

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: P843348

Luminaire Tested: **LD4C10DE010B50 EU4C10B50 4LBSQLI**

Issue Date: 5/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P843348  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P209151)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C10DE010B50 EU4C10B50 4LBSQLI  
Description: 4in Downlight with BioUp LEDs  
Light Source: -  
Ballast/Driver:

**Summary**

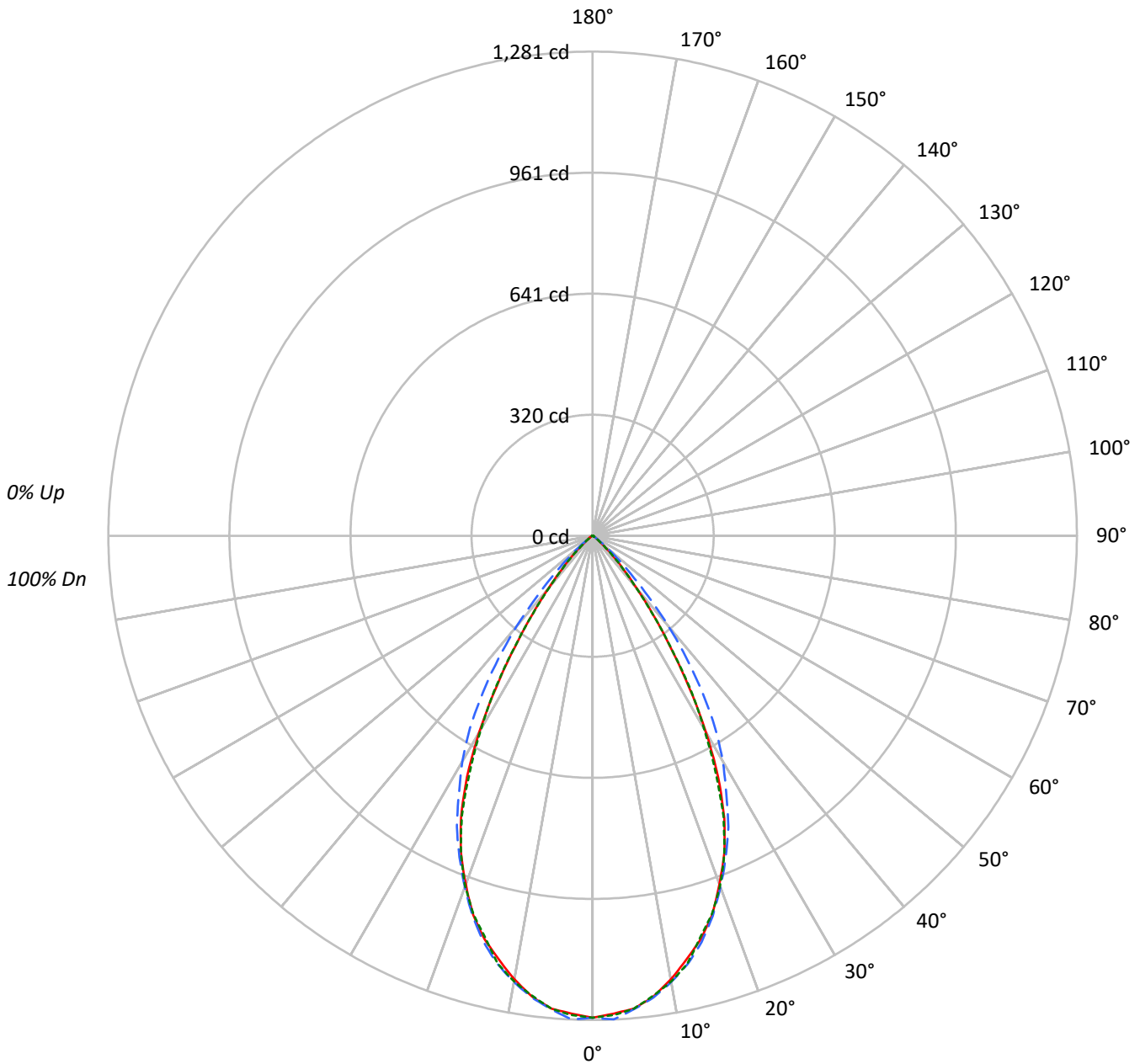
Lumens per Lamp: N/A  
Luminaire Lumens: 1177.1 lumens  
Efficiency: N/A  
Efficacy: 88.5 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 0.9 / 0.94  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 13.3  
Input Voltage (V):  
Input Current (Ain): 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	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93								
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87								
3	102	96	91	87	100	94	90	86	92	88	84	89	86	83	87	84	82	80								
4	97	89	84	79	95	88	83	79	86	81	78	84	80	77	82	79	76	75								
5	92	83	77	73	90	82	77	73	81	76	72	79	75	71	77	74	71	69								
6	87	78	72	68	86	77	71	67	76	71	67	74	70	66	73	69	66	64								
7	83	73	67	63	81	73	67	63	71	66	62	70	65	62	69	65	62	60								
8	79	69	63	59	77	68	62	58	67	62	58	66	61	58	65	61	58	56								
9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53								
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50								

