

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: P550718

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-82-87-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: P550718
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-82-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

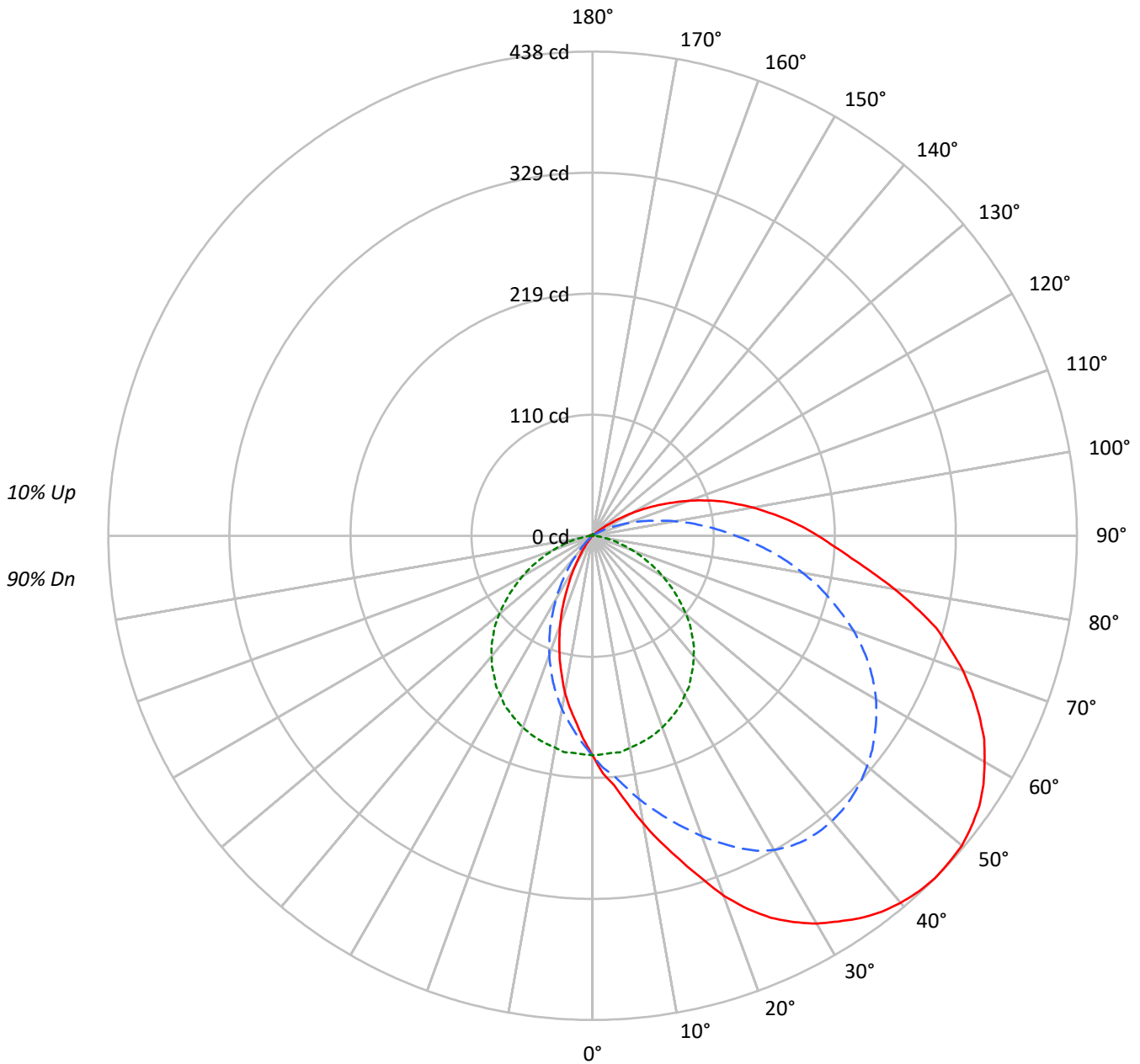
Lumens per Lamp: N/A
Luminaire Lumens: 982.1 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2138	2138	2138
5°	2347	2107	1758
10°	2656	2081	1448
15°	2977	2054	1129
20°	3357	2021	831
25°	3672	1982	546
30°	3907	1930	308
35°	4110	1874	135
40°	4291	1806	33
45°	4445	1718	0
50°	4575	1605	0
55°	4674	1459	0
60°	4723	1290	0
65°	4743	1099	0
70°	4727	895	0
75°	4667	661	4
80°	4478	403	21
85°	4328	193	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.0	1.9
10°-20°	57.0	5.8
20°-30°	92.3	9.4
30°-40°	118.5	12.1
40°-50°	134.1	13.7
50°-60°	139.0	14.2
60°-70°	131.1	13.3
70°-80°	109.9	11.2
80°-90°	79.6	8.1
90°-100°	52.3	5.3
100°-110°	30.2	3.1
110°-120°	13.4	1.4
120°-130°	3.6	0.4
130°-140°	0.8	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°	168.3	17.1
0°-40°	286.8	29.2
0°-60°	559.9	57.0
0°-90°	880.5	89.7
90°-120°	95.9	9.8
90°-150°	100.9	10.3
90°-180°	102.0	10.4
0°-180°	982.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	199	199	199	199	199	
5°	227	218	197	179	170	23
15°	303	266	190	138	115	87
25°	381	312	177	91	57	176
35°	422	336	155	44	14	265
45°	438	333	127	10	0	338
55°	427	312	92	0	0	381
65°	386	276	55	0	0	382
75°	322	223	23	0	0	337
85°	235	161	4	1	2	201
90°	204	129	1	2	2	112
95°	175	101	0	2	2	137
105°	120	52	0	1	2	127
115°	66	17	1	1	1	66
125°	20	2	1	1	1	19
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	0	1	1	1	0	0
165°	0	1	1	1	0	0
175°	0	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°	198.6	198.6	198.6	198.6	198.6	198.6	198.6	198.6	198.6	198.6	198.6
2.5°	215.3	215.1	214.3	213.1	211.3	208.3	205.7	203.4	200.4	197.9	193.1
5°	226.7	225.5	224.4	223.2	219.1	216.3	211.8	206.7	201.9	197.1	187.5
7.5°	244.9	242.9	241.4	237.9	232.3	226.0	218.9	214.1	210.8	197.4	180.9
10°	264.4	262.7	259.6	253.3	246.5	237.3	227.2	215.8	205.7	194.6	175.1
12.5°	283.7	281.1	276.8	268.7	259.1	247.7	233.8	220.4	206.0	192.8	168.3
15°	302.9	300.1	295.5	285.7	273.0	258.1	241.1	224.2	207.2	190.5	161.2
17.5°	323.9	320.1	313.3	302.1	286.2	267.7	247.7	227.2	206.7	187.8	153.6
