

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: P834685

Luminaire Tested: **ORLG-24-4-INS-ASY2-LD4-1LO-40-120-EDD-90**

Issue Date: 5/16/2024

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

**Test Information**

Test Method: LM-79-08
Report Number: P834685
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-4-INS-ASY2-LD4-1LO-40-120-EDD-90
Description: 2FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

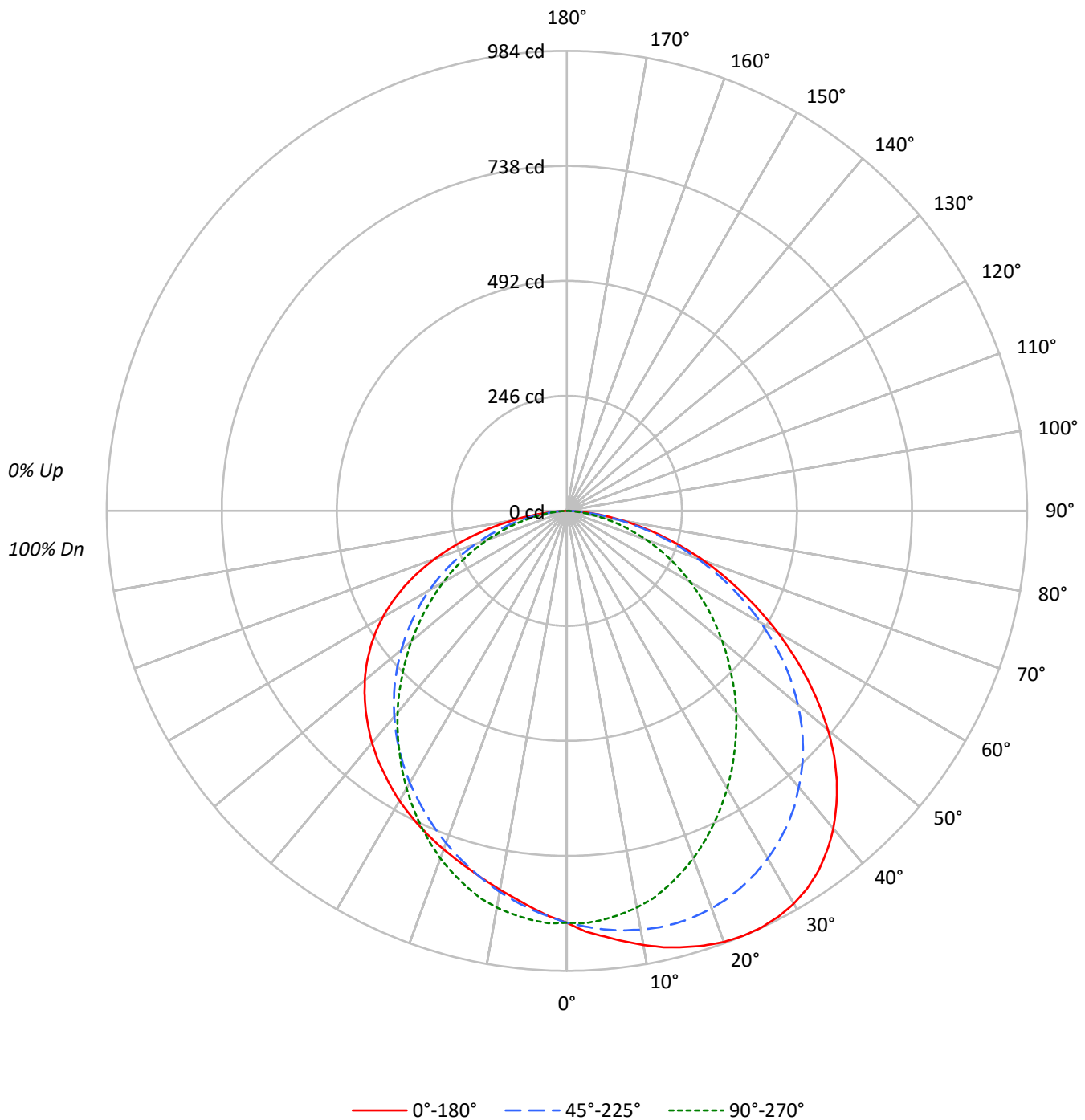
Lumens per Lamp: N/A
Luminaire Lumens: 2591.3 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot



