

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: P835226

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-1STD-40-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835226
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-LD4-1STD-40-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

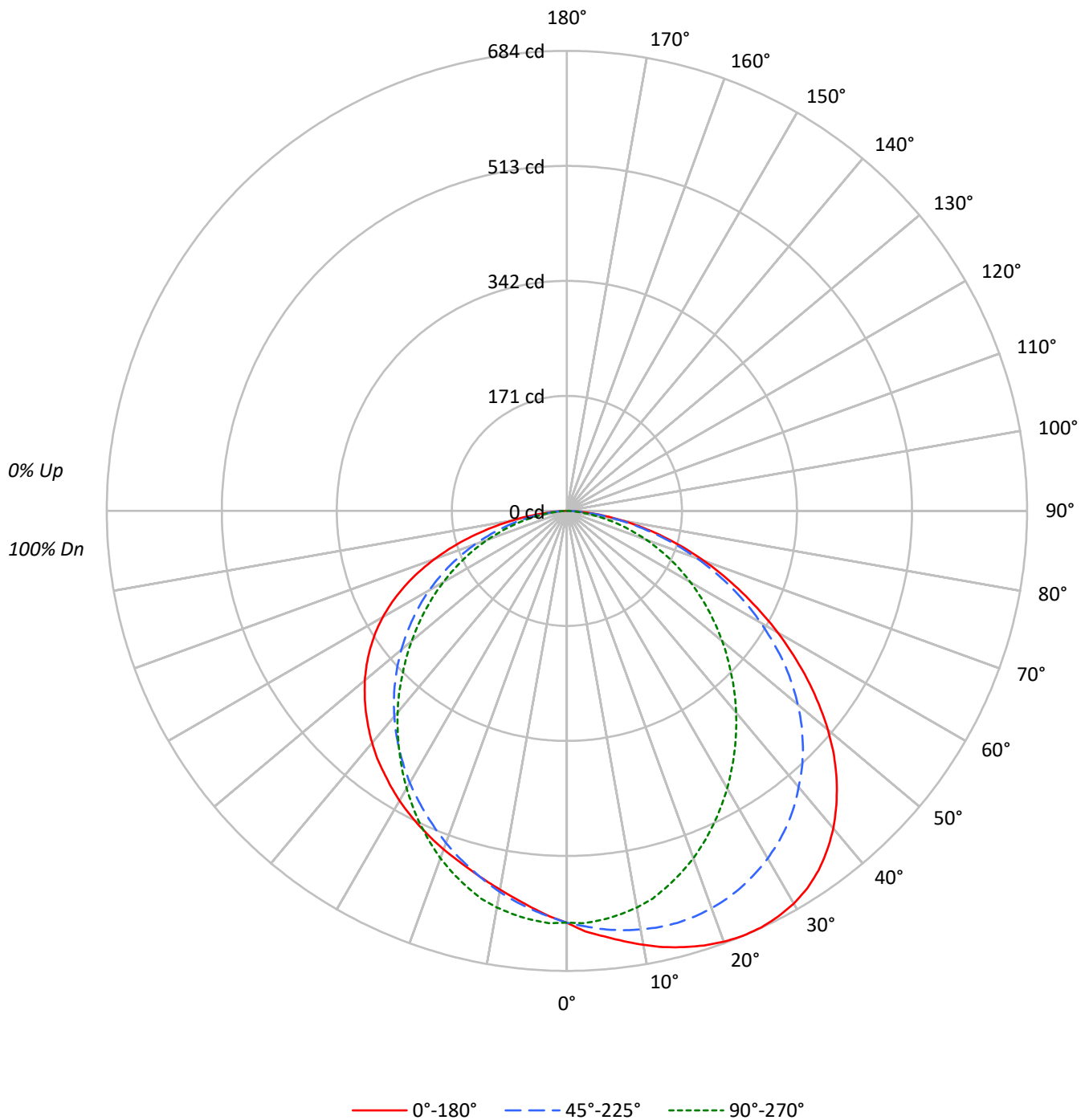
Lumens per Lamp: N/A
Luminaire Lumens: 1800.9 lumens
Efficiency: N/A
Efficacy: 108.5 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	109	104	100	96	106	102	98	94	97	94	91	94	91	88	90	88	86
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52
5	76	63	54	47	73	61	53	47	59	52	46	57	51	46	55	50	45
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35
8	60	46	38	32	59	46	38	32	44	37	32	43	36	31	42	36	31
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	1647	1647	1647
5°	1715	1648	1600
10°	1790	1636	1562
15°	1871	1610	1540
20°	1952	1574	1534
25°	2029	1529	1536
30°	2095	1481	1546
35°	2143	1428	1559
40°	2165	1375	1582
45°	2159	1317	1608
50°	2120	1262	1641
55°	2048	1203	1675
60°	1948	1142	1701
65°	1829	1072	1698
70°	1703	989	1648
75°	1546	868	1519
80°	1327	713	1282
85°	1013	488	880

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.1	3.2
10°-20°	167.7	9.3
20°-30°	256.9	14.3
30°-40°	313.5	17.4
40°-50°	327.9	18.2
50°-60°	296.7	16.5
60°-70°	224.7	12.5
70°-80°	125.2	7.0
80°-90°	30.2	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°	482.6	26.8
0°-40°	796.1	44.2
0°-60°	1420.7	78.9
0°-90°	1800.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1800.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	612	612	612	612	612	
5°	635	624	610	595	592	61
15°	672	634	578	551	553	190
25°	683	616	515	497	517	315
35°	652	571	435	434	474	407
45°	567	496	346	361	422	436
55°	436	394	256	279	357	390
65°	287	270	168	191	267	285
75°	149	140	84	100	146	158
85°	33	29	16	21	28	39
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°	612.2	612.2	612.2	612.2	612.2	612.2	612.2	612.2	612.2	612.2	612.2
