

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: P840091

Luminaire Tested: **LD4C05D010 EU4059030 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: P840091
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 EU4059030 4LBCSSQMW
Description: 4 INCH 500 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

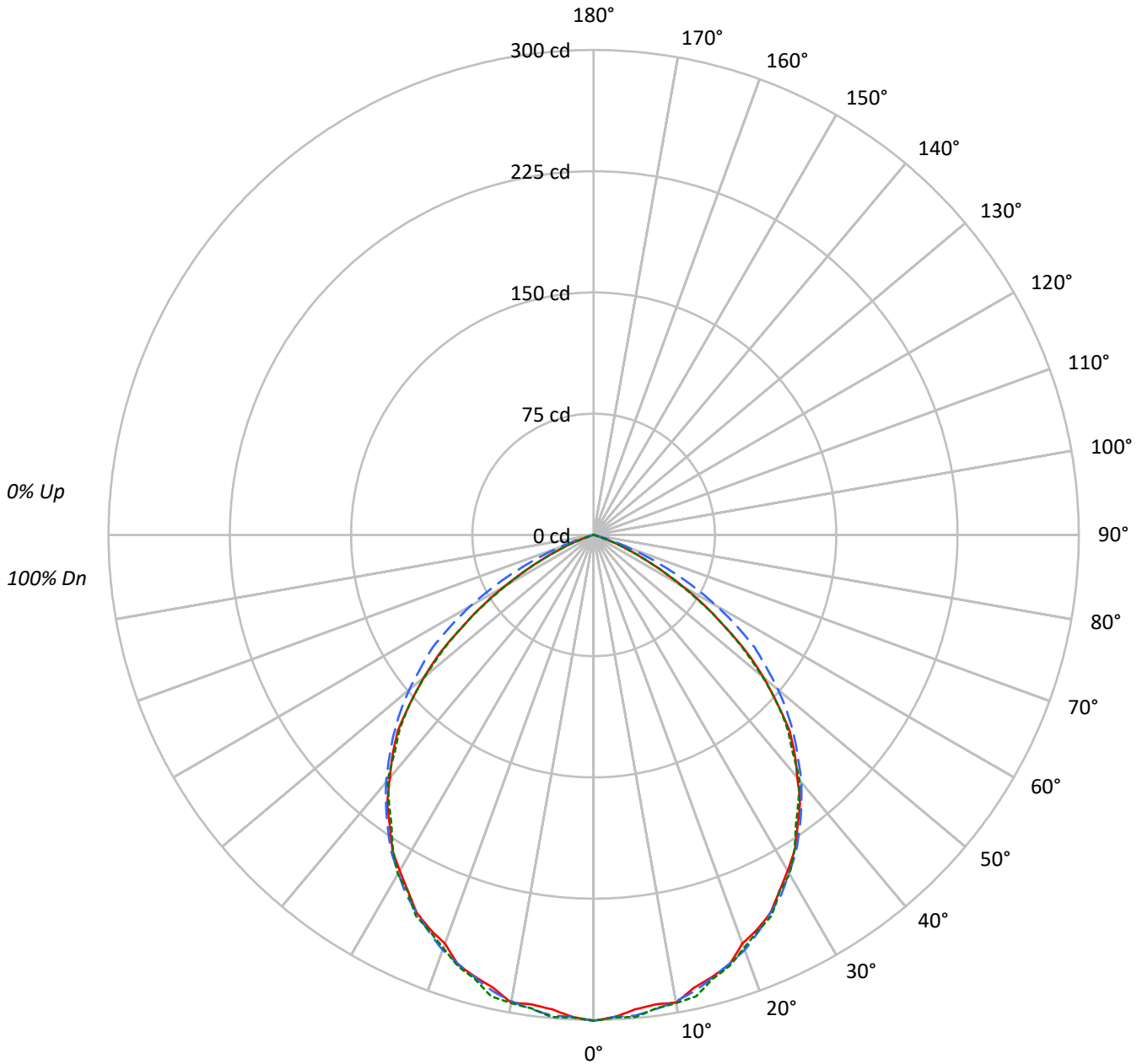
Lumens per Lamp: N/A
Luminaire Lumens: 642.0 lumens
Efficiency: N/A
Efficacy: 89.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	28995	28995	28995
5°	28534	28902	28989
10°	28776	28698	28815
15°	28270	28320	28399
20°	27611	28053	27919
25°	27500	27500	27681
30°	26729	26918	26974
35°	25891	26150	25690
40°	24675	25166	24952
45°	23361	23880	23129
50°	20565	22366	20445
55°	16654	20473	16738
60°	12196	16963	11945
65°	7397	12078	7215
70°	2878	6517	2765
75°	336	1752	336
80°	222	222	222
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.4	4.4
10°-20°	80.3	12.5
20°-30°	119.1	18.6
30°-40°	138.0	21.5
40°-50°	132.3	20.6
50°-60°	97.3	15.2
60°-70°	42.0	6.5
70°-80°	4.5	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°	227.8	35.5
0°-40°	365.8	57.0
0°-60°	595.4	92.7
0°-90°	642.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	642.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	300	300	300	300	300	
5°	295	298	298	299	299	28
15°	283	285	284	284	284	80
25°	258	258	258	259	260	118
35°	220	221	222	222	218	137
45°	171	172	175	172	170	130
55°	99	109	122	109	100	89
65°	32	40	53	40	32	33
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°	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5
2.5°	298.4	301.8	302.2	300.1	299.3	298.0	301.0	298.8	299.7	298.8	298.4
5°	294.6	298.4	298.8	298.8	298.0	297.5	298.8	298.4	298.0	297.1	298.4
7.5°	292.9	295.0	297.1	294.6	295.8	295.4	298.4	297.1	296.7	296.7	295.8
10°	293.7	293.3	295.0	292.4	293.3	292.4	295.0	295.0	294.1	293.3	292.9
12.5°	286.9	290.3	290.3	289.9	289.0	287.7	290.3	292.0	289.4	289.4	289.0
