

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: P551067

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-80-86-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: P551067
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-80-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC 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

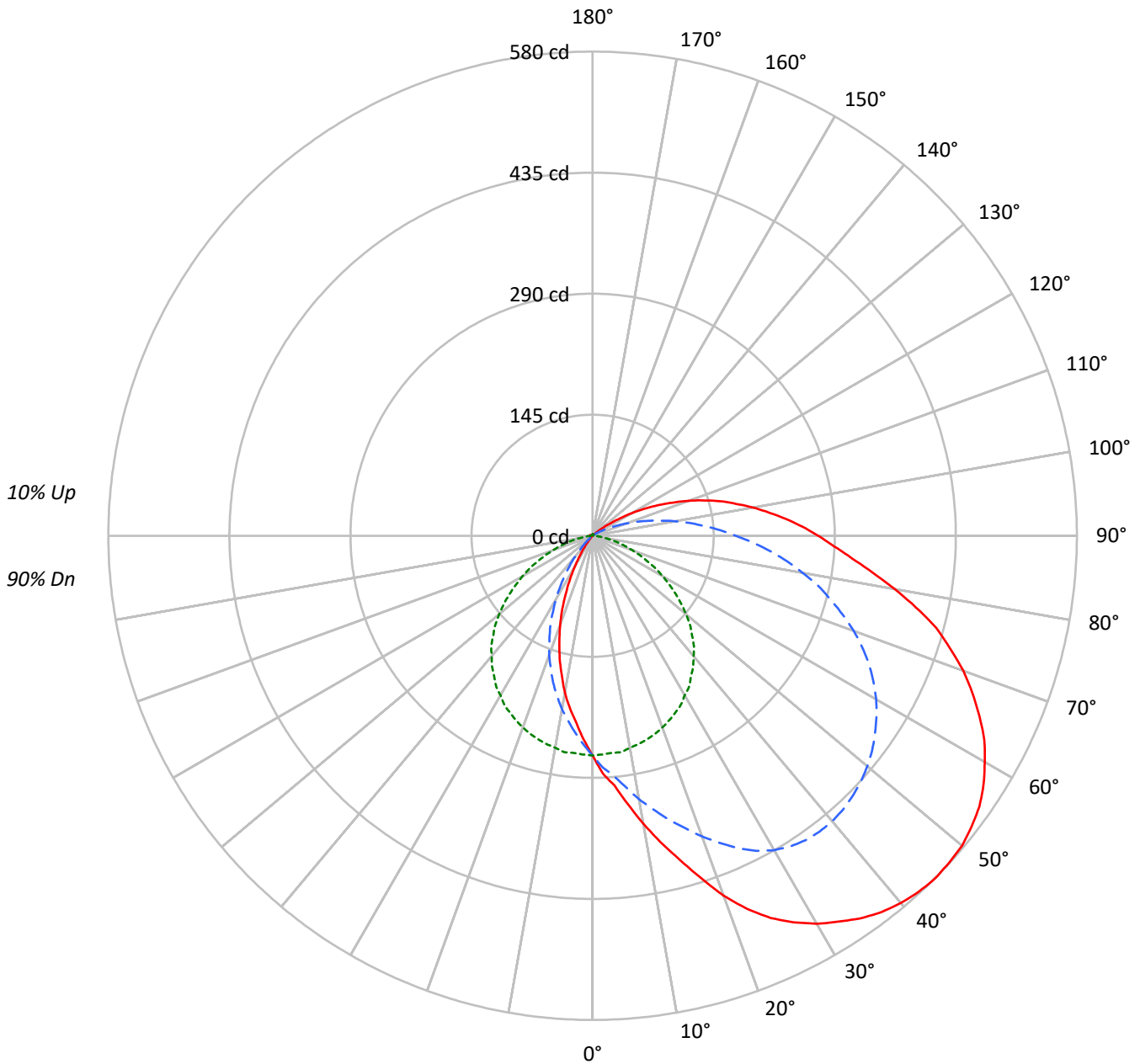
Lumens per Lamp: N/A
Luminaire Lumens: 1300.9 lumens
Efficiency: N/A
Efficacy: 77.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (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°	2833	2833	2833
5°	3110	2791	2328
10°	3519	2757	1919
15°	3944	2721	1496
20°	4447	2678	1101
25°	4866	2626	723
30°	5176	2557	407
35°	5446	2483	179
40°	5685	2392	44
45°	5889	2277	0
50°	6061	2125	0
55°	6191	1933	0
60°	6258	1708	0
65°	6283	1454	0
70°	6262	1185	0
75°	6183	873	4
80°	5933	537	27
85°	5735	254	37



