

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: P550696

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-81-84-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: P550696
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-30-UNV-81-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

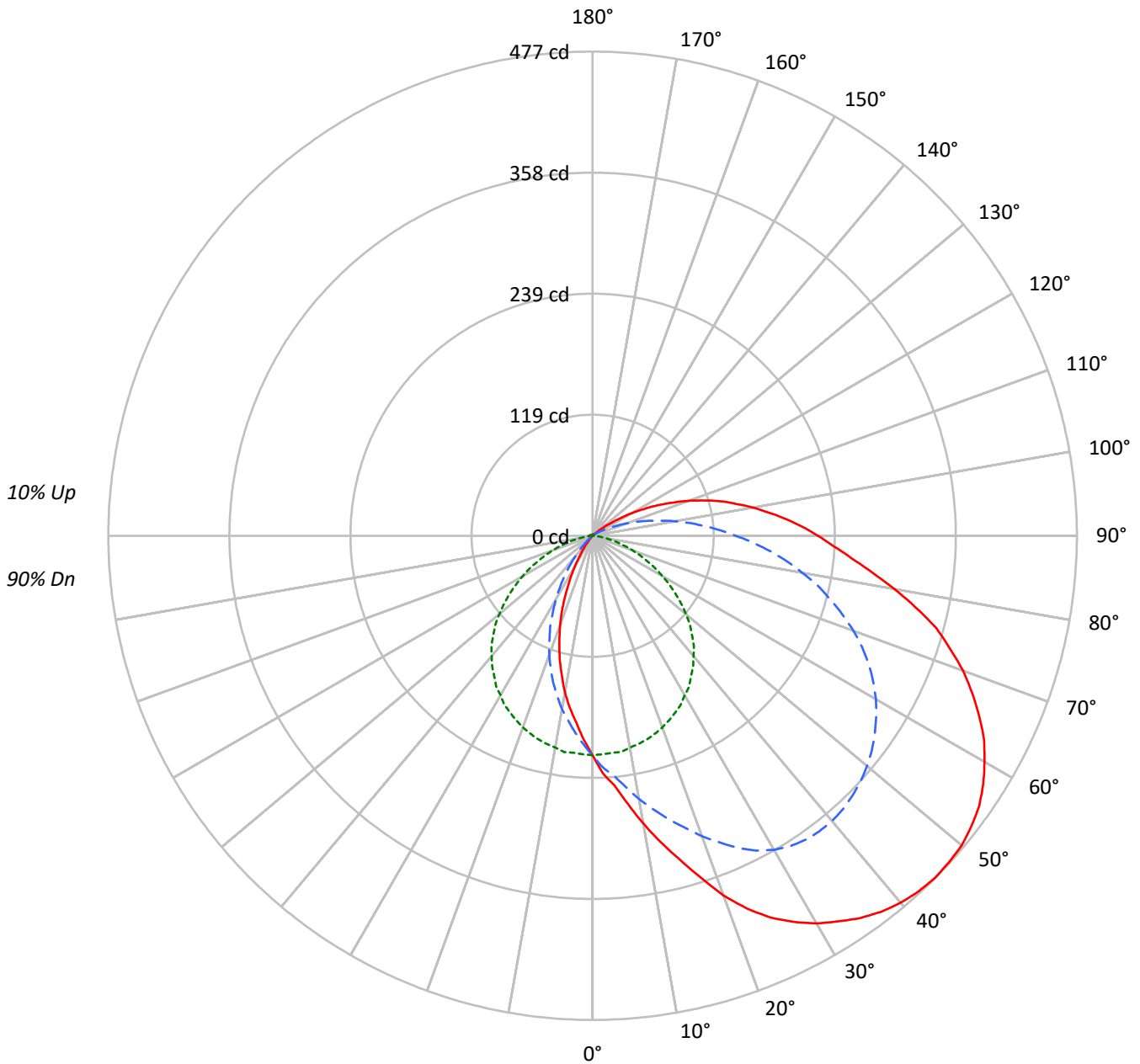
Lumens per Lamp: N/A
Luminaire Lumens: 1069.0 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (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: 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°	2327	2327	2327
5°	2555	2294	1913
10°	2892	2265	1577
15°	3240	2236	1229
20°	3655	2200	905
25°	3998	2158	594
30°	4253	2102	335
35°	4474	2041	148
40°	4671	1965	36
45°	4839	1871	0
50°	4980	1746	0
55°	5088	1588	0
60°	5142	1403	0
65°	5163	1195	0
70°	5146	975	0
75°	5080	717	4
80°	4874	439	23
85°	4712	208	31



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.7	1.9
10°-20°	62.0	5.8
20°-30°	100.4	9.4
30°-40°	129.0	12.1
40°-50°	146.0	13.7
50°-60°	151.3	14.2
60°-70°	142.7	13.3
70°-80°	119.6	11.2
80°-90°	86.7	8.1
90°-100°	57.0	5.3
100°-110°	32.9	3.1
110°-120°	14.5	1.4
120°-130°	3.9	0.4
130°-140°	0.9	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	183.2	17.1
0°-40°	312.2	29.2
0°-60°	609.5	57.0
0°-90°	958.5	89.7
90°-120°	104.4	9.8
90°-150°	109.8	10.3
90°-180°	111.0	10.4
0°-180°	1069.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	216	216	216	216	216	
5°	247	237	215	195	185	25
15°	330	289	207	150	125	95
25°	415	339	192	99	62	192
35°	460	366	169	48	15	288
45°	477	362	138	11	0	368
55°	465	339	100	0	0	415
65°	420	300	60	0	0	416
75°	350	242	25	0	0	367
85°	256	176	4	1	2	219
90°	222	141	1	2	2	122
95°	191	110	1	2	2	150
105°	131	57	1	1	2	138
115°	71	19	1	1	1	71
125°	21	3	1	1	1	21
135°	1	1	1	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	1	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°	216.2	216.2	216.2	216.2	216.2	216.2	216.2	216.2	216.2	216.2	216.2
