

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: P551281

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-81-94-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: P551281
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-81-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

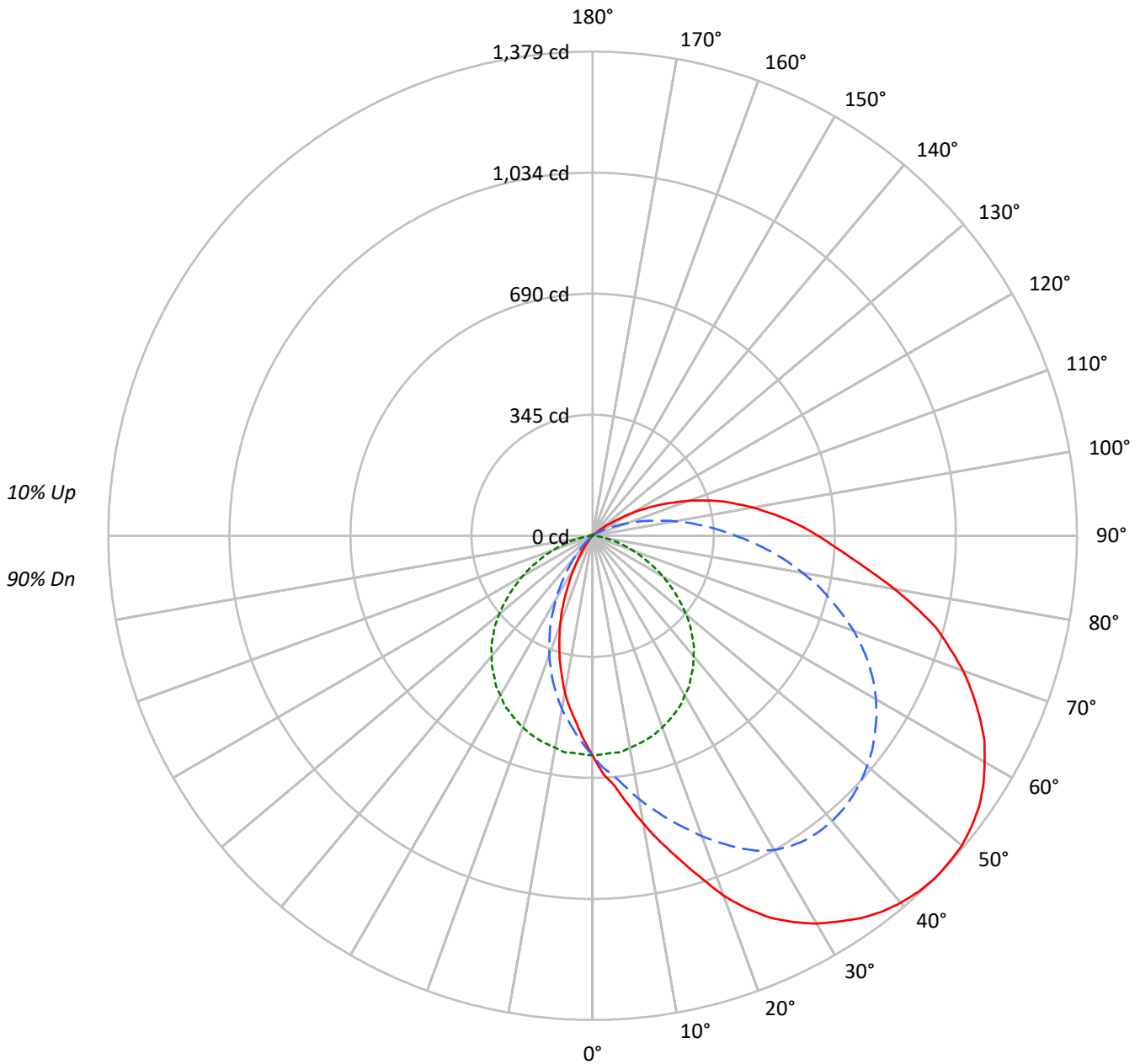
Lumens per Lamp: N/A
Luminaire Lumens: 3092.1 lumens
Efficiency: N/A
Efficacy: 71.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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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	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°	6732	6732	6732
5°	7390	6634	5534
10°	8363	6552	4561
15°	9372	6468	3554
20°	10570	6363	2618
25°	11564	6241	1719
30°	12303	6078	968
35°	12943	5901	426
40°	13509	5685	103
45°	13996	5412	0
50°	14405	5052	0
55°	14716	4592	0
60°	14872	4061	0
65°	14933	3457	0
70°	14884	2818	0
75°	14695	2079	12
80°	14099	1273	65
85°	13628	610	88



