

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: P551299

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-82-96-ED1D-90**

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: P551299
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-LD4-2HI-35-UNV-82-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

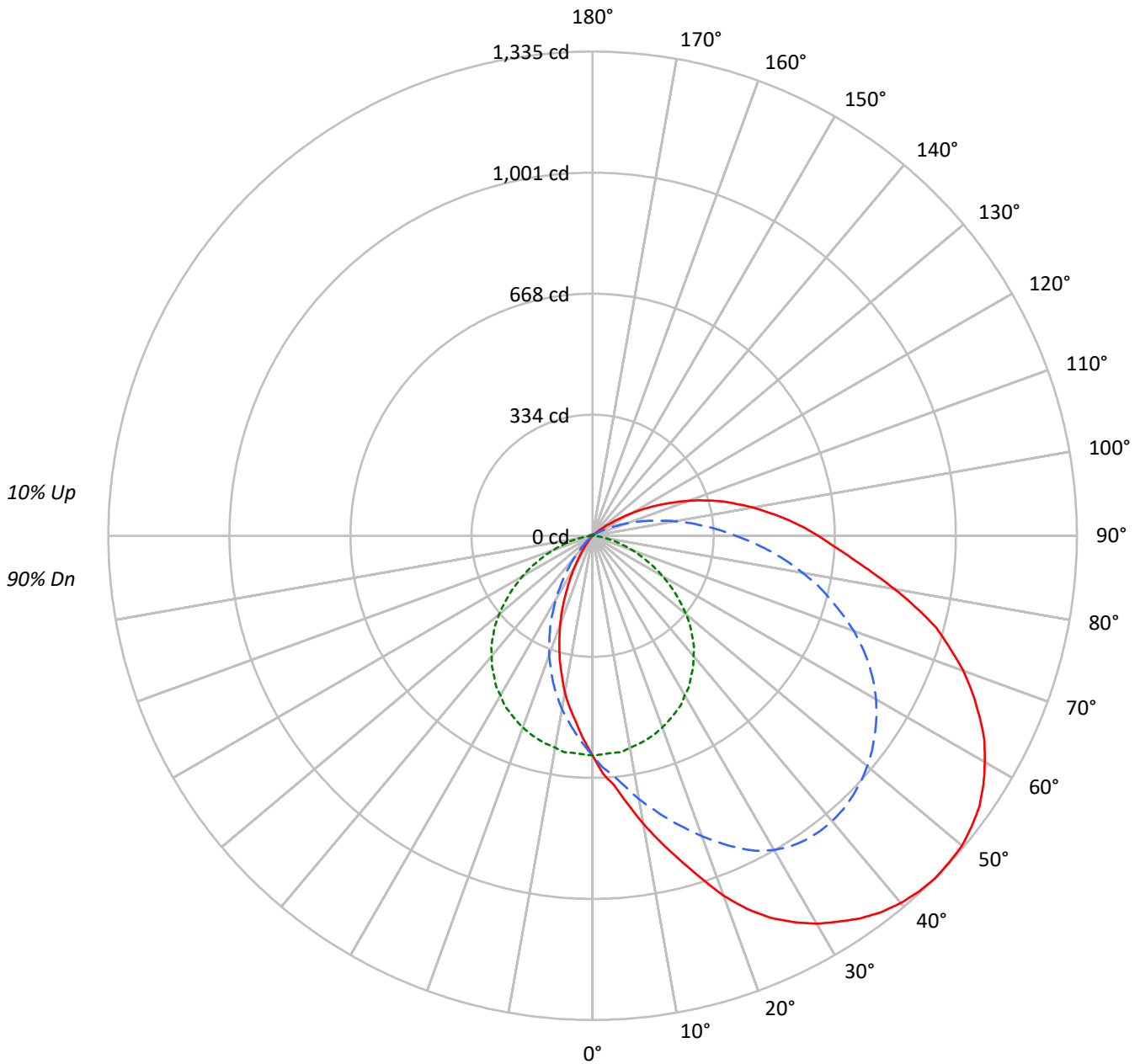
Lumens per Lamp: N/A
Luminaire Lumens: 2994.0 lumens
Efficiency: N/A
Efficacy: 69.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
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: P551299

