

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: P550575

Luminaire Tested: **FCC-X-2-LD4-1HI-40-UNV-81-88-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: P550575
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-81-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

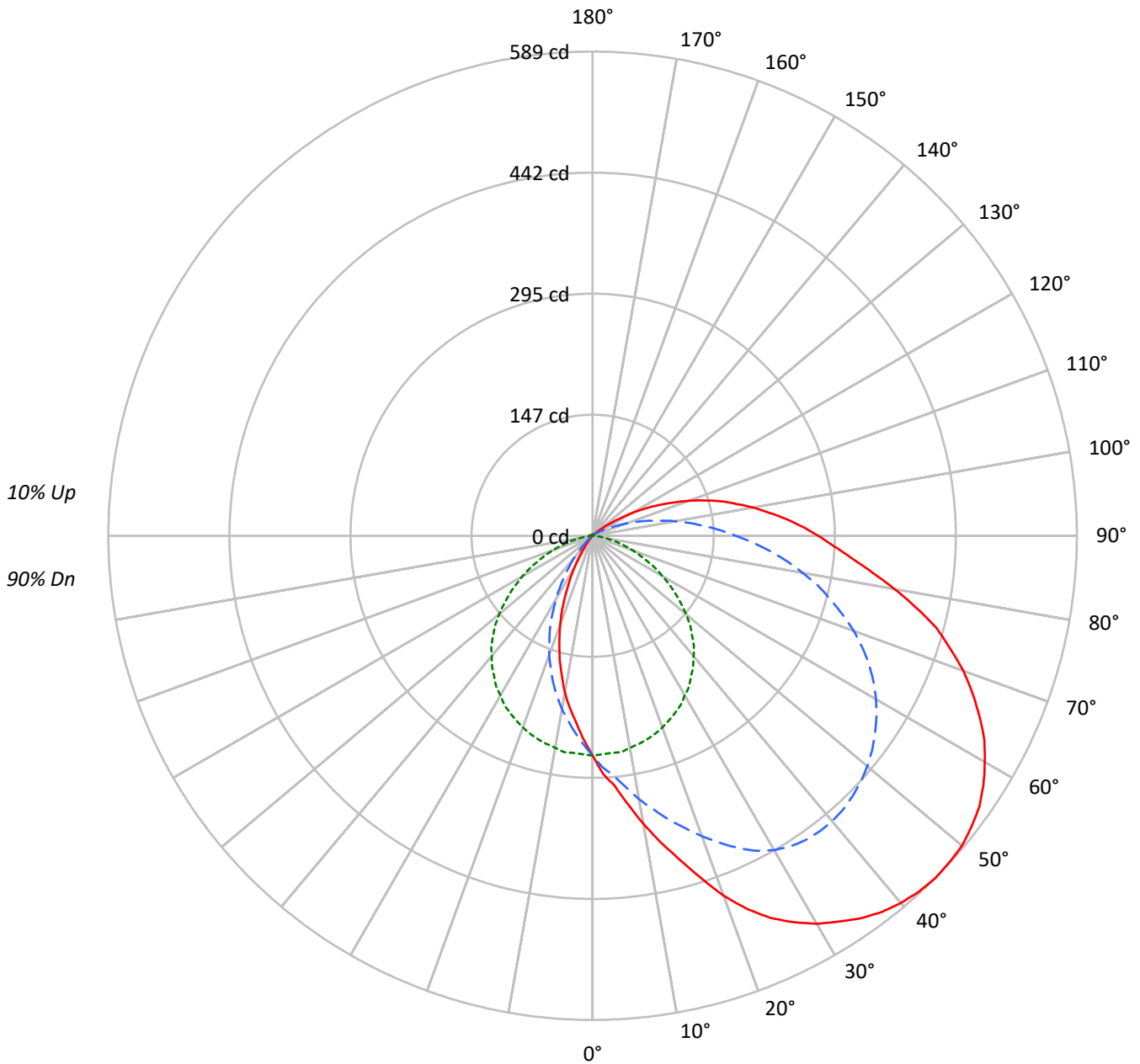
Lumens per Lamp: N/A
Luminaire Lumens: 1321.0 lumens
Efficiency: N/A
Efficacy: 60.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
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°	2876	2876	2876
5°	3157	2834	2364
10°	3573	2800	1949
15°	4004	2764	1518
20°	4516	2718	1118
25°	4941	2666	734
30°	5256	2597	414
35°	5529	2522	182
40°	5772	2429	44
45°	5979	2312	0
50°	6154	2158	0
55°	6287	1962	0
60°	6354	1734	0
65°	6380	1476	0
70°	6359	1204	0
75°	6277	888	4
80°	6023	544	27
85°	5823	259	37



