

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: P840099

Luminaire Tested: **LD4C08D010 EU4089027 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: P840099
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: LD4C08D010 EU4089027 4LBCSSQMW
Description: 4 INCH 800 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

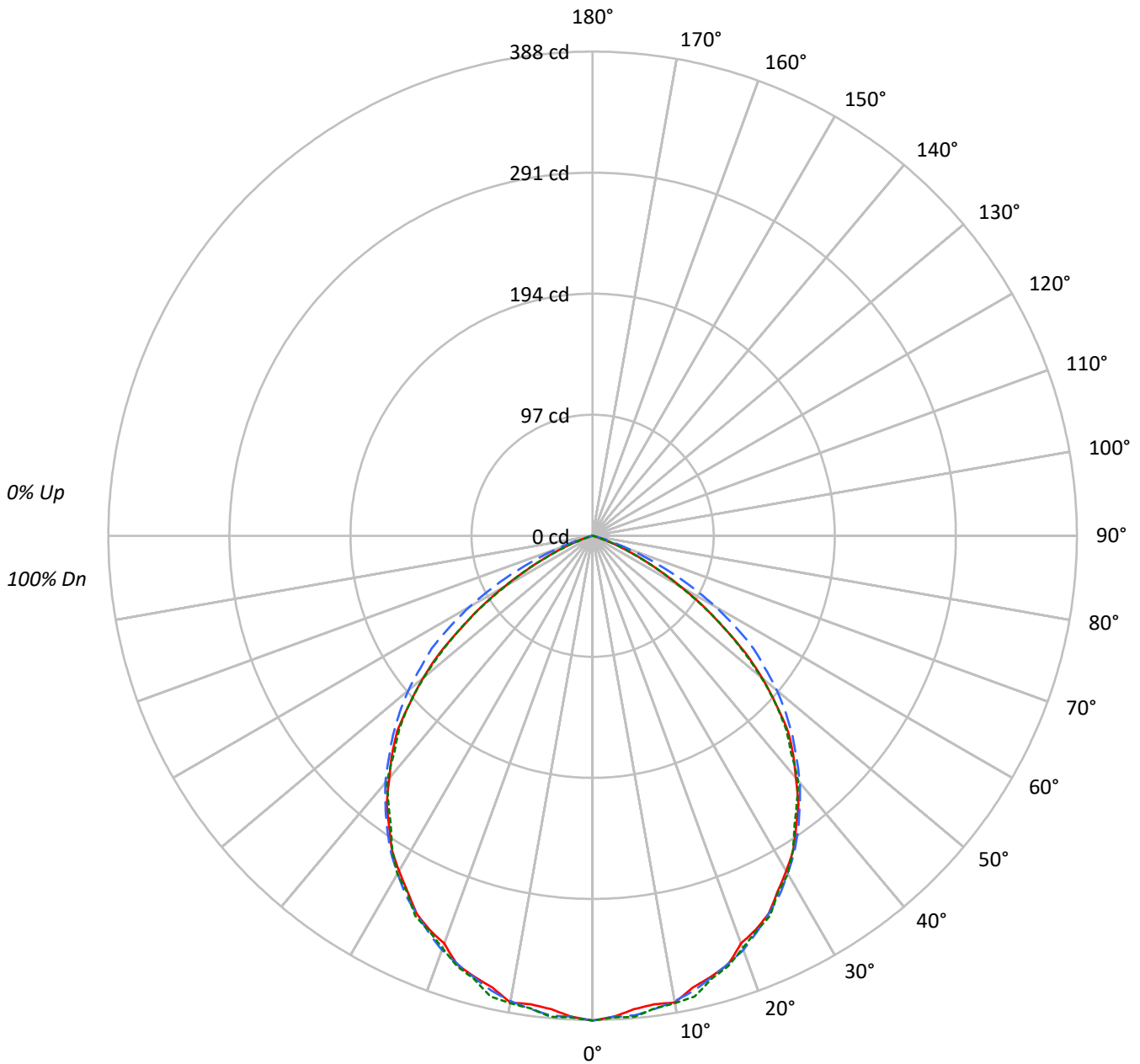
Lumens per Lamp: N/A
Luminaire Lumens: 830.0 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.9
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°	37486	37486	37486
5°	36883	37368	37474
10°	37202	37094	37261
15°	36551	36611	36721
20°	35702	36267	36103
25°	35548	35548	35782
30°	34561	34806	34862
35°	33476	33806	33217
40°	31905	32535	32258
45°	30198	30880	29897
50°	26600	28911	26434
55°	21533	26462	21634
60°	15766	21942	15438
65°	9589	15617	9315
70°	3724	8407	3583
75°	410	2274	410
80°	333	333	333
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.7	4.4
10°-20°	103.8	12.5
20°-30°	154.0	18.6
30°-40°	178.4	21.5
40°-50°	171.1	20.6
50°-60°	125.8	15.2
60°-70°	54.3	6.5
70°-80°	5.9	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°	294.4	35.5
0°-40°	472.9	57.0
0°-60°	769.7	92.7
0°-90°	830.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	830.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	388	388	388	388	388	
5°	381	385	386	386	387	36
15°	366	368	366	367	368	103
25°	334	333	334	334	336	153
35°	284	286	287	286	282	178
45°	221	222	226	223	219	168
55°	128	141	157	141	129	115
65°	42	52	68	52	41	43
75°	1	2	6	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°	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5
2.5°	385.8	390.2	390.8	388.0	386.9	385.2	389.1	386.3	387.4	386.3	385.8
5°	380.8	385.8	386.3	386.3	385.2	384.7	386.3	385.8	385.2	384.1	385.8
7.5°	378.6	381.4	384.1	380.8	382.5	381.9	385.8	384.1	383.6	383.6	382.5
10°	379.7	379.2	381.4	378.1	379.2	378.1	381.4	381.4	380.3	379.2	378.6
12.5°	370.9	375.3	375.3	374.7	373.6	372.0	375.3	377.5	374.2	374.2	373.6
