

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: P550463

Luminaire Tested: **FCC-X-2-LD4-1HI-30-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: P550463
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-82-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

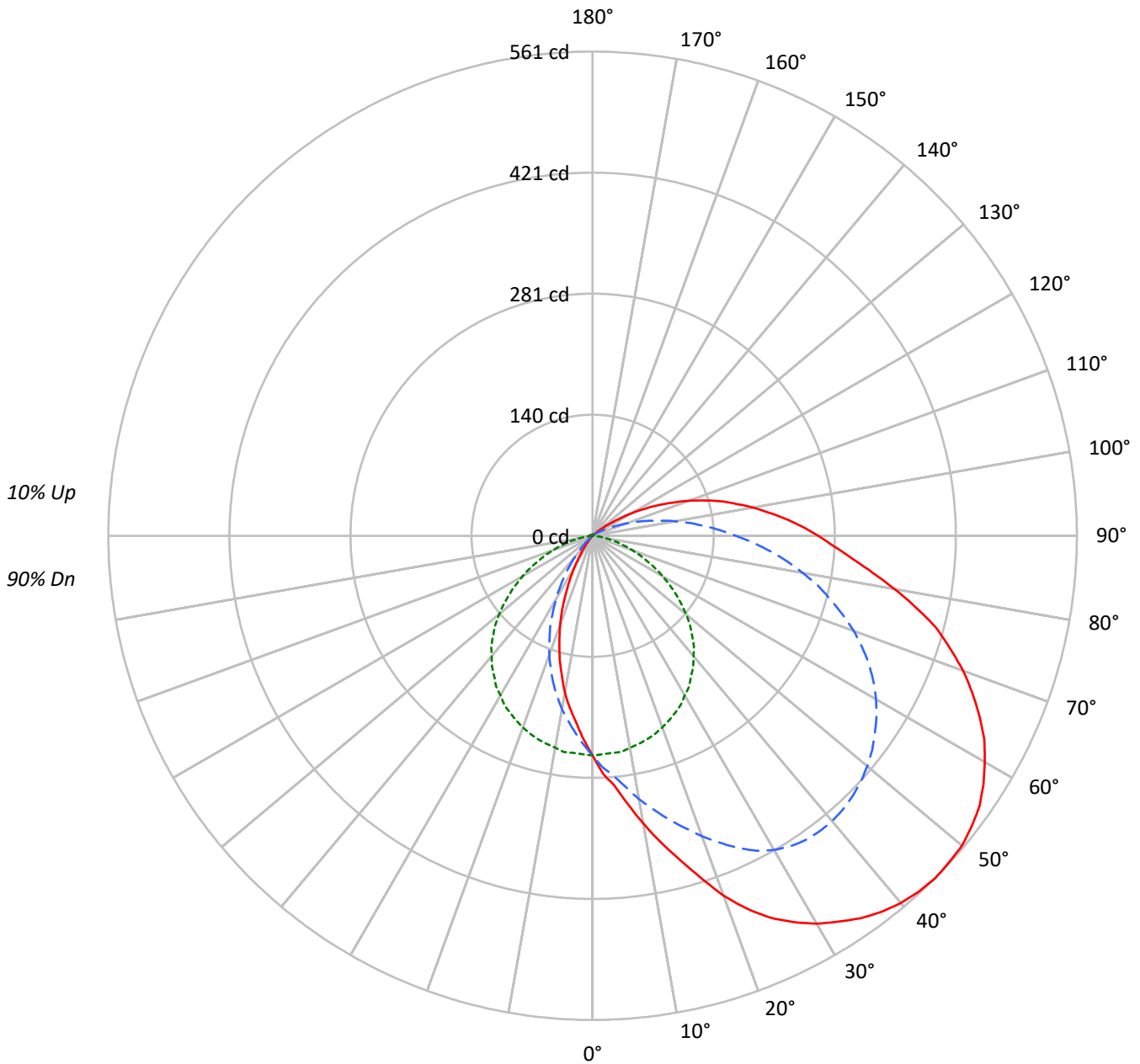
Lumens per Lamp: N/A
Luminaire Lumens: 1258.0 lumens
Efficiency: N/A
Efficacy: 58.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2739	2739	2739
5°	3006	2699	2252
10°	3402	2666	1856
15°	3813	2632	1447
20°	4301	2589	1065
25°	4705	2540	699
30°	5006	2473	394
35°	5265	2401	173
40°	5497	2313	42
45°	5694	2202	0
50°	5860	2055	0
55°	5988	1868	0
60°	6051	1653	0
65°	6075	1406	0
70°	6055	1146	0
75°	5978	845	4
80°	5737	519	26
85°	5545	249	35



