

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: P835333

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-1LO-40-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835333
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-LD4-1LO-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

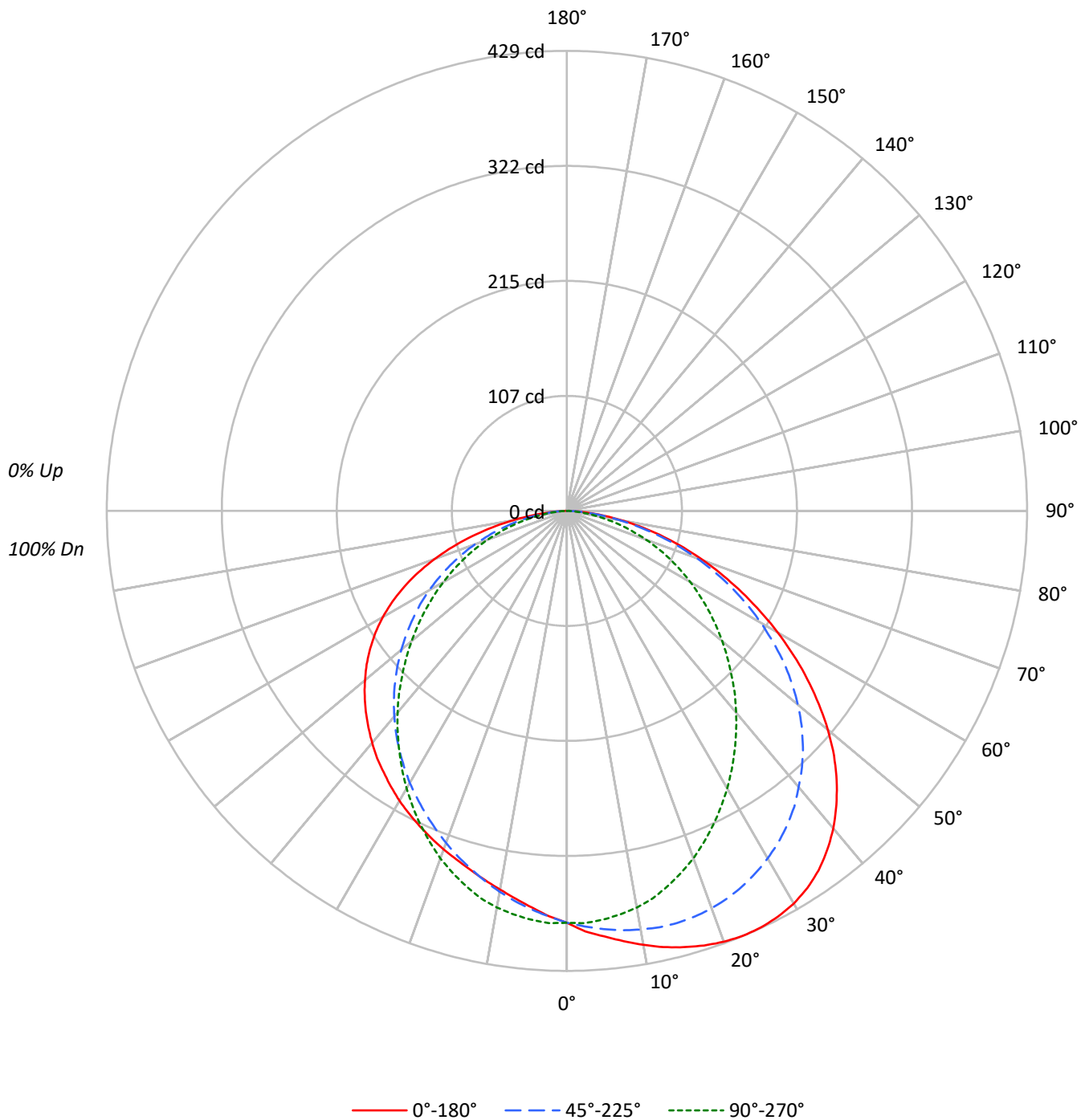
Lumens per Lamp: N/A
Luminaire Lumens: 1129.5 lumens
Efficiency: N/A
Efficacy: 96.5 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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°	1033	1033	1033
5°	1076	1034	1003
10°	1123	1026	980
15°	1173	1010	966
20°	1225	987	962
25°	1273	959	963
30°	1314	929	970
35°	1344	896	978
40°	1358	862	992
45°	1354	826	1008
50°	1330	791	1029
55°	1285	755	1050
60°	1222	716	1067
65°	1147	672	1065
70°	1068	620	1034
75°	969	545	953
80°	832	448	804
85°	636	306	553

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.4	3.2
10°-20°	105.2	9.3
20°-30°	161.1	14.3
30°-40°	196.6	17.4
40°-50°	205.6	18.2
50°-60°	186.1	16.5
60°-70°	141.0	12.5
70°-80°	78.6	7.0
80°-90°	18.9	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°	302.7	26.8
0°-40°	499.3	44.2
0°-60°	891.1	78.9
0°-90°	1129.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1129.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	384	384	384	384	384	
5°	398	392	383	373	371	38
15°	421	398	362	346	347	119
25°	429	386	323	312	324	198
35°	409	358	273	272	298	255
45°	356	311	217	227	265	274
55°	274	247	161	175	224	244
65°	180	170	106	120	167	179
75°	93	88	52	62	92	99
85°	21	18	10	13	18	25
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°	384.0	384.0	384.0	384.0	384.0	384.0	384.0	384.0	384.0	384.0	384.0
2.5°	392.5	390.6	389.1	389.7	390.0	388.9	387.9	388.0	387.0	388.9	384.4
5°	398.3	396.6	394.8	395.5	394.8	393.1	391.6	391.2	388.5	389.6	385.0
7.5°	404.7	402.9	400.3	401.0	399.6	396.3	394.5	393.4	389.3	389.4	384.2
