

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: P551245

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-93-87-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: P551245
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-93-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

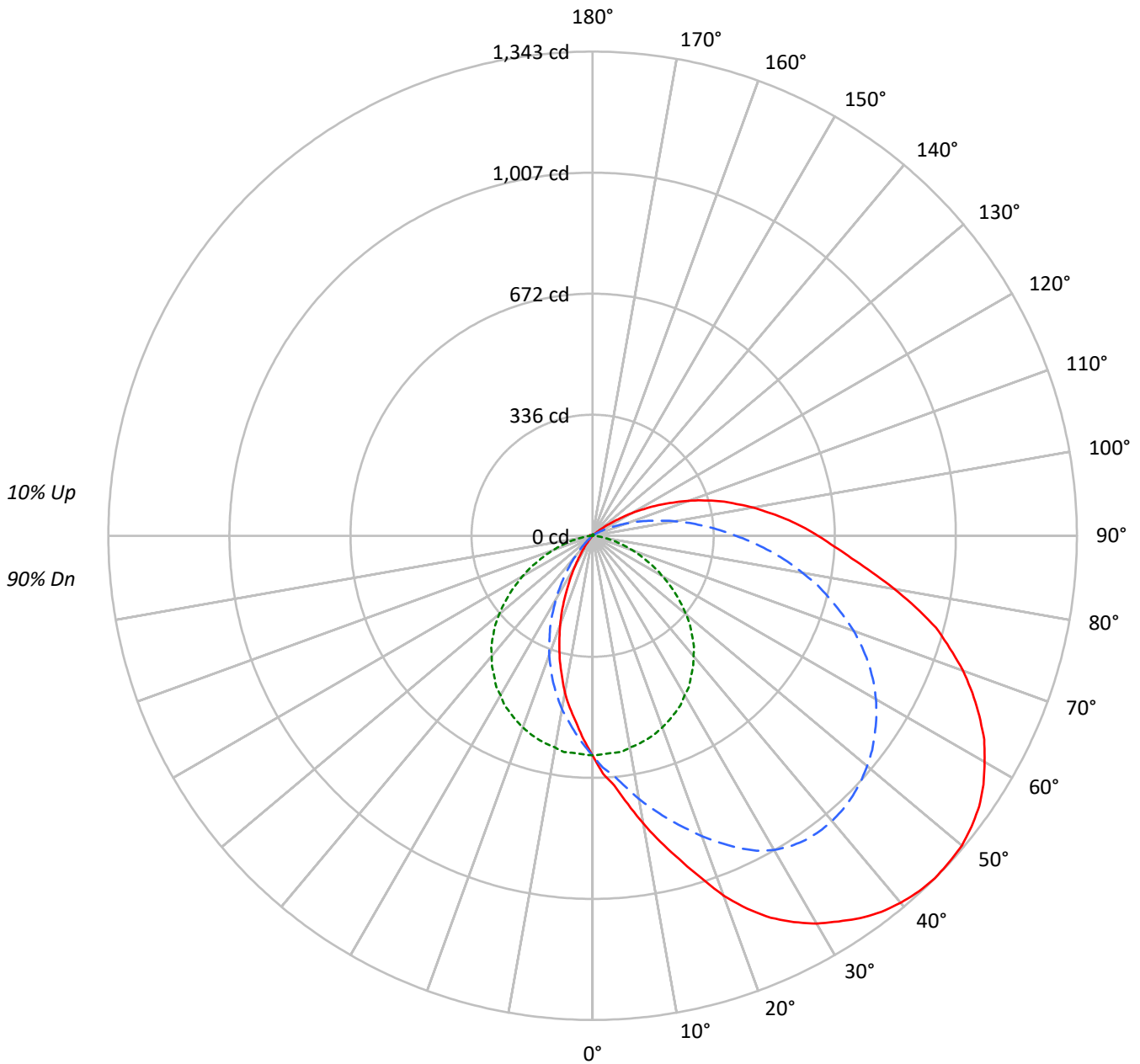
Lumens per Lamp: N/A
Luminaire Lumens: 3011.0 lumens
Efficiency: N/A
Efficacy: 69.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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									
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°	6556	6556	6556
5°	7197	6460	5389
10°	8144	6380	4442
15°	9126	6299	3461
20°	10294	6197	2549
25°	11261	6078	1674
30°	11981	5918	943
35°	12603	5747	416
40°	13156	5536	100
45°	13629	5270	0
50°	14027	4919	0
55°	14330	4473	0
60°	14482	3953	0
65°	14542	3366	0
70°	14494	2746	0
75°	14309	2025	12
80°	13730	1237	63
85°	13272	590	86



