

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: P840093

Luminaire Tested: **LD4C05D010 EU4059035 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: P840093
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 EU4059035 4LBCSSQMW
Description: 4 INCH 500 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

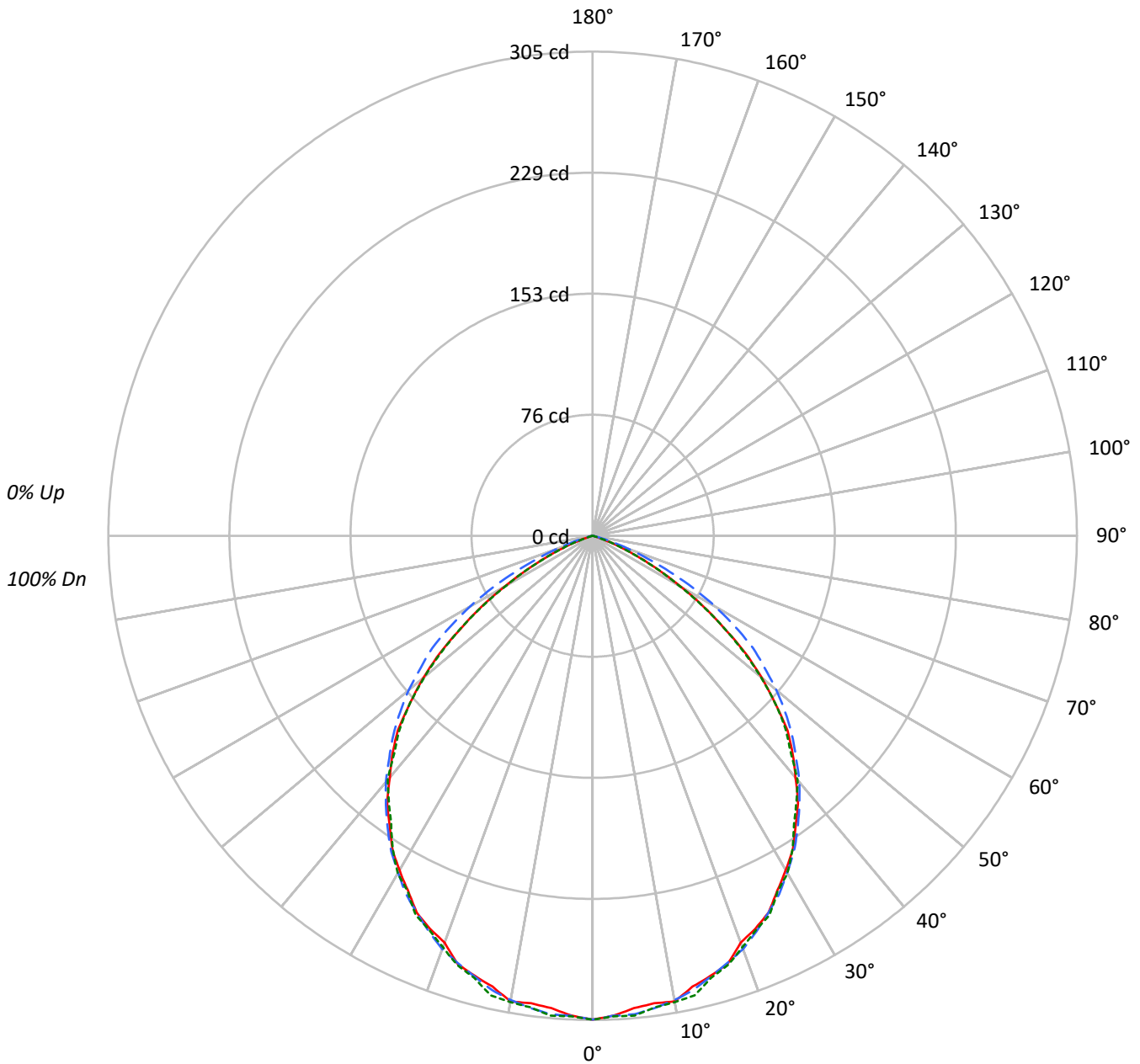
Lumens per Lamp: N/A
Luminaire Lumens: 651.0 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
Input Voltage (V):
Input Current (A_{in}): 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°	29410	29410	29410
5°	28931	29309	29387
10°	29178	29099	29227
15°	28669	28709	28799
20°	28001	28443	28320
25°	27883	27883	28064
30°	27107	27297	27341
35°	26256	26515	26055
40°	25028	25519	25292
45°	23689	24221	23443
50°	20865	22682	20730
55°	16890	20759	16974
60°	12370	17214	12119
65°	7511	12260	7306
70°	2934	6601	2821
75°	336	1789	336
80°	222	222	222
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.8	4.4
10°-20°	81.4	12.5
20°-30°	120.8	18.6
30°-40°	139.9	21.5
40°-50°	134.2	20.6
50°-60°	98.7	15.2
60°-70°	42.6	6.5
70°-80°	4.6	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°	230.9	35.5
0°-40°	370.9	57.0
0°-60°	603.7	92.7
0°-90°	651.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	651.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	305	305	305	305	305	
5°	299	302	303	303	303	28
15°	287	289	287	288	288	81
25°	262	262	262	262	264	120
35°	223	224	225	225	221	139
45°	174	174	178	175	172	132
55°	100	111	123	110	101	90
65°	33	41	54	41	32	34
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°	304.8	304.8	304.8	304.8	304.8	304.8	304.8	304.8	304.8	304.8	304.8
2.5°	302.6	306.0	306.5	304.3	303.4	302.2	305.2	303.0	303.9	303.0	302.6
5°	298.7	302.6	303.0	303.0	302.2	301.7	303.0	302.6	302.2	301.3	302.6
7.5°	297.0	299.1	301.3	298.7	300.0	299.6	302.6	301.3	300.9	300.9	300.0
10°	297.8	297.4	299.1	296.5	297.4	296.5	299.1	299.1	298.3	297.4	297.0
