

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: P551013

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-80-97-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: P551013
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-80-97-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

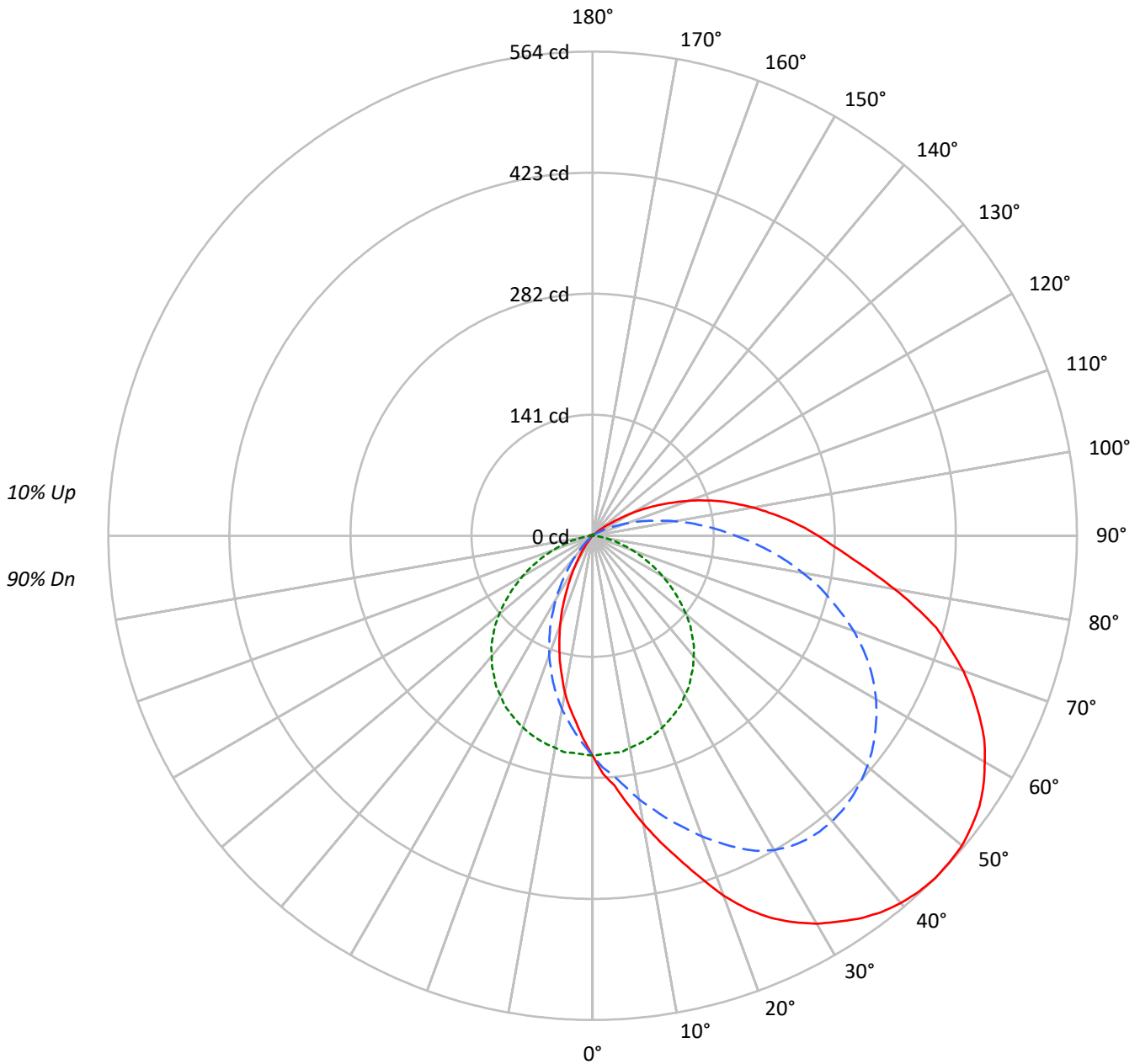
Lumens per Lamp: N/A
Luminaire Lumens: 1265.0 lumens
Efficiency: N/A
Efficacy: 75.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2754	2754	2754
5°	3024	2714	2264
10°	3421	2681	1866
15°	3835	2646	1454
20°	4324	2603	1071
25°	4731	2553	703
30°	5034	2487	396
35°	5295	2414	174
40°	5527	2326	42
45°	5726	2214	0
50°	5893	2067	0
55°	6021	1879	0
60°	6084	1662	0
65°	6110	1414	0
70°	6090	1153	0
75°	6012	851	4
80°	5768	519	26
85°	5575	249	37



