

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: P840100

Luminaire Tested: **LD4C08D010 EU4089030 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: P840100  
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 EU4089030 4LBCSSQMMS  
Description: 4 INCH 800 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS AND 4LBCSSQ TRIM WITH MMS FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

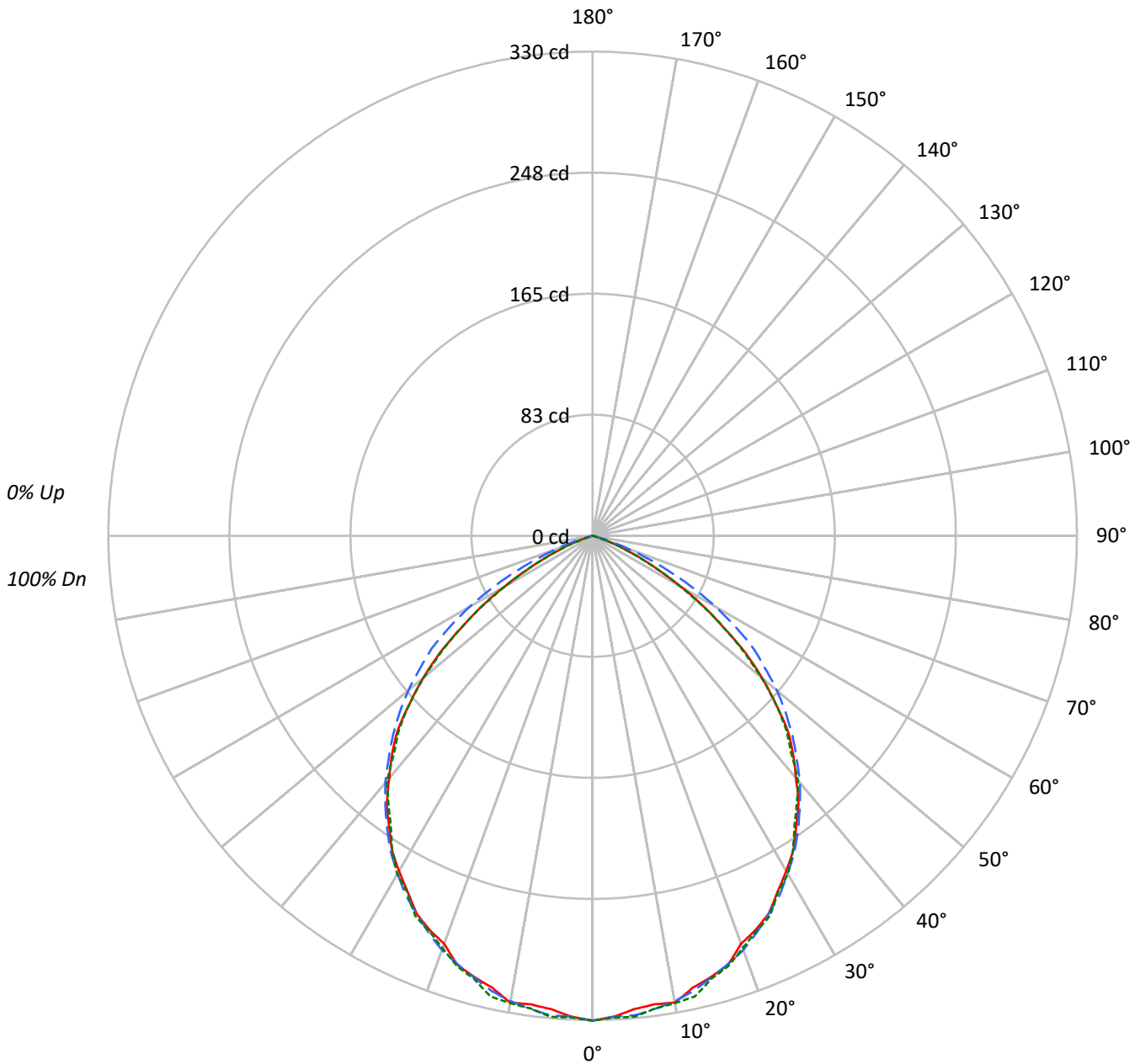
Lumens per Lamp: N/A  
Luminaire Lumens: 706.0 lumens  
Efficiency: N/A  
Efficacy: 71.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

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									
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°	31890	31890	31890
5°	31372	31779	31876
10°	31647	31559	31696
15°	31097	31137	31226
20°	30373	30845	30702
25°	30236	30236	30438
30°	29391	29603	29659
35°	28482	28753	28258
40°	27144	27673	27434
45°	25681	26268	25435
50°	22622	24588	22486
55°	18320	22508	18404
60°	13412	18661	13142
65°	8151	13288	7922
70°	3188	7166	3047
75°	336	1939	336
80°	278	278	278
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.2	4.4
10°-20°	88.3	12.5
20°-30°	131.0	18.6
30°-40°	151.8	21.5
40°-50°	145.5	20.6
50°-60°	107.0	15.2
60°-70°	46.2	6.5
70°-80°	5.0	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°	250.5	35.5
0°-40°	402.2	57.0
0°-60°	654.7	92.7
0°-90°	706.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	706.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	330	330	330	330	330	
5°	324	327	328	329	329	31
15°	311	313	312	312	313	88
25°	284	284	284	284	286	130
35°	242	243	244	244	240	151
45°	188	189	192	190	186	143
55°	109	120	134	120	109	98
65°	36	45	58	44	35	37
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°	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
2.5°	328.1	331.9	332.4	330.0	329.1	327.7	331.0	328.6	329.6	328.6	328.1
5°	323.9	328.1	328.6	328.6	327.7	327.2	328.6	328.1	327.7	326.7	328.1
