

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: P840120

Luminaire Tested: **LD4C10D010 EU4109030 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: P840120
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: LD4C10D010 EU4109030 4LBCSSQMMS
Description: 4 INCH 1000 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

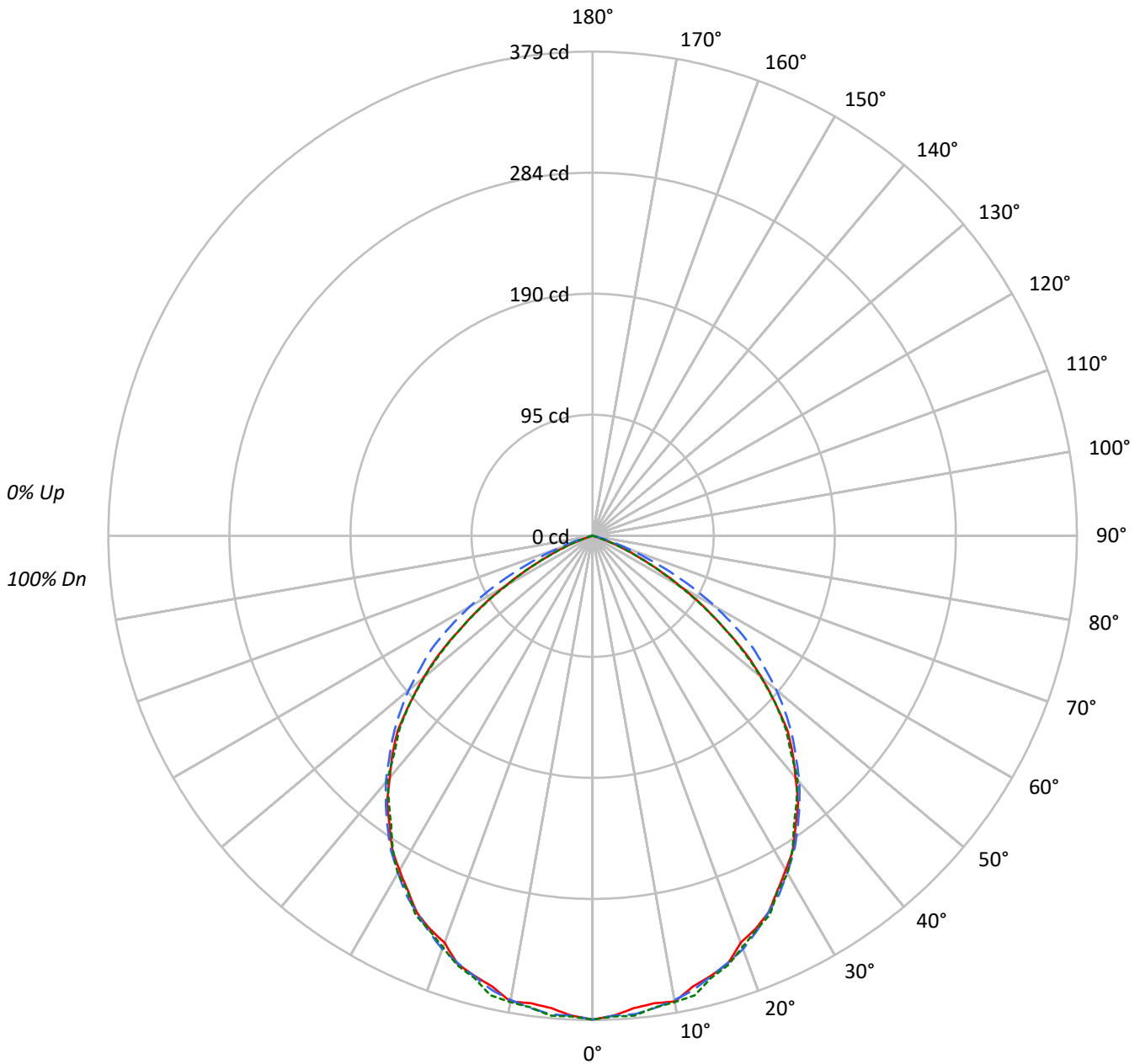
Lumens per Lamp: N/A
Luminaire Lumens: 809.0 lumens
Efficiency: N/A
Efficacy: 82.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.8
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°	36540	36540	36540
5°	35953	36418	36525
10°	36261	36154	36310
15°	35632	35682	35792
20°	34799	35353	35189
25°	34643	34643	34878
30°	33681	33926	33982
35°	32628	32946	32381
40°	31099	31703	31439
45°	29434	30102	29147
50°	25924	28176	25759
55°	20994	25789	21078
60°	15361	21382	15052
65°	9338	15228	9087
70°	3639	8210	3498
75°	410	2200	410
80°	278	278	278
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.7	4.4
10°-20°	101.2	12.5
20°-30°	150.1	18.6
30°-40°	173.9	21.5
40°-50°	166.7	20.6
50°-60°	122.6	15.2
60°-70°	53.0	6.5
70°-80°	5.7	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°	287.0	35.5
0°-40°	460.9	57.0
0°-60°	750.2	92.7
0°-90°	809.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	809.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	379	379	379	379	379	
5°	371	375	376	377	377	35
15°	357	359	357	358	358	101
25°	325	325	325	326	328	149
35°	277	279	280	279	275	173
45°	216	216	221	217	214	164
55°	125	138	153	137	125	112
65°	41	51	67	51	40	42
75°	1	2	6	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°	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7
2.5°	376.0	380.3	380.9	378.2	377.1	375.5	379.2	376.6	377.6	376.6	376.0
5°	371.2	376.0	376.6	376.6	375.5	374.9	376.6	376.0	375.5	374.4	376.0
7.5°	369.0	371.7	374.4	371.2	372.8	372.3	376.0	374.4	373.9	373.9	372.8
10°	370.1	369.6	371.7	368.5	369.6	368.5	371.7	371.7	370.6	369.6	369.0
