

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: P835297

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-1LO-30-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835297
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-30-120-EDD-90
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

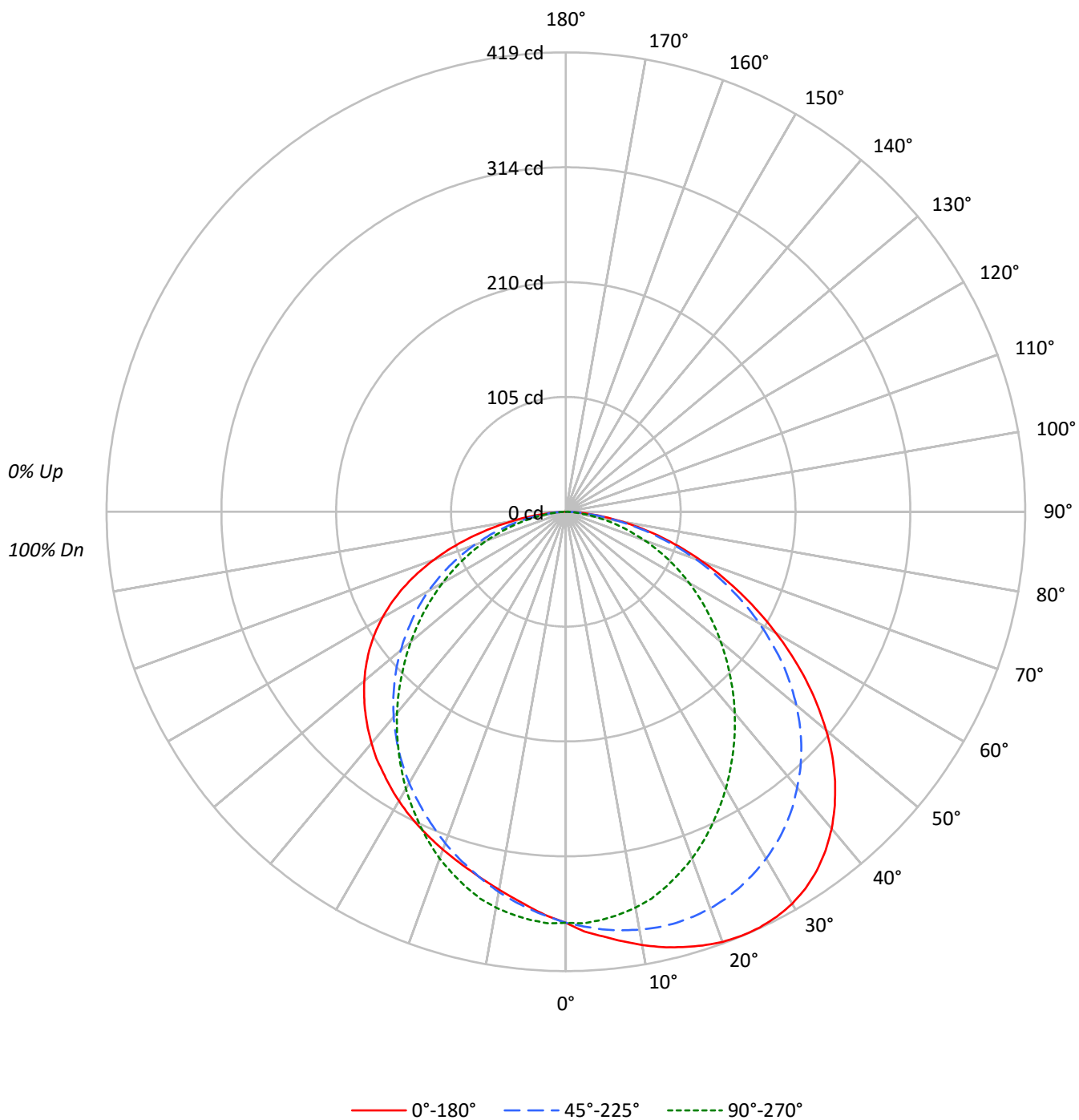
Lumens per Lamp: N/A
Luminaire Lumens: 1102.6 lumens
Efficiency: N/A
Efficacy: 94.2 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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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°	1009	1009	1009
5°	1050	1009	979
10°	1096	1002	957
15°	1145	986	943
20°	1196	964	939
25°	1242	936	941
30°	1283	907	946
35°	1312	874	954
40°	1325	842	968
45°	1322	806	985
50°	1298	772	1005
55°	1254	737	1026
60°	1193	699	1041
65°	1120	656	1040
70°	1042	605	1009
75°	946	531	931
80°	812	437	784
85°	621	299	540

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.6	3.2
10°-20°	102.7	9.3
20°-30°	157.3	14.3
30°-40°	191.9	17.4
40°-50°	200.7	18.2
50°-60°	181.7	16.5
60°-70°	137.6	12.5
70°-80°	76.7	7.0
80°-90°	18.5	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°	295.5	26.8
0°-40°	487.5	44.2
0°-60°	869.9	78.9
0°-90°	1102.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1102.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	375	375	375	375	375	
5°	389	382	374	364	363	37
15°	411	388	354	337	338	117
25°	418	377	315	304	317	193
35°	399	349	266	266	290	249
45°	347	304	212	221	259	267
55°	267	241	157	171	219	239
65°	176	165	103	117	163	174
75°	91	86	51	61	90	97
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°	374.8	374.8	374.8	374.8	374.8	374.8	374.8	374.8	374.8	374.8	374.8
2.5°	383.1	381.3	379.8	380.4	380.7	379.6	378.6	378.8	377.8	379.7	375.3
5°	388.8	387.1	385.4	386.1	385.4	383.7	382.3	381.9	379.3	380.3	375.8
7.5°	395.1	393.3	390.7	391.5	390.1	386.9	385.1	384.0	380.0	380.1	375.1
