

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: P834245

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-1STD-27-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834245
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-27-120-EDD-90
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

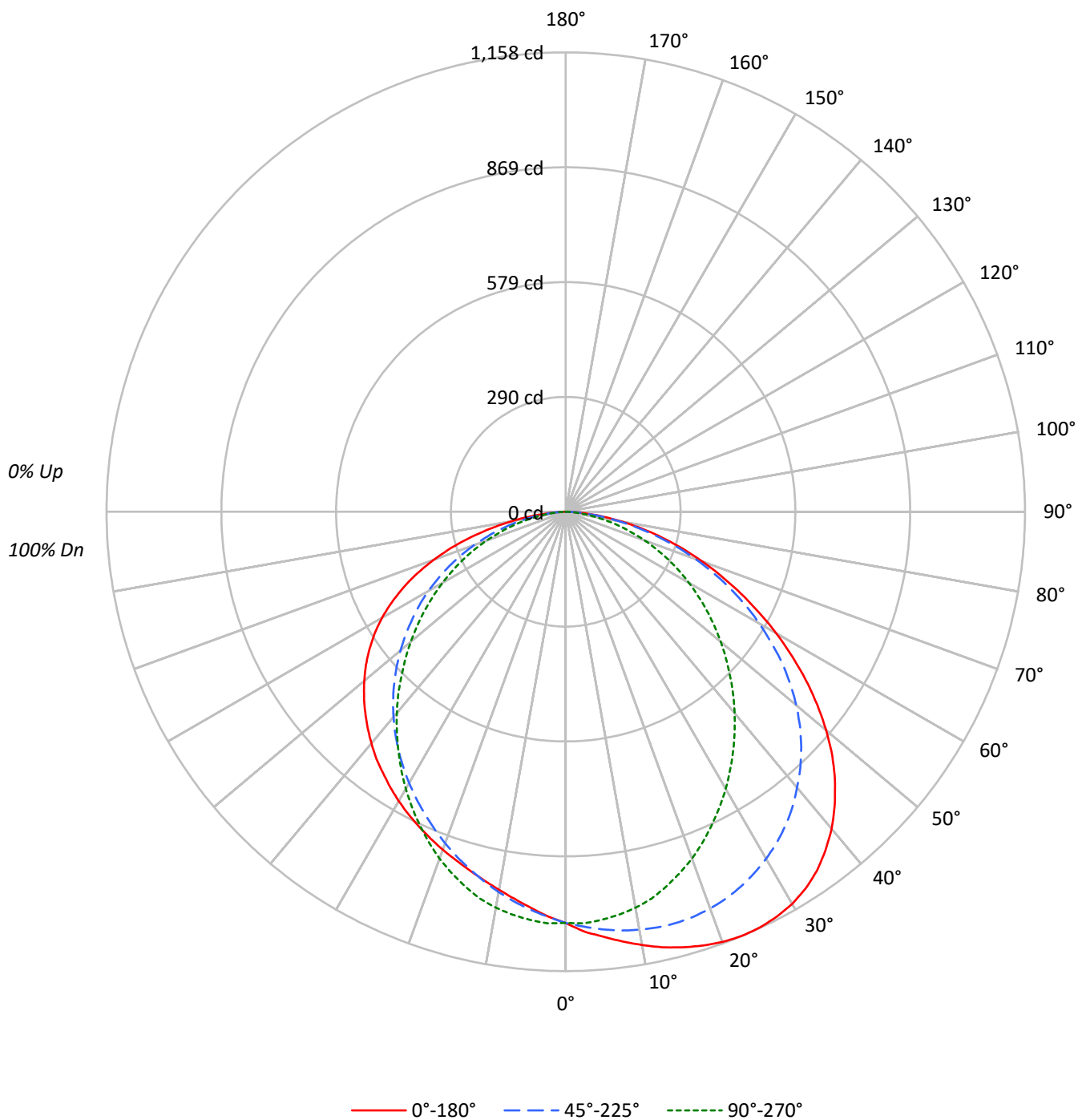
Lumens per Lamp: N/A
Luminaire Lumens: 3048.5 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2789	2789	2789
5°	2904	2790	2708
10°	3031	2769	2645
15°	3167	2725	2607
20°	3305	2665	2596
25°	3435	2587	2600
30°	3547	2507	2617
35°	3628	2417	2639
40°	3665	2328	2678
45°	3654	2229	2721
50°	3589	2135	2778
55°	3467	2038	2836
60°	3298	1932	2878
65°	3097	1815	2875
70°	2882	1674	2789
75°	2617	1470	2572
80°	2247	1207	2170
85°	1714	824	1491

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.3	3.2
10°-20°	283.8	9.3
20°-30°	434.9	14.3
30°-40°	530.7	17.4
40°-50°	555.0	18.2
50°-60°	502.3	16.5
60°-70°	380.4	12.5
70°-80°	212.0	7.0
80°-90°	51.1	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°	817.0	26.8
0°-40°	1347.7	44.2
0°-60°	2405.0	78.9
0°-90°	3048.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3048.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1036	1036	1036	1036	1036	
5°	1075	1057	1033	1008	1002	104
15°	1137	1074	978	933	936	322
25°	1157	1043	871	841	876	534
35°	1104	966	736	735	803	690
45°	960	840	586	612	715	739
55°	739	667	434	472	604	659
65°	486	457	285	324	452	482
75°	252	238	141	169	247	267
85°	56	49	27	36	48	67
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°	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4
2.5°	1059.2	1054.3	1050.2	1051.8	1052.7	1049.5	1046.8	1047.2	1044.5	1049.7	1037.5
5°	1074.9	1070.3	1065.6	1067.4	1065.6	1060.8	1057.0	1055.8	1048.6	1051.5	1039.1
7.5°	1092.3	1087.3	1080.3	1082.3	1078.5	1069.7	1064.7	1061.7	1050.6	1050.9	1037.0
10°	1109.1	1104.8	1095.3	1096.6	1089.6	1077.8	1069.9	1065.8	1050.2	1047.9	1033.6