7.5°	322.1	324.4	326.7	323.9	325.3	324.9	328.1	326.7	326.3	326.3	325.3
10°	323.0	322.5	324.4	321.6	322.5	321.6	324.4	324.4	323.5	322.5	322.1
12.5°	315.5	319.2	319.2	318.8	317.8	316.4	319.2	321.1	318.3	318.3	317.8
15°	311.3	312.2	312.6	312.6	312.2	313.1	314.5	312.6	313.1	310.8	311.7
17.5°	306.6	304.7	306.1	305.1	305.6	306.6	308.4	308.4	305.6	305.1	306.1
20°	295.8	301.4	301.9	299.0	299.5	299.5	302.8	300.0	301.9	299.5	300.4
22.5°	290.6	294.3	294.8	291.1	293.4	290.6	293.9	289.6	294.3	291.1	292.5
25°	284.0	283.6	285.0	283.1	283.6	283.6	285.9	284.0	285.4	283.6	284.0
27.5°	273.2	277.0	276.5	274.6	275.6	275.1	279.8	274.6	277.4	275.1	276.0
30°	263.8	267.1	266.2	264.3	264.3	262.9	268.1	266.6	266.2	266.2	265.7
32.5°	254.4	254.9	254.0	254.4	254.9	253.0	257.3	255.4	254.9	255.4	255.9
35°	241.8	241.8	242.7	241.3	243.2	243.2	246.9	244.6	244.1	242.7	244.1
37.5°	230.5	229.1	229.6	229.6	230.5	231.4	233.3	232.4	232.4	231.0	231.9
40°	215.5	214.5	215.9	215.9	217.4	217.4	219.2	218.3	219.7	219.7	219.7
42.5°	202.3	202.3	201.4	202.8	203.3	202.8	206.1	205.6	206.1	205.2	205.6
45°	188.2	188.2	187.3	186.8	189.2	188.7	192.5	191.1	192.9	192.0	192.5
47.5°	169.0	171.4	169.9	171.4	174.2	174.6	177.0	176.0	177.9	176.5	178.4
50°	150.7	150.7	152.1	154.0	156.8	157.3	160.1	162.0	162.9	163.4	163.8
52.5°	131.5	131.0	132.4	134.7	137.1	139.0	141.8	144.6	146.5	149.3	147.9
55°	108.9	109.8	111.3	114.1	117.8	120.2	122.5	126.3	129.6	131.0	133.8
57.5°	89.7	88.7	89.7	93.4	97.6	99.5	102.8	106.6	111.3	114.1	115.0
60°	69.5	70.0	70.9	74.2	77.5	80.3	81.7	87.8	92.0	94.8	96.7
62.5°	51.2	52.1	53.1	55.9	59.1	61.5	63.8	69.0	72.8	75.6	77.5
65°	35.7	36.1	37.6	39.0	42.3	44.6	46.5	50.7	54.5	56.8	58.2
67.5°	22.1	22.5	23.5	25.4	27.7	29.6	31.5	34.3	37.6	39.9	40.4
70°	11.3	11.7	12.2	13.6	15.5	16.4	17.8	20.2	22.5	24.4	25.4
72.5°	3.8	3.8	4.2	5.2	6.1	7.0	7.5	9.9	11.7	12.7	13.1
75°	0.9	0.9	0.9	0.9	0.9	1.4	1.4	2.8	3.8	4.7	5.2
