

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: P550976

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-82-88-ED1D**

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: P550976
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-30-UNV-82-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

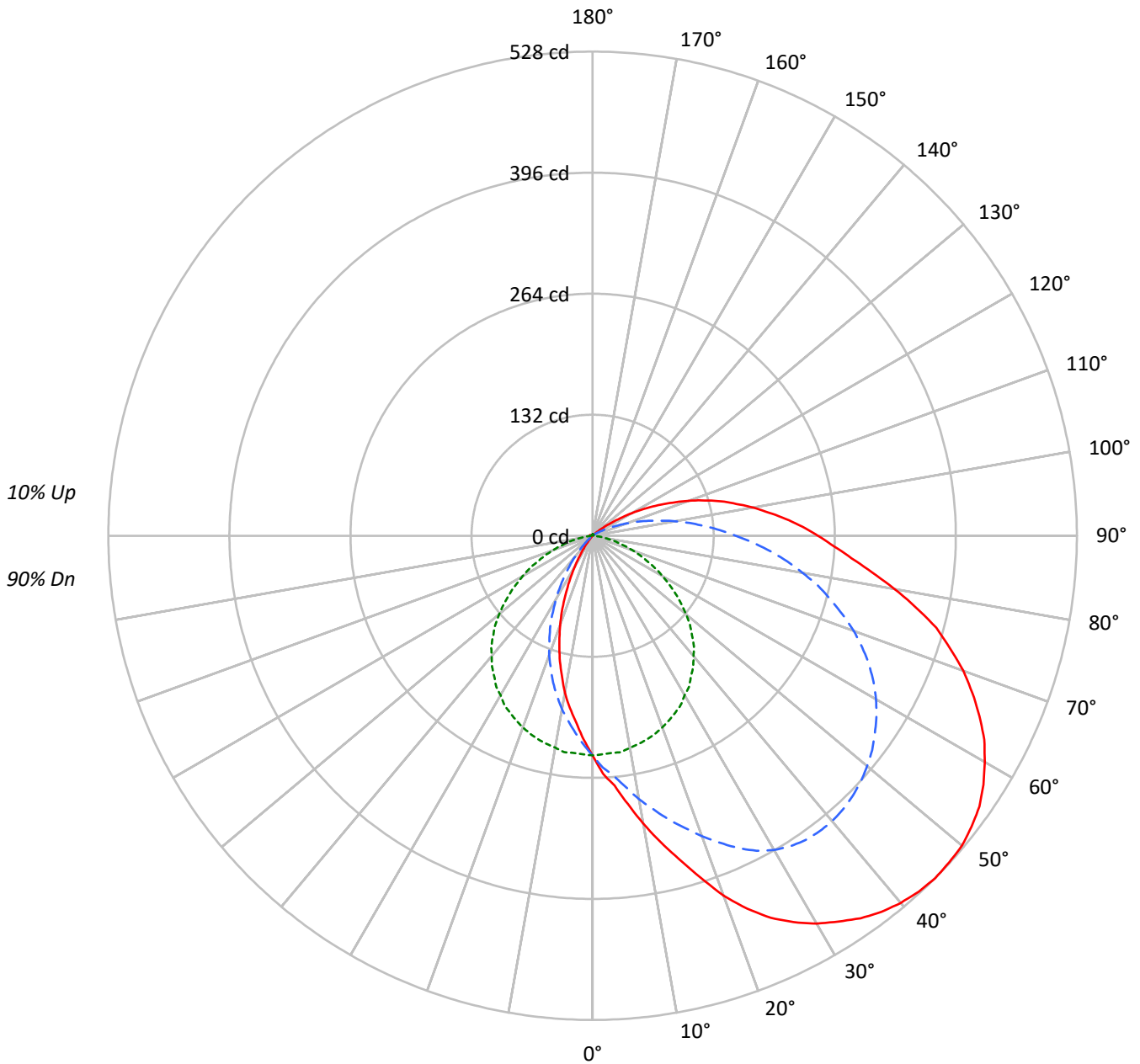
Lumens per Lamp: N/A
Luminaire Lumens: 1183.9 lumens
Efficiency: N/A
Efficacy: 70.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (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				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2578	2578	2578
5°	2830	2541	2119
10°	3202	2509	1747
15°	3589	2477	1361
20°	4048	2437	1002
25°	4428	2390	658
30°	4711	2327	370
35°	4956	2259	164
40°	5173	2177	40
45°	5359	2073	0
50°	5516	1934	0
55°	5635	1758	0
60°	5695	1556	0
65°	5719	1324	0
70°	5700	1080	0
75°	5627	797	4
80°	5399	486	24
85°	5218	234	33



