

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: FAIL-SAFE

Report Number: P834226

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-1LO-50-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834226
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-12-4-INS-ASY2-LD4-1LO-50-120-EDD
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

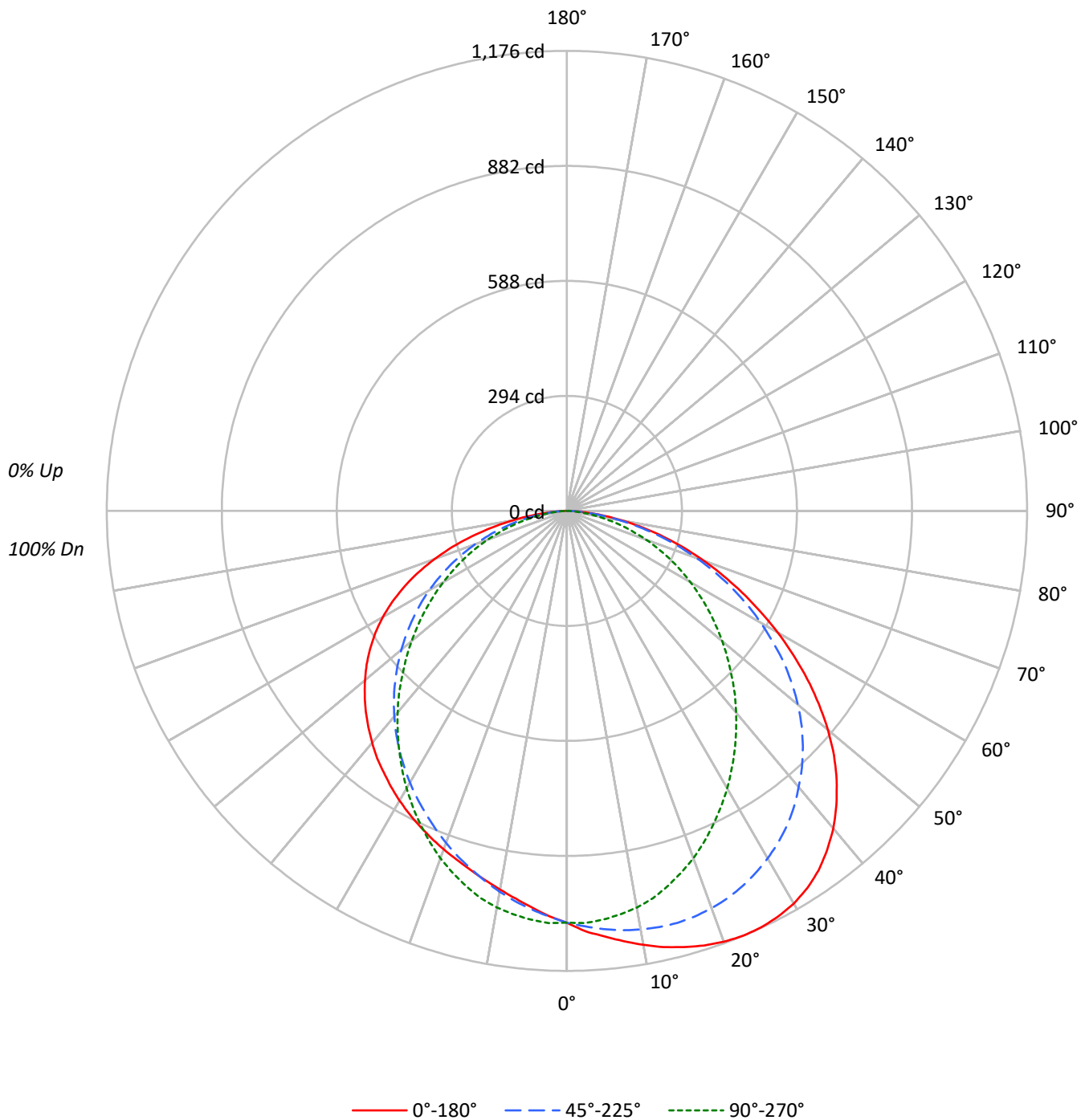
Lumens per Lamp: N/A
Luminaire Lumens: 3096.0 lumens
Efficiency: N/A
Efficacy: 132.3 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): 120
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: 28.75 FT