10°	401.2	399.6	396.2	396.6	394.1	389.8	387.0	385.5	379.8	379.0	373.9
12.5°	406.8	404.7	401.0	401.2	397.5	391.9	388.2	386.1	378.7	376.2	371.2
15°	411.1	409.1	404.7	404.6	399.8	392.5	388.3	385.3	376.0	372.1	366.8
17.5°	414.8	412.9	407.5	407.3	401.6	392.2	387.2	383.5	372.1	367.3	361.4
20°	417.5	415.6	409.4	408.9	402.0	391.0	385.0	380.3	366.9	361.2	354.7
22.5°	418.7	416.8	409.8	409.0	401.0	388.5	381.8	376.3	361.0	353.6	346.8
25°	418.4	416.6	408.8	408.0	399.1	384.8	377.3	371.0	353.5	344.9	338.1
27.5°	416.4	415.0	406.7	405.7	395.7	379.8	371.8	364.9	345.3	335.6	328.3
30°	412.9	411.8	403.0	402.1	391.4	374.4	365.4	357.4	336.3	325.4	318.1
32.5°	407.2	406.2	397.4	396.5	385.7	367.3	358.0	349.7	326.6	314.5	307.2
35°	399.4	398.9	390.3	389.3	378.3	359.3	349.4	340.3	316.4	302.8	295.8
37.5°	389.2	389.2	380.9	379.8	369.1	349.4	339.7	330.0	305.0	290.5	283.6
40°	377.3	378.4	369.9	368.9	358.5	338.9	328.2	318.1	292.6	277.6	270.8
42.5°	363.1	364.0	357.0	356.0	346.3	326.7	316.8	305.7	279.6	264.4	257.4
45°	347.3	348.6	342.3	341.6	332.5	313.3	303.8	292.6	266.1	250.6	243.8
47.5°	329.8	331.5	326.0	325.6	317.2	299.6	289.7	278.3	251.9	236.3	229.8
50°	310.1	312.6	308.1	308.1	300.5	283.1	274.5	263.1	237.2	221.6	215.2
52.5°	289.1	292.2	288.8	288.9	282.8	267.1	258.2	247.0	221.8	206.4	200.5
55°	267.3	270.3	268.2	268.5	263.7	249.4	241.3	230.2	206.1	191.1	185.5
57.5°	244.5	247.8	246.4	247.0	243.7	230.9	222.5	212.8	189.8	175.0	170.3
60°	221.6	224.7	224.0	224.9	222.8	211.7	204.0	194.0	173.5	159.3	155.1
62.5°	198.5	201.4	201.2	202.2	201.1	191.9	185.0	176.5	156.7	143.5	139.7
65°	175.9	178.4	178.2	179.3	179.0	171.7	165.4	157.6	139.8	127.7	124.4
67.5°	154.0	156.0	155.4	156.7	157.0	151.1	145.7	138.7	123.7	112.0	109.1
70°	132.5	133.9	133.1	134.0	134.7	130.3	125.7	119.5	106.6	96.3	93.9
72.5°	111.4	112.4	111.3	112.1	112.7	109.5	105.8	100.5	89.7	80.8	78.8
