

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 EX4C109040 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 EX4C109040 4LBSQLI  
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS  
AND 4LBSQ TRIM WITH LI FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

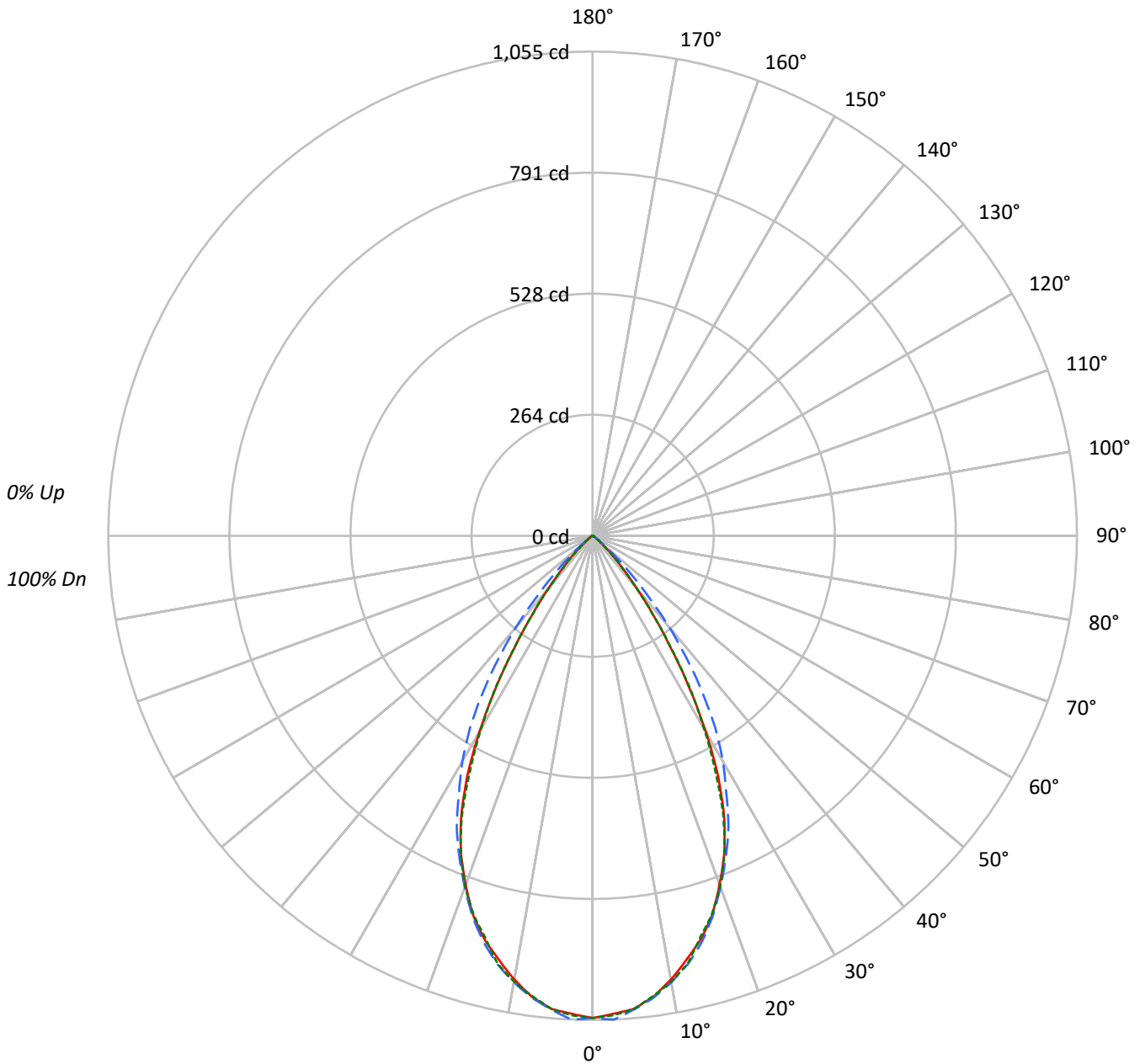
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 970.0 lumens  
Efficiency: N/A  
Efficacy: 99.0 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 (A<sub>in</sub>): 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°	101381	101381	101381
5°	100209	100344	100209
10°	96204	96792	96664
15°	90952	91622	90483
20°	83008	83624	83418
25°	72278	74546	71778
30°	54961	63217	54148
35°	34595	49142	34913
40°	18667	32459	18327
45°	8829	16034	8747
50°	3302	6004	3302
55°	1564	1918	1464
60°	1023	907	1023
65°	616	616	616
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°	97.4	10.0
10°-20°	255.3	26.3
20°-30°	311.9	32.2
30°-40°	218.1	22.5
40°-50°	71.5	7.4
50°-60°	11.4	1.2
60°-70°	3.1	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°	664.6	68.5
0°-40°	882.7	91.0
0°-60°	965.6	99.5
0°-90°	970.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	970.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1051	1051	1051	1051	1051	
5°	1035	1035	1036	1030	1035	97
15°	910	914	917	911	906	254
25°	679	689	700	688	674	305
35°	294	347	417	341	296	187
45°	65	80	118	79	64	54
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°	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7
2.5°	1042.7	1050.0	1048.0	1052.7	1052.7	1047.3	1048.7	1050.7	1053.3	1055.3	1039.3
5°	1034.6	1041.3	1035.3	1042.0	1038.0	1032.0	1042.0	1036.6	1040.0	1036.0	1038.6
7.5°	1013.3	1024.0	1012.0	1020.0	1017.3	1013.9	1017.9	1016.6	1018.6	1015.3	1007.9
10°	981.9	990.6	982.6	993.9	988.6	985.3	988.6	991.9	991.3	987.9	991.9
12.5°	945.9	955.9	951.9	958.5	952.5	952.5	960.6	958.5	959.2	956.5	961.2
15°	910.5	917.8	911.8	920.5	917.8	910.5	913.8	913.8	919.2	917.2	911.8
17.5°	866.4	872.4	865.8	867.8	865.1	863.8	877.8	868.4	873.8	869.8	870.4
20°	808.4	811.0	809.0	814.4	811.0	815.0	813.7	812.4	812.4	814.4	809.7
22.5°	749.6	749.6	751.6	753.0	755.6	751.6	759.6	753.0	753.6	758.3	757.0
25°	678.9	676.9	681.5	688.2	690.9	687.5	698.2	692.9	696.9	700.2	692.9
27.5°	592.8	592.8	597.4	608.8	610.8	614.8	629.5	629.5	634.8	630.1	635.5
30°	493.3	500.6	506.6	521.3	526.0	534.7	550.0	557.4	569.4	567.4	564.7
