

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: P550570

Luminaire Tested: **FCC-X-2-LD4-1HI-40-UNV-81-85-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: P550570
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-40-UNV-81-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

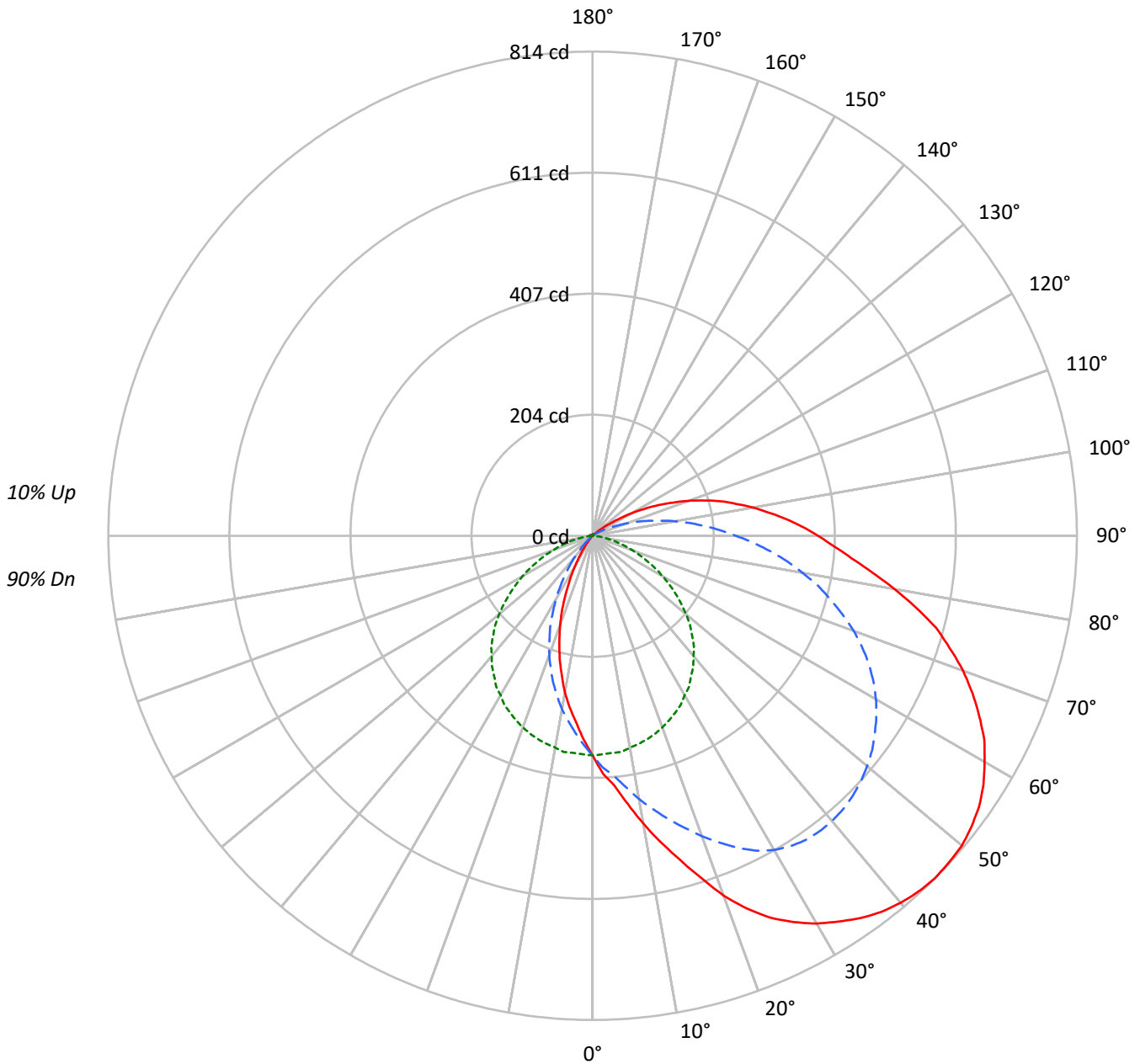
Lumens per Lamp: N/A
Luminaire Lumens: 1825.0 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (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: P550570

CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-81-85-ED1D

Luminous Intensity Polar Plot





TEST NUMBER: P550570

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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°	3974	3974	3974
5°	4362	3915	3266
10°	4936	3867	2692
15°	5532	3818	2098
20°	6239	3756	1545
25°	6826	3683	1014
30°	7262	3587	572
35°	7639	3483	252
40°	7974	3355	60
45°	8261	3195	0
50°	8503	2982	0
55°	8685	2710	0
60°	8778	2396	0
65°	8814	2041	0
70°	8785	1663	0
75°	8673	1228	7
80°	8321	751	39
85°	8043	361	51



