

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: **LD4C10D010 EX4C109030 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: LD4C10D010 EX4C109030 4LBSQLI  
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS  
AND 4LBSQ TRIM WITH LI FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

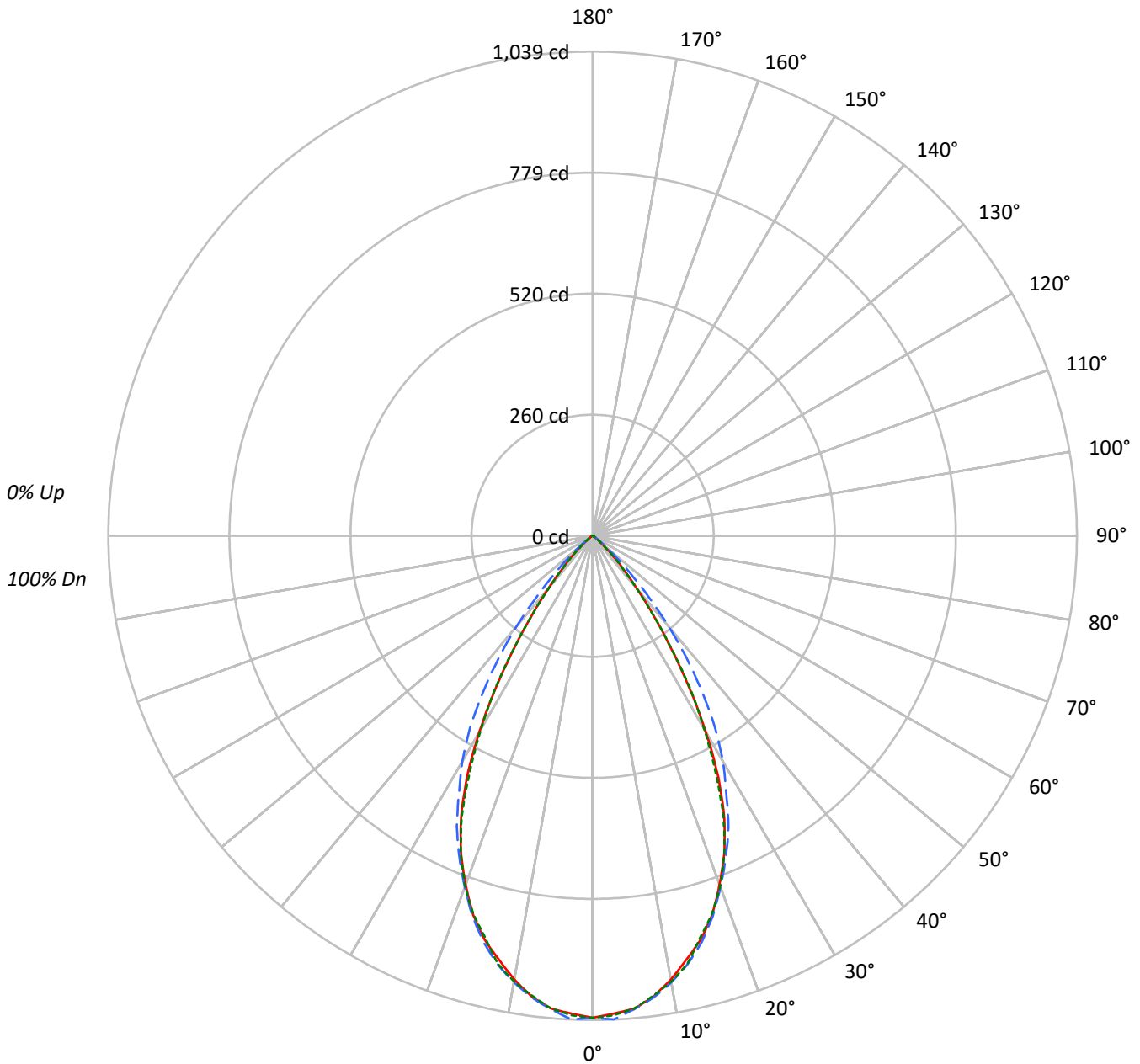
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 955.0 lumens  
Efficiency: N/A  
Efficacy: 97.5 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): 9.8  
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	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°	99808	99808	99808
5°	98659	98795	98659
10°	94715	95303	95165
15°	89544	90203	89084
20°	81724	82330	82125
25°	71160	73396	70671
30°	54115	62237	53301
35°	34065	48389	34371
40°	18377	31955	18050
45°	8692	15788	8610
50°	3257	5914	3257
55°	1548	1884	1447
60°	1023	888	1023
65°	594	594	594
70°	367	564	367
75°	261	261	261
80°	389	389	389
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.9	10.0
10°-20°	251.4	26.3
20°-30°	307.1	32.2
30°-40°	214.8	22.5
40°-50°	70.4	7.4
50°-60°	11.2	1.2
60°-70°	3.0	0.3
70°-80°	1.0	0.1
80°-90°	0.3	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°	654.3	68.5
0°-40°	869.1	91.0
0°-60°	950.6	99.5
0°-90°	955.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	955.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1034	1034	1034	1034	1034	
5°	1019	1019	1020	1014	1019	96
15°	896	900	903	897	892	250
25°	668	679	689	677	664	300
35°	289	341	411	336	292	185
45°	64	79	116	78	63	53
55°	9	10	11	10	9	9
65°	3	3	3	3	3	3
75°	1	1	1	1	1	1
85°	0	0	0	0	0	0
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°	1034.4	1034.4	1034.4	1034.4	1034.4	1034.4	1034.4	1034.4	1034.4	1034.4	1034.4
2.5°	1026.5	1033.8	1031.8	1036.4	1036.4	1031.1	1032.5	1034.4	1037.0	1039.0	1023.2
5°	1018.6	1025.2	1019.3	1025.9	1021.9	1016.0	1025.9	1020.6	1023.9	1020.0	1022.6
7.5°	997.6	1008.1	996.3	1004.2	1001.6	998.3	1002.2	1000.9	1002.9	999.6	992.4
10°	966.7	975.3	967.4	978.6	973.3	970.0	973.3	976.6	975.9	972.7	976.6
12.5°	931.2	941.1	937.1	943.7	937.8	937.8	945.7	943.7	944.4	941.8	946.3
15°	896.4	903.6	897.7	906.3	903.6	896.4	899.7	899.7	905.0	903.0	897.7
17.5°	853.0	858.9	852.4	854.4	851.7	850.4	864.2	855.0	860.3	856.3	857.0
20°	795.9	798.5	796.5	801.8	798.5	802.4	801.1	799.8	799.8	801.8	797.2
22.5°	738.0	738.0	740.0	741.3	743.9	740.0	747.9	741.3	742.0	746.6	745.3
25°	668.4	666.4	671.0	677.6	680.2	676.9	687.4	682.2	686.1	689.4	682.2
27.5°	583.6	583.6	588.2	599.4	601.3	605.3	619.7	619.7	625.0	620.4	625.6
30°	485.7	492.9	498.8	513.3	517.9	526.4	541.5	548.8	560.6	558.6	556.0
32.5°	385.1	395.0	395.6	410.8	423.2	437.7	458.1	475.1	483.7	489.6	483.0
35°	289.2	295.1	300.3	310.9	331.9	350.9	369.3	391.7	406.8	410.8	404.8
37.5°	211.6	212.9	218.2	228.0	243.8	262.2	284.6	308.9	324.7	330.6	324.0