15°	283.0	283.9	284.3	284.3	283.9	284.7	286.0	284.3	284.7	282.6	283.5
17.5°	278.8	277.1	278.3	277.5	277.9	278.8	280.5	280.5	277.9	277.5	278.3
20°	268.9	274.1	274.5	271.9	272.4	272.4	275.4	272.8	274.5	272.4	273.2
22.5°	264.2	267.7	268.1	264.7	266.8	264.2	267.2	263.4	267.7	264.7	265.9
25°	258.3	257.8	259.1	257.4	257.8	257.8	260.0	258.3	259.6	257.8	258.3
27.5°	248.5	251.9	251.4	249.7	250.6	250.2	254.4	249.7	252.3	250.2	251.0
30°	239.9	242.9	242.1	240.3	240.3	239.1	243.8	242.5	242.1	242.1	241.6
32.5°	231.4	231.8	231.0	231.4	231.8	230.1	233.9	232.2	231.8	232.2	232.7
35°	219.8	219.8	220.7	219.4	221.1	221.1	224.5	222.4	222.0	220.7	222.0
37.5°	209.6	208.3	208.7	208.7	209.6	210.5	212.2	211.3	211.3	210.0	210.9
40°	195.9	195.1	196.4	196.4	197.7	197.7	199.4	198.5	199.8	199.8	199.8
42.5°	184.0	184.0	183.1	184.4	184.9	184.4	187.4	187.0	187.4	186.6	187.0
45°	171.2	171.2	170.3	169.9	172.0	171.6	175.0	173.7	175.4	174.6	175.0
47.5°	153.7	155.8	154.5	155.8	158.4	158.8	160.9	160.1	161.8	160.5	162.2
50°	137.0	137.0	138.3	140.0	142.6	143.0	145.6	147.3	148.1	148.6	149.0
52.5°	119.5	119.1	120.4	122.5	124.7	126.4	128.9	131.5	133.2	135.8	134.5
55°	99.0	99.9	101.2	103.7	107.2	109.3	111.4	114.8	117.8	119.1	121.7
57.5°	81.5	80.7	81.5	84.9	88.8	90.5	93.5	96.9	101.2	103.7	104.6
60°	63.2	63.6	64.5	67.5	70.4	73.0	74.3	79.8	83.7	86.2	87.9
62.5°	46.5	47.4	48.2	50.8	53.8	55.9	58.1	62.8	66.2	68.7	70.4
65°	32.4	32.9	34.2	35.4	38.4	40.5	42.3	46.1	49.5	51.7	52.9
67.5°	20.1	20.5	21.3	23.1	25.2	26.9	28.6	31.2	34.2	36.3	36.7
70°	10.2	10.7	11.1	12.4	14.1	14.9	16.2	18.4	20.5	22.2	23.1
72.5°	3.4	3.4	3.8	4.7	5.6	6.4	6.8	9.0	10.7	11.5	11.9
75°	0.9	0.9	0.9	0.9	0.9	1.3	1.3	2.6	3.4	4.3	4.7
77.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.9
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
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°	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5
2.5°	300.5	299.7	299.3	299.7	299.7	299.3	300.5	302.2	304.4	298.8
