

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: P840158

Luminaire Tested: **LD4C30D010 EU4309027 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: P840158
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: LD4C30D010 EU4309027 4LBCSSQMMS
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

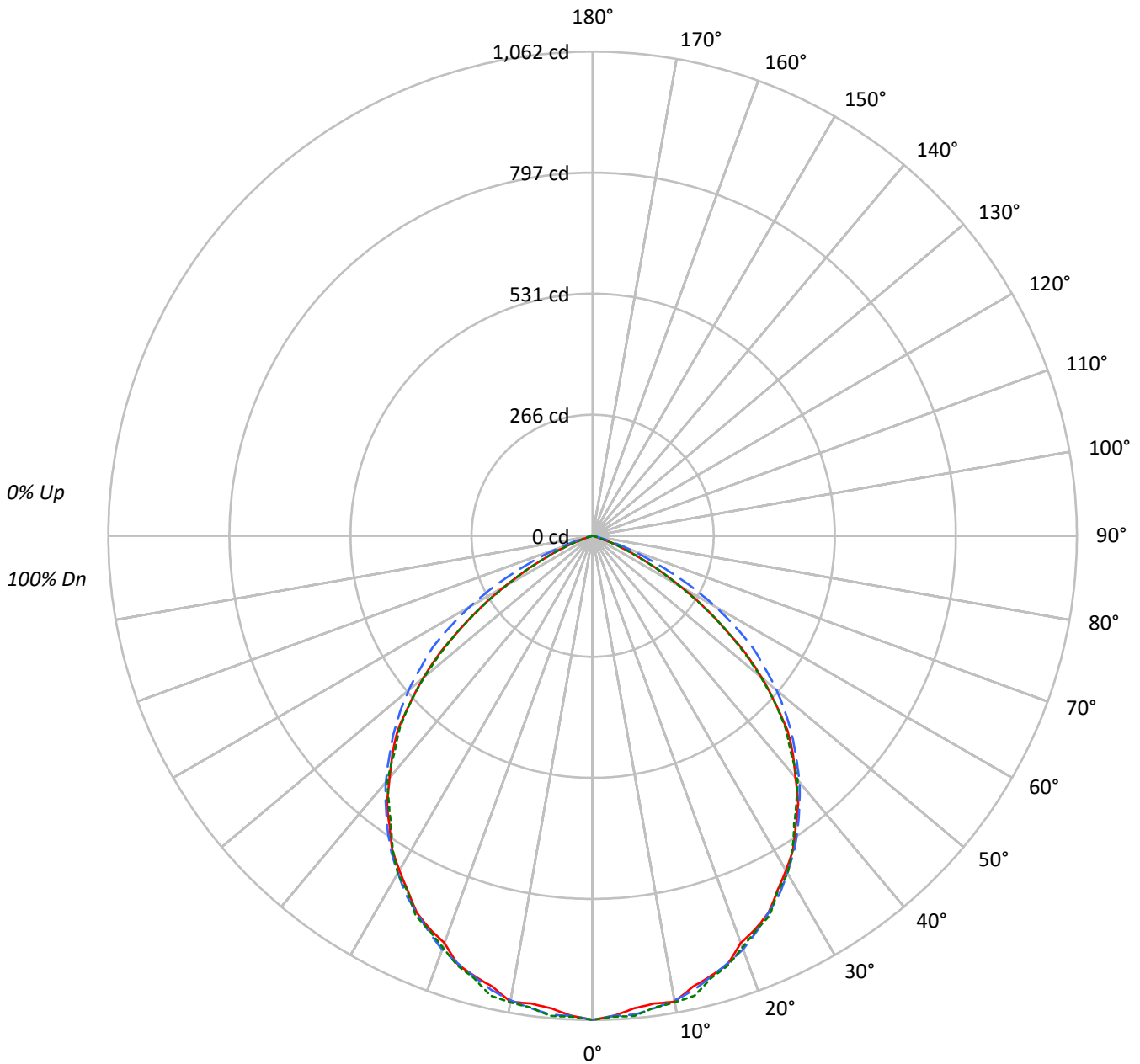
Lumens per Lamp: N/A
Luminaire Lumens: 2268.0 lumens
Efficiency: N/A
Efficacy: 71.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 31.6
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

