

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: P551233

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-82-94-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: P551233
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-82-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

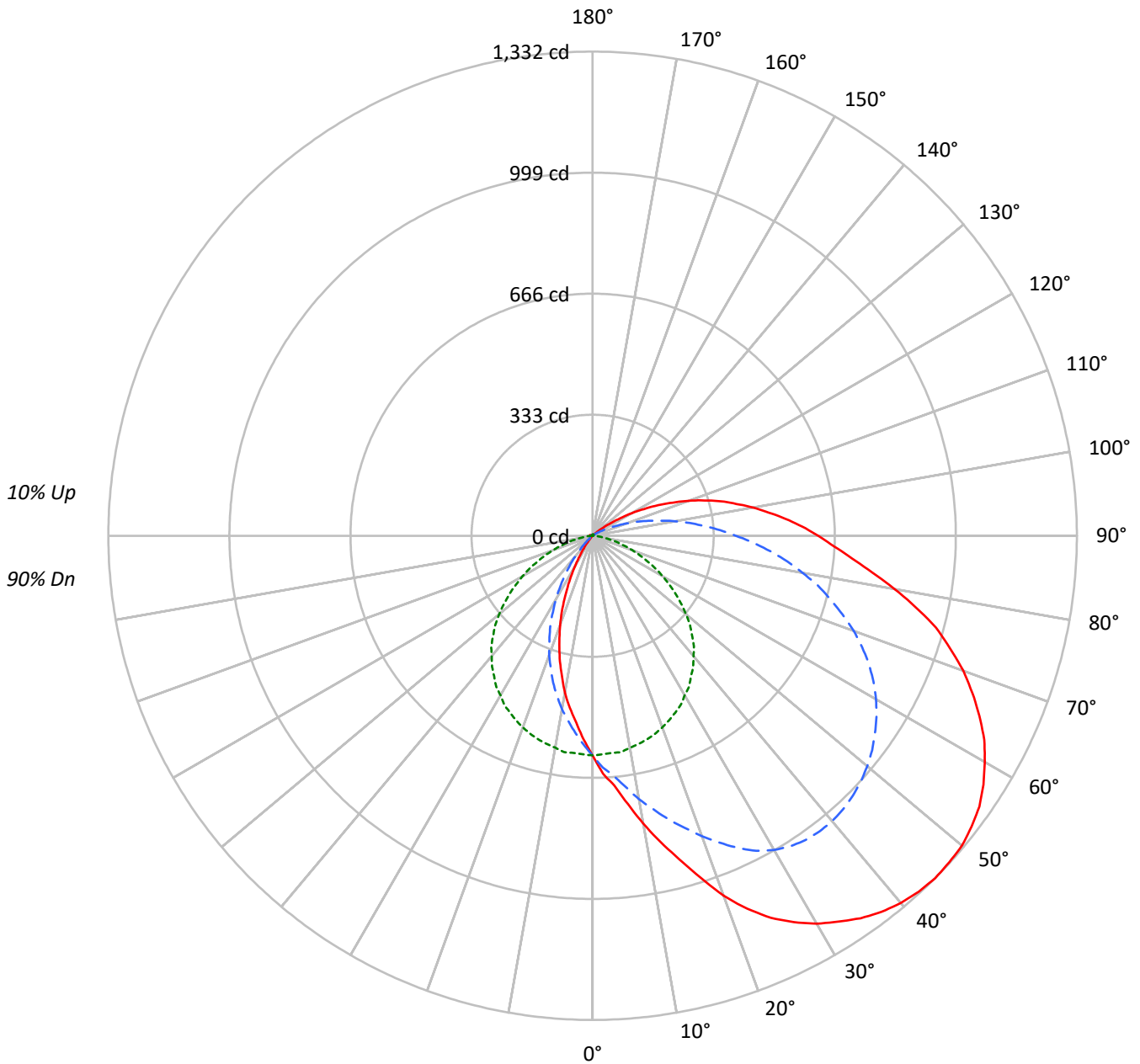
Lumens per Lamp: N/A
Luminaire Lumens: 2987.0 lumens
Efficiency: N/A
Efficacy: 69.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (Ain): 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°	6504	6504	6504
5°	7139	6409	5347
10°	8079	6330	4406
15°	9054	6250	3434
20°	10211	6148	2528
25°	11171	6029	1660
30°	11885	5870	936
35°	12503	5701	412
40°	13051	5491	99
45°	13521	5228	0
50°	13916	4880	0
55°	14215	4436	0
60°	14367	3923	0
65°	14427	3340	0
70°	14379	2722	0
75°	14196	2008	12
80°	13620	1230	61
85°	13165	585	85



