

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 EX4C159035 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 EX4C159035 4LBSQLI
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBSQ TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

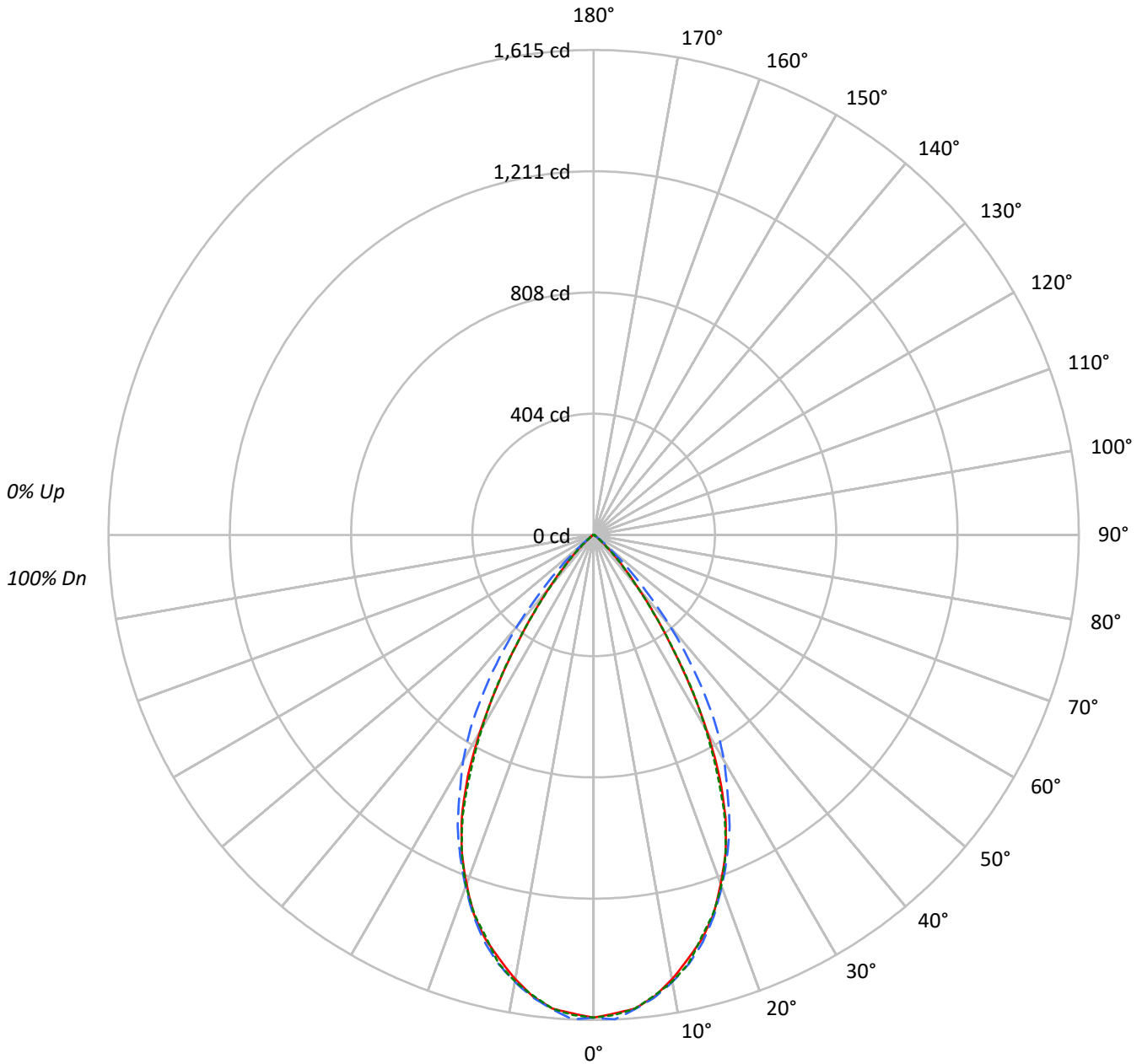
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1483.9 lumens
Efficiency: N/A
Efficacy: 93.9 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 EX4C159035 4LBSQLI