TEST NUMBER: P834226

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-1LO-50-120-EDD

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	104	100	96	106	102	98	94	97	94	91	94	91	88	90	88	86	84		
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70		
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58		
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50		
5	76	63	54	47	73	61	53	47	59	52	46	57	51	46	55	50	45	43		
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	37		
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33		
8	60	46	38	32	59	46	38	32	44	37	32	43	36	31	42	36	31	29		
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26		
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2832	2832	2832
5°	2949	2834	2750
10°	3078	2813	2686
15°	3216	2768	2648
20°	3357	2706	2637
25°	3488	2628	2641
30°	3602	2545	2658
35°	3684	2455	2680
40°	3721	2364	2719
45°	3711	2264	2764
50°	3646	2169	2821
55°	3521	2069	2880
60°	3349	1962	2923
65°	3145	1843	2919
70°	2927	1699	2832
75°	2658	1493	2612
80°	2281	1226	2204
85°	1741	837	1513

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

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Peachtree City, GA 30269



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.8	3.2
10°-20°	288.3	9.3
20°-30°	441.6	14.3
30°-40°	539.0	17.4
40°-50°	563.6	18.2
50°-60°	510.1	16.5
60°-70°	386.3	12.5
70°-80°	215.3	7.0
80°-90°	51.9	1.7
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°	829.7	26.8
0°-40°	1368.7	44.2
0°-60°	2442.4	78.9
0°-90°	3096.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3096.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1052	1052	1052	1052	1052	
5°	1092	1073	1049	1023	1018	105
15°	1154	1090	993	947	950	327
25°	1175	1059	885	854	889	542
35°	1122	981	747	746	816	700
45°	975	853	595	621	726	750
55°	750	678	441	480	614	670
65°	494	464	289	329	458	490
75°	256	241	144	171	251	271
85°	56	50	27	36	49	68
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1052.5	1052.5	1052.5	1052.5	1052.5	1052.5	1052.5	1052.5	1052.5	1052.5	1052.5
2.5°	1075.7	1070.7	1066.5	1068.1	1069.1	1065.8	1063.1	1063.5	1060.8	1066.1	1053.7
5°	1091.6	1087.0	1082.2	1084.0	1082.2	1077.3	1073.4	1072.3	1064.9	1067.9	1055.3
7.5°	1109.3	1104.3	1097.1	1099.2	1095.3	1086.3	1081.3	1078.3	1067.0	1067.2	1053.2
10°	1126.4	1122.0	1112.3	1113.7	1106.6	1094.6	1086.6	1082.4	1066.5	1064.2	1049.7
12.5°	1142.2	1136.2	1125.9	1126.6	1116.2	1100.4	1090.0	1084.0	1063.3	1056.4	1042.2
15°	1154.4	1148.7	1136.2	1136.0	1122.7	1102.0	1090.2	1081.9	1055.7	1044.9	1030.0
17.5°	1164.8	1159.5	1144.1	1143.6	1127.5	1101.3	1087.2	1076.9	1044.7	1031.3	1014.8
20°	1172.1	1166.8	1149.6	1148.0	1128.7	1097.8	1081.0	1067.9	1030.2	1014.3	995.9
22.5°	1175.6	1170.3	1150.7	1148.4	1125.9	1090.9	1072.1	1056.6	1013.6	992.9	973.8
25°	1174.9	1169.8	1147.7	1145.4	1120.6	1080.6	1059.4	1041.7	992.7	968.3	949.4
27.5°	1169.1	1165.2	1142.0	1139.0	1110.9	1066.5	1044.0	1024.4	969.5	942.3	921.8
30°	1159.2	1156.3	1131.6	1128.9	1099.0	1051.1	1026.0	1003.5	944.4	913.8	893.1
32.5°	1143.4	1140.6	1115.8	1113.2	1082.9	1031.3	1005.1	981.9	917.0	883.2	862.5
35°	1121.5	1119.9	1095.8	1093.0	1062.2	1008.8	981.0	955.4	888.5	850.3	830.5
37.5°	1092.8	1092.8	1069.5	1066.5	1036.4	981.2	953.8	926.7	856.3	815.8	796.2
40°	1059.4	1062.4	1038.7	1035.7	1006.5	951.5	921.6	893.1	821.5	779.4	760.3
42.5°	1019.4	1022.1	1002.4	999.6	972.2	917.2	889.4	858.3	785.2	742.4	722.6
45°	975.2	978.9	961.2	959.1	933.6	879.7	853.0	821.5	747.2	703.7	684.4
47.5°	926.0	930.8	915.4	914.2	890.5	841.3	813.5	781.5	707.4	663.5	645.3
50°	870.8	877.7	865.0	865.0	843.8	794.8	770.7	738.7	666.0	622.1	604.1
52.5°	811.6	820.4	810.9	811.2	793.9	750.0	724.9	693.6	622.8	579.5	562.9
55°	750.4	759.0	753.0	753.9	740.3	700.3	677.5	646.5	578.6	536.5	520.8
57.5°	686.5	695.7	691.8	693.6	684.2	648.3	624.6	597.5	533.0	491.4	478.1
60°	622.3	631.0	629.0	631.5	625.5	594.5	572.8	544.8	487.3	447.2	435.5
62.5°	557.4	565.5	565.0	567.8	564.6	538.8	519.5	495.5	439.9	403.1	392.2
65°	493.9	500.8	500.4	503.4	502.7	482.0	464.5	442.6	392.5	358.7	349.2
67.5°	432.3	438.0	436.4	439.9	440.8	424.2	409.0	389.5	347.4	314.5	306.4
70°	372.0	375.9	373.8	376.1	378.2	365.8	352.9	335.7	299.3	270.3	263.6
72.5°	312.9	315.6	312.4	314.7	316.6	307.6	297.0	282.0	251.9	226.8	221.3
75°	255.6	259.5	252.8	255.1	256.5	247.5	241.3	229.1	203.1	183.8	180.1
77.5°	200.1	202.4	198.8	197.8	198.8	192.3	187.5	178.1	158.5	142.6	140.3
80°	147.2	148.6	144.9	144.0	144.7	140.1	136.4	129.5	115.7	103.8	102.8
82.5°	98.7	99.4	96.2	95.2	95.7	94.3	90.0	85.1	78.7	68.6	68.3
85°	56.4	56.4	54.1	53.1	53.6	51.3	49.7	47.2	44.6	37.7	38.2
87.5°	20.7	20.7	19.6	19.3	21.6	19.1	18.4	17.3	17.9	14.3	15.2
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: P834226

