

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: P834254

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-1STD-30-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834254
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-LD4-1STD-30-120-EDD-90
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

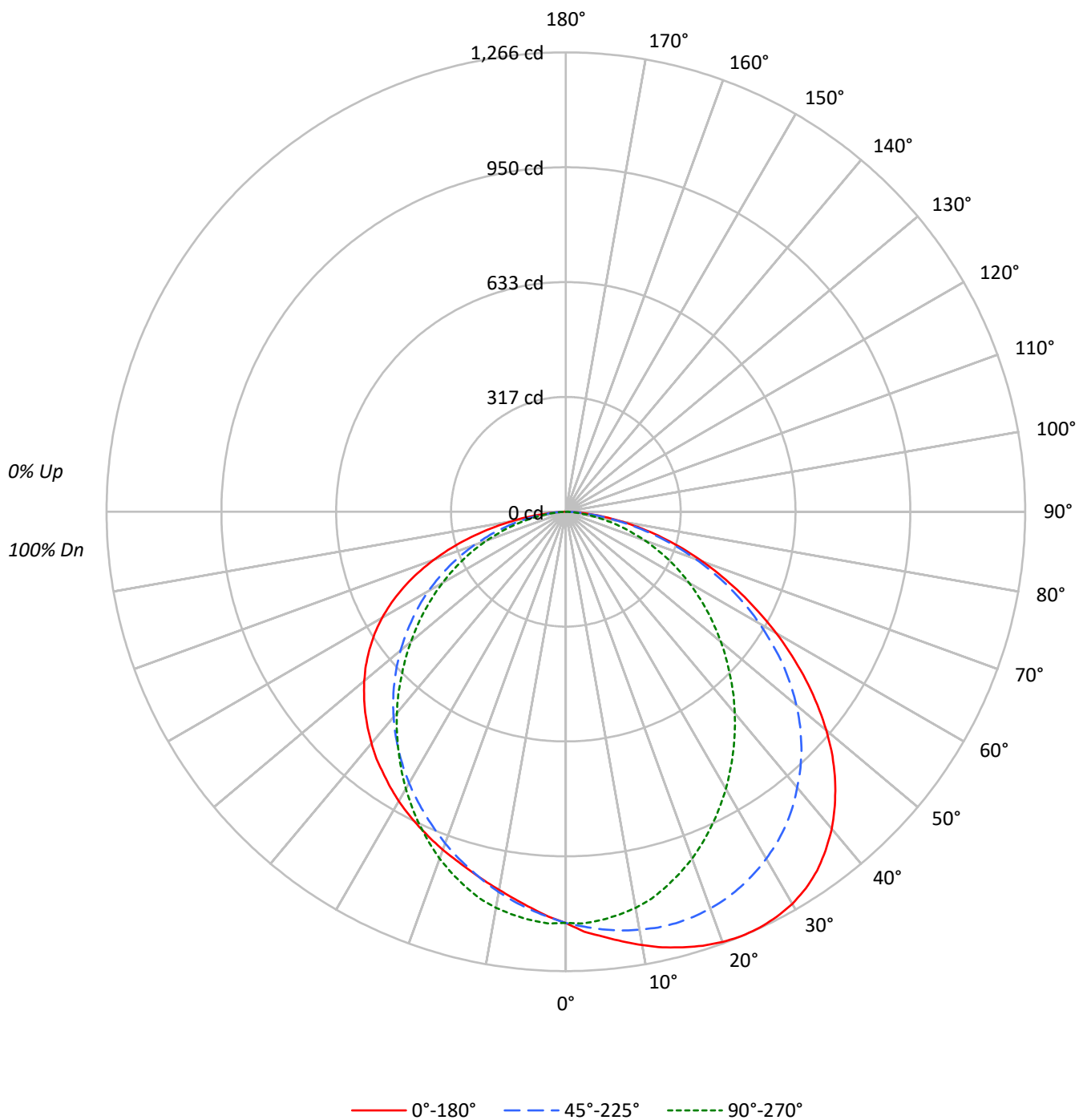
Lumens per Lamp: N/A
Luminaire Lumens: 3333.0 lumens
Efficiency: N/A
Efficacy: 100.1 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3049	3049	3049
5°	3175	3051	2960
10°	3313	3028	2892
15°	3462	2979	2850
20°	3614	2914	2838
25°	3755	2829	2843
30°	3878	2741	2861
35°	3966	2643	2885
40°	4006	2545	2928
45°	3996	2437	2976
50°	3924	2335	3037
55°	3790	2228	3100
60°	3605	2113	3147
65°	3386	1984	3143
70°	3151	1830	3050
75°	2861	1606	2812
80°	2456	1320	2373
85°	1874	902	1630

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.5	3.2
10°-20°	310.3	9.3
20°-30°	475.4	14.3
30°-40°	580.2	17.4
40°-50°	606.8	18.2
50°-60°	549.2	16.5
60°-70°	415.9	12.5
70°-80°	231.8	7.0
80°-90°	55.9	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°	893.2	26.8
0°-40°	1473.5	44.2
0°-60°	2629.4	78.9
0°-90°	3333.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3333.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1133	1133	1133	1133	1133	
5°	1175	1156	1129	1102	1096	113
15°	1243	1174	1069	1020	1023	352
25°	1265	1140	953	919	958	583
35°	1207	1056	804	803	878	754
45°	1050	918	640	669	782	808
55°	808	729	475	517	661	721
65°	532	500	312	354	494	527
75°	275	260	154	184	270	292
85°	61	54	29	39	53	73
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°	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1
2.5°	1158.1	1152.7	1148.2	1149.9	1150.9	1147.5	1144.5	1145.0	1142.0	1147.7	1134.3
5°	1175.2	1170.2	1165.0	1167.0	1165.0	1159.8	1155.6	1154.4	1146.5	1149.7	1136.1
7.5°	1194.3	1188.8	1181.1	1183.4	1179.2	1169.5	1164.0	1160.8	1148.7	1148.9	1133.8
10°	1212.6	1207.9	1197.5	1199.0	1191.3	1178.4	1169.7	1165.3	1148.2	1145.7	1130.1