TEST NUMBER: P840158

CATALOG NUMBER: LD4C30D010 EU4309027 4LBCSSQMMS

Luminous Intensity Polar Plot





TEST NUMBER: P840158

CATALOG NUMBER: LD4C30D010 EU4309027 4LBCSSQMMS

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°	102442	102442	102442
5°	100790	102107	102398
10°	101661	101367	101808
15°	99883	100033	100332
20°	97558	99108	98646
25°	97137	97137	97776
30°	94425	95105	95272
35°	91477	92372	90770
40°	87188	88901	88132
45°	82515	84371	81696
50°	72668	79003	72218
55°	58861	72302	59114
60°	43073	59958	42204
65°	26165	42694	25480
70°	10213	22992	9789
75°	1118	6189	1118
80°	833	833	833
85°	0	0	0



TEST NUMBER: P840158

CATALOG NUMBER: LD4C30D010 EU4309027 4LBCSSQMMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.2	4.4
10°-20°	283.6	12.5
20°-30°	420.8	18.6
30°-40°	487.6	21.5
40°-50°	467.5	20.6
50°-60°	343.7	15.2
60°-70°	148.5	6.5
70°-80°	16.0	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°	804.6	35.5
0°-40°	1292.2	57.0
0°-60°	2103.3	92.7
0°-90°	2268.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2268.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1062	1062	1062	1062	1062	
5°	1041	1051	1054	1056	1057	99
15°	1000	1006	1001	1003	1004	282
25°	912	911	912	914	918	418
35°	777	781	784	783	771	486
45°	605	606	618	609	599	460
55°	350	386	430	385	351	315
65°	115	143	187	142	112	118
75°	3	5	17	3	3	9
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P840158

CATALOG NUMBER: LD4C30D010 EU4309027 4LBCSSQMMS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1061.7	1061.7	1061.7	1061.7	1061.7	1061.7	1061.7	1061.7	1061.7	1061.7	1061.7
2.5°	1054.2	1066.2	1067.8	1060.2	1057.2	1052.7	1063.2	1055.7	1058.7	1055.7	1054.2
5°	1040.6	1054.2	1055.7	1055.7	1052.7	1051.1	1055.7	1054.2	1052.7	1049.7	1054.2
7.5°	1034.6	1042.1	1049.7	1040.6	1045.1	1043.6	1054.2	1049.7	1048.1	1048.1	1045.1
10°	1037.6	1036.1	1042.1	1033.0	1036.1	1033.0	1042.1	1042.1	1039.1	1036.1	1034.6
12.5°	1013.4	1025.5	1025.5	1024.0	1021.0	1016.4	1025.5	1031.6	1022.5	1022.5	1021.0
15°	999.9	1002.9	1004.4	1004.4	1002.9	1005.9	1010.4	1004.4	1005.9	998.3	1001.4
17.5°	984.8	978.8	983.3	980.3	981.8	984.8	990.8	990.8	981.8	980.3	983.3
20°	950.1	968.2	969.7	960.7	962.2	962.2	972.7	963.7	969.7	962.2	965.2
22.5°	933.5	945.6	947.1	935.0	942.5	933.5	944.1	930.5	945.6	935.0	939.5
25°	912.4	910.9	915.4	909.4	910.9	910.9	918.4	912.4	916.9	910.9	912.4
27.5°	877.7	889.8	888.3	882.2	885.3	883.8	898.8	882.2	891.3	883.8	886.8
30°	847.5	858.1	855.1	849.1	849.1	844.5	861.1	856.6	855.1	855.1	853.6
32.5°	817.4	818.9	815.9	817.4	818.9	812.9	826.4	820.4	818.9	820.4	821.9
35°	776.6	776.6	779.7	775.2	781.2	781.2	793.3	785.7	784.2	779.7	784.2
37.5°	740.5	736.0	737.5	737.5	740.5	743.5	749.5	746.5	746.5	742.0	745.0
40°	692.2	689.2	693.7	693.7	698.3	698.3	704.3	701.3	705.8	705.8	705.8
42.5°	650.0	650.0	647.0	651.5	653.0	651.5	662.1	660.5	662.1	659.1	660.5
45°	604.7	604.7	601.7	600.2	607.7	606.3	618.3	613.8	619.8	616.8	618.3
47.5°	542.9	550.5	545.9	550.5	559.5	561.0	568.5	565.5	571.6	567.1	573.1
50°	484.1	484.1	488.6	494.6	503.7	505.2	514.3	520.3	523.3	524.8	526.3
52.5°	422.3	420.8	425.3	432.8	440.4	446.4	455.5	464.5	470.5	479.6	475.0
55°	349.9	352.9	357.4	366.5	378.5	386.0	393.6	405.7	416.3	420.8	429.8
57.5°	288.0	285.0	288.0	300.1	313.7	319.7	330.3	342.4	357.4	366.5	369.5
60°	223.2	224.7	227.7	238.3	248.8	257.9	262.4	282.0	295.6	304.6	310.7
62.5°	164.4	167.4	170.4	179.5	190.0	197.6	205.1	221.7	233.8	242.8	248.8
65°	114.6	116.1	120.7	125.2	135.7	143.2	149.3	162.9	174.9	182.5	187.0
67.5°	70.9	72.4	75.4	81.5	89.0	95.0	101.0	110.1	120.7	128.2	129.7
70°	36.2	37.7	39.2	43.7	49.8	52.8	57.3	64.9	72.4	78.4	81.5
72.5°	12.1	12.1	13.6	16.6	19.6	22.6	24.1	31.7	37.7	40.7	42.2
75°	3.0	3.0	3.0	3.0	3.0	4.6	4.6	9.0	12.1	15.1	16.6
77.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.0	3.0
80°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
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



