

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 EX4C409040 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 EX4C409040 4LBSQLI
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBSQ TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

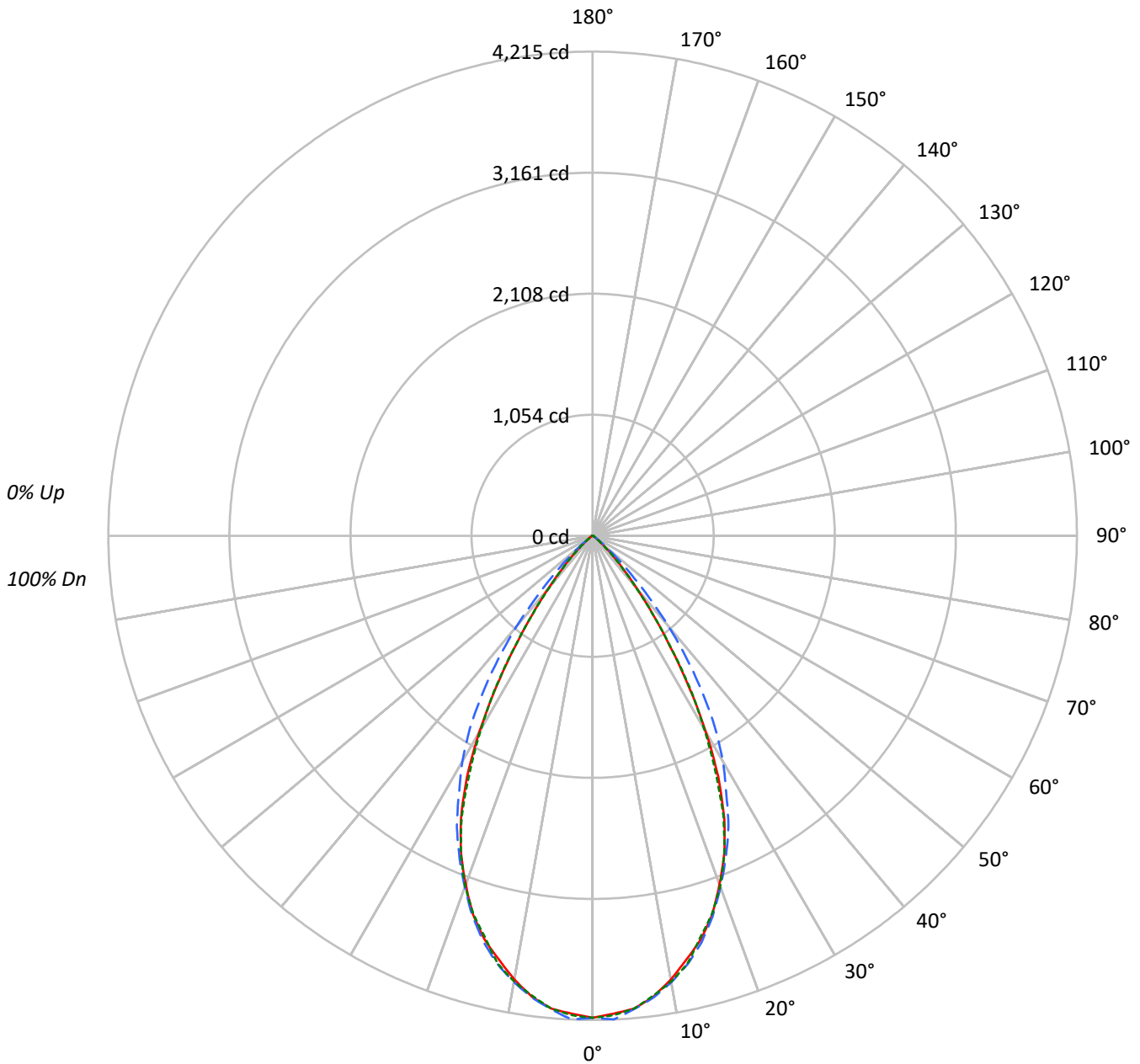
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3874.0 lumens
Efficiency: N/A
Efficacy: 82.4 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_{in}): 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°	404877	404877	404877
5°	400234	400748	400234
10°	384228	386580	386060
15°	363240	365907	361372
20°	331507	333961	333139
25°	288655	297736	286664
30°	219500	252468	216236
35°	138169	196264	139418
40°	74542	129610	73206
45°	35287	64025	34919
50°	13210	24003	13210
55°	6275	7637	5837
60°	4110	3609	4110
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°	389.1	10.0
10°-20°	1019.6	26.3
20°-30°	1245.6	32.2
30°-40°	871.2	22.5
40°-50°	285.5	7.4
50°-60°	45.4	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°	2654.2	68.5
0°-40°	3525.4	91.0
0°-60°	3856.3	99.5
0°-90°	3874.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3874.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4196	4196	4196	4196	4196	
5°	4132	4134	4138	4112	4132	388
15°	3636	3651	3663	3639	3618	1014
25°	2711	2753	2797	2746	2693	1218
35°	1173	1385	1666	1364	1184	749
45°	259	319	469	315	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°	4196.1	4196.1	4196.1	4196.1	4196.1	4196.1	4196.1	4196.1	4196.1	4196.1	4196.1
2.5°	4164.2	4193.5	4185.5	4204.2	4204.2	4182.9	4188.2	4196.1	4206.8	4214.9	4150.8
5°	4132.2	4158.8	4134.8	4161.4	4145.5	4121.5	4161.4	4140.1	4153.5	4137.5	4148.2
7.5°	4046.9	4089.5	4041.6	4073.5	4062.9	4049.5	4065.5	4060.2	4068.2	4054.8	4025.6
10°	3921.6	3956.3	3924.3	3969.5	3948.2	3934.9	3948.2	3961.6	3958.9	3945.6	3961.6
12.5°	3777.6	3817.6	3801.6	3828.2	3804.3	3804.3	3836.3	3828.2	3830.9	3820.3	3838.9
15°	3636.3	3665.7	3641.6	3676.3	3665.7	3636.3	3649.6	3649.6	3671.0	3663.0	3641.6
17.5°	3460.4	3484.3	3457.7	3465.7	3455.1	3449.7	3505.7	3468.3	3489.7	3473.7	3476.4
20°	3228.5	3239.1	3231.1	3252.4	3239.1	3255.1	3249.8	3244.4	3244.4	3252.4	3233.8
22.5°	2993.8	2993.8	3001.8	3007.2	3017.8	3001.8	3033.8	3007.2	3009.8	3028.5	3023.2
25°	2711.3	2703.2	2721.9	2748.6	2759.2	2745.9	2788.5	2767.2	2783.2	2796.6	2767.2
27.5°	2367.4	2367.4	2386.0	2431.3	2439.3	2455.3	2513.9	2513.9	2535.2	2516.6	2538.0
