

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: P551424

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-82-88-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: P551424
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-50-UNV-82-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

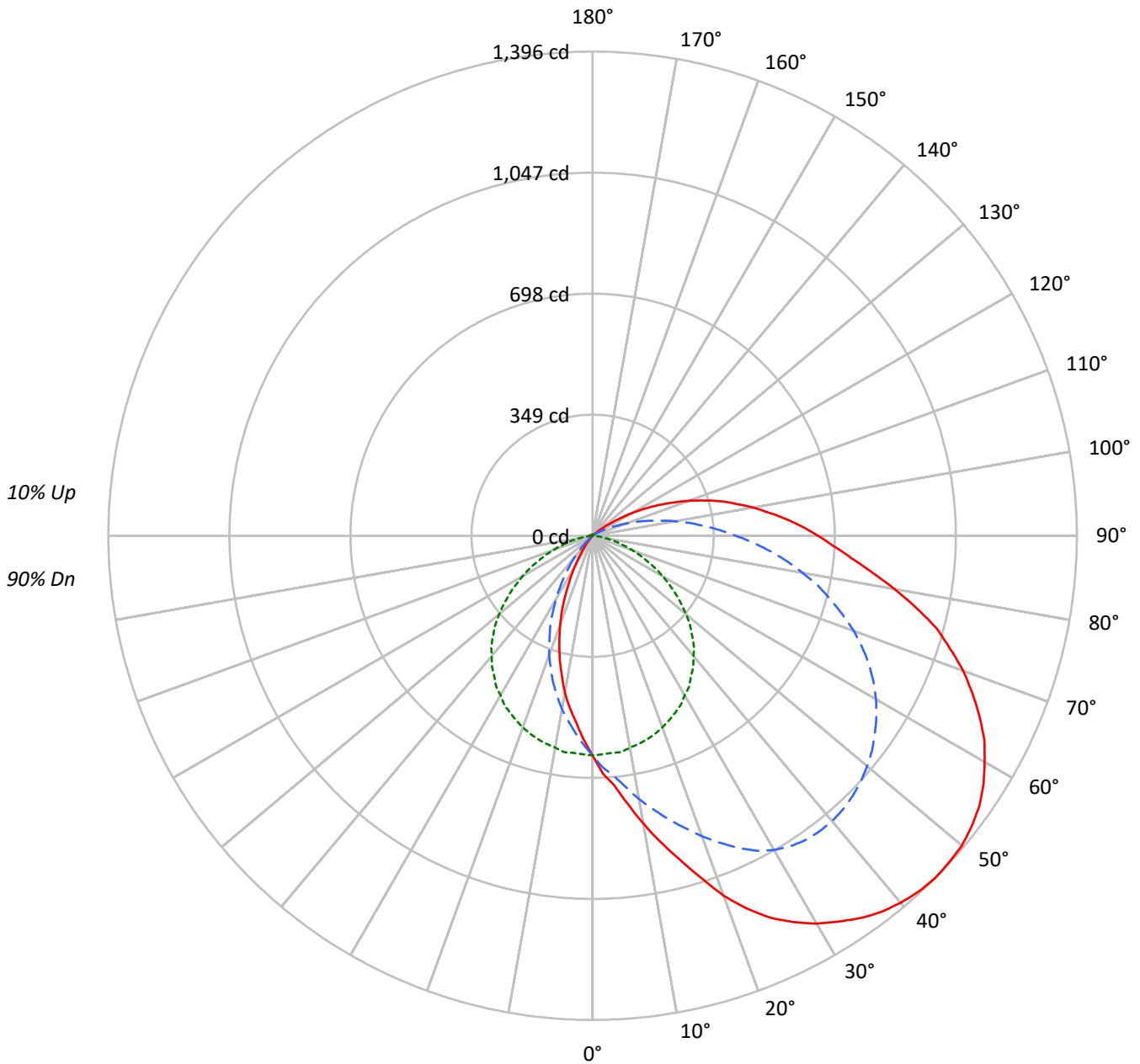
Lumens per Lamp: N/A
Luminaire Lumens: 3129.9 lumens
Efficiency: N/A
Efficacy: 72.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551424

