

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: **LD4C50D010 EX4C509050 4LBSQLI**

Issue Date: 2/9/2022

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 (P209151)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/9/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C50D010 EX4C509050 4LBSQLI  
Description: 4 INCH 5000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS  
AND 4LBSQ TRIM WITH LI FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

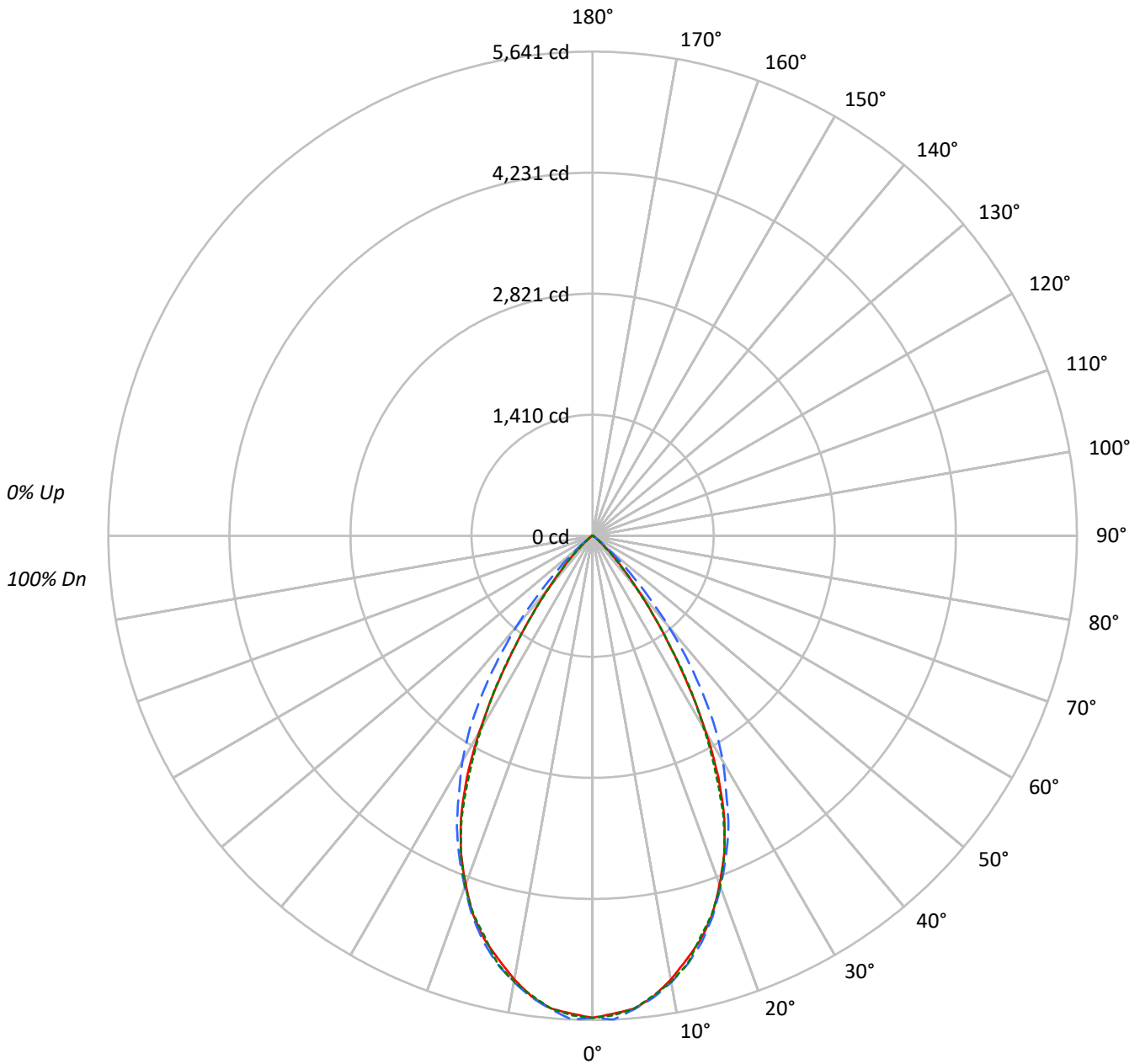
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5185.0 lumens  
Efficiency: N/A  
Efficacy: 88.8 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 0.9 / 0.94  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 58.4  
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	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93																			
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87																			
3	102	96	91	87	100	94	90	86	92	88	84	89	86	83	87	84	82	80																			
4	97	89	84	79	95	88	83	79	86	81	78	84	80	77	82	79	76	75																			
5	92	83	77	73	90	82	77	73	81	76	72	79	75	71	77	74	71	69																			
6	87	78	72	68	86	77	71	67	76	71	67	74	70	66	73	69	66	64																			
7	83	73	67	63	81	73	67	63	71	66	62	70	65	62	69	65	62	60																			
8	79	69	63	59	77	68	62	58	67	62	58	66	61	58	65	61	58	56																			
9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53																			
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	541901	541901	541901
5°	535670	536368	535670
10°	514254	517399	516703
15°	486168	489724	483660
20°	443686	446972	445883
25°	386336	398483	383663
30°	293781	337902	289414
35°	184920	262686	186605
40°	99771	173481	97970
45°	47227	85694	46736
50°	17683	32124	17683
55°	8394	10211	7806
60°	5500	4824	5500
65°	3265	3265	3265
70°	2003	3047	2003
75°	1342	1342	1342
80°	2000	2000	2000
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	520.7	10.0
10°-20°	1364.7	26.3
20°-30°	1667.1	32.2
30°-40°	1166.0	22.5
40°-50°	382.1	7.4
50°-60°	60.8	1.2
60°-70°	16.6	0.3
70°-80°	5.5	0.1
80°-90°	1.5	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°	3552.5	68.5
0°-40°	4718.4	91.0
0°-60°	5161.3	99.5
0°-90°	5185.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5185.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5616	5616	5616	5616	5616	
5°	5530	5532	5538	5504	5530	519
