

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: P550711

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-82-84-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: P550711
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-82-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

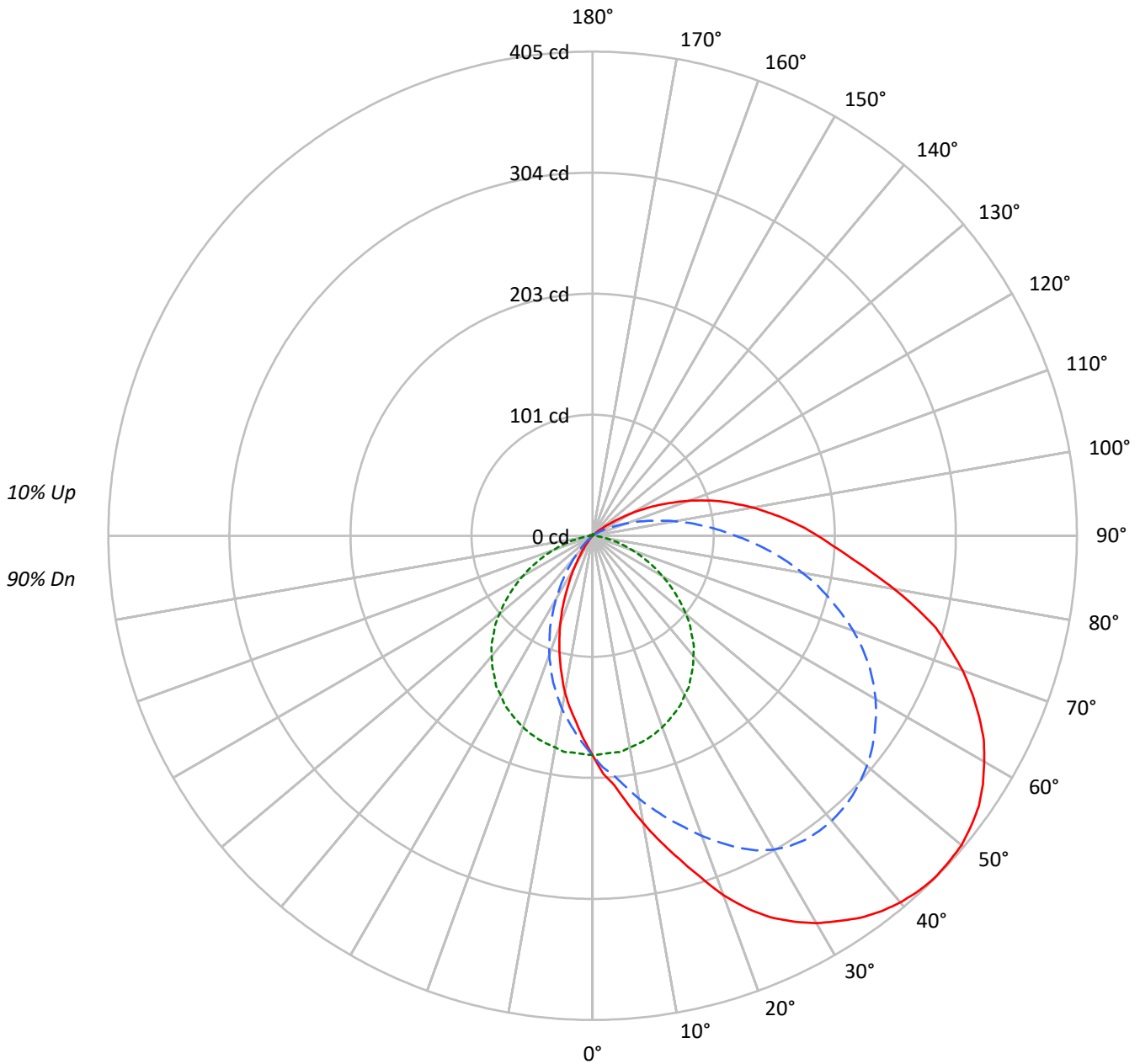
Lumens per Lamp: N/A
Luminaire Lumens: 907.0 lumens
Efficiency: N/A
Efficacy: 77.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	1975	1975	1975
5°	2168	1946	1623
10°	2453	1922	1338
15°	2750	1898	1043
20°	3101	1867	768
25°	3392	1830	505
30°	3609	1783	284
35°	3797	1731	126
40°	3962	1667	30
45°	4106	1587	0
50°	4226	1482	0
55°	4317	1347	0
60°	4362	1191	0
65°	4380	1014	0
70°	4366	827	0
75°	4310	610	3
80°	4136	374	19
85°	3998	178	26



