

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: P840089

Luminaire Tested: **LD4C05D010 EU4059027 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: P840089  
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: LD4C05D010 EU4059027 4LBCSSQMW  
Description: 4 INCH 500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS AND 4LBCSSQ TRIM WITH MW FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

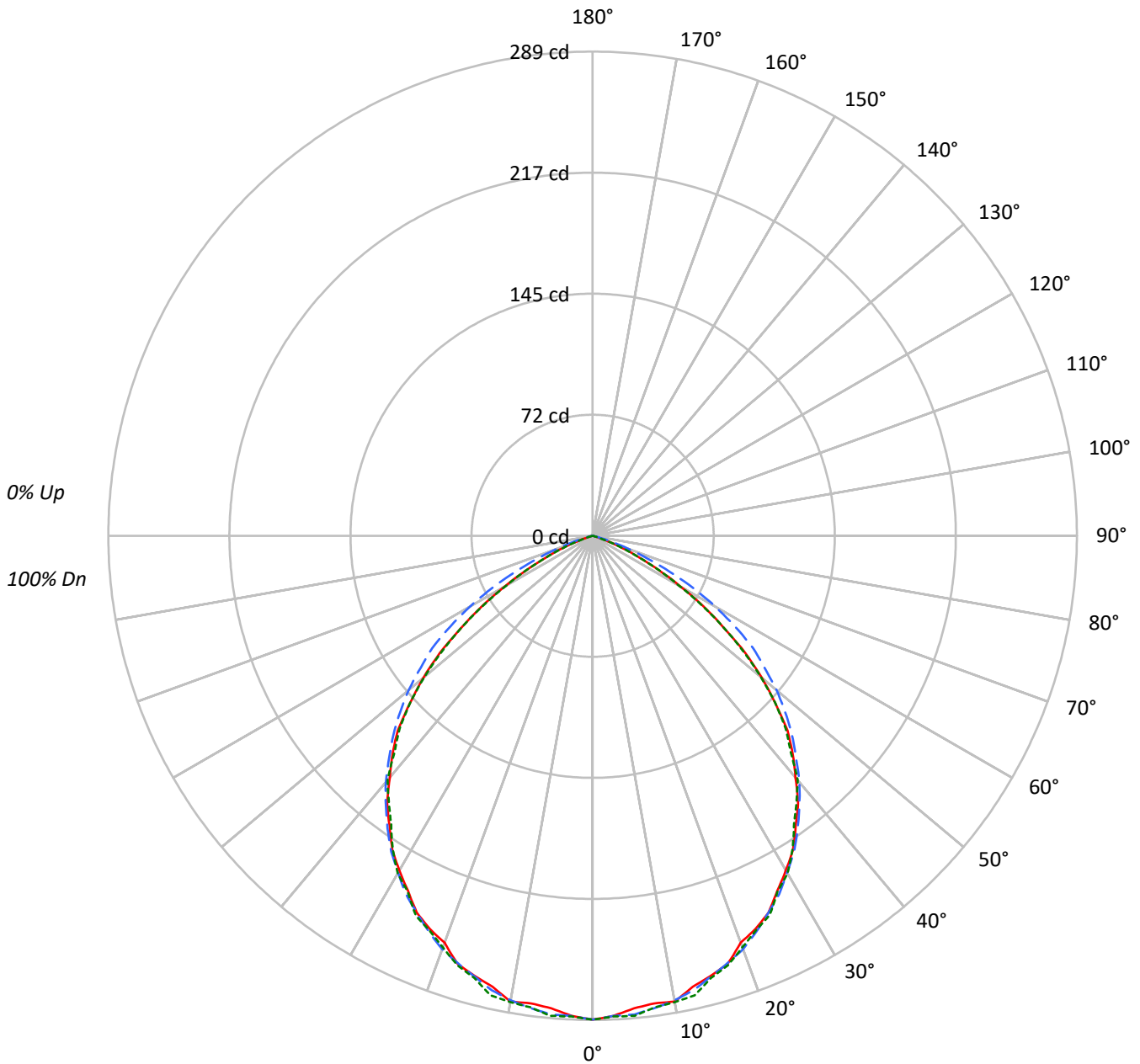
Lumens per Lamp: N/A  
Luminaire Lumens: 617.0 lumens  
Efficiency: N/A  
Efficacy: 85.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 7.2  
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								
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	34								
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°	27866	27866	27866
5°	27420	27779	27856
10°	27659	27581	27698
15°	27171	27211	27291
20°	26543	26964	26841
25°	26424	26424	26605
30°	25692	25871	25915
35°	24889	25125	24689
40°	23718	24184	23982
45°	22447	22952	22229
50°	19769	21496	19649
55°	16015	19665	16082
60°	11714	16307	11482
65°	7123	11621	6941
70°	2765	6263	2652
75°	298	1678	298
80°	222	222	222
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.3	4.4
10°-20°	77.2	12.5
20°-30°	114.5	18.6
30°-40°	132.6	21.5
40°-50°	127.2	20.6
50°-60°	93.5	15.2
60°-70°	40.4	6.5
70°-80°	4.4	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°	218.9	35.5
0°-40°	351.5	57.0
0°-60°	572.2	92.7
0°-90°	617.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	617.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	289	289	289	289	289	
5°	283	286	287	287	288	27
15°	272	274	272	273	273	77
25°	248	248	248	249	250	114
35°	211	212	213	213	210	132
45°	164	165	168	166	163	125
55°	95	105	117	105	96	86
65°	31	39	51	39	30	32
75°	1	1	4	1	1	3
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°	288.8	288.8	288.8	288.8	288.8	288.8	288.8	288.8	288.8	288.8	288.8
2.5°	286.8	290.1	290.5	288.4	287.6	286.4	289.2	287.2	288.0	287.2	286.8
5°	283.1	286.8	287.2	287.2	286.4	286.0	287.2	286.8	286.4	285.6	286.8
