

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: P835336

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-2LO-40-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835336
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-LD4-2LO-40-120-EDD-90
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

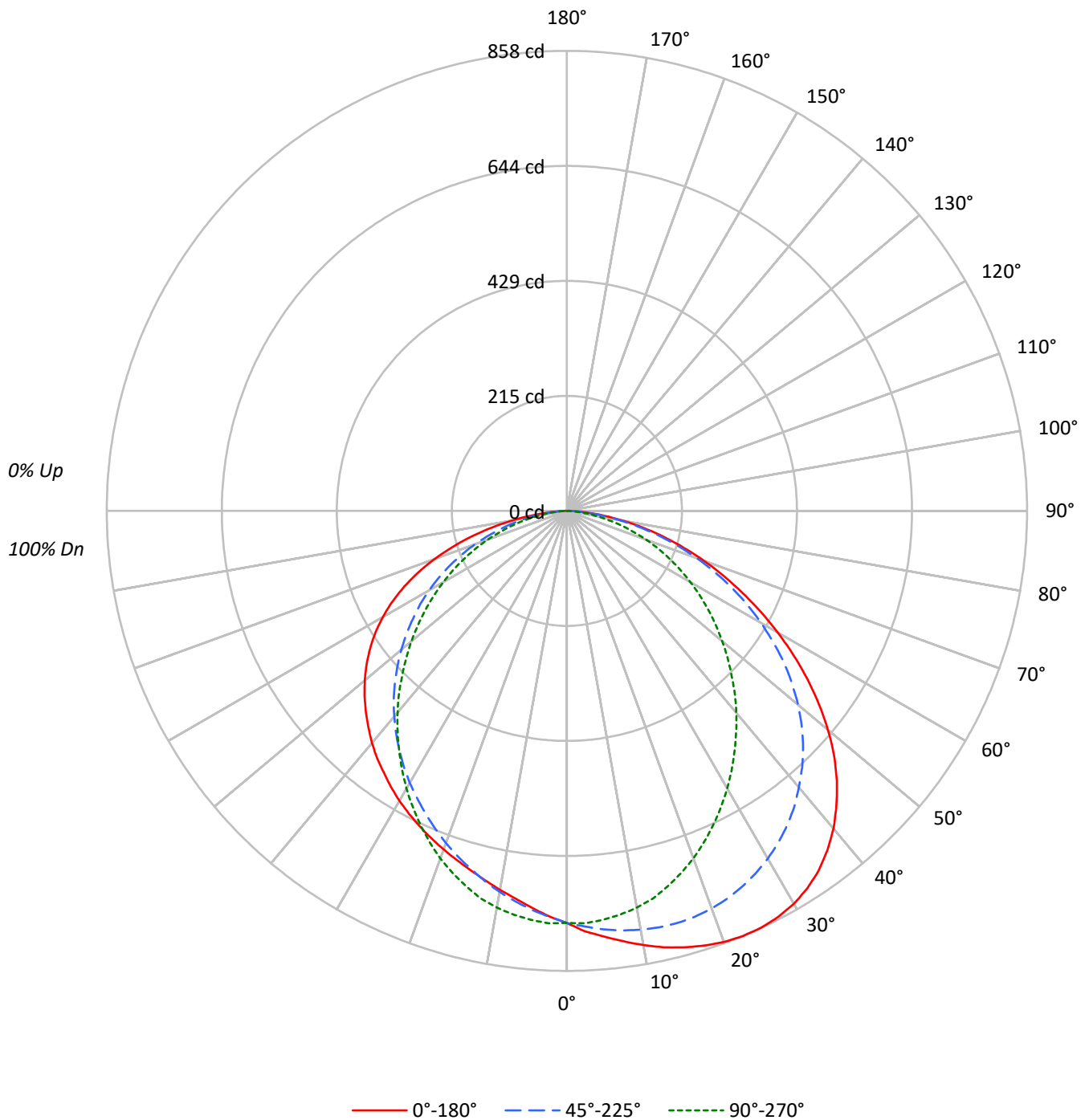
Lumens per Lamp: N/A
Luminaire Lumens: 2259.9 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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



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°	2067	2067	2067
5°	2152	2068	2007
10°	2247	2053	1961
15°	2348	2020	1933
20°	2450	1975	1924
25°	2546	1918	1928
30°	2629	1858	1940
35°	2689	1792	1956
40°	2716	1725	1985
45°	2709	1653	2017
50°	2661	1583	2059
55°	2570	1510	2102
60°	2444	1433	2134
65°	2295	1345	2131
70°	2136	1241	2068
75°	1940	1090	1907
80°	1666	896	1609
85°	1269	611	1105

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.9	3.2
10°-20°	210.4	9.3
20°-30°	322.4	14.3
30°-40°	393.4	17.4
40°-50°	411.4	18.2
50°-60°	372.4	16.5
60°-70°	282.0	12.5
70°-80°	157.2	7.0
80°-90°	37.9	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°	605.6	26.8
0°-40°	999.0	44.2
0°-60°	1782.8	78.9
0°-90°	2259.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2259.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	768	768	768	768	768	
5°	797	784	766	747	743	77
15°	843	796	725	691	694	239
25°	858	773	646	623	649	396
35°	819	716	545	545	596	511
45°	712	623	434	453	530	548
55°	548	494	322	350	448	489
65°	360	339	211	240	335	358
75°	187	176	105	125	183	198
85°	41	36	20	26	36	49
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°	768.3	768.3	768.3	768.3	768.3	768.3	768.3	768.3	768.3	768.3	768.3
2.5°	785.2	781.5	778.5	779.7	780.4	778.0	776.0	776.3	774.3	778.2	769.1
5°	796.8	793.5	789.9	791.3	789.9	786.4	783.5	782.7	777.3	779.5	770.3
7.5°	809.7	806.0	800.8	802.4	799.5	793.0	789.3	787.1	778.8	779.0	768.8
