

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 EX4C409030 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 EX4C409030 4LBSQLI
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBSQ TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

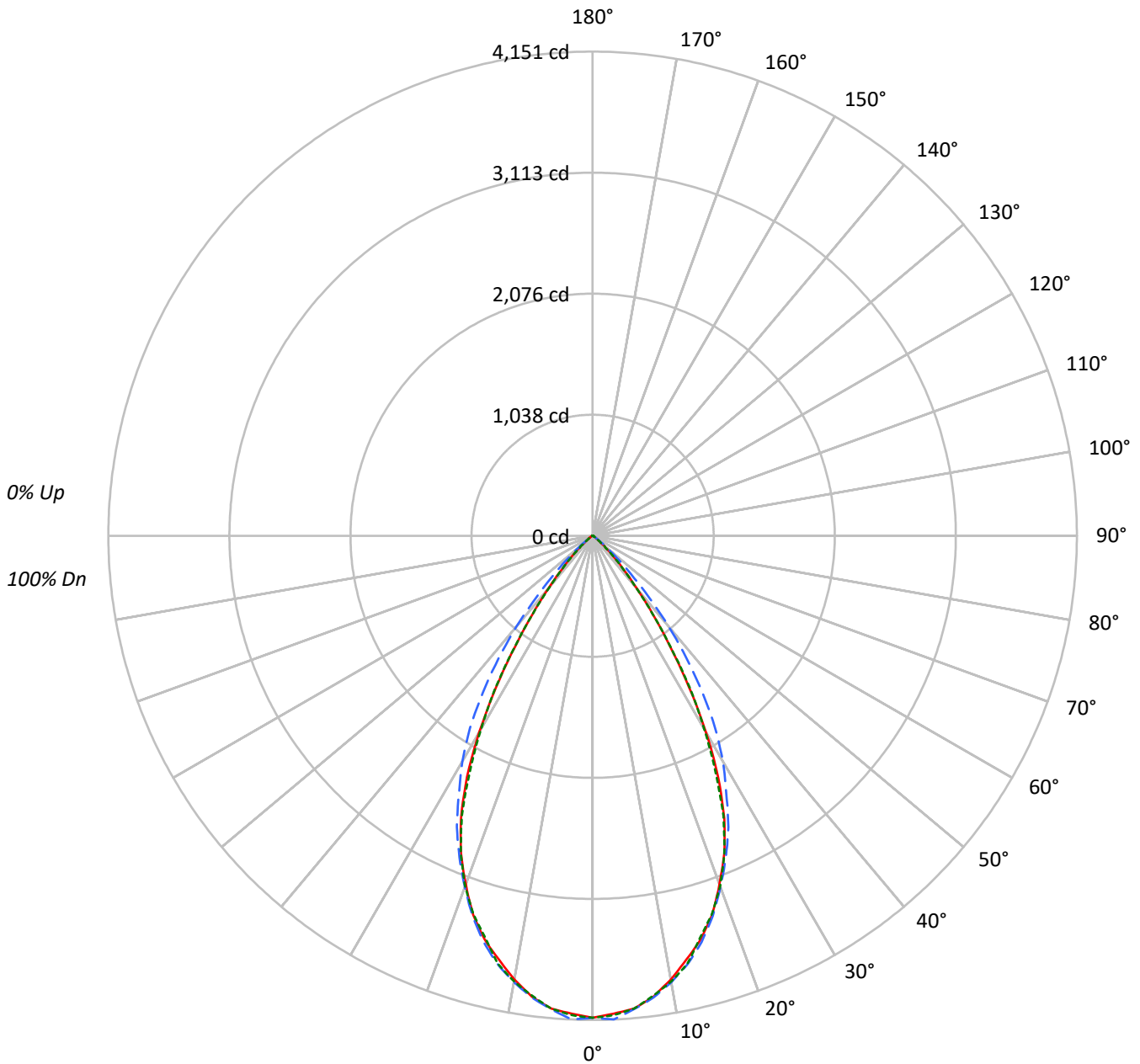
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3815.0 lumens
Efficiency: N/A
Efficacy: 81.2 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