12.5°	1229.7	1223.2	1212.1	1212.8	1201.7	1184.6	1173.5	1167.0	1144.7	1137.3	1121.9
15°	1242.8	1236.6	1223.2	1223.0	1208.6	1186.3	1173.7	1164.8	1136.6	1124.9	1108.8
17.5°	1254.0	1248.3	1231.7	1231.2	1213.8	1185.6	1170.5	1159.3	1124.7	1110.3	1092.5
20°	1261.9	1256.2	1237.6	1235.9	1215.1	1181.9	1163.8	1149.7	1109.1	1092.0	1072.2
22.5°	1265.6	1259.9	1238.8	1236.4	1212.1	1174.4	1154.1	1137.5	1091.2	1068.9	1048.4
25°	1264.8	1259.4	1235.6	1233.1	1206.4	1163.3	1140.5	1121.4	1068.7	1042.4	1022.1
27.5°	1258.7	1254.4	1229.4	1226.2	1196.0	1148.2	1123.9	1102.9	1043.7	1014.5	992.4
30°	1248.0	1244.8	1218.3	1215.3	1183.1	1131.6	1104.6	1080.3	1016.7	983.7	961.5
32.5°	1230.9	1227.9	1201.2	1198.5	1165.8	1110.3	1082.1	1057.1	987.2	950.8	928.5
35°	1207.4	1205.7	1179.6	1176.7	1143.5	1086.0	1056.1	1028.6	956.5	915.4	894.1
37.5°	1176.4	1176.4	1151.4	1148.2	1115.8	1056.3	1026.8	997.6	921.8	878.2	857.2
40°	1140.5	1143.7	1118.2	1115.0	1083.6	1024.4	992.2	961.5	884.4	839.1	818.5
42.5°	1097.4	1100.4	1079.1	1076.1	1046.7	987.5	957.5	924.1	845.3	799.2	777.9
45°	1049.9	1053.8	1034.8	1032.5	1005.0	947.1	918.4	884.4	804.4	757.6	736.8
47.5°	996.9	1002.1	985.5	984.2	958.7	905.7	875.8	841.3	761.6	714.3	694.7
50°	937.4	944.9	931.2	931.2	908.5	855.7	829.7	795.3	717.0	669.7	650.4
52.5°	873.8	883.2	873.0	873.3	854.7	807.4	780.4	746.7	670.4	623.9	606.0
55°	807.9	817.1	810.6	811.6	797.0	753.9	729.4	696.0	622.9	577.6	560.7
57.5°	739.0	749.0	744.7	746.7	736.6	697.9	672.4	643.2	573.9	529.0	514.7
60°	669.9	679.4	677.1	679.9	673.4	640.0	616.7	586.5	524.6	481.5	468.8
62.5°	600.1	608.8	608.3	611.2	607.8	580.0	559.2	533.5	473.5	433.9	422.3
65°	531.7	539.2	538.7	541.9	541.2	518.9	500.0	476.5	422.5	386.1	376.0
67.5°	465.4	471.6	469.8	473.5	474.5	456.7	440.4	419.3	374.0	338.6	329.9
70°	400.5	404.7	402.5	404.9	407.2	393.8	379.9	361.3	322.2	291.0	283.8
72.5°	336.8	339.8	336.3	338.8	340.8	331.1	319.7	303.6	271.2	244.2	238.3
