

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: P840102

Luminaire Tested: **LD4C08D010 EU4089035 4LBCSSQMMS**

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: P840102
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 EU4089035 4LBCSSQMMS
Description: 4 INCH 800 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

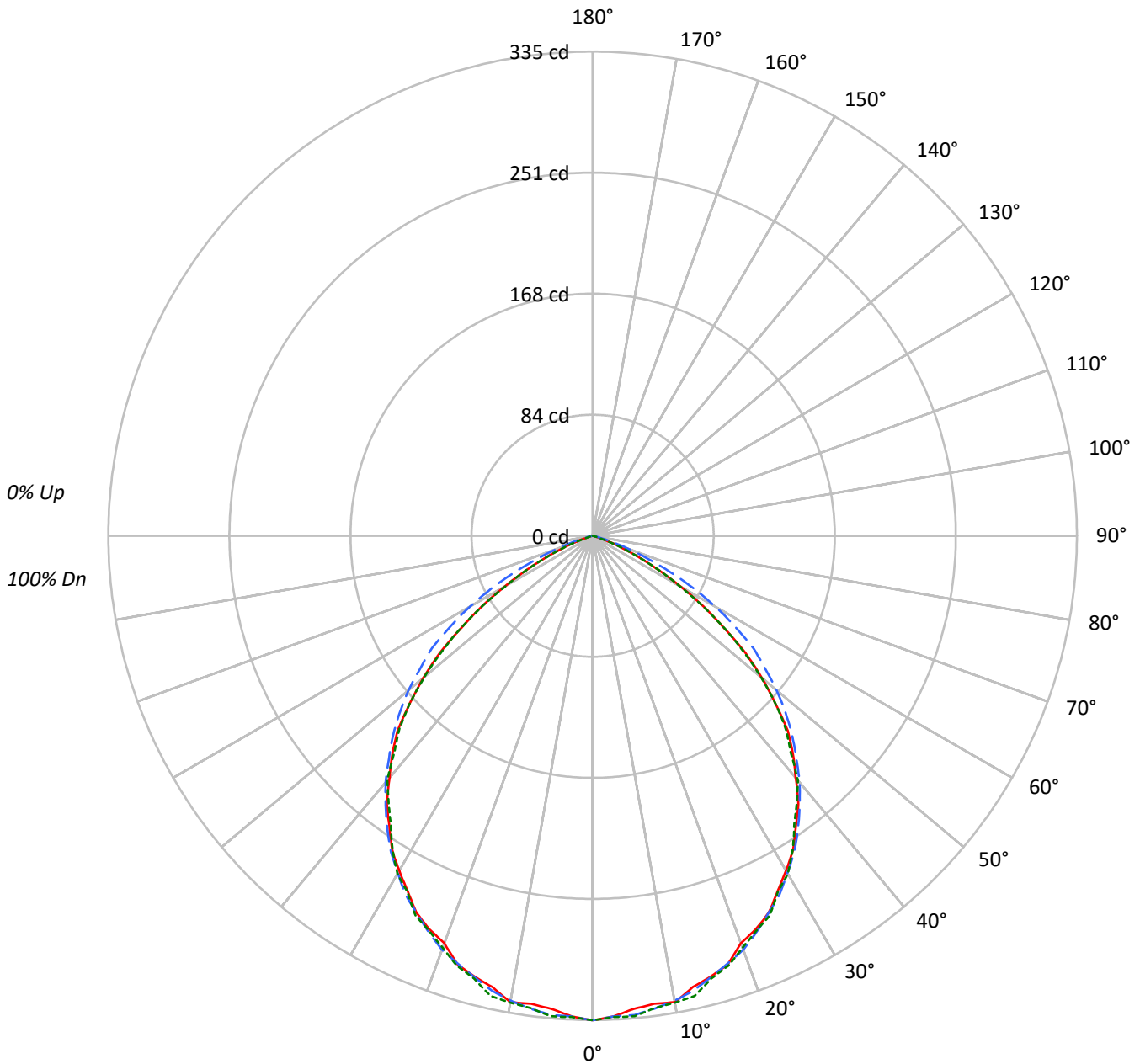
Lumens per Lamp: N/A
Luminaire Lumens: 716.0 lumens
Efficiency: N/A
Efficacy: 72.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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									
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°	32343	32343	32343
5°	31818	32234	32321
10°	32097	31999	32137
15°	31536	31576	31676
20°	30794	31287	31143
25°	30662	30662	30864
30°	29815	30027	30082
35°	28882	29165	28659
40°	27522	28063	27824
45°	26049	26636	25790
50°	22937	24948	22802
55°	18589	22828	18656
60°	13605	18931	13315
65°	8265	13470	8037
70°	3216	7250	3103
75°	373	1939	373
80°	278	278	278
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.6	4.4
10°-20°	89.5	12.5
20°-30°	132.8	18.6
30°-40°	153.9	21.5
40°-50°	147.6	20.6
50°-60°	108.5	15.2
60°-70°	46.9	6.5
70°-80°	5.1	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°	254.0	35.5
0°-40°	407.9	57.0
0°-60°	664.0	92.7
0°-90°	716.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	716.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	335	335	335	335	335	
5°	328	332	333	333	334	31
15°	316	318	316	317	317	89
25°	288	288	288	288	290	132
35°	245	247	248	247	243	153
45°	191	191	195	192	189	145
55°	110	122	136	121	111	99
65°	36	45	59	45	35	37
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°	335.2	335.2	335.2	335.2	335.2	335.2	335.2	335.2	335.2	335.2	335.2
2.5°	332.8	336.6	337.1	334.7	333.7	332.3	335.6	333.3	334.2	333.3	332.8
5°	328.5	332.8	333.3	333.3	332.3	331.8	333.3	332.8	332.3	331.4	332.8
7.5°	326.6	329.0	331.4	328.5	329.9	329.5	332.8	331.4	330.9	330.9	329.9
