

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: P550591

Luminaire Tested: **FCC-X-2-LD4-1HI-40-UNV-82-88-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: P550591
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-82-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 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

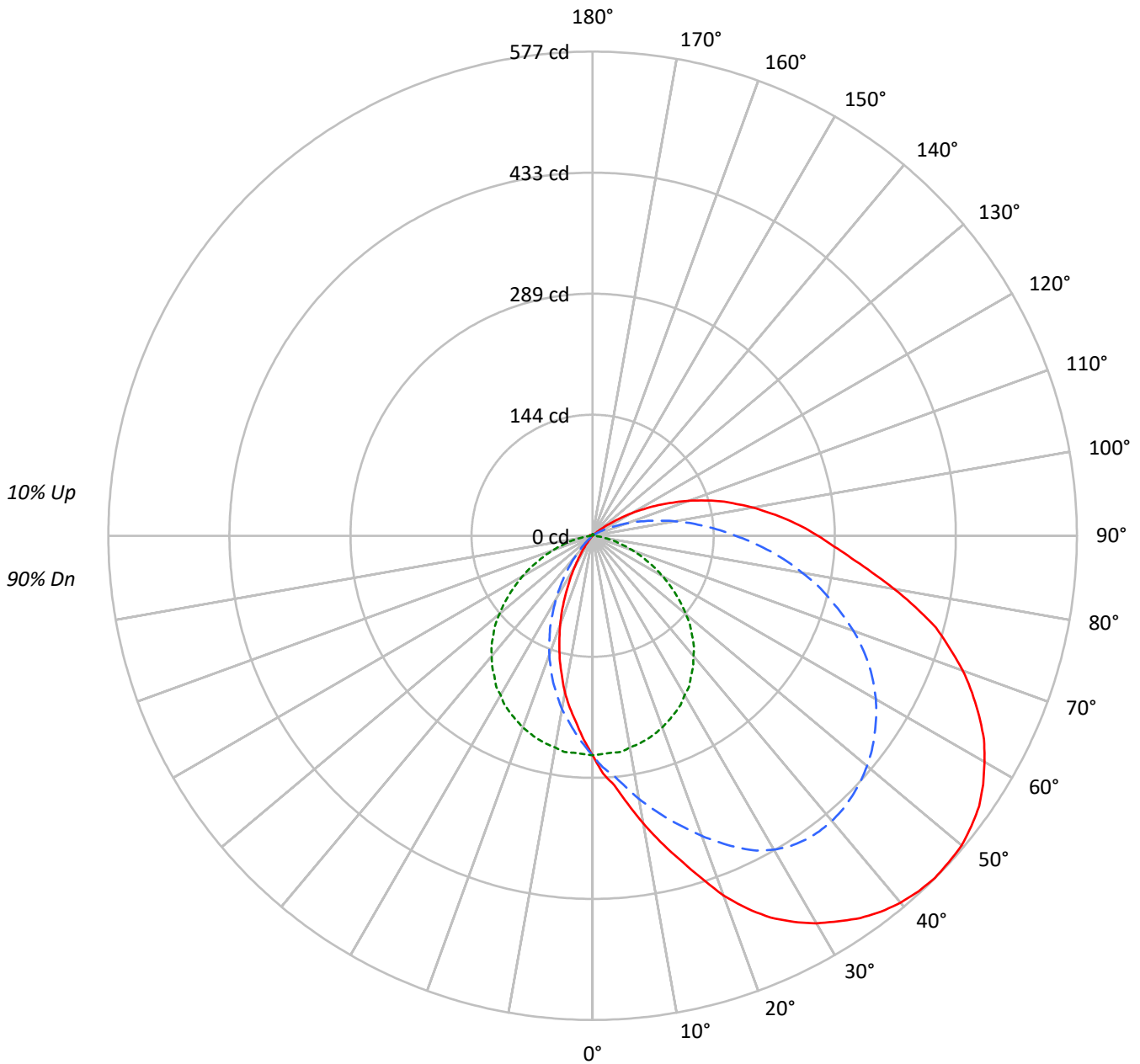
Lumens per Lamp: N/A
Luminaire Lumens: 1293.0 lumens
Efficiency: N/A
Efficacy: 59.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-82-88-ED1D-90

