

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: P840155

Luminaire Tested: **LD4C25D010 EU4259040 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: P840155
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 EU4259040 4LBCSSQMW
Description: 4 INCH 2500 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

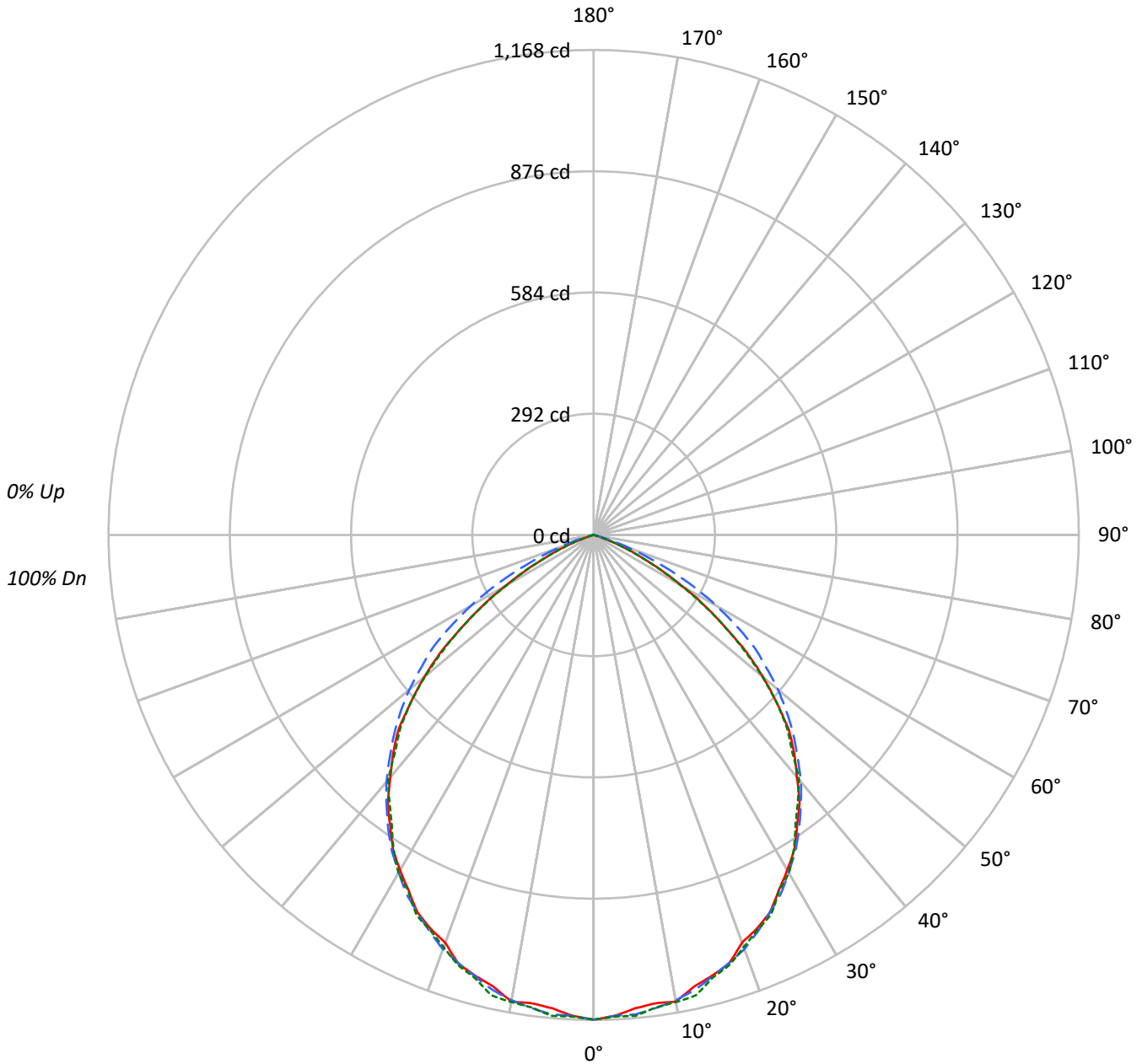
Lumens per Lamp: N/A
Luminaire Lumens: 2494.0 lumens
Efficiency: N/A
Efficacy: 79.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	112651	112651	112651
5°	110834	112277	112597
10°	111792	111469	111949
15°	109832	109992	110331
20°	107281	108986	108473
25°	106815	106815	107518
30°	103840	104575	104764
35°	100594	101583	99816
40°	95879	97755	96924
45°	90743	92776	89843
50°	79919	86884	79423
55°	64715	79502	65001
60°	47357	65921	46411
65°	28790	46941	28014
70°	11228	25277	10777
75°	1230	6822	1230
80°	945	945	945
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.2	4.4
10°-20°	311.8	12.5
20°-30°	462.7	18.6
30°-40°	536.1	21.5
40°-50°	514.0	20.6
50°-60°	378.0	15.2
60°-70°	163.2	6.5
70°-80°	17.6	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°	884.8	35.5
0°-40°	1420.9	57.0
0°-60°	2312.9	92.7
0°-90°	2494.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2494.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1168	1168	1168	1168	1168	
5°	1144	1156	1159	1161	1162	109
15°	1100	1106	1101	1103	1104	310
25°	1003	1002	1003	1005	1010	459
35°	854	859	862	861	847	534
45°	665	667	680	670	658	506
55°	385	424	473	423	386	346
65°	126	158	206	156	123	130
75°	3	5	18	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°	1167.5	1167.5	1167.5	1167.5	1167.5	1167.5	1167.5	1167.5	1167.5	1167.5	1167.5
2.5°	1159.2	1172.5	1174.1	1165.8	1162.5	1157.6	1169.1	1160.9	1164.2	1160.9	1159.2
5°	1144.3	1159.2	1160.9	1160.9	1157.6	1155.9	1160.9	1159.2	1157.6	1154.3	1159.2
7.5°	1137.7	1145.9	1154.3	1144.3	1149.3	1147.6	1159.2	1154.3	1152.6	1152.6	1149.3
10°	1141.0	1139.3	1145.9	1136.0	1139.3	1136.0	1145.9	1145.9	1142.6	1139.3	1137.7
