

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: P840096

Luminaire Tested: **LD4C05D010 EU4059050 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: P840096
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 EU4059050 4LBCSSQMMS
Description: 4 INCH 500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

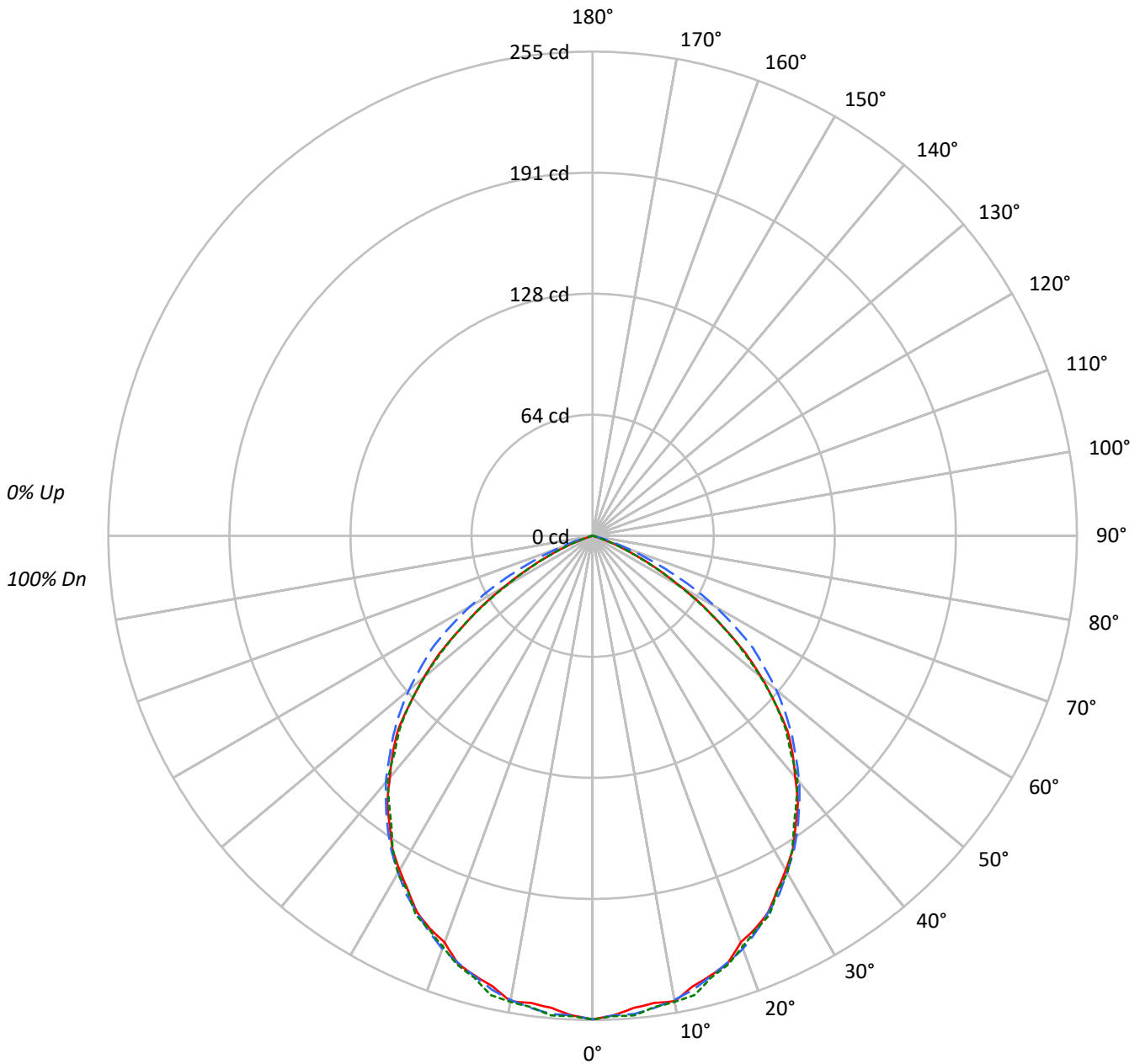
Lumens per Lamp: N/A
Luminaire Lumens: 544.0 lumens
Efficiency: N/A
Efficacy: 75.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P840096

