

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: P550702

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-81-87-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: P550702
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-81-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 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

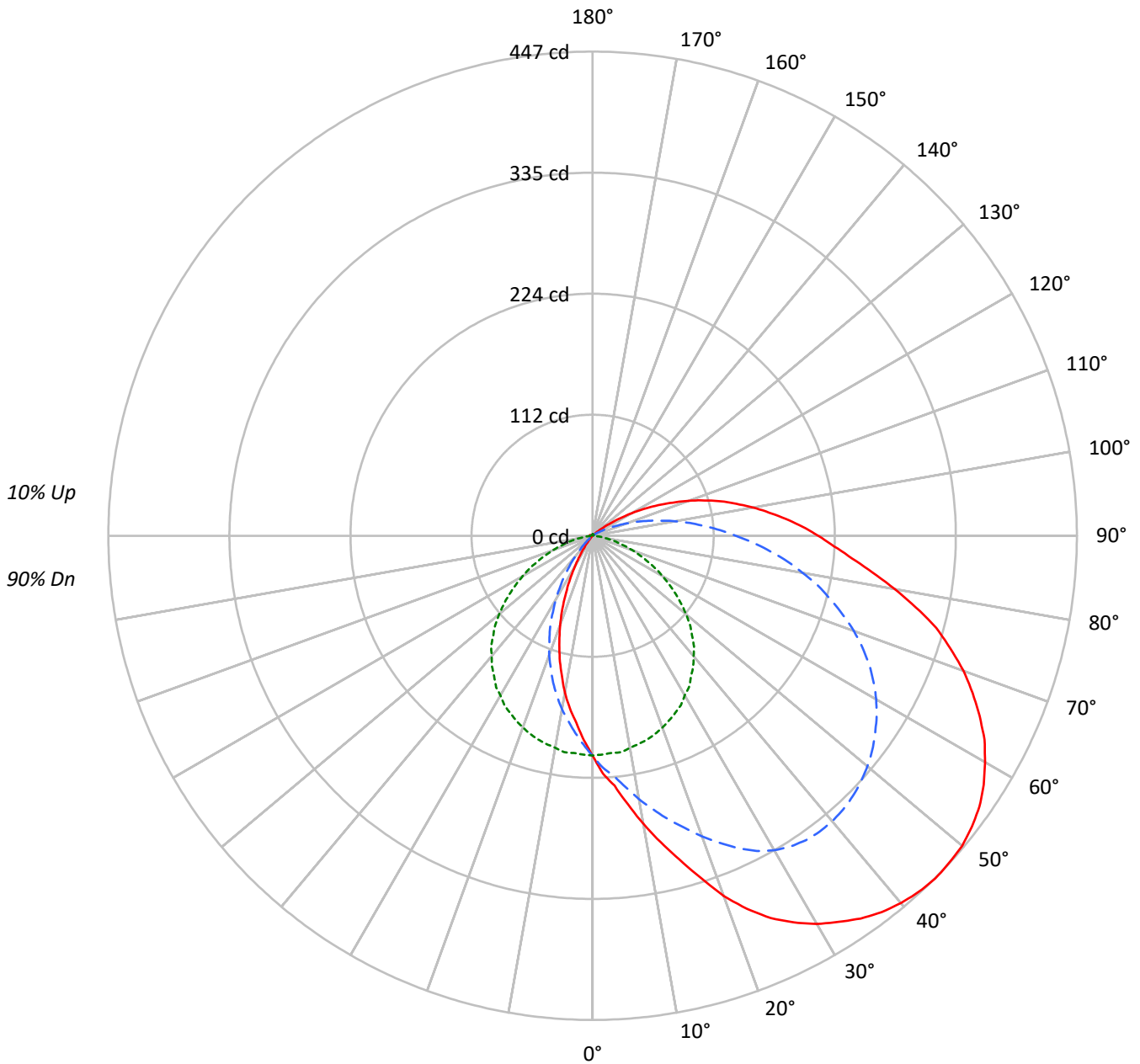
Lumens per Lamp: N/A
Luminaire Lumens: 1003.0 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2184	2184	2184
5°	2398	2152	1795
10°	2713	2125	1480
15°	3040	2098	1153
20°	3429	2064	849
25°	3751	2025	558
30°	3991	1972	314
35°	4199	1914	138
40°	4382	1844	34
45°	4540	1755	0
50°	4673	1638	0
55°	4773	1490	0
60°	4825	1317	0
65°	4844	1121	0
70°	4829	914	0
75°	4767	675	4
80°	4573	414	21
85°	4421	198	29



