

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: P550863

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-93-88-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: P550863
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-93-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

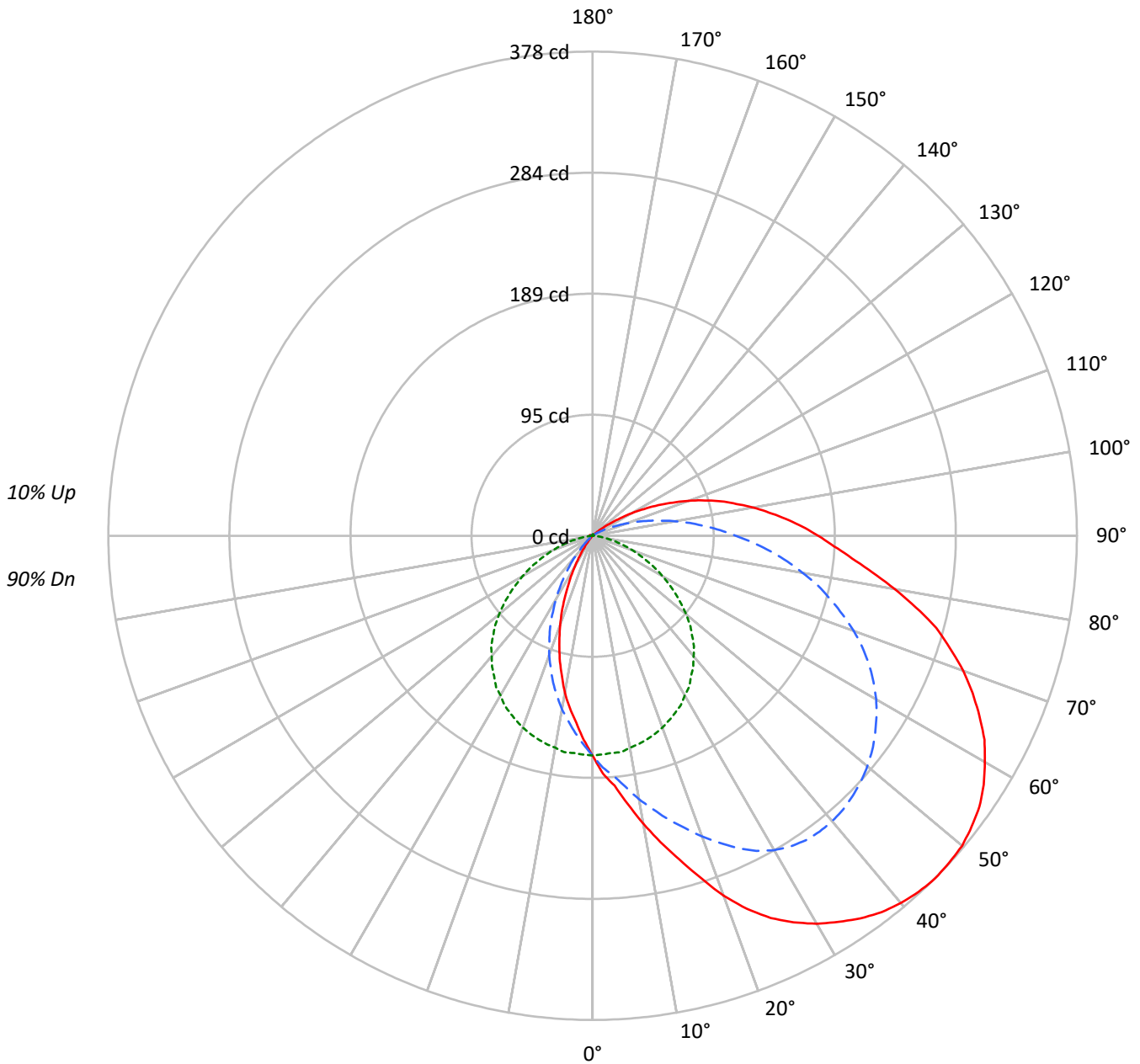
Lumens per Lamp: N/A
Luminaire Lumens: 848.1 lumens
Efficiency: N/A
Efficacy: 72.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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									
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°	1846	1846	1846
5°	2027	1819	1518
10°	2293	1797	1252
15°	2571	1774	975
20°	2899	1745	718
25°	3172	1711	471
30°	3374	1667	265
35°	3550	1618	117
40°	3705	1559	28
45°	3838	1484	0
50°	3951	1386	0
55°	4036	1260	0
60°	4078	1113	0
65°	4095	948	0
70°	4082	773	0
75°	4030	570	3
80°	3867	348	18
85°	3737	168	24



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.4	1.9
10°-20°	49.2	5.8
20°-30°	79.7	9.4
30°-40°	102.3	12.1
40°-50°	115.8	13.7
50°-60°	120.0	14.2
60°-70°	113.2	13.3
70°-80°	94.9	11.2
80°-90°	68.8	8.1
90°-100°	45.2	5.3
100°-110°	26.1	3.1
110°-120°	11.5	1.4
120°-130°	3.1	0.4
130°-140°	0.7	0.1
140°-150°	0.5	0.1
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	145.3	17.1
0°-40°	247.6	29.2
0°-60°	483.5	57.0
0°-90°	760.3	89.7
90°-120°	82.8	9.8
90°-150°	87.2	10.3
90°-180°	88.0	10.4
0°-180°	848.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	172	172	172	172	172	
5°	196	188	170	154	147	20
15°	262	229	164	119	99	75
25°	329	269	152	78	49	152
35°	365	290	134	38	12	229
45°	378	287	110	9	0	292
55°	369	269	79	0	0	329
65°	333	238	47	0	0	330
75°	278	192	20	0	0	291
85°	203	139	3	1	1	174
90°	176	112	1	1	2	97
95°	151	87	0	2	2	119
105°	104	45	0	1	2	110
115°	57	15	1	1	1	57
125°	17	2	1	1	1	17
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°	171.5	171.5	171.5	171.5	171.5	171.5	171.5	171.5	171.5	171.5	171.5
2.5°	186.0	185.7	185.1	184.0	182.5	179.8	177.6	175.7	173.1	170.9	166.7
