

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: P840157

Luminaire Tested: **LD4C25D010 EU4259050 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: P840157
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: LD4C25D010 EU4259050 4LBCSSQMW
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

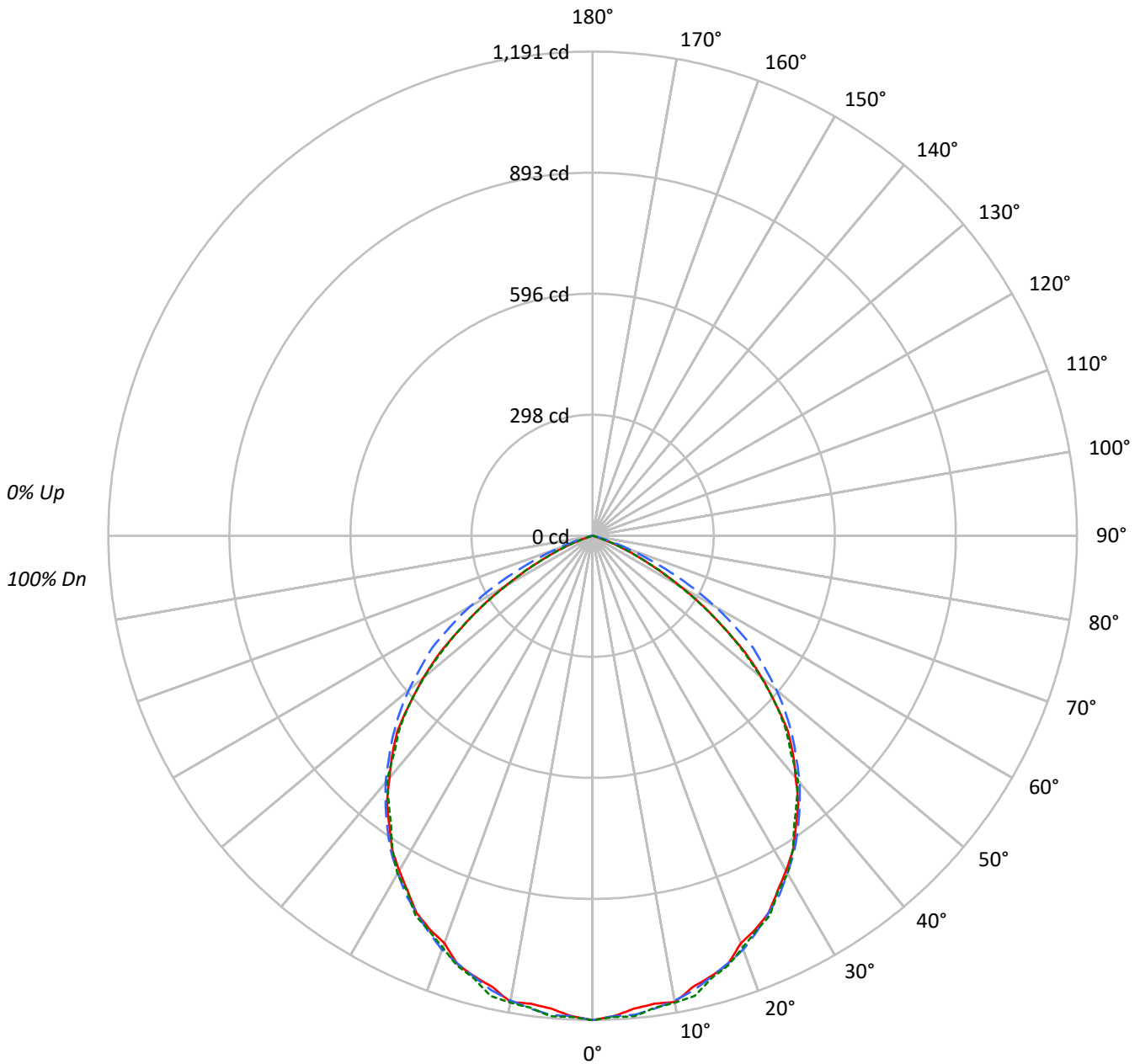
Lumens per Lamp: N/A
Luminaire Lumens: 2545.0 lumens
Efficiency: N/A
Efficacy: 80.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
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									
RC	80									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	33																			
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°	114957	114957	114957
5°	113100	114573	114902
10°	114075	113742	114242
15°	112080	112249	112579
20°	109469	111214	110690
25°	108998	108998	109722
30°	105956	106714	106903
35°	102655	103656	101854
40°	97844	99758	98902
45°	92599	94673	91671
50°	81555	88655	81044
55°	66044	81134	66330
60°	48322	67272	47357
65°	29361	47900	28585
70°	11454	25785	10974
75°	1268	6934	1268
80°	945	945	945
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.5	4.4
10°-20°	318.2	12.5
20°-30°	472.2	18.6
30°-40°	547.1	21.5
40°-50°	524.6	20.6
50°-60°	385.7	15.2
60°-70°	166.6	6.5
70°-80°	18.0	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°	902.9	35.5
0°-40°	1450.0	57.0
0°-60°	2360.2	92.7
0°-90°	2545.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2545.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1191	1191	1191	1191	1191	
5°	1168	1180	1183	1185	1186	111
15°	1122	1129	1124	1125	1127	316
25°	1024	1022	1024	1026	1031	469
35°	872	877	880	878	865	545
45°	679	680	694	684	672	516
55°	393	433	482	432	394	353
65°	129	161	210	159	125	132
75°	3	5	19	3	3	10
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°	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4
2.5°	1182.9	1196.4	1198.2	1189.7	1186.3	1181.2	1193.1	1184.6	1188.0	1184.6	1182.9
5°	1167.7	1182.9	1184.6	1184.6	1181.2	1179.5	1184.6	1182.9	1181.2	1177.9	1182.9
7.5°	1160.9	1169.4	1177.9	1167.7	1172.8	1171.1	1182.9	1177.9	1176.1	1176.1	1172.8
10°	1164.3	1162.6	1169.4	1159.2	1162.6	1159.2	1169.4	1169.4	1166.0	1162.6	1160.9
