

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: P840171

Luminaire Tested: **LD4C35D010 EU4359030 4LBCSSQMW**

Issue Date: 5/25/2022

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: P840171  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P209253)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/25/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C35D010 EU4359030 4LBCSSQMW  
Description: 4 INCH 3500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS  
AND 4LBCSSQ TRIM WITH MW FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

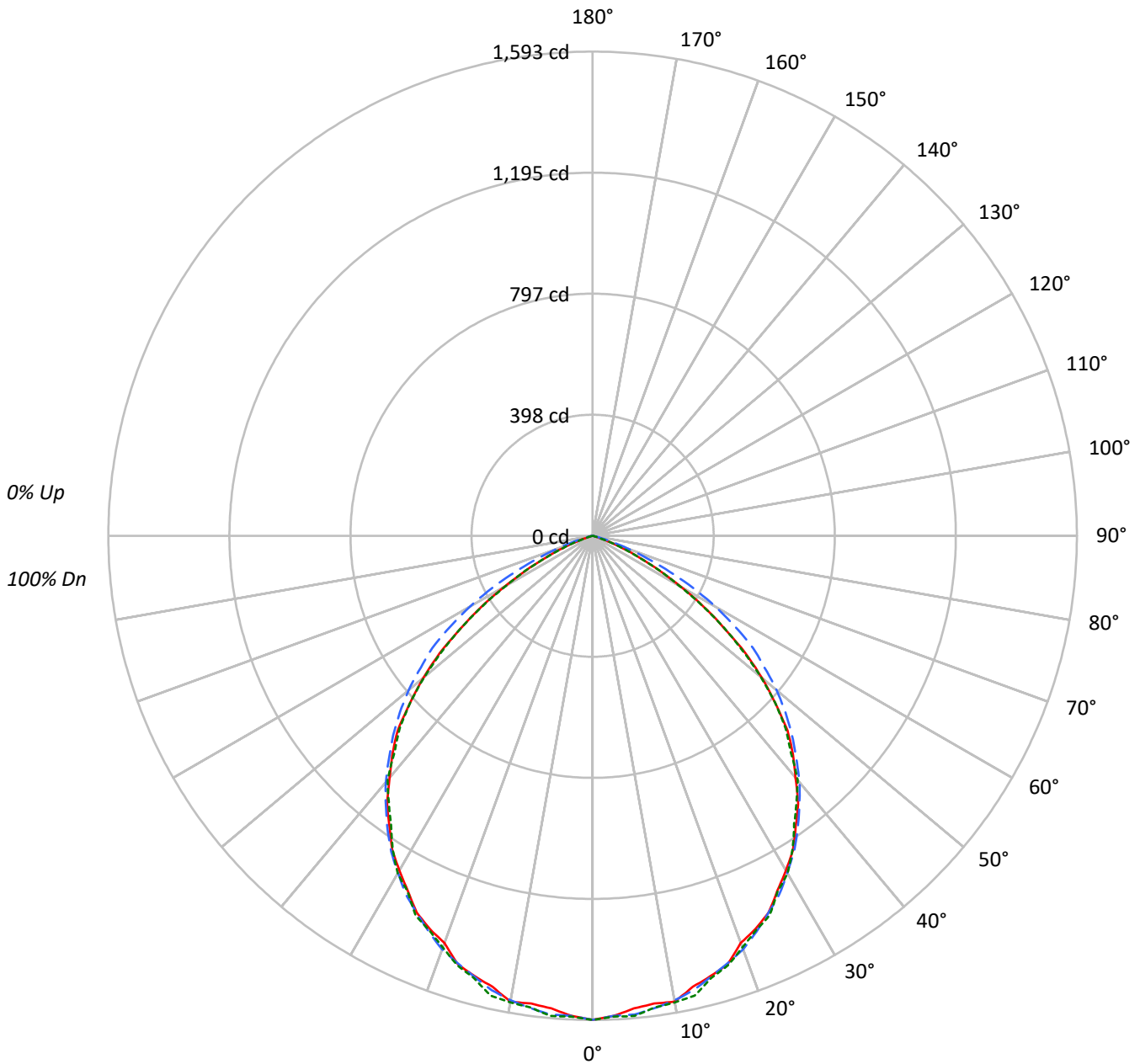
Lumens per Lamp: N/A  
Luminaire Lumens: 3402.0 lumens  
Efficiency: N/A  
Efficacy: 84.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 40.4  
Input Voltage (V):  
Input Current (A<sub>in</sub>): 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	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89																			
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77																			
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67																			
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52																			
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46																			
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41																			
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	37																			
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33																			
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	31																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	153668	153668	153668
5°	151185	153151	153597
10°	152492	152051	152708
15°	149819	150039	150498
20°	146341	148662	147964
25°	145706	145706	146664
30°	141643	142646	142902
35°	137227	138558	136155
40°	130781	133338	132205
45°	123779	126563	122537
50°	109010	118512	108334
55°	88284	108454	88670
60°	64609	89928	63297
65°	39247	64042	38219
70°	15319	34474	14698
75°	1678	9283	1678
80°	1278	1278	1278
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	150.3	4.4
10°-20°	425.4	12.5
20°-30°	631.2	18.6
30°-40°	731.3	21.5
40°-50°	701.2	20.6
50°-60°	515.6	15.2
60°-70°	222.7	6.5
70°-80°	24.0	0.7
80°-90°	0.3	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°	1206.9	35.5
0°-40°	1938.2	57.0
0°-60°	3155.0	92.7
0°-90°	3402.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3402.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1593	1593	1593	1593	1593	
5°	1561	1577	1581	1584	1586	149
15°	1500	1509	1502	1504	1507	423
25°	1369	1366	1369	1371	1378	627
35°	1165	1172	1176	1174	1156	728
45°	907	909	928	914	898	690
