

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: P563835

Luminaire Tested: **LD4C40D010 EX4C409030 4LBSQLI**

Issue Date: 2/9/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P563835  
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 EX4C409030 4LBSQLI  
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS  
AND 4LBSQ TRIM WITH LI FINISH, DIM TO WARM  
Light Source: -  
Ballast/Driver: -

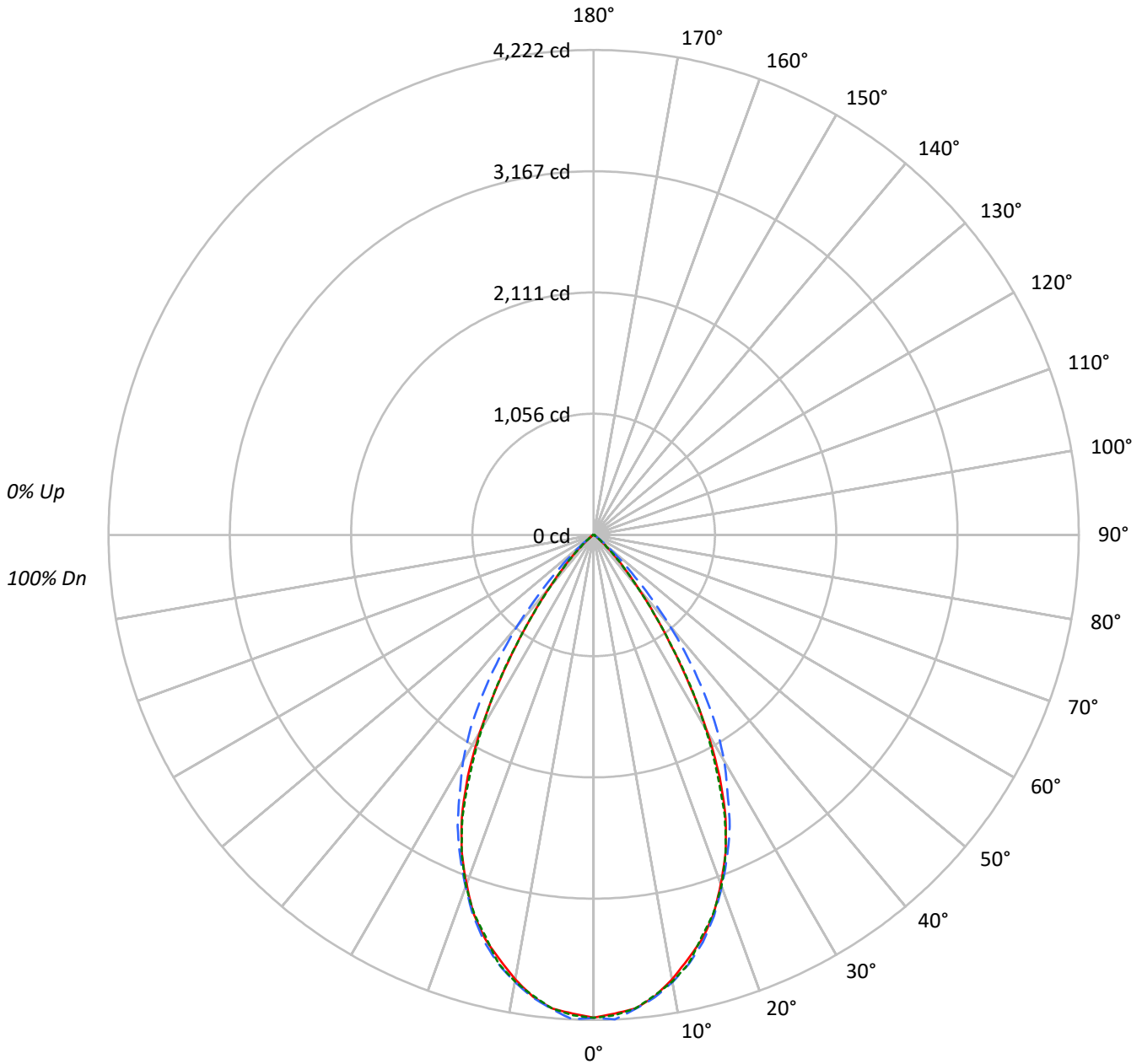
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3880.5 lumens  
Efficiency: N/A  
Efficacy: 82.6 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 (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					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	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					100			
1	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93					93			
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87					87			
3	102	96	91	87	100	94	90	86	92	88	84	89	86	83	87	84	82	80					80			
4	97	89	84	79	95	88	83	79	86	81	78	84	80	77	82	79	76	75					75			
5	92	83	77	73	90	82	77	73	81	76	72	79	75	71	77	74	71	69					69			
6	87	78	72	68	86	77	71	67	76	71	67	74	70	66	73	69	66	64					64			
7	83	73	67	63	81	73	67	63	71	66	62	70	65	62	69	65	62	60					60			
8	79	69	63	59	77	68	62	58	67	62	58	66	61	58	65	61	58	56					56			
9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53					53			
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50					50			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	405572	405572	405572
5°	400912	401435	400912
10°	384875	387236	386717
15°	363859	366526	361991
20°	332071	334536	333714
25°	289145	298247	287154
30°	219879	252903	216615
35°	138405	196605	139653
40°	74667	129837	73320
45°	35356	64134	34974
50°	13240	24048	13240
55°	6275	7654	5854
60°	4130	3609	4130
65°	2443	2443	2443
70°	1495	2257	1495
75°	1007	1007	1007
80°	1500	1500	1500
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	389.7	10.0
10°-20°	1021.4	26.3
20°-30°	1247.7	32.2
30°-40°	872.7	22.5
40°-50°	286.0	7.4
50°-60°	45.5	1.2
60°-70°	12.4	0.3
70°-80°	4.1	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°	2658.8	68.5
0°-40°	3531.4	91.0
0°-60°	3862.9	99.5
0°-90°	3880.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3880.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4203	4203	4203	4203	4203	
5°	4139	4140	4145	4119	4139	388
15°	3642	3657	3669	3645	3624	1016
