

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: P550485

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-93-97-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: P550485
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-30-UNV-93-97-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

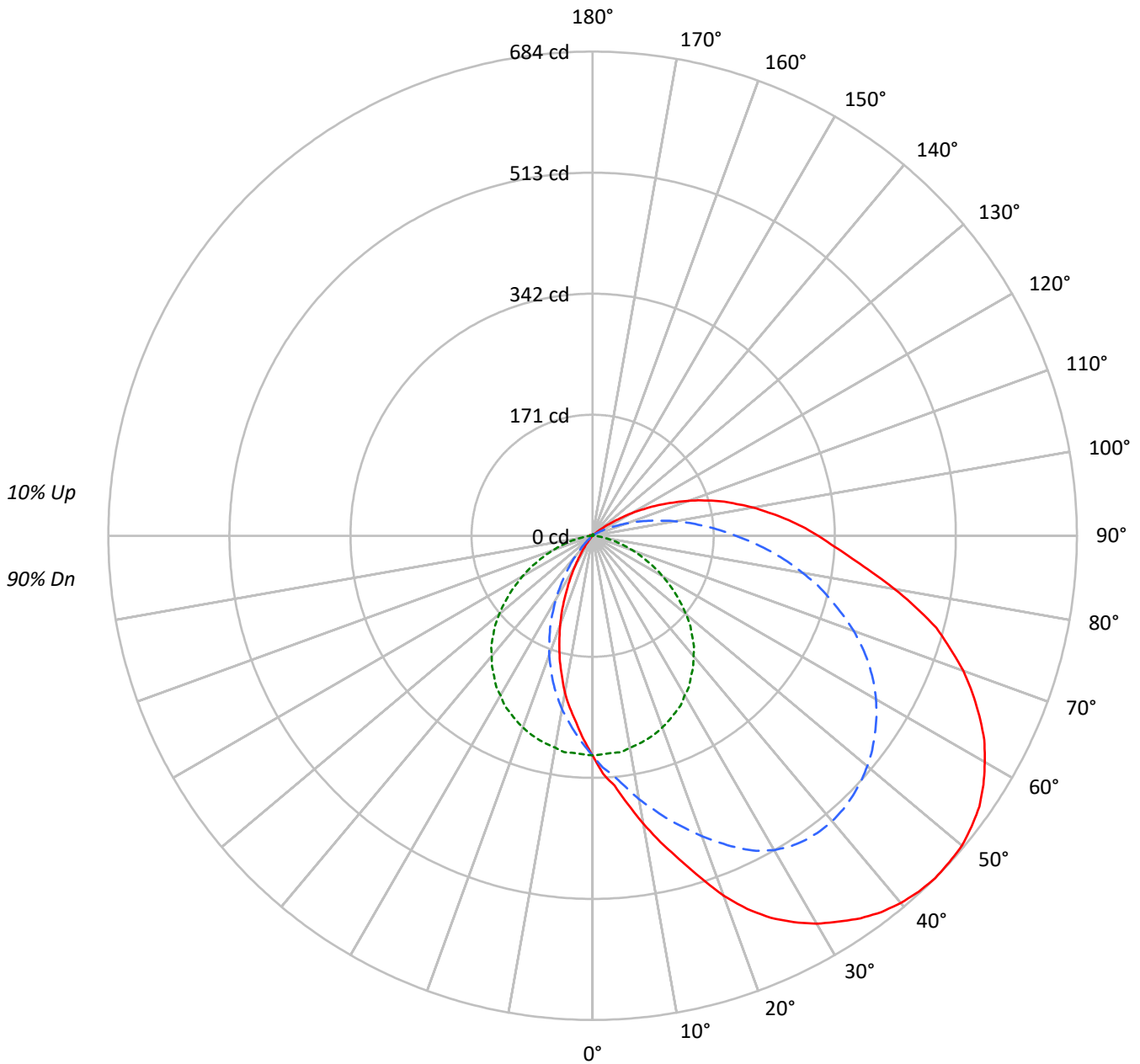
Lumens per Lamp: N/A
Luminaire Lumens: 1534.1 lumens
Efficiency: N/A
Efficacy: 70.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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									
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°	3340	3340	3340
5°	3667	3291	2745
10°	4149	3251	2263
15°	4649	3209	1764
20°	5244	3158	1299
25°	5737	3096	852
30°	6103	3015	480
35°	6421	2928	211
40°	6702	2819	50
45°	6943	2685	0
50°	7147	2505	0
55°	7300	2279	0
60°	7379	2014	0
65°	7409	1715	0
70°	7384	1399	0
75°	7290	1032	6
80°	6994	631	32
85°	6761	300	44



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.7	1.9
10°-20°	89.0	5.8
20°-30°	144.1	9.4
30°-40°	185.1	12.1
40°-50°	209.6	13.7
50°-60°	217.1	14.2
60°-70°	204.8	13.3
70°-80°	171.6	11.2
80°-90°	124.4	8.1
90°-100°	81.8	5.3
100°-110°	47.2	3.1
110°-120°	20.8	1.4
120°-130°	5.6	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°	262.8	17.1
0°-40°	448.0	29.2
0°-60°	874.6	57.0
0°-90°	1375.4	89.7
90°-120°	149.8	9.8
90°-150°	157.7	10.3
90°-180°	159.0	10.4
0°-180°	1534.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	310	310	310	310	310	
5°	354	340	308	280	265	36
15°	473	415	298	215	180	136
25°	596	487	276	142	88	275
35°	660	525	242	69	22	414
45°	684	520	198	16	0	528
55°	667	487	143	0	0	595
65°	603	431	85	0	0	596
75°	502	348	36	0	0	527
85°	368	252	6	2	2	314
90°	319	202	2	2	3	175
95°	274	158	1	3	4	215
105°	188	82	1	2	3	199
115°	102	27	1	1	2	103
125°	30	4	2	1	2	30
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°	310.3	310.3	310.3	310.3	310.3	310.3	310.3	310.3	310.3	310.3	310.3
2.5°	336.4	336.0	334.8	332.8	330.1	325.3	321.4	317.8	313.1	309.1	301.6