12.5°	1124.7	1118.8	1108.6	1109.3	1099.1	1083.5	1073.3	1067.4	1047.0	1040.2	1026.2
15°	1136.7	1131.0	1118.8	1118.6	1105.5	1085.1	1073.5	1065.4	1039.5	1028.9	1014.2
17.5°	1146.9	1141.7	1126.5	1126.1	1110.2	1084.4	1070.6	1060.4	1028.7	1015.5	999.2
20°	1154.2	1148.9	1132.0	1130.4	1111.3	1081.0	1064.5	1051.5	1014.4	998.8	980.6
22.5°	1157.6	1152.3	1133.1	1130.8	1108.6	1074.2	1055.6	1040.4	998.1	977.7	958.9
25°	1156.9	1151.9	1130.1	1127.9	1103.4	1064.0	1043.2	1025.7	977.5	953.5	934.9
27.5°	1151.2	1147.4	1124.5	1121.5	1093.9	1050.2	1028.0	1008.7	954.6	927.9	907.7
30°	1141.5	1138.5	1114.3	1111.6	1082.1	1035.0	1010.3	988.1	929.9	899.8	879.4
32.5°	1125.8	1123.1	1098.7	1096.2	1066.3	1015.5	989.7	966.8	902.9	869.6	849.2
35°	1104.3	1102.7	1078.9	1076.2	1045.9	993.3	965.9	940.8	874.8	837.2	817.8
37.5°	1076.0	1076.0	1053.1	1050.2	1020.5	966.1	939.2	912.5	843.1	803.3	784.0
40°	1043.2	1046.1	1022.8	1019.8	991.1	936.9	907.5	879.4	808.9	767.5	748.7
42.5°	1003.7	1006.5	987.0	984.3	957.3	903.2	875.8	845.2	773.1	731.0	711.5
45°	960.2	963.9	946.4	944.4	919.2	866.2	840.0	808.9	735.8	692.9	673.9
47.5°	911.8	916.5	901.4	900.2	876.9	828.4	801.0	769.5	696.6	653.3	635.4
50°	857.4	864.2	851.7	851.7	830.9	782.7	758.9	727.4	655.8	612.5	594.9
52.5°	799.2	807.8	798.5	798.7	781.7	738.5	713.8	683.0	613.2	570.6	554.3
55°	738.9	747.3	741.4	742.3	729.0	689.5	667.1	636.5	569.7	528.3	512.9
57.5°	676.0	685.0	681.2	683.0	673.7	638.4	615.0	588.3	524.9	483.9	470.7
60°	612.8	621.4	619.3	621.8	615.9	585.3	564.1	536.4	479.8	440.4	428.8
62.5°	548.9	556.8	556.4	559.1	555.9	530.5	511.5	487.9	433.1	396.9	386.2
65°	486.4	493.1	492.7	495.6	495.0	474.6	457.4	435.8	386.5	353.2	343.9
67.5°	425.6	431.3	429.7	433.1	434.0	417.7	402.8	383.5	342.1	309.7	301.7
70°	366.3	370.1	368.1	370.4	372.4	360.2	347.5	330.5	294.7	266.2	259.6
72.5°	308.1	310.8	307.6	309.9	311.7	302.9	292.4	277.7	248.0	223.4	217.9
75°	251.7	255.5	249.0	251.2	252.6	243.7	237.6	225.6	200.0	181.0	177.4
