

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 EX4C909030 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 EX4C909030 4LBSQLI  
Description: 4 INCH 9000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS  
AND 4LBSQ TRIM WITH LI FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

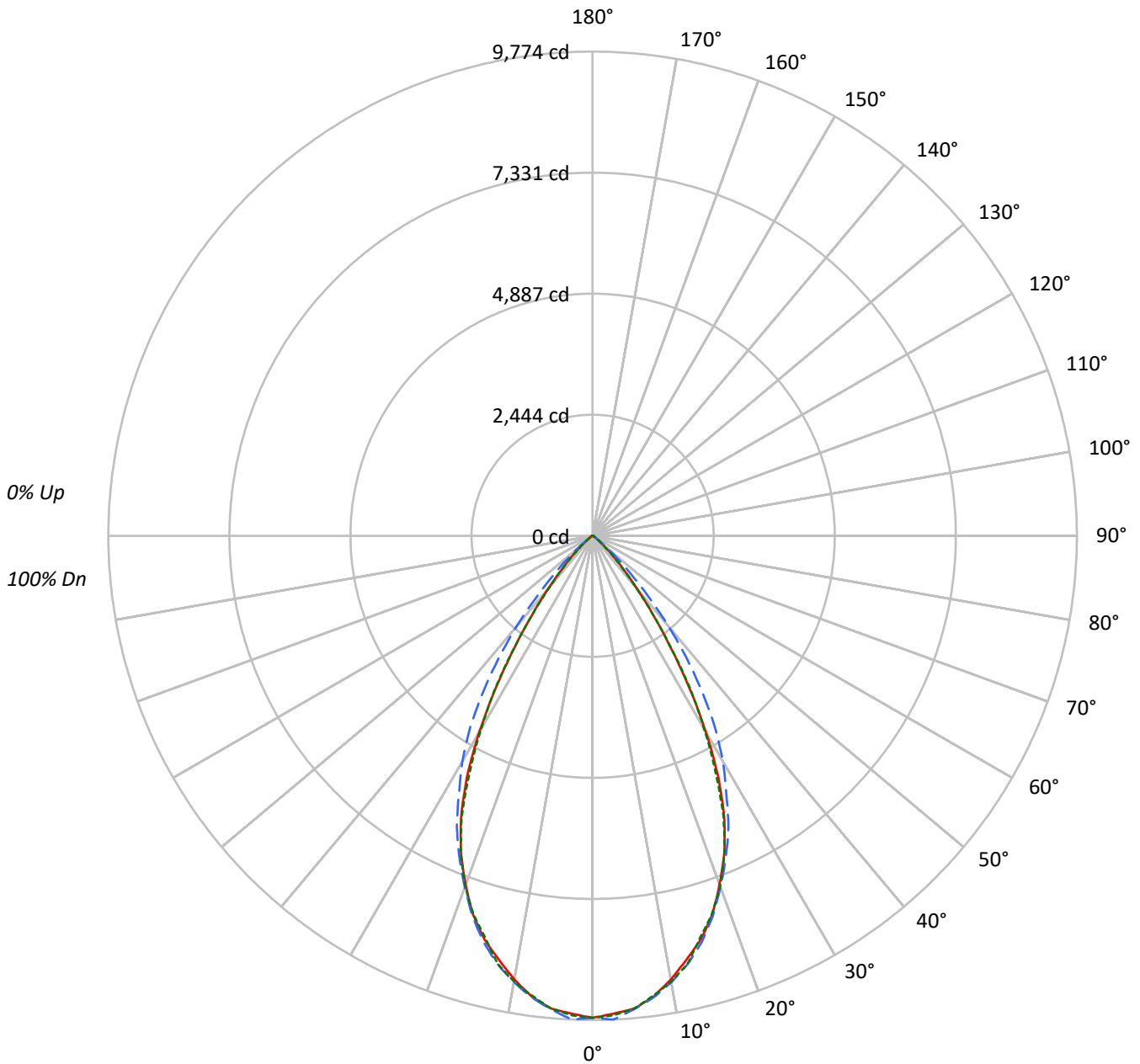
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8984.0 lumens  
Efficiency: N/A  
Efficacy: 92.5 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				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	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°	938943	938943	938943
5°	928156	929357	928156
10°	891036	896493	895288
15°	842375	848548	838039
20°	768765	774474	772574
25°	669401	690460	664781
30°	509025	585479	501460
35°	320416	455157	323325
40°	172876	300585	169753
45°	81833	148478	80973
50°	30637	55676	30637
55°	14551	17697	13542
60°	9533	8375	9533
65°	5639	5639	5639
70°	3498	5276	3498
75°	2349	2349	2349
80°	3501	3501	3501
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	902.2	10.0
10°-20°	2364.5	26.3
20°-30°	2888.5	32.2
30°-40°	2020.3	22.5
40°-50°	662.1	7.4
50°-60°	105.3	1.2
60°-70°	28.7	0.3
70°-80°	9.6	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°	6155.3	68.5
0°-40°	8175.6	91.0
0°-60°	8942.9	99.5
0°-90°	8984.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8984.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9731	9731	9731	9731	9731	
5°	9583	9586	9595	9536	9583	899
15°	8433	8467	8495	8439	8389	2352
25°	6288	6383	6485	6368	6244	2824
35°	2720	3212	3864	3162	2745	1736
45°	600	739	1088	730	593	503
55°	86	93	105	93	80	86
65°	25	31	25	31	25	27
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°	9731.1	9731.1	9731.1	9731.1	9731.1	9731.1	9731.1	9731.1	9731.1	9731.1	9731.1
2.5°	9656.9	9725.0	9706.3	9749.7	9749.7	9700.3	9712.6	9731.1	9755.8	9774.5	9625.9
5°	9582.7	9644.5	9588.8	9650.6	9613.5	9558.0	9650.6	9601.1	9632.2	9595.1	9619.8
7.5°	9384.9	9483.8	9372.6	9446.7	9422.0	9391.0	9428.1	9415.7	9434.4	9403.3	9335.5
10°	9094.3	9174.8	9100.6	9205.6	9156.1	9125.3	9156.1	9187.1	9180.8	9150.0	9187.1
