

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: P550476

Luminaire Tested: **FCC-X-2-LD4-1HI-30-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: P550476  
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-93-86-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

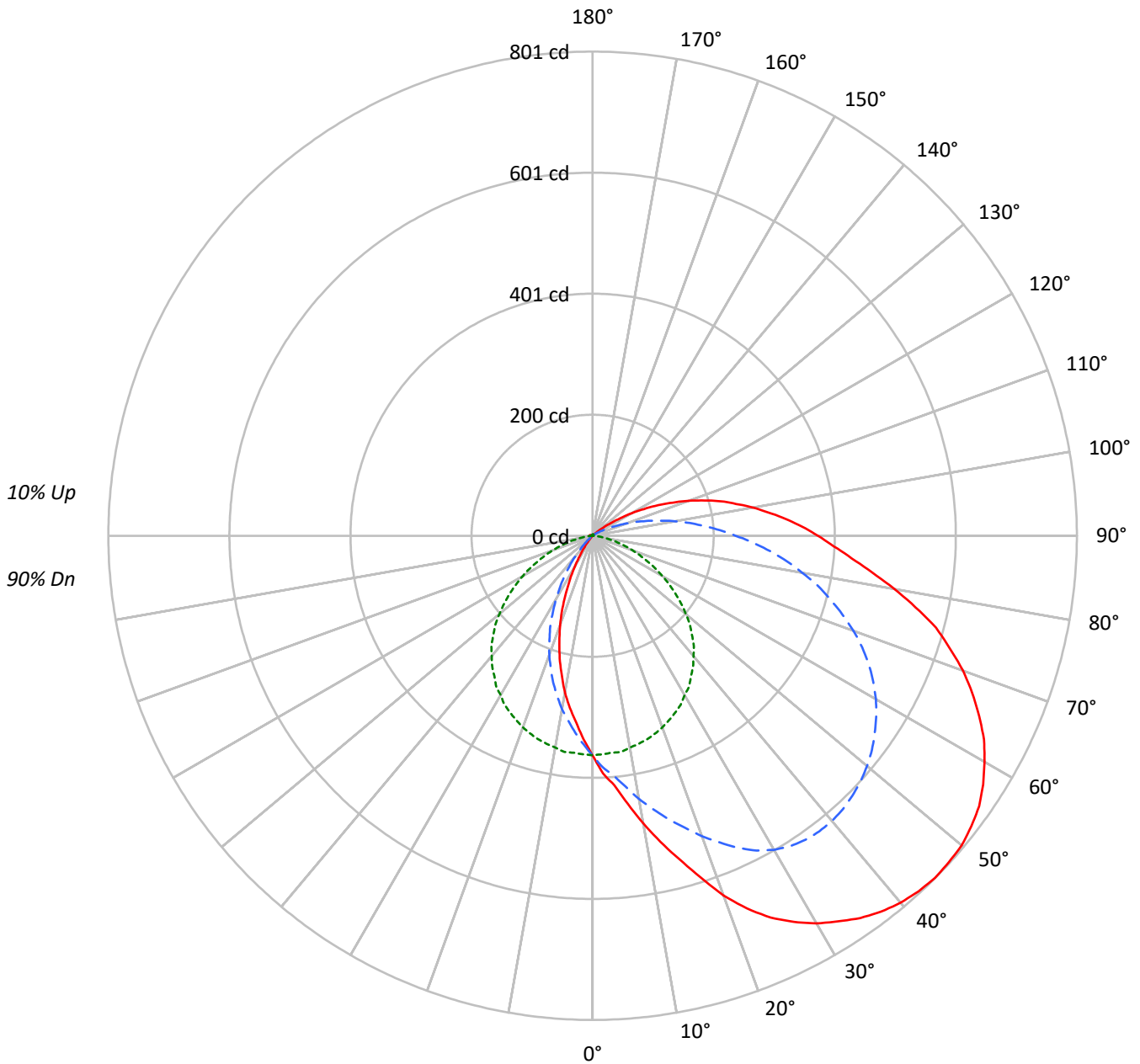
Lumens per Lamp: N/A  
Luminaire Lumens: 1795.1 lumens  
Efficiency: N/A  
Efficacy: 82.7 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P550476

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-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°	3908	3908	3908
5°	4290	3851	3213
10°	4854	3804	2648
15°	5440	3756	2064
20°	6136	3694	1520
25°	6713	3623	998
30°	7142	3528	562
35°	7514	3425	247
40°	7843	3300	59
45°	8125	3142	0
50°	8362	2932	0
55°	8543	2666	0
60°	8634	2357	0
65°	8670	2007	0
70°	8640	1635	0
75°	8531	1208	7
80°	8185	740	37
85°	7912	351	51