5°	195.8	194.7	193.8	192.7	189.2	186.8	182.9	178.5	174.4	170.2	161.9
7.5°	211.5	209.8	208.5	205.4	200.6	195.1	189.0	184.9	182.0	170.4	156.2
10°	228.3	226.8	224.2	218.7	212.8	205.0	196.2	186.4	177.6	168.0	151.2
12.5°	244.9	242.8	239.0	232.1	223.8	213.9	201.9	190.3	177.9	166.5	145.3
15°	261.6	259.2	255.2	246.7	235.8	222.9	208.2	193.6	179.0	164.5	139.2
17.5°	279.7	276.4	270.5	260.9	247.1	231.2	213.9	196.2	178.5	162.1	132.6
20°	299.1	294.6	288.2	275.3	259.2	240.4	219.6	198.8	178.3	159.3	125.2
22.5°	315.3	310.7	303.7	290.4	271.0	248.0	224.4	200.6	177.4	156.0	118.2
25°	329.3	325.6	317.9	302.6	282.1	256.1	229.0	201.9	176.1	152.5	110.8
27.5°	340.2	336.7	328.2	312.5	291.5	263.3	232.5	202.6	174.4	149.0	103.1
30°	349.8	346.3	336.1	319.9	297.8	269.0	236.0	202.8	172.2	143.8	94.8
32.5°	357.3	354.0	343.5	326.2	302.2	272.9	238.0	202.6	169.3	140.1	85.9
35°	364.7	361.4	349.2	330.8	305.5	274.7	239.5	201.5	165.8	133.9	77.4
37.5°	370.4	366.7	354.2	333.9	307.0	275.1	239.3	199.9	162.1	128.9	68.8
40°	374.3	370.4	357.0	335.6	307.4	274.4	237.5	197.3	157.8	122.6	59.9
42.5°	376.9	372.6	358.4	338.3	306.6	272.7	234.9	194.0	153.0	117.1	51.3
45°	378.2	373.7	358.6	336.1	305.0	269.4	231.0	189.9	147.7	109.7	42.8
47.5°	377.6	372.6	357.5	333.7	302.2	265.9	226.6	184.9	141.4	103.1	34.7
50°	376.5	371.2	355.1	330.6	298.3	261.6	221.8	178.7	134.8	95.1	27.5
52.5°	373.0	367.8	352.5	326.2	293.7	256.5	215.2	172.4	127.8	87.2	21.0
55°	368.6	363.8	347.9	322.3	287.8	250.4	209.1	165.6	121.1	79.1	15.1
57.5°	361.9	357.5	342.2	316.0	281.9	243.6	202.3	158.2	112.5	71.0	10.5
60°	353.5	349.2	334.3	308.8	275.1	236.0	194.9	150.6	104.9	62.9	6.6
62.5°	344.8	340.7	325.1	299.8	266.6	227.9	186.8	142.9	96.8	55.5	3.9
65°	333.2	329.3	315.3	289.1	257.2	219.2	177.9	133.7	88.5	47.2	2.2
67.5°	321.0	317.5	303.3	279.3	246.3	209.6	168.7	124.8	79.8	40.0	1.1
70°	307.9	303.5	290.4	265.9	235.1	198.6	158.6	115.6	71.5	33.0	0.0
72.5°	292.6	289.3	276.6	253.5	222.2	187.0	148.4	105.5	62.3	26.2	0.2
