

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: P834253

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-1LO-30-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834253
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-30-120-EDD-90
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

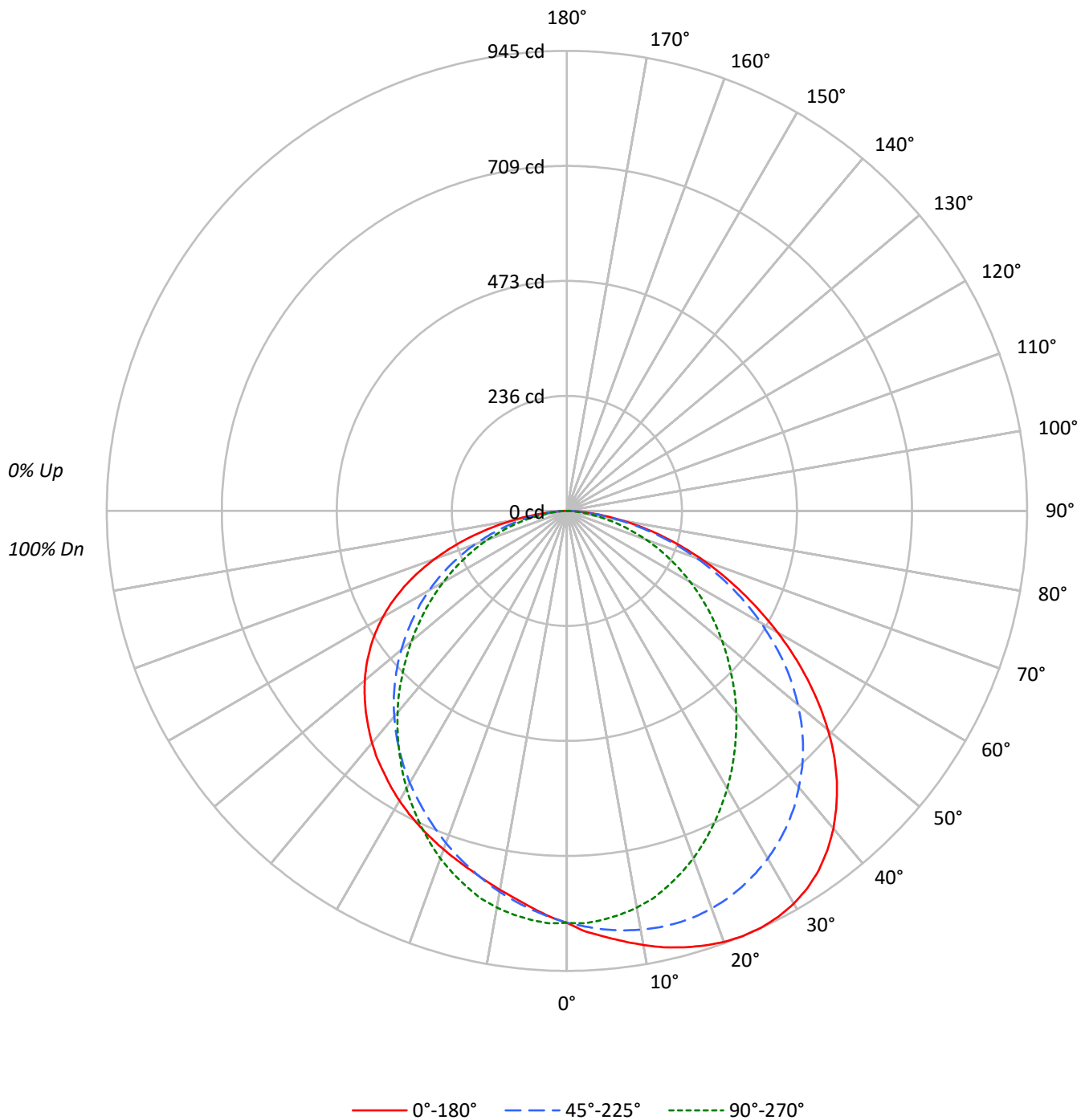
Lumens per Lamp: N/A
Luminaire Lumens: 2488.9 lumens
Efficiency: N/A
Efficacy: 106.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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
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°	2277	2277	2277
5°	2371	2278	2211
10°	2474	2261	2159
15°	2586	2225	2128
20°	2698	2176	2120
25°	2804	2113	2123
30°	2896	2046	2137
35°	2962	1973	2154
40°	2992	1900	2186
45°	2984	1820	2222
50°	2930	1744	2268
55°	2830	1663	2315
60°	2693	1577	2350
65°	2528	1482	2347
70°	2353	1367	2277
75°	2137	1200	2100
80°	1835	986	1771
85°	1399	673	1216

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.2	3.2
10°-20°	231.7	9.3
20°-30°	355.0	14.3
30°-40°	433.3	17.4
40°-50°	453.1	18.2
50°-60°	410.1	16.5
60°-70°	310.6	12.5
70°-80°	173.1	7.0
80°-90°	41.7	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°	667.0	26.8
0°-40°	1100.3	44.2
0°-60°	1963.5	78.9
0°-90°	2488.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2488.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	846	846	846	846	846	
5°	878	863	843	823	818	85
15°	928	876	799	761	764	263
25°	944	852	712	686	715	436
35°	902	789	601	600	656	563
45°	784	686	478	499	584	603
55°	603	545	354	386	493	538
65°	397	373	233	264	369	394
75°	206	194	115	138	202	218
85°	45	40	22	29	39	55
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°	846.1	846.1	846.1	846.1	846.1	846.1	846.1	846.1	846.1	846.1	846.1
2.5°	864.8	860.7	857.4	858.7	859.4	856.9	854.6	855.0	852.8	857.0	847.1
5°	877.6	873.9	870.0	871.5	870.0	866.1	863.0	862.0	856.1	858.5	848.3
