

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: P840098

Luminaire Tested: **LD4C08D010 EU4089027 4LBCSSQMMS**

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: P840098  
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 EU4089027 4LBCSSQMMS  
Description: 4 INCH 800 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS AND 4LBCSSQ TRIM WITH MMS FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

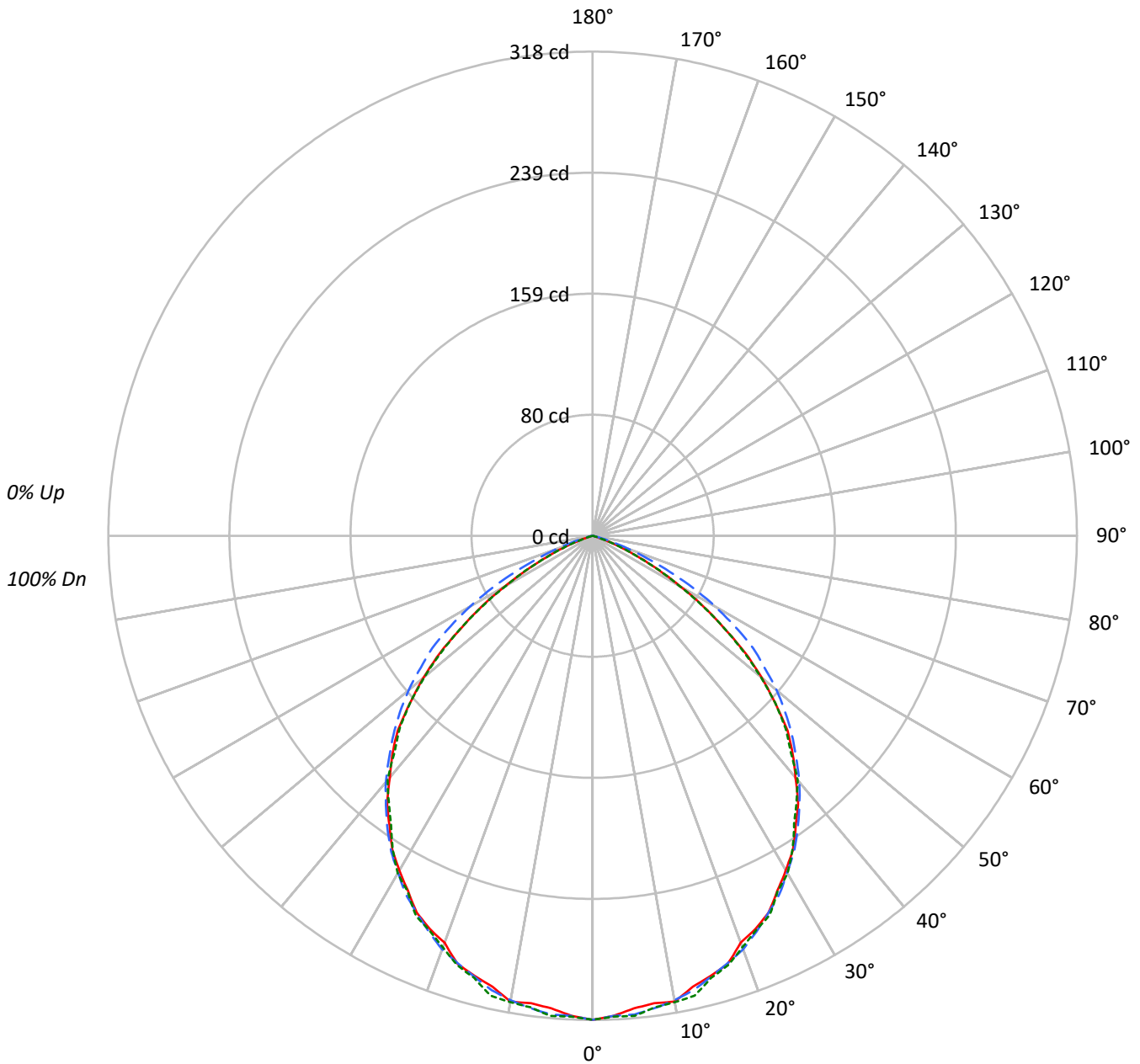
Lumens per Lamp: N/A  
Luminaire Lumens: 679.0 lumens  
Efficiency: N/A  
Efficacy: 68.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

