

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: **LD4C40D010 EX4C409027 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: LD4C40D010 EX4C409027 4LBSQLI  
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS  
AND 4LBSQ TRIM WITH LI FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

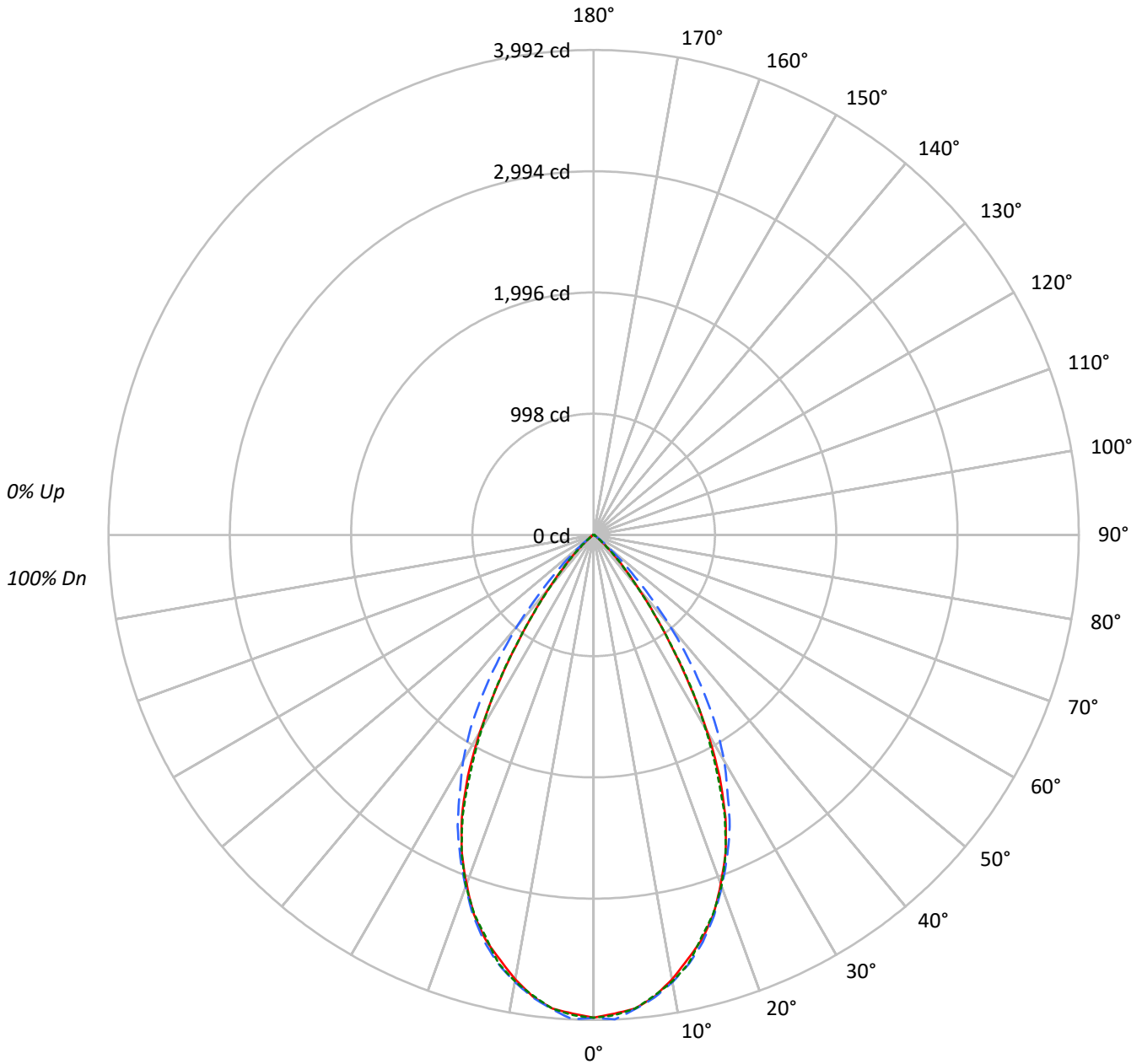
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3669.0 lumens  
Efficiency: N/A  
Efficacy: 78.1 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): 47  
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°	383457	383457	383457
5°	379052	379546	379052
10°	363888	366122	365632
15°	344020	346538	342252
20°	313958	316289	315519
25°	273378	281980	271493
30°	207880	239109	204793
35°	130854	185886	132044
40°	70599	122758	69327
45°	33418	60641	33063
50°	12519	22742	12519
55°	5938	7234	5535
60°	3898	3416	3898
65°	2306	2306	2306
70°	1411	2144	1411
75°	969	969	969
80°	1445	1445	1445
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	368.5	10.0
10°-20°	965.7	26.3
20°-30°	1179.7	32.2
30°-40°	825.1	22.5
40°-50°	270.4	7.4
50°-60°	43.0	1.2
60°-70°	11.7	0.3
70°-80°	3.9	0.1
80°-90°	1.1	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°	2513.8	68.5
0°-40°	3338.9	91.0
0°-60°	3652.2	99.5
0°-90°	3669.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3669.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3974	3974	3974	3974	3974	
5°	3914	3915	3919	3895	3914	367
15°	3444	3458	3469	3446	3426	961
25°	2568	2607	2649	2601	2550	1153
35°	1111	1312	1578	1291	1121	709
45°	245	302	444	298	242	205
55°	35	38	43	38	33	35
65°	10	13	10	13	10	11
75°	3	3	3	3	3	4
85°	0	0	0	0	0	1
90°	0	0	0	0	0	



TEST NUMBER: P#

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3974.1	3974.1	3974.1	3974.1	3974.1	3974.1	3974.1	3974.1	3974.1	3974.1	3974.1
2.5°	3943.8	3971.6	3964.0	3981.7	3981.7	3961.5	3966.6	3974.1	3984.2	3991.8	3931.1
5°	3913.5	3938.8	3916.0	3941.2	3926.1	3903.4	3941.2	3921.0	3933.7	3918.6	3928.7
7.5°	3832.7	3873.1	3827.7	3858.0	3847.9	3835.2	3850.4	3845.3	3852.9	3840.3	3812.5