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.6	1.9
10°-20°	52.6	5.8
20°-30°	85.2	9.4
30°-40°	109.5	12.1
40°-50°	123.9	13.7
50°-60°	128.4	14.2
60°-70°	121.1	13.3
70°-80°	101.4	11.2
80°-90°	73.5	8.1
90°-100°	48.3	5.3
100°-110°	27.9	3.1
110°-120°	12.3	1.4
120°-130°	3.3	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°	155.4	17.1
0°-40°	264.9	29.2
0°-60°	517.1	57.0
0°-90°	813.2	89.7
90°-120°	88.6	9.8
90°-150°	93.1	10.3
90°-180°	94.0	10.4
0°-180°	907.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	184	184	184	184	184	
5°	209	201	182	165	157	21
15°	280	245	176	127	106	81
25°	352	288	163	84	52	163
35°	390	310	143	41	13	245
45°	405	307	117	9	0	312
55°	394	288	85	0	0	352
65°	356	255	50	0	0	353
75°	297	206	22	0	0	312
85°	217	149	4	1	1	186
90°	188	120	1	1	2	103
95°	162	93	0	2	2	127
105°	111	48	0	1	2	117
115°	60	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°	183.5	183.5	183.5	183.5	183.5	183.5	183.5	183.5	183.5	183.5	183.5
2.5°	198.9	198.7	198.0	196.8	195.1	192.3	190.0	187.9	185.1	182.8	178.3
5°	209.4	208.2	207.3	206.1	202.4	199.8	195.6	190.9	186.5	182.1	173.2
7.5°	226.2	224.4	223.0	219.7	214.5	208.7	202.2	197.7	194.7	182.3	167.1
10°	244.2	242.6	239.8	233.9	227.6	219.2	209.9	199.4	190.0	179.7	161.7
12.5°	262.0	259.7	255.7	248.2	239.3	228.8	216.0	203.6	190.2	178.1	155.4
15°	279.8	277.2	273.0	263.9	252.2	238.4	222.7	207.1	191.4	176.0	148.9
17.5°	299.2	295.6	289.3	279.1	264.3	247.3	228.8	209.9	190.9	173.4	141.9
20°	320.0	315.0	308.3	294.5	277.2	257.1	234.9	212.7	190.7	170.4	133.9
22.5°	337.2	332.3	324.9	310.6	289.8	265.3	240.0	214.5	189.8	166.9	126.4
25°	352.2	348.2	340.1	323.7	301.7	273.9	244.9	216.0	188.4	163.1	118.5
27.5°	363.9	360.2	351.0	334.2	311.8	281.6	248.7	216.7	186.5	159.4	110.3
30°	374.2	370.4	359.4	342.2	318.6	287.7	252.4	216.9	184.2	153.8	101.4
32.5°	382.1	378.6	367.4	348.9	323.2	291.9	254.5	216.7	181.1	149.8	91.8
35°	390.1	386.6	373.5	353.8	326.7	293.8	256.1	215.5	177.4	143.3	82.7
37.5°	396.1	392.2	378.8	357.1	328.4	294.2	255.9	213.8	173.4	137.9	73.6
40°	400.3	396.1	381.9	359.0	328.8	293.5	254.0	211.0	168.7	131.1	64.0
42.5°	403.2	398.5	383.3	361.8	327.9	291.7	251.2	207.5	163.6	125.3	54.9
45°	404.6	399.6	383.5	359.4	326.3	288.2	247.0	203.1	158.0	117.3	45.8
47.5°	403.9	398.5	382.4	356.9	323.2	284.4	242.4	197.7	151.2	110.3	37.2
50°	402.7	397.1	379.8	353.6	319.0	279.8	237.2	191.2	144.2	101.7	29.4
52.5°	398.9	393.3	377.0	348.9	314.1	274.4	230.2	184.4	136.7	93.3	22.4
55°	394.3	389.1	372.1	344.7	307.8	267.8	223.7	177.2	129.5	84.6	16.1
57.5°	387.0	382.4	366.0	337.9	301.5	260.6	216.4	169.2	120.4	76.0	11.2
