

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: P551111

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-93-84-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: P551111
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-LD4-1STD-40-UNV-93-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

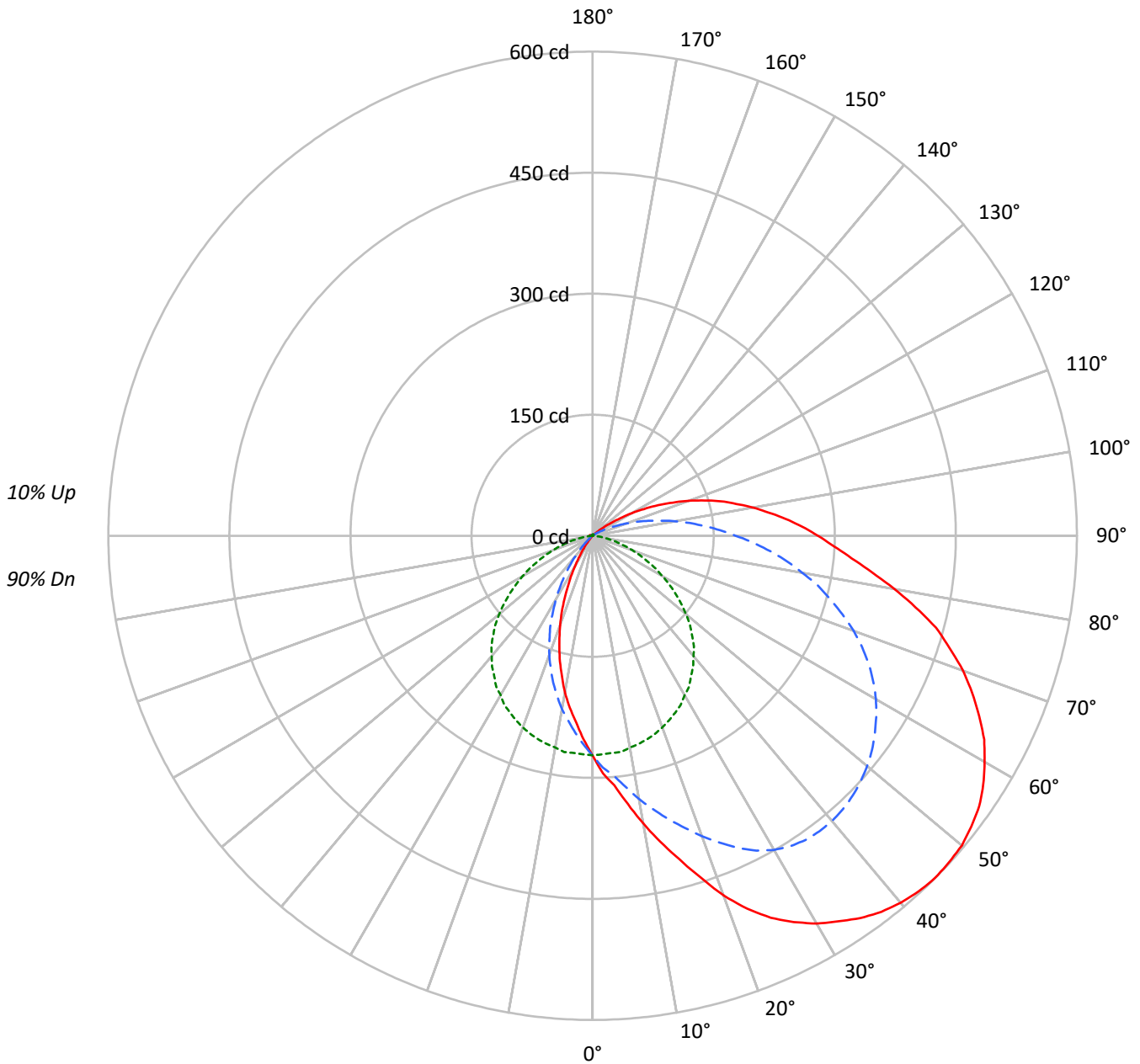
Lumens per Lamp: N/A
Luminaire Lumens: 1344.9 lumens
Efficiency: N/A
Efficacy: 80.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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°	2929	2929	2929
5°	3214	2886	2408
10°	3638	2850	1984
15°	4077	2814	1546
20°	4598	2769	1139
25°	5030	2715	747
30°	5352	2643	421
35°	5629	2568	186
40°	5877	2472	45
45°	6088	2354	0
50°	6265	2198	0
55°	6402	1998	0
60°	6470	1766	0
65°	6496	1504	0
70°	6474	1225	0
75°	6392	905	4
80°	6133	551	27
85°	5928	264	39



