

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: P834244

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-1LO-27-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834244
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-27-120-EDD-90
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

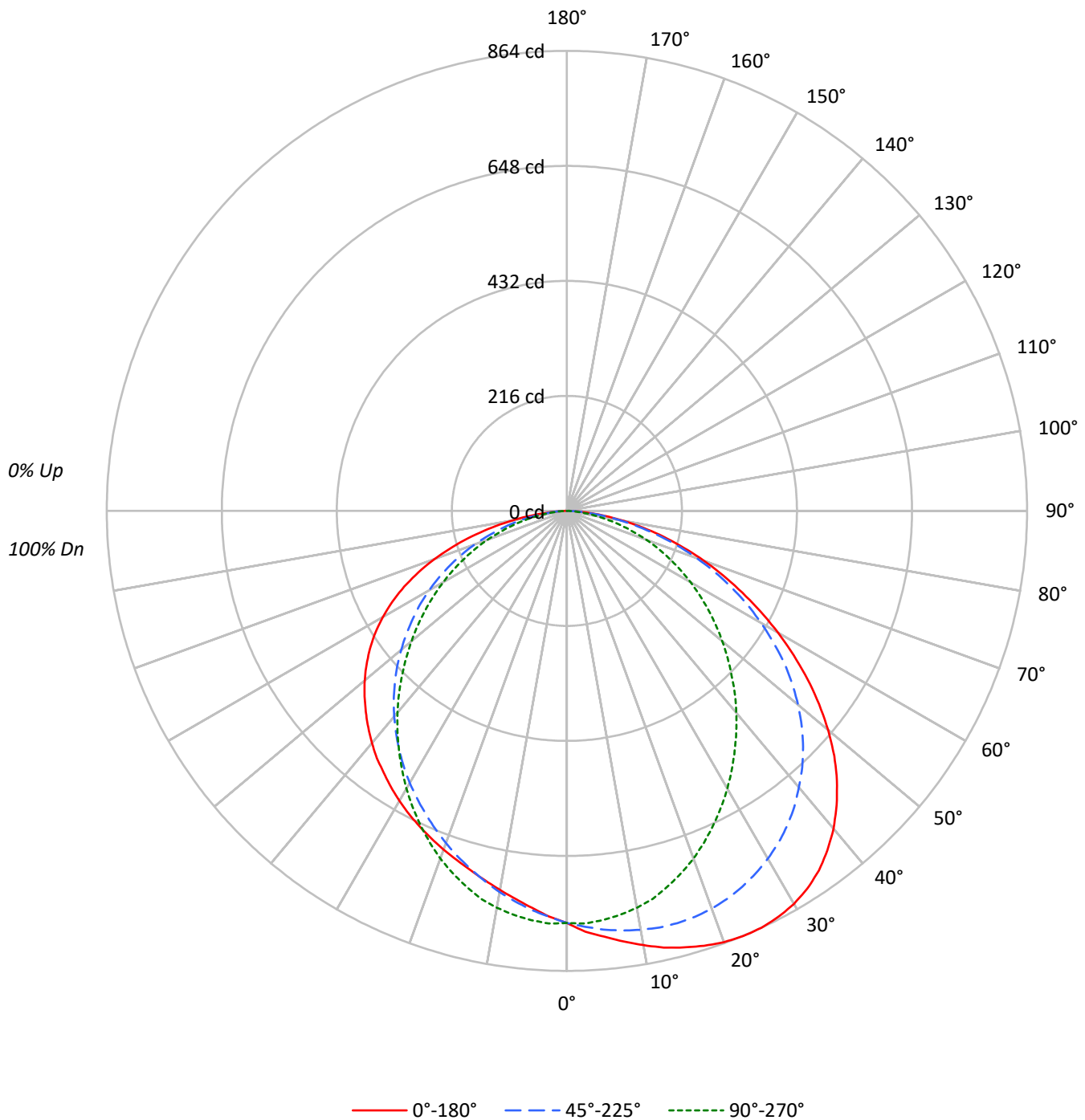
Lumens per Lamp: N/A
Luminaire Lumens: 2276.5 lumens
Efficiency: N/A
Efficacy: 97.3 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P834244

