

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: P550988

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-93-86-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: P550988
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-93-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

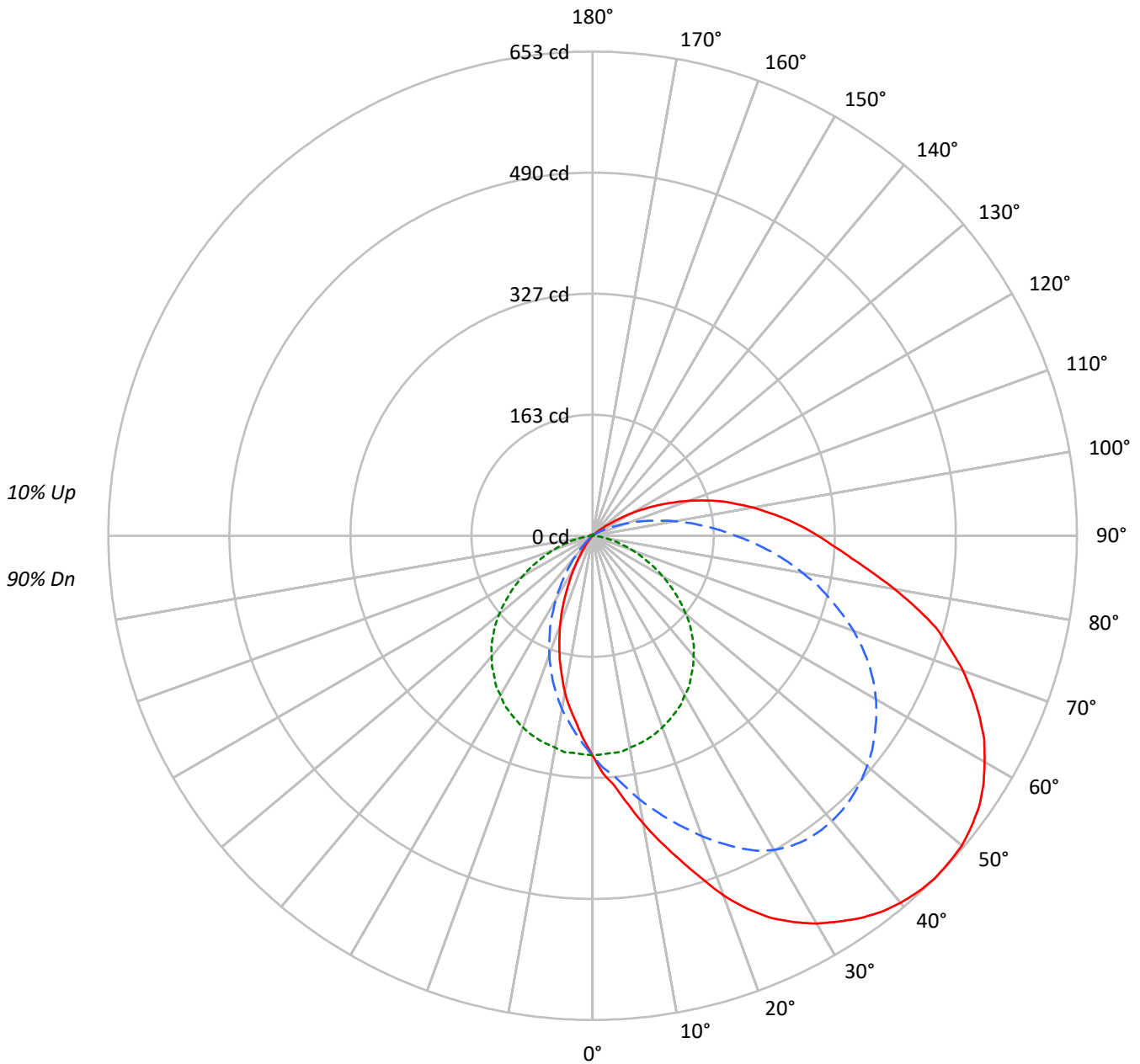
Lumens per Lamp: N/A
Luminaire Lumens: 1464.0 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P550988

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-86-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°	3187	3187	3187
5°	3499	3141	2620
10°	3960	3102	2160
15°	4438	3063	1683
20°	5004	3013	1239
25°	5475	2955	814
30°	5825	2877	458
35°	6128	2794	201
40°	6396	2691	49
45°	6627	2563	0
50°	6821	2392	0
55°	6968	2175	0
60°	7042	1922	0
65°	7071	1637	0
70°	7047	1335	0
75°	6958	984	6
80°	6676	602	31
85°	6452	290	42



