

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: P550456

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-82-84-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: P550456  
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-LD4-1HI-30-UNV-82-84-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

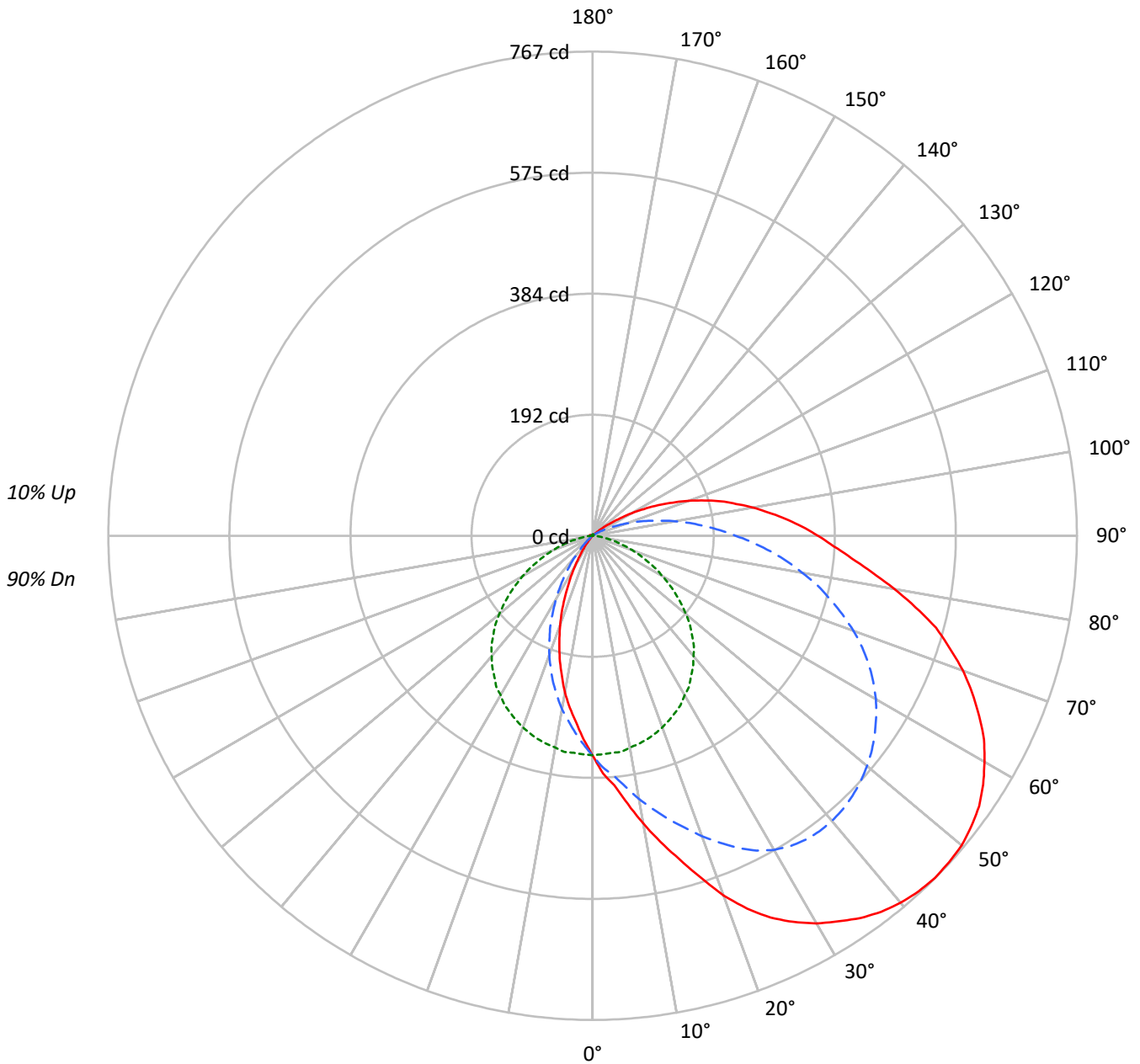
Lumens per Lamp: N/A  
Luminaire Lumens: 1719.0 lumens  
Efficiency: N/A  
Efficacy: 79.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 21.7  
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: P550456

