

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: P551038

Luminaire Tested: **FCC-X-2-LD4-1STD-35-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: P551038  
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-35-UNV-82-87-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

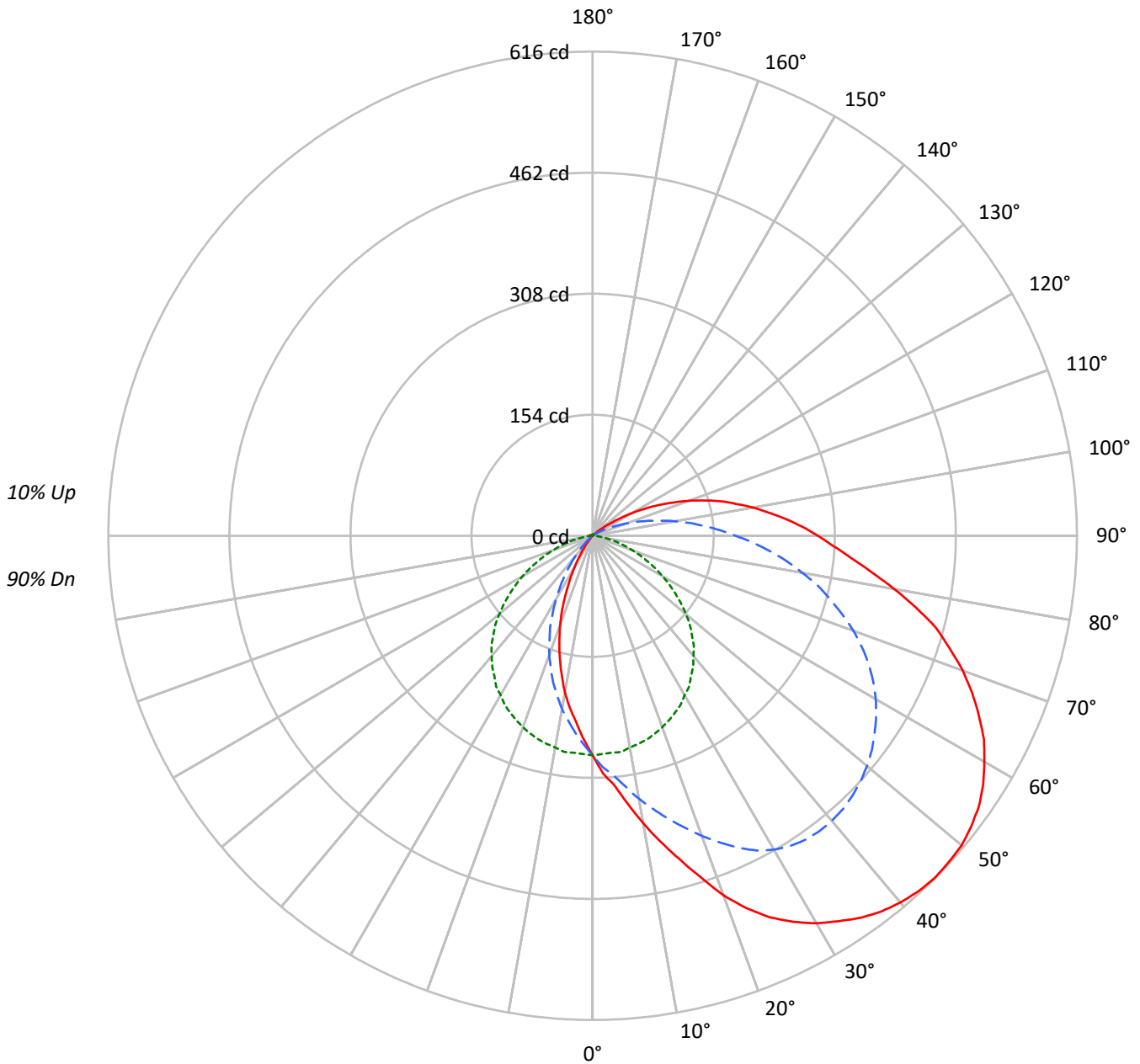
Lumens per Lamp: N/A  
Luminaire Lumens: 1380.0 lumens  
Efficiency: N/A  
Efficacy: 82.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 16.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

TEST NUMBER: P551038

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-87-ED1D

### Luminous Intensity Polar Plot





TEST NUMBER: P551038

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-87-ED1D

**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	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	3004	3004	3004
5°	3298	2961	2470
10°	3733	2925	2036
15°	4182	2888	1586
20°	4718	2840	1168
25°	5161	2785	768
30°	5491	2713	432
35°	5776	2634	191
40°	6029	2537	46
45°	6246	2415	0
50°	6429	2255	0
55°	6568	2049	0
60°	6638	1812	0
65°	6665	1543	0
70°	6642	1258	0
75°	6559	927	6
80°	6293	566	29
85°	6082	270	39



