

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: P551243

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-93-86-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: P551243
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-30-UNV-93-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

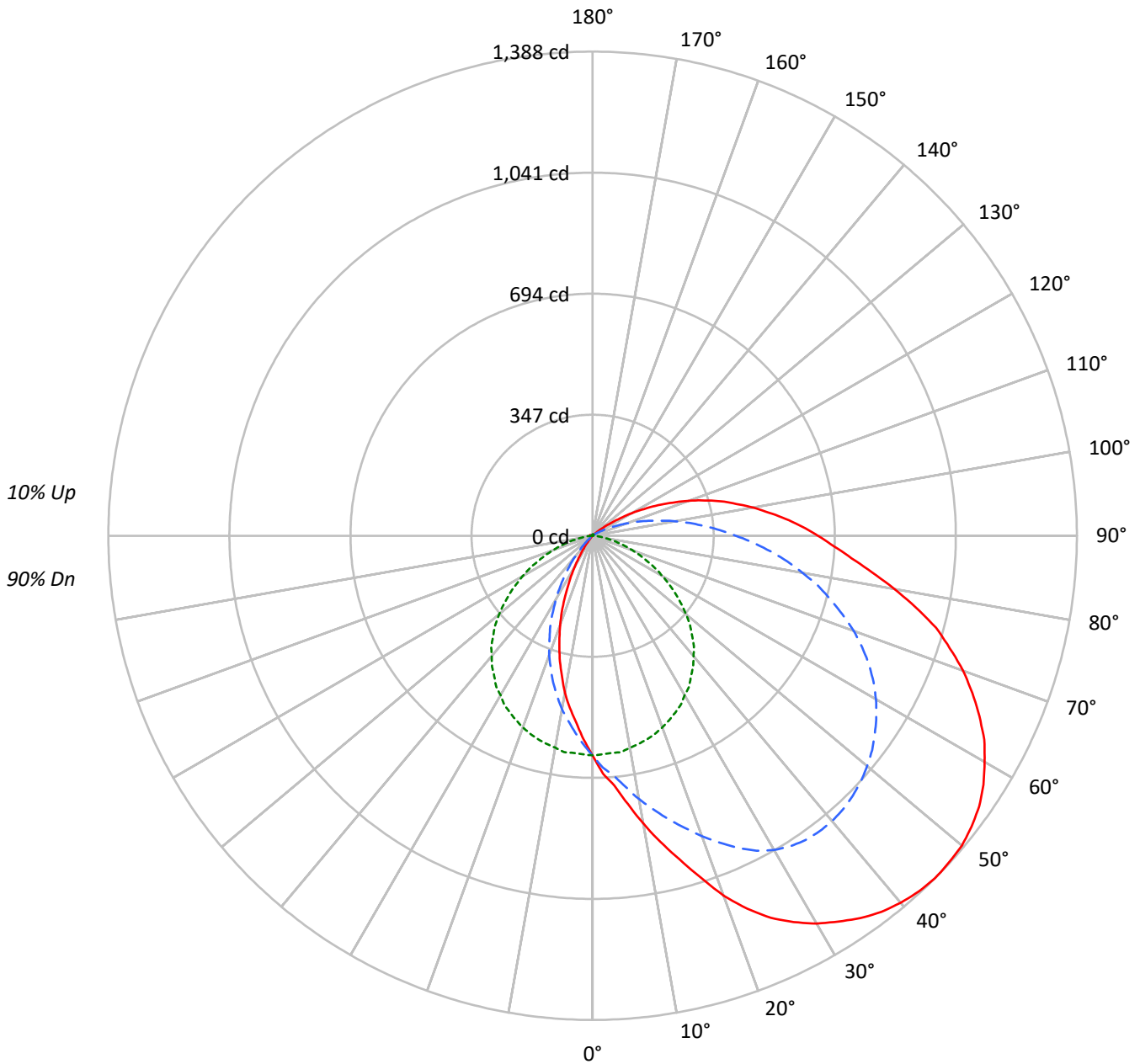
Lumens per Lamp: N/A
Luminaire Lumens: 3112.0 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551243

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-86-ED1D-90

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°	6776	6776	6776
5°	7438	6677	5571
10°	8417	6595	4591
15°	9433	6510	3578
20°	10639	6405	2634
25°	11638	6281	1730
30°	12382	6116	974
35°	13026	5940	429
40°	13596	5722	103
45°	14087	5446	0
50°	14498	5084	0
55°	14811	4623	0
60°	14969	4086	0
65°	15030	3479	0
70°	14980	2837	0
75°	14789	2093	12
80°	14191	1280	65
85°	13717	610	88