55°	525	579	645	577	527	472
65°	172	215	280	213	167	177
75°	4	7	25	4	4	14
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°	22.5°	25°	30°	35°	40°	45°
0°	1592.6	1592.6	1592.6	1592.6	1592.6	1592.6	1592.6	1592.6	1592.6	1592.6	1592.6
2.5°	1581.2	1599.3	1601.6	1590.3	1585.8	1579.0	1594.8	1583.5	1588.1	1583.5	1581.2
5°	1560.9	1581.2	1583.5	1583.5	1579.0	1576.7	1583.5	1581.2	1579.0	1574.5	1581.2
7.5°	1551.9	1563.1	1574.5	1560.9	1567.7	1565.4	1581.2	1574.5	1572.2	1572.2	1567.7
10°	1556.4	1554.1	1563.1	1549.6	1554.1	1549.6	1563.1	1563.1	1558.6	1554.1	1551.9
12.5°	1520.1	1538.2	1538.2	1536.0	1531.5	1524.7	1538.2	1547.4	1533.7	1533.7	1531.5
15°	1499.8	1504.3	1506.6	1506.6	1504.3	1508.9	1515.6	1506.6	1508.9	1497.5	1502.0
17.5°	1477.2	1468.2	1474.9	1470.4	1472.7	1477.2	1486.3	1486.3	1472.7	1470.4	1474.9
20°	1425.2	1452.3	1454.6	1441.0	1443.2	1443.2	1459.1	1445.6	1454.6	1443.2	1447.8
22.5°	1400.2	1418.3	1420.6	1402.5	1413.8	1400.2	1416.1	1395.7	1418.3	1402.5	1409.3
25°	1368.6	1366.4	1373.1	1364.1	1366.4	1366.4	1377.6	1368.6	1375.4	1366.4	1368.6
27.5°	1316.6	1334.7	1332.4	1323.4	1327.9	1325.7	1348.3	1323.4	1336.9	1325.7	1330.2
30°	1271.3	1287.2	1282.6	1273.6	1273.6	1266.8	1291.7	1284.9	1282.6	1282.6	1280.3
32.5°	1226.1	1228.4	1223.9	1226.1	1228.4	1219.3	1239.6	1230.6	1228.4	1230.6	1232.9
35°	1165.0	1165.0	1169.5	1162.8	1171.8	1171.8	1189.9	1178.5	1176.3	1169.5	1176.3
37.5°	1110.7	1104.0	1106.2	1106.2	1110.7	1115.2	1124.3	1119.7	1119.7	1113.0	1117.5
40°	1038.3	1033.8	1040.6	1040.6	1047.4	1047.4	1056.4	1051.9	1058.6	1058.6	1058.6
42.5°	975.0	975.0	970.5	977.2	979.5	977.2	993.1	990.8	993.1	988.6	990.8
45°	907.1	907.1	902.6	900.4	911.6	909.4	927.5	920.7	929.7	925.2	927.5
47.5°	814.3	825.7	818.9	825.7	839.3	841.6	852.8	848.3	857.3	850.6	859.7
50°	726.2	726.2	732.9	742.0	755.5	757.8	771.4	780.5	785.0	787.2	789.5
52.5°	633.4	631.1	638.0	649.2	660.6	669.6	683.2	696.7	705.8	719.4	712.5
55°	524.8	529.3	536.2	549.7	567.8	579.1	590.4	608.5	624.4	631.1	644.7
57.5°	432.0	427.5	432.0	450.1	470.5	479.6	495.4	513.5	536.2	549.7	554.2
60°	334.8	337.1	341.6	357.5	373.2	386.8	393.6	423.0	443.4	457.0	466.0
62.5°	246.6	251.1	255.7	269.2	285.0	296.4	307.6	332.5	350.6	364.2	373.2
65°	171.9	174.2	181.0	187.7	203.6	214.9	223.9	244.3	262.4	273.8	280.5
67.5°	106.3	108.5	113.1	122.2	133.5	142.5	151.6	165.1	181.0	192.3	194.6
70°	54.3	56.6	58.8	65.6	74.7	79.2	85.9	97.3	108.5	117.6	122.2
72.5°	18.1	18.1	20.4	24.9	29.4	34.0	36.2	47.5	56.6	61.1	63.3
75°	4.5	4.5	4.5	4.5	4.5	6.8	6.8	13.6	18.1	22.6	24.9
77.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	4.5	4.5
