

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: P840103

Luminaire Tested: **LD4C08D010 EU4089035 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: P840103  
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 EU4089035 4LBCSSQMW  
Description: 4 INCH 800 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS AND 4LBCSSQ TRIM WITH MW FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

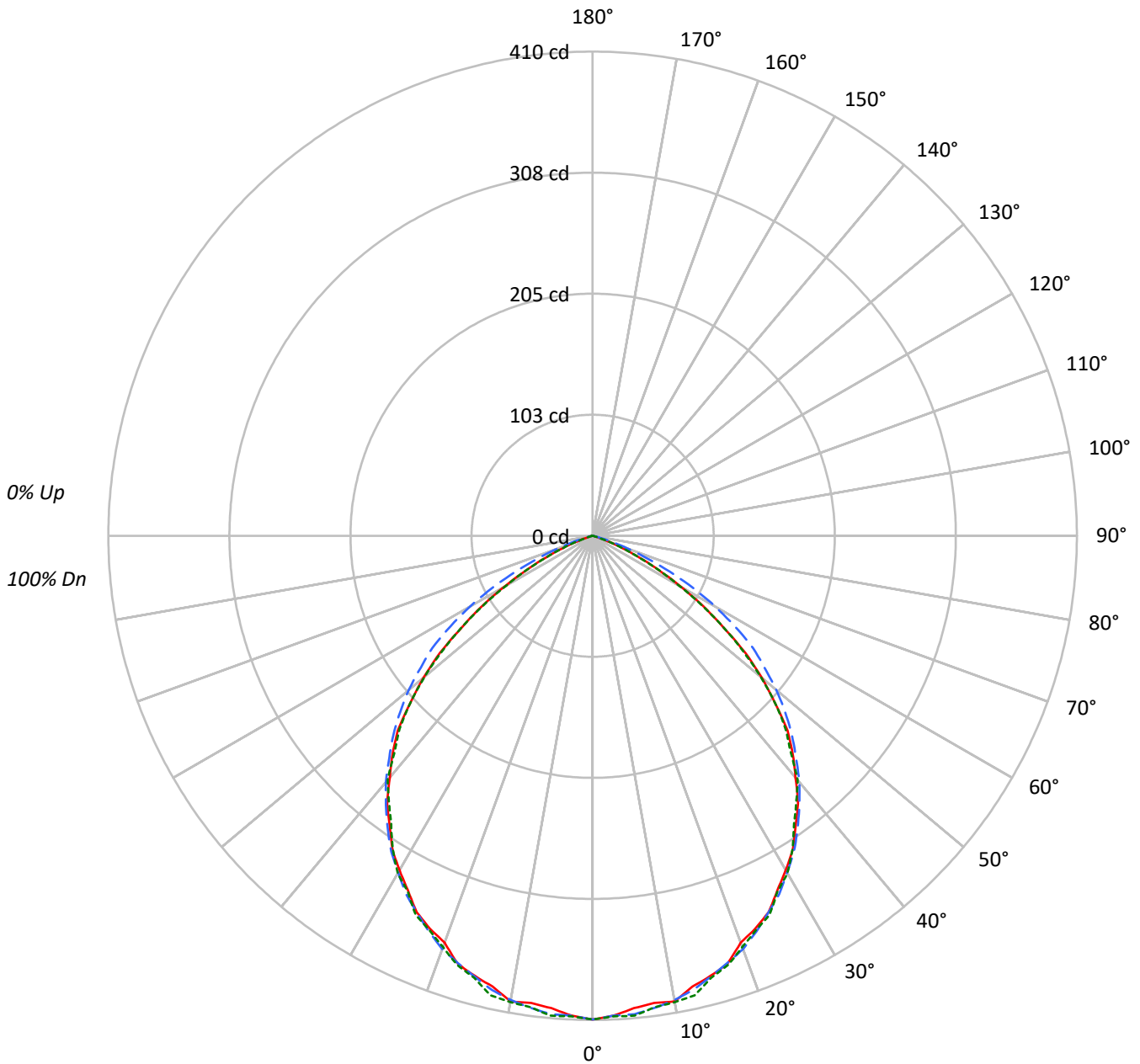
Lumens per Lamp: N/A  
Luminaire Lumens: 875.0 lumens  
Efficiency: N/A  
Efficacy: 88.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 9.9  
Input Voltage (V):  
Input Current (A<sub>in</sub>): 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	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89			89
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77			77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67			67
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59			59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52			52
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46			46
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41			41
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	37			37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33			33
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	31			31

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	39522	39522	39522
5°	38888	39392	39508
10°	39220	39103	39279
15°	38539	38589	38708
20°	37643	38239	38054
25°	37475	37475	37720
30°	36433	36689	36756
35°	35290	35644	35019
40°	33643	34298	34008
45°	31835	32558	31521
50°	28041	30487	27860
55°	22710	27891	22811
60°	16615	23138	16287
65°	10091	16461	9840
70°	3950	8858	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°	109.4	12.5
20°-30°	162.3	18.6
30°-40°	188.1	21.5
40°-50°	180.3	20.6
50°-60°	132.6	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°	310.4	35.5
0°-40°	498.5	57.0
0°-60°	811.5	92.7
0°-90°	875.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	875.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	410	410	410	410	410	
5°	402	406	407	407	408	38
