

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: P563831

Luminaire Tested: **LD4C40D010 EX4C409030 4LBCSSQMMS**

Issue Date: 5/25/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P563831  
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: LD4C40D010 EX4C409030 4LBCSSQMMS  
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS  
AND 4LBCSSQ TRIM WITH MMS FINISH, DIM TO WARM  
Light Source: -  
Ballast/Driver: -

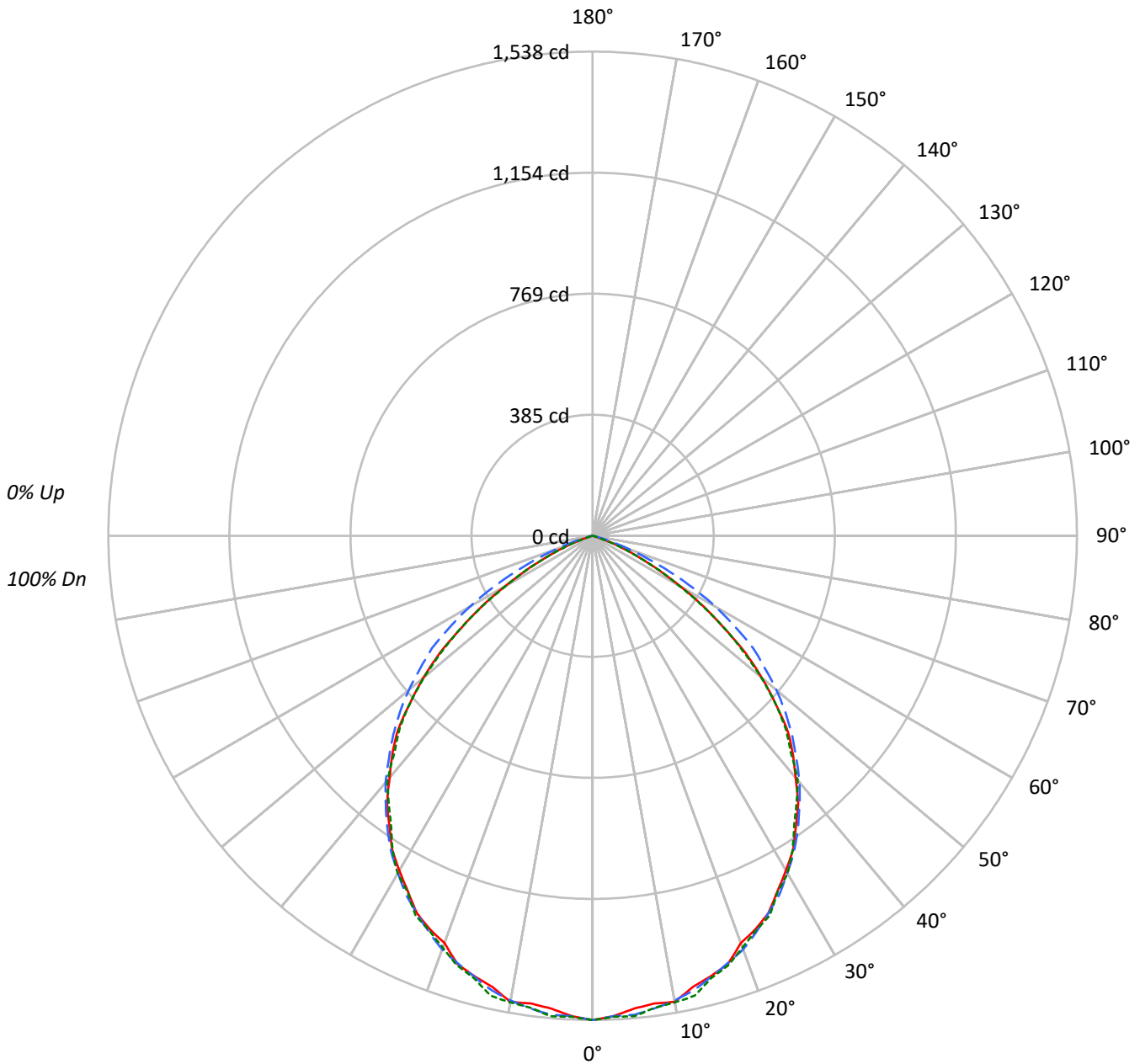
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3285.5 lumens  
Efficiency: N/A  
Efficacy: 69.9 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): 47  
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				20				
RC	80				70				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°	148410	148410	148410
5°	146013	147911	148337
10°	147270	146839	147485
15°	144695	144904	145344
20°	141331	143569	142902
25°	140713	140713	141650
30°	136796	137766	138011
35°	132527	133823	131502
40°	126310	128779	127670
45°	119535	122224	118348
50°	105287	114459	104627
55°	85272	104736	85642
60°	62390	86840	61135
65°	37923	61850	36918
70°	14783	33290	14162
75°	1640	8985	1640
80°	1222	1222	1222
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	145.2	4.4
10°-20°	410.8	12.5
20°-30°	609.6	18.6
30°-40°	706.3	21.5
40°-50°	677.2	20.6
50°-60°	497.9	15.2
60°-70°	215.1	6.5
70°-80°	23.2	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°	1165.6	35.5
0°-40°	1871.9	57.0
0°-60°	3047.0	92.7
0°-90°	3285.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3285.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1538	1538	1538	1538	1538	
5°	1508	1523	1527	1529	1532	144
15°	1448	1457	1451	1453	1455	408
25°	1322	1320	1322	1324	1330	605
35°	1125	1132	1136	1134	1116	704
45°	876	878	896	883	867	666
55°	507	559	623	557	509	456
65°	166	208	271	205	162	171
75°	4	7	24	4	4	13
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°	1538.1	1538.1	1538.1	1538.1	1538.1	1538.1	1538.1	1538.1	1538.1	1538.1	1538.1
2.5°	1527.1	1544.6	1546.9	1535.9	1531.5	1525.0	1540.2	1529.4	1533.7	1529.4	1527.1
5°	1507.5	1527.1	1529.4	1529.4	1525.0	1522.7	1529.4	1527.1	1525.0	1520.6	1527.1
7.5°	1498.7	1509.6	1520.6	1507.5	1514.0	1511.9	1527.1	1520.6	1518.4	1518.4	1514.0