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.2	1.9
10°-20°	75.5	5.8
20°-30°	122.2	9.4
30°-40°	157.0	12.1
40°-50°	177.7	13.7
50°-60°	184.1	14.2
60°-70°	173.7	13.3
70°-80°	145.5	11.2
80°-90°	105.5	8.1
90°-100°	69.3	5.3
100°-110°	40.0	3.1
110°-120°	17.7	1.4
120°-130°	4.8	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°	222.9	17.1
0°-40°	379.9	29.2
0°-60°	741.8	57.0
0°-90°	1166.4	89.7
90°-120°	127.0	9.8
90°-150°	133.6	10.3
90°-180°	134.0	10.3
0°-180°	1300.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	263	263	263	263	263	
5°	300	288	261	237	225	30
15°	401	352	252	182	152	116
25°	505	413	234	120	75	233
35°	560	445	206	58	18	351
45°	580	441	168	13	0	448
55°	566	413	121	0	0	505
65°	511	365	72	0	0	506
75°	426	295	31	0	0	447
85°	312	214	5	1	2	266
90°	270	172	1	2	2	148
95°	232	134	1	2	3	182
105°	160	69	1	2	3	168
115°	87	23	1	1	2	87
125°	26	3	1	1	1	26
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°	263.2	263.2	263.2	263.2	263.2	263.2	263.2	263.2	263.2	263.2	263.2
2.5°	285.3	285.0	283.9	282.3	279.9	275.9	272.5	269.5	265.5	262.2	255.8
5°	300.4	298.7	297.4	295.7	290.3	286.6	280.6	273.9	267.5	261.1	248.4
7.5°	324.5	321.8	319.8	315.1	307.7	299.4	290.0	283.6	279.3	261.5	239.7
10°	350.3	348.0	344.0	335.6	326.5	314.5	301.0	286.0	272.5	257.8	232.0
12.5°	375.8	372.4	366.7	356.0	343.3	328.2	309.8	292.0	272.9	255.5	222.9
15°	401.3	397.6	391.6	378.5	361.7	341.9	319.5	297.0	274.6	252.4	213.5
17.5°	429.1	424.1	415.0	400.3	379.2	354.7	328.2	301.0	273.9	248.7	203.5
20°	458.9	451.9	442.2	422.4	397.6	368.8	336.9	305.1	273.6	244.4	192.1
22.5°	483.7	476.7	466.0	445.5	415.7	380.5	344.3	307.7	272.2	239.4	181.4
25°	505.2	499.5	487.8	464.3	432.8	392.9	351.3	309.8	270.2	234.0	170.0
27.5°	522.0	516.6	503.5	479.4	447.2	404.0	356.7	310.8	267.5	228.6	158.2
30°	536.7	531.4	515.6	490.8	456.9	412.7	362.1	311.1	264.2	220.6	145.5
32.5°	548.1	543.1	527.0	500.5	463.6	418.7	365.1	310.8	259.8	214.9	131.7
35°	559.5	554.5	535.7	507.5	468.7	421.4	367.4	309.1	254.4	205.5	118.7
37.5°	568.2	562.5	543.4	512.2	471.0	422.1	367.1	306.7	248.7	197.8	105.6
40°	574.3	568.2	547.8	514.9	471.7	421.1	364.4	302.7	242.0	188.1	91.9
42.5°	578.3	571.6	549.8	518.9	470.3	418.4	360.4	297.7	234.7	179.7	78.8
45°	580.3	573.3	550.1	515.6	468.0	413.3	354.3	291.3	226.6	168.3	65.7
47.5°	579.3	571.6	548.4	511.9	463.6	408.0	347.6	283.6	216.9	158.2	53.3
50°	577.6	569.6	544.8	507.2	457.6	401.3	340.3	274.2	206.8	145.8	42.2
52.5°	572.2	564.2	540.7	500.5	450.6	393.6	330.2	264.5	196.1	133.8	32.2
55°	565.5	558.2	533.7	494.5	441.5	384.2	320.8	254.1	185.7	121.4	23.1
57.5°	555.2	548.4	525.0	484.8	432.5	373.8	310.4	242.7	172.6	109.0	16.1
60°	542.4	535.7	512.9	473.7	422.1	362.1	299.0	231.0	160.9	96.5	10.1
62.5°	529.0	522.6	498.8	459.9	409.0	349.7	286.6	219.2	148.5	85.2	6.0
65°	511.2	505.2	483.7	443.5	394.6	336.2	272.9	205.2	135.8	72.4	3.4
67.5°	492.5	487.1	465.3	428.4	377.8	321.5	258.8	191.4	122.4	61.3	1.7
70°	472.3	465.6	445.5	408.0	360.7	304.7	243.4	177.3	109.6	50.6	0.0
72.5°	448.9	443.9	424.4	388.9	340.9	287.0	227.6	161.9	95.5	40.2	0.3
75°	426.1	419.7	401.9	368.4	321.5	268.2	210.2	147.5	81.8	30.8	0.3
77.5°	396.6	394.6	377.8	345.3	303.1	250.1	191.1	130.1	68.7	22.1	0.3