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.1	1.9
10°-20°	78.0	5.8
20°-30°	126.4	9.4
30°-40°	162.3	12.1
40°-50°	183.7	13.7
50°-60°	190.4	14.2
60°-70°	179.5	13.3
70°-80°	150.4	11.2
80°-90°	109.0	8.1
90°-100°	71.7	5.3
100°-110°	41.4	3.1
110°-120°	18.2	1.4
120°-130°	4.9	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	230.4	17.1
0°-40°	392.8	29.2
0°-60°	766.9	57.0
0°-90°	1205.9	89.7
90°-120°	131.3	9.8
90°-150°	138.1	10.3
90°-180°	139.0	10.3
0°-180°	1344.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	272	272	272	272	272	
5°	310	298	270	245	233	31
15°	415	364	261	188	157	120
25°	522	427	242	124	78	241
35°	578	460	212	60	19	363
45°	600	456	174	14	0	463
55°	585	427	126	0	0	522
65°	528	378	75	0	0	523
75°	440	305	32	0	0	462
85°	322	221	5	1	2	275
90°	279	177	1	2	2	153
95°	240	138	1	2	3	188
105°	165	72	1	2	3	174
115°	90	24	1	1	2	90
125°	27	3	1	1	1	27
135°	1	1	2	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	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°	272.1	272.1	272.1	272.1	272.1	272.1	272.1	272.1	272.1	272.1	272.1
2.5°	294.9	294.6	293.5	291.8	289.4	285.2	281.8	278.6	274.5	271.0	264.4
5°	310.5	308.8	307.4	305.7	300.1	296.3	290.1	283.2	276.6	270.0	256.8
7.5°	335.5	332.7	330.6	325.8	318.2	309.5	299.8	293.2	288.7	270.3	247.8
10°	362.2	359.7	355.6	346.9	337.6	325.1	311.2	295.6	281.8	266.5	239.8
12.5°	388.5	385.0	379.2	368.1	354.9	339.3	320.2	301.9	282.1	264.1	230.5
15°	414.9	411.0	404.8	391.3	374.0	353.5	330.3	307.1	283.8	261.0	220.8
17.5°	443.6	438.4	429.1	413.8	392.0	366.7	339.3	311.2	283.2	257.2	210.4
20°	474.5	467.2	457.1	436.7	411.0	381.2	348.3	315.4	282.8	252.7	198.6
22.5°	500.1	492.8	481.7	460.6	429.8	393.4	355.9	318.2	281.4	247.5	187.5
25°	522.3	516.4	504.3	480.0	447.4	406.2	363.2	320.2	279.3	241.9	175.7
27.5°	539.6	534.1	520.6	495.6	462.3	417.6	368.8	321.3	276.6	236.4	163.6
30°	554.9	549.3	533.0	507.4	472.4	426.6	374.3	321.6	273.1	228.0	150.4
32.5°	566.6	561.5	544.8	517.4	479.3	432.9	377.4	321.3	268.6	222.2	136.2
35°	578.4	573.2	553.8	524.7	484.5	435.6	379.8	319.5	263.1	212.5	122.7
37.5°	587.4	581.6	561.8	529.6	486.9	436.3	379.5	317.1	257.2	204.5	109.2
40°	593.7	587.4	566.3	532.3	487.6	435.3	376.7	313.0	250.2	194.4	95.0
42.5°	597.8	590.9	568.4	536.5	486.2	432.5	372.6	307.8	242.6	185.8	81.4
45°	599.9	592.6	568.7	533.0	483.8	427.3	366.3	301.2	234.3	174.0	67.9
47.5°	598.9	590.9	567.0	529.2	479.3	421.8	359.4	293.2	224.2	163.6	55.1
50°	597.1	588.8	563.2	524.4	473.1	414.9	351.8	283.5	213.8	150.8	43.7
52.5°	591.6	583.3	559.0	517.4	465.8	406.9	341.4	273.4	202.7	138.3	33.3
55°	584.7	577.0	551.7	511.2	456.4	397.2	331.7	262.7	192.0	125.5	23.9
57.5°	573.9	567.0	542.7	501.1	447.1	386.4	320.9	250.9	178.5	112.6	16.6
60°	560.8	553.8	530.3	489.7	436.3	374.3	309.1	238.8	166.4	99.8	10.4
62.5°	546.9	540.3	515.7	475.5	422.8	361.5	296.3	226.7	153.5	88.0	6.2
65°	528.5	522.3	500.1	458.5	407.9	347.6	282.1	212.1	140.4	74.9	3.5
67.5°	509.1	503.6	481.0	442.9	390.6	332.4	267.6	197.9	126.5	63.4	1.7
70°	488.3	481.4	460.6	421.8	372.9	315.0	251.6	183.3	113.3	52.3	0.0
72.5°	464.1	458.9	438.8	402.0	352.5	296.7	235.3	167.4	98.8	41.6	0.3
75°	440.5	433.9	415.5	380.9	332.4	277.3	217.3	152.5	84.6	31.9	0.3
77.5°	410.0	407.9	390.6	357.0	313.3	258.5	197.5	134.5	71.0	22.9	0.3
