

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: P835263

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-1HI-20-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835263
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-20-120-EDD-90
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 2000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

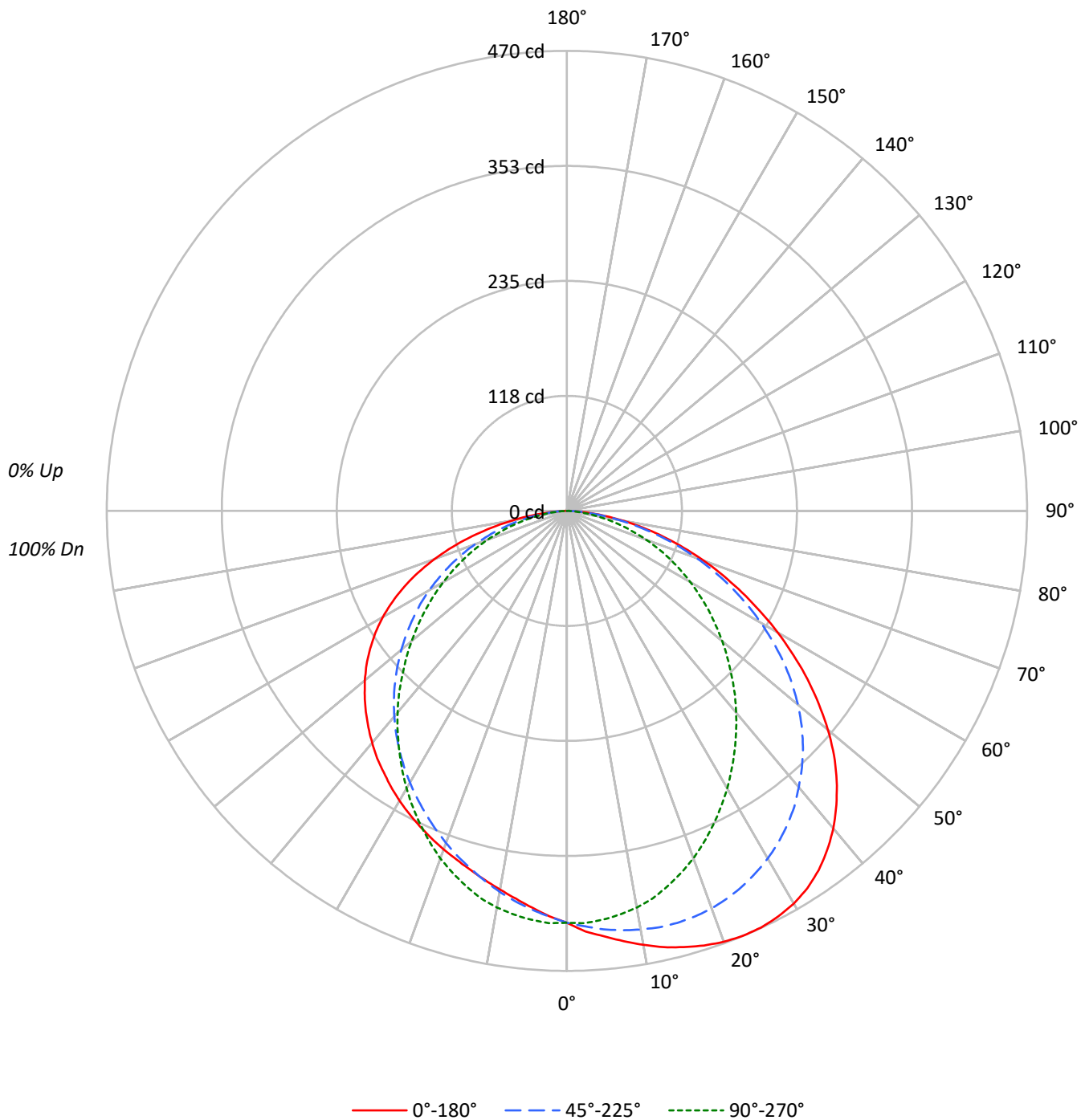
Lumens per Lamp: N/A
Luminaire Lumens: 1237.5 lumens
Efficiency: N/A
Efficacy: 56.3 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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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CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-1HI-20-120-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	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°	1132	1132	1132
5°	1179	1133	1099
10°	1230	1124	1074
15°	1285	1106	1058
20°	1342	1082	1054
25°	1394	1050	1056
30°	1440	1018	1062
35°	1473	981	1071
40°	1488	945	1087
45°	1483	905	1105
50°	1457	867	1127
55°	1407	827	1151
60°	1338	785	1168
65°	1257	737	1167
70°	1170	679	1132
75°	1063	597	1044
80°	913	490	880
85°	695	337	605

