

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: P835155

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

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835155
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
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 2000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

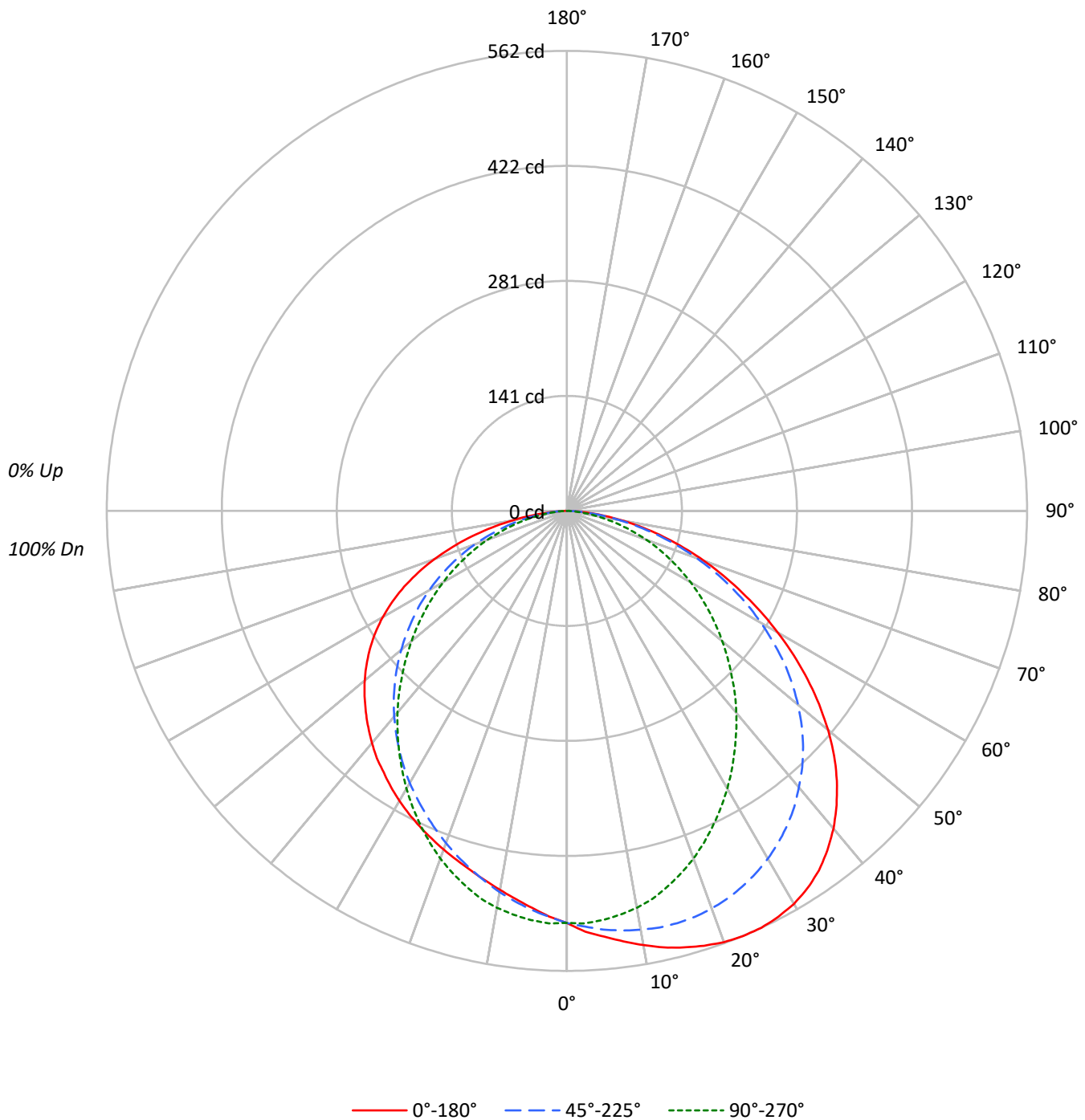
Lumens per Lamp: N/A
Luminaire Lumens: 1480.6 lumens
Efficiency: N/A
Efficacy: 67.3 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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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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°	1354	1354	1354
5°	1410	1355	1315
10°	1472	1345	1285
15°	1538	1324	1266
20°	1605	1294	1261
25°	1668	1257	1263
30°	1723	1217	1271
35°	1762	1174	1282
40°	1780	1130	1300
45°	1775	1083	1322
50°	1743	1037	1349
55°	1684	989	1377
60°	1602	939	1398
65°	1504	881	1396
70°	1400	813	1355
75°	1271	714	1249
80°	1091	586	1054
85°	834	401	722

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.7	3.2
10°-20°	137.9	9.3
20°-30°	211.2	14.3
30°-40°	257.7	17.4
40°-50°	269.5	18.2
50°-60°	244.0	16.5
60°-70°	184.8	12.5
70°-80°	103.0	7.0
80°-90°	24.8	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°	396.8	26.8
0°-40°	654.5	44.2
0°-60°	1168.0	78.9
0°-90°	1480.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1480.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	503	503	503	503	503	
5°	522	513	502	489	487	50
15°	552	521	475	453	454	157
25°	562	507	423	408	425	259
35°	536	469	357	357	390	335
45°	466	408	284	297	347	359
55°	359	324	211	230	294	320
65°	236	222	138	157	219	234
75°	122	115	69	82	120	130
85°	27	24	13	17	23	32
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°	503.3	503.3	503.3	503.3	503.3	503.3	503.3	503.3	503.3	503.3	503.3
2.5°	514.5	512.0	510.1	510.8	511.3	509.7	508.4	508.6	507.3	509.8	503.9
