

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: P#

Luminaire Tested: **LD4C15D010 EX4C159030 4LBSQLI**

Issue Date: 2/9/2022

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: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P209151)
Test Lab: INNOVATION CENTER
Issue Date: 2/9/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C15D010 EX4C159030 4LBSQLI
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBSQ TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

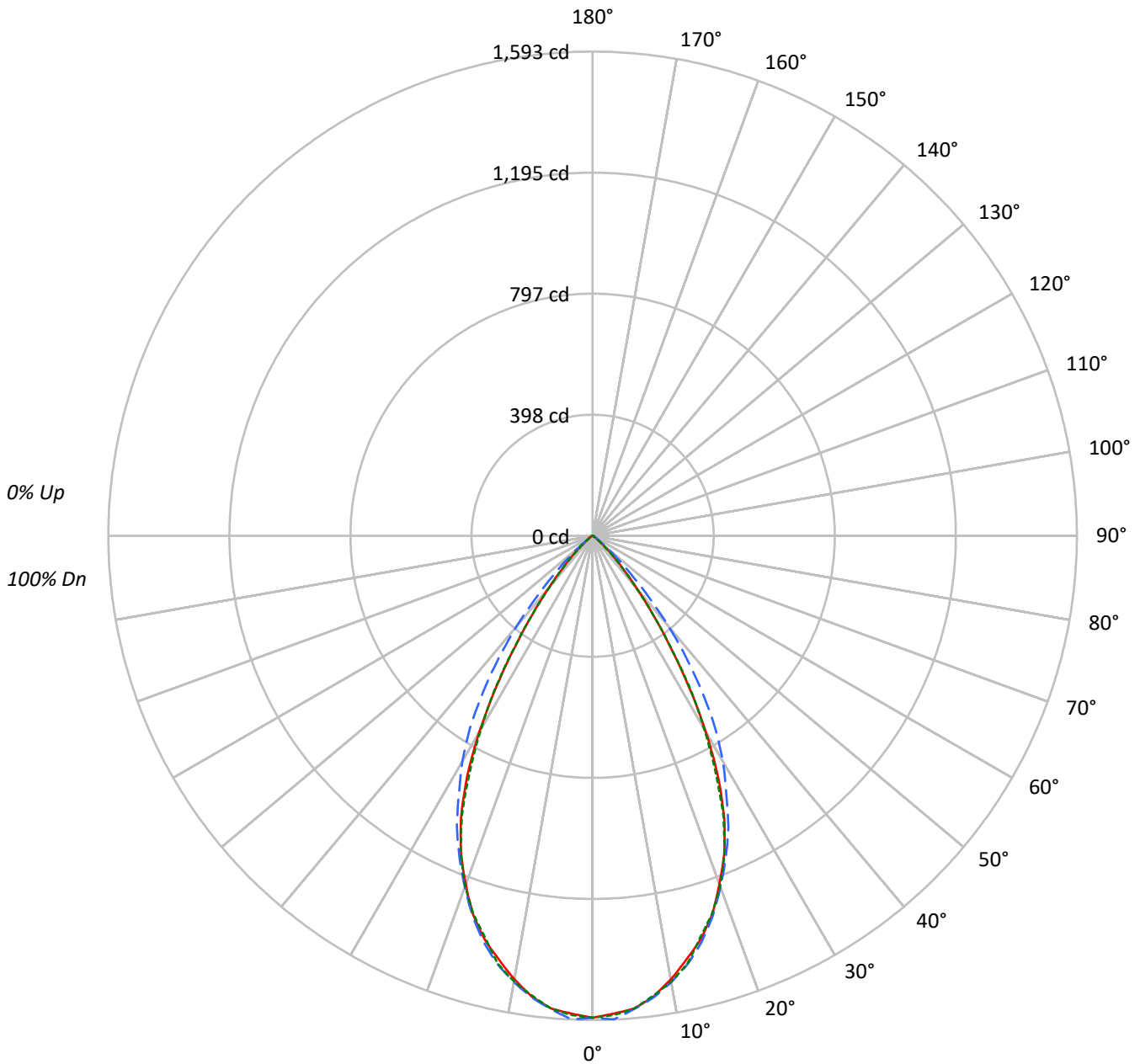
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1463.9 lumens
Efficiency: N/A
Efficacy: 92.7 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): 15.8
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: P#
CATALOG NUMBER: LD4C15D010 EX4C159030 4LBSQLI