15°	4867	4887	4902	4870	4842	1358
25°	3629	3684	3743	3675	3604	1630
35°	1570	1854	2230	1825	1584	1002
45°	346	426	628	421	342	290
55°	50	54	61	54	46	49
65°	14	18	14	18	14	16
75°	4	4	4	4	4	5
85°	0	0	0	0	0	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	5616.2	5616.2	5616.2	5616.2	5616.2	5616.2	5616.2	5616.2	5616.2	5616.2	5616.2
2.5°	5573.4	5612.7	5601.9	5626.9	5626.9	5598.4	5605.5	5616.2	5630.4	5641.2	5555.4
5°	5530.5	5566.2	5534.0	5569.7	5548.3	5516.3	5569.7	5541.2	5559.1	5537.7	5551.9
7.5°	5416.4	5473.5	5409.3	5452.1	5437.8	5419.9	5441.3	5434.2	5444.9	5427.0	5387.9
10°	5248.7	5295.1	5252.3	5312.9	5284.3	5266.6	5284.3	5302.2	5298.6	5280.8	5302.2
12.5°	5056.0	5109.5	5088.1	5123.7	5091.7	5091.7	5134.5	5123.7	5127.4	5113.1	5138.0
15°	4866.9	4906.2	4874.0	4920.5	4906.2	4866.9	4884.6	4884.6	4913.3	4902.5	4874.0
17.5°	4631.4	4663.5	4627.8	4638.6	4624.3	4617.2	4692.0	4642.1	4670.6	4649.2	4652.8
20°	4321.0	4335.3	4324.5	4353.0	4335.3	4356.7	4349.5	4342.4	4342.4	4353.0	4328.1
22.5°	4006.9	4006.9	4017.7	4024.8	4039.1	4017.7	4060.5	4024.8	4028.3	4053.4	4046.2
25°	3628.8	3618.0	3643.1	3678.7	3693.0	3675.1	3732.2	3703.6	3725.0	3742.9	3703.6
27.5°	3168.5	3168.5	3193.4	3254.1	3264.8	3286.2	3364.7	3364.7	3393.2	3368.3	3396.8
30°	2636.8	2676.1	2708.1	2786.6	2811.6	2858.1	2940.1	2979.4	3043.6	3032.8	3018.6
32.5°	2090.9	2144.5	2148.0	2230.1	2297.8	2376.3	2486.9	2579.7	2626.1	2658.2	2622.5
35°	1569.9	1602.1	1630.6	1687.7	1801.9	1905.4	2005.3	2126.6	2208.7	2230.1	2197.9
37.5°	1149.0	1156.1	1184.6	1238.1	1323.7	1423.7	1545.0	1676.9	1762.7	1794.7	1759.1
40°	792.1	799.2	813.5	859.9	931.3	1002.6	1099.0	1234.6	1313.1	1377.3	1330.8
42.5°	531.6	538.7	553.0	588.7	628.0	695.7	770.7	856.3	931.3	959.8	934.8
45°	346.1	346.1	353.2	378.3	399.7	453.1	506.7	560.1	610.1	628.0	610.1
47.5°	203.4	206.9	214.0	231.9	256.9	278.3	317.6	353.2	367.5	381.8	374.6
50°	117.8	117.8	128.4	139.2	157.0	171.2	185.5	199.8	206.9	214.0	206.9
52.5°	64.2	67.9	71.3	75.0	82.1	96.4	107.0	107.0	110.7	114.2	110.7
55°	49.9	49.9	49.9	49.9	53.6	53.6	53.6	57.1	57.1	60.7	57.1
57.5°	35.7	35.7	35.7	39.3	39.3	39.3	35.7	35.7	35.7	35.7	35.7
60°	28.5	28.5	28.5	28.5	28.5	28.5	28.5	25.0	25.0	25.0	25.0
62.5°	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4
65°	14.3	14.3	17.9	17.9	17.9	17.9	17.9	14.3	14.3	14.3	14.3
67.5°	10.8	10.8	10.8	10.8	14.3	14.3	10.8	10.8	10.8	10.8	10.8
70°	7.1	7.1	7.1	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