75°	91.0	92.4	90.0	90.9	91.4	88.2	85.9	81.6	72.3	65.5	64.2
77.5°	71.3	72.1	70.8	70.5	70.8	68.5	66.8	63.4	56.5	50.8	50.0
80°	52.4	52.9	51.6	51.3	51.5	49.9	48.6	46.1	41.2	37.0	36.6
82.5°	35.1	35.4	34.2	33.9	34.1	33.6	32.0	30.3	28.0	24.4	24.3
85°	20.1	20.1	19.3	18.9	19.1	18.3	17.7	16.8	15.9	13.4	13.6
87.5°	7.4	7.4	7.0	6.9	7.7	6.8	6.6	6.1	6.4	5.1	5.4
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°	374.8	374.8	374.8	374.8	374.8	374.8	374.8	374.8	374.8	374.8	374.8
2.5°	376.5	375.7	374.9	372.4	373.5	370.8	370.7	369.7	369.0	367.6	369.4
5°	375.3	373.6	371.5	368.5	369.4	366.2	365.6	364.4	363.5	361.7	363.1
7.5°	373.3	370.6	367.2	363.4	364.6	360.8	359.8	358.5	357.7	355.6	356.8
10°	370.4	366.6	362.6	358.0	358.9	354.7	353.5	352.2	351.4	349.5	350.8
12.5°	366.0	361.3	356.0	350.9	351.9	348.0	346.3	344.9	344.7	343.1	344.6
15°	360.3	353.8	348.3	342.9	344.0	339.5	338.7	337.3	337.7	336.7	338.5
17.5°	353.0	345.5	339.5	333.7	334.9	331.0	330.4	329.8	330.2	330.0	332.0
20°	344.8	336.6	329.7	324.0	324.6	321.6	321.8	321.7	322.5	323.4	326.1
22.5°	335.5	326.3	319.1	313.2	314.1	311.5	312.7	313.0	314.4	316.4	319.9
25°	325.1	315.2	307.7	302.1	303.0	301.3	303.2	304.1	306.3	309.7	313.2
27.5°	314.2	303.7	295.7	290.4	292.1	290.4	293.3	295.0	298.3	302.1	306.4
30°	302.7	291.8	283.5	278.7	280.4	278.8	283.6	285.8	289.1	294.3	299.5
32.5°	290.5	279.1	271.0	267.3	268.4	268.2	273.5	276.0	280.5	286.4	291.9
35°	278.1	266.1	257.9	254.8	256.2	256.5	262.9	265.8	270.7	277.8	283.7
37.5°	265.2	253.0	245.0	242.4	243.7	244.9	252.4	255.2	260.8	268.6	275.1
40°	251.9	239.7	231.8	229.7	231.0	232.3	240.4	244.3	250.4	258.8	265.9
42.5°	238.3	226.1	218.5	217.0	218.3	220.8	229.4	233.1	239.5	248.8	256.6
45°	224.6	211.9	205.2	204.1	205.4	208.4	216.8	221.2	228.0	238.3	246.6
47.5°	210.7	198.3	192.0	191.2	192.5	195.8	205.2	209.2	216.4	227.3	236.3
50°	196.6	184.5	178.5	178.2	179.4	183.0	191.9	196.6	204.1	216.3	225.6
