

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: P551355

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-82-86-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: P551355
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-40-UNV-82-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

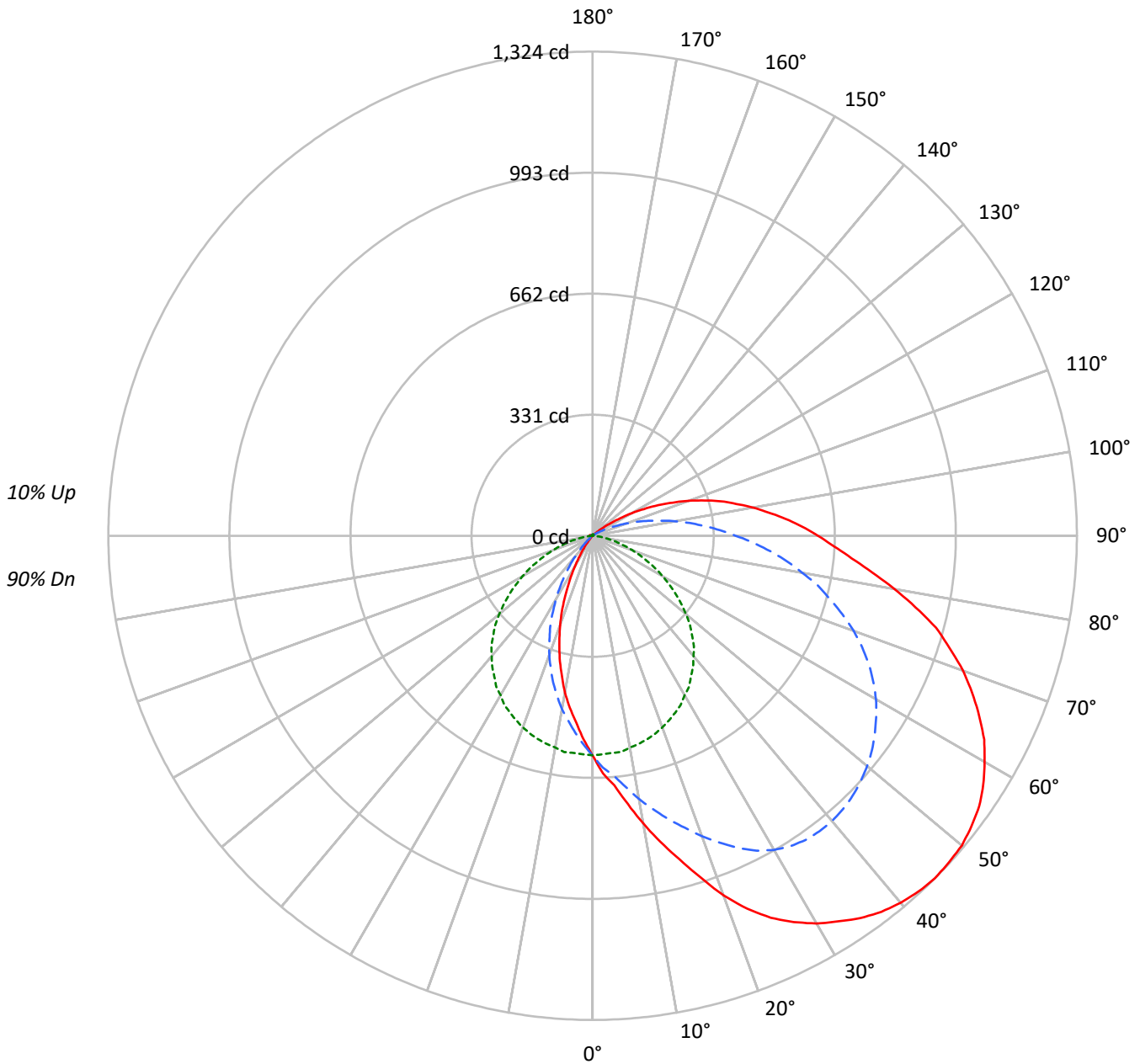
Lumens per Lamp: N/A
Luminaire Lumens: 2968.1 lumens
Efficiency: N/A
Efficacy: 68.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (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°	6463	6463	6463
5°	7093	6368	5313
10°	8027	6289	4378
15°	8996	6210	3412
20°	10147	6108	2513
25°	11100	5991	1650
30°	11809	5833	930
35°	12423	5664	410
40°	12968	5456	98
45°	13434	5195	0
50°	13827	4849	0
55°	14126	4409	0
60°	14276	3899	0
65°	14335	3318	0
70°	14287	2706	0
75°	14105	1996	12
80°	13533	1222	61
85°	13080	585	85



