

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: P563796

Luminaire Tested: **LD4C20D010 EX4C20D2W 4LBCSSQMW**

Issue Date: 5/25/2022

Test Information

Test Method: LM-79-08
Report Number: P563796
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: LD4C20D010 EX4C20D2W 4LBCSSQMW
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

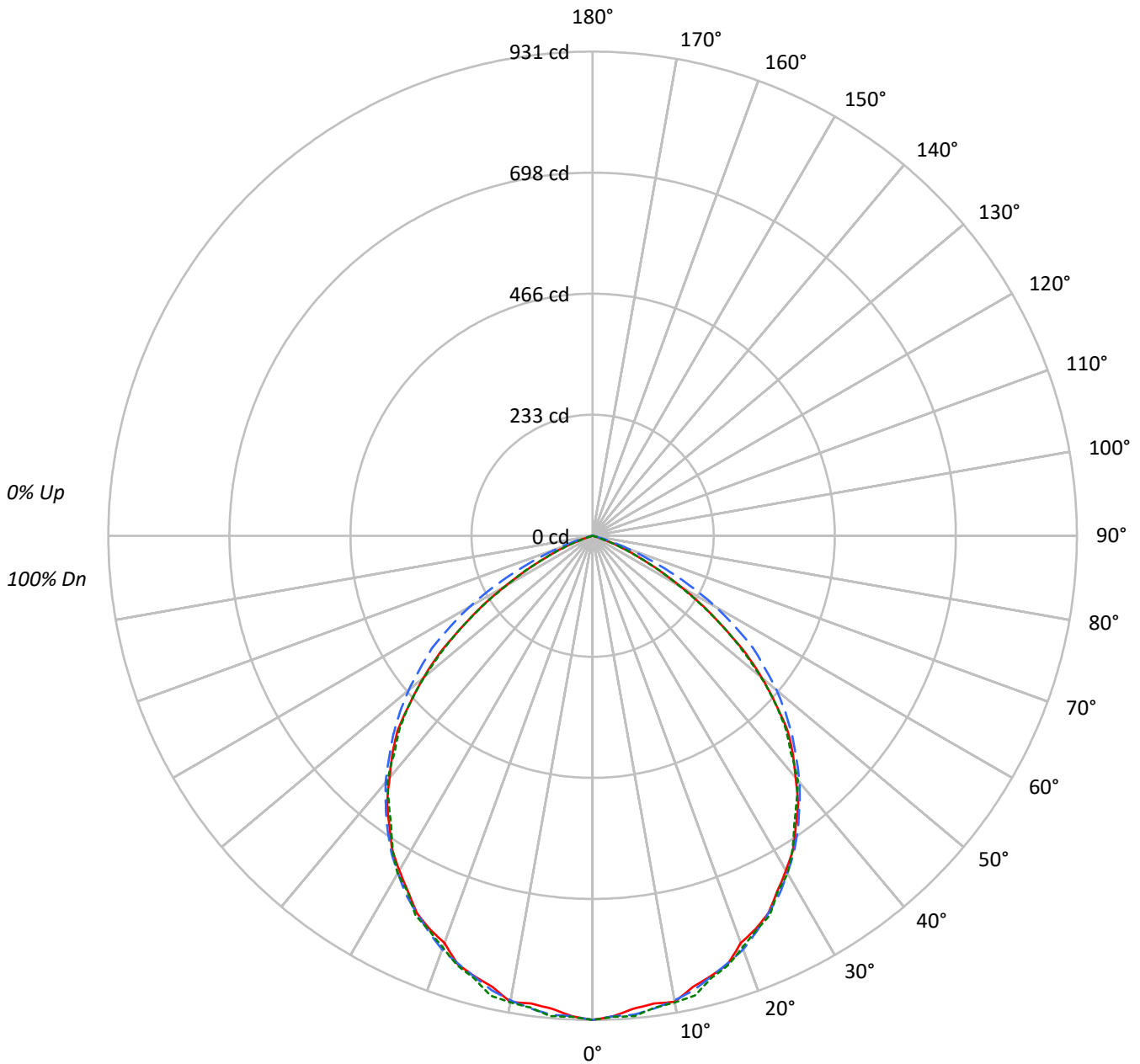
Lumens per Lamp: N/A
Luminaire Lumens: 1988.6 lumens
Efficiency: N/A
Efficacy: 91.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 21.8
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°	89822	89822	89822
5°	88373	89525	89787
10°	89140	88875	89267
15°	87576	87706	87975
20°	85544	86899	86488
25°	85171	85171	85735
30°	82804	83395	83540
35°	80216	80993	79592
40°	76456	77955	77287
45°	72363	73986	71639
50°	63722	69276	63316
55°	51611	63403	51830
60°	37766	52567	36994
65°	22945	37443	22352
70°	8943	20143	8576
75°	969	5406	969
80°	722	722	722
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.9	4.4
10°-20°	248.7	12.5
20°-30°	369.0	18.6
30°-40°	427.5	21.5
40°-50°	409.9	20.6
50°-60°	301.4	15.2
60°-70°	130.2	6.5
70°-80°	14.0	0.7
80°-90°	0.2	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°	705.5	35.5
0°-40°	1133.0	57.0
0°-60°	1844.3	92.7
0°-90°	1988.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1988.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	931	931	931	931	931	
5°	912	922	924	926	927	87
15°	877	882	878	879	881	247
25°	800	799	800	801	805	366
35°	681	685	688	686	676	426
45°	530	532	542	534	525	403
55°	307	338	377	337	308	276
65°	100	126	164	124	98	103
75°	3	4	14	3	3	8
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°	930.9	930.9	930.9	930.9	930.9	930.9	930.9	930.9	930.9	930.9	930.9
2.5°	924.3	934.9	936.2	929.6	927.0	923.0	932.3	925.7	928.3	925.7	924.3
5°	912.4	924.3	925.7	925.7	923.0	921.7	925.7	924.3	923.0	920.4	924.3
7.5°	907.1	913.8	920.4	912.4	916.4	915.1	924.3	920.4	919.0	919.0	916.4
10°	909.8	908.5	913.8	905.8	908.5	905.8	913.8	913.8	911.1	908.5	907.1