10°	822.2	819.0	811.9	812.9	807.7	799.0	793.1	790.1	778.5	776.8	766.3
12.5°	833.8	829.4	821.8	822.3	814.8	803.2	795.6	791.3	776.2	771.1	760.7
15°	842.7	838.5	829.4	829.2	819.5	804.4	795.8	789.8	770.6	762.7	751.8
17.5°	850.2	846.4	835.1	834.8	823.0	803.9	793.6	786.1	762.6	752.8	740.7
20°	855.6	851.7	839.1	838.0	823.8	801.3	789.1	779.5	752.0	740.4	727.0
22.5°	858.1	854.2	840.0	838.3	821.8	796.3	782.5	771.3	739.9	724.8	710.8
25°	857.6	853.9	837.8	836.1	818.0	788.8	773.3	760.4	724.6	706.8	693.0
27.5°	853.4	850.5	833.6	831.4	810.9	778.5	762.1	747.8	707.6	687.8	672.9
30°	846.2	844.0	826.0	824.0	802.2	767.3	749.0	732.5	689.3	667.0	651.9
32.5°	834.6	832.6	814.4	812.6	790.4	752.8	733.7	716.7	669.4	644.7	629.6
35°	818.6	817.5	799.8	797.8	775.3	736.4	716.0	697.4	648.5	620.7	606.2
37.5°	797.7	797.7	780.7	778.5	756.5	716.2	696.2	676.4	625.0	595.5	581.2
40°	773.3	775.5	758.2	756.0	734.7	694.5	672.7	651.9	599.7	568.9	555.0
42.5°	744.1	746.1	731.7	729.6	709.7	669.5	649.2	626.5	573.1	541.9	527.5
45°	711.8	714.5	701.6	700.1	681.4	642.2	622.7	599.7	545.4	513.7	499.6
47.5°	675.9	679.4	668.2	667.3	650.0	614.1	593.8	570.4	516.4	484.3	471.0
50°	635.6	640.6	631.4	631.4	616.0	580.2	562.6	539.2	486.1	454.1	441.0
52.5°	592.4	598.8	591.9	592.1	579.5	547.4	529.1	506.3	454.6	423.0	410.9
55°	547.8	554.0	549.6	550.3	540.4	511.2	494.5	471.9	422.3	391.6	380.2
57.5°	501.1	507.8	505.0	506.3	499.4	473.2	455.9	436.1	389.1	358.7	349.0
60°	454.2	460.6	459.1	461.0	456.6	433.9	418.1	397.7	355.7	326.4	317.9
62.5°	406.9	412.8	412.4	414.4	412.1	393.3	379.2	361.7	321.1	294.2	286.3
65°	360.5	365.6	365.2	367.4	366.9	351.8	339.0	323.1	286.5	261.8	254.9
67.5°	315.5	319.7	318.6	321.1	321.7	309.7	298.6	284.3	253.6	229.6	223.7
70°	271.5	274.4	272.9	274.6	276.1	267.0	257.6	245.0	218.5	197.3	192.4
72.5°	228.4	230.4	228.0	229.7	231.1	224.5	216.8	205.9	183.9	165.6	161.5
