

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: P550646

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-81-97-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: P550646
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-50-UNV-81-97-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

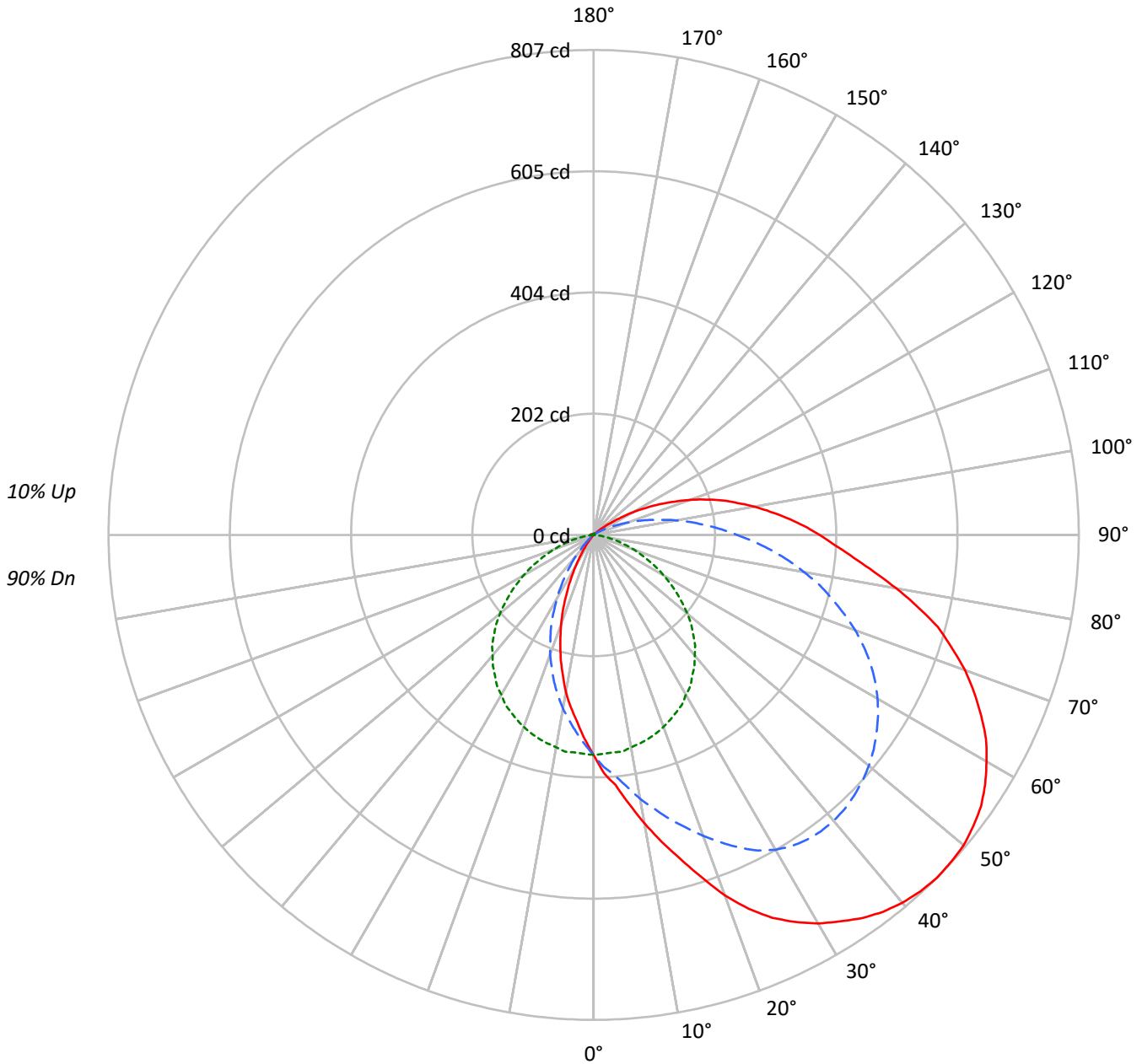
Lumens per Lamp: N/A
Luminaire Lumens: 1810.0 lumens
Efficiency: N/A
Efficacy: 83.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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

TEST NUMBER: P550646

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-97-ED1D

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°	3941	3941	3941
5°	4326	3883	3240
10°	4896	3836	2670
15°	5486	3787	2080
20°	6188	3725	1532
25°	6770	3653	1006
30°	7202	3558	567
35°	7576	3454	250
40°	7908	3327	60
45°	8193	3168	0
50°	8432	2957	0
55°	8614	2688	0
60°	8706	2377	0
65°	8742	2023	0
70°	8712	1649	0
75°	8602	1217	7
80°	8253	744	37
85°	7977	356	51



