

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: P834667

Luminaire Tested: **ORLG-24-4-INS-ASY2-LD4-1LO-35-120-EDD-90**

Issue Date: 5/16/2024

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

**Test Information**

Test Method: LM-79-08
Report Number: P834667
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-4-INS-ASY2-LD4-1LO-35-120-EDD-90
Description: 2FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

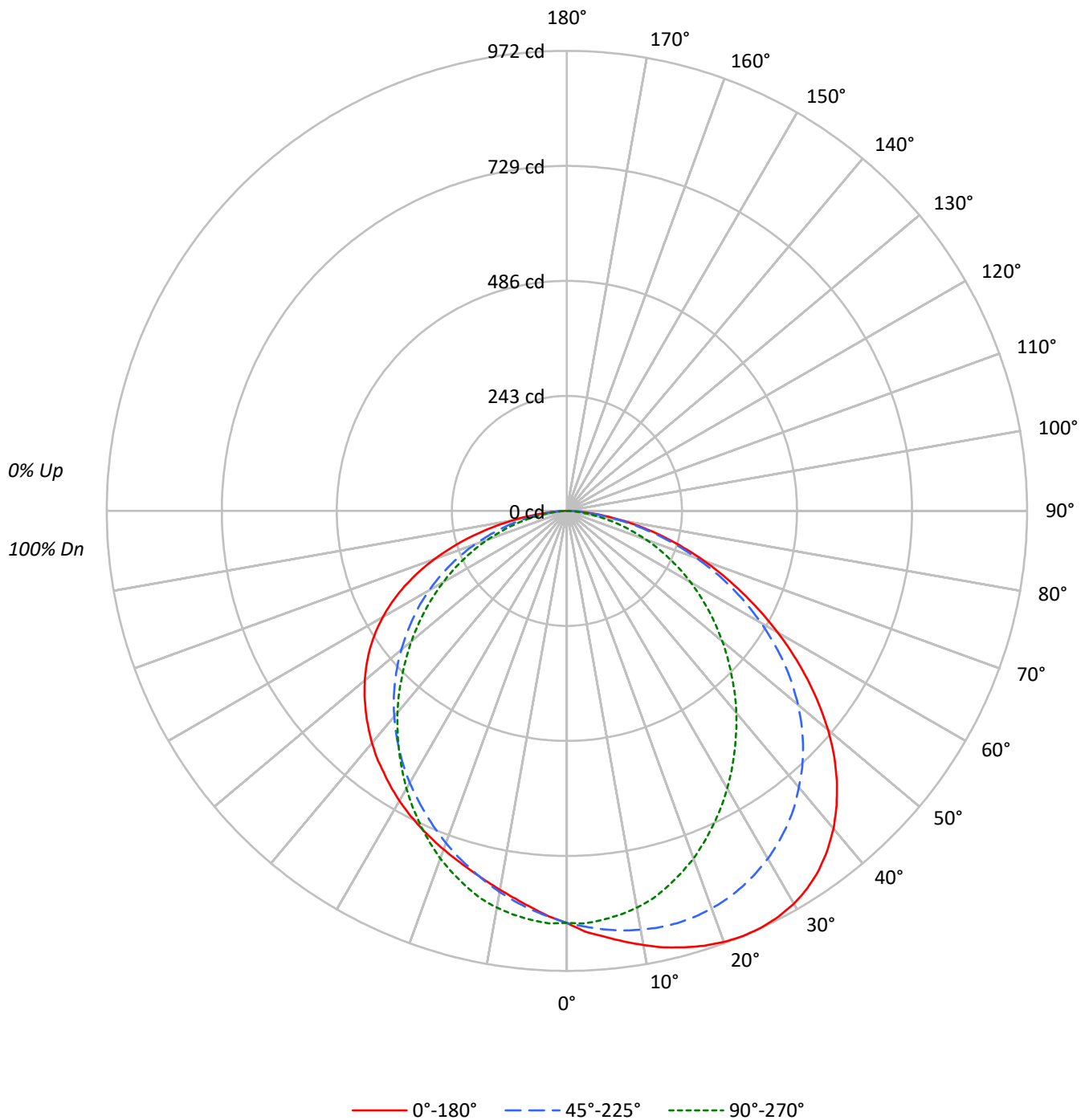
Lumens per Lamp: N/A
Luminaire Lumens: 2560.5 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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



