

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: P840125

Luminaire Tested: **LD4C10D010 EU4109040 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: P840125  
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: LD4C10D010 EU4109040 4LBCSSQMW  
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS  
AND 4LBCSSQ TRIM WITH MW FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

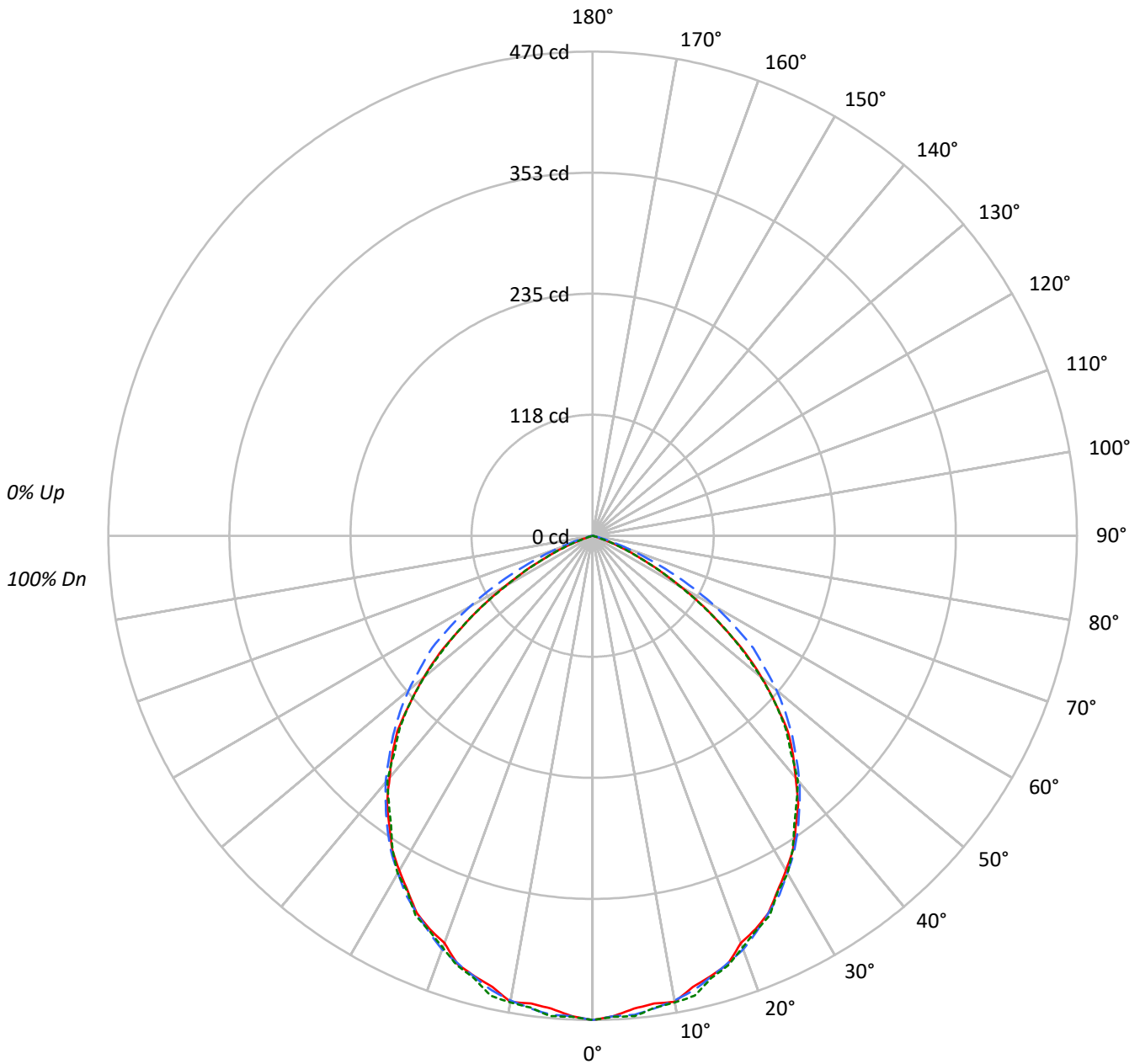
Lumens per Lamp: N/A  
Luminaire Lumens: 1004.0 lumens  
Efficiency: N/A  
Efficacy: 102.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 9.8  
Input Voltage (V):  
Input Current (A<sub>in</sub>): 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			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°	45350	45350	45350
5°	44622	45203	45329
10°	45001	44874	45070
15°	44212	44282	44412
20°	43188	43876	43670
25°	43001	43001	43288
30°	41803	42104	42171
35°	40497	40897	40179
40°	38593	39349	39022
45°	36529	37348	36161
50°	32169	34976	31973
55°	26058	32013	26176
60°	19066	26534	18680
65°	11575	18904	11279
70°	4514	10184	4345
75°	485	2759	485
80°	389	389	389
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.4	4.4
10°-20°	125.5	12.5
20°-30°	186.3	18.6
30°-40°	215.8	21.5
40°-50°	206.9	20.6
50°-60°	152.2	15.2
60°-70°	65.7	6.5
70°-80°	7.1	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°	356.2	35.5
0°-40°	572.0	57.0
0°-60°	931.1	92.7
0°-90°	1004.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1004.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	470	470	470	470	470	
5°	461	465	467	467	468	44
15°	443	445	443	444	445	125
25°	404	403	404	405	407	185
35°	344	346	347	346	341	215
45°	268	268	274	270	265	203
55°	155	171	190	170	156	139
65°	51	63	83	63	49	52
75°	1	2	7	1	1	4
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°	470.0	470.0	470.0	470.0	470.0	470.0	470.0	470.0	470.0	470.0	470.0
2.5°	466.7	472.0	472.7	469.3	468.0	466.0	470.7	467.3	468.7	467.3	466.7
5°	460.7	466.7	467.3	467.3	466.0	465.3	467.3	466.7	466.0	464.7	466.7
7.5°	458.0	461.3	464.7	460.7	462.6	462.0	466.7	464.7	464.0	464.0	462.6