TEST NUMBER: P550646

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.1	1.9
10°-20°	105.0	5.8
20°-30°	170.0	9.4
30°-40°	218.4	12.1
40°-50°	247.3	13.7
50°-60°	256.2	14.2
60°-70°	241.6	13.3
70°-80°	202.5	11.2
80°-90°	146.8	8.1
90°-100°	96.5	5.3
100°-110°	55.7	3.1
110°-120°	24.6	1.4
120°-130°	6.7	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	310.1	17.1
0°-40°	528.6	29.2
0°-60°	1032.0	57.0
0°-90°	1622.8	89.7
90°-120°	176.7	9.8
90°-150°	185.9	10.3
90°-180°	187.0	10.3
0°-180°	1810.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	366	366	366	366	366	
5°	418	401	363	330	313	42
15°	558	489	351	254	212	161
25°	703	574	326	167	104	325
35°	778	619	286	81	26	488
45°	807	613	234	19	0	623
55°	787	574	169	0	0	703
65°	711	508	101	0	0	704
75°	593	410	43	0	0	622
85°	434	297	7	2	3	370
90°	376	239	2	3	3	206
95°	323	186	1	3	4	253
105°	222	96	1	2	4	234
115°	121	32	1	1	2	121
125°	36	4	2	1	2	36
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	2	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P550646

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-97-ED1D

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	366.1	366.1	366.1	366.1	366.1	366.1	366.1	366.1	366.1	366.1	366.1
2.5°	396.9	396.4	395.0	392.7	389.4	383.8	379.2	375.0	369.4	364.7	355.9
5°	417.9	415.6	413.7	411.4	403.9	398.8	390.4	381.0	372.2	363.3	345.6
7.5°	451.5	447.7	444.9	438.4	428.1	416.5	403.4	394.6	388.5	363.8	333.5
10°	487.4	484.1	478.5	466.9	454.3	437.5	418.8	397.8	379.2	358.7	322.7
12.5°	522.8	518.2	510.2	495.3	477.6	456.6	430.9	406.2	379.6	355.4	310.2
15°	558.3	553.1	544.7	526.6	503.2	475.7	444.5	413.2	382.0	351.2	297.1
17.5°	597.0	590.0	577.4	556.9	527.5	493.4	456.6	418.8	381.0	346.1	283.1
20°	638.5	628.7	615.2	587.7	553.1	513.0	468.7	424.4	380.6	340.0	267.2
22.5°	673.0	663.2	648.3	619.8	578.3	529.4	479.0	428.1	378.7	333.0	252.3
25°	702.9	694.9	678.6	646.0	602.1	546.6	488.8	430.9	375.9	325.5	236.5
27.5°	726.2	718.7	700.5	666.9	622.2	562.0	496.2	432.3	372.2	318.1	220.1
30°	746.7	739.2	717.3	682.8	635.7	574.1	503.7	432.8	367.5	306.9	202.4
32.5°	762.6	755.6	733.2	696.3	645.0	582.5	507.9	432.3	361.5	299.0	183.3
35°	778.4	771.4	745.3	706.1	652.0	586.3	511.2	430.0	354.0	285.9	165.1
37.5°	790.5	782.6	756.0	712.7	655.3	587.2	510.7	426.8	346.1	275.2	146.9
40°	798.9	790.5	762.1	716.4	656.2	585.8	507.0	421.2	336.7	261.6	127.8
42.5°	804.5	795.2	764.9	722.0	654.4	582.1	501.4	414.2	326.5	250.0	109.6
45°	807.3	797.5	765.4	717.3	651.1	575.1	493.0	405.3	315.3	234.1	91.4
47.5°	805.9	795.2	763.0	712.2	645.0	567.6	483.7	394.6	301.8	220.1	74.2
50°	803.6	792.4	757.9	705.7	636.6	558.3	473.4	381.5	287.8	202.9	58.8
52.5°	796.1	784.9	752.3	696.3	626.8	547.5	459.4	368.0	272.8	186.1	44.8
55°	786.8	776.5	742.5	687.9	614.2	534.5	446.3	353.5	258.4	168.8	32.2
57.5°	772.3	763.0	730.4	674.4	601.6	520.0	431.9	337.7	240.2	151.6	22.4
60°	754.6	745.3	713.6	659.0	587.2	503.7	416.0	321.3	223.9	134.3	14.0
62.5°	736.0	727.1	694.0	639.9	569.0	486.4	398.8	305.0	206.6	118.5	8.4
65°	711.3	702.9	673.0	617.0	548.9	467.8	379.6	285.4	188.9	100.7	4.7
67.5°	685.1	677.7	647.4	596.1	525.6	447.3	360.1	266.3	170.2	85.4	2.3
70°	657.1	647.8	619.8	567.6	501.8	424.0	338.6	246.7	152.5	70.4	0.0
72.5°	624.5	617.5	590.5	541.0	474.3	399.2	316.7	225.3	132.9	56.0	0.5
75°	592.8	583.9	559.2	512.6	447.3	373.1	292.4	205.2	113.8	42.9	0.5
77.5°	551.7	548.9	525.6	480.4	421.6	347.9	265.8	181.0	95.6	30.8	0.5
80°	510.7	507.9	489.7	448.2	391.8	318.1	241.1	158.1	77.9	20.5	0.5
82.5°	470.1	466.4	449.1	414.6	361.5	292.9	215.5	135.3	61.6	12.6	0.5
85°	433.7	429.1	410.4	378.7	330.2	264.4	188.9	112.9	45.7	7.0	0.9
87.5°	402.5	399.2	378.7	346.1	298.5	237.9	165.6	91.4	32.2	3.3	1.4
90°	375.9	368.9	350.7	316.2	268.6	208.5	140.9	73.2	21.5	1.9	1.9
92.5°	349.8	343.7	323.7	288.2	242.1	183.3	117.1	56.0	13.5	0.9	2.3
95°	322.7	316.2	296.6	264.0	215.0	157.6	96.1	41.0	7.5	0.9	2.3
97.5°	296.2	290.1	269.6	236.9	190.8	135.3	76.0	28.9	3.7	0.9	1.9
100°	271.4	264.4	245.8	213.1	166.5	112.9	58.8	18.7	2.3	0.9	1.9
102.5°	245.3	239.7	220.6	188.9	141.3	91.9	43.8	11.7	0.9	0.9	1.4
105°	222.0	215.0	196.4	163.7	120.3	72.3	30.8	7.0	0.9	0.9	1.4



