

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: P835245

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-1HI-50-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835245
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-LD4-1HI-50-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

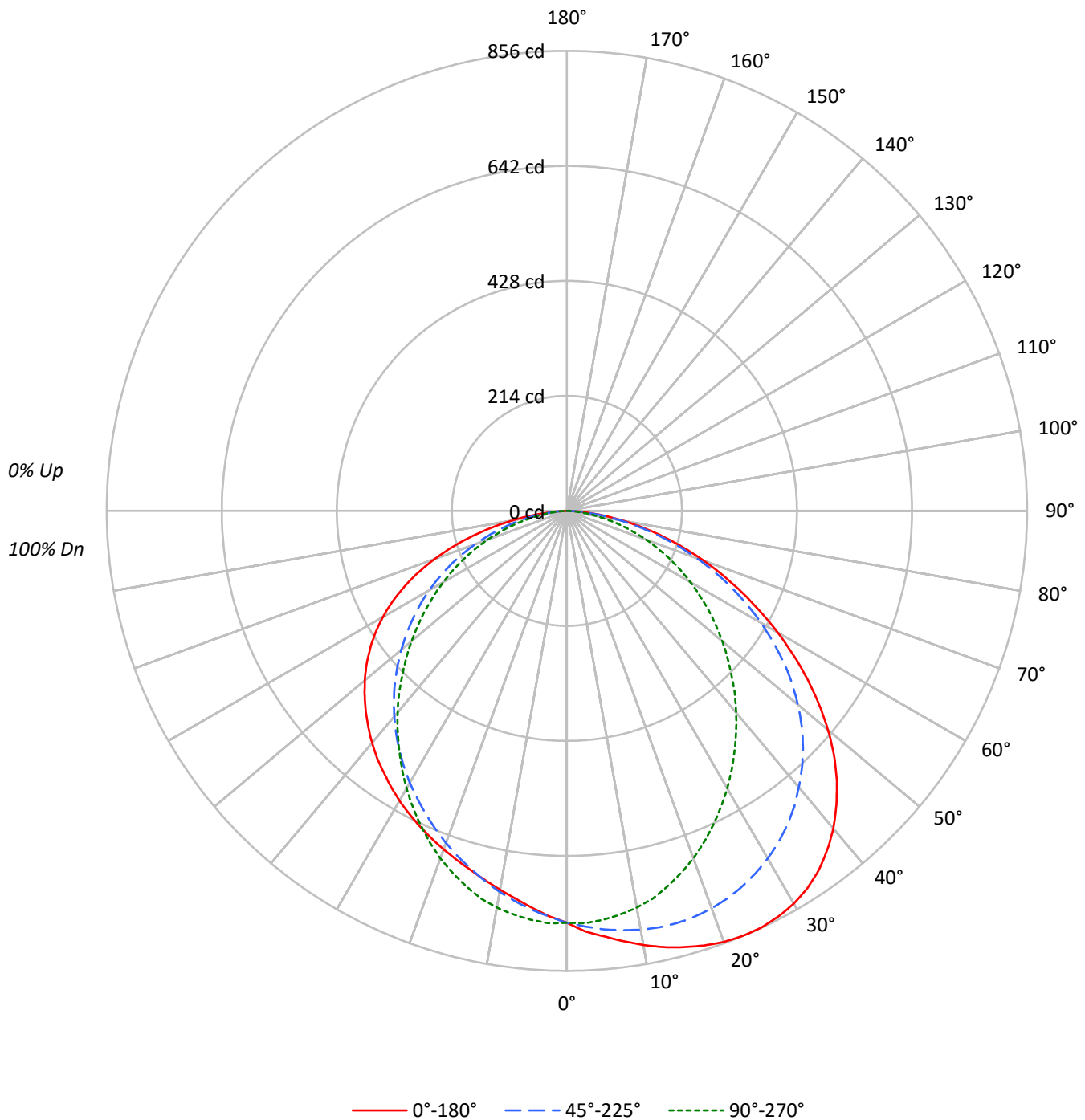
Lumens per Lamp: N/A
Luminaire Lumens: 2254.1 lumens
Efficiency: N/A
Efficacy: 102.5 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 22
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°	2062	2062	2062
5°	2147	2063	2002
10°	2241	2048	1956
15°	2342	2015	1928
20°	2444	1970	1920
25°	2540	1913	1923
30°	2623	1853	1935
35°	2682	1787	1951
40°	2709	1721	1980
45°	2702	1648	2012
50°	2654	1579	2054
55°	2563	1506	2097
60°	2439	1429	2129
65°	2290	1342	2125
70°	2131	1238	2062
75°	1935	1087	1902
80°	1661	893	1604
85°	1266	611	1102

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.7	3.2
10°-20°	209.9	9.3
20°-30°	321.5	14.3
30°-40°	392.4	17.4
40°-50°	410.4	18.2
50°-60°	371.4	16.5
60°-70°	281.3	12.5
70°-80°	156.7	7.0
80°-90°	37.8	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°	604.1	26.8
0°-40°	996.5	44.2
0°-60°	1778.2	78.9
0°-90°	2254.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2254.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	766	766	766	766	766	
5°	795	782	764	745	741	77
15°	840	794	723	690	692	238
25°	855	771	644	622	648	395
35°	816	714	544	543	594	510
45°	710	621	433	452	529	546
55°	546	493	321	349	447	488
65°	360	338	211	240	334	357
75°	186	176	104	125	183	197
85°	41	36	20	26	36	49
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°	766.3	766.3	766.3	766.3	766.3	766.3	766.3	766.3	766.3	766.3	766.3
2.5°	783.2	779.5	776.5	777.7	778.3	776.0	774.0	774.3	772.3	776.2	767.1
5°	794.8	791.4	787.9	789.2	787.9	784.4	781.5	780.7	775.3	777.5	768.3
7.5°	807.7	804.0	798.8	800.3	797.4	790.9	787.2	785.0	776.8	777.0	766.8
