

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: P835153

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-1LO-20-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835153
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-20-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 2000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

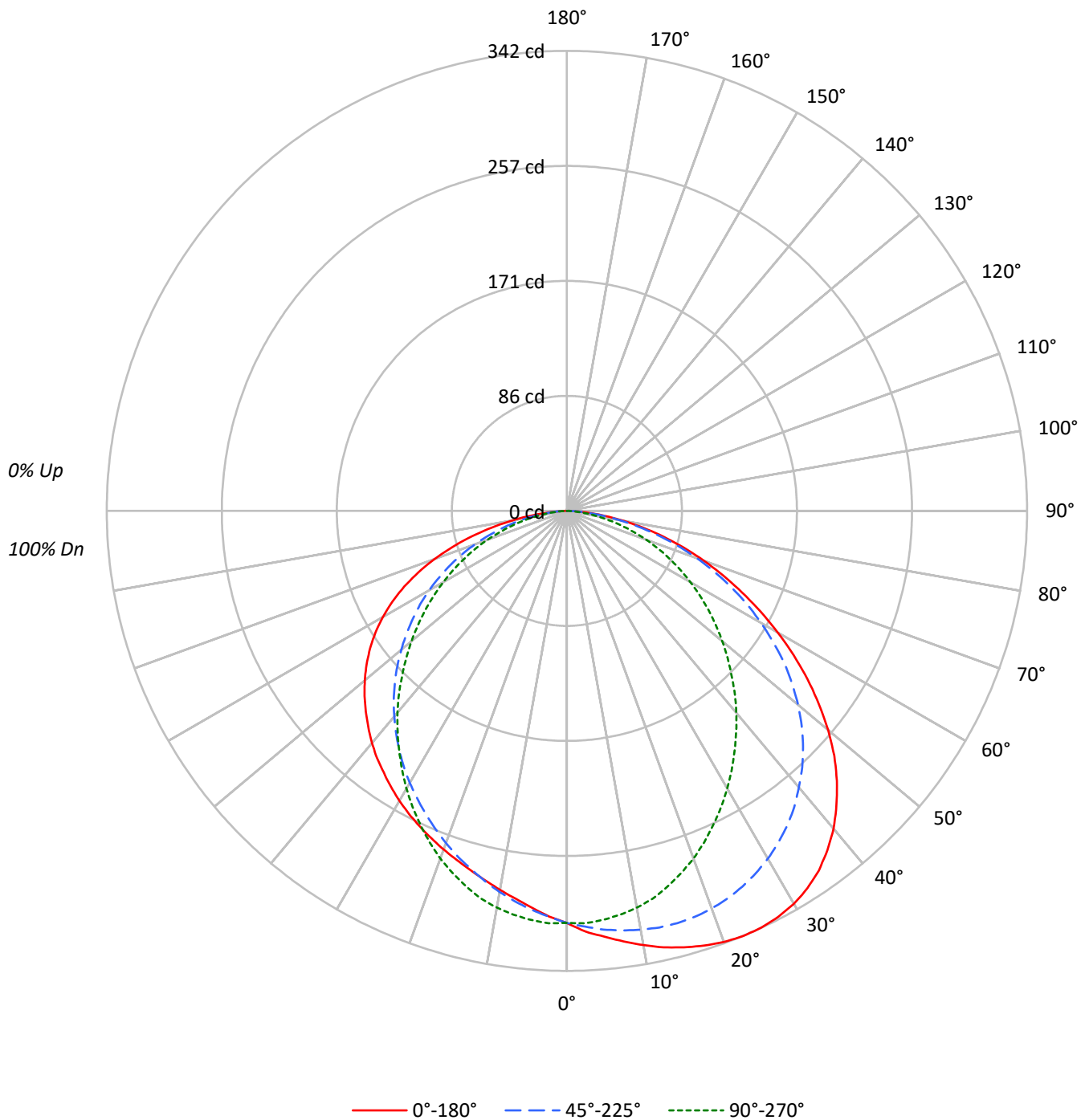
Lumens per Lamp: N/A
Luminaire Lumens: 900.9 lumens
Efficiency: N/A
Efficacy: 77.0 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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°	824	824	824
5°	858	825	800
10°	896	818	782
15°	936	805	771
20°	977	788	767
25°	1015	765	768
30°	1048	741	773
35°	1072	714	780
40°	1083	688	791
45°	1080	659	804
50°	1061	631	821
55°	1025	602	838
60°	975	571	851
65°	915	536	849
70°	852	495	825
75°	774	435	760
80°	663	356	642
85°	506	244	442

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.0	3.2
10°-20°	83.9	9.3
20°-30°	128.5	14.3
30°-40°	156.8	17.4
40°-50°	164.0	18.2
50°-60°	148.4	16.5
60°-70°	112.4	12.5
70°-80°	62.7	7.0
80°-90°	15.1	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°	241.5	26.8
0°-40°	398.3	44.2
0°-60°	710.7	78.9
0°-90°	900.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	900.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	306	306	306	306	306	
5°	318	312	305	298	296	31
15°	336	317	289	276	277	95
25°	342	308	258	248	259	158
35°	326	286	217	217	237	204
45°	284	248	173	181	211	218
55°	218	197	128	140	179	195
65°	144	135	84	96	133	143
75°	74	70	42	50	73	79
85°	16	14	8	11	14	20
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°	306.3	306.3	306.3	306.3	306.3	306.3	306.3	306.3	306.3	306.3	306.3
2.5°	313.0	311.6	310.4	310.8	311.1	310.2	309.4	309.5	308.7	310.2	306.6
5°	317.7	316.3	314.9	315.5	314.9	313.5	312.4	312.0	309.9	310.8	307.1
7.5°	322.8	321.3	319.3	319.9	318.7	316.1	314.6	313.8	310.5	310.6	306.5
