

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: P840137

Luminaire Tested: **LD4C15D010 EU4159050 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: P840137  
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: LD4C15D010 EU4159050 4LBCSSQMW  
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS  
AND 4LBCSSQ TRIM WITH MW FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

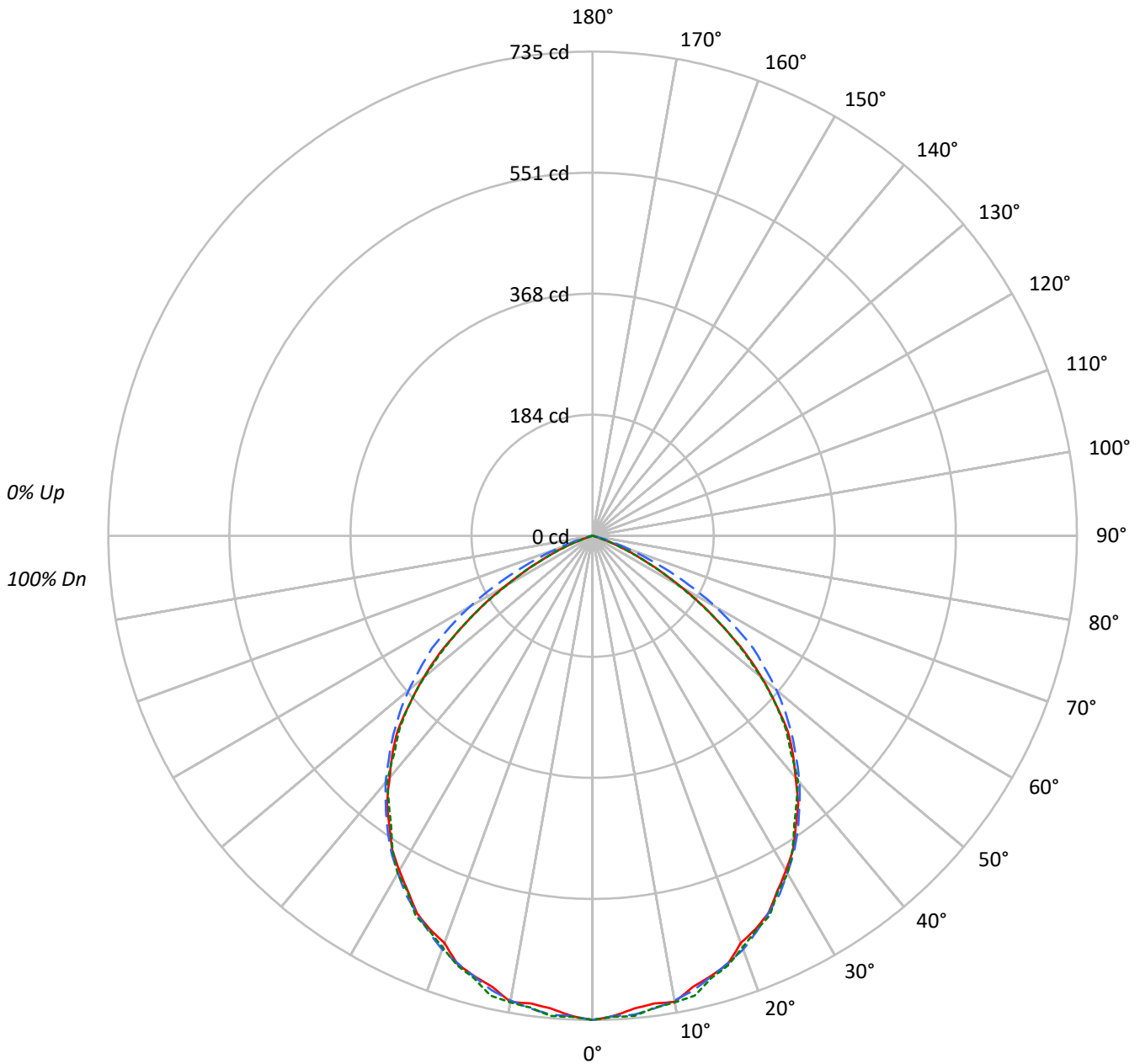
Lumens per Lamp: N/A  
Luminaire Lumens: 1570.0 lumens  
Efficiency: N/A  
Efficacy: 99.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 15.8  
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								
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°	70919	70919	70919
5°	69776	70677	70880
10°	70377	70171	70475
15°	69146	69246	69455
20°	67534	68601	68283
25°	67242	67242	67690
30°	65368	65836	65947
35°	63325	63949	62842
40°	60359	61543	61014
45°	57120	58403	56547
50°	50302	54700	49987
55°	40744	50046	40929
60°	29815	41510	29217
65°	18128	29544	17649
70°	7053	15911	6771
75°	783	4287	783
80°	611	611	611
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.4	4.4
10°-20°	196.3	12.5
20°-30°	291.3	18.6
30°-40°	337.5	21.5
40°-50°	323.6	20.6
50°-60°	237.9	15.2
60°-70°	102.8	6.5
70°-80°	11.1	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°	557.0	35.5
0°-40°	894.5	57.0
0°-60°	1456.0	92.7
0°-90°	1570.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1570.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	735	735	735	735	735	
5°	720	728	730	731	732	69
15°	692	696	693	694	695	195
25°	632	631	632	633	636	289
35°	538	541	543	542	534	336
45°	419	420	428	422	414	318
55°	242	267	298	266	243	218
65°	79	99	129	98	77	82
75°	2	3	12	2	2	6
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°	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0
2.5°	729.7	738.1	739.1	733.9	731.8	728.7	736.0	730.8	732.9	730.8	729.7
5°	720.4	729.7	730.8	730.8	728.7	727.6	730.8	729.7	728.7	726.6	729.7
7.5°	716.2	721.4	726.6	720.4	723.5	722.4	729.7	726.6	725.6	725.6	723.5
