

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: P550902

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-81-97-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: P550902
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-81-97-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

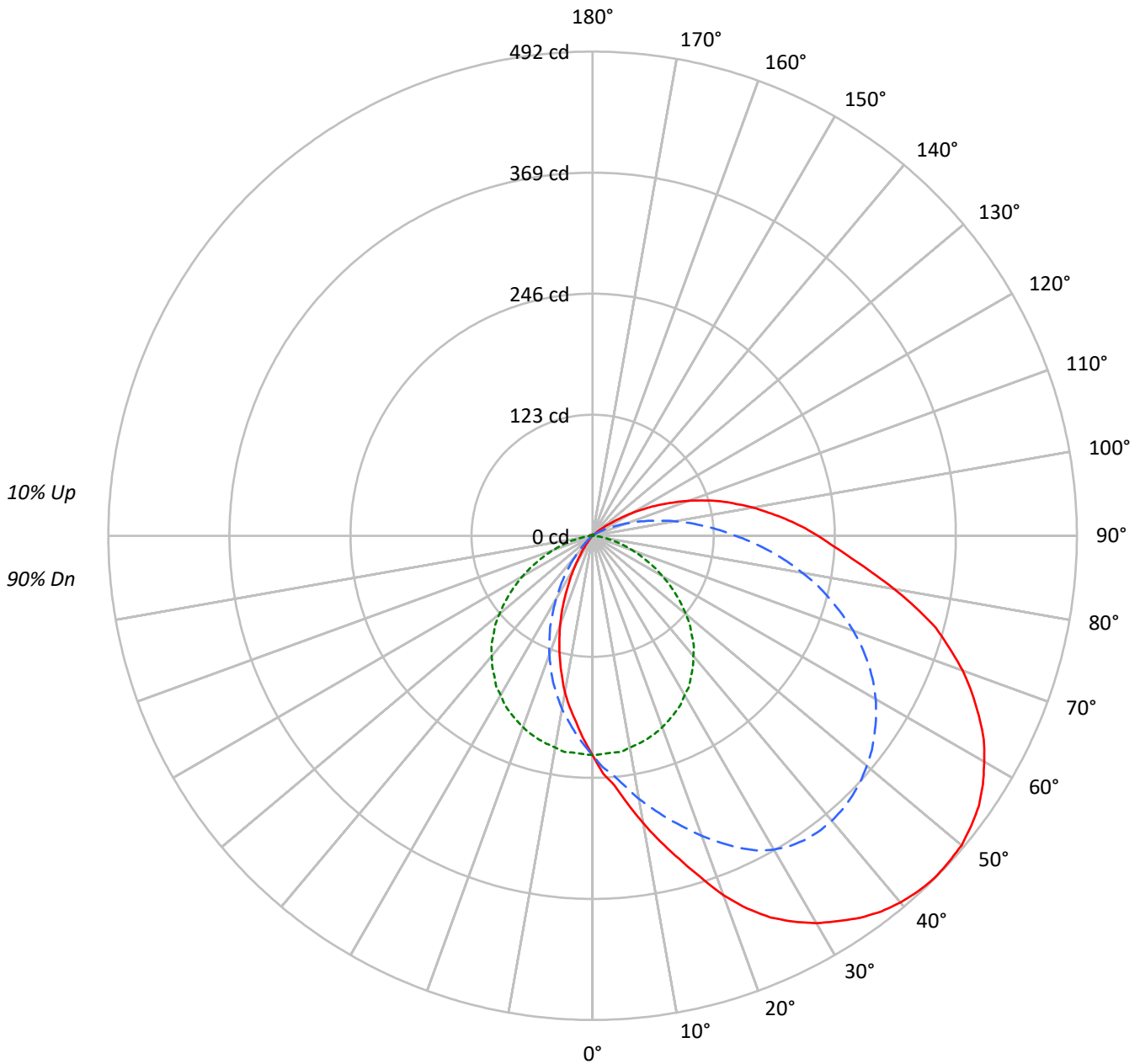
Lumens per Lamp: N/A
Luminaire Lumens: 1102.1 lumens
Efficiency: N/A
Efficacy: 94.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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				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°	2399	2399	2399
5°	2634	2364	1972
10°	2980	2336	1626
15°	3340	2305	1267
20°	3767	2268	933
25°	4121	2224	613
30°	4385	2165	345
35°	4612	2104	152
40°	4815	2026	37
45°	4988	1928	0
50°	5134	1800	0
55°	5244	1637	0
60°	5300	1448	0
65°	5322	1231	0
70°	5305	1005	0
75°	5237	740	4
80°	5024	453	23
85°	4857	219	31