10°	327.8	326.5	323.7	324.1	322.0	318.5	316.2	315.0	310.4	309.7	305.5
12.5°	332.4	330.6	327.6	327.8	324.8	320.2	317.2	315.5	309.4	307.4	303.3
15°	335.9	334.3	330.6	330.6	326.7	320.7	317.3	314.8	307.2	304.1	299.7
17.5°	338.9	337.4	332.9	332.8	328.1	320.5	316.4	313.4	304.0	300.1	295.3
20°	341.1	339.6	334.5	334.1	328.4	319.5	314.6	310.8	299.8	295.2	289.8
22.5°	342.1	340.6	334.9	334.2	327.6	317.5	312.0	307.5	295.0	288.9	283.4
25°	341.9	340.4	334.0	333.3	326.1	314.4	308.3	303.1	288.9	281.8	276.3
27.5°	340.2	339.1	332.3	331.5	323.3	310.4	303.8	298.1	282.1	274.2	268.3
30°	337.3	336.5	329.3	328.5	319.8	305.9	298.6	292.0	274.8	265.9	259.9
32.5°	332.7	331.9	324.7	324.0	315.1	300.1	292.5	285.7	266.8	257.0	251.0
35°	326.4	325.9	318.9	318.1	309.1	293.6	285.5	278.0	258.5	247.4	241.7
37.5°	318.0	318.0	311.2	310.4	301.6	285.5	277.6	269.7	249.2	237.4	231.7
40°	308.3	309.2	302.3	301.4	292.9	276.9	268.2	259.9	239.1	226.8	221.3
42.5°	296.6	297.4	291.7	290.9	282.9	266.9	258.8	249.8	228.5	216.0	210.3
45°	283.8	284.9	279.7	279.1	271.7	256.0	248.2	239.1	217.4	204.8	199.2
47.5°	269.5	270.9	266.4	266.0	259.1	244.8	236.7	227.4	205.9	193.1	187.8
50°	253.4	255.4	251.7	251.7	245.6	231.3	224.3	215.0	193.8	181.0	175.8
52.5°	236.2	238.7	236.0	236.1	231.0	218.2	210.9	201.8	181.2	168.6	163.8
55°	218.4	220.9	219.1	219.4	215.4	203.8	197.2	188.1	168.4	156.1	151.6
57.5°	199.8	202.4	201.3	201.8	199.1	188.7	181.8	173.9	155.1	143.0	139.1
60°	181.1	183.6	183.0	183.8	182.0	173.0	166.7	158.5	141.8	130.1	126.7
62.5°	162.2	164.6	164.4	165.2	164.3	156.8	151.2	144.2	128.0	117.3	114.1
65°	143.7	145.7	145.6	146.5	146.3	140.3	135.2	128.8	114.2	104.4	101.6
67.5°	125.8	127.5	127.0	128.0	128.3	123.4	119.0	113.3	101.1	91.5	89.2
70°	108.3	109.4	108.8	109.5	110.1	106.4	102.7	97.7	87.1	78.7	76.7
72.5°	91.0	91.9	90.9	91.6	92.1	89.5	86.4	82.1	73.3	66.0	64.4