7.5°	891.8	887.7	882.0	883.7	880.5	873.3	869.2	866.8	857.8	858.0	846.7
10°	905.5	902.0	894.2	895.3	889.6	880.0	873.5	870.2	857.4	855.6	843.9
12.5°	918.3	913.5	905.1	905.7	897.4	884.6	876.3	871.5	854.8	849.3	837.8
15°	928.1	923.4	913.5	913.3	902.5	885.9	876.5	869.8	848.7	840.0	828.0
17.5°	936.4	932.1	919.7	919.4	906.4	885.3	874.1	865.7	839.8	829.1	815.8
20°	942.3	938.0	924.2	922.9	907.3	882.6	869.1	858.5	828.2	815.4	800.6
22.5°	945.1	940.8	925.1	923.3	905.1	877.0	861.9	849.5	814.9	798.2	782.9
25°	944.5	940.5	922.7	920.8	900.9	868.7	851.7	837.4	798.0	778.4	763.3
27.5°	939.9	936.8	918.1	915.7	893.1	857.4	839.3	823.6	779.4	757.5	741.1
30°	931.9	929.5	909.8	907.5	883.5	845.0	824.9	806.7	759.2	734.6	718.0
32.5°	919.2	917.0	897.0	895.0	870.5	829.1	808.0	789.4	737.2	710.0	693.4
35°	901.6	900.3	880.9	878.7	853.9	811.0	788.6	768.1	714.3	683.6	667.7
37.5°	878.5	878.5	859.8	857.4	833.2	788.8	766.8	745.0	688.4	655.8	640.1
40°	851.7	854.1	835.0	832.6	809.1	764.9	740.9	718.0	660.4	626.6	611.2
42.5°	819.5	821.7	805.8	803.6	781.6	737.4	715.0	690.0	631.2	596.8	580.9
45°	784.0	786.9	772.7	771.0	750.5	707.2	685.8	660.4	600.7	565.8	550.2
47.5°	744.4	748.3	735.9	735.0	715.9	676.3	654.0	628.3	568.7	533.4	518.8
50°	700.0	705.6	695.4	695.4	678.4	639.0	619.6	593.9	535.4	500.1	485.7
52.5°	652.5	659.5	651.9	652.1	638.2	602.9	582.8	557.6	500.6	465.9	452.6
55°	603.3	610.1	605.3	606.1	595.2	563.0	544.7	519.7	465.1	431.3	418.7
57.5°	551.9	559.3	556.1	557.6	550.0	521.2	502.1	480.3	428.5	395.0	384.3
60°	500.3	507.3	505.6	507.7	502.9	477.9	460.5	438.0	391.7	359.5	350.1
62.5°	448.1	454.6	454.2	456.4	453.9	433.1	417.6	398.4	353.6	324.0	315.3
65°	397.1	402.6	402.3	404.7	404.1	387.5	373.4	355.8	315.5	288.3	280.7
67.5°	347.5	352.1	350.8	353.6	354.4	341.0	328.8	313.1	279.3	252.8	246.3
70°	299.1	302.2	300.5	302.4	304.1	294.1	283.7	269.8	240.6	217.3	211.9
72.5°	251.5	253.7	251.2	253.0	254.5	247.3	238.8	226.7	202.5	182.4	177.9