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CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	1052.5	1052.5	1052.5	1052.5	1052.5	1052.5	1052.5	1052.5	1052.5	1052.5	1052.5
2.5°	1057.1	1054.8	1052.7	1045.6	1048.6	1041.2	1040.8	1038.0	1035.9	1032.0	1037.1
5°	1053.7	1049.1	1043.1	1034.6	1037.1	1028.3	1026.5	1023.3	1020.5	1015.5	1019.4
7.5°	1048.1	1040.5	1031.1	1020.3	1023.7	1012.9	1010.2	1006.7	1004.4	998.4	1001.9
10°	1040.1	1029.3	1018.2	1005.1	1007.6	995.9	992.5	988.8	986.7	981.4	984.9
12.5°	1027.7	1014.5	999.6	985.3	988.1	977.0	972.4	968.5	967.8	963.5	967.6
15°	1011.6	993.4	978.0	962.8	966.0	953.1	951.0	947.1	948.3	945.3	950.4
17.5°	991.1	970.1	953.3	937.0	940.2	929.4	927.8	926.0	927.1	926.7	932.2
20°	968.1	945.1	925.7	909.6	911.5	903.0	903.7	903.2	905.5	908.0	915.6
22.5°	942.1	916.1	895.8	879.3	882.0	874.7	877.9	878.8	882.7	888.5	898.1
25°	912.9	885.0	863.9	848.2	850.7	845.9	851.4	853.7	859.9	869.6	879.5
27.5°	882.3	852.8	830.3	815.3	820.1	815.3	823.6	828.2	837.6	848.2	860.4
30°	849.8	819.2	796.0	782.6	787.2	782.9	796.2	802.4	811.9	826.4	840.9
32.5°	815.8	783.6	760.8	750.4	753.7	753.0	767.9	774.8	787.5	804.0	819.5
35°	780.8	747.2	724.2	715.5	719.4	720.3	738.2	746.3	760.1	780.1	796.7
37.5°	744.7	710.4	687.9	680.7	684.2	687.6	708.6	716.6	732.3	754.1	772.3
40°	707.2	672.9	650.8	645.1	648.5	652.2	675.0	686.0	703.0	726.7	746.5
42.5°	669.2	635.0	613.6	609.4	612.9	620.0	644.2	654.5	672.5	698.7	720.5
45°	630.6	594.9	576.3	573.1	576.7	585.0	608.7	621.1	640.2	669.0	692.5
47.5°	591.5	556.7	539.0	536.9	540.6	549.8	576.1	587.3	607.6	638.2	663.5
50°	551.9	518.1	501.1	500.4	503.8	513.7	538.8	552.1	573.1	607.3	633.3
52.5°	511.9	479.4	464.0	464.0	467.2	477.4	502.7	516.5	538.1	574.2	603.0
55°	471.8	441.0	426.3	427.4	432.0	440.8	465.4	479.9	501.8	539.2	569.6
57.5°	431.8	402.6	389.3	390.9	395.2	404.0	428.1	444.5	464.3	503.1	534.2
60°	392.2	364.6	352.9	354.7	358.7	367.4	392.5	406.5	426.3	465.9	496.9
62.5°	352.2	327.1	316.1	318.4	321.8	330.6	354.3	367.9	387.4	426.3	457.6
65°	312.6	289.4	280.0	282.3	285.5	293.6	315.9	329.0	347.6	385.6	415.5
67.5°	273.5	252.4	244.5	246.8	249.4	257.0	275.4	289.6	307.1	343.2	371.5
70°	234.9	216.0	209.1	211.4	213.7	220.6	236.7	249.8	265.9	299.1	325.3
72.5°	196.7	178.3	174.8	176.9	178.8	184.7	200.1	210.5	224.5	254.0	276.5
75°	159.4	143.6	141.3	143.3	144.9	149.5	162.4	171.4	183.1	208.7	227.1
77.5°	123.5	110.2	109.3	110.9	112.5	115.7	125.8	135.3	144.5	163.3	179.7
80°	90.0	79.1	79.1	80.7	80.3	84.2	91.3	98.9	105.6	119.2	131.1
82.5°	59.4	50.8	52.0	53.1	53.8	55.4	59.8	65.6	69.7	78.0	85.8
85°	32.9	27.1	28.3	29.2	28.8	30.6	32.9	36.3	38.4	42.3	46.5
87.5°	12.2	10.1	10.4	11.0	11.5	12.4	12.4	14.5	14.7	15.2	16.1
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: P834226