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	123033	123033	123033
5°	121614	121769	121614
10°	116750	117465	117299
15°	110371	111191	109802
20°	100730	101480	101223
25°	87705	90473	87109
30°	66693	76710	65702
35°	41981	59638	42369
40°	22647	39374	22244
45°	10725	19459	10603
50°	4023	7280	4023
55°	1901	2305	1783
60°	1254	1100	1254
65°	753	753	753
70°	451	677	451
75°	298	298	298
80°	445	445	445
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.2	10.0
10°-20°	309.8	26.3
20°-30°	378.5	32.2
30°-40°	264.7	22.5
40°-50°	86.8	7.4
50°-60°	13.8	1.2
60°-70°	3.8	0.3
70°-80°	1.2	0.1
80°-90°	0.3	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°	806.5	68.5
0°-40°	1071.2	91.0
0°-60°	1171.8	99.5
0°-90°	1177.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1177.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1275	1275	1275	1275	1275	
5°	1256	1256	1257	1250	1256	118
15°	1105	1109	1113	1106	1099	308
25°	824	836	850	834	818	370
35°	356	421	506	414	360	227
45°	79	97	143	96	78	66
55°	11	12	14	12	11	11
65°	3	4	3	4	3	4
75°	1	1	1	1	1	1
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°	25°	30°	35°	40°	45°	50°
0°	1275.1	1275.1	1275.1	1275.1	1275.1	1275.1	1275.1	1275.1	1275.1	1275.1	1275.1
2.5°	1265.4	1274.2	1271.8	1277.5	1277.5	1271.0	1272.7	1275.1	1278.3	1280.7	1261.2
5°	1255.6	1263.7	1256.4	1264.5	1259.6	1252.3	1264.5	1258.1	1262.1	1257.2	1260.5
7.5°	1229.7	1242.6	1228.0	1237.7	1234.6	1230.5	1235.3	1233.7	1236.2	1232.1	1223.2
10°	1191.6	1202.1	1192.4	1206.1	1199.7	1195.7	1199.7	1203.8	1203.0	1198.9	1203.8
12.5°	1147.8	1160.0	1155.1	1163.2	1156.0	1156.0	1165.7	1163.2	1164.0	1160.9	1166.5
15°	1104.9	1113.9	1106.5	1117.1	1113.9	1104.9	1108.9	1108.9	1115.5	1113.1	1106.5
17.5°	1051.5	1058.7	1050.7	1053.1	1049.8	1048.2	1065.2	1053.9	1060.4	1055.5	1056.4
20°	981.0	984.2	981.8	988.3	984.2	989.1	987.5	985.8	985.8	988.3	982.6
22.5°	909.7	909.7	912.1	913.8	917.0	912.1	921.8	913.8	914.5	920.2	918.7
25°	823.8	821.4	827.1	835.2	838.4	834.4	847.3	840.8	845.7	849.8	840.8
27.5°	719.3	719.3	725.0	738.8	741.2	746.1	763.9	763.9	770.4	764.7	771.2
30°	598.6	607.5	614.8	632.7	638.3	648.9	667.5	676.4	691.0	688.5	685.3
32.5°	474.7	486.8	487.7	506.3	521.6	539.5	564.6	585.7	596.2	603.5	595.3
35°	356.4	363.7	370.2	383.2	409.1	432.6	455.2	482.8	501.4	506.3	499.0
37.5°	260.8	262.5	269.0	281.1	300.5	323.2	350.8	380.7	400.2	407.5	399.4
40°	179.8	181.5	184.7	195.2	211.4	227.6	249.5	280.3	298.1	312.6	302.2
42.5°	120.7	122.3	125.5	133.7	142.6	157.9	174.9	194.4	211.4	217.9	212.3
45°	78.6	78.6	80.2	85.9	90.7	102.9	115.1	127.1	138.6	142.6	138.6
47.5°	46.2	47.0	48.5	52.7	58.3	63.1	72.1	80.2	83.4	86.7	85.0
50°	26.8	26.8	29.2	31.6	35.6	38.9	42.1	45.4	47.0	48.5	47.0