2.5°	625.8	622.8	620.4	621.3	621.9	620.0	618.4	618.7	617.1	620.1	612.9
5°	635.0	632.3	629.5	630.6	629.5	626.7	624.4	623.7	619.5	621.2	613.8
7.5°	645.3	642.3	638.2	639.4	637.1	631.9	629.0	627.2	620.7	620.8	612.6
10°	655.2	652.6	647.0	647.8	643.7	636.7	632.0	629.6	620.4	619.1	610.6
12.5°	664.4	660.9	654.9	655.3	649.3	640.1	634.0	630.6	618.5	614.5	606.2
15°	671.5	668.2	660.9	660.8	653.1	641.0	634.2	629.4	614.1	607.8	599.1
17.5°	677.5	674.5	665.5	665.2	655.9	640.6	632.4	626.4	607.7	599.9	590.3
20°	681.8	678.7	668.7	667.8	656.5	638.6	628.8	621.2	599.3	590.0	579.3
22.5°	683.8	680.8	669.4	668.0	654.9	634.6	623.6	614.6	589.6	577.6	566.5
25°	683.4	680.5	667.6	666.3	651.8	628.6	616.2	605.9	577.4	563.3	552.3
27.5°	680.1	677.8	664.3	662.6	646.2	620.4	607.3	595.9	563.9	548.1	536.2
30°	674.3	672.6	658.3	656.7	639.3	611.4	596.8	583.7	549.3	531.5	519.5
32.5°	665.1	663.5	649.0	647.6	629.9	599.9	584.7	571.2	533.4	513.7	501.7
35°	652.4	651.4	637.4	635.8	617.9	586.8	570.6	555.8	516.8	494.6	483.1
37.5°	635.7	635.7	622.1	620.4	602.9	570.8	554.8	539.0	498.1	474.5	463.2
40°	616.2	618.0	604.2	602.5	585.5	553.5	536.1	519.5	477.9	453.4	442.3
42.5°	593.0	594.6	583.1	581.5	565.5	533.5	517.4	499.3	456.7	431.8	420.3
45°	567.3	569.4	559.1	557.9	543.0	511.7	496.2	477.9	434.7	409.4	398.1
47.5°	538.6	541.4	532.5	531.8	518.0	489.4	473.2	454.6	411.5	385.9	375.4
50°	506.5	510.5	503.2	503.2	490.9	462.4	448.3	429.7	387.4	361.9	351.4
52.5°	472.1	477.2	471.7	471.9	461.8	436.3	421.7	403.5	362.3	337.1	327.5
55°	436.5	441.5	438.0	438.5	430.6	407.4	394.1	376.0	336.6	312.1	303.0
57.5°	399.3	404.7	402.4	403.5	398.0	377.1	363.3	347.5	310.1	285.8	278.1
60°	362.0	367.1	365.9	367.3	363.9	345.8	333.2	316.9	283.4	260.1	253.3
62.5°	324.3	328.9	328.7	330.3	328.4	313.4	302.2	288.3	255.9	234.5	228.2
65°	287.3	291.3	291.1	292.8	292.4	280.4	270.2	257.5	228.3	208.6	203.1
67.5°	251.5	254.8	253.9	255.9	256.4	246.8	237.9	226.6	202.1	182.9	178.3
70°	216.4	218.7	217.5	218.8	220.0	212.8	205.3	195.2	174.1	157.2	153.4