10°	820.1	816.9	809.8	810.8	805.6	796.9	791.1	788.1	776.5	774.8	764.3
12.5°	831.6	827.3	819.7	820.2	812.7	801.1	793.6	789.2	774.2	769.1	758.8
15°	840.5	836.3	827.3	827.1	817.4	802.3	793.8	787.7	768.6	760.8	749.9
17.5°	848.0	844.2	833.0	832.6	820.9	801.8	791.6	784.0	760.6	750.9	738.8
20°	853.4	849.5	837.0	835.8	821.7	799.3	787.1	777.5	750.0	738.5	725.1
22.5°	855.9	852.0	837.8	836.1	819.7	794.3	780.5	769.3	738.0	722.9	709.0
25°	855.4	851.7	835.6	834.0	815.9	786.7	771.3	758.4	722.7	705.0	691.3
27.5°	851.2	848.4	831.4	829.3	808.8	776.5	760.1	745.9	705.8	686.1	671.2
30°	844.0	841.8	823.9	821.9	800.1	765.3	747.0	730.6	687.6	665.3	650.2
32.5°	832.4	830.4	812.3	810.5	788.4	750.9	731.8	714.9	667.6	643.0	627.9
35°	816.5	815.4	797.8	795.8	773.3	734.5	714.2	695.6	646.9	619.1	604.7
37.5°	795.6	795.6	778.7	776.5	754.6	714.4	694.4	674.7	623.4	593.9	579.7
40°	771.3	773.5	756.2	754.1	732.8	692.8	671.0	650.2	598.1	567.5	553.6
42.5°	742.2	744.2	729.8	727.8	707.8	667.8	647.5	624.9	571.7	540.5	526.1
45°	710.0	712.7	699.8	698.3	679.7	640.5	621.1	598.1	544.0	512.4	498.3
47.5°	674.2	677.7	666.5	665.6	648.4	612.5	592.3	569.0	515.0	483.1	469.8
50°	634.0	639.0	629.8	629.8	614.4	578.7	561.1	537.8	484.9	452.9	439.8
52.5°	590.9	597.3	590.4	590.6	578.0	546.0	527.8	505.0	453.4	421.9	409.9
55°	546.4	552.6	548.2	548.9	539.0	509.9	493.3	470.7	421.2	390.6	379.2
57.5°	499.8	506.5	503.7	505.0	498.1	472.0	454.7	435.0	388.1	357.8	348.1
60°	453.1	459.4	457.9	459.8	455.4	432.8	417.1	396.6	354.8	325.6	317.1
62.5°	405.8	411.7	411.4	413.4	411.0	392.3	378.2	360.8	320.3	293.5	285.6
65°	359.6	364.6	364.3	366.5	366.0	350.9	338.2	322.3	285.7	261.1	254.3
67.5°	314.7	318.9	317.7	320.3	320.9	308.9	297.8	283.6	252.9	229.0	223.1
70°	270.8	273.7	272.2	273.9	275.4	266.3	256.9	244.4	217.9	196.8	191.9
72.5°	227.8	229.8	227.5	229.1	230.5	223.9	216.2	205.3	183.4	165.1	161.1
75°	186.1	188.9	184.1	185.8	186.8	180.2	175.7	166.8	147.9	133.8	131.1