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.3	1.9
10°-20°	180.5	5.8
20°-30°	292.4	9.4
30°-40°	375.6	12.1
40°-50°	425.1	13.7
50°-60°	440.4	14.2
60°-70°	415.4	13.3
70°-80°	348.1	11.2
80°-90°	252.3	8.1
90°-100°	165.8	5.3
100°-110°	95.8	3.1
110°-120°	42.3	1.4
120°-130°	11.4	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°	533.2	17.1
0°-40°	908.8	29.2
0°-60°	1774.3	57.0
0°-90°	2790.2	89.7
90°-120°	303.9	9.8
90°-150°	319.6	10.3
90°-180°	322.0	10.3
0°-180°	3112.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	630	630	630	630	630	
5°	718	690	625	567	538	72
15°	960	842	604	436	364	277
25°	1208	988	560	287	180	558
35°	1338	1064	492	140	44	839
45°	1388	1054	402	32	0	1072
55°	1353	988	290	0	0	1208
65°	1223	874	173	0	0	1210
75°	1019	705	74	1	1	1069
85°	746	511	12	3	5	637
90°	646	410	3	5	6	354
95°	555	320	2	6	7	435
105°	382	166	2	4	6	403
115°	208	55	2	2	4	208
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°	629.5	629.5	629.5	629.5	629.5	629.5	629.5	629.5	629.5	629.5	629.5
2.5°	682.4	681.6	679.2	675.2	669.6	660.0	651.9	644.7	635.1	627.1	611.8
5°	718.5	714.5	711.3	707.3	694.4	685.6	671.2	655.1	639.9	624.7	594.2
7.5°	776.2	769.8	765.0	753.8	736.1	716.1	693.6	678.4	668.0	625.5	573.4
10°	838.0	832.4	822.7	802.7	781.0	752.2	720.1	684.0	651.9	616.7	554.9
12.5°	898.9	890.9	877.3	851.6	821.1	785.0	740.9	698.4	652.7	611.0	533.3
15°	959.9	951.0	936.6	905.3	865.2	817.9	764.2	710.5	656.7	603.8	510.8
17.5°	1026.4	1014.4	992.7	957.5	906.9	848.4	785.0	720.1	655.1	595.0	486.7
20°	1097.8	1080.9	1057.7	1010.4	951.0	882.1	805.9	729.7	654.3	584.6	459.5
22.5°	1157.1	1140.3	1114.6	1065.7	994.3	910.1	823.5	736.1	651.1	572.5	433.8
25°	1208.4	1194.8	1166.7	1110.6	1035.2	939.8	840.4	740.9	646.3	559.7	406.6
27.5°	1248.5	1235.7	1204.4	1146.7	1069.7	966.3	853.2	743.4	639.9	546.9	378.5
30°	1283.8	1271.0	1233.3	1174.0	1093.0	987.1	866.0	744.2	631.9	527.6	348.0
32.5°	1311.1	1299.1	1260.6	1197.2	1109.0	1001.6	873.3	743.4	621.5	514.0	315.1
35°	1338.4	1326.3	1281.4	1214.1	1121.0	1008.0	878.9	739.3	608.6	491.6	283.9
37.5°	1359.2	1345.6	1299.9	1225.3	1126.7	1009.6	878.1	733.7	595.0	473.1	252.6
40°	1373.6	1359.2	1310.3	1231.7	1128.3	1007.2	871.7	724.1	579.0	449.9	219.7
42.5°	1383.3	1367.2	1315.1	1241.3	1125.1	1000.8	862.0	712.1	561.3	429.8	188.4
45°	1388.1	1371.2	1315.9	1233.3	1119.4	988.7	847.6	696.8	542.1	402.5	157.2
47.5°	1385.7	1367.2	1311.9	1224.5	1109.0	975.9	831.6	678.4	518.8	378.5	127.5
50°	1381.7	1362.4	1303.1	1213.3	1094.6	959.9	813.9	655.9	494.8	348.8	101.0
52.5°	1368.8	1349.6	1293.4	1197.2	1077.7	941.4	789.9	632.7	469.1	320.0	77.0
55°	1352.8	1335.1	1276.6	1182.8	1056.1	919.0	767.4	607.8	444.2	290.3	55.3
57.5°	1327.9	1311.9	1255.8	1159.5	1034.4	894.1	742.5	580.6	413.0	260.6	38.5
60°	1297.5	1281.4	1226.9	1133.1	1009.6	866.0	715.3	552.5	384.9	230.9	24.1
