

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: P834505

Luminaire Tested: **ORLG-24-4-INS-ASY2-LD4-1LO-20-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834505
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-20-120-EDD
Description: 2FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 2000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

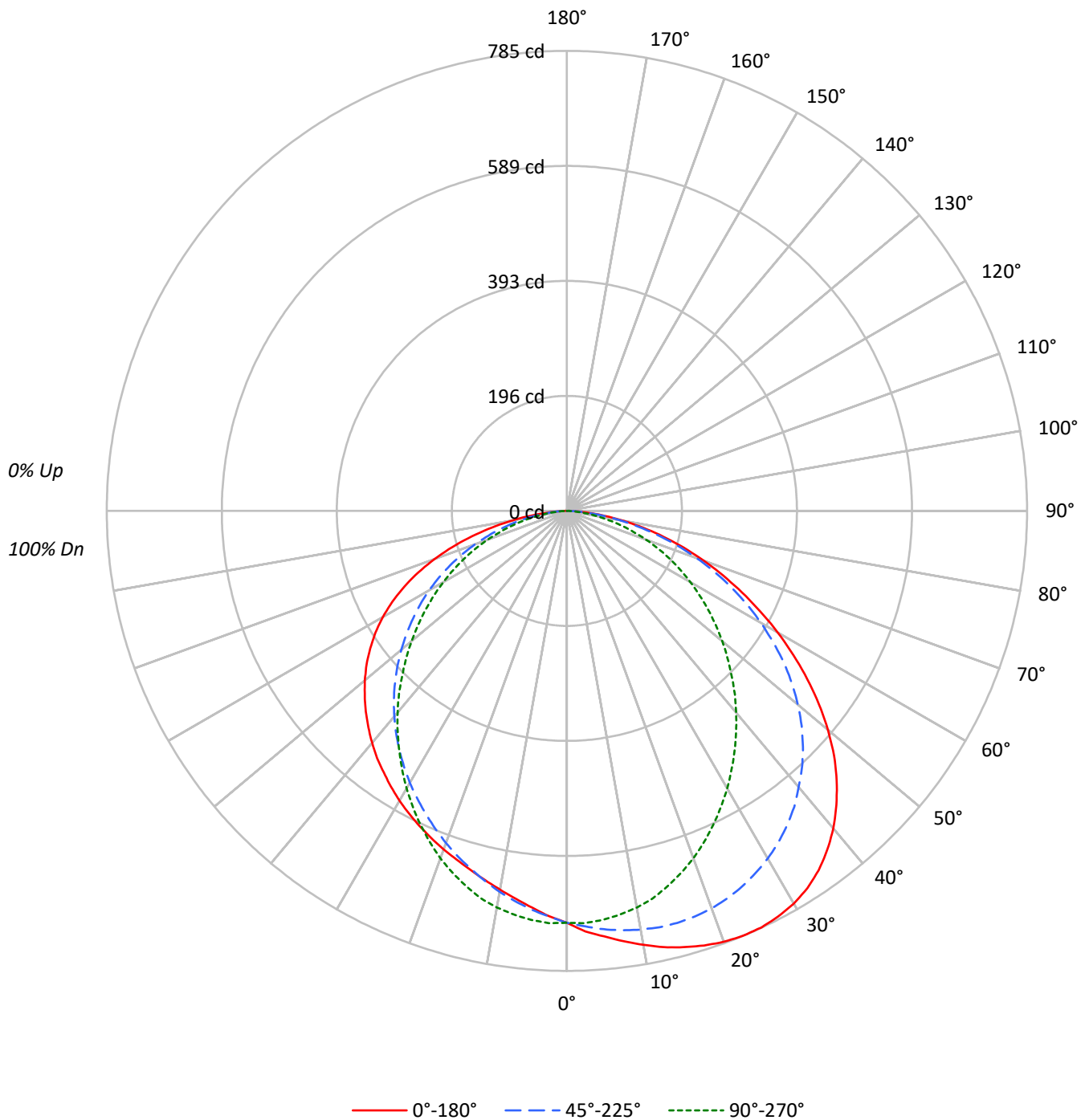
Lumens per Lamp: N/A
Luminaire Lumens: 2066.9 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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



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°	945	945	945
5°	984	946	918
10°	1027	939	897
15°	1074	924	884
20°	1120	903	880
25°	1165	877	882
30°	1202	850	887
35°	1230	819	895
40°	1242	789	908
45°	1239	756	923
50°	1217	724	942
55°	1175	691	961
60°	1118	655	976
65°	1050	615	975
70°	977	567	946
75°	887	498	872
80°	762	409	735
85°	580	279	505

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.6	3.2
10°-20°	192.4	9.3
20°-30°	294.8	14.3
30°-40°	359.8	17.4
40°-50°	376.3	18.2
50°-60°	340.6	16.5
60°-70°	257.9	12.5
70°-80°	143.7	7.0
80°-90°	34.7	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°	553.9	26.8
0°-40°	913.7	44.2
0°-60°	1630.6	78.9
0°-90°	2066.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2066.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	703	703	703	703	703	
5°	729	717	700	683	680	70
15°	771	728	663	632	634	219
25°	784	707	591	570	594	362
35°	749	655	499	498	545	468
45°	651	570	397	415	485	501
55°	501	452	294	320	410	447
65°	330	310	193	220	306	327
75°	171	161	96	114	168	181
85°	38	33	18	24	33	45
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°	702.7	702.7	702.7	702.7	702.7	702.7	702.7	702.7	702.7	702.7	702.7
2.5°	718.2	714.8	712.0	713.1	713.7	711.6	709.7	710.0	708.2	711.7	703.4
5°	728.8	725.7	722.5	723.7	722.5	719.2	716.6	715.9	711.0	712.9	704.5