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-1LO-27-120-EDD-90

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834244

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-1LO-27-120-EDD-90

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°	2083	2083	2083
5°	2168	2084	2022
10°	2263	2068	1975
15°	2365	2035	1947
20°	2468	1990	1939
25°	2565	1932	1942
30°	2649	1872	1954
35°	2709	1805	1970
40°	2736	1738	1999
45°	2729	1665	2032
50°	2681	1595	2074
55°	2589	1521	2117
60°	2463	1443	2150
65°	2313	1355	2146
70°	2152	1249	2083
75°	1954	1098	1920
80°	1678	902	1619
85°	1278	618	1112

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834244

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-1LO-27-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.4	3.2
10°-20°	212.0	9.3
20°-30°	324.7	14.3
30°-40°	396.3	17.4
40°-50°	414.4	18.2
50°-60°	375.1	16.5
60°-70°	284.1	12.5
70°-80°	158.3	7.0
80°-90°	38.2	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°	610.1	26.8
0°-40°	1006.4	44.2
0°-60°	1795.9	78.9
0°-90°	2276.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2276.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	774	774	774	774	774	
5°	803	789	771	752	748	77
15°	849	802	730	696	699	241
25°	864	779	651	628	654	399
35°	825	721	549	549	600	515
45°	717	627	437	457	534	552
55°	552	498	324	353	451	492
65°	363	342	213	242	337	360
75°	188	177	106	126	185	199
85°	41	36	20	27	36	50
90°	0	0	0	0	0	

TEST NUMBER: P834244

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-1LO-27-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	773.9	773.9	773.9	773.9	773.9	773.9	773.9	773.9	773.9	773.9	773.9
2.5°	791.0	787.3	784.2	785.4	786.1	783.7	781.7	782.0	780.0	783.9	774.7
5°	802.7	799.3	795.7	797.1	795.7	792.2	789.3	788.4	783.0	785.2	775.9
7.5°	815.7	812.0	806.7	808.2	805.4	798.8	795.0	792.8	784.6	784.7	774.4
10°	828.2	825.0	817.9	818.9	813.7	804.9	798.9	795.9	784.2	782.5	771.9
12.5°	839.9	835.5	827.9	828.4	820.8	809.1	801.5	797.1	781.8	776.8	766.3
15°	848.8	844.6	835.5	835.3	825.5	810.3	801.6	795.6	776.3	768.3	757.3
17.5°	856.4	852.6	841.2	840.9	829.0	809.8	799.4	791.8	768.1	758.3	746.2
20°	861.9	858.0	845.3	844.1	829.9	807.2	794.9	785.2	757.5	745.8	732.3
22.5°	864.4	860.5	846.1	844.4	827.9	802.1	788.3	776.9	745.3	730.1	716.0
25°	863.9	860.2	843.9	842.2	824.0	794.5	779.0	765.9	729.9	712.0	698.1
27.5°	859.7	856.8	839.7	837.5	816.9	784.2	767.6	753.3	712.8	692.9	677.8
30°	852.4	850.2	832.1	830.1	808.1	772.9	754.4	737.9	694.4	671.9	656.7
32.5°	840.7	838.7	820.4	818.6	796.2	758.3	739.1	722.0	674.3	649.4	634.2
35°	824.6	823.5	805.7	803.7	781.0	741.8	721.3	702.5	653.3	625.2	610.7
37.5°	803.5	803.5	786.4	784.2	762.1	721.5	701.3	681.4	629.6	599.8	585.5
40°	779.0	781.2	763.7	761.6	740.1	699.6	677.6	656.7	604.1	573.1	559.1
42.5°	749.5	751.6	737.0	735.0	714.9	674.4	654.0	631.1	577.3	545.9	531.3
45°	717.1	719.8	706.7	705.2	686.4	646.9	627.2	604.1	549.4	517.5	503.2
47.5°	680.9	684.4	673.1	672.2	654.8	618.6	598.1	574.6	520.2	487.9	474.5
50°	640.3	645.3	636.0	636.0	620.5	584.4	566.7	543.2	489.7	457.4	444.2
52.5°	596.8	603.2	596.3	596.5	583.8	551.5	533.0	510.0	457.9	426.1	413.9
55°	551.8	558.1	553.7	554.3	544.4	514.9	498.2	475.3	425.4	394.5	383.0
57.5°	504.8	511.5	508.7	510.0	503.1	476.7	459.3	439.3	391.9	361.3	351.5
60°	457.6	464.0	462.5	464.3	459.9	437.1	421.2	400.6	358.3	328.8	320.2
62.5°	409.9	415.8	415.5	417.5	415.1	396.2	382.0	364.4	323.4	296.4	288.4
65°	363.2	368.3	367.9	370.1	369.6	354.4	341.5	325.5	288.6	263.7	256.8
67.5°	317.8	322.1	320.9	323.4	324.1	311.9	300.8	286.4	255.4	231.2	225.3
70°	273.5	276.4	274.9	276.6	278.1	269.0	259.5	246.8	220.1	198.8	193.9
72.5°	230.1	232.1	229.7	231.4	232.8	226.2	218.4	207.4	185.2	166.8	162.7
75°	187.9	190.8	185.9	187.6	188.6	182.0	177.4	168.5	149.4	135.2	132.5
77.5°	147.2	148.9	146.2	145.5	146.2	141.4	137.9	130.9	116.6	104.9	103.2
80°	108.3	109.3	106.6	105.9	106.4	103.0	100.3	95.2	85.1	76.3	75.6
82.5°	72.6	73.1	70.7	70.0	70.4	69.4	66.1	62.6	57.9	50.4	50.2
85°	41.4	41.4	39.8	39.1	39.4	37.7	36.5	34.7	32.8	27.7	28.1
87.5°	15.2	15.2	14.4	14.2	15.9	14.0	13.5	12.7	13.2	10.5	11.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834244