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: LD4C15D010 EX4C159035 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°	155096	155096	155096
5°	153316	153509	153316
10°	147182	148083	147887
15°	139140	140169	138431
20°	126986	127931	127612
25°	110573	114055	109807
30°	84085	96709	82838
35°	52924	75186	53407
40°	28555	49652	28038
45°	13523	24521	13373
50°	5059	9202	5059
55°	2406	2927	2237
60°	1582	1389	1582
65°	936	936	936
70°	564	875	564
75°	373	373	373
80°	556	556	556
85°	0	0	0



TEST NUMBER: P#

CATALOG NUMBER: LD4C15D010 EX4C159035 4LBSQLI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.0	10.0
10°-20°	390.6	26.3
20°-30°	477.1	32.2
30°-40°	333.7	22.5
40°-50°	109.4	7.4
50°-60°	17.4	1.2
60°-70°	4.7	0.3
70°-80°	1.6	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°	1016.7	68.5
0°-40°	1350.5	91.0
0°-60°	1477.2	99.5
0°-90°	1483.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1483.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1607	1607	1607	1607	1607	
5°	1583	1583	1585	1575	1583	148
15°	1393	1399	1403	1394	1386	389
25°	1039	1054	1071	1052	1031	467
35°	449	530	638	522	453	287
45°	99	122	180	120	98	83
55°	14	15	17	15	13	14
65°	4	5	4	5	4	5
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 EX4C159035 4LBSQLI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1607.4	1607.4	1607.4	1607.4	1607.4	1607.4	1607.4	1607.4	1607.4	1607.4	1607.4
2.5°	1595.2	1606.4	1603.3	1610.5	1610.5	1602.3	1604.4	1607.4	1611.5	1614.6	1590.0
5°	1582.9	1593.1	1583.9	1594.1	1588.0	1578.8	1594.1	1585.9	1591.1	1584.9	1589.0
7.5°	1550.2	1566.6	1548.2	1560.4	1556.4	1551.2	1557.4	1555.3	1558.4	1553.3	1542.1
10°	1502.2	1515.5	1503.3	1520.6	1512.4	1507.3	1512.4	1517.6	1516.5	1511.4	1517.6
12.5°	1447.1	1462.4	1456.3	1466.5	1457.3	1457.3	1469.5	1466.5	1467.5	1463.4	1470.5
15°	1392.9	1404.2	1395.0	1408.3	1404.2	1392.9	1398.0	1398.0	1406.2	1403.2	1395.0
17.5°	1325.6	1334.7	1324.5	1327.6	1323.5	1321.5	1342.9	1328.6	1336.8	1330.6	1331.7
20°	1236.7	1240.8	1237.7	1245.9	1240.8	1246.9	1244.9	1242.8	1242.8	1245.9	1238.8
22.5°	1146.8	1146.8	1149.9	1151.9	1156.0	1149.9	1162.2	1151.9	1152.9	1160.1	1158.1
25°	1038.6	1035.5	1042.7	1052.9	1057.0	1051.8	1068.2	1060.0	1066.1	1071.3	1060.0
27.5°	906.9	906.9	914.0	931.4	934.4	940.5	963.0	963.0	971.2	964.0	972.2
30°	754.7	765.9	775.1	797.6	804.7	818.0	841.5	852.7	871.1	868.0	863.9
32.5°	598.4	613.8	614.8	638.3	657.7	680.1	711.8	738.3	751.6	760.8	750.6
35°	449.3	458.5	466.7	483.0	515.7	545.3	573.9	608.6	632.2	638.3	629.1
37.5°	328.8	330.9	339.1	354.4	378.9	407.5	442.2	480.0	504.5	513.7	503.5
