

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: P551057

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-93-94-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: P551057
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-35-UNV-93-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

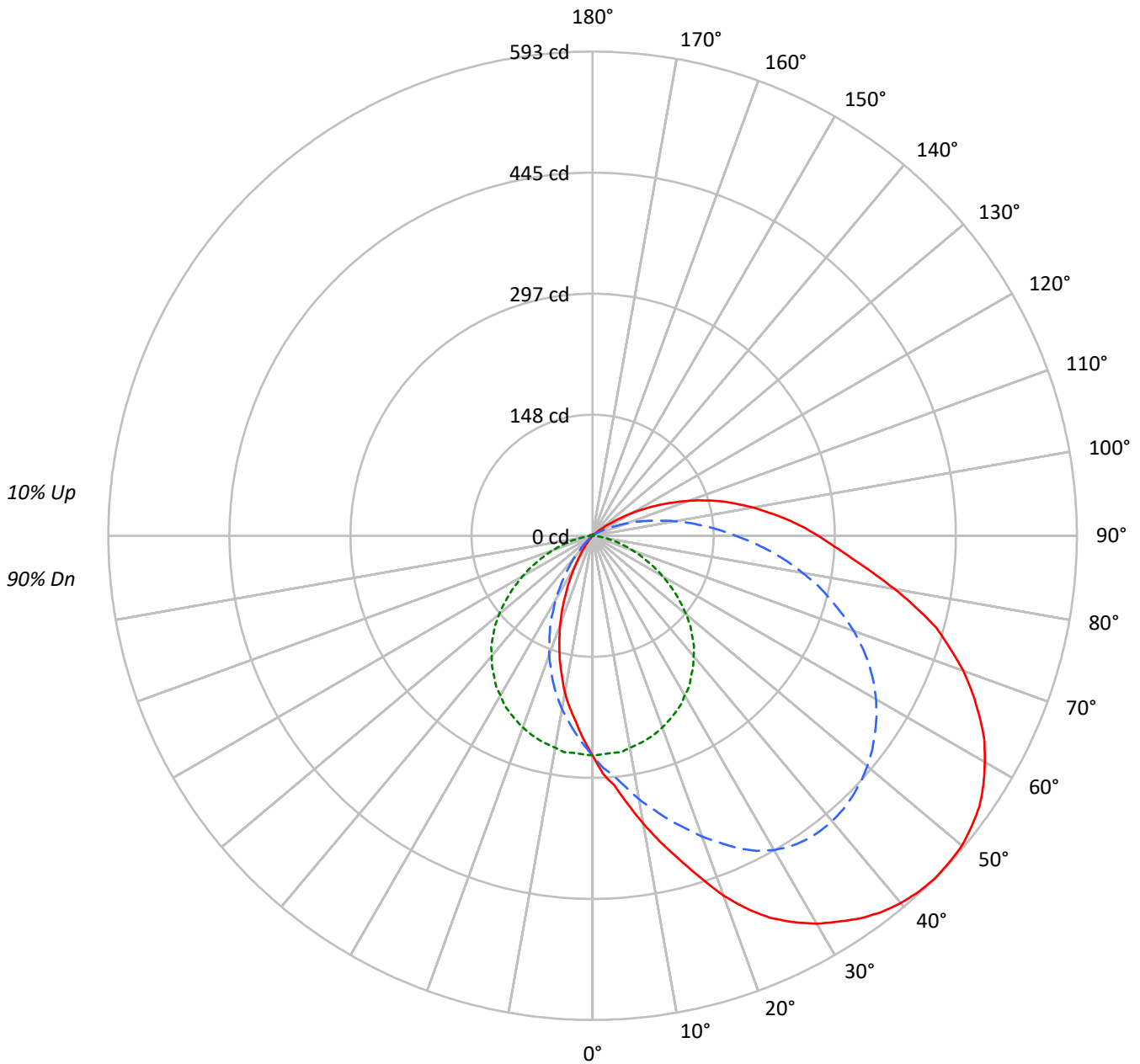
Lumens per Lamp: N/A
Luminaire Lumens: 1330.0 lumens
Efficiency: N/A
Efficacy: 79.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2895	2895	2895
5°	3179	2854	2381
10°	3597	2818	1962
15°	4031	2783	1529
20°	4547	2737	1126
25°	4974	2684	740
30°	5292	2614	417
35°	5567	2539	183
40°	5811	2446	45
45°	6020	2327	0
50°	6196	2173	0
55°	6330	1976	0
60°	6397	1747	0
65°	6423	1486	0
70°	6402	1211	0
75°	6321	893	4
80°	6065	548	27
85°	5861	259	39



