

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: P840145

Luminaire Tested: **LD4C20D010 EU4209040 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: P840145
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 EU4209040 4LBCSSQMW
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

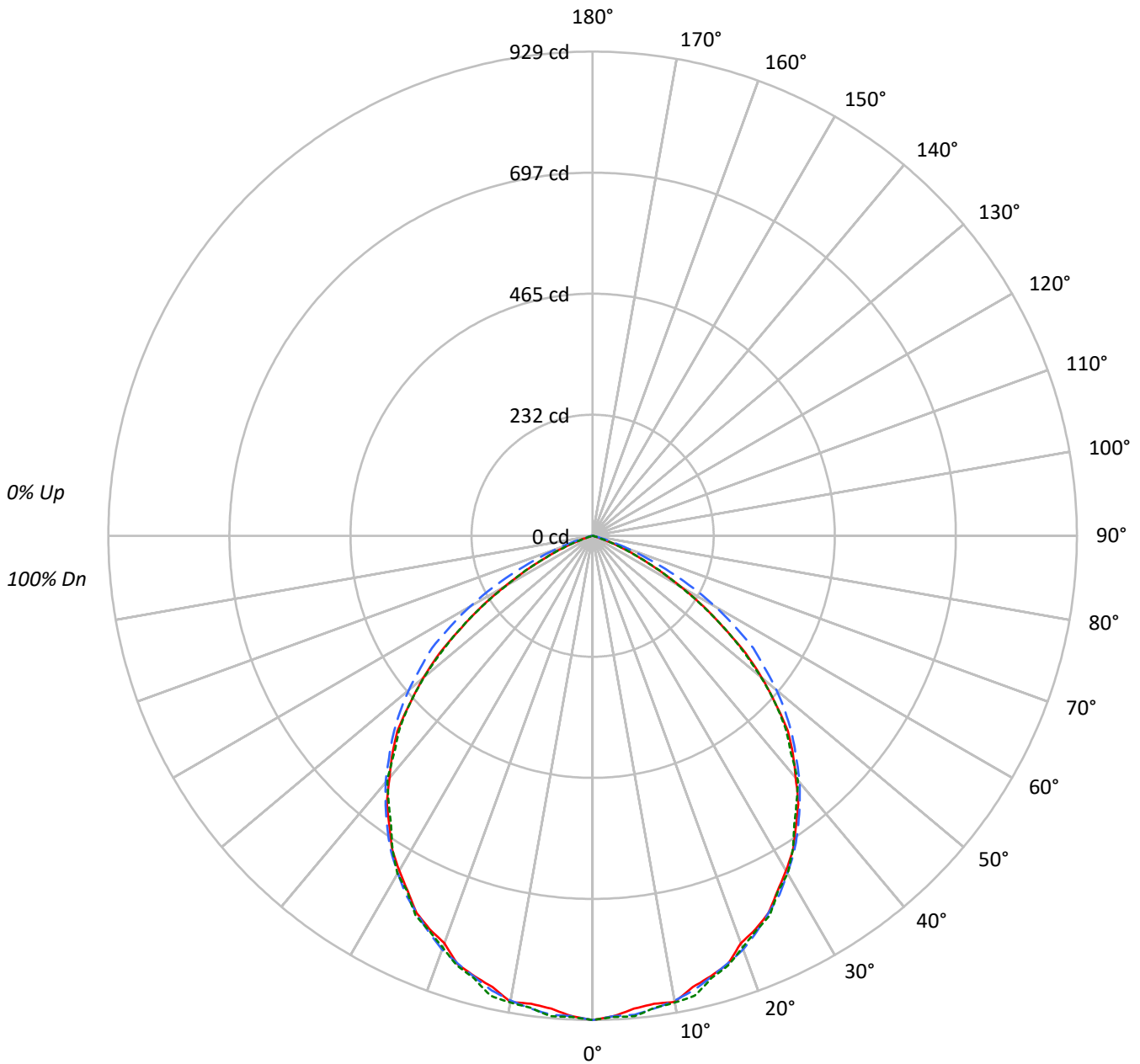
Lumens per Lamp: N/A
Luminaire Lumens: 1985.0 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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°	89657	89657	89657
5°	88218	89361	89622
10°	88973	88719	89101
15°	87416	87546	87806
20°	85390	86735	86334
25°	85011	85011	85576
30°	82648	83239	83384
35°	80063	80852	79450
40°	76318	77804	77136
45°	72226	73850	71503
50°	63602	69156	63211
55°	51510	63286	51745
60°	37689	52471	36936
65°	22900	37375	22306
70°	8943	20115	8576
75°	969	5406	969
80°	722	722	722
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.7	4.4
10°-20°	248.2	12.5
20°-30°	368.3	18.6
30°-40°	426.7	21.5
40°-50°	409.1	20.6
50°-60°	300.8	15.2
60°-70°	129.9	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°	704.2	35.5
0°-40°	1130.9	57.0
0°-60°	1840.9	92.7
0°-90°	1985.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1985.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	929	929	929	929	929	
5°	911	920	923	924	925	87
15°	875	880	876	878	879	247
25°	798	797	798	800	804	366
35°	680	684	686	685	674	425
45°	529	531	541	533	524	402
55°	306	338	376	337	308	276
65°	100	125	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°	929.2	929.2	929.2	929.2	929.2	929.2	929.2	929.2	929.2	929.2	929.2
2.5°	922.6	933.2	934.5	927.9	925.3	921.3	930.5	924.0	926.6	924.0	922.6
5°	910.8	922.6	924.0	924.0	921.3	920.0	924.0	922.6	921.3	918.7	922.6
7.5°	905.5	912.1	918.7	910.8	914.7	913.4	922.6	918.7	917.3	917.3	914.7
10°	908.1	906.8	912.1	904.1	906.8	904.1	912.1	912.1	909.4	906.8	905.5