10°	327.6	327.1	329.0	326.1	327.1	326.1	329.0	329.0	328.0	327.1	326.6
12.5°	319.9	323.7	323.7	323.3	322.3	320.9	323.7	325.7	322.8	322.8	322.3
15°	315.7	316.6	317.1	317.1	316.6	317.6	319.0	317.1	317.6	315.2	316.1
17.5°	310.9	309.0	310.4	309.5	309.9	310.9	312.8	312.8	309.9	309.5	310.4
20°	299.9	305.7	306.1	303.3	303.8	303.8	307.1	304.2	306.1	303.8	304.7
22.5°	294.7	298.5	299.0	295.2	297.6	294.7	298.0	293.7	298.5	295.2	296.6
25°	288.0	287.6	289.0	287.1	287.6	287.6	289.9	288.0	289.5	287.6	288.0
27.5°	277.1	280.9	280.4	278.5	279.5	279.0	283.8	278.5	281.4	279.0	280.0
30°	267.6	270.9	270.0	268.0	268.0	266.6	271.9	270.4	270.0	270.0	269.5
32.5°	258.0	258.5	257.6	258.0	258.5	256.6	260.9	259.0	258.5	259.0	259.5
35°	245.2	245.2	246.1	244.7	246.6	246.6	250.4	248.0	247.6	246.1	247.6
37.5°	233.8	232.3	232.8	232.8	233.8	234.7	236.6	235.7	235.7	234.2	235.2
40°	218.5	217.6	219.0	219.0	220.4	220.4	222.3	221.4	222.8	222.8	222.8
42.5°	205.2	205.2	204.3	205.7	206.2	205.7	209.0	208.5	209.0	208.1	208.5
45°	190.9	190.9	190.0	189.5	191.9	191.4	195.2	193.8	195.7	194.7	195.2
47.5°	171.4	173.8	172.3	173.8	176.6	177.1	179.5	178.5	180.4	179.0	180.9
50°	152.8	152.8	154.3	156.2	159.0	159.5	162.4	164.3	165.2	165.7	166.2
52.5°	133.3	132.8	134.3	136.6	139.0	140.9	143.8	146.6	148.5	151.4	150.0
55°	110.5	111.4	112.8	115.7	119.5	121.9	124.3	128.1	131.4	132.8	135.7
57.5°	90.9	90.0	90.9	94.7	99.0	100.9	104.3	108.1	112.8	115.7	116.6
60°	70.5	70.9	71.9	75.2	78.6	81.4	82.8	89.0	93.3	96.2	98.1
62.5°	51.9	52.9	53.8	56.7	60.0	62.4	64.7	70.0	73.8	76.7	78.6
65°	36.2	36.7	38.1	39.5	42.9	45.2	47.1	51.4	55.2	57.6	59.0
67.5°	22.4	22.8	23.8	25.7	28.1	30.0	31.9	34.8	38.1	40.5	40.9
70°	11.4	11.9	12.4	13.8	15.7	16.7	18.1	20.5	22.8	24.7	25.7
72.5°	3.8	3.8	4.3	5.2	6.2	7.1	7.6	10.0	11.9	12.9	13.3
75°	1.0	1.0	1.0	1.0	1.0	1.4	1.4	2.9	3.8	4.8	5.2
77.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0
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°	335.2	335.2	335.2	335.2	335.2	335.2	335.2	335.2	335.2	335.2
