

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: P550984

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-93-84-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: P550984
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-93-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

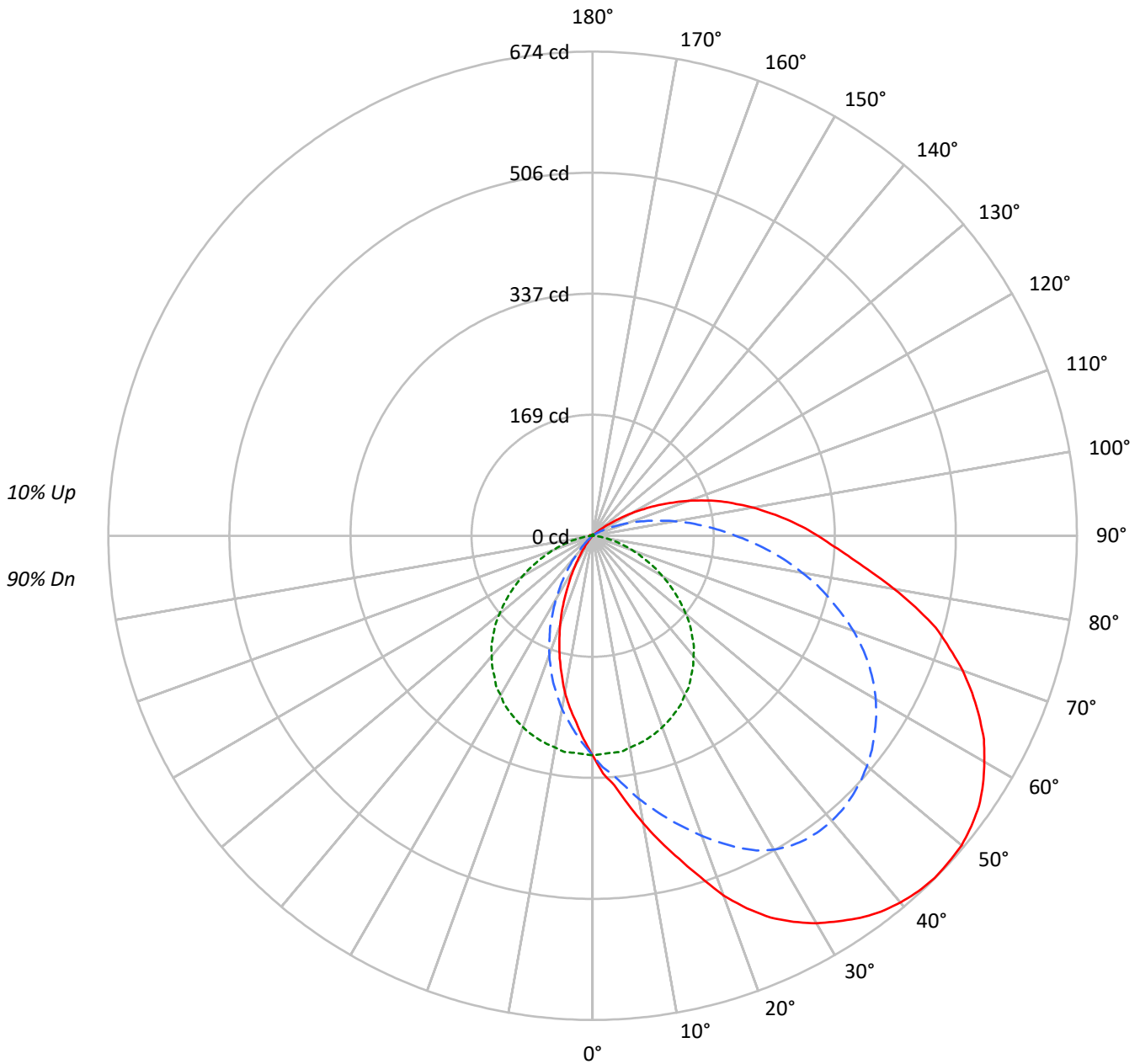
Lumens per Lamp: N/A
Luminaire Lumens: 1510.1 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3287	3287	3287
5°	3609	3240	2703
10°	4084	3200	2228
15°	4576	3159	1735
20°	5162	3107	1278
25°	5648	3048	840
30°	6008	2968	473
35°	6320	2882	208
40°	6597	2776	50
45°	6835	2643	0
50°	7035	2467	0
55°	7187	2244	0
60°	7262	1984	0
65°	7293	1687	0
70°	7268	1377	0
75°	7176	1015	6
80°	6886	620	31
85°	6656	295	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.3	1.9
10°-20°	87.6	5.8
20°-30°	141.9	9.4
30°-40°	182.2	12.1
40°-50°	206.3	13.7
50°-60°	213.7	14.2
60°-70°	201.6	13.3
70°-80°	168.9	11.2
80°-90°	122.4	8.1
90°-100°	80.5	5.3
100°-110°	46.5	3.1
110°-120°	20.5	1.4
120°-130°	5.6	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	258.7	17.1
0°-40°	441.0	29.2
0°-60°	861.0	57.0
0°-90°	1353.9	89.7
90°-120°	147.5	9.8
90°-150°	155.2	10.3
90°-180°	156.0	10.3
0°-180°	1510.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	305	305	305	305	305	
5°	349	335	303	275	261	35
15°	466	408	293	212	177	134
25°	586	479	272	139	87	271
35°	649	516	238	68	21	407
45°	674	511	195	16	0	520
55°	656	479	141	0	0	586
65°	593	424	84	0	0	587
75°	494	342	36	0	0	519
85°	362	248	6	2	2	309
90°	314	199	2	2	3	172
95°	269	155	1	3	4	211
105°	185	80	1	2	3	195
115°	101	27	1	1	2	101
125°	30	4	2	1	2	30
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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	305.4	305.4	305.4	305.4	305.4	305.4	305.4	305.4	305.4	305.4	305.4
2.5°	331.1	330.7	329.6	327.6	324.9	320.2	316.3	312.8	308.2	304.3	296.9
5°	348.6	346.7	345.1	343.2	337.0	332.7	325.7	317.9	310.5	303.1	288.3
7.5°	376.6	373.5	371.2	365.7	357.2	347.5	336.6	329.2	324.1	303.5	278.2
10°	406.6	403.9	399.2	389.5	379.0	365.0	349.4	331.9	316.3	299.2	269.3
12.5°	436.2	432.3	425.7	413.2	398.4	380.9	359.5	338.9	316.7	296.5	258.7
15°	465.7	461.5	454.5	439.3	419.8	396.9	370.8	344.7	318.7	293.0	247.9
17.5°	498.0	492.2	481.7	464.6	440.1	411.7	380.9	349.4	317.9	288.7	236.2
20°	532.7	524.5	513.2	490.3	461.5	428.0	391.0	354.1	317.5	283.6	222.9