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				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°	30674	30674	30674
5°	30171	30568	30655
10°	30432	30344	30481
15°	29898	29948	30038
20°	29203	29675	29531
25°	29086	29086	29278
30°	28266	28467	28522
35°	27386	27657	27174
40°	26098	26615	26388
45°	24699	25258	24453
50°	21751	23657	21616
55°	17613	21650	17697
60°	12891	17947	12640
65°	7831	12785	7626
70°	3047	6884	2934
75°	336	1864	336
80°	278	278	278
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.0	4.4
10°-20°	84.9	12.5
20°-30°	126.0	18.6
30°-40°	146.0	21.5
40°-50°	139.9	20.6
50°-60°	102.9	15.2
60°-70°	44.4	6.5
70°-80°	4.8	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°	240.9	35.5
0°-40°	386.8	57.0
0°-60°	629.7	92.7
0°-90°	679.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	679.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	318	318	318	318	318	
5°	312	315	316	316	316	30
15°	299	301	300	300	301	84
25°	273	273	273	274	275	125
35°	232	234	235	234	231	145
45°	181	182	185	182	179	138
55°	105	116	129	115	105	94
65°	34	43	56	42	33	35
75°	1	1	5	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°	317.9	317.9	317.9	317.9	317.9	317.9	317.9	317.9	317.9	317.9	317.9
2.5°	315.6	319.2	319.7	317.4	316.5	315.2	318.3	316.1	317.0	316.1	315.6
5°	311.5	315.6	316.1	316.1	315.2	314.7	316.1	315.6	315.2	314.3	315.6
7.5°	309.7	312.0	314.3	311.5	312.9	312.4	315.6	314.3	313.8	313.8	312.9
10°	310.6	310.2	312.0	309.3	310.2	309.3	312.0	312.0	311.1	310.2	309.7
12.5°	303.4	307.0	307.0	306.6	305.7	304.3	307.0	308.8	306.1	306.1	305.7
15°	299.3	300.3	300.7	300.7	300.3	301.2	302.5	300.7	301.2	298.9	299.8
17.5°	294.8	293.0	294.4	293.5	293.9	294.8	296.6	296.6	293.9	293.5	294.4
20°	284.4	289.9	290.3	287.6	288.1	288.1	291.2	288.5	290.3	288.1	289.0
22.5°	279.5	283.1	283.5	279.9	282.2	279.5	282.6	278.6	283.1	279.9	281.3
25°	273.2	272.7	274.1	272.2	272.7	272.7	275.0	273.2	274.5	272.7	273.2
27.5°	262.8	266.4	265.9	264.1	265.0	264.6	269.1	264.1	266.8	264.6	265.5
30°	253.7	256.9	256.0	254.2	254.2	252.8	257.8	256.4	256.0	256.0	255.5
32.5°	244.7	245.2	244.3	244.7	245.2	243.4	247.4	245.6	245.2	245.6	246.1
35°	232.5	232.5	233.4	232.1	233.9	233.9	237.5	235.2	234.8	233.4	234.8
37.5°	221.7	220.3	220.8	220.8	221.7	222.6	224.4	223.5	223.5	222.1	223.0
40°	207.2	206.3	207.7	207.7	209.0	209.0	210.9	209.9	211.3	211.3	211.3
42.5°	194.6	194.6	193.7	195.0	195.5	195.0	198.2	197.8	198.2	197.3	197.8
45°	181.0	181.0	180.1	179.7	181.9	181.5	185.1	183.8	185.6	184.7	185.1
47.5°	162.5	164.8	163.4	164.8	167.5	168.0	170.2	169.3	171.1	169.8	171.6
50°	144.9	144.9	146.3	148.1	150.8	151.3	154.0	155.8	156.7	157.1	157.6
52.5°	126.4	126.0	127.3	129.6	131.8	133.6	136.4	139.1	140.9	143.6	142.2