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.4	1.9
10°-20°	73.0	5.8
20°-30°	118.2	9.4
30°-40°	151.8	12.1
40°-50°	171.9	13.7
50°-60°	178.0	14.2
60°-70°	167.9	13.3
70°-80°	140.7	11.2
80°-90°	102.0	8.1
90°-100°	67.0	5.3
100°-110°	38.7	3.1
110°-120°	17.1	1.4
120°-130°	4.6	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°	215.5	17.1
0°-40°	367.4	29.2
0°-60°	717.3	57.0
0°-90°	1127.9	89.7
90°-120°	122.8	9.8
90°-150°	129.2	10.3
90°-180°	130.0	10.3
0°-180°	1258.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	254	254	254	254	254	
5°	290	279	252	229	218	29
15°	388	340	244	176	147	112
25°	488	399	226	116	73	226
35°	541	430	199	56	18	339
45°	561	426	163	13	0	433
55°	547	399	117	0	0	488
65°	494	353	70	0	0	489
75°	412	285	30	0	0	432
85°	302	207	5	1	2	257
90°	261	166	1	2	2	143
95°	224	130	1	2	3	176
105°	154	67	1	2	3	163
115°	84	22	1	1	2	84
125°	25	3	1	1	1	25
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°	254.5	254.5	254.5	254.5	254.5	254.5	254.5	254.5	254.5	254.5	254.5
2.5°	275.9	275.5	274.6	272.9	270.7	266.8	263.5	260.6	256.7	253.5	247.3
5°	290.4	288.8	287.5	285.9	280.7	277.2	271.3	264.8	258.7	252.5	240.2
7.5°	313.8	311.2	309.2	304.7	297.6	289.5	280.4	274.2	270.0	252.8	231.8
10°	338.7	336.5	332.6	324.5	315.7	304.1	291.1	276.5	263.5	249.3	224.3
12.5°	363.4	360.1	354.6	344.3	331.9	317.3	299.5	282.3	263.9	247.0	215.6
15°	388.0	384.5	378.6	366.0	349.8	330.6	308.9	287.2	265.5	244.1	206.5
17.5°	414.9	410.1	401.3	387.0	366.6	343.0	317.3	291.1	264.8	240.5	196.8
20°	443.8	437.0	427.6	408.4	384.5	356.6	325.8	295.0	264.5	236.3	185.7
22.5°	467.8	461.0	450.6	430.8	402.0	367.9	332.9	297.6	263.2	231.4	175.4
25°	488.5	483.0	471.6	449.0	418.5	379.9	339.7	299.5	261.3	226.3	164.3
27.5°	504.7	499.5	486.9	463.5	432.4	390.6	344.9	300.5	258.7	221.1	153.0
30°	519.0	513.8	498.6	474.6	441.8	399.0	350.1	300.8	255.4	213.3	140.7
32.5°	530.0	525.1	509.6	484.0	448.3	404.9	353.0	300.5	251.2	207.8	127.4
35°	541.0	536.2	518.0	490.8	453.2	407.5	355.3	298.9	246.0	198.7	114.8
37.5°	549.4	543.9	525.5	495.3	455.4	408.1	355.0	296.6	240.5	191.3	102.1
40°	555.3	549.4	529.7	497.9	456.1	407.1	352.4	292.7	234.0	181.9	88.8
42.5°	559.2	552.7	531.6	501.8	454.8	404.5	348.5	287.9	226.9	173.7	76.2
45°	561.1	554.3	531.9	498.6	452.5	399.7	342.6	281.7	219.1	162.7	63.5
47.5°	560.1	552.7	530.3	495.0	448.3	394.5	336.2	274.2	209.7	153.0	51.5
50°	558.5	550.7	526.8	490.4	442.5	388.0	329.0	265.2	200.0	141.0	40.8
52.5°	553.3	545.6	522.9	484.0	435.7	380.6	319.3	255.8	189.6	129.3	31.1
55°	546.9	539.7	516.1	478.1	426.9	371.5	310.2	245.7	179.6	117.3	22.4
57.5°	536.8	530.3	507.6	468.7	418.2	361.4	300.2	234.7	166.9	105.4	15.6
60°	524.5	518.0	496.0	458.0	408.1	350.1	289.1	223.3	155.6	93.4	9.7
62.5°	511.5	505.4	482.3	444.7	395.5	338.1	277.2	212.0	143.6	82.3	5.8
65°	494.3	488.5	467.8	428.9	381.5	325.1	263.9	198.4	131.3	70.0	3.2
67.5°	476.2	471.0	449.9	414.3	365.3	310.9	250.2	185.1	118.3	59.3	1.6
70°	456.7	450.3	430.8	394.5	348.8	294.7	235.3	171.5	106.0	48.9	0.0
72.5°	434.0	429.2	410.4	376.0	329.7	277.5	220.1	156.6	92.4	38.9	0.3
75°	412.0	405.8	388.7	356.2	310.9	259.3	203.2	142.6	79.1	29.8	0.3
77.5°	383.5	381.5	365.3	333.9	293.0	241.8	184.8	125.8	66.5	21.4	0.3
80°	355.0	353.0	340.4	311.5	272.3	221.1	167.6	109.9	54.1	14.3	0.3
82.5°	326.8	324.2	312.2	288.2	251.2	203.6	149.8	94.0	42.8	8.8	0.3
85°	301.5	298.2	285.3	263.2	229.5	183.8	131.3	78.4	31.8	4.9	0.6