40°	145.9	147.2	149.8	158.4	171.5	184.7	202.4	227.4	241.8	253.7	245.1
42.5°	97.9	99.2	101.9	108.4	115.7	128.1	142.0	157.7	171.5	176.8	172.2
45°	63.7	63.7	65.1	69.7	73.6	83.5	93.3	103.2	112.4	115.7	112.4
47.5°	37.5	38.1	39.4	42.7	47.3	51.3	58.5	65.1	67.7	70.3	69.0
50°	21.7	21.7	23.7	25.6	28.9	31.5	34.2	36.8	38.1	39.4	38.1
52.5°	11.8	12.5	13.1	13.8	15.1	17.8	19.7	19.7	20.4	21.0	20.4
55°	9.2	9.2	9.2	9.2	9.9	9.9	9.9	10.5	10.5	11.2	10.5
57.5°	6.6	6.6	6.6	7.2	7.2	7.2	6.6	6.6	6.6	6.6	6.6
60°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	4.6	4.6	4.6	4.6
62.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
65°	2.6	2.6	3.3	3.3	3.3	3.3	3.3	2.6	2.6	2.6	2.6
67.5°	2.0	2.0	2.0	2.0	2.6	2.6	2.0	2.0	2.0	2.0	2.0
70°	1.3	1.3	1.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
72.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
75°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
77.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	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°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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°	1034.4	1034.4	1034.4	1034.4	1034.4	1034.4	1034.4	1034.4
2.5°	1034.4	1023.2	1024.5	1030.5	1027.2	1030.5	1029.8	1029.8
5°	1023.2	1020.0	1014.7	1012.7	1016.7	1025.2	1023.9	1018.6
7.5°	1002.2	993.7	999.6	1002.2	998.9	1004.2	1006.8	995.6
10°	977.2	974.0	972.7	974.0	972.7	977.9	971.3	971.3
12.5°	941.8	936.5	936.5	944.4	939.8	935.8	941.1	940.4
15°	906.3	895.7	895.7	898.4	900.3	897.7	898.4	891.8
17.5°	853.7	850.4	845.8	853.0	855.0	852.4	854.4	851.1
20°	804.4	804.4	795.9	799.1	801.8	803.7	805.1	799.8
22.5°	741.3	742.6	736.7	743.3	745.3	738.7	740.0	738.7
25°	683.5	682.8	678.2	675.6	676.9	674.3	673.6	663.8
27.5°	619.7	613.2	603.3	605.9	594.8	585.6	585.6	570.4
30°	550.7	539.6	526.4	513.3	503.4	492.9	487.0	478.4
32.5°	469.9	454.8	438.3	420.6	409.4	393.7	385.1	389.7
35°	389.7	367.4	345.0	327.3	310.2	301.0	290.5	291.8
37.5°	312.2	280.6	260.9	241.8	227.4	215.6	211.0	209.6
40°	228.0	203.1	183.4	169.5	159.7	150.5	145.2	143.3
42.5°	157.7	140.0	124.2	113.0	106.5	100.5	97.9	97.3
45°	102.5	92.0	81.5	73.6	68.4	64.4	63.7	63.1
47.5°	64.4	59.1	52.6	46.7	42.1	39.4	37.5	37.5
50°	36.8	34.8	31.5	28.3	25.6	24.3	22.3	21.7
52.5°	19.7	19.7	18.4	15.8	13.8	12.5	12.5	11.8
55°	10.5	10.5	9.9	9.9	9.2	9.2	9.2	8.6
57.5°	6.6	6.6	7.2	7.2	6.6	6.6	6.6	6.6
60°	4.6	5.3	5.3	5.3	5.3	5.3	5.3	5.3
62.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
65°	2.6	3.3	3.3	3.3	3.3	2.6	2.6	2.6
67.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
70°	2.0	2.0	2.0	2.0	2.0	1.3	1.3	1.3
72.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
75°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
77.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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)