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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°	1171	1171	1171
5°	1219	1172	1137
10°	1273	1163	1111
15°	1330	1144	1095
20°	1388	1119	1090
25°	1443	1087	1092
30°	1489	1053	1099
35°	1523	1015	1108
40°	1539	977	1124
45°	1535	936	1143
50°	1507	897	1167
55°	1456	856	1191
60°	1385	812	1209
65°	1301	762	1207
70°	1210	703	1172
75°	1099	617	1080
80°	944	508	911
85°	719	347	625

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.6	3.2
10°-20°	238.4	9.3
20°-30°	365.2	14.3
30°-40°	445.7	17.4
40°-50°	466.1	18.2
50°-60°	421.9	16.5
60°-70°	319.5	12.5
70°-80°	178.1	7.0
80°-90°	43.0	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°	686.2	26.8
0°-40°	1131.9	44.2
0°-60°	2020.0	78.9
0°-90°	2560.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2560.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	870	870	870	870	870	
5°	903	888	868	846	842	87
15°	955	902	822	783	786	271
25°	972	876	732	706	736	448
35°	928	811	618	617	675	579
45°	806	706	492	514	601	621
55°	621	560	365	397	508	554
65°	408	384	239	272	379	405
75°	211	200	119	142	208	224
85°	47	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°	870.5	870.5	870.5	870.5	870.5	870.5	870.5	870.5	870.5	870.5	870.5
2.5°	889.7	885.5	882.1	883.4	884.2	881.5	879.2	879.6	877.3	881.7	871.4
5°	902.8	899.0	895.0	896.5	895.0	891.0	887.8	886.8	880.7	883.2	872.7
7.5°	917.5	913.3	907.4	909.1	905.8	898.4	894.2	891.8	882.4	882.6	871.0
10°	931.5	927.9	919.9	921.1	915.2	905.3	898.6	895.2	882.1	880.2	868.2
12.5°	944.7	939.7	931.1	931.7	923.2	910.0	901.5	896.5	879.4	873.7	861.9
15°	954.7	950.0	939.7	939.5	928.5	911.4	901.7	894.8	873.1	864.2	851.8
17.5°	963.3	958.9	946.2	945.8	932.5	910.8	899.2	890.6	864.0	853.0	839.3
20°	969.4	965.0	950.7	949.4	933.4	907.9	894.0	883.2	852.0	838.9	823.7
22.5°	972.2	967.9	951.7	949.8	931.1	902.2	886.6	873.9	838.3	821.2	805.4
25°	971.7	967.5	949.2	947.3	926.8	893.7	876.2	861.5	821.0	800.8	785.2
27.5°	966.9	963.7	944.5	942.0	918.8	882.1	863.4	847.2	801.8	779.3	762.4
30°	958.7	956.3	935.9	933.6	908.9	869.3	848.6	829.9	781.0	755.7	738.6
32.5°	945.6	943.3	922.8	920.7	895.6	853.0	831.3	812.0	758.4	730.4	713.3
35°	927.5	926.2	906.2	903.9	878.4	834.3	811.3	790.2	734.8	703.2	686.9
37.5°	903.8	903.8	884.5	882.1	857.1	811.5	788.8	766.4	708.2	674.7	658.5
40°	876.2	878.6	859.0	856.6	832.4	786.9	762.2	738.6	679.4	644.6	628.8
