

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: P550888

Luminaire Tested: **FCC-X-2-LD4-1LO-50-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: P550888
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-81-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 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

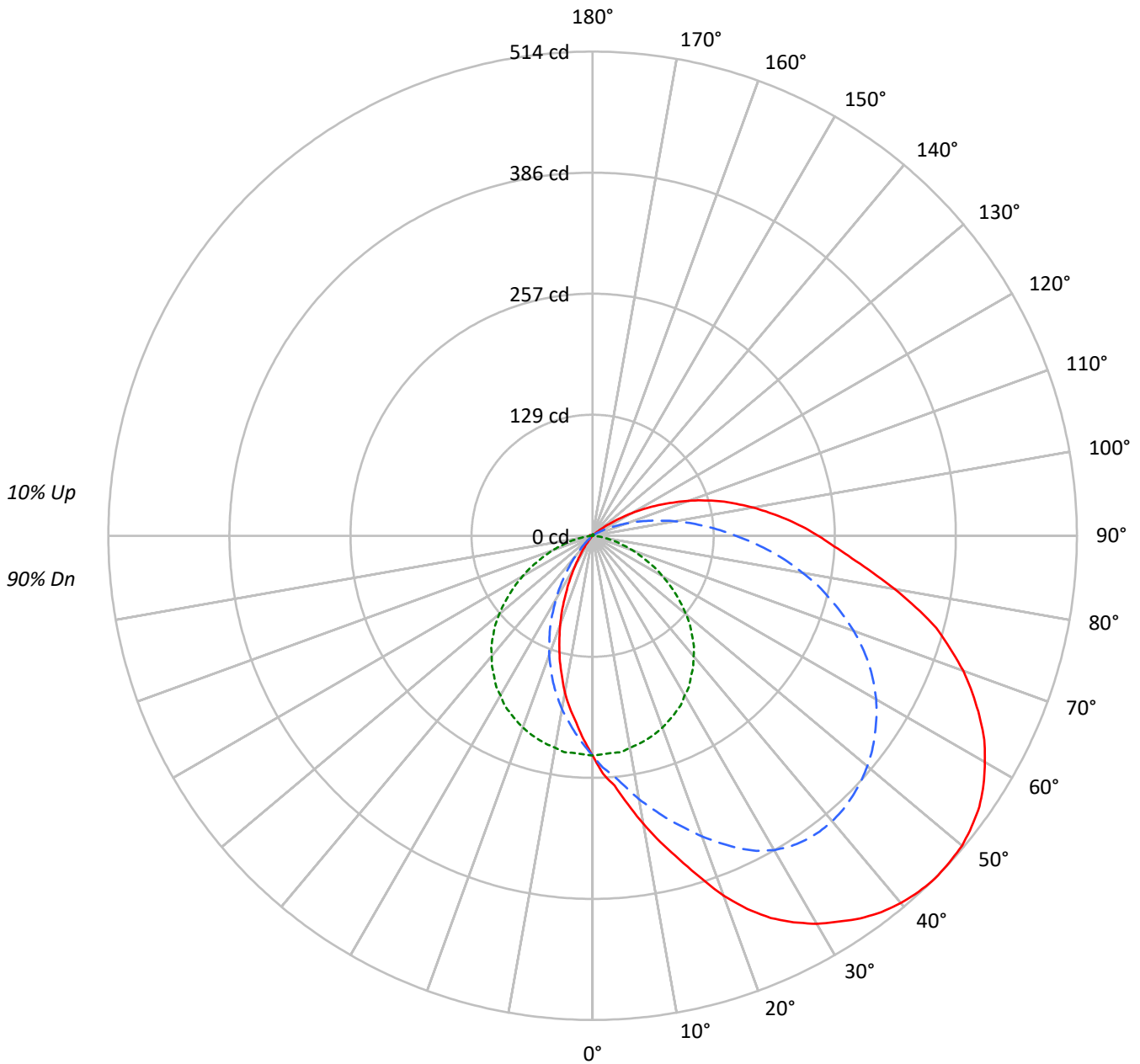
Lumens per Lamp: N/A
Luminaire Lumens: 1153.1 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2510	2510	2510
5°	2756	2473	2064
10°	3119	2444	1701
15°	3494	2412	1326
20°	3941	2373	976
25°	4312	2328	641
30°	4588	2266	361
35°	4827	2200	159
40°	5037	2120	39
45°	5219	2017	0
50°	5371	1883	0
55°	5487	1713	0
60°	5546	1515	0
65°	5569	1289	0
70°	5550	1052	0
75°	5479	774	4
80°	5257	475	24
85°	5082	229	33