12.5°	8760.5	8853.1	8816.0	8877.8	8822.3	8822.3	8896.5	8877.8	8884.1	8859.4	8902.6
15°	8432.8	8500.9	8445.1	8525.6	8500.9	8432.8	8463.6	8463.6	8513.3	8494.6	8445.1
17.5°	8024.8	8080.3	8018.5	8037.2	8012.5	8000.1	8129.8	8043.3	8092.7	8055.6	8061.9
20°	7486.9	7511.7	7493.0	7542.5	7511.7	7548.8	7536.4	7524.0	7524.0	7542.5	7499.3
22.5°	6942.8	6942.8	6961.4	6973.8	6998.5	6961.4	7035.6	6973.8	6979.9	7023.2	7010.9
25°	6287.6	6268.9	6312.3	6374.1	6398.8	6367.8	6466.7	6417.2	6454.3	6485.4	6417.2
27.5°	5490.1	5490.1	5533.2	5638.4	5656.8	5693.9	5829.9	5829.9	5879.4	5836.2	5885.7
30°	4568.7	4636.8	4692.3	4828.3	4871.7	4952.2	5094.2	5162.4	5273.6	5254.9	5230.2
32.5°	3622.9	3715.7	3721.8	3864.1	3981.4	4117.4	4309.1	4469.8	4550.3	4605.8	4544.0
35°	2720.2	2775.9	2825.4	2924.3	3122.1	3301.5	3474.5	3684.7	3827.0	3864.1	3808.3
37.5°	1990.8	2003.2	2052.6	2145.2	2293.6	2466.9	2677.0	2905.6	3054.2	3109.7	3047.9
40°	1372.5	1384.8	1409.5	1490.0	1613.6	1737.3	1904.3	2139.2	2275.1	2386.4	2305.9
42.5°	921.1	933.5	958.2	1020.0	1088.1	1205.4	1335.4	1483.7	1613.6	1663.1	1619.7
45°	599.7	599.7	612.1	655.4	692.5	785.1	878.0	970.6	1057.1	1088.1	1057.1
47.5°	352.4	358.5	370.9	401.9	445.0	482.1	550.2	612.1	636.8	661.5	649.1
50°	204.1	204.1	222.5	241.2	272.0	296.7	321.4	346.1	358.5	370.9	358.5
52.5°	111.3	117.6	123.6	129.9	142.3	167.0	185.4	185.4	191.7	197.8	191.7
55°	86.5	86.5	86.5	86.5	92.8	92.8	92.8	98.9	98.9	105.2	98.9
57.5°	61.8	61.8	61.8	68.1	68.1	68.1	61.8	61.8	61.8	61.8	61.8
60°	49.4	49.4	49.4	49.4	49.4	49.4	49.4	43.4	43.4	43.4	43.4
62.5°	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1
65°	24.7	24.7	31.0	31.0	31.0	31.0	31.0	24.7	24.7	24.7	24.7
67.5°	18.7	18.7	18.7	18.7	24.7	24.7	18.7	18.7	18.7	18.7	18.7
70°	12.4	12.4	12.4	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
72.5°	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
75°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
77.5°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
80°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	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°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