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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°	6815	6815	6815
5°	7480	6715	5603
10°	8465	6633	4617
15°	9487	6548	3599
20°	10700	6442	2650
25°	11706	6318	1740
30°	12454	6152	980
35°	13101	5974	432
40°	13676	5755	104
45°	14168	5479	0
50°	14581	5113	0
55°	14896	4650	0
60°	15055	4111	0
65°	15118	3499	0
70°	15067	2853	0
75°	14875	2104	12
80°	14272	1288	65
85°	13796	615	88



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.6	1.9
10°-20°	181.6	5.8
20°-30°	294.1	9.4
30°-40°	377.7	12.1
40°-50°	427.6	13.7
50°-60°	443.0	14.2
60°-70°	417.8	13.3
70°-80°	350.1	11.2
80°-90°	253.8	8.1
90°-100°	166.8	5.3
100°-110°	96.3	3.1
110°-120°	42.5	1.4
120°-130°	11.5	0.4
130°-140°	2.6	0.1
140°-150°	1.7	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	536.3	17.1
0°-40°	914.0	29.2
0°-60°	1784.6	57.0
0°-90°	2806.3	89.7
90°-120°	305.6	9.8
90°-150°	321.5	10.3
90°-180°	324.0	10.4
0°-180°	3129.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	633	633	633	633	633	
5°	723	694	628	570	541	73
15°	965	846	607	439	366	278
25°	1215	993	563	289	181	562
35°	1346	1071	494	140	44	844
45°	1396	1060	405	32	0	1078
55°	1361	993	292	0	0	1215
65°	1230	879	174	0	0	1217
75°	1025	709	74	1	1	1075
85°	750	514	12	3	5	641
90°	650	413	3	5	6	356
95°	558	322	2	6	7	438
105°	384	167	2	4	6	405
115°	209	55	2	2	4	209
125°	62	8	3	2	3	62
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°	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1
2.5°	686.4	685.5	683.1	679.1	673.5	663.8	655.7	648.4	638.8	630.7	615.4
5°	722.6	718.6	715.4	711.4	698.5	689.6	675.1	658.9	643.6	628.3	597.6
7.5°	780.7	774.3	769.4	758.1	740.4	720.2	697.6	682.3	671.8	629.1	576.7
10°	842.8	837.2	827.5	807.3	785.6	756.5	724.3	688.0	655.7	620.2	558.1
12.5°	904.1	896.1	882.3	856.5	825.9	789.6	745.2	702.5	656.5	614.6	536.3
15°	965.4	956.5	942.0	910.6	870.2	822.7	768.6	714.6	660.5	607.3	513.8
17.5°	1032.4	1020.3	998.5	963.0	912.2	853.3	789.6	724.3	658.9	598.4	489.6
20°	1104.1	1087.2	1063.8	1016.2	956.5	887.2	810.6	733.9	658.1	588.0	462.1
22.5°	1163.8	1146.9	1121.1	1071.9	1000.1	915.4	828.3	740.4	654.9	575.9	436.3
25°	1215.4	1201.7	1173.5	1117.0	1041.2	945.2	845.2	745.2	650.1	563.0	408.9
27.5°	1255.8	1242.9	1211.4	1153.3	1075.9	971.9	858.1	747.7	643.6	550.1	380.7
30°	1291.3	1278.3	1240.4	1180.8	1099.3	992.8	871.0	748.5	635.5	530.7	350.0
32.5°	1318.7	1306.6	1267.9	1204.1	1115.4	1007.4	878.3	747.7	625.1	517.0	317.0
35°	1346.1	1334.0	1288.8	1221.1	1127.5	1013.8	884.0	743.6	612.2	494.4	285.5
37.5°	1367.1	1353.4	1307.4	1232.4	1133.2	1015.4	883.1	738.0	598.4	475.9	254.1
