

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: P550695

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-81-84-ED1D-90**

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: P550695
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-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

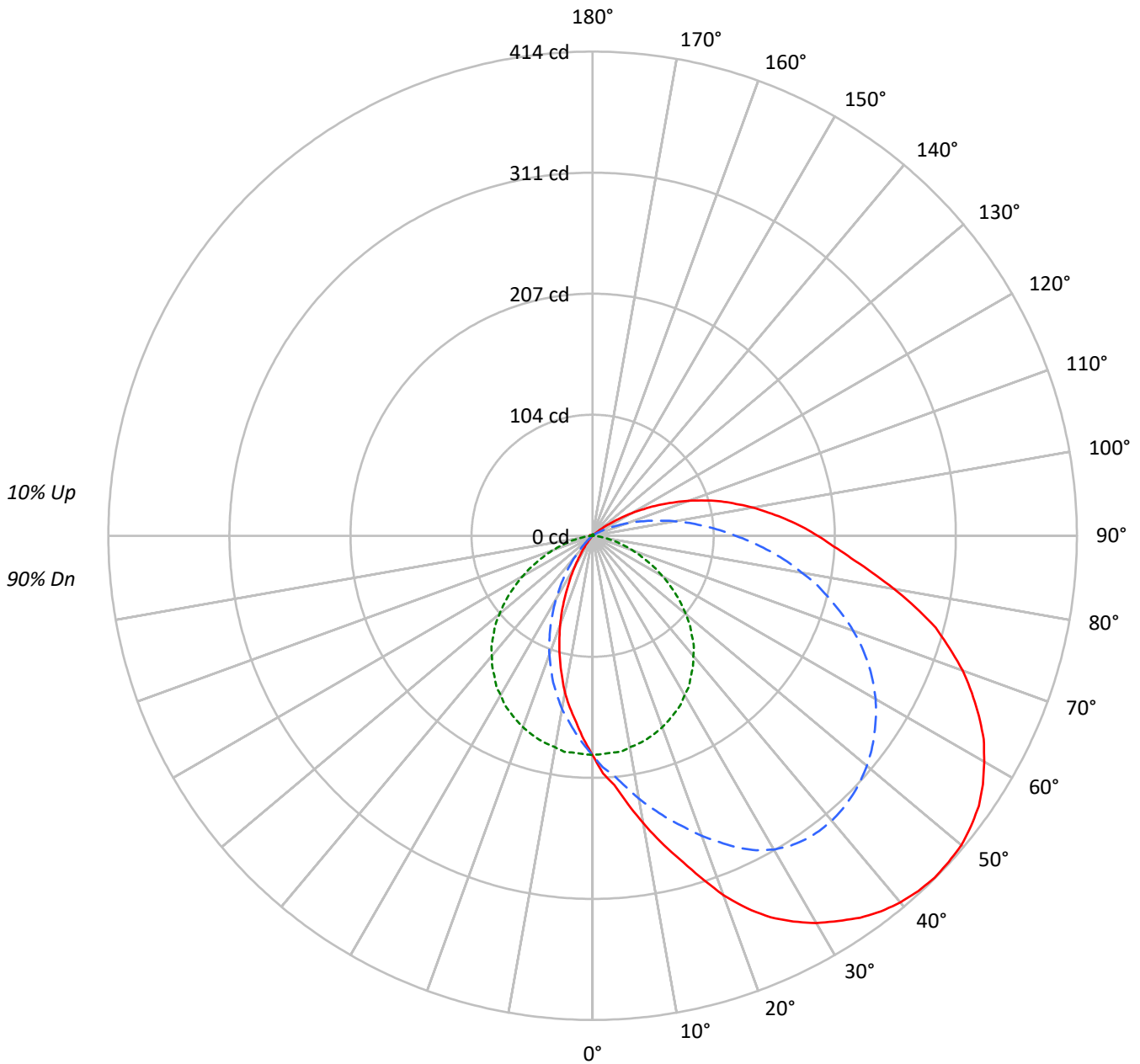
Lumens per Lamp: N/A
Luminaire Lumens: 927.0 lumens
Efficiency: N/A
Efficacy: 79.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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									
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°	2018	2018	2018
5°	2215	1989	1659
10°	2507	1965	1368
15°	2810	1940	1065
20°	3169	1907	785
25°	3467	1871	515
30°	3688	1822	290
35°	3880	1769	127
40°	4050	1704	31
45°	4196	1622	0
50°	4319	1514	0
55°	4412	1377	0
60°	4459	1218	0
65°	4478	1036	0
70°	4463	846	0
75°	4406	624	3
80°	4228	381	19
85°	4085	183	26



