

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 EX4C409035 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 EX4C409035 4LBSQLI  
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS  
AND 4LBSQ TRIM WITH LI FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

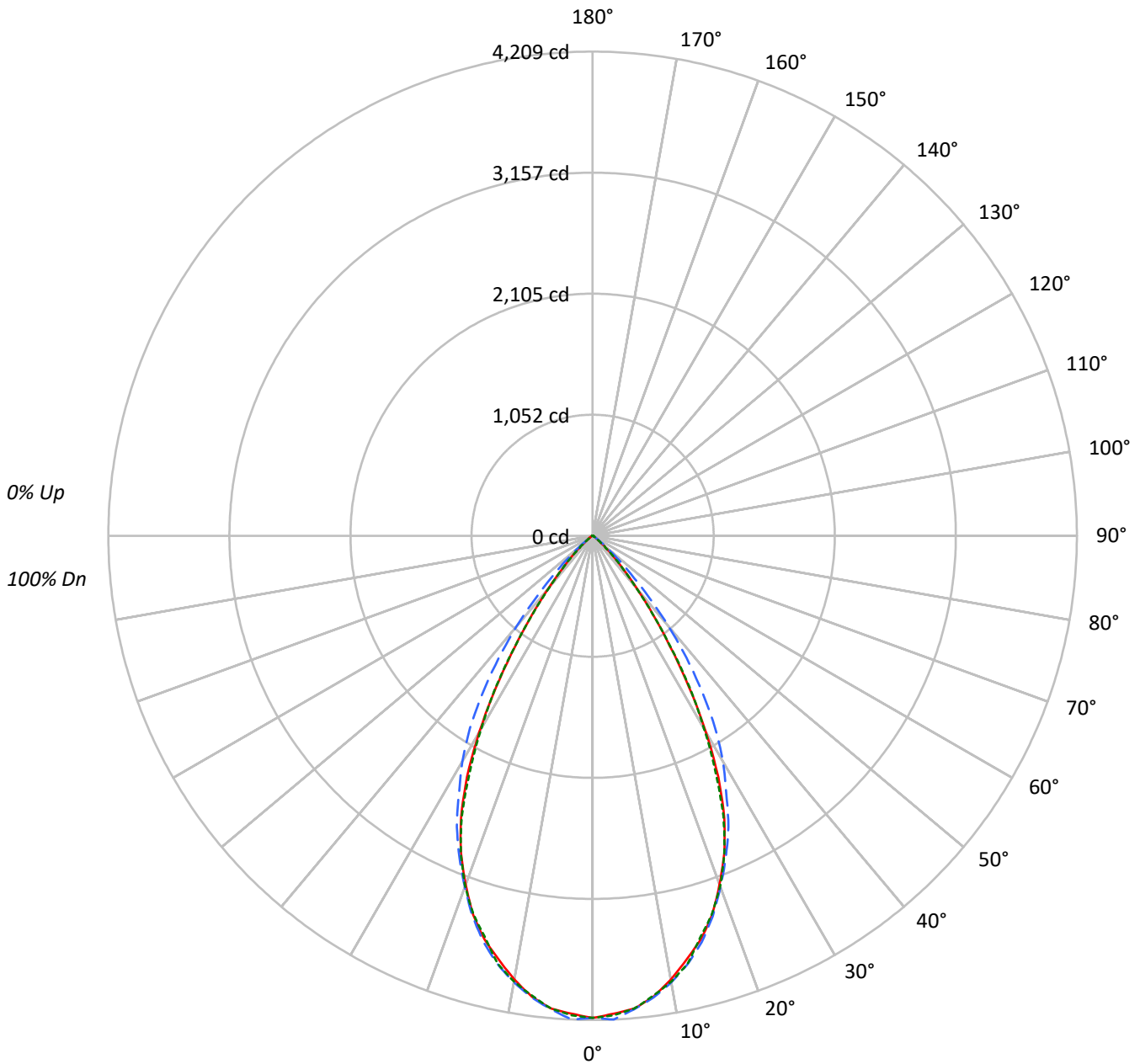
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3869.0 lumens  
Efficiency: N/A  
Efficacy: 82.3 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				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°	404356	404356	404356
5°	399711	400234	399711
10°	383728	386080	385561
15°	362770	365427	360902
20°	331075	333530	332718
25°	288282	297343	286292
30°	219211	252145	215957
35°	137992	196016	139241
40°	74453	129446	73106
45°	35247	63943	34864
50°	13195	23973	13195
55°	6275	7621	5837
60°	4110	3609	4110
65°	2420	2420	2420
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°	388.5	10.0
10°-20°	1018.3	26.3
20°-30°	1244.0	32.2
30°-40°	870.1	22.5
40°-50°	285.1	7.4
50°-60°	45.3	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°	2650.8	68.5
0°-40°	3520.9	91.0
0°-60°	3851.3	99.5
0°-90°	3869.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3869.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4191	4191	4191	4191	4191	
5°	4127	4128	4132	4107	4127	387
15°	3632	3646	3658	3634	3613	1013
25°	2708	2749	2793	2742	2689	1216
35°	1172	1383	1664	1362	1182	748
45°	258	318	469	314	256	217
55°	37	40	45	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°	4190.7	4190.7	4190.7	4190.7	4190.7	4190.7	4190.7	4190.7	4190.7	4190.7	4190.7
2.5°	4158.8	4188.1	4180.1	4198.8	4198.8	4177.5	4182.8	4190.7	4201.4	4209.4	4145.4
5°	4126.8	4153.5	4129.5	4156.1	4140.1	4116.2	4156.1	4134.8	4148.1	4132.2	4142.8
7.5°	4041.7	4084.3	4036.3	4068.3	4057.6	4044.3	4060.2	4054.9	4063.0	4049.6	4020.4
10°	3916.5	3951.2	3919.2	3964.4	3943.1	3929.9	3943.1	3956.5	3953.8	3940.5	3956.5
12.5°	3772.8	3812.6	3796.7	3823.3	3799.4	3799.4	3831.3	3823.3	3826.0	3815.3	3833.9
15°	3631.6	3661.0	3636.9	3671.6	3661.0	3631.6	3644.9	3644.9	3666.3	3658.2	3636.9
17.5°	3455.9	3479.8	3453.2	3461.3	3450.6	3445.3	3501.1	3463.9	3485.2	3469.2	3471.9
20°	3224.3	3234.9	3226.9	3248.2	3234.9	3250.9	3245.6	3240.3	3240.3	3248.2	3229.6
22.5°	2989.9	2989.9	2998.0	3003.3	3013.9	2998.0	3029.9	3003.3	3005.9	3024.6	3019.3
25°	2707.8	2699.7	2718.4	2745.0	2755.7	2742.3	2784.9	2763.6	2779.6	2792.9	2763.6
27.5°	2364.3	2364.3	2382.9	2428.2	2436.1	2452.1	2510.7	2510.7	2532.0	2513.4	2534.7
30°	1967.5	1996.9	2020.8	2079.3	2098.0	2132.7	2193.9	2223.2	2271.1	2263.1	2252.4
