

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: P834182

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-1STD-20-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834182
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-LD4-1STD-20-120-EDD
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 2000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

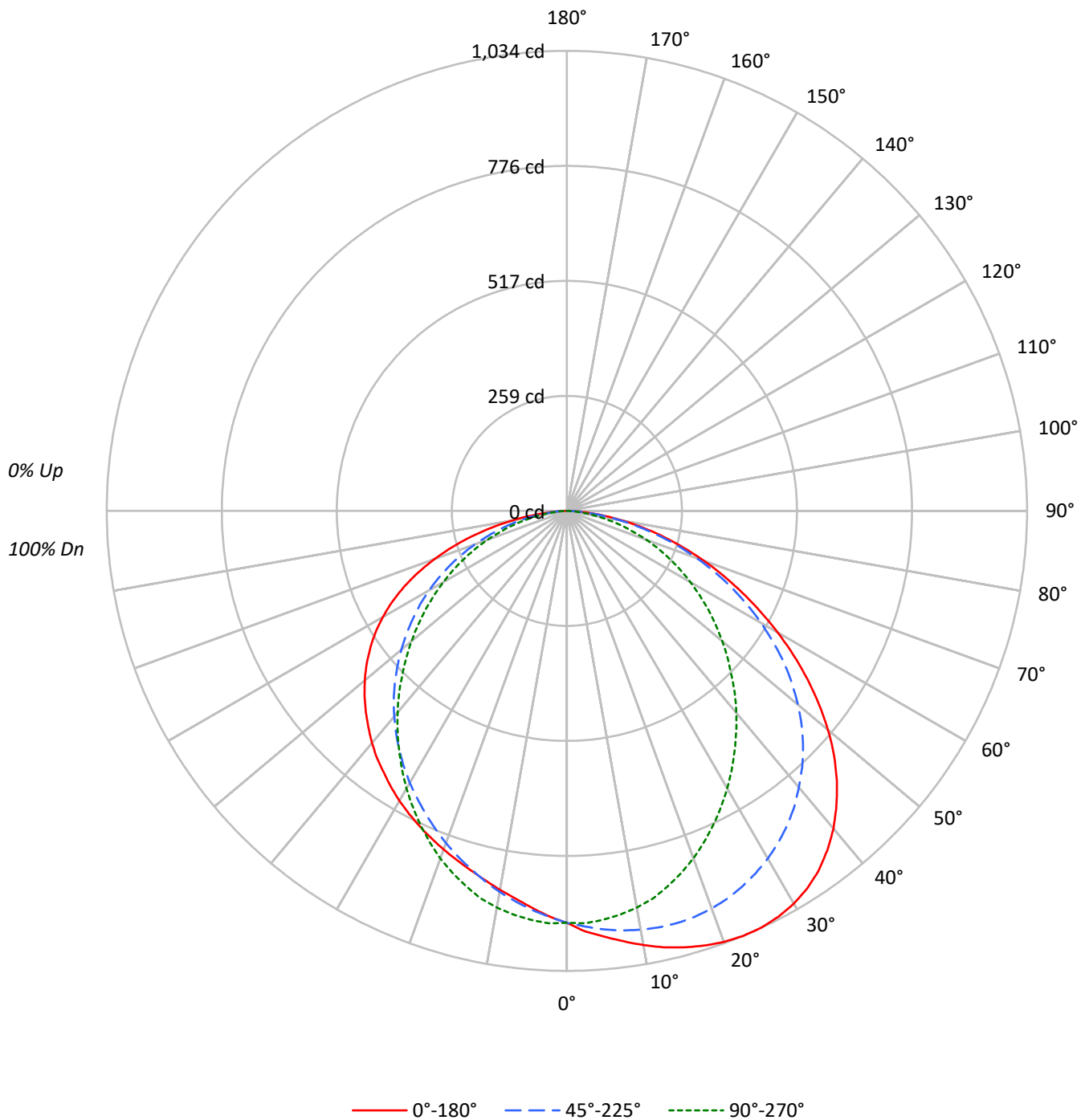
Lumens per Lamp: N/A
Luminaire Lumens: 2723.3 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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	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°	2491	2491	2491
5°	2594	2493	2419
10°	2707	2474	2363
15°	2829	2434	2329
20°	2952	2381	2319
25°	3069	2311	2323
30°	3168	2239	2338
35°	3241	2159	2357
40°	3274	2079	2392
45°	3264	1991	2431
50°	3206	1908	2481
55°	3097	1820	2533
60°	2946	1726	2571
65°	2767	1621	2568
70°	2574	1495	2492
75°	2337	1313	2298
80°	2007	1079	1939
85°	1531	738	1331

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.8	3.2
10°-20°	253.6	9.3
20°-30°	388.5	14.3
30°-40°	474.1	17.4
40°-50°	495.8	18.2
50°-60°	448.7	16.5
60°-70°	339.8	12.5
70°-80°	189.4	7.0
80°-90°	45.7	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°	729.8	26.8
0°-40°	1203.9	44.2
0°-60°	2148.4	78.9
0°-90°	2723.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2723.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	926	926	926	926	926	
5°	960	944	923	900	896	93
15°	1016	959	874	833	836	288
25°	1034	932	778	751	782	477
35°	986	863	657	656	718	616
45°	858	750	523	546	639	660
55°	660	596	388	422	540	589
65°	434	409	255	289	403	431
75°	225	212	126	151	221	238
85°	50	44	24	32	43	60
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°	925.8	925.8	925.8	925.8	925.8	925.8	925.8	925.8	925.8	925.8	925.8
2.5°	946.3	941.8	938.2	939.6	940.4	937.6	935.1	935.5	933.1	937.8	926.8
5°	960.2	956.2	951.9	953.5	951.9	947.7	944.2	943.2	936.7	939.4	928.2
