

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: P840097

Luminaire Tested: **LD4C05D010 EU4059050 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: P840097
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: LD4C05D010 EU4059050 4LBCSSQMW
Description: 4 INCH 500 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

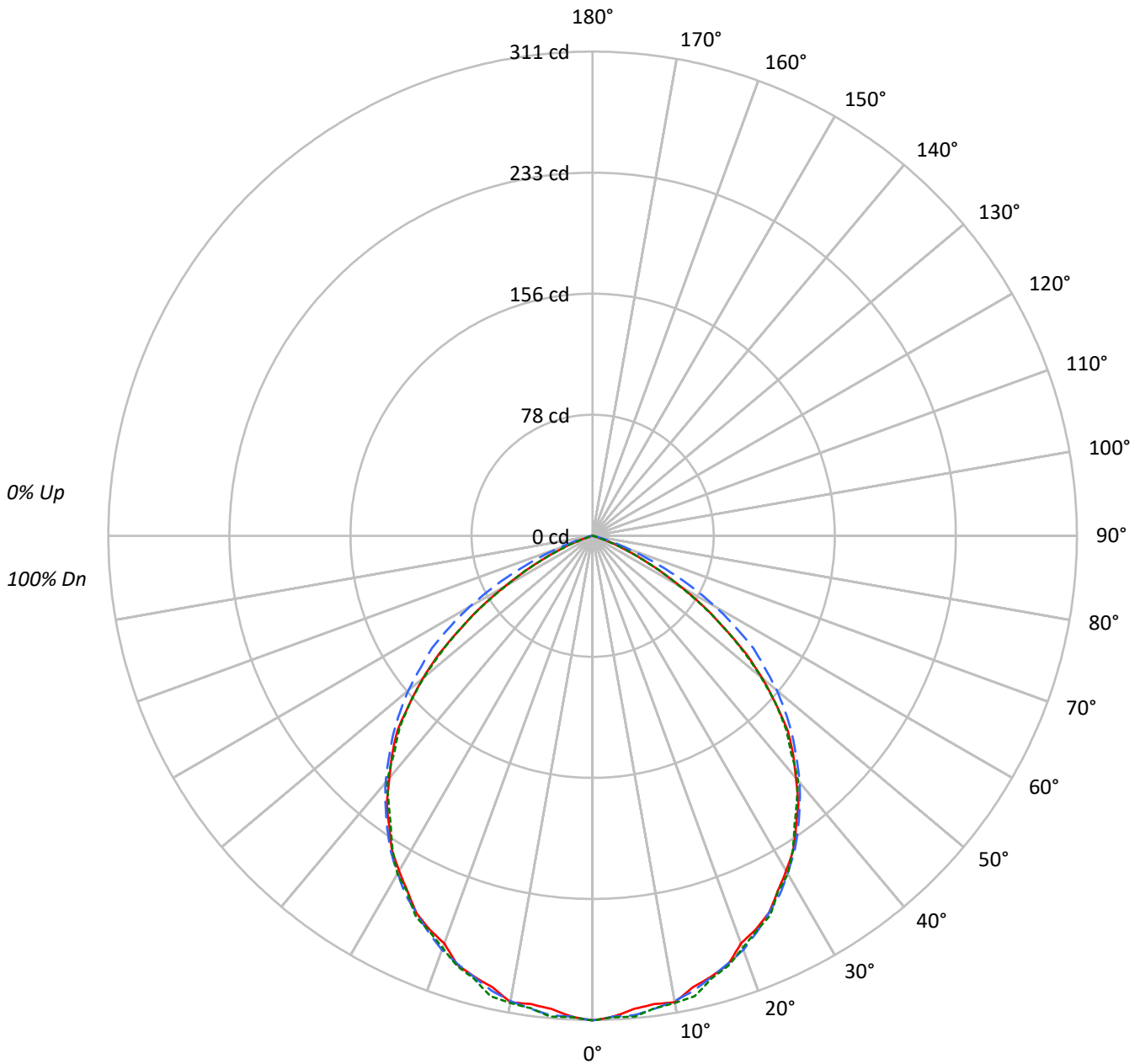
Lumens per Lamp: N/A
Luminaire Lumens: 665.0 lumens
Efficiency: N/A
Efficacy: 92.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
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									
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°	30037	30037	30037
5°	29551	29939	30026
10°	29805	29726	29854
15°	29289	29328	29418
20°	28607	29059	28925
25°	28479	28479	28671
30°	27687	27887	27932
35°	26821	27080	26621
40°	25569	26061	25846
45°	24194	24739	23948
50°	21316	23162	21181
55°	17260	21196	17327
60°	12621	17580	12370
65°	7671	12512	7466
70°	2990	6743	2878
75°	336	1827	336
80°	278	278	278
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.4	4.4
10°-20°	83.2	12.5
20°-30°	123.4	18.6
30°-40°	143.0	21.5
40°-50°	137.1	20.6
50°-60°	100.8	15.2
60°-70°	43.5	6.5
70°-80°	4.7	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°	235.9	35.5
0°-40°	378.9	57.0
0°-60°	616.7	92.7
0°-90°	665.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	665.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	311	311	311	311	311	
5°	305	308	309	310	310	29
15°	293	295	294	294	294	83
25°	268	267	268	268	269	122
35°	228	229	230	230	226	142
45°	177	178	181	179	176	135
55°	103	113	126	113	103	92
65°	34	42	55	42	33	35
75°	1	1	5	1	1	3
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°	311.3	311.3	311.3	311.3	311.3	311.3	311.3	311.3	311.3	311.3	311.3
2.5°	309.1	312.6	313.1	310.9	310.0	308.7	311.7	309.5	310.4	309.5	309.1
5°	305.1	309.1	309.5	309.5	308.7	308.2	309.5	309.1	308.7	307.8	309.1
7.5°	303.4	305.6	307.8	305.1	306.4	306.0	309.1	307.8	307.3	307.3	306.4
10°	304.2	303.8	305.6	302.9	303.8	302.9	305.6	305.6	304.7	303.8	303.4
