

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: P843418

Luminaire Tested: **LD4C15DE010B50 EU4C15B50 4LBSQLI**

Issue Date: 5/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P843418  
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: LD4C15DE010B50 EU4C15B50 4LBSQLI  
Description: 4in Downlight with BioUp LEDs  
Light Source: -  
Ballast/Driver:

**Summary**

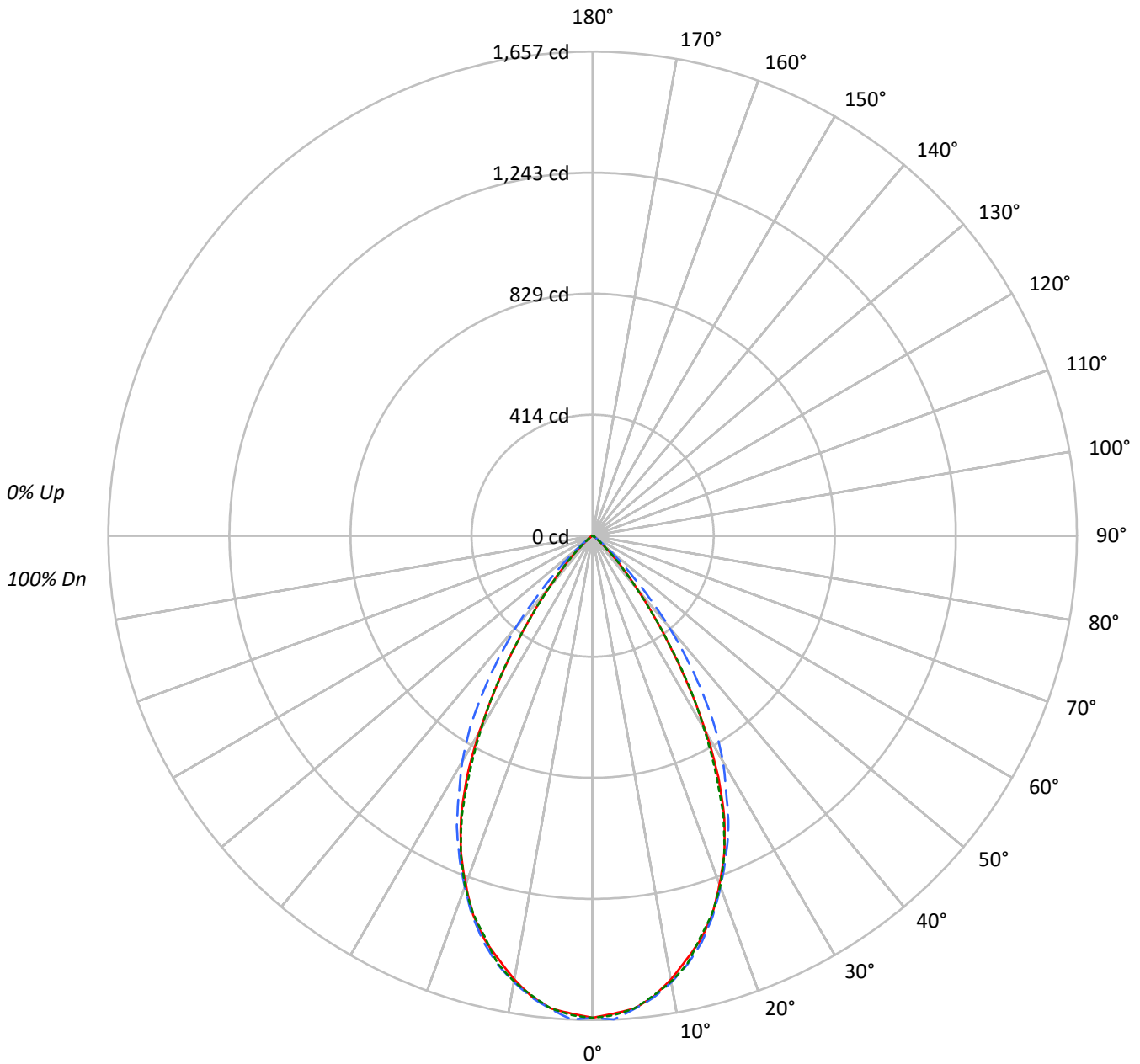
Lumens per Lamp: N/A  
Luminaire Lumens: 1523.0 lumens  
Efficiency: N/A  
Efficacy: 89.6 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 0.9 / 0.94  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 17  
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

