

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: P550614

Luminaire Tested: **FCC-X-2-LD4-1HI-40-UNV-93-97-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: P550614  
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-40-UNV-93-97-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K,  
AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

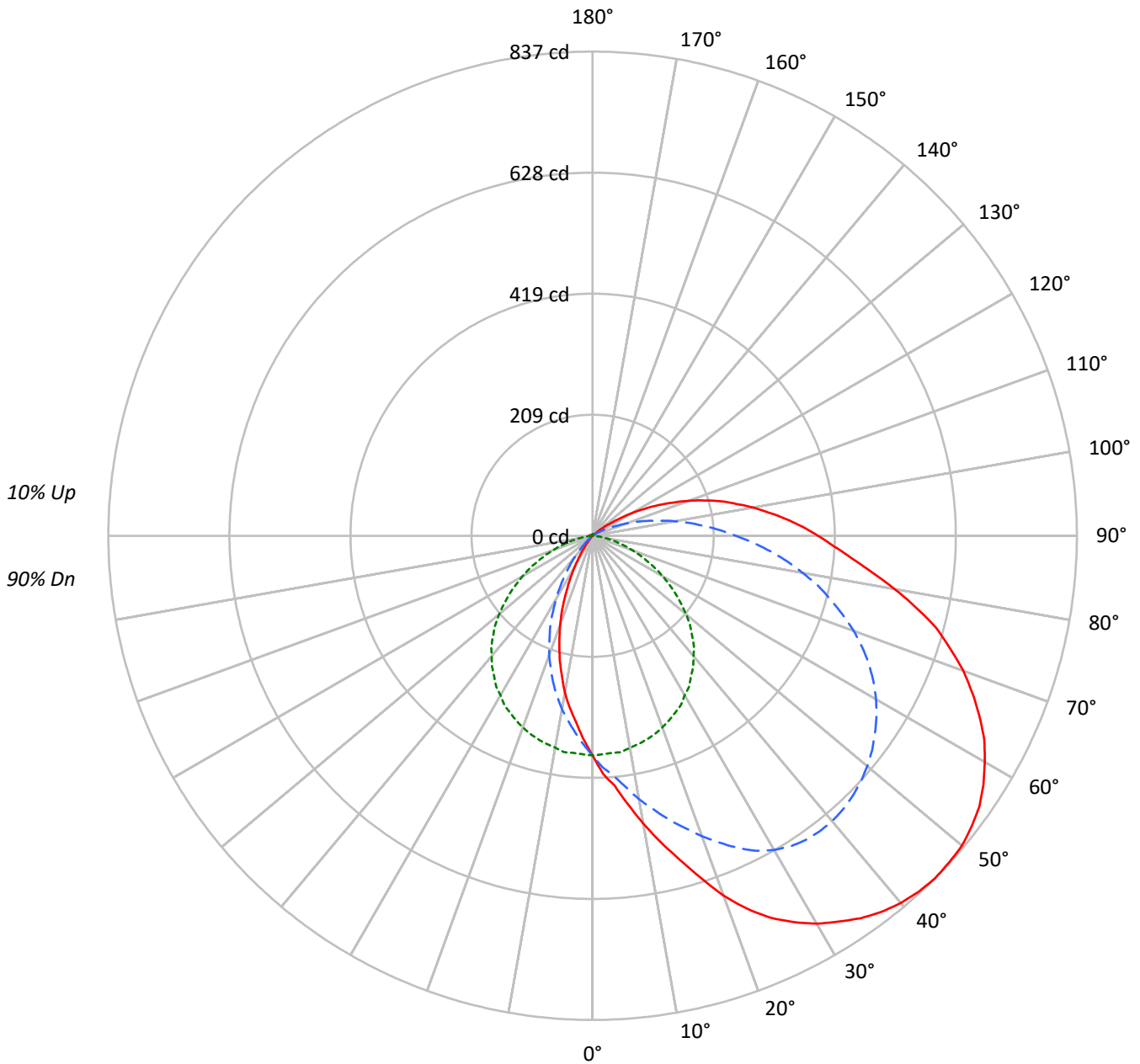
Lumens per Lamp: N/A  
Luminaire Lumens: 1877.1 lumens  
Efficiency: N/A  
Efficacy: 86.5 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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-40-UNV-93-97-ED1D

### 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°	4087	4087	4087
5°	4487	4027	3359
10°	5076	3977	2769
15°	5689	3927	2158
20°	6416	3863	1589
25°	7020	3789	1043
30°	7468	3689	587
35°	7856	3583	259
40°	8201	3450	62
45°	8496	3285	0
50°	8744	3066	0
55°	8933	2788	0
60°	9029	2465	0
65°	9066	2099	0
70°	9035	1710	0
75°	8920	1262	7
80°	8559	773	39
85°	8273	371	53



