

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: P550733

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-93-87-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: P550733
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-93-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

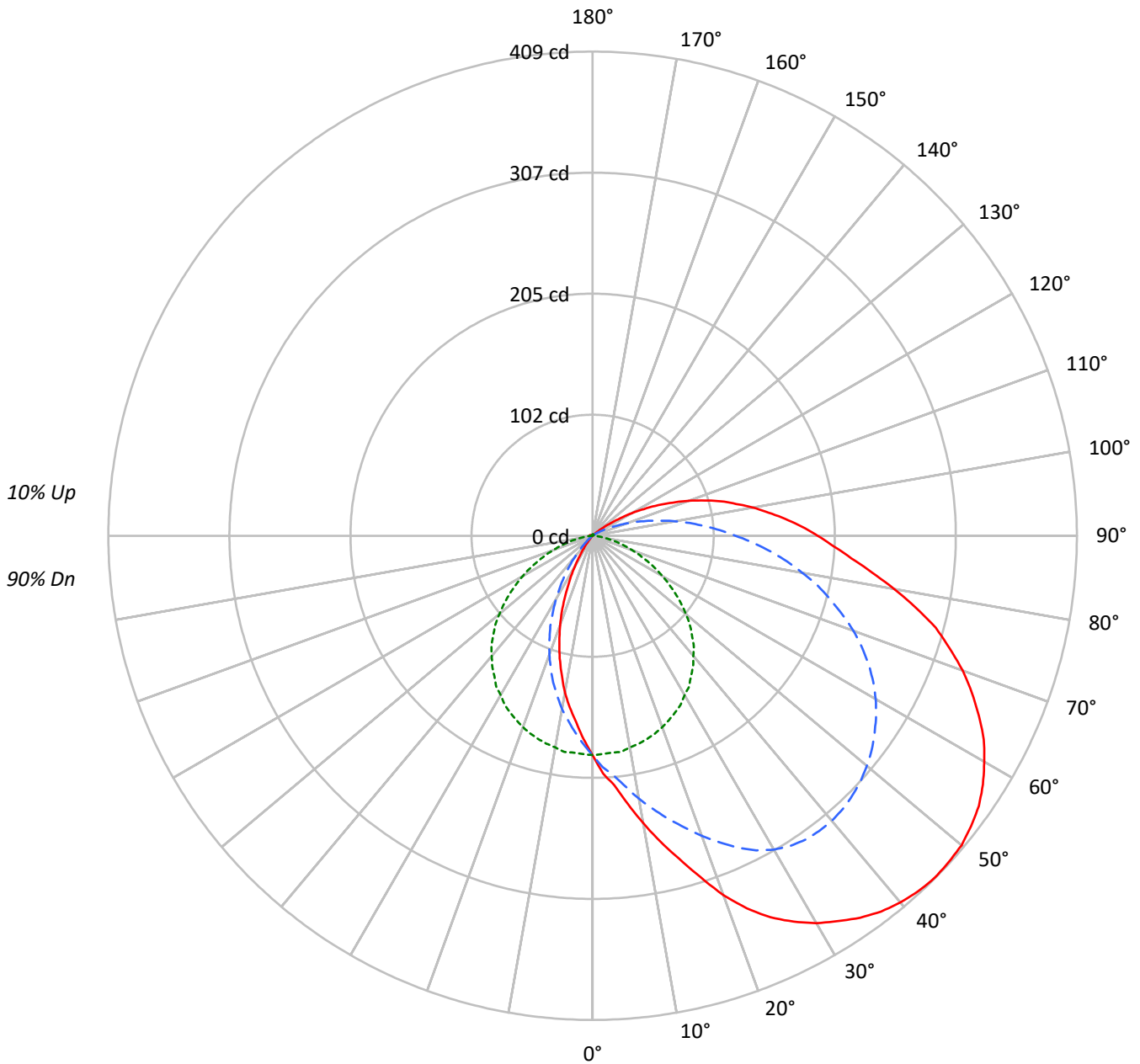
Lumens per Lamp: N/A
Luminaire Lumens: 915.9 lumens
Efficiency: N/A
Efficacy: 78.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (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°	1995	1995	1995
5°	2189	1966	1640
10°	2478	1941	1351
15°	2776	1916	1053
20°	3131	1886	775
25°	3426	1849	509
30°	3645	1800	286
35°	3834	1748	127
40°	4002	1684	31
45°	4147	1603	0
50°	4268	1497	0
55°	4360	1360	0
60°	4406	1203	0
65°	4423	1024	0
70°	4410	834	0
75°	4353	615	3
80°	4178	377	19
85°	4037	178	26



