

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: P550732

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-93-86-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: P550732
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-93-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS 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

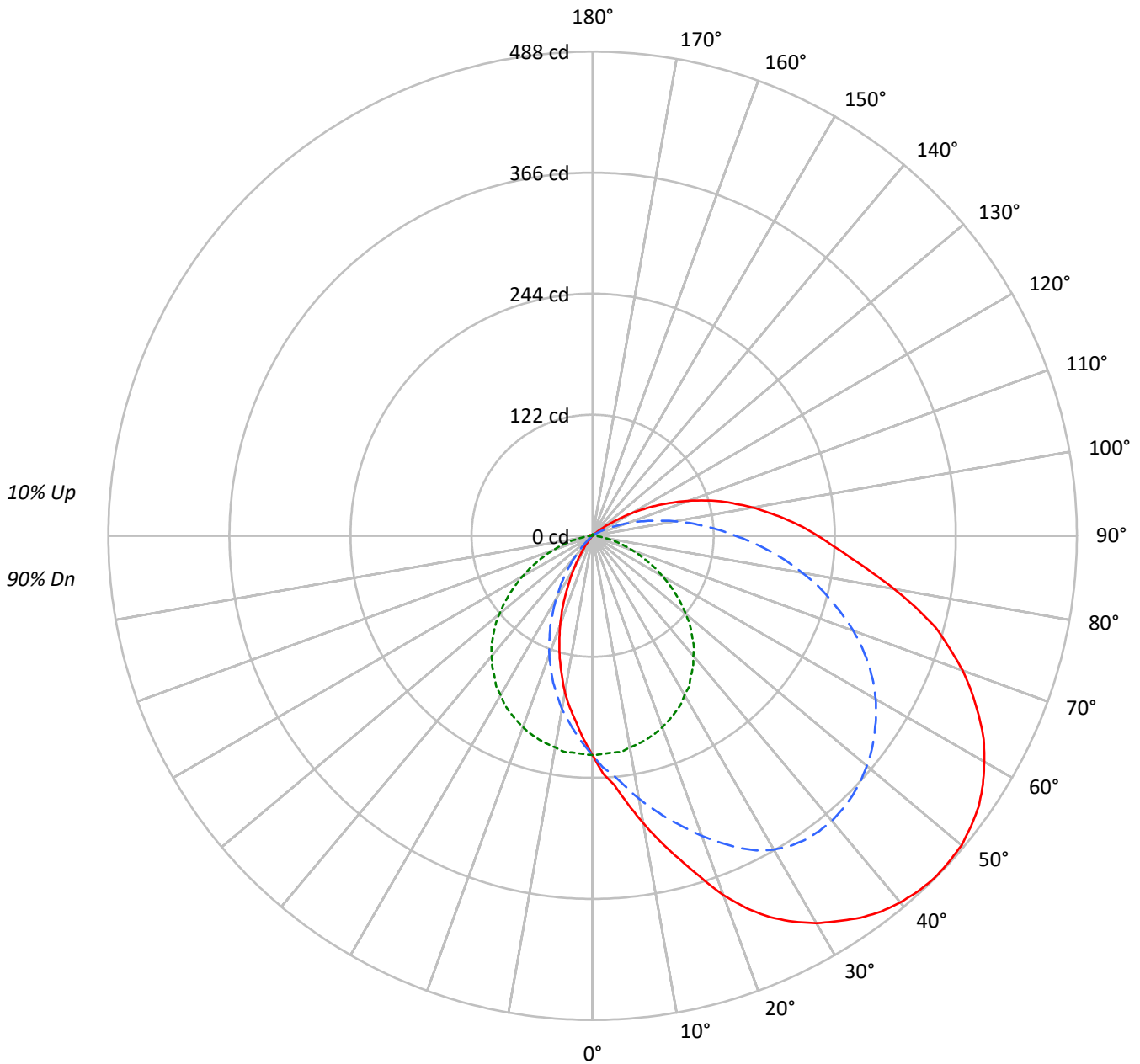
Lumens per Lamp: N/A
Luminaire Lumens: 1092.9 lumens
Efficiency: N/A
Efficacy: 93.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-93-86-ED1D

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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°	2380	2380	2380
5°	2612	2345	1957
10°	2956	2316	1612
15°	3313	2287	1257
20°	3737	2249	925
25°	4087	2206	608
30°	4349	2148	342
35°	4575	2085	151
40°	4775	2009	37
45°	4947	1913	0
50°	5092	1785	0
55°	5202	1624	0
60°	5257	1435	0
65°	5279	1221	0
70°	5261	996	0
75°	5195	734	4
80°	4984	450	23
85°	4817	214	31