12.5°	361.5	365.8	365.8	365.3	364.2	362.6	365.8	368.0	364.7	364.7	364.2
15°	356.7	357.7	358.3	358.3	357.7	358.8	360.4	358.3	358.8	356.1	357.2
17.5°	351.3	349.1	350.7	349.7	350.2	351.3	353.4	353.4	350.2	349.7	350.7
20°	338.9	345.4	345.9	342.7	343.2	343.2	347.0	343.8	345.9	343.2	344.3
22.5°	333.0	337.3	337.8	333.5	336.2	333.0	336.8	331.9	337.3	333.5	335.1
25°	325.4	324.9	326.5	324.4	324.9	324.9	327.6	325.4	327.1	324.9	325.4
27.5°	313.1	317.4	316.8	314.7	315.8	315.2	320.6	314.7	317.9	315.2	316.3
30°	302.3	306.1	305.0	302.9	302.9	301.2	307.2	305.5	305.0	305.0	304.5
32.5°	291.6	292.1	291.0	291.6	292.1	290.0	294.8	292.6	292.1	292.6	293.2
35°	277.0	277.0	278.1	276.5	278.7	278.7	283.0	280.3	279.7	278.1	279.7
37.5°	264.1	262.5	263.1	263.1	264.1	265.2	267.4	266.3	266.3	264.7	265.7
40°	246.9	245.8	247.4	247.4	249.1	249.1	251.2	250.1	251.7	251.7	251.7
42.5°	231.9	231.9	230.8	232.4	232.9	232.4	236.2	235.6	236.2	235.1	235.6
45°	215.7	215.7	214.6	214.1	216.8	216.3	220.6	218.9	221.1	220.0	220.6
47.5°	193.7	196.3	194.7	196.3	199.6	200.1	202.8	201.7	203.9	202.3	204.4
50°	172.7	172.7	174.3	176.4	179.7	180.2	183.4	185.6	186.7	187.2	187.7
52.5°	150.6	150.1	151.7	154.4	157.1	159.2	162.5	165.7	167.8	171.1	169.4
55°	124.8	125.9	127.5	130.7	135.0	137.7	140.4	144.7	148.5	150.1	153.3
57.5°	102.7	101.7	102.7	107.0	111.9	114.0	117.8	122.1	127.5	130.7	131.8
60°	79.6	80.2	81.2	85.0	88.8	92.0	93.6	100.6	105.4	108.7	110.8
62.5°	58.6	59.7	60.8	64.0	67.8	70.5	73.2	79.1	83.4	86.6	88.8
65°	40.9	41.4	43.0	44.6	48.4	51.1	53.2	58.1	62.4	65.1	66.7
67.5°	25.3	25.8	26.9	29.1	31.7	33.9	36.0	39.3	43.0	45.7	46.3
70°	12.9	13.5	14.0	15.6	17.8	18.8	20.4	23.1	25.8	28.0	29.1
72.5°	4.3	4.3	4.9	5.9	7.0	8.1	8.6	11.3	13.5	14.5	15.1
75°	1.1	1.1	1.1	1.1	1.1	1.6	1.6	3.2	4.3	5.4	5.9
77.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.1	1.1
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°	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7