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.9	1.9
10°-20°	68.7	5.8
20°-30°	111.2	9.4
30°-40°	142.9	12.1
40°-50°	161.7	13.7
50°-60°	167.6	14.2
60°-70°	158.0	13.3
70°-80°	132.4	11.2
80°-90°	96.0	8.1
90°-100°	63.1	5.3
100°-110°	36.4	3.1
110°-120°	16.1	1.4
120°-130°	4.3	0.4
130°-140°	1.0	0.1
140°-150°	0.6	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	202.9	17.1
0°-40°	345.7	29.2
0°-60°	675.1	57.0
0°-90°	1061.5	89.7
90°-120°	115.6	9.8
90°-150°	121.5	10.3
90°-180°	122.0	10.3
0°-180°	1183.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	240	240	240	240	240	
5°	273	263	238	216	205	28
15°	365	320	230	166	138	105
25°	460	376	213	109	68	212
35°	509	405	187	53	17	319
45°	528	401	153	12	0	408
55°	515	376	110	0	0	460
65°	465	333	66	0	0	460
75°	388	268	28	0	0	407
85°	284	194	5	1	2	242
90°	246	156	1	2	2	135
95°	211	122	1	2	3	166
105°	145	63	1	2	2	153
115°	79	21	1	1	2	79
125°	24	3	1	1	1	23
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°	239.5	239.5	239.5	239.5	239.5	239.5	239.5	239.5	239.5	239.5	239.5
2.5°	259.6	259.3	258.4	256.9	254.7	251.1	248.0	245.3	241.6	238.6	232.8
5°	273.4	271.8	270.6	269.1	264.2	260.9	255.4	249.3	243.5	237.7	226.1
7.5°	295.3	292.9	291.1	286.8	280.1	272.4	263.9	258.1	254.1	238.0	218.1
10°	318.8	316.7	313.0	305.4	297.2	286.2	274.0	260.2	248.0	234.6	211.1
12.5°	342.0	339.0	333.8	324.0	312.4	298.7	281.9	265.7	248.3	232.5	202.9
15°	365.2	361.8	356.3	344.4	329.2	311.2	290.7	270.3	249.9	229.7	194.3
17.5°	390.5	385.9	377.7	364.3	345.1	322.8	298.7	274.0	249.3	226.4	185.2
20°	417.7	411.3	402.4	384.4	361.8	335.6	306.6	277.6	249.0	222.4	174.8
22.5°	440.2	433.8	424.1	405.5	378.3	346.3	313.3	280.1	247.7	217.8	165.1
25°	459.8	454.6	443.9	422.5	393.9	357.6	319.7	281.9	245.9	213.0	154.7
27.5°	475.0	470.1	458.2	436.3	407.0	367.6	324.6	282.8	243.5	208.1	144.0
30°	488.4	483.6	469.2	446.7	415.8	375.6	329.5	283.1	240.4	200.7	132.4
32.5°	498.8	494.2	479.6	455.5	421.9	381.1	332.2	282.8	236.4	195.6	119.9
35°	509.2	504.6	487.5	461.9	426.5	383.5	334.4	281.3	231.6	187.0	108.0
37.5°	517.1	511.9	494.5	466.2	428.6	384.1	334.1	279.2	226.4	180.0	96.1
40°	522.6	517.1	498.5	468.6	429.3	383.2	331.6	275.5	220.3	171.2	83.6
42.5°	526.3	520.2	500.3	472.3	428.0	380.8	328.0	270.9	213.6	163.5	71.7
45°	528.1	521.7	500.7	469.2	425.9	376.2	322.5	265.1	206.2	153.2	59.8
47.5°	527.2	520.2	499.1	465.9	421.9	371.3	316.4	258.1	197.4	144.0	48.5
50°	525.7	518.3	495.8	461.6	416.4	365.2	309.7	249.6	188.2	132.7	38.4
52.5°	520.8	513.5	492.1	455.5	410.0	358.2	300.5	240.7	178.5	121.7	29.3
55°	514.7	508.0	485.7	450.0	401.8	349.6	292.0	231.3	169.0	110.4	21.1
57.5°	505.2	499.1	477.8	441.2	393.6	340.2	282.5	220.9	157.1	99.2	14.6
60°	493.6	487.5	466.8	431.1	384.1	329.5	272.1	210.2	146.4	87.9	9.2
62.5°	481.4	475.6	454.0	418.6	372.2	318.2	260.9	199.5	135.2	77.5	5.5
65°	465.3	459.8	440.2	403.6	359.1	306.0	248.3	186.7	123.6	65.9	3.1
67.5°	448.2	443.3	423.5	389.9	343.8	292.6	235.5	174.2	111.4	55.8	1.5
70°	429.9	423.8	405.5	371.3	328.3	277.3	221.5	161.4	99.8	46.1	0.0
72.5°	408.5	403.9	386.2	353.9	310.3	261.2	207.2	147.4	87.0	36.6	0.3
75°	387.8	382.0	365.8	335.3	292.6	244.1	191.3	134.2	74.4	28.1	0.3
77.5°	360.9	359.1	343.8	314.2	275.8	227.6	173.9	118.4	62.5	20.1	0.3
80°	334.1	332.2	320.3	293.2	256.3	208.1	157.7	103.4	50.9	13.4	0.3
82.5°	307.5	305.1	293.8	271.2	236.4	191.6	141.0	88.5	40.3	8.2	0.3
85°	283.7	280.7	268.5	247.7	216.0	173.0	123.6	73.8	29.9	4.6	0.6
87.5°	263.3	261.2	247.7	226.4	195.3	155.6	108.3	59.8	21.1	2.1	0.9
90°	245.9	241.3	229.4	206.9	175.7	136.4	92.1	47.9	14.0	1.2	1.2
92.5°	228.8	224.9	211.7	188.5	158.3	119.9	76.6	36.6	8.8	0.6	1.5
95°	211.1	206.9	194.0	172.7	140.6	103.1	62.8	26.8	4.9	0.6	1.5
97.5°	193.7	189.8	176.3	155.0	124.8	88.5	49.7	18.9	2.4	0.6	1.2
100°	177.6	173.0	160.8	139.4	108.9	73.8	38.4	12.2	1.5	0.6	1.2
102.5°	160.5	156.8	144.3	123.6	92.4	60.1	28.7	7.6	0.6	0.6	0.9
105°	145.2	140.6	128.4	107.1	78.7	47.3	20.1	4.6	0.6	0.6	0.9