77.5°	145.7	147.4	144.7	144.0	144.7	140.0	136.5	129.6	115.4	103.8	102.2
80°	107.2	108.2	105.5	104.9	105.4	102.0	99.3	94.3	84.2	75.5	74.9
82.5°	71.9	72.4	70.0	69.3	69.7	68.7	65.5	62.0	57.3	49.9	49.7
85°	41.0	41.0	39.4	38.7	39.0	37.4	36.2	34.3	32.5	27.5	27.8
87.5°	15.1	15.1	14.2	14.1	15.7	13.9	13.4	12.6	13.1	10.4	11.1
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°	766.3	766.3	766.3	766.3	766.3	766.3	766.3	766.3	766.3	766.3	766.3
2.5°	769.6	768.0	766.5	761.3	763.4	758.1	757.7	755.7	754.2	751.4	755.1
5°	767.1	763.8	759.4	753.2	755.1	748.7	747.4	745.0	743.0	739.3	742.2
7.5°	763.1	757.6	750.7	742.8	745.4	737.5	735.5	733.0	731.3	726.9	729.4
10°	757.2	749.4	741.3	731.8	733.6	725.1	722.6	719.9	718.4	714.5	717.0
12.5°	748.2	738.7	727.8	717.4	719.4	711.4	708.0	705.2	704.7	701.5	704.5
15°	736.5	723.2	712.0	701.0	703.3	693.9	692.4	689.6	690.4	688.2	691.9
17.5°	721.6	706.3	694.1	682.2	684.6	676.7	675.5	674.2	675.0	674.7	678.7
20°	704.8	688.1	674.0	662.3	663.6	657.4	657.9	657.6	659.3	661.1	666.6
22.5°	685.9	667.0	652.2	640.2	642.2	636.8	639.2	639.8	642.7	646.9	653.9
25°	664.6	644.4	628.9	617.6	619.4	615.9	619.9	621.6	626.1	633.1	640.3
27.5°	642.3	620.9	604.5	593.6	597.1	593.6	599.6	603.0	609.8	617.6	626.4
30°	618.7	596.4	579.5	569.8	573.2	570.0	579.7	584.2	591.1	601.6	612.2
32.5°	593.9	570.5	553.9	546.4	548.7	548.2	559.1	564.1	573.3	585.4	596.6
35°	568.5	544.0	527.3	520.9	523.8	524.4	537.5	543.4	553.4	568.0	580.0
37.5°	542.2	517.2	500.8	495.6	498.1	500.6	515.9	521.7	533.1	549.0	562.3
40°	514.9	489.9	473.8	469.7	472.2	474.8	491.4	499.5	511.9	529.1	543.5
42.5°	487.2	462.3	446.7	443.7	446.2	451.4	469.0	476.5	489.6	508.7	524.6
45°	459.1	433.1	419.6	417.2	419.9	425.9	443.2	452.2	466.1	487.1	504.2
47.5°	430.6	405.3	392.4	390.9	393.6	400.3	419.4	427.6	442.4	464.6	483.1
50°	401.8	377.2	364.8	364.3	366.8	374.0	392.3	402.0	417.2	442.2	461.1