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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°	1185	1185	1185
5°	1234	1186	1151
10°	1288	1177	1124
15°	1346	1158	1108
20°	1405	1133	1103
25°	1460	1100	1105
30°	1507	1065	1112
35°	1542	1027	1122
40°	1557	989	1138
45°	1553	947	1157
50°	1526	908	1181
55°	1473	866	1205
60°	1402	821	1223
65°	1316	771	1222
70°	1225	711	1185
75°	1112	625	1093
80°	955	513	922
85°	729	350	633

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.6	3.2
10°-20°	241.3	9.3
20°-30°	369.6	14.3
30°-40°	451.1	17.4
40°-50°	471.8	18.2
50°-60°	427.0	16.5
60°-70°	323.4	12.5
70°-80°	180.2	7.0
80°-90°	43.5	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°	694.5	26.8
0°-40°	1145.6	44.2
0°-60°	2044.3	78.9
0°-90°	2591.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2591.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	881	881	881	881	881	
5°	914	898	878	856	852	88
15°	966	912	832	793	795	274
25°	983	887	741	715	744	454
35°	939	821	625	625	683	586
45°	816	714	498	520	608	628
55°	628	567	369	402	514	560
65°	413	389	242	275	384	410
75°	214	202	120	144	210	227
85°	47	42	23	30	41	57
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°	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9
2.5°	900.4	896.2	892.7	894.0	894.8	892.1	889.8	890.2	887.9	892.3	881.9
5°	913.7	909.8	905.8	907.3	905.8	901.7	898.5	897.5	891.3	893.8	883.3
7.5°	928.5	924.3	918.3	920.0	916.8	909.2	905.0	902.5	893.1	893.3	881.5
10°	942.8	939.1	931.0	932.2	926.2	916.2	909.4	906.0	892.7	890.8	878.6
12.5°	956.0	951.0	942.4	942.9	934.3	921.0	912.3	907.3	890.0	884.2	872.3
15°	966.2	961.4	951.0	950.8	939.7	922.3	912.5	905.6	883.6	874.6	862.1
17.5°	974.9	970.5	957.6	957.2	943.7	921.8	910.0	901.4	874.4	863.2	849.4
20°	981.1	976.6	962.2	960.9	944.7	918.9	904.8	893.8	862.3	849.0	833.6
22.5°	984.0	979.5	963.2	961.2	942.4	913.1	897.3	884.4	848.4	831.1	815.1
25°	983.4	979.1	960.7	958.7	937.9	904.4	886.7	871.9	830.9	810.5	794.7
27.5°	978.6	975.3	955.8	953.3	929.9	892.7	873.8	857.5	811.4	788.7	771.6
30°	970.3	967.8	947.2	944.9	919.8	879.8	858.8	839.9	790.4	764.8	747.5
32.5°	957.0	954.7	933.9	931.8	906.4	863.2	841.3	821.8	767.5	739.2	721.9
35°	938.7	937.4	917.1	914.8	889.0	844.4	821.1	799.7	743.7	711.7	695.1
37.5°	914.6	914.6	895.2	892.7	867.5	821.3	798.3	775.6	716.7	682.8	666.4
40°	886.7	889.2	869.4	866.9	842.4	796.4	771.4	747.5	687.6	652.4	636.4