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-82-84-ED1D

### Luminous Intensity Polar Plot





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**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°	3743	3743	3743
5°	4109	3688	3077
10°	4650	3642	2536
15°	5210	3596	1976
20°	5877	3538	1456
25°	6429	3470	955
30°	6840	3379	538
35°	7195	3280	237
40°	7511	3160	57
45°	7781	3009	0
50°	8008	2809	0
55°	8181	2553	0
60°	8268	2258	0
65°	8302	1922	0
70°	8274	1567	0
75°	8170	1157	6
80°	7838	707	36
85°	7576	336	50



TEST NUMBER: P550456

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-82-84-ED1D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.3	1.9
10°-20°	99.7	5.8
20°-30°	161.5	9.4
30°-40°	207.5	12.1
40°-50°	234.8	13.7
50°-60°	243.3	14.2
60°-70°	229.5	13.3
70°-80°	192.3	11.2
80°-90°	139.4	8.1
90°-100°	91.6	5.3
100°-110°	52.9	3.1
110°-120°	23.3	1.4
120°-130°	6.3	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	294.5	17.1
0°-40°	502.0	29.2
0°-60°	980.1	57.0
0°-90°	1541.3	89.7
90°-120°	167.9	9.8
90°-150°	176.6	10.3
90°-180°	178.0	10.4
0°-180°	1719.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	348	348	348	348	348	
5°	397	381	345	313	297	40
15°	530	465	334	241	201	153
25°	668	545	309	159	99	309
35°	739	588	272	77	24	464
45°	767	582	222	18	0	592
55°	747	546	160	0	0	667
65°	676	483	96	0	0	668
75°	563	390	41	0	0	590
85°	412	282	7	2	3	352
90°	357	227	2	3	3	196
95°	306	177	1	3	4	240
105°	211	92	1	2	4	222
115°	115	30	1	1	2	115
125°	34	4	2	1	2	34
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	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°	347.7	347.7	347.7	347.7	347.7	347.7	347.7	347.7	347.7	347.7	347.7
2.5°	376.9	376.5	375.2	373.0	369.9	364.5	360.1	356.1	350.8	346.4	338.0
5°	396.9	394.7	392.9	390.7	383.6	378.7	370.7	361.9	353.5	345.1	328.2
7.5°	428.8	425.2	422.6	416.4	406.6	395.6	383.1	374.7	369.0	345.5	316.7
10°	462.9	459.8	454.5	443.4	431.4	415.5	397.8	377.8	360.1	340.6	306.5
12.5°	496.5	492.1	484.6	470.4	453.6	433.6	409.3	385.8	360.6	337.5	294.6
15°	530.2	525.3	517.4	500.1	477.9	451.8	422.1	392.4	362.8	333.5	282.2
17.5°	567.0	560.3	548.4	528.9	501.0	468.6	433.6	397.8	361.9	328.7	268.9
20°	606.4	597.1	584.2	558.1	525.3	487.2	445.2	403.1	361.4	322.9	253.8
22.5°	639.2	629.9	615.7	588.7	549.3	502.7	454.9	406.6	359.7	316.3	239.6