75°	74.4	75.5	73.6	74.2	74.6	72.0	70.2	66.7	59.1	53.5	52.4
77.5°	58.2	58.9	57.8	57.6	57.8	56.0	54.6	51.8	46.1	41.5	40.8
80°	42.8	43.2	42.2	41.9	42.1	40.8	39.7	37.7	33.7	30.2	29.9
82.5°	28.7	28.9	28.0	27.7	27.8	27.4	26.2	24.8	22.9	20.0	19.9
85°	16.4	16.4	15.7	15.5	15.6	14.9	14.5	13.7	13.0	11.0	11.1
87.5°	6.0	6.0	5.7	5.6	6.3	5.6	5.4	5.0	5.2	4.2	4.4
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°	306.3	306.3	306.3	306.3	306.3	306.3	306.3	306.3	306.3	306.3	306.3
2.5°	307.6	306.9	306.3	304.3	305.1	303.0	302.9	302.1	301.5	300.3	301.8
5°	306.6	305.3	303.5	301.1	301.8	299.3	298.7	297.8	297.0	295.5	296.6
7.5°	305.0	302.8	300.1	296.9	297.9	294.8	294.0	293.0	292.3	290.5	291.6
10°	302.7	299.5	296.3	292.5	293.2	289.8	288.8	287.7	287.1	285.6	286.6
12.5°	299.0	295.2	290.9	286.7	287.5	284.3	283.0	281.8	281.6	280.4	281.6
15°	294.4	289.1	284.6	280.2	281.1	277.4	276.8	275.6	276.0	275.1	276.6
17.5°	288.4	282.3	277.4	272.7	273.6	270.5	270.0	269.5	269.8	269.7	271.3
20°	281.7	275.0	269.4	264.7	265.2	262.8	263.0	262.8	263.5	264.2	266.4
22.5°	274.1	266.6	260.7	255.9	256.7	254.5	255.5	255.7	256.9	258.5	261.4
25°	265.6	257.5	251.4	246.8	247.6	246.2	247.8	248.4	250.2	253.1	255.9
27.5°	256.7	248.2	241.6	237.3	238.7	237.3	239.7	241.0	243.8	246.8	250.4
30°	247.3	238.4	231.6	227.8	229.1	227.8	231.7	233.5	236.3	240.5	244.7
32.5°	237.4	228.0	221.4	218.4	219.3	219.1	223.5	225.5	229.2	234.0	238.5
35°	227.2	217.4	210.7	208.2	209.3	209.6	214.8	217.2	221.2	227.0	231.8
37.5°	216.7	206.7	200.2	198.1	199.1	200.1	206.2	208.5	213.1	219.5	224.7
40°	205.8	195.8	189.4	187.7	188.7	189.8	196.4	199.6	204.6	211.5	217.2
42.5°	194.7	184.8	178.5	177.3	178.3	180.4	187.4	190.5	195.7	203.3	209.7
45°	183.5	173.1	167.7	166.8	167.8	170.2	177.1	180.8	186.3	194.7	201.5
47.5°	172.1	162.0	156.9	156.3	157.3	160.0	167.6	170.9	176.8	185.7	193.1
50°	160.6	150.8	145.8	145.6	146.6	149.5	156.8	160.7	166.8	176.7	184.3