87.5°	279.7	277.5	263.2	240.5	207.5	165.3	115.1	63.5	22.4	2.3	1.0
90°	261.3	256.4	243.8	219.8	186.7	144.9	97.9	50.9	14.9	1.3	1.3
92.5°	243.1	238.9	225.0	200.3	168.2	127.4	81.4	38.9	9.4	0.6	1.6
95°	224.3	219.8	206.2	183.5	149.4	109.6	66.8	28.5	5.2	0.6	1.6
97.5°	205.8	201.6	187.4	164.7	132.6	94.0	52.8	20.1	2.6	0.6	1.3
100°	188.7	183.8	170.8	148.1	115.7	78.4	40.8	13.0	1.6	0.6	1.3
102.5°	170.5	166.6	153.3	131.3	98.2	63.9	30.5	8.1	0.6	0.6	1.0
105°	154.3	149.4	136.5	113.8	83.6	50.2	21.4	4.9	0.6	0.6	1.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	100.5	96.6	85.3	66.1	42.5	19.8	5.8	1.0	1.0	1.0	1.0
115°	84.0	78.1	68.1	51.2	31.4	13.0	2.9	1.0	1.0	1.0	1.0
117.5°	67.1	62.2	55.1	38.9	20.7	8.4	1.6	1.0	1.0	1.0	1.0
120°	52.5	48.0	39.9	26.9	13.9	4.9	0.6	1.0	1.0	1.0	1.0
122.5°	37.6	34.0	26.9	17.5	8.4	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.0	23.0	17.8	10.7	5.2	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.2	14.6	10.4	6.2	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.1	8.1	6.2	3.6	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.2	4.9	3.2	0.6	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3
137.5°	0.3	0.3	0.6	0.6	1.0	1.0	1.3	1.6	1.6	1.6	1.3
140°	0.3	0.3	0.6	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.3
142.5°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
145°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.3	1.3	1.3
147.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
150°	0.3	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
152.5°	0.3	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
155°	0.6	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
157.5°	0.6	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
160°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.6	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.6	0.6	0.6	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.6	0.6	0.6	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.6
172.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
175°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
177.5°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	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°	254.5	254.5	254.5
2.5°	242.1	237.6	236.3
5°	229.2	221.7	217.5
7.5°	216.2	206.2	201.3
10°	204.2	190.0	184.8
12.5°	190.0	173.4	165.3
15°	176.3	154.9	147.2
17.5°	161.1	137.1	128.0
20°	146.8	119.3	109.9
22.5°	130.6	101.8	91.4
25°	116.0	84.3	72.6
27.5°	99.8	66.5	56.4
30°	84.6	50.9	40.8
32.5°	70.0	37.3	28.2
35°	56.4	25.3	17.8
37.5°	43.4	15.6	9.1
40°	31.4	8.1	4.2
42.5°	21.1	3.9	2.3
45°	13.0	1.9	0.0
47.5°	7.5	0.0	0.0
50°	3.9	0.0	0.0
52.5°	1.6	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	0.6	1.0
80°	0.6	1.3	1.6
82.5°	1.3	1.6	1.6
85°	1.3	1.6	1.9
87.5°	1.6	1.9	2.3
90°	1.9	2.3	2.3
92.5°	1.9	2.6	2.6
95°	2.3	2.6	2.9
97.5°	2.6	2.9	2.9
100°	2.3	2.9	3.2
102.5°	1.9	2.9	2.9
105°	1.6	2.3	2.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.6	1.6
115°	1.0	1.3	1.6
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	0.6
152.5°	1.0	0.6	0.6
155°	1.0	0.6	0.3
157.5°	1.3	0.6	0.3
160°	1.0	0.6	0.3
162.5°	1.0	0.6	0.3
165°	1.0	0.6	0.0
167.5°	1.0	0.6	0.3
170°	1.0	0.6	0.3
172.5°	1.0	0.6	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°	136.1	132.3	119.3	97.9	68.4	38.3	14.3	2.6	0.6	1.0	1.0
110°	118.6	115.4	102.1	81.4	55.1	28.5	9.4	1.6	1.0	1.0	1.0





107.5°	1.3	1.9	2.3
110°	1.3	1.6	1.9



(END OF REPORT)