TEST NUMBER: P550988

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.4	1.9
10°-20°	84.9	5.8
20°-30°	137.5	9.4
30°-40°	176.7	12.1
40°-50°	200.0	13.7
50°-60°	207.2	14.2
60°-70°	195.4	13.3
70°-80°	163.8	11.2
80°-90°	118.7	8.1
90°-100°	78.0	5.3
100°-110°	45.1	3.1
110°-120°	19.9	1.4
120°-130°	5.4	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	250.8	17.1
0°-40°	427.5	29.2
0°-60°	834.7	57.0
0°-90°	1312.6	89.7
90°-120°	142.9	9.8
90°-150°	150.3	10.3
90°-180°	151.0	10.3
0°-180°	1464.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	296	296	296	296	296	
5°	338	325	294	267	253	34
15°	452	396	284	205	171	130
25°	568	465	263	135	84	263
35°	630	501	231	66	21	395
45°	653	496	189	15	0	504
55°	636	465	137	0	0	568
65°	575	411	82	0	0	569
75°	480	332	35	0	0	503
85°	351	240	6	2	2	300
90°	304	193	2	2	3	167
95°	261	151	1	3	3	205
105°	180	78	1	2	3	189
115°	98	26	1	1	2	98
125°	29	4	2	1	2	29
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P550988

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-86-ED1D

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	296.1	296.1	296.1	296.1	296.1	296.1	296.1	296.1	296.1	296.1	296.1
2.5°	321.0	320.7	319.5	317.6	315.0	310.5	306.7	303.3	298.8	295.0	287.8
5°	338.0	336.1	334.6	332.7	326.7	322.5	315.7	308.2	301.0	293.9	279.5
7.5°	365.2	362.1	359.9	354.6	346.3	336.9	326.3	319.1	314.2	294.2	269.7
10°	394.2	391.6	387.0	377.6	367.4	353.8	338.8	321.8	306.7	290.1	261.0
12.5°	422.9	419.1	412.7	400.6	386.3	369.3	348.6	328.6	307.1	287.5	250.9
15°	451.6	447.4	440.6	425.9	407.0	384.8	359.5	334.2	309.0	284.1	240.3
17.5°	482.9	477.2	467.0	450.4	426.7	399.1	369.3	338.8	308.2	279.9	229.0
20°	516.4	508.5	497.6	475.3	447.4	415.0	379.1	343.3	307.8	275.0	216.2
22.5°	544.4	536.4	524.4	501.3	467.8	428.2	387.4	346.3	306.3	269.3	204.1
25°	568.5	562.1	548.9	522.5	487.0	442.1	395.3	348.6	304.1	263.3	191.3
27.5°	587.4	581.3	566.6	539.5	503.2	454.6	401.4	349.7	301.0	257.3	178.1
30°	604.0	597.9	580.2	552.3	514.2	464.4	407.4	350.1	297.3	248.2	163.7
32.5°	616.8	611.1	593.0	563.2	521.7	471.2	410.8	349.7	292.4	241.8	148.3
35°	629.6	624.0	602.8	571.1	527.4	474.2	413.5	347.8	286.3	231.2	133.5
37.5°	639.4	633.0	611.5	576.4	530.0	474.9	413.1	345.2	279.9	222.6	118.8
40°	646.2	639.4	616.4	579.4	530.8	473.8	410.1	340.6	272.4	211.6	103.4
42.5°	650.7	643.2	618.7	584.0	529.3	470.8	405.5	335.0	264.1	202.2	88.7
45°	653.0	645.1	619.0	580.2	526.6	465.1	398.7	327.8	255.0	189.4	73.9
47.5°	651.9	643.2	617.2	576.0	521.7	459.1	391.2	319.1	244.1	178.1	60.0
50°	650.0	640.9	613.0	570.8	514.9	451.6	382.9	308.6	232.8	164.1	47.5
52.5°	643.9	634.9	608.5	563.2	507.0	442.9	371.6	297.6	220.7	150.5	36.2
55°	636.4	628.1	600.6	556.4	496.8	432.3	361.0	285.9	209.0	136.6	26.0
57.5°	624.7	617.2	590.8	545.5	486.6	420.6	349.3	273.1	194.3	122.6	18.1
60°	610.4	602.8	577.2	533.0	474.9	407.4	336.5	259.9	181.1	108.6	11.3
62.5°	595.3	588.1	561.3	517.6	460.2	393.5	322.5	246.7	167.1	95.8	6.8
65°	575.3	568.5	544.4	499.1	444.0	378.4	307.1	230.9	152.8	81.5	3.8
67.5°	554.2	548.1	523.6	482.1	425.1	361.8	291.2	215.4	137.7	69.0	1.9
70°	531.5	524.0	501.3	459.1	405.9	342.9	273.9	199.6	123.4	57.0	0.0
72.5°	505.1	499.5	477.6	437.6	383.7	322.9	256.1	182.2	107.5	45.3	0.4
75°	479.5	472.3	452.3	414.6	361.8	301.8	236.5	166.0	92.0	34.7	0.4
77.5°	446.3	444.0	425.1	388.6	341.0	281.4	215.0	146.4	77.3	24.9	0.4
80°	413.1	410.8	396.1	362.5	316.9	257.3	195.0	127.9	63.0	16.6	0.4
82.5°	380.3	377.2	363.3	335.4	292.4	236.9	174.3	109.4	49.8	10.2	0.4
85°	350.8	347.1	332.0	306.3	267.1	213.9	152.8	91.3	37.0	5.7	0.8
87.5°	325.6	322.9	306.3	279.9	241.4	192.4	133.9	73.9	26.0	2.6	1.1
90°	304.1	298.4	283.7	255.8	217.3	168.6	113.9	59.2	17.4	1.5	1.5
92.5°	282.9	278.0	261.8	233.1	195.8	148.3	94.7	45.3	10.9	0.8	1.9
95°	261.0	255.8	239.9	213.5	173.9	127.5	77.7	33.2	6.0	0.8	1.9
97.5°	239.5	234.6	218.0	191.6	154.3	109.4	61.5	23.4	3.0	0.8	1.5
100°	219.6	213.9	198.8	172.4	134.7	91.3	47.5	15.1	1.9	0.8	1.5
102.5°	198.4	193.9	178.4	152.8	114.3	74.3	35.5	9.4	0.8	0.8	1.1
105°	179.6	173.9	158.8	132.4	97.3	58.5	24.9	5.7	0.8	0.8	1.1



