

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: P835335

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-1HI-40-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835335
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-LD4-1HI-40-120-EDD-90
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

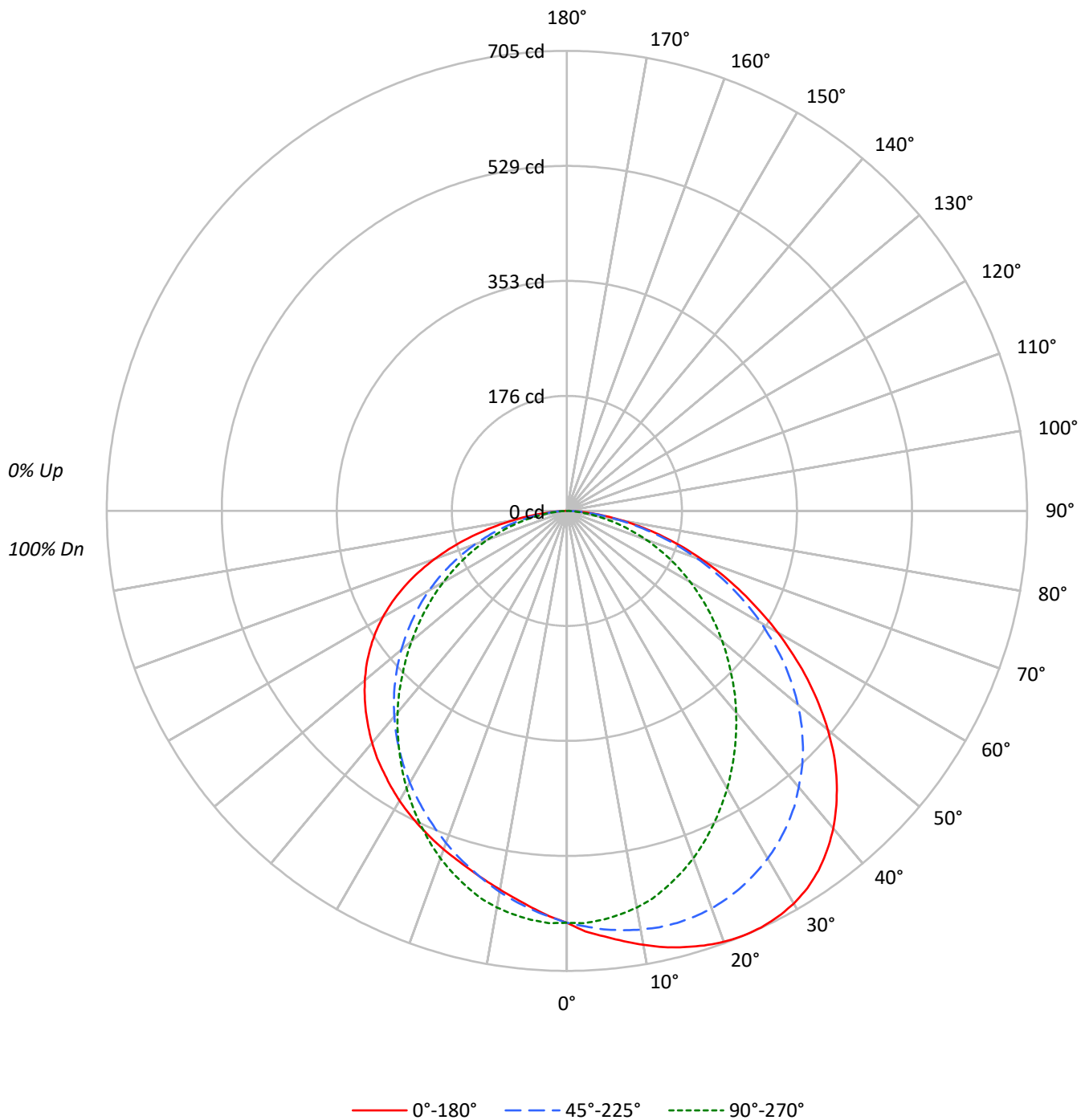
Lumens per Lamp: N/A
Luminaire Lumens: 1856.3 lumens
Efficiency: N/A
Efficacy: 84.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 22
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: P835335

