

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: P840121

Luminaire Tested: **LD4C10D010 EU4109030 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: P840121
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: LD4C10D010 EU4109030 4LBCSSQMW
Description: 4 INCH 1000 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

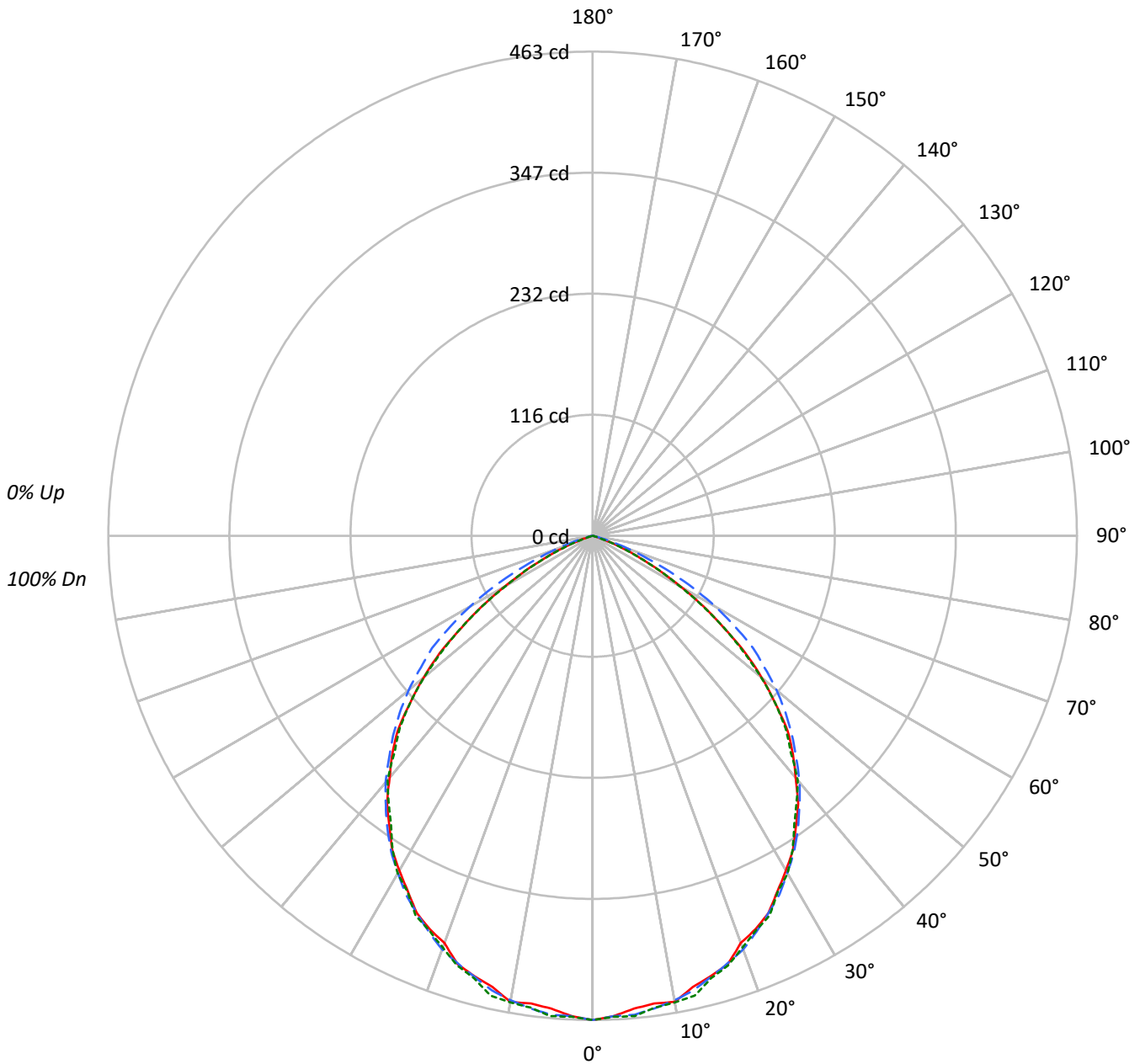
Lumens per Lamp: N/A
Luminaire Lumens: 989.0 lumens
Efficiency: N/A
Efficacy: 100.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.8
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