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.5	1.9
10°-20°	73.4	5.8
20°-30°	118.8	9.4
30°-40°	152.7	12.1
40°-50°	172.8	13.7
50°-60°	179.0	14.2
60°-70°	168.9	13.3
70°-80°	141.5	11.2
80°-90°	102.6	8.1
90°-100°	67.4	5.3
100°-110°	38.9	3.1
110°-120°	17.2	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°	216.7	17.1
0°-40°	369.4	29.2
0°-60°	721.3	57.0
0°-90°	1134.2	89.7
90°-120°	123.5	9.8
90°-150°	130.0	10.3
90°-180°	131.0	10.4
0°-180°	1265.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	256	256	256	256	256	
5°	292	280	254	230	219	29
15°	390	342	245	177	148	113
25°	491	401	228	117	73	227
35°	544	433	200	57	18	341
45°	564	428	164	13	0	436
55°	550	401	118	0	0	491
65°	497	355	70	0	0	492
75°	414	287	30	0	0	435
85°	303	208	5	1	2	259
90°	263	167	1	2	2	144
95°	226	130	1	2	3	177
105°	155	67	1	2	3	164
115°	84	22	1	1	2	85
125°	25	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°	255.9	255.9	255.9	255.9	255.9	255.9	255.9	255.9	255.9	255.9	255.9
2.5°	277.4	277.1	276.1	274.5	272.2	268.3	265.0	262.1	258.2	254.9	248.7
5°	292.1	290.4	289.1	287.5	282.3	278.7	272.8	266.3	260.1	253.9	241.5
7.5°	315.5	312.9	311.0	306.4	299.2	291.1	282.0	275.8	271.5	254.2	233.1
10°	340.6	338.3	334.4	326.3	317.5	305.8	292.7	278.0	265.0	250.7	225.6
12.5°	365.4	362.1	356.6	346.2	333.8	319.1	301.2	283.9	265.3	248.4	216.8
15°	390.2	386.6	380.7	368.0	351.7	332.5	310.6	288.8	267.0	245.4	207.6
17.5°	417.2	412.3	403.5	389.2	368.7	344.9	319.1	292.7	266.3	241.9	197.9
20°	446.2	439.4	429.9	410.7	386.6	358.6	327.6	296.6	266.0	237.6	186.8
22.5°	470.4	463.5	453.1	433.2	404.2	370.0	334.8	299.2	264.7	232.7	176.3
25°	491.2	485.7	474.3	451.5	420.8	382.0	341.6	301.2	262.7	227.5	165.3
27.5°	507.5	502.3	489.6	466.1	434.8	392.8	346.8	302.2	260.1	222.3	153.9
30°	521.9	516.6	501.3	477.2	444.3	401.3	352.0	302.5	256.9	214.5	141.5
32.5°	532.9	528.1	512.4	486.7	450.8	407.1	355.0	302.2	252.6	208.9	128.1
35°	544.0	539.1	520.9	493.5	455.7	409.7	357.3	300.5	247.4	199.8	115.4
37.5°	552.5	547.0	528.4	498.1	458.0	410.4	356.9	298.3	241.9	192.3	102.7
40°	558.4	552.5	532.6	500.7	458.6	409.4	354.3	294.3	235.3	182.9	89.3
42.5°	562.3	555.8	534.6	504.6	457.3	406.8	350.4	289.5	228.2	174.7	76.6
45°	564.2	557.4	534.9	501.3	455.0	401.9	344.5	283.3	220.3	163.6	63.9
47.5°	563.3	555.8	533.3	497.7	450.8	396.7	338.0	275.8	210.9	153.9	51.8
50°	561.6	553.8	529.7	493.2	444.9	390.2	330.9	266.6	201.1	141.8	41.1
52.5°	556.4	548.6	525.8	486.7	438.1	382.7	321.1	257.2	190.7	130.1	31.3
55°	549.9	542.7	518.9	480.8	429.3	373.6	311.9	247.1	180.6	118.0	22.5
57.5°	539.8	533.3	510.5	471.3	420.5	363.4	301.8	236.0	167.9	105.9	15.6
60°	527.4	520.9	498.7	460.6	410.4	352.0	290.8	224.6	156.5	93.9	9.8
62.5°	514.4	508.2	485.0	447.2	397.7	340.0	278.7	213.2	144.4	82.8	5.9
65°	497.1	491.2	470.4	431.2	383.7	326.9	265.3	199.5	132.0	70.4	3.3
67.5°	478.8	473.6	452.4	416.6	367.4	312.6	251.6	186.1	119.0	59.7	1.6
70°	459.3	452.8	433.2	396.7	350.7	296.3	236.6	172.4	106.6	49.2	0.0
72.5°	436.5	431.6	412.7	378.1	331.5	279.0	221.3	157.4	92.9	39.1	0.3
75°	414.3	408.1	390.8	358.2	312.6	260.8	204.4	143.4	79.5	30.0	0.3
77.5°	385.6	383.7	367.4	335.7	294.7	243.2	185.8	126.5	66.8	21.5	0.3
80°	356.9	355.0	342.3	313.2	273.8	222.3	168.5	110.5	54.4	14.3	0.3
82.5°	328.6	326.0	313.9	289.8	252.6	204.7	150.6	94.5	43.0	8.8	0.3
85°	303.1	299.9	286.8	264.7	230.8	184.8	132.0	78.9	31.9	4.9	0.7
87.5°	281.3	279.0	264.7	241.9	208.6	166.2	115.7	63.9	22.5	2.3	1.0
90°	262.7	257.8	245.1	221.0	187.8	145.7	98.4	51.2	15.0	1.3	1.3
92.5°	244.5	240.2	226.2	201.4	169.2	128.1	81.8	39.1	9.5	0.7	1.6
95°	225.6	221.0	207.3	184.5	150.3	110.2	67.1	28.7	5.2	0.7	1.6
97.5°	207.0	202.7	188.4	165.6	133.3	94.5	53.1	20.2	2.6	0.7	1.3
100°	189.7	184.8	171.8	149.0	116.4	78.9	41.1	13.0	1.6	0.7	1.3
102.5°	171.5	167.5	154.2	132.0	98.8	64.2	30.6	8.1	0.7	0.7	1.0
105°	155.2	150.3	137.2	114.4	84.1	50.5	21.5	4.9	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°	101.0	97.1	85.7	66.5	42.7	19.9	5.9	1.0	1.0	1.0	1.0
115°	84.4	78.6	68.5	51.5	31.6	13.0	2.9	1.0	1.0	1.0	1.0
117.5°	67.5	62.6	55.4	39.1	20.9	8.5	1.6	1.0	1.0	1.0	1.0
120°	52.8	48.2	40.1	27.1	14.0	4.9	0.7	1.0	1.0	1.0	1.0
122.5°	37.8	34.2	27.1	17.6	8.5	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.1	23.1	17.9	10.8	5.2	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.3	14.7	10.4	6.2	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.1	8.1	6.2	3.6	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.2	4.9	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	1.6	1.6	1.3
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.3	1.6	1.6	1.6	1.3
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.3
142.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
145°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.3	1.3	1.3
147.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
150°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
152.5°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
155°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
157.5°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
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	1.6	1.6	1.6	1.6
172.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
175°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
177.5°	0.3	0.7	0.7	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



