

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: P840164

Luminaire Tested: **LD4C30D010 EU4309040 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: P840164  
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 EU4309040 4LBCSSQMMS  
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS  
AND 4LBCSSQ TRIM WITH MMS FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

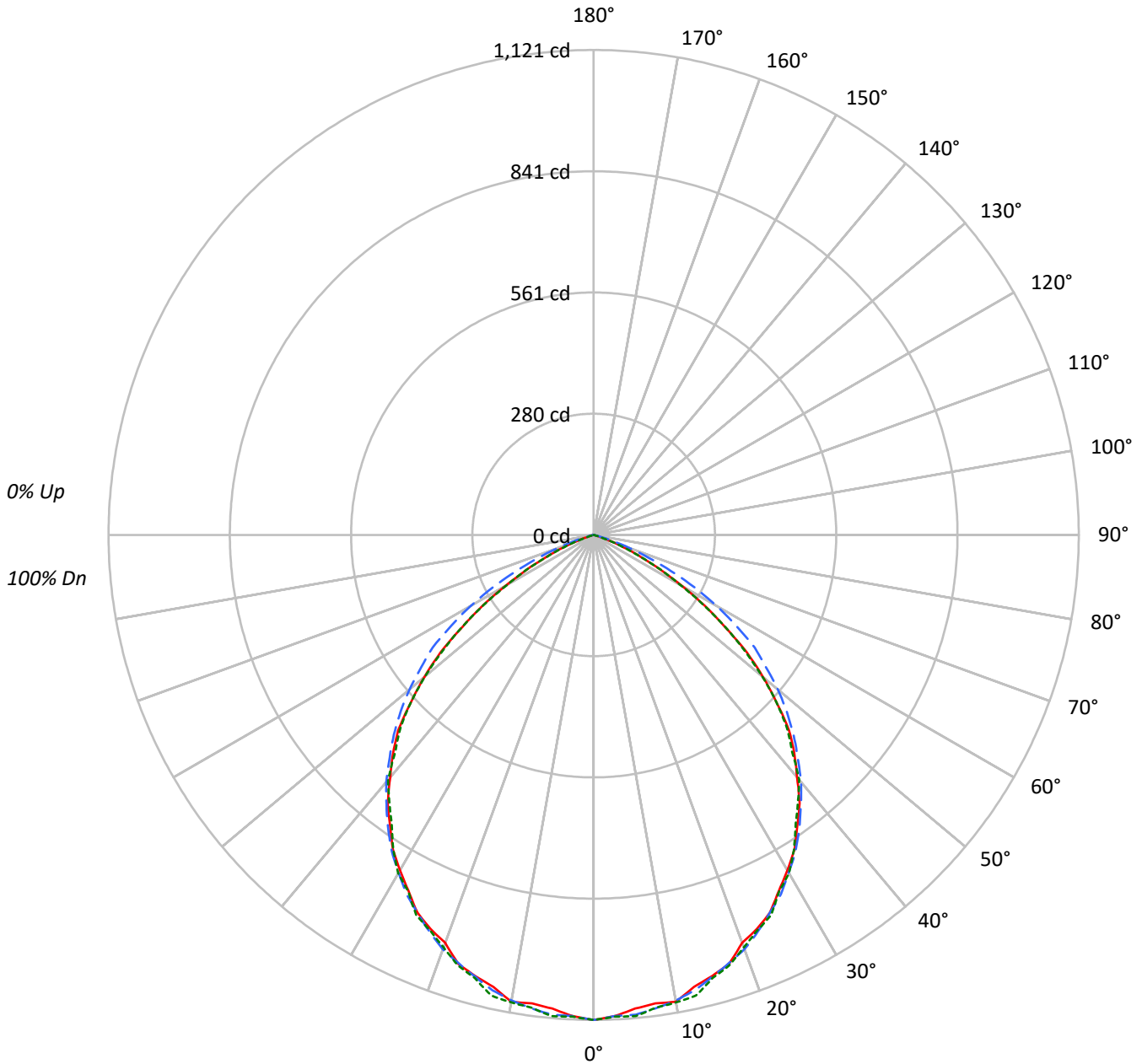
Lumens per Lamp: N/A  
Luminaire Lumens: 2395.0 lumens  
Efficiency: N/A  
Efficacy: 75.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 31.6  
Input Voltage (V):  
Input Current (A<sub>in</sub>): 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	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°	108183	108183	108183
5°	106437	107822	108132
10°	107354	107040	107511
15°	105477	105626	105946
20°	103020	104653	104170
25°	102578	102578	103249
30°	99717	100430	100608
35°	96601	97543	95858
40°	92075	93876	93070
45°	87141	89106	86267
50°	76736	83431	76271
55°	62158	76357	62428
60°	45485	63316	44559
65°	27649	45092	26918
70°	10777	24262	10325
75°	1193	6524	1193
80°	889	889	889
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.8	4.4
10°-20°	299.5	12.5
20°-30°	444.3	18.6
30°-40°	514.9	21.5
40°-50°	493.6	20.6
50°-60°	363.0	15.2
60°-70°	156.8	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°	849.6	35.5
0°-40°	1364.5	57.0
0°-60°	2221.1	92.7
0°-90°	2395.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2395.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1121	1121	1121	1121	1121	
5°	1099	1110	1113	1115	1116	105
15°	1056	1062	1057	1059	1061	298
25°	964	962	964	965	970	441
35°	820	825	828	826	814	513
45°	639	640	653	643	632	485
55°	370	408	454	406	371	332
65°	121	151	198	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°	1121.2	1121.2	1121.2	1121.2	1121.2	1121.2	1121.2	1121.2	1121.2	1121.2	1121.2
2.5°	1113.2	1125.9	1127.5	1119.6	1116.4	1111.6	1122.7	1114.8	1118.0	1114.8	1113.2
5°	1098.9	1113.2	1114.8	1114.8	1111.6	1110.0	1114.8	1113.2	1111.6	1108.4	1113.2