10°	718.3	717.2	721.4	715.1	717.2	715.1	721.4	721.4	719.3	717.2	716.2
12.5°	701.5	709.9	709.9	708.9	706.8	703.6	709.9	714.1	707.8	707.8	706.8
15°	692.2	694.2	695.3	695.3	694.2	696.3	699.4	695.3	696.3	691.1	693.2
17.5°	681.7	677.5	680.7	678.6	679.6	681.7	685.9	685.9	679.6	678.6	680.7
20°	657.7	670.2	671.3	665.0	666.0	666.0	673.4	667.1	671.3	666.0	668.1
22.5°	646.2	654.5	655.6	647.3	652.5	646.2	653.5	644.1	654.5	647.3	650.4
25°	631.6	630.6	633.7	629.5	630.6	630.6	635.8	631.6	634.7	630.6	631.6
27.5°	607.6	616.0	614.9	610.7	612.8	611.8	622.2	610.7	617.0	611.8	613.9
30°	586.7	594.0	591.9	587.8	587.8	584.6	596.1	593.0	591.9	591.9	590.9
32.5°	565.8	566.9	564.8	565.8	566.9	562.7	572.1	567.9	566.9	567.9	569.0
35°	537.6	537.6	539.7	536.6	540.8	540.8	549.1	543.9	542.9	539.7	542.9
37.5°	512.6	509.5	510.5	510.5	512.6	514.7	518.8	516.8	516.8	513.6	515.7
40°	479.2	477.1	480.2	480.2	483.4	483.4	487.5	485.4	488.6	488.6	488.6
42.5°	450.0	450.0	447.9	451.0	452.1	451.0	458.3	457.3	458.3	456.2	457.3
45°	418.6	418.6	416.5	415.5	420.7	419.7	428.0	424.9	429.1	427.0	428.0
47.5°	375.8	381.0	377.9	381.0	387.3	388.4	393.6	391.5	395.7	392.5	396.7
50°	335.1	335.1	338.2	342.4	348.7	349.7	356.0	360.2	362.3	363.3	364.4
52.5°	292.3	291.3	294.4	299.6	304.8	309.0	315.3	321.5	325.7	332.0	328.8
55°	242.2	244.3	247.4	253.7	262.0	267.2	272.5	280.8	288.2	291.3	297.5
57.5°	199.4	197.3	199.4	207.7	217.1	221.3	228.6	237.0	247.4	253.7	255.8
60°	154.5	155.6	157.6	165.0	172.3	178.5	181.7	195.2	204.6	210.9	215.1
62.5°	113.8	115.9	118.0	124.2	131.5	136.8	142.0	153.5	161.8	168.1	172.3
65°	79.4	80.4	83.5	86.6	94.0	99.2	103.3	112.7	121.1	126.3	129.4
67.5°	49.1	50.1	52.2	56.4	61.6	65.8	69.9	76.2	83.5	88.7	89.8
70°	25.0	26.1	27.1	30.3	34.5	36.5	39.7	44.9	50.1	54.3	56.4
72.5°	8.3	8.3	9.4	11.5	13.6	15.7	16.7	21.9	26.1	28.2	29.2
75°	2.1	2.1	2.1	2.1	2.1	3.2	3.2	6.3	8.3	10.4	11.5
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.1	2.1
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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°	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0