2.5°	234.4	234.1	233.3	231.9	230.0	226.7	223.9	221.5	218.2	215.4	210.2
5°	246.8	245.4	244.3	243.0	238.5	235.5	230.6	225.0	219.8	214.6	204.1
7.5°	266.6	264.4	262.8	258.9	252.9	246.0	238.3	233.0	229.5	214.9	197.0
10°	287.9	285.9	282.6	275.7	268.3	258.4	247.4	235.0	223.9	211.8	190.6
12.5°	308.8	306.0	301.3	292.5	282.1	269.7	254.5	239.9	224.2	209.9	183.2
15°	329.7	326.7	321.7	311.0	297.2	281.0	262.5	244.1	225.6	207.4	175.5
17.5°	352.6	348.5	341.0	328.9	311.5	291.4	269.7	247.4	225.0	204.4	167.2
20°	377.1	371.3	363.3	347.1	326.7	303.0	276.8	250.7	224.8	200.8	157.8
22.5°	397.5	391.7	382.9	366.1	341.6	312.6	282.9	252.9	223.7	196.7	149.0
25°	415.1	410.4	400.8	381.5	355.6	322.8	288.7	254.5	222.0	192.3	139.7
27.5°	428.9	424.5	413.7	393.9	367.5	331.9	293.1	255.3	219.8	187.9	130.0
30°	441.0	436.6	423.7	403.3	375.4	339.1	297.5	255.6	217.1	181.3	119.5
32.5°	450.4	446.2	433.0	411.3	381.0	344.0	300.0	255.3	213.5	176.6	108.3
35°	459.7	455.6	440.2	417.0	385.1	346.2	301.9	254.0	209.1	168.9	97.5
37.5°	466.9	462.2	446.5	420.9	387.0	346.8	301.6	252.0	204.4	162.5	86.8
40°	471.9	466.9	450.1	423.1	387.6	346.0	299.4	248.7	198.9	154.5	75.5
42.5°	475.2	469.7	451.7	426.4	386.5	343.8	296.1	244.6	192.8	147.6	64.7
45°	476.8	471.0	452.0	423.7	384.5	339.6	291.2	239.4	186.2	138.3	54.0
47.5°	476.0	469.7	450.6	420.6	381.0	335.2	285.6	233.0	178.2	130.0	43.8
50°	474.6	468.0	447.6	416.8	376.0	329.7	279.6	225.3	170.0	119.8	34.7
52.5°	470.2	463.6	444.3	411.3	370.2	323.4	271.3	217.3	161.1	109.9	26.4
55°	464.7	458.6	438.5	406.3	362.8	315.7	263.6	208.8	152.6	99.7	19.0
57.5°	456.2	450.6	431.4	398.3	355.3	307.1	255.1	199.4	141.9	89.5	13.2
60°	445.7	440.2	421.4	389.2	346.8	297.5	245.7	189.8	132.2	79.3	8.3
62.5°	434.7	429.4	409.9	377.9	336.1	287.3	235.5	180.1	122.0	70.0	5.0
65°	420.1	415.1	397.5	364.4	324.2	276.3	224.2	168.6	111.6	59.5	2.8
67.5°	404.6	400.2	382.3	352.0	310.4	264.2	212.7	157.3	100.5	50.4	1.4
70°	388.1	382.6	366.1	335.2	296.4	250.4	200.0	145.7	90.1	41.6	0.0
72.5°	368.8	364.7	348.7	319.5	280.1	235.8	187.0	133.0	78.5	33.1	0.3
