

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: P835174

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-2LO-27-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835174
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-LD4-2LO-27-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 2700K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

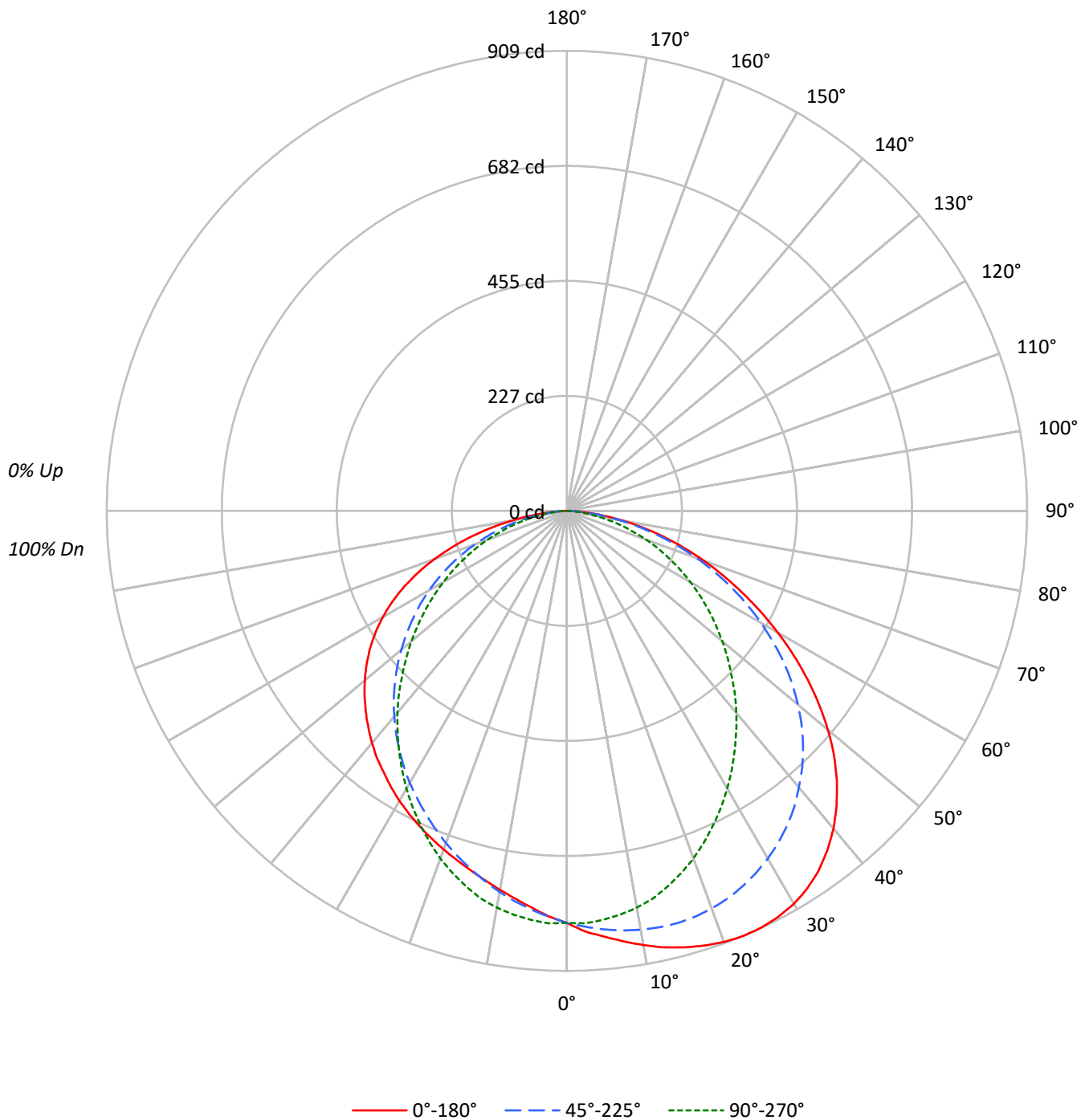
Lumens per Lamp: N/A
Luminaire Lumens: 2394.4 lumens
Efficiency: N/A
Efficacy: 102.3 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	2190	2190	2190
5°	2280	2192	2127
10°	2380	2175	2078
15°	2487	2140	2048
20°	2596	2093	2039
25°	2698	2032	2042
30°	2786	1969	2055
35°	2849	1898	2073
40°	2878	1828	2103
45°	2870	1751	2138
50°	2819	1677	2182
55°	2723	1600	2227
60°	2590	1518	2261
65°	2432	1425	2258
70°	2264	1315	2190
75°	2056	1154	2020
80°	1765	948	1705
85°	1346	648	1170

