

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: P551051

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-93-86-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: P551051
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-93-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

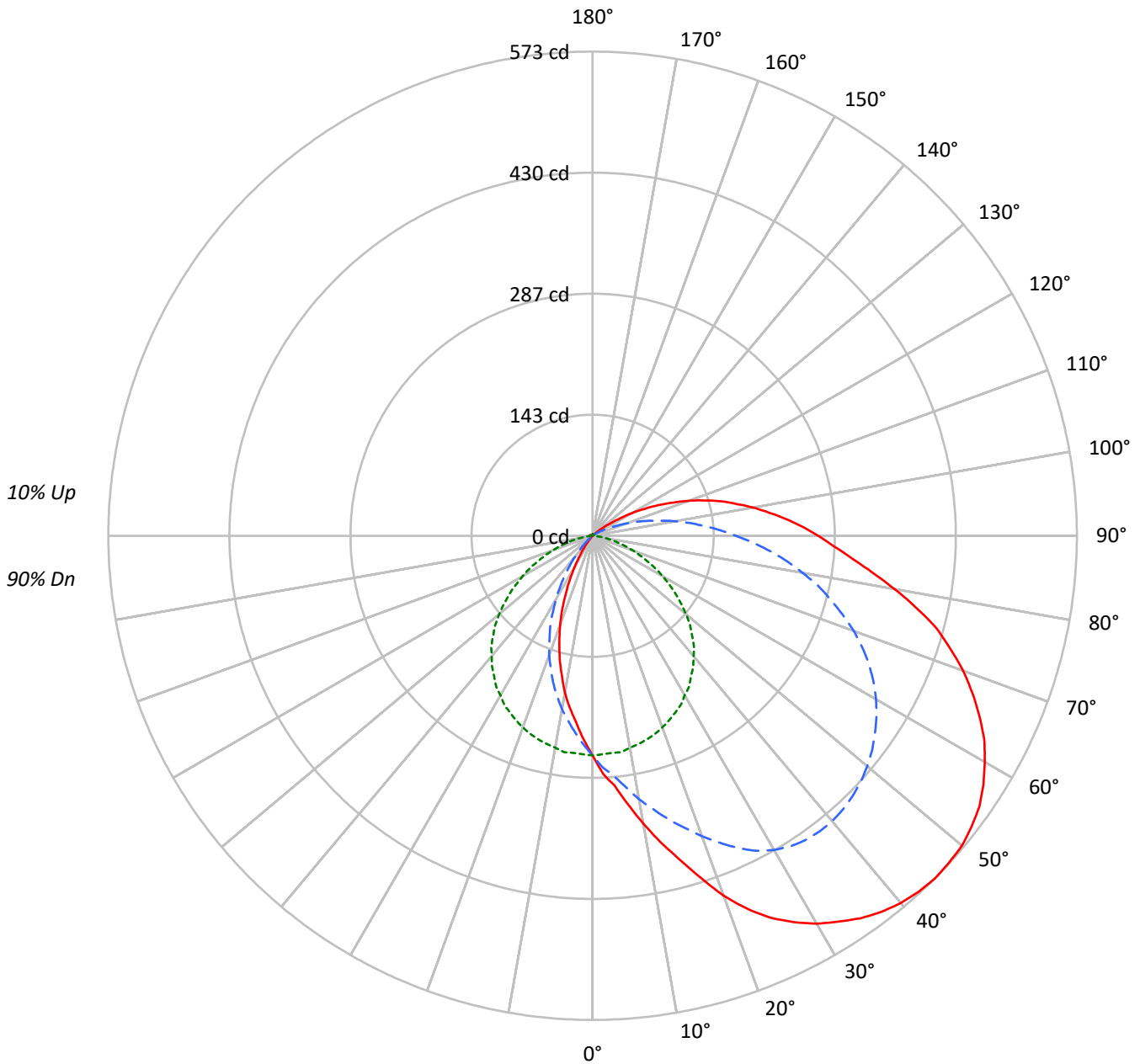
Lumens per Lamp: N/A
Luminaire Lumens: 1285.0 lumens
Efficiency: N/A
Efficacy: 76.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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									
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°	2798	2798	2798
5°	3071	2756	2300
10°	3475	2723	1895
15°	3894	2688	1477
20°	4393	2645	1087
25°	4806	2594	715
30°	5113	2526	402
35°	5378	2453	177
40°	5614	2363	43
45°	5817	2249	0
50°	5986	2099	0
55°	6116	1909	0
60°	6180	1688	0
65°	6206	1436	0
70°	6185	1171	0
75°	6106	865	4
80°	5860	530	27
85°	5663	254	37