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.8	1.9
10°-20°	77.2	5.8
20°-30°	125.0	9.4
30°-40°	160.5	12.1
40°-50°	181.7	13.7
50°-60°	188.2	14.2
60°-70°	177.5	13.3
70°-80°	148.8	11.2
80°-90°	107.8	8.1
90°-100°	70.9	5.3
100°-110°	40.9	3.1
110°-120°	18.1	1.4
120°-130°	4.9	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°	227.9	17.1
0°-40°	388.4	29.2
0°-60°	758.3	57.0
0°-90°	1192.5	89.7
90°-120°	129.9	9.8
90°-150°	136.6	10.3
90°-180°	138.0	10.4
0°-180°	1330.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	269	269	269	269	269	
5°	307	295	267	242	230	31
15°	410	360	258	186	156	118
25°	516	422	239	123	77	239
35°	572	455	210	60	19	359
45°	593	450	172	14	0	458
55°	578	422	124	0	0	516
65°	523	374	74	0	0	517
75°	436	301	32	0	0	457
85°	319	218	5	1	2	272
90°	276	175	1	2	2	151
95°	237	137	1	2	3	186
105°	163	71	1	2	3	172
115°	89	23	1	1	2	89
125°	26	3	1	1	1	26
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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	269.0	269.0	269.0	269.0	269.0	269.0	269.0	269.0	269.0	269.0	269.0
2.5°	291.6	291.3	290.3	288.6	286.2	282.1	278.6	275.5	271.4	268.0	261.5
5°	307.1	305.4	304.0	302.3	296.8	293.0	286.8	280.0	273.5	267.0	253.9
7.5°	331.7	329.0	326.9	322.1	314.6	306.0	296.4	289.9	285.5	267.3	245.0
10°	358.1	355.7	351.6	343.1	333.8	321.5	307.8	292.3	278.6	263.5	237.2
12.5°	384.2	380.8	374.9	364.0	350.9	335.5	316.7	298.5	279.0	261.1	227.9
15°	410.2	406.5	400.3	386.9	369.8	349.6	326.6	303.6	280.7	258.1	218.3
17.5°	438.7	433.5	424.3	409.2	387.6	362.6	335.5	307.8	280.0	254.3	208.0
20°	469.2	462.0	452.0	431.8	406.5	377.0	344.4	311.9	279.7	249.8	196.4
22.5°	494.5	487.3	476.4	455.5	425.0	389.0	352.0	314.6	278.3	244.7	185.4
25°	516.5	510.6	498.6	474.7	442.4	401.7	359.2	316.7	276.2	239.2	173.8
27.5°	533.6	528.1	514.7	490.1	457.2	413.0	364.6	317.7	273.5	233.7	161.8
30°	548.7	543.2	527.1	501.7	467.1	421.9	370.1	318.0	270.1	225.5	148.7
32.5°	560.3	555.2	538.7	511.7	474.0	428.0	373.2	317.7	265.6	219.7	134.7
35°	572.0	566.8	547.6	518.9	479.1	430.8	375.6	316.0	260.1	210.1	121.3
37.5°	580.9	575.1	555.5	523.7	481.5	431.5	375.3	313.6	254.3	202.2	108.0
40°	587.1	580.9	560.0	526.4	482.2	430.4	372.5	309.5	247.4	192.3	93.9
42.5°	591.2	584.3	562.0	530.5	480.8	427.7	368.4	304.3	239.9	183.7	80.5
45°	593.2	586.0	562.4	527.1	478.4	422.6	362.2	297.8	231.7	172.0	67.2
47.5°	592.2	584.3	560.7	523.3	474.0	417.1	355.4	289.9	221.7	161.8	54.5
50°	590.5	582.3	556.9	518.5	467.8	410.2	347.9	280.3	211.5	149.1	43.2
52.5°	585.0	576.8	552.8	511.7	460.6	402.3	337.6	270.4	200.5	136.7	32.9
55°	578.2	570.6	545.6	505.5	451.3	392.7	328.0	259.8	189.9	124.1	23.6
57.5°	567.5	560.7	536.7	495.6	442.1	382.1	317.3	248.1	176.5	111.4	16.5
60°	554.5	547.6	524.3	484.2	431.5	370.1	305.7	236.1	164.5	98.7	10.3
62.5°	540.8	534.3	510.0	470.2	418.1	357.4	293.0	224.1	151.8	87.0	6.2
65°	522.6	516.5	494.5	453.4	403.4	343.7	279.0	209.7	138.8	74.0	3.4
67.5°	503.4	498.0	475.7	438.0	386.2	328.7	264.6	195.7	125.1	62.7	1.7
70°	482.9	476.0	455.5	417.1	368.8	311.5	248.8	181.3	112.1	51.7	0.0
72.5°	458.9	453.7	433.9	397.5	348.5	293.4	232.7	165.5	97.7	41.1	0.3
75°	435.6	429.1	410.9	376.6	328.7	274.2	214.9	150.8	83.6	31.5	0.3
77.5°	405.4	403.4	386.2	353.0	309.8	255.7	195.3	133.0	70.3	22.6	0.3