30°	1970.1	1999.5	2023.4	2082.0	2100.7	2135.4	2196.7	2226.1	2274.0	2266.0	2255.3
32.5°	1562.2	1602.3	1604.9	1666.2	1716.8	1775.5	1858.1	1927.4	1962.1	1986.1	1959.4
35°	1173.0	1197.0	1218.3	1261.0	1346.3	1423.6	1498.3	1588.9	1650.2	1666.2	1642.2
37.5°	858.5	863.8	885.1	925.0	989.0	1063.7	1154.4	1252.9	1317.0	1340.9	1314.3
40°	591.8	597.1	607.8	642.5	695.8	749.1	821.1	922.4	981.1	1029.0	994.3
42.5°	397.2	402.5	413.2	439.8	469.2	519.8	575.8	639.8	695.8	717.1	698.4
45°	258.6	258.6	263.9	282.6	298.6	338.6	378.6	418.5	455.8	469.2	455.8
47.5°	152.0	154.6	159.9	173.3	191.9	207.9	237.3	263.9	274.6	285.2	279.9
50°	88.0	88.0	96.0	104.0	117.3	127.9	138.6	149.3	154.6	159.9	154.6
52.5°	48.0	50.7	53.3	56.0	61.4	72.0	80.0	80.0	82.7	85.3	82.7
55°	37.3	37.3	37.3	37.3	40.0	40.0	40.0	42.6	42.6	45.4	42.6
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°	21.3	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°	10.7	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°	4196.1	4196.1	4196.1	4196.1	4196.1	4196.1	4196.1	4196.1
2.5°	4196.1	4150.8	4156.1	4180.2	4166.8	4180.2	4177.5	4177.5
5°	4150.8	4137.5	4116.2	4108.1	4124.1	4158.8	4153.5	4132.2
7.5°	4065.5	4030.9	4054.8	4065.5	4052.2	4073.5	4084.2	4038.8
10°	3964.2	3950.9	3945.6	3950.9	3945.6	3966.9	3940.3	3940.3
12.5°	3820.3	3799.0	3799.0	3830.9	3812.2	3796.2	3817.6	3814.9
15°	3676.3	3633.6	3633.6	3644.3	3652.3	3641.6	3644.3	3617.6
17.5°	3463.0	3449.7	3431.0	3460.4	3468.3	3457.7	3465.7	3452.3
20°	3263.1	3263.1	3228.5	3241.7	3252.4	3260.4	3265.8	3244.4
22.5°	3007.2	3012.5	2988.5	3015.1	3023.2	2996.5	3001.8	2996.5
25°	2772.5	2769.9	2751.2	2740.5	2745.9	2735.2	2732.6	2692.6
27.5°	2513.9	2487.3	2447.3	2458.0	2412.6	2375.3	2375.3	2314.0
30°	2234.0	2188.7	2135.4	2082.0	2042.1	1999.5	1975.4	1940.8
32.5°	1906.1	1844.9	1778.2	1706.2	1660.9	1596.9	1562.2	1580.9
35°	1580.9	1490.2	1399.6	1327.7	1258.3	1221.0	1178.3	1183.6
37.5°	1266.3	1138.4	1058.4	981.1	922.4	874.5	855.7	850.4
40°	925.0	823.8	743.8	687.8	647.8	610.5	589.2	581.2
42.5°	639.8	567.9	503.8	458.5	431.9	407.9	397.2	394.6
45°	415.9	373.3	330.6	298.6	277.3	261.3	258.6	255.9
47.5°	261.3	239.9	213.2	189.3	170.6	159.9	152.0	152.0
50°	149.3	141.3	127.9	114.7	104.0	98.7	90.6	88.0
52.5°	80.0	80.0	74.6	64.0	56.0	50.7	50.7	48.0
55°	42.6	42.6	40.0	40.0	37.3	37.3	37.3	34.7
57.5°	26.7	26.7	29.4	29.4	26.7	26.7	26.7	26.7
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°	10.7	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)