TEST NUMBER: P843418

CATALOG NUMBER: LD4C15DE010B50 EU4C15B50 4LBSQLI

### Luminous Intensity Polar Plot





TEST NUMBER: P843418

CATALOG NUMBER: LD4C15DE010B50 EU4C15B50 4LBSQLI

**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°	159168	159168	159168
5°	157345	157539	157345
10°	151052	151973	151767
15°	142797	143855	142067
20°	130323	131288	130970
25°	113480	117046	112692
30°	86292	99249	85010
35°	54314	77165	54820
40°	29310	50950	28769
45°	13864	25176	13727
50°	5194	9427	5194
55°	2473	3011	2288
60°	1621	1428	1621
65°	959	959	959
70°	592	903	592
75°	410	410	410
80°	611	611	611
85°	0	0	0



TEST NUMBER: P843418

CATALOG NUMBER: LD4C15DE010B50 EU4C15B50 4LBSQLI

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.9	10.0
10°-20°	400.8	26.3
20°-30°	489.7	32.2
30°-40°	342.5	22.5
40°-50°	112.2	7.4
50°-60°	17.9	1.2
60°-70°	4.9	0.3
70°-80°	1.7	0.1
80°-90°	0.5	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°	1043.5	68.5
0°-40°	1385.9	91.0
0°-60°	1516.0	99.5
0°-90°	1523.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1523.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1650	1650	1650	1650	1650	
5°	1624	1625	1626	1617	1624	152
15°	1430	1435	1440	1431	1422	399
25°	1066	1082	1099	1079	1058	479
35°	461	544	655	536	465	294
45°	102	125	184	124	101	85
55°	15	16	18	16	14	14
65°	4	5	4	5	4	5
75°	1	1	1	1	1	2
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P843418

CATALOG NUMBER: LD4C15DE010B50 EU4C15B50 4LBSQLI

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1649.6	1649.6	1649.6	1649.6	1649.6	1649.6	1649.6	1649.6	1649.6	1649.6	1649.6
2.5°	1637.1	1648.6	1645.5	1652.8	1652.8	1644.4	1646.5	1649.6	1653.8	1657.0	1631.8
5°	1624.5	1635.0	1625.5	1635.9	1629.7	1620.3	1635.9	1627.6	1632.9	1626.5	1630.8
7.5°	1591.0	1607.7	1588.9	1601.5	1597.2	1592.0	1598.3	1596.2	1599.4	1594.1	1582.5
10°	1541.7	1555.4	1542.8	1560.5	1552.2	1547.0	1552.2	1557.5	1556.3	1551.1	1557.5
12.5°	1485.1	1500.8	1494.5	1505.0	1495.6	1495.6	1508.2	1505.0	1506.1	1501.8	1509.1
15°	1429.5	1441.1	1431.6	1445.3	1441.1	1429.5	1434.8	1434.8	1443.1	1440.1	1431.6
17.5°	1360.4	1369.8	1359.3	1362.4	1358.3	1356.2	1378.2	1363.5	1371.9	1365.6	1366.7
20°	1269.2	1273.4	1270.2	1278.6	1273.4	1279.7	1277.6	1275.5	1275.5	1278.6	1271.3
22.5°	1176.9	1176.9	1180.1	1182.2	1186.5	1180.1	1192.7	1182.2	1183.3	1190.6	1188.5
25°	1065.9	1062.7	1070.1	1080.6	1084.7	1079.5	1096.2	1087.9	1094.1	1099.4	1087.9
27.5°	930.7	930.7	938.0	955.9	959.0	965.3	988.3	988.3	996.7	989.4	997.8
30°	774.5	786.0	795.4	818.5	825.9	839.5	863.6	875.1	894.0	890.8	886.6
32.5°	614.2	629.9	630.9	655.1	675.0	698.0	730.5	757.7	771.3	780.7	770.3
35°	461.1	470.5	479.0	495.7	529.2	559.7	589.0	624.6	648.8	655.1	645.6
37.5°	337.5	339.6	348.0	363.6	388.8	418.2	453.8	492.5	517.7	527.1	516.7
40°	232.7	234.8	238.9	252.6	273.5	294.6	322.8	362.7	385.7	404.5	390.9
42.5°	156.1	158.2	162.5	172.9	184.5	204.3	226.3	251.5	273.5	282.0	274.6
45°	101.6	101.6	103.8	111.2	117.4	133.1	148.8	164.6	179.2	184.5	179.2
47.5°	59.8	60.8	62.8	68.1	75.4	81.8	93.3	103.8	108.0	112.1	110.0
50°	34.6	34.6	37.8	40.9	46.1	50.3	54.5	58.7	60.8	62.8	60.8
52.5°	18.8	19.9	20.9	22.0	24.1	28.3	31.4	31.4	32.5	33.5	32.5
55°	14.7	14.7	14.7	14.7	15.8	15.8	15.8	16.8	16.8	17.9	16.8
57.5°	10.5	10.5	10.5	11.5	11.5	11.5	10.5	10.5	10.5	10.5	10.5
60°	8.4	8.4	8.4	8.4	8.4	8.4	8.4	7.4	7.4	7.4	7.4
62.5°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
65°	4.2	4.2	5.3	5.3	5.3	5.3	5.3	4.2	4.2	4.2	4.2
67.5°	3.2	3.2	3.2	3.2	4.2	4.2	3.2	3.2	3.2	3.2	3.2
70°	2.1	2.1	2.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
72.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
75°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	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°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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: P843418