62.5°	1265.4	1250.1	1193.2	1100.2	978.3	836.4	685.6	524.4	355.2	203.7	14.4
65°	1222.9	1208.4	1157.1	1060.9	943.8	804.3	652.7	490.8	324.8	173.2	8.0
67.5°	1178.0	1165.1	1113.0	1024.8	903.7	769.0	619.1	457.9	292.7	146.7	4.0
70°	1129.9	1113.8	1065.7	975.9	862.8	728.9	582.2	424.2	262.2	121.1	0.0
72.5°	1073.7	1061.7	1015.2	930.2	815.5	686.4	544.5	387.3	228.5	96.2	0.8
75°	1019.2	1004.0	961.5	881.3	769.0	641.5	502.8	352.8	195.7	73.8	0.8
77.5°	948.6	943.8	903.7	825.9	724.9	598.2	457.1	311.1	164.4	52.9	0.8
80°	878.1	873.3	842.0	770.6	673.6	546.9	414.6	271.8	133.9	35.3	0.8
82.5°	808.3	801.9	772.2	712.9	621.5	503.6	370.5	232.5	105.8	21.7	0.8
85°	745.8	737.7	705.7	651.1	567.7	454.7	324.8	194.1	78.6	12.0	1.6
87.5°	692.0	686.4	651.1	595.0	513.2	409.0	284.7	157.2	55.3	5.6	2.4
90°	646.3	634.3	603.0	543.7	461.9	358.4	242.2	125.9	36.9	3.2	3.2
92.5°	601.4	591.0	556.5	495.6	416.2	315.1	201.3	96.2	23.3	1.6	4.0
95°	554.9	543.7	510.0	453.9	369.7	271.0	165.2	70.6	12.8	1.6	4.0
97.5°	509.2	498.8	463.5	407.4	328.0	232.5	130.7	49.7	6.4	1.6	3.2
100°	466.7	454.7	422.6	366.5	286.3	194.1	101.0	32.1	4.0	1.6	3.2
102.5°	421.8	412.2	379.3	324.8	243.0	158.0	75.4	20.0	1.6	1.6	2.4
105°	381.7	369.7	337.6	281.5	206.9	124.3	52.9	12.0	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°	248.6	239.0	210.9	163.6	105.0	48.9	14.4	2.4	2.4	2.4	2.4
115°	207.7	193.3	168.4	126.7	77.8	32.1	7.2	2.4	2.4	2.4	2.4
117.5°	166.0	154.0	136.3	96.2	51.3	20.8	4.0	2.4	2.4	2.4	2.4
120°	129.9	118.7	98.6	66.6	34.5	12.0	1.6	2.4	2.4	2.4	2.4
122.5°	93.0	84.2	66.6	43.3	20.8	5.6	2.4	2.4	3.2	3.2	2.4
125°	61.7	56.9	44.1	26.5	12.8	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	40.1	36.1	25.7	15.2	5.6	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.5	20.0	15.2	8.8	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	12.8	12.0	8.0	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



TEST NUMBER: P551243

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	629.5	629.5	629.5
2.5°	599.0	587.8	584.6
5°	566.9	548.5	538.1
7.5°	534.9	510.0	498.0
10°	505.2	469.9	457.1
12.5°	469.9	429.0	409.0
15°	436.2	383.3	364.1
17.5°	398.5	339.2	316.7
20°	363.3	295.1	271.8
22.5°	323.2	251.8	226.1
25°	287.1	208.5	179.6
27.5°	247.0	164.4	139.5
30°	209.3	125.9	101.0
32.5°	173.2	92.2	69.8
35°	139.5	62.5	44.1
37.5°	107.5	38.5	22.5
40°	77.8	20.0	10.4
42.5°	52.1	9.6	5.6
45°	32.1	4.8	0.0
47.5°	18.4	0.0	0.0
50°	9.6	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	6.4	6.4
95°	5.6	6.4	7.2
97.5°	6.4	7.2	7.2
100°	5.6	7.2	8.0
102.5°	4.8	7.2	7.2
105°	4.0	5.6	6.4



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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°	336.8	327.2	295.1	242.2	169.2	94.6	35.3	6.4	1.6	2.4	2.4
110°	293.5	285.5	252.6	201.3	136.3	70.6	23.3	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)