20°	346.4	341.1	333.8	318.8	300.1	278.3	254.3	230.3	206.5	184.5	145.0
22.5°	365.1	359.8	351.7	336.3	313.8	287.2	259.9	232.3	205.5	180.7	136.9
25°	381.3	377.0	368.2	350.5	326.7	296.6	265.2	233.8	203.9	176.6	128.3
27.5°	394.0	389.9	380.1	361.8	337.6	304.9	269.2	234.6	201.9	172.6	119.4
30°	405.1	401.1	389.2	370.4	344.9	311.5	273.3	234.8	199.4	166.5	109.8
32.5°	413.7	409.9	397.8	377.8	350.0	316.0	275.6	234.6	196.1	162.2	99.4
35°	422.3	418.5	404.4	383.1	353.7	318.1	277.3	233.3	192.1	155.1	89.6
37.5°	428.9	424.6	410.2	386.6	355.5	318.6	277.1	231.5	187.8	149.3	79.7
40°	433.5	428.9	413.5	388.7	356.0	317.8	275.1	228.5	182.7	142.0	69.3
42.5°	436.5	431.4	415.0	391.7	355.0	315.8	272.0	224.7	177.1	135.6	59.5
45°	438.0	432.7	415.2	389.2	353.2	312.0	267.5	219.9	171.1	127.0	49.6
47.5°	437.3	431.4	414.0	386.4	350.0	307.9	262.4	214.1	163.7	119.4	40.2
50°	436.0	429.9	411.2	382.8	345.4	302.9	256.8	207.0	156.1	110.1	31.9
52.5°	431.9	425.9	408.2	377.8	340.1	297.1	249.2	199.6	148.0	101.0	24.3
55°	426.9	421.3	402.8	373.2	333.3	290.0	242.2	191.8	140.2	91.6	17.5
57.5°	419.0	414.0	396.3	365.9	326.4	282.1	234.3	183.2	130.3	82.2	12.1
60°	409.4	404.4	387.1	357.5	318.6	273.3	225.7	174.3	121.5	72.9	7.6
62.5°	399.3	394.5	376.5	347.2	308.7	263.9	216.3	165.5	112.1	64.3	4.6
65°	385.9	381.3	365.1	334.8	297.8	253.8	206.0	154.9	102.5	54.7	2.5
67.5°	371.7	367.7	351.2	323.4	285.2	242.7	195.3	144.5	92.4	46.3	1.3
70°	356.5	351.5	336.3	307.9	272.3	230.0	183.7	133.9	82.7	38.2	0.0
72.5°	338.8	335.0	320.3	293.5	257.3	216.6	171.8	122.2	72.1	30.4	0.3
75°	321.6	316.8	303.4	278.1	242.7	202.4	158.7	111.3	61.7	23.3	0.3
77.5°	299.3	297.8	285.2	260.6	228.7	188.8	144.2	98.2	51.9	16.7	0.3
80°	277.1	275.6	265.7	243.2	212.6	172.6	130.8	85.8	42.3	11.1	0.3
82.5°	255.1	253.0	243.7	225.0	196.1	158.9	116.9	73.4	33.4	6.8	0.3
85°	235.3	232.8	222.7	205.5	179.2	143.5	102.5	61.2	24.8	3.8	0.5
87.5°	218.4	216.6	205.5	187.8	161.9	129.0	89.8	49.6	17.5	1.8	0.8
90°	203.9	200.2	190.3	171.6	145.8	113.1	76.4	39.7	11.6	1.0	1.0
92.5°	189.8	186.5	175.6	156.4	131.3	99.4	63.5	30.4	7.3	0.5	1.3
95°	175.1	171.6	160.9	143.2	116.7	85.5	52.1	22.3	4.0	0.5	1.3
97.5°	160.7	157.4	146.3	128.5	103.5	73.4	41.2	15.7	2.0	0.5	1.0
100°	147.3	143.5	133.4	115.6	90.3	61.2	31.9	10.1	1.3	0.5	1.0
102.5°	133.1	130.1	119.7	102.5	76.7	49.8	23.8	6.3	0.5	0.5	0.8
105°	120.4	116.7	106.5	88.8	65.3	39.2	16.7	3.8	0.5	0.5	0.8