75°	205.5	208.6	203.3	205.1	206.2	199.0	194.0	184.2	163.3	147.8	144.8
77.5°	160.9	162.8	159.8	159.1	159.8	154.6	150.7	143.1	127.4	114.7	112.8
80°	118.4	119.5	116.5	115.8	116.3	112.6	109.7	104.1	93.0	83.4	82.7
82.5°	79.3	79.9	77.3	76.6	76.9	75.8	72.3	68.4	63.3	55.1	54.9
85°	45.3	45.3	43.5	42.7	43.1	41.2	39.9	37.9	35.9	30.3	30.7
87.5°	16.6	16.6	15.7	15.5	17.4	15.4	14.8	13.9	14.4	11.5	12.2
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°	846.1	846.1	846.1	846.1	846.1	846.1	846.1	846.1	846.1	846.1	846.1
2.5°	849.8	848.0	846.3	840.6	843.0	837.1	836.7	834.5	832.8	829.7	833.7
5°	847.1	843.4	838.5	831.7	833.7	826.7	825.2	822.6	820.4	816.4	819.5
7.5°	842.6	836.5	828.9	820.2	823.0	814.3	812.1	809.3	807.5	802.7	805.4
10°	836.1	827.5	818.6	808.0	810.1	800.6	797.9	794.9	793.2	789.0	791.8
12.5°	826.2	815.6	803.6	792.1	794.3	785.5	781.8	778.6	778.1	774.6	777.9
15°	813.2	798.6	786.2	774.0	776.6	766.2	764.6	761.4	762.3	759.9	764.0
17.5°	796.7	779.9	766.4	753.3	755.9	747.2	745.9	744.4	745.3	745.0	749.4
20°	778.3	759.8	744.2	731.3	732.8	725.9	726.5	726.1	727.9	730.0	736.1
22.5°	757.4	736.5	720.2	706.9	709.1	703.2	705.8	706.5	709.6	714.3	722.0
25°	733.9	711.5	694.5	681.9	683.9	680.0	684.5	686.3	691.3	699.1	707.0
27.5°	709.3	685.6	667.5	655.4	659.3	655.4	662.1	665.8	673.4	681.9	691.7
30°	683.2	658.6	639.9	629.2	632.9	629.4	640.1	645.1	652.7	664.3	676.0
32.5°	655.8	629.9	611.6	603.3	605.9	605.3	617.4	622.9	633.1	646.4	658.8
35°	627.7	600.7	582.2	575.2	578.3	579.1	593.5	600.0	611.1	627.2	640.5
37.5°	598.7	571.1	553.0	547.3	550.0	552.8	569.6	576.1	588.7	606.3	620.9
40°	568.5	541.0	523.2	518.6	521.4	524.3	542.6	551.5	565.2	584.2	600.2
42.5°	538.0	510.5	493.3	489.9	492.7	498.4	517.8	526.2	540.6	561.7	579.3
45°	506.9	478.3	463.3	460.7	463.7	470.3	489.4	499.4	514.7	537.8	556.7
47.5°	475.5	447.6	433.3	431.7	434.6	442.0	463.1	472.2	488.4	513.0	533.4
50°	443.7	416.5	402.8	402.3	405.0	413.0	433.1	443.9	460.7	488.3	509.2