5°	522.1	519.8	517.5	518.4	517.5	515.2	513.4	512.8	509.3	510.7	504.7
7.5°	530.5	528.1	524.7	525.7	523.8	519.5	517.1	515.7	510.3	510.4	503.7
10°	538.7	536.6	532.0	532.6	529.2	523.5	519.6	517.6	510.1	509.0	502.0
12.5°	546.3	543.4	538.4	538.8	533.8	526.2	521.3	518.4	508.5	505.2	498.4
15°	552.1	549.3	543.4	543.3	536.9	527.0	521.4	517.4	504.9	499.7	492.6
17.5°	557.0	554.5	547.1	546.9	539.2	526.7	520.0	515.0	499.6	493.2	485.3
20°	560.6	558.0	549.8	549.0	539.8	525.0	517.0	510.7	492.7	485.1	476.3
22.5°	562.2	559.7	550.3	549.2	538.4	521.7	512.7	505.3	484.8	474.9	465.7
25°	561.9	559.5	548.9	547.8	535.9	516.8	506.6	498.2	474.7	463.1	454.1
27.5°	559.1	557.3	546.1	544.7	531.3	510.1	499.3	489.9	463.6	450.6	440.9
30°	554.4	553.0	541.2	539.9	525.6	502.7	490.7	479.9	451.6	437.0	427.1
32.5°	546.8	545.5	533.6	532.4	517.9	493.2	480.7	469.6	438.5	422.4	412.5
35°	536.4	535.6	524.0	522.7	508.0	482.4	469.1	456.9	424.9	406.6	397.2
37.5°	522.6	522.6	511.5	510.1	495.6	469.2	456.1	443.2	409.5	390.1	380.8
40°	506.6	508.1	496.7	495.3	481.3	455.0	440.7	427.1	392.9	372.8	363.6
42.5°	487.5	488.8	479.4	478.0	464.9	438.7	425.3	410.5	375.5	355.0	345.6
45°	466.4	468.1	459.7	458.7	446.5	420.7	408.0	392.9	357.3	336.6	327.3
47.5°	442.8	445.1	437.8	437.2	425.9	402.3	389.0	373.7	338.3	317.3	308.6
50°	416.4	419.7	413.7	413.7	403.6	380.1	368.6	353.3	318.5	297.5	288.9
52.5°	388.2	392.3	387.8	387.9	379.7	358.7	346.7	331.7	297.8	277.1	269.2
55°	358.9	363.0	360.1	360.5	354.0	334.9	324.0	309.2	276.7	256.6	249.1
57.5°	328.3	332.7	330.8	331.7	327.2	310.0	298.7	285.7	254.9	235.0	228.6
60°	297.6	301.8	300.8	302.0	299.1	284.3	274.0	260.5	233.0	213.9	208.3
62.5°	266.6	270.4	270.2	271.5	270.0	257.7	248.4	237.0	210.4	192.8	187.6
65°	236.2	239.5	239.3	240.7	240.4	230.5	222.1	211.7	187.7	171.5	167.0
67.5°	206.7	209.5	208.7	210.4	210.8	202.9	195.6	186.3	166.1	150.4	146.5
70°	177.9	179.8	178.8	179.9	180.9	174.9	168.8	160.5	143.1	129.3	126.1