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.3	1.9
10°-20°	66.9	5.8
20°-30°	108.3	9.4
30°-40°	139.1	12.1
40°-50°	157.5	13.7
50°-60°	163.2	14.2
60°-70°	153.9	13.3
70°-80°	129.0	11.2
80°-90°	93.5	8.1
90°-100°	61.5	5.3
100°-110°	35.5	3.1
110°-120°	15.7	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°	197.5	17.1
0°-40°	336.7	29.2
0°-60°	657.4	57.0
0°-90°	1033.8	89.7
90°-120°	112.6	9.8
90°-150°	118.5	10.3
90°-180°	119.0	10.3
0°-180°	1153.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	233	233	233	233	233	
5°	266	256	231	210	199	27
15°	356	312	224	162	135	103
25°	448	366	207	106	67	207
35°	496	394	182	52	16	311
45°	514	391	149	12	0	397
55°	501	366	108	0	0	448
65°	453	324	64	0	0	448
75°	378	261	27	0	0	396
85°	276	189	4	1	2	236
90°	240	152	1	2	2	131
95°	206	119	1	2	3	161
105°	141	61	1	2	2	149
115°	77	20	1	1	2	77
125°	23	3	1	1	1	23
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°	233.2	233.2	233.2	233.2	233.2	233.2	233.2	233.2	233.2	233.2	233.2
2.5°	252.8	252.5	251.6	250.2	248.1	244.5	241.5	238.9	235.3	232.3	226.7
5°	266.2	264.7	263.5	262.0	257.3	254.0	248.7	242.7	237.1	231.4	220.2
7.5°	287.6	285.2	283.4	279.3	272.7	265.3	257.0	251.3	247.5	231.7	212.4
10°	310.5	308.4	304.8	297.4	289.4	278.7	266.8	253.4	241.5	228.5	205.6
12.5°	333.1	330.1	325.0	315.5	304.2	290.9	274.5	258.8	241.8	226.4	197.6
15°	355.6	352.4	347.0	335.4	320.6	303.0	283.1	263.2	243.3	223.7	189.3
17.5°	380.3	375.8	367.8	354.7	336.0	314.3	290.9	266.8	242.7	220.4	180.3
20°	406.7	400.5	391.9	374.3	352.4	326.8	298.6	270.4	242.4	216.6	170.2
22.5°	428.7	422.5	413.0	394.8	368.4	337.2	305.1	272.7	241.2	212.1	160.7
25°	447.7	442.7	432.3	411.5	383.6	348.2	311.4	274.5	239.5	207.4	150.6
27.5°	462.6	457.8	446.2	424.9	396.3	358.0	316.1	275.4	237.1	202.6	140.2
30°	475.7	470.9	456.9	435.0	404.9	365.7	320.9	275.7	234.1	195.5	128.9
32.5°	485.8	481.3	467.0	443.6	410.9	371.1	323.5	275.4	230.3	190.4	116.8
35°	495.9	491.4	474.8	449.8	415.3	373.5	325.6	273.9	225.5	182.1	105.2
37.5°	503.6	498.5	481.6	454.0	417.4	374.1	325.3	271.8	220.4	175.3	93.6
40°	508.9	503.6	485.5	456.3	418.0	373.2	322.9	268.3	214.5	166.7	81.4
42.5°	512.5	506.6	487.2	459.9	416.8	370.8	319.4	263.8	208.0	159.2	69.8
45°	514.3	508.0	487.5	456.9	414.8	366.3	314.0	258.2	200.8	149.1	58.2
47.5°	513.4	506.6	486.1	453.7	410.9	361.6	308.1	251.3	192.2	140.2	47.2
50°	511.9	504.8	482.8	449.5	405.5	355.6	301.6	243.0	183.3	129.2	37.4
52.5°	507.2	500.0	479.2	443.6	399.3	348.8	292.6	234.4	173.8	118.5	28.5
55°	501.2	494.7	473.0	438.2	391.3	340.5	284.3	225.2	164.6	107.6	20.5
57.5°	492.0	486.1	465.3	429.6	383.3	331.3	275.1	215.1	153.0	96.6	14.3
60°	480.7	474.8	454.6	419.8	374.1	320.9	265.0	204.7	142.6	85.6	8.9
62.5°	468.8	463.2	442.1	407.6	362.5	309.9	254.0	194.3	131.6	75.5	5.3
65°	453.1	447.7	428.7	393.1	349.7	298.0	241.8	181.8	120.3	64.2	3.0
67.5°	436.4	431.7	412.4	379.7	334.8	284.9	229.4	169.6	108.4	54.4	1.5
70°	418.6	412.7	394.8	361.6	319.7	270.1	215.7	157.2	97.2	44.9	0.0
72.5°	397.8	393.4	376.1	344.6	302.2	254.3	201.7	143.5	84.7	35.7	0.3
75°	377.6	372.0	356.2	326.5	284.9	237.7	186.3	130.7	72.5	27.3	0.3
77.5°	351.5	349.7	334.8	306.0	268.6	221.6	169.3	115.3	60.9	19.6	0.3
80°	325.3	323.5	312.0	285.5	249.6	202.6	153.6	100.7	49.6	13.1	0.3
82.5°	299.5	297.1	286.1	264.1	230.3	186.6	137.3	86.2	39.2	8.0	0.3
85°	276.3	273.3	261.4	241.2	210.3	168.5	120.3	71.9	29.1	4.5	0.6
87.5°	256.4	254.3	241.2	220.4	190.1	151.5	105.5	58.2	20.5	2.1	0.9
90°	239.5	235.0	223.4	201.4	171.1	132.8	89.7	46.6	13.7	1.2	1.2
92.5°	222.8	219.0	206.2	183.6	154.2	116.8	74.6	35.7	8.6	0.6	1.5
95°	205.6	201.4	189.0	168.2	137.0	100.4	61.2	26.1	4.8	0.6	1.5
97.5°	188.7	184.8	171.7	150.9	121.5	86.2	48.4	18.4	2.4	0.6	1.2
100°	172.9	168.5	156.6	135.8	106.1	71.9	37.4	11.9	1.5	0.6	1.2
102.5°	156.3	152.7	140.5	120.3	90.0	58.5	27.9	7.4	0.6	0.6	0.9
105°	141.4	137.0	125.1	104.3	76.7	46.1	19.6	4.5	0.6	0.6	0.9



