

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 EX4C159030 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: 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 EX4C159030 4LBCSSQMMS
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

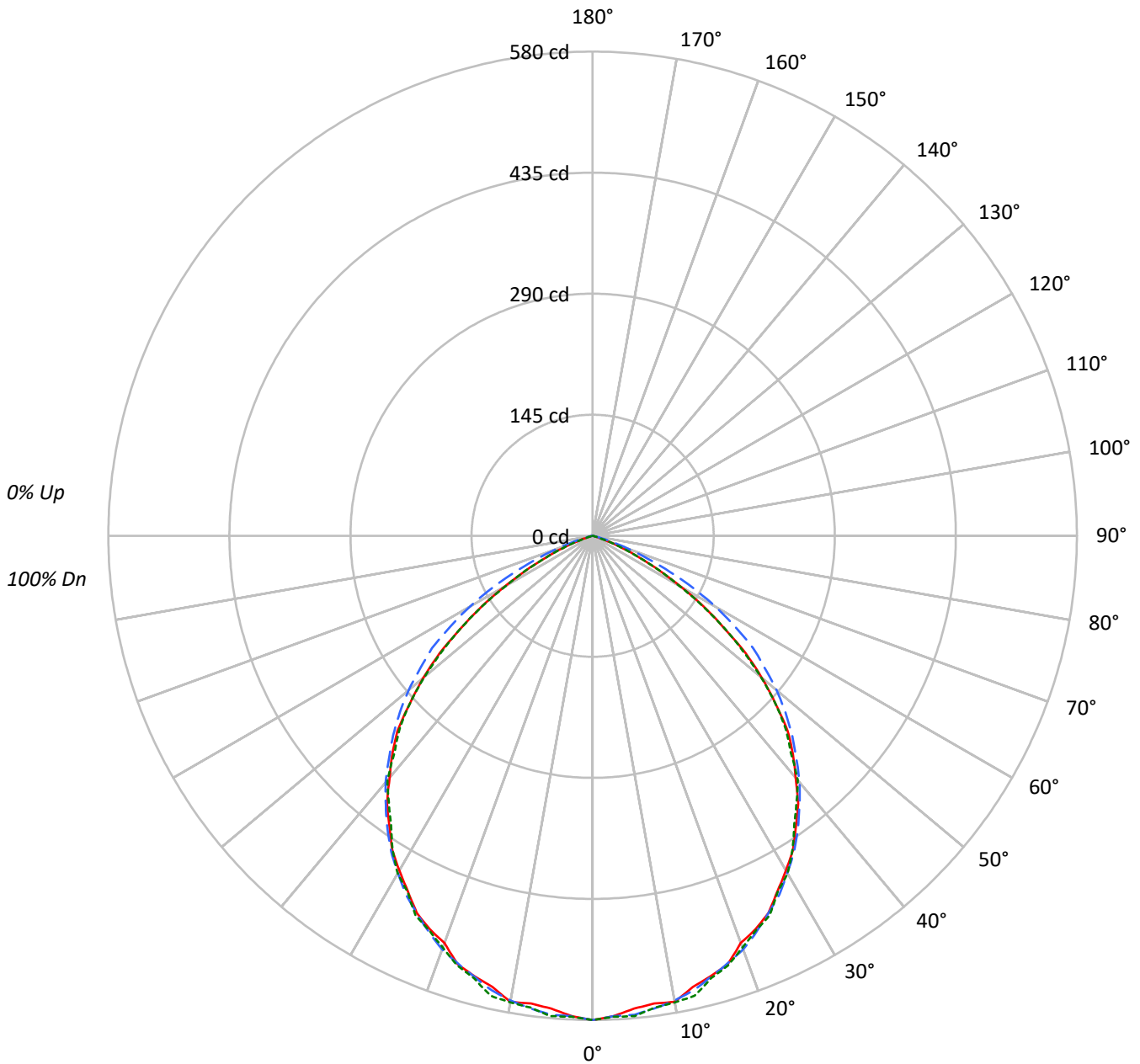
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1239.0 lumens
Efficiency: N/A
Efficacy: 78.4 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_{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

TEST NUMBER: P#
CATALOG NUMBER: LD4C15D010 EX4C159030 4LBCSSQMMS

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: LD4C15D010 EX4C159030 4LBCSSQMMS