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.0	1.9
10°-20°	53.8	5.8
20°-30°	87.1	9.4
30°-40°	111.9	12.1
40°-50°	126.6	13.7
50°-60°	131.2	14.2
60°-70°	123.7	13.3
70°-80°	103.7	11.2
80°-90°	75.2	8.1
90°-100°	49.4	5.3
100°-110°	28.5	3.1
110°-120°	12.6	1.4
120°-130°	3.4	0.4
130°-140°	0.8	0.1
140°-150°	0.5	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	158.8	17.1
0°-40°	270.7	29.2
0°-60°	528.5	57.0
0°-90°	831.1	89.7
90°-120°	90.5	9.8
90°-150°	95.2	10.3
90°-180°	96.0	10.4
0°-180°	927.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	188	188	188	188	188	
5°	214	206	186	169	160	22
15°	286	251	180	130	108	82
25°	360	294	167	86	54	166
35°	399	317	146	42	13	250
45°	414	314	120	10	0	319
55°	403	294	86	0	0	360
65°	364	260	52	0	0	360
75°	304	210	22	0	0	318
85°	222	152	4	1	1	190
90°	192	122	1	1	2	106
95°	165	95	0	2	2	130
105°	114	49	0	1	2	120
115°	62	16	1	1	1	62
125°	18	2	1	1	1	18
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°	187.5	187.5	187.5	187.5	187.5	187.5	187.5	187.5	187.5	187.5	187.5
2.5°	203.3	203.0	202.3	201.1	199.5	196.6	194.2	192.0	189.2	186.8	182.3
5°	214.0	212.8	211.9	210.7	206.9	204.2	199.9	195.2	190.6	186.1	177.0
7.5°	231.2	229.3	227.9	224.5	219.3	213.3	206.6	202.1	199.0	186.3	170.8
10°	249.6	247.9	245.1	239.1	232.7	224.1	214.5	203.8	194.2	183.7	165.3
12.5°	267.8	265.4	261.3	253.7	244.6	233.8	220.7	208.1	194.4	182.0	158.8
15°	285.9	283.3	279.0	269.7	257.7	243.6	227.6	211.6	195.6	179.9	152.2
17.5°	305.7	302.2	295.7	285.2	270.2	252.7	233.8	214.5	195.2	177.2	145.0
20°	327.0	322.0	315.1	301.0	283.3	262.8	240.1	217.4	194.9	174.1	136.9
22.5°	344.7	339.7	332.0	317.5	296.2	271.1	245.3	219.3	194.0	170.6	129.2
25°	360.0	355.9	347.6	330.8	308.4	280.0	250.3	220.7	192.5	166.7	121.1
27.5°	371.9	368.1	358.8	341.6	318.6	287.8	254.2	221.4	190.6	162.9	112.7
30°	382.4	378.6	367.4	349.7	325.6	294.0	258.0	221.7	188.2	157.2	103.7
32.5°	390.5	387.0	375.5	356.6	330.4	298.3	260.1	221.4	185.1	153.1	93.9
35°	398.7	395.1	381.7	361.6	333.9	300.3	261.8	220.2	181.3	146.4	84.6
37.5°	404.9	400.8	387.2	365.0	335.6	300.7	261.6	218.6	177.2	140.9	75.2
40°	409.2	404.9	390.3	366.9	336.1	300.0	259.6	215.7	172.5	134.0	65.4
42.5°	412.0	407.3	391.7	369.8	335.1	298.1	256.8	212.1	167.2	128.0	56.1
45°	413.5	408.5	392.0	367.4	333.5	294.5	252.5	207.6	161.5	119.9	46.8
47.5°	412.8	407.3	390.8	364.7	330.4	290.7	247.7	202.1	154.5	112.7	38.0
50°	411.6	405.8	388.2	361.4	326.1	285.9	242.4	195.4	147.4	103.9	30.1
52.5°	407.7	402.0	385.3	356.6	321.0	280.4	235.3	188.5	139.7	95.3	22.9
55°	403.0	397.7	380.3	352.3	314.6	273.7	228.6	181.1	132.3	86.5	16.5
57.5°	395.6	390.8	374.1	345.4	308.1	266.3	221.2	172.9	123.0	77.6	11.5
60°	386.5	381.7	365.5	337.5	300.7	258.0	213.1	164.6	114.7	68.8	7.2
62.5°	376.9	372.4	355.4	327.7	291.4	249.1	204.2	156.2	105.8	60.7	4.3
65°	364.3	360.0	344.7	316.0	281.1	239.6	194.4	146.2	96.7	51.6	2.4
67.5°	350.9	347.1	331.5	305.3	269.2	229.1	184.4	136.4	87.2	43.7	1.2
70°	336.6	331.8	317.5	290.7	257.0	217.1	173.4	126.4	78.1	36.1	0.0
72.5°	319.8	316.3	302.4	277.1	242.9	204.5	162.2	115.4	68.1	28.7	0.2
75°	303.6	299.1	286.4	262.5	229.1	191.1	149.8	105.1	58.3	22.0	0.2
77.5°	282.6	281.1	269.2	246.0	215.9	178.2	136.2	92.7	49.0	15.8	0.2
80°	261.6	260.1	250.8	229.6	200.6	162.9	123.5	81.0	39.9	10.5	0.2
82.5°	240.8	238.9	230.0	212.4	185.1	150.0	110.4	69.3	31.5	6.4	0.2