40°	1381.6	1367.1	1317.9	1238.8	1134.8	1013.0	876.7	728.3	582.3	452.5	221.0
42.5°	1391.3	1375.1	1322.7	1248.5	1131.6	1006.5	867.0	716.2	564.6	432.3	189.5
45°	1396.1	1379.2	1323.5	1240.4	1125.9	994.4	852.5	700.9	545.2	404.9	158.1
47.5°	1393.7	1375.1	1319.5	1231.6	1115.4	981.5	836.4	682.3	521.8	380.7	128.2
50°	1389.6	1370.3	1310.6	1220.3	1100.9	965.4	818.6	659.7	497.6	350.8	101.6
52.5°	1376.7	1357.4	1300.9	1204.1	1084.0	946.9	794.4	636.3	471.8	321.8	77.4
55°	1360.6	1342.9	1284.0	1189.6	1062.2	924.3	771.8	611.3	446.8	292.0	55.7
57.5°	1335.6	1319.5	1263.0	1166.2	1040.4	899.3	746.8	583.9	415.4	262.1	38.7
60°	1305.0	1288.8	1234.0	1139.6	1015.4	871.0	719.4	555.7	387.1	232.3	24.2
62.5°	1272.7	1257.4	1200.1	1106.6	984.0	841.2	689.6	527.5	357.3	204.9	14.5
65°	1230.0	1215.4	1163.8	1067.0	949.3	808.9	656.5	493.6	326.6	174.2	8.1
67.5°	1184.8	1171.9	1119.5	1030.7	909.0	773.5	622.6	460.5	294.4	147.6	4.0
70°	1136.4	1120.3	1071.9	981.5	867.8	733.1	585.5	426.7	263.7	121.8	0.0
72.5°	1079.9	1067.8	1021.1	935.6	820.2	690.4	547.6	389.6	229.9	96.8	0.8
75°	1025.1	1009.8	967.0	886.4	773.5	645.2	505.7	354.9	196.8	74.2	0.8
77.5°	954.1	949.3	909.0	830.7	729.1	601.7	459.7	312.9	165.3	53.2	0.8
80°	883.1	878.3	846.9	775.1	677.5	550.1	417.0	273.4	134.7	35.5	0.8
82.5°	813.0	806.5	776.7	717.0	625.1	506.5	372.6	233.9	106.5	21.8	0.8
85°	750.1	742.0	709.7	654.9	571.0	457.3	326.6	195.2	79.0	12.1	1.6
87.5°	696.0	690.4	654.9	598.4	516.2	411.3	286.3	158.1	55.7	5.6	2.4
90°	650.1	638.0	606.5	546.8	464.6	360.5	243.6	126.6	37.1	3.2	3.2
92.5°	604.9	594.4	559.7	498.4	418.6	317.0	202.4	96.8	23.4	1.6	4.0
95°	558.1	546.8	513.0	456.5	371.8	272.6	166.1	71.0	12.9	1.6	4.0
97.5°	512.1	501.7	466.2	409.7	329.9	233.9	131.5	50.0	6.5	1.6	3.2
100°	469.4	457.3	425.0	368.6	287.9	195.2	101.6	32.3	4.0	1.6	3.2
102.5°	424.2	414.6	381.5	326.6	244.4	158.9	75.8	20.2	1.6	1.6	2.4
105°	383.9	371.8	339.5	283.1	208.1	125.0	53.2	12.1	1.6	1.6	2.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	250.0	240.3	212.1	164.5	105.7	49.2	14.5	2.4	2.4	2.4	2.4
115°	208.9	194.4	169.4	127.4	78.2	32.3	7.3	2.4	2.4	2.4	2.4
117.5°	167.0	154.9	137.1	96.8	51.6	21.0	4.0	2.4	2.4	2.4	2.4
120°	130.7	119.4	99.2	66.9	34.7	12.1	1.6	2.4	2.4	2.4	2.4
122.5°	93.6	84.7	66.9	43.6	21.0	5.6	2.4	2.4	3.2	3.2	2.4
125°	62.1	57.3	44.4	26.6	12.9	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	40.3	36.3	25.8	15.3	5.6	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.6	20.2	15.3	8.9	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	12.9	12.1	8.1	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2
135°	3.2	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2