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.7	1.9
10°-20°	53.1	5.8
20°-30°	86.1	9.4
30°-40°	110.5	12.1
40°-50°	125.1	13.7
50°-60°	129.6	14.2
60°-70°	122.3	13.3
70°-80°	102.5	11.2
80°-90°	74.3	8.1
90°-100°	48.8	5.3
100°-110°	28.2	3.1
110°-120°	12.4	1.4
120°-130°	3.4	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°	156.9	17.1
0°-40°	267.5	29.2
0°-60°	522.3	57.0
0°-90°	821.3	89.7
90°-120°	89.4	9.8
90°-150°	94.1	10.3
90°-180°	95.0	10.4
0°-180°	915.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	185	185	185	185	185	
5°	212	203	184	167	158	21
15°	282	248	178	128	107	81
25°	356	291	165	84	53	164
35°	394	313	145	41	13	247
45°	409	310	118	9	0	315
55°	398	291	85	0	0	356
65°	360	257	51	0	0	356
75°	300	208	22	0	0	315
85°	220	150	4	1	1	187
90°	190	121	1	1	2	104
95°	163	94	0	2	2	128
105°	112	49	0	1	2	119
115°	61	16	1	1	1	61
125°	18	2	1	1	1	18
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°	185.3	185.3	185.3	185.3	185.3	185.3	185.3	185.3	185.3	185.3	185.3
2.5°	200.9	200.6	199.9	198.7	197.1	194.3	191.9	189.8	186.9	184.6	180.1
5°	211.5	210.3	209.4	208.2	204.4	201.8	197.6	192.8	188.4	183.9	174.9
7.5°	228.5	226.6	225.2	221.9	216.7	210.8	204.2	199.7	196.6	184.1	168.8
10°	246.7	245.0	242.2	236.3	229.9	221.4	212.0	201.3	191.9	181.5	163.3
12.5°	264.6	262.2	258.2	250.7	241.7	231.1	218.1	205.6	192.1	179.9	157.0
15°	282.5	279.9	275.7	266.5	254.7	240.8	224.9	209.1	193.3	177.7	150.4
17.5°	302.1	298.6	292.2	281.8	267.0	249.7	231.1	212.0	192.8	175.1	143.3
20°	323.1	318.2	311.3	297.4	279.9	259.6	237.2	214.8	192.6	172.1	135.2
22.5°	340.6	335.6	328.1	313.7	292.7	267.9	242.4	216.7	191.7	168.5	127.7
25°	355.7	351.7	343.4	326.9	304.7	276.6	247.4	218.1	190.2	164.8	119.7
27.5°	367.5	363.7	354.5	337.5	314.9	284.4	251.1	218.8	188.4	161.0	111.4
30°	377.9	374.1	363.0	345.6	321.7	290.6	254.9	219.0	186.0	155.3	102.4
32.5°	385.9	382.4	371.0	352.4	326.4	294.8	257.0	218.8	182.9	151.3	92.8
35°	393.9	390.4	377.2	357.4	330.0	296.7	258.7	217.6	179.1	144.7	83.6
37.5°	400.1	396.1	382.6	360.7	331.6	297.2	258.5	216.0	175.1	139.3	74.3
40°	404.3	400.1	385.7	362.5	332.1	296.5	256.6	213.1	170.4	132.4	64.7
42.5°	407.2	402.4	387.1	365.4	331.2	294.6	253.7	209.6	165.2	126.5	55.5
45°	408.6	403.6	387.3	363.0	329.5	291.0	249.5	205.1	159.6	118.5	46.3
47.5°	407.9	402.4	386.1	360.4	326.4	287.3	244.8	199.7	152.7	111.4	37.5
50°	406.7	401.0	383.6	357.1	322.2	282.5	239.6	193.1	145.6	102.7	29.7
52.5°	402.9	397.2	380.7	352.4	317.2	277.1	232.5	186.2	138.1	94.2	22.7
55°	398.2	393.0	375.8	348.1	310.9	270.5	225.9	178.9	130.8	85.4	16.3
57.5°	390.9	386.1	369.6	341.3	304.5	263.2	218.6	170.9	121.6	76.7	11.3
60°	381.9	377.2	361.1	333.5	297.2	254.9	210.5	162.6	113.3	68.0	7.1
62.5°	372.5	368.0	351.2	323.8	288.0	246.2	201.8	154.4	104.6	60.0	4.2
65°	359.9	355.7	340.6	312.3	277.8	236.7	192.1	144.5	95.6	51.0	2.4
67.5°	346.7	343.0	327.6	301.6	266.0	226.4	182.2	134.8	86.2	43.2	1.2
70°	332.6	327.8	313.7	287.3	254.0	214.6	171.4	124.9	77.2	35.6	0.0
72.5°	316.0	312.5	298.8	273.8	240.0	202.0	160.3	114.0	67.3	28.3	0.2
75°	300.0	295.5	283.0	259.4	226.4	188.8	148.0	103.9	57.6	21.7	0.2
77.5°	279.2	277.8	266.0	243.1	213.4	176.1	134.5	91.6	48.4	15.6	0.2
80°	258.5	257.0	247.8	226.8	198.3	161.0	122.0	80.0	39.4	10.4	0.2
82.5°	237.9	236.0	227.3	209.8	182.9	148.2	109.0	68.4	31.2	6.4	0.2