15°	365.9	367.0	367.6	367.6	367.0	368.1	369.8	367.6	368.1	365.4	366.5
17.5°	360.4	358.2	359.8	358.7	359.3	360.4	362.6	362.6	359.3	358.7	359.8
20°	347.7	354.3	354.9	351.6	352.1	352.1	356.0	352.7	354.9	352.1	353.2
22.5°	341.6	346.0	346.6	342.2	344.9	341.6	345.5	340.5	346.0	342.2	343.8
25°	333.9	333.4	335.0	332.8	333.4	333.4	336.1	333.9	335.6	333.4	333.9
27.5°	321.2	325.6	325.1	322.9	324.0	323.4	328.9	322.9	326.2	323.4	324.5
30°	310.2	314.0	312.9	310.7	310.7	309.1	315.1	313.5	312.9	312.9	312.4
32.5°	299.1	299.7	298.6	299.1	299.7	297.5	302.4	300.2	299.7	300.2	300.8
35°	284.2	284.2	285.3	283.7	285.9	285.9	290.3	287.5	287.0	285.3	287.0
37.5°	271.0	269.3	269.9	269.9	271.0	272.1	274.3	273.2	273.2	271.5	272.6
40°	253.3	252.2	253.9	253.9	255.5	255.5	257.7	256.6	258.3	258.3	258.3
42.5°	237.9	237.9	236.8	238.4	239.0	238.4	242.3	241.7	242.3	241.2	241.7
45°	221.3	221.3	220.2	219.7	222.4	221.9	226.3	224.6	226.8	225.7	226.3
47.5°	198.7	201.4	199.8	201.4	204.8	205.3	208.1	207.0	209.2	207.5	209.7
50°	177.2	177.2	178.8	181.0	184.3	184.9	188.2	190.4	191.5	192.1	192.6
52.5°	154.5	154.0	155.6	158.4	161.2	163.4	166.7	170.0	172.2	175.5	173.8
55°	128.0	129.1	130.8	134.1	138.5	141.3	144.0	148.5	152.3	154.0	157.3
57.5°	105.4	104.3	105.4	109.8	114.8	117.0	120.9	125.3	130.8	134.1	135.2
60°	81.7	82.2	83.3	87.2	91.1	94.4	96.0	103.2	108.2	111.5	113.7
62.5°	60.2	61.3	62.4	65.7	69.5	72.3	75.1	81.1	85.5	88.9	91.1
65°	42.0	42.5	44.2	45.8	49.7	52.4	54.6	59.6	64.0	66.8	68.4
67.5°	25.9	26.5	27.6	29.8	32.6	34.8	37.0	40.3	44.2	46.9	47.5
70°	13.2	13.8	14.3	16.0	18.2	19.3	21.0	23.7	26.5	28.7	29.8
72.5°	4.4	4.4	5.0	6.1	7.2	8.3	8.8	11.6	13.8	14.9	15.4
75°	1.1	1.1	1.1	1.1	1.1	1.7	1.7	3.3	4.4	5.5	6.1
77.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.1	1.1
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
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°	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5	388.5
