

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: P550963

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-81-96-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: P550963
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-81-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

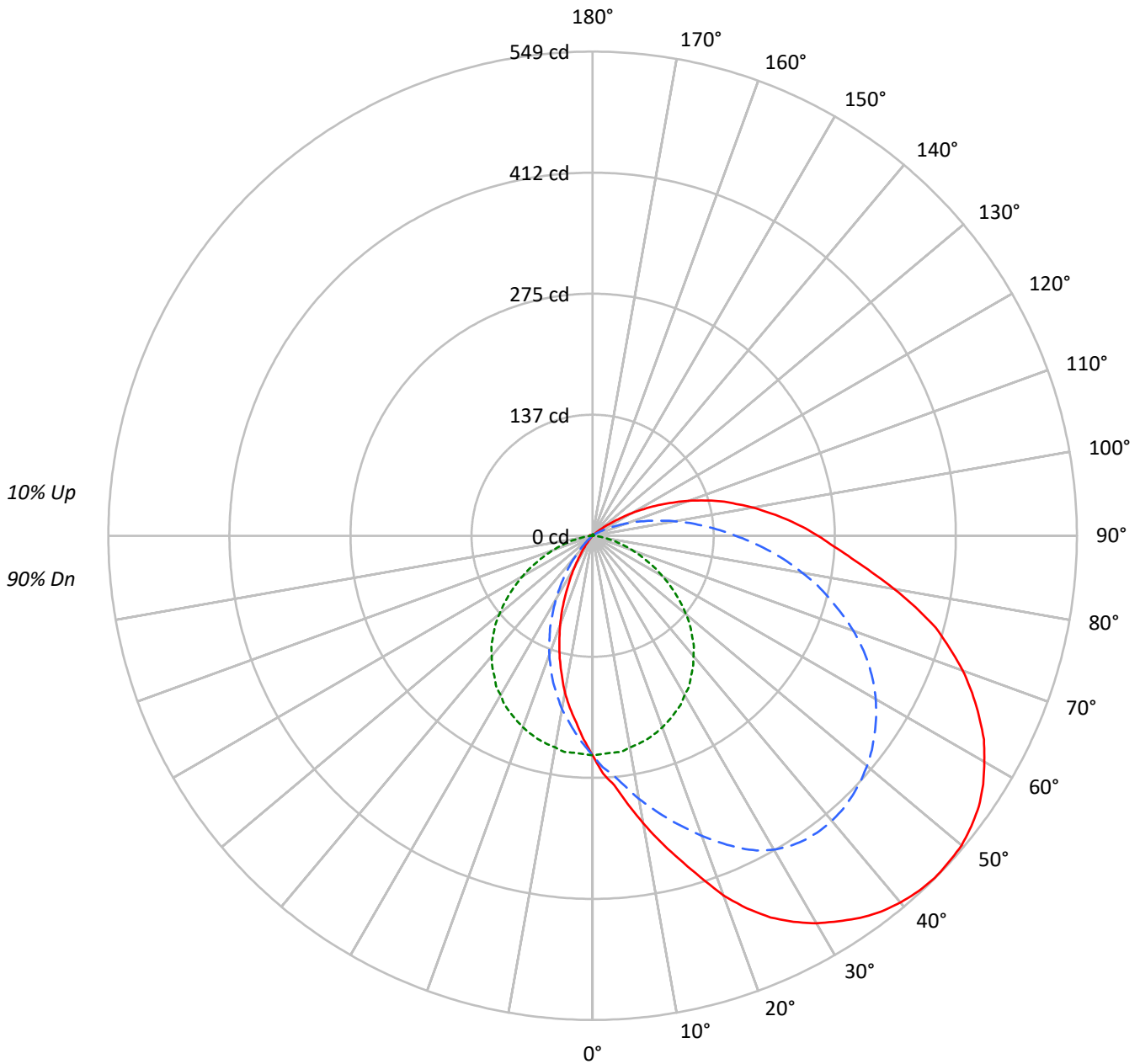
Lumens per Lamp: N/A
Luminaire Lumens: 1230.1 lumens
Efficiency: N/A
Efficacy: 73.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P550963

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-81-96-ED1D-90

Luminous Intensity Polar Plot





TEST NUMBER: P550963

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-81-96-ED1D-90

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°	2678	2678	2678
5°	2940	2639	2202
10°	3327	2606	1815
15°	3728	2574	1414
20°	4205	2532	1041
25°	4600	2482	684
30°	4894	2417	385
35°	5149	2348	169
40°	5374	2261	41
45°	5567	2153	0
50°	5730	2010	0
55°	5854	1826	0
60°	5916	1616	0
65°	5940	1376	0
70°	5921	1122	0
75°	5845	828	4
80°	5609	504	26
85°	5422	244	35