7.5°	975.8	971.3	965.1	966.9	963.5	955.6	951.1	948.5	938.6	938.8	926.4
10°	990.8	986.9	978.4	979.6	973.4	962.8	955.8	952.1	938.2	936.1	923.4
12.5°	1004.7	999.5	990.4	991.0	981.9	967.9	958.8	953.5	935.3	929.3	916.7
15°	1015.5	1010.4	999.5	999.3	987.5	969.3	959.0	951.7	928.6	919.1	906.0
17.5°	1024.6	1019.9	1006.4	1006.0	991.8	968.7	956.4	947.3	918.9	907.2	892.6
20°	1031.0	1026.4	1011.2	1009.8	992.8	965.7	950.9	939.4	906.2	892.2	876.0
22.5°	1034.1	1029.4	1012.2	1010.2	990.4	959.6	943.0	929.5	891.6	873.4	856.6
25°	1033.5	1029.0	1009.6	1007.6	985.7	950.5	931.9	916.3	873.2	851.8	835.2
27.5°	1028.4	1025.0	1004.5	1001.9	977.2	938.2	918.3	901.1	852.8	828.9	810.9
30°	1019.7	1017.1	995.4	993.0	966.7	924.6	902.5	882.7	830.7	803.8	785.6
32.5°	1005.7	1003.3	981.5	979.2	952.5	907.2	884.1	863.7	806.6	776.9	758.7
35°	986.5	985.1	963.9	961.4	934.3	887.4	862.9	840.4	781.5	747.9	730.5
37.5°	961.2	961.2	940.8	938.2	911.7	863.1	839.0	815.1	753.2	717.6	700.4
40°	931.9	934.5	913.7	911.0	885.3	837.0	810.7	785.6	722.6	685.6	668.8
42.5°	896.7	899.1	881.7	879.3	855.2	806.8	782.3	755.0	690.7	653.0	635.6
45°	857.8	861.1	845.5	843.7	821.2	773.8	750.4	722.6	657.3	619.0	602.0
47.5°	814.5	818.8	805.2	804.2	783.4	740.0	715.6	687.4	622.3	583.6	567.6
50°	765.9	772.0	760.9	760.9	742.3	699.2	677.9	649.8	585.8	547.2	531.4
52.5°	713.9	721.6	713.3	713.5	698.4	659.7	637.6	610.1	547.8	509.8	495.2
55°	660.1	667.6	662.3	663.1	651.2	616.0	596.0	568.6	508.9	471.9	458.2
57.5°	603.9	611.9	608.5	610.1	601.8	570.3	549.4	525.5	468.9	432.2	420.5
60°	547.4	555.1	553.3	555.5	550.2	522.9	503.9	479.2	428.6	393.4	383.1
62.5°	490.3	497.4	497.0	499.4	496.6	473.9	456.9	435.9	386.9	354.5	345.0
65°	434.5	440.5	440.1	442.8	442.2	424.0	408.6	389.3	345.2	315.5	307.2
67.5°	380.2	385.3	383.9	386.9	387.7	373.2	359.8	342.6	305.6	276.6	269.5
70°	327.2	330.7	328.8	330.9	332.7	321.8	310.4	295.2	263.3	237.8	231.9
72.5°	275.2	277.6	274.8	276.8	278.5	270.6	261.3	248.1	221.6	199.5	194.7
