

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: P551564

Luminaire Tested: **FCC-X-2-LD4-2LO-35-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: P551564
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-35-UNV-93-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

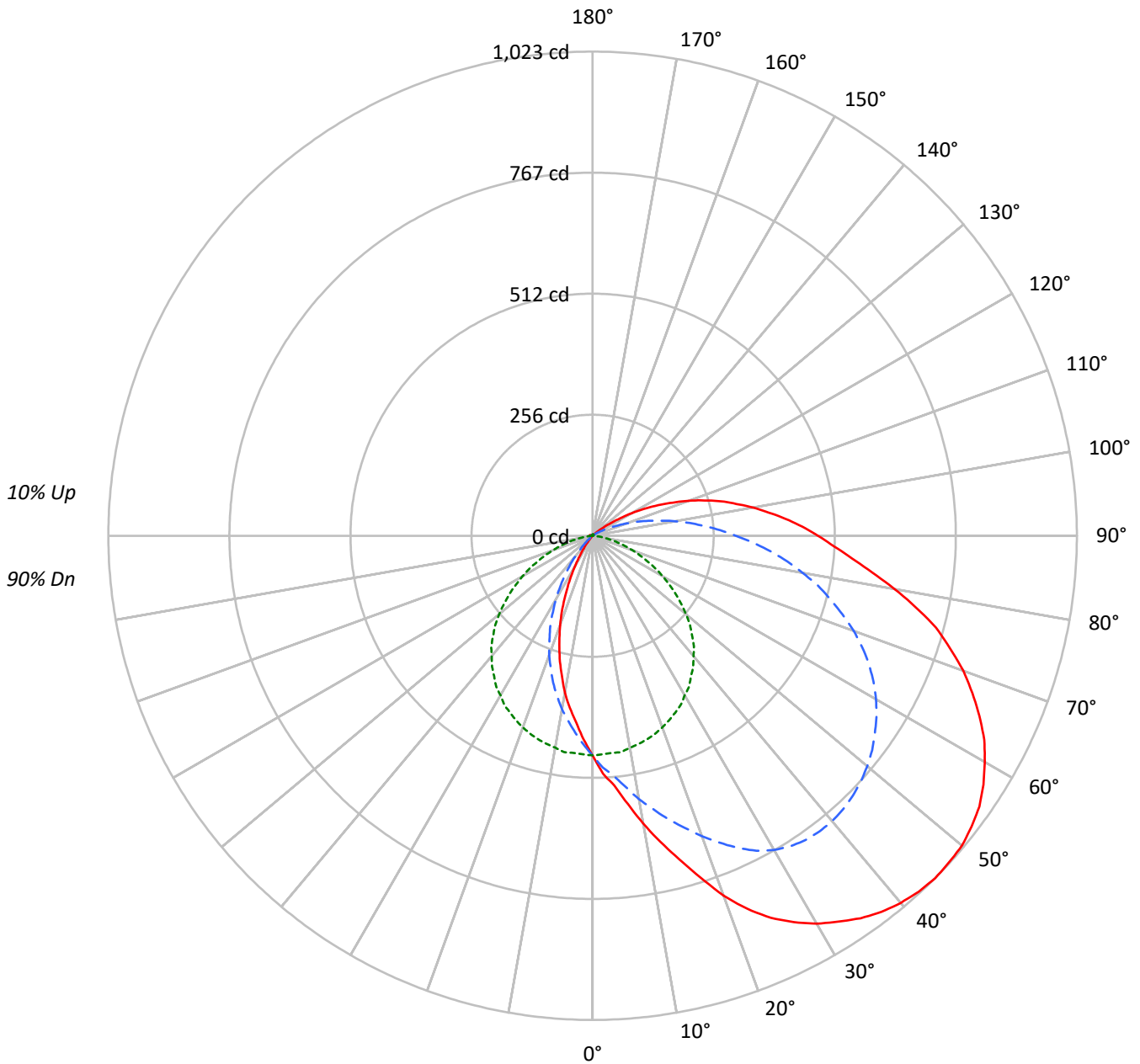
Lumens per Lamp: N/A
Luminaire Lumens: 2294.1 lumens
Efficiency: N/A
Efficacy: 97.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (A_{in}): 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: P551564

