

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: P840104

Luminaire Tested: **LD4C08D010 EU4089040 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: P840104
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 EU4089040 4LBCSSQMMS
Description: 4 INCH 800 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

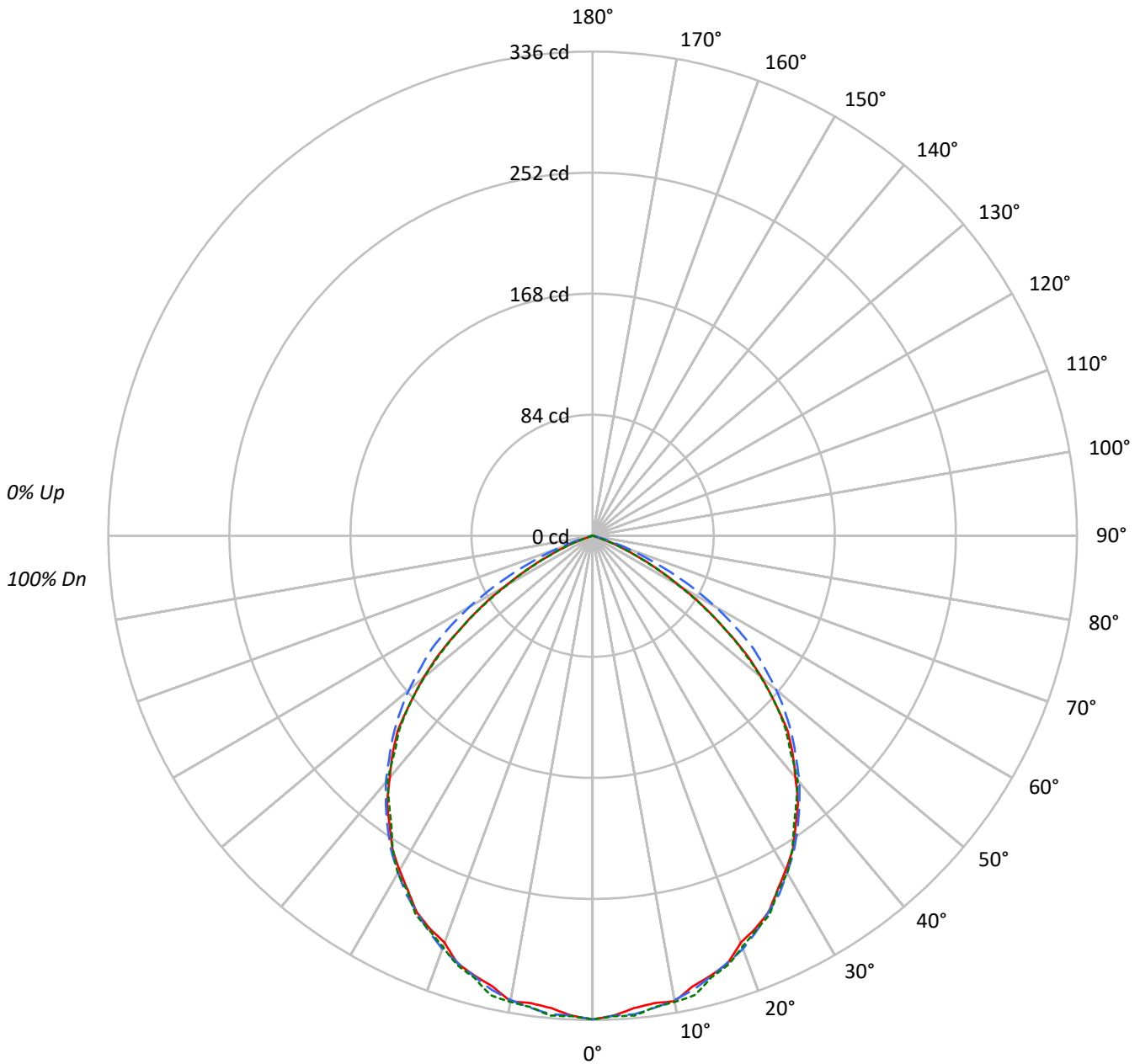
Lumens per Lamp: N/A
Luminaire Lumens: 717.0 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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				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				100
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89				89
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77				77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67				67
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59				59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				52
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				46
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41				41
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33				33
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32382	32382	32382
5°	31866	32283	32370
10°	32137	32048	32186
15°	31576	31626	31716
20°	30845	31328	31184
25°	30704	30704	30906
30°	29848	30060	30116
35°	28918	29200	28694
40°	27559	28101	27862
45°	26090	26677	25831
50°	22982	24978	22832
55°	18605	22862	18690
60°	13624	18950	13335
65°	8265	13493	8059
70°	3216	7279	3103
75°	373	1976	373
80°	278	278	278
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.7	4.4
10°-20°	89.7	12.5
20°-30°	133.0	18.6
30°-40°	154.1	21.5
40°-50°	147.8	20.6
50°-60°	108.7	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°	254.4	35.5
0°-40°	408.5	57.0
0°-60°	664.9	92.7
0°-90°	717.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	717.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	336	336	336	336	336	
5°	329	332	333	334	334	31
15°	316	318	317	317	318	89
25°	288	288	288	289	290	132
35°	246	247	248	247	244	154
45°	191	192	196	193	189	145
