

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: P551085

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-81-87-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: P551085
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-40-UNV-81-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

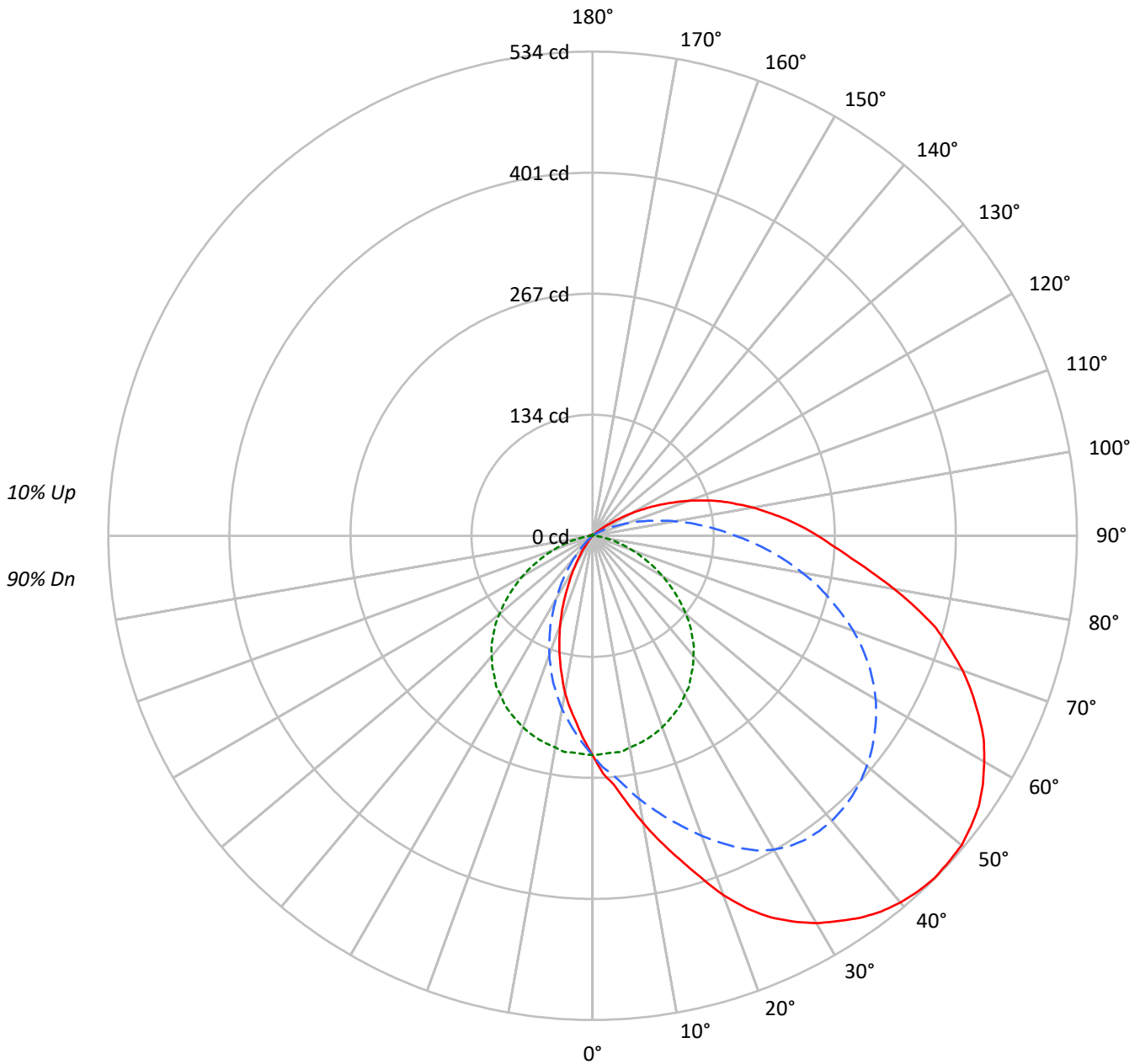
Lumens per Lamp: N/A
Luminaire Lumens: 1195.9 lumens
Efficiency: N/A
Efficacy: 71.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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

