

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: P550974

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-82-87-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: P550974
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-LD4-1STD-30-UNV-82-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

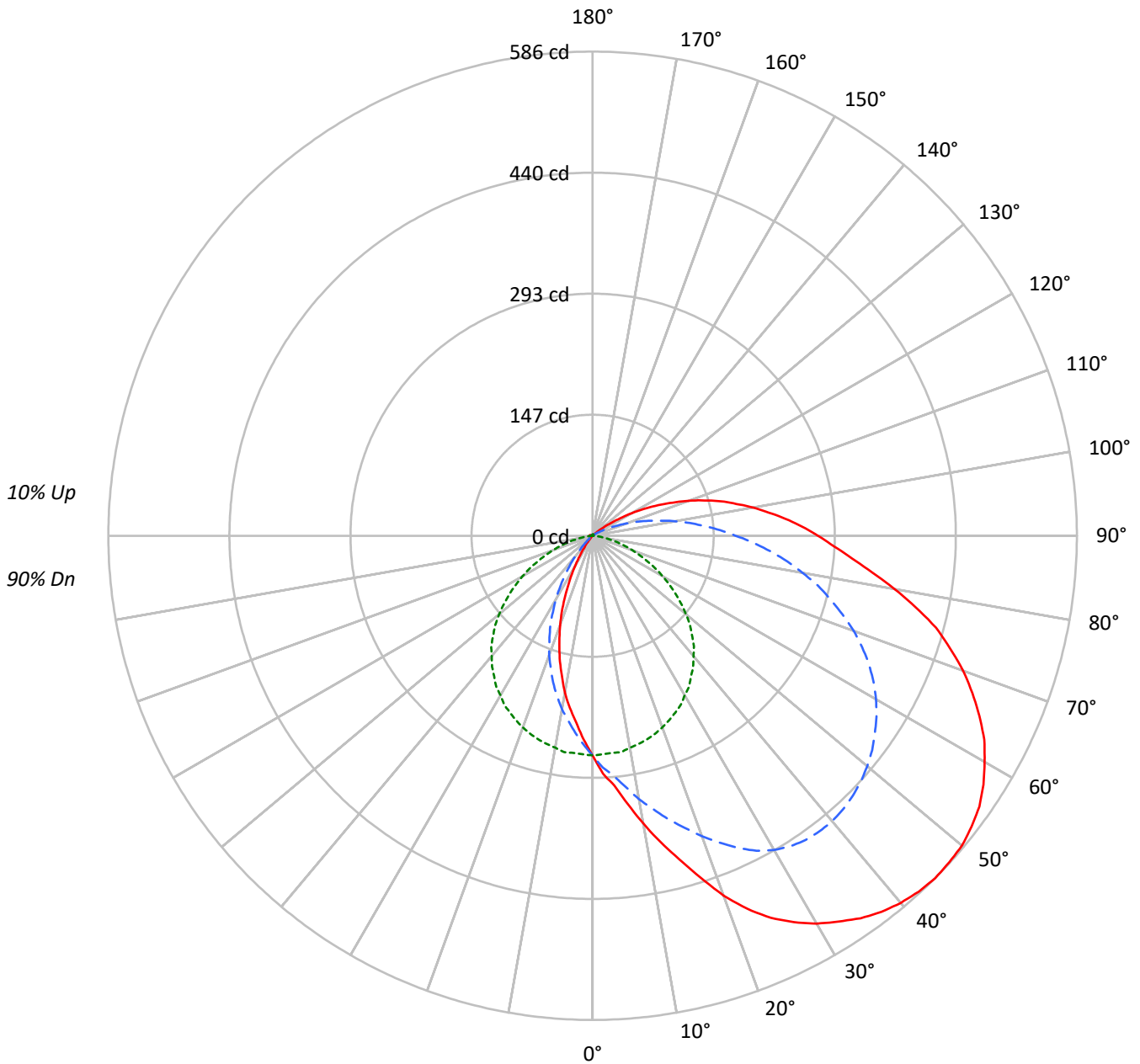
Lumens per Lamp: N/A
Luminaire Lumens: 1314.0 lumens
Efficiency: N/A
Efficacy: 78.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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°	2861	2861	2861
5°	3141	2820	2352
10°	3554	2785	1939
15°	3983	2750	1510
20°	4492	2704	1113
25°	4915	2652	730
30°	5228	2583	412
35°	5500	2508	181
40°	5741	2415	44
45°	5948	2300	0
50°	6122	2147	0
55°	6254	1952	0
60°	6320	1725	0
65°	6346	1468	0
70°	6326	1197	0
75°	6244	882	4
80°	5992	540	27
85°	5792	259	37