72.5°	149.6	150.9	149.4	150.5	151.4	147.1	142.0	134.9	120.5	108.5	105.8
75°	122.2	124.1	120.9	122.0	122.7	118.4	115.4	109.6	97.1	87.9	86.1
77.5°	95.7	96.8	95.1	94.6	95.1	92.0	89.7	85.2	75.8	68.2	67.1
80°	70.4	71.1	69.3	68.9	69.2	67.0	65.2	61.9	55.3	49.6	49.2
82.5°	47.2	47.5	46.0	45.5	45.8	45.1	43.0	40.7	37.6	32.8	32.7
85°	27.0	27.0	25.9	25.4	25.6	24.5	23.8	22.6	21.3	18.0	18.3
87.5°	9.9	9.9	9.4	9.2	10.3	9.1	8.8	8.3	8.6	6.8	7.3
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°	503.3	503.3	503.3	503.3	503.3	503.3	503.3	503.3	503.3	503.3	503.3
2.5°	505.5	504.4	503.5	500.0	501.5	498.0	497.7	496.4	495.4	493.6	496.0
5°	503.9	501.7	498.8	494.8	496.0	491.8	490.9	489.4	488.1	485.6	487.5
7.5°	501.3	497.6	493.1	487.9	489.6	484.4	483.1	481.5	480.4	477.5	479.1
10°	497.4	492.2	487.0	480.7	481.9	476.3	474.6	472.9	471.9	469.3	471.0
12.5°	491.5	485.2	478.0	471.2	472.5	467.3	465.1	463.2	462.9	460.8	462.7
15°	483.8	475.1	467.7	460.4	462.0	455.8	454.8	453.0	453.5	452.1	454.5
17.5°	474.0	464.0	455.9	448.1	449.7	444.5	443.7	442.8	443.4	443.2	445.8
20°	463.0	452.0	442.7	435.0	435.9	431.8	432.2	431.9	433.0	434.3	437.9
22.5°	450.5	438.1	428.4	420.5	421.8	418.3	419.8	420.3	422.2	424.9	429.5
25°	436.6	423.3	413.1	405.6	406.9	404.5	407.2	408.3	411.3	415.9	420.6
27.5°	421.9	407.8	397.1	389.9	392.2	389.9	393.9	396.1	400.6	405.6	411.5
30°	406.4	391.8	380.7	374.3	376.5	374.4	380.8	383.8	388.3	395.2	402.1
32.5°	390.1	374.7	363.8	358.9	360.4	360.1	367.3	370.6	376.6	384.5	391.9
35°	373.4	357.3	346.3	342.2	344.0	344.5	353.1	356.9	363.5	373.1	381.0
37.5°	356.1	339.7	329.0	325.6	327.2	328.9	338.9	342.7	350.2	360.6	369.3
40°	338.2	321.8	311.2	308.5	310.1	311.9	322.8	328.1	336.2	347.6	357.0
42.5°	320.1	303.7	293.4	291.4	293.1	296.5	308.1	313.0	321.6	334.1	344.6
45°	301.6	284.5	275.6	274.1	275.8	279.8	291.1	297.1	306.2	319.9	331.2
47.5°	282.9	266.3	257.8	256.8	258.5	263.0	275.5	280.9	290.6	305.2	317.3
