

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 EX4C159040 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 EX4C159040 4LBSQLI
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBSQ TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

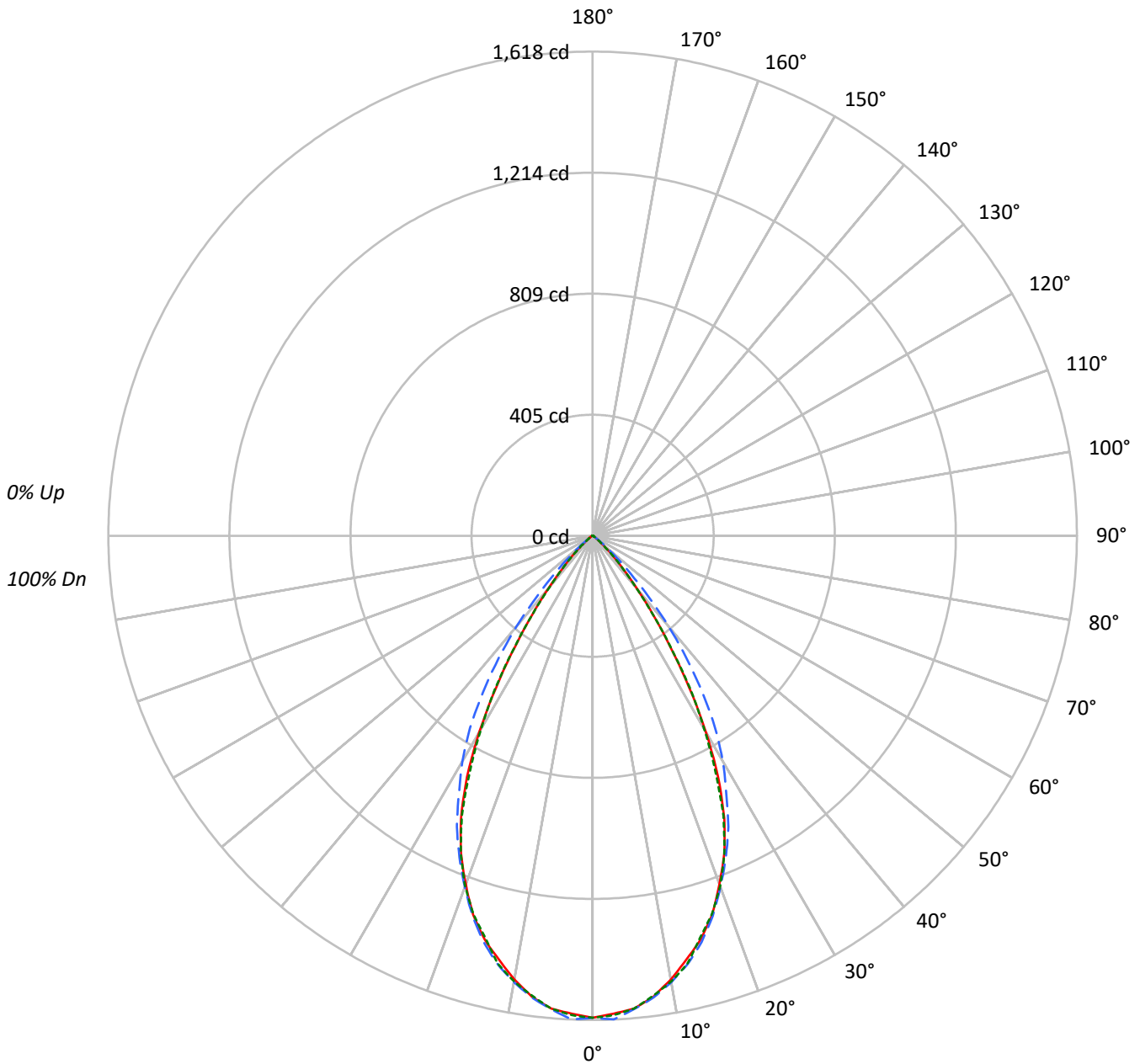
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1486.9 lumens
Efficiency: N/A
Efficacy: 94.1 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 EX4C159040 4LBSQLI