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.9	1.9
10°-20°	173.3	5.8
20°-30°	280.6	9.4
30°-40°	360.5	12.1
40°-50°	408.1	13.7
50°-60°	422.8	14.2
60°-70°	398.7	13.3
70°-80°	334.1	11.2
80°-90°	242.2	8.1
90°-100°	159.2	5.3
100°-110°	91.9	3.1
110°-120°	40.6	1.4
120°-130°	11.0	0.4
130°-140°	2.5	0.1
140°-150°	1.6	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.2	0.0
0°-30°	511.8	17.1
0°-40°	872.3	29.2
0°-60°	1703.1	57.0
0°-90°	2678.1	89.7
90°-120°	291.7	9.8
90°-150°	306.8	10.3
90°-180°	309.0	10.3
0°-180°	2987.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	604	604	604	604	604	
5°	690	662	600	544	516	70
15°	921	808	580	419	349	266
25°	1160	948	537	276	172	536
35°	1285	1022	472	134	42	806
45°	1332	1012	386	31	0	1029
55°	1298	948	279	0	0	1159
65°	1174	839	166	0	0	1161
75°	978	677	71	1	1	1026
85°	716	491	12	3	5	611
90°	620	394	3	5	5	340
95°	533	308	2	5	7	418
105°	366	159	2	4	6	387
115°	199	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°	604.2	604.2	604.2	604.2	604.2	604.2	604.2	604.2	604.2	604.2	604.2
2.5°	655.0	654.2	651.9	648.1	642.7	633.4	625.7	618.8	609.6	601.9	587.3
5°	689.6	685.8	682.7	678.9	666.5	658.1	644.2	628.8	614.2	599.6	570.3
7.5°	745.0	738.9	734.3	723.5	706.6	687.3	665.8	651.1	641.1	600.3	550.3
10°	804.3	798.9	789.7	770.4	749.7	722.0	691.2	656.5	625.7	591.9	532.6
12.5°	862.8	855.1	842.0	817.4	788.2	753.5	711.2	670.4	626.5	586.5	511.8
15°	921.3	912.8	899.0	869.0	830.5	785.1	733.5	681.9	630.4	579.6	490.3
17.5°	985.2	973.6	952.9	919.0	870.5	814.3	753.5	691.2	628.8	571.1	467.2
20°	1053.7	1037.5	1015.2	969.8	912.8	846.6	773.5	700.4	628.1	561.1	441.0
22.5°	1110.6	1094.5	1069.9	1022.9	954.4	873.6	790.5	706.6	625.0	549.6	416.4
25°	1159.9	1146.8	1119.9	1066.0	993.7	902.1	806.6	711.2	620.4	537.2	390.2
27.5°	1198.4	1186.1	1156.1	1100.6	1026.8	927.5	818.9	713.5	614.2	524.9	363.3
30°	1232.3	1219.9	1183.8	1126.8	1049.1	947.5	831.3	714.3	606.5	506.4	334.0
32.5°	1258.4	1246.9	1209.9	1149.1	1064.5	961.3	838.2	713.5	596.5	493.4	302.5
35°	1284.6	1273.0	1229.9	1165.3	1076.0	967.5	843.6	709.6	584.2	471.8	272.5
37.5°	1304.6	1291.5	1247.7	1176.1	1081.4	969.0	842.8	704.3	571.1	454.1	242.4
40°	1318.5	1304.6	1257.7	1182.2	1082.9	966.7	836.6	695.0	555.7	431.8	210.9
42.5°	1327.7	1312.3	1262.3	1191.5	1079.9	960.6	827.4	683.5	538.8	412.5	180.9
45°	1332.3	1316.2	1263.0	1183.8	1074.5	949.0	813.6	668.9	520.3	386.4	150.9
47.5°	1330.0	1312.3	1259.2	1175.3	1064.5	936.7	798.2	651.1	498.0	363.3	122.4
50°	1326.2	1307.7	1250.7	1164.5	1050.6	921.3	781.2	629.6	474.9	334.8	97.0
52.5°	1313.8	1295.4	1241.5	1149.1	1034.4	903.6	758.1	607.3	450.3	307.1	73.9
55°	1298.4	1281.5	1225.3	1135.3	1013.7	882.1	736.6	583.4	426.4	278.6	53.1
57.5°	1274.6	1259.2	1205.3	1113.0	992.9	858.2	712.7	557.2	396.4	250.1	36.9
60°	1245.3	1229.9	1177.6	1087.6	969.0	831.3	686.6	530.3	369.4	221.7	23.1
62.5°	1214.6	1199.9	1145.3	1056.0	939.0	802.8	658.1	503.4	341.0	195.5	13.9
65°	1173.8	1159.9	1110.6	1018.3	905.9	772.0	626.5	471.0	311.7	166.3	7.7
67.5°	1130.7	1118.3	1068.3	983.7	867.4	738.1	594.2	439.5	280.9	140.9	3.8
70°	1084.5	1069.1	1022.9	936.7	828.2	699.6	558.8	407.2	251.7	116.2	0.0
72.5°	1030.6	1019.1	974.4	892.8	782.8	658.8	522.6	371.8	219.4	92.4	0.8
