

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: P840105

Luminaire Tested: **LD4C08D010 EU4089040 4LBCSSQMW**

Issue Date: 5/25/2022

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: P840105
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P209253)
Test Lab: INNOVATION CENTER
Issue Date: 5/25/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C08D010 EU4089040 4LBCSSQMW
Description: 4 INCH 800 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

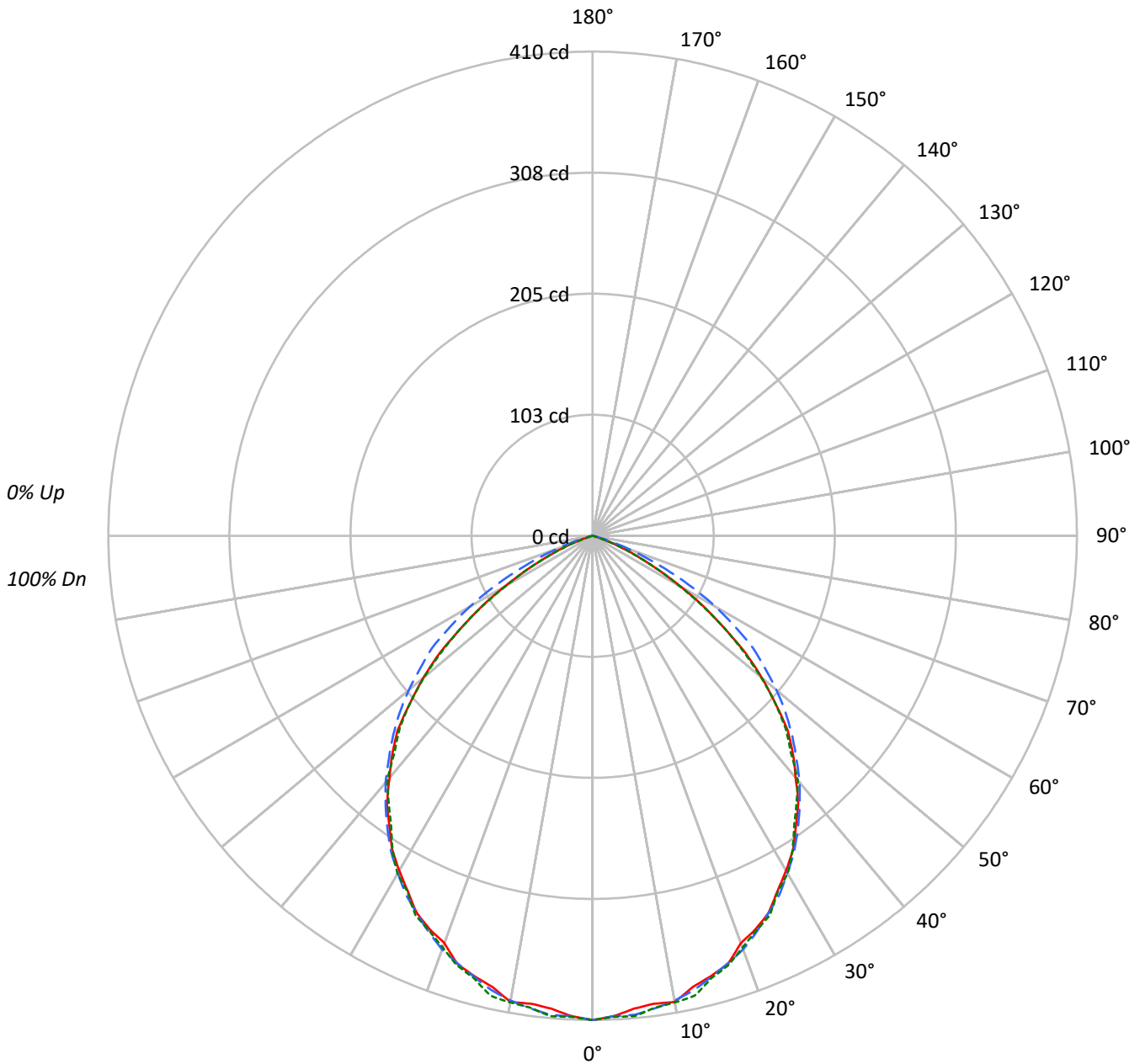
Lumens per Lamp: N/A
Luminaire Lumens: 876.0 lumens
Efficiency: N/A
Efficacy: 88.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.9
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	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89																			
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77																			
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67																			
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52																			
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46																			
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41																			
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	37																			
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33																			
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	39570	39570	39570
5°	38927	39440	39547
10°	39269	39152	39318
15°	38579	38638	38748
20°	37684	38280	38105
25°	37518	37518	37763
30°	36478	36734	36801
35°	35337	35679	35055
40°	33681	34336	34046
45°	31876	32586	31549
50°	28071	30517	27890
55°	22727	27925	22828
60°	16635	23157	16307
65°	10114	16484	9840
70°	3950	8887	3780
75°	447	2386	447
80°	333	333	333
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.7	4.4
10°-20°	109.5	12.5
20°-30°	162.5	18.6
30°-40°	188.3	21.5
40°-50°	180.6	20.6
50°-60°	132.8	15.2
60°-70°	57.3	6.5
70°-80°	6.2	0.7
80°-90°	0.1	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°	310.8	35.5
0°-40°	499.1	57.0
0°-60°	812.4	92.7
0°-90°	876.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	876.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	410	410	410	410	410	
5°	402	406	407	408	408	38
15°	386	388	387	387	388	109
25°	352	352	352	353	355	161
35°	300	302	303	302	298	188
45°	234	234	239	235	231	178
