

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: P#

Luminaire Tested: **LD4C15D010 EX4C159027 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: P#
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 EX4C159027 4LBCSSQMW
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

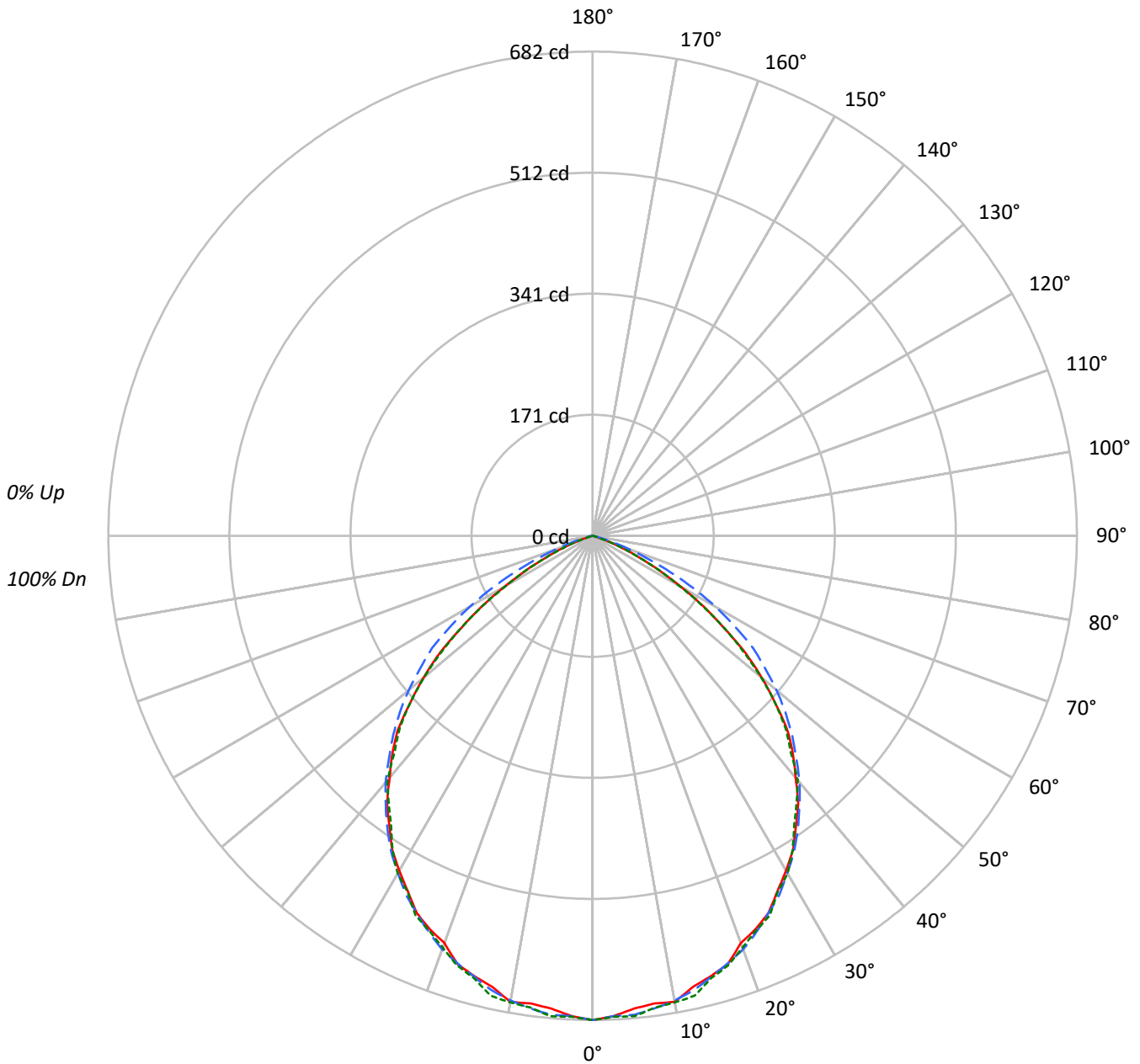
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1457.0 lumens
Efficiency: N/A
Efficacy: 92.2 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 (Ain): 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°	65815	65815	65815
5°	64749	65592	65776
10°	65312	65116	65400
15°	64161	64261	64451
20°	62677	63662	63375
25°	62398	62398	62814
30°	60666	61089	61201
35°	58766	59343	58318
40°	56013	57109	56618
45°	53013	54200	52481
50°	46684	50752	46399
55°	37817	46446	37968
60°	27673	38518	27113
65°	16804	27420	16370
70°	6545	14755	6291
75°	708	3989	708
80°	556	556	556
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.4	4.4
10°-20°	182.2	12.5
20°-30°	270.3	18.6
30°-40°	313.2	21.5
40°-50°	300.3	20.6
50°-60°	220.8	15.2
60°-70°	95.4	6.5
70°-80°	10.3	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°	516.9	35.5
0°-40°	830.1	57.0
0°-60°	1351.2	92.7
0°-90°	1457.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1457.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	682	682	682	682	682	
5°	668	675	677	678	679	64
15°	642	646	643	644	645	181
25°	586	585	586	587	590	268
35°	499	502	504	503	495	312
45°	388	390	397	391	385	295
55°	225	248	276	247	226	202
65°	74	92	120	91	72	76
75°	2	3	11	2	2	6
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P#

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	682.1	682.1	682.1	682.1	682.1	682.1	682.1	682.1	682.1	682.1	682.1
2.5°	677.2	685.0	685.9	681.1	679.1	676.3	683.0	678.2	680.1	678.2	677.2
5°	668.5	677.2	678.2	678.2	676.3	675.3	678.2	677.2	676.3	674.3	677.2
7.5°	664.6	669.5	674.3	668.5	671.4	670.4	677.2	674.3	673.3	673.3	671.4
10°	666.6	665.6	669.5	663.6	665.6	663.6	669.5	669.5	667.5	665.6	664.6