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	100	100
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89	89	89	89
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77	77	77	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67	67	67	67
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59	59	59	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52	52	52	52
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46	46	46	46
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41	41	41	41
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	37	37	37	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34	34	34	34
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	31	31	31	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	55964	55964	55964
5°	55063	55780	55935
10°	55534	55377	55612
15°	54561	54641	54811
20°	53292	54144	53887
25°	53062	53062	53413
30°	51586	51953	52042
35°	49979	50462	49590
40°	47637	48569	48153
45°	45085	46095	44635
50°	39704	43157	39449
55°	32147	39499	32299
60°	23524	32748	23061
65°	14292	23334	13927
70°	5586	12554	5360
75°	596	3393	596
80°	445	445	445
85°	0	0	0



TEST NUMBER: P#

CATALOG NUMBER: LD4C15D010 EX4C159030 4LBCSSQMMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.7	4.4
10°-20°	154.9	12.5
20°-30°	229.9	18.6
30°-40°	266.4	21.5
40°-50°	255.4	20.6
50°-60°	187.8	15.2
60°-70°	81.1	6.5
70°-80°	8.7	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°	439.5	35.5
0°-40°	705.9	57.0
0°-60°	1149.0	92.7
0°-90°	1239.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1239.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	580	580	580	580	580	
5°	568	574	576	577	578	54
15°	546	550	547	548	549	154
25°	498	498	498	499	502	228
35°	424	427	428	428	421	265
45°	330	331	338	333	327	251
55°	191	211	235	210	192	172
65°	63	78	102	77	61	64
75°	2	2	9	2	2	5
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: LD4C15D010 EX4C159030 4LBCSSQMMS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
2.5°	575.9	582.5	583.3	579.2	577.5	575.1	580.8	576.7	578.4	576.7	575.9
5°	568.5	575.9	576.7	576.7	575.1	574.2	576.7	575.9	575.1	573.4	575.9
7.5°	565.2	569.3	573.4	568.5	570.9	570.1	575.9	573.4	572.6	572.6	570.9
10°	566.8	566.0	569.3	564.4	566.0	564.4	569.3	569.3	567.6	566.0	565.2
12.5°	553.6	560.2	560.2	559.4	557.8	555.3	560.2	563.5	558.6	558.6	557.8
15°	546.2	547.9	548.7	548.7	547.9	549.5	552.0	548.7	549.5	545.4	547.0
17.5°	538.0	534.7	537.2	535.5	536.3	538.0	541.3	541.3	536.3	535.5	537.2
20°	519.0	528.9	529.8	524.8	525.6	525.6	531.4	526.5	529.8	525.6	527.3
22.5°	510.0	516.6	517.4	510.8	514.9	510.0	515.7	508.3	516.6	510.8	513.3
25°	498.4	497.6	500.1	496.8	497.6	497.6	501.7	498.4	500.9	497.6	498.4
27.5°	479.5	486.1	485.3	482.0	483.6	482.8	491.0	482.0	486.9	482.8	484.4
30°	463.0	468.8	467.1	463.8	463.8	461.4	470.4	467.9	467.1	467.1	466.3
32.5°	446.5	447.4	445.7	446.5	447.4	444.1	451.5	448.2	447.4	448.2	449.0
35°	424.3	424.3	425.9	423.5	426.8	426.8	433.4	429.2	428.4	425.9	428.4
37.5°	404.5	402.1	402.9	402.9	404.5	406.2	409.5	407.8	407.8	405.4	407.0
40°	378.2	376.5	379.0	379.0	381.5	381.5	384.7	383.1	385.6	385.6	385.6
42.5°	355.1	355.1	353.5	355.9	356.7	355.9	361.7	360.8	361.7	360.0	360.8
45°	330.4	330.4	328.7	327.9	332.0	331.2	337.8	335.3	338.6	337.0	337.8
47.5°	296.6	300.7	298.2	300.7	305.7	306.5	310.6	308.9	312.2	309.8	313.1
50°	264.5	264.5	266.9	270.2	275.2	276.0	280.9	284.2	285.9	286.7	287.5
52.5°	230.7	229.9	232.3	236.4	240.6	243.9	248.8	253.8	257.0	262.0	259.5
55°	191.1	192.8	195.3	200.2	206.8	210.9	215.0	221.6	227.4	229.9	234.8
57.5°	157.3	155.7	157.3	163.9	171.4	174.7	180.4	187.0	195.3	200.2	201.9
60°	121.9	122.8	124.4	130.2	135.9	140.9	143.4	154.1	161.5	166.4	169.7
62.5°	89.8	91.5	93.1	98.1	103.8	107.9	112.0	121.1	127.7	132.6	135.9
65°	62.6	63.4	65.9	68.4	74.2	78.3	81.5	89.0	95.6	99.7	102.2
67.5°	38.7	39.5	41.2	44.5	48.6	51.9	55.2	60.1	65.9	70.0	70.9
70°	19.8	20.6	21.4	23.9	27.2	28.8	31.3	35.4	39.5	42.8	44.5
72.5°	6.6	6.6	7.4	9.1	10.7	12.4	13.2	17.3	20.6	22.3	23.1
75°	1.6	1.6	1.6	1.6	1.6	2.5	2.5	4.9	6.6	8.2	9.1
77.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6	1.6
80°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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



