

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: P551035

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-82-86-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: P551035
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-35-UNV-82-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

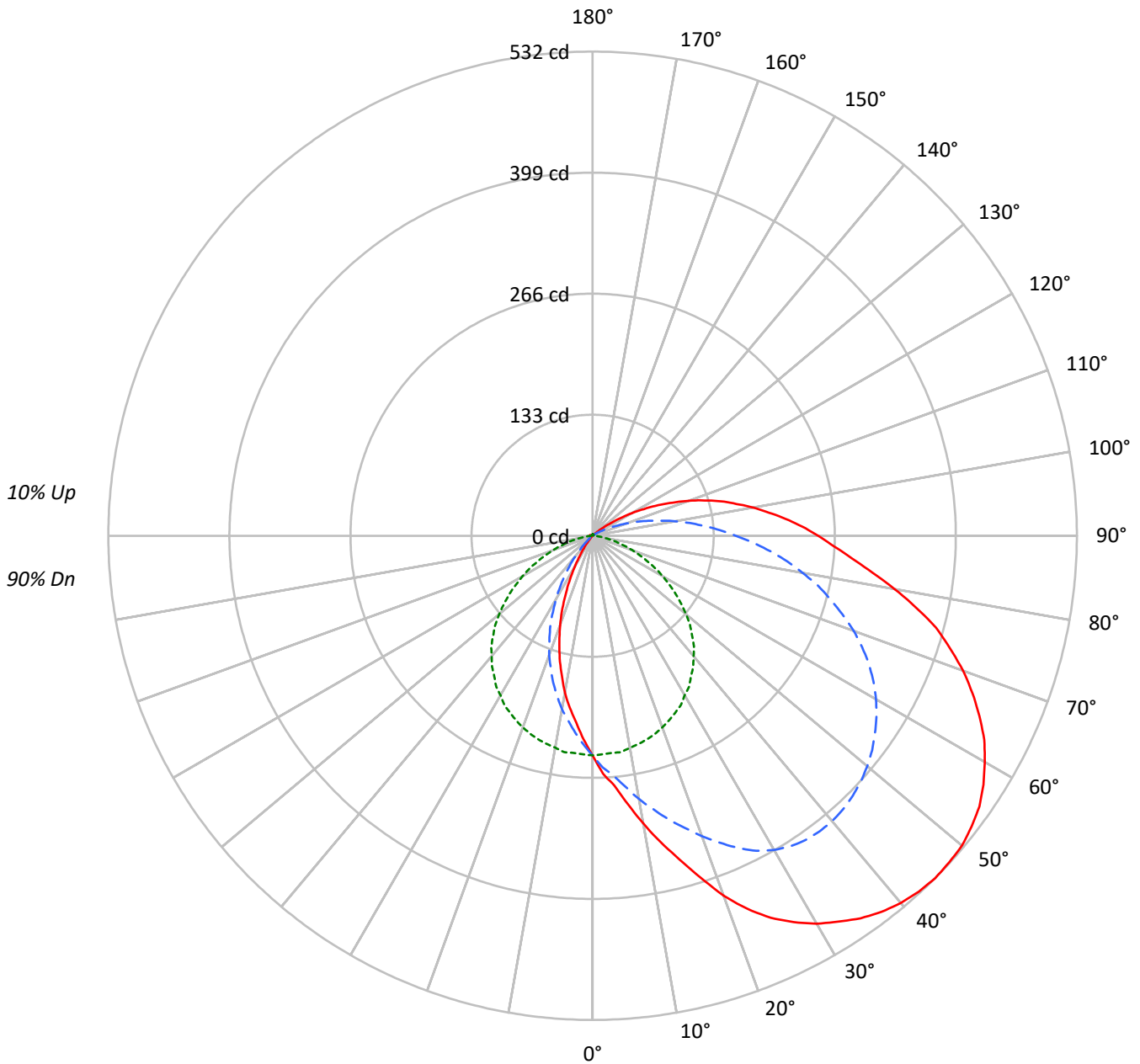
Lumens per Lamp: N/A
Luminaire Lumens: 1192.9 lumens
Efficiency: N/A
Efficacy: 71.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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									
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°	2597	2597	2597
5°	2851	2560	2136
10°	3226	2528	1760
15°	3616	2496	1372
20°	4078	2455	1010
25°	4462	2408	664
30°	4747	2345	373
35°	4994	2276	164
40°	5213	2194	40
45°	5400	2088	0
50°	5558	1949	0
55°	5678	1772	0
60°	5738	1566	0
65°	5762	1334	0
70°	5742	1087	0
75°	5669	803	4
80°	5440	490	24
85°	5258	234	33