75°	350.1	344.9	330.3	302.7	264.2	220.4	172.7	121.2	67.2	25.3	0.3
77.5°	325.9	324.2	310.4	283.7	249.0	205.5	157.0	106.9	56.5	18.2	0.3
80°	301.6	300.0	289.2	264.7	231.4	187.9	142.4	93.4	46.0	12.1	0.3
82.5°	277.7	275.5	265.3	244.9	213.5	173.0	127.3	79.9	36.4	7.4	0.3
85°	256.2	253.4	242.4	223.7	195.0	156.2	111.6	66.7	27.0	4.1	0.6
87.5°	237.7	235.8	223.7	204.4	176.3	140.5	97.8	54.0	19.0	1.9	0.8
90°	222.0	217.9	207.1	186.8	158.7	123.1	83.2	43.2	12.7	1.1	1.1
92.5°	206.6	203.0	191.2	170.2	143.0	108.3	69.1	33.1	8.0	0.6	1.4
95°	190.6	186.8	175.2	155.9	127.0	93.1	56.7	24.2	4.4	0.6	1.4
97.5°	174.9	171.3	159.2	139.9	112.7	79.9	44.9	17.1	2.2	0.6	1.1
100°	160.3	156.2	145.2	125.9	98.3	66.7	34.7	11.0	1.4	0.6	1.1
102.5°	144.9	141.6	130.3	111.6	83.5	54.3	25.9	6.9	0.6	0.6	0.8
105°	131.1	127.0	116.0	96.7	71.1	42.7	18.2	4.1	0.6	0.6	0.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	85.4	82.1	72.4	56.2	36.1	16.8	5.0	0.8	0.8	0.8	0.8
115°	71.3	66.4	57.8	43.5	26.7	11.0	2.5	0.8	0.8	0.8	0.8
117.5°	57.0	52.9	46.8	33.1	17.6	7.2	1.4	0.8	0.8	0.8	0.8
120°	44.6	40.8	33.9	22.9	11.8	4.1	0.6	0.8	0.8	0.8	0.8
122.5°	32.0	28.9	22.9	14.9	7.2	1.9	0.8	0.8	1.1	1.1	0.8
125°	21.2	19.6	15.2	9.1	4.4	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	13.8	12.4	8.8	5.2	1.9	0.8	0.8	1.1	1.1	1.1	0.8
130°	7.7	6.9	5.2	3.0	0.8	0.8	0.8	1.1	1.1	1.1	0.8
132.5°	4.4	4.1	2.8	0.6	0.8	0.8	0.8	1.1	1.1	1.1	1.1
135°	1.1	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.1
137.5°	0.3	0.3	0.6	0.6	0.8	0.8	1.1	1.4	1.4	1.4	1.1
140°	0.3	0.3	0.6	0.8	0.8	0.8	1.1	1.4	1.4	1.4	1.1
142.5°	0.3	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
145°	0.3	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.1	1.1	1.1
147.5°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
150°	0.3	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
152.5°	0.3	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
155°	0.6	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