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	255.9	255.9	255.9
2.5°	243.5	238.9	237.6
5°	230.5	223.0	218.7
7.5°	217.4	207.3	202.4
10°	205.4	191.0	185.8
12.5°	191.0	174.4	166.2
15°	177.3	155.8	148.0
17.5°	162.0	137.9	128.8
20°	147.7	120.0	110.5
22.5°	131.4	102.4	91.9
25°	116.7	84.7	73.0
27.5°	100.4	66.8	56.7
30°	85.1	51.2	41.1
32.5°	70.4	37.5	28.4
35°	56.7	25.4	17.9
37.5°	43.7	15.6	9.1
40°	31.6	8.1	4.2
42.5°	21.2	3.9	2.3
45°	13.0	2.0	0.0
47.5°	7.5	0.0	0.0
50°	3.9	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	0.7	1.0
80°	0.7	1.3	1.6
82.5°	1.3	1.6	1.6
85°	1.3	1.6	2.0
87.5°	1.6	2.0	2.3
90°	2.0	2.3	2.3
92.5°	2.0	2.6	2.6
95°	2.3	2.6	2.9
97.5°	2.6	2.9	2.9
100°	2.3	2.9	3.3
102.5°	2.0	2.9	2.9
105°	1.6	2.3	2.6



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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	0.7
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°	136.9	133.0	120.0	98.4	68.8	38.5	14.3	2.6	0.7	1.0	1.0
110°	119.3	116.0	102.7	81.8	55.4	28.7	9.5	1.6	1.0	1.0	1.0





107.5°	1.3	2.0	2.3
110°	1.3	1.6	2.0



(END OF REPORT)