15°	386	388	386	387	388	109
25°	352	351	352	353	354	161
35°	300	301	303	302	297	187
45°	233	234	239	235	231	177
55°	135	149	166	148	136	121
65°	44	55	72	55	43	45
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°	409.6	409.6	409.6	409.6	409.6	409.6	409.6	409.6	409.6	409.6	409.6
2.5°	406.7	411.3	411.9	409.0	407.9	406.1	410.2	407.3	408.5	407.3	406.7
5°	401.5	406.7	407.3	407.3	406.1	405.5	407.3	406.7	406.1	405.0	406.7
7.5°	399.1	402.0	405.0	401.5	403.2	402.6	406.7	405.0	404.4	404.4	403.2
10°	400.3	399.7	402.0	398.6	399.7	398.6	402.0	402.0	400.9	399.7	399.1
12.5°	391.0	395.6	395.6	395.1	393.9	392.1	395.6	398.0	394.5	394.5	393.9
15°	385.8	386.9	387.5	387.5	386.9	388.1	389.8	387.5	388.1	385.2	386.3
17.5°	379.9	377.6	379.3	378.2	378.8	379.9	382.3	382.3	378.8	378.2	379.3
20°	366.6	373.5	374.1	370.6	371.2	371.2	375.3	371.8	374.1	371.2	372.4
22.5°	360.1	364.8	365.4	360.7	363.6	360.1	364.2	359.0	364.8	360.7	362.5
25°	352.0	351.4	353.2	350.8	351.4	351.4	354.3	352.0	353.8	351.4	352.0
27.5°	338.6	343.3	342.7	340.4	341.5	341.0	346.8	340.4	343.9	341.0	342.1
30°	327.0	331.1	329.9	327.6	327.6	325.8	332.2	330.5	329.9	329.9	329.3
32.5°	315.3	315.9	314.8	315.3	315.9	313.6	318.8	316.5	315.9	316.5	317.1
35°	299.6	299.6	300.8	299.1	301.4	301.4	306.0	303.1	302.6	300.8	302.6
37.5°	285.7	283.9	284.5	284.5	285.7	286.8	289.2	288.0	288.0	286.3	287.4
40°	267.1	265.9	267.6	267.6	269.4	269.4	271.7	270.6	272.3	272.3	272.3
42.5°	250.8	250.8	249.6	251.3	251.9	251.3	255.4	254.8	255.4	254.3	254.8
45°	233.3	233.3	232.1	231.6	234.5	233.9	238.6	236.8	239.1	238.0	238.6
47.5°	209.4	212.4	210.6	212.4	215.9	216.5	219.3	218.2	220.5	218.8	221.1
50°	186.8	186.8	188.5	190.8	194.3	194.9	198.4	200.7	201.9	202.5	203.1
52.5°	162.9	162.3	164.1	167.0	169.9	172.2	175.7	179.2	181.5	185.0	183.3
55°	135.0	136.1	137.9	141.4	146.0	148.9	151.9	156.5	160.6	162.3	165.8
57.5°	111.1	110.0	111.1	115.8	121.0	123.3	127.4	132.1	137.9	141.4	142.6
60°	86.1	86.7	87.9	91.9	96.0	99.5	101.2	108.8	114.0	117.5	119.9
62.5°	63.4	64.6	65.8	69.2	73.3	76.2	79.1	85.5	90.2	93.7	96.0
65°	44.2	44.8	46.6	48.3	52.4	55.3	57.6	62.8	67.5	70.4	72.1
