

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: P834271

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-1LO-40-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834271
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-12-4-INS-ASY2-LD4-1LO-40-120-EDD-90
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

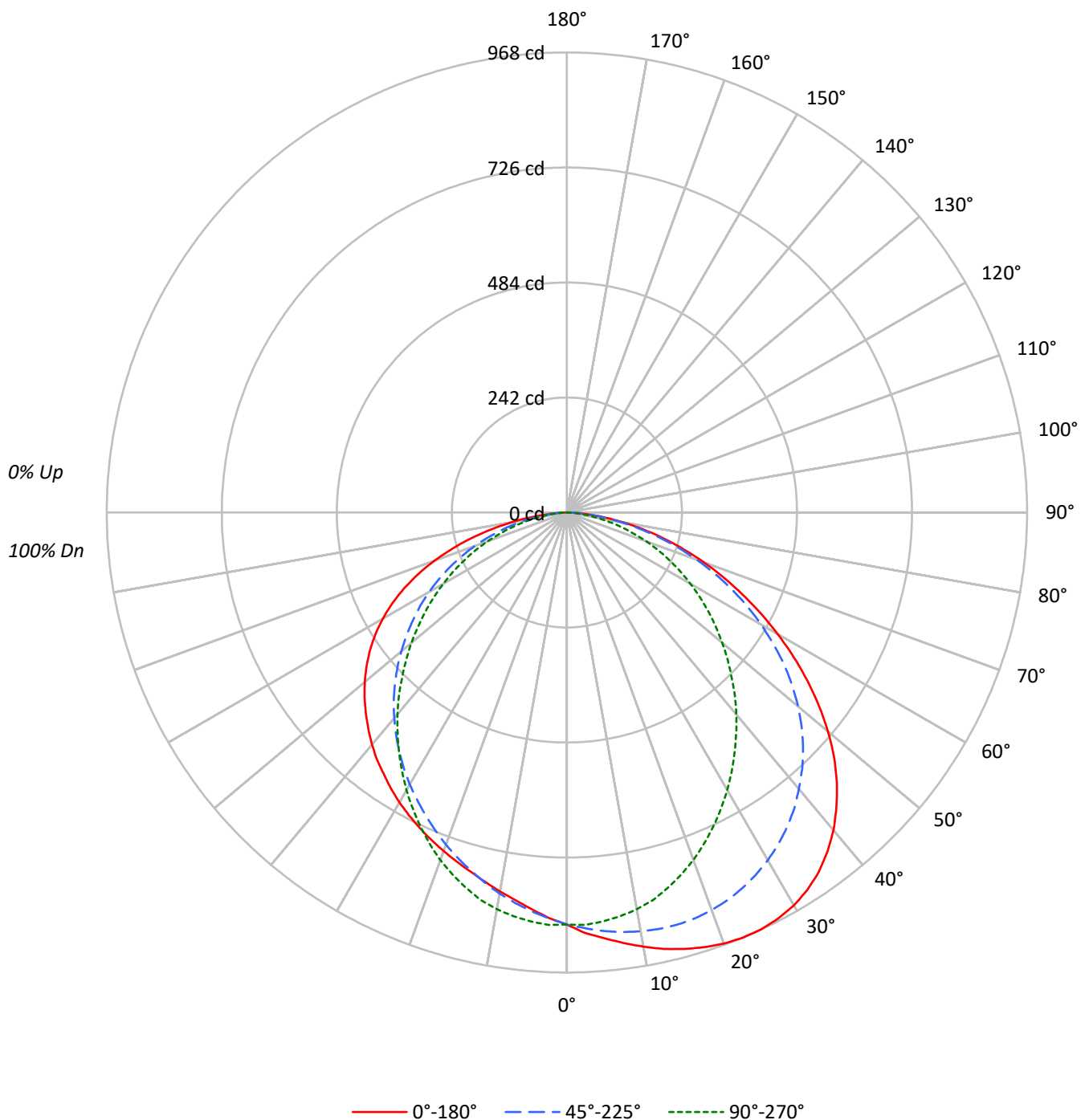
Lumens per Lamp: N/A
Luminaire Lumens: 2549.6 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	94	91	88	90	88	86	86	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	72	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	61	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	52	52	50
5	76	63	54	47	73	61	53	47	59	52	46	57	51	46	55	50	45	45	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	40	40	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	35	35	33
8	60	46	38	32	59	46	38	32	44	37	32	43	36	31	42	36	31	31	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	28	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	26	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2333	2333	2333
5°	2428	2334	2264
10°	2535	2316	2212
15°	2649	2279	2180
20°	2764	2229	2171
25°	2873	2164	2175
30°	2967	2096	2189
35°	3034	2022	2207
40°	3065	1947	2239
45°	3056	1864	2276
50°	3002	1786	2323
55°	2899	1704	2372
60°	2758	1616	2407
65°	2590	1517	2404
70°	2411	1400	2333
75°	2189	1229	2151
80°	1880	1010	1815
85°	1433	692	1247

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.2	3.2
10°-20°	237.4	9.3
20°-30°	363.7	14.3
30°-40°	443.8	17.4
40°-50°	464.2	18.2
50°-60°	420.1	16.5
60°-70°	318.2	12.5
70°-80°	177.3	7.0
80°-90°	42.8	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°	683.3	26.8
0°-40°	1127.1	44.2
0°-60°	2011.4	78.9
0°-90°	2549.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2549.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	867	867	867	867	867	
5°	899	884	864	843	838	87
15°	951	898	818	780	783	270
25°	968	872	729	703	732	446
35°	924	808	615	615	672	577
45°	803	702	490	512	598	618
55°	618	558	363	395	506	551