12.5°	887.0	897.5	897.5	896.2	893.6	889.6	897.5	902.9	894.9	894.9	893.6
15°	875.1	877.8	879.0	879.0	877.8	880.4	884.3	879.0	880.4	873.8	876.4
17.5°	861.9	856.6	860.6	857.9	859.3	861.9	867.2	867.2	859.3	857.9	860.6
20°	831.6	847.4	848.7	840.8	842.1	842.1	851.4	843.5	848.7	842.1	844.7
22.5°	817.0	827.6	828.9	818.4	824.9	817.0	826.3	814.4	827.6	818.4	822.3
25°	798.5	797.2	801.2	795.9	797.2	797.2	803.8	798.5	802.5	797.2	798.5
27.5°	768.2	778.8	777.4	772.2	774.8	773.5	786.7	772.2	780.1	773.5	776.1
30°	741.8	751.0	748.4	743.1	743.1	739.1	753.7	749.7	748.4	748.4	747.1
32.5°	715.4	716.7	714.1	715.4	716.7	711.5	723.3	718.0	716.7	718.0	719.4
35°	679.7	679.7	682.4	678.4	683.7	683.7	694.3	687.7	686.4	682.4	686.4
37.5°	648.1	644.1	645.4	645.4	648.1	650.7	656.0	653.3	653.3	649.4	652.1
40°	605.9	603.2	607.1	607.1	611.1	611.1	616.4	613.8	617.7	617.7	617.7
42.5°	568.9	568.9	566.3	570.2	571.5	570.2	579.5	578.1	579.5	576.8	578.1
45°	529.3	529.3	526.6	525.3	531.9	530.6	541.2	537.2	542.5	539.8	541.2
47.5°	475.1	481.8	477.8	481.8	489.7	491.0	497.6	495.0	500.2	496.3	501.6
50°	423.7	423.7	427.7	432.9	440.8	442.2	450.1	455.4	458.0	459.3	460.7
52.5°	369.6	368.2	372.2	378.8	385.4	390.7	398.6	406.5	411.8	419.7	415.7
55°	306.2	308.8	312.8	320.8	331.3	337.9	344.5	355.1	364.3	368.2	376.2
57.5°	252.1	249.4	252.1	262.6	274.5	279.8	289.1	299.6	312.8	320.8	323.4
60°	195.3	196.7	199.3	208.6	217.8	225.7	229.7	246.8	258.7	266.6	271.9
62.5°	143.9	146.5	149.2	157.1	166.3	172.9	179.5	194.0	204.6	212.5	217.8
65°	100.3	101.6	105.6	109.5	118.8	125.4	130.6	142.6	153.1	159.7	163.7
67.5°	62.0	63.3	66.0	71.3	77.9	83.1	88.4	96.3	105.6	112.2	113.5
70°	31.7	33.0	34.3	38.3	43.6	46.2	50.1	56.8	63.3	68.6	71.3
72.5°	10.6	10.6	11.9	14.5	17.2	19.8	21.1	27.7	33.0	35.7	36.9
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°	929.2	929.2	929.2	929.2	929.2	929.2	929.2	929.2	929.2	929.2