75°	186.6	189.4	184.6	186.2	187.2	180.7	176.2	167.3	148.3	134.2	131.5
77.5°	146.1	147.8	145.1	144.4	145.1	140.4	136.9	130.0	115.7	104.1	102.4
80°	107.5	108.5	105.8	105.1	105.6	102.3	99.6	94.5	84.5	75.7	75.1
82.5°	72.0	72.5	70.2	69.5	69.9	68.9	65.7	62.1	57.4	50.0	49.9
85°	41.1	41.1	39.5	38.8	39.1	37.4	36.3	34.4	32.6	27.5	27.9
87.5°	15.1	15.1	14.3	14.1	15.8	13.9	13.4	12.6	13.1	10.4	11.1
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°	768.3	768.3	768.3	768.3	768.3	768.3	768.3	768.3	768.3	768.3	768.3
2.5°	771.6	769.9	768.4	763.2	765.4	760.0	759.7	757.7	756.2	753.3	757.0
5°	769.1	765.7	761.4	755.2	757.0	750.6	749.3	746.9	744.9	741.2	744.1
7.5°	765.1	759.5	752.6	744.8	747.3	739.4	737.4	734.8	733.2	728.8	731.3
10°	759.2	751.3	743.2	733.7	735.5	727.0	724.4	721.7	720.2	716.4	718.9
12.5°	750.1	740.6	729.6	719.2	721.2	713.2	709.8	707.0	706.5	703.3	706.3
15°	738.4	725.1	713.9	702.8	705.1	695.7	694.2	691.4	692.2	690.0	693.7
17.5°	723.4	708.1	695.9	684.0	686.3	678.4	677.2	675.9	676.7	676.4	680.4
20°	706.6	689.8	675.7	664.0	665.3	659.1	659.6	659.3	661.0	662.8	668.3
22.5°	687.7	668.7	653.9	641.8	643.8	638.5	640.8	641.5	644.3	648.5	655.6
25°	666.3	646.0	630.6	619.1	621.0	617.5	621.5	623.2	627.7	634.8	642.0
27.5°	644.0	622.5	606.0	595.1	598.7	595.1	601.2	604.5	611.4	619.1	628.0
30°	620.3	598.0	581.0	571.3	574.6	571.5	581.2	585.7	592.6	603.2	613.8
32.5°	595.5	572.0	555.3	547.8	550.1	549.6	560.5	565.6	574.8	586.9	598.2
35°	569.9	545.4	528.6	522.3	525.1	525.8	538.9	544.8	554.8	569.4	581.5
37.5°	543.6	518.6	502.1	496.9	499.4	501.9	517.2	523.1	534.5	550.5	563.7
40°	516.2	491.2	475.1	470.9	473.4	476.1	492.7	500.8	513.2	530.5	544.9
42.5°	488.5	463.5	447.9	444.8	447.4	452.6	470.2	477.8	490.9	510.0	525.9
45°	460.3	434.3	420.7	418.3	421.0	427.0	444.3	453.4	467.3	488.3	505.5
47.5°	431.7	406.4	393.5	391.9	394.6	401.3	420.5	428.7	443.5	465.8	484.3
50°	402.9	378.2	365.7	365.2	367.8	375.0	393.3	403.0	418.3	443.3	462.3