7.5°	740.6	737.2	732.5	733.8	731.2	725.2	721.9	719.9	712.3	712.5	703.1
10°	752.0	749.0	742.6	743.5	738.7	730.8	725.4	722.6	712.0	710.5	700.8
12.5°	762.6	758.6	751.7	752.1	745.2	734.6	727.7	723.7	709.9	705.3	695.7
15°	770.7	766.9	758.6	758.4	749.5	735.7	727.8	722.3	704.8	697.6	687.6
17.5°	777.6	774.1	763.8	763.5	752.7	735.2	725.8	718.9	697.4	688.5	677.5
20°	782.5	779.0	767.5	766.4	753.5	732.9	721.7	712.9	687.8	677.2	664.9
22.5°	784.8	781.3	768.2	766.7	751.7	728.3	715.7	705.4	676.7	662.9	650.1
25°	784.4	781.0	766.2	764.7	748.1	721.4	707.3	695.4	662.7	646.4	633.9
27.5°	780.5	777.9	762.4	760.4	741.7	712.0	697.0	683.9	647.2	629.1	615.4
30°	773.9	771.9	755.5	753.6	733.7	701.7	685.0	669.9	630.5	610.0	596.2
32.5°	763.3	761.5	744.9	743.2	722.9	688.5	671.0	655.5	612.2	589.6	575.8
35°	748.7	747.7	731.5	729.7	709.1	673.5	654.9	637.8	593.1	567.7	554.4
37.5°	729.5	729.5	714.0	712.0	691.9	655.0	636.8	618.6	571.6	544.6	531.6
40°	707.3	709.3	693.4	691.4	671.9	635.2	615.3	596.2	548.5	520.4	507.6
42.5°	680.5	682.4	669.2	667.3	649.1	612.3	593.8	573.0	524.2	495.6	482.4
45°	651.1	653.5	641.7	640.3	623.3	587.3	569.5	548.5	498.8	469.8	456.9
47.5°	618.2	621.4	611.1	610.4	594.5	561.7	543.1	521.7	472.3	442.9	430.8
50°	581.3	585.9	577.5	577.5	563.4	530.6	514.5	493.2	444.6	415.3	403.3
52.5°	541.9	547.7	541.4	541.5	530.0	500.7	484.0	463.1	415.8	386.9	375.8
55°	501.0	506.7	502.7	503.3	494.2	467.5	452.3	431.6	386.3	358.2	347.7
57.5°	458.3	464.4	461.8	463.1	456.8	432.8	417.0	398.9	355.9	328.1	319.2
60°	415.5	421.3	419.9	421.6	417.6	396.9	382.4	363.7	325.3	298.6	290.7
62.5°	372.1	377.5	377.2	379.1	376.9	359.7	346.8	330.8	293.7	269.1	261.9
65°	329.7	334.4	334.1	336.0	335.6	321.8	310.1	295.5	262.0	239.4	233.1
67.5°	288.6	292.4	291.4	293.7	294.3	283.2	273.1	260.0	231.9	210.0	204.6
70°	248.3	251.0	249.6	251.1	252.5	244.2	235.6	224.1	199.8	180.5	176.0
72.5°	208.9	210.7	208.6	210.1	211.3	205.3	198.3	188.3	168.2	151.4	147.7