10°	1503.1	1500.9	1509.6	1496.5	1500.9	1496.5	1509.6	1509.6	1505.3	1500.9	1498.7
12.5°	1468.1	1485.6	1485.6	1483.4	1479.1	1472.5	1485.6	1494.4	1481.2	1481.2	1479.1
15°	1448.5	1452.9	1455.0	1455.0	1452.9	1457.2	1463.8	1455.0	1457.2	1446.3	1450.6
17.5°	1426.6	1417.9	1424.4	1420.0	1422.2	1426.6	1435.4	1435.4	1422.2	1420.0	1424.4
20°	1376.4	1402.6	1404.9	1391.7	1393.9	1393.9	1409.1	1396.1	1404.9	1393.9	1398.2
22.5°	1352.3	1369.8	1372.0	1354.5	1365.4	1352.3	1367.6	1347.9	1369.8	1354.5	1361.0
25°	1321.7	1319.6	1326.1	1317.4	1319.6	1319.6	1330.5	1321.7	1328.4	1319.6	1321.7
27.5°	1271.5	1289.0	1286.8	1278.0	1282.4	1280.2	1302.1	1278.0	1291.1	1280.2	1284.6
30°	1227.8	1243.1	1238.7	1230.0	1230.0	1223.4	1247.5	1240.9	1238.7	1238.7	1236.5
32.5°	1184.1	1186.4	1182.0	1184.1	1186.4	1177.6	1197.2	1188.5	1186.4	1188.5	1190.7
35°	1125.1	1125.1	1129.5	1123.0	1131.7	1131.7	1149.1	1138.2	1136.1	1129.5	1136.1
37.5°	1072.6	1066.1	1068.4	1068.4	1072.6	1077.0	1085.8	1081.4	1081.4	1074.9	1079.2
40°	1002.8	998.4	1004.9	1004.9	1011.5	1011.5	1020.3	1015.9	1022.4	1022.4	1022.4
42.5°	941.6	941.6	937.2	943.8	946.0	943.8	959.1	956.9	959.1	954.7	956.9
45°	876.0	876.0	871.6	869.5	880.4	878.3	895.7	889.1	897.9	893.5	895.7
47.5°	786.5	797.4	790.9	797.4	810.5	812.7	823.6	819.3	828.0	821.5	830.2
50°	701.4	701.4	707.9	716.6	729.6	731.9	745.0	753.7	758.1	760.3	762.5
52.5°	611.7	609.5	616.1	627.0	638.0	646.7	659.8	672.9	681.6	694.7	688.1
55°	506.9	511.2	517.8	530.9	548.4	559.3	570.2	587.6	603.0	609.5	622.6
57.5°	417.3	412.9	417.3	434.8	454.4	463.1	478.5	496.0	517.8	530.9	535.3
60°	323.3	325.5	329.9	345.2	360.5	373.6	380.1	408.5	428.2	441.4	450.0
62.5°	238.1	242.5	246.9	260.0	275.3	286.2	297.1	321.1	338.6	351.7	360.5
65°	166.1	168.2	174.8	181.3	196.6	207.5	216.3	236.0	253.4	264.4	270.9
67.5°	102.7	104.9	109.1	118.0	128.9	137.6	146.4	159.5	174.8	185.6	187.9
70°	52.4	54.6	56.8	63.4	72.1	76.5	83.0	94.0	104.9	113.5	118.0
72.5°	17.5	17.5	19.7	24.1	28.5	32.8	35.0	45.9	54.6	59.0	61.1
75°	4.4	4.4	4.4	4.4	4.4	6.6	6.6	13.1	17.5	21.9	24.1
77.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	4.4	4.4
80°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
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°	1538.1	1538.1	1538.1	1538.1	1538.1	1538.1	1538.1	1538.1	1538.1	1538.1