42.5°	853.2	855.5	839.0	836.7	813.7	767.7	744.4	718.4	657.2	621.4	604.8
45°	816.2	819.3	804.5	802.8	781.4	736.3	714.0	687.6	625.4	589.0	572.9
47.5°	775.0	779.1	766.2	765.2	745.4	704.2	680.9	654.1	592.1	555.3	540.1
50°	728.8	734.6	724.0	724.0	706.3	665.3	645.1	618.3	557.4	520.7	505.7
52.5°	679.3	686.7	678.8	679.0	664.5	627.7	606.7	580.6	521.2	485.0	471.2
55°	628.1	635.2	630.2	631.0	619.6	586.1	567.1	541.1	484.3	449.0	435.9
57.5°	574.6	582.3	579.0	580.6	572.7	542.6	522.8	500.1	446.2	411.3	400.1
60°	520.9	528.2	526.4	528.6	523.6	497.6	479.5	456.0	407.8	374.3	364.5
62.5°	466.6	473.3	472.9	475.2	472.5	451.0	434.8	414.8	368.2	337.4	328.3
65°	413.4	419.2	418.8	421.3	420.7	403.4	388.8	370.5	328.5	300.2	292.3
67.5°	361.8	366.6	365.3	368.2	368.9	355.1	342.4	326.0	290.8	263.2	256.5
70°	311.4	314.6	312.9	314.8	316.6	306.2	295.4	280.9	250.5	226.3	220.7
72.5°	261.9	264.2	261.5	263.4	265.0	257.4	248.6	236.1	210.8	189.9	185.2
75°	213.9	217.2	211.6	213.5	214.7	207.2	202.0	191.8	170.0	153.9	150.8
77.5°	167.5	169.4	166.4	165.6	166.4	161.0	156.9	149.0	132.7	119.4	117.5
80°	123.2	124.4	121.3	120.5	121.1	117.3	114.2	108.4	96.9	86.8	86.1
82.5°	82.6	83.2	80.5	79.7	80.1	78.9	75.3	71.2	65.9	57.4	57.2
85°	47.2	47.2	45.3	44.5	44.9	42.9	41.6	39.5	37.4	31.6	32.0
87.5°	17.3	17.3	16.4	16.2	18.1	16.0	15.4	14.4	15.0	11.9	12.7
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°	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9	880.9
2.5°	884.8	882.9	881.1	875.2	877.7	871.5	871.1	868.8	867.1	863.8	868.0
5°	881.9	878.1	873.0	865.9	868.0	860.7	859.2	856.5	854.2	849.9	853.2
7.5°	877.3	870.9	863.0	854.0	856.9	847.8	845.5	842.6	840.7	835.7	838.6
10°	870.5	861.5	852.3	841.3	843.4	833.6	830.7	827.6	825.9	821.4	824.3
12.5°	860.1	849.2	836.7	824.7	827.0	817.8	813.9	810.7	810.1	806.4	809.9
15°	846.7	831.5	818.6	805.8	808.5	797.8	796.0	792.8	793.7	791.2	795.4
17.5°	829.5	812.0	798.0	784.3	787.0	777.9	776.6	775.0	776.0	775.6	780.2
20°	810.3	791.0	774.8	761.4	762.9	755.8	756.4	756.0	757.9	760.0	766.4
22.5°	788.5	766.8	749.8	735.9	738.3	732.1	734.8	735.6	738.8	743.7	751.7
25°	764.1	740.8	723.0	710.0	712.1	708.0	712.6	714.6	719.8	727.9	736.1
27.5°	738.5	713.8	694.9	682.4	686.5	682.4	689.3	693.2	701.1	710.0	720.2
30°	711.3	685.7	666.2	655.1	658.9	655.3	666.4	671.6	679.5	691.7	703.8
32.5°	682.8	655.8	636.8	628.1	630.8	630.2	642.8	648.5	659.1	673.0	685.9
