

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: P840131

Luminaire Tested: **LD4C15D010 EU4159030 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: P840131  
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 EU4159030 4LBCSSQMW  
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS  
AND 4LBCSSQ TRIM WITH MW FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

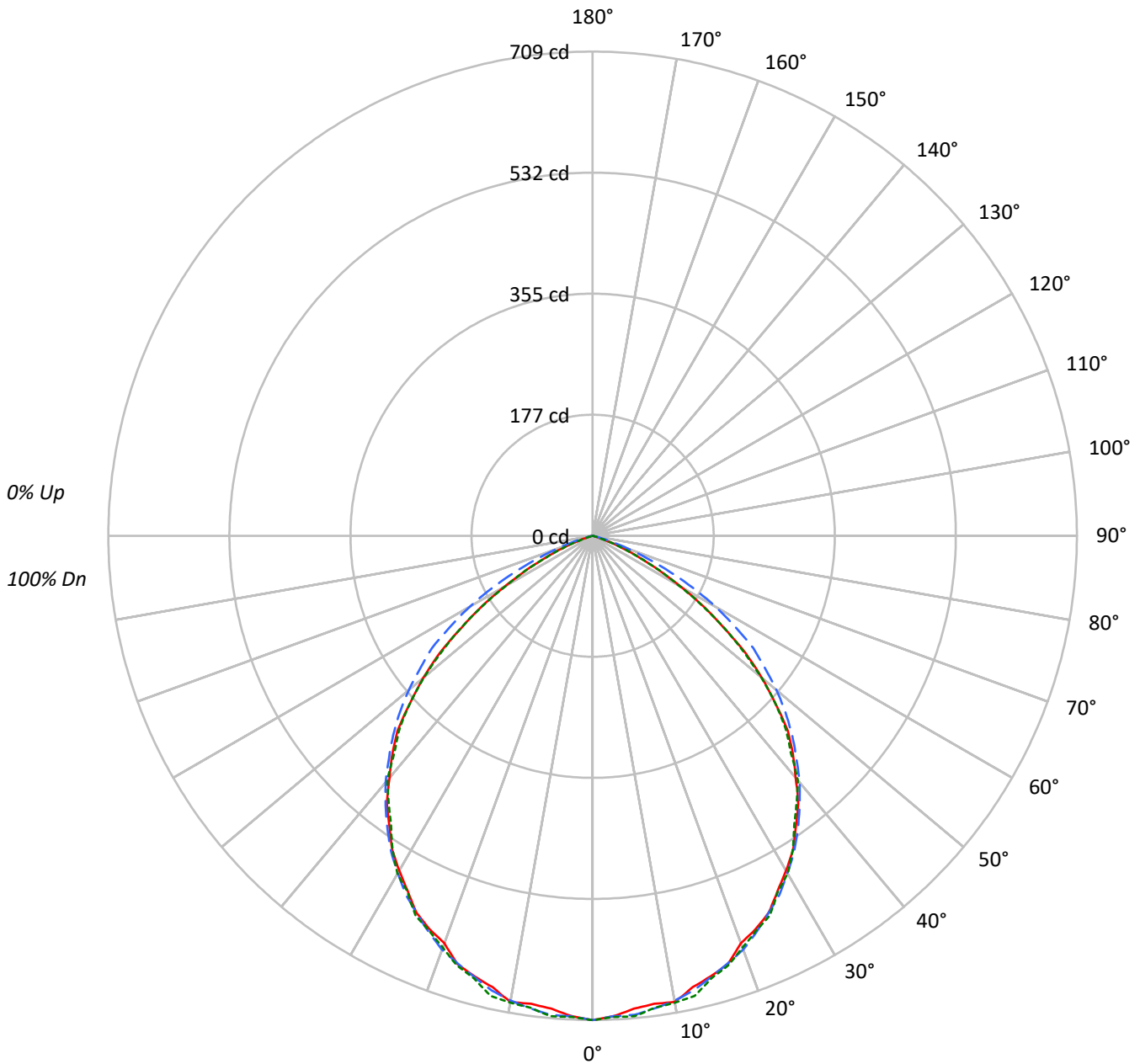
Lumens per Lamp: N/A  
Luminaire Lumens: 1515.0 lumens  
Efficiency: N/A  
Efficacy: 95.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

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			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°	68430	68430	68430
5°	67326	68207	68401
10°	67908	67712	68006
15°	66718	66818	67018
20°	65172	66199	65891
25°	64890	64890	65315
30°	63072	63529	63641
35°	61110	61699	60639
40°	58243	59376	58872
45°	55128	56356	54569
50°	48546	52779	48245
55°	39314	48297	39482
60°	28773	40043	28194
65°	17489	28516	17032
70°	6827	15347	6545
75°	746	4138	746
80°	556	556	556
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.9	4.4
10°-20°	189.4	12.5
20°-30°	281.1	18.6
30°-40°	325.7	21.5
40°-50°	312.3	20.6
50°-60°	229.6	15.2
60°-70°	99.2	6.5
70°-80°	10.7	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°	537.5	35.5
0°-40°	863.1	57.0
0°-60°	1405.0	92.7
0°-90°	1515.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1515.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	709	709	709	709	709	
5°	695	702	704	705	706	66
15°	668	672	669	670	671	188
25°	610	608	610	610	614	279
35°	519	522	524	523	515	324
45°	404	405	413	407	400	307
55°	234	258	287	257	235	210
65°	77	96	125	95	75	79
75°	2	3	11	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°	709.2	709.2	709.2	709.2	709.2	709.2	709.2	709.2	709.2	709.2	709.2
2.5°	704.2	712.2	713.2	708.2	706.2	703.2	710.2	705.2	707.2	705.2	704.2
5°	695.1	704.2	705.2	705.2	703.2	702.1	705.2	704.2	703.2	701.2	704.2
7.5°	691.1	696.1	701.2	695.1	698.1	697.1	704.2	701.2	700.1	700.1	698.1