137.5°	0.8	0.8	1.6	1.6	2.4	2.4	3.2	4.0	4.0	4.0	3.2
140°	0.8	0.8	1.6	2.4	2.4	2.4	3.2	4.0	4.0	4.0	3.2
142.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2	3.2
145°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	3.2	3.2	3.2
147.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2	3.2
150°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	3.2
152.5°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	3.2
155°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	4.0
157.5°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	4.0
160°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
162.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
165°	1.6	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2
167.5°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2	3.2
170°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	4.0	4.0	4.0	4.0
172.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	4.0
175°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	4.0
177.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	3.2
180°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	633.1	633.1	633.1
2.5°	602.5	591.2	588.0
5°	570.2	551.7	541.2
7.5°	538.0	513.0	500.9
10°	508.1	472.6	459.7
12.5°	472.6	431.5	411.3
15°	438.8	385.5	366.2
17.5°	400.8	341.2	318.6
20°	365.4	296.8	273.4
22.5°	325.0	253.2	227.4
25°	288.7	209.7	180.7
27.5°	248.4	165.3	140.3
30°	210.5	126.6	101.6
32.5°	174.2	92.8	70.2
35°	140.3	62.9	44.4
37.5°	108.1	38.7	22.6
40°	78.2	20.2	10.5
42.5°	52.4	9.7	5.6
45°	32.3	4.8	0.0
47.5°	18.6	0.0	0.0
50°	9.7	0.0	0.0
52.5°	4.0	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°	0.8	0.8	0.8
77.5°	0.8	1.6	2.4
80°	1.6	3.2	4.0
82.5°	3.2	4.0	4.0
85°	3.2	4.0	4.8
87.5°	4.0	4.8	5.6
90°	4.8	5.6	5.6
92.5°	4.8	6.5	6.5
95°	5.6	6.5	7.3
97.5°	6.5	7.3	7.3
100°	5.6	7.3	8.1
102.5°	4.8	7.3	7.3
105°	4.0	5.6	6.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.2	4.0	4.0
115°	2.4	3.2	4.0
117.5°	2.4	3.2	3.2
120°	2.4	2.4	3.2
122.5°	2.4	2.4	3.2
125°	2.4	2.4	3.2
127.5°	3.2	2.4	2.4
130°	2.4	2.4	2.4
132.5°	3.2	2.4	2.4
135°	3.2	2.4	2.4
137.5°	3.2	2.4	2.4
140°	3.2	2.4	2.4
142.5°	3.2	2.4	2.4
145°	2.4	2.4	2.4
147.5°	2.4	2.4	2.4
150°	2.4	2.4	1.6
152.5°	2.4	1.6	1.6
155°	2.4	1.6	0.8
157.5°	3.2	1.6	0.8
160°	2.4	1.6	0.8
162.5°	2.4	1.6	0.8
165°	2.4	1.6	0.0
167.5°	2.4	1.6	0.8
170°	2.4	1.6	0.8
172.5°	2.4	1.6	0.8
175°	2.4	0.8	0.8
177.5°	2.4	0.8	0.8
180°	2.4	2.4	2.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	338.7	329.1	296.8	243.6	170.2	95.2	35.5	6.5	1.6	2.4	2.4
110°	295.2	287.1	254.1	202.4	137.1	71.0	23.4	4.0	2.4	2.4	2.4





107.5°	3.2	4.8	5.6
110°	3.2	4.0	4.8



(END OF REPORT)