67.5°	27.3	27.9	29.1	31.4	34.3	36.7	39.0	42.5	46.6	49.4	50.0
70°	14.0	14.6	15.1	16.9	19.2	20.4	22.1	25.0	27.9	30.2	31.4
72.5°	4.7	4.7	5.2	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°	409.6	409.6	409.6	409.6	409.6	409.6	409.6	409.6	409.6	409.6
2.5°	409.6	408.5	407.9	408.5	408.5	407.9	409.6	411.9	414.8	407.3
5°	409.0	407.9	409.0	405.5	407.3	406.1	408.5	407.9	410.2	407.9
7.5°	407.3	405.0	405.5	403.8	406.1	403.2	405.0	408.5	406.1	402.6
10°	401.5	400.3	404.4	398.6	397.4	399.7	404.4	400.9	399.7	400.9
12.5°	395.6	395.6	397.4	392.7	393.3	394.5	396.8	394.5	395.6	398.6
15°	389.2	388.1	391.0	387.5	386.9	385.8	388.1	388.1	389.2	387.5
17.5°	381.7	379.9	379.9	378.8	378.2	381.1	382.3	382.8	383.4	381.1
20°	372.4	371.8	373.5	371.8	372.4	373.0	373.0	371.8	377.0	370.6
22.5°	362.5	364.2	361.9	360.7	361.9	363.1	363.1	363.6	362.5	361.3
25°	352.6	353.8	354.3	350.8	352.6	350.8	354.9	355.5	353.2	354.3
27.5°	343.9	342.1	341.5	339.2	340.4	339.8	340.4	340.4	343.9	339.2
30°	330.5	328.7	329.3	327.6	328.1	327.6	328.1	328.1	330.5	329.9
32.5°	317.7	315.9	316.5	314.8	314.8	315.3	314.2	314.2	315.9	314.8
35°	305.4	301.4	302.0	301.4	302.0	299.6	299.6	299.1	300.2	297.3
37.5°	288.0	286.3	285.7	285.1	285.7	284.5	285.7	283.9	285.7	283.3
40°	272.3	271.1	271.7	268.2	268.2	268.8	267.6	267.1	267.6	270.0
42.5°	256.6	254.3	253.1	251.9	252.5	250.8	250.2	249.0	250.2	247.9
45°	238.0	238.0	237.4	234.5	235.1	235.1	232.7	230.4	231.0	231.0
47.5°	221.1	219.9	219.3	216.5	215.9	215.3	212.9	211.2	211.2	209.4
50°	202.5	201.3	199.6	196.7	195.5	192.0	190.3	187.9	185.6	185.6
52.5°	185.0	180.9	178.6	174.0	172.2	170.5	165.8	164.1	162.3	160.6
55°	164.1	160.6	155.9	150.7	148.4	145.4	140.8	137.3	135.0	135.6
57.5°	143.7	137.9	133.2	126.3	123.3	121.6	116.9	112.3	110.0	110.0
60°	118.7	114.0	108.2	101.8	99.5	96.6	90.8	87.9	86.1	84.4
62.5°	94.8	91.3	86.1	78.0	76.2	73.3	69.2	65.8	64.0	64.0
65°	71.0	67.5	62.8	57.0	54.7	52.4	48.9	45.4	43.6	43.1
67.5°	50.0	46.0	41.9	37.2	35.5	34.3	30.8	28.5	27.3	26.8
70°	30.2	27.9	25.0	21.5	19.8	18.6	16.3	14.6	14.0	13.4
72.5°	15.7	14.0	11.6	9.3	8.1	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)