2.5°	335.2	334.2	333.7	334.2	334.2	333.7	335.2	337.1	339.5	333.3
5°	334.7	333.7	334.7	331.8	333.3	332.3	334.2	333.7	335.6	333.7
7.5°	333.3	331.4	331.8	330.4	332.3	329.9	331.4	334.2	332.3	329.5
10°	328.5	327.6	330.9	326.1	325.2	327.1	330.9	328.0	327.1	328.0
12.5°	323.7	323.7	325.2	321.4	321.8	322.8	324.7	322.8	323.7	326.1
15°	318.5	317.6	319.9	317.1	316.6	315.7	317.6	317.6	318.5	317.1
17.5°	312.3	310.9	310.9	309.9	309.5	311.9	312.8	313.3	313.8	311.9
20°	304.7	304.2	305.7	304.2	304.7	305.2	305.2	304.2	308.5	303.3
22.5°	296.6	298.0	296.1	295.2	296.1	297.1	297.1	297.6	296.6	295.7
25°	288.5	289.5	289.9	287.1	288.5	287.1	290.4	290.9	289.0	289.9
27.5°	281.4	280.0	279.5	277.6	278.5	278.1	278.5	278.5	281.4	277.6
30°	270.4	269.0	269.5	268.0	268.5	268.0	268.5	268.5	270.4	270.0
32.5°	259.9	258.5	259.0	257.6	257.6	258.0	257.1	257.1	258.5	257.6
35°	249.9	246.6	247.1	246.6	247.1	245.2	245.2	244.7	245.7	243.3
37.5°	235.7	234.2	233.8	233.3	233.8	232.8	233.8	232.3	233.8	231.9
40°	222.8	221.9	222.3	219.5	219.5	220.0	219.0	218.5	219.0	220.9
42.5°	210.0	208.1	207.1	206.2	206.6	205.2	204.7	203.8	204.7	202.8
45°	194.7	194.7	194.3	191.9	192.3	192.3	190.4	188.5	189.0	189.0
47.5°	180.9	180.0	179.5	177.1	176.6	176.2	174.2	172.8	172.8	171.4
50°	165.7	164.7	163.3	160.9	160.0	157.1	155.7	153.8	151.9	151.9
52.5°	151.4	148.1	146.2	142.3	140.9	139.5	135.7	134.3	132.8	131.4
55°	134.3	131.4	127.6	123.3	121.4	119.0	115.2	112.4	110.5	110.9
57.5°	117.6	112.8	109.0	103.3	100.9	99.5	95.7	91.9	90.0	90.0
60°	97.1	93.3	88.6	83.3	81.4	79.0	74.3	71.9	70.5	69.0
62.5°	77.6	74.7	70.5	63.8	62.4	60.0	56.7	53.8	52.4	52.4
65°	58.1	55.2	51.4	46.7	44.8	42.9	40.0	37.1	35.7	35.2
67.5°	40.9	37.6	34.3	30.5	29.0	28.1	25.2	23.3	22.4	21.9
70°	24.7	22.8	20.5	17.6	16.2	15.2	13.3	11.9	11.4	11.0
72.5°	12.9	11.4	9.5	7.6	6.7	5.7	4.8	3.8	3.3	3.3
75°	4.8	3.8	2.4	1.4	1.0	1.0	1.0	1.0	1.0	1.0
77.5°	1.0	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)