2.5°	735.0	732.9	731.8	732.9	732.9	731.8	735.0	739.1	744.3	730.8
5°	733.9	731.8	733.9	727.6	730.8	728.7	732.9	731.8	736.0	731.8
7.5°	730.8	726.6	727.6	724.5	728.7	723.5	726.6	732.9	728.7	722.4
10°	720.4	718.3	725.6	715.1	713.0	717.2	725.6	719.3	717.2	719.3
12.5°	709.9	709.9	713.0	704.7	705.7	707.8	712.0	707.8	709.9	715.1
15°	698.4	696.3	701.5	695.3	694.2	692.2	696.3	696.3	698.4	695.3
17.5°	684.8	681.7	681.7	679.6	678.6	683.8	685.9	686.9	688.0	683.8
20°	668.1	667.1	670.2	667.1	668.1	669.2	669.2	667.1	676.5	665.0
22.5°	650.4	653.5	649.4	647.3	649.4	651.4	651.4	652.5	650.4	648.3
25°	632.7	634.7	635.8	629.5	632.7	629.5	636.8	637.9	633.7	635.8
27.5°	617.0	613.9	612.8	608.6	610.7	609.7	610.7	610.7	617.0	608.6
30°	593.0	589.8	590.9	587.8	588.8	587.8	588.8	588.8	593.0	591.9
32.5°	570.0	566.9	567.9	564.8	564.8	565.8	563.7	563.7	566.9	564.8
35°	548.1	540.8	541.8	540.8	541.8	537.6	537.6	536.6	538.7	533.5
37.5°	516.8	513.6	512.6	511.6	512.6	510.5	512.6	509.5	512.6	508.4
40°	488.6	486.5	487.5	481.3	481.3	482.3	480.2	479.2	480.2	484.4
42.5°	460.4	456.2	454.1	452.1	453.1	450.0	448.9	446.8	448.9	444.7
45°	427.0	427.0	425.9	420.7	421.8	421.8	417.6	413.4	414.4	414.4
47.5°	396.7	394.6	393.6	388.4	387.3	386.3	382.1	379.0	379.0	375.8
50°	363.3	361.2	358.1	352.9	350.8	344.5	341.4	337.2	333.0	333.0
52.5°	332.0	324.7	320.5	312.1	309.0	305.9	297.5	294.4	291.3	288.2
55°	294.4	288.2	279.8	270.4	266.2	261.0	252.6	246.4	242.2	243.3
57.5°	257.9	247.4	239.1	226.6	221.3	218.2	209.8	201.5	197.3	197.3
60°	213.0	204.6	194.2	182.7	178.5	173.3	162.8	157.6	154.5	151.4
62.5°	170.2	163.9	154.5	139.9	136.8	131.5	124.2	118.0	114.8	114.8
65°	127.4	121.1	112.7	102.3	98.1	94.0	87.7	81.4	78.3	77.3
67.5°	89.8	82.5	75.2	66.8	63.7	61.6	55.3	51.2	49.1	48.0
70°	54.3	50.1	44.9	38.6	35.5	33.4	29.2	26.1	25.0	24.0
72.5°	28.2	25.0	20.9	16.7	14.6	12.5	10.4	8.3	7.3	7.3
75°	10.4	8.3	5.2	3.2	2.1	2.1	2.1	2.1	2.1	2.1
77.5°	2.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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)