25°	667.5	660.0	644.5	613.5	571.8	519.1	464.2	409.3	357.0	309.2	224.6
27.5°	689.7	682.6	665.3	633.4	590.9	533.7	471.3	410.6	353.5	302.1	209.1
30°	709.2	702.1	681.3	648.5	603.7	545.3	478.4	411.1	349.0	291.5	192.2
32.5°	724.2	717.6	696.3	661.3	612.6	553.2	482.4	410.6	343.3	283.9	174.1
35°	739.3	732.6	707.8	670.6	619.2	556.8	485.5	408.4	336.2	271.5	156.8
37.5°	750.8	743.3	718.0	676.8	622.3	557.7	485.0	405.3	328.7	261.3	139.5
40°	758.8	750.8	723.8	680.4	623.2	556.3	481.5	400.0	319.8	248.5	121.4
42.5°	764.1	755.2	726.4	685.7	621.5	552.8	476.2	393.3	310.1	237.4	104.1
45°	766.7	757.4	726.9	681.3	618.4	546.2	468.2	384.9	299.4	222.4	86.8
47.5°	765.4	755.2	724.7	676.4	612.6	539.1	459.3	374.7	286.6	209.1	70.4
50°	763.2	752.6	719.8	670.2	604.6	530.2	449.6	362.3	273.3	192.7	55.8
52.5°	756.1	745.5	714.5	661.3	595.3	520.0	436.3	349.5	259.1	176.7	42.5
55°	747.2	737.5	705.2	653.3	583.4	507.6	423.9	335.8	245.4	160.3	30.6
57.5°	733.5	724.7	693.7	640.5	571.4	493.9	410.2	320.7	228.1	144.0	21.3
60°	716.7	707.8	677.7	625.9	557.7	478.4	395.1	305.2	212.6	127.6	13.3
62.5°	699.0	690.6	659.1	607.7	540.4	462.0	378.7	289.7	196.2	112.5	8.0
65°	675.5	667.5	639.2	586.0	521.3	444.3	360.6	271.1	179.4	95.7	4.4
67.5°	650.7	643.6	614.8	566.1	499.2	424.8	342.0	252.9	161.7	81.1	2.2
70°	624.1	615.3	588.7	539.1	476.6	402.6	321.6	234.3	144.8	66.9	0.0
72.5°	593.1	586.5	560.8	513.8	450.5	379.2	300.8	213.9	126.2	53.2	0.4
75°	563.0	554.6	531.1	486.8	424.8	354.4	277.7	194.9	108.1	40.8	0.4
77.5°	524.0	521.3	499.2	456.2	400.4	330.4	252.5	171.9	90.8	29.2	0.4
80°	485.0	482.4	465.1	425.7	372.1	302.1	229.0	150.2	74.0	19.5	0.4
82.5°	446.5	442.9	426.6	393.8	343.3	278.2	204.6	128.5	58.5	12.0	0.4
85°	411.9	407.5	389.8	359.7	313.6	251.2	179.4	107.2	43.4	6.6	0.9
87.5°	382.3	379.2	359.7	328.7	283.5	225.9	157.2	86.8	30.6	3.1	1.3
90°	357.0	350.4	333.1	300.3	255.1	198.0	133.8	69.5	20.4	1.8	1.8
92.5°	332.2	326.5	307.4	273.7	229.9	174.1	111.2	53.2	12.8	0.9	2.2
95°	306.5	300.3	281.7	250.7	204.2	149.7	91.2	39.0	7.1	0.9	2.2
97.5°	281.3	275.5	256.0	225.0	181.2	128.5	72.2	27.5	3.5	0.9	1.8
100°	257.8	251.2	233.4	202.4	158.1	107.2	55.8	17.7	2.2	0.9	1.8
102.5°	233.0	227.7	209.5	179.4	134.2	87.3	41.6	11.1	0.9	0.9	1.3
105°	210.8	204.2	186.5	155.5	114.3	68.7	29.2	6.6	0.9	0.9	1.3



