

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: P840162

Luminaire Tested: **LD4C30D010 EU4309035 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: P840162
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 EU4309035 4LBCSSQMMS
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MMS FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

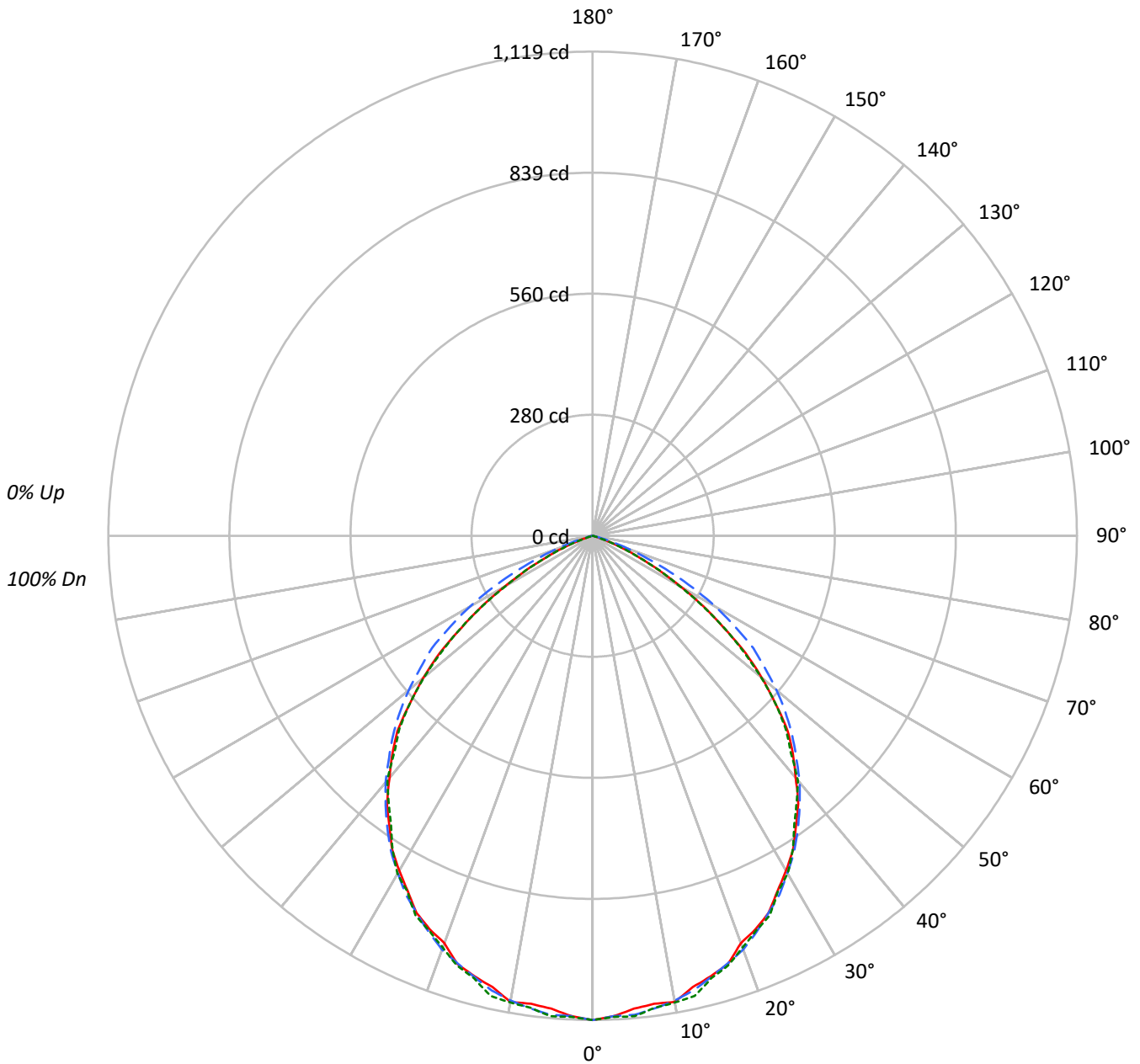
Lumens per Lamp: N/A
Luminaire Lumens: 2391.0 lumens
Efficiency: N/A
Efficacy: 75.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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

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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	100	100	100
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89	89	89	89
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77	77	77	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67	67	67	67
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59	59	59	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52	52	52	52
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46	46	46	46
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41	41	41	41
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	37	37	37	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33	33	33	33
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	31	31	31	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	108000	108000	108000
5°	106262	107638	107948
10°	107177	106864	107324
15°	105297	105457	105766
20°	102846	104478	103996
25°	102407	102407	103078
30°	99550	100263	100441
35°	96447	97378	95694
40°	91924	93712	92919
45°	86991	88956	86131
50°	76616	83296	76136
55°	62041	76222	62327
60°	45408	63200	44481
65°	27580	45000	26872
70°	10749	24234	10325
75°	1193	6524	1193
80°	889	889	889
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.7	4.4
10°-20°	299.0	12.5
20°-30°	443.6	18.6
30°-40°	514.0	21.5
40°-50°	492.8	20.6
50°-60°	362.3	15.2
60°-70°	156.5	6.5
70°-80°	16.9	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°	848.2	35.5
0°-40°	1362.2	57.0
0°-60°	2217.4	92.7
0°-90°	2391.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2391.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1119	1119	1119	1119	1119	
5°	1097	1108	1111	1113	1114	105
15°	1054	1060	1056	1057	1059	297
25°	962	960	962	964	968	440
35°	819	824	827	825	812	512