65°	407	382	238	271	378	404
75°	210	199	118	141	207	223
85°	46	41	22	30	40	56
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°	866.8	866.8	866.8	866.8	866.8	866.8	866.8	866.8	866.8	866.8	866.8
2.5°	885.9	881.7	878.3	879.7	880.4	877.8	875.5	875.9	873.6	877.9	867.7
5°	899.0	895.2	891.2	892.7	891.2	887.2	884.0	883.1	877.0	879.5	869.0
7.5°	913.6	909.4	903.5	905.2	902.0	894.6	890.4	888.0	878.7	878.9	867.3
10°	927.6	924.0	916.0	917.2	911.3	901.4	894.8	891.4	878.3	876.4	864.5
12.5°	940.7	935.7	927.2	927.8	919.2	906.2	897.6	892.7	875.7	870.0	858.2
15°	950.7	946.0	935.7	935.5	924.6	907.5	897.8	891.0	869.4	860.5	848.2
17.5°	959.2	954.9	942.2	941.8	928.5	906.9	895.4	886.8	860.3	849.3	835.7
20°	965.3	960.9	946.7	945.4	929.5	904.1	890.3	879.5	848.4	835.3	820.2
22.5°	968.1	963.8	947.7	945.8	927.2	898.4	882.9	870.2	834.7	817.7	802.0
25°	967.6	963.4	945.2	943.3	922.8	889.9	872.5	857.9	817.5	797.4	781.9
27.5°	962.8	959.6	940.5	938.0	914.9	878.3	859.8	843.7	798.4	776.0	759.2
30°	954.7	952.2	931.9	929.7	905.0	865.6	845.0	826.4	777.7	752.5	735.5
32.5°	941.6	939.3	918.9	916.8	891.8	849.3	827.7	808.6	755.2	727.3	710.3
35°	923.6	922.3	902.4	900.1	874.7	830.8	807.8	786.8	731.7	700.2	683.9
37.5°	899.9	899.9	880.8	878.3	853.5	808.0	785.5	763.1	705.2	671.8	655.7
40°	872.5	874.9	855.4	852.9	828.9	783.6	759.0	735.5	676.6	641.9	626.2
42.5°	839.5	841.8	825.5	823.2	800.6	755.4	732.4	706.9	646.6	611.4	595.1
45°	803.1	806.1	791.6	789.8	768.8	724.5	702.5	676.6	615.4	579.5	563.6
47.5°	762.6	766.5	753.9	752.9	733.4	692.8	669.9	643.6	582.6	546.4	531.4
50°	717.1	722.8	712.4	712.4	694.9	654.6	634.7	608.3	548.5	512.3	497.5
52.5°	668.4	675.6	667.8	668.0	653.8	617.6	597.0	571.2	512.9	477.2	463.6
55°	618.0	625.0	620.1	620.9	609.7	576.7	558.0	532.4	476.5	441.8	428.9
57.5°	565.3	572.9	569.7	571.2	563.4	533.9	514.4	492.0	439.0	404.7	393.7
60°	512.5	519.7	518.0	520.1	515.1	489.6	471.7	448.6	401.3	368.3	358.6
62.5°	459.1	465.7	465.3	467.6	464.9	443.7	427.8	408.1	362.2	331.9	323.0
65°	406.8	412.4	412.1	414.5	414.0	396.9	382.5	364.5	323.2	295.4	287.6