12.5°	1114.4	1127.7	1127.7	1126.0	1122.7	1117.7	1127.7	1134.4	1124.4	1124.4	1122.7
15°	1099.5	1102.8	1104.5	1104.5	1102.8	1106.1	1111.1	1104.5	1106.1	1097.8	1101.1
17.5°	1082.9	1076.3	1081.2	1077.9	1079.6	1082.9	1089.6	1089.6	1079.6	1077.9	1081.2
20°	1044.8	1064.7	1066.4	1056.4	1058.0	1058.0	1069.7	1059.7	1066.4	1058.0	1061.4
22.5°	1026.5	1039.8	1041.5	1028.2	1036.5	1026.5	1038.1	1023.2	1039.8	1028.2	1033.1
25°	1003.3	1001.7	1006.6	1000.0	1001.7	1001.7	1009.9	1003.3	1008.3	1001.7	1003.3
27.5°	965.2	978.5	976.8	970.1	973.5	971.8	988.4	970.1	980.1	971.8	975.2
30°	932.0	943.6	940.3	933.7	933.7	928.7	946.9	941.9	940.3	940.3	938.6
32.5°	898.8	900.5	897.2	898.8	900.5	893.9	908.8	902.1	900.5	902.1	903.8
35°	854.0	854.0	857.4	852.4	859.0	859.0	872.3	864.0	862.4	857.4	862.4
37.5°	814.3	809.3	810.9	810.9	814.3	817.6	824.2	820.9	820.9	815.9	819.3
40°	761.2	757.9	762.8	762.8	767.8	767.8	774.5	771.2	776.1	776.1	776.1
42.5°	714.8	714.8	711.5	716.4	718.1	716.4	728.0	726.4	728.0	724.7	726.4
45°	665.0	665.0	661.7	660.0	668.3	666.7	679.9	674.9	681.6	678.3	679.9
47.5°	597.0	605.3	600.3	605.3	615.3	616.9	625.2	621.9	628.5	623.6	630.2
50°	532.4	532.4	537.3	543.9	553.9	555.6	565.5	572.2	575.5	577.1	578.8
52.5°	464.4	462.7	467.7	475.9	484.3	490.9	500.8	510.8	517.4	527.4	522.4
55°	384.7	388.0	393.1	403.0	416.3	424.5	432.8	446.1	457.7	462.7	472.6
57.5°	316.7	313.4	316.7	330.0	344.9	351.6	363.2	376.5	393.1	403.0	406.3
60°	245.4	247.1	250.4	262.1	273.6	283.6	288.6	310.1	325.1	335.0	341.6
62.5°	180.8	184.1	187.4	197.4	208.9	217.3	225.5	243.8	257.1	267.0	273.6
65°	126.1	127.7	132.7	137.6	149.3	157.5	164.2	179.1	192.4	200.7	205.6
67.5°	77.9	79.6	82.9	89.6	97.8	104.5	111.1	121.0	132.7	140.9	142.6
70°	39.8	41.5	43.1	48.1	54.7	58.1	63.0	71.3	79.6	86.2	89.6
72.5°	13.3	13.3	15.0	18.3	21.6	24.9	26.5	34.8	41.5	44.8	46.4
75°	3.3	3.3	3.3	3.3	3.3	5.0	5.0	9.9	13.3	16.6	18.3
77.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.3	3.3
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°	1167.5	1167.5	1167.5	1167.5	1167.5	1167.5	1167.5	1167.5	1167.5	1167.5