10°	693.1	692.1	696.1	690.1	692.1	690.1	696.1	696.1	694.1	692.1	691.1
12.5°	677.0	685.0	685.0	684.0	682.0	679.0	685.0	689.1	683.0	683.0	682.0
15°	667.9	669.9	670.9	670.9	669.9	671.9	674.9	670.9	671.9	666.9	668.9
17.5°	657.8	653.8	656.8	654.8	655.8	657.8	661.9	661.9	655.8	654.8	656.8
20°	634.7	646.7	647.8	641.7	642.7	642.7	649.8	643.7	647.8	642.7	644.7
22.5°	623.6	631.6	632.6	624.6	629.6	623.6	630.6	621.5	631.6	624.6	627.6
25°	609.5	608.5	611.5	607.5	608.5	608.5	613.5	609.5	612.5	608.5	609.5
27.5°	586.3	594.4	593.4	589.3	591.3	590.4	600.4	589.3	595.4	590.4	592.4
30°	566.1	573.2	571.2	567.2	567.2	564.1	575.2	572.2	571.2	571.2	570.2
32.5°	546.0	547.0	545.0	546.0	547.0	543.0	552.0	548.0	547.0	548.0	549.0
35°	518.8	518.8	520.8	517.8	521.8	521.8	529.9	524.8	523.8	520.8	523.8
37.5°	494.6	491.6	492.6	492.6	494.6	496.6	500.7	498.7	498.7	495.7	497.7
40°	462.4	460.4	463.4	463.4	466.4	466.4	470.5	468.4	471.4	471.4	471.4
42.5°	434.2	434.2	432.2	435.2	436.2	435.2	442.3	441.2	442.3	440.2	441.2
45°	404.0	404.0	401.9	401.0	406.0	405.0	413.0	410.0	414.0	412.0	413.0
47.5°	362.6	367.7	364.7	367.7	373.7	374.8	379.8	377.8	381.8	378.8	382.8
50°	323.4	323.4	326.4	330.4	336.5	337.5	343.5	347.6	349.6	350.6	351.6
52.5°	282.1	281.1	284.1	289.1	294.2	298.2	304.2	310.3	314.3	320.4	317.3
55°	233.7	235.7	238.8	244.8	252.9	257.9	262.9	271.0	278.1	281.1	287.1
57.5°	192.4	190.4	192.4	200.5	209.5	213.6	220.6	228.7	238.8	244.8	246.8
60°	149.1	150.1	152.1	159.2	166.2	172.3	175.3	188.4	197.5	203.5	207.5
62.5°	109.8	111.8	113.9	119.9	126.9	132.0	137.0	148.1	156.1	162.2	166.2
65°	76.6	77.6	80.6	83.6	90.7	95.7	99.7	108.8	116.9	121.9	124.9
67.5°	47.3	48.3	50.4	54.4	59.4	63.5	67.5	73.5	80.6	85.6	86.6
70°	24.2	25.2	26.2	29.2	33.3	35.3	38.3	43.3	48.3	52.4	54.4
72.5°	8.1	8.1	9.1	11.1	13.1	15.1	16.1	21.2	25.2	27.2	28.2
75°	2.0	2.0	2.0	2.0	2.0	3.0	3.0	6.0	8.1	10.1	11.1
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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°	709.2	709.2	709.2	709.2	709.2	709.2	709.2	709.2	709.2	709.2