67.5°	356.0	360.7	359.4	362.2	363.0	349.4	336.9	320.8	286.1	259.0	252.4
70°	306.4	309.6	307.9	309.8	311.5	301.2	290.6	276.4	246.5	222.6	217.1
72.5°	257.7	259.9	257.3	259.2	260.7	253.3	244.6	232.3	207.5	186.8	182.3
75°	210.5	213.7	208.2	210.1	211.2	203.9	198.7	188.7	167.3	151.4	148.3
77.5°	164.8	166.7	163.7	162.9	163.7	158.4	154.4	146.6	130.5	117.5	115.6
80°	121.3	122.4	119.4	118.6	119.2	115.4	112.3	106.7	95.3	85.4	84.7
82.5°	81.3	81.8	79.2	78.4	78.8	77.7	74.1	70.1	64.8	56.5	56.3
85°	46.4	46.4	44.5	43.8	44.1	42.2	40.9	38.8	36.8	31.1	31.4
87.5°	17.1	17.1	16.1	15.9	17.8	15.7	15.2	14.2	14.8	11.7	12.5
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°	866.8	866.8	866.8	866.8	866.8	866.8	866.8	866.8	866.8	866.8	866.8
2.5°	870.6	868.7	867.0	861.1	863.5	857.5	857.1	854.8	853.1	849.9	854.1
5°	867.7	863.9	859.0	852.0	854.1	846.9	845.4	842.7	840.4	836.3	839.5
7.5°	863.2	856.9	849.1	840.2	843.1	834.2	831.9	829.1	827.2	822.2	825.1
10°	856.5	847.6	838.5	827.7	829.8	820.2	817.3	814.3	812.6	808.2	811.1
12.5°	846.3	835.5	823.2	811.4	813.7	804.6	800.8	797.6	797.0	793.4	796.9
15°	833.0	818.1	805.4	792.9	795.5	784.9	783.2	780.0	780.9	778.5	782.6
17.5°	816.2	798.9	785.1	771.7	774.3	765.4	764.1	762.6	763.5	763.1	767.7
20°	797.2	778.3	762.4	749.1	750.6	743.6	744.2	743.8	745.7	747.8	754.0
22.5°	775.8	754.4	737.7	724.1	726.4	720.3	723.0	723.7	726.9	731.7	739.6
25°	751.8	728.8	711.4	698.5	700.6	696.6	701.2	703.1	708.2	716.1	724.3
27.5°	726.6	702.3	683.8	671.4	675.4	671.4	678.3	682.0	689.8	698.5	708.6
30°	699.9	674.7	655.5	644.5	648.3	644.7	655.7	660.8	668.6	680.5	692.5
32.5°	671.8	645.3	626.5	618.0	620.7	620.1	632.4	638.1	648.5	662.2	674.8
35°	643.0	615.4	596.4	589.2	592.4	593.2	608.0	614.6	626.0	642.4	656.1
37.5°	613.3	585.0	566.5	560.6	563.4	566.3	583.5	590.2	603.0	621.0	636.0
40°	582.4	554.2	536.0	531.2	534.1	537.1	555.9	565.0	579.0	598.5	614.8
42.5°	551.1	522.9	505.3	501.9	504.7	510.6	530.5	539.0	553.8	575.4	593.4
45°	519.3	489.9	474.6	471.9	475.0	481.8	501.3	511.5	527.3	550.9	570.3
