

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: P550605

Luminaire Tested: **FCC-X-2-LD4-1HI-40-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: P550605
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-LD4-1HI-40-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 4000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

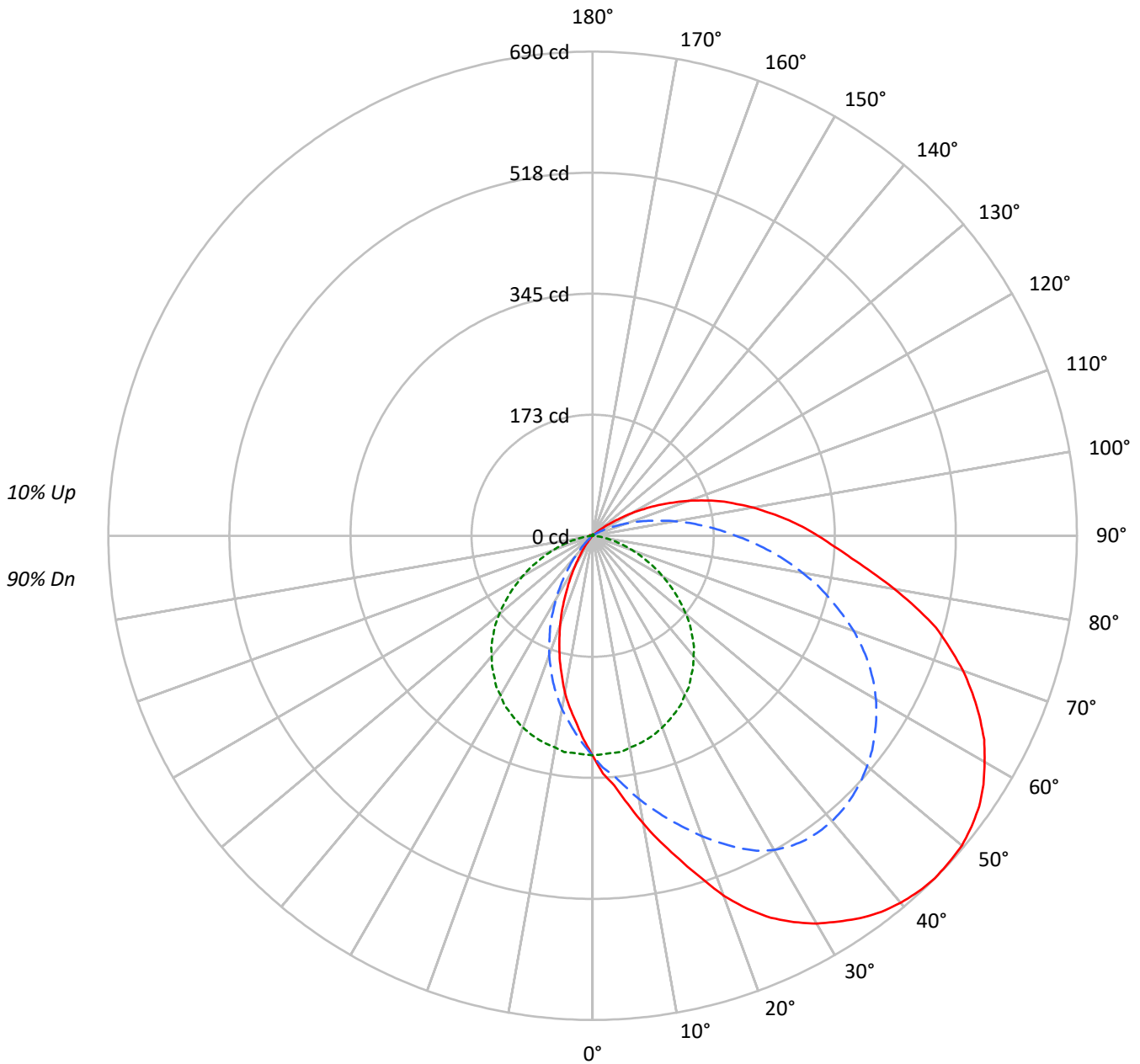
Lumens per Lamp: N/A
Luminaire Lumens: 1547.0 lumens
Efficiency: N/A
Efficacy: 71.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
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	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3368	3368	3368
5°	3698	3319	2769
10°	4185	3278	2282
15°	4689	3237	1779
20°	5288	3184	1309
25°	5785	3122	860
30°	6155	3041	484
35°	6475	2953	213
40°	6759	2844	51
45°	7002	2708	0
50°	7207	2527	0
55°	7363	2298	0
60°	7441	2032	0
65°	7472	1729	0
70°	7447	1410	0
75°	7353	1041	6
80°	7054	635	32
85°	6818	305	44