85°	219.5	217.1	207.7	191.7	167.1	133.8	95.6	57.1	23.1	3.5	0.5
87.5°	203.7	202.0	191.7	175.1	151.1	120.4	83.8	46.3	16.3	1.7	0.7
90°	190.2	186.7	177.5	160.0	136.0	105.5	71.3	37.1	10.9	0.9	0.9
92.5°	177.0	174.0	163.8	145.9	122.5	92.8	59.2	28.3	6.8	0.5	1.2
95°	163.3	160.0	150.1	133.6	108.8	79.8	48.6	20.8	3.8	0.5	1.2
97.5°	149.9	146.8	136.4	119.9	96.5	68.4	38.5	14.6	1.9	0.5	0.9
100°	137.4	133.8	124.4	107.9	84.3	57.1	29.7	9.4	1.2	0.5	0.9
102.5°	124.2	121.3	111.6	95.6	71.5	46.5	22.2	5.9	0.5	0.5	0.7
105°	112.4	108.8	99.4	82.8	60.9	36.6	15.6	3.5	0.5	0.5	0.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	73.2	70.3	62.1	48.2	30.9	14.4	4.2	0.7	0.7	0.7	0.7
115°	61.1	56.9	49.6	37.3	22.9	9.4	2.1	0.7	0.7	0.7	0.7
117.5°	48.9	45.3	40.1	28.3	15.1	6.1	1.2	0.7	0.7	0.7	0.7
120°	38.2	34.9	29.0	19.6	10.1	3.5	0.5	0.7	0.7	0.7	0.7
122.5°	27.4	24.8	19.6	12.7	6.1	1.7	0.7	0.7	0.9	0.9	0.7
125°	18.2	16.8	13.0	7.8	3.8	0.7	0.7	0.7	0.9	0.9	0.7
127.5°	11.8	10.6	7.6	4.5	1.7	0.7	0.7	0.9	0.9	0.9	0.7
130°	6.6	5.9	4.5	2.6	0.7	0.7	0.7	0.9	0.9	0.9	0.7
132.5°	3.8	3.5	2.4	0.5	0.7	0.7	0.7	0.9	0.9	0.9	0.9
135°	0.9	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	0.9
137.5°	0.2	0.2	0.5	0.5	0.7	0.7	0.9	1.2	1.2	1.2	0.9
140°	0.2	0.2	0.5	0.7	0.7	0.7	0.9	1.2	1.2	1.2	0.9
142.5°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	0.9	0.9
145°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.2	0.9	0.9	0.9
147.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	0.9	0.9
150°	0.2	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	0.9
152.5°	0.2	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	0.9
155°	0.5	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	1.2
157.5°	0.5	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	1.2
160°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9
162.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9
165°	0.5	0.5	0.5	0.5	0.7	0.7	0.9	0.9	0.9	0.9	0.9
167.5°	0.5	0.5	0.5	0.7	0.7	0.7	0.9	0.9	0.9	0.9	0.9
170°	0.5	0.5	0.5	0.7	0.7	0.7	0.9	1.2	1.2	1.2	1.2
172.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	1.2	1.2
175°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	1.2	1.2
177.5°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	1.2	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°	185.3	185.3	185.3
2.5°	176.3	173.0	172.1
5°	166.9	161.4	158.4
7.5°	157.4	150.1	146.6
10°	148.7	138.3	134.5
12.5°	138.3	126.3	120.4
15°	128.4	112.8	107.2
17.5°	117.3	99.8	93.2
20°	106.9	86.9	80.0
22.5°	95.1	74.1	66.6
25°	84.5	61.4	52.9
27.5°	72.7	48.4	41.1
30°	61.6	37.1	29.7
32.5°	51.0	27.1	20.5
35°	41.1	18.4	13.0
37.5°	31.6	11.3	6.6
40°	22.9	5.9	3.1
42.5°	15.3	2.8	1.7
45°	9.4	1.4	0.0
47.5°	5.4	0.0	0.0
50°	2.8	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	0.9	1.2
82.5°	0.9	1.2	1.2
85°	0.9	1.2	1.4
87.5°	1.2	1.4	1.7
90°	1.4	1.7	1.7
92.5°	1.4	1.9	1.9
95°	1.7	1.9	2.1
97.5°	1.9	2.1	2.1
100°	1.7	2.1	2.4
102.5°	1.4	2.1	2.1
105°	1.2	1.7	1.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	0.9	1.2	1.2
115°	0.7	0.9	1.2
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	0.5
152.5°	0.7	0.5	0.5
155°	0.7	0.5	0.2
157.5°	0.9	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°	99.1	96.3	86.9	71.3	49.8	27.9	10.4	1.9	0.5	0.7	0.7
110°	86.4	84.0	74.3	59.2	40.1	20.8	6.8	1.2	0.7	0.7	0.7





107.5°	0.9	1.4	1.7
110°	0.9	1.2	1.4



(END OF REPORT)