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.2	1.9
10°-20°	63.4	5.8
20°-30°	102.7	9.4
30°-40°	131.9	12.1
40°-50°	149.3	13.7
50°-60°	154.7	14.2
60°-70°	145.9	13.3
70°-80°	122.3	11.2
80°-90°	88.6	8.1
90°-100°	58.3	5.3
100°-110°	33.6	3.1
110°-120°	14.8	1.4
120°-130°	4.0	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°	187.3	17.1
0°-40°	319.2	29.2
0°-60°	623.2	57.0
0°-90°	980.0	89.7
90°-120°	106.7	9.8
90°-150°	112.2	10.3
90°-180°	113.0	10.3
0°-180°	1092.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	221	221	221	221	221	
5°	252	242	219	199	189	25
15°	337	296	212	153	128	97
25°	424	347	197	101	63	196
35°	470	374	173	49	16	295
45°	488	370	141	11	0	376
55°	475	347	102	0	0	424
65°	430	307	61	0	0	425
75°	358	248	26	0	0	375
85°	262	180	4	1	2	224
90°	227	144	1	2	2	124
95°	195	112	1	2	2	153
105°	134	58	1	1	2	141
115°	73	19	1	1	1	73
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°	221.1	221.1	221.1	221.1	221.1	221.1	221.1	221.1	221.1	221.1	221.1
2.5°	239.7	239.4	238.5	237.1	235.2	231.8	229.0	226.4	223.1	220.2	214.9
5°	252.3	250.9	249.8	248.4	243.9	240.8	235.7	230.1	224.7	219.4	208.7
7.5°	272.6	270.4	268.7	264.7	258.5	251.5	243.6	238.3	234.6	219.7	201.4
10°	294.3	292.3	289.0	281.9	274.3	264.2	252.9	240.2	229.0	216.6	194.9
12.5°	315.7	312.9	308.1	299.1	288.4	275.7	260.2	245.3	229.3	214.6	187.3
15°	337.1	334.0	329.0	318.0	303.9	287.3	268.4	249.5	230.7	212.1	179.4
17.5°	360.5	356.3	348.7	336.3	318.5	298.0	275.7	252.9	230.1	209.0	171.0
20°	385.6	379.7	371.5	354.9	334.0	309.8	283.0	256.3	229.8	205.3	161.4
22.5°	406.4	400.5	391.5	374.3	349.2	319.7	289.2	258.5	228.7	201.1	152.4
25°	424.4	419.6	409.8	390.1	363.6	330.1	295.2	260.2	227.0	196.6	142.8
27.5°	438.5	434.0	423.0	402.7	375.7	339.4	299.7	261.1	224.7	192.1	132.9
30°	450.9	446.4	433.2	412.3	383.9	346.7	304.2	261.4	221.9	185.3	122.2
32.5°	460.5	456.3	442.7	420.5	389.5	351.8	306.7	261.1	218.3	180.5	110.7
35°	470.1	465.8	450.1	426.4	393.7	354.0	308.7	259.7	213.8	172.6	99.7
37.5°	477.4	472.6	456.5	430.3	395.7	354.6	308.4	257.7	209.0	166.2	88.7
40°	482.4	477.4	460.2	432.6	396.3	353.7	306.1	254.3	203.3	158.0	77.2
42.5°	485.8	480.2	461.9	436.0	395.1	351.5	302.8	250.1	197.1	151.0	66.2
45°	487.5	481.6	462.2	433.2	393.2	347.3	297.7	244.7	190.4	141.4	55.2
47.5°	486.7	480.2	460.8	430.1	389.5	342.8	292.1	238.3	182.2	132.9	44.8
50°	485.3	478.5	457.7	426.1	384.4	337.1	285.9	230.4	173.8	122.5	35.5
52.5°	480.8	474.0	454.3	420.5	378.5	330.6	277.4	222.2	164.8	112.4	27.0
55°	475.1	468.9	448.4	415.4	370.9	322.8	269.5	213.5	156.0	102.0	19.4
57.5°	466.4	460.8	441.0	407.3	363.3	314.0	260.8	203.9	145.0	91.5	13.5
60°	455.7	450.1	430.9	398.0	354.6	304.2	251.2	194.1	135.2	81.1	8.4
62.5°	444.4	439.1	419.1	386.4	343.6	293.8	240.8	184.2	124.8	71.5	5.1
65°	429.5	424.4	406.4	372.6	331.5	282.5	229.3	172.4	114.1	60.8	2.8
67.5°	413.7	409.2	390.9	359.9	317.4	270.1	217.4	160.8	102.8	51.5	1.4
70°	396.8	391.2	374.3	342.8	303.0	256.0	204.5	149.0	92.1	42.5	0.0
72.5°	377.1	372.9	356.6	326.7	286.4	241.1	191.2	136.0	80.3	33.8	0.3
75°	358.0	352.6	337.7	309.5	270.1	225.3	176.6	123.9	68.7	25.9	0.3
77.5°	333.2	331.5	317.4	290.1	254.6	210.1	160.5	109.3	57.7	18.6	0.3
80°	308.4	306.7	295.7	270.7	236.6	192.1	145.6	95.5	47.0	12.4	0.3
82.5°	283.9	281.6	271.2	250.4	218.3	176.9	130.1	81.7	37.2	7.6	0.3
85°	261.9	259.1	247.8	228.7	199.4	159.7	114.1	68.2	27.6	4.2	0.6
87.5°	243.1	241.1	228.7	209.0	180.2	143.6	100.0	55.2	19.4	2.0	0.8
90°	227.0	222.8	211.8	191.0	162.2	125.9	85.1	44.2	13.0	1.1	1.1
92.5°	211.2	207.6	195.5	174.1	146.2	110.7	70.7	33.8	8.2	0.6	1.4
95°	194.9	191.0	179.1	159.4	129.8	95.2	58.0	24.8	4.5	0.6	1.4
97.5°	178.8	175.2	162.8	143.1	115.2	81.7	45.9	17.5	2.3	0.6	1.1
100°	163.9	159.7	148.4	128.7	100.5	68.2	35.5	11.3	1.4	0.6	1.1
102.5°	148.1	144.8	133.2	114.1	85.3	55.5	26.5	7.0	0.6	0.6	0.8
105°	134.1	129.8	118.6	98.9	72.7	43.7	18.6	4.2	0.6	0.6	0.8



