

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: P550904

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-82-84-ED1D**

Issue Date: 7/9/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P550904
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-248-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCC-X-2-LD4-1LO-50-UNV-82-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

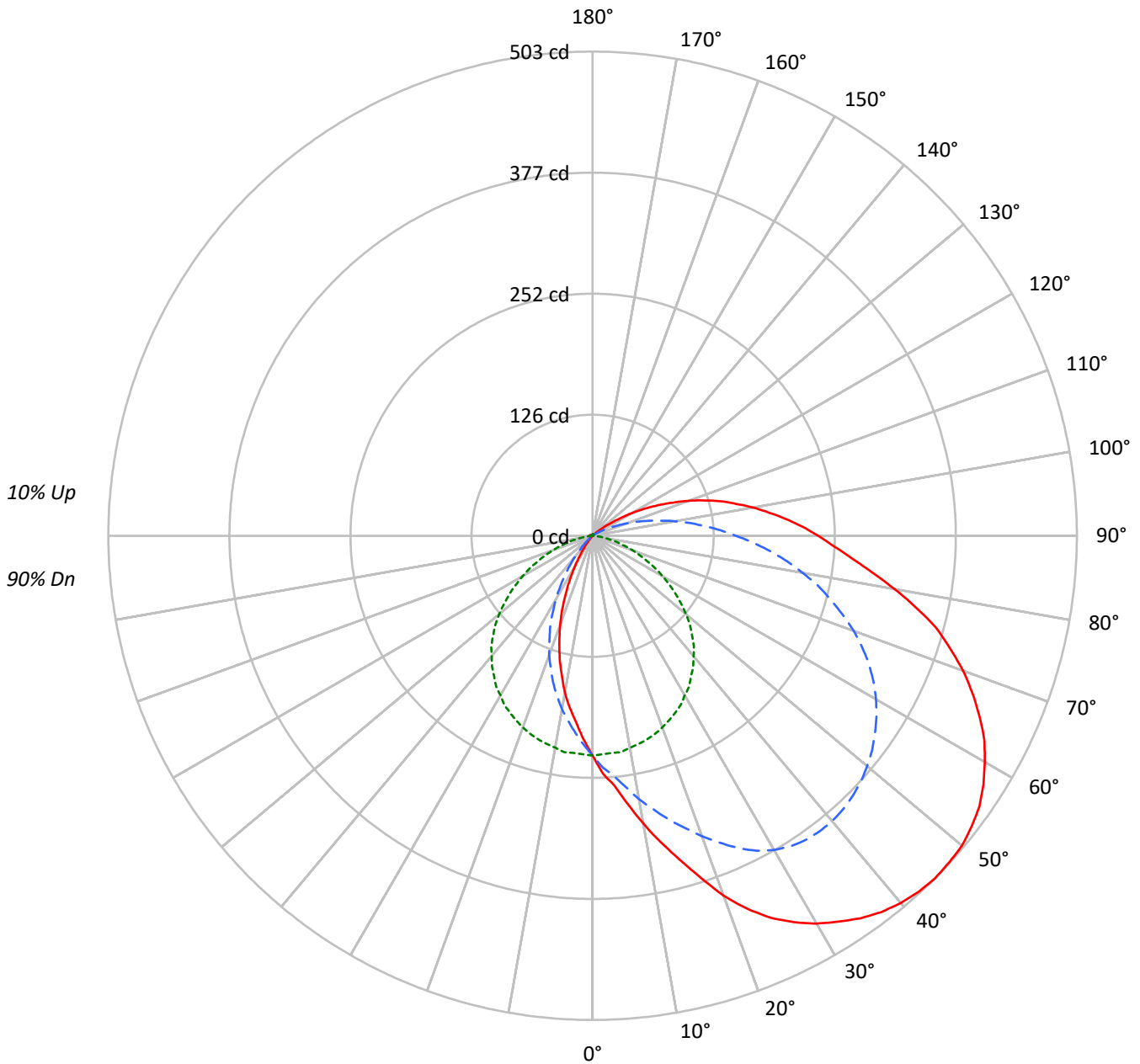
Lumens per Lamp: N/A
Luminaire Lumens: 1128.1 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (A_{in}): 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: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	117	117	117	117	113	113	113	113	105	105	105	99	99	99	93	93	93	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2456	2456	2456
5°	2696	2420	2019
10°	3050	2390	1664
15°	3419	2360	1297
20°	3856	2322	955
25°	4218	2277	627
30°	4488	2218	353
35°	4721	2153	156
40°	4928	2074	38
45°	5106	1974	0
50°	5255	1842	0
55°	5368	1675	0
60°	5426	1481	0
65°	5448	1261	0
70°	5429	1028	0
75°	5360	757	4
80°	5144	464	24
85°	4971	224	31



