

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: P550700

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-81-86-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: P550700
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-81-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

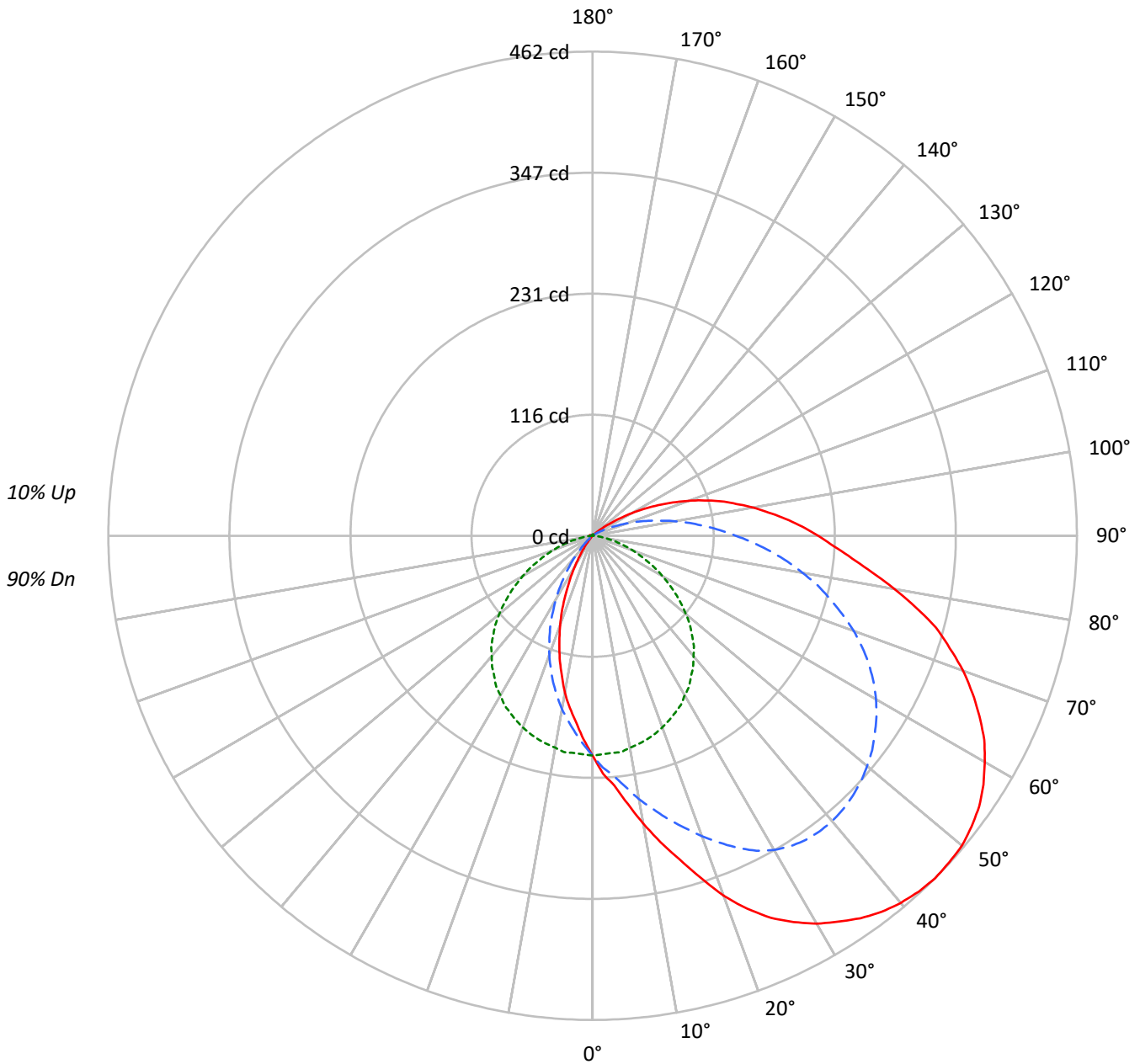
Lumens per Lamp: N/A
Luminaire Lumens: 1036.0 lumens
Efficiency: N/A
Efficacy: 88.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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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°	2256	2256	2256
5°	2476	2223	1854
10°	2802	2196	1529
15°	3140	2167	1191
20°	3542	2132	877
25°	3875	2091	576
30°	4122	2037	324
35°	4336	1977	143
40°	4527	1905	35
45°	4690	1813	0
50°	4827	1692	0
55°	4930	1538	0
60°	4983	1361	0
65°	5004	1159	0
70°	4986	944	0
75°	4924	698	4
80°	4724	424	21
85°	4567	203	29