75°	277.7	273.6	262.0	240.1	209.6	174.8	137.0	96.1	53.3	20.1	0.2
77.5°	258.5	257.2	246.3	225.1	197.5	163.0	124.6	84.8	44.8	14.4	0.2
80°	239.3	238.0	229.4	210.0	183.5	149.0	113.0	74.1	36.5	9.6	0.2
82.5°	220.3	218.5	210.4	194.3	169.3	137.2	101.0	63.4	28.8	5.9	0.2
85°	203.2	201.0	192.3	177.4	154.7	123.9	88.5	52.9	21.4	3.3	0.4
87.5°	188.6	187.0	177.4	162.1	139.8	111.4	77.6	42.8	15.1	1.5	0.7
90°	176.1	172.8	164.3	148.1	125.9	97.7	66.0	34.3	10.1	0.9	0.9
92.5°	163.9	161.0	151.6	135.0	113.4	85.9	54.8	26.2	6.3	0.4	1.1
95°	151.2	148.1	139.0	123.7	100.7	73.9	45.0	19.2	3.5	0.4	1.1
97.5°	138.8	135.9	126.3	111.0	89.4	63.4	35.6	13.5	1.7	0.4	0.9
100°	127.2	123.9	115.2	99.9	78.0	52.9	27.5	8.7	1.1	0.4	0.9
102.5°	114.9	112.3	103.4	88.5	66.2	43.0	20.5	5.5	0.4	0.4	0.7
105°	104.0	100.7	92.0	76.7	56.4	33.9	14.4	3.3	0.4	0.4	0.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	67.7	65.1	57.5	44.6	28.6	13.3	3.9	0.7	0.7	0.7	0.7
115°	56.6	52.7	45.9	34.5	21.2	8.7	2.0	0.7	0.7	0.7	0.7
117.5°	45.2	42.0	37.1	26.2	14.0	5.7	1.1	0.7	0.7	0.7	0.7
120°	35.4	32.3	26.9	18.1	9.4	3.3	0.4	0.7	0.7	0.7	0.7
122.5°	25.3	22.9	18.1	11.8	5.7	1.5	0.7	0.7	0.9	0.9	0.7
125°	16.8	15.5	12.0	7.2	3.5	0.7	0.7	0.7	0.9	0.9	0.7
127.5°	10.9	9.8	7.0	4.2	1.5	0.7	0.7	0.9	0.9	0.9	0.7
130°	6.1	5.5	4.2	2.4	0.7	0.7	0.7	0.9	0.9	0.9	0.7
132.5°	3.5	3.3	2.2	0.4	0.7	0.7	0.7	0.9	0.9	0.9	0.9
135°	0.9	0.4	0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.1	0.9
137.5°	0.2	0.2	0.4	0.4	0.7	0.7	0.9	1.1	1.1	1.1	0.9
140°	0.2	0.2	0.4	0.7	0.7	0.7	0.9	1.1	1.1	1.1	0.9
142.5°	0.2	0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.1	0.9	0.9
145°	0.2	0.4	0.4	0.7	0.7	0.9	0.9	1.1	0.9	0.9	0.9
147.5°	0.4	0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.1	0.9	0.9
150°	0.2	0.4	0.4	0.7	0.9	0.9	0.9	1.1	0.9	0.9	0.9
152.5°	0.2	0.4	0.4	0.7	0.9	0.9	0.9	1.1	0.9	0.9	0.9
155°	0.4	0.4	0.4	0.7	0.9	0.9	0.9	1.1	0.9	0.9	1.1
157.5°	0.4	0.4	0.4	0.7	0.9	0.9	0.9	1.1	0.9	0.9	1.1