10°	410.9	409.3	405.8	406.3	403.7	399.4	396.4	394.9	389.1	388.3	383.0
12.5°	416.7	414.5	410.8	411.0	407.2	401.5	397.7	395.5	387.9	385.4	380.2
15°	421.2	419.1	414.5	414.5	409.6	402.0	397.8	394.7	385.2	381.2	375.8
17.5°	425.0	423.0	417.4	417.2	411.4	401.8	396.7	392.9	381.1	376.3	370.2
20°	427.6	425.7	419.4	418.8	411.8	400.5	394.4	389.6	375.9	370.1	363.3
22.5°	428.9	427.0	419.8	419.0	410.8	398.0	391.1	385.5	369.8	362.3	355.3
25°	428.6	426.8	418.7	417.9	408.8	394.2	386.5	380.0	362.2	353.3	346.4
27.5°	426.5	425.1	416.6	415.6	405.3	389.1	380.9	373.8	353.7	343.8	336.3
30°	422.9	421.8	412.9	411.9	400.9	383.5	374.3	366.1	344.5	333.4	325.8
32.5°	417.1	416.1	407.1	406.2	395.1	376.3	366.7	358.2	334.6	322.2	314.7
35°	409.2	408.6	399.8	398.8	387.5	368.0	357.9	348.6	324.1	310.2	303.0
37.5°	398.7	398.7	390.2	389.1	378.1	358.0	348.0	338.1	312.4	297.6	290.5
40°	386.5	387.6	379.0	377.9	367.2	347.1	336.2	325.8	299.7	284.4	277.4
42.5°	371.9	372.9	365.7	364.7	354.7	334.6	324.5	313.2	286.5	270.9	263.6
45°	355.8	357.1	350.7	349.9	340.6	321.0	311.2	299.7	272.6	256.8	249.7
47.5°	337.8	339.6	334.0	333.5	324.9	306.9	296.8	285.1	258.1	242.1	235.4
50°	317.7	320.2	315.6	315.6	307.9	290.0	281.2	269.5	243.0	227.0	220.4
52.5°	296.1	299.3	295.9	295.9	289.7	273.6	264.5	253.1	227.2	211.4	205.4
55°	273.8	276.9	274.7	275.0	270.1	255.5	247.2	235.9	211.1	195.7	190.0
57.5°	250.5	253.8	252.4	253.1	249.6	236.5	227.9	218.0	194.5	179.3	174.4
60°	227.0	230.2	229.5	230.4	228.2	216.9	209.0	198.8	177.8	163.2	158.9
62.5°	203.4	206.3	206.1	207.1	206.0	196.6	189.5	180.8	160.5	147.1	143.1
65°	180.2	182.7	182.6	183.6	183.4	175.8	169.5	161.5	143.2	130.9	127.4
67.5°	157.7	159.8	159.2	160.5	160.8	154.8	149.2	142.1	126.7	114.7	111.8
70°	135.7	137.1	136.4	137.2	138.0	133.5	128.8	122.5	109.2	98.6	96.2
72.5°	114.1	115.2	114.0	114.8	115.5	112.2	108.4	102.9	91.9	82.8	80.7
75°	93.2	94.7	92.2	93.1	93.6	90.3	88.0	83.6	74.1	67.1	65.7