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.8	1.9
10°-20°	104.1	5.8
20°-30°	168.6	9.4
30°-40°	216.6	12.1
40°-50°	245.2	13.7
50°-60°	254.0	14.2
60°-70°	239.6	13.3
70°-80°	200.8	11.2
80°-90°	145.5	8.1
90°-100°	95.7	5.3
100°-110°	55.2	3.1
110°-120°	24.4	1.4
120°-130°	6.6	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	307.5	17.1
0°-40°	524.2	29.2
0°-60°	1023.4	57.0
0°-90°	1609.4	89.7
90°-120°	175.3	9.8
90°-150°	184.4	10.3
90°-180°	186.0	10.4
0°-180°	1795.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	363	363	363	363	363	
5°	414	398	360	327	310	42
15°	554	485	348	252	210	160
25°	697	570	323	166	104	322
35°	772	614	284	80	25	484
45°	801	608	232	18	0	618
55°	780	570	167	0	0	697
65°	705	504	100	0	0	698
75°	588	407	43	0	0	617
85°	430	295	7	2	3	367
90°	373	237	2	3	3	204
95°	320	185	1	3	4	251
105°	220	96	1	2	4	232
115°	120	32	1	1	2	120
125°	36	4	2	1	2	36
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°	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1
2.5°	393.6	393.1	391.8	389.4	386.2	380.7	376.0	371.9	366.3	361.7	352.9
5°	414.4	412.1	410.3	408.0	400.6	395.5	387.1	377.9	369.1	360.3	342.7
7.5°	447.7	444.0	441.3	434.8	424.6	413.0	400.1	391.3	385.3	360.8	330.7
10°	483.3	480.1	474.6	463.0	450.5	433.9	415.4	394.5	376.0	355.7	320.1
12.5°	518.5	513.9	506.0	491.2	473.6	452.8	427.4	402.9	376.5	352.4	307.6
15°	553.6	548.6	540.2	522.2	499.1	471.8	440.8	409.8	378.8	348.3	294.6
17.5°	592.0	585.1	572.6	552.3	523.1	489.4	452.8	415.4	377.9	343.2	280.8
20°	633.2	623.5	610.1	582.8	548.6	508.8	464.8	420.9	377.4	337.2	265.0
22.5°	667.4	657.7	642.9	614.7	573.5	525.0	475.0	424.6	375.6	330.2	250.2
25°	697.0	689.2	673.0	640.6	597.1	542.1	484.7	427.4	372.8	322.8	234.5
27.5°	720.2	712.8	694.7	661.4	617.0	557.3	492.1	428.8	369.1	315.4	218.3
30°	740.5	733.1	711.4	677.1	630.4	569.4	499.5	429.2	364.5	304.3	200.7
32.5°	756.2	749.3	727.1	690.6	639.7	577.7	503.7	428.8	358.5	296.5	181.8
35°	772.0	765.0	739.1	700.3	646.6	581.4	506.9	426.5	351.1	283.5	163.7
37.5°	784.0	776.1	749.8	706.7	649.9	582.3	506.5	423.2	343.2	272.9	145.7
40°	792.3	784.0	755.8	710.4	650.8	580.9	502.8	417.7	333.9	259.5	126.7
42.5°	797.9	788.6	758.5	716.0	648.9	577.2	497.2	410.7	323.8	247.9	108.7
45°	800.6	790.9	759.0	711.4	645.7	570.3	488.9	401.9	312.7	232.2	90.7
47.5°	799.3	788.6	756.7	706.3	639.7	562.9	479.6	391.3	299.3	218.3	73.5
50°	796.9	785.8	751.6	699.8	631.4	553.6	469.5	378.3	285.4	201.2	58.3
52.5°	789.5	778.4	746.1	690.6	621.6	543.0	455.6	364.9	270.6	184.5	44.4
55°	780.3	770.1	736.3	682.2	609.2	530.1	442.6	350.6	256.2	167.4	31.9
57.5°	765.9	756.7	724.3	668.8	596.7	515.7	428.3	334.9	238.2	150.3	22.2
60°	748.4	739.1	707.7	653.6	582.3	499.5	412.6	318.7	222.0	133.2	13.9
62.5°	729.9	721.1	688.2	634.6	564.3	482.4	395.5	302.5	204.9	117.5	8.3
65°	705.4	697.0	667.4	611.9	544.4	463.9	376.5	283.1	187.3	99.9	4.6
67.5°	679.5	672.1	642.0	591.1	521.3	443.6	357.1	264.1	168.8	84.6	2.3
70°	651.7	642.5	614.7	562.9	497.7	420.4	335.8	244.7	151.2	69.8	0.0
72.5°	619.3	612.4	585.6	536.5	470.4	395.9	314.1	223.4	131.8	55.5	0.5
75°	587.9	579.1	554.6	508.3	443.6	370.0	290.0	203.5	112.9	42.6	0.5
77.5°	547.2	544.4	521.3	476.4	418.1	345.0	263.6	179.5	94.8	30.5	0.5
80°	506.5	503.7	485.7	444.5	388.5	315.4	239.1	156.8	77.2	20.4	0.5
82.5°	466.2	462.5	445.4	411.2	358.5	290.5	213.7	134.1	61.1	12.5	0.5