TEST NUMBER: P551085

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-81-87-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°	2604	2604	2604
5°	2858	2566	2141
10°	3234	2535	1765
15°	3625	2503	1375
20°	4089	2462	1013
25°	4473	2414	665
30°	4759	2351	374
35°	5007	2282	164
40°	5225	2199	40
45°	5414	2093	0
50°	5572	1954	0
55°	5692	1777	0
60°	5752	1571	0
65°	5777	1338	0
70°	5757	1089	0
75°	5684	805	4
80°	5454	493	24
85°	5271	234	33



TEST NUMBER: P551085

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.2	1.9
10°-20°	69.4	5.8
20°-30°	112.4	9.4
30°-40°	144.3	12.1
40°-50°	163.4	13.7
50°-60°	169.3	14.2
60°-70°	159.6	13.3
70°-80°	133.8	11.2
80°-90°	97.0	8.1
90°-100°	63.7	5.3
100°-110°	36.8	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°	204.9	17.1
0°-40°	349.3	29.2
0°-60°	681.9	57.0
0°-90°	1072.3	89.7
90°-120°	116.8	9.8
90°-150°	122.8	10.3
90°-180°	124.0	10.4
0°-180°	1195.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	242	242	242	242	242	
5°	276	265	240	218	207	28
15°	369	323	232	168	140	106
25°	464	380	215	110	69	215
35°	514	409	189	54	17	323
45°	534	405	155	12	0	412
55°	520	380	112	0	0	464
65°	470	336	67	0	0	465
75°	392	271	28	0	0	411
85°	287	196	5	1	2	245
90°	248	158	1	2	2	136
95°	213	123	1	2	3	167
105°	147	64	1	2	2	155
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°	241.9	241.9	241.9	241.9	241.9	241.9	241.9	241.9	241.9	241.9	241.9
2.5°	262.3	262.0	261.0	259.5	257.3	253.6	250.6	247.8	244.1	241.0	235.1
5°	276.1	274.6	273.4	271.8	266.9	263.5	257.9	251.8	245.9	240.1	228.4
7.5°	298.3	295.9	294.0	289.7	282.9	275.2	266.6	260.7	256.7	240.4	220.3
10°	322.0	319.9	316.2	308.5	300.2	289.1	276.7	262.9	250.6	237.0	213.3
12.5°	345.5	342.4	337.2	327.3	315.6	301.7	284.8	268.4	250.9	234.8	204.9
15°	368.9	365.5	360.0	347.9	332.5	314.3	293.7	273.0	252.4	232.1	196.3
17.5°	394.5	389.8	381.5	368.0	348.6	326.1	301.7	276.7	251.8	228.7	187.1
20°	421.9	415.4	406.5	388.3	365.5	339.0	309.7	280.4	251.5	224.7	176.6
22.5°	444.7	438.2	428.4	409.6	382.1	349.8	316.5	282.9	250.2	220.0	166.7
25°	464.4	459.2	448.4	426.8	397.9	361.2	323.0	284.8	248.4	215.1	156.2
27.5°	479.8	474.9	462.9	440.7	411.1	371.4	327.9	285.7	245.9	210.2	145.5
30°	493.4	488.5	474.0	451.2	420.1	379.4	332.8	286.0	242.8	202.8	133.8
32.5°	503.9	499.3	484.5	460.1	426.2	384.9	335.6	285.7	238.8	197.5	121.1
35°	514.4	509.7	492.5	466.6	430.8	387.4	337.8	284.1	233.9	188.9	109.1
37.5°	522.4	517.1	499.6	470.9	433.0	388.0	337.5	282.0	228.7	181.8	97.1
40°	527.9	522.4	503.6	473.4	433.6	387.1	335.0	278.3	222.5	172.9	84.4
42.5°	531.6	525.4	505.4	477.1	432.4	384.6	331.3	273.7	215.7	165.2	72.4
45°	533.5	527.0	505.7	474.0	430.2	380.0	325.7	267.8	208.3	154.7	60.4
