

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: P835303

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-3LO-30-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835303
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-2-INS-ASY2-LD4-3LO-30-120-EDD-90
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

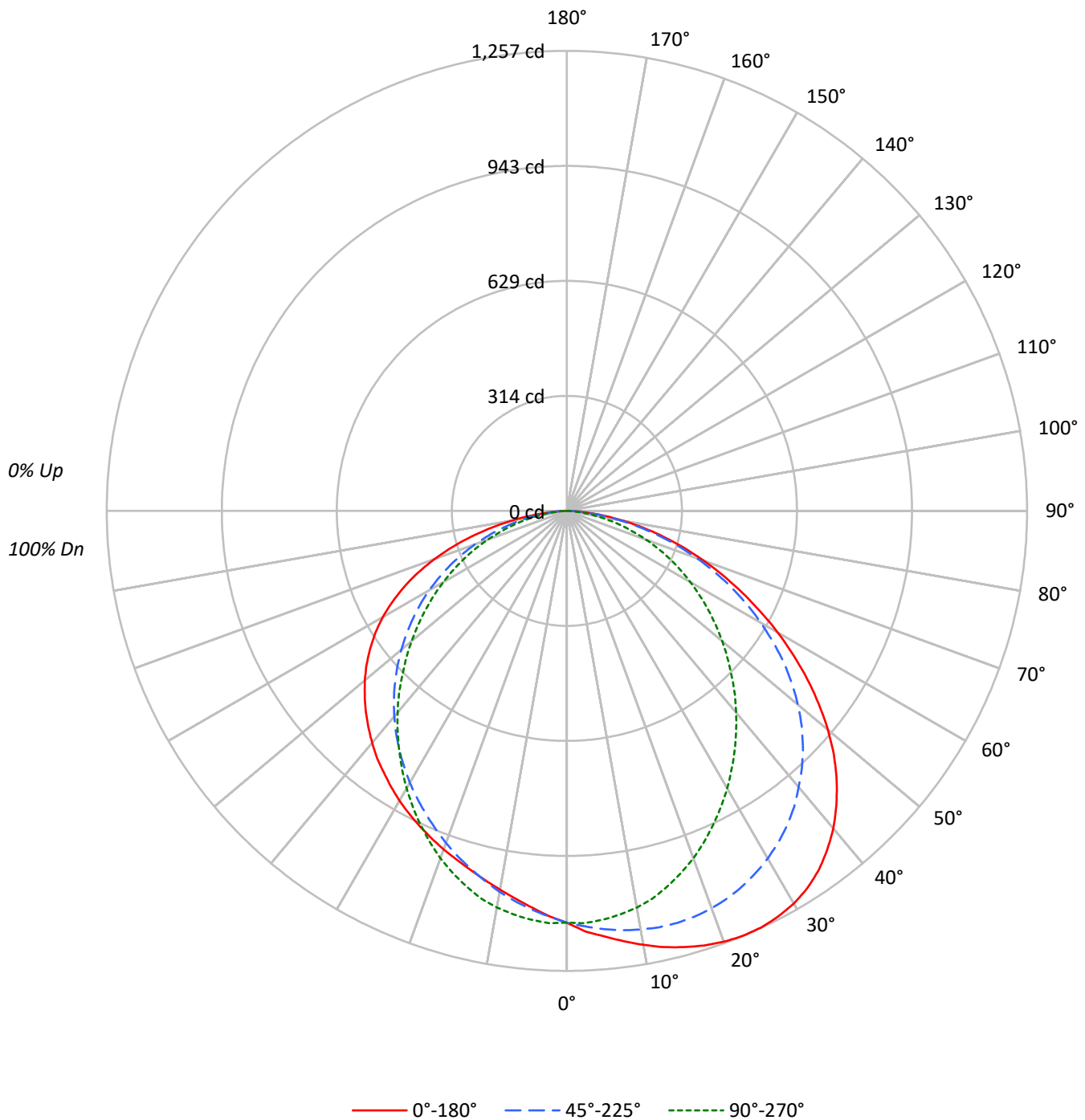
Lumens per Lamp: N/A
Luminaire Lumens: 3309.4 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3028	3028	3028
5°	3152	3029	2940
10°	3290	3006	2871
15°	3438	2958	2830
20°	3588	2893	2818
25°	3729	2809	2823
30°	3851	2721	2841
35°	3938	2624	2865
40°	3978	2527	2907
45°	3967	2420	2955
50°	3897	2318	3015
55°	3764	2212	3078
60°	3580	2098	3125
65°	3362	1970	3121
70°	3128	1817	3028
75°	2840	1596	2792
80°	2439	1311	2356
85°	1859	895	1618

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.7	3.2
10°-20°	308.1	9.3
20°-30°	472.1	14.3
30°-40°	576.1	17.4
40°-50°	602.5	18.2
50°-60°	545.3	16.5
60°-70°	413.0	12.5
70°-80°	230.1	7.0
80°-90°	55.5	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°	886.9	26.8
0°-40°	1463.0	44.2
0°-60°	2610.8	78.9
0°-90°	3309.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3309.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1125	1125	1125	1125	1125	
5°	1167	1147	1121	1094	1088	113
15°	1234	1165	1062	1012	1016	350
25°	1256	1132	946	913	951	579
35°	1199	1049	799	798	872	749
45°	1042	912	636	664	776	802
55°	802	724	471	513	656	716
65°	528	496	309	352	490	524
75°	273	258	154	183	268	290
85°	60	53	29	39	52	72
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°	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1
2.5°	1149.9	1144.5	1140.1	1141.8	1142.8	1139.3	1136.4	1136.9	1133.9	1139.6	1126.3
5°	1166.9	1162.0	1156.8	1158.8	1156.8	1151.6	1147.4	1146.2	1138.3	1141.5	1128.0
7.5°	1185.8	1180.4	1172.8	1175.0	1170.8	1161.2	1155.8	1152.6	1140.6	1140.8	1125.8
10°	1204.0	1199.3	1189.0	1190.5	1182.9	1170.1	1161.5	1157.0	1140.1	1137.6	1122.1