TEST NUMBER: P840121

CATALOG NUMBER: LD4C10D010 EU4109030 4LBCSSQMW

Luminous Intensity Polar Plot





TEST NUMBER: P840121

CATALOG NUMBER: LD4C10D010 EU4109030 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°	44674	44674	44674
5°	43954	44525	44651
10°	44335	44198	44394
15°	43553	43623	43753
20°	42541	43219	43013
25°	42362	42362	42639
30°	41179	41469	41547
35°	39896	40285	39578
40°	38027	38770	38430
45°	35983	36789	35629
50°	31688	34450	31493
55°	25671	31525	25772
60°	18777	26148	18410
65°	11416	18607	11119
70°	4457	10015	4260
75°	485	2684	485
80°	389	389	389
85°	0	0	0



TEST NUMBER: P840121

CATALOG NUMBER: LD4C10D010 EU4109030 4LBCSSQMW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.7	4.4
10°-20°	123.7	12.5
20°-30°	183.5	18.6
30°-40°	212.6	21.5
40°-50°	203.8	20.6
50°-60°	149.9	15.2
60°-70°	64.7	6.5
70°-80°	7.0	0.7
80°-90°	0.1	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°	350.9	35.5
0°-40°	563.5	57.0
0°-60°	917.2	92.7
0°-90°	989.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	989.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	463	463	463	463	463	
5°	454	458	460	460	461	43
15°	436	439	437	437	438	123
25°	398	397	398	398	400	182
35°	339	341	342	341	336	212
45°	264	264	270	266	261	200
55°	153	168	187	168	153	137
65°	50	62	82	62	49	51
75°	1	2	7	1	1	4
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P840121

CATALOG NUMBER: LD4C10D010 EU4109030 4LBCSSQMW

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	463.0	463.0	463.0	463.0	463.0	463.0	463.0	463.0	463.0	463.0	463.0
2.5°	459.7	464.9	465.6	462.3	461.0	459.0	463.6	460.4	461.7	460.4	459.7
5°	453.8	459.7	460.4	460.4	459.0	458.4	460.4	459.7	459.0	457.7	459.7
7.5°	451.1	454.4	457.7	453.8	455.7	455.1	459.7	457.7	457.1	457.1	455.7
10°	452.5	451.8	454.4	450.5	451.8	450.5	454.4	454.4	453.1	451.8	451.1
12.5°	441.9	447.2	447.2	446.5	445.2	443.2	447.2	449.8	445.9	445.9	445.2
15°	436.0	437.3	438.0	438.0	437.3	438.6	440.6	438.0	438.6	435.3	436.7
17.5°	429.4	426.8	428.8	427.5	428.1	429.4	432.1	432.1	428.1	427.5	428.8
20°	414.3	422.2	422.9	418.9	419.6	419.6	424.2	420.2	422.9	419.6	420.9
22.5°	407.1	412.3	413.0	407.7	411.0	407.1	411.7	405.8	412.3	407.7	409.7
25°	397.9	397.2	399.2	396.5	397.2	397.2	400.5	397.9	399.8	397.2	397.9
27.5°	382.8	388.0	387.3	384.7	386.0	385.4	392.0	384.7	388.7	385.4	386.7
30°	369.6	374.2	372.9	370.3	370.3	368.3	375.5	373.5	372.9	372.9	372.2
32.5°	356.4	357.1	355.8	356.4	357.1	354.5	360.4	357.7	357.1	357.7	358.4
35°	338.7	338.7	340.0	338.0	340.7	340.7	345.9	342.6	342.0	340.0	342.0
37.5°	322.9	320.9	321.6	321.6	322.9	324.2	326.8	325.5	325.5	323.6	324.9
40°	301.9	300.5	302.5	302.5	304.5	304.5	307.1	305.8	307.8	307.8	307.8
42.5°	283.5	283.5	282.1	284.1	284.8	284.1	288.7	288.0	288.7	287.4	288.0
45°	263.7	263.7	262.4	261.7	265.0	264.4	269.6	267.6	270.3	269.0	269.6
47.5°	236.7	240.0	238.1	240.0	244.0	244.7	247.9	246.6	249.2	247.3	249.9
50°	211.1	211.1	213.1	215.7	219.6	220.3	224.3	226.9	228.2	228.8	229.5
52.5°	184.1	183.5	185.5	188.7	192.0	194.7	198.6	202.6	205.2	209.1	207.1
55°	152.6	153.9	155.9	159.8	165.1	168.3	171.6	176.9	181.5	183.5	187.4
57.5°	125.6	124.3	125.6	130.9	136.8	139.4	144.0	149.3	155.9	159.8	161.1
60°	97.3	98.0	99.3	103.9	108.5	112.5	114.4	123.0	128.9	132.8	135.5
62.5°	71.7	73.0	74.3	78.3	82.9	86.2	89.4	96.7	101.9	105.9	108.5
65°	50.0	50.6	52.6	54.6	59.2	62.5	65.1	71.0	76.3	79.6	81.5
67.5°	30.9	31.6	32.9	35.5	38.8	41.4	44.1	48.0	52.6	55.9	56.6
70°	15.8	16.4	17.1	19.1	21.7	23.0	25.0	28.3	31.6	34.2	35.5
72.5°	5.3	5.3	5.9	7.2	8.6	9.9	10.5	13.8	16.4	17.8	18.4
75°	1.3	1.3	1.3	1.3	1.3	2.0	2.0	3.9	5.3	6.6	7.2
77.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.3	1.3
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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