55°	135	149	166	148	136	122
65°	44	55	72	55	43	46
75°	1	2	6	1	1	4
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	410.1	410.1	410.1	410.1	410.1	410.1	410.1	410.1	410.1	410.1	410.1
2.5°	407.2	411.8	412.4	409.5	408.3	406.6	410.7	407.8	408.9	407.8	407.2
5°	401.9	407.2	407.8	407.8	406.6	406.0	407.8	407.2	406.6	405.4	407.2
7.5°	399.6	402.5	405.4	401.9	403.7	403.1	407.2	405.4	404.8	404.8	403.7
10°	400.8	400.2	402.5	399.0	400.2	399.0	402.5	402.5	401.3	400.2	399.6
12.5°	391.4	396.1	396.1	395.5	394.3	392.6	396.1	398.4	394.9	394.9	394.3
15°	386.2	387.4	387.9	387.9	387.4	388.5	390.3	387.9	388.5	385.6	386.8
17.5°	380.4	378.0	379.8	378.6	379.2	380.4	382.7	382.7	379.2	378.6	379.8
20°	367.0	374.0	374.6	371.1	371.6	371.6	375.7	372.2	374.6	371.6	372.8
22.5°	360.6	365.2	365.8	361.1	364.0	360.6	364.6	359.4	365.2	361.1	362.9
25°	352.4	351.8	353.6	351.2	351.8	351.8	354.7	352.4	354.2	351.8	352.4
27.5°	339.0	343.7	343.1	340.8	341.9	341.4	347.2	340.8	344.3	341.4	342.5
30°	327.4	331.4	330.3	327.9	327.9	326.2	332.6	330.8	330.3	330.3	329.7
32.5°	315.7	316.3	315.1	315.7	316.3	314.0	319.2	316.9	316.3	316.9	317.5
35°	300.0	300.0	301.1	299.4	301.7	301.7	306.4	303.5	302.9	301.1	302.9
37.5°	286.0	284.3	284.8	284.8	286.0	287.2	289.5	288.3	288.3	286.6	287.8
40°	267.4	266.2	267.9	267.9	269.7	269.7	272.0	270.9	272.6	272.6	272.6
42.5°	251.1	251.1	249.9	251.6	252.2	251.6	255.7	255.1	255.7	254.6	255.1
45°	233.6	233.6	232.4	231.8	234.7	234.2	238.8	237.1	239.4	238.2	238.8
47.5°	209.7	212.6	210.9	212.6	216.1	216.7	219.6	218.4	220.8	219.0	221.4
50°	187.0	187.0	188.7	191.1	194.5	195.1	198.6	201.0	202.1	202.7	203.3
52.5°	163.1	162.5	164.3	167.2	170.1	172.4	175.9	179.4	181.7	185.2	183.5
55°	135.1	136.3	138.1	141.6	146.2	149.1	152.0	156.7	160.8	162.5	166.0
57.5°	111.2	110.1	111.2	115.9	121.2	123.5	127.6	132.2	138.1	141.6	142.7
60°	86.2	86.8	88.0	92.0	96.1	99.6	101.4	108.9	114.2	117.7	120.0
62.5°	63.5	64.7	65.8	69.3	73.4	76.3	79.2	85.6	90.3	93.8	96.1
65°	44.3	44.8	46.6	48.3	52.4	55.3	57.7	62.9	67.6	70.5	72.2
67.5°	27.4	27.9	29.1	31.5	34.4	36.7	39.0	42.5	46.6	49.5	50.1
70°	14.0	14.6	15.1	16.9	19.2	20.4	22.1	25.0	27.9	30.3	31.5
72.5°	4.7	4.7	5.3	6.4	7.6	8.7	9.3	12.2	14.6	15.7	16.3
75°	1.2	1.2	1.2	1.2	1.2	1.8	1.8	3.5	4.7	5.8	6.4
77.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.2	1.2