25°	2716	2757	2801	2751	2697	1220
35°	1175	1387	1669	1366	1186	750
45°	259	319	470	315	256	217
55°	37	40	46	40	35	37
65°	11	13	11	13	11	12
75°	3	3	3	3	3	4
85°	0	0	0	0	0	1
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°	4203.3	4203.3	4203.3	4203.3	4203.3	4203.3	4203.3	4203.3	4203.3	4203.3	4203.3
2.5°	4171.2	4200.7	4192.6	4211.4	4211.4	4190.1	4195.3	4203.3	4214.0	4222.1	4157.9
5°	4139.2	4165.9	4141.8	4168.6	4152.5	4128.5	4168.6	4147.2	4160.6	4144.6	4155.3
7.5°	4053.8	4096.5	4048.5	4080.5	4069.8	4056.4	4072.5	4067.1	4075.1	4061.8	4032.5
10°	3928.2	3963.0	3931.0	3976.3	3955.0	3941.7	3955.0	3968.4	3965.7	3952.3	3968.4
12.5°	3784.1	3824.1	3808.1	3834.7	3810.7	3810.7	3842.8	3834.7	3837.5	3826.8	3845.4
15°	3642.5	3672.0	3647.9	3682.7	3672.0	3642.5	3655.8	3655.8	3677.3	3669.2	3647.9
17.5°	3466.3	3490.3	3463.6	3471.6	3460.9	3455.6	3511.7	3474.2	3495.6	3479.6	3482.3
20°	3234.0	3244.7	3236.6	3258.0	3244.7	3260.6	3255.3	3250.0	3250.0	3258.0	3239.3
22.5°	2998.9	2998.9	3006.9	3012.3	3023.0	3006.9	3039.0	3012.3	3015.0	3033.7	3028.3
25°	2715.9	2707.8	2726.6	2753.3	2763.9	2750.5	2793.2	2771.9	2787.9	2801.4	2771.9
27.5°	2371.4	2371.4	2390.0	2435.5	2443.4	2459.5	2518.2	2518.2	2539.5	2520.9	2542.3
30°	1973.5	2002.9	2026.9	2085.6	2104.3	2139.1	2200.4	2229.9	2277.9	2269.9	2259.2
32.5°	1564.9	1605.0	1607.6	1669.1	1719.8	1778.5	1861.3	1930.7	1965.5	1989.4	1962.8
35°	1175.0	1199.1	1220.4	1263.2	1348.6	1426.0	1500.8	1591.6	1653.1	1669.1	1645.0
37.5°	859.9	865.2	886.6	926.7	990.8	1065.5	1156.4	1255.1	1319.3	1343.2	1316.6
40°	592.8	598.2	608.9	643.6	697.0	750.4	822.5	924.0	982.7	1030.8	996.0
42.5°	397.8	403.2	413.9	440.5	470.0	520.7	576.9	640.9	697.0	718.3	699.6
45°	259.1	259.1	264.4	283.1	299.2	339.1	379.2	419.2	456.6	470.0	456.6
47.5°	152.3	154.8	160.2	173.6	192.3	208.2	237.7	264.4	275.1	285.7	280.4
50°	88.2	88.2	96.1	104.2	117.5	128.2	138.8	149.5	154.8	160.2	154.8
52.5°	48.0	50.8	53.4	56.1	61.4	72.1	80.1	80.1	82.8	85.4	82.8
55°	37.3	37.3	37.3	37.3	40.1	40.1	40.1	42.7	42.7	45.5	42.7
57.5°	26.7	26.7	26.7	29.4	29.4	29.4	26.7	26.7	26.7	26.7	26.7
60°	21.4	21.4	21.4	21.4	21.4	21.4	21.4	18.7	18.7	18.7	18.7
62.5°	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
65°	10.7	10.7	13.4	13.4	13.4	13.4	13.4	10.7	10.7	10.7	10.7
67.5°	8.0	8.0	8.0	8.0	10.7	10.7	8.0	8.0	8.0	8.0	8.0
70°	5.3	5.3	5.3	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