5°	354.2	352.2	350.6	348.6	342.3	338.0	330.8	322.9	315.4	307.9	292.9
7.5°	382.6	379.5	377.1	371.6	362.9	353.0	341.9	334.4	329.3	308.3	282.6
10°	413.1	410.3	405.6	395.7	385.0	370.8	355.0	337.2	321.4	304.0	273.5
12.5°	443.1	439.2	432.4	419.8	404.8	387.0	365.2	344.3	321.8	301.2	262.9
15°	473.1	468.8	461.7	446.3	426.5	403.2	376.7	350.2	323.7	297.6	251.8
17.5°	506.0	500.0	489.4	472.0	447.1	418.2	387.0	355.0	322.9	293.3	239.9
20°	541.1	532.8	521.4	498.0	468.8	434.8	397.3	359.7	322.5	288.2	226.5
22.5°	570.4	562.1	549.4	525.3	490.1	448.6	405.9	362.9	321.0	282.2	213.8
25°	595.7	589.0	575.1	547.5	510.3	463.3	414.2	365.2	318.6	275.9	200.4
27.5°	615.4	609.1	593.7	565.2	527.3	476.3	420.6	366.4	315.4	269.6	186.6
30°	632.8	626.5	607.9	578.7	538.8	486.6	426.9	366.8	311.5	260.1	171.5
32.5°	646.3	640.3	621.4	590.1	546.7	493.7	430.5	366.4	306.3	253.4	155.3
35°	659.7	653.8	631.7	598.4	552.6	496.9	433.2	364.4	300.0	242.3	139.9
37.5°	670.0	663.3	640.7	604.0	555.4	497.7	432.8	361.7	293.3	233.2	124.5
40°	677.1	670.0	645.9	607.1	556.2	496.5	429.7	356.9	285.4	221.7	108.3
42.5°	681.9	673.9	648.3	611.9	554.6	493.3	424.9	351.0	276.7	211.9	92.9
45°	684.2	675.9	648.6	607.9	551.8	487.4	417.8	343.5	267.2	198.4	77.5
47.5°	683.0	673.9	646.7	603.6	546.7	481.1	409.9	334.4	255.7	186.6	62.8
50°	681.1	671.6	642.3	598.1	539.6	473.1	401.2	323.3	243.9	171.9	49.8
52.5°	674.7	665.2	637.6	590.1	531.3	464.1	389.3	311.9	231.2	157.7	37.9
55°	666.8	658.1	629.3	583.0	520.6	453.0	378.3	299.6	219.0	143.1	27.3
57.5°	654.6	646.7	619.0	571.6	509.9	440.7	366.0	286.2	203.6	128.5	19.0
60°	639.6	631.7	604.8	558.5	497.7	426.9	352.6	272.3	189.7	113.8	11.9
62.5°	623.7	616.2	588.2	542.3	482.2	412.3	338.0	258.5	175.1	100.4	7.1
65°	602.8	595.7	570.4	522.9	465.2	396.5	321.8	241.9	160.1	85.4	4.0
67.5°	580.7	574.3	548.6	505.2	445.5	379.1	305.2	225.7	144.3	72.3	2.0
70°	556.9	549.0	525.3	481.1	425.3	359.3	287.0	209.1	129.3	59.7	0.0
72.5°	529.3	523.3	500.4	458.5	402.0	338.4	268.4	190.9	112.7	47.4	0.4
75°	502.4	494.9	473.9	434.4	379.1	316.2	247.8	173.9	96.4	36.4	0.4
