

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: P835315

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-1LO-35-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835315
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-35-120-EDD-90
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

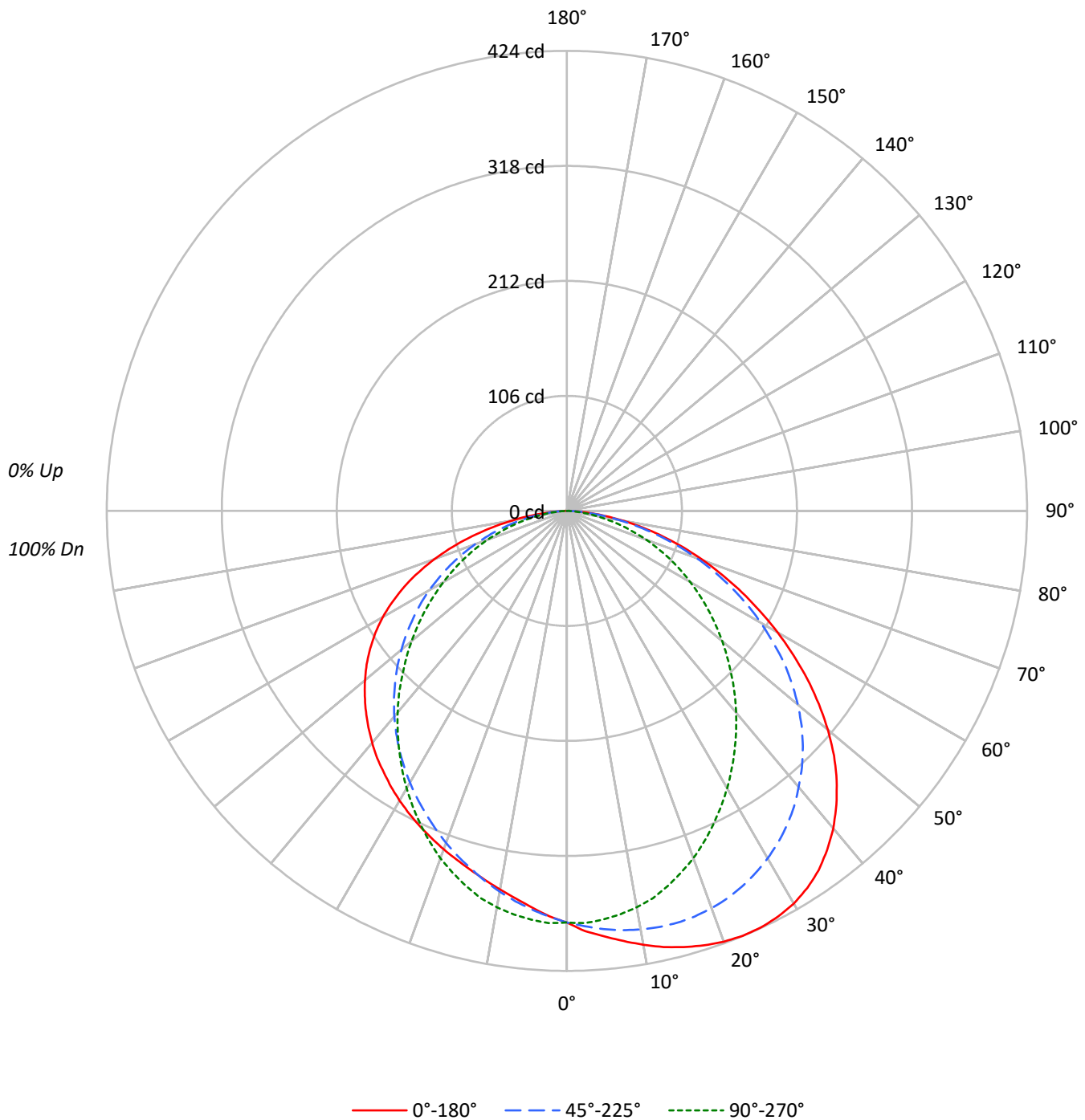
Lumens per Lamp: N/A
Luminaire Lumens: 1116.1 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	1021	1021	1021
5°	1063	1022	991
10°	1109	1014	968
15°	1159	998	954
20°	1210	976	950
25°	1257	947	952
30°	1299	918	958
35°	1328	885	966
40°	1342	852	980
45°	1338	816	996
50°	1314	782	1017
55°	1269	746	1038
60°	1207	707	1054
65°	1134	664	1053
70°	1055	613	1021
75°	958	539	942
80°	823	442	795
85°	627	303	546