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.5	1.9
10°-20°	172.2	5.8
20°-30°	278.8	9.4
30°-40°	358.2	12.1
40°-50°	405.5	13.7
50°-60°	420.1	14.2
60°-70°	396.2	13.3
70°-80°	332.0	11.2
80°-90°	240.7	8.1
90°-100°	158.2	5.3
100°-110°	91.3	3.1
110°-120°	40.3	1.4
120°-130°	10.9	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°	508.5	17.1
0°-40°	866.7	29.2
0°-60°	1692.3	57.0
0°-90°	2661.1	89.7
90°-120°	289.8	9.8
90°-150°	304.9	10.3
90°-180°	307.0	10.3
0°-180°	2968.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	600	600	600	600	600	
5°	685	658	596	541	513	69
15°	915	803	576	416	347	264
25°	1152	942	534	274	171	533
35°	1276	1015	469	133	42	801
45°	1324	1005	384	31	0	1022
55°	1290	942	277	0	0	1152
65°	1166	834	165	0	0	1154
75°	972	673	70	1	1	1019
85°	711	488	12	3	5	607
90°	616	391	3	5	5	338
95°	529	306	2	5	7	415
105°	364	158	2	4	6	384
115°	198	52	2	2	4	198
125°	59	7	3	2	3	59
135°	3	2	4	3	2	5
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°	600.4	600.4	600.4	600.4	600.4	600.4	600.4	600.4	600.4	600.4	600.4
2.5°	650.8	650.1	647.8	643.9	638.6	629.4	621.8	614.9	605.7	598.1	583.5
5°	685.2	681.4	678.4	674.5	662.3	653.9	640.1	624.8	610.3	595.8	566.7
7.5°	740.3	734.2	729.6	718.9	702.1	683.0	661.5	647.0	637.1	596.5	546.8
10°	799.2	793.8	784.7	765.5	744.9	717.4	686.8	652.4	621.8	588.1	529.2
12.5°	857.3	849.7	836.7	812.2	783.1	748.7	706.7	666.1	622.5	582.8	508.6
15°	915.4	907.0	893.3	863.4	825.2	780.1	728.8	677.6	626.4	575.9	487.2
17.5°	978.9	967.5	946.8	913.2	865.0	809.1	748.7	686.8	624.8	567.5	464.2
20°	1047.0	1030.9	1008.7	963.6	907.0	841.3	768.6	696.0	624.1	557.5	438.2
22.5°	1103.6	1087.5	1063.0	1016.4	948.3	868.0	785.4	702.1	621.0	546.1	413.7
25°	1152.5	1139.5	1112.8	1059.2	987.3	896.3	801.5	706.7	616.4	533.8	387.7
27.5°	1190.8	1178.5	1148.7	1093.6	1020.2	921.6	813.7	709.0	610.3	521.6	361.0
30°	1224.4	1212.2	1176.2	1119.6	1042.4	941.4	826.0	709.7	602.6	503.2	331.9
32.5°	1250.4	1238.9	1202.2	1141.8	1057.7	955.2	832.8	709.0	592.7	490.2	300.6
35°	1276.4	1265.0	1222.1	1157.9	1069.2	961.3	838.2	705.1	580.5	468.8	270.7
37.5°	1296.3	1283.3	1239.7	1168.6	1074.5	962.9	837.4	699.8	567.5	451.2	240.9
40°	1310.1	1296.3	1249.7	1174.7	1076.1	960.6	831.3	690.6	552.2	429.0	209.6
42.5°	1319.3	1304.0	1254.2	1183.9	1073.0	954.4	822.1	679.1	535.3	409.9	179.7
45°	1323.8	1307.8	1255.0	1176.2	1067.6	943.0	808.4	664.6	517.0	383.9	149.9
47.5°	1321.5	1304.0	1251.2	1167.8	1057.7	930.7	793.1	647.0	494.8	361.0	121.6
50°	1317.7	1299.4	1242.8	1157.1	1043.9	915.4	776.3	625.6	471.9	332.7	96.4
52.5°	1305.5	1287.1	1233.6	1141.8	1027.9	897.9	753.3	603.4	447.4	305.1	73.4
55°	1290.2	1273.4	1217.5	1128.1	1007.2	876.4	731.9	579.7	423.7	276.9	52.8
57.5°	1266.5	1251.2	1197.7	1105.9	986.6	852.7	708.2	553.7	393.9	248.6	36.7
