

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: P563822

Luminaire Tested: **LD4C35D010 EX4C359030 4LBCSSQMMS**

Issue Date: 5/25/2022



Test Information

Test Method: LM-79-08
Report Number: P563822
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 EX4C359030 4LBCSSQMMS
Description: 4 INCH 3500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MMS FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

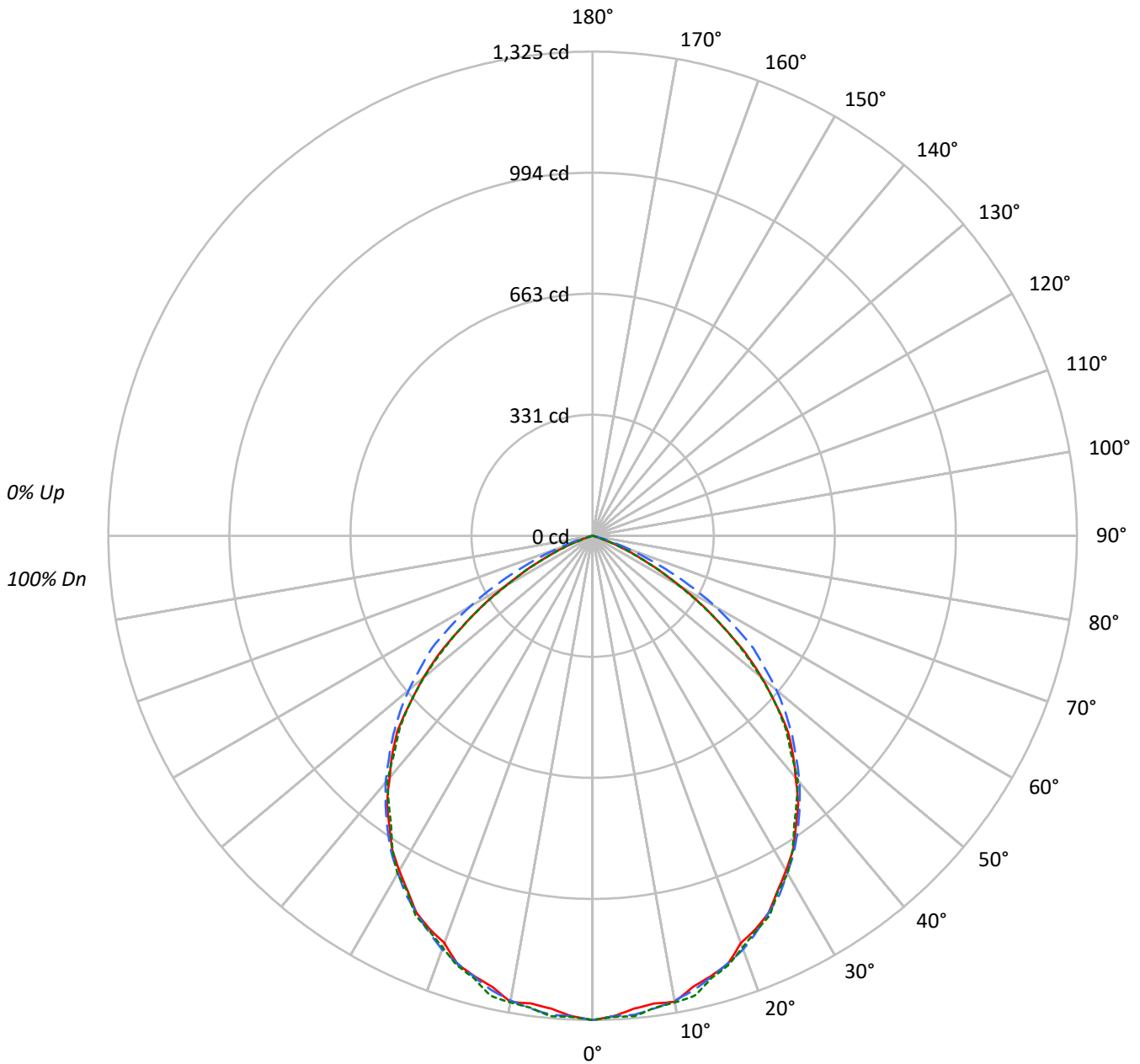
Lumens per Lamp: N/A
Luminaire Lumens: 2830.9 lumens
Efficiency: N/A
Efficacy: 70.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 40.4
Input Voltage (V):
Input Current (A_{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				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				100
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89				89
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77				77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67				67
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59				59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				52
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				46
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41				41
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33				33
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	127867	127867	127867
5°	125808	127435	127803
10°	126891	126518	127067
15°	124666	124846	125225
20°	121770	123700	123125
25°	121252	121252	122050
30°	117867	118702	118914
35°	114187	115306	113303
40°	108827	110956	110011
45°	102997	105303	101960
50°	90712	98622	90156
55°	73463	90252	73783
60°	53764	74837	52664
65°	32671	53288	31827
70°	12752	28691	12216
75°	1417	7754	1417
80°	1056	1056	1056
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.1	4.4
10°-20°	354.0	12.5
20°-30°	525.2	18.6
30°-40°	608.6	21.5
40°-50°	583.5	20.6
50°-60°	429.0	15.2
60°-70°	185.3	6.5
70°-80°	20.0	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°	1004.3	35.5
0°-40°	1612.8	57.0
0°-60°	2625.3	92.7
0°-90°	2830.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2830.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1325	1325	1325	1325	1325	
5°	1299	1312	1316	1318	1320	124
15°	1248	1256	1250	1252	1254	352
25°	1139	1137	1139	1141	1146	521
35°	969	975	979	977	962	606
45°	755	757	772	760	747	574
55°	437	482	536	480	439	393
65°	143	179	233	177	139	147
75°	4	6	21	4	4	12