42.5°	843.1	845.3	829.0	826.7	804.1	758.6	735.6	709.9	649.4	614.0	597.6
45°	806.5	809.6	794.9	793.2	772.1	727.6	705.5	679.4	618.0	582.0	566.0
47.5°	765.8	769.8	757.1	756.1	736.5	695.8	672.8	646.3	585.1	548.7	533.7
50°	720.1	725.9	715.4	715.4	697.9	657.4	637.4	610.9	550.8	514.5	499.6
52.5°	671.2	678.5	670.7	670.9	656.6	620.3	599.5	573.6	515.0	479.3	465.6
55°	620.6	627.7	622.7	623.5	612.3	579.2	560.3	534.6	478.5	443.7	430.8
57.5°	567.7	575.4	572.1	573.6	565.8	536.2	516.6	494.1	440.8	406.4	395.4
60°	514.7	521.9	520.2	522.3	517.3	491.6	473.8	450.5	403.0	369.9	360.2
62.5°	461.0	467.7	467.3	469.6	466.9	445.6	429.6	409.8	363.8	333.3	324.4
65°	408.5	414.2	413.8	416.3	415.7	398.6	384.1	366.1	324.6	296.6	288.8
67.5°	357.5	362.3	360.9	363.8	364.5	350.8	338.3	322.1	287.3	260.1	253.4
70°	307.7	310.9	309.2	311.1	312.8	302.5	291.9	277.6	247.5	223.6	218.0
72.5°	258.8	261.0	258.4	260.3	261.8	254.4	245.6	233.3	208.3	187.6	183.0
75°	211.4	214.6	209.1	211.0	212.1	204.7	199.6	189.5	168.0	152.0	149.0
77.5°	165.5	167.4	164.4	163.6	164.4	159.1	155.1	147.3	131.1	118.0	116.1
80°	121.8	122.9	119.9	119.1	119.7	115.9	112.8	107.1	95.7	85.8	85.0
82.5°	81.6	82.2	79.5	78.8	79.1	78.0	74.4	70.4	65.1	56.7	56.5
85°	46.6	46.6	44.7	44.0	44.3	42.4	41.1	39.0	36.9	31.2	31.6
87.5°	17.1	17.1	16.2	16.0	17.9	15.8	15.2	14.3	14.8	11.8	12.6
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°	870.5	870.5	870.5	870.5	870.5	870.5	870.5	870.5	870.5	870.5	870.5
2.5°	874.3	872.4	870.6	864.7	867.2	861.1	860.8	858.5	856.8	853.5	857.7
5°	871.4	867.6	862.7	855.6	857.7	850.5	849.0	846.3	844.0	839.8	843.1
7.5°	866.8	860.6	852.8	843.8	846.7	837.7	835.4	832.6	830.7	825.7	828.6
10°	860.2	851.2	842.1	831.3	833.4	823.7	820.8	817.8	816.0	811.7	814.5
12.5°	849.9	839.1	826.7	814.9	817.2	808.0	804.2	801.0	800.4	796.8	800.2
15°	836.6	821.6	808.8	796.3	798.9	788.3	786.5	783.3	784.3	781.8	786.0
17.5°	819.7	802.3	788.5	774.9	777.6	768.7	767.3	765.8	766.8	766.4	770.9
20°	800.6	781.6	765.6	752.3	753.8	746.8	747.4	747.0	748.9	751.0	757.2
22.5°	779.1	757.6	740.9	727.2	729.5	723.4	726.0	726.8	730.0	734.8	742.8
25°	755.0	731.9	714.4	701.5	703.6	699.6	704.2	706.1	711.2	719.2	727.4
27.5°	729.7	705.3	686.7	674.3	678.3	674.3	681.1	684.9	692.7	701.5	711.6
30°	702.8	677.5	658.3	647.3	651.1	647.5	658.5	663.6	671.4	683.4	695.4
32.5°	674.7	648.0	629.2	620.6	623.3	622.7	635.1	640.8	651.3	665.0	677.7