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-1HI-40-120-EDD-90

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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	94	91	88	90	88	86	86	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	72	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	61	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	52	52	50
5	76	63	54	47	73	61	53	47	59	52	46	57	51	46	55	50	45	45	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	40	40	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	35	35	33
8	60	46	38	32	59	46	38	32	44	37	32	43	36	31	42	36	31	31	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	28	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	26	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	1698	1698	1698
5°	1768	1699	1649
10°	1845	1686	1611
15°	1928	1659	1587
20°	2013	1623	1581
25°	2091	1575	1583
30°	2160	1526	1593
35°	2209	1472	1607
40°	2231	1417	1631
45°	2225	1357	1657
50°	2186	1300	1691
55°	2111	1240	1727
60°	2008	1176	1753
65°	1886	1105	1750
70°	1755	1019	1699
75°	1593	895	1566
80°	1368	736	1320
85°	1044	503	908

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.9	3.2
10°-20°	172.8	9.3
20°-30°	264.8	14.3
30°-40°	323.1	17.4
40°-50°	337.9	18.2
50°-60°	305.9	16.5
60°-70°	231.6	12.5
70°-80°	129.1	7.0
80°-90°	31.1	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°	497.5	26.8
0°-40°	820.6	44.2
0°-60°	1464.4	78.9
0°-90°	1856.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1856.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	631	631	631	631	631	
5°	654	644	629	614	610	63
15°	692	654	596	568	570	196
25°	704	635	531	512	533	325
35°	672	588	448	448	489	420
45°	585	512	357	372	436	450
55°	450	406	264	288	368	402
65°	296	278	174	197	275	294
75°	153	145	86	103	151	163
85°	34	30	16	22	29	41
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°	631.1	631.1	631.1	631.1	631.1	631.1	631.1	631.1	631.1	631.1	631.1
2.5°	645.0	642.0	639.5	640.4	641.0	639.1	637.4	637.7	636.0	639.2	631.8
5°	654.5	651.8	648.9	650.0	648.9	646.0	643.6	642.9	638.5	640.3	632.7
7.5°	665.1	662.1	657.8	659.1	656.7	651.3	648.3	646.5	639.8	639.9	631.5
10°	675.3	672.7	666.9	667.8	663.5	656.3	651.5	649.0	639.5	638.1	629.4
12.5°	684.9	681.3	675.1	675.5	669.3	659.8	653.5	650.0	637.5	633.4	624.9
15°	692.2	688.7	681.3	681.1	673.1	660.7	653.7	648.7	633.0	626.5	617.5
17.5°	698.4	695.2	686.0	685.7	676.0	660.3	651.9	645.7	626.4	618.4	608.4
20°	702.8	699.6	689.3	688.3	676.7	658.2	648.2	640.3	617.7	608.2	597.1
22.5°	704.9	701.7	690.0	688.6	675.1	654.1	642.8	633.5	607.7	595.3	583.9
25°	704.4	701.4	688.2	686.8	671.9	647.9	635.2	624.6	595.2	580.6	569.3
27.5°	701.0	698.7	684.7	682.9	666.1	639.5	626.0	614.2	581.3	565.0	552.7
30°	695.1	693.3	678.5	676.9	658.9	630.2	615.2	601.7	566.2	547.9	535.5
32.5°	685.5	683.9	669.0	667.5	649.3	618.4	602.6	588.7	549.8	529.5	517.1
35°	672.4	671.5	657.0	655.3	636.9	604.9	588.2	572.9	532.7	509.8	498.0
37.5°	655.2	655.2	641.3	639.5	621.4	588.3	571.9	555.6	513.4	489.1	477.4
40°	635.2	637.0	622.8	621.0	603.5	570.5	552.6	535.5	492.6	467.3	455.9
42.5°	611.2	612.9	601.0	599.3	582.9	550.0	533.3	514.6	470.8	445.1	433.3
45°	584.7	586.9	576.3	575.1	559.7	527.5	511.5	492.6	448.0	421.9	410.4
47.5°	555.2	558.1	548.9	548.2	534.0	504.4	487.7	468.6	424.2	397.8	386.9
50°	522.1	526.2	518.6	518.6	506.0	476.6	462.1	442.9	399.3	373.0	362.2
52.5°	486.6	491.9	486.2	486.4	476.0	449.7	434.6	415.9	373.4	347.5	337.5
55°	450.0	455.1	451.5	452.0	443.9	419.9	406.2	387.6	346.9	321.7	312.3