2.5°	929.2	926.6	925.3	926.6	926.6	925.3	929.2	934.5	941.1	924.0
5°	927.9	925.3	927.9	920.0	924.0	921.3	926.6	925.3	930.5	925.3
7.5°	924.0	918.7	920.0	916.0	921.3	914.7	918.7	926.6	921.3	913.4
10°	910.8	908.1	917.3	904.1	901.5	906.8	917.3	909.4	906.8	909.4
12.5°	897.5	897.5	901.5	891.0	892.2	894.9	900.2	894.9	897.5	904.1
15°	883.0	880.4	887.0	879.0	877.8	875.1	880.4	880.4	883.0	879.0
17.5°	865.9	861.9	861.9	859.3	857.9	864.6	867.2	868.5	869.8	864.6
20°	844.7	843.5	847.4	843.5	844.7	846.1	846.1	843.5	855.3	840.8
22.5°	822.3	826.3	821.0	818.4	821.0	823.6	823.6	824.9	822.3	819.6
25°	799.9	802.5	803.8	795.9	799.9	795.9	805.2	806.5	801.2	803.8
27.5°	780.1	776.1	774.8	769.5	772.2	770.9	772.2	772.2	780.1	769.5
30°	749.7	745.8	747.1	743.1	744.4	743.1	744.4	744.4	749.7	748.4
32.5°	720.7	716.7	718.0	714.1	714.1	715.4	712.8	712.8	716.7	714.1
35°	692.9	683.7	685.0	683.7	685.0	679.7	679.7	678.4	681.1	674.5
37.5°	653.3	649.4	648.1	646.8	648.1	645.4	648.1	644.1	648.1	642.8
40°	617.7	615.1	616.4	608.5	608.5	609.8	607.1	605.9	607.1	612.4
42.5°	582.1	576.8	574.2	571.5	572.8	568.9	567.6	564.9	567.6	562.3
45°	539.8	539.8	538.5	531.9	533.3	533.3	528.0	522.7	524.0	524.0
47.5°	501.6	499.0	497.6	491.0	489.7	488.4	483.1	479.1	479.1	475.1
50°	459.3	456.7	452.7	446.1	443.5	435.6	431.6	426.4	421.1	421.1
52.5°	419.7	410.5	405.2	394.6	390.7	386.7	376.2	372.2	368.2	364.3
55°	372.2	364.3	353.8	341.9	336.6	330.0	319.4	311.5	306.2	307.6
57.5°	326.0	312.8	302.3	286.4	279.8	275.8	265.3	254.7	249.4	249.4
60°	269.3	258.7	245.5	231.0	225.7	219.1	205.9	199.3	195.3	191.4
62.5°	215.1	207.2	195.3	176.9	172.9	166.3	157.1	149.2	145.2	145.2
65°	161.0	153.1	142.6	129.4	124.1	118.8	110.9	103.0	99.0	97.7
67.5°	113.5	104.3	95.1	84.5	80.5	77.9	70.0	64.7	62.0	60.7
70°	68.6	63.3	56.8	48.8	44.9	42.2	36.9	33.0	31.7	30.4
72.5°	35.7	31.7	26.4	21.1	18.5	15.8	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)