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.2	3.2
10°-20°	222.9	9.3
20°-30°	341.6	14.3
30°-40°	416.8	17.4
40°-50°	435.9	18.2
50°-60°	394.5	16.5
60°-70°	298.8	12.5
70°-80°	166.5	7.0
80°-90°	40.2	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°	641.7	26.8
0°-40°	1058.5	44.2
0°-60°	1888.9	78.9
0°-90°	2394.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2394.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	814	814	814	814	814	
5°	844	830	811	791	787	81
15°	893	843	768	732	735	253
25°	909	819	684	660	688	419
35°	867	759	578	577	631	542
45°	754	660	460	480	562	580
55°	580	524	341	371	475	518
65°	382	359	224	254	355	379
75°	198	187	111	133	194	210
85°	44	38	21	28	38	52
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°	814.0	814.0	814.0	814.0	814.0	814.0	814.0	814.0	814.0	814.0	814.0
2.5°	832.0	828.1	824.8	826.1	826.8	824.3	822.2	822.5	820.4	824.5	814.9
5°	844.2	840.7	836.9	838.4	836.9	833.2	830.2	829.3	823.6	825.9	816.1
7.5°	857.9	854.0	848.5	850.1	847.1	840.2	836.2	833.9	825.2	825.4	814.5
10°	871.1	867.7	860.3	861.3	855.8	846.6	840.3	837.1	824.8	823.1	811.9
12.5°	883.4	878.8	870.8	871.3	863.3	851.0	843.0	838.4	822.4	817.0	806.0
15°	892.8	888.4	878.8	878.6	868.3	852.2	843.2	836.8	816.5	808.1	796.6
17.5°	900.8	896.7	884.8	884.5	872.0	851.7	840.9	832.9	807.9	797.6	784.8
20°	906.5	902.4	889.1	887.8	872.9	849.0	836.1	825.9	796.7	784.5	770.2
22.5°	909.2	905.1	890.0	888.2	870.8	843.7	829.1	817.2	783.9	767.9	753.1
25°	908.7	904.7	887.7	885.9	866.7	835.7	819.3	805.6	767.7	748.9	734.3
27.5°	904.2	901.2	883.2	880.9	859.2	824.8	807.4	792.3	749.8	728.8	712.9
30°	896.6	894.2	875.2	873.1	849.9	812.9	793.5	776.1	730.4	706.7	690.7
32.5°	884.3	882.1	862.9	861.0	837.5	797.6	777.3	759.4	709.2	683.0	667.0
35°	867.4	866.1	847.4	845.3	821.5	780.2	758.7	738.9	687.1	657.6	642.3
37.5°	845.1	845.1	827.2	824.8	801.5	758.8	737.7	716.7	662.2	630.9	615.8
40°	819.3	821.6	803.3	801.0	778.4	735.9	712.8	690.7	635.4	602.8	588.0
42.5°	788.4	790.5	775.2	773.1	751.9	709.4	687.8	663.8	607.2	574.2	558.9
45°	754.2	757.1	743.4	741.8	722.0	680.4	659.7	635.4	577.9	544.3	529.3
47.5°	716.1	719.9	708.0	707.1	688.7	650.7	629.1	604.4	547.1	513.1	499.1
50°	673.4	678.8	669.0	669.0	652.6	614.7	596.0	571.3	515.1	481.1	467.2
52.5°	627.7	634.5	627.2	627.4	614.0	580.0	560.6	536.4	481.6	448.2	435.4
55°	580.4	587.0	582.3	583.1	572.6	541.6	524.0	500.0	447.5	414.9	402.8
57.5°	530.9	538.0	535.0	536.4	529.1	501.4	483.1	462.1	412.2	380.0	369.7
60°	481.3	488.0	486.4	488.4	483.8	459.8	443.0	421.3	376.8	345.9	336.8
62.5°	431.1	437.3	437.0	439.1	436.6	416.7	401.7	383.2	340.2	311.7	303.4
65°	382.0	387.3	387.0	389.3	388.8	372.7	359.2	342.3	303.5	277.4	270.1
67.5°	334.3	338.8	337.5	340.2	340.9	328.1	316.3	301.2	268.7	243.2	237.0
70°	287.7	290.7	289.1	290.9	292.5	282.9	272.9	259.6	231.5	209.1	203.9
72.5°	242.0	244.1	241.6	243.4	244.8	237.9	229.7	218.1	194.8	175.4	171.2
75°	197.7	200.7	195.5	197.3	198.4	191.4	186.6	177.2	157.1	142.2	139.3
77.5°	154.8	156.6	153.7	153.0	153.7	148.7	145.0	137.7	122.6	110.3	108.5