TEST NUMBER: P550988

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	116.9	112.4	99.2	77.0	49.4	23.0	6.8	1.1	1.1	1.1	1.1
115°	97.7	90.9	79.2	59.6	36.6	15.1	3.4	1.1	1.1	1.1	1.1
117.5°	78.1	72.4	64.1	45.3	24.1	9.8	1.9	1.1	1.1	1.1	1.1
120°	61.1	55.8	46.4	31.3	16.2	5.7	0.8	1.1	1.1	1.1	1.1
122.5°	43.8	39.6	31.3	20.4	9.8	2.6	1.1	1.1	1.5	1.5	1.1
125°	29.0	26.8	20.7	12.4	6.0	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.9	17.0	12.1	7.2	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.6	9.4	7.2	4.1	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	6.0	5.7	3.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	296.1	296.1	296.1
2.5°	281.8	276.5	275.0
5°	266.7	258.0	253.1
7.5°	251.6	239.9	234.3
10°	237.7	221.1	215.0
12.5°	221.1	201.8	192.4
15°	205.2	180.3	171.3
17.5°	187.5	159.6	149.0
20°	170.9	138.8	127.9
22.5°	152.0	118.5	106.4
25°	135.1	98.1	84.5
27.5°	116.2	77.3	65.6
30°	98.5	59.2	47.5
32.5°	81.5	43.4	32.8
35°	65.6	29.4	20.7
37.5°	50.5	18.1	10.6
40°	36.6	9.4	4.9
42.5°	24.5	4.5	2.6
45°	15.1	2.3	0.0
47.5°	8.7	0.0	0.0
50°	4.5	0.0	0.0
52.5°	1.9	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°	0.4	0.4	0.4
77.5°	0.4	0.8	1.1
80°	0.8	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.3
87.5°	1.9	2.3	2.6
90°	2.3	2.6	2.6
92.5°	2.3	3.0	3.0
95°	2.6	3.0	3.4
97.5°	3.0	3.4	3.4
100°	2.6	3.4	3.8
102.5°	2.3	3.4	3.4
105°	1.9	2.6	3.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.1	1.5	1.9
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.8
152.5°	1.1	0.8	0.8
155°	1.1	0.8	0.4
157.5°	1.5	0.8	0.4
160°	1.1	0.8	0.4
162.5°	1.1	0.8	0.4
165°	1.1	0.8	0.0
167.5°	1.1	0.8	0.4
170°	1.1	0.8	0.4
172.5°	1.1	0.8	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	158.4	153.9	138.8	113.9	79.6	44.5	16.6	3.0	0.8	1.1	1.1
110°	138.1	134.3	118.8	94.7	64.1	33.2	10.9	1.9	1.1	1.1	1.1





107.5°	1.5	2.3	2.6
110°	1.5	1.9	2.3



(END OF REPORT)