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.4	1.9
10°-20°	63.9	5.8
20°-30°	103.5	9.4
30°-40°	133.0	12.1
40°-50°	150.5	13.7
50°-60°	156.0	14.2
60°-70°	147.1	13.3
70°-80°	123.3	11.2
80°-90°	89.4	8.1
90°-100°	58.7	5.3
100°-110°	33.9	3.1
110°-120°	15.0	1.4
120°-130°	4.1	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°	188.8	17.1
0°-40°	321.8	29.2
0°-60°	628.3	57.0
0°-90°	988.0	89.7
90°-120°	107.6	9.8
90°-150°	113.3	10.3
90°-180°	114.0	10.3
0°-180°	1102.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	223	223	223	223	223	
5°	254	244	221	201	190	26
15°	340	298	214	154	129	98
25°	428	350	198	102	64	198
35°	474	377	174	49	16	297
45°	492	373	142	11	0	379
55°	479	350	103	0	0	428
65°	433	310	61	0	0	428
75°	361	250	26	0	0	379
85°	264	181	4	1	2	226
90°	229	145	1	2	2	126
95°	196	113	1	2	3	154
105°	135	59	1	1	2	143
115°	74	19	1	1	1	74
125°	22	3	1	1	1	22
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°	222.9	222.9	222.9	222.9	222.9	222.9	222.9	222.9	222.9	222.9	222.9
2.5°	241.6	241.4	240.5	239.1	237.1	233.7	230.9	228.3	224.9	222.1	216.7
5°	254.4	253.0	251.9	250.5	245.9	242.8	237.7	232.0	226.6	221.2	210.4
7.5°	274.9	272.6	270.9	266.9	260.7	253.6	245.6	240.2	236.5	221.5	203.0
10°	296.7	294.7	291.3	284.2	276.6	266.4	255.0	242.2	230.9	218.4	196.5
12.5°	318.3	315.5	310.7	301.6	290.8	278.0	262.4	247.3	231.1	216.4	188.8
15°	339.9	336.8	331.7	320.6	306.4	289.6	270.6	251.6	232.6	213.8	180.9
17.5°	363.5	359.2	351.5	339.0	321.2	300.4	278.0	255.0	232.0	210.7	172.4
20°	388.7	382.8	374.5	357.8	336.8	312.4	285.4	258.4	231.7	207.0	162.7
22.5°	409.8	403.8	394.7	377.4	352.1	322.3	291.6	260.7	230.6	202.7	153.6
25°	427.9	423.1	413.2	393.3	366.6	332.8	297.6	262.4	228.9	198.2	144.0
27.5°	442.1	437.6	426.5	406.1	378.8	342.2	302.1	263.2	226.6	193.7	134.0
30°	454.6	450.1	436.7	415.7	387.0	349.6	306.7	263.5	223.8	186.8	123.2
32.5°	464.3	460.0	446.4	424.0	392.7	354.7	309.2	263.2	220.1	182.0	111.6
35°	473.9	469.7	453.8	429.9	397.0	356.9	311.2	261.8	215.5	174.1	100.5
37.5°	481.3	476.5	460.3	433.9	399.0	357.5	310.9	259.8	210.7	167.5	89.4
40°	486.4	481.3	464.0	436.2	399.5	356.7	308.7	256.4	205.0	159.3	77.8
42.5°	489.8	484.2	465.7	439.6	398.4	354.4	305.3	252.2	198.8	152.2	66.7
45°	491.5	485.6	466.0	436.7	396.4	350.1	300.1	246.8	192.0	142.5	55.7
47.5°	490.7	484.2	464.6	433.6	392.7	345.6	294.5	240.2	183.7	134.0	45.1
50°	489.3	482.4	461.4	429.6	387.6	339.9	288.2	232.3	175.2	123.5	35.8
52.5°	484.7	477.9	458.0	424.0	381.6	333.4	279.7	224.0	166.1	113.3	27.3
55°	479.0	472.8	452.1	418.8	374.0	325.4	271.7	215.2	157.3	102.8	19.6
57.5°	470.2	464.6	444.7	410.6	366.3	316.6	262.9	205.6	146.2	92.3	13.6
60°	459.4	453.8	434.5	401.2	357.5	306.7	253.3	195.6	136.3	81.8	8.5
62.5°	448.1	442.7	422.5	389.6	346.4	296.2	242.8	185.7	125.8	72.1	5.1
65°	433.0	427.9	409.8	375.7	334.2	284.8	231.1	173.8	115.0	61.3	2.8
67.5°	417.1	412.6	394.1	362.9	320.0	272.3	219.2	162.1	103.6	52.0	1.4
70°	400.1	394.4	377.4	345.6	305.5	258.1	206.2	150.2	92.9	42.9	0.0
72.5°	380.2	376.0	359.5	329.4	288.8	243.1	192.8	137.2	80.9	34.1	0.3
75°	360.9	355.5	340.5	312.1	272.3	227.2	178.0	124.9	69.3	26.1	0.3
77.5°	335.9	334.2	320.0	292.5	256.7	211.8	161.9	110.2	58.2	18.7	0.3
80°	310.9	309.2	298.2	272.9	238.5	193.7	146.8	96.3	47.4	12.5	0.3
82.5°	286.2	284.0	273.5	252.4	220.1	178.3	131.2	82.3	37.5	7.7	0.3
85°	264.1	261.2	249.9	230.6	201.0	161.0	115.0	68.7	27.8	4.3	0.6
87.5°	245.1	243.1	230.6	210.7	181.7	144.8	100.8	55.7	19.6	2.0	0.9
90°	228.9	224.6	213.5	192.5	163.6	126.9	85.8	44.6	13.1	1.1	1.1
92.5°	213.0	209.3	197.1	175.5	147.4	111.6	71.3	34.1	8.2	0.6	1.4
95°	196.5	192.5	180.6	160.7	130.9	96.0	58.5	25.0	4.5	0.6	1.4
97.5°	180.3	176.6	164.1	144.3	116.1	82.3	46.3	17.6	2.3	0.6	1.1
100°	165.3	161.0	149.6	129.8	101.4	68.7	35.8	11.4	1.4	0.6	1.1
102.5°	149.4	146.0	134.3	115.0	86.0	55.9	26.7	7.1	0.6	0.6	0.9
105°	135.2	130.9	119.5	99.7	73.3	44.0	18.7	4.3	0.6	0.6	0.9