60°	378.1	373.5	357.6	330.2	294.2	252.4	208.5	161.0	112.2	67.3	7.0
62.5°	368.8	364.4	347.8	320.7	285.1	243.8	199.8	152.8	103.5	59.4	4.2
65°	356.4	352.2	337.2	309.2	275.1	234.4	190.2	143.0	94.7	50.5	2.3
67.5°	343.3	339.6	324.4	298.7	263.4	224.1	180.4	133.4	85.3	42.8	1.2
70°	329.3	324.6	310.6	284.4	251.5	212.4	169.7	123.6	76.4	35.3	0.0
72.5°	312.9	309.4	295.9	271.1	237.7	200.1	158.7	112.9	66.6	28.0	0.2
75°	297.0	292.6	280.2	256.9	224.1	187.0	146.5	102.8	57.0	21.5	0.2
77.5°	276.5	275.1	263.4	240.7	211.3	174.3	133.2	90.7	47.9	15.4	0.2
80°	255.9	254.5	245.4	224.6	196.3	159.4	120.8	79.2	39.0	10.3	0.2
82.5°	235.6	233.7	225.1	207.8	181.1	146.8	108.0	67.8	30.9	6.3	0.2
85°	217.4	215.0	205.7	189.8	165.5	132.5	94.7	56.6	22.9	3.5	0.5
87.5°	201.7	200.1	189.8	173.4	149.6	119.2	83.0	45.8	16.1	1.6	0.7
90°	188.4	184.9	175.8	158.5	134.6	104.5	70.6	36.7	10.8	0.9	0.9
92.5°	175.3	172.2	162.2	144.4	121.3	91.8	58.7	28.0	6.8	0.5	1.2
95°	161.7	158.5	148.6	132.3	107.7	79.0	48.1	20.6	3.7	0.5	1.2
97.5°	148.4	145.4	135.1	118.7	95.6	67.8	38.1	14.5	1.9	0.5	0.9
100°	136.0	132.5	123.2	106.8	83.4	56.6	29.4	9.3	1.2	0.5	0.9
102.5°	122.9	120.1	110.5	94.7	70.8	46.0	22.0	5.8	0.5	0.5	0.7
105°	111.2	107.7	98.4	82.0	60.3	36.2	15.4	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°	72.5	69.6	61.5	47.7	30.6	14.3	4.2	0.7	0.7	0.7	0.7
115°	60.5	56.3	49.1	36.9	22.7	9.3	2.1	0.7	0.7	0.7	0.7
117.5°	48.4	44.9	39.7	28.0	15.0	6.1	1.2	0.7	0.7	0.7	0.7
120°	37.9	34.6	28.7	19.4	10.0	3.5	0.5	0.7	0.7	0.7	0.7
122.5°	27.1	24.5	19.4	12.6	6.1	1.6	0.7	0.7	0.9	0.9	0.7
125°	18.0	16.6	12.9	7.7	3.7	0.7	0.7	0.7	0.9	0.9	0.7
127.5°	11.7	10.5	7.5	4.4	1.6	0.7	0.7	0.9	0.9	0.9	0.7
130°	6.5	5.8	4.4	2.6	0.7	0.7	0.7	0.9	0.9	0.9	0.7
132.5°	3.7	3.5	2.3	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°	183.5	183.5	183.5
2.5°	174.6	171.3	170.4
5°	165.2	159.9	156.8
7.5°	155.9	148.6	145.1
10°	147.2	137.0	133.2
12.5°	137.0	125.0	119.2
15°	127.1	111.7	106.1
17.5°	116.2	98.9	92.3
20°	105.9	86.0	79.2
22.5°	94.2	73.4	65.9
25°	83.7	60.8	52.4
27.5°	72.0	47.9	40.7
30°	61.0	36.7	29.4
32.5°	50.5	26.9	20.3
35°	40.7	18.2	12.9
37.5°	31.3	11.2	6.5
40°	22.7	5.8	3.0
42.5°	15.2	2.8	1.6
45°	9.3	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	1.6
90°	1.4	1.6	1.6
92.5°	1.4	1.9	1.9
95°	1.6	1.9	2.1
97.5°	1.9	2.1	2.1
100°	1.6	2.1	2.3
102.5°	1.4	2.1	2.1
105°	1.2	1.6	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°	98.2	95.4	86.0	70.6	49.3	27.6	10.3	1.9	0.5	0.7	0.7
110°	85.5	83.2	73.6	58.7	39.7	20.6	6.8	1.2	0.7	0.7	0.7





107.5°	0.9	1.4	1.6
110°	0.9	1.2	1.4



(END OF REPORT)