12.5°	1221.0	1214.6	1203.5	1204.3	1193.2	1176.2	1165.2	1158.8	1136.6	1129.3	1114.0
15°	1234.0	1227.9	1214.6	1214.3	1200.1	1177.9	1165.4	1156.5	1128.5	1117.0	1101.0
17.5°	1245.1	1239.4	1222.9	1222.5	1205.2	1177.2	1162.2	1151.1	1116.7	1102.4	1084.7
20°	1252.9	1247.3	1228.8	1227.1	1206.5	1173.5	1155.6	1141.5	1101.2	1084.2	1064.6
22.5°	1256.6	1251.0	1230.1	1227.6	1203.5	1166.1	1146.0	1129.5	1083.5	1061.4	1041.0
25°	1255.9	1250.5	1226.9	1224.4	1197.9	1155.1	1132.4	1113.5	1061.1	1035.1	1014.9
27.5°	1249.8	1245.6	1220.7	1217.5	1187.5	1140.1	1116.0	1095.1	1036.3	1007.3	985.4
30°	1239.2	1236.0	1209.7	1206.7	1174.7	1123.6	1096.8	1072.7	1009.5	976.8	954.6
32.5°	1222.2	1219.3	1192.7	1190.0	1157.5	1102.4	1074.4	1049.6	980.2	944.1	921.9
35°	1198.8	1197.1	1171.3	1168.4	1135.4	1078.3	1048.6	1021.3	949.7	908.9	887.8
37.5°	1168.1	1168.1	1143.3	1140.1	1107.9	1048.8	1019.6	990.6	915.3	872.0	851.1
40°	1132.4	1135.6	1110.3	1107.1	1075.9	1017.1	985.1	954.6	878.2	833.2	812.8
42.5°	1089.7	1092.6	1071.5	1068.5	1039.2	980.5	950.7	917.5	839.3	793.6	772.4
45°	1042.4	1046.4	1027.4	1025.2	997.9	940.4	911.9	878.2	798.7	752.3	731.6
47.5°	989.8	995.0	978.5	977.3	951.9	899.3	869.6	835.4	756.2	709.2	689.8
50°	930.8	938.2	924.6	924.6	902.0	849.6	823.8	789.6	711.9	665.0	645.8
52.5°	867.6	876.9	866.9	867.1	848.7	801.7	774.9	741.4	665.7	619.5	601.8
55°	802.2	811.3	804.9	805.9	791.4	748.6	724.2	691.0	618.5	573.5	556.8
57.5°	733.8	743.7	739.5	741.4	731.4	693.0	667.7	638.6	569.8	525.3	511.0
60°	665.2	674.6	672.3	675.0	668.6	635.4	612.3	582.3	520.9	478.1	465.5
62.5°	595.9	604.5	604.0	606.9	603.5	575.9	555.3	529.7	470.2	430.8	419.3
65°	528.0	535.4	534.9	538.1	537.3	515.2	496.5	473.1	419.5	383.4	373.3
67.5°	462.1	468.2	466.5	470.2	471.2	453.5	437.2	416.3	371.3	336.2	327.6
70°	397.6	401.8	399.6	402.1	404.3	391.0	377.2	358.8	319.9	289.0	281.8
72.5°	334.4	337.4	334.0	336.4	338.4	328.8	317.5	301.5	269.3	242.5	236.6
75°	273.2	277.4	270.3	272.7	274.2	264.6	258.0	244.9	217.1	196.5	192.6