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CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-81-97-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	88.0	84.6	74.7	57.9	37.2	17.3	5.1	0.9	0.9	0.9	0.9
115°	73.5	68.4	59.6	44.9	27.5	11.4	2.6	0.9	0.9	0.9	0.9
117.5°	58.8	54.5	48.3	34.1	18.2	7.4	1.4	0.9	0.9	0.9	0.9
120°	46.0	42.0	34.9	23.6	12.2	4.3	0.6	0.9	0.9	0.9	0.9
122.5°	32.9	29.8	23.6	15.3	7.4	2.0	0.9	0.9	1.1	1.1	0.9
125°	21.9	20.2	15.6	9.4	4.5	0.9	0.9	0.9	1.1	1.1	0.9
127.5°	14.2	12.8	9.1	5.4	2.0	0.9	0.9	1.1	1.1	1.1	0.9
130°	8.0	7.1	5.4	3.1	0.9	0.9	0.9	1.1	1.1	1.1	0.9
132.5°	4.5	4.3	2.8	0.6	0.9	0.9	0.9	1.1	1.1	1.1	1.1
135°	1.1	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.1
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.1	1.4	1.4	1.4	1.1
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.1	1.4	1.4	1.4	1.1
142.5°	0.3	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.1	1.1
145°	0.3	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.1	1.1	1.1
147.5°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.1	1.1
150°	0.3	0.6	0.6	0.9	1.1	1.1	1.1	1.4	1.1	1.1	1.1
152.5°	0.3	0.6	0.6	0.9	1.1	1.1	1.1	1.4	1.1	1.1	1.1
155°	0.6	0.6	0.6	0.9	1.1	1.1	1.1	1.4	1.1	1.1	1.4
157.5°	0.6	0.6	0.6	0.9	1.1	1.1	1.1	1.4	1.1	1.1	1.4
160°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.1	1.1	1.1
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.1	1.1	1.1	1.1	1.1
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.1	1.4	1.4	1.4	1.4
172.5°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.4	1.4
175°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.4	1.4
177.5°	0.3	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.4	1.1
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°	222.9	222.9	222.9
2.5°	212.1	208.1	207.0
5°	200.8	194.2	190.5
7.5°	189.4	180.6	176.3
10°	178.9	166.4	161.9
12.5°	166.4	151.9	144.8
15°	154.5	135.7	128.9
17.5°	141.1	120.1	112.2
20°	128.6	104.5	96.3
22.5°	114.4	89.2	80.1
25°	101.7	73.8	63.6
27.5°	87.5	58.2	49.4
30°	74.1	44.6	35.8
32.5°	61.3	32.7	24.7
35°	49.4	22.1	15.6
37.5°	38.1	13.6	8.0
40°	27.5	7.1	3.7
42.5°	18.5	3.4	2.0
45°	11.4	1.7	0.0
47.5°	6.5	0.0	0.0
50°	3.4	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	0.9
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	2.0
90°	1.7	2.0	2.0
92.5°	1.7	2.3	2.3
95°	2.0	2.3	2.6
97.5°	2.3	2.6	2.6
100°	2.0	2.6	2.8
102.5°	1.7	2.6	2.6
105°	1.4	2.0	2.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.1	1.4	1.4
115°	0.9	1.1	1.4
117.5°	0.9	1.1	1.1
120°	0.9	0.9	1.1
122.5°	0.9	0.9	1.1
125°	0.9	0.9	1.1
127.5°	1.1	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.1	0.9	0.9
135°	1.1	0.9	0.9
137.5°	1.1	0.9	0.9
140°	1.1	0.9	0.9
142.5°	1.1	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°	1.1	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°	119.3	115.9	104.5	85.8	59.9	33.5	12.5	2.3	0.6	0.9	0.9
110°	103.9	101.1	89.4	71.3	48.3	25.0	8.2	1.4	0.9	0.9	0.9





107.5°	1.1	1.7	2.0
110°	1.1	1.4	1.7



(END OF REPORT)