CATALOG NUMBER: LD4C05D010 EU4059050 4LBCSSQMMS

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°	24576	24576	24576
5°	24176	24486	24563
10°	24387	24318	24416
15°	23954	23994	24064
20°	23401	23771	23658
25°	23294	23294	23454
30°	22651	22807	22851
35°	21944	22157	21768
40°	20909	21325	21136
45°	19786	20236	19595
50°	17428	18944	17323
55°	14114	17344	14181
60°	10324	14377	10131
65°	6279	10251	6119
70°	2454	5501	2342
75°	261	1491	261
80°	222	222	222
85°	0	0	0



TEST NUMBER: P840096

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.0	4.4
10°-20°	68.0	12.5
20°-30°	100.9	18.6
30°-40°	116.9	21.5
40°-50°	112.1	20.6
50°-60°	82.4	15.2
60°-70°	35.6	6.5
70°-80°	3.9	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°	193.0	35.5
0°-40°	309.9	57.0
0°-60°	504.5	92.7
0°-90°	544.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	544.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	255	255	255	255	255	
5°	250	252	253	253	254	24
15°	240	241	240	241	241	68
25°	219	218	219	219	220	100
35°	186	187	188	188	185	116
45°	145	145	148	146	144	110
55°	84	93	103	92	84	76
65°	28	34	45	34	27	28
75°	1	1	4	1	1	2
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°	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7
2.5°	252.8	255.7	256.1	254.3	253.6	252.5	255.0	253.2	253.9	253.2	252.8
5°	249.6	252.8	253.2	253.2	252.5	252.1	253.2	252.8	252.5	251.8	252.8
7.5°	248.2	250.0	251.8	249.6	250.7	250.3	252.8	251.8	251.4	251.4	250.7
10°	248.9	248.5	250.0	247.8	248.5	247.8	250.0	250.0	249.2	248.5	248.2
12.5°	243.1	246.0	246.0	245.6	244.9	243.8	246.0	247.4	245.2	245.2	244.9
15°	239.8	240.6	240.9	240.9	240.6	241.3	242.4	240.9	241.3	239.5	240.2
17.5°	236.2	234.8	235.8	235.1	235.5	236.2	237.7	237.7	235.5	235.1	235.8
20°	227.9	232.2	232.6	230.4	230.8	230.8	233.3	231.2	232.6	230.8	231.5
22.5°	223.9	226.8	227.2	224.3	226.1	223.9	226.4	223.2	226.8	224.3	225.4
25°	218.8	218.5	219.6	218.1	218.5	218.5	220.3	218.8	219.9	218.5	218.8
27.5°	210.5	213.4	213.1	211.6	212.3	212.0	215.6	211.6	213.8	212.0	212.7
30°	203.3	205.8	205.1	203.7	203.7	202.6	206.5	205.5	205.1	205.1	204.7
32.5°	196.1	196.4	195.7	196.1	196.4	195.0	198.2	196.8	196.4	196.8	197.1
35°	186.3	186.3	187.0	185.9	187.4	187.4	190.3	188.5	188.1	187.0	188.1
37.5°	177.6	176.5	176.9	176.9	177.6	178.3	179.8	179.1	179.1	178.0	178.7
40°	166.0	165.3	166.4	166.4	167.5	167.5	168.9	168.2	169.3	169.3	169.3
42.5°	155.9	155.9	155.2	156.3	156.6	156.3	158.8	158.4	158.8	158.1	158.4
45°	145.0	145.0	144.3	144.0	145.8	145.4	148.3	147.2	148.7	147.9	148.3
47.5°	130.2	132.0	130.9	132.0	134.2	134.6	136.4	135.6	137.1	136.0	137.5
50°	116.1	116.1	117.2	118.6	120.8	121.2	123.4	124.8	125.5	125.9	126.2
52.5°	101.3	100.9	102.0	103.8	105.6	107.1	109.2	111.4	112.9	115.0	113.9
55°	83.9	84.6	85.7	87.9	90.8	92.6	94.4	97.3	99.8	100.9	103.1
57.5°	69.1	68.4	69.1	72.0	75.2	76.7	79.2	82.1	85.7	87.9	88.6
60°	53.5	53.9	54.6	57.2	59.7	61.9	62.9	67.6	70.9	73.1	74.5
62.5°	39.4	40.2	40.9	43.1	45.6	47.4	49.2	53.2	56.1	58.2	59.7
65°	27.5	27.9	28.9	30.0	32.6	34.4	35.8	39.1	42.0	43.8	44.9
67.5°	17.0	17.4	18.1	19.5	21.3	22.8	24.2	26.4	28.9	30.7	31.1
70°	8.7	9.0	9.4	10.5	11.9	12.7	13.7	15.6	17.4	18.8	19.5
72.5°	2.9	2.9	3.3	4.0	4.7	5.4	5.8	7.6	9.0	9.8	10.1
75°	0.7	0.7	0.7	0.7	0.7	1.1	1.1	2.2	2.9	3.6	4.0
77.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7	0.7
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