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CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-82-87-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	78.4	75.4	66.5	51.6	33.1	15.4	4.6	0.8	0.8	0.8	0.8
115°	65.5	61.0	53.1	40.0	24.5	10.1	2.3	0.8	0.8	0.8	0.8
117.5°	52.4	48.6	43.0	30.4	16.2	6.6	1.3	0.8	0.8	0.8	0.8
120°	41.0	37.4	31.1	21.0	10.9	3.8	0.5	0.8	0.8	0.8	0.8
122.5°	29.4	26.6	21.0	13.7	6.6	1.8	0.8	0.8	1.0	1.0	0.8
125°	19.5	18.0	13.9	8.4	4.0	0.8	0.8	0.8	1.0	1.0	0.8
127.5°	12.7	11.4	8.1	4.8	1.8	0.8	0.8	1.0	1.0	1.0	0.8
130°	7.1	6.3	4.8	2.8	0.8	0.8	0.8	1.0	1.0	1.0	0.8
132.5°	4.0	3.8	2.5	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.0	1.3	1.3	1.3	1.0
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.0
142.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
145°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
150°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
152.5°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
157.5°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
160°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.3
172.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
175°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
177.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.0
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°	198.6	198.6	198.6
2.5°	189.0	185.5	184.5
5°	178.9	173.1	169.8
7.5°	168.8	160.9	157.1
10°	159.4	148.3	144.2
12.5°	148.3	135.4	129.0
15°	137.7	121.0	114.9
17.5°	125.8	107.0	100.0
20°	114.6	93.1	85.8
22.5°	102.0	79.5	71.4
25°	90.6	65.8	56.7
27.5°	77.9	51.9	44.0
30°	66.0	39.7	31.9
32.5°	54.7	29.1	22.0
35°	44.0	19.7	13.9
37.5°	33.9	12.1	7.1
40°	24.5	6.3	3.3
42.5°	16.4	3.0	1.8
45°	10.1	1.5	0.0
47.5°	5.8	0.0	0.0
50°	3.0	0.0	0.0
52.5°	1.3	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	0.5	0.8
80°	0.5	1.0	1.3
82.5°	1.0	1.3	1.3
85°	1.0	1.3	1.5
87.5°	1.3	1.5	1.8
90°	1.5	1.8	1.8
92.5°	1.5	2.0	2.0
95°	1.8	2.0	2.3
97.5°	2.0	2.3	2.3
100°	1.8	2.3	2.5
102.5°	1.5	2.3	2.3
105°	1.3	1.8	2.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.0	1.3	1.3
115°	0.8	1.0	1.3
117.5°	0.8	1.0	1.0
120°	0.8	0.8	1.0
122.5°	0.8	0.8	1.0
125°	0.8	0.8	1.0
127.5°	1.0	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.0	0.8	0.8
135°	1.0	0.8	0.8
137.5°	1.0	0.8	0.8
140°	1.0	0.8	0.8
142.5°	1.0	0.8	0.8
145°	0.8	0.8	0.8
147.5°	0.8	0.8	0.8
150°	0.8	0.8	0.5
152.5°	0.8	0.5	0.5
155°	0.8	0.5	0.3
157.5°	1.0	0.5	0.3
160°	0.8	0.5	0.3
162.5°	0.8	0.5	0.3
165°	0.8	0.5	0.0
167.5°	0.8	0.5	0.3
170°	0.8	0.5	0.3
172.5°	0.8	0.5	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°	106.3	103.2	93.1	76.4	53.4	29.9	11.1	2.0	0.5	0.8	0.8
110°	92.6	90.1	79.7	63.5	43.0	22.3	7.3	1.3	0.8	0.8	0.8





107.5°	1.0	1.5	1.8
110°	1.0	1.3	1.5



(END OF REPORT)