47.5°	487.1	458.5	443.9	442.2	445.2	452.8	474.4	483.7	500.4	525.6	546.4
50°	454.5	426.7	412.6	412.1	414.9	423.1	443.7	454.7	471.9	500.2	521.6
52.5°	421.5	394.8	382.1	382.1	384.8	393.1	414.0	425.3	443.1	472.9	496.6
55°	388.6	363.2	351.1	352.0	355.8	363.0	383.3	395.2	413.2	444.1	469.1
57.5°	355.6	331.6	320.6	321.9	325.5	332.7	352.6	366.0	382.3	414.3	439.9
60°	323.0	300.3	290.6	292.1	295.4	302.6	323.2	334.8	351.1	383.7	409.2
62.5°	290.1	269.4	260.3	262.2	265.1	272.3	291.8	302.9	319.0	351.1	376.8
65°	257.5	238.3	230.6	232.5	235.1	241.7	260.1	270.9	286.3	317.5	342.2
67.5°	225.3	207.8	201.4	203.3	205.4	211.6	226.8	238.5	252.9	282.7	306.0
70°	193.4	177.9	172.2	174.1	176.0	181.7	195.0	205.8	219.0	246.3	267.9
72.5°	162.0	146.8	144.0	145.7	147.2	152.1	164.8	173.4	184.9	209.2	227.7
75°	131.3	118.2	116.3	118.0	119.4	123.1	133.8	141.1	150.8	171.8	187.0
77.5°	101.7	90.8	90.0	91.3	92.6	95.3	103.6	111.4	119.0	134.5	148.0
80°	74.1	65.2	65.2	66.5	66.1	69.3	75.2	81.5	87.0	98.1	108.0
82.5°	48.9	41.9	42.8	43.8	44.3	45.7	49.3	54.0	57.4	64.2	70.7
85°	27.1	22.4	23.3	24.1	23.7	25.2	27.1	29.9	31.6	34.9	38.3
87.5°	10.0	8.3	8.5	9.1	9.5	10.2	10.2	11.9	12.1	12.5	13.3
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°	866.8	866.8	866.8
2.5°	846.1	850.7	854.1
5°	831.5	835.3	838.3
7.5°	817.3	820.7	823.4
10°	803.9	807.7	809.6
12.5°	790.0	794.4	795.9
15°	776.4	780.8	782.6
17.5°	762.4	768.1	770.1
20°	749.3	756.5	758.2
22.5°	736.0	743.4	745.5
25°	721.6	730.4	732.4
27.5°	706.3	716.7	718.8
30°	691.0	702.3	704.4
32.5°	674.5	686.8	688.7
35°	657.2	669.5	671.8
37.5°	638.1	651.5	656.1
40°	618.2	632.8	637.5
42.5°	597.4	613.3	618.2
45°	575.0	592.4	598.1
47.5°	552.5	572.2	577.1
50°	528.0	549.0	554.9
52.5°	502.4	525.4	531.2
55°	475.9	499.0	505.5
57.5°	447.1	471.0	477.8
60°	417.0	440.9	447.3
62.5°	386.1	407.7	414.0
65°	351.6	371.9	377.6
67.5°	315.1	333.6	338.4
70°	276.2	292.3	296.5
72.5°	235.7	246.9	252.4
75°	193.8	202.7	206.9
77.5°	151.8	158.0	161.4
80°	110.6	114.2	117.1
82.5°	72.4	73.9	76.0
85°	39.0	39.0	40.4
87.5°	13.3	12.7	13.3
90°	0.0	0.0	0.0

(END OF REPORT)