10°	459.3	458.6	461.3	457.3	458.6	457.3	461.3	461.3	460.0	458.6	458.0
12.5°	448.6	454.0	454.0	453.3	452.0	450.0	454.0	456.7	452.6	452.6	452.0
15°	442.6	444.0	444.6	444.6	444.0	445.3	447.3	444.6	445.3	441.9	443.3
17.5°	436.0	433.3	435.3	433.9	434.6	436.0	438.6	438.6	434.6	433.9	435.3
20°	420.6	428.6	429.3	425.3	425.9	425.9	430.6	426.6	429.3	425.9	427.3
22.5°	413.2	418.6	419.3	413.9	417.2	413.2	417.9	411.9	418.6	413.9	415.9
25°	403.9	403.2	405.2	402.6	403.2	403.2	406.6	403.9	405.9	403.2	403.9
27.5°	388.6	393.9	393.2	390.5	391.9	391.2	397.9	390.5	394.6	391.2	392.6
30°	375.2	379.9	378.5	375.9	375.9	373.9	381.2	379.2	378.5	378.5	377.9
32.5°	361.8	362.5	361.2	361.8	362.5	359.9	365.8	363.2	362.5	363.2	363.9
35°	343.8	343.8	345.1	343.2	345.8	345.8	351.2	347.8	347.2	345.1	347.2
37.5°	327.8	325.8	326.5	326.5	327.8	329.1	331.8	330.5	330.5	328.5	329.8
40°	306.4	305.1	307.1	307.1	309.1	309.1	311.8	310.4	312.4	312.4	312.4
42.5°	287.7	287.7	286.4	288.4	289.1	288.4	293.1	292.4	293.1	291.8	292.4
45°	267.7	267.7	266.4	265.7	269.0	268.4	273.7	271.7	274.4	273.0	273.7
47.5°	240.3	243.7	241.7	243.7	247.7	248.4	251.7	250.4	253.0	251.0	253.7
50°	214.3	214.3	216.3	219.0	223.0	223.7	227.7	230.3	231.7	232.3	233.0
52.5°	186.9	186.3	188.3	191.6	194.9	197.6	201.6	205.6	208.3	212.3	210.3
55°	154.9	156.2	158.2	162.2	167.6	170.9	174.2	179.6	184.3	186.3	190.3
57.5°	127.5	126.2	127.5	132.8	138.9	141.5	146.2	151.6	158.2	162.2	163.6
60°	98.8	99.5	100.8	105.5	110.2	114.2	116.2	124.8	130.9	134.9	137.5
62.5°	72.8	74.1	75.5	79.5	84.1	87.5	90.8	98.1	103.5	107.5	110.2
65°	50.7	51.4	53.4	55.4	60.1	63.4	66.1	72.1	77.4	80.8	82.8
67.5°	31.4	32.0	33.4	36.1	39.4	42.1	44.7	48.7	53.4	56.7	57.4
70°	16.0	16.7	17.4	19.4	22.0	23.4	25.4	28.7	32.0	34.7	36.1
72.5°	5.3	5.3	6.0	7.4	8.7	10.0	10.7	14.0	16.7	18.0	18.7
75°	1.3	1.3	1.3	1.3	1.3	2.0	2.0	4.0	5.3	6.7	7.4
77.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.3	1.3
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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°	470.0	470.0	470.0	470.0	470.0	470.0	470.0	470.0	470.0	470.0