TEST NUMBER: P#
CATALOG NUMBER: LD4C40D010 EX4C409030 4LBSQLI

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: LD4C40D010 EX4C409030 4LBSQLI

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°	398711	398711	398711
5°	394132	394646	394132
10°	378369	380691	380182
15°	357706	360333	355868
20°	326455	328878	328067
25°	284258	293201	282299
30°	216158	248624	212949
35°	136061	193284	137297
40°	73408	127645	72085
45°	34755	63056	34387
50°	13015	23642	13015
55°	6174	7520	5753
60°	4053	3551	4053
65°	2397	2397	2397
70°	1467	2229	1467
75°	1007	1007	1007
80°	1500	1500	1500
85°	0	0	0



TEST NUMBER: P#

CATALOG NUMBER: LD4C40D010 EX4C409030 4LBSQLI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	383.1	10.0
10°-20°	1004.1	26.3
20°-30°	1226.6	32.2
30°-40°	857.9	22.5
40°-50°	281.2	7.4
50°-60°	44.7	1.2
60°-70°	12.2	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°	2613.8	68.5
0°-40°	3471.7	91.0
0°-60°	3797.6	99.5
0°-90°	3815.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3815.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4132	4132	4132	4132	4132	
5°	4069	4070	4074	4050	4069	382
15°	3581	3595	3607	3584	3562	999
25°	2670	2711	2754	2704	2652	1199
35°	1155	1364	1641	1343	1166	737
45°	255	314	462	310	252	214
55°	37	39	45	39	34	36
65°	10	13	10	13	10	12
75°	3	3	3	3	3	4
85°	0	0	0	0	0	1
90°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: LD4C40D010 EX4C409030 4LBSQLI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4132.2	4132.2	4132.2	4132.2	4132.2	4132.2	4132.2	4132.2	4132.2	4132.2	4132.2
2.5°	4100.7	4129.7	4121.7	4140.2	4140.2	4119.2	4124.4	4132.2	4142.7	4150.7	4087.6
5°	4069.2	4095.5	4071.8	4098.1	4082.3	4058.7	4098.1	4077.1	4090.2	4074.5	4085.0
7.5°	3985.3	4027.2	3980.0	4011.5	4001.0	3987.8	4003.6	3998.3	4006.2	3993.1	3964.3
10°	3861.8	3896.0	3864.5	3909.1	3888.1	3875.0	3888.1	3901.3	3898.6	3885.5	3901.3
12.5°	3720.1	3759.4	3743.7	3769.9	3746.3	3746.3	3777.8	3769.9	3772.6	3762.1	3780.4
15°	3580.9	3609.9	3586.2	3620.4	3609.9	3580.9	3594.0	3594.0	3615.1	3607.2	3586.2
17.5°	3407.7	3431.3	3405.0	3412.9	3402.4	3397.2	3452.3	3415.5	3436.5	3420.8	3423.4
20°	3179.3	3189.8	3181.9	3202.9	3189.8	3205.5	3200.3	3195.0	3195.0	3202.9	3184.5
22.5°	2948.2	2948.2	2956.1	2961.4	2971.9	2956.1	2987.6	2961.4	2964.0	2982.4	2977.1
25°	2670.0	2662.0	2680.5	2706.7	2717.2	2704.0	2746.0	2725.0	2740.8	2754.0	2725.0
27.5°	2331.3	2331.3	2349.6	2394.3	2402.1	2417.9	2475.6	2475.6	2496.6	2478.3	2499.3
30°	1940.1	1969.0	1992.6	2050.3	2068.7	2102.9	2163.2	2192.2	2239.4	2231.5	2221.0
32.5°	1538.4	1577.9	1580.4	1640.9	1690.7	1748.4	1829.8	1898.1	1932.3	1955.8	1929.6
35°	1155.1	1178.8	1199.8	1241.8	1325.8	1401.9	1475.4	1564.7	1625.1	1640.9	1617.2
37.5°	845.4	850.6	871.6	911.0	974.0	1047.5	1136.8	1233.9	1297.0	1320.5	1294.3
40°	582.8	588.1	598.6	632.7	685.2	737.7	808.6	908.4	966.1	1013.4	979.2
42.5°	391.1	396.4	406.9	433.1	462.1	511.9	567.1	630.1	685.2	706.2	687.8
45°	254.7	254.7	259.9	278.3	294.1	333.4	372.8	412.1	448.9	462.1	448.9
47.5°	149.7	152.2	157.5	170.7	189.0	204.7	233.7	259.9	270.4	280.9	275.7
50°	86.7	86.7	94.5	102.4	115.5	126.0	136.5	147.0	152.2	157.5	152.2
52.5°	47.2	49.9	52.5	55.2	60.4	70.9	78.7	78.7	81.4	84.0	81.4
55°	36.7	36.7	36.7	36.7	39.4	39.4	39.4	42.0	42.0	44.7	42.0
57.5°	26.2	26.2	26.2	28.9	28.9	28.9	26.2	26.2	26.2	26.2	26.2
60°	21.0	21.0	21.0	21.0	21.0	21.0	21.0	18.4	18.4	18.4	18.4
62.5°	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
65°	10.5	10.5	13.2	13.2	13.2	13.2	13.2	10.5	10.5	10.5	10.5
67.5°	7.9	7.9	7.9	7.9	10.5	10.5	7.9	7.9	7.9	7.9	7.9
70°	5.2	5.2	5.2	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
72.5°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
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