77.5°	213.9	216.4	212.5	211.5	212.5	205.6	200.4	190.3	169.4	152.5	150.0
80°	157.4	158.9	154.9	153.9	154.7	149.8	145.8	138.5	123.7	110.9	109.9
82.5°	105.5	106.2	102.8	101.8	102.3	100.8	96.2	91.0	84.1	73.3	73.0
85°	60.2	60.2	57.8	56.8	57.3	54.8	53.1	50.4	47.7	40.3	40.8
87.5°	22.1	22.1	20.9	20.7	23.1	20.4	19.7	18.4	19.2	15.2	16.2
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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1	1125.1
2.5°	1130.0	1127.5	1125.3	1117.7	1120.9	1113.0	1112.5	1109.6	1107.4	1103.2	1108.6
5°	1126.3	1121.4	1115.0	1105.9	1108.6	1099.2	1097.3	1093.8	1090.9	1085.5	1089.7
7.5°	1120.4	1112.3	1102.2	1090.6	1094.3	1082.8	1079.8	1076.1	1073.7	1067.3	1071.0
10°	1111.8	1100.2	1088.4	1074.4	1077.1	1064.6	1060.9	1057.0	1054.7	1049.1	1052.8
12.5°	1098.5	1084.5	1068.5	1053.3	1056.2	1044.4	1039.5	1035.3	1034.6	1029.9	1034.3
15°	1081.3	1061.9	1045.4	1029.2	1032.6	1018.8	1016.6	1012.4	1013.7	1010.5	1015.9
17.5°	1059.4	1037.0	1019.1	1001.6	1005.1	993.5	991.8	989.8	991.0	990.6	996.5
20°	1034.8	1010.2	989.6	972.4	974.3	965.2	966.0	965.5	967.9	970.6	978.7
22.5°	1007.0	979.2	957.6	939.9	942.8	935.0	938.4	939.4	943.6	949.7	960.1
25°	975.8	946.0	923.4	906.7	909.4	904.2	910.1	912.6	919.2	929.6	940.1
27.5°	943.1	911.6	887.5	871.5	876.7	871.5	880.4	885.3	895.4	906.7	919.7
30°	908.4	875.7	850.9	836.6	841.5	836.9	851.1	857.8	867.8	883.3	898.8
32.5°	872.0	837.6	813.2	802.2	805.6	804.9	820.9	828.2	841.8	859.5	876.0
35°	834.6	798.7	774.1	764.8	769.0	770.0	789.1	797.8	812.5	833.9	851.6
37.5°	796.0	759.4	735.3	727.7	731.4	735.0	757.4	766.0	782.8	806.1	825.5
40°	755.9	719.3	695.7	689.6	693.2	697.2	721.5	733.3	751.5	776.9	798.0
42.5°	715.4	678.7	655.9	651.4	655.1	662.7	688.6	699.6	718.8	746.8	770.2
45°	674.1	635.9	616.0	612.6	616.5	625.4	650.7	664.0	684.4	715.1	740.2
47.5°	632.3	595.1	576.2	574.0	577.9	587.7	615.8	627.8	649.5	682.2	709.2
50°	590.0	553.8	535.6	534.9	538.6	549.1	575.9	590.2	612.6	649.2	677.0