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.1	1.9
10°-20°	60.1	5.8
20°-30°	97.3	9.4
30°-40°	125.0	12.1
40°-50°	141.5	13.7
50°-60°	146.6	14.2
60°-70°	138.3	13.3
70°-80°	115.9	11.2
80°-90°	84.0	8.1
90°-100°	55.2	5.3
100°-110°	31.9	3.1
110°-120°	14.1	1.4
120°-130°	3.8	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°	177.5	17.1
0°-40°	302.5	29.2
0°-60°	590.7	57.0
0°-90°	928.9	89.7
90°-120°	101.2	9.8
90°-150°	106.4	10.3
90°-180°	107.0	10.3
0°-180°	1036.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	210	210	210	210	210	
5°	239	230	208	189	179	24
15°	320	280	201	145	121	92
25°	402	329	186	96	60	186
35°	446	354	164	46	15	279
45°	462	351	134	11	0	357
55°	450	329	97	0	0	402
65°	407	291	58	0	0	403
75°	339	235	25	0	0	356
85°	248	170	4	1	2	212
90°	215	137	1	2	2	118
95°	185	107	0	2	2	145
105°	127	55	0	1	2	134
115°	69	18	1	1	1	69
125°	21	3	1	1	1	21
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°	209.6	209.6	209.6	209.6	209.6	209.6	209.6	209.6	209.6	209.6	209.6
2.5°	227.2	226.9	226.1	224.8	222.9	219.7	217.0	214.6	211.4	208.8	203.7
5°	239.2	237.9	236.8	235.5	231.2	228.2	223.4	218.1	213.0	208.0	197.8
7.5°	258.4	256.3	254.7	250.9	245.1	238.4	230.9	225.8	222.4	208.2	190.9
10°	279.0	277.1	273.9	267.2	260.0	250.4	239.7	227.7	217.0	205.3	184.7
12.5°	299.3	296.6	292.0	283.5	273.4	261.3	246.7	232.5	217.3	203.4	177.5
15°	319.5	316.6	311.8	301.4	288.0	272.3	254.4	236.5	218.6	201.0	170.0
17.5°	341.7	337.7	330.5	318.7	301.9	282.4	261.3	239.7	218.1	198.1	162.0
20°	365.5	359.9	352.1	336.4	316.6	293.6	268.3	242.9	217.8	194.6	153.0
22.5°	385.2	379.6	371.1	354.8	331.0	303.0	274.2	245.1	216.8	190.6	144.4
25°	402.3	397.8	388.4	369.7	344.6	312.9	279.8	246.7	215.2	186.3	135.3
27.5°	415.6	411.4	401.0	381.7	356.1	321.7	284.0	247.5	213.0	182.1	126.0
30°	427.4	423.1	410.6	390.8	363.9	328.6	288.3	247.7	210.4	175.7	115.9
32.5°	436.5	432.5	419.6	398.6	369.2	333.4	290.7	247.5	206.9	171.1	104.9
35°	445.5	441.5	426.6	404.2	373.2	335.6	292.6	246.1	202.6	163.6	94.5
37.5°	452.5	447.9	432.7	407.9	375.1	336.1	292.3	244.3	198.1	157.5	84.1
40°	457.3	452.5	436.2	410.0	375.6	335.3	290.2	241.1	192.7	149.8	73.1
42.5°	460.5	455.2	437.8	413.2	374.5	333.2	287.0	237.1	186.9	143.1	62.7
45°	462.1	456.5	438.1	410.6	372.7	329.2	282.2	232.0	180.5	134.0	52.3
47.5°	461.3	455.2	436.7	407.6	369.2	324.9	276.8	225.8	172.7	126.0	42.4
50°	460.0	453.6	433.8	403.9	364.4	319.5	271.0	218.4	164.7	116.1	33.6
52.5°	455.7	449.3	430.6	398.6	358.8	313.4	262.9	210.6	156.2	106.5	25.6
55°	450.3	444.5	425.0	393.8	351.6	305.9	255.5	202.4	147.9	96.6	18.4
57.5°	442.1	436.7	418.0	386.0	344.4	297.7	247.2	193.3	137.5	86.8	12.8
60°	431.9	426.6	408.4	377.2	336.1	288.3	238.1	183.9	128.1	76.9	8.0
62.5°	421.3	416.2	397.2	366.3	325.7	278.4	228.2	174.6	118.3	67.8	4.8
65°	407.1	402.3	385.2	353.2	314.2	267.8	217.3	163.4	108.1	57.7	2.7
67.5°	392.2	387.9	370.5	341.2	300.9	256.0	206.1	152.4	97.4	48.9	1.3
70°	376.1	370.8	354.8	324.9	287.2	242.7	193.8	141.2	87.3	40.3	0.0
72.5°	357.4	353.4	338.0	309.7	271.5	228.5	181.3	128.9	76.1	32.0	0.3
75°	339.3	334.2	320.1	293.4	256.0	213.6	167.4	117.5	65.1	24.6	0.3
77.5°	315.8	314.2	300.9	275.0	241.3	199.1	152.2	103.6	54.7	17.6	0.3
80°	292.3	290.7	280.3	256.5	224.2	182.1	138.0	90.5	44.6	11.7	0.3
82.5°	269.1	267.0	257.1	237.3	206.9	167.6	123.3	77.4	35.2	7.2	0.3
85°	248.3	245.6	234.9	216.8	189.0	151.4	108.1	64.6	26.2	4.0	0.5
87.5°	230.4	228.5	216.8	198.1	170.8	136.1	94.8	52.3	18.4	1.9	0.8
90°	215.2	211.2	200.7	181.0	153.8	119.3	80.6	41.9	12.3	1.1	1.1
92.5°	200.2	196.7	185.3	165.0	138.5	104.9	67.0	32.0	7.7	0.5	1.3
95°	184.7	181.0	169.8	151.1	123.1	90.2	55.0	23.5	4.3	0.5	1.3
97.5°	169.5	166.0	154.3	135.6	109.2	77.4	43.5	16.6	2.1	0.5	1.1
100°	155.4	151.4	140.7	122.0	95.3	64.6	33.6	10.7	1.3	0.5	1.1
102.5°	140.4	137.2	126.3	108.1	80.9	52.6	25.1	6.7	0.5	0.5	0.8
105°	127.1	123.1	112.4	93.7	68.9	41.4	17.6	4.0	0.5	0.5	0.8



