

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: **LD4C90D010 EX4C909035 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: LD4C90D010 EX4C909035 4LBSQLI  
Description: 4 INCH 9000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS  
AND 4LBSQ TRIM WITH LI FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

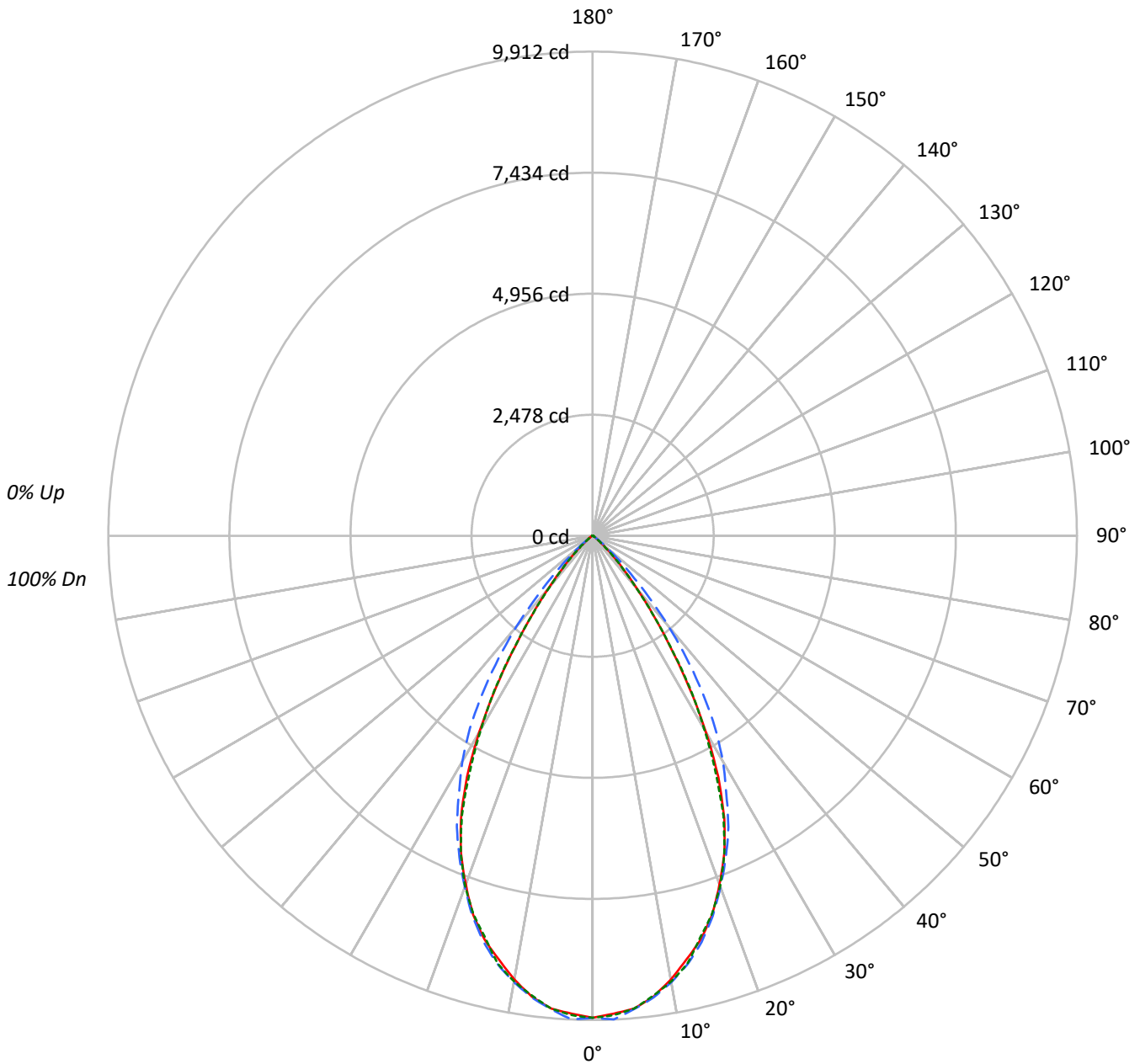
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9110.0 lumens  
Efficiency: N/A  
Efficacy: 93.8 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): 97.1  
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°	952104	952104	952104
5°	941174	942394	941174
10°	903528	909073	907839
15°	854192	860445	849797
20°	779557	785327	783418
25°	678781	700137	674096
30°	516167	593690	508502
35°	324903	461541	327860
40°	175295	304804	172133
45°	82979	150565	82106
50°	31073	56456	31073
55°	14753	17949	13727
60°	9668	8491	9668
65°	5731	5731	5731
70°	3526	5332	3526
75°	2386	2386	2386
80°	3556	3556	3556
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	914.9	10.0
10°-20°	2397.7	26.3
20°-30°	2929.0	32.2
30°-40°	2048.6	22.5
40°-50°	671.4	7.4
50°-60°	106.7	1.2
60°-70°	29.1	0.3
70°-80°	9.8	0.1
80°-90°	2.7	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°	6241.6	68.5
0°-40°	8290.3	91.0
0°-60°	9068.4	99.5
0°-90°	9110.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9110.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9868	9868	9868	9868	9868	
5°	9717	9720	9730	9670	9717	911
15°	8551	8586	8614	8557	8507	2385
25°	6376	6473	6576	6457	6332	2864
35°	2758	3257	3918	3207	2783	1760
45°	608	749	1103	740	602	510
55°	88	94	107	94	82	87
65°	25	32	25	32	25	28
75°	6	6	6	6	6	9
85°	0	0	0	0	0	3
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°	9867.5	9867.5	9867.5	9867.5	9867.5	9867.5	9867.5	9867.5	9867.5	9867.5	9867.5
2.5°	9792.3	9861.4	9842.5	9886.5	9886.5	9836.3	9848.9	9867.5	9892.6	9911.5	9760.9
5°	9717.1	9779.8	9723.3	9785.9	9748.3	9692.0	9785.9	9735.8	9767.3	9729.7	9754.7
7.5°	9516.5	9616.8	9504.0	9579.2	9554.2	9522.7	9560.3	9547.8	9566.7	9535.2	9466.4
10°	9221.8	9303.4	9228.2	9334.7	9284.5	9253.3	9284.5	9316.0	9309.6	9278.4	9316.0