57.5°	411.6	417.1	414.8	415.9	410.2	388.7	374.5	358.2	319.6	294.6	286.6
60°	373.1	378.4	377.1	378.6	375.1	356.4	343.5	326.6	292.2	268.1	261.1
62.5°	334.2	339.0	338.8	340.4	338.5	323.0	311.5	297.1	263.7	241.7	235.2
65°	296.2	300.3	300.0	301.8	301.4	289.0	278.5	265.4	235.3	215.0	209.4
67.5°	259.2	262.6	261.7	263.7	264.3	254.4	245.3	233.5	208.3	188.6	183.7
70°	223.0	225.4	224.1	225.5	226.8	219.3	211.6	201.2	179.5	162.1	158.1
72.5°	187.6	189.2	187.3	188.7	189.8	184.4	178.1	169.1	151.0	136.0	132.7
75°	153.2	155.6	151.6	153.0	153.8	148.4	144.7	137.4	121.8	110.2	108.0
77.5°	120.0	121.4	119.2	118.6	119.2	115.3	112.4	106.8	95.0	85.5	84.1
80°	88.3	89.1	86.9	86.3	86.8	84.0	81.8	77.7	69.4	62.2	61.7
82.5°	59.2	59.6	57.7	57.1	57.4	56.6	53.9	51.0	47.2	41.1	41.0
85°	33.8	33.8	32.4	31.9	32.1	30.8	29.8	28.3	26.8	22.6	22.9
87.5°	12.4	12.4	11.7	11.6	13.0	11.4	11.0	10.3	10.8	8.6	9.1
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°	631.1	631.1	631.1	631.1	631.1	631.1	631.1	631.1	631.1	631.1	631.1
2.5°	633.8	632.4	631.2	626.9	628.7	624.3	624.0	622.4	621.1	618.8	621.8
5°	631.8	629.0	625.4	620.3	621.8	616.6	615.5	613.5	611.9	608.9	611.2
7.5°	628.4	623.9	618.2	611.8	613.8	607.3	605.7	603.6	602.2	598.6	600.7
10°	623.6	617.1	610.5	602.6	604.2	597.1	595.1	592.9	591.6	588.4	590.5
12.5°	616.2	608.3	599.3	590.8	592.4	585.8	583.1	580.7	580.3	577.7	580.2
15°	606.5	595.6	586.4	577.3	579.2	571.5	570.2	567.9	568.6	566.8	569.8
17.5°	594.2	581.7	571.6	561.8	563.7	557.3	556.3	555.2	555.9	555.6	558.9
20°	580.4	566.6	555.1	545.4	546.5	541.4	541.8	541.5	542.9	544.4	549.0
22.5°	564.9	549.3	537.1	527.2	528.9	524.4	526.4	526.9	529.3	532.7	538.5
25°	547.3	530.6	518.0	508.6	510.1	507.2	510.5	511.9	515.6	521.4	527.3
27.5°	529.0	511.3	497.8	488.8	491.7	488.8	493.8	496.6	502.2	508.6	515.9
30°	509.5	491.2	477.3	469.3	472.0	469.4	477.4	481.1	486.8	495.5	504.2
32.5°	489.1	469.8	456.2	450.0	451.9	451.5	460.4	464.6	472.2	482.1	491.3
35°	468.2	448.0	434.2	429.0	431.3	431.9	442.6	447.5	455.7	467.7	477.7
37.5°	446.5	425.9	412.4	408.2	410.2	412.3	424.8	429.7	439.1	452.2	463.1
40°	424.0	403.5	390.2	386.8	388.8	391.1	404.7	411.3	421.5	435.7	447.6
42.5°	401.3	380.7	367.9	365.4	367.5	371.7	386.2	392.4	403.2	418.9	432.0
45°	378.1	356.7	345.5	343.6	345.8	350.8	365.0	372.4	383.9	401.1	415.2
47.5°	354.6	333.8	323.2	321.9	324.2	329.7	345.4	352.2	364.3	382.6	397.8
50°	330.9	310.6	300.4	300.0	302.1	308.0	323.0	331.0	343.6	364.2	379.7
52.5°	306.9	287.5	278.2	278.2	280.1	286.2	301.4	309.7	322.6	344.3	361.5
55°	282.9	264.4	255.6	256.3	259.0	264.3	279.0	287.7	300.8	323.3	341.5
57.5°	258.9	241.4	233.4	234.4	237.0	242.2	256.7	266.5	278.4	301.7	320.3
60°	235.2	218.6	211.6	212.7	215.0	220.3	235.3	243.7	255.6	279.3	297.9
62.5°	211.2	196.1	189.5	190.9	193.0	198.2	212.4	220.6	232.3	255.6	274.4
65°	187.5	173.5	167.9	169.2	171.2	176.0	189.4	197.2	208.4	231.2	249.1
67.5°	164.0	151.3	146.6	148.0	149.5	154.1	165.1	173.7	184.1	205.8	222.8
70°	140.8	129.5	125.4	126.8	128.1	132.3	141.9	149.8	159.5	179.3	195.0
72.5°	117.9	106.9	104.8	106.1	107.2	110.8	120.0	126.2	134.6	152.3	165.8
75°	95.6	86.1	84.7	85.9	86.9	89.7	97.4	102.8	109.8	125.1	136.1
77.5°	74.1	66.1	65.5	66.5	67.5	69.4	75.5	81.1	86.6	97.9	107.7
80°	53.9	47.5	47.5	48.4	48.1	50.5	54.8	59.3	63.3	71.5	78.6
82.5°	35.6	30.5	31.2	31.9	32.3	33.2	35.9	39.3	41.8	46.8	51.5
85°	19.7	16.3	17.0	17.5	17.2	18.3	19.7	21.8	23.0	25.4	27.9
87.5°	7.3	6.1	6.2	6.6	6.9	7.4	7.4	8.7	8.8	9.1	9.7
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):