52.5°	372.7	349.1	337.8	337.8	340.2	347.6	366.0	376.0	391.8	418.1	439.0
55°	343.5	321.1	310.4	311.2	314.6	320.9	338.8	349.4	365.3	392.6	414.7
57.5°	314.4	293.1	283.4	284.6	287.8	294.1	311.7	323.6	338.0	366.3	388.9
60°	285.6	265.5	256.9	258.3	261.1	267.5	285.7	296.0	310.4	339.2	361.8
62.5°	256.4	238.2	230.1	231.8	234.3	240.7	257.9	267.8	282.1	310.4	333.1
65°	227.6	210.7	203.8	205.5	207.9	213.7	230.0	239.5	253.1	280.7	302.5
67.5°	199.2	183.7	178.0	179.7	181.6	187.1	200.5	210.9	223.6	249.9	270.5
70°	171.0	157.3	152.3	153.9	155.6	160.6	172.4	181.9	193.6	217.7	236.8
72.5°	143.2	129.8	127.3	128.8	130.1	134.5	145.7	153.3	163.5	184.9	201.3
75°	116.1	104.5	102.8	104.3	105.5	108.9	118.3	124.8	133.3	151.9	165.3
77.5°	89.9	80.2	79.6	80.7	81.9	84.2	91.6	98.5	105.2	118.9	130.8
80°	65.5	57.6	57.6	58.8	58.5	61.3	66.5	72.0	76.9	86.8	95.5
82.5°	43.2	37.0	37.9	38.7	39.2	40.4	43.5	47.7	50.8	56.8	62.5
85°	24.0	19.8	20.6	21.3	20.9	22.3	24.0	26.5	28.0	30.8	33.8
87.5°	8.9	7.4	7.5	8.0	8.4	9.0	9.0	10.6	10.7	11.1	11.7
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°	766.3	766.3	766.3
2.5°	748.0	752.1	755.1
5°	735.1	738.5	741.2
7.5°	722.6	725.6	727.9
10°	710.7	714.0	715.7
12.5°	698.5	702.3	703.6
15°	686.4	690.2	691.9
17.5°	674.0	679.0	680.9
20°	662.4	668.8	670.3
22.5°	650.7	657.2	659.1
25°	638.0	645.7	647.5
27.5°	624.4	633.6	635.5
30°	610.9	620.9	622.7
32.5°	596.3	607.2	608.8
35°	581.0	591.9	593.9
37.5°	564.1	576.0	580.0
40°	546.5	559.4	563.6
42.5°	528.1	542.2	546.5
45°	508.3	523.8	528.8
47.5°	488.4	505.8	510.2
50°	466.8	485.4	490.6
52.5°	444.2	464.5	469.7
55°	420.7	441.2	446.9
57.5°	395.3	416.4	422.4
60°	368.7	389.8	395.5
62.5°	341.4	360.4	366.0
65°	310.9	328.8	333.8
67.5°	278.5	295.0	299.1
70°	244.2	258.4	262.1
72.5°	208.4	218.2	223.1
75°	171.3	179.2	182.9
77.5°	134.2	139.7	142.7
80°	97.8	101.0	103.5
82.5°	64.0	65.3	67.2
85°	34.5	34.5	35.7
87.5°	11.7	11.2	11.7
90°	0.0	0.0	0.0

(END OF REPORT)