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.1	1.9
10°-20°	69.2	5.8
20°-30°	112.1	9.4
30°-40°	144.0	12.1
40°-50°	163.0	13.7
50°-60°	168.8	14.2
60°-70°	159.2	13.3
70°-80°	133.4	11.2
80°-90°	96.7	8.1
90°-100°	63.6	5.3
100°-110°	36.7	3.1
110°-120°	16.2	1.4
120°-130°	4.4	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°	204.4	17.1
0°-40°	348.4	29.2
0°-60°	680.2	57.0
0°-90°	1069.6	89.7
90°-120°	116.5	9.8
90°-150°	122.5	10.3
90°-180°	123.0	10.3
0°-180°	1192.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	241	241	241	241	241	
5°	275	264	240	217	206	28
15°	368	323	232	167	140	106
25°	463	379	215	110	69	214
35°	513	408	188	54	17	322
45°	532	404	154	12	0	411
55°	519	379	111	0	0	463
65°	469	335	66	0	0	464
75°	391	270	28	0	0	410
85°	286	196	5	1	2	244
90°	248	157	1	2	2	136
95°	213	123	1	2	3	167
105°	146	63	1	2	2	154
115°	80	21	1	1	2	80
125°	24	3	1	1	1	24
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°	241.3	241.3	241.3	241.3	241.3	241.3	241.3	241.3	241.3	241.3	241.3
2.5°	261.6	261.3	260.4	258.8	256.7	253.0	249.9	247.2	243.5	240.4	234.6
5°	275.4	273.9	272.7	271.1	266.2	262.8	257.3	251.2	245.3	239.5	227.8
7.5°	297.6	295.1	293.3	289.0	282.2	274.5	265.9	260.1	256.1	239.8	219.8
10°	321.2	319.1	315.4	307.7	299.4	288.3	276.1	262.2	249.9	236.4	212.7
12.5°	344.6	341.5	336.3	326.5	314.8	301.0	284.0	267.8	250.2	234.2	204.4
15°	368.0	364.6	359.1	347.1	331.7	313.6	293.0	272.4	251.8	231.5	195.8
17.5°	393.5	388.9	380.6	367.0	347.7	325.2	301.0	276.1	251.2	228.1	186.6
20°	420.8	414.4	405.5	387.3	364.6	338.1	308.9	279.7	250.8	224.1	176.1
22.5°	443.6	437.1	427.3	408.5	381.2	348.9	315.7	282.2	249.6	219.5	166.3
25°	463.3	458.0	447.3	425.8	396.9	360.3	322.2	284.0	247.8	214.6	155.9
27.5°	478.6	473.7	461.7	439.6	410.1	370.4	327.1	285.0	245.3	209.7	145.1
30°	492.2	487.2	472.8	450.0	419.0	378.4	332.0	285.3	242.2	202.3	133.4
32.5°	502.6	498.0	483.2	459.0	425.1	384.0	334.8	285.0	238.2	197.0	120.8
35°	513.1	508.5	491.2	465.4	429.8	386.4	336.9	283.4	233.3	188.4	108.8
37.5°	521.1	515.8	498.3	469.7	431.9	387.0	336.6	281.3	228.1	181.4	96.8
40°	526.6	521.1	502.3	472.2	432.5	386.1	334.2	277.6	221.9	172.5	84.2
42.5°	530.3	524.1	504.1	475.9	431.3	383.6	330.5	273.0	215.2	164.8	72.2
45°	532.1	525.7	504.5	472.8	429.1	379.0	324.9	267.1	207.8	154.3	60.3
47.5°	531.2	524.1	502.9	469.4	425.1	374.1	318.8	260.1	198.9	145.1	48.9
50°	529.7	522.3	499.5	465.1	419.6	368.0	312.0	251.5	189.7	133.7	38.7
52.5°	524.7	517.4	495.8	459.0	413.2	360.9	302.8	242.5	179.8	122.7	29.5
55°	518.6	511.8	489.4	453.4	404.9	352.3	294.2	233.0	170.3	111.3	21.2
57.5°	509.1	502.9	481.4	444.5	396.6	342.8	284.7	222.6	158.3	99.9	14.8