12.5°	1137.2	1150.7	1150.7	1149.1	1145.7	1140.6	1150.7	1157.6	1147.3	1147.3	1145.7
15°	1122.0	1125.4	1127.0	1127.0	1125.4	1128.8	1133.8	1127.0	1128.8	1120.3	1123.7
17.5°	1105.1	1098.3	1103.4	1100.0	1101.7	1105.1	1111.9	1111.9	1101.7	1100.0	1103.4
20°	1066.1	1086.4	1088.2	1078.0	1079.7	1079.7	1091.6	1081.4	1088.2	1079.7	1083.1
22.5°	1047.5	1061.0	1062.8	1049.2	1057.7	1047.5	1059.4	1044.1	1061.0	1049.2	1054.3
25°	1023.8	1022.2	1027.2	1020.4	1022.2	1022.2	1030.6	1023.8	1028.9	1022.2	1023.8
27.5°	984.9	998.5	996.8	990.0	993.4	991.7	1008.6	990.0	1000.1	991.7	995.1
30°	951.0	962.9	959.5	952.8	952.8	947.7	966.3	961.2	959.5	959.5	957.8
32.5°	917.2	918.9	915.6	917.2	918.9	912.2	927.4	920.6	918.9	920.6	922.3
35°	871.5	871.5	874.9	869.8	876.6	876.6	890.1	881.7	880.0	874.9	880.0
37.5°	830.9	825.9	827.5	827.5	830.9	834.3	841.1	837.7	837.7	832.6	836.0
40°	776.8	773.4	778.4	778.4	783.5	783.5	790.3	786.9	792.0	792.0	792.0
42.5°	729.4	729.4	726.0	731.1	732.8	731.1	742.9	741.2	742.9	739.6	741.2
45°	678.6	678.6	675.2	673.5	682.0	680.3	693.8	688.7	695.5	692.1	693.8
47.5°	609.2	617.7	612.6	617.7	627.8	629.6	638.0	634.6	641.4	636.3	643.1
50°	543.3	543.3	548.3	555.1	565.2	566.9	577.1	583.9	587.2	588.9	590.6
52.5°	473.9	472.1	477.2	485.7	494.2	500.9	511.1	521.2	528.0	538.1	533.0
55°	392.6	396.0	401.1	411.2	424.8	433.2	441.7	455.2	467.1	472.1	482.3
57.5°	323.2	319.8	323.2	336.7	352.0	358.8	370.6	384.2	401.1	411.2	414.6
60°	250.4	252.2	255.5	267.4	279.2	289.4	294.5	316.4	331.7	341.8	348.6
62.5°	184.5	187.9	191.3	201.4	213.2	221.7	230.1	248.8	262.3	272.5	279.2
65°	128.6	130.3	135.4	140.4	152.3	160.7	167.5	182.8	196.3	204.8	209.8
67.5°	79.5	81.2	84.6	91.4	99.8	106.6	113.4	123.5	135.4	143.8	145.5
70°	40.6	42.3	44.0	49.1	55.9	59.2	64.3	72.8	81.2	88.0	91.4
72.5°	13.5	13.5	15.3	18.6	22.0	25.4	27.1	35.6	42.3	45.7	47.4
75°	3.4	3.4	3.4	3.4	3.4	5.1	5.1	10.1	13.5	16.9	18.6
77.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.4	3.4
80°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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°	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4	1191.4