12.5°	297.1	300.7	300.7	300.2	299.4	298.0	300.7	302.5	299.8	299.8	299.4
15°	293.2	294.1	294.5	294.5	294.1	294.9	296.3	294.5	294.9	292.7	293.6
17.5°	288.8	287.0	288.3	287.4	287.9	288.8	290.5	290.5	287.9	287.4	288.3
20°	278.6	283.9	284.3	281.7	282.1	282.1	285.2	282.6	284.3	282.1	283.0
22.5°	273.7	277.2	277.7	274.2	276.4	273.7	276.8	272.8	277.2	274.2	275.5
25°	267.5	267.1	268.4	266.6	267.1	267.1	269.3	267.5	268.9	267.1	267.5
27.5°	257.4	260.9	260.4	258.7	259.6	259.1	263.6	258.7	261.3	259.1	260.0
30°	248.5	251.6	250.7	249.0	249.0	247.6	252.5	251.2	250.7	250.7	250.3
32.5°	239.7	240.1	239.2	239.7	240.1	238.3	242.3	240.5	240.1	240.5	241.0
35°	227.7	227.7	228.6	227.3	229.1	229.1	232.6	230.4	229.9	228.6	229.9
37.5°	217.1	215.8	216.2	216.2	217.1	218.0	219.8	218.9	218.9	217.6	218.4
40°	203.0	202.1	203.4	203.4	204.7	204.7	206.5	205.6	206.9	206.9	206.9
42.5°	190.6	190.6	189.7	191.0	191.5	191.0	194.1	193.7	194.1	193.2	193.7
45°	177.3	177.3	176.4	176.0	178.2	177.8	181.3	180.0	181.7	180.8	181.3
47.5°	159.2	161.4	160.1	161.4	164.1	164.5	166.7	165.8	167.6	166.3	168.0
50°	142.0	142.0	143.3	145.0	147.7	148.1	150.8	152.6	153.4	153.9	154.3
52.5°	123.8	123.4	124.7	126.9	129.1	130.9	133.5	136.2	138.0	140.6	139.3
55°	102.6	103.5	104.8	107.5	111.0	113.2	115.4	118.9	122.1	123.4	126.0
57.5°	84.5	83.6	84.5	88.0	92.0	93.7	96.8	100.4	104.8	107.5	108.3
60°	65.4	65.9	66.8	69.9	73.0	75.6	76.9	82.7	86.7	89.3	91.1
62.5°	48.2	49.1	50.0	52.6	55.7	57.9	60.1	65.0	68.5	71.2	73.0
65°	33.6	34.0	35.4	36.7	39.8	42.0	43.8	47.8	51.3	53.5	54.8
67.5°	20.8	21.2	22.1	23.9	26.1	27.9	29.6	32.3	35.4	37.6	38.0
70°	10.6	11.1	11.5	12.8	14.6	15.5	16.8	19.0	21.2	23.0	23.9
72.5°	3.5	3.5	4.0	4.9	5.8	6.6	7.1	9.3	11.1	11.9	12.4
75°	0.9	0.9	0.9	0.9	0.9	1.3	1.3	2.7	3.5	4.4	4.9
77.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.9	0.9
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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°	311.3	311.3	311.3	311.3	311.3	311.3	311.3	311.3	311.3	311.3