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.0	1.9
10°-20°	89.8	5.8
20°-30°	145.3	9.4
30°-40°	186.7	12.1
40°-50°	211.3	13.7
50°-60°	219.0	14.2
60°-70°	206.5	13.3
70°-80°	173.1	11.2
80°-90°	125.4	8.1
90°-100°	82.4	5.3
100°-110°	47.6	3.1
110°-120°	21.0	1.4
120°-130°	5.7	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	265.1	17.1
0°-40°	451.8	29.2
0°-60°	882.1	57.0
0°-90°	1387.0	89.7
90°-120°	151.1	9.8
90°-150°	158.9	10.3
90°-180°	160.0	10.3
0°-180°	1547.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	313	313	313	313	313	
5°	357	343	310	282	268	36
15°	477	418	300	217	181	138
25°	601	491	278	143	89	278
35°	665	529	244	69	22	417
45°	690	524	200	16	0	533
55°	672	491	144	0	0	601
65°	608	434	86	0	0	601
75°	507	351	37	0	0	531
85°	371	254	6	2	2	317
90°	321	204	2	2	3	176
95°	276	159	1	3	4	216
105°	190	82	1	2	3	200
115°	103	27	1	1	2	103
125°	31	4	2	1	2	31
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	312.9	312.9	312.9	312.9	312.9	312.9	312.9	312.9	312.9	312.9	312.9
2.5°	339.2	338.8	337.6	335.6	332.9	328.1	324.1	320.5	315.7	311.7	304.2
5°	357.2	355.2	353.6	351.6	345.2	340.8	333.6	325.7	318.1	310.5	295.4
7.5°	385.9	382.7	380.3	374.7	365.9	356.0	344.8	337.2	332.1	310.9	285.0
10°	416.6	413.8	409.0	399.0	388.3	373.9	358.0	340.0	324.1	306.5	275.8
12.5°	446.9	442.9	436.1	423.3	408.2	390.3	368.3	347.2	324.5	303.8	265.1
15°	477.2	472.8	465.6	450.0	430.1	406.6	379.9	353.2	326.5	300.2	253.9
17.5°	510.2	504.3	493.5	476.0	450.8	421.7	390.3	358.0	325.7	295.8	242.0
20°	545.7	537.3	525.8	502.3	472.8	438.5	400.6	362.7	325.3	290.6	228.4
22.5°	575.2	566.8	554.1	529.8	494.3	452.4	409.4	365.9	323.7	284.6	215.7
25°	600.7	594.0	580.0	552.1	514.6	467.2	417.8	368.3	321.3	278.2	202.1
27.5°	620.7	614.3	598.7	570.0	531.8	480.3	424.1	369.5	318.1	271.9	188.2
30°	638.2	631.8	613.1	583.6	543.3	490.7	430.5	369.9	314.1	262.3	173.0
32.5°	651.8	645.8	626.6	595.1	551.3	497.9	434.1	369.5	308.9	255.5	156.7
35°	665.3	659.3	637.0	603.5	557.3	501.1	436.9	367.5	302.6	244.4	141.1
37.5°	675.7	668.9	646.2	609.1	560.1	501.9	436.5	364.7	295.8	235.2	125.6
40°	682.8	675.7	651.4	612.3	560.9	500.7	433.3	360.0	287.8	223.6	109.2
42.5°	687.6	679.7	653.7	617.1	559.3	497.5	428.5	354.0	279.0	213.7	93.7
45°	690.0	681.6	654.1	613.1	556.5	491.5	421.3	346.4	269.5	200.1	78.1
47.5°	688.8	679.7	652.2	608.7	551.3	485.1	413.4	337.2	257.9	188.2	63.4
50°	686.8	677.3	647.8	603.1	544.1	477.2	404.6	326.1	246.0	173.4	50.2
52.5°	680.5	670.9	643.0	595.1	535.8	468.0	392.6	314.5	233.2	159.1	38.3
55°	672.5	663.7	634.6	588.0	525.0	456.8	381.5	302.2	220.8	144.3	27.5
57.5°	660.1	652.2	624.2	576.4	514.2	444.5	369.1	288.6	205.3	129.6	19.1
60°	645.0	637.0	609.9	563.3	501.9	430.5	355.6	274.7	191.3	114.8	12.0
62.5°	629.0	621.5	593.2	546.9	486.3	415.8	340.8	260.7	176.6	101.3	7.2