75°	275.2	279.4	272.2	274.7	276.2	266.5	259.8	246.7	218.7	197.9	193.9
77.5°	215.5	217.9	214.0	213.0	214.0	207.1	201.9	191.7	170.6	153.6	151.1
80°	158.5	160.0	156.0	155.0	155.8	150.8	146.9	139.4	124.6	111.7	110.7
82.5°	106.3	107.0	103.5	102.5	103.0	101.5	96.8	91.6	84.7	73.8	73.6
85°	60.7	60.7	58.2	57.2	57.7	55.2	53.5	50.8	48.0	40.6	41.1
87.5°	22.3	22.3	21.1	20.8	23.3	20.6	19.8	18.6	19.3	15.4	16.3
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°	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1
2.5°	1138.0	1135.6	1133.3	1125.7	1128.9	1121.0	1120.5	1117.5	1115.3	1111.0	1116.5
5°	1134.3	1129.4	1122.9	1113.8	1116.5	1107.1	1105.1	1101.6	1098.7	1093.2	1097.4
7.5°	1128.4	1120.2	1110.1	1098.4	1102.1	1090.5	1087.5	1083.8	1081.3	1074.9	1078.6
10°	1119.7	1108.1	1096.2	1082.1	1084.8	1072.2	1068.4	1064.5	1062.3	1056.6	1060.3
12.5°	1106.3	1092.2	1076.1	1060.8	1063.7	1051.9	1046.9	1042.7	1041.9	1037.2	1041.7
15°	1089.0	1069.4	1052.8	1036.5	1040.0	1026.1	1023.9	1019.7	1020.9	1017.7	1023.1
17.5°	1067.0	1044.4	1026.3	1008.8	1012.2	1000.6	998.9	996.9	998.1	997.6	1003.6
20°	1042.2	1017.4	996.6	979.3	981.3	972.1	972.8	972.4	974.8	977.6	985.7
22.5°	1014.2	986.2	964.4	946.6	949.6	941.6	945.1	946.1	950.3	956.5	966.9
25°	982.8	952.8	930.0	913.2	915.9	910.7	916.6	919.1	925.8	936.2	946.8
27.5°	949.8	918.1	893.8	877.7	882.9	877.7	886.7	891.6	901.8	913.2	926.3
30°	914.9	882.0	856.9	842.6	847.5	842.8	857.2	863.9	874.0	889.6	905.2
32.5°	878.2	843.6	819.0	807.9	811.4	810.6	826.7	834.2	847.8	865.6	882.2
35°	840.6	804.4	779.7	770.3	774.5	775.5	794.8	803.4	818.3	839.8	857.7
37.5°	801.7	764.8	740.5	732.9	736.6	740.3	762.8	771.5	788.3	811.9	831.4
40°	761.3	724.4	700.7	694.5	698.2	702.1	726.7	738.6	756.9	782.4	803.7
42.5°	720.5	683.6	660.5	656.1	659.8	667.5	693.5	704.6	723.9	752.2	775.7
45°	678.9	640.5	620.4	616.9	620.9	629.8	655.3	668.7	689.3	720.2	745.5
47.5°	636.8	599.4	580.3	578.1	582.0	591.9	620.2	632.3	654.1	687.0	714.3
50°	594.2	557.8	539.4	538.7	542.4	553.0	580.0	594.4	616.9	653.8	681.8