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.4	1.9
10°-20°	105.9	5.8
20°-30°	171.5	9.4
30°-40°	220.3	12.1
40°-50°	249.3	13.7
50°-60°	258.3	14.2
60°-70°	243.6	13.3
70°-80°	204.1	11.2
80°-90°	148.0	8.1
90°-100°	97.3	5.3
100°-110°	56.2	3.1
110°-120°	24.8	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°	312.7	17.1
0°-40°	532.9	29.2
0°-60°	1040.6	57.0
0°-90°	1636.3	89.7
90°-120°	178.2	9.8
90°-150°	187.5	10.3
90°-180°	189.0	10.4
0°-180°	1825.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	369	369	369	369	369	
5°	421	405	366	332	316	42
15°	563	494	354	256	214	162
25°	709	579	328	168	105	328
35°	785	624	288	82	26	492
45°	814	618	236	19	0	628
55°	793	579	170	0	0	708
65°	717	513	102	0	0	710
75°	598	414	43	0	0	627
85°	437	300	7	2	3	373
90°	379	241	2	3	3	208
95°	325	188	1	3	4	255
105°	224	97	1	2	4	236
115°	122	32	1	1	2	122
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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2
2.5°	400.2	399.7	398.3	396.0	392.7	387.0	382.3	378.1	372.4	367.7	358.8
5°	421.4	419.0	417.1	414.8	407.2	402.1	393.6	384.2	375.3	366.3	348.5
7.5°	455.2	451.4	448.6	442.0	431.7	419.9	406.8	397.8	391.7	366.8	336.2
10°	491.4	488.1	482.5	470.7	458.0	441.1	422.3	401.1	382.3	361.6	325.4
12.5°	527.2	522.5	514.5	499.4	481.5	460.4	434.5	409.6	382.8	358.3	312.7
15°	562.9	557.7	549.3	530.9	507.4	479.7	448.2	416.6	385.1	354.1	299.6
17.5°	601.9	594.9	582.2	561.5	531.9	497.5	460.4	422.3	384.2	348.9	285.4
20°	643.8	633.9	620.3	592.5	557.7	517.3	472.6	427.9	383.7	342.8	269.5
22.5°	678.6	668.7	653.7	625.0	583.1	533.7	483.0	431.7	381.9	335.8	254.4
25°	708.7	700.7	684.2	651.3	607.1	551.1	492.8	434.5	379.0	328.2	238.4
27.5°	732.2	724.7	706.3	672.5	627.3	566.7	500.4	435.9	375.3	320.7	222.0
30°	752.9	745.4	723.3	688.5	641.0	578.9	507.9	436.4	370.6	309.4	204.1
32.5°	768.9	761.8	739.2	702.1	650.4	587.4	512.1	435.9	364.5	301.4	184.8
35°	784.9	777.8	751.5	712.0	657.4	591.1	515.4	433.6	356.9	288.3	166.5
37.5°	797.1	789.1	762.3	718.6	660.7	592.1	514.9	430.3	348.9	277.5	148.1
40°	805.6	797.1	768.4	722.3	661.7	590.6	511.2	424.6	339.5	263.8	128.9
42.5°	811.2	801.8	771.2	728.0	659.8	586.9	505.5	417.6	329.2	252.1	110.5
45°	814.0	804.1	771.7	723.3	656.5	579.8	497.1	408.7	317.9	236.1	92.2
47.5°	812.6	801.8	769.3	718.1	650.4	572.3	487.7	397.8	304.3	222.0	74.8
50°	810.3	799.0	764.2	711.5	641.9	562.9	477.3	384.7	290.2	204.6	59.3
52.5°	802.7	791.4	758.5	702.1	632.0	552.1	463.2	371.0	275.1	187.6	45.1
55°	793.3	783.0	748.7	693.6	619.3	538.9	450.0	356.5	260.5	170.2	32.4
57.5°	778.7	769.3	736.4	680.0	606.6	524.3	435.5	340.5	242.2	152.8	22.6
60°	760.9	751.5	719.5	664.5	592.1	507.9	419.5	324.0	225.7	135.4	14.1
62.5°	742.1	733.1	699.7	645.2	573.7	490.5	402.1	307.5	208.3	119.4	8.5
65°	717.1	708.7	678.6	622.2	553.5	471.7	382.8	287.8	190.5	101.6	4.7
67.5°	690.8	683.3	652.7	601.0	530.0	451.0	363.0	268.5	171.6	86.1	2.4
70°	662.6	653.2	625.0	572.3	506.0	427.5	341.4	248.8	153.8	71.0	0.0
72.5°	629.7	622.6	595.3	545.5	478.3	402.5	319.3	227.1	134.0	56.4	0.5
75°	597.7	588.8	563.8	516.8	451.0	376.2	294.9	206.9	114.7	43.3	0.5
77.5°	556.3	553.5	530.0	484.4	425.1	350.8	268.0	182.5	96.4	31.0	0.5
80°	514.9	512.1	493.8	451.9	395.0	320.7	243.1	159.4	78.5	20.7	0.5
82.5°	474.0	470.3	452.9	418.1	364.5	295.3	217.3	136.4	62.1	12.7	0.5
85°	437.3	432.6	413.8	381.9	332.9	266.6	190.5	113.8	46.1	7.1	0.9
87.5°	405.8	402.5	381.9	348.9	301.0	239.8	166.9	92.2	32.4	3.3	1.4
90°	379.0	372.0	353.6	318.8	270.9	210.2	142.0	73.8	21.6	1.9	1.9
92.5°	352.7	346.6	326.4	290.6	244.1	184.8	118.0	56.4	13.6	0.9	2.4
95°	325.4	318.8	299.1	266.2	216.8	158.9	96.9	41.4	7.5	0.9	2.4
97.5°	298.6	292.5	271.8	238.9	192.3	136.4	76.7	29.2	3.8	0.9	1.9
100°	273.7	266.6	247.8	214.9	167.9	113.8	59.3	18.8	2.4	0.9	1.9
102.5°	247.4	241.7	222.4	190.5	142.5	92.6	44.2	11.8	0.9	0.9	1.4
105°	223.8	216.8	198.0	165.1	121.3	72.9	31.0	7.1	0.9	0.9	1.4