2.5°	709.2	707.2	706.2	707.2	707.2	706.2	709.2	713.2	718.3	705.2
5°	708.2	706.2	708.2	702.1	705.2	703.2	707.2	706.2	710.2	706.2
7.5°	705.2	701.2	702.1	699.1	703.2	698.1	701.2	707.2	703.2	697.1
10°	695.1	693.1	700.1	690.1	688.1	692.1	700.1	694.1	692.1	694.1
12.5°	685.0	685.0	688.1	680.0	681.0	683.0	687.0	683.0	685.0	690.1
15°	674.0	671.9	677.0	670.9	669.9	667.9	671.9	671.9	674.0	670.9
17.5°	660.8	657.8	657.8	655.8	654.8	659.9	661.9	662.9	663.9	659.9
20°	644.7	643.7	646.7	643.7	644.7	645.8	645.8	643.7	652.8	641.7
22.5°	627.6	630.6	626.6	624.6	626.6	628.6	628.6	629.6	627.6	625.6
25°	610.5	612.5	613.5	607.5	610.5	607.5	614.5	615.5	611.5	613.5
27.5°	595.4	592.4	591.3	587.3	589.3	588.3	589.3	589.3	595.4	587.3
30°	572.2	569.2	570.2	567.2	568.2	567.2	568.2	568.2	572.2	571.2
32.5°	550.0	547.0	548.0	545.0	545.0	546.0	544.0	544.0	547.0	545.0
35°	528.9	521.8	522.8	521.8	522.8	518.8	518.8	517.8	519.8	514.8
37.5°	498.7	495.7	494.6	493.6	494.6	492.6	494.6	491.6	494.6	490.6
40°	471.4	469.4	470.5	464.4	464.4	465.4	463.4	462.4	463.4	467.4
42.5°	444.3	440.2	438.2	436.2	437.2	434.2	433.2	431.2	433.2	429.1
45°	412.0	412.0	411.0	406.0	407.0	407.0	403.0	398.9	399.9	399.9
47.5°	382.8	380.8	379.8	374.8	373.7	372.8	368.7	365.7	365.7	362.6
50°	350.6	348.5	345.5	340.5	338.5	332.4	329.4	325.4	321.4	321.4
52.5°	320.4	313.3	309.3	301.2	298.2	295.2	287.1	284.1	281.1	278.1
55°	284.1	278.1	270.0	260.9	256.9	251.8	243.8	237.7	233.7	234.7
57.5°	248.8	238.8	230.7	218.6	213.6	210.5	202.5	194.4	190.4	190.4
60°	205.5	197.5	187.4	176.3	172.3	167.2	157.1	152.1	149.1	146.1
62.5°	164.2	158.2	149.1	135.0	132.0	126.9	119.9	113.9	110.8	110.8
65°	122.9	116.9	108.8	98.7	94.7	90.7	84.6	78.6	75.5	74.6
67.5°	86.6	79.6	72.5	64.5	61.4	59.4	53.4	49.4	47.3	46.3
70°	52.4	48.3	43.3	37.3	34.2	32.2	28.2	25.2	24.2	23.2
72.5°	27.2	24.2	20.1	16.1	14.1	12.1	10.1	8.1	7.1	7.1
75°	10.1	8.1	5.1	3.0	2.0	2.0	2.0	2.0	2.0	2.0
77.5°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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)