1226.9
22.5°	1186.6	1202.0	1203.9	1188.6	1198.1	1186.6	1200.1	1182.8	1202.0	1188.6	1194.3
25°	1159.8	1157.9	1163.6	1156.0	1157.9	1157.9	1167.5	1159.8	1165.6	1157.9	1159.8
27.5°	1115.8	1131.1	1129.1	1121.5	1125.3	1123.4	1142.6	1121.5	1133.0	1123.4	1127.3
30°	1077.4	1090.8	1087.0	1079.3	1079.3	1073.5	1094.6	1088.9	1087.0	1087.0	1085.0
32.5°	1039.0	1041.0	1037.1	1039.0	1041.0	1033.3	1050.5	1042.9	1041.0	1042.9	1044.8
35°	987.2	987.2	991.1	985.4	993.0	993.0	1008.4	998.7	996.9	991.1	996.9
37.5°	941.3	935.5	937.4	937.4	941.3	945.1	952.8	948.9	948.9	943.2	947.0
40°	879.9	876.1	881.8	881.8	887.6	887.6	895.3	891.4	897.1	897.1	897.1
42.5°	826.3	826.3	822.4	828.2	830.1	828.2	841.6	839.7	841.6	837.8	839.7
45°	768.7	768.7	764.9	763.0	772.5	770.7	786.0	780.2	787.9	784.0	786.0
47.5°	690.1	699.7	693.9	699.7	711.2	713.2	722.7	718.9	726.6	720.8	728.5
50°	615.4	615.4	621.1	628.8	640.3	642.2	653.7	661.4	665.2	667.1	669.1
52.5°	536.8	534.8	540.6	550.2	559.8	567.5	579.0	590.5	598.1	609.6	603.8
55°	444.7	448.6	454.4	465.9	481.2	490.7	500.3	515.7	529.1	534.8	546.3
57.5°	366.1	362.3	366.1	381.5	398.7	406.4	419.9	435.2	454.4	465.9	469.7
60°	283.7	285.6	289.5	302.9	316.3	327.8	333.6	358.5	375.8	387.2	394.9
62.5°	209.0	212.8	216.7	228.2	241.5	251.2	260.7	281.8	297.1	308.6	316.3
65°	145.7	147.6	153.4	159.1	172.5	182.1	189.8	207.0	222.4	232.0	237.7
67.5°	90.1	92.0	95.8	103.6	113.1	120.8	128.4	139.9	153.4	162.9	164.9
70°	46.0	47.9	49.8	55.6	63.3	67.1	72.8	82.4	92.0	99.6	103.6
72.5°	15.3	15.3	17.3	21.1	24.9	28.8	30.7	40.3	47.9	51.8	53.7
75°	3.8	3.8	3.8	3.8	3.8	5.8	5.8	11.5	15.3	19.2	21.1
77.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.8	3.8
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°	1349.6	1349.6	1349.6	1349.6	1349.6	1349.6	1349.6	1349.6	1349.6	1349.6
2.5°	1349.6	1345.8	1343.8	1345.8	1345.8	1343.8	1349.6	1357.3	1366.8	1342.0
5°	1347.7	1343.8	1347.7	1336.2	1342.0	1338.1	1345.8	1343.8	1351.5	1343.8
7.5°	1342.0	1334.3	1336.2	1330.5	1338.1	1328.5	1334.3	1345.8	1338.1	1326.6
10°	1322.8	1319.0	1332.3	1313.2	1309.3	1317.0	1332.3	1320.8	1317.0	1320.8
12.5°	1303.6	1303.6	1309.3	1294.0	1295.9	1299.7	1307.4	1299.7	1303.6	1313.2
15°	1282.5	1278.7	1288.2	1276.7	1274.8	1271.0	1278.7	1278.7	1282.5	1276.7
17.5°	1257.6	1251.9	1251.9	1248.0	1246.1	1255.7	1259.5	1261.4	1263.3	1255.7
20°	1226.9	1225.0	1230.7	1225.0	1226.9	1228.9	1228.9	1225.0	1242.2	1221.2
22.5°	1194.3	1200.1	1192.4	1188.6	1192.4	1196.2	1196.2	1198.1	1194.3	1190.5
25°	1161.7	1165.6	1167.5	1156.0	1161.7	1156.0	1169.4	1171.3	1163.6	1167.5
27.5°	1133.0	1127.3	1125.3	1117.6	1121.5	1119.6	1121.5	1121.5	1133.0	1117.6
30°	1088.9	1083.1	1085.0	1079.3	1081.2	1079.3	1081.2	1081.2	1088.9	1087.0
32.5°	1046.7	1041.0	1042.9	1037.1	1037.1	1039.0	1035.2	1035.2	1041.0	1037.1
35°	1006.4	993.0	994.9	993.0	994.9	987.2	987.2	985.4	989.2	979.6
37.5°	948.9	943.2	941.3	939.4	941.3	937.4	941.3	935.5	941.3	933.6
40°	897.1	893.3	895.3	883.8	883.8	885.6	881.8	879.9	881.8	889.5
42.5°	845.4	837.8	833.9	830.1	832.0	826.3	824.3	820.5	824.3	816.7
45°	784.0	784.0	782.2	772.5	774.5	774.5	766.8	759.2	761.0	761.0
47.5°	728.5	724.7	722.7	713.2	711.2	709.3	701.6	695.9	695.9	690.1
50°	667.1	663.3	657.6	647.9	644.1	632.6	626.9	619.2	611.6	611.6
52.5°	609.6	596.2	588.5	573.2	567.5	561.7	546.3	540.6	534.8	529.1
55°	540.6	529.1	513.8	496.5	488.9	479.2	463.9	452.4	444.7	446.7
57.5°	473.5	454.4	439.0	416.0	406.4	400.6	385.3	370.0	362.3	362.3
60°	391.1	375.8	356.6	335.5	327.8	318.3	299.0	289.5	283.7	278.0
62.5°	312.5	301.0	283.7	256.9	251.2	241.5	228.2	216.7	210.9	210.9
65°	233.9	222.4	207.0	187.9	180.2	172.5	161.0	149.5	143.8	141.9
67.5°	164.9	151.4	138.1	122.7	116.9	113.1	101.6	93.9	90.1	88.2
70°	99.6	92.0	82.4	70.9	65.2	61.3	53.7	47.9	46.0	44.1
72.5°	51.8	46.0	38.3	30.7	26.8	23.0	19.2	15.3	13.5	13.5
75°	19.2	15.3	9.6	5.8	3.8	3.8	3.8	3.8	3.8	3.8
77.5°	3.8	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)