TEST NUMBER: P#

CATALOG NUMBER: LD4C15D010 EX4C159030 4LBCSSQMMS

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
2.5°	580.0	578.4	577.5	578.4	578.4	577.5	580.0	583.3	587.4	576.7
5°	579.2	577.5	579.2	574.2	576.7	575.1	578.4	577.5	580.8	577.5
7.5°	576.7	573.4	574.2	571.8	575.1	570.9	573.4	578.4	575.1	570.1
10°	568.5	566.8	572.6	564.4	562.7	566.0	572.6	567.6	566.0	567.6
12.5°	560.2	560.2	562.7	556.1	556.9	558.6	561.9	558.6	560.2	564.4
15°	551.2	549.5	553.6	548.7	547.9	546.2	549.5	549.5	551.2	548.7
17.5°	540.5	538.0	538.0	536.3	535.5	539.6	541.3	542.1	542.9	539.6
20°	527.3	526.5	528.9	526.5	527.3	528.1	528.1	526.5	533.9	524.8
22.5°	513.3	515.7	512.4	510.8	512.4	514.1	514.1	514.9	513.3	511.6
25°	499.3	500.9	501.7	496.8	499.3	496.8	502.6	503.4	500.1	501.7
27.5°	486.9	484.4	483.6	480.3	482.0	481.2	482.0	482.0	486.9	480.3
30°	467.9	465.5	466.3	463.8	464.7	463.8	464.7	464.7	467.9	467.1
32.5°	449.8	447.4	448.2	445.7	445.7	446.5	444.9	444.9	447.4	445.7
35°	432.5	426.8	427.6	426.8	427.6	424.3	424.3	423.5	425.1	421.0
37.5°	407.8	405.4	404.5	403.7	404.5	402.9	404.5	402.1	404.5	401.2
40°	385.6	383.9	384.7	379.8	379.8	380.6	379.0	378.2	379.0	382.3
42.5°	363.3	360.0	358.4	356.7	357.6	355.1	354.3	352.6	354.3	351.0
45°	337.0	337.0	336.1	332.0	332.8	332.8	329.6	326.3	327.1	327.1
47.5°	313.1	311.4	310.6	306.5	305.7	304.8	301.5	299.1	299.1	296.6
50°	286.7	285.0	282.6	278.5	276.8	271.9	269.4	266.1	262.8	262.8
52.5°	262.0	256.2	252.9	246.3	243.9	241.4	234.8	232.3	229.9	227.4
55°	232.3	227.4	220.8	213.4	210.1	206.0	199.4	194.4	191.1	192.0
57.5°	203.5	195.3	188.7	178.8	174.7	172.2	165.6	159.0	155.7	155.7
60°	168.1	161.5	153.2	144.2	140.9	136.8	128.5	124.4	121.9	119.5
62.5°	134.3	129.3	121.9	110.4	107.9	103.8	98.1	93.1	90.6	90.6
65°	100.5	95.6	89.0	80.7	77.4	74.2	69.2	64.3	61.8	61.0
67.5°	70.9	65.1	59.3	52.7	50.3	48.6	43.7	40.4	38.7	37.9
70°	42.8	39.5	35.4	30.5	28.0	26.4	23.1	20.6	19.8	19.0
72.5°	22.3	19.8	16.5	13.2	11.5	9.9	8.2	6.6	5.8	5.8
75°	8.2	6.6	4.1	2.5	1.6	1.6	1.6	1.6	1.6	1.6
77.5°	1.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
80°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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)