65°	607.9	600.7	575.2	527.4	469.2	399.8	324.5	244.0	161.4	86.1	4.0
67.5°	585.6	579.2	553.3	509.4	449.3	382.3	307.7	227.6	145.5	72.9	2.0
70°	561.7	553.7	529.8	485.1	428.9	362.4	289.4	210.9	130.4	60.2	0.0
72.5°	533.8	527.8	504.7	462.4	405.4	341.2	270.7	192.5	113.6	47.8	0.4
75°	506.7	499.1	478.0	438.1	382.3	318.9	249.9	175.4	97.3	36.7	0.4
77.5°	471.6	469.2	449.3	410.6	360.4	297.4	227.2	154.7	81.7	26.3	0.4
80°	436.5	434.1	418.6	383.1	334.8	271.9	206.1	135.1	66.6	17.5	0.4
82.5°	401.8	398.6	383.9	354.4	308.9	250.3	184.2	115.6	52.6	10.8	0.4
85°	370.7	366.7	350.8	323.7	282.2	226.0	161.4	96.5	39.1	6.0	0.8
87.5°	344.0	341.2	323.7	295.8	255.1	203.3	141.5	78.1	27.5	2.8	1.2
90°	321.3	315.3	299.8	270.3	229.6	178.2	120.4	62.6	18.3	1.6	1.6
92.5°	299.0	293.8	276.6	246.4	206.9	156.7	100.1	47.8	11.6	0.8	2.0
95°	275.8	270.3	253.5	225.6	183.8	134.7	82.1	35.1	6.4	0.8	2.0
97.5°	253.1	247.9	230.4	202.5	163.0	115.6	65.0	24.7	3.2	0.8	1.6
100°	232.0	226.0	210.1	182.2	142.3	96.5	50.2	15.9	2.0	0.8	1.6
102.5°	209.7	204.9	188.5	161.4	120.8	78.5	37.5	10.0	0.8	0.8	1.2
105°	189.7	183.8	167.8	139.9	102.8	61.8	26.3	6.0	0.8	0.8	1.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	123.6	118.8	104.8	81.3	52.2	24.3	7.2	1.2	1.2	1.2	1.2
115°	103.2	96.1	83.7	63.0	38.7	15.9	3.6	1.2	1.2	1.2	1.2
117.5°	82.5	76.5	67.8	47.8	25.5	10.4	2.0	1.2	1.2	1.2	1.2
120°	64.6	59.0	49.0	33.1	17.1	6.0	0.8	1.2	1.2	1.2	1.2
122.5°	46.2	41.9	33.1	21.5	10.4	2.8	1.2	1.2	1.6	1.6	1.2
125°	30.7	28.3	21.9	13.2	6.4	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	19.9	17.9	12.8	7.6	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.2	10.0	7.6	4.4	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.4	6.0	4.0	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	312.9	312.9	312.9
2.5°	297.8	292.2	290.6
5°	281.8	272.7	267.5
7.5°	265.9	253.5	247.5
10°	251.1	233.6	227.2
12.5°	233.6	213.3	203.3
15°	216.9	190.5	181.0
17.5°	198.1	168.6	157.5
20°	180.6	146.7	135.1
22.5°	160.6	125.2	112.4
25°	142.7	103.6	89.3
27.5°	122.8	81.7	69.4
30°	104.0	62.6	50.2
32.5°	86.1	45.8	34.7
35°	69.4	31.1	21.9
37.5°	53.4	19.1	11.2
40°	38.7	10.0	5.2
42.5°	25.9	4.8	2.8
45°	15.9	2.4	0.0
47.5°	9.2	0.0	0.0
50°	4.8	0.0	0.0
52.5°	2.0	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°	0.4	0.4	0.4
77.5°	0.4	0.8	1.2
80°	0.8	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.4
87.5°	2.0	2.4	2.8
90°	2.4	2.8	2.8
92.5°	2.4	3.2	3.2
95°	2.8	3.2	3.6
97.5°	3.2	3.6	3.6
100°	2.8	3.6	4.0
102.5°	2.4	3.6	3.6
105°	2.0	2.8	3.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.6	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	167.4	162.6	146.7	120.4	84.1	47.0	17.5	3.2	0.8	1.2	1.2
110°	145.9	141.9	125.6	100.1	67.8	35.1	11.6	2.0	1.2	1.2	1.2





107.5°	1.6	2.4	2.8
110°	1.6	2.0	2.4



(END OF REPORT)