52.5°	411.5	385.4	373.0	373.0	375.6	383.8	404.1	415.2	432.6	461.6	484.7
55°	379.3	354.5	342.7	343.6	347.3	354.4	374.1	385.8	403.4	433.5	457.9
57.5°	347.1	323.7	312.9	314.2	317.7	324.8	344.2	357.3	373.2	404.5	429.4
60°	315.3	293.1	283.7	285.2	288.3	295.4	315.5	326.8	342.7	374.5	399.5
62.5°	283.2	263.0	254.1	256.0	258.7	265.8	284.8	295.7	311.4	342.7	367.9
65°	251.3	232.7	225.1	226.9	229.5	236.0	253.9	264.5	279.5	310.0	334.0
67.5°	219.9	202.9	196.6	198.4	200.5	206.6	221.4	232.8	246.9	275.9	298.7
70°	188.8	173.7	168.1	170.0	171.8	177.4	190.3	200.9	213.8	240.4	261.5
72.5°	158.1	143.3	140.6	142.2	143.7	148.5	160.9	169.2	180.5	204.2	222.3
75°	128.2	115.4	113.6	115.2	116.5	120.2	130.6	137.8	147.2	167.7	182.5
77.5°	99.3	88.6	87.8	89.1	90.4	93.0	101.2	108.7	116.1	131.3	144.4
80°	72.3	63.6	63.6	64.9	64.5	67.7	73.4	79.5	84.9	95.8	105.4
82.5°	47.7	40.9	41.8	42.7	43.3	44.6	48.1	52.7	56.0	62.7	69.0
85°	26.4	21.8	22.7	23.5	23.1	24.6	26.4	29.2	30.9	34.0	37.4
87.5°	9.8	8.1	8.3	8.9	9.2	10.0	10.0	11.7	11.8	12.2	12.9
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°	846.1	846.1	846.1
2.5°	826.0	830.4	833.7
5°	811.7	815.4	818.4
7.5°	797.9	801.2	803.8
10°	784.7	788.4	790.3
12.5°	771.2	775.5	777.0
15°	757.9	762.2	764.0
17.5°	744.2	749.8	751.8
20°	731.5	738.5	740.2
22.5°	718.5	725.7	727.8
25°	704.5	713.0	715.0
27.5°	689.5	699.7	701.7
30°	674.5	685.6	687.6
32.5°	658.4	670.4	672.3
35°	641.6	653.6	655.8
37.5°	622.9	636.0	640.5
40°	603.5	617.7	622.3
42.5°	583.1	598.7	603.5
45°	561.3	578.3	583.9
47.5°	539.3	558.5	563.3
50°	515.4	536.0	541.7
52.5°	490.5	512.9	518.6
55°	464.6	487.1	493.4
57.5°	436.5	459.8	466.4
60°	407.1	430.4	436.7
62.5°	376.9	398.0	404.1
65°	343.3	363.0	368.6
67.5°	307.6	325.7	330.3
70°	269.7	285.4	289.4
72.5°	230.1	241.0	246.3
75°	189.2	197.9	202.0
77.5°	148.1	154.2	157.6
80°	108.0	111.5	114.3
82.5°	70.6	72.1	74.2
85°	38.1	38.1	39.4
87.5°	12.9	12.4	12.9
90°	0.0	0.0	0.0

(END OF REPORT)