

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 EX4C159050 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 EX4C159050 4LBSQLI
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBSQ TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

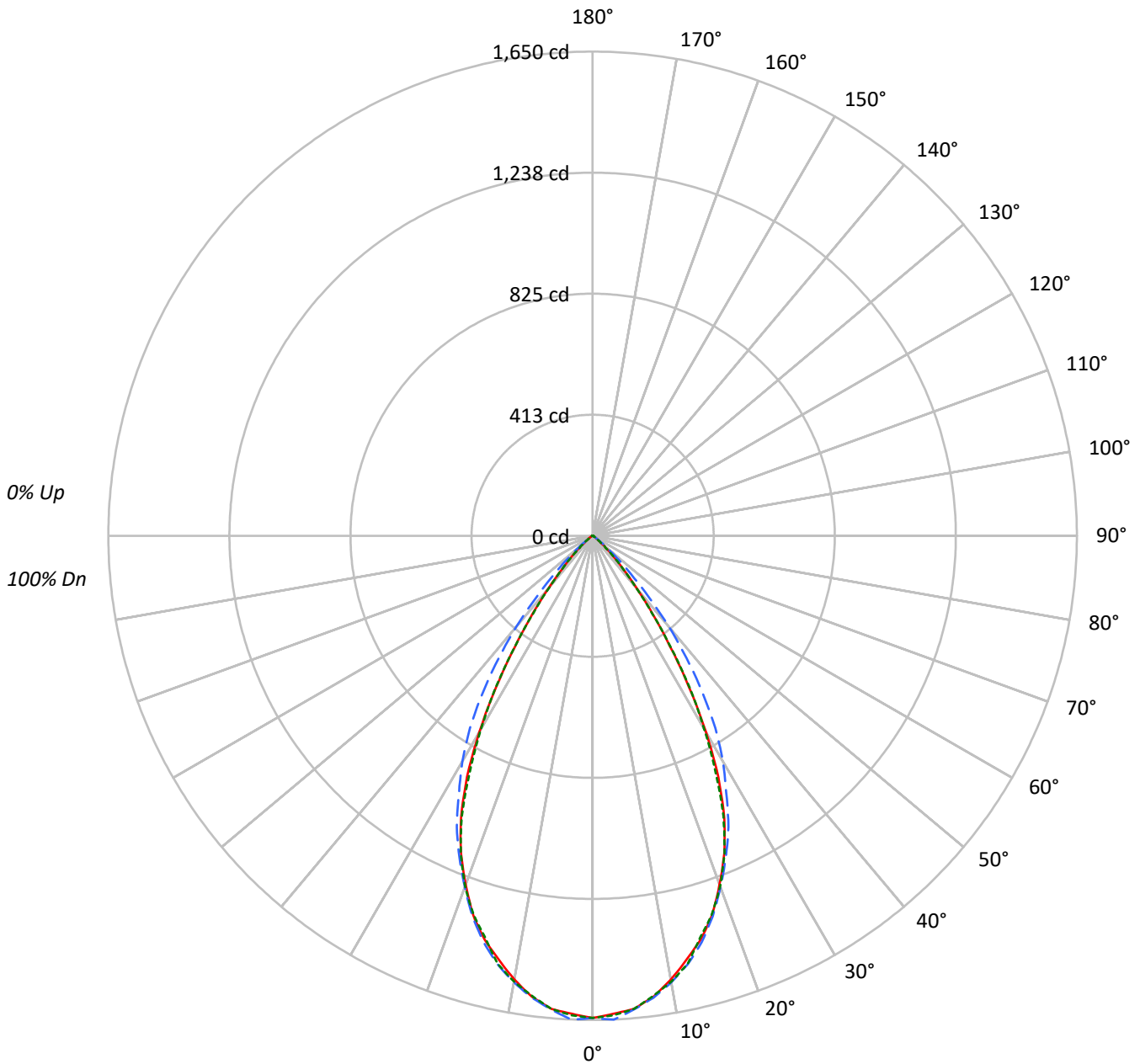
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1517.0 lumens
Efficiency: N/A
Efficacy: 96.0 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 (A_{in}): 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									
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°	158541	158541	158541
5°	156725	156928	156725
10°	150454	151375	151169
15°	142237	143286	141508
20°	129810	130775	130457
25°	113033	116588	112255
30°	85957	98859	84676
35°	54101	76859	54596
40°	29184	50761	28668
45°	13823	25067	13673
50°	5179	9397	5179
55°	2456	2994	2288
60°	1602	1409	1602
65°	959	959	959
70°	592	903	592
75°	410	410	410
80°	611	611	611
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.3	10.0
10°-20°	399.3	26.3
20°-30°	487.7	32.2
30°-40°	341.1	22.5
40°-50°	111.8	7.4
50°-60°	17.8	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°	1039.4	68.5
0°-40°	1380.5	91.0
0°-60°	1510.1	99.5
0°-90°	1517.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1517.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1643	1643	1643	1643	1643	
5°	1618	1619	1620	1610	1618	152
15°	1424	1430	1434	1425	1417	397
25°	1062	1078	1095	1075	1054	477
35°	459	542	652	534	464	293
45°	101	125	184	123	100	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	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1643.1	1643.1	1643.1	1643.1	1643.1	1643.1	1643.1	1643.1	1643.1	1643.1	1643.1
2.5°	1630.6	1642.1	1639.0	1646.3	1646.3	1637.9	1640.0	1643.1	1647.3	1650.5	1625.4
5°	1618.1	1628.5	1619.1	1629.6	1623.3	1613.9	1629.6	1621.2	1626.4	1620.2	1624.4
7.5°	1584.7	1601.4	1582.6	1595.1	1591.0	1585.7	1592.0	1589.9	1593.0	1587.8	1576.3
10°	1535.6	1549.2	1536.7	1554.4	1546.1	1540.9	1546.1	1551.3	1550.2	1545.0	1551.3
12.5°	1479.3	1494.9	1488.6	1499.1	1489.7	1489.7	1502.2	1499.1	1500.1	1496.0	1503.2
15°	1423.9	1435.4	1426.0	1439.6	1435.4	1423.9	1429.1	1429.1	1437.5	1434.4	1426.0
17.5°	1355.0	1364.4	1354.0	1357.1	1353.0	1350.9	1372.8	1358.1	1366.5	1360.2	1361.3
20°	1264.2	1268.4	1265.2	1273.6	1268.4	1274.7	1272.6	1270.5	1270.5	1273.6	1266.3
22.5°	1172.3	1172.3	1175.5	1177.6	1181.7	1175.5	1188.0	1177.6	1178.6	1185.9	1183.8
25°	1061.7	1058.5	1065.9	1076.3	1080.5	1075.2	1091.9	1083.6	1089.9	1095.1	1083.6
27.5°	927.0	927.0	934.3	952.1	955.2	961.5	984.4	984.4	992.8	985.5	993.8