75°	224.8	228.3	222.4	224.4	225.6	217.7	212.3	201.6	178.7	161.7	158.5
77.5°	176.1	178.1	174.8	174.0	174.8	169.2	164.9	156.6	139.4	125.5	123.4
80°	129.5	130.7	127.5	126.7	127.3	123.2	120.0	113.9	101.8	91.3	90.5
82.5°	86.8	87.4	84.6	83.8	84.2	83.0	79.1	74.9	69.2	60.3	60.1
85°	49.6	49.6	47.6	46.7	47.2	45.1	43.7	41.5	39.3	33.2	33.6
87.5°	18.2	18.2	17.2	17.0	19.0	16.8	16.2	15.2	15.8	12.5	13.4
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°	925.8	925.8	925.8	925.8	925.8	925.8	925.8	925.8	925.8	925.8	925.8
2.5°	929.9	927.8	926.0	919.7	922.4	915.9	915.5	913.1	911.2	907.8	912.3
5°	926.8	922.8	917.5	910.0	912.3	904.6	902.9	900.1	897.7	893.2	896.7
7.5°	922.0	915.3	907.0	897.5	900.5	891.0	888.6	885.5	883.5	878.3	881.3
10°	914.9	905.4	895.7	884.1	886.4	876.0	873.0	869.8	867.9	863.3	866.3
12.5°	904.0	892.4	879.3	866.7	869.2	859.4	855.4	852.0	851.3	847.5	851.1
15°	889.8	873.8	860.2	846.9	849.7	838.4	836.6	833.1	834.1	831.5	836.0
17.5°	871.8	853.4	838.6	824.2	827.1	817.6	816.1	814.5	815.5	815.1	820.0
20°	851.5	831.3	814.3	800.1	801.8	794.3	794.9	794.5	796.5	798.7	805.4
22.5°	828.7	805.8	788.0	773.4	775.9	769.4	772.2	773.0	776.5	781.5	790.0
25°	803.0	778.5	759.9	746.1	748.3	744.1	748.9	751.0	756.4	764.9	773.6
27.5°	776.1	750.2	730.3	717.2	721.4	717.2	724.5	728.5	736.8	746.1	756.8
30°	747.5	720.6	700.2	688.4	692.5	688.6	700.4	705.8	714.1	726.9	739.6
32.5°	717.6	689.3	669.2	660.1	662.9	662.3	675.5	681.6	692.7	707.3	720.8
35°	686.8	657.3	637.0	629.4	632.8	633.6	649.4	656.5	668.6	686.2	700.8
37.5°	655.1	624.9	605.1	598.8	601.8	604.9	623.3	630.4	644.1	663.3	679.3
40°	622.1	591.9	572.5	567.4	570.5	573.7	593.7	603.4	618.4	639.3	656.7
42.5°	588.7	558.5	539.7	536.1	539.1	545.4	566.6	575.7	591.5	614.6	633.8
45°	554.7	523.3	506.9	504.1	507.3	514.6	535.5	546.4	563.2	588.5	609.1
47.5°	520.3	489.7	474.1	472.3	475.6	483.7	506.7	516.6	534.4	561.4	583.6
50°	485.5	455.7	440.7	440.1	443.2	451.9	473.9	485.7	504.1	534.2	557.1