75°	978.3	963.6	922.8	845.9	738.1	615.7	482.6	338.7	187.8	70.8	0.8
77.5°	910.5	905.9	867.4	792.8	695.8	574.2	438.7	298.6	157.8	50.8	0.8
80°	842.8	838.2	808.2	739.7	646.5	524.9	397.9	260.9	128.5	33.9	0.8
82.5°	775.8	769.7	741.2	684.2	596.5	483.4	355.6	223.2	101.6	20.8	0.8
85°	715.8	708.1	677.3	625.0	544.9	436.4	311.7	186.3	75.4	11.5	1.5
87.5°	664.2	658.8	625.0	571.1	492.6	392.5	273.2	150.9	53.1	5.4	2.3
90°	620.4	608.8	578.8	521.8	443.3	344.0	232.4	120.8	35.4	3.1	3.1
92.5°	577.3	567.3	534.2	475.7	399.5	302.5	193.2	92.4	22.3	1.5	3.8
95°	532.6	521.8	489.5	435.6	354.8	260.2	158.6	67.7	12.3	1.5	3.8
97.5°	488.7	478.7	444.9	391.0	314.8	223.2	125.5	47.7	6.2	1.5	3.1
100°	448.0	436.4	405.6	351.7	274.8	186.3	97.0	30.8	3.8	1.5	3.1
102.5°	404.9	395.6	364.1	311.7	233.2	151.6	72.3	19.2	1.5	1.5	2.3
105°	366.4	354.8	324.0	270.2	198.6	119.3	50.8	11.5	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°	238.6	229.4	202.4	157.0	100.8	47.0	13.9	2.3	2.3	2.3	2.3
115°	199.3	185.5	161.6	121.6	74.7	30.8	6.9	2.3	2.3	2.3	2.3
117.5°	159.3	147.8	130.8	92.4	49.3	20.0	3.8	2.3	2.3	2.3	2.3
120°	124.7	113.9	94.7	63.9	33.1	11.5	1.5	2.3	2.3	2.3	2.3
122.5°	89.3	80.8	63.9	41.6	20.0	5.4	2.3	2.3	3.1	3.1	2.3
125°	59.3	54.6	42.3	25.4	12.3	2.3	2.3	2.3	3.1	3.1	2.3
127.5°	38.5	34.6	24.6	14.6	5.4	2.3	2.3	3.1	3.1	3.1	2.3
130°	21.6	19.2	14.6	8.5	2.3	2.3	2.3	3.1	3.1	3.1	2.3
132.5°	12.3	11.5	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	3.8	3.8	3.1
137.5°	0.8	0.8	1.5	1.5	2.3	2.3	3.1	3.8	3.8	3.8	3.1
140°	0.8	0.8	1.5	2.3	2.3	2.3	3.1	3.8	3.8	3.8	3.1
142.5°	0.8	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.1	3.1
145°	0.8	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.1	3.1	3.1
147.5°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.1	3.1
150°	0.8	1.5	1.5	2.3	3.1	3.1	3.1	3.8	3.1	3.1	3.1
152.5°	0.8	1.5	1.5	2.3	3.1	3.1	3.1	3.8	3.1	3.1	3.1
155°	1.5	1.5	1.5	2.3	3.1	3.1	3.1	3.8	3.1	3.1	3.8
157.5°	1.5	1.5	1.5	2.3	3.1	3.1	3.1	3.8	3.1	3.1	3.8
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	3.8	3.8	3.8	3.8
172.5°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.8	3.8
175°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.8	3.8
177.5°	0.8	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.8	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°	604.2	604.2	604.2
2.5°	575.0	564.2	561.1
5°	544.2	526.5	516.5
7.5°	513.4	489.5	478.0
10°	484.9	451.0	438.7
12.5°	451.0	411.8	392.5
15°	418.7	367.9	349.4
17.5°	382.5	325.6	304.0
20°	348.7	283.2	260.9
22.5°	310.2	241.7	217.0
25°	275.5	200.1	172.4
27.5°	237.1	157.8	133.9
30°	200.9	120.8	97.0
32.5°	166.3	88.5	67.0
35°	133.9	60.0	42.3
37.5°	103.1	36.9	21.6
40°	74.7	19.2	10.0
42.5°	50.0	9.2	5.4
45°	30.8	4.6	0.0
47.5°	17.7	0.0	0.0
50°	9.2	0.0	0.0
52.5°	3.8	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	3.8
82.5°	3.1	3.8	3.8
85°	3.1	3.8	4.6
87.5°	3.8	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°	3.8	5.4	6.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.1	3.8	3.8
115°	2.3	3.1	3.8
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°	323.3	314.0	283.2	232.4	162.4	90.8	33.9	6.2	1.5	2.3	2.3
110°	281.7	274.0	242.4	193.2	130.8	67.7	22.3	3.8	2.3	2.3	2.3





107.5°	3.1	4.6	5.4
110°	3.1	3.8	4.6



(END OF REPORT)