55°	104.7	105.6	107.0	109.7	113.3	115.6	117.8	121.5	124.6	126.0	128.7
57.5°	86.2	85.3	86.2	89.8	93.9	95.7	98.9	102.5	107.0	109.7	110.6
60°	66.8	67.3	68.2	71.3	74.5	77.2	78.6	84.4	88.5	91.2	93.0
62.5°	49.2	50.1	51.0	53.7	56.9	59.2	61.4	66.4	70.0	72.7	74.5
65°	34.3	34.8	36.1	37.5	40.6	42.9	44.7	48.8	52.4	54.6	56.0
67.5°	21.2	21.7	22.6	24.4	26.6	28.4	30.2	33.0	36.1	38.4	38.8
70°	10.8	11.3	11.7	13.1	14.9	15.8	17.2	19.4	21.7	23.5	24.4
72.5°	3.6	3.6	4.1	5.0	5.9	6.8	7.2	9.5	11.3	12.2	12.6
75°	0.9	0.9	0.9	0.9	0.9	1.4	1.4	2.7	3.6	4.5	5.0
77.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.9	0.9
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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°	317.9	317.9	317.9	317.9	317.9	317.9	317.9	317.9	317.9	317.9
2.5°	317.9	317.0	316.5	317.0	317.0	316.5	317.9	319.7	321.9	316.1
5°	317.4	316.5	317.4	314.7	316.1	315.2	317.0	316.5	318.3	316.5
7.5°	316.1	314.3	314.7	313.3	315.2	312.9	314.3	317.0	315.2	312.4
10°	311.5	310.6	313.8	309.3	308.4	310.2	313.8	311.1	310.2	311.1
12.5°	307.0	307.0	308.4	304.8	305.2	306.1	307.9	306.1	307.0	309.3
15°	302.1	301.2	303.4	300.7	300.3	299.3	301.2	301.2	302.1	300.7
17.5°	296.2	294.8	294.8	293.9	293.5	295.7	296.6	297.1	297.5	295.7
20°	289.0	288.5	289.9	288.5	289.0	289.4	289.4	288.5	292.6	287.6
22.5°	281.3	282.6	280.8	279.9	280.8	281.7	281.7	282.2	281.3	280.4
25°	273.6	274.5	275.0	272.2	273.6	272.2	275.4	275.9	274.1	275.0
27.5°	266.8	265.5	265.0	263.2	264.1	263.7	264.1	264.1	266.8	263.2
30°	256.4	255.1	255.5	254.2	254.6	254.2	254.6	254.6	256.4	256.0
32.5°	246.5	245.2	245.6	244.3	244.3	244.7	243.8	243.8	245.2	244.3
35°	237.0	233.9	234.3	233.9	234.3	232.5	232.5	232.1	233.0	230.7
37.5°	223.5	222.1	221.7	221.2	221.7	220.8	221.7	220.3	221.7	219.9
40°	211.3	210.4	210.9	208.1	208.1	208.6	207.7	207.2	207.7	209.5
42.5°	199.1	197.3	196.4	195.5	195.9	194.6	194.1	193.2	194.1	192.3
45°	184.7	184.7	184.2	181.9	182.4	182.4	180.6	178.8	179.2	179.2
47.5°	171.6	170.7	170.2	168.0	167.5	167.1	165.2	163.9	163.9	162.5
50°	157.1	156.2	154.9	152.6	151.7	149.0	147.6	145.8	144.0	144.0
52.5°	143.6	140.4	138.6	135.0	133.6	132.3	128.7	127.3	126.0	124.6
55°	127.3	124.6	121.0	116.9	115.1	112.9	109.3	106.5	104.7	105.2
57.5°	111.5	107.0	103.4	98.0	95.7	94.4	90.7	87.1	85.3	85.3
60°	92.1	88.5	84.0	79.0	77.2	75.0	70.4	68.2	66.8	65.5
62.5°	73.6	70.9	66.8	60.5	59.2	56.9	53.7	51.0	49.7	49.7
65°	55.1	52.4	48.8	44.2	42.4	40.6	37.9	35.2	33.9	33.4
67.5°	38.8	35.7	32.5	28.9	27.5	26.6	23.9	22.1	21.2	20.8
70°	23.5	21.7	19.4	16.7	15.3	14.4	12.6	11.3	10.8	10.4
72.5°	12.2	10.8	9.0	7.2	6.3	5.4	4.5	3.6	3.2	3.2
75°	4.5	3.6	2.3	1.4	0.9	0.9	0.9	0.9	0.9	0.9
77.5°	0.9	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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)