47.5°	532.5	525.4	504.2	470.6	426.2	375.1	319.6	260.7	199.4	145.5	49.0
50°	531.0	523.6	500.8	466.3	420.7	368.9	312.8	252.1	190.1	134.1	38.8
52.5°	526.1	518.7	497.1	460.1	414.2	361.8	303.6	243.2	180.3	123.0	29.6
55°	519.9	513.1	490.6	454.6	405.9	353.2	294.9	233.6	170.7	111.6	21.3
57.5°	510.3	504.2	482.6	445.6	397.6	343.6	285.4	223.1	158.7	100.2	14.8
60°	498.6	492.5	471.5	435.5	388.0	332.8	274.9	212.3	147.9	88.8	9.2
62.5°	486.3	480.5	458.6	422.8	376.0	321.4	263.5	201.6	136.5	78.3	5.5
65°	470.0	464.4	444.7	407.7	362.7	309.1	250.9	188.6	124.8	66.6	3.1
67.5°	452.7	447.8	427.8	393.9	347.3	295.5	237.9	176.0	112.5	56.4	1.5
70°	434.2	428.1	409.6	375.1	331.6	280.1	223.7	163.0	100.8	46.5	0.0
72.5°	412.7	408.0	390.2	357.5	313.4	263.8	209.3	148.9	87.8	37.0	0.3
75°	391.7	385.8	369.5	338.7	295.5	246.5	193.2	135.6	75.2	28.4	0.3
77.5°	364.6	362.7	347.3	317.4	278.6	229.9	175.7	119.6	63.2	20.3	0.3
80°	337.5	335.6	323.6	296.2	258.9	210.2	159.3	104.5	51.5	13.6	0.3
82.5°	310.6	308.2	296.8	274.0	238.8	193.5	142.4	89.4	40.7	8.3	0.3
85°	286.6	283.5	271.2	250.2	218.2	174.7	124.8	74.6	30.2	4.6	0.6
87.5°	266.0	263.8	250.2	228.7	197.2	157.2	109.4	60.4	21.3	2.2	0.9
90°	248.4	243.8	231.8	208.9	177.5	137.8	93.1	48.4	14.2	1.2	1.2
92.5°	231.1	227.1	213.9	190.5	159.9	121.1	77.4	37.0	8.9	0.6	1.5
95°	213.3	208.9	196.0	174.4	142.1	104.2	63.5	27.1	4.9	0.6	1.5
97.5°	195.7	191.7	178.1	156.6	126.0	89.4	50.2	19.1	2.5	0.6	1.2
100°	179.4	174.7	162.4	140.8	110.0	74.6	38.8	12.3	1.5	0.6	1.2
102.5°	162.1	158.4	145.8	124.8	93.4	60.7	29.0	7.7	0.6	0.6	0.9
105°	146.7	142.1	129.7	108.2	79.5	47.8	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°	95.5	91.8	81.1	62.9	40.4	18.8	5.5	0.9	0.9	0.9	0.9
115°	79.8	74.3	64.7	48.7	29.9	12.3	2.8	0.9	0.9	0.9	0.9
117.5°	63.8	59.2	52.4	37.0	19.7	8.0	1.5	0.9	0.9	0.9	0.9
120°	49.9	45.6	37.9	25.6	13.3	4.6	0.6	0.9	0.9	0.9	0.9
122.5°	35.7	32.4	25.6	16.6	8.0	2.2	0.9	0.9	1.2	1.2	0.9
125°	23.7	21.9	16.9	10.2	4.9	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	15.4	13.9	9.9	5.9	2.2	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.6	7.7	5.9	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°	241.9	241.9	241.9
2.5°	230.2	225.9	224.7
5°	217.9	210.8	206.8
7.5°	205.6	196.0	191.4
10°	194.2	180.6	175.7
12.5°	180.6	164.9	157.2
15°	167.7	147.3	139.9
17.5°	153.2	130.4	121.7
20°	139.6	113.4	104.5
22.5°	124.2	96.8	86.9
25°	110.3	80.1	69.0
27.5°	94.9	63.2	53.6
30°	80.4	48.4	38.8
32.5°	66.6	35.4	26.8
35°	53.6	24.0	16.9
37.5°	41.3	14.8	8.6
40°	29.9	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°	129.4	125.7	113.4	93.1	65.0	36.4	13.6	2.5	0.6	0.9	0.9
110°	112.8	109.7	97.1	77.4	52.4	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)