TEST NUMBER: P550963

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-81-96-ED1D-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.8	1.9
10°-20°	71.4	5.8
20°-30°	115.6	9.4
30°-40°	148.4	12.1
40°-50°	168.0	13.7
50°-60°	174.1	14.2
60°-70°	164.2	13.3
70°-80°	137.6	11.2
80°-90°	99.7	8.1
90°-100°	65.6	5.3
100°-110°	37.9	3.1
110°-120°	16.7	1.4
120°-130°	4.6	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	210.7	17.1
0°-40°	359.2	29.2
0°-60°	701.3	57.0
0°-90°	1102.8	89.7
90°-120°	120.1	9.8
90°-150°	126.4	10.3
90°-180°	127.0	10.3
0°-180°	1230.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	249	249	249	249	249	
5°	284	273	247	224	213	29
15°	379	333	239	172	144	109
25°	478	390	221	114	71	221
35°	529	421	194	55	17	332
45°	549	417	159	13	0	424
55°	535	390	115	0	0	477
65°	483	345	68	0	0	478
75°	403	279	29	0	0	423
85°	295	202	5	1	2	252
90°	256	162	1	2	2	140
95°	219	127	1	2	3	172
105°	151	65	1	2	2	159
115°	82	22	1	1	2	82
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	



TEST NUMBER: P550963

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-81-96-ED1D-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	248.8	248.8	248.8	248.8	248.8	248.8	248.8	248.8	248.8	248.8	248.8
2.5°	269.7	269.4	268.4	266.9	264.6	260.8	257.7	254.8	251.0	247.8	241.8
5°	284.0	282.4	281.1	279.5	274.5	271.0	265.3	258.9	252.9	246.9	234.9
7.5°	306.8	304.3	302.4	297.9	291.0	283.0	274.2	268.1	264.0	247.2	226.6
10°	331.2	329.0	325.2	317.3	308.7	297.3	284.6	270.4	257.7	243.7	219.3
12.5°	355.3	352.1	346.7	336.6	324.5	310.3	292.9	276.1	258.0	241.5	210.8
15°	379.4	375.9	370.2	357.8	342.0	323.3	302.0	280.8	259.6	238.7	201.9
17.5°	405.7	400.9	392.4	378.4	358.5	335.3	310.3	284.6	258.9	235.2	192.4
20°	433.9	427.2	418.0	399.3	375.9	348.6	318.5	288.4	258.6	231.1	181.6
22.5°	457.3	450.7	440.5	421.2	393.0	359.7	325.5	291.0	257.4	226.3	171.5
25°	477.6	472.2	461.2	439.0	409.2	371.5	332.2	292.9	255.5	221.2	160.7
27.5°	493.5	488.4	476.0	453.2	422.8	381.9	337.2	293.8	252.9	216.2	149.6
30°	507.4	502.4	487.5	464.0	432.0	390.2	342.3	294.1	249.8	208.5	137.6
32.5°	518.2	513.4	498.2	473.2	438.3	395.9	345.1	293.8	245.6	203.2	124.6
35°	529.0	524.2	506.5	479.9	443.1	398.4	347.4	292.2	240.6	194.3	112.2
37.5°	537.2	531.8	513.8	484.3	445.3	399.0	347.1	290.0	235.2	187.0	99.8
40°	542.9	537.2	517.9	486.8	445.9	398.1	344.5	286.2	228.8	177.8	86.8
42.5°	546.7	540.4	519.8	490.6	444.7	395.5	340.7	281.4	221.9	169.9	74.5
45°	548.6	542.0	520.1	487.5	442.5	390.8	335.0	275.4	214.3	159.1	62.1
47.5°	547.7	540.4	518.5	484.0	438.3	385.7	328.7	268.1	205.1	149.6	50.4
50°	546.1	538.5	515.0	479.5	432.6	379.4	321.7	259.3	195.6	137.9	39.9
52.5°	541.0	533.4	511.2	473.2	426.0	372.1	312.2	250.1	185.4	126.5	30.4
55°	534.7	527.7	504.6	467.5	417.4	363.2	303.3	240.2	175.6	114.7	21.9
57.5°	524.9	518.5	496.3	458.3	408.9	353.4	293.5	229.5	163.2	103.0	15.2
60°	512.8	506.5	484.9	447.8	399.0	342.3	282.7	218.4	152.1	91.3	9.5
62.5°	500.1	494.1	471.6	434.8	386.7	330.6	271.0	207.3	140.4	80.5	5.7
65°	483.3	477.6	457.3	419.3	373.0	317.9	258.0	194.0	128.4	68.5	3.2
67.5°	465.6	460.5	439.9	405.1	357.2	303.9	244.7	181.0	115.7	58.0	1.6
70°	446.6	440.2	421.2	385.7	341.0	288.1	230.1	167.7	103.6	47.9	0.0
72.5°	424.4	419.6	401.2	367.7	322.3	271.3	215.2	153.1	90.3	38.0	0.3
75°	402.8	396.8	380.0	348.3	303.9	253.6	198.7	139.5	77.3	29.2	0.3
77.5°	374.9	373.0	357.2	326.5	286.5	236.4	180.7	123.0	65.0	20.9	0.3
80°	347.1	345.1	332.8	304.6	266.2	216.2	163.9	107.4	52.9	13.9	0.3
82.5°	319.5	316.9	305.2	281.8	245.6	199.0	146.4	91.9	41.8	8.6	0.3
85°	294.8	291.6	278.9	257.4	224.4	179.7	128.4	76.7	31.1	4.8	0.6
87.5°	273.5	271.3	257.4	235.2	202.8	161.6	112.5	62.1	21.9	2.2	1.0
90°	255.5	250.7	238.3	214.9	182.6	141.7	95.7	49.8	14.6	1.3	1.3
92.5°	237.7	233.6	220.0	195.9	164.5	124.6	79.6	38.0	9.2	0.6	1.6
95°	219.3	214.9	201.6	179.4	146.1	107.1	65.3	27.9	5.1	0.6	1.6
97.5°	201.3	197.1	183.2	161.0	129.6	91.9	51.7	19.7	2.5	0.6	1.3
100°	184.5	179.7	167.0	144.8	113.1	76.7	39.9	12.7	1.6	0.6	1.3
102.5°	166.7	162.9	149.9	128.4	96.0	62.4	29.8	7.9	0.6	0.6	1.0
105°	150.9	146.1	133.4	111.2	81.8	49.1	20.9	4.8	0.6	0.6	1.0