2.5°	1538.1	1533.7	1531.5	1533.7	1533.7	1531.5	1538.1	1546.9	1557.6	1529.4
5°	1535.9	1531.5	1535.9	1522.7	1529.4	1525.0	1533.7	1531.5	1540.2	1531.5
7.5°	1529.4	1520.6	1522.7	1516.2	1525.0	1514.0	1520.6	1533.7	1525.0	1511.9
10°	1507.5	1503.1	1518.4	1496.5	1492.1	1500.9	1518.4	1505.3	1500.9	1505.3
12.5°	1485.6	1485.6	1492.1	1474.7	1476.9	1481.2	1489.9	1481.2	1485.6	1496.5
15°	1461.6	1457.2	1468.1	1455.0	1452.9	1448.5	1457.2	1457.2	1461.6	1455.0
17.5°	1433.1	1426.6	1426.6	1422.2	1420.0	1431.0	1435.4	1437.5	1439.7	1431.0
20°	1398.2	1396.1	1402.6	1396.1	1398.2	1400.5	1400.5	1396.1	1415.6	1391.7
22.5°	1361.0	1367.6	1358.9	1354.5	1358.9	1363.3	1363.3	1365.4	1361.0	1356.6
25°	1324.0	1328.4	1330.5	1317.4	1324.0	1317.4	1332.7	1334.9	1326.1	1330.5
27.5°	1291.1	1284.6	1282.4	1273.7	1278.0	1275.9	1278.0	1278.0	1291.1	1273.7
30°	1240.9	1234.4	1236.5	1230.0	1232.1	1230.0	1232.1	1232.1	1240.9	1238.7
32.5°	1192.9	1186.4	1188.5	1182.0	1182.0	1184.1	1179.7	1179.7	1186.4	1182.0
35°	1146.9	1131.7	1133.9	1131.7	1133.9	1125.1	1125.1	1123.0	1127.4	1116.4
37.5°	1081.4	1074.9	1072.6	1070.5	1072.6	1068.4	1072.6	1066.1	1072.6	1064.0
40°	1022.4	1018.0	1020.3	1007.1	1007.1	1009.3	1004.9	1002.8	1004.9	1013.6
42.5°	963.5	954.7	950.4	946.0	948.1	941.6	939.4	935.0	939.4	930.6
45°	893.5	893.5	891.4	880.4	882.6	882.6	873.9	865.1	867.3	867.3
47.5°	830.2	825.9	823.6	812.7	810.5	808.4	799.5	793.0	793.0	786.5
50°	760.3	755.9	749.4	738.4	734.0	721.0	714.5	705.7	697.0	697.0
52.5°	694.7	679.4	670.6	653.2	646.7	640.1	622.6	616.1	609.5	603.0
55°	616.1	603.0	585.5	565.9	557.1	546.1	528.6	515.6	506.9	509.1
57.5°	539.6	517.8	500.4	474.1	463.1	456.5	439.1	421.6	412.9	412.9
60°	445.7	428.2	406.4	382.3	373.6	362.7	340.8	329.9	323.3	316.8
62.5°	356.1	343.0	323.3	292.8	286.2	275.3	260.0	246.9	240.4	240.4
65°	266.5	253.4	236.0	214.1	205.4	196.6	183.5	170.4	163.9	161.7
67.5°	187.9	172.6	157.4	139.9	133.3	128.9	115.8	107.0	102.7	100.5
70°	113.5	104.9	94.0	80.9	74.3	69.9	61.1	54.6	52.4	50.2
72.5°	59.0	52.4	43.6	35.0	30.6	26.2	21.9	17.5	15.4	15.4
75°	21.9	17.5	11.0	6.6	4.4	4.4	4.4	4.4	4.4	4.4
77.5°	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
80°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
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)