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.9	3.2
10°-20°	115.2	9.3
20°-30°	176.5	14.3
30°-40°	215.4	17.4
40°-50°	225.3	18.2
50°-60°	203.9	16.5
60°-70°	154.4	12.5
70°-80°	86.1	7.0
80°-90°	20.8	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°	331.7	26.8
0°-40°	547.1	44.2
0°-60°	976.3	78.9
0°-90°	1237.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1237.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	421	421	421	421	421	
5°	436	429	419	409	407	42
15°	461	436	397	379	380	131
25°	470	424	354	341	356	217
35°	448	392	299	298	326	280
45°	390	341	238	248	290	300
55°	300	271	176	192	245	268
65°	197	186	116	132	183	196
75°	102	96	57	68	100	108
85°	22	20	11	14	20	27
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°	420.7	420.7	420.7	420.7	420.7	420.7	420.7	420.7	420.7	420.7	420.7
2.5°	430.0	428.0	426.3	427.0	427.3	426.0	424.9	425.1	424.0	426.1	421.2
5°	436.3	434.5	432.6	433.3	432.6	430.6	429.1	428.6	425.7	426.9	421.8
7.5°	443.4	441.4	438.5	439.4	437.8	434.2	432.2	431.0	426.5	426.6	421.0
10°	450.2	448.5	444.6	445.2	442.3	437.5	434.3	432.7	426.3	425.4	419.6
12.5°	456.6	454.2	450.0	450.3	446.2	439.8	435.7	433.3	425.0	422.3	416.6
15°	461.4	459.1	454.2	454.1	448.8	440.5	435.8	432.5	422.0	417.7	411.7
17.5°	465.6	463.5	457.3	457.1	450.7	440.2	434.6	430.5	417.6	412.2	405.6
20°	468.5	466.4	459.5	458.9	451.1	438.8	432.1	426.9	411.8	405.4	398.1
22.5°	469.9	467.8	460.0	459.1	450.0	436.1	428.5	422.4	405.2	396.9	389.3
25°	469.6	467.6	458.8	457.9	447.9	431.9	423.5	416.4	396.8	387.1	379.5
27.5°	467.3	465.8	456.5	455.3	444.1	426.3	417.3	409.5	387.5	376.7	368.5
30°	463.4	462.2	452.3	451.2	439.3	420.2	410.1	401.1	377.5	365.3	357.0
32.5°	457.0	455.9	446.0	445.0	432.8	412.2	401.8	392.5	366.5	353.0	344.8
35°	448.3	447.7	438.0	436.9	424.6	403.2	392.1	381.9	355.1	339.9	332.0
37.5°	436.8	436.8	427.5	426.3	414.3	392.2	381.3	370.4	342.3	326.1	318.3
40°	423.5	424.7	415.2	414.0	402.3	380.3	368.4	357.0	328.4	311.6	303.9
42.5°	407.5	408.6	400.7	399.6	388.6	366.6	355.5	343.1	313.9	296.7	288.8
45°	389.8	391.3	384.2	383.4	373.2	351.6	341.0	328.4	298.7	281.3	273.6
47.5°	370.1	372.1	365.9	365.4	356.0	336.3	325.2	312.4	282.8	265.2	257.9
50°	348.1	350.8	345.8	345.8	337.3	317.7	308.1	295.3	266.2	248.7	241.5
52.5°	324.4	327.9	324.2	324.2	317.3	299.8	289.8	277.3	248.9	231.6	225.0
55°	300.0	303.4	301.0	301.3	295.9	279.9	270.8	258.4	231.3	214.4	208.2
57.5°	274.4	278.1	276.5	277.3	273.5	259.1	249.7	238.8	213.1	196.4	191.1
60°	248.7	252.2	251.4	252.4	250.0	237.6	229.0	217.8	194.8	178.8	174.1
62.5°	222.8	226.0	225.8	227.0	225.7	215.4	207.6	198.1	175.8	161.1	156.8
65°	197.4	200.2	200.0	201.2	200.9	192.7	185.7	176.9	156.9	143.4	139.6
67.5°	172.8	175.1	174.4	175.8	176.2	169.6	163.5	155.7	138.9	125.7	122.5
70°	148.7	150.3	149.4	150.4	151.2	146.2	141.1	134.2	119.6	108.1	105.4
72.5°	125.1	126.2	124.9	125.8	126.5	122.9	118.7	112.7	100.7	90.7	88.5
75°	102.2	103.7	101.1	102.0	102.5	98.9	96.5	91.6	81.2	73.5	72.0