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CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-81-85-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	145.8	140.1	123.7	95.9	61.6	28.7	8.5	1.4	1.4	1.4	1.4
115°	121.8	113.3	98.8	74.3	45.6	18.8	4.2	1.4	1.4	1.4	1.4
117.5°	97.3	90.3	79.9	56.4	30.1	12.2	2.4	1.4	1.4	1.4	1.4
120°	76.2	69.6	57.8	39.0	20.2	7.1	0.9	1.4	1.4	1.4	1.4
122.5°	54.6	49.4	39.0	25.4	12.2	3.3	1.4	1.4	1.9	1.9	1.4
125°	36.2	33.4	25.9	15.5	7.5	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.5	21.2	15.0	8.9	3.3	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.2	11.8	8.9	5.2	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.5	7.1	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	2.4	2.4	1.9
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
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	2.4	2.4	2.4	2.4
172.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
175°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	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



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	369.2	369.2	369.2
2.5°	351.3	344.7	342.8
5°	332.5	321.7	315.5
7.5°	313.7	299.1	292.0
10°	296.3	275.6	268.0
12.5°	275.6	251.6	239.8
15°	255.8	224.8	213.5
17.5°	233.7	198.9	185.8
20°	213.0	173.1	159.4
22.5°	189.5	147.7	132.6
25°	168.4	122.3	105.3
27.5°	144.8	96.4	81.8
30°	122.7	73.8	59.3
32.5°	101.6	54.1	40.9
35°	81.8	36.7	25.9
37.5°	63.0	22.6	13.2
40°	45.6	11.8	6.1
42.5°	30.6	5.6	3.3
45°	18.8	2.8	0.0
47.5°	10.8	0.0	0.0
50°	5.6	0.0	0.0
52.5°	2.4	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	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.8
87.5°	2.4	2.8	3.3
90°	2.8	3.3	3.3
92.5°	2.8	3.8	3.8
95°	3.3	3.8	4.2
97.5°	3.8	4.2	4.2
100°	3.3	4.2	4.7
102.5°	2.8	4.2	4.2
105°	2.4	3.3	3.8



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CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-81-85-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.4	1.9	2.4
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°	197.5	191.9	173.1	142.0	99.2	55.5	20.7	3.8	0.9	1.4	1.4
110°	172.1	167.4	148.1	118.0	79.9	41.4	13.6	2.4	1.4	1.4	1.4





107.5°	1.9	2.8	3.3
110°	1.9	2.4	2.8



(END OF REPORT)