

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: P550668

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-93-86-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: P550668  
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-50-UNV-93-86-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS 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**

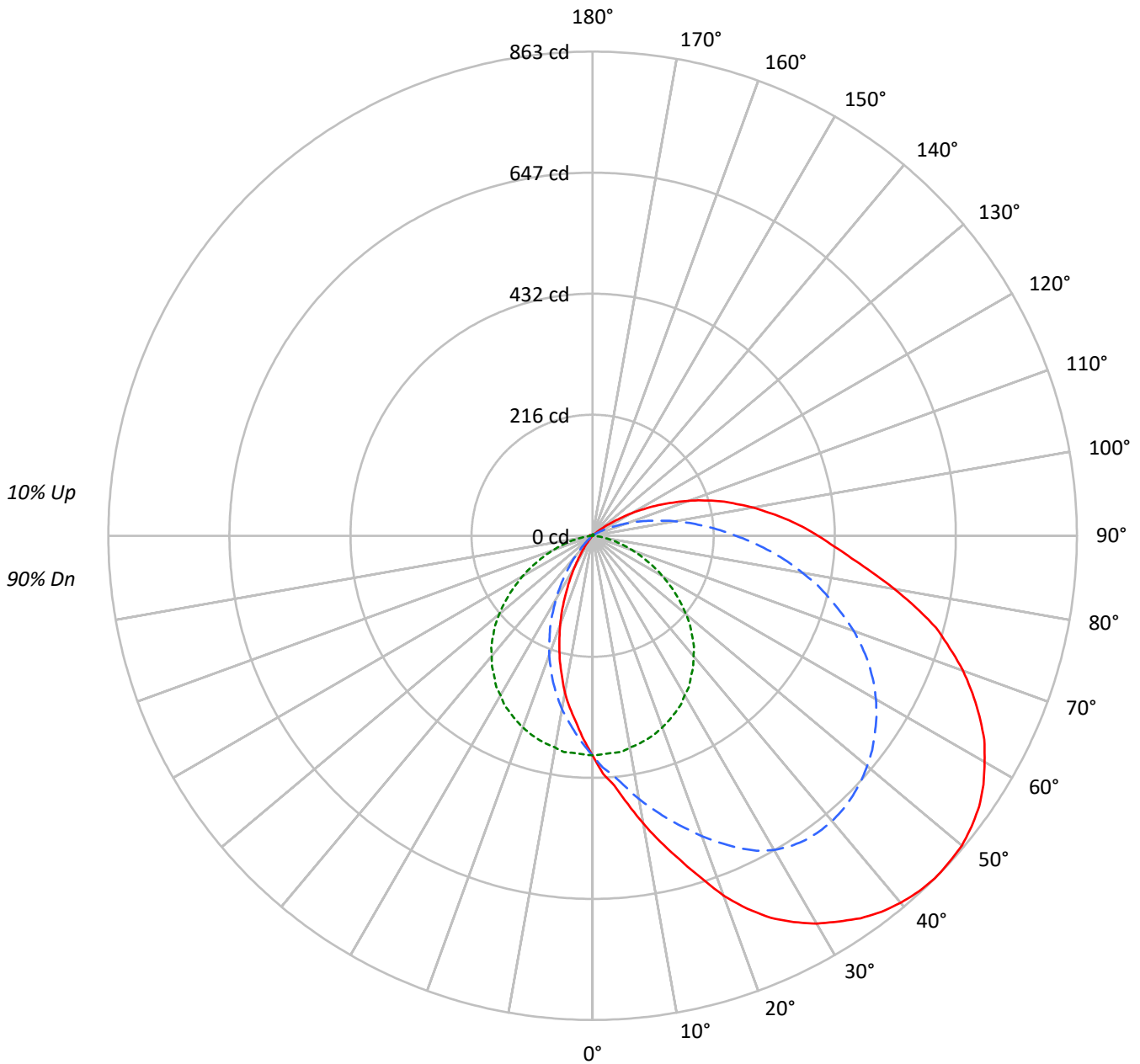
Lumens per Lamp: N/A  
Luminaire Lumens: 1935.0 lumens  
Efficiency: N/A  
Efficacy: 89.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-86-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°	4213	4213	4213
5°	4624	4151	3464
10°	5233	4100	2855
15°	5865	4048	2225
20°	6615	3983	1638
25°	7237	3905	1076
30°	7699	3803	606
35°	8100	3692	267
40°	8454	3557	64
45°	8759	3387	0
50°	9015	3161	0
55°	9209	2874	0
60°	9307	2541	0
65°	9346	2163	0
70°	9314	1764	0
75°	9196	1302	7
80°	8824	794	40
85°	8528	381	55