5°	300.1	299.3	300.1	297.5	298.8	298.0	299.7	299.3	301.0	299.3
7.5°	298.8	297.1	297.5	296.3	298.0	295.8	297.1	299.7	298.0	295.4
10°	294.6	293.7	296.7	292.4	291.6	293.3	296.7	294.1	293.3	294.1
12.5°	290.3	290.3	291.6	288.2	288.6	289.4	291.1	289.4	290.3	292.4
15°	285.6	284.7	286.9	284.3	283.9	283.0	284.7	284.7	285.6	284.3
17.5°	280.0	278.8	278.8	277.9	277.5	279.6	280.5	280.9	281.3	279.6
20°	273.2	272.8	274.1	272.8	273.2	273.6	273.6	272.8	276.6	271.9
22.5°	265.9	267.2	265.5	264.7	265.5	266.4	266.4	266.8	265.9	265.1
25°	258.7	259.6	260.0	257.4	258.7	257.4	260.4	260.8	259.1	260.0
27.5°	252.3	251.0	250.6	248.9	249.7	249.3	249.7	249.7	252.3	248.9
30°	242.5	241.2	241.6	240.3	240.8	240.3	240.8	240.8	242.5	242.1
32.5°	233.1	231.8	232.2	231.0	231.0	231.4	230.5	230.5	231.8	231.0
35°	224.1	221.1	221.6	221.1	221.6	219.8	219.8	219.4	220.3	218.1
37.5°	211.3	210.0	209.6	209.2	209.6	208.7	209.6	208.3	209.6	207.9
40°	199.8	198.9	199.4	196.8	196.8	197.2	196.4	195.9	196.4	198.1
42.5°	188.3	186.6	185.7	184.9	185.3	184.0	183.6	182.7	183.6	181.9
45°	174.6	174.6	174.2	172.0	172.5	172.5	170.8	169.1	169.5	169.5
47.5°	162.2	161.4	160.9	158.8	158.4	158.0	156.2	155.0	155.0	153.7
50°	148.6	147.7	146.4	144.3	143.4	140.9	139.6	137.9	136.2	136.2
52.5°	135.8	132.8	131.1	127.6	126.4	125.1	121.7	120.4	119.1	117.8
55°	120.4	117.8	114.4	110.6	108.9	106.7	103.3	100.7	99.0	99.5
57.5°	105.4	101.2	97.8	92.6	90.5	89.2	85.8	82.4	80.7	80.7
60°	87.1	83.7	79.4	74.7	73.0	70.9	66.6	64.5	63.2	61.9
62.5°	69.6	67.0	63.2	57.2	55.9	53.8	50.8	48.2	47.0	47.0
65°	52.1	49.5	46.1	41.8	40.1	38.4	35.9	33.3	32.0	31.6
67.5°	36.7	33.7	30.7	27.3	26.0	25.2	22.6	20.9	20.1	19.6
70°	22.2	20.5	18.4	15.8	14.5	13.7	11.9	10.7	10.2	9.8
72.5°	11.5	10.2	8.5	6.8	6.0	5.1	4.3	3.4	3.0	3.0
75°	4.3	3.4	2.1	1.3	0.9	0.9	0.9	0.9	0.9	0.9
77.5°	0.9	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
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)