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CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-81-84-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	92.1	88.5	78.1	60.6	38.9	18.1	5.3	0.9	0.9	0.9	0.9
115°	76.9	71.6	62.4	46.9	28.8	11.9	2.7	0.9	0.9	0.9	0.9
117.5°	61.5	57.0	50.5	35.7	19.0	7.7	1.5	0.9	0.9	0.9	0.9
120°	48.1	44.0	36.5	24.7	12.8	4.5	0.6	0.9	0.9	0.9	0.9
122.5°	34.5	31.2	24.7	16.0	7.7	2.1	0.9	0.9	1.2	1.2	0.9
125°	22.9	21.1	16.3	9.8	4.8	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	14.9	13.4	9.5	5.6	2.1	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.3	7.4	5.6	3.3	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.8	4.5	3.0	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°	233.2	233.2	233.2
2.5°	221.9	217.8	216.6
5°	210.1	203.2	199.4
7.5°	198.2	189.0	184.5
10°	187.2	174.1	169.3
12.5°	174.1	158.9	151.5
15°	161.6	142.0	134.9
17.5°	147.7	125.7	117.4
20°	134.6	109.3	100.7
22.5°	119.7	93.3	83.8
25°	106.4	77.2	66.6
27.5°	91.5	60.9	51.7
30°	77.5	46.6	37.4
32.5°	64.2	34.2	25.8
35°	51.7	23.2	16.3
37.5°	39.8	14.3	8.3
40°	28.8	7.4	3.9
42.5°	19.3	3.6	2.1
45°	11.9	1.8	0.0
47.5°	6.8	0.0	0.0
50°	3.6	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	1.8
87.5°	1.5	1.8	2.1
90°	1.8	2.1	2.1
92.5°	1.8	2.4	2.4
95°	2.1	2.4	2.7
97.5°	2.4	2.7	2.7
100°	2.1	2.7	3.0
102.5°	1.8	2.7	2.7
105°	1.5	2.1	2.4



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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°	124.8	121.2	109.3	89.7	62.7	35.1	13.1	2.4	0.6	0.9	0.9
110°	108.7	105.8	93.6	74.6	50.5	26.1	8.6	1.5	0.9	0.9	0.9





107.5°	1.2	1.8	2.1
110°	1.2	1.5	1.8



(END OF REPORT)