7.5°	281.5	283.5	285.6	283.1	284.3	283.9	286.8	285.6	285.1	285.1	284.3
10°	282.3	281.9	283.5	281.0	281.9	281.0	283.5	283.5	282.7	281.9	281.5
12.5°	275.7	279.0	279.0	278.6	277.8	276.5	279.0	280.6	278.2	278.2	277.8
15°	272.0	272.8	273.2	273.2	272.8	273.7	274.9	273.2	273.7	271.6	272.4
17.5°	267.9	266.3	267.5	266.7	267.1	267.9	269.6	269.6	267.1	266.7	267.5
20°	258.5	263.4	263.8	261.4	261.8	261.8	264.6	262.2	263.8	261.8	262.6
22.5°	254.0	257.2	257.7	254.4	256.4	254.0	256.8	253.1	257.2	254.4	255.6
25°	248.2	247.8	249.0	247.4	247.8	247.8	249.9	248.2	249.4	247.8	248.2
27.5°	238.8	242.1	241.6	240.0	240.8	240.4	244.5	240.0	242.5	240.4	241.2
30°	230.6	233.4	232.6	231.0	231.0	229.7	234.3	233.0	232.6	232.6	232.2
32.5°	222.4	222.8	222.0	222.4	222.8	221.1	224.8	223.2	222.8	223.2	223.6
35°	211.3	211.3	212.1	210.9	212.5	212.5	215.8	213.7	213.3	212.1	213.3
37.5°	201.4	200.2	200.6	200.6	201.4	202.3	203.9	203.1	203.1	201.9	202.7
40°	188.3	187.5	188.7	188.7	190.0	190.0	191.6	190.8	192.0	192.0	192.0
42.5°	176.8	176.8	176.0	177.2	177.7	177.2	180.1	179.7	180.1	179.3	179.7
45°	164.5	164.5	163.7	163.3	165.3	164.9	168.2	167.0	168.6	167.8	168.2
47.5°	147.7	149.7	148.5	149.7	152.2	152.6	154.7	153.9	155.5	154.3	155.9
50°	131.7	131.7	132.9	134.6	137.0	137.4	139.9	141.5	142.4	142.8	143.2
52.5°	114.9	114.5	115.7	117.7	119.8	121.4	123.9	126.4	128.0	130.5	129.2
55°	95.2	96.0	97.2	99.7	103.0	105.0	107.1	110.4	113.2	114.5	116.9
57.5°	78.4	77.5	78.4	81.6	85.3	87.0	89.9	93.1	97.2	99.7	100.5
60°	60.7	61.1	62.0	64.8	67.7	70.2	71.4	76.7	80.4	82.9	84.5
62.5°	44.7	45.5	46.4	48.8	51.7	53.7	55.8	60.3	63.6	66.1	67.7
65°	31.2	31.6	32.8	34.0	36.9	39.0	40.6	44.3	47.6	49.6	50.9
67.5°	19.3	19.7	20.5	22.2	24.2	25.8	27.5	29.9	32.8	34.9	35.3
70°	9.8	10.3	10.7	11.9	13.5	14.4	15.6	17.6	19.7	21.3	22.2
72.5°	3.3	3.3	3.7	4.5	5.3	6.2	6.6	8.6	10.3	11.1	11.5
75°	0.8	0.8	0.8	0.8	0.8	1.2	1.2	2.5	3.3	4.1	4.5
77.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.8
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