10°	3714.0	3746.9	3716.6	3759.5	3739.3	3726.7	3739.3	3752.0	3749.4	3736.8	3752.0
12.5°	3577.7	3615.5	3600.4	3625.6	3603.0	3603.0	3633.3	3625.6	3628.2	3618.1	3635.7
15°	3443.9	3471.7	3448.9	3481.8	3471.7	3443.9	3456.5	3456.5	3476.8	3469.1	3448.9
17.5°	3277.3	3300.0	3274.7	3282.3	3272.2	3267.2	3320.1	3284.8	3305.0	3289.9	3292.4
20°	3057.6	3067.7	3060.1	3080.3	3067.7	3082.9	3077.8	3072.8	3072.8	3080.3	3062.7
22.5°	2835.4	2835.4	2843.0	2848.0	2858.1	2843.0	2873.3	2848.0	2850.5	2868.2	2863.2
25°	2567.8	2560.2	2577.9	2603.1	2613.2	2600.6	2641.0	2620.8	2635.9	2648.6	2620.8
27.5°	2242.1	2242.1	2259.7	2302.7	2310.2	2325.4	2380.9	2380.9	2401.1	2383.5	2403.7
30°	1865.8	1893.6	1916.3	1971.9	1989.6	2022.4	2080.4	2108.3	2153.7	2146.1	2136.0
32.5°	1479.6	1517.5	1519.9	1578.1	1626.0	1681.5	1759.8	1825.4	1858.3	1881.0	1855.7
35°	1110.9	1133.7	1153.9	1194.3	1275.0	1348.3	1419.0	1504.8	1562.9	1578.1	1555.3
37.5°	813.0	818.1	838.3	876.1	936.7	1007.5	1093.3	1186.6	1247.3	1270.0	1244.7
40°	560.5	565.6	575.6	608.5	659.0	709.5	777.7	873.6	929.2	974.6	941.7
42.5°	376.2	381.2	391.3	416.6	444.4	492.3	545.4	605.9	659.0	679.2	661.5
45°	244.9	244.9	250.0	267.7	282.8	320.6	358.6	396.4	431.7	444.4	431.7
47.5°	143.9	146.4	151.5	164.1	181.8	196.9	224.7	250.0	260.1	270.2	265.1
50°	83.4	83.4	90.9	98.5	111.1	121.2	131.3	141.4	146.4	151.5	146.4
52.5°	45.4	48.0	50.5	53.1	58.1	68.2	75.7	75.7	78.3	80.8	78.3
55°	35.3	35.3	35.3	35.3	37.9	37.9	37.9	40.4	40.4	43.0	40.4
57.5°	25.2	25.2	25.2	27.8	27.8	27.8	25.2	25.2	25.2	25.2	25.2
60°	20.2	20.2	20.2	20.2	20.2	20.2	20.2	17.7	17.7	17.7	17.7
62.5°	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
65°	10.1	10.1	12.7	12.7	12.7	12.7	12.7	10.1	10.1	10.1	10.1
67.5°	7.6	7.6	7.6	7.6	10.1	10.1	7.6	7.6	7.6	7.6	7.6
70°	5.0	5.0	5.0	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
72.5°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
75°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
77.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