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: LD4C15D010 EX4C159040 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	65																			
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°	155415	155415	155415
5°	153626	153819	153626
10°	147485	148387	148181
15°	139430	140449	138711
20°	127243	128187	127879
25°	110797	114278	110030
30°	84253	96909	83005
35°	53030	75339	53513
40°	28617	49753	28101
45°	13550	24576	13400
50°	5074	9217	5074
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 EX4C159040 4LBSQLI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.3	10.0
10°-20°	391.4	26.3
20°-30°	478.1	32.2
30°-40°	334.4	22.5
40°-50°	109.6	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°	1018.8	68.5
0°-40°	1353.2	91.0
0°-60°	1480.2	99.5
0°-90°	1486.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1486.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1611	1611	1611	1611	1611	
5°	1586	1587	1588	1578	1586	149
15°	1396	1401	1406	1397	1389	389
25°	1041	1057	1073	1054	1034	467
35°	450	532	640	523	454	287
45°	99	122	180	121	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 EX4C159040 4LBSQLI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1610.7	1610.7	1610.7	1610.7	1610.7	1610.7	1610.7	1610.7	1610.7	1610.7	1610.7
2.5°	1598.4	1609.6	1606.6	1613.7	1613.7	1605.6	1607.6	1610.7	1614.7	1617.8	1593.2
5°	1586.1	1596.3	1587.1	1597.3	1591.2	1582.0	1597.3	1589.1	1594.3	1588.1	1592.2
7.5°	1553.4	1569.7	1551.3	1563.6	1559.5	1554.4	1560.5	1558.5	1561.5	1556.4	1545.2
10°	1505.3	1518.6	1506.3	1523.7	1515.5	1510.4	1515.5	1520.6	1519.6	1514.5	1520.6
12.5°	1450.0	1465.3	1459.2	1469.4	1460.2	1460.2	1472.5	1469.4	1470.5	1466.4	1473.5
15°	1395.8	1407.0	1397.8	1411.1	1407.0	1395.8	1400.9	1400.9	1409.1	1406.0	1397.8
17.5°	1328.2	1337.4	1327.2	1330.3	1326.2	1324.1	1345.6	1331.3	1339.5	1333.3	1334.4
20°	1239.2	1243.3	1240.2	1248.4	1243.3	1249.4	1247.4	1245.4	1245.4	1248.4	1241.3
22.5°	1149.1	1149.1	1152.2	1154.3	1158.4	1152.2	1164.5	1154.3	1155.3	1162.5	1160.4
25°	1040.7	1037.6	1044.8	1055.0	1059.1	1054.0	1070.3	1062.2	1068.3	1073.4	1062.2
27.5°	908.7	908.7	915.8	933.3	936.3	942.4	964.9	964.9	973.1	966.0	974.2
30°	756.2	767.5	776.7	799.2	806.3	819.7	843.2	854.5	872.9	869.8	865.7
32.5°	599.6	615.0	616.0	639.6	659.0	681.5	713.2	739.8	753.1	762.3	752.1
35°	450.2	459.5	467.6	484.0	516.8	546.4	575.1	609.9	633.4	639.6	630.3
37.5°	329.5	331.6	339.7	355.1	379.6	408.3	443.1	480.9	505.5	514.7	504.5
40°	227.2	229.2	233.3	246.6	267.1	287.5	315.2	354.1	376.6	395.0	381.7
42.5°	152.5	154.5	158.6	168.8	180.1	199.5	221.0	245.6	267.1	275.3	268.1
45°	99.3	99.3	101.3	108.5	114.6	130.0	145.3	160.6	175.0	180.1	175.0
47.5°	58.3	59.3	61.4	66.5	73.7	79.8	91.1	101.3	105.4	109.5	107.4
50°	33.8	33.8	36.8	39.9	45.0	49.1	53.2	57.3	59.3	61.4	59.3
52.5°	18.4	19.5	20.5	21.5	23.6	27.6	30.7	30.7	31.7	32.7	31.7
55°	14.3	14.3	14.3	14.3	15.4	15.4	15.4	16.4	16.4	17.4	16.4
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 EX4C159040 4LBSQLI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1610.7	1610.7	1610.7	1610.7	1610.7	1610.7	1610.7	1610.7
2.5°	1610.7	1593.2	1595.3	1604.5	1599.4	1604.5	1603.5	1603.5
5°	1593.2	1588.1	1580.0	1576.9	1583.0	1596.3	1594.3	1586.1
7.5°	1560.5	1547.2	1556.4	1560.5	1555.4	1563.6	1567.7	1550.3
10°	1521.6	1516.5	1514.5	1516.5	1514.5	1522.7	1512.4	1512.4
12.5°	1466.4	1458.2	1458.2	1470.5	1463.3	1457.2	1465.3	1464.3
15°	1411.1	1394.7	1394.7	1398.8	1401.9	1397.8	1398.8	1388.6
17.5°	1329.2	1324.1	1317.0	1328.2	1331.3	1327.2	1330.3	1325.2
20°	1252.5	1252.5	1239.2	1244.3	1248.4	1251.5	1253.5	1245.4
22.5°	1154.3	1156.3	1147.1	1157.3	1160.4	1150.2	1152.2	1150.2
25°	1064.2	1063.2	1056.0	1051.9	1054.0	1049.9	1048.9	1033.5
27.5°	964.9	954.7	939.4	943.5	926.1	911.7	911.7	888.2
30°	857.5	840.1	819.7	799.2	783.8	767.5	758.2	745.0
32.5°	731.6	708.1	682.5	654.9	637.5	613.0	599.6	606.8
35°	606.8	572.0	537.2	509.6	483.0	468.7	452.3	454.3
37.5°	486.1	437.0	406.3	376.6	354.1	335.7	328.5	326.4
40°	355.1	316.2	285.5	264.0	248.7	234.3	226.2	223.1
42.5°	245.6	218.0	193.4	176.0	165.8	156.6	152.5	151.5
45°	159.6	143.3	126.9	114.6	106.4	100.3	99.3	98.2
47.5°	100.3	92.1	81.8	72.7	65.5	61.4	58.3	58.3
50°	57.3	54.2	49.1	44.0	39.9	37.9	34.8	33.8
52.5°	30.7	30.7	28.6	24.6	21.5	19.5	19.5	18.4
55°	16.4	16.4	15.4	15.4	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)