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°	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2
2.5°	1315.7	1330.8	1332.7	1323.3	1319.5	1313.9	1327.0	1317.7	1321.4	1317.7	1315.7
5°	1298.9	1315.7	1317.7	1317.7	1313.9	1312.0	1317.7	1315.7	1313.9	1310.2	1315.7
7.5°	1291.3	1300.7	1310.2	1298.9	1304.5	1302.6	1315.7	1310.2	1308.2	1308.2	1304.5
10°	1295.1	1293.2	1300.7	1289.4	1293.2	1289.4	1300.7	1300.7	1296.9	1293.2	1291.3
12.5°	1264.9	1279.9	1279.9	1278.1	1274.3	1268.7	1279.9	1287.6	1276.2	1276.2	1274.3
15°	1248.0	1251.8	1253.6	1253.6	1251.8	1255.5	1261.1	1253.6	1255.5	1246.1	1249.8
17.5°	1229.2	1221.7	1227.3	1223.5	1225.4	1229.2	1236.7	1236.7	1225.4	1223.5	1227.3
20°	1185.9	1208.4	1210.4	1199.1	1200.9	1200.9	1214.1	1202.8	1210.4	1200.9	1204.7
22.5°	1165.2	1180.3	1182.1	1167.0	1176.5	1165.2	1178.3	1161.4	1180.3	1167.0	1172.7
25°	1138.9	1136.9	1142.6	1135.1	1136.9	1136.9	1146.4	1138.9	1144.5	1136.9	1138.9
27.5°	1095.6	1110.7	1108.7	1101.2	1105.0	1103.2	1122.0	1101.2	1112.5	1103.2	1106.9
30°	1057.9	1071.1	1067.3	1059.8	1059.8	1054.1	1074.9	1069.2	1067.3	1067.3	1065.4
32.5°	1020.3	1022.2	1018.4	1020.3	1022.2	1014.7	1031.5	1024.0	1022.2	1024.0	1025.9
35°	969.4	969.4	973.2	967.6	975.1	975.1	990.1	980.7	978.9	973.2	978.9
37.5°	924.2	918.6	920.5	920.5	924.2	928.0	935.5	931.8	931.8	926.2	929.9
40°	864.0	860.2	865.8	865.8	871.5	871.5	879.1	875.3	880.9	880.9	880.9
42.5°	811.3	811.3	807.6	813.1	815.1	813.1	826.4	824.4	826.4	822.6	824.4
45°	754.8	754.8	751.0	749.2	758.5	756.7	771.7	766.1	773.6	769.8	771.7
47.5°	677.7	687.1	681.4	687.1	698.4	700.2	709.7	705.9	713.5	707.8	715.3
50°	604.3	604.3	609.9	617.4	628.7	630.7	642.0	649.5	653.2	655.1	657.0
52.5°	527.1	525.2	530.9	540.2	549.7	557.2	568.5	579.8	587.3	598.6	592.9
55°	436.7	440.4	446.1	457.4	472.5	481.8	491.3	506.4	519.6	525.2	536.5
57.5°	359.5	355.7	359.5	374.5	391.5	399.0	412.3	427.3	446.1	457.4	461.2
60°	278.6	280.4	284.2	297.4	310.6	321.8	327.5	352.0	368.9	380.2	387.8
62.5°	205.2	208.9	212.7	224.0	237.2	246.6	256.0	276.7	291.7	303.0	310.6
65°	143.1	145.0	150.6	156.2	169.5	178.8	186.4	203.3	218.4	227.8	233.4
67.5°	88.5	90.3	94.1	101.7	111.1	118.6	126.1	137.4	150.6	160.0	161.9
70°	45.2	47.1	48.9	54.6	62.2	65.9	71.5	81.0	90.3	97.9	101.7
72.5°	15.1	15.1	17.0	20.8	24.5	28.3	30.1	39.6	47.1	50.9	52.7
75°	3.8	3.8	3.8	3.8	3.8	5.7	5.7	11.3	15.1	18.8	20.8
77.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3.8	3.8