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.9	1.9
10°-20°	179.4	5.8
20°-30°	290.5	9.4
30°-40°	373.2	12.1
40°-50°	422.4	13.7
50°-60°	437.6	14.2
60°-70°	412.7	13.3
70°-80°	345.9	11.2
80°-90°	250.7	8.1
90°-100°	164.8	5.3
100°-110°	95.2	3.1
110°-120°	42.0	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°	529.8	17.1
0°-40°	902.9	29.2
0°-60°	1763.0	57.0
0°-90°	2772.3	89.7
90°-120°	302.0	9.8
90°-150°	317.7	10.3
90°-180°	320.0	10.3
0°-180°	3092.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	625	625	625	625	625	
5°	714	686	621	563	535	72
15°	954	836	600	433	362	275
25°	1201	981	556	285	178	555
35°	1330	1058	488	139	44	834
45°	1379	1047	400	32	0	1065
55°	1344	981	288	0	0	1200
65°	1215	868	172	0	0	1202
75°	1013	701	73	1	1	1062
85°	741	508	12	3	5	633
90°	642	408	3	5	6	352
95°	551	318	2	6	7	433
105°	379	165	2	4	6	400
115°	206	55	2	2	4	207
125°	61	8	3	2	3	61
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°	625.4	625.4	625.4	625.4	625.4	625.4	625.4	625.4	625.4	625.4	625.4
2.5°	678.0	677.2	674.8	670.9	665.3	655.7	647.7	640.6	631.0	623.0	607.9
5°	713.9	709.9	706.7	702.7	690.0	681.2	666.9	650.9	635.8	620.7	590.4
7.5°	771.2	764.9	760.1	748.9	731.4	711.5	689.2	674.0	663.7	621.5	569.7
10°	832.6	827.0	817.5	797.5	776.0	747.3	715.5	679.6	647.7	612.7	551.3
12.5°	893.1	885.2	871.6	846.1	815.9	780.0	736.2	694.0	648.5	607.1	529.8
15°	953.7	944.9	930.6	899.5	859.7	812.7	759.3	705.9	652.5	599.9	507.5
17.5°	1019.8	1007.9	986.4	951.3	901.1	842.9	780.0	715.5	650.9	591.2	483.6
20°	1090.7	1074.0	1050.9	1003.9	944.9	876.4	800.7	725.0	650.1	580.8	456.5
22.5°	1149.7	1133.0	1107.5	1058.9	988.0	904.3	818.2	731.4	646.9	568.9	431.0
25°	1200.7	1187.1	1159.3	1103.5	1028.6	933.8	835.0	736.2	642.2	556.1	403.9
27.5°	1240.5	1227.8	1196.7	1139.3	1062.8	960.1	847.7	738.6	635.8	543.4	376.1
30°	1275.6	1262.8	1225.4	1166.4	1086.0	980.8	860.5	739.4	627.8	524.3	345.8
32.5°	1302.7	1290.7	1252.5	1189.5	1101.9	995.1	867.6	738.6	617.5	510.7	313.1
35°	1329.8	1317.8	1273.2	1206.3	1113.8	1001.5	873.2	734.6	604.7	488.4	282.0
37.5°	1350.5	1336.9	1291.5	1217.4	1119.4	1003.1	872.4	729.0	591.2	470.1	251.0
40°	1364.8	1350.5	1301.9	1223.8	1121.0	1000.7	866.1	719.5	575.2	447.0	218.3
42.5°	1374.4	1358.4	1306.6	1233.3	1117.8	994.3	856.5	707.5	557.7	427.1	187.2
45°	1379.1	1362.4	1307.4	1225.4	1112.2	982.4	842.1	692.4	538.6	400.0	156.2
47.5°	1376.8	1358.4	1303.5	1216.6	1101.9	969.6	826.2	674.0	515.5	376.1	126.7
50°	1372.8	1353.7	1294.7	1205.5	1087.5	953.7	808.7	651.7	491.6	346.6	100.4
52.5°	1360.0	1340.9	1285.1	1189.5	1070.8	935.4	784.8	628.6	466.1	317.9	76.5
55°	1344.1	1326.6	1268.4	1175.2	1049.3	913.1	762.5	603.9	441.4	288.4	55.0