2.5°	378.7	377.6	377.1	377.6	377.6	377.1	378.7	380.9	383.5	376.6
5°	378.2	377.1	378.2	374.9	376.6	375.5	377.6	377.1	379.2	377.1
7.5°	376.6	374.4	374.9	373.3	375.5	372.8	374.4	377.6	375.5	372.3
10°	371.2	370.1	373.9	368.5	367.4	369.6	373.9	370.6	369.6	370.6
12.5°	365.8	365.8	367.4	363.1	363.6	364.7	366.9	364.7	365.8	368.5
15°	359.9	358.8	361.5	358.3	357.7	356.7	358.8	358.8	359.9	358.3
17.5°	352.9	351.3	351.3	350.2	349.7	352.4	353.4	354.0	354.5	352.4
20°	344.3	343.8	345.4	343.8	344.3	344.8	344.8	343.8	348.6	342.7
22.5°	335.1	336.8	334.6	333.5	334.6	335.7	335.7	336.2	335.1	334.1
25°	326.0	327.1	327.6	324.4	326.0	324.4	328.1	328.7	326.5	327.6
27.5°	317.9	316.3	315.8	313.6	314.7	314.2	314.7	314.7	317.9	313.6
30°	305.5	303.9	304.5	302.9	303.4	302.9	303.4	303.4	305.5	305.0
32.5°	293.7	292.1	292.6	291.0	291.0	291.6	290.5	290.5	292.1	291.0
35°	282.4	278.7	279.2	278.7	279.2	277.0	277.0	276.5	277.6	274.9
37.5°	266.3	264.7	264.1	263.6	264.1	263.1	264.1	262.5	264.1	262.0
40°	251.7	250.7	251.2	248.0	248.0	248.5	247.4	246.9	247.4	249.6
42.5°	237.2	235.1	234.0	232.9	233.5	231.9	231.3	230.2	231.3	229.2
45°	220.0	220.0	219.5	216.8	217.3	217.3	215.2	213.0	213.6	213.6
47.5°	204.4	203.4	202.8	200.1	199.6	199.0	196.9	195.3	195.3	193.7
50°	187.2	186.1	184.5	181.8	180.7	177.5	175.9	173.8	171.6	171.6
52.5°	171.1	167.3	165.1	160.8	159.2	157.6	153.3	151.7	150.1	148.5
55°	151.7	148.5	144.2	139.3	137.2	134.5	130.2	126.9	124.8	125.3
57.5°	132.9	127.5	123.2	116.7	114.0	112.4	108.1	103.8	101.7	101.7
60°	109.7	105.4	100.1	94.1	92.0	89.3	83.9	81.2	79.6	78.0
62.5°	87.7	84.5	79.6	72.1	70.5	67.8	64.0	60.8	59.2	59.2
65°	65.6	62.4	58.1	52.7	50.6	48.4	45.2	42.0	40.3	39.8
67.5°	46.3	42.5	38.7	34.4	32.8	31.7	28.5	26.4	25.3	24.7
70°	28.0	25.8	23.1	19.9	18.3	17.2	15.1	13.5	12.9	12.4
72.5°	14.5	12.9	10.8	8.6	7.5	6.5	5.4	4.3	3.8	3.8
75°	5.4	4.3	2.7	1.6	1.1	1.1	1.1	1.1	1.1	1.1
77.5°	1.1	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)