TEST NUMBER: P840096

CATALOG NUMBER: LD4C05D010 EU4059050 4LBCSSQMMS

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7
2.5°	254.7	253.9	253.6	253.9	253.9	253.6	254.7	256.1	257.9	253.2
5°	254.3	253.6	254.3	252.1	253.2	252.5	253.9	253.6	255.0	253.6
7.5°	253.2	251.8	252.1	251.0	252.5	250.7	251.8	253.9	252.5	250.3
10°	249.6	248.9	251.4	247.8	247.1	248.5	251.4	249.2	248.5	249.2
12.5°	246.0	246.0	247.1	244.2	244.5	245.2	246.7	245.2	246.0	247.8
15°	242.0	241.3	243.1	240.9	240.6	239.8	241.3	241.3	242.0	240.9
17.5°	237.3	236.2	236.2	235.5	235.1	236.9	237.7	238.0	238.4	236.9
20°	231.5	231.2	232.2	231.2	231.5	231.9	231.9	231.2	234.4	230.4
22.5°	225.4	226.4	225.0	224.3	225.0	225.7	225.7	226.1	225.4	224.6
25°	219.2	219.9	220.3	218.1	219.2	218.1	220.7	221.0	219.6	220.3
27.5°	213.8	212.7	212.3	210.9	211.6	211.3	211.6	211.6	213.8	210.9
30°	205.5	204.4	204.7	203.7	204.0	203.7	204.0	204.0	205.5	205.1
32.5°	197.5	196.4	196.8	195.7	195.7	196.1	195.3	195.3	196.4	195.7
35°	189.9	187.4	187.7	187.4	187.7	186.3	186.3	185.9	186.7	184.8
37.5°	179.1	178.0	177.6	177.3	177.6	176.9	177.6	176.5	177.6	176.2
40°	169.3	168.6	168.9	166.8	166.8	167.1	166.4	166.0	166.4	167.8
42.5°	159.5	158.1	157.4	156.6	157.0	155.9	155.5	154.8	155.5	154.1
45°	147.9	147.9	147.6	145.8	146.1	146.1	144.7	143.2	143.6	143.6
47.5°	137.5	136.7	136.4	134.6	134.2	133.8	132.4	131.3	131.3	130.2
50°	125.9	125.2	124.1	122.3	121.5	119.4	118.3	116.8	115.4	115.4
52.5°	115.0	112.5	111.0	108.2	107.1	106.0	103.1	102.0	100.9	99.8
55°	102.0	99.8	97.0	93.7	92.2	90.4	87.5	85.4	83.9	84.3
57.5°	89.3	85.7	82.8	78.5	76.7	75.6	72.7	69.8	68.4	68.4
60°	73.8	70.9	67.3	63.3	61.9	60.1	56.4	54.6	53.5	52.5
62.5°	59.0	56.8	53.5	48.5	47.4	45.6	43.1	40.9	39.8	39.8
65°	44.1	42.0	39.1	35.5	34.0	32.6	30.4	28.2	27.1	26.8
67.5°	31.1	28.6	26.0	23.2	22.1	21.3	19.2	17.7	17.0	16.6
70°	18.8	17.4	15.6	13.4	12.3	11.6	10.1	9.0	8.7	8.3
72.5°	9.8	8.7	7.2	5.8	5.1	4.3	3.6	2.9	2.5	2.5
75°	3.6	2.9	1.8	1.1	0.7	0.7	0.7	0.7	0.7	0.7
77.5°	0.7	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)