

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: P551676

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-82-86-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: P551676  
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-LD4-2LO-50-UNV-82-86-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

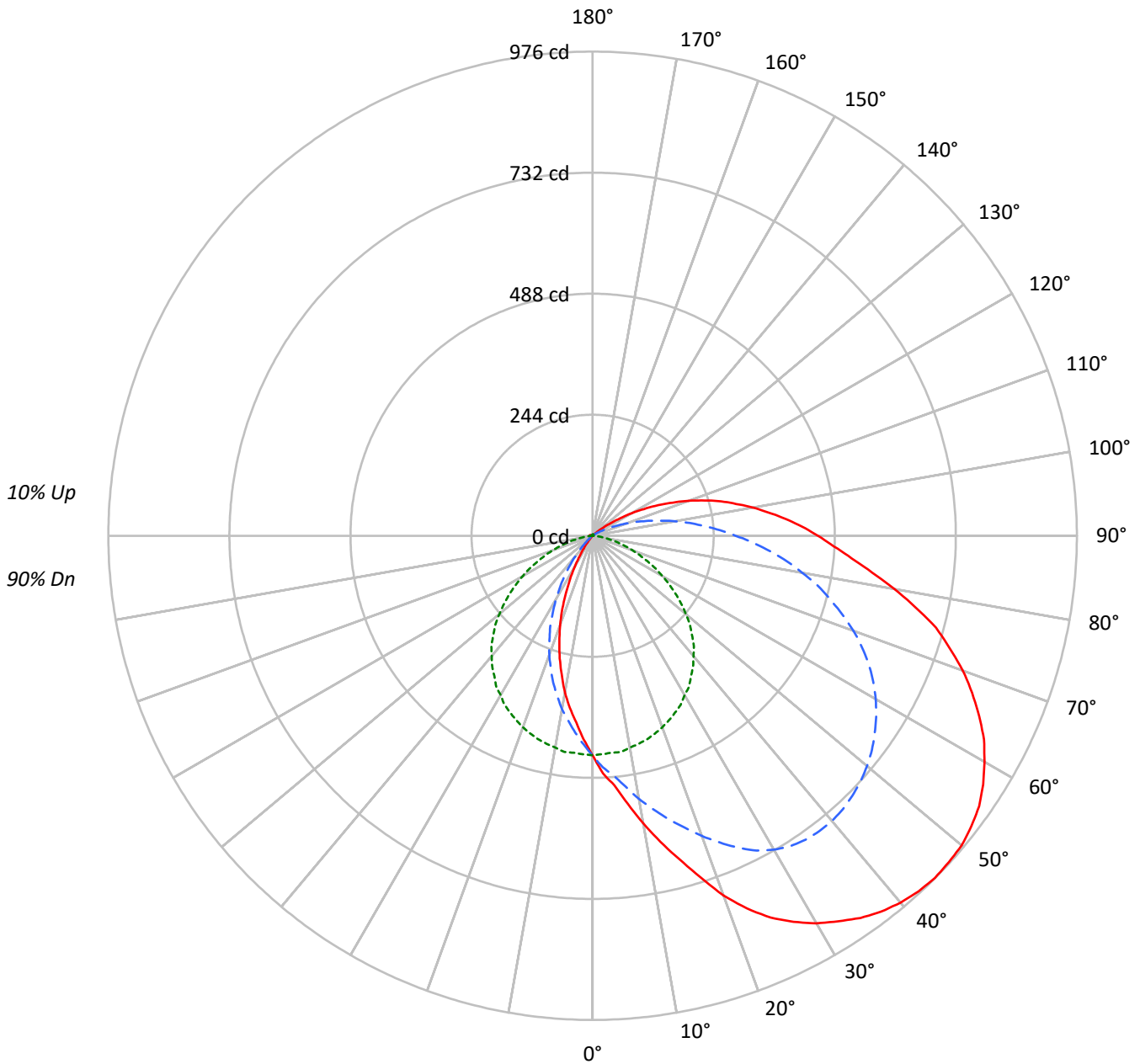
Lumens per Lamp: N/A  
Luminaire Lumens: 2187.1 lumens  
Efficiency: N/A  
Efficacy: 93.1 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 23.5  
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: P551676

