

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: P550794

Luminaire Tested: **FCC-X-2-LD4-1LO-35-UNV-93-85-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: P550794
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-35-UNV-93-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

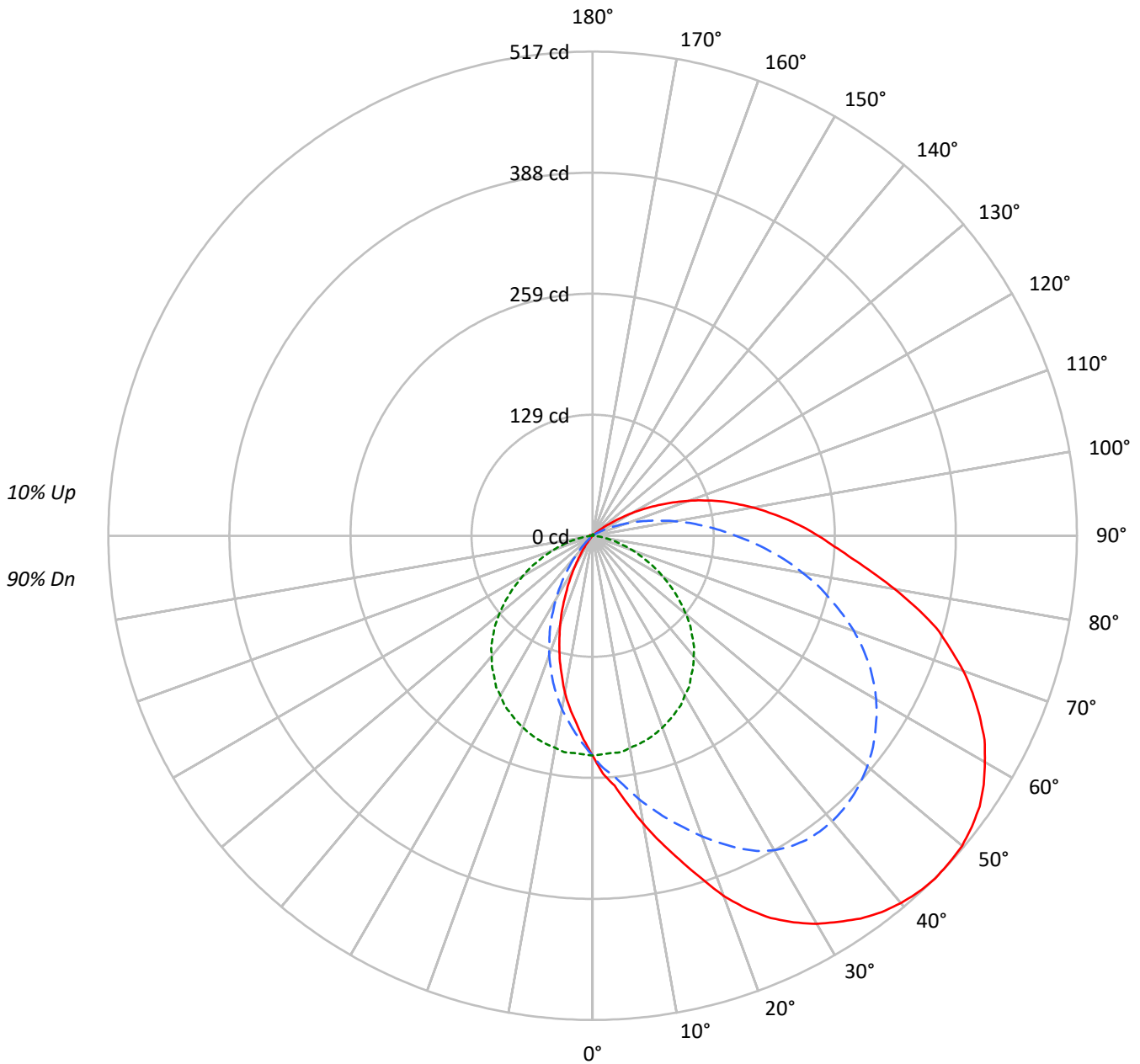
Lumens per Lamp: N/A
Luminaire Lumens: 1160.0 lumens
Efficiency: N/A
Efficacy: 99.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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	70	70	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	56	56	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	46	46	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	38	38	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	33	33	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	28	28	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	25	25	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	22	22	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	20	20	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	18	18	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2525	2525	2525
5°	2772	2488	2077
10°	3138	2459	1712
15°	3516	2427	1334
20°	3966	2387	982
25°	4338	2341	645
30°	4615	2280	364
35°	4856	2214	160
40°	5068	2133	39
45°	5251	2031	0
50°	5404	1895	0
55°	5521	1723	0
60°	5579	1524	0
65°	5602	1298	0
70°	5584	1057	0
75°	5513	780	4
80°	5289	479	24
85°	5113	229	33