TEST NUMBER: P551038

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-87-ED1D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.7	1.9
10°-20°	80.1	5.8
20°-30°	129.6	9.4
30°-40°	166.5	12.1
40°-50°	188.5	13.7
50°-60°	195.3	14.2
60°-70°	184.2	13.3
70°-80°	154.4	11.2
80°-90°	111.9	8.1
90°-100°	73.5	5.3
100°-110°	42.5	3.1
110°-120°	18.8	1.4
120°-130°	5.1	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	236.4	17.1
0°-40°	403.0	29.2
0°-60°	786.8	57.0
0°-90°	1237.3	89.7
90°-120°	134.8	9.8
90°-150°	141.8	10.3
90°-180°	143.0	10.4
0°-180°	1380.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	279	279	279	279	279	
5°	319	306	277	251	239	32
15°	426	373	268	193	161	123
25°	536	438	248	127	80	248
35°	594	472	218	62	20	372
45°	616	467	178	14	0	475
55°	600	438	129	0	0	536
65°	542	388	77	0	0	537
75°	452	313	33	0	0	474
85°	331	227	5	1	2	282
90°	287	182	1	2	2	157
95°	246	142	1	2	3	193
105°	169	73	1	2	3	179
115°	92	24	1	1	2	92
125°	27	3	1	1	1	27
135°	1	1	2	1	1	3
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	



TEST NUMBER: P551038

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-87-ED1D

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	279.1	279.1	279.1	279.1	279.1	279.1	279.1	279.1	279.1	279.1	279.1
2.5°	302.6	302.3	301.2	299.4	296.9	292.7	289.1	285.9	281.6	278.1	271.3
5°	318.6	316.8	315.4	313.6	307.9	304.0	297.6	290.5	283.8	277.0	263.5
7.5°	344.2	341.4	339.2	334.3	326.4	317.5	307.6	300.8	296.2	277.4	254.2
10°	371.6	369.1	364.8	355.9	346.3	333.5	319.3	303.3	289.1	273.5	246.1
12.5°	398.6	395.1	389.0	377.6	364.1	348.1	328.6	309.7	289.5	271.0	236.5
15°	425.6	421.7	415.3	401.5	383.7	362.7	338.9	315.1	291.2	267.8	226.5
17.5°	455.2	449.8	440.2	424.6	402.2	376.2	348.1	319.3	290.5	263.9	215.8
20°	486.8	479.3	469.0	448.0	421.7	391.2	357.4	323.6	290.2	259.2	203.8
22.5°	513.1	505.7	494.3	472.6	440.9	403.6	365.2	326.4	288.7	253.9	192.4
25°	535.9	529.8	517.4	492.5	459.1	416.8	372.7	328.6	286.6	248.2	180.3
27.5°	553.7	548.0	534.1	508.5	474.4	428.5	378.4	329.6	283.8	242.5	167.8
30°	569.3	563.6	546.9	520.6	484.7	437.7	384.0	330.0	280.2	234.0	154.3
32.5°	581.4	576.1	559.0	530.9	491.8	444.1	387.2	329.6	275.6	227.9	139.7
35°	593.5	588.2	568.2	538.4	497.1	447.0	389.7	327.9	269.9	218.0	125.9
37.5°	602.7	596.7	576.4	543.3	499.6	447.7	389.4	325.4	263.9	209.8	112.0
40°	609.1	602.7	581.0	546.2	500.3	446.6	386.5	321.1	256.7	199.5	97.4
42.5°	613.4	606.3	583.2	550.5	498.9	443.8	382.3	315.8	248.9	190.6	83.6
45°	615.5	608.1	583.5	546.9	496.4	438.4	375.9	309.0	240.4	178.5	69.7
47.5°	614.5	606.3	581.8	543.0	491.8	432.8	368.8	300.8	230.1	167.8	56.5
50°	612.7	604.2	577.8	538.0	485.4	425.6	360.9	290.9	219.4	154.7	44.8
52.5°	607.0	598.5	573.6	530.9	477.9	417.5	350.3	280.6	208.0	141.9	34.1
55°	599.9	592.1	566.1	524.5	468.3	407.5	340.3	269.5	197.0	128.7	24.5
57.5°	588.9	581.8	556.9	514.2	458.7	396.5	329.3	257.4	183.1	115.6	17.1
60°	575.4	568.2	544.1	502.5	447.7	384.0	317.2	245.0	170.7	102.4	10.7
62.5°	561.1	554.4	529.1	487.9	433.8	370.9	304.0	232.6	157.5	90.3	6.4
65°	542.3	535.9	513.1	470.5	418.5	356.7	289.5	217.6	144.0	76.8	3.6
67.5°	522.4	516.7	493.6	454.4	400.8	341.0	274.5	203.0	129.8	65.1	1.8
70°	501.0	493.9	472.6	432.8	382.6	323.2	258.2	188.1	116.3	53.7	0.0
72.5°	476.1	470.8	450.2	412.5	361.6	304.4	241.4	171.8	101.3	42.7	0.4
75°	452.0	445.2	426.4	390.8	341.0	284.5	223.0	156.5	86.8	32.7	0.4
77.5°	420.7	418.5	400.8	366.3	321.5	265.3	202.7	138.0	72.9	23.5	0.4
80°	389.4	387.2	373.4	341.7	298.7	242.5	183.8	120.5	59.4	15.6	0.4
82.5°	358.4	355.6	342.4	316.1	275.6	223.3	164.3	103.1	46.9	9.6	0.4
85°	330.7	327.1	312.9	288.7	251.8	201.6	144.0	86.1	34.8	5.3	0.7
87.5°	306.9	304.4	288.7	263.9	227.6	181.4	126.2	69.7	24.5	2.5	1.1
90°	286.6	281.3	267.4	241.1	204.8	159.0	107.4	55.8	16.4	1.4	1.4
92.5°	266.7	262.1	246.8	219.8	184.6	139.7	89.3	42.7	10.3	0.7	1.8
95°	246.1	241.1	226.2	201.3	163.9	120.2	73.3	31.3	5.7	0.7	1.8
97.5°	225.8	221.2	205.5	180.6	145.4	103.1	58.0	22.0	2.8	0.7	1.4
100°	207.0	201.6	187.4	162.5	126.9	86.1	44.8	14.2	1.8	0.7	1.4
102.5°	187.0	182.8	168.2	144.0	107.7	70.1	33.4	8.9	0.7	0.7	1.1
105°	169.3	163.9	149.7	124.8	91.7	55.1	23.5	5.3	0.7	0.7	1.1