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.6	1.9
10°-20°	76.6	5.8
20°-30°	124.1	9.4
30°-40°	159.4	12.1
40°-50°	180.5	13.7
50°-60°	187.0	14.2
60°-70°	176.3	13.3
70°-80°	147.8	11.2
80°-90°	107.1	8.1
90°-100°	70.4	5.3
100°-110°	40.7	3.1
110°-120°	17.9	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°	226.3	17.1
0°-40°	385.8	29.2
0°-60°	753.2	57.0
0°-90°	1184.4	89.7
90°-120°	129.0	9.8
90°-150°	135.7	10.3
90°-180°	137.0	10.4
0°-180°	1321.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	267	267	267	267	267	
5°	305	293	265	241	228	31
15°	407	357	256	185	154	117
25°	513	419	238	122	76	237
35°	568	452	209	59	19	356
45°	589	447	171	14	0	455
55°	574	419	123	0	0	513
65°	519	371	74	0	0	514
75°	433	299	31	0	0	454
85°	317	217	5	1	2	270
90°	274	174	1	2	2	150
95°	236	136	1	2	3	185
105°	162	70	1	2	3	171
115°	88	23	1	1	2	88
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°	267.2	267.2	267.2	267.2	267.2	267.2	267.2	267.2	267.2	267.2	267.2
2.5°	289.7	289.3	288.3	286.6	284.2	280.1	276.7	273.7	269.6	266.2	259.7
5°	305.0	303.3	301.9	300.2	294.8	291.0	284.9	278.1	271.6	265.2	252.2
7.5°	329.5	326.8	324.7	320.0	312.5	304.0	294.4	288.0	283.5	265.5	243.4
10°	355.7	353.3	349.2	340.7	331.5	319.3	305.7	290.4	276.7	261.8	235.6
12.5°	381.6	378.2	372.4	361.5	348.6	333.2	314.5	296.5	277.1	259.4	226.4
15°	407.4	403.7	397.6	384.3	367.3	347.2	324.4	301.6	278.8	256.3	216.8
17.5°	435.7	430.6	421.4	406.4	385.0	360.1	333.2	305.7	278.1	252.6	206.6
20°	466.0	458.8	449.0	428.9	403.7	374.4	342.1	309.8	277.8	248.1	195.0
22.5°	491.2	484.0	473.1	452.4	422.1	386.3	349.6	312.5	276.4	243.0	184.2
25°	513.0	507.2	495.3	471.4	439.4	398.9	356.7	314.5	274.4	237.6	172.6
27.5°	530.0	524.5	511.3	486.8	454.1	410.2	362.2	315.5	271.6	232.1	160.7
30°	545.0	539.5	523.5	498.3	464.0	419.0	367.6	315.9	268.2	224.0	147.7
32.5°	556.5	551.4	535.1	508.2	470.8	425.1	370.7	315.5	263.8	218.2	133.8
35°	568.1	563.0	543.9	515.4	475.9	427.9	373.1	313.8	258.4	208.7	120.5
37.5°	577.0	571.2	551.8	520.1	478.2	428.6	372.7	311.5	252.6	200.8	107.2
40°	583.1	577.0	556.2	522.8	478.9	427.5	370.0	307.4	245.8	191.0	93.3
42.5°	587.2	580.4	558.2	526.9	477.6	424.8	365.9	302.3	238.3	182.4	80.0
45°	589.2	582.1	558.6	523.5	475.2	419.7	359.8	295.8	230.1	170.9	66.7
47.5°	588.2	580.4	556.9	519.8	470.8	414.3	353.0	288.0	220.2	160.7	54.1
50°	586.5	578.3	553.1	515.0	464.6	407.4	345.5	278.4	210.0	148.1	42.9
52.5°	581.0	572.9	549.0	508.2	457.5	399.6	335.3	268.6	199.1	135.8	32.7
55°	574.2	566.8	541.9	502.1	448.3	390.1	325.8	258.0	188.6	123.2	23.5
57.5°	563.7	556.9	533.1	492.2	439.1	379.5	315.2	246.4	175.3	110.6	16.3
60°	550.8	543.9	520.8	481.0	428.6	367.6	303.6	234.5	163.4	98.0	10.2