TEST NUMBER: P550646

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-97-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	144.6	139.0	122.7	95.1	61.1	28.5	8.4	1.4	1.4	1.4	1.4
115°	120.8	112.4	97.9	73.7	45.2	18.7	4.2	1.4	1.4	1.4	1.4
117.5°	96.5	89.5	79.3	56.0	29.8	12.1	2.3	1.4	1.4	1.4	1.4
120°	75.6	69.0	57.4	38.7	20.1	7.0	0.9	1.4	1.4	1.4	1.4
122.5°	54.1	49.0	38.7	25.2	12.1	3.3	1.4	1.4	1.9	1.9	1.4
125°	35.9	33.1	25.7	15.4	7.5	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.3	21.0	14.9	8.9	3.3	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.1	11.7	8.9	5.1	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.5	7.0	4.7	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.9	2.3	2.3	2.3	1.9
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.9	2.3	2.3	2.3	1.9
142.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9	1.9
145°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	1.9	1.9	1.9
147.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9	1.9
150°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	1.9
152.5°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	1.9
155°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	2.3
157.5°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	2.3
160°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	2.3	2.3	2.3	2.3
172.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	2.3
175°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	2.3
177.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	1.9
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



TEST NUMBER: P550646

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-97-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	366.1	366.1	366.1
2.5°	348.4	341.9	340.0
5°	329.7	319.0	313.0
7.5°	311.1	296.6	289.6
10°	293.8	273.3	265.8
12.5°	273.3	249.5	237.9
15°	253.7	222.9	211.7
17.5°	231.8	197.3	184.2
20°	211.3	171.6	158.1
22.5°	188.0	146.4	131.5
25°	167.0	121.3	104.5
27.5°	143.6	95.6	81.2
30°	121.7	73.2	58.8
32.5°	100.7	53.6	40.6
35°	81.2	36.4	25.7
37.5°	62.5	22.4	13.1
40°	45.2	11.7	6.1
42.5°	30.3	5.6	3.3
45°	18.7	2.8	0.0
47.5°	10.7	0.0	0.0
50°	5.6	0.0	0.0
52.5°	2.3	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°	0.5	0.5	0.5
77.5°	0.5	0.9	1.4
80°	0.9	1.9	2.3
82.5°	1.9	2.3	2.3
85°	1.9	2.3	2.8
87.5°	2.3	2.8	3.3
90°	2.8	3.3	3.3
92.5°	2.8	3.7	3.7
95°	3.3	3.7	4.2
97.5°	3.7	4.2	4.2
100°	3.3	4.2	4.7
102.5°	2.8	4.2	4.2
105°	2.3	3.3	3.7



TEST NUMBER: P550646

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.3	2.3
115°	1.4	1.9	2.3
117.5°	1.4	1.9	1.9
120°	1.4	1.4	1.9
122.5°	1.4	1.4	1.9
125°	1.4	1.4	1.9
127.5°	1.9	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.9	1.4	1.4
135°	1.9	1.4	1.4
137.5°	1.9	1.4	1.4
140°	1.9	1.4	1.4
142.5°	1.9	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.9	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	195.9	190.3	171.6	140.9	98.4	55.0	20.5	3.7	0.9	1.4	1.4
110°	170.7	166.0	146.9	117.1	79.3	41.0	13.5	2.3	1.4	1.4	1.4





107.5°	1.9	2.8	3.3
110°	1.9	2.3	2.8



(END OF REPORT)