157.5°	0.6	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
160°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.6	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.1	1.1	1.1
167.5°	0.6	0.6	0.6	0.8	0.8	0.8	1.1	1.1	1.1	1.1	1.1
170°	0.6	0.6	0.6	0.8	0.8	0.8	1.1	1.4	1.4	1.4	1.4
172.5°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
175°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
177.5°	0.3	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.1
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	216.2	216.2	216.2
2.5°	205.8	201.9	200.8
5°	194.7	188.4	184.8
7.5°	183.7	175.2	171.1
10°	173.5	161.4	157.0
12.5°	161.4	147.4	140.5
15°	149.8	131.7	125.1
17.5°	136.9	116.5	108.8
20°	124.8	101.4	93.4
22.5°	111.0	86.5	77.7
25°	98.6	71.6	61.7
27.5°	84.8	56.5	47.9
30°	71.9	43.2	34.7
32.5°	59.5	31.7	24.0
35°	47.9	21.5	15.2
37.5°	36.9	13.2	7.7
40°	26.7	6.9	3.6
42.5°	17.9	3.3	1.9
45°	11.0	1.7	0.0
47.5°	6.3	0.0	0.0
50°	3.3	0.0	0.0
52.5°	1.4	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	0.8
80°	0.6	1.1	1.4
82.5°	1.1	1.4	1.4
85°	1.1	1.4	1.7
87.5°	1.4	1.7	1.9
90°	1.7	1.9	1.9
92.5°	1.7	2.2	2.2
95°	1.9	2.2	2.5
97.5°	2.2	2.5	2.5
100°	1.9	2.5	2.8
102.5°	1.7	2.5	2.5
105°	1.4	1.9	2.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.1	1.4	1.4
115°	0.8	1.1	1.4
117.5°	0.8	1.1	1.1
120°	0.8	0.8	1.1
122.5°	0.8	0.8	1.1
125°	0.8	0.8	1.1
127.5°	1.1	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.1	0.8	0.8
135°	1.1	0.8	0.8
137.5°	1.1	0.8	0.8
140°	1.1	0.8	0.8
142.5°	1.1	0.8	0.8
145°	0.8	0.8	0.8
147.5°	0.8	0.8	0.8
150°	0.8	0.8	0.6
152.5°	0.8	0.6	0.6
155°	0.8	0.6	0.3
157.5°	1.1	0.6	0.3
160°	0.8	0.6	0.3
162.5°	0.8	0.6	0.3
165°	0.8	0.6	0.0
167.5°	0.8	0.6	0.3
170°	0.8	0.6	0.3
172.5°	0.8	0.6	0.3
175°	0.8	0.3	0.3
177.5°	0.8	0.3	0.3
180°	0.8	0.8	0.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	115.7	112.4	101.4	83.2	58.1	32.5	12.1	2.2	0.6	0.8	0.8
110°	100.8	98.1	86.8	69.1	46.8	24.2	8.0	1.4	0.8	0.8	0.8





107.5°	1.1	1.7	1.9
110°	1.1	1.4	1.7



(END OF REPORT)