75°	170.6	173.2	168.8	170.3	171.2	165.3	161.1	153.0	135.6	122.7	120.3
77.5°	133.6	135.2	132.7	132.1	132.7	128.4	125.2	118.9	105.8	95.2	93.7
80°	98.3	99.2	96.8	96.1	96.6	93.5	91.1	86.5	77.3	69.3	68.7
82.5°	65.9	66.3	64.2	63.6	63.9	63.0	60.1	56.8	52.5	45.8	45.6
85°	37.6	37.6	36.1	35.5	35.8	34.2	33.2	31.5	29.8	25.2	25.5
87.5°	13.8	13.8	13.1	12.9	14.4	12.7	12.3	11.5	12.0	9.5	10.1
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°	702.7	702.7	702.7	702.7	702.7	702.7	702.7	702.7	702.7	702.7	702.7
2.5°	705.7	704.2	702.8	698.0	700.0	695.1	694.8	693.0	691.6	689.0	692.4
5°	703.4	700.4	696.4	690.7	692.4	686.5	685.3	683.2	681.3	677.9	680.5
7.5°	699.7	694.7	688.4	681.2	683.5	676.2	674.4	672.1	670.6	666.6	668.9
10°	694.4	687.1	679.8	671.0	672.7	664.9	662.6	660.1	658.7	655.2	657.5
12.5°	686.1	677.3	667.3	657.8	659.7	652.3	649.2	646.6	646.1	643.2	646.0
15°	675.3	663.2	652.9	642.8	644.9	636.3	634.9	632.3	633.1	631.1	634.5
17.5°	661.6	647.7	636.5	625.6	627.7	620.5	619.4	618.2	619.0	618.6	622.3
20°	646.3	630.9	618.0	607.3	608.5	602.8	603.3	603.0	604.5	606.2	611.3
22.5°	628.9	611.6	598.1	587.0	588.8	583.9	586.1	586.7	589.3	593.1	599.6
25°	609.4	590.8	576.7	566.3	568.0	564.7	568.4	570.0	574.1	580.6	587.2
27.5°	589.0	569.3	554.3	544.3	547.5	544.3	549.8	552.9	559.2	566.3	574.4
30°	567.3	546.9	531.4	522.5	525.6	522.7	531.6	535.7	542.0	551.7	561.4
32.5°	544.6	523.1	507.9	501.0	503.1	502.7	512.7	517.3	525.7	536.8	547.1
35°	521.3	498.8	483.5	477.7	480.3	480.9	492.9	498.2	507.4	520.8	531.9
37.5°	497.2	474.3	459.2	454.5	456.8	459.1	473.0	478.4	488.9	503.5	515.6
40°	472.1	449.2	434.5	430.7	433.0	435.4	450.6	458.0	469.4	485.2	498.4
42.5°	446.8	423.9	409.6	406.8	409.2	413.9	430.0	437.0	448.9	466.4	481.0
45°	421.0	397.2	384.7	382.6	385.0	390.6	406.4	414.7	427.4	446.6	462.3
47.5°	394.9	371.7	359.9	358.5	360.9	367.1	384.6	392.1	405.6	426.0	442.9
50°	368.5	345.9	334.5	334.1	336.4	343.0	359.7	368.6	382.6	405.5	422.8
