

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: P550861

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-93-87-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: P550861
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-40-UNV-93-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

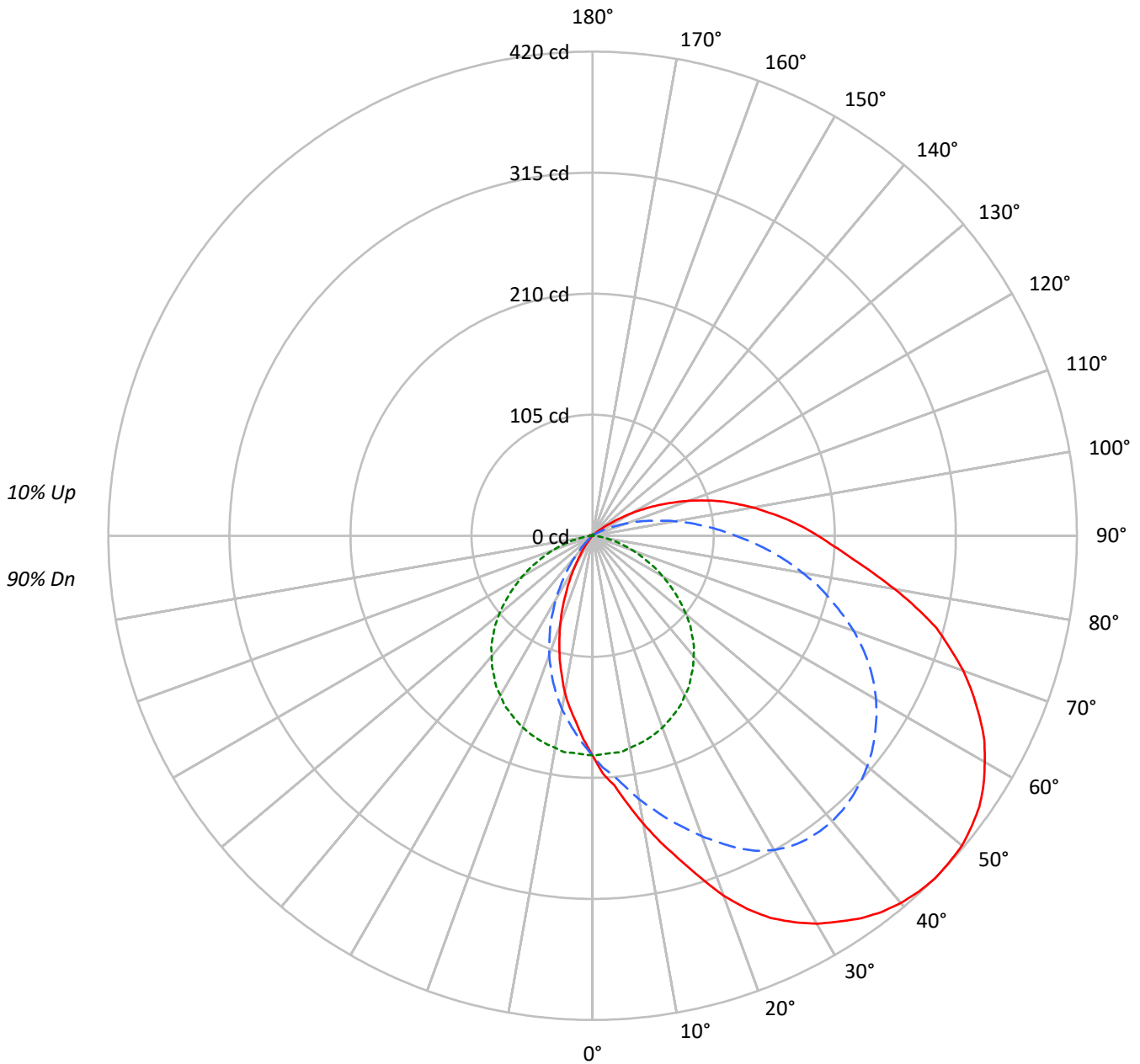
Lumens per Lamp: N/A
Luminaire Lumens: 942.0 lumens
Efficiency: N/A
Efficacy: 80.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P550861

CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-93-87-ED1D-90

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°	2051	2051	2051
5°	2252	2021	1686
10°	2548	1997	1390
15°	2855	1971	1083
20°	3220	1939	798
25°	3523	1901	524
30°	3748	1851	295
35°	3943	1798	130
40°	4116	1732	32
45°	4264	1649	0
50°	4388	1539	0
55°	4483	1400	0
60°	4530	1237	0
65°	4550	1052	0
70°	4534	860	0
75°	4477	632	3
80°	4296	388	19
85°	4151	183	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.3	1.9
10°-20°	54.6	5.8
20°-30°	88.5	9.4
30°-40°	113.7	12.1
40°-50°	128.7	13.7
50°-60°	133.3	14.2
60°-70°	125.7	13.3
70°-80°	105.4	11.2
80°-90°	76.4	8.1
90°-100°	50.2	5.3
100°-110°	29.0	3.1
110°-120°	12.8	1.4
120°-130°	3.5	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°	161.4	17.1
0°-40°	275.1	29.2
0°-60°	537.1	57.0
0°-90°	844.6	89.7
90°-120°	92.0	9.8
90°-150°	96.7	10.3
90°-180°	97.0	10.3
0°-180°	942.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	190	190	190	190	190	
5°	218	209	189	172	163	22
15°	290	255	183	132	110	84
25°	366	299	169	87	54	169
35°	405	322	149	42	13	254
45°	420	319	122	10	0	324
55°	410	299	88	0	0	366
65°	370	265	52	0	0	366
75°	308	214	22	0	0	324
85°	226	155	4	1	2	193
90°	196	124	1	2	2	107
95°	168	97	0	2	2	132
105°	116	50	0	1	2	122
115°	63	17	1	1	1	63
125°	19	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°	190.5	190.5	190.5	190.5	190.5	190.5	190.5	190.5	190.5	190.5	190.5
2.5°	206.6	206.3	205.6	204.4	202.7	199.8	197.3	195.2	192.2	189.8	185.2
5°	217.5	216.3	215.3	214.1	210.2	207.5	203.2	198.3	193.7	189.1	179.9
7.5°	235.0	233.0	231.6	228.2	222.8	216.8	210.0	205.4	202.2	189.3	173.6
10°	253.7	252.0	249.0	243.0	236.4	227.7	218.0	207.0	197.3	186.7	168.0
12.5°	272.1	269.7	265.5	257.8	248.6	237.6	224.3	211.4	197.6	185.0	161.4
15°	290.5	287.9	283.5	274.0	261.9	247.6	231.3	215.1	198.8	182.8	154.6
17.5°	310.7	307.1	300.5	289.8	274.5	256.8	237.6	218.0	198.3	180.1	147.3
20°	332.3	327.2	320.2	305.8	287.9	267.0	243.9	220.9	198.1	177.0	139.1
22.5°	350.3	345.2	337.4	322.6	301.0	275.5	249.3	222.8	197.1	173.3	131.3
25°	365.8	361.7	353.2	336.2	313.4	284.5	254.4	224.3	195.6	169.4	123.1
27.5°	377.9	374.0	364.6	347.1	323.8	292.5	258.3	225.0	193.7	165.5	114.6
30°	388.6	384.7	373.3	355.4	330.8	298.8	262.1	225.3	191.3	159.7	105.3
32.5°	396.9	393.2	381.6	362.4	335.7	303.2	264.3	225.0	188.1	155.6	95.4
35°	405.1	401.5	387.9	367.5	339.3	305.1	266.0	223.8	184.2	148.8	85.9
37.5°	411.4	407.3	393.5	370.9	341.0	305.6	265.8	222.1	180.1	143.2	76.5
40°	415.8	411.4	396.6	372.8	341.5	304.9	263.8	219.2	175.3	136.2	66.5
42.5°	418.7	413.9	398.1	375.7	340.6	302.9	260.9	215.5	169.9	130.1	57.0
45°	420.2	415.1	398.3	373.3	338.9	299.3	256.6	210.9	164.1	121.9	47.6
47.5°	419.4	413.9	397.1	370.7	335.7	295.4	251.7	205.4	157.0	114.6	38.6
50°	418.2	412.4	394.4	367.3	331.3	290.5	246.4	198.6	149.8	105.6	30.6
52.5°	414.3	408.5	391.5	362.4	326.2	285.0	239.1	191.5	142.0	96.8	23.3
55°	409.5	404.1	386.4	358.0	319.7	278.2	232.3	184.0	134.5	87.9	16.7
57.5°	402.0	397.1	380.1	351.0	313.1	270.6	224.8	175.7	125.0	78.9	11.7
60°	392.7	387.9	371.4	343.0	305.6	262.1	216.5	167.2	116.5	69.9	7.3
62.5°	383.0	378.4	361.2	333.0	296.1	253.2	207.5	158.7	107.5	61.7	4.4
65°	370.2	365.8	350.3	321.1	285.7	243.5	197.6	148.6	98.3	52.4	2.4
67.5°	356.6	352.7	336.9	310.2	273.6	232.8	187.4	138.6	88.6	44.4	1.2
70°	342.0	337.2	322.6	295.4	261.2	220.6	176.2	128.4	79.4	36.7	0.0
72.5°	325.0	321.4	307.3	281.6	246.9	207.8	164.8	117.2	69.2	29.1	0.2
75°	308.5	303.9	291.0	266.8	232.8	194.2	152.2	106.8	59.2	22.3	0.2
77.5°	287.2	285.7	273.6	250.0	219.4	181.1	138.4	94.2	49.8	16.0	0.2
80°	265.8	264.3	254.9	233.3	203.9	165.5	125.5	82.3	40.5	10.7	0.2
82.5°	244.7	242.7	233.8	215.8	188.1	152.4	112.1	70.4	32.0	6.6	0.2
85°	225.7	223.3	213.6	197.1	171.9	137.6	98.3	58.7	23.8	3.6	0.5
87.5°	209.5	207.8	197.1	180.1	155.3	123.8	86.2	47.6	16.7	1.7	0.7
90°	195.6	192.0	182.5	164.6	139.8	108.5	73.3	38.1	11.2	1.0	1.0
92.5°	182.0	178.9	168.5	150.0	126.0	95.4	60.9	29.1	7.0	0.5	1.2
95°	168.0	164.6	154.4	137.4	111.9	82.0	50.0	21.4	3.9	0.5	1.2
97.5°	154.1	151.0	140.3	123.3	99.3	70.4	39.6	15.0	1.9	0.5	1.0
100°	141.3	137.6	127.9	110.9	86.7	58.7	30.6	9.7	1.2	0.5	1.0
102.5°	127.7	124.8	114.8	98.3	73.5	47.8	22.8	6.1	0.5	0.5	0.7
105°	115.5	111.9	102.2	85.2	62.6	37.6	16.0	3.6	0.5	0.5	0.7