77.5°	80.0	80.9	79.5	79.1	79.5	76.9	74.9	71.2	63.4	57.0	56.1
80°	58.9	59.4	57.9	57.6	57.8	56.0	54.5	51.8	46.3	41.5	41.1
82.5°	39.4	39.7	38.4	38.1	38.3	37.7	36.0	34.0	31.4	27.4	27.3
85°	22.5	22.5	21.6	21.2	21.4	20.5	19.9	18.9	17.8	15.1	15.3
87.5°	8.3	8.3	7.8	7.7	8.6	7.6	7.4	6.9	7.2	5.7	6.1
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°	420.7	420.7	420.7	420.7	420.7	420.7	420.7	420.7	420.7	420.7	420.7
2.5°	422.5	421.6	420.8	417.9	419.1	416.2	416.0	414.9	414.1	412.5	414.5
5°	421.2	419.3	416.9	413.5	414.5	411.1	410.3	409.0	407.9	405.9	407.5
7.5°	419.0	415.9	412.2	407.8	409.2	404.9	403.8	402.4	401.5	399.1	400.5
10°	415.7	411.4	407.0	401.8	402.8	398.1	396.7	395.2	394.4	392.3	393.7
12.5°	410.8	405.5	399.6	393.9	395.0	390.5	388.7	387.1	386.9	385.1	386.8
15°	404.3	397.1	390.9	384.8	386.1	381.0	380.2	378.6	379.1	377.9	379.9
17.5°	396.2	387.8	381.1	374.5	375.8	371.5	370.9	370.1	370.6	370.4	372.6
20°	387.0	377.8	370.0	363.6	364.3	360.9	361.2	361.0	361.9	363.0	366.0
22.5°	376.6	366.2	358.1	351.5	352.6	349.6	350.9	351.3	352.8	355.1	359.0
25°	364.9	353.8	345.3	339.0	340.1	338.1	340.3	341.3	343.7	347.6	351.6
27.5°	352.7	340.9	331.9	325.9	327.8	325.9	329.2	331.0	334.8	339.0	343.9
30°	339.7	327.5	318.2	312.8	314.7	312.9	318.3	320.7	324.5	330.3	336.1
32.5°	326.1	313.2	304.1	300.0	301.3	301.0	307.0	309.7	314.8	321.4	327.6
35°	312.1	298.7	289.5	286.0	287.6	287.9	295.1	298.3	303.8	311.8	318.5
37.5°	297.7	284.0	275.0	272.1	273.5	274.9	283.2	286.4	292.7	301.4	308.7
40°	282.7	269.0	260.1	257.9	259.2	260.7	269.8	274.2	281.0	290.5	298.4
42.5°	267.5	253.8	245.3	243.6	245.0	247.8	257.5	261.6	268.8	279.3	288.0
45°	252.1	237.8	230.4	229.1	230.5	233.8	243.3	248.3	255.9	267.4	276.8
47.5°	236.4	222.5	215.5	214.6	216.1	219.8	230.3	234.8	242.9	255.1	265.2
50°	220.6	207.1	200.3	200.0	201.4	205.3	215.4	220.7	229.1	242.8	253.2
52.5°	204.6	191.6	185.5	185.5	186.8	190.8	200.9	206.4	215.1	229.5	241.0
55°	188.6	176.3	170.4	170.9	172.7	176.2	186.0	191.8	200.6	215.5	227.7
57.5°	172.6	160.9	155.6	156.2	158.0	161.5	171.1	177.7	185.6	201.1	213.5
60°	156.8	145.8	141.1	141.8	143.4	146.9	156.9	162.5	170.4	186.2	198.6
62.5°	140.8	130.8	126.4	127.3	128.6	132.1	141.6	147.0	154.9	170.4	182.9
65°	125.0	115.7	111.9	112.8	114.1	117.3	126.3	131.5	138.9	154.1	166.1
67.5°	109.3	100.9	97.8	98.7	99.7	102.7	110.1	115.8	122.8	137.2	148.5
70°	93.9	86.3	83.6	84.5	85.4	88.2	94.6	99.9	106.3	119.5	130.0
72.5°	78.6	71.3	69.9	70.7	71.5	73.8	80.0	84.1	89.8	101.5	110.5
75°	63.7	57.4	56.5	57.3	57.9	59.8	64.9	68.5	73.2	83.4	90.8
77.5°	49.4	44.0	43.7	44.3	45.0	46.3	50.3	54.1	57.7	65.3	71.8
80°	36.0	31.6	31.6	32.3	32.1	33.7	36.5	39.5	42.2	47.6	52.4
82.5°	23.7	20.3	20.8	21.2	21.5	22.2	23.9	26.2	27.9	31.2	34.3
85°	13.1	10.9	11.3	11.7	11.5	12.2	13.1	14.5	15.4	16.9	18.6
87.5°	4.9	4.0	4.1	4.4	4.6	5.0	5.0	5.8	5.9	6.1	6.4
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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TEST NUMBER: P835263