35°	653.5	625.4	606.2	598.8	602.1	602.9	617.9	624.7	636.2	653.0	666.8
37.5°	623.3	594.6	575.7	569.8	572.7	575.5	593.1	599.8	612.9	631.2	646.4
40°	591.9	563.2	544.7	539.9	542.8	545.9	565.0	574.2	588.5	608.3	624.8
42.5°	560.1	531.5	513.5	510.1	513.0	518.9	539.2	547.8	562.8	584.8	603.1
45°	527.8	497.9	482.4	479.7	482.7	489.7	509.5	519.9	535.9	560.0	579.6
47.5°	495.1	466.0	451.2	449.4	452.5	460.2	482.2	491.6	508.5	534.1	555.3
50°	461.9	433.6	419.4	418.8	421.7	430.0	451.0	462.1	479.7	508.3	530.1
52.5°	428.4	401.3	388.4	388.4	391.1	399.6	420.7	432.3	450.4	480.6	504.7
55°	394.9	369.1	356.8	357.8	361.6	368.9	389.5	401.7	420.0	451.4	476.8
57.5°	361.4	337.0	325.8	327.2	330.8	338.1	358.3	372.0	388.6	421.1	447.1
60°	328.3	305.2	295.4	296.9	300.2	307.5	328.5	340.2	356.8	389.9	415.9
62.5°	294.8	273.8	264.6	266.5	269.4	276.7	296.5	307.9	324.3	356.8	383.0
65°	261.7	242.2	234.3	236.3	239.0	245.7	264.4	275.4	291.0	322.7	347.8
67.5°	228.9	211.2	204.7	206.6	208.7	215.1	230.5	242.4	257.1	287.3	311.0
70°	196.6	180.8	175.0	177.0	178.9	184.7	198.1	209.1	222.6	250.3	272.3
72.5°	164.6	149.2	146.3	148.1	149.6	154.6	167.5	176.2	187.9	212.6	231.5
75°	133.4	120.2	118.2	120.0	121.3	125.2	135.9	143.5	153.3	174.6	190.1
77.5°	103.4	92.2	91.5	92.8	94.2	96.9	105.3	113.2	120.9	136.7	150.4
80°	75.3	66.2	66.2	67.6	67.2	70.5	76.4	82.8	88.4	99.7	109.8
82.5°	49.7	42.6	43.5	44.5	45.1	46.4	50.1	54.9	58.3	65.3	71.8
85°	27.5	22.7	23.7	24.5	24.1	25.6	27.5	30.4	32.2	35.4	38.9
87.5°	10.2	8.5	8.7	9.2	9.6	10.4	10.4	12.1	12.3	12.7	13.5
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°	880.9	880.9	880.9
2.5°	860.0	864.6	868.0
5°	845.1	849.0	852.1
7.5°	830.7	834.2	836.8
10°	817.0	820.9	822.8
12.5°	803.0	807.4	808.9
15°	789.1	793.5	795.4
17.5°	774.8	780.6	782.7
20°	761.6	768.9	770.6
22.5°	748.1	755.6	757.7
25°	733.4	742.3	744.4
27.5°	717.8	728.4	730.6
30°	702.3	713.8	715.9
32.5°	685.5	698.0	699.9
35°	668.0	680.5	682.8
37.5°	648.5	662.2	666.8
40°	628.3	643.1	648.0
42.5°	607.1	623.3	628.3
45°	584.4	602.1	607.9
47.5°	561.5	581.5	586.5
50°	536.7	558.0	564.0
52.5°	510.7	534.0	539.9
55°	483.7	507.2	513.7
57.5°	454.4	478.7	485.6
60°	423.8	448.1	454.6
62.5°	392.4	414.4	420.7
65°	357.4	378.0	383.8
67.5°	320.2	339.1	343.9
70°	280.7	297.1	301.3
72.5°	239.5	250.9	256.5
75°	197.0	206.0	210.3
77.5°	154.2	160.6	164.1
80°	112.5	116.1	119.0
82.5°	73.6	75.1	77.2
85°	39.7	39.7	41.0
87.5°	13.5	12.9	13.5
90°	0.0	0.0	0.0

(END OF REPORT)