52.5°	551.1	516.1	499.5	499.5	503.0	513.9	541.2	556.0	579.3	618.2	649.1
55°	508.0	474.8	458.9	460.2	465.1	474.5	501.0	516.6	540.2	580.5	613.2
57.5°	464.9	433.4	419.1	420.8	425.5	434.9	460.9	478.5	499.8	541.7	575.1
60°	422.3	392.6	379.9	381.9	386.1	395.5	422.5	437.6	458.9	501.5	535.0
62.5°	379.2	352.2	340.3	342.8	346.5	355.9	381.4	396.0	417.1	458.9	492.6
65°	336.6	311.6	301.4	303.9	307.4	316.0	340.1	354.2	374.2	415.1	447.3
67.5°	294.5	271.7	263.3	265.7	268.5	276.6	296.5	311.8	330.6	369.5	400.0
70°	252.9	232.6	225.1	227.6	230.1	237.5	254.9	269.0	286.3	322.0	350.2
72.5°	211.8	191.9	188.2	190.5	192.4	198.9	215.5	226.6	241.7	273.4	297.7
75°	171.6	154.5	152.1	154.3	156.0	161.0	174.9	184.5	197.1	224.6	244.4
77.5°	133.0	118.6	117.6	119.4	121.1	124.6	135.5	145.6	155.5	175.8	193.4
80°	96.8	85.2	85.2	86.9	86.4	90.6	98.3	106.5	113.7	128.3	141.2
82.5°	63.9	54.7	56.0	57.2	58.0	59.7	64.4	70.6	75.0	84.0	92.4
85°	35.4	29.2	30.5	31.5	31.0	32.9	35.4	39.1	41.4	45.6	50.0
87.5°	13.1	10.9	11.1	11.9	12.4	13.4	13.4	15.6	15.9	16.3	17.3
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°	1133.1	1133.1	1133.1
2.5°	1106.1	1112.0	1116.5
5°	1087.0	1092.0	1095.9
7.5°	1068.4	1072.9	1076.4
10°	1050.9	1055.8	1058.3
12.5°	1032.8	1038.5	1040.5
15°	1014.9	1020.6	1023.1
17.5°	996.6	1004.1	1006.8
20°	979.5	988.9	991.2
22.5°	962.2	971.9	974.6
25°	943.4	954.8	957.5
27.5°	923.3	936.9	939.7
30°	903.3	918.1	920.8
32.5°	881.7	897.8	900.3
35°	859.2	875.3	878.2
37.5°	834.2	851.7	857.7
40°	808.1	827.2	833.4
42.5°	780.9	801.7	808.1
45°	751.7	774.5	781.9
47.5°	722.2	748.0	754.4
50°	690.3	717.7	725.4
52.5°	656.8	686.8	694.5
55°	622.1	652.4	660.8
57.5°	584.5	615.7	624.6
60°	545.1	576.3	584.7
62.5°	504.8	533.0	541.2
65°	459.7	486.2	493.6
67.5°	411.9	436.1	442.3
70°	361.1	382.2	387.6
72.5°	308.1	322.7	329.9
75°	253.4	265.0	270.5
77.5°	198.4	206.6	211.0
80°	144.6	149.3	153.1
82.5°	94.6	96.6	99.3
85°	51.0	51.0	52.8
87.5°	17.3	16.6	17.3
90°	0.0	0.0	0.0

(END OF REPORT)