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.5	1.9
10°-20°	67.3	5.8
20°-30°	109.0	9.4
30°-40°	140.0	12.1
40°-50°	158.5	13.7
50°-60°	164.2	14.2
60°-70°	154.8	13.3
70°-80°	129.8	11.2
80°-90°	94.1	8.1
90°-100°	61.8	5.3
100°-110°	35.7	3.1
110°-120°	15.8	1.4
120°-130°	4.3	0.4
130°-140°	1.0	0.1
140°-150°	0.6	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	198.8	17.1
0°-40°	338.7	29.2
0°-60°	661.4	57.0
0°-90°	1040.1	89.7
90°-120°	113.3	9.8
90°-150°	119.2	10.3
90°-180°	120.0	10.3
0°-180°	1160.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	235	235	235	235	235	
5°	268	257	233	211	201	27
15°	358	314	225	163	136	103
25°	450	368	209	107	67	208
35°	499	397	183	52	16	313
45°	517	393	150	12	0	399
55°	504	368	108	0	0	450
65°	456	326	65	0	0	451
75°	380	263	28	0	0	398
85°	278	191	4	1	2	237
90°	241	153	1	2	2	132
95°	207	119	1	2	3	162
105°	142	62	1	2	2	150
115°	77	20	1	1	2	78
125°	23	3	1	1	1	23
135°	1	1	2	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	2	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°	234.6	234.6	234.6	234.6	234.6	234.6	234.6	234.6	234.6	234.6	234.6
2.5°	254.4	254.1	253.2	251.7	249.6	246.0	243.0	240.3	236.7	233.7	228.1
5°	267.8	266.3	265.1	263.6	258.9	255.6	250.2	244.2	238.5	232.8	221.5
7.5°	289.3	286.9	285.2	281.0	274.4	266.9	258.6	252.9	249.0	233.1	213.7
10°	312.4	310.3	306.7	299.2	291.1	280.4	268.4	255.0	243.0	229.9	206.8
12.5°	335.1	332.1	327.0	317.4	306.1	292.6	276.2	260.3	243.3	227.8	198.8
15°	357.8	354.5	349.1	337.5	322.5	304.9	284.9	264.8	244.8	225.1	190.4
17.5°	382.6	378.1	370.0	356.9	338.1	316.2	292.6	268.4	244.2	221.8	181.4
20°	409.2	402.9	394.3	376.6	354.5	328.8	300.4	272.0	243.9	217.9	171.3
22.5°	431.3	425.0	415.5	397.2	370.6	339.3	307.0	274.4	242.7	213.4	161.7
25°	450.4	445.4	434.9	414.0	385.9	350.3	313.3	276.2	240.9	208.6	151.5
27.5°	465.4	460.6	449.0	427.4	398.7	360.2	318.0	277.1	238.5	203.9	141.1
30°	478.5	473.8	459.7	437.6	407.4	368.0	322.8	277.4	235.5	196.7	129.7
32.5°	488.7	484.2	469.9	446.3	413.4	373.3	325.5	277.1	231.7	191.6	117.5
35°	498.9	494.4	477.6	452.5	417.9	375.7	327.6	275.6	226.9	183.2	105.8
37.5°	506.6	501.6	484.5	456.7	420.0	376.3	327.3	273.5	221.8	176.4	94.2
40°	512.0	506.6	488.4	459.1	420.6	375.4	324.9	269.9	215.8	167.7	81.9
42.5°	515.6	509.6	490.2	462.7	419.4	373.0	321.3	265.4	209.2	160.2	70.2
45°	517.4	511.1	490.5	459.7	417.3	368.5	315.9	259.7	202.1	150.1	58.6
47.5°	516.5	509.6	489.0	456.4	413.4	363.8	310.0	252.9	193.4	141.1	47.5
50°	515.0	507.8	485.7	452.2	408.0	357.8	303.4	244.5	184.4	130.0	37.7
52.5°	510.2	503.1	482.1	446.3	401.7	350.9	294.4	235.8	174.9	119.3	28.7
55°	504.3	497.7	475.9	440.9	393.7	342.5	286.1	226.6	165.6	108.2	20.6
57.5°	495.0	489.0	468.1	432.2	385.6	333.3	276.8	216.4	153.9	97.1	14.3
60°	483.6	477.6	457.3	422.4	376.3	322.8	266.6	205.9	143.5	86.1	9.0
62.5°	471.7	466.0	444.8	410.1	364.7	311.8	255.6	195.5	132.4	75.9	5.4
65°	455.8	450.4	431.3	395.5	351.8	299.8	243.3	182.9	121.1	64.6	3.0
67.5°	439.1	434.3	414.9	382.0	336.9	286.6	230.8	170.7	109.1	54.7	1.5
70°	421.2	415.2	397.2	363.8	321.6	271.7	217.0	158.1	97.7	45.1	0.0
72.5°	400.2	395.7	378.4	346.7	304.0	255.9	203.0	144.4	85.2	35.9	0.3
75°	379.9	374.2	358.4	328.5	286.6	239.1	187.4	131.5	72.9	27.5	0.3
77.5°	353.6	351.8	336.9	307.9	270.2	223.0	170.4	116.0	61.3	19.7	0.3
80°	327.3	325.5	313.8	287.2	251.1	203.9	154.5	101.3	49.9	13.2	0.3
82.5°	301.3	298.9	287.8	265.7	231.7	187.7	138.1	86.7	39.5	8.1	0.3
85°	278.0	275.0	263.0	242.7	211.6	169.5	121.1	72.3	29.3	4.5	0.6
87.5°	258.0	255.9	242.7	221.8	191.3	152.4	106.1	58.6	20.6	2.1	0.9
90°	240.9	236.4	224.8	202.7	172.2	133.6	90.3	46.9	13.7	1.2	1.2
92.5°	224.2	220.3	207.4	184.7	155.1	117.5	75.0	35.9	8.7	0.6	1.5
95°	206.8	202.7	190.1	169.2	137.8	101.0	61.6	26.3	4.8	0.6	1.5
97.5°	189.8	185.9	172.8	151.8	122.3	86.7	48.7	18.5	2.4	0.6	1.2
100°	174.0	169.5	157.5	136.6	106.7	72.3	37.7	12.0	1.5	0.6	1.2
102.5°	157.2	153.6	141.4	121.1	90.6	58.9	28.1	7.5	0.6	0.6	0.9
105°	142.3	137.8	125.8	104.9	77.1	46.3	19.7	4.5	0.6	0.6	0.9