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.3	1.9
10°-20°	174.7	5.8
20°-30°	282.9	9.4
30°-40°	363.4	12.1
40°-50°	411.3	13.7
50°-60°	426.2	14.2
60°-70°	401.9	13.3
70°-80°	336.8	11.2
80°-90°	244.1	8.1
90°-100°	160.5	5.3
100°-110°	92.7	3.1
110°-120°	40.9	1.4
120°-130°	11.1	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°	515.9	17.1
0°-40°	879.3	29.2
0°-60°	1716.8	57.0
0°-90°	2699.6	89.7
90°-120°	294.0	9.8
90°-150°	309.3	10.3
90°-180°	311.0	10.3
0°-180°	3011.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	609	609	609	609	609	
5°	695	668	604	548	521	70
15°	929	814	584	422	352	268
25°	1169	955	542	278	174	540
35°	1295	1030	476	135	43	812
45°	1343	1020	390	31	0	1037
55°	1309	955	281	0	0	1169
65°	1183	846	168	0	0	1171
75°	986	682	71	1	1	1034
85°	722	495	12	3	5	616
90°	625	397	3	5	5	343
95°	537	310	2	5	7	421
105°	369	160	2	4	6	390
115°	201	53	2	2	4	201
125°	60	7	3	2	3	60
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°	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1
2.5°	660.3	659.5	657.2	653.3	647.8	638.5	630.8	623.8	614.5	606.7	592.0
5°	695.2	691.3	688.2	684.3	671.9	663.4	649.4	633.9	619.1	604.4	574.9
7.5°	751.0	744.8	740.2	729.3	712.2	692.8	671.1	656.4	646.3	605.2	554.7
10°	810.8	805.3	796.0	776.6	755.7	727.8	696.7	661.8	630.8	596.6	536.9
12.5°	869.7	862.0	848.8	824.0	794.5	759.6	716.9	675.8	631.6	591.2	515.9
15°	928.7	920.2	906.2	876.0	837.2	791.4	739.4	687.4	635.4	584.2	494.2
17.5°	993.1	981.5	960.5	926.4	877.5	820.9	759.6	696.7	633.9	575.7	470.9
20°	1062.2	1045.9	1023.4	977.6	920.2	853.5	779.7	706.0	633.1	565.6	444.6
22.5°	1119.6	1103.3	1078.5	1031.1	962.1	880.6	796.8	712.2	630.0	554.0	419.7
25°	1169.2	1156.0	1128.9	1074.6	1001.6	909.3	813.1	716.9	625.3	541.6	393.4
27.5°	1208.0	1195.6	1165.3	1109.5	1035.0	934.9	825.5	719.2	619.1	529.1	366.2
30°	1242.2	1229.7	1193.3	1135.9	1057.5	955.1	837.9	720.0	611.4	510.5	336.7
32.5°	1268.5	1256.9	1219.7	1158.4	1073.0	969.1	844.9	719.2	601.3	497.3	304.9
35°	1294.9	1283.3	1239.8	1174.7	1084.7	975.3	850.3	715.3	588.9	475.6	274.7
37.5°	1315.1	1301.9	1257.7	1185.5	1090.1	976.8	849.6	709.9	575.7	457.8	244.4
40°	1329.1	1315.1	1267.8	1191.7	1091.6	974.5	843.4	700.6	560.2	435.3	212.6
42.5°	1338.4	1322.8	1272.4	1201.0	1088.5	968.3	834.1	689.0	543.1	415.9	182.3
45°	1343.0	1326.7	1273.2	1193.3	1083.1	956.6	820.1	674.2	524.5	389.5	152.1
47.5°	1340.7	1322.8	1269.3	1184.7	1073.0	944.2	804.6	656.4	502.0	366.2	123.4
50°	1336.8	1318.2	1260.8	1173.9	1059.1	928.7	787.5	634.7	478.7	337.5	97.8
52.5°	1324.4	1305.8	1251.5	1158.4	1042.8	910.9	764.2	612.2	453.9	309.6	74.5
55°	1308.9	1291.8	1235.2	1144.4	1021.8	889.1	742.5	588.1	429.8	280.9	53.5
57.5°	1284.8	1269.3	1215.0	1121.9	1000.9	865.1	718.4	561.7	399.6	252.2	37.2
60°	1255.3	1239.8	1187.1	1096.3	976.8	837.9	692.1	534.6	372.4	223.4	23.3
62.5°	1224.3	1209.6	1154.5	1064.5	946.6	809.2	663.4	507.4	343.7	197.1	14.0
65°	1183.2	1169.2	1119.6	1026.5	913.2	778.2	631.6	474.8	314.2	167.6	7.8
67.5°	1139.7	1127.3	1076.9	991.6	874.4	744.1	599.0	443.0	283.2	142.0	3.9
70°	1093.2	1077.7	1031.1	944.2	834.8	705.3	563.3	410.4	253.7	117.2	0.0
72.5°	1038.9	1027.2	982.2	900.0	789.1	664.1	526.8	374.7	221.1	93.1	0.8
75°	986.1	971.4	930.3	852.7	744.1	620.7	486.5	341.4	189.3	71.4	0.8
77.5°	917.8	913.2	874.4	799.1	701.4	578.8	442.2	301.0	159.1	51.2	0.8
80°	849.6	844.9	814.7	745.6	651.7	529.1	401.1	263.0	129.6	34.1	0.8
82.5°	782.1	775.9	747.2	689.7	601.3	487.2	358.4	225.0	102.4	20.9	0.8