60°	497.4	491.2	470.3	434.4	387.0	332.0	274.2	211.8	147.6	88.5	9.2
62.5°	485.1	479.2	457.4	421.8	375.0	320.6	262.8	201.0	136.2	78.1	5.5
65°	468.8	463.3	443.6	406.7	361.8	308.3	250.2	188.1	124.5	66.4	3.1
67.5°	451.6	446.7	426.7	392.9	346.4	294.8	237.3	175.5	112.2	56.3	1.5
70°	433.1	427.0	408.5	374.1	330.8	279.4	223.2	162.6	100.5	46.4	0.0
72.5°	411.6	407.0	389.2	356.6	312.6	263.1	208.7	148.5	87.6	36.9	0.3
75°	390.7	384.9	368.6	337.8	294.8	245.9	192.7	135.3	75.0	28.3	0.3
77.5°	363.7	361.8	346.4	316.6	277.9	229.3	175.2	119.3	63.0	20.3	0.3
80°	336.6	334.8	322.8	295.4	258.2	209.7	158.9	104.2	51.3	13.5	0.3
82.5°	309.9	307.4	296.0	273.3	238.2	193.1	142.0	89.1	40.6	8.3	0.3
85°	285.9	282.8	270.5	249.6	217.6	174.3	124.5	74.4	30.1	4.6	0.6
87.5°	265.3	263.1	249.6	228.1	196.7	156.8	109.1	60.3	21.2	2.2	0.9
90°	247.8	243.2	231.2	208.4	177.1	137.4	92.8	48.3	14.1	1.2	1.2
92.5°	230.6	226.6	213.3	190.0	159.5	120.8	77.2	36.9	8.9	0.6	1.5
95°	212.7	208.4	195.5	174.0	141.7	103.9	63.3	27.1	4.9	0.6	1.5
97.5°	195.2	191.2	177.7	156.2	125.7	89.1	50.1	19.1	2.5	0.6	1.2
100°	178.9	174.3	162.0	140.5	109.7	74.4	38.7	12.3	1.5	0.6	1.2
102.5°	161.7	158.0	145.4	124.5	93.1	60.6	28.9	7.7	0.6	0.6	0.9
105°	146.3	141.7	129.4	107.9	79.3	47.6	20.3	4.6	0.6	0.6	0.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	95.3	91.6	80.8	62.7	40.3	18.8	5.5	0.9	0.9	0.9	0.9
115°	79.6	74.1	64.6	48.6	29.8	12.3	2.8	0.9	0.9	0.9	0.9
117.5°	63.6	59.0	52.3	36.9	19.7	8.0	1.5	0.9	0.9	0.9	0.9
120°	49.8	45.5	37.8	25.5	13.2	4.6	0.6	0.9	0.9	0.9	0.9
122.5°	35.7	32.3	25.5	16.6	8.0	2.2	0.9	0.9	1.2	1.2	0.9
125°	23.7	21.8	16.9	10.1	4.9	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	15.4	13.8	9.8	5.8	2.2	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.6	7.7	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°	241.3	241.3	241.3
2.5°	229.6	225.3	224.1
5°	217.3	210.3	206.3
7.5°	205.0	195.5	190.9
10°	193.7	180.1	175.2
12.5°	180.1	164.5	156.8
15°	167.2	146.9	139.6
17.5°	152.8	130.0	121.4
20°	139.3	113.1	104.2
22.5°	123.9	96.5	86.7
25°	110.1	79.9	68.9
27.5°	94.7	63.0	53.5
30°	80.2	48.3	38.7
32.5°	66.4	35.4	26.7
35°	53.5	24.0	16.9
37.5°	41.2	14.8	8.6
40°	29.8	7.7	4.0
42.5°	20.0	3.7	2.2
45°	12.3	1.8	0.0
47.5°	7.1	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	2.2
90°	1.8	2.2	2.2
92.5°	1.8	2.5	2.5
95°	2.2	2.5	2.8
97.5°	2.5	2.8	2.8
100°	2.2	2.8	3.1
102.5°	1.8	2.8	2.8
105°	1.5	2.2	2.5



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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°	129.1	125.4	113.1	92.8	64.9	36.3	13.5	2.5	0.6	0.9	0.9
110°	112.5	109.4	96.8	77.2	52.3	27.1	8.9	1.5	0.9	0.9	0.9





107.5°	1.2	1.8	2.2
110°	1.2	1.5	1.8



(END OF REPORT)