

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 EX4C409050 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 EX4C409050 4LBSQLI
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBSQ TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

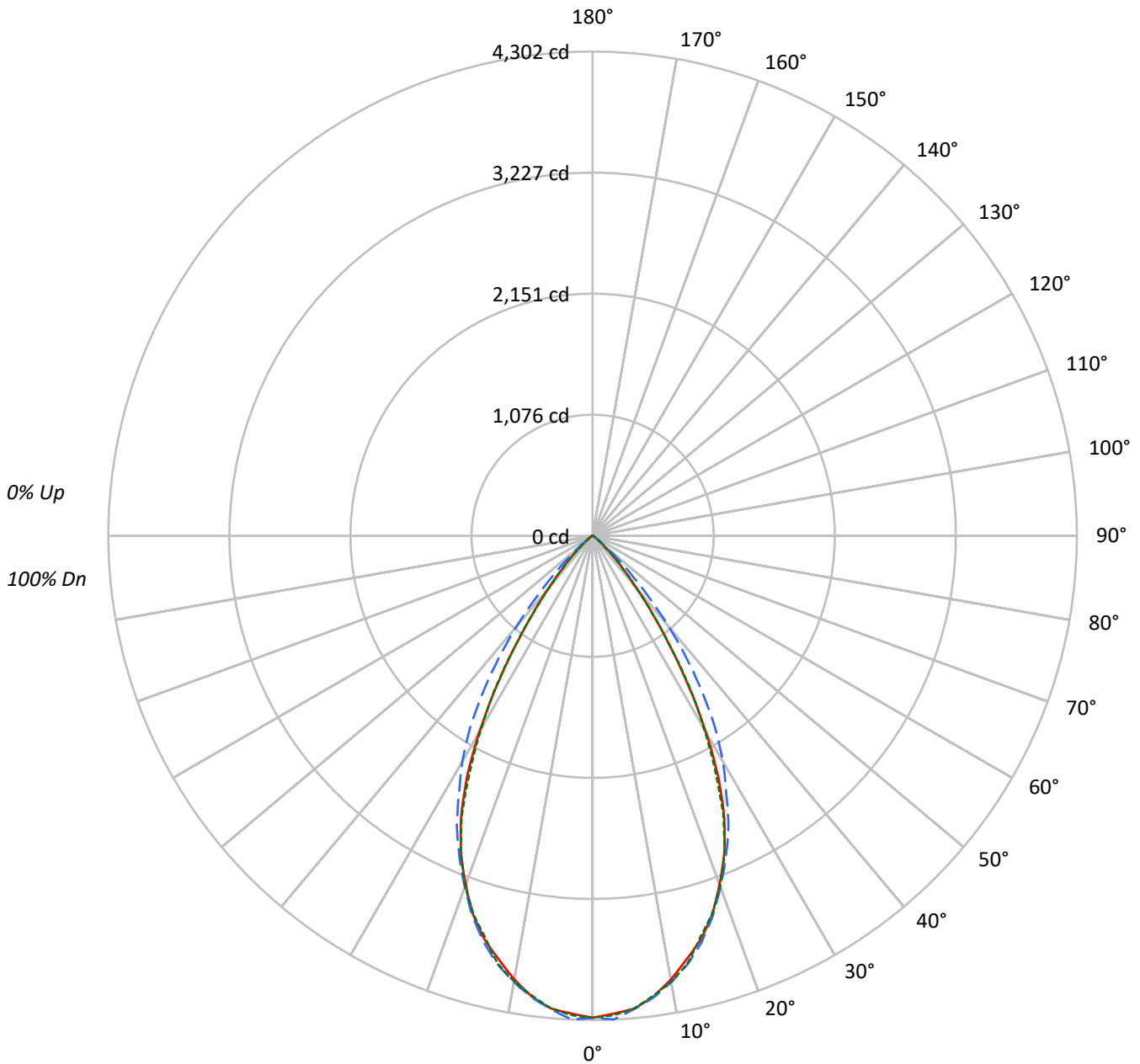
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3954.0 lumens
Efficiency: N/A
Efficacy: 84.1 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°	413243	413243	413243
5°	408496	409019	408496
10°	392155	394565	394026
15°	370742	373459	368834
20°	338345	340861	340019
25°	294617	303879	292584
30°	224035	257682	220704
35°	141020	200316	142304
40°	76078	132293	74718
45°	36011	65349	35642
50°	13480	24498	13480
55°	6409	7789	5955
60°	4207	3686	4207
65°	2489	2489	2489
70°	1523	2313	1523
75°	1044	1044	1044
80°	1556	1556	1556
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	397.1	10.0
10°-20°	1040.7	26.3
20°-30°	1271.3	32.2
30°-40°	889.2	22.5
40°-50°	291.4	7.4
50°-60°	46.3	1.2
60°-70°	12.6	0.3
70°-80°	4.2	0.1
80°-90°	1.2	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°	2709.0	68.5
0°-40°	3598.2	91.0
0°-60°	3935.9	99.5
0°-90°	3954.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3954.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4283	4283	4283	4283	4283	
5°	4218	4219	4223	4197	4218	396
15°	3711	3726	3739	3714	3692	1035
25°	2767	2809	2854	2803	2748	1243
35°	1197	1414	1701	1392	1208	764
45°	264	325	479	321	261	221
55°	38	41	46	41	35	38
65°	11	14	11	14	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°	4282.8	4282.8	4282.8	4282.8	4282.8	4282.8	4282.8	4282.8	4282.8	4282.8	4282.8
2.5°	4250.2	4280.1	4271.9	4291.0	4291.0	4269.2	4274.7	4282.8	4293.7	4301.9	4236.5
5°	4217.5	4244.7	4220.2	4247.4	4231.1	4206.6	4247.4	4225.6	4239.3	4222.9	4233.8
7.5°	4130.5	4174.0	4125.0	4157.7	4146.8	4133.1	4149.4	4144.0	4152.2	4138.6	4108.7
10°	4002.5	4038.0	4005.3	4051.5	4029.7	4016.2	4029.7	4043.4	4040.6	4027.1	4043.4
12.5°	3855.6	3896.4	3880.1	3907.3	3882.8	3882.8	3915.5	3907.3	3910.0	3899.2	3918.2