2.5°	311.3	310.4	310.0	310.4	310.4	310.0	311.3	313.1	315.3	309.5
5°	310.9	310.0	310.9	308.2	309.5	308.7	310.4	310.0	311.7	310.0
7.5°	309.5	307.8	308.2	306.9	308.7	306.4	307.8	310.4	308.7	306.0
10°	305.1	304.2	307.3	302.9	302.0	303.8	307.3	304.7	303.8	304.7
12.5°	300.7	300.7	302.0	298.5	298.9	299.8	301.6	299.8	300.7	302.9
15°	295.8	294.9	297.1	294.5	294.1	293.2	294.9	294.9	295.8	294.5
17.5°	290.1	288.8	288.8	287.9	287.4	289.6	290.5	291.0	291.4	289.6
20°	283.0	282.6	283.9	282.6	283.0	283.5	283.5	282.6	286.5	281.7
22.5°	275.5	276.8	275.0	274.2	275.0	275.9	275.9	276.4	275.5	274.6
25°	268.0	268.9	269.3	266.6	268.0	266.6	269.7	270.2	268.4	269.3
27.5°	261.3	260.0	259.6	257.8	258.7	258.2	258.7	258.7	261.3	257.8
30°	251.2	249.8	250.3	249.0	249.4	249.0	249.4	249.4	251.2	250.7
32.5°	241.4	240.1	240.5	239.2	239.2	239.7	238.8	238.8	240.1	239.2
35°	232.1	229.1	229.5	229.1	229.5	227.7	227.7	227.3	228.2	226.0
37.5°	218.9	217.6	217.1	216.7	217.1	216.2	217.1	215.8	217.1	215.3
40°	206.9	206.1	206.5	203.9	203.9	204.3	203.4	203.0	203.4	205.2
42.5°	195.0	193.2	192.4	191.5	191.9	190.6	190.1	189.3	190.1	188.4
45°	180.8	180.8	180.4	178.2	178.6	178.6	176.9	175.1	175.5	175.5
47.5°	168.0	167.2	166.7	164.5	164.1	163.6	161.8	160.5	160.5	159.2
50°	153.9	153.0	151.7	149.5	148.6	145.9	144.6	142.8	141.1	141.1
52.5°	140.6	137.5	135.7	132.2	130.9	129.6	126.0	124.7	123.4	122.1
55°	124.7	122.1	118.5	114.5	112.8	110.5	107.0	104.4	102.6	103.0
57.5°	109.2	104.8	101.3	96.0	93.7	92.4	88.9	85.3	83.6	83.6
60°	90.2	86.7	82.3	77.4	75.6	73.4	69.0	66.8	65.4	64.1
62.5°	72.1	69.4	65.4	59.2	57.9	55.7	52.6	50.0	48.6	48.6
65°	53.9	51.3	47.8	43.3	41.6	39.8	37.1	34.5	33.2	32.7
67.5°	38.0	34.9	31.8	28.3	27.0	26.1	23.4	21.7	20.8	20.3
70°	23.0	21.2	19.0	16.4	15.0	14.1	12.4	11.1	10.6	10.2
72.5°	11.9	10.6	8.8	7.1	6.2	5.3	4.4	3.5	3.1	3.1
75°	4.4	3.5	2.2	1.3	0.9	0.9	0.9	0.9	0.9	0.9
77.5°	0.9	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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)