80°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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°	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2	1325.2
2.5°	1325.2	1321.4	1319.5	1321.4	1321.4	1319.5	1325.2	1332.7	1342.1	1317.7
5°	1323.3	1319.5	1323.3	1312.0	1317.7	1313.9	1321.4	1319.5	1327.0	1319.5
7.5°	1317.7	1310.2	1312.0	1306.4	1313.9	1304.5	1310.2	1321.4	1313.9	1302.6
10°	1298.9	1295.1	1308.2	1289.4	1285.6	1293.2	1308.2	1296.9	1293.2	1296.9
12.5°	1279.9	1279.9	1285.6	1270.6	1272.4	1276.2	1283.7	1276.2	1279.9	1289.4
15°	1259.3	1255.5	1264.9	1253.6	1251.8	1248.0	1255.5	1255.5	1259.3	1253.6
17.5°	1234.8	1229.2	1229.2	1225.4	1223.5	1232.9	1236.7	1238.5	1240.5	1232.9
20°	1204.7	1202.8	1208.4	1202.8	1204.7	1206.6	1206.6	1202.8	1219.7	1199.1
22.5°	1172.7	1178.3	1170.8	1167.0	1170.8	1174.6	1174.6	1176.5	1172.7	1169.0
25°	1140.7	1144.5	1146.4	1135.1	1140.7	1135.1	1148.2	1150.1	1142.6	1146.4
27.5°	1112.5	1106.9	1105.0	1097.5	1101.2	1099.4	1101.2	1101.2	1112.5	1097.5
30°	1069.2	1063.6	1065.4	1059.8	1061.7	1059.8	1061.7	1061.7	1069.2	1067.3
32.5°	1027.8	1022.2	1024.0	1018.4	1018.4	1020.3	1016.5	1016.5	1022.2	1018.4
35°	988.2	975.1	976.9	975.1	976.9	969.4	969.4	967.6	971.3	961.9
37.5°	931.8	926.2	924.2	922.4	924.2	920.5	924.2	918.6	924.2	916.7
40°	880.9	877.1	879.1	867.8	867.8	869.6	865.8	864.0	865.8	873.4
42.5°	830.1	822.6	818.8	815.1	816.9	811.3	809.4	805.6	809.4	801.9
45°	769.8	769.8	768.0	758.5	760.5	760.5	752.9	745.4	747.2	747.2
47.5°	715.3	711.5	709.7	700.2	698.4	696.5	688.9	683.4	683.4	677.7
50°	655.1	651.3	645.7	636.3	632.5	621.2	615.6	608.1	600.6	600.6
52.5°	598.6	585.4	577.9	562.8	557.2	551.5	536.5	530.9	525.2	519.6
55°	530.9	519.6	504.5	487.5	480.0	470.6	455.5	444.2	436.7	438.6
57.5°	465.0	446.1	431.1	408.5	399.0	393.4	378.3	363.2	355.7	355.7
60°	384.0	368.9	350.1	329.4	321.8	312.5	293.7	284.2	278.6	272.9
62.5°	306.8	295.5	278.6	252.3	246.6	237.2	224.0	212.7	207.1	207.1
65°	229.7	218.4	203.3	184.5	177.0	169.5	158.2	146.9	141.2	139.4
67.5°	161.9	148.7	135.6	120.5	114.8	111.1	99.8	92.3	88.5	86.6
70°	97.9	90.3	81.0	69.7	64.0	60.2	52.7	47.1	45.2	43.3
72.5°	50.9	45.2	37.6	30.1	26.3	22.6	18.8	15.1	13.2	13.2
75°	18.8	15.1	9.5	5.7	3.8	3.8	3.8	3.8	3.8	3.8
77.5°	3.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
80°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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)