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.9	1.9
10°-20°	65.4	5.8
20°-30°	106.0	9.4
30°-40°	136.1	12.1
40°-50°	154.1	13.7
50°-60°	159.7	14.2
60°-70°	150.6	13.3
70°-80°	126.2	11.2
80°-90°	91.5	8.1
90°-100°	60.1	5.3
100°-110°	34.7	3.1
110°-120°	15.3	1.4
120°-130°	4.2	0.4
130°-140°	1.0	0.1
140°-150°	0.6	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	193.3	17.1
0°-40°	329.4	29.2
0°-60°	643.1	57.0
0°-90°	1011.4	89.6
90°-120°	110.2	9.8
90°-150°	116.0	10.3
90°-180°	117.0	10.4
0°-180°	1128.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	228	228	228	228	228	
5°	260	250	226	206	195	26
15°	348	305	219	158	132	100
25°	438	358	203	104	65	202
35°	485	386	178	51	16	304
45°	503	382	146	12	0	388
55°	490	358	105	0	0	438
65°	443	317	63	0	0	439
75°	369	256	27	0	0	387
85°	270	185	4	1	2	231
90°	234	149	1	2	2	128
95°	201	116	1	2	3	158
105°	138	60	1	2	2	146
115°	75	20	1	1	2	75
125°	22	3	1	1	1	22
135°	1	1	2	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	228.2	228.2	228.2	228.2	228.2	228.2	228.2	228.2	228.2	228.2	228.2
2.5°	247.4	247.1	246.2	244.7	242.7	239.2	236.3	233.7	230.2	227.3	221.8
5°	260.4	259.0	257.8	256.4	251.7	248.5	243.3	237.5	231.9	226.4	215.4
7.5°	281.4	279.0	277.3	273.2	266.8	259.6	251.4	245.9	242.1	226.7	207.8
10°	303.7	301.7	298.2	290.9	283.1	272.6	261.0	247.9	236.3	223.5	201.1
12.5°	325.8	322.9	318.0	308.7	297.6	284.6	268.6	253.2	236.6	221.5	193.3
15°	347.9	344.7	339.5	328.2	313.6	296.5	277.0	257.5	238.0	218.9	185.1
17.5°	372.0	367.7	359.8	347.0	328.7	307.5	284.6	261.0	237.5	215.7	176.4
20°	397.9	391.8	383.4	366.2	344.7	319.7	292.1	264.5	237.2	211.9	166.5
22.5°	419.4	413.3	404.0	386.3	360.4	329.9	298.5	266.8	236.0	207.5	157.2
25°	438.0	433.1	422.9	402.6	375.2	340.7	304.6	268.6	234.3	202.9	147.4
27.5°	452.6	447.9	436.6	415.6	387.7	350.2	309.3	269.4	231.9	198.2	137.2
30°	465.3	460.7	447.0	425.5	396.2	357.8	313.9	269.7	229.0	191.3	126.1
32.5°	475.2	470.9	456.9	434.0	402.0	363.0	316.5	269.4	225.3	186.3	114.2
35°	485.1	480.7	464.5	440.1	406.3	365.4	318.6	268.0	220.6	178.2	102.9
37.5°	492.7	487.7	471.2	444.1	408.4	365.9	318.3	266.0	215.7	171.5	91.6
40°	497.9	492.7	474.9	446.5	409.0	365.1	315.9	262.5	209.9	163.1	79.6
42.5°	501.4	495.6	476.7	449.9	407.8	362.7	312.5	258.1	203.5	155.8	68.3
45°	503.1	497.0	477.0	447.0	405.8	358.4	307.2	252.6	196.5	145.9	57.0
47.5°	502.3	495.6	475.5	443.8	402.0	353.7	301.4	245.9	188.1	137.2	46.2
50°	500.8	493.8	472.3	439.8	396.7	347.9	295.0	237.8	179.3	126.4	36.6
52.5°	496.2	489.2	468.8	434.0	390.6	341.2	286.3	229.3	170.0	116.0	27.9
55°	490.3	483.9	462.7	428.7	382.8	333.1	278.2	220.3	161.0	105.2	20.1
57.5°	481.3	475.5	455.2	420.3	375.0	324.1	269.2	210.4	149.7	94.5	14.0
60°	470.3	464.5	444.7	410.7	365.9	313.9	259.3	200.3	139.5	83.7	8.7
62.5°	458.7	453.1	432.5	398.8	354.6	303.2	248.5	190.1	128.8	73.8	5.2
65°	443.3	438.0	419.4	384.5	342.1	291.5	236.6	177.9	117.7	62.8	2.9
67.5°	427.0	422.3	403.4	371.5	327.6	278.7	224.4	166.0	106.1	53.2	1.5
70°	409.5	403.7	386.3	353.7	312.7	264.2	211.0	153.8	95.0	43.9	0.0
72.5°	389.2	384.8	368.0	337.2	295.6	248.8	197.4	140.4	82.8	34.9	0.3
75°	369.4	363.9	348.5	319.4	278.7	232.5	182.2	127.9	70.9	26.7	0.3
77.5°	343.8	342.1	327.6	299.4	262.8	216.8	165.7	112.8	59.6	19.2	0.3
80°	318.3	316.5	305.2	279.3	244.2	198.2	150.3	98.5	48.5	12.8	0.3