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-82-96-ED1D-90

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°	6519	6519	6519
5°	7155	6424	5359
10°	8098	6345	4417
15°	9075	6264	3442
20°	10236	6162	2534
25°	11197	6043	1664
30°	11912	5884	937
35°	12532	5714	413
40°	13082	5504	99
45°	13552	5241	0
50°	13948	4891	0
55°	14249	4447	0
60°	14401	3932	0
65°	14460	3346	0
70°	14412	2729	0
75°	14229	2013	12
80°	13653	1230	63
85°	13196	590	85



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.0	1.9
10°-20°	173.7	5.8
20°-30°	281.3	9.4
30°-40°	361.3	12.1
40°-50°	409.0	13.7
50°-60°	423.7	14.2
60°-70°	399.6	13.3
70°-80°	334.9	11.2
80°-90°	242.8	8.1
90°-100°	159.6	5.3
100°-110°	92.1	3.1
110°-120°	40.7	1.4
120°-130°	11.0	0.4
130°-140°	2.5	0.1
140°-150°	1.7	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.2	0.0
0°-30°	513.0	17.1
0°-40°	874.3	29.2
0°-60°	1707.1	57.0
0°-90°	2684.4	89.7
90°-120°	292.4	9.8
90°-150°	307.5	10.3
90°-180°	310.0	10.4
0°-180°	2994.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	606	606	606	606	606	
5°	691	664	601	545	518	70
15°	924	810	581	420	350	266
25°	1163	950	538	276	173	537
35°	1288	1024	473	134	42	808
45°	1335	1014	387	31	0	1031
55°	1302	950	279	0	0	1162
65°	1176	841	167	0	0	1164
75°	981	679	71	1	1	1028
85°	718	492	12	3	5	613
90°	622	395	3	5	5	341
95°	534	308	2	5	7	419
105°	367	159	2	4	6	387
115°	200	53	2	2	4	200
125°	59	7	3	2	3	59
135°	3	2	4	3	2	6
145°	1	3	3	2	2	1
155°	2	3	3	2	1	1
165°	2	2	3	2	0	0
175°	2	3	4	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°	605.6	605.6	605.6	605.6	605.6	605.6	605.6	605.6	605.6	605.6	605.6
2.5°	656.5	655.8	653.4	649.6	644.2	634.9	627.2	620.3	611.0	603.3	588.6
5°	691.2	687.4	684.3	680.4	668.1	659.6	645.7	630.3	615.6	601.0	571.7
7.5°	746.8	740.6	736.0	725.2	708.2	688.9	667.3	652.7	642.6	601.8	551.6
10°	806.2	800.8	791.5	772.3	751.4	723.7	692.8	658.1	627.2	593.3	533.9
12.5°	864.8	857.1	844.0	819.3	790.0	755.3	712.9	672.0	628.0	587.9	513.0
15°	923.5	915.0	901.1	871.0	832.4	786.9	735.2	683.5	631.8	580.9	491.4
17.5°	987.5	975.9	955.1	921.2	872.5	816.2	755.3	692.8	630.3	572.4	468.3
20°	1056.2	1040.0	1017.6	972.1	915.0	848.6	775.3	702.0	629.5	562.4	442.1
22.5°	1113.3	1097.0	1072.4	1025.3	956.6	875.6	792.3	708.2	626.4	550.8	417.4
25°	1162.6	1149.5	1122.5	1068.5	996.0	904.2	808.5	712.9	621.8	538.5	391.1
27.5°	1201.2	1188.9	1158.8	1103.2	1029.2	929.6	820.9	715.2	615.6	526.2	364.1
30°	1235.1	1222.8	1186.5	1129.5	1051.5	949.7	833.2	715.9	607.9	507.6	334.8
32.5°	1261.4	1249.8	1212.8	1151.8	1067.0	963.6	840.1	715.2	597.9	494.5	303.2
35°	1287.6	1276.0	1232.8	1168.0	1078.5	969.8	845.5	711.3	585.6	472.9	273.1
