

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: P550813

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-80-87-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: P550813
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-80-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC 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

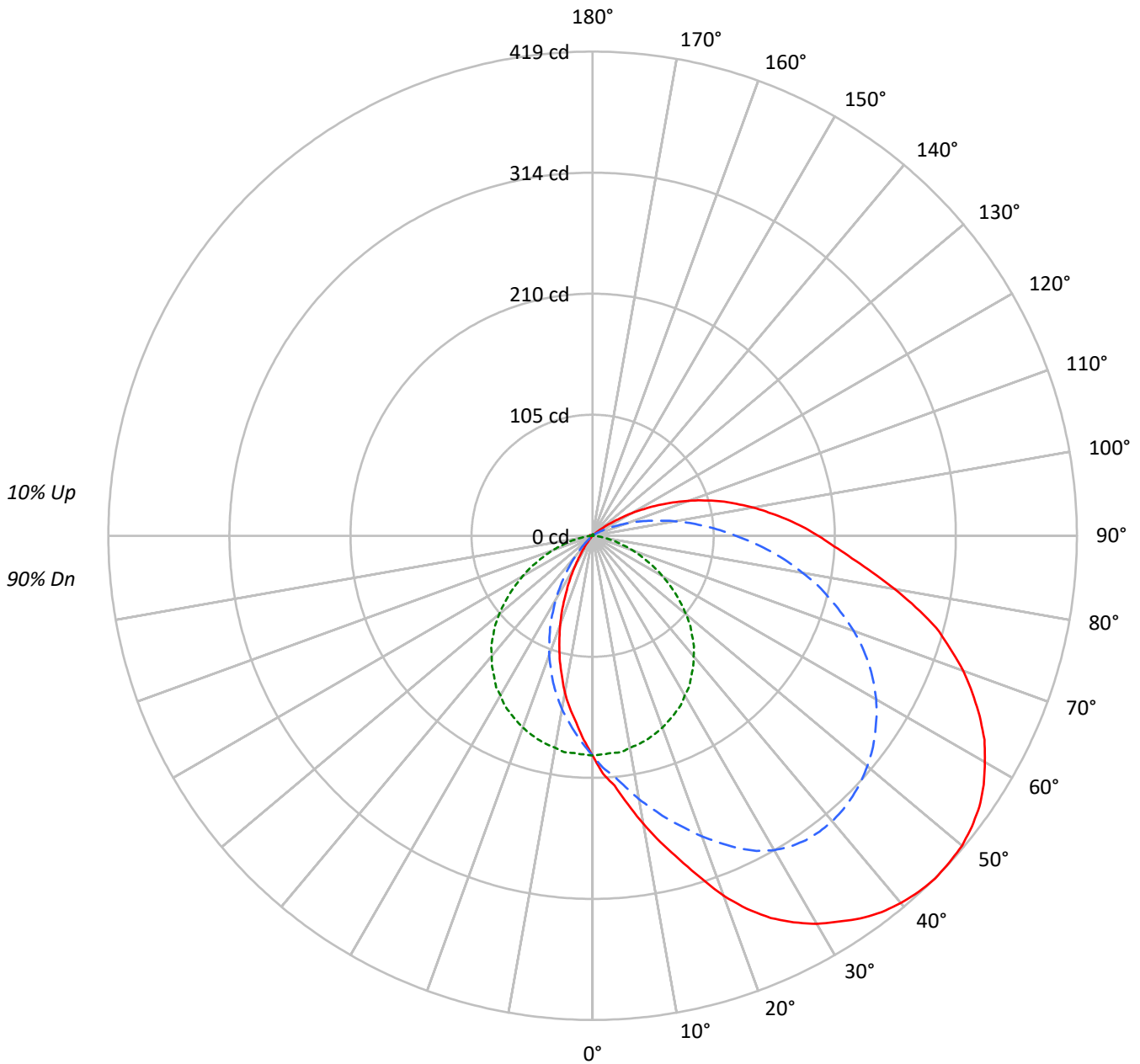
Lumens per Lamp: N/A
Luminaire Lumens: 940.0 lumens
Efficiency: N/A
Efficacy: 80.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P550813

CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-80-87-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°	2046	2046	2046
5°	2246	2017	1682
10°	2542	1992	1387
15°	2849	1967	1081
20°	3214	1935	796
25°	3515	1898	523
30°	3740	1848	294
35°	3935	1794	129
40°	4107	1728	31
45°	4255	1645	0
50°	4379	1536	0
55°	4474	1397	0
60°	4521	1235	0
65°	4540	1050	0
70°	4525	857	0
75°	4468	632	3
80°	4286	388	19
85°	4144	183	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.2	1.9
10°-20°	54.5	5.8
20°-30°	88.3	9.4
30°-40°	113.4	12.1
40°-50°	128.4	13.7
50°-60°	133.0	14.2
60°-70°	125.5	13.3
70°-80°	105.1	11.2
80°-90°	76.2	8.1
90°-100°	50.1	5.3
100°-110°	28.9	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°	161.1	17.1
0°-40°	274.5	29.2
0°-60°	536.0	57.0
0°-90°	842.8	89.7
90°-120°	91.8	9.8
90°-150°	96.6	10.3
90°-180°	97.0	10.3
0°-180°	940.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	190	190	190	190	190	
5°	217	208	189	171	162	22
15°	290	254	182	132	110	84
25°	365	298	169	87	54	169
35°	404	322	148	42	13	254
45°	419	318	122	10	0	324
55°	409	298	88	0	0	365
65°	369	264	52	0	0	365
75°	308	213	22	0	0	323
85°	225	154	4	1	2	192
90°	195	124	1	2	2	107
95°	168	97	0	2	2	132
105°	115	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°	190.1	190.1	190.1	190.1	190.1	190.1	190.1	190.1	190.1	190.1	190.1
2.5°	206.1	205.9	205.2	203.9	202.3	199.3	196.9	194.7	191.8	189.4	184.8
5°	217.0	215.8	214.8	213.6	209.8	207.1	202.7	197.9	193.3	188.7	179.5
7.5°	234.5	232.5	231.1	227.7	222.4	216.3	209.5	204.9	201.8	188.9	173.2
10°	253.1	251.4	248.5	242.5	235.9	227.2	217.5	206.6	196.9	186.3	167.6
12.5°	271.5	269.1	265.0	257.2	248.0	237.1	223.8	211.0	197.2	184.6	161.1
15°	289.9	287.3	282.9	273.5	261.4	247.1	230.8	214.6	198.4	182.4	154.3
17.5°	310.0	306.4	299.9	289.2	273.9	256.3	237.1	217.5	197.9	179.7	147.0
20°	331.6	326.5	319.5	305.2	287.3	266.4	243.4	220.4	197.6	176.6	138.8
22.5°	349.5	344.4	336.7	321.9	300.3	274.9	248.8	222.4	196.7	172.9	131.0
25°	365.0	360.9	352.4	335.5	312.7	283.9	253.8	223.8	195.2	169.1	122.8
27.5°	377.1	373.3	363.8	346.4	323.1	291.9	257.7	224.5	193.3	165.2	114.3
30°	387.8	383.9	372.5	354.6	330.1	298.2	261.6	224.8	190.9	159.4	105.1
32.5°	396.0	392.4	380.8	361.6	335.0	302.5	263.8	224.5	187.7	155.3	95.2
35°	404.3	400.6	387.1	366.7	338.6	304.5	265.5	223.3	183.8	148.5	85.7
37.5°	410.6	406.4	392.6	370.1	340.3	304.9	265.2	221.6	179.7	142.9	76.3
40°	414.9	410.6	395.8	372.0	340.8	304.2	263.3	218.7	174.9	135.9	66.4
42.5°	417.8	413.0	397.2	375.0	339.8	302.3	260.4	215.1	169.6	129.8	56.9
45°	419.3	414.2	397.5	372.5	338.1	298.7	256.0	210.5	163.7	121.6	47.5
47.5°	418.5	413.0	396.3	369.9	335.0	294.8	251.2	204.9	156.7	114.3	38.5
50°	417.3	411.5	393.6	366.5	330.6	289.9	245.8	198.1	149.4	105.4	30.5
52.5°	413.5	407.6	390.7	361.6	325.5	284.4	238.6	191.1	141.7	96.6	23.3
55°	408.6	403.3	385.6	357.3	319.0	277.6	231.8	183.6	134.2	87.7	16.7
57.5°	401.1	396.3	379.3	350.2	312.5	270.1	224.3	175.4	124.7	78.7	11.6
60°	391.9	387.1	370.6	342.3	304.9	261.6	216.1	166.9	116.3	69.8	7.3
62.5°	382.2	377.6	360.4	332.3	295.5	252.6	207.1	158.4	107.3	61.5	4.4
65°	369.4	365.0	349.5	320.5	285.1	242.9	197.2	148.2	98.1	52.3	2.4
67.5°	355.8	351.9	336.2	309.6	273.0	232.3	187.0	138.3	88.4	44.3	1.2
70°	341.3	336.4	321.9	294.8	260.6	220.2	175.8	128.1	79.2	36.6	0.0
72.5°	324.3	320.7	306.6	281.0	246.3	207.3	164.5	117.0	69.0	29.1	0.2
75°	307.9	303.3	290.4	266.2	232.3	193.8	151.9	106.6	59.1	22.3	0.2
77.5°	286.5	285.1	273.0	249.5	219.0	180.7	138.1	94.0	49.7	16.0	0.2
80°	265.2	263.8	254.3	232.8	203.5	165.2	125.2	82.1	40.5	10.7	0.2
82.5°	244.2	242.2	233.3	215.3	187.7	152.1	111.9	70.2	32.0	6.5	0.2
85°	225.3	222.8	213.1	196.7	171.5	137.3	98.1	58.6	23.7	3.6	0.5
87.5°	209.0	207.3	196.7	179.7	155.0	123.5	86.0	47.5	16.7	1.7	0.7
90°	195.2	191.6	182.1	164.2	139.5	108.3	73.1	38.0	11.1	1.0	1.0
92.5°	181.7	178.5	168.1	149.7	125.7	95.2	60.8	29.1	7.0	0.5	1.2
95°	167.6	164.2	154.0	137.1	111.7	81.9	49.9	21.3	3.9	0.5	1.2
97.5°	153.8	150.7	140.0	123.0	99.1	70.2	39.5	15.0	1.9	0.5	1.0
100°	141.0	137.3	127.6	110.7	86.5	58.6	30.5	9.7	1.2	0.5	1.0
102.5°	127.4	124.5	114.6	98.1	73.4	47.7	22.8	6.1	0.5	0.5	0.7
105°	115.3	111.7	102.0	85.0	62.5	37.5	16.0	3.6	0.5	0.5	0.7