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.4	1.9
10°-20°	58.2	5.8
20°-30°	94.2	9.4
30°-40°	121.1	12.1
40°-50°	137.0	13.7
50°-60°	142.0	14.2
60°-70°	133.9	13.3
70°-80°	112.2	11.2
80°-90°	81.3	8.1
90°-100°	53.5	5.3
100°-110°	30.9	3.1
110°-120°	13.6	1.4
120°-130°	3.7	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°	171.9	17.1
0°-40°	292.9	29.2
0°-60°	571.9	57.0
0°-90°	899.3	89.7
90°-120°	97.9	9.8
90°-150°	103.0	10.3
90°-180°	104.0	10.4
0°-180°	1003.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	203	203	203	203	203	
5°	232	222	201	183	173	23
15°	309	271	195	141	117	89
25°	390	318	180	92	58	180
35°	431	343	158	45	14	271
45°	447	340	130	10	0	345
55°	436	318	94	0	0	389
65°	394	282	56	0	0	390
75°	328	227	24	0	0	345
85°	240	165	4	1	2	205
90°	208	132	1	2	2	114
95°	179	103	0	2	2	140
105°	123	53	0	1	2	130
115°	67	18	1	1	1	67
125°	20	2	1	1	1	20
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°	202.9	202.9	202.9	202.9	202.9	202.9	202.9	202.9	202.9	202.9	202.9
2.5°	219.9	219.7	218.9	217.6	215.8	212.7	210.1	207.8	204.7	202.1	197.2
5°	231.6	230.3	229.2	228.0	223.8	221.0	216.3	211.2	206.2	201.3	191.5
7.5°	250.2	248.1	246.6	242.9	237.3	230.8	223.6	218.6	215.3	201.6	184.8
10°	270.1	268.3	265.2	258.7	251.7	242.4	232.1	220.5	210.1	198.7	178.8
12.5°	289.7	287.1	282.7	274.5	264.7	253.0	238.8	225.1	210.4	196.9	171.9
15°	309.4	306.5	301.9	291.8	278.9	263.6	246.3	229.0	211.7	194.6	164.6
17.5°	330.8	326.9	320.0	308.6	292.3	273.4	253.0	232.1	211.2	191.8	156.9
20°	353.8	348.4	340.9	325.6	306.5	284.3	259.7	235.2	210.9	188.4	148.1
22.5°	372.9	367.5	359.2	343.5	320.5	293.3	265.4	237.3	209.9	184.5	139.8
25°	389.5	385.1	376.0	358.0	333.7	302.9	270.9	238.8	208.3	180.4	131.0
27.5°	402.4	398.3	388.2	369.6	344.8	311.4	275.0	239.6	206.2	176.3	122.0
30°	413.8	409.6	397.5	378.4	352.3	318.2	279.1	239.8	203.7	170.1	112.2
32.5°	422.6	418.7	406.3	385.9	357.4	322.8	281.5	239.6	200.3	165.7	101.6
35°	431.4	427.5	413.0	391.3	361.3	324.9	283.3	238.3	196.2	158.4	91.5
37.5°	438.1	433.7	418.9	394.9	363.1	325.4	283.0	236.5	191.8	152.5	81.4
40°	442.7	438.1	422.3	397.0	363.6	324.6	280.9	233.4	186.6	145.0	70.8
42.5°	445.8	440.7	423.9	400.1	362.6	322.5	277.8	229.5	180.9	138.5	60.7
45°	447.4	441.9	424.1	397.5	360.8	318.7	273.2	224.6	174.7	129.7	50.7
47.5°	446.6	440.7	422.8	394.7	357.4	314.5	268.0	218.6	167.2	122.0	41.1
50°	445.3	439.1	420.0	391.0	352.8	309.4	262.3	211.4	159.5	112.4	32.6
52.5°	441.2	435.0	416.9	385.9	347.4	303.4	254.6	203.9	151.2	103.1	24.8
55°	436.0	430.3	411.5	381.2	340.4	296.2	247.3	195.9	143.2	93.6	17.8
57.5°	428.0	422.8	404.7	373.7	333.4	288.2	239.3	187.1	133.1	84.0	12.4
60°	418.2	413.0	395.4	365.2	325.4	279.1	230.5	178.1	124.1	74.4	7.8