57.5°	1319.4	1303.5	1247.7	1152.1	1027.8	888.4	737.8	576.8	410.3	258.9	38.2
60°	1289.1	1273.2	1219.0	1125.8	1003.1	860.5	710.7	549.0	382.4	229.5	23.9
62.5°	1257.2	1242.1	1185.5	1093.1	972.0	831.0	681.2	521.1	353.0	202.4	14.3
65°	1215.0	1200.7	1149.7	1054.1	937.8	799.1	648.5	487.6	322.7	172.1	8.0
67.5°	1170.4	1157.7	1105.9	1018.2	897.9	764.1	615.1	454.9	290.8	145.8	4.0
70°	1122.6	1106.7	1058.9	969.6	857.3	724.2	578.4	421.5	260.5	120.3	0.0
72.5°	1066.8	1054.9	1008.7	924.2	810.3	682.0	541.0	384.8	227.1	95.6	0.8
75°	1012.7	997.5	955.3	875.6	764.1	637.4	499.6	350.6	194.4	73.3	0.8
77.5°	942.5	937.8	897.9	820.6	720.2	594.4	454.1	309.1	163.3	52.6	0.8
80°	872.4	867.6	836.6	765.7	669.3	543.4	411.9	270.1	133.1	35.1	0.8
82.5°	803.1	796.7	767.3	708.3	617.5	500.3	368.1	231.1	105.2	21.5	0.8
85°	741.0	733.0	701.1	646.9	564.1	451.7	322.7	192.8	78.1	12.0	1.6
87.5°	687.6	682.0	646.9	591.2	509.9	406.3	282.8	156.2	55.0	5.6	2.4
90°	642.2	630.2	599.1	540.2	458.9	356.1	240.6	125.1	36.6	3.2	3.2
92.5°	597.6	587.2	552.9	492.4	413.5	313.1	200.0	95.6	23.1	1.6	4.0
95°	551.3	540.2	506.7	451.0	367.3	269.3	164.1	70.1	12.7	1.6	4.0
97.5°	505.9	495.6	460.5	404.7	325.9	231.1	129.9	49.4	6.4	1.6	3.2
100°	463.7	451.7	419.9	364.1	284.4	192.8	100.4	31.9	4.0	1.6	3.2
102.5°	419.1	409.5	376.9	322.7	241.4	157.0	74.9	19.9	1.6	1.6	2.4
105°	379.2	367.3	335.4	279.7	205.6	123.5	52.6	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°	247.0	237.4	209.5	162.5	104.4	48.6	14.3	2.4	2.4	2.4	2.4
115°	206.4	192.0	167.3	125.9	77.3	31.9	7.2	2.4	2.4	2.4	2.4
117.5°	164.9	153.0	135.4	95.6	51.0	20.7	4.0	2.4	2.4	2.4	2.4
120°	129.1	117.9	98.0	66.1	34.3	12.0	1.6	2.4	2.4	2.4	2.4
122.5°	92.4	83.7	66.1	43.0	20.7	5.6	2.4	2.4	3.2	3.2	2.4
125°	61.3	56.6	43.8	26.3	12.7	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	39.8	35.9	25.5	15.1	5.6	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.3	19.9	15.1	8.8	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	12.7	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



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	625.4	625.4	625.4
2.5°	595.2	584.0	580.8
5°	563.3	545.0	534.6
7.5°	531.4	506.7	494.8
10°	501.9	466.9	454.1
12.5°	466.9	426.3	406.3
15°	433.4	380.8	361.7
17.5°	396.0	337.0	314.7
20°	360.9	293.2	270.1
22.5°	321.1	250.2	224.7
25°	285.2	207.2	178.5
27.5°	245.4	163.3	138.6
30°	207.9	125.1	100.4
32.5°	172.1	91.6	69.3
35°	138.6	62.1	43.8
37.5°	106.8	38.2	22.3
40°	77.3	19.9	10.4
42.5°	51.8	9.6	5.6
45°	31.9	4.8	0.0
47.5°	18.3	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°	334.6	325.1	293.2	240.6	168.1	94.0	35.1	6.4	1.6	2.4	2.4
110°	291.6	283.6	251.0	200.0	135.4	70.1	23.1	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)