52.5°	149.0	139.5	135.0	135.0	136.0	138.9	146.3	150.3	156.6	167.1	175.5
55°	137.3	128.3	124.1	124.4	125.7	128.3	135.4	139.7	146.0	156.9	165.8
57.5°	125.7	117.2	113.3	113.7	115.0	117.6	124.6	129.3	135.1	146.4	155.4
60°	114.1	106.1	102.7	103.2	104.4	106.9	114.2	118.3	124.1	135.6	144.6
62.5°	102.5	95.2	92.0	92.7	93.7	96.2	103.1	107.0	112.7	124.1	133.2
65°	91.0	84.2	81.5	82.1	83.1	85.4	91.9	95.7	101.2	112.2	120.9
67.5°	79.6	73.4	71.2	71.8	72.6	74.8	80.1	84.3	89.4	99.9	108.1
70°	68.4	62.9	60.9	61.5	62.2	64.2	68.9	72.7	77.4	87.0	94.7
72.5°	57.2	51.9	50.9	51.5	52.0	53.8	58.2	61.3	65.3	73.9	80.5
75°	46.4	41.8	41.1	41.7	42.2	43.5	47.3	49.9	53.3	60.7	66.1
77.5°	36.0	32.1	31.8	32.3	32.7	33.7	36.6	39.4	42.0	47.5	52.3
80°	26.2	23.0	23.0	23.5	23.4	24.5	26.6	28.8	30.7	34.7	38.2
82.5°	17.3	14.8	15.1	15.5	15.7	16.1	17.4	19.1	20.3	22.7	25.0
85°	9.6	7.9	8.2	8.5	8.4	8.9	9.6	10.6	11.2	12.3	13.5
87.5°	3.5	2.9	3.0	3.2	3.3	3.6	3.6	4.2	4.3	4.4	4.7
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):

	160°	170°	180°
0°	306.3	306.3	306.3
2.5°	299.0	300.6	301.8
5°	293.8	295.2	296.2
7.5°	288.8	290.0	290.9
10°	284.1	285.4	286.1
12.5°	279.2	280.7	281.2
15°	274.3	275.9	276.6
17.5°	269.4	271.4	272.1
20°	264.8	267.3	267.9
22.5°	260.1	262.7	263.4
25°	255.0	258.1	258.8
27.5°	249.6	253.3	254.0
30°	244.2	248.2	248.9
32.5°	238.3	242.7	243.3
35°	232.2	236.6	237.4
37.5°	225.5	230.2	231.8
40°	218.4	223.6	225.3
42.5°	211.1	216.7	218.4
45°	203.2	209.3	211.3
47.5°	195.2	202.2	203.9
50°	186.6	194.0	196.1
52.5°	177.5	185.6	187.7
55°	168.2	176.3	178.6
57.5°	158.0	166.4	168.8
60°	147.3	155.8	158.1
62.5°	136.4	144.1	146.3
65°	124.3	131.4	133.4
67.5°	111.3	117.9	119.6
70°	97.6	103.3	104.8
72.5°	83.3	87.2	89.2
75°	68.5	71.6	73.1
77.5°	53.6	55.8	57.0
80°	39.1	40.4	41.4
82.5°	25.6	26.1	26.8
85°	13.8	13.8	14.3
87.5°	4.7	4.5	4.7
90°	0.0	0.0	0.0

(END OF REPORT)