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.9	1.9
10°-20°	74.5	5.8
20°-30°	120.7	9.4
30°-40°	155.1	12.1
40°-50°	175.5	13.7
50°-60°	181.9	14.2
60°-70°	171.5	13.3
70°-80°	143.7	11.2
80°-90°	104.2	8.1
90°-100°	68.5	5.3
100°-110°	39.6	3.1
110°-120°	17.5	1.4
120°-130°	4.7	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°	220.2	17.1
0°-40°	375.2	29.2
0°-60°	732.7	57.0
0°-90°	1152.1	89.7
90°-120°	125.5	9.8
90°-150°	132.0	10.3
90°-180°	133.0	10.4
0°-180°	1285.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	260	260	260	260	260	
5°	297	285	258	234	222	30
15°	396	348	249	180	150	114
25°	499	408	231	118	74	231
35°	553	440	203	58	18	347
45°	573	435	166	13	0	443
55°	559	408	120	0	0	499
65°	505	361	72	0	0	500
75°	421	291	30	0	0	441
85°	308	211	5	1	2	263
90°	267	169	1	2	2	146
95°	229	132	1	2	3	180
105°	158	68	1	2	3	166
115°	86	23	1	1	2	86
125°	26	3	1	1	1	25
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°	259.9	259.9	259.9	259.9	259.9	259.9	259.9	259.9	259.9	259.9	259.9
2.5°	281.8	281.4	280.5	278.8	276.5	272.5	269.2	266.2	262.2	258.9	252.6
5°	296.7	295.0	293.7	292.0	286.7	283.1	277.1	270.5	264.2	257.9	245.4
7.5°	320.5	317.9	315.9	311.2	304.0	295.7	286.4	280.1	275.8	258.3	236.7
10°	346.0	343.7	339.7	331.4	322.5	310.6	297.3	282.4	269.2	254.6	229.1
12.5°	371.2	367.9	362.2	351.6	339.1	324.2	305.9	288.4	269.5	252.3	220.2
15°	396.3	392.7	386.7	373.8	357.3	337.7	315.6	293.4	271.2	249.3	210.9
17.5°	423.8	418.9	409.9	395.4	374.5	350.3	324.2	297.3	270.5	245.7	201.0
20°	453.3	446.3	436.7	417.2	392.7	364.2	332.8	301.3	270.2	241.4	189.7
22.5°	477.8	470.8	460.2	440.1	410.6	375.8	340.1	304.0	268.9	236.4	179.1
25°	499.0	493.4	481.8	458.6	427.5	388.1	347.0	305.9	266.9	231.1	167.9
27.5°	515.5	510.2	497.3	473.5	441.7	399.0	352.3	306.9	264.2	225.8	156.3
30°	530.1	524.8	509.3	484.8	451.3	407.6	357.6	307.3	260.9	217.9	143.7
32.5°	541.4	536.4	520.5	494.4	457.9	413.6	360.6	306.9	256.6	212.2	130.1
35°	552.6	547.7	529.1	501.3	462.9	416.2	362.9	305.3	251.3	203.0	117.2
37.5°	561.2	555.6	536.7	505.9	465.2	416.9	362.6	303.0	245.7	195.4	104.3
40°	567.2	561.2	541.0	508.6	465.9	415.9	359.9	299.0	239.1	185.8	90.7
42.5°	571.2	564.5	543.0	512.6	464.6	413.2	355.9	294.0	231.8	177.5	77.8
45°	573.2	566.2	543.4	509.3	462.2	408.3	350.0	287.7	223.8	166.2	64.9
47.5°	572.2	564.5	541.7	505.6	457.9	403.0	343.4	280.1	214.2	156.3	52.6
50°	570.5	562.6	538.1	501.0	452.0	396.3	336.1	270.9	204.3	144.0	41.7
52.5°	565.2	557.3	534.1	494.4	445.0	388.7	326.1	261.2	193.7	132.1	31.8
55°	558.6	551.3	527.1	488.4	436.1	379.5	316.9	251.0	183.4	119.9	22.8
57.5°	548.3	541.7	518.5	478.8	427.1	369.2	306.6	239.7	170.5	107.6	15.9
60°	535.7	529.1	506.6	467.9	416.9	357.6	295.4	228.1	158.9	95.4	9.9
62.5°	522.5	516.2	492.7	454.3	404.0	345.4	283.1	216.5	146.7	84.1	6.0
65°	504.9	499.0	477.8	438.1	389.7	332.1	269.5	202.6	134.1	71.5	3.3
67.5°	486.4	481.1	459.6	423.2	373.2	317.5	255.6	189.1	120.9	60.6	1.7
70°	466.5	459.9	440.1	403.0	356.3	301.0	240.4	175.2	108.3	50.0	0.0
72.5°	443.4	438.4	419.2	384.1	336.7	283.4	224.8	159.9	94.4	39.7	0.3
75°	420.8	414.6	397.0	363.9	317.5	264.9	207.6	145.7	80.8	30.5	0.3
77.5°	391.7	389.7	373.2	341.0	299.3	247.0	188.7	128.5	67.9	21.9	0.3
80°	362.6	360.6	347.7	318.2	278.1	225.8	171.2	112.2	55.3	14.6	0.3
82.5°	333.8	331.1	318.9	294.4	256.6	207.9	153.0	96.0	43.7	8.9	0.3
85°	307.9	304.6	291.4	268.9	234.4	187.7	134.1	80.1	32.4	5.0	0.7
87.5°	285.8	283.4	268.9	245.7	211.9	168.9	117.5	64.9	22.8	2.3	1.0
90°	266.9	261.9	249.0	224.5	190.7	148.0	100.0	52.0	15.2	1.3	1.3
92.5°	248.3	244.0	229.8	204.6	171.8	130.1	83.1	39.7	9.6	0.7	1.7
95°	229.1	224.5	210.6	187.4	152.6	111.9	68.2	29.1	5.3	0.7	1.7
97.5°	210.3	206.0	191.4	168.2	135.4	96.0	54.0	20.5	2.6	0.7	1.3
100°	192.7	187.7	174.5	151.3	118.2	80.1	41.7	13.2	1.7	0.7	1.3
102.5°	174.2	170.2	156.6	134.1	100.3	65.2	31.1	8.3	0.7	0.7	1.0
105°	157.6	152.6	139.4	116.2	85.4	51.3	21.9	5.0	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°	102.6	98.7	87.1	67.5	43.4	20.2	6.0	1.0	1.0	1.0	1.0
115°	85.8	79.8	69.5	52.3	32.1	13.2	3.0	1.0	1.0	1.0	1.0
117.5°	68.5	63.6	56.3	39.7	21.2	8.6	1.7	1.0	1.0	1.0	1.0
120°	53.6	49.0	40.7	27.5	14.2	5.0	0.7	1.0	1.0	1.0	1.0
122.5°	38.4	34.8	27.5	17.9	8.6	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.5	23.5	18.2	10.9	5.3	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.6	14.9	10.6	6.3	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.3	8.3	6.3	3.6	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.3	5.0	3.3	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.3	1.7	1.7	1.7	1.3
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.3
142.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
145°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.3	1.3	1.3
147.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
150°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
152.5°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
155°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
157.5°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	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