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-86-ED1D

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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	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°	4762	4762	4762
5°	5227	4692	3914
10°	5915	4635	3226
15°	6629	4575	2514
20°	7477	4501	1851
25°	8180	4414	1215
30°	8702	4298	685
35°	9154	4173	302
40°	9555	4020	72
45°	9900	3828	0
50°	10189	3572	0
55°	10409	3248	0
60°	10519	2872	0
65°	10563	2444	0
70°	10527	1994	0
75°	10394	1469	9
80°	9973	900	45
85°	9639	432	63



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.4	1.9
10°-20°	126.9	5.8
20°-30°	205.5	9.4
30°-40°	263.9	12.1
40°-50°	298.8	13.7
50°-60°	309.5	14.2
60°-70°	291.9	13.3
70°-80°	244.6	11.2
80°-90°	177.3	8.1
90°-100°	116.5	5.3
100°-110°	67.3	3.1
110°-120°	29.7	1.4
120°-130°	8.1	0.4
130°-140°	1.9	0.1
140°-150°	1.2	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	374.7	17.1
0°-40°	638.7	29.2
0°-60°	1247.0	57.0
0°-90°	1960.8	89.7
90°-120°	213.6	9.8
90°-150°	224.7	10.3
90°-180°	226.0	10.3
0°-180°	2187.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	442	442	442	442	442	
5°	505	485	439	398	378	51
15°	675	591	424	307	256	195
25°	849	694	393	202	126	393
35°	940	748	345	98	31	590
45°	976	741	283	22	0	753
55°	951	694	204	0	0	849
65°	859	614	122	0	0	850
75°	716	496	52	1	1	751
85°	524	359	8	2	3	448
90°	454	288	2	3	4	249
95°	390	225	1	4	5	306
105°	268	116	1	3	4	283
115°	146	39	2	2	3	146
125°	43	5	2	2	2	43
135°	2	2	3	2	2	4
145°	1	2	2	2	2	0
155°	1	2	2	2	1	0
165°	1	2	2	2	0	0
175°	1	2	3	2	1	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	442.4	442.4	442.4	442.4	442.4	442.4	442.4	442.4	442.4	442.4	442.4
2.5°	479.6	479.0	477.3	474.5	470.6	463.8	458.2	453.1	446.3	440.7	430.0
5°	504.9	502.1	499.9	497.0	488.0	481.8	471.7	460.4	449.7	439.0	417.6
7.5°	545.5	541.0	537.6	529.7	517.3	503.2	487.5	476.8	469.4	439.6	402.9
10°	588.9	585.0	578.2	564.1	548.9	528.6	506.1	480.7	458.2	433.4	390.0
12.5°	631.7	626.1	616.5	598.5	577.1	551.7	520.7	490.8	458.7	429.4	374.8
15°	674.6	668.4	658.2	636.2	608.1	574.8	537.1	499.3	461.5	424.3	359.0
17.5°	721.3	712.9	697.7	672.9	637.4	596.2	551.7	506.1	460.4	418.1	342.1
20°	771.5	759.6	743.3	710.1	668.4	619.9	566.4	512.8	459.8	410.8	322.9
22.5°	813.2	801.4	783.3	748.9	698.8	639.6	578.8	517.3	457.6	402.4	304.9
25°	849.3	839.7	819.9	780.5	727.5	660.5	590.6	520.7	454.2	393.3	285.7
27.5°	877.4	868.4	846.4	805.9	751.8	679.1	599.6	522.4	449.7	384.3	266.0
30°	902.2	893.2	866.7	825.0	768.1	693.7	608.6	523.0	444.1	370.8	244.6
32.5°	921.4	912.9	885.9	841.4	779.4	703.9	613.7	522.4	436.7	361.2	221.5
35°	940.5	932.1	900.5	853.2	787.8	708.4	617.6	519.6	427.7	345.4	199.5
37.5°	955.2	945.6	913.5	861.1	791.8	709.5	617.1	515.6	418.1	332.5	177.5
40°	965.3	955.2	920.8	865.6	792.9	707.8	612.6	508.9	406.9	316.1	154.4
42.5°	972.1	960.8	924.2	872.4	790.6	703.3	605.8	500.4	394.5	302.1	132.4
45°	975.5	963.7	924.8	866.7	786.7	694.8	595.7	489.7	381.0	282.9	110.5
47.5°	973.8	960.8	921.9	860.5	779.4	685.8	584.4	476.8	364.6	266.0	89.6
50°	971.0	957.5	915.7	852.6	769.2	674.6	572.0	461.0	347.7	245.1	71.0
52.5°	962.0	948.4	909.0	841.4	757.4	661.6	555.1	444.6	329.7	224.9	54.1
55°	950.7	938.3	897.2	831.2	742.2	645.8	539.3	427.2	312.2	204.0	38.9
57.5°	933.2	921.9	882.5	814.9	727.0	628.3	521.8	408.0	290.2	183.1	27.0
60°	911.8	900.5	862.2	796.3	709.5	608.6	502.7	388.3	270.5	162.3	16.9
62.5°	889.3	878.6	838.5	773.2	687.5	587.8	481.8	368.6	249.6	143.1	10.1
65°	859.4	849.3	813.2	745.6	663.3	565.2	458.7	344.9	228.2	121.7	5.6