72.5°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
75°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
77.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
80°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	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°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
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°	4203.3	4203.3	4203.3	4203.3	4203.3	4203.3	4203.3	4203.3
2.5°	4203.3	4157.9	4163.2	4187.3	4173.9	4187.3	4184.7	4184.7
5°	4157.9	4144.6	4123.2	4115.2	4131.2	4165.9	4160.6	4139.2
7.5°	4072.5	4037.8	4061.8	4072.5	4059.1	4080.5	4091.2	4045.7
10°	3970.9	3957.7	3952.3	3957.7	3952.3	3973.7	3947.0	3947.0
12.5°	3826.8	3805.4	3805.4	3837.5	3818.8	3802.7	3824.1	3821.4
15°	3682.7	3639.8	3639.8	3650.5	3658.6	3647.9	3650.5	3623.8
17.5°	3469.0	3455.6	3436.9	3466.3	3474.2	3463.6	3471.6	3458.3
20°	3268.7	3268.7	3234.0	3247.3	3258.0	3266.0	3271.3	3250.0
22.5°	3012.3	3017.6	2993.6	3020.3	3028.3	3001.7	3006.9	3001.7
25°	2777.3	2774.6	2755.9	2745.2	2750.5	2739.8	2737.3	2697.2
27.5°	2518.2	2491.5	2451.6	2462.2	2416.8	2379.3	2379.3	2317.9
30°	2237.8	2192.5	2139.1	2085.6	2045.6	2002.9	1978.8	1944.2
32.5°	1909.4	1848.0	1781.2	1709.1	1663.7	1599.6	1564.9	1583.7
35°	1583.7	1492.7	1402.0	1330.0	1260.4	1223.1	1180.4	1185.6
37.5°	1268.4	1140.3	1060.2	982.7	924.0	875.9	857.2	851.9
40°	926.7	825.2	745.1	688.9	649.0	611.5	590.2	582.1
42.5°	640.9	568.8	504.6	459.4	432.6	408.5	397.8	395.3
45°	416.6	373.9	331.2	299.2	277.8	261.7	259.1	256.3
47.5°	261.7	240.3	213.6	189.6	170.9	160.2	152.3	152.3
50°	149.5	141.6	128.2	114.8	104.2	98.9	90.7	88.2
52.5°	80.1	80.1	74.8	64.1	56.1	50.8	50.8	48.0
55°	42.7	42.7	40.1	40.1	37.3	37.3	37.3	34.8
57.5°	26.7	26.7	29.4	29.4	26.7	26.7	26.7	26.7
60°	18.7	21.4	21.4	21.4	21.4	21.4	21.4	21.4
62.5°	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
65°	10.7	13.4	13.4	13.4	13.4	10.7	10.7	10.7
67.5°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
70°	8.0	8.0	8.0	8.0	8.0	5.3	5.3	5.3
72.5°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
75°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
77.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
80°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
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°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
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)