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CANDELA DISTRIBUTION (continued):

	160°	170°	180°
0°	420.7	420.7	420.7
2.5°	410.7	412.9	414.5
5°	403.6	405.4	406.9
7.5°	396.7	398.4	399.6
10°	390.2	392.0	392.9
12.5°	383.5	385.6	386.3
15°	376.8	379.0	379.9
17.5°	370.0	372.8	373.8
20°	363.7	367.2	368.0
22.5°	357.3	360.8	361.9
25°	350.3	354.5	355.5
27.5°	342.8	347.9	348.9
30°	335.4	340.9	341.9
32.5°	327.4	333.3	334.3
35°	319.0	325.0	326.1
37.5°	309.7	316.2	318.5
40°	300.1	307.1	309.4
42.5°	289.9	297.7	300.1
45°	279.1	287.6	290.3
47.5°	268.1	277.7	280.1
50°	256.3	266.5	269.3
52.5°	243.9	255.0	257.9
55°	231.0	242.2	245.3
57.5°	217.0	228.6	231.9
60°	202.4	214.0	217.1
62.5°	187.4	197.9	200.9
65°	170.7	180.5	183.3
67.5°	152.9	161.9	164.2
70°	134.1	141.9	143.9
72.5°	114.4	119.8	122.5
75°	94.1	98.4	100.4
77.5°	73.7	76.7	78.3
80°	53.7	55.5	56.8
82.5°	35.1	35.9	36.9
85°	18.9	18.9	19.6
87.5°	6.4	6.2	6.4
90°	0.0	0.0	0.0

(END OF REPORT)