77.5°	73.0	73.9	72.5	72.2	72.5	70.2	68.4	65.0	57.8	52.0	51.2
80°	53.7	54.2	52.9	52.5	52.8	51.1	49.8	47.3	42.2	37.9	37.5
82.5°	36.0	36.3	35.1	34.7	34.9	34.4	32.8	31.1	28.7	25.0	24.9
85°	20.6	20.6	19.7	19.4	19.6	18.7	18.1	17.2	16.3	13.8	13.9
87.5°	7.6	7.6	7.1	7.1	7.9	7.0	6.7	6.3	6.5	5.2	5.5
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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	384.0	384.0	384.0	384.0	384.0	384.0	384.0	384.0	384.0	384.0	384.0
2.5°	385.7	384.8	384.1	381.5	382.6	379.9	379.7	378.7	377.9	376.5	378.4
5°	384.4	382.7	380.6	377.4	378.4	375.2	374.5	373.3	372.3	370.5	371.9
7.5°	382.4	379.6	376.2	372.2	373.5	369.6	368.5	367.3	366.5	364.3	365.5
10°	379.5	375.5	371.5	366.7	367.6	363.3	362.1	360.7	360.0	358.1	359.3
12.5°	374.9	370.1	364.7	359.5	360.5	356.5	354.8	353.4	353.1	351.5	353.0
15°	369.1	362.4	356.8	351.3	352.4	347.7	347.0	345.6	346.0	344.9	346.7
17.5°	361.6	353.9	347.8	341.9	343.0	339.1	338.5	337.8	338.2	338.1	340.1
20°	353.2	344.8	337.7	331.9	332.5	329.4	329.7	329.5	330.4	331.3	334.1
22.5°	343.7	334.2	326.8	320.8	321.8	319.1	320.3	320.6	322.0	324.1	327.7
25°	333.0	322.9	315.2	309.5	310.4	308.6	310.6	311.5	313.7	317.3	320.9
27.5°	321.9	311.1	302.9	297.5	299.2	297.5	300.5	302.2	305.6	309.5	313.9
30°	310.0	298.9	290.4	285.5	287.2	285.6	290.5	292.8	296.2	301.5	306.8
32.5°	297.6	285.9	277.6	273.8	275.0	274.7	280.2	282.7	287.3	293.3	299.0
35°	284.9	272.6	264.2	261.0	262.5	262.8	269.3	272.3	277.3	284.6	290.7
37.5°	271.7	259.2	251.0	248.4	249.6	250.9	258.5	261.5	267.2	275.1	281.8
40°	258.0	245.5	237.4	235.3	236.6	237.9	246.3	250.3	256.5	265.1	272.4
42.5°	244.2	231.7	223.8	222.3	223.6	226.2	235.0	238.8	245.3	254.9	262.9
45°	230.1	217.1	210.3	209.1	210.4	213.4	222.1	226.6	233.6	244.1	252.6
47.5°	215.8	203.1	196.7	195.9	197.2	200.6	210.2	214.3	221.7	232.8	242.1
50°	201.4	189.0	182.8	182.6	183.8	187.4	196.6	201.4	209.1	221.6	231.1