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.0	3.2
10°-20°	103.9	9.3
20°-30°	159.2	14.3
30°-40°	194.3	17.4
40°-50°	203.2	18.2
50°-60°	183.9	16.5
60°-70°	139.3	12.5
70°-80°	77.6	7.0
80°-90°	18.7	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°	299.1	26.8
0°-40°	493.4	44.2
0°-60°	880.5	78.9
0°-90°	1116.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1116.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	379	379	379	379	379	
5°	394	387	378	369	367	38
15°	416	393	358	341	343	118
25°	424	382	319	308	321	195
35°	404	354	269	269	294	252
45°	352	308	214	224	262	270
55°	270	244	159	173	221	241
65°	178	167	104	119	165	177
75°	92	87	52	62	91	98
85°	20	18	10	13	18	24
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°	379.4	379.4	379.4	379.4	379.4	379.4	379.4	379.4	379.4	379.4	379.4
2.5°	387.8	386.0	384.5	385.1	385.4	384.2	383.2	383.4	382.4	384.3	379.8
5°	393.5	391.9	390.1	390.8	390.1	388.4	387.0	386.6	383.9	385.0	380.4
7.5°	399.9	398.1	395.5	396.3	394.8	391.6	389.8	388.7	384.6	384.7	379.7
10°	406.0	404.5	401.0	401.5	398.9	394.6	391.7	390.2	384.5	383.7	378.4
12.5°	411.8	409.6	405.9	406.1	402.4	396.7	392.9	390.8	383.3	380.8	375.7
15°	416.2	414.1	409.6	409.5	404.7	397.3	393.0	390.0	380.6	376.7	371.3
17.5°	419.9	418.0	412.4	412.3	406.5	397.0	391.9	388.2	376.6	371.8	365.8
20°	422.5	420.6	414.4	413.8	406.9	395.8	389.7	385.0	371.4	365.7	359.0
22.5°	423.8	421.9	414.8	414.0	405.9	393.3	386.5	380.9	365.4	357.9	351.1
25°	423.5	421.7	413.8	412.9	404.0	389.5	381.9	375.5	357.9	349.1	342.3
27.5°	421.5	420.1	411.7	410.6	400.5	384.5	376.4	369.3	349.5	339.7	332.3
30°	417.9	416.8	407.9	407.0	396.2	378.9	369.9	361.8	340.4	329.4	321.9
32.5°	412.2	411.2	402.2	401.3	390.4	371.8	362.3	354.0	330.6	318.4	310.9
35°	404.3	403.7	395.0	394.0	382.9	363.7	353.6	344.4	320.3	306.5	299.4
37.5°	393.9	393.9	385.6	384.5	373.6	353.7	343.8	334.1	308.7	294.1	287.0
40°	381.9	383.0	374.4	373.4	362.8	343.0	332.2	321.9	296.2	281.0	274.1
42.5°	367.5	368.5	361.3	360.3	350.5	330.7	320.6	309.4	283.1	267.6	260.5
45°	351.6	352.9	346.5	345.7	336.5	317.1	307.5	296.2	269.4	253.7	246.7
47.5°	333.8	335.5	330.0	329.6	321.0	303.3	293.3	281.7	255.0	239.2	232.6
50°	313.9	316.4	311.8	311.8	304.2	286.5	277.8	266.3	240.1	224.3	217.8
52.5°	292.6	295.7	292.3	292.4	286.2	270.4	261.3	250.0	224.5	208.9	202.9
55°	270.5	273.6	271.4	271.8	266.9	252.4	244.2	233.0	208.6	193.4	187.8
57.5°	247.5	250.8	249.4	250.0	246.6	233.7	225.2	215.4	192.2	177.1	172.3
60°	224.3	227.5	226.7	227.7	225.5	214.3	206.5	196.4	175.7	161.2	157.0
62.5°	200.9	203.9	203.7	204.7	203.5	194.2	187.3	178.6	158.6	145.3	141.4
65°	178.1	180.5	180.4	181.5	181.2	173.7	167.4	159.6	141.5	129.3	125.9
67.5°	155.8	157.9	157.3	158.6	158.9	152.9	147.5	140.4	125.2	113.4	110.5
70°	134.1	135.5	134.8	135.6	136.3	131.9	127.2	121.0	107.9	97.4	95.0
72.5°	112.8	113.8	112.6	113.5	114.1	110.9	107.1	101.7	90.8	81.8	79.8
75°	92.1	93.5	91.1	92.0	92.5	89.2	87.0	82.6	73.2	66.3	64.9
77.5°	72.2	73.0	71.7	71.3	71.7	69.3	67.6	64.2	57.1	51.4	50.6
80°	53.1	53.6	52.2	51.9	52.2	50.5	49.2	46.7	41.7	37.4	37.1
82.5°	35.6	35.8	34.7	34.3	34.5	34.0	32.4	30.7	28.4	24.7	24.6
85°	20.3	20.3	19.5	19.2	19.3	18.5	17.9	17.0	16.1	13.6	13.8
87.5°	7.5	7.5	7.0	7.0	7.8	6.9	6.6	6.2	6.5	5.1	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