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CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-93-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	75.2	72.3	63.8	49.5	31.8	14.8	4.4	0.7	0.7	0.7	0.7
115°	62.9	58.5	51.0	38.4	23.5	9.7	2.2	0.7	0.7	0.7	0.7
117.5°	50.2	46.6	41.3	29.1	15.5	6.3	1.2	0.7	0.7	0.7	0.7
120°	39.3	35.9	29.9	20.1	10.4	3.6	0.5	0.7	0.7	0.7	0.7
122.5°	28.2	25.5	20.1	13.1	6.3	1.7	0.7	0.7	1.0	1.0	0.7
125°	18.7	17.2	13.4	8.0	3.9	0.7	0.7	0.7	1.0	1.0	0.7
127.5°	12.1	10.9	7.8	4.6	1.7	0.7	0.7	1.0	1.0	1.0	0.7
130°	6.8	6.1	4.6	2.7	0.7	0.7	0.7	1.0	1.0	1.0	0.7
132.5°	3.9	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°	190.5	190.5	190.5
2.5°	181.3	177.9	177.0
5°	171.6	166.0	162.9
7.5°	161.9	154.4	150.7
10°	152.9	142.2	138.4
12.5°	142.2	129.9	123.8
15°	132.0	116.0	110.2
17.5°	120.6	102.7	95.9
20°	110.0	89.3	82.3
22.5°	97.8	76.2	68.5
25°	86.9	63.1	54.4
27.5°	74.8	49.8	42.2
30°	63.4	38.1	30.6
32.5°	52.4	27.9	21.1
35°	42.2	18.9	13.4
37.5°	32.5	11.7	6.8
40°	23.5	6.1	3.2
42.5°	15.8	2.9	1.7
45°	9.7	1.5	0.0
47.5°	5.6	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	1.5
87.5°	1.2	1.5	1.7
90°	1.5	1.7	1.7
92.5°	1.5	1.9	1.9
95°	1.7	1.9	2.2
97.5°	1.9	2.2	2.2
100°	1.7	2.2	2.4
102.5°	1.5	2.2	2.2
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°	101.9	99.0	89.3	73.3	51.2	28.6	10.7	1.9	0.5	0.7	0.7
110°	88.8	86.4	76.5	60.9	41.3	21.4	7.0	1.2	0.7	0.7	0.7





107.5°	1.0	1.5	1.7
110°	1.0	1.2	1.5



(END OF REPORT)