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.5	1.9
10°-20°	76.2	5.8
20°-30°	123.4	9.4
30°-40°	158.6	12.1
40°-50°	179.5	13.7
50°-60°	186.0	14.2
60°-70°	175.4	13.3
70°-80°	147.0	11.2
80°-90°	106.5	8.1
90°-100°	70.0	5.3
100°-110°	40.4	3.1
110°-120°	17.8	1.4
120°-130°	4.8	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	225.1	17.1
0°-40°	383.7	29.2
0°-60°	749.2	57.0
0°-90°	1178.1	89.7
90°-120°	128.3	9.8
90°-150°	135.0	10.3
90°-180°	136.0	10.3
0°-180°	1314.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	266	266	266	266	266	
5°	303	291	264	239	227	31
15°	405	355	255	184	154	117
25°	510	417	236	121	76	236
35°	565	449	208	59	19	354
45°	586	445	170	14	0	453
55°	571	417	123	0	0	510
65°	516	369	73	0	0	511
75°	430	298	31	0	0	451
85°	315	216	5	1	2	269
90°	273	173	1	2	2	150
95°	234	135	1	2	3	184
105°	161	70	1	2	3	170
115°	88	23	1	1	2	88
125°	26	3	1	1	1	26
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°	265.8	265.8	265.8	265.8	265.8	265.8	265.8	265.8	265.8	265.8	265.8
2.5°	288.1	287.8	286.8	285.1	282.7	278.7	275.3	272.2	268.2	264.8	258.3
5°	303.4	301.7	300.3	298.6	293.2	289.5	283.4	276.6	270.2	263.8	250.9
7.5°	327.8	325.0	323.0	318.3	310.8	302.4	292.9	286.4	282.0	264.1	242.1
10°	353.8	351.5	347.4	338.9	329.8	317.6	304.1	288.8	275.3	260.4	234.3
12.5°	379.6	376.2	370.4	359.6	346.7	331.5	312.9	294.9	275.6	258.0	225.2
15°	405.3	401.6	395.5	382.3	365.3	345.4	322.7	300.0	277.3	255.0	215.7
17.5°	433.4	428.3	419.2	404.3	382.9	358.2	331.5	304.1	276.6	251.2	205.5
20°	463.5	456.4	446.6	426.6	401.6	372.4	340.3	308.1	276.3	246.8	194.0
22.5°	488.6	481.5	470.6	450.0	419.8	384.3	347.7	310.8	274.9	241.8	183.2
25°	510.3	504.5	492.6	468.9	437.1	396.8	354.8	312.9	272.9	236.3	171.7
27.5°	527.2	521.8	508.6	484.2	451.7	408.0	360.3	313.9	270.2	230.9	159.8
30°	542.1	536.7	520.7	495.7	461.5	416.8	365.7	314.2	266.8	222.8	146.9
32.5°	553.6	548.5	532.3	505.5	468.3	422.9	368.7	313.9	262.4	217.0	133.1
35°	565.1	560.0	541.1	512.6	473.3	425.6	371.1	312.2	257.0	207.6	119.9
37.5°	573.9	568.1	548.8	517.4	475.7	426.3	370.8	309.8	251.2	199.8	106.7
40°	580.0	573.9	553.3	520.1	476.4	425.3	368.0	305.7	244.5	189.9	92.8
42.5°	584.1	577.3	555.3	524.1	475.0	422.6	364.0	300.7	237.0	181.5	79.6
45°	586.1	579.0	555.6	520.7	472.7	417.5	357.9	294.2	228.9	170.0	66.4
47.5°	585.1	577.3	553.9	517.0	468.3	412.1	351.1	286.4	219.1	159.8	53.8
50°	583.4	575.3	550.2	512.3	462.2	405.3	343.7	277.0	208.9	147.3	42.7
52.5°	578.0	569.8	546.1	505.5	455.1	397.5	333.5	267.1	198.1	135.1	32.5
55°	571.2	563.7	539.0	499.4	445.9	388.0	324.0	256.6	187.6	122.6	23.4
57.5°	560.7	553.9	530.2	489.6	436.8	377.5	313.5	245.1	174.4	110.0	16.3
60°	547.8	541.1	518.0	478.4	426.3	365.7	302.0	233.3	162.5	97.5	10.2
62.5°	534.3	527.9	503.8	464.5	413.1	353.1	289.5	221.4	150.0	86.0	6.1
65°	516.3	510.3	488.6	448.0	398.5	339.6	275.6	207.2	137.1	73.1	3.4
67.5°	497.4	492.0	470.0	432.7	381.6	324.7	261.4	193.3	123.6	62.0	1.7
70°	477.1	470.3	450.0	412.1	364.3	307.8	245.8	179.1	110.7	51.1	0.0
72.5°	453.4	448.3	428.7	392.8	344.3	289.8	229.9	163.5	96.5	40.6	0.3
75°	430.3	423.9	406.0	372.1	324.7	270.9	212.3	149.0	82.6	31.1	0.3
77.5°	400.5	398.5	381.6	348.7	306.1	252.6	193.0	131.4	69.4	22.3	0.3
80°	370.8	368.7	355.5	325.4	284.4	230.9	175.0	114.8	56.5	14.9	0.3
82.5°	341.3	338.6	326.1	301.0	262.4	212.6	156.4	98.2	44.7	9.1	0.3
85°	314.9	311.5	298.0	274.9	239.7	192.0	137.1	81.9	33.2	5.1	0.7
87.5°	292.2	289.8	274.9	251.2	216.7	172.7	120.2	66.4	23.4	2.4	1.0
90°	272.9	267.8	254.6	229.6	195.0	151.3	102.3	53.2	15.6	1.4	1.4
92.5°	253.9	249.5	235.0	209.2	175.7	133.1	85.0	40.6	9.8	0.7	1.7
95°	234.3	229.6	215.3	191.6	156.1	114.4	69.7	29.8	5.4	0.7	1.7
97.5°	215.0	210.6	195.7	172.0	138.5	98.2	55.2	21.0	2.7	0.7	1.4
100°	197.1	192.0	178.4	154.7	120.9	81.9	42.7	13.5	1.7	0.7	1.4
102.5°	178.1	174.0	160.2	137.1	102.6	66.7	31.8	8.5	0.7	0.7	1.0
105°	161.2	156.1	142.5	118.8	87.4	52.5	22.3	5.1	0.7	0.7	1.0