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-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	70	70	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	56	56	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	46	46	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	38	38	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	33	33	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	28	28	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	25	25	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	22	22	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	20	20	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	18	18	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4994	4994	4994
5°	5483	4922	4106
10°	6204	4862	3384
15°	6954	4799	2638
20°	7842	4721	1942
25°	8579	4630	1275
30°	9128	4509	719
35°	9602	4379	316
40°	10023	4217	76
45°	10384	4015	0
50°	10687	3747	0
55°	10918	3408	0
60°	11034	3012	0
65°	11079	2565	0
70°	11043	2092	0
75°	10902	1543	9
80°	10461	943	48
85°	10110	453	64



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.4	1.9
10°-20°	133.1	5.8
20°-30°	215.5	9.4
30°-40°	276.9	12.1
40°-50°	313.4	13.7
50°-60°	324.7	14.2
60°-70°	306.2	13.3
70°-80°	256.6	11.2
80°-90°	186.0	8.1
90°-100°	122.2	5.3
100°-110°	70.6	3.1
110°-120°	31.2	1.4
120°-130°	8.5	0.4
130°-140°	2.0	0.1
140°-150°	1.3	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	393.0	17.1
0°-40°	669.9	29.2
0°-60°	1308.0	57.0
0°-90°	2056.8	89.7
90°-120°	224.0	9.8
90°-150°	235.7	10.3
90°-180°	237.0	10.3
0°-180°	2294.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	464	464	464	464	464	
5°	530	509	460	418	397	53
15°	708	620	445	322	268	204
25°	891	728	413	212	132	412
35°	987	785	362	103	32	619
45°	1023	777	297	24	0	790
55°	997	728	214	0	0	890
65°	901	644	128	0	0	892
75°	751	520	54	1	1	788
85°	550	377	9	2	4	469
90°	476	302	2	4	4	261
95°	409	236	1	4	5	321
105°	281	122	1	3	5	297
115°	153	40	2	2	3	153
125°	46	6	2	2	2	46
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°	464.0	464.0	464.0	464.0	464.0	464.0	464.0	464.0	464.0	464.0	464.0
2.5°	503.0	502.4	500.7	497.7	493.6	486.5	480.6	475.3	468.2	462.2	451.0
5°	529.6	526.7	524.3	521.4	511.9	505.4	494.8	482.9	471.7	460.5	438.0
7.5°	572.2	567.5	563.9	555.6	542.6	527.9	511.3	500.1	492.4	461.1	422.6
10°	617.7	613.6	606.5	591.7	575.7	554.5	530.8	504.2	480.6	454.6	409.0
12.5°	662.6	656.7	646.7	627.8	605.3	578.7	546.2	514.9	481.2	450.4	393.1
15°	707.6	701.1	690.4	667.4	637.8	602.9	563.3	523.7	484.1	445.1	376.5
17.5°	756.6	747.8	731.8	705.8	668.5	625.4	578.7	530.8	482.9	438.6	358.8
20°	809.2	796.8	779.7	744.8	701.1	650.2	594.1	537.9	482.3	430.9	338.7
22.5°	853.0	840.6	821.6	785.6	733.0	670.9	607.1	542.6	480.0	422.1	319.8