72.5°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
75°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
77.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
80°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	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°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	5616.2	5616.2	5616.2	5616.2	5616.2	5616.2	5616.2	5616.2
2.5°	5616.2	5555.4	5562.6	5594.8	5576.9	5594.8	5591.3	5591.3
5°	5555.4	5537.7	5509.1	5498.4	5519.8	5566.2	5559.1	5530.5
7.5°	5441.3	5395.0	5427.0	5441.3	5423.5	5452.1	5466.3	5405.6
10°	5305.7	5288.0	5280.8	5288.0	5280.8	5309.4	5273.7	5273.7
12.5°	5113.1	5084.6	5084.6	5127.4	5102.3	5080.9	5109.5	5106.0
15°	4920.5	4863.2	4863.2	4877.5	4888.3	4874.0	4877.5	4841.8
17.5°	4634.9	4617.2	4592.1	4631.4	4642.1	4627.8	4638.6	4620.7
20°	4367.3	4367.3	4321.0	4338.8	4353.0	4363.8	4370.9	4342.4
22.5°	4024.8	4032.0	3999.8	4035.5	4046.2	4010.6	4017.7	4010.6
25°	3710.8	3707.3	3682.2	3668.0	3675.1	3660.8	3657.3	3603.7
27.5°	3364.7	3329.0	3275.5	3289.8	3229.1	3179.2	3179.2	3097.0
30°	2990.0	2929.4	2858.1	2786.6	2733.2	2676.1	2643.9	2597.6
32.5°	2551.2	2469.2	2379.9	2283.5	2223.0	2137.3	2090.9	2115.9
35°	2115.9	1994.5	1873.2	1777.0	1684.1	1634.1	1577.1	1584.2
37.5°	1694.9	1523.6	1416.6	1313.1	1234.6	1170.4	1145.3	1138.2
40°	1238.1	1102.5	995.5	920.5	867.1	817.1	788.6	777.8
42.5°	856.3	760.1	674.3	613.7	578.1	545.9	531.6	528.1
45°	556.6	499.6	442.5	399.7	371.1	349.7	346.1	342.5
47.5°	349.7	321.1	285.4	253.4	228.3	214.0	203.4	203.4
50°	199.8	189.1	171.2	153.5	139.2	132.1	121.3	117.8
52.5°	107.0	107.0	99.9	85.6	75.0	67.9	67.9	64.2
55°	57.1	57.1	53.6	53.6	49.9	49.9	49.9	46.4
57.5°	35.7	35.7	39.3	39.3	35.7	35.7	35.7	35.7
60°	25.0	28.5	28.5	28.5	28.5	28.5	28.5	28.5
62.5°	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4
65°	14.3	17.9	17.9	17.9	17.9	14.3	14.3	14.3
67.5°	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
70°	10.8	10.8	10.8	10.8	10.8	7.1	7.1	7.1
72.5°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
75°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
77.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
80°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
82.5°	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
87.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
90°	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)