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CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-82-88-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	94.6	90.9	80.2	62.2	40.0	18.6	5.5	0.9	0.9	0.9	0.9
115°	79.0	73.5	64.1	48.2	29.6	12.2	2.7	0.9	0.9	0.9	0.9
117.5°	63.2	58.6	51.9	36.6	19.5	7.9	1.5	0.9	0.9	0.9	0.9
120°	49.4	45.2	37.5	25.3	13.1	4.6	0.6	0.9	0.9	0.9	0.9
122.5°	35.4	32.0	25.3	16.5	7.9	2.1	0.9	0.9	1.2	1.2	0.9
125°	23.5	21.7	16.8	10.1	4.9	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	15.3	13.7	9.8	5.8	2.1	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.5	7.6	5.8	3.4	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.9	4.6	3.1	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2
135°	1.2	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.5	1.5	1.5	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
160°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
162.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2	1.2
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.5
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.2
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	239.5	239.5	239.5
2.5°	227.9	223.6	222.4
5°	215.7	208.7	204.7
7.5°	203.5	194.0	189.5
10°	192.2	178.8	173.9
12.5°	178.8	163.2	155.6
15°	166.0	145.8	138.5
17.5°	151.6	129.1	120.5
20°	138.2	112.3	103.4
22.5°	123.0	95.8	86.0
25°	109.2	79.3	68.3
27.5°	94.0	62.5	53.1
30°	79.6	47.9	38.4
32.5°	65.9	35.1	26.5
35°	53.1	23.8	16.8
37.5°	40.9	14.6	8.5
40°	29.6	7.6	4.0
42.5°	19.8	3.7	2.1
45°	12.2	1.8	0.0
47.5°	7.0	0.0	0.0
50°	3.7	0.0	0.0
52.5°	1.5	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	0.9
80°	0.6	1.2	1.5
82.5°	1.2	1.5	1.5
85°	1.2	1.5	1.8
87.5°	1.5	1.8	2.1
90°	1.8	2.1	2.1
92.5°	1.8	2.4	2.4
95°	2.1	2.4	2.7
97.5°	2.4	2.7	2.7
100°	2.1	2.7	3.1
102.5°	1.8	2.7	2.7
105°	1.5	2.1	2.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.2	1.5	1.5
115°	0.9	1.2	1.5
117.5°	0.9	1.2	1.2
120°	0.9	0.9	1.2
122.5°	0.9	0.9	1.2
125°	0.9	0.9	1.2
127.5°	1.2	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.2	0.9	0.9
135°	1.2	0.9	0.9
137.5°	1.2	0.9	0.9
140°	1.2	0.9	0.9
142.5°	1.2	0.9	0.9
145°	0.9	0.9	0.9
147.5°	0.9	0.9	0.9
150°	0.9	0.9	0.6
152.5°	0.9	0.6	0.6
155°	0.9	0.6	0.3
157.5°	1.2	0.6	0.3
160°	0.9	0.6	0.3
162.5°	0.9	0.6	0.3
165°	0.9	0.6	0.0
167.5°	0.9	0.6	0.3
170°	0.9	0.6	0.3
172.5°	0.9	0.6	0.3
175°	0.9	0.3	0.3
177.5°	0.9	0.3	0.3
180°	0.9	0.9	0.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	128.1	124.5	112.3	92.1	64.4	36.0	13.4	2.4	0.6	0.9	0.9
110°	111.7	108.6	96.1	76.6	51.9	26.8	8.8	1.5	0.9	0.9	0.9





107.5°	1.2	1.8	2.1
110°	1.2	1.5	1.8



(END OF REPORT)