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CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-93-85-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	92.7	89.1	78.6	61.0	39.2	18.2	5.4	0.9	0.9	0.9	0.9
115°	77.4	72.0	62.8	47.2	29.0	12.0	2.7	0.9	0.9	0.9	0.9
117.5°	61.9	57.4	50.8	35.9	19.1	7.8	1.5	0.9	0.9	0.9	0.9
120°	48.4	44.2	36.8	24.8	12.9	4.5	0.6	0.9	0.9	0.9	0.9
122.5°	34.7	31.4	24.8	16.1	7.8	2.1	0.9	0.9	1.2	1.2	0.9
125°	23.0	21.2	16.4	9.9	4.8	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	14.9	13.5	9.6	5.7	2.1	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.4	7.5	5.7	3.3	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.8	4.5	3.0	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2
135°	1.2	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.5	1.5	1.5	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
160°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
162.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2	1.2
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.5
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.2
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°	234.6	234.6	234.6
2.5°	223.3	219.1	217.9
5°	211.3	204.5	200.6
7.5°	199.4	190.1	185.6
10°	188.3	175.2	170.4
12.5°	175.2	159.9	152.4
15°	162.6	142.9	135.7
17.5°	148.6	126.4	118.1
20°	135.4	110.0	101.3
22.5°	120.5	93.9	84.3
25°	107.0	77.7	67.0
27.5°	92.1	61.3	52.0
30°	78.0	46.9	37.7
32.5°	64.6	34.4	26.0
35°	52.0	23.3	16.4
37.5°	40.1	14.3	8.4
40°	29.0	7.5	3.9
42.5°	19.4	3.6	2.1
45°	12.0	1.8	0.0
47.5°	6.9	0.0	0.0
50°	3.6	0.0	0.0
52.5°	1.5	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	1.2	1.5
82.5°	1.2	1.5	1.5
85°	1.2	1.5	1.8
87.5°	1.5	1.8	2.1
90°	1.8	2.1	2.1
92.5°	1.8	2.4	2.4
95°	2.1	2.4	2.7
97.5°	2.4	2.7	2.7
100°	2.1	2.7	3.0
102.5°	1.8	2.7	2.7
105°	1.5	2.1	2.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.2	1.5	1.5
115°	0.9	1.2	1.5
117.5°	0.9	1.2	1.2
120°	0.9	0.9	1.2
122.5°	0.9	0.9	1.2
125°	0.9	0.9	1.2
127.5°	1.2	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.2	0.9	0.9
135°	1.2	0.9	0.9
137.5°	1.2	0.9	0.9
140°	1.2	0.9	0.9
142.5°	1.2	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°	1.2	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°	125.5	122.0	110.0	90.3	63.1	35.3	13.2	2.4	0.6	0.9	0.9
110°	109.4	106.4	94.2	75.0	50.8	26.3	8.7	1.5	0.9	0.9	0.9





107.5°	1.2	1.8	2.1
110°	1.2	1.5	1.8



(END OF REPORT)