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.5	1.9
10°-20°	112.3	5.8
20°-30°	181.8	9.4
30°-40°	233.5	12.1
40°-50°	264.3	13.7
50°-60°	273.9	14.2
60°-70°	258.3	13.3
70°-80°	216.5	11.2
80°-90°	156.9	8.1
90°-100°	103.1	5.3
100°-110°	59.6	3.1
110°-120°	26.3	1.4
120°-130°	7.1	0.4
130°-140°	1.6	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	331.5	17.1
0°-40°	565.1	29.2
0°-60°	1103.3	57.0
0°-90°	1734.9	89.7
90°-120°	189.0	9.8
90°-150°	198.8	10.3
90°-180°	200.0	10.3
0°-180°	1935.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	391	391	391	391	391	
5°	447	429	388	352	335	45
15°	597	523	375	271	226	172
25°	751	614	348	178	112	347
35°	832	662	306	87	27	522
45°	863	655	250	20	0	666
55°	841	614	180	0	0	751
65°	760	544	108	0	0	752
75°	634	439	46	0	0	665
85°	464	318	8	2	3	396
90°	402	255	2	3	4	220
95°	345	199	1	4	4	271
105°	237	103	1	2	4	250
115°	129	34	2	2	2	129
125°	38	5	2	2	2	38
135°	2	2	2	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	2	2	0	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°	391.4	391.4	391.4	391.4	391.4	391.4	391.4	391.4	391.4	391.4	391.4
2.5°	424.3	423.8	422.3	419.8	416.3	410.4	405.4	400.9	394.9	389.9	380.4
5°	446.7	444.3	442.3	439.8	431.8	426.3	417.3	407.4	397.9	388.4	369.5
7.5°	482.6	478.7	475.7	468.7	457.7	445.3	431.3	421.8	415.3	388.9	356.5
10°	521.0	517.6	511.6	499.1	485.6	467.7	447.7	425.3	405.4	383.4	345.0
12.5°	558.9	553.9	545.5	529.5	510.6	488.1	460.7	434.3	405.9	379.9	331.6
15°	596.8	591.3	582.4	562.9	538.0	508.6	475.2	441.8	408.4	375.4	317.6
17.5°	638.2	630.7	617.3	595.3	563.9	527.5	488.1	447.7	407.4	370.0	302.7
20°	682.6	672.1	657.7	628.2	591.3	548.5	501.1	453.7	406.9	363.5	285.7
22.5°	719.5	709.0	693.1	662.6	618.3	565.9	512.1	457.7	404.9	356.0	269.7
25°	751.4	742.9	725.5	690.6	643.7	584.4	522.5	460.7	401.9	348.0	252.8
27.5°	776.3	768.3	748.9	713.0	665.1	600.8	530.5	462.2	397.9	340.0	235.3
30°	798.3	790.3	766.9	730.0	679.6	613.8	538.5	462.7	392.9	328.1	216.4
32.5°	815.2	807.7	783.8	744.4	689.6	622.8	543.0	462.2	386.4	319.6	196.0
35°	832.2	824.7	796.8	754.9	697.0	626.7	546.5	459.7	378.4	305.6	176.5
37.5°	845.1	836.7	808.2	761.9	700.5	627.7	546.0	456.2	370.0	294.2	157.1
40°	854.1	845.1	814.7	765.9	701.5	626.2	542.0	450.2	360.0	279.7	136.6
42.5°	860.1	850.1	817.7	771.8	699.5	622.3	536.0	442.8	349.0	267.3	117.2
45°	863.1	852.6	818.2	766.9	696.1	614.8	527.0	433.3	337.1	250.3	97.7
47.5°	861.6	850.1	815.7	761.4	689.6	606.8	517.1	421.8	322.6	235.3	79.3
50°	859.1	847.1	810.2	754.4	680.6	596.8	506.1	407.9	307.6	216.9	62.8
52.5°	851.1	839.2	804.2	744.4	670.1	585.4	491.1	393.4	291.7	198.9	47.9
55°	841.1	830.2	793.8	735.4	656.7	571.4	477.2	377.9	276.2	180.5	34.4
57.5°	825.7	815.7	780.8	721.0	643.2	555.9	461.7	361.0	256.8	162.0	23.9
60°	806.7	796.8	762.9	704.5	627.7	538.5	444.8	343.5	239.3	143.6	15.0
62.5°	786.8	777.3	741.9	684.1	608.3	520.0	426.3	326.1	220.9	126.6	9.0
65°	760.4	751.4	719.5	659.7	586.9	500.1	405.9	305.1	201.9	107.7	5.0
67.5°	732.4	724.5	692.1	637.2	561.9	478.2	384.9	284.7	182.0	91.2	2.5
70°	702.5	692.6	662.6	606.8	536.5	453.2	362.0	263.8	163.0	75.3	0.0
72.5°	667.6	660.2	631.2	578.4	507.1	426.8	338.6	240.8	142.1	59.8	0.5
75°	633.7	624.3	597.8	548.0	478.2	398.9	312.6	219.4	121.7	45.9	0.5
77.5°	589.8	586.9	561.9	513.6	450.7	372.0	284.2	193.5	102.2	32.9	0.5
80°	546.0	543.0	523.5	479.2	418.8	340.0	257.8	169.0	83.3	21.9	0.5
82.5°	502.6	498.6	480.2	443.3	386.4	313.1	230.4	144.6	65.8	13.5	0.5
85°	463.7	458.7	438.8	404.9	353.0	282.7	201.9	120.7	48.9	7.5	1.0
87.5°	430.3	426.8	404.9	370.0	319.1	254.3	177.0	97.7	34.4	3.5	1.5
90°	401.9	394.4	375.0	338.1	287.2	222.9	150.6	78.3	22.9	2.0	2.0
92.5°	374.0	367.5	346.0	308.1	258.8	196.0	125.1	59.8	14.5	1.0	2.5
95°	345.0	338.1	317.1	282.2	229.9	168.5	102.7	43.9	8.0	1.0	2.5
97.5°	316.6	310.1	288.2	253.3	203.9	144.6	81.3	30.9	4.0	1.0	2.0
100°	290.2	282.7	262.8	227.9	178.0	120.7	62.8	19.9	2.5	1.0	2.0
102.5°	262.3	256.3	235.8	201.9	151.1	98.2	46.9	12.5	1.0	1.0	1.5
105°	237.3	229.9	209.9	175.0	128.6	77.3	32.9	7.5	1.0	1.0	1.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	154.6	148.6	131.1	101.7	65.3	30.4	9.0	1.5	1.5	1.5	1.5
115°	129.1	120.2	104.7	78.8	48.4	19.9	4.5	1.5	1.5	1.5	1.5
117.5°	103.2	95.7	84.8	59.8	31.9	13.0	2.5	1.5	1.5	1.5	1.5
120°	80.8	73.8	61.3	41.4	21.4	7.5	1.0	1.5	1.5	1.5	1.5
122.5°	57.8	52.4	41.4	26.9	13.0	3.5	1.5	1.5	2.0	2.0	1.5
125°	38.4	35.4	27.4	16.5	8.0	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	24.9	22.4	16.0	9.5	3.5	1.5	1.5	2.0	2.0	2.0	1.5
130°	14.0	12.5	9.5	5.5	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	8.0	7.5	5.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0
135°	2.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.5	2.5	2.5	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
160°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
162.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.5
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.0
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	391.4	391.4	391.4
2.5°	372.5	365.5	363.5
5°	352.5	341.0	334.6
7.5°	332.6	317.1	309.6
10°	314.1	292.2	284.2
12.5°	292.2	266.8	254.3
15°	271.2	238.3	226.4
17.5°	247.8	210.9	196.9
20°	225.9	183.5	169.0
22.5°	200.9	156.6	140.6
25°	178.5	129.6	111.7
27.5°	153.6	102.2	86.8
30°	130.1	78.3	62.8
32.5°	107.7	57.3	43.4
35°	86.8	38.9	27.4
37.5°	66.8	23.9	14.0
40°	48.4	12.5	6.5
42.5°	32.4	6.0	3.5
45°	19.9	3.0	0.0
47.5°	11.5	0.0	0.0
50°	6.0	0.0	0.0
52.5°	2.5	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°	0.5	0.5	0.5
77.5°	0.5	1.0	1.5
80°	1.0	2.0	2.5
82.5°	2.0	2.5	2.5
85°	2.0	2.5	3.0
87.5°	2.5	3.0	3.5
90°	3.0	3.5	3.5
92.5°	3.0	4.0	4.0
95°	3.5	4.0	4.5
97.5°	4.0	4.5	4.5
100°	3.5	4.5	5.0
102.5°	3.0	4.5	4.5
105°	2.5	3.5	4.0