12.5°	888.6	899.2	899.2	897.9	895.2	891.3	899.2	904.5	896.6	896.6	895.2
15°	876.7	879.4	880.7	880.7	879.4	882.0	886.0	880.7	882.0	875.4	878.0
17.5°	863.5	858.2	862.2	859.5	860.9	863.5	868.8	868.8	860.9	859.5	862.2
20°	833.1	849.0	850.3	842.3	843.7	843.7	852.9	845.0	850.3	843.7	846.3
22.5°	818.5	829.1	830.4	819.9	826.5	818.5	827.8	815.9	829.1	819.9	823.8
25°	800.0	798.7	802.7	797.4	798.7	798.7	805.3	800.0	804.0	798.7	800.0
27.5°	769.6	780.2	778.9	773.6	776.2	774.9	788.1	773.6	781.5	774.9	777.5
30°	743.2	752.4	749.8	744.5	744.5	740.5	755.1	751.1	749.8	749.8	748.5
32.5°	716.7	718.0	715.4	716.7	718.0	712.8	724.7	719.4	718.0	719.4	720.7
35°	681.0	681.0	683.7	679.7	685.0	685.0	695.6	688.9	687.6	683.7	687.6
37.5°	649.3	645.3	646.6	646.6	649.3	651.9	657.2	654.6	654.6	650.6	653.2
40°	607.0	604.3	608.3	608.3	612.3	612.3	617.5	614.9	618.9	618.9	618.9
42.5°	569.9	569.9	567.3	571.3	572.6	571.3	580.5	579.2	580.5	577.9	579.2
45°	530.3	530.3	527.6	526.3	532.9	531.6	542.2	538.2	543.5	540.8	542.2
47.5°	476.0	482.7	478.7	482.7	490.6	491.9	498.5	495.9	501.2	497.2	502.5
50°	424.5	424.5	428.4	433.7	441.7	443.0	450.9	456.2	458.9	460.2	461.5
52.5°	370.3	368.9	372.9	379.5	386.1	391.4	399.4	407.3	412.6	420.5	416.5
55°	306.8	309.4	313.4	321.3	331.9	338.5	345.1	355.7	365.0	368.9	376.9
57.5°	252.6	249.9	252.6	263.1	275.1	280.3	289.6	300.2	313.4	321.3	324.0
60°	195.7	197.0	199.7	208.9	218.2	226.1	230.1	247.3	259.2	267.1	272.4
62.5°	144.1	146.8	149.4	157.4	166.6	173.2	179.8	194.4	205.0	212.9	218.2
65°	100.5	101.8	105.8	109.8	119.0	125.6	130.9	142.8	153.4	160.0	164.0
67.5°	62.2	63.5	66.1	71.4	78.0	83.3	88.6	96.5	105.8	112.4	113.7
70°	31.7	33.1	34.4	38.3	43.6	46.3	50.2	56.9	63.5	68.8	71.4
72.5°	10.6	10.6	11.9	14.5	17.2	19.8	21.2	27.8	33.1	35.7	37.0
75°	2.6	2.6	2.6	2.6	2.6	4.0	4.0	7.9	10.6	13.2	14.5
77.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.6	2.6
80°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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°	930.9	930.9	930.9	930.9	930.9	930.9	930.9	930.9	930.9	930.9
2.5°	930.9	928.3	927.0	928.3	928.3	927.0	930.9	936.2	942.8	925.7