2.5°	1167.5	1164.2	1162.5	1164.2	1164.2	1162.5	1167.5	1174.1	1182.4	1160.9
5°	1165.8	1162.5	1165.8	1155.9	1160.9	1157.6	1164.2	1162.5	1169.1	1162.5
7.5°	1160.9	1154.3	1155.9	1150.9	1157.6	1149.3	1154.3	1164.2	1157.6	1147.6
10°	1144.3	1141.0	1152.6	1136.0	1132.7	1139.3	1152.6	1142.6	1139.3	1142.6
12.5°	1127.7	1127.7	1132.7	1119.4	1121.0	1124.4	1131.0	1124.4	1127.7	1136.0
15°	1109.5	1106.1	1114.4	1104.5	1102.8	1099.5	1106.1	1106.1	1109.5	1104.5
17.5°	1087.9	1082.9	1082.9	1079.6	1077.9	1086.3	1089.6	1091.2	1092.9	1086.3
20°	1061.4	1059.7	1064.7	1059.7	1061.4	1063.0	1063.0	1059.7	1074.6	1056.4
22.5°	1033.1	1038.1	1031.5	1028.2	1031.5	1034.8	1034.8	1036.5	1033.1	1029.8
25°	1005.0	1008.3	1009.9	1000.0	1005.0	1000.0	1011.6	1013.2	1006.6	1009.9
27.5°	980.1	975.2	973.5	966.8	970.1	968.5	970.1	970.1	980.1	966.8
30°	941.9	937.0	938.6	933.7	935.3	933.7	935.3	935.3	941.9	940.3
32.5°	905.5	900.5	902.1	897.2	897.2	898.8	895.5	895.5	900.5	897.2
35°	870.6	859.0	860.7	859.0	860.7	854.0	854.0	852.4	855.7	847.4
37.5°	820.9	815.9	814.3	812.6	814.3	810.9	814.3	809.3	814.3	807.6
40°	776.1	772.8	774.5	764.5	764.5	766.1	762.8	761.2	762.8	769.5
42.5°	731.4	724.7	721.4	718.1	719.7	714.8	713.1	709.8	713.1	706.5
45°	678.3	678.3	676.6	668.3	670.0	670.0	663.4	656.7	658.4	658.4
47.5°	630.2	626.9	625.2	616.9	615.3	613.6	606.9	602.0	602.0	597.0
50°	577.1	573.8	568.8	560.5	557.2	547.3	542.3	535.7	529.1	529.1
52.5°	527.4	515.7	509.1	495.8	490.9	485.9	472.6	467.7	462.7	457.7
55°	467.7	457.7	444.5	429.5	422.9	414.6	401.3	391.4	384.7	386.4
57.5°	409.6	393.1	379.8	359.9	351.6	346.6	333.3	320.0	313.4	313.4
60°	338.3	325.1	308.5	290.2	283.6	275.3	258.7	250.4	245.4	240.5
62.5°	270.3	260.4	245.4	222.2	217.3	208.9	197.4	187.4	182.4	182.4
65°	202.3	192.4	179.1	162.5	155.9	149.3	139.3	129.4	124.4	122.7
67.5°	142.6	131.0	119.4	106.2	101.2	97.8	87.9	81.3	77.9	76.3
70°	86.2	79.6	71.3	61.4	56.4	53.0	46.4	41.5	39.8	38.2
72.5°	44.8	39.8	33.2	26.5	23.2	19.9	16.6	13.3	11.6	11.6
75°	16.6	13.3	8.3	5.0	3.3	3.3	3.3	3.3	3.3	3.3
77.5°	3.3	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)