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CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-93-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	87.3	83.9	74.1	57.5	36.9	17.2	5.1	0.8	0.8	0.8	0.8
115°	72.9	67.9	59.1	44.5	27.3	11.3	2.5	0.8	0.8	0.8	0.8
117.5°	58.3	54.1	47.9	33.8	18.0	7.3	1.4	0.8	0.8	0.8	0.8
120°	45.6	41.7	34.6	23.4	12.1	4.2	0.6	0.8	0.8	0.8	0.8
122.5°	32.7	29.6	23.4	15.2	7.3	2.0	0.8	0.8	1.1	1.1	0.8
125°	21.7	20.0	15.5	9.3	4.5	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	14.1	12.7	9.0	5.4	2.0	0.8	0.8	1.1	1.1	1.1	0.8
130°	7.9	7.0	5.4	3.1	0.8	0.8	0.8	1.1	1.1	1.1	0.8
132.5°	4.5	4.2	2.8	0.6	0.8	0.8	0.8	1.1	1.1	1.1	1.1
135°	1.1	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.1
137.5°	0.3	0.3	0.6	0.6	0.8	0.8	1.1	1.4	1.4	1.4	1.1
140°	0.3	0.3	0.6	0.8	0.8	0.8	1.1	1.4	1.4	1.4	1.1
142.5°	0.3	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
145°	0.3	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.1	1.1	1.1
147.5°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
150°	0.3	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
152.5°	0.3	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
155°	0.6	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
157.5°	0.6	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
160°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.6	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.1	1.1	1.1
167.5°	0.6	0.6	0.6	0.8	0.8	0.8	1.1	1.1	1.1	1.1	1.1
170°	0.6	0.6	0.6	0.8	0.8	0.8	1.1	1.4	1.4	1.4	1.4
172.5°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
175°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
177.5°	0.3	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.4	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°	221.1	221.1	221.1
2.5°	210.4	206.4	205.3
5°	199.1	192.6	189.0
7.5°	187.9	179.1	174.9
10°	177.4	165.0	160.5
12.5°	165.0	150.7	143.6
15°	153.2	134.6	127.9
17.5°	140.0	119.1	111.2
20°	127.6	103.6	95.5
22.5°	113.5	88.4	79.4
25°	100.8	73.2	63.1
27.5°	86.7	57.7	49.0
30°	73.5	44.2	35.5
32.5°	60.8	32.4	24.5
35°	49.0	22.0	15.5
37.5°	37.7	13.5	7.9
40°	27.3	7.0	3.7
42.5°	18.3	3.4	2.0
45°	11.3	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	0.8
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	2.5
97.5°	2.3	2.5	2.5
100°	2.0	2.5	2.8
102.5°	1.7	2.5	2.5
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°	0.8	1.1	1.4
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	0.6
152.5°	0.8	0.6	0.6
155°	0.8	0.6	0.3
157.5°	1.1	0.6	0.3
160°	0.8	0.6	0.3
162.5°	0.8	0.6	0.3
165°	0.8	0.6	0.0
167.5°	0.8	0.6	0.3
170°	0.8	0.6	0.3
172.5°	0.8	0.6	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°	118.3	114.9	103.6	85.1	59.4	33.2	12.4	2.3	0.6	0.8	0.8
110°	103.1	100.3	88.7	70.7	47.9	24.8	8.2	1.4	0.8	0.8	0.8





107.5°	1.1	1.7	2.0
110°	1.1	1.4	1.7



(END OF REPORT)