CATALOG NUMBER: LD4C15DE010B50 EU4C15B50 4LBSQLI

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1649.6	1649.6	1649.6	1649.6	1649.6	1649.6	1649.6	1649.6
2.5°	1649.6	1631.8	1633.9	1643.4	1638.1	1643.4	1642.3	1642.3
5°	1631.8	1626.5	1618.2	1615.0	1621.4	1635.0	1632.9	1624.5
7.5°	1598.3	1584.7	1594.1	1598.3	1593.0	1601.5	1605.6	1587.8
10°	1558.4	1553.2	1551.1	1553.2	1551.1	1559.5	1549.0	1549.0
12.5°	1501.8	1493.5	1493.5	1506.1	1498.7	1492.4	1500.8	1499.7
15°	1445.3	1428.4	1428.4	1432.7	1435.8	1431.6	1432.7	1422.2
17.5°	1361.4	1356.2	1348.8	1360.4	1363.5	1359.3	1362.4	1357.3
20°	1282.8	1282.8	1269.2	1274.4	1278.6	1281.7	1283.9	1275.5
22.5°	1182.2	1184.3	1174.8	1185.3	1188.5	1178.0	1180.1	1178.0
25°	1090.0	1088.9	1081.5	1077.4	1079.5	1075.3	1074.2	1058.5
27.5°	988.3	977.8	962.1	966.4	948.5	933.8	933.8	909.7
30°	878.3	860.5	839.5	818.5	802.8	786.0	776.6	763.0
32.5°	749.3	725.3	699.1	670.8	653.0	627.8	614.2	621.5
35°	621.5	585.8	550.2	521.9	494.7	480.0	463.2	465.4
37.5°	497.8	447.5	416.1	385.7	362.7	343.7	336.4	334.3
40°	363.6	323.8	292.4	270.4	254.7	240.0	231.6	228.4
42.5°	251.5	223.3	198.1	180.2	169.8	160.3	156.1	155.2
45°	163.5	146.7	130.0	117.4	109.0	102.7	101.6	100.6
47.5°	102.7	94.3	83.9	74.5	67.1	62.8	59.8	59.8
50°	58.7	55.5	50.3	45.1	40.9	38.8	35.6	34.6
52.5°	31.4	31.4	29.3	25.2	22.0	19.9	19.9	18.8
55°	16.8	16.8	15.8	15.8	14.7	14.7	14.7	13.6
57.5°	10.5	10.5	11.5	11.5	10.5	10.5	10.5	10.5
60°	7.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
62.5°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
65°	4.2	5.3	5.3	5.3	5.3	4.2	4.2	4.2
67.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
70°	3.2	3.2	3.2	3.2	3.2	2.1	2.1	2.1
72.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
75°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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)