32.5°	1560.2	1600.2	1602.8	1664.1	1714.6	1773.2	1855.7	1924.9	1959.6	1983.5	1956.9
35°	1171.5	1195.5	1216.8	1259.4	1344.5	1421.8	1496.3	1586.8	1648.1	1664.1	1640.1
37.5°	857.4	862.7	884.0	923.8	987.7	1062.4	1152.9	1251.3	1315.3	1339.2	1312.6
40°	591.1	596.4	607.0	641.7	694.9	748.2	820.1	921.2	979.8	1027.7	993.1
42.5°	396.7	402.0	412.7	439.3	468.6	519.1	575.1	639.0	694.9	716.2	697.5
45°	258.3	258.3	263.6	282.3	298.2	338.1	378.1	418.0	455.2	468.6	455.2
47.5°	151.8	154.4	159.7	173.1	191.7	207.6	237.0	263.6	274.2	284.9	279.6
50°	87.9	87.9	95.8	103.9	117.1	127.8	138.4	149.1	154.4	159.7	154.4
52.5°	47.9	50.6	53.2	56.0	61.3	71.9	79.9	79.9	82.6	85.2	82.6
55°	37.3	37.3	37.3	37.3	40.0	40.0	40.0	42.6	42.6	45.3	42.6
57.5°	26.6	26.6	26.6	29.3	29.3	29.3	26.6	26.6	26.6	26.6	26.6
60°	21.3	21.3	21.3	21.3	21.3	21.3	21.3	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°	10.6	10.6	13.4	13.4	13.4	13.4	13.4	10.6	10.6	10.6	10.6
67.5°	8.0	8.0	8.0	8.0	10.6	10.6	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°	4190.7	4190.7	4190.7	4190.7	4190.7	4190.7	4190.7	4190.7
2.5°	4190.7	4145.4	4150.7	4174.8	4161.4	4174.8	4172.1	4172.1
5°	4145.4	4132.2	4110.9	4102.8	4118.8	4153.5	4148.1	4126.8
7.5°	4060.2	4025.7	4049.6	4060.2	4047.0	4068.3	4078.9	4033.6
10°	3959.1	3945.8	3940.5	3945.8	3940.5	3961.8	3935.2	3935.2
12.5°	3815.3	3794.0	3794.0	3826.0	3807.3	3791.3	3812.6	3810.0
15°	3671.6	3628.9	3628.9	3639.6	3647.6	3636.9	3639.6	3612.9
17.5°	3458.5	3445.3	3426.6	3455.9	3463.9	3453.2	3461.3	3447.9
20°	3258.8	3258.8	3224.3	3237.5	3248.2	3256.2	3261.6	3240.3
22.5°	3003.3	3008.6	2984.6	3011.2	3019.3	2992.6	2998.0	2992.6
25°	2768.9	2766.3	2747.6	2737.0	2742.3	2731.7	2729.1	2689.1
27.5°	2510.7	2484.1	2444.2	2454.8	2409.5	2372.3	2372.3	2311.0
30°	2231.1	2185.9	2132.7	2079.3	2039.5	1996.9	1972.9	1938.3
32.5°	1903.7	1842.5	1775.9	1704.0	1658.8	1594.9	1560.2	1578.9
35°	1578.9	1488.3	1397.8	1326.0	1256.6	1219.4	1176.8	1182.1
37.5°	1264.7	1136.9	1057.1	979.8	921.2	873.3	854.6	849.3
40°	923.8	822.7	742.8	686.9	647.0	609.7	588.4	580.4
42.5°	639.0	567.1	503.2	458.0	431.3	407.3	396.7	394.1
45°	415.4	372.8	330.2	298.2	276.9	261.0	258.3	255.5
47.5°	261.0	239.6	213.0	189.0	170.4	159.7	151.8	151.8
50°	149.1	141.1	127.8	114.5	103.9	98.5	90.5	87.9
52.5°	79.9	79.9	74.5	63.9	56.0	50.6	50.6	47.9
55°	42.6	42.6	40.0	40.0	37.3	37.3	37.3	34.7
57.5°	26.6	26.6	29.3	29.3	26.6	26.6	26.6	26.6
60°	18.7	21.3	21.3	21.3	21.3	21.3	21.3	21.3
62.5°	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
65°	10.6	13.4	13.4	13.4	13.4	10.6	10.6	10.6
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)