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°	9731.1	9731.1	9731.1	9731.1	9731.1	9731.1	9731.1	9731.1
2.5°	9731.1	9625.9	9638.2	9694.0	9663.0	9694.0	9687.9	9687.9
5°	9625.9	9595.1	9545.6	9527.0	9564.1	9644.5	9632.2	9582.7
7.5°	9428.1	9347.8	9403.3	9428.1	9397.3	9446.7	9471.5	9366.3
10°	9193.2	9162.4	9150.0	9162.4	9150.0	9199.5	9137.7	9137.7
12.5°	8859.4	8810.0	8810.0	8884.1	8840.7	8803.7	8853.1	8847.0
15°	8525.6	8426.5	8426.5	8451.2	8469.9	8445.1	8451.2	8389.4
17.5°	8030.9	8000.1	7956.7	8024.8	8043.3	8018.5	8037.2	8006.2
20°	7567.2	7567.2	7486.9	7517.7	7542.5	7561.1	7573.5	7524.0
22.5°	6973.8	6986.2	6930.4	6992.2	7010.9	6949.1	6961.4	6949.1
25°	6429.6	6423.5	6380.2	6355.4	6367.8	6343.1	6337.0	6244.2
27.5°	5829.9	5768.1	5675.5	5700.2	5595.0	5508.5	5508.5	5366.2
30°	5180.8	5075.8	4952.2	4828.3	4735.7	4636.8	4581.1	4500.8
32.5°	4420.4	4278.3	4123.7	3956.7	3851.7	3703.4	3622.9	3666.3
35°	3666.3	3455.9	3245.7	3078.9	2918.0	2831.5	2732.6	2744.9
37.5°	2936.7	2640.0	2454.5	2275.1	2139.2	2027.9	1984.5	1972.2
40°	2145.2	1910.3	1724.9	1595.0	1502.4	1415.8	1366.4	1347.7
42.5°	1483.7	1316.9	1168.4	1063.4	1001.6	945.8	921.1	915.1
45°	964.5	865.6	766.7	692.5	643.1	606.0	599.7	593.4
47.5°	606.0	556.3	494.5	439.0	395.6	370.9	352.4	352.4
50°	346.1	327.7	296.7	265.9	241.2	228.8	210.2	204.1
52.5°	185.4	185.4	173.1	148.3	129.9	117.6	117.6	111.3
55°	98.9	98.9	92.8	92.8	86.5	86.5	86.5	80.5
57.5°	61.8	61.8	68.1	68.1	61.8	61.8	61.8	61.8
60°	43.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4
62.5°	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1
65°	24.7	31.0	31.0	31.0	31.0	24.7	24.7	24.7
67.5°	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
70°	18.7	18.7	18.7	18.7	18.7	12.4	12.4	12.4
72.5°	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
75°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
77.5°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
80°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
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°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
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)