TEST NUMBER: P835315

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-1LO-35-120-EDD-90

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	379.4	379.4	379.4	379.4	379.4	379.4	379.4	379.4	379.4	379.4	379.4
2.5°	381.1	380.3	379.5	376.9	378.0	375.4	375.2	374.2	373.4	372.0	373.9
5°	379.8	378.2	376.0	373.0	373.9	370.7	370.0	368.9	367.9	366.1	367.5
7.5°	377.8	375.1	371.7	367.8	369.1	365.2	364.2	362.9	362.1	359.9	361.2
10°	374.9	371.0	367.1	362.3	363.2	359.0	357.8	356.4	355.7	353.8	355.0
12.5°	370.5	365.7	360.3	355.2	356.2	352.2	350.6	349.2	348.9	347.3	348.8
15°	364.7	358.1	352.6	347.1	348.2	343.6	342.8	341.4	341.9	340.8	342.6
17.5°	357.3	349.7	343.7	337.8	338.9	335.1	334.5	333.8	334.2	334.1	336.0
20°	349.0	340.7	333.7	327.9	328.6	325.5	325.8	325.6	326.4	327.3	330.1
22.5°	339.6	330.2	322.9	317.0	318.0	315.3	316.5	316.8	318.2	320.3	323.8
25°	329.1	319.0	311.4	305.8	306.7	304.9	306.9	307.8	310.0	313.5	317.1
27.5°	318.1	307.4	299.3	293.9	295.7	293.9	296.9	298.6	302.0	305.8	310.2
30°	306.4	295.3	286.9	282.1	283.8	282.2	287.0	289.3	292.7	297.9	303.1
32.5°	294.1	282.5	274.3	270.5	271.7	271.4	276.8	279.3	283.9	289.9	295.4
35°	281.5	269.4	261.1	257.9	259.3	259.7	266.1	269.0	274.0	281.2	287.2
37.5°	268.5	256.1	248.0	245.4	246.6	247.9	255.4	258.3	264.0	271.9	278.4
40°	254.9	242.6	234.6	232.5	233.8	235.1	243.3	247.3	253.4	262.0	269.1
42.5°	241.3	228.9	221.2	219.7	220.9	223.5	232.2	235.9	242.4	251.9	259.7
45°	227.3	214.5	207.7	206.6	207.9	210.9	219.4	223.9	230.8	241.2	249.6
47.5°	213.2	200.7	194.3	193.6	194.9	198.2	207.7	211.7	219.0	230.1	239.2
50°	199.0	186.8	180.6	180.4	181.6	185.2	194.2	199.0	206.6	218.9	228.3
52.5°	184.5	172.8	167.3	167.3	168.4	172.1	181.2	186.2	194.0	207.0	217.4
55°	170.1	159.0	153.7	154.1	155.7	158.9	167.8	173.0	180.9	194.4	205.3