TEST NUMBER: P#

CATALOG NUMBER: LD4C40D010 EX4C409030 4LBSQLI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	4132.2	4132.2	4132.2	4132.2	4132.2	4132.2	4132.2	4132.2
2.5°	4132.2	4087.6	4092.8	4116.5	4103.3	4116.5	4113.9	4113.9
5°	4087.6	4074.5	4053.5	4045.6	4061.3	4095.5	4090.2	4069.2
7.5°	4003.6	3969.5	3993.1	4003.6	3990.5	4011.5	4022.0	3977.3
10°	3903.8	3890.8	3885.5	3890.8	3885.5	3906.5	3880.3	3880.3
12.5°	3762.1	3741.1	3741.1	3772.6	3754.2	3738.4	3759.4	3756.8
15°	3620.4	3578.3	3578.3	3588.8	3596.7	3586.2	3588.8	3562.5
17.5°	3410.3	3397.2	3378.8	3407.7	3415.5	3405.0	3412.9	3399.8
20°	3213.4	3213.4	3179.3	3192.4	3202.9	3210.8	3216.0	3195.0
22.5°	2961.4	2966.6	2943.0	2969.2	2977.1	2950.9	2956.1	2950.9
25°	2730.3	2727.7	2709.3	2698.8	2704.0	2693.5	2691.0	2651.6
27.5°	2475.6	2449.4	2410.1	2420.6	2375.9	2339.1	2339.1	2278.7
30°	2200.0	2155.4	2102.9	2050.3	2011.0	1969.0	1945.3	1911.3
32.5°	1877.1	1816.8	1751.1	1680.2	1635.6	1572.6	1538.4	1556.9
35°	1556.9	1467.5	1378.3	1307.5	1239.1	1202.4	1160.4	1165.6
37.5°	1247.0	1121.0	1042.3	966.1	908.4	861.1	842.7	837.5
40°	911.0	811.2	732.5	677.3	638.0	601.2	580.2	572.3
42.5°	630.1	559.2	496.1	451.6	425.3	401.6	391.1	388.6
45°	409.6	367.6	325.6	294.1	273.1	257.3	254.7	252.0
47.5°	257.3	236.2	210.0	186.4	168.0	157.5	149.7	149.7
50°	147.0	139.2	126.0	112.9	102.4	97.2	89.2	86.7
52.5°	78.7	78.7	73.5	63.0	55.2	49.9	49.9	47.2
55°	42.0	42.0	39.4	39.4	36.7	36.7	36.7	34.2
57.5°	26.2	26.2	28.9	28.9	26.2	26.2	26.2	26.2
60°	18.4	21.0	21.0	21.0	21.0	21.0	21.0	21.0
62.5°	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
65°	10.5	13.2	13.2	13.2	13.2	10.5	10.5	10.5
67.5°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
70°	7.9	7.9	7.9	7.9	7.9	5.2	5.2	5.2
72.5°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
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)