80°	367.1	365.1	352.0	322.2	281.6	228.6	173.3	113.6	56.0	14.8	0.3
82.5°	337.9	335.2	322.8	298.0	259.8	210.5	154.9	97.2	44.3	9.1	0.3
85°	311.8	308.4	295.0	272.2	237.3	190.1	135.8	81.1	32.9	5.0	0.7
87.5°	289.3	287.0	272.2	248.7	214.6	171.0	119.0	65.7	23.1	2.3	1.0
90°	270.2	265.2	252.1	227.3	193.1	149.9	101.2	52.6	15.4	1.3	1.3
92.5°	251.4	247.1	232.7	207.2	174.0	131.7	84.1	40.2	9.7	0.7	1.7
95°	232.0	227.3	213.2	189.7	154.5	113.3	69.1	29.5	5.4	0.7	1.7
97.5°	212.9	208.5	193.8	170.3	137.1	97.2	54.6	20.8	2.7	0.7	1.3
100°	195.1	190.1	176.7	153.2	119.7	81.1	42.2	13.4	1.7	0.7	1.3
102.5°	176.3	172.3	158.6	135.8	101.6	66.0	31.5	8.4	0.7	0.7	1.0
105°	159.6	154.5	141.1	117.7	86.5	52.0	22.1	5.0	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°	103.9	99.9	88.2	68.4	43.9	20.4	6.0	1.0	1.0	1.0	1.0
115°	86.8	80.8	70.4	53.0	32.5	13.4	3.0	1.0	1.0	1.0	1.0
117.5°	69.4	64.4	57.0	40.2	21.5	8.7	1.7	1.0	1.0	1.0	1.0
120°	54.3	49.6	41.2	27.8	14.4	5.0	0.7	1.0	1.0	1.0	1.0
122.5°	38.9	35.2	27.8	18.1	8.7	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.8	23.8	18.4	11.1	5.4	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.8	15.1	10.7	6.4	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.4	8.4	6.4	3.7	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.4	5.0	3.4	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.3	1.7	1.7	1.7	1.3
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.3
142.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
145°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.3	1.3	1.3
147.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
150°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
152.5°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
155°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
157.5°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.3
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°	263.2	263.2	263.2
2.5°	250.4	245.7	244.4
5°	237.0	229.3	224.9
7.5°	223.6	213.2	208.2
10°	211.2	196.4	191.1
12.5°	196.4	179.4	171.0
15°	182.4	160.2	152.2
17.5°	166.6	141.8	132.4
20°	151.9	123.4	113.6
22.5°	135.1	105.3	94.5
25°	120.0	87.2	75.1
27.5°	103.3	68.7	58.3
30°	87.5	52.6	42.2
32.5°	72.4	38.6	29.2
35°	58.3	26.1	18.4
37.5°	44.9	16.1	9.4
40°	32.5	8.4	4.4
42.5°	21.8	4.0	2.3
45°	13.4	2.0	0.0
47.5°	7.7	0.0	0.0
50°	4.0	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	1.3	1.7
82.5°	1.3	1.7	1.7
85°	1.3	1.7	2.0
87.5°	1.7	2.0	2.3
90°	2.0	2.3	2.3
92.5°	2.0	2.7	2.7
95°	2.3	2.7	3.0
97.5°	2.7	3.0	3.0
100°	2.3	3.0	3.4
102.5°	2.0	3.0	3.0
105°	1.7	2.3	2.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.7	1.7
115°	1.0	1.3	1.7
117.5°	1.0	1.3	1.3
120°	1.0	1.0	1.3
122.5°	1.0	1.0	1.3
125°	1.0	1.0	1.3
127.5°	1.3	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.3	1.0	1.0
135°	1.3	1.0	1.0
137.5°	1.3	1.0	1.0
140°	1.3	1.0	1.0
142.5°	1.3	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°	1.3	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°	140.8	136.8	123.4	101.2	70.7	39.6	14.8	2.7	0.7	1.0	1.0
110°	122.7	119.3	105.6	84.1	57.0	29.5	9.7	1.7	1.0	1.0	1.0





107.5°	1.3	2.0	2.3
110°	1.3	1.7	2.0



(END OF REPORT)