85°	721.6	713.8	682.8	630.0	549.3	439.9	314.2	187.8	76.0	11.6	1.6
87.5°	669.6	664.1	630.0	575.7	496.6	395.7	275.4	152.1	53.5	5.4	2.3
90°	625.3	613.7	583.4	526.0	446.9	346.8	234.3	121.8	35.7	3.1	3.1
92.5°	581.9	571.8	538.4	479.5	402.7	304.9	194.7	93.1	22.5	1.6	3.9
95°	536.9	526.0	493.4	439.1	357.7	262.2	159.8	68.3	12.4	1.6	3.9
97.5°	492.7	482.6	448.4	394.1	317.3	225.0	126.5	48.1	6.2	1.6	3.1
100°	451.6	439.9	408.9	354.6	277.0	187.8	97.8	31.0	3.9	1.6	3.1
102.5°	408.1	398.8	367.0	314.2	235.1	152.8	72.9	19.4	1.6	1.6	2.3
105°	369.3	357.7	326.6	272.3	200.2	120.3	51.2	11.6	1.6	1.6	2.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	240.5	231.2	204.1	158.3	101.6	47.3	14.0	2.3	2.3	2.3	2.3
115°	200.9	187.0	162.9	122.6	75.3	31.0	7.0	2.3	2.3	2.3	2.3
117.5°	160.6	149.0	131.9	93.1	49.7	20.2	3.9	2.3	2.3	2.3	2.3
120°	125.7	114.8	95.4	64.4	33.4	11.6	1.6	2.3	2.3	2.3	2.3
122.5°	90.0	81.5	64.4	41.9	20.2	5.4	2.3	2.3	3.1	3.1	2.3
125°	59.7	55.1	42.7	25.6	12.4	2.3	2.3	2.3	3.1	3.1	2.3
127.5°	38.8	34.9	24.8	14.7	5.4	2.3	2.3	3.1	3.1	3.1	2.3
130°	21.7	19.4	14.7	8.5	2.3	2.3	2.3	3.1	3.1	3.1	2.3
132.5°	12.4	11.6	7.8	1.6	2.3	2.3	2.3	3.1	3.1	3.1	3.1
135°	3.1	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.1
137.5°	0.8	0.8	1.6	1.6	2.3	2.3	3.1	3.9	3.9	3.9	3.1
140°	0.8	0.8	1.6	2.3	2.3	2.3	3.1	3.9	3.9	3.9	3.1
142.5°	0.8	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.1	3.1
145°	0.8	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.1	3.1	3.1
147.5°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.1	3.1
150°	0.8	1.6	1.6	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.1
152.5°	0.8	1.6	1.6	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.1
155°	1.6	1.6	1.6	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.9
157.5°	1.6	1.6	1.6	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.9
160°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.1	3.1	3.1	3.1
162.5°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.1	3.1	3.1	3.1
165°	1.6	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.1	3.1	3.1
167.5°	1.6	1.6	1.6	2.3	2.3	2.3	3.1	3.1	3.1	3.1	3.1
170°	1.6	1.6	1.6	2.3	2.3	2.3	3.1	3.9	3.9	3.9	3.9
172.5°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.9	3.9
175°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.9	3.9
177.5°	0.8	1.6	1.6	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°	609.1	609.1	609.1
2.5°	579.6	568.7	565.6
5°	548.5	530.7	520.6
7.5°	517.5	493.4	481.8
10°	488.8	454.7	442.2
12.5°	454.7	415.1	395.7
15°	422.1	370.9	352.2
17.5°	385.6	328.2	306.5
20°	351.5	285.5	263.0
22.5°	312.7	243.6	218.8
25°	277.8	201.7	173.8
27.5°	239.0	159.1	135.0
30°	202.5	121.8	97.8
32.5°	167.6	89.2	67.5
35°	135.0	60.5	42.7
37.5°	104.0	37.2	21.7
40°	75.3	19.4	10.1
42.5°	50.4	9.3	5.4
45°	31.0	4.7	0.0
47.5°	17.8	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	1.6	2.3
80°	1.6	3.1	3.9
82.5°	3.1	3.9	3.9
85°	3.1	3.9	4.7
87.5°	3.9	4.7	5.4
90°	4.7	5.4	5.4
92.5°	4.7	6.2	6.2
95°	5.4	6.2	7.0
97.5°	6.2	7.0	7.0
100°	5.4	7.0	7.8
102.5°	4.7	7.0	7.0
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	1.6
152.5°	2.3	1.6	1.6
155°	2.3	1.6	0.8
157.5°	3.1	1.6	0.8
160°	2.3	1.6	0.8
162.5°	2.3	1.6	0.8
165°	2.3	1.6	0.0
167.5°	2.3	1.6	0.8
170°	2.3	1.6	0.8
172.5°	2.3	1.6	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°	325.9	316.6	285.5	234.3	163.7	91.6	34.1	6.2	1.6	2.3	2.3
110°	284.0	276.2	244.4	194.7	131.9	68.3	22.5	3.9	2.3	2.3	2.3





107.5°	3.1	4.7	5.4
110°	3.1	3.9	4.7



(END OF REPORT)