TEST NUMBER: P551038

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-87-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	110.2	106.0	93.5	72.5	46.6	21.7	6.4	1.1	1.1	1.1	1.1
115°	92.1	85.7	74.7	56.2	34.5	14.2	3.2	1.1	1.1	1.1	1.1
117.5°	73.6	68.3	60.5	42.7	22.8	9.2	1.8	1.1	1.1	1.1	1.1
120°	57.6	52.6	43.7	29.5	15.3	5.3	0.7	1.1	1.1	1.1	1.1
122.5°	41.2	37.3	29.5	19.2	9.2	2.5	1.1	1.1	1.4	1.4	1.1
125°	27.4	25.2	19.6	11.7	5.7	1.1	1.1	1.1	1.4	1.4	1.1
127.5°	17.8	16.0	11.4	6.8	2.5	1.1	1.1	1.4	1.4	1.4	1.1
130°	10.0	8.9	6.8	3.9	1.1	1.1	1.1	1.4	1.4	1.4	1.1
132.5°	5.7	5.3	3.6	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.4	1.8	1.8	1.8	1.4
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.4
142.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
145°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
150°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
152.5°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
157.5°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.4
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



TEST NUMBER: P551038

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-87-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	279.1	279.1	279.1
2.5°	265.6	260.7	259.2
5°	251.4	243.2	238.6
7.5°	237.2	226.2	220.8
10°	224.0	208.4	202.7
12.5°	208.4	190.2	181.4
15°	193.4	170.0	161.4
17.5°	176.7	150.4	140.5
20°	161.1	130.9	120.5
22.5°	143.3	111.7	100.3
25°	127.3	92.5	79.7
27.5°	109.5	72.9	61.9
30°	92.8	55.8	44.8
32.5°	76.8	40.9	30.9
35°	61.9	27.7	19.6
37.5°	47.6	17.1	10.0
40°	34.5	8.9	4.6
42.5°	23.1	4.3	2.5
45°	14.2	2.1	0.0
47.5°	8.2	0.0	0.0
50°	4.3	0.0	0.0
52.5°	1.8	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°	0.4	0.4	0.4
77.5°	0.4	0.7	1.1
80°	0.7	1.4	1.8
82.5°	1.4	1.8	1.8
85°	1.4	1.8	2.1
87.5°	1.8	2.1	2.5
90°	2.1	2.5	2.5
92.5°	2.1	2.8	2.8
95°	2.5	2.8	3.2
97.5°	2.8	3.2	3.2
100°	2.5	3.2	3.6
102.5°	2.1	3.2	3.2
105°	1.8	2.5	2.8





TEST NUMBER: P551038

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-87-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.4	1.8	1.8
115°	1.1	1.4	1.8
117.5°	1.1	1.4	1.4
120°	1.1	1.1	1.4
122.5°	1.1	1.1	1.4
125°	1.1	1.1	1.4
127.5°	1.4	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.4	1.1	1.1
135°	1.4	1.1	1.1
137.5°	1.4	1.1	1.1
140°	1.4	1.1	1.1
142.5°	1.4	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.4	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	149.3	145.1	130.9	107.4	75.0	42.0	15.6	2.8	0.7	1.1	1.1
110°	130.1	126.6	112.0	89.3	60.5	31.3	10.3	1.8	1.1	1.1	1.1







107.5°	1.4	2.1	2.5
110°	1.4	1.8	2.1



(END OF REPORT)