85°	430.2	425.5	407.0	375.6	327.5	262.3	187.3	111.9	45.3	6.9	0.9
87.5°	399.2	395.9	375.6	343.2	296.0	235.9	164.2	90.7	31.9	3.2	1.4
90°	372.8	365.9	347.8	313.6	266.4	206.8	139.7	72.6	21.3	1.9	1.9
92.5°	346.9	340.9	321.0	285.8	240.1	181.8	116.1	55.5	13.4	0.9	2.3
95°	320.1	313.6	294.2	261.8	213.2	156.3	95.3	40.7	7.4	0.9	2.3
97.5°	293.7	287.7	267.3	235.0	189.2	134.1	75.4	28.7	3.7	0.9	1.9
100°	269.2	262.3	243.8	211.4	165.1	111.9	58.3	18.5	2.3	0.9	1.9
102.5°	243.3	237.7	218.8	187.3	140.1	91.1	43.5	11.6	0.9	0.9	1.4
105°	220.2	213.2	194.7	162.3	119.3	71.7	30.5	6.9	0.9	0.9	1.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	143.4	137.8	121.6	94.4	60.6	28.2	8.3	1.4	1.4	1.4	1.4
115°	119.8	111.5	97.1	73.1	44.9	18.5	4.2	1.4	1.4	1.4	1.4
117.5°	95.7	88.8	78.6	55.5	29.6	12.0	2.3	1.4	1.4	1.4	1.4
120°	74.9	68.5	56.9	38.4	19.9	6.9	0.9	1.4	1.4	1.4	1.4
122.5°	53.7	48.6	38.4	25.0	12.0	3.2	1.4	1.4	1.9	1.9	1.4
125°	35.6	32.8	25.4	15.3	7.4	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.1	20.8	14.8	8.8	3.2	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.0	11.6	8.8	5.1	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.4	6.9	4.6	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.9	2.3	2.3	2.3	1.9
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.9	2.3	2.3	2.3	1.9
142.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9	1.9
145°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	1.9	1.9	1.9
147.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9	1.9
150°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	1.9
152.5°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	1.9
155°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	2.3
157.5°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	2.3
160°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	2.3	2.3	2.3	2.3
172.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	2.3
175°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	2.3
177.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	1.9
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	363.1	363.1	363.1
2.5°	345.5	339.0	337.2
5°	327.0	316.4	310.4
7.5°	308.5	294.2	287.2
10°	291.4	271.0	263.6
12.5°	271.0	247.5	235.9
15°	251.6	221.1	210.0
17.5°	229.9	195.6	182.7
20°	209.5	170.2	156.8
22.5°	186.4	145.2	130.4
25°	165.6	120.3	103.6
27.5°	142.5	94.8	80.5
30°	120.7	72.6	58.3
32.5°	99.9	53.2	40.2
35°	80.5	36.1	25.4
37.5°	62.0	22.2	13.0
40°	44.9	11.6	6.0
42.5°	30.1	5.6	3.2
45°	18.5	2.8	0.0
47.5°	10.6	0.0	0.0
50°	5.6	0.0	0.0
52.5°	2.3	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	0.9	1.4
80°	0.9	1.9	2.3
82.5°	1.9	2.3	2.3
85°	1.9	2.3	2.8
87.5°	2.3	2.8	3.2
90°	2.8	3.2	3.2
92.5°	2.8	3.7	3.7
95°	3.2	3.7	4.2
97.5°	3.7	4.2	4.2
100°	3.2	4.2	4.6
102.5°	2.8	4.2	4.2
105°	2.3	3.2	3.7





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.9	2.3	2.3
115°	1.4	1.9	2.3
117.5°	1.4	1.9	1.9
120°	1.4	1.4	1.9
122.5°	1.4	1.4	1.9
125°	1.4	1.4	1.9
127.5°	1.9	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.9	1.4	1.4
135°	1.9	1.4	1.4
137.5°	1.9	1.4	1.4
140°	1.9	1.4	1.4
142.5°	1.9	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.9	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	194.3	188.7	170.2	139.7	97.6	54.6	20.4	3.7	0.9	1.4	1.4
110°	169.3	164.7	145.7	116.1	78.6	40.7	13.4	2.3	1.4	1.4	1.4







107.5°	1.9	2.8	3.2
110°	1.9	2.3	2.8



(END OF REPORT)