55°	111	122	136	122	111	100
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°	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6
2.5°	333.3	337.1	337.6	335.2	334.2	332.8	336.1	333.7	334.7	333.7	333.3
5°	329.0	333.3	333.7	333.7	332.8	332.3	333.7	333.3	332.8	331.8	333.3
7.5°	327.1	329.4	331.8	329.0	330.4	329.9	333.3	331.8	331.4	331.4	330.4
10°	328.0	327.5	329.4	326.6	327.5	326.6	329.4	329.4	328.5	327.5	327.1
12.5°	320.4	324.2	324.2	323.7	322.8	321.3	324.2	326.1	323.2	323.2	322.8
15°	316.1	317.1	317.5	317.5	317.1	318.0	319.4	317.5	318.0	315.6	316.6
17.5°	311.3	309.4	310.8	309.9	310.4	311.3	313.2	313.2	310.4	309.9	310.8
20°	300.4	306.1	306.6	303.7	304.2	304.2	307.5	304.7	306.6	304.2	305.1
22.5°	295.1	298.9	299.4	295.6	298.0	295.1	298.5	294.2	298.9	295.6	297.0
25°	288.4	288.0	289.4	287.5	288.0	288.0	290.3	288.4	289.9	288.0	288.4
27.5°	277.5	281.3	280.8	278.9	279.9	279.4	284.2	278.9	281.8	279.4	280.3
30°	267.9	271.3	270.3	268.4	268.4	267.0	272.2	270.8	270.3	270.3	269.8
32.5°	258.4	258.9	257.9	258.4	258.9	257.0	261.3	259.4	258.9	259.4	259.8
35°	245.5	245.5	246.5	245.1	247.0	247.0	250.8	248.4	247.9	246.5	247.9
37.5°	234.1	232.7	233.1	233.1	234.1	235.0	236.9	236.0	236.0	234.6	235.5
40°	218.8	217.9	219.3	219.3	220.7	220.7	222.7	221.7	223.1	223.1	223.1
42.5°	205.5	205.5	204.5	206.0	206.4	206.0	209.3	208.8	209.3	208.4	208.8
45°	191.2	191.2	190.2	189.8	192.1	191.7	195.5	194.0	195.9	195.0	195.5
47.5°	171.6	174.0	172.6	174.0	176.9	177.4	179.7	178.8	180.7	179.3	181.2
50°	153.1	153.1	154.5	156.4	159.2	159.7	162.6	164.5	165.4	165.9	166.4
52.5°	133.5	133.0	134.5	136.8	139.2	141.1	144.0	146.8	148.8	151.6	150.2
55°	110.6	111.6	113.0	115.9	119.7	122.0	124.4	128.2	131.6	133.0	135.9
57.5°	91.1	90.1	91.1	94.9	99.2	101.1	104.4	108.2	113.0	115.9	116.8
60°	70.6	71.0	72.0	75.3	78.7	81.5	83.0	89.2	93.4	96.3	98.2
62.5°	52.0	52.9	53.9	56.7	60.1	62.5	64.8	70.1	73.9	76.8	78.7
65°	36.2	36.7	38.1	39.6	42.9	45.3	47.2	51.5	55.3	57.7	59.1
67.5°	22.4	22.9	23.8	25.8	28.1	30.0	31.9	34.8	38.1	40.5	41.0
70°	11.4	11.9	12.4	13.8	15.7	16.7	18.1	20.5	22.9	24.8	25.8