80°	375.3	373.2	359.8	329.3	287.9	233.7	177.2	116.2	57.2	15.1	0.3
82.5°	345.5	342.7	330.0	304.7	265.6	215.2	158.3	99.4	45.2	9.3	0.3
85°	318.7	315.3	301.6	278.3	242.6	194.3	138.8	82.9	33.6	5.1	0.7
87.5°	295.8	293.4	278.3	254.3	219.3	174.8	121.7	67.2	23.6	2.4	1.0
90°	276.2	271.1	257.7	232.4	197.4	153.2	103.5	53.8	15.8	1.4	1.4
92.5°	257.0	252.6	237.8	211.8	177.9	134.7	86.0	41.1	9.9	0.7	1.7
95°	237.2	232.4	218.0	194.0	158.0	115.8	70.6	30.2	5.5	0.7	1.7
97.5°	217.6	213.2	198.1	174.1	140.2	99.4	55.9	21.2	2.7	0.7	1.4
100°	199.5	194.3	180.6	156.6	122.3	82.9	43.2	13.7	1.7	0.7	1.4
102.5°	180.3	176.2	162.1	138.8	103.8	67.5	32.2	8.6	0.7	0.7	1.0
105°	163.1	158.0	144.3	120.3	88.4	53.1	22.6	5.1	0.7	0.7	1.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	106.2	102.1	90.1	69.9	44.9	20.9	6.2	1.0	1.0	1.0	1.0
115°	88.8	82.6	72.0	54.1	33.2	13.7	3.1	1.0	1.0	1.0	1.0
117.5°	70.9	65.8	58.3	41.1	21.9	8.9	1.7	1.0	1.0	1.0	1.0
120°	55.5	50.7	42.2	28.4	14.7	5.1	0.7	1.0	1.0	1.0	1.0
122.5°	39.8	36.0	28.4	18.5	8.9	2.4	1.0	1.0	1.4	1.4	1.0
125°	26.4	24.3	18.8	11.3	5.5	1.0	1.0	1.0	1.4	1.4	1.0
127.5°	17.1	15.4	11.0	6.5	2.4	1.0	1.0	1.4	1.4	1.4	1.0
130°	9.6	8.6	6.5	3.8	1.0	1.0	1.0	1.4	1.4	1.4	1.0
132.5°	5.5	5.1	3.4	0.7	1.0	1.0	1.0	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.4	1.7	1.7	1.7	1.4
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.4	1.7	1.7	1.7	1.4
142.5°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4	1.4
145°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4	1.4
150°	0.3	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.4
152.5°	0.3	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.7
157.5°	0.7	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.4	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.4
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	269.0	269.0	269.0
2.5°	256.0	251.2	249.8
5°	242.3	234.4	230.0
7.5°	228.6	218.0	212.8
10°	215.9	200.8	195.3
12.5°	200.8	183.3	174.8
15°	186.4	163.8	155.6
17.5°	170.3	145.0	135.4
20°	155.2	126.1	116.2
22.5°	138.1	107.6	96.6
25°	122.7	89.1	76.8
27.5°	105.6	70.3	59.6
30°	89.4	53.8	43.2
32.5°	74.0	39.4	29.8
35°	59.6	26.7	18.8
37.5°	45.9	16.5	9.6
40°	33.2	8.6	4.5
42.5°	22.3	4.1	2.4
45°	13.7	2.1	0.0
47.5°	7.9	0.0	0.0
50°	4.1	0.0	0.0
52.5°	1.7	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	0.7	1.0
80°	0.7	1.4	1.7
82.5°	1.4	1.7	1.7
85°	1.4	1.7	2.1
87.5°	1.7	2.1	2.4
90°	2.1	2.4	2.4
92.5°	2.1	2.7	2.7
95°	2.4	2.7	3.1
97.5°	2.7	3.1	3.1
100°	2.4	3.1	3.4
102.5°	2.1	3.1	3.1
105°	1.7	2.4	2.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.4	1.7	1.7
115°	1.0	1.4	1.7
117.5°	1.0	1.4	1.4
120°	1.0	1.0	1.4
122.5°	1.0	1.0	1.4
125°	1.0	1.0	1.4
127.5°	1.4	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.4	1.0	1.0
135°	1.4	1.0	1.0
137.5°	1.4	1.0	1.0
140°	1.4	1.0	1.0
142.5°	1.4	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.7
152.5°	1.0	0.7	0.7
155°	1.0	0.7	0.3
157.5°	1.4	0.7	0.3
160°	1.0	0.7	0.3
162.5°	1.0	0.7	0.3
165°	1.0	0.7	0.0
167.5°	1.0	0.7	0.3
170°	1.0	0.7	0.3
172.5°	1.0	0.7	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°	143.9	139.8	126.1	103.5	72.3	40.4	15.1	2.7	0.7	1.0	1.0
110°	125.4	122.0	108.0	86.0	58.3	30.2	9.9	1.7	1.0	1.0	1.0





107.5°	1.4	2.1	2.4
110°	1.4	1.7	2.1



(END OF REPORT)