	160°	170°	180°
0°	631.1	631.1	631.1
2.5°	616.0	619.3	621.8
5°	605.4	608.2	610.4
7.5°	595.1	597.5	599.5
10°	585.3	588.0	589.4
12.5°	575.2	578.4	579.5
15°	565.3	568.4	569.8
17.5°	555.1	559.2	560.7
20°	545.5	550.8	552.0
22.5°	535.9	541.3	542.8
25°	525.4	531.7	533.3
27.5°	514.2	521.8	523.3
30°	503.1	511.3	512.8
32.5°	491.1	500.0	501.4
35°	478.5	487.5	489.1
37.5°	464.6	474.4	477.7
40°	450.1	460.7	464.2
42.5°	434.9	446.5	450.1
45°	418.6	431.3	435.5
47.5°	402.2	416.6	420.2
50°	384.4	399.7	404.0
52.5°	365.8	382.5	386.8
55°	346.5	363.3	368.0
57.5°	325.5	342.9	347.9
60°	303.6	321.0	325.7
62.5°	281.1	296.8	301.4
65°	256.0	270.8	274.9
67.5°	229.4	242.9	246.4
70°	201.1	212.8	215.9
72.5°	171.6	179.7	183.7
75°	141.1	147.6	150.6
77.5°	110.5	115.0	117.5
80°	80.6	83.2	85.2
82.5°	52.7	53.8	55.3
85°	28.4	28.4	29.4
87.5°	9.7	9.2	9.7
90°	0.0	0.0	0.0

(END OF REPORT)