85°	222.1	219.8	210.2	194.0	169.1	135.4	96.7	57.8	23.4	3.6	0.5
87.5°	206.1	204.5	194.0	177.2	152.9	121.8	84.8	46.8	16.5	1.7	0.7
90°	192.5	188.9	179.6	162.0	137.6	106.8	72.1	37.5	11.0	1.0	1.0
92.5°	179.1	176.0	165.8	147.6	124.0	93.9	60.0	28.7	6.9	0.5	1.2
95°	165.3	162.0	151.9	135.2	110.1	80.7	49.2	21.0	3.8	0.5	1.2
97.5°	151.7	148.6	138.1	121.3	97.7	69.3	38.9	14.8	1.9	0.5	1.0
100°	139.0	135.4	125.9	109.2	85.3	57.8	30.1	9.6	1.2	0.5	1.0
102.5°	125.6	122.8	113.0	96.7	72.4	47.1	22.5	6.0	0.5	0.5	0.7
105°	113.7	110.1	100.6	83.8	61.6	37.0	15.8	3.6	0.5	0.5	0.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	74.0	71.2	62.8	48.7	31.3	14.6	4.3	0.7	0.7	0.7	0.7
115°	61.9	57.6	50.2	37.7	23.2	9.6	2.1	0.7	0.7	0.7	0.7
117.5°	49.4	45.9	40.6	28.7	15.3	6.2	1.2	0.7	0.7	0.7	0.7
120°	38.7	35.4	29.4	19.8	10.3	3.6	0.5	0.7	0.7	0.7	0.7
122.5°	27.7	25.1	19.8	12.9	6.2	1.7	0.7	0.7	1.0	1.0	0.7
125°	18.4	17.0	13.1	7.9	3.8	0.7	0.7	0.7	1.0	1.0	0.7
127.5°	11.9	10.7	7.6	4.5	1.7	0.7	0.7	1.0	1.0	1.0	0.7
130°	6.7	6.0	4.5	2.6	0.7	0.7	0.7	1.0	1.0	1.0	0.7
132.5°	3.8	3.6	2.4	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0
137.5°	0.2	0.2	0.5	0.5	0.7	0.7	1.0	1.2	1.2	1.2	1.0
140°	0.2	0.2	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.0
142.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
145°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
150°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
152.5°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
157.5°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
160°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.2
172.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
175°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
177.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.0
180°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	187.5	187.5	187.5
2.5°	178.4	175.1	174.1
5°	168.9	163.4	160.3
7.5°	159.3	151.9	148.3
10°	150.5	140.0	136.2
12.5°	140.0	127.8	121.8
15°	129.9	114.2	108.4
17.5°	118.7	101.0	94.4
20°	108.2	87.9	81.0
22.5°	96.3	75.0	67.4
25°	85.5	62.1	53.5
27.5°	73.6	49.0	41.6
30°	62.3	37.5	30.1
32.5°	51.6	27.5	20.8
35°	41.6	18.6	13.1
37.5°	32.0	11.5	6.7
40°	23.2	6.0	3.1
42.5°	15.5	2.9	1.7
45°	9.6	1.4	0.0
47.5°	5.5	0.0	0.0
50°	2.9	0.0	0.0
52.5°	1.2	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°	0.2	0.2	0.2
77.5°	0.2	0.5	0.7
80°	0.5	1.0	1.2
82.5°	1.0	1.2	1.2
85°	1.0	1.2	1.4
87.5°	1.2	1.4	1.7
90°	1.4	1.7	1.7
92.5°	1.4	1.9	1.9
95°	1.7	1.9	2.1
97.5°	1.9	2.1	2.1
100°	1.7	2.1	2.4
102.5°	1.4	2.1	2.1
105°	1.2	1.7	1.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.0	1.2	1.2
115°	0.7	1.0	1.2
117.5°	0.7	1.0	1.0
120°	0.7	0.7	1.0
122.5°	0.7	0.7	1.0
125°	0.7	0.7	1.0
127.5°	1.0	0.7	0.7
130°	0.7	0.7	0.7
132.5°	1.0	0.7	0.7
135°	1.0	0.7	0.7
137.5°	1.0	0.7	0.7
140°	1.0	0.7	0.7
142.5°	1.0	0.7	0.7
145°	0.7	0.7	0.7
147.5°	0.7	0.7	0.7
150°	0.7	0.7	0.5
152.5°	0.7	0.5	0.5
155°	0.7	0.5	0.2
157.5°	1.0	0.5	0.2
160°	0.7	0.5	0.2
162.5°	0.7	0.5	0.2
165°	0.7	0.5	0.0
167.5°	0.7	0.5	0.2
170°	0.7	0.5	0.2
172.5°	0.7	0.5	0.2
175°	0.7	0.2	0.2
177.5°	0.7	0.2	0.2
180°	0.7	0.7	0.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	100.3	97.5	87.9	72.1	50.4	28.2	10.5	1.9	0.5	0.7	0.7
110°	87.4	85.0	75.2	60.0	40.6	21.0	6.9	1.2	0.7	0.7	0.7





107.5°	1.0	1.4	1.7
110°	1.0	1.2	1.4



(END OF REPORT)