57.5°	155.7	145.1	140.3	140.9	142.5	145.6	154.3	160.2	167.4	181.4	192.6
60°	141.4	131.4	127.2	127.9	129.3	132.4	141.5	146.5	153.7	167.9	179.1
62.5°	127.0	117.9	114.0	114.8	116.0	119.2	127.7	132.6	139.7	153.7	165.0
65°	112.7	104.3	100.9	101.8	102.9	105.8	113.9	118.6	125.3	139.0	149.8
67.5°	98.6	91.0	88.2	89.0	89.9	92.6	99.3	104.4	110.7	123.7	133.9
70°	84.7	77.9	75.4	76.2	77.0	79.5	85.3	90.1	95.9	107.8	117.3
72.5°	70.9	64.3	63.0	63.8	64.4	66.6	72.2	75.9	80.9	91.6	99.7
75°	57.5	51.8	50.9	51.7	52.2	53.9	58.6	61.8	66.0	75.2	81.9
77.5°	44.5	39.7	39.4	40.0	40.6	41.7	45.4	48.8	52.1	58.9	64.8
80°	32.4	28.5	28.5	29.1	28.9	30.4	32.9	35.7	38.1	43.0	47.3
82.5°	21.4	18.3	18.7	19.2	19.4	20.0	21.6	23.6	25.1	28.1	30.9
85°	11.9	9.8	10.2	10.5	10.4	11.0	11.9	13.1	13.8	15.3	16.8
87.5°	4.4	3.6	3.7	4.0	4.1	4.5	4.5	5.2	5.3	5.5	5.8
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°	379.4	379.4	379.4
2.5°	370.4	372.4	373.9
5°	364.0	365.7	367.0
7.5°	357.8	359.3	360.4
10°	351.9	353.5	354.4
12.5°	345.8	347.7	348.4
15°	339.9	341.8	342.6
17.5°	333.7	336.2	337.1
20°	328.0	331.2	331.9
22.5°	322.2	325.4	326.3
25°	315.9	319.7	320.6
27.5°	309.2	313.7	314.6
30°	302.5	307.4	308.3
32.5°	295.2	300.6	301.5
35°	287.7	293.1	294.1
37.5°	279.3	285.2	287.2
40°	270.6	277.0	279.1
42.5°	261.5	268.5	270.6
45°	251.7	259.3	261.8
47.5°	241.8	250.5	252.6
50°	231.1	240.3	242.9
52.5°	219.9	230.0	232.5
55°	208.3	218.4	221.3
57.5°	195.7	206.2	209.2
60°	182.5	193.0	195.8
62.5°	169.0	178.5	181.2
65°	153.9	162.8	165.3
67.5°	137.9	146.0	148.1
70°	120.9	128.0	129.8
72.5°	103.2	108.1	110.5
75°	84.8	88.7	90.6
77.5°	66.4	69.2	70.7
80°	48.4	50.0	51.3
82.5°	31.7	32.3	33.3
85°	17.1	17.1	17.7
87.5°	5.8	5.6	5.8
90°	0.0	0.0	0.0

(END OF REPORT)