62.5°	407.8	402.9	384.6	354.6	315.3	269.6	221.0	169.0	114.5	65.6	4.7
65°	394.1	389.5	372.9	341.9	304.2	259.2	210.4	158.2	104.7	55.8	2.6
67.5°	379.7	375.5	358.7	330.3	291.3	247.9	199.5	147.6	94.3	47.3	1.3
70°	364.2	359.0	343.5	314.5	278.1	234.9	187.6	136.7	84.5	39.0	0.0
72.5°	346.1	342.2	327.2	299.8	262.8	221.2	175.5	124.8	73.7	31.0	0.3
75°	328.5	323.6	309.9	284.0	247.9	206.8	162.0	113.7	63.1	23.8	0.3
77.5°	305.7	304.2	291.3	266.2	233.6	192.8	147.3	100.3	53.0	17.1	0.3
80°	283.0	281.5	271.4	248.4	217.1	176.3	133.6	87.6	43.2	11.4	0.3
82.5°	260.5	258.4	248.9	229.8	200.3	162.3	119.4	75.0	34.1	7.0	0.3
85°	240.4	237.8	227.4	209.9	183.0	146.5	104.7	62.5	25.3	3.9	0.5
87.5°	223.0	221.2	209.9	191.8	165.4	131.8	91.7	50.7	17.8	1.8	0.8
90°	208.3	204.4	194.4	175.2	148.9	115.5	78.1	40.6	11.9	1.0	1.0
92.5°	193.8	190.5	179.4	159.7	134.1	101.6	64.9	31.0	7.5	0.5	1.3
95°	178.8	175.2	164.4	146.3	119.1	87.4	53.2	22.7	4.1	0.5	1.3
97.5°	164.1	160.8	149.4	131.3	105.7	75.0	42.1	16.0	2.1	0.5	1.0
100°	150.4	146.5	136.2	118.1	92.3	62.5	32.6	10.3	1.3	0.5	1.0
102.5°	135.9	132.8	122.2	104.7	78.3	50.9	24.3	6.5	0.5	0.5	0.8
105°	123.0	119.1	108.8	90.7	66.7	40.1	17.1	3.9	0.5	0.5	0.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	80.1	77.0	68.0	52.7	33.9	15.8	4.7	0.8	0.8	0.8	0.8
115°	66.9	62.3	54.3	40.8	25.1	10.3	2.3	0.8	0.8	0.8	0.8
117.5°	53.5	49.6	43.9	31.0	16.5	6.7	1.3	0.8	0.8	0.8	0.8
120°	41.9	38.3	31.8	21.5	11.1	3.9	0.5	0.8	0.8	0.8	0.8
122.5°	30.0	27.1	21.5	14.0	6.7	1.8	0.8	0.8	1.0	1.0	0.8
125°	19.9	18.3	14.2	8.5	4.1	0.8	0.8	0.8	1.0	1.0	0.8
127.5°	12.9	11.6	8.3	4.9	1.8	0.8	0.8	1.0	1.0	1.0	0.8
130°	7.2	6.5	4.9	2.8	0.8	0.8	0.8	1.0	1.0	1.0	0.8
132.5°	4.1	3.9	2.6	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°	202.9	202.9	202.9
2.5°	193.1	189.4	188.4
5°	182.7	176.8	173.4
7.5°	172.4	164.4	160.5
10°	162.8	151.5	147.3
12.5°	151.5	138.3	131.8
15°	140.6	123.5	117.3
17.5°	128.4	109.3	102.1
20°	117.1	95.1	87.6
22.5°	104.2	81.2	72.9
25°	92.5	67.2	57.9
27.5°	79.6	53.0	45.0
30°	67.5	40.6	32.6
32.5°	55.8	29.7	22.5
35°	45.0	20.2	14.2
37.5°	34.6	12.4	7.2
40°	25.1	6.5	3.4
42.5°	16.8	3.1	1.8
45°	10.3	1.6	0.0
47.5°	5.9	0.0	0.0
50°	3.1	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	1.6
87.5°	1.3	1.6	1.8
90°	1.6	1.8	1.8
92.5°	1.6	2.1	2.1
95°	1.8	2.1	2.3
97.5°	2.1	2.3	2.3
100°	1.8	2.3	2.6
102.5°	1.6	2.3	2.3
105°	1.3	1.8	2.1



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CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-81-87-ED1D

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°	108.5	105.4	95.1	78.1	54.5	30.5	11.4	2.1	0.5	0.8	0.8
110°	94.6	92.0	81.4	64.9	43.9	22.7	7.5	1.3	0.8	0.8	0.8





107.5°	1.0	1.6	1.8
110°	1.0	1.3	1.6



(END OF REPORT)