TEST NUMBER: P550963

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-81-96-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	98.3	94.4	83.4	64.7	41.5	19.3	5.7	1.0	1.0	1.0	1.0
115°	82.1	76.4	66.6	50.1	30.7	12.7	2.9	1.0	1.0	1.0	1.0
117.5°	65.6	60.9	53.9	38.0	20.3	8.2	1.6	1.0	1.0	1.0	1.0
120°	51.3	46.9	39.0	26.3	13.6	4.8	0.6	1.0	1.0	1.0	1.0
122.5°	36.8	33.3	26.3	17.1	8.2	2.2	1.0	1.0	1.3	1.3	1.0
125°	24.4	22.5	17.4	10.5	5.1	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	15.8	14.3	10.1	6.0	2.2	1.0	1.0	1.3	1.3	1.3	1.0
130°	8.9	7.9	6.0	3.5	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.1	4.8	3.2	0.6	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3
137.5°	0.3	0.3	0.6	0.6	1.0	1.0	1.3	1.6	1.6	1.6	1.3
140°	0.3	0.3	0.6	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.3
142.5°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
145°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.3	1.3	1.3
147.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
150°	0.3	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
152.5°	0.3	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
155°	0.6	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
157.5°	0.6	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
160°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.6	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.6	0.6	0.6	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.6	0.6	0.6	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.6
172.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
175°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
177.5°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.3
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



TEST NUMBER: P550963

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-81-96-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	248.8	248.8	248.8
2.5°	236.8	232.3	231.1
5°	224.1	216.8	212.7
7.5°	211.4	201.6	196.8
10°	199.7	185.7	180.7
12.5°	185.7	169.6	161.6
15°	172.4	151.5	143.9
17.5°	157.5	134.1	125.2
20°	143.6	116.6	107.4
22.5°	127.7	99.5	89.4
25°	113.5	82.4	71.0
27.5°	97.6	65.0	55.1
30°	82.7	49.8	39.9
32.5°	68.5	36.4	27.6
35°	55.1	24.7	17.4
37.5°	42.5	15.2	8.9
40°	30.7	7.9	4.1
42.5°	20.6	3.8	2.2
45°	12.7	1.9	0.0
47.5°	7.3	0.0	0.0
50°	3.8	0.0	0.0
52.5°	1.6	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	1.0
80°	0.6	1.3	1.6
82.5°	1.3	1.6	1.6
85°	1.3	1.6	1.9
87.5°	1.6	1.9	2.2
90°	1.9	2.2	2.2
92.5°	1.9	2.5	2.5
95°	2.2	2.5	2.9
97.5°	2.5	2.9	2.9
100°	2.2	2.9	3.2
102.5°	1.9	2.9	2.9
105°	1.6	2.2	2.5



TEST NUMBER: P550963

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-81-96-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.6	1.6
115°	1.0	1.3	1.6
117.5°	1.0	1.3	1.3
120°	1.0	1.0	1.3
122.5°	1.0	1.0	1.3
125°	1.0	1.0	1.3
127.5°	1.3	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.3	1.0	1.0
135°	1.3	1.0	1.0
137.5°	1.3	1.0	1.0
140°	1.3	1.0	1.0
142.5°	1.3	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.6
152.5°	1.0	0.6	0.6
155°	1.0	0.6	0.3
157.5°	1.3	0.6	0.3
160°	1.0	0.6	0.3
162.5°	1.0	0.6	0.3
165°	1.0	0.6	0.0
167.5°	1.0	0.6	0.3
170°	1.0	0.6	0.3
172.5°	1.0	0.6	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	133.1	129.3	116.6	95.7	66.9	37.4	13.9	2.5	0.6	1.0	1.0
110°	116.0	112.8	99.8	79.6	53.9	27.9	9.2	1.6	1.0	1.0	1.0





107.5°	1.3	1.9	2.2
110°	1.3	1.6	1.9



(END OF REPORT)