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-1LO-27-120-EDD-90

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	773.9	773.9	773.9	773.9	773.9	773.9	773.9	773.9	773.9	773.9	773.9
2.5°	777.3	775.6	774.1	768.8	771.0	765.6	765.3	763.2	761.7	758.8	762.6
5°	774.7	771.4	767.0	760.7	762.6	756.1	754.8	752.4	750.4	746.7	749.5
7.5°	770.7	765.1	758.2	750.2	752.8	744.8	742.8	740.2	738.5	734.1	736.7
10°	764.8	756.8	748.7	739.1	740.9	732.3	729.7	727.0	725.5	721.6	724.2
12.5°	755.6	746.0	735.0	724.5	726.5	718.4	715.0	712.2	711.6	708.4	711.5
15°	743.8	730.4	719.1	707.9	710.3	700.8	699.3	696.4	697.3	695.1	698.8
17.5°	728.7	713.3	701.0	689.0	691.3	683.4	682.2	680.9	681.7	681.4	685.4
20°	711.8	694.9	680.7	668.9	670.2	663.9	664.5	664.1	665.8	667.7	673.2
22.5°	692.7	673.6	658.7	646.5	648.6	643.1	645.5	646.2	649.1	653.3	660.4
25°	671.2	650.8	635.2	623.7	625.5	622.0	626.1	627.7	632.3	639.4	646.7
27.5°	648.7	627.1	610.5	599.5	603.0	599.5	605.6	609.0	615.9	623.7	632.7
30°	624.9	602.4	585.3	575.5	578.9	575.6	585.5	590.0	597.0	607.6	618.3
32.5°	599.8	576.2	559.4	551.8	554.2	553.7	564.7	569.7	579.0	591.2	602.5
35°	574.1	549.4	532.5	526.1	529.0	529.6	542.8	548.7	558.9	573.6	585.8
37.5°	547.6	522.4	505.8	500.5	503.1	505.6	521.0	526.9	538.4	554.5	567.9
40°	520.0	494.8	478.5	474.3	476.9	479.6	496.3	504.4	516.9	534.4	548.9
42.5°	492.1	466.9	451.1	448.1	450.6	455.9	473.6	481.3	494.4	513.7	529.8
45°	463.7	437.4	423.7	421.4	424.1	430.2	447.6	456.7	470.8	491.9	509.2
47.5°	434.9	409.4	396.3	394.8	397.5	404.3	423.6	431.9	446.7	469.2	487.9
50°	405.8	380.9	368.4	367.9	370.5	377.7	396.2	406.0	421.4	446.6	465.7
52.5°	376.4	352.5	341.2	341.2	343.6	351.0	369.6	379.8	395.7	422.2	443.4
55°	346.9	324.3	313.5	314.3	317.7	324.1	342.2	352.9	368.9	396.5	418.8
57.5°	317.5	296.0	286.2	287.4	290.6	297.0	314.8	326.8	341.4	369.9	392.8