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°	2815	2815	2815
5°	3090	2774	2315
10°	3497	2740	1907
15°	3919	2705	1487
20°	4420	2661	1094
25°	4836	2610	718
30°	5145	2541	405
35°	5412	2467	178
40°	5649	2377	43
45°	5853	2264	0
50°	6024	2112	0
55°	6154	1920	0
60°	6219	1699	0
65°	6245	1446	0
70°	6223	1178	0
75°	6145	871	4
80°	5895	533	27
85°	5700	254	37



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.1	1.9
10°-20°	75.0	5.8
20°-30°	121.5	9.4
30°-40°	156.0	12.1
40°-50°	176.6	13.7
50°-60°	183.0	14.2
60°-70°	172.6	13.3
70°-80°	144.6	11.2
80°-90°	104.8	8.1
90°-100°	68.9	5.3
100°-110°	39.8	3.1
110°-120°	17.6	1.4
120°-130°	4.7	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°	221.5	17.1
0°-40°	377.6	29.2
0°-60°	737.2	57.0
0°-90°	1159.3	89.7
90°-120°	126.3	9.8
90°-150°	132.8	10.3
90°-180°	134.0	10.4
0°-180°	1293.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	262	262	262	262	262	
5°	298	287	260	236	224	30
15°	399	350	251	181	151	115
25°	502	410	233	119	75	232
35°	556	442	204	58	18	349
45°	577	438	167	13	0	445
55°	562	410	121	0	0	502
65°	508	363	72	0	0	503
75°	424	293	31	0	0	444
85°	310	212	5	1	2	265
90°	268	170	1	2	2	147
95°	231	133	1	2	3	181
105°	159	69	1	2	3	167
115°	86	23	1	1	2	86
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°	261.5	261.5	261.5	261.5	261.5	261.5	261.5	261.5	261.5	261.5	261.5
2.5°	283.5	283.2	282.2	280.5	278.2	274.2	270.9	267.9	263.9	260.5	254.2
5°	298.5	296.9	295.5	293.9	288.5	284.9	278.9	272.2	265.9	259.5	246.9
7.5°	322.5	319.8	317.8	313.2	305.9	297.5	288.2	281.9	277.5	259.9	238.2
10°	348.2	345.8	341.8	333.5	324.5	312.5	299.2	284.2	270.9	256.2	230.6
12.5°	373.5	370.2	364.5	353.8	341.2	326.2	307.9	290.2	271.2	253.9	221.6
15°	398.8	395.1	389.1	376.2	359.5	339.8	317.5	295.2	272.9	250.9	212.2
17.5°	426.5	421.5	412.5	397.8	376.8	352.5	326.2	299.2	272.2	247.2	202.2
20°	456.1	449.1	439.5	419.8	395.1	366.5	334.8	303.2	271.9	242.9	190.9
22.5°	480.8	473.8	463.1	442.8	413.1	378.2	342.2	305.9	270.5	237.9	180.2
25°	502.1	496.4	484.8	461.4	430.1	390.5	349.2	307.9	268.5	232.6	168.9
27.5°	518.8	513.4	500.4	476.4	444.5	401.5	354.5	308.9	265.9	227.2	157.3
30°	533.4	528.1	512.4	487.8	454.1	410.1	359.8	309.2	262.5	219.2	144.6
32.5°	544.7	539.7	523.8	497.4	460.8	416.1	362.8	308.9	258.2	213.6	130.9
35°	556.1	551.1	532.4	504.4	465.8	418.8	365.2	307.2	252.9	204.2	117.9
37.5°	564.7	559.1	540.1	509.1	468.1	419.5	364.8	304.9	247.2	196.6	105.0
40°	570.7	564.7	544.4	511.8	468.8	418.5	362.2	300.9	240.6	186.9	91.3
42.5°	574.7	568.1	546.4	515.8	467.4	415.8	358.2	295.9	233.2	178.6	78.3
45°	576.7	569.7	546.7	512.4	465.1	410.8	352.2	289.5	225.2	167.3	65.3
47.5°	575.7	568.1	545.1	508.8	460.8	405.5	345.5	281.9	215.6	157.3	53.0
50°	574.1	566.1	541.4	504.1	454.8	398.8	338.2	272.5	205.6	144.9	42.0