15°	3711.4	3741.4	3716.8	3752.3	3741.4	3711.4	3725.0	3725.0	3746.8	3738.6	3716.8
17.5°	3531.9	3556.3	3529.1	3537.3	3526.4	3521.0	3578.0	3540.0	3561.7	3545.4	3548.2
20°	3295.1	3306.0	3297.8	3319.6	3306.0	3322.3	3316.9	3311.4	3311.4	3319.6	3300.6
22.5°	3055.6	3055.6	3063.8	3069.3	3080.2	3063.8	3096.5	3069.3	3071.9	3091.0	3085.6
25°	2767.3	2759.0	2778.1	2805.3	2816.2	2802.6	2846.1	2824.3	2840.7	2854.3	2824.3
27.5°	2416.3	2416.3	2435.3	2481.6	2489.7	2506.0	2565.8	2565.8	2587.6	2568.6	2590.4
30°	2010.8	2040.7	2065.2	2125.0	2144.1	2179.5	2242.1	2272.0	2321.0	2312.8	2301.9
32.5°	1594.5	1635.3	1638.0	1700.6	1752.3	1812.1	1896.5	1967.2	2002.7	2027.1	1999.9
35°	1197.2	1221.7	1243.5	1287.0	1374.1	1453.0	1529.2	1621.7	1684.3	1700.6	1676.1
37.5°	876.2	881.6	903.4	944.1	1009.4	1085.7	1178.2	1278.8	1344.2	1368.6	1341.4
40°	604.0	609.5	620.4	655.8	710.2	764.6	838.1	941.5	1001.3	1050.3	1014.9
42.5°	405.4	410.8	421.7	448.9	478.9	530.5	587.7	653.0	710.2	732.0	712.9
45°	263.9	263.9	269.4	288.5	304.8	345.5	386.4	427.2	465.2	478.9	465.2
47.5°	155.1	157.8	163.2	176.9	195.9	212.2	242.2	269.4	280.3	291.1	285.7
50°	89.8	89.8	97.9	106.1	119.7	130.6	141.5	152.3	157.8	163.2	157.8
52.5°	49.0	51.7	54.4	57.2	62.6	73.5	81.6	81.6	84.4	87.1	84.4
55°	38.1	38.1	38.1	38.1	40.9	40.9	40.9	43.5	43.5	46.3	43.5
57.5°	27.2	27.2	27.2	30.0	30.0	30.0	27.2	27.2	27.2	27.2	27.2
60°	21.8	21.8	21.8	21.8	21.8	21.8	21.8	19.1	19.1	19.1	19.1
62.5°	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
65°	10.9	10.9	13.7	13.7	13.7	13.7	13.7	10.9	10.9	10.9	10.9
67.5°	8.2	8.2	8.2	8.2	10.9	10.9	8.2	8.2	8.2	8.2	8.2
70°	5.4	5.4	5.4	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
72.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
75°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
77.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
80°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	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°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