52.5°	373.6	350.0	338.7	338.7	341.1	348.4	366.9	377.0	392.8	419.1	440.1
55°	344.4	321.9	311.2	312.0	315.4	321.7	339.7	350.3	366.2	393.6	415.8
57.5°	315.2	293.9	284.1	285.3	288.5	294.9	312.5	324.4	338.9	367.3	389.9
60°	286.3	266.2	257.6	258.9	261.8	268.2	286.5	296.7	311.2	340.1	362.7
62.5°	257.1	238.8	230.7	232.4	234.9	241.3	258.6	268.5	282.8	311.2	334.0
65°	228.2	211.3	204.4	206.0	208.4	214.3	230.6	240.1	253.7	281.4	303.3
67.5°	199.7	184.2	178.5	180.2	182.0	187.6	201.0	211.4	224.2	250.5	271.2
70°	171.5	157.7	152.6	154.3	156.0	161.0	172.8	182.4	194.1	218.3	237.4
72.5°	143.6	130.1	127.6	129.1	130.5	134.8	146.1	153.7	163.9	185.4	201.8
75°	116.4	104.8	103.1	104.6	105.8	109.2	118.6	125.1	133.7	152.3	165.7
77.5°	90.2	80.4	79.8	80.9	82.1	84.5	91.9	98.7	105.5	119.2	131.2
80°	65.7	57.8	57.8	58.9	58.6	61.5	66.7	72.2	77.1	87.0	95.7
82.5°	43.3	37.1	38.0	38.8	39.3	40.5	43.7	47.9	50.9	56.9	62.6
85°	24.0	19.8	20.7	21.3	21.0	22.3	24.0	26.5	28.0	30.9	33.9
87.5°	8.9	7.4	7.6	8.1	8.4	9.1	9.1	10.6	10.7	11.1	11.8
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°	768.3	768.3	768.3
2.5°	750.0	754.0	757.0
5°	737.0	740.4	743.1
7.5°	724.4	727.5	729.8
10°	712.5	715.9	717.6
12.5°	700.3	704.1	705.5
15°	688.2	692.0	693.7
17.5°	675.7	680.8	682.6
20°	664.2	670.5	672.0
22.5°	652.4	658.9	660.8
25°	639.6	647.4	649.2
27.5°	626.0	635.3	637.1
30°	612.4	622.5	624.4
32.5°	597.8	608.7	610.4
35°	582.5	593.5	595.5
37.5°	565.6	577.5	581.5
40°	547.9	560.9	565.1
42.5°	529.5	543.6	547.9
45°	509.7	525.1	530.1
47.5°	489.7	507.1	511.5
50°	468.0	486.7	491.9
52.5°	445.3	465.7	470.9
55°	421.8	442.3	448.0
57.5°	396.3	417.5	423.5
60°	369.6	390.8	396.5
62.5°	342.2	361.4	366.9
65°	311.7	329.6	334.7
67.5°	279.3	295.7	299.9
70°	244.8	259.1	262.8
72.5°	208.9	218.8	223.7
75°	171.8	179.7	183.4
77.5°	134.5	140.1	143.1
80°	98.1	101.3	103.8
82.5°	64.1	65.5	67.3
85°	34.6	34.6	35.8
87.5°	11.8	11.3	11.8
90°	0.0	0.0	0.0

(END OF REPORT)