25°	890.8	880.8	860.1	818.7	763.1	692.8	619.5	546.2	476.4	412.6	299.7
27.5°	920.4	910.9	887.8	845.3	788.5	712.3	628.9	548.0	471.7	403.1	279.0
30°	946.4	936.9	909.1	865.4	805.7	727.7	638.4	548.5	465.8	389.0	256.5
32.5°	966.5	957.6	929.2	882.5	817.5	738.3	643.7	548.0	458.1	378.9	232.3
35°	986.6	977.7	944.6	894.9	826.4	743.0	647.9	545.0	448.7	362.4	209.3
37.5°	1001.9	991.9	958.2	903.2	830.5	744.2	647.3	540.9	438.6	348.8	186.2
40°	1012.6	1001.9	965.9	907.9	831.7	742.4	642.5	533.8	426.8	331.6	162.0
42.5°	1019.7	1007.8	969.4	915.0	829.3	737.7	635.4	524.9	413.8	316.8	138.9
45°	1023.2	1010.8	970.0	909.1	825.2	728.8	624.8	513.7	399.6	296.7	115.9
47.5°	1021.4	1007.8	967.1	902.6	817.5	719.4	613.0	500.1	382.4	279.0	94.0
50°	1018.5	1004.3	960.6	894.3	806.9	707.6	600.0	483.5	364.7	257.1	74.5
52.5°	1009.0	994.8	953.5	882.5	794.5	694.0	582.2	466.4	345.8	235.9	56.7
55°	997.2	984.2	941.0	871.9	778.5	677.4	565.7	448.1	327.5	214.0	40.8
57.5°	978.9	967.1	925.7	854.7	762.5	659.1	547.4	428.0	304.4	192.1	28.4
60°	956.4	944.6	904.4	835.2	744.2	638.4	527.3	407.3	283.7	170.2	17.7
62.5°	932.8	921.5	879.6	811.0	721.2	616.5	505.4	386.6	261.9	150.1	10.6
65°	901.4	890.8	853.0	782.0	695.7	592.9	481.2	361.8	239.4	127.7	5.9
67.5°	868.3	858.9	820.5	755.4	666.2	566.9	456.3	337.5	215.8	108.2	3.0
70°	832.9	821.1	785.6	719.4	636.0	537.3	429.1	312.7	193.3	89.3	0.0
72.5°	791.5	782.6	748.3	685.7	601.2	506.0	401.4	285.5	168.5	70.9	0.6
75°	751.3	740.1	708.7	649.6	566.9	472.9	370.6	260.1	144.2	54.4	0.6
77.5°	699.3	695.7	666.2	608.8	534.4	441.0	336.9	229.4	121.2	39.0	0.6
80°	647.3	643.7	620.7	568.1	496.5	403.1	305.6	200.4	98.7	26.0	0.6
82.5°	595.8	591.1	569.2	525.5	458.1	371.2	273.1	171.4	78.0	16.0	0.6
85°	549.7	543.8	520.2	480.0	418.5	335.2	239.4	143.0	57.9	8.9	1.2
87.5°	510.1	506.0	480.0	438.6	378.3	301.5	209.8	115.9	40.8	4.1	1.8
90°	476.4	467.6	444.5	400.8	340.5	264.2	178.5	92.8	27.2	2.4	2.4
92.5°	443.3	435.6	410.2	365.3	306.8	232.3	148.4	70.9	17.1	1.2	3.0
95°	409.0	400.8	375.9	334.6	272.5	199.8	121.8	52.0	9.5	1.2	3.0
97.5°	375.4	367.7	341.7	300.3	241.8	171.4	96.4	36.6	4.7	1.2	2.4
100°	344.0	335.2	311.5	270.1	211.0	143.0	74.5	23.6	3.0	1.2	2.4
102.5°	310.9	303.8	279.6	239.4	179.1	116.4	55.6	14.8	1.2	1.2	1.8
105°	281.4	272.5	248.9	207.5	152.5	91.6	39.0	8.9	1.2	1.2	1.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	183.2	176.2	155.5	120.6	77.4	36.1	10.6	1.8	1.8	1.8	1.8
115°	153.1	142.5	124.1	93.4	57.3	23.6	5.3	1.8	1.8	1.8	1.8
117.5°	122.4	113.5	100.5	70.9	37.8	15.4	3.0	1.8	1.8	1.8	1.8
120°	95.8	87.5	72.7	49.1	25.4	8.9	1.2	1.8	1.8	1.8	1.8
122.5°	68.6	62.1	49.1	31.9	15.4	4.1	1.8	1.8	2.4	2.4	1.8
125°	45.5	42.0	32.5	19.5	9.5	1.8	1.8	1.8	2.4	2.4	1.8
127.5°	29.6	26.6	18.9	11.2	4.1	1.8	1.8	2.4	2.4	2.4	1.8
130°	16.6	14.8	11.2	6.5	1.8	1.8	1.8	2.4	2.4	2.4	1.8