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.4	1.9
10°-20°	108.9	5.8
20°-30°	176.3	9.4
30°-40°	226.5	12.1
40°-50°	256.4	13.7
50°-60°	265.7	14.2
60°-70°	250.5	13.3
70°-80°	210.0	11.2
80°-90°	152.2	8.1
90°-100°	100.0	5.3
100°-110°	57.8	3.1
110°-120°	25.5	1.4
120°-130°	6.9	0.4
130°-140°	1.6	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	321.6	17.1
0°-40°	548.1	29.2
0°-60°	1070.2	57.0
0°-90°	1682.9	89.7
90°-120°	183.3	9.8
90°-150°	192.9	10.3
90°-180°	194.0	10.3
0°-180°	1877.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	380	380	380	380	380	
5°	433	416	377	342	324	44
15°	579	508	364	263	220	167
25°	729	596	338	173	108	337
35°	807	642	296	84	27	506
45°	837	636	243	19	0	646
55°	816	596	175	0	0	729
65°	738	527	104	0	0	730
75°	615	425	44	0	0	645
85°	450	308	7	2	3	384
90°	390	247	2	3	3	214
95°	335	193	1	3	4	263
105°	230	100	1	2	4	243
115°	125	33	2	2	2	125
125°	37	5	2	2	2	37
135°	2	2	2	2	2	3
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°	379.7	379.7	379.7	379.7	379.7	379.7	379.7	379.7	379.7	379.7	379.7
2.5°	411.6	411.1	409.7	407.2	403.9	398.1	393.2	388.9	383.1	378.2	369.0
5°	433.4	430.9	429.0	426.6	418.8	413.5	404.8	395.1	386.0	376.8	358.4
7.5°	468.2	464.3	461.4	454.6	444.0	431.9	418.4	409.2	402.9	377.3	345.8
10°	505.4	502.0	496.2	484.1	471.1	453.7	434.3	412.6	393.2	371.9	334.7
12.5°	542.2	537.3	529.1	513.6	495.3	473.5	446.9	421.3	393.7	368.5	321.6
15°	578.9	573.6	564.9	546.1	521.9	493.3	460.9	428.5	396.1	364.2	308.1
17.5°	619.1	611.8	598.8	577.5	547.0	511.7	473.5	434.3	395.1	358.9	293.6
20°	662.1	652.0	637.9	609.4	573.6	532.0	486.1	440.1	394.7	352.6	277.1
22.5°	697.9	687.8	672.3	642.8	599.7	549.0	496.7	444.0	392.7	345.3	261.7
25°	728.9	720.7	703.7	669.9	624.4	566.8	506.9	446.9	389.8	337.6	245.2
27.5°	753.1	745.3	726.5	691.6	645.2	582.8	514.6	448.4	386.0	329.9	228.3
30°	774.3	766.6	743.9	708.1	659.2	595.4	522.4	448.8	381.1	318.2	209.9
32.5°	790.8	783.5	760.3	722.1	668.9	604.1	526.7	448.4	374.8	310.0	190.1
35°	807.2	800.0	772.9	732.3	676.2	608.0	530.1	445.9	367.1	296.5	171.2
37.5°	819.8	811.6	784.0	739.0	679.5	608.9	529.6	442.5	358.9	285.4	152.4
40°	828.5	819.8	790.3	742.9	680.5	607.5	525.7	436.7	349.2	271.3	132.5
42.5°	834.3	824.6	793.2	748.7	678.6	603.6	519.9	429.5	338.6	259.2	113.7
45°	837.2	827.1	793.7	743.9	675.2	596.4	511.2	420.3	327.0	242.8	94.8
47.5°	835.8	824.6	791.3	738.5	668.9	588.6	501.6	409.2	312.9	228.3	76.9
50°	833.3	821.7	785.9	731.8	660.2	578.9	490.9	395.6	298.4	210.4	60.9
52.5°	825.6	814.0	780.1	722.1	650.0	567.8	476.4	381.6	282.9	193.0	46.4
55°	815.9	805.3	770.0	713.4	637.0	554.3	462.9	366.6	267.9	175.1	33.4
57.5°	800.9	791.3	757.4	699.4	623.9	539.3	447.9	350.2	249.1	157.2	23.2
60°	782.6	772.9	740.0	683.4	608.9	522.4	431.4	333.2	232.2	139.3	14.5
62.5°	763.2	754.0	719.7	663.6	590.1	504.5	413.5	316.3	214.3	122.8	8.7
65°	737.6	728.9	697.9	639.9	569.3	485.1	393.7	296.0	195.9	104.5	4.8
67.5°	710.5	702.8	671.3	618.1	545.1	463.8	373.4	276.2	176.5	88.5	2.4
70°	681.5	671.8	642.8	588.6	520.4	439.6	351.1	255.9	158.2	73.0	0.0
72.5°	647.6	640.4	612.3	561.0	491.9	414.0	328.4	233.6	137.8	58.0	0.5
75°	614.7	605.5	579.9	531.5	463.8	386.9	303.3	212.8	118.0	44.5	0.5
77.5°	572.2	569.3	545.1	498.2	437.2	360.8	275.7	187.7	99.2	31.9	0.5
80°	529.6	526.7	507.8	464.8	406.3	329.9	250.1	164.0	80.8	21.3	0.5
82.5°	487.5	483.7	465.8	430.0	374.8	303.7	223.5	140.3	63.8	13.1	0.5
85°	449.8	445.0	425.6	392.7	342.4	274.2	195.9	117.0	47.4	7.3	1.0
87.5°	417.4	414.0	392.7	358.9	309.5	246.7	171.7	94.8	33.4	3.4	1.5
90°	389.8	382.6	363.7	327.9	278.6	216.2	146.1	75.9	22.2	1.9	1.9
92.5°	362.7	356.5	335.7	298.9	251.0	190.1	121.4	58.0	14.0	1.0	2.4
95°	334.7	327.9	307.6	273.8	223.0	163.5	99.6	42.6	7.7	1.0	2.4
97.5°	307.1	300.8	279.6	245.7	197.8	140.3	78.8	30.0	3.9	1.0	1.9
100°	281.5	274.2	254.9	221.0	172.7	117.0	60.9	19.3	2.4	1.0	1.9
102.5°	254.4	248.6	228.8	195.9	146.5	95.3	45.5	12.1	1.0	1.0	1.5
105°	230.2	223.0	203.6	169.8	124.8	75.0	31.9	7.3	1.0	1.0	1.5