2.5°	1191.4	1188.0	1186.3	1188.0	1188.0	1186.3	1191.4	1198.2	1206.6	1184.6
5°	1189.7	1186.3	1189.7	1179.5	1184.6	1181.2	1188.0	1186.3	1193.1	1186.3
7.5°	1184.6	1177.9	1179.5	1174.5	1181.2	1172.8	1177.9	1188.0	1181.2	1171.1
10°	1167.7	1164.3	1176.1	1159.2	1155.8	1162.6	1176.1	1166.0	1162.6	1166.0
12.5°	1150.7	1150.7	1155.8	1142.3	1144.0	1147.3	1154.1	1147.3	1150.7	1159.2
15°	1132.2	1128.8	1137.2	1127.0	1125.4	1122.0	1128.8	1128.8	1132.2	1127.0
17.5°	1110.1	1105.1	1105.1	1101.7	1100.0	1108.5	1111.9	1113.5	1115.2	1108.5
20°	1083.1	1081.4	1086.4	1081.4	1083.1	1084.8	1084.8	1081.4	1096.6	1078.0
22.5°	1054.3	1059.4	1052.6	1049.2	1052.6	1056.0	1056.0	1057.7	1054.3	1050.9
25°	1025.5	1028.9	1030.6	1020.4	1025.5	1020.4	1032.3	1034.0	1027.2	1030.6
27.5°	1000.1	995.1	993.4	986.6	990.0	988.3	990.0	990.0	1000.1	986.6
30°	961.2	956.2	957.8	952.8	954.4	952.8	954.4	954.4	961.2	959.5
32.5°	924.0	918.9	920.6	915.6	915.6	917.2	913.8	913.8	918.9	915.6
35°	888.4	876.6	878.3	876.6	878.3	871.5	871.5	869.8	873.2	864.7
37.5°	837.7	832.6	830.9	829.2	830.9	827.5	830.9	825.9	830.9	824.1
40°	792.0	788.6	790.3	780.2	780.2	781.8	778.4	776.8	778.4	785.2
42.5°	746.3	739.6	736.2	732.8	734.4	729.4	727.7	724.3	727.7	720.9
45°	692.1	692.1	690.5	682.0	683.7	683.7	676.9	670.2	671.8	671.8
47.5°	643.1	639.7	638.0	629.6	627.8	626.2	619.3	614.3	614.3	609.2
50°	588.9	585.5	580.5	572.0	568.6	558.4	553.4	546.6	539.9	539.9
52.5°	538.1	526.3	519.5	506.0	500.9	495.8	482.3	477.2	472.1	467.1
55°	477.2	467.1	453.6	438.3	431.5	423.0	409.5	399.4	392.6	394.3
57.5°	418.0	401.1	387.6	367.3	358.8	353.7	340.1	326.6	319.8	319.8
60°	345.2	331.7	314.8	296.1	289.4	280.9	264.0	255.5	250.4	245.4
62.5°	275.8	265.7	250.4	226.7	221.7	213.2	201.4	191.3	186.1	186.1
65°	206.4	196.3	182.8	165.8	159.1	152.3	142.2	132.0	126.9	125.2
67.5°	145.5	133.7	121.9	108.3	103.2	99.8	89.7	82.9	79.5	77.8
70°	88.0	81.2	72.8	62.6	57.5	54.1	47.4	42.3	40.6	38.9
72.5°	45.7	40.6	33.8	27.1	23.7	20.3	16.9	13.5	11.9	11.9
75°	16.9	13.5	8.5	5.1	3.4	3.4	3.4	3.4	3.4	3.4
77.5°	3.4	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
80°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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)