7.5°	1092.5	1100.4	1108.4	1098.9	1103.6	1102.1	1113.2	1108.4	1106.8	1106.8	1103.6
10°	1095.7	1094.1	1100.4	1090.9	1094.1	1090.9	1100.4	1100.4	1097.3	1094.1	1092.5
12.5°	1070.2	1082.9	1082.9	1081.3	1078.2	1073.4	1082.9	1089.3	1079.7	1079.7	1078.2
15°	1055.9	1059.1	1060.6	1060.6	1059.1	1062.2	1067.0	1060.6	1062.2	1054.2	1057.4
17.5°	1040.0	1033.6	1038.3	1035.1	1036.8	1040.0	1046.3	1046.3	1036.8	1035.1	1038.3
20°	1003.3	1022.4	1024.0	1014.5	1016.0	1016.0	1027.2	1017.7	1024.0	1016.0	1019.2
22.5°	985.8	998.5	1000.1	987.4	995.3	985.8	996.9	982.6	998.5	987.4	992.1
25°	963.5	961.9	966.7	960.3	961.9	961.9	969.8	963.5	968.3	961.9	963.5
27.5°	926.9	939.6	938.0	931.6	934.8	933.3	949.2	931.6	941.2	933.3	936.4
30°	895.0	906.2	903.0	896.6	896.6	891.8	909.3	904.5	903.0	903.0	901.4
32.5°	863.2	864.8	861.6	863.2	864.8	858.4	872.7	866.3	864.8	866.3	868.0
35°	820.1	820.1	823.3	818.6	824.9	824.9	837.7	829.7	828.1	823.3	828.1
37.5°	781.9	777.2	778.7	778.7	781.9	785.1	791.5	788.3	788.3	783.6	786.7
40°	731.0	727.8	732.5	732.5	737.4	737.4	743.7	740.5	745.3	745.3	745.3
42.5°	686.4	686.4	683.2	688.0	689.6	688.0	699.1	697.5	699.1	696.0	697.5
45°	638.6	638.6	635.4	633.8	641.8	640.2	653.0	648.1	654.5	651.3	653.0
47.5°	573.3	581.3	576.5	581.3	590.8	592.5	600.4	597.2	603.6	598.8	605.2
50°	511.2	511.2	516.0	522.3	531.9	533.5	543.1	549.4	552.6	554.2	555.8
52.5°	445.9	444.3	449.1	457.0	465.0	471.4	481.0	490.5	496.9	506.4	501.6
55°	369.5	372.6	377.4	387.0	399.7	407.7	415.7	428.4	439.6	444.3	453.9
57.5°	304.2	301.0	304.2	316.9	331.3	337.6	348.8	361.5	377.4	387.0	390.2
60°	235.7	237.3	240.5	251.7	262.8	272.3	277.1	297.8	312.1	321.7	328.1
62.5°	173.6	176.8	180.0	189.5	200.6	208.6	216.6	234.1	246.8	256.4	262.8
65°	121.1	122.6	127.4	132.2	143.3	151.3	157.6	172.0	184.7	192.7	197.5
67.5°	74.9	76.4	79.6	86.0	94.0	100.3	106.7	116.2	127.4	135.3	137.0
70°	38.2	39.8	41.4	46.2	52.6	55.7	60.5	68.5	76.4	82.8	86.0
72.5°	12.7	12.7	14.4	17.5	20.7	23.9	25.5	33.5	39.8	43.0	44.6
75°	3.2	3.2	3.2	3.2	3.2	4.8	4.8	9.6	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°	1121.2	1121.2	1121.2	1121.2	1121.2	1121.2	1121.2	1121.2	1121.2	1121.2