67.5°	827.8	818.8	782.2	720.2	635.1	540.4	435.1	321.8	205.7	103.1	2.8
70°	794.0	782.8	748.9	685.8	606.4	512.3	409.1	298.1	184.3	85.1	0.0
72.5°	754.6	746.1	713.4	653.7	573.1	482.4	382.6	272.2	160.6	67.6	0.6
75°	716.3	705.5	675.7	619.3	540.4	450.8	353.3	248.0	137.5	51.8	0.6
77.5°	666.7	663.3	635.1	580.4	509.4	420.4	321.2	218.7	115.5	37.2	0.6
80°	617.1	613.7	591.7	541.6	473.4	384.3	291.3	191.0	94.1	24.8	0.6
82.5°	568.0	563.5	542.7	501.0	436.7	353.9	260.4	163.4	74.4	15.2	0.6
85°	524.1	518.5	495.9	457.6	399.0	319.5	228.2	136.4	55.2	8.5	1.1
87.5°	486.3	482.4	457.6	418.1	360.7	287.4	200.1	110.5	38.9	3.9	1.7
90°	454.2	445.8	423.8	382.1	324.6	251.9	170.2	88.5	25.9	2.3	2.3
92.5°	422.7	415.3	391.1	348.3	292.5	221.5	141.4	67.6	16.3	1.1	2.8
95°	390.0	382.1	358.4	319.0	259.8	190.5	116.1	49.6	9.0	1.1	2.8
97.5°	357.8	350.5	325.7	286.3	230.5	163.4	91.9	34.9	4.5	1.1	2.3
100°	328.0	319.5	297.0	257.5	201.2	136.4	71.0	22.5	2.8	1.1	2.3
102.5°	296.4	289.7	266.6	228.2	170.8	111.0	53.0	14.1	1.1	1.1	1.7
105°	268.2	259.8	237.2	197.8	145.4	87.3	37.2	8.5	1.1	1.1	1.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	174.7	167.9	148.2	115.0	73.8	34.4	10.1	1.7	1.7	1.7	1.7
115°	146.0	135.8	118.3	89.0	54.7	22.5	5.1	1.7	1.7	1.7	1.7
117.5°	116.7	108.2	95.8	67.6	36.1	14.7	2.8	1.7	1.7	1.7	1.7
120°	91.3	83.4	69.3	46.8	24.2	8.5	1.1	1.7	1.7	1.7	1.7
122.5°	65.4	59.2	46.8	30.4	14.7	3.9	1.7	1.7	2.3	2.3	1.7
125°	43.4	40.0	31.0	18.6	9.0	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	28.2	25.4	18.0	10.7	3.9	1.7	1.7	2.3	2.3	2.3	1.7
130°	15.8	14.1	10.7	6.2	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.0	8.5	5.6	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3
135°	2.3	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.3
137.5°	0.6	0.6	1.1	1.1	1.7	1.7	2.3	2.8	2.8	2.8	2.3
140°	0.6	0.6	1.1	1.7	1.7	1.7	2.3	2.8	2.8	2.8	2.3
142.5°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.3	2.3
145°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.3	2.3	2.3
147.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.3	2.3
150°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.3
152.5°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.3
155°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.8
157.5°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.8
160°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.1	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3
167.5°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3
170°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.8	2.8	2.8	2.8
172.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.8	2.8
175°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.8	2.8
177.5°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.8	2.3
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	442.4	442.4	442.4
2.5°	421.0	413.1	410.8
5°	398.4	385.5	378.1
7.5°	375.9	358.4	350.0
10°	355.0	330.2	321.2
12.5°	330.2	301.5	287.4
15°	306.6	269.4	255.8
17.5°	280.1	238.4	222.6
20°	255.3	207.4	191.0
22.5°	227.1	177.0	158.9
25°	201.7	146.5	126.2
27.5°	173.6	115.5	98.1
30°	147.1	88.5	71.0
32.5°	121.7	64.8	49.0
35°	98.1	44.0	31.0
37.5°	75.5	27.0	15.8
40°	54.7	14.1	7.3
42.5°	36.6	6.8	3.9
45°	22.5	3.4	0.0
47.5°	13.0	0.0	0.0
50°	6.8	0.0	0.0
52.5°	2.8	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°	0.6	0.6	0.6
77.5°	0.6	1.1	1.7
80°	1.1	2.3	2.8
82.5°	2.3	2.8	2.8
85°	2.3	2.8	3.4
87.5°	2.8	3.4	3.9
90°	3.4	3.9	3.9
92.5°	3.4	4.5	4.5
95°	3.9	4.5	5.1
97.5°	4.5	5.1	5.1
100°	3.9	5.1	5.6
102.5°	3.4	5.1	5.1
105°	2.8	3.9	4.5