12.5°	8883.4	8977.3	8939.7	9002.3	8946.1	8946.1	9021.3	9002.3	9008.7	8983.7	9027.4
15°	8551.1	8620.1	8563.6	8645.2	8620.1	8551.1	8582.3	8582.3	8632.7	8613.7	8563.6
17.5°	8137.4	8193.7	8131.0	8149.9	8124.8	8112.3	8243.8	8156.1	8206.2	8168.6	8175.0
20°	7592.0	7617.0	7598.1	7648.2	7617.0	7654.6	7642.1	7629.6	7629.6	7648.2	7604.5
22.5°	7040.1	7040.1	7059.1	7071.6	7096.7	7059.1	7134.3	7071.6	7077.7	7121.7	7109.2
25°	6375.7	6356.8	6400.8	6463.5	6488.6	6457.1	6557.4	6507.2	6544.9	6576.3	6507.2
27.5°	5567.1	5567.1	5610.8	5717.5	5736.2	5773.8	5911.7	5911.7	5961.8	5918.1	5968.2
30°	4632.8	4701.9	4758.2	4896.0	4940.0	5021.6	5165.7	5234.8	5347.6	5328.6	5303.6
32.5°	3673.7	3767.8	3774.0	3918.3	4037.2	4175.1	4369.5	4532.5	4614.1	4670.4	4607.7
35°	2758.3	2814.9	2865.0	2965.3	3165.9	3347.8	3523.3	3736.4	3880.7	3918.3	3861.7
37.5°	2018.7	2031.3	2081.4	2175.3	2325.7	2501.5	2714.6	2946.4	3097.1	3153.3	3090.7
40°	1391.7	1404.2	1429.3	1510.9	1636.3	1761.6	1931.0	2169.2	2307.1	2419.9	2338.3
42.5°	934.0	946.6	971.6	1034.3	1103.4	1222.4	1354.1	1504.5	1636.3	1686.4	1642.4
45°	608.1	608.1	620.6	664.6	702.2	796.1	890.3	984.2	1071.9	1103.4	1071.9
47.5°	357.4	363.5	376.1	407.5	451.3	488.9	558.0	620.6	645.7	670.8	658.2
50°	207.0	207.0	225.6	244.6	275.8	300.9	325.9	351.0	363.5	376.1	363.5
52.5°	112.8	119.2	125.4	131.7	144.3	169.4	188.0	188.0	194.4	200.6	194.4
55°	87.7	87.7	87.7	87.7	94.1	94.1	94.1	100.3	100.3	106.7	100.3
57.5°	62.7	62.7	62.7	69.1	69.1	69.1	62.7	62.7	62.7	62.7	62.7
60°	50.1	50.1	50.1	50.1	50.1	50.1	50.1	44.0	44.0	44.0	44.0
62.5°	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6
65°	25.1	25.1	31.5	31.5	31.5	31.5	31.5	25.1	25.1	25.1	25.1
67.5°	18.9	18.9	18.9	18.9	25.1	25.1	18.9	18.9	18.9	18.9	18.9
70°	12.5	12.5	12.5	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
72.5°	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
75°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
77.5°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
80°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	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°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