TEST NUMBER: P840158

CATALOG NUMBER: LD4C30D010 EU4309027 4LBCSSQMMS

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1061.7	1061.7	1061.7	1061.7	1061.7	1061.7	1061.7	1061.7	1061.7	1061.7
2.5°	1061.7	1058.7	1057.2	1058.7	1058.7	1057.2	1061.7	1067.8	1075.3	1055.7
5°	1060.2	1057.2	1060.2	1051.1	1055.7	1052.7	1058.7	1057.2	1063.2	1057.2
7.5°	1055.7	1049.7	1051.1	1046.6	1052.7	1045.1	1049.7	1058.7	1052.7	1043.6
10°	1040.6	1037.6	1048.1	1033.0	1030.0	1036.1	1048.1	1039.1	1036.1	1039.1
12.5°	1025.5	1025.5	1030.0	1018.0	1019.5	1022.5	1028.5	1022.5	1025.5	1033.0
15°	1008.9	1005.9	1013.4	1004.4	1002.9	999.9	1005.9	1005.9	1008.9	1004.4
17.5°	989.3	984.8	984.8	981.8	980.3	987.8	990.8	992.3	993.9	987.8
20°	965.2	963.7	968.2	963.7	965.2	966.7	966.7	963.7	977.2	960.7
22.5°	939.5	944.1	938.0	935.0	938.0	941.1	941.1	942.5	939.5	936.5
25°	913.9	916.9	918.4	909.4	913.9	909.4	920.0	921.4	915.4	918.4
27.5°	891.3	886.8	885.3	879.2	882.2	880.8	882.2	882.2	891.3	879.2
30°	856.6	852.1	853.6	849.1	850.5	849.1	850.5	850.5	856.6	855.1
32.5°	823.4	818.9	820.4	815.9	815.9	817.4	814.4	814.4	818.9	815.9
35°	791.7	781.2	782.7	781.2	782.7	776.6	776.6	775.2	778.2	770.6
37.5°	746.5	742.0	740.5	739.0	740.5	737.5	740.5	736.0	740.5	734.4
40°	705.8	702.7	704.3	695.2	695.2	696.7	693.7	692.2	693.7	699.7
42.5°	665.1	659.1	656.0	653.0	654.5	650.0	648.5	645.5	648.5	642.4
45°	616.8	616.8	615.3	607.7	609.3	609.3	603.3	597.2	598.7	598.7
47.5°	573.1	570.1	568.5	561.0	559.5	558.0	551.9	547.4	547.4	542.9
50°	524.8	521.8	517.3	509.7	506.7	497.7	493.2	487.1	481.1	481.1
52.5°	479.6	469.0	463.0	450.9	446.4	441.9	429.8	425.3	420.8	416.3
55°	425.3	416.3	404.2	390.6	384.6	377.0	364.9	355.9	349.9	351.4
57.5°	372.5	357.4	345.4	327.3	319.7	315.2	303.1	291.0	285.0	285.0
60°	307.7	295.6	280.5	263.9	257.9	250.4	235.2	227.7	223.2	218.7
62.5°	245.8	236.8	223.2	202.1	197.6	190.0	179.5	170.4	165.9	165.9
65°	184.0	174.9	162.9	147.8	141.8	135.7	126.7	117.6	113.1	111.6
67.5°	129.7	119.1	108.6	96.5	92.0	89.0	79.9	73.9	70.9	69.3
70°	78.4	72.4	64.9	55.8	51.3	48.2	42.2	37.7	36.2	34.7
72.5°	40.7	36.2	30.2	24.1	21.1	18.1	15.1	12.1	10.6	10.6
75°	15.1	12.1	7.6	4.6	3.0	3.0	3.0	3.0	3.0	3.0
77.5°	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
80°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
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)