12.5°	290.9	294.4	294.4	293.9	293.1	291.8	294.4	296.1	293.5	293.5	293.1
15°	287.0	287.9	288.3	288.3	287.9	288.7	290.0	288.3	288.7	286.6	287.4
17.5°	282.7	280.9	282.2	281.4	281.8	282.7	284.4	284.4	281.8	281.4	282.2
20°	272.7	277.9	278.3	275.8	276.2	276.2	279.2	276.6	278.3	276.2	277.0
22.5°	267.9	271.4	271.8	268.4	270.5	267.9	271.0	267.1	271.4	268.4	269.7
25°	261.9	261.5	262.8	261.0	261.5	261.5	263.6	261.9	263.2	261.5	261.9
27.5°	251.9	255.4	255.0	253.2	254.1	253.7	258.0	253.2	255.8	253.7	254.5
30°	243.3	246.3	245.4	243.7	243.7	242.4	247.2	245.9	245.4	245.4	245.0
32.5°	234.6	235.1	234.2	234.6	235.1	233.3	237.2	235.5	235.1	235.5	235.9
35°	222.9	222.9	223.8	222.5	224.2	224.2	227.7	225.5	225.1	223.8	225.1
37.5°	212.5	211.3	211.7	211.7	212.5	213.4	215.1	214.3	214.3	213.0	213.8
40°	198.7	197.8	199.1	199.1	200.4	200.4	202.2	201.3	202.6	202.6	202.6
42.5°	186.6	186.6	185.7	187.0	187.4	187.0	190.0	189.6	190.0	189.2	189.6
45°	173.6	173.6	172.7	172.3	174.4	174.0	177.5	176.2	177.9	177.0	177.5
47.5°	155.8	158.0	156.7	158.0	160.6	161.0	163.2	162.3	164.1	162.8	164.5
50°	139.0	139.0	140.3	142.0	144.6	145.0	147.6	149.3	150.2	150.6	151.1
52.5°	121.2	120.8	122.1	124.2	126.4	128.1	130.7	133.3	135.1	137.7	136.3
55°	100.4	101.3	102.6	105.2	108.7	110.8	113.0	116.4	119.5	120.8	123.4
57.5°	82.7	81.8	82.7	86.1	90.0	91.8	94.8	98.3	102.6	105.2	106.1
60°	64.1	64.5	65.4	68.4	71.4	74.0	75.3	80.9	84.8	87.4	89.2
62.5°	47.2	48.1	48.9	51.5	54.5	56.7	58.9	63.6	67.1	69.7	71.4
65°	32.9	33.3	34.6	35.9	39.0	41.1	42.8	46.8	50.2	52.4	53.7
67.5°	20.3	20.8	21.6	23.4	25.5	27.3	29.0	31.6	34.6	36.8	37.2
70°	10.4	10.8	11.3	12.6	14.3	15.2	16.4	18.6	20.8	22.5	23.4
72.5°	3.5	3.5	3.9	4.8	5.6	6.5	6.9	9.1	10.8	11.7	12.1
75°	0.9	0.9	0.9	0.9	0.9	1.3	1.3	2.6	3.5	4.3	4.8
77.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.9
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°	304.8	304.8	304.8	304.8	304.8	304.8	304.8	304.8	304.8	304.8