22.5°	561.5	553.3	540.8	517.1	482.5	441.6	399.6	357.2	315.9	277.8	210.5
25°	586.4	579.7	566.1	538.9	502.3	456.0	407.8	359.5	313.6	271.6	197.3
27.5°	605.8	599.6	584.4	556.4	519.0	468.9	414.0	360.7	310.5	265.4	183.7
30°	622.9	616.7	598.4	569.6	530.3	479.0	420.2	361.1	306.6	256.0	168.9
32.5°	636.2	630.3	611.7	580.9	538.1	486.0	423.7	360.7	301.5	249.4	152.9
35°	649.4	643.6	621.8	589.1	543.9	489.1	426.4	358.7	295.3	238.5	137.7
37.5°	659.5	652.9	630.7	594.5	546.7	489.9	426.1	356.0	288.7	229.6	122.6
40°	666.5	659.5	635.8	597.6	547.5	488.7	422.9	351.3	280.9	218.3	106.6
42.5°	671.2	663.4	638.1	602.3	545.9	485.6	418.3	345.5	272.4	208.6	91.4
45°	673.5	665.3	638.5	598.4	543.2	479.7	411.3	338.1	263.0	195.3	76.3
47.5°	672.3	663.4	636.6	594.1	538.1	473.5	403.5	329.2	251.7	183.7	61.9
50°	670.4	661.1	632.3	588.7	531.1	465.7	394.9	318.3	240.1	169.3	49.0
52.5°	664.2	654.8	627.6	580.9	522.9	456.8	383.3	307.0	227.6	155.2	37.4
55°	656.4	647.8	619.4	573.9	512.4	445.9	372.4	294.9	215.6	140.9	26.8
57.5°	644.3	636.6	609.3	562.6	501.9	433.8	360.3	281.7	200.4	126.5	18.7
60°	629.5	621.8	595.3	549.8	489.9	420.2	347.1	268.1	186.8	112.1	11.7
62.5°	614.0	606.6	579.0	533.8	474.7	405.8	332.7	254.5	172.4	98.8	7.0
65°	593.4	586.4	561.5	514.8	458.0	390.3	316.7	238.1	157.6	84.0	3.9
67.5°	571.6	565.3	540.1	497.3	438.5	373.1	300.4	222.2	142.0	71.2	1.9
70°	548.2	540.4	517.1	473.5	418.7	353.7	282.5	205.8	127.2	58.8	0.0
72.5°	521.0	515.2	492.6	451.3	395.7	333.1	264.2	187.9	110.9	46.7	0.4
75°	494.5	487.1	466.5	427.6	373.1	311.3	244.0	171.2	94.9	35.8	0.4
77.5°	460.3	458.0	438.5	400.8	351.7	290.3	221.8	151.0	79.8	25.7	0.4
80°	426.1	423.7	408.5	373.9	326.8	265.4	201.2	131.9	65.0	17.1	0.4
82.5°	392.2	389.1	374.7	345.9	301.5	244.3	179.8	112.8	51.4	10.5	0.4
85°	361.9	358.0	342.4	315.9	275.5	220.6	157.6	94.2	38.1	5.8	0.8
87.5°	335.8	333.1	315.9	288.7	249.0	198.4	138.1	76.3	26.8	2.7	1.2
90°	313.6	307.8	292.6	263.8	224.1	173.9	117.5	61.1	17.9	1.6	1.6
92.5°	291.8	286.8	270.0	240.5	201.9	152.9	97.7	46.7	11.3	0.8	1.9
95°	269.3	263.8	247.5	220.2	179.4	131.5	80.2	34.2	6.2	0.8	1.9
97.5°	247.1	242.0	224.9	197.7	159.1	112.8	63.4	24.1	3.1	0.8	1.6
100°	226.5	220.6	205.1	177.8	138.9	94.2	49.0	15.6	1.9	0.8	1.6
102.5°	204.7	200.0	184.0	157.6	117.9	76.7	36.6	9.7	0.8	0.8	1.2
105°	185.2	179.4	163.8	136.6	100.4	60.3	25.7	5.8	0.8	0.8	1.2