52.5°	568.7	560.7	537.4	497.4	447.8	391.1	328.2	262.9	194.9	132.9	32.0
55°	562.1	554.7	530.4	491.4	438.8	381.8	318.8	252.5	184.6	120.6	23.0
57.5°	551.7	545.1	521.8	481.8	429.8	371.5	308.5	241.2	171.6	108.3	16.0
60°	539.1	532.4	509.8	470.8	419.5	359.8	297.2	229.6	159.9	96.0	10.0
62.5°	525.8	519.4	495.8	457.1	406.5	347.5	284.9	217.9	147.6	84.6	6.0
65°	508.1	502.1	480.8	440.8	392.1	334.2	271.2	203.9	134.9	72.0	3.3
67.5°	489.4	484.1	462.4	425.8	375.5	319.5	257.2	190.2	121.6	61.0	1.7
70°	469.4	462.8	442.8	405.5	358.5	302.9	241.9	176.2	108.9	50.3	0.0
72.5°	446.1	441.1	421.8	386.5	338.8	285.2	226.2	160.9	95.0	40.0	0.3
75°	423.5	417.1	399.5	366.2	319.5	266.5	208.9	146.6	81.3	30.7	0.3
77.5°	394.1	392.1	375.5	343.2	301.2	248.5	189.9	129.3	68.3	22.0	0.3
80°	364.8	362.8	349.8	320.2	279.9	227.2	172.3	112.9	55.6	14.7	0.3
82.5°	335.8	333.2	320.8	296.2	258.2	209.2	153.9	96.6	44.0	9.0	0.3
85°	309.9	306.5	293.2	270.5	235.9	188.9	134.9	80.6	32.7	5.0	0.7
87.5°	287.5	285.2	270.5	247.2	213.2	169.9	118.3	65.3	23.0	2.3	1.0
90°	268.5	263.5	250.5	225.9	191.9	148.9	100.6	52.3	15.3	1.3	1.3
92.5°	249.9	245.6	231.2	205.9	172.9	130.9	83.6	40.0	9.7	0.7	1.7
95°	230.6	225.9	211.9	188.6	153.6	112.6	68.6	29.3	5.3	0.7	1.7
97.5°	211.6	207.2	192.6	169.3	136.3	96.6	54.3	20.7	2.7	0.7	1.3
100°	193.9	188.9	175.6	152.3	118.9	80.6	42.0	13.3	1.7	0.7	1.3
102.5°	175.3	171.3	157.6	134.9	101.0	65.6	31.3	8.3	0.7	0.7	1.0
105°	158.6	153.6	140.3	116.9	86.0	51.6	22.0	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°	103.3	99.3	87.6	68.0	43.6	20.3	6.0	1.0	1.0	1.0	1.0
115°	86.3	80.3	70.0	52.6	32.3	13.3	3.0	1.0	1.0	1.0	1.0
117.5°	69.0	64.0	56.6	40.0	21.3	8.7	1.7	1.0	1.0	1.0	1.0
120°	54.0	49.3	41.0	27.7	14.3	5.0	0.7	1.0	1.0	1.0	1.0
122.5°	38.6	35.0	27.7	18.0	8.7	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.7	23.7	18.3	11.0	5.3	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.7	15.0	10.7	6.3	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.3	8.3	6.3	3.7	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.3	5.0	3.3	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°	261.5	261.5	261.5
2.5°	248.9	244.2	242.9
5°	235.6	227.9	223.6
7.5°	222.2	211.9	206.9
10°	209.9	195.2	189.9
12.5°	195.2	178.2	169.9
15°	181.2	159.3	151.3
17.5°	165.6	140.9	131.6
20°	150.9	122.6	112.9
22.5°	134.3	104.6	94.0
25°	119.3	86.6	74.6
27.5°	102.6	68.3	58.0
30°	87.0	52.3	42.0
32.5°	72.0	38.3	29.0
35°	58.0	26.0	18.3
37.5°	44.6	16.0	9.3
40°	32.3	8.3	4.3
42.5°	21.7	4.0	2.3
45°	13.3	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	3.3
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°	139.9	135.9	122.6	100.6	70.3	39.3	14.7	2.7	0.7	1.0	1.0
110°	121.9	118.6	105.0	83.6	56.6	29.3	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)