2.5°	1121.2	1118.0	1116.4	1118.0	1118.0	1116.4	1121.2	1127.5	1135.5	1114.8
5°	1119.6	1116.4	1119.6	1110.0	1114.8	1111.6	1118.0	1116.4	1122.7	1116.4
7.5°	1114.8	1108.4	1110.0	1105.3	1111.6	1103.6	1108.4	1118.0	1111.6	1102.1
10°	1098.9	1095.7	1106.8	1090.9	1087.7	1094.1	1106.8	1097.3	1094.1	1097.3
12.5°	1082.9	1082.9	1087.7	1075.0	1076.5	1079.7	1086.1	1079.7	1082.9	1090.9
15°	1065.4	1062.2	1070.2	1060.6	1059.1	1055.9	1062.2	1062.2	1065.4	1060.6
17.5°	1044.7	1040.0	1040.0	1036.8	1035.1	1043.1	1046.3	1047.9	1049.5	1043.1
20°	1019.2	1017.7	1022.4	1017.7	1019.2	1020.8	1020.8	1017.7	1032.0	1014.5
22.5°	992.1	996.9	990.6	987.4	990.6	993.8	993.8	995.3	992.1	988.9
25°	965.1	968.3	969.8	960.3	965.1	960.3	971.5	973.0	966.7	969.8
27.5°	941.2	936.4	934.8	928.5	931.6	930.1	931.6	931.6	941.2	928.5
30°	904.5	899.8	901.4	896.6	898.2	896.6	898.2	898.2	904.5	903.0
32.5°	869.5	864.8	866.3	861.6	861.6	863.2	860.0	860.0	864.8	861.6
35°	836.1	824.9	826.5	824.9	826.5	820.1	820.1	818.6	821.8	813.8
37.5°	788.3	783.6	781.9	780.4	781.9	778.7	781.9	777.2	781.9	775.6
40°	745.3	742.1	743.7	734.2	734.2	735.7	732.5	731.0	732.5	738.9
42.5°	702.3	696.0	692.8	689.6	691.2	686.4	684.8	681.6	684.8	678.4
45°	651.3	651.3	649.8	641.8	643.4	643.4	637.0	630.7	632.2	632.2
47.5°	605.2	602.0	600.4	592.5	590.8	589.3	582.8	578.1	578.1	573.3
50°	554.2	551.0	546.3	538.3	535.1	525.5	520.8	514.4	508.1	508.1
52.5°	506.4	495.3	488.9	476.2	471.4	466.6	453.9	449.1	444.3	439.6
55°	449.1	439.6	426.8	412.5	406.1	398.1	385.4	375.8	369.5	371.1
57.5°	393.4	377.4	364.7	345.6	337.6	332.8	320.1	307.3	301.0	301.0
60°	324.9	312.1	296.2	278.7	272.3	264.4	248.4	240.5	235.7	230.9
62.5°	259.6	250.0	235.7	213.4	208.6	200.6	189.5	180.0	175.2	175.2
65°	194.3	184.7	172.0	156.1	149.7	143.3	133.8	124.2	119.4	117.9
67.5°	137.0	125.8	114.7	101.9	97.1	94.0	84.4	78.0	74.9	73.2
70°	82.8	76.4	68.5	58.9	54.1	50.9	44.6	39.8	38.2	36.6
72.5°	43.0	38.2	31.8	25.5	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)