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82.5°	0.0	0.0	0.0	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	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	410.1	410.1	410.1	410.1	410.1	410.1	410.1	410.1	410.1	410.1
2.5°	410.1	408.9	408.3	408.9	408.9	408.3	410.1	412.4	415.3	407.8
5°	409.5	408.3	409.5	406.0	407.8	406.6	408.9	408.3	410.7	408.3
7.5°	407.8	405.4	406.0	404.3	406.6	403.7	405.4	408.9	406.6	403.1
10°	401.9	400.8	404.8	399.0	397.8	400.2	404.8	401.3	400.2	401.3
12.5°	396.1	396.1	397.8	393.2	393.8	394.9	397.2	394.9	396.1	399.0
15°	389.7	388.5	391.4	387.9	387.4	386.2	388.5	388.5	389.7	387.9
17.5°	382.1	380.4	380.4	379.2	378.6	381.5	382.7	383.3	383.9	381.5
20°	372.8	372.2	374.0	372.2	372.8	373.4	373.4	372.2	377.5	371.1
22.5°	362.9	364.6	362.3	361.1	362.3	363.5	363.5	364.0	362.9	361.7
25°	353.0	354.2	354.7	351.2	353.0	351.2	355.3	355.9	353.6	354.7
27.5°	344.3	342.5	341.9	339.6	340.8	340.2	340.8	340.8	344.3	339.6
30°	330.8	329.1	329.7	327.9	328.5	327.9	328.5	328.5	330.8	330.3
32.5°	318.0	316.3	316.9	315.1	315.1	315.7	314.5	314.5	316.3	315.1
35°	305.8	301.7	302.3	301.7	302.3	300.0	300.0	299.4	300.6	297.6
37.5°	288.3	286.6	286.0	285.4	286.0	284.8	286.0	284.3	286.0	283.7
40°	272.6	271.4	272.0	268.5	268.5	269.1	267.9	267.4	267.9	270.3
42.5°	256.9	254.6	253.4	252.2	252.8	251.1	250.5	249.3	250.5	248.1
45°	238.2	238.2	237.7	234.7	235.3	235.3	233.0	230.7	231.2	231.2
47.5°	221.4	220.2	219.6	216.7	216.1	215.5	213.2	211.4	211.4	209.7
50°	202.7	201.5	199.8	196.9	195.7	192.2	190.5	188.2	185.8	185.8
52.5°	185.2	181.1	178.8	174.2	172.4	170.7	166.0	164.3	162.5	160.8
55°	164.3	160.8	156.1	150.9	148.5	145.6	141.0	137.5	135.1	135.7
57.5°	143.9	138.1	133.4	126.4	123.5	121.7	117.1	112.4	110.1	110.1
60°	118.8	114.2	108.3	101.9	99.6	96.7	90.9	88.0	86.2	84.5
62.5°	94.9	91.5	86.2	78.0	76.3	73.4	69.3	65.8	64.1	64.1
65°	71.1	67.6	62.9	57.1	54.8	52.4	48.9	45.4	43.7	43.1
67.5°	50.1	46.0	41.9	37.3	35.5	34.4	30.9	28.5	27.4	26.8
70°	30.3	27.9	25.0	21.6	19.8	18.6	16.3	14.6	14.0	13.4
72.5°	15.7	14.0	11.6	9.3	8.2	7.0	5.8	4.7	4.1	4.1
75°	5.8	4.7	2.9	1.8	1.2	1.2	1.2	1.2	1.2	1.2
77.5°	1.2	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82.5°	0.0	0.0	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	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	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)