12.5°	651.0	658.8	658.8	657.8	655.9	653.0	658.8	662.7	656.8	656.8	655.9
15°	642.3	644.3	645.2	645.2	644.3	646.2	649.1	645.2	646.2	641.4	643.3
17.5°	632.7	628.8	631.7	629.7	630.7	632.7	636.5	636.5	630.7	629.7	631.7
20°	610.4	622.0	623.0	617.2	618.1	618.1	624.9	619.1	623.0	618.1	620.0
22.5°	599.7	607.4	608.4	600.7	605.5	599.7	606.5	597.8	607.4	600.7	603.6
25°	586.1	585.2	588.1	584.2	585.2	585.2	590.0	586.1	589.1	585.2	586.1
27.5°	563.9	571.6	570.6	566.8	568.7	567.7	577.4	566.8	572.6	567.7	569.7
30°	544.5	551.3	549.3	545.5	545.5	542.5	553.2	550.3	549.3	549.3	548.3
32.5°	525.1	526.1	524.1	525.1	526.1	522.2	530.9	527.0	526.1	527.0	528.0
35°	498.9	498.9	500.9	498.0	501.9	501.9	509.6	504.7	503.8	500.9	503.8
37.5°	475.7	472.8	473.8	473.8	475.7	477.6	481.5	479.6	479.6	476.7	478.6
40°	444.7	442.8	445.6	445.6	448.6	448.6	452.4	450.5	453.4	453.4	453.4
42.5°	417.6	417.6	415.6	418.5	419.5	418.5	425.3	424.3	425.3	423.4	424.3
45°	388.5	388.5	386.6	385.6	390.4	389.5	397.2	394.3	398.2	396.2	397.2
47.5°	348.8	353.6	350.7	353.6	359.4	360.4	365.2	363.3	367.2	364.3	368.2
50°	311.0	311.0	313.9	317.8	323.6	324.6	330.4	334.3	336.2	337.1	338.1
52.5°	271.3	270.3	273.2	278.0	282.9	286.8	292.6	298.4	302.3	308.1	305.2
55°	224.8	226.7	229.6	235.4	243.2	248.0	252.9	260.6	267.4	270.3	276.1
57.5°	185.0	183.1	185.0	192.8	201.5	205.4	212.2	219.9	229.6	235.4	237.4
60°	143.4	144.4	146.3	153.1	159.9	165.7	168.6	181.2	189.9	195.7	199.6
62.5°	105.6	107.6	109.5	115.3	122.1	126.9	131.7	142.4	150.2	156.0	159.9
65°	73.6	74.6	77.5	80.4	87.2	92.0	95.9	104.6	112.4	117.2	120.1
67.5°	45.5	46.5	48.4	52.3	57.2	61.0	64.9	70.7	77.5	82.3	83.3
70°	23.2	24.2	25.2	28.1	32.0	33.9	36.8	41.7	46.5	50.4	52.3
72.5°	7.7	7.7	8.7	10.7	12.6	14.5	15.5	20.4	24.2	26.2	27.1
75°	1.9	1.9	1.9	1.9	1.9	2.9	2.9	5.8	7.7	9.7	10.7
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.9	1.9
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°	682.1	682.1	682.1	682.1	682.1	682.1	682.1	682.1	682.1	682.1