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CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-84-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	120.6	115.9	102.3	79.4	51.0	23.7	7.0	1.2	1.2	1.2	1.2
115°	100.8	93.8	81.7	61.5	37.7	15.6	3.5	1.2	1.2	1.2	1.2
117.5°	80.5	74.7	66.1	46.7	24.9	10.1	1.9	1.2	1.2	1.2	1.2
120°	63.0	57.6	47.9	32.3	16.7	5.8	0.8	1.2	1.2	1.2	1.2
122.5°	45.1	40.9	32.3	21.0	10.1	2.7	1.2	1.2	1.6	1.6	1.2
125°	30.0	27.6	21.4	12.8	6.2	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	19.5	17.5	12.5	7.4	2.7	1.2	1.2	1.6	1.6	1.6	1.2
130°	10.9	9.7	7.4	4.3	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.2	5.8	3.9	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	1.9	1.9	1.9	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	1.9	1.9	1.9	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	1.9	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	1.9	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	1.9	1.6	1.6	1.9
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	1.9	1.6	1.6	1.9
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.9	1.6
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	305.4	305.4	305.4
2.5°	290.7	285.2	283.6
5°	275.1	266.1	261.1
7.5°	259.5	247.5	241.6
10°	245.1	228.0	221.8
12.5°	228.0	208.2	198.4
15°	211.7	186.0	176.6
17.5°	193.4	164.6	153.7
20°	176.3	143.2	131.9
22.5°	156.8	122.2	109.7
25°	139.3	101.2	87.2
27.5°	119.8	79.8	67.7
30°	101.6	61.1	49.0
32.5°	84.0	44.7	33.9
35°	67.7	30.3	21.4
37.5°	52.1	18.7	10.9
40°	37.7	9.7	5.1
42.5°	25.3	4.7	2.7
45°	15.6	2.3	0.0
47.5°	8.9	0.0	0.0
50°	4.7	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	1.2
80°	0.8	1.6	1.9
82.5°	1.6	1.9	1.9
85°	1.6	1.9	2.3
87.5°	1.9	2.3	2.7
90°	2.3	2.7	2.7
92.5°	2.3	3.1	3.1
95°	2.7	3.1	3.5
97.5°	3.1	3.5	3.5
100°	2.7	3.5	3.9
102.5°	2.3	3.5	3.5
105°	1.9	2.7	3.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.6	1.9	1.9
115°	1.2	1.6	1.9
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.6	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	163.4	158.7	143.2	117.5	82.1	45.9	17.1	3.1	0.8	1.2	1.2
110°	142.4	138.5	122.6	97.7	66.1	34.2	11.3	1.9	1.2	1.2	1.2





107.5°	1.6	2.3	2.7
110°	1.6	1.9	2.3



(END OF REPORT)