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°	9867.5	9867.5	9867.5	9867.5	9867.5	9867.5	9867.5	9867.5
2.5°	9867.5	9760.9	9773.4	9829.9	9798.5	9829.9	9823.8	9823.8
5°	9760.9	9729.7	9679.5	9660.6	9698.2	9779.8	9767.3	9717.1
7.5°	9560.3	9478.9	9535.2	9560.3	9529.1	9579.2	9604.3	9497.6
10°	9322.1	9290.9	9278.4	9290.9	9278.4	9328.5	9265.8	9265.8
12.5°	8983.7	8933.5	8933.5	9008.7	8964.7	8927.1	8977.3	8971.1
15°	8645.2	8544.7	8544.7	8569.7	8588.7	8563.6	8569.7	8507.1
17.5°	8143.5	8112.3	8068.3	8137.4	8156.1	8131.0	8149.9	8118.5
20°	7673.3	7673.3	7592.0	7623.2	7648.2	7667.2	7679.7	7629.6
22.5°	7071.6	7084.1	7027.6	7090.3	7109.2	7046.5	7059.1	7046.5
25°	6519.8	6513.6	6469.6	6444.6	6457.1	6432.0	6425.9	6331.7
27.5°	5911.7	5849.0	5755.1	5780.2	5673.5	5585.8	5585.8	5441.5
30°	5253.4	5147.0	5021.6	4896.0	4802.1	4701.9	4645.3	4564.0
32.5°	4482.4	4338.3	4181.5	4012.2	3905.7	3755.3	3673.7	3717.7
35°	3717.7	3504.3	3291.2	3122.1	2958.9	2871.2	2770.9	2783.4
37.5°	2977.8	2677.0	2488.9	2307.1	2169.2	2056.3	2012.3	1999.8
40°	2175.3	1937.1	1749.1	1617.3	1523.5	1435.7	1385.6	1366.6
42.5°	1504.5	1335.4	1184.7	1078.3	1015.6	959.1	934.0	927.9
45°	978.0	877.7	777.5	702.2	652.1	614.5	608.1	601.7
47.5°	614.5	564.1	501.4	445.1	401.1	376.1	357.4	357.4
50°	351.0	332.3	300.9	269.6	244.6	232.0	213.1	207.0
52.5°	188.0	188.0	175.5	150.4	131.7	119.2	119.2	112.8
55°	100.3	100.3	94.1	94.1	87.7	87.7	87.7	81.6
57.5°	62.7	62.7	69.1	69.1	62.7	62.7	62.7	62.7
60°	44.0	50.1	50.1	50.1	50.1	50.1	50.1	50.1
62.5°	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6
65°	25.1	31.5	31.5	31.5	31.5	25.1	25.1	25.1
67.5°	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
70°	18.9	18.9	18.9	18.9	18.9	12.5	12.5	12.5
72.5°	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
75°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
77.5°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
80°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
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°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
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)