52.5°	186.8	174.9	169.3	169.3	170.5	174.2	183.4	188.4	196.3	209.5	220.0
55°	172.1	160.9	155.5	155.9	157.6	160.8	169.8	175.1	183.1	196.7	207.8
57.5°	157.5	146.9	142.0	142.6	144.2	147.4	156.2	162.2	169.4	183.6	194.9
60°	143.1	133.0	128.8	129.4	130.9	134.0	143.2	148.3	155.5	170.0	181.3
62.5°	128.5	119.4	115.3	116.2	117.4	120.6	129.3	134.2	141.3	155.5	166.9
65°	114.1	105.6	102.1	103.0	104.2	107.1	115.2	120.0	126.8	140.7	151.6
67.5°	99.8	92.1	89.2	90.1	91.0	93.8	100.5	105.7	112.1	125.2	135.6
70°	85.7	78.8	76.3	77.1	78.0	80.5	86.4	91.2	97.0	109.1	118.7
72.5°	71.8	65.0	63.8	64.5	65.2	67.4	73.0	76.8	81.9	92.7	100.9
75°	58.2	52.4	51.5	52.3	52.9	54.6	59.3	62.5	66.8	76.1	82.8
77.5°	45.1	40.2	39.9	40.5	41.0	42.2	45.9	49.4	52.7	59.6	65.6
80°	32.8	28.9	28.9	29.5	29.3	30.7	33.3	36.1	38.5	43.5	47.8
82.5°	21.7	18.5	19.0	19.4	19.6	20.2	21.8	23.9	25.4	28.5	31.3
85°	12.0	9.9	10.3	10.7	10.5	11.2	12.0	13.3	14.0	15.4	17.0
87.5°	4.4	3.7	3.8	4.0	4.2	4.5	4.5	5.3	5.4	5.5	5.9
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°	384.0	384.0	384.0
2.5°	374.8	376.9	378.4
5°	368.4	370.1	371.4
7.5°	362.1	363.6	364.8
10°	356.1	357.8	358.6
12.5°	350.0	351.9	352.6
15°	344.0	345.9	346.7
17.5°	337.7	340.3	341.2
20°	332.0	335.1	335.9
22.5°	326.1	329.4	330.3
25°	319.7	323.6	324.5
27.5°	312.9	317.5	318.4
30°	306.1	311.1	312.1
32.5°	298.8	304.3	305.1
35°	291.2	296.6	297.6
37.5°	282.7	288.6	290.7
40°	273.9	280.3	282.4
42.5°	264.6	271.7	273.9
45°	254.7	262.5	265.0
47.5°	244.7	253.5	255.7
50°	233.9	243.2	245.8
52.5°	222.6	232.7	235.3
55°	210.8	221.1	223.9
57.5°	198.1	208.7	211.7
60°	184.7	195.3	198.2
62.5°	171.1	180.6	183.4
65°	155.8	164.8	167.3
67.5°	139.6	147.8	149.9
70°	122.4	129.5	131.4
72.5°	104.4	109.4	111.8
75°	85.9	89.8	91.7
77.5°	67.2	70.0	71.5
80°	49.0	50.6	51.9
82.5°	32.1	32.7	33.7
85°	17.3	17.3	17.9
87.5°	5.9	5.6	5.9
90°	0.0	0.0	0.0

(END OF REPORT)