35°	645.8	618.0	598.9	591.7	595.0	595.7	610.6	617.2	628.6	645.2	658.9
37.5°	615.9	587.5	568.9	563.0	565.8	568.7	586.0	592.7	605.6	623.7	638.7
40°	584.9	556.5	538.3	533.5	536.4	539.4	558.2	567.4	581.4	601.0	617.4
42.5°	553.5	525.1	507.4	504.0	506.9	512.8	532.7	541.3	556.1	577.8	595.9
45°	521.5	492.0	476.6	473.9	477.0	483.8	503.4	513.7	529.5	553.3	572.7
47.5°	489.2	460.4	445.8	444.1	447.1	454.7	476.4	485.7	502.5	527.8	548.7
50°	456.4	428.5	414.4	413.8	416.7	424.9	445.6	456.6	473.9	502.3	523.8
52.5°	423.3	396.5	383.8	383.8	386.4	394.8	415.7	427.1	445.0	474.9	498.7
55°	390.2	364.7	352.6	353.5	357.3	364.5	384.9	396.9	415.0	446.0	471.1
57.5°	357.1	333.0	321.9	323.3	326.9	334.1	354.1	367.6	384.0	416.1	441.8
60°	324.4	301.6	291.9	293.4	296.6	303.9	324.6	336.2	352.6	385.3	411.0
62.5°	291.3	270.6	261.4	263.3	266.2	273.4	293.0	304.2	320.4	352.6	378.4
65°	258.6	239.4	231.6	233.5	236.1	242.8	261.2	272.1	287.5	318.9	343.6
67.5°	226.2	208.7	202.3	204.2	206.2	212.5	227.7	239.5	254.0	283.9	307.3
70°	194.3	178.7	172.9	174.9	176.8	182.5	195.8	206.6	219.9	247.3	269.0
72.5°	162.7	147.5	144.6	146.3	147.8	152.8	165.5	174.1	185.7	210.1	228.7
75°	131.9	118.7	116.8	118.5	119.9	123.7	134.3	141.7	151.4	172.6	187.8
77.5°	102.2	91.1	90.4	91.7	93.0	95.7	104.1	111.9	119.5	135.1	148.6
80°	74.4	65.5	65.5	66.8	66.4	69.6	75.5	81.8	87.3	98.6	108.5
82.5°	49.1	42.0	43.0	44.0	44.5	45.9	49.5	54.2	57.6	64.5	71.0
85°	27.2	22.5	23.4	24.2	23.8	25.3	27.2	30.1	31.8	35.0	38.4
87.5°	10.1	8.4	8.6	9.1	9.5	10.3	10.3	12.0	12.2	12.6	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°	870.5	870.5	870.5
2.5°	849.7	854.3	857.7
5°	835.1	838.9	841.9
7.5°	820.8	824.2	826.9
10°	807.3	811.1	813.0
12.5°	793.4	797.8	799.3
15°	779.7	784.1	786.0
17.5°	765.6	771.3	773.4
20°	752.5	759.7	761.4
22.5°	739.2	746.6	748.7
25°	724.7	733.5	735.6
27.5°	709.3	719.8	721.9
30°	693.9	705.3	707.4
32.5°	677.3	689.7	691.6
35°	660.0	672.4	674.7
37.5°	640.8	654.3	658.9
40°	620.8	635.5	640.2
42.5°	599.9	615.9	620.8
45°	577.4	595.0	600.7
47.5°	554.8	574.6	579.5
50°	530.3	551.4	557.3
52.5°	504.6	527.6	533.5
55°	477.9	501.2	507.6
57.5°	449.0	473.0	479.8
60°	418.8	442.7	449.2
62.5°	387.8	409.4	415.7
65°	353.1	373.5	379.2
67.5°	316.4	335.1	339.8
70°	277.4	293.6	297.8
72.5°	236.7	247.9	253.4
75°	194.6	203.6	207.8
77.5°	152.4	158.7	162.1
80°	111.1	114.7	117.6
82.5°	72.7	74.2	76.3
85°	39.2	39.2	40.5
87.5°	13.3	12.7	13.3
90°	0.0	0.0	0.0

(END OF REPORT)