52.5°	450.3	421.7	408.2	408.2	411.0	419.9	442.2	454.3	473.3	505.1	530.4
55°	415.0	387.9	375.0	376.0	380.0	387.7	409.4	422.1	441.4	474.3	501.1
57.5°	379.8	354.1	342.4	343.8	347.7	355.4	376.6	391.0	408.4	442.6	469.9
60°	345.0	320.7	310.4	312.0	315.5	323.2	345.2	357.6	375.0	409.8	437.1
62.5°	309.8	287.8	278.0	280.1	283.1	290.8	311.6	323.6	340.8	375.0	402.5
65°	275.0	254.6	246.3	248.3	251.1	258.2	277.8	289.4	305.8	339.2	365.5
67.5°	240.6	222.0	215.1	217.1	219.4	226.0	242.2	254.8	270.2	301.9	326.8
70°	206.6	190.0	183.9	186.0	188.0	194.1	208.2	219.8	233.9	263.1	286.1
72.5°	173.0	156.8	153.8	155.6	157.2	162.5	176.1	185.2	197.5	223.4	243.2
75°	140.2	126.3	124.3	126.1	127.5	131.5	142.9	150.8	161.1	183.5	199.7
77.5°	108.7	96.9	96.1	97.5	99.0	101.8	110.7	119.0	127.1	143.7	158.0
80°	79.1	69.6	69.6	71.0	70.6	74.1	80.3	87.0	92.9	104.8	115.3
82.5°	52.2	44.7	45.7	46.7	47.4	48.8	52.6	57.7	61.3	68.6	75.5
85°	28.9	23.9	24.9	25.7	25.3	26.9	28.9	32.0	33.8	37.2	40.9
87.5°	10.7	8.9	9.1	9.7	10.1	10.9	10.9	12.7	13.0	13.4	14.2
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):

	160°	170°	180°
0°	925.8	925.8	925.8
2.5°	903.8	908.6	912.3
5°	888.2	892.2	895.5
7.5°	873.0	876.6	879.5
10°	858.6	862.7	864.7
12.5°	843.9	848.5	850.1
15°	829.3	833.9	836.0
17.5°	814.3	820.4	822.6
20°	800.3	808.0	809.9
22.5°	786.2	794.1	796.3
25°	770.8	780.1	782.3
27.5°	754.4	765.5	767.8
30°	738.0	750.2	752.4
32.5°	720.4	733.6	735.6
35°	702.0	715.2	717.6
37.5°	681.6	695.9	700.8
40°	660.3	675.9	681.0
42.5°	638.1	655.1	660.3
45°	614.2	632.8	638.9
47.5°	590.1	611.1	616.4
50°	564.0	586.5	592.7
52.5°	536.7	561.2	567.4
55°	508.3	533.0	539.9
57.5°	477.6	503.1	510.4
60°	445.4	470.9	477.8
62.5°	412.4	435.5	442.2
65°	375.6	397.2	403.3
67.5°	336.5	356.4	361.4
70°	295.0	312.2	316.7
72.5°	251.7	263.7	269.5
75°	207.0	216.5	221.0
77.5°	162.1	168.8	172.4
80°	118.2	122.0	125.1
82.5°	77.3	78.9	81.1
85°	41.7	41.7	43.1
87.5°	14.2	13.6	14.2
90°	0.0	0.0	0.0

(END OF REPORT)