77.5°	197.1	199.3	195.7	194.8	195.7	189.4	184.6	175.3	156.1	140.4	138.2
80°	145.0	146.3	142.7	141.8	142.5	138.0	134.3	127.5	113.9	102.2	101.3
82.5°	97.2	97.9	94.7	93.8	94.2	92.9	88.6	83.8	77.5	67.5	67.3
85°	55.5	55.5	53.2	52.3	52.8	50.5	48.9	46.4	43.9	37.2	37.6
87.5°	20.4	20.4	19.3	19.0	21.3	18.8	18.1	17.0	17.7	14.0	15.0
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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4
2.5°	1040.9	1038.6	1036.6	1029.6	1032.5	1025.3	1024.8	1022.1	1020.1	1016.2	1021.2
5°	1037.5	1033.0	1027.1	1018.7	1021.2	1012.6	1010.8	1007.6	1004.9	999.9	1003.7
7.5°	1032.1	1024.6	1015.3	1004.6	1008.0	997.4	994.7	991.3	989.0	983.1	986.5
10°	1024.1	1013.5	1002.6	989.7	992.2	980.6	977.2	973.6	971.6	966.4	969.8
12.5°	1011.9	999.0	984.3	970.2	972.9	962.1	957.5	953.7	953.0	948.7	952.8
15°	996.0	978.1	963.0	948.0	951.2	938.5	936.5	932.6	933.7	930.8	935.8
17.5°	975.9	955.3	938.7	922.6	925.8	915.2	913.6	911.8	912.9	912.5	917.9
20°	953.2	930.6	911.5	895.7	897.5	889.1	889.8	889.3	891.6	894.1	901.6
22.5°	927.6	902.0	882.1	865.8	868.5	861.3	864.4	865.3	869.2	874.8	884.4
25°	898.9	871.4	850.6	835.2	837.7	832.9	838.4	840.6	846.8	856.3	866.0
27.5°	868.7	839.7	817.5	802.8	807.6	802.8	811.0	815.5	824.8	835.2	847.2
30°	836.8	806.7	783.8	770.6	775.2	770.9	784.0	790.1	799.4	813.7	828.0
32.5°	803.3	771.6	749.1	738.9	742.1	741.4	756.1	762.9	775.4	791.7	806.9
35°	768.8	735.8	713.1	704.5	708.3	709.3	726.9	734.9	748.4	768.2	784.5
37.5°	733.3	699.5	677.3	670.3	673.7	677.1	697.7	705.6	721.0	742.6	760.5
40°	696.3	662.6	640.8	635.2	638.6	642.2	664.6	675.5	692.3	715.6	735.1
42.5°	659.0	625.2	604.1	600.1	603.5	610.5	634.3	644.5	662.1	688.0	709.5
45°	620.9	585.8	567.4	564.3	567.9	576.1	599.4	611.6	630.4	658.7	681.8
47.5°	582.4	548.2	530.8	528.7	532.3	541.4	567.2	578.3	598.3	628.4	653.3
50°	543.4	510.1	493.4	492.7	496.1	505.8	530.5	543.7	564.3	598.0	623.6