2.5°	470.0	468.7	468.0	468.7	468.7	468.0	470.0	472.7	476.0	467.3
5°	469.3	468.0	469.3	465.3	467.3	466.0	468.7	468.0	470.7	468.0
7.5°	467.3	464.7	465.3	463.3	466.0	462.6	464.7	468.7	466.0	462.0
10°	460.7	459.3	464.0	457.3	456.0	458.6	464.0	460.0	458.6	460.0
12.5°	454.0	454.0	456.0	450.6	451.3	452.6	455.3	452.6	454.0	457.3
15°	446.6	445.3	448.6	444.6	444.0	442.6	445.3	445.3	446.6	444.6
17.5°	437.9	436.0	436.0	434.6	433.9	437.3	438.6	439.3	440.0	437.3
20°	427.3	426.6	428.6	426.6	427.3	427.9	427.9	426.6	432.6	425.3
22.5°	415.9	417.9	415.3	413.9	415.3	416.6	416.6	417.2	415.9	414.6
25°	404.6	405.9	406.6	402.6	404.6	402.6	407.2	407.9	405.2	406.6
27.5°	394.6	392.6	391.9	389.2	390.5	389.9	390.5	390.5	394.6	389.2
30°	379.2	377.2	377.9	375.9	376.5	375.9	376.5	376.5	379.2	378.5
32.5°	364.5	362.5	363.2	361.2	361.2	361.8	360.5	360.5	362.5	361.2
35°	350.5	345.8	346.5	345.8	346.5	343.8	343.8	343.2	344.5	341.1
37.5°	330.5	328.5	327.8	327.1	327.8	326.5	327.8	325.8	327.8	325.1
40°	312.4	311.1	311.8	307.8	307.8	308.4	307.1	306.4	307.1	309.8
42.5°	294.4	291.8	290.4	289.1	289.7	287.7	287.1	285.7	287.1	284.4
45°	273.0	273.0	272.4	269.0	269.7	269.7	267.0	264.4	265.0	265.0
47.5°	253.7	252.4	251.7	248.4	247.7	247.0	244.3	242.3	242.3	240.3
50°	232.3	231.0	229.0	225.6	224.3	220.3	218.3	215.6	213.0	213.0
52.5°	212.3	207.6	204.9	199.6	197.6	195.6	190.3	188.3	186.3	184.3
55°	188.3	184.3	178.9	172.9	170.2	166.9	161.6	157.5	154.9	155.6
57.5°	164.9	158.2	152.9	144.9	141.5	139.5	134.2	128.8	126.2	126.2
60°	136.2	130.9	124.2	116.8	114.2	110.8	104.1	100.8	98.8	96.8
62.5°	108.8	104.8	98.8	89.5	87.5	84.1	79.5	75.5	73.4	73.4
65°	81.4	77.4	72.1	65.4	62.8	60.1	56.1	52.1	50.1	49.4
67.5°	57.4	52.7	48.1	42.7	40.7	39.4	35.4	32.7	31.4	30.7
70°	34.7	32.0	28.7	24.7	22.7	21.4	18.7	16.7	16.0	15.4
72.5°	18.0	16.0	13.3	10.7	9.3	8.0	6.7	5.3	4.7	4.7
75°	6.7	5.3	3.3	2.0	1.3	1.3	1.3	1.3	1.3	1.3
77.5°	1.3	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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)