TEST NUMBER: P550813

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	75.1	72.2	63.7	49.4	31.7	14.8	4.4	0.7	0.7	0.7	0.7
115°	62.7	58.4	50.9	38.3	23.5	9.7	2.2	0.7	0.7	0.7	0.7
117.5°	50.1	46.5	41.2	29.1	15.5	6.3	1.2	0.7	0.7	0.7	0.7
120°	39.2	35.8	29.8	20.1	10.4	3.6	0.5	0.7	0.7	0.7	0.7
122.5°	28.1	25.4	20.1	13.1	6.3	1.7	0.7	0.7	1.0	1.0	0.7
125°	18.7	17.2	13.3	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°	190.1	190.1	190.1
2.5°	180.9	177.5	176.6
5°	171.2	165.7	162.5
7.5°	161.6	154.0	150.4
10°	152.6	141.9	138.1
12.5°	141.9	129.6	123.5
15°	131.8	115.8	110.0
17.5°	120.4	102.5	95.7
20°	109.7	89.1	82.1
22.5°	97.6	76.1	68.3
25°	86.7	63.0	54.3
27.5°	74.6	49.7	42.1
30°	63.2	38.0	30.5
32.5°	52.3	27.9	21.1
35°	42.1	18.9	13.3
37.5°	32.5	11.6	6.8
40°	23.5	6.1	3.1
42.5°	15.7	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°	101.7	98.8	89.1	73.1	51.1	28.6	10.7	1.9	0.5	0.7	0.7
110°	88.7	86.2	76.3	60.8	41.2	21.3	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)