77.5°	467.6	465.2	445.5	407.1	357.3	294.9	225.3	153.4	81.0	26.1	0.4
80°	432.8	430.5	415.0	379.9	332.0	269.6	204.4	134.0	66.0	17.4	0.4
82.5°	398.4	395.3	380.7	351.4	306.3	248.2	182.6	114.6	52.2	10.7	0.4
85°	367.6	363.7	347.8	321.0	279.9	224.1	160.1	95.7	38.7	5.9	0.8
87.5°	341.1	338.4	321.0	293.3	253.0	201.6	140.3	77.5	27.3	2.8	1.2
90°	318.6	312.7	297.2	268.0	227.7	176.7	119.4	62.1	18.2	1.6	1.6
92.5°	296.5	291.3	274.3	244.3	205.1	155.3	99.2	47.4	11.5	0.8	2.0
95°	273.5	268.0	251.4	223.7	182.2	133.6	81.4	34.8	6.3	0.8	2.0
97.5°	251.0	245.9	228.5	200.8	161.7	114.6	64.4	24.5	3.2	0.8	1.6
100°	230.1	224.1	208.3	180.6	141.1	95.7	49.8	15.8	2.0	0.8	1.6
102.5°	207.9	203.2	187.0	160.1	119.8	77.9	37.2	9.9	0.8	0.8	1.2
105°	188.2	182.2	166.4	138.7	102.0	61.3	26.1	5.9	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°	122.5	117.8	104.0	80.6	51.8	24.1	7.1	1.2	1.2	1.2	1.2
115°	102.4	95.3	83.0	62.5	38.3	15.8	3.6	1.2	1.2	1.2	1.2
117.5°	81.8	75.9	67.2	47.4	25.3	10.3	2.0	1.2	1.2	1.2	1.2
120°	64.0	58.5	48.6	32.8	17.0	5.9	0.8	1.2	1.2	1.2	1.2
122.5°	45.9	41.5	32.8	21.3	10.3	2.8	1.2	1.2	1.6	1.6	1.2
125°	30.4	28.1	21.7	13.0	6.3	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	19.8	17.8	12.6	7.5	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.1	9.9	7.5	4.3	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.3	5.9	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°	310.3	310.3	310.3
2.5°	295.3	289.7	288.2
5°	279.5	270.4	265.2
7.5°	263.6	251.4	245.5
10°	249.0	231.6	225.3
12.5°	231.6	211.5	201.6
15°	215.0	188.9	179.5
17.5°	196.5	167.2	156.1
20°	179.1	145.5	134.0
22.5°	159.3	124.1	111.5
25°	141.5	102.8	88.5
27.5°	121.7	81.0	68.8
30°	103.2	62.1	49.8
32.5°	85.4	45.5	34.4
35°	68.8	30.8	21.7
37.5°	53.0	19.0	11.1
40°	38.3	9.9	5.1
42.5°	25.7	4.7	2.8
45°	15.8	2.4	0.0
47.5°	9.1	0.0	0.0
50°	4.7	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°	166.0	161.3	145.5	119.4	83.4	46.6	17.4	3.2	0.8	1.2	1.2
110°	144.7	140.7	124.5	99.2	67.2	34.8	11.5	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)