132.5°	9.5	8.9	5.9	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4
135°	2.4	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4
137.5°	0.6	0.6	1.2	1.2	1.8	1.8	2.4	3.0	3.0	3.0	2.4
140°	0.6	0.6	1.2	1.8	1.8	1.8	2.4	3.0	3.0	3.0	2.4
142.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4	2.4
145°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	2.4	2.4	2.4
147.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4	2.4
150°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	2.4
152.5°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	2.4
155°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	3.0
157.5°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	3.0
160°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
162.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
165°	1.2	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4
167.5°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4	2.4
170°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	3.0	3.0	3.0	3.0
172.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0
175°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0
177.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	2.4
180°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	464.0	464.0	464.0
2.5°	441.6	433.3	430.9
5°	417.9	404.3	396.6
7.5°	394.3	375.9	367.1
10°	372.4	346.4	336.9
12.5°	346.4	316.2	301.5
15°	321.6	282.6	268.4
17.5°	293.8	250.0	233.5
20°	267.8	217.5	200.4
22.5°	238.2	185.6	166.7
25°	211.6	153.7	132.4
27.5°	182.1	121.2	102.9
30°	154.3	92.8	74.5
32.5°	127.7	68.0	51.4
35°	102.9	46.1	32.5
37.5°	79.2	28.4	16.6
40°	57.3	14.8	7.7
42.5°	38.4	7.1	4.1
45°	23.6	3.5	0.0
47.5°	13.6	0.0	0.0
50°	7.1	0.0	0.0
52.5°	3.0	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	1.2	1.8
80°	1.2	2.4	3.0
82.5°	2.4	3.0	3.0
85°	2.4	3.0	3.5
87.5°	3.0	3.5	4.1
90°	3.5	4.1	4.1
92.5°	3.5	4.7	4.7
95°	4.1	4.7	5.3
97.5°	4.7	5.3	5.3
100°	4.1	5.3	5.9
102.5°	3.5	5.3	5.3
105°	3.0	4.1	4.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.4	3.0	3.0
115°	1.8	2.4	3.0
117.5°	1.8	2.4	2.4
120°	1.8	1.8	2.4
122.5°	1.8	1.8	2.4
125°	1.8	1.8	2.4
127.5°	2.4	1.8	1.8
130°	1.8	1.8	1.8
132.5°	2.4	1.8	1.8
135°	2.4	1.8	1.8
137.5°	2.4	1.8	1.8
140°	2.4	1.8	1.8
142.5°	2.4	1.8	1.8
145°	1.8	1.8	1.8
147.5°	1.8	1.8	1.8
150°	1.8	1.8	1.2
152.5°	1.8	1.2	1.2
155°	1.8	1.2	0.6
157.5°	2.4	1.2	0.6
160°	1.8	1.2	0.6
162.5°	1.8	1.2	0.6
165°	1.8	1.2	0.0
167.5°	1.8	1.2	0.6
170°	1.8	1.2	0.6
172.5°	1.8	1.2	0.6
175°	1.8	0.6	0.6
177.5°	1.8	0.6	0.6
180°	1.8	1.8	1.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	248.3	241.2	217.5	178.5	124.7	69.8	26.0	4.7	1.2	1.8	1.8
110°	216.3	210.4	186.2	148.4	100.5	52.0	17.1	3.0	1.8	1.8	1.8





107.5°	2.4	3.5	4.1
110°	2.4	3.0	3.5



(END OF REPORT)