TEST NUMBER: P840121

CATALOG NUMBER: LD4C10D010 EU4109030 4LBCSSQMW

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	463.0	463.0	463.0	463.0	463.0	463.0	463.0	463.0	463.0	463.0
2.5°	463.0	461.7	461.0	461.7	461.7	461.0	463.0	465.6	468.9	460.4
5°	462.3	461.0	462.3	458.4	460.4	459.0	461.7	461.0	463.6	461.0
7.5°	460.4	457.7	458.4	456.4	459.0	455.7	457.7	461.7	459.0	455.1
10°	453.8	452.5	457.1	450.5	449.2	451.8	457.1	453.1	451.8	453.1
12.5°	447.2	447.2	449.2	443.9	444.5	445.9	448.5	445.9	447.2	450.5
15°	440.0	438.6	441.9	438.0	437.3	436.0	438.6	438.6	440.0	438.0
17.5°	431.4	429.4	429.4	428.1	427.5	430.8	432.1	432.7	433.4	430.8
20°	420.9	420.2	422.2	420.2	420.9	421.6	421.6	420.2	426.1	418.9
22.5°	409.7	411.7	409.0	407.7	409.0	410.4	410.4	411.0	409.7	408.4
25°	398.5	399.8	400.5	396.5	398.5	396.5	401.2	401.8	399.2	400.5
27.5°	388.7	386.7	386.0	383.4	384.7	384.1	384.7	384.7	388.7	383.4
30°	373.5	371.6	372.2	370.3	370.9	370.3	370.9	370.9	373.5	372.9
32.5°	359.1	357.1	357.7	355.8	355.8	356.4	355.1	355.1	357.1	355.8
35°	345.2	340.7	341.3	340.7	341.3	338.7	338.7	338.0	339.3	336.0
37.5°	325.5	323.6	322.9	322.2	322.9	321.6	322.9	320.9	322.9	320.3
40°	307.8	306.4	307.1	303.2	303.2	303.8	302.5	301.9	302.5	305.1
42.5°	290.0	287.4	286.1	284.8	285.4	283.5	282.8	281.5	282.8	280.2
45°	269.0	269.0	268.3	265.0	265.7	265.7	263.1	260.4	261.1	261.1
47.5°	249.9	248.6	247.9	244.7	244.0	243.3	240.7	238.7	238.7	236.7
50°	228.8	227.5	225.6	222.3	221.0	217.0	215.1	212.4	209.8	209.8
52.5°	209.1	204.5	201.9	196.6	194.7	192.7	187.4	185.5	183.5	181.5
55°	185.5	181.5	176.3	170.3	167.7	164.4	159.1	155.2	152.6	153.2
57.5°	162.4	155.9	150.6	142.7	139.4	137.4	132.2	126.9	124.3	124.3
60°	134.2	128.9	122.3	115.1	112.5	109.2	102.6	99.3	97.3	95.4
62.5°	107.2	103.2	97.3	88.1	86.2	82.9	78.3	74.3	72.3	72.3
65°	80.2	76.3	71.0	64.4	61.8	59.2	55.2	51.3	49.3	48.7
67.5°	56.6	51.9	47.4	42.1	40.1	38.8	34.9	32.2	30.9	30.2
70°	34.2	31.6	28.3	24.3	22.4	21.0	18.4	16.4	15.8	15.1
72.5°	17.8	15.8	13.1	10.5	9.2	7.9	6.6	5.3	4.6	4.6
75°	6.6	5.3	3.3	2.0	1.3	1.3	1.3	1.3	1.3	1.3
77.5°	1.3	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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)