2.5°	388.5	387.4	386.9	387.4	387.4	386.9	388.5	390.8	393.5	386.3
5°	388.0	386.9	388.0	384.7	386.3	385.2	387.4	386.9	389.1	386.9
7.5°	386.3	384.1	384.7	383.0	385.2	382.5	384.1	387.4	385.2	381.9
10°	380.8	379.7	383.6	378.1	377.0	379.2	383.6	380.3	379.2	380.3
12.5°	375.3	375.3	377.0	372.5	373.1	374.2	376.4	374.2	375.3	378.1
15°	369.2	368.1	370.9	367.6	367.0	365.9	368.1	368.1	369.2	367.6
17.5°	362.0	360.4	360.4	359.3	358.7	361.5	362.6	363.1	363.7	361.5
20°	353.2	352.7	354.3	352.7	353.2	353.8	353.8	352.7	357.6	351.6
22.5°	343.8	345.5	343.3	342.2	343.3	344.4	344.4	344.9	343.8	342.7
25°	334.5	335.6	336.1	332.8	334.5	332.8	336.7	337.2	335.0	336.1
27.5°	326.2	324.5	324.0	321.8	322.9	322.3	322.9	322.9	326.2	321.8
30°	313.5	311.8	312.4	310.7	311.3	310.7	311.3	311.3	313.5	312.9
32.5°	301.3	299.7	300.2	298.6	298.6	299.1	298.0	298.0	299.7	298.6
35°	289.7	285.9	286.4	285.9	286.4	284.2	284.2	283.7	284.8	282.0
37.5°	273.2	271.5	271.0	270.4	271.0	269.9	271.0	269.3	271.0	268.8
40°	258.3	257.2	257.7	254.4	254.4	255.0	253.9	253.3	253.9	256.1
42.5°	243.4	241.2	240.1	239.0	239.5	237.9	237.3	236.2	237.3	235.1
45°	225.7	225.7	225.2	222.4	223.0	223.0	220.8	218.6	219.1	219.1
47.5°	209.7	208.6	208.1	205.3	204.8	204.2	202.0	200.3	200.3	198.7
50°	192.1	191.0	189.3	186.5	185.4	182.1	180.5	178.3	176.1	176.1
52.5°	175.5	171.6	169.4	165.0	163.4	161.7	157.3	155.6	154.0	152.3
55°	155.6	152.3	147.9	142.9	140.7	138.0	133.6	130.2	128.0	128.6
57.5°	136.3	130.8	126.4	119.8	117.0	115.3	110.9	106.5	104.3	104.3
60°	112.6	108.2	102.7	96.6	94.4	91.6	86.1	83.3	81.7	80.0
62.5°	90.0	86.6	81.7	73.9	72.3	69.5	65.7	62.4	60.7	60.7
65°	67.3	64.0	59.6	54.1	51.9	49.7	46.4	43.1	41.4	40.8
67.5°	47.5	43.6	39.7	35.3	33.7	32.6	29.3	27.0	25.9	25.4
70°	28.7	26.5	23.7	20.4	18.8	17.7	15.4	13.8	13.2	12.7
72.5°	14.9	13.2	11.0	8.8	7.7	6.6	5.5	4.4	3.9	3.9
75°	5.5	4.4	2.8	1.7	1.1	1.1	1.1	1.1	1.1	1.1
77.5°	1.1	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
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)