45°	638	639	652	642	631	485
55°	369	407	453	405	370	332
65°	121	151	197	150	118	124
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°	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3
2.5°	1111.3	1124.0	1125.7	1117.7	1114.5	1109.8	1120.9	1112.9	1116.1	1112.9	1111.3
5°	1097.1	1111.3	1112.9	1112.9	1109.8	1108.1	1112.9	1111.3	1109.8	1106.6	1111.3
7.5°	1090.7	1098.6	1106.6	1097.1	1101.8	1100.2	1111.3	1106.6	1105.0	1105.0	1101.8
10°	1093.9	1092.3	1098.6	1089.1	1092.3	1089.1	1098.6	1098.6	1095.4	1092.3	1090.7
12.5°	1068.4	1081.1	1081.1	1079.5	1076.4	1071.6	1081.1	1087.5	1077.9	1077.9	1076.4
15°	1054.1	1057.3	1058.8	1058.8	1057.3	1060.5	1065.2	1058.8	1060.5	1052.5	1055.7
17.5°	1038.2	1031.9	1036.6	1033.4	1035.0	1038.2	1044.6	1044.6	1035.0	1033.4	1036.6
20°	1001.6	1020.7	1022.3	1012.8	1014.3	1014.3	1025.5	1016.0	1022.3	1014.3	1017.5
22.5°	984.1	996.8	998.5	985.7	993.7	984.1	995.3	980.9	996.8	985.7	990.5
25°	961.9	960.3	965.0	958.7	960.3	960.3	968.2	961.9	966.7	960.3	961.9
27.5°	925.3	938.1	936.4	930.1	933.3	931.7	947.6	930.1	939.6	931.7	934.9
30°	893.5	904.7	901.5	895.1	895.1	890.3	907.8	903.0	901.5	901.5	899.9
32.5°	861.7	863.3	860.2	861.7	863.3	857.0	871.2	864.9	863.3	864.9	866.5
35°	818.8	818.8	821.9	817.2	823.6	823.6	836.3	828.3	826.7	821.9	826.7
37.5°	780.6	775.9	777.4	777.4	780.6	783.8	790.2	787.0	787.0	782.2	785.4
40°	729.8	726.6	731.3	731.3	736.1	736.1	742.5	739.3	744.0	744.0	744.0
42.5°	685.3	685.3	682.1	686.8	688.4	686.8	698.0	696.4	698.0	694.8	696.4
45°	637.5	637.5	634.3	632.8	640.7	639.1	651.9	647.1	653.4	650.2	651.9
47.5°	572.3	580.3	575.5	580.3	589.8	591.5	599.4	596.2	602.6	597.8	604.2
50°	510.4	510.4	515.1	521.5	531.0	532.6	542.2	548.5	551.7	553.3	554.9
52.5°	445.2	443.6	448.4	456.3	464.3	470.6	480.2	489.7	496.0	505.6	500.8
55°	368.8	372.0	376.8	386.4	399.1	407.0	415.0	427.7	438.8	443.6	453.1
57.5°	303.6	300.5	303.6	316.4	330.7	337.1	348.2	360.9	376.8	386.4	389.5
60°	235.3	236.9	240.1	251.2	262.3	271.9	276.7	297.3	311.6	321.2	327.5
62.5°	173.3	176.5	179.7	189.2	200.3	208.3	216.2	233.7	246.4	256.0	262.3
65°	120.8	122.4	127.2	131.9	143.1	151.0	157.4	171.7	184.4	192.4	197.1
67.5°	74.7	76.3	79.5	85.9	93.8	100.2	106.5	116.0	127.2	135.1	136.7
70°	38.1	39.8	41.3	46.1	52.5	55.7	60.4	68.4	76.3	82.6	85.9
72.5°	12.7	12.7	14.3	17.5	20.7	23.9	25.4	33.4	39.8	42.9	44.5
75°	3.2	3.2	3.2	3.2	3.2	4.8	4.8	9.5	12.7	15.9	17.5