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.0	2.5	2.5
115°	1.5	2.0	2.5
117.5°	1.5	2.0	2.0
120°	1.5	1.5	2.0
122.5°	1.5	1.5	2.0
125°	1.5	1.5	2.0
127.5°	2.0	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.0	1.5	1.5
135°	2.0	1.5	1.5
137.5°	2.0	1.5	1.5
140°	2.0	1.5	1.5
142.5°	2.0	1.5	1.5
145°	1.5	1.5	1.5
147.5°	1.5	1.5	1.5
150°	1.5	1.5	1.0
152.5°	1.5	1.0	1.0
155°	1.5	1.0	0.5
157.5°	2.0	1.0	0.5
160°	1.5	1.0	0.5
162.5°	1.5	1.0	0.5
165°	1.5	1.0	0.0
167.5°	1.5	1.0	0.5
170°	1.5	1.0	0.5
172.5°	1.5	1.0	0.5
175°	1.5	0.5	0.5
177.5°	1.5	0.5	0.5
180°	1.5	1.5	1.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	209.4	203.4	183.5	150.6	105.2	58.8	21.9	4.0	1.0	1.5	1.5
110°	182.5	177.5	157.1	125.1	84.8	43.9	14.5	2.5	1.5	1.5	1.5







107.5°	2.0	3.0	3.5
110°	2.0	2.5	3.0



(END OF REPORT)