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: LD4C15D010 EX4C159030 4LBSQLI

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	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°	153002	153002	153002
5°	151253	151446	151253
10°	145202	146094	145888
15°	137272	138271	136563
20°	125271	126206	125898
25°	109083	112511	108327
30°	82949	95405	81712
35°	52217	74173	52688
40°	28177	48985	27660
45°	13332	24194	13195
50°	4999	9067	4999
55°	2372	2877	2204
60°	1563	1370	1563
65°	913	913	913
70°	564	846	564
75°	373	373	373
80°	556	556	556
85°	0	0	0



TEST NUMBER: P#

CATALOG NUMBER: LD4C15D010 EX4C159030 4LBSQLI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.0	10.0
10°-20°	385.3	26.3
20°-30°	470.7	32.2
30°-40°	329.2	22.5
40°-50°	107.9	7.4
50°-60°	17.2	1.2
60°-70°	4.7	0.3
70°-80°	1.5	0.1
80°-90°	0.4	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°	1003.0	68.5
0°-40°	1332.3	91.0
0°-60°	1457.3	99.5
0°-90°	1463.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1463.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1586	1586	1586	1586	1586	
5°	1562	1562	1564	1554	1562	146
15°	1374	1380	1384	1375	1367	383
25°	1025	1040	1057	1038	1018	460
35°	443	523	630	515	447	283
45°	98	120	177	119	97	82
55°	14	15	17	15	13	14
65°	4	5	4	5	4	4
75°	1	1	1	1	1	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: LD4C15D010 EX4C159030 4LBSQLI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1585.7	1585.7	1585.7	1585.7	1585.7	1585.7	1585.7	1585.7	1585.7	1585.7	1585.7
2.5°	1573.7	1584.8	1581.7	1588.8	1588.8	1580.7	1582.7	1585.7	1589.8	1592.8	1568.6
5°	1561.6	1571.6	1562.6	1572.6	1566.6	1557.5	1572.6	1564.6	1569.6	1563.6	1567.6
7.5°	1529.3	1545.4	1527.3	1539.4	1535.4	1530.3	1536.4	1534.4	1537.4	1532.3	1521.3
10°	1482.0	1495.1	1483.0	1500.1	1492.0	1487.0	1492.0	1497.1	1496.1	1491.1	1497.1
12.5°	1427.6	1442.7	1436.6	1446.7	1437.7	1437.7	1449.7	1446.7	1447.7	1443.7	1450.7
15°	1374.2	1385.3	1376.2	1389.3	1385.3	1374.2	1379.2	1379.2	1387.3	1384.2	1376.2
17.5°	1307.7	1316.7	1306.7	1309.7	1305.7	1303.7	1324.8	1310.7	1318.8	1312.7	1313.7
20°	1220.0	1224.1	1221.0	1229.1	1224.1	1230.1	1228.1	1226.1	1226.1	1229.1	1222.1
22.5°	1131.4	1131.4	1134.4	1136.4	1140.5	1134.4	1146.5	1136.4	1137.4	1144.5	1142.5
25°	1024.6	1021.6	1028.6	1038.7	1042.7	1037.7	1053.8	1045.7	1051.8	1056.8	1045.7
27.5°	894.6	894.6	901.7	918.8	921.8	927.9	950.0	950.0	958.1	951.0	959.1
30°	744.5	755.6	764.6	786.8	793.9	807.0	830.1	841.2	859.4	856.3	852.3
32.5°	590.4	605.5	606.5	629.7	648.8	671.0	702.2	728.4	741.5	750.5	740.5
35°	443.3	452.4	460.4	476.5	508.8	538.0	566.2	600.4	623.6	629.7	620.6
37.5°	324.4	326.4	334.5	349.6	373.8	402.0	436.2	473.5	497.7	506.7	496.7
40°	223.7	225.7	229.7	242.8	263.0	283.1	310.3	348.6	370.7	388.9	375.8
42.5°	150.1	152.1	156.1	166.2	177.3	196.4	217.6	241.8	263.0	271.0	263.9
45°	97.7	97.7	99.7	106.8	112.9	127.9	143.1	158.2	172.3	177.3	172.3
47.5°	57.4	58.4	60.4	65.5	72.5	78.6	89.7	99.7	103.8	107.8	105.8
50°	33.3	33.3	36.3	39.3	44.3	48.3	52.4	56.4	58.4	60.4	58.4
52.5°	18.1	19.2	20.1	21.2	23.2	27.2	30.2	30.2	31.2	32.2	31.2
55°	14.1	14.1	14.1	14.1	15.1	15.1	15.1	16.1	16.1	17.1	16.1
57.5°	10.1	10.1	10.1	11.1	11.1	11.1	10.1	10.1	10.1	10.1	10.1
60°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	7.1	7.1	7.1	7.1
62.5°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
65°	4.0	4.0	5.1	5.1	5.1	5.1	5.1	4.0	4.0	4.0	4.0
67.5°	3.0	3.0	3.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0
70°	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
72.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
75°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	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°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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: P#