160°	0.4	0.4	0.4	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9
162.5°	0.4	0.4	0.4	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9
165°	0.4	0.4	0.4	0.4	0.7	0.7	0.9	0.9	0.9	0.9	0.9
167.5°	0.4	0.4	0.4	0.7	0.7	0.7	0.9	0.9	0.9	0.9	0.9
170°	0.4	0.4	0.4	0.7	0.7	0.7	0.9	1.1	1.1	1.1	1.1
172.5°	0.4	0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.1	1.1	1.1
175°	0.4	0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.1	1.1	1.1
177.5°	0.2	0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.1	1.1	0.9
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°	171.5	171.5	171.5
2.5°	163.2	160.2	159.3
5°	154.5	149.5	146.6
7.5°	145.7	139.0	135.7
10°	137.7	128.0	124.6
12.5°	128.0	116.9	111.4
15°	118.9	104.4	99.2
17.5°	108.6	92.4	86.3
20°	99.0	80.4	74.1
22.5°	88.1	68.6	61.6
25°	78.2	56.8	48.9
27.5°	67.3	44.8	38.0
30°	57.0	34.3	27.5
32.5°	47.2	25.1	19.0
35°	38.0	17.0	12.0
37.5°	29.3	10.5	6.1
40°	21.2	5.5	2.8
42.5°	14.2	2.6	1.5
45°	8.7	1.3	0.0
47.5°	5.0	0.0	0.0
50°	2.6	0.0	0.0
52.5°	1.1	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	0.4	0.7
80°	0.4	0.9	1.1
82.5°	0.9	1.1	1.1
85°	0.9	1.1	1.3
87.5°	1.1	1.3	1.5
90°	1.3	1.5	1.5
92.5°	1.3	1.7	1.7
95°	1.5	1.7	2.0
97.5°	1.7	2.0	2.0
100°	1.5	2.0	2.2
102.5°	1.3	2.0	2.0
105°	1.1	1.5	1.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	0.9	1.1	1.1
115°	0.7	0.9	1.1
117.5°	0.7	0.9	0.9
120°	0.7	0.7	0.9
122.5°	0.7	0.7	0.9
125°	0.7	0.7	0.9
127.5°	0.9	0.7	0.7
130°	0.7	0.7	0.7
132.5°	0.9	0.7	0.7
135°	0.9	0.7	0.7
137.5°	0.9	0.7	0.7
140°	0.9	0.7	0.7
142.5°	0.9	0.7	0.7
145°	0.7	0.7	0.7
147.5°	0.7	0.7	0.7
150°	0.7	0.7	0.4
152.5°	0.7	0.4	0.4
155°	0.7	0.4	0.2
157.5°	0.9	0.4	0.2
160°	0.7	0.4	0.2
162.5°	0.7	0.4	0.2
165°	0.7	0.4	0.0
167.5°	0.7	0.4	0.2
170°	0.7	0.4	0.2
172.5°	0.7	0.4	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°	91.8	89.2	80.4	66.0	46.1	25.8	9.6	1.7	0.4	0.7	0.7
110°	80.0	77.8	68.8	54.8	37.1	19.2	6.3	1.1	0.7	0.7	0.7





107.5°	0.9	1.3	1.5
110°	0.9	1.1	1.3



(END OF REPORT)