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CANDELA DISTRIBUTION (continued):

	160°	170°	180°
0°	1052.5	1052.5	1052.5
2.5°	1027.4	1032.9	1037.1
5°	1009.7	1014.3	1018.0
7.5°	992.5	996.6	999.8
10°	976.1	980.7	983.0
12.5°	959.3	964.6	966.5
15°	942.8	948.1	950.4
17.5°	925.7	932.6	935.2
20°	909.9	918.6	920.7
22.5°	893.8	902.7	905.3
25°	876.3	886.9	889.4
27.5°	857.6	870.3	872.8
30°	839.0	852.8	855.3
32.5°	819.0	834.0	836.3
35°	798.1	813.0	815.8
37.5°	774.8	791.2	796.7
40°	750.7	768.4	774.1
42.5°	725.4	744.7	750.7
45°	698.2	719.4	726.3
47.5°	670.8	694.8	700.7
50°	641.2	666.7	673.8
52.5°	610.1	637.9	645.1
55°	577.9	606.0	613.8
57.5°	542.9	571.9	580.2
60°	506.4	535.3	543.2
62.5°	468.9	495.1	502.7
65°	427.0	451.6	458.5
67.5°	382.6	405.1	410.9
70°	335.4	355.0	360.0
72.5°	286.2	299.8	306.4
75°	235.3	246.2	251.2
77.5°	184.3	191.9	196.0
80°	134.4	138.7	142.2
82.5°	87.9	89.7	92.3
85°	47.4	47.4	49.0
87.5°	16.1	15.4	16.1
90°	0.0	0.0	0.0

(END OF REPORT)