2.5°	304.8	303.9	303.4	303.9	303.9	303.4	304.8	306.5	308.6	303.0
5°	304.3	303.4	304.3	301.7	303.0	302.2	303.9	303.4	305.2	303.4
7.5°	303.0	301.3	301.7	300.4	302.2	300.0	301.3	303.9	302.2	299.6
10°	298.7	297.8	300.9	296.5	295.7	297.4	300.9	298.3	297.4	298.3
12.5°	294.4	294.4	295.7	292.2	292.6	293.5	295.2	293.5	294.4	296.5
15°	289.6	288.7	290.9	288.3	287.9	287.0	288.7	288.7	289.6	288.3
17.5°	284.0	282.7	282.7	281.8	281.4	283.5	284.4	284.8	285.3	283.5
20°	277.0	276.6	277.9	276.6	277.0	277.5	277.5	276.6	280.5	275.8
22.5°	269.7	271.0	269.3	268.4	269.3	270.1	270.1	270.5	269.7	268.8
25°	262.3	263.2	263.6	261.0	262.3	261.0	264.1	264.5	262.8	263.6
27.5°	255.8	254.5	254.1	252.4	253.2	252.8	253.2	253.2	255.8	252.4
30°	245.9	244.6	245.0	243.7	244.1	243.7	244.1	244.1	245.9	245.4
32.5°	236.3	235.1	235.5	234.2	234.2	234.6	233.8	233.8	235.1	234.2
35°	227.3	224.2	224.7	224.2	224.7	222.9	222.9	222.5	223.4	221.2
37.5°	214.3	213.0	212.5	212.1	212.5	211.7	212.5	211.3	212.5	210.8
40°	202.6	201.7	202.2	199.6	199.6	200.0	199.1	198.7	199.1	200.8
42.5°	190.9	189.2	188.3	187.4	187.9	186.6	186.1	185.3	186.1	184.4
45°	177.0	177.0	176.6	174.4	174.9	174.9	173.2	171.4	171.8	171.8
47.5°	164.5	163.6	163.2	161.0	160.6	160.2	158.4	157.1	157.1	155.8
50°	150.6	149.8	148.5	146.3	145.4	142.8	141.6	139.8	138.1	138.1
52.5°	137.7	134.6	132.9	129.4	128.1	126.8	123.4	122.1	120.8	119.5
55°	122.1	119.5	116.0	112.1	110.4	108.2	104.8	102.2	100.4	100.9
57.5°	106.9	102.6	99.1	93.9	91.8	90.5	87.0	83.5	81.8	81.8
60°	88.3	84.8	80.5	75.8	74.0	71.9	67.5	65.4	64.1	62.8
62.5°	70.6	68.0	64.1	58.0	56.7	54.5	51.5	48.9	47.6	47.6
65°	52.8	50.2	46.8	42.4	40.7	39.0	36.4	33.8	32.5	32.0
67.5°	37.2	34.2	31.2	27.7	26.4	25.5	22.9	21.2	20.3	19.9
70°	22.5	20.8	18.6	16.0	14.7	13.8	12.1	10.8	10.4	10.0
72.5°	11.7	10.4	8.7	6.9	6.1	5.2	4.3	3.5	3.0	3.0
75°	4.3	3.5	2.2	1.3	0.9	0.9	0.9	0.9	0.9	0.9
77.5°	0.9	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)