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CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-93-97-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	149.9	144.1	127.2	98.7	63.4	29.5	8.7	1.5	1.5	1.5	1.5
115°	125.3	116.6	101.6	76.4	46.9	19.3	4.4	1.5	1.5	1.5	1.5
117.5°	100.1	92.9	82.2	58.0	31.0	12.6	2.4	1.5	1.5	1.5	1.5
120°	78.4	71.6	59.5	40.1	20.8	7.3	1.0	1.5	1.5	1.5	1.5
122.5°	56.1	50.8	40.1	26.1	12.6	3.4	1.5	1.5	1.9	1.9	1.5
125°	37.2	34.3	26.6	16.0	7.7	1.5	1.5	1.5	1.9	1.9	1.5
127.5°	24.2	21.8	15.5	9.2	3.4	1.5	1.5	1.9	1.9	1.9	1.5
130°	13.5	12.1	9.2	5.3	1.5	1.5	1.5	1.9	1.9	1.9	1.5
132.5°	7.7	7.3	4.8	1.0	1.5	1.5	1.5	1.9	1.9	1.9	1.9
135°	1.9	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	1.0	1.5	1.5	1.5	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	1.0	1.0	1.5	1.5	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	1.0	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	1.0	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	1.9	1.9	1.9	1.9
165°	1.0	1.0	1.0	1.0	1.5	1.5	1.9	1.9	1.9	1.9	1.9
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	1.9	1.9	1.9	1.9	1.9
170°	1.0	1.0	1.0	1.5	1.5	1.5	1.9	2.4	2.4	2.4	2.4
172.5°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	2.4	2.4
175°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	2.4	1.9
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°	379.7	379.7	379.7
2.5°	361.3	354.5	352.6
5°	341.9	330.8	324.5
7.5°	322.6	307.6	300.4
10°	304.7	283.4	275.7
12.5°	283.4	258.8	246.7
15°	263.1	231.2	219.6
17.5°	240.4	204.6	191.0
20°	219.1	178.0	164.0
22.5°	194.9	151.9	136.4
25°	173.1	125.8	108.3
27.5°	149.0	99.2	84.2
30°	126.2	75.9	60.9
32.5°	104.5	55.6	42.1
35°	84.2	37.7	26.6
37.5°	64.8	23.2	13.5
40°	46.9	12.1	6.3
42.5°	31.4	5.8	3.4
45°	19.3	2.9	0.0
47.5°	11.1	0.0	0.0
50°	5.8	0.0	0.0
52.5°	2.4	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	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.9
87.5°	2.4	2.9	3.4
90°	2.9	3.4	3.4
92.5°	2.9	3.9	3.9
95°	3.4	3.9	4.4
97.5°	3.9	4.4	4.4
100°	3.4	4.4	4.8
102.5°	2.9	4.4	4.4
105°	2.4	3.4	3.9





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CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-93-97-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.5	1.9	2.4
117.5°	1.5	1.9	1.9
120°	1.5	1.5	1.9
122.5°	1.5	1.5	1.9
125°	1.5	1.5	1.9
127.5°	1.9	1.5	1.5
130°	1.5	1.5	1.5
132.5°	1.9	1.5	1.5
135°	1.9	1.5	1.5
137.5°	1.9	1.5	1.5
140°	1.9	1.5	1.5
142.5°	1.9	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°	1.9	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°	203.1	197.3	178.0	146.1	102.1	57.1	21.3	3.9	1.0	1.5	1.5
110°	177.0	172.2	152.4	121.4	82.2	42.6	14.0	2.4	1.5	1.5	1.5







107.5°	1.9	2.9	3.4
110°	1.9	2.4	2.9



(END OF REPORT)