52.5°	504.0	472.1	456.9	456.9	460.1	470.0	495.0	508.6	529.8	565.4	593.7
55°	464.6	434.3	419.8	420.9	425.4	434.0	458.3	472.5	494.1	531.0	560.9
57.5°	425.2	396.4	383.3	384.9	389.2	397.8	421.6	437.7	457.1	495.4	526.0
60°	386.2	359.0	347.5	349.3	353.2	361.8	386.5	400.3	419.8	458.7	489.3
62.5°	346.8	322.1	311.2	313.5	316.9	325.5	348.9	362.2	381.5	419.8	450.6
65°	307.9	285.0	275.7	277.9	281.1	289.0	311.0	323.9	342.3	379.7	409.1
67.5°	269.3	248.5	240.8	243.1	245.6	253.0	271.2	285.2	302.4	338.0	365.8
70°	231.3	212.7	205.9	208.2	210.4	217.2	233.1	246.0	261.9	294.5	320.3
72.5°	193.7	175.6	172.2	174.2	176.0	181.9	197.1	207.3	221.1	250.1	272.3
75°	157.0	141.4	139.1	141.1	142.7	147.2	159.9	168.8	180.3	205.5	223.6
77.5°	121.6	108.5	107.6	109.2	110.8	113.9	123.9	133.2	142.3	160.8	176.9
80°	88.6	77.9	77.9	79.5	79.1	82.9	89.9	97.4	104.0	117.3	129.1
82.5°	58.4	50.1	51.2	52.3	53.0	54.6	58.9	64.6	68.6	76.8	84.5
85°	32.4	26.7	27.9	28.8	28.3	30.1	32.4	35.8	37.8	41.7	45.8
87.5°	12.0	10.0	10.2	10.9	11.3	12.2	12.2	14.3	14.5	15.0	15.9
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°	1036.4	1036.4	1036.4
2.5°	1011.7	1017.1	1021.2
5°	994.2	998.8	1002.4
7.5°	977.2	981.3	984.5
10°	961.2	965.7	967.9
12.5°	944.6	949.8	951.6
15°	928.3	933.5	935.8
17.5°	911.5	918.3	920.8
20°	895.9	904.5	906.6
22.5°	880.1	888.9	891.4
25°	862.8	873.3	875.8
27.5°	844.5	857.0	859.4
30°	826.1	839.7	842.2
32.5°	806.4	821.2	823.4
35°	785.8	800.5	803.3
37.5°	762.9	779.0	784.5
40°	739.2	756.6	762.3
42.5°	714.2	733.3	739.2
45°	687.5	708.3	715.1
47.5°	660.6	684.1	690.0
50°	631.3	656.5	663.5
52.5°	600.7	628.2	635.2
55°	569.0	596.7	604.4
57.5°	534.6	563.1	571.3
60°	498.6	527.1	534.8
62.5°	461.7	487.5	495.0
65°	420.4	444.7	451.5
67.5°	376.7	398.9	404.6
70°	330.3	349.5	354.5
72.5°	281.8	295.2	301.7
75°	231.7	242.4	247.4
77.5°	181.4	188.9	193.0
80°	132.3	136.6	140.0
82.5°	86.5	88.3	90.8
85°	46.7	46.7	48.3
87.5°	15.9	15.2	15.9
90°	0.0	0.0	0.0

(END OF REPORT)