82.5°	293.0	290.7	279.9	258.4	225.3	182.5	134.3	84.3	38.4	7.8	0.3
85°	270.3	267.4	255.8	236.0	205.8	164.8	117.7	70.3	28.5	4.4	0.6
87.5°	250.8	248.8	236.0	215.7	186.0	148.2	103.2	57.0	20.1	2.0	0.9
90°	234.3	229.9	218.6	197.1	167.4	129.9	87.8	45.6	13.4	1.2	1.2
92.5°	218.0	214.2	201.7	179.6	150.9	114.2	73.0	34.9	8.4	0.6	1.5
95°	201.1	197.1	184.9	164.5	134.0	98.2	59.9	25.6	4.7	0.6	1.5
97.5°	184.6	180.8	168.0	147.7	118.9	84.3	47.4	18.0	2.3	0.6	1.2
100°	169.2	164.8	153.2	132.8	103.8	70.3	36.6	11.6	1.5	0.6	1.2
102.5°	152.9	149.4	137.5	117.7	88.1	57.3	27.3	7.3	0.6	0.6	0.9
105°	138.4	134.0	122.4	102.0	75.0	45.1	19.2	4.4	0.6	0.6	0.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	90.1	86.6	76.4	59.3	38.1	17.7	5.2	0.9	0.9	0.9	0.9
115°	75.3	70.0	61.0	45.9	28.2	11.6	2.6	0.9	0.9	0.9	0.9
117.5°	60.2	55.8	49.4	34.9	18.6	7.6	1.5	0.9	0.9	0.9	0.9
120°	47.1	43.0	35.8	24.1	12.5	4.4	0.6	0.9	0.9	0.9	0.9
122.5°	33.7	30.5	24.1	15.7	7.6	2.0	0.9	0.9	1.2	1.2	0.9
125°	22.4	20.6	16.0	9.6	4.7	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	14.5	13.1	9.3	5.5	2.0	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.1	7.3	5.5	3.2	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.7	4.4	2.9	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2
135°	1.2	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.5	1.5	1.5	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
160°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
162.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2	1.2
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.5
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.2
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	228.2	228.2	228.2
2.5°	217.1	213.1	211.9
5°	205.5	198.8	195.0
7.5°	193.9	184.9	180.5
10°	183.1	170.3	165.7
12.5°	170.3	155.5	148.2
15°	158.1	138.9	132.0
17.5°	144.5	122.9	114.8
20°	131.7	107.0	98.5
22.5°	117.1	91.3	82.0
25°	104.1	75.6	65.1
27.5°	89.5	59.6	50.6
30°	75.9	45.6	36.6
32.5°	62.8	33.4	25.3
35°	50.6	22.7	16.0
37.5°	38.9	14.0	8.1
40°	28.2	7.3	3.8
42.5°	18.9	3.5	2.0
45°	11.6	1.7	0.0
47.5°	6.7	0.0	0.0
50°	3.5	0.0	0.0
52.5°	1.5	0.0	0.0
55°	0.0	0.0	0.0
57.5°	0.0	0.0	0.0
60°	0.0	0.0	0.0
62.5°	0.0	0.0	0.0
65°	0.0	0.0	0.0
67.5°	0.0	0.0	0.0
70°	0.0	0.0	0.0
72.5°	0.0	0.0	0.0
75°	0.3	0.3	0.3
77.5°	0.3	0.6	0.9
80°	0.6	1.2	1.5
82.5°	1.2	1.5	1.5
85°	1.2	1.5	1.7
87.5°	1.5	1.7	2.0
90°	1.7	2.0	2.0
92.5°	1.7	2.3	2.3
95°	2.0	2.3	2.6
97.5°	2.3	2.6	2.6
100°	2.0	2.6	2.9
102.5°	1.7	2.6	2.6
105°	1.5	2.0	2.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.2	1.5	1.5
115°	0.9	1.2	1.5
117.5°	0.9	1.2	1.2
120°	0.9	0.9	1.2
122.5°	0.9	0.9	1.2
125°	0.9	0.9	1.2
127.5°	1.2	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.2	0.9	0.9
135°	1.2	0.9	0.9
137.5°	1.2	0.9	0.9
140°	1.2	0.9	0.9
142.5°	1.2	0.9	0.9
145°	0.9	0.9	0.9
147.5°	0.9	0.9	0.9
150°	0.9	0.9	0.6
152.5°	0.9	0.6	0.6
155°	0.9	0.6	0.3
157.5°	1.2	0.6	0.3
160°	0.9	0.6	0.3
162.5°	0.9	0.6	0.3
165°	0.9	0.6	0.0
167.5°	0.9	0.6	0.3
170°	0.9	0.6	0.3
172.5°	0.9	0.6	0.3
175°	0.9	0.3	0.3
177.5°	0.9	0.3	0.3
180°	0.9	0.9	0.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	122.1	118.6	107.0	87.8	61.3	34.3	12.8	2.3	0.6	0.9	0.9
110°	106.4	103.5	91.6	73.0	49.4	25.6	8.4	1.5	0.9	0.9	0.9





107.5°	1.2	1.7	2.0
110°	1.2	1.5	1.7



(END OF REPORT)