52.5°	341.7	320.1	309.8	309.8	311.9	318.7	335.6	344.8	359.2	383.4	402.5
55°	315.0	294.4	284.6	285.4	288.4	294.3	310.7	320.4	335.0	360.0	380.3
57.5°	288.3	268.8	259.9	260.9	263.9	269.7	285.8	296.7	309.9	335.9	356.6
60°	261.9	243.4	235.6	236.8	239.4	245.3	262.0	271.4	284.6	311.0	331.7
62.5°	235.1	218.4	211.0	212.6	214.9	220.7	236.5	245.6	258.6	284.6	305.5
65°	208.7	193.2	186.9	188.5	190.6	196.0	210.9	219.6	232.1	257.4	277.4
67.5°	182.6	168.5	163.3	164.8	166.5	171.6	183.8	193.4	205.0	229.2	248.0
70°	156.8	144.2	139.6	141.1	142.7	147.3	158.0	166.8	177.5	199.7	217.2
72.5°	131.3	119.0	116.7	118.1	119.3	123.3	133.6	140.5	149.9	169.6	184.6
75°	106.4	95.8	94.3	95.7	96.8	99.8	108.4	114.4	122.3	139.3	151.6
77.5°	82.5	73.6	73.0	74.0	75.1	77.3	84.0	90.3	96.5	109.0	120.0
80°	60.1	52.8	52.8	53.9	53.6	56.2	61.0	66.0	70.5	79.6	87.5
82.5°	39.6	33.9	34.7	35.5	35.9	37.0	39.9	43.8	46.5	52.1	57.3
85°	22.0	18.1	18.9	19.5	19.2	20.4	22.0	24.3	25.6	28.3	31.0
87.5°	8.1	6.8	6.9	7.4	7.7	8.3	8.3	9.7	9.8	10.1	10.8
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°	702.7	702.7	702.7
2.5°	685.9	689.6	692.4
5°	674.1	677.2	679.6
7.5°	662.6	665.3	667.5
10°	651.7	654.7	656.3
12.5°	640.5	644.0	645.2
15°	629.4	632.9	634.5
17.5°	618.0	622.6	624.3
20°	607.4	613.3	614.7
22.5°	596.7	602.7	604.4
25°	585.0	592.1	593.8
27.5°	572.6	581.0	582.7
30°	560.1	569.3	571.0
32.5°	546.8	556.8	558.3
35°	532.8	542.8	544.6
37.5°	517.3	528.2	531.9
40°	501.2	513.0	516.8
42.5°	484.3	497.2	501.2
45°	466.1	480.3	484.9
47.5°	447.9	463.8	467.8
50°	428.0	445.1	449.9
52.5°	407.3	425.9	430.7
55°	385.8	404.5	409.8
57.5°	362.5	381.8	387.3
60°	338.0	357.4	362.6
62.5°	313.0	330.5	335.6
65°	285.1	301.5	306.1
67.5°	255.4	270.5	274.3
70°	223.9	237.0	240.4
72.5°	191.1	200.1	204.6
75°	157.1	164.3	167.7
77.5°	123.0	128.1	130.9
80°	89.7	92.6	94.9
82.5°	58.7	59.9	61.6
85°	31.6	31.6	32.7
87.5°	10.8	10.3	10.8
90°	0.0	0.0	0.0

(END OF REPORT)