80°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	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°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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°	3974.1	3974.1	3974.1	3974.1	3974.1	3974.1	3974.1	3974.1
2.5°	3974.1	3931.1	3936.2	3959.0	3946.3	3959.0	3956.5	3956.5
5°	3931.1	3918.6	3898.4	3890.7	3905.9	3938.8	3933.7	3913.5
7.5°	3850.4	3817.6	3840.3	3850.4	3837.8	3858.0	3868.1	3825.1
10°	3754.4	3741.9	3736.8	3741.9	3736.8	3757.0	3731.8	3731.8
12.5°	3618.1	3597.9	3597.9	3628.2	3610.5	3595.3	3615.5	3613.1
15°	3481.8	3441.3	3441.3	3451.4	3459.0	3448.9	3451.4	3426.2
17.5°	3279.8	3267.2	3249.5	3277.3	3284.8	3274.7	3282.3	3269.7
20°	3090.4	3090.4	3057.6	3070.2	3080.3	3087.9	3093.0	3072.8
22.5°	2848.0	2853.1	2830.3	2855.6	2863.2	2837.9	2843.0	2837.9
25°	2625.8	2623.3	2605.6	2595.5	2600.6	2590.5	2588.0	2550.1
27.5°	2380.9	2355.7	2317.8	2327.9	2285.0	2249.6	2249.6	2191.5
30°	2115.8	2072.9	2022.4	1971.9	1934.0	1893.6	1870.9	1838.1
32.5°	1805.2	1747.2	1684.1	1615.9	1573.0	1512.4	1479.6	1497.3
35°	1497.3	1411.4	1325.5	1257.4	1191.7	1156.3	1116.0	1121.0
37.5°	1199.3	1078.1	1002.4	929.2	873.6	828.2	810.5	805.4
40°	876.1	780.2	704.4	651.4	613.6	578.2	558.0	550.4
42.5°	605.9	537.8	477.1	434.3	409.0	386.3	376.2	373.7
45°	393.9	353.5	313.1	282.8	262.6	247.5	244.9	242.3
47.5°	247.5	227.2	201.9	179.3	161.6	151.5	143.9	143.9
50°	141.4	133.8	121.2	108.6	98.5	93.4	85.8	83.4
52.5°	75.7	75.7	70.7	60.6	53.1	48.0	48.0	45.4
55°	40.4	40.4	37.9	37.9	35.3	35.3	35.3	32.9
57.5°	25.2	25.2	27.8	27.8	25.2	25.2	25.2	25.2
60°	17.7	20.2	20.2	20.2	20.2	20.2	20.2	20.2
62.5°	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
65°	10.1	12.7	12.7	12.7	12.7	10.1	10.1	10.1
67.5°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
70°	7.6	7.6	7.6	7.6	7.6	5.0	5.0	5.0
72.5°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
75°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
77.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
80°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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)