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°	4282.8	4282.8	4282.8	4282.8	4282.8	4282.8	4282.8	4282.8
2.5°	4282.8	4236.5	4241.9	4266.5	4252.8	4266.5	4263.8	4263.8
5°	4236.5	4222.9	4201.2	4193.0	4209.3	4244.7	4239.3	4217.5
7.5°	4149.4	4114.1	4138.6	4149.4	4135.9	4157.7	4168.5	4122.2
10°	4046.1	4032.5	4027.1	4032.5	4027.1	4048.8	4021.6	4021.6
12.5°	3899.2	3877.4	3877.4	3910.0	3891.0	3874.6	3896.4	3893.7
15°	3752.3	3708.6	3708.6	3719.5	3727.7	3716.8	3719.5	3692.3
17.5°	3534.5	3521.0	3501.9	3531.9	3540.0	3529.1	3537.3	3523.6
20°	3330.4	3330.4	3295.1	3308.7	3319.6	3327.8	3333.2	3311.4
22.5°	3069.3	3074.7	3050.2	3077.4	3085.6	3058.4	3063.8	3058.4
25°	2829.8	2827.1	2808.0	2797.1	2802.6	2791.7	2789.0	2748.2
27.5°	2565.8	2538.6	2497.9	2508.8	2462.5	2424.4	2424.4	2361.8
30°	2280.1	2233.9	2179.5	2125.0	2084.3	2040.7	2016.2	1980.9
32.5°	1945.5	1883.0	1814.9	1741.4	1695.2	1629.9	1594.5	1613.6
35°	1613.6	1521.0	1428.5	1355.1	1284.3	1246.2	1202.6	1208.1
37.5°	1292.5	1161.9	1080.3	1001.3	941.5	892.5	873.4	868.0
40°	944.1	840.8	759.2	702.0	661.2	623.1	601.4	593.2
42.5°	653.0	579.6	514.2	468.0	440.8	416.3	405.4	402.7
45°	424.5	381.0	337.4	304.8	283.0	266.7	263.9	261.2
47.5°	266.7	244.8	217.6	193.2	174.1	163.2	155.1	155.1
50°	152.3	144.2	130.6	117.0	106.1	100.7	92.5	89.8
52.5°	81.6	81.6	76.2	65.3	57.2	51.7	51.7	49.0
55°	43.5	43.5	40.9	40.9	38.1	38.1	38.1	35.4
57.5°	27.2	27.2	30.0	30.0	27.2	27.2	27.2	27.2
60°	19.1	21.8	21.8	21.8	21.8	21.8	21.8	21.8
62.5°	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
65°	10.9	13.7	13.7	13.7	13.7	10.9	10.9	10.9
67.5°	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
70°	8.2	8.2	8.2	8.2	8.2	5.4	5.4	5.4
72.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
75°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
77.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
80°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
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°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
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)