37.5°	1307.7	1294.5	1250.6	1178.8	1083.9	971.3	844.8	705.9	572.4	455.2	243.0
40°	1321.6	1307.7	1260.6	1185.0	1085.5	969.0	838.6	696.6	557.0	432.8	211.4
42.5°	1330.8	1315.4	1265.2	1194.3	1082.4	962.8	829.3	685.1	540.0	413.5	181.3
45°	1335.4	1319.2	1266.0	1186.5	1077.0	951.2	815.5	670.4	521.5	387.3	151.2
47.5°	1333.1	1315.4	1262.1	1178.1	1067.0	938.9	800.0	652.7	499.1	364.1	122.7
50°	1329.3	1310.7	1253.7	1167.3	1053.1	923.5	783.1	631.1	476.0	335.6	97.2
52.5°	1316.9	1298.4	1244.4	1151.8	1036.9	905.7	759.9	608.7	451.3	307.8	74.1
55°	1301.5	1284.5	1228.2	1137.9	1016.0	884.1	738.3	584.8	427.4	279.3	53.2
57.5°	1277.6	1262.1	1208.1	1115.6	995.2	860.2	714.4	558.6	397.3	250.7	37.0
60°	1248.3	1232.8	1180.4	1090.1	971.3	833.2	688.2	531.6	370.3	222.2	23.1
62.5°	1217.4	1202.7	1148.0	1058.5	941.2	804.7	659.6	504.6	341.8	196.0	13.9
65°	1176.5	1162.6	1113.3	1020.7	908.0	773.8	628.0	472.1	312.5	166.6	7.7
67.5°	1133.3	1121.0	1070.8	986.0	869.5	739.9	595.6	440.5	281.6	141.2	3.9
70°	1087.0	1071.6	1025.3	938.9	830.1	701.3	560.1	408.1	252.3	116.5	0.0
72.5°	1033.0	1021.4	976.7	894.9	784.6	660.4	523.8	372.6	219.9	92.6	0.8
75°	980.6	965.9	925.0	847.9	739.9	617.2	483.7	339.5	188.2	71.0	0.8
77.5°	912.7	908.0	869.5	794.6	697.4	575.5	439.7	299.3	158.2	50.9	0.8
80°	844.8	840.1	810.1	741.4	648.0	526.2	398.9	261.5	128.8	33.9	0.8
82.5°	777.7	771.5	742.9	685.8	597.9	484.5	356.4	223.7	101.8	20.8	0.8
85°	717.5	709.8	678.9	626.4	546.2	437.4	312.5	186.7	75.6	11.6	1.5
87.5°	665.8	660.4	626.4	572.4	493.7	393.5	273.9	151.2	53.2	5.4	2.3
90°	621.8	610.2	580.2	523.1	444.4	344.9	233.0	121.1	35.5	3.1	3.1
92.5°	578.6	568.6	535.4	476.8	400.4	303.2	193.6	92.6	22.4	1.5	3.9
95°	533.9	523.1	490.7	436.7	355.7	260.8	158.9	67.9	12.3	1.5	3.9
97.5°	489.9	479.9	445.9	391.9	315.5	223.7	125.8	47.8	6.2	1.5	3.1
100°	449.0	437.4	406.6	352.6	275.4	186.7	97.2	30.9	3.9	1.5	3.1
102.5°	405.8	396.5	364.9	312.5	233.8	152.0	72.5	19.3	1.5	1.5	2.3
105°	367.2	355.7	324.8	270.8	199.0	119.6	50.9	11.6	1.5	1.5	2.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	239.2	229.9	202.9	157.4	101.1	47.1	13.9	2.3	2.3	2.3	2.3
115°	199.8	185.9	162.0	121.9	74.8	30.9	6.9	2.3	2.3	2.3	2.3
117.5°	159.7	148.1	131.2	92.6	49.4	20.1	3.9	2.3	2.3	2.3	2.3
120°	125.0	114.2	94.9	64.0	33.2	11.6	1.5	2.3	2.3	2.3	2.3
122.5°	89.5	81.0	64.0	41.7	20.1	5.4	2.3	2.3	3.1	3.1	2.3
125°	59.4	54.8	42.4	25.5	12.3	2.3	2.3	2.3	3.1	3.1	2.3
127.5°	38.6	34.7	24.7	14.7	5.4	2.3	2.3	3.1	3.1	3.1	2.3
130°	21.6	19.3	14.7	8.5	2.3	2.3	2.3	3.1	3.1	3.1	2.3
132.5°	12.3	11.6	7.7	1.5	2.3	2.3	2.3	3.1	3.1	3.1	3.1
135°	3.1	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.9	3.9	3.1
137.5°	0.8	0.8	1.5	1.5	2.3	2.3	3.1	3.9	3.9	3.9	3.1