60°	1237.4	1222.1	1170.1	1080.6	962.9	826.0	682.2	526.9	367.1	220.3	22.9
62.5°	1206.8	1192.3	1138.0	1049.3	933.0	797.7	653.9	500.2	338.8	194.3	13.8
65°	1166.3	1152.5	1103.6	1011.8	900.2	767.1	622.5	468.0	309.7	165.2	7.6
67.5°	1123.5	1111.2	1061.5	977.4	861.9	733.4	590.4	436.7	279.1	140.0	3.8
70°	1077.6	1062.3	1016.4	930.7	822.9	695.2	555.2	404.6	250.1	115.5	0.0
72.5°	1024.0	1012.6	968.2	887.1	777.8	654.7	519.3	369.4	218.0	91.8	0.8
75°	972.0	957.5	917.0	840.5	733.4	611.8	479.5	336.5	186.6	70.4	0.8
77.5°	904.7	900.2	861.9	787.7	691.4	570.5	435.9	296.7	156.8	50.5	0.8
80°	837.4	832.8	803.0	735.0	642.4	521.6	395.4	259.3	127.7	33.7	0.8
82.5°	770.9	764.8	736.5	679.9	592.7	480.3	353.3	221.8	101.0	20.6	0.8
85°	711.2	703.6	673.0	621.0	541.5	433.6	309.7	185.1	74.9	11.5	1.5
87.5°	660.0	654.7	621.0	567.5	489.5	390.0	271.5	149.9	52.8	5.4	2.3
90°	616.4	604.9	575.1	518.5	440.5	341.9	231.0	120.1	35.2	3.1	3.1
92.5°	573.6	563.6	530.8	472.6	396.9	300.6	192.0	91.8	22.2	1.5	3.8
95°	529.2	518.5	486.4	432.9	352.6	258.5	157.5	67.3	12.2	1.5	3.8
97.5°	485.6	475.7	442.0	388.5	312.8	221.8	124.7	47.4	6.1	1.5	3.1
100°	445.1	433.6	403.0	349.5	273.0	185.1	96.4	30.6	3.8	1.5	3.1
102.5°	402.3	393.1	361.7	309.7	231.7	150.7	71.9	19.1	1.5	1.5	2.3
105°	364.0	352.6	322.0	268.4	197.3	118.5	50.5	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°	237.1	227.9	201.1	156.0	100.2	46.7	13.8	2.3	2.3	2.3	2.3
115°	198.1	184.3	160.6	120.8	74.2	30.6	6.9	2.3	2.3	2.3	2.3
117.5°	158.3	146.8	130.0	91.8	48.9	19.9	3.8	2.3	2.3	2.3	2.3
120°	123.9	113.2	94.1	63.5	32.9	11.5	1.5	2.3	2.3	2.3	2.3
122.5°	88.7	80.3	63.5	41.3	19.9	5.4	2.3	2.3	3.1	3.1	2.3
125°	58.9	54.3	42.1	25.2	12.2	2.3	2.3	2.3	3.1	3.1	2.3
127.5°	38.2	34.4	24.5	14.5	5.4	2.3	2.3	3.1	3.1	3.1	2.3
130°	21.4	19.1	14.5	8.4	2.3	2.3	2.3	3.1	3.1	3.1	2.3
132.5°	12.2	11.5	7.6	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°	600.4	600.4	600.4
2.5°	571.3	560.6	557.5
5°	540.7	523.1	513.2
7.5°	510.1	486.4	474.9
10°	481.8	448.2	435.9
12.5°	448.2	409.2	390.0
15°	416.0	365.6	347.2
17.5°	380.1	323.5	302.1
20°	346.4	281.4	259.3
22.5°	308.2	240.1	215.7
25°	273.8	198.8	171.3
27.5°	235.6	156.8	133.1
30°	199.6	120.1	96.4
32.5°	165.2	88.0	66.5
35°	133.1	59.7	42.1
37.5°	102.5	36.7	21.4
40°	74.2	19.1	9.9
42.5°	49.7	9.2	5.4
45°	30.6	4.6	0.0
47.5°	17.6	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	6.1	6.1
95°	5.4	6.1	6.9
97.5°	6.1	6.9	6.9
100°	5.4	6.9	7.6
102.5°	4.6	6.9	6.9
105°	3.8	5.4	6.1



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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°	321.2	312.0	281.4	231.0	161.4	90.2	33.7	6.1	1.5	2.3	2.3
110°	279.9	272.3	240.9	192.0	130.0	67.3	22.2	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)