32.5°	391.2	401.2	401.8	417.2	429.9	444.6	465.3	482.6	491.3	497.3	490.6
35°	293.7	299.7	305.1	315.7	337.1	356.5	375.1	397.8	413.2	417.2	411.2
37.5°	214.9	216.3	221.6	231.6	247.6	266.3	289.0	313.7	329.8	335.8	329.1
40°	148.2	149.5	152.2	160.9	174.2	187.6	205.6	231.0	245.6	257.7	249.0
42.5°	99.5	100.8	103.5	110.1	117.5	130.2	144.2	160.2	174.2	179.6	174.9
45°	64.7	64.7	66.1	70.8	74.8	84.8	94.8	104.8	114.1	117.5	114.1
47.5°	38.1	38.7	40.0	43.4	48.1	52.1	59.4	66.1	68.8	71.4	70.1
50°	22.0	22.0	24.0	26.0	29.4	32.0	34.7	37.4	38.7	40.0	38.7
52.5°	12.0	12.7	13.3	14.0	15.4	18.0	20.0	20.0	20.7	21.4	20.7
55°	9.3	9.3	9.3	9.3	10.0	10.0	10.0	10.7	10.7	11.4	10.7
57.5°	6.7	6.7	6.7	7.4	7.4	7.4	6.7	6.7	6.7	6.7	6.7
60°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	4.7	4.7	4.7	4.7
62.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
65°	2.7	2.7	3.3	3.3	3.3	3.3	3.3	2.7	2.7	2.7	2.7
67.5°	2.0	2.0	2.0	2.0	2.7	2.7	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°	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7
2.5°	1050.7	1039.3	1040.6	1046.7	1043.3	1046.7	1046.0	1046.0
5°	1039.3	1036.0	1030.6	1028.6	1032.6	1041.3	1040.0	1034.6
7.5°	1017.9	1009.3	1015.3	1017.9	1014.6	1020.0	1022.6	1011.3
10°	992.6	989.3	987.9	989.3	987.9	993.3	986.6	986.6
12.5°	956.5	951.2	951.2	959.2	954.5	950.5	955.9	955.2
15°	920.5	909.8	909.8	912.5	914.5	911.8	912.5	905.8
17.5°	867.1	863.8	859.1	866.4	868.4	865.8	867.8	864.4
20°	817.0	817.0	808.4	811.7	814.4	816.4	817.7	812.4
22.5°	753.0	754.3	748.3	754.9	757.0	750.3	751.6	750.3
25°	694.2	693.5	688.9	686.2	687.5	684.9	684.2	674.2
27.5°	629.5	622.8	612.8	615.5	604.1	594.8	594.8	579.4
30°	559.4	548.0	534.7	521.3	511.3	500.6	494.6	486.0
32.5°	477.3	461.9	445.2	427.2	415.9	399.9	391.2	395.8
35°	395.8	373.1	350.4	332.4	315.1	305.7	295.0	296.4
37.5°	317.1	285.0	265.0	245.6	231.0	219.0	214.3	212.9
40°	231.6	206.3	186.2	172.2	162.2	152.9	147.5	145.5
42.5°	160.2	142.2	126.1	114.8	108.1	102.1	99.5	98.8
45°	104.1	93.5	82.8	74.8	69.4	65.4	64.7	64.1
47.5°	65.4	60.1	53.4	47.4	42.7	40.0	38.1	38.1
50°	37.4	35.4	32.0	28.7	26.0	24.7	22.7	22.0
52.5°	20.0	20.0	18.7	16.0	14.0	12.7	12.7	12.0
55°	10.7	10.7	10.0	10.0	9.3	9.3	9.3	8.7
57.5°	6.7	6.7	7.4	7.4	6.7	6.7	6.7	6.7
60°	4.7	5.3	5.3	5.3	5.3	5.3	5.3	5.3
62.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
65°	2.7	3.3	3.3	3.3	3.3	2.7	2.7	2.7
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)