52.5°	547.2	512.5	496.0	496.0	499.5	510.3	537.3	552.1	575.2	613.8	644.5
55°	504.4	471.4	455.7	456.9	461.8	471.2	497.5	513.0	536.3	576.4	608.9
57.5°	461.6	430.4	416.1	417.8	422.5	431.8	457.7	475.1	496.3	537.8	571.0
60°	419.3	389.8	377.2	379.2	383.4	392.7	419.5	434.5	455.7	498.0	531.2
62.5°	376.5	349.7	337.9	340.3	344.0	353.4	378.7	393.2	414.1	455.7	489.1
65°	334.2	309.4	299.3	301.7	305.2	313.8	337.6	351.7	371.6	412.2	444.1
67.5°	292.4	269.8	261.4	263.9	266.6	274.7	294.4	309.6	328.3	366.9	397.2
70°	251.1	230.9	223.5	226.0	228.5	235.8	253.0	267.1	284.3	319.7	347.7
72.5°	210.3	190.6	186.9	189.1	191.1	197.5	213.9	225.0	240.0	271.5	295.6
75°	170.4	153.5	151.0	153.2	154.9	159.8	173.6	183.2	195.7	223.0	242.7
77.5°	132.1	117.8	116.8	118.5	120.3	123.7	134.5	144.6	154.4	174.6	192.1
80°	96.2	84.6	84.6	86.3	85.8	90.0	97.6	105.7	112.9	127.4	140.2
82.5°	63.4	54.3	55.6	56.8	57.5	59.3	63.9	70.1	74.5	83.4	91.7
85°	35.2	29.0	30.2	31.2	30.7	32.7	35.2	38.9	41.1	45.2	49.7
87.5°	13.0	10.8	11.1	11.8	12.3	13.3	13.3	15.5	15.7	16.2	17.2
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):

	160°	170°	180°
0°	1125.1	1125.1	1125.1
2.5°	1098.3	1104.2	1108.6
5°	1079.3	1084.2	1088.2
7.5°	1060.9	1065.3	1068.8
10°	1043.4	1048.3	1050.8
12.5°	1025.5	1031.1	1033.1
15°	1007.8	1013.4	1015.9
17.5°	989.6	996.9	999.7
20°	972.6	981.9	984.2
22.5°	955.4	965.0	967.7
25°	936.7	948.0	950.7
27.5°	916.8	930.3	933.0
30°	896.9	911.6	914.3
32.5°	875.5	891.4	893.9
35°	853.1	869.1	872.0
37.5°	828.2	845.7	851.6
40°	802.4	821.4	827.5
42.5°	775.4	796.0	802.4
45°	746.4	769.0	776.4
47.5°	717.1	742.7	749.1
50°	685.4	712.7	720.3
52.5°	652.2	681.9	689.6
55°	617.7	647.7	656.1
57.5°	580.4	611.3	620.2
60°	541.3	572.2	580.6
62.5°	501.2	529.2	537.3
65°	456.4	482.7	490.1
67.5°	409.0	433.1	439.2
70°	358.5	379.4	384.9
72.5°	305.9	320.4	327.6
75°	251.6	263.1	268.5
77.5°	197.0	205.1	209.5
80°	143.6	148.3	152.0
82.5°	93.9	95.9	98.6
85°	50.7	50.7	52.4
87.5°	17.2	16.5	17.2
90°	0.0	0.0	0.0

(END OF REPORT)