TEST NUMBER: P550456

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-82-84-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	137.3	132.0	116.5	90.4	58.0	27.0	8.0	1.3	1.3	1.3	1.3
115°	114.7	106.7	93.0	70.0	43.0	17.7	4.0	1.3	1.3	1.3	1.3
117.5°	91.7	85.0	75.3	53.2	28.3	11.5	2.2	1.3	1.3	1.3	1.3
120°	71.8	65.6	54.5	36.8	19.0	6.6	0.9	1.3	1.3	1.3	1.3
122.5°	51.4	46.5	36.8	23.9	11.5	3.1	1.3	1.3	1.8	1.8	1.3
125°	34.1	31.4	24.4	14.6	7.1	1.3	1.3	1.3	1.8	1.8	1.3
127.5°	22.1	19.9	14.2	8.4	3.1	1.3	1.3	1.8	1.8	1.8	1.3
130°	12.4	11.1	8.4	4.9	1.3	1.3	1.3	1.8	1.8	1.8	1.3
132.5°	7.1	6.6	4.4	0.9	1.3	1.3	1.3	1.8	1.8	1.8	1.8
135°	1.8	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8
137.5°	0.4	0.4	0.9	0.9	1.3	1.3	1.8	2.2	2.2	2.2	1.8
140°	0.4	0.4	0.9	1.3	1.3	1.3	1.8	2.2	2.2	2.2	1.8
142.5°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8	1.8
145°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	1.8	1.8	1.8
147.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8	1.8
150°	0.4	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	1.8
152.5°	0.4	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	1.8
155°	0.9	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	2.2
157.5°	0.9	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	2.2
160°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.8
162.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.8
165°	0.9	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8
167.5°	0.9	0.9	0.9	1.3	1.3	1.3	1.8	1.8	1.8	1.8	1.8
170°	0.9	0.9	0.9	1.3	1.3	1.3	1.8	2.2	2.2	2.2	2.2
172.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	2.2
175°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	2.2
177.5°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	1.8
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



TEST NUMBER: P550456

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-82-84-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	347.7	347.7	347.7
2.5°	330.9	324.7	322.9
5°	313.2	303.0	297.2
7.5°	295.4	281.7	275.1
10°	279.1	259.6	252.5
12.5°	259.6	237.0	225.9
15°	241.0	211.7	201.1
17.5°	220.1	187.4	175.0
20°	200.7	163.0	150.2
22.5°	178.5	139.1	124.9
25°	158.6	115.2	99.2
27.5°	136.4	90.8	77.1
30°	115.6	69.5	55.8
32.5°	95.7	50.9	38.5
35°	77.1	34.5	24.4
37.5°	59.4	21.3	12.4
40°	43.0	11.1	5.8
42.5°	28.8	5.3	3.1
45°	17.7	2.7	0.0
47.5°	10.2	0.0	0.0
50°	5.3	0.0	0.0
52.5°	2.2	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°	0.4	0.4	0.4
77.5°	0.4	0.9	1.3
80°	0.9	1.8	2.2
82.5°	1.8	2.2	2.2
85°	1.8	2.2	2.7
87.5°	2.2	2.7	3.1
90°	2.7	3.1	3.1
92.5°	2.7	3.5	3.5
95°	3.1	3.5	4.0
97.5°	3.5	4.0	4.0
100°	3.1	4.0	4.4
102.5°	2.7	4.0	4.0
105°	2.2	3.1	3.5





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.8	2.2	2.2
115°	1.3	1.8	2.2
117.5°	1.3	1.8	1.8
120°	1.3	1.3	1.8
122.5°	1.3	1.3	1.8
125°	1.3	1.3	1.8
127.5°	1.8	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.8	1.3	1.3
135°	1.8	1.3	1.3
137.5°	1.8	1.3	1.3
140°	1.8	1.3	1.3
142.5°	1.8	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.9
152.5°	1.3	0.9	0.9
155°	1.3	0.9	0.4
157.5°	1.8	0.9	0.4
160°	1.3	0.9	0.4
162.5°	1.3	0.9	0.4
165°	1.3	0.9	0.0
167.5°	1.3	0.9	0.4
170°	1.3	0.9	0.4
172.5°	1.3	0.9	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	186.0	180.7	163.0	133.8	93.5	52.3	19.5	3.5	0.9	1.3	1.3
110°	162.1	157.7	139.5	111.2	75.3	39.0	12.8	2.2	1.3	1.3	1.3







107.5°	1.8	2.7	3.1
110°	1.8	2.2	2.7



(END OF REPORT)