72.5°	182.0	183.6	181.7	183.1	184.1	178.9	172.8	164.1	146.5	131.9	128.7
75°	148.7	151.0	147.1	148.4	149.2	144.0	140.4	133.3	118.2	106.9	104.8
77.5°	116.4	117.8	115.6	115.1	115.6	111.9	109.1	103.6	92.2	83.0	81.6
80°	85.6	86.4	84.3	83.8	84.2	81.5	79.4	75.3	67.3	60.4	59.8
82.5°	57.4	57.8	55.9	55.4	55.7	54.9	52.3	49.5	45.8	39.9	39.7
85°	32.8	32.8	31.4	30.9	31.2	29.8	28.9	27.4	26.0	21.9	22.2
87.5°	12.0	12.0	11.4	11.2	12.6	11.1	10.7	10.0	10.4	8.3	8.8
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°	612.2	612.2	612.2	612.2	612.2	612.2	612.2	612.2	612.2	612.2	612.2
2.5°	614.9	613.6	612.4	608.2	610.0	605.7	605.4	603.8	602.6	600.3	603.3
5°	612.9	610.2	606.7	601.8	603.3	598.2	597.1	595.2	593.6	590.7	593.0
7.5°	609.7	605.3	599.8	593.5	595.5	589.2	587.6	585.6	584.3	580.8	582.8
10°	605.0	598.7	592.3	584.7	586.1	579.3	577.3	575.2	574.0	570.9	572.9
12.5°	597.8	590.2	581.5	573.2	574.8	568.3	565.7	563.4	563.0	560.4	562.9
15°	588.4	577.8	568.9	560.0	561.9	554.4	553.2	550.9	551.6	549.9	552.8
17.5°	576.5	564.3	554.6	545.1	546.9	540.6	539.7	538.6	539.3	539.0	542.2
20°	563.1	549.7	538.5	529.1	530.2	525.3	525.7	525.4	526.7	528.2	532.6
22.5°	548.0	532.9	521.1	511.5	513.1	508.8	510.7	511.2	513.5	516.8	522.4
25°	531.0	514.8	502.5	493.4	494.9	492.1	495.3	496.6	500.2	505.8	511.6
27.5°	513.2	496.1	483.0	474.3	477.1	474.3	479.1	481.8	487.2	493.4	500.5
30°	494.3	476.5	463.0	455.3	457.9	455.4	463.2	466.8	472.3	480.7	489.1
32.5°	474.5	455.8	442.5	436.5	438.4	438.0	446.7	450.7	458.1	467.7	476.7
35°	454.2	434.7	421.3	416.2	418.5	419.0	429.4	434.1	442.1	453.8	463.4
37.5°	433.2	413.2	400.1	396.0	398.0	400.0	412.2	416.9	426.0	438.7	449.2
40°	411.4	391.4	378.6	375.2	377.2	379.4	392.6	399.1	409.0	422.7	434.3
42.5°	389.3	369.3	356.9	354.5	356.5	360.6	374.7	380.7	391.2	406.4	419.1
45°	366.8	346.1	335.2	333.4	335.5	340.3	354.1	361.3	372.4	389.2	402.8
47.5°	344.1	323.8	313.5	312.3	314.5	319.8	335.1	341.6	353.4	371.2	385.9