40°	226.7	228.7	232.8	246.1	266.5	287.0	314.6	353.4	375.8	394.2	380.9
42.5°	152.2	154.2	158.3	168.5	179.7	199.1	220.6	245.1	266.5	274.7	267.5
45°	99.1	99.1	101.1	108.3	114.4	129.7	145.0	160.3	174.6	179.7	174.6
47.5°	58.2	59.2	61.3	66.4	73.5	79.6	90.9	101.1	105.2	109.3	107.2
50°	33.7	33.7	36.8	39.8	44.9	49.0	53.1	57.2	59.2	61.3	59.2
52.5°	18.4	19.4	20.4	21.5	23.5	27.6	30.6	30.6	31.7	32.7	31.7
55°	14.3	14.3	14.3	14.3	15.3	15.3	15.3	16.3	16.3	17.4	16.3
57.5°	10.2	10.2	10.2	11.3	11.3	11.3	10.2	10.2	10.2	10.2	10.2
60°	8.2	8.2	8.2	8.2	8.2	8.2	8.2	7.2	7.2	7.2	7.2
62.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
65°	4.1	4.1	5.1	5.1	5.1	5.1	5.1	4.1	4.1	4.1	4.1
67.5°	3.1	3.1	3.1	3.1	4.1	4.1	3.1	3.1	3.1	3.1	3.1
70°	2.0	2.0	2.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
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 EX4C159035 4LBSQLI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1607.4	1607.4	1607.4	1607.4	1607.4	1607.4	1607.4	1607.4
2.5°	1607.4	1590.0	1592.1	1601.3	1596.2	1601.3	1600.3	1600.3
5°	1590.0	1584.9	1576.8	1573.7	1579.8	1593.1	1591.1	1582.9
7.5°	1557.4	1544.1	1553.3	1557.4	1552.3	1560.4	1564.5	1547.1
10°	1518.6	1513.5	1511.4	1513.5	1511.4	1519.6	1509.4	1509.4
12.5°	1463.4	1455.3	1455.3	1467.5	1460.3	1454.2	1462.4	1461.4
15°	1408.3	1391.9	1391.9	1396.0	1399.1	1395.0	1396.0	1385.8
17.5°	1326.6	1321.5	1314.3	1325.6	1328.6	1324.5	1327.6	1322.5
20°	1250.0	1250.0	1236.7	1241.8	1245.9	1249.0	1251.0	1242.8
22.5°	1151.9	1154.0	1144.8	1155.0	1158.1	1147.9	1149.9	1147.9
25°	1062.1	1061.1	1053.9	1049.8	1051.8	1047.8	1046.8	1031.4
27.5°	963.0	952.8	937.5	941.6	924.2	909.9	909.9	886.4
30°	855.8	838.4	818.0	797.6	782.3	765.9	756.7	743.5
32.5°	730.2	706.7	681.2	653.6	636.2	611.7	598.4	605.6
35°	605.6	570.8	536.1	508.6	482.0	467.7	451.4	453.4
37.5°	485.1	436.1	405.4	375.8	353.4	335.0	327.8	325.8
40°	354.4	315.6	284.9	263.5	248.2	233.9	225.7	222.6
42.5°	245.1	217.5	193.0	175.7	165.4	156.2	152.2	151.2
45°	159.3	143.0	126.6	114.4	106.2	100.1	99.1	98.0
47.5°	100.1	91.9	81.7	72.5	65.3	61.3	58.2	58.2
50°	57.2	54.1	49.0	43.9	39.8	37.8	34.7	33.7
52.5°	30.6	30.6	28.6	24.5	21.5	19.4	19.4	18.4
55°	16.3	16.3	15.3	15.3	14.3	14.3	14.3	13.3
57.5°	10.2	10.2	11.3	11.3	10.2	10.2	10.2	10.2
60°	7.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
62.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
65°	4.1	5.1	5.1	5.1	5.1	4.1	4.1	4.1
67.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
70°	3.1	3.1	3.1	3.1	3.1	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)