52.5°	182.3	170.8	165.3	165.3	166.4	170.0	179.0	183.9	191.6	204.5	214.7
55°	168.0	157.1	151.8	152.2	153.9	157.0	165.8	170.9	178.7	192.1	202.9
57.5°	153.8	143.4	138.6	139.2	140.8	143.9	152.5	158.3	165.3	179.2	190.3
60°	139.7	129.9	125.7	126.3	127.7	130.8	139.8	144.8	151.8	165.9	177.0
62.5°	125.4	116.5	112.6	113.4	114.6	117.7	126.2	131.0	138.0	151.8	163.0
65°	111.3	103.1	99.7	100.5	101.7	104.5	112.5	117.2	123.8	137.3	148.0
67.5°	97.4	89.9	87.1	87.9	88.8	91.5	98.1	103.2	109.4	122.2	132.3
70°	83.7	76.9	74.5	75.3	76.1	78.6	84.3	89.0	94.7	106.5	115.9
72.5°	70.1	63.5	62.3	63.0	63.7	65.8	71.3	75.0	80.0	90.5	98.5
75°	56.8	51.1	50.3	51.0	51.6	53.3	57.8	61.0	65.2	74.3	80.9
77.5°	44.0	39.2	38.9	39.5	40.1	41.2	44.8	48.2	51.5	58.2	64.0
80°	32.0	28.2	28.2	28.8	28.6	30.0	32.5	35.2	37.6	42.4	46.7
82.5°	21.1	18.1	18.5	18.9	19.2	19.7	21.3	23.4	24.8	27.8	30.6
85°	11.7	9.7	10.1	10.4	10.2	10.9	11.7	12.9	13.7	15.1	16.6
87.5°	4.3	3.6	3.7	3.9	4.1	4.4	4.4	5.2	5.2	5.4	5.7
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°	374.8	374.8	374.8
2.5°	365.9	367.9	369.4
5°	359.6	361.2	362.6
7.5°	353.5	354.9	356.1
10°	347.6	349.3	350.1
12.5°	341.7	343.6	344.2
15°	335.8	337.7	338.5
17.5°	329.7	332.2	333.1
20°	324.1	327.2	327.9
22.5°	318.3	321.5	322.4
25°	312.1	315.9	316.8
27.5°	305.5	310.0	310.9
30°	298.8	303.7	304.6
32.5°	291.7	297.0	297.8
35°	284.2	289.6	290.5
37.5°	276.0	281.8	283.7
40°	267.4	273.7	275.7
42.5°	258.3	265.2	267.4
45°	248.7	256.2	258.7
47.5°	238.9	247.4	249.6
50°	228.4	237.4	240.0
52.5°	217.3	227.2	229.7
55°	205.8	215.8	218.6
57.5°	193.4	203.7	206.6
60°	180.3	190.7	193.4
62.5°	167.0	176.3	179.0
65°	152.1	160.8	163.3
67.5°	136.3	144.3	146.3
70°	119.5	126.4	128.2
72.5°	101.9	106.8	109.1
75°	83.8	87.7	89.5
77.5°	65.6	68.3	69.8
80°	47.8	49.4	50.6
82.5°	31.3	32.0	32.9
85°	16.9	16.9	17.5
87.5°	5.7	5.5	5.7
90°	0.0	0.0	0.0

(END OF REPORT)