50°	321.0	301.4	291.5	291.1	293.1	298.8	313.4	321.2	333.4	353.3	368.4
52.5°	297.8	278.9	269.9	269.9	271.8	277.7	292.4	300.4	313.0	334.0	350.7
55°	274.5	256.5	248.0	248.6	251.3	256.4	270.7	279.2	291.9	313.7	331.3
57.5°	251.2	234.2	226.4	227.4	229.9	235.0	249.0	258.5	270.1	292.7	310.7
60°	228.2	212.1	205.3	206.4	208.6	213.7	228.3	236.5	248.0	271.0	289.1
62.5°	204.9	190.3	183.9	185.2	187.2	192.3	206.1	214.0	225.4	248.0	266.2
65°	181.9	168.3	162.9	164.2	166.1	170.8	183.7	191.4	202.2	224.3	241.7
67.5°	159.1	146.8	142.3	143.6	145.1	149.5	160.2	168.5	178.7	199.7	216.1
70°	136.6	125.7	121.6	123.0	124.3	128.3	137.7	145.3	154.7	174.0	189.2
72.5°	114.4	103.7	101.7	102.9	104.0	107.5	116.4	122.4	130.6	147.7	160.9
75°	92.7	83.5	82.2	83.4	84.3	87.0	94.5	99.7	106.5	121.4	132.1
77.5°	71.9	64.1	63.6	64.5	65.4	67.3	73.2	78.7	84.0	95.0	104.5
80°	52.3	46.0	46.0	47.0	46.7	49.0	53.1	57.5	61.4	69.3	76.3
82.5°	34.5	29.6	30.2	30.9	31.3	32.3	34.8	38.1	40.5	45.4	49.9
85°	19.1	15.8	16.5	17.0	16.7	17.8	19.1	21.1	22.3	24.6	27.0
87.5°	7.1	5.9	6.0	6.4	6.7	7.2	7.2	8.4	8.6	8.8	9.4
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):

	160°	170°	180°
0°	612.2	612.2	612.2
2.5°	597.6	600.9	603.3
5°	587.3	590.0	592.2
7.5°	577.3	579.7	581.6
10°	567.8	570.5	571.8
12.5°	558.0	561.1	562.2
15°	548.4	551.5	552.8
17.5°	538.5	542.5	544.0
20°	529.3	534.4	535.6
22.5°	519.9	525.1	526.6
25°	509.7	515.9	517.4
27.5°	498.9	506.2	507.7
30°	488.0	496.1	497.5
32.5°	476.4	485.1	486.4
35°	464.2	472.9	474.5
37.5°	450.7	460.2	463.4
40°	436.7	447.0	450.3
42.5°	421.9	433.2	436.7
45°	406.1	418.5	422.5
47.5°	390.2	404.1	407.6
50°	373.0	387.8	392.0
52.5°	354.9	371.1	375.2
55°	336.2	352.5	357.0
57.5°	315.8	332.7	337.5
60°	294.5	311.4	316.0
62.5°	272.7	288.0	292.4
65°	248.4	262.7	266.7
67.5°	222.5	235.7	239.0
70°	195.1	206.5	209.4
72.5°	166.5	174.4	178.3
75°	136.9	143.2	146.1
77.5°	107.2	111.6	114.0
80°	78.2	80.7	82.7
82.5°	51.1	52.2	53.7
85°	27.6	27.6	28.5
87.5°	9.4	9.0	9.4
90°	0.0	0.0	0.0

(END OF REPORT)