CATALOG NUMBER: LD4C15D010 EX4C159030 4LBSQLI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1585.7	1585.7	1585.7	1585.7	1585.7	1585.7	1585.7	1585.7
2.5°	1585.7	1568.6	1570.6	1579.7	1574.6	1579.7	1578.7	1578.7
5°	1568.6	1563.6	1555.5	1552.5	1558.5	1571.6	1569.6	1561.6
7.5°	1536.4	1523.3	1532.3	1536.4	1531.3	1539.4	1543.4	1526.3
10°	1498.1	1493.1	1491.1	1493.1	1491.1	1499.1	1489.0	1489.0
12.5°	1443.7	1435.6	1435.6	1447.7	1440.7	1434.6	1442.7	1441.7
15°	1389.3	1373.1	1373.1	1377.2	1380.2	1376.2	1377.2	1367.1
17.5°	1308.7	1303.7	1296.6	1307.7	1310.7	1306.7	1309.7	1304.7
20°	1233.1	1233.1	1220.0	1225.1	1229.1	1232.1	1234.1	1226.1
22.5°	1136.4	1138.4	1129.4	1139.4	1142.5	1132.4	1134.4	1132.4
25°	1047.7	1046.8	1039.7	1035.7	1037.7	1033.6	1032.7	1017.5
27.5°	950.0	939.9	924.9	928.9	911.7	897.6	897.6	874.5
30°	844.2	827.1	807.0	786.8	771.7	755.6	746.5	733.4
32.5°	720.3	697.2	672.0	644.8	627.7	603.5	590.4	597.4
35°	597.4	563.2	528.9	501.7	475.5	461.4	445.3	447.3
37.5°	478.5	430.2	400.0	370.7	348.6	330.5	323.4	321.4
40°	349.6	311.3	281.1	259.9	244.8	230.7	222.7	219.6
42.5°	241.8	214.6	190.4	173.3	163.2	154.1	150.1	149.1
45°	157.2	141.1	124.9	112.9	104.8	98.8	97.7	96.7
47.5°	98.8	90.7	80.6	71.5	64.5	60.4	57.4	57.4
50°	56.4	53.4	48.3	43.3	39.3	37.3	34.2	33.3
52.5°	30.2	30.2	28.2	24.2	21.2	19.2	19.2	18.1
55°	16.1	16.1	15.1	15.1	14.1	14.1	14.1	13.1
57.5°	10.1	10.1	11.1	11.1	10.1	10.1	10.1	10.1
60°	7.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
62.5°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
65°	4.0	5.1	5.1	5.1	5.1	4.0	4.0	4.0
67.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
70°	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0
72.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
75°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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)