140°	0.8	0.8	1.5	2.3	2.3	2.3	3.1	3.9	3.9	3.9	3.1
142.5°	0.8	1.5	1.5	2.3	2.3	3.1	3.1	3.9	3.9	3.1	3.1
145°	0.8	1.5	1.5	2.3	2.3	3.1	3.1	3.9	3.1	3.1	3.1
147.5°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.9	3.9	3.1	3.1
150°	0.8	1.5	1.5	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.1
152.5°	0.8	1.5	1.5	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.1
155°	1.5	1.5	1.5	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.9
157.5°	1.5	1.5	1.5	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.9
160°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.1	3.1	3.1	3.1
162.5°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.1	3.1	3.1	3.1
165°	1.5	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.1	3.1	3.1
167.5°	1.5	1.5	1.5	2.3	2.3	2.3	3.1	3.1	3.1	3.1	3.1
170°	1.5	1.5	1.5	2.3	2.3	2.3	3.1	3.9	3.9	3.9	3.9
172.5°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.9	3.9	3.9	3.9
175°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.9	3.9	3.9	3.9
177.5°	0.8	1.5	1.5	2.3	2.3	3.1	3.1	3.9	3.9	3.9	3.1
180°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	605.6	605.6	605.6
2.5°	576.3	565.5	562.4
5°	545.4	527.7	517.7
7.5°	514.6	490.7	479.1
10°	486.0	452.1	439.7
12.5°	452.1	412.7	393.5
15°	419.7	368.8	350.3
17.5°	383.4	326.3	304.7
20°	349.5	283.9	261.5
22.5°	310.9	242.2	217.6
25°	276.2	200.6	172.8
27.5°	237.6	158.2	134.2
30°	201.4	121.1	97.2
32.5°	166.6	88.7	67.1
35°	134.2	60.2	42.4
37.5°	103.4	37.0	21.6
40°	74.8	19.3	10.0
42.5°	50.1	9.3	5.4
45°	30.9	4.6	0.0
47.5°	17.7	0.0	0.0
50°	9.3	0.0	0.0
52.5°	3.9	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°	0.8	0.8	0.8
77.5°	0.8	1.5	2.3
80°	1.5	3.1	3.9
82.5°	3.1	3.9	3.9
85°	3.1	3.9	4.6
87.5°	3.9	4.6	5.4
90°	4.6	5.4	5.4
92.5°	4.6	6.2	6.2
95°	5.4	6.2	6.9
97.5°	6.2	6.9	6.9
100°	5.4	6.9	7.7
102.5°	4.6	6.9	6.9
105°	3.9	5.4	6.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.1	3.9	3.9
115°	2.3	3.1	3.9
117.5°	2.3	3.1	3.1
120°	2.3	2.3	3.1
122.5°	2.3	2.3	3.1
125°	2.3	2.3	3.1
127.5°	3.1	2.3	2.3
130°	2.3	2.3	2.3
132.5°	3.1	2.3	2.3
135°	3.1	2.3	2.3
137.5°	3.1	2.3	2.3
140°	3.1	2.3	2.3
142.5°	3.1	2.3	2.3
145°	2.3	2.3	2.3
147.5°	2.3	2.3	2.3
150°	2.3	2.3	1.5
152.5°	2.3	1.5	1.5
155°	2.3	1.5	0.8
157.5°	3.1	1.5	0.8
160°	2.3	1.5	0.8
162.5°	2.3	1.5	0.8
165°	2.3	1.5	0.0
167.5°	2.3	1.5	0.8
170°	2.3	1.5	0.8
172.5°	2.3	1.5	0.8
175°	2.3	0.8	0.8
177.5°	2.3	0.8	0.8
180°	2.3	2.3	2.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	324.0	314.8	283.9	233.0	162.8	91.0	33.9	6.2	1.5	2.3	2.3
110°	282.4	274.6	243.0	193.6	131.2	67.9	22.4	3.9	2.3	2.3	2.3





107.5°	3.1	4.6	5.4
110°	3.1	3.9	4.6



(END OF REPORT)