72.5°	3.8	3.8	4.3	5.3	6.2	7.2	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	5.3
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°	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6
2.5°	335.6	334.7	334.2	334.7	334.7	334.2	335.6	337.6	339.9	333.7
5°	335.2	334.2	335.2	332.3	333.7	332.8	334.7	334.2	336.1	334.2
7.5°	333.7	331.8	332.3	330.9	332.8	330.4	331.8	334.7	332.8	329.9
10°	329.0	328.0	331.4	326.6	325.6	327.5	331.4	328.5	327.5	328.5
12.5°	324.2	324.2	325.6	321.8	322.3	323.2	325.1	323.2	324.2	326.6
15°	319.0	318.0	320.4	317.5	317.1	316.1	318.0	318.0	319.0	317.5
17.5°	312.8	311.3	311.3	310.4	309.9	312.3	313.2	313.7	314.2	312.3
20°	305.1	304.7	306.1	304.7	305.1	305.6	305.6	304.7	308.9	303.7
22.5°	297.0	298.5	296.6	295.6	296.6	297.5	297.5	298.0	297.0	296.1
25°	288.9	289.9	290.3	287.5	288.9	287.5	290.8	291.3	289.4	290.3
27.5°	281.8	280.3	279.9	278.0	278.9	278.4	278.9	278.9	281.8	278.0
30°	270.8	269.4	269.8	268.4	268.9	268.4	268.9	268.9	270.8	270.3
32.5°	260.3	258.9	259.4	257.9	257.9	258.4	257.5	257.5	258.9	257.9
35°	250.3	247.0	247.4	247.0	247.4	245.5	245.5	245.1	246.0	243.6
37.5°	236.0	234.6	234.1	233.6	234.1	233.1	234.1	232.7	234.1	232.2
40°	223.1	222.2	222.7	219.8	219.8	220.3	219.3	218.8	219.3	221.2
42.5°	210.3	208.4	207.4	206.4	206.9	205.5	205.0	204.1	205.0	203.1
45°	195.0	195.0	194.5	192.1	192.6	192.6	190.7	188.8	189.3	189.3
47.5°	181.2	180.2	179.7	177.4	176.9	176.4	174.5	173.1	173.1	171.6
50°	165.9	165.0	163.5	161.1	160.2	157.3	155.9	154.0	152.1	152.1
52.5°	151.6	148.3	146.4	142.5	141.1	139.7	135.9	134.5	133.0	131.6
55°	134.5	131.6	127.8	123.5	121.6	119.2	115.4	112.5	110.6	111.1
57.5°	117.8	113.0	109.2	103.5	101.1	99.6	95.8	92.0	90.1	90.1
60°	97.3	93.4	88.7	83.4	81.5	79.2	74.4	72.0	70.6	69.1
62.5°	77.7	74.9	70.6	63.9	62.5	60.1	56.7	53.9	52.4	52.4
65°	58.2	55.3	51.5	46.7	44.8	42.9	40.1	37.2	35.8	35.3
67.5°	41.0	37.7	34.3	30.5	29.1	28.1	25.3	23.4	22.4	21.9
70°	24.8	22.9	20.5	17.6	16.2	15.3	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)