50°	263.9	247.8	239.6	239.3	240.9	245.7	257.7	264.1	274.1	290.5	302.9
52.5°	244.8	229.3	221.9	221.9	223.5	228.3	240.4	247.0	257.3	274.6	288.4
55°	225.7	210.9	203.9	204.4	206.6	210.8	222.6	229.5	240.0	257.9	272.4
57.5°	206.5	192.5	186.2	186.9	189.0	193.2	204.7	212.6	222.0	240.6	255.5
60°	187.6	174.4	168.8	169.7	171.5	175.7	187.7	194.4	203.9	222.8	237.6
62.5°	168.4	156.4	151.2	152.3	153.9	158.1	169.4	175.9	185.3	203.9	218.8
65°	149.5	138.4	133.9	135.0	136.5	140.4	151.1	157.3	166.2	184.4	198.7
67.5°	130.8	120.7	117.0	118.1	119.3	122.9	131.7	138.5	146.9	164.2	177.7
70°	112.3	103.3	100.0	101.1	102.2	105.5	113.2	119.5	127.2	143.0	155.6
72.5°	94.1	85.3	83.6	84.6	85.5	88.3	95.7	100.7	107.4	121.5	132.2
75°	76.2	68.7	67.6	68.5	69.3	71.5	77.7	82.0	87.6	99.8	108.6
77.5°	59.1	52.7	52.3	53.0	53.8	55.3	60.2	64.7	69.1	78.1	85.9
80°	43.0	37.8	37.8	38.6	38.4	40.3	43.7	47.3	50.5	57.0	62.7
82.5°	28.4	24.3	24.9	25.4	25.7	26.5	28.6	31.4	33.3	37.3	41.0
85°	15.7	13.0	13.5	14.0	13.8	14.6	15.7	17.4	18.4	20.2	22.2
87.5°	5.8	4.8	5.0	5.3	5.5	5.9	5.9	6.9	7.0	7.3	7.7
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°	503.3	503.3	503.3
2.5°	491.4	494.0	496.0
5°	482.9	485.1	486.8
7.5°	474.6	476.6	478.2
10°	466.8	469.0	470.1
12.5°	458.8	461.3	462.2
15°	450.9	453.4	454.5
17.5°	442.7	446.0	447.2
20°	435.1	439.3	440.3
22.5°	427.4	431.7	432.9
25°	419.1	424.1	425.3
27.5°	410.2	416.2	417.4
30°	401.2	407.8	409.1
32.5°	391.7	398.8	399.9
35°	381.7	388.8	390.1
37.5°	370.6	378.4	381.0
40°	359.0	367.5	370.2
42.5°	346.9	356.1	359.0
45°	333.9	344.0	347.3
47.5°	320.8	332.3	335.1
50°	306.6	318.8	322.3
52.5°	291.8	305.1	308.5
55°	276.4	289.8	293.5
57.5°	259.6	273.5	277.5
60°	242.2	256.0	259.8
62.5°	224.2	236.8	240.4
65°	204.2	216.0	219.3
67.5°	183.0	193.7	196.5
70°	160.4	169.8	172.2
72.5°	136.9	143.4	146.5
75°	112.6	117.7	120.1
77.5°	88.1	91.8	93.7
80°	64.3	66.3	68.0
82.5°	42.0	42.9	44.1
85°	22.7	22.7	23.4
87.5°	7.7	7.4	7.7
90°	0.0	0.0	0.0

(END OF REPORT)