77.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.2	3.2
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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°	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3
2.5°	1119.3	1116.1	1114.5	1116.1	1116.1	1114.5	1119.3	1125.7	1133.6	1112.9
5°	1117.7	1114.5	1117.7	1108.1	1112.9	1109.8	1116.1	1114.5	1120.9	1114.5
7.5°	1112.9	1106.6	1108.1	1103.4	1109.8	1101.8	1106.6	1116.1	1109.8	1100.2
10°	1097.1	1093.9	1105.0	1089.1	1085.9	1092.3	1105.0	1095.4	1092.3	1095.4
12.5°	1081.1	1081.1	1085.9	1073.2	1074.7	1077.9	1084.3	1077.9	1081.1	1089.1
15°	1063.6	1060.5	1068.4	1058.8	1057.3	1054.1	1060.5	1060.5	1063.6	1058.8
17.5°	1043.0	1038.2	1038.2	1035.0	1033.4	1041.4	1044.6	1046.1	1047.8	1041.4
20°	1017.5	1016.0	1020.7	1016.0	1017.5	1019.1	1019.1	1016.0	1030.2	1012.8
22.5°	990.5	995.3	988.9	985.7	988.9	992.1	992.1	993.7	990.5	987.3
25°	963.5	966.7	968.2	958.7	963.5	958.7	969.8	971.4	965.0	968.2
27.5°	939.6	934.9	933.3	926.9	930.1	928.5	930.1	930.1	939.6	926.9
30°	903.0	898.3	899.9	895.1	896.7	895.1	896.7	896.7	903.0	901.5
32.5°	868.1	863.3	864.9	860.2	860.2	861.7	858.5	858.5	863.3	860.2
35°	834.7	823.6	825.1	823.6	825.1	818.8	818.8	817.2	820.4	812.4
37.5°	787.0	782.2	780.6	779.1	780.6	777.4	780.6	775.9	780.6	774.3
40°	744.0	740.9	742.5	732.9	732.9	734.5	731.3	729.8	731.3	737.7
42.5°	701.2	694.8	691.6	688.4	690.0	685.3	683.6	680.5	683.6	677.3
45°	650.2	650.2	648.7	640.7	642.3	642.3	636.0	629.6	631.2	631.2
47.5°	604.2	601.0	599.4	591.5	589.8	588.3	581.9	577.1	577.1	572.3
50°	553.3	550.1	545.3	537.4	534.2	524.7	519.9	513.6	507.2	507.2
52.5°	505.6	494.4	488.1	475.4	470.6	465.8	453.1	448.4	443.6	438.8
55°	448.4	438.8	426.1	411.8	405.4	397.4	384.7	375.2	368.8	370.5
57.5°	392.7	376.8	364.1	345.0	337.1	332.3	319.5	306.8	300.5	300.5
60°	324.3	311.6	295.7	278.2	271.9	263.9	248.0	240.1	235.3	230.5
62.5°	259.1	249.6	235.3	213.0	208.3	200.3	189.2	179.7	174.9	174.9
65°	194.0	184.4	171.7	155.8	149.5	143.1	133.6	124.0	119.2	117.7
67.5°	136.7	125.6	114.5	101.8	97.0	93.8	84.3	77.9	74.7	73.1
70°	82.6	76.3	68.4	58.8	54.0	50.9	44.5	39.8	38.1	36.6
72.5°	42.9	38.1	31.8	25.4	22.3	19.1	15.9	12.7	11.2	11.2
75°	15.9	12.7	8.0	4.8	3.2	3.2	3.2	3.2	3.2	3.2
77.5°	3.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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)