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.3	2.8	2.8
115°	1.7	2.3	2.8
117.5°	1.7	2.3	2.3
120°	1.7	1.7	2.3
122.5°	1.7	1.7	2.3
125°	1.7	1.7	2.3
127.5°	2.3	1.7	1.7
130°	1.7	1.7	1.7
132.5°	2.3	1.7	1.7
135°	2.3	1.7	1.7
137.5°	2.3	1.7	1.7
140°	2.3	1.7	1.7
142.5°	2.3	1.7	1.7
145°	1.7	1.7	1.7
147.5°	1.7	1.7	1.7
150°	1.7	1.7	1.1
152.5°	1.7	1.1	1.1
155°	1.7	1.1	0.6
157.5°	2.3	1.1	0.6
160°	1.7	1.1	0.6
162.5°	1.7	1.1	0.6
165°	1.7	1.1	0.0
167.5°	1.7	1.1	0.6
170°	1.7	1.1	0.6
172.5°	1.7	1.1	0.6
175°	1.7	0.6	0.6
177.5°	1.7	0.6	0.6
180°	1.7	1.7	1.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	236.7	229.9	207.4	170.2	118.9	66.5	24.8	4.5	1.1	1.7	1.7
110°	206.3	200.6	177.5	141.4	95.8	49.6	16.3	2.8	1.7	1.7	1.7







107.5°	2.3	3.4	3.9
110°	2.3	2.8	3.4



(END OF REPORT)