60°	288.4	268.1	259.5	260.8	263.7	270.1	288.6	298.9	313.5	342.5	365.4
62.5°	259.0	240.5	232.4	234.1	236.7	243.1	260.5	270.5	284.9	313.5	336.5
65°	229.9	212.8	205.9	207.6	209.9	215.8	232.3	241.9	255.6	283.5	305.5
67.5°	201.1	185.6	179.8	181.5	183.4	188.9	202.5	213.0	225.8	252.4	273.2
70°	172.7	158.8	153.8	155.5	157.1	162.2	174.1	183.7	195.5	219.9	239.2
72.5°	144.6	131.1	128.6	130.1	131.4	135.8	147.2	154.8	165.1	186.8	203.3
75°	117.2	105.6	103.9	105.4	106.6	110.0	119.4	126.0	134.6	153.4	167.0
77.5°	90.8	81.0	80.4	81.5	82.7	85.1	92.5	99.5	106.2	120.1	132.1
80°	66.1	58.2	58.2	59.4	59.0	61.9	67.2	72.7	77.6	87.6	96.4
82.5°	43.6	37.4	38.2	39.1	39.6	40.8	44.0	48.2	51.3	57.3	63.1
85°	24.2	20.0	20.8	21.5	21.1	22.5	24.2	26.7	28.2	31.1	34.2
87.5°	9.0	7.4	7.6	8.1	8.5	9.1	9.1	10.7	10.8	11.2	11.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834244

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-1LO-27-120-EDD-90

CANDELA DISTRIBUTION (continued):

	160°	170°	180°
0°	773.9	773.9	773.9
2.5°	755.5	759.5	762.6
5°	742.4	745.8	748.5
7.5°	729.7	732.8	735.2
10°	717.7	721.1	722.8
12.5°	705.4	709.3	710.6
15°	693.2	697.1	698.8
17.5°	680.7	685.8	687.6
20°	669.0	675.4	677.0
22.5°	657.2	663.8	665.6
25°	644.3	652.1	654.0
27.5°	630.6	639.9	641.8
30°	616.9	627.1	628.9
32.5°	602.2	613.2	614.9
35°	586.8	597.8	599.8
37.5°	569.7	581.7	585.8
40°	552.0	565.0	569.2
42.5°	533.4	547.6	552.0
45°	513.4	529.0	534.0
47.5°	493.3	510.9	515.3
50°	471.4	490.2	495.5
52.5°	448.6	469.1	474.3
55°	424.9	445.6	451.3
57.5°	399.2	420.5	426.6
60°	372.3	393.6	399.4
62.5°	344.7	364.0	369.6
65°	314.0	332.1	337.1
67.5°	281.3	297.9	302.1
70°	246.6	261.0	264.7
72.5°	210.4	220.4	225.3
75°	173.0	181.0	184.7
77.5°	135.5	141.1	144.1
80°	98.8	102.0	104.5
82.5°	64.6	66.0	67.8
85°	34.8	34.8	36.0
87.5°	11.8	11.3	11.8
90°	0.0	0.0	0.0

(END OF REPORT)