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	259.9	259.9	259.9
2.5°	247.3	242.7	241.4
5°	234.1	226.5	222.2
7.5°	220.9	210.6	205.6
10°	208.6	194.0	188.7
12.5°	194.0	177.1	168.9
15°	180.1	158.3	150.3
17.5°	164.6	140.1	130.8
20°	150.0	121.9	112.2
22.5°	133.4	104.0	93.4
25°	118.5	86.1	74.2
27.5°	102.0	67.9	57.6
30°	86.4	52.0	41.7
32.5°	71.5	38.1	28.8
35°	57.6	25.8	18.2
37.5°	44.4	15.9	9.3
40°	32.1	8.3	4.3
42.5°	21.5	4.0	2.3
45°	13.2	2.0	0.0
47.5°	7.6	0.0	0.0
50°	4.0	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	1.3	1.7
82.5°	1.3	1.7	1.7
85°	1.3	1.7	2.0
87.5°	1.7	2.0	2.3
90°	2.0	2.3	2.3
92.5°	2.0	2.6	2.6
95°	2.3	2.6	3.0
97.5°	2.6	3.0	3.0
100°	2.3	3.0	3.3
102.5°	2.0	3.0	3.0
105°	1.7	2.3	2.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.7	1.7
115°	1.0	1.3	1.7
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	0.7
152.5°	1.0	0.7	0.7
155°	1.0	0.7	0.3
157.5°	1.3	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°	139.1	135.1	121.9	100.0	69.9	39.1	14.6	2.6	0.7	1.0	1.0
110°	121.2	117.9	104.3	83.1	56.3	29.1	9.6	1.7	1.0	1.0	1.0





107.5°	1.3	2.0	2.3
110°	1.3	1.7	2.0



(END OF REPORT)