5°	929.6	927.0	929.6	921.7	925.7	923.0	928.3	927.0	932.3	927.0
7.5°	925.7	920.4	921.7	917.7	923.0	916.4	920.4	928.3	923.0	915.1
10°	912.4	909.8	919.0	905.8	903.2	908.5	919.0	911.1	908.5	911.1
12.5°	899.2	899.2	903.2	892.6	893.9	896.6	901.8	896.6	899.2	905.8
15°	884.7	882.0	888.6	880.7	879.4	876.7	882.0	882.0	884.7	880.7
17.5°	867.5	863.5	863.5	860.9	859.5	866.1	868.8	870.1	871.4	866.1
20°	846.3	845.0	849.0	845.0	846.3	847.6	847.6	845.0	856.9	842.3
22.5°	823.8	827.8	822.5	819.9	822.5	825.2	825.2	826.5	823.8	821.2
25°	801.4	804.0	805.3	797.4	801.4	797.4	806.6	808.0	802.7	805.3
27.5°	781.5	777.5	776.2	770.9	773.6	772.3	773.6	773.6	781.5	770.9
30°	751.1	747.1	748.5	744.5	745.8	744.5	745.8	745.8	751.1	749.8
32.5°	722.0	718.0	719.4	715.4	715.4	716.7	714.1	714.1	718.0	715.4
35°	694.2	685.0	686.3	685.0	686.3	681.0	681.0	679.7	682.3	675.7
37.5°	654.6	650.6	649.3	648.0	649.3	646.6	649.3	645.3	649.3	644.0
40°	618.9	616.2	617.5	609.6	609.6	610.9	608.3	607.0	608.3	613.6
42.5°	583.2	577.9	575.2	572.6	573.9	569.9	568.6	566.0	568.6	563.3
45°	540.8	540.8	539.5	532.9	534.2	534.2	528.9	523.7	525.0	525.0
47.5°	502.5	499.9	498.5	491.9	490.6	489.3	484.0	480.0	480.0	476.0
50°	460.2	457.5	453.6	447.0	444.3	436.4	432.4	427.1	421.8	421.8
52.5°	420.5	411.3	406.0	395.4	391.4	387.5	376.9	372.9	368.9	365.0
55°	372.9	365.0	354.4	342.5	337.2	330.6	320.0	312.1	306.8	308.1
57.5°	326.6	313.4	302.8	287.0	280.3	276.4	265.8	255.2	249.9	249.9
60°	269.8	259.2	246.0	231.4	226.1	219.5	206.3	199.7	195.7	191.7
62.5°	215.5	207.6	195.7	177.2	173.2	166.6	157.4	149.4	145.5	145.5
65°	161.3	153.4	142.8	129.6	124.3	119.0	111.1	103.1	99.2	97.9
67.5°	113.7	104.5	95.2	84.6	80.7	78.0	70.1	64.8	62.2	60.8
70°	68.8	63.5	56.9	48.9	45.0	42.3	37.0	33.1	31.7	30.4
72.5°	35.7	31.7	26.4	21.2	18.5	15.9	13.2	10.6	9.3	9.3
75°	13.2	10.6	6.6	4.0	2.6	2.6	2.6	2.6	2.6	2.6
77.5°	2.6	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
80°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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)