80°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
82.5°	0.0	0.0	0.0	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	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1592.6	1592.6	1592.6	1592.6	1592.6	1592.6	1592.6	1592.6	1592.6	1592.6
2.5°	1592.6	1588.1	1585.8	1588.1	1588.1	1585.8	1592.6	1601.6	1612.9	1583.5
5°	1590.3	1585.8	1590.3	1576.7	1583.5	1579.0	1588.1	1585.8	1594.8	1585.8
7.5°	1583.5	1574.5	1576.7	1570.0	1579.0	1567.7	1574.5	1588.1	1579.0	1565.4
10°	1560.9	1556.4	1572.2	1549.6	1545.0	1554.1	1572.2	1558.6	1554.1	1558.6
12.5°	1538.2	1538.2	1545.0	1527.0	1529.2	1533.7	1542.7	1533.7	1538.2	1549.6
15°	1513.4	1508.9	1520.1	1506.6	1504.3	1499.8	1508.9	1508.9	1513.4	1506.6
17.5°	1483.9	1477.2	1477.2	1472.7	1470.4	1481.7	1486.3	1488.5	1490.8	1481.7
20°	1447.8	1445.6	1452.3	1445.6	1447.8	1450.1	1450.1	1445.6	1465.9	1441.0
22.5°	1409.3	1416.1	1407.1	1402.5	1407.1	1411.6	1411.6	1413.8	1409.3	1404.8
25°	1370.9	1375.4	1377.6	1364.1	1370.9	1364.1	1379.9	1382.1	1373.1	1377.6
27.5°	1336.9	1330.2	1327.9	1318.8	1323.4	1321.1	1323.4	1323.4	1336.9	1318.8
30°	1284.9	1278.1	1280.3	1273.6	1275.8	1273.6	1275.8	1275.8	1284.9	1282.6
32.5°	1235.1	1228.4	1230.6	1223.9	1223.9	1226.1	1221.5	1221.5	1228.4	1223.9
35°	1187.6	1171.8	1174.0	1171.8	1174.0	1165.0	1165.0	1162.8	1167.3	1155.9
37.5°	1119.7	1113.0	1110.7	1108.5	1110.7	1106.2	1110.7	1104.0	1110.7	1101.7
40°	1058.6	1054.1	1056.4	1042.9	1042.9	1045.1	1040.6	1038.3	1040.6	1049.6
42.5°	997.6	988.6	984.1	979.5	981.8	975.0	972.7	968.2	972.7	963.7
45°	925.2	925.2	923.0	911.6	913.9	913.9	904.9	895.8	898.0	898.0
47.5°	859.7	855.1	852.8	841.6	839.3	837.0	827.9	821.2	821.2	814.3
50°	787.2	782.7	775.9	764.6	760.1	746.5	739.8	730.7	721.7	721.7
52.5°	719.4	703.5	694.4	676.4	669.6	662.8	644.7	638.0	631.1	624.4
55°	638.0	624.4	606.3	585.9	576.9	565.5	547.4	533.8	524.8	527.1
57.5°	558.8	536.2	518.1	490.9	479.6	472.7	454.7	436.6	427.5	427.5
60°	461.5	443.4	420.8	395.9	386.8	375.6	352.9	341.6	334.8	328.0
62.5°	368.7	355.2	334.8	303.1	296.4	285.0	269.2	255.7	248.8	248.8
65°	276.0	262.4	244.3	221.7	212.7	203.6	190.0	176.5	169.6	167.4
67.5°	194.6	178.7	162.9	144.8	138.0	133.5	119.9	110.8	106.3	104.0
70°	117.6	108.5	97.3	83.7	76.9	72.4	63.3	56.6	54.3	52.1
72.5°	61.1	54.3	45.2	36.2	31.7	27.1	22.6	18.1	15.9	15.9
75°	22.6	18.1	11.4	6.8	4.5	4.5	4.5	4.5	4.5	4.5
77.5°	4.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
80°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
82.5°	0.0	0.0	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	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	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)