62.5°	537.1	530.7	506.5	467.0	415.3	355.0	291.0	222.6	150.8	86.5	6.1
65°	519.1	513.0	491.2	450.3	400.6	341.4	277.1	208.3	137.9	73.5	3.4
67.5°	500.0	494.6	472.5	435.0	383.6	326.4	262.8	194.4	124.2	62.3	1.7
70°	479.6	472.8	452.4	414.3	366.3	309.4	247.1	180.1	111.3	51.4	0.0
72.5°	455.8	450.7	430.9	394.9	346.2	291.4	231.1	164.4	97.0	40.8	0.3
75°	432.6	426.2	408.1	374.1	326.4	272.3	213.4	149.8	83.1	31.3	0.3
77.5°	402.7	400.6	383.6	350.6	307.7	253.9	194.0	132.1	69.8	22.5	0.3
80°	372.7	370.7	357.4	327.1	285.9	232.1	176.0	115.4	56.8	15.0	0.3
82.5°	343.1	340.4	327.8	302.6	263.8	213.8	157.3	98.7	44.9	9.2	0.3
85°	316.6	313.2	299.5	276.4	241.0	193.0	137.9	82.4	33.4	5.1	0.7
87.5°	293.8	291.4	276.4	252.6	217.8	173.6	120.8	66.7	23.5	2.4	1.0
90°	274.4	269.2	256.0	230.8	196.1	152.2	102.8	53.4	15.7	1.4	1.4
92.5°	255.3	250.9	236.2	210.4	176.7	133.8	85.4	40.8	9.9	0.7	1.7
95°	235.6	230.8	216.5	192.7	156.9	115.1	70.1	30.0	5.4	0.7	1.7
97.5°	216.1	211.7	196.7	172.9	139.2	98.7	55.5	21.1	2.7	0.7	1.4
100°	198.1	193.0	179.4	155.6	121.5	82.4	42.9	13.6	1.7	0.7	1.4
102.5°	179.0	175.0	161.0	137.9	103.1	67.1	32.0	8.5	0.7	0.7	1.0
105°	162.0	156.9	143.3	119.5	87.8	52.8	22.5	5.1	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°	105.5	101.4	89.5	69.4	44.6	20.8	6.1	1.0	1.0	1.0	1.0
115°	88.2	82.0	71.5	53.8	33.0	13.6	3.1	1.0	1.0	1.0	1.0
117.5°	70.5	65.4	57.9	40.8	21.8	8.9	1.7	1.0	1.0	1.0	1.0
120°	55.1	50.4	41.9	28.3	14.6	5.1	0.7	1.0	1.0	1.0	1.0
122.5°	39.5	35.7	28.3	18.4	8.9	2.4	1.0	1.0	1.4	1.4	1.0
125°	26.2	24.2	18.7	11.2	5.4	1.0	1.0	1.0	1.4	1.4	1.0
127.5°	17.0	15.3	10.9	6.5	2.4	1.0	1.0	1.4	1.4	1.4	1.0
130°	9.5	8.5	6.5	3.7	1.0	1.0	1.0	1.4	1.4	1.4	1.0
132.5°	5.4	5.1	3.4	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°	267.2	267.2	267.2
2.5°	254.3	249.5	248.1
5°	240.7	232.8	228.4
7.5°	227.0	216.5	211.4
10°	214.4	199.5	194.0
12.5°	199.5	182.1	173.6
15°	185.2	162.7	154.5
17.5°	169.2	144.0	134.5
20°	154.2	125.3	115.4
22.5°	137.2	106.9	96.0
25°	121.9	88.5	76.2
27.5°	104.8	69.8	59.2
30°	88.8	53.4	42.9
32.5°	73.5	39.1	29.6
35°	59.2	26.6	18.7
37.5°	45.6	16.3	9.5
40°	33.0	8.5	4.4
42.5°	22.1	4.1	2.4
45°	13.6	2.0	0.0
47.5°	7.8	0.0	0.0
50°	4.1	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	2.0
87.5°	1.7	2.0	2.4
90°	2.0	2.4	2.4
92.5°	2.0	2.7	2.7
95°	2.4	2.7	3.1
97.5°	2.7	3.1	3.1
100°	2.4	3.1	3.4
102.5°	2.0	3.1	3.1
105°	1.7	2.4	2.7



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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°	143.0	138.9	125.3	102.8	71.8	40.2	15.0	2.7	0.7	1.0	1.0
110°	124.6	121.2	107.2	85.4	57.9	30.0	9.9	1.7	1.0	1.0	1.0





107.5°	1.4	2.0	2.4
110°	1.4	1.7	2.0



(END OF REPORT)