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°	288.8	288.8	288.8	288.8	288.8	288.8	288.8	288.8	288.8	288.8
2.5°	288.8	288.0	287.6	288.0	288.0	287.6	288.8	290.5	292.5	287.2
5°	288.4	287.6	288.4	286.0	287.2	286.4	288.0	287.6	289.2	287.6
7.5°	287.2	285.6	286.0	284.7	286.4	284.3	285.6	288.0	286.4	283.9
10°	283.1	282.3	285.1	281.0	280.2	281.9	285.1	282.7	281.9	282.7
12.5°	279.0	279.0	280.2	276.9	277.3	278.2	279.8	278.2	279.0	281.0
15°	274.5	273.7	275.7	273.2	272.8	272.0	273.7	273.7	274.5	273.2
17.5°	269.1	267.9	267.9	267.1	266.7	268.7	269.6	270.0	270.4	268.7
20°	262.6	262.2	263.4	262.2	262.6	263.0	263.0	262.2	265.9	261.4
22.5°	255.6	256.8	255.2	254.4	255.2	256.0	256.0	256.4	255.6	254.8
25°	248.6	249.4	249.9	247.4	248.6	247.4	250.3	250.7	249.0	249.9
27.5°	242.5	241.2	240.8	239.2	240.0	239.6	240.0	240.0	242.5	239.2
30°	233.0	231.8	232.2	231.0	231.4	231.0	231.4	231.4	233.0	232.6
32.5°	224.0	222.8	223.2	222.0	222.0	222.4	221.5	221.5	222.8	222.0
35°	215.4	212.5	212.9	212.5	212.9	211.3	211.3	210.9	211.7	209.6
37.5°	203.1	201.9	201.4	201.0	201.4	200.6	201.4	200.2	201.4	199.8
40°	192.0	191.2	191.6	189.1	189.1	189.5	188.7	188.3	188.7	190.4
42.5°	180.9	179.3	178.5	177.7	178.1	176.8	176.4	175.6	176.4	174.8
45°	167.8	167.8	167.4	165.3	165.8	165.8	164.1	162.5	162.9	162.9
47.5°	155.9	155.1	154.7	152.6	152.2	151.8	150.2	148.9	148.9	147.7
50°	142.8	141.9	140.7	138.7	137.8	135.4	134.2	132.5	130.9	130.9
52.5°	130.5	127.6	125.9	122.7	121.4	120.2	116.9	115.7	114.5	113.2
55°	115.7	113.2	110.0	106.3	104.6	102.6	99.3	96.8	95.2	95.6
57.5°	101.3	97.2	94.0	89.0	87.0	85.7	82.5	79.2	77.5	77.5
60°	83.7	80.4	76.3	71.8	70.2	68.1	64.0	62.0	60.7	59.5
62.5°	66.9	64.4	60.7	55.0	53.7	51.7	48.8	46.4	45.1	45.1
65°	50.1	47.6	44.3	40.2	38.6	36.9	34.5	32.0	30.8	30.4
67.5°	35.3	32.4	29.5	26.3	25.0	24.2	21.7	20.1	19.3	18.9
70°	21.3	19.7	17.6	15.2	13.9	13.1	11.5	10.3	9.8	9.4
72.5°	11.1	9.8	8.2	6.6	5.7	4.9	4.1	3.3	2.9	2.9
75°	4.1	3.3	2.1	1.2	0.8	0.8	0.8	0.8	0.8	0.8
77.5°	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
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)