80°	379.5	377.4	363.9	333.1	291.1	236.4	179.2	117.5	57.9	15.2	0.3
82.5°	349.3	346.6	333.8	308.1	268.6	217.6	160.1	100.5	45.7	9.4	0.3
85°	322.3	318.8	305.0	281.4	245.4	196.5	140.4	83.9	34.0	5.2	0.7
87.5°	299.1	296.7	281.4	257.2	221.8	176.8	123.0	67.9	23.9	2.4	1.0
90°	279.3	274.1	260.6	235.0	199.6	154.9	104.7	54.4	15.9	1.4	1.4
92.5°	259.9	255.4	240.5	214.2	179.9	136.2	87.0	41.6	10.1	0.7	1.7
95°	239.8	235.0	220.4	196.2	159.8	117.1	71.4	30.5	5.5	0.7	1.7
97.5°	220.1	215.6	200.3	176.1	141.7	100.5	56.5	21.5	2.8	0.7	1.4
100°	201.7	196.5	182.6	158.4	123.7	83.9	43.7	13.9	1.7	0.7	1.4
102.5°	182.3	178.1	163.9	140.4	105.0	68.3	32.6	8.7	0.7	0.7	1.0
105°	165.0	159.8	145.9	121.6	89.4	53.7	22.9	5.2	0.7	0.7	1.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	107.4	103.3	91.1	70.7	45.4	21.1	6.2	1.0	1.0	1.0	1.0
115°	89.8	83.5	72.8	54.8	33.6	13.9	3.1	1.0	1.0	1.0	1.0
117.5°	71.7	66.5	58.9	41.6	22.2	9.0	1.7	1.0	1.0	1.0	1.0
120°	56.1	51.3	42.6	28.8	14.9	5.2	0.7	1.0	1.0	1.0	1.0
122.5°	40.2	36.4	28.8	18.7	9.0	2.4	1.0	1.0	1.4	1.4	1.0
125°	26.7	24.6	19.1	11.4	5.5	1.0	1.0	1.0	1.4	1.4	1.0
127.5°	17.3	15.6	11.1	6.6	2.4	1.0	1.0	1.4	1.4	1.4	1.0
130°	9.7	8.7	6.6	3.8	1.0	1.0	1.0	1.4	1.4	1.4	1.0
132.5°	5.5	5.2	3.5	0.7	1.0	1.0	1.0	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.4	1.7	1.7	1.7	1.4
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.4	1.7	1.7	1.7	1.4
142.5°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4	1.4
145°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4	1.4
150°	0.3	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.4
152.5°	0.3	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.7
157.5°	0.7	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.4	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.4
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	272.1	272.1	272.1
2.5°	258.9	254.0	252.7
5°	245.0	237.1	232.6
7.5°	231.2	220.4	215.2
10°	218.3	203.1	197.5
12.5°	203.1	185.4	176.8
15°	188.5	165.7	157.3
17.5°	172.2	146.6	136.9
20°	157.0	127.5	117.5
22.5°	139.7	108.8	97.7
25°	124.1	90.1	77.6
27.5°	106.7	71.0	60.3
30°	90.5	54.4	43.7
32.5°	74.9	39.9	30.2
35°	60.3	27.0	19.1
37.5°	46.4	16.6	9.7
40°	33.6	8.7	4.5
42.5°	22.5	4.2	2.4
45°	13.9	2.1	0.0
47.5°	8.0	0.0	0.0
50°	4.2	0.0	0.0
52.5°	1.7	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°	0.3	0.3	0.3
77.5°	0.3	0.7	1.0
80°	0.7	1.4	1.7
82.5°	1.4	1.7	1.7
85°	1.4	1.7	2.1
87.5°	1.7	2.1	2.4
90°	2.1	2.4	2.4
92.5°	2.1	2.8	2.8
95°	2.4	2.8	3.1
97.5°	2.8	3.1	3.1
100°	2.4	3.1	3.5
102.5°	2.1	3.1	3.1
105°	1.7	2.4	2.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.4	1.7	1.7
115°	1.0	1.4	1.7
117.5°	1.0	1.4	1.4
120°	1.0	1.0	1.4
122.5°	1.0	1.0	1.4
125°	1.0	1.0	1.4
127.5°	1.4	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.4	1.0	1.0
135°	1.4	1.0	1.0
137.5°	1.4	1.0	1.0
140°	1.4	1.0	1.0
142.5°	1.4	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.7
152.5°	1.0	0.7	0.7
155°	1.0	0.7	0.3
157.5°	1.4	0.7	0.3
160°	1.0	0.7	0.3
162.5°	1.0	0.7	0.3
165°	1.0	0.7	0.0
167.5°	1.0	0.7	0.3
170°	1.0	0.7	0.3
172.5°	1.0	0.7	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	145.6	141.4	127.5	104.7	73.1	40.9	15.2	2.8	0.7	1.0	1.0
110°	126.8	123.4	109.2	87.0	58.9	30.5	10.1	1.7	1.0	1.0	1.0





107.5°	1.4	2.1	2.4
110°	1.4	1.7	2.1



(END OF REPORT)