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°	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
2.5°	330.5	329.6	329.1	329.6	329.6	329.1	330.5	332.4	334.7	328.6
5°	330.0	329.1	330.0	327.2	328.6	327.7	329.6	329.1	331.0	329.1
7.5°	328.6	326.7	327.2	325.8	327.7	325.3	326.7	329.6	327.7	324.9
10°	323.9	323.0	326.3	321.6	320.6	322.5	326.3	323.5	322.5	323.5
12.5°	319.2	319.2	320.6	316.9	317.3	318.3	320.2	318.3	319.2	321.6
15°	314.1	313.1	315.5	312.6	312.2	311.3	313.1	313.1	314.1	312.6
17.5°	308.0	306.6	306.6	305.6	305.1	307.5	308.4	308.9	309.4	307.5
20°	300.4	300.0	301.4	300.0	300.4	300.9	300.9	300.0	304.2	299.0
22.5°	292.5	293.9	292.0	291.1	292.0	292.9	292.9	293.4	292.5	291.5
25°	284.5	285.4	285.9	283.1	284.5	283.1	286.4	286.8	285.0	285.9
27.5°	277.4	276.0	275.6	273.7	274.6	274.2	274.6	274.6	277.4	273.7
30°	266.6	265.2	265.7	264.3	264.8	264.3	264.8	264.8	266.6	266.2
32.5°	256.3	254.9	255.4	254.0	254.0	254.4	253.5	253.5	254.9	254.0
35°	246.5	243.2	243.6	243.2	243.6	241.8	241.8	241.3	242.2	239.9
37.5°	232.4	231.0	230.5	230.0	230.5	229.6	230.5	229.1	230.5	228.6
40°	219.7	218.8	219.2	216.4	216.4	216.9	215.9	215.5	215.9	217.8
42.5°	207.0	205.2	204.2	203.3	203.7	202.3	201.9	200.9	201.9	200.0
45°	192.0	192.0	191.5	189.2	189.7	189.7	187.8	185.9	186.4	186.4
47.5°	178.4	177.5	177.0	174.6	174.2	173.7	171.8	170.4	170.4	169.0
50°	163.4	162.4	161.0	158.7	157.7	154.9	153.5	151.6	149.8	149.8
52.5°	149.3	146.0	144.1	140.4	139.0	137.5	133.8	132.4	131.0	129.6
55°	132.4	129.6	125.8	121.6	119.7	117.4	113.6	110.8	108.9	109.4
57.5°	116.0	111.3	107.5	101.9	99.5	98.1	94.4	90.6	88.7	88.7
60°	95.8	92.0	87.3	82.2	80.3	77.9	73.2	70.9	69.5	68.1
62.5°	76.5	73.7	69.5	62.9	61.5	59.1	55.9	53.1	51.6	51.6
65°	57.3	54.5	50.7	46.0	44.1	42.3	39.4	36.6	35.2	34.7
67.5°	40.4	37.1	33.8	30.1	28.6	27.7	24.9	23.0	22.1	21.6
70°	24.4	22.5	20.2	17.4	16.0	15.0	13.1	11.7	11.3	10.8
72.5°	12.7	11.3	9.4	7.5	6.6	5.6	4.7	3.8	3.3	3.3
75°	4.7	3.8	2.4	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)