80°	113.9	114.9	112.1	111.4	111.9	108.4	105.5	100.2	89.5	80.2	79.5
82.5°	76.3	76.9	74.4	73.7	74.0	72.9	69.6	65.8	60.8	53.0	52.8
85°	43.6	43.6	41.8	41.1	41.5	39.7	38.4	36.5	34.5	29.2	29.5
87.5°	16.0	16.0	15.1	14.9	16.7	14.8	14.2	13.3	13.9	11.0	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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	814.0	814.0	814.0	814.0	814.0	814.0	814.0	814.0	814.0	814.0	814.0
2.5°	817.6	815.8	814.2	808.7	811.0	805.3	804.9	802.8	801.2	798.2	802.1
5°	814.9	811.3	806.7	800.1	802.1	795.3	793.9	791.4	789.3	785.4	788.4
7.5°	810.6	804.7	797.4	789.1	791.8	783.4	781.3	778.6	776.8	772.2	774.9
10°	804.4	796.0	787.5	777.3	779.3	770.2	767.6	764.7	763.1	759.0	761.7
12.5°	794.8	784.6	773.1	762.0	764.2	755.6	752.1	749.1	748.5	745.1	748.3
15°	782.3	768.3	756.3	744.6	747.1	737.1	735.5	732.5	733.4	731.1	735.0
17.5°	766.5	750.3	737.3	724.7	727.2	718.8	717.6	716.1	717.0	716.7	720.9
20°	748.7	730.9	716.0	703.5	704.9	698.3	698.9	698.5	700.3	702.3	708.1
22.5°	728.6	708.5	692.8	680.0	682.2	676.5	679.0	679.7	682.7	687.1	694.6
25°	706.0	684.5	668.1	656.0	658.0	654.2	658.5	660.3	665.1	672.5	680.2
27.5°	682.3	659.6	642.1	630.6	634.3	630.6	637.0	640.5	647.8	656.0	665.4
30°	657.2	633.6	615.6	605.3	608.9	605.5	615.8	620.6	627.9	639.1	650.3
32.5°	630.9	606.0	588.4	580.4	582.9	582.3	593.9	599.2	609.0	621.8	633.8
35°	603.9	577.9	560.1	553.3	556.4	557.1	571.0	577.2	587.9	603.3	616.1
37.5°	575.9	549.4	532.0	526.5	529.1	531.8	548.0	554.2	566.3	583.2	597.3
40°	546.9	520.4	503.3	498.9	501.6	504.4	522.0	530.6	543.7	562.1	577.4
42.5°	517.6	491.1	474.5	471.3	474.0	479.5	498.2	506.2	520.1	540.4	557.3
45°	487.7	460.1	445.7	443.2	446.1	452.5	470.8	480.4	495.2	517.4	535.5
47.5°	457.4	430.6	416.9	415.3	418.1	425.2	445.5	454.2	469.9	493.6	513.1
50°	426.8	400.7	387.5	387.0	389.7	397.3	416.7	427.0	443.2	469.7	489.8
52.5°	395.9	370.8	358.9	358.9	361.4	369.2	388.8	399.4	416.2	444.1	466.3
55°	364.9	341.1	329.7	330.6	334.1	340.9	359.9	371.1	388.0	417.1	440.5
57.5°	334.0	311.4	301.0	302.3	305.7	312.4	331.1	343.7	359.0	389.1	413.1
60°	303.4	282.0	272.9	274.4	277.4	284.1	303.5	314.4	329.7	360.3	384.3
62.5°	272.4	253.0	244.5	246.2	248.9	255.7	274.0	284.5	299.6	329.7	353.9
65°	241.8	223.8	216.5	218.3	220.8	227.0	244.3	254.4	268.8	298.2	321.3
67.5°	211.5	195.2	189.1	190.9	192.9	198.7	213.0	224.0	237.5	265.5	287.3
70°	181.7	167.1	161.7	163.5	165.3	170.6	183.1	193.2	205.7	231.3	251.6
72.5°	152.1	137.9	135.2	136.8	138.2	142.9	154.8	162.8	173.7	196.4	213.9
75°	123.3	111.0	109.2	110.8	112.1	115.6	125.6	132.6	141.6	161.4	175.6
77.5°	95.5	85.2	84.5	85.8	87.0	89.5	97.3	104.6	111.7	126.3	139.0
80°	69.6	61.2	61.2	62.5	62.1	65.1	70.6	76.5	81.7	92.2	101.4
82.5°	45.9	39.3	40.2	41.1	41.6	42.9	46.3	50.7	53.9	60.3	66.4
85°	25.4	21.0	21.9	22.6	22.2	23.7	25.4	28.1	29.7	32.7	35.9
87.5°	9.4	7.8	8.0	8.5	8.9	9.6	9.6	11.2	11.4	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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TEST NUMBER: P835174