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CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-82-87-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	105.0	100.9	89.0	69.1	44.4	20.7	6.1	1.0	1.0	1.0	1.0
115°	87.7	81.6	71.1	53.5	32.8	13.5	3.0	1.0	1.0	1.0	1.0
117.5°	70.1	65.0	57.6	40.6	21.7	8.8	1.7	1.0	1.0	1.0	1.0
120°	54.9	50.1	41.6	28.1	14.6	5.1	0.7	1.0	1.0	1.0	1.0
122.5°	39.3	35.6	28.1	18.3	8.8	2.4	1.0	1.0	1.4	1.4	1.0
125°	26.1	24.0	18.6	11.2	5.4	1.0	1.0	1.0	1.4	1.4	1.0
127.5°	16.9	15.2	10.8	6.4	2.4	1.0	1.0	1.4	1.4	1.4	1.0
130°	9.5	8.5	6.4	3.7	1.0	1.0	1.0	1.4	1.4	1.4	1.0
132.5°	5.4	5.1	3.4	0.7	1.0	1.0	1.0	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.4	1.7	1.7	1.7	1.4
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.4	1.7	1.7	1.7	1.4
142.5°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4	1.4
145°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4	1.4
150°	0.3	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.4
152.5°	0.3	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.7
157.5°	0.7	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.4	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.4
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	265.8	265.8	265.8
2.5°	252.9	248.2	246.8
5°	239.4	231.6	227.2
7.5°	225.8	215.3	210.3
10°	213.3	198.4	193.0
12.5°	198.4	181.1	172.7
15°	184.2	161.8	153.7
17.5°	168.3	143.2	133.7
20°	153.4	124.6	114.8
22.5°	136.5	106.3	95.5
25°	121.2	88.0	75.8
27.5°	104.3	69.4	58.9
30°	88.4	53.2	42.7
32.5°	73.1	38.9	29.5
35°	58.9	26.4	18.6
37.5°	45.4	16.3	9.5
40°	32.8	8.5	4.4
42.5°	22.0	4.1	2.4
45°	13.5	2.0	0.0
47.5°	7.8	0.0	0.0
50°	4.1	0.0	0.0
52.5°	1.7	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	0.7	1.0
80°	0.7	1.4	1.7
82.5°	1.4	1.7	1.7
85°	1.4	1.7	2.0
87.5°	1.7	2.0	2.4
90°	2.0	2.4	2.4
92.5°	2.0	2.7	2.7
95°	2.4	2.7	3.0
97.5°	2.7	3.0	3.0
100°	2.4	3.0	3.4
102.5°	2.0	3.0	3.0
105°	1.7	2.4	2.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.4	1.7	1.7
115°	1.0	1.4	1.7
117.5°	1.0	1.4	1.4
120°	1.0	1.0	1.4
122.5°	1.0	1.0	1.4
125°	1.0	1.0	1.4
127.5°	1.4	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.4	1.0	1.0
135°	1.4	1.0	1.0
137.5°	1.4	1.0	1.0
140°	1.4	1.0	1.0
142.5°	1.4	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.7
152.5°	1.0	0.7	0.7
155°	1.0	0.7	0.3
157.5°	1.4	0.7	0.3
160°	1.0	0.7	0.3
162.5°	1.0	0.7	0.3
165°	1.0	0.7	0.0
167.5°	1.0	0.7	0.3
170°	1.0	0.7	0.3
172.5°	1.0	0.7	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	142.2	138.1	124.6	102.3	71.4	40.0	14.9	2.7	0.7	1.0	1.0
110°	123.9	120.5	106.7	85.0	57.6	29.8	9.8	1.7	1.0	1.0	1.0





107.5°	1.4	2.0	2.4
110°	1.4	1.7	2.0



(END OF REPORT)