2.5°	682.1	680.1	679.1	680.1	680.1	679.1	682.1	685.9	690.8	678.2
5°	681.1	679.1	681.1	675.3	678.2	676.3	680.1	679.1	683.0	679.1
7.5°	678.2	674.3	675.3	672.4	676.3	671.4	674.3	680.1	676.3	670.4
10°	668.5	666.6	673.3	663.6	661.7	665.6	673.3	667.5	665.6	667.5
12.5°	658.8	658.8	661.7	654.0	654.9	656.8	660.7	656.8	658.8	663.6
15°	648.2	646.2	651.0	645.2	644.3	642.3	646.2	646.2	648.2	645.2
17.5°	635.5	632.7	632.7	630.7	629.7	634.6	636.5	637.5	638.5	634.6
20°	620.0	619.1	622.0	619.1	620.0	621.0	621.0	619.1	627.8	617.2
22.5°	603.6	606.5	602.6	600.7	602.6	604.6	604.6	605.5	603.6	601.6
25°	587.1	589.1	590.0	584.2	587.1	584.2	591.0	591.9	588.1	590.0
27.5°	572.6	569.7	568.7	564.8	566.8	565.8	566.8	566.8	572.6	564.8
30°	550.3	547.4	548.3	545.5	546.4	545.5	546.4	546.4	550.3	549.3
32.5°	529.0	526.1	527.0	524.1	524.1	525.1	523.2	523.2	526.1	524.1
35°	508.6	501.9	502.8	501.9	502.8	498.9	498.9	498.0	499.9	495.1
37.5°	479.6	476.7	475.7	474.7	475.7	473.8	475.7	472.8	475.7	471.8
40°	453.4	451.5	452.4	446.6	446.6	447.6	445.6	444.7	445.6	449.5
42.5°	427.3	423.4	421.5	419.5	420.5	417.6	416.6	414.7	416.6	412.7
45°	396.2	396.2	395.3	390.4	391.4	391.4	387.5	383.7	384.6	384.6
47.5°	368.2	366.2	365.2	360.4	359.4	358.5	354.6	351.7	351.7	348.8
50°	337.1	335.2	332.3	327.5	325.5	319.7	316.8	312.9	309.1	309.1
52.5°	308.1	301.3	297.4	289.7	286.8	283.9	276.1	273.2	270.3	267.4
55°	273.2	267.4	259.7	250.9	247.1	242.2	234.4	228.6	224.8	225.7
57.5°	239.3	229.6	221.9	210.3	205.4	202.5	194.7	187.0	183.1	183.1
60°	197.6	189.9	180.2	169.5	165.7	160.8	151.1	146.3	143.4	140.5
62.5°	157.9	152.1	143.4	129.8	126.9	122.1	115.3	109.5	106.6	106.6
65°	118.2	112.4	104.6	94.9	91.1	87.2	81.4	75.6	72.7	71.7
67.5°	83.3	76.5	69.8	62.0	59.1	57.2	51.3	47.5	45.5	44.5
70°	50.4	46.5	41.7	35.9	32.9	31.0	27.1	24.2	23.2	22.3
72.5°	26.2	23.2	19.4	15.5	13.6	11.6	9.7	7.7	6.8	6.8
75°	9.7	7.7	4.9	2.9	1.9	1.9	1.9	1.9	1.9	1.9
77.5°	1.9	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)