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CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-81-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	82.8	79.6	70.2	54.5	35.0	16.3	4.8	0.8	0.8	0.8	0.8
115°	69.1	64.3	56.1	42.2	25.9	10.7	2.4	0.8	0.8	0.8	0.8
117.5°	55.3	51.3	45.4	32.0	17.1	6.9	1.3	0.8	0.8	0.8	0.8
120°	43.2	39.5	32.8	22.2	11.5	4.0	0.5	0.8	0.8	0.8	0.8
122.5°	31.0	28.0	22.2	14.4	6.9	1.9	0.8	0.8	1.1	1.1	0.8
125°	20.6	19.0	14.7	8.8	4.3	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	13.3	12.0	8.5	5.1	1.9	0.8	0.8	1.1	1.1	1.1	0.8
130°	7.5	6.7	5.1	2.9	0.8	0.8	0.8	1.1	1.1	1.1	0.8
132.5°	4.3	4.0	2.7	0.5	0.8	0.8	0.8	1.1	1.1	1.1	1.1
135°	1.1	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.1	1.3	1.3	1.3	1.1
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.1	1.3	1.3	1.3	1.1
142.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1	1.1
145°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.1	1.1	1.1
147.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1	1.1
150°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.1
152.5°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.1
155°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.3
157.5°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.3
160°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.1	1.1	1.1	1.1	1.1
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.1	1.3	1.3	1.3	1.3
172.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.3
175°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.3
177.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.1
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	209.6	209.6	209.6
2.5°	199.4	195.7	194.6
5°	188.7	182.6	179.1
7.5°	178.1	169.8	165.8
10°	168.2	156.4	152.2
12.5°	156.4	142.8	136.1
15°	145.2	127.6	121.2
17.5°	132.7	112.9	105.4
20°	120.9	98.2	90.5
22.5°	107.6	83.8	75.3
25°	95.6	69.4	59.8
27.5°	82.2	54.7	46.4
30°	69.7	41.9	33.6
32.5°	57.7	30.7	23.2
35°	46.4	20.8	14.7
37.5°	35.8	12.8	7.5
40°	25.9	6.7	3.5
42.5°	17.4	3.2	1.9
45°	10.7	1.6	0.0
47.5°	6.1	0.0	0.0
50°	3.2	0.0	0.0
52.5°	1.3	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	0.5	0.8
80°	0.5	1.1	1.3
82.5°	1.1	1.3	1.3
85°	1.1	1.3	1.6
87.5°	1.3	1.6	1.9
90°	1.6	1.9	1.9
92.5°	1.6	2.1	2.1
95°	1.9	2.1	2.4
97.5°	2.1	2.4	2.4
100°	1.9	2.4	2.7
102.5°	1.6	2.4	2.4
105°	1.3	1.9	2.1



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CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-81-86-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.1	1.3	1.3
115°	0.8	1.1	1.3
117.5°	0.8	1.1	1.1
120°	0.8	0.8	1.1
122.5°	0.8	0.8	1.1
125°	0.8	0.8	1.1
127.5°	1.1	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.1	0.8	0.8
135°	1.1	0.8	0.8
137.5°	1.1	0.8	0.8
140°	1.1	0.8	0.8
142.5°	1.1	0.8	0.8
145°	0.8	0.8	0.8
147.5°	0.8	0.8	0.8
150°	0.8	0.8	0.5
152.5°	0.8	0.5	0.5
155°	0.8	0.5	0.3
157.5°	1.1	0.5	0.3
160°	0.8	0.5	0.3
162.5°	0.8	0.5	0.3
165°	0.8	0.5	0.0
167.5°	0.8	0.5	0.3
170°	0.8	0.5	0.3
172.5°	0.8	0.5	0.3
175°	0.8	0.3	0.3
177.5°	0.8	0.3	0.3
180°	0.8	0.8	0.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	112.1	108.9	98.2	80.6	56.3	31.5	11.7	2.1	0.5	0.8	0.8
110°	97.7	95.0	84.1	67.0	45.4	23.5	7.7	1.3	0.8	0.8	0.8





107.5°	1.1	1.6	1.9
110°	1.1	1.3	1.6



(END OF REPORT)