30°	771.5	783.0	792.3	815.3	822.6	836.2	860.2	871.7	890.5	887.3	883.2
32.5°	611.7	627.4	628.4	652.5	672.3	695.2	727.6	754.8	768.3	777.7	767.3
35°	459.3	468.7	477.1	493.8	527.2	557.5	586.7	622.2	646.2	652.5	643.1
37.5°	336.2	338.2	346.6	362.2	387.3	416.5	452.0	490.6	515.7	525.1	514.7
40°	231.7	233.8	238.0	251.6	272.5	293.3	321.5	361.2	384.2	403.0	389.4
42.5°	155.5	157.6	161.8	172.2	183.7	203.5	225.5	250.5	272.5	280.8	273.5
45°	101.3	101.3	103.3	110.7	116.9	132.6	148.2	163.9	178.5	183.7	178.5
47.5°	59.5	60.5	62.6	67.9	75.1	81.4	92.9	103.3	107.5	111.7	109.6
50°	34.5	34.5	37.6	40.7	45.9	50.1	54.3	58.4	60.5	62.6	60.5
52.5°	18.8	19.9	20.9	21.9	24.0	28.2	31.3	31.3	32.4	33.4	32.4
55°	14.6	14.6	14.6	14.6	15.7	15.7	15.7	16.7	16.7	17.8	16.7
57.5°	10.4	10.4	10.4	11.5	11.5	11.5	10.4	10.4	10.4	10.4	10.4
60°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	7.3	7.3	7.3	7.3
62.5°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
65°	4.2	4.2	5.2	5.2	5.2	5.2	5.2	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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1643.1	1643.1	1643.1	1643.1	1643.1	1643.1	1643.1	1643.1
2.5°	1643.1	1625.4	1627.5	1636.9	1631.6	1636.9	1635.9	1635.9
5°	1625.4	1620.2	1611.8	1608.7	1614.9	1628.5	1626.4	1618.1
7.5°	1592.0	1578.4	1587.8	1592.0	1586.8	1595.1	1599.3	1581.5
10°	1552.3	1547.1	1545.0	1547.1	1545.0	1553.4	1542.9	1542.9
12.5°	1496.0	1487.6	1487.6	1500.1	1492.8	1486.5	1494.9	1493.9
15°	1439.6	1422.9	1422.9	1427.0	1430.2	1426.0	1427.0	1416.6
17.5°	1356.1	1350.9	1343.5	1355.0	1358.1	1354.0	1357.1	1351.9
20°	1277.8	1277.8	1264.2	1269.4	1273.6	1276.7	1278.8	1270.5
22.5°	1177.6	1179.7	1170.2	1180.7	1183.8	1173.4	1175.5	1173.4
25°	1085.7	1084.7	1077.3	1073.2	1075.2	1071.1	1070.0	1054.4
27.5°	984.4	974.0	958.3	962.5	944.8	930.1	930.1	906.1
30°	874.8	857.1	836.2	815.3	799.7	783.0	773.5	760.0
32.5°	746.4	722.4	696.3	668.1	650.4	625.3	611.7	619.1
35°	619.1	583.5	548.1	519.9	492.7	478.1	461.4	463.5
37.5°	495.9	445.8	414.5	384.2	361.2	342.4	335.1	333.0
40°	362.2	322.6	291.3	269.3	253.7	239.1	230.7	227.6
42.5°	250.5	222.4	197.3	179.6	169.1	159.7	155.5	154.5
45°	162.9	146.2	129.5	116.9	108.6	102.3	101.3	100.2
47.5°	102.3	93.9	83.5	74.1	66.8	62.6	59.5	59.5
50°	58.4	55.3	50.1	44.9	40.7	38.6	35.5	34.5
52.5°	31.3	31.3	29.2	25.0	21.9	19.9	19.9	18.8
55°	16.7	16.7	15.7	15.7	14.6	14.6	14.6	13.6
57.5°	10.4	10.4	11.5	11.5	10.4	10.4	10.4	10.4
60°	7.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
62.5°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
65°	4.2	5.2	5.2	5.2	5.2	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)