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CANDELA DISTRIBUTION (continued):

	160°	170°	180°
0°	814.0	814.0	814.0
2.5°	794.6	798.9	802.1
5°	780.9	784.5	787.3
7.5°	767.6	770.8	773.3
10°	754.9	758.5	760.3
12.5°	741.9	746.0	747.5
15°	729.1	733.2	735.0
17.5°	716.0	721.3	723.3
20°	703.7	710.4	712.0
22.5°	691.2	698.2	700.1
25°	677.7	685.9	687.8
27.5°	663.3	673.1	675.0
30°	648.9	659.6	661.5
32.5°	633.4	645.0	646.7
35°	617.2	628.8	630.9
37.5°	599.2	611.9	616.1
40°	580.6	594.3	598.7
42.5°	561.0	575.9	580.6
45°	540.0	556.4	561.7
47.5°	518.8	537.3	542.0
50°	495.9	515.6	521.1
52.5°	471.9	493.4	498.9
55°	446.9	468.6	474.7
57.5°	419.9	442.3	448.7
60°	391.6	414.0	420.1
62.5°	362.6	382.9	388.8
65°	330.2	349.3	354.6
67.5°	295.9	313.3	317.8
70°	259.4	274.5	278.4
72.5°	221.3	231.8	237.0
75°	182.0	190.4	194.3
77.5°	142.5	148.4	151.6
80°	103.9	107.3	110.0
82.5°	68.0	69.4	71.3
85°	36.7	36.7	37.9
87.5°	12.5	11.9	12.5
90°	0.0	0.0	0.0

(END OF REPORT)