52.5°	14.6	15.4	16.2	17.0	18.6	21.9	24.3	24.3	25.2	25.9	25.2
55°	11.3	11.3	11.3	11.3	12.2	12.2	12.2	13.0	13.0	13.7	13.0
57.5°	8.1	8.1	8.1	8.9	8.9	8.9	8.1	8.1	8.1	8.1	8.1
60°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	5.7	5.7	5.7	5.7
62.5°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
65°	3.3	3.3	4.0	4.0	4.0	4.0	4.0	3.3	3.3	3.3	3.3
67.5°	2.4	2.4	2.4	2.4	3.3	3.3	2.4	2.4	2.4	2.4	2.4
70°	1.6	1.6	1.6	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
72.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
75°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
77.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
80°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	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°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1275.1	1275.1	1275.1	1275.1	1275.1	1275.1	1275.1	1275.1
2.5°	1275.1	1261.2	1262.9	1270.2	1266.1	1270.2	1269.4	1269.4
5°	1261.2	1257.2	1250.8	1248.3	1253.2	1263.7	1262.1	1255.6
7.5°	1235.3	1224.8	1232.1	1235.3	1231.3	1237.7	1241.0	1227.3
10°	1204.5	1200.5	1198.9	1200.5	1198.9	1205.4	1197.2	1197.2
12.5°	1160.9	1154.3	1154.3	1164.0	1158.4	1153.6	1160.0	1159.2
15°	1117.1	1104.1	1104.1	1107.3	1109.8	1106.5	1107.3	1099.2
17.5°	1052.2	1048.2	1042.5	1051.5	1053.9	1050.7	1053.1	1049.1
20°	991.5	991.5	981.0	985.0	988.3	990.7	992.4	985.8
22.5°	913.8	915.4	908.1	916.1	918.7	910.5	912.1	910.5
25°	842.4	841.7	836.0	832.8	834.4	831.1	830.3	818.2
27.5°	763.9	755.8	743.6	746.9	733.2	721.7	721.7	703.1
30°	678.8	665.0	648.9	632.7	620.5	607.5	600.2	589.7
32.5°	579.2	560.5	540.3	518.5	504.7	485.2	474.7	480.4
35°	480.4	452.8	425.3	403.4	382.3	371.0	358.0	359.7
37.5°	384.8	346.0	321.6	298.1	280.3	265.7	260.1	258.4
40°	281.1	250.3	226.0	209.0	196.8	185.5	179.1	176.6
42.5°	194.4	172.6	153.0	139.3	131.3	124.0	120.7	119.9
45°	126.4	113.4	100.5	90.7	84.3	79.4	78.6	77.7
47.5°	79.4	72.9	64.8	57.5	51.8	48.5	46.2	46.2
50°	45.4	42.9	38.9	34.8	31.6	29.9	27.5	26.8
52.5°	24.3	24.3	22.6	19.5	17.0	15.4	15.4	14.6
55°	13.0	13.0	12.2	12.2	11.3	11.3	11.3	10.6
57.5°	8.1	8.1	8.9	8.9	8.1	8.1	8.1	8.1
60°	5.7	6.5	6.5	6.5	6.5	6.5	6.5	6.5
62.5°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
65°	3.3	4.0	4.0	4.0	4.0	3.3	3.3	3.3
67.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
70°	2.4	2.4	2.4	2.4	2.4	1.6	1.6	1.6
72.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
75°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
77.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
80°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
82.5°	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
87.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
90°	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)